

DocuColor 250

Service Documentation

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Launch

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## About this Manual

This Service Manual is part of the multinational documentation system for this 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

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. Individual wire networks are shown in the Circuit Diagrams contained in Section 2. This section also contains the Block Schematic Diagrams.

## 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 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:




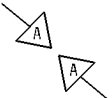






|                                                                                                              |                                                                                                                                                                                                                                                                                            |                                                                                                              |                                                                                                 |                                                                                       |                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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.

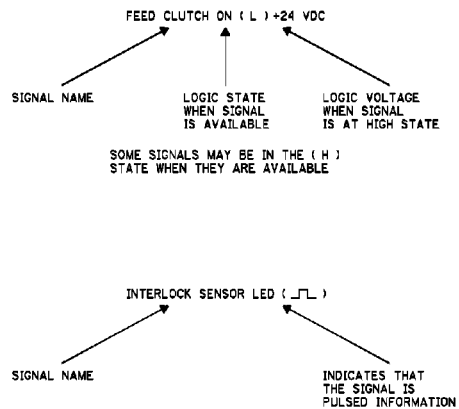


Figure 7 Signal Nomenclature

## 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<br>L= 0.0 TO 0.8 VDC   |
| +24 VDC | H= +23.37 TO +27.06 VDC<br>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.

Other examples of a statement found in a RAP might be:

- **There is -15 VDC from TP21 to TP33.**
- **-15 VDC is measured between TP21 and TP33.**

In these examples, 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

## When is a Warning used

### 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.

### Laser

### 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

### Chain 1

REP 1.1 Power Unit

### WARNING

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

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

### Chain 3

REP 3.1 Chassis Assembly

### WARNING

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

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

REP 3.2 Control Unit

### WARNING

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

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

REP 3.3 Main Drive Assembly

### WARNING

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

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

REP 3.4 Network Controller

### WARNING

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

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

REP 3.5 ESS PWB

### WARNING

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

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

REP 3.6 VSEL PWB

### WARNING

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

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

#### Chain 4

REP 4.1 Tray Assembly and UI

### WARNING

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

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

REP 4.2 UI PWB

### WARNING

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

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

#### Chain 5

REP 5.1 DADF

### WARNING

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

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

REP 5.2 DADF Setting to the Vertical Service Position

### WARNING

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

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

REP 5.3 DADF Covers

### WARNING

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

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

REP 5.4 DADF Left Counter Balance

### WARNING

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

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

REP 5.5 DADF Right Counter Balance

### WARNING

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

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

REP 5.6 DADF PWB

### WARNING

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

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

REP 5.7 DADF Invert Drive Roll

### WARNING

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

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

REP 5.8 DADF Feed Clutch

### WARNING

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

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

REP 5.9 DADF Feed Motor Belt

### WARNING

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

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon

d'alimentation branché.

REP 5.10 DADF Takeaway Roll

### WARNING

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

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

REP 5.11 DADF Lead Reg Sensor

### WARNING

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

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

REP 5.12 DADF Registration Roll

### WARNING

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

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

REP 5.13 DADF Exit Roll 1

### WARNING

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

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

REP 5.14 DADF Exit Roll 2

### WARNING

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

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

REP 5.15 DADF Feed Roll

### WARNING

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

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des

activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.16 DADF Nudger Roll

### WARNING

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

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

REP 5.17 DADF Platen Exit Sensor

### WARNING

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

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

REP 5.18 DADF Invert Sensor

### WARNING

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

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

REP 5.19 DADF Exit Sensor 1

### WARNING

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

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

REP 5.20 DADF Exit Sensor 2

### WARNING

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

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

REP 5.21 DADF Reg Sensor

### WARNING

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

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

REP 5.22 DADF Retard Roll

### **WARNING**

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

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

REP 5.23 DADF Platen Exit Roll

### **WARNING**

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

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

REP 5.24 Opening / Closing the IIT Frame

### **WARNING**

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

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

REP 5.25 IIT Lens Cover

### **WARNING**

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

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

REP 5.26 IIT Registration Sensor

### **WARNING**

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

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

REP 5.27 Platen Angle Sensor

### **WARNING**

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

the power switch on or electrical power applied to the machine.

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

REP 5.28 CCD Flexible Print Cable

### **WARNING**

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

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

REP 5.29 IIT Lens Assembly

### **WARNING**

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

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

REP 5.30 IPS Fan

### **WARNING**

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

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

REP 5.31 Lamp Fan

### **WARNING**

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

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

REP 5.32 CCD Fan

### **WARNING**

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

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

REP 5.33 Carriage Motor

### **WARNING**

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

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

REP 5.34 Full Rate Carriage

### WARNING

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

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

REP 5.35 Rear Carriage Cable

### WARNING

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

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

REP 5.25 IIT Lens Cover

### WARNING

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

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

REP 5.36 IIT/IPS PWBs

### WARNING

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

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

REP 5.37 Exposure Lamp

### WARNING

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

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

REP 5.38 Lamp Ballast PWB

### WARNING

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

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

REP 5.39 Slide Cord

### WARNING

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

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

#### Chain 6

REP 6.1 ROS Assembly (C, K)

### WARNING

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

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

REP 6.2 ROS Assembly (Y, M)

### WARNING

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

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

#### Chain 7

REP 7.1 HCF Tray 6

### WARNING

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

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

REP 7.2 HCF Feeder

### WARNING

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

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des

activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.3 HCF Undocking and redocking

### WARNING

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

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

REP 7.4 HCF Tray Cables

### WARNING

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

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

REP 7.5 HCF Retard/Feed/Nudger Rolls

### WARNING

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

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

REP 7.6 HCF Feed Shaft

### WARNING

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

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

REP 7.7 HCF Retard Lever Spring

### WARNING

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

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

REP 7.8 HCF Nudger Bracket/Nudger Lever/ Torsion Spring

### WARNING

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

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

REP 7.9 HCF Casters

### WARNING

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

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

REP 7.10 HCF Takeaway Roll

### WARNING

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

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

REP 7.11 HCF PWB

### WARNING

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

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

REP 7.12 HCF Feed motor

### WARNING

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

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

REP 7.13 HCF Nudger Solenoid

### WARNING

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

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

REP 7.14 Tray 5 / Bypass Feeder

### WARNING

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



the power switch on or electrical power applied to the machine.

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

REP 7.15 Tray 5 Bypass Retard, Feed and Nudger Rolls

### **WARNING**

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

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

REP 7.16 Tray 5 Bypass Nudger Bracket, Nudger Lever, Torsion Spring

### **WARNING**

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

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

REP 7.17 Tray 5 Bypass Feed/Nudger Shaft

### **WARNING**

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

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

REP 7.18 Tray 1 Feed Assembly

### **WARNING**

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

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

REP 7.19 Tray 2 Feed Assembly

### **WARNING**

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

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

REP 7.20 Tray 3 Assembly

### **WARNING**

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

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

REP 7.21 Tray 4 Assembly

### **WARNING**

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

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

REP 7.22 Tray 3 Feed Assembly

### **WARNING**

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

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

REP 7.23 Tray 4 Feed Assembly

### **WARNING**

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

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

REP 7.24 Feed/Nudger/Retard Roll (Trays 1 and 2)

### **WARNING**

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

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

REP 7.25 Feed/Nudger/Retard Roll (Tray 3)

### **WARNING**

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

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

REP 7.26 Feed/Nudger/Retard Roll (Tray 4)

### WARNING

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

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

REP 7.27 Tray 3 Rear Cable

### WARNING

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

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

REP 7.28 Tray 3 Front Left and Right Cables

### WARNING

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

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

REP 7.29 Tray 4 Front Cable

### WARNING

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

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

REP 7.30 Tray 4 Rear Cable

### WARNING

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

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

REP 7.31 Tray 5 / Bypass Chute Assembly

### WARNING

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

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

Chain 8

REP 8.1 Registration Transport Assembly

### WARNING

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

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

REP 8.2 Duplex Motor Assembly

### WARNING

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

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

REP 8.3 Inverter 1 and 2 Transport

### WARNING

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

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

Chain 9

REP 9.1 Transfer Belt Unit

### WARNING

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

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

REP 9.2 IBT Cleaner Assembly

### WARNING

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

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

REP 9.3 Transfer Belt

### WARNING

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

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des

activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.4 2nd BTR Roll Assembly

### WARNING

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

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

REP 9.5 2nd BTR Roll

### WARNING

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

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

REP 9.6 2nd BTR Blade Assembly

### WARNING

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

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

REP 9.7 1st BTR HVPS

### WARNING

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

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

REP 9.8 Drum Cartridges (Y, M, C & K)

### WARNING

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

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

REP 9.9 Dispenser Assembly (Y, M, C & K)

### WARNING

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

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

REP 9.10 Drum Motor Assembly (K)

### WARNING

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

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

REP 9.11 Developer Drive Assembly (K) and Belts

### WARNING

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

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

REP 9.12 Developer Drive Assembly (Y, M, C)

### WARNING

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

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

REP 9.13 MOB ADC Assembly

### WARNING

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

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

REP 9.14 Developer Housing (Y, M, C & K)

### WARNING

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

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

REP 9.15 Developer Replacement (Y, M, C & K)

### WARNING

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

the power switch on or electrical power applied to the machine.

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

REP 9.16 Dispenser (K)

### **WARNING**

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

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

REP 9.17 Dispenser (C)

### **WARNING**

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

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

REP 9.18 Dispenser (M)

### **WARNING**

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

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

REP 9.19 Dispenser (Y)

### **WARNING**

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

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

REP 9.20 Low Toner Sensor PWB

### **WARNING**

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

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

REP 9.21 Low Toner Sensor (K)

### **WARNING**

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

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

REP 9.22 Low Toner Sensor (C)

### **WARNING**

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

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

REP 9.23 Low Toner Sensor (M)

### **WARNING**

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

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

REP 9.24 Low Toner Sensor (Y)

### **WARNING**

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

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

**Chain 10**

REP 10.1 Fuser

### **WARNING**

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

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

REP 10.2 Vacuum Transport Assembly

### **WARNING**

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

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

REP 10.3 Transport Belt

### WARNING

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

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

REP 10.4 Fuser Drive Assembly

### WARNING

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

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

#### Chain 12

REP 12.1 I/F Module Rear Cover

### WARNING

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

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

REP 12.2 I/F Module Top Cover

### WARNING

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

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

REP 12.3 I/F Module

### WARNING

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

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

REP 12.40 A/P Finisher Front Door

### WARNING

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

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

REP 12.41 A/P Finisher Rear Upper Cover

### WARNING

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

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

REP 12.42 A/P Finisher Rear Lower Cover

### WARNING

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

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

REP 12.43 A/P Finisher Top Cover

### WARNING

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

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

REP 12.44 A/P Finisher Front Top Cover

### WARNING

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

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

REP 12.45 A/P Finisher Top Tray

### WARNING

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

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

REP 12.46 A/P Finisher Eject Cover

### WARNING

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

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon

d'alimentation branché.

REP 12.47 A/P Finisher Tray Spring Guide

### WARNING

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

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

REP 12.48 A/P Finisher Inner Cover

### WARNING

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

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

REP 12.50 A/P Finisher

### WARNING

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

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

REP 12.52 A/P Finisher Punch Frame Assembly

### WARNING

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

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

REP 12.53 A/P Finisher Stapler Assembly

### WARNING

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

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

REP 12.54 A/P Finisher Stapler Rail

### WARNING

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

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des

activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.55 P Finisher Booklet Maker

### WARNING

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

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

REP 12.56 P Finisher Booklet Stapler

### WARNING

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

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

REP 12.57 A/P Finisher Compiler Tray

### WARNING

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

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

REP 12.58 A/P Finisher Stacker Tray Position

### WARNING

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

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

REP 12.41 A/P Finisher Rear Upper Cover

### WARNING

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

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

REP 12.59 A/P Finisher Paddle Shaft

### WARNING

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

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

REP 12.60 A/P Finisher Stacker Drive Belt

### **WARNING**

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

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

REP 12.61 A/P Finisher Buffer Path Sensor

### **WARNING**

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

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

REP 12.62 A/P Finisher Gate Sensor

### **WARNING**

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

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

REP 12.63 A/P Finisher Top Tray Full Sensor

### **WARNING**

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

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

REP 12.64 A/P Finisher Buffer Roll

### **WARNING**

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

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

REP 12.65 A/P Finisher Bottom Buffer Chute Assembly

### **WARNING**

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

the power switch on or electrical power applied to the machine.

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

REP 12.67 A/P Finisher Eject Chute Assembly

### **WARNING**

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

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

REP 12.68 A/P Finisher PWB

### **WARNING**

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

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





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# 1 Service Call Procedures

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## Service Call Procedures

### Service Strategy

The service strategy for this Copier/Printer is 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 DC135 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 that the machine will not be available for copying and printing, disconnect the machine from the customer's network.
  - c. If a new installation, refer to Rigger Install/Removal instructions (Adobe PDF files on EDOC CD) to be sure all packing material is removed.
  - d. Check that the power cords are in good condition, correctly plugged in to 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 breaker is not tripped.
  - e. If the machine appears to be inoperative, go to **Call Flow** RAP and repair the problem. Then continue below.

**NOTE:** If *Diagnostic Navigator* cannot be entered, disconnect USB, switch machine power off then on and retry. If problem continues, disconnect USB, switch laptop off then on and retry.

- f. Inspect any rejected copies. Inquire as to, or otherwise determine, the paper quality and weight. The specified paper for optimum image quality with this machine is Section 6 Product Specifications Paper Capacities. Look for any damage to the copies, oil marks, image quality defects, or other indications of a problem the customer did not report.
- g. Record the billing meter readings.
  - i. Press **Machine Status** button on Control Panel.
  - ii. Select **Counters Button** on touch screen.
  - iii. Record amount of **All Impressions** in the **Meter Total** field.
  - iv. Record **Total Black and White Impressions** in **Meter A** field
  - v. Record **Total Color Impressions** in **Meter B** field.
- h. Enter diagnostic mode using PWS (**Entering PWS Diagnostic 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.

- i. Go to **dC135** and 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. These components will be serviced in step 2.
- j. Select the History File. Display and record the information in the Fail History, Jam History, Fail Counter, and Jam Counter. 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.

- k. 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 in step 1. Refer to the Detailed Maintenance Activities section.
3. Exit diagnostics. Try to duplicate the problem by running the same jobs that the customer ran once repairs are complete to verify repairs are effective.
4. Go to [Call Flow](#) to further investigate machine condition.

## Call Flow

### Procedure

Go to the [Call Flow](#) flowchart.

## Detailed Maintenance Activities (HFSI)

### Procedure

1. Enter Diagnostics and select [dC135](#).
2. Compare components in [Table 1](#) with % life remaining in dC135 table.

3. Perform the Service Actions 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.

**Table 1 HFSI Actions**

| Counter | HFSI Name                            | Threshold                                                                                                                                                        | Replace following                                                  |
|---------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 954-800 | Tray 1 Feed, Retard and Nudger Rolls | 300K - 1 count per fed sheet                                                                                                                                     | Feed/Nudger/Retard Roll Kit ( <a href="#">PL 2.7 - REP 7.24</a> )  |
| 954-801 | Tray 2 Feed, Retard and Nudger Rolls | 300K - 1 count per fed sheet                                                                                                                                     | Feed/Nudger/Retard Roll Kit ( <a href="#">PL 2.9 - REP 7.24</a> )  |
| 954-802 | Tray 3 Feed, Retard and Nudger Rolls | 300K - 1 count per fed sheet                                                                                                                                     | Feed/Nudger/Retard Roll Kit ( <a href="#">PL 2.11 - REP 7.25</a> ) |
| 954-803 | Tray 4 Feed, Retard and Nudger Rolls | 300K - 1 count per fed sheet                                                                                                                                     | Feed/Nudger/Retard Roll Kit ( <a href="#">PL 2.13 - REP 7.26</a> ) |
| 954-804 | Tray 5 Feed, Retard and Nudger Rolls | 300K - 1 count per fed sheet                                                                                                                                     | Feed/Nudger/Retard Roll Kit ( <a href="#">PL 3.6 - REP 7.15</a> )  |
| 954-805 | Tray 6 Feed, Retard and Nudger Rolls | 300K - 1 count per fed sheet                                                                                                                                     | Feed/Nudger/Retard Roll Kit ( <a href="#">PL 18.5 - REP 7.5</a> )  |
| 954-808 | Takeaway Roll 1                      | 1.5M - 1 count per fed sheet from trays 1, 2, 3, 4, and HCF                                                                                                      | Takeaway Roll 1 ( <a href="#">PL 2.18</a> )                        |
| 954-809 | Takeaway Roll 2                      | 1.5M - 1 count per fed sheet from trays 2, 3, 4, and HCF                                                                                                         | Takeaway Roll 2 ( <a href="#">PL 2.18</a> )                        |
| 954-810 | Takeaway Roll 3                      | 1.5M - 1 count per fed sheet from trays 3 and 4                                                                                                                  | Takeaway Roll 3 ( <a href="#">PL 2.18</a> )                        |
| 954-811 | Takeaway Roll 4                      | 1.5M - 1 count per fed sheet from tray 4                                                                                                                         | Takeaway Roll 4 ( <a href="#">PL 2.2</a> )                         |
| 954-812 | Takeaway Roll 5                      | 1.5M - 1 count per fed sheet from tray 4                                                                                                                         | Takeaway Roll 5 ( <a href="#">PL 2.2</a> )                         |
| 954-813 | HCF Takeaway Roll                    | 1.5M - 1 count per fed sheet from HCF                                                                                                                            | Takeaway Roll 1 ( <a href="#">PL 18.7</a> )                        |
| 954-816 | Takeaway Clutch 1                    | 1.5M - 1 count per fed sheet from trays 1, 2, 3, 4                                                                                                               | Takeaway Clutch 1 ( <a href="#">PL 2.20</a> )                      |
| 954-817 | Takeaway Clutch 2                    | 1.5M - 1 count per fed sheet from trays 3, 4                                                                                                                     | Takeaway Clutch 2 ( <a href="#">PL 2.20</a> )                      |
| 954-818 | Tray 5 Pre Reg. Roll                 | 300K - 1 count per fed sheet from tray 5                                                                                                                         | Roll Assembly ( <a href="#">PL 2.16</a> )                          |
| 954-819 | Tray 1 Feeder                        | 1.5M - 1 count per fed sheet from tray 1                                                                                                                         | Tray 1 Feed Unit ( <a href="#">PL 2.1</a> )                        |
| 954-820 | Tray 2 Feeder                        | 1.5M - 1 count per fed sheet from tray 2                                                                                                                         | Tray 2 Feed Unit ( <a href="#">PL 2.1</a> )                        |
| 954-821 | Tray 3 Feeder                        | 1.5M - 1 count per fed sheet from tray 3                                                                                                                         | Tray 3 Feed Unit ( <a href="#">PL 2.2</a> )                        |
| 954-822 | Tray 4 Feeder                        | 1.5M - 1 count per fed sheet from tray 4                                                                                                                         | Tray 4 Feed Unit ( <a href="#">PL 2.2</a> )                        |
| 954-823 | Tray 5 Feeder                        | 1.5M - 1 count per fed sheet from tray 5/bypass                                                                                                                  | Feeder ( <a href="#">PL 3.3</a> )                                  |
| 954-824 | 1st BTR (Y)                          | 600K - on-time converted to PV. 1 count per lettersize, 2 for larger sheet                                                                                       | 1st BTR ( <a href="#">PL 7.4</a> )                                 |
| 954-825 | 1st BTR (M)                          | 600K - on-time converted to PV. 1 count per lettersize, 2 for larger sheet                                                                                       | 1st BTR ( <a href="#">PL 7.4</a> )                                 |
| 954-826 | 1st BTR (C)                          | 600K - on-time converted to PV. 1 count per lettersize, 2 for larger sheet                                                                                       | 1st BTR ( <a href="#">PL 7.4</a> )                                 |
| 954-827 | 1st BTR (K)                          | 600K - on-time converted to PV. 1 count per lettersize, 2 for larger sheet                                                                                       | 1st BTR ( <a href="#">PL 7.4</a> )                                 |
| 954-828 | IBT Cleaner Assembly                 | 300K - on-time converted to PV. 1 count per lettersize, 2 for larger sheet                                                                                       | IBT Cleaner Assembly ( <a href="#">PL 7.3</a> ).                   |
| 954-829 | 2nd BTR                              | 300K - on-time converted to PV. 1 count per lettersize, 2 for larger sheet                                                                                       | 2nd BTR ( <a href="#">PL 7.8</a> ).                                |
| 954-830 | Developer (Y)                        | 1.5M - Developer Motor on-time converted to PV.                                                                                                                  | Developer and Developer Housing Kit ( <a href="#">PL 6.6</a> ).    |
| 954-831 | Developer (M)                        | 1.5M - Developer Motor on-time converted to PV.                                                                                                                  | Developer and Developer Housing Kit ( <a href="#">PL 6.6</a> ).    |
| 954-832 | Developer (C)                        | 1.5M - Developer Motor on-time converted to PV.                                                                                                                  | Developer and Developer Housing Kit ( <a href="#">PL 6.6</a> ).    |
| 954-833 | Developer (K)                        | 1.5M - Developer Clutch on-time converted to PV.                                                                                                                 | Developer and Developer Housing Kit ( <a href="#">PL 6.6</a> ).    |
| 954-834 | CC Filter                            | 142K - Fuser feeds. 1 count per lettersize B/W, 2 counts per lettersize color, 2 counts per larger than lettersize B/W, 4counts per larger than lettersize color | CC Filter ( <a href="#">PL 9.3</a> ).                              |
| 954-835 | Ozone Filter                         | 280K - Fuser feeds. 1 count per lettersize B/W, 2 counts per lettersize color, 2 counts per larger than lettersize B/W, 4counts per larger than lettersize color | Ozone Filter ( <a href="#">PL 9.1</a> ).                           |

Table 1 HFSI Actions

| Counter | HFSI Name          | Threshold                                                                                                                                                        | Replace following                                             |
|---------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| 954-836 | Fuser Filter       | 800K - Fuser feeds. 1 count per lettersize B/W, 2 counts per lettersize color, 2 counts per larger than lettersize B/W, 4counts per larger than lettersize color | Fuser Filter (PL 12.2).                                       |
| 954-837 | Drum cartridge (Y) | 115K - number of cycles converted to PV.                                                                                                                         | Drum Cartridge (Y) (see <a href="#">Machine Consumables</a> ) |
| 954-838 | Drum cartridge (M) | 115K - number of cycles converted to PV.                                                                                                                         | Drum Cartridge (M) (see <a href="#">Machine Consumables</a> ) |
| 954-839 | Drum cartridge (C) | 115K - number of cycles converted to PV.                                                                                                                         | Drum Cartridge (C) (see <a href="#">Machine Consumables</a> ) |
| 954-840 | Drum cartridge (K) | 260K - number of cycles converted to PV.                                                                                                                         | Drum Cartridge (K) (see <a href="#">Machine Consumables</a> ) |
| 954-841 | Scoro tron         | 120K - number of cycles converted to PV.                                                                                                                         | Scoro tron (see <a href="#">Machine Consumables</a> )         |
| 954-842 | Fuser Assembly     | 200K - Fuser feeds. 1 count per lettersize B/W, 2 counts per lettersize color, 2 counts per larger than lettersize B/W, 4counts per larger than lettersize color | Fuser (see <a href="#">Machine Consumables</a> )              |

4. Refer to [Cleaning Procedures](#) for detailed cleaning instructions.

## Cleaning Procedures

### Purpose

The purpose is 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. Feed Components (Rolls and Pads)

Follow the General Cleaning procedure above.

#### 2. ROS Windows

Use the cleaning wand to clean the ROS windows (follow the procedure in the User Guide).

#### 3. Toner Dispense Units

Vacuum the Toner Dispense units.

#### 4. Jam Sensors

Clean the sensors with a dry cotton swab.

#### 5. Fuser Components (best cleaned when hot).

Wipe with a lint free cloth.

#### 6. Scanner

a. Using the optical Cleaning Cloth, clean the Document Glass.

b. Clean the Document Cover.

#### 7. DADF

Check the paper path for debris or damage. Clean the rolls with a clean cloth and Film Remover as required.

#### 8. Finisher

Check the paper path for debris or damage. Clean the Finisher with a dry lint free cloth.

## Final Actions

### Purpose

The intent of this procedure is to be used as a guide to follow 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 consumables. Ensure that an adequate supply of consumables is available according to local operating procedures.
3. Conduct any operator training that is needed. Ensure that the operator understands that the Automatic Gradation Adjustment procedure in the User Guide should be used to adjust the colors.
4. Complete the Service Log.
5. 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 Color 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 Machine Settings (Configuration Report). Store this report with the service log in Tray 1.
  - d. Present the copies to the customer.
6. Exit the PWS Tool. Save the machine data to the Machine Settings floppy. Store the floppy under the left work surface.
7. Reconnect the machine to the customer network. Verify function by sending print job using GP 7.
8. Issue copy credits as needed.
9. 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

**Chain 1**

Power RAPs..... 2-13

**Chain 2**

002-770 RAP..... 2-15

**Chain 3**

003-318 RAP..... 2-17  
 003-319 RAP..... 2-17  
 003-320 RAP..... 2-18  
 003-321 RAP..... 2-18  
 003-322 RAP..... 2-19  
 003-323 RAP..... 2-19  
 003-324 RAP..... 2-20  
 003-325 RAP..... 2-20  
 003-326 RAP..... 2-21  
 003-327 RAP..... 2-21  
 003-328 RAP..... 2-22  
 003-329 RAP..... 2-22  
 003-330 RAP..... 2-23  
 003-331 RAP..... 2-23  
 003-332 RAP..... 2-24  
 003-333 RAP..... 2-24  
 003-334 RAP..... 2-25  
 003-335 RAP..... 2-25  
 003-336 RAP..... 2-26  
 003-337 RAP..... 2-26  
 003-338 RAP..... 2-27  
 003-339 RAP..... 2-27  
 003-340 RAP..... 2-28  
 003-341 RAP..... 2-28  
 003-342 RAP..... 2-29  
 003-343 RAP..... 2-29  
 003-344 RAP..... 2-30  
 003-345 RAP..... 2-30  
 003-346 RAP..... 2-31  
 003-750 RAP..... 2-31  
 003-751 RAP..... 2-32  
 003-752 RAP..... 2-32  
 003-753 RAP..... 2-33  
 003-754 RAP..... 2-33  
 003-755 RAP..... 2-34  
 003-757 RAP..... 2-34  
 003-760 RAP..... 2-35  
 003-761 RAP..... 2-35  
 003-763 RAP..... 2-36  
 003-764 RAP..... 2-36  
 003-780 RAP..... 2-37

003-795 RAP..... 2-37  
 003-940 RAP..... 2-38  
 003-942 RAP..... 2-38  
 003-944 RAP..... 2-39  
 003-946 RAP..... 2-39  
 003-947 RAP..... 2-40  
 003-948 RAP..... 2-40  
 003-952 RAP..... 2-41  
 003-955 RAP..... 2-41  
 003-956 RAP..... 2-42  
 003-963 RAP..... 2-42  
 003-965 RAP..... 2-43  
 003-966 RAP..... 2-43  
 003-968 RAP..... 2-44  
 003-969 RAP..... 2-44  
 003-972 RAP..... 2-45  
 003-973 RAP..... 2-45  
 003-974 RAP..... 2-46  
 003-977 RAP..... 2-46  
 003-978 RAP..... 2-47  
 003-980 RAP..... 2-47  
 003-981 RAP..... 2-48  
 003-982 RAP..... 2-48

**Chain 5**

005-121 RAP..... 2-49  
 005-122 RAP..... 2-49  
 005-123 RAP..... 2-50  
 005-124 RAP..... 2-50  
 005-125 RAP..... 2-51  
 005-126 RAP..... 2-51  
 005-127 RAP..... 2-52  
 005-128 RAP..... 2-52  
 005-129 RAP..... 2-53  
 005-130 RAP..... 2-53  
 005-131 RAP..... 2-54  
 005-132 RAP..... 2-54  
 005-133 RAP..... 2-55  
 005-134 RAP..... 2-55  
 005-135 RAP..... 2-56  
 005-136 RAP..... 2-56  
 005-137 RAP..... 2-57  
 005-138 RAP..... 2-57  
 005-139 RAP..... 2-58  
 005-141 RAP..... 2-58  
 005-142 RAP..... 2-59  
 005-143 RAP..... 2-59  
 005-144 RAP..... 2-60

|                  |      |                  |       |
|------------------|------|------------------|-------|
| 005-145 RAP..... | 2-60 | <b>Chain 10</b>  |       |
| 005-146 RAP..... | 2-61 | 010-311 RAP..... | 2-87  |
| 005-147 RAP..... | 2-62 | 010-319 RAP..... | 2-87  |
| 005-150 RAP..... | 2-62 | 010-320 RAP..... | 2-88  |
| 005-151 RAP..... | 2-63 | 010-321 RAP..... | 2-88  |
| 005-152 RAP..... | 2-63 | 010-322 RAP..... | 2-89  |
| 005-153 RAP..... | 2-64 | 010-323 RAP..... | 2-89  |
| 005-154 RAP..... | 2-64 | 010-324 RAP..... | 2-90  |
| 005-155 RAP..... | 2-65 | 010-326 RAP..... | 2-90  |
| 005-156 RAP..... | 2-65 | 010-327 RAP..... | 2-92  |
| 005-157 RAP..... | 2-66 | 10-330 RAP.....  | 2-93  |
| 005-158 RAP..... | 2-66 | 010-420 RAP..... | 2-94  |
| 005-160 RAP..... | 2-67 | 010-421 RAP..... | 2-95  |
| 005-190 RAP..... | 2-67 |                  |       |
| 005-194 RAP..... | 2-68 | <b>Chain 12</b>  |       |
| 005-195 RAP..... | 2-68 | 012-112 RAP..... | 2-97  |
| 005-196 RAP..... | 2-69 | 012-113 RAP..... | 2-97  |
| 005-197 RAP..... | 2-69 | 012-114 RAP..... | 2-98  |
| 005-198 RAP..... | 2-70 | 012-115 RAP..... | 2-98  |
| 005-199 RAP..... | 2-70 | 012-125 RAP..... | 2-99  |
| 005-275 RAP..... | 2-71 | 012-132 RAP..... | 2-99  |
| 005-280 RAP..... | 2-71 | 012-142 RAP..... | 2-100 |
| 005-281 RAP..... | 2-72 | 012-151 RAP..... | 2-100 |
| 005-282 RAP..... | 2-72 | 012-152 RAP..... | 2-101 |
| 005-283 RAP..... | 2-73 | 012-161 RAP..... | 2-101 |
| 005-284 RAP..... | 2-73 | 012-162 RAP..... | 2-102 |
| 005-285 RAP..... | 2-74 | 012-171 RAP..... | 2-102 |
| 005-286 RAP..... | 2-74 | 012-172 RAP..... | 2-103 |
| 005-303 RAP..... | 2-75 | 012-180 RAP..... | 2-103 |
| 005-304 RAP..... | 2-75 | 012-211 RAP..... | 2-104 |
| 005-305 RAP..... | 2-76 | 012-212 RAP..... | 2-104 |
| 005-306 RAP..... | 2-76 | 012-213 RAP..... | 2-105 |
| 005-308 RAP..... | 2-77 | 012-221 RAP..... | 2-105 |
| 005-309 RAP..... | 2-77 | 012-223 RAP..... | 2-106 |
| 005-906 RAP..... | 2-78 | 012-224 RAP..... | 2-106 |
| 005-907 RAP..... | 2-78 | 012-225 RAP..... | 2-107 |
| 005-908 RAP..... | 2-79 | 012-226 RAP..... | 2-107 |
| 005-909 RAP..... | 2-79 | 012-227 RAP..... | 2-108 |
| 005-910 RAP..... | 2-80 | 012-228 RAP..... | 2-108 |
| 005-911 RAP..... | 2-80 | 012-229 RAP..... | 2-109 |
| 005-912 RAP..... | 2-81 | 012-230 RAP..... | 2-109 |
| 005-913 RAP..... | 2-81 | 012-243 RAP..... | 2-110 |
| 005-914 RAP..... | 2-82 | 012-246 RAP..... | 2-111 |
| 005-915 RAP..... | 2-82 | 012-247 RAP..... | 2-111 |
| 005-916 RAP..... | 2-83 | 012-260 RAP..... | 2-112 |
| 005-917 RAP..... | 2-83 | 012-261 RAP..... | 2-113 |
| 005-918 RAP..... | 2-84 | 012-263 RAP..... | 2-114 |
| 005-919 RAP..... | 2-84 | 012-264 RAP..... | 2-114 |
| 005-940 RAP..... | 2-85 | 012-265 RAP..... | 2-115 |
| 005-941 RAP..... | 2-85 | 012-266 RAP..... | 2-116 |
| 005-942 RAP..... | 2-86 | 012-270 RAP..... | 2-116 |
|                  |      | 012-271 RAP..... | 2-117 |

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|------------------|-------|------------------|-------|
| 012-282 RAP..... | 2-117 | 016-227 RAP..... | 2-143 |
| 012-283 RAP..... | 2-118 | 016-228 RAP..... | 2-143 |
| 012-284 RAP..... | 2-118 | 016-229 RAP..... | 2-144 |
| 012-291 RAP..... | 2-119 | 016-311 RAP..... | 2-144 |
| 012-295 RAP..... | 2-119 | 016-315 RAP..... | 2-145 |
| 012-296 RAP..... | 2-120 | 016-316 RAP..... | 2-145 |
| 012-300 RAP..... | 2-120 | 016-317 RAP..... | 2-146 |
| 012-302 RAP..... | 2-121 | 016-318 RAP..... | 2-146 |
| 012-307 RAP..... | 2-121 | 016-320 RAP..... | 2-147 |
| 012-320 RAP..... | 2-122 | 016-322 RAP..... | 2-147 |
| 012-321 RAP..... | 2-122 | 016-450 RAP..... | 2-148 |
| 012-322 RAP..... | 2-123 | 016-454 RAP..... | 2-148 |
| 012-323 RAP..... | 2-123 | 016-455 RAP..... | 2-149 |
| 012-325 RAP..... | 2-124 | 016-456 RAP..... | 2-149 |
| 012-330 RAP..... | 2-124 | 016-503 RAP..... | 2-150 |
| 012-332 RAP..... | 2-125 | 016-504 RAP..... | 2-150 |
| 012-334 RAP..... | 2-125 | 016-505 RAP..... | 2-151 |
| 012-335 RAP..... | 2-126 | 016-600 RAP..... | 2-151 |
| 012-900 RAP..... | 2-126 | 016-601 RAP..... | 2-152 |
| 012-901 RAP..... | 2-127 | 016-701 RAP..... | 2-152 |
| 012-902 RAP..... | 2-127 | 016-702 RAP..... | 2-153 |
| 012-903 RAP..... | 2-128 | 016-703 RAP..... | 2-153 |
| 012-905 RAP..... | 2-128 | 016-704 RAP..... | 2-154 |
| 012-907 RAP..... | 2-129 | 016-705 RAP..... | 2-154 |
| 012-920 RAP..... | 2-129 | 016-706 RAP..... | 2-155 |
| 012-932 RAP..... | 2-130 | 016-707 RAP..... | 2-155 |
| 012-934 RAP..... | 2-130 | 016-708 RAP..... | 2-156 |
| 012-935 RAP..... | 2-131 | 016-709 RAP..... | 2-156 |
| 012-936 RAP..... | 2-131 | 016-710 RAP..... | 2-157 |
| 012-949 RAP..... | 2-132 | 016-711 RAP..... | 2-157 |
|                  |       | 016-712 RAP..... | 2-158 |
| <b>Chain 13</b>  |       | 016-713 RAP..... | 2-158 |
| 013-902 RAP..... | 2-133 | 016-714 RAP..... | 2-159 |
| 013-903 RAP..... | 2-133 | 016-716 RAP..... | 2-159 |
|                  |       | 016-718 RAP..... | 2-160 |
| <b>Chain 16</b>  |       | 016-719 RAP..... | 2-160 |
| 016-210 RAP..... | 2-135 | 016-720 RAP..... | 2-161 |
| 016-211 RAP..... | 2-135 | 016-721 RAP..... | 2-161 |
| 016-212 RAP..... | 2-136 | 016-722 RAP..... | 2-162 |
| 016-213 RAP..... | 2-136 | 016-723 RAP..... | 2-162 |
| 016-215 RAP..... | 2-137 | 016-724 RAP..... | 2-163 |
| 016-216 RAP..... | 2-137 | 016-726 RAP..... | 2-163 |
| 016-217 RAP..... | 2-138 | 016-728 RAP..... | 2-164 |
| 016-218 RAP..... | 2-138 | 016-729 RAP..... | 2-164 |
| 016-219 RAP..... | 2-139 | 016-730 RAP..... | 2-165 |
| 016-220 RAP..... | 2-139 | 016-731 RAP..... | 2-165 |
| 016-221 RAP..... | 2-140 | 016-732 RAP..... | 2-166 |
| 016-222 RAP..... | 2-140 | 016-733 RAP..... | 2-166 |
| 016-223 RAP..... | 2-141 | 016-734 RAP..... | 2-167 |
| 016-224 RAP..... | 2-141 | 016-735 RAP..... | 2-167 |
| 016-225 RAP..... | 2-142 | 016-736 RAP..... | 2-168 |
| 016-226 RAP..... | 2-142 | 016-737 RAP..... | 2-168 |

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| 016-738 RAP..... | 2-169 | 016-940 RAP..... | 2-195 |
| 016-739 RAP..... | 2-169 | 016-941 RAP..... | 2-195 |
| 016-740 RAP..... | 2-170 | 016-942 RAP..... | 2-196 |
| 016-746 RAP..... | 2-170 | 016-943 RAP..... | 2-196 |
| 016-748 RAP..... | 2-171 | 016-944 RAP..... | 2-197 |
| 016-749 RAP..... | 2-171 | 016-945 RAP..... | 2-197 |
| 016-751 RAP..... | 2-172 | 016-946 RAP..... | 2-198 |
| 016-752 RAP..... | 2-172 | 016-647 RAP..... | 2-198 |
| 016-753 RAP..... | 2-173 | 016-648 RAP..... | 2-199 |
| 016-754 RAP..... | 2-173 | 016-949 RAP..... | 2-199 |
| 016-755 RAP..... | 2-174 | 016-981 RAP..... | 2-200 |
| 016-756 RAP..... | 2-174 | 016-982 RAP..... | 2-200 |
| 016-757 RAP..... | 2-175 | 016-985 RAP..... | 2-201 |
| 016-758 RAP..... | 2-175 |                  |       |
| 016-759 RAP..... | 2-176 | <b>Chain 24</b>  |       |
| 016-760 RAP..... | 2-176 | 024-340 RAP..... | 2-203 |
| 016-761 RAP..... | 2-177 | 024-341 RAP..... | 2-203 |
| 016-762 RAP..... | 2-177 | 024-342 RAP..... | 2-204 |
| 016-764 RAP..... | 2-178 | 024-343 RAP..... | 2-204 |
| 016-765 RAP..... | 2-178 | 024-345 RAP..... | 2-205 |
| 016-766 RAP..... | 2-179 | 024-346 RAP..... | 2-205 |
| 016-767 RAP..... | 2-179 | 024-347 RAP..... | 2-206 |
| 016-768 RAP..... | 2-180 | 024-348 RAP..... | 2-206 |
| 016-769 RAP..... | 2-180 | 024-349 RAP..... | 2-207 |
| 016-771 RAP..... | 2-181 | 024-350 RAP..... | 2-207 |
| 016-772 RAP..... | 2-181 | 024-351 RAP..... | 2-208 |
| 016-773 RAP..... | 2-182 | 024-352 RAP..... | 2-208 |
| 016-774 RAP..... | 2-182 | 024-353 RAP..... | 2-209 |
| 016-775 RAP..... | 2-183 | 024-354 RAP..... | 2-209 |
| 016-776 RAP..... | 2-183 | 024-355 RAP..... | 2-210 |
| 016-777 RAP..... | 2-184 | 024-356 RAP..... | 2-210 |
| 016-778 RAP..... | 2-184 | 024-357 RAP..... | 2-211 |
| 016-779 RAP..... | 2-185 | 024-358 RAP..... | 2-211 |
| 016-780 RAP..... | 2-185 | 024-359 RAP..... | 2-212 |
| 016-781 RAP..... | 2-186 | 024-360 RAP..... | 2-212 |
| 016-782 RAP..... | 2-186 | 024-361 RAP..... | 2-213 |
| 016-783 RAP..... | 2-187 | 024-362 RAP..... | 2-213 |
| 016-784 RAP..... | 2-187 | 024-363 RAP..... | 2-214 |
| 016-785 RAP..... | 2-188 | 024-364 RAP..... | 2-214 |
| 016-786 RAP..... | 2-188 | 024-365 RAP..... | 2-215 |
| 016-787 RAP..... | 2-189 | 024-366 RAP..... | 2-215 |
| 016-788 RAP..... | 2-189 | 024-367 RAP..... | 2-216 |
| 016-789 RAP..... | 2-190 | 024-368 RAP..... | 2-216 |
| 016-791 RAP..... | 2-190 | 024-370 RAP..... | 2-217 |
| 016-792 RAP..... | 2-191 | 024-371 RAP..... | 2-217 |
| 016-793 RAP..... | 2-191 | 024-372 RAP..... | 2-218 |
| 016-794 RAP..... | 2-192 | 024-373 RAP..... | 2-218 |
| 016-795 RAP..... | 2-192 | 024-374 RAP..... | 2-219 |
| 016-796 RAP..... | 2-193 | 024-375 RAP..... | 2-219 |
| 016-797 RAP..... | 2-193 | 024-600 RAP..... | 2-220 |
| 016-798 RAP..... | 2-194 | 024-601RAP.....  | 2-220 |
| 016-799 RAP..... | 2-194 | 024-602 RAP..... | 2-221 |

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| 024-603 RAP..... | 2-221 | 024-966 RAP..... | 2-247 |
| 024-604 RAP..... | 2-222 | 024-967 RAP..... | 2-248 |
| 024-605 RAP..... | 2-222 | 024-968 RAP..... | 2-248 |
| 024-606 RAP..... | 2-223 | 024-969 RAP..... | 2-249 |
| 024-746 RAP..... | 2-223 | 024-970 RAP..... | 2-249 |
| 024-747 RAP..... | 2-224 | 024-971 RAP..... | 2-250 |
| 024-910 RAP..... | 2-224 | 024-972 RAP..... | 2-250 |
| 024-911 RAP..... | 2-225 | 024-973 RAP..... | 2-251 |
| 024-912 RAP..... | 2-225 | 024-974 RAP..... | 2-251 |
| 024-913 RAP..... | 2-226 | 024-975 RAP..... | 2-252 |
| 024-914 RAP..... | 2-226 | 024-976 RAP..... | 2-252 |
| 024-915 RAP..... | 2-227 | 024-977 RAP..... | 2-253 |
| 024-916 RAP..... | 2-227 | 024-978 RAP..... | 2-253 |
| 024-917 RAP..... | 2-228 | 024-979 RAP..... | 2-254 |
| 024-919 RAP..... | 2-228 | 024-980 RAP..... | 2-254 |
| 024-920 RAP..... | 2-229 | 024-981 RAP..... | 2-255 |
| 024-922 RAP..... | 2-229 | 024-982 RAP..... | 2-256 |
| 024-923 RAP..... | 2-230 | 024-983 RAP..... | 2-256 |
| 024-924 RAP..... | 2-230 | 024-984 RAP..... | 2-257 |
| 024-925 RAP..... | 2-231 | 024-985 RAP..... | 2-257 |
| 024-926 RAP..... | 2-231 | 024-987 RAP..... | 2-258 |
| 024-927 RAP..... | 2-232 | 024-988 RAP..... | 2-258 |
| 024-930 RAP..... | 2-232 | 024-989 RAP..... | 2-259 |
| 024-934 RAP..... | 2-233 | 024-990 RAP..... | 2-259 |
| 024-935 RAP..... | 2-233 |                  |       |
| 024-936 RAP..... | 2-234 | <b>Chain 25</b>  |       |
| 024-937 RAP..... | 2-234 | 025-596 RAP..... | 2-261 |
| 024-938 RAP..... | 2-235 | 025-597 RAP..... | 2-261 |
| 024-939 RAP..... | 2-235 |                  |       |
| 024-940 RAP..... | 2-236 | <b>Chain 27</b>  |       |
| 024-941 RAP..... | 2-236 | 027-452 RAP..... | 2-263 |
| 024-942 RAP..... | 2-237 | 027-500 RAP..... | 2-263 |
| 024-943 RAP..... | 2-237 | 027-501 RAP..... | 2-264 |
| 024-945 RAP..... | 2-238 | 027-502 RAP..... | 2-264 |
| 024-946 RAP..... | 2-238 | 027-700 RAP..... | 2-265 |
| 024-947 RAP..... | 2-239 | 027-701 RAP..... | 2-265 |
| 024-948 RAP..... | 2-239 | 027-702 RAP..... | 2-266 |
| 024-949 RAP..... | 2-240 | 027-703 RAP..... | 2-266 |
| 024-950 RAP..... | 2-240 | 027-706 RAP..... | 2-267 |
| 024-951 RAP..... | 2-241 | 027-707 RAP..... | 2-267 |
| 024-952 RAP..... | 2-241 | 027-708 RAP..... | 2-268 |
| 024-953 RAP..... | 2-242 | 027-709 RAP..... | 2-268 |
| 024-954 RAP..... | 2-242 | 027-710 RAP..... | 2-269 |
| 024-955 RAP..... | 2-243 | 027-711 RAP..... | 2-269 |
| 024-956 RAP..... | 2-243 | 027-712 RAP..... | 2-270 |
| 024-957 RAP..... | 2-244 | 027-713 RAP..... | 2-270 |
| 024-958 RAP..... | 2-244 | 027-714 RAP..... | 2-271 |
| 024-959 RAP..... | 2-245 | 027-715 RAP..... | 2-271 |
| 024-960 RAP..... | 2-245 | 027-716 RAP..... | 2-272 |
| 024-961 RAP..... | 2-246 | 027-720 RAP..... | 2-272 |
| 024-962 RAP..... | 2-246 | 027-721 RAP..... | 2-273 |
| 024-965 RAP..... | 2-247 | 027-722 RAP..... | 2-273 |

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| 027-723 RAP..... | 2-274 | 061-311 RAP..... | 2-301 |
| 027-724 RAP..... | 2-274 | 061-313 RAP..... | 2-302 |
| 027-725 RAP..... | 2-275 | 061-315 RAP..... | 2-302 |
| 027-726 RAP..... | 2-275 | 061-317 RAP..... | 2-303 |
| 027-727 RAP..... | 2-276 | 061-319 RAP..... | 2-303 |
| 027-728 RAP..... | 2-276 | 061-320 RAP..... | 2-304 |
| 027-737 RAP..... | 2-277 | 061-321 RAP..... | 2-304 |
| 027-739 RAP..... | 2-277 | 061-323 RAP..... | 2-305 |
| 027-740 RAP..... | 2-278 | 061-324 RAP..... | 2-305 |
| 027-741 RAP..... | 2-278 | 061-325 RAP..... | 2-306 |
| 027-742 RAP..... | 2-279 | 061-326 RAP..... | 2-306 |
| 027-743 RAP..... | 2-279 | 061-327 RAP..... | 2-307 |
| 027-744 RAP..... | 2-280 | 061-328 RAP..... | 2-307 |
| 027-745 RAP..... | 2-280 | 061-329 RAP..... | 2-308 |
| 027-746 RAP..... | 2-281 | 061-334 RAP..... | 2-308 |
| 027-751 RAP..... | 2-281 | 061-335 RAP..... | 2-309 |
| 027-752 RAP..... | 2-282 | 061-336 RAP..... | 2-309 |
| 027-753 RAP..... | 2-282 | 061-337 RAP..... | 2-310 |
| 027-760 RAP..... | 2-283 | 061-338 RAP..... | 2-310 |
| 027-770 RAP..... | 2-283 | 061-339 RAP..... | 2-311 |
| 027-771 RAP..... | 2-284 | 061-340 RAP..... | 2-311 |
| 027-796 RAP..... | 2-284 | 061-341 RAP..... | 2-312 |
| 027-797 RAP..... | 2-285 | 061-342 RAP..... | 2-312 |
|                  |       | 061-343 RAP..... | 2-313 |
|                  |       | 061-600 RAP..... | 2-313 |
|                  |       | 061-601 RAP..... | 2-314 |
|                  |       | 061-602 RAP..... | 2-314 |
|                  |       | 061-603 RAP..... | 2-315 |
|                  |       | 061-604 RAP..... | 2-315 |
|                  |       | 061-605 RAP..... | 2-316 |
|                  |       | 061-606 RAP..... | 2-316 |
|                  |       | 061-607 RAP..... | 2-317 |
|                  |       |                  |       |
|                  |       | <b>Chain 62</b>  |       |
|                  |       | 062-210 RAP..... | 2-319 |
|                  |       | 062-211 RAP..... | 2-319 |
|                  |       | 062-220 RAP..... | 2-320 |
|                  |       | 062-277 RAP..... | 2-320 |
|                  |       | 062-278 RAP..... | 2-321 |
|                  |       | 062-300 RAP..... | 2-321 |
|                  |       | 062-310 RAP..... | 2-322 |
|                  |       | 062-311RAP.....  | 2-322 |
|                  |       | 062-321 RAP..... | 2-323 |
|                  |       | 062-322 RAP..... | 2-323 |
|                  |       | 062-323 RAP..... | 2-324 |
|                  |       | 062-345 RAP..... | 2-324 |
|                  |       | 062-355 RAP..... | 2-325 |
|                  |       | 062-356 RAP..... | 2-325 |
|                  |       | 062-357 RAP..... | 2-326 |
|                  |       | 062-360 RAP..... | 2-326 |
|                  |       | 062-362 RAP..... | 2-327 |
|                  |       | 062-371 RAP..... | 2-327 |
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| <b>Chain 42</b>  |       |                  |       |
| 042-313 RAP..... | 2-287 |                  |       |
| 042-320 RAP..... | 2-287 |                  |       |
| 042-321 RAP..... | 2-288 |                  |       |
| 042-322 RAP..... | 2-288 |                  |       |
| 042-323 RAP..... | 2-289 |                  |       |
| 042-324 RAP..... | 2-289 |                  |       |
| 042-325 RAP..... | 2-290 |                  |       |
| 042-326 RAP..... | 2-290 |                  |       |
| 042-327 RAP..... | 2-291 |                  |       |
| 042-328 RAP..... | 2-292 |                  |       |
| 042-330 RAP..... | 2-293 |                  |       |
| 042-331 RAP..... | 2-293 |                  |       |
| 042-600 RAP..... | 2-294 |                  |       |
| 042-601 RAP..... | 2-295 |                  |       |
| 042-602 RAP..... | 2-296 |                  |       |
| 042-603 RAP..... | 2-296 |                  |       |
|                  |       |                  |       |
| <b>Chain 45</b>  |       |                  |       |
| 045-310 RAP..... | 2-297 |                  |       |
| 045-311 RAP..... | 2-297 |                  |       |
| 045-312 RAP..... | 2-298 |                  |       |
|                  |       |                  |       |
| <b>Chain 47</b>  |       |                  |       |
| 047-210 RAP..... | 2-299 |                  |       |
| 047-310 RAP..... | 2-300 |                  |       |
|                  |       |                  |       |
| <b>Chain 61</b>  |       |                  |       |
| 061-310 RAP..... | 2-301 |                  |       |

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| 062-380 RAP..... | 2-328 | 075-135 RAP..... | 2-356 |
| 062-386 RAP..... | 2-328 | 075-210 RAP..... | 2-357 |
| 062-389 RAP..... | 2-329 | 075-211 RAP..... | 2-357 |
| 062-392 RAP..... | 2-329 |                  |       |
| 062-393 RAP..... | 2-330 | <b>Chain 77</b>  |       |
| 062-790 RAP..... | 2-330 | 077-103 RAP..... | 2-359 |
|                  |       | 077-106 RAP..... | 2-359 |
| <b>Chain 63</b>  |       | 077-107 RAP..... | 2-360 |
| 063-210 RAP..... | 2-331 | 077-109 RAP..... | 2-361 |
| 063-220 RAP..... | 2-331 | 077-111 RAP..... | 2-362 |
| 063-230 RAP..... | 2-332 | 077-113 RAP..... | 2-363 |
| 063-240 RAP..... | 2-332 | 077-115 RAP..... | 2-363 |
|                  |       | 077-118 RAP..... | 2-364 |
| <b>Chain 65</b>  |       | 077-120 RAP..... | 2-365 |
| 065-210 RAP..... | 2-333 | 077-123 RAP..... | 2-365 |
| 065-211 RAP..... | 2-333 | 077-129 RAP..... | 2-366 |
| 065-212 RAP..... | 2-334 | 077-130 RAP..... | 2-366 |
| 065-213 RAP..... | 2-334 | 077-300 RAP..... | 2-367 |
| 065-215 RAP..... | 2-335 | 077-301 RAP..... | 2-367 |
| 065-216 RAP..... | 2-335 | 077-302 RAP..... | 2-368 |
| 065-219 RAP..... | 2-336 | 077-303 RAP..... | 2-368 |
| 065-220 RAP..... | 2-336 | 077-304 RAP..... | 2-369 |
|                  |       | 077-312 RAP..... | 2-369 |
| <b>Chain 71</b>  |       | 077-909 RAP..... | 2-370 |
| 071-101 RAP..... | 2-337 | 077-967 RAP..... | 2-370 |
| 071-104 RAP..... | 2-338 | 077-968 RAP..... | 2-371 |
| 071-105 RAP..... | 2-338 |                  |       |
| 071-210 RAP..... | 2-339 | <b>Chain 78</b>  |       |
|                  |       | 078-100 RAP..... | 2-373 |
| <b>Chain 72</b>  |       | 078-101 RAP..... | 2-373 |
| 072-101 RAP..... | 2-341 | 078-102 RAP..... | 2-374 |
| 072-102 RAP..... | 2-342 | 078-151 RAP..... | 2-374 |
| 072-104 RAP..... | 2-343 | 078-250 RAP..... | 2-375 |
| 072-105 RAP..... | 2-343 | 078-300 RAP..... | 2-376 |
| 072-210 RAP..... | 2-344 | 078-301 RAP..... | 2-376 |
|                  |       |                  |       |
| <b>Chain 73</b>  |       | <b>Chain 89</b>  |       |
| 073-101 RAP..... | 2-345 | 089-600 RAP..... | 2-377 |
| 073-102 RAP..... | 2-346 | 089-601 RAP..... | 2-377 |
| 073-104 RAP..... | 2-347 | 089-602 RAP..... | 2-378 |
| 073-105 RAP..... | 2-347 | 089-603 RAP..... | 2-378 |
| 073-210 RAP..... | 2-348 | 089-604 RAP..... | 2-379 |
|                  |       | 089-605 RAP..... | 2-380 |
| <b>Chain 74</b>  |       | 089-606 RAP..... | 2-381 |
| 074-101 RAP..... | 2-349 | 089-607 RAP..... | 2-382 |
| 074-102 RAP..... | 2-350 | 089-608 RAP..... | 2-383 |
| 074-103 RAP..... | 2-351 | 089-609 RAP..... | 2-384 |
| 074-104 RAP..... | 2-352 | 089-610 RAP..... | 2-385 |
| 074-105 RAP..... | 2-352 | 089-611 RAP..... | 2-386 |
| 074-210 RAP..... | 2-353 | 089-612 RAP..... | 2-387 |
|                  |       | 089-613 RAP..... | 2-388 |
| <b>Chain 75</b>  |       | 089-614 RAP..... | 2-389 |
| 075-100 RAP..... | 2-355 |                  |       |
| 075-109 RAP..... | 2-356 |                  |       |

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|------------------|-------|------------------|-------|
| 089-615 RAP..... | 2-390 | 092-661 RAP..... | 2-417 |
| 089-616 RAP..... | 2-391 | 092-662 RAP..... | 2-417 |
| 089-617 RAP..... | 2-392 | 092-663 RAP..... | 2-418 |
| <b>Chain 91</b>  |       | <b>Chain 93</b>  |       |
| 091-311 RAP..... | 2-393 | 093-300 RAP..... | 2-419 |
| 091-312 RAP..... | 2-394 | 093-313 RAP..... | 2-419 |
| 091-313 RAP..... | 2-394 | 093-314 RAP..... | 2-420 |
| 091-320 RAP..... | 2-395 | 093-315 RAP..... | 2-421 |
| 091-400 RAP..... | 2-395 | 093-316 RAP..... | 2-422 |
| 091-401 RAP..... | 2-396 | 093-317 RAP..... | 2-423 |
| 091-403 RAP..... | 2-396 | 093-320 RAP..... | 2-424 |
| 091-404 RAP..... | 2-397 | 093-421 RAP..... | 2-425 |
| 091-411 RAP..... | 2-397 | 093-422 RAP..... | 2-425 |
| 091-421 RAP..... | 2-398 | 093-423 RAP..... | 2-426 |
| 091-431 RAP..... | 2-398 | 093-424 RAP..... | 2-426 |
| 091-910 RAP..... | 2-399 | 093-425 RAP..... | 2-427 |
| 091-911 RAP..... | 2-399 | 093-600 RAP..... | 2-427 |
| 091-913 RAP..... | 2-400 | 093-601 RAP..... | 2-428 |
| 091-914 RAP..... | 2-400 | 093-602 RAP..... | 2-429 |
| 091-915 RAP..... | 2-401 | 093-603 RAP..... | 2-430 |
| 091-916 RAP..... | 2-401 | 093-912 RAP..... | 2-431 |
| 091-917 RAP..... | 2-402 | 093-918 RAP..... | 2-432 |
| 091-918 RAP..... | 2-402 | 093-924 RAP..... | 2-432 |
| 091-919 RAP..... | 2-403 | 093-925 RAP..... | 2-433 |
| 091-920 RAP..... | 2-403 | 093-926 RAP..... | 2-433 |
| 091-921 RAP..... | 2-404 | 093-927 RAP..... | 2-434 |
| 091-922 RAP..... | 2-404 | 093-928 RAP..... | 2-434 |
| 091-923 RAP..... | 2-405 | 093-929 RAP..... | 2-435 |
| 091-924 RAP..... | 2-405 | 093-932 RAP..... | 2-435 |
| 091-925 RAP..... | 2-406 | 093-933 RAP..... | 2-436 |
| 091-926 RAP..... | 2-406 | 093-934 RAP..... | 2-436 |
| 091-927 RAP..... | 2-407 | 093-935 RAP..... | 2-437 |
| 091-928 RAP..... | 2-407 | 093-936 RAP..... | 2-437 |
| 091-929 RAP..... | 2-408 | 093-937 RAP..... | 2-438 |
| 091-932 RAP..... | 2-408 | 093-938 RAP..... | 2-438 |
| 091-933 RAP..... | 2-409 | 093-939 RAP..... | 2-439 |
| 091-934 RAP..... | 2-409 | 093-940 RAP..... | 2-439 |
| <b>Chain 92</b>  |       | <b>Chain 94</b>  |       |
| 092-649 RAP..... | 2-411 | 094-320 RAP..... | 2-441 |
| 092-650 RAP..... | 2-411 | 094-321 RAP..... | 2-441 |
| 092-651 RAP..... | 2-412 | 094-322 RAP..... | 2-442 |
| 092-652 RAP..... | 2-412 | 094-323 RAP..... | 2-443 |
| 092-653 RAP..... | 2-413 | <b>Chain 102</b> |       |
| 092-654 RAP..... | 2-413 | 102-356 RAP..... | 2-445 |
| 092-655 RAP..... | 2-414 | 102-380 RAP..... | 2-445 |
| 092-656 RAP..... | 2-414 | 102-381 RAP..... | 2-446 |
| 092-657 RAP..... | 2-415 | 102-382 RAP..... | 2-446 |
| 092-658 RAP..... | 2-415 | <b>Chain 112</b> |       |
| 092-659 RAP..... | 2-416 | 112-700 RAP..... | 2-447 |
| 092-660 RAP..... | 2-416 |                  |       |



**Chain 116**

|                  |       |                  |       |
|------------------|-------|------------------|-------|
| 116-210 RAP..... | 2-449 | 116-370 RAP..... | 2-474 |
| 116-211 RAP..... | 2-449 | 116-371 RAP..... | 2-474 |
| 116-212 RAP..... | 2-450 | 116-373 RAP..... | 2-475 |
| 116-310 RAP..... | 2-450 | 116-374 RAP..... | 2-475 |
| 116-312 RAP..... | 2-451 | 116-376 RAP..... | 2-476 |
| 116-313 RAP..... | 2-451 | 116-378 RAP..... | 2-476 |
| 116-314 RAP..... | 2-452 | 116-379 RAP..... | 2-477 |
| 116-315 RAP..... | 2-452 | 116-380 RAP..... | 2-477 |
| 116-316 RAP..... | 2-453 | 116-381 RAP..... | 2-478 |
| 116-317 RAP..... | 2-453 | 116-382 RAP..... | 2-478 |
| 116-318 RAP..... | 2-454 | 116-385 RAP..... | 2-479 |
| 116-321 RAP..... | 2-454 | 116-388 RAP..... | 2-479 |
| 116-322 RAP..... | 2-455 | 116-389 RAP..... | 2-480 |
| 116-323 RAP..... | 2-455 | 116-390 RAP..... | 2-480 |
| 116-324 RAP..... | 2-456 | 116-391 RAP..... | 2-481 |
| 116-325 RAP..... | 2-456 | 116-395 RAP..... | 2-481 |
| 116-329 RAP..... | 2-457 | 116-701 RAP..... | 2-482 |
| 116-330 RAP..... | 2-457 | 116-702 RAP..... | 2-482 |
| 116-331 RAP..... | 2-458 | 116-703 RAP..... | 2-483 |
| 116-332 RAP..... | 2-458 | 116-704 RAP..... | 2-483 |
| 116-333 RAP..... | 2-459 | 116-705 RAP..... | 2-484 |
| 116-336 RAP..... | 2-459 | 116-706 RAP..... | 2-484 |
| 116-337 RAP..... | 2-460 | 116-707 RAP..... | 2-485 |
| 116-338 RAP..... | 2-460 | 116-708 RAP..... | 2-485 |
| 116-340 RAP..... | 2-461 | 116-709 RAP..... | 2-486 |
| 116-341 RAP..... | 2-461 | 116-710 RAP..... | 2-486 |
| 116-342 RAP..... | 2-462 | 116-711 RAP..... | 2-487 |
| 116-343 RAP..... | 2-462 | 116-712 RAP..... | 2-487 |
| 116-346 RAP..... | 2-463 | 116-713 RAP..... | 2-488 |
| 116-348 RAP..... | 2-463 | 116-714 RAP..... | 2-488 |
| 116-349 RAP..... | 2-464 | 116-715 RAP..... | 2-489 |
| 116-350 RAP..... | 2-464 | 116-716 RAP..... | 2-489 |
| 116-351 RAP..... | 2-465 | 116-717 RAP..... | 2-490 |
| 116-352 RAP..... | 2-465 | 116-718 RAP..... | 2-490 |
| 116-353 RAP..... | 2-466 | 116-720 RAP..... | 2-491 |
| 116-354 RAP..... | 2-466 | 116-737 RAP..... | 2-491 |
| 116-355 RAP..... | 2-467 | 116-738 RAP..... | 2-492 |
| 116-356 RAP..... | 2-467 | 116-739 RAP..... | 2-492 |
| 116-357 RAP..... | 2-468 | 116-740 RAP..... | 2-493 |
| 116-358 RAP..... | 2-468 | 116-741 RAP..... | 2-493 |
| 116-359 RAP..... | 2-469 | 116-742 RAP..... | 2-494 |
| 116-360 RAP..... | 2-469 | 116-743 RAP..... | 2-494 |
| 116-361 RAP..... | 2-470 | 116-745 RAP..... | 2-495 |
| 116-362 RAP..... | 2-470 | 116-746 RAP..... | 2-495 |
| 116-363 RAP..... | 2-471 | 116-747 RAP..... | 2-496 |
| 116-364 RAP..... | 2-471 | 116-748 RAP..... | 2-496 |
| 116-365 RAP..... | 2-472 | 116-749 RAP..... | 2-497 |
| 116-366 RAP..... | 2-472 | 116-771 RAP..... | 2-497 |
| 116-367 RAP..... | 2-473 | 116-772 RAP..... | 2-498 |
| 116-368 RAP..... | 2-473 | 116-773 RAP..... | 2-498 |
|                  |       | 116-774 RAP..... | 2-499 |
|                  |       | 116-775 RAP..... | 2-499 |

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|------------------|-------|------------------|-------|
| 116-776 RAP..... | 2-500 | 123-345 RAP..... | 2-525 |
| 116-777 RAP..... | 2-500 | 123-346 RAP..... | 2-526 |
| 116-778 RAP..... | 2-501 | 123-347 RAP..... | 2-526 |
| 116-780 RAP..... | 2-501 | 123-348 RAP..... | 2-527 |
| 116-790 RAP..... | 2-502 | 123-349 RAP..... | 2-527 |
|                  |       | 123-350 RAP..... | 2-528 |
| <b>Chain 123</b> |       | 123-351 RAP..... | 2-528 |
| 123-200 RAP..... | 2-503 | 123-352 RAP..... | 2-529 |
| 123-201 RAP..... | 2-503 | 123-353 RAP..... | 2-529 |
| 123-202 RAP..... | 2-504 | 123-354 RAP..... | 2-530 |
| 123-203 RAP..... | 2-504 | 123-355 RAP..... | 2-530 |
| 123-204 RAP..... | 2-505 | 123-356 RAP..... | 2-531 |
| 123-205 RAP..... | 2-505 | 123-357 RAP..... | 2-531 |
| 123-206 RAP..... | 2-506 | 123-358 RAP..... | 2-532 |
| 123-207 RAP..... | 2-506 | 123-359 RAP..... | 2-532 |
| 123-208 RAP..... | 2-507 | 123-360 RAP..... | 2-533 |
| 123-209 RAP..... | 2-507 | 123-361 RAP..... | 2-533 |
| 123-310 RAP..... | 2-508 | 123-362 RAP..... | 2-534 |
| 123-311 RAP..... | 2-508 | 123-363 RAP..... | 2-534 |
| 123-312 RAP..... | 2-509 | 123-364 RAP..... | 2-535 |
| 123-313 RAP..... | 2-509 | 123-365 RAP..... | 2-535 |
| 123-314 RAP..... | 2-510 | 123-366 RAP..... | 2-536 |
| 123-315 RAP..... | 2-510 | 123-367 RAP..... | 2-536 |
| 123-316 RAP..... | 2-511 | 123-368 RAP..... | 2-537 |
| 123-317 RAP..... | 2-511 | 123-369 RAP..... | 2-537 |
| 123-318 RAP..... | 2-512 | 123-370 RAP..... | 2-538 |
| 123-319 RAP..... | 2-512 | 123-371 RAP..... | 2-538 |
| 123-320 RAP..... | 2-513 | 123-372 RAP..... | 2-539 |
| 123-321 RAP..... | 2-513 | 123-373 RAP..... | 2-539 |
| 123-322 RAP..... | 2-514 | 123-374 RAP..... | 2-540 |
| 123-323 RAP..... | 2-514 | 123-375 RAP..... | 2-540 |
| 123-324 RAP..... | 2-515 | 123-376 RAP..... | 2-541 |
| 123-325 RAP..... | 2-515 | 123-377 RAP..... | 2-541 |
| 123-326 RAP..... | 2-516 | 123-378 RAP..... | 2-542 |
| 123-327 RAP..... | 2-516 | 123-379 RAP..... | 2-542 |
| 123-328 RAP..... | 2-517 | 123-380 RAP..... | 2-543 |
| 123-329 RAP..... | 2-517 | 123-382 RAP..... | 2-543 |
| 123-330 RAP..... | 2-518 | 123-383 RAP..... | 2-544 |
| 123-331 RAP..... | 2-518 | 123-384 RAP..... | 2-544 |
| 123-332 RAP..... | 2-519 | 123-385 RAP..... | 2-545 |
| 123-333 RAP..... | 2-519 | 123-386 RAP..... | 2-545 |
| 123-334 RAP..... | 2-520 | 123-387 RAP..... | 2-546 |
| 123-335 RAP..... | 2-520 | 123-388 RAP..... | 2-546 |
| 123-336 RAP..... | 2-521 | 123-389 RAP..... | 2-547 |
| 123-337 RAP..... | 2-521 | 123-390 RAP..... | 2-547 |
| 123-338 RAP..... | 2-522 | 123-391 RAP..... | 2-548 |
| 123-339 RAP..... | 2-522 | 123-392 RAP..... | 2-548 |
| 123-340 RAP..... | 2-523 | 123-393 RAP..... | 2-549 |
| 123-341 RAP..... | 2-523 | 123-394 RAP..... | 2-549 |
| 123-342 RAP..... | 2-524 | 123-395 RAP..... | 2-550 |
| 123-343 RAP..... | 2-524 | 123-396 RAP..... | 2-550 |
| 123-344 RAP..... | 2-525 | 123-397 RAP..... | 2-551 |

|                  |       |                                                             |       |
|------------------|-------|-------------------------------------------------------------|-------|
| 123-398 RAP..... | 2-551 | 124-705 RAP.....                                            | 2-576 |
| 123-399 RAP..... | 2-552 | 124-706 RAP.....                                            | 2-577 |
| 123-400 RAP..... | 2-552 | 124-708 RAP.....                                            | 2-577 |
|                  |       | 124-709 RAP.....                                            | 2-578 |
| <b>Chain 124</b> |       | <b>Chain 125</b>                                            |       |
| 124-310 RAP..... | 2-553 | 125-311 RAP.....                                            | 2-579 |
| 124-311 RAP..... | 2-553 | <b>Chain 127</b>                                            |       |
| 124-312 RAP..... | 2-554 | 127-210 RAP.....                                            | 2-581 |
| 124-313 RAP..... | 2-554 | 127-211 RAP.....                                            | 2-581 |
| 124-314 RAP..... | 2-555 | 127-212 RAP.....                                            | 2-582 |
| 124-315 RAP..... | 2-555 | 127-213 RAP.....                                            | 2-582 |
| 124-316 RAP..... | 2-556 | 127-220 RAP.....                                            | 2-583 |
| 124-317 RAP..... | 2-556 | 127-221 RAP.....                                            | 2-583 |
| 124-318 RAP..... | 2-557 | 127-310 RAP.....                                            | 2-584 |
| 124-319 RAP..... | 2-557 | 127-311 RAP.....                                            | 2-584 |
| 124-320 RAP..... | 2-558 | 127-320 RAP.....                                            | 2-585 |
| 124-321 RAP..... | 2-558 | 127-337 RAP.....                                            | 2-585 |
| 124-322 RAP..... | 2-559 | 127-342 RAP.....                                            | 2-586 |
| 124-323 RAP..... | 2-559 | 127-353 RAP.....                                            | 2-586 |
| 124-324 RAP..... | 2-560 | 127-354 RAP.....                                            | 2-587 |
| 124-325 RAP..... | 2-560 | 127-396 RAP.....                                            | 2-587 |
| 124-333 RAP..... | 2-561 | 127-398 RAP.....                                            | 2-588 |
| 124-334 RAP..... | 2-561 | 127-399 RAP.....                                            | 2-588 |
| 124-335 RAP..... | 2-562 | <b>Chain 202</b>                                            |       |
| 124-337 RAP..... | 2-562 | 202-399 RAP.....                                            | 2-589 |
| 124-338 RAP..... | 2-563 | <b>Chain 500</b>                                            |       |
| 124-339 RAP..... | 2-563 | 500-030 RAP.....                                            | 2-591 |
| 124-340 RAP..... | 2-564 | 500-990 RAP.....                                            | 2-591 |
| 124-341 RAP..... | 2-564 | <b>other faults</b>                                         |       |
| 124-342 RAP..... | 2-565 | OF 1.1 Power On RAP.....                                    | 2-593 |
| 124-343 RAP..... | 2-565 | OF 1.2 AC Power RAP.....                                    | 2-594 |
| 124-350 RAP..... | 2-566 | OF 1.3 AC Protect Circuit RAP.....                          | 2-595 |
| 124-351 RAP..... | 2-566 | OF 2.1 IOT DC Power (+3.3VDC, +5 VDC, and +12 VDC) RAP..... | 2-595 |
| 124-352 RAP..... | 2-567 | OF 2.2 IOT DC Power (+24 VDC) RAP.....                      | 2-597 |
| 124-353 RAP..... | 2-567 | OF 2.3 IIT DC Power RAP.....                                | 2-598 |
| 124-360 RAP..... | 2-568 | OF 2.4 DADF DC Power RAP.....                               | 2-599 |
| 124-361 RAP..... | 2-568 | OF 3.1 Network Controller Checkout RAP.....                 | 2-600 |
| 124-362 RAP..... | 2-569 | OF 8.1 Paper Feed Checkout RAP.....                         | 2-600 |
| 124-363 RAP..... | 2-569 | OF 99-1 Reflective Sensor RAP.....                          | 2-602 |
| 124-372 RAP..... | 2-570 | OF 99-2 Transmissive Sensor.....                            | 2-603 |
| 124-373 RAP..... | 2-570 | OF 99-3 Switch.....                                         | 2-604 |
| 124-374 RAP..... | 2-571 | OF 99-4 Generic Solenoid/Clutch RAP.....                    | 2-604 |
| 124-380 RAP..... | 2-571 | OF 99-6 2 Wire Motor Open.....                              | 2-605 |
| 124-381 RAP..... | 2-572 | OF 99-7 2 Wire Motor On.....                                | 2-606 |
| 124-382 RAP..... | 2-572 | OF 99-8 Set Gate Solenoid Open.....                         | 2-606 |
| 124-383 RAP..... | 2-573 | OF 99-9 Multiple Wire Motor.....                            | 2-607 |
| 124-390 RAP..... | 2-573 |                                                             |       |
| 124-391 RAP..... | 2-574 |                                                             |       |
| 124-392 RAP..... | 2-574 |                                                             |       |
| 124-393 RAP..... | 2-575 |                                                             |       |
| 124-701 RAP..... | 2-575 |                                                             |       |
| 124-704 RAP..... | 2-576 |                                                             |       |



## Power RAPs

Power RAPs are located in the Other Faults Section:

- OF 1.1 Power On RAP
- OF 1.2 AC Power RAP
- OF 1.3 AC Protect Circuit RAP
- OF 2.1 IOT DC Power (+3.3VDC, +5 VDC, and +12 VDC) RAP
- OF 2.2 IOT DC Power (+24 VDC) RAP
- OF 2.3 IIT DC Power RAP
- OF 2.4 DADF DC Power RAP



## 002-770 RAP

Insufficient HDD capacity while processing the job template within a job.

### Procedure

Perform [dC355](#). If initializing HDD does not resolve the problem, replace the Hard Drive ([PL 11.6](#)).





## 003-318 RAP

BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT software failure.

### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Reinstall the software.
2. If the above action does not resolve the problem, replace ESS PWB (PL 11.5).

## 003-319 RAP

BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT Video Driver Detection Fail. An internal processing error occurred in the ESS PWB.

### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Reinstall the software.
2. If the above action does not resolve the problem, replace ESS PWB (PL 11.5).

## 003-320 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 1.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-321 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 2.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-322 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 3.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-323 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 4.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-324 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 5.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-325 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 6.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-326 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 7.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-327 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 8.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-328 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 9.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-329 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 10.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-330 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 11.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-331 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 12.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-332 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 13.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-333 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 14.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)



## 003-334 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 15.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-335 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 16.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-336 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 17.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-337 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 18.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5x)

## 003-338 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 19.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-339 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 20.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-340 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 21.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-341 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 22.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-342 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 23.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-343 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

ESS PWB detected a communication failure between IIT and ESS. (IIT-ESS Communication Fail 24.)

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 003-344 RAP

This status code is displayed for a power on hotline failure.

### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).

## 003-345 RAP

BSD-ON:5.15 Copy/Scan Image Input Processing (1 of 3) BSD

X PIO Unmatch Fail 1. An abnormality with the X hot line was detected when an X job failure was received from the IIT.

### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).

## 003-346 RAP

### BSD-ON:5.15 Copy/Scan Image Input Processing (1 of 3) BSD

X PIO Unmatch Fail 2. An abnormality with the X hot line was detected when IIT image delivered was received from the IIT.

#### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).

## 003-750 RAP

Book Duplex-Insufficient Docs. Insufficient original sheets for a duplex book.

#### Procedure

- Change the parameters and repeat the operation. If the problem continues, Power OFF and then ON.
- If powering OFF then ON does not resolve the problem, perform the following:  
Software Mismatch. Reinstall the software

## 003-751 RAP

Under PANTHER Capacity (Scan). Was below the PANTHER capacity in the Scan service (IIT sc).

### Procedure

Increase the resolution or enlarge the scan area (Width mm x Length mm).

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).

## 003-752 RAP

This status code is displayed if 600dpi cannot be scanned (DADF).

### Procedure

Perform scanning below 400 dpi resolution or perform scanning in other than mixed mode.

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).



## 003-753 RAP

This status code is displayed if over 300dpi cannot be scanned (DADF).

### Procedure

- Perform scanning below 200 dpi resolution.  
Or perform scanning in other than mixed mode.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-754 RAP

S2X Recoverable Error. A 'can recover?' error was reported by the S2X.

### Procedure

- Execute the same job again.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-755 RAP

S2X Command Error. S2X returned a command error.

### Procedure

- Execute the same job again.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-757 RAP

This status code is displayed if over 400dpi cannot be scanned (DADF).

### Procedure

- Perform scanning at 300 dpi or lower resolution or perform scanning in other than mixed mode.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-760 RAP

Scan Settings Error. Read settings were incorrect.

### Procedure

- Abort the job. Change the parameters and repeat the operation.
- If powering OFF then ON does not resolve the problem, reinstall the IIT software.

## 003-761 RAP

Incorrect Paper Tray Size. The paper size for the previously selected tray is different from the paper size that was selected with APS.

### Procedure

- Change the job activation parameters such as Tray No., Paper Size, and repeat the operation.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-763 RAP

Adjustment Chart Not Found. Error reading the contrast correction chart.

### Procedure

Place the auto gradation adjustment chart properly and retry.

- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-764 RAP

Adjustment Chart Not Found. Error reading the contrast correction chart.

### Procedure

- Abort the job. Change the parameters and repeat the operation.
- If powering OFF then ON does not resolve the problem, reinstall the IIT software.

## 003-780 RAP

Scan Image Compression Error. Read image compression error.

### Procedure

- Abort the job. Change the scan resolution parameters and repeat the operation.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-795 RAP

AMS Limit Error. When using the automatic magnification specification (AMS) it was outside the magnification range (25% ~ 400%) after the original was automatically detected.

### Procedure

- Abort the job. Change the parameters and repeat the operation.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-940 RAP

This status code is displayed if the DAM Memory is insufficient.

### Procedure

Cancel the job

- Clear the B/W setting for Color mode or the Side 2 cover image setting, and execute the job again.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-942 RAP

Document Size Error. The size of the original could not be automatically recognized.

### Procedure

- Enter the appropriate value for the document size.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-944 RAP

Image Repeat Count Fail. The image repeat count was incorrect, so images have been omitted.

### Procedure

- Change the image repeat count parameter and repeat the operation.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-946 RAP

Copy Vertical/Horizontal Difference (APS). Without rotation the image would be truncated, but a paper size that cannot be rotated was selected.

### Procedure

Select an appropriate paper tray manually.

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).

## 003-947 RAP

Replaced Original Count Error. The number of original sheets replaced by the user was less than the number of original sheets originally put into position.

### Procedure

- Since the number of documents is insufficient, reload the correct number of documents.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-948 RAP

Replaced Original MismatchThe originals that have been put into position are different (original size, direction, or ACS color mode) from those before the replacement.

### Procedure

Return a document with the correct size again.

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).



## 003-952 RAP

Return Documents Color mismatch. The originals were replaced but the color of the originals replaced by the user was different.

### Procedure

- Return a document with the correct color again.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-955 RAP

Documents Size Exchange Error. The function to prohibit mixed-size originals was selected but, when originals were added, originals of a different size or direction were detected.

### Procedure

- Reload the document.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-956 RAP

Documents Size Unknown Error. The platen was selected and the size of the original cannot be specified (only applies to APS).

### Procedure

Enter a document size from the Panel or select a tray.

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).

## 003-963 RAP

No APS Object Tray. There is no APS tray that can supply paper without truncating the image. The image is larger than A3 or 17".

- A tray other than TTM is not set up for APS and the image is larger than A4 or letter.
- All trays set up for APS are broken.
- All trays that could be set up for APS are not set up that way.
- All trays have an irregular specification.
- All trays have the color attribute and the copies are black-and-white.
- All trays have the black-and-white attribute and the copies are color.

### Procedure

Select the tray and retry.

If powering OFF then ON does not resolve the problem, perform the following:

1. Check the connection between IT/IPS PWB and ESS PWB.
2. Replace IIT/IPS PWB (PL 13.8).
3. Replace ESS PWB (PL 11.5).

## 003-965 RAP

ATS/APS No Paper. There is no paper in the trays that can be selected with APS.

### Procedure

- Add paper.
- If the problem occurs frequently, check the No Paper Sensor of the tray.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-966 RAP

AATS/APS No Destination Error. There are no trays that can be selected with APS.

### Procedure

- Change the setting and retry.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-968 RAP

Punch Position Error. It is not possible to punch at the selected location.

### Procedure

- Specify an appropriate punch position, clear Punching or cancel Punch, and execute the job again.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-969 RAP

Punch Size ErrorIt is not possible to punch with the selected paper size.

### Procedure

- Clear Punching and retry.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-972 RAP

Maximum Stored Page Over Flow. The number of original sheets exceeded the maximum number of sheets that can be stored.

### Procedure

- Keep the qty of docs within the max qty of docs to be stored.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-973 RAP

Every Direction DifferenceThe directions of the original and the image are different, and the image would be truncated if it isn't rotated, but it isn't possible to rotate.

### Procedure

- Start, leaving the condition as it is, or cancel the job.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-974 RAP

Next Original Specification All the originals that were put into position have been scanned.

### Procedure

- Decide whether there is another document.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-977 RAP

Document Miss Match (Multi Scan). The originals were replaced during consecutive page copying or duplex book scanning.

### Procedure

- Reload a correct size document and resume operation.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-978 RAP

Color Document Mismatch (Multi Scan).

1. The originals were replaced during consecutive page copying, or 'as book', or during poster scanning.
2. In a multi-scan job on the platen (consecutive page copying, 'as book', or poster), there was motion that accompanied the replacement of the originals, and the user replaced originals with a different size from before, or replaced originals with a different color for ACS.

### Procedure

- Reload a correct size paper and resume operation.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-980 RAP

Staple Position Error. It is not possible to staple at the specified location.

### Procedure

- Specify a Staple position again, change the setting, or cancel Staple, and execute the same job again.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-981 RAP

Staple Size Error. It is not possible to staple with the selected paper size.

### Procedure

- Specify a Staple position again, change the setting, or cancel Staple, and execute the same job again.
- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check the connection between IT/IPS PWB and ESS PWB.
  2. Replace IIT/IPS PWB (PL 13.8).
  3. Replace ESS PWB (PL 11.5).

## 003-982 RAP

IITsc HDD Access Error. HDD was determined to be full during a collation job, destination storage job, or insertion job.

### Procedure

- Process or delete the jobs (documents) stored in the same HDD partition, and repeat the operation.
- If the problem continues, expand the HDD partition size of the Copy service.
- If the problem persists, go to [dC355](#) Hard Disk Drive Diagnostics/Setup.



## 005-121 RAP

### BSD-ON:5.5 Document Feeding BSD

DADF Feed Sensor ON Jam

1. The feed sensor did not come on within a given time after the start of pre-feed.
2. In the duplex case, the feed sensor did not detect the original within a given time after the start of the first feed operation (feed motor ON (CW)).

#### DC330 Code to Check

- [005-204] DADF Feed Sensor
- [005-062] DADF Feed Clutch
- [005-001] DADF Feed Motor

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec/improperly loaded document
- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Feed Clutch for an improper operation
- Feed Motor for a poor rotation
- Drive Belt for poor tension
- Check if Nudger Roll is properly nipping.
- Check the following for an open wire or poor contact:
  - DADF Feed Sensor J762-2 to DADF PWB J754-A5
  - DADF Feed Sensor J762-1 to DADF PWB J754-A6
  - DADF Feed Sensor J762-3 to DADF PWB J754-A4
- DADF PWB for a problem ([PL 14.3](#))

## 005-122 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF Simplex/Side 1 Pre Reg Sensor ON Jam

1. The pre-Reg sensor did not come on within a given time after the feed sensor came on for the first original.
2. The pre-Reg sensor did not come on within a given time after the start of the pre-registration operation for the second or later original.

#### DC330 Code to Check

- [005-206] Pre Reg Sensor
- [005-001] DADF Feed Motor
- [005-062] DADF Feed Clutch
- [005-015] DADF Pre Reg Motor

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec/improperly loaded document
- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Pre Reg Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Feed Clutch for an improper operation
- Check the following for an open wire or poor contact:
  - DADF Pre Reg Sensor J763-2 to DADF PWB J754-A8
  - DADF Pre Reg Sensor J763-1 to DADF PWB J754-A9
  - DADF Pre Reg Sensor J763-3 to DADF PWB J754-A7
- DADF PWB for a problem ([PL 14.3](#))

## 005-123 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Simplex/Side 1 Reg Sensor ON Jam. The Reg sensor did not come on within a given time after the pre-Reg sensor came on.

#### DC330 Code to Check

- [005-110] Reg Sensor
- [005-062] DADF Feed Clutch
- [005-015] DADF Pre Reg Motor
- [005-065] Baffle Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document
- Check if Baffle is properly closed (Baffle Solenoid is also properly operating).
- Pre Reg Roll/Pinch Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Check the following for an open wire or poor contact:
  - DADF Reg Sensor J776-2 to DADF PWB J757-A8
  - DADF Reg Sensor J776-1 to DADF PWB J757-A9
  - DADF Reg Sensor J776-3 to DADF PWB J757-A7
- DADF PWB for a problem ([PL 14.3](#))

## 005-124 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Lead Reg Sensor ON Jam. The lead Reg sensor did not come on within a given time after the start of reading (Reg motor ON).

#### DC330 Code to Check

- [005-207] Lead Reg Sensor
- [005-026] DADF Reg Motor

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Reg Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Check the following for an open wire or poor contact:
  - Lead Reg Sensor J779-2 to DADF PWB J757-B8
  - Lead Reg Sensor J779-1 to DADF PWB J757-B9
  - Lead Reg Sensor J779-3 to DADF PWB J757-B7
- DADF PWB for a problem ([PL 14.3](#))

## 005-125 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Reg Sensor OFF Jam. The lead Reg sensor did not turn off within a given time after the start of reading (Reg motor ON).

#### DC330 Code to Check

- [005-110] Reg Sensor
- [005-026] DADF Reg Motor
- [005-037] Platen Motor

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document
- Reg Roll for dirt/paper particles/wear/a poor rotation
- Platen Roll for dirt/paper particles/wear/a poor rotation
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - DADF Reg Sensor J776-2 to DADF PWB J757-A8
  - DADF Reg Sensor J776-1 to DADF PWB J757-A9
  - DADF Reg Sensor J776-3 to DADF PWB J757-A7
- DADF PWB for a problem ([PL 14.3](#))

## 005-126 RAP

### BSD-ON:5.8 Document Scan Positioning BSD

DADF Out Sensor ON Jam. The out sensor did not come on within a given time after the start of reading (Reg motor ON).

#### DC330 Code to Check

- [005-208] Out Sensor
- [005-037] Platen Motor
- [005-026] DADF Reg Motor

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document
- Reg Roll for dirt/paper particles/wear/a poor rotation
- Platen Roll for dirt/paper particles/wear/a poor rotation
- Out Roll for dirt/paper particles/wear/a poor rotation
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - Out Sensor J778-2 to DADF PWB J757-B5
  - Out Sensor J778-1 to DADF PWB J757-B6
  - Out Sensor J778-3 to DADF PWB J757-B4
- DADF PWB for a problem ([PL 14.3](#))

## 005-127 RAP

### BSD-ON:5.8 Document Scan Positioning BSD

DADF Out Sensor OFF Jam. The out sensor did not turn off within a given time after the Reg sensor turned off.

#### DC330 Code to Check

- [005-208] Out Sensor
- [005-037] Platen Motor
- [005-026] DADF Reg Motor
- [005-068/067] Simp/Dup Gate Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Reg Roll for dirt/paper particles/wear/a poor rotation
- Platen Roll for dirt/paper particles/wear/a poor rotation
- Out Roll for dirt/paper particles/wear/a poor rotation
- Simp/Dup Gate for an improper operation (Simp/Dup Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - Out Sensor J778-2 to DADF PWB J757-B5
  - Out Sensor J778-1 to DADF PWB J757-B6
  - Out Sensor J778-3 to DADF PWB J757-B4
- DADF PWB for a problem ([PL 14.3](#))

## 005-128 RAP

### BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 1 ON Jam (Simplex Mode). In simplex mode, exit sensor #1 did not come on within a given time after the out sensor turned off.

#### DC330 Code to Check

- [005-209] DADF Exit Sensor 1
- [005-037] Platen Motor
- [005-048] DADF Exit Motor
- [005-068/067] Simp/Dup Gate Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Reg Roll for dirt/paper particles/wear/a poor rotation
- Platen Roll for dirt/paper particles/wear/a poor rotation
- Out Roll for dirt/paper particles/wear/a poor rotation
- Simp/Dup Gate for an improper operation (Simp/Dup Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - DADF Exit Sensor 1 J774-2 to DADF PWB J757-A2
  - DADF Exit Sensor 1 J774-1 to DADF PWB J757-A3
  - DADF Exit Sensor 1 J774-3 to DADF PWB J757-A1
- DADF PWB for a problem ([PL 14.3](#))

## 005-129 RAP

### BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 1 OFF Jam (Simplex Mode). In simplex mode, exit sensor #1 did not turn off within a given time after the out sensor turned off.

#### DC330 Code to Check

- [005-209] DADF Exit Sensor 1
- [005-037] Platen Motor
- [005-048] DADF Exit Motor
- [005-068/067] Simp/Dup Gate Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Reg Roll for dirt/paper particles/wear/a poor rotation
- Platen Roll for dirt/paper particles/wear/a poor rotation
- Out Roll for dirt/paper particles/wear/a poor rotation
- No.1 Exit Roll for dirt/paper particles/wear/a poor rotation
- Exit Area for a foreign object/the deformed Static Elimination Brush
- Simp/Dup Gate for an improper operation (Simp/Dup Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire, short or poor contact:
  - DADF Exit Sensor 1 J774-2 to DADF PWB J757-A2
  - DADF Exit Sensor 1 J774-1 to DADF PWB J757-A3
  - DADF Exit Sensor 1 J774-3 to DADF PWB J757-A1
- DADF PWB for a problem (PL 14.3)

## 005-130 RAP

### BSD-ON:5.9 Document Inversion BSD

DADF Invert Sensor ON Jam (Duplex Mode). In duplex mode, the invert sensor did not come on within a given time after the out sensor came on.

#### DC330 Code to Check

- [005-211] Invert Sensor 1
- [005-037] Platen Motor
- [005-068/067] Simp/Dup Gate Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Platen Roll for dirt/paper particles/wear/a poor rotation
- Out Roll for dirt/paper particles/wear/a poor rotation
- Simp/Dup Gate for an improper operation (Simp/Dup Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - Invert Sensor 1 J777-2 to DADF PWB J757-B2
  - Invert Sensor 1 J777-1 to DADF PWB J757-B3
  - Invert Sensor 1 J777-3 to DADF PWB J757-B1
- DADF PWB for a problem (PL 14.3)

## 005-131 RAP

### BSD-ON:5.9 Document Inversion BSD

DADF Invert Sensor On Jam (Inverting).

#### Initial Actions

- Check the condition of the document.
- Turn the power OFF then ON.

#### Procedure

Check the condition of the document condition, dog ears, damage, or nicks. **The document is OK.**

Y N  
Remove/replace damaged document/documents.

Check the Transport Roll for wear, deterioration, damaged and/or paper dust. **The Transport Roll is OK.**

Y N  
Replace the worn, deteriorated, or damaged Transport Roll.

Check for foreign substances, distortion and paper dust in the paper transport path. **The paper transport path is OK.**

Y N  
Remove the foreign substances and paper dust. Correct the distortion.

Enter dC330 [005-211 Invert Sensor]. Actuate the Invert Sensor 1 with paper. **The display changes.**

Y N  
Go to [OF 99-1](#) to check out the Invert Sensor 1 ([PL 14.22](#)).

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

Y N  
Go to [OF 99-9](#) to check out the DADF Reg Motor ([PL 14.8](#)).

Enter dC330 [005-110 Reg Sensor]. Actuate the DADF Reg Sensor with paper. **The display changes.**

Y N  
Go to [OF 99-1](#) to check out the DADF Reg Sensor ([PL 14.25](#)).

Replace the DADF PWB ([PL 14.3](#)).

## 005-132 RAP

### BSD-ON:5.9 Document Inversion BSD

DADF Invert SNR on Jam 2.

#### Initial Actions

- Check the condition of the document.
- Turn the power OFF then ON.

#### Procedure

Check the condition of the document condition, dog ears, damage, or nicks. **The document is OK.**

Y N  
Remove/replace damaged document/documents.

Check the Transport Roll for wear, deterioration, damaged and/or paper dust. **The Transport Roll is OK.**

Y N  
Replace the worn, deteriorated, or damaged Transport Roll.

Check for foreign substances, distortion and paper dust in the paper transport path. **The paper transport path is OK.**

Y N  
Remove the foreign substances and paper dust. Correct the distortion.

Enter dC330 [005-211 Invert Sensor]. Actuate the Invert Sensor 1 with paper. **The display changes.**

Y N  
Go to [OF 99-1](#) to check out the Invert Sensor 1 ([PL 14.22](#)).

Check the condition of the Invert Gate. **The Invert Gate move smoothly.**

Y N  
Replace the parts that are interfering with the Invert Gate operation.

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

Y N  
Go to [OF 99-9](#) to check out the DADF Reg Motor ([PL 14.8](#)).

Replace the DADF PWB ([PL 14.3](#)).

## 005-133 RAP

### BSD-ON:5.9 Document Inversion BSD

DADF Invert Sensor OFF Jam. In duplex mode, the invert sensor did not turn off within a given time after the out sensor turned off.

### DC330 Code to Check

- [005-211] Invert Sensor 1
- [005-037] Platen Motor
- [005-001] DADF Feed Motor
- [005-068/067] Simp/Dup Gate Solenoid
- [005-070] Invert Roll Nip/Release Solenoid

### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Platen Roll for dirt/paper particles/wear/a poor rotation
- Out Roll for dirt/paper particles/wear/a poor rotation
- Simp/Dup Gate for an improper operation (Simp/Dup Gate Solenoid for an improper operation)
- Invert Roll for an improper Nip/Release operation (Invert Roll Nip/Release Solenoid for an improper operation)
- Invert Roll for dirt/paper particles/wear/a poor rotation
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire, short or poor contact:
  - Invert Sensor 1 J777-2 to DADF PWB J757-B2
  - Invert Sensor 1 J777-1 to DADF PWB J757-B3
  - Invert Sensor 1 J777-3 to DADF PWB J757-B1
- DADF PWB for a problem (PL 14.3)

## 005-134 RAP

### BSD-ON:5.9 Document Inversion BSD

DADF Invert SNR off Jam (Inv).

### Initial Actions

- Check the condition of the document.
- Turn the power OFF then ON.

### Procedure

Check the condition of the document condition, dog ears, damage, or nicks. **The document is OK.**

**Y N**  
Remove/replace damaged document/documents.

Check the Transport Roll for wear, deterioration, damaged and/or paper dust. **The Transport Roll is OK.**

**Y N**  
Replace the worn, deteriorated, or damaged Transport Roll.

Check for foreign substances, distortion and paper dust in the paper transport path. **The paper transport path is OK.**

**Y N**  
Remove the foreign substances and paper dust. Correct the distortion.

Enter dC330 [005-211 Invert Sensor]. Actuate the Invert Sensor 1 with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the Invert Sensor 1 (PL 14.22).

Enter dC330 [005-110 Reg Sensor]. Actuate the DADF Reg Sensor with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the DADF Reg Sensor (PL 14.25).

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

**Y N**  
Go to [OF 99-9](#) to check out the DADF Reg Motor (PL 14.8).

Replace the DADF PWB (PL 14.3).

## 005-135 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF Pre Reg Sensor ON Jam (Invert). During an invert operation the pre-Reg sensor did not come on within a given time after the start of the feed motor reverse revolution.

#### DC330 Code to Check

- [005-206] Pre Reg Sensor
- [005-037] Platen Motor
- [005-001] DADF Feed Motor
- [005-070] Invert Roll Nip/Release Solenoid
- [005-069] Exit Gate Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Invert Roll for an improper Nip/Release operation (Invert Roll Nip/Release Solenoid for an improper operation)
- Invert Roll for dirt/paper particles/wear/a poor rotation
- Pre Reg Roll for dirt/paper particles/wear/a poor rotation
- Exit Gate for an improper operation (Exit Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - DADF Pre Reg Sensor J763-2 to DADF PWB J754-A8
  - DADF Pre Reg Sensor J763-1 to DADF PWB J754-A9
  - DADF Pre Reg Sensor J763-3 to DADF PWB J754-A7
- DADF PWB for a problem ([PL 14.3](#))

## 005-136 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Reg Sensor ON Jam (Invert). During an invert operation the Reg sensor did not come on within a given time after the pre-Reg sensor came on.

#### DC330 Code to Check

- [005-110] Reg Sensor
- [005-070] Invert Roll Nip/Release Solenoid
- [005-015] DADF Pre Reg Motor
- [005-001] DADF Feed Motor
- [005-065] Baffle Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Check if Baffle is properly closed (Baffle Solenoid also properly operates)
- Pre Reg Roll/Pinch Roll for dirt/paper particles/wear/a poor rotation
- Invert Roll for dirt/paper particles/wear/a poor rotation
- Invert Roll for an improper Nip/Release operation (Invert Roll Nip/Release Solenoid for an improper operation)
- Drive gears for wear/breakage
- Check the following for an open wire or poor contact:
  - DADF Reg Sensor J776-2 to DADF PWB J757-A8
  - DADF Reg Sensor J776-1 to DADF PWB J757-A9
  - DADF Reg Sensor J776-3 to DADF PWB J757-A7
- DADF PWB for a problem ([PL 14.3](#))



## 005-137 RAP

### BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 2 ON Jam. During a reverse revolution expelling operation, exit sensor #2 did not come on within a given time after the start of the feed motor reverse revolution.

#### DC330 Code to Check

- [005-210] DADF Exit Sensor 2
- [005-001] DADF Feed Motor
- [005-048] DADF Exit Motor
- [005-070] Invert Roll Nip/Release Solenoid
- [005-069] Exit Gate Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Invert Roll for dirt/paper particles/wear/a poor rotation
- No.2 Exit Roll for dirt/paper particles/wear/a poor rotation
- Exit Gate for an improper operation (Exit Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire, short or poor contact:
  - DADF Exit Sensor 2 J775-2 to DADF PWB J757-A5
  - DADF Exit Sensor 2 J775-1 to DADF PWB J757-A6
  - DADF Exit Sensor 2 J775-3 to DADF PWB J757-A4
- DADF PWB for a problem ([PL 14.3](#))

## 005-138 RAP

### BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 1 ON Jam During a reverse revolution expelling operation, exit sensor #1 did not come on within a given time after exit sensor #2 came on.

#### DC330 Code to Check

- [005-209] DADF Exit Sensor 1
- [005-001] DADF Feed Motor
- [005-048] DADF Exit Motor
- [005-070] Invert Roll Nip/Release Solenoid
- [005-069] Exit Gate Solenoid

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Invert Roll for dirt/paper particles/wear/a poor rotation
- No.2 Exit Roll for dirt/paper particles/wear/a poor rotation
- Exit Gate for an improper operation (Exit Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - DADF Exit Sensor 1 J774-2 to DADF PWB J757-A2
  - DADF Exit Sensor 1 J774-1 to DADF PWB J757-A3
  - DADF Exit Sensor 1 J774-3 to DADF PWB J757-A1
- DADF PWB for a problem ([PL 14.3](#))

## 005-139 RAP

### BSD-ON:5.9 Document Inversion BSD

DADF Invert SNR off Jam.

#### Initial Actions

- Check the condition of the document.
- Turn the power OFF then ON.

#### Procedure

Check the condition of the document condition, dog ears, damage, or nicks. **The document is OK.**

**Y N**  
Remove/replace damaged document/documents.

Check the Transport Roll for wear, deterioration, damaged and/or paper dust. **The Transport Roll is OK.**

**Y N**  
Replace the worn, deteriorated, or damaged Transport Roll.

Check for foreign substances, distortion and paper dust in the paper transport path. **The paper transport path is OK.**

**Y N**  
Remove the foreign substances and paper dust. Correct the distortion.

Enter dC330 [005-211 Invert Sensor]. Actuate the Invert Sensor 1 with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the Invert Sensor 1 ([PL 14.22](#)).

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

**Y N**  
Go to [OF 99-9](#) to check out the DADF Reg Motor ([PL 14.8](#)).

Check the condition of the Invert Gate for deformities, damage and/or smooth operation. **The Invert Gate is OK.**

**Y N**  
Replace the parts that are interfering with the operation of the Invert Gate.

Enter dC330 [005-110 Reg Sensor]. Actuate the DADF Reg Sensor with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the DADF Reg Sensor ([PL 14.25](#)).

Enter dC330 [005-070 Nip Release Sol]. **The Invert Roll Nip Release Solenoid operates without noise or binding.**

**Y N**  
Go to [OF 99-8](#) Invert Roll Nip Release Solenoid ([PL 14.11](#)).

Replace the DADF PWB ([PL 14.3](#)).

## 005-141 RAP

### BSD-ON:5.5 Document Feeding BSD

DADF Feed Sensor OFF Jam. The pre-Reg sensor turned off before the feed sensor turned off.

#### DC330 Code to Check

- [005-204] DADF Feed Sensor
- [005-206] Pre Reg Sensor
- [005-015] DADF Pre Reg Motor

#### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Retard Roll for dirt/paper particles/wear/a poor rotation
- Torque Limiter for a problem ([PL 14.26](#))
- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Check if any out-of-spec doc was transported.
- Check the following for an open wire or poor contact:
  - DADF Pre Reg Sensor J774-2 to DADF PWB J757-A8
  - DADF Pre Reg Sensor J774-1 to DADF PWB J757-A9
  - DADF Pre Reg Sensor J774-3 to DADF PWB J757-A7
- DADF PWB for a problem ([PL 14.3](#))

## 005-142 RAP

BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 1 OFF Jam (Duplex Mode). During a reverse revolution expelling operation, exit sensor #1 did not turn off within a given time after exit sensor #1 came on.

### DC330 Code to Check

- [005-209] DADF Exit Sensor 1
- [005-001] DADF Feed Motor
- [005-048] DADF Exit Motor

### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Invert Roll for dirt/paper particles/wear/a poor rotation
- No.1 Exit Roll for dirt/paper particles/wear/a poor rotation
- No.2 Exit Roll for dirt/paper particles/wear/a poor rotation
- Document Output Area for a foreign object
- Exit Gate for an improper operation (Exit Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire or poor contact:
  - DADF Exit Sensor 1 J774-2 to DADF PWB J757-A2
  - DADF Exit Sensor 1 J774-1 to DADF PWB J757-A3
  - DADF Exit Sensor 1 J774-3 to DADF PWB J757-A1
- DADF PWB for a problem ([PL 14.3](#))

## 005-143 RAP

BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 2 OFF Jam. Exit sensor #2 did not turn off within a given time after exit sensor #2 came on.

### DC330 Code to Check

- [005-210] DADF Exit Sensor 2
- [005-001] DADF Feed Motor
- [005-048] DADF Exit Motor
- [005-069] Exit Gate Solenoid

### Procedure

Check the following:

- Document Path for a foreign object/a burr/a piece of paper
- Check for any damaged/out-of-spec document.
- Invert Roll for dirt/paper particles/wear/a poor rotation
- No.1 Exit Roll for dirt/paper particles/wear/a poor rotation
- No.2 Exit Roll for dirt/paper particles/wear/a poor rotation
- Check the document output area for an object that prevents a document output.
- Exit Gate for an improper operation (Exit Gate Solenoid for an improper operation)
- Drive gears/Belt for wear/breakage/poor tension
- Check the following for an open wire, short or poor contact:
  - DADF Exit Sensor 2 J775-2 to DADF PWB J757-A5
  - DADF Exit Sensor 2 J775-1 to DADF PWB J757-A6
  - DADF Exit Sensor 2 J775-3 to DADF PWB J757-A4
- DADF PWB for a problem ([PL 14.3](#))

## 005-144 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF Too First Pre Reg Sensor ON Jam. The pre Reg sensor came on before a given time due to original skew.

### DC330 Code to Check

- [005-206] Pre Reg Sensor
- [005-001] DADF Feed Motor
- [005-062] DADF Feed Clutch
- [005-015] DADF Pre Reg Motor

### Procedure

Check the following:

- Check if the document guides are properly set.
- Document Path for a foreign object/a burr/a piece of paper
- Nudger Roll for uniform contact with the tray loaded with documents.
- Feed Roll/Retard Roll for uniform contact with the document.
- Check for any damaged/curled/out-of-spec/improperly loaded doc.
- Check for an out-of-spec combination of sizes (Mixed Sizes)
- Check the following for an open wire or poor contact:
  - DADF Pre Reg Sensor J763-2 to DADF PWB J754-A8
  - DADF Pre Reg Sensor J763-1 to DADF PWB J754-A9
  - DADF Pre Reg Sensor J763-3 to DADF PWB J754-A7
- DADF PWB for a problem ([PL 14.3](#))

## 005-145 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Reg Sensor Off Jam (Invert).

### Initial Actions

- Check the condition of the document.
- Turn the power OFF then ON.

### Procedure

Check the condition of the document condition, dog ears, damage, or nicks. **The document is OK.**

**Y N**  
Remove/replace damaged document/documents.

Check the Transport Roll for wear, deterioration, damaged and/or paper dust. **The Transport Roll is OK.**

**Y N**  
Replace the worn, deteriorated, or damaged Transport Roll.

Check for foreign substances, distortion and paper dust in the paper transport path. **The paper transport path is OK.**

**Y N**  
Remove the foreign substances and paper dust. Correct the distortion.

Enter dC330 [005-211 Invert Sensor]. Actuate the Invert Sensor 1 with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the Invert Sensor 1 ([PL 14.22](#)).

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

**Y N**  
Go to [OF 99-9](#) to check out the DADF Reg Motor ([PL 14.8](#)).

Enter dC330 [005-001 DADF Feed Motor (Speed 1)]. **The Feed Motor comes ON.**

**Y N**  
Go to [OF 99-9](#) DADF Feed Motor ([PL 14.6](#)).

Enter dC330 [005-110 Reg Sensor]. Actuate the DADF Reg Sensor with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the DADF Reg Sensor ([PL 14.25](#)).

Check the condition of the Invert Gate for deformities, damage and/or smooth operation. **The Invert Gate is OK.**

**Y N**  
Replace the parts that are interfering with the operation of the Invert Gate.

Enter dC330 [005-070 Nip Release Sol]. **The Invert Roll Nip Release Solenoid operates without noise or binding.**

Y N

Go to [OF 99-8](#) Invert Roll Nip Release Solenoid ([PL 14.11](#)).

Replace the DADF PWB ([PL 14.3](#)).

## 005-146 RAP

**BSD-ON:5.6 Document Preregistration BSD**

DADF Pre Reg Sensor Off Jam.

### Initial Actions

- Check the condition of the document.
- Turn the power OFF then ON.

### Procedure

Check the condition of the document condition, dog ears, damage, or nicks. **The document is OK.**

Y N

Remove/replace damaged document/documents.

Check the Transport Roll for wear, deterioration, damaged and/or paper dust. **The Transport Roll is OK.**

Y N

Replace the worn, deteriorated, or damaged Transport Roll.

Check for foreign substances, distortion and paper dust in the paper transport path. **The paper transport path is OK.**

Y N

Remove the foreign substances and paper dust. Correct the distortion.

Enter dC330 [005-211 Invert Sensor]. Actuate the Invert Sensor 1 with paper. **The display changes.**

Y N

Go to [OF 99-1](#) to check out the Invert Sensor 1 ([PL 14.22](#)).

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

Y N

Go to [OF 99-9](#) to check out the DADF Reg Motor ([PL 14.8](#)).

Enter dC330 [005-001 DADF Feed Motor (Speed 1)]. **The Feed Motor comes ON.**

Y N

Go to [OF 99-9](#) DADF Feed Motor ([PL 14.6](#)).

Enter dC330 [005-110 Reg Sensor]. Actuate the DADF Reg Sensor with paper. **The display changes.**

Y N

Go to [OF 99-1](#) to check out the DADF Reg Sensor ([PL 14.25](#)).

Replace the DADF PWB ([PL 14.3](#)).

## 005-147 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF Pre Reg Sensor Off Jam (Invert).

#### Initial Actions

- Check the condition of the document.
- Turn the power OFF then ON.

#### Procedure

Check the condition of the document condition, dog ears, damage, or nicks. **The document is OK.**

**Y N**  
Remove/replace damaged document/documents.

Check the Transport Roll for wear, deterioration, damaged and/or paper dust. **The Transport Roll is OK.**

**Y N**  
Replace the worn, deteriorated, or damaged Transport Roll.

Check for foreign substances, distortion and paper dust in the paper transport path. **The paper transport path is OK.**

**Y N**  
Remove the foreign substances and paper dust. Correct the distortion.

Enter dC330 [005-204 DADF Feed Sensor]. Actuate the DADF Feed Sensor with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the DADF Feed Sensor ([PL 14.7](#)).

Enter dC330 [005-110 Reg Sensor]. Actuate the DADF Reg Sensor with paper. **The display changes.**

**Y N**  
Go to [OF 99-1](#) to check out the DADF Reg Sensor ([PL 14.25](#)).

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

**Y N**  
Go to [OF 99-9](#) to check out the DADF Reg Motor ([PL 14.8](#)).

Enter dC330 [005-001 DADF Feed Motor (Speed 1)]. **The Feed Motor comes ON.**

**Y N**  
Go to [OF 99-9](#) DADF Feed Motor ([PL 14.6](#)).

Enter dC330 [005-070 Nip Release Sol]. **The Invert Roll Nip Release Solenoid operates without noise or binding.**

**Y N**  
Go to [OF 99-8](#) Invert Roll Nip Release Solenoid ([PL 14.11](#)).

Replace the DADF PWB ([PL 14.3](#)).

## 005-150 RAP

### BSD-ON:5.5 Document Feeding BSD

DADF Feed Sensor OFF Jam (Perforated Original Mode). In perforated original mode, the feed sensor did not turn off within a given time after the feed sensor came on.

#### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, go to the [005-141 RAP](#).

## 005-151 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF Pre Reg Sensor OFF Jam (Perforated Original Mode). In perforated original mode, the pre Reg sensor did not turn off within a given time after the pre Reg sensor came on.

#### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, check DC330 [005-206] Pre Reg Sensor.

## 005-152 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Reg Sensor OFF Jam (Perforated Original Mode). In perforated original mode, the Reg sensor did not turn off within a given time after the Reg sensor came on.

#### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, go to the [005-125 RAP](#).

## 005-153 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Reg Sensor OFF Jam (Perforated Original Mode). In perforated original mode, the lead Reg sensor did not turn off within a given time after the lead Reg sensor came on.

#### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, check DC330 [005-207] Lead Reg Sensor.

## 005-154 RAP

### BSD-ON:5.8 Document Scan Positioning BSD

DADF Out Sensor OFF Jam (Perforated Original Mode). In perforated original mode, the out sensor did not turn off within a given time after the out sensor came on.

#### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, go to the [005-127 RAP](#).



## 005-155 RAP

BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 1 OFF Jam (Perforated Original Mode) (Simplex). In perforated original mode, exit sensor #1 did not turn off within a given time after exit sensor #1 came on (simplex).

### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, go to the [005-129 RAP](#).

## 005-156 RAP

BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 1 OFF Jam (Perforated Original Mode) (Duplex). In perforated original mode, exit sensor #1 did not turn off within a given time after exit sensor #1 came on (duplex).

### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, go to the [005-129 RAP](#).

## 005-157 RAP

BSD-ON:5.9 [Document Inversion BSD](#)

DADF Invert Sensor OFF Jam (Perforated Original Mode). In perforated original mode, the invert sensor did not turn off within a given time after the invert sensor came on.

### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, go to the [005-133 RAP](#).

## 005-158 RAP

BSD-ON:5.10 [Document Exit BSD](#)

DADF Exit Sensor 2 OFF Jam (Perforated Original Mode). In perforated original mode, exit sensor #2 did not turn off within a given time after exit sensor #2 came on.

### Procedure

Check that the hole (not the center but the farthest periphery from the doc trail edge (TE)) at the doc TE is within 19mm from the doc TE. If the doc has no problem, go to the [005-143 RAP](#).

## 005-160 RAP

### BSD-ON:5.2 Document Stacking BSD

DADF Tray Lift Up Fail (Document Set) (Within Job). The originals were put into position and the Stack Height sensor did not come on within a given time after the tray began rising. Or, it was detected that the bottom sensor did not turn off. (Detected during run, stop, or purge.).

### Procedure

Remove the DADF Rear Cover. Manually rotate the Tray Motor drive gears. **The gears rotate with no load.**

Y N

Remove any load like binding gears that causes an improper DADF Tray Up operation.

Enter DC330 [005-086]. Select Start. **The Tray Motor rotates. (The Feeder Cover Interlock should be closed.)**

Y N

**+24VDC is measured between J758-1 (+) on the DADF PWB and GND (-).**

Y N

**+24VDC is measured between J753-1 (+) on the DADF PWB and GND (-).**

Y N

Referring to Chapter 7 Wirenets, check the INTLK ON +24VDC circuit to the DADF PWB.

Replace the DADF PWB (PL 14.3).

Turn off the power. Disconnect J758 from the DADF PWB. **Approx. 19 ohms are measured between the 1 pin and 2/3/4/5 pins each of Connector J758.**

Y N

Replace the Tray Motor (PL 14.4).

Replace the DADF PWB (PL 14.3).

Enter DC330 [005-203](DADF Stack Height Sensor). Select Start. Manually raise and lower the Nudger Roll. **The display toggles between H and L.**

Y N

Go to OF 99-2 and troubleshoot the DADF Stack Height Sensor (PL 14.17).

Enter DC330 [005-202](DADF Bottom Sensor). Select Start. Manually raise and lower the DADF Tray. **The display toggles between H and L.**

Y N

Go to OF 99-2 and troubleshoot the DADF Bottom Sensor (PL 14.16).

Check the Torque Limiter (PL 14.4), Sensor Actuator, etc. If no problem is found, replace the DADF PWB (PL 14.3).

## 005-190 RAP

### BSD-ON:5.5 Document Feeding BSD

DADF Feed Motor Logic Jam.

### Procedure

Enter dC330 [005-211 Invert Sensor]. Actuate the Invert Sensor 1 with paper. **The display changes.**

Y N

Go to OF 99-1 to check out the Invert Sensor 1 (PL 14.22).

Enter dC330 [005-026 DADF Reg Motor]. **The DADF Reg Motor comes ON.**

Y N

Go to OF 99-9 to check out the DADF Reg Motor (PL 14.8).

Enter dC330 [005-001 DADF Feed Motor (Speed 1)]. **The Feed Motor comes ON.**

Y N

Go to OF 99-9 DADF Feed Motor (PL 14.6).

Replace the DADF PWB (PL 14.3).

## 005-194 RAP

### BSD-ON:5.3 Document Size Sensing - DADF BSD

Size Mismatch Jam on Slow Scan Mix Size. 'Secondary scan mix' was specified and it was detected that the size in the main scan direction was different from the width of the originals guide.

#### Procedure

Follow the instructions on the UI.

## 005-195 RAP

### BSD-ON:5.3 Document Size Sensing - DADF BSD

Size Mismatch Jam on No Mix Size. It was detected that the originals have different sizes, but original size mix mode was not selected.

#### Procedure

Follow the instructions on the UI.

## 005-196 RAP

BSD-ON:5.3 Document Size Sensing - DADF BSD

Size Mismatch Jam on No Mix Sizelt was detected that the second or later original sheet had a different size from that of the first original.

### Procedure

Follow the instructions on the UI.

## 005-197 RAP

BSD-ON:5.3 Document Size Sensing - DADF BSD

Prohibit Combine Size JamA size that does not allow combining was detected.

### Procedure

Follow the instructions on the UI.

## 005-198 RAP

### BSD-ON:5.6 Document Preregistration BSD

Too Short Size Jam. The originals could not be transported because the length was too short in the secondary scan direction. (When the leading edge of the original reached the pre Reg sensor the trailing edge had already passed the feed sensor.).

#### Procedure

Check the size of the doc the user ran. If it is within the allowable DADF paper transport length [min. size=A5 (140mmx210mm)], check the following:

DC330 [005-206] Pre Reg Sensor

DC330 [005-204] DADF Feed Sensor

If no problem is found, replace DADF PWB (PL 14.3).

## 005-199 RAP

### BSD-ON:5.6 Document Preregistration BSD

Too Long Size Jam. Originals were detected that were longer than the secondary scan length that the DADF can transport.

- Simplex mode: 670.0 mm or more.
- Duplex mode: 477.4 mm or more.

#### Procedure

Check the size of the doc the user ran. If it is within the allowable DADF paper transport length, check the following:

DC330 [005-206] Pre Reg Sensor

DC330 [005-204] DADF Feed Sensor

If no problem is found, replace DADF PWB (PL 14.3).

## 005-275 RAP

BSD-ON:3.3 PWB Communication (ESS - DADF) BSD

DADF RAM Fail. An error was detected in the DADF PWB RAM. (Checked when power is came on.).

### Procedure

If powering the MC OFF then ON does not resolve the problem, replace DADF PWB (PL 14.3).

## 005-280 RAP

BSD-ON:3.3 PWB Communication (ESS - DADF) BSD

DADF EEPROM Fail. A write error to DADF EEPROM or a communication error with EEPROM was detected.

### Procedure

If powering the MC OFF then ON does not resolve the problem, replace DADF PWB (PL 14.3).

## 005-281 RAP

BSD-ON:5.2 Document Stacking BSD

DADF Tray Lift Down Fail. The bottom sensor did not come on within a given time after the DADF tray began to lower.

### Initial Actions

Check that there is no foreign object under the Tray.

### Procedure

Remove the DADF Rear Cover. Manually rotate the Tray Motor drive gears. **The gears rotate with no load.**

Y N

Remove any load like binding gears that causes an improper DADF Tray Down operation.

Enter DC330 [005-091]. Select Start. **The Tray Motor rotates. (Feeder Cover Interlock should be closed.)**

Y N

+24VDC is measured between J758-1 (+) on the DADF PWB and GND (-).

Y N

+24VDC is measured between J753-1 (+) on the DADF PWB and GND (-).

Y N

Referring to Chapter 7 Wirenets, check the INTLK ON +24VDC circuit to J753-1 on the DADF PWB.

Replace the DADF PWB (PL 14.3).

Turn off the power. Disconnect J758 from the DADF PWB. **Approx. 19 ohms are measured between the 1 pin and 2/3/4/5 pins each of Connector J758.**

Y N

Replace the Tray Motor (PL 14.4).

Replace the DADF PWB (PL 14.3).

Enter DC330 [005-202] (DADF Bottom Sensor). Select Start. Manually raise and lower the DADF Tray. **The display toggles between H and L.**

Y N

Go to OF 99-2 and troubleshoot the DADF Bottom Sensor.

Check the Torque Limiter (PL 14.4), Sensor Actuator, etc. If no problem is found, replace the DADF PWB (PL 14.3).

## 005-282 RAP

BSD-ON:5.2 Document Stacking BSD

DADF Tray Lift Up Fail (No Document). During the initializing movement when no document had been put into position, the bottom sensor did not turn off within a given time after the tray began to rise.

### Procedure

Remove the DADF Rear Cover. Manually rotate the Tray Motor drive gears. **The gears rotate with no load.**

Y N

Remove any load like binding gears that causes an improper DADF Tray Up operation.

Enter DC330 [005-086]. Select Start. **The Tray Motor rotates. (The Feeder Cover Interlock should be closed.)**

Y N

+24VDC is measured between J758-1 on the DADF PWB (+) and GND (-).

Y N

+24VDC is measured between J753-1 (+) on the DADF PWB and GND (-).

Y N

Referring to Chapter 7 Wirenets, check the INTLK ON +24VDC circuit to J753-1 on the DADF PWB.

Replace the DADF PWB (PL 14.3).

Turn off the power. Disconnect J758 from DADF PWB. **Approx. 19 ohms are measured between the 1 pin and 2/3/4/5 pins each of Connector J758.**

Y N

Replace the Tray Motor (PL 14.4).

Replace the DADF PWB (PL 14.3).

Enter DC330 [005-203] (DADF Stack Height Sensor). Select Start. Manually raise and lower the Nudger Roll. **The display toggles between H and L.**

Y N

Go to OF 99-2 and troubleshoot the DADF Stack Height Sensor.

Enter DC330 [005-202] (DADF Bottom Sensor). Select Start. Manually raise and lower the DADF Tray. **The display toggles between H and L.**

Y N

Go to OF 99-2 and troubleshoot the DADF Bottom Sensor.

Check the Torque Limiter (PL 14.4), Sensor Actuator, etc. If no problem is found, replace the DADF PWB (PL 14.3).



## 005-283 RAP

BSD-ON:5.2 Document Stacking BSD

DADF Stack Height Sensor Logic Fail.

### Procedure

No corrective action is required. If the problem frequently occurs, make a check in DC330 [005-203] DADF Stack Height Sensor.

## 005-284 RAP

BSD-ON:5.6 Document Preregistration BSD

DADF APS Sensor Logic Fail. There is a logical inconsistency among the outputs of APS sensors 1 ~ 3.

### Procedure

Check the following sensors for output. If any of the sensors exhibits a problem, troubleshoot that sensor using the Generic Reflection Type Sensor. If none of the sensors have a problem, replace DADF PWB (PL 14.3).

DC330 [005-215] Tray APS Sensor 1

DC330 [005-216] Tray APS Sensor 2

DC330 [005-217] Tray APS Sensor 3

## 005-285 RAP

DADF Nudger Lift Up FailIt was detected that the nudger position sensor did not come on within 350 msec after the start of the nudger lift motor's reverse revolution. Or, it was detected that the nudger position sensor did not turn off within 250 msec after the start of the nudger lift motor's forward revolution.

### Procedure

Follow the instructions on the UI.

## 005-286 RAP

DADF Feed Out Sensor FailWhile transporting the originals, while the feed sensor is off the pre Reg sensor is off.

### Procedure

Check for any doc multi-feed or out-of-spec doc. If no problem is found, go to the [005-141 RAP](#)  
DADF Feed Sensor Off Jam.

## 005-303 RAP

### BSD-ON:5.2 Document Stacking BSD

DADF Tray Interlock is open.

### Procedure

Open and close the Document Tray several times. **The Tray has opened and closed properly.**

Y N

Check for the following:

- Improperly installed Document Tray
- Foreign objects
- Broken/poorly rotating opening/closing gears
- Defective Oil Damper (PL 4.4)
- Bent Sensor Actuator

Close the Document Tray **+5VDC is measured between J756-A8 (+) on the DADF PWB and GND (-).**

Y N

Replace the DADF PWB (PL 14.3).

**+5VDC is measured between J798-2 (+) of the Tray Interlock Sensor and GND (-).**

Y N

Check the circuit between J798-2 of the Tray Interlock Sensor and J756-A8 on the DADF PWB for an open wire or poor contact.

**+5VDC is measured between J798-1 (+) and -3(-) of the Tray Interlock Sensor.**

Y N

**+5VDC is measured between J756-A9 (+) and -A7 (-) on the DADF PWB.**

Y N

Replace the DADF PWB (PL 14.3).

Check the circuits each between J756-A9 on the DADF PWB and J798-1 of the Tray Interlock Sensor, and between J756-A7 on the DADF PWB and J798-3 of the Tray Interlock Sensor for an open wire or poor contact.

Replace the Tray Interlock Sensor (PL 14.4).

## 005-304 RAP

### BSD-ON:5.4 Document Size Sensing - Platen BSD

Platen Interlock Open. During a DADF operation, the platen interlock opened.

### Initial Actions

- Check that the Platen Glass is mechanically closed with no foreign object between itself and the DADF and no height misalignment with the DADF.
- Check that the Front Magnet is on the DADF. (PL 13.6)

### Procedure

Place one document in the DADF.

Remove the Top Front Cover. Disconnect J727 of the Platen Interlock Switch. Cheat pins J727-1 and -2. **Fault Code 062-300 stays displayed.**

Y N

Replace the Platen Interlock Switch (PL 13.6).

Turn off the power. Check the following for an open wire or poor contact:

- IIT/IPS PWB J722-A4 to Platen Interlock Switch J727-2
- IIT/IPS PWB J722-A5 to Platen Interlock Switch J727-1

If no problem is found, replace the IIT/IPS PWB (PL 13.8).

## 005-305 RAP

### BSD-ON:5.1 Document Set And Interlock BSD

DADF Feeder Cover Interlock Open (Run). During a DADF operation the feeder cover interlock opened.

#### Procedure

Manually turn ON the Feeder Cover Interlock Switch. **005-302 has disappeared. (005-308 appears.)**

|   |   |                                                                                                                                    |
|---|---|------------------------------------------------------------------------------------------------------------------------------------|
| Y | N |                                                                                                                                    |
|   |   | +24VDC is measured between J753-1 (+) on the DADF PWB and GND (-).                                                                 |
| Y | N |                                                                                                                                    |
|   |   | +24VDC is measured between Feeder Cover Interlock Switch F1 (+) and GND (-).                                                       |
| Y | N |                                                                                                                                    |
|   |   | +24VDC is measured between the Feeder Cover Interlock Switch F2 (+) and GND (-).                                                   |
| Y | N |                                                                                                                                    |
|   |   | Check the circuit between J753-2 on the DADF PWB and the Feeder Cover Interlock Switch F2 for an open wire, short or poor contact. |
|   |   | Replace the Feeder Cover Interlock Switch (PL 14.5).                                                                               |
|   |   | Check the circuit between the Feeder Cover Interlock Switch F1 and J753-1 on the DADF PWB for an open wire, short or poor contact. |
|   |   | Replace the DADF PWB (PL 14.3).                                                                                                    |

The problem is a misalignment between the DADF Feeder Cover and the Switch. Check for the bent Feeder Cover actuator and/or the improperly positioned Switch.

## 005-306 RAP

### BSD-ON:5.2 Document Stacking BSD

DADF Tray Interlock Open (Run). During a DADF operation the tray interlock opened.

#### Procedure

Open and close the Document Tray several times. **The Tray has opened and closed properly.**

Y N

Check for the following:

- Improperly installed Document Tray
- Foreign objects
- Broken/poorly rotating opening/closing gears
- Defective Oil Damper (PL 14.4)
- Bent Sensor Actuator

Close the Document Tray **+5VDC is measured between J756-A8 (+) on the DADF PWB and GND (-).**

Y N

Replace the DADF PWB (PL 14.3).

**+5VDC is measured between J798-2 (+) of the Tray Interlock Sensor and GND (-).**

Y N

Check the circuit between J798-2 of the Tray Interlock Sensor and J756-A8 on the DADF PWB for an open wire or poor contact.

**+5VDC is measured between J798-1 (+) and -3(-) of the Tray Interlock Sensor.**

Y N

**+5VDC is measured between J756-A9 (+) and -A7 (-) on the DADF PWB.**

Y N

Replace the DADF PWB (PL 14.3).

Check the circuits each between J756-A9 on the DADF PWB and J798-1 of the Tray Interlock Sensor, and between J756-A7 on the DADF PWB and J798-3 of the Tray Interlock Sensor for an open wire or poor contact.

Replace the Tray Interlock Sensor (PL 14.4).

## 005-308 RAP

### BSD-ON:5.1 Document Set And Interlock BSD

The DADF L/H Cover Interlock is open.

#### Procedure

Open and close the DADF L/H Cover to check if the Sensor actuator operates properly. **The Sensor actuator has operated properly.**

- Y N
- Check for the following:
- Improperly installed DADF L/H Cover
  - Foreign objects.
  - Disconnected/bent Sensor Actuator

Remove the DADF Front Cover. Close DADF L/H Cover. **+5VDC is measured between J755-A2 (+) on the DADF PWB and GND (-).**

- Y N
- Replace the DADF PWB (PL 14.3).

**+5VDC is measured between J786-2 (+) of the L/H Cover Interlock Sensor and GND (-).**

- Y N
- Check the circuit between J786-2 of the L/H Cover Interlock Sensor and J755-A2 on the DADF PWB for an open wire or poor contact.

**+5VDC is measured between J786-1 (+) and -3(-) of the L/H Cover Interlock Sensor.**

- Y N
- +5VDC is measured between J755-A3 (+) and -A1 (-) on the DADF PWB.**

- Y N
- Replace the DADF PWB (PL 14.3).

Check the circuits each between J755-A3 on the DADF PWB and J786-1 of the L/H Cover Interlock Sensor, and between J755-A1 on the DADF PWB and J786-3 of the L/H Cover Interlock Sensor for an open wire or poor contact.

Replace the L/H Cover Interlock Sensor (PL 14.5).

## 005-309 RAP

### BSD-ON:5.1 Document Set And Interlock BSD

DADF L/H Cover Interlock Open (Run). During a DADF operation the L/H interlock opened.

#### Procedure

Open and close the DADF L/H Cover to check if the Sensor actuator operates properly. **The Sensor actuator has operated properly.**

- Y N
- Check for the following:
- Improperly installed DADF L/H Cover
  - Foreign objects.
  - Disconnected/bent Sensor Actuator

Remove the DADF Front Cover. Close DADF L/H Cover. **+5VDC is measured between J755-A2 (+) on the DADF PWB and GND (-).**

- Y N
- Replace the DADF PWB (PL 14.3).

**+5VDC is measured between J786-2 (+) of the L/H Cover Interlock Sensor and GND (-).**

- Y N
- Check the circuit between J786-2 of the L/H Cover Interlock Sensor and J755-A2 on the DADF PWB for an open wire or poor contact.

**+5VDC is measured between J786-1 (+) and -3(-) of L/H Cover Interlock Sensor.**

- Y N
- +5VDC is measured between J755-A3 (+) and -A1 (-) on the DADF PWB.**

- Y N
- Replace the DADF PWB (PL 14.3).

Check the circuits each between J755-A3 on the DADF PWB and J786-1 of the L/H Cover Interlock Sensor, and between J755-A1 on the DADF PWB and J786-3 of the L/H Cover Interlock Sensor for an open wire or poor contact.

Replace the L/H Cover Interlock Sensor (PL 14.5).

## 005-906 RAP

### BSD-ON:5.5 Document Feeding BSD

DADF Feed Sensor Static Jam. The feed sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-204] DADF Feed Sensor

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - DADF Feed Sensor J762-2 to DADF PWB J754-A5
  - DADF Feed Sensor J762-1 to DADF PWB J754-A6
  - DADF Feed Sensor J762-3 to DADF PWB J754-A4
- If the wires have no problem, replace the DADF Feed Sensor (PL 14.7) and DADF PWB (PL 14.3) in order.

## 005-907 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF Pre Reg Sensor Static Jam. The Pre Reg sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-206] Pre Reg Sensor

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - DADF Pre Reg Sensor J763-2 to DADF PWB J754-A8
  - DADF Pre Reg Sensor J763-1 to DADF PWB J754-A9
  - DADF Pre Reg Sensor J763-3 to DADF PWB J754-A7
- If the wires have no problem, replace the DADF Pre Reg Sensor (PL 14.17) and DADF PWB (PL 14.3) in order.

## 005-908 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Reg Sensor Static Jam. The Reg sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-110] Reg Sensor

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - DADF Reg Sensor J776-2 to DADF PWB J757-A8
  - DADF Reg Sensor J776-1 to DADF PWB J757-A9
  - DADF Reg Sensor J776-3 to DADF PWB J757-A7
- If the wires have no problem, replace the DADF Reg Sensor (PL 14.25) and DADF PWB (PL 14.3) in order.

## 005-909 RAP

### BSD-ON:5.7 Document Registration BSD

DADF Lead Reg Sensor Static Jam. The Lead Reg sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-110] Reg Sensor

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - DADF Reg Sensor J779-2 to DADF PWB J757-A8
  - DADF Reg Sensor J779-1 to DADF PWB J757-A9
  - DADF Reg Sensor J779-3 to DADF PWB J757-A7
- If the wires have no problem, replace the DADF Reg Sensor (PL 14.25) and DADF PWB (PL 14.3) in order.

## 005-910 RAP

### BSD-ON:5.8 Document Scan Positioning BSD

DADF Out Sensor Static Jam. The Out sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-208] Out Sensor

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - Out Sensor J778-2 to DADF PWB J757-B5
  - Out Sensor J778-1 to DADF PWB J757-B6
  - Out Sensor J778-3 to DADF PWB J757-B4
- If the wires have no problem, replace the Out Sensor (PL 14.22) and DADF PWB (PL 14.3) in order.

## 005-911 RAP

### BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 1 Static Jam. Exit Sensor 1 came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-209] Exit Sensor 1

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - DADF Exit Sensor 1 J774-2, DADF PWB J757-A2
  - DADF Exit Sensor 1 J774-1, DADF PWB J757-A3
  - DADF Exit Sensor 1 J774-3, DADF PWB J757-A1
- If the wires have no problem, replace the Exit Sensor 1 (PL 14.23) and DADF PWB (PL 14.3) in order.



## 005-912 RAP

BSD-ON:5.10 Document Exit BSD

DADF Exit Sensor 2 Static Jam. Exit Sensor 2 came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-210] Exit Sensor 2

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - DADF Exit Sensor 2 J775-2 to DADF PWB J757-A5
  - DADF Exit Sensor 2 J775-1 to DADF PWB J757-A6
  - DADF Exit Sensor 2 J775-3 to DADF PWB J757-A4
- If the wires have no problem, replace the Exit Sensor 2 (PL 14.23) and DADF PWB (PL 14.3) in order.

## 005-913 RAP

BSD-ON:5.9 Document Inversion BSD

DADF Invert Sensor Static Jam. The Invert Sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-211] Invert Sensor 1

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - Invert Sensor 1 J777-2 to DADF PWB J757-B2
  - Invert Sensor 1 J777-1 to DADF PWB J757-B3
  - Invert Sensor 1 J777-3 to DADF PWB J757-B1
- If the wires have no problem, replace the Invert Sensor 1 (PL 14.22) and DADF PWB (PL 14.3) in order.

## 005-914 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF No. 1/2/3 APS Sensor Static Jam. The DADF No. 1/2/3 APS Sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-218] No.1 APS Sensor
- [005-219] No.2 APS Sensor
- [005-220] No.3 APS Sensor

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - No.1 APS Sensor J765-2 to DADF PWB J754-B2
  - No.1 APS Sensor J765-1 to DADF PWB J754-B3
  - No.1 APS Sensor J765-3 to DADF PWB J754-B1
  - No.2 APS Sensor J766-2 to DADF PWB J754-B5
  - No.2 APS Sensor J766-1 to DADF PWB J754-B6
  - No.2 APS Sensor J766-3 to DADF PWB J754-B4
  - No.3 APS Sensor J767-2 to DADF PWB J754-B8
  - No.3 APS Sensor J767-1 to DADF PWB J754-B9
  - No.3 APS Sensor J767-3 to DADF PWB J754-B7
- If the wires have no problem, replace the No.1/2/3 APS Sensors (PL 14.17) and DADF PWB (PL 14.3) in order.

## 005-915 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF No. 1 APS Sensor Static Jam. The DADF No. 1 APS Sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### Initial Actions

- Turn the power OFF then ON.
- Remove the remaining paper.

### Procedure

Check the DADF APS Sensor 1 any paper or foreign substance blocking the sensor. **The sensor is free of paper or foreign substance.**

Y N

Remove the paper or foreign substances blocking the DADF APS Sensor 1 (PL 14.7).

Execute dC330 [005-218 APS Sensor 1]. Actuate the DADF APS Sensor 1 with paper. **The display changes.**

Y N

Go to OF 99-1 DADF APS Sensor 1 (PL 14.7).

Replace the DADF PWB (PL 14.3).

## 005-916 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF No. 2 APS Sensor Static Jam. The DADF No. 2 APS Sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

#### Initial Actions

- Turn the power OFF then ON.
- Remove the remaining paper.

#### Procedure

Check the DADF APS Sensor 2 any paper or foreign substance blocking the sensor. **The sensor is free of paper or foreign substance.**

Y N

Remove the paper or foreign substances blocking the DADF APS Sensor 2 (PL 14.7).

Execute dC330 [005-219 DADF APS Sensor 2]. Actuate the DADF APS Sensor 2 with paper.

**The display changes.**

Y N

Go to OF 99-1 DADF APS Sensor 2 (PL 14.7).

Replace the DADF PWB (PL 14.3).

## 005-917 RAP

### BSD-ON:5.6 Document Preregistration BSD

DADF No. 3 APS Sensor Static Jam. The DADF No. 3 APS Sensor came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

#### Initial Actions

- Turn the power OFF then ON.
- Remove the remaining paper.

#### Procedure

Check the DADF APS Sensor 3 any paper or foreign substance blocking the sensor. **The sensor is free of paper or foreign substance.**

Y N

Remove the paper or foreign substances blocking the DADF APS Sensor 3 (PL 14.7).

Execute dC330 [005-219 DADF APS Sensor 3]. Actuate the DADF APS Sensor 3 with paper.

**The display changes.**

Y N

Go to OF 99-1 DADF APS Sensor 3 (PL 14.7).

Replace the DADF PWB (PL 14.3).

## 005-918 RAP

### BSD-ON:5.9 Document Inversion BSD

DADF Invert Sensor 2 Static Jam. The DADF Invert Sensor 2 came on at one of the following times:

1. Power on.
2. Feeder cover interlock close.
3. Platen interlock close.

### DC330 Code to Check

- [005-226] Invert Sensor 2

### Procedure

Check the following:

- Check for a piece of paper/foreign object on the sensor.
- The sensor for improper installation
- Check the following for an open wire, short or poor contact:
  - Invert Sensor 2 J780-2 to DADF PWB J757-B11
  - Invert Sensor 2 J780-1 to DADF PWB J757-B12
  - Invert Sensor 2 J780-3 to DADF PWB J757-B10
- If the wires have no problem, replace the Invert Sensor 2 (PL 14.21) and DADF PWB (PL 14.3) in order.

## 005-919 RAP

### BSD-ON:5.2 Document Stacking BSD

DADF Tray Lift Up Fail (Document Set). The originals were put into position and the Stack Height sensor did not come on within a given time after the tray began rising. Or, it was detected that the bottom sensor did not turn off. (Detected at a time other than run, stop, or purge.)

### Procedure

Remove the DADF Rear Cover. Manually rotate the Tray Motor drive gears. **The gears rotate with no load.**

Y N

Remove any load like binding gears that causes an improper DADF Tray Up operation.

Enter DC330 [005-086]. Select Start. **The Tray Motor rotates. (The Feeder Cover Interlock should be closed.)**

Y N

**+24VDC is measured between J758-1 (+) on the DADF PWB and GND (-).**

Y N

**+24VDC is measured between J753-1(+) on the DADF PWB and GND (-).**

Y N

Referring to Chapter 7 Wirenets, check the INTLK ON +24VDC circuit to J753-1 on the DADF PWB.

Replace the DADF PWB (PL 14.3).

**Turn off the power. Disconnect J758 from the DADF PWB. Approx. 19 ohms are measured between the 1 pin and 2/3/4/5 pins each of Connector J758.**

Y N

Replace the Tray Motor (PL 14.4).

Replace the DADF PWB (PL 14.3).

Enter DC330 [005-203](DADF Stack Height Sensor). Select Start. Manually raise and lower the Nudger Roll. The display toggles between H and L.

Y N

Go to OF 99-2 and troubleshoot the DADF Stack Height Sensor.

Enter DC330 [005-202](DADF Bottom Sensor). Select Start. Manually raise and lower the DADF Tray. The display toggles between H and L.

Y N

Go to OF 99-2 and troubleshoot the DADF Bottom Sensor.

Check the Torque Limiter (PL 14.4), Sensor Actuator, etc. If no problem is found, replace the DADF PWB (PL 14.3).

## 005-940 RAP

### BSD-ON:5.1 Document Set And Interlock BSD

DADF No Original Fail. It was detected that the original was removed.

#### Procedure

- Follow the instructions on the UI.
- Check the all the connection on DADF PWB (PL 14.3).

If the above check are OK, replace the DADF PWB (PL 14.3).

## 005-941 RAP

### BSD-ON:5.1 Document Set And Interlock BSD

DADF Not Enough Document. After all originals were returned it was detected that the number of originals was insufficient.

#### Procedure

- Follow the instructions on the UI.
- Check the all the connection on DADF PWB (PL 14.3).

If the above check are OK, replace the DADF PWB (PL 14.3).

## 005-942 RAP

BSD-ON:5.2 Document Stacking BSD

DADF Tray Stack Over Fail.

### Initial Actions

- Reduce the number of originals and repeat the operation.
- Remove the loaded document and check the display.
- Turn the power OFF then ON.
- Follow the instructions on the UI display.

### Procedure

Check the connection of each DADF PWB connector. **The connectors are OK.**

Y N  
| Connect the connectors properly.

Turn OFF then ON. The same problem recurs.

Y N  
| End

Enter DC330 [005-203 DADF Stack Height Sensor). Select Start. Manually raise and lower the Nudger Roll. The display toggles between H and L.

Y N  
| Go to OF 99-1 and troubleshoot the DADF Stack Height Sensor (PL 14.17).

Replace the DADF PWB (PL 14.3).

## 010-311 RAP

### BSD-ON:10.3 Fuser Heat Monitoring BSD

Fuser Heat Roll STS-1 Disconnection Fail. It was detected that fuser heat roll STS-1 disconnected.

#### Initial Actions

- Power machine Off then On to see if fault clears.
- Check if the Drawer is pushed in with the Fuser Unit improperly seated before the power is turned on.
- Check that the connectors (P/J146) (white) on the Heat Roll Thermistor 1 are connected.
- Check that the Drawer Connectors (P/J612) connecting the Fuser Unit and the main unit are free from bent pins, foreign objects and burnout.
- Check that the appearance of the Heat Roll Thermistor 1 is free from breakage.

#### Procedure

Turn off the power. Remove the Fuser Unit. (REP 10.1) Disconnect the connectors (P/J146)(white) on the Heat Roll Thermistor 1. Measure the resistance between pins 1 and 2.

**The resistance is infinite.**

**Y N**

Check the following for an open wire or poor contact. If the wires are good, replace the MCU PWB (PL 11.1).

- Heat Roll Thermistor 1 P/J146-1 to MCU PWB P/J147-A7
- Heat Roll Thermistor 1 P/J146-2 to MCU PWB P/J405-A6

Replace the Heat Roll Thermistor 1 (PL 11.1).

## 010-319 RAP

### BSD-ON:10.3 Fuser Heat Monitoring BSD

Fuser NC Sensor Differential Amp Fail.

#### Initial Actions

**NOTE:** It is necessary to set NVM [744-351] to 0 in order to clear this failure.

- Power machine Off then On to see if fault clears.
- Check if the Drawer is pushed in with the Fuser Unit improperly seated before the power is turned on.
- Check that there is no paper wrapped around the roller/s.

#### Procedure

Check the following wires for continuity:

- MCU J405-A7 to NC Center Sensor J150-1
- MCU J405-A8 to NC Center Sensor J150-2
- MCU J405-A9 to NC Center Sensor J150-3
- MCU J405-A4 to NC Rear Sensor J151-1
- MCU J405-A5 to NC Rear Sensor J151-2
- MCU J405-A6 to NC Rear Sensor J151-3

**The wires check out OK.**

**Y N**

- Ensure connectors are properly connected.
- Repair wires or replace the Fuser (PL 8.1).

- Replace the NC Rear Sensor (PL 8.1).
- Replace the NC Center Sensor (PL 8.1).
- Replace the MCU PWB (PL 11.1).

## 010-320 RAP

### BSD-ON:10.3 Fuser Heat Monitoring BSD

Heat Roll Over Heat Fail. A high temperature was detected for fuser heat roll STS-1, fuser heat roll STS-2, or fuser heat roll STS-3.

**NOTE:** It is necessary to set NVM 744-156 to 0 in order to clear this failure.

### Initial Actions

- Power machine Off then On to see if fault clears.
- Check that the Heat Roll Thermistor 1 is in proper contact with the Heat Roll.
- Check that the appearance of the Heat Roll Thermistor 1 is free from breakage and dirt.
- Check if the following are set to higher temperatures each. DC131[744-001](Warm Up Control Temp) (Default: 192) DC131[744-050](Ready Control Temp) (Default:185) DC131[744-052~056](Idling Control Temp) (Default:185) DC131[744-103](Low Power Control Temp) (Default:140)

### Procedure

Connect the PSW. Enter the Diag. Enter DC140 [010-200](Heat Roll Thermistor 1). **The value is between 1015 and 128.**

Y N

Check the following for an open wire, short or poor contact. If the wires are good, replace the Heat Roll Thermistor 1 (PL 8.1).

- Heat Roll Thermistor 1 P/J146-1 to MCU PWB P/J405-A7
- Heat Roll Thermistor 1 P/J146-2 to MCU PWB P/J405-A6

Turn off the power. Remove the Rear Lower Cover. Disconnect Connector P/J510 from the AC Drive PWB. Measure the resistance regarding the following:

- P/J510-10 pin to the frame
- P/J510-11 pin to the frame
- P/J510-12 pin to the frame

**Every resistance is infinite.**

Y N

Check any circuit that shows its resistance is not infinite for a short to the frame.

Replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.

## 010-321 RAP

### BSD-ON:10.1 Fuser Drive Control BSD

Fuser Nip Fail.

### Initial Actions

- Power machine Off then On to see if fault clears.
- Check if the Drawer is pushed in with the Fuser Unit improperly seated before the power is turned on.
- Check that there is no paper wrapped around the roller/s.

### Procedure

Check that the Fuser Nip Sensor actuator is properly installed and not damaged. **The actuator is properly installed and not damaged.**

Y N

- Re-install the actuator properly.
- Repair/replace the Fuser Nip Sensor (PL 8.1).

Enter dC330 (010-203 Fuser Nip Sensor). Actuate the Fuser Nip Sensor by moving the actuator manually, then release the actuator. **The display changes.**

Y N

- Replace the Fuser Nip Sensor (PL 8.1).

Replace the MCU PWB (PL 11.1).



## 010-322 RAP

### BSD-ON:10.3 Fuser Heat Monitoring BSD

Fuser NC Center Sensor Disconnection Fail. (Fuser Temperature Sensor Fail).

#### Initial Actions

- Power machine Off then On to see if fault clears.
- Check if the Drawer is pushed in with the Fuser Unit improperly seated before the power is turned on.
- Check that there is no paper wrapped around the roller/s.

#### Procedure

Check the following wires for continuity:

- MCU J405-A7 to NC Center Sensor J150-1
- MCU J405-A8 to NC Center Sensor J150-2
- MCU J405-A9 to NC Center Sensor J150-3

The wires check out OK.

- |   |                                               |
|---|-----------------------------------------------|
| Y | N                                             |
|   |                                               |
|   | • Ensure connectors are properly connected.   |
|   | • Repair wires or replace the Fuser (PL 8.1). |
| • | Replace the NC Center Sensor (PL 8.1).        |
| • | Replace the MCU PWB (PL 11.1).                |

## 010-323 RAP

### BSD-ON:10.3 Fuser Heat Monitoring BSD

Fuser Rear Sensor Disconnection Fail. (Fuser Temperature Sensor Fail).

#### Initial Actions

- Power machine Off then On to see if fault clears.
- Check if the Drawer is pushed in with the Fuser Unit improperly seated before the power is turned on.
- Check that there is no paper wrapped around the roller/s.

#### Procedure

Check the following wires for continuity:

- MCU J405-A4 to NC Rear Sensor J151-1
- MCU J405-A5 to NC Rear Sensor J151-2
- MCU J405-A6 to NC Rear Sensor J151-3

The wires check out OK.

- |   |                                               |
|---|-----------------------------------------------|
| Y | N                                             |
|   |                                               |
|   | • Ensure connectors are properly connected.   |
|   | • Repair wires or replace the Fuser (PL 8.1). |
| • | Replace the NC Rear Sensor (PL 8.1).          |
| • | Replace the MCU PWB (PL 11.1).                |

## 010-324 RAP

Fuser NVM Fail.

### Initial Actions

**NOTE:** It is necessary to set NVM [744-352] to 0 in order to clear this failure.

- Power machine Off then On to see if fault clears.
- Check if the Drawer is pushed in with the Fuser Unit improperly seated before the power is turned on.
- Check that there is no paper wrapped around the roller/s.
- Check that all connectors on the MCU PWB (PL 11.1) are properly connected.

### Procedure

## 010-326 RAP

**BSD-ON:10.3 Fuser Heat Monitoring BSD**

Wait Heat Roll Fuser On Time Fail. Main lamp #1, main lamp #2, or the sub lamp is continually flashing abnormally during wait state.

**NOTE:** Wait state: the state during which lamps are used to adjust the temperature to what is required for printing, after turning on the power, closing the front cover interlock, closing the MSI cover interlock, or closing the marking drawer interlock.

### Initial Actions

- Check that there is no foreign object on the Heat Roll surface and no paper wound around it.
- Check the Heat Roll Thermistor 1 is free from dirt.
- Check that the Drawer Connectors (P/J612) connecting the Fuser Unit and the main unit are free from bent pins, foreign objects and burnout.
- Check that the connectors (P/J146)(white) on the Heat Roll Thermistor 1 are connected.
- Check if DC131[744-00004](Fuser Warm Up Complete HR Temp)(Default:185) is set to a higher temp.
- DC131[744-001](Warm Up Control Temp)(Default:192) and DC131[744-050](Ready Control Temp)(Default:185) are set to higher temperatures each.

### Procedure

Turn on the power. Remove the Fuser Front Cover. Cheat the Front Door Interlock SW. Enter the Diag. Enter DC330 [010-002] (Main Heater Rod 1). Select Start. **The Main Heater Rod 1 (located at left when seen at front) has lit on.**

Y N

Turn off the power. Remove the Fuser Unit. (REP 10.1)

Disconnect the connectors (P/J61A, P/J61B) from the Main Heater Rod 1. Measure the resistance between the both ends of the Main Heater Rod 1. **The resistance is 10 ohms or less.**

Y N

Replace the Main Heater Rod 1 (PL 8.1).

Measure the resistance between the both ends of the Thermostat 1. **The resistance is 10 ohms or less.**

Y N

Check the following. If no problem is found, replace the Thermostat 1 (PL 8.1).

- Heat Roll Thermistor 1 for dirt/improper installation
- The wire between P/J409-B9 on the MCU PWB and P/J510-10 on the AC Drive PWB for a short to the frame
- See DC120 Fail History. If it shows 010-320 occurred in the past, go to 010-320 RAP.

Reconnect the connectors to the Main Heater Rod 1 at its both ends. Seat the Fuser Unit in the Drawer. Push in the Drawer. Turn on the power. **With DC330 [010-002] (Main Heater Rod 1) ON, 100-127VAC/200-240VAC is measured between P/J15-1 and P/J16-4 on the AC Drive PWB.**

A

Y N

Check the following for continuity. If the wires are good, replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.

- MCU PWB P/J409-B9 to AC Drive PWB P/J510-10
- MCU PWB P/J409-B15 to AC Drive PWB P/J510-4

Turn off the power. Disconnect the power plug. Check the circuits each between P/J16-4 on the AC Drive PWB and P/J61A-1 on the Main Heater Rod 1, and between P/J15-1 on the AC Drive PWB and P/J16-1 on the Main Heater Rod 1.

Press the Stop button. Enter DC330 [010-003] (Main Heater Rod 2). Select Start. **The Main Heater Rod 2 (located at right when seen at front) has lit on.**

Y N

Turn on the power. Remove the Fuser Unit (REP 10.1). Disconnect the connectors (P62A, P62B) from the Main Heater Rod 2. Measure the resistance between the both ends of the Main Heater Rod 2. **The resistance is 10 ohms or less.**

Y N

Replace the Main Heater Rod 2 (PL 8.1).

Measure the resistance between the both ends of the Thermostat 2. **The resistance is 10 ohms or less.**

Y N

Check the following. If no problem is found, replace the Thermostat 2 (PL 8.1).

- Heat Roll Thermistor 2 for dirt/improper installation
- The wire between P/J409-B8 on the MCU PWB and P/J510-11 on the AC Drive PWB for a short to the frame
- The wire between P/J409-B7 on the MCU PWB to P/J510-12 on the AC Drive PWB for a short to the frame
- See DC120 Fail History. If it shows 010-320 occurred in the past, go to 010-320 RAP.

Reconnect the connectors to the Main Heater Rod 2 at its both ends. Seat the Fuser Unit in the Drawer. Push in the Drawer.

Turn on the power. **With DC330[010-003] (Main Heater Rod 2) ON, 100-127VAC/200-240VAC is measured between P/J15-3 and P/J16-2 on the AC Drive PWB.**

Y N

Check the following for continuity. If the wires are good, replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.

- MCU PWB P/J409-B8 to AC Drive PWB P/J510-11
- MCU PWB P/J409-B15 to AC Drive PWB P/J510-4

Turn off the power. Disconnect the power plug. Check the circuits each between P/J16-2 on the AC Drive PWB and P62A-1 on the Main Heater Rod 2, and between P/J15-3 on the AC Drive PWB and P62B-1 on the Main Heater Rod 2.

Press the Stop button. Enter DC330 [010-004] (Sub Heater Rod). Select Start. **The Sub Heater Rod (located lower when seen at front) has lit on.**

Y N

Turn off the power. Remove the Fuser Unit (REP 10.1). Disconnect the connectors (P63A, P63B) from the Sub Heater Rod. Measure the resistance between the both ends of the Sub Heater Rod. **The resistance is 10 ohms or less.**

B

Y N

Replace the Sub Heater Rod (PL 8.1).

Reconnect the connectors to the Sub Heater Rod at its both ends. Seat the Fuser Unit. Push in the Drawer. Turn on the power. **With DC330 [010-004] (Sub Heater Rod) ON, 100-127VAC/200-240VAC is measured between P/J15-3 and P/J16-1 on the AC Drive PWB.**

Y N

Check the following for continuity. If the wires are good, replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.

- MCU PWB P/J409-B7 to AC Drive PWB P/J510-12
- MCU PWB P/J409-B15 to AC Drive PWB P/J510-4

Turn off the power. Disconnect the power plug. Check the circuits each between P/J16-1 on the AC Drive PWB and P63A-1 on the Sub Heater Rod, and between P/J15-3 on the AC Drive PWB and P63B-1 on the Sub Heater Rod.

Connect the PSW. Enter the Diag. Enter DC140 [010-200](Heat Roll Thermistor 1). **The value is between 1015 and 128.**

Y N

Check the following for an open wire, short or poor contact. If the wires are good, replace the Heat Roll Thermistor 1 (PL 8.1).

- Heat Roll Thermistor 1 P/J146-1 to MCU PWB P/J405-A7
- Heat Roll Thermistor 1 P/J146-2 to MCU PWB P/J405-A6

Replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.

## 010-327 RAP

### BSD-ON:10.3 Fuser Heat Monitoring BSD

Standby Heat Roll Fuser On Time Fail. Main lamp #1, main lamp #2, or the sub lamp is continually flashing abnormally during standby state or low power state.

**NOTE:** Standby state: the state during which the heat roll is maintained at the temperature required for printing.

#### Initial Action

- Check that there is no foreign object on the Heat Roll surface and no paper wound around it.
- Check the Heat Roll Thermistor 1 is free from dirt.
- Check that the Drawer Connectors (P/J612) connecting the Fuser Unit and the main unit are free from bent pins, foreign objects and burnout.
- Check that the connectors (P/J146)(white) on the Heat Roll Thermistor 1 are connected.
- Check if DC131[744-050](Ready Control Temp) (Default:185) is set to a higher temp.

#### Procedure

Turn on the power. Remove the Fuser Front Cover. Cheat the Front Door Interlock SW. Enter the Diag. Enter DC330 [010-002] (Main Heater Rod 1). Select Start. **The Main Heater Rod 1 (located at left when seen at front) has lit on.**

Y N

Turn off the power. Remove the Fuser Unit. (REP 10.1)  
Disconnect the connectors (P/J61A, P/J61B) from the Main Heater Rod 1. Measure the resistance between the both ends of the Main Heater Rod 1. **The resistance is 10 ohms or less.**

Y N

Replace the Main Heater Rod 1 (PL 8.1).

Measure the resistance between the both ends of the Thermostat 1. **The resistance is 10 ohms or less.**

Y N

- Check the following. If no problem is found, replace the Thermostat 1 (PL 8.1).
- Heat Roll Thermistor 1 for dirt/improper installation
  - The wire between P/J409-B9 on the MCU PWB and P/J510-10 on the AC Drive PWB for a short to the frame
  - See DC120 Fail History. If it shows 010-320 occurred in the past, go to 010-320 RAP.

Reconnect the connectors to the Main Heater Rod 1 at its both ends. Seat the Fuser Unit in the Drawer. Push in the Drawer. Turn on the power. **With DC330 [010-002] (Main Heater Rod 1) ON, 100-127VAC/200-240VAC is measured between P/J15-1 and P/J16-4 on the AC Drive PWB.**

Y N

- Check the following for continuity. If the wires are good, replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.
- MCU PWB P/J409-B9 to AC Drive PWB P/J510-10
  - MCU PWB P/J409-B15 to AC Drive PWB P/J510-4

A

Turn off the power. Disconnect the power plug. Check the circuits each between P/J16-4 on the AC Drive PWB and P/J61A-1 on the Main Heater Rod 1, and between P/J15-1 on the AC Drive PWB and P/J61B-1 on the Main Heater Rod 1. Press the Stop button. **Enter DC330 [010-003] (Main Heater Rod 2). Select Start. The Main Heater Rod 2 (located at right when seen at front) has lit on.**

Y N

Turn off the power. Remove the Fuser Unit (REP 10.1). Disconnect the connectors (P62A, P62B) of the Main Heater Rod 2. Measure the resistance between the both ends of the Main Heater Rod 2. **The resistance is 10 ohms or less.**

Y N

Replace the Main Heater Rod 2 (PL 8.1).

Measure the resistance between the both ends of the Thermostat 2. **The resistance is 10 ohms or less.**

Y N

- Check the following. If no problem is found, replace the Thermostat 2 (PL 8.1).
- Heat Roll Thermistor 2 for dirt/improper installation
  - The wire between P/J409-B8 on the MCU PWB and P/J510-11 on the AC Drive PWB for a short to the frame
  - See DC120 Fail History. If it shows 010-320 occurred in the past, go to 010-320 RAP.

Reconnect the connectors to the Main Heater Rod 2 at its both ends. Seat the Fuser Unit in the Drawer. Push in the Drawer. Turn on the power. **With DC330 [010-003] (Main Heater Rod 2) ON, 100-127VAC/200-240VAC is measured between P/J15-3 and P/J16-2 on the AC Drive PWB.**

Y N

- Check the following for continuity. If the wires are good, replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.
- MCU PWB P/J409-B8 to AC Drive PWB P/J510-11
  - MCU PWB P/J409-B15 to AC Drive PWB P/J510-4

Turn off the power. Disconnect the power plug. Check the circuits each between Check the circuits between P/J16-2 on the AC Drive PWB and P62A-1 on the Main Heater Rod 2, and between P/J15-3 on the AC Drive PWB and P62B-1 on the Main Heater Rod 2.

Press the Stop button. Enter DC330 [010-004] (Sub Heater Rod). Select Start. **The Sub Heater Rod (located lower when seen at front) has lit on.**

Y N

Turn off the power. Remove the Fuser Unit (REP 10.1). Disconnect the connectors (P63A, P63B) from the Sub Heater Rod. Measure the resistance between the both ends of the Sub Heater Rod. **The resistance is 10 ohms or less.**

Y N

Replace the Sub Heater Rod (PL 8.1).

Reconnect the connectors to the Sub Heater Rod at its both ends. Seat the Fuser Unit in the Drawer. Push in the Drawer. Turn on the power. **With DC330 [010-004] (Sub Heater Rod) ON, 100-127VAC/200-240VAC is measured between P/J15-3 and P/J16-1 on the AC Drive PWB.**

A

B

B

Y N

- Check the following for continuity. If the wires are good, replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.
- MCU PWB P/J409-B7 to AC Drive PWB P/J510-12
- MCU PWB P/J409-B15 to AC Drive PWB P/J510-4

Turn off the power. Disconnect the power plug. Check the circuits each between P/J16-1 on the AC Drive PWB and P63A-1 on the Sub Heater Rod, and between P/J15-3 on the AC Drive PWB and P63B-1 on the Sub Heater Rod.

Connect the PSW. Enter the Diag. Enter DC140 [010-200](Heat Roll Thermistor 1). **The value is between 1015 and 128.**

Y N

Check the following for an open wire, short or poor contact. If the wires are good, replace the Heat Roll Thermistor 1 (PL 8.1).

- Heat Roll Thermistor 1 P/J146-1 to MCU PWB P/J405-A7
- Heat Roll Thermistor 1 P/J146-2 to MCU PWB P/J405-A6

Replace the AC Drive PWB (PL 11.3) and the MCU PWB (PL 11.1) in order.

## 10-330 RAP

### BSD-ON:10.1 Fuser Drive Control BSD

Fuser Motor Fail. A rotation abnormality was detected in the fuser motor.

### Procedure

Open the PWB Chassis (REP 3.1). Manually rotate the Fuser Drive Motor rotor. **The rotor rotates without any load.**

Y N

Remove any load from the Fuser Unit, such as binding Fuser Drive gears and binding bearings.

Turn on the power. Enter the Diag. Cheat the Front Door Interlock. Enter DC330 [010-001](Fuser Drive Motor). Select Start. **The Fuser Drive Motor has rotated.**

Y N

Open the PWB Chassis. (REP 3.1) **+24VDC is measured between P/J211-1 (+) and -2(-) on the Fuser Drive Motor.**

Y N

**+24VDC is measured between P/J437-7 (+) and -15(-) on the IOT PW.**

Y N

**+24VDC is measured between P/J430-2 (+) on the IOT PWB and GND (-).**

Y N

Seeing BSD CH1.16, check the +24VDC INTLK circuit to P/J430-2 on the IOT PWB.

Replace the IOT PWB (PL 2.1).

Check the circuits each between P/J437-7 on the IOT PWB and P/J211-1 on the Fuser Drive Motor, and between P/J437-15 on the IOT PWB and P/J211-2 on the Fuser Drive Motor for an open wire or poor contact.

**+5VDC is measured between P/J212-1 (+) and -2(-) on the Fuser Drive Motor.**

Y N

**CR8 on the MCU PWB is lighting.**

Y N

Seeing BSD CH1.6, check the +5VDC circuit to J400-2 on the MCU PWB.

Check the circuits each between P/J-A6 on the MCU PWB and P/J212-1 on the Fuser Drive Motor, and between P/J407-A5 on the MCU PWB and P/J212-2 on the Fuser Drive Motor for an open wire or poor contact.

Check the following for continuity:

- MCU PWB P/J407-A4 to Fuser Drive Motor P/J212-3
- MCU PWB P/J407-A3 to Fuser Drive Motor P/J212-4
- MCU PWB P/J407-A2 to Fuser Drive Motor P/J212-5
- MCU PWB P/J407-A1 to Fuser Drive Motor P/J212-6

**Every resistance is 10 ohms or less.**

Y N

Check any wire that exhibits more than 10ohms for an open wire or poor contact.

A B

A B

Replace the Fuser Drive Motor (PL 10.2) and the MCU PWB (PL 2.1) in order.

Turn off the power. Check the following for continuity:

- MCU PWB P/J407-A3 to Fuser Drive Motor P/J212-4
- MCU PWB P/J407-A2 to Fuser Drive Motor P/J212-5
- MCU PWB P/J407-A1 to Fuser Drive Motor P/J212-6

**Every resistance is 10 ohms or less.**

Y N

Check any wire that exhibits more than 10ohms for an open wire or poor contact.

If no problem is found, replace the Fuser Drive Motor (PL 10.2). If the problem persists, replace the MCU PWB (PL 2.1).

## 010-420 RAP

BSD-ON:CH10.9

Fuser Assembly Life Near End. The time for replacing the fuser assembly is getting close.

### Initial Actions

After replacing the Fuser Assembly, it is necessary to reset the Total Fuser Motor ON Time.

### Procedure

Replace the Fuser Assembly (PL 8.1).

## 010-421 RAP

BSD-ON:CH10.9

Fuser Assembly Life End. It is time to replace the Fuser Assembly.

### Procedure

Replace the Fuser Assembly (PL 8.1).





## 012-112 RAP

### BSD-ON:12.8 C-Finisher I/F Transportation BSD

Finisher Interface Entrance Sensor ON.

#### Initial Actions

- Check for obstructions in the paper path
- Check the Interface Drive Motor Belt for wear or damage
- Check the Guides on the Interface Cover for damage, wear or faulty installation

#### Procedure

Enter dC330 [014-190], Decurler In Sensor (PL 21.25). Select Start. Open the Interface Cover and actuate the Interface Entrance Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.8 C-Finisher I/F Transportation BSD. Check the circuit of the Decurler In Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-093], Decurler Transport Motor (PL 21.26). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.6 BSD. Check the circuit of the Decurler Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop. Close the Interface Cover. Select [014-011] or [014-012], Gate Solenoid (PL 21.25). Select Start. **The Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.11 C-Finisher Transport, Top Tray Gating BSD. Check the circuit of the Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Decurler Transport Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Decurler In Sensor (PL 21.25). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-113 RAP

### BSD-ON:12.14 Booklet Transportation BSD

Booklet In Sensor ON Jam. The booklet in sensor did not come on within a given time after the punch out sensor came on.

#### Initial Actions

- Check for obstructions in the paper path
- Check that the Finisher is dock correctly to ensure proper Transport Gate operation
- Check the Booklet In Sensor for obstructions (PL 21.21)
- Check for transportation failure of non-standard paper
- Check the Booklet In Roll for wear or damage

#### Procedure

Enter dC330 [013-135], Booklet In Sensor (PL 21.21). Select Start. Actuate the Booklet In Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.14 Booklet Transportation BSD. Check the circuit of the Booklet In Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [013-068] and/or [013-069], Booklet Gate Solenoid (PL 21.21). Select Start. **The Booklet Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.10 C-Finisher Booklet / Punch Transport BSD. Check the circuit of the Booklet Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.9 BSD. Check the circuit of the Finisher Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Interface Motor and its associated gears and belts for damage, contamination or alignment
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or alignment

If the above checks are OK, then replace the Booklet In Sensor (PL 21.25). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-114 RAP

### BSD-ON:12.14 Booklet Transportation BSD

Booklet In Sensor OFF Jam 1:

- The booklet in sensor did not turn off within a given time.
- Before the previous set turned off the booklet exit sensor, the first page of the next set turned off the booklet in sensor. (This prevents reverse rotation.)

### Initial Actions

- Check for obstructions in the paper path
- Check that the Finisher is dock correctly to ensure proper Transport Gate operation
- Check the Booklet In Sensor for obstructions (PL 21.21)
- Check for transportation failure of non-standard paper
- Check the Booklet In Roll for wear or damage

### Procedure

Enter dC330 [013-135], Booklet In Sensor (PL 21.21). Select Start. Actuate the Booklet In Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.14 Booklet Transportation BSD. Check the circuit of the Booklet In Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [013-068] and/or [013-069], Booklet Gate Solenoid (PL 21.21). Select Start. **The Booklet Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.10 C-Finisher Booklet / Punch Transport BSD. Check the circuit of the Booklet Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select [013-064], Booklet Paper Path Motor (PL 21.22). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.13 Booklet Drive BSD. Check the circuit of the Booklet Paper Path Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Interface Motor and its associated gears and belts for damage, contamination or alignment
- Check the Booklet Paper Path Motor and its associated gears and belts for damage, contamination or alignment

If the above checks are OK, then replace the Booklet In Sensor (PL 21.25). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-115 RAP

### BSD-ON:12.14 Booklet Transportation BSD

Booklet Folder Roll Exit Sensor ON Jam. The booklet folder roll exit sensor did not turn off within a given time after the booklet folder roll exit sensor came on.

### Initial Actions

- Check for obstructions in the paper path
- Check that the Finisher is dock correctly to ensure proper Transport Gate operation
- Check the Booklet Folder Roll Exit Sensor for obstructions (PL 21.21)
- Check for transportation failure of non-standard paper
- Check the Booklet Folding Roll for wear or damage
- Check the Booklet Eject Roll Drive rolls for wear or damage

### Procedure

Enter dC330 [013-103], Booklet Folder Roll Exit Sensor (PL 21.21). Select Start. Actuate the Booklet Folder Roll Exit Sensor. **The display changes.**

Y N

Go to the 12.14 Booklet Transportation BSD. Check the circuit of the Booklet Folder Roll Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [013-064], Booklet Paper Path Motor (PL 21.22). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.13 Booklet Drive BSD. Check the circuit of the Booklet Paper Path Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [013-064], Booklet Folder Roll Motor (PL 21.22). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.13 Booklet Drive BSD. Check the circuit of the Booklet Folder Roll Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Booklet Paper Path Motor and its associated gears and belts for damage, contamination or alignment
- Check the Booklet Folder Roll Motor and its associated gears and belts for damage, contamination or alignment

If the above checks are OK, then replace the Booklet Folder Roll Exit Sensor (PL 21.21). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-125 RAP

### BSD-ON:12.11 C-Finisher Transport, Top Tray Gating BSD

Gate Sensor ON JAM: Finisher.

#### Initial Actions

- Check for obstructions in the paper path
- Check the Finisher Drive Motor Gears and Drive rolls for wear or damage

#### Procedure

Enter dC330 [014-102], Gate Sensor (PL 21.11). Select Start. Actuate the Gate Sensor. **The display changes.**

**Y N**  
Go to the 12.11 C-Finisher Transport, Top Tray Gating BSD. Check the circuit of the Gate Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Finisher Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Finisher is docked properly
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Gate Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-132 RAP

### BSD-ON:12.11 C-Finisher Transport, Top Tray Gating BSD

Finisher Transport Entrance Sensor ON Jam (Long).

#### Initial Actions

- Check for obstructions in the paper path
- Check that the Finisher is dock correctly to ensure proper Transport Gate operation

#### Procedure

Enter dC330 [014-100], Transport Entrance Sensor (PL 21.25). Select Start. Actuate the Transport Entrance Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.11 C-Finisher Transport, Top Tray Gating BSD. Check the circuit of the Transport Entrance Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Finisher Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Interface Motor and its associated gears and belts for damage, contamination or alignment
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or alignment

If the above checks are OK, then replace the Transport Entrance Sensor (PL 21.25). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-142 RAP

### BSD-ON:12.12 C-Finisher Buffer Transport BSD

Buffer Path Sensor ON Jam A. When using paper for the buffer:

- The buffer path sensor did not come on within a given time after the punch out sensor came on.
- Otherwise: The buffer path sensor did not come on within a given time after the start of a punch operation.

### Initial Actions

- Check for obstructions in the paper path
- Check the Finisher Transport Motor Belt, Gears and Drive Rolls for wear or damage

### Procedure

Enter dC330 [014-101], Buffer Path Sensor (PL 21.10). Select Start. Actuate the Buffer Path Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.12 C-Finisher Buffer Transport BSD. Check the circuit of the Buffer Path Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.9 BSD. Check the circuit of the Finisher Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [014-015] and/or [014-016], Buffer Gate Solenoid (PL 21.10). Select Start. **The Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.12 C-Finisher Buffer Transport BSD. Check the circuit of the Buffer Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Buffer Rolls for obstructions
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Buffer Path Sensor (PL 21.10). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-151 RAP

### BSD-ON:12.24 C-Finisher Compiling BSD

Compile Exit Sensor OFF Jam. The compiler exit sensor did not turn off within a given time after the compiler exit sensor came on.

### Initial Actions

- Check the Buffer Reverse Roll for wear or damage
- Check the Compile Exit Roll for wear or damage
- Check for paper transportation failure due to a foreign substance/burr on the paper path
- Check for transportation failure of non-standard paper

### Procedure

Enter dC330 [014-150], Compile Exit Sensor (PL 21.9). Select Start. Actuate the Compile Exit Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.24 C-Finisher Compiling BSD. Check the circuit of the Compile Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Select [014-011] or [014-012], Transport Gate Solenoid (PL 21.10), and select Start. **The Transport Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.11 C-Finisher Transport, Top Tray Gating BSD. Check the circuit of the Transport Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select Stop. Select [014-015] or [014-016], Buffer Gate Solenoid (PL 21.10), and Select Start. **The Buffer Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.12 C-Finisher Buffer Transport BSD. Check the circuit of the Buffer Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select [014-007], Exit Motor (PL 21.8). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.9 BSD. Check the circuit of the Exit Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Exit Motor and its associated gears and belts for damage, contamination or tension

If the above checks are OK, then replace the Compile Exit Sensor (PL 21.9). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-152 RAP

### BSD-ON:12.24 C-Finisher Compiling BSD

Compile Exit Sensor ON Jam A.

#### Initial Actions

- Check the Buffer Roll for wear or damage
- Check the Compile Exit Roll for wear or damage
- Check for paper transportation failure due to a foreign substance/burr on the paper path
- Check for transportation failure of non-standard paper

#### Procedure

Enter dC330 [014-150], Compile Exit Sensor (PL 21.9). Select Start. Actuate the Compile Exit Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.24 C-Finisher Compiling BSD. Check the circuit of the Compile Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Select [014-015] or [014-016], Buffer Gate Solenoid (PL 21.10), and Select Start. **The Buffer Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.12 C-Finisher Buffer Transport BSD. Check the circuit of the Buffer Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select Stop. Select [014-011] or [014-012], Transport Gate Solenoid (PL 21.10). Select Start. **The Transport Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.11 C-Finisher Transport, Top Tray Gating BSD. Check the circuit of the Transport Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select [014-007], Exit Motor (PL 21.8). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.9 BSD. Check the circuit of the Exit Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Exit Motor and its associated gears and belts for damage, contamination or tension

If the above checks are OK, then replace the Compile Exit Sensor (PL 21.9). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-161 RAP

### BSD-ON:12.24 C-Finisher Compiling BSD

Set Eject Jam. The compile exit sensor did not turn off within a given time after the start of an eject operation.

#### Initial Actions

- Check the Buffer Reverse Roll for wear or damage
- Check the Compile Exit Roll for wear or damage
- Check for paper transportation failure due to a foreign substance/burr on the paper path
- Check for transportation failure of non-standard paper

#### Procedure

Enter dC330 [014-150], Compile Exit Sensor (PL 21.9). Select Start. Actuate the Compile Exit Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.24 C-Finisher Compiling BSD. Check the circuit of the Compile Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-007],

Exit Motor (PL 21.8). Select Start. **The motor energizes.**

Y N

Select Stop. Go to the 12.9 BSD. Check the circuit of the Exit Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [014-011] or [014-012], Transport Gate Solenoid (PL 21.10). Select Start. **The Transport Gate Solenoid actuates.**

Y N

Select Stop. Go to the 12.11 C-Finisher Transport, Top Tray Gating BSD. Check the circuit of the Transport Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Exit Motor and its associated gears and belts for damage, contamination or tension

If the above checks are OK, then replace the Compile Exit Sensor (PL 21.9). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-162 RAP

### BSD-ON:12.8 C-Finisher I/F Transportation BSD

Finisher Interface EXIT. Sensor ON Jam.

#### Initial Actions

- Check the Buffer Reverse Roll for wear or damage
- Check the Compile Exit Roll for wear or damage
- Check for paper transportation failure due to a foreign substance/burr on the paper path
- Check for transportation failure of non-standard paper

#### Procedure

Enter dC330 [014-150], Compile Exit Sensor (PL 21.9). Select Start. Actuate the Compile Exit Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the [12.24 C-Finisher Compiling BSD](#). Check the circuit of the Compile Exit Sensor. Refer to the [OF 99-2 RAP](#) for troubleshooting procedure.

Select [014-007],

Exit Motor (PL 21.8). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Exit Motor. Refer to the [OF 99-9 RAP](#) for troubleshooting procedure.

Select Stop. Select [014-011] or [014-012], Transport Gate Solenoid (PL 21.10). Select Start. **The Transport Gate Solenoid actuates.**

**Y N**  
Select Stop. Go to the [12.11 C-Finisher Transport, Top Tray Gating BSD](#). Check the circuit of the Transport Gate Solenoid. Refer to the [OF 99-8 RAP](#) for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Exit Motor and its associated gears and belts for damage, contamination or tension

If the above checks are OK, then replace the Compile Exit Sensor (PL 21.9). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-171 RAP

### BSD-ON:12.21 C-Finisher Top Tray Stacking BSD

Top Tray Exit Sensor ON Jam A.

- When punch mode is off: The top tray exit sensor did not come on within a given time after the punch out sensor came on.
- In punch mode: The top tray exit sensor did not come on within a given time after the start of a punch operation.

#### Initial Actions

- Check Top Tray Exit for operation failure
- Check paper transportation failure due to a foreign substance/burr on the paper path
- Check transportation failure of non-standard paper

#### Procedure

Enter dC330 [014-115], Top Tray Exit Sensor (PL 21.11). Select Start. Actuate the Top Tray Exit Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the [12.21 C-Finisher Top Tray Stacking BSD](#). Check the circuit of the Top Tray Exit Sensor. Refer to the [OF 99-2 RAP](#) for troubleshooting procedure.

Select [014-007], Exit Motor (PL 21.11). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Exit Motor. Refer to the [OF 99-9 RAP](#) for troubleshooting procedure.

Select Stop. Select [014-011] or [014-012], Transport Gate Solenoid (PL 21.10). Select Start. **The Transport Gate Solenoid actuates.**

**Y N**  
Select Stop. Go to the [12.11 C-Finisher Transport, Top Tray Gating BSD](#). Check the circuit of the Transport Gate Solenoid. Refer to the [OF 99-8 RAP](#) for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Finisher Transport Motor. Refer to the [OF 99-9 RAP](#) for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Exit Motor and its associated gears and belts for damage, contamination or misalignment
- Exit Drive Shaft for wear and a revolution failure
- The Exit Pinch Rolls for wear and/or damage

If the above checks are OK, then replace the Top Tray Exit Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-172 RAP

### BSD-ON:12.21 C-Finisher Top Tray Stacking BSD

Top Tray Exit Sensor OFF Jam A.

- The trailing edge of a sheet of paper did not [words missing, but probably 'turn off' was intended -- translator] the top tray exit sensor within a given time after the leading edge of the same sheet of paper turned on the punch out sensor.
- The trailing edge of a sheet of paper did not turn off the top tray exit sensor within a given time after the start of a punch operation.

#### Initial Actions

- Check Top Tray Exit for operation failure
- Check paper transportation failure due to a foreign substance/burr on the paper path
- Check transportation failure of non-standard paper

#### Procedure

Enter dC330 [014-115], Top Tray Exit Sensor (PL 21.11). Select Start. Actuate the Top Tray Exit Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.21 C-Finisher Top Tray Stacking BSD. Check the circuit of the Top Tray Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-007], Exit Motor (PL 21.11). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Exit Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [014-011] or [014-012], Transport Gate Solenoid (PL 21.10). Select Start. **The Transport Gate Solenoid actuates.**

**Y N**  
Select Stop. Go to the 12.11 C-Finisher Transport, Top Tray Gating BSD. Check the circuit of the Transport Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Finisher Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Exit Motor and its associated gears and belts for damage, contamination or misalignment
- Exit Drive Shaft for wear and a revolution failure
- The Exit Pinch Rolls for wear and/or damage

If the above checks are OK, then replace the top Tray Exit Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-180 RAP

### BSD-ON:12.14 Booklet Transportation BSD

Booklet Folder Roll Exit Sensor OFF Jam. The booklet folder roll exit sensor did not turn off within a given time after the booklet folder roll exit sensor came on.

#### Initial Actions

- Check for obstructions in the paper path
- Check the Booklet Folder Roll Exit Sensor for obstructions (PL 21.21)
- Check for transportation failure of non-standard paper
- Check the Booklet Folding Roll for wear or damage
- Check the Booklet Eject Roll Drive rolls for wear or damage

#### Procedure

Enter dC330 [013-103], Booklet Folder Roll Exit Sensor (PL 21.21). Select Start. Actuate the Booklet Folder Roll Exit Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.14 Booklet Transportation BSD. Check the circuit of the Booklet Folder Roll Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [013-064], Booklet Paper Path Motor (PL 21.22). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.13 Booklet Drive BSD. Check the circuit of the Booklet Paper Path Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [013-064], Booklet Folder Roll Motor (PL 21.22). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.13 Booklet Drive BSD. Check the circuit of the Booklet Folder Roll Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Booklet Paper Path Motor and its associated gears and belts for damage, contamination or alignment
- Check the Booklet Folder Roll Motor and its associated gears and belts for damage, contamination or alignment

If the above checks are OK, then replace the Booklet Folder Roll Exit Sensor (PL 21.21). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-211 RAP

### BSD-ON:12.31 C-Finisher Stack Height Detection BSD

Stacker Tray Fail.

1. The stack height sensor did not turn off within 500 msec after the stack tray began to lower.
2. 'Tray height sensor lower' did not come on within 5 sec after the stack tray began to rise.

### Initial Actions

- The Stack Height Sensor for improper installation
- The Stack Height Sensor connectors for connection failure
- The Tray Height Sensor Lower for improper installation
- The Tray Height Sensor Lower connectors for connection failure
- The Elevator Motor for operation failure
- The Elevator Motor connectors for connection failure
- The Elevator Gear for deformation

### Procedure

Enter dC330 [14-061] and [14-060], Elevator Motor (PL 21.4), alternately. Select Start. **The Elevator Motor runs.**

Y N

Select **Stop**. Go to the [12.30 C-Finisher Stacker Drive BSD](#). Check continuity between the Elevator Motor and Finisher Main PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Elevator Motor (PL 21.4). If the problem continues, replace the Finisher PWB (PL 21.12).

Select **Stop**. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-212 RAP

### BSD-ON:12.30 C-Finisher Stacker Drive BSD

Stacker Tray Upper Limit Fail. Stack height sensor #2 came on after the stacker tray began to rise.

### Initial Actions

Check Items

- The Upper Limit SW for improper installation
- The Upper Limit SW connectors for connection failure
- The Elevator Motor for operation failure
- The Elevator Motor connectors for connection failure

### Procedure

Enter dC330 [14-061] and [14-060], Elevator Motor (PL 21.4), alternately. Select Start. **The Elevator Motor runs.**

Y N

Select **Stop**. Go to the [12.30 C-Finisher Stacker Drive BSD](#). Check continuity between the Elevator Motor and Finisher Main PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Elevator Motor (PL 21.4). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select [14-262], Stacker No Paper Sensor (PL 21.4). Select Start. Block/unblock the Stacker No Paper Sensor. **The display changes.**

Y N

Select Stop. Go to the [12.30 C-Finisher Stacker Drive BSD](#). Check continuity between the Stacker No Paper Sensor and Finisher PWB. **The continuity check is OK,**

Y N

Repair the open circuit or short circuit.

Replace the Stacker No Paper Sensor (PL 21.4). If the problem continues, replace the Finisher PWB (PL 21.12).

Select [14-263], Upper Limit Sensor (PL 21.4). Block/unblock the Upper Limit Sensor. Select Start. **The display changes.**

Y N

Select Stop. Go to the [12.30 C-Finisher Stacker Drive BSD](#). Check continuity between the Upper Limit Sensor and Finisher PWB. **The continuity check is OK,**

Y N

Repair the open or short circuit.

Replace the Upper Limit Sensor (PL 21.4). If the problem continues, replace the Finisher PWB

Select **Stop**. If the problem continues, replace the Finisher PWB (PL 21.12).



## 012-213 RAP

### BSD-ON:12.31 C-Finisher Stack Height Detection BSD

Stacker Tray Lower Limit Fail. The lower limit sensor came on after the stacker tray began to lower.

#### Initial Actions

Check Items

- The Upper Limit SW for improper installation
- The Upper Limit SW connectors for connection failure
- The Elevator Motor for operation failure
- The Elevator Motor connectors for connection failure

#### Procedure

Enter dC330 [14-061] and [14-060], Elevator Motor (PL 21.4), alternately. Select Start. **The Elevator Motor runs.**

Y N

Select **Stop**. Go to the 12.30 C-Finisher Stacker Drive BSD. Check continuity between the Elevator Motor and Finisher Main PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Elevator Motor (PL 21.4). If the problem continues, replace the Finisher PWB (PL 21.12).

Select **Stop**. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-221 RAP

### BSD-ON:12.25 C-Finisher Tamper Control BSD

Tamper Home Sensor ON Fail. The tamper home sensor did not come on within a given time after the tamper motor came on.

#### Initial Actions

Check the following:

- Front Tamper Actuator for deformation
- Front Tamper Home Sensor for proper installation
- Front Tamper Home Sensor connectors
- Front Tamper Motor for proper operation
- Front Tamper Motor connectors

#### Procedure

Enter dC330 [14-020] and [14-023], Front Tamper Motor (PL 21.8), alternately. **Select Start. The Front Tamper Motor runs.**

Y N

Select **Stop**. Go to the 12.25 C-Finisher Tamper Control BSD. Check circuit of the Front Tamper Motor. Refer to OF 99-9 RAP for troubleshooting procedure.

Select **Stop**. Select [14-220], Front Tamper Home Sensor (PL 21.8). Select **Start**. Actuate the sensor with a piece of paper. **The display changes.**

Y N

Select **Stop**. Go to the 12.25 C-Finisher Tamper Control BSD. Check circuit of the Front Tamper Home Sensor. Refer to OF 99-2 RAP for troubleshooting procedure.

Select **Stop**. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-223 RAP

### BSD-ON:12.25 C-Finisher Tamper Control BSD

Tamper Home Sensor OFF Fail. The tamper home sensor was not off after the tamper motor stopped because the tamper home sensor turned off.

#### Initial Actions

Check the following:

- Front Tamper Actuator for deformation
- Front Tamper Home Sensor for proper installation
- Front Tamper Home Sensor connectors
- Front Tamper Motor for proper operation
- Front Tamper Motor connectors

#### Procedure

Enter dC330 [14-020] and [14-023], Front Tamper Motor (PL 21.8), alternately. **Select Start.**  
**The Front Tamper Motor runs.**

**Y N**

Select Stop. Go to the [12.25 C-Finisher Tamper Control BSD](#). Check circuit of the Front Tamper Motor. Refer to [OF 99-9](#) RAP for troubleshooting procedure.

Select Stop. Select [14-220], Front Tamper Home Sensor (PL 21.8). Select Start. Actuate the sensor with a piece of paper. **The display changes.**

**Y N**

Select Stop. Go to the [12.25 C-Finisher Tamper Control BSD](#). Check circuit of the Front Tamper Home Sensor. Refer to [OF 99-2](#) RAP for troubleshooting procedure.

Select **Stop**. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-224 RAP

### BSD-ON:12.25 C-Finisher Tamper Control BSD

Rear Tamper Home Sensor OFF Fail.

#### Initial Actions

Check the following:

- Rear Tamper Actuator for deformation
- Rear Tamper Home Sensor for proper installation
- Rear Tamper Home Sensor connectors
- Rear Tamper Motor for proper operation
- Rear Tamper Motor connectors

#### Procedure

Enter dC330 [14-026] and [14-029], Rear Tamper Motor (PL 21.8), alternately. **Select Start.**  
**The Rear Tamper Motor runs.**

**Y N**

Select Stop. Go to the [12.25 C-Finisher Tamper Control BSD](#). Check circuit of the Rear Tamper Motor. Refer to [OF 99-9](#) RAP for troubleshooting procedure.

Select Stop. Select [14-220], Rear Tamper Home Sensor (PL 21.8). Select Start. Actuate the sensor with a piece of paper. **The display changes.**

**Y N**

Select Stop. Go to the [12.25 C-Finisher Tamper Control BSD](#). Check circuit of the Rear Tamper Home Sensor. Refer to [OF 99-2](#) RAP for troubleshooting procedure.

Select Stop. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-225 RAP

### BSD-ON:12.16 Booklet Tamper Control (2 of 2) BSD

Booklet Tamper F Home Sensor ON Fail. Booklet tamper home sensor (F) did not come on within a given time after booklet tamper motor (F) came on because booklet tamper F was returned to home.

#### Initial Actions

- The Booklet Tamper Home Sensor Front for improper installation
- The Booklet Tamper Home Sensor Front connectors for connection failure
- The Booklet Tamper Motor Front connectors for connection failure
- The Booklet Tamper Motor Front for improper installation
- The gear part for wear or damage
- The Booklet Tamper Front for deformation

#### Procedure

Enter dC330 [13-048] and DC330 [13-052], Booklet Tamper Motor Front (PL 21.19), alternately. Select Start. **The Booklet Tamper Motor Front energizes.**

**Y N**  
Select Stop. Go to the 12.15 BSD. Check continuity between the Booklet Tamper Motor Front and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Motor Front (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select [13-134], Booklet Tamper Home Sensor Front (PL 21.19). Select Start. Block/unblock the Booklet Tamper Home Sensor Front. **The display changes.**

**Y N**  
Select Stop. Go to the 12.16 BSD. Check continuity between the Booklet Tamper Home Sensor Front and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Home Sensor Front (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-226 RAP

### BSD-ON:12.16 Booklet Tamper Control (2 of 2) BSD

Booklet Tamper F Home Sensor OFF Fail. Booklet tamper home sensor (F) did not turn off within a given time after booklet tamper motor (F) came on.

#### Initial Actions

- The Booklet Tamper Home Sensor Front for improper installation
- The Booklet Tamper Home Sensor Front connectors for connection failure
- The Booklet Tamper Motor Front connectors for connection failure
- The Booklet Tamper Motor Front for improper installation
- The gear part for wear or damage
- The Booklet Tamper Front for deformation

#### Procedure

Enter dC330 [13-048] and DC330 [13-052], Booklet Tamper Motor Front (PL 21.19), alternately. Select Start. **The Booklet Tamper Motor Front energizes.**

**Y N**  
Select Stop. Go to the 12.15 BSD. Check continuity between the Booklet Tamper Motor Front and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Motor Front (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select [13-134], Booklet Tamper Home Sensor Front (PL 21.19). Select Start. Block/unblock the Booklet Tamper Home Sensor Front. **The display changes.**

**Y N**  
Select Stop. Go to the 12.16 BSD. Check continuity between the Booklet Tamper Home Sensor Front and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Home Sensor Front (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-227 RAP

BSD-ON:12.19 Booklet End Guide Control BSD

Booklet End Guide Home Sensor OFF Fail. The booklet end guide home sensor did not turn off within a given time after the booklet end guide motor came on.

### Initial Actions

- The Booklet End Guide Home Sensor for improper installation
- The Booklet End Guide Home Sensor connectors for connection failure
- The Booklet End Guide Motor connectors for connection failure
- The Guide for deformation
- The Guide for a foreign substance

### Procedure

Enter dC330 [13-013] and [13-016], Booklet End Guide Motor (PL 21.17), alternately. Select Start. **The Booklet End Guide Motor energizes.**

Y N  
Select Stop. Go to the 12.19 BSD. Check continuity between the Booklet End Guide Motor and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Booklet End Guide Motor (PL 21.17). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select [13-137]. Block/unblock the Booklet End Guide Home Sensor to the light with paper strip. Select Start. **The display changes.**

Y N  
Select Stop. Go to the 12.19 BSD. Check continuity between the Booklet End Guide Home Sensor and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Booklet End Guide Home Sensor (PL 21.17). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Check the following:

- The Booklet End Guide Motor for proper installation
- Booklet End Guide Belt for proper tension
- Booklet End Guide Belt for wear or damage

If the above checks are OK, replace the Finisher PWB (PL 21.12).

## 012-228 RAP

BSD-ON:12.19 Booklet End Guide Control BSD

Booklet End Guide Home Sensor ON Fail. The booklet end guide home sensor (F) did not come on within a given time after the booklet end guide motor came on because the booklet end guide was returned to home.

### Initial Actions

- The Booklet End Guide Home Sensor for improper installation
- The Booklet End Guide Home Sensor connectors for connection failure
- The Booklet End Guide Motor connectors for connection failure
- The Guide for deformation
- The Guide for a foreign substance

### Procedure

Enter dC330 [13-013] and [13-016], Booklet End Guide Motor (PL 21.17), alternately. Select Start. **The Booklet End Guide Motor energizes.**

Y N  
Select Stop. Go to the 12.19 BSD. Check continuity between the Booklet End Guide Motor and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Booklet End Guide Motor (PL 21.17). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Enter [13-137]. Select Start. Block/unblock the Booklet End Guide Home Sensor. **The display changes.**

Y N  
Select Stop. Go to the 12.19 BSD. Check continuity between the Booklet End Guide Home Sensor and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Booklet End Guide Home Sensor (PL 21.17). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Check the following:

- The Booklet End Guide Motor for proper installation
- Booklet End Guide Belt for proper tension
- Booklet End Guide Belt for wear or damage

If the above checks are OK, replace the Finisher PWB (PL 21.12).

## 012-229 RAP

### BSD-ON:12.16 Booklet Tamper Control (2 of 2) BSD

Booklet Tamper R Home Sensor ON Fail. Booklet tamper home sensor (R) did not come on within a given time after booklet tamper motor (R) came on because booklet tamper R was returned to home.

#### Initial Actions

- The Booklet Tamper Home Sensor Rear for improper installation
- The Booklet Tamper Home Sensor Rear connectors for connection failure
- The Booklet Tamper Motor Rear connectors for connection failure
- The Booklet Tamper Motor Rear for improper installation
- The gear part for wear or damage
- The Booklet Tamper Rear for deformation

#### Procedure

Enter dC330 [13-056] and DC330 [13-060], Booklet Tamper Motor Rear (PL 21.19), alternately. Select Start. **The Booklet Tamper Motor Rear energizes.**

**Y N**  
Select Stop. Go to the 12.15 BSD. Check continuity between the Booklet Tamper Motor Rear and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Motor Rear (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select [13-136], Booklet Tamper Home Sensor Rear. Select Start. Block/unblock the Booklet Tamper Home Sensor Front. **The display changes.**

**Y N**  
Select Stop. Go to the 12.16 BSD. Check continuity between the Booklet Tamper Home Sensor Rear and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Home Sensor Rear (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-230 RAP

### BSD-ON:12.16 Booklet Tamper Control (2 of 2) BSD

Booklet Tamper R Home Sensor OFF Fail. Booklet tamper home sensor (R) did not turn off within a given time after booklet tamper motor (R) came on.

#### Initial Actions

- The Booklet Tamper Home Sensor Rear for improper installation
- The Booklet Tamper Home Sensor Rear connectors for connection failure
- The Booklet Tamper Motor Rear connectors for connection failure
- The Booklet Tamper Motor Rear for improper installation
- The gear part for wear or damage
- The Booklet Tamper Rear for deformation

#### Procedure

Enter dC330 [13-056] and [13-060], Booklet Tamper Motor Rear (PL 21.19), alternately. Select Start. **The Booklet Tamper Motor Rear energizes.**

**Y N**  
Select Stop. Go to the 12.15 BSD. Check continuity between the Booklet Tamper Motor Rear and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Motor Rear (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select [13-136], Booklet Tamper Home Sensor Rear (PL 21.19). Select Start. Block/unblock the Booklet Tamper Home Sensor Front. **The display changes.**

**Y N**  
Select Stop. Go to the 12.16 BSD. Check continuity between the Booklet Tamper Home Sensor Rear and the Booklet PWB and the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Tamper Home Sensor Rear (PL 21.19). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-243 RAP

### BSD-ON:12.17 Booklet Knife Control BSD

Booklet Knife Home Sensor ON Fail.

- The knife home sensor did not come on within a given time after the knife clutch came on while returning the booklet knife to home.
- The knife home sensor turned off during a booklet knife folding operation.

#### Initial Actions

- The Knife Home Sensor for improper installation
- The Knife Home Sensor connectors for connection failure
- The Booklet Fold Motor connectors for connection failure
- The Knife Clutch connectors for connection failure
- The Knife Clutch for improper installation
- The Knife drive mechanism for a foreign substance

#### Procedure

Manually move the Booklet Tamper to both ends. Enter dC330 [13-008] and [13-009], Booklet Folder Roll Motor (PL 21.22), alternately. Select Start. **The Booklet Folder Roll Motor energizes.**

**Y N**  
Select Stop. Go to the 12.13 BSD. Check continuity between the Booklet Folder Roll Motor and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Folder Roll Motor (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select [13-010], Knife Solenoid, (PL 21.22). Select Start. **The Knife Solenoid actuates.**

**Y N**  
Select Stop. Go to the 12.17 BSD. Check continuity between the Knife Solenoid and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Knife Solenoid (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

**Select Stop. Select [13-101], Knife Home Sensor (PL 21.22). Select Start. Block/unblock the Knife Home Sensor. The display changed.**

**Y N**  
Select Stop. Go to the 12.17 BSD. Check continuity between the Knife Home Sensor and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

A

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

Replace the Knife Home Sensor (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-246 RAP

BSD-ON:12.18 Booklet Staple Control BSD

Booklet Stapler Fail.

1. The stapler ready signal did not change to 'not ready' within a given time after the booklet stapler start signal came on (no stapling operation).
2. The ready signal remained 'not ready' for a given time after stapler NG was detected, or the error signal came on.
3. The error signal was on just prior to the start of the stapling operation indication.
4. During the stapler power on check processing that occurs when power is turned on or when an interlock is closed, it was detected that the error signal from the stapler was on, or the ready signal was off.

### Initial Actions

### Procedure

Check continuity between the Staple and Booklet PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Go to the 12.2 BSD. Check continuity between the Booklet PWB and Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

**Replace the Staple (PL 21.16). The problem is resolved.**

Y N  
Replace the Booklet PWB (PL 21.12). If the problem continues, replace the Finisher PWB (PL 21.12).

If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-247 RAP

BSD-ON:12.10 C-Finisher Booklet / Punch Transport BSD

Side Regi Sensor OFF Fail.

1. The side regi sensor did not turn off within a given time after the puncher move motor came on.
2. The side regi sensor was off after the puncher move motor stopped because the side regi sensor turned off.

### Initial Actions

- The Actuator for deformation
- The Side Reg 1 and 2 Sensors for improper installation
- The Side Reg 1 and 2 Sensors connectors for connection failure
- The Puncher Move Motor connectors for connection failure

### Procedure

Enter dC330 [14-071] and [14-073], Puncher Move Motor (PL 21.5), alternately. Select Start. **The Puncher Move Motor run.**

Y N  
Select Stop. Go to the 12.22 BSD. Check continuity between the Puncher Move Motor and Finisher Main PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Puncher Move Motor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select [14-200], Side Regi 1 Sensor (PL 21.5). Select Start. Block/unblock the Side Reg 1 Sensor. **The display changes.**

Y N  
Select Stop. Go to the 12.10 BSD. Check continuity between the Side Reg 1 Sensor and Finisher Main PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Side Reg 1 Sensor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select [14-201], Side Reg 2 Sensor (PL 21.5). Select Start. Block/unblock the Side Reg 2 Sensor. **The display changes.**

Y N  
Select Stop. Go to the 12.10 BSD. Check continuity between the Side Reg 2 Sensor and Finisher Main PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Side Reg 2 Sensor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Check the following:

- The Puncher Move Motor Belt for improper tension
- The Puncher Move Motor Belt for disengagement

If the above checks are OK, replace the Finisher Main PWB (PL 21.12).

## 012-260 RAP

### BSD-ON:12.28 C-Finisher Eject Drive BSD

Eject Clamp Up Sensor ON Fail.

1. The eject up sensor did not come on within a given time after the eject clamp motor came on.
2. The eject up sensor was not on after the eject clamp motor stopped because the eject up sensor came on.

### Initial Actions

- Check for obstructions in the Clamp area

### Procedure

Enter dC330 [014-250], Eject Clamp Home Sensor (PL 21.7). Select Start. Actuate the Eject Clamp Home Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Clamp Home Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [012-052], Eject Clamp Motor (PL 21.7). Select Start. **The Eject Clamp moves up.**

Y N

**The Eject Motor energized.**

Y N

Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Clamp Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Eject Clamp Motor and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.7).

Select Stop.

Check the following:

- Ensure that the Eject Clamp Home Sensor connectors are securely connected and that the wires are not damaged
- Ensure that the Eject Clamp Motor connectors are securely connected and that the wires are not damaged

If the above checks are OK, replace the Eject Clamp Home Sensor (PL 21.7). If the problem persists, replace the Finisher PWB (PL 21.12).



# 012-261 RAP

BSD-ON:12.17 Booklet Knife Control BSD

Booklet Knife Folding SNR Fail.

## Initial Actions

- The Knife Folding Sensor for improper installation
- The Knife Folding Sensor connectors for connection failure
- The Booklet Fold Motor connectors for connection failure
- The Knife Solenoid connectors for connection failure
- The Knife Solenoid for improper installation
- The Knife drive mechanism for a foreign substance

## Procedure

Manually move the Booklet Tamper to both ends. Enter dC330 [13-008] and [13-009], Booklet Folder Roll Motor (PL 21.22), alternately. Select Start. **The Booklet Folder Roll Motor energizes.**

Y N

Select Stop. Go to the 12.13 BSD. Check continuity between the Booklet Folder Roll Motor and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Booklet Folder Roll Motor (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select dC330 [13-010], Knife Solenoid, (PL 21.22). Select Start. **The Knife Solenoid actuates.**

Y N

Select Stop. Go to the 12.17 BSD. Check continuity between the Knife Solenoid and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Knife Solenoid (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select dC330 [13-101], Knife Home Sensor (PL 21.22). Select Start. **Block/unblock the Knife Home Sensor. The display changed.**

Y N

Select Stop. Go to the 12.17 BSD. Check continuity between the Knife Home Sensor and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

A B

Replace the Knife Home Sensor (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

A B

Launch

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Status Indicator RAPs

012-261 RAP

## 012-263 RAP

BSD-ON:12.25 C-Finisher Tamper Control BSD

Finisher Rear Tamper Home Sensor ON.

### Initial Actions

Check the following:

- Rear Tamper Actuator for deformation
- Rear Tamper Home Sensor for proper installation
- Rear Tamper Home Sensor connectors
- Rear Tamper Motor for proper operation
- Rear Tamper Motor connectors

### Procedure

Enter dC330 [14-026] and [14-029], Rear Tamper Motor (PL 21.8), alternately. **Select Start.**

**The Rear Tamper Motor runs.**

Y N

Select Stop. Go to the 12.25 BSD. Check circuit of the Rear Tamper Motor. Refer to OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [14-220], Rear Tamper Home Sensor (PL 21.8). Select Start. Actuate the sensor with a piece of paper. **The display changes.**

Y N

Select Stop. Go to the 12.25 BSD. Check circuit of the Rear Tamper Home Sensor. Refer to OF 99-2 RAP for troubleshooting procedure.

Select Stop. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-264 RAP

BSD-ON:12.13 Booklet Drive BSD

Booklet Drawer Broken Fail. It was detected that the booklet drawer in-position sensor was open when the finisher front door interlock was closed.

### Initial Actions

- The Booklet Drawer Set Sensor for improper installation
- The Booklet Drawer Set Sensor connectors for connection failure
- The Booklet Drawer Actuator part for a foreign substance and deformation
- The Drawer mechanism for a foreign substance and deformation

### Procedure

Enter dC330 [13-104], Booklet Drawer Set Sensor (PL 21.15). Select Start. Remove and insert the Booklet Drawer manually. **The display changes.**

Y N

Go to the 12.13 BSD. Check the circuit of the Booklet Drawer Set Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-265 RAP

### BSD-ON:12.17 Booklet Knife Control BSD

Booklet Knife Home Sensor OFF Fail. The knife home sensor did not turn off within a given time after the knife clutch came on when the booklet knife was releasing its home position.

#### Initial Actions

- The Knife Home Sensor for improper installation
- The Knife Home Sensor connectors for connection failure
- The Booklet Fold Motor connectors for connection failure
- The Knife Solenoid connectors for connection failure
- The Knife Solenoid for improper installation
- The Knife drive mechanism for a foreign substance

#### Procedure

Manually move the Booklet Tamper to both ends. Enter dC330 [13-008] and [13-009], Booklet Folder Roll Motor (PL 21.22), alternately. Select Start. **The Booklet Folder Roll Motor energizes.**

Y N

Select Stop. Go to the 12.13 BSD. Check continuity between the Booklet Folder Roll Motor and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Booklet Folder Roll Motor (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select dC330 [13-010], Knife Solenoid, (PL 21.22). Select Start. **The Knife Solenoid actuates.**

Y N

Select Stop. Go to the 12.17 BSD. Check continuity between the Knife Solenoid and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Knife Solenoid (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. Select dC330 [13-140], Knife Folding Sensor (PL 21.18). Select Start. **Block/unblock the Knife Folding Sensor. The display changed.**

Y N

Select Stop. Go to the 12.17 BSD. Check continuity between the Knife Folding Sensor and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

A B

Replace the Knife Folding Sensor (PL 21.18). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

A B

Launch

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Status Indicator RAPs

012-265 RAP

## 012-266 RAP

BSD-ON:12.14 Booklet Transportation BSD

Booklet Compiler No Paper Sensor Fail.

### Initial Actions

#### Procedure

Enter dC330 [13-102], Booklet Compile No Paper Sensor (PL 21.18). Select Start. Block/unblock the Booklet Compile No Paper Sensor. **The display changed.**

**Y N**  
Select Stop. Go to the 12.14 BSD. Check continuity between the Booklet Compile No Paper and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Compile No Paper Sensor (PL 21.18). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select [13-064], Booklet Paper Path Motor (PL 21.22). Select Start. **The Motor energizes.**

**Y N**  
Select Stop. Go to the 12.13 BSD. Check continuity between the Booklet Paper Path Motor and the Booklet PWB and between the Booklet PWB and the Finisher PWB. **The continuity check is OK.**

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

Replace the Booklet Paper Path Motor (PL 21.22). If the problem continues, replace the Booklet PWB (PL 21.12). If the problem persists, replace Finisher PWB (PL 21.12).

Select Stop. If the problem persists, replace Finisher PWB (PL 21.12).

## 012-270 RAP

BSD-ON:12.21 C-Finisher Top Tray Stacking BSD

Top Offset Home Sensor ON Fail: Finisher.

### Initial Actions

Check the following:

- Top Offset Home Actuator for deformation
- Top Offset Home Sensor for proper installation
- Top Offset Home Sensor connectors
- Top Offset Motor for proper operation
- Top Offset Motor connectors

#### Procedure

Enter dC330 [14-097] and [14-098], Top Offset Motor (PL 21.8), alternately. **Select Start. The Top Offset Motor runs.**

**Y N**  
Select Stop. Go to the 12.21 BSD. Check circuit of the Top Offset Motor. Refer to OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [14-216], Top Offset Home Sensor (PL 21.8). Select Start. Actuate the sensor with a piece of paper. **The display changes.**

**Y N**  
Go to the 12.21 BSD. Check circuit of the Top Offset Home Sensor. Refer to OF 99-2 RAP for troubleshooting procedure.

Select Stop. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-271 RAP

### BSD-ON:12.21 C-Finisher Top Tray Stacking BSD

Top Offset Home Sensor OFF Fail: Finisher.

#### Initial Actions

Check the following:

- Top Offset Home Actuator for deformation
- Top Offset Home Sensor for proper installation
- Top Offset Home Sensor connectors
- Top Offset Motor for proper operation
- Top Offset Motor connectors

#### Procedure

Enter dC330 [14-097] and [14-098], Top Offset Motor (PL 21.8), alternately. **Select Start. The Top Offset Motor runs.**

Y N

Select Stop. Go to the 12.21 BSD. Check circuit of the Top Offset Motor. Refer to OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [14-216], Top Offset Home Sensor (PL 21.28). Select Start. Actuate the sensor with a piece of paper. **The display changes.**

Y N

Go to the 12.21 BSD. Check circuit of the Top Offset Home Sensor. Refer to OF 99-2 RAP for troubleshooting procedure.

Select Stop. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-282 RAP

### BSD-ON:12.28 C-Finisher Eject Drive BSD

Eject Clamp Up Sensor OFF Fail.

1. The eject up sensor did not turn off within a given time after the eject clamp motor came on.
2. The eject up sensor was not off after the eject clamp motor stopped after the eject up sensor turned off.

#### Initial Actions

- Check for obstructions in the Clamp area

#### Procedure

Enter dC330 [014-250], Eject Clamp Home Sensor (PL 21.8). Select Start. Actuate the Eject Clamp Home Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Clamp Home Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [012-052], Eject Clamp Motor (PL 21.7). Select Start. **The Eject Clamp moves up.**

Y N

**The Eject Motor energized.**

Y N

Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Clamp Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Eject Clamp Motor and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.7).

Select Stop.

Check the

- Ensure that the Eject Clamp Home Sensor connectors are securely connected and that the wires are not damaged
- Ensure that the Eject Clamp Motor connectors are securely connected and that the wires are not damaged

If the above checks are OK, replace the Eject Clamp Home Sensor (PL 21.8). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-283 RAP

### BSD-ON:12.29 C-Finisher Set Clamp Control BSD

Finisher Set Clamp Home Sensor ON Fail.

#### Initial Actions

- Check for obstructions in the Clamp area

#### Procedure

Enter dC330 [014-052], Eject Clamp Home Sensor (PL 21.8). Select Start. Actuate the Eject Clamp Home Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Clamp Home Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [012-052], Eject Motor (PL 21.8). Select Start. **The Eject moves up.**

**Y N**  
**The Eject Motor energized.**  
**Y N**  
Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Eject Motor and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.8).

Select Stop. Select [012-050], Set Clamp Clutch (PL 21.8). Select Start. **The Eject Roll Shaft rotates.**

**Y N**  
**The Set Clamp Clutch energized.**  
**Y N**  
Select Stop. Go to the 12.29 BSD. Check the circuit of the Set Clamp Clutch. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Set Clamp Clutch and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.8).

Select Stop. Check the following:

- Ensure that the Eject Clamp Home Sensor connectors are securely connected and that the wires are not damaged
- Ensure that the Eject Motor connectors are securely connected and that the wires are not damaged

If the above checks are OK, replace the Eject Clamp Home Sensor (PL 21.8). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-284 RAP

### BSD-ON:12.29 C-Finisher Set Clamp Control BSD

Finisher Set Clamp Home Sensor OFF Fail.

#### Initial Actions

- Check for obstructions in the Clamp area

#### Procedure

Enter dC330 [014-052], Eject Clamp Home Sensor (PL 21.8). Select Start. Actuate the Eject Clamp Home Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Clamp Home Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-052], Eject Motor (PL 21.8). Select Start. **The Eject moves up.**

**Y N**  
**The Eject Motor energized.**  
**Y N**  
Select Stop. Go to the 12.28 BSD. Check the circuit of the Eject Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Eject Motor and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.8).

Select Stop. Select [014-050], Set Clamp Clutch (PL 21.8). Select Start. **The Eject Roll Shaft rotates.**

**Y N**  
**The Set Clamp Clutch energized.**  
**Y N**  
Select Stop. Go to the 12.29 BSD. Check the circuit of the Set Clamp Clutch. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Set Clamp Clutch and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.8).

Select Stop. Check the following:

- Ensure that the Eject Clamp Home Sensor connectors are securely connected and that the wires are not damaged
- Ensure that the Eject Motor connectors are securely connected and that the wires are not damaged

If the above checks are OK, replace the Eject Clamp Home Sensor (PL 21.8). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-291 RAP

### BSD-ON:12.27 C-Finisher Stapler Control BSD

#### Stapler Fail

- The stapler home sensor did not switch from off to on within a given time when starting a staple motor forward rotation operation.
- The stapler home sensor did not come on within a given time after the start of a staple motor reverse rotation operation.

#### Initial Actions

- The Stapler Head for obstructions

#### Procedure

Enter dC330 [14-046] and [14-047], Staple Motor, (PL 21.6), alternately. Select Start. **The Staple Motor runs.**

Y N  
Select Stop. Go to the 12.27 BSD. Check continuity between the Stapler Head and Finisher Main PWB. **The continuity check is OK.**  
Y N  
Repair the open circuit or short circuit.  
Replace the Stapler Head (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select [12-135], Staple Home Sensor. Select [14-046] and [14-047], Staple Motor, (PL 21.6), alternately. Select Start. **The display changes**

Y N  
Select Stop. Go to the 12.27 BSD. Check continuity between the Stapler Home Sensor and Finisher Main PWB. **The continuity check is OK.**  
Y N  
Repair the open circuit or short circuit.  
Replace the Stapler Head (PL21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Check the following:

- The wire between the Staple Head and the Finisher PWB for damage

If the above checks are OK, replace the Finisher PWB (PL 21.12).

## 012-295 RAP

### BSD-ON:12.26 C-Finisher Staple Positioning BSD

#### Finisher Stapler Move Sensor On Fail.

#### Initial Actions

- Check Actuator for deformation
- Check Stapler Move Position Sensor for improper installation
- Check Stapler Move Position Sensor connectors for connection failure
- Check Staple Move Motor connectors for connection failure
- Check Staple Guide for deformation

#### Procedure

Enter dC330 [14-046] and [12-047], Stapler Move Motor (PL 21.6), alternately. Select Start.

**The Staple Move Motor energizes.**

Y N  
Select Stop. Go to the 12.26 BSD. Check continuity between the Stapler Move Motor and Finisher Main PWB. **The continuity check is OK.**  
Y N  
Repair the open circuit or short circuit.  
Replace the Staple Move Motor (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select dC330 [14-241], Stapler Move Position Sensor (PL 21.6). Select Start. Block/unblock the Stapler Move Position Sensor. **The display changed.**

Y N  
Select Stop. Go to the 12.26 BSD. Check continuity between the Stapler Move Position Sensor and Finisher Main PWB. **The continuity check is OK.**  
Y N  
Repair the open circuit or short circuit.  
Replace the Stapler Move Position Sensor (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Check the following:

- Obstructions on the Stapler Upper Rail
- Stapler Move Motor Gear

If the above checks are OK. replace the Finisher PWB (PL 21.12).

## 012-296 RAP

### BSD-ON:12.26 C-Finisher Staple Positioning BSD

Finisher Stapler Move Sensor OFF Fail.

#### Initial Actions

- Check Actuator for deformation
- Check Stapler Move Position Sensor for improper installation
- Check Stapler Move Position Sensor connectors for connection failure
- Check Staple Move Motor connectors for connection failure
- Check Staple Guide for deformation

#### Procedure

Enter dC330 [14-046] and [12-047], Stapler Move Motor (PL 21.6), alternately. Select Start.

**The Staple Move Motor energizes.**

Y N  
Select Stop. Go to the 12.26 BSD. Check continuity between the Stapler Move Motor and Finisher Main PWB. **The continuity check is OK.**  
Y N  
Repair the open circuit or short circuit.  
Replace the Staple Move Motor (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select dC330 [14-241], Stapler Move Position Sensor (PL 21.6). Select Start. Block/unblock the Stapler Move Position Sensor. **The display changed.**

Y N  
Select Stop. Go to the 12.26 BSD. Check continuity between the Stapler Move Position Sensor and Finisher Main PWB. **The continuity check is OK.**  
Y N  
Repair the open circuit or short circuit.  
Replace the Stapler Move Position Sensor (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Check the following:

- Obstructions on the Stapler Upper Rail
- Stapler Move Motor Gear

If the above checks are OK. replace the Finisher PWB (PL 21.12).

## 012-300 RAP

### BSD-ON:12.3 C-Finisher InterlockSwitching BSD

Finisher Eject Cover Open (Compiler Cover).

#### Initial Actions

- Ensure that the Eject Cover is down
- Check Eject Cover Switch for improper installation
- Check Eject Cover Switch connectors for connection failure
- Check Actuator part for deformation

#### Procedure

Enter dC330 [12-300], Eject Cover Switch (PL 21.7). Select Start. Actuate the Eject Cover Switch. **The display changes**

Y N  
Select Stop. Check continuity of the Eject Cover Switch. **The continuity check is OK.**  
Y N  
Replace the Eject Cover Switch (PL 21.7).  
Go to the 12.3 BSD. Check continuity between the Eject Cover Switch and the Finisher PWB. If the check is OK, replace the Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).



## 012-302 RAP

### BSD-ON:12.3 C-Finisher InterlockSwitching BSD

Finisher Front Door Interlock Open. The finisher front door is open.

#### Initial Actions

Check the following:

- Finisher Front Door Switch for proper installation
- Finisher Front Door Switch connectors for connection failure
- Actuator part for deformation
- Ensure that the Eject Cover is in the closed/down position

#### Procedure

Enter dC330 [014-302], Front Door Interlock Switch (PL 21.3). Select Start. Open and close the Front Door. **The display changes.**

**Y N**  
Go to the 12.3 BSD. Disconnect J8314 on the Finisher PWB. **+5 VDC is measured between the Finisher PWB P8314-2 and P8314-3.**

**Y N**  
Replace the Finisher PWB (PL 21.12).

**There is less than 5 ohms between J8313-3 and the finisher frame.**

**Y N**  
Replace the Finisher PWB (PL 21.12).

Go to the 12.3 BSD. Check the wires between the Finisher PWB, the Eject Cover Switch and the Finisher Front Door Switch for an open circuit or poor contact. If the wires are good, replace the Front Door Interlock Switch (PL 21.3).

Select Stop. Check the following:

- Alignment between the Front Door and the Front Door Interlock Switch
- Front Door and Front Cover for proper installation
- Actuator for damage or bent
- Magnet for proper mounting

If the above checks are OK, replace the Finisher PWB (PL 21.12).

## 012-307 RAP

### BSD-ON:12.13 Booklet Drive BSD

Booklet Drawer Set Fail. The booklet drawer has not been put into position.

#### Initial Actions

- The Booklet Drawer Set Sensor for improper installation
- The Booklet Drawer Set Sensor connectors for connection failure
- The Actuator part for deformation

#### Procedure

Enter dC330 [13-104], Booklet Drawer Set Sensor (PL 21.15). Select Start. Remove and insert the Booklet Drawer manually. **The display changes.**

**Y N**  
Select Stop. Go to the 12.13 BSD. Check continuity between the Booklet Drawer Set Sensor and Finisher Main PWB. **The continuity check is OK.**

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

Replace the Booklet Drawer Set Sensor (PL 21.15). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-320 RAP

### BSD-ON:12.23 C-Finisher Punch Hole Control BSD

Punch Home Sensor ON Fail. The punch home sensor did not come on within a given time after the puncher motor came on.

#### Initial Actions

Check the following:

- Puncher Home Actuator for deformation
- Puncher Home Sensor for proper installation
- Puncher Home Sensor connectors
- Puncher Motor for proper operation
- Puncher Motor connectors

#### Procedure

Enter dC330 [14-078] and [14-075], Puncher Motor (PL 21.8), alternately. **Select Start. The Puncher Motor runs.**

**Y N**  
Select Stop. Go to the 12.22 BSD. Check circuit of the Punch Motor. Refer to OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [14-271], Puncher Home Sensor (PL 21.8). Select Start. Actuate the sensor with a piece of paper. **The display changes.**

**Y N**  
Go to the 12.23 BSD. Check circuit of the Puncher Home Sensor. Refer to OF 99-2 RAP for troubleshooting procedure.

Select Stop. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-321 RAP

### BSD-ON:12.23 C-Finisher Punch Hole Control BSD

Punch Home Sensor OFF Fail. The punch home sensor did not turn off within a given time after the puncher motor came on.

#### Initial Actions

Check the following:

- Puncher Home Actuator for deformation
- Puncher Home Sensor for proper installation
- Puncher Home Sensor connectors
- Puncher Motor for proper operation
- Puncher Motor connectors

#### Procedure

Enter dC330 [14-078] and [14-075], Puncher Motor (PL 21.8), alternately. **Select Start. The Puncher Motor runs.**

**Y N**  
Select Stop. Go to the 12.22 BSD. Check circuit of the Punch Motor. Refer to OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [14-271], Puncher Home Sensor (PL 21.8). Select Start. Actuate the sensor with a piece of paper. **The display changes.**

**Y N**  
Select Stop. Go to the 12.23 BSD. Check circuit of the Puncher Home Sensor. Refer to OF 99-2 RAP for troubleshooting procedure.

Select Stop. If the problem continues, replace the Finisher Main PWB (PL 21.12).

## 012-322 RAP

### BSD-ON:12.23 C-Finisher Punch Hole Control BSD

Puncher Move Home Sensor OFF Fail.

1. The punch move home sensor did not turn off within a given time after the puncher move motor came on.
2. The punch move home sensor was not off after the puncher move motor stopped because the punch move home sensor turned off.

#### Initial Actions

- The Actuator for deformation
- The Puncher Move Home Sensor for improper installation
- The Puncher Move Home Sensor connectors for connection failure
- The Puncher Move Motor connectors for connection failure

#### Procedure

Enter dC330 [14-071] and [14-073], Puncher Move Motor (PL 21.5), alternately. Select Start. **The Puncher Move Motor run.**

**Y N**  
Select Stop. Go to the 12.22 BSD. Check continuity between the Puncher Move Motor and Finisher Main PWB. **The continuity check is OK.**

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

Replace the Puncher Move Motor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select [14-270], Puncher Move Home Sensor (PL 21.5). Select Start. Block/unblock the Puncher Move Home Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.23 BSD. Check continuity between the Puncher Move Home Sensor and Finisher Main PWB. **The continuity check is OK.**

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

Replace the Puncher Move Home Sensor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Check the following:

- The Puncher Move Motor Belt for improper tension
- The Puncher Move Motor Belt for disengagement

If the above checks are OK, replace the Finisher Main PWB (PL 21.12).

## 012-323 RAP

### BSD-ON:12.23 C-Finisher Punch Hole Control BSD

Puncher Move Home Sensor On Fail.

1. The punch move home sensor did not come on within a given time after the puncher move motor came on.
2. The punch move home sensor was not on after the puncher move motor stopped because the punch move home sensor came on.

#### Initial Actions

Check the following:

- Actuator for deformation
- Puncher Move Home Sensor for improper installation
- Puncher Move Home Sensor connectors for connection failure
- Puncher Move Motor connectors for connection failure

#### Procedure

Enter dC330 [14-073] and [14-074], Puncher Move Motor (PL 21.5), alternately. Select Start. **The Puncher Move Motor energizes.**

**Y N**  
Select Stop. Go to the 12.22 BSD. Check continuity between the Puncher Move Motor and Finisher Main PWB. **The continuity check is OK.**

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

Replace the Puncher Move Motor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select [14-270], Puncher Move Home Sensor (PL 21.5). Select Start. Block/unblock the Puncher Move Home Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.23 BSD. Check continuity between the Puncher Move Home Sensor and Finisher Main PWB. **The continuity check is OK.**

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

Replace the Puncher Move Home Sensor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Check the following:

- Puncher Move Motor rack and gear for binding, wear, or damage

If the above check is OK, replace the Finisher Main PWB (PL 21.12).

## 012-325 RAP

BSD-ON:12.10

Side Regi Home Sensor On Fail.

1. The side regi home sensor did not come on within a given time after the puncher move motor came on.
2. The side regi home sensor was not on after the puncher move motor stopped because the side regi home sensor came on.

### Initial Actions

### Procedure

TBD

## 012-330 RAP

BSD-ON:12.7 C-Finisher Decurler Control BSD

Decurler Cam Home Sensor OFF Fail. The decurler cam home sensor did not turn off within a given time after the decurler cam clutch came on.

### Initial Actions

- Check for obstructions in the Decurler area

### Procedure

Enter dC330 [014-217], Decurler Home Sensor (PL 21.26). Select Start. Actuate the Decurler Home Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.7 BSD. Check the circuit of the Decurler Home Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Select [014-099], Decurler Cam Clutch (PL 21.26). Select Start. **The Decurler Roll Shaft rotates.**

Y N

**The Decurler Cam Clutch energized.**

Y N

Select Stop. Go to the 12.7 BSD. Check the circuit of the Decurler Cam Clutch. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Decurler Cam Clutch and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.26).

Select Stop. Check the following:

- Ensure that the Decurler Cam Home Sensor connectors are securely connected and that the wires are not damaged
- Ensure that the Decurler Cam Clutch connectors are securely connected and that the wires are not damaged
- Interface Motor Drive belt for wear, damage, or loose
- Interface Motor connections are securely connected and that the wires are not damaged

If the above checks are OK, replace the Decurler Home Sensor (PL 21.26). If the problem continues, replace the Interface PWB (PL 21.12). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-332 RAP

### BSD-ON:12.7 C-Finisher Decurler Control BSD

Decurler Cam Home Sensor ON Fail.

1. The decurler cam home sensor did not come on within a given time after the decurler cam home sensor turned off.
2. The decurler cam home sensor was not on after it stopped because the decurler cam home sensor came on.

### Initial Actions

- Check for obstructions in the Decurler area

### Procedure

Enter dC330 [014-217], Decurler Home Sensor (PL 21.26). Select Start. Actuate the Decurler Home Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.7 BSD. Check the circuit of the Decurler Home Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-099], Decurler Cam Clutch (PL 21.26). Select Start. **The Decurler Roll Shaft rotates.**

Y N

**The Decurler Cam Clutch energized.**

Y N

Select Stop. Go to the 12.7 BSD. Check the circuit of the Decurler Cam Clutch. Refer to the OF 99-9 RAP for troubleshooting procedure.

Check the Decurler Cam Clutch and its associated gears, pulleys and belts for damage, contamination and misalignment (PL 21.26).

Select Stop. Check the following:

- Ensure that the Decurler Cam Home Sensor connectors are securely connected and that the wires are not damaged
- Ensure that the Decurler Cam Clutch connectors are securely connected and that the wires are not damaged
- Interface Motor Drive belt for wear, damage, or loose
- Interface Motor connections are securely connected and that the wires are not damaged

If the above checks are OK, replace the Decurler Home Sensor (PL 21.26). If the problem continues, replace the Interface PWB (PL 21.12). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-334 RAP

### BSD-ON:3.5 PWB Communication (MCU - Finisher) BSD

Download Mode Fail. After a download terminated in failure, when power is turned on, it will only come up in download mode.

### Initial Actions

### Procedure

TBD

## 012-335 RAP

### BSD-ON:12.5 C-Finisher PWB Communication BSD

Booklet Sub CPU Communication Fail.

#### Initial Actions

- Check the connectors at the Finisher PWB and the Booklet PWB are connected or seated properly (12.5 BSD)
- Check the wiring between the Finisher PWB and the Booklet PWB for damage (12.5 BSD)

#### Procedure

Power OFF and Power ON the Printer. **The problem is resolved.**

|   |                                                                                                    |
|---|----------------------------------------------------------------------------------------------------|
| Y | N                                                                                                  |
|   | Reload the Software. <b>The problem is resolved.</b>                                               |
|   | Y N                                                                                                |
|   | Replace the Finisher PWB (PL 21.12). If the problem continues, replace the Booklet PWB (PL 21.12). |
|   | Rerun the job.                                                                                     |
|   | Rerun the job.                                                                                     |

## 012-900 RAP

### BSD-ON:12.12 C-Finisher Buffer Transport BSD

Buffer Path Sensor Static Jam. The buffer path sensor detected paper when the power was turned on, or when all interlocks were closed, or during an initialization operation.

#### Initial Actions

Check the following:

- Paper on the Buffer Path Sensor
- Obstructions in the paper path

#### Procedure

Enter dC330 [014-101], Buffer Path Sensor (PL 21.10). Select Start. Actuate the Buffer Path Sensor. **The display changes.**

|   |                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                                                      |
|   | Select Stop. Go to the 12.12 BSD. Check the circuit of the Buffer Path Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure. |

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Finisher for a docking failure

If the above checks are OK, then replace the Buffer Path Sensor (PL 21.10). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-901 RAP

BSD-ON:12.8 C-Finisher I/F Transportation BSD

Finisher Paper Remains I/F X'port Entrance.

### Initial Actions

Check the following:

- Paper on the Decurler In Sensor
- Obstructions in the paper path
- Interface Drive Motor Belt for wear or damage
- Guides on the Interface Cover for damage, wear or faulty installation

### Procedure

Enter dC330 [014-190], Decurler In Sensor (PL 21.27). Select Start. Open the Interface Cover and actuate the Decurler In Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.8 BSD. Check the circuit of the Decurler In Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Interface and Finisher for a docking failure
- Interface Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Interface Entrance Sensor (PL 21.25). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-902 RAP

BSD-ON:12.8 C-Finisher I/F Transportation BSD

Finisher Paper Remains I/F X'port Exit.

### Initial Actions

Check the following:

- Paper on the Decurler Out Sensor
- Obstructions in the paper path
- Interface Drive Motor Belt for wear or damage
- Guides on the Interface Cover for damage, wear or faulty installation

### Procedure

Enter dC330 [014-191], Decurler Out Sensor (PL 21.27). Select Start. Open the Interface Cover and actuate the Interface Tray Exit Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.15 BSD. Check the circuit of the Decurler Out Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Interface and Finisher for a docking failure
- Interface Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Interface Entrance Sensor (PL 21.25). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-903 RAP

### BSD-ON:12.24 C-Finisher Compiling BSD

Compile Exit Sensor Static Jam. The compile exit sensor detected paper when the power was turned on, or when all interlocks were closed, or during an initialization operation.

#### Initial Actions

- Paper on the Compiler Exit Sensor
- Obstructions in the paper path

#### Procedure

Enter dC330 [014-150], Compiler Exit Sensor (PL 21.9). Select Start. Open the H-Transport Cover and actuate the Compiler Exit Sensor. **The display changes.**

**Y N**

Select Stop. Go to the 12.24 BSD. Check the circuit of the Compiler Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Exit Motor Belt for wear or damage
- Exit Pinch Rollers 1 and 2 for damage
- Lower Exit Roller for wear or damage
- Synchronous Belt for wear or damage

If the above checks are OK, then replace the Compiler Exit Sensor (PL 21.9). If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-905 RAP

### BSD-ON:12.24 C-Finisher Compiling BSD

Compile Tray No Paper Sensor Static Jam. The compile tray no paper sensor detected paper when the power was turned on, or when all interlocks were closed, or during an initialization operation.

#### Initial Actions

- Paper on the Compiler Tray Paper Sensor
- Obstructions in the paper path

#### Procedure

Enter dC330 [014-151], Compiler Tray No Paper Sensor (PL 21.9). Select Start. Actuate the Compiler Tray No Paper Sensor. **The display changes.**

**Y N**

Select Stop. Go to the 12.24 BSD. Check the circuit of the Compiler Tray No Paper Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Exit Motor Belt for wear or damage
- Exit Pinch Rollers 1 and 2 for damage
- Lower Exit Roller for wear or damage
- Synchronous Belt for wear or damage

If the above checks are OK, then replace the Compiler Tray No Paper Sensor (PL 21.8). If the problem continues, replace the Finisher PWB (PL 21.12).



## 012-907 RAP

### BSD-ON:12.21 C-Finisher Top Tray Stacking BSD

Top Tray Exit Sensor Static Jam. The top tray exit sensor detected paper when the power was turned on, or when all interlocks were closed, or during an initialization operation.

#### Initial Actions

- Paper on the Top Tray Exit Sensor
- Obstructions in the paper path

#### Procedure

Enter dC330 [014-115], Top Tray Exit Sensor (PL 21.11). Select Start. Actuate the Top Tray Exit Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.21 BSD. Check the circuit of the Top Tray Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Exit Motor Belt for wear or damage
- Exit Drive Shaft Rolls for wear or damage
- Exit Pinch Rollers for wear or damage
- Synchronous Belt for wear or damage

If the above checks are OK, then replace the Top Tray Exit Sensor (PL 21.11). If the problem continues, replace the Finisher PWB (PL 21.12).

## 012-920 RAP

### BSD-ON:12.11 C-Finisher Transport, Top Tray Gating BSD

Gate Sensor static JAM (to Top Tray) A: Finisher.

#### Initial Actions

- Check for obstructions in the paper path
- Check the Finisher Drive Motor Gears and Drive rolls for wear or damage

#### Procedure

Enter dC330 [014-102], Gate Sensor (PL 21.11). Select Start. Actuate the Gate Sensor. **The display changes.**

Y N

Select Stop. Go to the 12.11 BSD. Check the circuit of the Gate Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Finisher is docked properly
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Gate Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-932 RAP

BSD-ON:12.11 C-Finisher Transport, Top Tray Gating BSD

Gate SNR static JAM (to Stacker Tray) A.

### Initial Actions

- Check for obstructions in the paper path
- Check the Finisher Drive Motor Gears and Drive rolls for wear or damage

### Procedure

Enter dC330 [014-102], Gate Sensor (PL 21.11). Select Start. Actuate the Gate Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.11 BSD. Check the circuit of the Gate Sensor. Refer to the **OF 99-2** RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Finisher is docked properly
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Gate Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-934 RAP

BSD-ON:12.11 C-Finisher Transport, Top Tray Gating BSD

Gate SNR static JAM (to Stacker Tray) C.

### Initial Actions

- Check for obstructions in the paper path
- Check the Finisher Drive Motor Gears and Drive rolls for wear or damage

### Procedure

Enter dC330 [014-102], Gate Sensor (PL 21.11). Select Start. Actuate the Gate Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.11 BSD. Check the circuit of the Gate Sensor. Refer to the **OF 99-2** RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Finisher is docked properly
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Gate Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-935 RAP

### BSD-ON:12.11 C-Finisher Transport, Top Tray Gating BSD

Finisher Paper Remain X'port Entrance Sensor.

#### Initial Actions

- Check for obstructions in the paper path
- Check the Finisher Drive Motor Gears and Drive rolls for wear or damage

#### Procedure

Enter dC330 [014-102], Gate Sensor (PL 21.11). Select Start. Actuate the Gate Sensor. **The display changes.**

**Y N**  
Select Stop. Go to the 12.11 BSD. Check the circuit of the Gate Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select Stop. Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Finisher is docked properly
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or misalignment

If the above checks are OK, then replace the Gate Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-936 RAP

### BSD-ON:12.14 Booklet Transportation BSD

Paper Remain at Booklet In SNR A.

#### Initial Actions

- Check for obstructions in the paper path
- Check that the Finisher is dock correctly to ensure proper Transport Gate operation
- Check the Booklet In Sensor for obstructions (PL 21.21)
- Check for transportation failure of non-standard paper
- Check the Booklet In Roll for wear or damage

#### Procedure

Enter dC330 [013-135], Booklet In Sensor (PL 21.21). Select Start. Actuate the Booklet In Sensor. **The display changes.**

**Y N**  
Go to the 12.14 BSD. Check the circuit of the Booklet In Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [013-068] and/or [013-069], Booklet Gate Solenoid (PL 21.21). Select Start. **The Booklet Gate Solenoid actuates.**

**Y N**  
Select Stop. Go to the 12.10 BSD. Check the circuit of the Booklet Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). Select Start. **The motor energizes.**

**Y N**  
Select Stop. Go to the 12.9 BSD. Check the circuit of the Finisher Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Interface Motor and its associated gears and belts for damage, contamination or alignment
- Check the Finisher Transport Motor and its associated gears and belts for damage, contamination or alignment

If the above checks are OK, then replace the Booklet In Sensor (PL 21.25). If the problem persists, replace the Finisher PWB (PL 21.12).

## 012-949 RAP

BSD-ON:12.10 C-Finisher Booklet / Punch Transport BSD

Finisher Punch DustBox Miss Set.

### Initial Actions

- The Puncher Waste Bin Set Sensor for improper installation
- The Puncher Waste Bin Set Sensor connectors for connection failure
- The Puncher Waste Bin Actuator part for deformation and damage
- The Guide for deformation
- The Guide for a foreign substance

### Procedure

Enter dC330 [14-275], Puncher Box Set Sensor (PL 21.5). Select Start. Remove and insert the Puncher Waste Bin manually. **The display changes**

**Y N**  
Select Stop. Go to the 12.10 BSD. Check continuity between the Puncher Box Set Sensor and Finisher Main PWB. **The continuity check is OK.**

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

Replace the Puncher Box Set Sensor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Check the Puncher Waste Box Actuator and Guide for deformation. **The Puncher Waste Bin can be removed and inserted properly.**

**Y N**  
Repair or replace the Puncher Waste Bin (PL 21.5).

Select Stop. If the problem continues, replace the Finisher PWB (PL 21.12).

## 013-902 RAP

Booklet Compile No Paper Sensor Static Jam. The booklet compile no paper sensor detected paper when the power was turned on, or when all interlocks were closed, or during an initialization operation.

### Initial Actions

### Procedure

Go to [012-266 RAP](#) to troubleshoot the Fault.

## 013-903 RAP

Booklet Folder Roll Exit Sensor Static Jam. The booklet folder roll exit sensor detected paper when the power was turned on, or when all interlocks were closed, or during an initialization operation.

### Initial Actions

### Procedure

Go to [012-115 RAP](#) and/or [012-180 RAP](#) to troubleshoot the Fault.



## 016-210 RAP

BSD-ON:3.7 PWB ESS BSD

Software Option Fail (HDD Not Exist). The HDD is not installed.

### Procedure

Perform the following:

- Switch the power OFF then ON.
- Check the ESS PWB-HDD connection ( P/J310), ( P/J302).

## 016-211 RAP

BSD-ON:3.7 PWB ESS BSD

Software Option Fail (System Memory Low Volume). There is insufficient system memory.

### Procedure

Perform the following:

- Switch the power OFF then ON.
- Add the optional memory to ESS PWB.

## 016-212 RAP

BSD-ON:3.7 PWB ESS BSD

SW Option Fail (Page Memory Low). One of the optional software functions cannot be supported due to insufficient page memory capacity.

### Procedure

Perform the following:

- Switch the power OFF then ON.
- Add Page Memory to ESS PWB.

## 016-213 RAP

BSD-ON:3.7 PWB ESS BSD

SW Option Fail (Printer CARD Not Exist). There is insufficient page memory.

### Procedure

Perform the following:

- Switch the power OFF then ON.
- Install the PRT\_CARD if it is not installed.
- Replace it if it is installed.



## 016-215 RAP

BSD-ON:3.7 PWB ESS BSD

SW Option Fail (JPEG Board Not Exist)The JPEG PWB is not installed.

### Procedure

Perform the following:

- Switch the power OFF then ON.
- Install the JPEG board if it is not installed.
- Replace the JPEG board (PL 11.6) if installed.

## 016-216 RAP

SW Option Fail (Ext Memory Not Exist)The extension MEM PWB is not installed.

### Procedure

Perform the following:

- Switch off the power. Disconnect and reconnect the connectors between IIT/IPS PWB and Extension Memory PWB.
- Replace the Extension Memory PWB (PL 13.8).

**NOTE:** When replacing the Extension Memory PWB, replace the new EEPROM U3 with the old one.

## 016-217 RAP

BSD-ON:3.7 PWB ESS BSD

SW Option Fail (Controller ROM not Printer kit). The ESS ROM does not support the printer kit.

### Procedure

Perform the following:

- Switch the power OFF then ON.
- Upgrade the firmware in the Controller ROM that supports Printer Kit.

## 016-218 RAP

Because PS Kit is not installed, XDOD functions cannot be fulfilled.

### Procedure

- Switch the power OFF then ON.
- Install the PS Kit.

## 016-219 RAP

License is required (Printer Kit). There is no license (the printer kit's SW key is not specified).

### Procedure

- Switch the power OFF then ON.
- Set the Printer Kit SW key to 'Enabled'.

## 016-220 RAP

S2X Unrecoverable Error. A fatal SX2 error was detected.

### Procedure

**NOTE:** *This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).*

## 016-221 RAP

S2X Communication Error. It was not possible to communicate with S2X.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-222 RAP

S2X Self-Diag Error. An error occurred during S2X self-diagnosis.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-223 RAP

SS2X SDRAM Error.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-224 RAP

S2X PCI Reg Error. S2X had a problem accessing its internal PCI space.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-225 RAP

S2X ROM CheckSum Error. S2X failed its ROM checksum test.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-226 RAP

S2X IIT Connection Error. S2X could not detect the video clock that it receives from IIT.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-227 RAP

S2X DDR Error. S2X failed its internal DDR memory write/read test.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-228 RAP

S2X Image Processing Error.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 016-229 RAP

SW Option Fail (FCW-UI Not Exist) The extension MEM PWB is not installed.

### Procedure

Disconnect the HB-UI and connect the FCW-UI.

## 016-311 RAP

BSD-ON: CH 2.5

The scanner was not detected.

### Procedure

Connect the meter between P720-2 and P720-1 on the IIT/IPS PWB. **There is +12 VDC present.**

Y N

Go to BSD 2.5 and BSD 2.2 and check for an open wire between P720 pins 1 and 2 on the IIT/IPS PWB and P504 pins 6 and 3 on the Main LVPS.

If powering the Machine OFF then ON does not resolve the problem, check the connection between IIT/IPS PWB P719 and ESS PWB P336 (MC with Scanner).



## 016-315 RAP

NIIT Interface Fail. An error was detected in the I/F between the scanner and the main chassis.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Reinstall the I/F between Scanner and the main unit, or replace the I/F (PL 2.9).

## 016-316 RAP

Page Memory Not Detected. It was detected that the page memory (standard) for the scanner portion was not installed.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Extract Page Memory (standard) from ESS PWB then reinsert the memory into the ESS PWB.
2. If the problem still persists, replace Page Memory and ESS PWB (PL 11.5) in order.

## 016-317 RAP

Page Memory Broken-Standard. An error was detected with the page memory (standard) for the scanner portion.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Extract Page Memory (standard) from ESS PWB then reinsert the memory into the ESS PWB.
2. If the problem still persists, replace Page Memory and ESS PWB (PL 11.5) in order.

## 016-318 RAP

Page Memory Broken-Option. An error was detected with the page memory (option) for the scanner portion.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Extract Page Memory (standard) from ESS PWB then reinsert the memory into the ESS PWB.
2. If the problem still persists, replace Page Memory and ESS PWB (PL 11.5) in order.

## 016-320 RAP

A fatal error with doc conversion software was detected.

### Procedure

If powering OFF then ON does not resolve the problem, perform the following:

1. Check ESS PWB and IIT/IPS PWB connections
2. Reinstall the software.
3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)

## 016-322 RAP

JBA Account Full. The JBA accounting data is full.

### Procedure

- If powering OFF then ON does not resolve the problem, perform the following:
  1. Check ESS PWB and IIT/IPS PWB connections
  2. Reinstall the software.
  3. If the above actions do not resolve the problem, replace ESS PWB. (PL 11.5)
- After an external Accounting Server has read the accounting data, turn the power OFF then ON.

## 016-450 RAP

SMB Host Name Duplicated. There is another PC with the same host name on the network.

### Procedure

Check whether the setting of the same host name as the device is made to another unit. If the setting is duplicate, change the host name of the device or duplicate device.

## 016-454 RAP

DNS Renewal Failure of Dynamic. An IP address could not be obtained from DNS.

### Procedure

1. Check that DNS server address is set properly in the device.
2. Check with a customer System Administrator that the DNS server settings that allow Dynamic DNS have been made.

## 016-455 RAP

SNTP Server Time Out There was no response from the SNTP server within the given time (60 seconds).

### Procedure

If the time that the MC shows is different from the correct time, manually set the time.

## 016-456 RAP

SNTP Time Asynchronous. A message was received that was not synchronized with the standard synchronization source from the SNTP.

### Procedure

If the time that the MC shows is different from the correct time, manually set the time.

## **016-503 RAP**

SMTP Server Address Resolution Fail. The SMTP server name was not correct when sending mail.

### **Procedure**

Specify the correct SMTP Server name or use IP Address to specify the server.

## **016-504 RAP**

POP Server Address Resolution Fail. The POP3 server name was not correct when sending mail.

### **Procedure**

Specify the correct POP Server name or use IP Address to specify the server.

## 016-505 RAP

POP Authentication Fail. There was a failure logging in to the POP3 server when sending mail.

### Procedure

Correctly specify authentication info registered at the POP server.

## 016-600 RAP

KO Authentication Locked. The number of consecutive KO authentication errors reached the number specified in system data: 'Maximum Consecutive KO Authentication Errors (DC131 [700-563])'.

### Procedure

Only record the data to the history.

## 016-601 RAP

Illegal Access Detection. The number of authentication errors (including CO/KO) within a given time reached the number specified in system data: 'Maximum Number of Authentication Errors (DC131 [700-564])'.

### Procedure

Only record the data to the history.

## 016-701 RAP

Out of ART EX Memory. Insufficient memory was detected while using ART EX.

### Procedure

Perform the following procedures in sequence:

1. Increase the allocated memory of the ART EX. (In some cases, actual memory must be increased)
2. Change the print mode. (Example: High Quality mode → Normal mode)
3. Lower the resolution.
4. Set [Page Print mode] to [Enabled].
5. Execute [Image Compression] in the [Graphics] tab of the printer driver.



## 016-702 RAP

Out of Page Buffer. Even a single page could not be compressed. It was detected that the print page buffer was insufficient.

### Procedure

1. Change the Print mode (Example: High Quality mode → Normal mode).
2. Reduce the resolution.
3. Set [Page Print mode] to [Enabled].
4. Increase the page buffer.
5. Execute [Image Compression] in the [Graphics] tab of the printer driver.
6. For PCL, set the [PCL Heap Memory/Band Buffer Ratio] to above 1:2.

## 016-703 RAP

Email to Invalid Box. E-mail was received that specified a security box that was not enabled or that was not valid.

### Procedure

1. Ask the sender to register the numbered mailbox as specified and to send mail to the mailbox.
2. Ask the sender to send mail to the valid mailbox.

## **016-704 RAP**

Mailbox is Full. The full condition was detected when accessing the HD.

### **Procedure**

Delete unnecessary documents and then repeat the operation.

## **016-705 RAP**

Secure Print Fail. Secure storage was not possible without the HDD. A failure occurred when registering a securely printed document.

### **Procedure**

Check that HDD is installed.

If the problem occurs with the MC with HDD, check that the correct operation for security print is performed.

## 016-706 RAP

Max. User Number Exceeded. It was detected that the HDD was full because the maximum number of users for secure printing was exceeded.

### Procedure

Remove any unnecessary doc/user to perform reprinting.

## 016-707 RAP

Sample Print Fail. A sample print was not possible because the HDD was not installed.

### Procedure

Check that HDD is installed. If the problem occurs with the MC with HDD, check that the correct operation for proof print is performed.

## 016-708 RAP

HD Full by Annotation/Watermark Image. The job terminated because the full condition was detected during HD storage of an annotation or watermark image.

### Procedure

- Cancel Annotation/Watermark and repeat the operation.
- Reduce the no. of document pages. In Mixed Size mode, only a single size is available.
- For printing Stored Document, delete unnecessary documents from the HDD and repeat the operation.
- Expand the capacity of the HDD partition of the relevant service.

## 016-709 RAP

ART EX Command Error. An ART EX command error occurred during PLW processing.

### Procedure

This error occurs when some parts of the created print file are missing or abnormal. In parallel connection, check it according to the procedures given below.

1. Set [Parallel Bi-Directional Communication] to [OFF] in the printer driver.
2. Set a longer time for [Auto Output Time] by selecting [Port Settings]>[Parallel] in CWIS.
3. Replace the parallel cable.
4. If a long parallel cable is used, use a short cable (genuine) and try printing again.
5. Change the BIOS settings in the PC. (Change the current parallel port settings to others.)
6. Change the power supply outlet (socket).

In network connection, connect the PC with the printer for checking.

## 016-710 RAP

Delayed Print Fail.

### Procedure

Check whether the HDD is installed.

1. (If HDD is installed or HDD is full, free up the HDD capacity.)
2. If Secure Print/Proof Print or Knowledge Storage Print is specified, disable them.
3. Reduce the Delay Print jobs waiting to 100 jobs or less.

If the problem has occurred at installation, check whether the operations are correct.

## 016-711 RAP

In mailing iFAX and instructions for forwarding, the transmission module (Redirector) tried to send to the network, data whose size is over the system data 'the upper limit of Scan to Email data size.'

**NOTE:** *In Scan to Email, the same system data is referred to and 0016-985 is detected at an attempt to store images.*

### Procedure

1. Reduce resolution (image quality for transmission), which is a send parameter, to resend the image.
2. Reduce reduce/enlarge ratio, which is a send parameter, to retry. (Eg. Reduce A3 to A4.)
3. Change 'Upper limit of data size' in the System Setting screen on UI Panel. (Default 2MB recommended)

## 016-712 RAP

Under PANTHER Capacity (I-Formatter).

### Procedure

Increase the resolution or enlarge the scan area.

## 016-713 RAP

Security Box Password Error. Password composition failed during storage to a security box.

### Procedure

Set a correct password and try again.

## 016-714 RAP

Security Box is not Enabled. During storage to a security box the security box was not enabled.

### Procedure

Open the appropriate mailbox and try again.

## 016-716 RAP

TIFF Data Overflow. A TIFF file could not be spooled because the capacity of the HDD was exceeded.

### Procedure

Install the HDD or increase the capacity of the HDD.

## 016-718 RAP

Out of PCL6 Memory. Insufficient memory was detected when using PCL6.

### Procedure

Decrease resolution or avoid using Duplex Print/N-Up, to instruct the MC to reprint.

## 016-719 RAP

Out of PCL Memory. Insufficient memory was detected when using PCL.

### Procedure

Increase the PCL memory size. Increasing the memory for the whole system will increase the memory to be allocated to the Decomposer in some measure.

UI settings or other ways cannot explicitly increase the PCL memory.

Therefore, if a job is aborted due to insufficient memory when the memory has been increased to the maximum capacity, change the printer driver settings to see if printing becomes available.



## 016-720 RAP

PCL Command Error. A PCL command error occurred during PCL processing.

### Procedure

Cancel the job to retry.

## 016-721 RAP

Other Error. An unexpected error occurred during print processing.

### Procedure

Check the following:

- Check that with 'Paper Type Priority' set to 'Auto Tray Selection disabled' for all the trays in 'Common Settings' under System Settings, Auto Tray Selection is not selected.
- Check ESC/P Command Error then Print Error.

## 016-722 RAP

Job Cancel by Staple Position NG. A job was cancelled because the staple position was impossible.

### Procedure

- Check the Staple settings for the print data to be sent to the printer.
- Check the client driver settings or PC settings.

## 016-723 RAP

Job Cancel by Punch Position NG. A job was cancelled because the punch position was impossible.

### Procedure

- Check the Punch settings for the print data to be sent to the printer.
- Check the client driver settings or PC settings.

## 016-724 RAP

Complex Position Error of Staple and Punch.

### Procedure

Change settings so that the same blinding position (same side of output paper) is specified.

## 016-726 RAP

PDL Auto Switch Fail. The print language could not be automatically selected when the print mode specification was 'automatic'.

### Procedure

In parallel connection, check it according to the procedures given below.

1. Set a longer time for [Auto Output Time] by selecting [Port Settings]>[Parallel] in CWIS.
2. Replace the parallel cable.
3. If a long parallel cable is used, use a short cable (genuine) and try printing again.
4. Change the print language from [Auto] to [ARTEX] or [PS] fixed by selecting [Emulation Settings]>[Print Mode] in CWIS.

If not in parallel connection, check Step 4 above.

## 016-728 RAP

Unsupported TIFF Data. An unsupported tag was included in a TIFF file.

### Procedure

Remove any unsupported Tag from the data and reprint. Explain to the customer that the TIFF file is not supported.

## 016-729 RAP

TIFF Data Size too Big. A TIFF file could not be printed because the number of colors or resolution exceeded the upper bound for the permitted range.

### Procedure

Change the color qty/resolution of the TIFFfile and reprint.

## 016-730 RAP

Unsupported ART Command. A command that is not supported by ART IV was detected.

### Procedure

Remove any unsupported command from the data and reprint. Explain to the customer that the ART file is not supported.

## 016-731 RAP

Invalid TIFF Data. Printing was not possible because the TIFF data was truncated.

### Procedure

Wait for a while and then resend the data.

## 016-732 RAP

Form Not Registered. The decomposer detected that the specified form was not registered.

### Procedure

Resend the form data.

## 016-733 RAP

Destination Address Resolution Error.

1. An IP address could not be obtained from the character string on the right side of the @ sign in the destination mail address when sending mail by a peer-to-peer communication method.
2. The character string on the right side of the @ sign could not be resolved by DNS as an FQDN when sending mail by a peer-to-peer communication method.

### Procedure

- Check if the destination address has been entered properly.
- Set a correct DNS server address.

## 016-734 RAP

Simple Transmission report invocation error. An error occurred while outputting a simple destination address result report.

### Procedure

1. Set [Receive via SMTP] for E-mail receive setting on the sending device.
2. Remove the restriction on receiving E-mails from a self-domain in the receivable domain list if any.

## 016-735 RAP

Updating Job Template. It decided to print the 'Job Template List' while updating a job template.

### Procedure

After the job template update is complete, retry.

## 016-736 RAP

Remote directory lock error. Lock directory creation failed.

### Procedure

1. Delete any existing lock directories (\*.LCK) in the transfer destination manually and then execute the job again.
2. Make correct settings for the permissions to the transfer destination directories.
3. Secure a disk capacity if the HDD for the transfer destination directory is full.

## 016-737 RAP

Remote lock directory remove error. Lock directory deletion failed.

### Procedure

Delete any existing lock directories (\*.LCK) in the transfer destination manually and then execute the job again.



## 016-738 RAP

PS Booklet Print Output Paper Size is illegal.

### Procedure

Specify the paper size that allows booklet printing.

## 016-739 RAP

Mismatch between PS Booklet Doc and Output Paper

### Procedure

Specify the combination of the document/paper sizes that allows booklet printing.

## **016-740 RAP**

PS Booklet Output Tray is incorrect.

### **Procedure**

Specify the tray that allows booklet printing.

## **016-746 RAP**

Unsupported PDF File.

- An unsupported function was included in a transmitted PDF.
- A transparency or JBIG2 was included in a PDF file for PDF 1.3.

### **Procedure**

Ask the customer to print from Acrobat Reader via the driver.

## 016-748 RAP

HD Full. The full condition was detected during HD access.

### Procedure

Increase free HDD space and reprint.

## 016-749 RAP

JCL Syntax Error. A syntax error was detected in a JCL or PJJ command.

### Procedure

1. If a long cable is used for parallel connection, use a short cable (genuine) and try printing again.
2. Check whether the PC has sufficient memory.
3. Check the HDD in the PC for breakage.
4. Check whether the settings in the printer driver properties->[Printer Configuration] are different from the actual configuration.

## **016-751 RAP**

PDF Error. A syntax error, usage of an undefined command, parameter error, corrupted PDF file, or PDF decomposer internal error occurred during PDF bridge processing.

### **Procedure**

Print from Acrobat Reader by using the driver.

## **016-752 RAP**

PDF Short of Memory. It was detected that there was insufficient memory during PDF bridge processing.

### **Procedure**

Change a print mode as follows: from 'High Resolution' to 'Standard' or from 'Standard' to 'High Speed.'

If the problem still persists, add a memory. If despite a max capacity of memory the problem still persists, print from Acrobat Reader by using the driver.

## 016-753 RAP

PDF Password Mismatched. The password specified on the UI panel and the password specified in XJPL (specified by the contents bridge) did not agree when processing a PDF file that was password protected.

### Procedure

Specify the correct password on UI Panel or through Contents Bridge.

## 016-754 RAP

PDF LZW Not Installed. A PDF file that used LZW compression technology was processed by the PDF bridge when the 'Contents Bridge Expansion Kit' was not installed.

### Procedure

Install 'Contents Bridge Expansion Kit,' or print from Acrobat Reader by using the driver.

## 016-755 RAP

PDF Print Prohibited. A PDF file for which it had been specified that printing was prohibited was processed.

### Procedure

Clear the prohibition of printing a PDF file and then print it by using Acrobat.

## 016-756 RAP

Auditron-Prohibit Service. The use of this service is prohibited.

### Procedure

Ask the account administrator to permit the use of services.

## **016-757 RAP**

Auditron-Invalid User. A user account is invalid.

### **Procedure**

Set the correct account and retry.

## **016-758 RAP**

Auditron-Disabled Function. A function cannot be used due to lack of rights or permission.

### **Procedure**

1. Reset to another function available for the account and retry.
2. Ask the account administrator to add the right.

## 016-759 RAP

Auditron-Reached Limit. The upper bound to the number of pages that can be copied was reached.

### Procedure

Ask the account administrator to set a new paper qty.

## 016-760 RAP

PS Decompose Failure. An error occurred during postscript (option) processing.

### Procedure

- Set a print mode to 'Speed Preferred.'
- Resend the job. (If the problem persists, check the execution environment and data.)



## 016-761 RAP

FIFO Empty. Image expansion error (FIFO empty error).

### Procedure

Print in the Speed Preferred mode. If this does not resolve the problem, use the Print Guarantee mode for print. (Only for the machine with this mode.)

## 016-762 RAP

Print LANG Not Installed. A function that is not installed (such as a print language or print utility) was specified.

### Procedure

In 'Printer Mode' specify a print language.

## 016-764 RAP

SMTP Server Connect Error. It was not possible to connect to the SMTP server.

### Procedure

Take out mail from the Server HDD. Restart SMTP Services.

## 016-765 RAP

SMTP Server HD Full. It was not possible to send mail because the HDD capacity of the SMTP server was full.

### Procedure

Take out mail from the Server HDD. Reconsider the capacity of the server.

## 016-766 RAP

SMTP Server File System Error. An error occurred in the SMTP server.

### Procedure

Contact the SMTP Server administrator. Reconsider the preset limit to the server capacity.

## 016-767 RAP

Invalid E-mail Address. It was not possible to send because the mail address was wrong.

### Procedure

Ensure the mail address is correct and resend the mail.

## 016-768 RAP

Invalid Sender Address. It was not possible to connect to the SMTP server because the mail address of this equipment was not correct.

### Procedure

Check the set-up MC mail address to see if the Email address is valid in the domain.

## 016-769 RAP

SMTP Server Unsupported DSN. The SMTP server does not support path verification (DNS).

### Procedure

Enable the ESMTP function of the nearest SMTP server, or set DNS to OFF and send.

## 016-771 RAP

Scan Data Repository ERR. The scan data repository address cannot be obtained with the CenterWare scan service.

### Procedure

Check the connection to DNS, or check to see if the scan data repository domain name is registered at DNS.

## 016-772 RAP

Scan Data Repository ERR. The scan data repository address cannot be obtained with the CenterWare scan service.

### Procedure

Set the DNS address, or use the IP address as the scan data repository address.

## 016-773 RAP

Invalid IP Address. The IP address of this equipment is not specified correctly.

### Procedure

Check the DHCP environment, or set the fixed IP address for this machine.

## 016-774 RAP

HD Full-Compression Convert. Compression and conversion processing is not possible because there is insufficient HDD capacity.

### Procedure

Remove un-necessary data from HDD to increase free space, and retry.

## 016-775 RAP

HD Full-Image Convert. Image conversion processing is not possible because there is insufficient HDD capacity.

### Procedure

Remove un-necessary data from HDD to increase free space, and retry.

## 016-776 RAP

Image Convert ERR. An error occurred during image conversion processing.

### Procedure

1. In CentreWare Internet Services, check data. (A portion of the data might have finished image conversion processing.)
2. Attempt to take out data by forced polling.

## 016-777 RAP

HD Access ERR-Image Convert. An error occurred in the HDD during image processing.

### Procedure

1. Enter **dC355** Hard Disk Diag Program and format the HDD.
2. If the problem still persists, replace the HDD.

## 016-778 RAP

HD Full-Scan Image Convert. Scan image processing was interrupted because the HDD capacity was exceeded.

### Procedure

Increase free HDD space and rescan.



## 016-779 RAP

Scan Image Conversion Error. An error occurred during scan image conversion processing.

### Procedure

Retry the operation.

## 016-780 RAP

HD Access ERR-Image Convert. An error occurred in the HDD during scan image conversion processing.

### Procedure

1. Enter dC355 Hard Disk Diag Program and format the HDD.
2. If the problem still persists, replace the HDD.

## 016-781 RAP

Scan Server Connect ERR. The CenterWare scan service could not connect to the server to send a file.

### Procedure

1. Set up the proper MC 'Subnet Mask' and 'Gateway.'
2. By 'pinging' from the destination server, check that the MC is connected.
3. Check that the MC with Windows or UNIX can connect to the destination server via ftp.

## 016-782 RAP

Scan Server Login ERR. The CenterWare scan service could not log into the server to send a file.

### Procedure

1. Set up the login name and password at the destination server.
2. Set up the proper login name and password in attributes that the Job Template file has.
3. In CentreWare and on the client PC, set the same account as the above at resources.

## 016-783 RAP

Invalid Server Path. The CenterWare scan service could not find the specified server path to send a file.

### Procedure

Check the name of the path to the server which path is set up on the job template.

## 016-784 RAP

Server Write ERR. An error occurred when writing to the server with the CenterWare scan service.

### Procedure

1. Check for 'Write Authorization' into the server directory.
2. Check the server disk for free space.

## 016-785 RAP

Server HD Full. The CenterWare scan service could not send a file because the HDD of the server had insufficient capacity.

### Procedure

Check that there is 'Write Authorization' in the server directory and increase free space on the server disk.

## 016-786 RAP

HD Full-Scan Write ERR. It was not possible to write a file while using the scan function because the HDD capacity was insufficient.

### Procedure

1. A print job may make HDD full for a while, so wait for a while and retry.
2. Enter **dC355** Hard Disk Diag Program and format HDD.
3. Replace the HDD.

## 016-787 RAP

Invalid Server IP ADD. The server address specified in a job template was wrong.

### Procedure

Specify the correct job template, or check the contents (string Repository Name) of the job template file.

## 016-788 RAP

Retrieve to Browser Failed. The retrieval of a file from a web browser failed.

### Procedure

1. Reload the browser page and perform retrieval operation again.
2. Activate the browser again and perform retrieval operation again.
3. Turn the device OFF then ON and perform retrieval operation again.  
Note that no actions are required if the job was canceled by a user.
4. Improve the connection status to a network.
5. Check whether there are problems such as duplicated IP addresses.

## 016-789 RAP

HD Full-Job Memory. Processing was interrupted because the required HDD capacity to process mail was exceeded.

### Procedure

Reduce resolution or reduction/enlargement ratio to decrease the data size or send in several pieces.

## 016-791 RAP

File Retrieve Fail. There was an error in obtaining a file.

### Procedure

Check server directory structure and files (whether files exist, etc.). Check for the right to access both. Check whether access to the specified transfer destination server is available.

## 016-792 RAP

Specified Job Not Found. The job log for a job specified in the panel could not be obtained when outputting an aggregate report by job.

### Procedure

Remove unnecessary data from HDD to increase free space.

## 016-793 RAP

MF I/O HD Full. The HDD capacity was insufficient.

### Procedure

Delete the files in the HDD. Or, initialize the HD ( [Initialize Hard Disk](#)).

## 016-794 RAP

Media Reader: Media No Insert.

### Procedure

Check that the Media is inserted.

## 016-795 RAP

Media Reader: Format Error.

### Procedure

1. Check the contents in the Media from the PC. Check the file format/directory in the media and the selected mode (Digital Camera Print/Document Print), then make settings again.



## 016-796 RAP

Document insert operation error.

### Procedure

1. Check the contents in the Media from the PC. Check whether the print file attribute data is displayed in the PC and make settings again.

## 016-797 RAP

Media Reader: Image File Read Error.

### Procedure

1. Check the contents in the Media from the PC. Check whether the print file images are displayed in the PC and make settings again.

## 016-798 RAP

No Trust Marking Option. When the decomposer called the S-image library the error of no HDD was returned.

### Procedure

Install the necessary options (HD).

## 016-799 RAP

Print Instruction Fail. A print parameter was incorrect.

### Procedure

Perform the job again.

## 016-940 RAP

After the start of a job with Duplex Output selected, a difference was detected in size between side 1 and side 2.

### Procedure

Specify the job to avoid the detection conditions.

## 016-941 RAP

After the start of a job with Booklet selected, mixed-in-size/orientation pages with images were detected.

### Procedure

Specify the job to avoid the detection conditions.

## **016-942 RAP**

As a result of deletion of a page for which Duplex was selected, a difference was detected in size between side 1 and side 2.

### **Procedure**

Specify the job to avoid the detection conditions.

## **016-943 RAP**

As a result of insertion of a doc/divider after a page for which Duplex was selected, a difference was detected in size between side 1 and side 2.

### **Procedure**

Specify the job to avoid the detection conditions.

## 016-944 RAP

It was found that docs were merged, where specified was connection of docs including the cover with an image or a doc with a divider.

### Procedure

Specify the job to avoid the detection conditions.

## 016-945 RAP

It was found that a doc unavailable for duplex print was inserted after a doc for which Duplex was selected,

### Procedure

Specify the job to avoid the detection conditions.

## **016-946 RAP**

It was found that a doc or a divider was inserted after the cover or divider page.

### **Procedure**

Specify the job to avoid the detection conditions.

## **016-647 RAP**

After the start of a job with APS Doc selected or with APS set up, it was found that there were no trays loaded with paper of sizes for Auto Paper Selection.

### **Procedure**

Specify the job to avoid the detection conditions.

## 016-648 RAP

Though a job was started with Booklet selected, it was discontinued because it had the cover with an image, a divider or a blank page.

### Procedure

Specify the job to avoid the detection conditions.

## 016-949 RAP

After specifying page connection, the user inserted a doc different in size/orientation from the page to be processed.

### Procedure

Specify the job to avoid the detection conditions.

## 016-981 RAP

A failure in access to HDD

### Procedure

If no user action can resolve the problem, increase HDD partition size for a specific service.

## 016-982 RAP

HDD Access Error 2. It was determined that the HDD was full during a collation job, destination storage job, or divided job.

### Procedure

Increase HDD partition size for a specific service.



## **016-985 RAP**

Data Size Over Flow (Scan to Email). It was not possible to send during a scan to e-mail because the data size exceeded the upper bound.

### **Procedure**

1. Reduce resolution (image quality for transmission), which is a send parameter, and resend.
2. Reduce reduct/enlarge ratio, which is a send parameter, and resend. (Eg. Reduce A3 to A4.)
3. Change 'Upper limit of data size' in the System Setting screen on UI Panel. (Default 2MB recommended)



## 024-340 RAP

### BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 1. ESS PWB detected a communication failure between IOT and ESS.

#### Procedure

Power OFF then ON the MC. If the problem still persists, perform the following:

1. Check the harness between MCU PWB and ESS PWB for connection (including connection to BP PWB).
2. A possible software mismatch/error. Install the latest version of the software.
3. If the above actions do not resolve the problem, replace MCU PWB (PL 11.1).
4. If the problem still persists, it may be caused by a software error. Escalate the Call.

## 024-341 RAP

### BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 2. ESS PWB detected a communication failure between IOT and ESS.

#### Procedure

Refer to [024-340 RAP](#)

## 024-342 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 3. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-343 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 4. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-345 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 5. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-346 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 6. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-347 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 7. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-348 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 8. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-349 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 9. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-350 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 10. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-351 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 11. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-352 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 12. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)



## 024-353 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 13. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-354 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 14. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-355 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 15. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-356 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 16. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-357 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 17. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-358 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 18. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-359 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 19. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-360 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Initialization Failure.

### Procedure

Refer to [024-340 RAP](#)

## 024-361 RAP

Invalid IOT PaperSizeGroup Information.

### Procedure

Refer to [024-340 RAP](#)

## 024-362 RAP

Page Sync Illegal Start. PageSync became active before writing reached the point where the output data filled the FIFO during IOT output.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Check the harness between MCU PWB and ESS PWB for connection (including connection to BP PWB and FFC PWB).
2. Check the installation site environment for anything that causes excessive noises.
3. If the problem still persists, replace ESS PWB ([PL 11.5](#)) and MCU PWB ([PL 11.1](#)) in order.

## 024-363 RAP

Page Sync Illegal Stop. PageSync became invalid before the specified size was output during IOT output.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Check the harness between MCU PWB and ESS PWB for connection (including connection to BP PWB and FFC PWB).
2. Check the installation site environment for anything that causes excessive noises.
3. If the problem still persists, replace ESS PWB (PL 11.5) and MCU PWB (PL 11.1) in order.

## 024-364 RAP

DMA Transfer Failure. The specified data was input but compression or expansion did not complete when compression or expansion was being performed.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Extract the RAM from ESS PWB and insert it again, or replace the RAM.
2. Enter dC355 HDD Diag Program and make diagnosis. If any problems are found, replace HDD.
3. If the problem still persists, replace the ESS PWB (PL 11.5).

## 024-365 RAP

Overflow on the Loop Back Write.

### Procedure

This failure is currently not displayed.

## 024-366 RAP

JBIG Library Other Failure.

### Procedure

Turn the power OFF then ON. If the problem persists, perform the following.

1. Replace the ESS PWB (PL 11.5).

## 024-367 RAP

Decompress Other Failure. An incorrect line sync was detected during IOT output.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Extract the RAM from ESS PWB and insert it again, or replace the RAM.
2. Enter dC355 HDD Diag Program and make diagnosis. If any problems are found, replace HDD.
3. If the problem still persists, replace the ESS PWB (PL 11.5).

## 024-368 RAP

PCI Error. A failure occurred during PCI access because the PCI bus was incompatible.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. Extract the RAM from ESS PWB and insert it again, or replace the RAM.
2. Enter dC355 HDD Diag Program and make diagnosis. If any problems are found, replace HDD.
3. If the problem still persists, replace the ESS PWB (PL 11.5).



## 024-370 RAP

Marker Code Detect Failure. The end code was not found in the compressed data when, during expansion, it was expanded to the specified size.

### Procedure

If powering the MC OFF then ON does not resolve the problem, perform the following:

1. If the problem occurs with a particular doc alone, it is mostly likely to be caused by a software error.
  - A change of print mode (Standard/High Resolution/High Definition) may allow an output.
  - Increase free RAM space available.
2. If the problem occurs with almost all the docs, it is most likely to be caused by a hardware error. Check the following:
  - Replace the RAM.
  - Enter DC355 HDD Diag Program and make diagnosis. If any problems are found, replace HDD.
  - Check the harness between MCU PWB and ESS PWB for connection (including connection to BP PWB and FFC PWB).

If the problem still persists, replace the ESS PWB ([PL 11.5](#)).

## 024-371 RAP

**BSD-ON:3.1 PWB Communication (IOT) BSD**

IOT-ESS Communication Failure 21. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-372 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 22. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-373 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

IOT-ESS Communication Failure 23. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-374 RAP

Regi Con PLL Parameter Failure.

### Procedure

Refer to [024-340 RAP](#)

## 024-375 RAP

**BSD-ON:3.1 PWB Communication (IOT) BSD**

IOT-ESS Communication Failure 24. ESS PWB detected a communication failure between IOT and ESS.

### Procedure

Refer to [024-340 RAP](#)

## 024-600 RAP

Billing master counter repair.

### Procedure

This is only logged in history. No corrective action is required.

## 024-601RAP

Billing backup counter #1 repair.

### Procedure

This is only logged in history. No corrective action is required.

## 024-602 RAP

Billing backup counter #2 repair.

### Procedure

This is only logged in history. No corrective action is required.

## 024-603 RAP

SWKey master counter repair.

### Procedure

This is only logged in history. No corrective action is required.

## 024-604 RAP

SWKey backup counter #1 repair.

### Procedure

This is only logged in history. No corrective action is required.

## 024-605 RAP

SWKey backup counter #2 repair.

### Procedure

This is only logged in history. No corrective action is required.

## 024-606 RAP

Production Number/Serial Number Failure.

### Procedure

This is only logged in history. No corrective action is required.

## 024-746 RAP

Selected Paper Tray Parameter Mismatch. A function was specified (one of paper size, paper tray, output tray, and duplex printing) that is not compatible with the type of paper specified.

### Procedure

Do not specify parameters that are incompatible with the specified paper type.

## 024-747 RAP

Print Instruction Failure. A print parameter is incorrect, such as the specification of an unknown size, or the specification of 'automatic' for 'Paper Tray Selection'.

### Procedure

Change the print parameter and reprint.

## 024-910 RAP

**BSD-ON:7.1 Tray 1 Paper Size Sensing BSD, 8.10 Registration BSD**

Tray 1 Size Mismatch. When the paper length in Slow Scan direction is measured on the paper feed path, the size detected is different from the size detected by the tray.

### Procedure

Check the size and loading condition of the paper in the tray. **The paper size and the loading position of the paper guides are appropriate.**

Y N

Load paper of an appropriate size and align the loading position of the paper guides with the paper size.

Execute DC140 [071-200 Tray 1 Size Switch]. **The displayed value is within the normal output range of Tray 1. (11x17: 0 to 63, A5 SEF: 800 to 863, Tray removed: 928 to 1023)**

Y N

Go to BSD 7.1 and check the Tray 1 Paper Size Sensor for an open or short circuit. If OK, replace the Tray 1 Paper Size Sensor (PL 2.1).

Execute DC330 [077-101 Regi Sensor]. Actuate the Regi Sensor with paper. **The display changes.**

Y N

Go to BSD 8.10 and check the Reg Sensor using the Generic Sensor Failure OF 99-1.

Replace the MCU PWB (PL 11.1).



## 024-911 RAP

**BSD-ON:7.2 Tray 2 Paper Size Sensing BSD, 8.10 Registration BSD**

Tray 2 Size Mismatch. When the paper length in Slow Scan direction is measured on the paper feed path, the size detected is different from the size detected by the tray.

### Procedure

Check the size and loading condition of the paper in the tray. **The paper size and the loading position of the paper guides are appropriate.**

Y N

Load paper of an appropriate size and align the loading position of the paper guides with the paper size.

Execute DC140 [072-200 Tray 2 Size Switch]. **The displayed value is within the normal output range of Tray 2. (11x17: 0 to 63, A5 SEF: 800 to 863, Tray removed: 928 to 1023)**

Y N

Go to BSD 7.2 and check the Tray 2 Paper Size Sensor for an open or short circuit. If OK, replace the Tray 2 Paper Size Sensor (PL 2.1).

Execute DC330 [077-101 Regi Sensor]. Actuate the Regi Sensor with paper. **The display changes.**

Y N

Go to BSD 8.10 and check the Reg Sensor using the Generic Sensor Failure OF 99-1.

Replace the MCU PWB (PL 11.1).

## 024-912 RAP

**BSD-ON:7.3 Tray 3 Paper Size Sensing BSD, 8.10 Registration BSD**

Tray 3 Size Mismatch. When the paper length in Slow Scan direction is measured on the paper feed path, the size detected is different from the size detected by the tray.

### Procedure

Check the size and loading condition of the paper in the tray. **The paper size and the loading position of the paper guides are appropriate.**

Y N

Load paper of an appropriate size and align the loading position of the paper guides with the paper size.

Execute DC140 [073-200 Tray 3 Size Switch]. **The displayed value is within the normal output range of Tray 3. (A4 LEF: 304 to 367, B5 LEF: 800 to 863, Tray removed: 928 to 1023)**

Y N

Go to BSD 7.3 and check the Tray 3 Paper Size Sensor for an open or short circuit. If OK, replace the Tray 3 Paper Size Sensor (PL 2.1).

Execute DC330 [077-101 Regi Sensor]. Actuate the Regi Sensor with paper. **The display changes.**

Y N

Go to BSD 8.10 and check the Reg Sensor using the Generic Sensor Failure OF 99-1.

Replace the MCU PWB (PL 11.1).

## 024-913 RAP

### BSD-ON:8.10 Registration BSD

Tray 4 Size Mismatch. When the paper length in Slow Scan direction is measured on the paper feed path, the size detected is different from the size detected by the tray.

### Procedure

Check the size and loading condition of the paper in the tray. **The paper size and the loading position of the paper guides are appropriate.**

Y N

Load paper of an appropriate size and align the loading position of the paper guides with the paper size.

Execute DC140 [074-200 Tray 4 Size Switch]. **The displayed value is within the normal output range of Tray 4. (A4 LEF: 304 to 367, B5 LEF: 800 to 863, Tray removed: 928 to 1023)**

Y N

Go to BSD 7.4 and check the Tray 4 Paper Size Sensor for an open or short circuit. If OK, replace the Tray 3 Paper Size Sensor (PL 2.1).

Execute DC330 [077-101 Regi Sensor]. Actuate the Regi Sensor with paper. **The display changes.**

Y N

Go to BSD 8.10 and check the Reg Sensor using the Generic Sensor Failure OF 99-1.

Replace the MCU PWB (PL 11.1).

## 024-914 RAP

### BSD-ON:7.6 Single-Tray HCF Option (Tray 6) Paper Size Sensing And Tray Set BSD, 8.10 Registration BSD

Tray 6 Size Mismatch. When the paper length in Slow Scan direction is measured on the paper feed path, the detected size is different from the size detected by the HCF tray.

### Procedure

Check the size and loading condition of the paper in the tray. **The paper size and the loading position of the paper guides are appropriate.**

Y N

Load paper of an appropriate size and align the loading position of the paper guides with the paper size.

Execute DC330 [078-202 Tray 6 Size Sensor (Letter)]. **The display changes.**

Y N

Go to BSD 7.6 and check the Tray 6 Paper Size Sensor (Letter) for an open or short circuit. If OK, replace the Tray 6 Paper Size Sensor (Letter) (PL 18.8).

Execute DC330 [078-203 Tray 6 Size Sensor (A4)]. **The display changes.**

Y N

Go to BSD 7.6 and check the Tray 6 Paper Size Sensor (A4) for an open or short circuit. If OK, replace the Tray 6 Paper Size Sensor (A4) (PL 18.8).

Execute DC330 [077-101 Regi Sensor]. Actuate the Regi Sensor with paper. **The display changes.**

Y N

Go to BSD 8.10 and check the Reg Sensor using the Generic Sensor Failure OF 99-1.

Replace the MCU PWB (PL 11.1).

## 024-915 RAP

Tray 7 Size Mismatch. When the paper length in Slow Scan direction is measured on the paper feed path, the size detected is different from the size detected by the tray.

### Procedure

**NOTE:** Tray 7 is not present on this machine. If this code appears, reload the software.

## 024-916 RAP

**BSD-ON:12.30 C-Finisher Stacker Drive BSD**

One of the following conditions existed when Mix Full was detected in the Finisher Stacker Tray:

- The paper size (either feed direction or width direction) of the next job is larger than the maximum paper size that was loaded in the previous job.
- The width of the maximum paper size loaded at the previous job is less than 279.4mm and the Staple mode has been changed.
- The maximum paper size that was loaded in the previous job is 'unknown' as there was paper in the Stacker Tray at Power ON.

### Initial Actions

- Check the paper in the Stacker Tray.
- Switch the power OFF then ON.

### Procedure

Check the size of the paper in the Stacker Tray. **Is the paper size (either feed direction or width direction) of the next job the same as or smaller than the maximum paper size that was loaded in the previous job?**

Y N

| Load paper of an appropriate size in the tray.

Check the current Staple Mode settings. **The mode is the same as the Staple Mode settings from the previous job.**

Y N

| Revert to the previous Staple Mode settings.

Check the remaining paper in the Stacker Tray before turning the power ON. **The Stacker Tray is in a No Paper status with no paper remaining from the previous job left in the tray.**

Y N

| Remove the paper for the previous job.

Check the Stacker No Paper Sensor. **The acceptance surface of the sensor is clean and properly installed.**

Y N

| Remove the dirt and install it properly.

Execute DC330 [014-262 Stacker No Paper Sensor]. Actuate the front of the Stacker Empty Sensor (PL 21.4) with paper. **The display changes.**

Y N

| Go to BSD 12.30 and check the Stacker No Paper Sensor for an open circuit.

Check the connection of the connector between the machine and the Finisher. **The connectors properly connected.**

Y N

| Connect the connectors properly.

Replace the Finisher Main PWB (PL 21.12) followed by the MCU PWB (PL 11.1).

## 024-917 RAP

### BSD-ON:12.30 C-Finisher Stacker Drive BSD

One of the following conditions existed when Mix Full was detected in the Finisher Stacker Tray:

- The paper size (either feed direction or width direction) of the next job is larger than the maximum paper size that was loaded in the previous job.
- The width of the maximum paper size loaded at the previous job is less than 279.4mm and the Staple mode has been changed.
- The maximum paper size that was loaded in the previous job is 'unknown' as there was paper in the Stacker Tray at Power ON.

### Initial Actions

- Check the paper in the Stacker Tray.
- Switch the power OFF then ON.

### Procedure

Check the size of the paper in the Stacker Tray. **Is the paper size (either feed direction or width direction) of the next job the same as or smaller than the maximum paper size that was loaded in the previous job?**

Y N

| Load paper of an appropriate size in the tray.

Check the current Staple Mode settings. **The mode is the same as the Staple Mode settings from the previous job.**

Y N

| Revert to the previous Staple Mode settings.

Check the remaining paper in the Stacker Tray before turning the power ON. **The Stacker Tray is in a No Paper status with no paper remaining from the previous job left in the tray.**

Y N

| Remove the paper for the previous job.

Check the Stacker No Paper Sensor. **The acceptance surface of the sensor is clean and properly installed.**

Y N

| Remove the dirt and install it properly.

Execute DC330 [014-262 Stacker No Paper Sensor]. Actuate the front of the Stacker Empty Sensor (PL 21.4) with paper. **The display changes.**

Y N

| Go to BSD 12.30 and check the Stacker No Paper Sensor for an open circuit.

Check the connection of the connector between the machine and the Finisher. **The connectors properly connected.**

Y N

| Connect the connectors properly.

Replace the Finisher Main PWB (PL 21.12) followed by the MCU PWB (PL 11.1).

## 024-919 RAP

Face UP Tray Close.

### Procedure

If the problem persists after opening the Face Up Tray Cover, replace the Face Up Tray Sensor or Face Up Cover.

## 024-920 RAP

Face Down Tray1 Paper FULL

### Procedure

Clear the paper.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-922 RAP

Face Down Tray2 Paper FULL

### Procedure

Clear the paper.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-923 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD, 9.13 Yellow, Magenta, Cyan Development BSD, 9.16 Toner Dispense Control (2 Of 3) BSD

Yellow Toner Cartridge Empty

### Procedure

Check the connection of P/J140Y and P/J653B. Are P/J140Y and P/J653B properly connected?

Y N  
Connect P/J140Y and P/J653B properly.

Check the wire between P/J140Y and P/J653B for open circuit and short circuit (BSD 9.15). The wire between P/J140Y and P/J653B is OK.

Y N  
Repair the open circuit or short circuit.

Enter diagnostics. Enter DC330 [093-006] (Yellow Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N  
Turn off the power. Disconnect Connectors P/J201Y on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201Y-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N  
Replace the Yellow Dispense Motor (PL 6.4).

Check the following for continuity:

- IOT PWB P/J436-A14 to Dispense Motor P/J201Y-1
- IOT PWB P/J436-A13 to Dispense Motor P/J201Y-2

**Every resistance is 1 ohm or less.**

Y N  
Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Yellow Toner Dispenser. Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

Replace the Toner Cartridge Y (PL 6.1).

## 024-924 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD, 9.13 Yellow, Magenta, Cyan Development BSD, 9.16 Toner Dispense Control (2 Of 3) BSD

Magenta Toner Cartridge Empty

### Procedure

Check the connection of P/J140M and P/J653B. Are P/J140M and P/J653B properly connected?

Y N  
Connect P/J140M and P/J653B properly.

Check the wire between P/J140M and P/J653B for open circuit and short circuit (BSD 9.15). The wire between P/J140M and P/J653B is OK.

Y N  
Repair the open circuit or short circuit.

Enter diagnostics. Enter DC330 [093-007] (Magenta Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N  
Turn off the power. Disconnect Connectors P/J201M on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201M-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N  
Replace the Magenta Dispense Motor (PL 6.4).

Check the following for continuity:

- IOT PWB P/J436-A12 to Dispense Motor P/J201M-1
- IOT PWB P/J436-A11 to Dispense Motor P/J201M-2

**Every resistance is 1 ohm or less.**

Y N  
Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Magenta Toner Dispenser. Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

Replace the Toner Cartridge M (PL 6.1).

## 024-925 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD, 9.13 Yellow, Magenta, Cyan Development BSD, 9.16 Toner Dispense Control (2 Of 3) BSD

Cyan Toner Cartridge Empty

### Procedure

Check the connection of P/J140C and P/J653B. Are P/J140C and P/J653B properly connected?

Y N

Connect P/J140C and P/J653B properly.

Check the wire between P/J140C and P/J653B for open circuit and short circuit (BSD 9.15).

The wire between P/J140C and P/J653B is OK.

Y N

Repair the open circuit or short circuit.

Enter diagnostics. Enter DC330 [093-008] (Cyan Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N

Turn off the power. Disconnect Connectors P/J201C on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201C-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N

Replace the Magenta Dispense Motor (PL 6.4).

Check the following for continuity:

- IOT PWB P/J436-A10 to Dispense Motor P/J201C-1
- IOT PWB P/J436-A9 to Dispense Motor P/J201C-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Magenta Toner Dispenser. Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

Replace the Toner Cartridge C (PL 6.1).

## 024-926 RAP

Punch Dust Box Missing Set

### Procedure

Install the Punch Dust Box.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-927 RAP

BSD-ON:11.1 OCT (Option) BSD

Offset Catch Tray Full Stack

### Procedure

Execute DC330 [047-202 Tray Full Sensor]. **Actuate the sensor with paper. The display changes.**

Y N

Go to BSD 11.1 and check the sensor using the Generic Sensor Failure (OF 99-1).

Check the acceptance surface of the sensor for dirt and foreign substances. **It is in proper condition without dirt or foreign substances.**

Y N

Remove the dirt or foreign substances.

Replace the IOT PWB (PL 11.1) followed by the MCU PWB (PL 11.1).

## 024-930 RAP

Stacker Tray Full (Small Size Full).

### Procedure

Load the specified transparencies.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).



## 024-934 RAP

BSD-ON:8.10 Registration BSD

Paper type mismatch

### Initial Actions

- Check the paper type.
- Check the paper type settings.

### Procedure

Switch the power OFF then ON. If problem still exists, perform the following:

- Check the connectors on the MCU PWB (PL 11.1).
- Replace the MCU PWB (PL 11.1).

## 024-935 RAP

Tray 1 Paper Mismatch.

### Procedure

Use Xerox transparencies without borders.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-936 RAP

Tray 2 Paper Mismatch.

### Procedure

Use Xerox transparencies without borders.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-937 RAP

Tray 3 Paper Mismatch.

### Procedure

Use Xerox transparencies without borders.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-938 RAP

OHP kind Mismatch at Tray 4 (Not White Frame OHP).

### Procedure

Use Xerox transparencies.

If the problem persists, check the sensor using the Generic Sensor Failure ([OF 99-1](#)).

## 024-939 RAP

**BSD-ON:8.10 Registration BSD**

Transparency type mismatch (No white border)

### Initial Actions

- Check the transparency.
- Check the transparency type settings.
- Use Xerox transparencies without borders.

### Procedure

Switch the power OFF then ON. If problem still exists, perform the following:

- Check the connectors on the MCU PWB ([PL 11.1](#)).
- Replace the MCU PWB ([PL 11.1](#)).

## 024-940 RAP

Folder Tray Out of Place.

### Procedure

Set the Folder Tray again.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-941 RAP

Folder Tray Full Stack. The folder tray has a full stack.

### Procedure

Perform the following:

1. Press the Eject button for Tri-Fold paper to remove paper.
2. This failure is cleared and 024-988 occurs when the Tri-Fold paper output tray is pulled out.
3. Remove paper and install the Tri-Fold paper output tray to clear 024-988 and automatically continue the job.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-942 RAP

Booklet Sheets Over Count. The number of sheets in a booklet is over the limit.

### Initial Actions

Check the maximum number of sheets for Booklet.

### Procedure

Load paper in compliance with the maximum number of sheets for Booklet. Switch the power OFF then ON. Cancel Booklet. **The same error recurs.**

Y N

Bind sheets by the maximum number of sheets for Booklet.

Replace the Booklet PWB (PL 21.12) followed by the Finisher Main PWB (PL 21.12).

## 024-943 RAP

Booklet Low Staple. There are few remaining staples for booklets. (This fault can also occur if the cartridge is removed.)

### Procedure

Replace the Staple Cartridge.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-945 RAP

### BSD-ON:12.20 Booklet Tray Control BSD

Booklet Full Stack. The number of outlet portions to the booklet tray has reached the system data threshold.

#### Procedure

Remove all sets. Perform the job again. **The problem is resolved.**

**Y N**  
Execute DC330 [013-139 Booklet No Paper Sensor]. Move the actuator manually. **The display changes.**

**Y N**  
Go to BSD 12.20 and troubleshoot the Booklet No Paper Sensor circuit.

Replace the Booklet PWB (PL 21.12) followed by the Finisher Main PWB (PL 21.12).

If the problem reoccurs, replace the Finisher PWB (PL 21.12).

## 024-946 RAP

### BSD-ON:7.1 Tray 1 Paper Size Sensing BSD

Tray 1 Not In Position. Tray 1 has not been inserted properly.

#### Initial Actions

- Switch the power off, then on.
- Pull out and re-insert Tray 1.

#### Procedure

Execute DC140 [071-200 Tray 1 Size Switch]. **The display shows a value between 928 and 1023.**

**Y N**  
Go to BSD 7.1 and troubleshoot the Tray 1 Paper Size Sensor circuit.

Perform the following:

- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-947 RAP

### BSD-ON:7.2 Tray 2 Paper Size Sensing BSD

Tray 2 Not In Position. Tray 2 has not been inserted.

#### Initial Actions

- Switch the power off, then on.
- Pull out and re-insert Tray 2.

#### Procedure

Execute DC140 [072-200 Tray 2 Size Switch]. **The display shows a value between 928 and 1023.**

**Y N**

Go to BSD 7.2 and troubleshoot the Tray 2 Paper Size Sensor circuit.

Perform the following:

- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-948 RAP

### BSD-ON:7.3 Tray 3 Paper Size Sensing BSD

Tray 3 Not In Position. Tray 3 has not been inserted.

#### Initial Actions

- Switch the power off, then on.
- Pull out and re-insert Tray 3.

#### Procedure

Execute DC140 [073-200 Tray 3 Size Switch]. **The display shows a value between 928 and 1023.**

**Y N**

Go to BSD 7.3 and troubleshoot the Tray 3 Paper Size Sensor circuit.

Perform the following:

- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-949 RAP

### BSD-ON:7.4 Tray 4 Paper Size Sensing BSD

Tray 4 Not In Position. Tray 4 has not been inserted.

#### Initial Actions

- Switch the power off, then on.
- Pull out and re-insert Tray 4.

#### Procedure

Execute DC140 [074-200 Tray 4 Size Switch]. **The display shows a value between 928 and 1023.**

**Y N**

Go to BSD 7.4 and troubleshoot the Tray 4 Paper Size Sensor circuit.

Perform the following:

- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-950 RAP

### BSD-ON:7.7 Tray 1 Paper Stacking BSD

There is no paper in Tray 1.

#### Initial Actions

- Check the tray for paper.
- Switch the power OFF then ON.
- Check the operation of the actuator.

#### Procedure

Execute DC330 [071-201 Tray 1 Paper Sensor]. Activate the actuator of the Tray 1 Paper Sensor (PL 2.6). **The display changes.**

**Y N**

Go to BSD 7.7 and troubleshoot the Tray 1 Paper Sensor circuit.

Perform the following:

- Check the sensor actuator for an improper operation, breakage or disconnection.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).



## 024-951 RAP

### BSD-ON:7.8 Tray 2 Paper Stacking BSD

There is no paper in Tray 2.

#### Initial Actions

- Check the tray for paper.
- Switch the power OFF then ON.
- Check the operation of the actuator.

#### Procedure

Execute DC330 [072-201 Tray 2 Paper Sensor]. Activate the actuator of the Tray 2 Paper Sensor (PL 2.8). **The display changes.**

**Y N**

Go to BSD 7.8 and troubleshoot the Tray 2 Paper Sensor circuit.

Perform the following:

- Check the sensor actuator for an improper operation, breakage or disconnection.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-952 RAP

### BSD-ON:7.9 Tray 3 Paper Stacking BSD

There is no paper in Tray 3.

#### Initial Actions

- Check the tray for paper.
- Switch the power OFF then ON.
- Check the operation of the actuator.

#### Procedure

Execute DC330 [073-201 Tray 3 Paper Sensor]. Activate the actuator of the Tray 3 Paper Sensor (PL 2.10). **The display changes.**

**Y N**

Go to BSD 7.9 and troubleshoot the Tray 3 Paper Sensor circuit.

Perform the following:

- Check the sensor actuator for an improper operation, breakage or disconnection.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-953 RAP

### BSD-ON:7.10 Tray 4 Paper Stacking BSD

There is no paper in Tray 4.

#### Initial Actions

- Check the tray for paper.
- Switch the power OFF then ON.
- Check the operation of the actuator.

#### Procedure

Execute DC330 [074-201 Tray 4 Paper Sensor]. Activate the actuator of the Tray 4 Paper Sensor (PL 2.12). **The display changes.**

**Y N**

Go to BSD 7.10 and troubleshoot the Tray 4 Paper Sensor circuit.

Perform the following:

- Check the sensor actuator for an improper operation, breakage or disconnection.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-954 RAP

### BSD-ON:7.5 Tray 5 (No HCF/Single - Tray HCF) Paper Size Sensing BSD

There is no paper in Tray 5.

#### Initial Actions

- Check the tray for paper.
- Switch the power OFF then ON.
- Check the operation of the actuator.

#### Procedure

Execute DC330 [075-202 Tray 5 Paper Sensor]. Activate the actuator of the Tray 5 Paper Sensor (PL 3.7). **The display changes.**

**Y N**

Go to BSD 7.5 and troubleshoot the Tray 5 Paper Sensor circuit.

Perform the following:

- Check the sensor actuator for an improper operation, breakage or disconnection.
- Replace the MCU PWB (PL 11.1).

## 024-955 RAP

**BSD-ON:7.12 Single-Tray HCF Option (Tray 6) Paper Stacking BSD**

There is no paper in Tray 6.

### Initial Actions

- Check the tray for paper.
- Switch the power OFF then ON.
- Check the operation of the actuator.

### Procedure

Execute DC330 [078-200 Tray 6 Paper Sensor]. Activate the actuator of the Tray 6 Paper Sensor (PL 18.5). **The display changes.**

**Y N**

Go to BSD 7.12 and troubleshoot the Tray 6 Paper Sensor circuit.

Perform the following:

- Check the sensor actuator for an improper operation, breakage or disconnection.
- Replace the HCF PWB (PL 18.8).

## 024-956 RAP

There is no paper in tray 7.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 024-957 RAP

Interposer No Paper. There is no paper in the interposer.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 024-958 RAP

**BSD-ON:7.5 Tray 5 (No HCF/Single - Tray HCF) Paper Size Sensing BSD**

Tray 5 Size Mismatch. The paper in the tray and the paper specified for printing are different.

### Initial Actions

- Check the paper size in the tray.
- Switch the power OFF then ON.
- Check the operation of the side guides.

### Procedure

Check the paper size in Tray 5. **It is the paper size specified for printing.**

Y N

Load the correct paper into the tray.

Check the Tray 5 Paper Size Sensor. Check the connectors P/J113, P/J639, P/J679 and P/J407. **The connectors are properly connected.**

Y N

Connect properly.

Check the wire between P/J113 and P/J407 for open circuit and short circuit (BSD 7.5). **The wire between P/J113 and P/J407 is OK.**

Y N

Repair the open or short circuit.

Measure the voltage between the MCU PWB P/J407-A3 (+) and the GND (-) (BSD 7.5). **The voltage is approximately +3.3VDC.**

Y N

Replace the MCU PWB (PL 11.1).

Check the following:

- Side Guide positions
- The tray bottom to see if the link is disconnected or broken.
- The side actuator of the tray to see if it is operating improperly or broken.
- If problem still exists, replace the MCU PWB (PL 11.1).

## 024-959 RAP

### BSD-ON:7.1 Tray 1 Paper Size Sensing BSD

Tray 1 Paper Size Mismatch. The paper in tray 1 and the paper specified for printing are different.

#### Initial Actions

- Switch the power off, then on.
- Check the paper size in the tray.

#### Procedure

Execute DC140 [071-200 Tray 1 Size Switch]. **The display shows a value within the normal output range of Tray 1 (11x17: 0 to 63, A5 SEF: 800 to 863, Tray removed: 928 to 1023).**

Y N

Go to BSD 7.1 and troubleshoot the Tray 1 Paper Size Sensor circuit.

Perform the following:

- Side Guide and End Guide positions
- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-960 RAP

### BSD-ON:7.2 Tray 2 Paper Size Sensing BSD

Tray 2 Paper Size Mismatch. The paper in tray 2 and the paper specified for printing are different.

#### Initial Actions

- Switch the power off, then on.
- Check the paper size in the tray.

#### Procedure

Execute DC140 [072-200 Tray 2 Size Switch]. **The display shows a value within the normal output range of Tray 2 (11x17: 0 to 63, A5 SEF: 800 to 863, Tray removed: 928 to 1023).**

Y N

Go to BSD 7.2 and troubleshoot the Tray 2 Paper Size Sensor circuit.

Perform the following:

- Side Guide and End Guide positions
- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-961 RAP

### BSD-ON:7.3 Tray 3 Paper Size Sensing BSD

Tray 3 Paper Size Mismatch. The paper in tray 3 and the paper specified for printing are different.

#### Initial Actions

- Switch the power off, then on.
- Check the paper size in the tray.

#### Procedure

Execute DC140 [073-200 Tray 3 Size Switch]. **The display shows a value within the normal output range of Tray 3 (11x17: 0 to 63, A5 SEF: 800 to 863, Tray removed: 928 to 1023).**

Y N

Go to BSD 7.3 and troubleshoot the Tray 3 Paper Size Sensor circuit.

Perform the following:

- Side Guide and End Guide positions
- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-962 RAP

### BSD-ON:7.4 Tray 4 Paper Size Sensing BSD

Tray 4 Paper Size Mismatch. The paper in tray 4 and the paper specified for printing are different.

#### Initial Actions

- Switch the power off, then on.
- Check the paper size in the tray.

#### Procedure

Execute DC140 [074-200 Tray 4 Size Switch]. **The display shows a value within the normal output range of Tray 4 (11x17: 0 to 63, A5 SEF: 800 to 863, Tray removed: 928 to 1023).**

Y N

Go to BSD 7.4 and troubleshoot the Tray 4 Paper Size Sensor circuit.

Perform the following:

- Side Guide and End Guide positions
- Check the tray bottom to see if the link is disconnected or broken.
- Check the rear actuator of the tray to see if it is operating improperly or broken.
- Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

## 024-965 RAP

ATS/APS No Paper. The paper specified for printing has run out.

### Initial Actions

- Check if there is the specified paper in the tray.
- Switch the power OFF then ON.
- Check the operation of the side guides.

### Procedure

Check the connection of each connector of the Tray Module PWB and the MCU PWB. **The connectors are properly connected.**

Y N

Connect the connectors properly.

Replace the Tray Module PWB (PL 11.3), if the problem continues, replace the MCU PWB (PL 11.1).

## 024-966 RAP

ATS/APS No Destination Error. The paper specified for printing cannot be detected.

### Initial Actions

- Switch the power OFF then ON.
- Check if there is paper in the tray.
- Change the settings or replace the tray.
- Check the tray guides.
- Reinstall the tray.

### Procedure

Change the trays and check whether the same problem occurs. **The problem occurs only in a particular tray.**

Y N

Replace the Tray Module PWB (PL 11.3) followed by the MCU PWB (PL 11.1).

Check the connection of each MCU PWB (PL 11.1) connector. **The connectors are properly connected.**

Y N

Connect the connectors properly.

Go to the relevant BSD.

When the problem occurs in Tray 1: Go to BSD 7.1 and check the Tray 1 Paper Size Sensor.

When the problem occurs in Tray 2: Go to BSD 7.2 and check the Tray 2 Paper Size Sensor.

When the problem occurs in Tray 3: Go to BSD 7.3 and check the Tray 3 Paper Size Sensor.

When the problem occurs in Tray 4: Go to BSD 7.4 and check the Tray 4 Paper Size Sensor.

## 024-967 RAP

Different Width Mix Paper Detect (Staple Job). A mix of different widths was detected when it was specified that stapling is only possible when all the widths are the same.

### Initial Actions

- Check if there is the specified paper in the tray.
- Switch the power OFF then ON.

### Procedure

Cancel Staple mode. **The same problem recurs.**

Y N

Reload with the appropriate paper and resume the job.

Check the connection of each connector of the Finisher PWB. **The connectors are properly connected.**

Y N

Connect the connectors properly.

Replace the Finisher PWB (PL 21.12), if the problem continues, replace the MCU PWB (PL 11.1).

## 024-968 RAP

Stapler/Punch Batting. Stapler and punch batting.

### Initial Actions

- Check if there is the specified paper in the tray.
- Switch the power OFF then ON.

### Procedure

Cancel Staple mode and Punch mode. **The same problem recurs.**

Y N

Correct the settings.

Check the connection of each connector of the Finisher PWB. **The connectors are properly connected.**

Y N

Connect the connectors properly.

Check the connection of the cable between the machine and the Finisher. **The cable is properly connected.**

Y N

Connect the cable properly.

Replace the Finisher PWB (PL 21.12), if the problem continues, replace the MCU PWB (PL 11.1).



## 024-969 RAP

Different Width Mix Punch. Paper of different widths was detected while printing in punch mode.

### Initial Actions

- Check if there is the specified paper in the tray.
- Switch the power OFF then ON.

### Procedure

**Copy:** Cancel Punch mode (user intervention) **Printer:** Cancel Punch mode (auto cancellation) **The same problem recurs.**

**Y N**  
|  
Correct the settings.

Check the connection of each connector of the Finisher PWB. **The connectors are properly connected.**

**Y N**  
|  
Connect the connectors properly.

Check the connection of the cable between the machine and the Finisher. **The cable is properly connected.**

**Y N**  
|  
Connect the cable properly.

Replace the Finisher PWB (PL 21.12), if the problem continues, replace the MCU PWB (PL 11.1).

## 024-970 RAP

**BSD-ON:7.6 Single-Tray HCF Option (Tray 6) Paper Size Sensing And Tray Set BSD**

Tray 6 (HCF) not In Position. Tray 6 has not been inserted.

### Initial Actions

Switch the power OFF then ON.

### Procedure

Install Tray 6 (HCF) properly. **The same problem recurs.**

**Y N**  
|  
End

Check the connection of the cable between the Tray 6 and machine. **The cable properly connected.**

**Y N**  
|  
Connect the cable properly.

Replace the MCU PWB (PL 11.1).

## 024-971 RAP

Tray 7 Not In Position. Tray 7 has not been inserted.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 024-972 RAP

**BSD-ON:7.6 Single-Tray HCF Option (Tray 6) Paper Size Sensing And Tray Set BSD**

Tray 6 Paper Size Mismatch. The paper in tray 6 and the paper specified for printing are different.

### Initial Actions

- Load the correct paper into the tray.
- Switch the power OFF then ON.

### Procedure

Execute DC330 [078-202 Tray 6 Size Sensor (Letter)]. Actuate the Tray 6 Paper Size Sensor (Letter) with paper. **The display changes.**

**Y N**

Go to BSD 7.6 and troubleshoot the Tray 6 Paper Size Sensor (Letter) circuit.

Execute DC330 [078-203 Tray 6 Size Sensor (A4)]. Actuate the Tray 6 Paper Size Sensor (A4) with paper. **The display changes.**

**Y N**

Go to BSD 7.6 and troubleshoot the Tray 6 Paper Size Sensor (A4) circuit.

Replace the MCU PWB (PL 11.1).

## 024-973 RAP

Tray 7 Paper Size Mismatch. The paper in tray 7 and the paper specified for printing are different.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 024-974 RAP

Interposer Tray Size Mismatch. The specified size and the tray size are different when feeding paper from the interposer.

### Procedure

**NOTE:** This feature is not present on this machine. If this code appears, a software problem may exist. Reinstall the latest version of the IIT Software and the ESS Firmware (GP 2).

## 024-975 RAP

It was detected that the number of sheets for Booklet was exceeded when printing started. The number of sheets loaded exceeded the maximum number of sheets possible for Booklet.

### Initial Actions

- Check the maximum number of sheets for Booklet.
- Switch the power OFF then ON.

### Procedure

Load paper in compliance with the maximum number of sheets for Booklet. Switch the power OFF then ON. Cancel Booklet. **The same error recurs.**

Y N

Bind sheets by the maximum number of sheets for Booklet.

Replace the Booklet PWB (PL 21.12) followed by the Finisher Main PWB (PL 21.12).

## 024-976 RAP

**BSD-ON:12.27 C-Finisher Stapler Control BSD**

Finisher Staple Status incorrect. The staple home sensor's changing from off to on was not detected within 450 ms after the start of a forward rotation operation, and the staple head home sensor came on within 200 ms after the staple motor reverse rotation.

### Procedure

Enter dC330 [14-041] and [12-044], Stapler Move Motor (PL 21.6), alternately. Select Start.

**The Staple Move Motor energizes.**

Y N

Select Stop. Go to the 12.26 BSD. Check continuity between the Stapler Move Motor and Finisher Main PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Staple Move Motor (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Select dC330 [14-241], Stapler Move Position Sensor (PL 21.6). Select Start. Block/unblock the Stapler Move Position Sensor. **The display changed.**

Y N

Select Stop. Go to the 12.26 BSD. Check continuity between the Stapler Move Position Sensor and Finisher Main PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Replace the Stapler Move Position Sensor (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Check the following:

- Obstructions on the Stapler Upper Rail
- Stapler Move Motor Gear

If the above checks are OK, replace the Finisher PWB (PL 21.12).

## 024-977 RAP

### BSD-ON:12.27 C-Finisher Stapler Control BSD

Stapler Feed Ready Failure

1. The staple ready sensor was off at the start of a stapling operation.
2. The staple ready sensor did not come on within 13 empty punch operations.

### Procedure

Enter dC330 [14-243], Stapler Ready Sensor (PL 21.6). Block/unblock the Stapler Ready Sensor. **The display changed.**

Y N

Check continuity between the Stapler Ready Sensor and Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between J8356-5 (+) and the GND (-) of the Stapler Assembly (PL 21.6). **The voltage is approximately +5VDC.**

Y N

Go to BSD 12.27 and check for an open wire between the Finisher PWB and the Stapler Assembly.

Replace the Stapler Ready Sensor (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

Check the following:

- Wiring between the Staple Ready Sensor and the Finisher PWB
- Wiring between the Staple Motor and the Finisher PWB
- Obstructions on the Stapler Upper Rail
- Stapler Move Motor Gear

If the above checks are OK, replace the Finisher PWB (PL 21.12).

## 024-978 RAP

### BSD-ON:12.18 Booklet Staple Control BSD

Booklet Stapler incorrect. The ready signal was still not ready at the specified time after the start of a booklet stapling operation.

### Procedure

Check continuity between the Booklet PWB and Finisher PWB. **The continuity check is OK.**

Y N

Repair the open circuit or short circuit.

**Replace the Staple (PL 21.16). The problem resolved.**

Y N

Replace the Booklet PWB (PL 21.12). If the problem continues, replace the Finisher PWB (PL 21.12).

If the problem continues, replace the Finisher PWB (PL 21.12).

## 024-979 RAP

### BSD-ON:12.27 C-Finisher Stapler Control BSD

Stapler Near Empty. The stapler is nearly out of staples, or there was a problem in stapling (treated as the empty condition).

#### Initial Actions

- Stapler Head connectors for connection failure
- Staple remaining amount

#### Procedure

Enter dC330 [14-242], Low Staple Sensor (PL 21.6). **'LOW' (staples available) is displayed.**

Y N  
Check continuity between the Stapler Head and Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Stapler Head (PL 21.6). If the problem continues, replace the Finisher PWB (PL 21.12).

If the problem continues, replace the Finisher PWB (PL 21.12).

## 024-980 RAP

### BSD-ON:12.30 C-Finisher Stacker Drive BSD

Finisher Stacker Tray FullOne of the following:

- It was detected that small size paper was full during the operation of matching the stacker tray height (while lowering).
- The half condition was detected during the operation of matching the stacker tray height while ejecting half limit paper (while lowering).
- Large size paper was ejected in a situation where the large size paper full (half) position had already been detected.

#### Initial Actions

- The Stacker No Paper Sensor for improper installation
- The Stacker No Paper Sensor connectors for connection failure
- The Elevator Motor for operation failure
- The Elevator Motor connectors for connection failure

#### Procedure

Enter dC330 [14-061] and [14-060], Elevator Motor (PL 21.4), alternately. **The Elevator Motor energizes.**

Y N  
Check continuity between the Elevator Motor and Finisher PWB. **The continuity check is OK,**

Y N  
Repair the open circuit or short circuit.

Replace the Elevator Motor (PL 21.4). If the problem continues, replace the Finisher PWB

Select [14-263], Stacker Encoder Sensor (PL 21.4). Block/unblock the Stacker Encoder Sensor. **The display changes.**

Y N  
Check continuity between the Stacker Encoder Sensor and Finisher PWB. **The continuity check is OK,**

Y N  
Repair the open circuit or short circuit.

Replace the Stacker Encoder Sensor (PL 21.4). If the problem continues, replace the Finisher PWB

Select [14-272], Stacker No Paper Sensor (PL 21.4). Block/unblock the Stacker No Paper Sensor. **The display changes.**

Y N  
Check continuity between the Stacker No Paper Sensor and Finisher PWB. **The continuity check is OK,**

Y N  
Repair the open circuit or short circuit.

Replace the Stacker No Paper Sensor (PL 21.4). If the problem continues, replace the Finisher PWB

If the problem continues, replace the Finisher PWB (PL 21.12).

## 024-981 RAP

### BSD-ON:12.21 C-Finisher Top Tray Stacking BSD

Finisher Top Tray Full. The top tray sensor was on for 10 consecutive seconds.

#### Initial Actions

- Check Top Tray Exit for operation failure
- Check paper transportation failure due to a foreign substance/burr on the paper path
- Check transportation failure of non-standard paper

#### Procedure

Execute DC330 [014-215 Top Tray Full Sensor]. **Actuate the Top Tray Full Sensor (PL 21.28) with paper. The display changes.**

**Y N**

Check the circuit of the Top Tray Full Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Enter dC330 [014-115], Top Tray Exit Sensor (PL 21.11). **Actuate the Top Tray Exit Sensor. The display changes.**

**Y N**

Check the circuit of the Top Tray Exit Sensor. Refer to the OF 99-2 RAP for troubleshooting procedure.

Select [014-007], Exit Motor (PL 21.11). **The motor energizes.**

**Y N**

Check the circuit of the Exit Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop. Select [014-011] or [014-012], Transport Gate Solenoid (PL 21.10). **The Transport Gate Solenoid actuates.**

**Y N**

Check the circuit of the Transport Gate Solenoid. Refer to the OF 99-8 RAP for troubleshooting procedure.

Select [014-001], Finisher Transport Motor (PL 21.10). **The motor energizes.**

**Y N**

Check the circuit of the Finisher Transport Motor. Refer to the OF 99-9 RAP for troubleshooting procedure.

Select Stop.

Check the following:

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged
- Check the Exit Motor and its associated gears and belts for damage, contamination or misalignment
- Exit Drive Shaft for wear and a revolution failure
- The Exit Pinch Rolls for wear and/or damage

If the above checks are OK, then replace the Top Tray Exit Sensor (PL 21.11). If the problem persists, replace the Finisher PWB (PL 21.12).

## 024-982 RAP

**BSD-ON:12.30 C-Finisher Stacker Drive BSD, 12.31 C-Finisher Stack Height Detection BSD**

Stacker Lower Safety Warning. The stacker tray lower safety switch came on.

### Initial Actions

- Switch the power OFF then ON.
- Check the installation condition of the sensor.

### Procedure

Remove paper from the Stacker. Check the lower part of the Stacker for obstacles. **The lift up/down mechanism has no obstructions.**

**Y N**  
Remove any obstructions.

Check the driver gear for wear, rotation failure and damage. **The driver gear is in good condition without wear, rotation failure or damage.**

**Y N**  
Replace the driver gear if it is worn, damaged or has rotation failure.

Check the belt for slack and disengagement. **The belt is in good condition without slack or disengagement.**

**Y N**  
Correct the slack or disengagement of the belt.

Execute DC330 [014-060 Stacker Up ON/OFF] and DC330 [014-061 Stacker Down ON/OFF] alternately. **The Stacker Tray lifts up/down properly.**

**Y N**  
Go to BSD 12.30 and troubleshoot the Elevator Motor circuit (OF 99-6, OF 99-7).

Execute DC330 [014-263 Stack Encoder Sensor]. Lift up/down the Stacker Tray. **Does this change the display?**

**Y N**  
Go to BSD 12.30 and Troubleshoot the Stack Encoder Sensor circuit (OF 99-2).

Replace the Finisher Main PWB (PL 21.12).

## 024-983 RAP

Booklet Tray Full. The booklet tray is full.

### Initial Actions

Switch the power OFF then ON.

### Procedure

Check the set values in DC131 [763-137] and DC131 [763-138]. **The set values are appropriate for the paper size.**

**Y N**  
Change the settings or return it to the default value 20.

Check each connector of the Booklet PWB (PL 21.12) and the Finisher Main PWB (PL 21.12). **The connectors are properly connected.**

**Y N**  
Connect the connectors properly.

Replace the Booklet PWB (PL 21.12) followed by the Finisher Main PWB (PL 21.12).



## 024-984 RAP

BSD-ON:12.18 Booklet Staple Control BSD

Booklet Low Staple F

1. The booklet stapler low staple F signal came on just before a stapling operation.
2. The booklet stapler low staple F signal came on when power was turned or when the interlock close was initialized.

### Procedure

Supply the staples. **The problem is resolved.**

Y N  
Enter dC330 [13-107], Low Staple Front. **'LOW' (staples available) is displayed.**

Y N  
Check continuity between the Staple and Booklet PWB, and between the Booklet PWB and Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Booklet Stapler Low Staple Front (PL 21.16). If the problem continues, replace the Finisher PWB (PL 21.12).

Replace the Finisher PWB (PL 21.12). If the problem continues, replace the Booklet PWB (PL 21.12).

If the problem continues, replace the Finisher PWB (PL 21.12). If the problem persists, replace the Booklet PWB (PL 21.12).

## 024-985 RAP

BSD-ON:12.19

SMH Stop Check

### Procedure

Check the paper size/paper orientation/paper type settings and press the Eject/Set key.

## 024-987 RAP

Envelope Folder Tray Full. The envelope folder tray is full.

### Procedure

Remove paper from the Envelope Folder Tray.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-988 RAP

Envelope Folder Tray Set Failure. The envelope folder tray was not correctly put into position.

### Procedure

Set the Envelop Folder Tray properly.

If the problem persists, check the sensor using the Generic Sensor Failure (OF 99-1).

## 024-989 RAP

### BSD-ON:12.18 Booklet Staple Control BSD

Booklet Low Staple R

1. The booklet stapler low staple R signal came on just before a stapling operation.
2. The booklet stapler low staple R signal came on when power was turned or when the interlock close was initialized.

### Procedure

Supply the staples. **The problem is resolved.**

Y N  
Enter dC330 [13-108], Low Staple Rear. **'LOW' (staples available) is displayed**

Y N  
Check continuity between the Staple and Booklet PWB, and between the Booklet PWB and Finisher PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Booklet Stapler Low Staple Rear (PL 21.16). If the problem continues, replace the Finisher PWB (PL 21.12).

Replace the Finisher PWB (PL 21.12). If the problem continues, replace the Booklet PWB (PL 21.12).

If the problem continues, replace the Finisher PWB (PL 21.12). If the problem persists, replace the Booklet PWB (PL 21.12).

## 024-990 RAP

### BSD-ON:12.10 C-Finisher Booklet / Punch Transport BSD

Punch Dust Full.

### Procedure

Remove the Puncher Waste Bin and discard its dust. Install the Puncher Waste Bin. **The problem resolved.**

Y N  
Enter dC330 [14-275], Puncher Box Set Sensor (PL 21.5). Remove and insert the Puncher Waste Bin. **The display changes.**

Y N  
Check continuity between the Puncher Box Set Sensor and Finisher Main PWB. **The continuity check is OK.**

Y N  
Repair the open circuit or short circuit.

Replace the Puncher Box Set Sensor (PL 21.5). If the problem continues, replace the Finisher PWB (PL 21.12).

Select Stop. Replace the Finisher PWB (PL 21.12).

Ensure the Puncher Waste Bin is installed properly.



## 025-596 RAP

Diag HDD Failure 1. NG came up during DC355 HDD failure prediction.

### Procedure

Perform the following:

1. Pull out and insert the HDD Harness.
2. Replace the Hard Drive (PL 11.6).

## 025-597 RAP

Diag HDD Failure 2. An error occurred during DC355 HDD initialization.

### Procedure

Perform the following:

1. Pull out and insert the HDD Harness.
2. Replace the Hard Drive (PL 11.6).



## 027-452 RAP

Duplicate IP address. There are duplicate IP addresses.

### Procedure

Change the IP address.

## 027-500 RAP

SMTP Server Address Resolution Failure. The SMTP server name was incorrect when sending a mail response.

### Procedure

Set up the IP address.

(Do not obtain the IP address from the DHCP server.)

## **027-501 RAP**

POP Server Address Resolution Failure. The POP server name was incorrect when using the POP3 protocol.

### **Procedure**

Check that the POP server settings from CWIS are correct.

## **027-502 RAP**

POP Authentication Failure. Login to the POP server failed when using the POP3 protocol.

### **Procedure**

Check that the user name and password used in the POP server from CWIS are correct.



## **027-700 RAP**

Media Failure. There was a media failure.

### **Procedure**

Replace the malfunctioning Media with a working Media.

## **027-701 RAP**

Media Not Found. Media was not found.

### **Procedure**

Insert the Media.

## **027-702 RAP**

Media Data Not Found / Not Supported. The data on the media was corrupted or there was no data.

### **Procedure**

Input Media data. If necessary, repair or replace the Media.

## **027-703 RAP**

Media Reader Failure / Disconnected. ESS cannot access the media reader.

### **Procedure**

Check the connection between the Media Reader and the device.

If the problem persists, replace the Media Reader.

## 027-706 RAP

Certificate not found

### Procedure

Store a correct certificate in this machine.

## 027-707 RAP

Certificate expired

### Procedure

Store a correct certificate in this machine.

## 027-708 RAP

Certificate untrusted

### Procedure

Store a correct certificate in this machine.

## 027-709 RAP

Certificate revoked

### Procedure

Store a correct certificate in this machine.

## 027-710 RAP

S/MIME mail was disabled

### Procedure

Sender has the S/MIME certificate for the M/C but the S/MIME settings in M/C is invalid.  
Enable S/MIME setting in the device.

## 027-711 RAP

S/MIME mail sender certificate not found

### Procedure

To validate the signature, a valid sender certificate is required. Register the sender certificate in M/C or change your mailer options so that the S/MIME signature mails from the sender will be sent with the certificate.

## 027-712 RAP

S/MIME mail sender certificate not valid

### Procedure

To validate a signature, a valid sender certificate is required. As the sender certificate registered in the device is unreliable or it has expired, the S/MIME signature mail is unreliable and the received mail is discarded.

Check that the signature bearer of the CA certificate is registered in the device.

Explain to the customer that the sender 'needs to send a mail that is signed with a valid certificate' because the sender certificate has expired.

## 027-713 RAP

S/MIME mail was altered

### Procedure

Attackers may tamper mails on the sending path. Explain to the customer that the device is blocking the attacks from attackers.

## 027-714 RAP

S/MIME mail sender impersonation

### Procedure

Mails may be sent from impersonated senders. Explain to the customer that the device is blocking the attacks from attackers.

## 027-715 RAP

S/MIME mail certificate not supported

### Procedure

Check that the appropriate certificate is registered and is set as the S/MIME certificate in the M/C.

## 027-716 RAP

No-Signed mail receipt was rejected

### Procedure

The flag that prohibits receiving of unreliable mail is enabled. If a problem is found, disable the flag that prohibits receiving of unreliable mail.

## 027-720 RAP

Ext Srv. Host Not Found. A server specified for a remote application was not found, or DNS resolution was not possible.

### Procedure

Check that the correct DNS server address is set up. Check whether an application interface (CWFS) installed on the PC is registered by DNS server or not.



## 027-721 RAP

Ext Srv. Not Found. An attempt was made to run a remote application but the response that the cooperating application was not found came from the directly reached host.

### Procedure

Check that the DNS server address is set properly. Check that the PC running the application interface (CWFS) is registered in DNS

## 027-722 RAP

Ext Srv. Timeout Failure. An attempt was made to run a remote application but it failed due to timeout.

### Procedure

1. If a number of documents is specified for scanning, scan one document and store it.
2. When scanning and storing are successful, change the application interface timeout value. If scanning and storing are not successful, perform step (3).
3. Check that the scan document can be uploaded from the PC browser. When uploading is successful, change the application interface timeout value.

## **027-723 RAP**

Ext Srv. Authentication Failure. An attempt was made to run a remote application but it failed during authentication.

### **Procedure**

Check the user name and password to enter when creating a job flow. (Currently, this fail does not occur because CWFS does not deal with authentication.)

## **027-724 RAP**

Ext Srv. Access Failure. An attempt to run a remote application failed. (This covers all cases that failure for a reason other than that the service was not found, timeout, or an authentication failure.)

### **Procedure**

Check whether an application interfaced (CWFS) operates correctly. When it is operating, check the CWFS log.

## 027-725 RAP

Ext Srv. Operation Failure. The job processing at the site of the remote application failed.

### Procedure

Check whether an application interfaced (CWFS) operates correctly. When it is operating, check the CWFS log.

## 027-726 RAP

Ext Srv. Unknown State. The job status at the site of the remote application is unknown.

### Procedure

Check whether an application interfaced (CWFS) operates correctly. When it is operating, check the CWFS log.

## 027-727 RAP

Ext Srv. Req Invalid Params. A parameter used by a remote application was incorrect.

### Procedure

Check the parameters used for creating the job flow.

## 027-728 RAP

Ext Srv. Required File Exceeded

### Procedure

Set a job so that the maximum number of files that can be sent will not be exceeded.

## 027-737 RAP

Template Server Read ERR. An error came from the job template pool server when reading data.

### Procedure

Check to see whether you have privileges for the directory storing the job template.

## 027-739 RAP

Invalid Template Server Path. The specified job template pool server was not found.

### Procedure

Check the path name for the job template pool server.

## 027-740 RAP

Template Server Login ERR. It was not possible to log into the job template pool server.

### Procedure

1. Set up the login name and password at the storage having the job template file.
2. Check that other PCs on the network can log in using the above account.
3. In CentreWare and from the client PC, set up the login name and password in the resources.

## 027-741 RAP

Template Server Connect Failure. It was not possible to connect to the job template pool server.

### Procedure

1. Connect the cable between the MC and the network correctly.
2. By 'pinging' from the destination server, check that the MC is connected.
3. Conduct a 'ping' test from PSW to the destination server.
4. Check that the Client PC can be connected via ftp to the destination server.

## 027-742 RAP

HD File System Full. A job template could not be stored because of insufficient HDD area.

### Procedure

1. The HDD may be full of the scanned image. Wait for a while and retry.
2. Initialize the internal HDD.
3. Replace the HDD ([PL 11.6](#)).

## 027-743 RAP

Template Server Install ERR. The installation of the job template pool server was not correct.

### Procedure

Check the settings for the job template pool server.

## **027-744 RAP**

Template Server ADD ERR. There was a problem with the domain name of the job template pool server.

### **Procedure**

Check the connection to the DNS server. Check that the domain name is registered at the DNS server.

## **027-745 RAP**

Template Server ADD ERR. The address of the DNS server is not installed in the M/C.

### **Procedure**

Register the DNS server address on the MC. Or use the IP address as the job template pool server address and set it up.



## 027-746 RAP

Job Template Pool Server Not Ready. The port for the protocol specified by the installed job template pool server has not been activated.

### Procedure

Actuate the protocol port (FTP Client or SMB) specified by the job template pool server setting.

## 027-751 RAP

Job Template Analysis Error. An error was detected during analysis of the specified document.

### Procedure

Check the settings for the job flow.

## **027-752 RAP**

Must User un Inputting. It was specified that a job be started while a required user input had not been input.

### **Procedure**

1. Do not link any job flow that requires an entry of any mandatory item to the mailbox.
2. Set up the specified value for the mandatory item that the job flow requires you to enter.

## **027-753 RAP**

Job Flow Service Request Disabled. The specified document service is invalid.

### **Procedure**

Have the service available.

## 027-760 RAP

XJT Command Failure. A command from an XDOD client was incorrect.

### Procedure

Check the following:

Check 1: Check if the parameter setting specified in XDOD client is out of system specifications.

Check 2: Check the XDOD client and Controller versions, and then save the XDOD job ticket and contact Support G for checking.

(It would be the best if PRN file can be obtained, but it is not possible from the XDOD client.)

## 027-770 RAP

PDL Error

### Procedure

This Fault Code may occur in the following situation:

1. When a job contains a PDL error.
2. When a job size exceeds 4GB.

If the job was created by a print driver not equipped with DFE. Create the job again using the print driver equipped with the DFE and resubmit the job.

## 027-771 RAP

DFE Disk Full

### Procedure

Change the job conditions and try again.

Delete unnecessary Files from the HD in the DFE.

## 027-796 RAP

Email Not Printed. Mail was discarded because the mail was received with no attached document and it was specified that only the documents attached to received mail should be printed.

### Procedure

To print the mail body or header information, make settings as such in the CWIS Properties screen.

## **027-797 RAP**

Invalid Output Destination. The output destination for received mail was incorrect.

### **Procedure**

Specify the correct output destination and resend the mail.



## 042-313 RAP

BSD-ON:10.5 Fuser Fan Control (1 Of 2) BSD

Rear Cooling Fan Failure

### Initial Actions

- Check the vent for obstacles and blockage.
- Turn the power OFF then ON.

### Procedure

Turn the power OFF then ON. **The same problem recur.**

Y N  
| End

Enter dc330 [042-034 Rear Cooling Fan]. **The Rear Cooling Fan operate.**

Y N  
| Go to BSD 10.5 and troubleshoot the Rear Cooling Fan (PL 9.1).

Replace the MCU PWB (PL 11.1).

## 042-320 RAP

BSD-ON:9.7 Y, M, C Drums Drive BSD

Yellow Drum Motor Drive Failure

### Initial Actions

- Check that the Front Cover is closed.
- Turn the power OFF then ON.
- Install the Xero/Deve Drawer Unit.

### Procedure

Execute dc330 [042-011 Drum Motor YMC: 73.3mm/s]. **The Drum rotates for at least a moment.**

Y N  
| Go to BSD 9.7 and troubleshoot the Drum Motor YMC (PL 1.2).

Check around the Drum Cartridge for binding or extra loading. **The Drum Cartridge loading is normal.**

Y N  
| Remove the Drum Cartridge and/or the cause for extra load (PL 6.1).

Replace the Drum Motor Y (PL 1.2). If the problem continues, replace the Drum Motor YMC PWB (PL 1.2). If the problem persists, replace the MCU PWB (PL 11.1).

## 042-321 RAP

BSD-ON:9.7 Y, M, C Drums Drive BSD

Magenta Drum Motor Drive Failure

### Initial Actions

- Check that the Front Cover is closed.
- Turn the power OFF then ON.
- Install the Xero/Deve Drawer Unit.

### Procedure

Execute dc330 [042-011 Drum Motor YMC: 73.3mm/s]. **The Drum rotates for at least a moment.**

Y N

Go to BSD 9.7 and troubleshoot the Drum Motor YMC (PL 1.2).

Check around the Drum Cartridge for binding or extra loading. **The Drum Cartridge loading is normal.**

Y N

Remove the Drum Cartridge and/or the cause for extra load (PL 6.1).

Replace the Drum Motor M (PL 1.2). If the problem continues, replace the Drum Motor YMC PWB (PL 1.2). If the problem persists, replace the MCU PWB (PL 11.1).

## 042-322 RAP

BSD-ON:9.7 Y, M, C Drums Drive BSD

Cyan Drum Motor Drive Failure

### Initial Actions

- Check that the Front Cover is closed.
- Turn the power OFF then ON.
- Install the Xero/Deve Drawer Unit.

### Procedure

Execute dc330 [042-011 Drum Motor YMC: 73.3mm/s]. **The Drum rotates for at least a moment.**

Y N

Go to BSD 9.7 and troubleshoot the Drum Motor YMC (PL 1.2).

Check around the Drum Cartridge for binding or extra loading. **The Drum Cartridge loading is normal.**

Y N

Remove the Drum Cartridge and/or the cause for extra load (PL 6.1).

Replace the Drum Motor C (PL 1.2). If the problem continues, replace the Drum Motor YMC PWB (PL 1.2). If the problem persists, replace the MCU PWB (PL 11.1).



## 042-323 RAP

BSD-ON:9.6 Black Drum (K) Drive Control BSD

Black Drum Motor Drive Failure

### Initial Actions

- Check that the Front Cover is closed.
- Turn the power OFF then ON.
- Install the Xero/Deve Drawer Unit.

### Procedure

Execute dc330 [042-011 Drum Motor YMC: 73.3mm/s]. **The Drum rotates for at least a moment.**

Y N

Go to BSD 9.7 and troubleshoot the Drum Motor YMC (PL 1.2).

Check around the Drum Cartridge for binding or extra loading. **The Drum Cartridge loading is normal.**

Y N

Remove the Drum Cartridge and/or the cause for extra load (PL 6.1).

Replace the Drum Motor K (PL 1.1). If the problem continues, replace the Drum Motor K PWB (PL 1.1). If the problem persists, replace the MCU PWB (PL 11.1).

## 042-324 RAP

BSD-ON:9.18 Transfer Belt Drive Control BSD

IBT Drive Motor Failure

### Initial Actions

- Check that the Front Cover is closed.
- Turn the power OFF then ON.
- Install the IBT Cleaner Assembly.

### Procedure

Enter dc330 [042-033 IBT Belt Check: 220mm/s]. **The belt rotates for at least a moment.**

Y N

Go to BSD 9.18 and troubleshoot the IBT Drive Motor (PL 7.4).

Check the installation of the IBT Cleaner Assembly. **The IBT Cleaner Assembly properly installed.**

Y N

Install the IBT Cleaner Assembly properly. If the IBT Cleaner Assembly is installed properly, replace the IBT Cleaner Assembly (PL 7.3).

Replace the IBT Drive Motor (PL 7.4). If the problem continues, replace the MCU PWB (PL 11.1).

## 042-325 RAP

BSD-ON:9.7 Y, M, C Drums Drive BSD

Main Motor Failure

### Initial Actions

- Ensure that the Front Cover is closed.
- Turn the power OFF then ON.

### Procedure

Turn the power OFF then ON. **The same problem recurs.**

Y N  
| End

Enter dc330 [042-002 Main Motor:220mm/s]. **The Main Motor rotate for at least a moment.**

Y N  
| Go to BSD? and troubleshoot the Main Motor (PL 1.2).

Check the waste toner collection path. **Is the waste toner collection path in proper condition with no bent pipes etc.?**

Y N  
| Replace the faulty parts on the waste toner collection path.

Replace the Main Motor (PL 1.2). If the problem continues, replace the MCU PWB (PL 11.1).

## 042-326 RAP

BSD-ON:9.20 Transfer Belt Position Monitoring BSD

Belt Home Position too long

**NOTE:** The IBT Steering Motor drives the IBT Steering Cam with the gear. While the IBT Steering Cam rotation range is less than 1 complete round, the Steering Cam rotates more than 1 round in the IBT Steering Motor Component Control. Therefore, remove it when the rotation exceeds the rotation range. This is a normal operation and the step-out sound is not abnormal. An error has occurred if no step-out sound can be heard and the IBT Steering Motor does not operate.

### Initial Actions

- Check the opening/closing of the Front Cover.
- Turn the power OFF then ON.

### Procedure

Check the Fault History for a Belt Home Position Too Long Fail (042-326 Fault Code). **The Belt Home Position Too Long Fail is the only Fault Code in the Fault List.**

Y N  
| Go to the RAP for the other failures that occurred.

Install the IBT Belt in the center (where the IBT Belt Edge and the IBT Belt Frame are approx. the same distance from the front and rear). Perform ADJ 9.13 Belt Edge Learn Cycle. **The Belt Edge Learn Cycle ends abnormally.**

Y N  
| End

Check the reflective mark at the rear of the IBT belt. **The reflective mark positioned correctly and reflects properly.**

Y N  
| Clean the reflective mark and reposition it properly, if the problem continues, replace the IBT belt (PL 7.3).

Enter dc330 [042-200 Transfer Belt Home Sensor]. Rotate the belt manually for 1 turn. **The display changes.**

Y N  
| Go to OF 99-1 and troubleshoot the Transfer Belt Home Sensor (PL 7.5).

Check the operation of the actuator of the Transfer Belt Edge Sensor Assembly. **The actuator move smoothly.**

Y N  
| Replace the Transfer Belt Edge Sensor Assembly (PL 7.4).

Select [042-016 IBT Steering Motor (CW) High Current] and [042-017 Steering Motor (CCW) High Current]. **The IBT Steering Motor operate.**

Y N  
| Go to OF 99-9 and troubleshoot the IBT Steering Motor (PL 7.4).

A

Check the installation position of the IBT Belt Module (the four legs of the IBT Belt Module are placed on the board springs of the Transfer Drawer and the fixing screws (M4: x2) of the IBT Drawer are tightened). **The IBT Belt Module is installed in the proper position.**

Y N

Adjust the installation position of the IBT Belt Module.

Set dC131 [741-106 Angle Data Initial Value (A0)] to 0. Install the IBT Belt in the center (where the IBT Belt Edge and the IBT Belt Frame are approx. the same distance from the front and rear). Perform ADJ 9.13 Belt Edge Learn cycle. **The Belt Edge Learn Cycle ends abnormally.**

Y N

End

Replace the Transfer Belt Home Sensor (PL 7.5). If the problem continues, replace the Transfer Belt Edge Sensor (PL 7.4). If the problem persists, replace the Transfer Belt Edge Sensor (PL 7.4). If the problem is persistent, replace the IBT Belt Module (PL 7.1).

## 042-327 RAP

BSD-ON:9.20 Transfer Belt Position Monitoring BSD

Belt Position Failure

**NOTE:** The IBT Steering Motor drives the IBT Steering Cam with the gear. While the IBT Steering Cam rotation range is less than 1 complete round, the Steering Cam rotates more than 1 round in the IBT Steering Motor Component Control. Therefore, remove it when the rotation exceeds the rotation range. This is a normal operation and the step-out sound is not abnormal. An error has occurred if no step-out sound can be heard and the IBT Steering Motor does not operate.

### Initial Actions

- Turn the power OFF then ON.

### Procedure

Check the Fault History for a Belt Home Position Too Long Fail (042-326 Fault Code). **The Belt Home Position Too Long Fail is the only Fault Code in the Fault List.**

Y N

Go to the RAP for the other failures that occurred.

Install the IBT Belt in the center (where the IBT Belt Edge and the IBT Belt Frame are approx. the same distance from the front and rear). Perform ADJ 9.13 Belt Edge Learn Cycle. **The Belt Edge Learn Cycle ends abnormally.**

Y N

End

Check for a the Belt Position Fault Code (042-327). **The Belt Position Fault Code is the only Code in the Fault List**

Y N

Refer to the RAP for other failures that occurred.

Check the reflective mark at the rear of the IBT belt. **The reflective mark positioned correctly and reflects properly.**

Y N

Clean the reflective mark and reposition it properly, if the problem continues, replace the IBT belt (PL 7.3).

Check the surface of the Transfer Belt Edge Sensor for dust or toner. **The surface is clean.**

Y N

Clean the surface.

Check the operation of the actuator of the Transfer Belt Edge Sensor Assembly. **The actuator moves smoothly.**

Y N

Replace the Transfer Belt Edge Sensor Assembly (PL 7.4).

Enter dc330 [042-200 Transfer Belt Home Sensor]. Rotate the belt manually for 1 turn. **The display changes.**

Y N

Go to [OF 99-1](#) and troubleshoot the Transfer Belt Home Sensor ([PL 7.5](#)).

Enter dc330 [042-018 IBT Steering Motor (CW) Low Current]. **The IBT Steering Motor operates.**

Y N

Go to [Go to OF 99-9](#) and troubleshoot the IBT Steering Motor ([PL 7.4](#)).

Select [042-016 IBT Steering Motor (CW) High Current] and [042-017 Steering Motor (CCW) High Current]. **The IBT Steering Motor operates.**

Y N

Go to [OF 99-9](#) and troubleshoot the IBT Steering Motor ([PL 7.4](#)).

Check the installation position of the IBT Belt Module (the four legs of the IBT Belt Module are placed on the board springs of the Transfer Drawer and the fixing screws (M4: x2) of the IBT Drawer are tightened). **The IBT Belt Module is installed in the proper position.**

Y N

Adjust the installation position of the IBT Belt Module.

Set [dC131](#)[741-106 Angle Data Initial Value (A0)] to 0. Install the IBT Belt in the center (where the IBT Belt Edge and the IBT Belt Frame are approx. the same distance from the front and rear). Perform [ADJ 9.13](#) Belt Edge Learn cycle. **The Belt Edge Learn Cycle ends abnormally?**

Y N

End

Replace the Transfer Belt Home Sensor ([PL 7.5](#)). If the problem continues, replace the Transfer Belt Edge Sensor ([PL 7.4](#)). If the problem persists, replace the Transfer Belt Edge Sensor ([PL 7.4](#)). If the problem is persistent, replace the IBT Belt Module ([PL 7.1](#)).

## 042-328 RAP

### BSD-ON:9.20 Transfer Belt Position Monitoring BSD

Belt Edge Sensor Failure

**NOTE:** The change in output of the IBT Belt Edge Sensor Assembly when the IBT Belt rotates by 1 turn is lower than the specified value (output does not change). Steering control cannot be carried out normally.

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the operation of the actuator of the Transfer Belt Edge Sensor Assembly. **The actuator move smoothly.**

Y N

Replace the Transfer Belt Edge Sensor Assembly ([PL 7.4](#)).

Check the surface of the Transfer Belt Edge Sensor for dust or toner. **The surface is clean.**

Y N

Clean the surface.

Check the installation of the Transfer Belt Edge Sensor Assembly. **The Transfer Belt Edge Sensor is properly installed.**

Y N

Install the Transfer Belt Edge Sensor Assembly properly ([PL 7.4](#)).

Check the connection of P/J156, P601/J601, P/J603B and P/J443. **connectors are properly connected.**

Y N

Connect the connectors properly.

Check the wire between J156 and J443 for open circuit and short circuit. **The wiring between J156 and J443 is OK.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between P443-10 and GND on the IOT PWB. **The voltage is approximately +5VDC.**

Y N

Replace the IOT PWB ([PL 11.1](#)). If the problem continues, replace the MCU PWB ([PL 11.1](#)).

Measure the voltage between P443-9 and GND on the IOT PWB. Move the actuator of the Transfer Belt Edge Sensor manually. **The voltage changes.**

Y N

Replace the IBT Belt Edge Sensor ([PL 7.4](#)).

Replace the IBT Belt ([PL 7.3](#)). If the problem continues, replace the IBT Belt Module ([PL 7.1](#)).

## 042-330 RAP

BSD-ON:10.5 Fuser Fan Control (1 Of 2) BSD

Fuser Exhaust Fan Failure

### Initial Actions

Turn the power OFF then ON.

### Procedure

Enter dc330 [042-020 Fuser Exhaust Fan: High Speed]. **The Fuser Exhaust Fan comes ON.**

Y N  
Check the Fuser Exhaust Fan for +24VDC. **+24VDC is measured.**  
Y N  
Go to [OF 2.2 IOT DC Power \(+24 VDC\) RAP](#).  
Go to BSD 10.5 and troubleshoot the Fuser Exhaust Fan ([PL 9.2](#)).

Replace the IOT Drive PWB ([PL 11.1](#)). If the problem continues, replace the Main LVPS ([PL 11.3](#)). If the problem persists, replace the MCU PWB ([PL 11.1](#)).

## 042-331 RAP

BSD-ON:9.33 Blower And CC Fan Control BSD

Blower Motor Fan Failure

### Initial Actions

- Check the Fan Blade of the Blower Fan for foreign objects and deformation causing a poor rotation.
- Check that Connector J242 on the Blower Fan Motor is properly connected.

### Procedure

Enter dc330 [042-022 Blower Fan Motor Low]. **The Blower Fan Motor rotates.**

Y N  
**+5VDC is measured between J242-3 and GND on the Blower Fan Motor.**  
Y N  
**+5VDC is measured between J465-A3 and GND on the Tray Module PWB.**  
Y N  
Go to [OF 2.1 IOT DC Power \(+3.3VDC, +5 VDC, and +12 VDC\) RAP](#), check the +5VDC circuit to the Tray Module PWB.  
Check for an open wire or poor contact between J471-5 on the Tray Module PWB and J242-3 on the Blower Fan Motor. If the check is OK, replace the Tray Module PWB ([PL 11.3](#)).  
**+24VDC is measured between J242-5 and GND on the Blower Fan Motor.**  
Y N  
**+24VDC is measured between J465-A1 and GND on the Tray Module PWB.**  
Y N  
Go to [OF 2.2 IOT DC Power \(+24 VDC\) RAP](#), check the +24VDC circuit on the Tray Module PWB.  
Check for an open wire or poor contact between J471-A1 on the Tray Module PWB and J242-3 on the Blower Fan Motor. If the check is OK, replace the Tray Module PWB ([PL 11.3](#)).  
**With dc330 [042-022] ON, +1VDC or less is measured between J242-2 and GND on the Blower Fan Motor.**  
Y N  
Turn OFF the power. Disconnect Connector J 403 from the MCU PWB. Disconnect J242 on the Blower Fan Motor. Check the wire between J403-A2 and 242-2 for continuity. **The resistance is 1 ohm or less.**  
Y N  
Check the wire for an open wire or poor contact.  
Replace the MCU PWB ([PL 11.1](#)).  
**+5VDC is measured between J242-2 and GND on the Blower Fan Motor.**

A

Y N

Turn off the power. Disconnect Connector J403 from the MCU PWB. Disconnect J242 on the Blower Fan Motor. Check for continuity between J403-A3 and J242-2. **The resistance is 1 ohm or less.**

Y N

Check the wire for an open wire or poor contact.

Replace the MCU PWB (PL 11.1).

Replace the Blower Fan Motor (PL 9.1).

Select dc330[042-021](Blower Fan Motor High). **The Blower Fan Motor comes ON rotate at high speed.**

Y N

**With dc330[042-021] ON, +5VDC is measured between J242-2 and GND on the Blower Fan Motor.**

Y N

Replace the Blower Fan Motor (PL 9.1).

Check the wire between J403-A2 on the MCU PWB and J242-2 on the Blower Fan Motor for an open wire or poor contact. If the wiring is OK, replace the MCU PWB (PL 11.1). If the problem continues, replace the Tray Module PWB (PL 11.3).

The Blower Fan Motor appears to be normally rotating. Perform the following again:

- Check the Fan Blade of the Blower Fan for foreign objects and deformation causing a poor rotation.
- Check that Connector J242 on the Blower Fan Motor is properly connected.

If the problem continues, replace the Blower Fan Motor (PL 9.1).

## 042-600 RAP

**BSD-ON:9.20 Transfer Belt Position Monitoring BSD**

Belt Walk Failure

**NOTE:** The Color Reg conversion value obtained from the IBT Belt Edge Assembly output voltage exceeded the specified value throughout the 3 rotations of the belt.

As this is an image quality failure, the device does not stop. However, Color Reg is not guaranteed.

### Initial Actions

Turn the power OFF then ON.

### Procedure

Perform ADJ 9.9 Reg Measurement Cycle. **The AC Lateral (OUT/CNT/IN) value is out of the specifications.**

Y N

End (No action is required even if a failure occurs)

Perform ADJ 9.13 Belt Edge Learn Cycle. **The Belt Edge Learn ends normally.**

Y N

Check the operation of the actuator of the Transfer Belt Edge Sensor Assembly. **The actuator moves smoothly.**

Y N

Replace the Transfer Belt Edge Sensor Assembly (PL 7.4).

Check the surface of the IBT Belt Edge Sensor Assembly (PL 7.4). **Is the surface clean without dust or toner?**

Y N

Clean the surface.

Check the installation of the Transfer Belt Edge Sensor Assembly. **The Transfer Belt Edge Sensor is properly installed.**

Y N

Install the Transfer Belt Edge Sensor Assembly properly (PL 7.4).

Check the connection of P/J156, P601/J601, P/J603B and P/J443. **connectors are properly connected.**

Y N

Connect the connectors properly.

Check the wire between J156 and J443 for open circuit and short circuit. **The wiring between J156 and J443 is OK.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between P443-10 and GND on the IOT PWB. **The voltage is approximately +5VDC.**

A

Y N

Replace the IOT PWB (PL 11.1). If the problem continues, replace the MCU PWB (PL 11.1).

Measure the voltage between P443-9 and GND on the IOT PWB. Move the actuator of the Transfer Belt Edge Sensor manually. **The voltage changes.**

Y N

Replace the IBT Belt Edge Sensor (PL 7.4).

Replace the IBT Belt (PL 7.3). Perform ADJ 9.13 Belt Edge Learn Cycle. **The Belt Edge Learn end abnormally.**

Y N

End

Set dC131 [741-107] (No Edge Learn Mode Selection) to 1.

**NOTE:** With this setting, Active Steering control of the IBT belt is carried out but its accuracy is low and Color Regi is not guaranteed. Also, Belt Walk Fail will not be detected.

Perform ADJ 9.9 Regi Measurement Cycle. **The AC Lateral (OUT/CNT/IN) value is out of the specifications.**

Y N

End (No action is required even if a failure occurs)

Replace the IBT Belt (PL 7.3) and perform ADJ 9.9 and ADJ 9.13 again.

## 042-601 RAP

### BSD-ON:9.20 Transfer Belt Position Monitoring BSD

Belt Edge Learn Failure

**NOTE:** The Edge Learn Cycle does not meet the conditions for normal completion even when the IBT belt has rotated more than the specified times during the Belt Edge Learn Cycle.

As this is an image quality failure, the device does not stop. However, Color Reg is not guaranteed.

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Install the IBT belt in the center (where the IBT Belt Edge and the IBT Belt Frame are approx. the same distance from the front and rear). Perform ADJ 9.13 Belt Edge Learn Cycle. **The Belt Edge Learn Cycle ends abnormally.**

Y N

End

Perform ADJ 9.13 Belt Edge Learn Cycle continuously for 2 or 3 times. **The Belt Edge Learn Cycle ends abnormally.**

Y N

End

**The IBT belt has been replaced.**

Y N

Replace the IBT Belt (PL 7.3) and repeat the procedure.

Set dC131 [741-107] No Edge Learn Mode Selection to 1 (= select No Edge Learn Mode).

**NOTE:** With this setting, Active Steering control of the IBT belt is carried out but its accuracy is low (100Micro-m) and Color Reg is not guaranteed. Also, Belt Walk Fail will not be detected.

## 042-602 RAP

### BSD-ON:9.20 Transfer Belt Position Monnitoring BSD

Belt Edge Check Failure

**NOTE:** The change in shape at the edge of the IBT belt was huge during Belt Edge Check Cycle. Request to start Belt Edge Learn.

As this is an image quality failure, the device does not stop. However, Color Reg is not guaranteed.

Belt Edge Learn Cycle is executed immediately after this failure occurs.

Belt Edge Learn Cycle updates the IBT Belt edge shape accurately.

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the Fault History. **A [042-601] Belt Edge Learn Fault Code has occurred**

Y N  
| End

Go to [042-601 RAP] Belt Edge Learn Fault.

## 042-603 RAP

### BSD-ON:9.33 Blower And CC Fan Control BSD

Suction Filter Life End Failure

**NOTE:** It was notified that the rotation count of the Blower Motor was monitored and it had exceeded the specified value.

The end of the life of the Suction Filter is detected through the number of Blower Fan Motor rotations at cycle down. DC131[741-019] Blower Motor Rotation Number

### Initial Actions

Turn the power OFF then ON.

### Procedure

Replace the Filter (PL 9.1) with a new one. Reset the Life Count of the Filter. Turn ON the power again. **The same problem recurs.**

Y N  
| End

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

Y N  
| Connect the connectors properly.

Turn ON the power again. **The same problem recurs.**

Y N  
| End

Replace the MCU PWB (PL 11.1).



## 045-310 RAP

BSD-ON:CH9.1

Image Ready NG. An internal processing error occurred in the ESS PWB.

### Initial Actions

Turn the power OFF then ON.

### Procedure

Turn the power OFF then ON. **The same problem recurs.**

Y N  
| End

Check the connection of each connector of the ESS PWB and MCU PWB. **The connectors are properly connected.**

Y N  
| Connect the connectors properly.

Replace the ESS PWB (PL 11.5). If the problem continues, replace the MCU PWB (PL 11.1).

## 045-311 RAP

BSD-ON:3.1 PWB Communication (IOT) BSD

Controller Comm Failure. Communication was not possible between the ESS and the MCU.

### Initial Actions

Turn the power OFF then ON.

### Procedure

Go to [OF 2.1 IOT DC Power \(+3.3VDC, +5 VDC, and +12 VDC\) RAP](#) to troubleshoot the MCU and ESS PWBs.

## 045-312 RAP

### BSD-ON:3.6 PWB Communication (MCU - IOT Drive) BSD

Driver Connect Failure. The connection between the MCU and the IOT PWB failed.

#### Procedure

Check the following:

- Check that the Flexible Print Cable is securely connected between P/J431 on the IOT PWB and P/J401 on the MCU PWB.
- Check Connectors P/J431 and P/J401 for foreign objects, bent pins, poor contact, etc.

If the above checks are OK, replace the Flexible Print Cable (PL 11.1). If the problem continues, replace the IOT PWB (PL 11.1). If the problem persists, replace the MCU PWB (PL 11.1).

## 047-210 RAP

### BSD-ON:11.1 OCT (Option) BSD

OCT Offset Failure

**NOTE:** Movement to the front position, center position and rear position failed in the OCT Offset operation (movement in the same direction failed 3 times consecutively).

However, when both the OCT Front Position Sensor and OCT Rear Position Sensor are turned ON, this failure occurs immediately.

### Initial Actions

Check the paper.

Turn the power OFF then ON.

Check the installation condition of the OCT.

Repair or replace the parts that are interfering with the operation.

### Procedure

The paper is within the specifications and application for offsetting.

**Y N**  
Change the paper to one within the specifications.

Check the OCT mechanism for foreign substances, damaged gears and rotation failure. **The OCT mechanism is OK.**

**Y N**  
Remove the foreign substances and repair/replace the faulty parts.

Check the Rear and Front Position Sensors for dirt and foreign substances. **The sensors are free of dirt or foreign substances.**

**Y N**  
Clean the sensors.

Enter dc330 [047-001/002 OCT Motor]. **The OCT Motor comes ON.**

**Y N**  
Check connectors **P/J803, J801A, P680** and **P/J444**. **The connectors are properly connected.**

**Y N**  
Connect **P/J803, J801A, P680** and **P/J444** properly.

Check the wire between J803 and J444 for open circuit and short circuit. **The wiring is OK.**

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

Measure the voltage between the IOT PWB P444-6 and the GND when running dc330 [047-001], and the voltage between IOT PWB P444-5 and the GND when running dc330 [047-001]. **+24VDC is measured between pins 4 and 5 of P444.**

**Y N**  
Go to **OF 2.2 IOT DC Power (+24 VDC) RAP**.

Replace the OCT Motor (**PL 16.3**).

Select [047-200 OCT Front Position Sensor]. Move the OCT from the rear to the front manually. **The display changes.**

**Y N**  
Check connectors **P/J806, SJ802, J801, P680, P/J434, P/J444, P/J431** and **P/J401**. **The connectors are properly connected.**

**Y N**  
Connect the connectors properly.

Check the wires between J806 and J434, J806 and J444, and J431 and J401 for open circuit and short circuit. **The wires are OK.**

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

Measure the voltage between the IOT Drive PWB P434-7 and the GND. **+5VDC is measured between P434-7 and GND.**

**Y N**  
Replace the IOT Drive PWB (**PL 11.1**).

Measure the voltage between the IOT Drive PWB P444-3 and the GND. Slide the OCT right and left manually. **The voltage changes.**

**Y N**  
Replace the Front Position Sensor (**PL 16.3**).

Replace the IOT Drive PWB (**PL 11.1**). If the problem continues, replace the MCU PWB (**PL 11.1**).

Select [047-200 OCT Front Position Sensor]. Move the OCT from the rear to the front manually. **The display changes.**

**Y N**  
Check connectors **P/J805, SJ802, J801, P680, P/J434, P/J444, P/J431** and **P/J401**. **The connectors are properly connected.**

**Y N**  
Connect the connectors properly.

Check the wires between J805 and J434, J806 and J444, and J431 and J401 for open circuit and short circuit. **The wires are OK.**

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

Measure the voltage between the IOT Drive PWB P434-7 and the GND. **+5VDC is measured between P434-7 and GND.**

**Y N**  
Replace the IOT Drive PWB (**PL 11.1**).

Measure the voltage between the IOT Drive PWB P444-2 and the GND. Slide the OCT right and left manually. **The voltage changes.**

B

Y N

Replace the Front Position Sensor (PL 16.3).

Replace the IOT Drive PWB (PL 11.1). If the problem continues, replace the MCU PWB (PL 11.1).

Replace the IOT Drive PWB (PL 11.1). If the problem continues, replace the MCU PWB (PL 11.1).

## 047-310 RAP

**BSD-ON:11.1 OCT (Option) BSD**

MCU-Finisher Communication Failure. Communication was not possible between the MCU and the finisher PWB.

### Initial Actions

- Verify that the Finisher Power Cord is properly connected to the Finisher Outlet (located next to the Reset Switch).
- Verify that the Finisher Communication Cable is properly connected to the IOT.

### Procedure

**CR4 (GRN LED) on the Finisher PWB is ON.**

Y N

+24VDC is measured between P/J8315-1, 4 and GND on the Finisher PWB.

Y N

Refer to BSD 12.1, check the +24VDC circuit to P/J8315 on the Finisher PWB.

Replace the Finisher PWB (PL 21.12).

**CR12 (RED LED) on the Finisher PWB is OFF.**

Y N

Replace the Finisher PWB (PL 21.12).

Turn off the power. Check the following for an open wire or poor contact:

- MCU PWB J411-B1 to I/F PWB J8002-12
- MCU PWB J411-B2 to I/F PWB J8002-11
- MCU PWB J411-B3 to I/F PWB J8002-10
- MCU PWB J411-B4 to I/F PWB J8002-9
- I/F PWB J8006-4 to Finisher PWB P/J8007-17
- I/F PWB J8006-5 to Finisher PWB P/J8007-16

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the following in order:

- Finisher PWB (PL 21.12)
- I/F PWB (PL 21.12)
- MCU PWB (PL 11.1)-

## 061-310 RAP

BSD-ON:6.1 Yellow Laser Control BSD

BSD-ON:6.2 Magenta Laser Control BSD

Clapper 1 Failure.

The write data and read data did not match during the Read/Write test to the register memory.

### Initial Actions

Turn the power OFF and ON.

### Procedure

Ensure that the connectors on the ROS (Y, M) are connected. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Check the connectors on the MCU PWB. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS (Y, M) (PL 5.1). Turn the power ON the power. **The problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-311 RAP

BSD-ON:6.3 Cyan Laser Control BSD

BSD-ON:6.4 Black (K) Laser Control BSD

Clapper 2 Fail

The write data and read data did not match during the Read/Write test to the register memory.

### Initial Actions

Turn the power OFF and ON.

### Procedure

Ensure that the connectors on the ROS (Y, M) are connected. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Check the connectors on the MCU PWB. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS (Y, M) (PL 5.1). Turn the power ON the power. **The problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-313 RAP

### BSD-ON:6.5 Laser Scan Y,M Drive Control BSD

SOS Long Failure Magenta. The interval between SOS signals was longer than the specified value.

#### Initial Actions

Turn the power OFF and ON.

#### Procedure

Ensure that the connectors on the ROS (Y, M) are connected. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Check the connectors on the MCU PWB. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS (Y, M) (PL 5.1). Turn the power ON the power. **The problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-315 RAP

### BSD-ON:6.6 Laser Scan C,K Drive Control BSD

SOS Long Failure Black. The interval between SOS signals was longer than the specified value.

#### Initial Actions

Turn the power OFF and ON.

#### Procedure

Ensure that the connectors on the ROS (C, K) are connected. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Check the connectors on the MCU PWB. **The connectors are connected.**

**Y N**  
| Connect the connectors.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS (C, K) (PL 5.1). Turn the power ON the power. **The problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-317 RAP

BSD-ON:6.5 Laser Scan Y,M Drive Control BSD

SOS Short Failure Magenta. The interval between SOS signals was shorter than the specified value.

### Procedure

See 061-313 RAP

## 061-319 RAP

BSD-ON:6.6 Laser Scan C,K Drive Control BSD

SOS Short Failure Black. The interval between SOS signals was shorter than the specified value.

### Procedure

See 061-315 RAP.

## 061-320 RAP

### BSD-ON:6.5 Laser Scan Y,M Drive Control BSD

Polygon Motor Failure. The revolutions of the polygon motor did not reach the proper number of revolutions within 4 seconds after the polygon motor came on.

#### Procedure

Check the connection of P247Y and J409. **The connection are properly connected.**

Y N  
|  
| Connect P247Y and J409 properly.

Check the wires between P247Y and J409 for open circuit and short circuit. **The wiring between is OK.**

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

Turn the power OFF then ON. **The same problem recurs.**

Y N  
|  
| End

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

Y N  
|  
| Connect the connectors properly.

**Turn the power OFF then ON. The same problem recurs.**

Y N  
|  
| End

Replace the ROS Assembly (Y, M) (PL 5.1).

## 061-321 RAP

### BSD-ON:6.6 Laser Scan C,K Drive Control BSD

ROS Motor Failure

#### Initial Actions

Turn the power OFF and ON.

#### Procedure

Check the connection of P247C and J409. **The connection are properly connected.**

Y N  
|  
| Connect P247C and J409 properly.

Check the wires between P247C and J409 for open circuit and short circuit. **The wiring is OK.**

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

Turn the power OFF then ON. **The same problem recurs.**

Y N  
|  
| End

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

Y N  
|  
| Connect the connectors properly.

**Turn the power OFF then ON. The same problem recurs.**

Y N  
|  
| End

Replace the ROS Assembly (C, K) (PL 5.1).



## 061-323 RAP

BSD-ON:6.5 Laser Scan Y,M Drive Control BSD

No SOS Failure Magenta. The SOS signal was not detected.

### Procedure

See 061-313 RAP

## 061-324 RAP

BSD-ON:6.6 Laser Scan C,K Drive Control BSD

No SOS Failure Cyan. The SOS signal was not detected.

### Procedure

See 061-315 RAP

## 061-325 RAP

BSD-ON:6.6 Laser Scan C,K Drive Control BSD

No SOS Failure Black. The SOS signal was not detected.

### Procedure

See 061-315 RAP

## 061-326 RAP

BSD-ON:6.1 Yellow Laser Control BSD

ROS Connect Failure Yellow. The connection between the ROS LD and the MCU PWB failed.

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of J345AY and JA421, and J345BY and JB421. **The connection are properly connected.**

Y N

Connect J345AY and JA421, and J345BY and JB421 properly.

Check the wires between J345AY and JA421, and J345BY and JB421 for open circuit and short circuit. **The wiring is OK.**

Y N

Repair the open circuit or short circuit.

Turn the power OFF then ON. **The same problem recurs.**

Y N

End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

Y N

End

Replace the MCU PWB (PL 11.1).

## 061-327 RAP

### BSD-ON:6.2 Magenta Laser Control BSD

ROS Connect Failure Magenta. The connection between the ROS LD and the MCU PWB failed.

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of J1AM and JA422, and J1BM and JB422. **The connection are properly connected.**

Y N

Connect J1AM and JA422, and J1BM and JB422 properly.

Check the wires between J1AM and JA422, and J1BM and JB422 for open circuit and short circuit. **The wiring is OK.**

Y N

Repair the open circuit or short circuit.

Turn the power OFF then ON. **The same problem recurs.**

Y N

End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

Y N

End

Replace the MCU PWB (PL 11.1).

## 061-328 RAP

### BSD-ON:6.3 Cyan Laser Control BSD

ROS Connect Failure Cyan. The connection between the ROS LD and the MCU PWB failed.

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of J345AC and JA423, and J345BC and JB423. **The connection are properly connected.**

Y N

Connect J345AC and JA423, and J345BC and JB423 properly.

Check the wires between J345AC and JA423, and J345BC and JB423 for open circuit and short circuit. **The wiring is OK.**

Y N

Repair the open circuit or short circuit.

Turn the power OFF then ON. **The same problem recurs.**

Y N

End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

Y N

End

Replace the MCU PWB (PL 11.1).

## 061-329 RAP

### BSD-ON:6.4 Black (K) Laser Control BSD

ROS Connect Failure Black. The connection between the ROS LD and the MCU PWB failed.

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of J1AK and JA424, and J1BK and JB424. **The connection are properly connected.**

Y N  
| Connect J1AK and JA424, and J1BK and JB424 properly.

Check the wires between J1AK and JA424, and J1BK and JB424 for open circuit and short circuit. **The wiring is OK.**

Y N  
| Repair the open circuit or short circuit.

Turn the power OFF then ON. **The same problem recurs.**

Y N  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

Y N  
| End

Replace the MCU PWB (PL 11.1).

## 061-334 RAP

### BSD-ON:6.1 Yellow Laser Control BSD

### BSD-ON:6.2 Magenta Laser Control BSD

ROS Yellow/Magenta VDD Failure

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

Y N  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

Y N  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

Y N  
| End

Replace the MCU PWB (PL 11.1).

## 061-335 RAP

BSD-ON:6.3 Cyan Laser Control BSD

BSD-ON:6.4 Black (K) Laser Control BSD

ROS Black/Cyan VDD Failure

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-336 RAP

BSD-ON:6.1 Yellow Laser Control BSD

BSD-ON:6.2 Magenta Laser Control BSD

ROS Yellow/Magenta VDD Down Failure

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-337 RAP

BSD-ON:6.3 Cyan Laser Control BSD

BSD-ON:6.4 Black (K) Laser Control BSD

ROS Black/Cyan VDD Down Failure

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-338 RAP

BSD-ON:6.5 Laser Scan Y,M Drive Control BSD

SOS Stop Magenta Failure

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-339 RAP

BSD-ON:6.6 Laser Scan C,K Drive Control BSD

SOS Stop Black Failure

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-340 RAP

BSD-ON:6.4 Black (K) Laser Control BSD

ROS LD Failure Black. At least three channels (NVM 749-105) of the 32 channels had detected LD degradation when the LD alarm was generated.

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-341 RAP

### BSD-ON:6.1 Yellow Laser Control BSD

ROS LD Failure Yellow. At least three channels (NVM 749-105) of the 32 channels had detected LD degradation when the LD alarm was generated.

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-342 RAP

### BSD-ON:6.2 Magenta Laser Control BSD

ROS LD Failure Magenta. At least three channels (NVM 749-105) of the 32 channels had detected LD degradation when the LD alarm was generated.

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).



## 061-343 RAP

### BSD-ON:6.3 Cyan Laser Control BSD

ROS LD Failure Cyan. At least three channels (NVM 749-105) of the 32 channels had detected LD degradation when the LD alarm was generated.

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-600 RAP

### BSD-ON:6.1 Yellow Laser Control BSD

ROS Data Failure Yellow. Serial data communication is not possible between the MCU PWB and ROS (hidden failure).

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-601 RAP

### BSD-ON:6.2 Magenta Laser Control BSD

ROS Data Failure Magenta. Serial data communication is not possible between the MCU PWB and ROS (hidden failure).

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-602 RAP

### BSD-ON:6.3 Cyan Laser Control BSD

ROS Data Failure Cyan. Serial data communication is not possible between the MCU PWB and ROS (hidden failure).

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-603 RAP

### BSD-ON:6.4 Black (K) Laser Control BSD

ROS Data Failure Black. Serial data communication is not possible between the MCU PWB and ROS (hidden failure).

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-604 RAP

### BSD-ON:6.1 Yellow Laser Control BSD

LD Alarm Yellow. A problem occurred in one of the 32 beams (hidden failure).

#### Initial Actions

Turn the power OFF then ON.

#### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y, M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-605 RAP

BSD-ON:6.2 Magenta Laser Control BSD

LD Alarm Magenta. A problem occurred in one of the 32 beams (hidden failure).

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (Y, M) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (Y,M) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-606 RAP

BSD-ON:6.3 Cyan Laser Control BSD

LD Alarm Cyan. A problem occurred in one of the 32 beams (hidden failure).

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 061-607 RAP

BSD-ON:6.4 Black (K) Laser Control BSD

LD Alarm Black. A problem occurred in one of the 32 beams (hidden failure).

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the ROS Assembly (C, K) and the MCU PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the ROS Assembly (C, K) (PL 5.1). Turn the power OFF then ON. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).



## 062-210 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIS Hot Line Failure. It was detected that the hot line signal was disconnected.

#### Procedure

1. Switch off the power. Check the following:
  - Connection between [P/J336](#) on the ESS PWB and [P/J719](#) on the IIT/IPS PWB.
  - The connector pins for any foreign object and/or are bent.
  - Connector Screw Lock Mechanism is OK.
2. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version of the IIT Software and the ESS Firmware ([GP 2](#)).
  - Replace the IIT-ESS Cable ([PL 13.2](#)).
  - Replace the UI PWB ([PL 17.4](#)) before replacing the ESS PWB ([PL 11.5](#)).

## 062-211 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT/IPS EEPROM Failure (IPS). A write failure to EEPROM or a communication failure with EEPROM (retry) occurred.

#### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version of the IIT Software.
  - Switch off the power. Disconnect and reconnect U2 (EEPROM) from/to IIT/IPS PWB. If this does not resolve the problem, replace the IIT/IPS PWB ([PL 13.8](#)).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one ([PL 13.8](#)).

## 062-220 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IPS-EXT Connection Failure. The connection between the IIT/IPS PWB and the extension memory PWB failed.

#### Procedure

1. Reinstall the latest version of the IIT Software.
2. Switch off the power. Disconnect and reconnect the connectors between IIT/IPS PWB and Extension Memory PWB. If the connections are good, replace the Extension Memory PWB (PL 13.8). If the problem still persists, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U3 (EEPROM) from the old Extension Memory PWB. Replace the new U3 (EEPROM) on the new Extension Memory PWB with the old one (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one (PL 13.8).

## 062-277 RAP

### BSD-ON:3.3 PWB Communication (ESS - DADF) BSD

IIT/IPS-DADF Communication Failure. Communication between the IIT/IPW PWB and the DADF PWB was not possible.

#### Procedure

1. Switch off the power. Disconnect and reconnect Connectors P/J750 from/to the IIT/IPS PWB, and P/J751 and P/J752 from/to the DADF PWB. If the problem persists, perform the following in the order shown:
  - Reinstall the latest version of the IIT Software.
  - Replace the DADF PWB (PL 14.3)
  - Replace the IIT/IPS PWB (PL 13.8)
  - Replace the IIT-DADF Cable (PL 14.2)

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one (PL 13.8).



## 062-278 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT-Extension Communication Failure. Communication between the IIT/IPS PWB and the Extension Memory PWB was not possible.

#### Procedure

Switch on the power. **+3.3 VDC is measured between P/J737-1 (+) on the Extension Memory PWB and GND.**

|   |                                                                       |
|---|-----------------------------------------------------------------------|
| Y | N                                                                     |
|   | +24VDC is measured between P732-3 (+) and P732-4 (-) on the PSDC PWB. |
|   | Y N                                                                   |
|   | Go to OF 2.2 IOT DC Power (+24 VDC) RAP.                              |
|   |                                                                       |
|   | Replace the DCPS PWB (PL 13.7).                                       |

Switch off the power. Disconnect and reconnect the connectors between IIT/IPS PWB and Extension Memory PWB. If the connections are good, replace the Extension Memory PWB (PL 13.8). If the problem persists, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U3 (EEPROM) from the old Extension Memory PWB. Replace the new U3 (EEPROM) on the new Extension Memory PWB with the old one (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one (PL 13.8).

## 062-300 RAP

### BSD-ON:5.4 Document Size Sensing - Platen BSD

Platen Interlock Open. The platen interlock is open.

#### Procedure

Execute DC330 [062-300 Platen Interlock Switch]. Open/close the DADF. The display changes.

|   |                                                                                                                                                                                  |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                                                                                                |
|   | +5VDC is measured between P/J727-1 on the Platen Interlock Switch and GND.                                                                                                       |
|   | Y N                                                                                                                                                                              |
|   | Check for an open wire or poor contact between P/J727-1 on the Platen Interlock Switch and P/J722-A5 on the IIT/IPS PWB. If the wire is good, replace the IIT/IPS PWB (PL 13.8). |
|   |                                                                                                                                                                                  |
|   | +5VDC is measured between P/J727-2 on the Platen Interlock Switch and GND.                                                                                                       |
|   | Y N                                                                                                                                                                              |
|   | Replace the Platen Interlock Switch (PL 13.6).                                                                                                                                   |
|   |                                                                                                                                                                                  |
|   | Check the DC COM circuit between P/J727-2 on the Platen Interlock Switch and P/J722-A4 on the IIT/IPS PWB.                                                                       |

Check that the Magnet is properly installed and the DADF gets closed properly. The magnet is installed properly, replace the Platen Interlock Switch (PL 13.6).

## 062-310 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT/IPS-ESS Communication Failure. Communication between the IIT/IPS PWB and the ESS PWB is not possible.

#### Procedure

1. Switch off the power. Disconnect and reconnect Connectors [P/J750](#) from/to the IIT/IPS PWB, and [P/J751](#) and [P/J752](#) from/to the DADF PWB. If the problem persists, perform the following in the order shown:
  - Reinstall the latest version of the IIT Software and ESS Firmware ([GP 2](#)).
  - Replace the DADF PWB ([PL 14.3](#))
  - Replace the IIT/IPS PWB ([PL 13.8](#))
  - Replace the IIT-DADF Cable ([PL 14.2](#))

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one ([PL 13.8](#)).

## 062-311RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT Software Logic Failure. A software problem was detected with the IIT/IPS PWB.

#### Procedure

1. Switch off the power. Disconnect and reconnect Connectors [P/J750](#) from/to the IIT/IPS PWB. If the problem persists, perform the following in the order shown:
  - Reinstall the latest version of the IIT Software.
  - Replace the IIT/IPS PWB ([PL 13.8](#))

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one ([PL 13.8](#)).

## 062-321 RAP

BSD-ON:2.6 DC Power Generation (IIT - 2 of 2) BSD

IPS-BDEC Connection Failure

### Procedure

1. Switch off the power. Disconnect and reconnect Connectors [P/J714](#) and [P/J709](#) from/to the IIT/IPS PWB and the BDEC PWB. If the problem persists, perform the following in the order shown:
  - Reinstall the latest version of the IIT Software.
  - Replace the BDEC PWB ([PL 13.8](#))
  - Replace the IIT/IPS PWB ([PL 13.8](#))

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one ([PL 13.8](#)).

## 062-322 RAP

BSD-ON:2.5 DC Power Generation (IIT - 1 of 2) BSD, 2.6 DC Power Generation (IIT - 2 of 2) BSD

EXT-BDEC Connection Failure

### Procedure

1. Switch off the power. Disconnect and reconnect Connectors [P/J714](#) and [P/J709](#) from/to the IIT/IPS PWB and the BDEC PWB. If the problem persists, perform the following in the order shown:
  - Reinstall the latest version of the IIT Software.
  - Replace the BDEC PWB ([PL 13.8](#))
  - Replace the IIT/IPS PWB ([PL 13.8](#))
  - Replace the Ext. Memory PWB ([PL 13.7](#))

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one ([PL 13.8](#)).

## 062-323 RAP

BSD-ON:2.5 DC Power Generation (IIT - 1 of 2) BSD, 2.6 DC Power Generation (IIT - 2 of 2) BSD

BDEC PWBA Failure

### Procedure

1. Switch off the power. Disconnect and reconnect Connectors [P/J714](#) and [P/J709](#) from/to the IIT/IPS PWB and the BDEC PWB. If the problem persists, perform the following in the order shown:
  - Reinstall the latest version of the IIT Software.
  - Replace the BDEC PWB ([PL 13.8](#))
  - Replace the IIT/IPS PWB ([PL 13.8](#))
  - Replace the Ext. Memory PWB ([PL 13.7](#))

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one ([PL 13.8](#)).

## 062-345 RAP

BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT/IPS EEPROM Failure (IIT). A write failure to EEPROM or a communication failure with EEPROM occurred.

### Procedure

1. Switch off the power. Disconnect and reconnect U2 (EEPROM) from/to IIT/IPS PWB. If this does not resolve the problem, replace the IIT/IPS PWB ([PL 13.8](#)).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the IIT/IPS PWB with the old one ([PL 13.8](#)).

## 062-355 RAP

BSD-ON:5.13 Document Illumination BSD

IPS Fan Failure. The IPS fan failed.

### Initial Actions

- Check the vent has no foreign object and is not clogged.
- Check there is no dust on the Fan Blade.

### Procedure

Execute DC330 [062-014 IPS Fan High Speed]. **The operation sound of the IPS Fan changes.**

Y N  
Remove the IIT Top Rear Cover. **+24VDC is measured between P/J731-4 and -1 on the IPS Fan.**  
Y N  
Check the circuits between P/J722-B3 on the IIT/IPS PWB and P/J731-4 on the IPS Fan, and between P/J722-B6 on the IIT/IPS PWB and P/J731-1 on the IPS Fan for an open wire or poor contact.  
**+1VDC or less is measured between P/J731-2 on the IPS Fan and GND.**  
Y N  
**+1VDC or less is measured between P/J722-B4 on the IIT/IPS PWB and GND.**  
Y N  
Replace the IIT/IPS PWB (PL 13.8).  
Check for an open wire or poor contact between P/J731-2 on the IPS Fan and P/J722-B5 on the IIT/IPS PWB.  
Replace the IPS Fan (PL 13.6).  
Replace the IIT/IPS PWB (PL 13.8).

## 062-356 RAP

BSD-ON:5.13 Document Illumination BSD

IIT Lamp Fan Failure. An error signal was detected for the lamp fan.

### Initial Actions

- Check the vent has no foreign object and is not clogged.
- Check there is no dust on the Fan Blade.

### Procedure

Switch on the power. Enter the Diag.Enter DC330 [062-015]. Select Start. **Lamp Fan Turns on.**

Y N  
**+24VDC is measured between P/J720-4 on the IIT/IPS PWB (BSD 2.5) and GND.**  
Y N  
Go to OF 2.3 IIT DC Power RAP.  
Replace the IIT/IPS PWB (PL 13.8).  
Connect the meter between P/J720-2 (+) and P/J720-1 (-) on the IIT/IPS PWB. **There is +12 VDC present**  
Y N  
Go to BSD 2.5 and check for an open wire between the IIT/IPS PWB and the Main LVPS.  
Execute DC330 [062-015 Lamp Fan]. **The operation sound of the Lamp Fan changes.**  
Y N  
Remove the IIT Top Rear Cover. **+24VDC is measured between P/J730-4 and -1 on the Lamp Fan.**  
Y N  
Check the circuits between P/J722-B7 on the IIT/IPS PWB and P/J730-4 on the Lamp Fan, and between P/J722-B10 on the IIT/IPS PWB and P/J730-1 on the Lamp Fan for an open wire or poor contact.  
Check for an open wire or poor contact between P/J730-4 on the Lamp Fan and P/J722-B7 on the IIT/IPS PWB.  
Replace the IIT/IPS PWB (PL 13.8).

## 062-357 RAP

BSD-ON:5.14 Image Exposure BSD

CCD Fan Failure. An error signal was detected for the CCD fan.

### Initial Actions

- Check the vent has no foreign object and is not clogged.
- Check there is no dust on the Fan Blade.

### Procedure

Remove the Platen Glass. Execute DC330 [062-017 CCD Fan]. **The operation sound of the CCD Fan changes.**

Y N  
Remove the Platen Glass and the Lens Cover. **+24VDC is measured between P/J729-4 and -1 on the CCD Fan.**

Y N  
Check the circuits between P/J722-B11 on the IIT/IPS PWB and P/J729-4 on the CCD Fan, and between P/J722-B14 on the IIT/IPS PWB and P/J729-1 on the CCD Fan for an open wire or poor contact.

Check for an open wire or poor contact between P/J729-2 on the CCD Fan and P/J722-B13 on the IIT/IPS PWB.

Replace the IIT/IPS PWB (PL 13.8).

## 062-360 RAP

BSD-ON:5.12 Carriage Control BSD

Carriage Position Failure. A problem was detected with the carriage position.

### Procedure

Remove the Platen Glass. Manually move the Full Rate Carriage right and left. **The Carriage moves smoothly, not interfering.**

Y N  
Check for a mechanical load on the operating Carriage, poor winding of Carriage Cable, dirt/foreign objects on the rails, improper position of Full Rate/Half Rate Carriage (ADJ13.1.1), etc.

Switch on the power. Enter the Diag. Enter DC330 [062-005] (Scan) or [062-006] (Return). Select Start. **The Carriage moves.**

Y N  
**+24VDC is measured between P/J721-1/2 on the IIT/IPS PWB and GND.**

Y N  
Replace the IIT/IPS PWB (PL 13.8).

Switch off the power. Disconnect P/J721 from the IIT/IPS PWB. Measure the wire-wound resistance of the Carriage Motor:

- P/J721-1 pin to pins P/J721-3/4
- P/J721-2 pin to pins P/J721-5/6

**Every resistance is approx. 0.9 ohm.**

Y N  
Replace the Carriage Motor (PL 13.7).

Replace the IIT/IPS PWB (PL 13.8).

Press the Stop button. Enter DC330[062-212](IIT Regi Sensor). Select Start. Manually moving the Carriage, turn ON then OFF the IIT Regi Sensor. **The display changes between H and L.**

Y N  
Go to BSD 5.12 and check the IIT Regi Sensor circuit for an open.

At the service call, no error is thought to exist. Recheck for an improper Carriage operation, any noise source around the machine, any abnormal internal discharge, etc. If the fail occurs frequently, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one (PL 13.8).

## 062-362 RAP

### BSD-ON:5.15 Copy/Scan Image Input Processing (1 of 3) BSD

X Hard Failure

#### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version of the IIT Software.
  - Switch off the power. Disconnect and reconnect U2 (EEPROM) from/to IIT/IPS PWB. If this does not resolve the problem, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one (PL 13.8).

## 062-371 RAP

### BSD-ON:5.15 Copy/Scan Image Input Processing (1 of 3) BSD

Lamp Failure. It was detected that insufficient light from the lamp was entering the CCD (during white variation correction before the start of a scan, or during AGC).

#### Procedure

Enter the Diag. Enter DC330 [062-002] (Exposure Lamp). Select Start. **The Lamp turns ON.**

Y N

Switch off the power. Disconnect and reconnect P/J723 from/to the IIT/IPS PWB, and P/J702 and P/J703 from/to the Lamp Ballast PWB. If the problem still persists, replace the following in order:

- Exposure Lamp (PL 13.9)
- Lamp Ballast PWB (PL 13.9)
- Slide Cable (PL 13.9)
- IIT/IPS PWB (PL 13.8)

Press the Stop button. Switch off the power. Perform the following:

- Check for any obstacle shielding the light path.
- Check the Lamp, Mirrors, Lenses and White Reference Board for dirt/deterioration
- Disconnect and reconnect CCD PWB P/J700 and IIT/IPS PWB P710.
- Check for an insufficient qty of Lamp light

If results of the above checks are OK, replace the following in order:

- Lens Assembly (PL 13.6)
- CCD Flexible Print Cable (PL 13.6)
- IIT/IPS PWB (PL 13.8)

## 062-380 RAP

### BSD-ON:5.15 Copy/Scan Image Input Processing (1 of 3) BSD

Platen AOC Failure. There was a failure during automatic gain correction (AGC).

#### Procedure

Enter the Diag. Enter DC330 [062-002] (Exposure Lamp). Select Start. **The Lamp turns ON.**

Y N

Switch off the power. Disconnect and reconnect P/J723 from/to the IIT/IPS PWB, and P/J702 and P/J703 from/to the Lamp Ballast PWB. If the problem still persists, replace the following in order:

- Exposure Lamp (PL 13.9)
- Lamp Ballast PWB (PL 13.9)
- Slide Cable (PL 13.9)
- IIT/IPS PWB (PL 13.8)

Press the Stop button. Switch off the power. Perform the following:

- Check for any obstacle shielding the light path.
- Check the Lamp, Mirrors, Lenses and White Reference Board for dirt/deterioration
- Disconnect and reconnect CCD PWB P/J700 and IIT/IPS PWB P710.
- Check for an insufficient qty of Lamp light

If results of the above checks are OK, replace the following in order:

- Lens Assembly (PL 13.6)
- CCD Flexible Print Cable (PL 13.6)
- IIT/IPS PWB (PL 13.8)

## 062-386 RAP

### BSD-ON:5.15 Copy/Scan Image Input Processing (1 of 3) BSD

Platen AOC Failure. This was a failure during automatic offset correction (AOC).

#### Procedure

Enter the Diag. Enter DC330 [062-002] (Exposure Lamp). Select Start. **The Lamp turns ON.**

Y N

Switch off the power. Disconnect and reconnect P/J723 from/to the IIT/IPS PWB, and P/J702 and P/J703 from/to the Lamp Ballast PWB. If the problem still persists, replace the following in order:

- Exposure Lamp (PL 13.9)
- Lamp Ballast PWB (PL 13.9)
- Slide Cable (PL 13.9)
- IIT/IPS PWB (PL 13.8)

Press the Stop button. Switch off the power. Perform the following:

- Check for any obstacle shielding the light path.
- Check the Lamp, Mirrors, Lenses and White Reference Board for dirt/deterioration
- Disconnect and reconnect CCD PWB P/J700 and IIT/IPS PWB P710.
- Check for an insufficient qty of Lamp light

If results of the above checks are OK, replace the following in order:

- Lens Assembly (PL 13.6)
- CCD Flexible Print Cable (PL 13.6)
- IIT/IPS PWB (PL 13.8)



## 062-389 RAP

### BSD-ON:5.12 Carriage Control BSD

Carriage Over Run (Scan End). The carriage overran the scan end side.

#### Procedure

Remove the Platen Glass. Manually move the Full Rate Carriage right and left. **The Carriage moves smoothly, not interfering.**

Y N

Check for a mechanical load on the operating Carriage, poor winding of Carriage Cable, dirt/foreign objects on the rails, improper position of Full Rate/Half Rate Carriage (ADJ13.1.1), etc.

Switch on the power. Enter the Diag. Enter DC330 [062-005] (Scan) or [062-006] (Return). Select Start. **The Carriage moves.**

Y N

Check the Carriage cable for distortion, being stranded, damage and foreign substances on the Carriage rail.

Press the Stop button. Enter DC330 [062-212] (IIT Regi Sensor). Select Start. Manually moving the Carriage, turn ON then OFF the IIT Regi Sensor. **The display changes between H and L.**

Y N

Go to BSD 5.12 and check the IIT Regi Sensor circuit.

Recheck for improper Carriage operation, noise source around the machine, Or any abnormal internal arching. If the failure occurs frequently, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one (PL 13.8).

## 062-392 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IIT/IPS Memory Failure. A failure was detected with the IIT/IPS PWB RAM (checked when power is turned on), or an internal processing error occurred in the IIT/IPS PWB.

#### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:

- Reinstall the latest version or the IIT Software.
- Connect the Lens and CCD (PL 13.6)) and the cable (FPC) (PL 13.6) properly.
- Switch off the power. Disconnect and reconnect U2 (EEPROM) from/to IIT/IPS PWB. If this does not resolve the problem, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one (PL 13.8).

## 062-393 RAP

IIT/IPS PWB Failure. An internal processing error occurred in the IIT/IPS PWB.

### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version of the IIT Software.
  - Connect the Lens and CCD (PL 13.6)) and the cable (FPC) (PL 13.6) properly.
  - Switch off the power. Disconnect and reconnect U2 (EEPROM) from/to IIT/IPS PWB. If this does not resolve the problem, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one (PL 13.8).

## 062-790 RAP

**BSD-ON:5.15 Copy/Scan Image Input Processing (1 of 3) BSD**

X Detect Failure. The original being read is an original for which copying is prohibited.

### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version of the IIT Software.
  - Switch off the power. Disconnect and reconnect U2 (EEPROM) from/to IIT/IPS PWB. If this does not resolve the problem, replace the IIT/IPS PWB (PL 13.8).

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB. Replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one (PL 13.8).

## 063-210 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

Extension EEPROM Failure. A failure writing to the EEPROM on the extension memory PWB or a failure communicating with the EEPROM was detected.

#### Initial Actions

- Turn OFF then ON the power.
- Remove and reinstall the Extension Memory PWB.
- Upgrade the software to the latest version.

#### Procedure

Check if the connectors between the IIT/IPS PWB (PL 13.8) and the Extension Memory PWB (PL 13.8) are securely connected. If the connection is OK, replace the Extension Memory PWB (PL 13.8).

**NOTE:** Remove the old U3 (EEPROM) from the old Extension Memory PWB, and replace the new U3 (EEPROM) on the new Extension Memory PWB with the old one.

## 063-220 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

IPS-EXT Psync Failure due to one or more of the following:

1. There was no notification of completion of image capture to the EXT memory.
2. There was no notification of completion of image reading within the memory.
3. There was no notification of completion of surface image capture.
4. There was notification of completion of image reading within the memory but the image is strange. No image appeared

#### Initial Actions

- Turn OFF then ON the power.
- Remove and reinstall the Extension Memory PWB.
- Upgrade the software to the latest version.
- Disconnect and reconnect the Memory.

#### Procedure

Check if the connectors between the IIT/IPS PWB (PL 13.8) and the Extension Memory PWB (PL 13.8) are securely connected. If the connection is OK, replace the Extension Memory PWB (PL 13.8) and the IIT/IPS PWB (PL 13.8) in order.

**NOTE:** Remove the old U3 (EEPROM) from the old Extension Memory PWB, and replace the new U3 (EEPROM) on the new Extension Memory PWB with the old one.

**NOTE:** Remove the old U2 (EEPROM) from the old IIT/IPS PWB, and replace the new U2 (EEPROM) on the new IIT/IPS PWB with the old one.

## 063-230 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

EXT Image Parameter Failure. A DIMM of incorrect memory capacity was installed in the extension memory PWB when the 1P DUP PWB was installed.

#### Initial Actions

- Turn OFF then ON the power.
- Remove and reinstall the Extension Memory PWB.
- Upgrade the software to the latest version.
- Disconnect and reconnect the Memory.

#### Procedure

Check if the connectors between the IIT/IPS PWB (PL 13.8) and the Extension Memory PWB (PL 13.8) are securely connected. If the connection is OK, replace the Extension Memory PWB (PL 13.8).

**NOTE:** Remove the old U3 (EEPROM) from the old Extension Memory PWB, and replace the new U3 (EEPROM) on the new Extension Memory PWB with the old one.

## 063-240 RAP

EXT Image Parameter Failure. The extension CPU cannot load the image quality parameter specified by IISS.

#### Initial Actions

- Turn OFF then ON the power.
- Remove and reinstall the Extension Memory PWB.
- Upgrade the software to the latest version.

#### Procedure

Check if the connectors between the IIT/IPS PWB (PL 13.8) and the Extension Memory PWB (PL 13.8) are securely connected. If the connection is OK, replace the Extension Memory PWB (PL 13.8).

**NOTE:** Remove the old U3 (EEPROM) from the old Extension Memory PWB, and replace the new U3 (EEPROM) on the new Extension Memory PWB with the old one.

## 065-210 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

Extension Page Memory Failure 1. Poor contact was detected for EPROM 1, which is attached to the Extension Memory PWB.

#### Procedure

Perform the following:

- Switch off the power. Disconnect and reconnect the connectors between IIT/IPS PWB and Extension Memory PWB. If the connections are good, replace the Extension Memory PWB (PL 13.8). If the problem still persists, replace the IIT/IPS PWB (PL 13.8).
- Reinstall the latest version of the IIT Software.

**NOTE:** When replacing the Extension Memory PWB, replace the new EEPROM U3 with the old one.

## 065-211 RAP

CIS Shading FROM Failure. A problem was detected with the flash ROM (the ROM that contains shading data) of the IIT/IPS PWB.

#### Procedure

**NOTE:** The CIS feature is not present on this machine. If this code appears, a software problem may exist. Reload the IIT software.

## 065-212 RAP

CIS Shading Level Failure. Dirt on the White Reference Board on the CIS side was detected

### Procedure

**NOTE:** The CIS feature is not present on this machine. If this code appears, a software problem may exist. Reload the IIT software.

## 065-213 RAP

CIS Output Level Failure. It was detected that the CIS brightness was insufficient.

### Procedure

**NOTE:** The CIS feature is not present on this machine. If this code appears, a software problem may exist. Reload the IIT software.

## 065-215 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

Contact failure of the DIMM2 attached to the Extension Memory PWB was detected.

#### Procedure

Perform the following:

- Switch off the power. Disconnect and reconnect the connectors between IIT/IPS PWB and Extension Memory PWB.
- Replace the Extension Memory PWB (PL 13.8).

**NOTE:** When replacing the Extension Memory PWB, replace the new EEPROM U3 with the old one.

## 065-216 RAP

### BSD-ON:3.2 PWB Communication (ESS - IIT) BSD

Extension Page Memory Failure 3. Poor contact was detected for DIMM 3, which is attached to the extension MEM PWB.

#### Procedure

Perform the following:

- Switch off the power. Disconnect and reconnect the connectors between IIT/IPS PWB and Extension Memory PWB.
- Replace the Extension Memory PWB (PL 13.8).

**NOTE:** When replacing the Extension Memory PWB, replace the new EEPROM U3 with the old one.

## 065-219 RAP

CIS Black White Level Failure. CIS black correction or white correction did not complete.

### Procedure

**NOTE:** *The CIS feature is not present on this machine. If this code appears, a software problem may exist. Reload the IIT software.*

## 065-220 RAP

1P DUP PWB-EXT Psync Failure. During Psync from the 1P DUP PWB-EXT to the extension, an output problem on the 1P DUP PWB side or an input problem on the extension side occurred.

### Procedure

**NOTE:** *The CIS feature is not present on this machine. If this code appears, a software problem may exist. Reload the IIT software.*



## 071-101 RAP

### BSD-ON:8.5 Tray 1, 2 Transportation BSD

Feed Out Sensor 1 is not turned ON within the specified time after the start of feed from Tray 1.

#### Initial Actions

Check the following:

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [071-101 Feed Out Sensor 1]. Move the actuator of the Tray 1 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 1 P/J133A-2 to MCU PWB P/J407-A12
- Feed Out Sensor 1 P/J133A-1 to Tray Module PWB P/J407-A13
- Feed Out Sensor 1 P/J133A-3 to Tray Module PWB P/J407-A11

If OK, replace the Feed Out Sensor 1 (PL 2.16) before replacing the MCU PWB (PL 11.1).

Execute DC330 [071-002 Tray 1 Feed]. **There is operation noise from the Tray 1 Feed Lift Motor.**

Y N

Go to BSD 7.7 and check the wire-wound resistance of Tray 1 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.7 and troubleshoot the Tray 1 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-002 Takeaway Clutch 1]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Take-away Roll 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage

- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 071-104 RAP

### BSD-ON:8.10 Registration BSD

Pre Registration Sensor ON Jam (Tray 1). The paper from tray 1 did not turn on the pre registration sensor within the specified time.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-100 Pre Reg. Sensor]. Place paper in front of the Pre Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Pre Regi Sensor P/J121-2 to IOT PWB P/J439-B5
- Pre Regi Sensor P/J121-1 to IOT PWB P/J439-B6
- Pre Regi Sensor P/J121-3 to IOT PWB P/J439-B4

If OK, replace the Pre Reg. Sensor (PL 4.5) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Execute DC330 [077-002 Takeaway Clutch 1]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

Check the following:

- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Take-away Roll 3 for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 071-105 RAP

### BSD-ON:8.10 Registration BSD

Registration Sensor ON Jam (Tray 1). The paper from tray 1 did not turn on the reg sensor within the specified time.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-101 Reg. Sensor]. Place paper in front of the Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Regi Sensor P/J222-2 to IOT PWB P/J439-A9
- Regi Sensor P/J222-1 to IOT PWB P/J439-A10
- Regi Sensor P/J222-3 to IOT PWB P/J439-A8

If OK, replace the Reg. Sensor (PL 4.4) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Check the following:

- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Take-away Roll 3 for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 071-210 RAP

### BSD-ON:7.7 Tray 1 Paper Stacking BSD

Tray 1 Lift Up Failure. The tray 1 Stack Height Sensor did not come on within the specified time after the tray was inserted.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Slide out the tray. Enter diagnostic code DC330 [071-002] (Tray 1 Lift/Feed Motor). Select **Start. The Tray 1 Lift/Feed Motor operates**

Y N

Turn off the power. Disconnect P/J463 from the Tray Module PWB. Measure the wire-wound resistance of Tray 1 Lift/Feed Motor:

- P/J463-A4 pin to pins P/J463-A1/A2
- P/J463-A3 pin to pins P/J463-A5/A6

**Every resistance is approx. 1.3 ohms.**

Y N

Check the following for an open wire or poor contact. If the wires are good, replace the Tray 1 Lift/Feed Motor (PL 2.6).

- P/J463-A5 to P/J220-2
- P/J463-A2 to P/J220-5
- P/J463-A1 to P/J220-6
- P/J463-A3 to P/J220-4
- P/J463-A4 to P/J220-3
- P/J463-A6 to P/J220-1

Check the following for an open wire or poor contact. If the wires are good, replace Tray Module PWB (PL 11.3) before replacing the MCU PWB (PL 11.1).

- MCU PWB P/J404-B7 to Tray Module PWB P/J462-B10
- MCU PWB P/J404-B6 to Tray Module PWB P/J462-B11
- MCU PWB P/J404-B5 to Tray Module PWB P/J462-B12
- MCU PWB P/J404-B4 to Tray Module PWB P/J462-B13
- MCU PWB P/J404-B3 to Tray Module PWB P/J462-B14

Press the **Stop** button. Enter DC330 [071-201] (Tray 1 Stack Height Sensor). Select **Start**. Manually raising and lowering the Feed/Nudger Roll Assy, turn the sensor ON, then OFF. **The display changes between H and L.**

Y N

Using the OF 99-2 Generic Transmission Type Sensor RAP, troubleshoot the Tray 1 Stack Height Sensor.

A

Slide out the tray and perform the following:

- Manually rotate the Gear Pulley at the rear of the tray to check that the tray smoothly goes up and down.
- Check the couplings and gears are not broken. Check that the couplings are securely engaged in each other when the tray is gently pushed in.
- Check for other problems including a mechanical load.



## 072-101 RAP

### BSD-ON:8.5 Tray 1, 2 Transportation BSD

Tray 2 Miss Feed Jam. Feed out sensor 2 did not come on within the specified time after the start of feed for tray 2.

### Initial Actions

Check the following:

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

### Procedure

Execute DC330 [072-101 Feed Out Sensor 2]. Move the actuator of the Tray 2 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 2 P/J133B-2 to MCU PWB P/J403-B9
- Feed Out Sensor 2 P/J133B-1 to Tray Module PWB P/J466-7
- Feed Out Sensor 2 P/J133B-3 to Tray Module PWB P/J466-5

If OK, replace the Feed Out Sensor 2 (PL 2.18) before replacing the MCU PWB (PL 11.1).

Execute DC330 [072-002 Tray 2 Feed]. **There is operation noise from the Tray 2 Feed Lift Motor.**

Y N

Go to BSD 7.8 and check the wire-wound resistance of Tray 2 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.8 and troubleshoot the Tray 2 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-002 Takeaway Clutch 1]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Takeaway Rolls 2 and 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

A

## 072-102 RAP

### BSD-ON:8.5 Tray 1, 2 Transportation BSD

The Tray 1 Feed Out Sensor does not turn ON during paper transport on the Takeaway Path for the paper fed from Tray 2.

#### Initial Actions

Check the following:

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [071-101 Feed Out Sensor 1]. Move the actuator of the Tray 1 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 1 P/J133A-2 to MCU PWB P/J407-A12
- Feed Out Sensor 1 P/J133A-1 to Tray Module PWB P/J407-A13
- Feed Out Sensor 1 P/J133A-3 to Tray Module PWB P/J407-A11

If OK, replace the Feed Out Sensor 1 (PL 2.16) before replacing the MCU PWB (PL 11.1).

Execute DC330 [072-002 Tray 1 Feed]. **There is operation noise from the Tray 2 Feed Lift Motor.**

Y N

Go to BSD 7.7 and check the wire-wound resistance of Tray 1 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.8 and troubleshoot the Tray 1 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-002 Takeaway Clutch 1]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Takeaway Rolls 2 and 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 072-104 RAP

### BSD-ON:8.10 Registration BSD

Pre-Registration Sensor ON Jam (Tray 2). The paper from tray 2 did not turn on the pre-registration sensor within the specified time.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-100 Pre Reg. Sensor]. Place paper in front of the Pre Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Pre Regi Sensor P/J121-2 to IOT PWB P/J439-B5
- Pre Regi Sensor P/J121-1 to IOT PWB P/J439-B6
- Pre Regi Sensor P/J121-3 to IOT PWB P/J439-B4

If OK, replace the Pre Reg. Sensor (PL 4.5) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

Check the following:

- Takeaway Rolls 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 072-105 RAP

### BSD-ON:8.10 Registration BSD

Registration Sensor ON Jam (Tray 2). The paper from tray 2 did not turn on the reg sensor within the specified time.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-101 Reg. Sensor]. Place paper in front of the Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Regi Sensor P/J222-2 to IOT PWB P/J439-A9
- Regi Sensor P/J222-1 to IOT PWB P/J439-A10
- Regi Sensor P/J222-3 to IOT PWB P/J439-A8

If OK, replace the Reg. Sensor (PL 4.4) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Check the following:

- Takeaway Rolls 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Drawer Connectors J601 contact points for foreign objects/bent pins/burnout
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown

## 072-210 RAP

### BSD-ON:7.8 Tray 2 Paper Stacking BSD

Tray 2 Lift Up Failure. The tray 2 Stack Height Sensor did not come on within the specified time after the tray was inserted.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Slide out the tray. Enter diagnostic code DC330 [072-002] (Tray 1 Lift/Feed Motor). Select **Start. The Tray 2 Lift/Feed Motor operates**

Y N

Turn off the power. Disconnect P/J464 from the Tray Module PWB. Measure the wire-wound resistance of Tray 2 Lift/Feed Motor:

- P/J464-A4 pin to pins P/J464-A1/A2
- P/J464-A3 pin to pins P/J464-A5/A6

**Every resistance is approx. 1.3 ohms.**

Y N

Check the following for an open wire or poor contact. If the wires are good, replace the Tray 2 Lift/Feed Motor (PL 2.8).

- P/J464-A5 to P/J220-2
- P/J464-A2 to P/J220-5
- P/J464-A1 to P/J220-6
- P/J464-A3 to P/J220-4
- P/J464-A4 to P/J220-3
- P/J464-A6 to P/J220-1

Check the following for an open wire or poor contact. If the wires are good, replace Tray Module PWB (PL 11.3) before replacing the MCU PWB (PL 11.1).

- MCU PWB P/J404-A4 to Tray Module PWB P/J462-A13
- MCU PWB P/J404-A5 to Tray Module PWB P/J462-A12
- MCU PWB P/J404-A6 to Tray Module PWB P/J462-A11
- MCU PWB P/J404-A7 to Tray Module PWB P/J462-A10
- MCU PWB P/J404-A8 to Tray Module PWB P/J462-A9

Press the **Stop** button. Enter DC330 [072-200] (Tray 2 Stack Height Sensor). Select **Start**. Manually raising and lowering the Feed/Nudger Roll Assy, turn the sensor ON, then OFF. **The display changes between H and L.**

Y N

Using the OF 99-2 Generic Transmission Type Sensor RAP, troubleshoot the Tray 1 Stack Height Sensor.

A

Slide out the tray and perform the following:

- Manually rotate the Gear Pulley at the rear of the tray to check the tray smoothly goes up and down.
- Check the couplings and gears are not broken. Check that the couplings are securely engaged in each other when the tray is gently pushed in.
- Check for other problems including a mechanical load.



## 073-101 RAP

### BSD-ON:8.6 Tray 3, 4 Transportation BSD

Tray 3 Miss Feed Jam. Feed out sensor 3 did not come on within the specified time after the start of feed for tray 3.

### Initial Actions

Check the following:

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

### Procedure

Execute DC330 [073-101 Feed Out Sensor 3]. Move the actuator of the Tray 3 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 3 P/J133C-2 to MCU PWB P/J403-A7
- Feed Out Sensor 3 P/J133C-1 to Tray Module PWB P/J464-B18
- Feed Out Sensor 3 P/J133C-3 to Tray Module PWB P/J464-B16

If OK, replace the Feed Out Sensor 3 (PL 2.18) before replacing the MCU PWB (PL 11.1).

Execute DC330 [073-002 Tray 3 Feed]. **There is operation noise from the Tray 3 Feed Lift Motor.**

Y N

Go to BSD 7.9 and check the wire-wound resistance of Tray 3 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.9 and troubleshoot the Tray 3 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 2.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 2 for an open.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 073-102 RAP

### BSD-ON:8.5 Tray 1, 2 Transportation BSD

Feed Out Sensor 1 ON Jam (Tray 3). The paper from tray 3 did not turn on feed out sensor 1 within the specified time.

#### Initial Actions

Check the following:

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [071-101 Feed Out Sensor 1]. Move the actuator of the Tray 1 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 1 P/J133A-2 to MCU PWB P/J407-A12
- Feed Out Sensor 1 P/J133A-1 to Tray Module PWB P/J407-A13
- Feed Out Sensor 1 P/J133A-3 to Tray Module PWB P/J407-A11

If OK, replace the Feed Out Sensor 1 (PL 2.16) before replacing the MCU PWB (PL 11.1).

Execute DC330 [073-002 Tray 3 Feed]. **There is operation noise from the Tray 3 Feed Lift Motor.**

Y N

Go to BSD 7.9 and check the wire-wound resistance of Tray 3 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.9 and troubleshoot the Tray 3 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 2.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 2 for an open.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 073-104 RAP

### BSD-ON:8.10 Registration BSD

Pre Registration Sensor ON Jam (Tray 3). The paper from tray 3 did not turn on the pre registration sensor within the specified time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-100 Pre Reg. Sensor]. Place paper in front of the Pre Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Pre Regi Sensor P/J121-2 to IOT PWB P/J439-B5
- Pre Regi Sensor P/J121-1 to IOT PWB P/J439-B6
- Pre Regi Sensor P/J121-3 to IOT PWB P/J439-B4

If OK, replace the Pre Reg. Sensor (PL 4.5) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 2.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 2 for an open.

Check the following:

- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 073-105 RAP

### BSD-ON:8.10 Registration BSD

Registration Sensor ON Jam (Tray 3). The paper from tray 3 did not turn on the reg sensor within the specified time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-101 Reg. Sensor]. Place paper in front of the Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Regi Sensor P/J222-2 to IOT PWB P/J439-A9
- Regi Sensor P/J222-1 to IOT PWB P/J439-A10
- Regi Sensor P/J222-3 to IOT PWB P/J439-A8

If OK, replace the Reg. Sensor (PL 4.4) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Check the following:

- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Drawer Connectors J601 contact points for foreign objects/bent pins/burnout
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown

## 073-210 RAP

### BSD-ON:7.9 Tray 3 Paper Stacking BSD

Tray 3 Lift Up Failure. The tray 3 Stack Height Sensor did not come on within the specified time after the tray was inserted.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Slide out the tray. Enter diagnostic code DC330 [073-002] (Tray 3 Lift/Feed Motor). Select **Start. The Tray 3 Lift/Feed Motor operates**

Y N

Turn off the power. Disconnect P/J464 from the Tray Module PWB. Measure the wire-wound resistance of Tray 3 Lift/Feed Motor:

- P/J464-B4 pin to pins P/J464-B1/B2
- P/J464-B3 pin to pins P/J464-B5/B6

**Every resistance is approx. 1.3 ohms.**

Y N

Check the following for an open wire or poor contact. If the wires are good, replace the Tray 3 Lift/Feed Motor (PL 2.10).

- P/J464-B5 to P/J220-2
- P/J464-B2 to P/J220-5
- P/J464-B1 to P/J220-6
- P/J464-B3 to P/J220-4
- P/J464-B4 to P/J220-3
- P/J464-B6 to P/J220-1

Check the following for an open wire or poor contact. If the wires are good, replace Tray Module PWB (PL 11.3) before replacing the MCU PWB (PL 11.1).

- MCU PWB P/J404-B12 to Tray Module PWB P/J462-B5
- MCU PWB P/J404-B11 to Tray Module PWB P/J462-B6
- MCU PWB P/J404-B10 to Tray Module PWB P/J462-B7
- MCU PWB P/J404-B9 to Tray Module PWB P/J462-B8
- MCU PWB P/J404-B8 to Tray Module PWB P/J462-B9

Press the **Stop** button. Enter DC330 [073-201] (Tray 3 Stack Height Sensor). Select **Start**. Manually raising and lowering the Feed/Nudger Roll Assy, turn the sensor ON, then OFF. **The display changes between H and L.**

Y N

Using the OF 99-2 Generic Transmission Type Sensor RAP, troubleshoot the Tray 3 Stack Height Sensor.

A

Slide out the tray and perform the following:

- Manually rotate the Gear Pulley at the rear of the tray to check the tray smoothly goes up and down.
- Check the couplings and gears are not broken. Check that the couplings are securely engaged in each other when the tray is gently pushed in.
- Check for other problems including a mechanical load.

## 074-101 RAP

### BSD-ON:8.6 Tray 3, 4 Transportation BSD

Pre Feed Sensor 4 is not turned ON within the specified time after the start of feed from Tray 4.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [074-101 Feed Out Sensor 4]. Move the actuator of the Tray 4 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 4 P/J133D-2 to MCU PWB P/J403-A13
- Feed Out Sensor 4 P/J133D-1 to Tray Module PWB P/J463-B18
- Feed Out Sensor 4 P/J133D-3 to Tray Module PWB P/J463-B16

If OK, replace the Feed Out Sensor 4 (PL 2.18) before replacing the MCU PWB (PL 11.1).

Execute DC330 [074-002 Tray 4 Feed]. **There is operation noise from the Tray 4 Feed Lift Motor.**

Y N

Go to BSD 7.10 and check the wire-wound resistance of Tray 4 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.10 and troubleshoot the Tray 4 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 2.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 2 for an open.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 074-102 RAP

### BSD-ON:8.5 Tray 1, 2 Transportation BSD

Feed Out Sensor 1 ON Jam (Tray 4). The paper from tray 4 did not turn on feed out sensor 1 within the specified time.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [071-101 Feed Out Sensor 1]. Move the actuator of the Tray 1 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 1 P/J133A-2 to MCU PWB P/J407-A12
- Feed Out Sensor 1 P/J133A-1 to Tray Module PWB P/J407-A13
- Feed Out Sensor 1 P/J133A-3 to Tray Module PWB P/J407-A11

If OK, replace the Feed Out Sensor 1 (PL 2.16) before replacing the MCU PWB (PL 11.1).

Execute DC330 [074-002 Tray 4 Feed]. **There is operation noise from the Tray 4 Feed Lift Motor.**

Y N

Go to BSD 7.10 and check the wire-wound resistance of Tray 4 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.10 and troubleshoot the Tray 4 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 2.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 2 for an open.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 074-103 RAP

### BSD-ON:8.6 Tray 3, 4 Transportation BSD

The Tray 4 Feed Out Sensor does not turn ON within the specified time during paper transport on the Takeaway Path for paper fed from Tray 4

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [074-101 Feed Out Sensor 4]. Move the actuator of the Tray 4 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.6 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 4 P/J133D-2 to MCU PWB P/J403-A7
- Feed Out Sensor 4 P/J133D-1 to Tray Module PWB P/J464-B18
- Feed Out Sensor 4 P/J133D-3 to Tray Module PWB P/J464-B16

If OK, replace the Feed Out Sensor 4 (PL 2.18) before replacing the MCU PWB (PL 11.1).

Execute DC330 [073-002 Tray 4 Feed]. **There is operation noise from the Tray 4 Feed Lift Motor.**

Y N

Go to BSD 7.10 and check the wire-wound resistance of Tray 3 Lift/Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J220-2 to pins 1/3
- P/J220-5 to pins 4/6

If OK, go to BSD 7.9 and troubleshoot the Tray 4 Lift/Feed Motor circuit.

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 2.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 2 for an open.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Connectors P/J661 for a poor connection
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

A

## 074-104 RAP

### BSD-ON:8.10 Registration BSD

Pre Registration Sensor ON Jam (Tray 4). The paper from tray 4 did not turn on the pre-registration sensor within the specified time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-100 Pre Reg. Sensor]. Place paper in front of the Pre Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Pre Regi Sensor P/J121-2 to IOT PWB P/J439-B5
- Pre Regi Sensor P/J121-1 to IOT PWB P/J439-B6
- Pre Regi Sensor P/J121-3 to IOT PWB P/J439-B4

If OK, replace the Pre Reg. Sensor (PL 4.5) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Execute DC330 [077-003 Takeaway Clutch 2]. **There is operation noise from the Takeaway Clutch 2.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 2 for an open.

Check the following:

- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 074-105 RAP

### BSD-ON:8.10 Registration BSD

Registration Sensor ON Jam (Tray 4). The paper conveyed from tray #4 did not turn on the reg sensor within the specified time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-101 Reg. Sensor]. Place paper in front of the Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Regi Sensor P/J222-2 to IOT PWB P/J439-A9
- Regi Sensor P/J222-1 to IOT PWB P/J439-A10
- Regi Sensor P/J222-3 to IOT PWB P/J439-A8

If OK, replace the Reg. Sensor (PL 4.4) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Check the following:

- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Drawer Connectors J601 contact points for foreign objects/bent pins/burnout
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown



## 074-210 RAP

### BSD-ON:7.10 Tray 4 Paper Stacking BSD

Tray 4 Lift Up Failure. The tray 4 Stack Height Sensor did not come on within the specified time after the tray was inserted.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Slide out the tray. Enter diagnostic code DC330 [074-002] (Tray 4 Lift/Feed Motor). Select **Start**. **The Tray 4 Lift/Feed Motor operates**

Y N

Turn off the power. Disconnect P/J463 from the Tray Module PWB. Measure the wire-wound resistance of Tray 4 Lift/Feed Motor:

- P/J463-B4 pin to pins P/J464-B1/B2
- P/J463-B3 pin to pins P/J464-B5/B6

**Every resistance is approx. 1.3 ohms.**

Y N

Check the following for an open wire or poor contact. If the wires are good, replace the Tray 2 Lift/Feed Motor (PL 2.8).

- P/J463-B5 to P/J220-2
- P/J463-B2 to P/J220-5
- P/J463-B1 to P/J220-6
- P/J463-B3 to P/J220-4
- P/J463-B4 to P/J220-3
- P/J463-B6 to P/J220-1

Check the following for an open wire or poor contact. If the wires are good, replace Tray Module PWB (PL 11.3) before replacing the MCU PWB (PL 11.1).

- MCU PWB P/J404-A9 to Tray Module PWB P/J462-A8
- MCU PWB P/J404-A10 to Tray Module PWB P/J462-A7
- MCU PWB P/J404-A11 to Tray Module PWB P/J462-A6
- MCU PWB P/J404-A12 to Tray Module PWB P/J462-A5
- MCU PWB P/J404-A13 to Tray Module PWB P/J462-A4

Press the **Stop** button. Enter DC330 [074-201] (Tray 4 Stack Height Sensor). Select **Start**. Manually raising and lowering the Feed/Nudger Roll Assy, turn the sensor ON, then OFF. **The display changes between H and L.**

Y N

Using the OF 99-2 Generic Transmission Type Sensor RAP, troubleshoot the Tray 3 Stack Height Sensor.

A

Slide out the tray and perform the following:

- Manually rotate the Gear Pulley at the rear of the tray to check the tray smoothly goes up and down.
- Check the couplings and gears are not broken. Check that the couplings are securely engaged in each other when the tray is gently pushed in.
- Check for other problems including a mechanical load.



## 075-100 RAP

### BSD-ON:8.3 Tray 5 / Single-Tray HCF Paper Feeding BSD

Tray 5 Pre Feed Sensor is not turned ON a spec time after the start of feed from Tray 5.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [075-100 Tray 5 Pre Feed Sensor]. Place paper in front of the Tray 5 Pre Feed Sensor. **The display changes.**

Y N

Go to BSD 8.3 and check the following wires for an open wire, short or poor contact:

- Tray 5 Pre Feed Sensor P/J119-2 to MCU PWB P/J407-A5
- Tray 5 Pre Feed Sensor P/J119-1 to Tray Module PWB P/J407-A6
- Tray 5 Pre Feed Sensor P/J119-3 to Tray Module PWB P/J407-A4

If OK, replace the Tray 5 Pre Feed Sensor (PL 3.7) before replacing the MCU PWB (PL 11.1).

Execute DC330 [075-003 Tray 5 Feed Motor]. **There is operation noise from the Tray 5 Feed Motor.**

Y N

Go to BSD 8.7 and check the wire-wound resistance of Tray 5 Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J225-2 to pins 1/3
- P/J225-5 to pins 4/6

If OK, go to BSD 8.7 and troubleshoot the Tray 5 Feed Motor circuit.

Execute DC330 [075-003 Tray 5 Nudger Solenoid]. **There is operation noise from the Tray 5 Nudger Solenoid.**

Y N

Go to BSD 7.11 and check the Tray 5 Nudger Solenoid Circuit for an open.

Load a few sheets of the specified paper into Tray 5.

Execute DC330 [075-006 Tray 5 Lift Motor]. **There is operation noise from the Tray 5 Lift Motor.**

Y N

Go to BSD7.11 and check the Tray 5 Lift Motor circuit for an open.

Execute DC 330 [075-006 Tray 5 Lift Motor: Lift Down (CCW) Sensor Stop]. **The Tray 5 Lifter moves down.**

Y N

Go to BSD 7.11 and check the Tray 5 Lift Up Sensor circuit for an open or short.

A

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace the IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

A

## 075-109 RAP

### BSD-ON:8.7 Tray 5 (No HCF/Single-Tray HCF) Transportation BSD

Paper from Tray 5 does not turn ON Pre Regi Sensor within a spec time.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-108 Tray 5 TRAY 5 Pre-Reg. Sensor]. Place paper in front of the Tray 5 Pre-Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.7 and check the following wires for an open wire, short or poor contact:

- Tray 5 Pre Feed Sensor P/J120-2 to MCU PWB P/J416-B11
- Tray 5 Pre Feed Sensor P/J120-1 to Tray Module PWB P/J416-B12
- Tray 5 Pre Feed Sensor P/J120-3 to Tray Module PWB P/J416-B10

If OK, replace the Tray 5 Pre Reg. Sensor (PL 2.16) before replacing the MCU PWB (PL 11.1).

Execute DC330 [075-003 Tray 5 Feed Motor]. **There is operation noise from the Tray 5 Feed Motor.**

Y N

Go to BSD 8.7 and check the wire-wound resistance of Tray 5 Feed Motor is approx. 1.3 ohms at the measurement points below.

- P/J225-2 to pins 1/3
- P/J225-5 to pins 4/6

If OK, go to BSD 8.7 and troubleshoot the Tray 5 Feed Motor circuit.

Check the following:

- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Retard Roll for a problem
- Feed Roll/Nudger Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace the IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 075-135 RAP

### BSD-ON:8.10 Registration BSD

Paper from Tray 5 does not turn on the Regi Sensor within a spec time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-101 Reg. Sensor]. Place paper in front of the Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Regi Sensor P/J222-2 to IOT PWB P/J439-A9
- Regi Sensor P/J222-1 to IOT PWB P/J439-A10
- Regi Sensor P/J222-3 to IOT PWB P/J439-A8

If OK, replace the Reg. Sensor (PL 4.4) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Check the following:

- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown

## 075-210 RAP

### BSD-ON:7.11 Tray 5 (No HCF/Single - Tray HCF) Paper Stacking BSD

Tray 5 Lift Up Sensor does not turn ON a spec time after Tray 5 starts lifting up.

**NOTE:** The following procedure must be performed with the Tray 5 Cover Interlock Switch closed.

### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

### Procedure

Execute DC330 [075-200 Tray 5 Lift Up Sensor]. Lift up/down the Elevator Tray manually.

**Does the display change?**

Y N  
Go to BSD 7.11 and troubleshoot the Tray 5 Lift Up Sensor.

Execute DC330 [075-005 Tray 5 Lift Motor: Lift Up (CW) Sensor Stop]. **Does the Tray 5 Nudger Roll lift down and the Tray 5 Lifter lift up stopping automatically at the normal height?**

Y N  
Go to BSD 7.11 and troubleshoot the Tray 5 Lift Up Motor.

Check the operation of the gear section of the Elevator Tray. **The gear section operates properly.**

Y N  
Replace the faulty parts in the gear section.

Replace the MCU PWB (PL 11.1).

## 075-211 RAP

### BSD-ON:7.11 Tray 5 (No HCF/Single - Tray HCF) Paper Stacking BSD

Tray 5 Lift Down Sensor does not turn ON a spec time after Tray 5 starts lowering.

**NOTE:** The following procedure must be performed with the Tray 5 Cover Interlock Switch closed.

### Procedure

Enter Diagnostics. Enter DC330 [075-006] (Down). Select Start. **The tray has lowered.**

Y N  
Remove the Tray 5 Rear Cover. Manually rotate the Tray 5 Lifter gears. **The gears rotate with no load.**

Y N  
Remove any load from the Lift Down mechanism.

**+24VDC is measured between P/J226-2 (+) on the Tray 5 Lift Motor and GND (-).**

Y N  
Check the wire between P/J435-6 on the IOT PWB and P/J226-1 on the Tray 5 Lift Motor for an open wire or poor contact. If the wire is good, replace the IOT PWB (PL 11.1).

Enter DC330 [075-006] (Down). Select Start. **+1VDC or less is measured between P/J226-2 (+) on the Tray 5 Lift Motor and GND (-).**

Y N  
Disconnect and reconnect the cable between P/J431 on the IOT PWB and P/J401 on the MCU PWB. If this does not resolve the problem, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+24VDC is measured between P/J226-1 (+) on the Tray 5 Lift Motor and GND (-).**

Y N  
Check the wire between P/J435-5 on the IOT PWB and P/J226-1 on the Tray 5 Lift Motor for an open wire or poor contact.

Replace the Tray 5 Lift Motor (PL 3.3).

Press the Stop button. Enter DC330 [075-201] (Tray 5 Down Sensor). Select Start. While raising and lowering the Tray 5 Bottom Plate, turn ON then OFF the Tray 5 Lift Down Sensor. **The display changes between H and L.**

Y N  
Go to BSD 7.11 and troubleshoot the Tray 5 Down Sensor.

Check if there were any obstacles on the Tray 5 Bottom Plate when the failure occurred preventing the tray from freely going up and down. If the failure frequently occurs, replace the IOT PWB (PL 11.1) and the MCU PWB (PL 11.1) in that order.



## 077-103 RAP

BSD-ON:10.4 Fusing BSD

The fuser exit sensor did not turn off within the specified time in straight exit mode.

### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

### Procedure

Execute DC330 [074-101 Fuser Exit Sensor]. Move the actuator of the Fuser Exit Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.6 and check the following wires for an open wire, short or poor contact:

- Fuser Exit Sensor P/J149-2 to MCU PWB P/J405-A2
- Fuser Exit Sensor P/J149-1 to MCU PWB P/J405-A3
- Fuser Exit Sensor P/J149-3 to MCU PWB P/J405-A1

If OK, replace the Fuser Exit Sensor (PL 8.1) before replacing the MCU PWB (PL 11.1).

Execute DC330 [077-010 Exit Motor]. **There is operation noise from the Exit Motor.**

Y N

Go to BSD 10.9 and check the wire-wound resistance of Exit Motor is approximately. 1.3 ohms at the measurement points below.

- P/J222-2 to pins 1/3
- P/J222-5 to pins 4/6

If OK, go to BSD 10.9 and troubleshoot the Exit Motor circuit.

Check the following:

- Fuser Exit Rolls for dirt/paper particles/wear/a poor rotation
- Connectors P612 for a poor connection
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- Check the exit roll paper guide for being deformed.
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-106 RAP

BSD-ON:10.4 Fusing BSD

The fuser exit sensor did not come on within the specified time after the registration motor came on.

### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

### Procedure

Check the winding condition of the IBT belt. **The IBT belt is in proper condition without being wound up.**

Y N

Unwind the IBT belt.

Check the installation condition of the Fuser. **The Fuser is properly installed.**

Y N

Install the Fuser properly.

Execute DC330 [074-101 Fuser Exit Sensor]. Move the actuator of the Fuser Exit Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.6 and check the following wires for an open wire, short or poor contact:

- Fuser Exit Sensor P/J149-2 to MCU PWB P/J405-A2
- Fuser Exit Sensor P/J149-1 to MCU PWB P/J405-A3
- Fuser Exit Sensor P/J149-3 to MCU PWB P/J405-A1

If OK, replace the Fuser Exit Sensor (PL 8.1) before replacing the MCU PWB (PL 11.1).

Execute DC330 [010-004 Fuser Drive Motor]. **There is operation noise from the Fuser Drive Motor.**

Y N

Go to BSD 10.1 and check the wire-wound resistance of Exit Motor is approximately. 1.3 ohms at the measurement points below.

- P/J212-2 to pins 1/3
- P/J212-5 to pins 4/6

If OK, go to BSD 10.1 and troubleshoot the Fuser Drive Motor circuit.

Execute DC330 [077-010 Exit Motor]. **There is operation noise from the Exit Motor.**

Y N

Go to BSD 10.9 and check the wire-wound resistance of Exit Motor is approximately. 1.3 ohms at the measurement points below.

- P/J222-2 to pins 1/3
- P/J222-5 to pins 4/6

If OK, go to BSD 10.9 and troubleshoot the Exit Motor circuit.

A

Check the following:

- Fuser Exit Rolls for dirt/paper particles/wear/a poor rotation
- Connectors [P612](#) for a poor connection
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- If the results of the above checks are OK, replace Tray Module PWB ([PL 11.3](#)), and the MCU PWB ([PL 11.1](#)) one at a time in the order shown.

## 077-107 RAP

**BSD-ON:**[10.4 Fusing BSD](#)

The fuser exit sensor did not turn off within the specified time in invert exit mode.

### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

### Procedure

Execute DC330 [010-201 Fuser Exit Sensor]. Move the actuator of the Fuser Exit Sensor manually or with paper. **The display changes.**

**Y N**

Go to BSD 8.6 and check the following wires for an open wire, short or poor contact:

- Fuser Exit Sensor [P/J149-2](#) to MCU PWB [P/J405-A2](#)
- Fuser Exit Sensor [P/J149-1](#) to MCU PWB [P/J405-A3](#)
- Fuser Exit Sensor [P/J149-3](#) to MCU PWB [P/J405-A1](#)

If OK, replace the Fuser Exit Sensor ([PL 8.1](#)) before replacing the MCU PWB ([PL 11.1](#)).

Execute DC330 [077-011 Invert Gate Solenoid In]. **There is operation noise from the Invert Gate Solenoid.**

**Y N**

Go to BSD 10.7 and troubleshoot the Invert Gate Solenoid circuit.

Execute DC330 [077-010 Exit Motor]. **There is operation noise from the Exit Motor.**

**Y N**

Go to BSD 10.9 and check the wire-wound resistance of Exit Motor is approximately. 1.3 ohms at the measurement points below.

- [P/J222-2](#) to pins 1/3
- [P/J222-5](#) to pins 4/6

If OK, go to BSD 10.9 and troubleshoot the Exit Motor circuit.

Execute DC330 [077-016 Reverse Invert Solenoid]. **There is operation noise from the Reverse Invert Solenoid.**

**Y N**

Go to BSD 10.7 and troubleshoot the Reverse Gate Solenoid circuit.

Check the following:

- Invert Roll for dirt/paper particles/wear/a poor rotation
- Invert Gate for an improper operation
- Fuser Exit Rolls for dirt/paper particles/wear/a poor rotation
- Connectors [P612](#) for a poor connection
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- Check/Adjust the Release Invert Solenoid ([PL 10.5](#)).



- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-109 RAP

### BSD-ON:10.9 Fused Paper Exit BSD

The IOT exit sensor did not come on at the specified time in non-invert mode. (Straight output)

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [010-201 Fuser Exit Sensor]. Move the actuator of the Fuser Exit Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.6 and check the following wires for an open wire, short or poor contact:

- Fuser Exit Sensor P/J149-2 to MCU PWB P/J405-A2
- Fuser Exit Sensor P/J149-1 to MCU PWB P/J405-A3
- Fuser Exit Sensor P/J149-3 to MCU PWB P/J405-A1

If OK, replace the Fuser Exit Sensor (PL 8.1) before replacing the MCU PWB (PL 11.1).

Execute DC330 [077-011 Invert Gate Solenoid In]. **There is operation noise from the Invert Gate Solenoid.**

Y N

Go to BSD 10.7 and troubleshoot the Invert Gate Solenoid circuit.

Execute DC330 [077-010 Exit Motor]. **There is operation noise from the Exit Motor.**

Y N

Go to BSD 10.9 and check the wire-wound resistance of Exit Motor is approximately. 1.3 ohms at the measurement points below.

- P/J222-2 to pins 1/3
- P/J222-5 to pins 4/6

If OK, go to BSD 10.9 and troubleshoot the Exit Motor circuit.

Check the following:

- Invert Roll for dirt/paper particles/wear/a poor rotation
- Invert Gate for an improper operation
- Fuser Exit Rolls for dirt/paper particles/wear/a poor rotation
- Connectors P612 for a poor connection
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- Check/Adjust the Release Invert Solenoid (PL 10.5).
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-111 RAP

### BSD-ON:10.9 Fused Paper Exit BSD

The IOT exit sensor did not come on within the specified time in invert exit mode.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [074-101 Fuser Exit Sensor]. Move the actuator of the Fuser Exit Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.6 and check the following wires for an open wire, short or poor contact:

- Fuser Exit Sensor P/J149-2 to MCU PWB P/J405-A2
- Fuser Exit Sensor P/J149-1 to MCU PWB P/J405-A3
- Fuser Exit Sensor P/J149-3 to MCU PWB P/J405-A1

If OK, replace the Fuser Exit Sensor (PL 8.1) before replacing the MCU PWB (PL 11.1).

Execute DC330 [077-011 Invert Gate Solenoid In]. **There is operation noise from the Invert Gate Solenoid.**

Y N

Go to BSD 10.7 and troubleshoot the Invert Gate Solenoid circuit.

Execute DC330 [077-013 Invert Motor]. **There is operation noise from the Invert Motor.**

Y N

Go to BSD 10.7 and check the wire-wound resistance of Invert Motor is approximately 1.3 ohms at the measurement points below.

- P/J221-2 to pins 1/3
- P/J221-5 to pins 4/6

If OK, go to BSD 10.7 and troubleshoot the Invert Motor circuit.

Execute DC330 [077-016 Reverse Invert Solenoid]. **There is operation noise from the Reverse Invert Solenoid.**

Y N

Go to BSD 10.7 and troubleshoot the Reverse Gate Solenoid circuit.

Execute DC330 [077-010 Exit Motor]. **There is operation noise from the Exit Motor.**

Y N

Go to BSD 10.9 and check the wire-wound resistance of Exit Motor is approximately 1.3 ohms at the measurement points below.

- P/J222-2 to pins 1/3
- P/J222-5 to pins 4/6

If OK, go to BSD 10.9 and troubleshoot the Exit Motor circuit.

A

Check the following:

- Invert Roll for dirt/paper particles/wear/a poor rotation
- Invert Gate for an improper operation
- Fuser Exit Rolls for dirt/paper particles/wear/a poor rotation
- Drawer Connectors P/J608 contact points for foreign objects/bent pins/burnout
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-113 RAP

### BSD-ON:10.9 Fused Paper Exit BSD

The IOT exit sensor did not turn off at the specified time in non-invert mode.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [074-101 Fuser Exit Sensor]. Move the actuator of the Fuser Exit Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.6 and check the following wires for an open wire, short or poor contact:

- Fuser Exit Sensor P/J149-2 to MCU PWB P/J405-A2
- Fuser Exit Sensor P/J149-1 to MCU PWB P/J405-A3
- Fuser Exit Sensor P/J149-3 to MCU PWB P/J405-A1

If OK, replace the Fuser Exit Sensor (PL 8.1) before replacing the MCU PWB (PL 11.1).

Execute DC330 [077-012 Invert Gate Solenoid Exit]. **There is operation noise from the Invert Gate Solenoid.**

Y N

Go to BSD 10.7 and troubleshoot the Invert Gate Solenoid circuit.

Execute DC330 [077-010 Exit Motor]. **There is operation noise from the Exit Motor.**

Y N

Go to BSD 10.9 and check the wire-wound resistance of Exit Motor is approximately. 1.3 ohms at the measurement points below.

- P/J222-2 to pins 1/3
- P/J222-5 to pins 4/6

If OK, go to BSD 10.9 and troubleshoot the Exit Motor circuit.

Check the following:

- Finisher for poor docking
- Exit Rolls for dirt/paper particles/wear/a poor rotation
- Drawer Connectors P/J608 contact points for foreign objects/bent pins/burnout
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-115 RAP

### BSD-ON:10.9 Fused Paper Exit BSD

The IOT exit sensor did not turn off within the specified time in invert exit mode.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-107 IOT Exit Sensor]. Move the actuator of the IOT Exit Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 10.9 and check the following wires for an open wire, short or poor contact:

- Fuser Exit Sensor P/J111-2 to Tray Module PWB P/J465-B6
- Fuser Exit Sensor P/J111-1 to Tray Module PWB P/J465-B7
- Fuser Exit Sensor P/J111-3 to Tray Module PWB P/J465-B5
- MCU PWB P/J403-B7 to Tray Module PWB P/J461-B12

If OK, replace the IOT Exit Sensor (PL 10.4) before replacing the MCU PWB (PL 11.1).

Execute DC330 [077-012 Invert Gate Solenoid Exit]. **There is operation noise from the Invert Gate Solenoid.**

Y N

Go to BSD 10.7 and troubleshoot the Invert Gate Solenoid circuit.

Execute DC330 [077-010 Exit Motor]. **There is operation noise from the Exit Motor.**

Y N

Go to BSD 10.9 and check the wire-wound resistance of Exit Motor is approximately. 1.3 ohms at the measurement points below.

- P/J222-2 to pins 1/3
- P/J222-5 to pins 4/6

If OK, go to BSD 10.9 and troubleshoot the Exit Motor circuit.

Check the following:

- Finisher for poor docking
- Exit Rolls for dirt/paper particles/wear/a poor rotation
- Drawer Connectors P/J608 contact points for foreign objects/bent pins/burnout
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-118 RAP

### BSD-ON:8.10 Registration BSD

The paper transported from duplex did not turn on the pre registration sensor within the specified time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-100 Pre Reg. Sensor]. Place paper in front of the Pre Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Pre Regi Sensor P/J121-2 to IOT PWB P/J439-B5
- Pre Regi Sensor P/J121-1 to IOT PWB P/J439-B6
- Pre Regi Sensor P/J121-3 to IOT PWB P/J439-B4

If OK, replace the Pre Reg. Sensor (PL 4.5) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approximately. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Execute DC330 [077-018 Duplex Motor]. **There is operation noise from the Duplex Motor.**

Y N

Check the wire-wound resistance of Duplex Motor is approximately. 0.8 ohms at the measurement points below.

- P/J219-2 to pins 1/3
- P/J219-5 to pins 4/6

If OK, go to BSD 10.10 and troubleshoot the Duplex Motor circuit.

Check the following:

- Duplex Path Roll 2 for dirt/paper particles/wear/ poor rotation
- Duplex Out Roll for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Drawer Connectors J601 contact points for foreign objects/bent pins/burnout
- Drawer Connectors P/J608 contact points for foreign objects/bent pins/burnout

- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown

## 077-120 RAP

BSD-ON:9.28 2ND Transfer And Cleaning (3 Of 3) BSD

Post 2nd BTR Sensor On JAM

### Initial Actions

- Turn the power OFF then ON.
- Remove the foreign substances on the paper transport path.

### Procedure

Check the condition of the IBT belt. **The IBT belt is in proper condition without being damaged.**

Y N  
Replace the IBT Belt (PL 7.3).

Enter dC330 [042-018 IBT Steering Motor (CW) Low Current]. **The IBT Steering Motor comes ON.**

Y N  
Go to OF 99-9 and troubleshoot the IBT Steering Motor, BSD 9.19 (PL 7.4).

Select [042-200 Belt Home Position Sensor]. **The IBT Belt Home position can be detected.**

Y N  
Go to OF 99-1 and troubleshoot the Transfer Belt Home Sensor, BSD 9.20 (PL 7.5).

Select [094-202 Post 2nd BTR Sensor]. Place paper in front of the Post 2nd BTR Sensor. **The display changes.**

Y N  
Go to OF 99-1 and troubleshoot the Post 2nd BTR Sensor BSD 9.28 (PL 7.9).

Replace the MCU PWB (PL 11.1).

## 077-123 RAP

BSD-ON:8.10 Registration BSD

Duplex In Sensor does not turn ON a spec time after the start of invert.

### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

### Procedure

Execute DC330 [077-101 Reg. Sensor]. Place paper in front of the Reg. Sensor. **The display changes.**

Y N  
Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Regi Sensor P/J222-2 to IOT PWB P/J439-A9
- Regi Sensor P/J222-1 to IOT PWB P/J439-A10
- Regi Sensor P/J222-3 to IOT PWB P/J439-A8

If OK, replace the Reg. Sensor (PL 4.4) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N  
Check the wire-wound resistance of Pre Reg. Motor is approximately 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Check the following:

- Duplex Path Roll 2 for dirt/paper particles/wear/ poor rotation
- Duplex Out Roll for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Drawer Connectors J601 contact points for foreign objects/bent pins/burnout
- Drawer Connectors P/J608 contact points for foreign objects/bent pins/burnout
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown

## 077-129 RAP

### BSD-ON:10.11 Duplex Transportation (2 Of 2) BSD

The paper transported from duplex did not turn on the registration sensor within the specified time.

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-104 Duplex In Sensor]. Move the actuator of the Duplex In Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 10.11 and check the following wires for an open wire, short or poor contact:

- Duplex In Sensor P/J104-2 to IOT Driver PWB P/J439-B13
- Duplex In Sensor P/J104-1 to IOT Driver PWB P/J439-B14
- Duplex In Sensor P/J104-3 to IOT Driver PWB P/J439-B12

If OK, replace the Duplex In Sensor (PL 4.3) before replacing the IOT Driver PWB (PL 11.1).

Execute DC330 [077-013 Invert Motor]. **There is operation noise from the Invert Motor.**

Y N

Go to BSD 10.7 and check the wire-wound resistance of Invert Motor is approximately 1.3 ohms at the measurement points below.

- P/J221-2 to pins 1/3
- P/J221-5 to pins 4/6

If OK, go to BSD 10.7 and troubleshoot the Invert Motor circuit.

Execute DC330 [077-016 Reverse Invert Solenoid]. **There is operation noise from the Reverse Invert Solenoid.**

Y N

Go to BSD 10.7 and troubleshoot the Reverse Gate Solenoid circuit.

Check the following:

- Pre Regi Roll for dirt/paper particles/wear/ poor rotation
- Drawer Connectors P607B contact points for foreign objects/bent pins/burnout
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-130 RAP

### BSD-ON:10.11 Duplex Transportation (2 Of 2) BSD

Duplex Out Sensor does not turn ON a spec time after Duplex In Sensor turns ON

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-106 Duplex Out Sensor]. Move the actuator of the Duplex Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 10.11 and check the following wires for an open wire, short or poor contact:

- Duplex Out Sensor P/J106-2 to IOT Driver PWB P/J439-A15
- Duplex Out Sensor P/J106-1 to IOT Driver PWB P/J439-B16
- Duplex Out Sensor P/J106-3 to IOT Driver PWB P/J439-B14

If OK, replace the Duplex Out Sensor (PL 4.3) before replacing the IOT Driver PWB (PL 11.1).

Execute DC330 [077-013 Invert Motor]. **There is operation noise from the Invert Motor.**

Y N

Go to BSD 10.7 and check the wire-wound resistance of Invert Motor is approximately 1.3 ohms at the measurement points below.

- P/J221-2 to pins 1/3
- P/J221-5 to pins 4/6

If OK, go to BSD 10.7 and troubleshoot the Invert Motor circuit.

Execute DC330 [077-018 Duplex Motor]. **There is operation noise from the Duplex Motor.**

Y N

Check the wire-wound resistance of Duplex Motor is approximately 0.8 ohms at the measurement points below.

- P/J219-2 to pins 1/3
- P/J219-5 to pins 4/6

If OK, go to BSD 10.10 and troubleshoot the Duplex Motor circuit.

Check the following:

- Duplex Path Roll 2 for dirt/paper particles/wear/ poor rotation
- Duplex Out Roll for dirt/paper particles/wear/a poor rotation
- Drawer Connectors P607B contact points for foreign objects/bent pins/burnout
- Drive gears for wear/breakage
- Check for out-of-spec paper.
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), and the MCU PWB (PL 11.1) one at a time in the order shown.

## 077-300 RAP

### BSD-ON:2.1 IOT Interlock Switching BSD

The front cover is open.

#### Initial Actions

- Switch the power off then on.
- Check the opening/closing of the Front Cover.

#### Procedure

Check the actuator of the Front Cover for damage, distortion and improper installation. **The actuator is properly installed with no damage or distortion.**

Y N  
| Replace or repair the actuator.

Execute DC330 [077-303 Front Door Interlock]. **Open and close the Front Cover. The display changes.**

Y N  
| Go to BSD 2.1 and troubleshoot the Front Cover Door Interlock Switch.

Replace the MCU PWB (PL 11.1).

## 077-301 RAP

### BSD-ON:2.1 IOT Interlock Switching BSD

The Left Hand Interlock is open.

#### Initial Actions

- Switch the power off then on.
- Check the opening/closing of the L/H Cover Interlock.

#### Procedure

Execute DC330 [077-300 L/H Cover Interlock Switch]. **Open and close the L/H Cover. The display changes.**

Y N  
| **+24VDC is measured between P/J132-1 (+) on the L/H Cover Interlock Switch and GND (-).**

Y N  
| Check the wire between P/J469-1 on the Tray Module PWB and P/J132-1 on the L/H Cover Interlock Switch for an open wire or poor contact.

**When the switch is ON, +24VDC is measured between P/J132-3 (+) on the L/H Cover Interlock Switch and GND (-).**

Y N  
| Replace the L/H Cover Interlock Switch (PL 7.4).

**+24VDC is measured between P/J469-2 (+) on the Tray Module PWB and GND (-).**

Y N  
| Check the wire between P/J132-3 on the L/H Cover Interlock Switch and P/J469-2 on the Tray Module PWB for an open wire or poor contact.

Check the wire between P/J461-A2 on the Tray Module PWB and P/J404-A17 on the MCU PWB for an open wire or poor contact. If the wire is good, replace the Tray Module PWB (PL 11.3) and the MCU PWB (PL 11.1) in that order.

The problem can be a misalignment between the L/H Cover and the L/H Cover Interlock Switch. Check the L/H Cover for an improper installation and the actuator for any problem, and check for the improperly positioned L/H Cover Interlock Switch.

## 077-302 RAP

### BSD-ON:2.1 IOT Interlock Switching BSD

The Right Hand Cover Interlock is open

#### Initial Actions

- Switch the power off then on.
- Check the opening/closing of the R/H Cover Interlock.

#### Procedure

Execute DC330 [077-300 R/H Cover Interlock Switch]. **Open and close the R/H Cover. The display changes.**

Y N  
+24VDC is measured between P/J112-2 (+) on the L/H Cover Interlock Switch and GND (-).

Y N  
Check the wire between P/J466-1 on the Tray Module PWB and P/J112-2 on the R/H Cover Interlock Switch for an open wire or poor contact.

**When the switch is ON, +24VDC is measured between P/J112-1 (+) on the L/H Cover Interlock Switch and GND (-).**

Y N  
Replace the R/H Cover Interlock Switch (PL 7.4).

**+24VDC is measured between P/J466-2 (+) on the Tray Module PWB and GND (-).**

Y N  
Check the wire between P/J112-1 on the R/H Cover Interlock Switch and P/J466-2 on the Tray Module PWB for an open wire or poor contact.

Check the wire between P/J461-A1 on the Tray Module PWB and P/J404-A18 on the MCU PWB for an open wire or poor contact. If the wire is good, replace the Tray Module PWB (PL 11.3) and the MCU PWB (PL 11.1) in that order.

The problem can be a misalignment between the R/H Cover and the R/H Cover Interlock Switch. Check the R/H Cover for an improper installation and the actuator for any problem, and check for the improperly positioned R/H Cover Interlock Switch.

## 077-303 RAP

### BSD-ON:2.1 IOT Interlock Switching BSD

Transfer Module 2 Interlock Open.

#### Initial Actions

- Switch the power off then on.
- Check the opening/closing of the Transfer Module 2.

#### Procedure

Check the condition of the pushed in Transfer Module 2 Drawer Assembly (PL 4.1) **The knob of the Transfer Module 2 Drawer Assembly is locked.**

Y N  
Push in the Transfer Module 2 Drawer Assembly and lock the knob.

Check the Marking Drawer Interlock connectors. **Are the Marking Drawer Interlock connectors properly installed?**

Y N  
Install the Marking Drawer Interlock properly.

Execute DC330 [077-302 Transfer Module 2 Interlock]. Pull out and push in the Transfer Module 2 Drawer Assembly again. **The display changes.**

Y N  
Go to BSD 2.1 and Troubleshoot the Transfer Module 2 Interlock circuit.

Replace the MCU PWB (PL 11.1).



## 077-304 RAP

BSD-ON: 2.1 IOT Interlock Switching BSD

The Tray 5/Bypass Cover Interlock is open

### Initial Actions

- Switch the power off then on.
- Check the opening/closing of the Tray 5/Bypass Cover Interlock.

### Procedure

Check the opening/closing of the Tray 5/Bypass Cover. **The Tray 5/Bypass Cover be opened/closed.**

**Y N**  
| Reinstall he Tray 5/Bypass Cover properly.

Check the installation of the Tray 5/Bypass Interlock Switch (PL 3.2). **The Tray 5/Bypass Cover Interlock Switch is properly installed.**

**Y N**  
| Install the MSI Cover Interlock Switch properly.

Execute DC330 [077-304 Tray 5/Bypass Cover Interlock]. Open and close the Tray 5/Bypass Cover. **The display changes.**

**Y N**  
| Go to BSD 2.1 and check the Tray 5/Bypass Cover Interlock Switch for an open circuit.

Replace the MCU PWB (PL 11.1).

## 077-312 RAP

BSD-ON: CH 2.3, CH 3.X

Feeder Communication Failure

### Initial Actions

Switch the power off, then on, if the problem still exists, continue with the RAP.

### Procedure

Connect the meter between JF05-1 (+) and JF04-2 (-) on the HCF PWB. **There is +24 VDC present**

**Y N**  
| Connect the meter between JF04-1 (+) and JF04-2 (-) on the HCF PWB. **There is +24 VDC present**

**Y N**  
| Go to BSD 2.3 and check for an open wire between the HCF PWB and the IOT Driver PWB.

Check F1 on the HCF PWB for an open. **F1 is OK.**

**Y N**  
| Replace F1. If F1 blows again, go to BSD 2.3 and Wirenets 7.2.33 and check the +24 VDC for a short circuit.

Replace the HCF PWB (PL 11.3).

Connect the meter between P/J460-2 (+) and P/J460-3 (-) on the Tray Module PWB. **There is +24 VDC present**

**Y N**  
| Connect the meter between P/J460-1 (+) and P/J460-3 (-) on the Tray Module PWB. **There is +24 VDC present**

**Y N**  
| Go to BSD 2.3 and check for an open wire between the Tray Module PWB and the Main LVPS.

Check F1 on the Tray Module PWB for an open. **F1 is OK.**

**Y N**  
| Replace F1. If F1 blows again, go to BSD 2.3 and wirenet 7.2.28 and 7.2.29 and check the +24 VDC for a short circuit.

Replace the Tray Module PWB (PL 11.3).

Replace the Tray Module PWB (PL 11.3), the HCF PWB (PL 18.8), and the MCU PWB (PL 11.3) in that order.

## 077-909 RAP

### BSD-ON:

One of the IOT sensors detected paper when power was turned on or when an interlock was closed.

### Initial Actions

Perform the following:

- Clear any paper jam.
- Switch the power off then on.
- Check if the Regi Sensor actuator is operating properly.
- Check for any light leaks.
- Check for a change or drop in the power voltage at the customer site.

### Procedure

Execute DC330 [077-101 Regi Sensor]. Place paper in front of the Regi Sensor (PL 4.4). **The display changes.**

**Y N**

Go to BSD 8.10 and check the Regi Sensor for a short circuit.

Replace the MCU PWB (PL 11.1).

## 077-967 RAP

### BSD-ON:

The specified paper type and the paper type being used are different.

### Initial Actions

Perform the following:

- Switch the power off then on.
- Check if the Regi Sensor actuator is operating properly.
- Check the paper type.
- Check the paper type settings.

### Procedure

Load the paper type selected. If problem still exists, replace the MCU PWB (PL 11.1).

## 077-968 RAP

### BSD-ON:

The type of paper in the tray was changed.

### Initial Actions

Perform the following:

- Switch the power off then on.
- Check if the Regi Sensor actuator is operating properly.
- Check the paper type.
- Check the paper type settings.

### Procedure

Load the paper type selected. If problem still exists, replace the MCU PWB (PL 11.1).



## 078-100 RAP

### BSD-ON:8.10 Registration BSD

The paper transported from tray 6 did not turn on the pre registration sensor within the specified time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-100 Pre Reg. Sensor]. Place paper in front of the Pre Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Pre Regi Sensor P/J121-2 to IOT PWB P/J439-B5
- Pre Regi Sensor P/J121-1 to IOT PWB P/J439-B6
- Pre Regi Sensor P/J121-3 to IOT PWB P/J439-B4

If OK, replace the Pre Reg. Sensor (PL 4.5) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Execute DC330 [077-003 Takeaway Clutch 1]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

Check the following:

- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- HCF and IOT for a poor docking
- HCF Transport Belt for poor tension
- HCF Transport Roll for dirt/paper particles/wear/a poor rotation
- HCF Takeaway Rolls 1-3 for dirt/ paper particles/wear/a poor rotation
- HCF Exit Roll for dirt/ paper particles/wear/a poor rotation
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 078-101 RAP

### BSD-ON:8.5 Tray 1, 2 Transportation BSD

The tray 1 feed out sensor did not come on within the specified time after the start of feed from Tray 6 (HCF).

#### Initial Actions

- Clear any paper jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [071-101 Feed Out Sensor 1]. Move the actuator of the Tray 1 Feed Out Sensor manually or with paper. **The display changes.**

Y N

Go to BSD 8.5 and check the following wires for an open wire, short or poor contact:

- Feed Out Sensor 1 P/J133A-2 to MCU PWB P/J407-A12
- Feed Out Sensor 1 P/J133A-1 to Tray Module PWB P/J407-A13
- Feed Out Sensor 1 P/J133A-3 to Tray Module PWB P/J407-A11

If OK, replace the Feed Out Sensor 1 (PL 2.16) before replacing the MCU PWB (PL 11.1).

Execute DC330 [077-001 Takeaway Motor]. **There is operation noise from the Takeaway Motor.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Circuit for an open.

Execute DC330 [077-003 Takeaway Clutch 1]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

Check the following:

- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- HCF and IOT for a poor docking
- HCF Transport Belt for poor tension
- HCF Transport Roll for dirt/paper particles/wear/a poor rotation
- HCF Takeaway Rolls 1-3 for dirt/ paper particles/wear/a poor rotation
- HCF Exit Roll for dirt/ paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), Tray Module PWB (PL 11.3) and the MCU PWB (PL 11.1) one at a time in the order shown.

## 078-102 RAP

### BSD-ON:8.10 Registration BSD

The paper transported from tray 6 did not turn on the registration sensor within the specified time.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [077-101 Reg. Sensor]. Place paper in front of the Reg. Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Regi Sensor P/J222-2 to IOT PWB P/J439-A9
- Regi Sensor P/J222-1 to IOT PWB P/J439-A10
- Regi Sensor P/J222-3 to IOT PWB P/J439-A8

If OK, replace the Reg. Sensor (PL 4.4) before replacing the IOT Drive PWB (PL 11.1).

Execute DC330 [077-004 Pre Reg. Motor: 640mm/s]. **There is operation noise from the Pre Regi Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- P/J229-2 to pins 1/3
- P/J229-5 to pins 4/6

If OK, go to BSD 8.9 and troubleshoot the Pre Reg. Motor circuit.

Check the following:

- Takeaway Rolls 1 and 2 and 3 for dirt/paper particles/wear/a poor rotation
- Pre Regi Roll for dirt/paper particles/wear/a poor rotation
- Drive gears for wear/breakage
- Drawer Connectors J601 contact points for foreign objects/bent pins/burnout
- If the results of the above checks are OK, replace Tray Module PWB (PL 11.3), IOT Driver PWB (PL 11.1) and the MCU PWB (PL 11.1) one at a time in the order shown

## 078-151 RAP

### BSD-ON:8.8 Single-Tray HCF Option (Tray 6) Paper Transportation BSD

The tray 6 feed out sensor did not come on within the specified time after the start of feed.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check for out-of-spec paper.
- Paper Path for a foreign object/burr/piece of paper

#### Procedure

Execute DC330 [078-101 Tray 6 Feed Out Sensor]. Move the actuator of the Tray 6 Feed Out Sensor. **The display changes.**

Y N

Go to BSD 8.10 and check the following for an open wire, short or poor contact:

- Tray 6 Feed Out Sensor PF/JF67-2 to HCF PWB PF/JF01-2
- Tray 6 Feed Out Sensor PF/JF67-1 to HCF PWB PF/JF01-3
- Tray 6 Feed Out Sensor PF/JF67-3 to HCF PWB PF/JF01-1

If OK, replace the Tray 6 Feed Out Sensor (PL 18.7) before replacing the HCF PWB (PL 18.8).

Execute DC330 [078-007 Tray 6 Takeaway Motor: 640mm/s]. **There is operation noise from the Tray 6 Takeaway Motor.**

Y N

Check the wire-wound resistance of Pre Reg. Motor is approx. 0.8 ohms at the measurement points below.

- PF/JF57-3 to pins 1/2
- PF/JF57-4 to pins 5/6

If OK, go to BSD 8.8 and troubleshoot the Tray 6 Takeaway Motor circuit.

Execute DC330 [078-001 HCF1 Nudger Solenoid Low Power]. **There is operation noise from the HCF Nudger Solenoid (PL 18.4).**

Y N

Go to BSD 7.12 and troubleshoot the HCF Nudger Solenoid circuit.

Execute DC330 [077-003 Takeaway Clutch 1]. **There is operation noise from the Takeaway Clutch 1.**

Y N

Go to BSD 8.4 and check the Takeaway Motor Clutch 1 for an open.

Check the following:

- Drive gears for wear/breakage
- HCF and IOT for a poor docking
- HCF Transport Belt for poor tension
- HCF Transport Roll for dirt/paper particles/wear/a poor rotation
- HCF Takeaway Rolls 1-3 for dirt/ paper particles/wear/a poor rotation
- HCF Exit Roll for dirt/ paper particles/wear/a poor rotation

- If the results of the above checks are OK, replace HCF PWB (PL 18.8).

## 078-250 RAP

### BSD-ON:7.12 Single-Tray HCF Option (Tray 6) Paper Stacking BSD

HCF Tray Lift failure. The Tray 6 Stack Height Sensor does not turn ON within the specified time after the trays were inserted.

#### Initial Actions

- Clear any jam and switch the power off then on.
- Check the size of the paper in the tray.
- Remove the foreign substances in the tray.

#### Procedure

Execute DC330 [078-004 Tray 6 Lift/Feed Motor]. **There is operation noise from the Tray 6 Lift/Feed Motor.**

Y N

Check the wire-wound resistance of Tray 6 Lift/Feed Motor is approx. 0.8 ohms at the measurement points below.

- PF/JF58-2 to pins 1/3
- PF/JF58-5 to pins 4/6

If OK, go to BSD 7.12 and troubleshoot the Tray 6 Lift/Feed Motor circuit.

Execute DC330 [078-201 Tray 6 Stack Height Sensor]. Place paper in front of the Tray 6 Stack Height Sensor. **The display changes.**

Y N

Go to BSD 7.14 and check the following for an open wire, short or poor contact:

- Tray 6 Stack Height Sensor PF/JF60-2 to HCF PWB PF/JF02-8
- Tray 6 Stack Height Sensor PF/JF60-1 to HCF PWB PF/JF02-9
- Tray 6 Stack Height Sensor PF/JF60-3 to HCF PWB PF/JF02-7

If OK, replace the Tray 6 Stack Height Sensor (PL 18.5) before replacing the HCF PWB (PL 18.8).

Check the following:

- Drive gears for wear/breakage
- If the results of the above checks are OK, replace HCF PWB (PL 18.8), and the MCU PWB (PL 11.1) one at a time in the order shown

## 078-300 RAP

### BSD-ON:2.4 DC Power Generation (INTLK +24 VDC) BSD

The HCF Top Cover Interlock is open.

#### Procedure

Execute DC330 [078-300 HCF Top Cover Interlock]. Open and close the Transport Cover.

The display changes.

|   |                                                                                                                                                                                                                                                                                                                             |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                                                                                                                                                                                                                                           |
|   | +24VDC is measured between <b>JF05-2</b> on the HCF PWB and GND.                                                                                                                                                                                                                                                            |
| Y | N                                                                                                                                                                                                                                                                                                                           |
|   | +24VDC is measured between <b>JF05-1</b> on the HCF PWB and GND.                                                                                                                                                                                                                                                            |
| Y | N                                                                                                                                                                                                                                                                                                                           |
|   | +24VDC is measured between <b>JF04-1</b> on the HCF PWB and GND.                                                                                                                                                                                                                                                            |
| Y | N                                                                                                                                                                                                                                                                                                                           |
|   | Refer to BSD 2.3, check the +24VDC circuit to <b>JF04-1</b> on the HCF PWB.                                                                                                                                                                                                                                                 |
|   | Replace the HCF PWB (PL 18.8).                                                                                                                                                                                                                                                                                              |
|   | Check the wires between <b>JF05-1</b> on the HCF PWB and <b>FS001</b> on the HCF Top Cover Interlock Switch, and between <b>FS002</b> on the HCF Top Cover Interlock Switch and <b>JF05-2</b> on the HCF PWB for an open wire or poor contact. If the wires are good, replace the HCF Top Cover Interlock Switch (PL 9.12). |
|   | Replace the HCF PWB (PL 18.8).                                                                                                                                                                                                                                                                                              |

The problem could be misalignment between the HCF Top Cover and the HCF Top Cover Interlock Switch. Check if the Switch/Cover is improperly installed and if the actuator is broken or bent. If OK, replace the MCU PWB (PL 11.1).

## 078-301 RAP

HCF Docking Interlock Open. The HCF and the IOT were undocked.

#### Initial Actions

- Check that the HCF and the IOT are docked properly.
- Switch the power OFF then ON.

#### Procedure

Execute DC330 [078-301 Docking Interlock Switch]. The display changes when the lever of the Docking Interlock Switch (PL 18.8) is pushed.

|   |                                                                           |
|---|---------------------------------------------------------------------------|
| Y | N                                                                         |
|   | Go to BSD 2.4 and check the Docking Interlock Switch for an open circuit. |
|   | Replace the HCF PWB (PL 18.8).                                            |



## 089-600 RAP

BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

Incorrect Fast Scan positioning for the reference color Cyan was detected during fine adjustment.

**NOTE:** If more than one failure in Chain 089 occur at the same time, take action according to the following priorities:

Other failures may be corrected at the same time when correcting a failure of higher priority.

1. (High) 089-616
2. 089-604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615
3. 089-601, 602, 603
4. 089-600
5. (Low) 089-617

### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and Transfer Module.

### Procedure

Perform ADJ 9.13 [Belt Edge Learn]. Run dC675 Regi control setup cycle. Turn ON the power again. **The same problem recurs.**

Y N  
| End

Run dC675 Regi control setup cycle again. Turn ON the power again. **The same problem recurs.**

Y N  
| End

Go to 042-602 RAP Belt Edge Check RAP.

## 089-601 RAP

BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The Inner MOB Sensor failed to detect the fine-adjustment patterns properly during fine adjustment.

### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and Transfer Module.

### Procedure

Check the installation of the MOB ADC Assy. **The MOB ADC Assy properly installed.**

Y N  
| Install the MOB ADC Assy properly (PL 11.2).

Run dC675 Regi control setup cycle. Turn ON the power again. **The same problem recurs.**

Y N  
| End

Replace the MOB ADC Assy (PL 11.2) and run dC675 Regi control setup cycle again. Turn ON the power again. **The same problem recurs.**

Y N  
| End

Replace the MCU PWB (PL 11.1).

## 089-602 RAP

### BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

The CENTER MOB Sensor failed to detect the fine-adjustment patterns properly during fine adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and Transfer Module.

#### Procedure

Check the installation of the MOB ADC Assy. **The MOB ADC Assy properly installed.**

**Y N**  
| Install the MOB ADC Assy properly (PL 11.2).

Run dC675 Regi control setup cycle. Turn ON the power again. **The same problem recurs.**

**Y N**  
| End

Replace the MOB ADC Assy (PL 11.2) and run dC675 Regi control setup cycle again. Turn ON the power again. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 089-603 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The OUTER MOB Sensor failed to detect the fine-adjustment patterns properly during fine adjustment.

**NOTE:** If more than one failure in Chain 089 occur at the same time, take action according to the following priorities:

Other failures may be corrected at the same time when correcting a failure of higher priority.

1. (High) 089-616
2. 089-604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615
3. 089-601, 602, 603
4. 089-600
5. (Low) 089-617

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and the IBT Module.

#### Procedure

Check the installation of the MOB ADC Assy. **The MOB ADC Assy properly installed.**

**Y N**  
| Install the MOB ADC Assy properly (PL 11.2).

Run dC675 Regi control setup cycle. Turn ON the power again. **The same problem recurs.**

**Y N**  
| End

Replace the MOB ADC Assy (PL 11.2) and run dC675 Regi control setup cycle again. Turn ON the power again. **The same problem recurs.**

**Y N**  
| End

Replace the MCU PWB (PL 11.1).

## 089-604 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The INNER MOB Sensor failed to detect the rough-adjustment patterns properly during Yellow rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter dc612, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect P/J406, P/J616B properly.

Check P/J406, P/J616B for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run dC675 Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run dC675 Regi control setup cycle.

## 089-605 RAP

### BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

The CENTER MOB Sensor failed to detect the rough-adjustment patterns properly during Yellow rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter dc612, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substances, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect P/J406, P/J616B properly.

Check P/J406, P/J616B for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run dC675 Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run dC675 Regi control setup cycle.

## 089-606 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The OUTER MOB Sensor failed to detect the rough-adjustment patterns properly during Yellow rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter dc612, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect P/J406, P/J616B properly.

Check P/J406, P/J616B for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run dC675 Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run dC675 Regi control setup cycle.

## 089-607 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The INNER MOB Sensor failed to detect the rough-adjustment patterns correctly during Magenta rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter dc612, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect P/J406, P/J616B properly.

Check P/J406, P/J616B for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run dC675 Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run dC675 Regi control setup cycle.

## 089-608 RAP

### BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

The CENTER MOB Sensor failed to detect the rough-adjustment patterns properly during Magenta rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter **dC612**, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect **P/J406**, **P/J616B** properly.

Check **P/J406**, **P/J616B** for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run **dC675** Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run **dC675** Regi control setup cycle.

## 089-609 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The OUTER MOB Sensor failed to detect the rough-adjustment patterns properly during Magenta rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter **dC612**, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect **P/J406**, **P/J616B** properly.

Check **P/J406**, **P/J616B** for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run **dC675** Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run **dC675** Regi control setup cycle.



## 089-610 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The INNER MOB Sensor failed to detect the rough-adjustment patterns properly during Cyan rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter **dC612**, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect **P/J406**, **P/J616B** properly.

Check **P/J406**, **P/J616B** for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run **dC675** Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run **dC675** Regi control setup cycle.

## 089-611 RAP

### BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

The CENTER MOB Sensor failed to detect the rough-adjustment patterns properly during Cyan rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter **dC612**, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect **P/J406**, **P/J616B** properly.

Check **P/J406**, **P/J616B** for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run **dC675** Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run **dC675** Regi control setup cycle.

## 089-612 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The MOB Sensor OUT failed to detect the rough-adjustment patterns properly during Cyan rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter **dC612**, select test pattern 9, check the density of the color that failed. **The density is normal.**

**Y N**  
Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

**Y N**  
Replace the Transfer belt (**PL 7.2**).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

**Y N**  
Replace the Developer Housing Kit (**PL 6.6**).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

**Y N**  
Connect **P/J406**, **P/J616B** properly.

Check **P/J406**, **P/J616B** for an open or short circuit. **The harness is OK**

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

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

**Y N**  
End

Replace the MOB ADC Assy (**PL 11.2**). Run **dC675** Reg control setup cycle. **The same problem recurs.**

**Y N**  
End

A

Perform the following:

- Replace the MCU PWB (**PL 11.1**).
- Run **dC675** Regi control setup cycle.

## 089-613 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The INNER MOB Sensor failed to detect the rough-adjustment patterns properly during Black rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter **dC612**, select test pattern 9, check the density of the color that failed. **The density is normal.**

Y N

Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N

Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N

Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N

Connect **P/J406**, **P/J616B** properly.

Check **P/J406**, **P/J616B** for an open or short circuit. **The harness is OK**

Y N

Repair the open circuit or short circuit.

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N

End

Replace the MOB ADC Assy (PL 11.2). Run **dC675** Reg control setup cycle. **The same problem recurs.**

Y N

End

A

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run **dC675** Regi control setup cycle.

## 089-614 RAP

### BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

The CENTER MOB Sensor failed to detect the rough-adjustment patterns properly during Black rough adjustment.

#### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

#### Procedure

Enter **dC612**, select test pattern 9, check the density of the color that failed. **The density is normal.**

**Y N**  
Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

**Y N**  
Replace the Transfer belt (**PL 7.2**).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign substance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

**Y N**  
Replace the Developer Housing Kit (**PL 6.6**).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

**Y N**  
Connect **P/J406**, **P/J616B** properly.

Check **P/J406**, **P/J616B** for an open or short circuit. **The harness is OK**

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

Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

**Y N**  
End

Replace the MOB ADC Assy (**PL 11.2**). Run **dC675** Reg control setup cycle. **The same problem recurs.**

**Y N**  
End

A

Perform the following:

- Replace the MCU PWB (**PL 11.1**).
- Run **dC675** Regi control setup cycle.

## 089-615 RAP

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The MOB Sensor OUT failed to detect the rough-adjustment patterns properly during Black rough adjustment.

**NOTE:** If more than one failure in Chain 089 occur at the same time, take action according to the following priorities:

Other failures may be corrected at the same time when correcting a failure of higher priority.

1. (High) 089-616
2. 089-604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615
3. 089-601, 602, 603
4. 089-600
5. (Low) 089-617

### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

### Procedure

Enter dC612, select test pattern 9, check the density of the color that failed. **substance density is normal.**

Y N  
Go to IQ1 IOT Image Quality Entry RAP.

Check the surface of the Transfer belt for even surface, scratches, or distortion around the area where the failure occurred. **The Transfer belt surface is OK.**

Y N  
Replace the Transfer belt (PL 7.2).

**NOTE:** The distance between the Reg Control patches in the IN-OUT direction (304mm) exceeds the A4L width (297mm).

Check the areas other than the paper path area on both sides of the Mag Roll.

Check the Mag Roll for proper condition, foreign sustenance, or distortion of the color for which the failure occurred. **The Mag Roll is OK.**

Y N  
Replace the Developer Housing Kit (PL 6.6).

Ensure the connections and wires between the MCU PWB and the MOB ADC Assy are connected. **The connections are OK.**

Y N  
Connect P/J406, P/J616B properly.

Check P/J406, P/J616B for an open or short circuit. **The harness is OK**

Y N  
Repair the open circuit or short circuit.

A  
Replace the Drum of the color for which the failure occurred. Turn ON the power again. **The problem recurs.**

Y N  
End

Replace the MOB ADC Assy (PL 11.2). Run dC675 Reg control setup cycle. **The same problem recurs.**

Y N  
End

Perform the following:

- Replace the MCU PWB (PL 11.1).
- Run dC675 Regi control setup cycle.

## 089-616 RAP

### BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

### BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

The calculated adjustment amount has exceeded the specifiable range.

**NOTE:** If more than one failure in Chain 089 occur at the same time, take action according to the following priorities:

Other failures may be corrected at the same time when correcting a failure of higher priority.

1. (High) 089-616
2. 089-604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615
3. 089-601, 602, 603
4. 089-600
5. (Low) 089-617

### Initial Actions

Turn the power OFF then ON.

Remove and reinstall each Drum and IBT Module.

### Procedure

Run dC675 Reg control setup cycle.

Identify the items that are out of the adjustable range from the following.

- Fast Scan Margin: -4720 to +4720
- Slow Scan Margin: -4720 to +4720
- Skew: -540 to +540
- Bow: -140 to +140
- Fast Scan Magnification: -3040 to +3040
- Fast Scan Horizontal Magnification: -660 to +660

**The Fast Scan Margin, Slow Scan Margin, Fast Scan Magnification, or Fast Scan Horizontal Magnification is in the adjustable range.**

Y N

Replace the Drum of the relevant color. If the trouble persists, replace the ROS Assembly (PL 5.1).

**The Slow Scan Margin or Fast Scan Horizontal Magnification is in the adjustable range.**

Y N

Every color is aligned in the same direction.

Y N

Replace the ROS Assembly of that color (PL 5.1).

Replace the MOB ADC Assy (PL 11.2) followed by the ROS Assembly for that color (PL 5.1).

**The Slow Scan Margin is in the adjustable range.**

Y N

Replace the ROS Assembly of that color (PL 5.1).

A

Replace the MCU PWB (PL 11.1).

## 089-617 RAP

BSD-ON:9.24 Image Registration Control (1 Of 2) BSD

BSD-ON:9.25 Image Registration Control (2 Of 2) BSD

There was an error in the calculated adjustment value.

**NOTE:** If more than one failure in Chain 089 occur at the same time, take action according to the following priorities:

Other failures may be corrected at the same time when correcting a failure of higher priority.

1. (High) 089-616
2. 089-604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615
3. 089-601, 602, 603
4. 089-600
5. (Low) 089-617

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the connection of each connector of the MCU PWB and the ESS PWB. **The connectors properly connected.**

**Y N**  
| Connect the connectors properly.

Turn ON the power again. **The same problem recurs.**

**Y N**  
| End

Set the following NVM Values to 0.

dC131 [760-062]

dC131 [760-063]

dC131 [760-064]

dC131 [760-065]

dC131 [760-068]

dC131 [760-069]

Turn ON the power again. **The same problem recurs.**

**Y N**  
| End

Replace the ESS PWB (PL 11.5) followed by the MCU PWB (PL 11.1).



# 091-311 RAP

## BSD-ON:9.29 BCR And Corotron Cleaning Drive Control BSD

The voltage level of the CC cleaner position sensor did not change within the specified time during a home position detection operation or cleaning operation.

### Procedure

Remove the Drum Unit. Cheat the Front Door. Enter Diagnostics. Enter DC330 [091-009 BCR CC Cleaner Motor: 1400pps (CW) High Current] and [091-010 BCR CC Cleaner Motor: 1400pps (CCW) High Current] alternately. **The CC Cleaner Motor coupling at upper right to the Drum shaft rotates.**

**Y N**  
Open the PWB Chassis. **+24VDC is measured between P/J250-1 on the CC Cleaner Motor and GND.**

**Y N**  
**+24VDC is measured between P/J436-B15 on the IOT PWB and GND.**

**Y N**  
**+24VDC is measured between P/J430-8 on the IOT PWB and GND.**

**Y N**  
Refer to BSD CH2.3, check the +24VDC circuit to P/J430-8 to the IOT PWB.

Replace the IOT PWB (PL 2.1).

Check the wire between P/J436-B15 on the IOT PWB and P/J250-1 on the CC Cleaner Motor for an open wire or poor contact.

Turn off the power. Disconnect Connector P/J436 from the IOT PWB. Measure the wire-wound resistance of the CC Cleaner Motor: P/J436-B15 to pins B11/B12/B13/B14. **Every resistance is approximately 15 ohms.**

**Y N**  
Check the following for an open wire or poor contact. If the wires are good, replace the CC Cleaner Motor (PL11.6).

- P/J436-B11 to CC Cleaner Motor P/J250-5
- P/J436-B12 to CC Cleaner Motor P/J250-4
- P/J436-B13 to CC Cleaner Motor P/J250-3
- P/J436-B14 to CC Cleaner Motor P/J250-2
- P/J436-B15 to CC Cleaner Motor P/J250-1

Disconnect and reconnect the cable between P/J431 on the IOT PWB and P/J401 on the MCU PWB. If this does not resolve the problem, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in order.

Press the Stop button. Enter DC330[091-201] (CC Cleaner Position Sensor). Select Start. Using a piece of paper, turn ON then OFF the sensor. **The display changes between H and L.**

**Y N**  
Troubleshoot the CC Cleaner Position Sensor.

**A**  
Check the spiral shaft of the Charge Corotron Assembly for poor rotation and other mechanical loads due to deformation/foreign objects. (PL 6.1)

## 091-312 RAP

### BSD-ON:9.8 Black Charging And Exposure BSD

Charge (K) Preclean HVPS has failed.

#### Procedure

Switch the power OFF then ON. **091-312 remains displayed.**

Y N

It is highly likely that the MCU PWB made a faulty detection due to some external noise or internal discharge-related noise. Check if there are any noise sources around the machine and if any abnormal discharge has occurred.

Open the PWB Chassis. **+24VDC is measured between P/J584-1 and -2 on the Charge (K) Preclean HVPS.**

Y N

**+24VDC is measured between P/J410-B10 and -B9 on the MCU PWB.**

Y N

**+24VDC is measured between J400-6 on the MCU PWB and GND.**

Y N

Refer to BSD CH2.3. Check the +24VDC circuit to J400-3 on the MCU PWB.

Replace the MCU PWB (PL 11.1).

Check the wires between P/J410-B10 on the MCU PWB and P/J584-1 on the Charge (K) Preclean HVPS, and between P/J410-B9 on the MCU PWB and P/J584-2 on the Charge (K) Preclean HVPS for an open wire or poor contact.

Turn off the power. Check the following for continuity:

- MCU PWB P/J410-B8 to Charge (K) Preclean HVPS P/J584-3
- MCU PWB P/J410-B7 to Charge (K) Preclean HVPS P/J584-4
- MCU PWB P/J410-B5 to Charge (K) Preclean HVPS P/J584-5

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Charge (K) Preclean HVPS (PL 11.2). If the problem persists, replace the MCU PWB (PL 11.1).

## 091-313 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

Drum cartridge CRUM ASIC communication Failure

#### Procedure

Switch the power OFF then ON. **091-313 remains displayed.**

Y N

It is highly likely that the MCU PWB made a faulty detection due to some external noise or internal discharge-related noise. Check if there are any noise sources around the machine and if any abnormal discharge has occurred.

Turn off the power. Disconnect and reconnect the following connectors:

- P/J413 on MCU PWB
- P/J171 on K, C, M, and Y Drum CRUM PWBs.

If the above action does not resolve the problem, replace the following in order:

- Drum Cartridge (PL 6.1)
- Drum CRUM PWB (PL 6.5)
- MCU PWB (PL 11.1)

## 091-320 RAP

### BSD-ON:9.8 Black Charging And Exposure BSD

Charge Corotron Wire is broken.

#### Initial Actions

Check the Charge Corotron Wire for contamination.

#### Procedure

Remove the Drum Cartridge. Check the CC Wire. **The CC Wire is open.**

Y N  
Open the PWB Chassis. **The High Voltage Cords CC1 and CC2 on the HVPS are properly connected.**

Y N  
Reconnect the CC1 and CC2.

Replace the CC Connector (PL 11.2).

Replace the CC Wire (PL 6.1).

## 091-400 RAP

### BSD-ON:9.32 Waste Toner Disposal BSD

The replacement date for Waste Toner Bottle (regular) is near.

#### Initial Actions

- As the replacement date is near, replace the Waste Toner Bottle (PL 6.5) as required. If this fail occurs after the replacement, perform the following procedure.
- Check that the light receiving and emitting areas of the Waste Toner Full Sensor are clean.

#### Procedure

Remove the R/H Cover. Remove the Waste Bottle Full Sensor along with the bracket. (Leave the connectors as they are.) **+3.3VDC is measured between P/J152-2 on the Waste Toner Full Sensor and GND.**

Y N  
**+5VDC is measured between J403-A16 on the MCU PWB and GND.**

Y N  
Replace the MCU PWB (PL 11.1).

Check the wire between P/J152-2 on the Waste Toner Full Sensor and J403-A16 on the MCU PWB for an open wire or poor contact.

**+5VDC is measured between P/J152-1 and -3 on the Waste Toner Full Sensor.**

Y N  
**+5VDC is measured between P/J469-3 and -1 on the Tray Module PWB.**

Y N  
Refer to BSD CH2.2, check +5VDC circuit to P/J460-6 on the Tray Module PWB.

Check the wires between P/J469-3 on the Tray Module PWB and P/J152-1 on the Waste Bottle Full Sensor, and between P/J469-1 on the Tray Module PWB and P/J152-3 on the Waste Bottle Full Sensor for an open wire or poor contact.

Replace the Waste Bottle Full Sensor (PL 6.5).

## 091-401 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

The black drum cartridge is near the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Black Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB K (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB K (PL 6.1).

## 091-403 RAP

### BSD-ON:9.8 Black Charging And Exposure BSD

The CC Assembly is near the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Corotron Assembly (PL 6.1).

#### Procedure

- Ensure P410 on the MCU PWB on the MCU PWB (PL 11.1) is connected properly.
- Replace the MCU PWB (PL 11.1)

## 091-404 RAP

### BSD-ON:9.8 Black Charging And Exposure BSD

The CC Assembly has reached the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Corotron Assembly (PL 6.1).

#### Procedure

- Ensure P410 on the MCU PWB on the MCU PWB (PL 11.1) is connected properly.
- Replace the MCU PWB (PL 11.1)

## 091-411 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

The yellow drum cartridge is near the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Yellow Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB Y (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB Y (PL 6.1).

## 091-421 RAP

BSD-ON:9.2 Drum Life Control (Y,M) BSD

The magenta drum cartridge is near the end-of-life.

### Initial Actions

Switch the power off, then on. If problem still exists, replace the Magenta Drum Cartridge (PL 6.1).

### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB M (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB M (PL 6.1).

## 091-431 RAP

BSD-ON:9.1 Drum Life Control (C,K) BSD

The cyan drum cartridge is near the end-of-life.

### Initial Actions

Switch the power off, then on. If problem still exists, replace the Cyan Drum Cartridge (PL 6.1).

### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB C (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB C (PL 6.1).

## 091-910 RAP

### BSD-ON:9.32 Waste Toner Disposal BSD

The waste toner bottle is not present.

#### Procedure

Execute DC330 [091-200 Waste Toner Bottle Sensor]. Remove and reinstall the Waste Bottle.

**The display changes.**

Y N

Turn off the power. Check the following for continuity:

- Tray Module PWB P/J467-7 to Waste Bottle Set Sensor P/J153-1
- Tray Module PWB P/J467-5 to Waste Bottle Set Sensor P/J153-3
- Tray Module PWB P/J467-6 to Waste Bottle Set Sensor P/J153-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB. If this does not resolve the problem, replace the following in order:

- Waste Bottle Set Sensor (PL 6.11)
- Tray Module PWB (PL 11.3)
- MCU PWB (PL 11.1)

Check if the Bottle is properly installed; the Sensor actuator properly operates; the Sensor is properly installed; and the Waste Toner Cover is properly installed.

## 091-911 RAP

### BSD-ON:9.32 Waste Toner Disposal BSD

The waste toner bottle is full.

#### Procedure

Execute DC330 [091-201 Waste Toner Near Full Sensor]. Actuate the Waste Bottle Full Sensor (PL 6.5) with waste toner. **The display changes.**

Y N

Remove the R/H Cover. Remove the Waste Toner Full Sensor along with the bracket. (Leave the connectors as they are.) **+3.3VDC is measured between P/J152-2 on the Waste Bottle Full Sensor and GND.**

Y N

**+3.3VDC is measured between J403-A16 on the MCU PWB and GND.**

Y N

Disconnect and reconnect the cable between J461 on the Tray Module PWB and J403 on the MCU PWB. If this does not resolve the problem, replace the Tray Module PWB (PL 11.3) before replacing the MCU PWB (PL 11.1).

Check the wire between P/J152-2 on the Waste Bottle Full Sensor and P/J469-1 on the Tray Module PWB for an open wire or poor contact.

**+5VDC is measured between P/J152-1 and -3 on the Waste Bottle Full Sensor.**

Y N

**+5VDC is measured between P/J469-3 and -1 on the Tray Module PWB.**

Y N

Refer to BSD CH2.2, check +5VDC circuit to P/J460-6 on the Tray Module PWB.

Check the wires between P/J469-3 on the Tray Module PWB and P/J152-1 on the Waste Bottle Full Sensor, and between P/J469-1 on the Tray Module PWB and P/J152-3 on the Waste Bottle Full Sensor for an open wire or poor contact.

Replace the Waste Bottle Full Sensor (PL 11.2).

Replace the MCU PWB (PL 11.1)

## 091-913 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

The black drum cartridge (K) has reached the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Black Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB K (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB K (PL 6.1).

## 091-914 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

Communication failure between the MCU and the black Drum CRUM

#### Procedure

Switch the power OFF then ON. **091-914 remains displayed.**

**Y N**

It is likely that the MCU PWB made a faulty detection due to external noise or internal discharge-related noise. Check if there are any noise sources around the machine or if any abnormal discharge (arching) has occurred.

Switch off the power. Disconnect and reconnect the following connectors:

- P/J413 on the MCU PWB
- P/J171K on the Drum CRUM PWB

If the above action does not resolve the problem, replace the following in order:

- Drum Cartridge (K) (PL 6.1)
- Drum CRUM PWB (PL 6.5)
- MCU PWB (PL 11.1)



## 091-915 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

The MCU detected incorrect data in the black drum cartridge CRUM.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Black Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB K (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB K (PL 6.1).

## 091-916 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

The CRUM authentication registration data on the drum cartridge is incorrect.

#### Initial Actions

Switch the power off, then on. If this does not resolve the problem, replace the Drum Cartridge (Use a suitable Drum Cartridge K for the model).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB K (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB K (PL 6.1).

## 091-917 RAP

BSD-ON:9.2 Drum Life Control (Y,M) BSD

MCU cannot communicate with the CRUM in drum Y

### Procedure

Switch the power OFF then ON. **091-917 remains displayed.**

**Y N**

It is likely that the MCU PWB made a faulty detection due to external noise or internal discharge-related noise. Check if there are any noise sources around the machine or if any abnormal discharge (arching) has occurred.

Turn off the power. Disconnect and reconnect the following connectors:

- P/J413 on the MCU PWB
- P/J171Y on the Drum CRUM PWB

If the above action does not resolve the problem, replace the following in order:

- Drum Cartridge (Y) (PL 6.1)
- Drum CRUM PWB (Y) (PL 6.5)
- MCU PWB (PL 11.1)

## 091-918 RAP

BSD-ON:9.2 Drum Life Control (Y,M) BSD

Communication failure with the magenta Drum CRUM

### Procedure

Switch the power OFF then ON. **091-918 remains displayed.**

**Y N**

It is likely that the MCU PWB made a faulty detection due to external noise or internal discharge-related noise. Check if there are any noise sources around the machine or if any abnormal discharge (arching) has occurred.

Turn off the power. Disconnect and reconnect the following connectors:

- P/J413 on the MCU PWB
- P/J171M on the Drum CRUM PWB

If the above action does not resolve the problem, replace the following in order:

- Drum Cartridge (M) (PL 6.1)
- Drum CRUM PWB (M) (PL 6.5)
- MCU PWB (PL 11.1)

## 091-919 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

Communication failure with the cyan Drum CRUM

#### Procedure

Switch the power OFF then ON. **091-919 remains displayed.**

**Y N**

It is likely that the MCU PWB made a faulty detection due to external noise or internal discharge-related noise. Check if there are any noise sources around the machine or if any abnormal discharge (arching) has occurred.

Turn off the power. Disconnect and reconnect the following connectors:

- P/J413 on the MCU PWB
- P/J171M on the Drum CRUM PWB

If the above action does not resolve the problem, replace the following in order:

- Drum Cartridge (C) (PL 6.1)
- Drum CRUM PWB (C) (PL 6.5)
- MCU PWB (PL 11.1)

## 091-920 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

The MCU detected incorrect data in the Yellow drum cartridge CRUM.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Yellow Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB Y (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB Y (PL 6.1).

## 091-921 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

Drum CRUM is disconnected.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Black Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB K (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB K (PL 6.1).

## 091-922 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

Wrong Data in magenta drum cartridge.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Magenta Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB M (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB M (PL 6.1).

## 091-923 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

Wrong data in cyan drum cartridge.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Cyan Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB C (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB C (PL 6.1).

## 091-924 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

The CRUM authentication registration data on the yellow drum cartridge is incorrect.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Yellow Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB Y (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB Y (PL 6.1).

## 091-925 RAP

BSD-ON:9.2 Drum Life Control (Y,M) BSD

Wrong data in yellow Magenta cartridge.

### Initial Actions

Switch the power off, then on. If problem still exists, replace the Magenta Drum Cartridge (PL 6.1).

### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB M (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB M (PL 6.1).

## 091-926 RAP

BSD-ON:9.1 Drum Life Control (C,K) BSD

The CRUM authentication registration data on the cyan drum cartridge is incorrect.

### Initial Actions

Switch the power off, then on. If problem still exists, replace the Cyan Drum Cartridge (PL 6.1).

### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB C (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB C (PL 6.1).

## 091-927 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

Yellow Drum CRUM is disconnected.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Yellow Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB Y (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB Y (PL 6.1).

## 091-928 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

Magenta Drum CRUM is disconnected.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Magenta Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB M (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB M (PL 6.1).

## 091-929 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

Cyan Drum CRUM is disconnected.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Cyan Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB C (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB C (PL 6.1).

## 091-932 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

The yellow drum cartridge (Y) has reached the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Yellow Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB Y (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB Y (PL 6.1).



## 091-933 RAP

### BSD-ON:9.2 Drum Life Control (Y,M) BSD

The magenta drum cartridge (M) has reached the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Magenta Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB M (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB M (PL 6.1).

## 091-934 RAP

### BSD-ON:9.1 Drum Life Control (C,K) BSD

The cyan drum cartridge (C) has reached the end-of-life.

#### Initial Actions

Switch the power off, then on. If problem still exists, replace the Cyan Drum Cartridge (PL 6.1).

#### Procedure

- Ensure P413 on the MCU PWB (PL 11.1) is connected properly and the Xero CRUM PWB C (PL 6.1).
- Replace the MCU PWB (PL 11.1) before replacing the Xero CRUM PWB C (PL 6.1).



## 092-649 RAP

BSD-ON:CH 9.24

The MOB ADC Shutter remains open due to shutter failure.

### Initial Actions

- Switch the power OFF then ON.
- Check the installation of the MOB ADC Assembly (PL 11.2).

### Procedure

Execute dC330 [092-005 ADC Shutter Close]. Switch the power OFF then ON. **092-649 is still present.**

Y N

It is highly likely that the MCU PWB made a faulty detection due to some external noise or internal discharge-related noise. Check if there are any noise sources around the machine and if any abnormal discharge has occurred.

Replace the MOB ADC Assembly (PL 11.2). Execute dC330 [092-004 ADC Shutter Open] and dC330 [092-005 ADC Shutter Close] alternately. **The ADC Shutter is operating properly.**

Y N

Replace the MCU PWB (PL 11.1).

The ADC Shutter is now operating properly.

## 092-650 RAP

BSD-ON:CH 9.24

The MOB ADC Shutter remains closed due to shutter failure.

### Initial Actions

- Switch the power OFF then ON.
- Check the installation of the MOB ADC Assembly (PL 11.2).

### Procedure

Execute dC330 [092-004 ADC Shutter Close]. Switch the power OFF then ON. **092-650 is still present.**

Y N

It is highly likely that the MCU PWB made a faulty detection due to some external noise or internal discharge-related noise. Check if there are any noise sources around the machine and if any abnormal discharge has occurred.

Replace the MOB ADC Assembly (PL 11.2). Execute dC330 [092-005 ADC Shutter Closed] and dC330 [092-004 ADC Shutter Open] alternately. **The ADC Shutter is operating properly.**

Y N

Replace the MCU PWB (PL 11.1).

The ADC Shutter is now operating properly.

## 092-651 RAP

BSD-ON: CH9.24

The output read by ADC Sensor from the clean Photoreceptor surface is out of range (100~1000) (in Mini-Setup).

**NOTE:** This is a hidden failure. Therefore, even if this failure occurs, prints can be made.

### Initial Actions

- Switch the power OFF then ON.
- Check the installation of the MOB ADC Assembly (PL 11.2).

### Procedure

Switch off the power. Perform the following:

- Check the ADC Sensor for dirt
- Disconnect and reconnect ADC Sensor Connectors P/J136, and P/J616A on the MOB ADC PWB.
- Check for improperly installed/deformed ADC Sensor bracket.
- Check the Drum surface for unevenness. (Replace the Drum Cartridge.)
- Check the following for continuity: If the wires are good, replace the ADC Sensor (PL 11.2) and the MCU PWB (PL 11.1) in order.
  - MCU PWB J406-A5 to P136-4
  - MCU PWB J406-A3 to P136-6
  - MCU PWB J406-A4 to P136-5
  - MCU PWB J406-A8 to P136-1
- Replace the MOB ADC Assembly (PL 11.2).

## 092-652 RAP

BSD-ON: CH 9.24

The measured ADC Patch density is light. (Over 75% of Vclean)

### Initial Actions

- Check the Toner Cartridge has toner and that no toner blocking has occurred on the path to the Developer Unit.
- Enter Diagnostics. Check dC122 Fail History. If either 093-311, 093-405 or 093-912 is present, go to the appropriate RAP.

### Procedure

Enter Diagnostics. Select dC937 Procon ON Print. Check if the Transfer Belt has removed the ADC patch. While running in diagnostics, check to see if the Transfer Belt is retracting. **The Transfer Belt operates normally.**

**Y N**  
| Troubleshoot the 1st BTR Retract Motor operation. (BSD CH9.23)

Switch the power OFF then ON. After approx. 10sec, execute dC330 [093-200 Low Toner Sensor Y]. **The Indication is that Y toner exists.**

**Y N**  
| Replace the Toner Cartridge Y.

Execute dC330 [093-201 Low Toner Sensor M]. **The display indicates “High”.**

**Y N**  
| Replace the Toner Cartridge M.

Execute dC330 [093-202 Low Toner Sensor C]. **The display indicates “High”.**

**Y N**  
| Replace the Toner Cartridge C.

Execute dC330 [093-203 Low Toner Sensor K]. **The display indicates “High”.**

**Y N**  
| Replace the Toner Cartridge K.

Switch off the power. Perform the following:

- Check the ADC Sensor for dirt
- Disconnect and reconnect ADC Sensor Connectors P/J136, and P/J616A on the MOB ADC PWB.
- Check for improperly installed/deformed ADC Sensor bracket.
- Check the Drum surface for unevenness. (Replace the Drum Cartridge.)
- Check the following for continuity: If the wires are good, replace the ADC Sensor (PL 11.2) and the MCU PWB (PL 11.1) in order.
  - MCU PWB J406-A5 to P136-4
  - MCU PWB J406-A3 to P136-6
  - MCU PWB J406-A4 to P136-5
  - MCU PWB J406-A8 to P136-1

## 092-653 RAP

BSD-ON:9.14 Yellow, Magenta, Cyan Dev. Monitoring BSD

ATC SNR-Yellow output signal failure

### Procedure

+5VDC is measured between P/J134Y-1 and -3 on the Yellow Developer Housing.

|   |                                                            |
|---|------------------------------------------------------------|
| Y | N                                                          |
|   |                                                            |
|   | +5VDC is measured between J413-A11 and -A9 on the MCU PWB. |
| Y | N                                                          |
|   |                                                            |
|   | Replace the MCU PWB.                                       |

Check the wires between J413-A11 on the MCU PWB and P/J134Y-1 on the Yellow Developer Housing, and between J413-A9 on the MCU PWB and P/J134Y-3 on the Yellow Developer Housing for an open wire or poor contact.

Check the wires between J413-A10 on the MCU PWB and P/J134Y-2 on the Yellow Developer Housing for an open wire or poor contact.

If the above action does not resolve the problem, replace in the following in order:

- Yellow Developer Housing (PL 6.6)
- MCU PWB (PL 11.1)

## 092-654 RAP

BSD-ON:9.14 Yellow, Magenta, Cyan Dev. Monitoring BSD

ATC SNR-Magenta output signal failure

### Procedure

+5VDC is measured between P/J134M-1 and -3 on the Yellow Developer Housing.

|   |                                                             |
|---|-------------------------------------------------------------|
| Y | N                                                           |
|   |                                                             |
|   | +5VDC is measured between J413-A14 and -A12 on the MCU PWB. |
| Y | N                                                           |
|   |                                                             |
|   | Replace the MCU PWB.                                        |

Check the wires between J413-A11 on the MCU PWB and P/J134M-1 on the Yellow Developer Housing, and between J413-A9 on the MCU PWB and P/J134M-3 on the Yellow Developer Housing for an open wire or poor contact.

Check the wires between J413-A13 on the MCU PWB and P/J134M-2 on the Yellow Developer Housing for an open wire or poor contact.

If the above action does not resolve the problem, replace in the following in order:

- Magenta Developer Housing (PL 6.6)
- MCU PWB (PL 11.1)

## 092-655 RAP

BSD-ON:9.14 Yellow, Magenta, Cyan Dev. Monitoring BSD

ATC SNR-Cyan output signal failure

### Procedure

+5VDC is measured between P/J134C-1 and -3 on the Yellow Developer Housing.

Y N

+5VDC is measured between J413-A5 and -A3 on the MCU PWB.

Y N

Replace the MCU PWB.

Check the wires between J413-A11 on the MCU PWB and P/J134C-1 on the Yellow Developer Housing, and between J413-A9 on the MCU PWB and P/J134C-3 on the Yellow Developer Housing for an open wire or poor contact.

Check the wires between J413-A4 on the MCU PWB and P/J134C-2 on the Yellow Developer Housing for an open wire or poor contact.

If the above action does not resolve the problem, replace in the following in order:

- Cyan Developer Housing (PL 6.6)
- MCU PWB (PL 11.1)

## 092-656 RAP

BSD-ON:9.12 Black Development BSD

ATC SNR-black output signal failure

### Procedure

+5VDC is measured between P/J134K-1 and -3 on the Yellow Developer Housing.

Y N

+5VDC is measured between J413-A8 and -A6 on the MCU PWB.

Y N

Replace the MCU PWB.

Check the wires between J413-A11 on the MCU PWB and P/J134K-1 on the Yellow Developer Housing, and between J413-A9 on the MCU PWB and P/J134K-3 on the Yellow Developer Housing for an open wire or poor contact.

Check the wires between J413-A10 on the MCU PWB and P/J134K-2 on the Yellow Developer Housing for an open wire or poor contact.

If the above action does not resolve the problem, replace in the following in order:

- Black Developer Housing (PL 6.6)
- MCU PWB (PL 11.1)

## 092-657 RAP

BSD-ON:9.14 Yellow, Magenta, Cyan Dev. Monitoring BSD

The amplitude of ATC Yellow Sensor output is smaller (<10).

**NOTE:** This is a hidden failure. Therefore, even if this failure occurs, prints can be made.

### Procedure

Enter the Diagnostics. Check the value in **dC131**[752-130] (ATC Average Output). **The value is 1022 or more.**

**Y N**  
**The value is 150 or less.**

**Y N**  
Check the following: If the circuits are good, replace the Yellow Developer Housing (PL 6.6).

- MCU PWB **P/J413-A10** to ATC Sensor **P/J134Y-2**
- MCU PWB **P/J413-A9** to ATC Sensor **P/J134Y-1**
- MCU PWB **P/J413-A11** to ATC Sensor **P/J134Y-3**

If the problem persists, replace the MCU PWB (PL 11.1).

Turn off the power. Disconnect **P/J436** from the IOT PWB. Measure the resistance between Connector Pin **P/J436-A13** and the frame. **The resistance is 10 ohms or less.**

**Y N**  
Check if the cable is properly connected between **P/J432** on the IOT PWB and **P/J402** on the MCU PWB. If no problem is found, replace the Yellow Dispense Motor (PL 6.4), Flexible Print Cable (PL 14.2), IOT Drive PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

Check the wire between **P/J436-A13** and Dispense Motor **P/J201Y-2** for a short to the frame.

Check the following:

- The Yellow Toner Cartridge has toner and that no toner blocking has occurred on the path to the Deve Unit.
- Enter Diagnostics. Check **dC122** Fail History. If code 093-314, 093-320 or 93-423 is present, go to the appropriate RAP.
- Replace the Developer Housing Kit (Y) (PL 6.6) followed by the MCU PWB (PL 11.1).

## 092-658 RAP

BSD-ON:9.14 Yellow, Magenta, Cyan Dev. Monitoring BSD

The amplitude of ATC Magenta Sensor output is smaller (<10).

**NOTE:** This is a hidden failure. Therefore, even if this failure occurs, prints can be made.

### Procedure

Enter the Diagnostics. Check the value in **dC131**[752-130] (ATC Average Output). **The value is 1022 or more.**

**Y N**  
**The value is 150 or less.**

**Y N**  
Check the following: If the circuits are good, replace the Yellow Developer Housing (PL 6.6).

- MCU PWB **P/J413-A13** to ATC Sensor **P/J134M-2**
- MCU PWB **P/J413-A12** to ATC Sensor **P/J134M-1**
- MCU PWB **P/J413-A14** to ATC Sensor **P/J134M-3**

If the problem persists, replace the MCU PWB (PL 11.1).

Turn off the power. Disconnect **P/J436** from the IOT PWB. Measure the resistance between Connector Pin **P/J436-A11** and the frame. **The resistance is 10 ohms or less.**

**Y N**  
Check if the cable is properly connected between **P/J432** on the IOT PWB and **P/J402** on the MCU PWB. If no problem is found, replace the Magenta Dispense Motor (PL 6.4), Flexible Print Cable (PL 14.2), IOT Drive PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

Check the wire between **P/J436-A11** and Dispense Motor **P/J201M-2** for a short to the frame.

Check the following:

- The Magenta Toner Cartridge has toner and that no toner blocking has occurred on the path to the Deve Unit.
- Enter Diagnostics. Check **dC122** Fail History. If code 093-315, 093-320 or 93-424 is present, go to the appropriate RAP.
- Replace the Developer Housing Kit (M) (PL 6.6) followed by the MCU PWB (PL 11.1).

## 092-659 RAP

BSD-ON:9.14 Yellow, Magenta, Cyan Dev. Monitoring BSD

The amplitude of ATC Cyan Sensor output is smaller (<10).

**NOTE:** This is a hidden failure. Therefore, even if this failure occurs, prints can be made.

### Procedure

Enter the Diagnostics. Check the value in dC131[752-130] (ATC Average Output). **The value is 1022 or more.**

Y N  
The value is 150 or less.

Y N  
Check the following: If the circuits are good, replace the Cyan Developer Housing (PL 6.6).

- MCU PWB P/J413-A4 to ATC Sensor P/J134C-2
- MCU PWB P/J413-A3 to ATC Sensor P/J134C-1
- MCU PWB P/J413-A5 to ATC Sensor P/J134C-3

If the problem persists, replace the MCU PWB (PL 11.1).

Turn off the power. Disconnect P/J436 from the IOT PWB. Measure the resistance between Connector Pin P/J436-A9 and the frame. **The resistance is 10 ohms or less.**

Y N  
Check if the cable is properly connected between P/J432 on the IOT PWB and P/J402 on the MCU PWB. If no problem is found, replace the Magenta Dispense Motor (PL 6.4), Flexible Print Cable (PL 14.2), IOT Drive PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

Check the wire between P/J436-A9 and Dispense Motor P/J201C-2 for a short to the frame.

Check the following:

- The Cyan Toner Cartridge has toner and that no toner blocking has occurred on the path to the Deve Unit.
- Enter Diagnostics. Check dC122 Fail History. If code 093-316, 093-320 or 93-425 is present, go to the appropriate RAP.
- Replace the Developer Housing Kit (C) (PL 6.6) followed by the MCU PWB (PL 11.1).

## 092-660 RAP

BSD-ON:9.12 Black Development BSD

The amplitude of ATC Black Sensor output is smaller (<10).

**NOTE:** This is a hidden failure. Therefore, even if this failure occurs, prints can be made.

### Procedure

Enter the Diagnostics. Check the value in dC131[752-130] (ATC Average Output). **The value is 1022 or more.**

Y N  
The value is 150 or less.

Y N  
Check the following: If the circuits are good, replace the Black Developer Housing (PL 6.6).

- MCU PWB P/J413-A7 to ATC Sensor P/J134K-2
- MCU PWB P/J413-A8 to ATC Sensor P/J134K-1
- MCU PWB P/J46-A14 to ATC Sensor P/J134K-3

If the problem persists, replace the MCU PWB (PL 11.1).

Turn off the power. Disconnect P/J436 from the IOT PWB. Measure the resistance between Connector Pin P/J436-A7 and the frame. **The resistance is 10 ohms or less.**

Y N  
Check if the cable is properly connected between P/J432 on the IOT PWB and P/J402 on the MCU PWB. If no problem is found, replace the Magenta Dispense Motor (PL 6.4), Flexible Print Cable (PL 14.2), IOT Drive PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

Check the wire between P/J436-A7 and Dispense Motor P/J201K-2 for a short to the frame.

Check the following:

- The Toner Cartridge has toner and that no toner blocking has occurred on the path to the Deve Unit.
- Go to CH9.10 and check the Developer Drive (K) Clutch for an open circuit.
- Enter Diagnostics. Check dC122 Fail History. If code 093-317, 93-421, or 093-422 is present, go to the appropriate RAP.
- Replace the Developer Housing Kit (K) (PL 6.6) followed by the MCU PWB (PL 11.1).



## 092-661 RAP

BSD-ON: CH9.25

The temperature output of the environment sensor was not in the appropriate range (140 ~ 896).

**NOTE:** This is a hidden failure. Therefore, even if this failure occurs, prints can be made.

### Initial Actions

Check that the Drawer Connectors ( P602) on the Marking Drawer and the main unit are free from bent pins, foreign objects, burnouts, etc.

### Procedure

Open the Front Door. Remove the Marking Drawer Front Cover. +5VDC is measured between P/J135-1 and -3 on the Environment Sensor.

Y N  
+5VDC is measured between P/J406-B4 and -B2 on the MCU PWB.  
Y N  
+5VDC is measured between J400-2 on the MCU PWB and GND.  
Y N  
Refer to BSD CH2.2, check the +5VDC circuit to J400-2 on the MCU PWB.  
Replace the MCU PWB (PL 11.1).

Check the wires between J135-1 on the Environment Sensor and J406-B4 on the MCU PWB, and between J135-3 on the Environment Sensor and J406-B2 on the MCU PWB for an open wire or poor contact.

Check Environment Sensor J135-4 to MCU PWB P/J406-B1 for continuity. If the wire is good, replace the MOB ADC Assembly (PL 11.2) before replacing the MCU PWB (PL 11.1).

## 092-662 RAP

BSD-ON: CH9.25

The humidity output of the environment sensor was not in the appropriate range (30 ~ 607).

**NOTE:** This is a hidden failure. Therefore, even if this failure occurs, prints can be made.

### Initial Actions

Check that the Drawer Connectors ( P602) on the Marking Drawer and the main unit are free from bent pins, foreign objects, burnouts, etc.

### Procedure

Open the Front Door. Remove the Marking Drawer Front Cover. +5VDC is measured between P/J135-1 and -3 on the Environment Sensor.

Y N  
+5VDC is measured between P/J406-B4 and -B2 on the MCU PWB.  
Y N  
+5VDC is measured between J400-2 on the MCU PWB and GND.  
Y N  
Refer to BSD CH2.2, check the +5VDC circuit to J400-2 on the MCU PWB.  
Replace the MCU PWB (PL 11.1).

Check the wires between J135-1 on the Environment Sensor and P/J406-B4 on the MCU PWB, and between J135-3 on the Environment Sensor and P/J406-B2 on the MCU PWB for an open wire or poor contact.

Check Environment Sensor J135-2 to MCU PWB P/J406-B1 for continuity. If the wire is good, replace the MOB ADC Assembly (PL 11.2) before replacing the MCU PWB (PL 11.1).

## 092-663 RAP

BSD-ON:CH9.12

The two levels of ADC Patch density created in Mini-Setup: high (LD\_OUT+60) and low (LD\_OUT-60) are reversed.

**NOTE:** *This is a hidden failure. Therefore, even if this failure occurs, prints can be made.*

### Procedure

Enter DC612 Test Pattern Print. Output the Full Page Halftone. If the density is badly uneven, replace the following in order:

- Drum Cartridge (PL 6.1)
- Developer Housing (PL 6.6)
- Deve Bias (K) HVPS (PL 11.2)
- Clean or replace the Transfer belt (PL 7.3).
- Replace the MOB ADC Assembly (PL 11.2)
- Replace the MCU PWB (PL 11.1).

## 093-300 RAP

BSD-ON: CH2.1

Marking Drawer Interlock Open

### Initial Actions

Turn the power OFF then ON.

### Procedure

Check the Marking Drawer. **The Marking Drawer is installed in the correct position.**

**Y N**  
| Push the Marking Drawer into the proper position.

Execute DC330 [093-206 Marking Drawer Interlock]. **The status indicates Closed.**

**Y N**  
| Go to BSD 2.1 and check the connector between the Marking Drawer Interlock and the MCU PWB. If OK, Replace the MCU PWB (PL 11.1).

Replace the MCU PWB (PL 11.1).

## 093-313 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD

The Low Toner Sensor failed to detect any toner after the Toner Cartridge Motor operated for 20sec and aborted the refilling operation.

### Initial Actions

Check the Toner Cartridges for defects.

### Procedure

Check the exterior of the Toner Cartridges. **The Toner Cartridges are in proper condition without distortion or damage.**

**Y N**  
| Replace the defective Toner Cartridge (PL 6.1).

Go to BSD 9.16 and check the connectors connecting the Dispense Motor (PL 6.4), the IOT PWB (PL 11.1) and the MCU PWB (PL 11.1). **Each connector is connected properly.**

**Y N**  
| Reseat connectors as necessary.

Go to BSD 9.15 and check the connectors connecting the Low Toner Sensor (PL 6.4), the Low Toner Sensor PWB (PL 6.3) and the MCU PWB (PL 11.1). **Each connector is connected properly.**

**Y N**  
| Reseat connectors as necessary.

Check the transport path in the Toner Cartridges for damage. **The transport path of the Toner Cartridges is undamaged.**

**Y N**  
| Replace the Toner Cartridge (PL 6.1) and damaged parts.

Replace the MCU PWB (PL 11.1).

## 093-314 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD, CH9.16

Yellow Dispense failure.

### Procedure

Enter the Diagnostics. Enter DC330 [093-006] (Yellow Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

**Y N**  
Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

**Y N**  
Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201Y on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201Y-1 and -2 pins is between 22.0 and 27.0 ohms.**

**Y N**  
Replace the Yellow Dispense Motor (PL6.4).

Check the following for continuity:

- IOT PWB P/J436-A14 to Dispense Motor J201Y-1
- IOT PWB P/J436-A13 to Dispense Motor J201Y-2

**Every resistance is 1 ohm or less.**

**Y N**  
Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Yellow Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

**Y N**  
**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

**Y N**  
**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**  
**Y N**  
Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.

Replace the MCU PWB (PL11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between P/J414-B5 on the MCU PWB and Connector P/J653A-1 for an open wire or poor contact.

**A**  
Remove the Low Toner Sensor Y. **There is any toner on the detection area of the Low Toner Sensor.**

**Y N**  
Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor Y (PL 6.4).

## 093-315 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD, CH9.16

Magenta Dispense failure.

### Procedure

Enter the Diagnostics. Enter DC330 [093-007] (Magenta Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

**Y N**  
Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

**Y N**  
Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201M on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201M-1 and -2 pins is between 22.0 and 27.0 ohms.**

**Y N**  
Replace the Magenta Dispense Motor (PL6.4).

Check the following for continuity:

- IOT PWB P/J436-A12 to Dispense Motor P/J201M-1
- IOT PWB P/J436-A11 to Dispense Motor P/J201M-2

**Every resistance is 1 ohm or less.**

**Y N**  
Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Magenta Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

**Y N**  
**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

**Y N**  
**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**  
**Y N**  
Refer to BSD CH2.2, check the +5VDC circuit to J400-2 on the MCU PWB.

Replace the MCU PWB (PL 11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between P/J414-B5 on the MCU PWB and Connector J653A-1 for an open wire or poor contact.

**A**  
Remove the Low Toner Sensor M. **There is any toner on the detection area of the Low Toner Sensor.**

**Y N**  
Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor M (PL 6.4).

## 093-316 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD, CH9.16

Cyan Dispense failure.

### Procedure

Enter the Diagnostics. Enter DC330 [093-008] (Cyan Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N

Open the PWB Chassis. **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201C on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P201M-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N

Replace the Cyan Dispense Motor (PL 6.4).

Check the following for continuity:

- IOT PWB P/J436-A10 to Dispense Motor P/J201C-1
- IOT PWB P/J436-A9 to Dispense Motor P/J201C-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Cyan Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

Y N

**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

Y N

**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +5VDC circuit to J400-2 on the MCU PWB.

Replace the MCU PWB (PL 11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between P/J414-B5 on the MCU PWB and Connector P/J653A-1 for an open wire or poor contact.

A

Remove the Low Toner Sensor C. **There is any toner on the detection area of the Low Toner Sensor.**

Y N

Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor C (PL 6.4).

## 093-317 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD, CH9.16

Black Dispense failure.

### Procedure

Enter diagnostics. Enter DC330 [093-009] (Black Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

**Y N**  
Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

**Y N**  
Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201K on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201K-1 and -2 pins is between 22.0 and 27.0 ohms.**

**Y N**  
Replace the Black Dispense Motor (PL6.4).

Check the following for continuity:

- IOT PWB P/J436-A8 to Dispense Motor P/J201K-1
- IOT PWB P/J436-A7 to Dispense Motor P/J201K-2

**Every resistance is 1 ohm or less.**

**Y N**  
Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Black Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

**Y N**  
**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

**Y N**  
**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**  
**Y N**  
Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.

Replace the MCU PWB (PL11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between P/J414-B5 on the MCU PWB and Connector P/J653A-1 for an open wire or poor contact.

**A**  
Remove the Low Toner Sensor K. **There is any toner on the detection area of the Low Toner Sensor.**

**Y N**  
Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor K (PL 6.4).

# 093-320 RAP

**BSD-ON:9.11 Y, M, C Developer Drive Control BSD**

There was a problem with the developer motor rotation.

## Procedure

Open the Front Door. Remove the Cartridge Inner Cover. Cheat the Front Door Interlock. Enter diagnostics. Enter DC330 [093-019] (220MM/S). Select Start. (The Drum Motor also rotates.)

**The Auger and the Mag Roll in the Developer Unit rotate.**

**Y N**  
Remove the Developer Unit. (REP12.1.1) Enter DC330 [093-019] (220MM/S). Select Start. (The Drum Motor also rotates) **The Developer Motor rotates.**

**Y N**  
Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J205-1 (+) and -2 (-) on the Developer Motor.**

**Y N**  
**+24VDC is measured between P/J437-7 (+) and -8 (-) on the IOT PWB.**

**Y N**  
**+24VDC is measured between P/J430-2 (+) on the IOT PWB and GND (-).**

**Y N**  
Refer to BSD CH2.4, check the +24VDC circuit to P/J430-2 on the IOT PWB.

Replace the IOT PWB (PL2.1).

Check the wires between P/J437-7 on the IOT PWB and P/J205-1 on the Developer Motor, and between P/J437-8 on the IOT PWB and P/J205-2 on the Developer Motor for an open wire or poor contact.

**+5VDC is measured between P/J206-1 (+) and -2(-) on the Developer Motor.**

**Y N**  
**+5VDC is measured between P/J408-B18 (+) and -B17 (-) on the MCU PWB.**

**Y N**  
Replace the MCU PWB (PL11.1).

Check the wires between P/J408-B18 on the MCU PWB and P/J206-1 on the Developer Motor, and between P/J408-B17 on the MCU PWB and P/J206-2 on the Developer Motor for an open wire or poor contact.

**With DC330 [093-019] ON (The Drum Motor also rotates.), +5VDC is measured between P/J206-3 (+) on the Developer Motor and GND (-).**

**Y N**  
**With DC330[093-019] ON (The Drum Motor also rotates.), approximately 1.4kHz is measured between P/J206-7 (+) on the Developer Motor and GND (-).**

**Y N**  
**With the diagnostics ON, approximately 1.4kHz is measured between P/J408-B12 (+) on the MCU PWB and GND (-).**

**A B C D**

**Y N**  
Replace the MCU PWB (PL11.1).

Check for an open wire or poor contact between P/J408-B12 on the MCU PWB and J206-7 on the Developer Motor.

**With the diagnostics ON, +3.3VDC is measured between P/J206-4 (+) on the Developer Motor and GND (-).**

**Y N**  
**+3.3VDC is measured between P/J408-B15 (+) on the MCU PWB and GND (-).**

**Y N**  
Replace the MCU PWB (PL 11.1).

Check the wire between P/J206-4 on the Developer Motor and P/J408-B15 on the MCU PWB for an open wire or poor contact.

Replace the YMC Developer Motor (PL 1.6).

**With the diagnostics ON, +5VDC is measured between P/J408-B16 (+) on the MCU PWB and GND (-).**

**Y N**  
Check the wire between P/J408-B16 on the MCU PWB and P/J206-3 on the Developer Motor for an open wire or poor contact.

Replace the MCU PWB (PL 11.1).

Check for any mechanical load in the Developer Unit such as poor Auger rotation, Drive gears binding, Bearing binding and poor Mag Roll rotation.

It is highly likely that the MCU PWB made a faulty detection due to some external noise or internal discharge-related noise. Check if there are any noise sources around the machine and if any abnormal discharge has occurred. If the check shows there is no problem, check the wire between P/J206-4 on the Developer Motor and P/J408-B15 on the MCU PWB for an open wire or poor contact. If the problem persists, replace the MCU PWB (PL 11.1).



## 093-421 RAP

**BSD-ON:9.3 Toner Cartridge Life Control (K1) BSD**

**BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD**

The Black Toner Cartridge (K1) is empty and the Black Toner Cartridge (K2) is near empty.

### Initial Actions

Switch the power off, then on. If this does not resolve the problem, replace the Toner Cartridge.

### Procedure

- Check each connector on the MCU PWB (PL 11.1), the Toner Cartridge CRUM PWB K1 (PL 6.3) and the Toner Cartridge CRUM PWB C/K2 (PL 6.3).
- Replace the MCU PWB (PL 11.1) followed by the Toner Cartridge CRUM PWB K1 (PL 6.3) and the Toner Cartridge CRUM PWB C/K2 (PL 6.3).

## 093-422 RAP

**BSD-ON:9.3 Toner Cartridge Life Control (K1) BSD**

**BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD**

The Black Toner Cartridge (K2) is empty and the Black Toner Cartridge (K1) is near empty

### Initial Actions

Switch the power off, then on. If this does not resolve the problem, replace the Toner Cartridge.

### Procedure

- Check each connector on the MCU PWB (PL 11.1), the Toner Cartridge CRUM PWB K1 (PL 6.3) and the Toner Cartridge CRUM PWB C/K2 (PL 6.3).
- Replace the MCU PWB (PL 11.1) followed by the Toner Cartridge CRUM PWB K1 (PL 6.3) and the Toner Cartridge CRUM PWB C/K2 (PL 6.3).

## 093-423 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Yellow toner is near empty

### Initial Actions

Switch the power off, then on. If this does not resolve the problem, replace the Toner Cartridge.

### Procedure

- Check each connector on the MCU PWB (PL 11.1), the Toner Cartridge CRUM PWB C/M (PL 6.3).
- Replace the MCU PWB (PL 11.1) followed by the Toner Cartridge CRUM PWB Y/M (PL 6.3).

## 093-424 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Magenta toner is near empty

### Initial Actions

Switch the power off, then on. If this does not resolve the problem, replace the Toner Cartridge.

### Procedure

- Check each connector on the MCU PWB (PL 11.1), the Toner Cartridge CRUM PWB Y/M (PL 6.3).
- Replace the MCU PWB (PL 11.1) followed by the Toner Cartridge CRUM PWB Y/M (PL 6.3).

## 093-425 RAP

### BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Cyan toner empty

### Initial Actions

Switch the power off, then on. If this does not resolve the problem, replace the Toner Cartridge.

### Procedure

- Check each connector on the MCU PWB (PL 11.1), the Toner Cartridge CRUM PWB C/K2 (PL 6.3).
- Replace the MCU PWB (PL 11.1) followed by the Toner Cartridge CRUM PWB C/K2 (PL 6.3).

## 093-600 RAP

### BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD

Yellow Dispense near failure.

### Procedure

Enter diagnostics. Enter DC330 [093-006] (Yellow Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N

Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201Y on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P201Y-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N

Replace the Yellow Dispense Motor (PL6.4).

Check the following for continuity:

- IOT PWB P/J436-A14 to Dispense Motor P/J201Y-1
- IOT PWB P/J436-A13 to Dispense Motor P/J201Y-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Yellow Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

Y N

**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

Y N

**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.

Replace the MCU PWB (PL 11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between P/J414-B5 on the MCU PWB and Connector P/J653A-1 for an open wire or poor contact.

A

Remove the Low Toner Sensor Y. **There is any toner on the detection area of the Low Toner Sensor.**

Y N

Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor Y (PL 6.4).

## 093-601 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD

Magenta Dispense near failure.

### Procedure

Enter diagnostics. Enter DC330 [093-007] (Magenta Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N

Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201M on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201M-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N

Replace the Magenta Dispense Motor (PL 6.4).

Check the following for continuity:

- IOT PWB P/J436-A12 to Dispense Motor P/J201M-1
- IOT PWB P/J436-A11 to Dispense Motor P/J201M-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Magenta Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1, IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

Y N

**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

Y N

**+5VDC is measured between P/J402-2 (+) on the MCU PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +5VDC circuit to P/J402-2 on the MCU PWB.

Replace the MCU PWB (PL 11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between J414-B5 on the MCU PWB and Connector P/J653A-1 for an open wire or poor contact.

A

A

Remove the Low Toner Sensor M. **There is any toner on the detection area of the Low Toner Sensor.**

Y N

Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor M (PL 6.4).

## 093-602 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD

Cyan Dispense near failure.

### Procedure

Enter diagnostics. Enter DC330 [093-008] (Cyan Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N

Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201C on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201C-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N

Replace the Cyan Dispense Motor (PL 6.4).

Check the following for continuity:

- IOT PWB P/J436-A10 to Dispense Motor P/J201C-1
- IOT PWB P/J436-A9 to Dispense Motor P/J201C-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and P/J402 on the MCU PWB.
- Remove the Cyan Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

Y N

**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

Y N

**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.

Replace the MCU PWB (PL 11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between P/J414-B5 on the MCU PWB and Connector P/J653A-1 for an open wire or poor contact.

A

A

Remove the Low Toner Sensor C. **There is any toner on the detection area of the Low Toner Sensor.**

Y N

Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor C (PL 6.4).

## 093-603 RAP

BSD-ON:9.15 Toner Dispense Control (1 Of 3) BSD

Black Dispense near failure.

### Procedure

Enter diagnostics. Enter DC330 [093-009] (Black Dispense Motor). Select Start. **Dispense Motor is heard rotating. (ON duration is 2 sec.)**

Y N

Open the PWB Chassis. (REP2.1.1) **+24VDC is measured between P/J430-8 (+) on the IOT PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +24VDC circuit to P/J430-6 on the IOT PWB.

Turn off the power. Disconnect Connectors P/J201K on the Dispense Motor. Measure the wire-wound resistance of the Dispense Motor. **The resistance between P/J201K-1 and -2 pins is between 22.0 and 27.0 ohms.**

Y N

Replace the Black Dispense Motor (PL6.4).

Check the following for continuity:

- IOT PWB P/J436-A8 to Dispense Motor P/J201K-1
- IOT PWB P/J436-A7 to Dispense Motor P/J201K-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Perform the following:

- Disconnect and reconnect the cable between P/J432 on the IOT PWB and J402 on the MCU PWB.
- Remove the Black Toner Dispenser. (REPX.X) Check that there is no such load as poor Auger rotation, toner blocking and Drive gears binding.

If no problem is found, replace the Flexible Print Cable (PL 11.1), IOT PWB (PL 11.1) and MCU PWB (PL 11.1) in that order.

**+5VDC is measured between Connectors P/J653A-1 (+) and -2 (-) on the Low Toner Sensor PWB.**

Y N

**+5VDC is measured between P/J414-B4 (+) and -B5 (-) on the MCU PWB.**

Y N

**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**

Y N

Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.

Replace the MCU PWB (PL11.1).

Check the wires between P/J414-B4 on the MCU PWB and Connector P/J653A-2, and between P/J414-B5 on the MCU PWB and Connector P/J653A-1 for an open wire or poor contact.

A

A

Remove the Low Toner Sensor K. **There is any toner on the detection area of the Low Toner Sensor.**

Y N

Check for toner blocking, poor Auger rotation, gears binding, etc. Replace defective parts, if any (PL 6.4).

Replace the Low Toner Sensor K (PL 6.4).

## 093-912 RAP

BSD-ON:9.3 Toner Cartridge Life Control (K1) BSD

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

The Black Dispense Motor rotation timed out indicating that the Black Cartridge and Reserve Tank are empty.

### Procedure

Replace the Black Toner Cartridge. If the problem persists, go to 093-317 RAP.

## 093-918 RAP

### BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

A communication failure with Black Toner Cartridge CRUM K2

#### Procedure

Replace the Black Toner Cartridge K2 with a new one. **093-918 is gone.**

|   |                                                                                                                                                                                                                                                                                         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                                                                                                                                                                                                       |
|   | 093-918 is still present.                                                                                                                                                                                                                                                               |
|   | Open the PWB Chassis. (REP2.1.1) <b>+5VDC is measured between P/J172C-6 (+) and -5 (-) on the Toner Cartridge CRUM Coupler.</b>                                                                                                                                                         |
| Y | N                                                                                                                                                                                                                                                                                       |
|   | <b>+5VDC is measured between P/J414-A1 (+) and -A2 (-) on the MCU PWB.</b>                                                                                                                                                                                                              |
| Y | N                                                                                                                                                                                                                                                                                       |
|   | <b>+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).</b>                                                                                                                                                                                                               |
| Y | N                                                                                                                                                                                                                                                                                       |
|   | Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.                                                                                                                                                                                                                 |
|   | Replace the MCU PWB (PL 11.1).                                                                                                                                                                                                                                                          |
|   | Check the wires between P/J414-A1 on the MCU PWB and P/J172C-6 on the Toner Cartridge CRUM Coupler, and between J414-A2 on the MCU PWB and P/J172C-5 on the Toner Cartridge CRUM Coupler for an open wire or poor contact.                                                              |
|   | Turn off the power. Disconnect Connectors P/J414 and P/J172C from the MCU PWB. Check the following for continuity:                                                                                                                                                                      |
|   | <ul style="list-style-type: none"><li>• MCU PWB P/J414-A3 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-4</li><li>• MCU PWB P/J414-A4 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-3</li><li>• MCU PWB P/J414-A5 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-2</li></ul> |
|   | <b>Every resistance is 1 ohm or less.</b>                                                                                                                                                                                                                                               |
| Y | N                                                                                                                                                                                                                                                                                       |
|   | Check any wire with more than 1 ohm for an open wire or poor contact.                                                                                                                                                                                                                   |
|   | Replace the Toner Cartridge CRUM PWB C, K2 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).                                                                                                                                                                            |

The Toner Cartridge K2 was defective.

## 093-924 RAP

### BSD-ON:9.3 Toner Cartridge Life Control (K1) BSD

A communication failure with Black Toner Cartridge CRUM K1

#### Procedure

Replace the Black Toner Cartridge K2 with a new one. **093-918 is gone.**

|   |                                                                                                                                                                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                                                                                                                                                                                                        |
|   | 093-918 is still present.                                                                                                                                                                                                                                                                |
|   | Open the PWB Chassis. (REP2.1.1) <b>+5VDC is measured between P/J172K-6 (+) and -5 (-) on the Toner Cartridge CRUM Coupler.</b>                                                                                                                                                          |
| Y | N                                                                                                                                                                                                                                                                                        |
|   | <b>+5VDC is measured between P/J414-B6 (+) and -B7 (-) on the MCU PWB.</b>                                                                                                                                                                                                               |
| Y | N                                                                                                                                                                                                                                                                                        |
|   | <b>+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).</b>                                                                                                                                                                                                                |
| Y | N                                                                                                                                                                                                                                                                                        |
|   | Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.                                                                                                                                                                                                                  |
|   | Replace the MCU PWB (PL 11.1).                                                                                                                                                                                                                                                           |
|   | Check the wires between P/J414-B6 on the MCU PWB and P/J172K-6 on the Toner Cartridge CRUM Coupler, and between P/J414-B7 on the MCU PWB and P/J172K-5 on the Toner Cartridge CRUM Coupler for an open wire or poor contact.                                                             |
|   | Turn off the power. Disconnect Connectors J414 and P/J172K from the MCU PWB. Check the following for continuity:                                                                                                                                                                         |
|   | <ul style="list-style-type: none"><li>• MCU PWB P/J414-B8 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172K-4</li><li>• MCU PWB P/J414-B9 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172K-3</li><li>• MCU PWB P/J414-B10 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172K-2</li></ul> |
|   | <b>Every resistance is 1 ohm or less.</b>                                                                                                                                                                                                                                                |
| Y | N                                                                                                                                                                                                                                                                                        |
|   | Check any wire with more than 1 ohm for an open wire or poor contact.                                                                                                                                                                                                                    |
|   | Replace the Toner Cartridge CRUM PWB K1 (PL6.3). If the problem persists, replace the MCU PWB (PL 11.1).                                                                                                                                                                                 |

The Toner Cartridge K1 was defective.



## 093-925 RAP

### BSD-ON:9.3 Toner Cartridge Life Control (K1) BSD

The data written to the toner CRUM K1 did not agree with the data read.

#### Procedure

Turn OFF then ON the power. Remove and reinstall the Black Toner Cartridge K1. **093-925 is gone.**

Y N

Replace the Black Toner Cartridge K1 with a new one. **093-925 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172K from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-A3 to Toner Cartridge CRUM PWB K1 Coupler P/J172K-4
- MCU PWB P/J414-A4 to Toner Cartridge CRUM PWB K1 Coupler P/J172K-3
- MCU PWB P/J414-A5 to Toner Cartridge CRUM PWB K1 Coupler P/J172K-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB K1 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-926 RAP

### BSD-ON:9.3 Toner Cartridge Life Control (K1) BSD

Toner Cartridge CRUM K1 Authentication Data is different.

#### Procedure

Turn OFF then ON the power. Remove and reinstall the Black Toner Cartridge K1. **093-926 is gone.**

Y N

Replace the Black Toner Cartridge K1 with a new one. **093-926 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172K from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-B8 to Toner Cartridge CRUM PWB K1 Coupler P/J172K-4
- MCU PWB P/J414-B9 to Toner Cartridge CRUM PWB K1 Coupler P/J172K-3
- MCU PWB P/J414-B10 to Toner Cartridge CRUM PWB K1 Coupler P/J172K-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB K1 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-927 RAP

### BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

A communication failure with Yellow Toner Cartridge CRUM Y

#### Procedure

Replace the Yellow Toner Cartridge Y with a new one. **093-927 is gone.**

|   |                                                                                                                                                                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                                                                                                                                                                                                      |
|   | 093-927 is still present.                                                                                                                                                                                                                                                              |
|   | Open the PWB Chassis. (REP2.1.1) <b>+5VDC is measured between P/J172Y-6 (+) and -5 (-) on the Toner Cartridge CRUM Coupler.</b>                                                                                                                                                        |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | <b>+5VDC is measured between P/J414-A7 (+) and -A8 (-) on the MCU PWB.</b>                                                                                                                                                                                                             |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | <b>+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).</b>                                                                                                                                                                                                              |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.                                                                                                                                                                                                                |
|   | Replace the MCU PWB (PL 11.1).                                                                                                                                                                                                                                                         |
|   | Check the wires between P/J414-A7 on the MCU PWB and P/J172Y-6 on the Toner Cartridge CRUM Coupler, and between P/J414-A8 on the MCU PWB and P/J172Y-5 on the Toner Cartridge CRUM Coupler for an open wire or poor contact.                                                           |
|   | Turn off the power. Disconnect Connectors J414 and P/J172Y from the MCU PWB. Check the following for continuity:                                                                                                                                                                       |
|   | <ul style="list-style-type: none"><li>• MCU PWB P/J414-A9 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-4</li><li>• MCU PWB P/J414-A10 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-3</li><li>• MCU PWB P/J414-A11 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-2</li></ul> |
|   | <b>Every resistance is 1 ohm or less.</b>                                                                                                                                                                                                                                              |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | Check any wire with more than 1 ohm for an open wire or poor contact.                                                                                                                                                                                                                  |
|   | Replace the Toner Cartridge CRUM PWB Y,M (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).                                                                                                                                                                             |

The Toner Cartridge Y was defective.

## 093-928 RAP

### BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

A communication failure with Magenta Toner Cartridge CRUM M

#### Procedure

Replace the Magenta Toner Cartridge M with a new one. **093-928 is gone.**

|   |                                                                                                                                                                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                                                                                                                                                                                                      |
|   | 093-928 is still present.                                                                                                                                                                                                                                                              |
|   | Open the PWB Chassis. (REP2.1.1) <b>+5VDC is measured between P/J172Y-6 (+) and -5 (-) on the Toner Cartridge CRUM Coupler.</b>                                                                                                                                                        |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | <b>+5VDC is measured between P/J414-A7 (+) and -A8 (-) on the MCU PWB.</b>                                                                                                                                                                                                             |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | <b>+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).</b>                                                                                                                                                                                                              |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.                                                                                                                                                                                                                |
|   | Replace the MCU PWB (PL 11.1).                                                                                                                                                                                                                                                         |
|   | Check the wires between P/J414-A7 on the MCU PWB and P/J172Y-6 on the Toner Cartridge CRUM Coupler, and between P/J414-A8 on the MCU PWB and P/J172Y-5 on the Toner Cartridge CRUM Coupler for an open wire or poor contact.                                                           |
|   | Turn off the power. Disconnect Connectors J414 and P/J172Y from the MCU PWB. Check the following for continuity:                                                                                                                                                                       |
|   | <ul style="list-style-type: none"><li>• MCU PWB P/J414-A9 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-4</li><li>• MCU PWB P/J414-A10 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-3</li><li>• MCU PWB P/J414-A11 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-2</li></ul> |
|   | <b>Every resistance is 1 ohm or less.</b>                                                                                                                                                                                                                                              |
| Y | N                                                                                                                                                                                                                                                                                      |
|   | Check any wire with more than 1 ohm for an open wire or poor contact.                                                                                                                                                                                                                  |
|   | Replace the Toner Cartridge CRUM PWB Y,M (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).                                                                                                                                                                             |

The Toner Cartridge M was defective.

## 093-929 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

A communication failure with Cyan Toner Cartridge CRUM C

### Procedure

Replace the Cyan Toner Cartridge C with a new one. **093-929 is gone.**

Y N  
093-929 is still present.  
Open the PWB Chassis. (REP2.1.1) **+5VDC is measured between P/J172C-6 (+) and -5 (-) on the Toner Cartridge CRUM Coupler.**

Y N  
**+5VDC is measured between P/J414-A1 (+) and -A2 (-) on the MCU PWB.**

Y N  
**+5VDC is measured between P/J400-2 (+) on the MCU PWB and GND (-).**

Y N  
Refer to BSD CH2.2, check the +5VDC circuit to P/J400-2 on the MCU PWB.

Replace the MCU PWB (PL 11.1).

Check the wires between P/J414-A1 on the MCU PWB and J172C,K2-6 on the Toner Cartridge CRUM Coupler, and between P/J414-A2 on the MCU PWB and P/J172C-5 on the Toner Cartridge CRUM Coupler for an open wire or poor contact.

Turn off the power. Disconnect Connectors P/J414 and P/J172C from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-A3 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-4
- MCU PWB P/J414-A4 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-3
- MCU PWB P/J414-A5 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-2

**Every resistance is 1 ohm or less.**

Y N  
Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB C, K2 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge C was defective.

## 093-932 RAP

BSD-ON: CH2.1, 9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Cartridge Exchange Time Over

### Initial Actions

- Switch the power OFF then ON.
- Check the opening/closing of the Toner Cartridge Cover (PL 6.2).
- Check the installation condition of the Toner Cartridge Cover (PL 6.2).
- Check the installation condition of the Dispense Cover Switch (PL 6.2).
- Remove and reinstall the Toner Cartridge.

### Procedure

Enter the Diagnostics. Enter code DC330 [093-205] (Dispense Cover Switch 1 and Dispense Cover Switch 2). Select Start.Open and close the Dispense Cover. **The display changes between H and L.**

Y N  
Go to BSD 2.1 and troubleshoot Dispense Cover Switch 1 and Dispense Cover Switch 2.

**The Cartridge Door actuator is normal.**

Y N  
Replace the Dispense Cover (PL 7.4).

The problem is misalignment between the Dispense Cover (PL 7.4) and one of the Dispense Cover Switches. Check if one of the Actuators is not broken and if the Dispense Cover is properly installed.

## 093-933 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

The data written to the toner CRUM Y did not agree with the data read.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Yellow Toner Cartridge Y. **093-933 is gone.**

Y N

Replace the Yellow Toner Cartridge Y with a new one. **093-933 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172Y from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-A9 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-4
- MCU PWB P/J414-A10 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-3
- MCU PWB P/J414-A11 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB Y,M (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-934 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

The data written to the toner CRUM M did not agree with the data read.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Magenta Toner Cartridge M. **093-934 is gone.**

Y N

Replace the Magenta Toner Cartridge M with a new one. **093-934 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172Y from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-A9 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-4
- MCU PWB P/J414-A10 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-3
- MCU PWB P/J414-A11 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB Y,M (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-935 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

The data written to the toner CRUM C did not agree with the data read.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Cyan Toner Cartridge C. **093-935 is gone.**

Y N

Replace the Cyan Toner Cartridge C with a new one. **093-935 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172C from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-B8 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-4
- MCU PWB P/J414-B9 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-3
- MCU PWB P/J414-B10 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB C, K2 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-936 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

The data written to the toner CRUM K2 did not agree with the data read.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Black Toner Cartridge K1. **093-936 is gone.**

Y N

Replace the Black Toner Cartridge K2 with a new one. **093-936 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172C from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-B8 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-4
- MCU PWB P/J414-B9 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-3
- MCU PWB P/J414-B10 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB C, K2 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-937 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Toner Cartridge CRUM Y Authentication Data is different.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Yellow Toner Cartridge Y. **093-937 is gone.**

Y N

Replace the Yellow Toner Cartridge Y with a new one. **093-937 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172Y from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-A9 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-4
- MCU PWB P/J414-A10 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-3
- MCU PWB P/J414-A11 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB Y,M (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-938 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Toner Cartridge CRUM M Authentication Data is different.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Magenta Toner Cartridge M. **093-938 is gone.**

Y N

Replace the Magenta Toner Cartridge M with a new one. **093-938 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172Y from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-A9 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-4
- MCU PWB P/J414-A10 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-3
- MCU PWB P/J414-A11 to Toner Cartridge CRUM PWB Y, M Coupler P/J172Y-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB Y,M (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-939 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Toner Cartridge CRUM C Authentication Data is different.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Cyan Toner Cartridge C. **093-939 is gone.**

Y N

Replace the Cyan Toner Cartridge C with a new one. **093-939 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172C from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-B8 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-4
- MCU PWB P/J414-B9 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-3
- MCU PWB P/J414-B10 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB C, K2 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.

## 093-940 RAP

BSD-ON:9.4 Toner Cartridge Life Control (Y, M, C, K2) BSD

Toner Cartridge CRUM K2 Authentication Data is different.

### Procedure

Turn OFF then ON the power. Remove and reinstall the Black Toner Cartridge K2. **093-940 is gone.**

Y N

Replace the Black Toner Cartridge K2 with a new one. **093-940 is gone.**

Y N

Turn off the power. Disconnect Connectors P/J414 and P/J172C from the MCU PWB. Check the following for continuity:

- MCU PWB P/J414-B8 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-4
- MCU PWB P/J414-B9 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-3
- MCU PWB P/J414-B10 to Toner Cartridge CRUM PWB C, K2 Coupler P/J172C-2

**Every resistance is 1 ohm or less.**

Y N

Check any wire with more than 1 ohm for an open wire or poor contact.

Replace the Toner Cartridge CRUM PWB C, K2 (PL 6.3). If the problem persists, replace the MCU PWB (PL 11.1).

The Toner Cartridge CRUM is was defective.

The Toner Cartridge was improperly installed.





## 094-320 RAP

BSD-ON:9.23 1ST Transfer (3 Of 3) BSD

Retraction was not detected within the specified time (2400ms) after retraction of the 1st BTR started.

### Initial Actions

Ensure the Transfer Belt (PL 7.3) is installed properly.

### Procedure

Execute DC330 [094-002 1st BTR Retract] and DC330 [094-001 1st BTR Contact] alternately, executing DC330 [094-200 1st BTR Retract Sensor] at the same time with each execution.

#### Does the display change?

Y N

Remove the Transfer Belt (PL 7.3).

Rotate the shaft of the 1st BTR Retract Motor manually and block/expose the 1st BTR Contact / Retract Sensor with the actuator. Execute DC330 [094-200 1st BTR Retract Sensor]. **Does the display change by blocking/exposing the light?**

Y N

Reinstall the Transfer Belt (PL 7.3).

Go to BSD 9.23 and check the 1st BTR Contact / Retract Sensor for an open or short circuit.

Reinstall the Transfer Belt (PL 7.3).

Go to BSD 9.23 and troubleshoot the 1st BTR Retract Motor circuit.

Switch the power OFF then ON. If the problem still exists, replace the IOT PWB (PL 11.1) before replacing the MCU PWB (PL 11.1).

## 094-321 RAP

BSD-ON:9.23 1ST Transfer (3 Of 3) BSD

First BTR Contact Failure.

### Initial Actions

Ensure the Transfer Belt (PL 7.3) is installed properly.

### Procedure

Execute DC330 [094-002 1st BTR Retract] and DC330 [094-001 1st BTR Contact] alternately, executing DC330 [094-200 1st BTR Retract Sensor] at the same time with each execution.

#### Does the display change?

Y N

Remove the Transfer Belt (PL 7.3).

Rotate the shaft of the 1st BTR Retract Motor manually and block/expose the 1st BTR Contact / Retract Sensor with the actuator. Execute DC330 [094-200 1st BTR Retract Sensor]. **Does the display change by blocking/exposing the light?**

Y N

Reinstall the Transfer Belt (PL 7.3).

Go to BSD 9.23 and check the 1st BTR Contact / Retract Sensor for an open or short circuit.

Reinstall the Transfer Belt (PL 7.3).

Go to BSD 9.23 and troubleshoot the 1st BTR Retract Motor circuit.

Switch the power OFF then ON. If the problem still exists, replace the IOT PWB (PL 11.1) before replacing the MCU PWB (PL 11.1).

## 094-322 RAP

### BSD-ON:9.28 2ND Transfer And Cleaning (3 Of 3) BSD

Second BTR Retract Failure.

#### Initial Actions

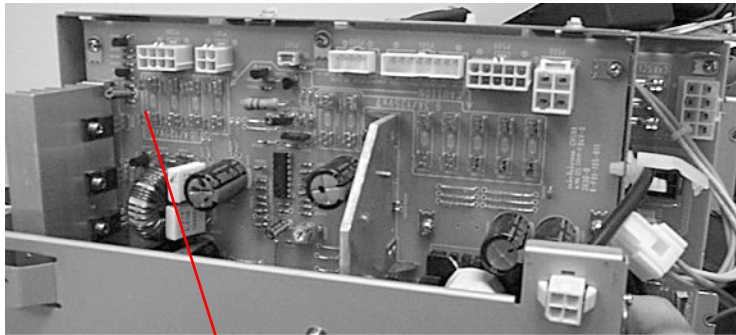
Switch the power OFF then ON.

#### Procedure

Connect the meter between P/J508-3 (+) and P/J508-6 (-). **There is +5 VDC present**

Y N

Check F5001 (Figure 1) on the Main LVPS for an open.



F5001

Figure 1 Main LVPS

**F5001 is OK.**

Y N

Replace F5001. If F5001 blows again, go to BSD 2.2 and wirenet 7.2.9 and check the +5 VDC (Tray Module PWB) for a short circuit.

Replace the Main LVPS (PL 11.3).

Connect the meter between P/J433-10 (+) and ground (-). **There is +24 VDC present**

Y N

Check F10 on the IOT Drive PWB for an open. **F10 is OK.**

Y N

Replace F10. If F10 blows again, go to BSD 2.3 and wirenet 7.2.31 and check the +24 VDC for a short circuit.

Replace the IOT Drive PWB. (PL 11.1).

Execute DC330 [094-004 2nd BTR Retract] and DC330 [094-003 2nd BTR Contact] alternately. **Does the color that can be seen from window on the IBT Drawer (PL 7.1) switch between black and yellow with each execution?**

Y N

Execute DC330 [094-005 2nd BTR Retract Clutch]. **The 2nd Retract Cam Drive Clutch operates (noise heard).**

Y N

Go to BSD 9.27 and troubleshoot the 2nd BTR Retract Cam Clutch and Cam Clutch circuit for proper operation.

Go to BSD 9.28 and check the 2nd BTR Contact / Retract Sensor for an open or short circuit.

Switch the power OFF then ON. If the problem still exists, replace the IOT PWB (PL 11.1) before replacing the MCU PWB (PL 11.1).

## 094-323 RAP

### BSD-ON:9.28 2ND Transfer And Cleaning (3 Of 3) BSD

Contact was not detected within the specified time after contact with the 2nd BTR started.

#### Initial Actions

Switch the power OFF then ON.

#### Procedure

Execute DC330 [094-004 2nd BTR Retract] and DC330 [094-003 2nd BTR Contact] alternately. **Does the color that can be seen from window on the IBT Drawer (PL 7.1) switch between black and yellow with each execution?**

- |   |                                                                                                                 |
|---|-----------------------------------------------------------------------------------------------------------------|
| Y | N                                                                                                               |
|   | Execute DC330 [094-005 2nd BTR Retract Clutch]. <b>The 2nd Retract Cam Drive Clutch operates (noise heard).</b> |
|   | Y N                                                                                                             |
|   | Go to BSD 9.27 and troubleshoot the 2nd BTR Retract Cam Clutch and Cam Clutch circuit for proper operation.     |
|   | Go to BSD 9.28 and check the 2nd BTR Contact / Retract Sensor for an open or short circuit.                     |

Switch the power OFF then ON. If the problem still exists, replace the IOT PWB (PL 11.1) before replacing the MCU PWB (PL 11.1).



## 102-356 RAP

Fatal error related to the EWS. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB (PL 11.5).

## 102-380 RAP

Fatal error in the MF UI count. A problem occurred during software processing, and processing could no longer continue.

### Initial Actions

Check the ESS PWB and Panel connector cables and install the UI PWB (if installed) securely, and then repeat the same operation under which the error occurred.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the UI PWB (PL 17.4) before replacing the ESS PWB (PL 11.5).

## 102-381 RAP

There was notification of a scope initialization error on the ESS side, a message sending error, or an error obtaining the received data, during communication between ESS and the control panel.

### Initial Actions

Check the ESS PWB and Panel connector cables and install the UI PWB (if installed) securely, and then repeat the same operation under which the error occurred.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the UI PWB (PL 17.4) before replacing the ESS PWB (PL 11.5).

## 102-382 RAP

A required message was sent to the control panel and a verification message was not returned within the specified time, after a required parameter had not been attached from the control panel, or a problem with its length was detected for a variable length parameter.

### Initial Actions

Check the ESS PWB and Panel connector cables and install the UI PWB (if installed) securely, and then repeat the same operation under which the error occurred.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the UI PWB (PL 17.4) before replacing the ESS PWB (PL 11.5).

## 112-700 RAP

Punch Dust Box Full was detected.

### Initial Actions

Clear the Punch dust.

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Check the Finisher Main PWB (PL 21.12) and the MCU PWB (PL 11.1) connectors for being connected properly.
2. Replace the Finisher Main PWB (PL 21.12) before replacing the MCU PWB (PL 11.1).





## 116-210 RAP

BSD-ON: 3.7 PWB ESS BSD

Media Reader Fatal Error

### Initial Actions

Check the ESS PWB and Panel connector cables and install the UI PWB (if installed) securely, and then repeat the same operation under which the error occurred.

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the Media Reader, USB Cable, or Extended Board for the Media Reader connection.
2. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version or the ESS Firmware (GP 2).
  - Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - Replace the UI PWB (PL 17.4) before replacing the ESS PWB (PL 11.5).

## 116-211 RAP

BSD-ON: 3.7 PWB ESS BSD

Media Reader Cable disconnected

### Initial Actions

Check the ESS PWB and Panel connector cables and install the UI PWB (if installed) securely, and then repeat the same operation under which the error occurred.

### Procedure

Switch the power off and check the USB Cable connection. If the problem still exists, perform the following:

1. Replace the USB Cable.
2. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version or the ESS Firmware (GP 2).
  - Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - Replace the UI PWB (PL 17.4) before replacing the ESS PWB (PL 11.5).

## 116-212 RAP

**BSD-ON: 3.7 PWB ESS BSD**

[Media Reader] MediaLib SW Logic Failure

### Initial Actions

Check the ESS PWB and Panel connector cables and install the UI PWB (if installed) securely, and then repeat the same operation under which the error occurred.

### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version or the ESS Firmware (GP 2).
  - Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - Replace the UI PWB (PL 17.4) before replacing the ESS PWB (PL 11.5).

## 116-310 RAP

**BSD-ON:3.7 PWB ESS BSD**

An error was detected while checking ESS font ROM DIMM #1.

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out the Expanded Font ROM and reinsert it.
2. Go to BSD 3.1 and check the cable connections on the ESS PWB.
3. If the problem still exists, replace the Expanded Font ROM (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 116-312 RAP

BSD-ON:3.7 PWB ESS BSD

An error was detected in the HDD encryption key during activation.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
2. If the problem still exists, replace the HDD.
3. When the system has been recovered, set the HDD encryption key.

## 116-313 RAP

BSD-ON:3.7 PWB ESS BSD

An encryption key was specified but the HDD itself was not encrypted.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:.

1. Refer to [Initialize Hard Disk](#) in Section 6.
2. If the problem still exists, replace the HDD.
3. When the system has been recovered, set the HDD encryption key.

## 116-314 RAP

BSD-ON:3.7 PWB ESS BSD

An ethernet error was detected.

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Check the installation of the EEPROM on the ESS PWB.
2. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version of the ESS Firmware (GP 2).
  - Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - Check all the Controller connections for being loose or disconnected.
3. If the problem still exists, replace the ESS PWB (PL 11.5).

## 116-315 RAP

BSD-ON:3.7 PWB ESS BSD

An error was detected during System Memory 1 ( J330) R/W.

### Procedure

1. Extract and re-insert System Memory 1 ( J330).
2. If the problem still persists, replace System Memory 1 ( J330).

## 116-316 RAP

BSD-ON:3.7 PWB ESS BSD

An error was detected during System Memory 2 ( J331) R/W.

### Procedure

1. Extract and re-insert System Memory 2 ( J331).
2. If the problem still persists, replace System Memory 2 ( J331).

## 116-317 RAP

BSD-ON:3.7 PWB ESS BSD

An error was detected when checking the MF ROM ( J332).

### Procedure

1. Switch the power off, then on. If the problem still exists, extract and re-insert the MF ROM ( J332).
2. If the problem still persists, replace the ROM.

## 116-318 RAP

BSD-ON:3.7 PWB ESS BSD

An error was detected when checking the expansion ROM R2 ( J333).

### Procedure

1. Switch the power off, then on. If the problem still exists, extract and re-insert Extension ROM R2 ( J333).
2. If the problem still exists, replace the ROM.

## 116-321 RAP

BSD-ON:3.7 PWB ESS BSD

System Software Fatal Error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check that Page Memory PM1 ( J337) or Page Memory PM2 ( J338) is properly installed.
2. Reinstall the latest version of the ESS Firmware (GP 2).
3. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
4. Replace the UI PWB (PL 17.4) before replacing the ESS PWB (PL 11.5).

## 116-322 RAP

BSD-ON:3.7 PWB ESS BSD

WebDAV S/W Failure. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If problem still exists, check the CE log to see if the same fail frequently occurred. If the problem frequently occurred, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Extract and re-insert RAM DIMM or replace RAM DIMM.
3. Collect Failure Analysis Log data. (Apply the measure on which information is separately provided for common use.)

## 116-323 RAP

BSD-ON:3.7 PWB ESS BSD

An error was detected during the ESS PWB NVM Read/Write Check.

### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - a. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - b. Replace the ESS PWB (PL 11.5).

## 116-324 RAP

**BSD-ON:3.7 PWB ESS BSD**

A fatal software exception error has occurred in the Controller PWB CPU. The cause is most likely the Controller software failure.

### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version or the ESS Firmware (GP 2).
  - Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - Check all the Controller connections for being loose or disconnected.
2. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.

## 116-325 RAP

**BSD-ON:3.7 PWB ESS BSD**

An error occurred in ESS fan rotation.

### Procedure

Switch the power off, then on. If the problem still exists, check ESS Fan for a good connection (BSD 3.7).



## 116-329 RAP

BSD-ON:3.7 PWB ESS BSD

A system call error related to the serial I/F was detected.

### Procedure

Switch the power off, then on. Check to see if the problem is repeated. Check DC122 Shutdown History to see if the problem frequently occurred. If the problem frequently occurred, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2).
2. Replace the ESS PWB (PL 11.5).

## 116-330 RAP

BSD-ON:3.7 PWB ESS BSD

Error during the check of the HDD when the power was turned on, or the HDD was not formatted.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Enter DC355 Hard Disk Diag Program and make a diagnosis of HDD.
2. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
3. Replace the HDD.
4. Replace the ESS PWB (PL 11.5).

## 116-331 RAP

BSD-ON:3.7 PWB ESS BSD

An error related to the log was detected.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Remove and reinstall the HDD:
  - a. Switch off the power, remove the HDD, and switch the power on.
  - b. Switch off the power, reinstall the HDD, and switch the power on.
2. Enter DC355 Hard Disk Diag Program to diagnose the HDD.
3. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
4. Replace the ESS PWB ([PL 11.5](#)).

## 116-332 RAP

BSD-ON:3.7 PWB ESS BSD

An error in the MF ROM ( [J332](#)) was detected.

### Procedure

1. Extract and re-insert the MF ROM ( [J332](#)).
2. If the problem still persists, replace the MF ROM ( [J332](#)).

## 116-333 RAP

BSD-ON:3.7 PWB ESS BSD

A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Replace the ESS PWB (PL 11.5).

## 116-336 RAP

BSD-ON:3.7 PWB ESS BSD

Redirector HD Failure. A problem was detected during HD access.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Remove and reinstall the HDD:
  - a. Switch off the power, remove the HDD, and switch the power on.
  - b. Switch off the power, reinstall the HDD, and switch the power on.
2. Enter DC355 Hard Disk Diag Program to diagnose the HDD.
3. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
4. Replace the ESS PWB (PL 11.5).

## 116-337 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error with SNTP in general. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2).
2. Refer to the Initialize Hard Disk Procedure in Section 6.
3. Replace the ESS PWB (PL 11.5).

## 116-338 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error with JBA in general. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB (PL 11.5).

## 116-340 RAP

BSD-ON:3.7 PWB ESS BSD

There was insufficient page memory, input buffers, or work area.

### Procedure

Switch the power off, then on. If this does not resolve the problem, add Page Memory PM2 (J338).

## 116-341 RAP

BSD-ON:3.7 PWB ESS BSD

The ROM DIMM's installed are incorrect versions or an invalid combination of ROM DIMM's are installed.

### Procedure

1. Check the versions of the ROM DIMMs installed. Replace the incorrect version(s) with the correct version so that the correct combination is installed.
2. When installing multiple ROM DIMMs, match the major version with the minor version.

## 116-342 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to the SNMP agent. A problem occurred during software processing, and processing could no longer continue.

### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version or the ESS Firmware (GP 2).
  - Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - Check all the Controller connections for being loose or disconnected.

## 116-343 RAP

BSD-ON:3.7 PWB ESS BSD

An IC error within the ESS PWB was detected.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB (PL 11.5).

## 116-346 RAP

BSD-ON:3.7 PWB ESS BSD

Formatter failure. Error return from a system call.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB (PL 11.5).

## 116-348 RAP

BSD-ON:3.7 PWB ESS BSD

Redirector failure. Error return from a system call.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB (PL 11.5).

## 116-349 RAP

BSD-ON:3.7 PWB ESS BSD

There was an error with a call within SIF related to Pflite.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Reinstall the latest version or the ESS Firmware (GP 2).
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB (PL 11.5).

## 116-350 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error with AppleTalk in general. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).



## 116-351 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to EtherTalk. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-352 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to NetWare. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-353 RAP

BSD-ON:3.7 PWB ESS BSD

A physical problem was detected with the HDD during activation, causing the HDD not to activate.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Enter DC355 Hard Disk Diag Program and initialize the HDD.
2. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
3. Replace the HDD.
4. Replace the ESS PWB ([PL 11.5](#)).

## 116-354 RAP

BSD-ON:3.7 PWB ESS BSD

A problem with the HDD product code was detected during activation, so the HDD was not activated. A possibility exists that the HDD was formatted with a different model machine.

### Procedure

1. Power off the machine and replace the HDD.
2. To format an HDD from a different model machine, conduct the Special Boot (see Section 6).
3. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.

## 116-355 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to the SNMP agent. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-356 RAP

BSD-ON:3.7 PWB ESS BSD

The HDD was formatted, but either an incorrect HDD was connected or an HDD failure occurred.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Enter DC355 Hard Disk Diag Program and initialize the HDD.
2. Refer to the Initialize Hard Disk Procedure in Section 6.
3. Replace the HDD.
4. Replace the ESS PWB (PL 11.5).

## 116-357 RAP

BSD-ON:3.7 PWB ESS BSD

PostScript fatal system error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-358 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to the salutation. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-359 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error in PLW. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-360 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to SMB. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-361 RAP

BSD-ON:3.7 PWB ESS BSD

SPL HDD fatal error. SpoolCont detected an error during HDD access.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Enter DC355 Hard Disk Diag Program and initialize HDD.
2. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
4. Replace the HDD.
5. Replace the ESS PWB (PL 11.5).

## 116-362 RAP

BSD-ON:3.7 PWB ESS BSD

SSDP software failure. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
  - d. Replace the ESS PWB (PL 11.5).

## 116-363 RAP

BSD-ON:3.7 PWB ESS BSD

BMLinkS or print service software failure. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-364 RAP

BSD-ON:3.7 PWB ESS BSD

A timer error was detected.

### Procedure

Replace the ESS PWB (PL 11.5)

## 116-365 RAP

BSD-ON:3.7 PWB ESS BSD

SPL fatal error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-366 RAP

BSD-ON:3.7 PWB ESS BSD

Report generator incorrect operation. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).



## 116-367 RAP

BSD-ON:3.7 PWB ESS BSD

Parallel fatal error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-368 RAP

BSD-ON:3.7 PWB ESS BSD

DumpPrint fatal error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-370 RAP

BSD-ON:3.7 PWB ESS BSD

XJCL fatal error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-371 RAP

BSD-ON:3.7 PWB ESS BSD

PCL Decomposer Software Failure. PCL fatal error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-373 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to Dynamic DNS. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-374 RAP

BSD-ON:3.7 PWB ESS BSD

AutoSW fatal error. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-376 RAP

BSD-ON:3.7 PWB ESS BSD

Port 9100 Software Fail

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-378 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to MCR. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-379 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to MCC. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Replace the ESS PWB (PL 11.5).

## 116-380 RAP

BSD-ON:3.7 PWB ESS BSD

An error was detected while checking ESS font ROM DIMM #1.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-381 RAP

BSD-ON:3.7 PWB ESS BSD

It was detected that the ABL didn't agree with the ABL version information in NVM, or the data was corrupted.

### Procedure

**NOTE:** Before performing the following step, obtain the consent of the user. The entire address info will be cleared by this action.

1. Clear the Controller NVMs.

## 116-382 RAP

BSD-ON:3.7 PWB ESS BSD

An ABL access to NVM or HDD failed.

### Procedure

1. Set Diagnostic Code 790-664 to 0.
2. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.
3. If the problem still persists, replace NVM PWB before replacing the HDD.

## 116-385 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to the IDC. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Extract and re-insert the standard ROM.
2. Extract and re-insert Expansion Font ROM ( J333).
3. If the problem still persists, replace the standard ROM before replacing the Expansion Font ROM

## 116-388 RAP

BSD-ON:3.7 PWB ESS BSD

It was detected that no HD is installed, although this is a configuration (there is a FAX) that requires an HD.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Refer to the Initialize Hard Disk Procedure in Section 6.
  - d. Replace the ESS PWB (PL 11.5).

## 116-389 RAP

BSD-ON:3.7 PWB ESS BSD

The system detected that no additional RAM was installed though the system configuration (with HDD, etc.) required the installation of an additional RAM.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check DC122 Shutdown History to see if the code frequently occurred. If the code frequently occurred, perform the following:
  - a. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
  - b. Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - c. Replace the ESS PWB (PL 11.5).

## 116-390 RAP

BSD-ON:3.7 PWB ESS BSD

A version mismatch was detected between the standard ROM and NVM.

### Procedure

Enter Diagnostic Code dC301 and initialize the NVM or use the correct version of the Standard ROM.



## 116-391 RAP

BSD-ON:3.7 PWB ESS BSD

Incorrect specification of the country code, territory code, or paper size group.

### Procedure

1. Enter Diagnostics and set up the correct country code/territory code/paper size group.  
700-165=Country Code;  
700-337=Product Info;  
700-338=Territory Code;  
700-402=Paper Size Group  
700-165 -> 392 / 700-337 -> 13 / 700-338 -> 1 / 700-402 -> 1
2. After setting up the correct values, initialize the NVM. (Otherwise, the incorrect country, territory and paper size will remain unchanged.)

## 116-395 RAP

BSD-ON:3.7 PWB ESS BSD

Fatal error related to the USB. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the ESS PWB (PL 11.5).

## 116-701 RAP

BSD-ON:3.7 PWB ESS BSD

Duplex printing is not possible due to insufficient memory.

### Procedure

Add memory. If the machine has no HDD, install the HDD.

## 116-702 RAP

BSD-ON:3.7 PWB ESS BSD

Printing occurred with a substitute font.

### Procedure

Install an appropriate Font ROM.

## 116-703 RAP

BSD-ON:3.7 PWB ESS BSD

There was a problem with the PostScript data so that an error occurred during PostScript grammar interpretation or language interpretation.

### Procedure

1. Switch the power off, then on. If the problem still exists, perform the following:
  - Reinstall the latest version of the ESS Firmware (GP 2).
  - Extract and re-insert NVM RAM ( J334), System Memory 1 ( J330), System Memory 2 ( J331), Page Memory PM1 ( J337) and Page Memory PM2 ( J338), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
  - Check the print data or Click 'Spool Setting' under the printer driver 'Detailed Settings' tab and set Interactive Communication to OFF.

## 116-704 RAP

MediaReader No Insert (No Job)

### Procedure

Check that the Media is inserted.

## 116-705 RAP

MediaReader Format Error (No Job)

### Procedure

Check the contents in the Media from the PC. Check the file format/directory and selected mode (Digital Camera Print/Document Print).

## 116-706 RAP

MediaReader: File Attribute Read Error (No Job)

### Procedure

Check the contents in the Media from the PC. Check whether the printed file attribute information is displayed in the PC.

## 116-707 RAP

MediaReader: Image File Read Error (No Job)

### Procedure

Check the contents in the Media from the PC. Check whether the print file images are displayed in the PC.

## 116-708 RAP

MediaReader: File Attribute Read Error (In Job)

### Procedure

Check the contents in the Media from the PC. Check whether the printed file attribute information is displayed in the PC.

## 116-709 RAP

MediaReader: Image File Read Error (Occurs during job)

### Procedure

Check the contents in the Media from the PC. Check whether the print file images are displayed in the PC.

## 116-710 RAP

**BSD-ON:3.7 PWB ESS BSD**

It is possible that the size of the original was not correctly determined because the incoming data exceeded the HP-GL/2 (option) spool size.

### Procedure

Increase the HP-GL spool size. Or, install the HDD.

## 116-711 RAP

The size and direction of the specified ART EX form do not agree with that of the paper to be printed.

### Procedure

Select paper that has the same size and orientation as the registered form.

## 116-712 RAP

**BSD-ON:3.7 PWB ESS BSD**

The PLW form/logo data cannot be registered due to insufficient RAM or HD space.

### Procedure

After checking the registered forms/logos using the Operation Panel utility, delete the unnecessary forms/logos. Or, increase the allocated capacity of the RAM disk.

## 116-713 RAP

BSD-ON:3.7 PWB ESS BSD

The job was divided because the HDD was full.

### Procedure

1. Delete the stored documents and clear HDD Full.
2. If the problem persists, split the job so that HDD Full does not occur.
3. Refer to the [Initialize Hard Disk](#) Procedure in Section 6.

## 116-714 RAP

An HP-GL/2 (option) command error occurred.

### Procedure

Correct or remove the data in the print data that causes the error.



## 116-715 RAP

The form could not be registered because the ART EX form registration upper limit was reached.

### Procedure

After checking the registered forms using the Operation Panel utility, delete the unnecessary forms/logos. Or, delete the unnecessary forms with Print Command.

## 116-716 RAP

MediaReader File Does Not Exist

### Procedure

Check the contents in the Media from the PC. Check the file format/directory and selected mode (Digital Camera Print/Document Print).

## 116-717 RAP

MediaLib: Not Execute of New Request

### Procedure

Check the contents in the Media from the PC. It is not necessary to check the file format/directory in the Media (as this error does not occur when the previous job is complete).

## 116-718 RAP

The specified ART EX form has not been registered.

### Procedure

Use one of the registered forms, or register the necessary one.

## 116-720 RAP

BSD-ON:3.7 PWB ESS BSD

PCL Memory Low, Page Simplified

### Procedure

Disable unnecessary ports, or increase buffer memory sizes, or add Page Memory.

## 116-737 RAP

User defined data (foreign alphabet, pattern, etc.) could not be registered because there was insufficient ART IV user definition memory.

### Procedure

Remove unnecessary data, or increase ART IV user-defined memory space.

## 116-738 RAP

Synthesis was not possible because the specified ART IV form size and direction were different from the paper size and direction.

### Procedure

Select paper that has the same size and orientation as the registered form.

## 116-739 RAP

**BSD-ON:3.7 PWB ESS BSD**

It was not possible to register the form or logo data because there was insufficient ART IV memory or HDD capacity.

### Procedure

After checking the registered forms/logos using the Operation Panel utility, delete the unnecessary forms/logos. Or, increase the allocated capacity of the RAM disk.

## 116-740 RAP

An arithmetic error occurred because the print data exceeded the printer limit.

### Procedure

1. The print data includes data that exceeds the value to which the printer limits it. Remove this data.
2. Upgrade the driver.

## 116-741 RAP

No more forms can be registered because the number of ART IV Forms registered has reached the upper limit.

### Procedure

After checking the registered forms using the Operation Panel utility, delete the unnecessary forms/logos. Or, delete the unnecessary forms with Print Command.

## 116-742 RAP

No more logo data can be registered because the number of ART IV log data registered has reached the upper limit.

### Procedure

Check logos registered at the Operation Panel Utility and then remove unnecessary ones. Or remove unnecessary logos by print command.

## 116-743 RAP

**BSD-ON:3.7 PWB ESS BSD**

The form or logo data could not be registered due to insufficient ART IV memory.

### Procedure

Increase memory space, or install the HDD.

## 116-745 RAP

BSD-ON:3.7 PWB ESS BSD

An ART IV command error occurred. During Decompose, the Decomposer checks for syntax error and values that exceed their respective limit values.

### Procedure

1. Upgrade the driver.
2. Upgrade the ESS software to the latest version.

## 116-746 RAP

The specified form has not been registered.

### Procedure

Use one of the registered forms, or registered the necessary one.

## **116-747 RAP**

The paper margin value is too large for the HP-GL/2 (option) effective coordinate area.

### **Procedure**

Reduce paper margins and instruct the machine to reprint.

## **116-748 RAP**

The HP-GL/2 (option) print data does not contain any image data.

### **Procedure**

Check the print data.



## 116-749 RAP

The specified PostScript font is not in ROM or HDD.

### Procedure

Add the font or on the UI, instruct the machine to replace another font with the desired one.

## 116-771 RAP

Invalid JBIG Parameter DL Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-772 RAP

Invalid JBIG Parameter D Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-773 RAP

Invalid JBIG Parameter P Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-774 RAP

Invalid JBIG Parameter YD Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-775 RAP

Invalid JBIG Parameter LO Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-776 RAP

Invalid JBIG Parameter MX Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-777 RAP

Invalid JBIG Parameter MY Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-778 RAP

Invalid JBIG Parameter VLENGTH Fixed. A problem with the parameters included in the data was automatically corrected.

### Procedure

The printed image could be defective. Ask the sender to check the image or to resend it.

## 116-780 RAP

There was a problem with the document attached to the received mail.

### Procedure

Check the attached doc.

## 116-790 RAP

Stapling was cancelled.

### Procedure

No corrective action is required because the user cancelled the operation.

## 123-200 RAP

BSD-ON:CH3.7

The data received from ESS exceeded the buffer size of the storage destination within the control panel.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-201 RAP

BSD-ON:CH3.7

Data that was intended to be received from the control panel exceeded the buffer size of the storage destination within the control panel.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-202 RAP

BSD-ON:CH3.7

Events occurred that exceeded the processing capability for requests generated within the control panel.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-203 RAP

BSD-ON:CH3.7

UI Debug code

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).



## 123-204 RAP

BSD-ON:CH3.7

SIO Parameter Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-205 RAP

BSD-ON:CH3.7

SIO Command Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-206 RAP

BSD-ON:CH3.7

SIO Status Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-207 RAP

BSD-ON:CH3.7

Comm Manager Target Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-208 RAP

BSD-ON:CH3.7

Comm Manager Command Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-209 RAP

BSD-ON:CH3.7

EVM Returns Wrong Value (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-310 RAP

BSD-ON:CH3.7

Send Queue Full (UI-Control panel). The upper bound for the ability to send data from the control panel to ESS was exceeded.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-311 RAP

BSD-ON:CH3.7

Receive Queue Full (UI-Control panel). The data received from ESS exceeded the upper boundary of the processing ability within the control panel.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-312 RAP

BSD-ON:CH3.7

EVM Uses Wrong API (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-313 RAP

BSD-ON:CH3.7

AS Uses Wrong API (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-314 RAP

BSD-ON:CH3.7

Event-Waiting Timer Timeout (UI-Control panel). There was no notification of a reply message from ESS within the specified time.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-315 RAP

BSD-ON:CH3.7

CTS Internal Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-316 RAP

BSD-ON:CH3.7

Send Request Queue Full SIO (UI-Control panel). The upper boundary for the ability to send data from the control panel to ESS was exceeded.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-317 RAP

BSD-ON:CH3.7

Receive Message Queue Full (UI-Control panel). The data received from ESS exceeded the upper boundary of the processing ability within the control panel.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-318 RAP

BSD-ON:CH3.7

Receive Finish Queue Full (UI-Control panel). The data received from ESS exceeded the upper boundary of the processing ability within the control panel.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-319 RAP

BSD-ON:CH3.7

Send Failure with No ACK (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).



## 123-320 RAP

BSD-ON:CH3.7

Polling Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-321 RAP

BSD-ON:CH3.7

Send Message Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-322 RAP

BSD-ON:CH3.7

Target Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-323 RAP

BSD-ON:CH3.7

Address Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-324 RAP

BSD-ON:CH3.7

Size Failure (UI-Control panel). Serial communication error.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-325 RAP

BSD-ON:CH3.7

Object Creation Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-326 RAP

BSD-ON:CH3.7

Memory Overflow (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-327 RAP

BSD-ON:CH3.7

Button Overflow (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-328 RAP

BSD-ON:CH3.7

UI Internal Failure with Out of Area. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-329 RAP

BSD-ON:CH3.7

UI Internal Failure with Invalid Coordinates. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-330 RAP

BSD-ON:CH3.7

Interface Failure with Invalid Parameter LCD. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-331 RAP

BSD-ON:CH3.7

UI Internal Failure with Invalid LED Request. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-332 RAP

BSD-ON:CH3.7

I/F Failure (Invalid Parameter CP). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-333 RAP

BSD-ON:CH3.7

I/F Failure (No Communication). H/W connection failure within the UI Interface PWB, or an internal connection could not be corrected detected.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-334 RAP

BSD-ON:CH3.7

I/F Failure (Receiving Error Key Code). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-335 RAP

BSD-ON:CH3.7

I/F Failure (Receiving Invalid Coordinates). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).



## 123-336 RAP

BSD-ON:CH3.7

I/F Failure (DM-ACD Drv. I/F). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-337 RAP

BSD-ON:CH3.7

Frame Data Error with Invalid Data Type. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-338 RAP

BSD-ON:CH3.7

Frame Data Error Offset Address Out. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-339 RAP

BSD-ON:CH3.7

Display Request Code Invalid. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-340 RAP

BSD-ON:CH3.7

Interface Failure GUAM-DM I/F. UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-341 RAP

BSD-ON:CH3.7

Event Queue Full (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-342 RAP

BSD-ON:CH3.7

Event Queue Empty (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-343 RAP

BSD-ON:CH3.7

Invalid Class (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-344 RAP

BSD-ON:CH3.7

Invalid Type (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-345 RAP

BSD-ON:CH3.7

Timer Queue Full (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-346 RAP

BSD-ON:CH3.7

Invalid Timer Number (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-347 RAP

BSD-ON:CH3.7

Undefined Trap (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-348 RAP

BSD-ON:CH3.7

Command Access Exception (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-349 RAP

BSD-ON:CH3.7

Invalid Command (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-350 RAP

BSD-ON:CH3.7

Privilege Command (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-351 RAP

BSD-ON:CH3.7

No FPU Exception (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).



## 123-352 RAP

BSD-ON:CH3.7

Address Mis-align (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-353 RAP

BSD-ON:CH3.7

Data Access Exception (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-354 RAP

BSD-ON:CH3.7

Tag Overflow (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-355 RAP

BSD-ON:CH3.7

No Co Processor Exception (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-356 RAP

BSD-ON:CH3.7

Short of Area (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-357 RAP

BSD-ON:CH3.7

Cancel Wait Status (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-358 RAP

BSD-ON:CH3.7

Timeout (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-359 RAP

BSD-ON:CH3.7

Queue Overflow (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-360 RAP

BSD-ON:CH3.7

Context Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-361 RAP

BSD-ON:CH3.7

Object Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-362 RAP

BSD-ON:CH3.7

No Object (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-363 RAP

BSD-ON:CH3.7

Invalid ID (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-364 RAP

BSD-ON:CH3.7

Parameter Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-365 RAP

BSD-ON:CH3.7

Reserve Attribute (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-366 RAP

BSD-ON:CH3.7

Reserve Function Code (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-367 RAP

BSD-ON:CH3.7

Unsupported Function (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).



## 123-368 RAP

BSD-ON:CH3.7

Short of UI Memory (UI-Control panel). There is insufficient memory or a connection problem.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-369 RAP

BSD-ON:CH3.7

Invalid Interface Value (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-370 RAP

BSD-ON:CH3.7

Interface Length Failure (UI-Control panel). There was a mistake in a parameter received from ESS.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-371 RAP

BSD-ON:CH3.7

Interface Parameter Failure (UI-Control panel). There was a mistake in a parameter received from ESS.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-372 RAP

BSD-ON:CH3.7

Interface Sequence Failure (UI-Control panel). There was no notification of an initialization command from ESS within the specified time.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-373 RAP

BSD-ON:CH3.7

Channel Failure (UI-Control panel). There was a mistake in a cancel received from ESS.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-374 RAP

BSD-ON:CH3.7

Invalid User Job ID (UI-Control panel). There was an error in a job ID parameter received from ESS.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-375 RAP

BSD-ON:CH3.7

Internal Resource Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-376 RAP

BSD-ON:CH3.7

Internal Memory Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-377 RAP

BSD-ON:CH3.7

UI Timer Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-378 RAP

BSD-ON:CH3.7

Interface Format Failure (UI-Control panel). There was an error in a data format received from ESS.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-379 RAP

BSD-ON:CH3.7

Dispatch Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-380 RAP

BSD-ON:CH3.7

Copy Interface Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-382 RAP

BSD-ON:CH3.7

Scanner Interface Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-383 RAP

BSD-ON:CH3.7

Report Interface Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-384 RAP

BSD-ON:CH3.7

Server Access Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).



## 123-385 RAP

BSD-ON:CH3.7

Service Object Overflow (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-386 RAP

BSD-ON:CH3.7

Invalid Service Object (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-387 RAP

BSD-ON:CH3.7

Invalid Service Object Attribute (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-388 RAP

BSD-ON:CH3.7

Attribute Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-389 RAP

BSD-ON:CH3.7

Argument Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-390 RAP

BSD-ON:CH3.7

Job Parameter Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-391 RAP

BSD-ON:CH3.7

Job Actual Parameter Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-392 RAP

BSD-ON:CH3.7

Auditron Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest (GP 2) version and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-393 RAP

BSD-ON:CH3.7

EP Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-394 RAP

BSD-ON:CH3.7

File Access Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-395 RAP

BSD-ON:CH3.7

NVM Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-396 RAP

BSD-ON:CH3.7

FF Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-397 RAP

BSD-ON:CH3.7

MGR Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-398 RAP

BSD-ON:CH3.7

Delay Release Queue Full (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-399 RAP

BSD-ON:CH3.7

Internal Failure (UI-Control panel). UI software error within the ESS PWB.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).

## 123-400 RAP

BSD-ON:CH3.7

Internal Failure (UI-Control panel). Insufficient registration, internal error, or an IF sequence or parameter outside the specification was input to the converter.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Replace the UI Interface PWB (PL 11.5) before replacing the ESS PWB (PL 11.5).



## 124-310 RAP

DC132 11 - The product number was not specified.

### Procedure

Switch the power off, then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the ESS PWB ([PL 11.5](#)) before replacing the MCU PWB ([PL 11.1](#)).

## 124-311 RAP

DC132 09 - The serial number registration field failed.

### Procedure

Switch the power off, then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the ESS PWB ([PL 11.5](#)) before replacing the MCU PWB ([PL 11.1](#)).

## 124-312 RAP

DC132 12 - Product numbers did not agree.

### Procedure

Switch the power off then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the MCU PWB ([PL 11.1](#)) before replacing the ESS PWB ([PL 11.5](#)).

## 124-313 RAP

DC132 10 - Serial numbers did not agree.

### Procedure

Switch the power off then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the MCU PWB ([PL 11.1](#)) before replacing the ESS PWB ([PL 11.5](#)).

## 124-314 RAP

DC 132-01 - IOT Speed Failure

### Procedure

Switch the power off, then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the ESS PWB ([PL 11.5](#)) before replacing the MCU PWB ([PL 11.1](#)).

## 124-315 RAP

DC 132-02 - IOT Speed Mismatch

### Procedure

Switch the power off then on. If the problem still exists, perform the following:  
Enter DC131. Check the values at the following Chain Link Codes.

- DC131 [700-600] (IOT):
- DC131 [700-601] (SYS 1):
- DC131 [700-602] (SYS 2):

**The three values are all different.**

Y N

| Perform [GP 4](#)

Replace the MCU PWB ([PL 11.1](#)) before replacing the ESS PWB ([PL 11.5](#)).

**NOTE:** IOT refers to MCU PWB and SYS 1/SYS 2 to ESS PWB.

## 124-316 RAP

DC 132-04 - Product a/f Model Failure

### Procedure

Switch the power off, then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the ESS PWB ([PL 11.5](#)) before replacing the MCU PWB ([PL 11.1](#)).

## 124-317 RAP

DC 132-04 - Product a/f All Product Model Mismatch

### Procedure

Switch the power off then on. If the problem still exists, perform the following:  
Enter DC131. Check the values at the following Chain Link Codes.

- DC131 [700-600] (IOT):
- DC131 [700-601] (SYS 1):
- DC131 [700-602] (SYS 2):

**The three values are all different.**

Y N

| Perform [GP 4](#)

Replace the MCU PWB ([PL 11.1](#)) before replacing the ESS PWB ([PL 11.5](#)).

**NOTE:** IOT refers to MCU PWB and SYS 1/SYS 2 to ESS PWB.

## 124-318 RAP

Product Type for S/W Key Failure

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-319 RAP

DC 132-08 - All Product Type For S/W Key Mismatch

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

Enter DC131. Check the values at the following Chain Link Codes.

- DC131 [700-606] (IOT):
- DC131 [700-607] (SYS 1):
- DC131 [700-602] (SYS 2):

**The three values are all different.**

**Y N**

| Perform GP 4.

Replace the MCU PWB (PL 11.1) before replacing the ESS PWB (PL 11.5).

**NOTE:** IOT refers to MCU PWB and SYS 1/SYS 2 to ESS PWB.

## 124-320 RAP

EEP ROM Failure. A EEP ROM write problem occurred on the ESS PWB.

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and reinsert the EEP ROM.
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-321 RAP

Backup SRAM Failure. An NVM ROM write problem occurred on the ESS PWB.

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and reinsert the NVM PWB ( J334).
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-322 RAP

DC 132-05 - Copy/Scan/Print S/W Key by PWE Failure

### Procedure

Switch the power off, then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the ESS PWB ([PL 11.5](#)) before replacing the MCU PWB ([PL 11.1](#)).

## 124-323 RAP

DC 132-06 - Copy/Scan/Print S/W Key 1 Failure

### Procedure

Switch the power off then on. If the problem still exists, perform the following:  
Enter DC131. Check the values at the following Chain Link Codes. Replace any PWB that exhibits a mismatch.

- DC131 [700-603] (IOT):
- DC131 [700-604] (SYS 1):
- DC131 [700-605] (SYS 2):

**NOTE:** IOT refers to MCU PWB ([PL 11.1](#)) and SYS 1/SYS 2 to ESS PWB ([PL 11.5](#)).

## 124-324 RAP

All Billings Mismatch

### Procedure

Switch the power off, then on. If the problem still exists, perform [GP 4](#). If the problem continues, replace the ESS PWB ([PL 11.5](#)) before replacing the MCU PWB ([PL 11.1](#)).

## 124-325 RAP

Billing Restoration Failure. Billing automatic recovery was not possible.

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

Compare the Serial Numbers in [GP 4](#) Billing Data Matching & Serial No. Setup. **The three Numbers are all different.**

Y N

Replace the PWB whose values do not match.

Replace the MCU PWB ([PL 11.1](#)) before replacing the ESS PWB ([PL 11.5](#)).

**NOTE:** IOT refers to MCU PWB ([PL 11.1](#)) and SYS 1/SYS 2 to ESS PWB ([PL 11.5](#)).



## 124-333 RAP

ASIC Failure (Panther). A panther error was detected.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Extract and re-insert NVM RAM ( J334), RAM M1 ( J330), RAM M2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any are installed (the model configuration determines which are installed). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB (PL 11.5).

## 124-334 RAP

Standard Font ROM Error. A problem was detected with the standard installed font ROM.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Extract and re-insert MF ROM ( J332). If the problem still persists, replace the ROM.
3. Extract and re-insert NVM RAM ( J334), RAM M1 ( J330), RAM M2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any are installed (the model configuration determines which are installed). If the problem still persists, replace the appropriate devices.
4. Replace the ESS PWB (PL 11.5).

## 124-335 RAP

Font ROM Not Found. The font ROM could not be detected.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Extract and re-insert MF ROM ( J332). If the problem still persists, replace the ROM.
3. Extract and re-insert NVM RAM ( J334), RAM M1 ( J330), RAM M2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any are installed (the model configuration determines which are installed). If the problem still persists, replace the appropriate devices.
4. Replace the ESS PWB (PL 11.5).

## 124-337 RAP

ESS Standard RAM Error. An error was detected with the ESS installed standard RAM.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Extract and re-insert System Memory 1 ( J330). If the problem still persists, replace the RAM.
3. Extract and re-insert NVM RAM ( J334), RAM M1 ( J330), RAM M2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any are installed (the model configuration determines which are installed). If the problem still persists, replace the appropriate devices.
4. Replace the ESS PWB (PL 11.5).

## 124-338 RAP

Same Font ROMs Found. It was detected that identical font ROM's were installed.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check the standard Font ROM ( [J332](#)) and optional Font ROM ( [J333](#)). Install the appropriate ROM. If the ROM is correct, extract and re-insert it.
2. Replace the ESS PWB ([PL 11.5](#)).

## 124-339 RAP

ROM DIMM of another product found. It was detected that a different type of font ROM was installed.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Check the standard Font ROM ( [J332](#)) and optional Font ROM ( [J333](#)). Install the appropriate ROM. If the ROM is correct, extract and re-insert it.
2. Replace the ESS PWB ([PL 11.5](#)).

## 124-340 RAP

The three CRUM market destination values are not set up (0 or different).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-341 RAP

One CRUM market destination value is different (IOT).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-342 RAP

One CRUM market destination value is different (SYS 1).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the EEP ROM on the Controller Board. If problem still exists, replace the Controller Board.
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-343 RAP

One CRUM market destination value is different (SYS 2).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the NVM PWB on the Controller Board. If problem still exists, replace the Controller Board
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-350 RAP

The three CRUM OEM destination values are not set up (0 or different).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-351 RAP

One CRUM OEM destination value is different (IOT).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-352 RAP

One CRUM OEM destination value is different (SYS 1).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the EEP ROM on the Controller Board. If problem still exists, replace the Controller Board.
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-353 RAP

One CRUM OEM destination value is different (SYS 2).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the NVM PWB on the Controller Board. If problem still exists, replace the Controller Board
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-360 RAP

CRUM Valid/Invalid is not set up at the three locations (0 or different values).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-361 RAP

CRUM Validation Failure MCU. CRUM valid/invalid data was different (IOT).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).



## 124-362 RAP

CRUM Validation Failure SYS 1. CRUM valid/invalid data was different (SYS 1).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the EEPROM on the Controller Board. If problem still exists, replace the Controller Board.
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-363 RAP

CRUM Validation Failure SYS 2. CRUM valid/invalid data was different (SYS 2).

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the NVM PWB on the Controller Board. If problem still exists, replace the Controller Board
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-372 RAP

IOT sc Soft Failure. IOT controller software problem. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Check all the connectors on the IOT PWB and the ESS PWB for being properly installed.
3. Extract and re-insert NVM RAM ( J334), RAM M1 ( J330), RAM M2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any are installed (the model configuration determines which are installed). If the problem still persists, replace the appropriate devices.
4. Replace the IOT PWB (PL 11.1).
5. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-373 RAP

IOT Manager SW Failure. IOT manager software failure.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Check all the connectors on the IOT PWB and the ESS PWB for being properly installed.
3. Extract and re-insert NVM RAM ( J334), RAM M1 ( J330), RAM M2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any are installed (the model configuration determines which are installed). If the problem still persists, replace the appropriate devices.
4. Replace the IOT PWB (PL 11.1).
5. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-374 RAP

IOT IM Device Driver SW Failure. IOT IM Device Driver software failure.

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version (GP 2) and check to see if the same problem is repeated.
2. Check all the connectors on the IOT PWB and the ESS PWB for being properly installed.
3. Extract and re-insert NVM RAM ( J334), RAM M1 ( J330), RAM M2 ( J331), Page Memory PM1 ( J337) or Page Memory PM2 ( J338), if any are installed (the model configuration determines which are installed). If the problem still persists, replace the appropriate devices.
4. Replace the IOT PWB (PL 11.1).
5. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-380 RAP

CRUM Market fail ALL (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-381 RAP

CRUM Market fail MCU (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-382 RAP

CRUM Market fail SYS 1 (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the EEPROM on the Controller Board. If problem still exists, replace the Controller Board.
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-383 RAP

CRUM Market fail SYS 2 (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the NVM PWB on the Controller Board. If problem still exists, replace the Controller Board
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-390 RAP

CRUM OEM fail ALL (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-391 RAP

CRUM OEM fail MCU (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-392 RAP

CRUM OEM fail SYS 1 (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the EEPROM on the Controller Board. If problem still exists, replace the Controller Board.
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-393 RAP

CRUM OEM fail SYS 2 (2)

### Procedure

Switch the power off then on. If the problem still exists, perform the following:

1. Pull out and insert the NVM PWB on the Controller Board. If problem still exists, replace the Controller Board
2. Replace the ESS PWB (PL 11.5) before replacing the MCU PWB (PL 11.1).

## 124-701 RAP

Side Tray to Center Tray. The exit destination was changed to the center tray because there was a problem with the specified exit tray (side tray).

### Procedure

Repair the Side Tray using the proper RAP.

## **124-704 RAP**

The output tray was changed from the Folder Tray to the Center Tray and printing continued.

### **Procedure**

Repair the Folder Tray using the proper RAP.

## **124-705 RAP**

Punching Cancelled. A punch specification was deleted.

### **Procedure**

Repair the Punch using the proper RAP.



## 124-706 RAP

Folding Cancelled. A folding specification was deleted.

### Procedure

Repair the Folder Tray using the proper RAP.

## 124-708 RAP

The output tray has been changed to the Sub Tray because a failure was detected in the specified output tray.

### Procedure

Repair the specified Output Tray using the proper RAP.

## 124-709 RAP

Stapler Sheet Count is too high.

### Procedure

The No. of Stapler Sheets exceeded was detected, but printing continued.

## 125-311 RAP

PSWcont Unexpected Failure. A problem occurred during ESS software (PST cont) processing, and processing could no longer continue.

### Initial Actions

### Procedure

Turn the power OFF then ON. If the problem persists, perform the following procedure to repair it.

- Check that the latest version of software is installed (GP 2).
- Check connections on the ESS PWB.
- Check the wiring to the ESS PWB.
- If the above checks are OK, replace the ESS PWB (PL 11.5).



## 127-210 RAP

DFE Communication Failure

### Procedure

- Pull out and insert the DFE connection cable.
- Turn the power OFF then ON.

## 127-211 RAP

DFE Parameter Error

### Procedure

- Pull out and insert the DFE connection cable.
- Turn the power OFF then ON.

## 127-212 RAP

ExtPrint Check Mode Error

### Procedure

- Pull out and insert the command/video cables between the DFE and M/C.
- Turn the power OFF then ON.

## 127-213 RAP

External Print IF Mismatch

### Procedure

- Match the software versions of DFE and ESS.  
Reload Software Download ([GP 2](#)).

## 127-220 RAP

Communication Error (video) detected by the DFE.

### Procedure

This Fault Code may occur in the following situation:

- When the Controller can detect commands but cannot detect input video, data, or clock.

To recover, check cable connections.

## 127-221 RAP

Communication Error (Command) detected by the DFE.

### Procedure

Resubmit the job, check cable connections.

## 127-310 RAP

ESR Task Fatal Error. An ESR task caused a fatal error.

### Procedure

This Fault Code may occur in the following situation:

- When the Controller can detect commands but cannot detect input video, data, or clock.

To recover, check cable connections.

## 127-311 RAP

ExtPRT

### Procedure

This Fault Code may occur in the following situation:

- When the Controller can detect commands but cannot detect input video, data, or clock.

To recover, check cable connections.



## 127-320 RAP

DFE Critical Failure

### Procedure

Take the corrective actions based on the Fault Code displayed in the DFE monitor, then reboot the system.

If the problem persists, perform the following procedures.

1. Check the connection to the DFE.
2. Check the device settings.
3. Check the DFE HW.
4. Check the device HW.

## 127-337 RAP

Job Template HDD Write Error. Internal polling file access error, or a write error to a local HDD in a job template (other than full).

### Procedure

Turn the power OFF then ON. If the problem persists, perform the following procedures in sequence to repair it.

[dC355 Hard Disk Diagnostics/Setup](#)

[GP 2 Software Download](#)

Replace the ESS PWB ([PL 11.5](#)).

## 127-342 RAP

Job Template Monitor Failure. Error return from a system call, etc.

### Procedure

Turn the power OFF then ON. If the problem persists, perform the following procedures in sequence to repair it.

Check the connectors and wiring on the ESS PWB.

[GP 2 Software Download](#)

Replace the ESS PWB ([PL 11.5](#)).

## 127-353 RAP

LPD Soft Fatal Error. Fatal error related to LPD. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Check the Network connections

## 127-354 RAP

FTP Server Software Failure. FTP server fatal error.

### Procedure

Check the Network connections

## 127-396 RAP

Mail I/O Soft Fatal error. Fatal error related to mail IO. A problem occurred during software processing, and processing could no longer continue.

### Procedure

Check the Network connections

## **127-398 RAP**

IPP Soft Fatal Error. Fatal error related to IPP. A problem occurred during software processing, and processing could no longer continue.

### **Procedure**

Check the Network connections

## **127-399 RAP**

JME Soft Fatal Error. Fatal error related to JME. A problem occurred during software processing, and processing could no longer continue.

### **Procedure**

Check the Network connections

## 202-399 RAP

Timer Internal Fail

### Procedure

Switch the power off, then on. If the problem still exists, perform the following:

1. Upgrade ESS Firmware to the latest version ([GP 2](#)) and check to see if the same problem is repeated.
2. Extract and re-insert NVM RAM ( [J334](#)), System Memory 1 ( [J330](#)), System Memory 2 ( [J331](#)), Page Memory PM1 ( [J337](#)) and Page Memory PM2 ( [J338](#)), if any of them installed (which of them are installed depends on the model configuration). If the problem still persists, replace the appropriate devices.
3. Replace the ESS PWB ([PL 11.5](#)).



## 500-030 RAP

Timer Internal Failure. The following occurs (However, this includes the cases that may not occur when DC612 starts):

- DC900G:
  - Fuser: Shifted to Warming Up and Sagging occurred.
  - The CC Cleaner Position was moved from the Home Position.
  - Fuser Relay State: Shifted to Not Ready.
  - Drum Cycle State: Shifted to Cleaning Request.
  - CC Wire Warning: Occurred.
  - Drum Crum State: Unknown.

### Procedure

Return from the Wait state and repeat.

## 500-990 RAP

Printing could not start due to unknown reason in Diagnostic Code DC612 Test Pattern Print, or it was aborted. (Only end response)

- This occurs during Diagnostic execution only, and the Fault Code is displayed on the PC-Diagnostics and Panel.

### Procedure

Return from the Wait state and repeat.





## OF 1.1 Power On RAP

BSD-ON: CH1.1, CH2.2

This RAP is used for power up and initializing problems. The Control Panel may be dead or illuminated, but the copier will not initialize properly or not initialize at all.

### Procedure

#### WARNING

**High Voltage. Use extreme caution when working near the AC Module. Do not disconnect any plugs or wires while the Power Cord is plugged into the wall outlet and the Main Power Switch is switched on.**

**The machine is completely dead (No Console, no LEDs lit, and no sound at power up).**

Y N

- Go to [OF 2.1 IOT DC Power \(+3.3VDC, +5 VDC, and +12 VDC\) RAP](#).
- For Controller Power On problems go to BSD 1.1 and check [P/J14](#) for ACH. If OK, go to the Controller Service Manual.
- For PWS outlet problems, go to BSD 1.1 and check [P/J13A](#) for ACH.
- For Finisher power problems, go to BSD 1.1 and check CN3 for ACH.

Go to [OF 1.2 AC Power RAP](#).

## OF 1.2 AC Power RAP

**BSD-ON: CH1.1, CH2.2**

This RAP is used for problems in the AC circuitry for primary distribution and control. The Control Panel may be illuminated, but the copier will not begin to initialize.

### Initial Actions

- Ensure that the Circuit Breaker is switched on.
- Check that the correct voltage is being applied to the printer from the wall outlet.
- Check that the Reset Switch is not activated. If activated, switch off the Printer and reset the switch. Switch on the Printer, if the Reset Switch activates, go to the [OF 1.3 AC Protect Circuit RAP](#).

### Procedure

#### WARNING

**High Voltage. Use extreme caution when working near the AC Module. Do not disconnect any plugs or wires while the Power Cord is plugged into the wall outlet and the Main Power Switch is switched on.**

Swing out the Chassis Assembly ([REP 3.1](#)) to observe the DC power LEDs on the ESS PWB. (The LEDs can be observed by looking under the JPEG PWB.) **CR3601 (+3.3V, green LED) on the ESS PWB is on.**

**Y N**  
There is ACH Voltage between Pin 6 and Pin 4 of connector J17 on the AC Drive PWB.

**Y N**  
There is ACH Voltage between Pin 1 and Pin 2 of connector CN1 on the AC Drive PWB.

**Y N**  
There is +12 VDC between Pin 4 and Pin 1 of connector J513 on the AC Drive PWB.

**Y N**  
Replace the Reset Switch ([PL 11.3](#)).

Go to the [OF 1.3 AC Protect Circuit RAP](#).

Replace the AC Drive PWB ([PL 11.3](#)).

Check the harness between [P/J515](#) on the AC Drive PWB and [P/J300](#) on the ESS PWB for an open or short circuit. If the harness is okay, replace the ESS PWB ([PL 11.5](#)) before replacing the AC Drive PWB ([PL 11.3](#)).

**CR3604 (+5 V ESS, yellow LED) on the ESS PWB is on.**

**Y N**  
There is ACH Voltage between Pin 4 and Pin 3 of connector J11 on the Main LVPS.

**Y N**  
There is ACH Voltage between Pin 1 and Pin 2 of connector CN2 on the AC Drive PWB.

**Y N**  
Replace the AC Drive PWB ([PL 11.3](#)).

**A B C**  
Go to [BSD 1.1](#) and [BSD 2.2](#) and check for an open wire between the AC Drive PWB and the Main LVPS.

**CR3605 (+12V, orange LED) on the ESS PWB is on.**

**Y N**  
Replace the AC Drive PWB ([PL 11.3](#)).

- Check F4001 ([Figure 1](#)) on the Main LVPS for an open. Replace if necessary. If the fuse blows again, go to [BSD 2.2](#) and [wirenet 7.2.8](#) and check the +5 VDC (ESS) for a short circuit.
- Replace the Main LVPS ([PL 11.3](#)) before replacing the ESS PWB.

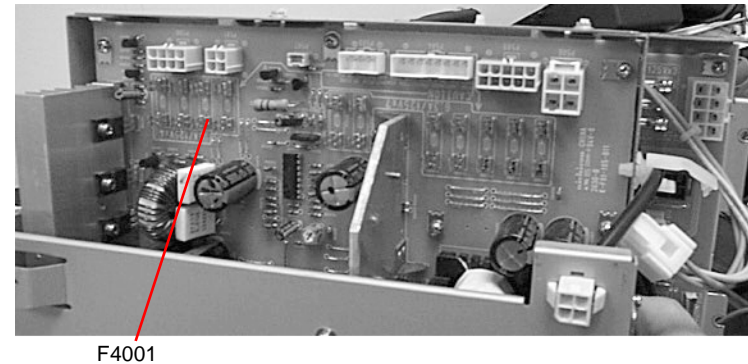


Figure 1 Main LVPS

**There is ACH voltage between Pin 2 and Pin 1 of connector CN3.**

**Y N**  
Replace the AC Drive PWB ([PL 11.3](#)).

**There is ACH voltage between Pin 1 and Pin 3 of connector J13A.**

**Y N**  
Replace the AC Drive PWB ([PL 11.3](#)).

**There is ACH voltage between Pin 7 and Pin 5 of connector J13B.**

**Y N**  
Replace the AC Drive PWB ([PL 11.3](#)).

Check the harnesses between the AC Drive PWB and the Main LVPS for an open or short circuit. If okay, go to the [OF 2.1 DC Power RAP](#).

**A B C**

Status Indicator RAPs

**OF 1.2 AC Power RAP**

05/16/05  
2-594

Launch  
DocuColor 250

## OF 1.3 AC Protect Circuit RAP

This RAP is used to locate and repair ground fault problems in the primary AC power distribution circuitry. You may have been directed to this RAP from another AC Power RAP that traced the loss of AC power to the AC Protect Circuit device.

The Olympia Series Printer is equipped with a AC Protect Circuit device that detects excessive current leakage to ground. If excessive leakage is detected, the device will remove all power to the printer. In addition, there is a varistor connected across the output side of the AC Protect Circuit to suppress electrical noise in order to meet EMI standards. If the Varistor fails in a shorted mode it will cause the AC Protect Circuit to continually activate.

### Procedure

#### WARNING

**High Voltage. Use extreme caution when working near the AC Module. Do not disconnect any plugs or wires while the Power Cord is plugged into the wall outlet and the Main Power Switch is switched on.**

- Check that the correct voltage is being applied to the Printer from the wall outlet.
- Replace the AC Drive PWB (PL 11.3).
- Replace the Reset Switch (PL 11.3).

## OF 2.1 IOT DC Power (+3.3VDC, +5 VDC, and +12 VDC) RAP

### BSD-ON: CH2.2

This RAP is used to locate problems in the IOT +3.3VDC, +5 VDC, and +12 VDC power generation and distribution circuitry.

The LEDs on the ESS PWB and the MCU PWB when lit, indicate that the DC voltages are available. Refer to BSD 2.2 IOT DC Power Generation when performing this procedure.

### Initial Actions

- Check that connectors P/J515, P/J501, P/J503, P/J508, P/J404, P/J300, P/J430, P/J460, P/J461, and P/J400 are fully seated.
- Ensure that ACH and ACN are present at P/J11 pins 4 and 3 on the Main Low Voltage Power Supply. If not, go to 1.1 AC Power RAP.

### Procedure

Switch off the power and remove the JPEG PWB (Part of REP 3.5) to observe the DC power LEDs (Figure 1) on the ESS PWB.

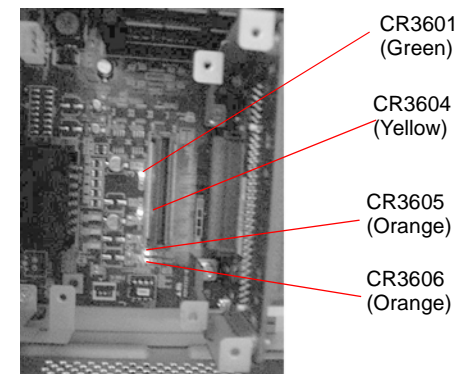


Figure 1 JPEG PWB

Switch on the power and observe the green LED on the ESS PWB. **CR 3601 (+3.3VDC) is lit.**

Y N  
Go to **OF 1.2 AC Power RAP.**

Observe the yellow LED on the ESS PWB. **CR 3604 (+5 VDC) is lit.**

Y N  
Go to **OF 1.2 AC Power RAP.**

Observe the orange LED on the ESS PWB. **CR 3605 (+12VDC) is lit.**

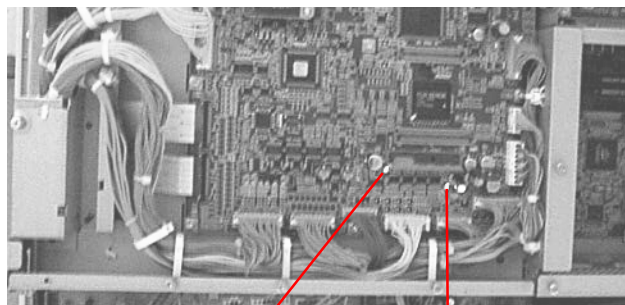
- Y N
- Check F2002 (Figure 3) on the Main LVPS for an open. Replace if necessary. If the fuse blows again, go to BSD 2.2 and wirenet 7.2.26 and check the +12 VDC (ESS) for a short circuit.

A

- Replace the Main LVPS (PL 11.3) before replacing the ESS PWB.

Observe the CR8 (Figure 2) on the MCU PWB. **CR 8 (+5VDC) is lit.**

Y N



CR7 CR8

Figure 2 MCU PWB

Check F5002 (Figure 3) on the Main LVPS for an open. **F5002 is OK.**

Y N

Replace F5002. If F5002 blows again, go to BSD 2.2 and wirenet 7.2.9 and check the +5 VDC (MCU PWB) for a short circuit. If OK, replace the Main LVPS (PL 11.3).

Replace the Main LVPS (PL 11.3).

Connect the meter between P/J508-3 (+) and P/J508-6 (-). **There is +5 VDC present**

Y N

Check F5001 (Figure 3) on the Main LVPS for an open. **F5001 is OK.**

Y N

Replace F5001. If F5001 blows again, go to BSD 2.2 and wirenet 7.2.9 and check the +5 VDC (Tray Module PWB) for a short circuit.

Replace the Main LVPS (PL 11.3).

Observe the CR7 (Figure 2) on the MCU PWB. **CR 7 (+12VDC) is lit.**

Y N

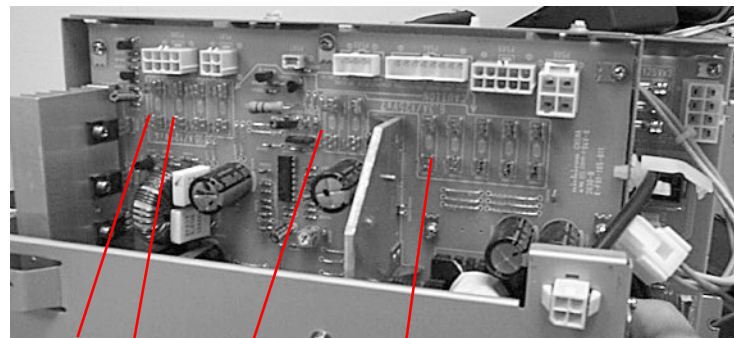
Check F3002 (Figure 3) on the Main LVPS for an open. **F3002 is OK.**

Y N

Replace F3002. If F3002 blows again, go to BSD 2.2 and wirenet 7.2.9 and check the +12 VDC (MCU PWB) for a short circuit. If OK, replace the Main LVPS (PL 11.3).

Replace the Main LVPS (PL 11.3).

B



F5001 F5002 F2002 F3002

Figure 3 Main LVPS

Connect the meter between P/J461-A9 (+) and P/J461-A8 (-) on the Tray Module PWB. **There is +3.3 VDC present**

Y N

Connect the meter between P/J403 A10 (+) and P/J403 A11 (-) on the MCU PWB. **There is +3.3 VDC present**

Y N

Replace the MCU PWB (PL 11.3).

Go to BSD 2.2 and check for an open wire between the +3.3 VDC output of the MCU PWB and the Tray Module PWB.

Connect the meter between P/J430-6 (+) and P/J430-5 (-) on the IOT Drive PWB. **There is +5 VDC present**

Y N

Go to BSD 2.2 and check for an open wire between the +5 VDC output of the MCU PWB and the IOT Drive PWB.

B

C

Connect the negative (-) meter lead to the machine frame and measure the following voltages.

Table 1 Voltage Checks

| PIN (+) | Voltage                   | Tolerance |
|---------|---------------------------|-----------|
| J515-1  | +3.3 VDC to ESS PWB       | +/- 5%    |
| J501-2  | +5 VDC to ESS PWB         | +/- 5%    |
| J508-4  | +5 VDC to MCU and IOT PWB | +/- 5%    |
| J503-3  | +12 VDC to ESS PWB        | +/- 5%    |
| J504-5  | +12 VDC to MCU PWB        | +/- 5%    |

A voltage is out of specification.

Y N

The IOT +3.3, +5, and +12 VDC supplies are OK. For any other problems, go to BSD 2.2 and Wirenets 7.2.5 through 7.2. 27 to check for an open circuit.

Replace the Main LVPS (PL 11.3).

## OF 2.2 IOT DC Power (+24 VDC) RAP

BSD-ON: CH2.3

This RAP is used to locate problems in the IOT +24 VDC power generation and distribution circuitry.

### Initial Actions

- Check that connectors P/J509, P506, P/J430, P/J445, P/J434, P/J678, and P/J400 are fully seated.
- Ensure that ACH and ACN are present at P/J11 pins 4 and 3 on the Main Low Voltage Power Supply. If not, go to 1.1 AC Power RAP.

### Procedure

Connect the meter between P/J509-2 (+) and P/J509-9 (-) on the Main LVPS. **There is +24 VDC present**

Y N

Switch the power off. Disconnect P/J509 from the Main LVPS.

Connect the meter between P506-3 (+) and P506-1 (-) on the Main LVPS and switch on the power. **There is +24 VDC present**

Y N

Go to BSD 2.3 and Wirenet 7.2.34 and check for a short circuit. If OK, replace the Main LVPS.

Go to BSD 2.3 and Wirenet 7.2.28 through Wirenet 7.2. 33 and check for a short circuit.

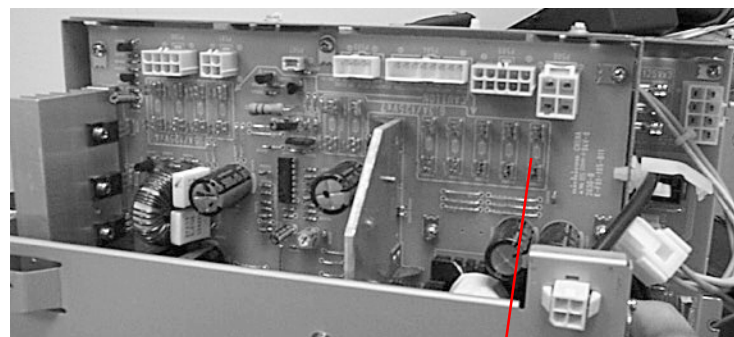
Connect the meter between P/J509-1 (+) and P/J509-10 (-) on the Main LVPS. **There is +24 VDC present**

Y N

Check F6001 on the Main LVPS for an open. **F6001 is OK.**

Y N

Replace F6001 (Figure 1). If F6001 blows again, go to BSD 2.3, wirenet 7.2.28 and wirenet 7.2.29 and check the +24 VDC for a short circuit.



F6001

Figure 1 Main LVPS

**A B**  
Replace the Main LVPS (PL 11.3).

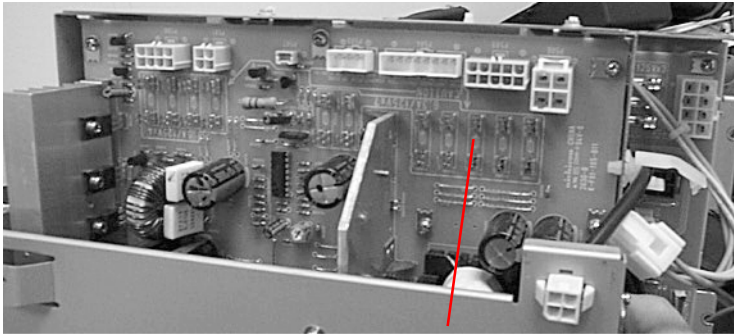
Connect the meter between P506-3 (+) and P506-1 (-) on the Main LVPS. **There is +24 VDC present**

**Y N**  
Replace the Main LVPS (PL 11.3).

Connect the meter between P/J509-5 (+) and P/J509-8 (-) on the Main LVPS. **There is +24 VDC present**

**Y N**  
Check F6003 on the Main LVPS for an open. **F6003 is OK.**

**Y N**  
Replace F6003 (Figure 2). If F6003 blows again, go to BSD 2.3 and BSD 2.5 and check the +24 VDC for a short circuit.



F6003

**Figure 2 Main LVPS**

Replace the Main LVPS (PL 11.3).

Connect the negative (-) meter lead to the machine frame and measure the following voltage.

**Table 1 Voltage Checks**

| PIN (+) | Voltage | Tolerance |
|---------|---------|-----------|
| J509-1  | +24 VDC | +/- 5%    |

**The +24 VDC is out of specification.**

**Y N**  
The IOT +24 VDC supply is OK. For any other problems, go to BSD 2.3 and Wirenets 7.2.28 through 7.2.38 to check for an open circuit.

Replace the Main LVPS (PL 11.3).

## OF 2.3 IIT DC Power RAP

**BSD-ON: CH2.5, CH2.6**

This RAP is used to locate problems in the IIT DC power generation and distribution circuitry.

### Initial Actions

- Check that connectors P/J502, P/J505, P/J622, P/J712, P/J720, P/J714, P/J709, and P732 are fully seated.
- Ensure that ACH and ACN are present at J83 pins 1 and 2 on the IIT +24 V LVPS. If not, go to 1.1 AC Power RAP.

### Procedure

Connect the meter between P/J502-3 (+) and P/J502-5 (-) on the IIT +24V LVPS. **There is +24 VDC present**

**Y N**  
Switch the power off. Disconnect J712.  
Switch on the power. **There is +24 VDC present**

**Y N**  
Go to BSD 2.5 and Wirenet 7.2.45 and check for a short circuit. If OK, replace the Main LVPS.

Connect the meter between P/J505-1 (+) and P/J505-2 (-) on the IIT +24V LVPS. **There is +5 VDC present**

**Y N**  
Go to BSD 2.5 and check for an open between P/J505 and P/J508 (IIT LVPS Enable signal). If OK, replace the Main LVPS (PL 11.3).

Go to BSD 2.5 and Wirenet 7.2.45 and check for a short circuit. If OK, replace the IIT LVPS (PL 11.3).

Connect the meter between P/J720-4 (+) and P/J720-3 (-) on the IIT/IPS PWB. **There is +24 VDC present**

**Y N**  
Go to BSD 2.5 and check for an open wire between the IIT/IPS PWB and the IIT +24V LVPS.

Connect the meter between P/J720-2 (+) and P/J720-1 (-) on the IIT/IPS PWB. **There is +12 VDC present**

**Y N**  
Go to BSD 2.5 and check for an open wire between the IIT/IPS PWB and the Main LVPS.

Connect the meter between P732-3 (+) and P732-4 (-) on the DCPS. **There is +24 VDC present**

**Y N**  
Go to BSD 2.5 and check for an open wire between the DCPS and the Main LVPS.

Connect the meter between P/J737-1 (+) and P/J737-3 (-) on the Extension Memory PWB. **There is +3.3 VDC present**

**Y N**  
 Connect the meter between P/J744-1 (+) and P/J744-3 (-) on the DCPS. **There is +3.3 VDC present**  
**Y N**  
 Replace the DCPS before replacing the Extension Memory PWB.  
 Go to BSD 2.5 and check for an open wire between the Extension Memory PWB and the DCPS.

Connect the meter between P/J714-71 (+) and P/J714-73 (-) on the BDEC PWB. **There is +3.3 VDC present**  
**Y N**  
 Replace the IIT/IPS PWB before replacing the BDEC PWB.

Connect the meter between P/J709-2 (+) and P/J709-1 (-) on the BDEC PWB. **There is +5 VDC present**  
**Y N**  
 Replace the IIT/IPS PWB before replacing the BDEC PWB. If problem still exists, replace the DADF PWB.

Connect the negative (-) meter lead to the machine frame and measure the following voltage.

**Table 1 Voltage Checks**

| PIN (+) | Voltage | Tolerance |
|---------|---------|-----------|
| J502-3  | +24 VDC | +/- 5%    |
| J714-71 | +3.3VDC | +/- 5%    |
| J709-2  | +5 VDC  | +/- 5%    |

**The +24 VDC is out of specification.**

**Y N**  
**The +3.3 or +5 VDC is out of specification.**  
**Y N**  
 The IIT supplies are OK. For any other problems, go to BSD 2.5 and BSD 2.6 to check for an open circuit.  
 Replace the IIT/IPS PWB (PL 13.8)

Replace the IIT +24V LVPS (PL 11.3).

## OF 2.4 DADF DC Power RAP

BSD-ON: CH2.6

This RAP is used to locate problems in the DADF power generation and distribution circuitry.

### Initial Actions

Check that connectors P/J750 and P/J752 are fully seated.

### Procedure

Connect the meter between P/J752-A4 (+) and P/J752-A1 (-) on the DADF PWB. **There is +5 VDC present**

**Y N**  
 Go to BSD 2.6 and check for an open between the DADF PWB and the IIT/IPS PWB. If OK, go to wirenet 7.2.56 and check for a short to ground. If problem still exists, replace the DADF PWB.

Connect the meter between P/J752-A6 (+) and P/J752-A1 (-) on the DADF PWB. **There is +24 VDC present**

**Y N**  
 Go to BSD 2.6 and check for an open wire between the IIT/IPS PWB and the DADF PWB. If OK, go to wirenet 7.2.58 and check for a short to ground.

The DADF DC Power is OK. For any other problems, go to Wirenets 7.2.56 through 7.2. 60 to check for an open circuit.

## OF 3.1 Network Controller Checkout RAP

BSD-ON: [3.7 PWB ESS BSD](#), [5.18 Print Image Input Processing \(1 of 2\) BSD](#), [5.19 Print Image Input Processing \(2 of 2\) BSD](#)

This RAP is used to locate problems with the Network Controller.

### Procedure

Go to [GP 7](#) (Network Printing Simulation) and send a print job. **An acceptable print is produced.**

Y N  
The problem is Image Quality (print mode)

Y N

Verify that the AC power, Scan, and DDI cables are connected correctly.

If the cables are OK, refer to the [EFI Service Documentation](#) to verify the correct operation of the DFE. If the Network Controller appears to be working correctly, check the following in the IOT:

- verify machine settings
- reload system software ([GP 2](#))
- replace the ESS PWB ([PL 11.5](#)), then the VSEL PWB ([PL 11.6](#)).

Refer to the Network Controller service documentation ([EFI Service Documentation](#)) and user documentation for color calibration information.

**There is a scan to file problem.**

Y N

The problem is in the customer network or the setup. Check the following:

- Ensure that the Static IP/DHCP setting matches the customer's network
- Verify that the IOT IP address is correct; for DC 3535, ensure that the Network Controller IP information is correct.
- For DC 3535: "Ping" the Network Controller from a Client to verify connectivity

Go to [BSD 3.7](#) and check the cable connection from [J340](#) on the ESS PWB to the Network Controller.

## OF 8.1 Paper Feed Checkout RAP

This Procedure is used to isolate the cause of Paper Feed problems for which no faults are declared such as wrinkled paper, dog ears, etc.

### Initial Actions

- Check for bent or damaged baffles and guides in the paper feed area.
- Check for loose, missing or stretched springs in the paper feed area.
- Ensure that the paper presently being used is fresh 20 lb. Xerox 4024 Multipurpose paper or paper which is included in the customer's Materials Usage Guide and Recommended Paper List.
- If the problem occurs only when making 2-sided copies with high solid area density images on both sides, it may be necessary to make single-sided copies to minimize or eliminate the problem.
- If the problem occurs only when using plain or coated light-weight paper, it is recommended that a heavier weight paper be used to minimize the problem.

### Procedure

**The problem occurs from all trays.**

Y N

For Tray 1, check the following parts for wear, slipping, damage, or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Feed/Nudger/Retard Roll Assembly [PL 2.7](#)
- Retard Roll [PL 2.7](#)
- Friction Clutch [PL 2.7](#)
- Feed Clutch [PL 2.7](#)
- Feed in Chute [PL 2.7](#)

For Tray 2, check the following parts for wear, slipping, damage, or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Feed/Nudger/Retard Roll Assembly [PL 2.9](#)
- Retard Roll [PL 2.9](#)
- Friction Clutch [PL 2.9](#)
- Feed Clutch [PL 2.9](#)
- Feed in Chute [PL 2.9](#)

For Tray 3, check the following parts for wear, slipping, damage, or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Feed/Nudger/Retard Roll Assembly [PL 2.11](#)
- Retard Roll [PL 2.11](#)
- Friction Clutch [PL 2.11](#)
- Feed Clutch [PL 2.11](#)
- Feed in Chute [PL 2.11](#)

For Tray 4, check the following parts for wear, slipping, damage, or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Feed/Nudger/Retard Roll Assembly [PL 2.13](#)
- Retard Roll [PL 2.13](#)



A

- Friction Clutch [PL 2.13](#)
- Feed Clutch [PL 2.13](#)
- Feed in Chute [PL 2.13](#)

For Tray 5, check the following parts for wear, slipping, damage, or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Roll Assembly [PL 2.16](#)
- Pinch Roll [PL 2.16](#)
- Chute [PL 2.16](#)

For Tray 6 (HCF), check the following parts for wear, slipping, damage or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Feed Roll [PL 18.5](#)
- Retard Roll [PL 18.6](#)
- Nudger Roll [PL 18.5](#)

- Exit Pinch Roller 2 [PL 21.9](#)

**The defect is present only when the Finisher is selected.**

**Y N**

Check the following parts for wear, slipping, damage or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Takeaway Rolls [PL 2.18](#)
- Chute Assembly [PL 2.18](#)
- Pinch Roll [PL 2.19](#)
- Left Chute Cover [PL 2.19](#)
- Pre Registration Slide [PL 4.5](#)
- Registration Roll [PL 4.4](#)
- Registration Chute Assembly [PL 4.4](#)
- For Fuser related problems, remove and reinstall the Fuser. If the problem continues, replace the Fuser. ([PL 8.1](#)).

Check the following parts for wear, slipping, damage or contamination. Repair/replace any parts that are questionable in the order listed until the problem is resolved.

- Upper Exit Open Chute Assembly [PL 21.10](#)
- Top Buffer Chute Assembly [PL 21.10](#)
- Bottom Buffer Chute Assembly [PL 21.10](#)
- Entrance Pinch Roller [PL 21.10](#)
- Exit Pinch Roller [PL 21.10](#)
- Upper Entrance Chute Assembly [PL 21.10](#)
- Entrance Roll [PL 21.10](#)
- Top Tray Exit Baffle [PL 21.11](#)
- Exit Pinch Roller [PL 21.11](#)
- Lower Top Exit Chute Assembly [PL 21.11](#)
- Upper Top Exit Chute Assembly [PL 21.11](#)
- Exit Roll Shaft Assembly [PL 21.8](#)
- Lower Exit Roll 2 [PL 21.9](#)
- Exit Pinch Roller 1 [PL 21.9](#)

## OF 99-1 Reflective Sensor RAP

Sensors consist of a light-emitting diode and a photo transistor. When energized, the light from the LED causes the photo transistor to conduct, drawing current through a pull-up resistor. The voltage drop across the resistor causes the input signal to the control logic to change from a high to a low.

Reflective sensors operate by light from the LED being reflected off the paper to the photo transistor, causing the output of the sensor to go to the low (L) state.

### Initial Actions

Ensure that the sensor is not actuated.

### Procedure

Enter the component control code indicated in the Procedure and/or Circuit Diagram of the RAP that sent you here. Actuate the sensor using a sheet of paper. **The display changes with each actuation.**

**Y N**  
Clean the sensor and then block and unblock it. **The display changes with each actuation.**

**Y N**  
Access to some sensors in this machine is difficult. Follow the **Y** leg if you can access the sensor connector. Follow the **N** leg if access is not possible. **The sensor connector is accessible.**

**Y N**  
Check the voltage at the output of the PWB or power supply (refer to the Circuit Diagram). In the example for this generic procedure, voltage is provided from J533 on the I/F PWB. Check for pull-up voltage for the output signal. This voltage will be either +5 VDC or +3.3 VDC depending on the circuit (refer to the Circuit Diagram for the correct voltage). **The voltage corresponds with the voltage shown in the Circuit Diagram.**

**Y N**  
Check for short circuit(s) that may be loading down the line. Check the power input to the PWB(s). If this does not resolve the problem, replace the PWB.

Refer to the Circuit Diagram. Check the wires from the PWB to the sensor for opens, shorts, or loose contacts. If the wires are OK, replace the sensor. If this does not resolve the problem, replace the PWB

**The display indicates a constant L.**

**Y N**  
**Check for +5VDC to the sensor (typically pins 1 and 3 on a 3 pin connector). +5 VDC is present.**

**Y N**  
Use the circuit diagram and/or the wirenets in Section 7 to trace the problem.

Disconnect the sensor. Use a jumper wire to connect the output wire from the sensor (typically pin 2 on a 3 pin connector) to DC COM or GND. **The display changes from H to L.**

**A B C**  
**Y N**  
There is either an open circuit or a failed PWB. Use the Circuit Diagram to trace the output wire to the PWB. If the wire is OK, replace the PWB.  
Replace the sensor.  
Disconnect the sensor. **The display indicates H.**  
**Y N**  
When sensors are unplugged, the input at the PWB should always be high if there is no harness short or PWB failure. Check the output wire from the sensor (typically pin 2 on a 3 pin connector) to the PWB for a short circuit. If the wire is good, replace the PWB. Figure 1 represents a typical sensor for this machine.  
The sensor is shorted. Replace the sensor.  
Look for unusual sources of contamination.

The sensor and the circuit appear to operate normally. Check the adjustment of the sensor. Clean the sensor. Check for intermittent connections, shorted, or open wires. If the problem continues, replace the sensor.

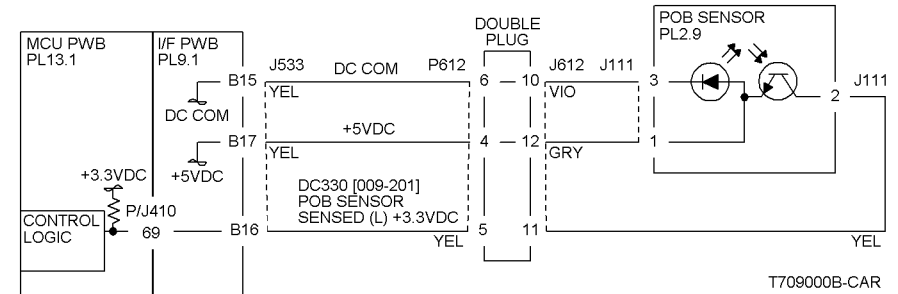


Figure 1 Typical Reflective Sensor Circuit Diagram

## OF 99-2 Transmissive Sensor

Sensors consist of a light-emitting diode and a photo transistor. When energized, the light from the LED causes the photo transistor to conduct, drawing current through a pull-up resistor. The voltage drop across the resistor causes the input signal to the control logic to change from a high to a low.

Transmissive sensors have a flag or actuator that is pushed into the space between the LED and transistor, blocking the light beam and causing the output of the sensor to go to the high (H) state. This actuation may be caused by a sheet of paper striking a pivoting flag, or a rotating actuator on a shaft or roll.

Some sensors have built-in inverters and the outputs will go to the low (L) state when the sensors are blocked. In other situations, the processing of the signal in control logic may cause the logic level displayed on the UI or the PWS to be the opposite of the actual voltage output by the sensor. The specific RAP and/or Circuit Diagram will indicate if this is the case. Figure 1 is an example of a typical sensor circuit for this machine

### Procedure

Enter the component control code indicated in the specific RAP and/or Circuit Diagram. Block and unblock the sensor. **The display changes with each actuation.**

**Y N**  
Clean the sensor and then block and unblock it. **The display changes with each actuation.**

**Y N**  
Access to some sensors in this machine is difficult. Follow the **Y** leg if you can access the sensor connector. Follow the **N** leg if access is not possible. **The sensor connector is accessible.**

**Y N**  
Check for +5VDC at the output of the PWB or power supply. Refer to the Circuit Diagram. In the example for this generic procedure, voltage is provided from J533 on the I/F PWB. Check for pull-up voltage for the output signal. This voltage will be either +5 VDC or +3.3 VDC, depending on the circuit. Refer to the circuit diagram for the correct voltage.

**Y N**  
Check for short circuit(s) that may be loading down the line. Check the power input to the PWB(s). If this does not resolve the problem, replace the PWB.

Refer to the Circuit Diagram. Check the wires from the PWB to the sensor for opens, shorts, or loose contacts. If the wires are OK, replace the sensor. If this does not resolve the problem, replace the PWB

**The display indicates a constant L**

**Y N**  
Check for +5VDC to the sensor (typically pins 1 and 3 on a 3 pin connector). +5 VDC is present.

**Y N**  
Use the circuit diagram and /or the wirenets in Section 7 to trace the problem.

**A B C D**

Disconnect the sensor. Use a jumper wire to connect the output wire from the sensor (typically pin 2 on a 3 pin connector) to DC COM or GND. **The display changes from H to L.**

**Y N**  
There is either an open circuit or a failed PWB. Use the Circuit Diagram to trace the output wire to the PWB. If the wire is OK, replace the PWB.

Replace the sensor.

Disconnect the sensor. **The display indicates H.**

**Y N**  
When sensors are unplugged, the input at the PWB should always be high if there is no harness short or PWB failure. Check the output wire from the sensor (typically pin 2 on a 3 pin connector) to the PWB for a short circuit. If the wire is good, replace the PWB. Figure 1 represents a typical sensor for this machine

The sensor is shorted. Replace the sensor.

Look for unusual sources of contamination.

The sensor and the circuit appear to operate normally. Check the adjustment of the sensor. Clean the sensor. Check the sensor actuator/flag for proper operation. Check for intermittent connections, shorts, or open wires. If the problem continues, replace the sensor.

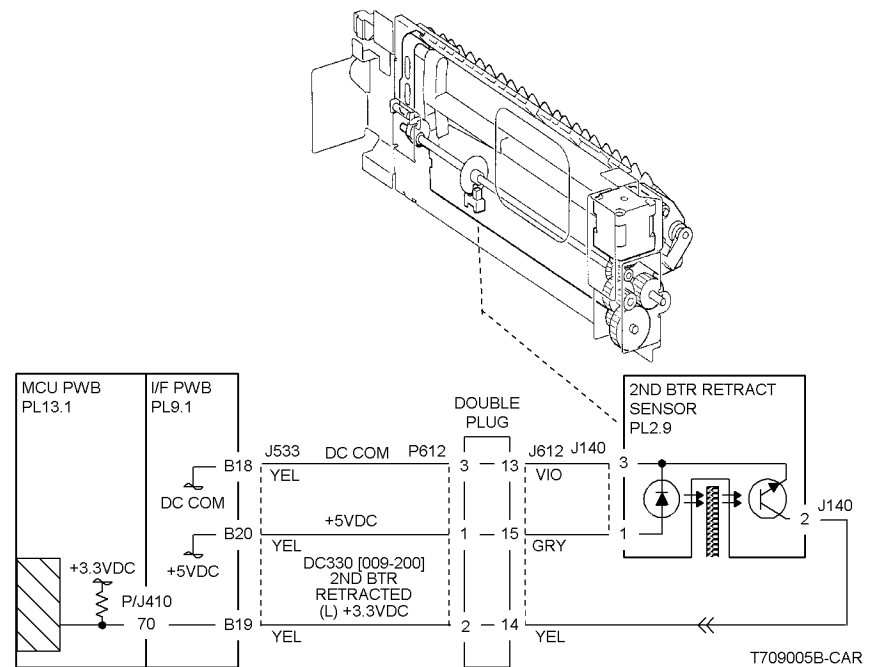


Figure 1 Typical Transmissive Sensor Circuit Diagram

## OF 99-3 Switch

### Procedure

Enter DC330 [XXX-XXX]. Actuate the switch. **The display changed.**

Y N  
There is +3.5 / 5VDC measured between Pin 2(+) of the Switch and GND(-).

Y N  
Check the wire between the switch Pin 2 and the PWB Pin 3 for an open circuit and poor contact. If the check is OK, replace the PWB.

There is +3.5 / 5VDC measured between Pin 1(+) of the Switch and GND(-).

Y N  
Replace the switch.

Check the wire between the PWB Pin 4 and the switch Pin 1 for an open circuit and poor contact. If the check is OK, replace the PWB.

De-actuate the switch. **The display changed.**

Y N  
Disconnect the connector on the switch. **The display changed.**

Y N  
Check for a short between the switch Pin 2 and the PWB Pin 3. If the check is OK, replace the PWB.

Replace the switch.

Replace the switch.

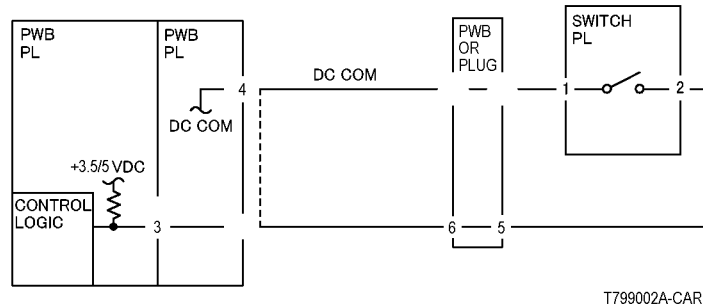


Figure 1 2003

## OF 99-4 Generic Solenoid/Clutch RAP

Solenoids and electric clutches are essentially electromagnets. Typically, a positive voltage is applied to one end of a coil, and a current driver is connected to the other end. Control Logic switches this driver to GND potential, actuating the magnet. Bi-directional solenoids have a bipolar driver connected to each end. One leg is switched to 24 VDC and the other to GND.

Figure 1 is a circuit diagram of a typical solenoid.

### Initial Actions

Ensure that there is no damage or binding in the solenoid or in any mechanical linkage. If there is an Adjustment for the clutch or solenoid, make sure that the procedure was performed correctly

### Procedure

**The clutch/solenoid is always energized.**

Y N  
Enter the component control code (DC330) given in the RAP or the Circuit Diagram. Press the **Start** button **The Clutch or solenoid energizes.**

Y N  
Press the **Stop** button **There is +24 VDC between the switched leg (J407 pin A6 in the example, Figure 1) of the control PWB and GND.**

Y N  
**There is +24 VDC between the powered leg (J407 pin A7 in the example, Figure 1) of the control PWB and GND.**

Y N  
Disconnect the connector (J407 in the example, Figure 1). **There is +24 VDC between the powered leg of the control PWB and GND.**

Y N  
Refer to the 24 VDC wirenets. check the input power to the control PWB. **+24 VDC is present.**

Y N  
Use the 24 VDC wirenets to troubleshoot the problem.

Replace the control PWB.

Check the wire in the powered leg of the circuit, (J407 pin A7 in the example, Figure 1) for a short circuit to GND. If the wire is OK, replace the clutch or solenoid.

Disconnect the connector (J407 in the example, Figure 1). Check continuity through the two wires and the clutch or solenoid. **There is less than 100 ohms between the two legs of the circuit.**

Y N  
Disconnect the clutch or solenoid. Check continuity through the two wires and the clutch or solenoid. **There is less than 100 ohms across the clutch or solenoid.**

Y N  
Replace the clutch or solenoid.

A B C D E

One of the two wires between the control PWB and the clutch or solenoid is open. Repair or replace the wiring as required.

Replace the control PWB.

Press the **Start** button. **There is less than 1 VDC between the switched leg of the control PWB and GND.**

Y N

Replace the PWB.

Replace the clutch or solenoid.

The clutch or solenoid appears to be functioning correctly. Refer to the Circuit Diagram for the RAP that sent you here. Check the wires for loose connections or damage that may cause intermittent operation. Perform any required adjustments.

There is a short circuit on the switched leg (J407 pin A6 in the example) from the solenoid or clutch. Check the wire for a short circuit to GND. If the wire is OK, replace the solenoid. If the problem persists, replace the controlling PWB.

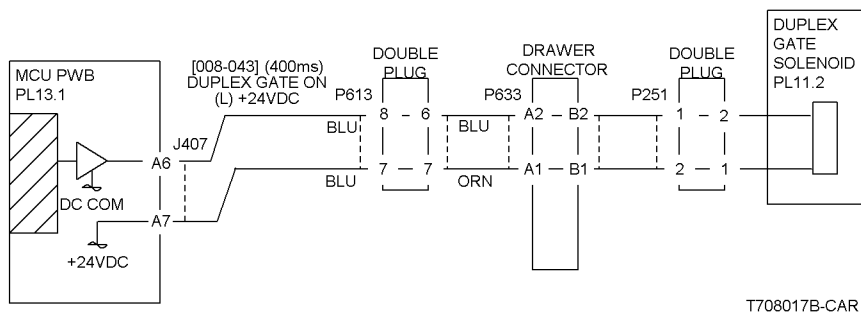


Figure 1 Typical Solenoid/Clutch Circuit Diagram

T708017B-CAR

## OF 99-6 2 Wire Motor Open

### Procedure

**NOTE:** Before performing this RAP, ensure that the motor is free to rotate.

Enter the DC330 [XXX-XXX].

There is +24VDC measured between Pin 3(+) of the PWB and GND(-).

Y N

There is +24VDC measured between the Motor Pin 2(+) of the Motor and GND(-).

Y N

There is +24VDC measured between the Motor Pin 1(+) of the Motor and GND(-).

Y N

There is +24VDC measured between the PWB Pin 4(+) of the PWB and GND(-).

Y N

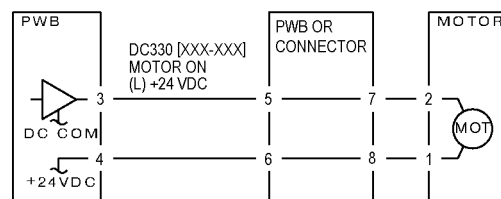
Replace the PWB.

Check the wire between the PWB Pin 4 and the Motor Pin 1 for an open circuit or poor contact.

Replace the motor.

Check the wire between the PWB Pin 3 and the Motor Pin 2 for an open circuit or poor contact.

Replace the PWB.



T799004A-CAR

Figure 1 Motor CD

## OF 99-7 2 Wire Motor On

### Procedure

Turn off the power. Remove the PWB connector. **There is 10 Ohm's or less measured between the connector Pin 3 and the frame.**

Y N  
 | Replace the PWB.

Check the wire between the connector Pin 3 and the motor Pin 2 for a short circuit. If the check is OK, replace the motor.

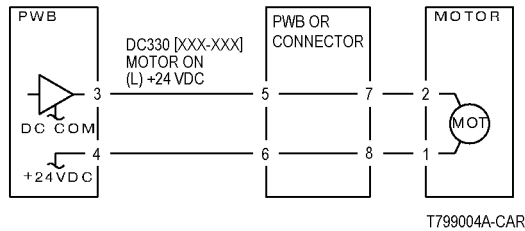


Figure 1 Motor CD

## OF 99-8 Set Gate Solenoid Open

### Procedure

**There is +24VDC measured between the Nip/Release Solenoid Pin 1 (+) and GND (-).**

Y N  
 | **There is +24VDC measured between the PWB Pin 5 (+) and GND(-).**

Y N  
 | Check +24VDC inputs on the PWB. If the check is OK, replace the PWB.

Check the wire between the PWB Pin 5 and the Nip/Release Solenoid Pin 1 for an open circuit or poor contact.

Enter DC330 [XXX-XXX]. **There is +24VDC measured between the PWB Pin 4 (+) and GND(-).**

Y N  
 | **There is +24VDC measured between the Nip/Release Solenoid Pin 3 (+) and GND (-).**

Y N  
 | Replace the Nip/Release Solenoid.

Check the wire between the PWB Pin 4 and the Nip/Release Solenoid Pin 3 for an open circuit and poor contact.

Follow the following when the release caused a problem.

Go to the DC330 [XXX-XXX]. **There is +24VDC measured between the PWB Pin 6 (+) and GND(-).**

Y N  
 | **There is +24VDC measured between the Nip/Release Solenoid Pin 2 (+) and GND (-)**

Y N  
 | Replace the Nip/Release Solenoid.

Check the wire between the PWB Pin 6 and the Nip/Release Solenoid Pin 2 for an open circuit or poor contact.

Replace the PWB.

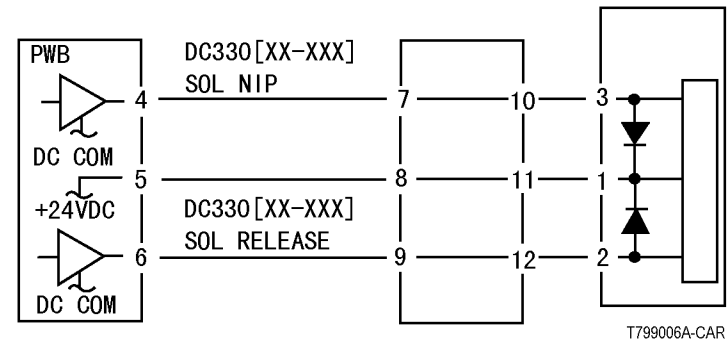


Figure 1 Nip Solenoid CD

## OF 99-9 Multiple Wire Motor

For use on DC motors that:

- have 1 or 2 DC power inputs
- are controlled by 2 or more drivers
- have no DC COM connections for return power
- have no specific feedback circuits

### Procedure

Connect black meter lead to ground. Measure voltage at each pin of J2 (example only, refer to the actual Circuit Diagram for the correct voltage and connector designation). **+24 VDC is measured at each pin.**

**Y N**

Disconnect J2. Measure voltage at P2-1 and P2-6. **+24 VDC is measured.**

**Y N**

Switch machine off then on. Measure voltage at P2-1 and P2-6. **+24 VDC is measured.**

**Y N**

If an interlock circuit is present, check the interlock circuit. Repair as required. If the interlock circuit is good, replace the PWB.

Check the motor wires for a short circuit. If the wires are good, replace the Motor.

Check the motor wires for obvious damage. If the wires are good, replace the Motor.

Replace the PWB.

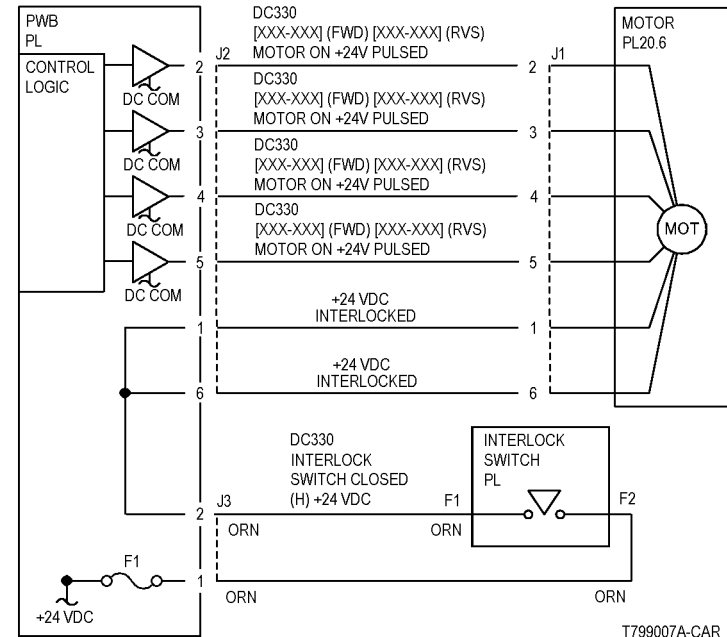


Figure 1 Motor CD





# 3 Image Quality

|                                                                |      |                         |      |
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## IQ1 IOT Image Quality Entry RAP

The purpose of this RAP is to serve as the entrance vehicle into the Image Quality RAPs section. All Image Quality RAPs must be accessed through this RAP.

The RAP will have you evaluate the copies made during the [Call Flow](#) procedure for image quality defects. It will refer you to the Image Quality Analysis RAPs, the Image Quality Defect section in order to diagnose and repair any image quality problems.

### Initial Actions

Ask the customer SA to perform the Auto Gradation Adjustment if any of the following problems are reported for both copy and print:

- Incorrect colors
- Poor gray balance
- Colors have shifted over time
- Color densities too high or low

**NOTE:** Auto Gradation Adjustment (refer to **Machine Administration User Guide**) is a color calibration for the copier and printer. An Auto Gradation Adjustment compensates for differences between the actual and the expected (target) toner densities for each color. An Auto Gradation Adjustment should be performed whenever there is a noticeable change in the appearance (quality) of the output, particularly changes in color tones or densities. Performing an Auto Gradation Adjustment on a regular basis will help to maintain consistent color quality over time. Since an Auto Gradation Adjustment can affect all jobs for all users, it is recommended that this procedure be performed only by the Machine Administrator.

If the customer is dissatisfied with machine output image quality, check machine customer selectable image quality settings on the UI and the Print Driver. Determine if adjustments to these settings should be made to tune image output to meet customer IQ requirements.

Refer the customer to user documentation to review the following image quality settings:

- Original Type
- Sharpness / saturation
- Image Quality Presets
- Auto Exposure
- Color Shift
- Light / Dark / Contrast
- Color Balance

Ensure that the correct image quality settings are selected for the paper type that the customer is using. Different image quality settings can be selected for Bond Paper, Plain Paper, Recycled Paper, and Custom Paper 1 to 5. Setting the correct image quality setting will produce the best quality of the output.

Continue with the procedure if the problem remains.

### Procedure

Check for the presence of the defect in Copy mode and in Print mode. If the problem occurs in Copy mode only, go to the [IQ2 IIT Image Quality Entry RAP](#).

For Image Quality Defects that exists on both copies and prints, go to [Table 1](#). Examine the output for any of the listed defects. Perform the corrective action that is listed.

**Table 1 Image Quality Defects**

| Defect - green indicates hotlink to image samples                                                                                                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Corrective Action                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background                                                                                                                                                        | Undesirable toner deposits on the copy or print. The toner deposits can be localized or may cover the entire copy or print. Depending on the density of the background, it is referred to as low, medium, high, or very high background. It may occur in all colors, single colors, or any combination of single colors.                                                                                                                                                                                                                                                                                                                 | Go to the <a href="#">IQ11 Background RAP</a>                                                                                                                                                                                     |
| Blank Print                                                                                                                                                       | This copy is printed completely White.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Go to the <a href="#">IQ5 Blank Page RAP</a>                                                                                                                                                                                      |
| Black Print                                                                                                                                                       | This copy is printed completely Black                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Go to the <a href="#">IQ6 Black Print RAP</a>                                                                                                                                                                                     |
| Solid Color Print                                                                                                                                                 | This copy is printed in one solid color                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Go to the <a href="#">IQ10 Solid Color Print</a>                                                                                                                                                                                  |
| Deletions <ul style="list-style-type: none"> <li>• Debris-Centered Deletions</li> <li>• Streak Deletion in Process Direction</li> <li>• Spot Deletions</li> </ul> | The undesirable absence of toner from the copy or print. May show as white, light, or untrue colored areas. The most common causes are "tenting" of paper from mishandling or moisture, or defects in the Transfer Belt. <ul style="list-style-type: none"> <li>• <a href="#">Debris-Centered</a>: Deletions in the areas surrounding toner agglomerates.</li> <li>• <a href="#">Process Direction Streak</a>: A deletion in the form of a single streak that runs from the lead edge to the trail edge of the copy.</li> <li>• <a href="#">Spot Deletion</a>: Deletion caused by system contamination, typically from paper.</li> </ul> | Go to the <a href="#">IQ5 Blank Page RAP</a><br><br>(For process direction streak deletion, go to the <a href="#">IQ8 Process Direction Bands and Streaks RAP</a> )<br>Go to the <a href="#">IQ15 Partial Image Deletions RAP</a> |

**Table 1 Image Quality Defects**

| <b>Defect - green indicates hotlink to image samples</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                               | <b>Corrective Action</b>                                                                                                                                  |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fuser Offset                                             | Areas of poorly-fused toner are lifted from one area of a print and deposited on a different area, or onto a subsequent print.                                                                                                                                                                                                                                                                                   | Go to the <a href="#">IQ13 Unfused Copy/Toner Offset RAP</a>                                                                                              |
| High Frequency Bands                                     | Repeating interval bands that are most noticeable in low density (20-30%) halftone areas of the copy. These bands run perpendicular to process direction.                                                                                                                                                                                                                                                        | Go to the <a href="#">IQ16 Cross Process Direction Faded Bands and Streaks RAP</a>                                                                        |
| IBT Cleaner Streak                                       | Multi-color streaks, sometimes LE-TE, sometimes shorter. May have registration chevron pattern visible.                                                                                                                                                                                                                                                                                                          | Go to the <a href="#">IQ8 Process Direction Bands and Streaks RAP</a>                                                                                     |
| Irregular Process Direction Streak                       | Streaks: Usually medium-width streaks of (or shifts in) color most noticeable in low density 20-30%) halftone areas of the copy.<br>A deletion in the form of a single streak that runs from the lead edge to the trail edge of the copy.                                                                                                                                                                        | Go to the <a href="#">IQ8 Process Direction Bands and Streaks RAP</a> and <a href="#">IQ18 Process Direction Faded Bands and Streaks RAP</a>              |
| Lead Edge Toner Smear (fused)                            | Smears of fused toner on the lead edge of prints                                                                                                                                                                                                                                                                                                                                                                 | Go to the <a href="#">IQ8 Process Direction Bands and Streaks RAP</a>                                                                                     |
| Lead Edge Toner Smear (unfused)                          | Smears of unfused toner on the lead edge of prints                                                                                                                                                                                                                                                                                                                                                               | Go to the <a href="#">IQ13 Unfused Copy/Toner Offset RAP</a>                                                                                              |
| Low Image Density                                        | A condition that results when too little toner of a single color or combination of colors is developed on the copy or print. This results in lighter copies or prints for the single-color toner or the color that results from the combination of color toners.                                                                                                                                                 | For hardware related problems, go to the <a href="#">IQ3 Low Image Density RAP</a>                                                                        |
| Misregistration/Skew                                     | The position and/or alignment of the image relative to the top edge and side edge of the paper is not within specification.                                                                                                                                                                                                                                                                                      | Go to the <a href="#">IQ7 Skew/Misregistration RAP</a>                                                                                                    |
| Mottle                                                   | Areas of solid, or high density coverage that are reproduced with a blotchy, non-uniform appearance.                                                                                                                                                                                                                                                                                                             | Go to the <a href="#">IQ19 Mottle RAP</a>                                                                                                                 |
| Regular (Repeating) Bands, Streaks, Spots, or Smears     | A defect that repeats at an interval from 14 to 264 mm, is most noticeable in low density (20-40%) halftone areas of the copy, and runs perpendicular to process direction.<br>Lines and bands are generally uniform in shape from one end to the other.<br>Streaks are generally shorter than lines and are of nonuniform width along their length. They may have a more ragged or fuzzy appearance than lines. | Go to the <a href="#">IQ16 Cross Process Direction Faded Bands and Streaks RAP</a> and <a href="#">IQ17 Cross Process Direction Bands and Streaks RAP</a> |
| Residual Image                                           | A toner image that remains on the photoreceptor or Transfer Belt after cleaning. The next image is placed on top of the residual image and both images are transferred to the next copy.                                                                                                                                                                                                                         | Go to the <a href="#">IQ9 Residual Image (Ghosting) RAP</a>                                                                                               |
| Spots                                                    | Generally circular in shape, these defects can be caused by an absence of toner in a desired area, or a deposit of toner in an undesired area                                                                                                                                                                                                                                                                    | Go to the <a href="#">IQ12 Spots RAP</a>                                                                                                                  |
| Unfused prints                                           | Image can be rubbed off with little or no pressure                                                                                                                                                                                                                                                                                                                                                               | Go to the <a href="#">IQ13 Unfused Copy/Toner Offset RAP</a>                                                                                              |
| Wrinkled Image                                           | Areas of prints (usually 11x17 in./A3) have distinctive “worm track” patterns, and/or wrinkles in the paper itself                                                                                                                                                                                                                                                                                               | Go to the <a href="#">IQ14 Wrinkled Image/Paper RAP</a>                                                                                                   |

## IQ2 IIT Image Quality Entry RAP

This RAP is for troubleshooting IIT (Scanner/ADF) problems only. Before proceeding, verify that the defect is present in Copy mode only. If the defect is present in Print mode, go to the [IQ1 IOT Image Quality Entry RAP](#).

### Initial Actions

Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth.

### Procedure

Compare the defective copies with the descriptions listed in [Table 1](#). Perform the corrective action listed for that defect.

Table 1

| Defect                                                                                                                                                                           | Corrective Action                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background                                                                                                                                                                       | Clean the Pad, CVT area of the Glass, Platen Glass and the Optics.<br>Calibrate the IIT ( <a href="#">ADJ 5.11</a> ).                                                                                                                                                                                                  |
| Blurred or Streaked Copy                                                                                                                                                         | Ensure that the Platen Glass is installed correctly.<br>Check/adjust the carriage alignment ( <a href="#">ADJ 5.8</a> ).                                                                                                                                                                                               |
| Deletions                                                                                                                                                                        | Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth.<br>If the problem persists, replace the Lens Assembly ( <a href="#">PL 13.6</a> ).                                                                                           |
| Misregistration/Skew                                                                                                                                                             | Go to the <a href="#">IQ7 Skew/Misregistration RAP</a> .                                                                                                                                                                                                                                                               |
| Moire<br>Patterns in the image areas of the print that have the appearance of a screen or grid overlaying the image. The pattern may be uniform or nonuniform in area or shape.  | <ul style="list-style-type: none"><li>• Switch between photo modes and, if necessary, original types, to determine which mode minimizes the defect.</li><li>• Decrease the <b>Sharpness</b> level.</li><li>• Reduce or enlarge the copy slightly.</li><li>• Rotate the original on the platen by 90 degrees.</li></ul> |
| Newton Rings<br>Repetitive, irregular-shaped marks that occur when making copies of glossy photographs. These marks are most noticeable in large low-density or highlight areas. | Clean the Document Glass<br>Place a transparency between the document and the glass                                                                                                                                                                                                                                    |

Replace the Drum Cartridge (PL 6.1).

## IQ3 Low Image Density RAP

This RAP troubleshoots hardware-related causes of output images showing image density lower than specification.

### Initial Actions

- Perform [IQ1 IOT Image Quality Entry RAP](#) first
- Clean the ROS windows
- Replace the paper in use with fresh, dry paper of the correct specification
- Check the 2nd BTR Cam for proper operation

### Procedure

The problem occurs in both copy and print mode.

Y N

The problem occurs in the copy mode only.

Y N

Go to [Call Flow](#)

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the connectors on the IIT/IPS PWB are seated properly and the wires for damage. If the continues, replace the IIT/IPS (PL 13.8). If the problem persists, replace the CCD PWB (PL 13.6).

Perform MAX Setup [ADJ 9.1](#). The problem is still present.

Y N

Return to [Call Flow](#).

Enter [dC612](#). Make prints of Test Pattern 22. The Defect is a single color.

Y N

Go to [dC612](#). Print Test Pattern 12. Open the Front Door approximately seven seconds into the job. Extend the IBT. There is a good toner image on the Transfer Belt.

Y N

Go to the [IQ22 Developer Bias RAP](#) to check the Developer Bias Circuit. If the problem continues, go to the [IQ20 2nd BTR Checkout RAP](#) to check the 2st BTR Bias. If the problem persists, check the ROS for contamination or misalignment.

Check the 2nd BTR for damage or an incorrect installation. Go to the [IQ20 2nd BTR Checkout RAP](#) to check the 2nd BTR. The problem reoccurs.

Y N

Go to [Call Flow](#)

Replace the 2nd BTR Assembly (PL 7.8). If the problem continue, replace the Transfer Belt (PL 7.3).

Swap the affected Drum Cartridge with an adjacent cartridge. Print Test Pattern 12. The defect moved to the new color.

Y N

Go to [IQ22 Developer Bias RAP](#). Check the Developer Bias. If the problem continues, go to [IQ21 1st BTR Checkout RAP](#), to check the 1st BTR Bias. If the problem persists, replace the Developer for the affected color (PL 6.6).

## IQ4 Repeating Bands, Streaks, Spots, and Smears RAP

Bands, Streaks, Spots, and Smears appear on the image at a regular pitch.

### Procedure

Measure the distance between the repeating defeats.

Locate the distance on the Table below and perform the indicated repair action (Table 1).

**Table 1**

| Repetition Spacing (mm) | Components                                       |
|-------------------------|--------------------------------------------------|
| 0.3                     | ROS (Stitching)                                  |
| 1                       | Developer Assembly / Developer Drives            |
| 2                       | Developer Assembly / Developer Drives            |
| 6                       | Developer Assembly / Xero/IBT / Developer Drives |
| 44                      | BCR (Y, M, C)                                    |
| 36                      | Developer Roller (K, Y, M, C)                    |
| 36 (Horizontal streaks) | Developer Drive                                  |
| 58                      | 1st BTR                                          |
| 62.8                    | 2nd BUR                                          |
| 88                      | 2nd BTR                                          |
| 98                      | Fuser Belt                                       |
| 110                     | Heat Roll                                        |
| 126                     | Y/M/C Drum                                       |
| 188                     | Black Drum                                       |

### Corrective procedure for 0.3mm white/black streaks

(Table 2)

Stitching is an Image Defeat that appears as Streaking.

Stitching is caused by a change in the Image Density from the first set of 32 scanning beams and the next set of scanning beams.

Stitching normally results in black streaks of 0.3mm Pitch. However, over correction will produce white streaks.

To correct black streaks, change the NVM Value in the plus (+) direction. This will strengthen the stitching action.

To correct white streaks, change the NVM Value in the minus (-) direction.

**Table 2**

| Beam No. | NVM (749-) | -2 | -1 | Initial Value | +1 | +2 | +3 | +4 |
|----------|------------|----|----|---------------|----|----|----|----|
| Ch0      | 749-002    | 3  | 2  | 1             | 0  | 0  | 0  | 0  |
| Ch31     | 749-095    | 3  | 2  | 1             | 0  | 0  | 0  | 0  |
| Ch1      | 749-005    | 3  | 3  | 3             | 3  | 2  | 1  | 0  |
| Ch30     | 749-092    | 3  | 3  | 3             | 3  | 2  | 1  | 0  |

**NOTE:** It may be difficult to visually detect small changes. Make a large change in one direction and work backwards in small increments. When no change can be detected after a value has been changed, replace the relevant ROS (PL 5.1).

## IQ5 Blank Page RAP

The copy is printed completely white.

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode only.

Y N

Go to [Call Flow](#).

Check that the IIT to IOT cable connection is fully seated. **The cable connection is OK.**

Y N

Reconnect the IIT to IOT cable.

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and free from damage. Turn the power OFF and ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Check the mirrors on the Full Rate and Half Rate Carriages for alignment. **The mirror are properly installed.**

Y N

Install the mirror properly.

Replace the IIT/IPS PWB ([PL 13.8](#)). If the problem continues, replace the CCD PWB ([PL 13.6](#)).

Enter [dC612](#). Print Test Pattern 12. Open the Front Door about seven seconds into the Job. Extend the IBT Drawer. Check the surface of the IBT Belt. **There is a good toner image on the surface of the IBT Belt.**

Y N

Go to [6.1 Yellow Laser Control BSD](#), [6.2 Magenta Laser Control BSD](#), [6.3 Cyan Laser Control BSD](#), and [6.4 Black \(K\) Laser Control BSD](#). Check that the connectors on each ROS Unit are fully seated and free of damage. **The connectors are OK.**

Y N

Reseat the connectors.

Check the installation of each ROS Unit. **Each ROS Unit is properly installed.**

Y N

Install the ROS Unit properly.

Go to [6.1 Yellow Laser Control BSD](#), [6.2 Magenta Laser Control BSD](#), [6.3 Cyan Laser Control BSD](#), and [6.4 Black \(K\) Laser Control BSD](#). Check that the connectors on each ROS Unit are fully seated and free of damage. **The connectors are OK.**

Y N

Reseat the connectors.

Replace the ROS Unit ([PL 5.1](#)). If the problem continues, replace the MCU PWB ([PL 11.1](#)).

A

Go to [9.26 2nd Transfer and Cleaning \(1 Of 3\) BSD](#). Check that the 2nd BTR connectors are fully seated and the wires are free from damage. Turn the power OFF and ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Check the 2nd BTR CAM mechanism for binding. If the problems continues, replace the 2nd BTR HVPS ([PL 11.3](#)). If the problem persists, replace the MCU PWB ([PL 11.1](#)).



## IQ6 Black Print RAP

The copy is printed completely black.

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode only.

Y N

Go to [Call Flow](#).

Check that the IIT to IOT cable connection is fully seated. **The cable connection is OK.**

Y N

Reconnect the IIT to IOT cable.

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and free from damage. Turn OFF and ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Check the mirrors on the Full Rate and Half Rate Carriages for alignment. **The mirror are OK.**

Y N

Install the mirror properly.

Replace the IIT/IPS PWB ([PL 13.8](#)). If the problem continues, replace the CCD PWB ([PL 13.6](#)).

Ensure that each Drum Unit is installed and seated correctly. Turn the power OFF then ON.

**The problem reoccurs.**

Y N

Go to [Call Flow](#).

Go to [9.21 1st Transfer \(1 of 3\) BSD](#), [1st BTR HVPS](#), [9.8 Black Charging And Exposure BSD](#), [Charge \(K\) Pre-clean HVPS](#), and [9.9 Charging And Exposure - Y,M,C BSD](#), [Charge \(Y, M, C\) HVPS](#). Check that the connectors are fully seated and the wires are free from damage. Turn the power OFF then ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Go to [6.1 Yellow Laser Control BSD](#), [6.2 Magenta Laser Control BSD](#), [6.3 Cyan Laser Control BSD](#), and [6.4 Black \(K\) Laser Control BSD](#). Check that the connectors on each ROS Unit are fully seated and free of damage. Turn the power OFF then ON and print. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Replace the MCU PWB ([PL 11.1](#)). If the problem continues, replace the ESS PWB ([PL 11.5](#)).

## IQ7 Skew/Misregistration RAP

This RAP is used when Skew, System Registration, or Magnification are out of specification.

### Initial Actions

Ensure that the paper being used is fresh, dry, and within specification.

### Procedure

The problem occurs in the copy mode only.

Y N

The problem occurs in both the print and copy mode.

Y N

Go to [Call Flow](#).

The original is positioned on the glass properly.

Y N

Position the original properly.

Check the DADF Drive Rolls and Pinch Rolls for wear and glossing. Check the Document Handler Adjustment [ADJ 5.1](#), [ADJ 5.2](#), [ADJ 5.3](#), [ADJ 5.4](#), [ADJ 5.5](#), [ADJ 5.6](#). **The paper path is OK.**

Y N

Clean and/or repair the paper path as required.

The defeat occurs on copies from all five Paper Trays.

Y N

Adjust the IOT Lead Edge/Side Edge Registration ([ADJ 9.7](#)). Check the affected Feed Tray for wear, slipping, damage, and/or contamination.

Registration varies from copy to copy.

Y N

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the connectors on the IIT/IPS PWB are seated and free of damage. If the problem continues, replace the IIT/IPS PWB ([PL 13.8](#)). If the problem persists, replace the CCD PWB ([PL 13.6](#)).

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the connectors on the IIT/IPS PWB are seated and free of damage. If the problem continues, replace the IIT/IPS PWB ([PL 13.8](#)). If the problem persists, replace the CCD PWB ([PL 13.6](#)).

Replace the MCU PWB ([PL 11.1](#)). If the problem continues, replace the ESS PWB ([PL 11.5](#)).

## IQ8 Process Direction Bands and Streaks RAP

This RAP is used to troubleshoot extremely light or white parts of the image. These defects appear over an extensive area in this process direction.

### Initial Actions

- Check the Fuser for damage and contamination.
- Ensure that the Platen Glass is clean and without damage.

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode.

Y N

Go to [Call Flow](#).

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and free from damage. Turn the power OFF and ON. **The defect reoccurs.**

Y N

Go to [Call Flow](#).

Check the mirrors on the Full Rate and Half Rate Carriages for alignment and contamination. **The mirrors are OK.**

Y N

Clean and/or reposition the mirrors as required.

Replace the IIT/IPS PWB ([PL 13.8](#)). If the problem continues, replace the CCD PWB ([PL 13.6](#)).

Enter [dC612](#). Make a print of Test Pattern 11. Open the Front Door about seven seconds into the Job. Extend the IBT Drawer. **The image on the Belt is defect free.**

Y N

Check the following:

- Check the IBT Belt for damage and/or contamination
- Ensure that there is nothing in contact with the belt. Clean or replace as required
- Check the Developer Housings and Drum Cartridges for toner clumping, damage and contamination
- Go to [IQ21 1st BTR Checkout RAP](#) to check the 1st BTR Bias
- Check the ROS Window for damage or contamination and that the connectors are fully seated. Clean and/or replace as required ([PL 5.1](#))

Check the IBT Cleaner Assembly; check for toner buildup on the top side of the Cleaner Blade that contacts the IBT Belt. Replace the IBT Cleaner Assembly as required ([PL 7.3](#)). **The defect is still present.**

Y N

Go to [Call Flow](#).

Replace the MCU PWB ([PL 11.1](#)). **The defect is still present.**

Y N

Go to [Call Flow](#).

Replace the ESS PWB ([PL 11.5](#)). **The defect is still present.**

Y N

Go to [Call Flow](#).

Check the 2nd BTR for damage and/or contamination. **The 2nd BTR is OK.**

Y N

Replace the 2nd BTR ([PL 7.8](#)).

Go to [9.26 2nd Transfer and Cleaning \(1 Of 3\) BSD](#) and check that the connectors on the 2nd BTR HVPS are fully seated and check the wires for damage. **The defect is still present.**

Y N

Go to [Call Flow](#).

Replace the ROS Unit (C, K) or ROS Unit (Y, M) ([PL 5.1](#)). If the defect is still present, replace the 2nd BTR HVPS ([PL 11.3](#)). If the defect continues, replace the MCU PWB ([PL 11.1](#)). If the defect persists, replace the ESS PWB ([PL 11.5](#)).

## IQ9 Residual Image (Ghosting) RAP

Part or All of the previous image was transferred to the next print.

### Initial Actions

- Check the end-of-life counter for the Drum Cartridge. If the unit is at or near end-of-life, replace the Drum Cartridge.

**NOTE:** Some ghosting on transparencies is unavoidable.

- If the problem occurs only with certain types of media, ensure that the media in use is within specification, and that the customer is aware of correct operation of print driver.
- If the distance between the intended image and the residual image has a fixed rate of repetition, go to the [IQ4 Repeating Bands, Streaks, Spots, and Smears RAP](#). Return to this procedure if the problem persists.

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode.

Y N

Go to [Call Flow](#).

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and wires are free from damage. If the problem continues, replace the IIT/IPS PWB ([PL 13.8](#)). If the problem persists, replace the CCD PWB ([PL 13.6](#)).

Remove the Fuser. Check the Heat Roll and Pressure Roll for Toner Offsetting. **There is toner adhering to the Heat Roll.**

Y N

Check for a residual image on the Transfer Belt. Repair or replace the IBT Belt Assembly ([PL 7.3](#)). Check the 2nd BTR for contamination.

Check the Heat Roll for contamination. **The problem reoccurs.**

Y N

Clean the Heat Roll. If the problem continues, replace the Fuser ([PL 8.1](#)).

Check the Erase Lamp for the affected color:

- Enter [dC330 \[091-001\]](#) (C, Y, or M), or [\[091-002\]](#) (K), as appropriate.
- Remove the Drum cartridge for the affected color.
- Check for light along the mounting rail left side

**The Erase lamp is lit.**

Y N

Go to [9.30 Black Drum Cleaning BSD](#) and [9.31 Y,M,C Drum Cleaning BSD](#). Check that the connectors on the IOT Drive and MCU PWBs are seated and the wires for damage. If the connectors and wires are OK, Replace the Erase Lamp ([PL 6.5](#)). If the problem continues, replace the IOT Drive PWB for (C, Y, M) or MCU PWB for (K) ([PL 11.1](#)).

Replace the Drum Unit for the affected color ([PL 6.1](#)). If the problem continues, replace the MCU PWB ([PL 11.1](#)). If the problem persists, replace the ESS PWB ([PL 11.5](#)).

## IQ10 Solid Color Print RAP

Copy is printed in one solid color.

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode.

Y N

Go to [Call Flow](#).

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and the wires are free from damage. Turn the power OFF and ON. **The defect reoccurs.**

Y N

Go to [Call Flow](#).

Replace the IIT/IPS PWB ([PL 13.8](#)). If the problem continues, replace the CCD PWB ([PL 13.6](#)).

Remove and reinstall the Drum Unit for the effected color. Turn the power OFF then ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Install a new Drum Unit for the effected color ([PL 6.1](#)). Turn the power OFF then ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Go to [9.21 1st Transfer \(1 of 3\) BSD](#), [1st BTR HVPS](#), [9.8 Black Charging And Exposure BSD Charge \(K\) Pre-clean HVPS](#), and [9.9 Charging And Exposure - Y,M,C BSD](#), Charge (Y, M, C) HVPS. Check that the connectors are fully seated and the wires are free from damage. Turn the power OFF then ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Go to [6.1 Yellow Laser Control BSD](#), [6.2 Magenta Laser Control BSD](#), [6.3 Cyan Laser Control BSD](#), and [6.4 Black \(K\) Laser Control BSD](#). Check the connectors on each ROS Unit are fully seated and free of damage. Turn the power OFF then ON and print. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Replace the MCU PWB ([PL 11.1](#)). If the problem continues, replace the ESS PWB ([PL 11.5](#)).

## IQ11 Background RAP

The entire print is covered by a very light layer of toner.

### Initial Actions

- Perform [IQ1 IOT Image Quality Entry RAP](#) first.
- Perform Max Setup ([ADJ 9.1](#)).
- Ensure that the paper being used is fresh, dry, and within specification.

**NOTE:** Some background is unavoidable on certain media, such as heavyweight paper and transparencies. Ensure that the customer selects the correct settings on the UI and print driver.

### Procedure

The problem is a yellow or green background that started after Auto Gradation was performed.

Y N

The problem is high density, single-color background.

Y N

Check the face of the ADC Sensor. **The ADC Sensor is clean.**

Y N

Go to the [092-651 RAP](#) to troubleshoot the ADC Sensor.

Check the Transfer Belt for excessive dirt, damage, or uncleaned toner. **The Belt is clean.**

Y N

Check the IBT Cleaner Assembly for damage or wear. Clean or replace as required ([PL 7.3](#)).

Go to [IQ22 Developer Bias RAP](#) to troubleshoot the Developer Bias Circuit. **The circuit is OK.**

Y N

Repair the Developer bias circuit as required.

Replace the Transfer Belt ([PL 7.3](#)). If the problem continues, replace the 2nd BTR ([PL 7.8](#)). If the problem persists, replace the MCU PWB ([PL 11.1](#)). If the problem continues to persist, replace the ESS PWB ([PL 11.5](#)).

The background is very high and even density, and covers the entire sheet (no edge erase).

Y N

Check the following:

- Check the end-of-life counter for the Toner Cartridge and Drum Cartridge for the affected color. Replace if at or near end-of-life.
- Check the Developer Housing for the affected color. Check for toner bridging, uneven brush, or loose High Voltage terminals. Clean, repair, or replace as required ([PL 6.1](#)).
- If the problem persists, replace the ESS PWB ([PL 11.5](#)).

Go to the [IQ23 BCR Checkout RAP](#) for Y, M, C.

Go to the [IQ24 Scorotron Checkout RAP](#) for K.

A

Perform the following:

- Max Setup ([ADJ 9.1](#))
- Ensure that the IIT Calibration ([ADJ 5.11](#)) is performed per the instructions
- If the problem continues, ensure the connectors are seated and that the wires are free from damage on the following PWBs. If the connectors and wires are OK, replace the PWBs in the following order:
  1. IIT/IPS PWB ([PL 13.8](#))
  2. CCD PWB ([PL 13.6](#))
  3. Developer Bias (K) HVPS ([PL 11.2](#))
  4. Developer Bias (Y, M, C) HVPS ([PL 11.1](#))
  5. MCU PWB ([PL 11.1](#))
  6. ESS PWB ([PL 11.5](#))

## IQ12 Spots RAP

Toner spots appear randomly across the print.

### Initial Actions

- Ensure that the paper in use is fresh, dry, and within specification.
- Check print driver and copier control panel settings to ensure the media is being run in the proper mode.

### Procedure

The defect occurs in Copy mode only.

Y N  
The spots occur at a fixed interval on each print.  
Y N  
The defect occurs in approximately the same position IB to OB on multiple prints.  
Y N  
Check the Fuser for damage Toner Offsetting. **The Fuser is OK.**  
Y N  
Go to [IQ13 Unfused Copy/Toner Offset RAP](#).  
Remove the IBT Cleaner Assembly. Carefully clean the Cleaning Blade. Wipe the surface or the Transfer Belt with a Lint Free Cloth. If the problem continues, replace the IBT Cleaner Assembly ([PL 7.3](#)).  
Check the Transfer Belt ([PL 7.3](#)) for dirt or damage. Clean or replace as required.  
Go to [IQ4 Repeating Bands, Streaks, Spots, and Smears RAP](#).

Ensure that the original is free from defects. **The original is free of defects.**

Y N  
Replace the original.

Clean the Platen Glass and Lens. **The defect reoccurs.**

Y N  
Go to [Call Flow](#).

Check the surface of the 2nd BTR for damage, dirt, or distortion. **The 2nd BTR is OK.**

Y N  
Replace the 2nd BTR ([PL 7.8](#)).

Perform the following:

- Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IOT PWB connectors are fully seated and wires are free from damage. If the problem continues, replace the IIT/IPS PWB ([PL 13.8](#)). If the problem persists, replace the CCD PWB ([PL 13.6](#)).
- If the problem continues, replace the following parts. Check the prints after each component has been replaced:
  - MCU PWB ([PL 11.1](#))
  - ESS PWB ([PL 11.5](#))

## IQ13 Unfused Copy/Toner Offset RAP

The image is not properly fused.

### Initial Actions

- Replace the paper in use with fresh, dry paper of the correct specification.
- Check the post-Fuser transport areas for dirt.
- Ensure that the media being used matches the settings on the UI screen or print driver. Using the next heavier setting may resolve the problem.

### Procedure

Check the Fuser for damage, toner offsetting, paper wrap, or incorrect installation. Remove and reseal the Fuser. If the problem continues, replace the Fuser ([PL 8.1](#)).

## IQ14 Wrinkled Image/Paper RAP

Areas of prints have distinctive 'worm track' patterns or light 'cloudy' areas in the image. Actual wrinkles in the paper itself can also occur.

### Initial Actions

**NOTE:** The following factors can/will increase the occurrence of this problem:

- Lighter weight papers.
- Larger papers.
- Short-grain 11x17 in / A3 papers.
- Old paper.
- 2 sided printing
- Fuser with 1100 or more hours of operating life.

Check the following:

- Ensure the Paper Tray Side Guides are set correctly.
- Check the paper path for dirt and/or obstructions

### Procedure

- For Fuser related problems, remove and reinstall the Fuser. If the problem continues, replace the Fuser. (PL 8.1).
- Go to [OF 8.1 Paper Feed Checkout RAP](#).

## IQ15 Partial Image Deletions RAP

There are extremely light parts on the image or parts that are completely omitted. These omitted parts appear on limited areas on the paper.

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode.

Y N

Go to [Call Flow](#).

Check the Platen Glass for dirt or contamination. **The Platen Glass is OK.**

Y N

Clean or replace the Platen Glass (PL 6.1).

Check the mirrors on the Full Rate and Half Rate Carriages for alignment. **The mirrors are OK.**

Y N

Install the mirror properly.

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and free from damage. Turn the power OFF then ON. **The problem reoccurs.**

Y N

Go to [Call Flow](#).

Replace the IIT/IPS PWB (PL 13.8). If the problem continues, replace the CCD PWB (PL 13.6).

Remove each Drum Unit and reinstall. Turn the power OFF then ON. **The defect reoccurs.**

Y N

Go to [Call Flow](#).

Install a new Drum Unit(s) for the affected color(s) (PL 6.1). Turn the power OFF then ON. **The defect reoccurs.**

Y N

Go to [Call Flow](#).

Check the IBT Belt for damage or contamination. **The IBT Belt is OK.**

Y N

Replace the IBT Belt (PL 7.3).

Check the 2nd BTR Assembly for damage or contamination. **The 2nd BTR Assembly OK.**

Y N

Replace the 2nd BTR Assembly (PL 7.8).

Check the 2nd BTR CAM mechanism for binding. **The 2nd BTR Assembly is OK.**

Y N

Replace the 2nd BTR Assembly (PL 7.8).

A

Go to [9.26 2nd Transfer and Cleaning \(1 Of 3\) BSD](#). Check that the connectors on the 2nd BTR HVPS are seated and that the wires free from damage. Turn the power OFF then ON.

**The defect is still present.**

Y N

Go to [Call Flow](#).

Replace the 2nd BTR HVPS ([PL 11.3](#)). If the problem continues, replace the MCU PWB ([PL 11.1](#)). If the problem persists, replace the ESS PWB ([PL 11.5](#)).

## IQ16 Cross Process Direction Faded Bands and Streaks RAP

Cross Process Direction Faded Bands and Streets

### Initial Actions

- Ensure that the Platen Glass is clean and without damage.
- Check the 2nd BTR Cam for proper operation.

### Procedure

**The problem occurs in both Copy mode and Print mode.**

Y N

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

Y N

Go to [Call Flow](#).

Check the mirrors on the Full Rate and Half Rate Carriages for alignment and contamination. **The mirror are OK.**

Y N

Clean and/or reposition the mirrors as required.

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and free from damage. Turn the power OFF and ON. **The defect reoccurs.**

Y N

Go to [Call Flow](#).

Replace the IIT/IPS PWB ([PL 13.8](#)). If the problem continues, replace the CCD PWB ([PL 13.6](#)).

Swap the affected Drum Cartridge with an adjacent Cartridge. Print Test Pattern 12. **The defect moves to the new color.**

Y N

Check the Following:

- Clean the HV Contacts for the affected Drum Cartridge
- The Drum Unit for damage, wear, and/or contamination. If the Drum Unit is OK, replace the Developer ([PL 6.6](#))

Replace the Drum Cartridge ([PL 6.1](#)). **The defect reoccurs.**

Y N

Go to [Call Flow](#).

Enter [dC612](#). Make a print of Test Pattern 11. Open the Front Door about seven seconds into the Job. Extend the IBT Drawer. **The image on the Belt is defect free.**

Y N

Check the 1st BTR of the affected color for damage and/or contamination. **The IBT Belt is OK.**

Y N

Clean or replace the IBT Belt as required ([PL 7.3](#)).

A B

A B

Replace the MCU PWB (PL 11.1). If the defect reoccurs, replace the ESS PWB (PL 11.5).

Go to 9.26 2nd Transfer and Cleaning (1 Of 3) BSD. Check that the connectors on the 2nd BTR HVPS are seated and that the wires are free from damage. Turn the power OFF and then ON. **The defeat reoccurred.**

Y N

Go to Call Flow.

Replace the 2nd BTR HVPS (PL 11.3). If the problem continues, replace the MCU PWB (PL 11.1). If the problem persists, replace the ESS PWB (PL 11.5).

## IQ17 Cross Process Direction Bands and Streaks RAP

Cross Process Direction Bands and Streets

### Initial Actions

- Ensure that the Platen Glass is clean and without damage.
- Check the 2nd BTR Cam for proper operation.

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode only.

Y N

Go to Call Flow.

Go to 5.15 Copy/Scan Image Input Processing (1 of 3) BSD. Check that the IIT/IPS PWB connectors are fully seated and free from damage. Turn the power OFF and ON. **The defect reoccurs.**

Y N

Go to Call Flow.

Check the mirrors on the Full Rate and Half Rate Carriages for alignment and contamination. **The mirror are OK.**

Y N

Clean and/or reposition the mirrors as required.

Replace the IIT/IPS PWB (PL 13.8). If the problem continues, replace the CCD PWB (PL 13.6).

Swap the affected Drum Cartridge with an adjacent Cartridge. Print Test Pattern 12. **The defect moves to the new color.**

Y N

Check the Following:

- The 1st BTR of the affected color for damage and/or contamination
- The ROS Window for damage or contamination and that the connectors are fully seated. Clean and/or replace as required (PL 5.1)

Replace the Drum Cartridge (PL 6.1). **The defect reoccurs.**

Y N

Go to Call Flow.

Enter dC612. Make a print of Test Pattern 11. Open the Front Door about seven seconds into the Job. Extend the IBT Drawer. **The image on the Belt is defect free.**

Y N

Check the 1st BTR of the affected color for damage and/or contamination. Clean or replace the IBT Belt (PL 7.3). **The defect reoccurs.**

Y N

Go to Call Flow.

Replace the MCU PWB (PL 11.1). If the defect reoccurs, replace the ESS PWB (PL 11.5).



A

Check the 2nd BTR Assembly for damage or contamination. **The 2nd BTR Assembly OK.**

Y N

Replace the 2nd BTR Assembly (PL 7.8).

Go to [9.26 2nd Transfer and Cleaning \(1 Of 3\) BSD](#). Check that the connectors on the 2nd BTR HVPS are seated and that the wires are free from damage. Turn the power OFF and then ON. **The defeat reoccurred.**

Y N

Go to [Call Flow](#).

Replace the 2nd BTR HVPS (PL 11.3). If the problem continues, replace the MCU PWB (PL 11.1). If the problem persists, replace the ESS PWB (PL 11.5).

## IQ18 Process Direction Faded Bands and Streaks RAP

Light bands of one color appear over the image in the process direction.

### Initial Actions

Check the 2nd BTR Cam for proper operation

### Procedure

The problem occurs in both Copy mode and Print mode.

Y N

The problem only occurs in Copy mode only.

Y N

Go to [Call Flow](#).

Go to [5.15 Copy/Scan Image Input Processing \(1 of 3\) BSD](#). Check that the IIT/IPS PWB connectors are fully seated and free from damage. Turn the power OFF and ON. **The defect reoccurs.**

Y N

Go to [Call Flow](#).

Check the mirrors on the Full Rate and Half Rate Carriages for alignment. **The mirrors are properly installed.**

Y N

Installed the mirrors properly.

Replace the IIT/IPS PWB (PL 13.8). If the problem continues, replace the CCD PWB (PL 13.6).

Enter [dC612](#). Make a print of Test Pattern 11. Open the Front Door about seven seconds into the Job. Extend the IBT Drawer. **The image on the Belt is defect free.**

Y N

Check the IBT Belt for damage or contamination. **The IBT Belt is OK.**

Y N

Clean or replace the IBT Belt as required (PL 7.3).

Replace the MCU PWB (PL 11.1). If the problem continues, replace the ESS PWB (PL 11.5).

Check the Developer Housing and Drum Cartridges for Toner clumping, damage, and/or contamination. **The Developer Housing and Drum Cartridge are OK.**

Y N

Clean or replace the Developer Housing (PL 6.6) or Drum Cartridge (PL 6.1) as required.

Go to [9.26 2nd Transfer and Cleaning \(1 Of 3\) BSD](#). Check that the connectors on the 2nd BTR HVPS are seated and that the wires are free from damage. Turn the power OFF and then ON. **The defeat reoccurred.**

Y N

Go to [Call Flow](#).

Replace the 2nd BTR HVPS (PL 11.3). If the problem continues, replace the MCU PWB (PL 11.1). If the problem persists, replace the ESS PWB (PL 11.5).

## IQ19 Mottle RAP

This RAP troubleshoots the causes of output images showing image density that varies from inboard to outboard edges, or randomly throughout the print.

### Initial Actions

- Replace the paper in use with fresh, dry paper of the correct specification. Ensure that the loaded media matches the UI or print driver settings.
- Determine if the Drum Cartridge or any of the Toner Cartridges are approaching end-of-life. Replace if necessary.
- Perform Max Setup (ADJ 9.1). If this does not resolve the problem, continue with this RAP.

### Procedure

Enter **dC612**. Make a print of Test Pattern 22. **The defect involves a single color.**

Y N

**The problem occurs with a specific type or weight of paper only.**

Y N

Make a print of the Test Page. Open the Front Door when the lead edge of the print begins to protrude from the Fuser Exit nip. Open the Fuser and examine the partially-fused sheet. **The defect is present in both the fused and unfused portion of the sheet.**

Y N

Clean or replace the Fuser (PL 8.1).

Enter **dC612**. Make a print of Test Pattern 22. As the print is being processed, open the Front Door. Examine the image on the Transfer Belt. **The image on the belt has acceptable density.**

Y N

Replace the Transfer Belt (PL 7.3).

Go to the **IQ20 2nd BTR Checkout RAP** to check 2nd BTR Backup Roll bias/contacts.

Clean/replace the 2nd BTR Assembly (PL 7.8).

If the problem continues, replace the Transfer Belt (PL 7.3).

### CAUTION

*Performing the adjustments in the following step may not eliminate mottle completely, and/or may introduce other IQ problems; the intent is to reach the best compromise.*

It may be possible to fine-tune the 2nd BTR transfer bias for a specific problem paper by varying the secondary transfer remote for that paper.

The secondary transfer bias is a target value (based on temperature, humidity, 2nd BTR resistance, and other Xerographic inputs) that represents what control logic has computed to be the optimum transfer bias. Each paper type has an NVM location for remote manual control of this target. The default for these "remote" locations is 100 (representing 100% of computed transfer bias target). The bias can be shifted from 0% to 200% of target.

Change the value of the remote for the affected paper type to 150. Adjust the remote up or down to achieve the best IQ compromise. If the results are not satisfactory, set the remote value to 75 and adjust the remote up or down to achieve the best IQ compromise.

A

Switch Drum Cartridges. **The problem moves with the cartridge.**

Y N

Check the following:

- Clean the HV contact for the developer in question.
- Replace the Toner Cartridge if not done previously.
- Replace the Developer (PL 6.6). Examine the housing for damage, wear, or contamination. If the problem persists, replace the ATC Sensor (PL 6.6).

Replace the Drum Cartridge (PL 6.1).

**NOTE:** *Performing the adjustments in the following table may not eliminate mottle completely, and/or may introduce other IQ problems; the intent is to reach the best compromise. (Table 1)*

Table 1

| Default Paper Name | Color      |            | Black/White |            |
|--------------------|------------|------------|-------------|------------|
|                    | NVM Side 1 | NVM Side 2 | NVM Side 1  | NVM Side 2 |
| Plain Paper Bond   | 746-311    | 746-313    | 746-313     | 746-314    |
| Light Weight Paper |            |            | 746-319     | 746-320    |
| Plain IC           | 746-321    | 746-322    | 746-323     | 746-324    |
| Heavy Weight 1A    | 746-325    | 746-326    | 746-327     | 746-328    |
| Heavy Weight 1B    | 746-329    | 746-330    | 746-331     | 746-332    |
| Heavy Weight 2A    | 746-333    | 746-334    | 746-335     | 746-336    |
| Heavy Weight 2B    | 746-337    | 746-338    | 746-339     | 746-340    |
| Heavy Weight 2C    | 746-341    | 746-342    | 746-343     | 746-344    |
| Heavy Weight 2D    | 746-345    | 746-346    | 746-347     | 746-348    |
| Heavy Weight 2E    | 746-349    | 746-350    | 746-351     | 746-352    |
| Transparency       | 746-353    |            | 746-354     |            |
| Coated 1           | 746-355    | 746-356    | 746-357     | 746-358    |
| Coated 2           | 746-359    | 746-360    | 746-361     | 746-362    |
| Film               | 746-363    |            | 746-364     |            |

A

## IQ20 2nd BTR Checkout RAP

To isolate mechanical failure and out-of range voltages/current for the 2nd BTR assembly.

### CAUTION

#### HIGH VOLTAGE!

*Exercise caution when performing the voltage checks in this procedure.*

### Initial Actions

- Enter **dC330** (094-004) 2nd BTR Motor retract. Stack codes (042-001), (042-002), (042-003), or (042-004) Main Drive Motor. The 2nd BTR Motor responds
- Enter **dC330** (094-004) 2nd BTR Motor retract. Stack codes (042-001), (042-002), (042-003), or (042-004) Main Drive Motor. If the 2nd BTR does not respond, check the Retract Motor and the 2nd BTR Retract Sensor (**PL 7.9**). Replace the 2nd BTR if needed

### Procedure

Refer to **9.26 2nd Transfer and Cleaning (1 Of 3) BSD**. Disconnect the red wire on the 2nd BTR HVPS. Set the meter to read microamps. Connect the meter with one lead connected to the connector on the board and the other lead to the red wire. **Approximately 20-30 microamps are measured.**

**Y N**  
Approximately 10-15 microamps are measured.

**Y N**  
Approximately 0 microamps are measured.

**Y N**  
Current is out of operating range. Check wire harness for damage. Check for bad connection or open circuit on the 2nd BTR HVPS. Repair or replace as required.

Reconnect the red wire. Set the meter to read VDC. Check for +24VDC between pins 1 and 2 of **P/J582** while the machine is in standby mode. **+24VDC is measured.**

**Y N**  
Check wire harness for damage. Check for bad connection or open circuit on the MCU PWB (J410). Repair or replace the MCU PWB as required (**PL 11.1**).

Check wire harness for damage. Check for bad connection or open circuit on the 2nd BTR HVPS. Repair or replace MCU PWB as required (**PL 11.1**).

Reconnect the red wire on the 2nd BTR HVPS. Set the meter to read VDC. Check for +5VDC at **P/J439-B6** on the IOT Drive PWB while making a full color copy of the standard test pattern. **+5VDC is measured.**

**Y N**  
Check wire harness for damage. Check for bad connection or open circuit on the IOT Drive PWB. Repair or replace as required (**PL 11.1**).

Check wire harness for damage. Check for bad connection or open circuit on the 2nd BTR HVPS. Repair or replace as required (**PL 11.3**).

Check the following:

- Check the 2nd BTR for any damage, repair or replace as required.

- Ensure that the 2nd BTR is correctly installed in both the IB and OB holders.

## IQ21 1st BTR Checkout RAP

This RAP is used to isolate mechanical failure and out-of-range voltage/current for the 1st BTR Assembly

### Procedure

**NOTE:** Because the 1st BTR HVPS location is very difficult to access, no actual voltage checks can be made.

Make a copy of the Color Test Pattern. If the high density gradation patches (100%, 85%, and 70%) for one or more of C, Y, M, or K appear to be light, perform the following:

- Refer to [9.21 1st Transfer \(1 of 3\) BSD](#) and [9.22 1st Transfer \(2 of 3\) BSD](#). Reseat the connectors and check the wiring on the 1st BTR HVPS for damage.
- Check the Fault Code List for the following Fault Codes:
  - [094-320 RAP](#)
  - [094-321 RAP](#)

If the above Fault Codes are OK, replace the 1st BTR HVPS ([PL 7.4](#)). If the problem continues, replace the MCU PWB ([PL 11.1](#)).

## IQ22 Developer Bias RAP

This RAP is used to isolate out-of-range voltage/current for the developer Bias.

### Procedure

#### WARNING

#### HIGH VOLTAGE!

**Exercise caution when performing the voltage checks in this procedure.**

Refer to [9.12 Black Development BSD](#) and [9.13 Yellow, Magenta, Cyan Development BSD](#). Check the voltage at [P/J594](#) (Y, M, C), [P/J592](#) (K) on the Developer Bias HVPS. There should be approximately 370VAC and -540VDC (+/- 10%) present. **The voltages are within range.**

Y N

+24 VDC is measured between pins B9 and B8 of [P/J416](#) on the MCU PWB.

Y N

+24 VDC is measured between pins A9 and A8 of [P/J410](#) on the MCU PWB.

Y N

Go the +24VDC Wirenets to troubleshoot the 24VDC circuit.

Go to [9.12 Black Development BSD](#) and [9.13 Yellow, Magenta, Cyan Development BSD](#). Reseat the connections and check for damaged wires. If the problem continues, replace Developer Bias HVPS ([PL 11.1](#)).

Go to [9.12 Black Development BSD](#) and [9.13 Yellow, Magenta, Cyan Development BSD](#). Check that the HVPS Control PWB is seated correctly. If the problem continues, replace the Developer Bias HVPS ([PL 11.1](#)).

Go to [9.12 Black Development BSD](#) and [9.13 Yellow, Magenta, Cyan Development BSD](#). Reseat connector [P/J594](#) and [P/J592](#) on the MCU PWB. Check the wires for damage. If the checks are good, return to the RAP that directed you here.

## IQ23 BCR Checkout RAP

Use this procedure to troubleshoot edge-to-edge, very dense, single-color background

### Procedure

Swap the Drum Cartridge that creates the high single-color background with any of the other Drum Cartridges and make a test print. **The background color remains the same.**

Y N

Replace the Drum Cartridge causing the single-color background (PL 6.1).

Go to [9.9 Charging And Exposure - Y,M,C BSD](#). Check the connectors on the Charge (Y, M, C) HVPS are seated and the wires for damage. **The connectors and wires check out OK.**

Y N

Repair or replace harness as required.

**NOTE:** The actual BCR bias voltage involves a high-frequency AC signal at a negative DC offset. The AC and DC values vary constantly, depending on run mode, Drum age, and several environmental variables. Measured voltages will vary from machine to machine and job to job.

Program a Full Color copy job. While the job is running, check the pins on [P/J593](#) that is associated with the problem color for -400 VDC to -900 VDC:

C: pin 6

M: pin 4

Y: pin 1

**The voltages check out OK.**

Y N

**+24VDC is measured between pins 1 and 2 at [P/J587](#) on the Charge (Y, M, C) HVPS.**

Y N

Check the wires for damage or open circuit. Repair as required.

Replace the Charge (Y, M, C) HVPS PWB (PL 11.1).

Replace the affected Drum Cartridge (PL 6.1). If the problem continues, replace the Charge (Y, M, C) HVPS (PL 11.1).

## IQ24 Scorotron Checkout RAP

Use this procedure to troubleshoot edge-to-edge, very dense, Black background

### Procedure

Install a new Black Drum Cartridge and run some test prints. **The background color continues.**

Y N

Go to [Call Flow](#).

Go to [9.8 Black Charging And Exposure BSD](#). Check the connectors on the Charge (K) Preclean HVPS are seated and the wires for damage. **The connectors and wires check out OK.**

Y N

Repair or replace harness as required.

Program a Black only job. While the job is running, check pin 1 at [P/J591](#) on the Charge (K) Preclean HVPS. Approximately -400 VDC to -900 VDC is measured: **The voltage checks out OK.**

Y N

**+24VDC is measured between pins 1 and 2 at [P/J584](#) on the Charge (K) Preclean HVPS.**

Y N

Check the wires for damage or open circuit. Repair as required.

Replace the Charge (K) Preclean HVPS (PL 11.2).

Replace the Scorotron Unit Assembly (PL 6.1). If the problem continues, replace the Charge (K) Preclean HVPS (PL 11.2).



## Image Quality Specifications

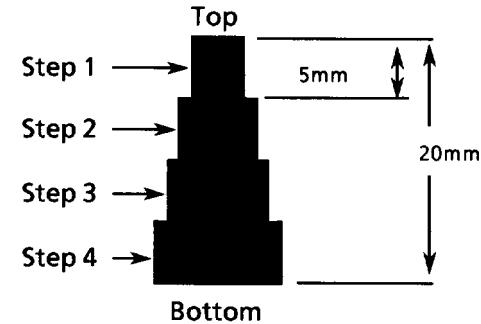
The following steps are used to set up the machine for the purpose of making test pattern copies to judge output image color density, balance, and registration.

1. Set the following Customer Mode Settings to the positions listed:
  - a. Output Color - Full Color
  - b. Original Type - Text & Photo / Halftone
  - c. Lighten/Darken - Normal
  - d. Color Balance - 0
  - e. Color Saturation - Normal
  - f. Sharpness - Normal
2. Place the Color Test Pattern on the platen. Load 11x17" or A3 paper into Tray 1. Make a copy of the test pattern.
3. Compare the copy to the test pattern. Refer to and for this evaluation.

**Table 1 Color Specifications Check Locations**

| AREA ( ) | Check for the Following Results                                                                                                                                                                                                                                                                                                                              |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A        | Text Reproduction. Each of the seven sentences in this area are fully reproduced with no missing letters or portions of letters. The sentences are reproduced in Black, Cyan, Magenta, Yellow, Red, Green and Blue.                                                                                                                                          |
| B        | Color Registration. The patterns in location B should be properly registered to provide Black, Red, Green and Blue lines.                                                                                                                                                                                                                                    |
| C        | Front to Rear Density. The density of both the low density and high density bands should be uniform from front to rear. This can be tested by folding the copy in the center and comparing the front side of the copy to the rear side of the copy at location C. Both the high density and low density locations should exhibit even front to rear density. |
| D        | Color Gradation. This area should exhibit a decreasing density of each of the colors from 100% density to 5% density. In a properly adjusted machine, the 10% patches should be visible and the 5% patches should be barely visible or not visible on the test pattern copy (except for the bottom row).                                                     |
| E        | Routine Color. Location E represents three general tests for the machine to reproduce colors common to customer originals.<br>Location A is a general skin tone test.<br>Location B represents the color of grass or other common foliage.<br>Location C represents the color of the sky.                                                                    |
| F        | Photo Gradation. Location F is not used for any copy quality evaluation on this product.                                                                                                                                                                                                                                                                     |
| G        | IIT Calibration Patches. These patches are scanned for IIT Calibration during the dC945 IIT Calibration portion of Max Setup.                                                                                                                                                                                                                                |
| H        | 100 Lines/Inch Image. A Moire defect will show on this image. Moire on a 100 Line/Inch image is within specification.                                                                                                                                                                                                                                        |
| I        | 175 Lines/Inch Image. This image is used to test for Moire. Depending on the degree of the defect, moire seen on this image should be considered out of specification.                                                                                                                                                                                       |

Registration and border deletions are checked using the Step Scales on the Geometric Test Pattern, an example of which is shown in Figure1. All of the scales are 20mm in height, and are made up of four 5mm steps. Step 1 will be described as at the top of the Step Scale, and Step 4 will be described as at the bottom.



**Figure 1 Step Scales**

Each Step Scale is positioned for a particular paper size and orientation. Table2 indicates the appropriate Step Scales to use for the various paper sizes, orientations and measurement locations.

**Table 2 Geometric Checkout - Step Scale Data.**

| Paper Size | Orientation | To check:                            | Step Scales to use (refer to Figure1)                                  |
|------------|-------------|--------------------------------------|------------------------------------------------------------------------|
| 11x17      | SEF         | Lead Edge<br>Side Edge<br>Trail Edge | LE1 through LE3<br>SE1 through SE4 (top); SE5 and SE8 (bottom)<br>TE3  |
| A3         | SEF         | Lead Edge<br>Side Edge<br>Trail Edge | LE 1 through LE3<br>SE1 through SE4 (top); SE6 and SE7 (bottom)<br>TE4 |
| 8.5x11     | SEF         | Lead Edge<br>Side Edge<br>Trail Edge | LE 1 and LE2<br>SE1 through SE3 (top); SE9 (bottom)<br>TE5             |
| A4         | LSEF        | Lead Edge<br>Side Edge<br>Trail Edge | LE 1 and LE2<br>SE1 through SE3 (top); SE10 (bottom)<br>TE6            |
| 8.5x11     | LEF         | Lead Edge<br>Side Edge<br>Trail Edge | LE1 through SE3<br>SE1 and 2 (bottom) SE6 and SE7 (top)<br>TE 2        |
| A4         | LEF         | Lead Edge<br>Side Edge<br>Trail Edge | LE1 through SE3<br>SE5 (top); SE1 and SE2 (bottom)<br>TE1              |

1. Set the following Customer Mode Settings to the positions listed:
  - Output Color - Full Color

- Original Type - Photo & Text / Halftone
  - Lighter/Darker - Auto Contrast
  - Color Saturation - Normal
  - Variable Color Balance - Normal
  - Sharpness - Normal
2. Place Test Pattern 82E8220 on the platen and 24# Xerox Color Xpressions 11x 17" or 90 GSM Colotech A3 paper in Tray 1. Make a copy of the test pattern.
  3. Follow the directions in Table1 to determine if the machine registration is within specification.

**Table 3 Test Pattern Image Data Locations for Geometric Specifications**

| <b>GEOMETRIC AREA</b>  | <b>CHECK PERFORMED</b>                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Magnification          | Locate the 300mm line running from near LE1 to the trail edge of the 1.8 lp ladder. Locate the 200mm line running from near LE1 to near LE3. Make a copy. The measurements should be: <ul style="list-style-type: none"> <li>• Left to Right: 300mm <math>\pm</math>1.5mm</li> <li>• Front to Rear: 200mm <math>\pm</math>1.0mm</li> </ul>                                                         |
| Resolution             | Observing the targets on the test pattern copy at locations R1 through R8, the line pairs specified below are clearly visible for the magnification value indicated: <ul style="list-style-type: none"> <li>• 70%: 3.0 lp/mm</li> <li>• 100% through 400%: 4.3 lp/mm</li> </ul>                                                                                                                    |
| Lead Edge Registration | Measure from the lead edge of the paper to the top of Step 3 on the LE2 Step Scale. The measurement should be: <ul style="list-style-type: none"> <li>• Trays 1 through 4: 10mm <math>\pm</math>1.5mm (<math>\pm</math>1.6mm for 2nd side of duplex job)</li> <li>• Tray 5: 10mm <math>\pm</math>1.6mm</li> </ul>                                                                                  |
| Side Edge Registration | Measure from the side edge of the paper to the top of Step 3 on the SE2 and SE3 Step Scales. The distance should be within the following tolerance: <ul style="list-style-type: none"> <li>• Trays 1 through 4: 8.5mm <math>\pm</math>1.8mm (<math>\pm</math>2.0mm for 2nd side of duplex job)</li> <li>• Tray 5: 8.5mm <math>\pm</math>3.0mm</li> </ul>                                           |
| Lead Edge Skew         | For skew from front to rear, the distance from the lead edge of the paper to the targets at LE1 and LE3 are measured. The measurements must match each other to within the tolerance below: <ul style="list-style-type: none"> <li>• Trays 1 through 4: within <math>\pm</math>1.6mm (<math>\pm</math>2.0mm for 2nd side of duplex job)</li> <li>• Tray 5: within <math>\pm</math>1.6mm</li> </ul> |
| Side Edge Skew         | For skew from left to right, the distance from the side edge of the paper to the targets at SE1 and SE4 are measured. They must match each other to within the tolerance below: <ul style="list-style-type: none"> <li>• Trays 1 through 4: within <math>\pm</math>3.2mm (<math>\pm</math>4.0mm for 2nd side of duplex job)</li> <li>• Tray 5: within <math>\pm</math>3.2mm</li> </ul>             |
| Line Density           | This parameter is measured on the two 0.7G Text Blocks on the test pattern copy. The machine should reproduce all of the characters shown in the block on the output copy.                                                                                                                                                                                                                         |
| Solid Reproduction     | This specifies the desired standard for reproduction of solid gray images at 1.0 K. The 1.0 K blocks on the output copy should reproduce with minimal mottle or graininess.                                                                                                                                                                                                                        |

**Table 3 Test Pattern Image Data Locations for Geometric Specifications**

| <b>GEOMETRIC AREA</b>     | <b>CHECK PERFORMED</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Low Contrast Reproduction | This specifies the desired standard for reproduction of low density images. The machine should reproduce all of the text in the 0.2 G Text Blocks on the output copy.                                                                                                                                                                                                                                                                   |
| ROS Borders (Image Loss)  | Measure from the lead edge of the paper at LE2, the side edge of the paper at SE2 and SE7, and the trail edge at TE4, to the top edge of the step scales in those locations. The measurements should conform to the following specifications: <ul style="list-style-type: none"> <li>• Lead Edge 4mm <math>\pm</math> 1 mm</li> <li>• Side Edges 2 mm <math>\pm</math> 1 mm</li> <li>• Trail Edge 4 mm <math>\pm</math> 1 mm</li> </ul> |



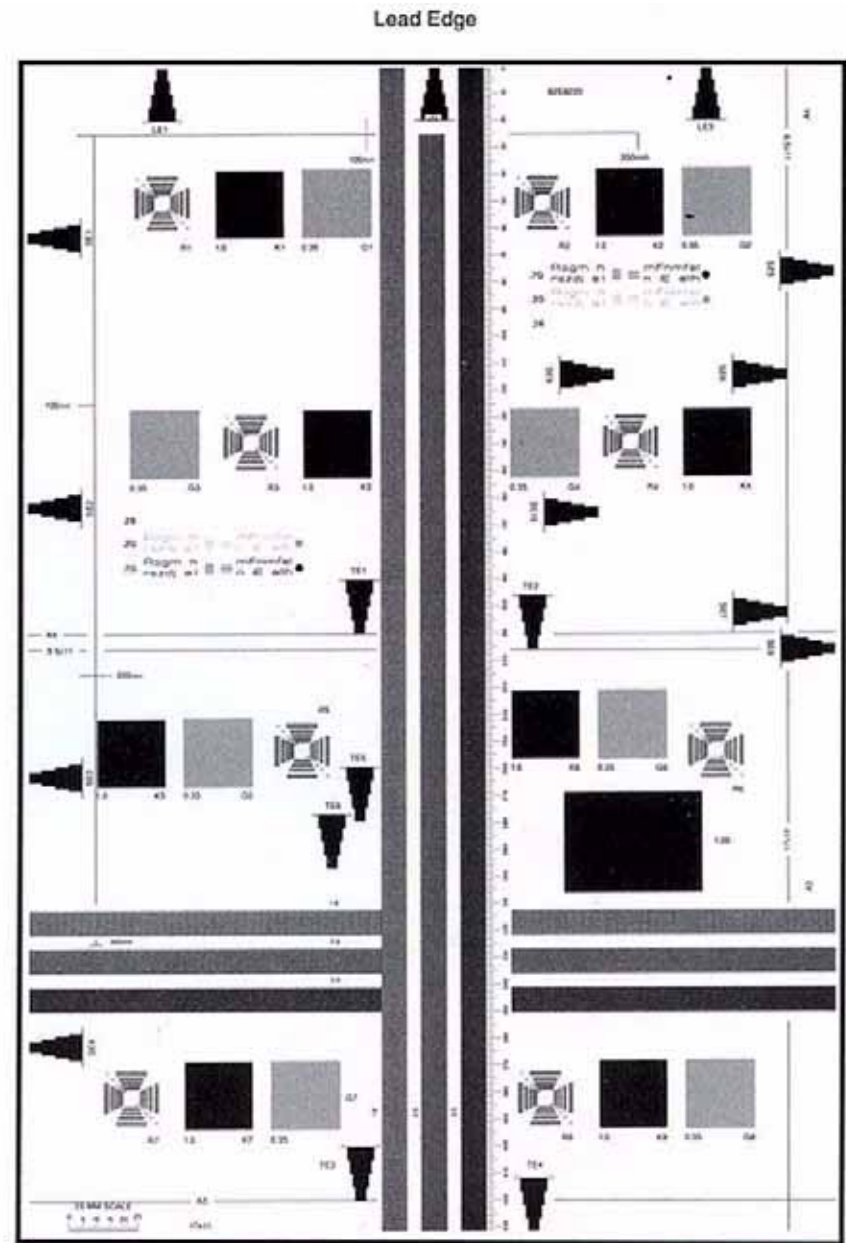


Figure 2 Color and Geometric Test Patterns



## Image Defect Samples

The following figures contain examples of defects and their possible causes.

- Background
- Color Misregistration
- Debris-Centered Deletions
- Deletions
- High Frequency Bands
- Irregular Process Direction Streak
- Low Image Density
- Moire
- Mottle
- Newton Rings
- Regular (Repeating) Bands, Streaks, or Smears
- Residual Image
- Streak Deletion in Process Direction
- Wrinkled Image

## Background

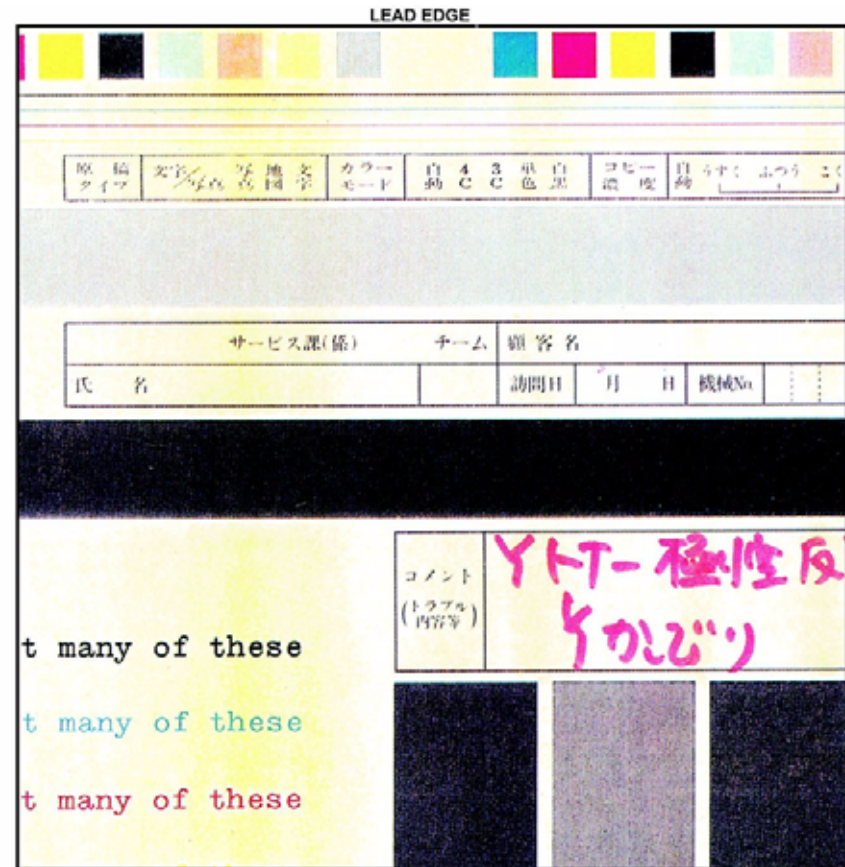


Figure 1 Background Defect Sample

### Cause

Incorrect Electrostatics, high TC, faulty ADC Sensor

### Corrective Action

Go to the [IQ11 Background RAP](#).

## Color Misregistration

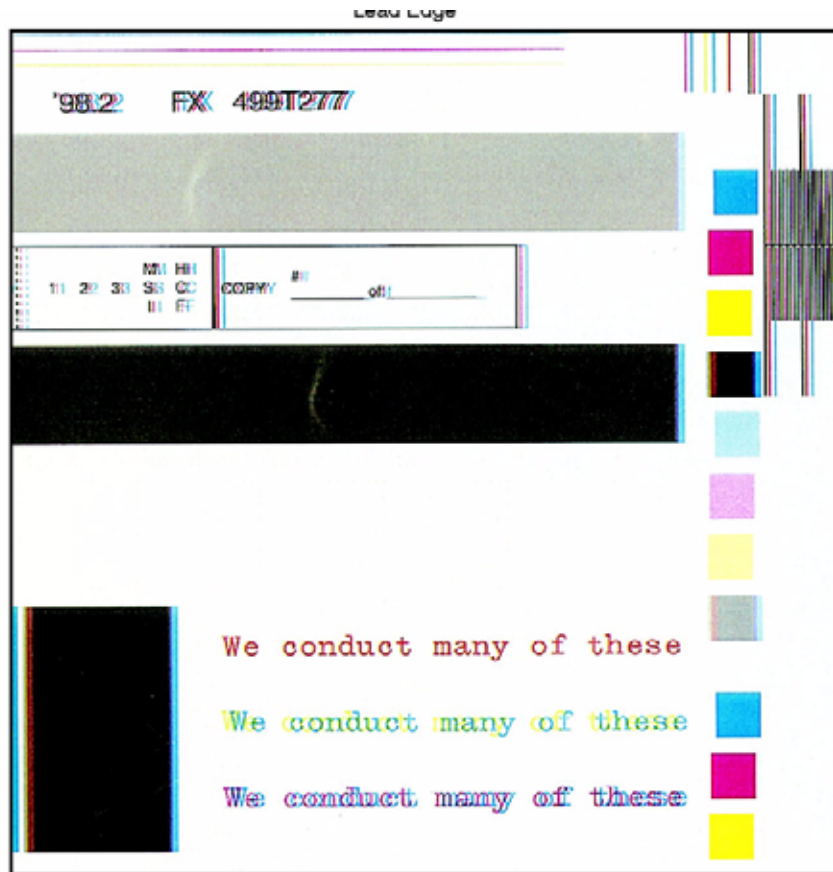


Figure 1 Color Misregistration Defect Sample

### Cause

Failure of the ROS or IBT “walking” from rear to front or front to rear.

Mechanical problem in the IBT Assembly.

### Corrective Action

Go to the [IQ7 Skew/Misregistration RAP](#).

## Debris-Centered Deletions

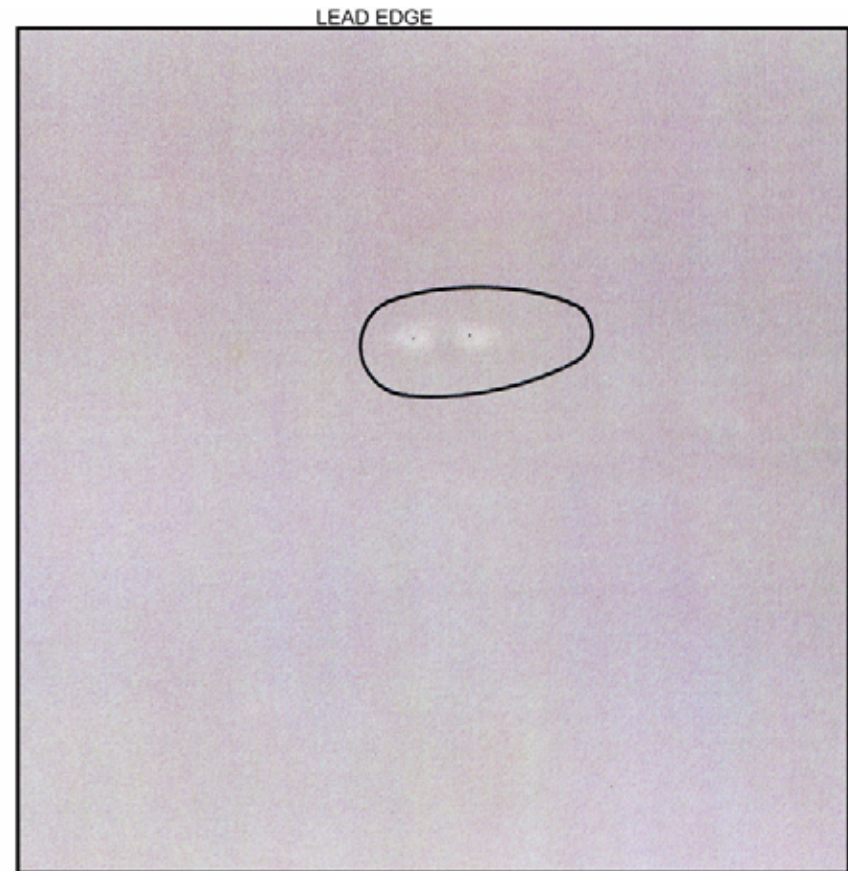


Figure 1 DCD Defect Sample

### Cause

Toner agglomerates cause deletions in the areas surrounding them during transfer.

### Corrective Action

Go to the [IQ12 Spots RAP](#).

## Deletions

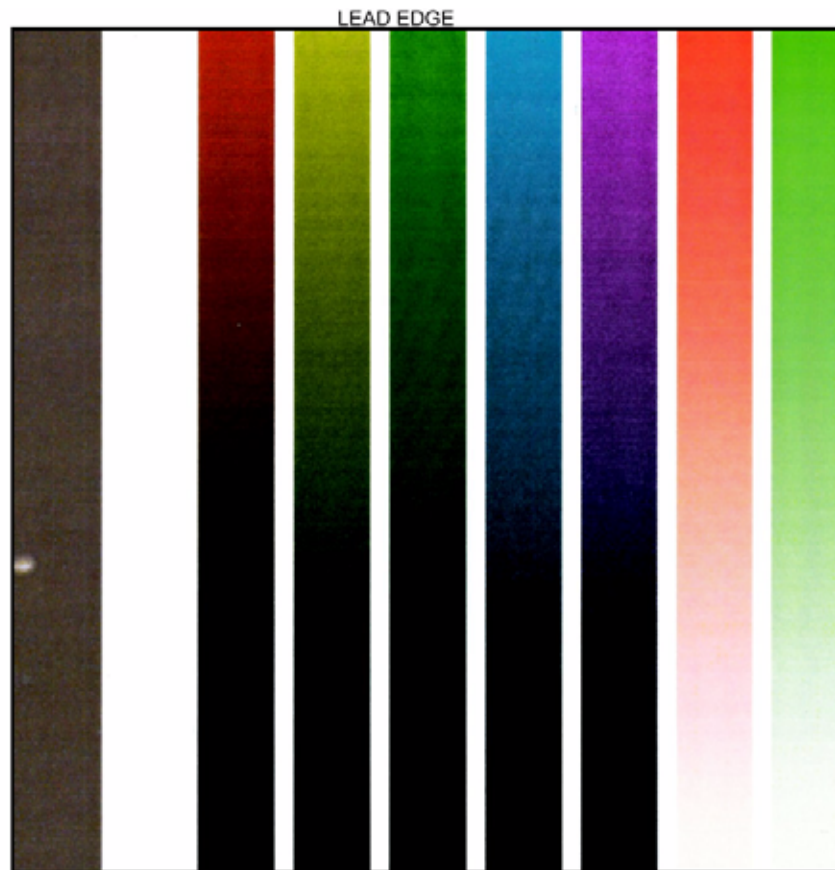


Figure 1 Deletions Defect Sample

### Cause

Defective IBT Belt, damp paper, uneven charge.

### Corrective Action

Go to the [IQ15 Partial Image Deletions RAP](#).

## High Frequency Bands



Figure 1 High Freq. Bands Defect Sample

### Cause

Faulty ROS Assembly or Photoreceptor/Developer Housing gear or bearing problem.

### Corrective Action

Go to the [IQ4 Repeating Bands, Streaks, Spots, and Smears RAP](#).

## Irregular Process Direction Streak

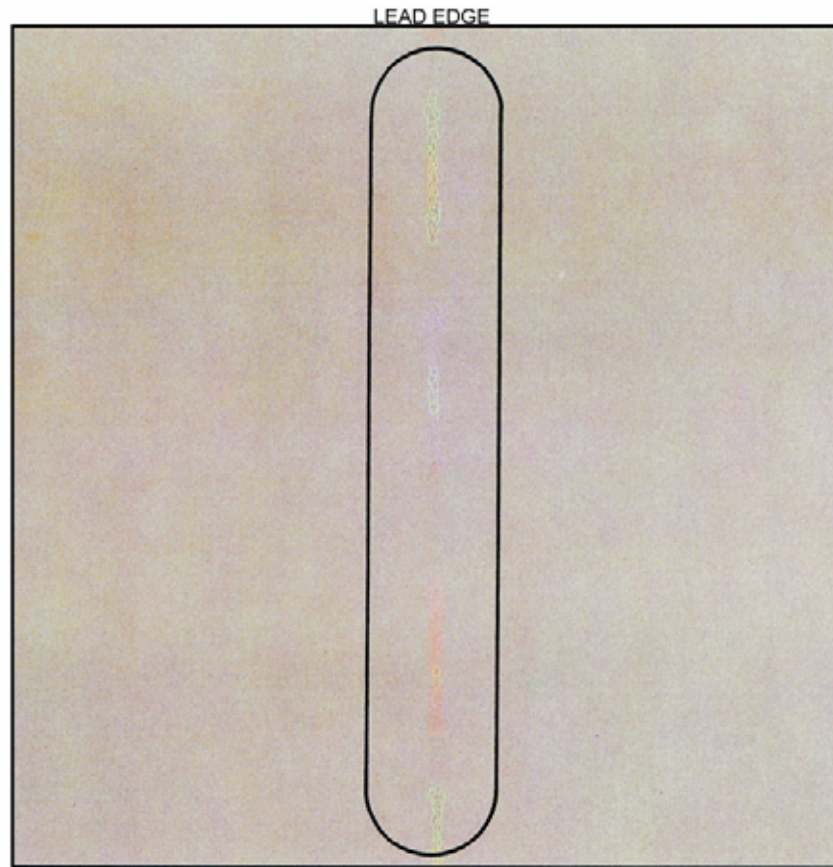


Figure 1 Streak Defect Sample

### Cause

Clog in Developer Housing Trim Bar, malfunction of IBT Cleaner Assembly, contaminated ROS window.

### Corrective Action

Go to the [IQ8 Process Direction Bands and Streaks RAP](#).

## Low Image Density

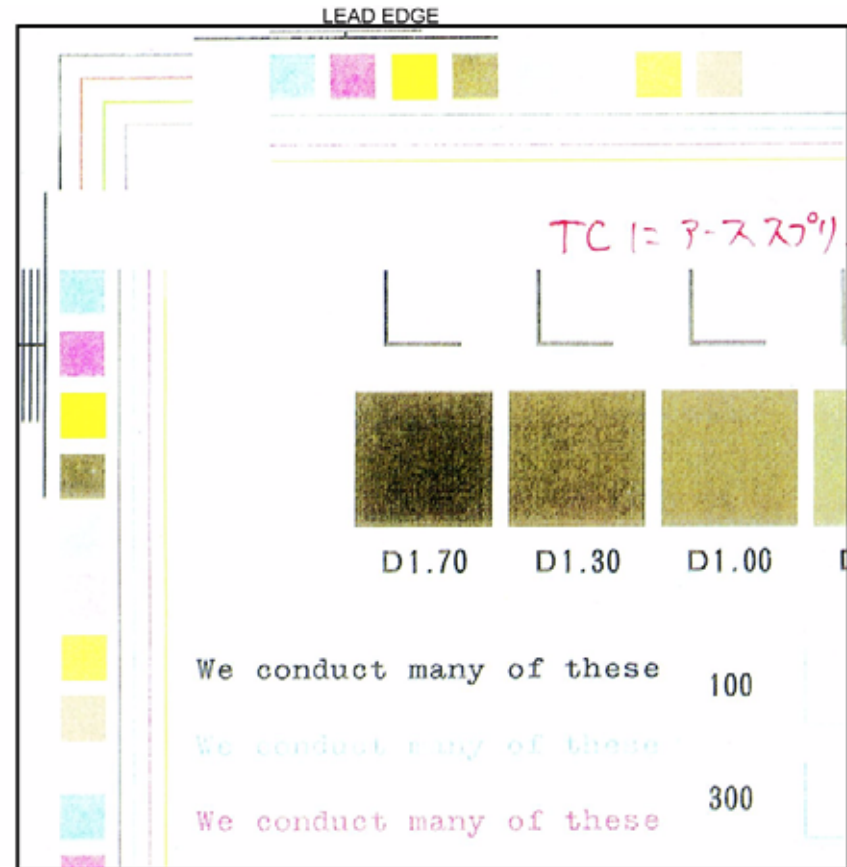


Figure 1 Low Density Defect Sample

### Cause

Incorrect electrostatics, defective ADC Sensor, low toner concentration or out-of-specification paper (especially low quality or heavy weight paper).

### Corrective Action

Go to the [IQ3 Low Image Density RAP](#).

## Moire



Figure 1 Moire Defect Sample

### Cause

The halftone screen used on the original interferes with the halftone screen used by the copier.

### Corrective Action

Go to the [IQ2 IIT Image Quality Entry RAP](#).

## Mottle

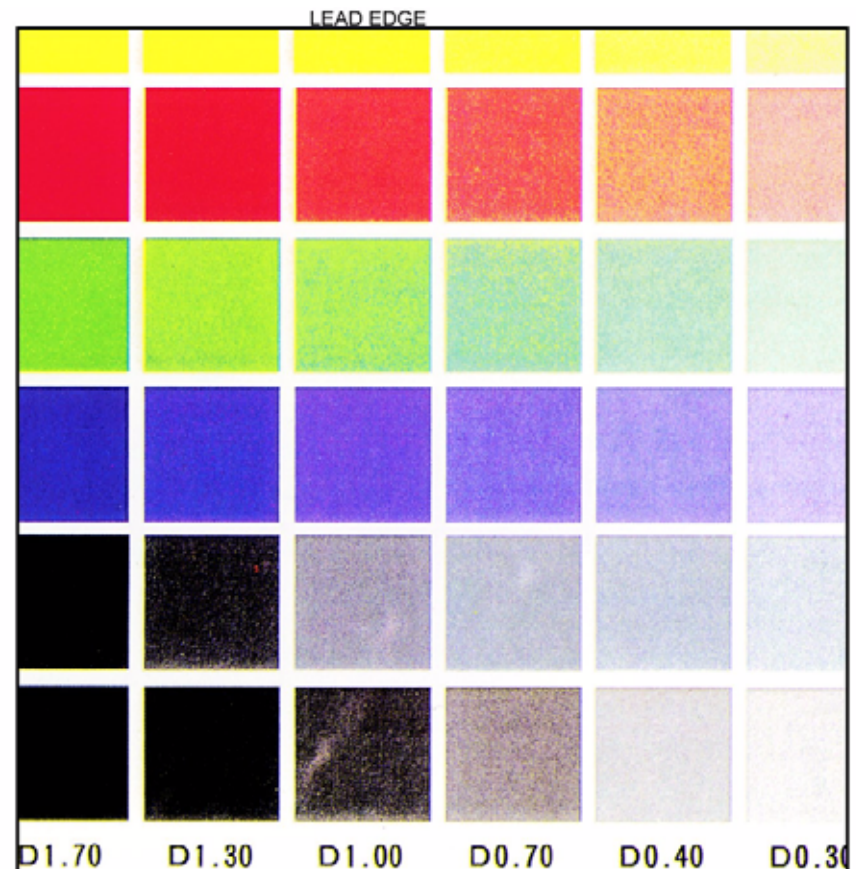


Figure 1 Mottle Defect Sample

### Cause

Damp or low quality paper, aged developer, low toner concentration

### Corrective Action

Go to the [IQ19 Mottle RAP](#).

## Newton Rings



Figure 1 Newton Rings Defect Sample

### Cause

Highly reflective surfaces on a glossy photograph.

### Corrective Action

Perform the following:

- Clean the Document Glass
- Place a transparency between the document and the glass

## Regular (Repeating) Bands, Streaks, Spots, or Smears

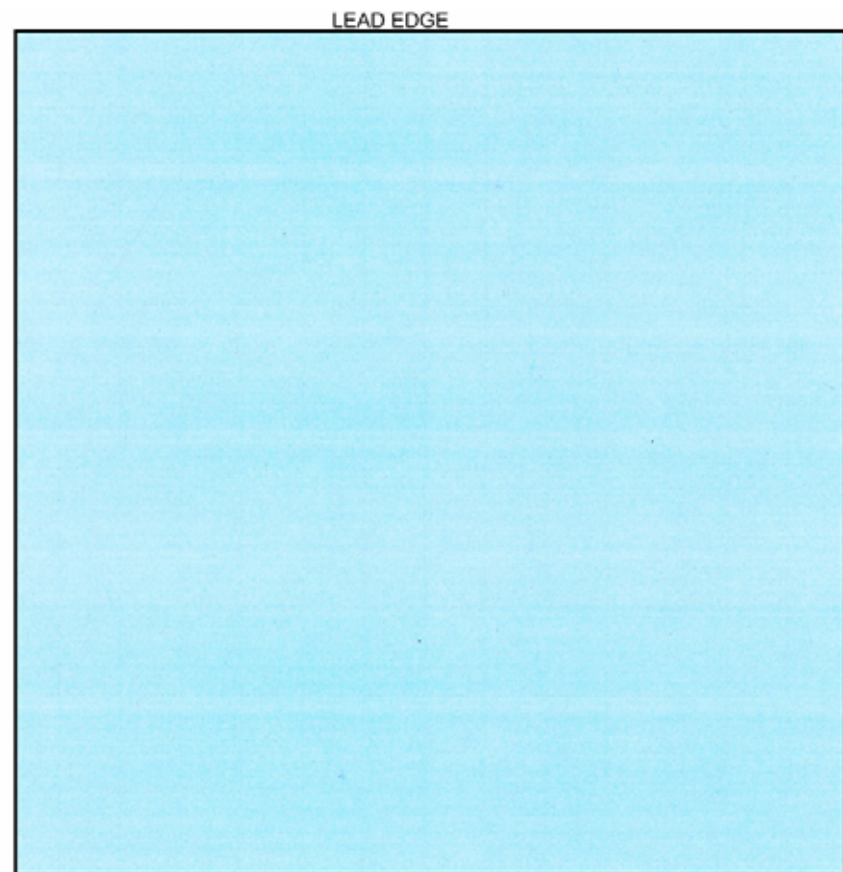


Figure 1 Repeating Defects Sample Image

### Cause

Damage, density variation, or deletions caused by rotating component. Spacing equal to effective circumference of part.

### Corrective Action

Go to the [IQ4 Repeating Bands, Streaks, Spots, and Smears RAP](#).



## Residual Image

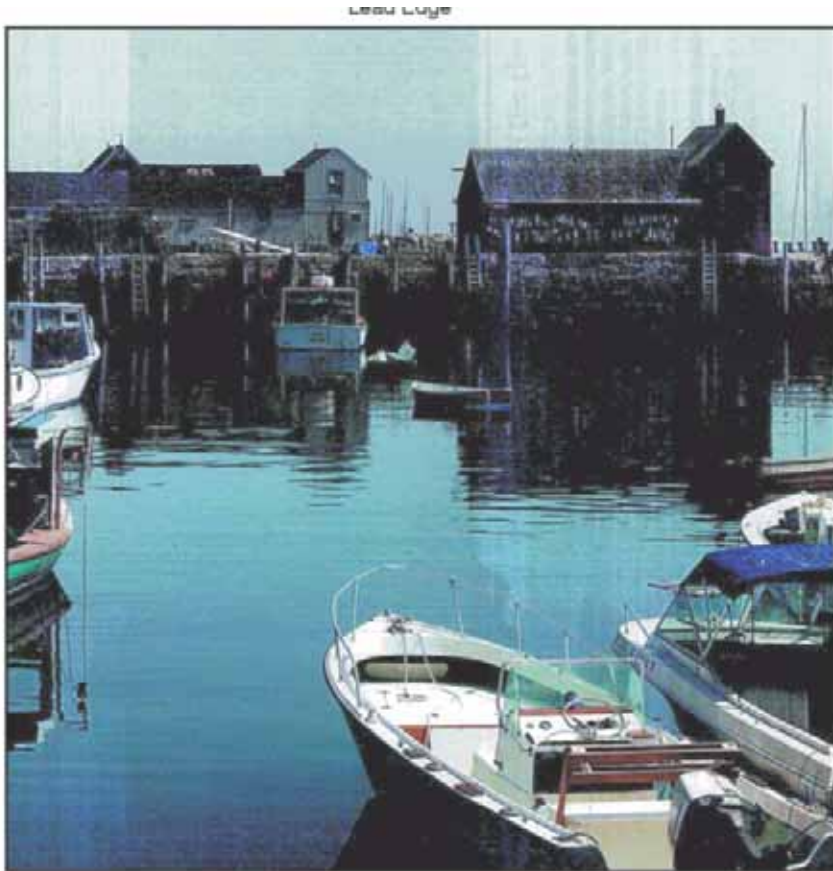


Figure 1 Residual Image Defect Sample

### Cause

Improper IBT cleaning and/or defective IBT Belt.

### Corrective Action

Go to the [IQ9 Residual Image \(Ghosting\) RAP](#).

## Streak Deletion in Process Direction



Figure 1 Streak Deletion Defect Sample

### Cause

Contamination of ROS window, damage to or contact with Transfer Belt or Drum Cartridge

### Corrective Action

Go to the [IQ8 Process Direction Bands and Streaks RAP](#).

## Wrinkled Image

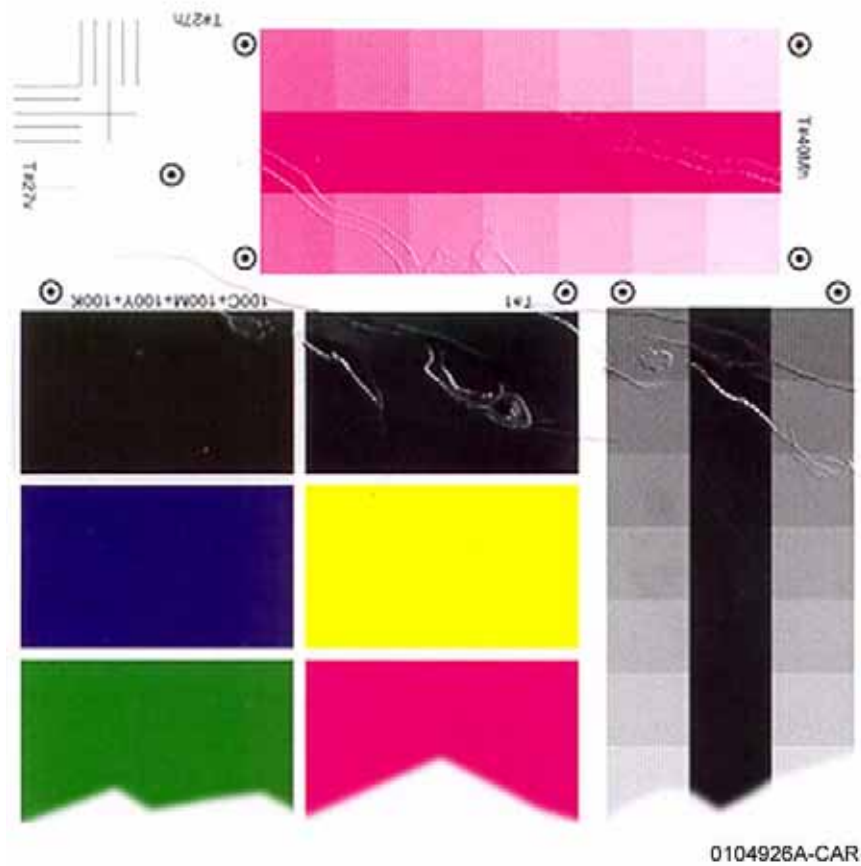


Figure 1 Wrinkled Image Defect Sample0104928

### Cause

Non-uniform paper buckle between IBT and Fuser; Fuser "tenting" of paper. Actual wrinkling of the paper itself can also occur.

### Corrective Action

Go to the [IQ14 Wrinkled Image/Paper RAP](#).

## Cloud Defect

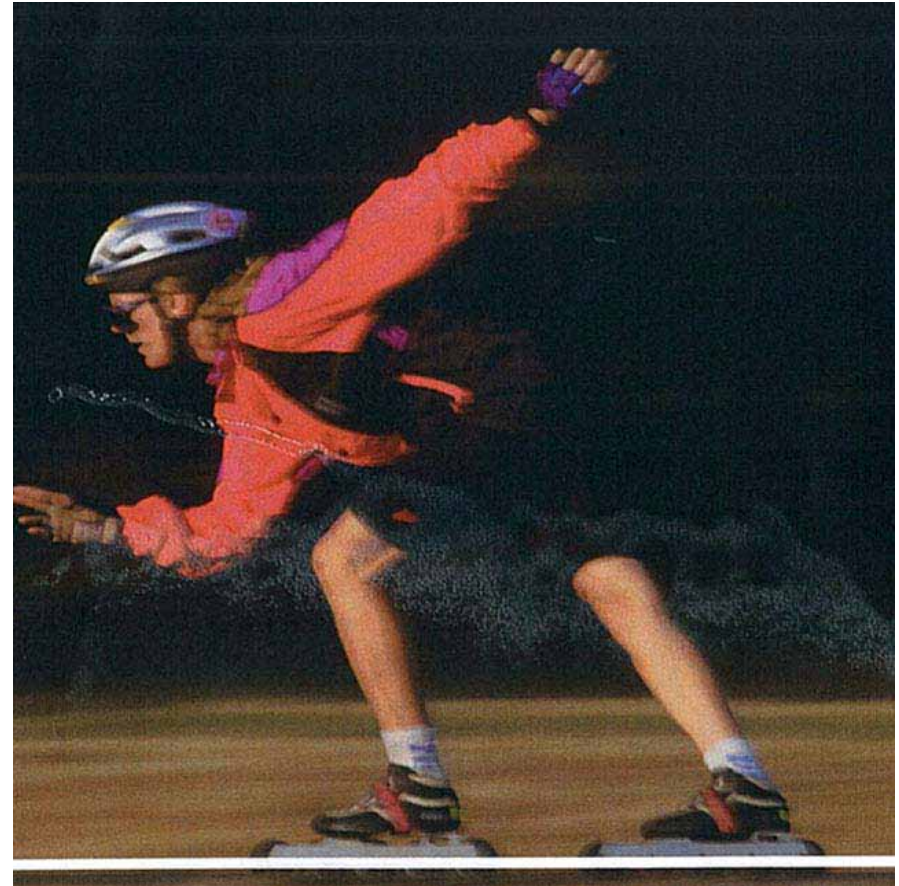


Figure 1 Cloud Defect Sample

### Cause

Non-uniform paper buckle between IBT and Fuser; Fuser "tenting" of paper

### Corrective Action

Go to the [IQ4 Repeating Bands, Streaks, Spots, and Smears RAP](#).

## IBT Cleaner Streak



Figure 1 IBT Cleaner Streak Defect Sample

### Cause

Damage or wear to IBT Cleaner Assembly

### Corrective Action

Go to the [IQ8 Process Direction Bands and Streaks RAP](#).



# 4 Repairs and Adjustments

|                                                                          |      |                                                             |       |
|--------------------------------------------------------------------------|------|-------------------------------------------------------------|-------|
| <b>Chain 4</b>                                                           |      |                                                             |       |
| ADJ 4.1 UI Touch Panel Origin Point Correction .....                     | 4-3  | REP 3.1 Chassis Assembly.....                               | 4-59  |
| <b>Chain 5</b>                                                           |      | REP 3.2 Control Unit.....                                   | 4-61  |
| ADJ 5.1 DADF Skew Adjustment.....                                        | 4-5  | REP 3.3 Main Drive Assembly .....                           | 4-61  |
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## ADJ 4.1 UI Touch Panel Origin Point Correction

### Purpose

To align the position of the buttons on the display and the Touch Panel so that the user can select the contents on the display using the Touch Panel.

Perform this Adjustment whenever the UI PWB is replaced.

**NOTE:** Use the Touch Pen for this Adjustment. The Touch Pen is installed in the Tilt Swivel cover at the rear of the UI. To remove the cover, apply upward finger pressure to the cover's (2) bottom tabs and rotate the cover up and to the rear to remove.

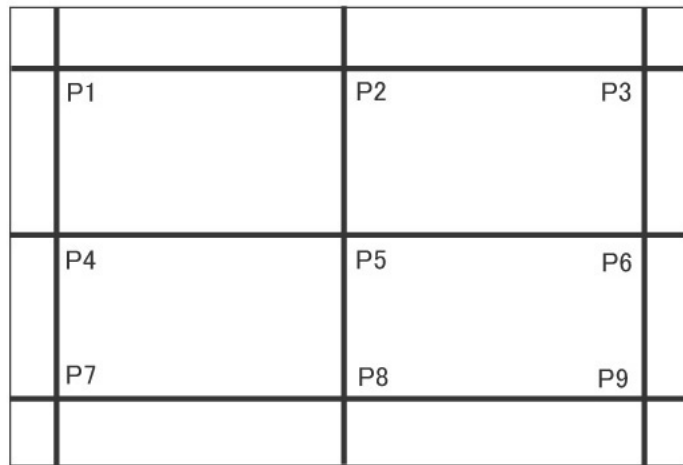
### Adjustment

1. Power off the copier/printer.
2. Remove the Tilt Swivel cover at the rear of the UI and take out the Touch Pen. To remove the cover, apply upward finger pressure to the cover's (2) bottom tabs and rotate the cover up and to the rear. [Figure 1](#)



Figure 1 Removing the tilt swivel cover to get the Touch Pen

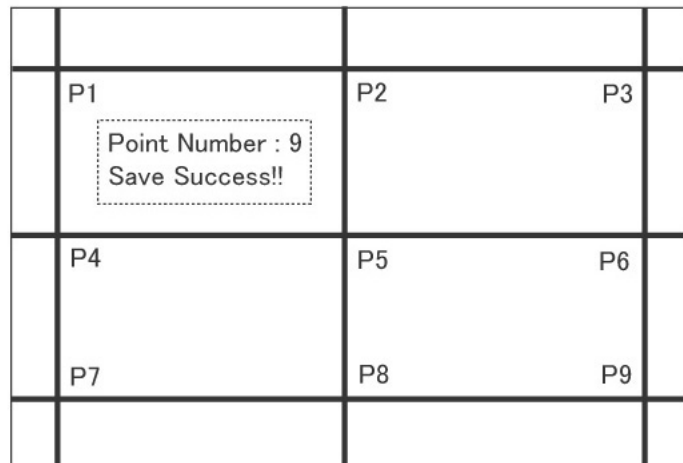
3. Power on the copier/printer, while holding down the 0 (zero), 1, and 3 buttons. The following pattern will appear on the display. [Figure 2](#)



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**Figure 2 Initial origin point correction display**

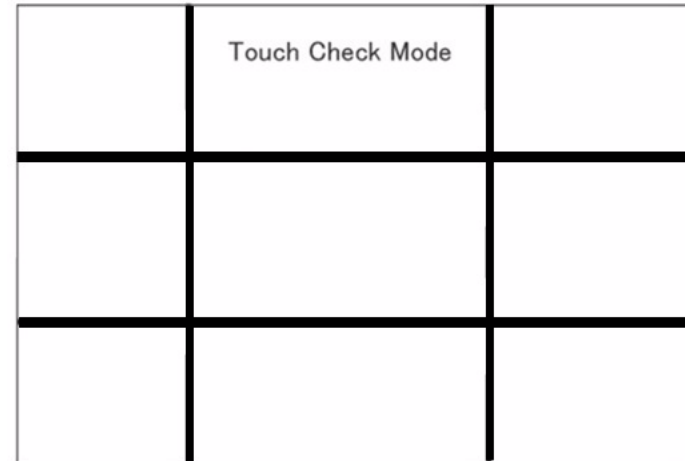
4. Using the Touch Pen, touch the intersections of the vertical and horizontal lines (P1) to (P9) in sequence.
5. After touching point (P9), Origin Point Correction is carried out and the following screen is briefly displayed when the corrected data has been saved. [Figure 3](#)



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**Figure 3 Information displayed when Origin Point Correction data is saved**

6. When the Origin Point Correction is complete, the following screen is displayed. [Figure 4](#).
  - a. Touch the intersections, in random order. A black box will be displayed where the screen is touched and will remain until the next input.
    - An audible tone will sound for each intersection touched.
    - If the tone fails to sound, or if the small black square appears in a location other than where you touched, repeat the Adjustment.



**Figure 4 Screen displayed when Origin Point Correction is complete**

7. Power off the copier/printer and wait 1 full minute.
8. After waiting 1 full minute, power on the copier/printer.
9. Return the Touch Pen to its original location (behind the Tilt Swivel cover), and reinstall the cover on the Tilt Swivel at the rear of the UI.

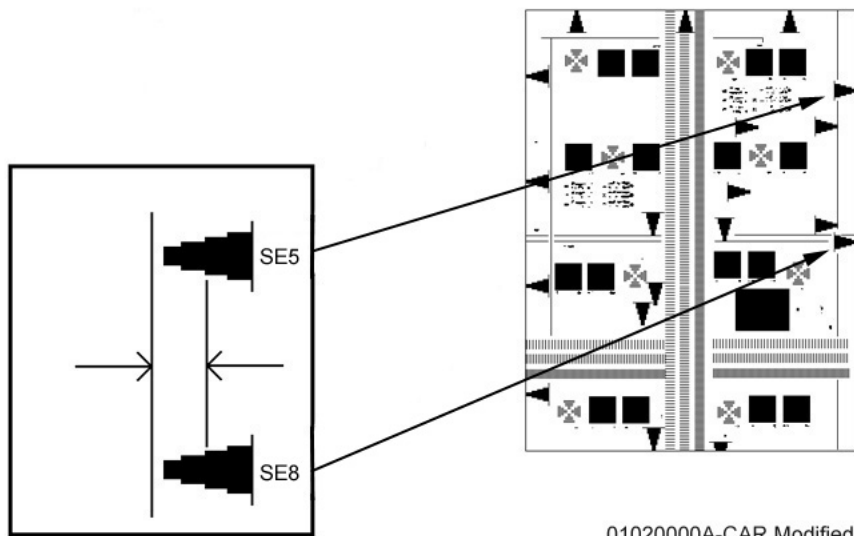
## ADJ 5.1 DADF Skew Adjustment

### Purpose

To correct the feeding (skew) of the original by adjusting the position of the DADF.

### Check

1. Perform the Check in the DADF Height Adjustment ([ADJ 5.4](#)), to verify the evenness of the Platen Guide bearings touching the CVT Platen Glass. If the bearings are not touching evenly, perform the appropriate DADF Height Adjustment.
2. Place the Geometric Test Pattern 82E8220 (11 x 17 / A3) on the DADF with the scan side up and Lead Edge metrics LE1 through LE3 to the left.
3. Make copies with the following settings:
  - 11 x 17 (A3) SEF
  - 100% Reduce/Enlarge
  - 1→1 Sided
  - 3 sheets
4. On the third sheet, measure the distance between the reference point on the SE5 metric and the edge of the paper, then measure the distance between the reference point on the SE8 metric and the edge of the paper. The difference between the two measurements should be no more than  $\pm 0.5\text{mm}$ . If the difference is greater than  $\pm 0.5\text{mm}$ , perform the Adjustment. [Figure 1](#)



01020000A-CAR Modified

Figure 1 Using the Geometric Test Pattern to measure skew

### Adjustment

1. Open the DADF.
2. Adjust the position of the DADF by moving it in direction A or B. [Figure 2](#)

- a. Remove the thumbscrew.
- b. With a 5.5 mm socket, loosen the (2) screws so that the plate moves freely.
- c. Move the DADF in the direction of A or B.
  - Moving in the A direction moves the image away from the paper's edge (increasing distance to the edge).
  - Moving in the B direction moves the image toward the paper's edge (decreasing distance to the edge).
  - Also note that movement of the right screw affects the measurement at SE5, while movement of the left screw affects measurement at SE8.
- d. Tighten the (2) screws and reinstall the thumbscrew.

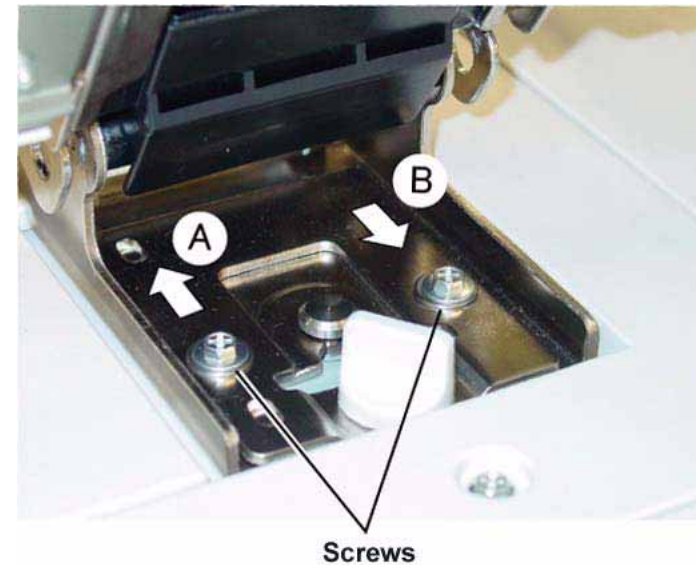


Figure 2 Adjusting the position of the DADF

3. Perform steps 2 through 4 of the Check procedure to determine if skew is now within the recommended tolerance.
4. After adjustment, perform DADF Side Edge Registration ([ADJ 5.2](#)) and DADF Lead Edge Registration. ([ADJ 5.3](#)).

## ADJ 5.2 DADF Side Edge Registration

### Purpose

Align image scanned from document with left side edge of paper.

**NOTE:** The following adjustments must have been completed.

- IOT Lead Edge/Side Edge Registration Adjustment [ADJ 9.7](#)
- IIT Lead Edge/Side Edge Registration Adjustment [ADJ 5.9](#)
- DADF Height Adjustment [ADJ 5.4](#)
- DADF Lead Skew Adjustment [ADJ 5.1](#)

### Check

1. Make two copies from the Platen Glass to be used as DADF originals.
  - a. Register Geometric Test Pattern 82E8220 (11 x 17 / A3) on the Platen with side edge metrics SE1 through SE4 against the rear registration guide.
  - b. Select the following:
    - 1→1 Sided
    - A3 or 11 x 17 Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and write DADF Original 1 on the first copy and DADF Original 2 on the second copy.
2. Verify side edge registration of DADF Originals.
  - a. On DADF Original 2 measure and record the distance between the side edge and the reference line and write A next to this measurement. [Figure 1](#)
  - b. Check that A is  $10.0 \pm 0.5$  mm. If A is  $10.0 \pm 0.5$  mm, go to step 3.  
If A is not  $10.0 \pm 0.5$  mm, check both of the following and then return to the beginning of this procedure.
    - i. IOT Lead Edge/Side Edge Registration Adjustment. [ADJ 9.7](#)
    - ii. IIT Lead Edge/Side Edge Registration Adjustment. [ADJ 5.9](#)

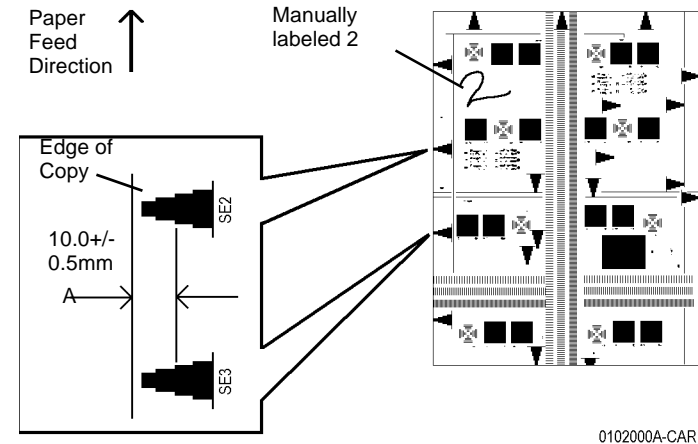
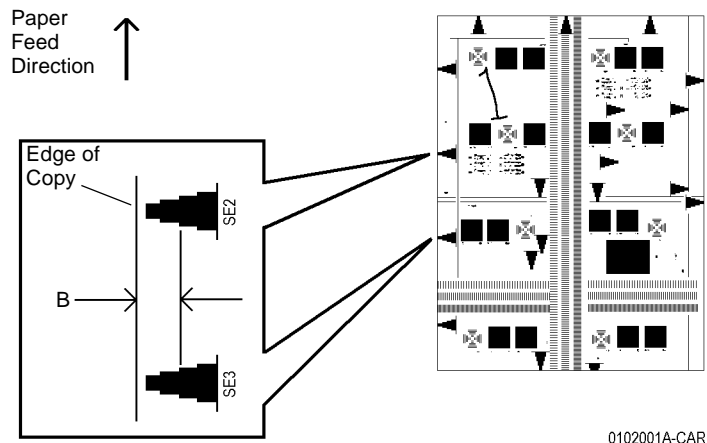


Figure 1 Verifying Side Edge Registration of DADF Originals

3. Check DADF Side Edge Registration for Side 1.
  - a. Load both DADF Originals in the DADF, 1 on top, with side edge metrics SE1 through SE4 against rear registration guide. Check that side guide touches documents.
  - b. Make copies with the following settings:
    - 1→1 Sided
    - A3 or 11 x 17 Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and discard the first set of copies.
  - d. On Side 1 of the second set of copies, measure and record the distance between the side edge and the reference line and write B next to this measurement. [Figure 2](#)



**Figure 2 Checking Side Edge Registration of DADF**

- e. Compare B to A. B must be within  $\pm 2.5$  mm of A.  
If the difference between B and A is greater than 2.5 mm, go to step 1 of the adjustment.  
Otherwise go to the next step, below.
4. Check DADF Side Edge Registration for Side 2.
  - a. Make a 2-sided test pattern.
    - i. Load DADF originals 1 and 2 face up, 1 on top, with side edge metrics SE1 through SE 4 toward the rear of the DADF.
    - ii. Select 1 to 2 sided and press Start to make the 2 sided test pattern.
  - b. Make test copies.
    - i. Load the 2 sided test pattern with side 1 up and side edge metrics SE1 through SE 4 toward the rear of the DADF.
    - ii. Select the following:
      - 2 to 1 sided
      - A3 or 11 x 17 Paper Supply
      - 100% Reduce/Enlarge
      - 2 Copies
    - iii. Press the Start button and discard the first set.
  - c. Using the second set of copies, check that the side edge metrics SE2 and SE3 are the same distance from the edge of the paper for both copies.  
If the difference is greater than  $\pm 2.5$  mm, go to step 2 of the adjustment.  
Otherwise, the DADF Side Edge Registration is good.

### Adjustment

1. Adjust Side 1 DADF Side Registration.
  - a. Enter NVM Read/Write (dC131) [715-110].

**NOTE:** Increasing value moves side edge metrics SE1 through SE4 toward edge.

- b. If B is more than A, increase the NVM value (0.0847 mm per step).  
If B is less than A, decrease the NVM value (0.0847 mm per step).
- c. Check results of adjustment and adjust if required.
2. Adjust Side 2 DADF Side Registration.
  - a. Enter NVM Read/Write (dC131) [715-111].

**NOTE:** Increasing value moves side edge metrics SE1 through SE4 toward edge.

- b. If copy 2 edge metric is farther away from edge than copy 1, increase the NVM value (0.0847 mm per step).  
If copy 2 edge metric is closer to edge than copy 1, decrease the NVM value (0.0847 mm per step).
- c. Check results of adjustment and adjust as required.

**NOTE:** 2 to 2 sided or 2 to 1 sided must be selected to view a change in [715-111]. [715-111] produces no change in 1 to 2-sided copying.

**Table 1 NVM List**

| Chain | Link | Name                             | Min | Initial | Max | Increment | Remarks    |
|-------|------|----------------------------------|-----|---------|-----|-----------|------------|
| 715   | 110  | CVT FS Offset Side 1 Replace All | 0   | 120     | 240 | 0.0847mm  | Side 1     |
| 715   | 111  | CVT FS Offset Side 2 Replace All | 0   | 120     | 240 | 0.0847mm  | CVT-Side 2 |

**NOTE:** As the corresponding NVM 715-056 to 715-091 will be rewritten when NVM 715-110 to 715-113 are rewritten, be careful when NVM 715-056 to 715-091 are changed individually.

## ADJ 5.3 DADF Lead Edge Registration

### Purpose

Align image scanned from document with top edge of paper.

**NOTE:** The following adjustments must have been completed.

- IOT Lead Edge/Side Edge Registration Adjustment [ADJ 9.7](#)
- IIT Lead Edge/Side Edge Registration Adjustment [ADJ 5.9](#)
- DADF Height Adjustment [ADJ 5.4](#)
- DADF Lead Skew Adjustment [ADJ 5.1](#)

### Check

1. Make two copies from the Platen Glass to be used as DADF originals.
  - a. Register Geometric Test Pattern 82E8220 (11 x 17 / A3) on the Platen with the lead edge metrics LE1 through LE3 against the left registration guide.
  - b. Select the following:
    - 1→1 Sided
    - A4 or 8 1/2 x 11 Long Edge Feed Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and write DADF Original 1 on the first copy and DADF Original 2 on the second copy.
2. Verify Lead Edge Registration of the DADF Originals.
  - a. On copy 2 (Original 2), measure the distance between the top edge of the copy and the reference line on metric LE2, and write A and the measurement on copy 2. [Figure 1](#)
  - b. Check that A is  $10.0 \pm 0.5$  mm. If A is  $10.0 \pm 0.5$  mm, go to step 3.  
If A is not  $10.0 \pm 0.5$  mm, check both of the following and then return to the beginning of this procedure.
    - i. IOT Lead Edge/Side Edge Registration Adjustment. [ADJ 9.7](#)
    - ii. IIT Lead Edge/Side Edge Registration Adjustment. [ADJ 5.9](#)

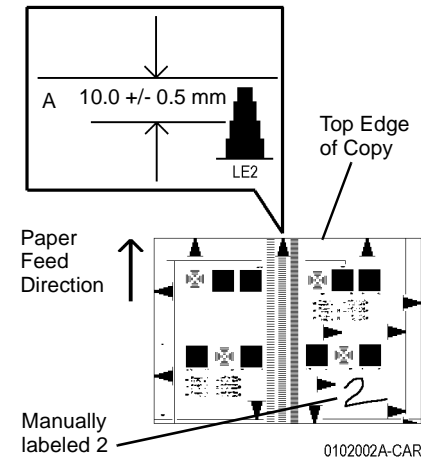


Figure 1 Verifying Top Edge Registration of DADF Originals

3. Check DADF Top Edge Registration for Side 1.
  - a. Load both DADF Originals in the DADF, 1 on top, with lead edge metrics LE1 through LE3 facing toward the left.
  - b. Select the following:
    - 1→1 Sided
    - A4 or 8.5 x 11 Long Edge Feed Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and discard the first set.
  - d. On Side 1 (labeled DADF Original 1) of the second set of copies, measure the distance between the top edge of the copy and the reference line on metric LE2, and write B and the measurement on copy 1.
  - e. Compare B to A. B must be within  $0 \pm 2.2$  mm of A.  
If the difference between B and A is greater than 2.2 mm, go to step 1 of the Adjustment.  
Otherwise, go to the next step below.
4. Check the DADF Lead Edge Registration for Side 2.
  - a. Make a 2 sided test pattern.
    - i. Load DADF Originals 1 and 2 face up, 1 on top, with lead edge metrics LE1 through LE3 facing toward the left.
    - ii. Select 1 to 2 sided and press Start to make the 2 sided test pattern.
  - b. Make test copies.
    - i. Load the 2 sided test pattern with Side 1 up, and lead edge metrics LE1 through LE3 facing toward the left.
    - ii. Select the following:
      - 2 to 1 sided
      - A4 or 8.5 x 11 Long Edge Feed Paper Supply

- 100% Reduce/Enlarge
  - 2 Copies
- iii. Press Start and discard the first set.
- c. Check that the lead edge metrics are same distance from the edge of paper for both copies.  
If the difference is greater than 2.2 mm, go to step 2 of the adjustment.  
Otherwise, the DADF Lead Edge Registration is good.

### Adjustment

1. Adjust Side 1 DADF Lead Edge Registration.
  - a. Enter NVM Read/Write (dC131) [711-140].  
**NOTE:** For adjustment purposes, 25 numbers in NVM equals approximately 1 mm of adjustment.
  - b. If B is more than A, increase the NVM value.  
If B is less than A, decrease the NVM value.
  - c. Check results of adjustment and adjust if required.
2. Adjust Side 2 DADF Lead Edge Registration.
  - a. Enter following NVM Read/Write (dC131) [711-141]  
**NOTE:** For adjustment purposes, 25 numbers in NVM equals approximately 1 mm of adjustment.
  - b. If Side 2 edge metric is farther away from edge than Side 1, increase the NVM value.  
If Side 2 edge metric is closer to edge than Side 1, decrease the NVM value.
  - c. Check results of adjustment and adjust as required.  
**NOTE:** 2 to 2-sided or 2 to 1-sided must be selected to view a change in [711-141]. [711-141] produces no change in 1 to 2-sided copying.

Table 1 NVM List

| Chain | Link | Name                                           | Min | Initial | Max | Increment | Remarks    |
|-------|------|------------------------------------------------|-----|---------|-----|-----------|------------|
| 711   | 140  | DADF Lead Reg. Adjustment (Side 1) Replace All | 0   | 122     | 244 | 0.0414mm  | Side 1     |
| 711   | 141  | DADF Lead Reg. Adjustment (Side 2) Replace All | 0   | 122     | 244 | 0.0414mm  | CVT-Side 2 |

**NOTE:** As the corresponding NVM 711-001 to 711-011 will be rewritten when NVM 711-140 is rewritten, be careful when NVM 711-001 to 711-011 are changed individually.

**NOTE:** As the corresponding NVM 711-015 to 711-025 will be rewritten when NVM 711-141 is rewritten, be careful when NVM 711-015 to 711-025 are changed individually.

## ADJ 5.4 DADF Height Adjustment

### Purpose

To correct the feeding of the original by adjusting the height of the DADF.

### Check

1. Remove the DADF Front Cover, Rear Cover, and Left Lower Cover. REP 5.3
2. Remove the IIT Front Cover, secured by (4) screws, two of which are hidden behind the Front Toner Door. PL 13.1
3. Remove the DADF Platen Cushion. It is secured with double stick tape in the spots indicated on the Parts List. PL 14.1
4. Check the gap between the DADF Platen Guide bearings and the CVT Platen Glass, as well as the gap between the DADF front feet and the Platen Glass. Figure 1
  - a. Verify that the DADF Platen Guide bearings (2), located at the front and rear of the Platen Roll (PL 14.9) are evenly (equally) touching the CVT Platen Glass. Open and close the DADF and observe the bearings to verify that they are simultaneously and evenly touching the CVT Platen Glass.
  - b. Verify that the feet (2) at the front of the DADF (PL 14.12) are touching the Platen Glass. Clearance should be 0.5 mm or less.

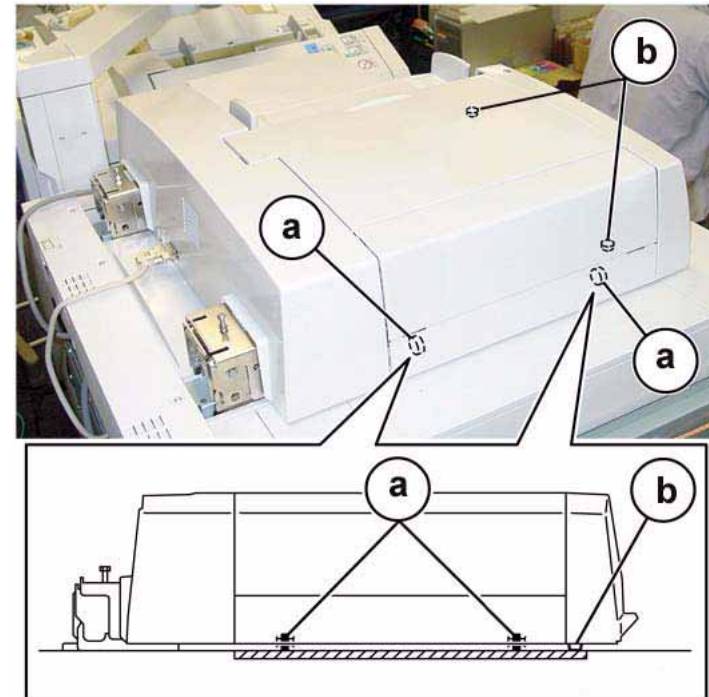


Figure 1 DADF height adjustment verification points

## Adjustment

1. To adjust the DADF Platen Guide bearings so that they are equally touching the CVT Platen Glass, and are parallel to the glass (which directly affects skew), loosen the nut of the Left Counter Balance and turn the screw in the directions shown in the figure. [Figure 2](#)
  - Turn the screw in the direction A (counter-clockwise) to raise the front of the DADF, while lowering the rear.
  - Turn the screw in the direction B (clockwise) to lower the front of the DADF, while raising the rear.

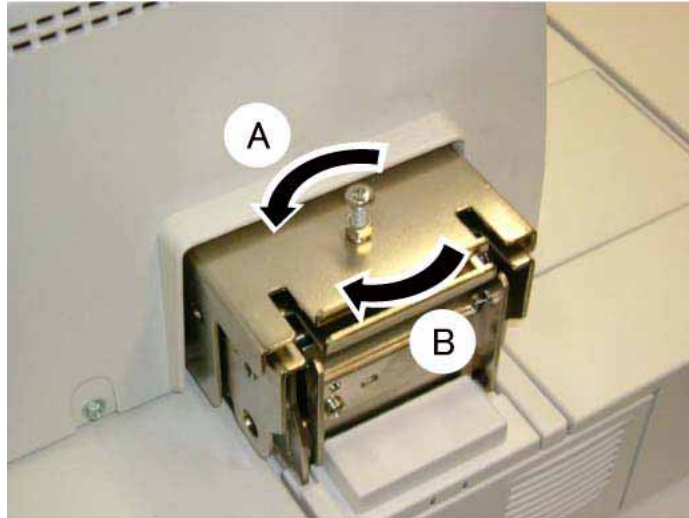


Figure 2 DADF Platen Guide bearing height adjustment

**NOTE:** Ensure that the Counter Balance nut is securely tightened after adjustment.

2. To adjust the clearance between the DADF right front foot and the Platen Glass (which should be 0.5 mm or less), loosen the nut of the Right Counter Balance and turn the screw in the directions shown in the figure. [Figure 3](#)
  - Turn the screw in the direction D (counter-clockwise) to lower the front of the DADF, while raising the rear.
  - Turn the screw in the direction E (clockwise) to raise the front of the DADF, while lowering the rear.

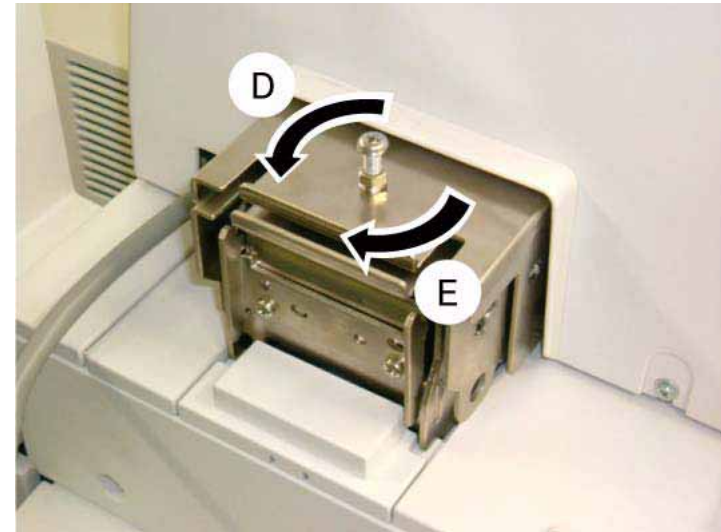


Figure 3 DADF Right Front Foot height adjustment

**NOTE:** Ensure that the Counter Balance nut is securely tightened after adjustment.



## ADJ 5.5 DADF Trail Edge Registration Adjustment

### Purpose

To set the Trail Edge (Slow Scan Direction) of the DADF Scan Position (original scan position).

**NOTE:** The following adjustments must have been completed.

- IOT Lead Edge/Side Edge Registration Adjustment [ADJ 9.7](#)
- IIT Lead Edge/Side Edge Registration Adjustment [ADJ 5.9](#)
- DADF Height Adjustment [ADJ 5.4](#)
- DADF Lead Skew Adjustment [ADJ 5.1](#)

### Check

1. Make two copies from the Platen Glass to be used as DADF originals.
  - a. Register Geometric Test Pattern 82E8220 (11 x 17 / A3) on the Platen with lead edge metrics LE1 through LE3 against the left registration guide.
  - b. Select the following:
    - 1→1 Sided
    - A3 or 11 x 17 Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and write DADF Original 1 on the first copy and DADF Original 2 on the second copy.
2. Verify trail edge registration of DADF Originals.
  - a. On copy 2 (Original 2), measure the distance between the trail edge of the copy and the reference line (second step in from the edge) on metric TE4, and write A and the measurement on copy 2.
  - b. Check that A is 10.0 ±0.5 mm. If A is 10.0 ±0.5 mm, go to step 3.  
If A is not 10.0 ±0.5 mm, check both of the following and then return to the beginning of this procedure.
    - i. IOT Lead Edge/Side Edge Registration Adjustment. [ADJ 9.7](#)
    - ii. IIT Lead Edge/Side Edge Registration Adjustment. [ADJ 5.9](#)
3. Check DADF Trail Edge Registration for Side 1.
  - a. Load both DADF Originals in the DADF, 1 on top, with lead edge metrics LE1 and LE3 toward the left.
  - b. Select the following:
    - 1→1 Sided
    - A3 or 11 x 17 Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and discard the first set.
  - d. On Side 1 (labeled DADF Original 1) of the second set of copies, measure the distance between the trail edge of the copy and the reference line (second in from the edge) on metric TE4, and write B and the measurement on copy 1.
  - e. Compare B to A. B must be within 0 ±2.2 mm of A.  
If the difference between B and A is greater than 2.2 mm, go to step 1 of the Adjustment.

- Otherwise, go to the next step below.
4. Check DADF Trail Edge Registration for Side 2.
    - a. Make a 2 sided test pattern.
      - i. Load DADF originals 1 and 2 face up, 1 on top, with lead edge metrics LE1 through LE3 toward the left.
      - ii. Select 1 to 2 sided and press Start to make the 2 sided test pattern.
    - b. Make test copies.
      - i. Load the 2 sided test pattern with Side 1 up, and lead edge metrics LE1 through LE3 facing toward the left.
      - ii. Select the following:
        - 2 to 1 sided
        - A3 or 11 x 17 Paper Supply
        - 100% Reduce/Enlarge
        - 2 Copies
      - iii. Press Start and discard the first set.
    - c. Check that trail edge metrics are the same distance from the trail edge of the paper for both copies.  
If the difference is greater than 2.2 mm, go to step 2 of the adjustment.  
Otherwise, the DADF Trail Edge Registration is good.

### Adjustment

1. Adjust Side 1 DADF Trail Edge Registration.
  - a. Enter NVM Read/Write (dC131) [711-142].  
**NOTE:** For adjustment purposes, 25 numbers in NVM equals approximately 1 mm of adjustment.
  - b. If B is more than A, increase the NVM value.  
If B is less than A, decrease the NVM value.
  - c. Check results of adjustment and adjust if required.
2. Adjust Side 2 DADF Trail Edge Registration.
  - a. Enter following NVM Read/Write (dC131) [711-143]  
**NOTE:** For adjustment purposes, 25 numbers in NVM equals approximately 1 mm of adjustment.
  - b. If Side 2 edge metric is farther away from edge than Side 1, increase the NVM value.  
If Side 2 edge metric is closer to edge than Side 1, decrease the NVM value.
  - c. Check results of adjustment and adjust as required.  
**NOTE:** 2 to 2-sided or 2 to 1-sided must be selected to view a change in [711-143]. [710-143] produces no change in 1 to 2-sided copying.

Table 1 NVM List

| Chain | Link | Name                                            | Min | Initial | Max | Increment | Remarks |
|-------|------|-------------------------------------------------|-----|---------|-----|-----------|---------|
| 711   | 142  | DADF Trail Edge Adjustment (Side 1) Replace All | 0   | 122     | 244 | 0.0414mm  | Side 1  |

Table 1 NVM List

| Chain | Link | Name                                            | Min | Initial | Max | Increment | Remarks    |
|-------|------|-------------------------------------------------|-----|---------|-----|-----------|------------|
| 711   | 143  | DADF Trail Edge Adjustment (Side 2) Replace All | 0   | 122     | 244 | 0.0414mm  | CVT-Side 2 |

**NOTE:** As the corresponding NVM 711-029 to 711-039 will be rewritten when NVM 711-142 is rewritten, be careful when NVM 711-029 to 711-039 are changed individually.

**NOTE:** As the corresponding NVM 711-043 to 711-053 will be rewritten when NVM 711-143 is rewritten, be careful when NVM 711-043 to 711-053 are changed individually.

## ADJ 5.6 DADF Slow Scan Direction Reduce/Enlarge Adjustment

### Purpose

To obtain the proper Slow Scan Direction Reduce/Enlarge ratio for 100% copy. Simply stated, to set 100% as 100%.

### Check

- Place Geometric Test Pattern A2E8220 (11 x 17 / A3) on the DADF with the scan side up.
- Make copies with the following settings:
  - 1→1 Sided
  - A3 or 11 x 17 Paper Supply
  - 100% Reduce/Enlarge
  - 5 Copies
- On the third copy, select any two points on the ruler in the center of the copy, measure and record the distance between the two points.
- Select the same two points on the ruler in the center of the Geometric Test Pattern, measure and record the distance between the two points.
- If the measured distance was is same between the copy and the Geometric Test Pattern, no further action is required. If the measured distance is not the same, perform the Adjustment.

### Adjustment

- Enter Diag. mode. Select dC131 (NVM Read/Write).
- Adjust the distance between the reference points in the third copy using the following NVM table (Table 1) so that it is the same as the distance between the same points in the Geometric Test Pattern.  
If the measured value in the copy was shorter than the measured value in the Test Pattern, set a larger NVM value.  
If the measured value in the copy was longer than the measured value in the Test Pattern, set a smaller NVM value.

Table 1 NVM List

| Chain | Link | Name                         | Min | Initial | Max | Increment |
|-------|------|------------------------------|-----|---------|-----|-----------|
| 711   | 144  | Magnification Adjustment All | 240 | 120     | 0   | 0.1%      |

- After adjustment, place the Geometric Test Pattern A2E8220 (11 x 17 / A3) on the DADF again with the scan side up.
- Make copies with the following settings:
  - 1→1 Sided
  - A3 or 11 x 17 Paper Supply
  - 100%
  - 5 Copies
- Repeat the procedure until the distance between the reference points in the copy is the same as the distance between the same points in the Geometric Test Pattern.

## ADJ 5.7 DADF Document Calibration

### Purpose

This procedure calibrates the document size detection circuitry in the DADF.

Perform this adjustment whenever any of the following occur:

- Replacement of the DADF.
- When an error is detected after replacing Registration Roll, Feed Roll, and Retard Roll.
- When a size detection error is reported.

### Adjustment

1. Connect the PWS to the machine.
2. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
3. Select dC527 from the [DC Quick](#) menu.
4. Set three documents to be transported in the DADF.
  - XE: A4 LEF
  - XC: 8.5 x 11 in. LEF

#### CAUTION

*After this routine has started, it cannot be stopped or interrupted until it completes, regardless of success or failure.*

5. Click **Start**. The DADF starts feeding the documents and calculating the correction value. At this point, the **Entering** message appears.
6. When the corresponding NVM data is updated, the PWS screen indicates that the process has been completed.

## ADJ 5.8 Half Rate/Full Rate Carriage Position Adjustment

### Purpose

The purpose of this adjustment is to adjust the Full Rate/Half Rate Carriage to the correct operating position.

### Adjustment

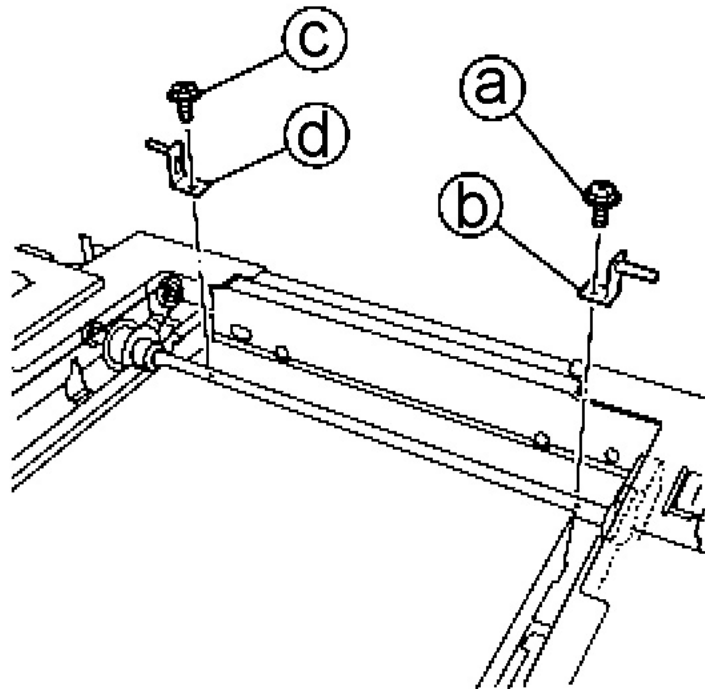
#### WARNING

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

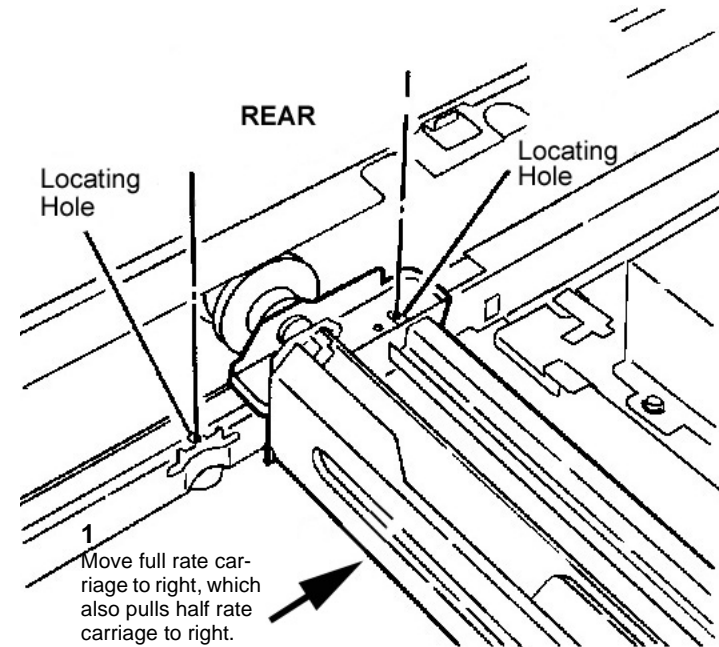
**NOTE:** *Adjust the positions of the Full Rate/Half Rate Carriage on the front and the Rear separately.*

1. Secure the DADF in the service position. [REP 5.2](#)
2. Undock the finisher, if present.
  - a. Open the finisher front door.
  - b. Release the securing latch.
  - c. Disconnect the connector to the copier/printer.
  - d. Roll the finisher away from the right side of the copier/printer.
3. Remove the IIT Right Cover. [PL 13.2](#)
4. Remove the Right Plate. [PL 13.4](#)
5. Remove the Platen Glass. [PL 13.4](#)
6. Prepare the alignment tools (2) for determining the carriage position. [Figure 1](#)
  - a. Remove the screw.
  - b. Remove the alignment tool.
  - c. Remove the screw.
  - d. Remove the alignment tool.

**NOTE:** Align the front locating hole first, then the rear, if possible.



**Figure 1** Preparing the alignment tools



**Figure 2** Aligning the Half Rate Carriage locating holes

7. Align the (2) locating holes in the Half Rate Carriage with the (2) locating holes of the rails ((1) in Front, (1) in Rear). [Figure 2](#)
8. Install and secure the alignment tools into the Front and Rear of the Half Rate Carriage. [Figure 3](#)
  - a. Install the alignment tools.
    - Install the alignment tool in the Front locating hole first.
    - Install the alignment tool in the Rear locating hole next, if possible.
  - b. Secure the alignment tools with the screws.

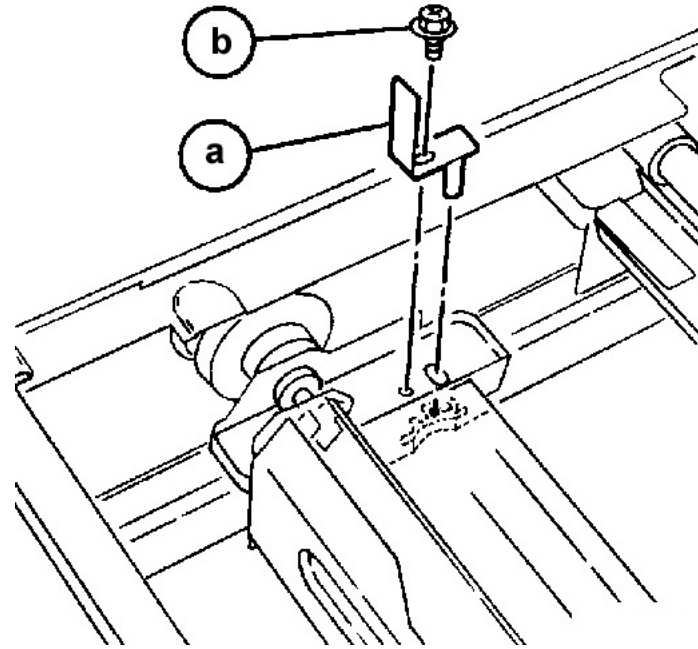


Figure 3 Installing alignment tool in locating hole

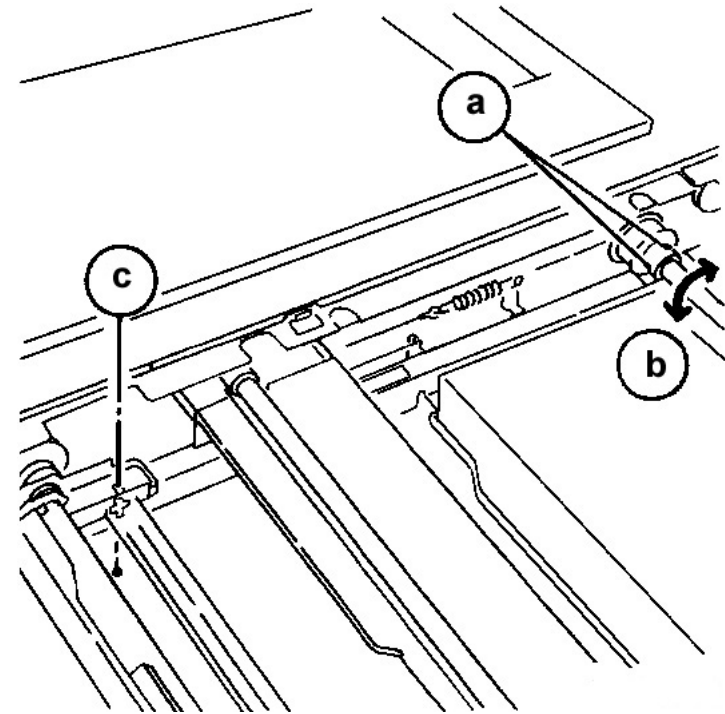


Figure 4 Adjusting Capstan Pulley to enable locating hole alignment

9. Change the position of the Capstan Pulley, if the rear locating holes of the Half Rate Carriage and adjoining rail cannot be aligned (and the alignment tool cannot be installed). [Figure 4](#)

- a. Loosen (2) set screws on the Capstan Pulley.
- b. Rotate the Capstan Pulley as needed to align locating holes.
- c. Align locating holes in Half Rate Carriage and rail.
- d. Resecure (2) set screws on the Capstan Pulley.

10. Check that the locating holes in the top frame of the IIT can be aligned with the holes in the Full Rate Carriage. [Figure 5](#)

- a. Install the alignment tools. (Front first, then Rear)
- b. Secure them with screws.

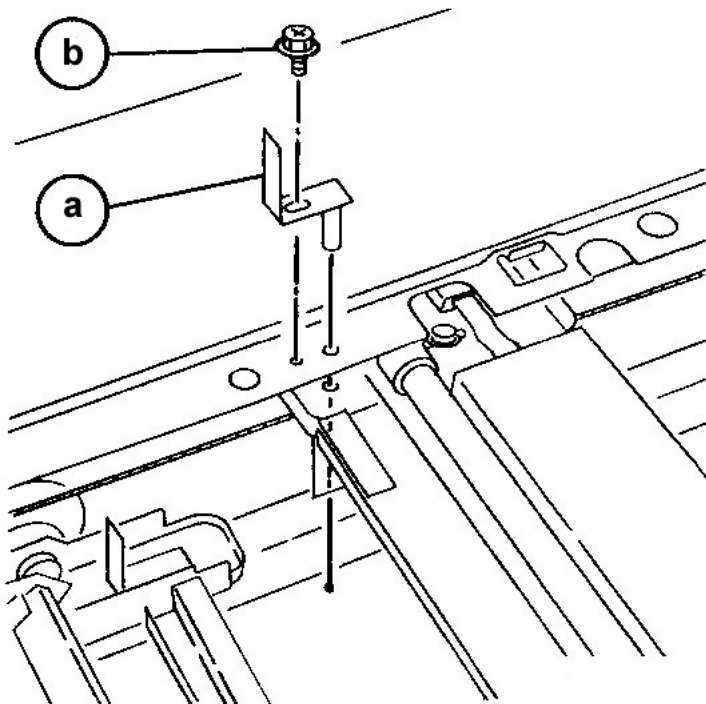


Figure 5 Installing the alignment tools in the Full Rate Carriage

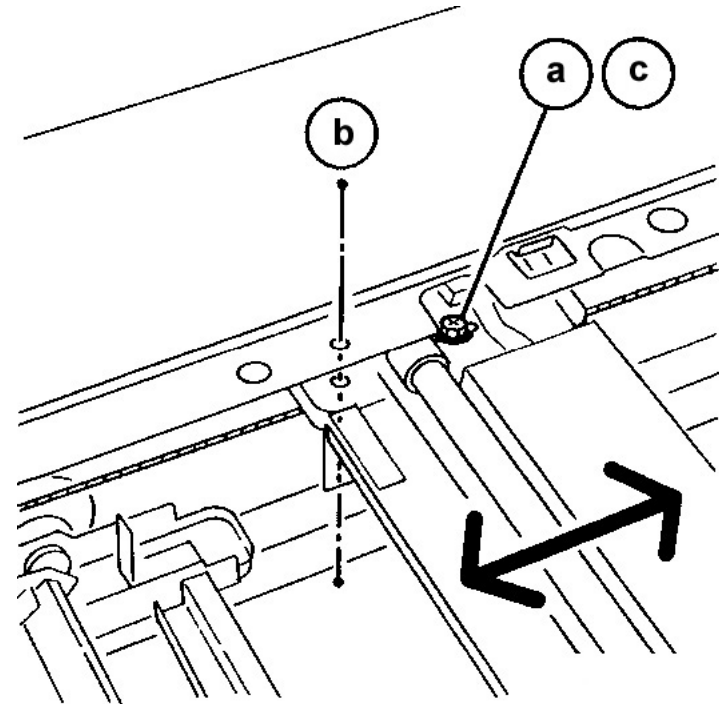


Figure 6 Moving the Full Rate Carriage to align locating holes

11. If the locating holes in the frame and the Full Rate Carriage cannot be aligned, and the alignment tool cannot be installed, perform the following steps. [Figure 6](#)
  - a. Loosen the securing screw on the Carriage Cable.
  - b. Move the Full Rate Carriage to align the locating holes.
  - c. Tighten the screw.

## ADJ 5.9 IIT Lead Edge/Side Edge Registration Adjustment

### Purpose

The purpose of this adjustment is to set the home position for the IIT Lead Edge (Slow Scan) direction and the IIT Side Edge (Fast Scan) direction.

### Check

**NOTE:** The IOT Lead Edge/Side Edge Registration Adjustment (ADJ 9.7) must have been completed before performing this adjustment.

1. Register Geometric Test Pattern 82E8220 (11 x 17 / A3) on the Platen with side edge metrics SE1 through SE4 against the rear registration guide.
2. Make copies with the following settings:
  - 1→1 Sided
  - A3 or 11 x 17 Paper Supply
  - 100% Reduce/Enlarge
  - 5 Copies
3. Measure the Lead Edge of the third copy. [Figure 1](#)

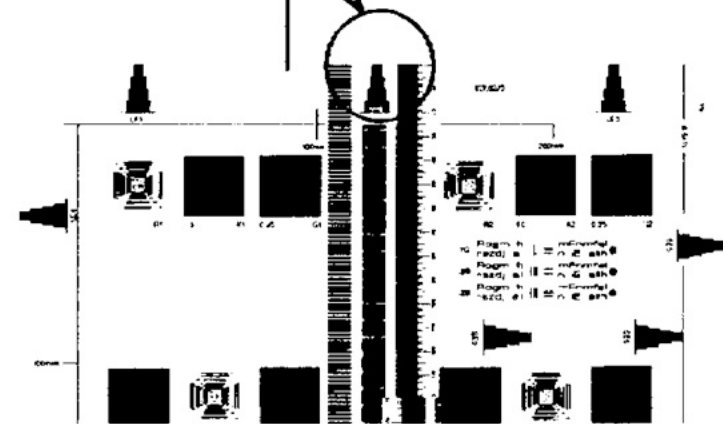
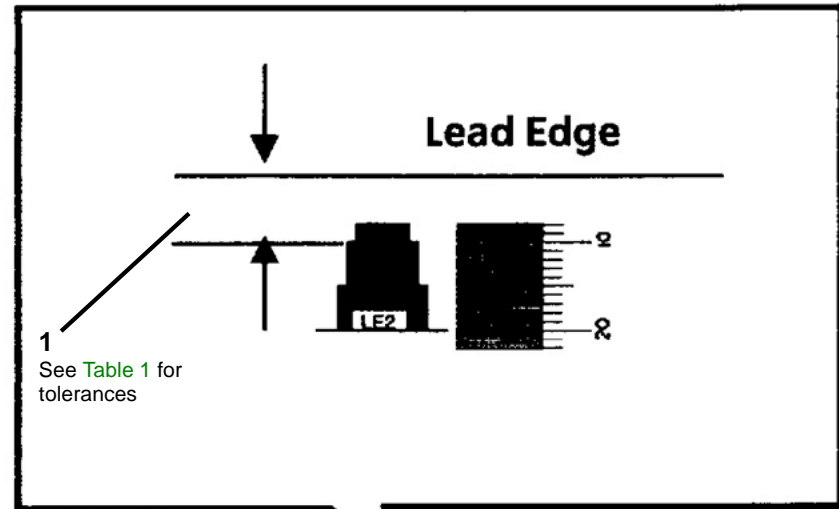


Figure 1 Lead Edge Registration Check

4. Measure the Side Edge of the third copy. [Figure 2](#)

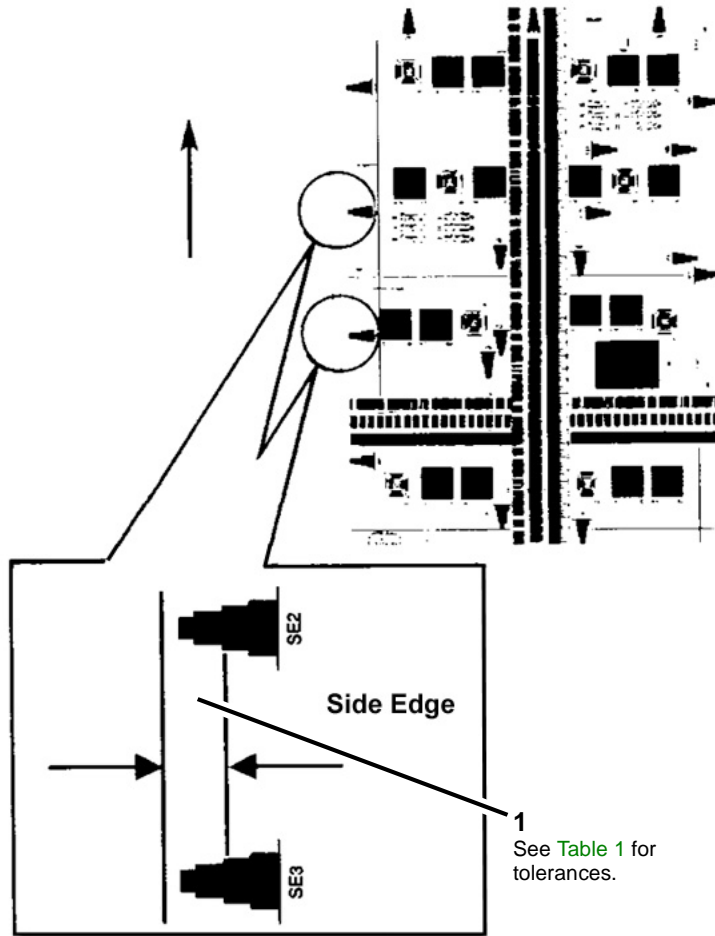


Figure 2 Side Edge Registration Check

5. Check that the Measured Values of the Lead Edge and Side Edge are within the specifications of the supporting Mode shown in [Table 1](#) below. If either measurement is not within specifications, perform the Adjustment.

Table 1

| Item      | Simplex    | Duplex     |
|-----------|------------|------------|
| Lead Edge | 10+/-1.6mm | 10+/-2.0mm |
| Side Edge | 10+/-2.1mm | 10+/-2.5mm |

## Adjustment

1. Enter Diagnostic Mode and select dC131 (NVM Read/Write).

2. Referring to [Table 2](#) adjust the measured value of the **Lead Edge** as follows:

- If the measured value is short, set a larger value.
- If the measured value is long, set a smaller value.

**NOTE:** 19 bits (sequential numbers) equals approximately 1 mm of Lead Edge adjustment.

3. Referring to [Table 2](#) adjust the measured value of the **Side Edge** as follows:

- If the measured value is short, set a smaller value.
- If the measured value is long, set a larger value.

**NOTE:** 12 bits (sequential numbers) equals approximately 1 mm of Side Edge adjustment.

Table 2 NVM List

| Chain | Link | Name                                      | Min | Initial | Max | Step     |
|-------|------|-------------------------------------------|-----|---------|-----|----------|
| 715   | 050  | Slow Scan ( <b>Lead Edge</b> ) Adjustment | 16  | 100     | 184 | 0.036mm  |
| 715   | 053  | Fast Scan ( <b>Side Edge</b> ) Adjustment | 0   | 120     | 240 | 0.0846mm |

4. After the adjustment, register the Geometric Test Pattern 82E8220 (11 x 17 / A3) on the Platen with side edge metrics SE1 through SE4 against the rear registration guide and make 5 copies at 11" x 17" (A3) SEF 100%.
5. Repeat the procedure until the measured values of the Lead Edge and Side Edge are within the specifications shown in [Table 1](#).



## ADJ 5.10 IIT Vertical/Horizontal Reduce/Enlarge

### Purpose

To correct the horizontal (fast scan)/vertical (slow scan) Reduce/Enlarge ratio for a 100% copy.

### CAUTION

*Avoid performing this procedure. This procedure should only be performed when the actual IIT magnification is not correct.*

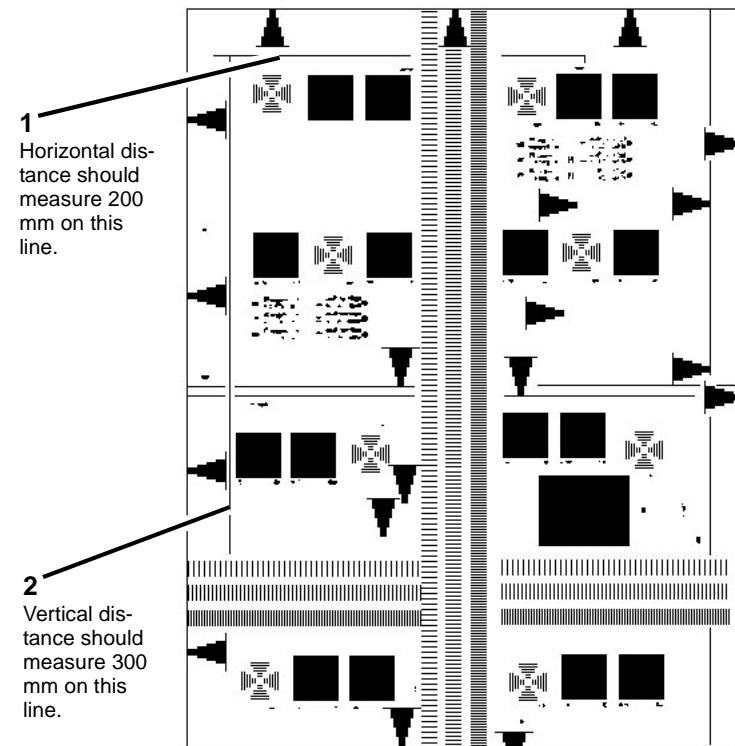
**NOTE:** Before performing this procedure, make sure that the IOT horizontal/vertical Reduce/Enlarge ratios are appropriate.

### Check

1. Register Geometric Test Pattern 82E8220 (11 x 17 / A3) on the Platen with side edge metrics SE1 through SE4 against the rear registration guide.
2. Make copies with the following settings:
  - Copy Mode: Black
  - Document Type: Text / Photo
  - Paper: A3 or 11 x 17
  - 100% Reduce/Enlarge
  - 2 Copies
3. Check the 2nd copy for the following. [Figure 1](#)
  - a. For Horizontal Reduce/Enlarge: [Figure 1](#)

Check that the distance between the two points is  $200\pm 1\text{mm}$ , which should match the dimension on the Geometric Test Pattern.  
If the value is not within the specified range, perform the Adjustment.
  - b. For Vertical Reduce/Enlarge: [Figure 1](#)

Check that the distance between the two points is  $300\pm 1.5\text{mm}$ , which should match the dimension on the Geometric Test Pattern.  
If the value is not within the specified range, perform the Adjustment.



**Figure 1** Checking Horizontal and Vertical distances

### Adjustment

Horizontal Reduce/Enlarge Adjustment

**NOTE:** This adjustment may cause the following secondary problems:

- Deterioration of resolution because of the ASIC digital correction.
1. Change the following NVM values.
    - Platen: [dC131](#) [715-702]
    - CVT: [dC131](#) [715-703]
    - 1 increment: 0.1%
    - Increase in value: Enlargement direction
    - Decrease in value: Reduction direction

Vertical Reduce/Enlarge Adjustment

**NOTE:** This adjustment may cause the following secondary problems:

- RGB does not overlap, causing a color shift.
1. Enter [dC131](#) [715-051].

2. Change the value.
  - 1 increment: 0.1%
  - Increase in value: Enlargement direction
  - Decrease in value: Reduction direction

## ADJ 5.11 IIT Calibration

### Purpose

The purpose of this procedure is to calibrate the optics in the IIT for optimal performance.

There are two adjustments included in the IIT Calibration Adjustment.

- **White Reference Adjustment** - Calculates and set the White Reference Correction Coefficient.
- **CCD Calibration** - Corrects the IIT sensitivity dispersion.

### Adjustment

#### CAUTION

*Do not select the **Optical Axis Calibration** button unless the Lens Kit was replaced.*

1. If the Lens Kit (PL 13.6) was replaced, perform ADJ 5.12 first.
2. Clean the Optics:
  - 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.
3. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
4. Select dC945 from the **DC Quick** menu.
5. Select the **White Reference Adjustment** button.
6. Place 10 sheets of 11 x17/A3 Color Expressions (or equivalent 96 brilliance paper) on the platen.
7. Press **Start**.
8. The setup values are displayed on the **White Reference Setup Value** screen.
9. When White Reference setup is done, select the **CCD Calibration** button.
10. Press **Start**.
11. Place the Color Test Pattern on the platen, then select **OK**.
12. The obtained data is displayed in the **b\* Calibration Coefficients** window.

## ADJ 5.12 Optical Axis Alignment

### Purpose

The purpose of this adjustment is to align the CCD with the Lens. This procedure should only be performed if the Lens or CCD is replaced, or if the documentation specifically directs.

### Check

1. Reinstall the Platen Glass.

#### CAUTION

*Stray light will adversely affect the check. If there is significant ambient light around the machine (especially fluorescent light), open the platen cover as little as required to start the scan, in order to keep as much stray light as possible away from the Lens and CCD.*

**NOTE:** After connecting the PWS to the machine but before entering dC945, raise the platen cover. If the routine is started with the cover down, the PWS Tool will lock up.

2. Enter dC945. Raise the platen cover. Select the **Optical Axis Calibration** button and press **Start**.
3. Check the results in the **Optical Axis Set Results** box.  
If OK is displayed in the **Judge** row, the check is good. Cover the adjustment holes with the aluminum seals and reinstall the Platen Glass. Go to IIT Calibration ([ADJ 5.11](#)).
4. If the tool displays **NG**, perform the Adjustment.

### Adjustment

1. Place an index mark on the barrel of a 5.5mm nut driver. [Figure 1](#) shows the tool and the adjusting nuts.

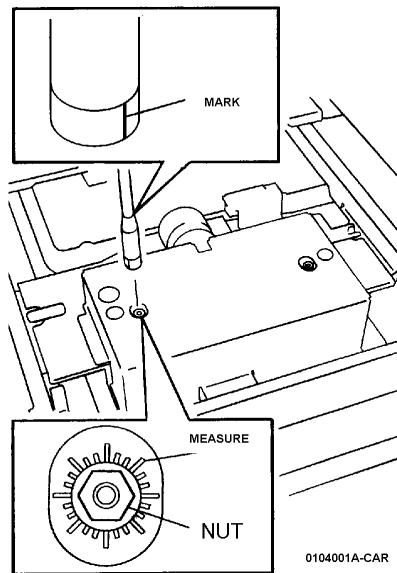
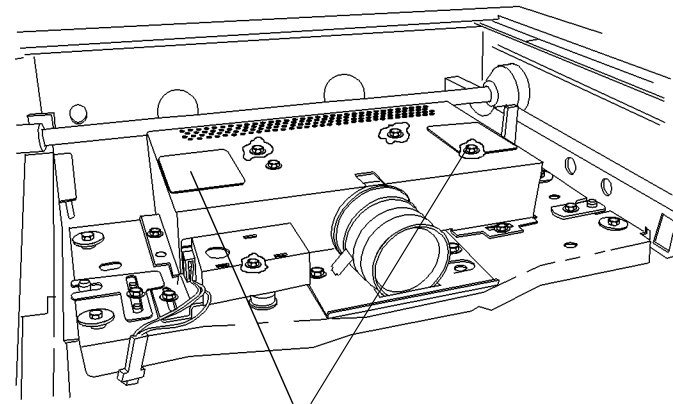


Figure 1 Adjustment

0104001A-CAR

2. Check the results in the **Optical Axis Set Results** box. The values displayed indicate the amount and direction of the correction required:
  - + means rotate clockwise
  - - means rotate counterclockwise
  - The amount of correction is displayed in degrees. Each division around the nut represents 15 degrees (divide the displayed value by 15 to get the number of divisions). If a value higher than 990 is displayed, this may indicate that insufficient light is entering the CCD. Make sure that the Lens and Platen Glass are clean.
3. Make the indicated correction for both the front and rear screws,
4. Reinstall the Platen Glass then click on the **Start** button.
5. Repeat steps 2 and 3 until **OK** is displayed
6. Cover the adjustment holes with the aluminum seals ([Figure 2](#)) and reinstall the Platen Glass.



Make sure that the Seals completely cover the holes. Be careful when installing; they are very difficult to reposition.

Figure 2 Seals

0102047A-CAR

7. Adjust the IIT Calibration ([ADJ 5.11](#)).



## ADJ 7.1 Tray 5/Bypass Guide Adjustment

### Purpose

This procedure calibrates the paper size detection circuits for Tray 5. It should be performed when the MSI size sensor is replaced or a size detection error occurs

### Adjustment

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC919 from the **DC Quick** menu.
3. Push the paper guides to their minimum width.
4. Select the **Minimum Position** radio button, then select **Start**.  
**OK** appears in the **Result** box if the sensor output value is within the specified range. If **NG** appears, the sensor output value is out of the specified range. Check the guide position and retry.
5. Push the paper guides to their maximum width.
6. Select the **Maximum Position** radio button, then select **Start**.  
**OK** appears in the **Result** box if the sensor output value is within the specified range. If **NG** appears, the sensor output value is out of the specified range. Check the guide position and retry.
7. Place a sheet of paper in Tray 5 and adjust the guides.
8. Select the **Guide Test** radio button, then select **Start**.
9. The Result box will display the computed width of the paper. Display range is 88.2 to 333.2mm (increments of 0.1mm). Verify the results.



## ADJ 9.1 MAX Setup

### Purpose

This procedure checks, and, if necessary, adjusts, several Image Quality factors so that optimum copy and print quality can be consistently obtained, by stabilizing the development potential and copy density.

### Procedure

Max Setup consists of several separate procedures that should be performed in the following sequence:

1. If one or more Developer Housings and/or ATC Sensors were replaced, verify the ATC Sensor Setup (ADJ 9.2).
2. If any IIT or IPS repairs were performed, check the IIT Calibration (ADJ 5.11).
3. Reset the TRC Adjust values (ADJ 9.4) and the Color Balance values (ADJ 9.6) to midpoint (0).
4. Go to dC612. Print out the following test patterns:
  - #11 - Half tone (3C) Cin 40%
  - #12 - In/out adjustment\_primary color (4C)Evaluate the prints for inboard-to-outboard density variation. If problems are observed, perform ADJ 9.11.
5. Perform the ProCon On/Off Print check (ADJ 9.5).
6. If Print quality is OK but Copy quality is bad, check the IIT Calibration (ADJ 5.11).
7. Perform Auto Gradation (GP 8).
8. Perform the following as required: TRC Adjust (ADJ 9.4); Color Balance (ADJ 9.6).

## ADJ 9.2 ATC Sensor Setup

### Purpose

#### CAUTION

*This procedure should only be performed when the ATC Sensor or Developer Housing is being replaced, OR when there is reason to believe that the calibration values in NVM are incorrect.*

This procedure sets the calibration values (ATC Correction Coefficient and ATC Correction Offset) in NVM to calibrate new ATC Sensors

### Check

1. If the ATC Sensor or Developer Housing was replaced, perform the first procedure listed in **Adjustment**
2. If there is reason to believe that the calibration values in NVM are incorrect, perform the following:
  - a. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
  - b. Select dC950 from the **DC Quick** menu. Select **Read**.
  - c. Check the values in the top rows of numbers in the window. If the value in all 4 columns is the default (55), it is probable that the NVM is incorrect. perform the second procedure listed in the **Adjustment**.

### Adjustment

#### Procedure 1 - for new ATC Sensors

Perform these steps if you have just replaced an ATC Sensor or Developer Housing:

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC950 from the **DC Quick** menu.
3. Locate the ATC Sensor calibration code on the ATC Sensor. This is the 3-digit number in the 3rd line of text on the label (it will always start with a zero).
4. Enter the last 2 digits of this code into the appropriate column of the first row.
5. Select the color(s) to be changed.
6. Select **Start**.

#### Procedure 2 - to restore ATC Calibration values

Perform steps 1, 2, or 3 as appropriate if you need to restore ATC Sensor NVM calibration values:

1. If a known good Machine Settings floppy exists, use dC351 to restore Machine Settings.
2. If a known good floppy is not available, but the original (as delivered) ATC Sensors are still in the machine, perform the following:
  - a. Check the NVM Setting Value List in the Tray 1 pocket. Record the values for locations 752-883 through 752-885 (these are the sensor barcode values).
  - b. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
  - c. Select dC950 from the **DC Quick** menu.
  - d. Select the color(s) to be changed.
  - e. Enter the recorded values into the appropriate column of the first row.
  - f. Select **Start**.
3. If one or more ATC Sensors have been replaced, or if you are not sure of the replacement status, perform the following
  - a. Open the Drum Cartridge Module.

**NOTE:** The sensor tags for the Y,M,C developers are visible from beneath the drawer. In order to see the Black tag, remove the adjacent Drum Cartridge.

- b. Locate the ATC Sensor calibration code on the ATC Sensors. This is the 3-digit number in the 3rd line of text on the label (it will always start with a zero).
- c. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
- d. Select dC950 from the [DC Quick](#) menu.
- e. Select the color(s) to be changed.
- f. Enter the last 2 digits of this code into the appropriate column of the first row.
- g. Select **Start**.

## ADJ 9.3 Toner Density Setup (Tone Up/Down)

### Purpose

This procedure manually increases or decreases toner concentration (TC). It is used when a xerographic problem or out-of-toner condition has prevented process control from maintaining the TC target value.

It is important that the problem that caused the low or high TC condition is resolved before performing this adjustment.

### Check

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC991 from the [DC Quick](#) menu.
3. Select **Read**.
4. Compare the values for **ATC Measured** with the values for **ATC Target**. If the values differ by more than 25 bits for Y, M, or C; or by more than 50 bits for K, perform the **Adjustment**.

### Adjustment

1. For each color that is above or below target, enter a value between -99 and 99 into the top row. This value is the number of tone up or tone down cycles to be performed. Negative values increase the ATC Measured; positive values decrease ATC Measured.
2. Repeat as required until **ATC Measured** matches **ATC Target**. If the measured value cannot be set to the target, there is a problem in either the toner delivery system (Dispenser, low toner sensor, etc.), or in the TC detection circuitry.



## ADJ 9.4 Manual TRC Adjust

### Purpose

#### CAUTION

*Perform this adjustment only to correct a strong customer complaint. Altering the setpoints will affect both Print and Copy modes. Also, there is quite a bit of overlap among the low, medium, and high densities. For these reasons, it is recommended that this procedure not be used unless absolutely necessary.*

To adjust image quality (TRC) to meet the user's preference, by increasing or decreasing the center value of gradation correction for each (YMCK) color, in low density, medium density, and high density ranges.

### Adjustment

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC924 from the [DC Quick](#) menu.
3. Type in the desired value; the default is 0, and the range is from -255 to +255.
4. Select **Save**.
5. Perform a Temporary Call Closeout, then switch the machine power off then on.
6. Make 2 prints or copies. Ask the customer if the desired result is achieved.
7. Repeat steps 3 through 6 until the customer is satisfied with the image quality.

## ADJ 9.5 ProCon On/Off Print Check

### Purpose

This procedure performs a Minisetup, outputs a printed test pattern for visual analysis, and prints a Job End patch. Selected process control NVM values are displayed, and a check for hidden process-control-related faults is performed.

There are 2 modes in this procedure:

- Procon On mode - the routine is run with ATC/ADC correction per the ProCon lookup table (LUT) and customer mode settings.
- Procon Off mode: - the routine is run with ATC/ADC/LUT bypassed, using the default settings for potential.

### Check

1. Ensure that there is 11 x17 in/A3 paper in Tray 1.
2. Ensure that TRC and Color Balance adjustments are set at midpoint
3. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
4. Select dC937 from the [DC Quick](#) menu.

**NOTE:** Disregard any NG readings that are displayed when you first enter the routine - the data are only valid after **Start** has been selected.

5. Select the **ProCon On** radio button, then select **Start**. Minisetup will be executed in 4C mode. 1 sheet of the built-in test pattern **Pcon PG 200C** will be printed and the job end patch created.
6. Check the ProCon Status and Judgement tables for any failures. If NG is displayed, perform the Adjustment.
7. Check the **ProCon On/Off Values** window. If any of the following values do not meet the listed criteria, perform the Adjustment:
  - **ADC Measurement H** (relevant to mid/high density reproduction) is within +/- 25 bits of **ADC Target H** (+/- 50 bits for K).
  - **ADC Measurement Min 1** (relevant to mid/high density reproduction) is at least 50 bits lower than **ADC Measurement Min 2**. The **ADC Target H** should fall between the Mi1 and Min 2 values
  - **ADC Measurement L** (relevant to highlight density reproduction) is within +/- 25 bits of **ADC Target L** (+/- 50 bits for K).
  - **ATC Measurement Average** is within +/- 25 bits of **ATC Target**.
8. Examine the printed test pattern. Check the density and color shift of the medium/high density areas, and the reproduced density and color shift of the highlights. If a problem is detected, perform the Adjustment.

### Adjustment

1. If NG is displayed, carry out the following failure correction as appropriate, then repeat the Check.
  - For **ADC Shutter Open** failures go to the [092-649 RAP](#).
  - For **ADC Shutter Closed** failures go to the [092-650 RAP](#).
  - For **ADC Sensor** failures go to the [092-651 RAP](#).
  - For **ADC Patch** failures go to the [092-652 RAP](#).
  - For **ATC Average** failures go to the [092-653 RAP \(Y\)](#), [092-654 RAP \(M\)](#), [092-655 RAP \(C\)](#), or [092-656 RAP \(K\)](#)

- For **ATC Amplitude** failures go to the [092-657 RAP \(Y\)](#), [092-658 RAP \(M\)](#), [092-659 RAP \(C\)](#), or the [092-660 RAP \(K\)](#).
  - For **Temperature** failures go to the [092-661 RAP](#).
  - For **Humidity** failures go to the [092-662 RAP](#).
  - For **ADC Minisetup** failures go to the [092-663 RAP](#).
2. If the **ATC Measurement Average** in step 7 of the Check was out of spec, perform [ADJ 9.3](#), then repeat the Check. If the problem remains, continue the Adjustment from this point.
  3. Record the values in the **ProCon On/Off Values** window.
  4. Select the **ProCon Off** radio button, then select **Start**. Minisetup will be executed in 4C mode. 1 sheet of the built-in test pattern **Pcon PG 200C** will be printed and the job end patch created.

ProCon Off switches off the Grid Voltage Control, and ADC Gradation Control:

- Grid Voltage Control Off: For medium/high density problems, this allows you to differentiate between developing/transfer problems in IOT elements status and Grid Voltage Control problems due to Procon ADC.
  - ADC Gradation Control: When reproduced highlights are poor, this allows you to differentiate between problems with the IOT itself and problems with the ADC Gradation Adjustment.
5. Compare the output of the ProCon On and ProCon Off prints. Evaluate according to one of the following Problem Statements:
    - a. both ProCon On and ProCon Off prints are unacceptable
      - For poor Highlight reproduction, perform [ADJ 9.3](#) (Tone-up/Tone-down).
      - Correct problems with the photoreceptor (grid voltage), developing and transferring. Replace the photoreceptor unit, the developing materials/developer and the transfer component.
    - b. ProCon Off print is OK but ProCon On print is unacceptable
      - Replace the MOB/ ADC Sensor Assembly ([PL 11.2](#)).

**Table 1 Normal ranges**

| Screen Display Name    | Normal Range |
|------------------------|--------------|
| ADC Target H           | TBD          |
| ADC Measured H         | TBD          |
| ADC Measured Min 1     | TBD          |
| ADC Measured Min 2     | TBD          |
| ADC Target L           | TBD          |
| ADC Measured L         | TBD          |
| Grid Voltage Settings  | TBD          |
| Light Density Settings | TBD          |
| Bias Settings          | TBD          |
| ATC Target             | TBD          |
| Measured ATC Average   | TBD          |
| Measured ATC Amplitude | TBD          |
| Temperature            | TBD          |
| Humidity               | TBD          |

## ADJ 9.6 Copy Mode Color Balance

### Purpose

To perform fine adjustment of the center value of the low density/medium density/high density output balance for each color for copy images.

- This adjustment is only applicable to the copy function.
- Adjustment is carried out in the TRC section of the IIT/IPS according to the set value.
- Perform this adjustment only when requested by the customer. The center of color adjustment in Customer Mode will be changed by this setup.

### Adjustment

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC919 from the [DC Quick](#) menu.
3. Place an image on the platen
4. Use the **(+)** and **(-)** buttons to choose from 9 color balance adjustment values (from -4 to +4; 0 is the default value), for the range of low density, medium density and high density, for each color. The portion of the image in each range will become lighter from -1 to -4, and darker from +1 to +4.
5. When all corrections have been entered, select **Save**.
6. Select a paper tray (1-4) containing the appropriate paper.
7. Select **Start**. A copy of the image on the platen will be made in FC mode.
8. Ask the customer to examine the copy to determine if the corrections meet the desired outcome.
9. If further correction is needed, repeat steps 4 - 8 as required. Use **Reset** as required to return all values to the default.
10. When the image meets the customers requirements, select **Save**, the perform a Temporary Call Closeout.

## ADJ 9.7 IOT Lead Edge/Side Edge Registration

### Purpose

The purpose is to adjust the position of the printed image on the page. This is done by changing the value of the Lead Edge Registration and Side Edge Registration in [dC129](#). This controls where the ROS writes the image.

### Specification

The specifications for Lead Edge and Side Edge are shown in the table below.

Table 1 Specification

| Item      | Simplex   | Duplex    | Tray 5 / Bypass |
|-----------|-----------|-----------|-----------------|
| Lead Edge | 10±1.5mm  | 10±1.5mm  | 10±1.5mm        |
| Side Edge | 8.5±1.7mm | 8.5±2.0mm | 8.5±2.9mm       |

### Introduction

This series consists of the following procedures:

- Lead Edge Registration, Bond/Plain Paper, Trays 1-4 and 6, Sides 1 and 2. One Lead Edge setting applies to all.
- Lead Edge Registration, Bond/Plain Paper, Tray 5 / Bypass, Sides 1 and 2.
- Side Edge Registration, All Trays (1 - 6), Sides 1 and 2, each set separately.
- Lead Edge Registration, Heavyweight Paper, Trays 1-4 and 6, Sides 1 and 2. One Lead Edge setting applies to all.
- Lead Edge Registration, Heavyweight Paper, Tray 5 / Bypass, Sides 1 and 2.

**NOTE:** Whenever you adjust registration, you must perform the entire series, in the sequence given. Read the entire procedure before performing the adjustment.

### Lead Edge Registration (Bond/Plain Paper)

#### Purpose

To correctly register the lead edge of the image in relation to the lead edge of the paper. There is a baseline lead edge setting for Trays 1 - 4 and 6 on sides 1 and 2, with a separate lead edge setting for Tray 5 / Bypass.

#### Check

##### Checking Baseline Lead Edge Registration (Trays 1 - 4 and 6)

**NOTE:** You must set baseline registration for Bond/Plain paper before setting heavyweight registration.

1. Load Trays 1 and 2, and the Tray 5 / Bypass, with 11 x 17 / A3 Bond/Plain paper. Load Trays 3, 4, and 6 with 8 1/2 x 11 / A4 Bond/Plain paper.
2. The routine automatically selects the appropriate NVM location to set, based on the Paper Type setting for the trays. Ensure that all paper trays are set to the installed paper type by pressing the Setup Menu button on the UI, selecting Paper Tray Attributes, and setting and Saving the appropriate paper types for each tray. Note that if this path has changed, you will need to consult the copier/printer User Guide (Training and Information CD) for the correct menu path.

3. Connect the PWS to the machine and enter Diagnostic Mode.
4. Select **dC129** from the DC Quick menu.
5. Make the following selections:
  - a. Select Side 1, if not already selected.
  - b. Select Tray 1, if not already selected.
  - c. Select 5 for Print Count.
6. Click Start on the PWS screen.
7. Label each printed sheet with the number of the print (1 through 5), the words "Tray 1," and "Side 1," and the location of the Lead Edge of each sheet.
8. Take the third print and measure from the lead edge to point A (as shown on [Figure 1](#)). Point A is at the intersection of the 7th line from the side edge and the first line from the lead edge.
9. If the measured value is not  $10\pm 1.5\text{mm}$ , perform the Adjustment. If the Check is OK, proceed to **Checking Side 2 Lead Edge Registration**.

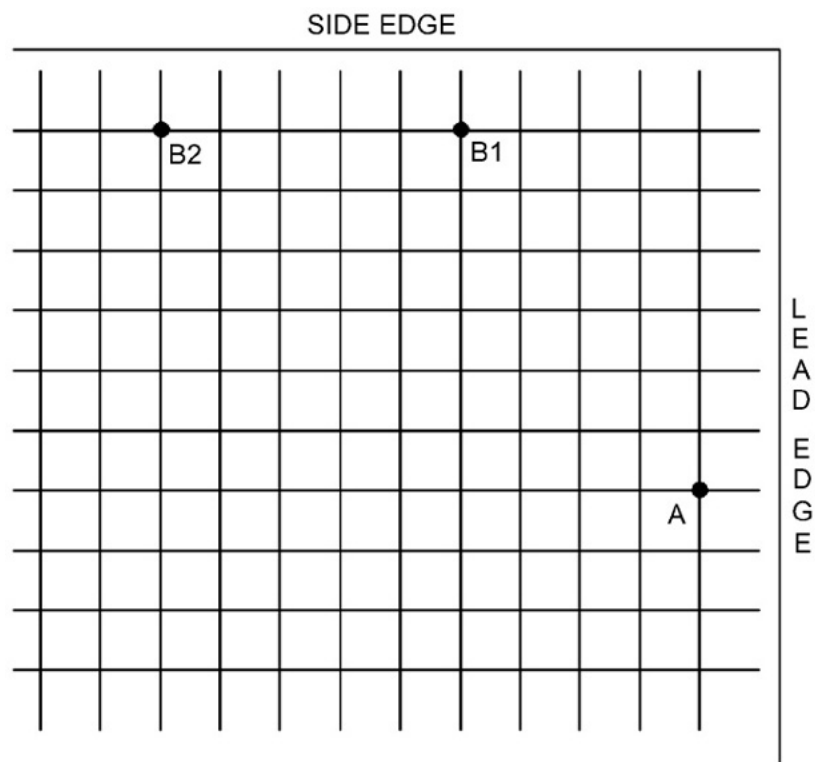


Figure 1 Test Pattern Measurement Points

### Checking Side 2 Lead Edge Registration

**NOTE:** The grid pattern for side 1 does not align with the side 2 grid pattern; do not attempt to set registration by aligning the grids.

1. Make the following selections:
  - a. Select the Side 2 radio button.
  - b. Select 5 for Print Count, if not already selected.
2. Click Start on the PWS screen.
3. Label each printed sheet with the number of the print (1 through 5), the words "Tray 1" and "Side 2," and the location of the Lead Edge of each sheet.
4. Take the third print and measure from the lead edge to point A (as shown on [Figure 1](#)). Point A is at the intersection of the 7th line from the side edge and the first line from the lead edge.
5. If the measured value is not  $10\pm 1.5\text{mm}$ , perform the Adjustment. If the Check is OK, proceed to **Checking Tray 5 Lead Edge Registration**.

### Checking Tray 5 / Bypass Lead Edge Registration

1. Select Tray 5 (MSI) from the Tray/Size drop down box.
 

**NOTE:** You will have to select a specific paper size for Tray 5 (MSI). Select 11 x 17 or A3 SEF (depending upon which is loaded in the Tray 5 / Bypass). Other selections are 8.5 x 11 LEF and A4 LEF.
2. Make the following selections:
  - a. Select the Side 1 radio button.
  - b. Select Plain as the Paper Type.
  - c. Select 5 for Print Count, if not already selected.
3. Click Start on the PWS screen.
4. Take the third print and measure from the lead edge to point A (as shown on [Figure 1](#)). Point A is at the intersection of the 7th line from the side edge and the first line from the lead edge.
5. If the measured value is not  $10\pm 1.5\text{mm}$ , perform the Adjustment. When the measured value falls within the specification, select the Side 2 radio button and repeat steps 1 through 4 to check registration for Side 2.
6. If the Check for Tray 5 / Bypass Side 2 is not  $10\pm 1.5\text{mm}$ , perform the Adjustment. If the Check is OK, proceed to **Side Edge Registration**.

### Adjustment

1. Use the Right and Left Arrow buttons to increase or decrease the amount of lead edge spacing. The right arrow increases the lead edge spacing (moves the grid pattern to the left). The left arrow decreases the lead edge spacing (moves the grid pattern to the right). The cumulative amount of shift is indicated in millimeters in the **Lead Registration** box, and is represented visually on the PWS.
2. After adjusting the registration, click **Save Adjust Value**.
3. After adjustment, repeat the Check procedure to see if the measured value of the Lead Edge (A) now falls within the specification of [Table 1](#).
4. Repeat Adjustment steps 1 through 3 until the measured value falls within the specification.

## Side Edge Registration

### Purpose

To correctly register the side edge of the image in relation to the outboard edge of the paper.

### Check

1. Check that paper is loaded in all trays, and that the paper guides are adjusted correctly.
2. Make the following selections:
  - a. Select the Side 1 radio button.
  - b. Select Tray 1.
  - c. Select 5 for Print Count, if not already selected.
3. Click Start on the PWS screen.
4. Label each printed sheet with the number of the print (1 through 5), the words "Tray 1," and "Side 1," and the location of the Lead Edge and Side Edge of each sheet.

**NOTE:** With the lead edge to the right, the side edge to be checked will be at the top.

5. Take the third print and measure the following:
  - For paper larger than letter size, such as 11 x 17 / A3 (that was recommended for loading in Trays 1, 2, and Tray 5 / Bypass), measure from the intersection between the 1st line from the side edge and the 10th line from the lead edge of the paper (point B2 on [Figure 1](#)).
  - For letter size (8.5 x 11 / A4), paper (that was recommended for loading in Trays 3, 4, and 6), measure from the intersection between the 1st line from the side edge and the 5th line from the lead edge of the paper (point B1 on [Figure 1](#)).
6. If the measured value is not  $8.5 \pm 1.7$ mm, perform the Adjustment.
7. If the measurement is within specification, select Trays 2 through 4, then Tray 6, and repeat steps 1 through 5 for each successive tray. Perform the Adjustment, if the measurement is not within specification.
8. If the measurement is within specification, select the Side 2 radio button, select Trays 2 through 4, then Tray 6, and repeat steps 1 through 5 for each successive tray for Side 2.
9. If the measured value for Trays 2 through 4, and Tray 6 (Side 2) is not  $8.5 \pm 2.0$ mm, perform the Adjustment, where applicable.
10. If the measurement is within specification, select Tray 5 and repeat steps 1 through 5 for Side 1 of the Tray 5 / Bypass.
11. If the measured value for Side 1 of the Tray 5 / Bypass is not  $8.5 \pm 2.9$ mm, perform the Adjustment.
12. If the measurement is within specification, select the Side 2 radio button and repeat steps 1 through 5 for Side 2 of the Tray 5 / Bypass.
13. If the measured value for Side 2 of the Tray 5 / Bypass is not  $8.5 \pm 2.9$ mm, perform the Adjustment.

### Adjustment

1. Use the Up and Down Arrow buttons to increase or decrease the amount of side edge spacing. The Up arrow increases the side edge spacing (moves the image away from the outboard edge of the paper). The Down arrow decreases the side edge spacing (moves the image towards the outboard edge of the paper). The cumulative amount of shift is indicated in millimeters in the **Side Registration** box, and is represented visually on the PWS.

2. After adjusting the registration, click **Save Adjust Value**.
3. After adjustment, repeat the Check procedure to see if the measured value of the Side Edge (A) now falls within the specifications of [Table 1](#).
4. Repeat Adjustment steps 1 through 3 until the measured value falls within the specification.

## Lead Edge Registration, Heavyweight Paper

### Check

1. If heavyweight paper is available, load Trays 1 and 2, and the Tray 5 / Bypass, with 11 x 17 / A3 Heavyweight paper. Load Trays 3, 4, and 6 with 8 1/2 x 11 / A4 Heavyweight paper.

**NOTE:** If heavyweight paper is not available, use the same Bond/Plain paper that was used to check and adjust baseline registration for Bond/Plain paper.

**NOTE:** Setting up the registration for **Heavyweight 1** will automatically set up the registration for **Plain Gloss** media.

2. The routine automatically selects the appropriate NVM location to set, based on the Paper Type setting for the trays. Ensure that all paper trays are set to a **Heavyweight paper type** (regardless of the actual weight of paper installed in the trays) by pressing the Setup Menu button on the UI, selecting Tray Attributes, and setting and Saving a Heavyweight paper type for each tray. Note that if this path has changed, you will need to consult the copier/printer User Guide (Training and Information CD) for the correct menu path.
3. Repeat the previously stated procedures for Checking and Adjusting (if necessary) Lead Edge Registration (for Bond/Plain Paper) for Trays 1 - 4 and 6, as well as the procedures for Checking and Adjusting (if necessary) the Tray 5 / Bypass Lead Edge Registration.

## ADJ 9.8 Registration Control Setup cycle

### Purpose

To set the most appropriate Registration Control correction value for skew etc. This procedure must be performed if the registration NVM is corrupted or initialized, and after replacement of any of the following:

- ROS
- Transfer Belt
- IBT Module

### Adjustment

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC675 from the [DC Quick](#) menu.
3. Select **Start**.

The shift amount for each color is corrected automatically.

## ADJ 9.9 Registration Measurement Cycle

### Purpose

To measure the color registration for 4 colors and display the status by indicating OK/NG (Check or Adjustment).

This cycle performs the color registration measurement that includes the detection of AC component to determine the condition of AC control (Drum Drive, Belt Drive, and Belt Steering, etc.), which is one of the color registration components.

- Performs registration measurement to determine the condition of the AC control.
- Checks that the Belt control etc. are operating normally.
- Measures/displays the amount of color shift relative to Black in the Fast Scan/Slow Scan direction.
- Displays the result of comparing OK/NG (Check or Adjustment) with the target value.

### Adjustment

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC671 from the [DC Quick](#) menu.
3. Press [Start] on the DC671 screen.  
Displays [OK] or [NG] in the [Comparison Result] column.
4. When NG (Check or Adjustment) is displayed, refer to the corresponding RAP and correct the problem.

If the result is NG for both AC/DC, fix the AC problem first.

## ADJ 9.10 Registration Control Sensor Check Cycle

### Purpose

This is a self-diagnostic cycle for checking that the misregistration detection system (MOB Sensor) is operating normally. The color shift amount is detected using Cyan patch. Any misregistration detected in the MOB sensor is displayed on the screen.

This detection result is compared again with the target value to determine the pass/fail (OK/NG) status. Correction is not performed.

### Adjustment

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC673 from the [DC Quick](#) menu.
3. Select **Start**.
4. When the test completes, the results will be displayed. If the measured value for any parameter is larger than the target value by 10, NG is displayed.  
If NG, check that Cyan is being printed; if so, replace the MOB Sensor Assembly.  
If Cyan is not being printed, there is a problem in Development or 1st Transfer.

## ADJ 9.11 Inboard/Outboard Manual Density Setup

### Purpose

#### CAUTION

*Placeholder only! This is a copy of the FXAP input, and may not represent the final procedure. For reference and general information only.*

To correct the IN-OUT uneven density of each of the colors YMCK independently by adjusting the IN-OUT direction of the ROS light exposure amount (M/C rear-front).

**NOTE:** *There are usually no problems adjusting in primary color, but even if the uneven density is corrected for each individual color by the status, environment and machine difference of the M/C image developing unit, the RGB and Gray for secondary/process color may not necessarily be corrected in equivalence. If that happens, specific adjustment is possible for the RGB or as desired by the customer.*

*In this case, however, as the unevenness in density for each single color for YMCK may worsen instead, be sure to check the primary colors after secondary/process color adjustment and adjust the density to the desired level of the customer.*

*Primary colors are Y, M, C and K; secondary colors are R, B and G printed with 2 of the Y, M and C colors; process color is gray color printed with all 3 colors Y, M and C.*

**NOTE:** *Although the standard density (Cin) of the test patterns is Low: 20% and Mid: 60%, change the Cin% on the screen if it differs from the density specified by the customer.*

### Adjustment

<Primary Color, Secondary/Process Color Rough Adjustment Procedure>

1. Load A3 paper into Tray 2.
2. Select dc931 on the Color Image Quality Adjustment screen.  
[PC-Diag.]  
Connect the PSW to the machine and press the DC931 button mentioned above. Or, launch the PC-Diag. in PSW, click on the [Color Image Quality Adjustment] tab and click on the [DC931] button.  
[UI-Diag.]  
Switch to the CE mode and select [In/Out Manual Setup] according to the following steps.
  - a. Hold down the 0 button for 5 seconds, then press the Start button to switch to CE mode.
  - b. Enter the password [6.7.8.9] and press the [Confirm] button.
  - c. Press the [System Settings] button on the Control Panel.
  - d. Click on [System Settings] on the Touch Panel.
  - e. Press the [Common Settings] button.
  - f. Press the [Maintenance/Diagnostics] button.
  - g. Press the [MAX Setup] button.
  - h. Select [In/Out Manual Setup].
3. Check the "Adjustment Check Print" at the top left of the screen and select the following from the pull down menu below it.  
[PC-Diag.]
  - Tray: Tray 2 (Check that A3 paper is loaded.)
  - Output Pattern: Primary Color

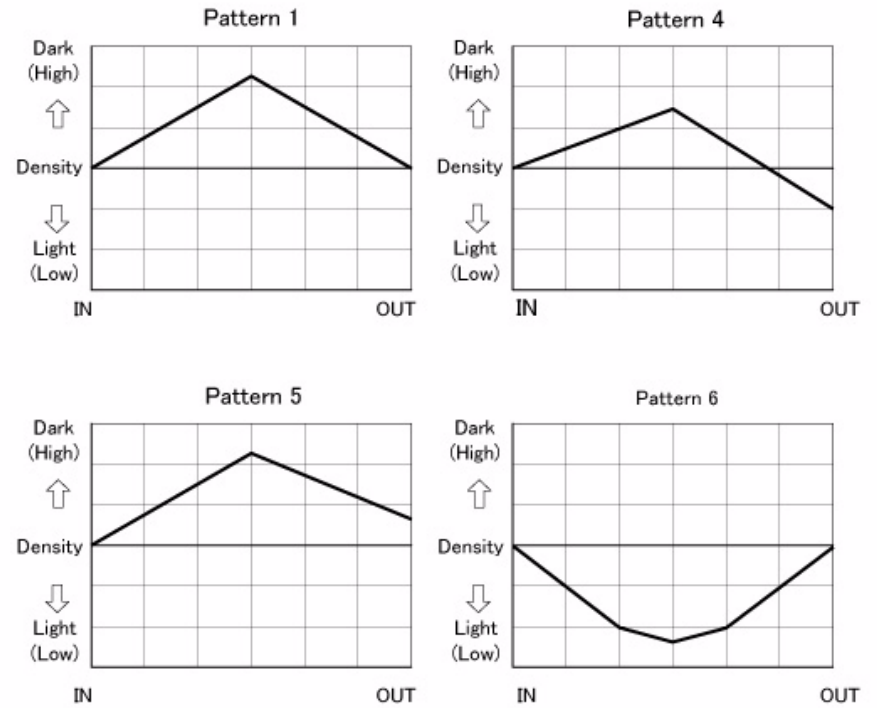
[UI-Diag.]

- Press the Print Settings for the screen. Select [Primary Color] for [Print Color] and press Close.
  - Press the [Print] button.
4. Click the [Start] button. The Primary Color Test Pattern is output. (Figure 1)



Figure 1 j0ms40912

5. In the test pattern that is output, check the In-Out density of each of Y, M, C and K. Identify the In-Out density distribution from the following 10 patterns. [Chart of patterns that are dark or light in the center [Patterns: 1, 4, 5, 6]] (Figure 2)



j0tz40351

Figure 2 j0tz40351

[Chart of patterns that have a dark In-Board [rear] [Patterns: 2, 7, 10]] (Figure 3)



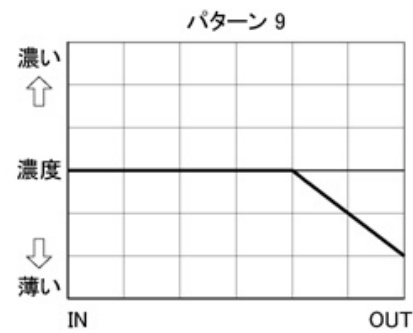
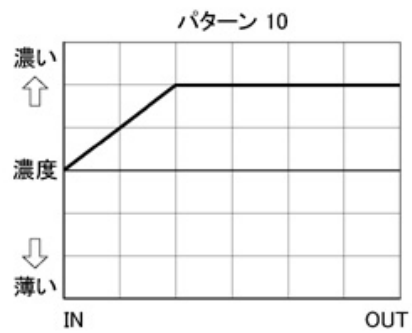
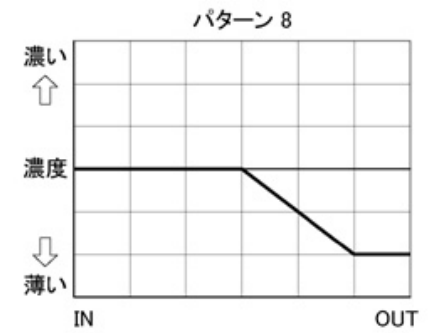
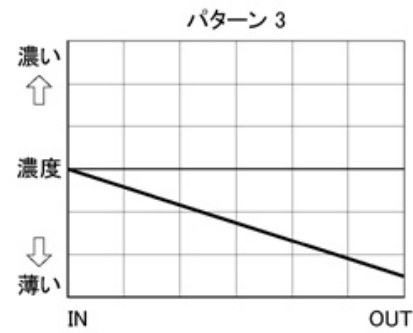
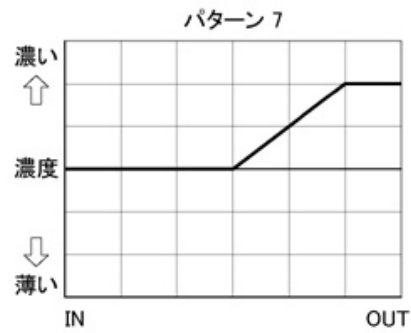
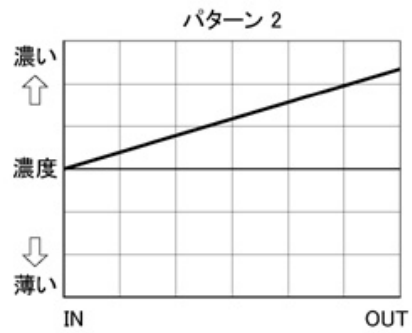


Figure 3 j0ms40914

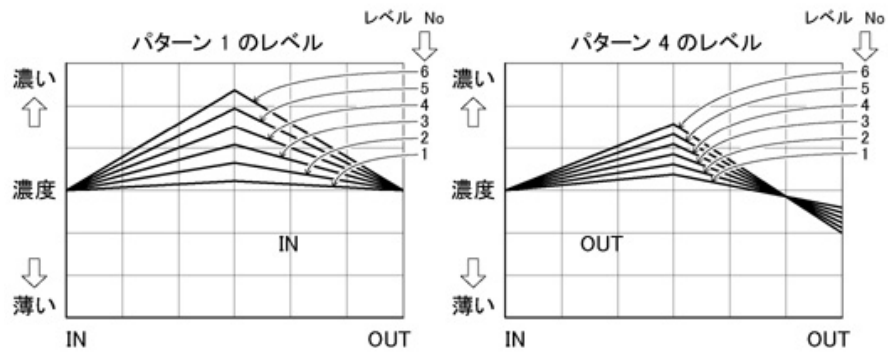
j0ms40914

Figure 4 j0ms40915

j0ms40915

[Chart of patterns that have a light In-Board [rear] [Patterns: 3, 8, 9]] (Figure 4)

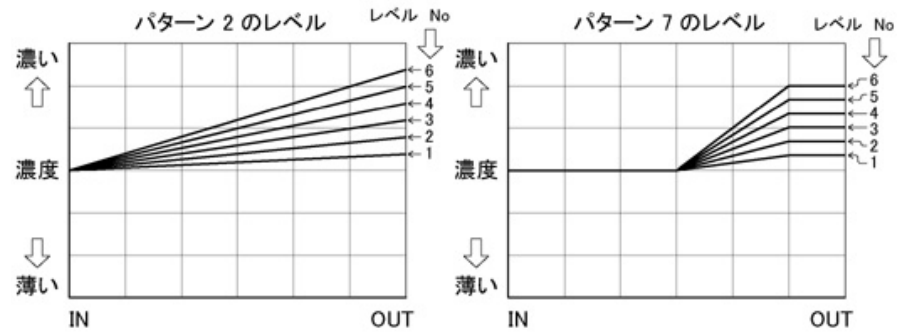
- After identifying the pattern in Step 5, choose and determine the density level from the following figures.  
It is recommended to enter Level 3 first and check the change in density before proceeding.  
[For checking the levels of Patterns 1 & 4 (dark in the center)] (Figure 5)



j0ms40916

Figure 5 j0ms40916

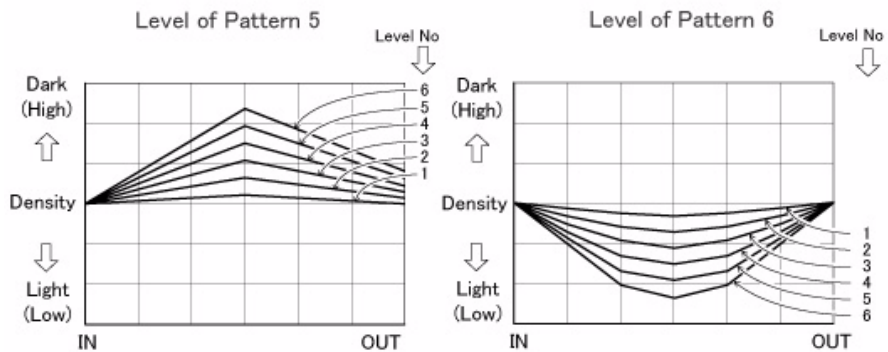
[For checking the levels of Patterns 5 & 6 (dark/light in the center)] (Figure 6)



j0ms40918

Figure 7 j0ms40918

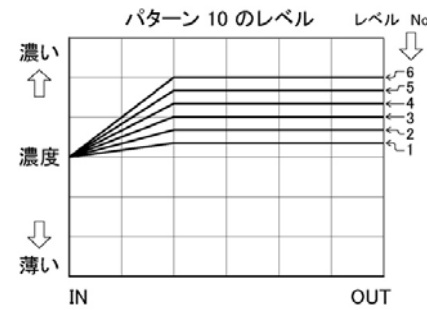
[For checking the level of Pattern 10 (dark In-Board)] (Figure 8)



j0tz40352

Figure 6 j0tz40352

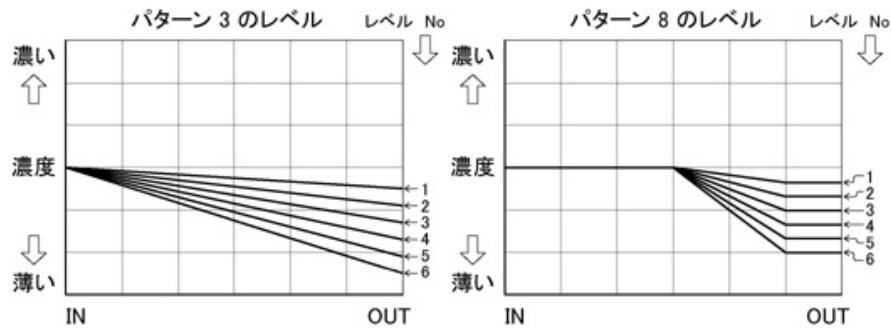
[For checking the levels of Patterns 2 & 7 (dark In-Board)] (Figure 7)



j0ms40919

Figure 8 j0ms40919

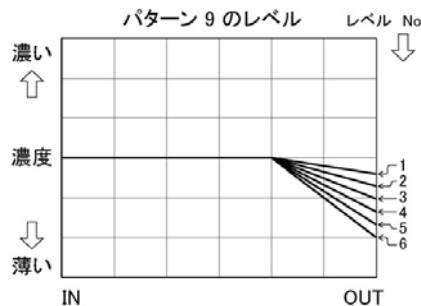
[For checking the levels of Patterns 3 & 8 (light In-Board)] (Figure 9)



j0ms40920

Figure 9 j0ms40920

[For checking the level of Pattern 9 (light In-Board)] (Figure 10)



j0ms40921

Figure 10 j0ms40921

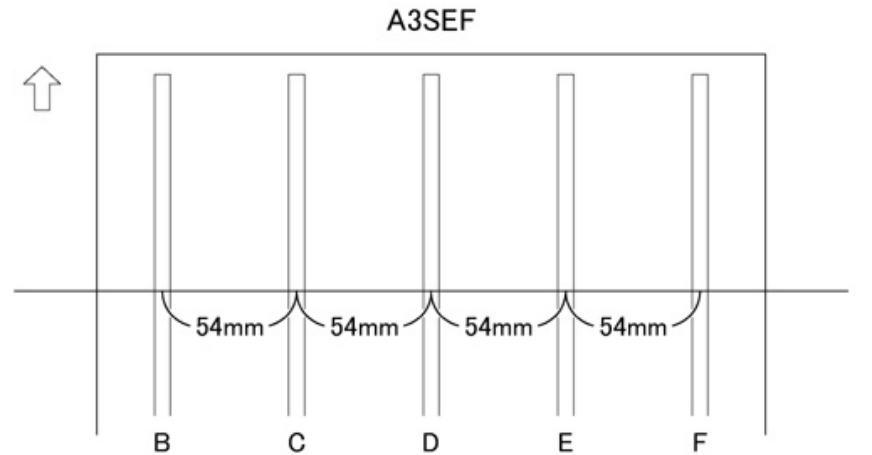
7. Check the "Adjustment Item Settings" on the screen. Input the color adjustment, pattern form adjustment and pattern form adjustment level after checking Steps 5 and 6.
8. After that, click "Settings" under "Light Density Adjustment Data".
9. Check the "Adjustment Check Print" again on the screen. Click Start and print the test pattern.
10. Repeat Steps 3 to 9 until the density for every color is even. If other fine adjustment is needed, perform fine adjustment by following the 'Fine Adjustment Procedure'.

11. When adjustment for primary color is completed, check the In-Out density in the same way for secondary color as follows.
12. Check the "Adjustment Check Print" at the top left of the screen and select the following from the pull down menu below it.
  - Tray: Tray 2 (Check that A3 paper is loaded.)
  - Output pattern: Secondary/Process Color
13. Perform Steps 4 to 9 below to adjust the density of secondary/process color. If other fine adjustment is needed, perform fine adjustment by following the "Fine Adjustment Procedure".

<Primary Color, Secondary/Process Color Fine Adjustment Procedure>

In the rough adjustment procedure, the samples were printed and patterns and levels adjusted. The fine adjustment procedure for samples whose levels cannot be matched is described below.

1. As in the rough adjustment procedure, print the sample and choose the pattern level.
2. After selection, refer to the following figure and determine the area that needs to be fine-tuned. (Figure 11)



j0ms40922

Figure 11 j0ms40922

3. Compare the sample with Figure 11 above. Determine which position (B, C, D, E or F) needs to be fine-tuned.
4. Determine the color and area that needs to be adjusted. Fine adjustment is possible by increasing/decreasing the number in the corresponding box.
  - Increase in value: Becomes darker
  - Decrease in value: Becomes lighter

**NOTE:** For fine adjustment,  $\pm 30$  to the current value is possible when Levels 1 to 4 are selected. As there is a limit to the adjustment amount, values outside this range can be entered but there will be no adjustment done.

- After entering the value, click Settings. Print the pattern again and check the density. Repeat Steps 3 and 4 until the density is even.

## ADJ 9.12 Secondary Transfer Output Voltage

### Purpose

The CE adjusts the secondary transfer voltage for the special paper which the customer uses.

### CAUTION

*Placeholder only! This is a copy of the FXAP input, and may not represent the final procedure. For reference and general information only.*

### Adjustment

Check with the customer on the weight of the paper and which is the desired output mode for the special paper.

**Table 1 Paper Weight**

| Paper Weight                                   | Color / B/W | Side 1 / Side 2 |
|------------------------------------------------|-------------|-----------------|
| 1. Plain: Paper up to 104gsm.                  | 1. Color    | 1. Side 1       |
| 2. Heavyweight 1: Paper from 105gsm to 176gsm. | 2. B/W      | 2. Side 2       |
| 3. Heavyweight 2: Paper that is 177gsm.        |             |                 |

Be sure to check the above combinations.

- Based on the data collected during preparation, set the required icons in addition to the existing UI icons.  
The machine is designed such that 6 icons can be added for the special settings above. (The shaded parts in the following table)

**NOTE:** Be sure to remember the icon names used.

**Table 2 Paper Type**

| UI Paper Type Settings | UI Image Quality Type | Details                                          |
|------------------------|-----------------------|--------------------------------------------------|
| Plain                  | Plain A               | Cannot be changed (For thin Plain paper)         |
|                        | Plain B               | Cannot be changed (For thick Plain paper)        |
|                        | Plain C               | Cannot be changed (For Coated paper)             |
|                        | Plain S1              | For manual settings                              |
|                        | Plain S2              | For manual settings                              |
| Heavyweight 1          | Heavyweight 1A        | Cannot be changed (Heavyweight 105gsm to 128gsm) |
|                        | Heavyweight 1B        | Cannot be changed (Heavyweight 129gsm to 176gsm) |
|                        | Heavyweight 1 S1      | For manual settings                              |
|                        | Heavyweight 1 S2      | For manual settings                              |
| Heavyweight 2          | Heavyweight 2A        | Cannot be changed (Standard Heavyweight 2)       |
|                        | Heavyweight 2B        | Cannot be changed (Corresponds to application)   |
|                        | Heavyweight 2C        | Cannot be changed (Postcard (Private))           |
|                        | Heavyweight 2D        | Cannot be changed (Postcard)                     |
|                        | Heavyweight 2E        | Cannot be changed (Heavyweight above 256gsm)     |
|                        | Heavyweight 2 S1      | For manual settings                              |
|                        | Heavyweight 2 S2      | For manual settings                              |

Determine which above icon to set according to the paper weight.

Next, prepare for input into the NVM according to the mode information and the above icon settings. The NVM is determined according to the combinations from the following mode information.

**Table 3 Mode Information**

| NVM     | Mode Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 746-002 | 11: Plain S1, FC, Side 1<br>12: Plain S1, FC, Side 2<br>13: Plain S1, BW, Side 1<br>14: Plain S1, BW, Side 2<br>15: Plain S2, FC, Side 1<br>16: Plain S2, FC, Side 2<br>17: Plain S2, BW, Side 1<br>18: Plain S2, BW, Side 2<br>21: Heavyweight 1 S1, FC, Side 1<br>22: Heavyweight 1 S1, FC, Side 2<br>23: Heavyweight 1 S1, BW, Side 1<br>24: Heavyweight 1 S1, BW, Side 2<br>25: Heavyweight 1 S2, FC, Side 1<br>26: Heavyweight 1 S2, FC, Side 2<br>27: Heavyweight 1 S2, BW, Side 1<br>28: Heavyweight 1 S2, BW, Side 2<br>31: Heavyweight 2 S1, FC, Side 1<br>32: Heavyweight 2 S1, FC, Side 2<br>33: Heavyweight 2 S1, BW, Side 1<br>34: Heavyweight 2 S1, BW, Side 2<br>35: Heavyweight 2 S2, FC, Side 1<br>36: Heavyweight 2 S2, FC, Side 2<br>37: Heavyweight 2 S2, BW, Side 1<br>38: Heavyweight 2 S2, BW, Side 2 |

- Enter UI Diag. and change the following NVM data.

**Table 4 NVM**

| NVM     | NVM Names                                                              | Initial Value | After Change                         |
|---------|------------------------------------------------------------------------|---------------|--------------------------------------|
| 746-001 | 2nd BTR PWM Output Changeable Mode Activation Switch (Adjustment Mode) | 0             | 1                                    |
| 746-002 | 2nd BTR PWM Output Changeable Mode Rewrite Mode Selection              | 0             | Input the data determined in Step 1. |

- Borrow the specified original from the customer and place it on the Platen Glass.
- Borrow the specified special paper (up to 30 sheets) from the customer and load it in the tray.
- Set 10 for No. of sets. Then select a tray and press the Start button.  
Print 10 sheets (the 1st sheet is a dummy) of the sample of the changed output in adjustment mode.  
Details of the output samples are as follows.

1st sheet: Dummy

2nd sheet: Prints at 60% output of the secondary transfer of the 6th sheet.

3rd to 5th sheets: Prints in increasing order from 61% to 99% output of the secondary transfer of the 6th sheet.

6th sheet: Prints at the current secondary transfer status.

7th to 9th sheets: Prints in increasing order from 101% to 139% output of the secondary transfer of the 6th sheet.

10th sheet: Prints at 140% output of the secondary transfer of the 6th sheet.

6. Excluding the 1st dummy sample, when there is a sample with the best printing among the 9 sheets (2nd sheet to 10th sheet), proceed to the following steps. When there isn't, go to Step 9.
  - a. Determine the number (2 to 10) of the best sample.  
E.g.) The 8th sheet of the sample has the best printing = Best sample number is 8
  - b. Enter the number of that sample into the NVM (746-003).  
E.g.) When sample number 8 is identified to be the best, enter 8 into the NVM (746-003).
7. Exit from the Diag. mode. Make a copy in the icon created in Step 1 and check if the same image quality as the sample can be attained.
8. Explain to the customer that the mode for using the special paper was set in the particular icon.
9. When there is no output value for the best changed output among the 10 sheets, change the NVM value as follows.  
When the desired secondary transfer output is higher \*1: Check the NVM (746-014) value and input that value into NVM (746-004).  
When the desired secondary transfer output is lower \*2: Check the NVM (746-006) value and input that value into NVM (746-004).

**NOTE:** By inputting a value mentioned above, 10 sheets of sample can be output with that value as a central value.

10. Change the following NVM again and enter adjustment mode.

**Table 5 NVM**

| NVM     | NVM Names                                                              | Initial Value | After Change |
|---------|------------------------------------------------------------------------|---------------|--------------|
| 746-001 | 2nd BTR PWM Output Changeable Mode Activation Switch (Adjustment Mode) | 0             | 2            |

**NOTE:** This is because the initial value is restored automatically after making samples of 746-001.

The value 1 entered in Step 2 is for normal mode output. As the data sample output of the changed central value is necessary, enter 2 for 2nd adjustment.

11. Repeat Steps 5 to 7.
12. When more samples must be made, repeat Steps 9 to 11.

**NOTE:** NVM Table

**Table 6 NVM**

| Sample Number | NVM     | NVM Names                                                    |
|---------------|---------|--------------------------------------------------------------|
| 2             | 746-006 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.2  |
| 3             | 746-007 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.3  |
| 4             | 746-008 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.4  |
| 5             | 746-009 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.5  |
| 6             | 746-010 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.6  |
| 7             | 746-011 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.7  |
| 8             | 746-012 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.8  |
| 9             | 746-013 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.9  |
| 10            | 746-014 | 2nd BTR PWM Output Changeable Mode Sample Output Value No.10 |

\*1 When the desired secondary output is more than 140% of the current output

E.g.: The high density parts have a low density even in sample No.10.

The 3C high density parts are bluish.

\*2 When the desired secondary output is less than 60% of the current output

E.g.: The high density parts have mottles (spots/white spots) even in sample No.2.

(For other symptom, there may be many white dots at the H/T area, or there may be rustling noise at H/T area of the color K.)

## ADJ 9.13 Belt Edge Learn

### Purpose

This procedure calibrates the Belt Edge Sensor. This adjustment is required after replacement of either the Transfer Belt or the Belt Edge Sensor.

**NOTE:** This procedure is also available in UI Diagnostic mode. See [Accessing UI Diagnostics](#).

### Adjustment

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC956 from the [DC Quick](#) menu.
3. Select **Start** on the screen.

The position and alignment of the belt is digitized and stored in the machine automatically.





## ADJ 12.2 Finisher Leveling

### Purpose

The Finisher level should be checked if the machine has been moved to a new location or if the machine is having Booklet Quality issues or entrance jams.

### Adjustment

#### WARNING

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

1. Verify that the Finisher is properly latched and secured to the IOT.
2. Verify that the Finisher is Level and parallel with the IOT (Figure 1).

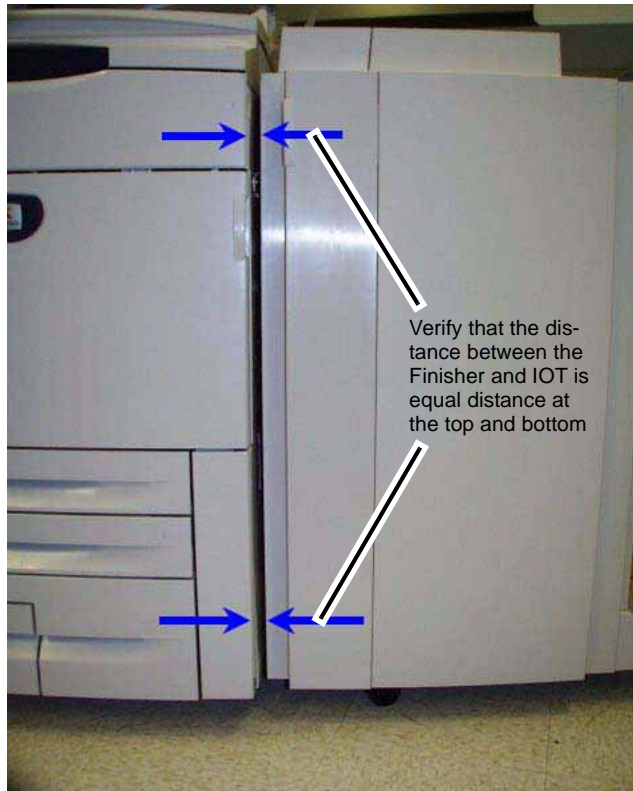


Figure 1 Verifying Finisher Level

3. Adjust Finisher Level (Figure 2).



Figure 2 Adjusting Finisher Level

## ADJ 12.4 Booklet Fold Skew

### Purpose

To adjust the Booklet Maker so that the fold is square.

### Check

#### WARNING

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

- Set machine up according to instructions:
  - Under the Scan Options Tab - select **2 Sided Copying>2-2 Sided** and then press **Save**.
  - Under the Output Format Tab - select **Copy Booklet>No Covers>Finishing>Folding** and then press **Save** twice.
- Place paper in the DADF according to instructions and run a set of each Booklet job:
  - Job 1: Place 6 sheets of 8.5 x 11" / A4 in the DADF and press **Start** (booklet size 3 sheets).
  - Job 2: Place 6 sheets of 11 x 17" / A3 in the DADF and press **Start** (booklet size 3 sheets).
- Measure the skew (A) on all sheets of paper and verify against the Skew Specification table in [Figure 1](#).

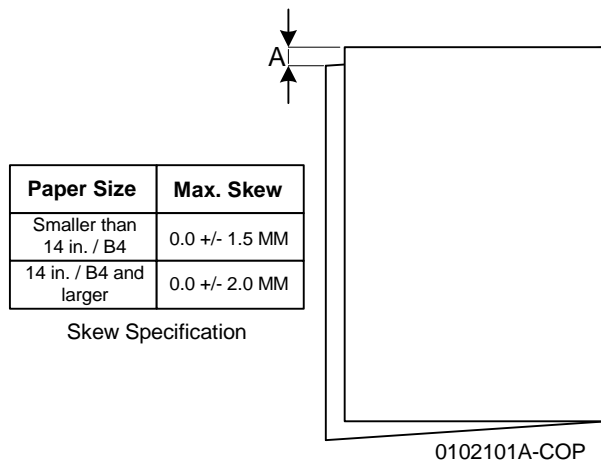


Figure 1 Skew Specification

- If the fold is within specification on all sheets, go to [ADJ 12.5 Booklet Fold Position](#). If any of the sheets are out of specification, go to the adjustment.

### Adjustment

- Determine the type of Fold Skew:
  - Set machine up according to instructions:

- Under the Scan Options Tab - select **2 Sided Copying>2-2 Sided** and then press **Save**.
  - Under the Output Format Tab - select **Copy Booklet>No Covers>Finishing>Folding** and then press **Save** twice.
- Place paper in the DADF according to instructions:
    - Place 6 sheets of 11 x 17" / A3 in the DADF and press **Start** (booklet size 3 sheets).
  - Observe the booklet as it comes out on to the Booklet Tray ([Figure 2](#)) and determine the type of skew.

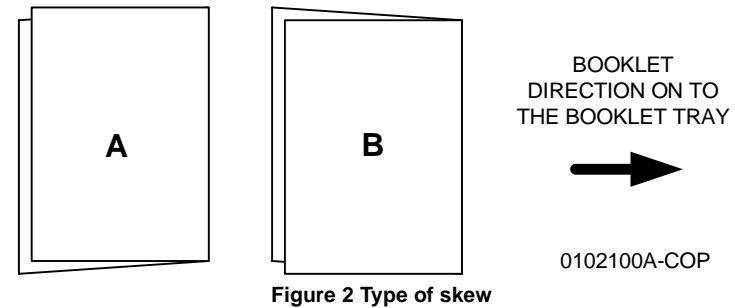


Figure 2 Type of skew

- Adjust the Booklet skew ([Figure 3](#)).

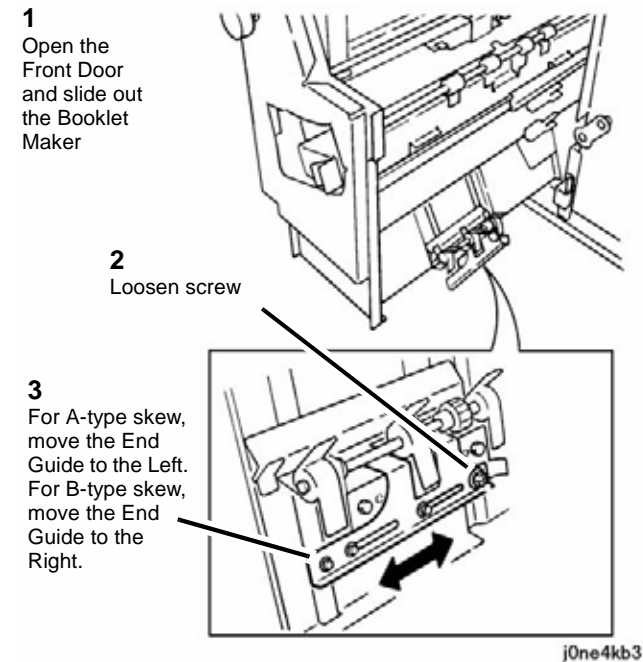


Figure 3 Adjusting Fold Skew

5. Repeat procedure until the Fold Skew setup meets specification or customer request.
6. After adjustment is done, go to [ADJ 12.5 Booklet Fold Position](#).

## ADJ 12.5 Booklet Fold Position

### Purpose

The purpose with this adjustment is to set up the Booklet Maker so that the fold is in the center of the booklet. Several setups are needed depending on paper size, set size, unstapled or stapled sets.

### Check

1. Ensure that the trays used are correctly programmed.
2. Ensure that the Fold Skew is within specification ([ADJ 12.4](#)).
3. Set machine up according to instructions in [Table 1](#) and run 1 set of each Booklet job. Label each booklet.

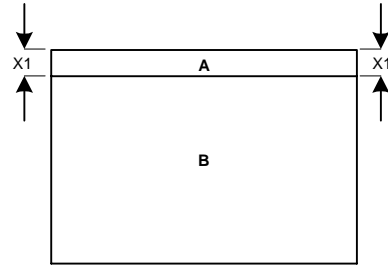
**Table 1 Booklet Jobs**

| Job | Select Paper Supply | In Scan Options / Output Format Tabs, select:          | Originals in DADF              | Output Booklet Size |
|-----|---------------------|--------------------------------------------------------|--------------------------------|---------------------|
| 1   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet / No Cover / Folding           | 2 sheets of 8.5 x 11 / A4 LEF  | 1 sheet             |
| 2   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet / No Cover / Folding           | 2 sheets of 8.5 x 11 / A4 LEF  | 1 sheet             |
| 3   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding            | 4 sheets of 8.5 x 11 / A4 LEF  | 2 sheets            |
| 4   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding            | 10 sheets of 8.5 x 11 / A4 LEF | 5 sheets            |
| 5   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 4 sheets of 8.5 x 11 / A4 LEF  | 2 sheets            |
| 6   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 4 sheets of 8.5 x 11 / A4 LEF  | 2 sheets            |

4. Measure X1 and verify Fold Position on each job against the Fold Specification table in [Figure 1](#).

| Paper Size               | X1             |
|--------------------------|----------------|
| Smaller than 14 in. / B4 | 0.0 +/- 1.5 MM |
| 14 in. / B4 and larger   | 0.0 +/- 2.0 MM |

Fold Position Specification



Note: Example showing A-side longer than B-side

NOTE: TO DETERMINE WHICH SIDE IS "A" AND WHICH SIDE IS "B", OPEN THE BOOKLET AS IT COMES OUT ON THE BOOKLET TRAY. THE "A"-SIDE IS TO THE LEFT AND THE "B"-SIDE IS TO THE RIGHT.

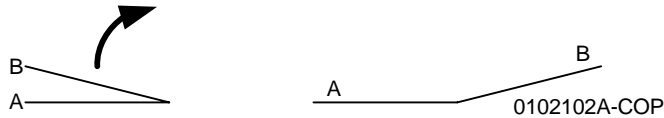


Figure 1 Fold Specification

- If the fold is within specification on each job, go to the Booklet Staple Position (Staple on Fold) (ADJ 12.6). If any of the booklets are out of specification, go to the Adjustment procedure.

### Adjustment

- Enter the UI Diagnostics (Accessing UI Diagnostics).

**NOTE:** The adjustment can also be made through the PWS, routine dC128. Refer to Entering PWS Diagnostic mode for instructions on how to access the PWS Diagnostics.

- Perform adjustment using the NVM locations in Table 2.

**NOTE:** If the "A"-side is longer than the "B"-side, the current NVM value should be increased. If the "B"-side is longer than the "A"-side, the current NVM value should be decreased.

Table 2 NVM locations

| Job # | NVM     | Default | Range   | Remark                                                                                            |
|-------|---------|---------|---------|---------------------------------------------------------------------------------------------------|
| 1     | 763-106 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 2     | 763-107 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 3     | 763-133 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 4     | 763-134 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 5     | 763-108 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 6     | 763-109 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |

- Set up and run the job/s that were subject to adjustment (Table 1).
- Check output against specifications in Figure 1. Repeat procedure until the Fold Position meets specification or customer request.
- After adjustment is done, go to ADJ 12.6 Booklet Staple Position (Staple on Fold).

## ADJ 12.6 Booklet Staple Position (Staple on Fold)

### Purpose

To set up the machine so that the Staples are within specification on the folded booklet.

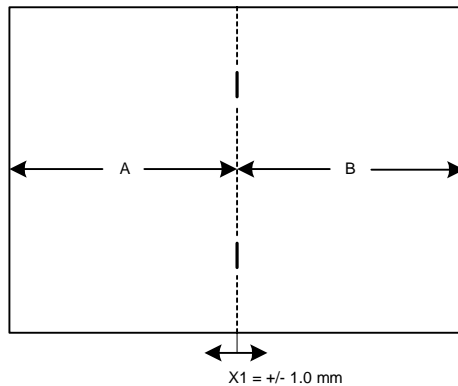
### Check

1. Ensure that the trays used are correctly programmed.
2. Ensure that the Fold Skew is within specification ([ADJ 12.4](#)).
3. Ensure that the Fold Position is within specification ([ADJ 12.5](#)).
4. Set machine up according to instructions in [Table 1](#) and run 1 set of each Booklet job. Label each booklet.

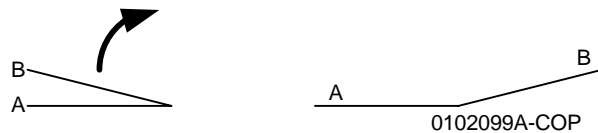
**Table 1 Booklet Jobs**

| Job | Select Paper Supply | In Scan Options / Output Format Tabs, select:          | Originals in DADF             | Output Booklet Size |
|-----|---------------------|--------------------------------------------------------|-------------------------------|---------------------|
| 1   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 4 sheets of 8.5 x 11 / A4 LEF | 2 sheets            |
| 2   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 4 sheets of 8.5 x 11 / A4 LEF | 2 sheets            |

5. Measure A and B on both Booklet jobs and verify X1 against specification in [Figure 1](#).



NOTE: TO DETERMINE WHICH SIDE IS "A" AND WHICH SIDE IS "B", OPEN THE BOOKLET AS IT COMES OUT ON THE BOOKLET TRAY. THE "A"-SIDE IS TO THE LEFT AND THE "B"-SIDE IS TO THE RIGHT.



**Figure 1 Staple Position**

6. If X1 is within specification, go to the Booklet Staple Alignment ([ADJ 12.7](#)). If X1 is out of specification, go to the Adjustment procedure.

### Adjustment

1. Enter the UI Diagnostics ([Accessing UI Diagnostics](#)).

**NOTE:** The adjustment can also be made through the PWS, routine *dC128*. Refer to [Entering PWS Diagnostic mode](#) for instructions on how to access the PWS Diagnostics.

2. Perform the X1 adjustment using the NVM locations in [Table 2](#).

**NOTE:** If the "A"-side is longer than the "B"-side, the current NVM value should be decreased. If the "B"-side is longer than the "A"-side, the current NVM value should be increased.

**Table 2 NVM locations**

| Job # | NVM     | Default | Range   | Remark                                                                                            |
|-------|---------|---------|---------|---------------------------------------------------------------------------------------------------|
| 1     | 763-110 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 2     | 763-111 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |

3. Set up and run the job/s that were subject to adjustment ([Table 1](#)).
4. Check output against specifications in [Figure 1](#). Repeat procedure until the Staple Position meets specification or customer request.
5. After adjustment is done, go to [ADJ 12.7](#) Booklet Staple Alignment.

## ADJ 12.7 Booklet Staple Alignment

### Purpose

To center the Staple Position on the fold in the SE direction.

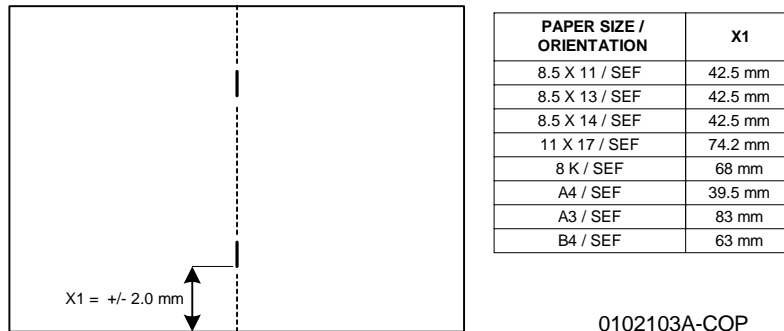
### Check

1. Ensure that the trays used are correctly programmed.
2. Ensure that the Fold Skew is within specification ([ADJ 12.4](#)).
3. Ensure that the Fold Position is within specification ([ADJ 12.5](#)).
4. Ensure that the Staple Position is within specification ([ADJ 12.6](#)).
5. Set machine up according to instructions in [Table 1](#) and run the Booklet job.

**Table 1 Booklet Jobs**

| Select Paper Supply | In Scan Options / Output Format Tabs, select:          | Originals in DADF             | Output Booklet Size |
|---------------------|--------------------------------------------------------|-------------------------------|---------------------|
| 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 4 sheets of 8.5 x 11 / A4 LEF | 2 sheets            |

6. Measure X1 and verify against specification in [Figure 1](#).



**Figure 1 Staple Specification**

7. If X1 is within specification, go to [ADJ 12.9](#) Booklet Fold Position (Fine Adjustment). If X1 is out of specification, go to the Adjustment procedure.

### Adjustment

1. Enter the UI Diagnostics ([Accessing UI Diagnostics](#)).

**NOTE:** The adjustment can also be made through the PWS, routine [dC128](#). Refer to [Entering PWS Diagnostic mode](#) for instructions on how to access the PWS Diagnostics.

2. Perform the X1 adjustment using the NVM locations in [Table 2](#).

**NOTE:** To increase X1, the current NVM value should be decreased. To decrease X1, the current NVM value should be increased.

**Table 2 NVM location**

| Job # | NVM     | Default | Range  | Remark             |
|-------|---------|---------|--------|--------------------|
| 1     | 763-115 | 30      | 0 ~ 50 | 1 count = 0.26 mm. |

3. Set up and run the job that were subject to adjustment ([Table 1](#)).
4. Check output against specifications in [Figure 1](#). Repeat procedure until the Staple Alignment meets specification or customer request.
5. After adjustment is done, go to [ADJ 12.9](#) Booklet Fold Position (Fine Adjustment)

## ADJ 12.8 Finisher Booklet Wrinkle

### Purpose

To prevent the Booklet Cover from getting wrinkled.

### Check

#### WARNING

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

- Verify that the customer is not running jobs that are out of specification.
- Check Fold Rollers for wear or contamination.

### Adjustment

1. Remove the Booklet Maker Unit (REP 12.55).
2. Remove KL-clip (Figure 1).



Figure 1 Removing the KL-clip

3. Remove the Booklet Maker Front Cover (Figure 2).

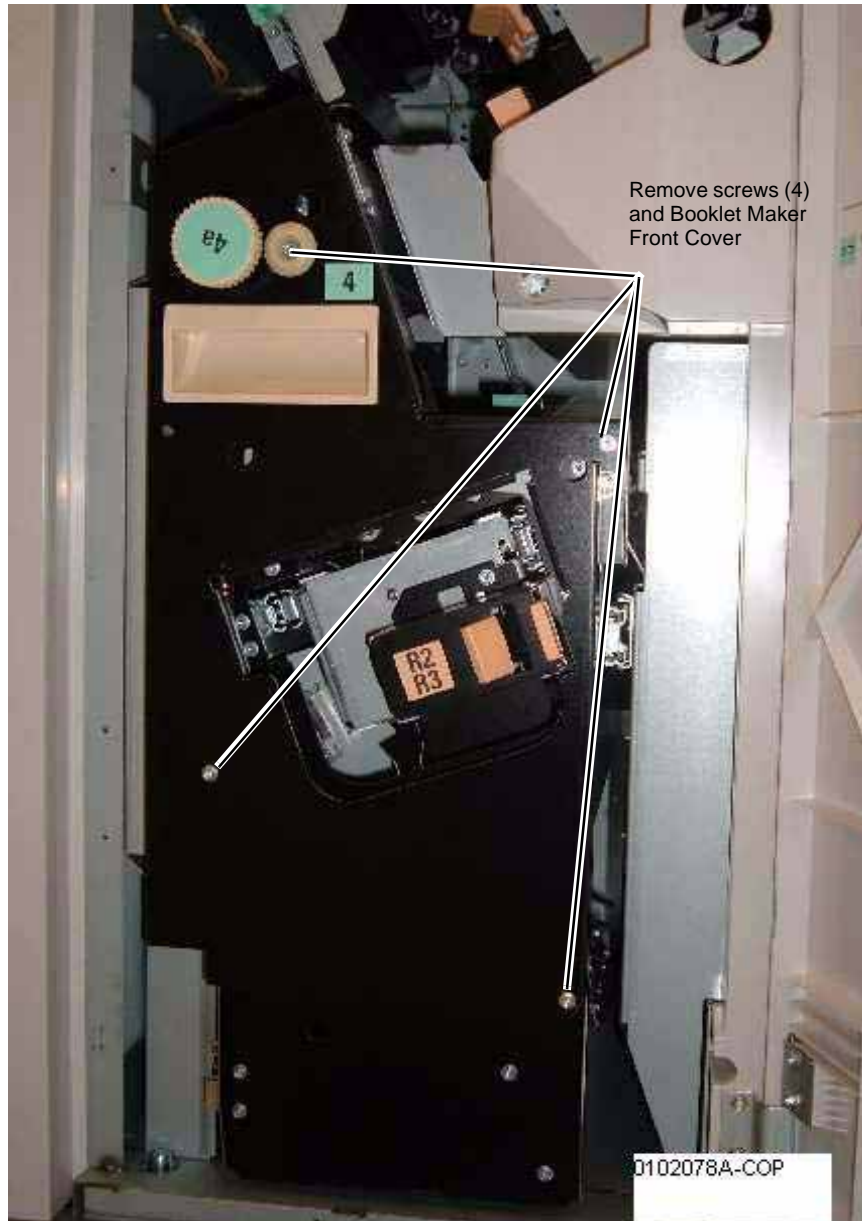


Figure 2 Removing the Booklet Maker Front Cover

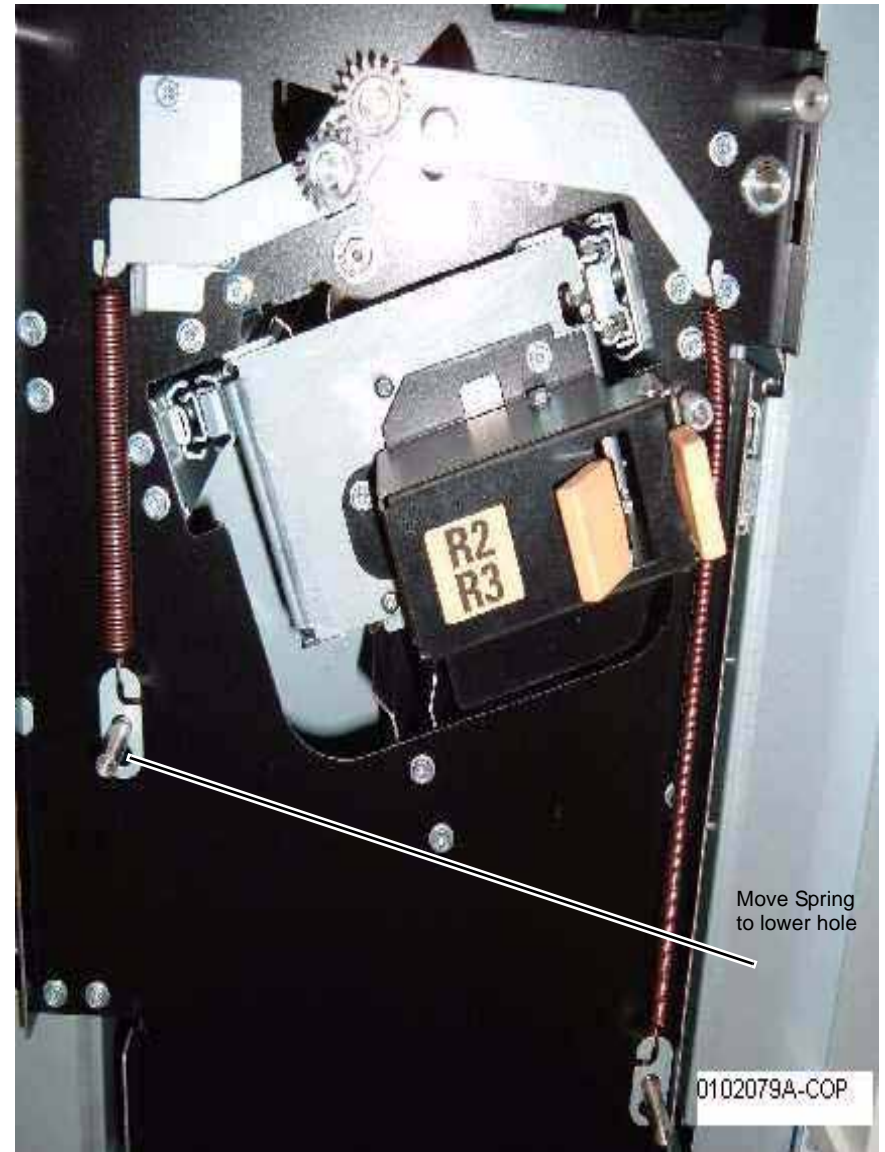


Figure 3 Adjust the front Spring tension

4. Adjust the front Spring tension (Figure 3).

5. Adjust the rear Spring tension (Figure 4).



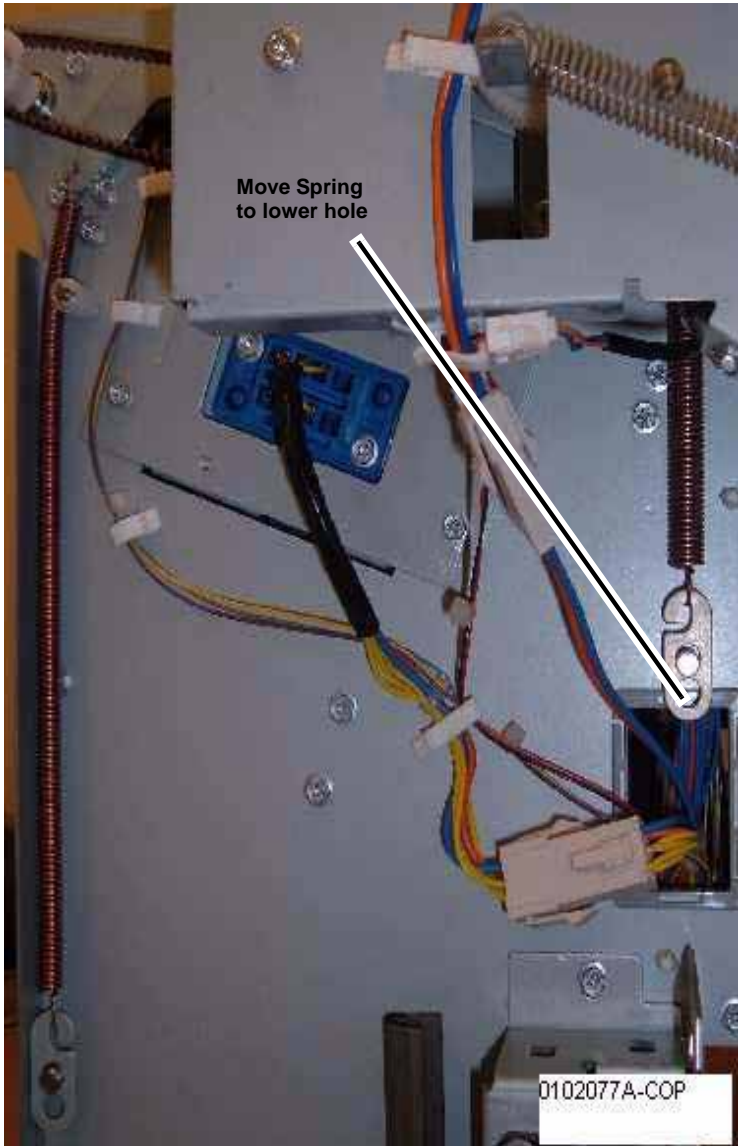


Figure 4 Adjusting the rear Spring tension

## ADJ 12.9 Booklet Fold Position (Fine Adjustment)

### Purpose

The purpose with this adjustment is to set up the Booklet Maker so that the fold is in the center of the booklet. Several setups are needed depending on paper size, set size, unstapled or stapled sets.

### Check

1. Ensure that the trays used are correctly programmed.
2. Ensure that the Fold Skew is within specification (ADJ 12.4).
3. Ensure that the Fold Position is within specification (ADJ 12.5).
4. Ensure that the Staple Position is within specification (ADJ 12.6).
5. Set machine up according to instructions in Table 1 and run 1 set of each job. Label each booklet.

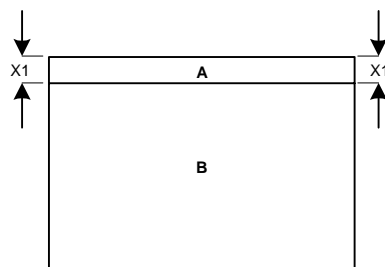
Table 1 Fine Adjustment

| Job | Select Paper Supply | In Scan Options / Output Format Tabs, select:          | Originals in DADF              | Output Booklet Size                   |
|-----|---------------------|--------------------------------------------------------|--------------------------------|---------------------------------------|
| 1   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 6 sheets of 8.5 x 11 / A4 LEF  | 3 sheets                              |
| 2   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 8 sheets of 8.5 x 11 / A4 LEF  | 4 sheets                              |
| 3   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 10 sheets of 8.5 x 11 / A4 LEF | 5 sheets (setup is for 5 - 7 sheets)  |
| 4   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 16 sheets of 8.5 x 11 / A4 LEF | 8 sheets (setup is for 8 - 14 sheets) |
| 5   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 6 sheets of 8.5 x 11 / A4 LEF  | 3 sheets                              |
| 6   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 8 sheets of 8.5 x 11 / A4 LEF  | 4 sheets                              |
| 7   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 10 sheets of 8.5 x 11 / A4 LEF | 5 sheets (setup is for 5 - 7 sheets)  |
| 8   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 16 sheets of 8.5 x 11 / A4 LEF | 8 sheets (setup is for 8 - 14 sheets) |
| 9   | 11 x 17 / A3 SEF    | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 30 sheets of 8.5 x 11 / A4 LEF | 15 sheets                             |
| 10  | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 30 sheets of 8.5 x 11 / A4 LEF | 15 sheets                             |

6. Measure X1 and verify Fold Position on each job against the Fold Specification table in Figure 1.

| Paper Size               | X1             |
|--------------------------|----------------|
| Smaller than 14 in. / B4 | 0.0 +/- 1.5 MM |
| 14 in. / B4 and larger   | 0.0 +/- 2.0 MM |

Fold Position Specification



Note: Example showing A-side longer than B-side

NOTE: TO DETERMINE WHICH SIDE IS "A" AND WHICH SIDE IS "B", OPEN THE BOOKLET AS IT COMES OUT ON THE BOOKLET TRAY. THE "A"-SIDE IS TO THE LEFT AND THE "B"-SIDE IS TO THE RIGHT.

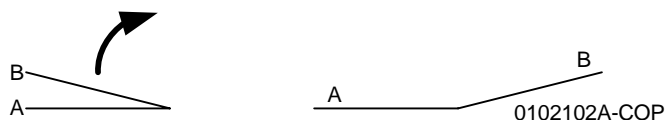


Figure 1 Fold Specification

- If the fold is within specification on each job, go to the Booklet Staple Position (Staple on Fold Fine Adjustment) (ADJ 12.10). If any of the booklets are out of specification, go to the Adjustment procedure.

### Adjustment

- Enter the UI Diagnostics (Accessing UI Diagnostics).

**NOTE:** The adjustment can also be made through the PWS, routine dC128. Refer to Entering PWS Diagnostic mode for instructions on how to access the PWS Diagnostics.

- Perform adjustment using the NVM locations in Table 2.

**NOTE:** If the "A"-side is longer than the "B"-side, the current NVM value should be increased. If the "B"-side is longer than the "A"-side, the current NVM value should be decreased.

Table 2 Fine Adjustment NVM locations

| Job # | NVM     | Default | Range   | Remark                                                                                            |
|-------|---------|---------|---------|---------------------------------------------------------------------------------------------------|
| 1     | 763-141 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 2     | 763-142 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 3     | 763-143 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 4     | 763-144 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 5     | 763-152 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 6     | 763-153 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 7     | 763-154 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 8     | 763-155 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 9     | 763-145 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 10    | 763-146 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |

- Set up and run the job/s that were subject to adjustment (Table 1).
- Check output against specifications in Figure 1. Repeat procedure until the Fold Position meets specification or customer request.
- After adjustment is done, go to ADJ 12.10 Booklet Staple Position (Staple on Fold Fine Adjustment).

## ADJ 12.10 Booklet Staple Position (Staple on Fold Fine Adjustment)

### Purpose

To set up the machine so that the Staples are within specification on the folded booklet.

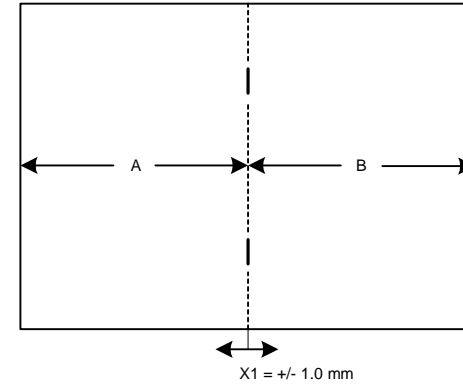
### Check

1. Ensure that the trays used are correctly programmed.
2. Ensure that the Fold Skew is within specification ([ADJ 12.4](#)).
3. Ensure that the Fold Position is within specification ([ADJ 12.5](#)).
4. Ensure that the Staple Position (Staple on Fold) is within specification ([ADJ 12.6](#)).
5. Ensure that the Fold Position (Fine Adjust) is within specification ([ADJ 12.9](#)).
6. Set machine up according to instructions in [Table 1](#) and run 1 set of each Booklet job. Label each booklet.

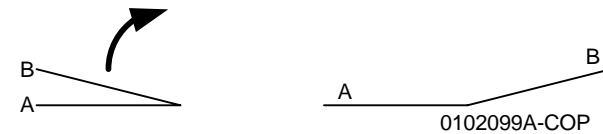
**Table 1 Booklet Jobs**

| Job | Select Paper Supply | In Scan Options / Output Format Tabs, select:          | Originals in DADF              | Output Booklet Size                   |
|-----|---------------------|--------------------------------------------------------|--------------------------------|---------------------------------------|
| 1   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 6 sheets of 8.5 x 11 / A4 LEF  | 3 sheets                              |
| 2   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 8 sheets of 8.5 x 11 / A4 LEF  | 4 sheets                              |
| 3   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 10 sheets of 8.5 x 11 / A4 LEF | 5 sheets (setup is for 5 - 7 sheets)  |
| 4   | 8.5 x 11 / A4 SEF   | 1-1 Sided, Copy Booklet, No Cover / Folding + Stapling | 16 sheets of 8.5 x 11 / A4 LEF | 8 sheets (setup is for 8 - 14 sheets) |

7. Measure A and B on both Booklet jobs and verify X1 against specification in [Figure 1](#).



NOTE: TO DETERMINE WHICH SIDE IS "A" AND WHICH SIDE IS "B", OPEN THE BOOKLET AS IT COMES OUT ON THE BOOKLET TRAY. THE "A"-SIDE IS TO THE LEFT AND THE "B"-SIDE IS TO THE RIGHT.



**Figure 1 Staple Position**

8. If X1 is within specification, the complete Booklet Maker setup is done. If X1 is out of specification, go to the Adjustment procedure.

### Adjustment

1. Enter the UI Diagnostics ([Accessing UI Diagnostics](#)).

**NOTE:** The adjustment can also be made through the PWS, routine [dC128](#). Refer to [Entering PWS Diagnostic mode](#) for instructions on how to access the PWS Diagnostics.

2. Perform adjustment using the NVM locations in [Table 2](#).

**NOTE:** If the “A”-side is longer than the “B”-side, the current NVM value should be increased. If the “B”-side is longer than the “A”-side, the current NVM value should be decreased.

**Table 2 NVM locations**

| Job # | NVM     | Default | Range   | Remark                                                                                            |
|-------|---------|---------|---------|---------------------------------------------------------------------------------------------------|
| 1     | 763-147 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 2     | 763-148 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 3     | 763-149 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |
| 4     | 763-150 | 100     | 0 ~ 200 | 1 count = 0.1 mm. Target amount to be adjusted is half the amount of the total Fold Misalignment. |

3. Set up and run the job/s that were subject to adjustment (Table 1).
4. Check output against specifications in Figure 1. Repeat procedure until the Staple Position meets specification or customer request.

## REP 1.1 Power Unit

Parts List on [PL 11.3](#)

### Removal

#### WARNING

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

1. If present, remove the Network Controller ([REP 3.4](#)).
2. If present, un-dock the Finisher from the IOT ([REP 12.50](#)).
3. Remove the Rear Lower and Rear Upper Covers ([PL 12.2](#)).
4. Remove the Right Rear Lower Cover ([Figure 1](#)).

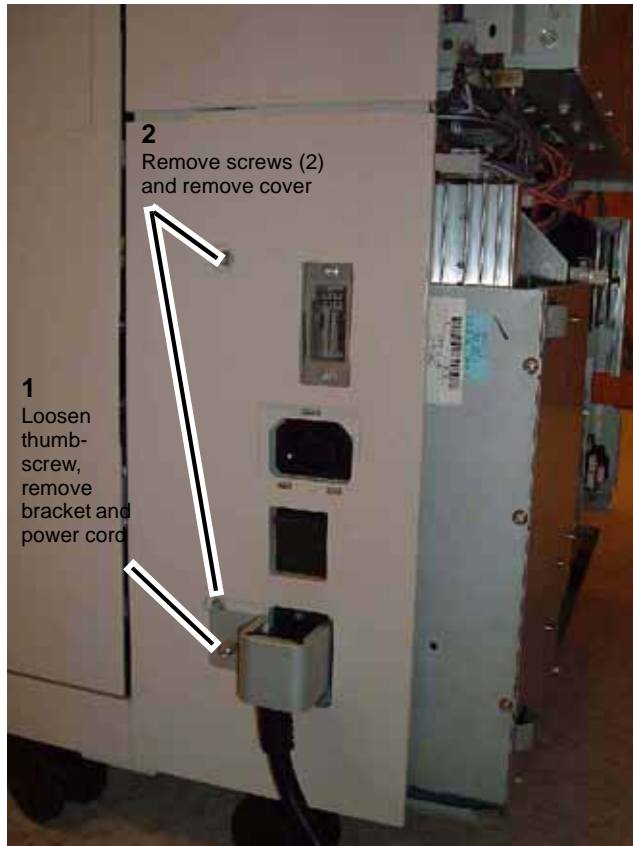


Figure 1 Removing the Right Rear Lower Cover

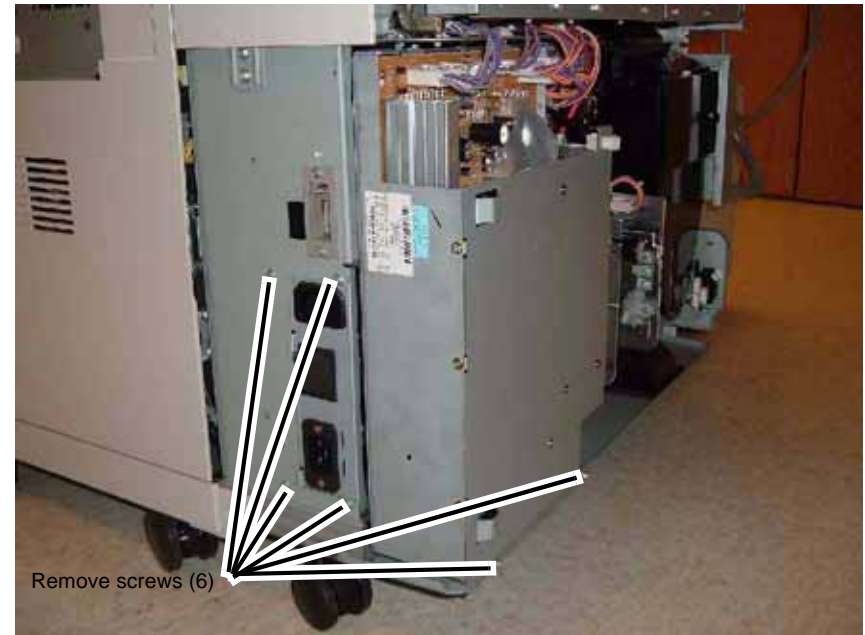
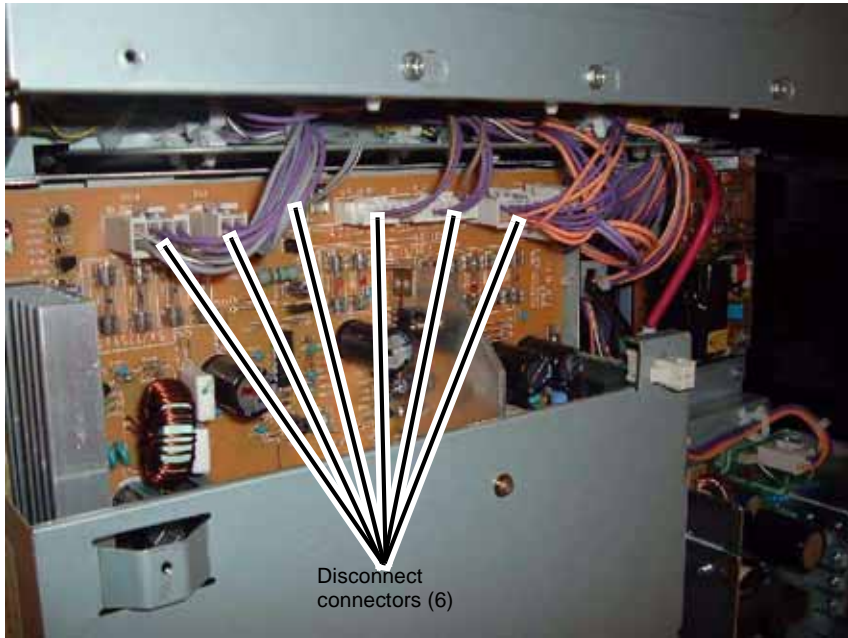


Figure 2 Removing screws

6. Disconnect Connectors ([Figure 3](#)).

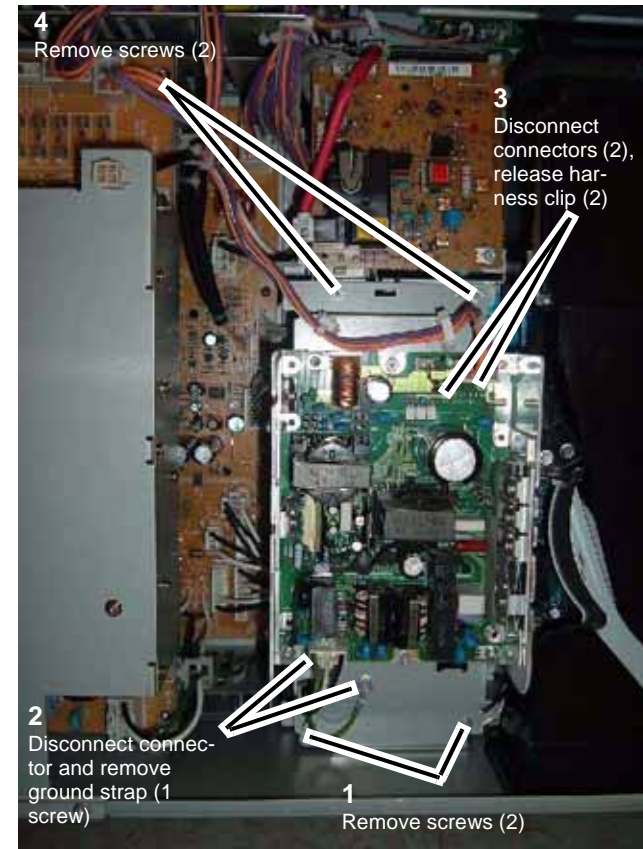
5. Remove screws ([Figure 2](#)).



**Figure 3 Disconnecting connectors**

**NOTE:** Step 7 does not have to be done. It is however recommended that you complete this step as it creates more space and gives more room to access connectors and screws in the next coming steps.

7. Remove the IIT LVPS (Figure 4).



**Figure 4 IIT LVPS**

8. Disconnect Connectors (Figure 5).

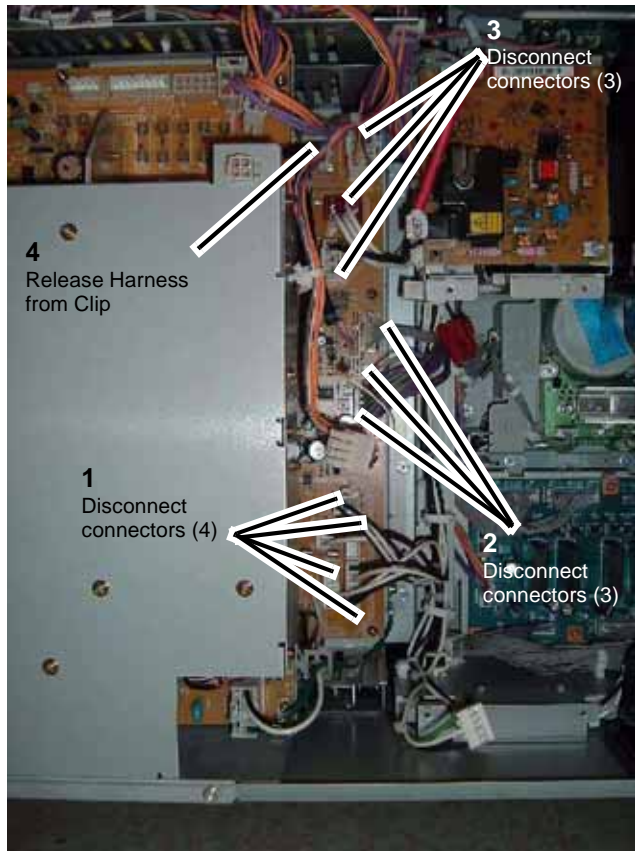


Figure 5 Disconnecting connectors

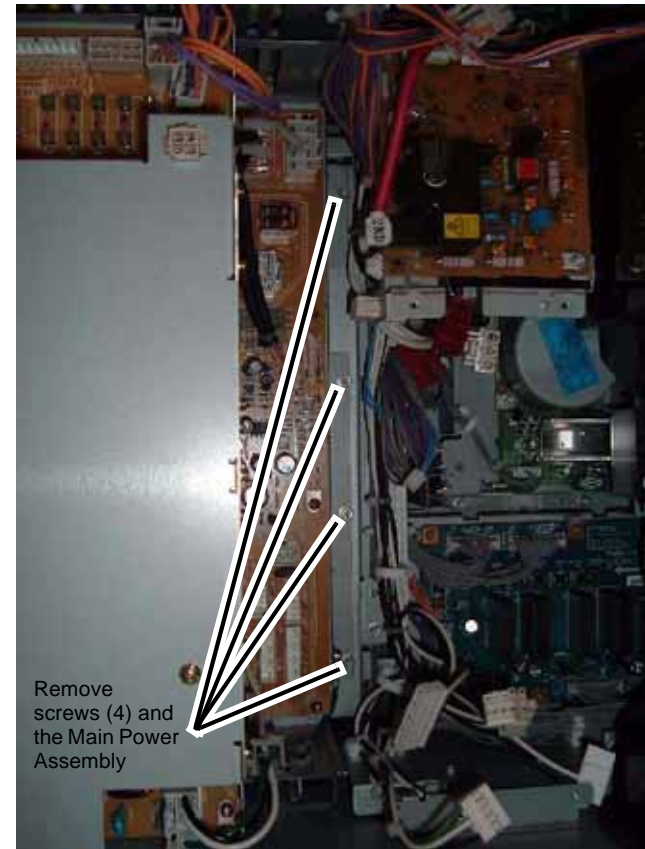


Figure 6 Removing the Power Unit

9. Remove the Power Unit (Figure 6).





## REP 3.1 Chassis Assembly

Parts List on [PL 11.1](#)

### Removal

#### WARNING

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

1. Remove the Rear Upper Cover ([Figure 1](#)).

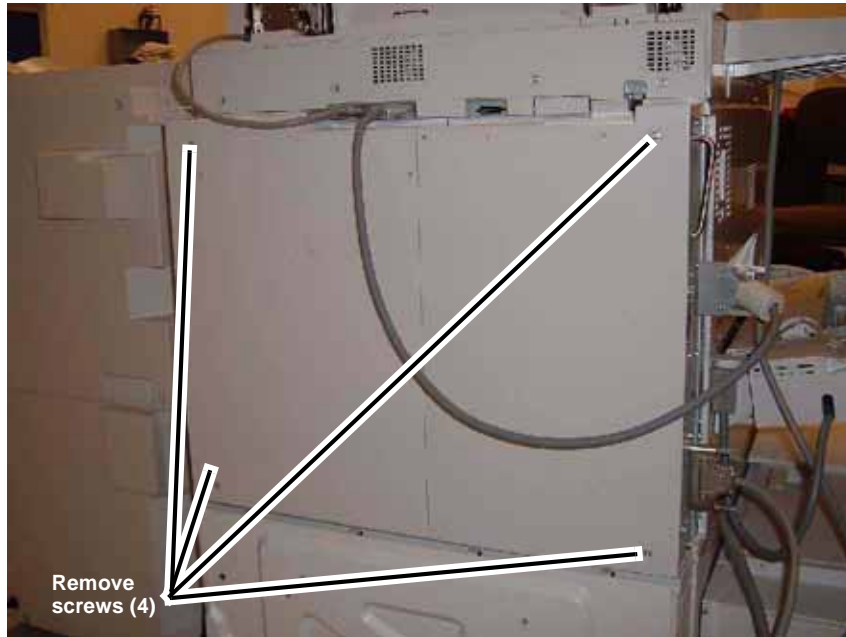


Figure 1 Removing the Rear Upper Cover

2. Remove Bracket ([Figure 2](#)).

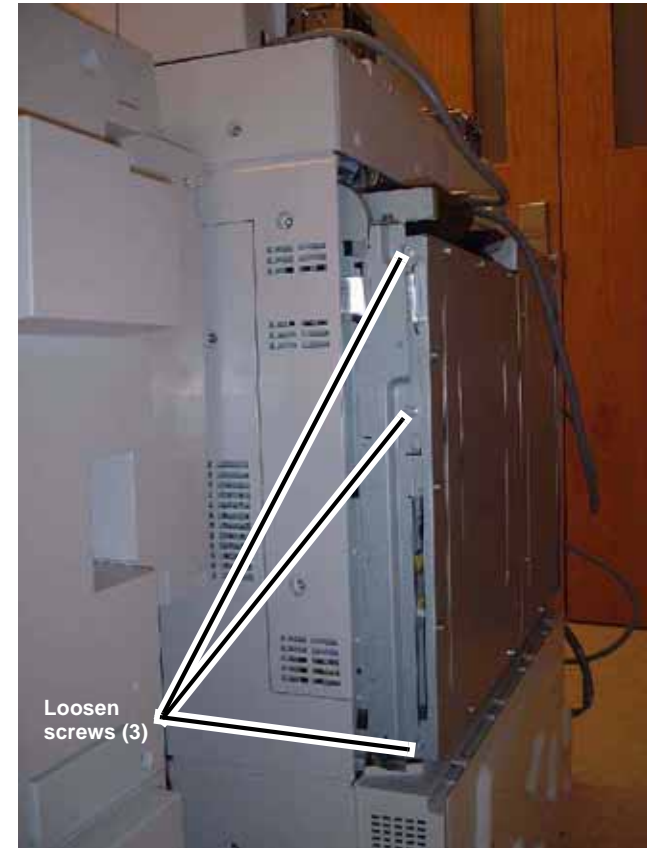


Figure 2 Removing the Bracket

3. Remove screw securing the Chassis Assembly to the frame ([Figure 3](#)).



Figure 3 Removing screw securing the Chassis Assembly to the frame

4. Open the Chassis Assembly (Figure 4).

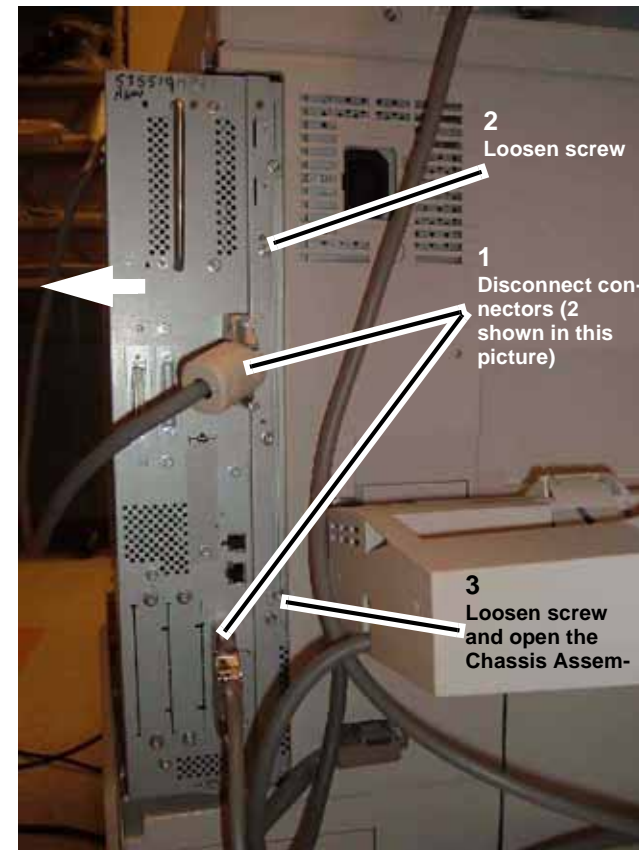


Figure 4 Opening the Chassis Assembly

## REP 3.2 Control Unit

Parts List on [PL 11.1](#)

### Removal

#### WARNING

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

1. Disconnect all connectors connected to the Control Unit.
2. Remove the Control Unit ([Figure 1](#)).

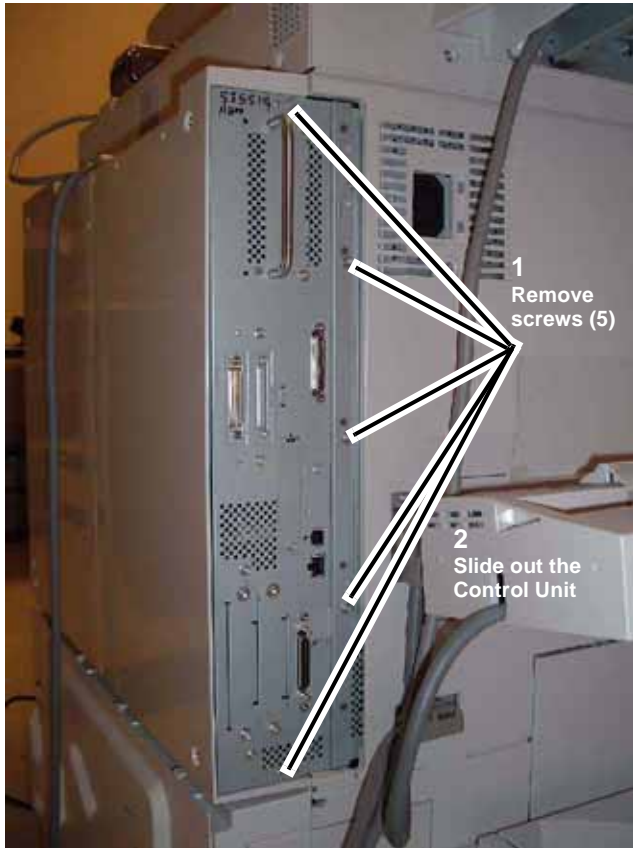


Figure 1 Removing the Control Unit

## REP 3.3 Main Drive Assembly

Parts List on [PL 1.1](#)

### Removal

#### WARNING

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

1. Open the Chassis Assembly ([REP 3.1](#)).
2. Remove the Main K-Duct ([Figure 1](#)).

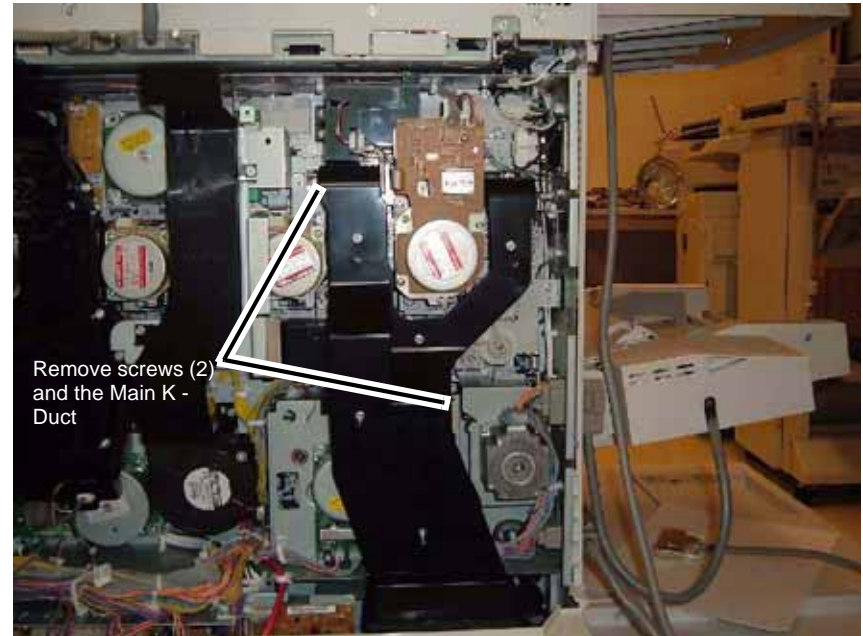


Figure 1 Removing the Main K - Duct

3. Remove the V-Transport Duct ([Figure 2](#)).

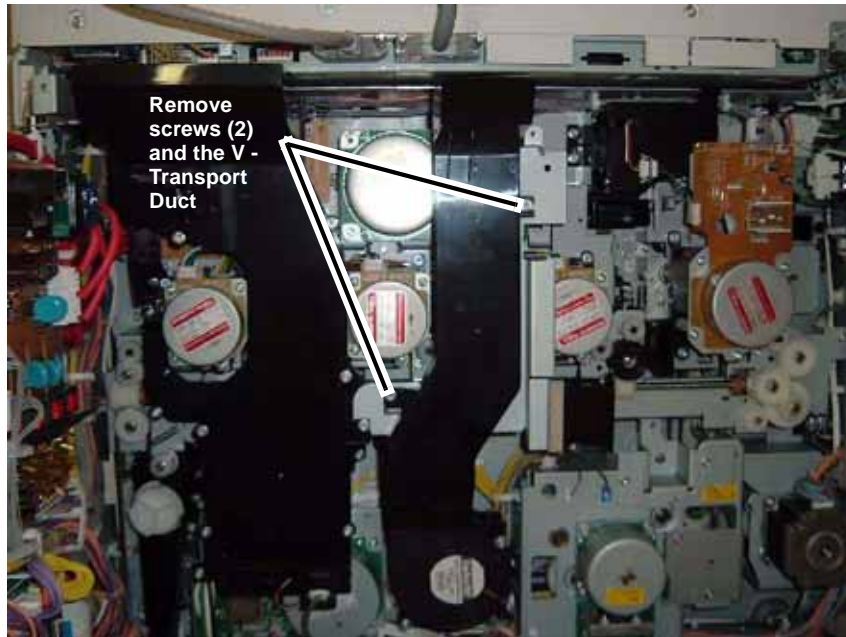


Figure 2 Removing the V - Transport Duct

4. Remove the V-Transport Fan and Duct (Figure 3).

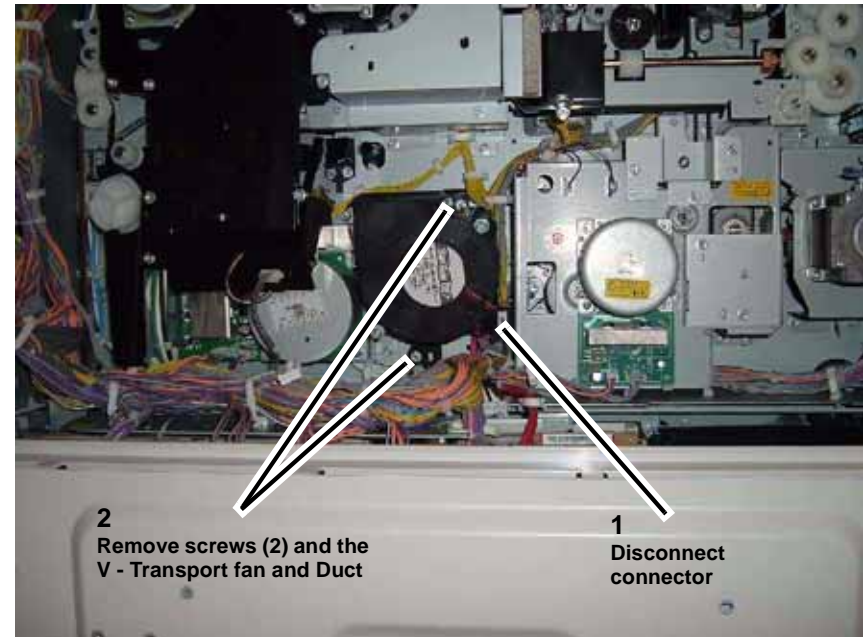


Figure 3 Removing the V - Transport Fan and Duct

5. Remove the Tension Bracket (Figure 4).

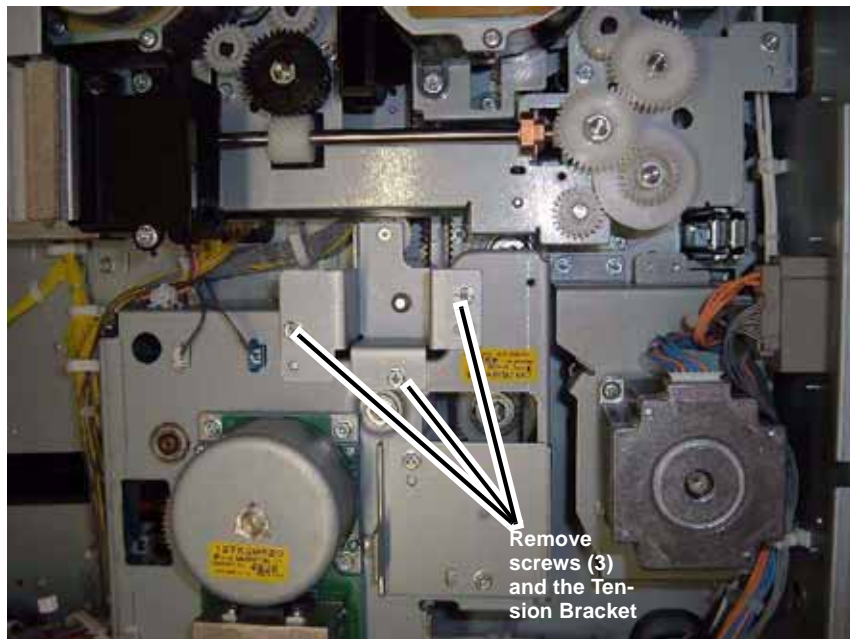


Figure 4 Removing the Tension racket

6. Remove the Gear Bracket (Figure 5).

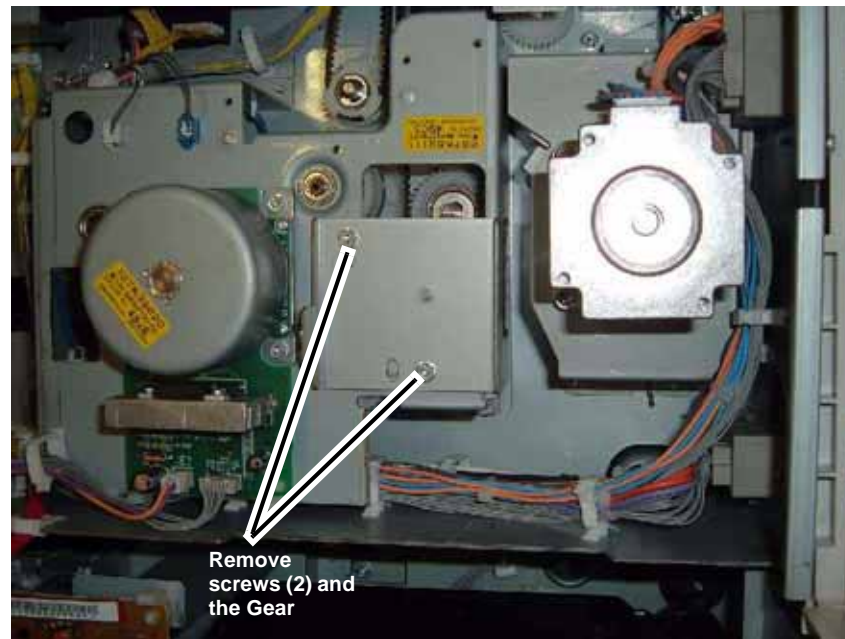


Figure 5 Removing the Gear Bracket

7. Disconnect connectors and release Wire Harness from Harness Clips (Figure 6).

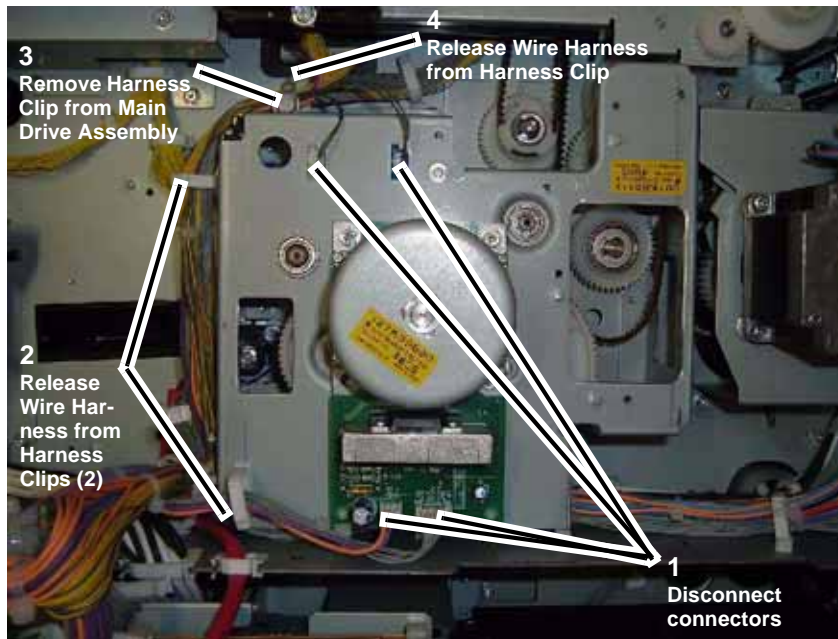


Figure 6 Disconnecting connectors and releasing Wire Harness

8. Remove the Main Drive Assembly (Figure 7).

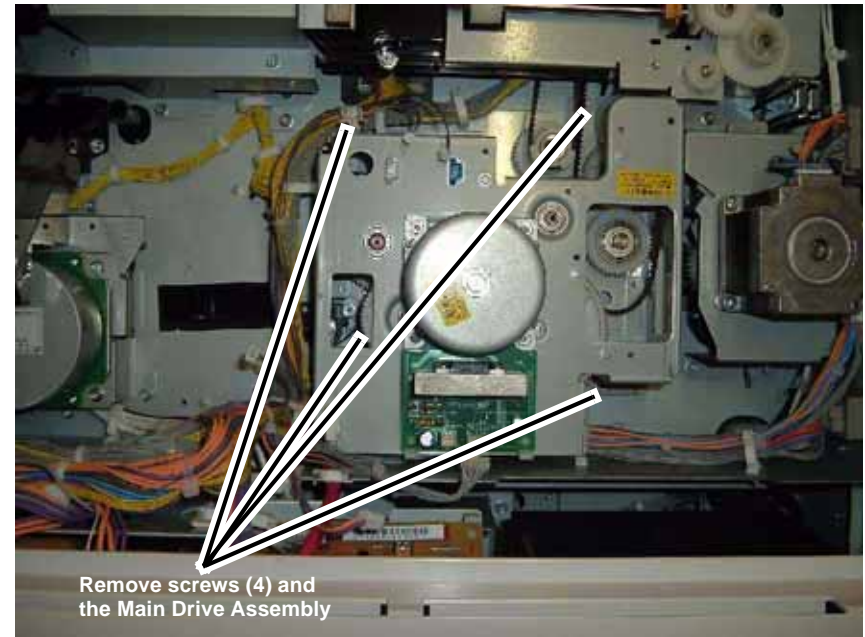


Figure 7 Removing the Main Drive Assembly

### Replacement

1. When replacing the Main Drive Assembly, ensure that the Belt is positioned to the right of the Tension Pulley (on the Tensioning Bracket) (Figure 8).

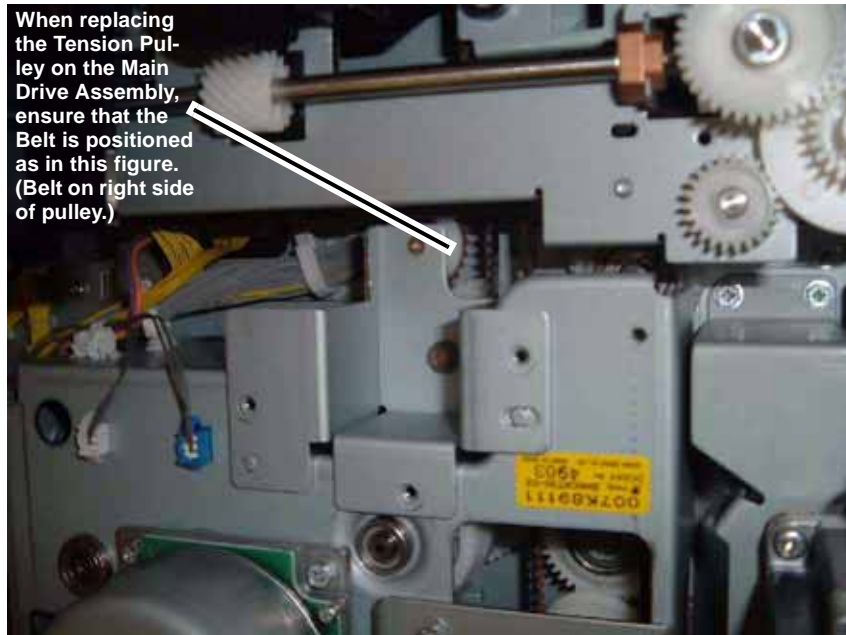


Figure 8 Belt position on the Tensioning Pulley

2. Re-install parts in reverse order of the removal procedure.

## REP 3.4 Network Controller

### Removal

#### WARNING

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

1. Disconnect connectors and loosen screws (Figure 1).

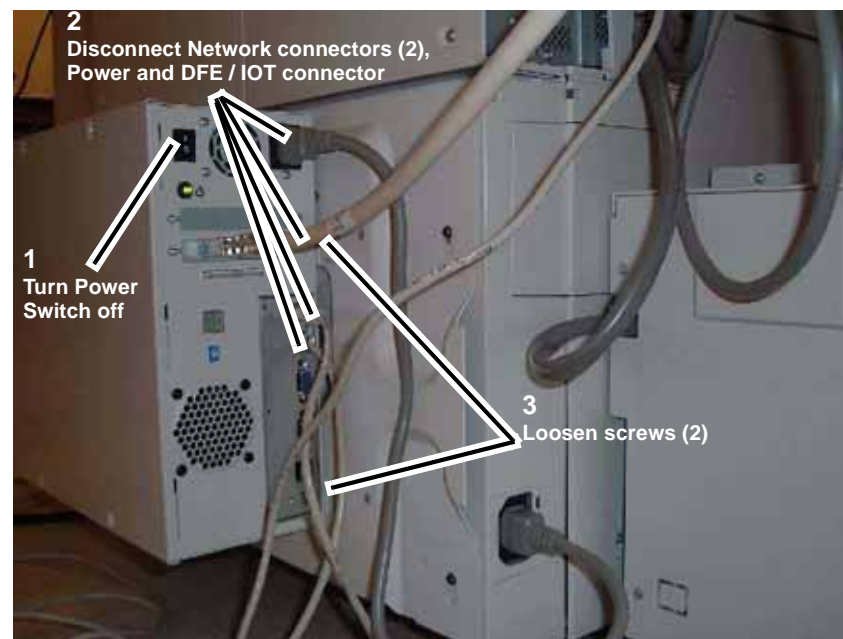


Figure 1 Disconnecting connectors and loosening screws

2. Remove the Network Controller (Figure 2).

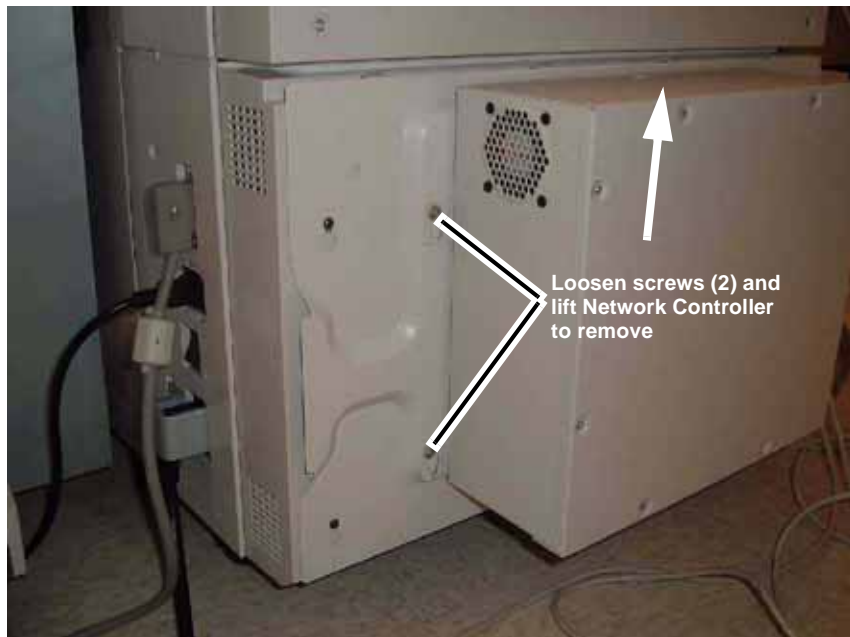


Figure 2 Removing the Network Controller

## REP 3.5 ESS PWB

Parts List on [PL 11.5](#)

### Removal

#### WARNING

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

1. Remove the VSEL PWB (step 1 - 4 of REP 3.6), return to this procedure when the VSEL PWB has been removed.
2. Remove front screws ([Figure 1](#)).

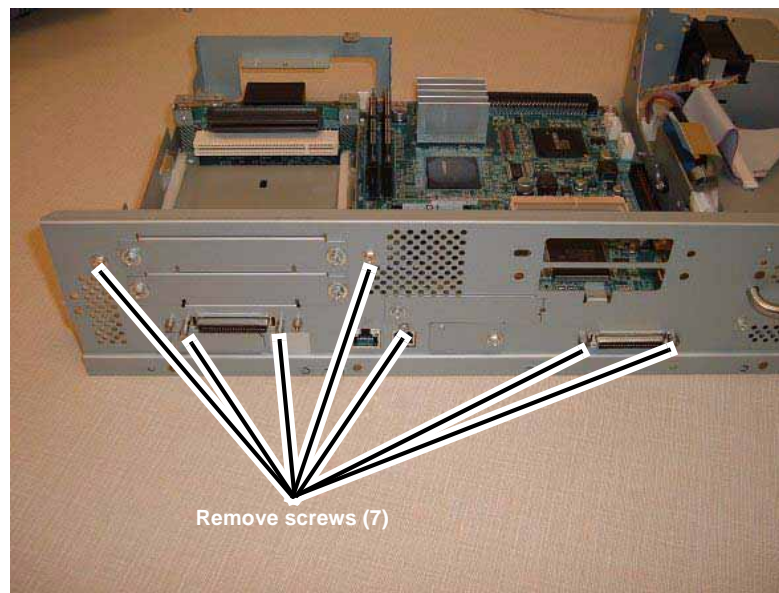


Figure 1 Removing front screws

3. Disconnect connectors ([Figure 2](#)).



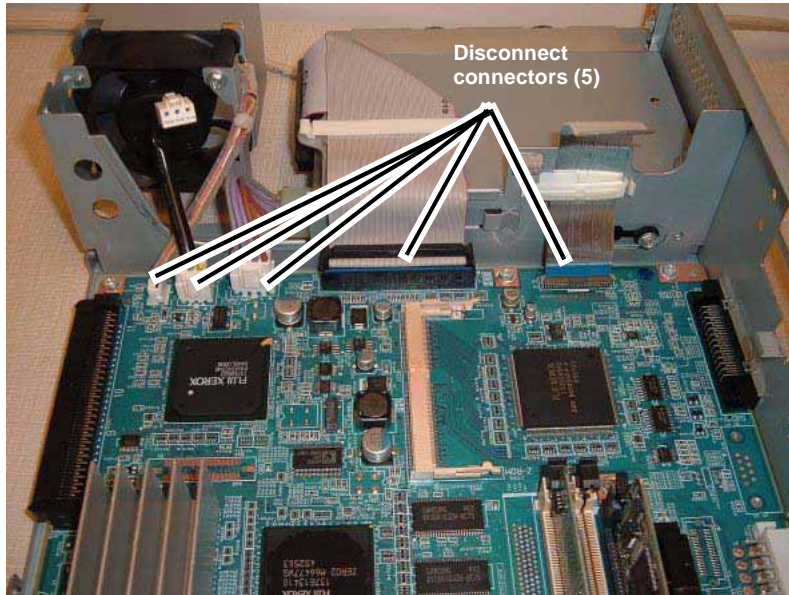


Figure 2 Disconnecting connectors

4. Remove the JPEG PWB (Figure 3).

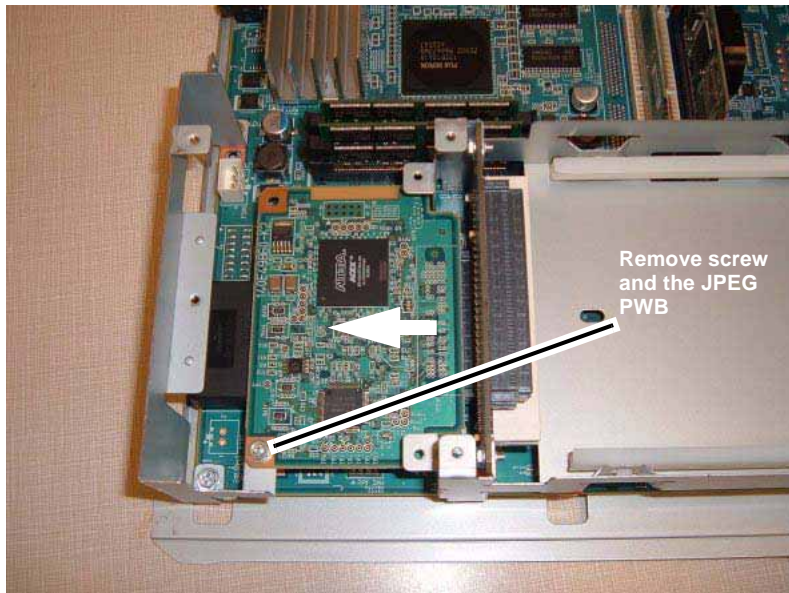


Figure 3 Removing the JPEG PWB

5. Remove the Riser PWB and Bracket (Figure 4).

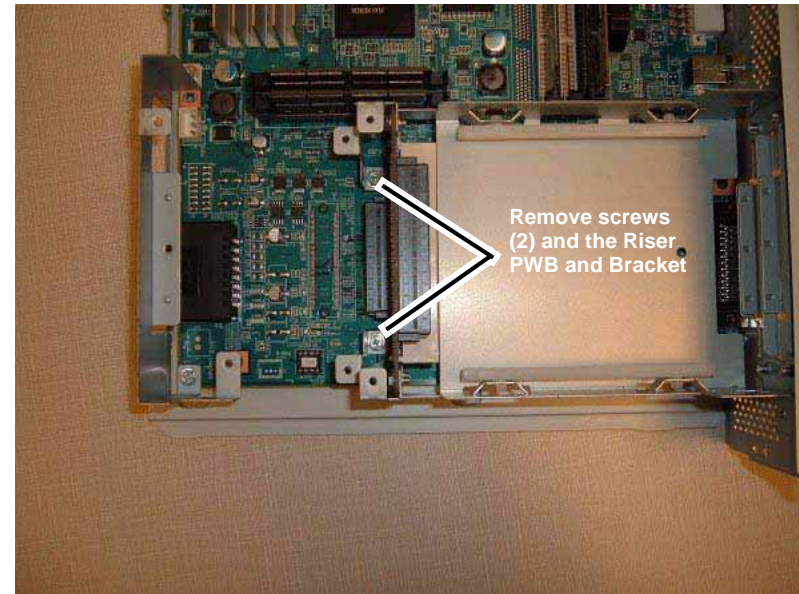


Figure 4 Removing the Riser PWB and Bracket

6. Remove the UI Interface PWB (Figure 5).

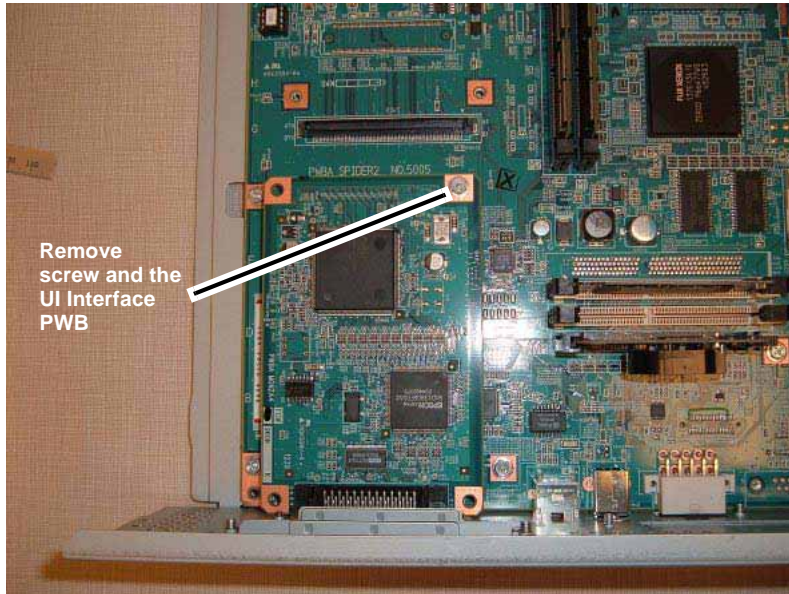


Figure 5 Removing the UI Interface PWB

7. Remove the ESS PWB (Figure 6).

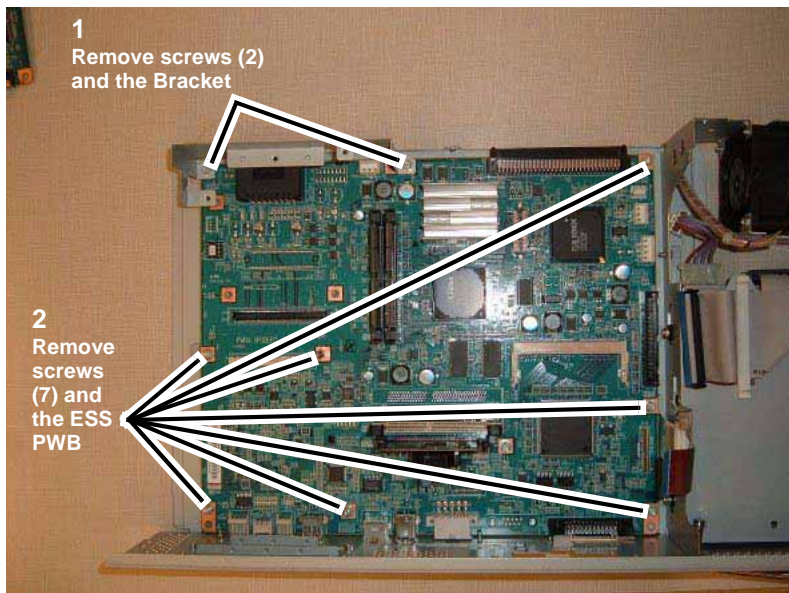


Figure 6 Removing the ESS PWB

## Replacement

1. Remove the following items from the old ESS PWB and re-install them on the new ESS PWB:
  - EEP ROM
  - DRAM (J330)
  - DRAM (J331)
  - DRAM (reverse of J337)
  - ROM (J332)
  - NVM (J334)
  - MAC Address ROM (U2402)
  - (Op. Font (J333))
  - (Op. DRAM (J338))
2. Re-install parts in reverse order of the removal procedure.

## REP 3.6 VSEL PWB

Parts List on [PL 11.6](#)

### Removal

#### WARNING

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

1. Remove the Control Unit ([REP 3.2](#)).
2. Disconnect connectors ([Figure 1](#)).

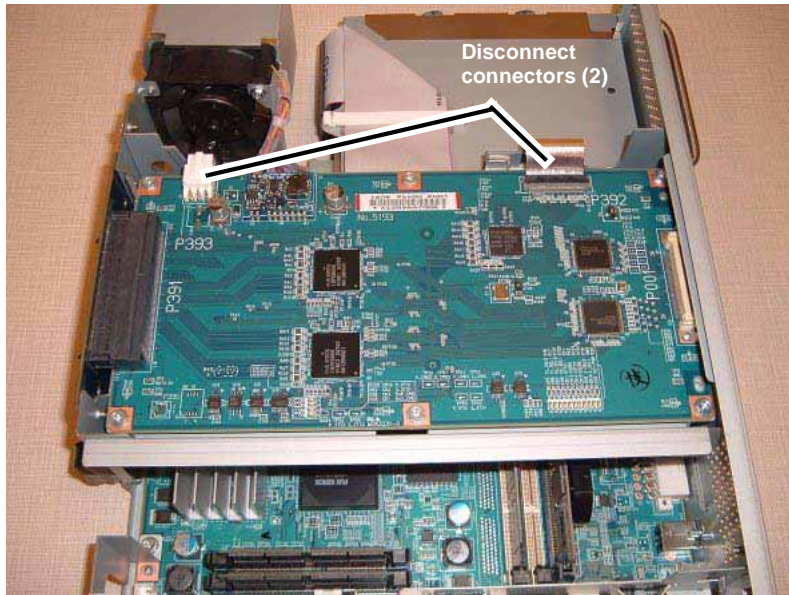


Figure 1 Disconnecting connectors

3. Remove front screws ([Figure 2](#)).

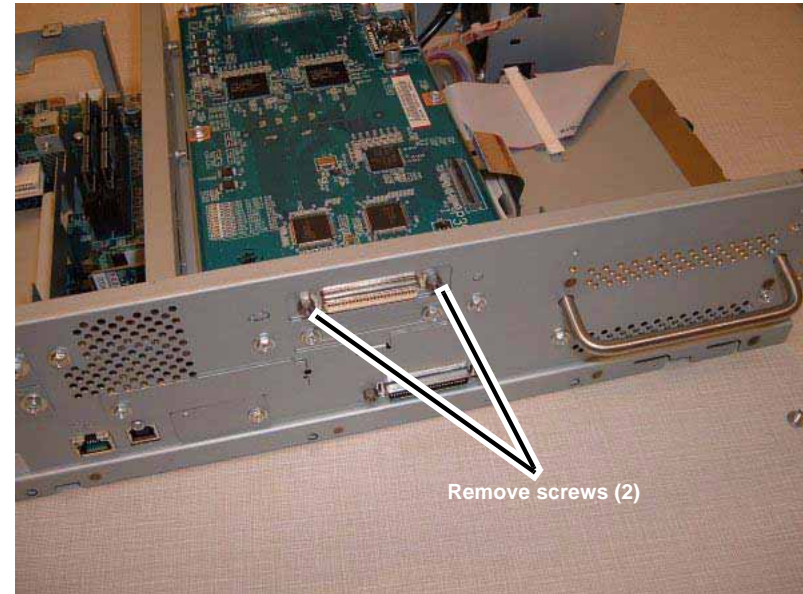


Figure 2 Removing front screws

4. Remove rear screws ([Figure 3](#)).

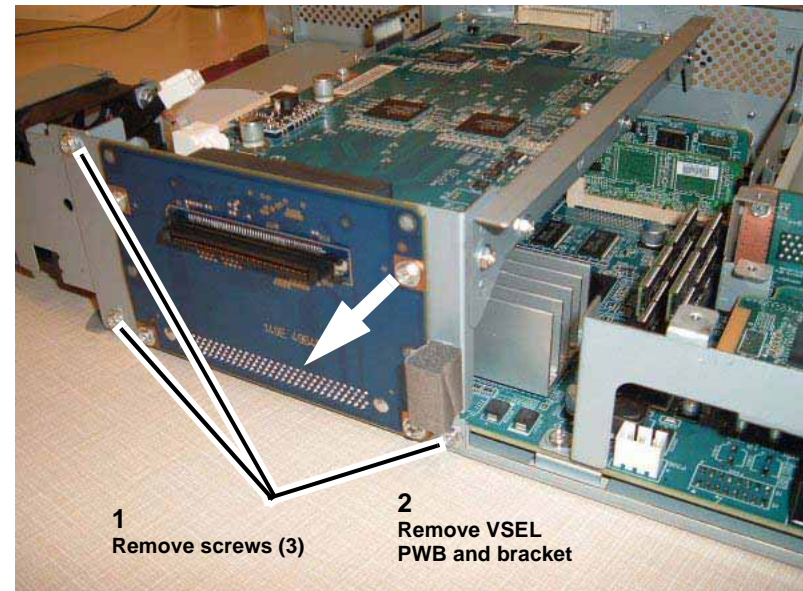


Figure 3 Removing rear screws

5. Remove the BP PWB (Figure 4).

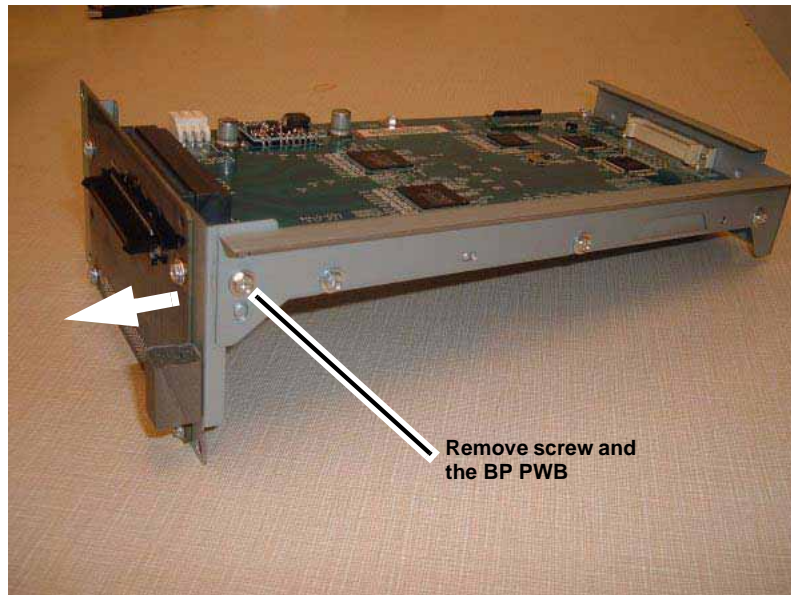


Figure 4 Removing the BP PWB

6. Remove the VSEL PWB (Figure 5).

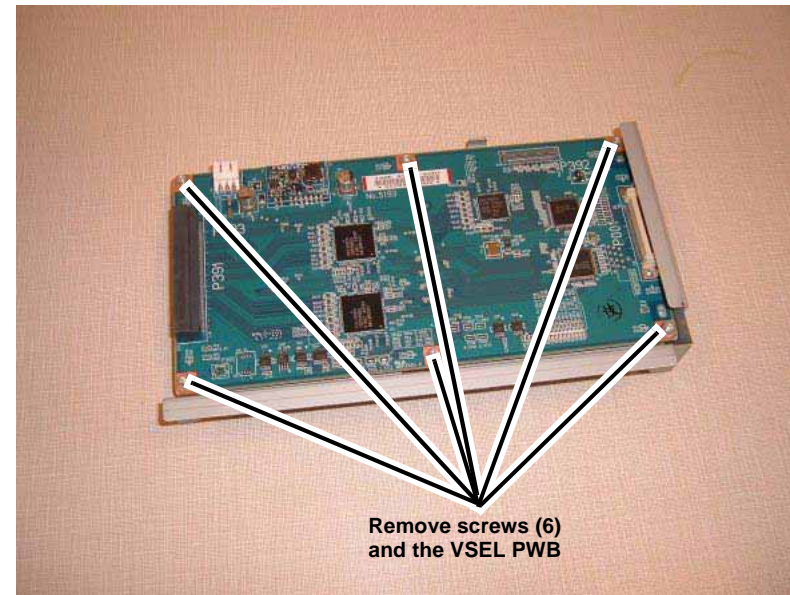


Figure 5 Removing the VSEL PWB

## REP 4.1 Tray Assembly and UI

Parts List on [PL 17.2](#)

### Removal

#### WARNING

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

1. Remove the Tray Assembly and attached UI from the left side of the copier/printer. [Figure 1](#)

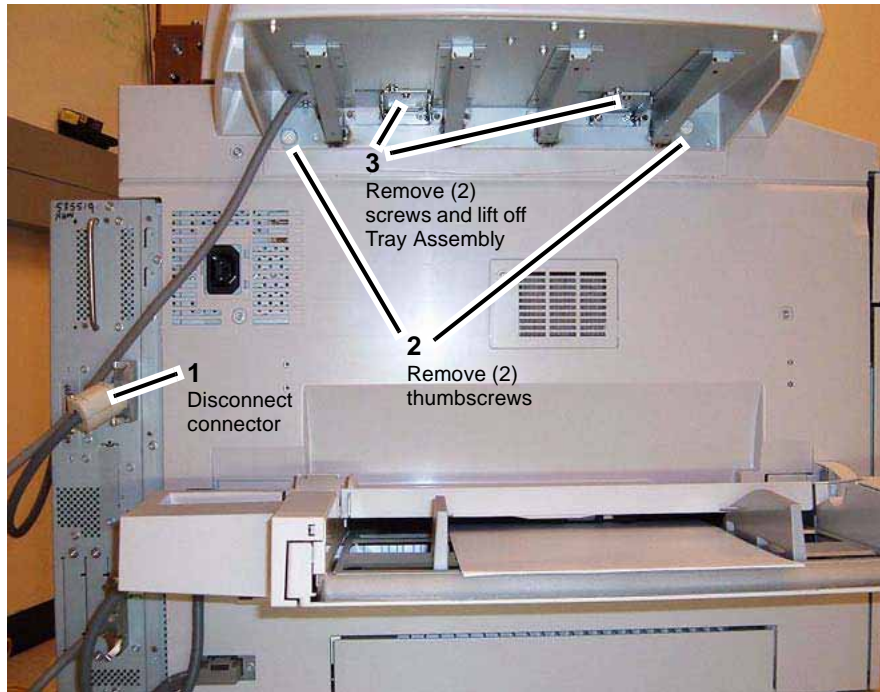


Figure 1 Removing the Tray Assembly and attached UI

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 4.2 UI PWB

Parts List on [PL 17.4](#)

### Removal

#### WARNING

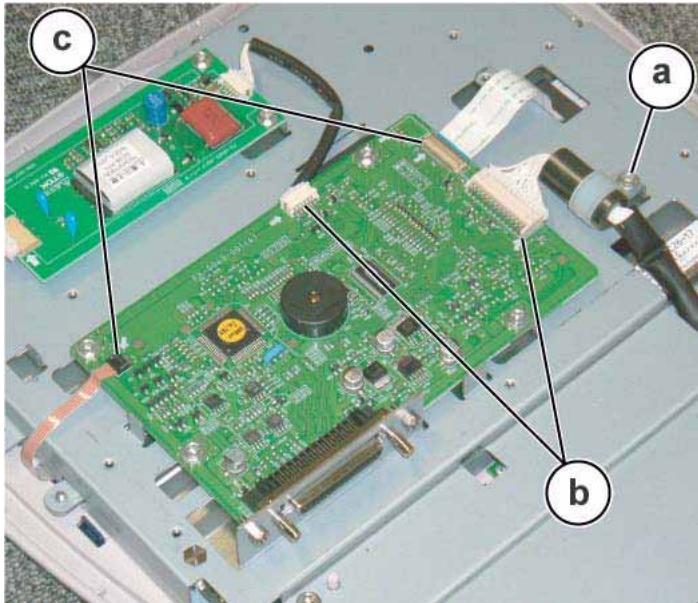
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Disconnect the connector from the right rear of the UI.
  - a. Loosen the (2) securing screws.
  - b. Disconnect the connector.
2. Remove the cover on the Tilt Swivel. [PL 17.3](#)
  - a. Apply upward finger pressure to the cover's (2) bottom tabs.
  - b. Rotate the cover up and to the rear to remove.
3. Remove the UI from the Tilt Swivel brackets. [Figure 1](#)
  - a. Loosen the (4) securing screws.
  - b. Raise the UI up to disengage it from the Tilt Swivel brackets and remove the UI.



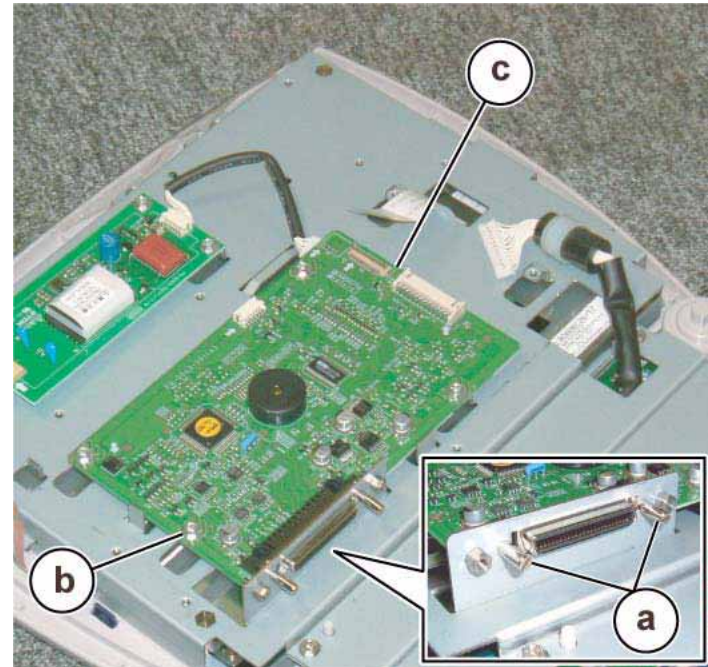
Figure 1 Removing the UI from the Tilt Swivel brackets

4. Place the UI face down on a flat, padded surface and remove the Rear Base Cover. [PL 17.3](#)
  - a. Remove (4) securing screws.
  - b. Remove the Rear Base Cover.
5. Remove the metal EME Cover. [PL 17.3](#)
  - a. Remove the (9) securing screws.
  - b. Remove the EME Cover.
6. Disconnect (2) connectors and (2) flat cables from the UI PWB. [Figure 2](#)
  - a. Remove the screw (1).
  - b. Disconnect (2) connectors.
  - c. Disconnect (2) flat cables.



**Figure 2 Disconnect connectors and flat cables from UI PWB**

7. Remove the UI PWB. [Figure 3](#)
  - a. Remove (2) stud screws.
  - b. Remove (4) securing screws.
  - c. Remove the UI PWB.



**Figure 3 Remove the UI PWB**

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacing the UI PWB, perform the required adjustment procedure. [ADJ 4.1](#)

## REP 5.1 DADF

Parts List on [PL 14.1](#)

### Removal

#### WARNING

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

1. Disconnect the connector at the rear of the DADF connecting the DADF to the copier/printer.
  - Loosen (2) screws and disconnect the connector.
2. Remove the (4) screws securing the IIT Rear Cover and remove the cover by lifting it up and away from the IIT. [PL 13.2](#)
3. Remove the (2) screws securing each of the (2) DADF Supports and remove the supports.
4. From the front of the copier/printer, open the DADF and remove the (2) Knob Screws securing the DADF.
5. From the rear of the copier/printer, grasp the DADF with both hands and move the DADF away from you to release the metal securing pins from their slots, enabling the DADF to be removed.

**NOTE:** The DADF is bulky and heavy. It is recommended that you use the assistance of a second person to lift and remove the DADF.

### Replacement

1. To install, carry out the removal steps in reverse order.
2. Perform Adjustment procedures for registration, height, and skew.
  - Side Edge Registration. [ADJ 5.2](#)
  - Lead Edge Registration. [ADJ 5.3](#)
  - Height Adjustment. [ADJ 5.4](#)
  - Lead Skew. [ADJ 5.1](#)

## REP 5.2 DADF Setting to the Vertical Service Position

Parts List on [PL 14.1](#)

Click to view Video:

[DADF Service Position Video](#)

### Removal

#### WARNING

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

1. Remove the (2) screws on the bracket on the back of the Left Counter Balance, flip the bracket upside down, and reinstall the screws. [PL 14.3 Figure 1](#)

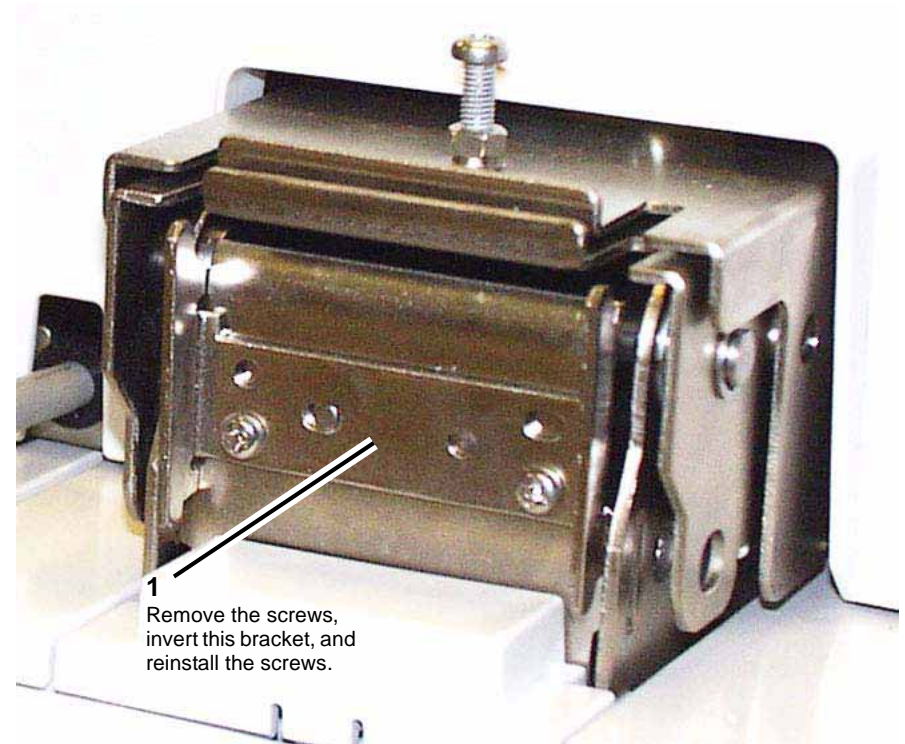


Figure 1 Counter Balance bracket

2. Remove the (2) screws on the bracket on the back of the Right Counter Balance, flip the bracket upside down, and reinstall the screws. [PL 14.3](#)
3. Open the DADF to a full vertical position, then insert the shaft of a screw driver horizontally through the hole in the lower front of the Left Counter Balance to secure it from closing.

4. Insert the shaft of a screw driver horizontally through the hole in the lower front of the Right Counter Balance to secure it from closing.

### Replacement

1. To set the DADF back to its horizontal, operating position, carry out the removal steps in reverse order.

## REP 5.3 DADF Covers

Parts List on [PL 14.2](#)

Click to view Video:

[DADF Covers Video](#)

### Removal

#### WARNING

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

1. Remove the DADF Front Cover.
  - a. Open the Feeder Upper Chute. [PL 14.5](#)
  - b. Raise the DADF to the fully open position.
  - c. Remove the (2) screws from the underside of the cover.
  - d. Lower the DADF approximately half way down.
  - e. Gently pull on the lower left and lower right corners of the cover, while rocking the cover up. The rocking motion releases (2) plastic tabs in the upper edge of the cover from (2) cutouts in the inner sheet metal of the DADF.
  - f. Lift the cover up and out to remove.
2. Remove the DADF Rear Cover.
  - a. With the DADF in the closed (fully down) position, open the Feeder Upper Chute.
  - b. Loosen the (2) screws at the bottom, outer edge of the cover.
  - c. Lift the cover up approximately 8 inches (20.32cm) and pull the cover toward you to remove.
3. Remove the DADF Left Lower Cover.

**NOTE:** To remove the (2) hidden screws securing this cover, you must first remove the DADF Front and Rear Covers.

  - a. Raise the DADF to the half open position.
  - b. Remove the left lower screw in the front of the DADF.
  - c. Remove the right lower screw in the rear of the DADF.
  - d. Starting at the right edge of the cover, gently pull the cover toward you to remove it.

**NOTE:** Observe the plastic pins on the right and left sides of the cover that help to hold the cover in place.

### Replacement

1. To install, carry out the removal steps in reverse order.



## REP 5.4 DADF Left Counter Balance

Parts List on [PL 14.3](#)

### Removal

#### WARNING

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

1. Remove the (4) screws securing the IIT Rear Cover and remove the cover by lifting it up and away from the IIT. [PL 13.2](#)
2. Remove the (2) screws securing the DADF Support and remove the support. [PL 14.1](#)
3. Disconnect the connector at the rear of the DADF connecting the DADF to the copier/printer.
  - Loosen (2) screws and disconnect the connector.
4. Remove the DADF Rear Cover. [REP 5.3](#)
5. Remove the (2) screws used to secure the harness guide and move the harness guide toward you.
  - a. Remove the securing screws (2).
  - b. Unplug the connectors to all five (5) motors.
  - c. Unplug the connector to the DADF Feed Clutch. [PL 14.6](#)
  - d. Untwist the wire tie at the left end of the harness.
  - e. Lift up the harness guide and move it toward you, carefully disengaging the wire loom, as necessary, to move the guide out of the way. If the wire loom becomes a problem, additional portions of the loom can be disconnected at the DADF PWB.
6. Remove the Pre Registration Motor. [PL 14.7](#)
  - a. Disconnect the connector.
  - b. Remove the spring.
  - c. Remove the screws (3).
  - d. Remove the Pre Registration Motor.
7. Remove the Registration Motor. [PL 14.8](#)
  - a. Disconnect the connector.
  - b. Remove the spring.
  - c. Remove the screws (2).
  - d. Remove the Registration Motor.
8. Insert a securing shaft in the Left Counter Balance if you wish to keep the Counter Balance flat for reinstallation. This will avoid having to remove the DADF to install a new Counter Balance.
9. Remove the Left Counter Balance.
  - a. Remove the (4) screws at the base of the Counter Balance.
  - b. Remove the (2) screws securing the Bracket to the top of the Counter Balance.
  - c. Remove the Left Counter Balance.

### Replacement

1. To install, carry out the removal steps in reverse order.

**NOTE:** Remember to pull out the securing shaft that has been inserted in a new Counter Balance.

## REP 5.5 DADF Right Counter Balance

Parts List on [PL 14.3](#)

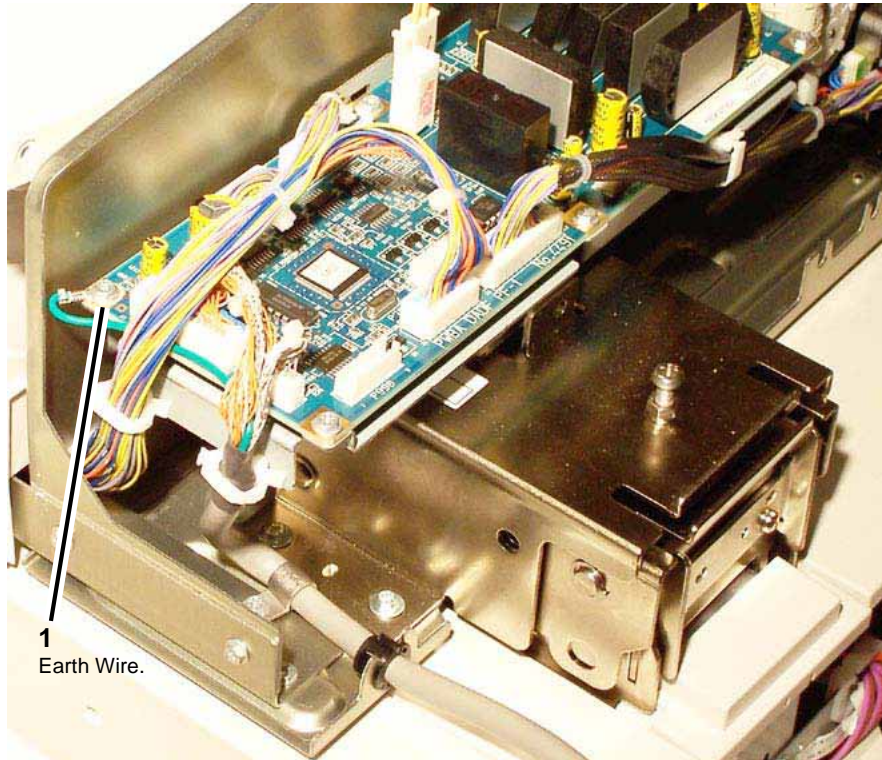
### Removal

#### WARNING

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

1. Remove the (4) screws securing the IIT Rear Cover and remove the cover by lifting it up and away from the IIT. [PL 13.2](#)
2. Remove the (2) screws securing the DADF Support and remove the support. [PL 14.1](#)
3. Disconnect the connector at the rear of the DADF connecting the DADF to the copier/printer.
  - Loosen (2) screws and disconnect the connector.
4. Remove the DADF Rear Cover. [REP 5.3](#)
5. Release the cable clamps and disconnect the connectors connected to the DADF PWB. [PL 14.3](#)
  - a. Release the clamps (4). Use your judgement as to whether to remove the clamps as you will soon be removing the PWB.
  - b. Disconnect the connectors (9).
6. Disconnect the Earth Wire connected to the DADF as shown in the figure. [Figure 1](#)
  - a. Remove the screw.
  - b. Remove the Earth Wire from the PWB.

**NOTE:** Remember to pull out the securing shaft that has been inserted in a new Counter Balance



**Figure 1 Earth Wire on PWB**

7. Remove the DADF PWB.
  - a. Loosen the (2) screws on the bracket underneath the PWB.
  - b. Lift the PWB up to remove it from the DADF.
8. Remove the Bracket.
  - a. Remove (2) screws securing the Bracket to the DADF.
  - b. Remove (2) screws securing the Bracket to the top of the Right Counter Balance.
  - c. Remove the screw and nut at the front of the Bracket (if installed).
  - d. Remove the Bracket.
9. Insert a securing shaft in the Counter Balance if you wish to keep the Counter Balance flat for reinstallation. This will avoid having to remove the DADF to install a new Counter Balance.
10. Remove the Right Counter Balance.
  - a. Remove (4) screws at the base of the Counter Balance.
  - b. Remove the Right Counter Balance.

### Replacement

1. To install, carry out the removal steps in reverse order

## REP 5.6 DADF PWB

Parts List on [PL 14.3](#)

### Removal

#### WARNING

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

1. Remove the DADF Front Cover. [REP 5.3](#)
2. Remove the DADF Rear Cover. [REP 5.3](#)
3. Disconnect the (9) connectors connected to the PWB.
4. Remove the (6) screws securing the PWB to its mounting bracket.
5. Remove the PWB.

### Replacement

1. Replace the EEPROM with the EEPROM on the old PWB, or, if the new PWB comes with an EEPROM already installed, perform the following Adjustments.
  - a. [ADJ 5.2](#) DADF Side Edge Registration Adjustment
  - b. [ADJ 5.3](#) DADF Lead Edge Registration Adjustment
  - c. [ADJ 5.5](#) DADF Trail Edge Registration Adjustment
  - d. [ADJ 5.6](#) DADF Slow Scan Direction Reduce/Enlarge Adjustment
2. To install, carry out the removal steps in reverse order.

## REP 5.7 DADF Invert Drive Roll

Parts List on [PL 14.6](#)

### Removal

#### WARNING

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

1. Remove the Takeaway Roll. [REP 5.10](#)
2. Remove the Clutch Bracket. [Figure 1](#)
  - a. Disconnect the connector.
  - b. Remove the spring.
  - c. Remove the screws (2).
  - d. Remove the Clutch Bracket.

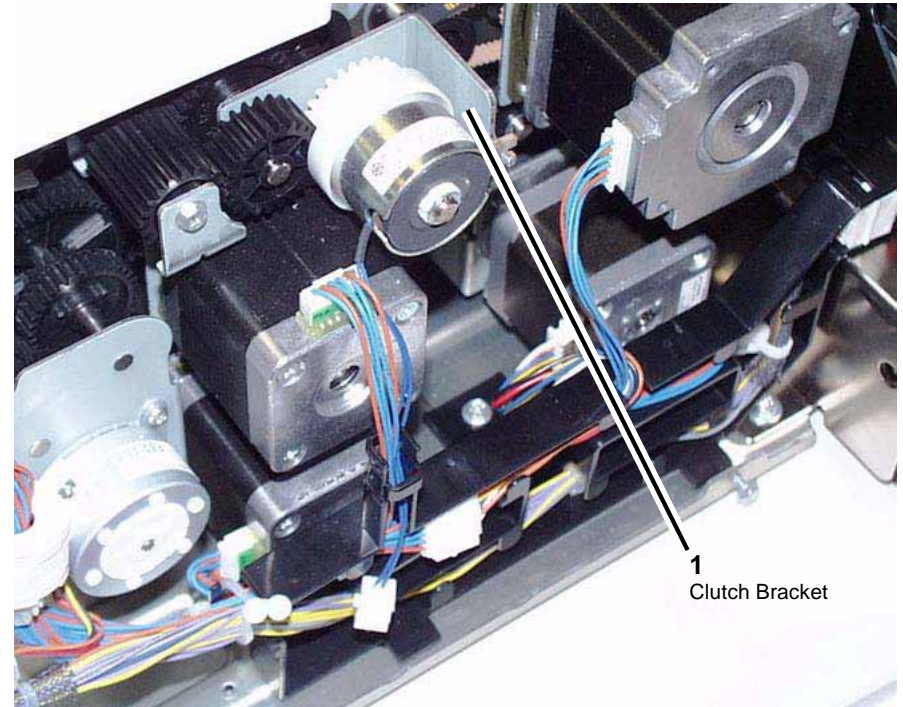
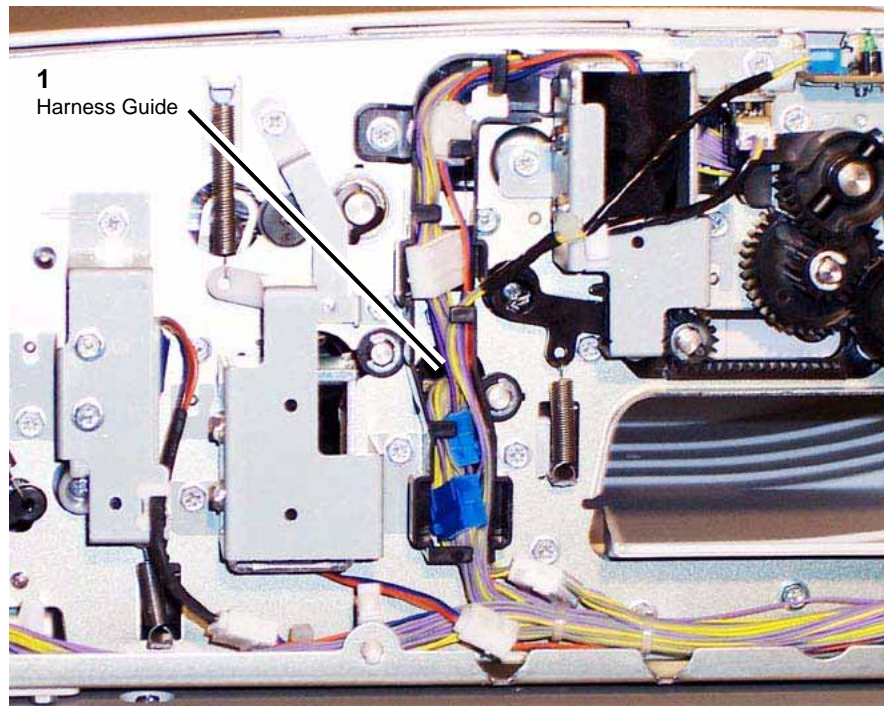


Figure 1 Clutch Bracket

3. Remove the DADF Feed Motor.
  - a. Disconnect the connector.
  - b. Remove the screws (2).
  - c. Remove the DADF Feed Motor.

4. At the front of the copier/printer, disconnect the connector and remove (2) screws used to secure the harness guide. Note that one screw is hidden behind the loom of wires. [Figure 2](#)



**Figure 2 Harness Guide**

5. Move the harness guide to the left.
6. Remove the Invert Roll Nip/Release Solenoid. [PL 14.11](#)
  - a. Disconnect the connector.
  - b. Observe the alignment of the mark on the solenoid's right bracket with the marks on the sheet metal of the DADF.
  - c. Loosen the screws (2).
  - d. Remove the Invert Roll Nip/Release Solenoid.
7. Remove the Link.
  - a. Remove the screw (1).
  - b. Remove the Tension Spring.
  - c. Remove the Link.
8. Remove the Invert Chute. [PL 14.12](#)
  - a. Remove the C-Clip.
  - b. Remove the bearing.
  - c. Remove the Invert Chute (moving it toward the front of the copier/printer).
9. Remove the Inverter Exit Chute. [PL 14.11](#)

- a. Remove the screws (4).
  - b. Remove the Inverter Exit Chute.
10. Remove the Invert Drive Roll.
    - a. Remove the pulley while releasing the hook.
    - b. Remove the E-Ring.
    - c. Remove the bearing.
    - d. Remove the E-Ring.
    - e. Remove the bearing.
    - f. Remove the Invert Drive Roll.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.8 DADF Feed Clutch

Parts List on [PL 14.6](#)

### Removal

#### WARNING

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

1. Remove the DADF Rear Cover. [REP 5.3](#)
2. Remove the DADF Feed Clutch. [Figure 1](#)
  - a. Disconnect the connector.
  - b. Remove the E-Ring.
  - c. Remove the DADF Feed Clutch.

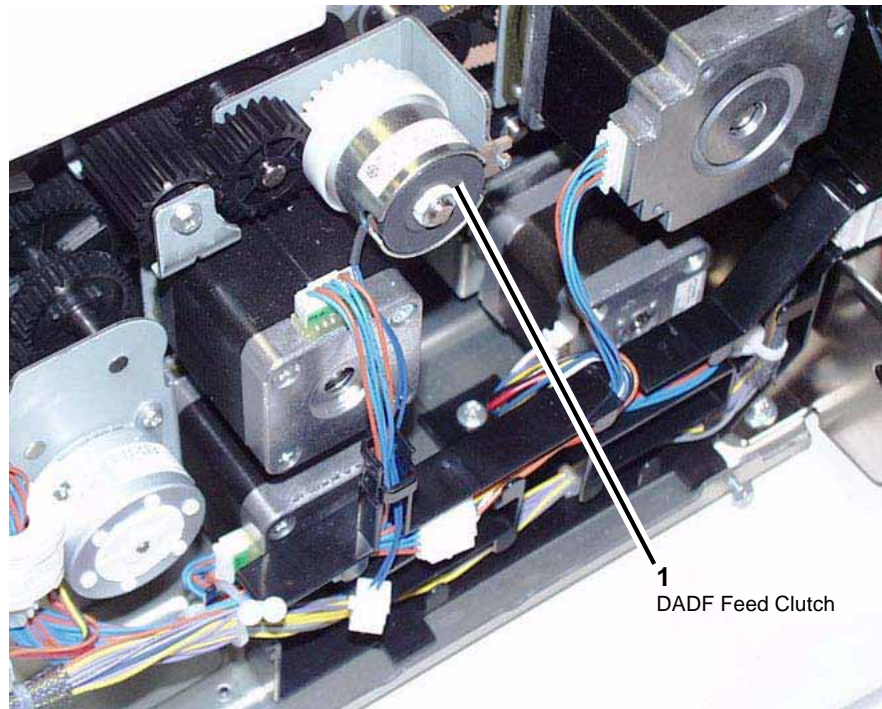


Figure 1 DADF Feed Clutch

### Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter into Diag. mode and then clear the DC 135 HFSI counter. Chain Link: 955-828.

## REP 5.9 DADF Feed Motor Belt

Parts List on [PL 14.6](#)

### Removal

#### WARNING

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

1. Remove the DADF Rear Cover. [REP 5.3](#)
2. Disengage the Clutch Bracket from the DADF. [Figure 1](#)
  - a. Optionally disconnect the connector. Note that disengaging the bracket does not necessitate completely removing it from the DADF.
  - b. Remove the Tension Spring.
  - c. Remove (2) securing screws. Note that the left most screw releases a Gear.
  - d. Disengage the Clutch Bracket.

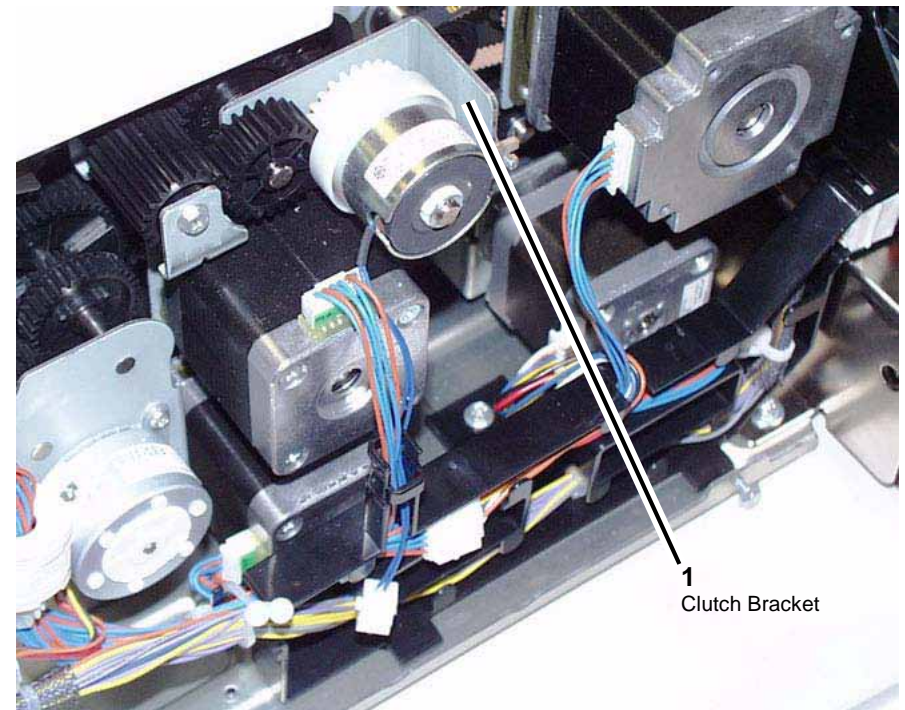


Figure 1 Clutch Bracket

3. Disengage the DADF Feed Clutch.
  - a. Remove the C-Clip on the Clutch Shaft.
  - b. Pull the Feed Clutch toward you to disengage its gear from the motor belt.
4. Remove the Feed Motor Belt from the Clutch Bracket.
5. Disconnect the connector on top of the DADF Feed Motor.

6. Remove (2) screws securing the DADF Feed Motor
7. Remove the Feed Motor Belt.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.10 DADF Takeaway Roll

Parts List on [PL 14.7](#)

### Removal

#### WARNING

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

1. Remove the DADF Front Cover. [REP 5.3](#)
2. Remove the DADF Rear Cover. [REP 5.3](#)
3. With the Feeder Upper Chute open, remove (4) screws securing the Feeder Lower Chute in place. [PL 14.12](#)
4. Remove the Feeder Lower Chute.
5. At the rear of the DADF, loosen the screws used to secure the DADF Pre Registration Motor, to reduce the tension of the motor before removing the Pre Reg Motor Belt. [Figure 1](#)
  - a. Remove the Tension Spring.
  - b. Loosen the (3) securing screws.
  - c. Move the Pre Reg Motor to the left.
  - d. Disengage the belt from the pulley.

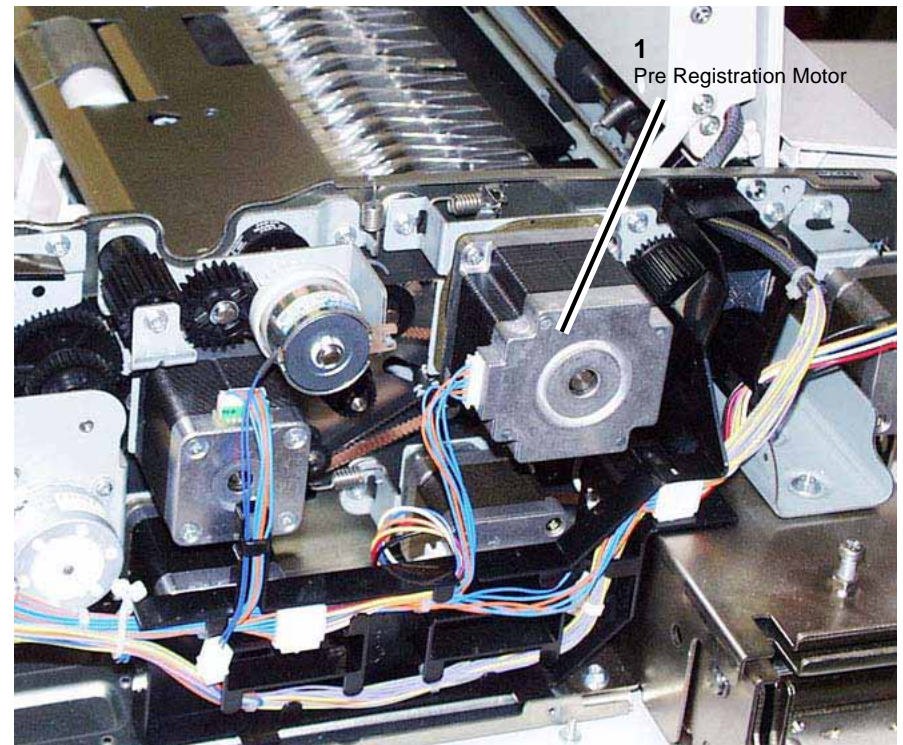


Figure 1 DADF Pre Registration Motor

6. Remove the pulley and bearing attached to the Takeaway Roll at the rear of the DADF.
  - a. Remove the E-Ring.
  - b. Remove the pulley.
  - c. Remove the E-ring.
  - d. Remove the bearing.
7. Remove the bearing attached to the Takeaway Roll at the front of the DADF.
  - a. Remove the KL-Clip.
  - b. Remove the bearing.
8. Remove the Takeaway Roll.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.11 DADF Lead Reg Sensor

Parts List on [PL 14.8](#)

### Removal

#### WARNING

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

1. Remove the DADF Front Cover. [REP 5.3](#)
2. Remove the DADF Rear Cover. [REP 5.3](#)
3. Remove the DADF Registration Motor. [Figure 1](#)
  - a. Disconnect the connector.
  - b. Remove the spring.
  - c. Remove the (2) securing screws.
  - d. Remove the DADF Reg Motor.

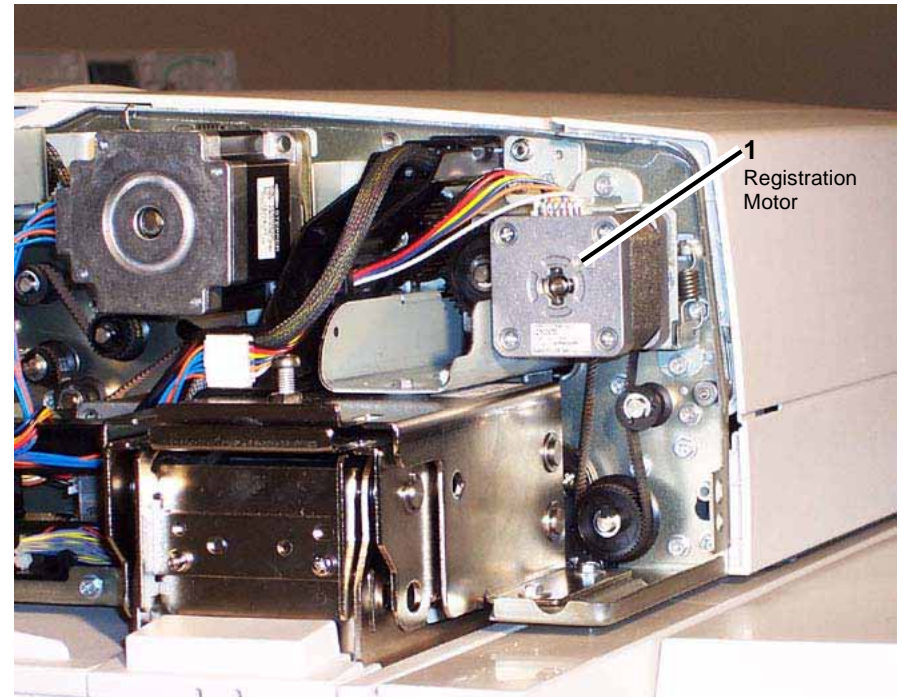


Figure 1 DADF Registration Motor

4. Open the DADF Left Upper Cover. [PL 14.5](#)
  - a. Slightly open the Feeder Upper Chute. [PL 14.5](#)
  - b. Open the DADF Left Upper Cover.
5. At the front of the DADF, remove the Baffle Solenoid. [PL 14.7 Figure 2](#)
  - a. Disconnect the connector.

- b. Remove the (2) securing screws.
- c. Remove the Baffle Solenoid.

**NOTE:** Observe the alignment of the mark on the solenoid's lower right bracket with the marks on the sheet metal of the DADF.

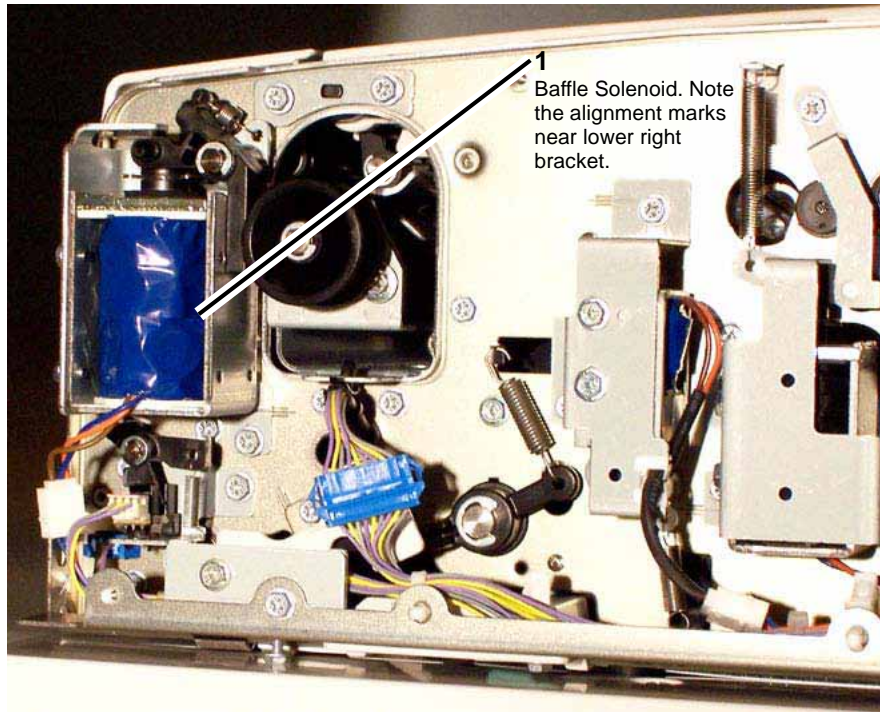


Figure 2 Baffle Solenoid

6. Remove the Reg In 2 Chute.
  - a. Remove the (2) securing screws (one at each end of the chute).
  - b. Remove the Reg In 2 Chute.
7. Remove the Sensor Bracket.
  - a. Remove the securing screw.
  - b. Remove the Sensor Bracket.
  - c. Disconnect the connector.
8. Remove the Lead Reg Sensor from the Sensor Bracket.
  - a. Remove the screw.
  - b. Remove the Lead Reg Sensor.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.12 DADF Registration Roll

Parts List on [PL 14.8](#)

### Removal

#### WARNING

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

1. Remove the DADF. [REP 5.1](#)
2. Remove the DADF Front, Rear, and Left Lower Covers. [REP 5.3](#)
3. At the right rear of the DADF, remove the (2) screws used to secure the harness guide, and move the guide out of the way. [Figure 1](#)
  - a. Remove the securing screws (2).
  - b. Unplug the connectors to all five (5) motors.
  - c. Unplug the connector to the DADF Feed Clutch. [PL 14.6](#)
  - d. Untwist the wire tie at the left end of the harness.
  - e. Lift up the harness guide and move it toward you, carefully disengaging the wire loom, as necessary, to move the guide out of the way. If the wire loom becomes a problem, additional portions of the loom can be disconnected at the DADF PWB.

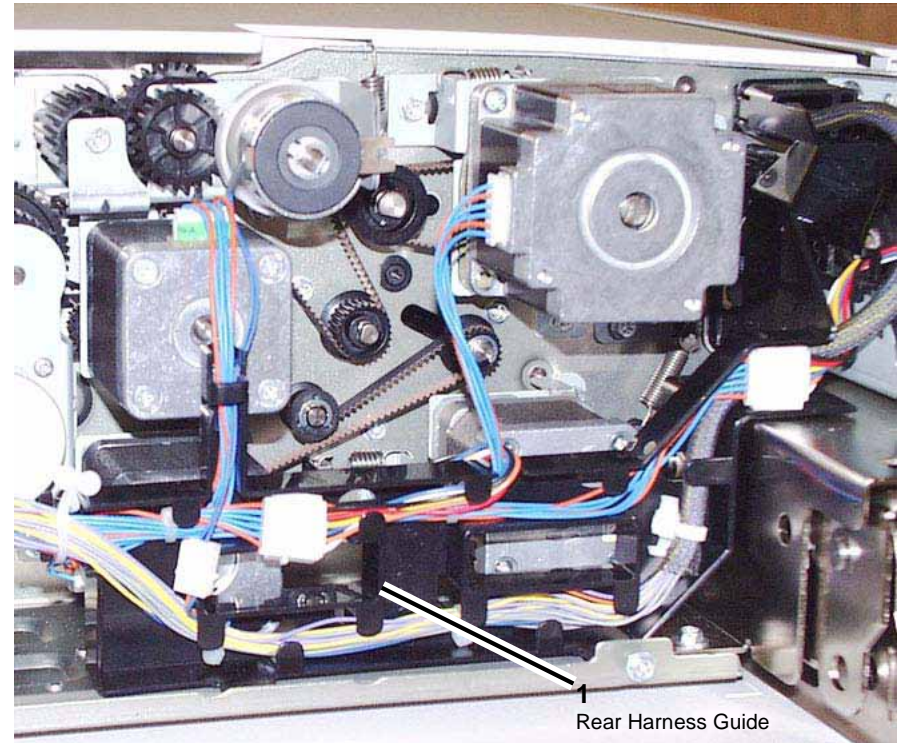
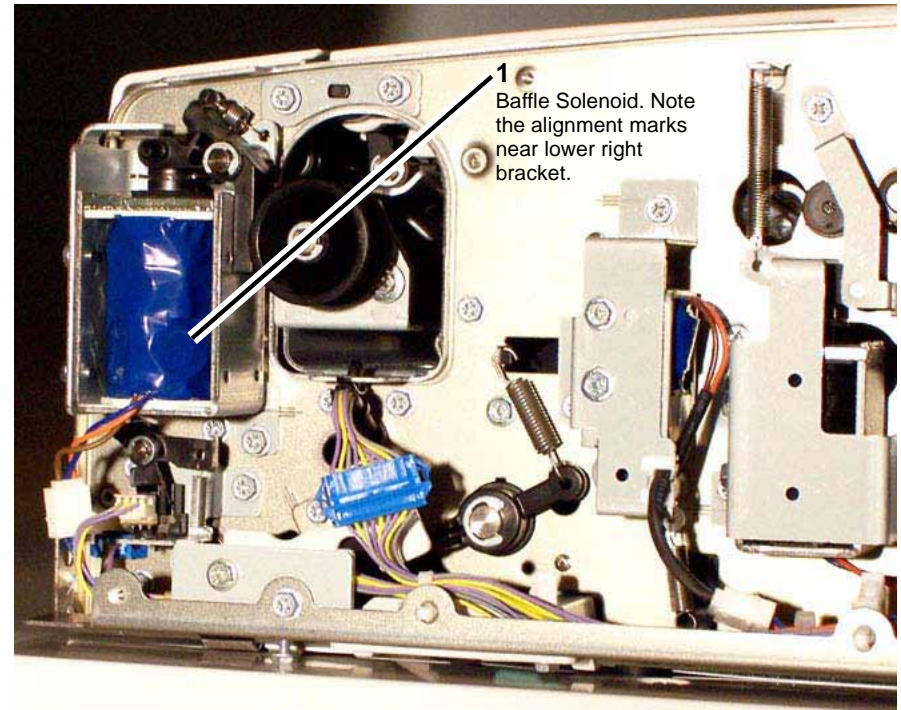


Figure 1 Rear Harness Guide



4. Remove the Pre Registration Motor. [PL 14.7](#)
  - a. Remove the spring.
  - b. Remove the screws (3).
  - c. Remove the Pre Registration (Pre Reg) Motor.
5. Remove the Registration Motor. [PL 14.8](#)
  - a. Disconnect the connector.
  - b. Remove the spring.
  - c. Remove the screws (2).
  - d. Remove the Registration Motor.
6. Remove the Left Counter Balance. [PL 14.3](#)
  - a. Remove the (4) screws at the base of the Counter Balance.
  - b. Remove the (2) screws securing the Bracket to the top of the Counter Balance.
  - c. Remove the Left Counter Balance.
7. Remove the Reg Out Chute. [PL 14.12](#)
  - a. Disconnect the connector.
  - b. Remove the screws (4).
  - c. Remove the Reg Out Chute.
8. Open the DADF Left Upper Cover. [PL 14.5](#)
  - a. Slightly open the Feeder Upper Chute. [PL 14.5](#)
  - b. Open the DADF Left Upper Cover.
9. Remove the Left Upper Cover.
  - a. Remove (2) screws at the rear side of the DADF.
  - b. Loosen (1) screw at the front side of the DADF.
  - c. Remove the Left Upper Cover.
10. Remove the Baffle Solenoid at the front of the DADF. [PL 14.7 Figure 2](#)
  - a. Disconnect the connector.
  - b. Remove the (2) securing screws.
  - c. Remove the Baffle Solenoid.

**NOTE:** Observe the alignment of the mark on the solenoid's lower right bracket with the marks on the sheet metal of the DADF.



**Figure 2 Baffle Solenoid**

11. Remove the L/H Cover Interlock Switch, underneath the Baffle Solenoid.
  - a. Disconnect the connector by lifting the cover of the connector, with your finger nail or a small, flat-bladed screwdriver, and gently pulling the wires toward you.
  - b. Remove the (2) securing screws.
  - c. Remove the L/H Cover Interlock Switch.
12. Remove the Reg In 2 Chute. [PL 14.8](#)
  - a. Remove the (2) securing screws (one at each end of the chute).
  - b. Remove the Reg In 2 Chute.
13. Remove the Sensor Bracket.
  - a. Remove the securing screw.
  - b. Remove the Sensor Bracket.
  - c. Disconnect the connector.
14. Remove the pulley and bearing at the rear of the DADF.
  - a. Remove the E-Ring. Small.
  - b. Remove the pulley.
  - c. Remove the E-Ring. Large.
  - d. Remove the bearing.
15. Remove the bearing at the front of the DADF.

- a. Remove the E-Ring.
  - b. Remove the bearing.
16. Remove the Registration Roll.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.13 DADF Exit Roll 1

Parts List on [PL 14.10](#)

### Removal

#### WARNING

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

1. Remove the Takeaway Roll. [REP 5.10](#)
2. Remove the Clutch Bracket, located above the DADF Feed Motor. [PL 14.6 Figure 1](#)
  - a. Disconnect the connector.
  - b. Remove the Tension Spring.
  - c. Remove (2) securing screws. Note that the left most screw releases a Gear.
  - d. Remove the Clutch Bracket.

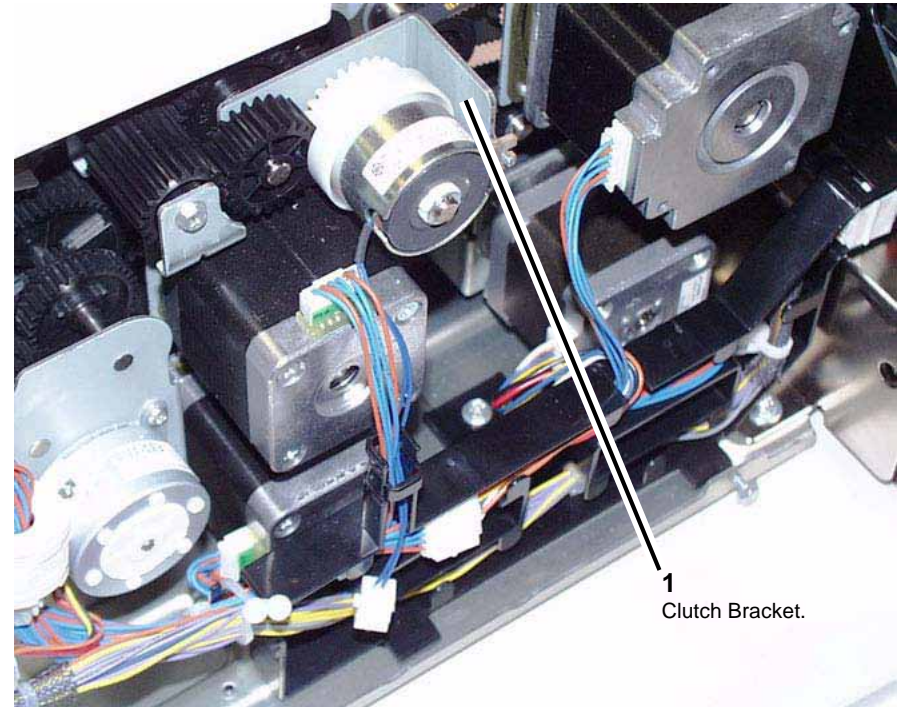
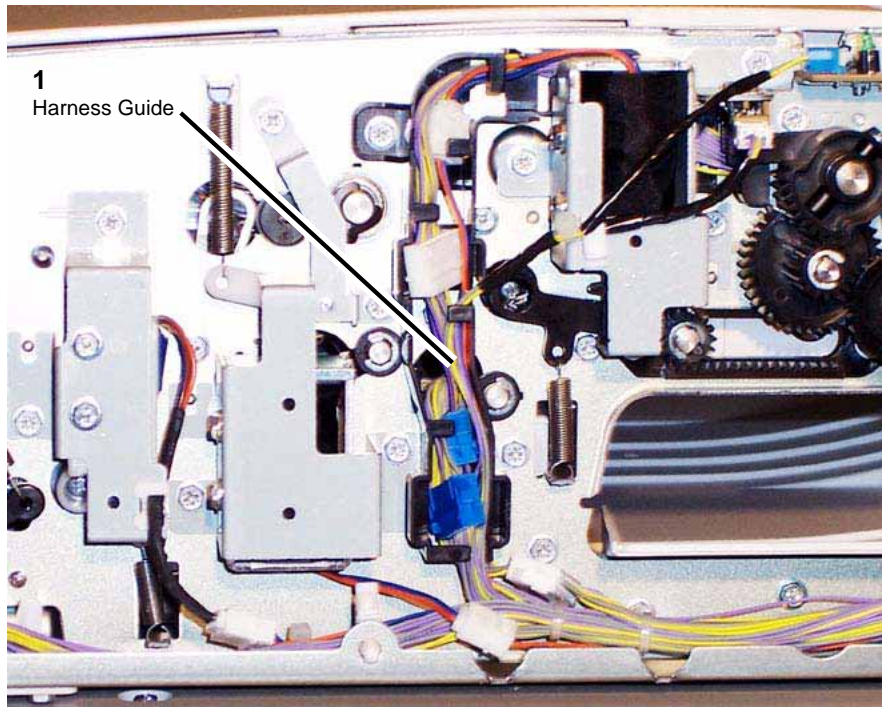


Figure 1 Clutch Bracket

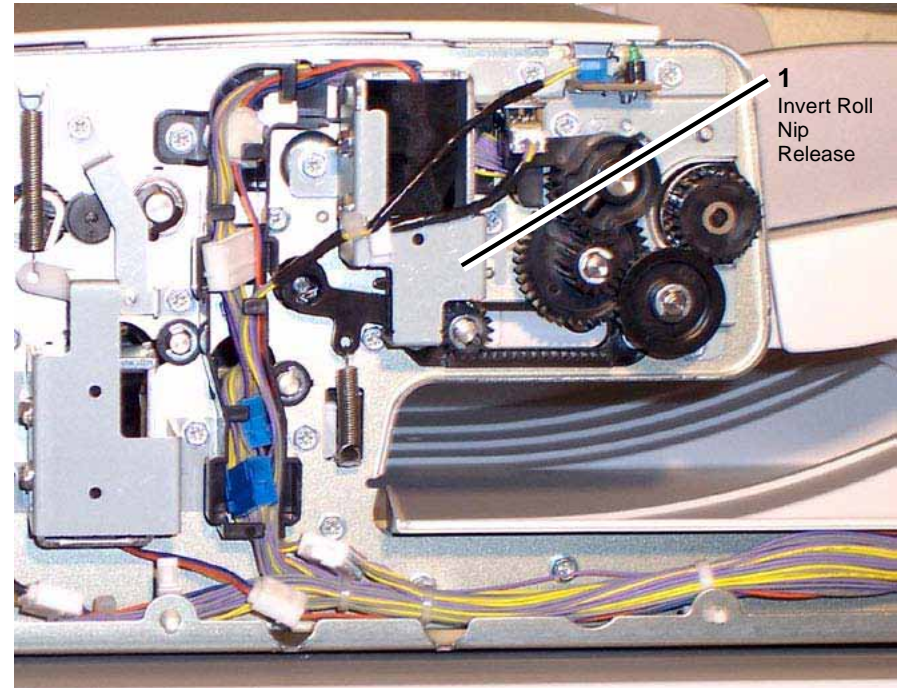
3. Remove the DADF Feed Motor.
  - a. Disconnect the connector.
  - b. Remove (2) securing screws.
  - c. Remove the DADF Feed Motor.

4. At the front of the copier/printer, disconnect the connector and remove (2) screws used to secure the harness guide. Note that one screw is hidden behind the loom of wires. [Figure 2](#)



**Figure 2 Harness Guide**

5. Move the harness guide to the left.
6. Remove the Invert Roll Nip/Release Solenoid. [PL 14.11 Figure 3](#)
  - a. Disconnect the connector.
  - b. Observe the alignment of the mark on the solenoid's right bracket with the marks on the sheet metal of the DADF.
  - c. Loosen the screws (2).
  - d. Remove the Invert Roll Nip/Release Solenoid.



**Figure 3 Invert Roll Nip Release Solenoid**

7. Remove the Link.
  - a. Remove the screw (1).
  - b. Remove the Tension Spring.
  - c. Remove the Link.
8. Remove the Invert Chute. [PL 14.12](#)
  - a. Remove the C-Clip.
  - b. Remove the bearing.
  - c. Remove the Invert Chute (moving it toward the front of the copier/printer).
9. Remove the Inverter Exit Chute. [PL 14.11](#)
  - a. Remove the screws (4).
  - b. Remove the Inverter Exit Chute.
10. Loosen the (2) screws used to secure the DADF Exit Motor to loosen the tension before removing the Exit Motor Belt.
  - a. Loosen the screws (2).
  - b. Push the DADF Exit Motor to the right.
  - c. Remove the Exit Motor Belt.
11. Remove the Exit Roll 1.
  - a. Remove the E-Ring.
  - b. Remove the Pulley.

- c. Remove the E-Ring.
- d. Remove the Bearing.
- e. Remove the E-Ring.
- f. Remove the Bearing.
- g. Remove the Exit Roll 1.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.14 DADF Exit Roll 2

Parts List on [PL 14.10](#)

### Removal

#### WARNING

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

1. Remove the Takeaway Roll. [REP 5.10](#)
2. Remove the Clutch Bracket, located above the DADF Feed Motor. [PL 14.6 Figure 1](#)
  - a. Disconnect the connector.
  - b. Remove the Tension Spring.
  - c. Remove (2) securing screws. Note that the left most screw releases a Gear.
  - d. Remove the Clutch Bracket.

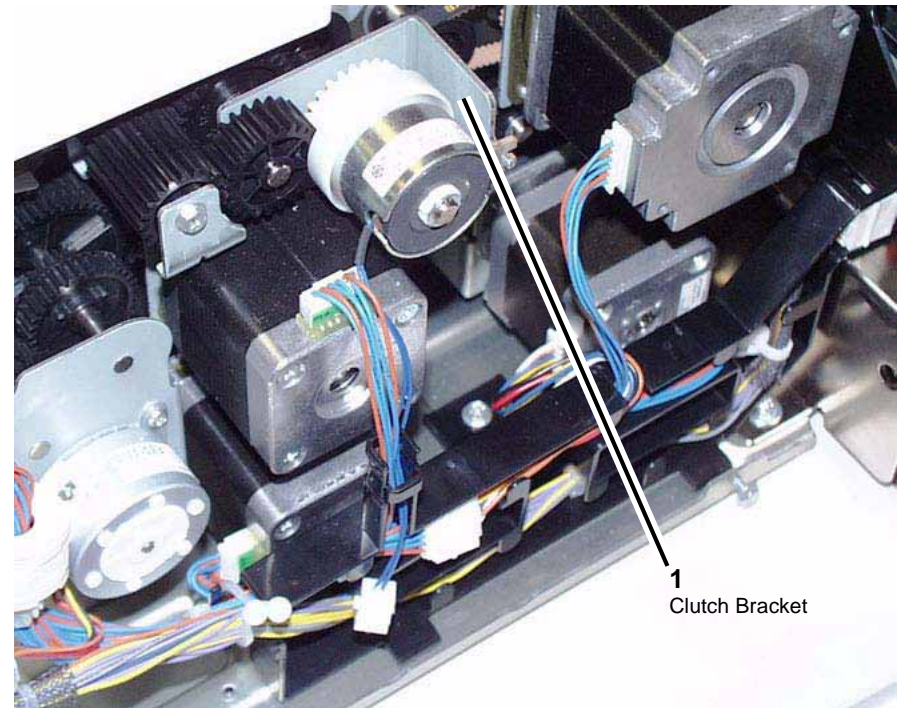
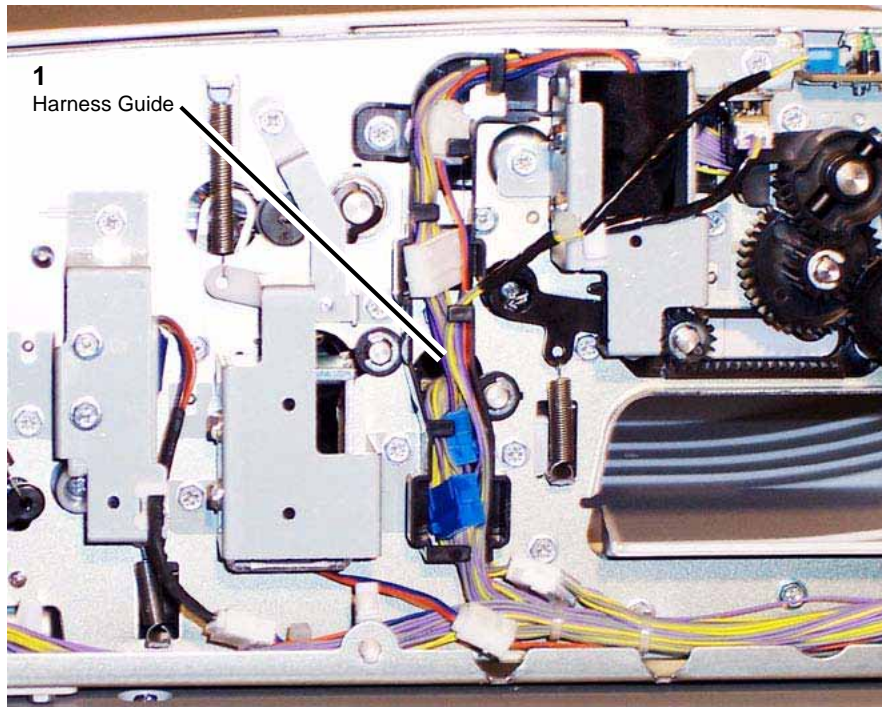


Figure 1 Clutch Bracket

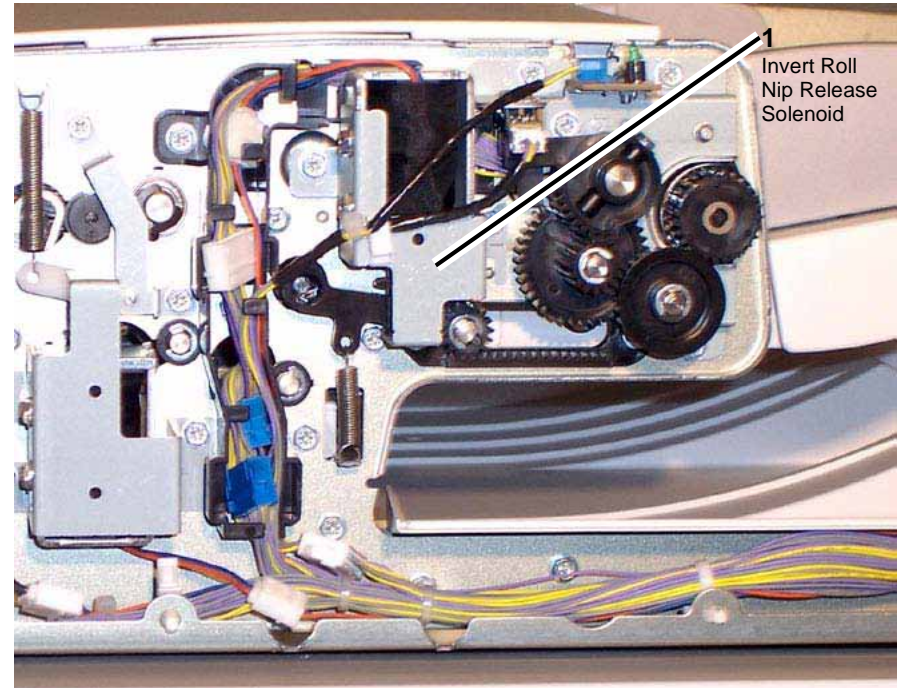
3. Remove the DADF Feed Motor.
  - a. Disconnect the connector.
  - b. Remove (2) securing screws.
  - c. Remove the DADF Feed Motor.

4. At the front of the copier/printer, disconnect the connector and remove (2) screws used to secure the harness guide. Note that one screw is hidden behind the loom of wires. [Figure 2](#)



**Figure 2 Harness Guide**

5. Move the harness guide to the left.
6. Remove the Invert Roll Nip/Release Solenoid. [PL 14.11 Figure 3](#)
  - a. Disconnect the connector.
  - b. Observe the alignment of the mark on the solenoid's right bracket with the marks on the sheet metal of the DADF.
  - c. Loosen the screws (2).
  - d. Remove the Invert Roll Nip/Release Solenoid.



**Figure 3 Invert Roll Nip Release Solenoid**

7. Remove the Link.
  - a. Remove the screw (1).
  - b. Remove the Tension Spring.
  - c. Remove the Link.
8. Remove the Invert Chute. [PL 14.12](#)
  - a. Remove the C-Clip.
  - b. Remove the bearing.
  - c. Remove the Invert Chute (moving it toward the front of the copier/printer).
9. Remove the Inverter Exit Chute. [PL 14.11](#)
  - a. Remove the screws (4).
  - b. Remove the Inverter Exit Chute.
10. Loosen the (2) screws used to secure the DADF Exit Motor to loosen the tension before removing the Exit Motor Belt.
  - a. Loosen the screws (2).
  - b. Push the DADF Exit Motor to the right.
  - c. Remove the Exit Motor Belt.
11. Remove the Exit Gate Solenoid. [PL 14.11](#)
  - a. Release the cable clamp.
  - b. Disconnect the connector.

- c. Remove the screws (2).
- d. Remove the Exit Gate Solenoid.
- 12. Remove the Gate Link Bracket.
  - a. Remove the screws (2).
  - b. Remove the Gate Link Bracket.
- 13. Remove the Tension Spring and Link.
- 14. Remove the Inverter Lower Gate. [PL 14.11](#)
  - a. Remove the Inverter Lower Gate.
  - b. Remove the bearing.
- 15. Remove Exit Roll 2.
  - a. Remove the E-Ring.
  - b. Remove the Pulley.
  - c. Remove the E-Ring.
  - d. Remove the Bearing.
  - e. Remove the E-Ring.
  - f. Remove the Bearing.
  - g. Remove Exit Roll 2.

### Replacement

- 1. To install, carry out the removal steps in reverse order.

## REP 5.15 DADF Feed Roll

Parts List on [PL 14.18](#)

### Removal

#### WARNING

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

- 1. Remove the Feeder Upper Cover of the Feeder Upper Chute. [PL 14.17](#)
  - a. Open the Feeder Upper Chute.
  - b. Remove the (2) Tapping Screws.
  - c. Remove the Feeder Upper Cover.
- 2. Disengage the Tension Spring from the DADF. [Figure 1](#)

**NOTE:** Observe the position of the Plate Spring, which rests on top of the spring.

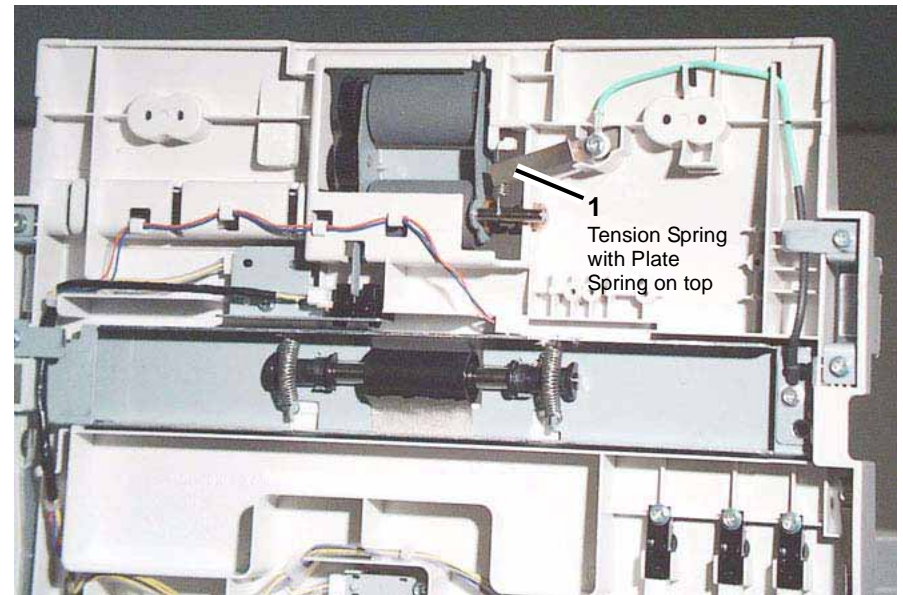
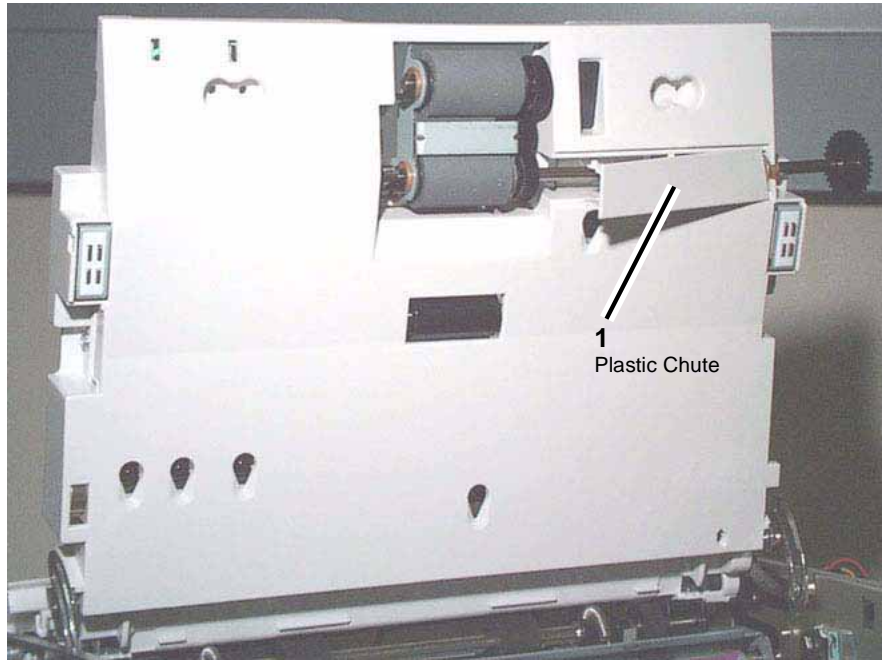


Figure 1 Tension Spring with Plate Spring on top

- 3. Remove the rectangular, plastic Chute Guide from the underside of the Upper Feeder Chute. [Figure 2](#)



**Figure 2 Plastic Chute**

4. Remove the KL-Clip from the rear (large gear end) of the Feed Shaft.
5. Disengage the Sleeve Bearing by sliding it on the Feed Shaft toward the front of the DADF.
6. Remove the KL-Clip from the front (roller end) of the Feed Shaft.
7. Disengage the Sleeve Bearing by sliding it on the Feed Shaft toward the back of the DADF.
8. Remove the Feeder/Nudger Roll Component.
9. Remove the KL-Clip on the Feed Roll.
10. Remove the Feed Roll.
  - a. Remove the Feed Shaft.
  - b. Remove the Feed Roll.

### Replacement

1. To install, carry out the removal steps in reverse order.
2. Install the Feed Roll with the clutch end facing the Feed Shaft.
3. When reinstalling the Tension Spring, make sure to place the Plate Spring on top of the Tension Spring.

## REP 5.16 DADF Nudger Roll

Parts List on [PL 14.18](#)

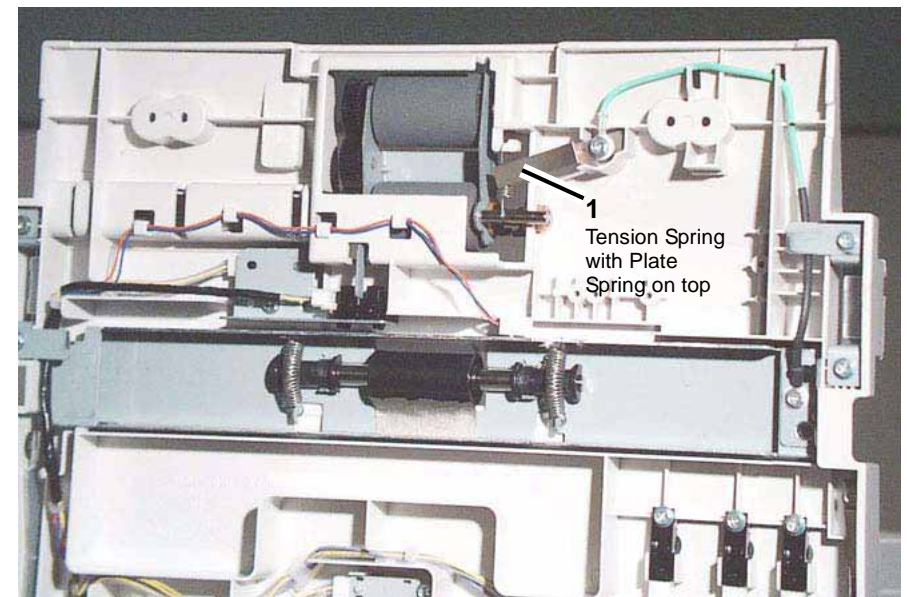
### Removal

#### WARNING

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

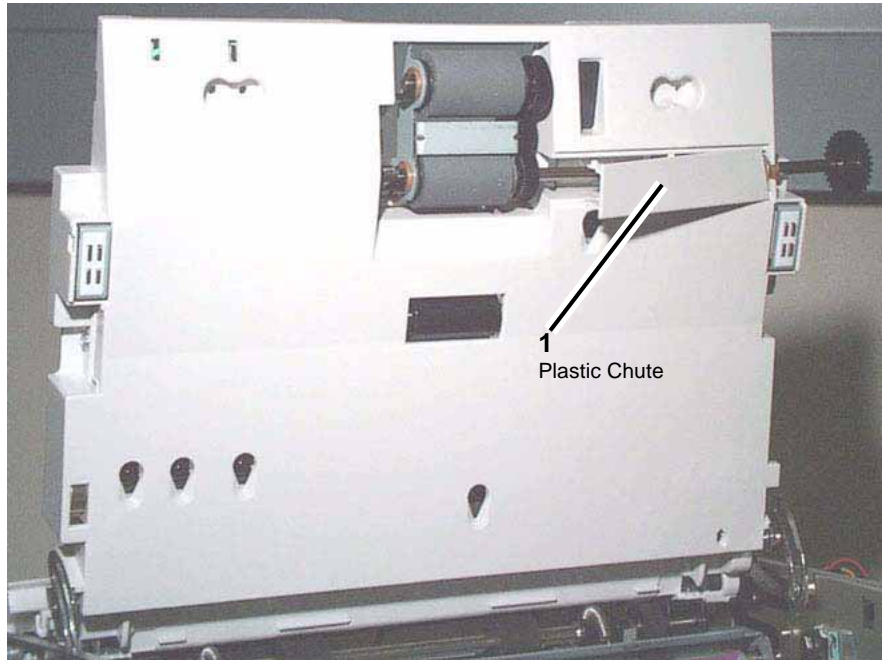
1. Remove the Feeder Upper Cover of the Feeder Upper Chute. [PL 14.17](#)
  - a. Open the Feeder Upper Chute.
  - b. Remove the (2) Tapping Screws.
  - c. Remove the Feeder Upper Cover.
2. Disengage the Tension Spring from the DADF. [Figure 1](#)

**NOTE:** Observe the position of the Plate Spring, which rests on top of the spring.



**Figure 1 Tension Spring with Plate Spring on top**

3. Remove the rectangular, plastic Chute Guide from the underside of the Upper Feeder Chute. [Figure 2](#)



**Figure 2 Plastic Chute**

4. Remove the KL-Clip from the rear (large gear end) of the Feed Shaft.
5. Disengage the Sleeve Bearing by sliding it on the Feed Shaft toward the front of the DADF.
6. Remove the KL-Clip from the front (roller end) of the Feed Shaft.
7. Disengage the Sleeve Bearing by sliding it on the Feed Shaft toward the back of the DADF.
8. Remove the Feeder/Nudger Roll Component.
9. Remove the KL-Clip on the Nudger Roll.
10. Remove the Nudger Roll.
  - a. Remove the Nudger Shaft.
  - b. Remove the Nudger Roll.

### Replacement

1. To install, carry out the removal steps in reverse order.
2. Install the Nudger Roll with the clutch end facing the Nudger Shaft.
3. When reinstalling the Tension Spring, make sure to place the Plate Spring on top of the Tension Spring.

## REP 5.17 DADF Platen Exit Sensor

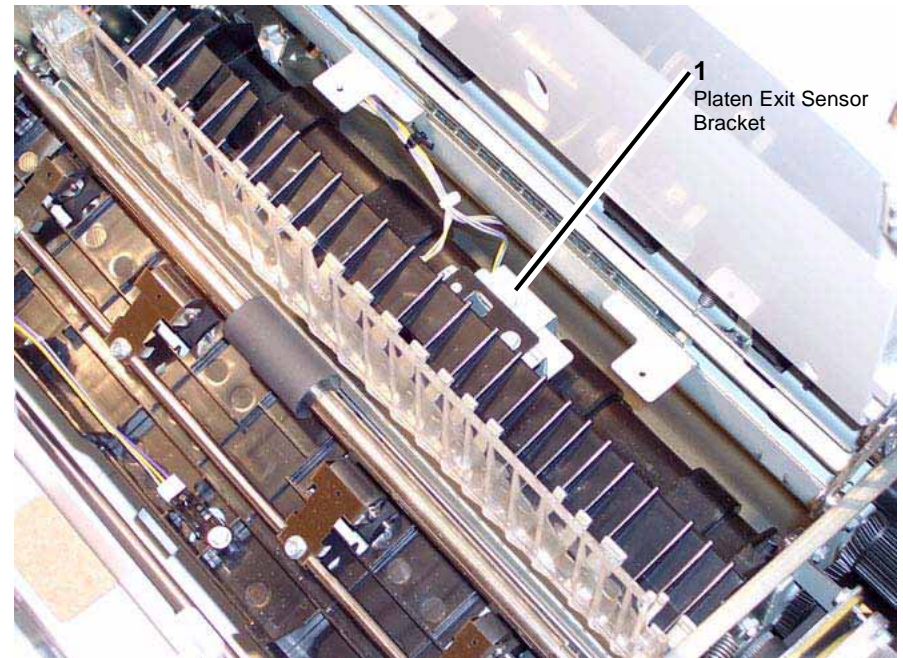
Parts List on [PL 14.22](#)

### Removal

#### WARNING

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

1. Open the Feeder Upper Chute. [PL 14.5](#)
2. Remove the Guide Upper Chute. [PL 14.12](#)
  - a. Open the Invert Chute.
  - b. Remove (2) screws securing the Guide Upper Chute.
  - c. Remove the Guide Upper Chute.
3. Remove the Platen Exit Sensor Bracket (the lower of the two visible brackets). [Figure 1](#)
  - a. Remove the securing screw (1).
  - b. Lift the bracket up and out to reveal the attached Platen Exit Sensor.



**Figure 1 Platen Sensor Bracket**

4. Remove the Platen Exit Sensor from the Sensor Bracket.
  - a. Disconnect the connector.
  - b. Remove the screw (1).
  - c. Remove the Platen Exit Sensor.



## Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.18 DADF Invert Sensor

Parts List on [PL 14.22](#)

### Removal

#### WARNING

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

1. Open the Feeder Upper Chute. [PL 14.5](#)
2. Remove the Guide Upper Chute. [PL 14.12](#)
  - a. Open the Invert Chute.
  - b. Remove (2) screws securing the Guide Upper Chute.
  - c. Remove the Guide Upper Chute.
3. Remove the Invert Sensor Bracket (the upper of the two visible brackets). [Figure 1](#)
  - a. Remove the securing screw (1).
  - b. Lift the bracket up and out to reveal the attached Invert Sensor.

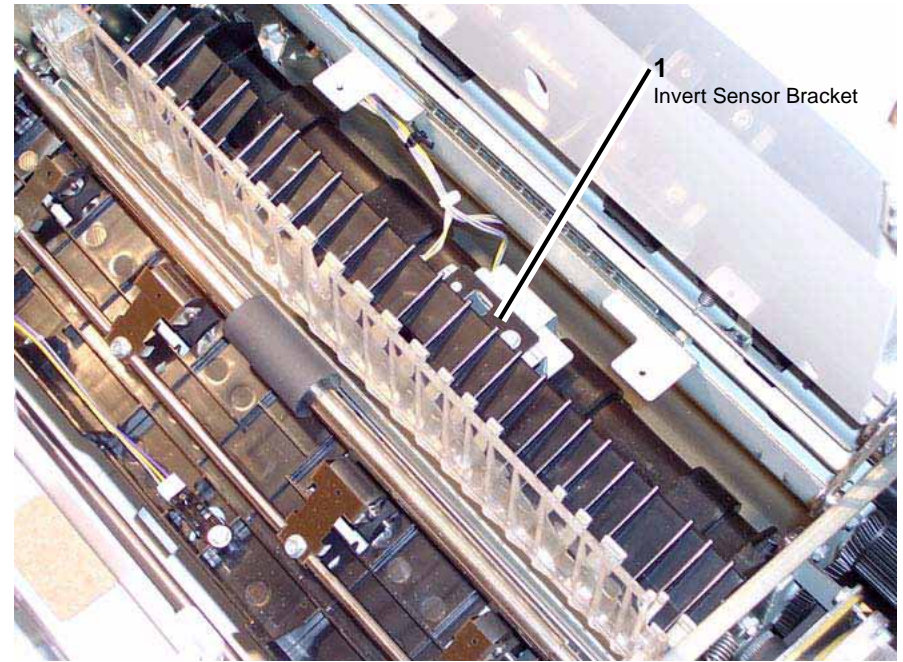


Figure 1 Invert Sensor Bracket

4. Remove the Invert Sensor from the Sensor Bracket.
  - a. Disconnect the connector.
  - b. Remove the screw (1).
  - c. Remove the Invert Sensor.

## Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.19 DADF Exit Sensor 1

Parts List on [PL 14.23](#)

### Removal

#### WARNING

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

1. Remove the Takeaway Roll. [REP 5.10](#)
2. Remove the Clutch Bracket, located above the DADF Feed Motor. [PL 14.6 Figure 1](#)
  - a. Disconnect the connector.
  - b. Remove the Tension Spring.
  - c. Remove (2) securing screws. Note that the left most screw releases a Gear.
  - d. Remove the Clutch Bracket.

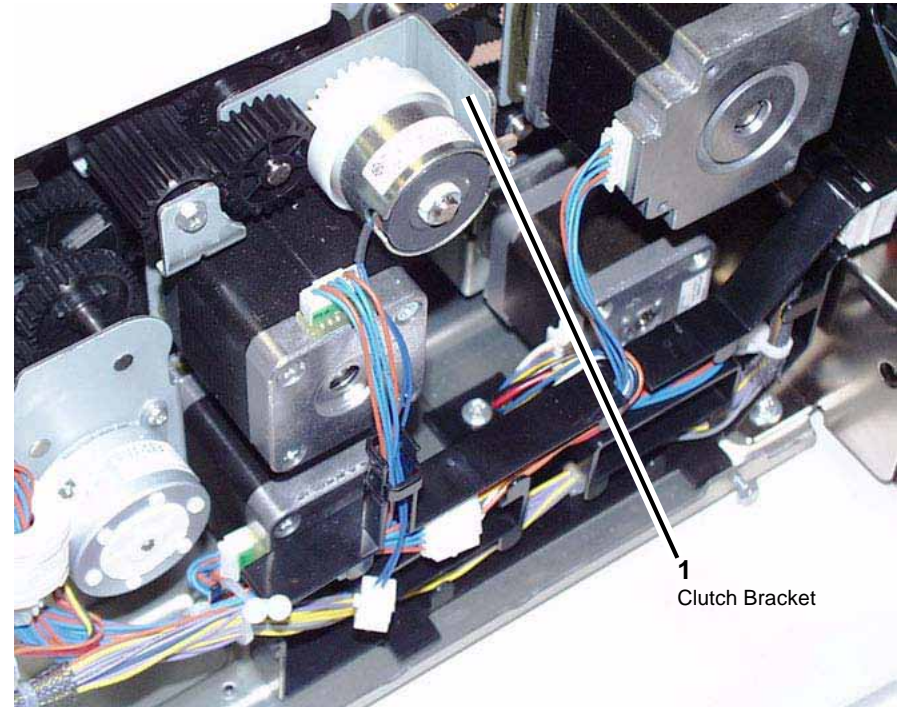
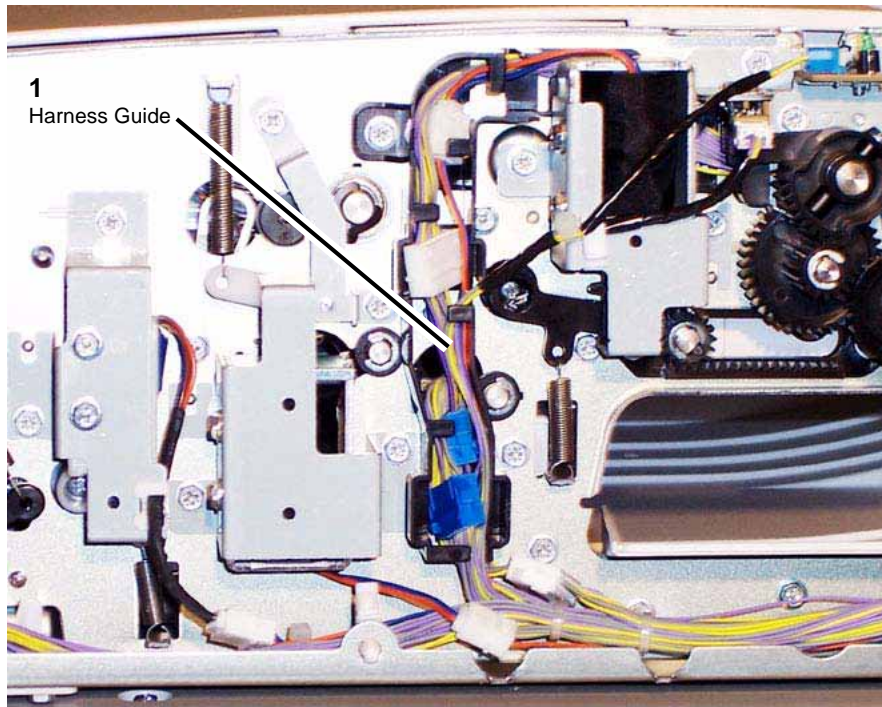


Figure 1 Clutch Bracket

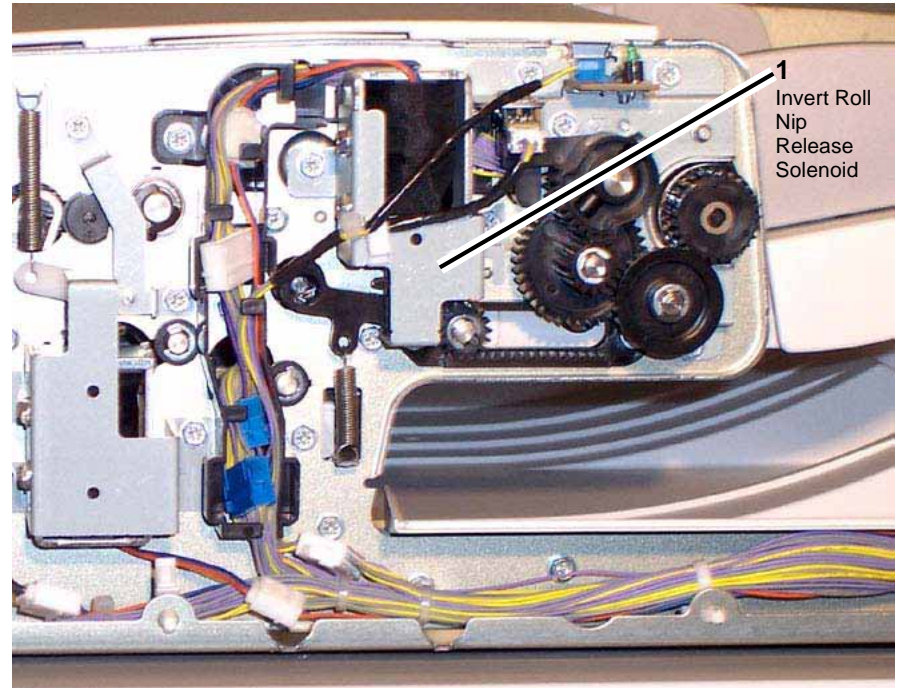
3. Remove the DADF Feed Motor.
  - a. Disconnect the connector.
  - b. Remove (2) securing screws.
  - c. Remove the DADF Feed Motor.

4. At the front of the copier/printer, disconnect the connector and remove (2) screws used to secure the harness guide. Note that one screw is hidden behind the loom of wires. **Figure 2**



**Figure 2 Harness Guide**

5. Move the harness guide to the left.
6. Remove the Invert Roll Nip/Release Solenoid. **PL 14.11 Figure 3**
  - a. Disconnect the connector.
  - b. Observe the alignment of the mark on the solenoid's right bracket with the marks on the sheet metal of the DADF.
  - c. Loosen the screws (2).
  - d. Remove the Invert Roll Nip/Release Solenoid.



**Figure 3 Invert Roll Nip Release Solenoid**

7. Remove the Link.
  - a. Remove the screw (1).
  - b. Remove the Tension Spring.
  - c. Remove the Link.
8. Remove the Invert Chute. **PL 14.12**
  - a. Remove the C-Clip.
  - b. Remove the bearing.
  - c. Remove the Invert Chute (moving it toward the front of the copier/printer).
9. Remove the Inverter Exit Chute. **PL 14.11**
  - a. Remove the screws (4).
  - b. Remove the Inverter Exit Chute.
10. Remove the Sensor Bracket.
  - a. Remove the screw (1).
  - b. Remove the Sensor Bracket.
11. Disconnect the connector to the DADF Exit Sensor 1. As shown on the Parts List, this sensor is attached to the side of the bracket that features two holes only (with no extra metal notches or cutouts).
12. Remove the DADF Exit Sensor 1.
  - a. Remove the screw (1).

- b. Remove the DADF Exit Sensor 1.

## Replacement

1. To install, carry out the removal steps in reverse order.

**NOTE:** If you completely removed the Sensor Bracket from the DADF, and disconnected both connectors, connect the Blue connector to the DADF Exit Sensor 1, and the White connector to the DADF Exit Sensor 2.

## REP 5.20 DADF Exit Sensor 2

Parts List on [PL 14.23](#)

### Removal

#### WARNING

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

1. Remove the Takeaway Roll. [REP 5.10](#)
2. Remove the Clutch Bracket, located above the DADF Feed Motor. [PL 14.6 Figure 1](#)
  - a. Disconnect the connector.
  - b. Remove the Tension Spring.
  - c. Remove (2) securing screws. Note that the left most screw releases a Gear.
  - d. Remove the Clutch Bracket.

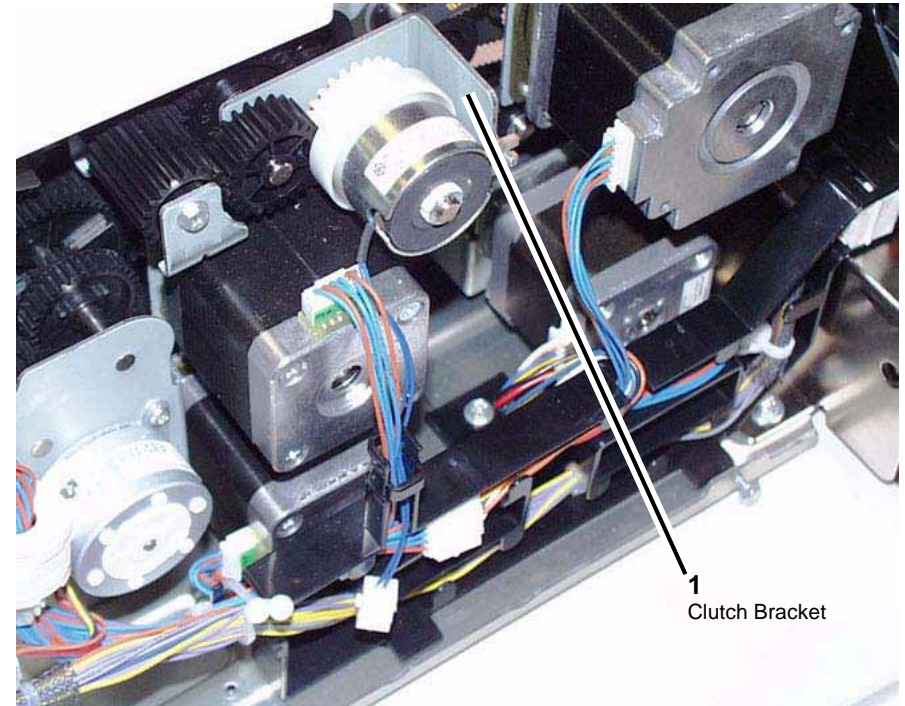
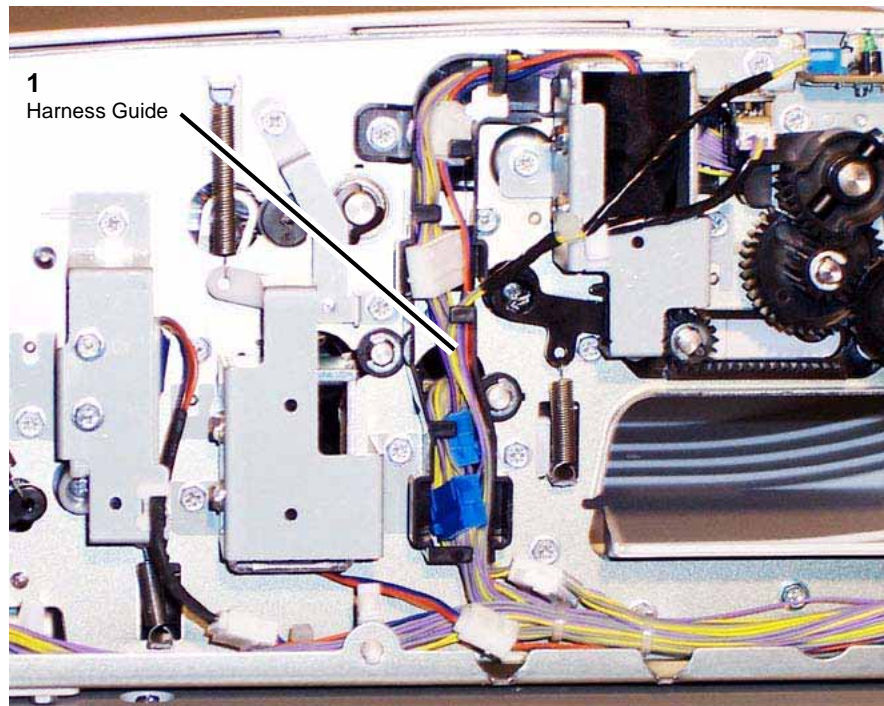


Figure 1 Clutch Bracket

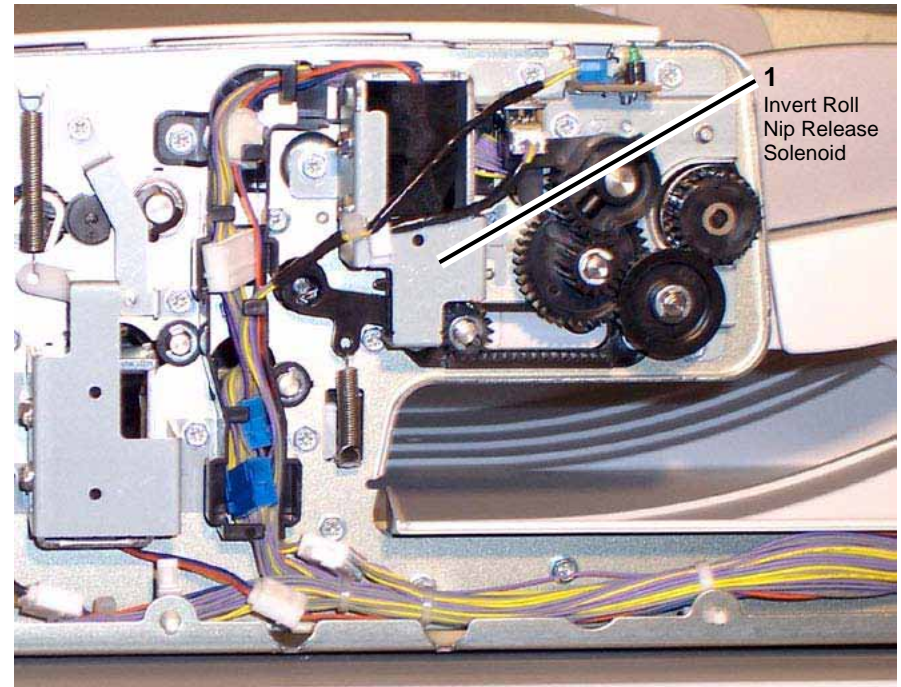
3. Remove the DADF Feed Motor.
  - a. Disconnect the connector.
  - b. Remove (2) securing screws.
  - c. Remove the DADF Feed Motor.

4. At the front of the copier/printer, disconnect the connector and remove (2) screws used to secure the harness guide. Note that one screw is hidden behind the loom of wires. **Figure 2**



**Figure 2 Harness Guide**

5. Move the harness guide to the left.
6. Remove the Invert Roll Nip/Release Solenoid. **PL 14.11 Figure 3**
  - a. Disconnect the connector.
  - b. Observe the alignment of the mark on the solenoid's right bracket with the marks on the sheet metal of the DADF.
  - c. Loosen the screws (2).
  - d. Remove the Invert Roll Nip/Release Solenoid.



**Figure 3 Invert Roll Nip Release Solenoid**

7. Remove the Link.
  - a. Remove the screw (1).
  - b. Remove the Tension Spring.
  - c. Remove the Link.
8. Remove the Invert Chute. **PL 14.12**
  - a. Remove the C-Clip.
  - b. Remove the bearing.
  - c. Remove the Invert Chute (moving it toward the front of the copier/printer).
9. Remove the Inverter Exit Chute. **PL 14.11**
  - a. Remove the screws (4).
  - b. Remove the Inverter Exit Chute.
10. Remove the Sensor Bracket.
  - a. Remove the screw (1).
  - b. Remove the Sensor Bracket.
11. Disconnect the connector to the DADF Exit Sensor 2. As shown on the Parts List, this sensor is attached to the side of the bracket that features both mounting holes and extra metal notches or cutouts).
12. Remove the DADF Exit Sensor 2.
  - a. Remove the screw (1).

- b. Remove the DADF Exit Sensor 2.

## Replacement

1. To install, carry out the removal steps in reverse order.

**NOTE:** If you completely removed the Sensor Bracket from the DADF, and disconnected both connectors, connect the Blue connector to the DADF Exit Sensor 1, and the White connector to the DADF Exit Sensor 2.

## REP 5.21 DADF Reg Sensor

Parts List on [PL 14.25](#)

### Removal

#### WARNING

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

1. Remove the DADF Front Cover. [REP 5.3](#)
2. Remove the DADF Rear Cover. [REP 5.3](#)
3. Remove the DADF Left Lower Cover. [REP 5.3](#)
4. From the center of the Reg Out Chute, revealed when the DADF Left Lower Cover was removed, remove the Sensor Bracket. [Figure 1](#)
  - a. Remove the screw (1).
  - b. Remove the Sensor Bracket.

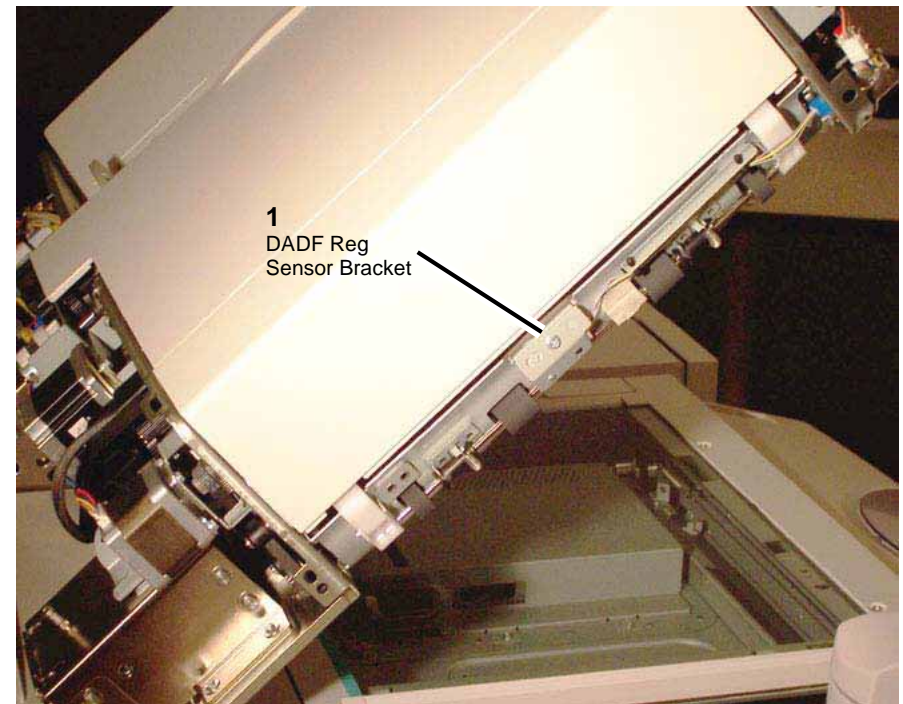


Figure 1 DADF Reg Sensor Bracket

5. Remove the DADF Reg Sensor from the Sensor Bracket.
  - a. Disconnect the connector.
  - b. Remove the screw (1).
  - c. Remove the DADF Reg Sensor.

## Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.22 DADF Retard Roll

Parts List on [PL 14.26](#)

### Removal

#### WARNING

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

1. Open the Feeder Upper Chute. [PL 14.5](#)
2. Remove the Feeder Lower Chute.
  - a. Remove the securing screws (4).
  - b. Remove the Feeder Lower Chute.
3. With the Chute's flat side down on a cushioned surface, remove the screw on the Bracket securing the Retard Roll Housing assembly to the Chute. [Figure 1](#)

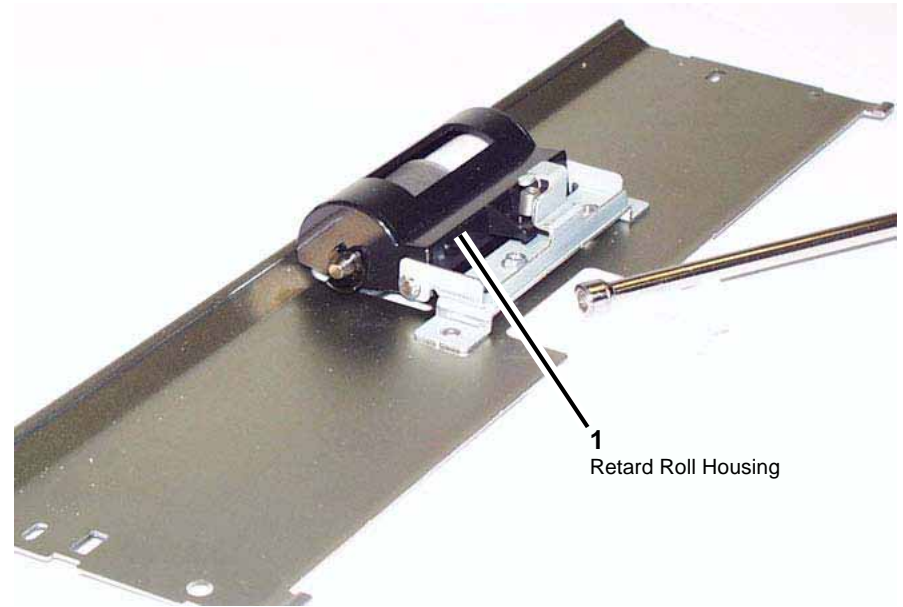


Figure 1 Retard Roll Housing

4. Invert the Housing assembly, then locate and remove the KL-Clip securing the Retard Roll Shaft.
5. Slide the Retard Roll Shaft to the right and remove the Retard Roll.

### Replacement

1. To install, carry out the removal steps in reverse order.

**NOTE:** After resecuring the Retard Roll Housing assembly to the Chute, verify that the Tension Spring is still attached to both the Bracket and the Retard Roll Housing. To verify spring action, hold the Lower Feeder Chute in one hand, while gently pushing upwards on the Retard Roll with the other hand.

## REP 5.23 DADF Platen Exit Roll

Parts List on [PL 14.9](#)

### Removal

#### WARNING

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

1. Remove the DADF. [REP 5.1](#)
2. Remove the DADF Front Cover. [REP 5.3](#)
3. Remove the DADF Rear Cover. [REP 5.3](#)
4. At the rear of the DADF, remove the (2) screws used to secure the harness guide and move the harness guide toward you. [Figure 1](#)
  - a. Remove the securing screws (2).
  - b. Unplug the connectors to all five (5) motors.
  - c. Unplug the connector to the DADF Feed Clutch. [PL 14.6](#)
  - d. Untwist the wire tie at the left end of the harness.
  - e. Lift up the harness guide and move it toward you, carefully disengaging the wire loom, as necessary, to move the guide out of the way. If the wire loom becomes a problem, additional portions of the loom can be disconnected at the DADF PWB.

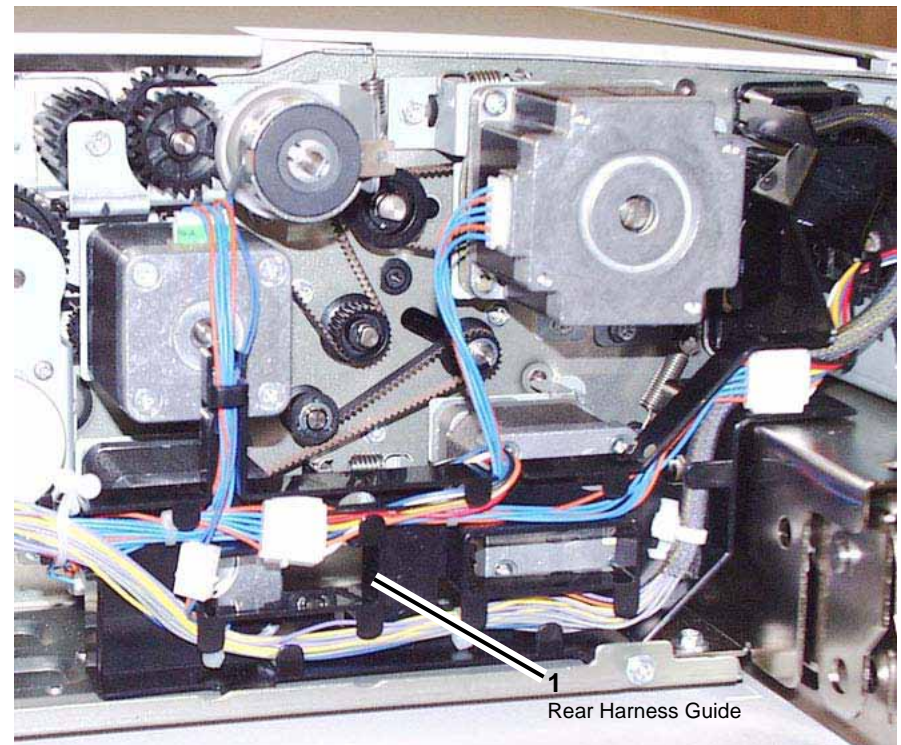
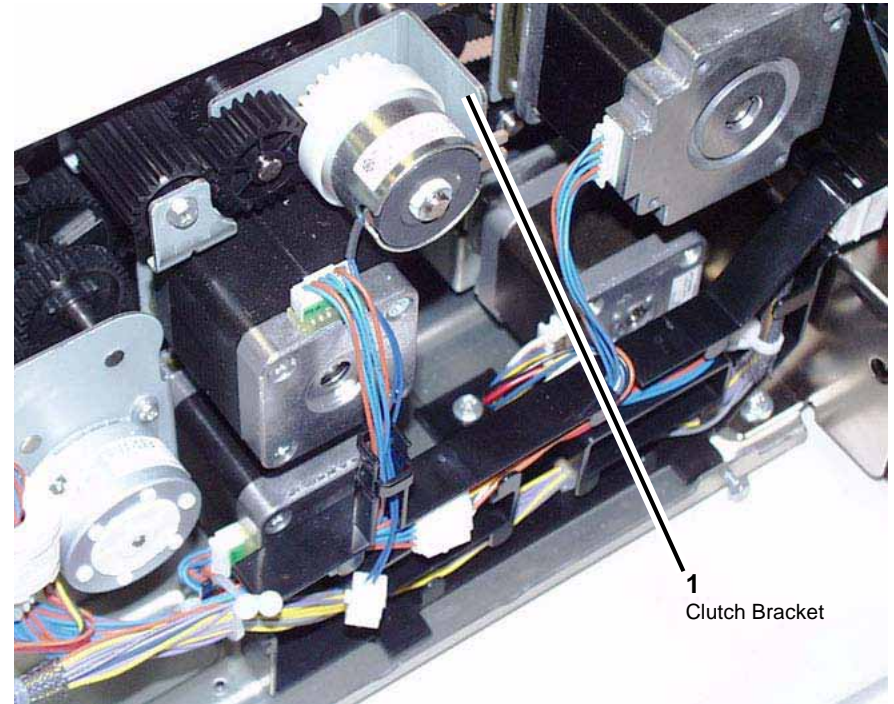


Figure 1 Rear Harness Guide



5. Remove the Pre Registration Motor. [PL 14.7](#)
  - a. Remove the spring.
  - b. Remove the screws (3).
  - c. Remove the Pre Registration (Pre Reg) Motor.
6. Remove the Registration Motor. [PL 14.8](#)
  - a. Disconnect the connector.
  - b. Remove the spring.
  - c. Remove the screws (2).
  - d. Remove the Registration Motor.
7. Remove the Left Counter Balance. [PL 14.3](#)
  - a. Remove the (4) screws at the base of the Counter Balance.
  - b. Remove the (2) screws securing the Bracket to the top of the Counter Balance.
  - c. Remove the Left Counter Balance.
8. Open the Feeder Upper Chute. [PL 14.5](#)
9. Remove the Feeder Lower Chute.
  - a. Remove the securing screws (4).
  - b. Remove the Feeder Lower Chute.
10. Remove the pulley and bearing attached to the Takeaway Roll at the rear of the DADF. [PL 14.7](#)
  - a. Remove the E-Ring.
  - b. Remove the pulley.
  - c. Remove the R-Ring.
  - d. Remove the bearing.
11. Remove the bearing attached to the Takeaway Roll at the front of the DADF.
  - a. Remove the KL-Clip.
  - b. Remove the bearing.
12. Remove the Takeaway Roll.
13. Remove the Clutch Bracket. [PL 14.6 Figure 2](#)
  - a. Disconnect the connector.
  - b. Remove the spring.
  - c. Remove the screws (2).
  - d. Remove the Clutch Bracket.



**Figure 2 Clutch Bracket**

14. Remove the DADF Feed Motor.
  - a. Disconnect the connector.
  - b. Remove the screws (2).
  - c. Remove the DADF Feed Motor.
15. At the front of the copier/printer, disconnect the connector and remove (2) screws used to secure the harness guide. Note that one screw is hidden behind the loom of wires. [Figure 3](#)

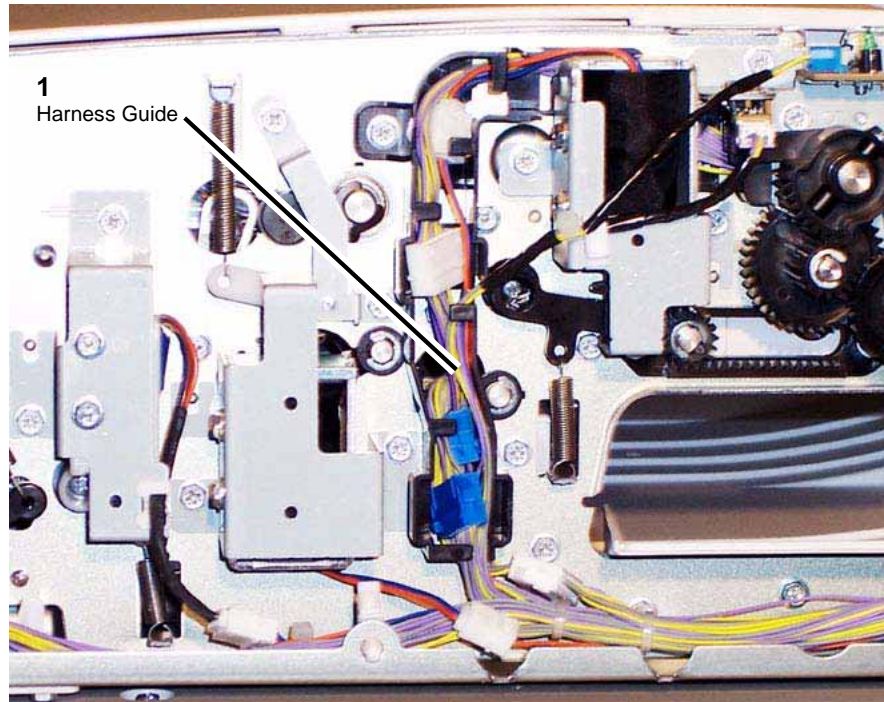


Figure 3 Harness Guide

16. Move the harness guide to the left.
17. Remove the Invert Roll Nip/Release Solenoid. [PL 14.11 Figure 4](#)
  - a. Disconnect the connector.
  - b. Observe the alignment of the mark on the solenoid's right bracket with the marks on the sheet metal of the DADF.
  - c. Loosen the screws (2).
  - d. Remove the Invert Roll Nip/Release Solenoid.

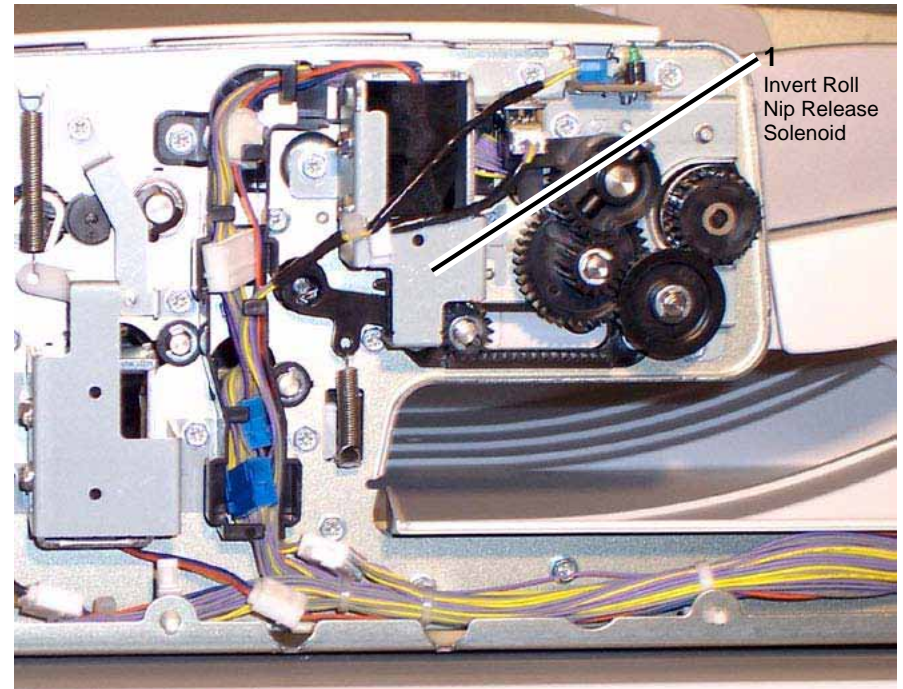


Figure 4 Invert Roll Nip Release Solenoid

18. Remove the Link.
  - a. Remove the screw (1).
  - b. Remove the Tension Spring.
  - c. Remove the Link.
19. Remove the Invert Chute. [PL 14.12](#)
  - a. Remove the C-Clip.
  - b. Remove the bearing.
  - c. Remove the Invert Chute (moving it toward the front of the copier/printer).
20. Remove the Inverter Exit Chute. [PL 14.11](#)
  - a. Remove the screws (4).
  - b. Remove the Inverter Exit Chute.
21. Remove the Invert Drive Roll. [PL 14.6](#)
  - a. Remove the pulley while releasing the hook.
  - b. Remove the E-Ring.
  - c. Remove the bearing.
  - d. Remove the E-Ring.
  - e. Remove the bearing.
  - f. Remove the Invert Drive Roll.

22. Loosen the (2) screws used to secure the DADF Exit Motor to loosen the tension before removing the Exit Motor Belt. [PL 14.10](#)
  - a. Loosen the screws (2).
  - b. Push the DADF Exit Motor to the right.
  - c. Remove the Exit Motor Belt.
23. Remove the Exit Roll 1.
  - a. Remove the E-Ring.
  - b. Remove the Pulley.
  - c. Remove the E-Ring.
  - d. Remove the Bearing.
  - e. Remove the E-Ring.
  - f. Remove the Bearing.
  - g. Remove the Exit Roll 1.
24. Remove the Exit Gate Solenoid. [PL 14.11 Figure 5](#)
  - a. Release the cable clamp.
  - b. Disconnect the connector.
  - c. Remove the screws (2).
  - d. Remove the Exit Gate Solenoid.

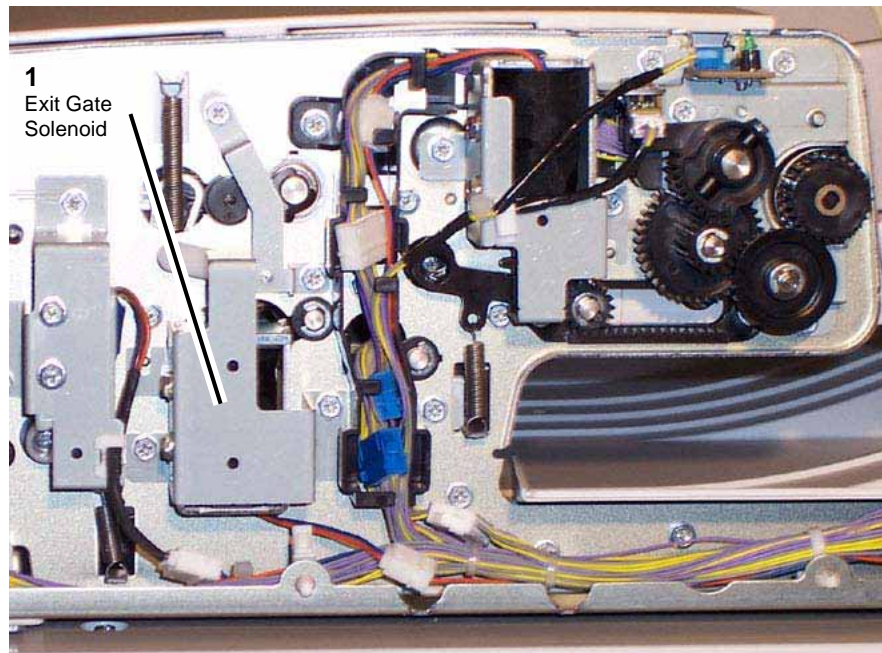


Figure 5 Exit Gate Solenoid

25. Remove the Gate Link Bracket.
  - a. Remove the screws (2).

- b. Remove the Gate Link Bracket.
26. Remove the Tension Spring and Link.
27. Remove the Inverter Lower Gate. [PL 14.11](#)
  - a. Remove the Inverter Lower Gate.
  - b. Remove the bearing.
28. Remove Exit Roll 2.
  - a. Remove the E-Ring.
  - b. Remove the Pulley.
  - c. Remove the E-Ring.
  - d. Remove the Bearing.
  - e. Remove the E-Ring.
  - f. Remove the Bearing.
  - g. Remove Exit Roll 2.
29. Disconnect the connectors to the DADF Exit Sensor 1 and the DADF Exit Sensor 2.
 

**NOTE:** For reference purposes, the Blue connector is connected to the DADF Exit Sensor 1, and the White connector is connected to the DADF Exit Sensor 2.
30. Remove the Exit Upper Chute. [PL 14.23](#)
  - a. Remove the screws (4).
  - b. Remove the Exit Upper Chute.
31. Remove the Guide Upper Chute. [PL 14.12](#)
  - a. Open the Invert Chute.
  - b. Remove (2) screws securing the Guide Upper Chute.
  - c. Remove the Guide Upper Chute.
32. Remove the Guide Chute. [PL 14.22](#)
  - a. Remove the Tapping Screws (4).
  - b. Remove the Guide Chute.
33. Disconnect (2) connectors connected to the Guide Chute. [PL 14.22](#)
  - a. Disconnect the Platen Exit Sensor, which is the lower of the two sensors.
  - b. Disconnect the Invert Sensor, which is the upper of the two sensors.
34. At the left rear of the DADF, where the Left Counter Balance was removed, remove the Belt from the Pulley. [PL 14.9](#)
  - a. Loosen the screw (1) of the Tension Bracket.
  - b. Slide the Tension Bracket up.
  - c. Remove the belt from the pulley.
35. Loosen the Platen Motor tension.
  - a. Loosen the screws (2) used to secure the Platen Motor.
  - b. Detach the Platen Spring.
  - c. Move the Platen Motor to release belt tension.
36. Remove the Pulley and the Shoulder Screw.
  - a. Remove the E-Ring.
  - b. Remove the Pulley.
  - c. Remove the Shoulder Screw.
37. Remove the Registration Roll Pulley. [PL 14.8](#)

- a. Remove the E-Ring.
  - b. Remove the Pulley.
38. At the rear of the DADF, remove the Platen Rear Link from the shaft and remove the bearing.
- a. Remove the Platen Rear Link from the shaft.
  - b. Remove the E-Ring.
  - c. Remove the bearing.
39. At the front of the DADF, remove the Platen Front Link from the shaft.
- a. Remove the spring.
  - b. Remove the E-Ring.
  - c. Remove the Platen Front Link from the shaft.
40. Remove the bearing.
- a. Remove the E-Ring.
  - b. Remove the bearing.
41. Remove the Platen Exit Roll.

### Replacement

To install, carry out the removal steps in reverse order.

## REP 5.24 Opening / Closing the IIT Frame

Parts List on [PL 13.1](#)

### Removal

#### WARNING

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

1. Detach the Finisher ([REP 12.50](#)).
2. Remove the Finisher Docking Plate ([PL 21.3](#)).
3. Remove the Tray Assembly and UI. ([REP 4.1](#)).
4. Remove Tray 5 / Bypass ([REP 7.14](#)).
5. Disconnect the HCF connector and remove the Left Upper Cover ([PL 12.2](#)).
6. Remove the IIT Front Cover ([Figure 1](#)).

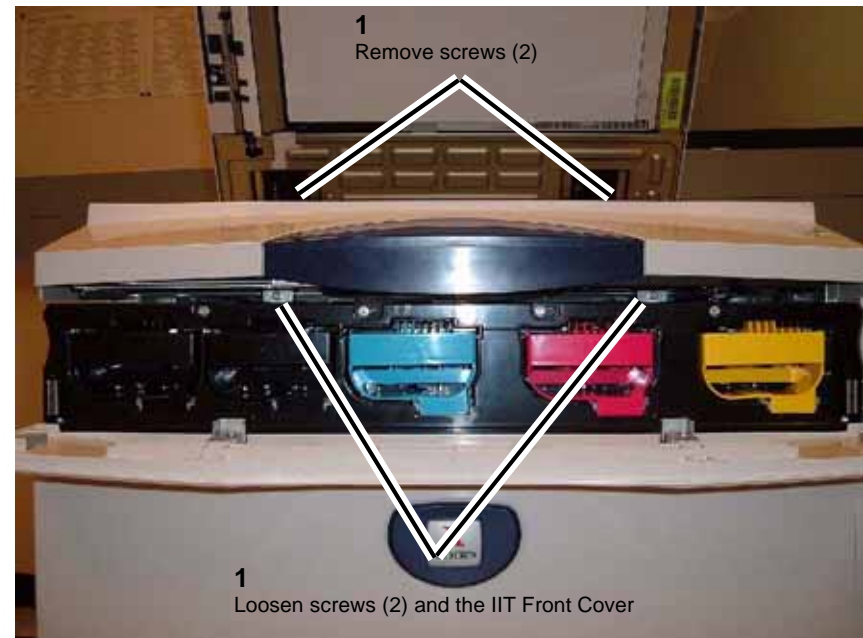
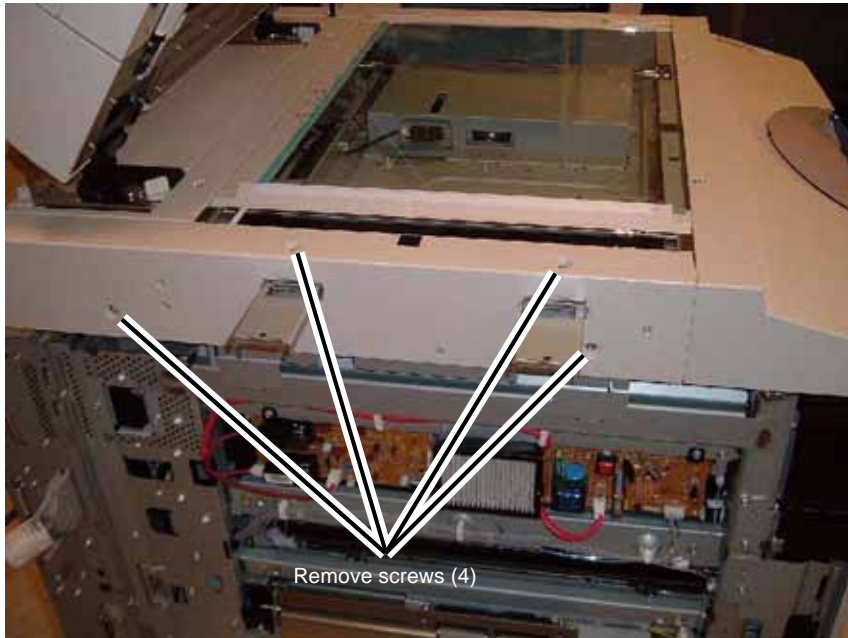


Figure 1 Removing the IIT Front Cover

7. Remove the IIT Left Cover ([Figure 2](#)).



**Figure 2 Removing the IIT Left Cover**

8. Remove the UI Support Bracket ([Figure 3](#)).



**Figure 3 Removing the UI Support Bracket**

9. Remove the IIT Right Cover ([Figure 4](#)).

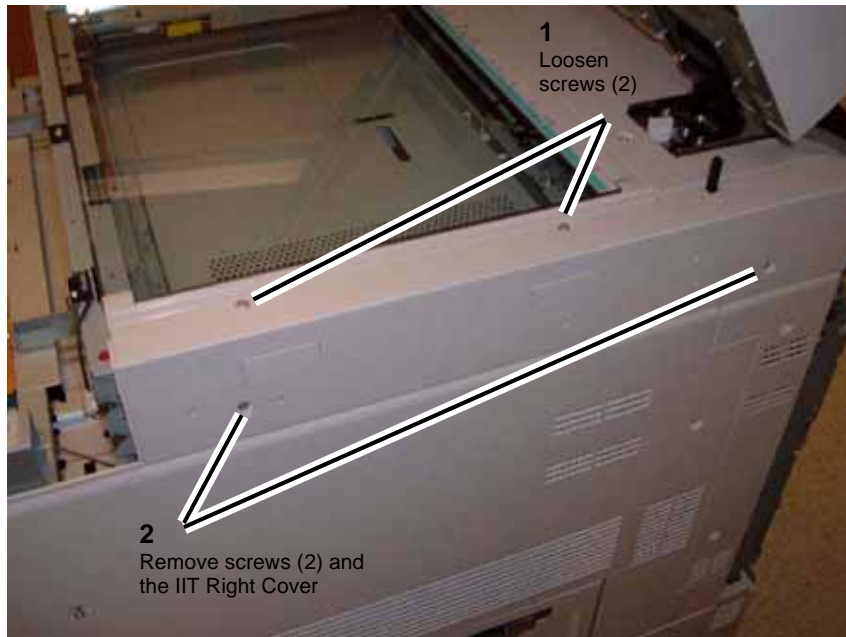


Figure 4 Removing the IIT Right Cover

10. Remove the Right Rear Upper Cover and the Right Upper Cover (Figure 5).

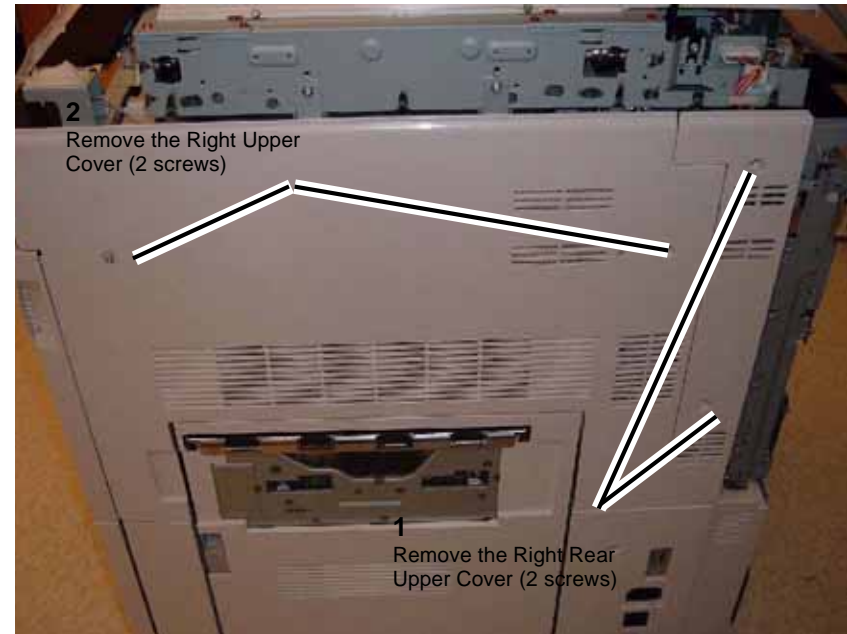


Figure 5 Removing the Right Rear Upper Cover and the Right Upper Cover

11. Remove the Lift Arm used to open/close the IIT Housing (Figure 6).

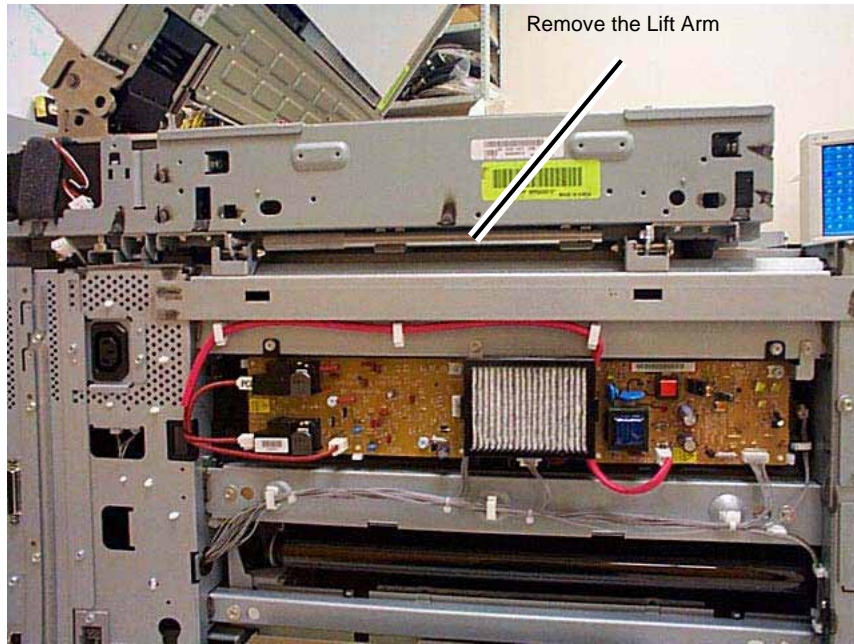


Figure 6 Removing the Lift Arm

12. Prepare to open the IIT Frame (Figure 7).

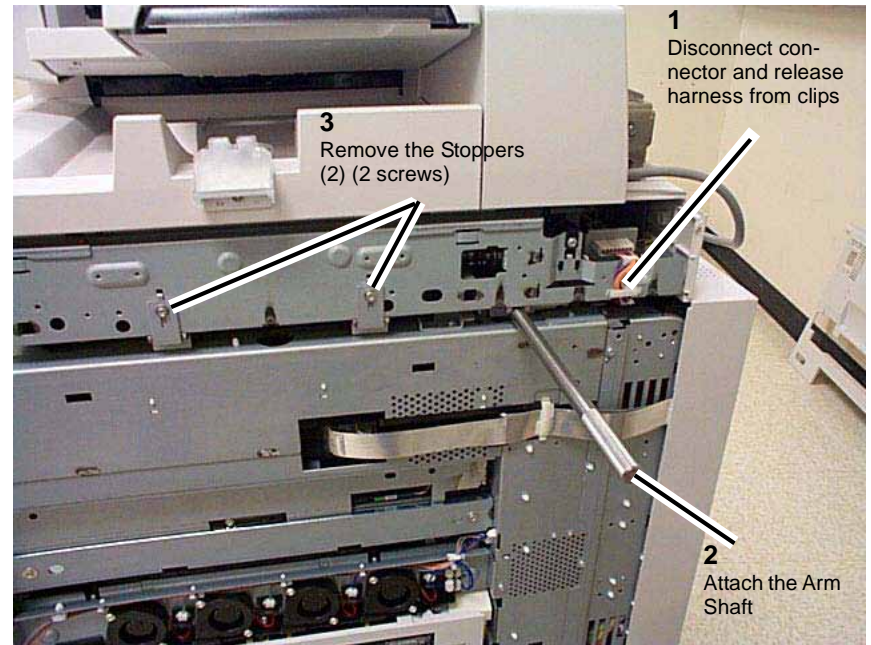
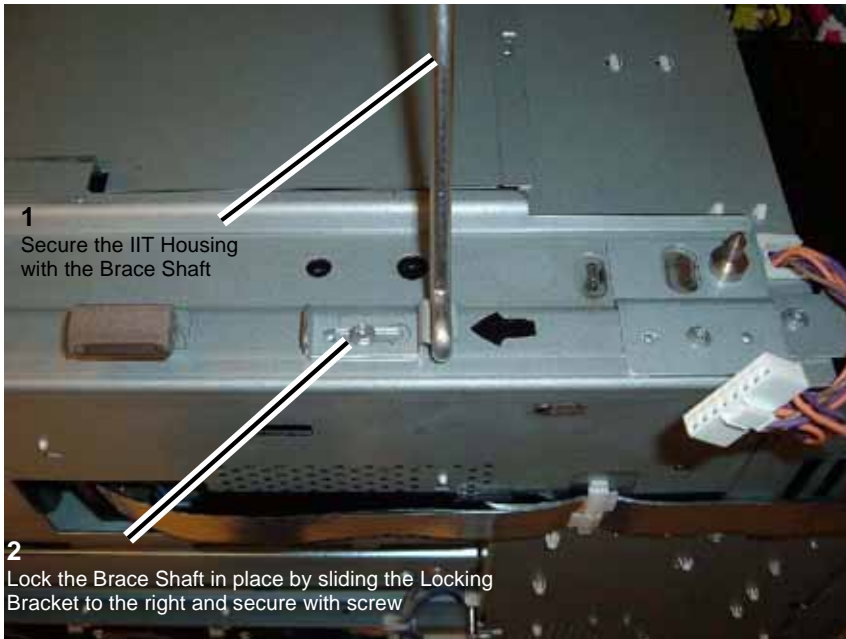


Figure 7 Preparing to open the IIT Frame

13. Using the Arm Shaft, lift up the IIT Frame.

14. Secure the IIT Housing using the Brace Shaft (Figure 8).



**Figure 8 Securing the IIT Housing with the Brace Shaft**

15. After securing the IIT Frame with the Brace Shaft, remove the Arm Shaft used to lift the IIT Frame.

### Replacement

1. To install, perform the removal steps in reverse order.

## REP 5.25 IIT Lens Cover

Parts List on [PL 13.4](#)

### Removal

#### WARNING

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

1. Secure the DADF in the service position. [REP 5.2](#)
2. Undock the finisher, if present.
  - a. Open the finisher front door.
  - b. Release the securing latch.
  - c. Disconnect the connector to the copier/printer.
  - d. Roll the finisher away from the right side of the copier/printer.
3. Remove the IIT Right Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Right Cover.
4. Remove the Right Plate. [PL 13.4](#)
5. Remove the Platen Glass by lifting it up from the right side. [PL 13.4](#)
6. Loosen the Lens Cover screws (10).
7. Slide the cover to the left to disengage it from its securing screws.
8. Carefully lift the cover up and out to remove.

### Replacement

1. Carefully lower the Lens Cover in place, making sure to slide the left rear flange underneath the wire running to APS Sensor 2.
2. Slide the Lens Cover to the right to engage all (10) securing screws.
3. Install the securing screws in the order shown in the figure. [Figure 1](#)
  - a. Install the (4) screws indicated in the figure first and secure them in the order shown.
  - b. Install the remaining (6) screws and secure them (preferably in a crisscross pattern).



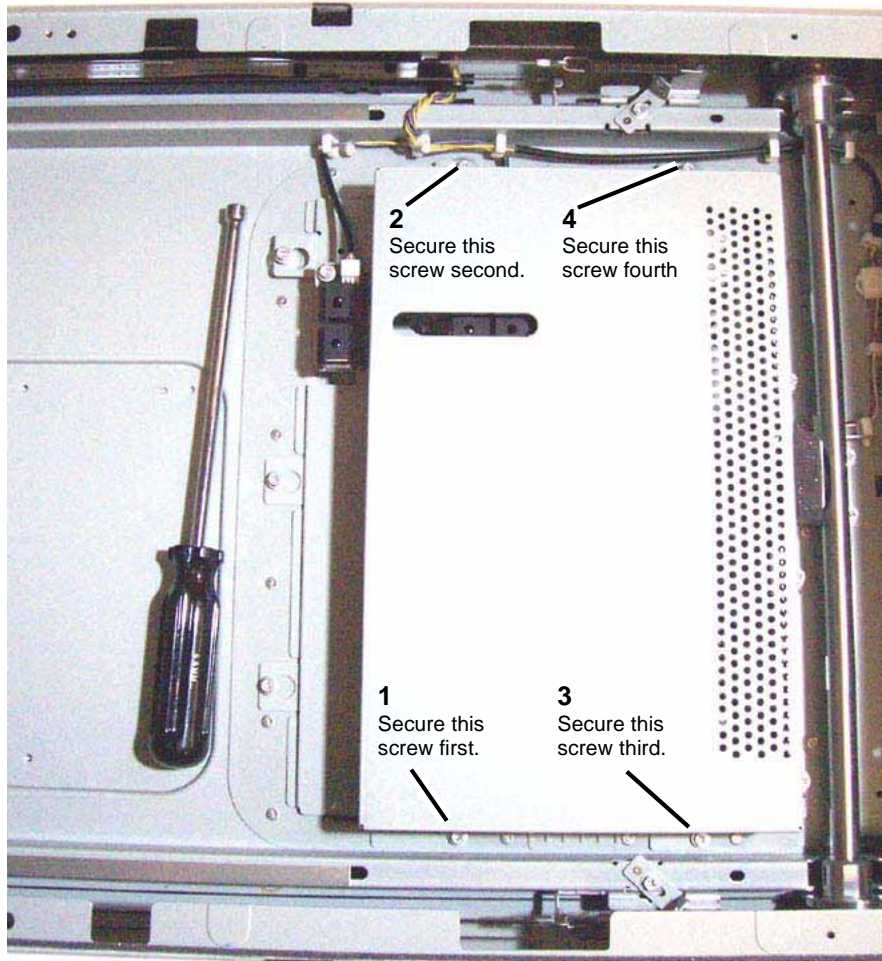


Figure 1 Lens Cover Screw Securing Sequence

4. Reinstall the Platen Glass. [PL 13.4](#)
5. Reinstall the Right Plate. [PL 13.4](#)
6. Reinstall the IIT Right Cover. [PL 13.2](#)
7. Return the DADF to the normal operating position.

## REP 5.26 IIT Registration Sensor

Parts List on [PL 13.6](#)

### Removal

#### WARNING

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

1. Raise the DADF to the fully open position.
2. Remove the IIT Rear Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Rear Cover.
3. Remove the Top Rear Cover 2. [PL 13.1](#)
  - a. Slide the cover out to the rear of the copier/printer. There are no screws to remove.
  - b. Remove the Top Rear Cover 2.
4. Remove the IIT Registration Sensor Bracket. [Figure 1](#)
  - a. Remove the securing screw (1).
  - b. Remove the Sensor Bracket.

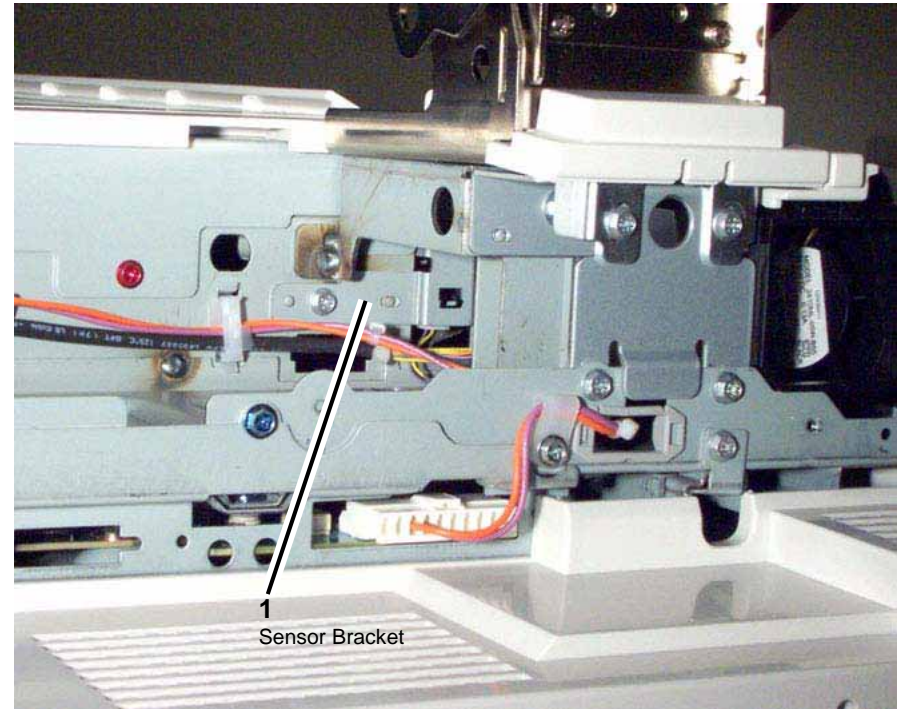


Figure 1 IIT Registration Sensor Bracket

5. Detach the IIT Registration Sensor from the Sensor Bracket. [Figure 2](#)
  - a. Disconnect the connector and detach the sensor from the bracket.

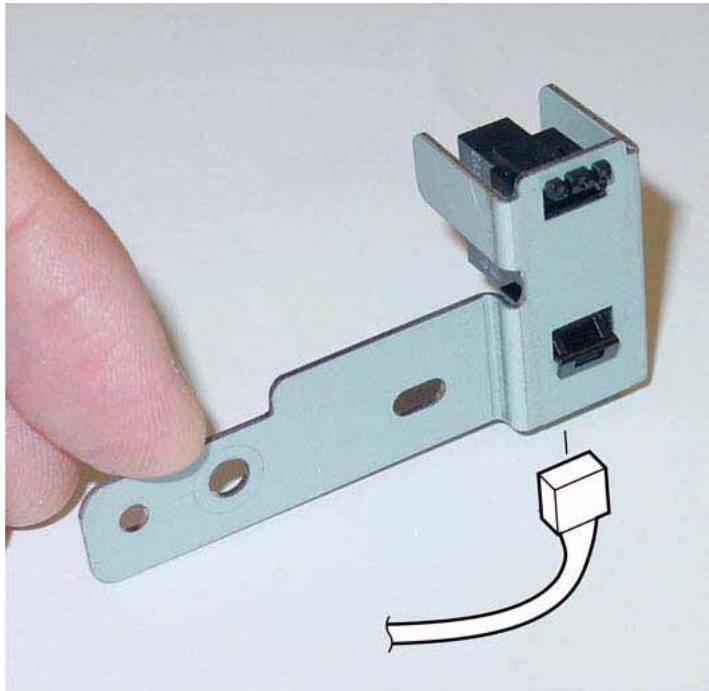


Figure 2 IIT Registration Sensor

## Replacement

1. To install, perform the removal steps in reverse order.

## REP 5.27 Platen Angle Sensor

Parts List on [PL 13.6](#)

### Removal

#### WARNING

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

1. Raise the DADF to the fully open position.
2. Undock the finisher, if present.
  - a. Open the finisher front door.
  - b. Release the securing latch.
  - c. Disconnect the connector to the copier/printer.
  - d. Roll the finisher away from the right side of the copier/printer.
3. Remove the IIT Right Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Right Cover.
4. Disconnect the Actuator. [Figure 1](#)
  - a. Remove the securing screw.
  - b. Disconnect the Actuator.
5. Remove the Platen Angle Sensor. [Figure 1](#)
  - a. Disconnect the Connector.
  - b. Remove the Platen Angle Sensor.

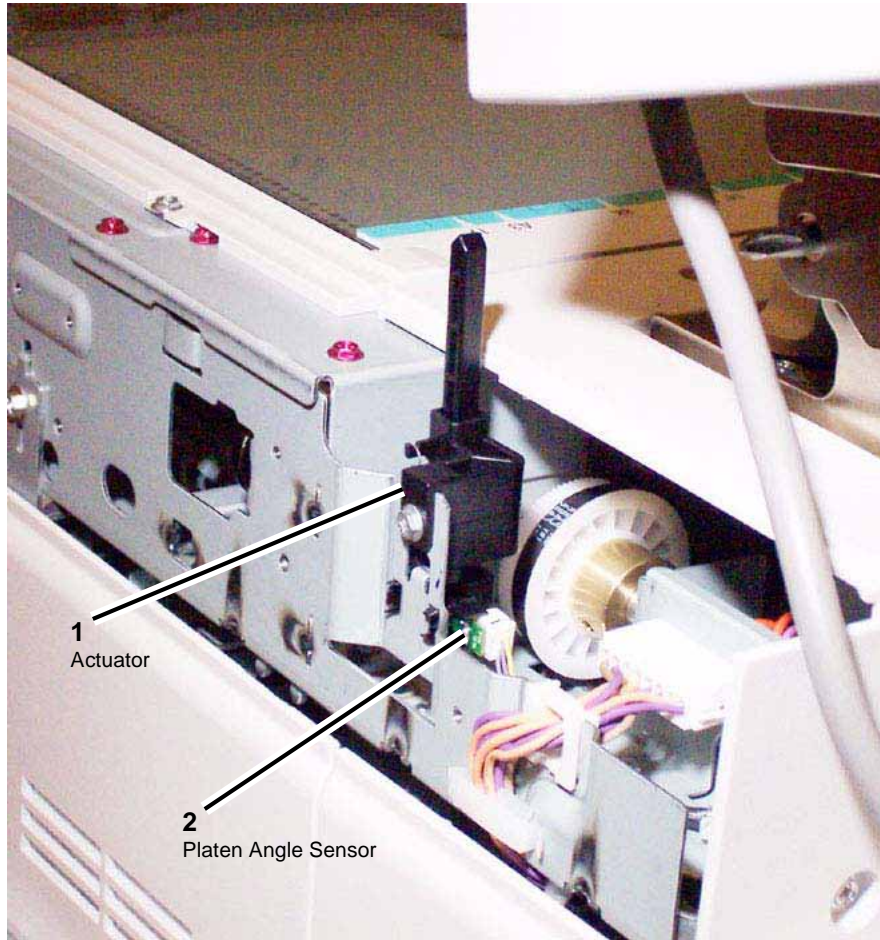


Figure 1 Actuator and Platen Angle Sensor

### Replacement

1. To install, perform the removal steps in reverse order.

## REP 5.28 CCD Flexible Print Cable

Parts List on [PL 13.6](#)

### Removal

#### WARNING

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

1. Secure the DADF in the service position. [REP 5.2](#)
2. Remove the Lens Cover. [REP 5.25](#)
3. Remove the Lens Assembly. [REP 5.29](#)
4. Remove the Gasket Bracket. [Figure 1](#)
  - a. Remove the (2) securing Screws (Blue).
  - b. Remove the Gasket Bracket.
5. Remove the CCD Flexible Print Cable. [Figure 1](#)
  - a. Remove the securing screws (4).
  - b. Peel off the double-sided tape.
  - c. Pull the bracket toward you and disconnect the connector.

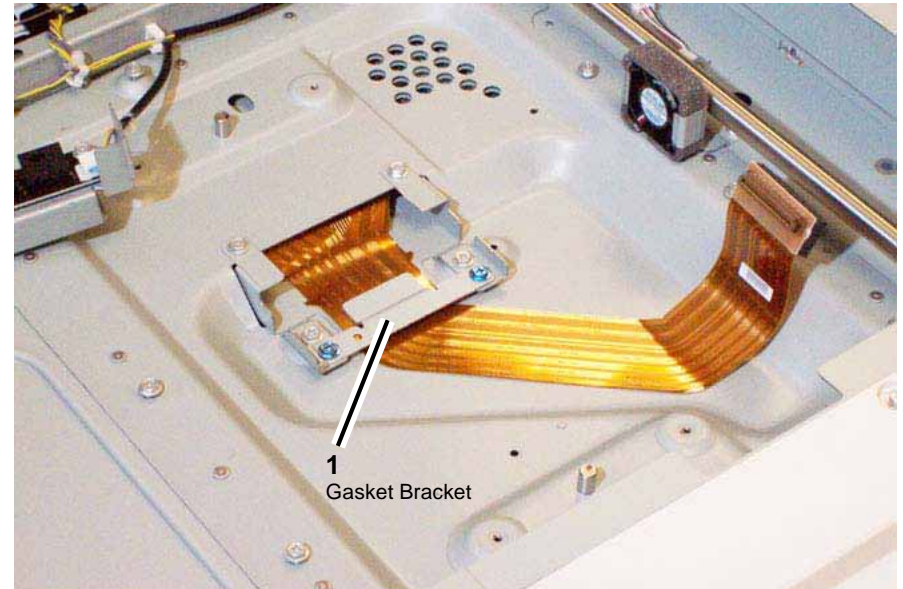


Figure 1 CCD Flexible Print Cable

### Replacement

1. To install, perform the removal steps in reverse order.

## REP 5.29 IIT Lens Assembly

Parts List on [PL 13.6](#)

### Removal

#### WARNING

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

1. Secure the DADF in the service position. [REP 5.2](#)
2. Remove the Lens Cover. [REP 5.25](#)
3. Move the APS Sensors 1 and 2 out of the way by removing (2) screws. (Leave the connectors connected.) [PL 13.4](#)
4. Remove the Lens Assembly. [Figure 1](#)
  - a. When replacing: Remove the Conductor Plate. [PL 13.4](#)
  - b. Disconnect the CCD Flexible Print Cable from the Lens Assembly.
  - c. Remove the screws (4).
  - d. Remove the Lens Assembly.

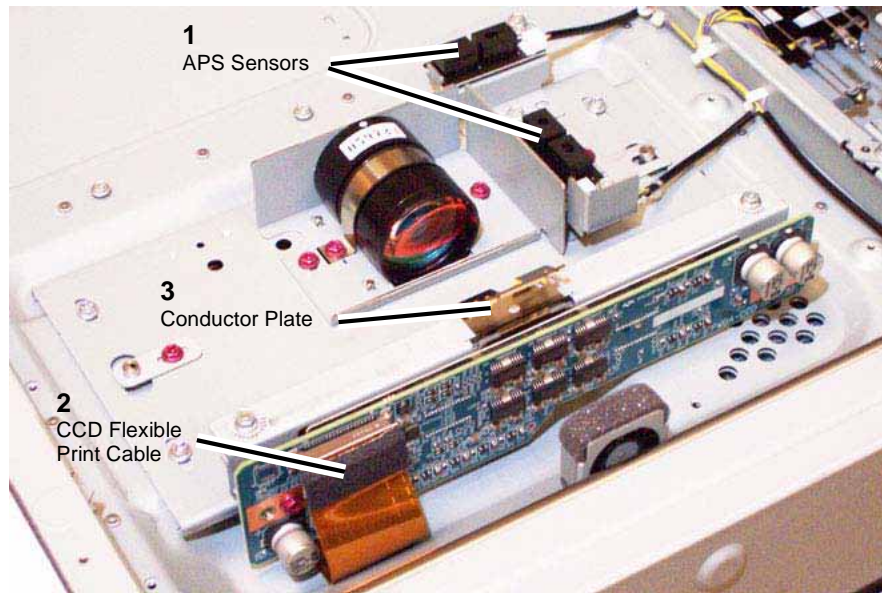


Figure 1 IIT Lens Assembly

### Replacement

1. To install, perform the removal steps in reverse order.
2. Check the Optical Axis Alignment

## REP 5.30 IPS Fan

Parts List on [PL 13.6](#)

### Removal

#### WARNING

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

1. Raise the DADF to the fully open position.
2. Remove the IIT Rear Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Rear Cover.
3. Remove the Top Rear Cover 2. [PL 13.1](#)
  - a. Slide the cover out to the rear of the copier/printer. There are no screws to remove.
  - b. Remove the Top Rear Cover 2.
4. Remove the IPS Fan from the centrally-located Duct at the rear of the IIT.
  - a. Disconnect the connector to the fan.
  - b. Disengage the (3) plastic clips on the Duct.
  - c. Separate the top portion of the Duct from the bottom portion.
  - d. Observe the fan direction before removal, then remove the IPS Fan.

### Replacement

1. To install, perform the removal steps in reverse order.

## REP 5.31 Lamp Fan

Parts List on [PL 13.6](#)

### Removal

#### WARNING

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

1. Raise the DADF to the fully open position.
2. Remove the Tray Assembly, and attached UI, from the left side of the copier/printer. [PL 17.2](#)
  - a. Disconnect (2) screws securing the UI cable connector to the left side of the copier/printer and unplug the connector.
  - b. Remove (2) Thumb Screws from the underside of the Tray Assembly, where the Tray Assembly meets the left side of the copier/printer.
  - c. Remove (1) screw each from the center of the left and right support brackets on the underside of the Tray Assembly.
  - d. Lift the Tray Assembly up to remove.
  - e. Place the Tray Assembly out of the way on a flat surface.
3. Remove the IIT Left Cover. [PL 13.1](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Left Cover.
4. At the upper, left rear corner of the copier/printer, disconnect the Lamp Fan connector and unhook the wire harness.
5. Observe the fan direction before removal, then remove the Lamp Fan.

### Replacement

1. To install, perform the removal steps in reverse order.

## REP 5.32 CCD Fan

Parts List on [PL 13.6](#)

### Removal

#### WARNING

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

1. Secure the DADF in the service position. [REP 5.2](#)
2. Remove the Lens Cover. [REP 5.25](#)
3. Remove the CCD Fan. [Figure 1](#)
  - a. Disconnect the Connector.
  - b. Release the clamps to remove the wire harness.
  - c. Remove the screws (2).
  - d. Remove the CCD Fan.

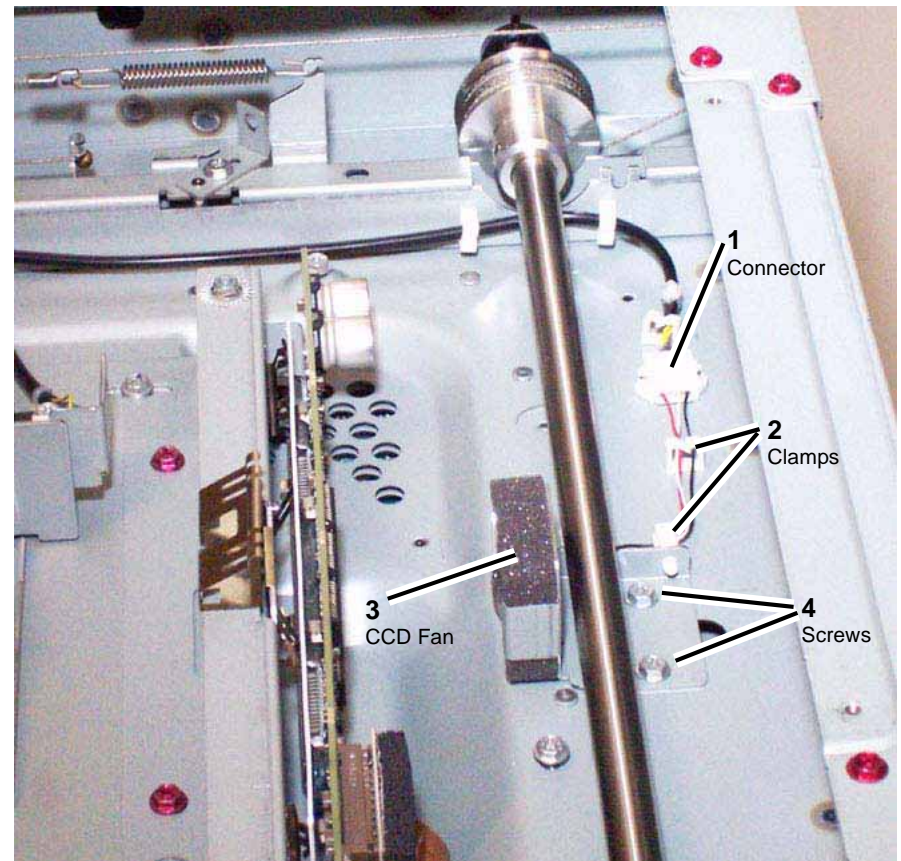


Figure 1 CCD Fan and wire harness

4. Detach the CCD Fan from the Fan Bracket. [Figure 2](#)
  - a. Release the clamps (2) to remove the wire harness.
  - b. Detach the CCD Fan from the Fan Bracket.

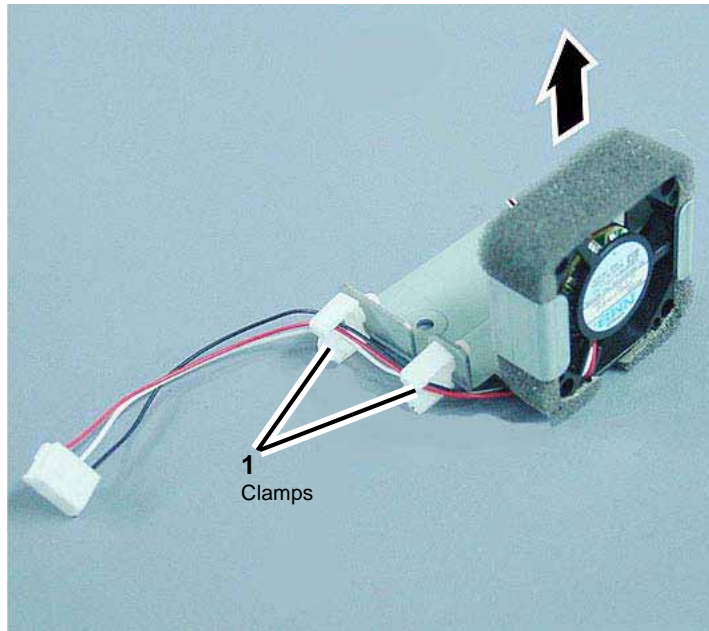


Figure 2 CCD Fan and Fan Bracket

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 5.33 Carriage Motor

Parts List on [PL 13.7](#)

### Removal

#### WARNING

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

1. Secure the DADF in the service position. [REP 5.2](#)
2. Remove the IIT Rear Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Rear Cover.
3. Remove the Top Rear Cover 2. [PL 13.1](#)
  - a. Slide the cover out to the rear of the copier/printer. There are no screws to remove.
  - b. Remove the Top Rear Cover 2.
4. Remove the Rear Upper Cover (of the copier/printer). [PL 12.2](#)
5. Disconnect the Carriage Motor connector at the rear of the IPS. [Figure 1](#)
  - a. Disconnect the connector.
  - b. Release the (3) clamps to disengage the wire harness.

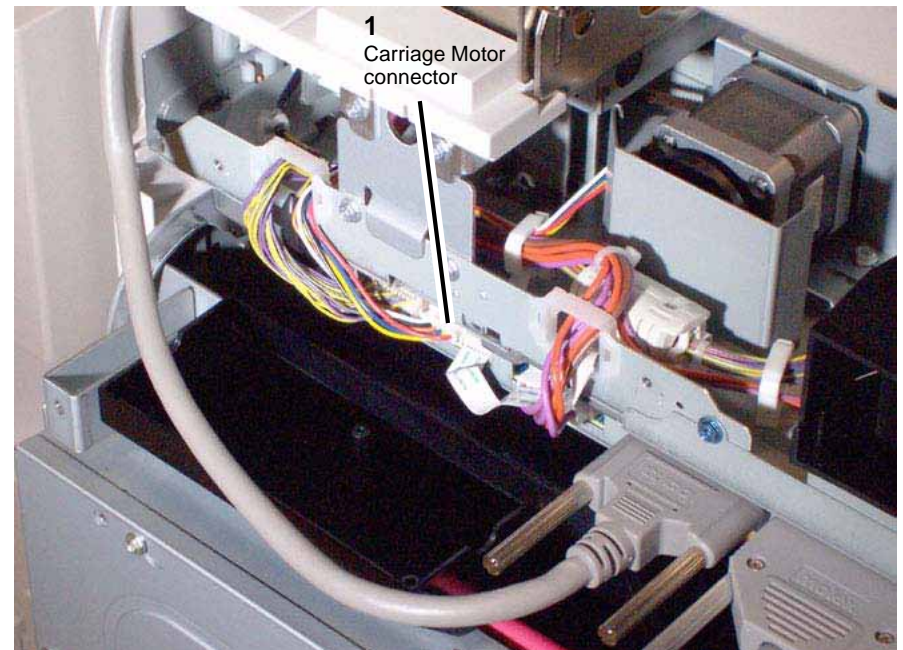


Figure 1 Carriage Motor connector

6. Remove the Motor Guard. [Figure 2](#)
  - a. Remove (2) securing screws.

- b. Remove the Motor Guard.

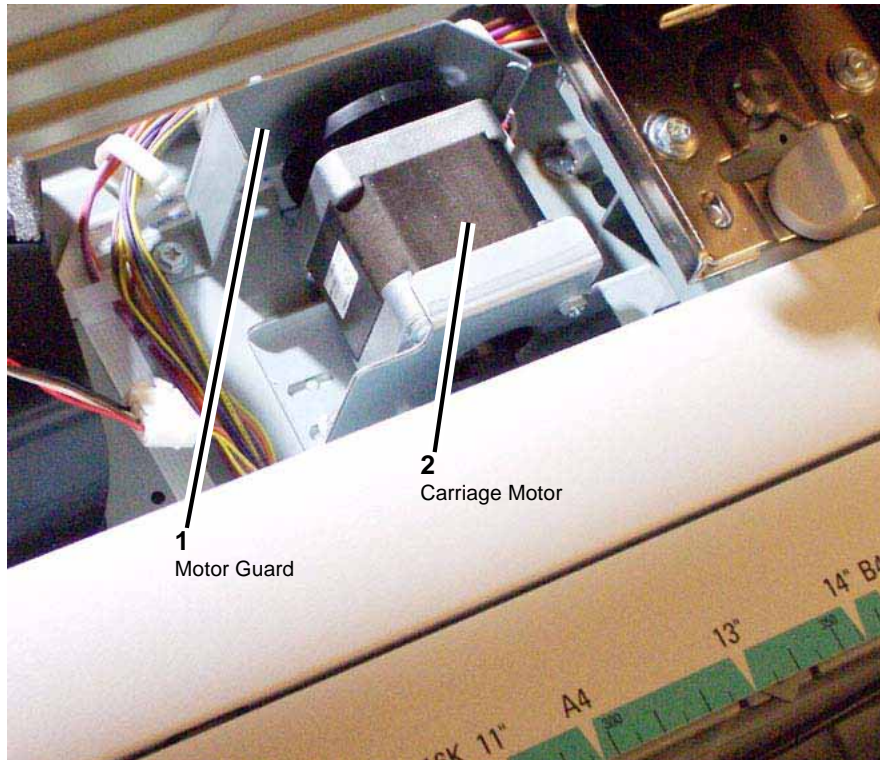


Figure 2 Carriage Motor Guard

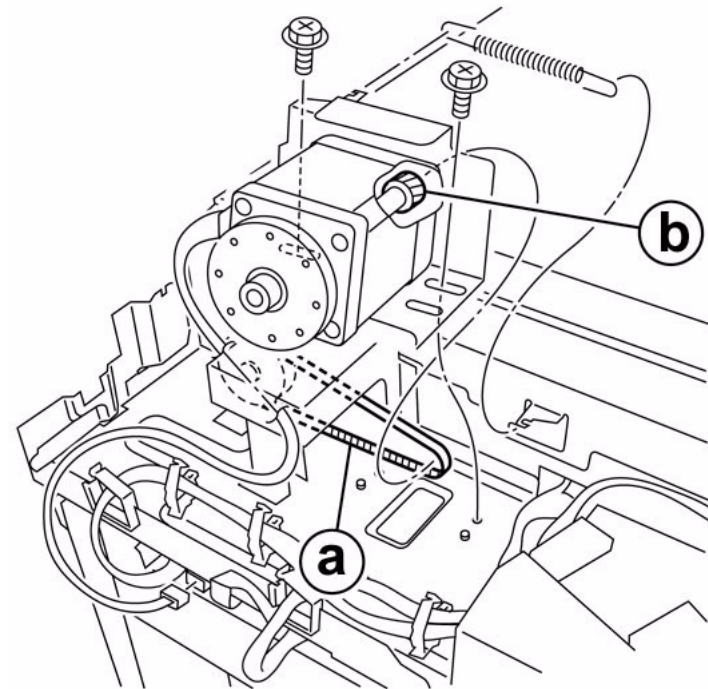


Figure 3 Carriage Motor Belt and Pulley

7. Remove the (2) screws securing the Carriage Motor from the front.
8. Remove the Carriage Motor from the rear.
  - a. Remove the Tension Spring.
  - b. Unhook the Belt from the Pulley.
  - c. Remove the Carriage Motor and its attached wire harness.

### Replacement

1. To install, carry out the removal steps in reverse order.
2. Route the Pulley on the Belt when installing the Carriage Motor. [Figure 3](#)
  - a. Belt
  - b. Pulley

## REP 5.34 Full Rate Carriage

Parts List on [PL 13.7](#)

### Removal

#### WARNING

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

- Secure the DADF in the service position. [REP 5.2](#)
- Undock the finisher, if present.
  - Open the finisher front door.
  - Release the securing latch.
  - Disconnect the connector to the copier/printer.
  - Roll the finisher away from the right side of the copier/printer.
- Remove the IIT Right Cover. [PL 13.2](#)
  - Remove (4) securing screws.
  - Remove the IIT Right Cover.
- Remove the Right Plate. [PL 13.4](#)
- Remove the Platen Glass by lifting it up from the right side. [PL 13.4](#)
- Remove the screws used to secure the Carriage Cable at the notch in the IIT frame. [Figure 1](#)
  - Move the Full Rate Carriage to the notch in the IIT Frame.
  - Remove the screws (Blue 2).

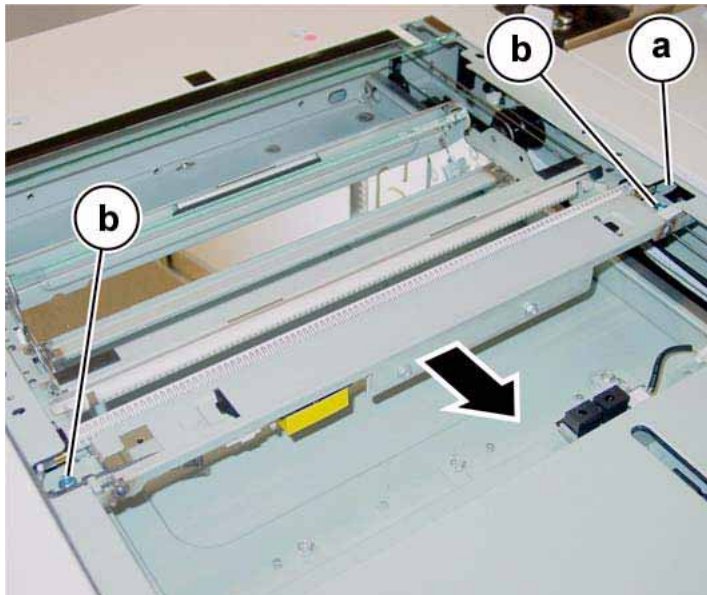


Figure 1 Full Rate Carriage securing screws

- Remove the Full Rate Carriage. [Figure 2](#)
  - Rotate the Full Rate Carriage in the direction of the arrows.
  - Remove the Full Rate Carriage.

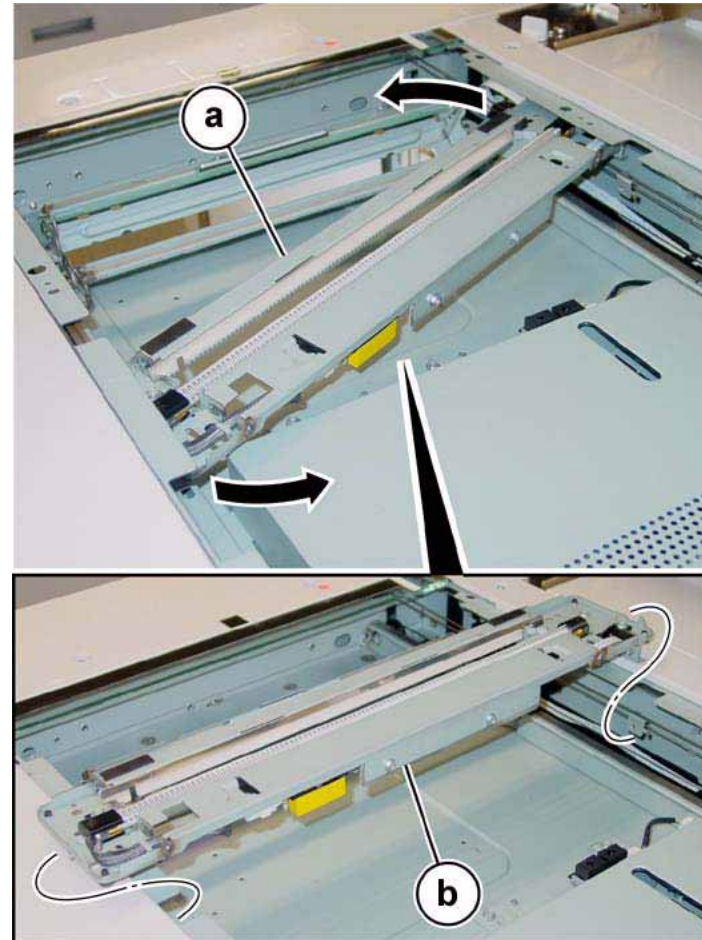


Figure 2 Full Rate Carriage removal

### Replacement

- To install, carry out the removal steps in reverse order.
- Adjust the position of the Full Rate/Half Rate Carriages. [ADJ 5.8](#)



## REP 5.35 Rear Carriage Cable

### Parts List on [PL 13.7](#)

#### Removal

**NOTE:** The coatings of the Carriage Cable at the front and rear are different.

- Front: Black
- Rear: Silver

**NOTE:** This procedure describes the installation and removal procedures for the Rear Carriage Cable only.

#### WARNING

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

**NOTE:** The Front and Rear Carriage Cables must be installed separately.

1. Secure the DADF in the service position. [REP 5.2](#)
2. Undock the finisher, if present.
  - a. Open the finisher front door.
  - b. Release the securing latch.
  - c. Disconnect the connector to the copier/printer.
  - d. Roll the finisher away from the right side of the copier/printer.
3. Remove the IIT Right Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Right Cover.
4. Remove the Right Plate. [PL 13.4](#)
5. Remove the Platen Glass by lifting it up from the right side. [PL 13.4](#)
6. Remove the Tray Assembly, and attached UI, from the left side of the copier/printer. [PL 17.2](#)
  - a. Disconnect (2) screws securing the UI cable connector to the left side of the copier/printer and unplug the connector.
  - b. Remove (2) Thumb Screws from the underside of the Tray Assembly, where the Tray Assembly meets the left side of the copier/printer.
  - c. Remove (1) screw each from the center of the left and right support brackets on the underside of the Tray Assembly.
  - d. Lift the Tray Assembly up to remove.
  - e. Place the Tray Assembly out of the way on a flat surface.
7. Remove the IIT Left Cover. [PL 13.1](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Left Cover.
8. Remove the IIT Front Cover. [PL 13.1](#)
  - a. Remove (4) securing screws.
    - Top (2) screws.
    - Front (2) screws, located behind the front Toner Cartridge Cover. [PL 6.2](#)
  - b. Remove the IIT Front Cover.
9. Mark the installation position of the Front Support. [PL 13.4 Figure 1](#)

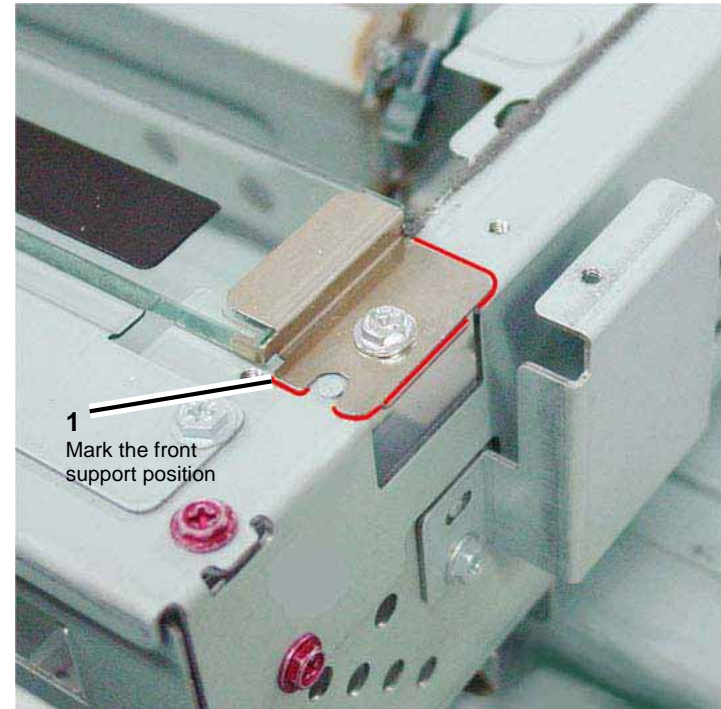
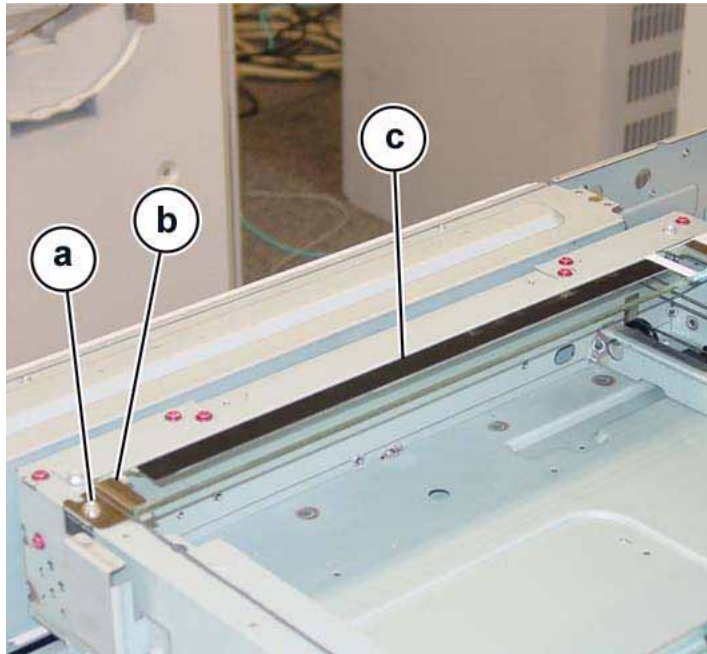


Figure 1 Marking the front support position

10. Remove the CVT Platen Glass. [PL 13.4 Figure 2](#)
  - a. Remove the screw.
  - b. Remove the Support.
  - c. Remove the CVT Platen Glass.

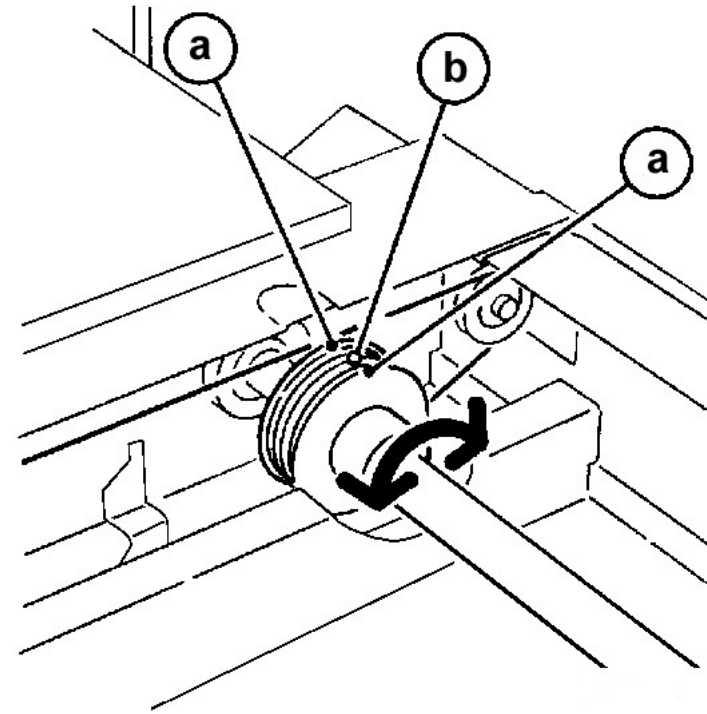


**Figure 2 Removing the CVT Platen Glass**

11. Take out the Full Rate Carriage from the IIT Frame. [REP 5.34](#)

**NOTE:** The Slide Cable Connector can stay connected.

12. Move the Half Rate Carriage until the Carriage Cable ball of the capstan pulley is positioned according to the Conditions (a) and (b) described below. [Figure 3](#)
- a. Turns of the Carriage Cable.
    - Front: 3 Turns
    - Rear: 2 Turns
  - b. The ball is on top.



**Figure 3 Position the Half Rate Carriage**

13. Remove the Carriage Cable. [Figure 4](#)
- a. Remove the Tension Spring.
  - b. Detach the Carriage Cable from the Tension Spring.
  - c. Remove the ball from the groove.
  - d. Remove the Carriage Cable.

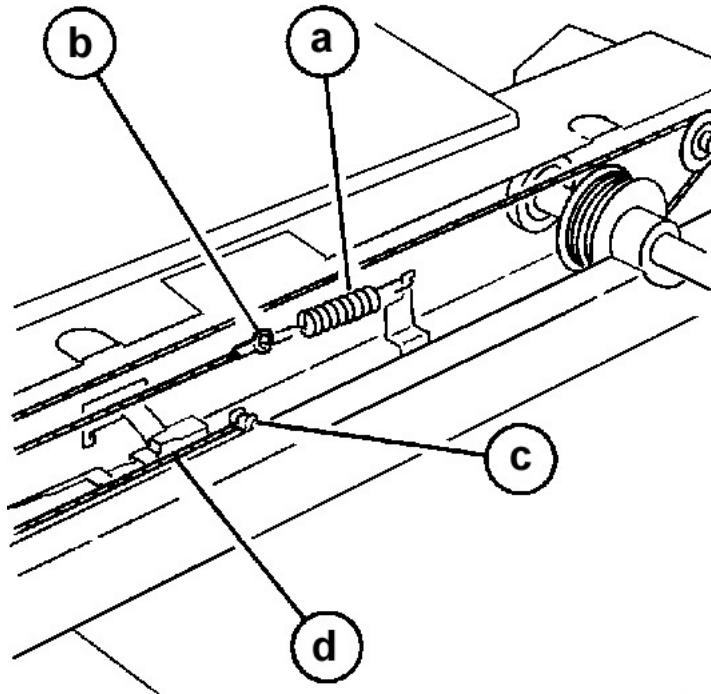


Figure 4 Removing the Carriage Cable

### Replacement

1. Insert the Carriage Cable into the Capstan Pulley. [Figure 5](#)
  - a. Insert the ball into the Capstan Pulley.

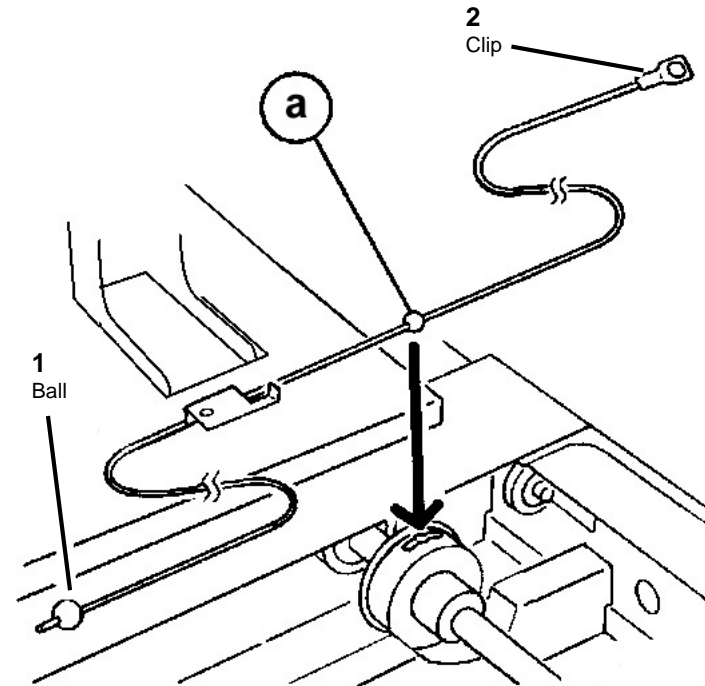


Figure 5 Inserting Carriage Cable Ball into Capstan Pulley

2. Wind the Clip end of the Carriage Cable for 3.5 turns. [Figure 6](#)
  - a. Wind the Clip end of the Carriage Cable on the Capstan Pulley for 3.5 turns.
  - b. Secure the Carriage Cable at the Clip end with tape.

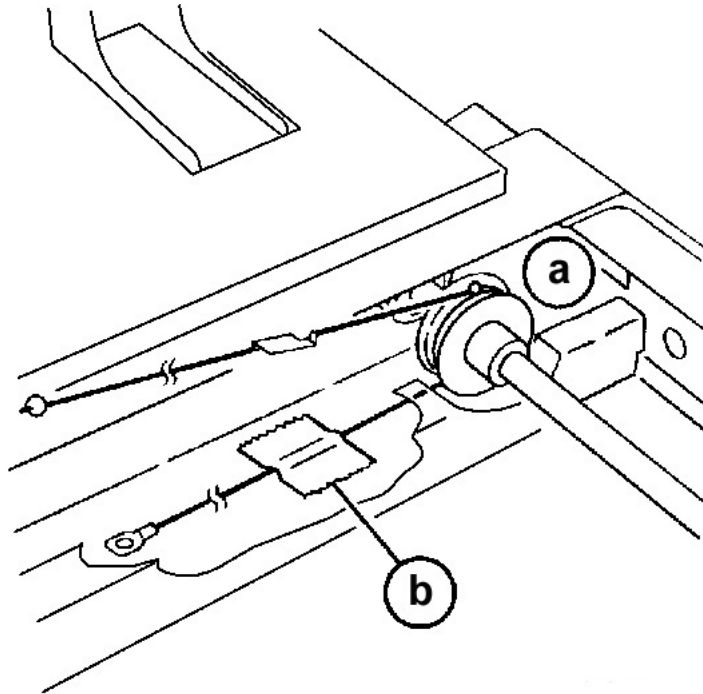


Figure 6 Winding Clip end of Carriage Cable on Capstan Pulley

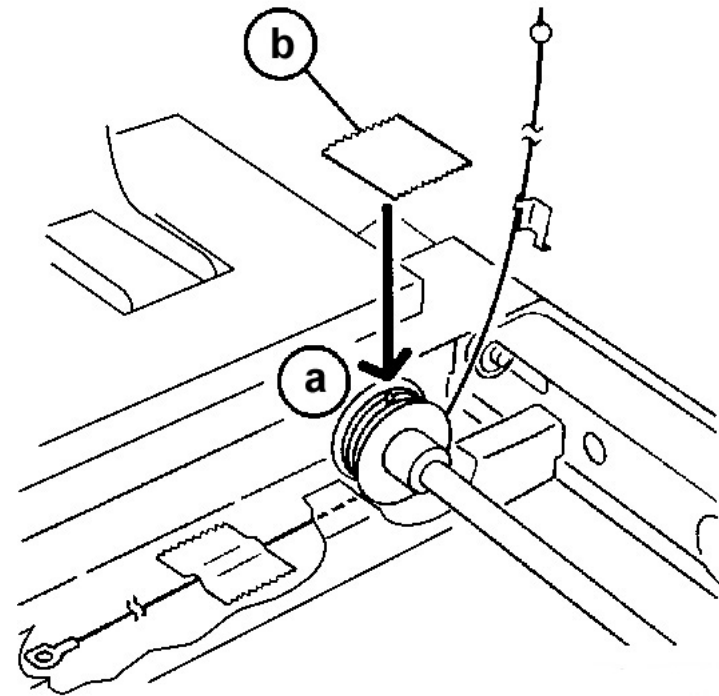
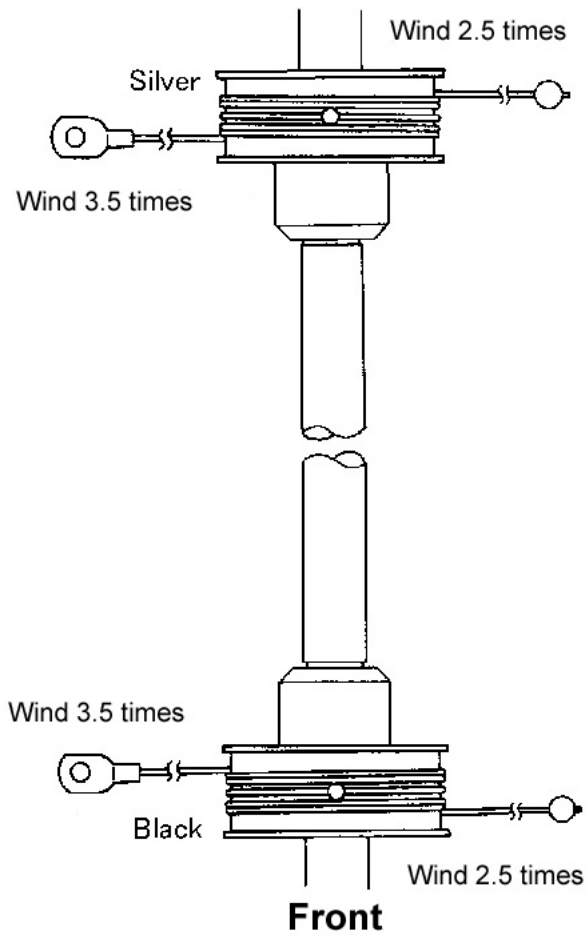


Figure 7 Winding Ball end of Carriage Cable on Capstan Pulley

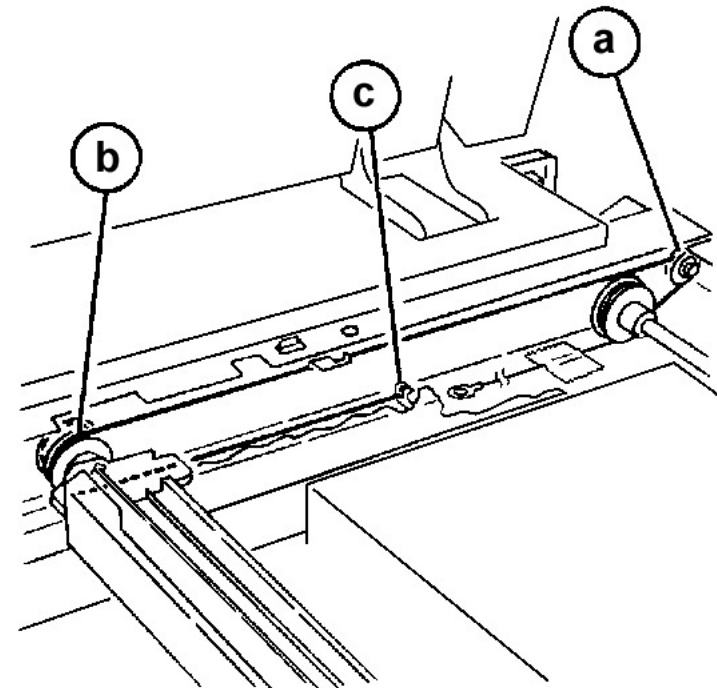
3. Wind the Ball end of the Carriage Cable on the Capstan Pulley for 2.5 turns. [Figure 7](#)
  - a. Wind the Ball end of the Carriage Cable on the Capstan Pulley for 2.5 turns.
  - b. Tape the cable, wound on the Capstan Pulley, to prevent it from loosening.

**NOTE:** The following figure shows the respective number of turns of the Carriage Cable at the front and rear. [Figure 8](#)



**Figure 8 Carriage Cable Turns front and rear**

4. Install the Ball end of the Carriage Cable. [Figure 9](#)
  - a. Hang the Carriage Cable on the pulley. (From bottom to top.)
  - b. Hang it on the larger pulley on the Half Rate Carriage. (From bottom to top.)
  - c. Insert the ball into the groove on the IIT Frame.



**Figure 9 Installing Ball end of Carriage Cable**

5. Install the Clip end of the Carriage Cable. [Figure 10](#)
  - a. Hang the Carriage Cable on the pulley. (From bottom to top.)
  - b. Hang it on the smaller pulley on the Half Rate Carriage. (From bottom to top.)
  - c. Hang the Carriage Cable on the stud. (From bottom to top.)
  - d. Attach the Tension Spring to the Clip of the Carriage Cable.
  - e. Hook the Tension Spring to the IIT Frame.

## REP 5.36 IIT/IPS, BDEC, Extension Memory, PSDC PWBs

Parts List on [PL 13.8](#)

### Removal

#### WARNING

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

#### CAUTION

When handling any PWBs or other devices sensitive to static discharge follow all ESD procedures to prevent damage to the device.

1. If you are replacing the IIT/IPS PWB, print a System Settings List ([GP 6](#)).
2. Remove the IIT Rear Cover ([PL 13.2](#))
  - a. Remove (4) securing screws.
  - b. Remove the IIT Rear Cover.
3. Remove the Rear Upper Cover ([PL 12.2](#)).
  - a. Remove (4) securing screws.
  - b. Remove the Rear Upper Cover.
4. Disconnect (7) connectors to the IIT/IPS Unit. [Figure 1](#)

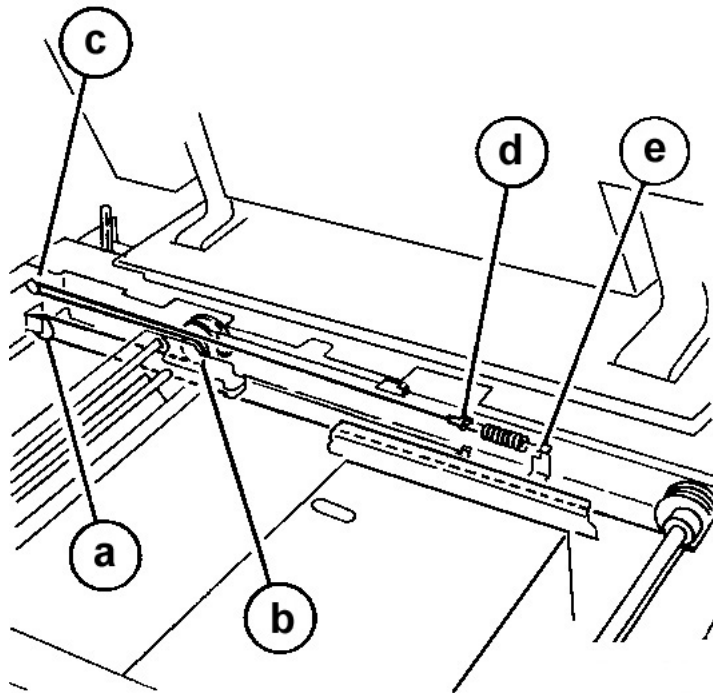


Figure 10 Installing Clip end of Carriage Cable

- f. Remove the tape used to secure the cable from loosening.
  - g. Reinstall the Full Rate Carriage into the IIT Frame. [REP 5.34](#)
  - h. Adjust the position of the Full Rate/Half Rate Carriage. [ADJ 5.8](#)
  - i. Manually move the Full Rate Carriage to ensure that it moves smoothly.
6. Continue the installation by performing the removal steps from Step 10 in reverse order.

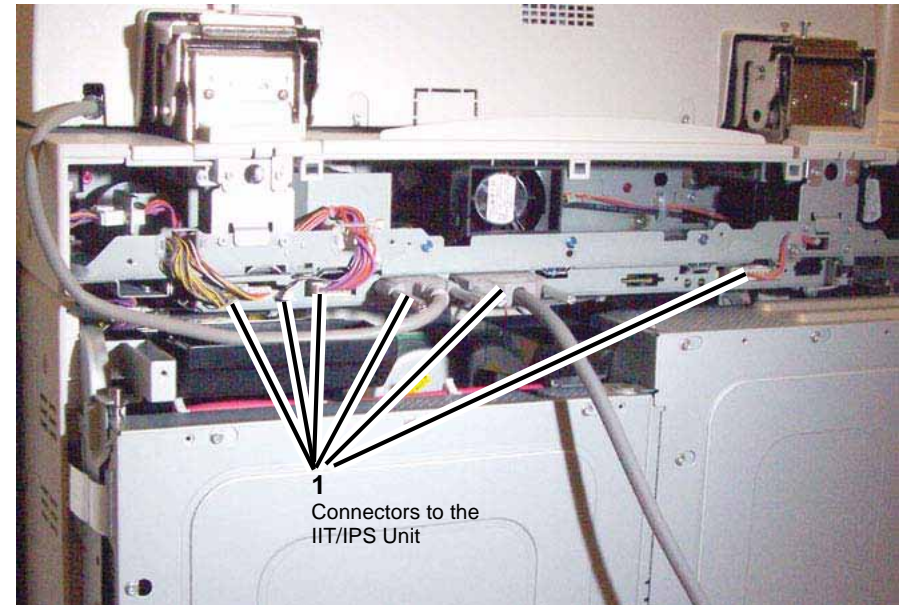
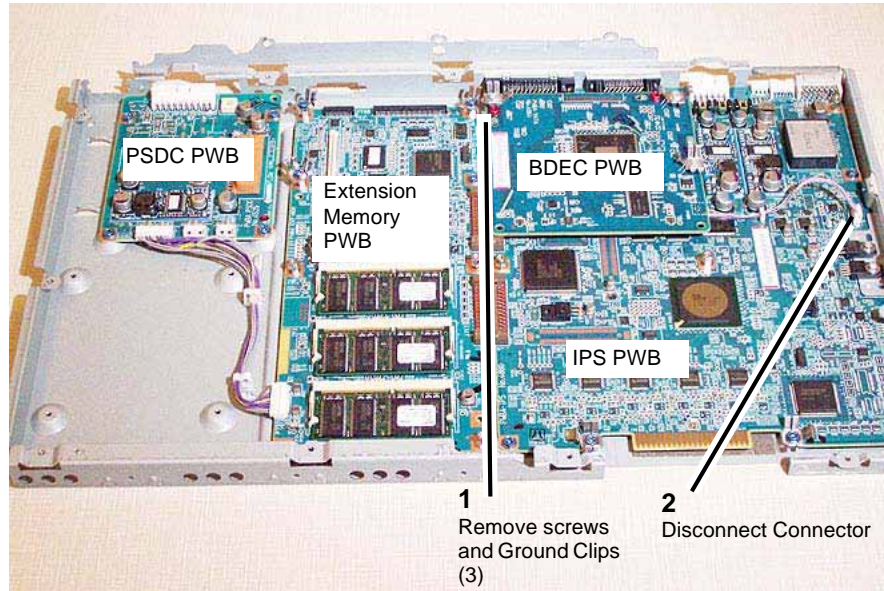


Figure 1 Connectors to the IIT/IPS Unit

5. Remove the screws (3 Blue) and pull out the IIT/IPS Unit.
6. Remove the (15) screws securing the IIT/IPS Cover and remove the cover.
7. [Figure 2](#) shows the location of the PWBs.

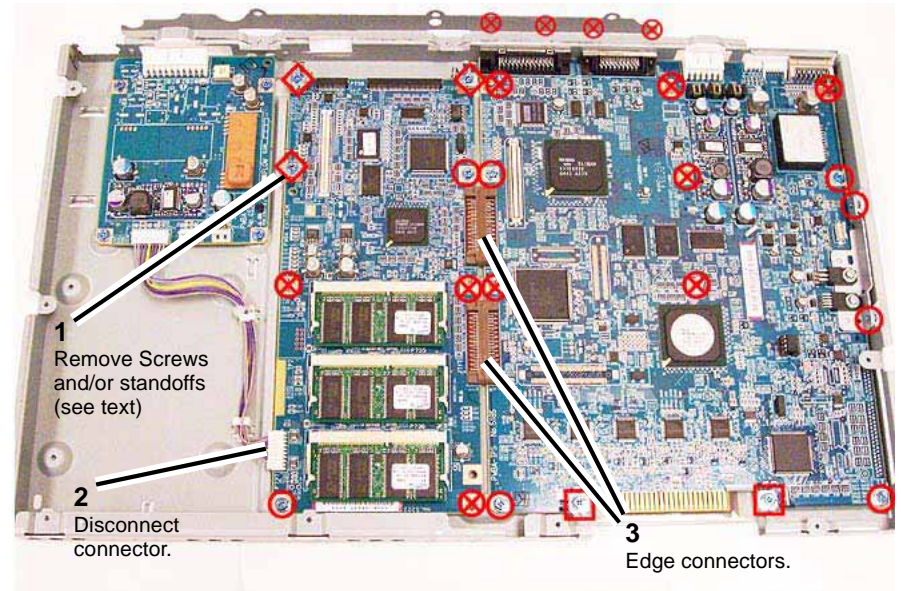


**Figure 2 IPS PWBs**

8. Remove the BDEC PWB (Figure 2).
  - a. Note the location and orientation of the three (3) ground clips and (3) screws securing the clips and the BDEC PWB in place.
  - b. Remove the (3) screws and (3) ground clips from the BDEC PWB.
  - c. Disconnect one (1) connector to the IIT/IPS PWB.
  - d. Remove the BDEC PWB.

**NOTE:** You must remove the Extension Memory and IIT/IPS PWBs together as a single unit, and then separate the Extension Memory and IPS boards at the 2 edge connectors

9. Remove all screws securing the Extension Memory PWB(Figure 3).
  - a. Remove (3) stand-offs, without ground clips.
  - b. Note the location and orientation of three (3) ground clips, and remove the (3) stand-offs, with the (3) ground clips.
  - c. Remove (2) screws without stand-offs.
  - d. Disconnect one connector.



**Figure 3 Removing the IIT/IPS and Mem. PWBs**

10. Remove all screws securing the IIT/IPS PWB before removing the Extension Memory and IIT/IPS PWBs as a single unit.
  - a. Remove (6) stand-offs.
  - b. Note the location and orientation of two (2) ground clips, and remove the (2) screws securing the ground clips.
  - c. Remove (4) screws without ground clips.
  - d. Remove (2) screws on the metal flange at the edge of the PWB.
  - e. Remove (4) connector stand-offs on the backplane.
11. Remove the PSDC PWB, as necessary, by removing (4) screws, disconnecting (2) cable clamps, and disconnecting the connector to the Extension Memory PWB.

### Replacement

1. To install, perform the removal steps in reverse order. Screws, standoffs, and ground clips must go back in the correct locations; use Figure 3 and the following legend:
  - circles = location of blue screws
  - x in circle = location of standoffs
  - diamonds = location of ground clip w/ standoff
  - squares = location of ground clips w/out standoffs
2. If you replaced the IIT/IPS PWB, print a Systems settings list and compare with the list printed at the beginning of the procedure. If the IIT s/w versions do not match, you must reload IIT software.

## REP 5.37 Exposure Lamp

Parts List on [PL 13.9](#)

### Removal

#### WARNING

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

1. Secure the DADF in the service position. [REP 5.2](#)
2. Undock the finisher, if present.
  - a. Open the finisher front door.
  - b. Release the securing latch.
  - c. Disconnect the connector to the copier/printer.
  - d. Roll the finisher away from the right side of the copier/printer.
3. Remove the IIT Right Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Right Cover.
4. Remove the Right Plate. [PL 13.4](#)
5. Remove the Platen Glass by lifting it up from the right side. [PL 13.4](#)
6. Disconnect the Exposure Lamp connector. [Figure 1](#)
  - a. Disconnect the connector.

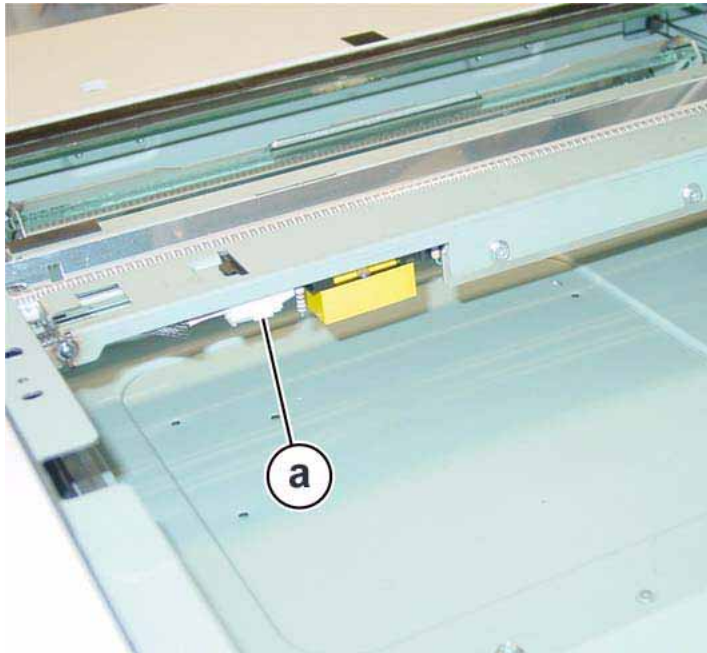


Figure 1 Exposure Lamp connector

7. Move the Full Rate Carriage to the notch in the IIT frame. See [Figure 2](#).
8. Remove the Exposure Lamp. [Figure 2](#)
  - a. Remove the wire Harness from the hooks (2).
  - b. Remove the connector.
  - c. Remove the screw.
  - d. Remove the Exposure Lamp.

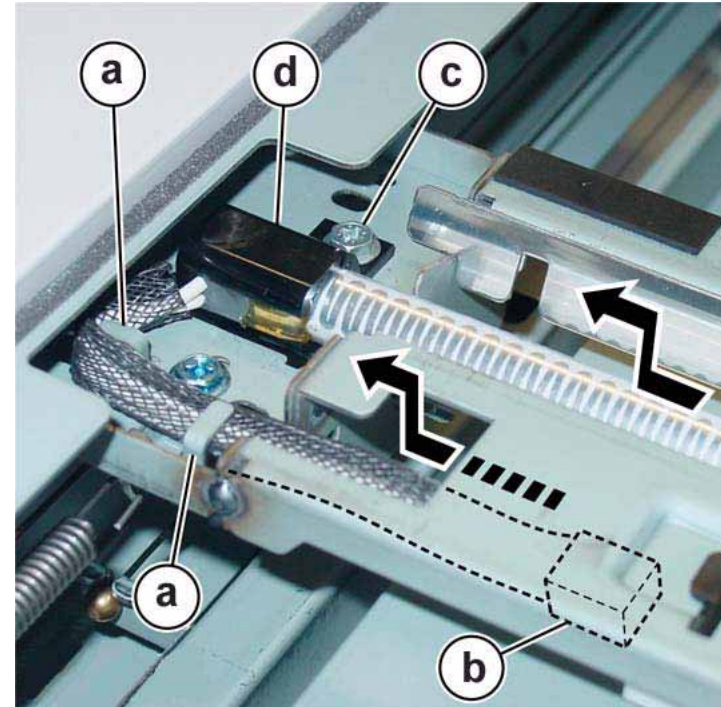
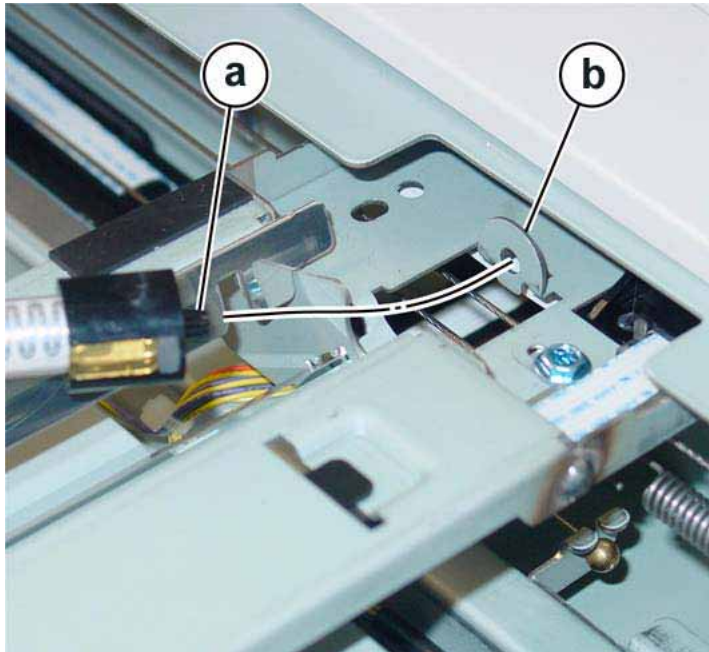


Figure 2 Removing the Exposure Lamp

### Replacement

1. To install, perform the removal steps in reverse order.
2. Insert the Exposure Lamp Boss into the Full Rate Carriage installation hole. [Figure 3](#)
  - a. Exposure Lamp Boss
  - b. Installation Hole for the Full Rate Carriage.





**Figure 3 Inserting the Exposure Lamp**

3. When replacing, enter into Diagnostic mode and then clear the DC135 HFSI Counter.  
 "Chain Link: 956-803"  
 "Chain Link: 956-804"

## REP 5.38 Lamp Ballast PWB

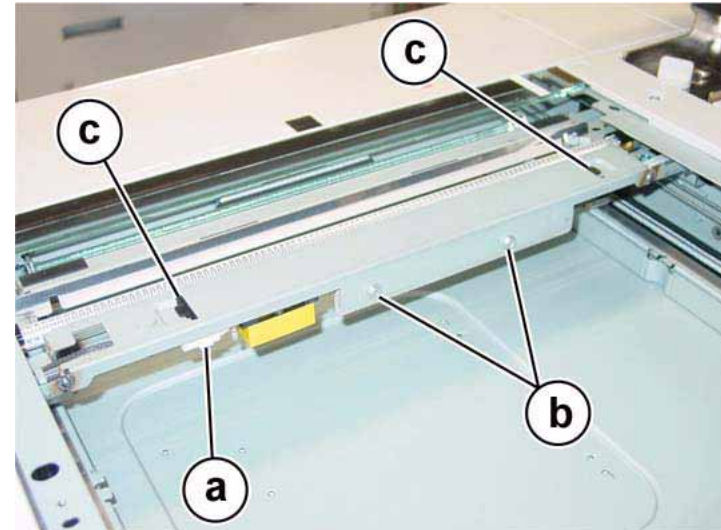
Parts List on [PL 13.9](#)

### Removal

#### WARNING

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

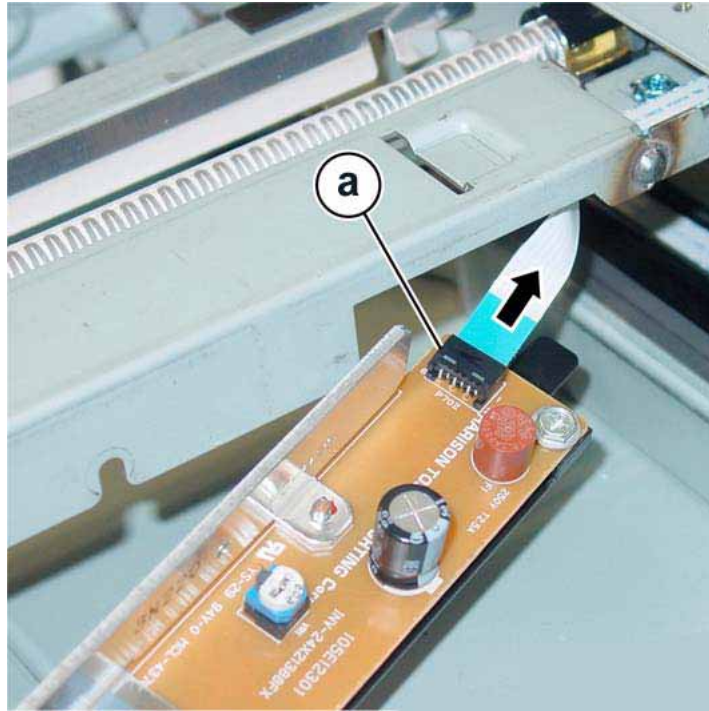
1. Secure the DADF in the service position. [REP 5.2](#)
2. Undock the finisher, if present.
  - a. Open the finisher front door.
  - b. Release the securing latch.
  - c. Disconnect the connector to the copier/printer.
  - d. Roll the finisher away from the right side of the copier/printer.
3. Remove the IIT Right Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Right Cover.
4. Remove the Right Plate. [PL 13.4](#)
5. Remove the Platen Glass by lifting it up from the right side. [PL 13.4](#)
6. Remove the Lamp Ballast PWB. [Figure 1](#)
  - a. Disconnect the connector.
  - b. Loosen the screws (2).
  - c. Remove the Tabs (2) from the Full Rate Carriage and remove the Lamp Ballast PWB.



**Figure 1 Removing Lamp Ballast PWB**

7. Disconnect the Slide Cord connector. [Figure 2](#)

- a. Pull out the Slide Cord and disconnect the connector.



**Figure 2** Disconnecting the Slide Cord connector

### Replacement

1. To install, perform the removal steps in reverse order.

## REP 5.39 Slide Cord

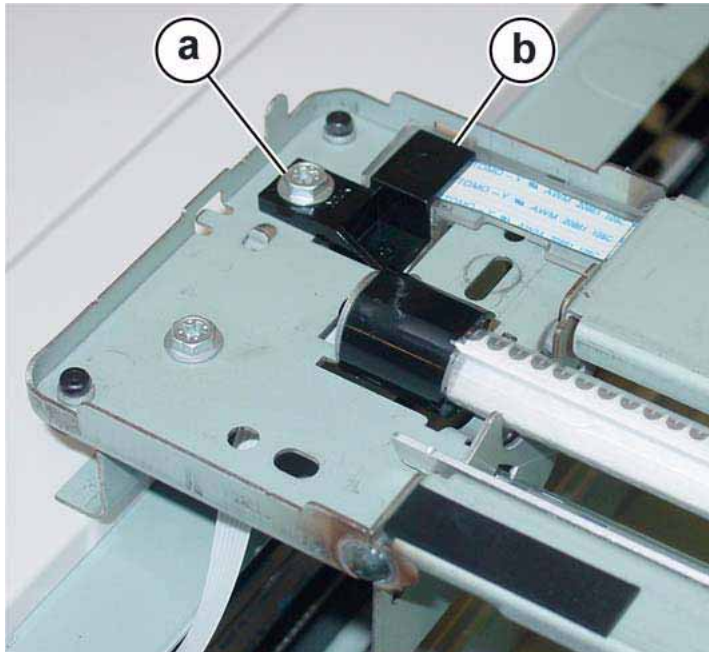
Parts List on [PL 13.9](#)

### Removal

#### WARNING

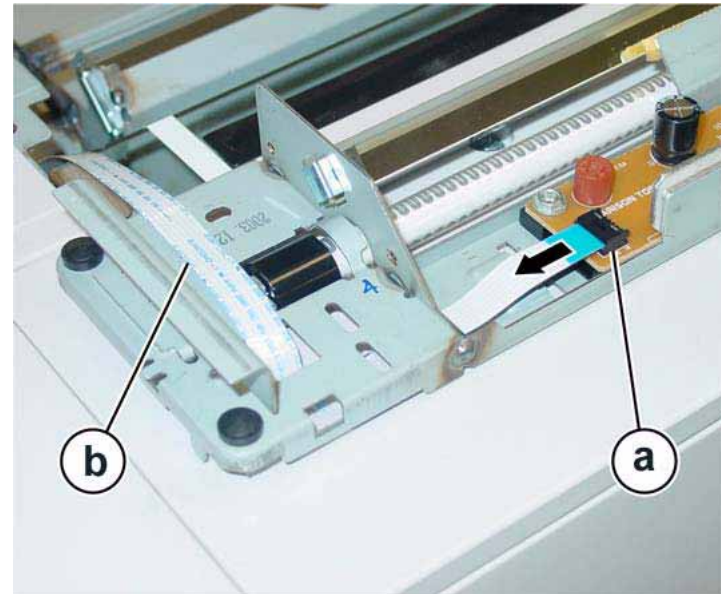
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Secure the DADF in the service position. [REP 5.2](#)
2. Undock the finisher, if present.
  - a. Open the finisher front door.
  - b. Release the securing latch.
  - c. Disconnect the connector to the copier/printer.
  - d. Roll the finisher away from the right side of the copier/printer.
3. Remove the IIT Right Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Right Cover.
4. Remove the Right Plate. [PL 13.4](#)
5. Remove the Platen Glass by lifting it up from the right side. [PL 13.4](#)
6. Remove the IIT Rear Cover. [PL 13.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the IIT Rear Cover.
7. Remove the Top Rear Cover 2. [PL 13.1](#)
  - a. Slide the cover out to the rear of the copier/printer. There are no screws to remove.
  - b. Remove the Top Rear Cover 2.
8. Remove the Rear Upper Cover (of the copier/printer). [PL 12.2](#)
  - a. Remove (4) securing screws.
  - b. Remove the Rear Upper Cover.
9. Remove the Full Rate Carriage. [REP 5.34](#)
10. Remove the Harness Guide from the Full Rate Carriage. [Figure 1](#)
  - a. Remove the securing screw.
  - b. Remove the Harness Guide.



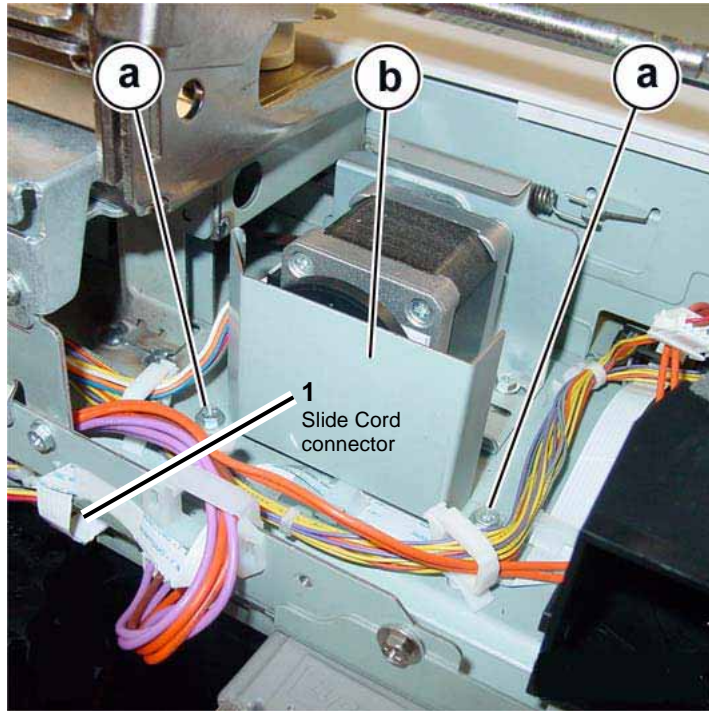
**Figure 1 Removing the Full Rate Carriage Harness Guide**

11. Turn the Full Rate Carriage upside down.
12. Remove the Slide Cord from the Full Rate Carriage. [Figure 2](#)
  - a. Pull out the Slide Cord and disconnect the connector.
  - b. Remove the Slide Cord.

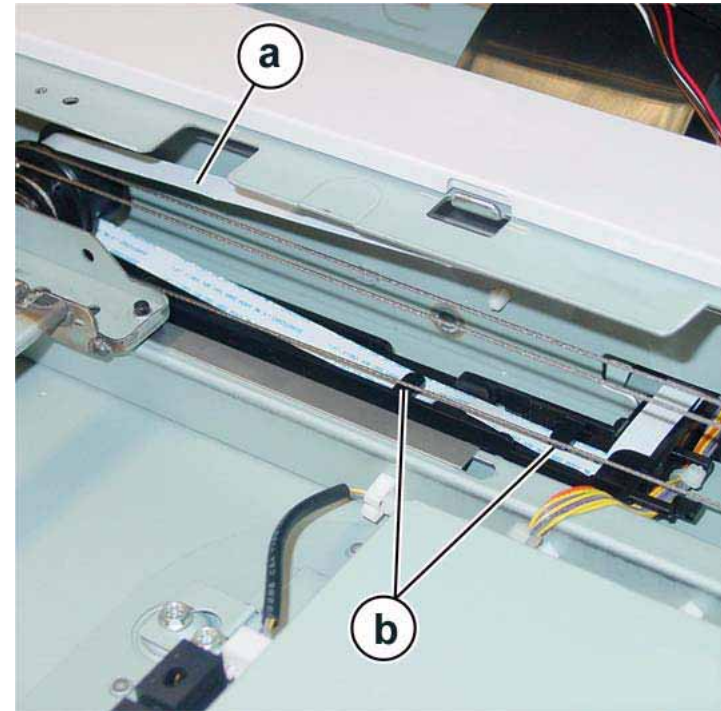


**Figure 2 Removing Slide Cord from Full Rate Carriage**

13. Remove the Motor Guard at the rear of the IIT. [PL 13.7 Figure 3](#)
  - a. Remove (2) screws securing the Motor Guard.
  - b. Remove the Motor Guard.



**Figure 3 Removing the Motor Guard at rear of IIT**



**Figure 4 Removing the Slide Cord from Half Rate Carriage**

14. Disconnect the Slide Cord at the rear of the IPS by pulling the cord out of its connector. [Figure 3](#)
15. Release the (4) cable clamps and remove the Slide Cord.
16. Remove the Slide Cord from the pulley of the Half Rate Carriage. [Figure 4](#)
  - a. Remove the Slide Cord from the pulley.
  - b. Remove the Slide Cord from the hooks (2).

### Replacement

1. To install, carry out the removal steps in reverse order.
2. Adjust the position of Full Rate/Half Rate Carriages ([ADJ 5.8](#)).

## REP 6.1 ROS Assembly (C,K)

Parts List on [PL 5.1](#)

### Removal

#### WARNING

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

1. Open the IIT Housing ([REP 5.24](#)).
2. Remove the Rear Upper Cover ([PL 12.2](#)).
3. Loosen screws (11) and remove the MCU Cover ([PL 11.1](#)).
4. On the MCU PWB, disconnect Ribbon Cables and open the Cable clip ([Figure 1](#)).

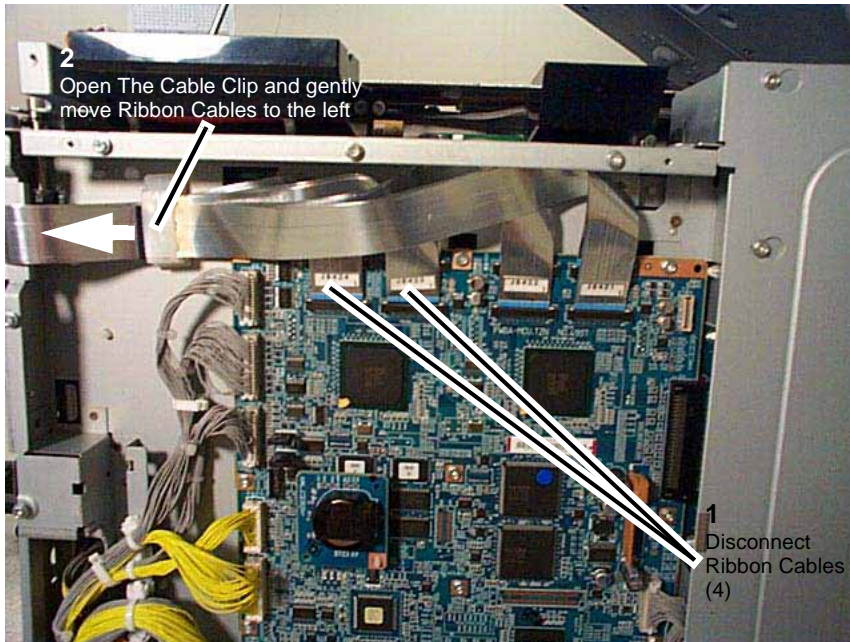


Figure 1 Disconnecting Ribbon Cables on MCU PWB

5. Remove the IIT Plate ([Figure 2](#)).

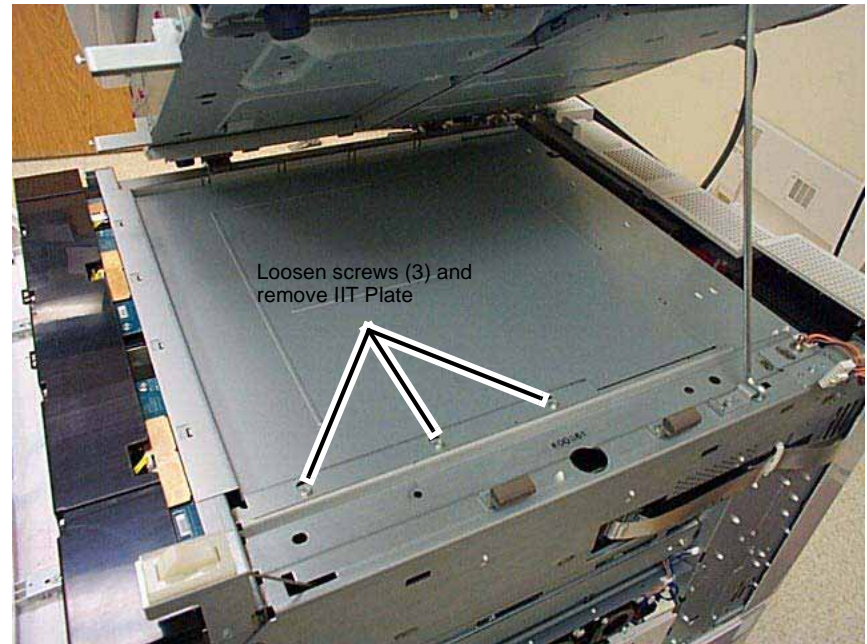


Figure 2 Removing the IIT Plate

6. Slide out Toner Cartridges (5).
7. Remove the Left and Right Plates ([Figure 3](#)).

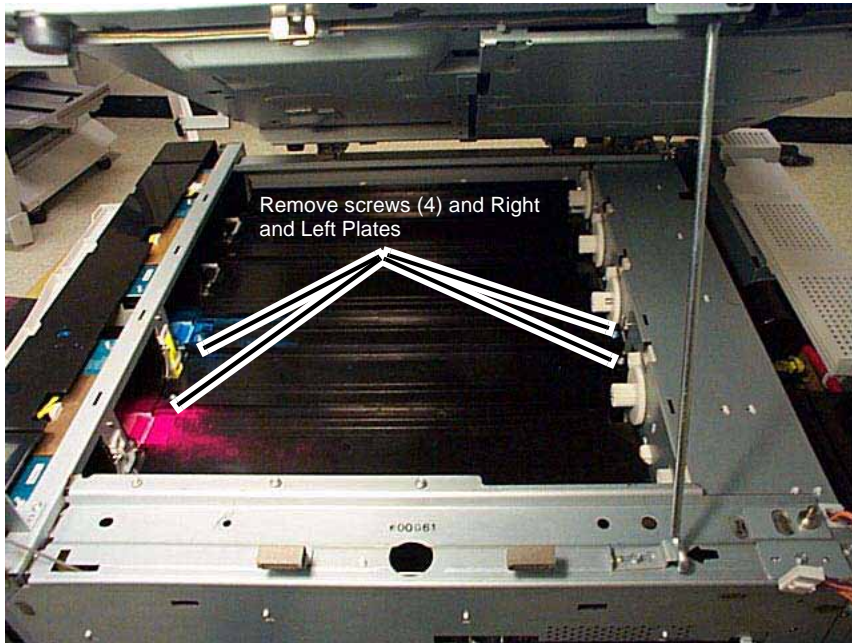


Figure 3 Removing the Right and Left Plates

8. Open the Cable Clip (Figure 4).

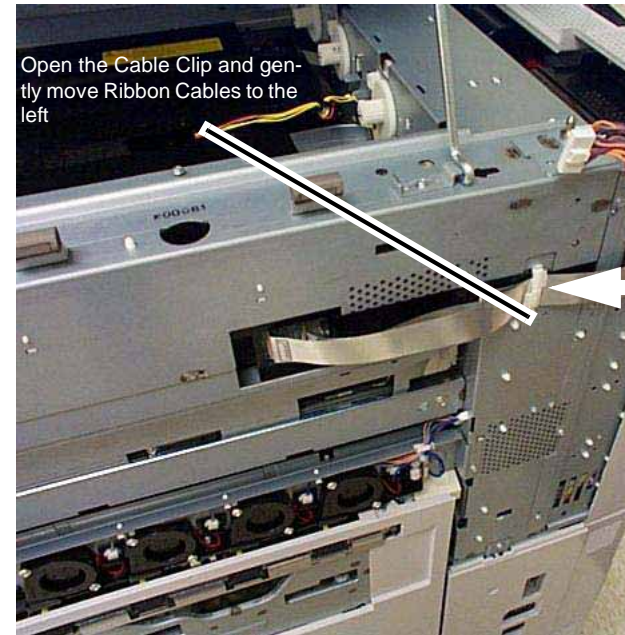


Figure 4 Opening the Cable Clip

9. Remove the ROS Assembly (C, K) (Figure 5).

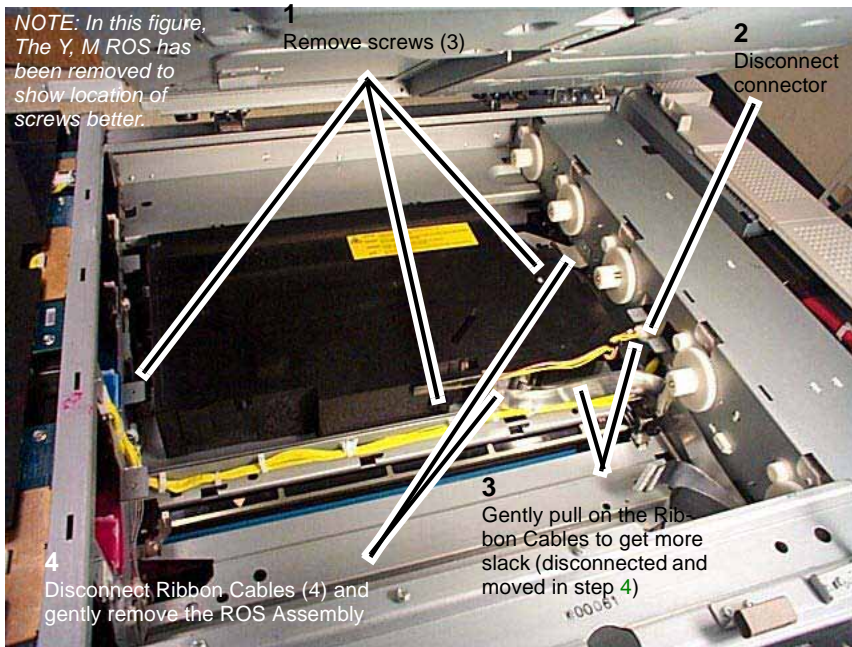


Figure 5 Removing the ROS Assembly (C, K)

### Replacement

1. Ensure that Ribbon Cables are properly re-connected.
2. Re-install parts in reverse order of the removal procedure.

## REP 6.2 ROS Assembly (Y, M)

Parts List on [PL 5.1](#)

### Removal

#### WARNING

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

1. Open the IIT Housing ([REP 5.24](#)).
2. Remove the Rear Upper Cover ([PL 12.2](#)).
3. Loosen screws (11) and remove the MCU Cover ([PL 11.1](#)).
4. On the MCU PWB, disconnect Ribbon Cables and open Ribbon Cable clip ([Figure 1](#)).

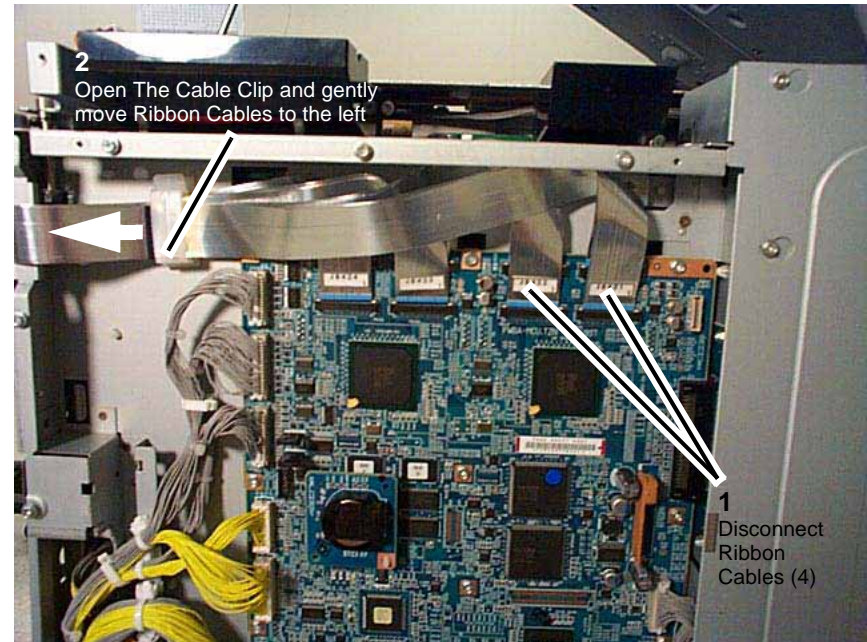


Figure 1 Disconnecting the Ribbon Cables on the MCU PWB

5. Remove the IIT Plate ([Figure 2](#)).

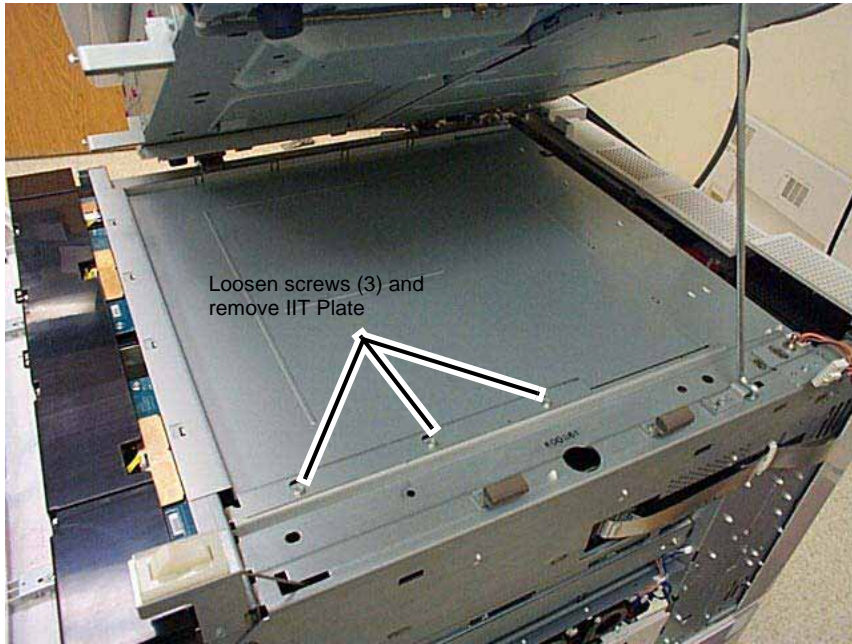


Figure 2 Removing the IIT Plate

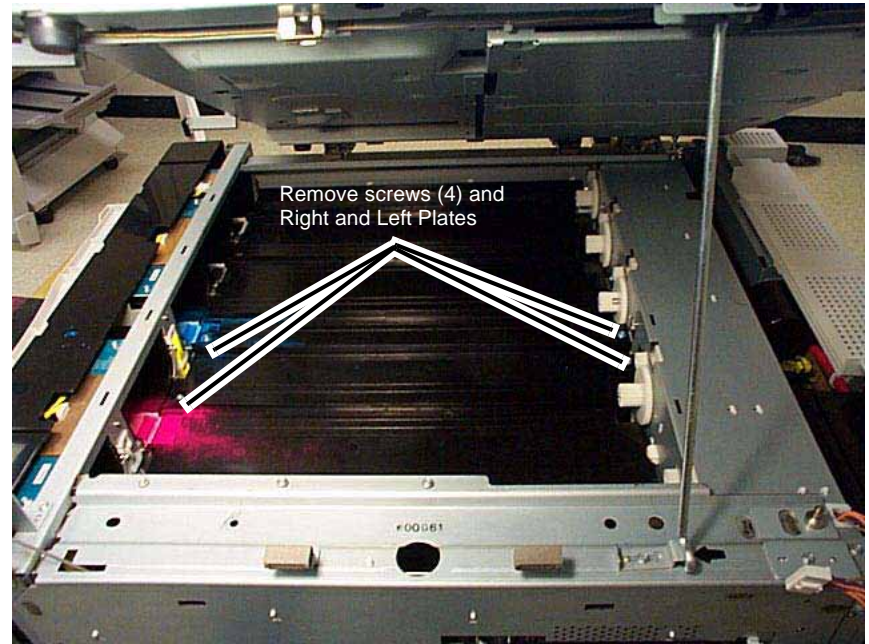


Figure 3 Removing the Left and Right Plates

6. Slide out Toner Cartridges (5).
7. Remove Left and Right Plates (Figure 3).

8. Disconnect Ribbon Cables (Figure 4).



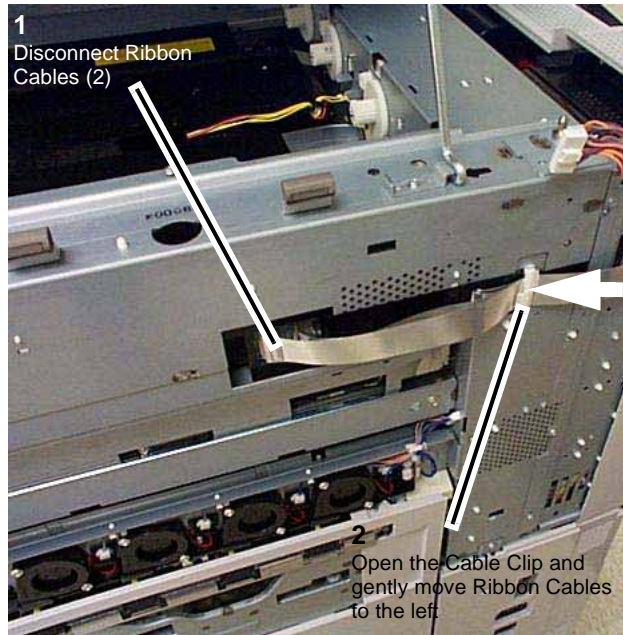


Figure 4 Disconnecting Ribbon Cables

9. Remove the ROS Assembly (Y, M) (Figure 5).

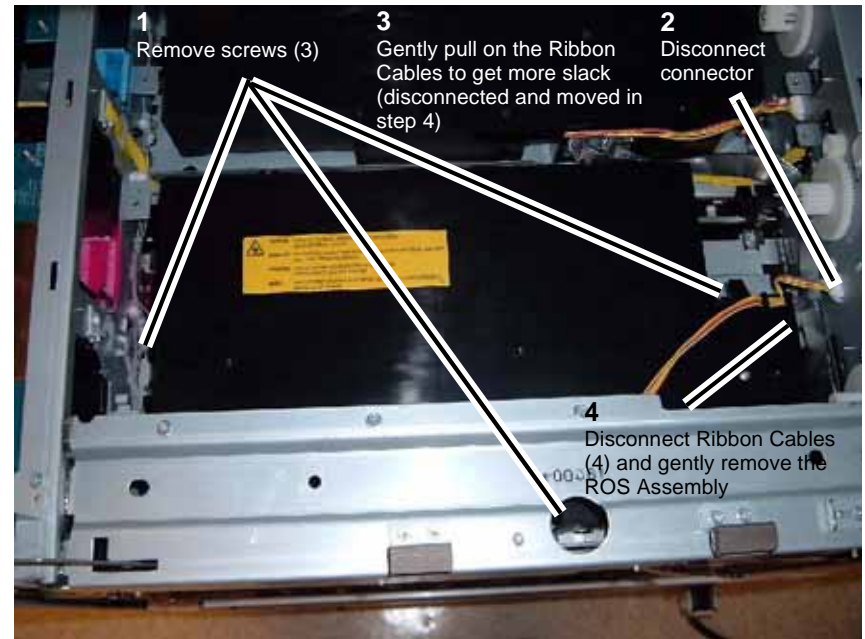


Figure 5 Removing the ROS Assembly (Y, M)

### Replacement

1. Ensure that Ribbon Cables are properly re-connected.
2. Re-install parts in reverse order of the removal procedure.L



## REP 7.1 HCF Tray 6

Parts List on [PL 18.1](#)

### Removal

#### WARNING

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

1. Open the HCF Tray by pulling the tray toward you.
2. Remove all paper from the tray.
3. Using a small screwdriver, or other small, blunt instrument, release the stopper on each rail of the tray by inserting the screwdriver into the hole of the stopper and pulling the tray toward you.
4. Remove the tray by pulling it toward you and off of its rails.

### Replacement

1. Line up the rails of the tray with the adjoining rails of the HCF and push the tray into place.
2. Place previously removed paper, or fresh paper, into the tray.

## REP 7.2 HCF Feeder

Parts List on [PL 18.1](#)

### Removal

#### WARNING

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

1. Remove the HCF Tray. [REP 7.1](#)
2. Remove the (2) screws used to secure the HCF Feeder on its rail. [Figure 1](#)

**NOTE:** For a better view of both the HCF Feeder and its securing screws, open the Feeder Top Cover of the HCF.

3. Slide the HCF Feeder toward you off its rail to remove it from the HCF.

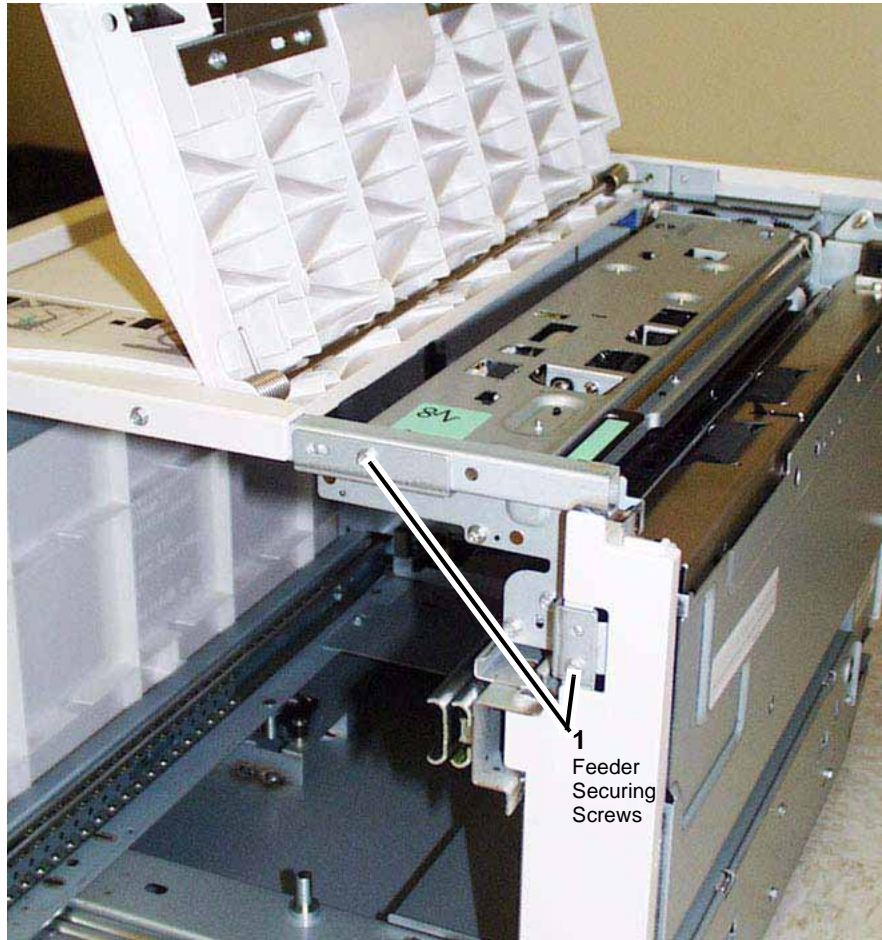


Figure 1 Feeder Securing Screws

### Replacement

1. Position the HCF Feeder's bottom rail-following feet onto the internal HCF rail.
2. Slide the HCF Feeder back into the HCF until it seats.
3. Reinstall the two securing screws and hand tighten until snug.

## REP 7.3 HCF Undocking and redocking

Parts List on [PL 18.8](#)

### Removal

#### WARNING

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

1. Unplug the power cable connected to the left rear of the copier/printer.
2. Grasping the HCF by its upper corners, pull the HCF toward you (away from the copier/printer) to expose the HCF docking base. [Figure 1](#)



Figure 1 Exposing the docking base

3. Release the docking latch spring lever on the right side of the docking base.
4. Pull the HCF toward you (away from the copier/printer) to undock it from the copier/printer.

### Replacement

1. Push the HCF toward the two docking points on the left side of the printer.
2. Align the two holes in the HCF docking base with the two docking points on the printer/copier.

**NOTE:** Make sure that the caster of the copier/printer is rotated out of the way (fully rotated underneath the copier/printer) so that it does not interfere with HCF docking.

3. Push the HCF into place against the copier/printer.
4. Reattach the power cable to the left rear of the copier/printer.

## REP 7.4 HCF Tray Cables

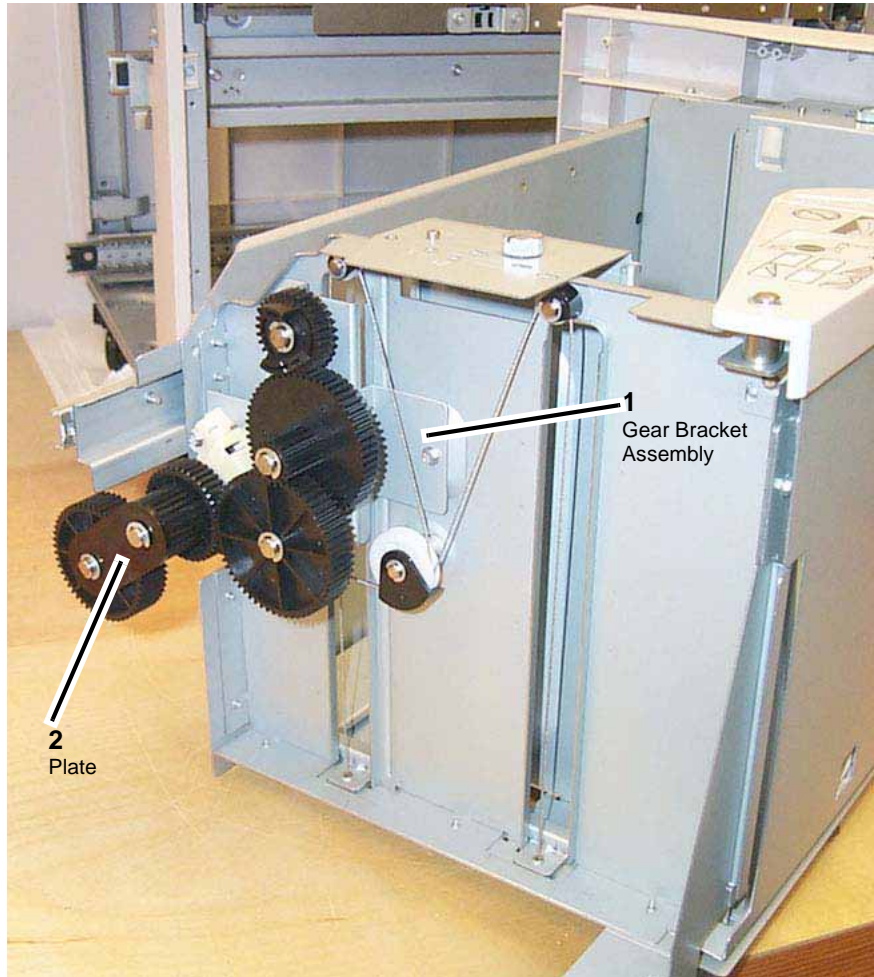
Parts List on [PL 18.3](#)

### Removal

#### WARNING

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

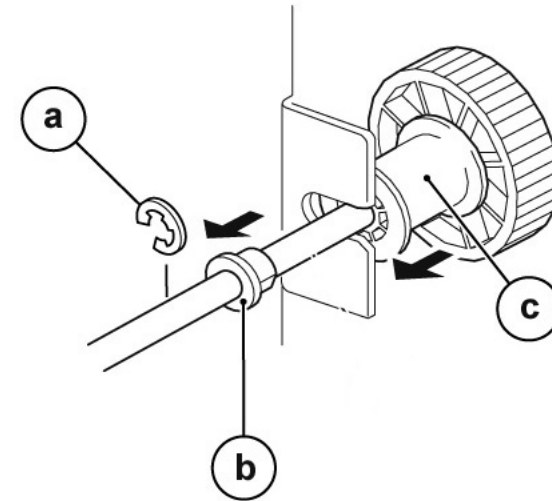
1. Remove the HCF Tray. [REP 7.1](#)
2. At the rear of the HCF Tray, remove the Gear Bracket Assembly. [Figure 1](#)
  - a. Remove (2) E-Clips securing the oval-shaped Plate and remove the Plate.
  - b. Slide the (2) gears, that were being retained by the Plate, off their shafts and set the gears aside.
  - c. Remove (3) screws securing the Gear Bracket Assembly.
  - d. Remove the Gear Bracket Assembly, being careful to maneuver it around the cable as required for removal.



**Figure 1 Gear Bracket Assembly**

3. At the rear of the HCF Tray, begin to free up movement of the Tray Cable Pulley. **Figure 2**
  - a. Remove the E-Clip on the Lift Shaft.
  - b. Slide the bearing to the left on the Lift Shaft.
  - c. Slide the Tray Cable Pulley to the left on the Lift Shaft to reveal the cable ends (2) trapped in a pocket of the Lift Shaft underneath the Tray Cable Pulley.

**NOTE:** You will not be able to release the cable ends from underneath the Tray Cable Pulley until you perform the next step, which puts slack in the cable enabling the Lift Shaft to be disengaged from its bracket, and the Tray Cable Pulley moved farther to the left releasing the cable ends.



**Figure 2 Lift Shaft rear Tray Cable Pulley**

4. Remove the E-Clips, Wire Guides, and Pulleys from the rear of the HCF Tray. **Figure 3**
  - a. Remove (2) E-Clips, (2) Wire Guides, and (2) Pulleys.
 

**NOTE:** When both sections of the cable are slack, disengage the Lift Shaft from its bracket, and slide the Tray Cable Pulley farther to the left on the Lift Shaft to release the cable ends trapped in the pocket underneath the Tray Cable Pulley. **Figure 4**
  - b. Remove (1) E-Clip, (1) Wire Guide, and (1) Pulley.
  - c. Disengage the Tray Cable from the Bottom Plate in 2 places and remove the Tray Cable.

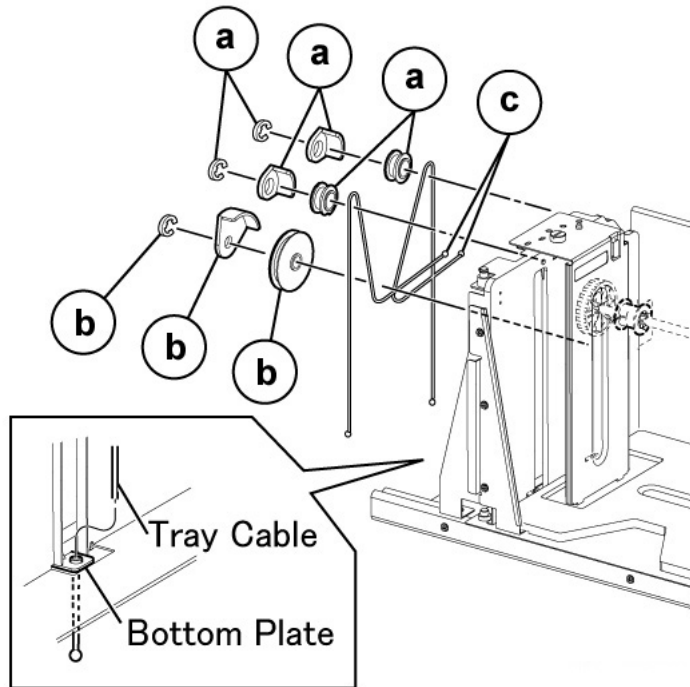


Figure 3 Rear Tray Cable details

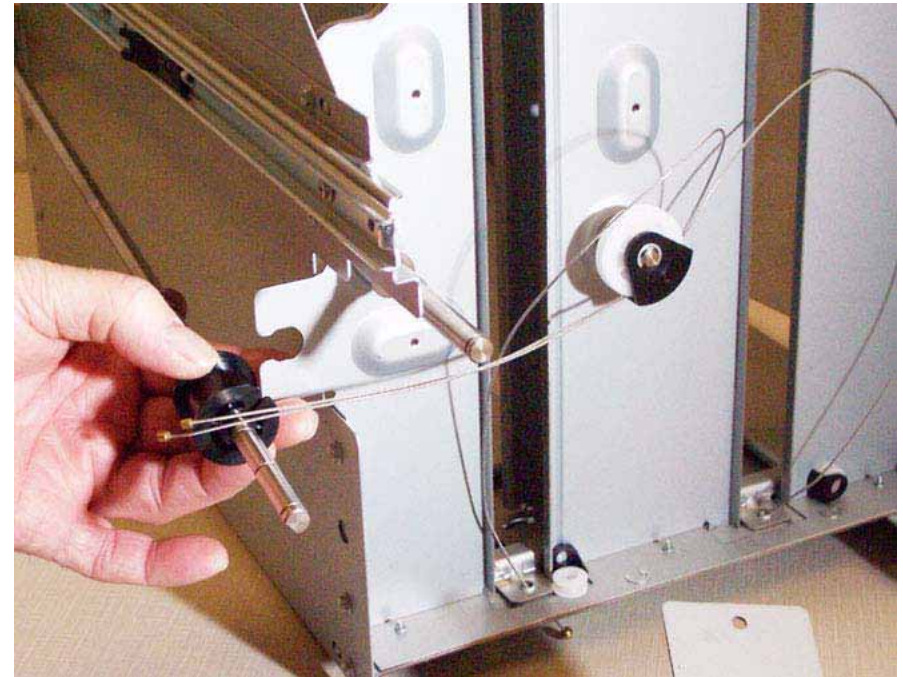
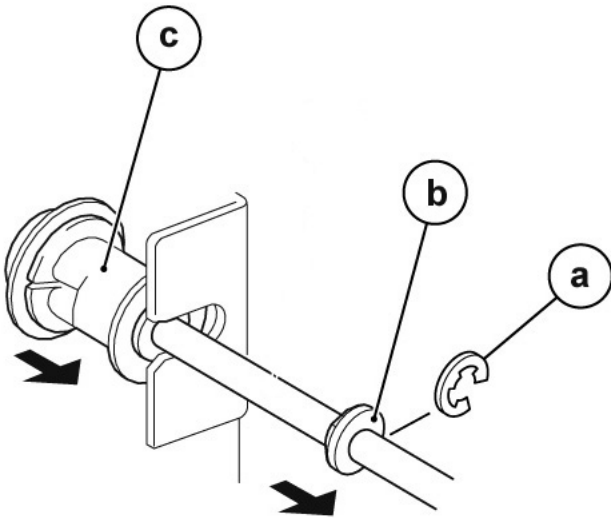


Figure 4 Slack cable allows more movement of Tray Cable Pulley

5. Remove the (5) screws securing the HCF Tray's Front Cover. [PL 18.2](#)
6. At the front of the HCF Tray, begin to free up movement of the Tray Cable Pulley. [Figure 5](#)
  - a. Remove the E-Clip on the Lift Shaft.
  - b. Slide the bearing to the right on the Lift Shaft.
  - c. Slide the Tray Cable Pulley to the right on the Lift Shaft to reveal the cable ends (2) trapped in a pocket of the Lift Shaft underneath the Tray Cable Pulley.

**NOTE:** You will not be able to release the cable ends from underneath the Tray Cable Pulley until you perform the next step, which puts slack in the cable enabling the Lift Shaft to be disengaged from its bracket, and the Tray Cable Pulley moved farther to the right releasing the cable ends.



**Figure 5 Lift Shaft front Tray Cable Pulley**

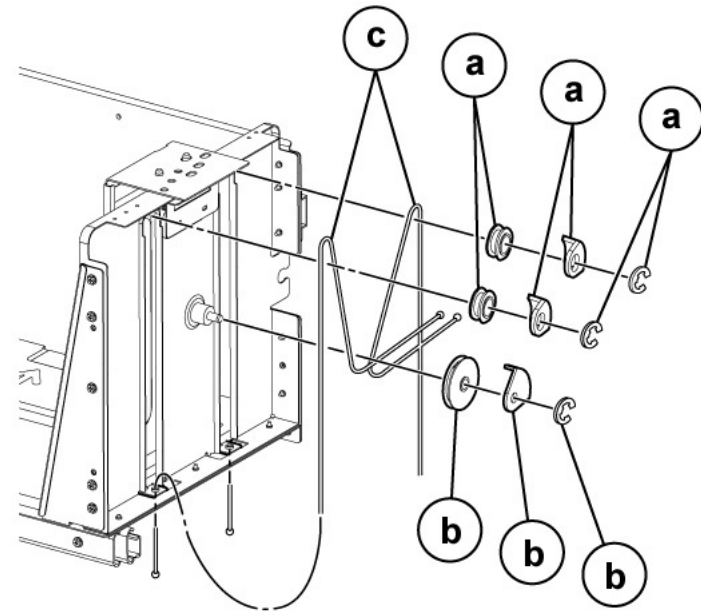
7. Remove the E-Clips, Wire Guides, and Pulleys from the front of the HCF Tray. [Figure 6](#)

a. Remove (2) E-Clips, (2) Wire Guides, and (2) Pulleys.

**NOTE:** When both sections of the cable are slack, disengage the Lift Shaft from its bracket, and slide the Tray Cable Pulley farther to the right on the Lift Shaft to release the cable ends trapped in the pocket underneath the Tray Cable Pulley.

b. Remove (1) E-Clip, (1) Wire Guide, and (1) Pulley.

c. Disengage the Tray Cable from the Bottom Plate in 2 places and remove the Tray Cable.



**Figure 6 Front Tray Cable details**

### Replacement

1. Install the front Tray Cable by carrying out the removal steps in reverse order.
2. Install the rear Tray Cable by carrying out the removal steps in reverse order.
3. Reinstall the HCF Tray's Front Cover.
  - a. Make sure to raise the gear on the Indicator Shaft so that it meshes with the adjoining Lift Shaft gear.
  - b. Replace the (5) Installation Screws.
4. Reinstall the HCF Tray by lining up the rails of the tray with the adjoining rails of the HCF and pushing the tray into place.
5. Place previously removed paper, or fresh paper, into the tray.



## REP 7.5 HCF Retard/Feed/Nudger Rolls

Parts List on [PL 18.5](#) [PL 18.6](#)

### Removal

**NOTE:** Remove and replace the Retard/Feed/Nudger Rolls simultaneously.

### WARNING

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

1. Open the Feeder Top Cover of the HCF. [PL 18.7](#)
2. Release the Lever to open the Upper Feeder Assembly to reveal the (3) rolls.

**NOTE:** For reference purposes, the single roll in the Upper Feeder Assembly is the Nudger roll. The double roll in the Upper Feeder Assembly is the Feed Roll. The larger double roll in the Lower Feeder component is the Retard Roll.

3. Remove each roll by squeezing the roll's shaft at both ends (with the thumb and forefinger of one hand) and lifting the roll up and out of the HCF. [Figure 1](#)



Figure 1 Removing rolls

### Replacement

1. Install each new roll by squeezing its shaft at both ends and sliding the roll into place.
2. Use your fingers to roll each roll in place to assure its movement.
3. Flip down the Upper Feeder Assembly.

4. Close the Feeder Top Cover of the HCF.

## REP 7.6 HCF Feed Shaft

Parts List on [PL 18.5](#)

### Removal

#### WARNING

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

1. Remove the HCF Feeder. [REP 7.2](#)
2. Place the Feeder on a flat surface.
3. Open the Upper Feeder Assembly by releasing the lever.
4. Remove the Nudger Roll by squeezing the roll's shaft at both ends (with the thumb and forefinger of one hand) and lifting the roll up and out of the HCF.
5. Remove the E-Ring and bearing on the Feed Shaft (at the Nudger Roll end of the shaft).
6. Move the bearing at the opposite end of the shaft to the right, and slide the Feed Shaft to the right to remove.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 7.7 HCF Retard Lever Spring

Parts List on [PL 18.6](#)

### Removal

#### WARNING

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

1. Remove the HCF Feeder. [REP 7.2](#)
2. Place the Feeder on a flat surface and release the Lever to open the Upper Feeder assembly.
3. Remove the Lower Chute.
  - Remove the (4) securing screws.
4. Remove the E-Clips on the Lever and Spring.
5. Remove the Lever.
6. Remove the Spring. [Figure 1](#)

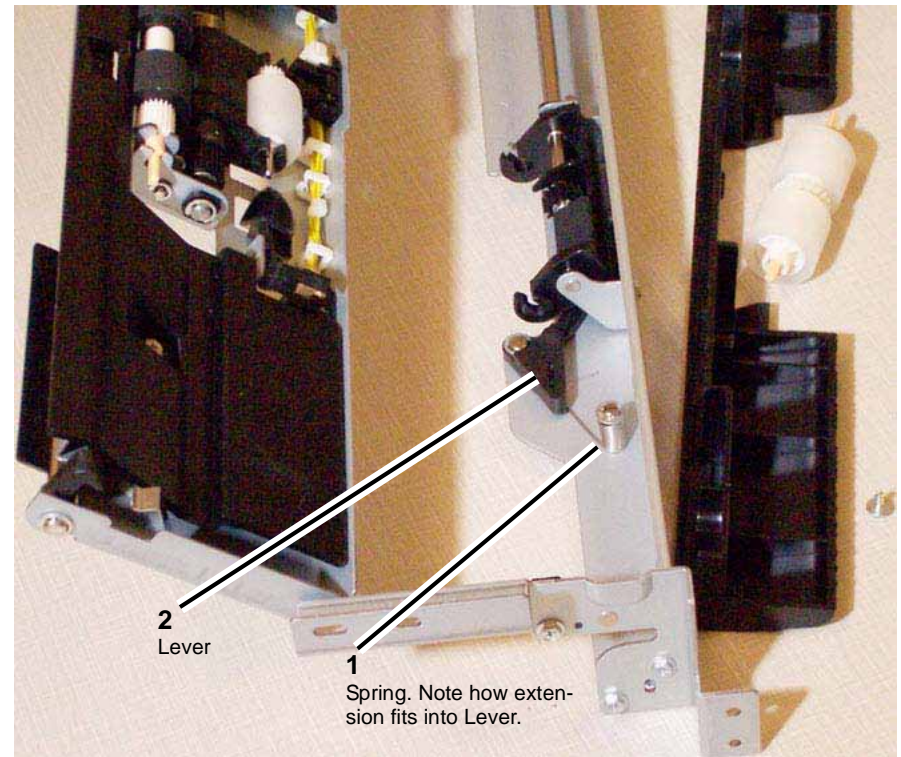


Figure 1 Removing the Retard Lever Spring

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 7.8 HCF Nudger Bracket/Nudger Lever/Torsion Spring

Parts List on [PL 18.5](#)

### Removal

#### WARNING

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

1. Remove the HCF Feeder. [REP 7.2](#)
2. Place the Feeder on a flat surface and release the Lever to open the Upper Feeder assembly.
3. Remove the Nudger Roll by squeezing the roll's shaft at both ends (with the thumb and forefinger of one hand) and lifting the roll up and out of the HCF.
4. Remove the HCF Feed Shaft. [REP 7.6](#)
5. Disassemble the Feed Shaft by removing (4) E-Rings and unscrewing the Nudger Support that retains the Torsion Spring.

### Replacement

1. Install replacement parts.
2. Carry out the removal steps in reverse order.

## REP 7.9 HCF Casters

Parts List on [PL 18.8](#)

### Removal

#### WARNING

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

1. Undock (remove) the HCF. [REP 7.3](#)
2. Remove all paper from the HCF Tray.
3. Roll the HCF away from the copier/printer.
4. Turn the HCF over onto its left side to expose the casters on the underside of the HCF.
5. Remove (3) installation screws per caster.

### Replacement

1. Install a new caster or casters, by tightening the (3) installation screws per caster.
2. Turn the HCF back up to an upright position.
3. Roll the HCF back toward the copier/printer.
4. Place previously removed paper, or fresh paper, into the HCF Tray.
5. Redock the HCF. [REP 7.3](#)

## REP 7.10 HCF Takeaway Roll

Parts List on [PL 18.7](#)

### Removal

#### WARNING

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

1. Undock (remove) the HCF. [REP 7.3](#)
2. Roll the HCF away from the copier/printer.
3. Open the HCF Tray, then remove the plastic Front Right Cover. [PL 18.1](#)
  - Remove the (2) securing screws.
4. Remove the plastic Rear Cover. [PL 18.1](#)
  - Remove the (4) securing screws.
5. Remove the metal Right Cover. [PL 18.1](#)
  - Remove the (4) securing screws.
6. Open the Feeder Top Cover of the HCF. [PL 18.7](#)
7. Supporting the motor with one hand, remove the HCF Feed Motor. [PL 18.4](#)
  - Disconnect the electrical Connector (1)
  - Remove the (2) securing screws.
8. Remove the Lower Chute. [Figure 1](#)
  - Remove the (2) securing screws.

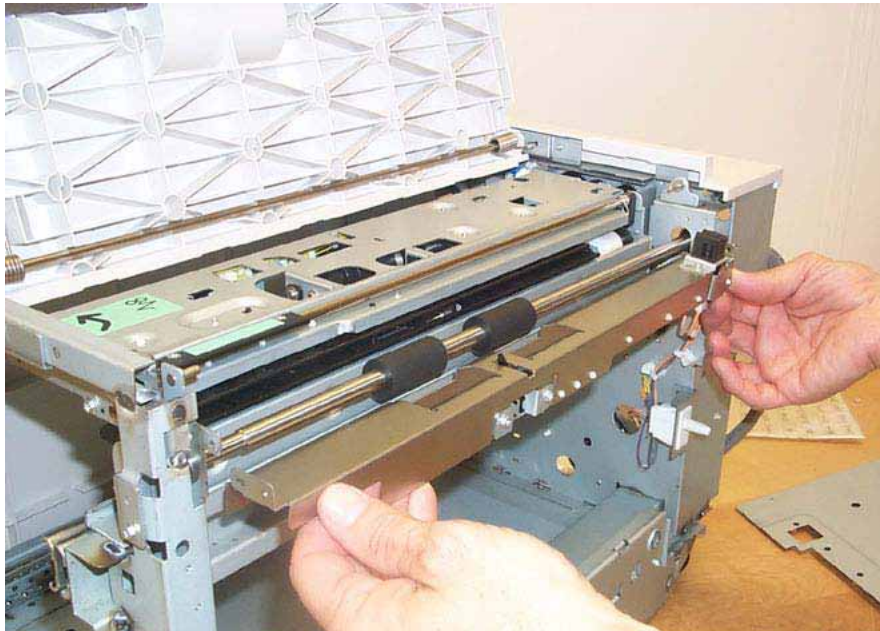


Figure 1 Removing the Lower Chute

9. Slide the Takeaway Roll to the right until the left side is released, then lower the roll to remove.

### Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter into Diagnostic mode and then clear the DC135HFSI counter.

## REP 7.11 HCF PWB

Parts List on [PL 18.8](#)

### Removal

#### WARNING

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

1. Undock (remove) the HCF. [REP 7.3](#)
2. Roll the HCF away from the copier/printer.
3. Remove the plastic Rear Cover. [PL 18.1](#)
  - Remove the (4) securing screws.
4. Disconnect all of the connectors connected to the HCF PWB.
5. Remove the (4) screws securing the HCF PWB.
6. Remove the HCF PWB.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 7.12 HCF Feed Motor

Parts List on [PL 18.4](#)

### Removal

#### WARNING

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

1. Undock (remove) the HCF. [REP 7.3](#)
2. Roll the HCF away from the copier/printer.
3. Remove the plastic Rear Cover. [PL 18.1](#)
  - Remove the (4) securing screws.
4. Open the Feeder Top Cover of the HCF. [PL 18.7](#)
5. Disconnect the HCF Feed Motor from its electrical Connector.
6. Supporting the motor with one hand, remove the HCF Feed Motor. [Figure 1](#)
  - Disconnect the electrical Connector (1).
  - Remove the (2) securing screws.

**NOTE:** Be careful when removing the motor as it is meshed to a hidden gear.

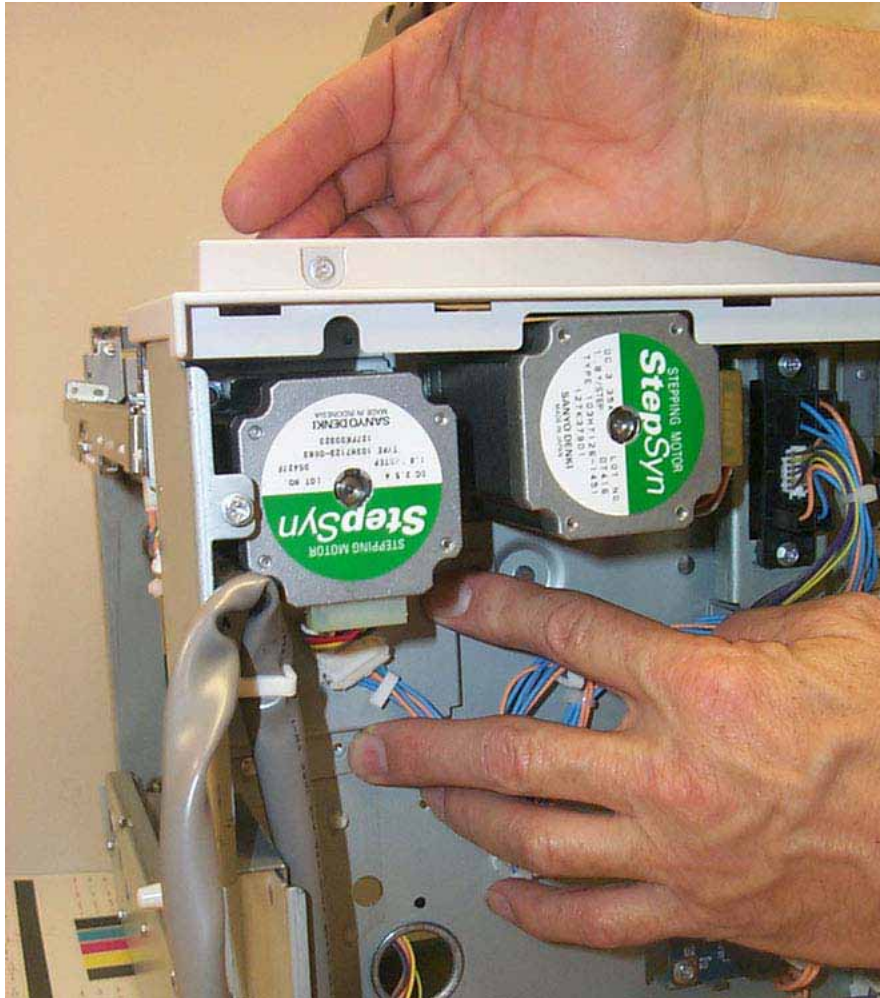


Figure 1 Removing the HCF Feed Motor

## Replacement

1. To install, carry out the removal steps in reverse order.

## REP 7.13 HCF Nudger Solenoid

Parts List on [PL 18.4](#)

### Removal

#### WARNING

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

1. Undock (remove) the HCF. [REP 7.3](#)
2. Roll the HCF away from the copier/printer.
3. Remove the HCF Feeder. [REP 7.2](#)
4. Invert the HCF Feeder and place it face down on a flat work surface.
5. Remove the HCF Feed Motor Frame (with the Motor attached).
  - a. Disconnect the electrical Connector (1).
  - b. Remove the (3) securing screws.
  - c. Remove the HCF Feed Motor Frame.
6. Unplug the HCF Nudger Solenoid from its cable.
7. Remove the (2) screws securing the HCF Nudger Solenoid.
8. Remove the HCF Nudger Solenoid. [Figure 1](#)

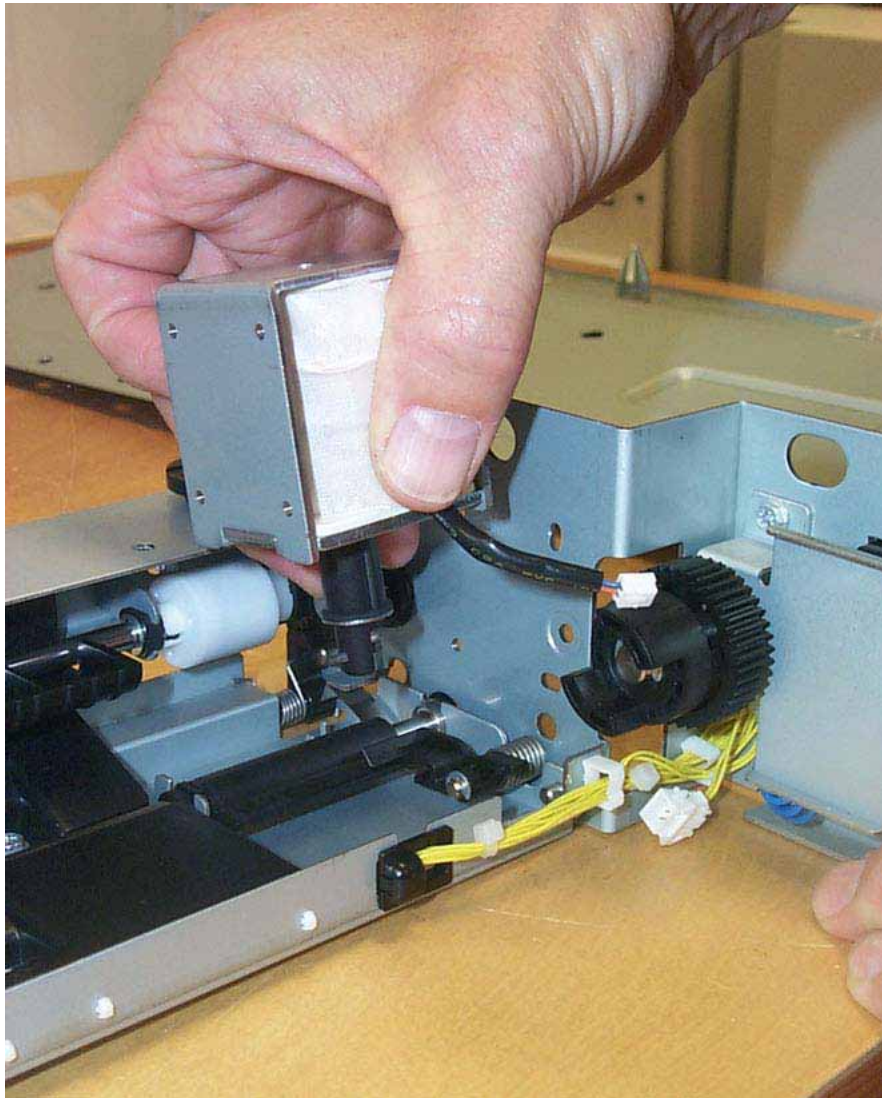


Figure 1 Removing the HCF Nudger Solenoid

## Replacement

1. To install, carry out the removal steps in reverse order.

**NOTE:** When replacing the HCF Nudger Solenoid, make sure that the actuator pin is aligned with the groove in the Solenoid Link.

## REP 7.14 Tray 5 / Bypass Feeder

Parts List on [PL 3.3](#)

### Removal

#### WARNING

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

1. Remove the Tray 5 / Bypass. [PL 3.1](#)
  - a. Raise the Tray 5 / Bypass.
  - b. Disconnect the connector to the left side of copier/printer.
  - c. Open the Lower Cover of the Tray 5 / Bypass ([PL 3.2](#)) and remove the (2) securing screws. [Figure 1](#)
  - d. Grasping the Tray 5 / Bypass firmly with both hands, lift it up and out to remove.

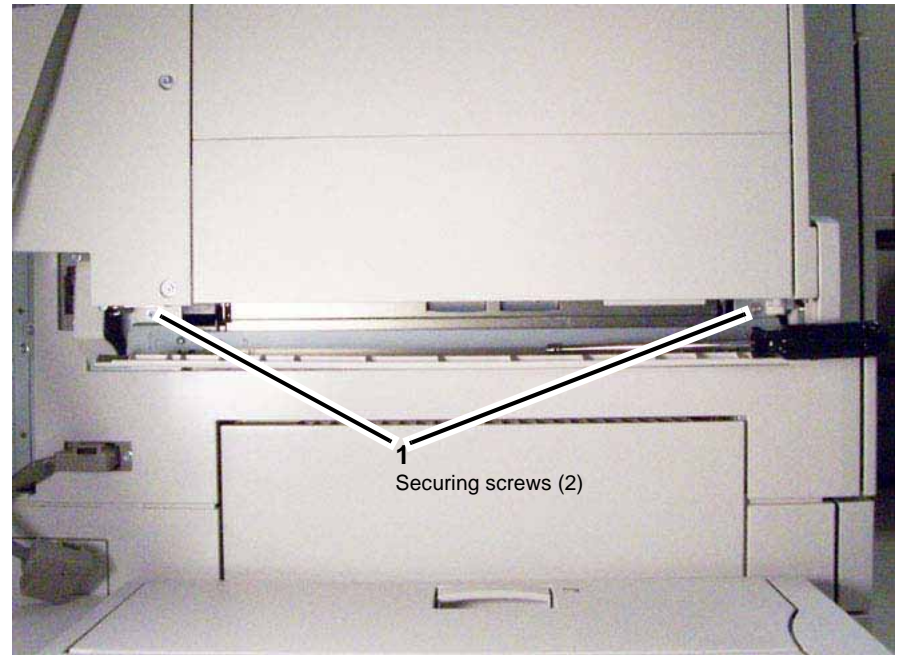
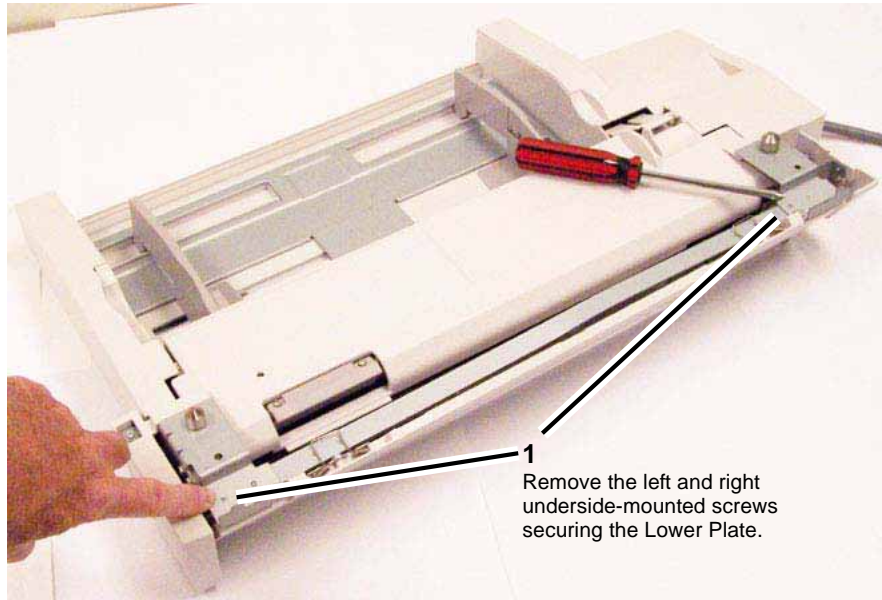


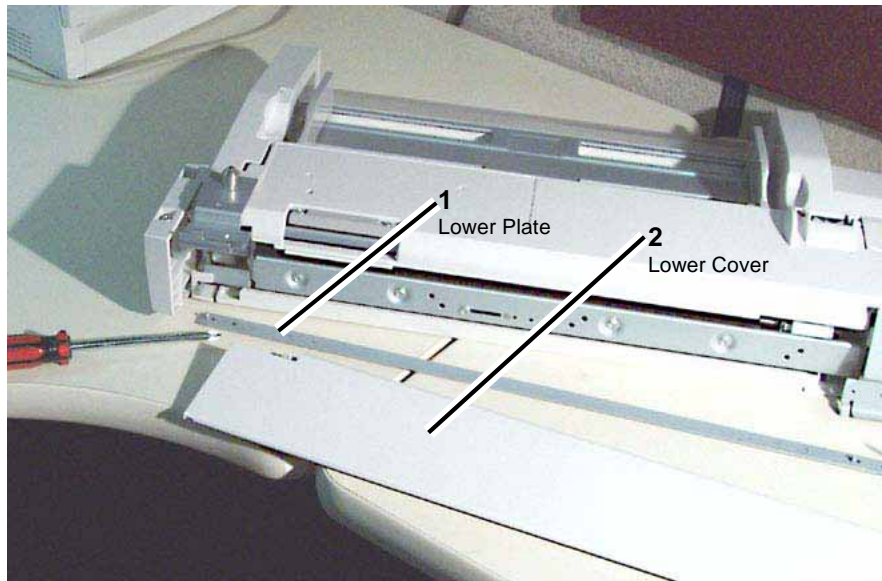
Figure 1 Tray 5 / Bypass Securing Screws

2. Place the Tray 5 / Bypass on a flat work surface, and remove the Lower Cover. [PL 3.2](#)
  - a. Remove the left (1) and right (1), UNDERSIDE-MOUNTED screws, securing the Lower Plate to the Front and Rear Brackets. [Figure 2](#)  
For reinstallation purposes, note the two springs, which are attached to the Lower Cover, and are held in tension behind the Lower Plate. These springs assure correct (spring-actuated) Lower Cover operation.



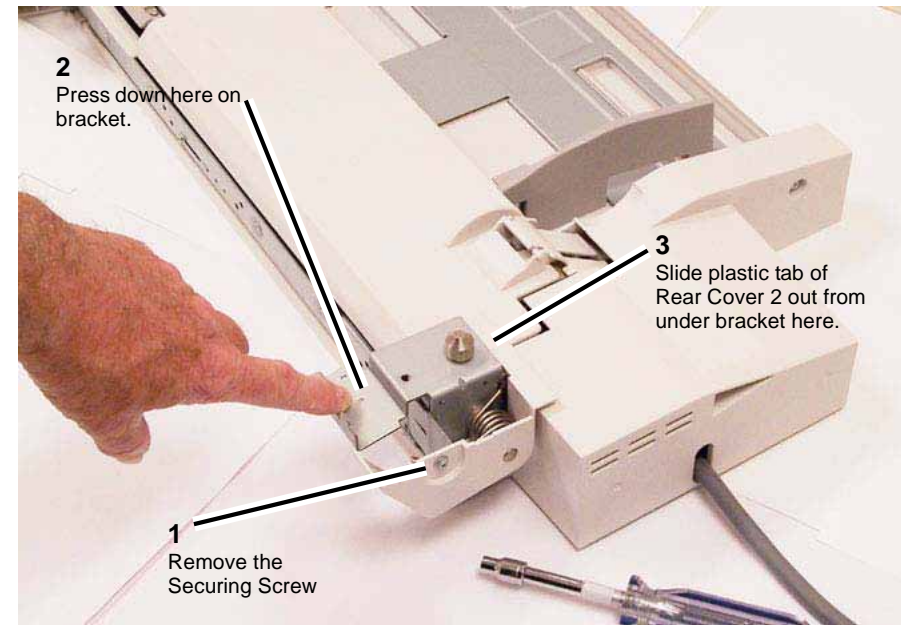
**Figure 2** Location of 2 underside-mounted screws securing the Lower Plate

- b. Remove the Lower Plate and Lower Cover. **Figure 3**



**Figure 3** Lower Plate and Lower Cover

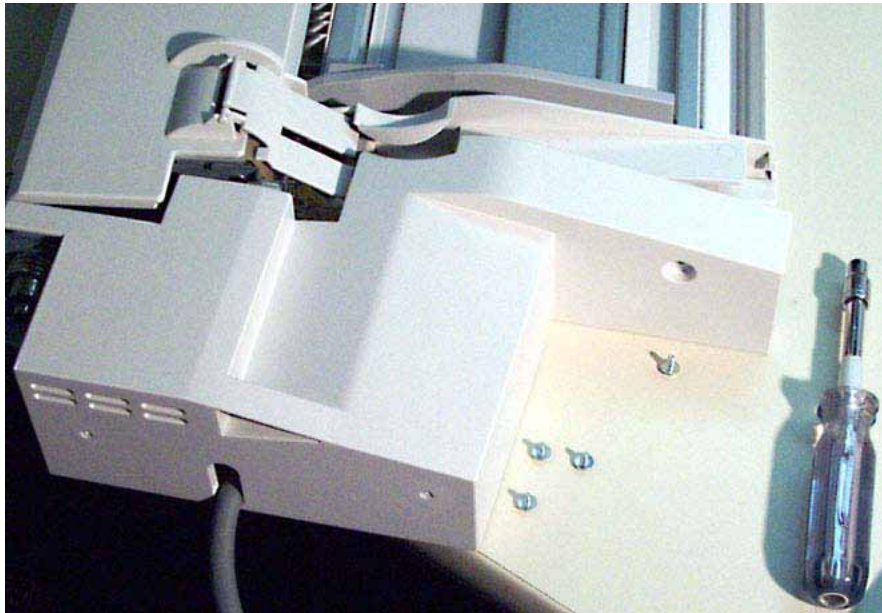
3. Working from the right side, remove the Rear Cover 2 and Torsion Spring. **Figure 4**
- Remove the securing screw.
  - Gently press down on the Rear Bracket.
  - Slide the tab of the Rear Cover 2 out from under the bracket to remove the cover.
  - Release the Torsion Spring from the Rear Bracket.



**Figure 4** Rear Cover 2

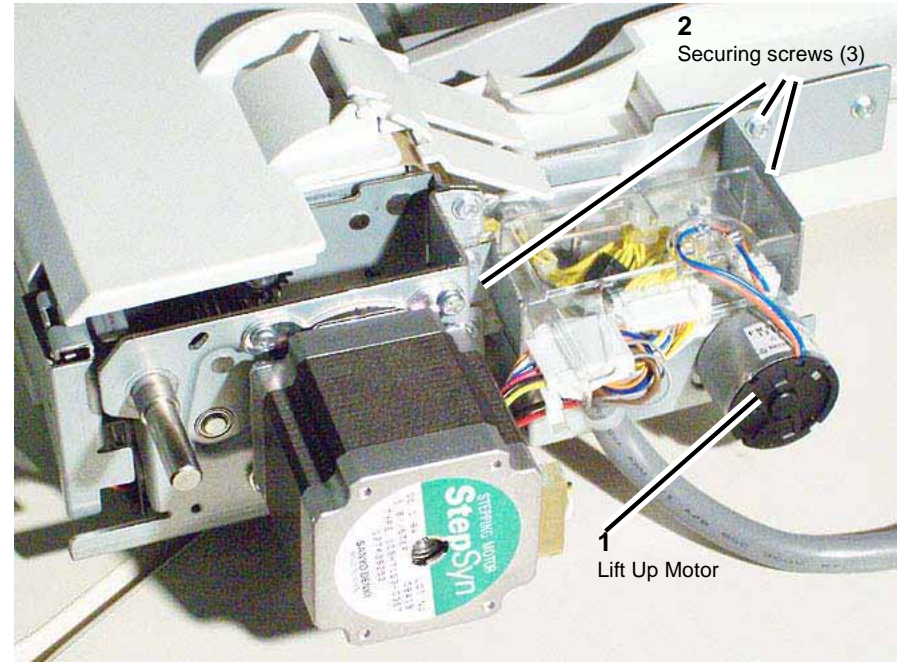
4. Remove the (4) screws securing Rear Cover 1 (PL 3.2), and remove the cover. **Figure 5**





**Figure 5 Removing the 4 screws securing Rear Cover 1**

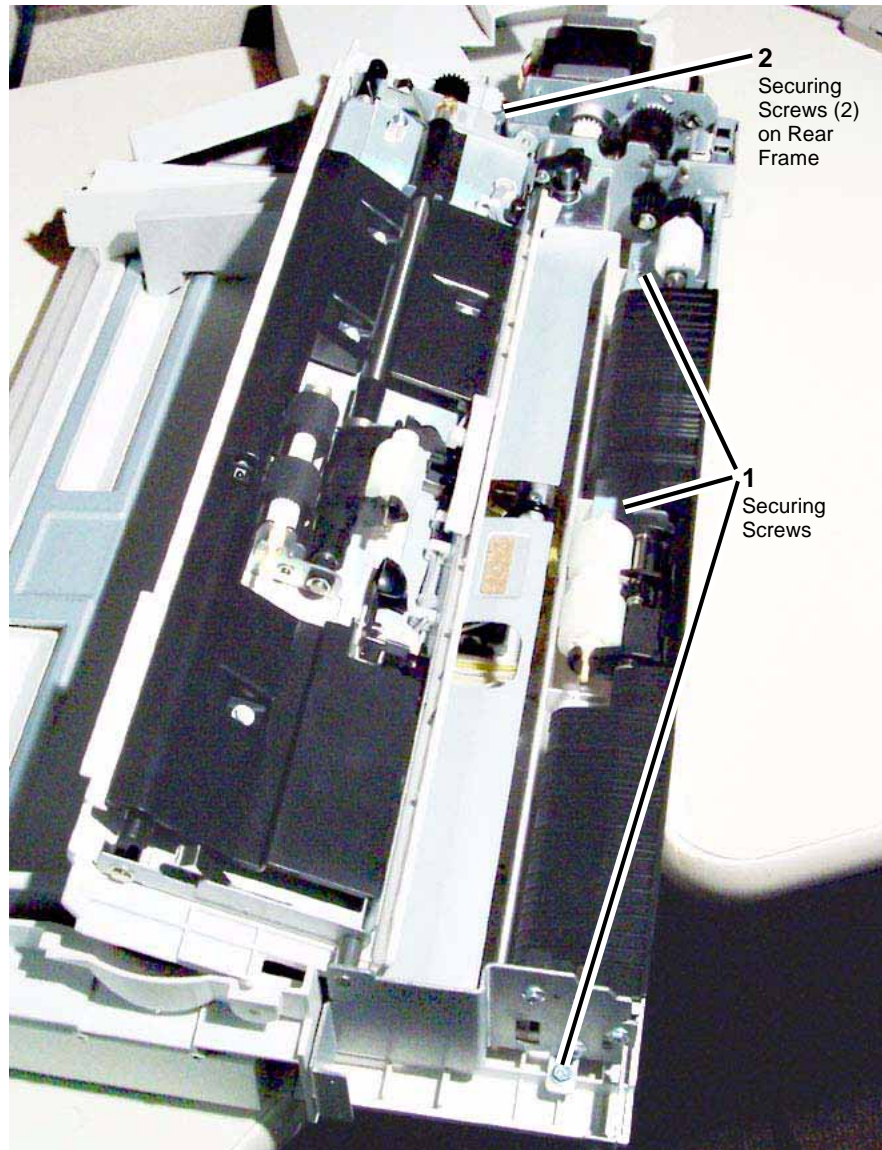
5. Remove the Rear Bracket (PL 3.2) by sliding it to the right off its mounting shaft.
6. Remove the Front Cover 2. PL 3.2
  - a. Remove the Tapping Screws (2).
  - b. While pressing down on the Front Bracket, slide the Front Cover 2 out from under the bracket to remove the cover.
7. Remove the Front Bracket. PL 3.2
  - a. Remove the Tapping Screws (2).
  - b. Remove the Front Bracket by sliding it to the left out of its mounting hole.
8. Remove the Front Cover 1. PL 3.2
  - Installation screws: Front (1), Rear (Tapping) (1).
9. Remove the Front Frame. PL 3.3
  - a. Remove the screws (3).
  - b. Remove the Tapping Screws (2).
  - c. Remove the Front Frame.
10. Remove the (3) screws used to secure the Lift Up Motor. Figure 6
  - a. Disconnect the connector.
  - b. Remove the cable band from the hole.
  - c. Remove the screws (3).



**Figure 6 Lift Up Motor**

11. Remove the Lift Up Motor.
12. Remove the Sector Gear. PL 3.3
  - a. Remove the E-Ring.
  - b. Remove the Sector Gear.
  - c. Remove the pin.
  - d. Remove the Sleeve Bearing.

13. Remove (5) screws used to secure the Feeder. [Figure 7](#)



**Figure 7 Feeder**

14. Remove the Feeder.

### Replacement

1. To install, carry out the removal steps in reverse order.

2. When replacing, enter into Diag. mode and then clear the DC 135 HFSI counter. "Chain Link: 924-826"

## REP 7.15 Tray 5 / Bypass Retard, Feed, and Nudger Rolls

Parts List on [PL 3.6](#)

### Removal

**NOTE:** Remove and replace the Retard/Feed/Nudger Rolls simultaneously.

#### WARNING

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

1. With the Tray 5 / Bypass in the operational (horizontal) position, release the right front latch and open the Upper Feeder.

**NOTE:** It is not necessary to remove the Tray 5 / Bypass from the copier/printer to replace these rolls.

2. Remove each roll by squeezing the roll's shaft at both ends (with the thumb and forefinger of one hand) and lifting the roll up and out of the Tray 5 / Bypass. [Figure 1](#)

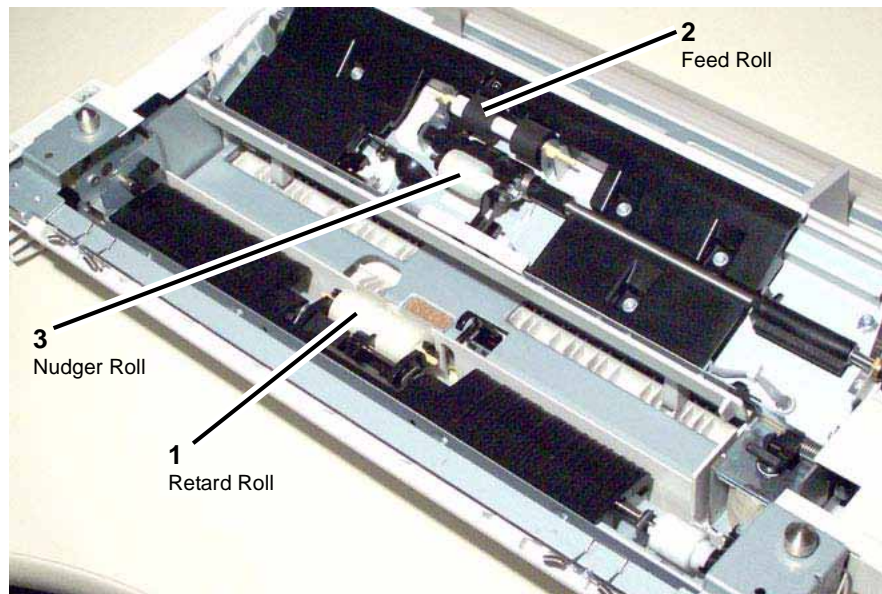


Figure 1 Retard, Feed, and Nudger Rolls

### Replacement

1. Install each new roll by squeezing its shaft at both ends and sliding the roll into place.
2. Use your fingers to roll each roll in place to assure its movement.
3. Close the Upper Feeder.

## REP 7.16 Tray 5 / Bypass Nudger Bracket, Nudger Lever, Torsion Spring

Parts List on [PL 3.10](#)

### Removal

#### WARNING

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

1. With the Tray 5 / Bypass in the operational (horizontal) position, release the right front latch and open the Upper Feeder. [PL 3.6](#)

**NOTE:** It is not necessary to remove the Tray 5 / Bypass from the copier/printer to replace these parts.

2. Remove the Nudger Bracket, Nudger Lever, and Torsion Spring where shown in the Figure and as detailed in the Parts List. [Figure 1](#)

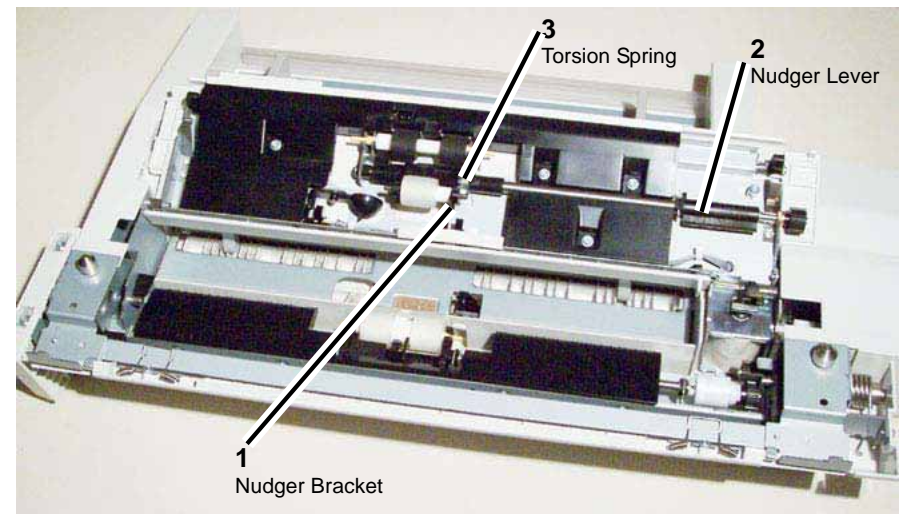


Figure 1 Nudger Bracket, Nudger Lever, Torsion Spring

### Replacement

1. Install the Nudger Bracket, Nudger Lever, and Torsion Spring where shown in the Figure and as detailed in the Parts List. [Figure 1](#)
2. Close the Upper Feeder.

## REP 7.17 Tray 5 / Bypass Feed/Nudger Shaft

Parts List on [PL 3.10](#)

### Removal

#### WARNING

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

1. With the Tray 5 / Bypass in the operational (horizontal) position, release the right front latch and open the Upper Feeder. [PL 3.6](#)

**NOTE:** It is not necessary to remove the Tray 5 / Bypass from the copier/printer to replace this part.

2. Remove the Feed/Nudger Shaft where shown in the Figure and as detailed in the Parts List. [Figure 1](#)

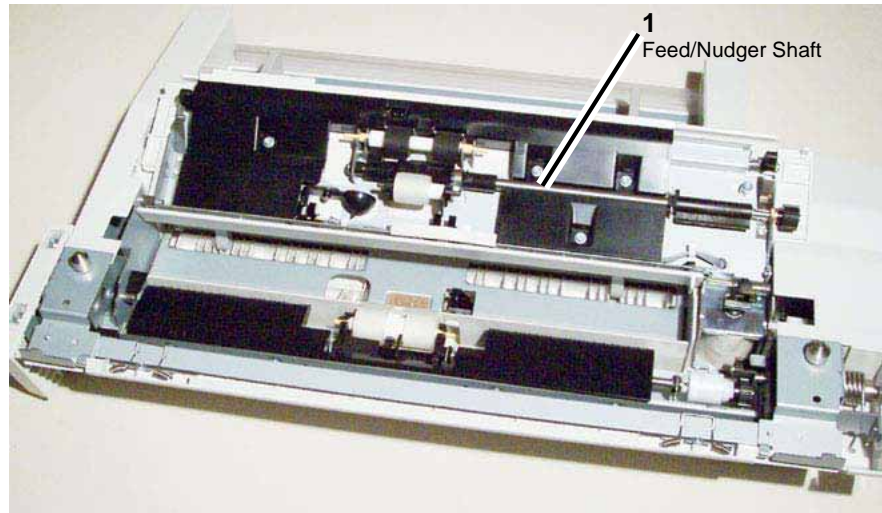


Figure 1 Feed/Nudger Shaft

### Replacement

1. Install the Feed/Nudger Shaft where shown in the Figure and as detailed in the Parts List. [Figure 1](#)
2. Close the Upper Feeder.

## REP 7.18 Tray 1 Feed Assembly

Parts List on [PL 2.1](#)

### Removal

#### WARNING

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

1. Remove Tray 1.
2. Undock the HCF, if so equipped. [REP 7.3](#)
3. Raise the Tray 5 / Bypass. [PL 3.1](#)
4. Open the Left Chute Cover. [PL 2.19](#)
5. Remove the bracket. [Figure 1](#)
  - a. Remove the screw.
  - b. Remove the bracket.

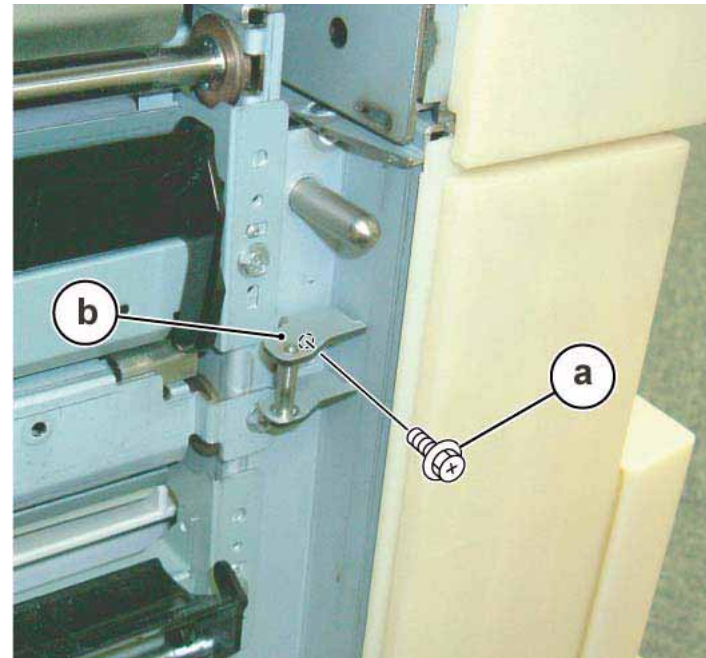
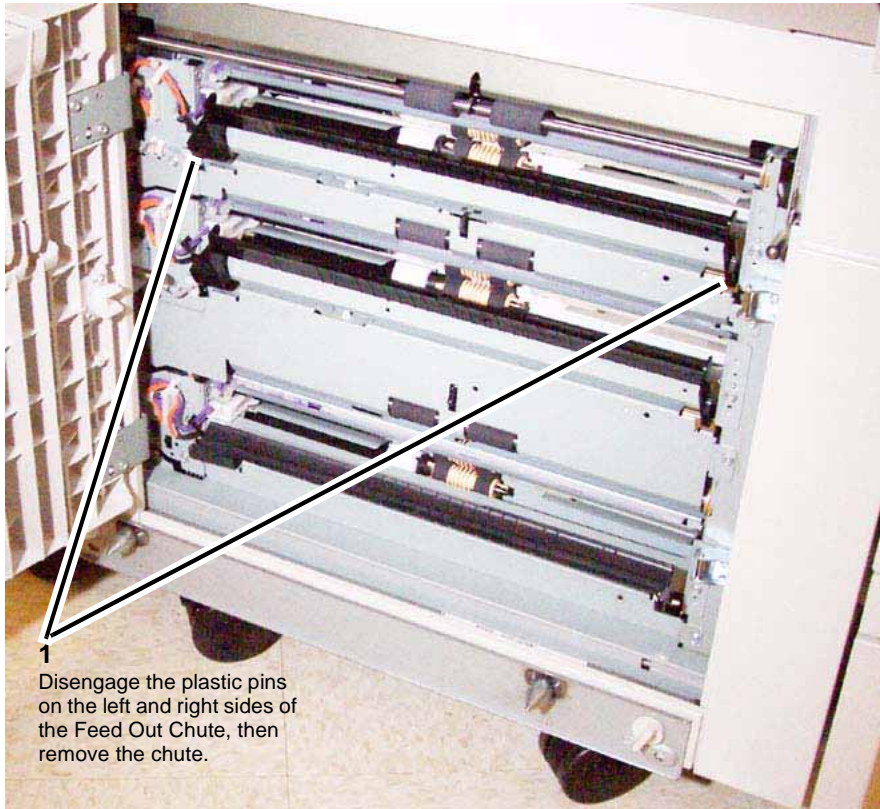


Figure 1 Removing the bracket

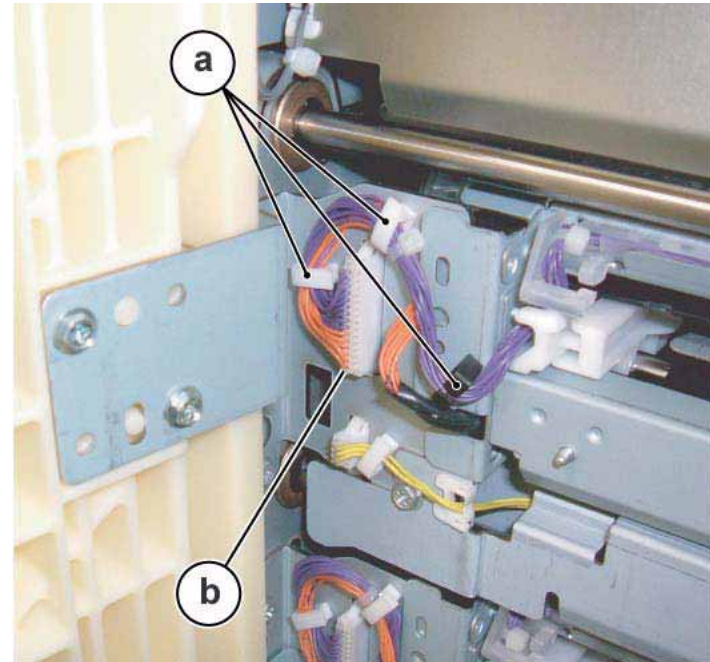
6. Remove the Feed Out Chute to make it easier to remove the feed assembly. [Figure 2](#)
  - a. Disengage the plastic pins on the left and right sides.
  - b. Remove the Feed Out Chute.



1  
Disengage the plastic pins on the left and right sides of the Feed Out Chute, then remove the chute.

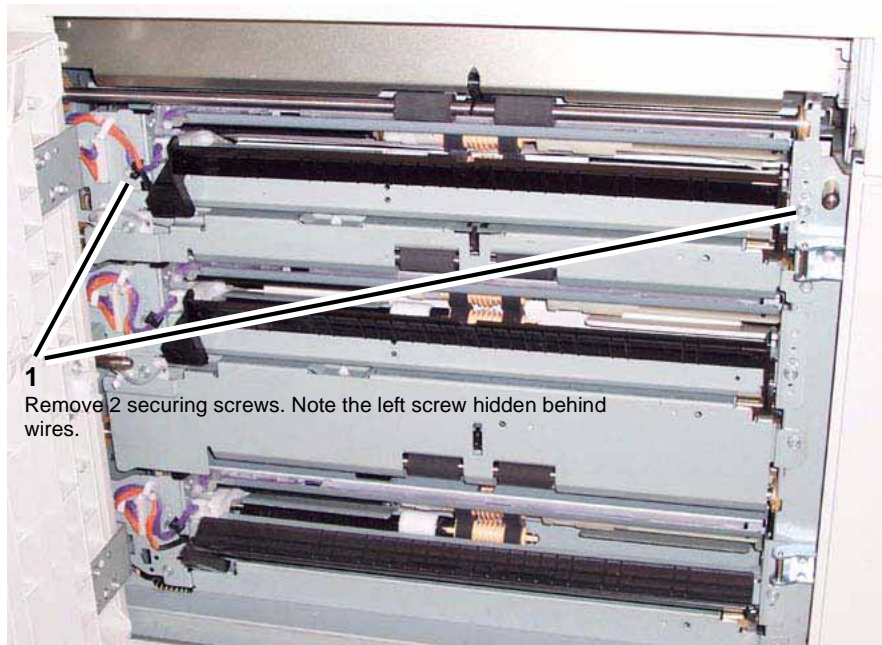
**Figure 2 Removing the Feed Out Chute**

7. Disconnect the connector. [Figure 3](#)
  - a. Release the wire harness from the clamps (3).
  - b. Disconnect the connector.



**Figure 3 Disconnecting the cable clamps and connector**

8. Remove the Tray 1 Feed Assembly. [Figure 4](#)
  - a. Remove the screws (2). Note that the left screw is hidden behind the wires.
  - b. Remove the Tray 1 Feed Assembly.



1  
Remove 2 securing screws. Note the left screw hidden behind wires.

Figure 4 Removing 2 securing screws and the Tray 1 Feed Assembly

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacement, clear the HFSI counter.
  - "Chain Link: 954-800"
  - "Chain Link: 954-819"

## REP 7.19 Tray 2 Feed Assembly

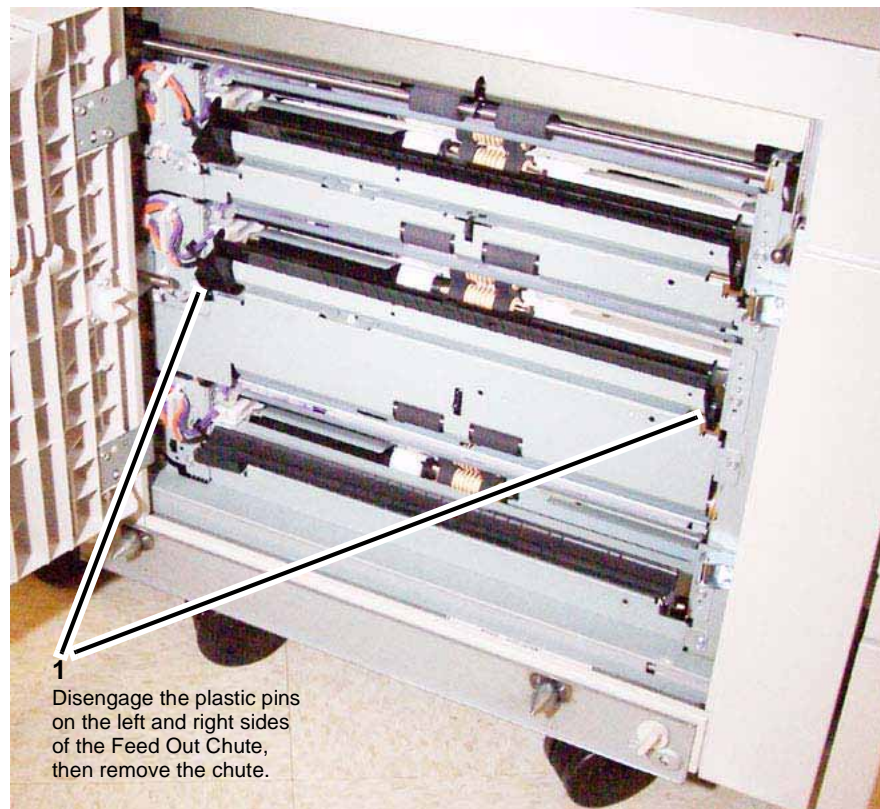
Parts List on [PL 2.1](#)

### Removal

#### WARNING

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

1. Remove Tray 2.
2. Undock the HCF, if so equipped. [REP 7.3](#)
3. Raise the Tray 5 / Bypass. [PL 3.1](#)
4. Open the Left Chute Cover. [PL 2.19](#)
5. Remove the Feed Out Chute to make it easier to remove the feed assembly. [Figure 1](#)
  - a. Disengage the plastic pins on the left and right sides.
  - b. Remove the Feed Out Chute.

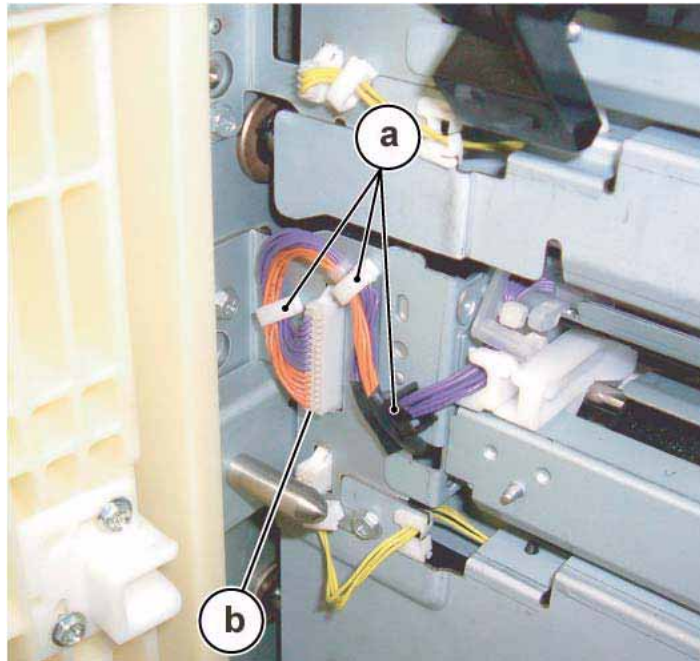


1  
Disengage the plastic pins on the left and right sides of the Feed Out Chute, then remove the chute.

Figure 1 Removing the Feed Out Chute

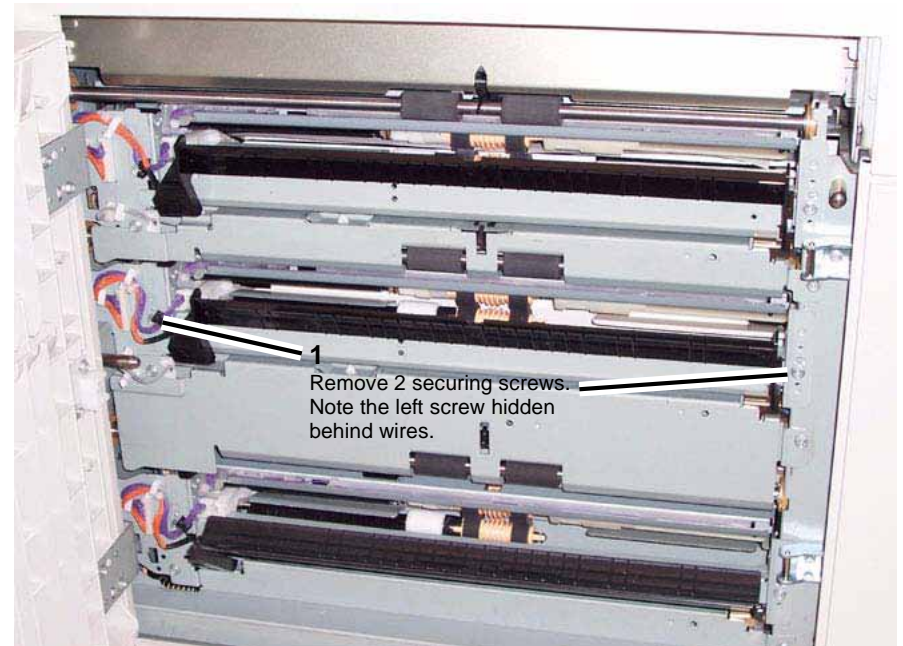
6. Disconnect the connector. [Figure 2](#)

- a. Release the wire harness from the clamps (3).
- b. Disconnect the connector.



**Figure 2 Disconnecting the cable clamps and connector**

7. Remove the Tray 2 Feed Assembly. [Figure 3](#)
  - a. Remove the screws (2). Note that the left screw is hidden behind the wires.
  - b. Remove the Tray 2 Feed Assembly.



**Figure 3 Removing 2 securing screws and the Tray 2 Feed Assembly**

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacement, clear the HFSI counter.
  - “Chain Link: 954-801”
  - “Chain Link: 954-820”

## REP 7.20 Tray 3 Assembly

Parts List on [PL 2.2](#)

### Removal

#### WARNING

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

1. Pull out Tray 3 and remove the paper.
2. Remove the bracket, located under the left front corner of the copier/printer. [Figure 1](#)
  - a. Remove the screw.
  - b. Remove the bracket.

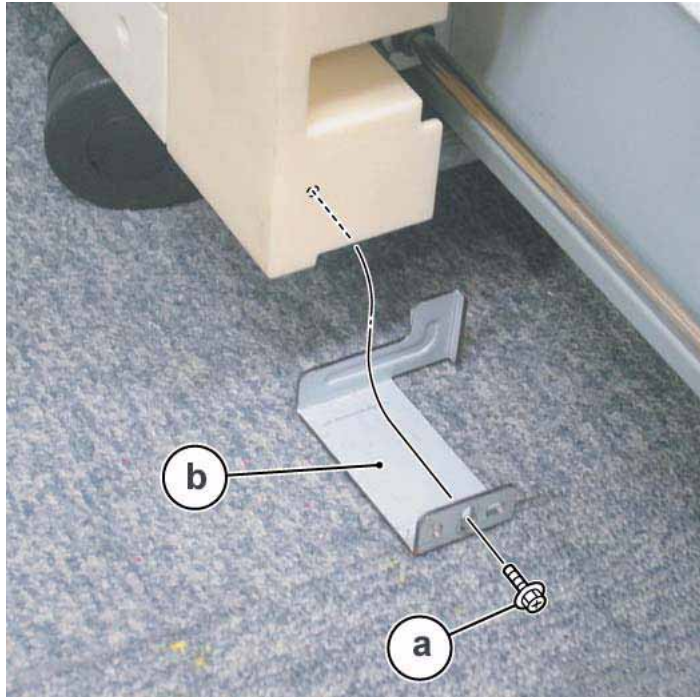


Figure 1 Removing bracket under left front corner of copier/printer.

3. Remove the Tray 3 Assembly.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 7.21 Tray 4 Assembly

Parts List on [PL 2.2](#)

### Removal

#### WARNING

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

1. Pull out Tray 4 to the 15 cm position.
2. Remove the screws securing the Tray 4 Transport Assembly to the Tray 4 Assembly. [Figure 1](#)
  - a. Remove the screws (2).

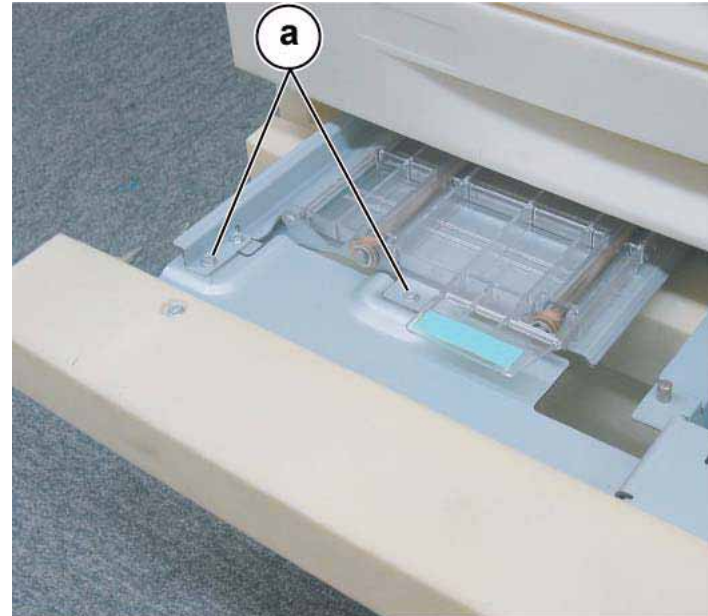
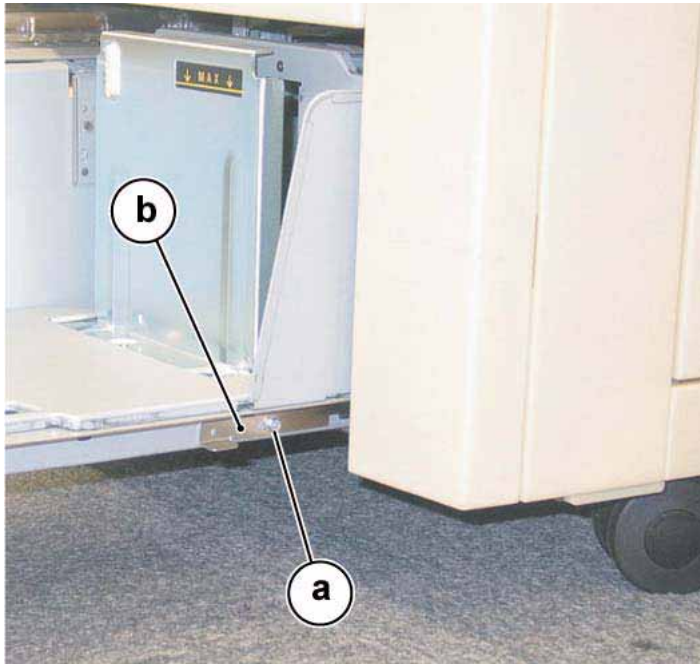


Figure 1 Removing the screws securing Tray 4 Transport Assembly

3. Pull Tray 4 further out and remove the paper.
4. Remove the Stopper. [Figure 2](#)
  - a. Remove the screw.
  - b. Remove the Stopper.





**Figure 2 Removing the Tray 4 Stopper**

5. Remove the Tray 4 Assembly.

**NOTE:** If the Tray 4 Transport Assembly moves with the Tray 4 Assembly, use your left hand to support the Transport Assembly as you pull the Tray 4 Assembly out of the copier/printer. You can then separate the two pieces of equipment after they have been removed from the copier/printer. If, however, the Tray 4 Transport Assembly stays in place on its rails, then just remove the Tray 4 Assembly by itself, making replacement easier.

### Replacement

1. If necessary, slide the Tray 4 Transport Assembly onto its rails inside the copier/printer.
2. Install the Tray 4 Assembly onto its rails and check to see that the assembly is moving freely on its rollers.
3. Install the Stopper.
4. Roll the Tray 4 Assembly in to meet up with the Tray 4 Transport Assembly.
5. Secure the Tray 4 Transport Assembly to the Tray 4 Assembly with (2) screws.
6. Place paper back into Tray 4 and slide Tray 4 back into the copier/printer.

## REP 7.22 Tray 3 Feed Assembly

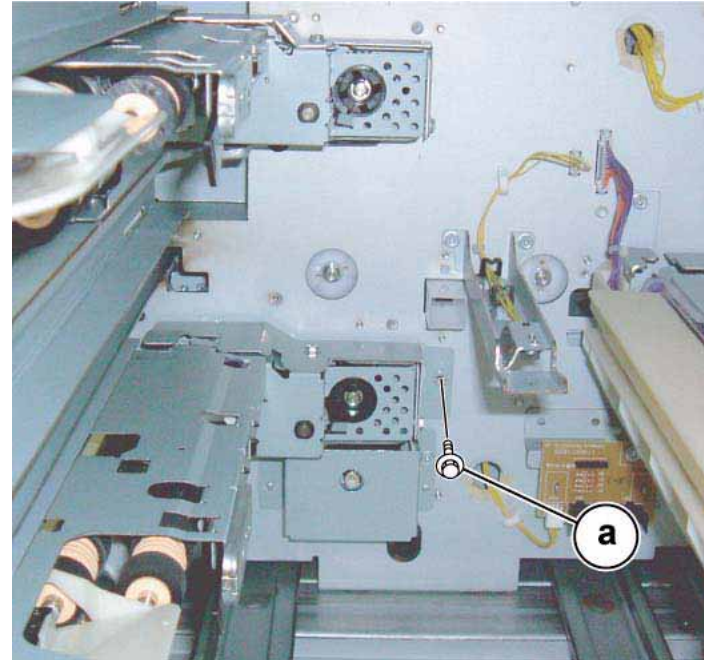
Parts List on [PL 2.3](#)

### Removal

#### WARNING

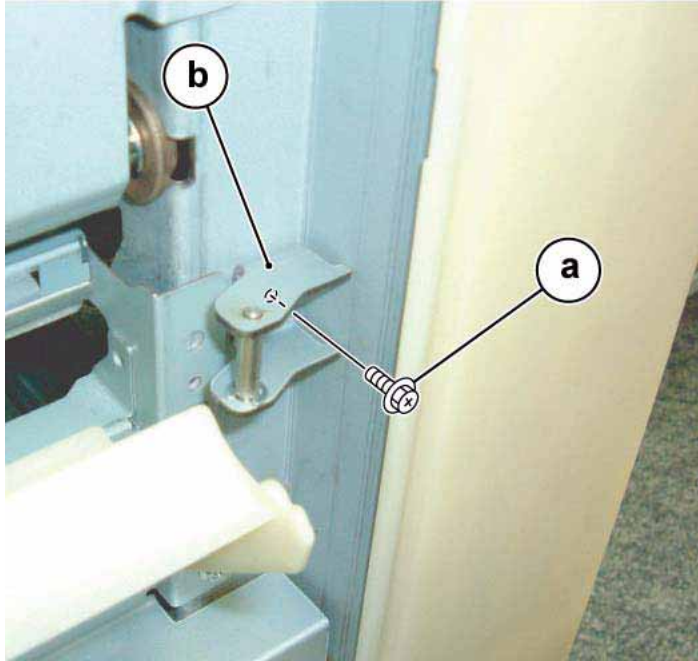
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Trays 1 and 2.
2. Pull out Trays 3 and 4.
3. Remove the screw. [Figure 1](#)
  - a. Remove the screw.



**Figure 1 Removing the securing screw inside the copier/printer**

4. Undock the HCF, if so equipped. [REP 7.3](#)
5. Raise the Tray 5 / Bypass. [PL 3.1](#)
6. Open the Left Chute Cover. [PL 2.19](#)
7. Remove the bracket. [Figure 2](#)
  - a. Remove the screw.
  - b. Remove the bracket.



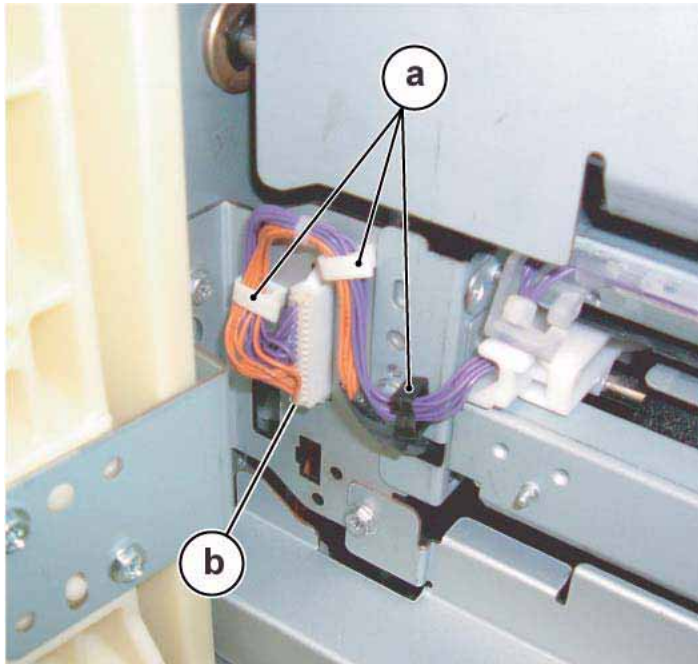
**Figure 2 Removing the bracket on the left side of the copier/printer**

8. Remove the Feed Out Chute to make it easier to remove the feed assembly. **Figure 3**
  - a. Remove the Feed Out Chute.

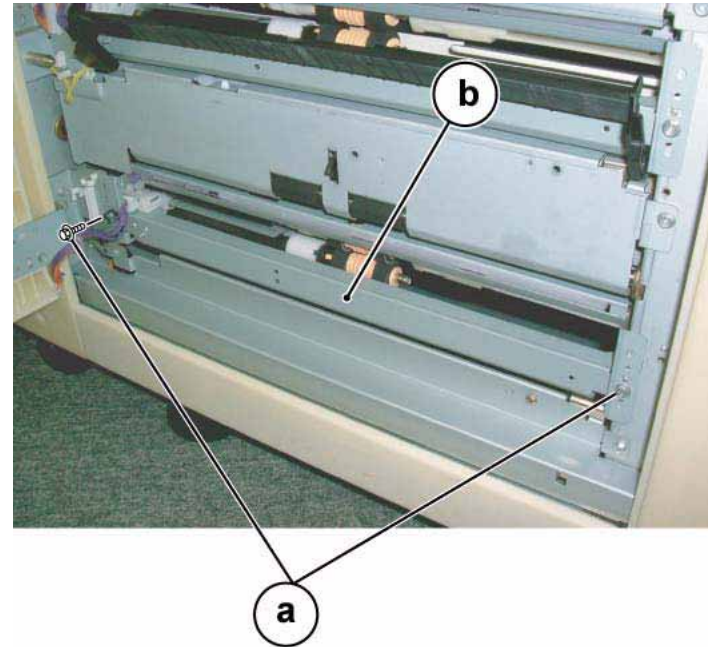


**Figure 3 Removing the Feed Out Chute**

9. Disconnect the connector. **Figure 4**
  - a. Release the wire harness from the clamps (3).
  - b. Disconnect the connector.



**Figure 4 Disconnecting the connector**



**Figure 5 Removing the Tray 3 Feed Assembly**

10. Remove the Tray 3 Feed Assembly. [Figure 5](#)
  - a. Remove the screws (2). Note that the left screw is hidden behind the wires.
  - b. Remove the Tray 3 Feed Assembly.

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacement, clear the HFSI counter.
  - “Chain Link: 954-802”
  - “Chain Link: 954-821”

## REP 7.23 Tray 4 Feed Assembly

Parts List on [PL 2.3](#)

### Removal

#### WARNING

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

1. Remove Trays 1 and 2.
2. Pull out Tray 3 and remove the paper.
3. Push in Tray 3.
4. Pull out Tray 4 and remove the paper.
5. Remove the Tray 4 Transport Assembly. [Figure 1](#)
  - a. Remove the screws (2).
  - b. Remove the Tray 4 Transport Assembly.

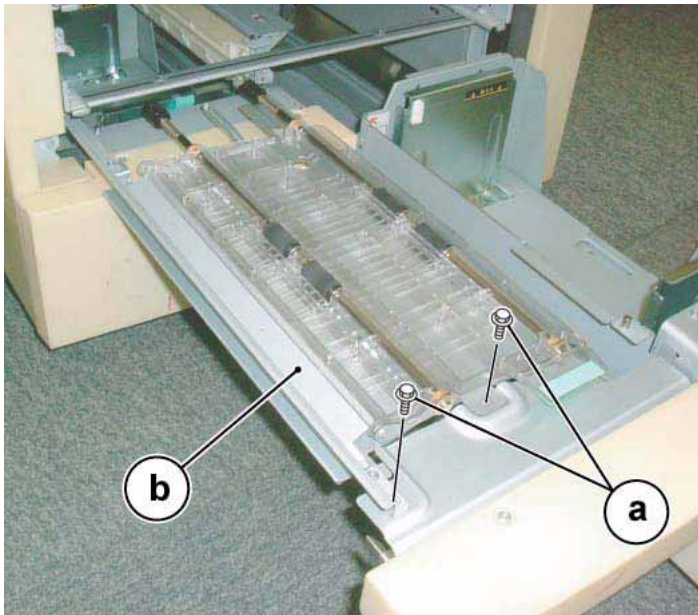


Figure 1 Removing the Tray 4 Transport Assembly

6. Disconnect the connector. [Figure 2](#)
  - a. Disconnect the connector.
  - b. Remove the screws (2).

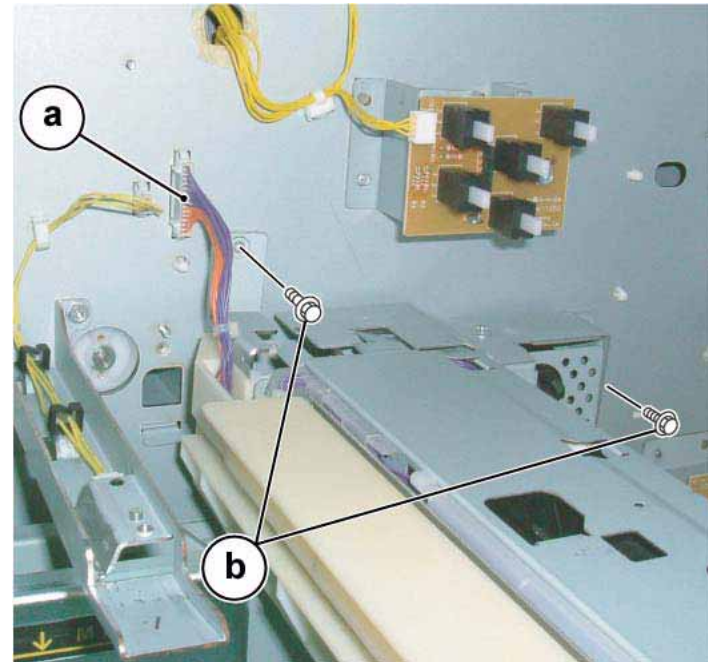


Figure 2 Disconnecting the connector

7. Remove the Pivot Bracket. [Figure 3](#)
  - a. Remove the screw.
  - b. Remove the Pivot Bracket.

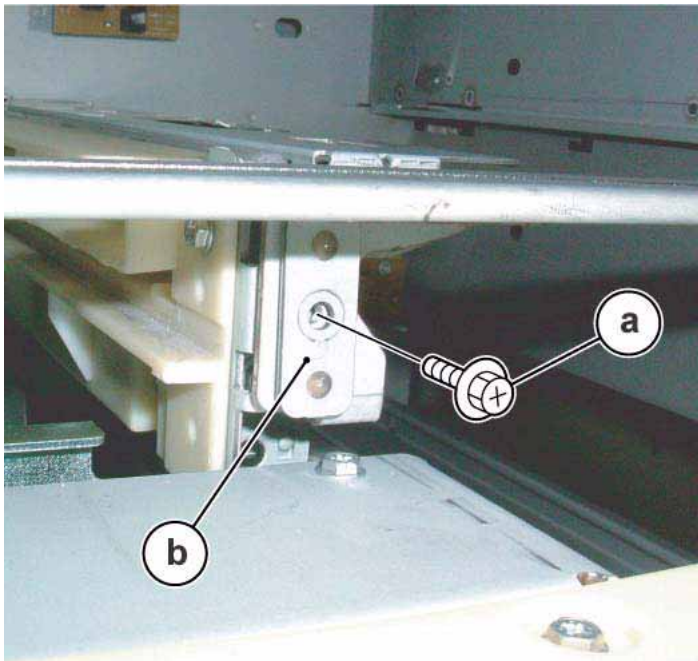


Figure 3 Removing the Pivot Bracket

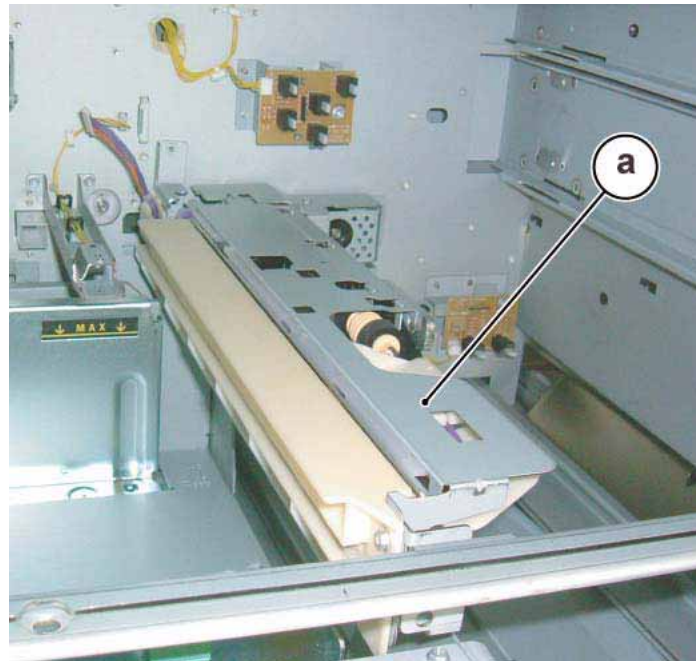


Figure 4 Removing the Tray 4 Feed Assembly

8. Remove the Tray 4 Feed Assembly. [Figure 4](#)
  - a. Remove the Tray 4 Feed Assembly.

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacement, clear the HFSI counter.
  - “Chain Link: 954-803”
  - “Chain Link: 954-822”

## REP 7.24 Feed/Nudger/Retard Roll (Trays 1 and 2)

Parts List on [PL 2.7](#) [PL 2.9](#)

### Removal

#### WARNING

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

**NOTE:** Replace the Feed/Nudger/Retard Rolls at the same time because they have the same life duration.

**NOTE:** As the Feed/Nudger/Retard Roll is the same for both Trays 1 and 2, only the replacement procedure for Tray 1 is described here.

1. Remove Tray 1.
2. Move the Chute to the front. [Figure 1](#)
  - a. Move the Chute.

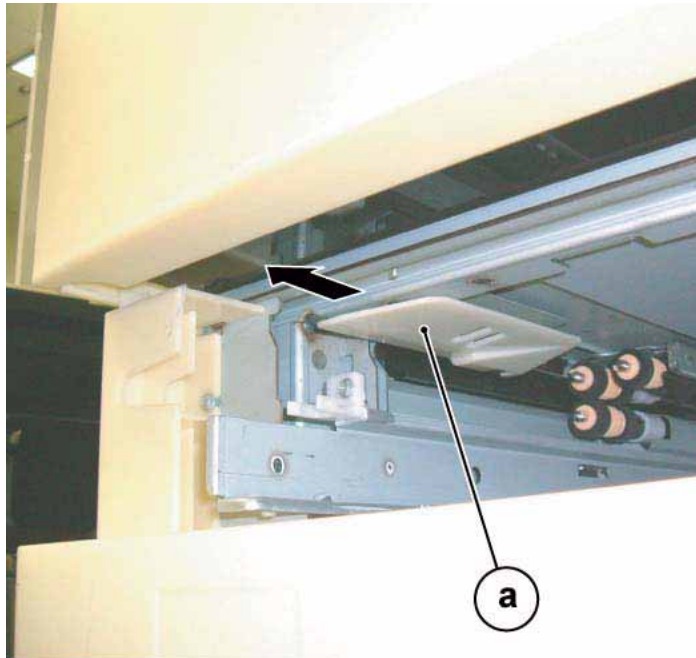


Figure 1 Moving the Chute

3. Remove the Feed/Nudger/Retard Rolls. [Figure 2](#)
  - a. Release the plastic clip from the groove in the shaft, then remove the roll.

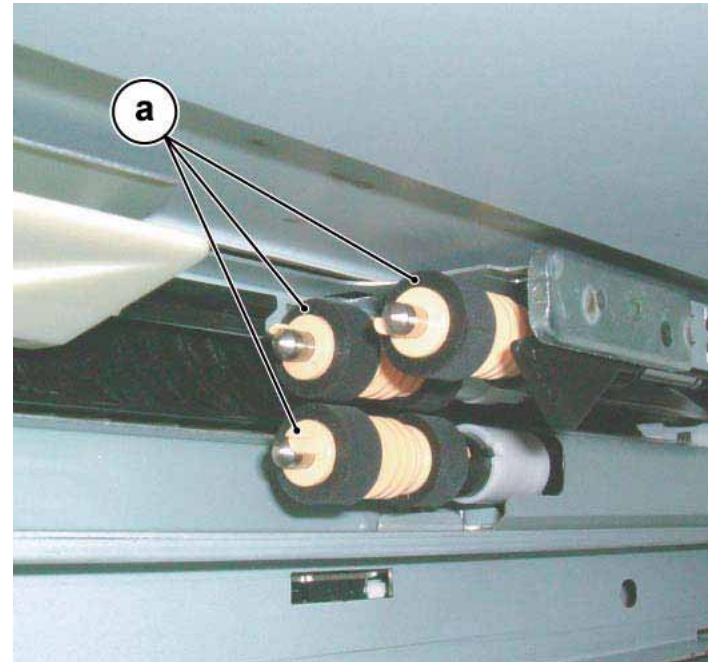


Figure 2 Removing the Feed/Nudger/Retard Rolls

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacement, clear the HFSI counter.
  - Tray 1 "Chain Link: 954-800"
  - Tray 2 "Chain Link: 954-801"

## REP 7.25 Feed/Nudger/Retard Roll (Tray 3)

Parts List on [PL 2.11](#)

### Removal

#### WARNING

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

**NOTE:** Replace the Feed/Nudger/Retard Rolls at the same time because they have the same life duration.

1. Remove Trays 1 and 2.
2. Pull out Trays 3 and 4.
3. Move the Chute to the front. [Figure 1](#)
  - a. Move the Chute.

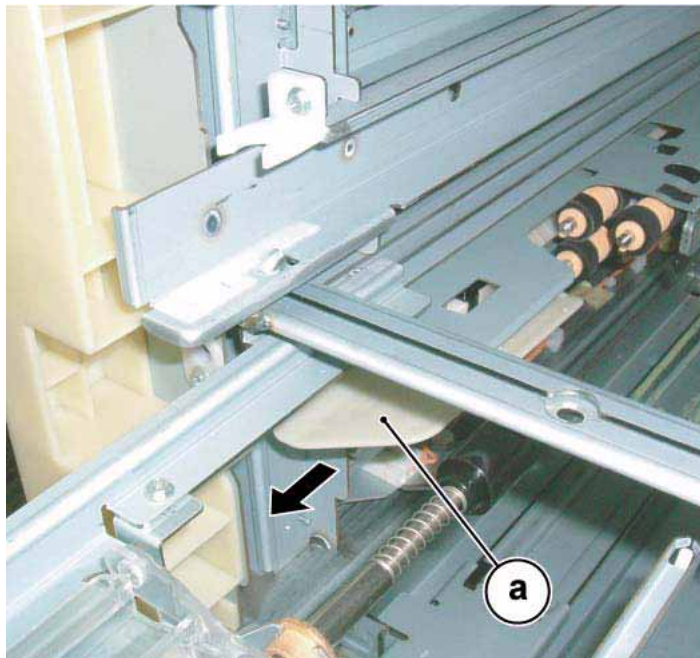


Figure 1 Moving the Chute

4. Remove the Feed/Nudger/Retard Rolls. [Figure 2](#)
  - a. Release the plastic clip from the groove in the shaft, then remove the roll.

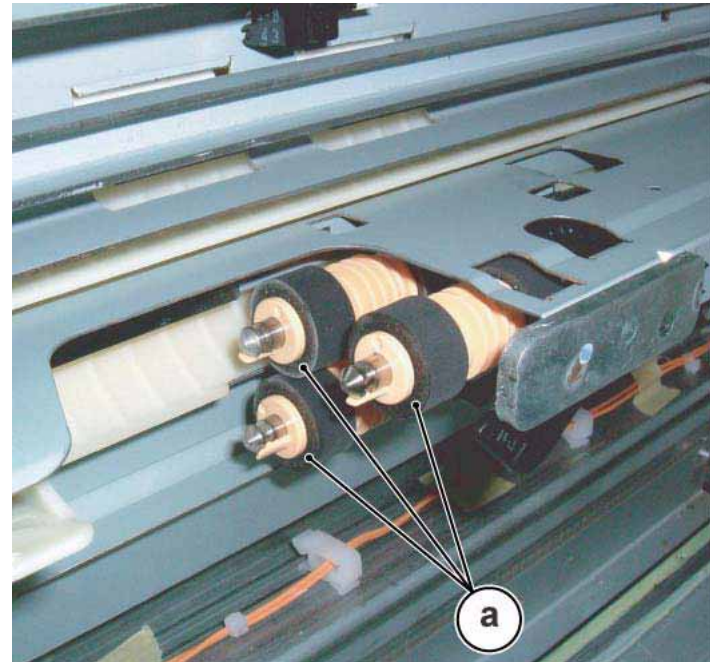


Figure 2 Removing the Feed/Nudger/Retard Rolls

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacement, clear the HFSI counter.
  - “Chain Link: 954-802”

## REP 7.26 Feed/Nudger/Retard Roll (Tray 4)

Parts List on [PL 2.13](#)

### Removal

#### WARNING

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

**NOTE:** Replace the Feed/Nudger/Retard Rolls at the same time because they have the same life duration.

1. Remove Trays 1 and 2.
2. Pull out Tray 4.
3. Move the Chute to the front. [Figure 1](#)
  - a. Move the Chute.

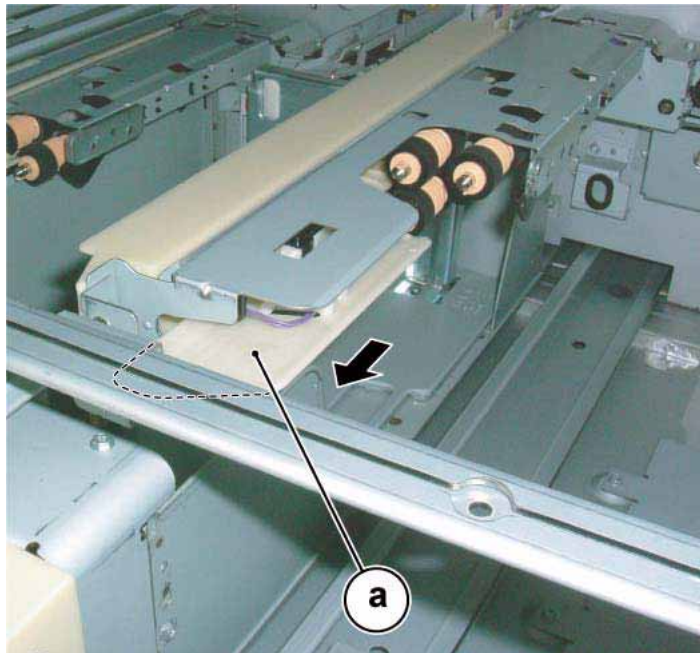


Figure 1 Moving the Chute

4. Remove the Feed/Nudger/Retard Rolls. [Figure 2](#)
  - a. Release the plastic clip from the groove in the shaft, then remove the roll.

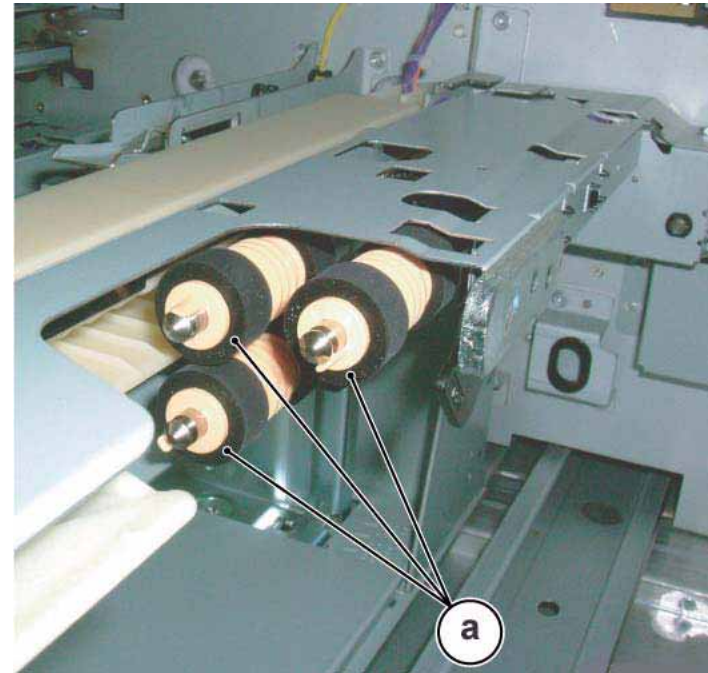


Figure 2 Removing the Feed/Nudger/Retard Rolls

### Replacement

1. To install, carry out the removal steps in reverse order.
2. After replacement, clear the HFSI counter.
  - “Chain Link: 954-803”



## REP 7.27 Tray 3 Rear Cable

Parts List on [PL 2.14](#)

### Removal

#### WARNING

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

1. Remove the Tray 3 Assembly. [REP 7.20](#)
2. At the rear of the Tray 3 Assembly, remove (2) cable ends from the pocket of the Lift Shaft. [Figure 1](#)
  - a. Remove (2) E-Clips, (2) Wire Guides, and (2) Pulleys.
  - b. When both sections of the cable are slack, disengage the Lift Shaft from its bracket, and slide the Pulley on the Lift Shaft to release the cable ends trapped in the pocket underneath the Pulley.
3. Remove (1) E-Clip, (1) Wire Guide, and (1) Pulley.
4. Disengage the Tray Cable from the Bottom Plate in 2 places and remove the Rear Cable.

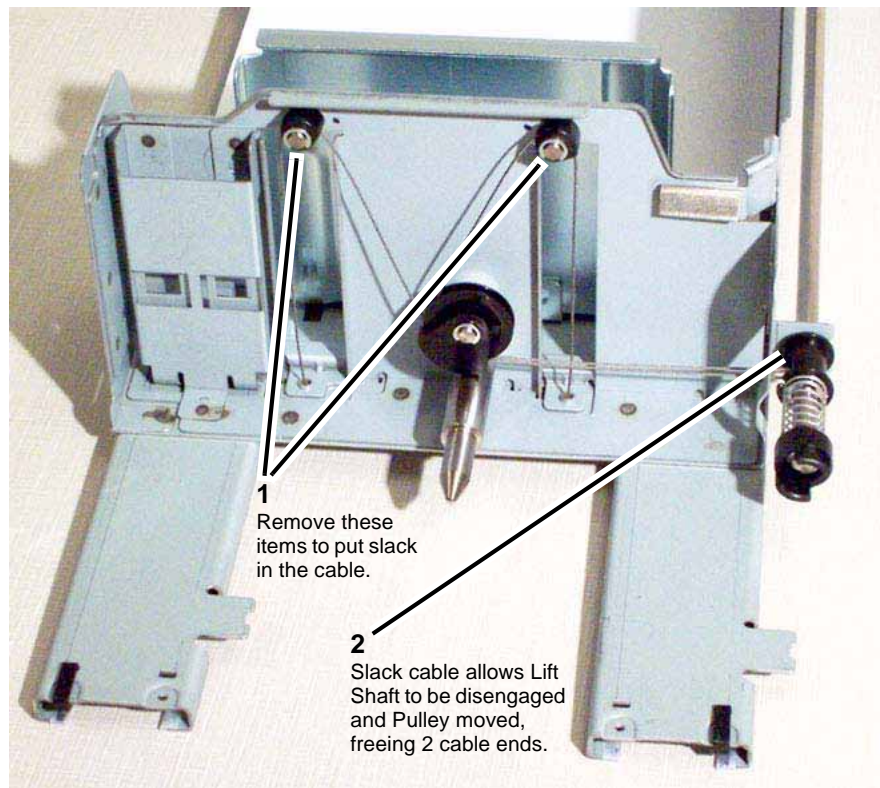


Figure 1 Tray 3 Rear Cable details

### Replacement

1. Install the Rear Cable by carrying out the removal steps in reverse order.
2. Reinstall the Tray 3 Assembly on its rails in the copier/printer.
3. Reinstall the bracket, located under the left front corner of the copier/printer.
  - a. Position the bracket under the left front corner of the copier/printer.
  - b. Install the securing screw.
  - c. Pull out Tray 3, place paper back into the tray, and slide Tray 3 back into the copier/printer.

## REP 7.28 Tray 3 Front Left and Right Cables

Parts List on [PL 2.14](#)

### Removal

#### WARNING

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

1. Remove the Tray 3 Assembly. [REP 7.20](#)
2. Remove the Tray 3 Cover.
  - a. Remove (4) securing screws.
  - b. Remove the Tray 3 Cover.
3. Remove the metal Bracket covering the Front Left and Right Cables.
  - a. Remove (4) securing screws.
  - b. Remove the Bracket.
4. Remove the cable ends from the Lift Shaft. [Figure 1](#)
  - a. Remove the E-Clip at the end of the Lift Shaft.
  - b. Slide the Pulley to the front (towards you) to reveal the (2) cable ends.
  - c. Remove the cable ends from the Lift Shaft.

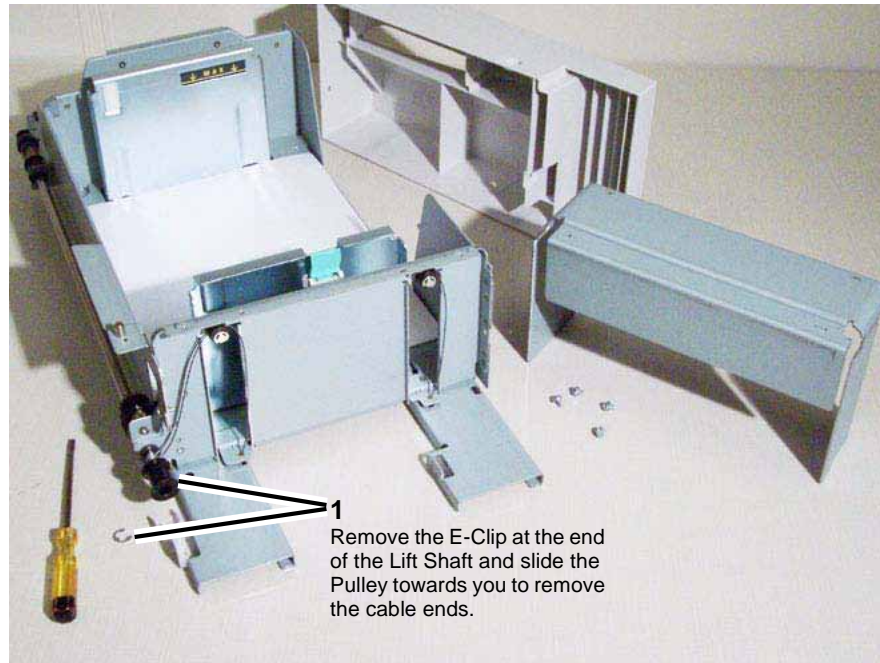


Figure 1 Removing Front Left and Right Cable ends from Lift Shaft

5. Remove (2) E-Clips, (2) Wire Guides, and (2) Pulleys.

6. Disengage the Front Left and Right Cables from the Bottom Plate in 2 places and remove the cables.

### Replacement

1. Install the Front Left and Right Cables by carrying out the removal steps in reverse order.
2. Reinstall the Tray 3 Assembly on its rails in the copier/printer.
3. Reinstall the bracket, located under the left front corner of the copier/printer.
  - a. Position the bracket under the left front corner of the copier/printer.
  - b. Install the securing screw.
  - c. Pull out Tray 3, place paper back into the tray, and slide Tray 3 back into the copier/printer.

## REP 7.29 Tray 4 Front Cable

Parts List on [PL 2.15](#)

### Removal

#### WARNING

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

1. Remove the Tray 4 Assembly. [REP 7.21](#)
2. Remove the Tray 4 Cover. [Figure 1](#)
  - a. Remove (4) securing screws.
  - b. Remove the Tray 4 Cover.

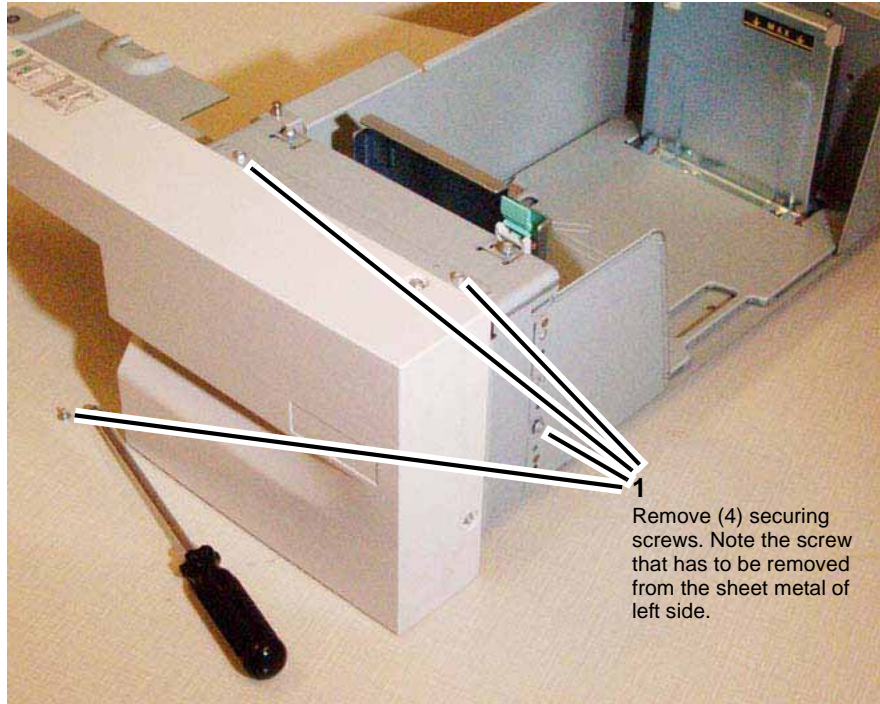
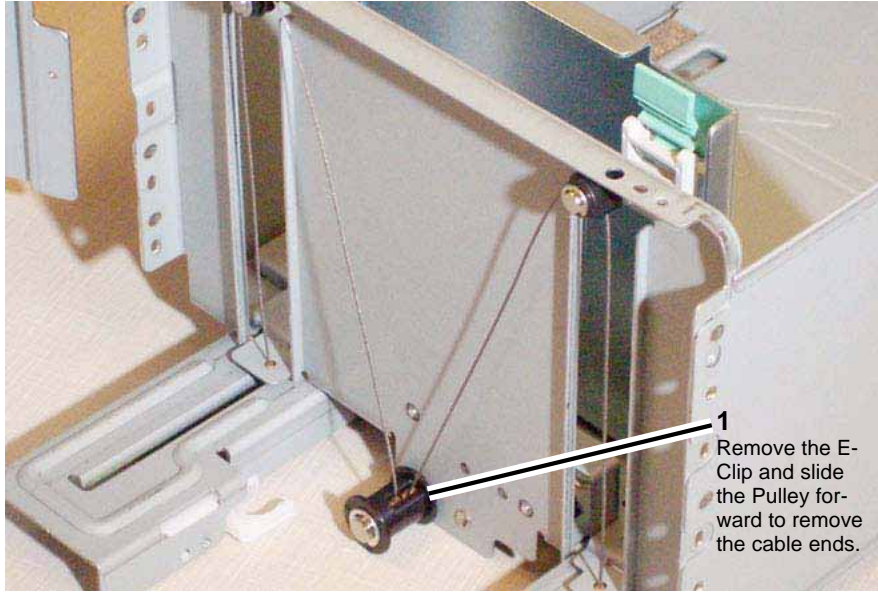


Figure 1 Removing the Tray 4 Cover

3. Remove the (2) cable ends from the pocket of the Lift Shaft. [Figure 2](#)
  - a. Remove the E-Clip from the end of the Lift Shaft.
  - b. Slide the Pulley forward (towards you) on the Lift Shaft.
  - c. Remove the (2) cable ends.



**Figure 2 Removing the (2) cable ends from the Lift Shaft pocket**

4. Remove (2) E-Clips, (2) Wire Guides, and (2) Pulleys.
5. Disengage the Tray Cable from the Bottom Plate in 2 places and remove the Front Cable.

### Replacement

1. Install the Tray 4 Front Cable by carrying out the removal steps in reverse order.

## REP 7.30 Tray 4 Rear Cable

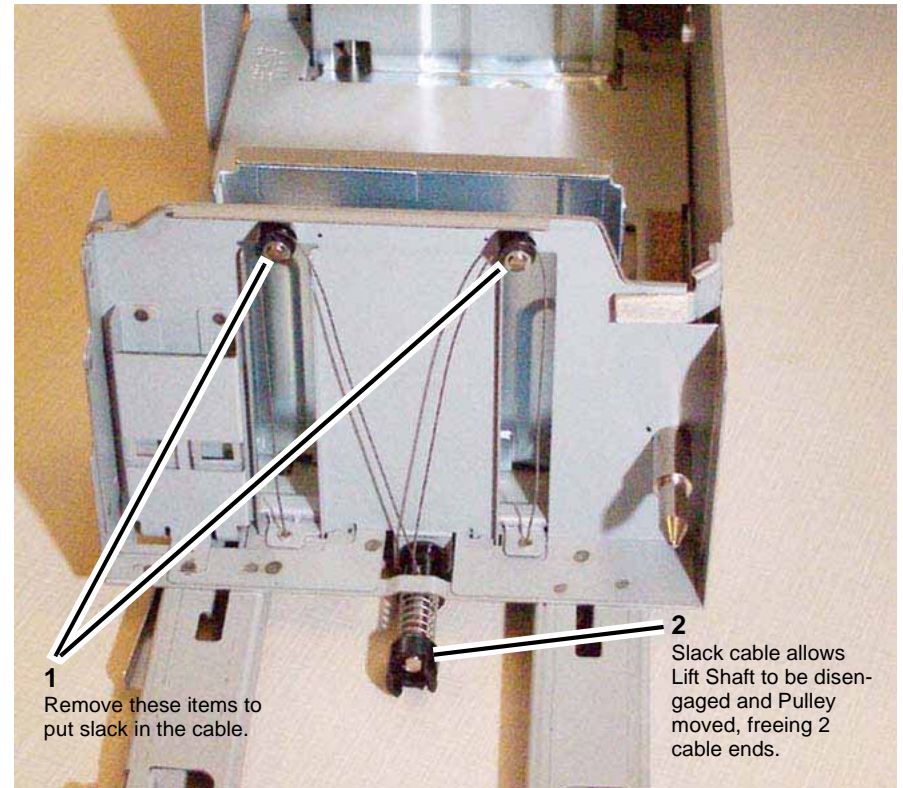
Parts List on [PL 2.15](#)

### Removal

#### WARNING

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

1. Remove the Tray 4 Assembly. [REP 7.21](#)
2. At the rear of the Tray 4 Assembly, remove (2) cable ends from the pocket of the Lift Shaft. [Figure 1](#)
  - a. Remove (2) E-Clips, (2) Wire Guides, and (2) Pulleys.
  - b. When both sections of the cable are slack, disengage the Lift Shaft from its bracket, and slide the Pulley on the Lift Shaft to release the cable ends trapped in the pocket underneath the Pulley.
  - c. Remove the (2) cable ends from the Lift Shaft.



**Figure 1 Removing the (2) cable ends from the Lift Shaft pocket**

3. Disengage the Tray Cable from the Bottom Plate in 2 places and remove the Rear Cable.

## Replacement

1. Install the Tray 4 Rear Cable by carrying out the removal steps in reverse order.

## REP 7.31 Tray 5 / Bypass Chute Assembly

Parts List on [PL 2.16](#)

### Removal

#### WARNING

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

1. Remove the Tray 5 / Bypass. [PL 3.1](#)
  - a. Raise the Tray 5 / Bypass.
  - b. Disconnect the connector to the left side of copier/printer.
  - c. Open the Lower Cover and remove the (2) securing screws. [Figure 1](#)
  - d. Grasping the Tray 5 / Bypass firmly with both hands, lift it up and out to remove.

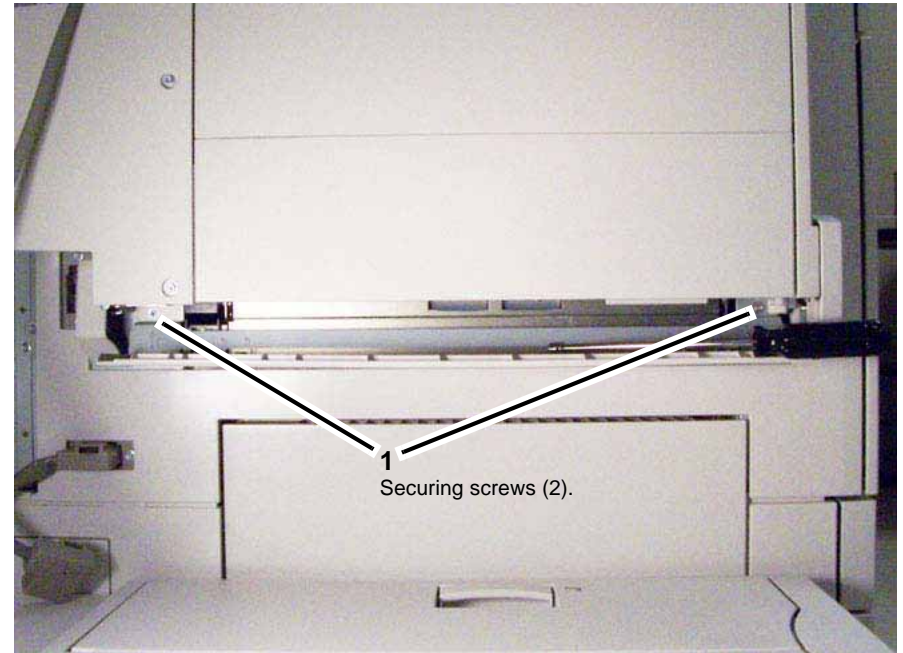


Figure 1 Tray 5 / Bypass Securing Screws

2. Remove the copier/printer's Left Upper Cover. [PL 12.2](#)
  - a. Remove (2) screws.
  - b. Disconnect the connector to the HCF (if so equipped).
  - c. Remove the Upper Left Cover.

3. Remove the Tray 5 / Bypass Chute Assembly. [Figure 2](#)
  - a. Disconnect the connector.
  - b. Remove the screws (2).
  - c. Remove the Tray 5 / Bypass Chute Assembly.

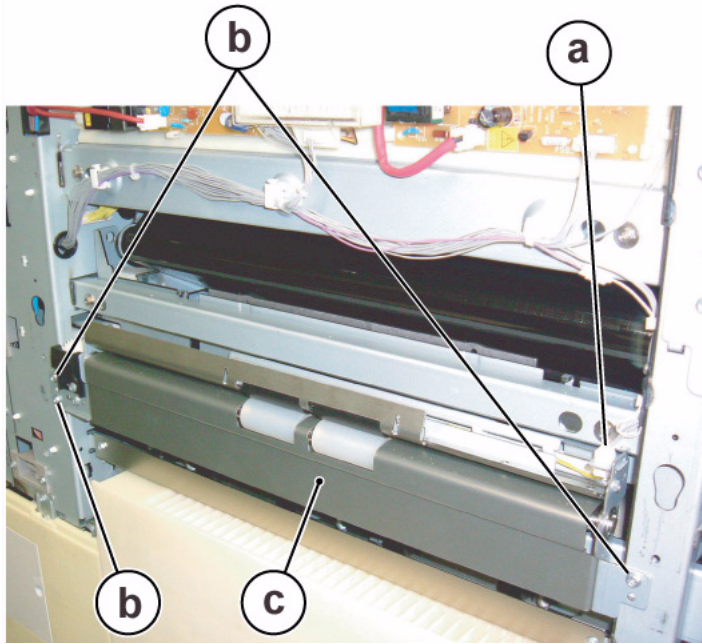


Figure 2 Removing the Tray 5 / Bypass Chute Assembly

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 8.1 Registration Transport Assembly

Parts List on [PL 4.4](#)

### Removal

#### WARNING

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

1. Open the Front Cover.
2. Open the Transport Drawer ([Figure 1](#)).



Figure 1 Opening the Transport Drawer

3. Remove the Registration Transport Assembly ([Figure 2](#)).

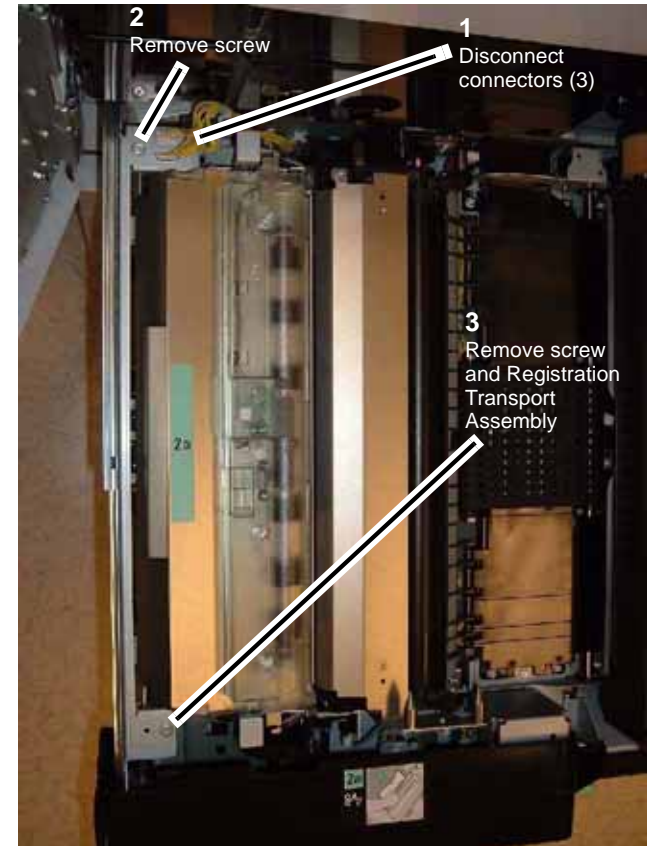


Figure 2 Removing the Registration Transport Assembly

## REP 8.2 Duplex Motor Assembly

Parts List on [PL 4.2](#)

### Removal

#### WARNING

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

1. Open the Front Cover.
2. Open the Transport Drawer ([Figure 1](#)).



Figure 1 Opening the Transport Drawer

3. Remove the Inner Cover ([Figure 2](#)).

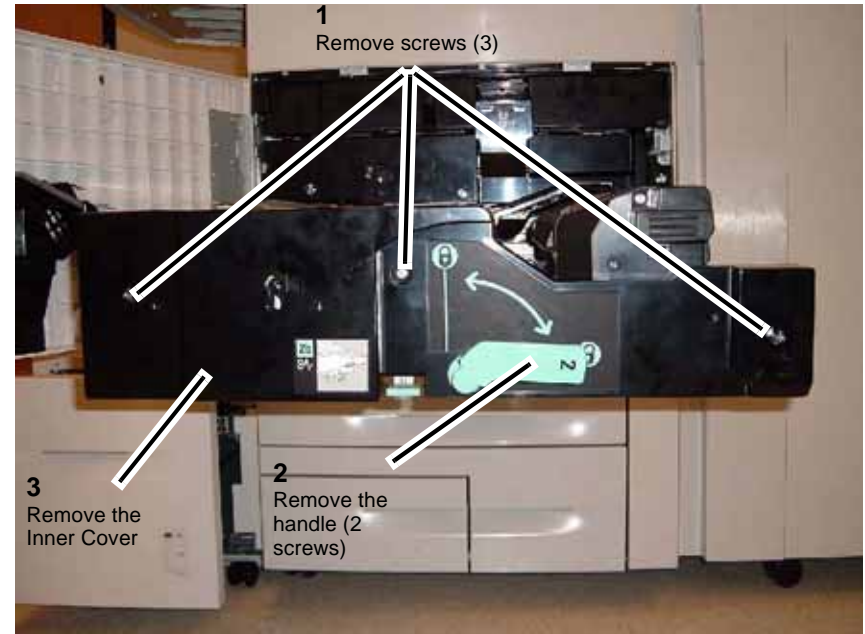
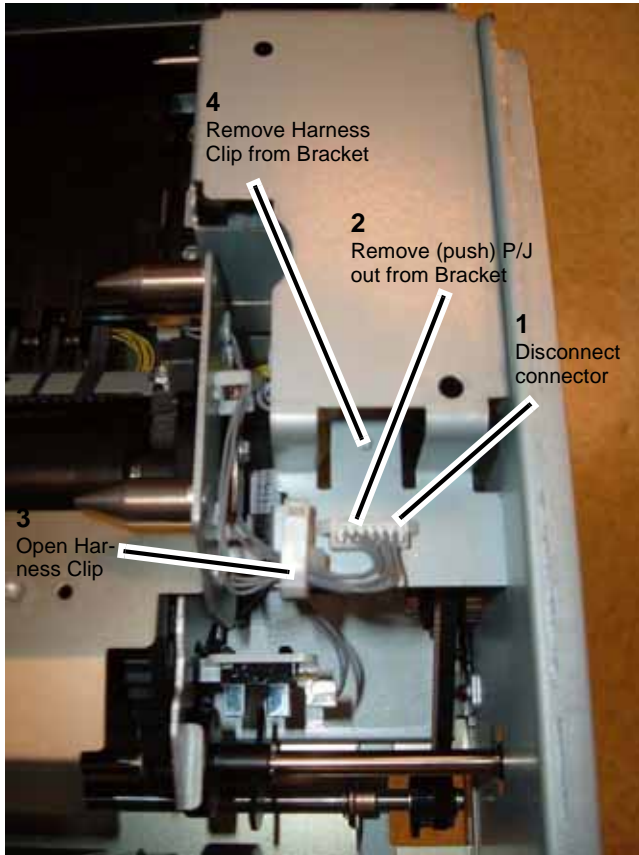


Figure 2 Removing the Inner Cover

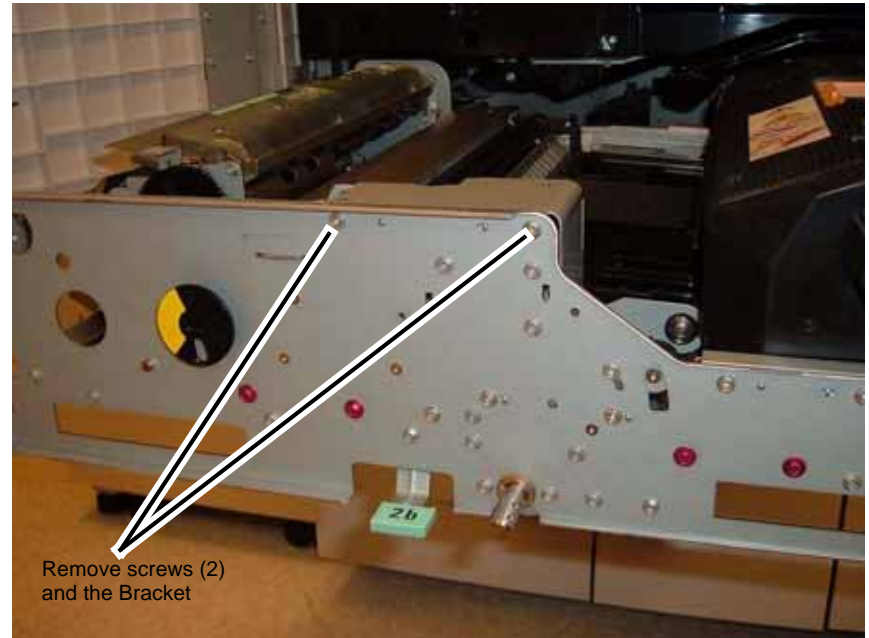
4. Remove Harness from Bypass Motor Bracket ([Figure 3](#)).





**Figure 3 Removing Harness from Bypass Motor Bracket**

5. Remove the Bypass Motor Bracket (Figure 4).



**Figure 4 Removing the Bypass Motor Bracket**

6. Release Belt Tension (Figure 5).

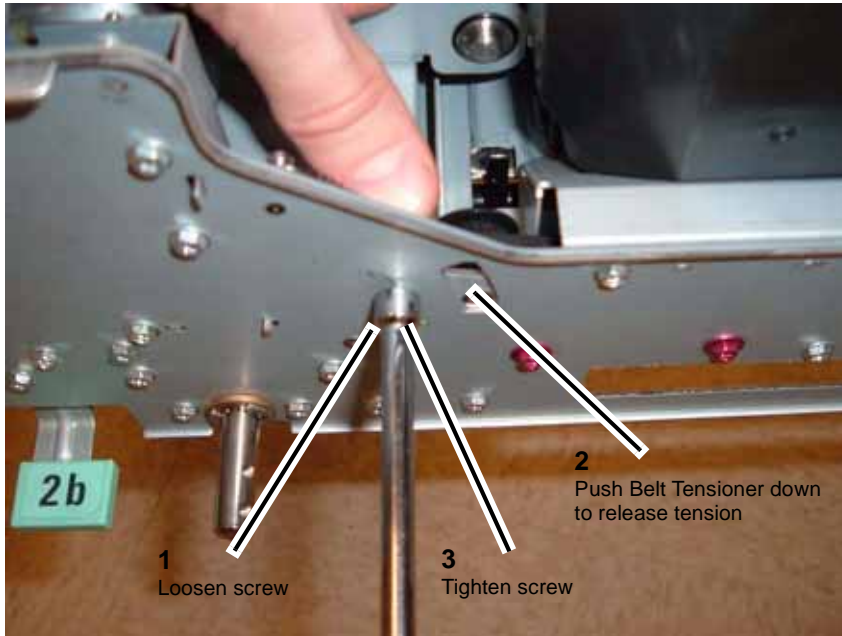


Figure 5 Releasing Belt Tension

7. Disconnect the Bypass Motor Harness (Figure 6).

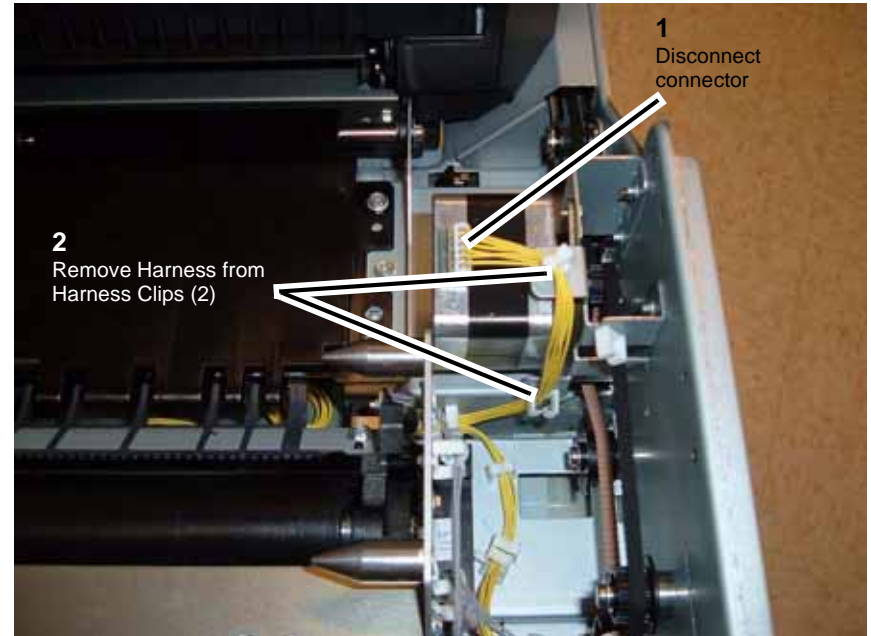


Figure 6 Disconnecting the Bypass Motor Harness

8. Remove the Bypass Motor Assembly (Figure 7).

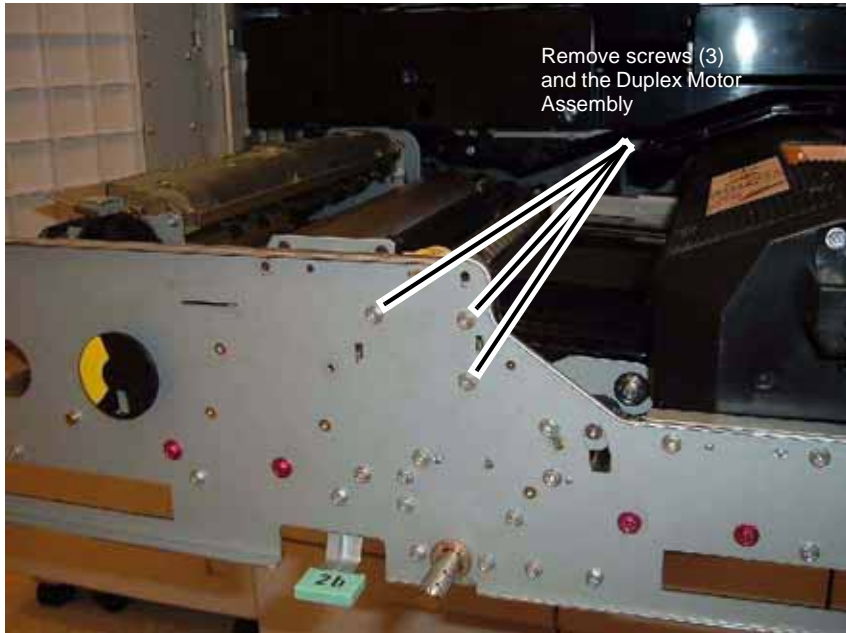


Figure 7 Removing the Duplex Motor Assembly

## REP 8.3 Inverter 1 and 2 Transport

Parts List on [PL 10.1](#)

### Removal

#### WARNING

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

1. If present, un-dock the Finisher from the IOT ([REP 12.50](#)) or remove the Offset Catch Tray.
2. Remove the Right Rear Upper and Right Upper Covers ([Figure 1](#)).

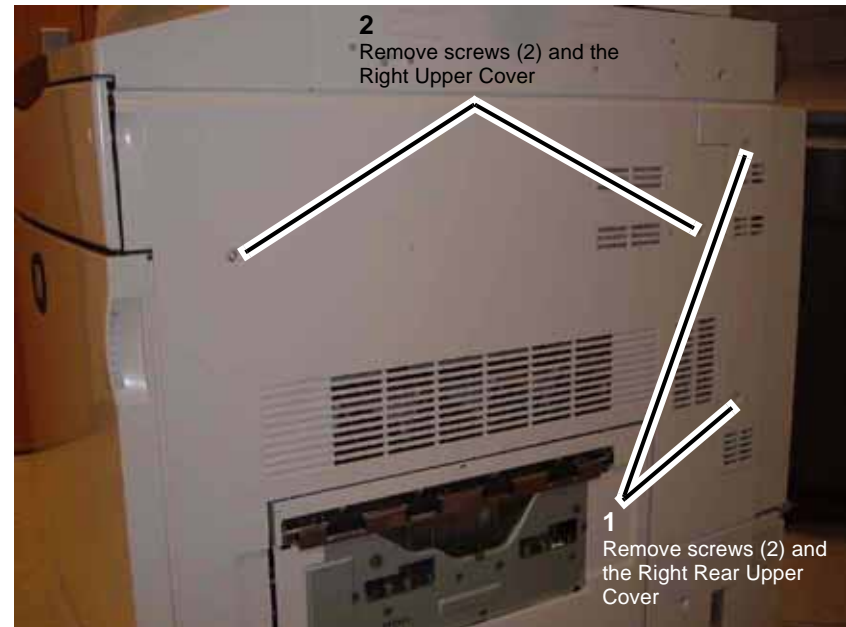


Figure 1 Removing the Right Rear Upper and Right Upper Cover

3. Open the Inverter.
4. Remove the Inverter Cover ([Figure 2](#)).

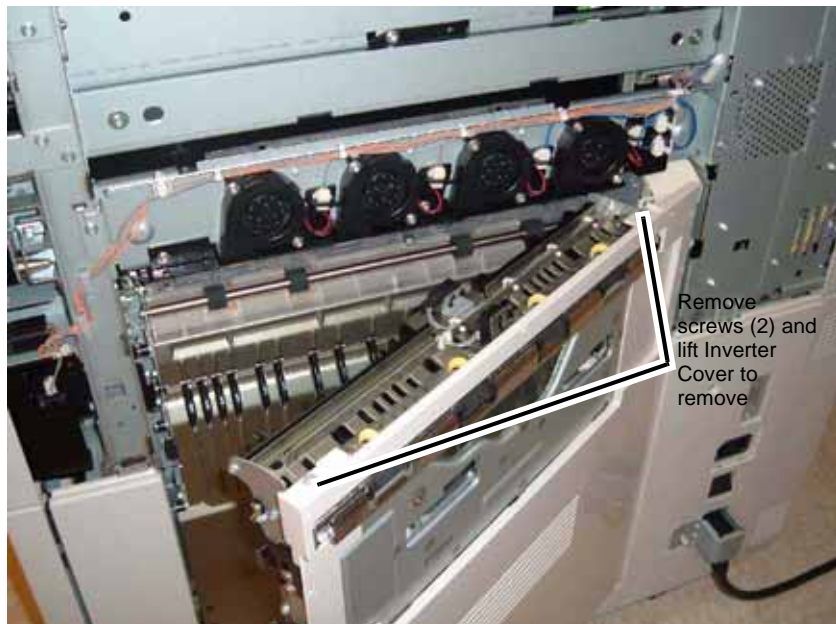


Figure 2 Removing the Inverter Cover

5. Close the Inverter.
6. Disconnect connectors (Figure 3).



Figure 3 Disconnecting connectors

7. Open the Inverter.
8. Remove screws (Figure 4).

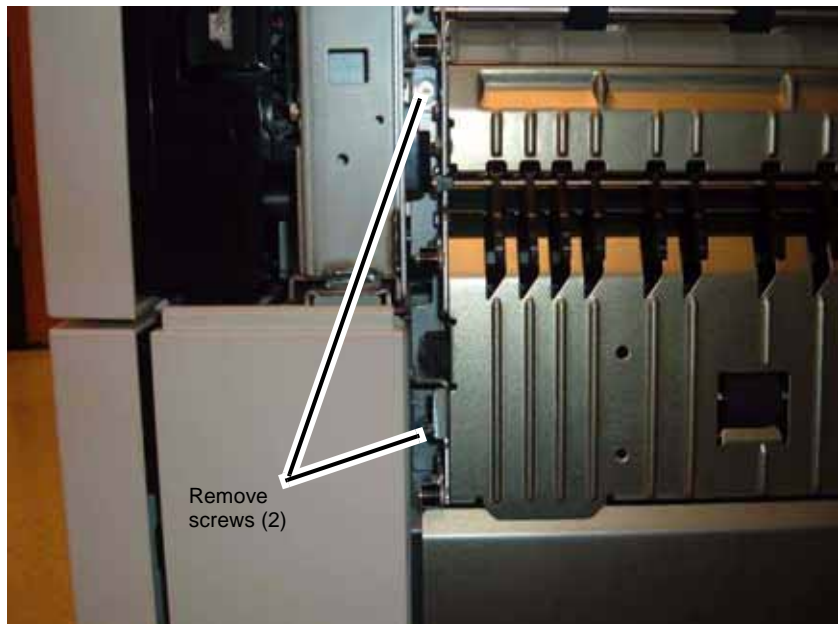


Figure 4 Removing screws

9. Close the Inverter.
10. Remove the Inverter (Figure 5).

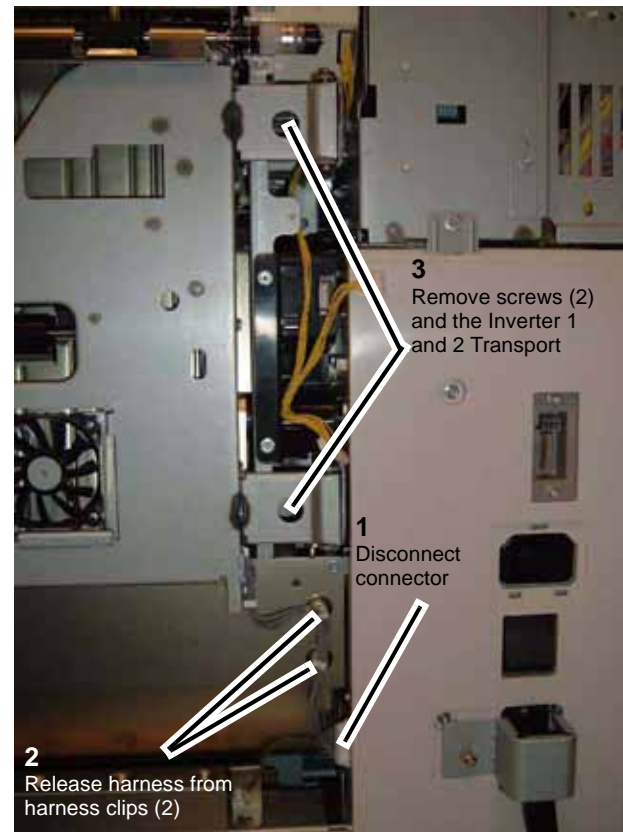


Figure 5 Removing the Inverter



## REP 9.1 Transfer Belt Unit

Parts List on [PL 7.3](#)

### Removal

#### WARNING

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

1. Open the Front Cover.
2. Open the Transfer Module ([Figure 1](#)).



Figure 1 Opening the Transfer Module

3. Push in Rail stops and slide out Transfer Module completely ([Figure 2](#)).

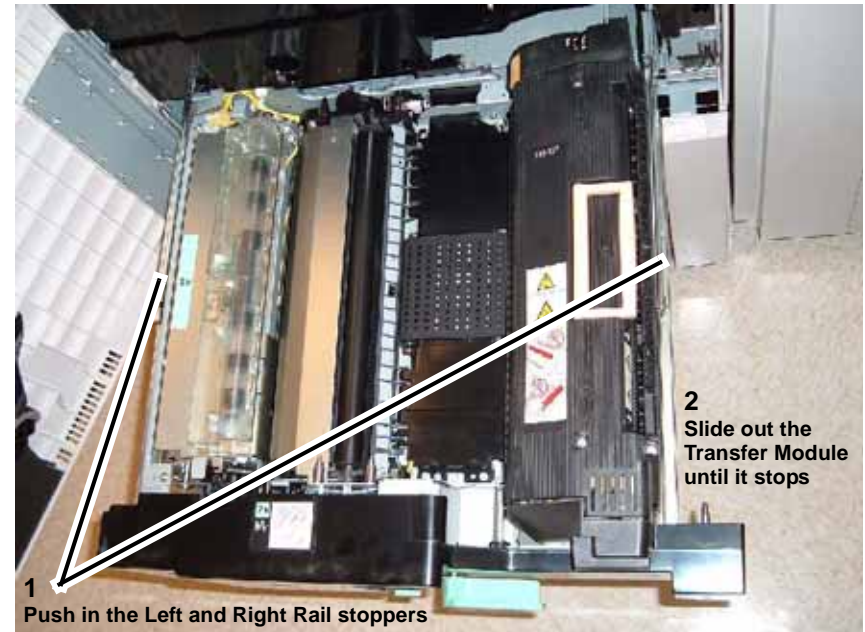


Figure 2 Sliding out the Transfer Module completely

4. Open the Handles on the Drum Cartridge Module and the IBT Drawer ([Figure 3](#)).

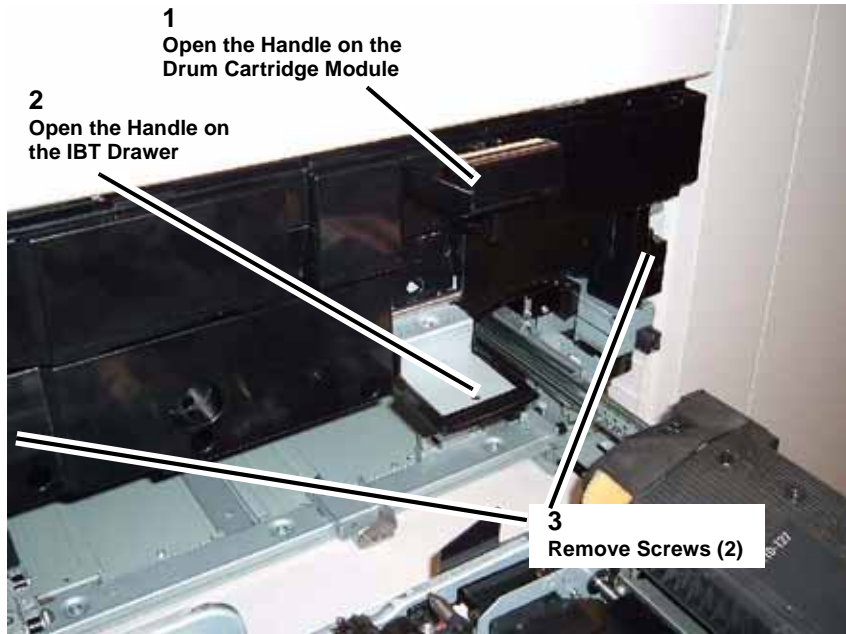


Figure 3 Opening the Handles

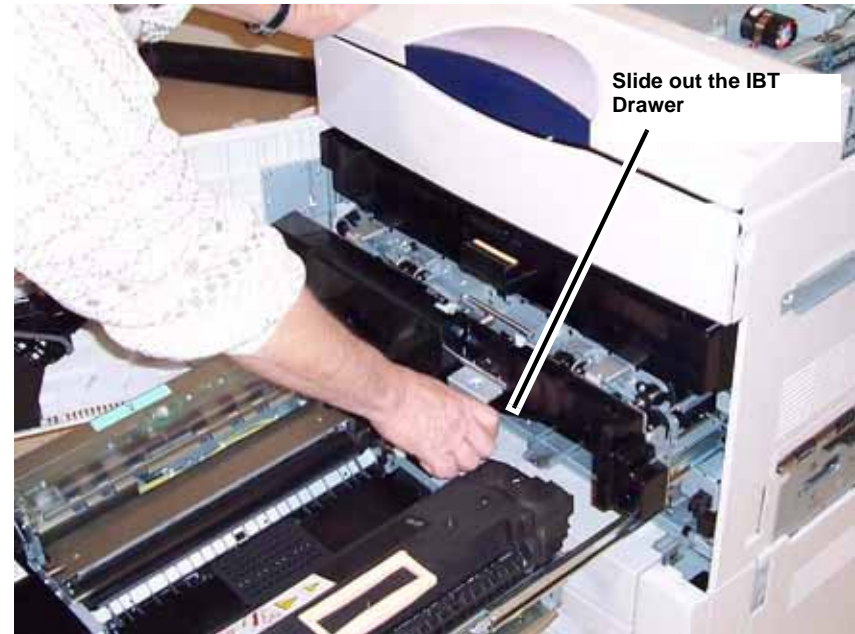
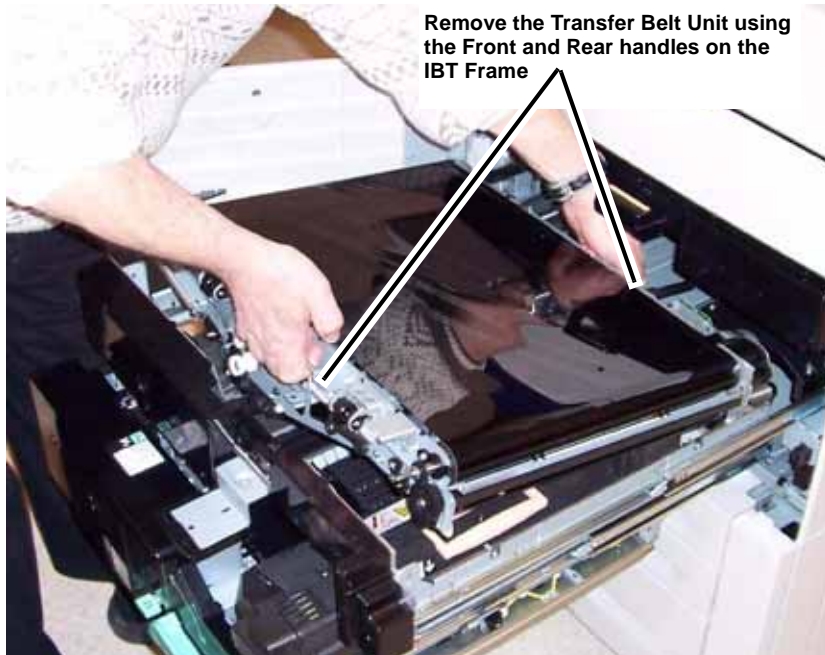


Figure 4 Sliding out the IBT Drawer

5. Slide out the IBT Drawer (Figure 4).

6. Remove the Transfer Belt Unit (Figure 5).





Remove the Transfer Belt Unit using the Front and Rear handles on the IBT Frame

Figure 5 Removing the Transfer Belt Unit

## Replacement

1. Ensure that the white stud is positioned in the frame cut-out (Figure 6).

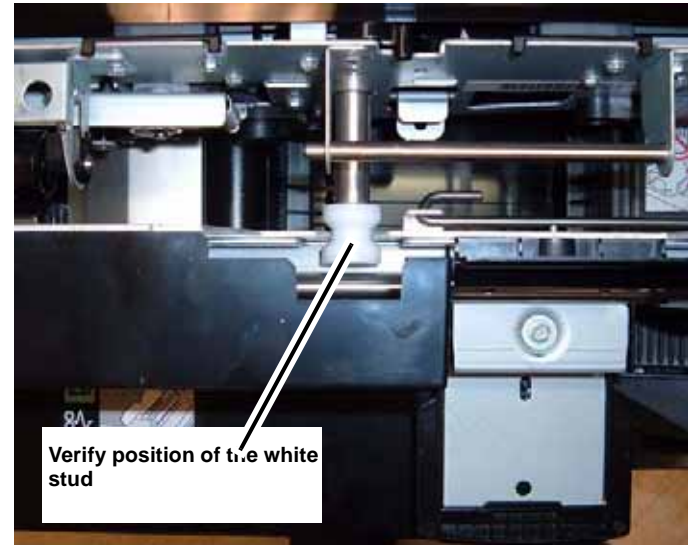


Figure 6 Reinstalling the Transfer Belt Unit

2. Re-install parts in reverse order of the removal procedure.

## REP 9.2 IBT Cleaner Assembly

Parts List on [PL 7.3](#)

### Removal

#### WARNING

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

1. Perform [REP 9.1 Transfer Belt Unit](#), step 1 - 5.
2. Lift and secure the Transfer Belt Unit using the Retract Shaft ([Figure 1](#)).

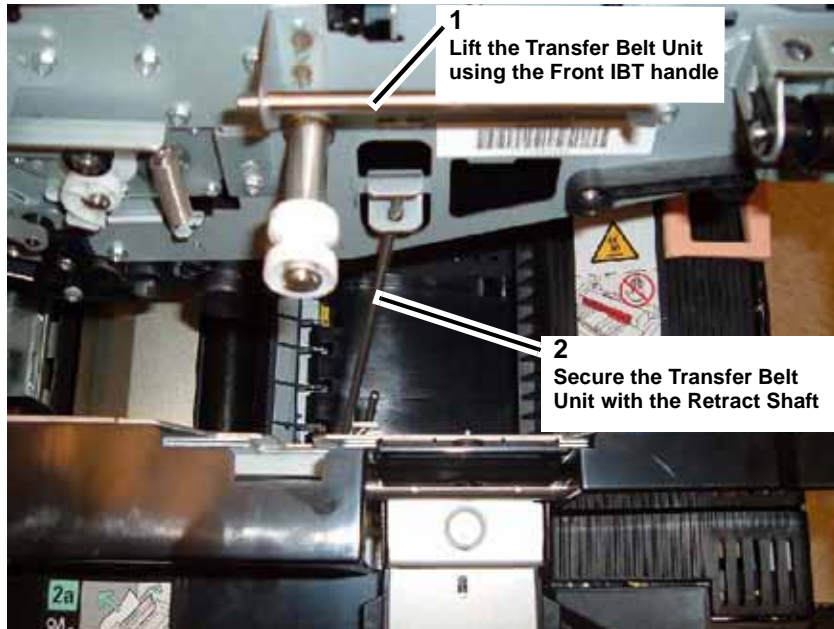


Figure 1 Securing Transfer Belt Unit with the Retract Shaft

3. Remove the IBT Cleaner Assembly ([Figure 2](#)).

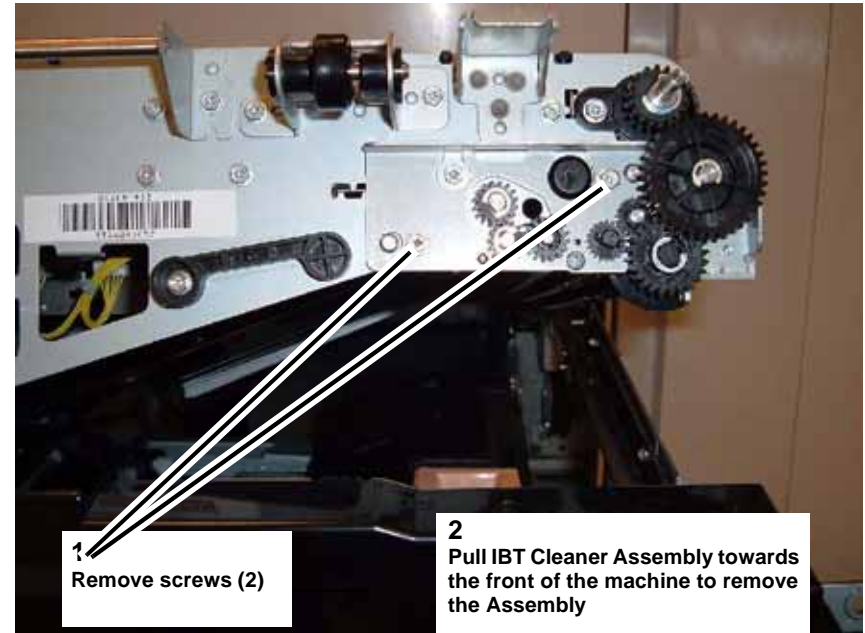


Figure 2 Removing the IBT Cleaner Assembly

### Replacement

1. Re-install parts in reverse order of the removal procedure.

## REP 9.3 Transfer Belt

Parts List on [PL 7.3](#)

### Removal

#### WARNING

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

1. Remove the Transfer Belt Unit ([REP 9.1](#)) and put the Belt Unit on it's back ([Figure 1](#)).

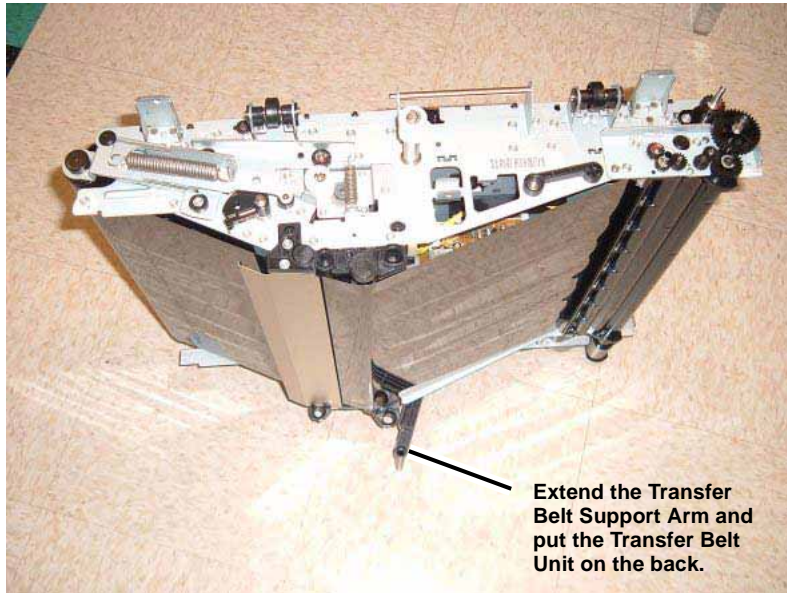


Figure 1 Extending the Transfer Belt Support Arm

2. Remove the IBT Cleaner Assembly ([Figure 2](#)).

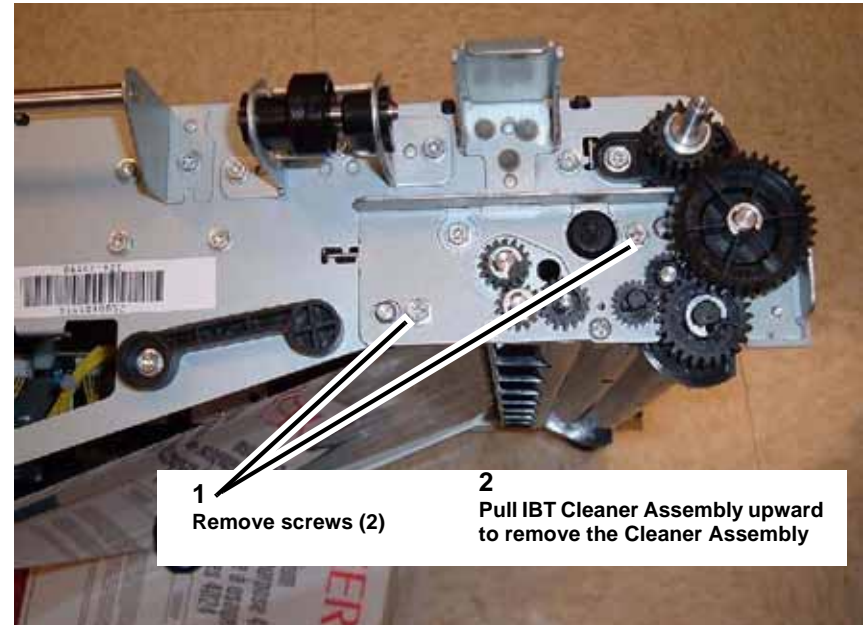


Figure 2 Removing the IBT Cleaner Assembly

3. Remove the Inlet ([Figure 3](#)).

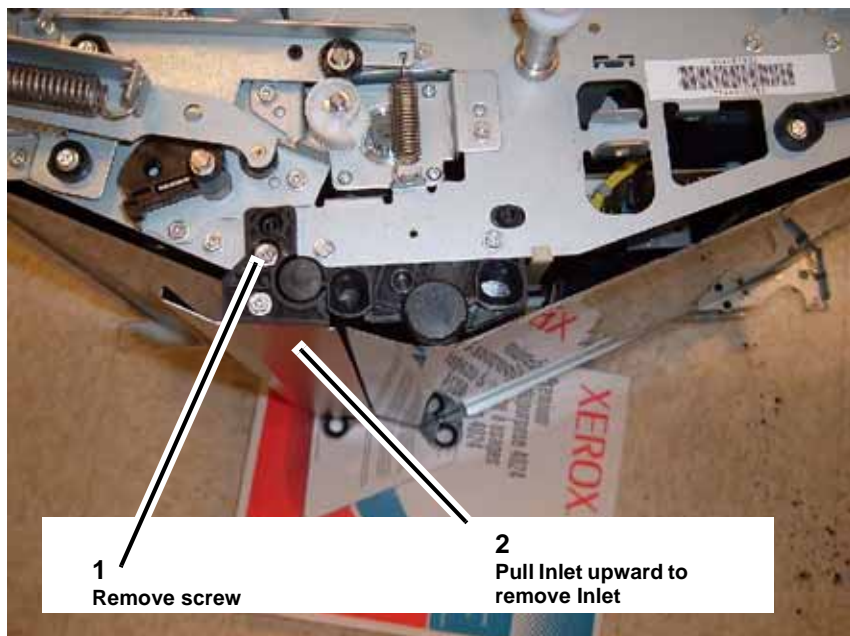


Figure 3 Removing the Inlet

4. Remove Support Assembly (Figure 4).

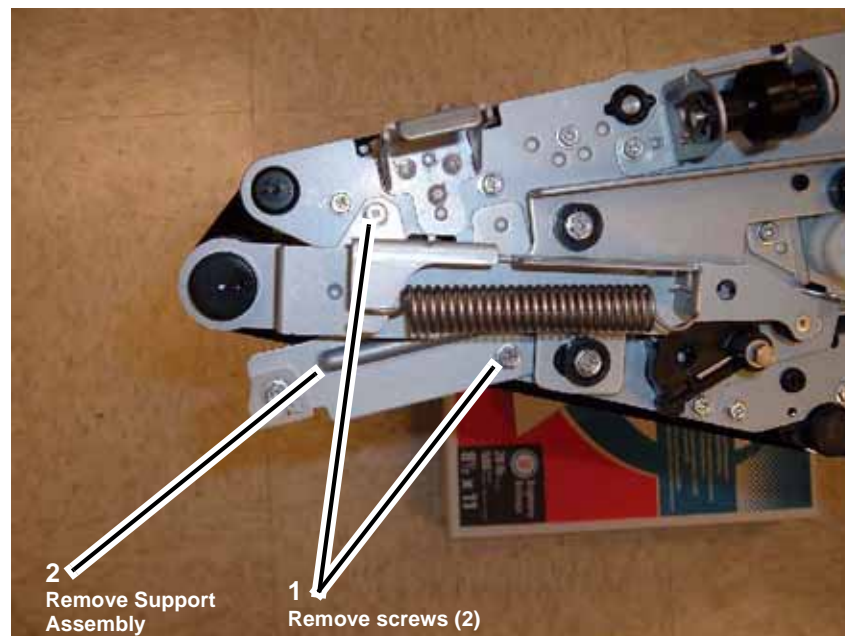
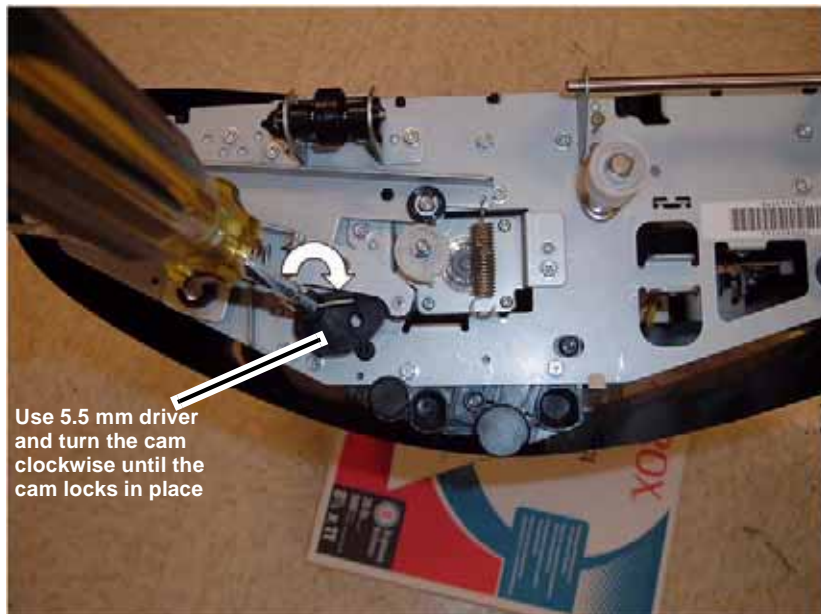


Figure 4 Removing the Support Assembly

5. Release the Transfer Belt Tension (Figure 5).



Use 5.5 mm driver and turn the cam clockwise until the cam locks in place

Figure 5 Releasing the Transfer Belt Tension

6. Remove the Transfer Belt (Figure 6).

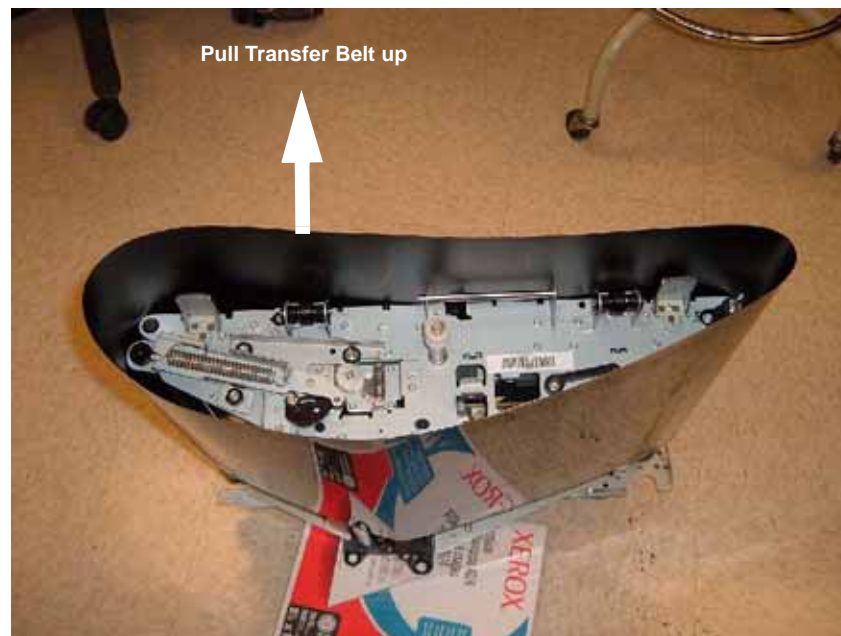


Figure 6 Removing the Transfer Belt

### Replacement

1. Re-install the Transfer Belt (Figure 7).

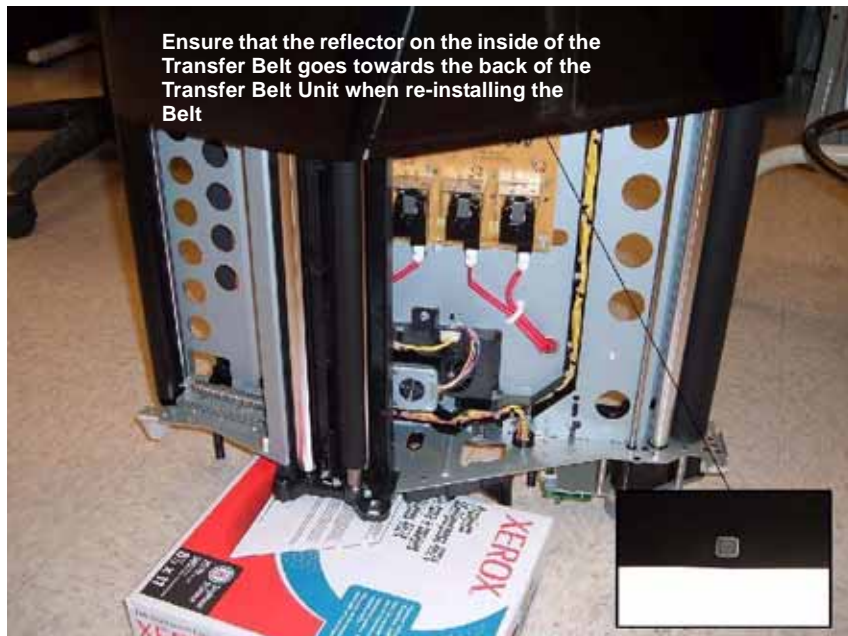


Figure 7 Re-installing the Transfer Belt

2. Re-install parts in reverse order of the removal procedure.

## REP 9.4 2nd BTR Roll Assembly

Parts List on [PL 7.8](#)

### Removal

#### WARNING

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

1. Open the Front Cover.
2. Open the Transfer Module ([Figure 1](#)).



Figure 1 Opening the Transfer Module

3. Push in Rail stops and slide out Transfer Module completely ([Figure 2](#)).

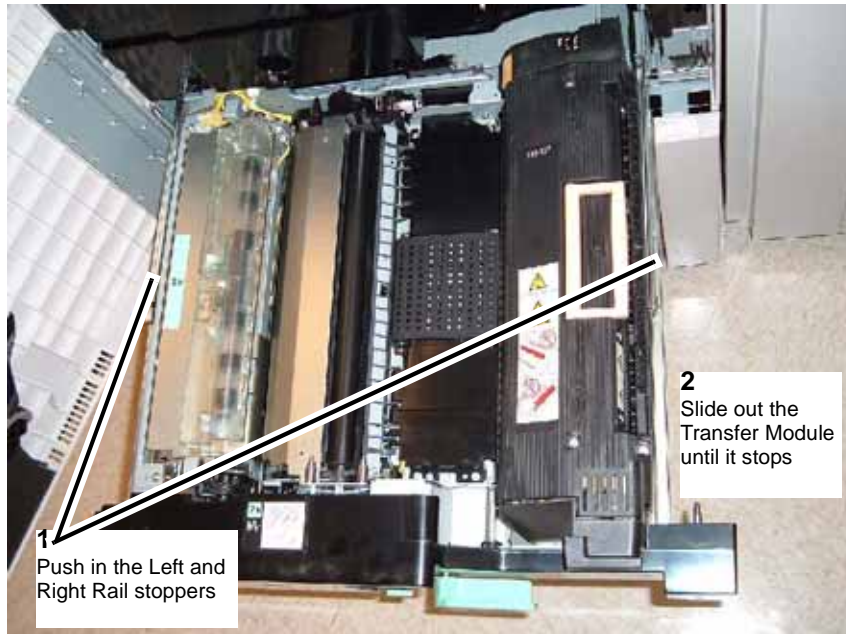


Figure 2 Sliding out Transfer Module completely

4. Remove the Inner Panel (Figure 3).

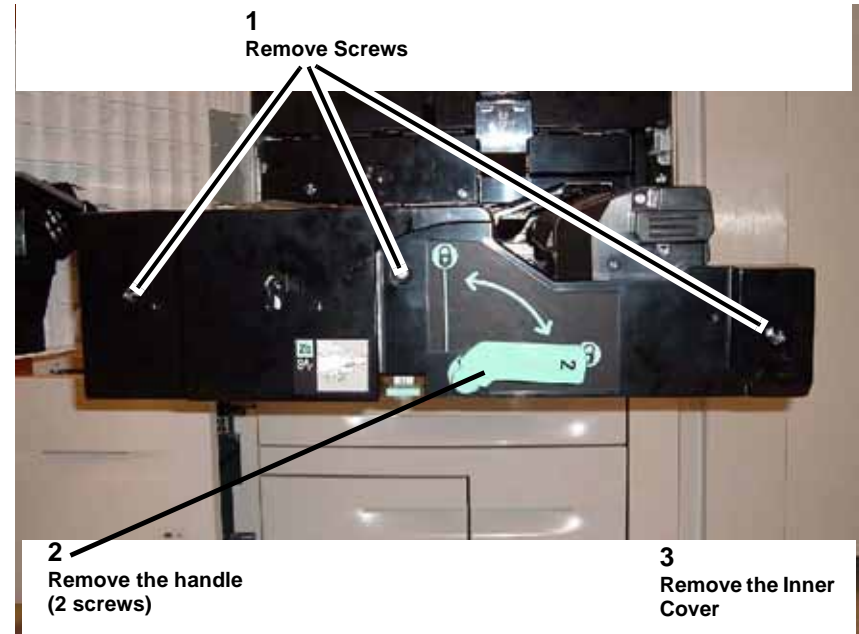


Figure 3 Removing the Inner Cover

5. Remove Indicator and disconnect connector (Figure 4).

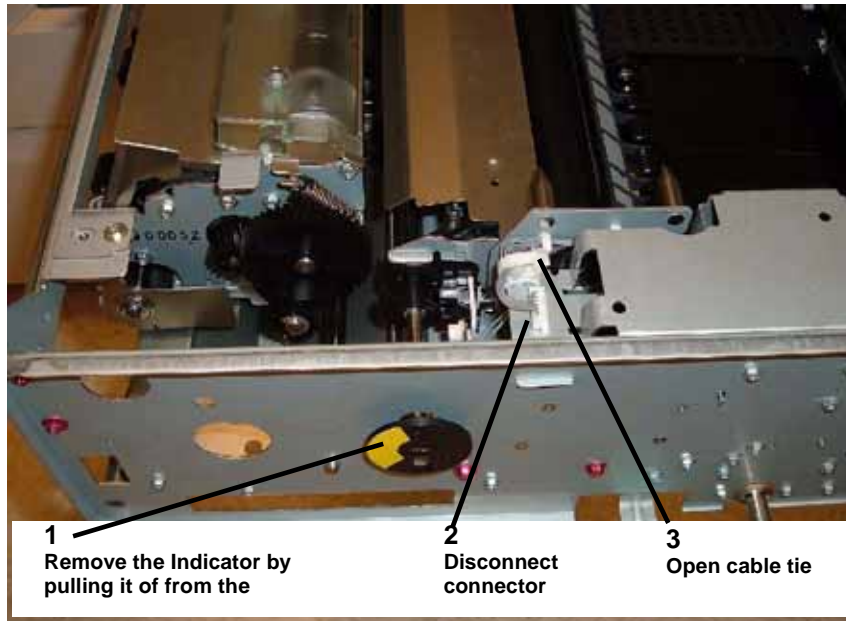


Figure 4 Removing the Indicator and disconnecting connector

6. Remove the 2nd BTR Assembly (Figure 5).

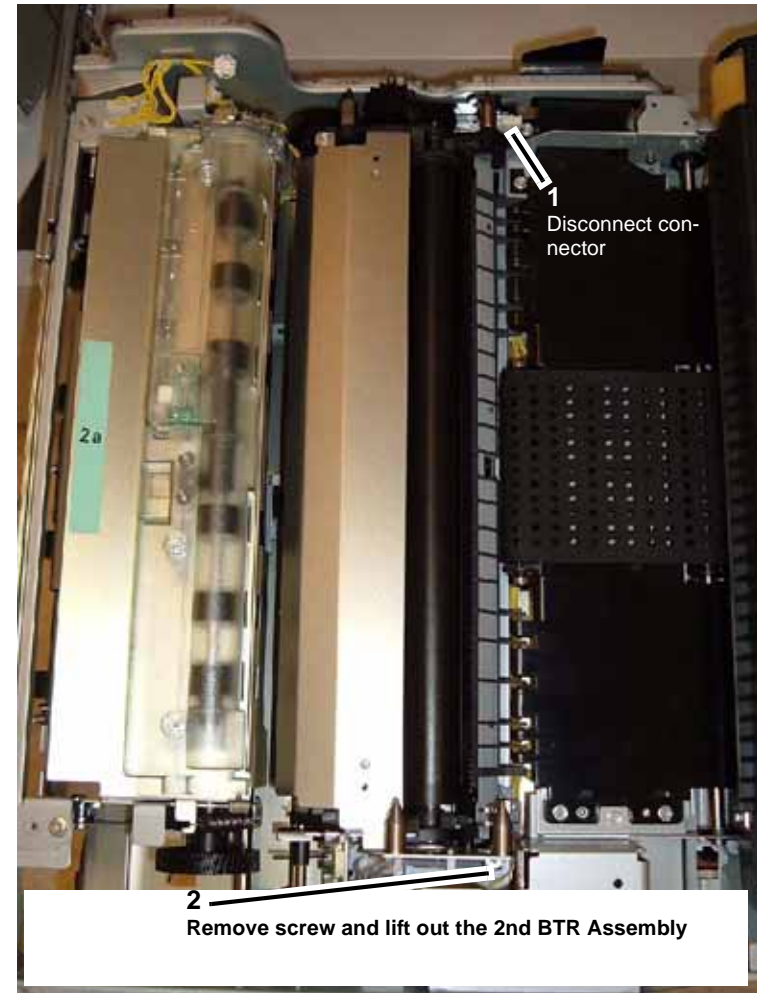


Figure 5 Removing the 2nd BTR Assembly

### Replacement

1. Re-install parts in reverse order of the removal procedure.



## REP 9.5 2nd BTR Roll

Parts List on [PL 7.8](#)

### Removal

#### WARNING

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

1. Remove the 2nd BTR Assembly ([REP 9.4](#)).
2. Disconnect connector and release Wire Harness ([Figure 1](#)).

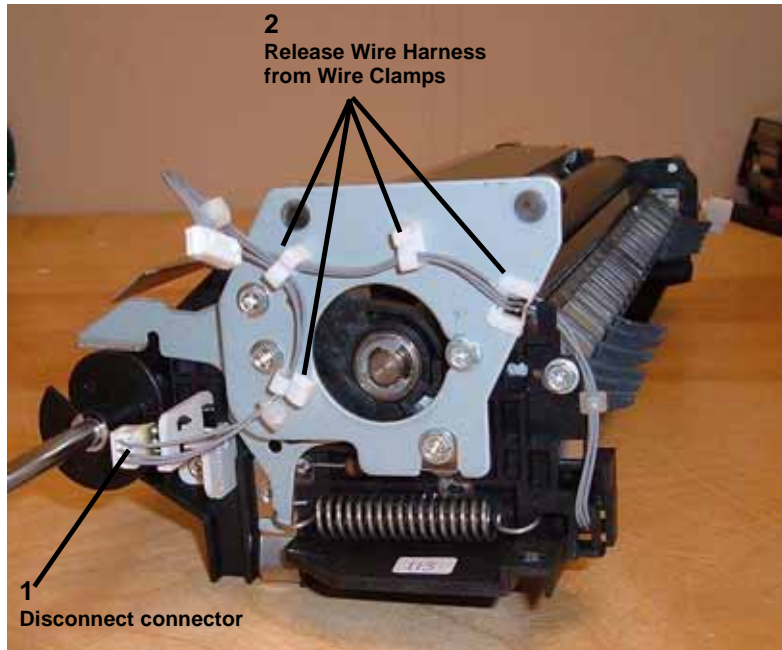


Figure 1 Disconnecting connector and releasing the Wire Harness

3. Remove the Plate ([Figure 2](#)).

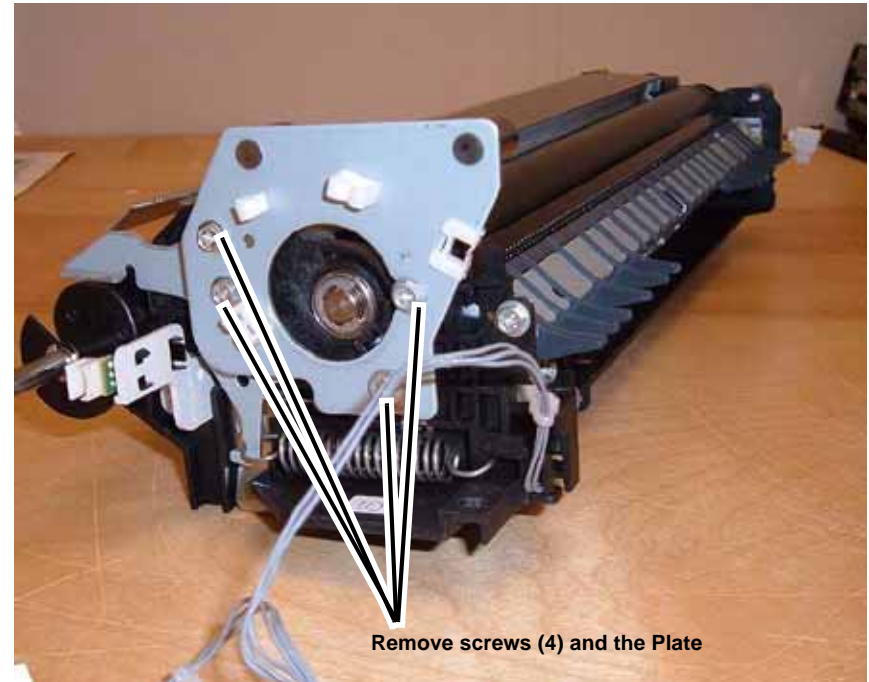


Figure 2 Removing the Plate

4. Remove the Inlet Chute ([Figure 3](#)).

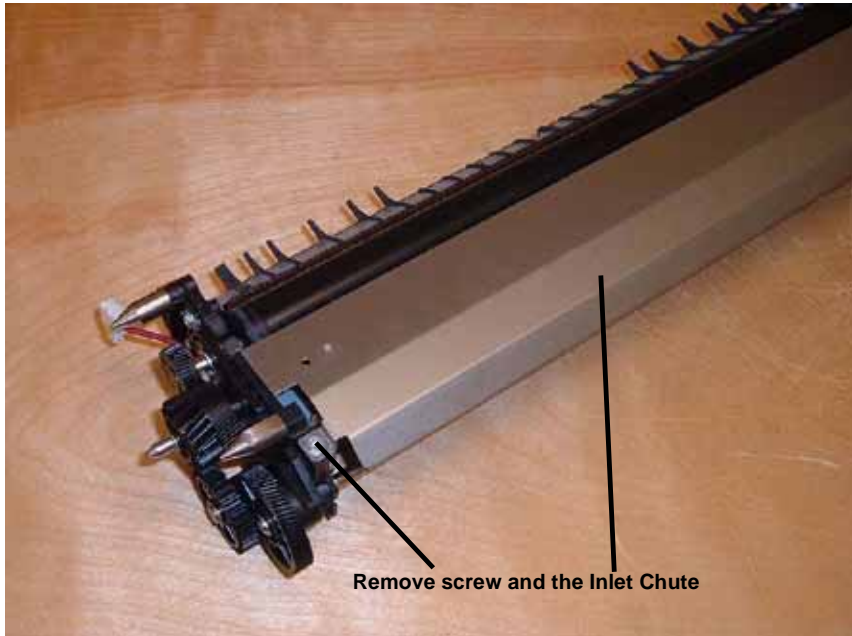


Figure 3 Removing the Inlet Chute

5. Remove rear drive Gears (Figure 4).

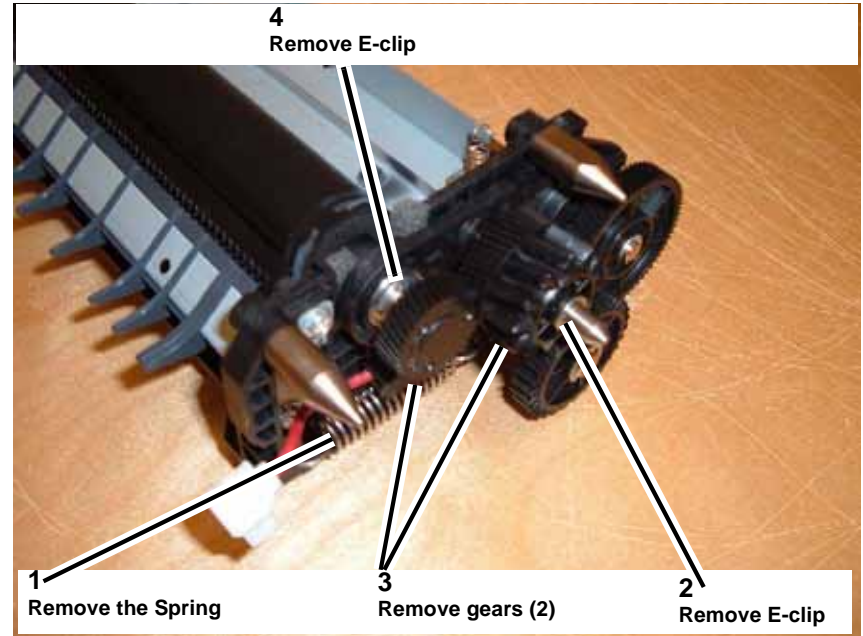


Figure 4 Removing the Gears

6. Remove the 2nd BTR Roll (Figure 5).

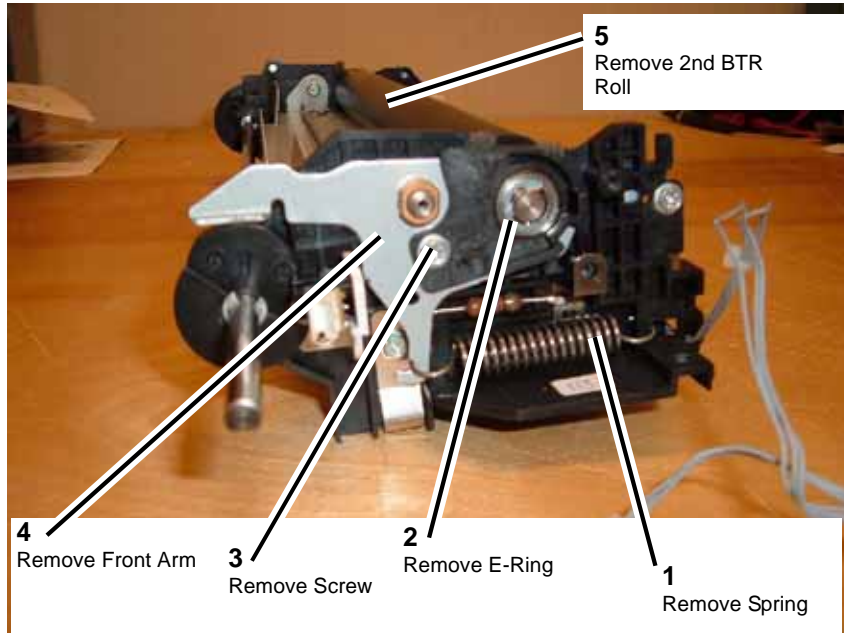


Figure 5 Removing the 2nd BTR Roll

### Replacement

1. Re-install parts in reverse order of the removal procedure.

## REP 9.6 2nd BTR Blade Assembly

Parts List on [PL 7.9](#)

### Removal

#### WARNING

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

1. Remove the 2nd BTR Assembly ([REP 9.4](#)).
2. Disconnect connector and release Wire Harness ([Figure 1](#)).

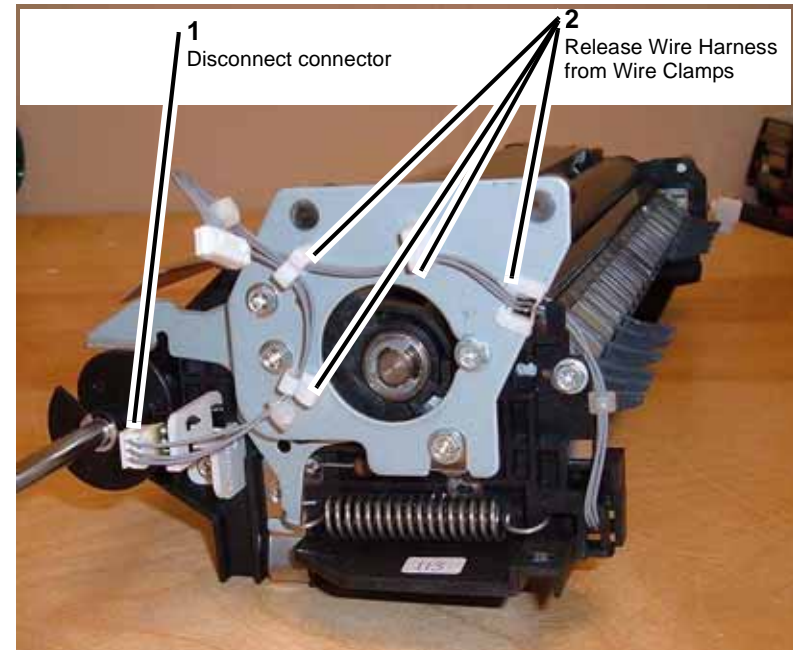


Figure 1 Disconnecting connector and releasing the Wire Harness

3. Remove the Plate ([Figure 2](#)).

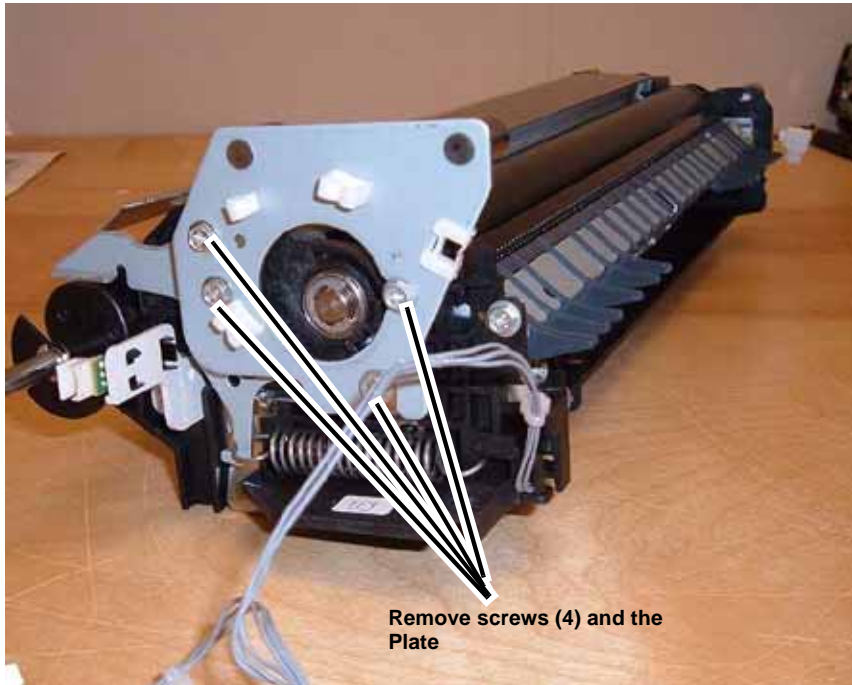


Figure 2 Removing the Plate

4. Remove the Inlet Chute (Figure 3).

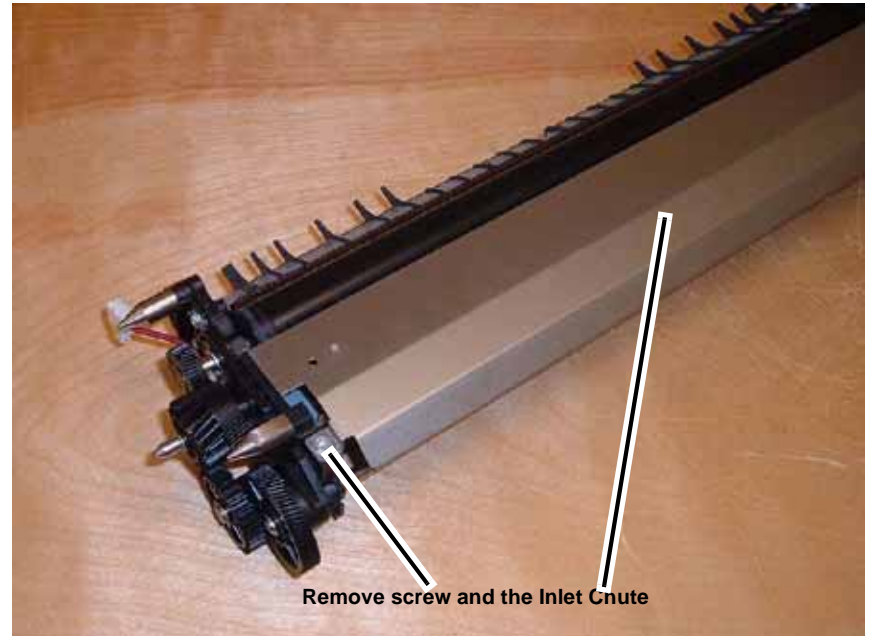


Figure 3 Removing the Inlet Chute

5. Remove the Blade Assembly (Figure 4).

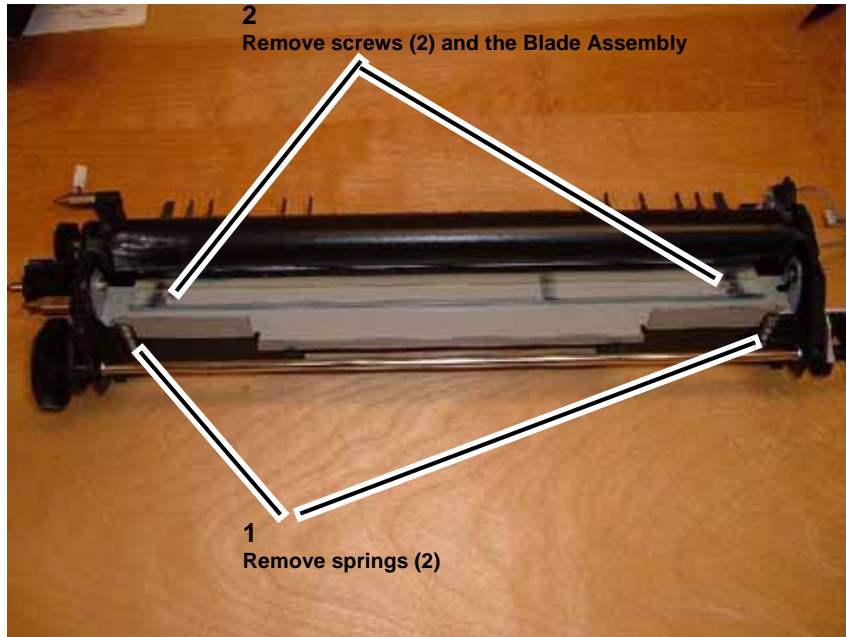


Figure 4 Removing the Blade Assembly

**Replacement**

1. Re-install parts in reverse order of the removal procedure.

**REP 9.7 1st BTR HVPS**

Parts List on [PL 7.4](#)

**Removal**

**WARNING**

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

1. Remove the Transfer Belt ([REP 9.3](#)).
2. Remove the 1st BTR HVPS ([Figure 1](#)).



Figure 1 Removing the 1st BTR HVPS

**Replacement**

1. Re-install parts in reverse order of the removal procedure.

## REP 9.8 Drum Cartridges (Y, M, C & K)

Parts List on [PL 6.1](#)

### Removal

#### WARNING

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

1. Open the Front Cover.
2. Open the IBT Drawer and Drum Cartridge Module handles ([Figure 1](#)).



Figure 1 Opening the IBT Drawer and Drum Cartridge Module handles

3. Remove the Drum Cartridge(s) ([Figure 2](#)).

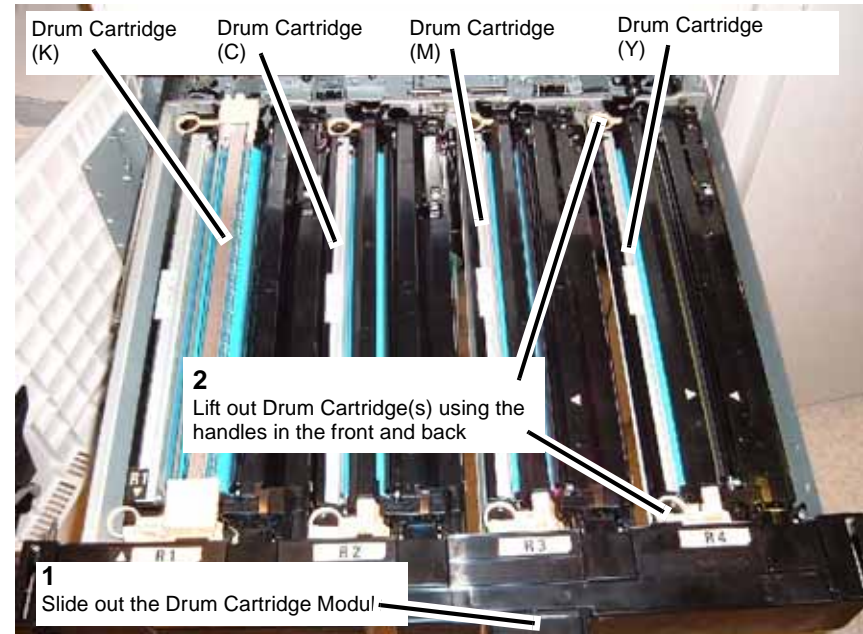


Figure 2 Removing the Drum Cartridge(s)

### Replacement

1. Re-install parts in reverse order of the removal procedure.

## REP 9.9 Dispenser Assembly (Y, M, C & K)

Parts List on [PL 6.2](#)

### Removal

#### WARNING

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

1. Remove the Toner Cartridges and the Toner Cartridge Cover ([Figure 1](#)).

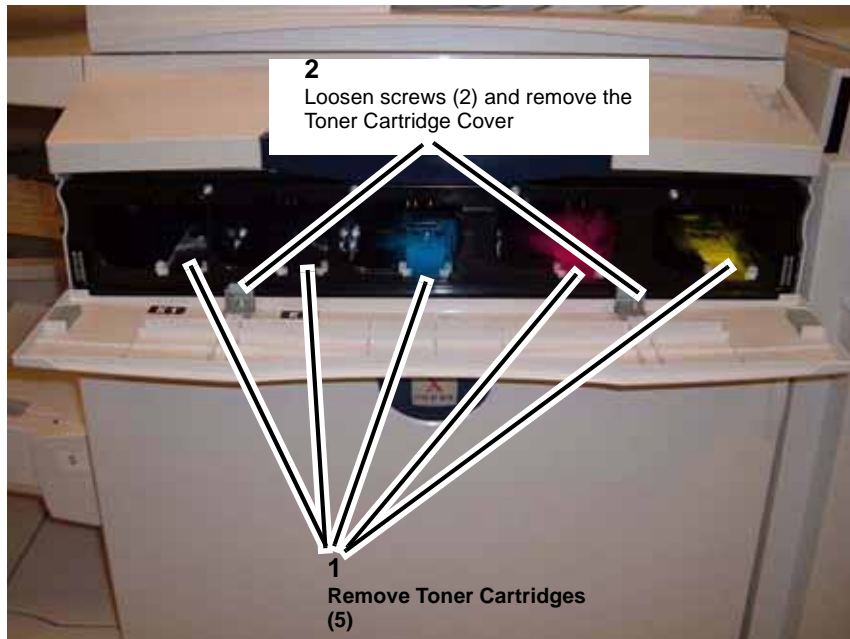


Figure 1 Removing the Toner Cartridges and the Toner Cartridge Cover

2. Open the Front Cover.
3. Remove the Inner Cover ([Figure 2](#)).



Figure 2 Removing the Inner Cover

4. Disconnect connectors ([Figure 3](#)).



Figure 3 Disconnecting connectors

5. Remove screws securing the Dispenser Assembly (Figure 4).

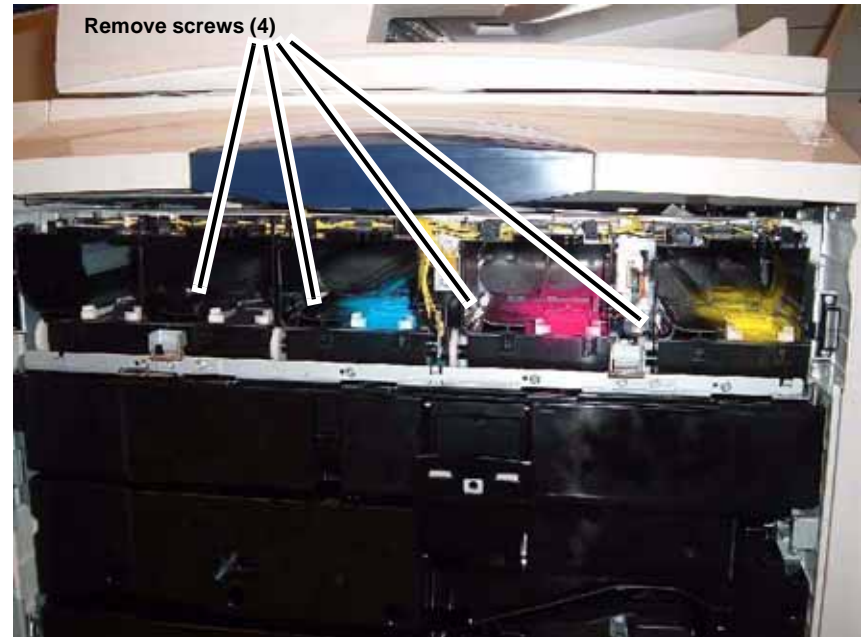


Figure 4 Removing screws

6. Remove screws securing the Dispenser Assembly (Figure 5).



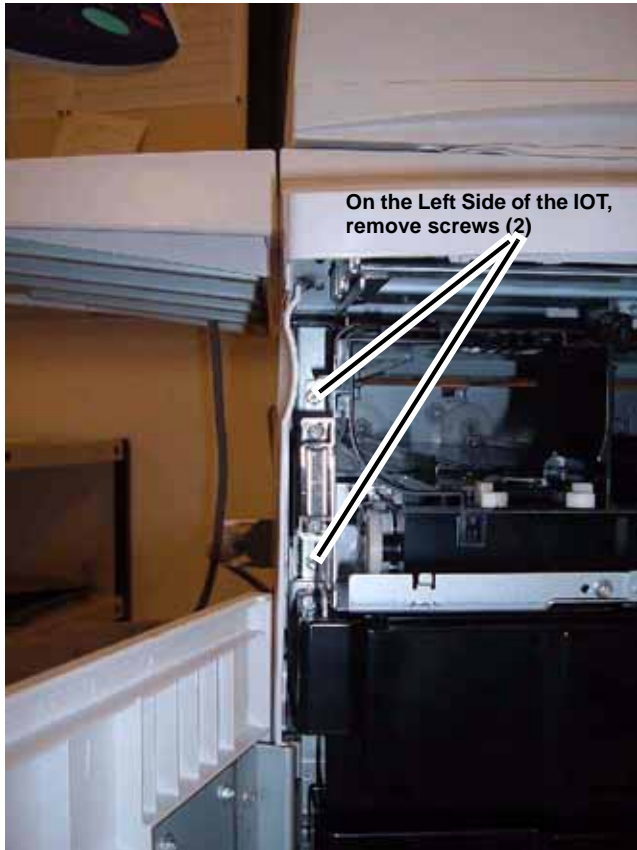


Figure 5 Removing screws



Figure 6 Removing screws

7. Remove screws securing the Dispenser Assembly (Figure 6).

8. Open the IBT Drawer and Drum Cartridge Module handles (Figure 7).



Figure 7 Opening the IBT Drawer and Drum Cartridge Module Handles

9. Remove the Dispenser Assembly (Figure 8).

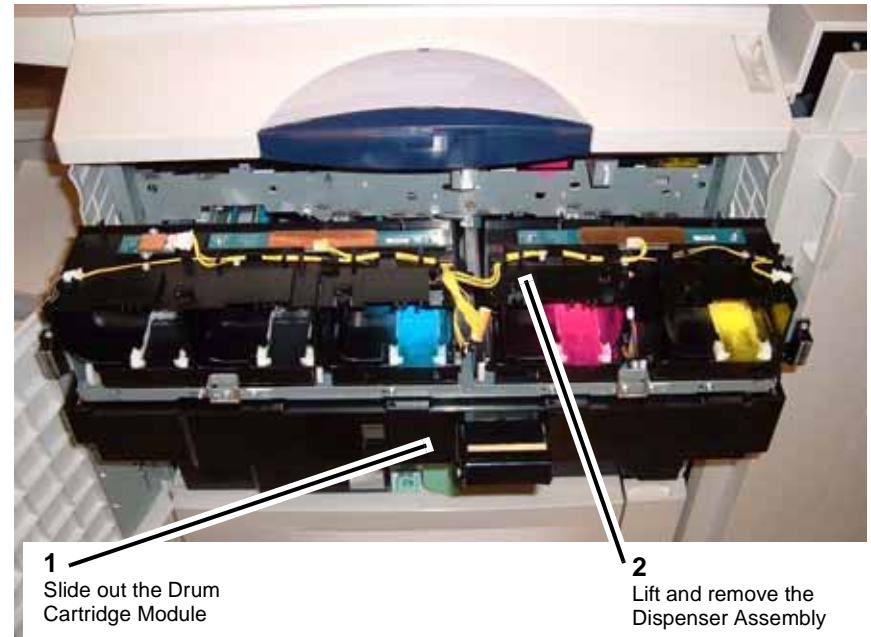


Figure 8 Removing the Dispenser Assembly

### Replacement

1. Re-install parts in reverse order of the removal procedure.

## REP 9.10 Drum Motor Assembly (K)

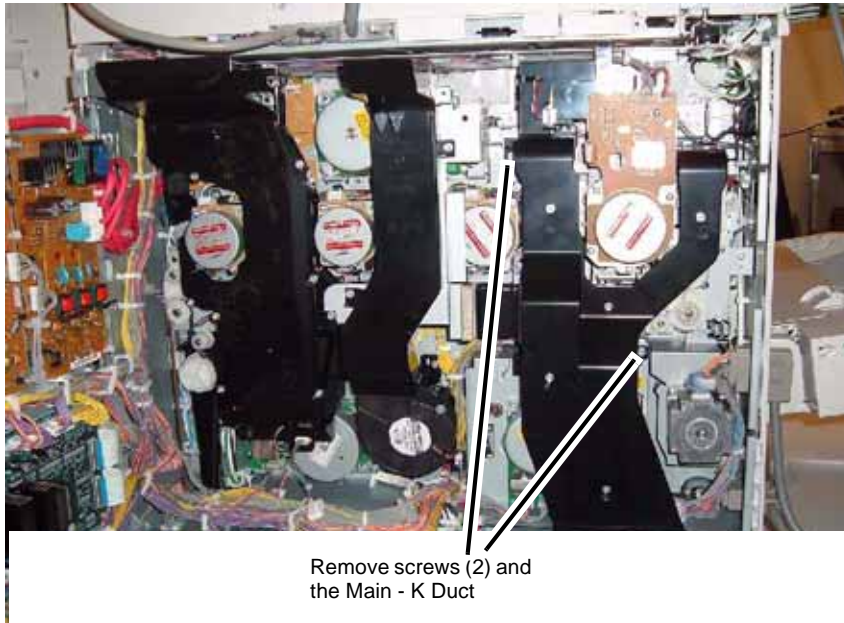
Parts List on [PL 1.1](#)

### Removal

#### WARNING

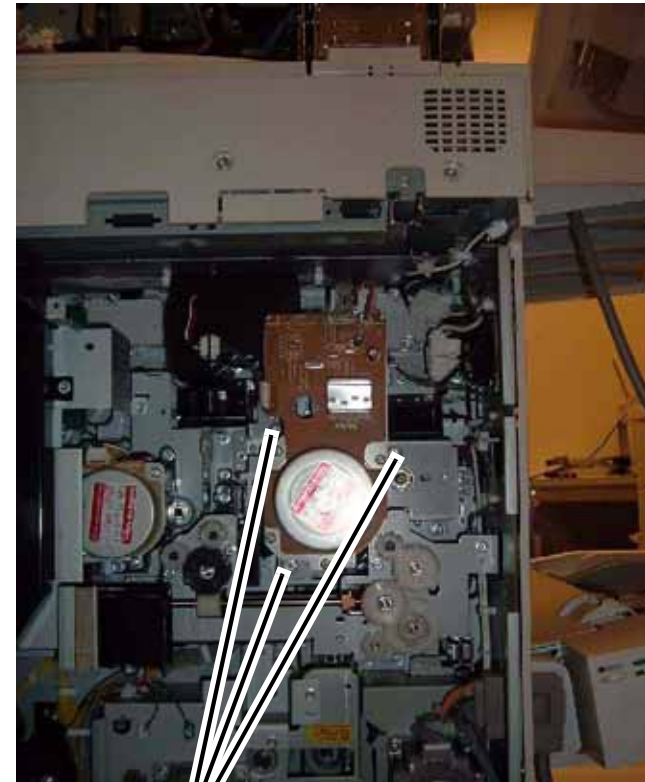
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open the Chassis Assembly ([REP 3.1](#)).
2. Remove the Main - K Duct ([Figure 1](#)).



**Figure 1 Removing the Main - K Duct**

3. Remove the Drum Motor Assembly (K) ([Figure 2](#)).



**1 Remove screws (3) 2 Gently pull out the Drum Motor Assembly**

**Figure 2 Removing the Drum Motor Assembly (K)**

### Replacement

1. Re-install parts in reverse order of the removal procedure.

## REP 9.11 Developer Drive Assembly (K) and Belts

Parts List on [PL 1.1](#)

### Removal

#### WARNING

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

1. Open the Chassis Assembly ([REP 3.1](#)).
2. Remove the Drum Motor Assembly (K) ([REP 9.10](#)).
3. Remove the Tension Bracket ([Figure 1](#)).

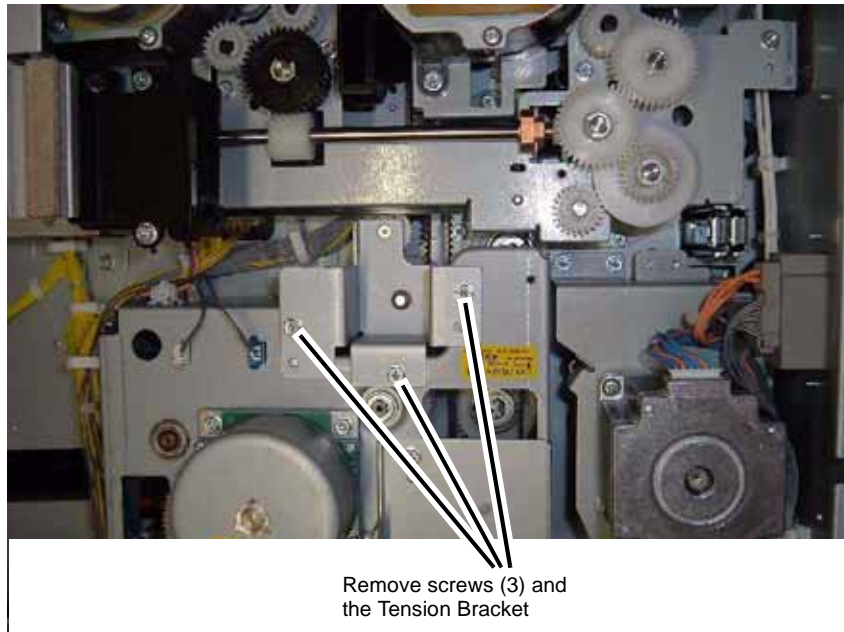


Figure 1 Removing the Tension Bracket

4. Remove the Gear Bracket ([Figure 2](#)).

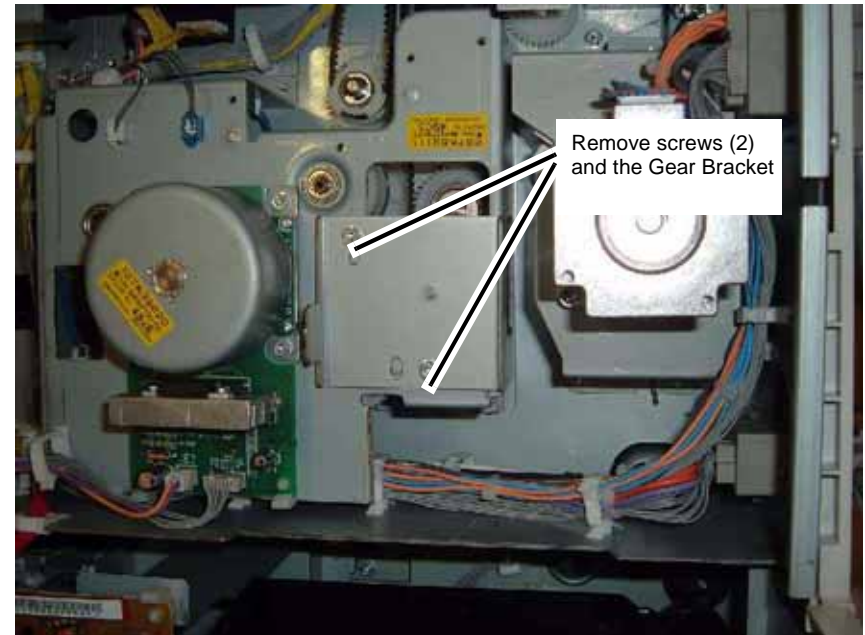


Figure 2 Removing the Gear Bracket

5. Disconnect connector and release Wire Harness from Harness Clips ([Figure 3](#)).

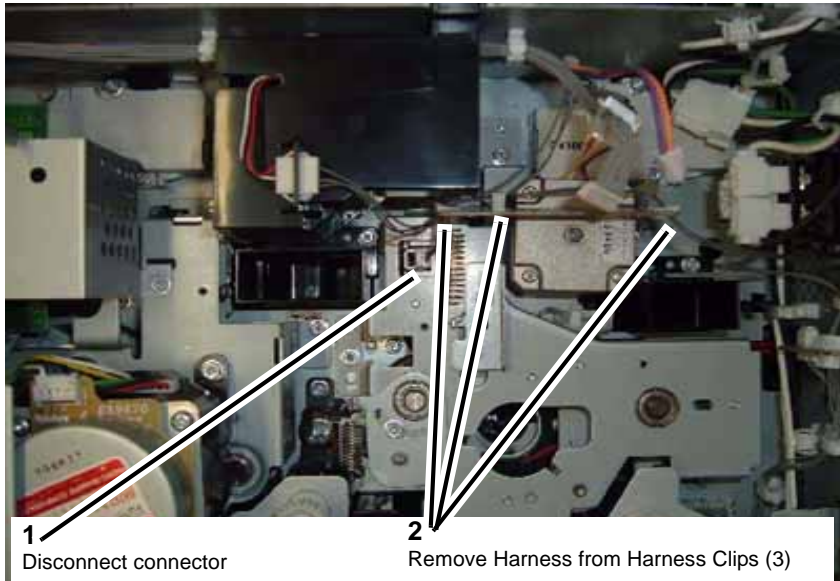


Figure 3 Disconnecting connector and releasing Harness from Clips

6. Remove the Belt from the Pulley (Figure 4).

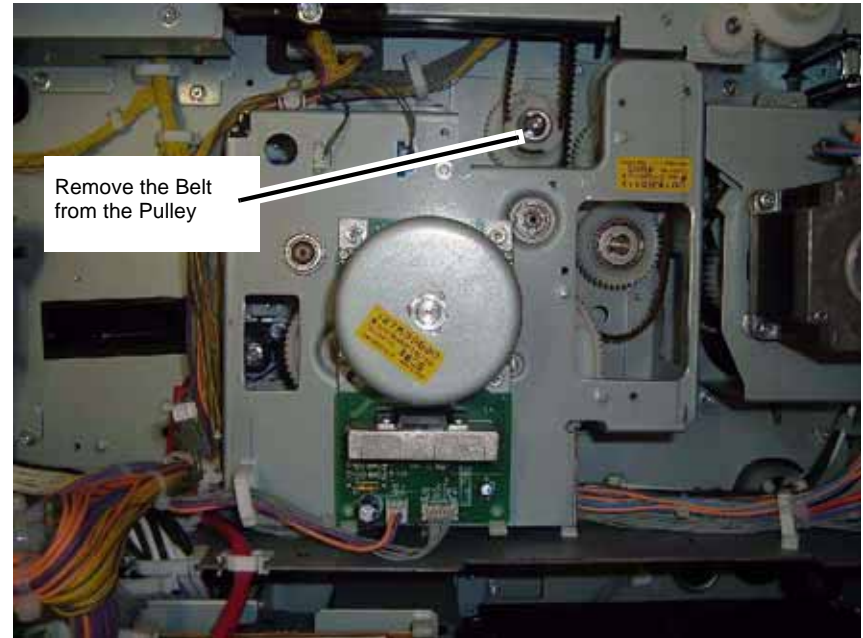


Figure 4 Removing the Belt from the Pulley

7. Loosen the Belt Tension (Figure 5).

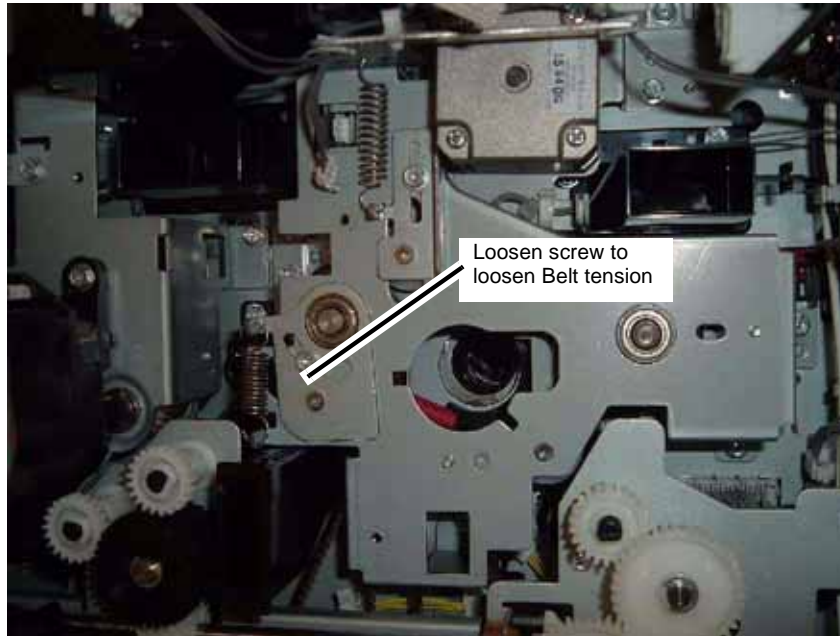


Figure 5 Releasing Belt Tension

8. Remove the Rear Cooling Fan and Duct (Figure 6).

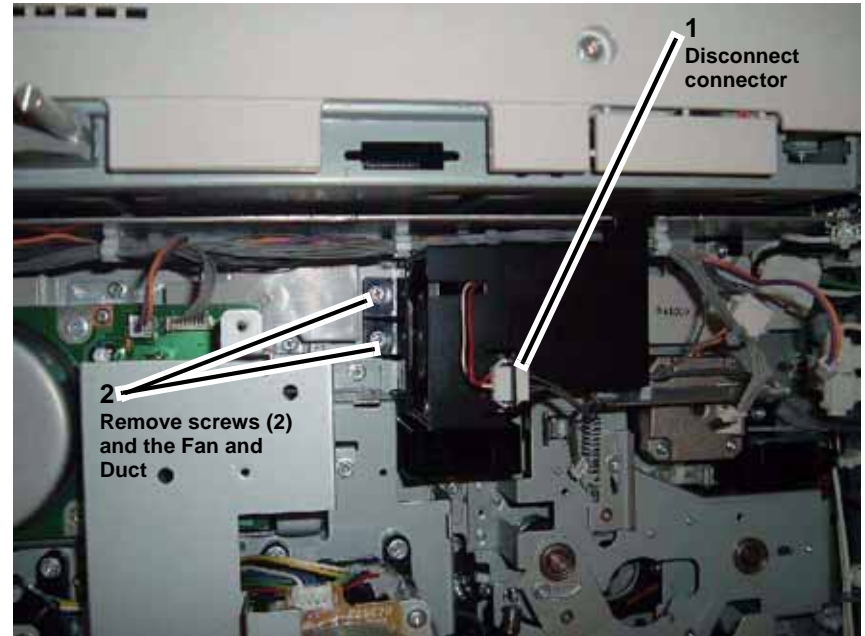


Figure 6 Removing the Rear Cooling Fan

9. Remove the Developer Drive Assembly (K) (Figure 7).

## REP 9.12 Developer Drive Assembly (Y, M, C)

Parts List on [PL 1.6](#)

### Removal

#### WARNING

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

1. Open the Chassis Assembly ([REP 3.1](#)).
2. Remove the Main K - Duct ([Figure 1](#)).

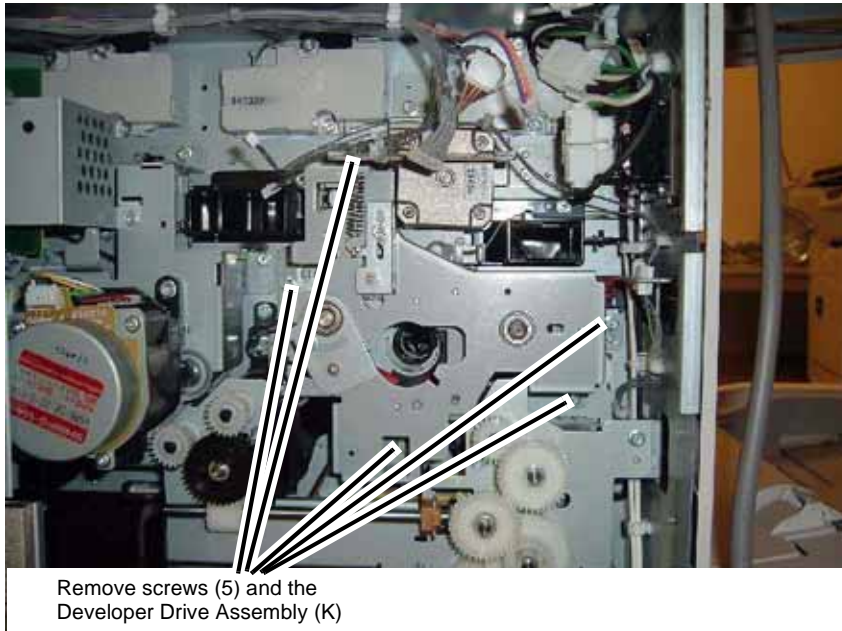


Figure 7 Removing the Developer Drive Assembly (K)

### Replacement

1. Re-install parts in reverse order of the removal procedure.

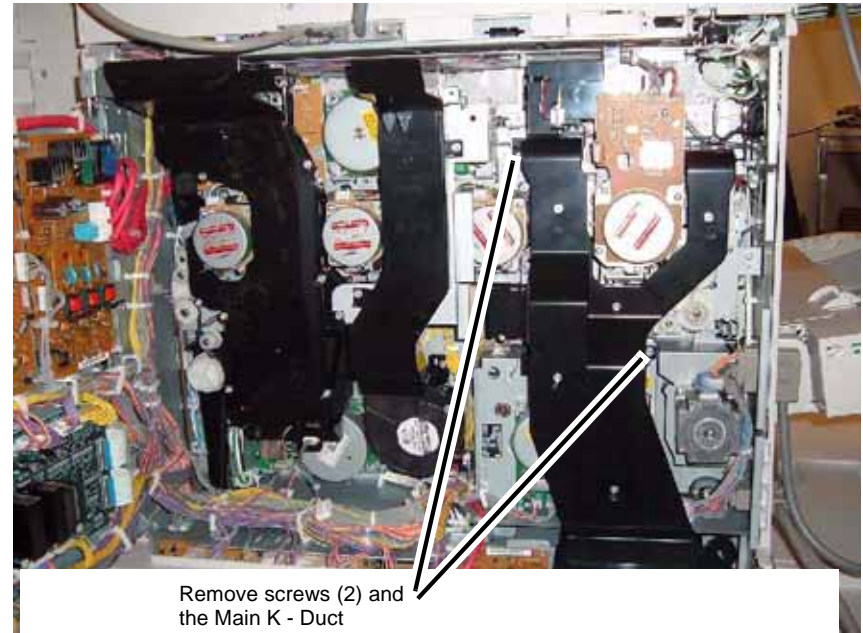
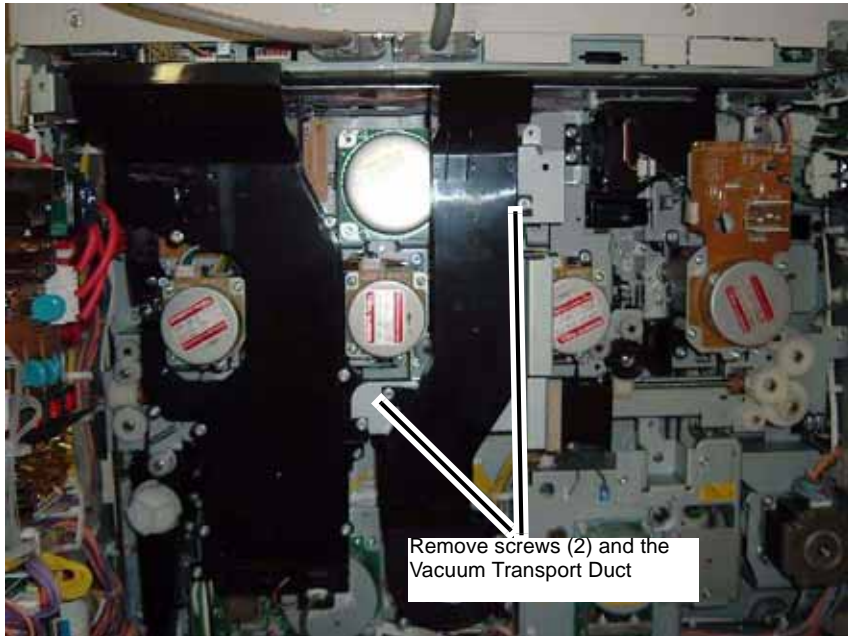


Figure 1 Removing the Main K - Duct

3. Remove the Vacuum Transport Duct ([Figure 2](#)).



**Figure 2 Removing the Vacuum Transport Duct**

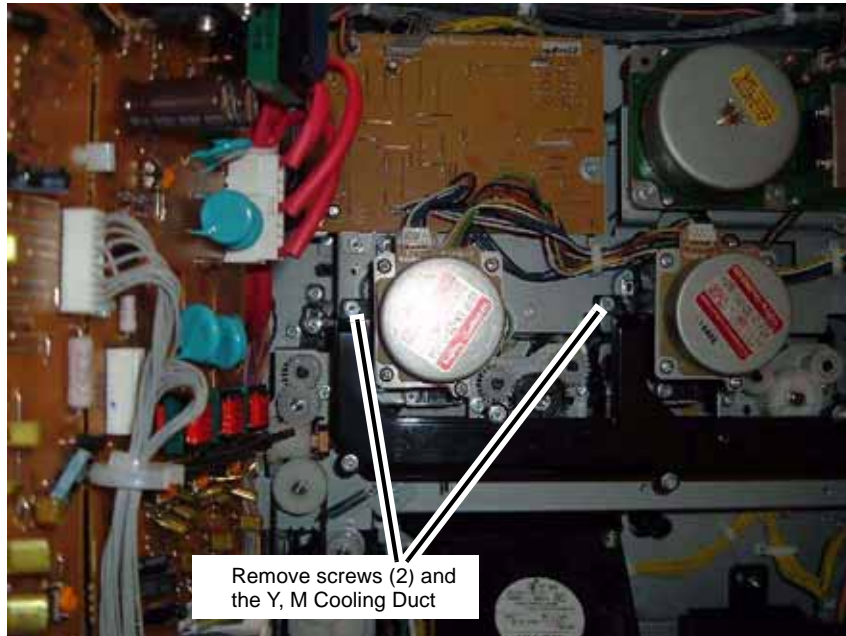
4. Remove the Fuser Duct and the Bracket (Figure 3).



**Figure 3 Removing Fuser Duct and Bracket**

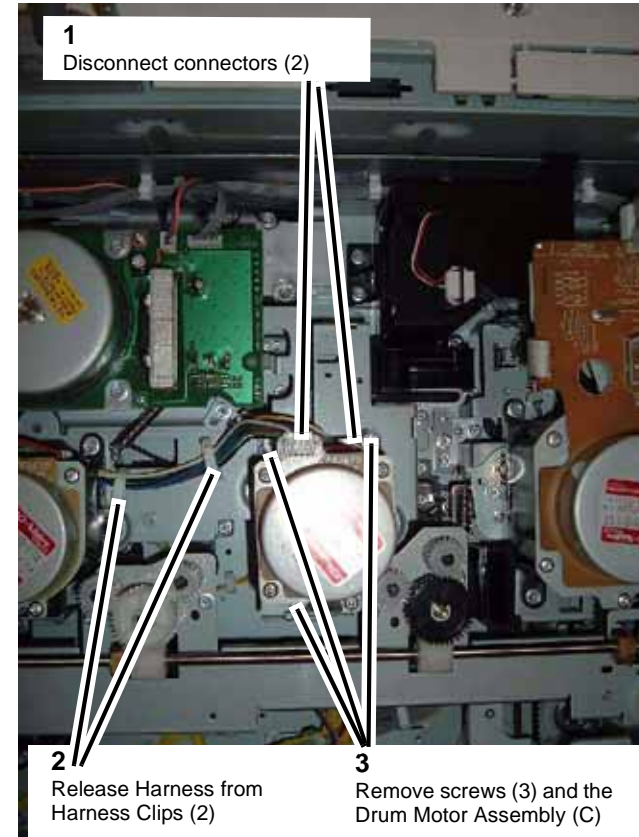
5. Remove the Y, M Cooling Duct (Figure 4).





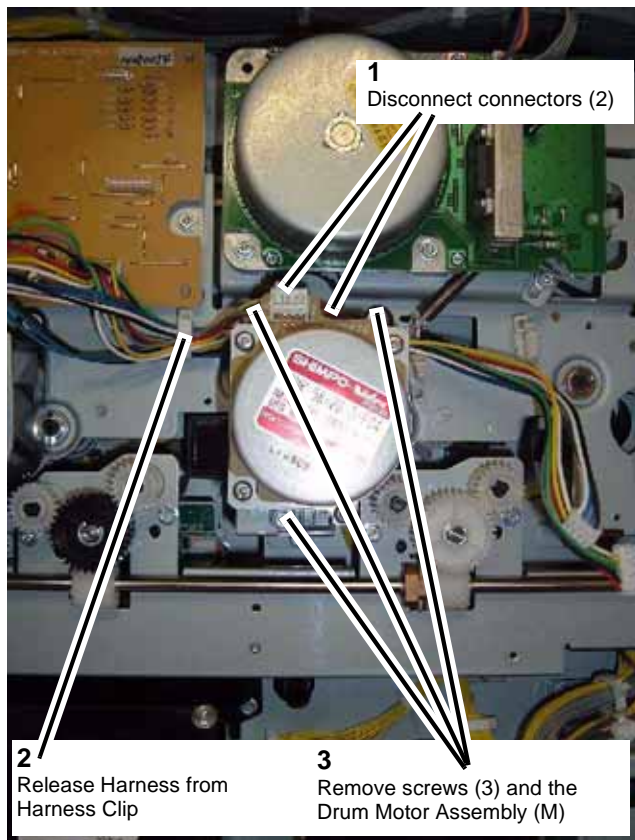
**Figure 4 Removing the Y, M Cooling Duct**

6. Remove the Drum Motor Assembly (C) (Figure 5).



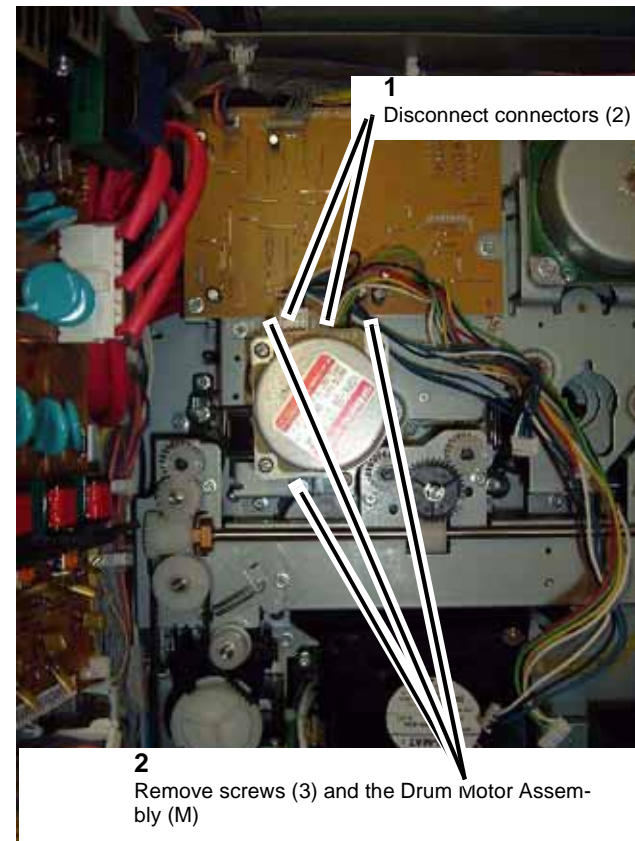
**Figure 5 Removing the Drum Motor Assembly (C)**

7. Remove the Drum Motor Assembly (M) (Figure 6).



**Figure 6 Removing the Drum Motor Assembly (M)**

8. Remove the Drum Motor Assembly (Y) (Figure 7).



**Figure 7 Removing the Drum Motor Assembly (Y)**

9. Remove the Drum Motor YMC PWB Assembly (Figure 8).

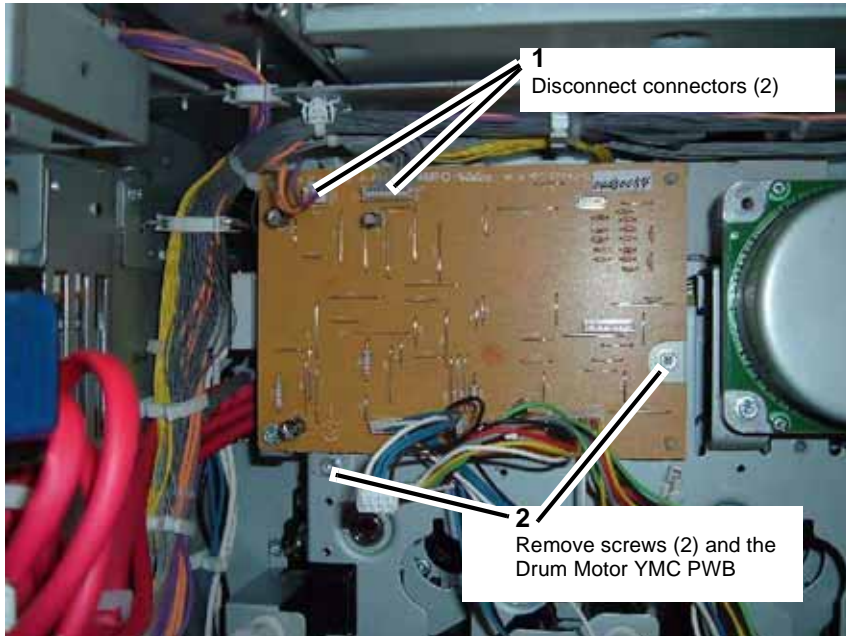


Figure 8 Removing the Drum Motor YMC PWB

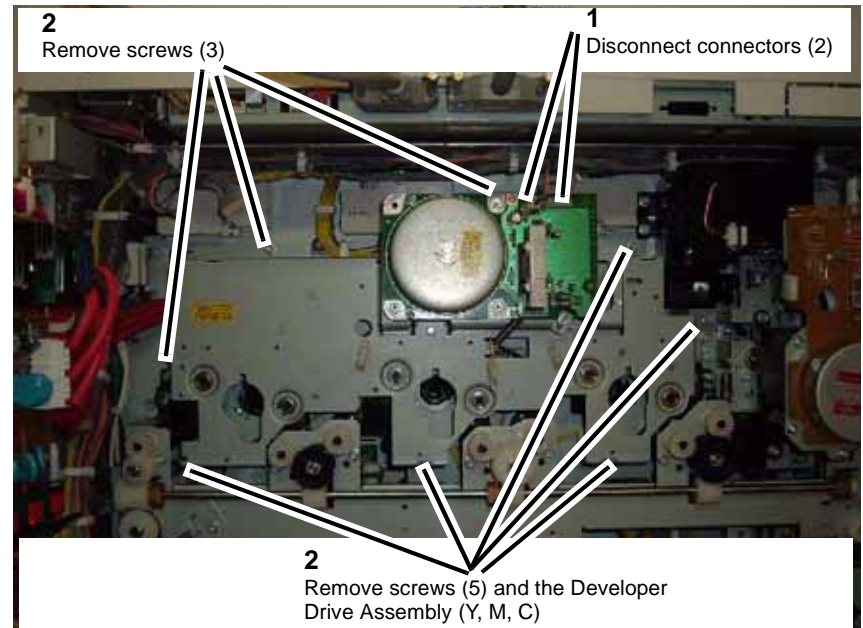


Figure 9 Removing the Developer Drive Assembly (Y, M, C)

10. Remove the Developer Drive Assembly (Y, M, C) (Figure 9).

### Replacement

1. Re-install parts in reverse order of the removal procedure.

## REP 9.13 MOB ADC Assembly

Parts List on [PL 11.2](#)

### Removal

#### WARNING

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

1. Remove Tray 5 / Bypass ([REP 7.14](#)).
2. Disconnect the HCF connector and remove the Left Upper Cover ([PL 12.2](#)).
3. Remove the Transfer Belt Assembly ([REP 9.1](#)).
4. Push in the Transfer Module.
5. Remove the Drum Cartridges (Y, M, C & K) ([REP 9.8](#)).
6. Disengage first stop on the left side ([Figure 1](#)).

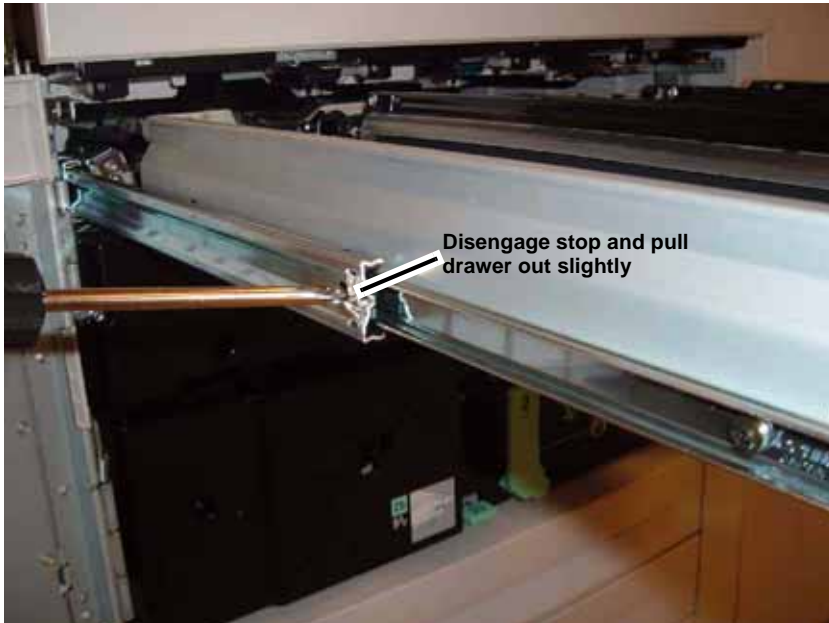


Figure 1 Disengaging left first stop

7. Disengage first stop on the right side ([Figure 2](#)).

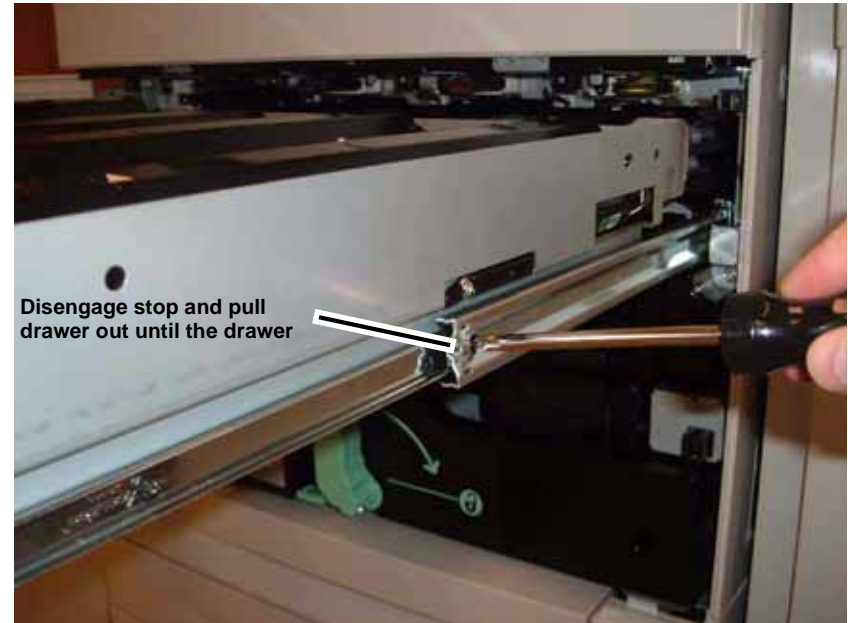


Figure 2 Disengaging right first stop

8. Disengage second stop on the right side ([Figure 3](#)).

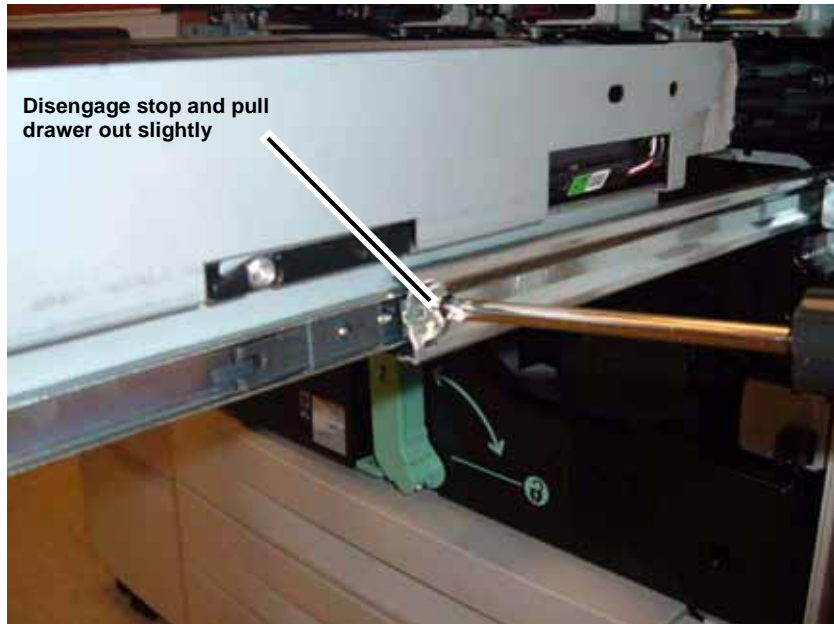


Figure 3 Disengaging right second stop

9. Remove the Drum Cartridge Module (Figure 4).

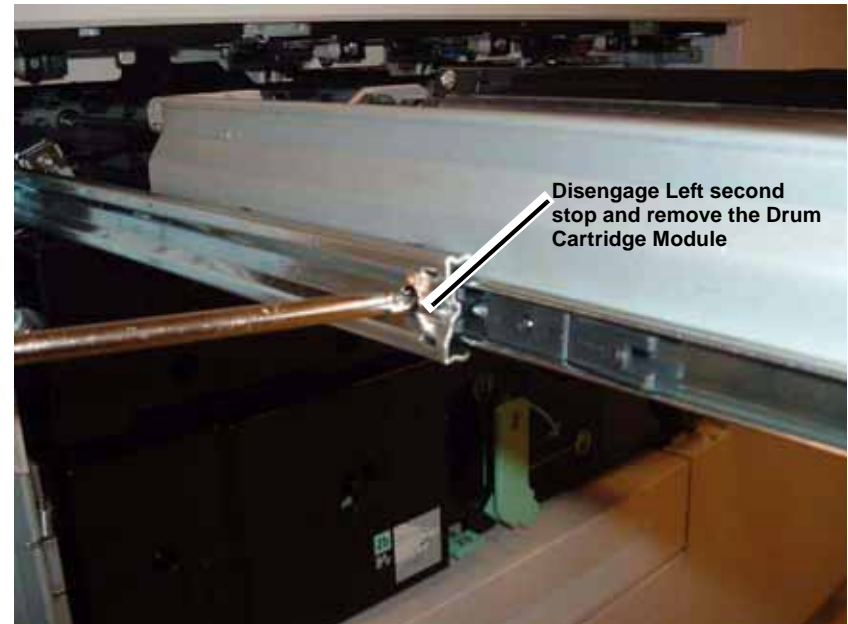


Figure 4 Removing the Drum Cartridge Module

10. Disconnect connector (Figure 5).

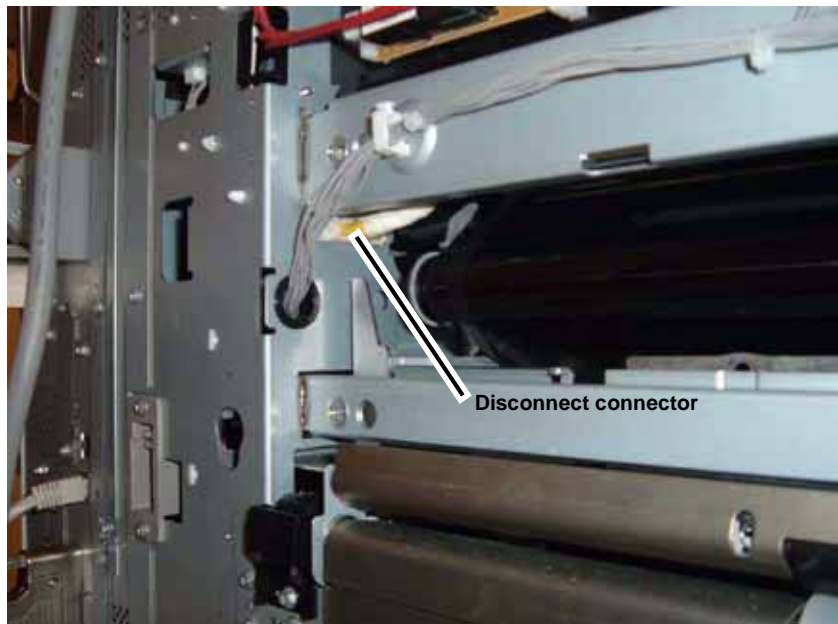


Figure 5 Disconnecting connector

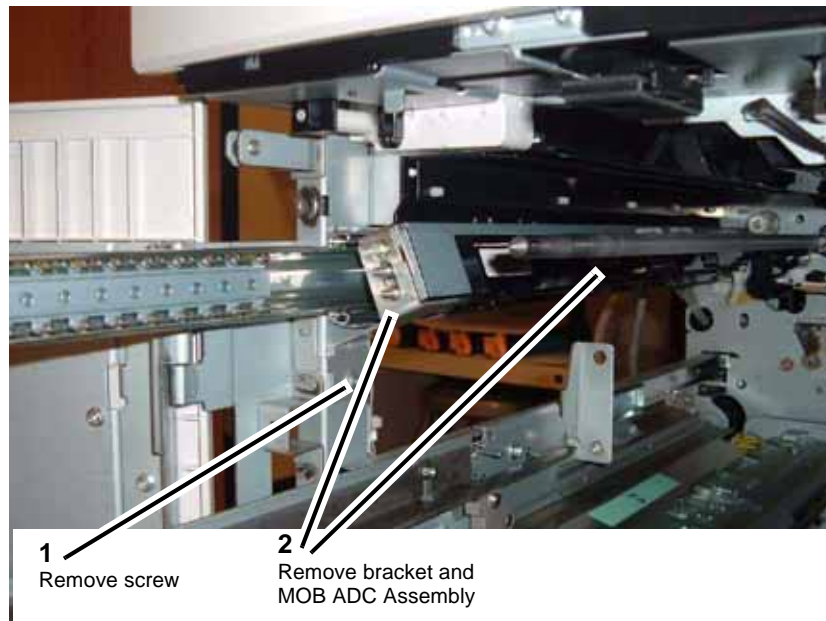


Figure 6 Removing the MOB ADC Assembly

11. Remove the MOB ADC Assembly (Figure 6).

## REP 9.14 Developer Housing (Y, M, C & K)

Parts List on [PL 6.6](#)

### Removal

#### **WARNING**

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

1. Remove the Drum Cartridges (Y, M, C & K) ([REP 9.8](#)).
2. Disengage first stop on the right side ([Figure 1](#)).

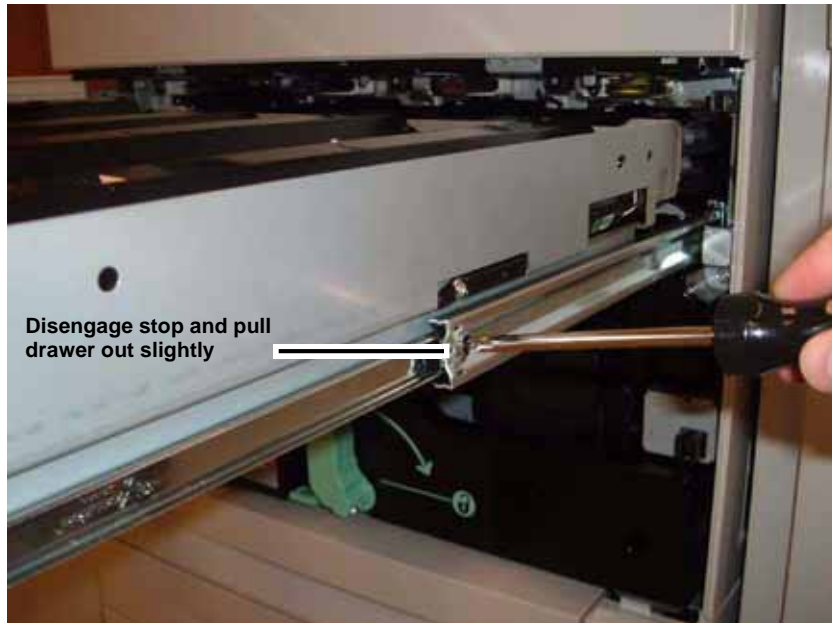


Figure 1 Disengaging first right stop

3. Disengage first stop on the left side ([Figure 2](#)).



Figure 2 Disengaging left first stop

4. Remove the Inner Cover ([Figure 3](#)).

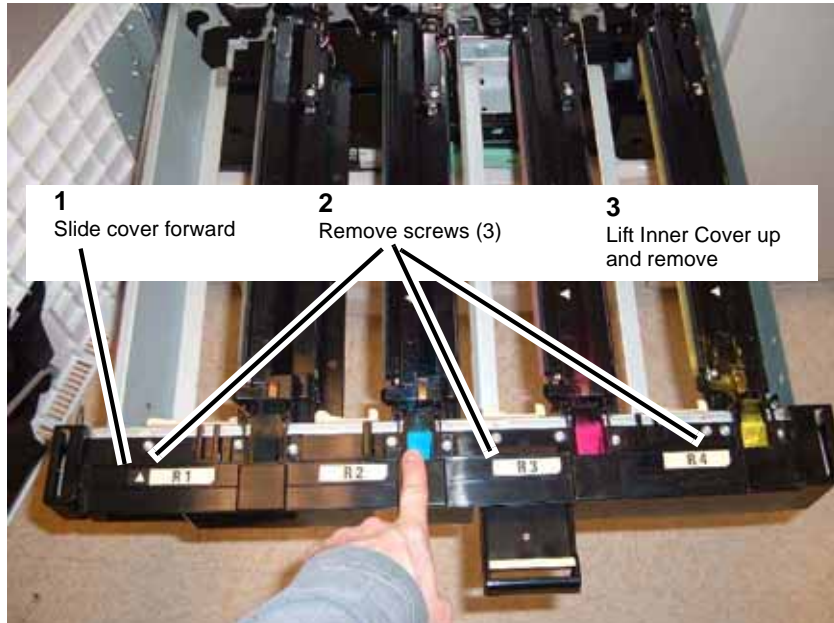


Figure 3 Removing the Inner Cover

5. Remove Spring(s) (Figure 4).

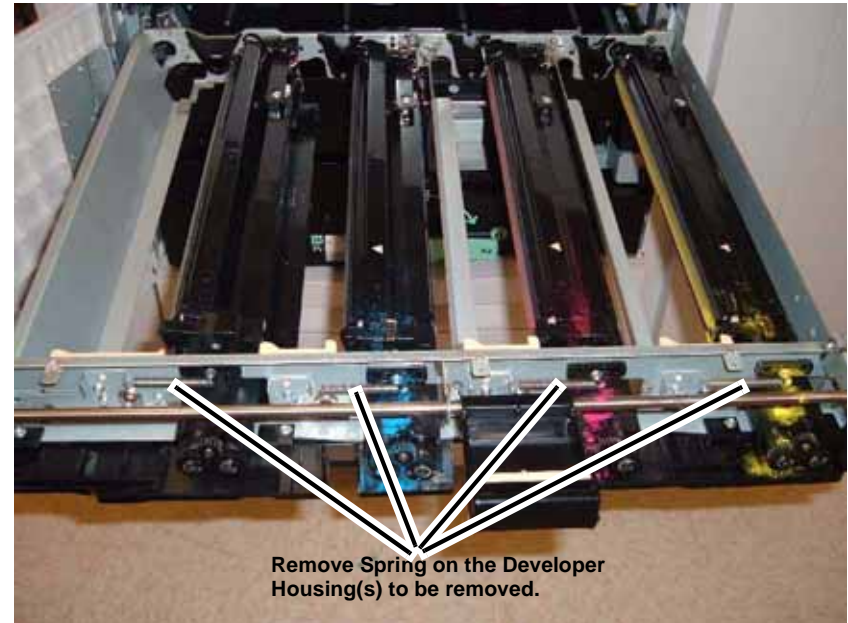
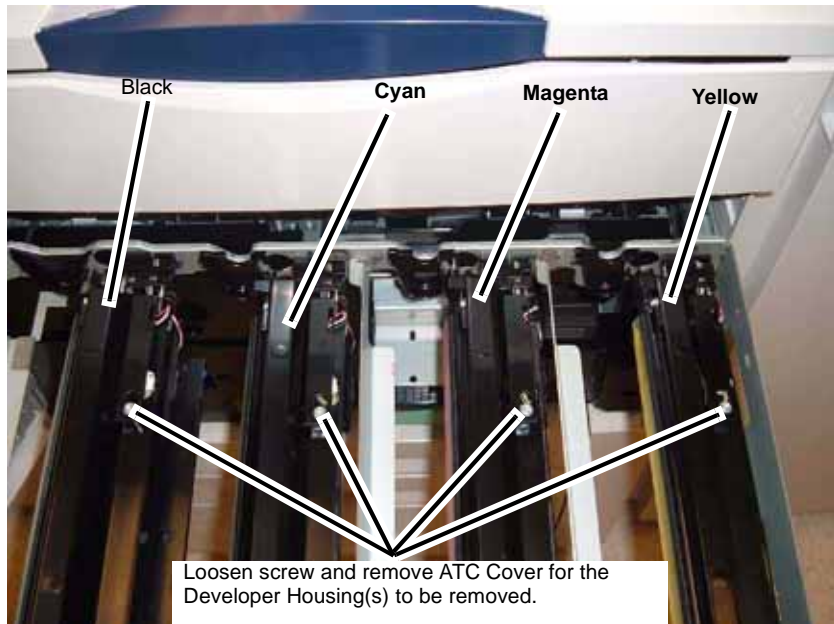


Figure 4 Removing Spring(s)

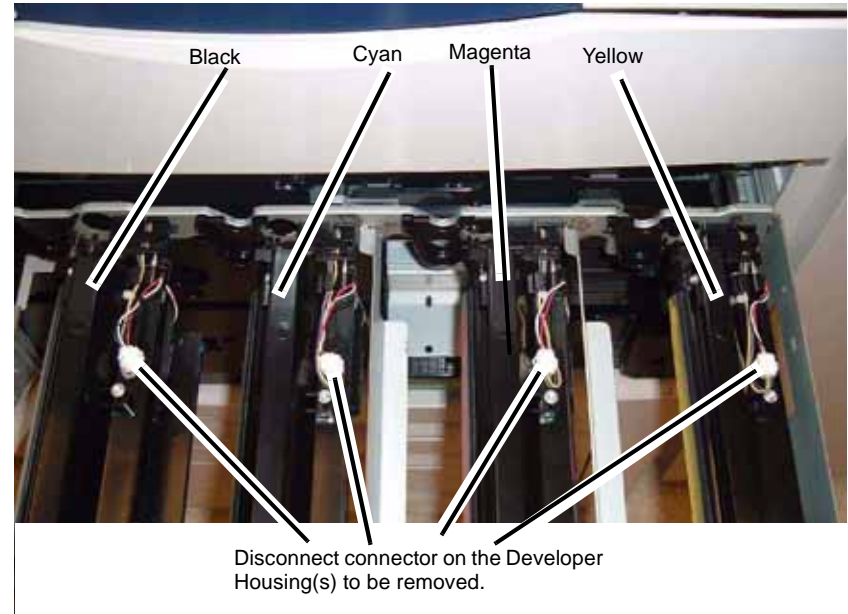
6. Remove the ATC Cover(s) (Figure 5).





**Figure 5 Removing ATC Cover(s)**

7. Disconnect connector(s) (Figure 6).



**Figure 6 Disconnect the connectors**

8. Remove the Developer Housing(s) (Figure 7).

1

Cover the opening on the Developer Housings with a sheet of paper

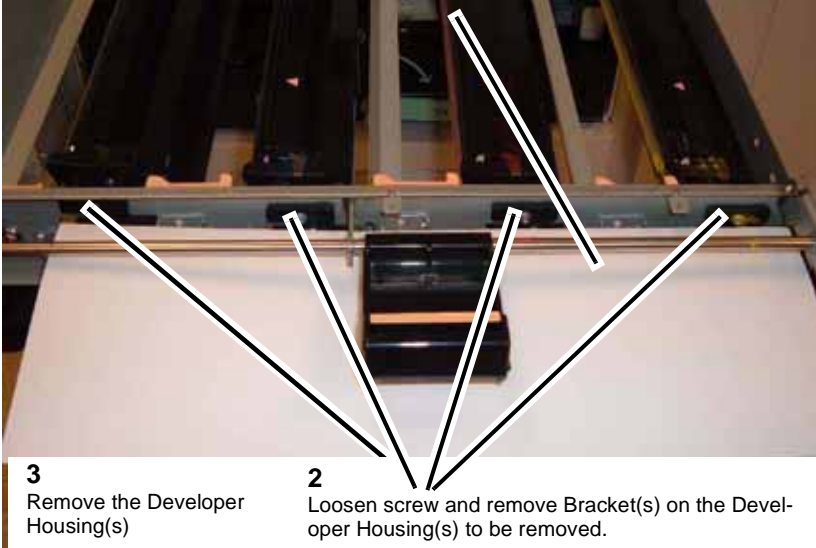


Figure 7 Removing the Developer Housing(s)

### Replacement

1. To replace developer, go to [REP 9.15](#).

## REP 9.15 Developer Replacement (Y, M, C & K)

Parts List on [PL 6.6](#)

### Removal

#### WARNING

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

1. Remove the Developer Housing ([REP 9.14](#)).
2. Remove screws ([Figure 1](#)).

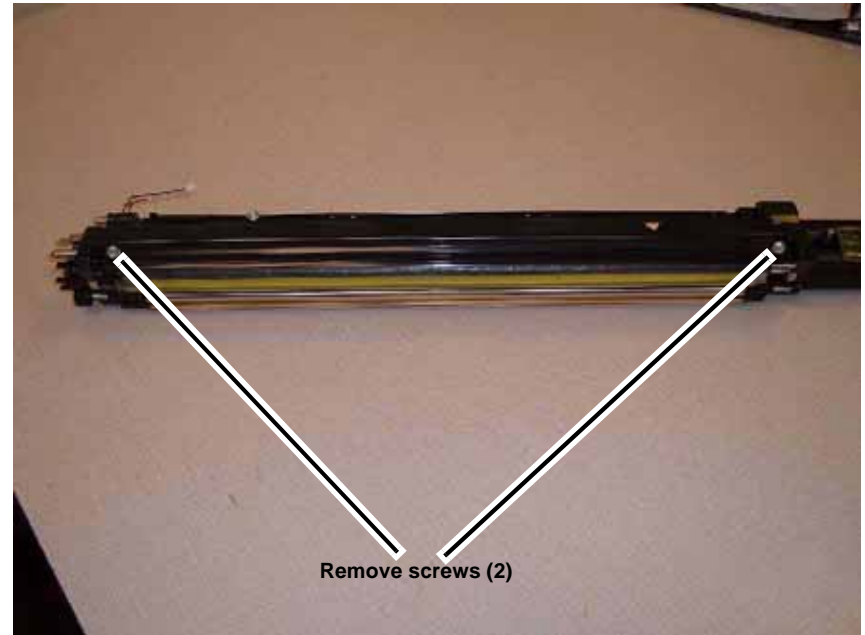


Figure 1 Removing screws

3. Remove Cover ([Figure 2](#)).

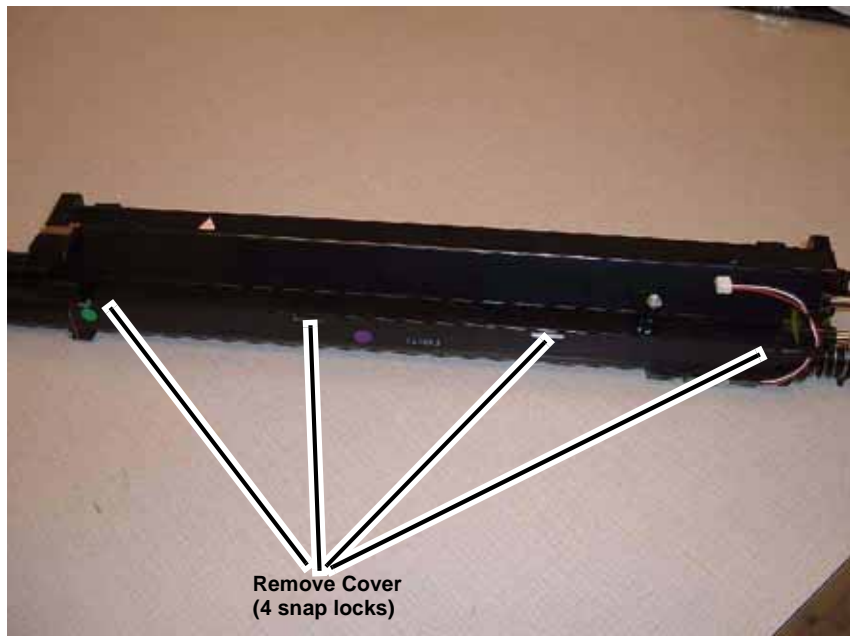


Figure 2 Removing Cover

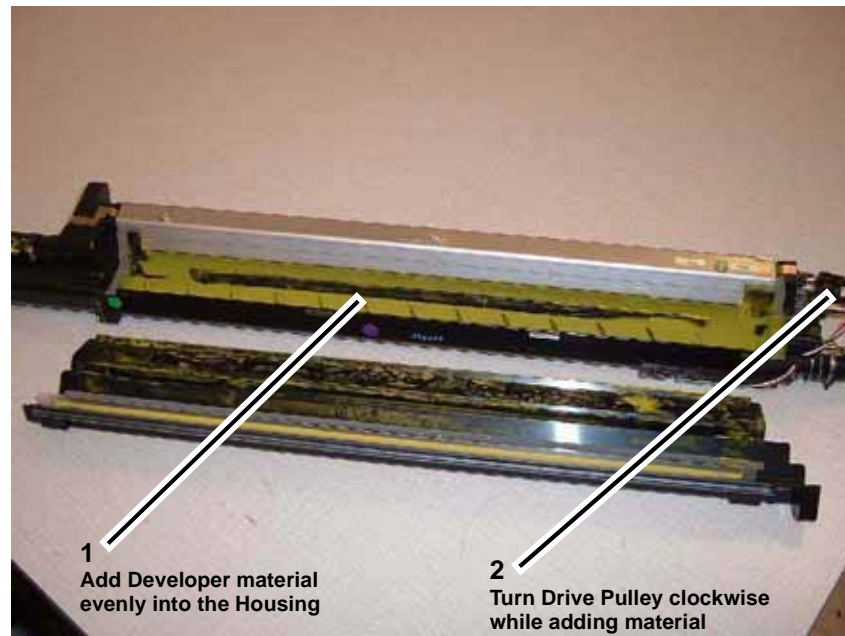


Figure 3 Adding Developer (picture shows yellow housing)

## Replacement

1. Add Developer (Figure 3).

2. Re-install Developer Housing (reverse order of Removal procedure in [REP 9.14](#)).
3. Run [dC950](#) ATC Sensor Setup.
4. Reset HFSI Counter ([dC135](#)) for the Developer that was replaced:
  - 954-830 (Yellow - Y)
  - 954-831 (Magenta - M)
  - 954-832 (Cyan - C)
  - 954-833 (Black - K)

## REP 9.16 Dispenser (K)

Parts List on [PL 6.4](#)

### Removal

#### **WARNING**

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

1. Remove the Dispenser Assembly ([REP 9.9](#))
2. Remove screw on the front of the Dispenser Assembly ([Figure 1](#)).

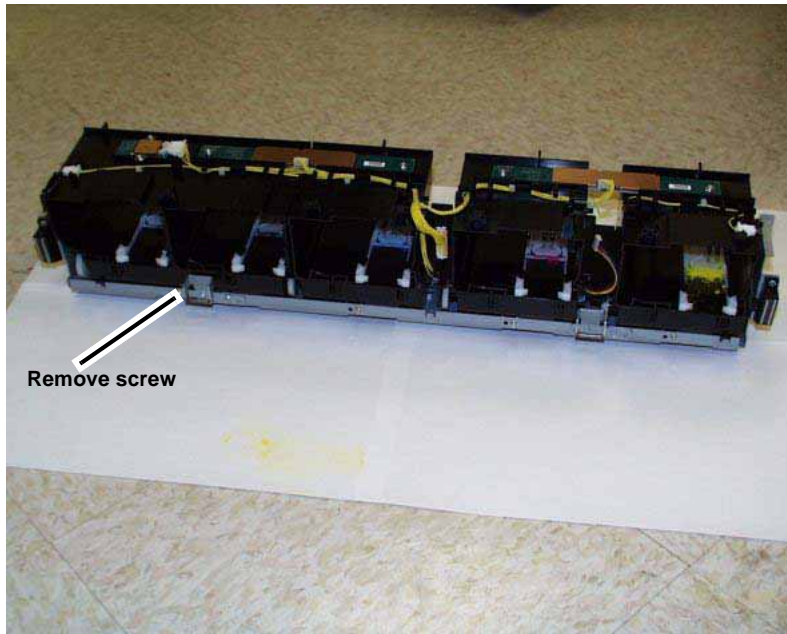


Figure 1 Removing screw

3. Remove screw on the back of the Dispenser Assembly ([Figure 2](#)).

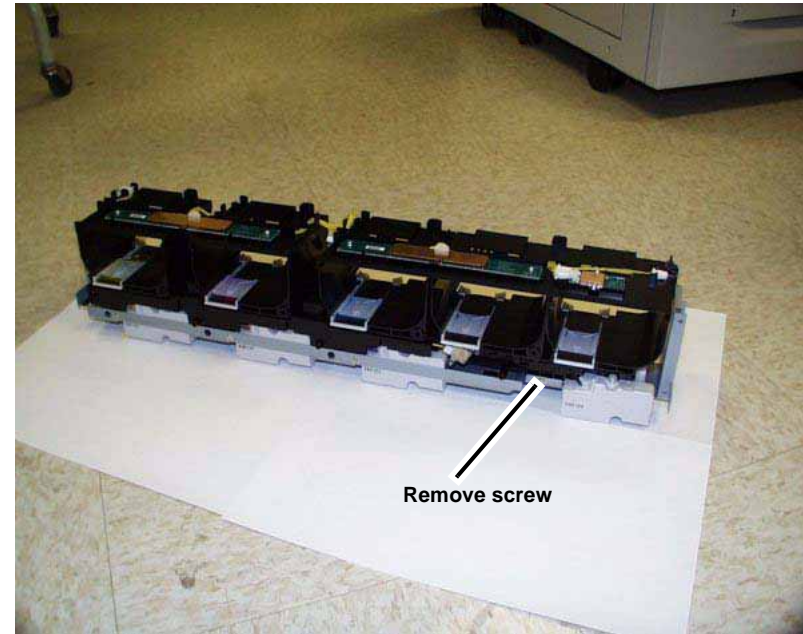


Figure 2 Removing screw

4. Remove the Toner Cartridge CRUM PWB (K) ([Figure 3](#)).

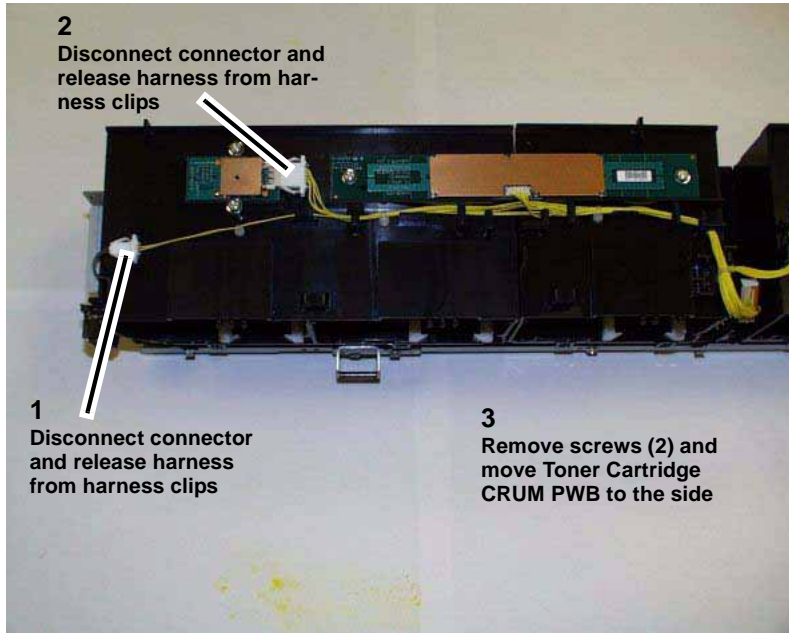


Figure 3 Removing the Toner Cartridge CRUM PWB

5. Remove the Guide (Figure 4).

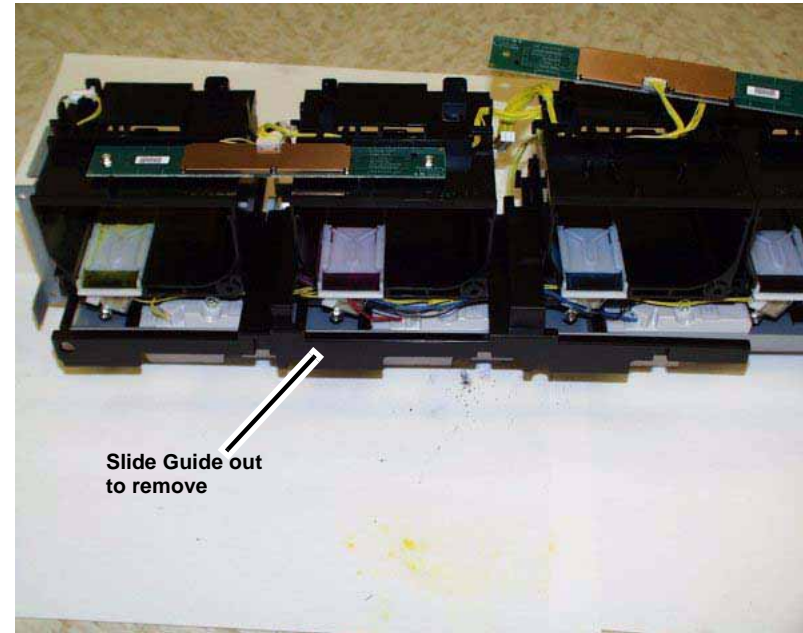


Figure 4 Removing the Guide

6. Disconnect connectors (Figure 5).

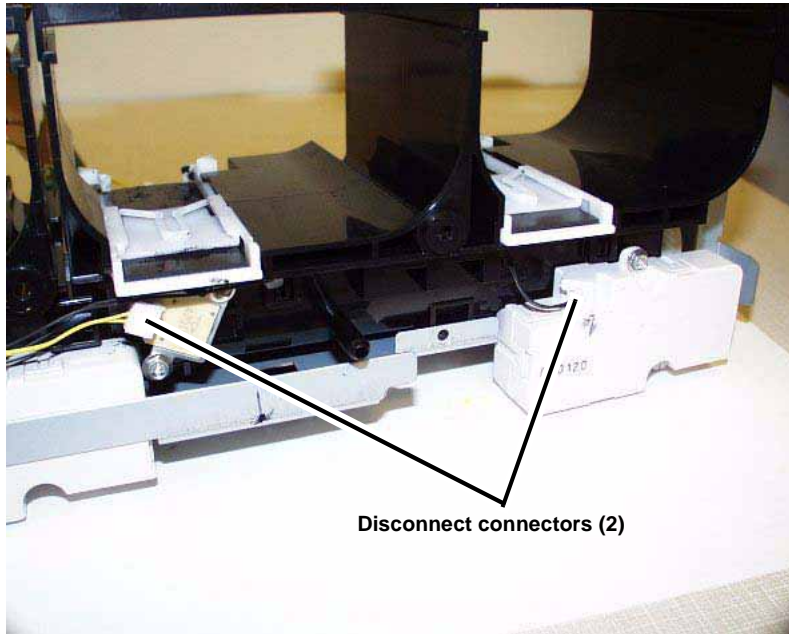


Figure 5 Disconnecting connectors

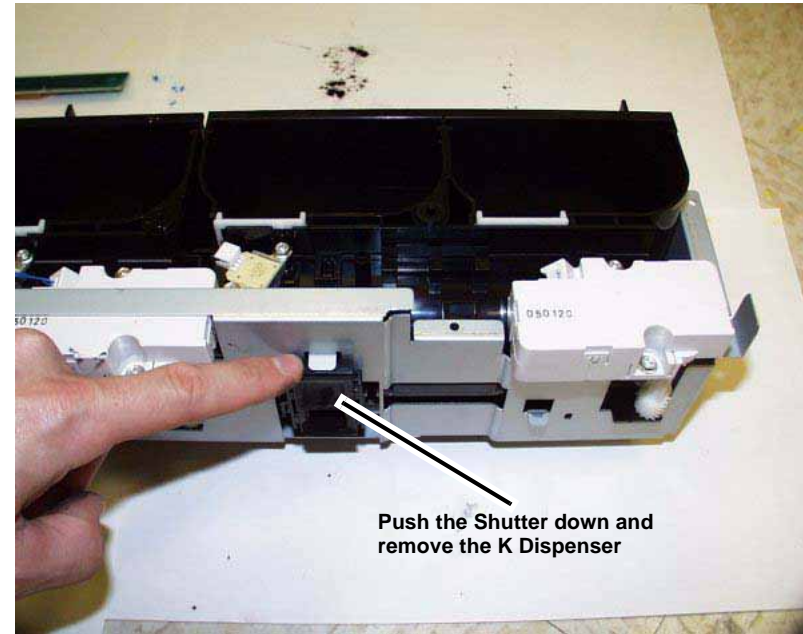


Figure 6 Removing the K Dispenser

7. Remove the K Dispenser (Figure 6).

## REP 9.17 Dispenser (C)

Parts List on [PL 6.4](#)

### Removal

#### WARNING

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

1. Remove the Dispenser Assembly ([REP 9.9](#)).
2. Remove the K Dispenser ([REP 9.16](#)).
3. Remove front screw ([Figure 1](#)).

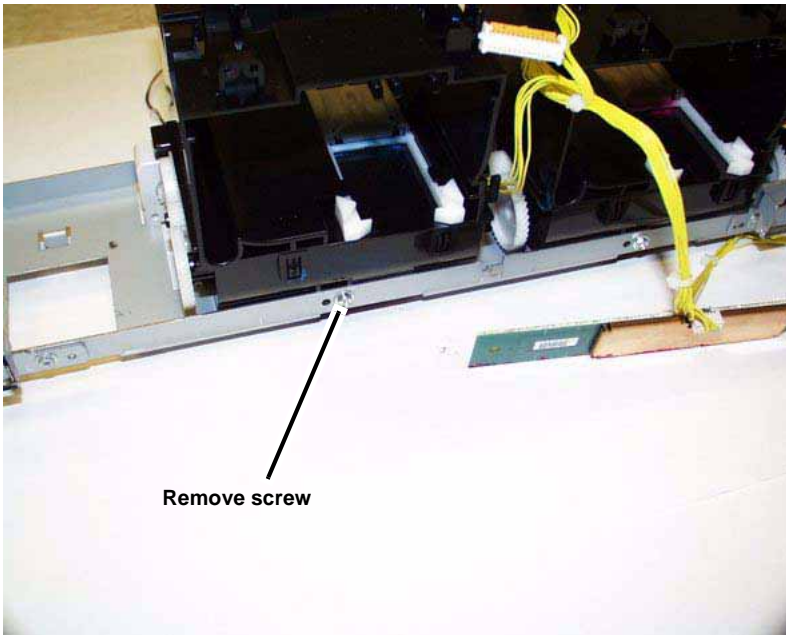


Figure 1 Removing front screw

4. Remove rear screw ([Figure 2](#)).

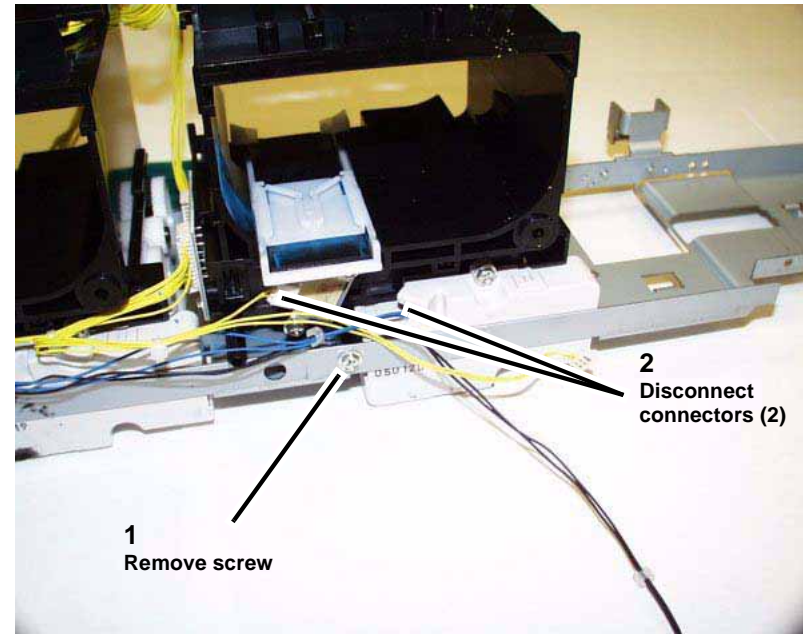


Figure 2 Removing rear screw

5. Remove the C Dispenser ([Figure 3](#)).

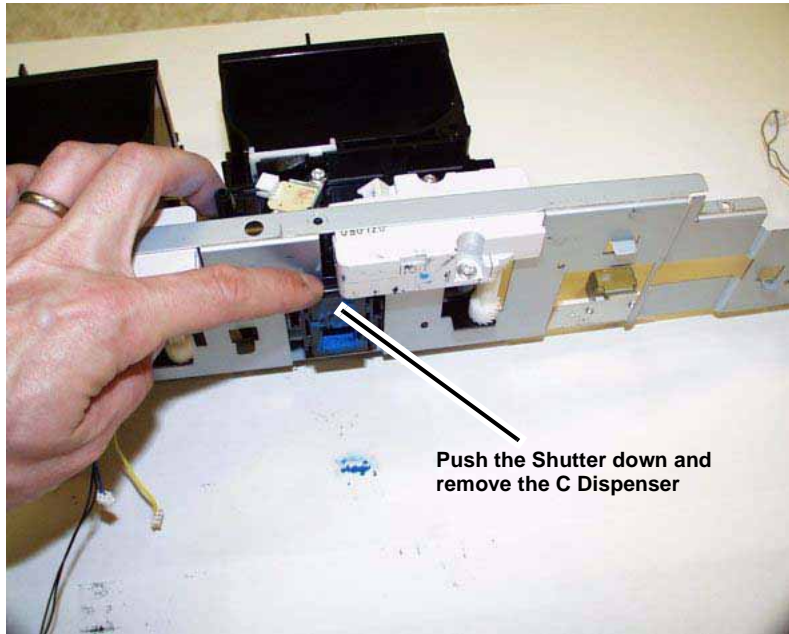


Figure 3 Removing the C Dispenser

6. Disconnect connectors (Figure 4).

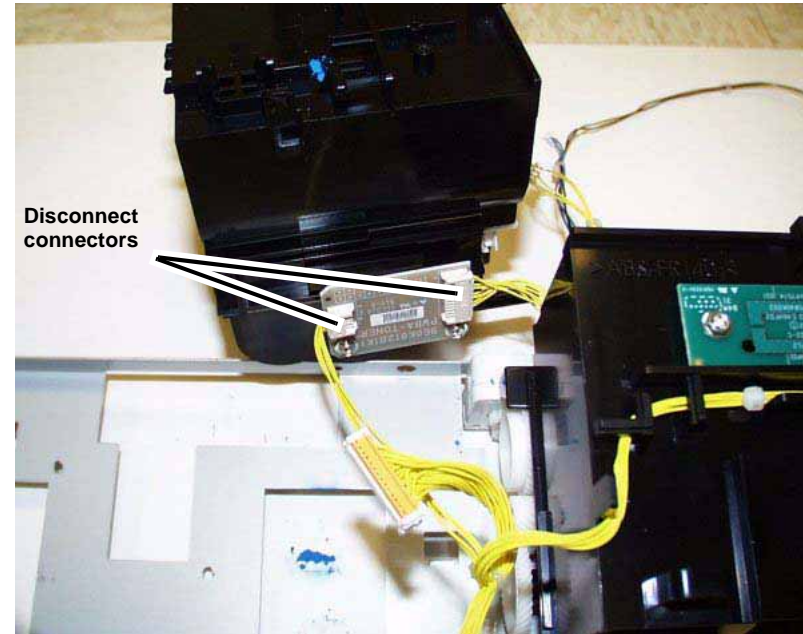


Figure 4 Disconnecting connectors

7. If replacing the C Dispenser, remove the Low Toner Sensor PWB (REP 9.20) and re-install it on the new C Dispenser.



## REP 9.18 Dispenser (M)

Parts List on  
Removal

### WARNING

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

1. Remove the Dispenser Assembly (REP 9.9).
2. Remove the Guide (Figure 1).

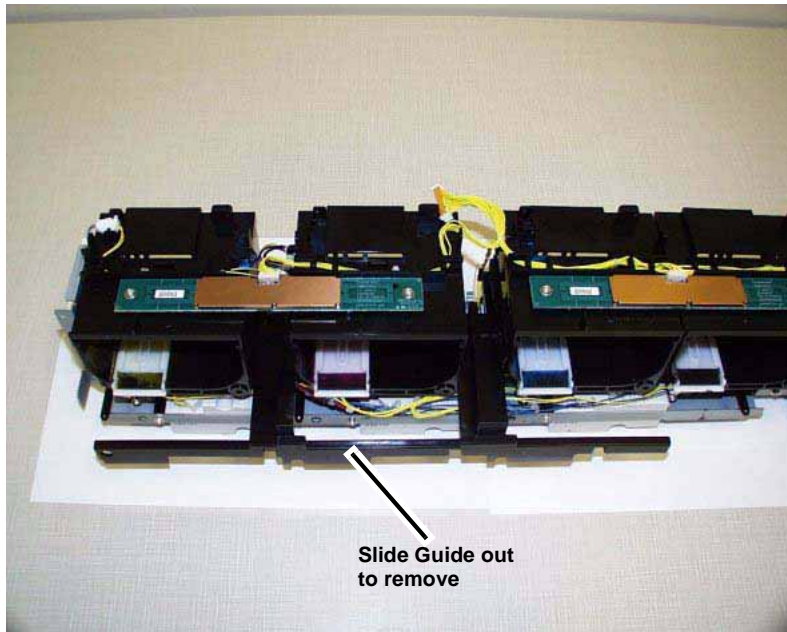


Figure 1 Removing the Guide

3. Remove the front screw (Figure 2).

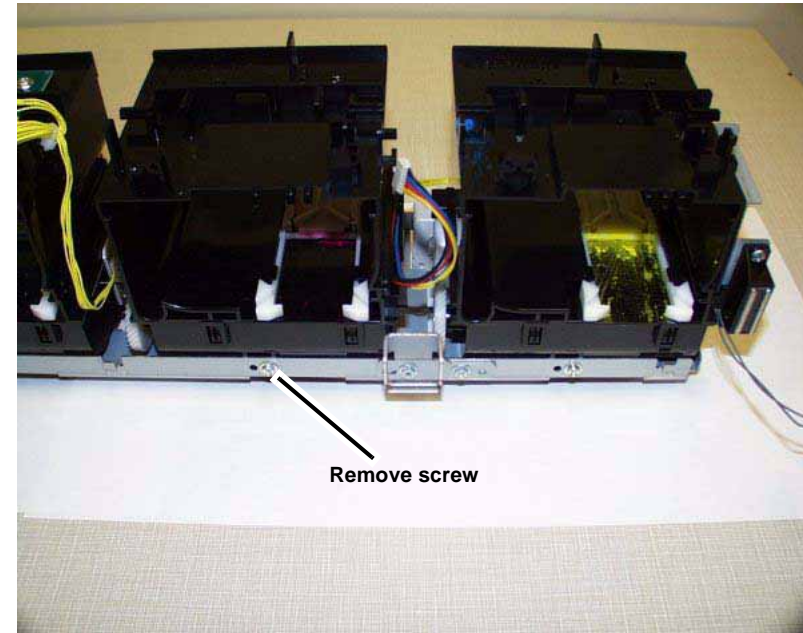


Figure 2 Removing the front screw

4. Remove the Toner Cartridge CRUM PWB (C, M, Y) (Figure 3).

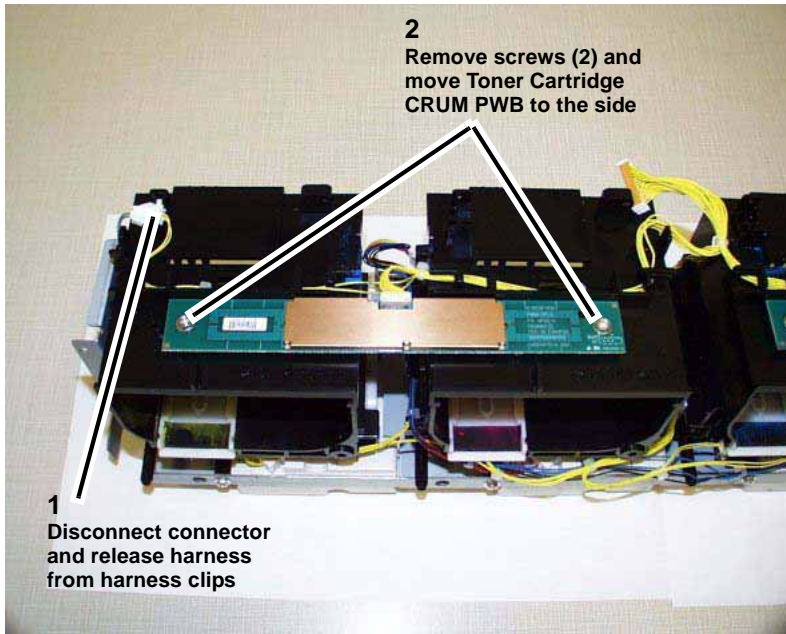


Figure 3 Removing the Toner Cartridge CRUM PWB (C, M, Y)

5. Remove the rear screw and disconnect connectors (Figure 4).

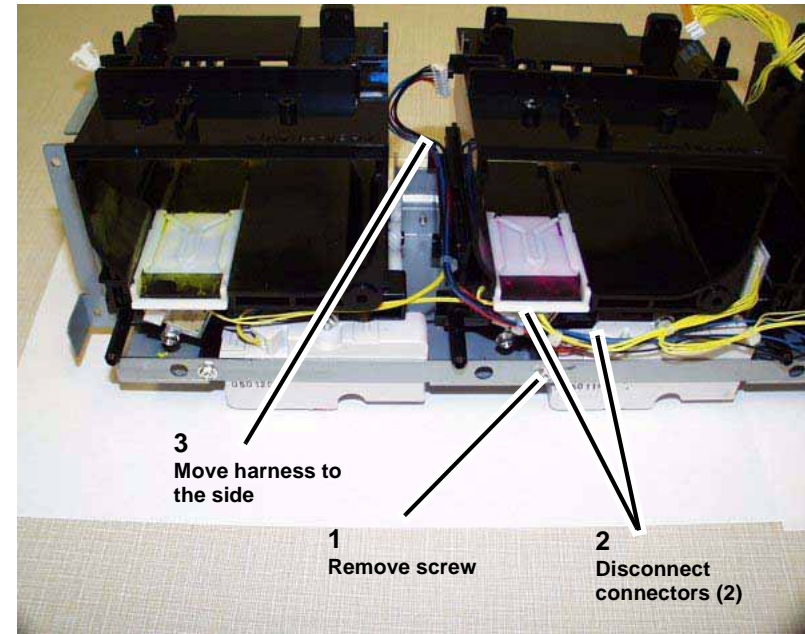
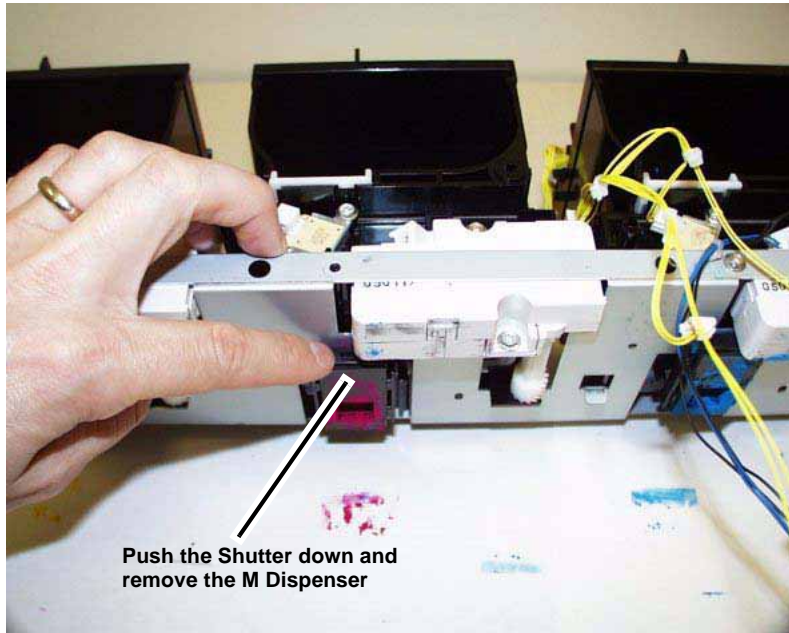


Figure 4 Removing the rear screw and disconnecting connectors

6. Remove the M Dispenser (Figure 5).



Push the Shutter down and  
remove the M Dispenser

Figure 5 Removing the M Dispenser

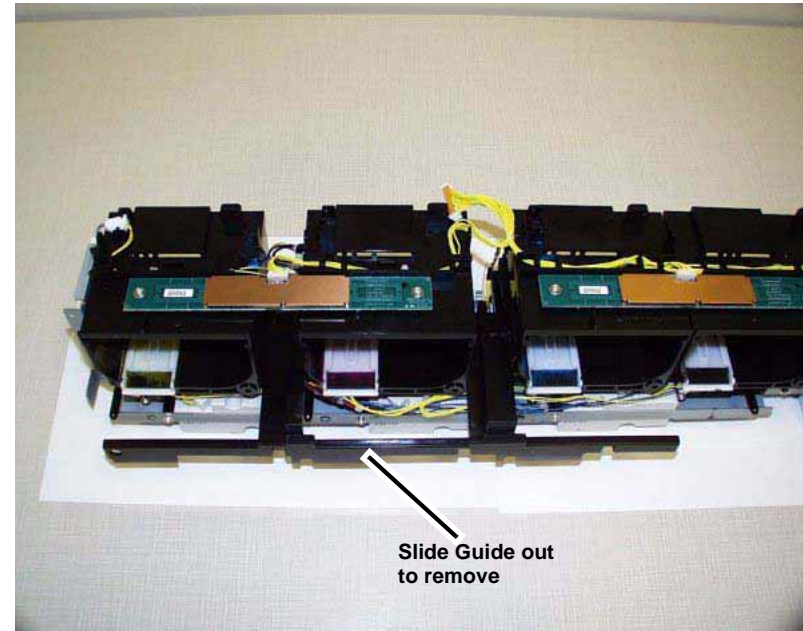
## REP 9.19 Dispenser (Y)

Parts List on  
Removal

### WARNING

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

1. Remove the Dispenser Assembly (REP 9.9).
2. Remove the Guide (Figure 1).



Slide Guide out  
to remove

Figure 1 Removing the Guide

3. Remove the front screw (Figure 2).

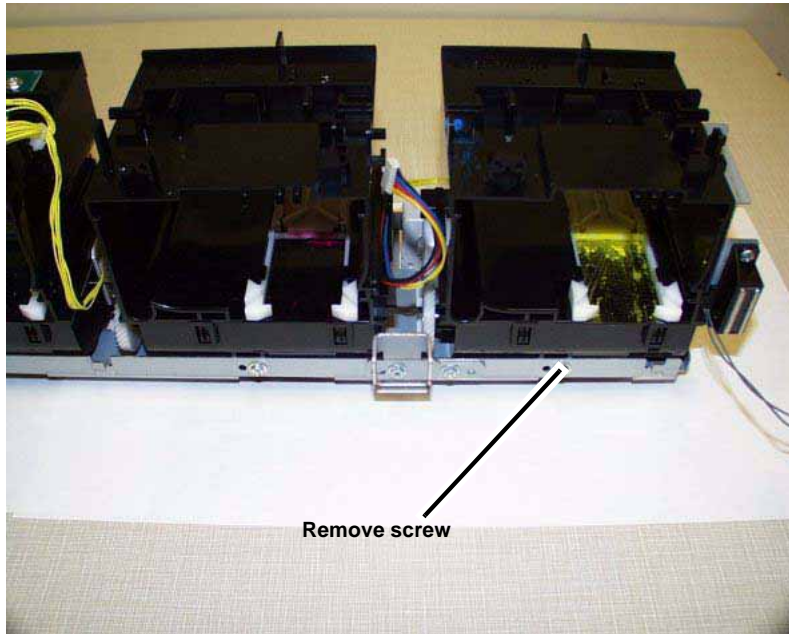


Figure 2 Removing the front screw

4. Remove the Toner Cartridge CRUM PWB (C, M, Y) (Figure 3).

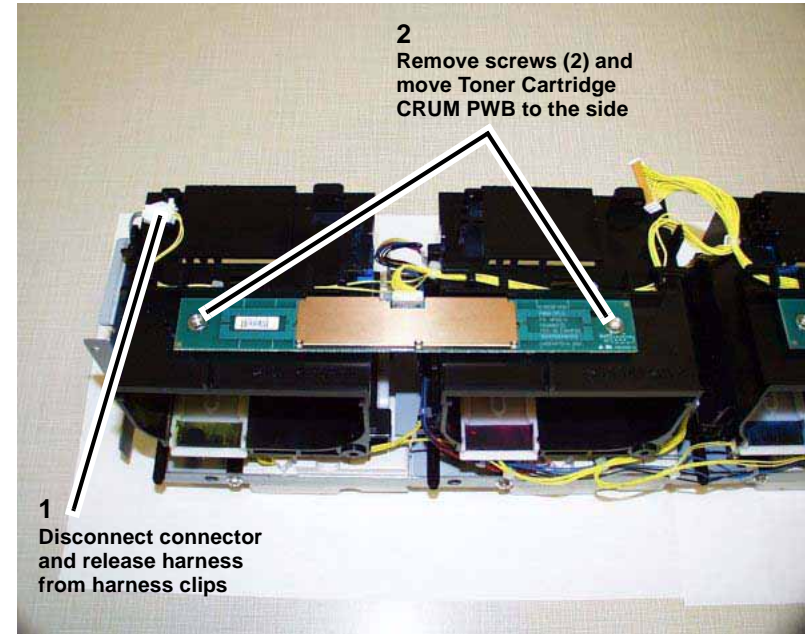


Figure 3 Removing the Toner Cartridge CRUM PWB (C, M, Y)

5. Remove the rear screw and disconnect connectors (Figure 4).

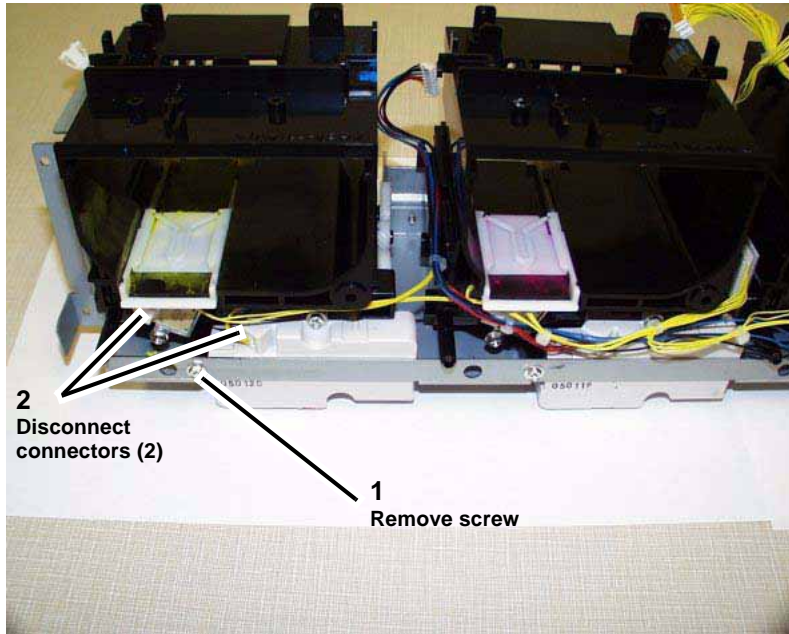


Figure 4 Removing the rear screw and disconnecting connectors

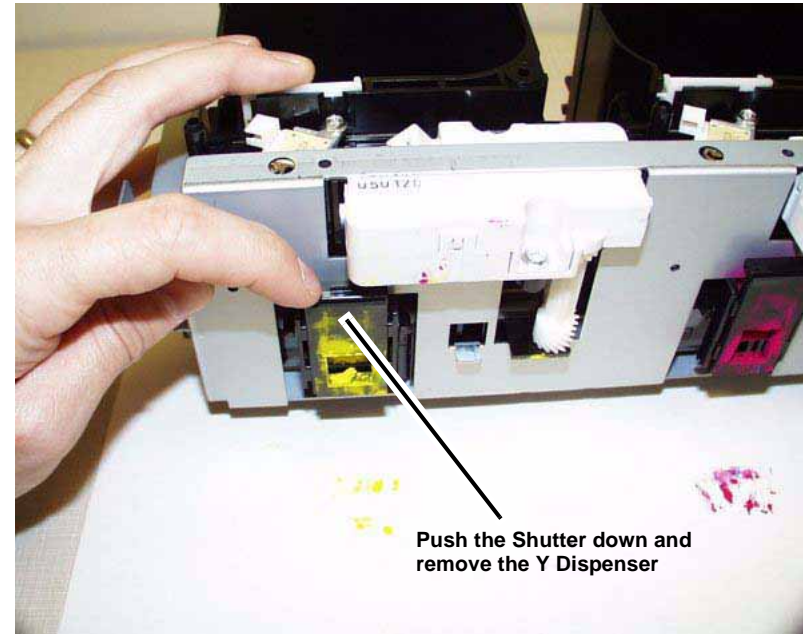


Figure 5 Removing the Y Dispenser

6. Remove the Y Dispenser (Figure 5).

## REP 9.20 Low Toner Sensor PWB

Parts List on [PL 6.3](#)

### Removal

#### WARNING

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

1. Remove the Dispenser Assembly ([REP 9.9](#)).
2. Remove the K Dispenser ([REP 9.16](#)).
3. Remove the C Dispenser ([REP 9.17](#)).
4. Remove the Low Toner Sensor PWB ([Figure 1](#)).

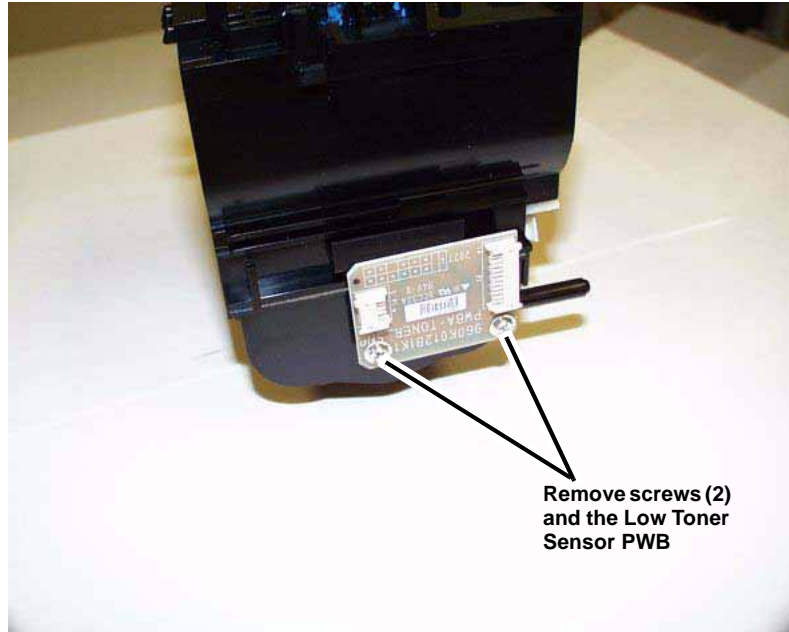


Figure 1 Removing the Low Toner Sensor PWB

## REP 9.21 Low Toner Sensor (K)

Parts List on [PL 6.4](#)

### Removal

#### WARNING

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

1. Remove the K Dispenser ([REP 9.16](#)).
2. Remove the Low Toner Sensor ([Figure 1](#)).

**NOTE:** The Low Toner Sensor can be removed without removing the Dispenser completely.

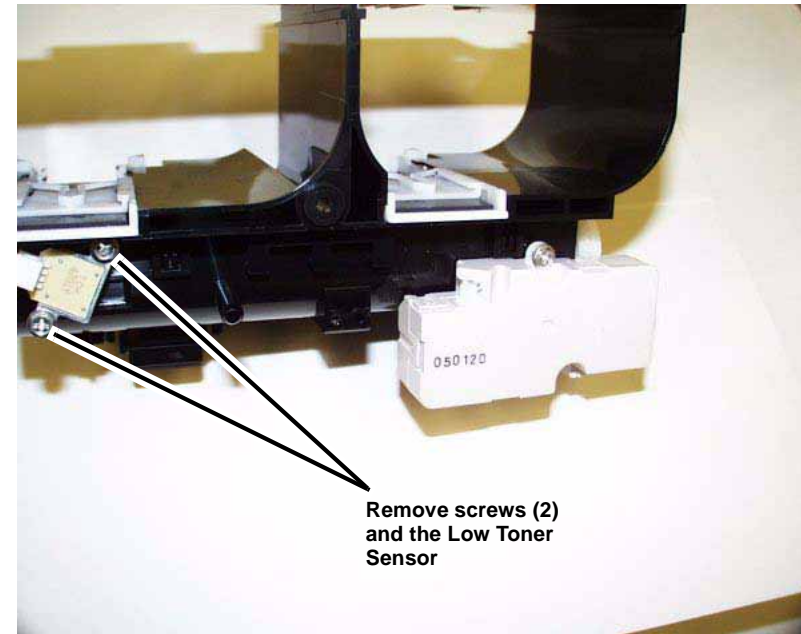


Figure 1 Removing the Low Toner Sensor

## REP 9.22 Low Toner Sensor (C)

Parts List on [PL 6.4](#)

### Removal

#### WARNING

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

1. Remove the C Dispenser (REP 9.17).
2. Remove the Low Toner Sensor (Figure 1).

**NOTE:** The Low Toner Sensor can be removed without removing the Dispenser completely.

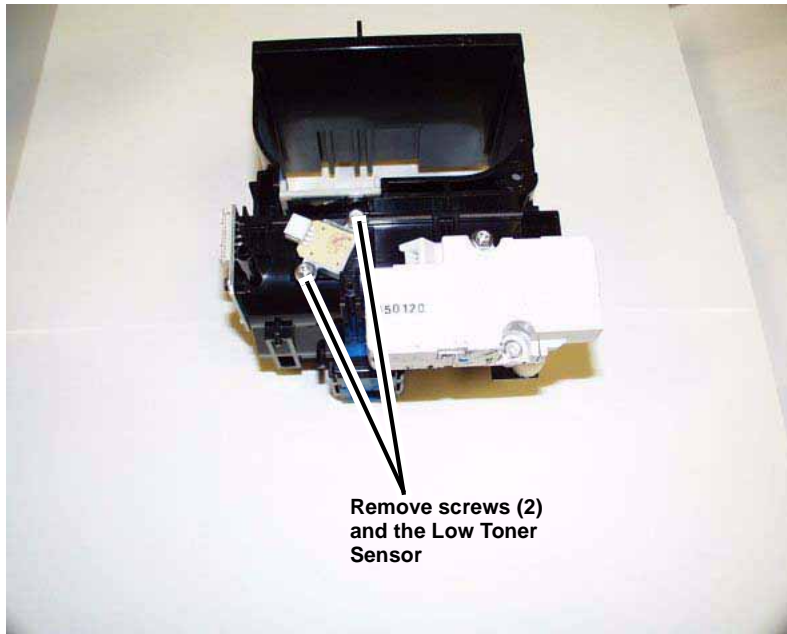


Figure 1 Removing the Low Toner Sensor

## REP 9.23 Low Toner Sensor (M)

Parts List on [PL 6.4](#)

### Removal

#### WARNING

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

1. Remove the M Dispenser (REP 9.18).
2. Remove the Low Toner Sensor (Figure 1).

**NOTE:** The Low Toner Sensor can be removed without removing the Dispenser completely.

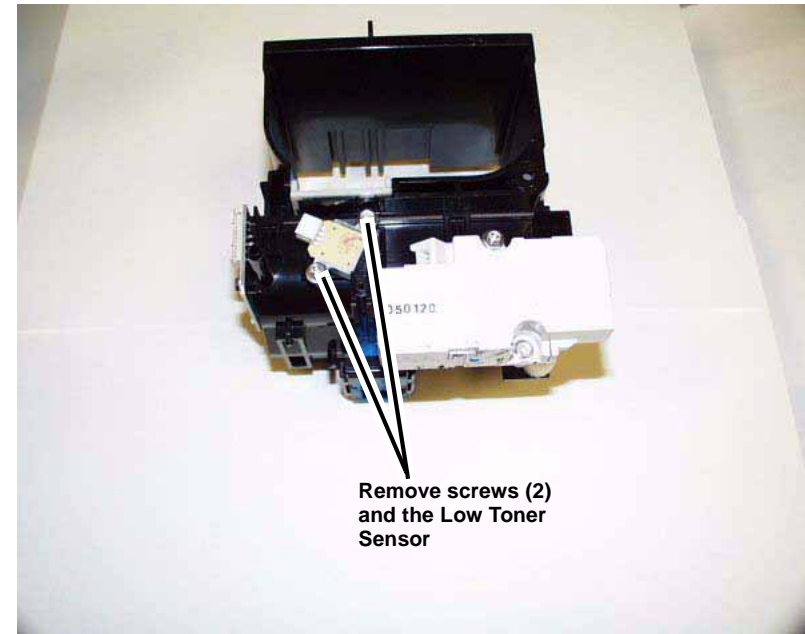


Figure 1 Removing the Low Toner Sensor

## REP 9.24 Low Toner Sensor (Y)

Parts List on [PL 6.4](#)

### Removal

#### **WARNING**

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

1. Remove the Y Dispenser ([REP 9.19](#)).
2. Remove the Low Toner Sensor ([Figure 1](#)).

**NOTE:** The Low Toner Sensor can be removed without removing the Dispenser completely.

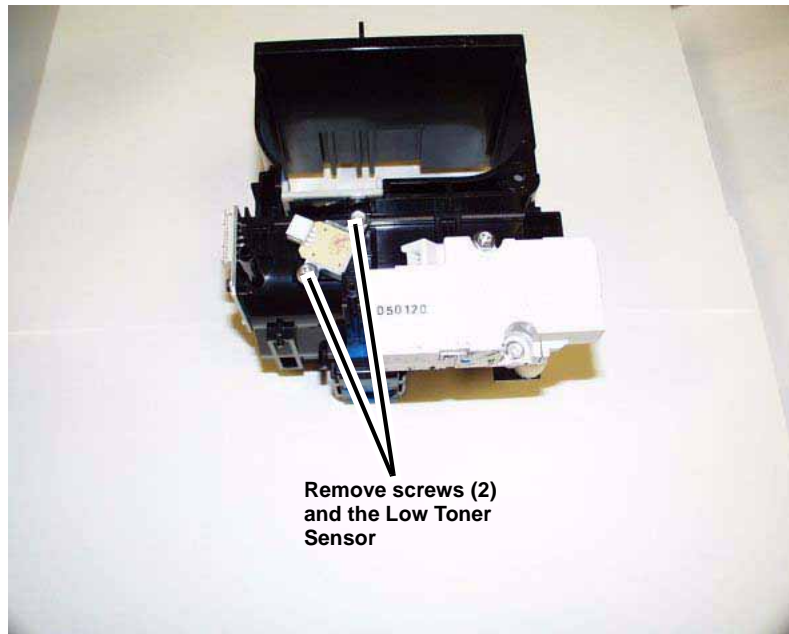


Figure 1 Removing the Low Toner Sensor



## REP 10.1 Fuser

Parts List on [PL 8.1](#)

### Removal

#### WARNING

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

1. Open the Front Cover.
2. Remove the Fuser ([Figure 1](#)).



Figure 1 Opening the Transport Drawer

## REP 10.2 Vacuum Transport Assembly

Parts List on [PL 4.1](#)

### Removal

#### WARNING

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

1. Remove the Fuser ([REP 10.1](#))

**NOTE:** This removal procedure can be done without removing the Fuser. Removing the Fuser will however give you a little more room to remove the Vacuum Transport Assembly.

2. Remove the Vacuum Transport Assembly ([Figure 1](#)).

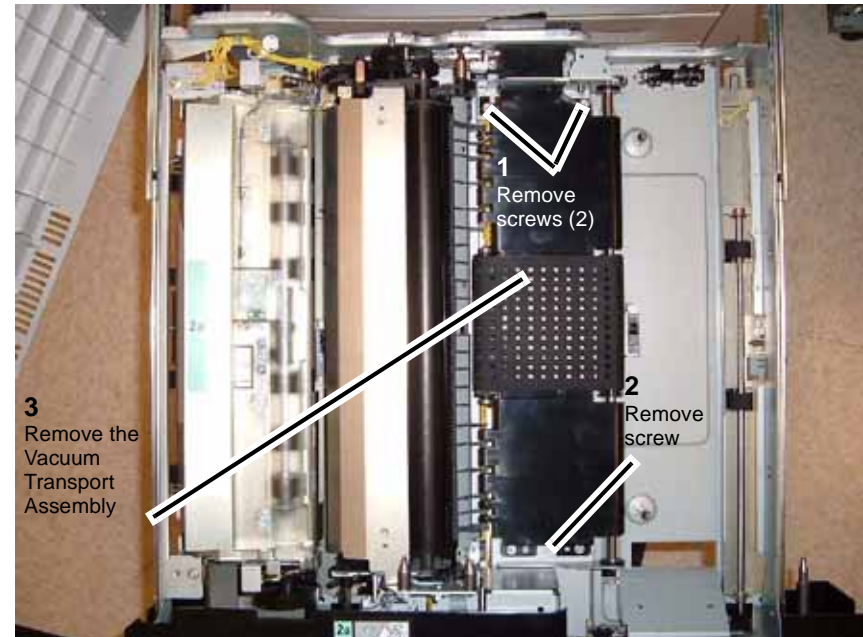


Figure 1 Removing the V-Transport

## REP 10.3 Transport Belt

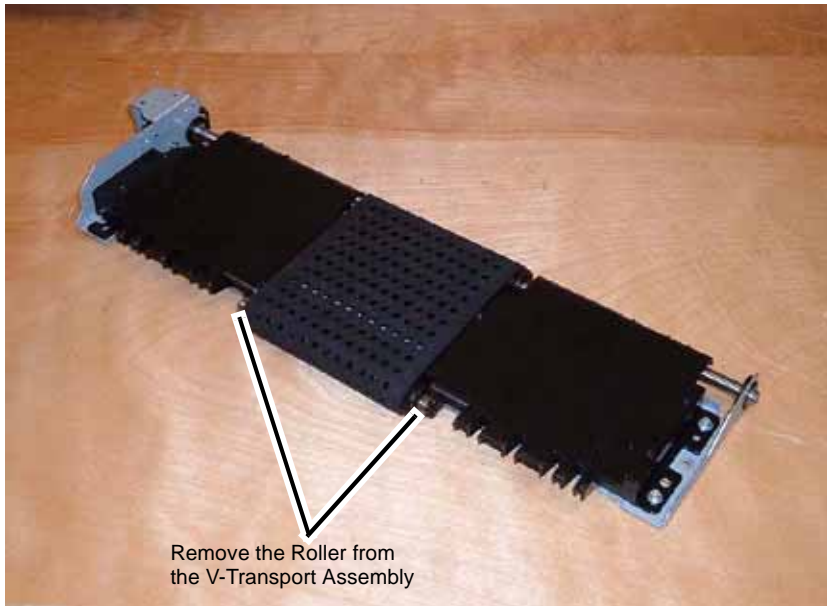
Parts List on [PL 4.6](#)

### Removal

#### **WARNING**

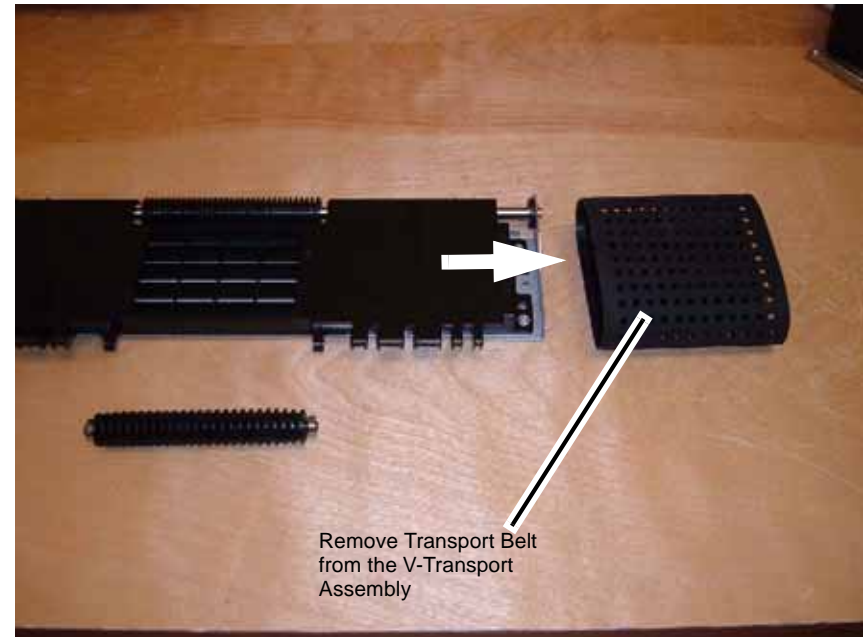
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Vacuum Transport Assembly ([REP 10.2](#)).
2. Remove the Roller ([Figure 1](#)).



**Figure 1** Removing the Transport Belt

3. Remove the Transport Belt ([Figure 2](#)).



**Figure 2** Removing the Transport Belt

## REP 10.4 Fuser Drive Assembly

Parts List on [PL 1.1](#)

### Removal

#### WARNING

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

1. Open the Chassis Assembly ([REP 3.1](#)).
2. Remove the Fuser Duct ([Figure 1](#)).

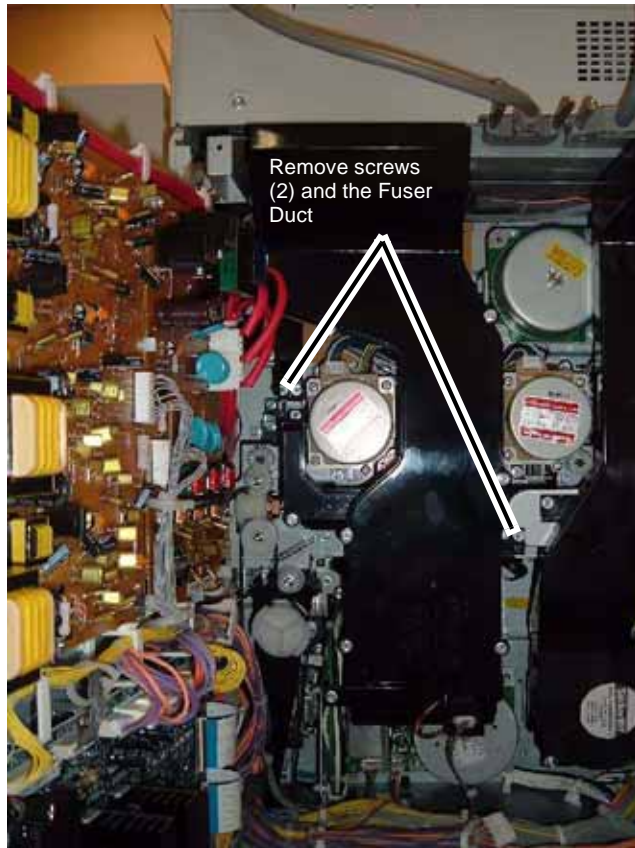


Figure 1 Removing the Fuser Duct

3. Remove the Fuser Exhaust Fan and Duct ([Figure 2](#)).

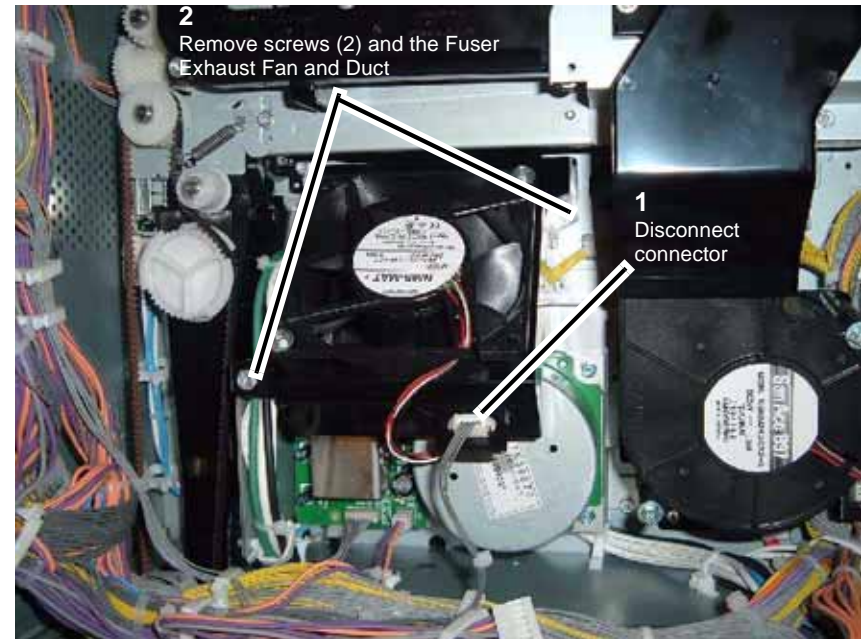
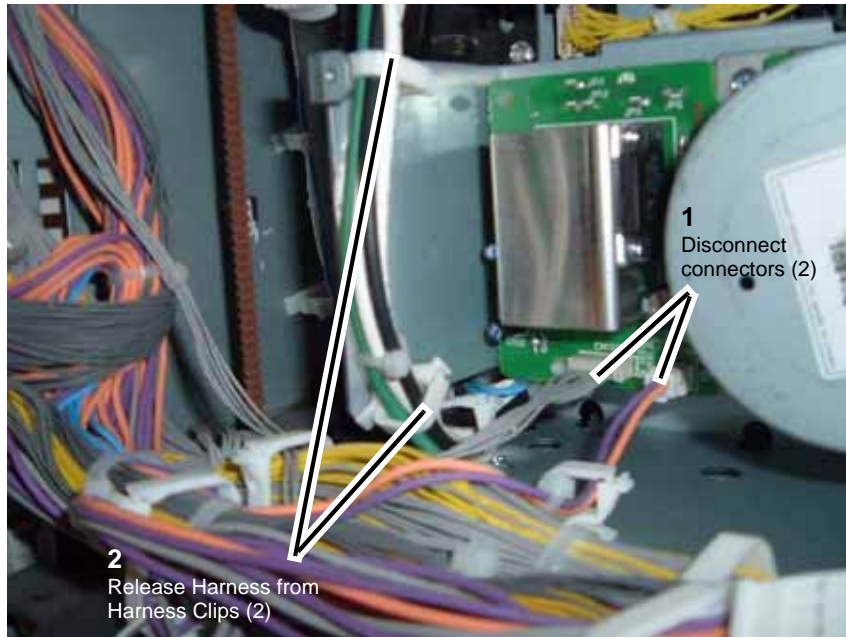


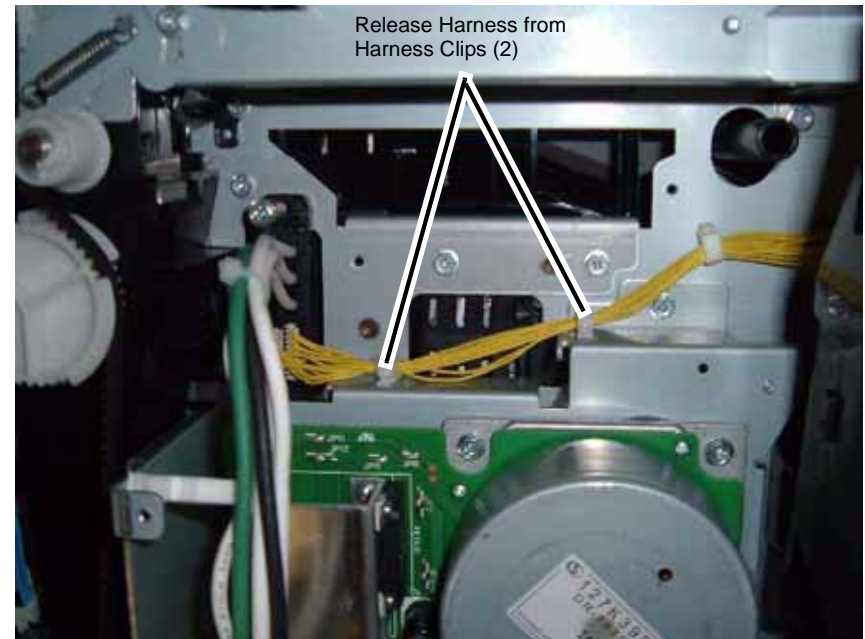
Figure 2 Removing The Fuser Exhaust Fan and Duct

4. Disconnect connectors and release Harness from Harness Clips ([Figure 3](#)).



**Figure 3 Disconnecting connectors and releasing Harness from Clips**

5. Release Harness from Harness Clips (Figure 4).



**Figure 4 Releasing Harness from Harness Clips**

6. Remove the Fuser Drive Assembly (Figure 5).

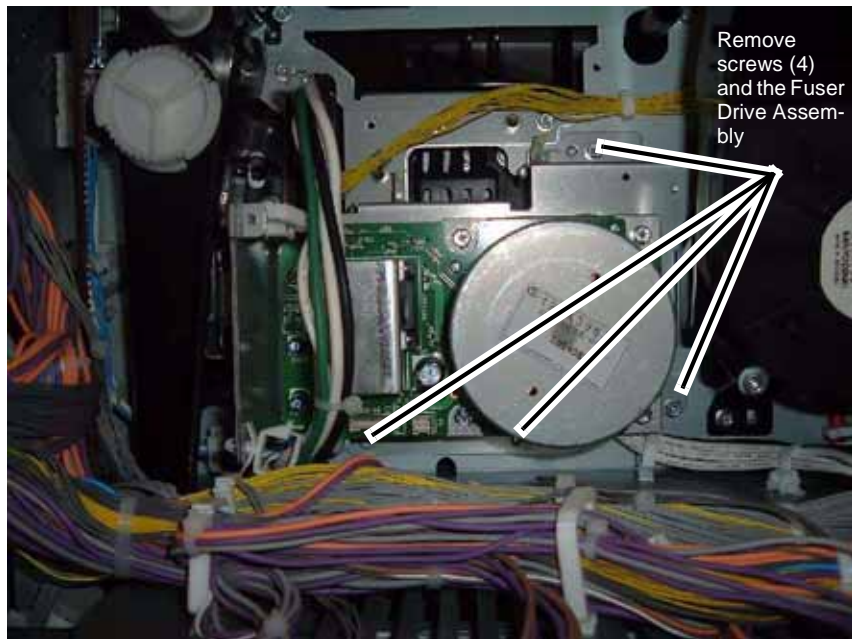


Figure 5 Removing the Fuser Drive Assembly



## REP 12.1 I/F Module Rear Cover

Parts List on  
Removal

### WARNING

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

1. Remove the I/F Module Rear Cover (Figure 1).



Figure 1 Removing the I/F Rear Cover

## REP 12.2 I/F Module Top Cover

Parts List on  
Removal

### WARNING

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

1. Remove I/F Module Rear Cover (REP 12.1).
2. Open the Front Door.
3. Remove the I/F Module Top Cover (Figure 1).

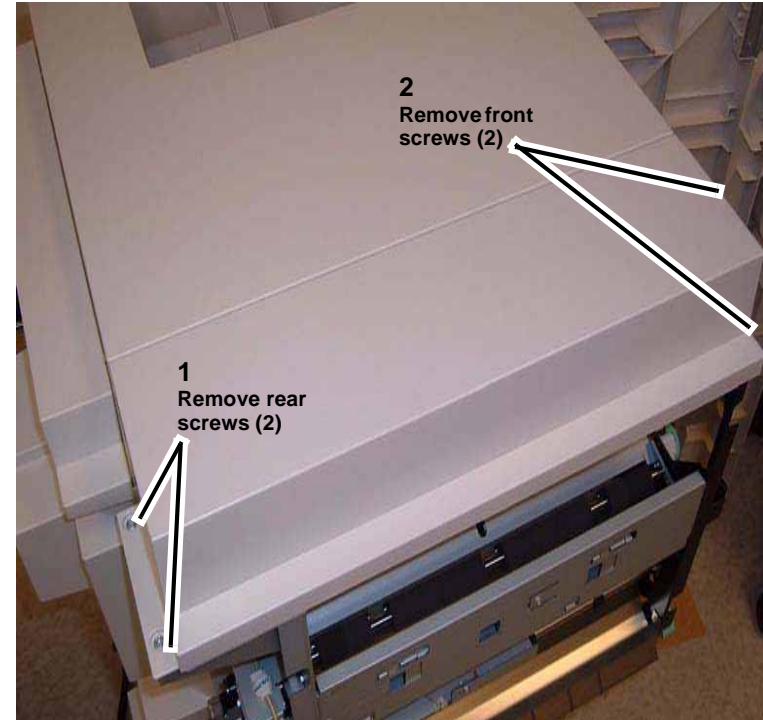


Figure 1 Removing the I/F Top Cover

## REP 12.3 I/F Module

### Parts List on Removal

#### WARNING

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

1. Undock the Finisher from the IOT (REP 12.50).
2. Remove the I/F Module Rear Cover (REP 12.1).
3. Remove the Finisher Rear Upper Cover (REP 12.41).
4. Prepare to remove I/F Module (Figure 1).

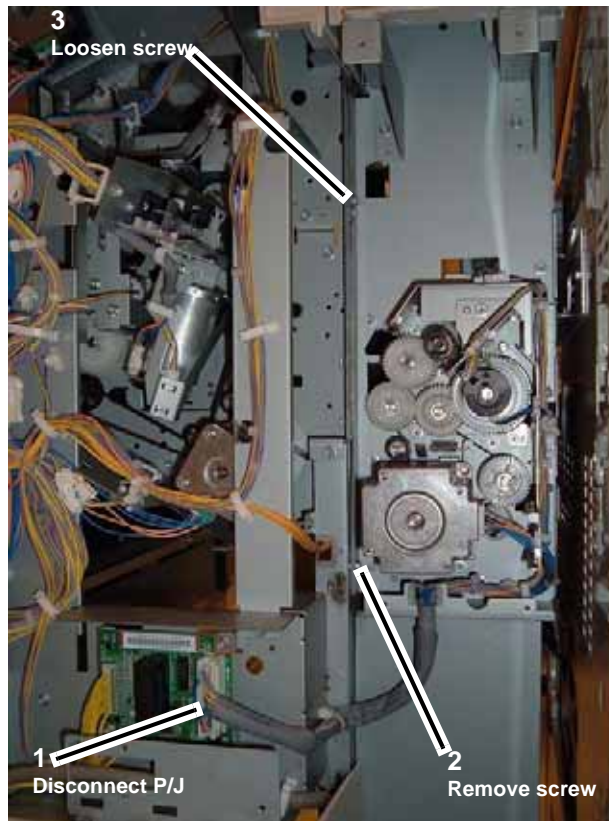


Figure 1 Preparing to remove I/F Module

5. Remove the I/F Module (Figure 2).



Figure 2 Removing the I/F Module



## REP 12.40 A/P Finisher Front Door

Parts List on [PL 21.3](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Remove the Front Door Assembly (Figure 1).

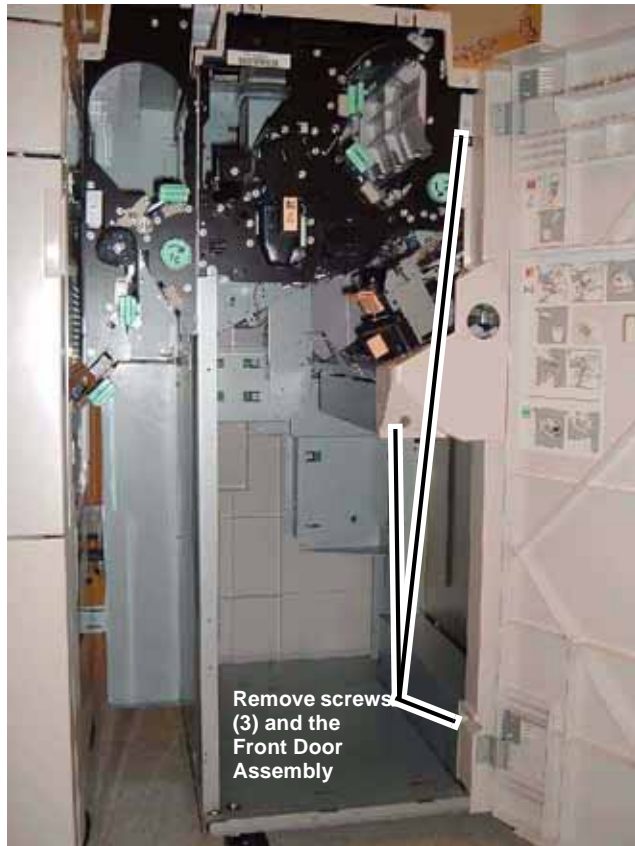


Figure 1 Removing the Front Door Assembly

## REP 12.41 A/P Finisher Rear Upper Cover

Parts List on [PL 21.2](#)

### Removal

#### WARNING

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

1. Remove the Rear Upper Cover (Figure 1).

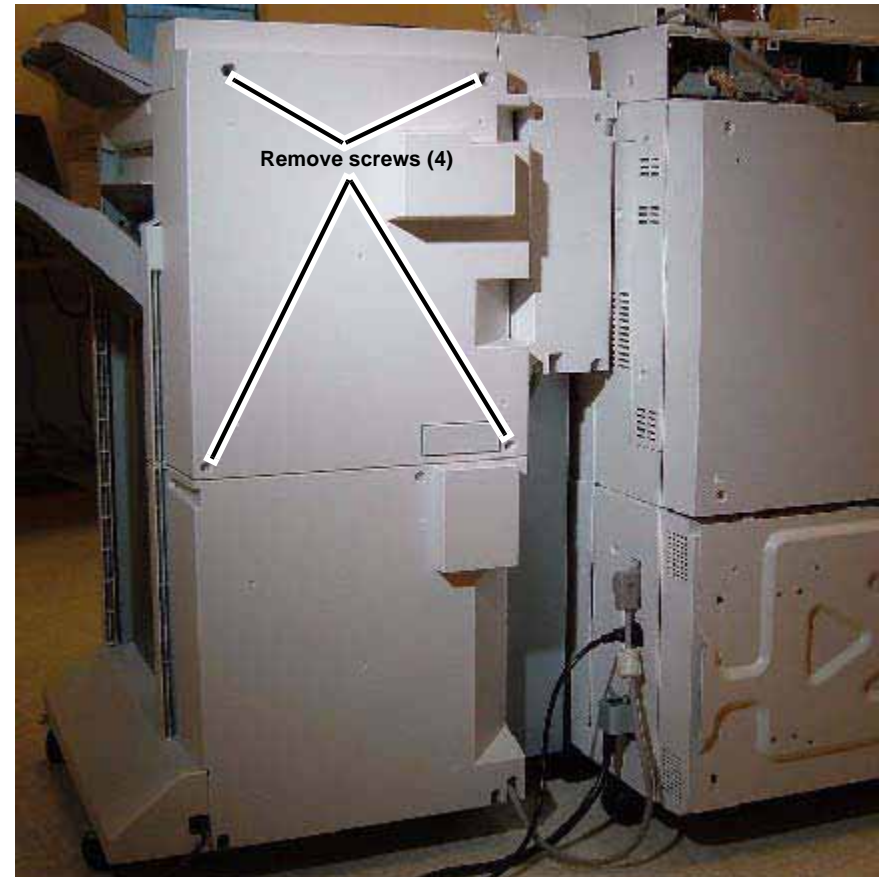


Figure 1 Removing the Rear Upper Cover

## REP 12.42 A/P Finisher Rear Lower Cover

Parts List on [PL 21.2](#)

### Removal

#### WARNING

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

1. Remove the Rear Lower Cover ([Figure 1](#)).

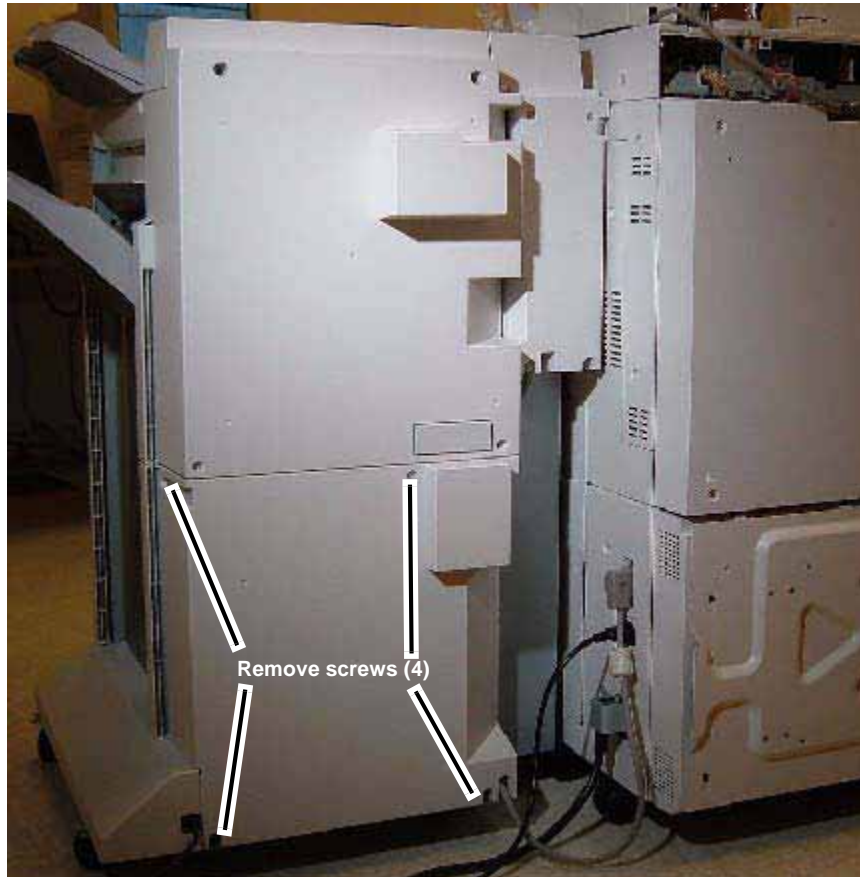


Figure 1 Removing the Rear Lower Cover

## REP 12.43 A/P Finisher Top Cover

Parts List on [PL 21.2](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Remove the I/F Rear Cover ([REP 12.1](#)).
3. Remove the I/F Top Cover ([REP 12.2](#)).
4. Remove the Rear Upper Cover ([REP 12.41](#)).
5. Remove the Top Tray ([REP 12.45](#)).
6. Remove front screws ([Figure 1](#)).

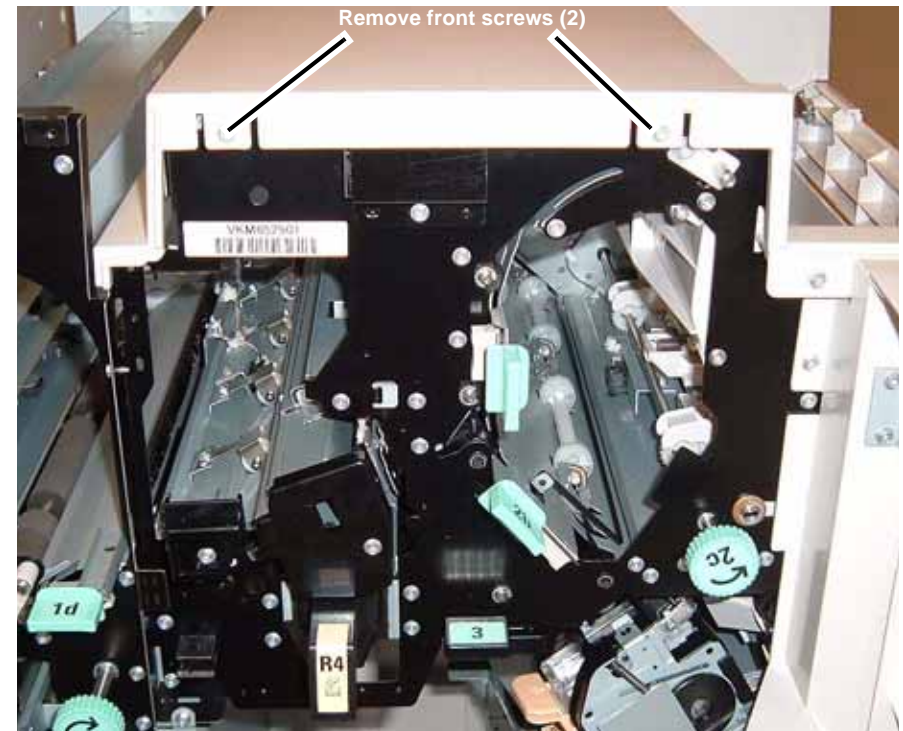


Figure 1 Removing Front screws

7. Remove the Top Cover ([Figure 2](#)).

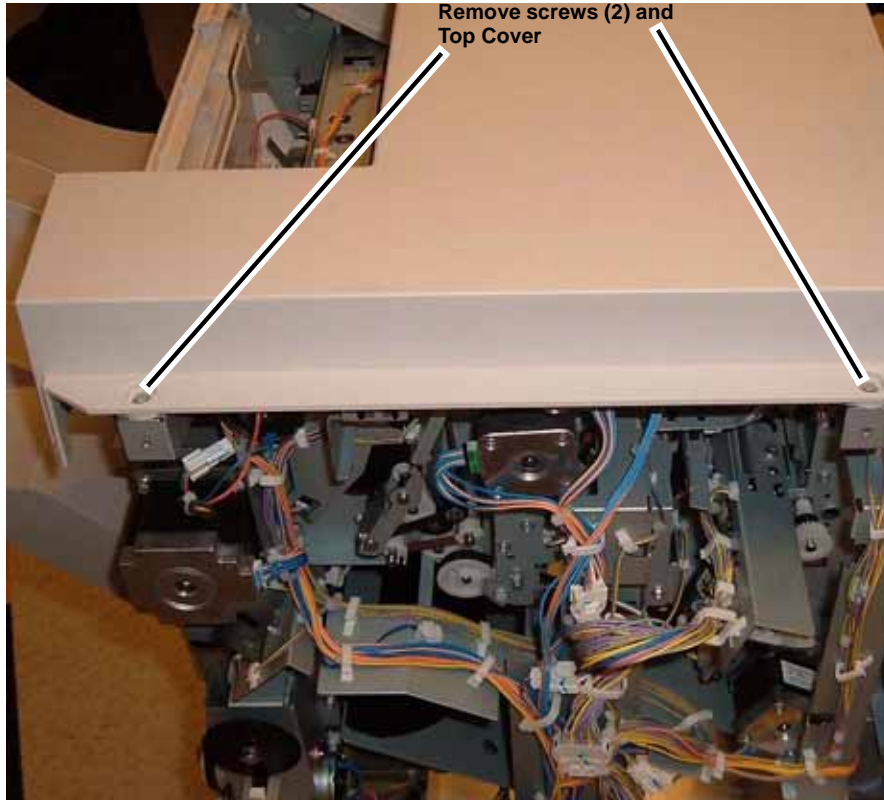


Figure 2 Removing the Top Cover

## REP 12.44 A/P Finisher Front Top Cover

Parts List on [PL 21.3](#)

### Removal

#### **WARNING**

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

1. Remove the Front Door ([REP 12.40](#)).
2. Remove the Top Cover ([REP 12.43](#)).
3. Remove Front Top Cover ([Figure 1](#)).

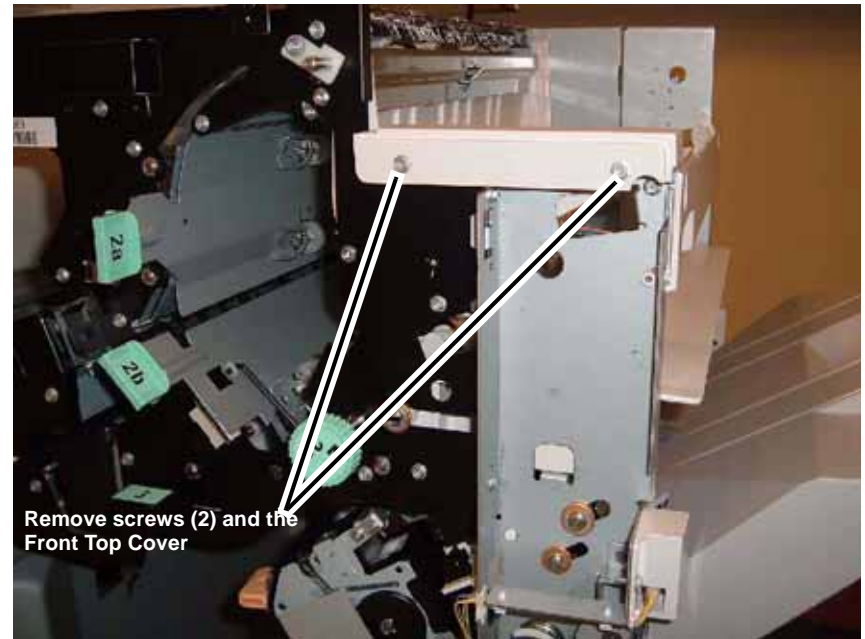


Figure 1 Removing the Front Top Cover

## REP 12.45 A/P Finisher Top Tray

Parts List on [PL 21.2](#)

### Removal

#### WARNING

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

1. Remove the Top Tray ([Figure 1](#)).

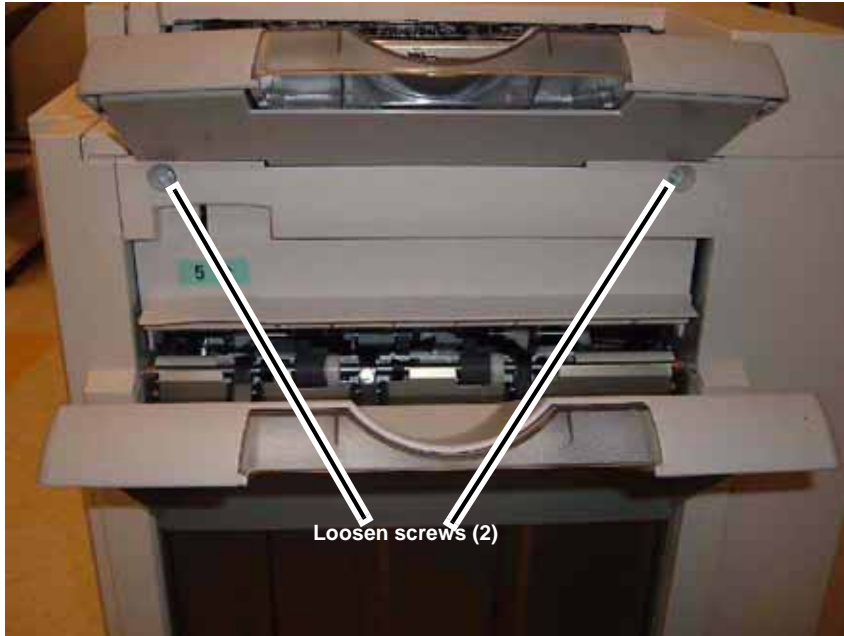


Figure 1 Removing the Top Tray

## REP 12.46 A/P Finisher Eject Cover

Parts List on [PL 21.2](#)

### Removal

#### WARNING

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

1. Remove the Front Door ([REP 12.40](#)).
2. Remove screw ([Figure 1](#)).



Figure 1 Removing front screw

3. Remove the Rear Upper Cover ([REP 12.41](#)).
4. Remove the Eject Cover ([Figure 2](#)).

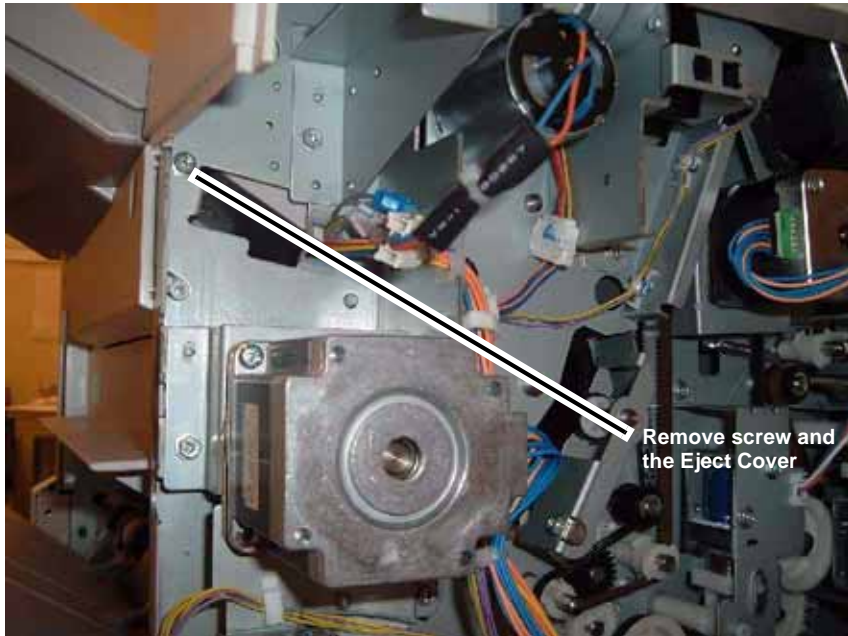


Figure 2 Removing the Eject Cover

## REP 12.47 A/P Finisher Tray Spring Guide

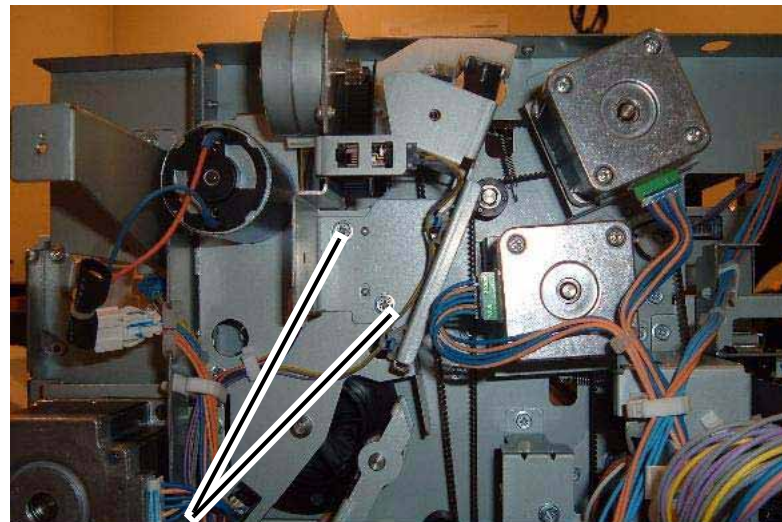
Parts List on [PL 21.2](#)

### Removal

#### WARNING

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

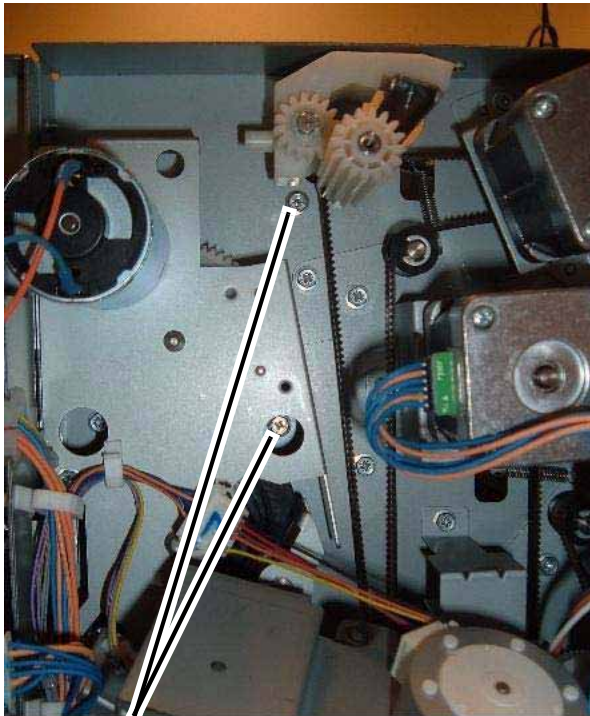
1. Remove the I/F Rear Cover ([REP 12.1](#)).
2. Remove the I/F Top Cover ([REP 12.2](#)).
3. Remove the Rear Upper Cover ([REP 12.41](#)).
4. Remove the Top Tray ([REP 12.45](#)).
5. Remove the Front Door ([REP 12.40](#)).
6. Remove the Top Cover ([REP 12.43](#)).
7. Remove the Front Top Cover ([REP 12.44](#)).
8. Remove the Offset Motor Assembly ([Figure 1](#)).



Remove screws (2) and move the Offset Motor Assy to the side

Figure 1 Removing the Offset Motor

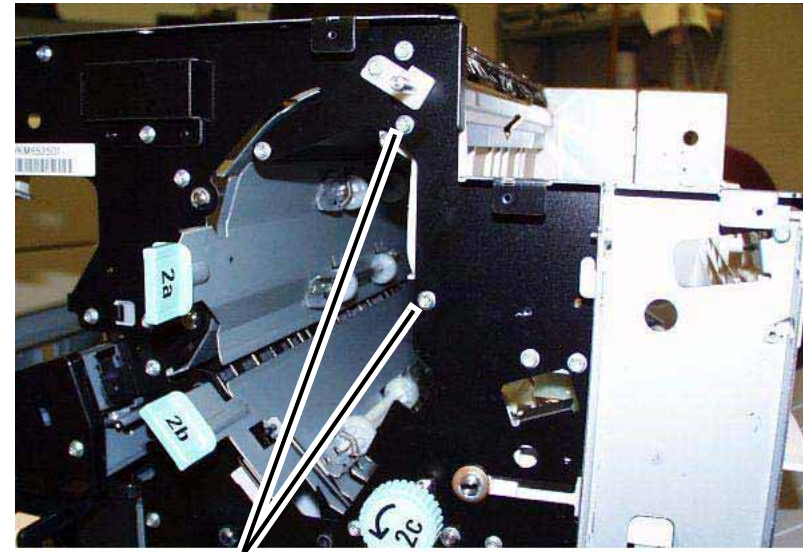
9. Remove screws ([Figure 2](#)).



Remove screws (2)

**Figure 2 Removing screws**

10. Remove the Tray Spring Guide ([Figure 3](#)).



Remove screws (2) and  
the Tray Spring Guide

**Figure 3 Removing the Tray Spring Guide**

11. Remove screw securing the Top Tray Full Sensor Bracket to the Tray Spring Guide.

## REP 12.48 A/P Finisher Inner Cover

Parts List on [PL 21.8](#)

### Removal

#### WARNING

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

1. If needed, perform [REP 12.58 Stacker Tray](#) (position the Stacker Tray Bracket so that all 4 screws holding the Inner Cover are accessible).
2. Remove the Inner Cover ([Figure 1](#)).

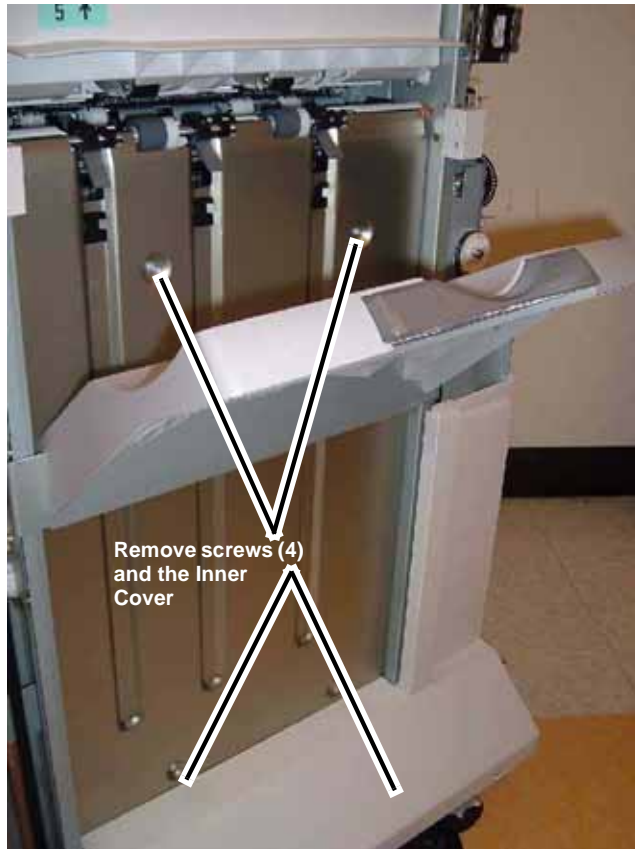


Figure 1 Removing the Inner Cover

## REP 12.50 A/P Finisher

Parts List on [PL 21.1](#)

### Removal

#### WARNING

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

1. Disconnect connectors ([Figure 1](#)).



Figure 1 Disconnect connectors

2. Open the Front Door.
3. Separate the Finisher from the IOT ([Figure 2](#)).

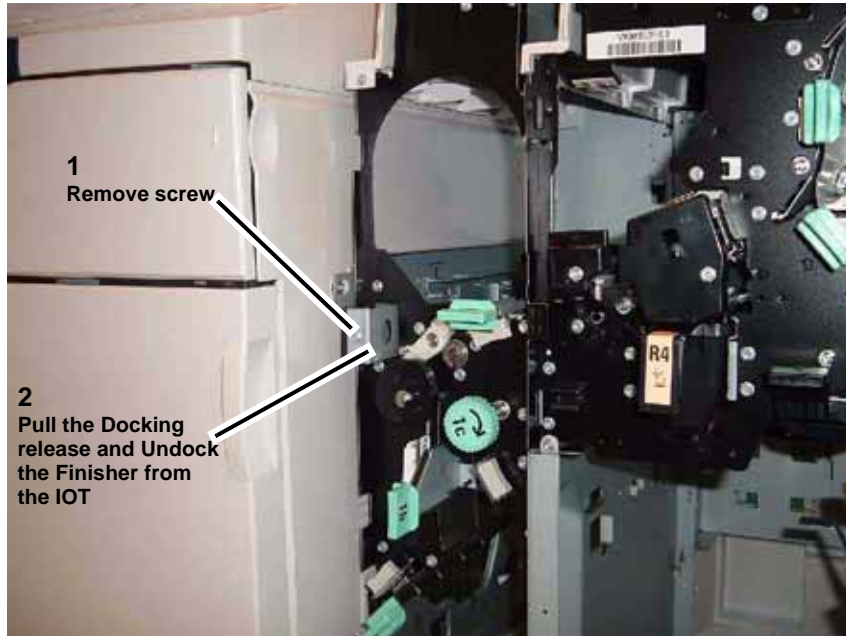


Figure 2 Separating the Finisher from the IOT

### Replacement

1. If the IOT and Finisher has been moved to a new location, check (ADJ 12.2) Finisher Leveling.

## REP 12.52 A/P Finisher Punch Frame Assembly

Parts List on [PL 21.5](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Remove screws (Figure 1).



Figure 1 Removing screws

3. Remove the Rear Upper Cover (REP 12.41).

**NOTE:** In order not to damage the Registration Motor Drive Belt during the next step, use caution when removing the Punch Frame Assembly from the Finisher.

4. Remove the Punch Frame Assembly ().



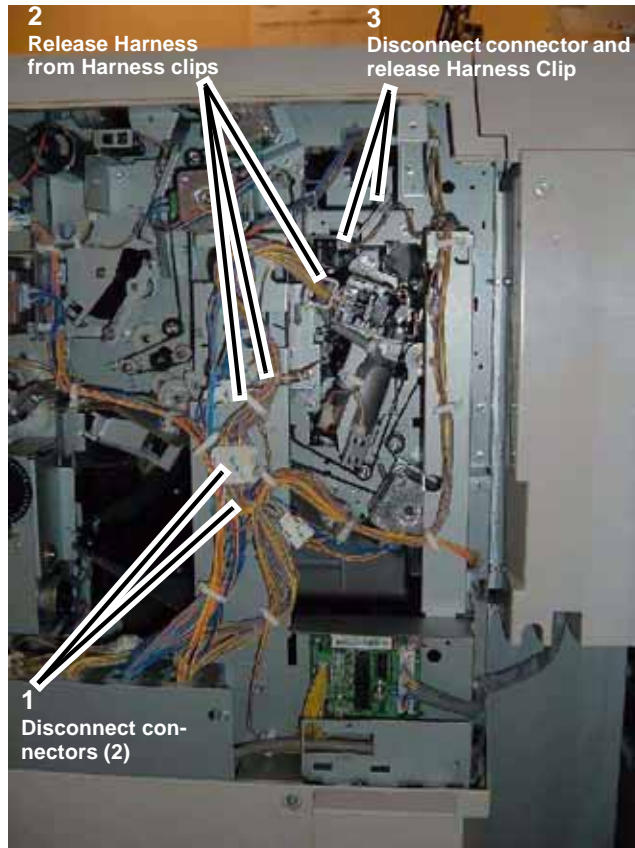


Figure 2 Removing the Punch Frame Assembly

5. Remove screws and Wire Harness (Figure 3).

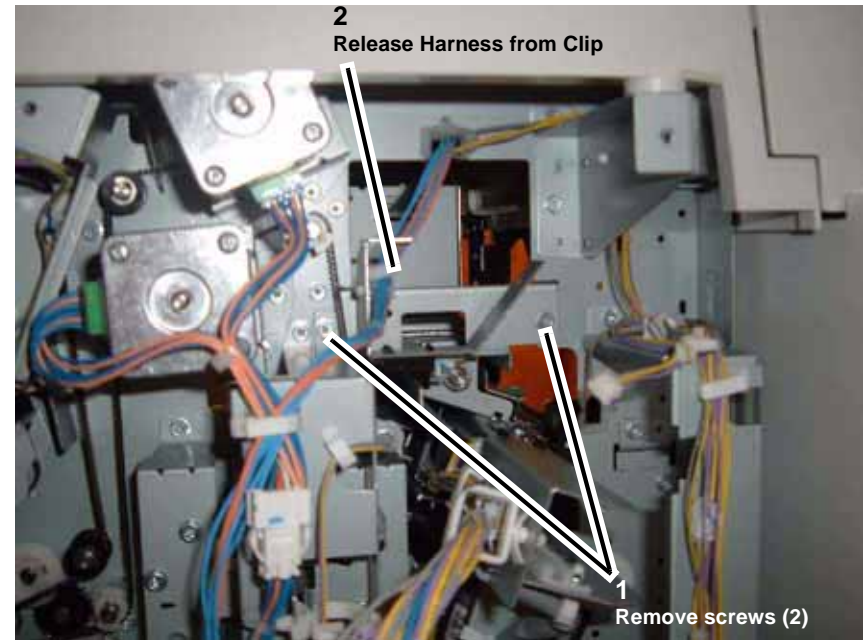


Figure 3 Removing screws and Harness

6. Remove the Punch Frame Assembly (Figure 4).

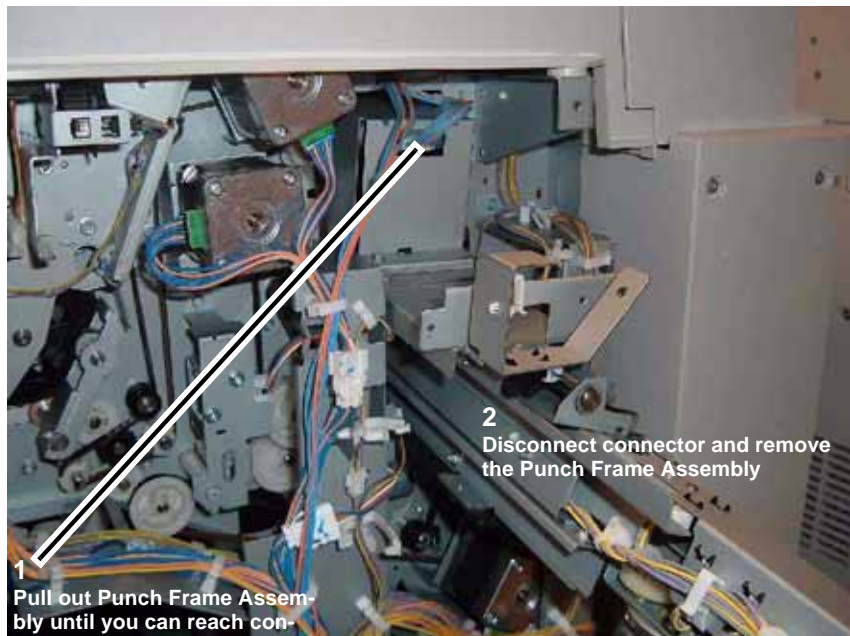


Figure 4 Removing the Punch Frame Assembly

## REP 12.53 A/P Finisher Stapler Assembly

Parts List on [PL 21.6](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Remove Stapler Cover (Figure 1).



Figure 1 Removing the Stapler Cover

3. Remove the Stapler Assembly (Figure 2).

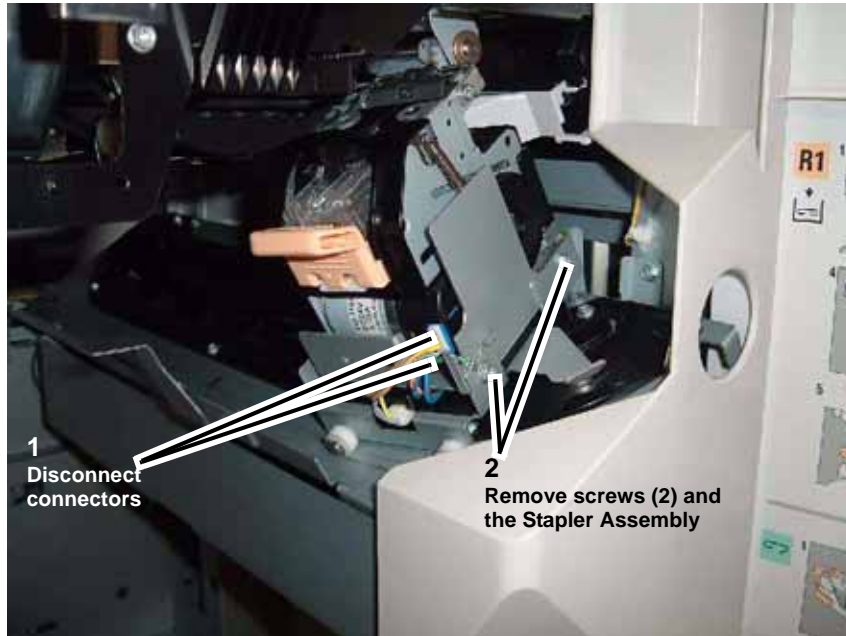


Figure 2 Removing the Stapler Assembly

## REP 12.54 A/P Finisher Stapler Rail

Parts List on [PL 21.6](#)

### Removal

#### WARNING

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

1. Remove the Stapler Assembly ([REP 12.53](#)).
2. Remove the Inner Cover ([REP 12.48](#)).
3. Remove the Stapler Carriage ([Figure 1](#)).

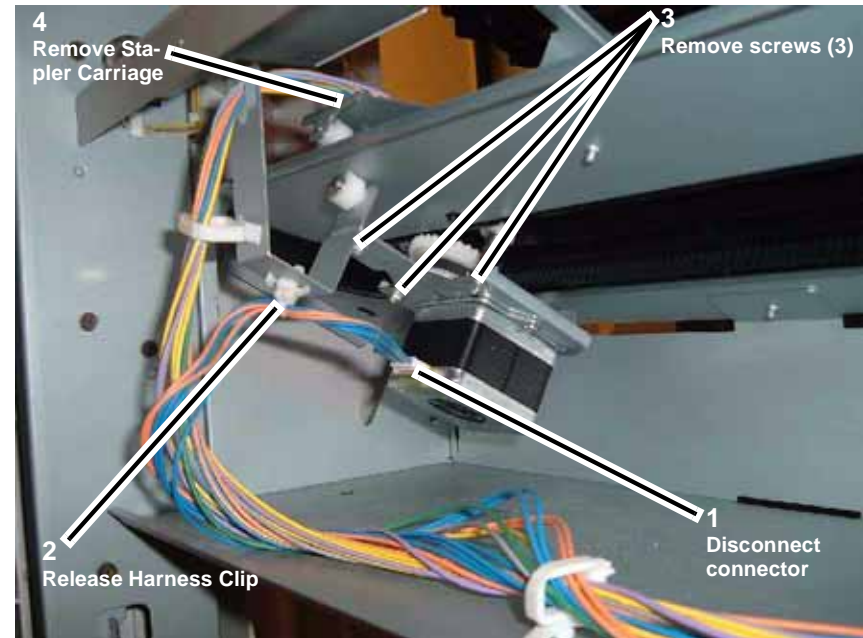


Figure 1 Removing the Stapler Carriage

4. Remove screws (6) holding the Stapler Rail.

## REP 12.55 P Finisher Booklet Maker Unit

Parts List on [PL 21.15](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Pull out the Booklet Maker Unit until it stops.
3. Remove the Booklet Maker Stopper (black bracket on left side panel near the rear, 1 screw).
4. Remove the Booklet Maker Unit ([Figure 1](#)).

**NOTE:** Use caution to avoid personal injury and/or damage to the Booklet Maker when removing the Booklet Maker Unit from the Finisher.

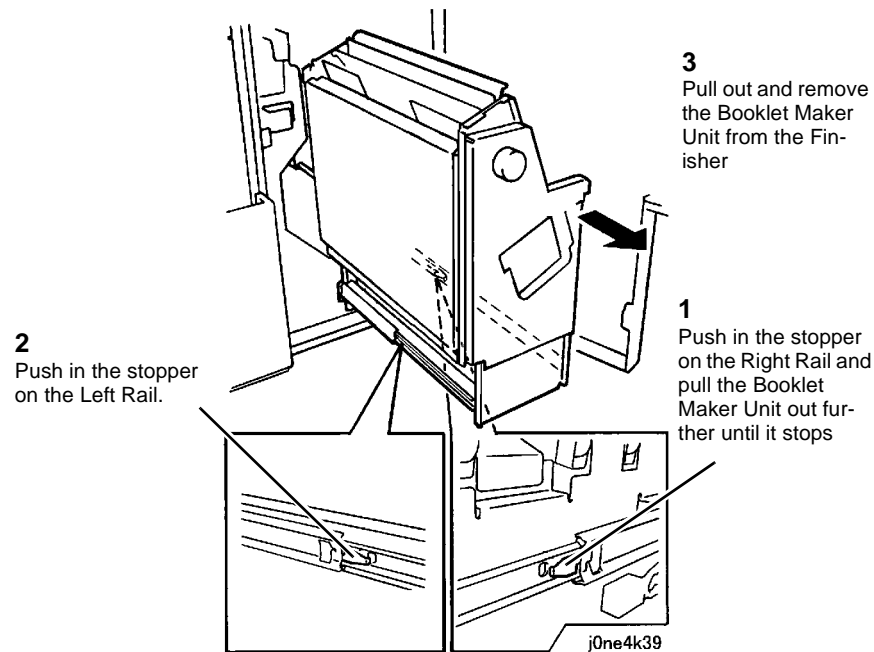


Figure 1 Removing the Booklet Maker Unit

### Replacement

1. Perform the installation in the reverse order of the removal procedure, starting with attaching the Left Rail then the Right Rail.

## REP 12.56 P Finisher Booklet Stapler

Parts List on [PL 21.16](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Pull out the Booklet Stapler.
3. Remove the Booklet Stapler ([Figure 1](#)).

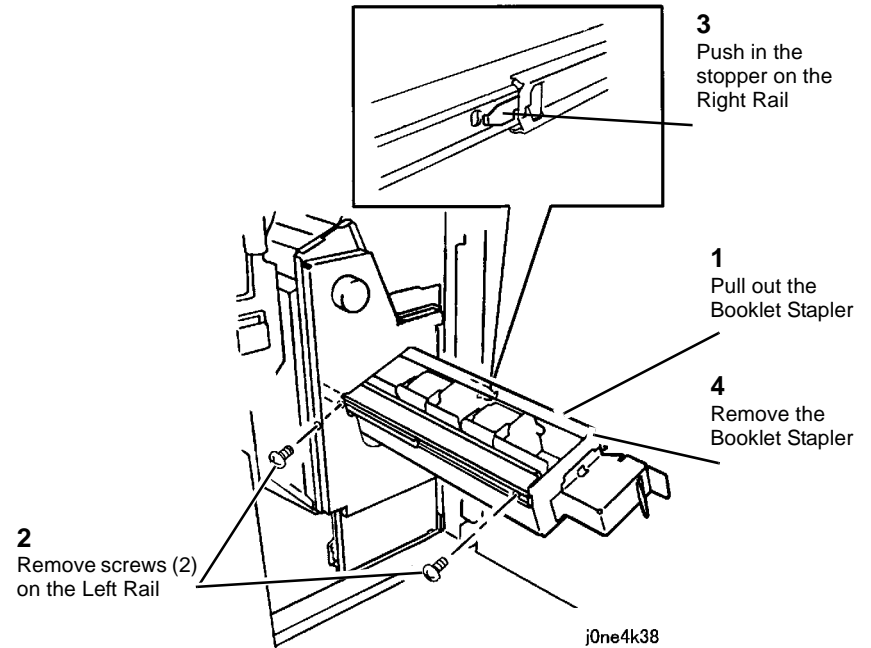


Figure 1 Removing the Booklet Stapler

## REP 12.57 A/P Finisher Compiler Tray

Parts List on [PL 21.8](#)

### Removal

#### WARNING

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

1. Remove the Rear Upper Cover ([REP 12.41](#)).
2. Remove the Front Door ([REP 12.40](#)).
3. Remove screw securing the Compiler Tray ([Figure 1](#)).

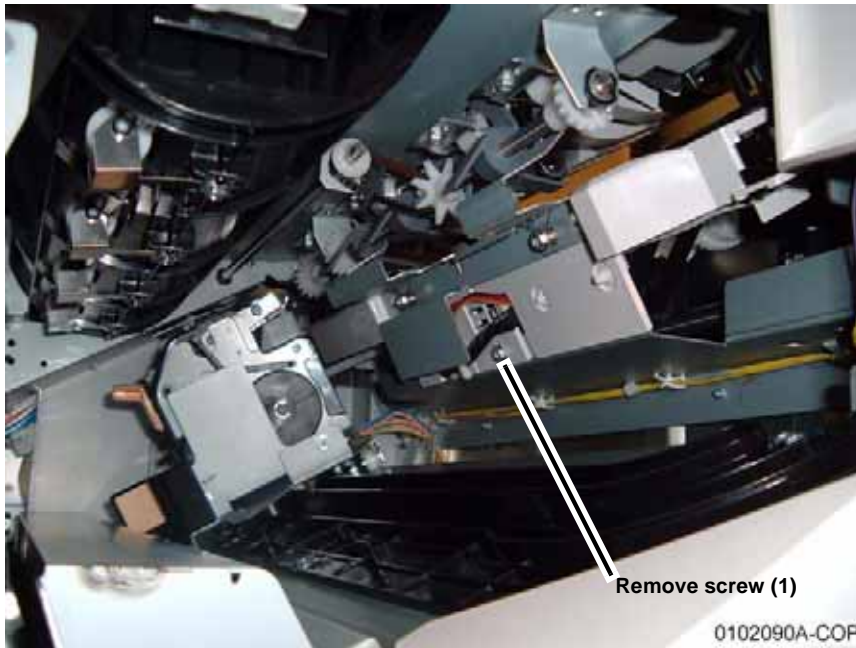


Figure 1 Removing screw securing the Compiler Tray

4. Remove the Stapler Assembly ([REP 12.53](#)).
5. Remove the Inner Cover ([REP 12.48](#)).
6. Disconnect the Compiler Harness ([Figure 2](#)).

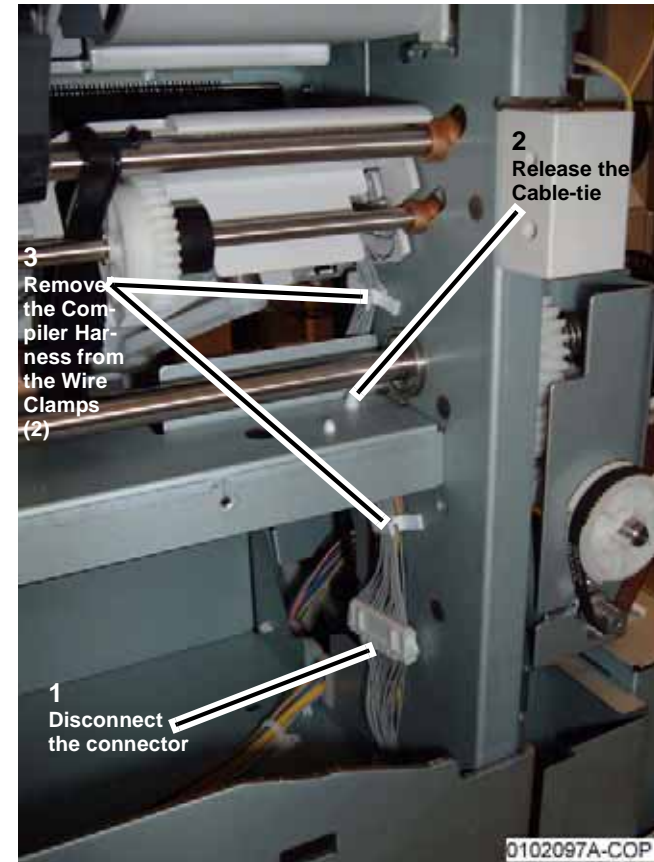


Figure 2 Disconnecting the Compiler Harness

7. Remove the Compiler Tray.
  - a. Push in the Front Tab ([Figure 3](#)).

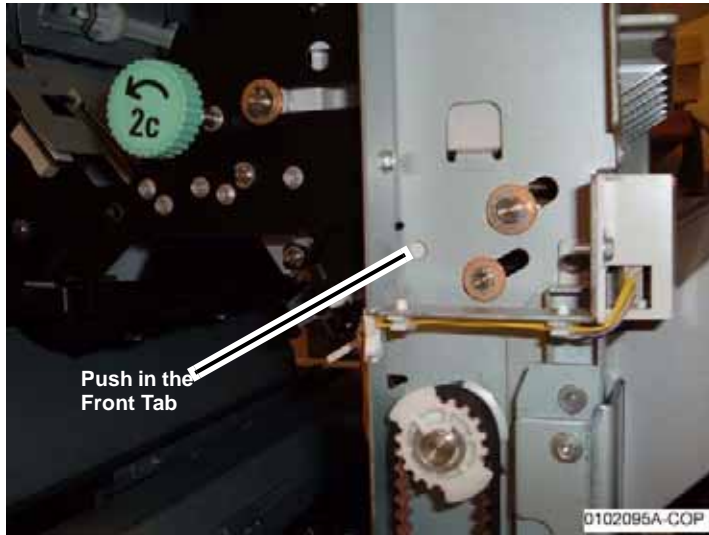


Figure 3 Pushing in the Front Tab

- b. Push in the Rear Tab (Figure 4).

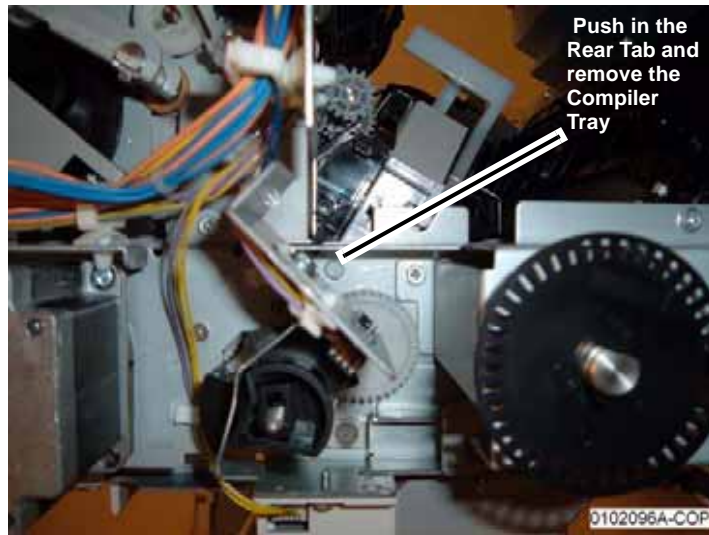


Figure 4 Pushing in the Rear Tab

## REP 12.58 A/P Finisher Stacker Tray Position

Parts List on [PL 21.2](#)

### Removal

#### WARNING

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

1. Remove the Rear Upper Cover (REP 12.41).

**NOTE:** In the next step, while disengaging the Elevator Pulley, hold the Stacker Tray with one hand.

2. Disengage the Elevator Pulley (Figure 1).

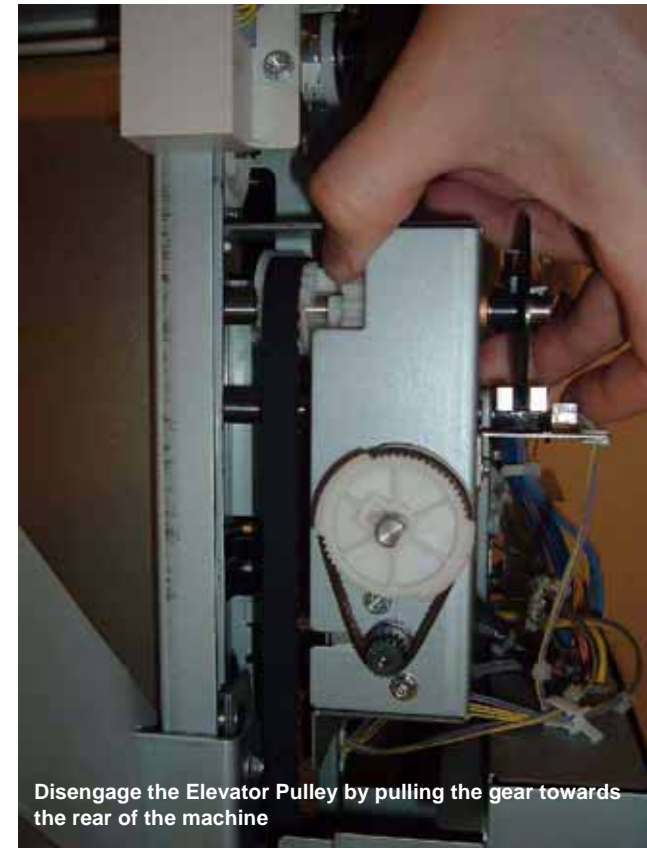


Figure 1 Disengaging the Elevator Pulley

3. Manually move the Stacker Tray Bracket up or down.

## REP 12.59 A/P Finisher Paddle Shaft

Parts List on [PL 21.9](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Manually move the Stapler Assembly towards the rear of the machine.
3. Remove the Rear Upper Cover ([REP 12.41](#)).
4. Remove the Paddle Shaft ([Figure 1](#)).

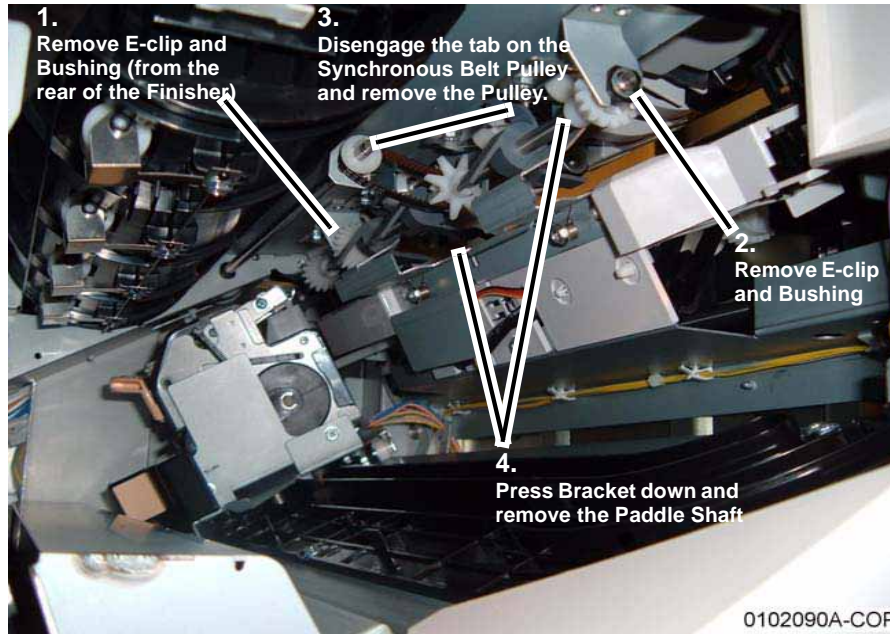


Figure 1 Removing the Paddle Shaft

### Replacement

1. Reinstall components in the reverse order of the removal procedure.

## REP 12.60 A/P Finisher Stacker Drive Belt

Parts List on [PL 21.4](#)

### Removal

#### WARNING

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

1. Remove the Front Door ([REP 12.40](#)).
2. Remove the Rear Upper Cover ([REP 12.41](#)).
3. Remove the Rear Lower Cover ([REP 12.42](#)).
4. Perform [REP 12.58](#) Stacker Tray (position the Stacker Tray in the lowest position).
5. Remove the rear Stacker Drive Belt ([Figure 1](#)).

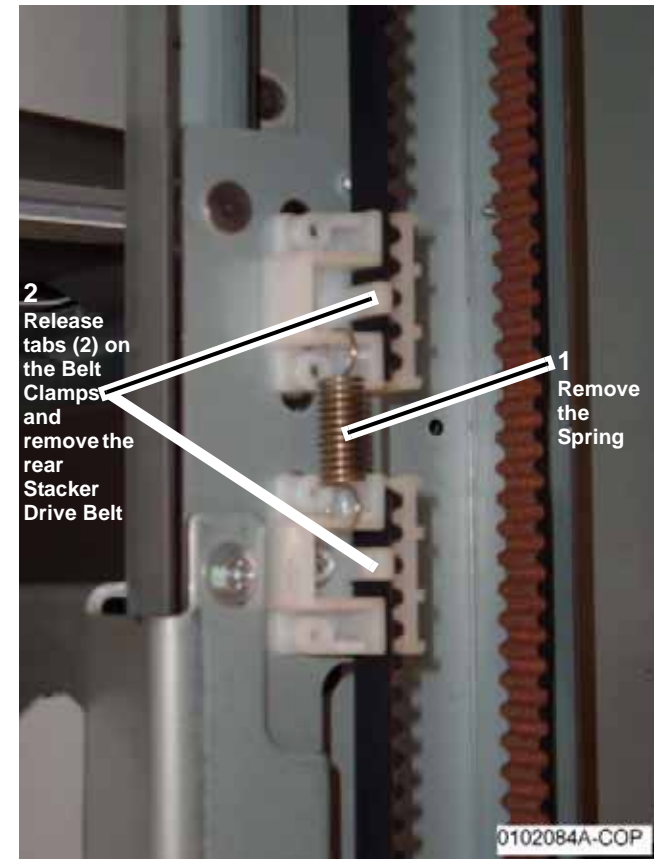


Figure 1 Removing the rear Stacker Belt (P Finisher shown)

6. Remove the front Stacker Drive Belt ().

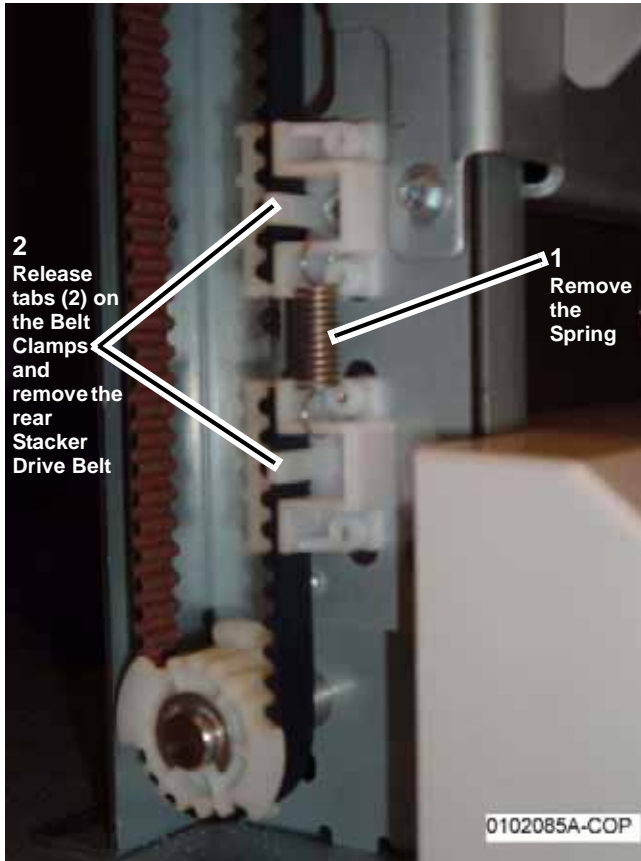


Figure 2 Removing the front Stacker Belt (A Finisher shown)

### Replacement

1. Reinstall components in the reverse order of the removal procedure. Refer to [Figure 1](#) and [Figure 2](#) for Stacker Drive Belt positioning in the Belt Clamps.

## REP 12.61 A/P Finisher Buffer Path Sensor

Parts List on [PL 21.10](#)

### Removal

#### WARNING

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

1. Remove the Finisher from the IOT ([REP 12.50](#)).
2. Remove the Punch Assembly ([REP 12.52](#)).
3. Remove the Buffer Path Sensor ([Figure 1](#)).

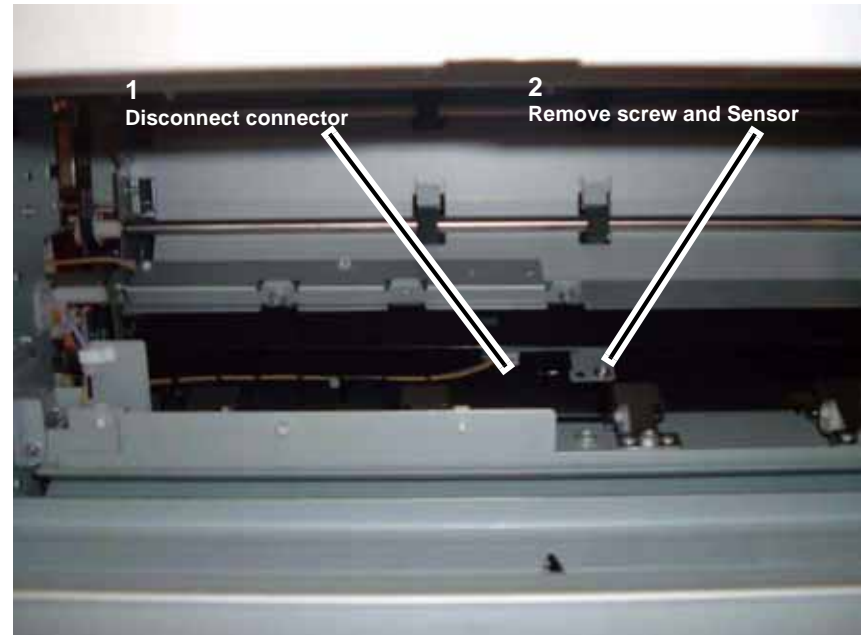


Figure 1 Removing the Buffer Path Sensor



## REP 12.62 A/P Finisher Gate Sensor

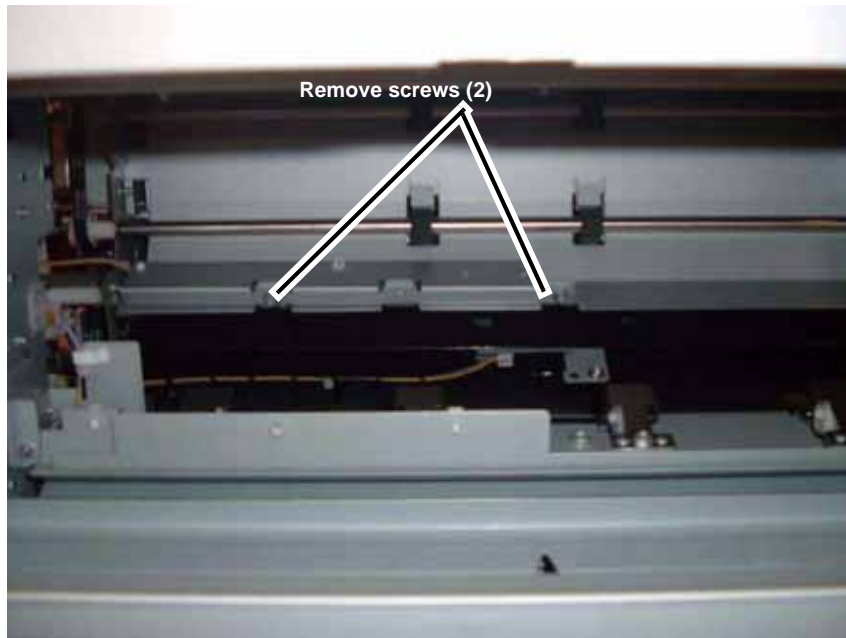
Parts List on [PL 21.11](#)

### Removal

#### **WARNING**

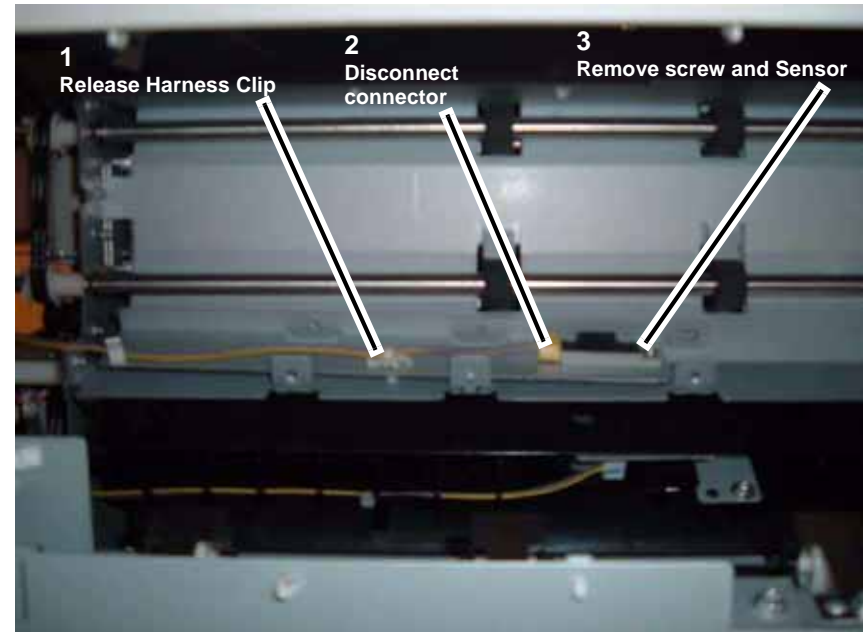
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Finisher from the IOT ([REP 12.50](#)).
2. Remove the Punch Assembly ([REP 12.52](#)).
3. Remove the Bracket ([Figure 1](#)).



**Figure 1 Removing the Bracket**

4. Remove the Gate Sensor ([Figure 2](#)).



**Figure 2 Removing the Gate Sensor**

## REP 12.63 A/P Finisher Top Tray Full Sensor

Parts List on [PL 21.11](#)

### Removal

#### WARNING

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

1. Remove the Front Door ([REP 12.40](#)).
2. Remove the Rear Upper Cover ([REP 12.41](#)).
3. Remove the Top Cover ([REP 12.43](#)).
4. Remove the Front Top Cover ([REP 12.44](#)).
5. Remove the Top Tray ([REP 12.45](#)).
6. Remove the Tray Spring Guide ([REP 12.47](#)).
7. Disconnect P/J8322 and remove screw (1) securing the Top Tray Full Sensor to the Sensor Bracket.

## REP 12.64 A/P Finisher Buffer Roll

Parts List on [PL 21.10](#)

### Removal

#### WARNING

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

1. Remove the Rear Upper Cover ([REP 12.41](#)).
2. Remove the Left Harness Bracket ([Figure 1](#)).

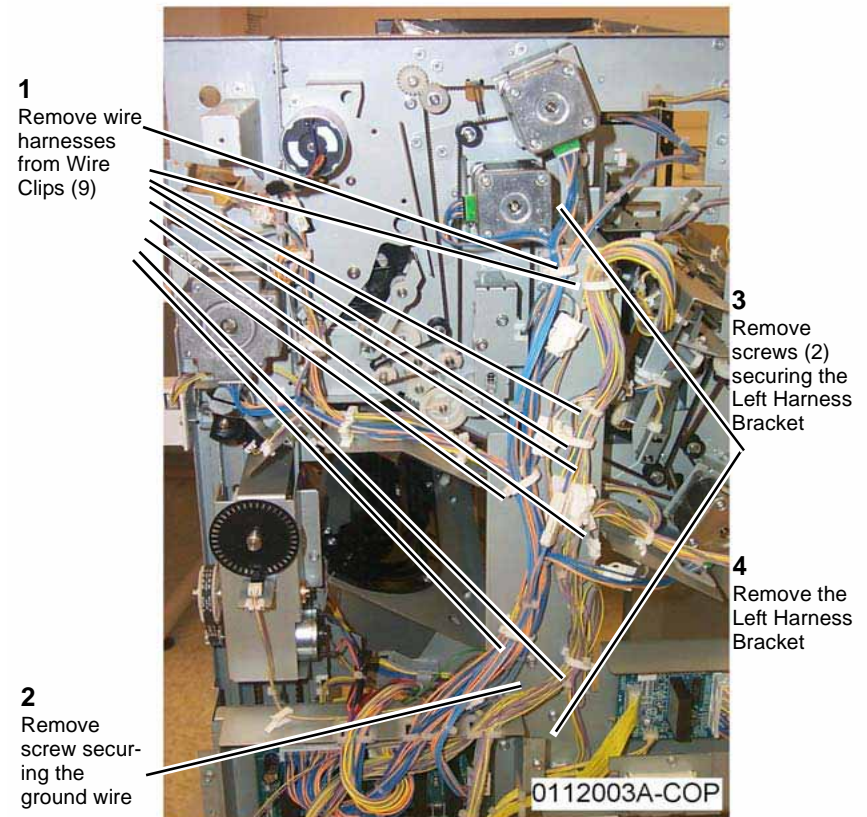
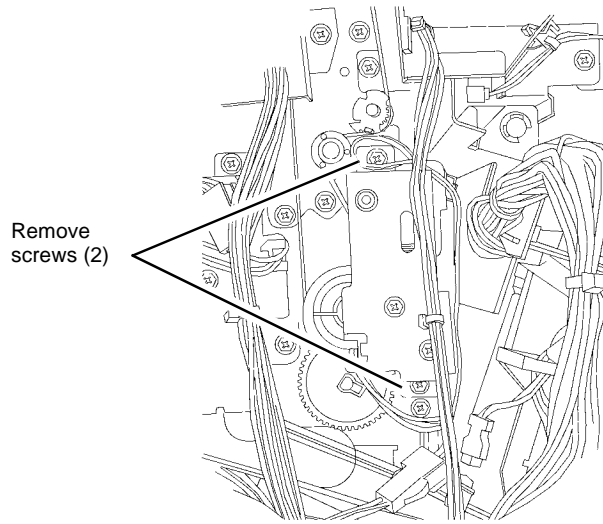


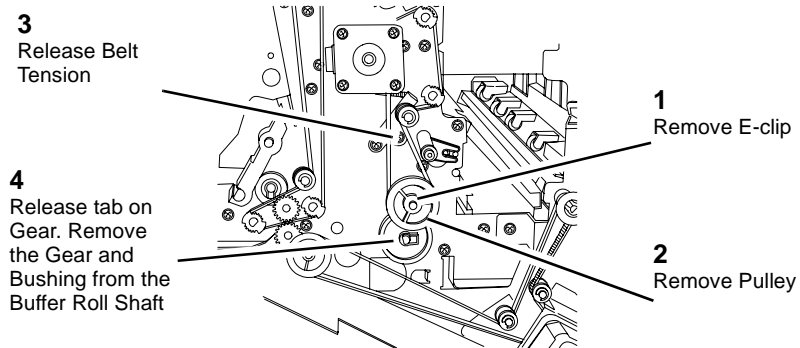
Figure 1 Removing the Left Harness Bracket

3. Remove the Transport Gate Solenoid Bracket ([Figure 2](#)).



**Figure 2 Removing the Transport Gate Solenoid Bracket**

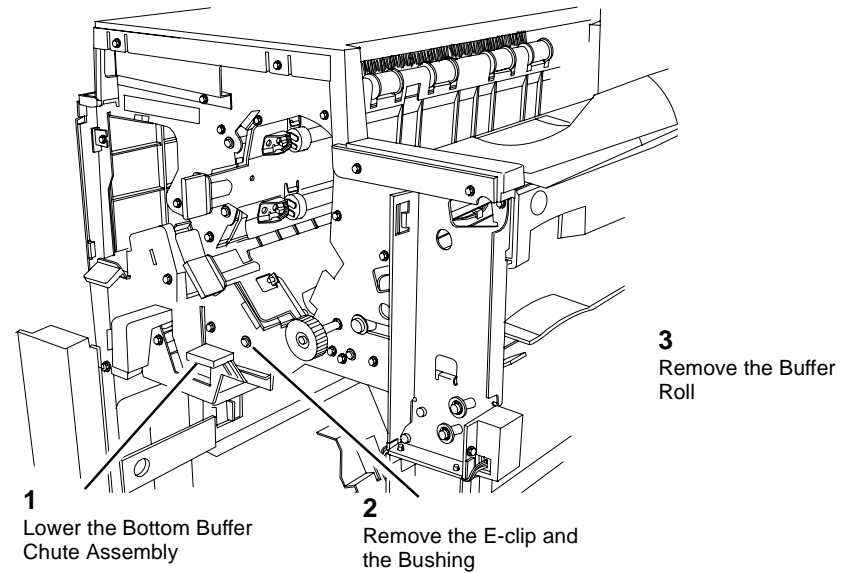
4. Remove Pulley and Gear (Figure 3).



**Figure 3 Removing Pulley and Gear**

5. Open the Front Door.
6. Manually move the Stapler Assembly towards the back of the Finisher.

7. Remove the Buffer Roll (Figure 4).



**Figure 4 Removing the Buffer Roll**

### Replacement

1. Ensure that the Transport Gate is in the correct position when re-assembling.

## REP 12.65 A/P Finisher Bottom Buffer Chute Assembly

Parts List on [PL 21.10](#)

### Removal

#### WARNING

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

1. Open the Front Door.
2. Remove the Booklet Maker Unit ([REP 12.55](#)).
3. Remove the Baffle ([Figure 1](#)).

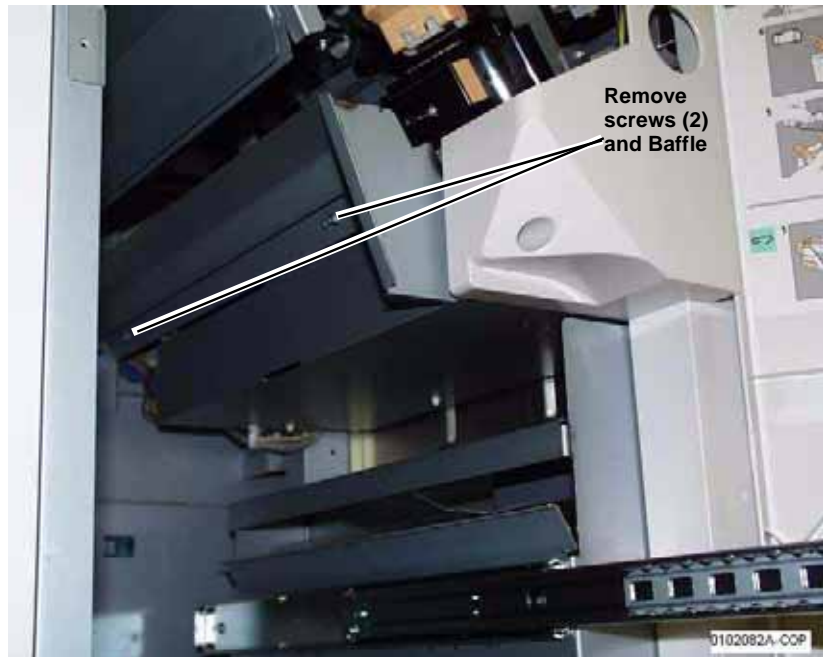
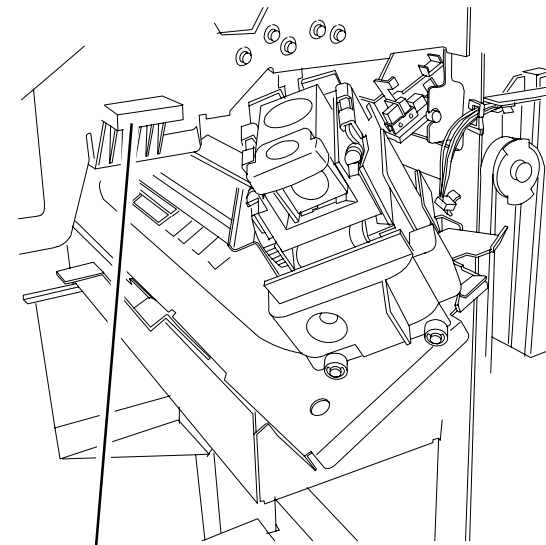


Figure 1 Removing Baffle

4. Remove the Bottom Buffer Chute Assembly ([Figure 2](#)).



Lower the Bottom Buffer Chute Assembly and remove it

0112007A-COP

Figure 2 Removing the Bottom Buffer Chute Assembly

# REP 12.67 A/P Finisher Eject Chute Assembly

Parts List on [PL 21.7](#)

## Removal

### WARNING

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

1. Remove the Front Door ([REP 12.40](#)).
2. Remove the Rear Upper Cover ([REP 12.41](#)).
3. Remove the Top Tray ([REP 12.45](#)).
4. Remove the Eject Cover ([REP 12.46](#)).
5. Remove E-clip and Bushing from the Eject Pinch Shaft ([Figure 1](#)).

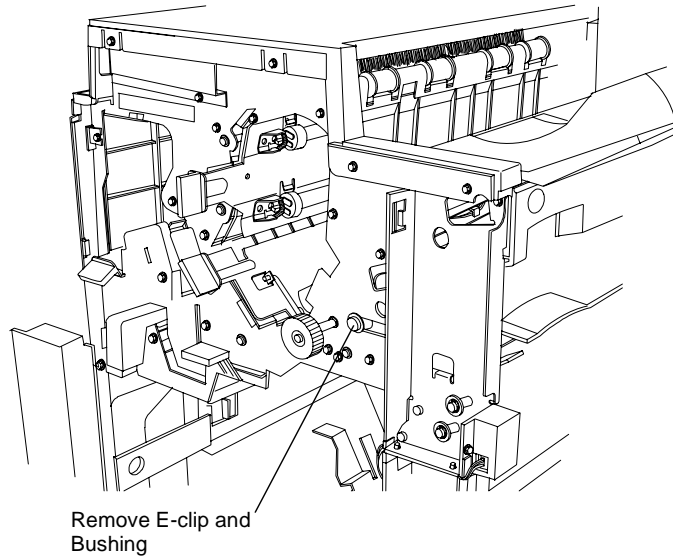
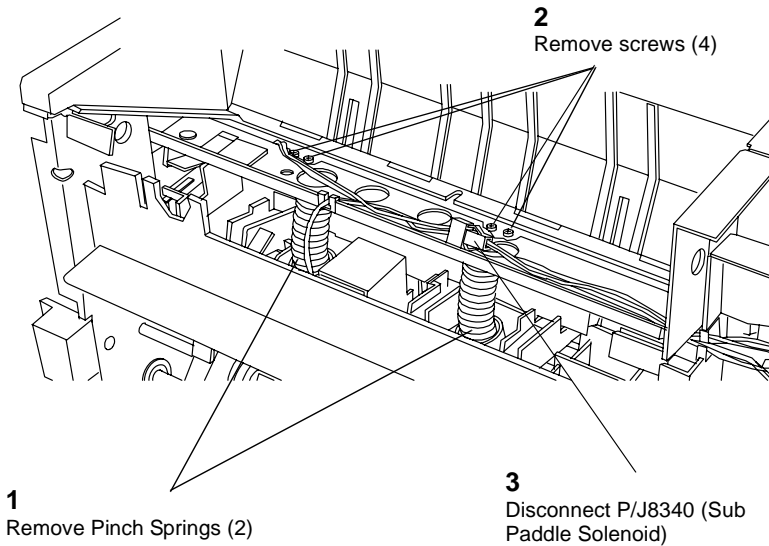


Figure 1 Removing E-clip and Bushing

0112010A-COP

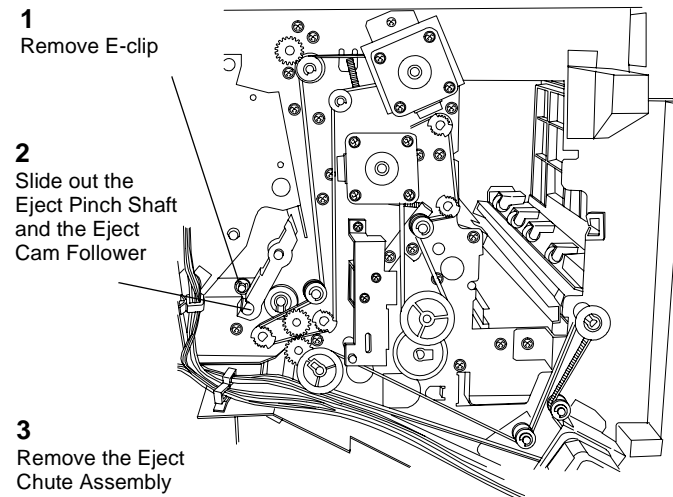
6. Remove Pinch Springs and screws from the Eject Pinch Shaft ([Figure 2](#)).



0112011A-COP

Figure 2 Removing Pinch Springs and screws

7. Remove the Eject Chute Assembly ([Figure 3](#)).



0112012a-cop

Figure 3 Removing the Eject Chute Assembly

## REP 12.68 A/P Finisher PWB

### Parts List on 21.12

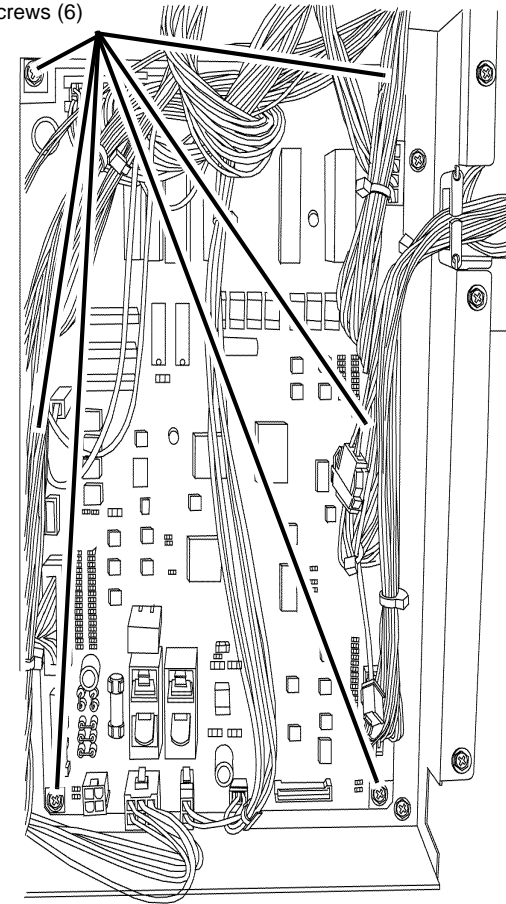
#### Removal

#### WARNING

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

1. Check and record Finisher software version.
2. Save Finisher NVM in dC361.
3. Remove the Finisher Rear Upper Cover (REP 12.41).
4. Remove the Finisher Rear Lower Cover (REP 12.42).
5. Remove the Finisher PWB Cover (4 screws).
6. Remove the Finisher PWB (Figure 1).

2  
Remove screws (6)



1  
Remove connectors (13 for A Finisher, 15 for P Finisher)

Figure 1 A/P Finisher PWB

0735051

#### Replacement

1. Restore Finisher NVM saved in step 1 of the removal procedure.
2. Check Finisher software version and compare with software version recorded in step 1 of the removal procedure.
3. If the current software version is lower than the previous version, load software to the Finisher.

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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                    |
|--------------|----------------------------|
| A3           | 297 x 594 Millimeters      |
| A4           | 210 x 297 Millimeters      |
| A5           | 148 x 210 Millimeters      |
| AD           | Auto Duplex                |
| AWG          | American Wire Gauge        |
| EMI          | Electro Magnetic Induction |
| GB           | Giga Byte                  |
| KB           | Kilo Byte                  |
| MB           | Mega Byte                  |
| MM           | Millimeters                |
| MOD          | Magneto Optical Drive      |
| NOHAD        | Noise Ozone Heat Air Dirt  |
| PL           | Parts List                 |
| P/O          | Part of                    |

Table 1

| Abbreviation | Meaning                          |
|--------------|----------------------------------|
| R/E          | Reduction/Enlargement            |
| REF:         | Refer to                         |
| SCSI         | Small Computer Systems Interface |
| W/           | With                             |
| W/O          | Without                          |

Table 2

| Operating Companies |                                         |
|---------------------|-----------------------------------------|
| Abbreviation        | Meaning                                 |
| AO                  | Americas Operations                     |
| NASG - US           | North American Solutions Group - US     |
| NASG - Canada       | North American Solutions Group - Canada |
| XE                  | 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, ADJ 5.3)

## 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.

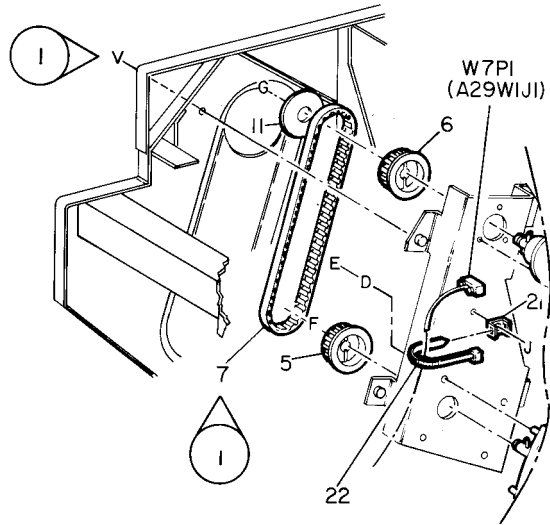
In some cases, a part or assembly may be spared in two versions: with the Tag and without the Tag. In those cases, use whichever part is appropriate for the configuration of the machine on which the part is to be installed. If the machine does not have a particular Tag and the only replacement part available 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

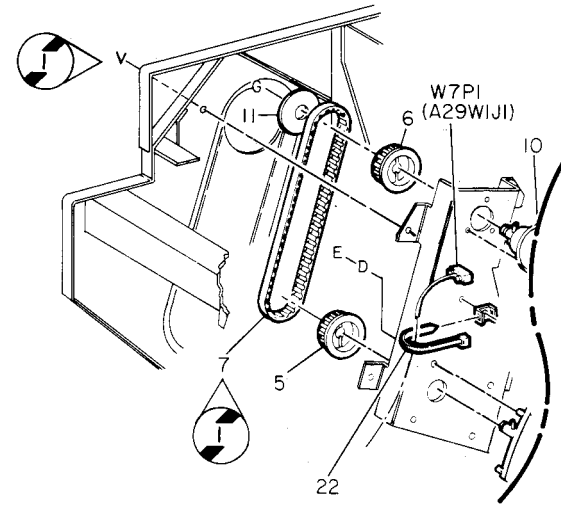
A Tag number within a circle pointing to an item number shows that the part has been changed by the tag number within the circle (Figure 1). Information on the modification is in the Change Tag Index.

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).



|     |      |     |
|-----|------|-----|
| O   | Z004 | A   |
| 850 | PL   | M I |

Figure 1 With Tag Symbol



|     |      |     |
|-----|------|-----|
| O   | Z005 | A   |
| 850 | PL   | M I |

Figure 2 Without Tag Symbol

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.

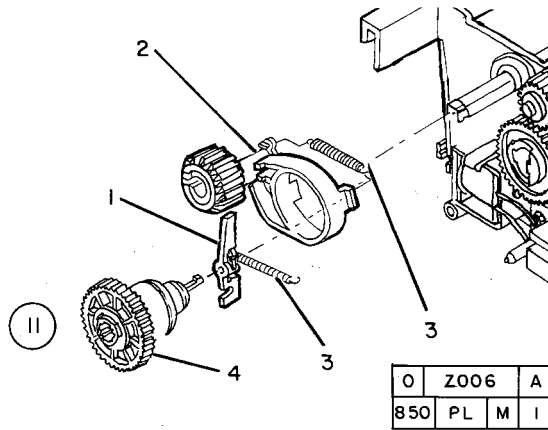


Figure 3 Entire Drawing With Tag Symbol

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).

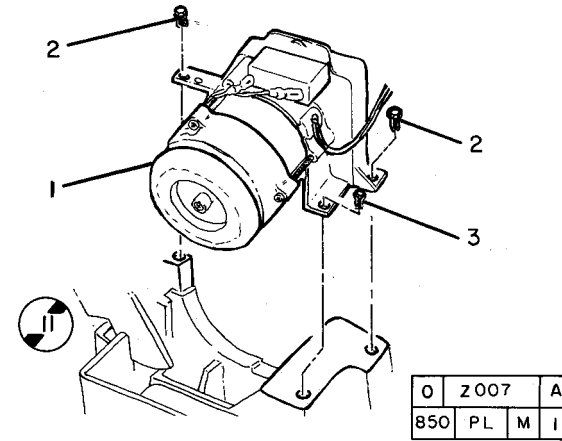
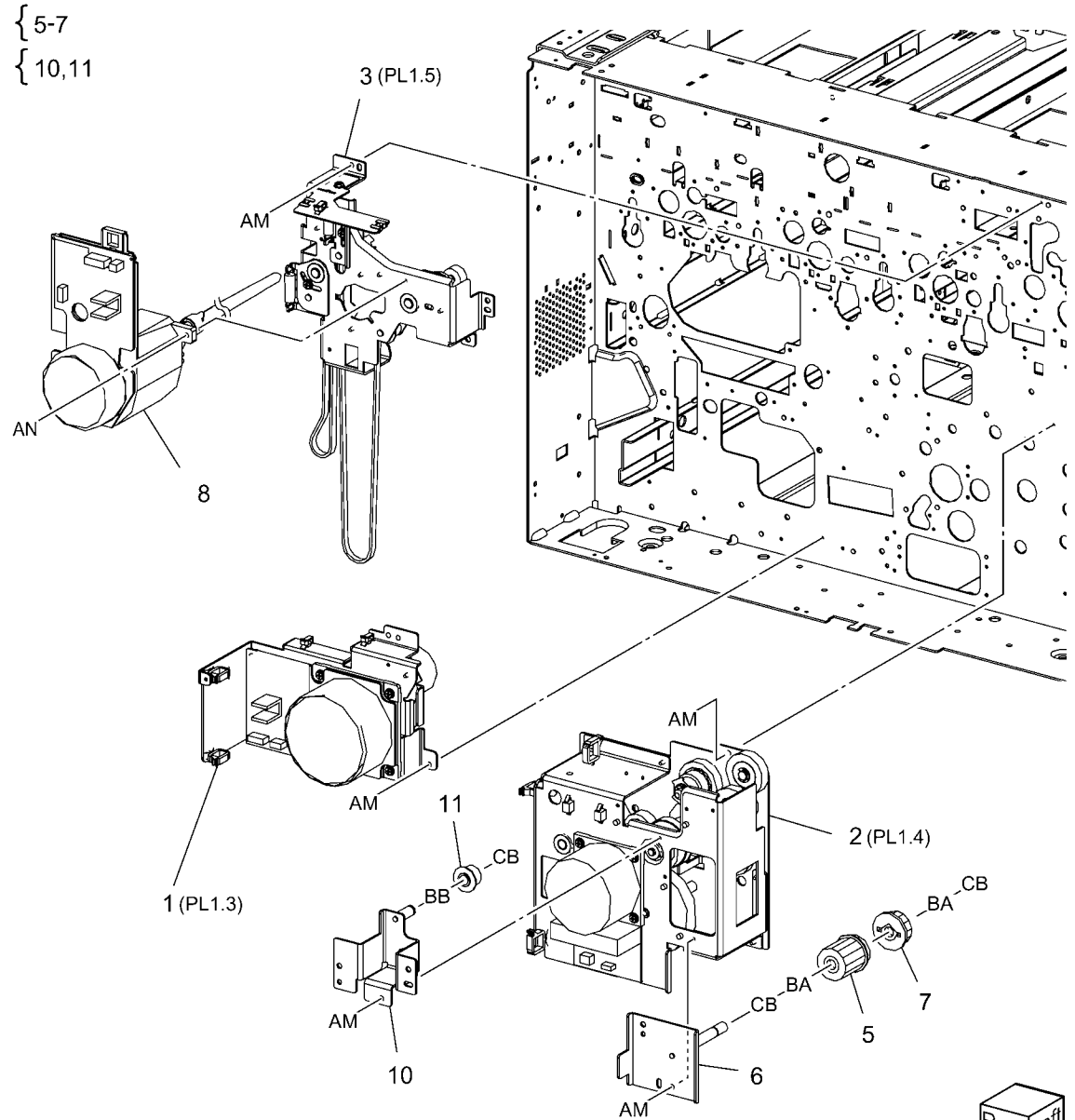


Figure 4 Entire Drawing Without Tag Symbol

## PL 1.1 Drive Unit (1 of 2)

| Item | Part      | Description                                     |
|------|-----------|-------------------------------------------------|
| 1    | 007K87841 | Fuser Drive Assembly (Not Spared)<br>(REP 10.4) |
| 2    | 007K89113 | Main Drive Assembly (REP 3.3)                   |
| 3    | 007K89149 | Developer Drive Assembly (K)<br>(REP 9.1)       |
| 4    | -         | Gear Bracket Assembly                           |
| 5    | -         | Gear Assembly (28/31T) (Not Spared)             |
| 6    | -         | Gear Bracket (P/O PL 1.1 Item 4)                |
| 7    | -         | Gear Assembly (31/33) (Not Spared)              |
| 8    | 127K39851 | Drum Motor Assembly (K) (REP 9.10)              |
| 9    | -         | Tension Bracket Assembly                        |
| 10   | -         | Tension Bracket (Not Spared)                    |
| 11   | -         | Pulley (Not Spared)                             |

4 { 5-7  
9 { 10,11

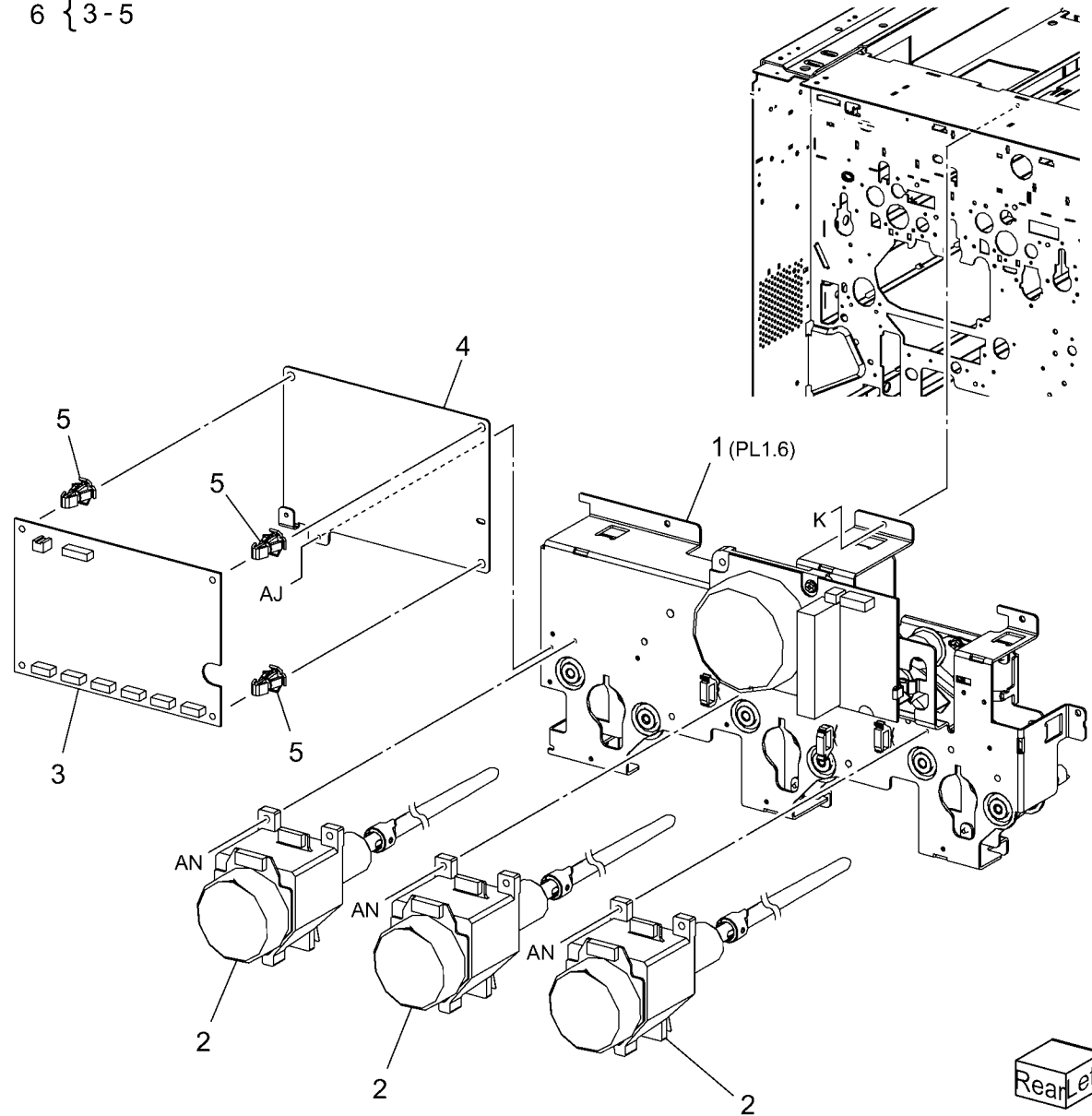


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## PL 1.2 Drive Unit (2 of 2)

| Item | Part      | Description                                                |
|------|-----------|------------------------------------------------------------|
| 1    | 007K87854 | Developer Drive Assembly (Y, M, C) (Not Spared) (REP 9.12) |
| 2    | 127K39861 | Drum Motor Assembly (Y, M, C) (Not Spared)                 |
| 3    | -         | Drum Motor YMC PWB (P/O PL 1.2 Item 6)                     |
| 4    | -         | Plate (P/O PL 1.2 Item 6)                                  |
| 5    | -         | PWB Support (P/O PL 1.2 Item 6)                            |
| 6    | 960K01611 | Drum Motor YMC PWB Assembly (Y, M, C)                      |

6 { 3-5

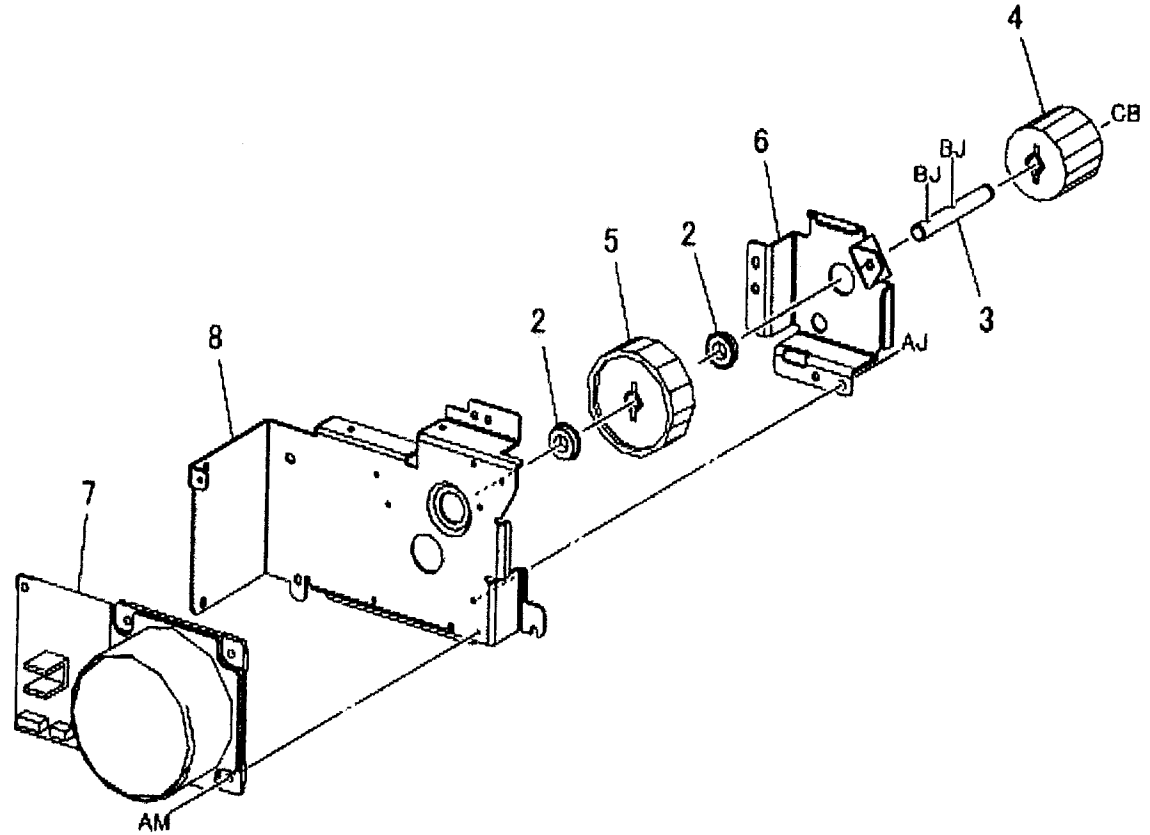


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## PL 1.3 Fuser Drive Assembly

| Item | Part      | Description                       |
|------|-----------|-----------------------------------|
| 1    | -         | Gear Assembly                     |
| 2    | 413W08350 | Bearing (P/O PL 1.3 Item 1)       |
| 3    | -         | Shaft (P/O PL 1.3 Item 1)         |
| 4    | -         | Gear (35T) (P/O PL 1.3 Item 1)    |
| 5    | -         | Gear (62T) (P/O PL 1.3 Item 1)    |
| 6    | -         | Bracket (P/O PL 1.3 Item 1)       |
| 7    | -         | Fuser Motor Assembly (Not Spared) |
| 8    | -         | Bracket (Not Spared)              |

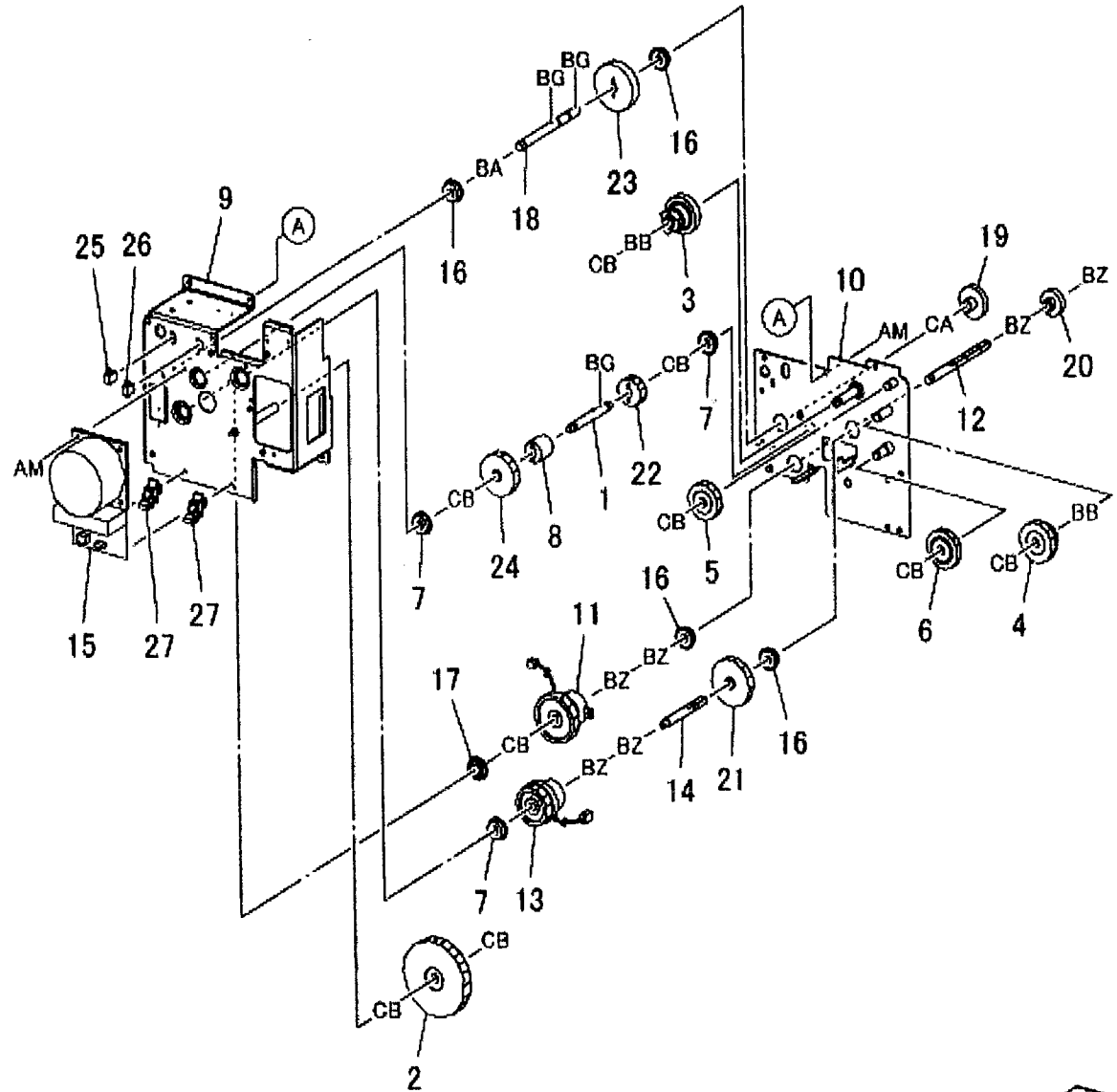
1 {2-6



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# PL 1.4 Main Drive Assembly

| Item | Part      | Description                          |
|------|-----------|--------------------------------------|
| 1    | -         | Shaft Assembly (Not Spared)          |
| 2    | -         | Gear Assembly (86T) (Not Spared)     |
| 3    | -         | Gear Assembly (21T/42T) (Not Spared) |
| 4    | -         | Gear Assembly (31T/44T) (Not Spared) |
| 5    | -         | Gear Assembly (40T) (Not Spared)     |
| 6    | -         | Gear Assembly (42T) (Not Spared)     |
| 7    | 013E87700 | Ball Bearing                         |
| 8    | -         | Brake Assembly (Not Spared)          |
| 9    | -         | Upper Bracket (Not Spared)           |
| 10   | -         | Lower Bracket (Not Spared)           |
| 11   | 121K33940 | 2nd BTR Cam Clutch                   |
| 12   | -         | Shaft (Not Spared)                   |
| 13   | 121K33960 | Developer K Drive Clutch Assembly    |
| 14   | -         | Shaft (Not Spared)                   |
| 15   | 127K39620 | Main Motor Assembly                  |
| 16   | 413W08350 | Bearing                              |
| 17   | 413W77359 | Bearing                              |
| 18   | -         | Shaft (Not Spared)                   |
| 19   | -         | Gear (17T) (Not Spared)              |
| 20   | -         | Gear (18T) (Not Spared)              |
| 21   | -         | Gear (53T) (Not Spared)              |
| 22   | -         | Gear (30T) (Not Spared)              |
| 23   | -         | Gear (53T) (Not Spared)              |
| 24   | -         | Gear (47T) (Not Spared)              |
| 25   | -         | Connector (Not Spared)               |
| 26   | -         | Housing (Not Spared)                 |
| 27   | -         | PWB Support (Not Spared)             |

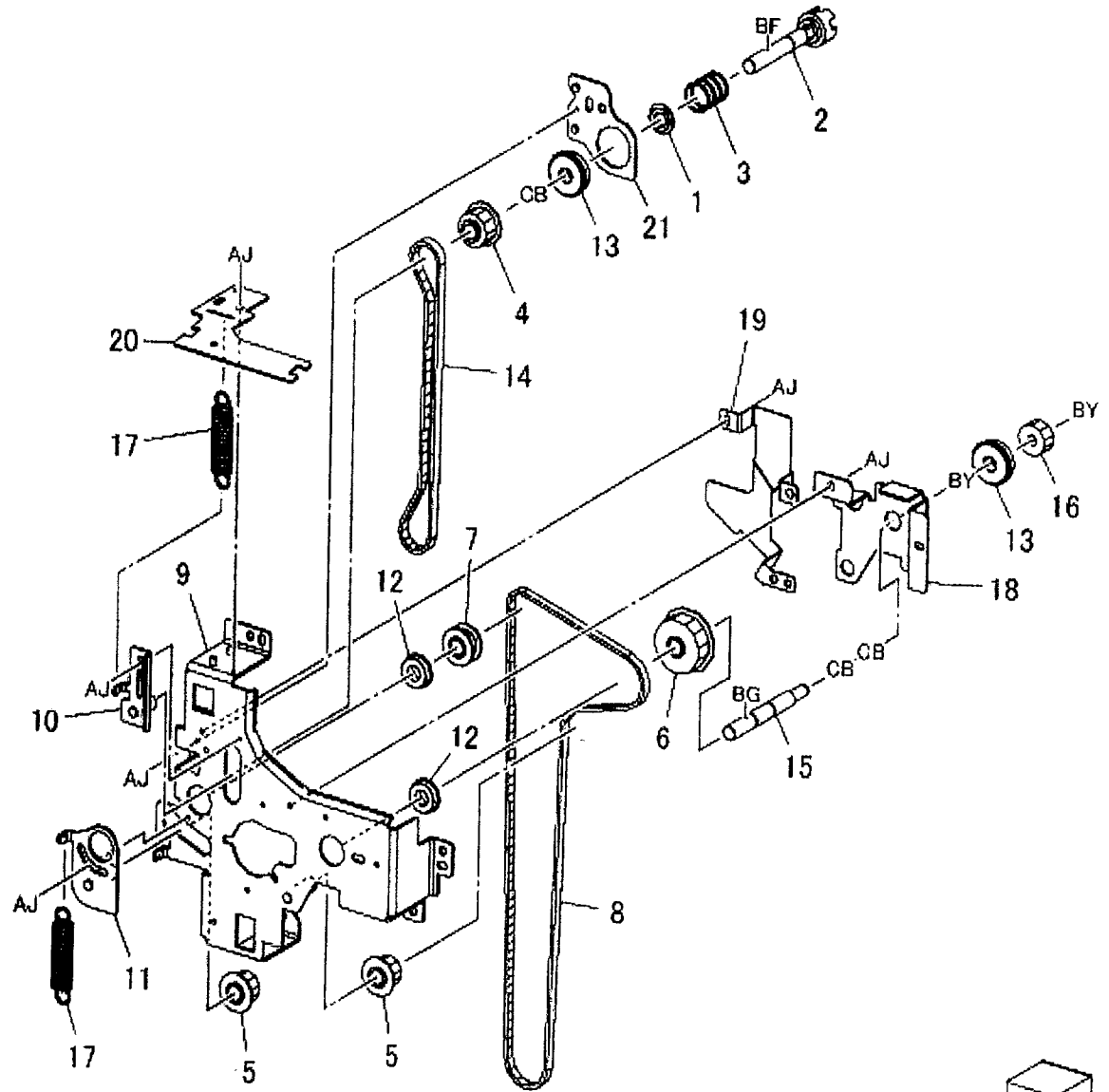


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# PL 1.5 Developer Drive Assembly (K)

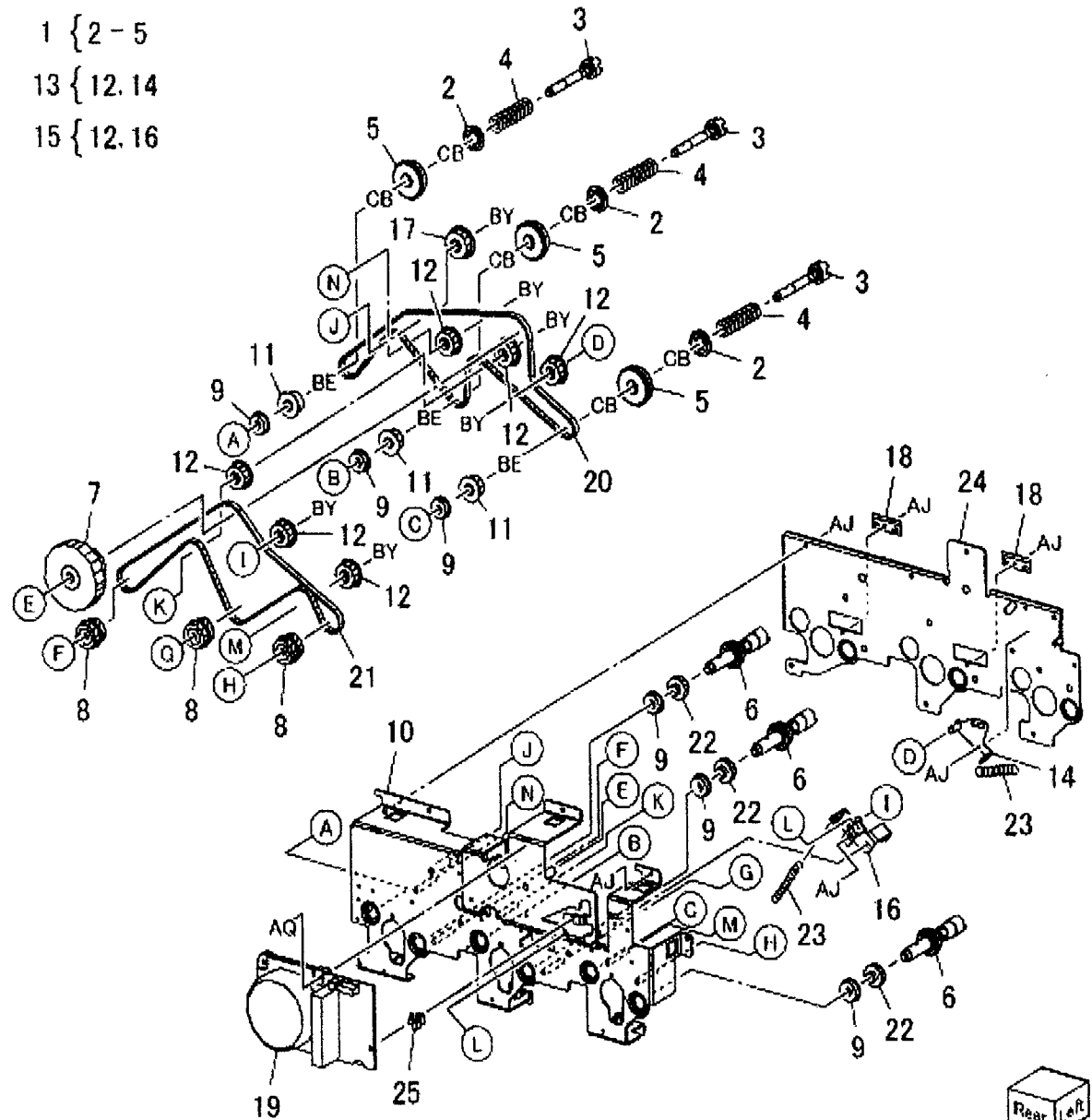
| Item | Part      | Description                   |
|------|-----------|-------------------------------|
| 1    | 005E17830 | Retainer                      |
| 2    | -         | Shaft Assembly (Not Spared)   |
| 3    | 009E94920 | Spring                        |
| 4    | -         | Pulley (20T) (Not Spared)     |
| 5    | -         | Idler Pulley (Not Spared)     |
| 6    | -         | Pulley (31T) (Not Spared)     |
| 7    | -         | Pulley Assembly (Not Spared)  |
| 8    | -         | Belt (REP 9.11)               |
| 9    | -         | Bracket Assembly (Not Spared) |
| 10   | -         | Tension Bracket (Not Spared)  |
| 11   | -         | Tension Bracket (Not Spared)  |
| 12   | 413W08350 | Bearing                       |
| 13   | 413W08950 | Bearing                       |
| 14   | 423W52154 | Belt (REP 9.11)               |
| 15   | -         | Shaft (Not Spared)            |
| 16   | -         | Gear (18T) (Not Spared)       |
| 17   | -         | Spring (Not Spared)           |
| 18   | -         | Bracket (Not Spared)          |
| 19   | -         | Bracket (Not Spared)          |
| 20   | -         | Support (Not Spared)          |
| 21   | -         | Bracket (Not Spared)          |



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# PL 1.6 Developer Drive Assembly (Y, M, C)

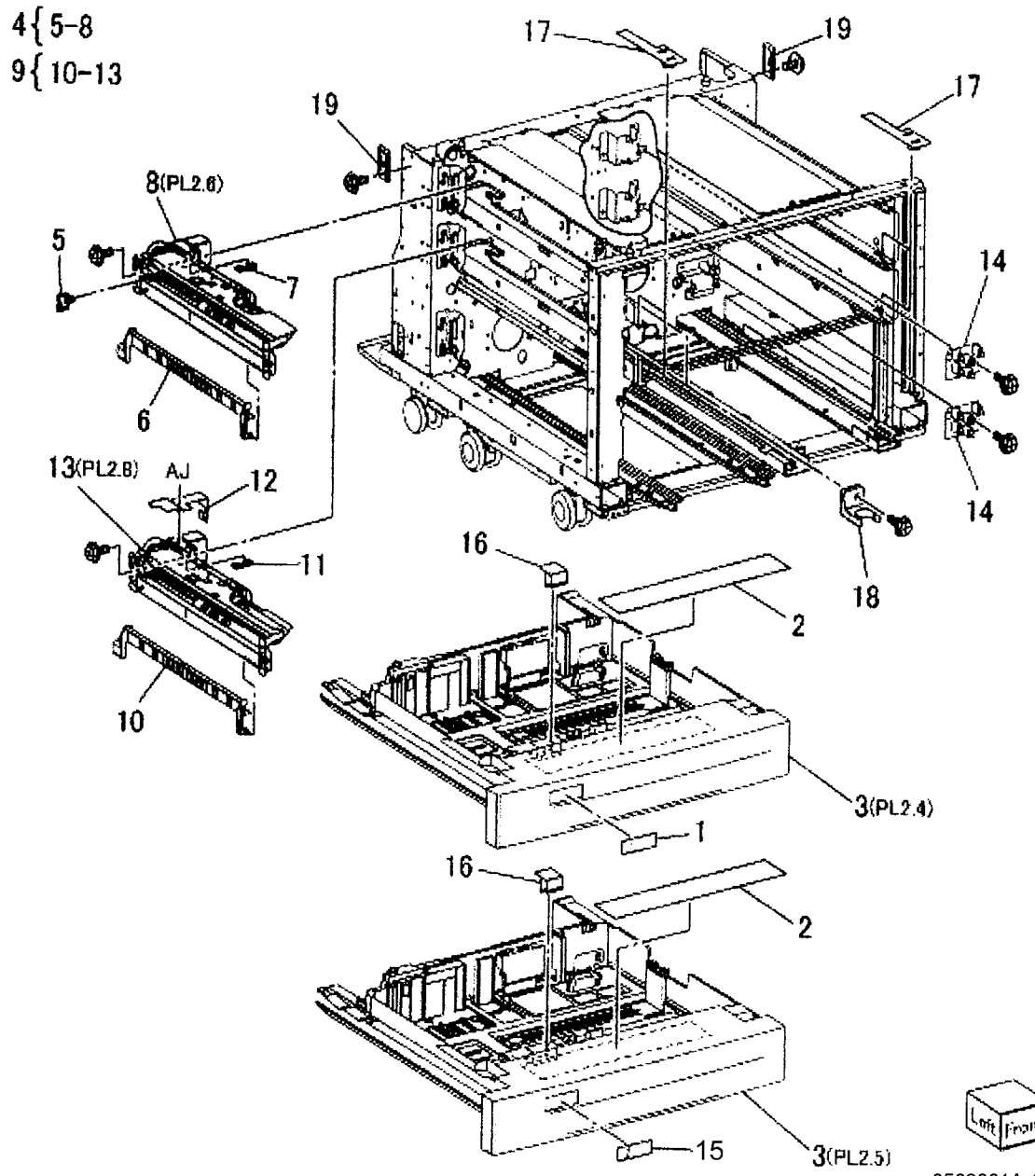
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Coupling Assembly                  |
| 2    | -         | Retainer (P/O PL 1.6 Item 1)       |
| 3    | -         | Coupling                           |
| 4    | 009E94920 | Spring                             |
| 5    | -         | Bearing (P/O PL 1.6 Item 1)        |
| 6    | -         | Coupling Assembly                  |
| 7    | -         | Gear Assembly                      |
| 8    | -         | Gear Assembly                      |
| 9    | -         | Ball Bearing                       |
| 10   | -         | Bracket Assembly                   |
| 11   | -         | Pulley                             |
| 12   | -         | Pulley Assembly                    |
| 13   | -         | Tension Pulley Assembly            |
| 14   | -         | Bracket (P/O PL 1.6 Item 13)       |
| 15   | -         | Tension Pulley Assembly            |
| 16   | -         | Bracket (P/O PL 1.6 Item 15)       |
| 17   | -         | Pulley                             |
| 18   | -         | Film                               |
| 19   | 127K36830 | Developer Motor Assembly (Y, M, C) |
| 20   | -         | Belt                               |
| 21   | -         | Belt                               |
| 22   | -         | Gear                               |
| 23   | -         | Spring                             |
| 24   | -         | Bracket                            |
| 25   | -         | Clamp                              |



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# PL 2.1 Tray 1/2

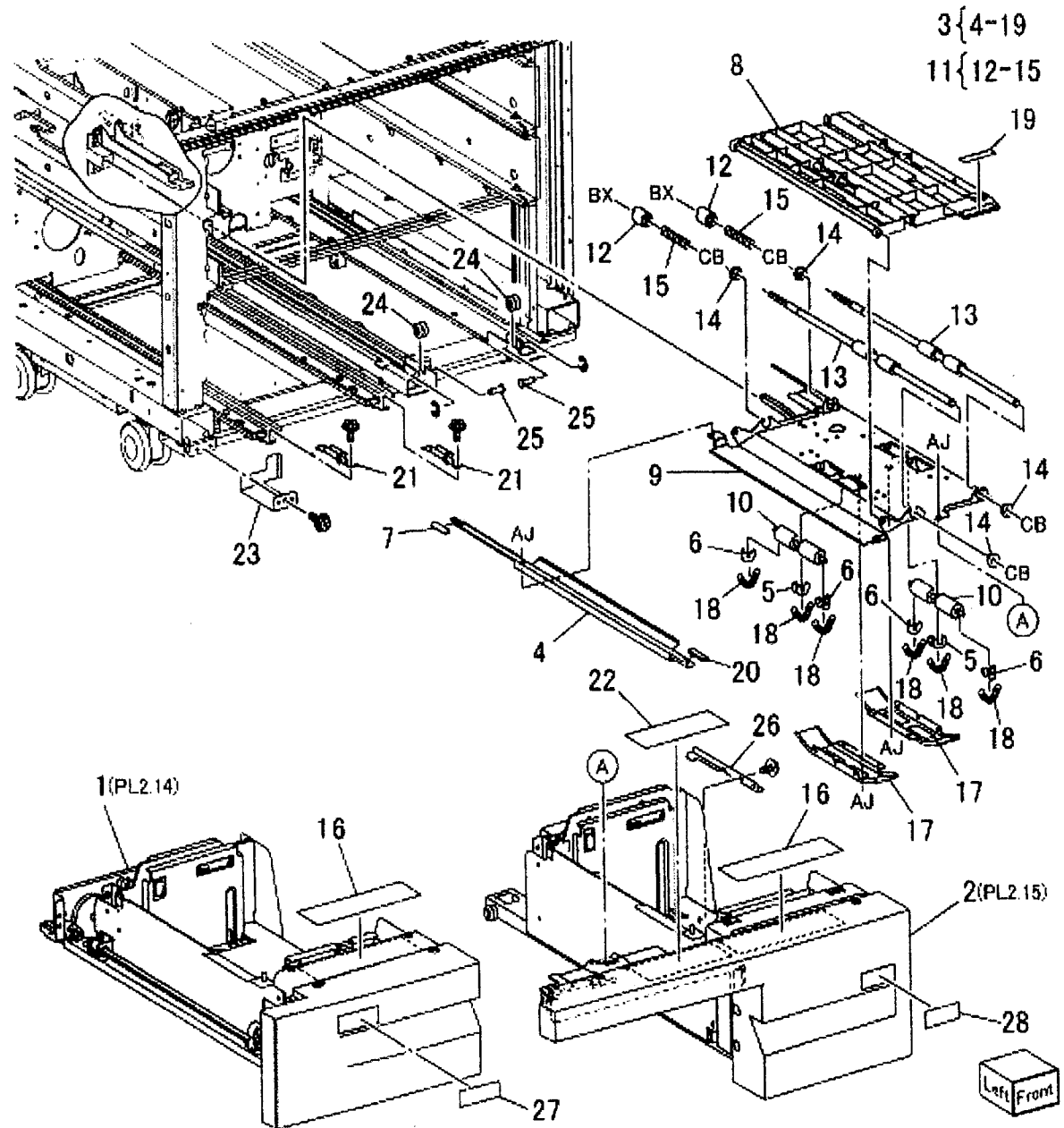
| Item | Part      | Description                                         |
|------|-----------|-----------------------------------------------------|
| 1    | 893E64440 | Tray Label (1)                                      |
| 2    | -         | Label (Instruction)                                 |
| 3    | 050K50400 | Tray 1 Assembly, Tray 2 Assembly                    |
| 4    | -         | Tray 1 Feed Unit                                    |
| 5    | -         | Harness Holder (P/O PL 2.1 Item 4)                  |
| 6    | 054K27520 | Feed Out Chute (P/O PL 2.1 Item 4)                  |
| 7    | -         | Cover (P/O PL 2.1 Item 4)                           |
| 8    | 059K26935 | Tray 1 Feed Assembly (P/O PL 2.1 Item 4) (REP 7.18) |
| 9    | -         | Tray 2 Feed Unit                                    |
| 10   | -         | Feed Out Chute (P/O PL 2.1 Item 9)                  |
| 11   | -         | Cover (P/O PL 2.1 Item 9)                           |
| 12   | -         | Rear Cover (P/O PL 2.1 Item 9)                      |
| 13   | -         | Tray 2 Feed Assembly (P/O PL 2.1 Item 9) (REP 7.19) |
| 14   | 110K11680 | Tray 1 Paper Size Switch, Tray 2 Paper Size Switch  |
| 15   | 893E64430 | Tray Label (2)                                      |
| 16   | 014E45291 | Slide Lock                                          |
| 17   | 014E51110 | Spacer                                              |
| 18   | -         | Stopper (Not Spared)                                |
| 19   | -         | Plate (Not Spared)                                  |



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# PL 2.2 Tray 3/4 (1 of 2)

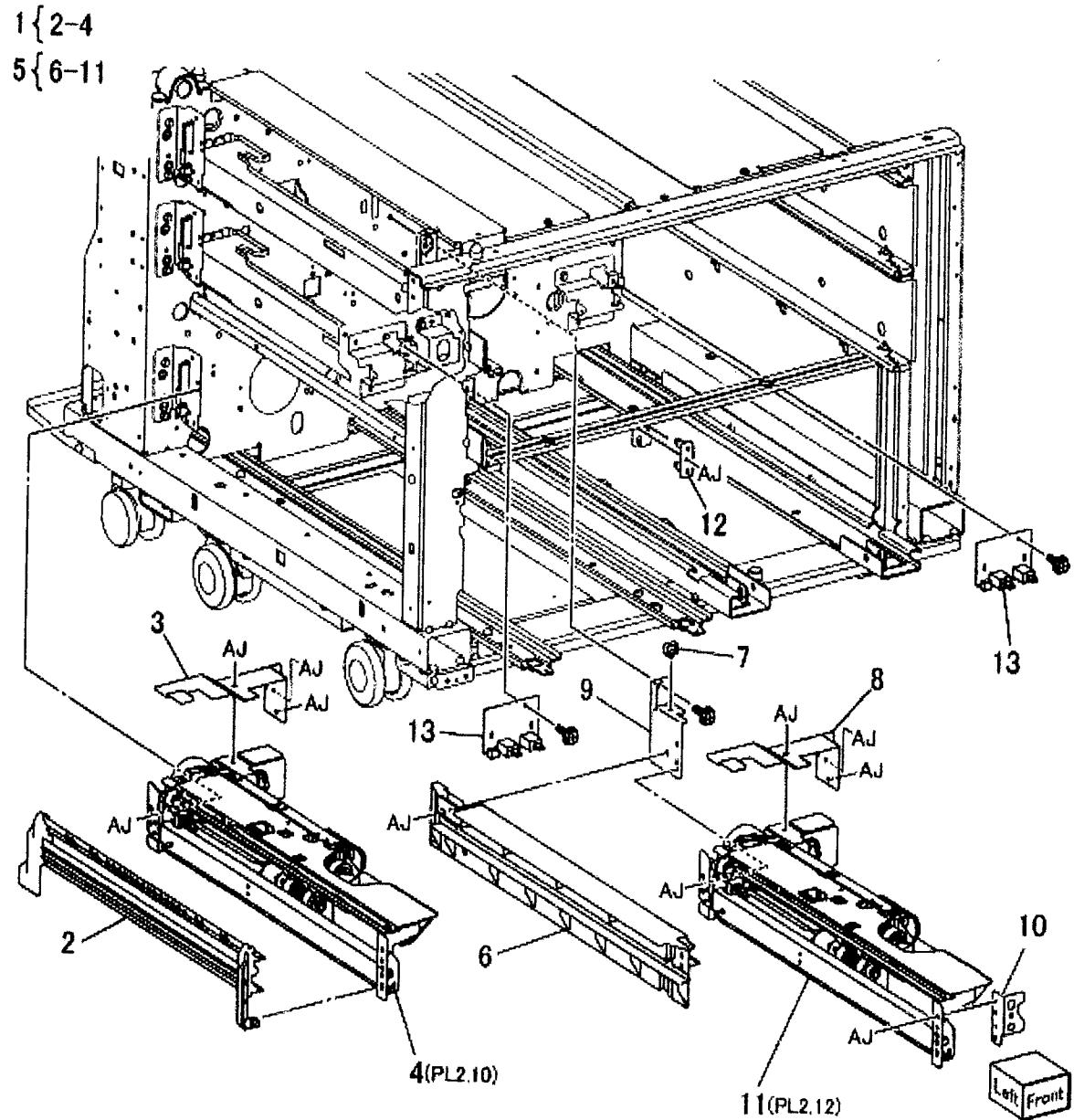
| Item | Part      | Description                     |
|------|-----------|---------------------------------|
| 1    | 050K50430 | Tray 3 Assembly (REP 7.20)      |
| 2    | 050K50410 | Tray 4 Assembly (REP 7.21)      |
| 3    | -         | Tray 4 Transport Assembly       |
| 4    | -         | Rail (P/O PL 2.2 Item 3)        |
| 5    | -         | Bearing                         |
| 6    | -         | Bearing                         |
| 7    | -         | Spacer (P/O PL 2.2 Item 3)      |
| 8    | 054E22291 | Upper Chute (P/O PL 2.2 Item 3) |
| 9    | -         | Lower Chute (P/O PL 2.2 Item 3) |
| 10   | 059E98860 | Pinch Roll                      |
| 11   | 059K24920 | Transport Roll Assembly         |
| 12   | -         | Joint (P/O PL 2.2 Item 11)      |
| 13   | -         | Takeaway Roll 4/5               |
| 14   | 413W77559 | Bearing                         |
| 15   | -         | Spring (P/O PL 2.2 Item 11)     |
| 16   | -         | Label (Instruction)             |
| 17   | -         | Pinch Cover (P/O PL 2.2 Item 3) |
| 18   | 809E39381 | Spring                          |
| 19   | -         | Label                           |
| 20   | -         | Spacer (Not Spared)             |
| 21   | -         | Roll Assembly                   |
| 22   | -         | Label                           |
| 23   | -         | Bracket                         |
| 24   | -         | Roll                            |
| 25   | -         | Shaft                           |
| 26   | -         | Stopper (Tray 4)                |
| 27   | 893E21870 | Tray Label (3)                  |
| 28   | 893E21880 | Tray Label (4)                  |



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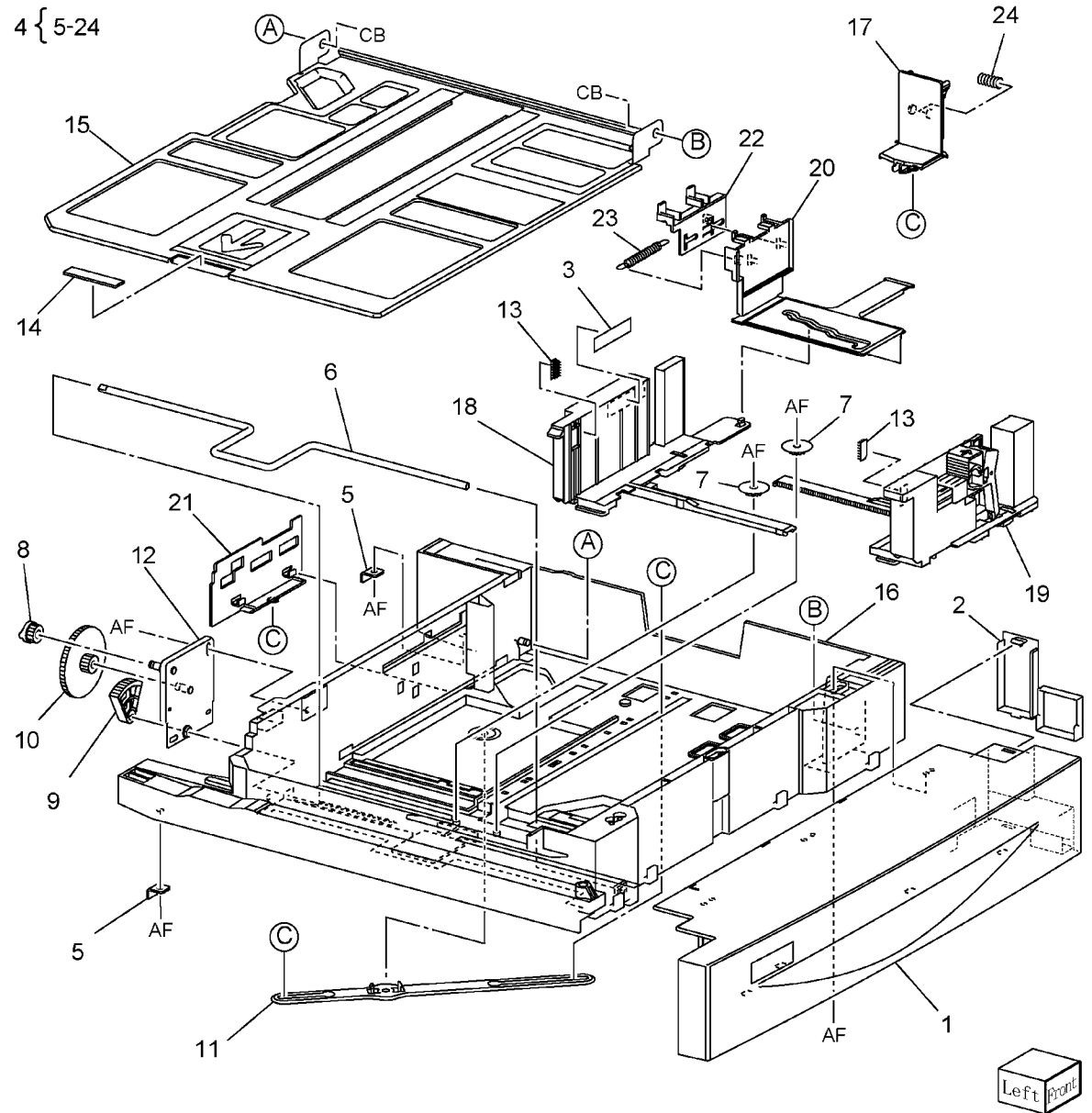
## PL 2.3 Tray 3/4 (2 of 2)

| Item | Part      | Description                                        |
|------|-----------|----------------------------------------------------|
| 1    | -         | Tray 3 Feed Unit                                   |
| 2    | 054E89450 | Feed Out Chute (P/O PL 2.3 Item 1)                 |
| 3    | -         | Cover (P/O PL 2.3 Item 1)                          |
| 4    | 059K26934 | Tray 3 Feed Assembly (REP 7.22)                    |
| 5    | -         | Tray 4 Feed Unit                                   |
| 6    | -         | Lower Chute (P/O PL 2.3 Item 5)                    |
| 7    | -         | Saddle (P/O PL 2.3 Item 5)                         |
| 8    | -         | Cover (P/O PL 2.3 Item 5)                          |
| 9    | -         | Bracket (P/O PL 2.3 Item 5)                        |
| 10   | -         | Front Bracket (P/O PL 2.3 Item 5)                  |
| 11   | 059K26935 | Tray 4 Feed Assembly (REP 7.23)                    |
| 12   | -         | Pivot Bracket                                      |
| 13   | 110K11820 | Tray 3 Paper Size Switch, Tray 4 Paper Size Switch |



# PL 2.4 Tray 1 Assembly

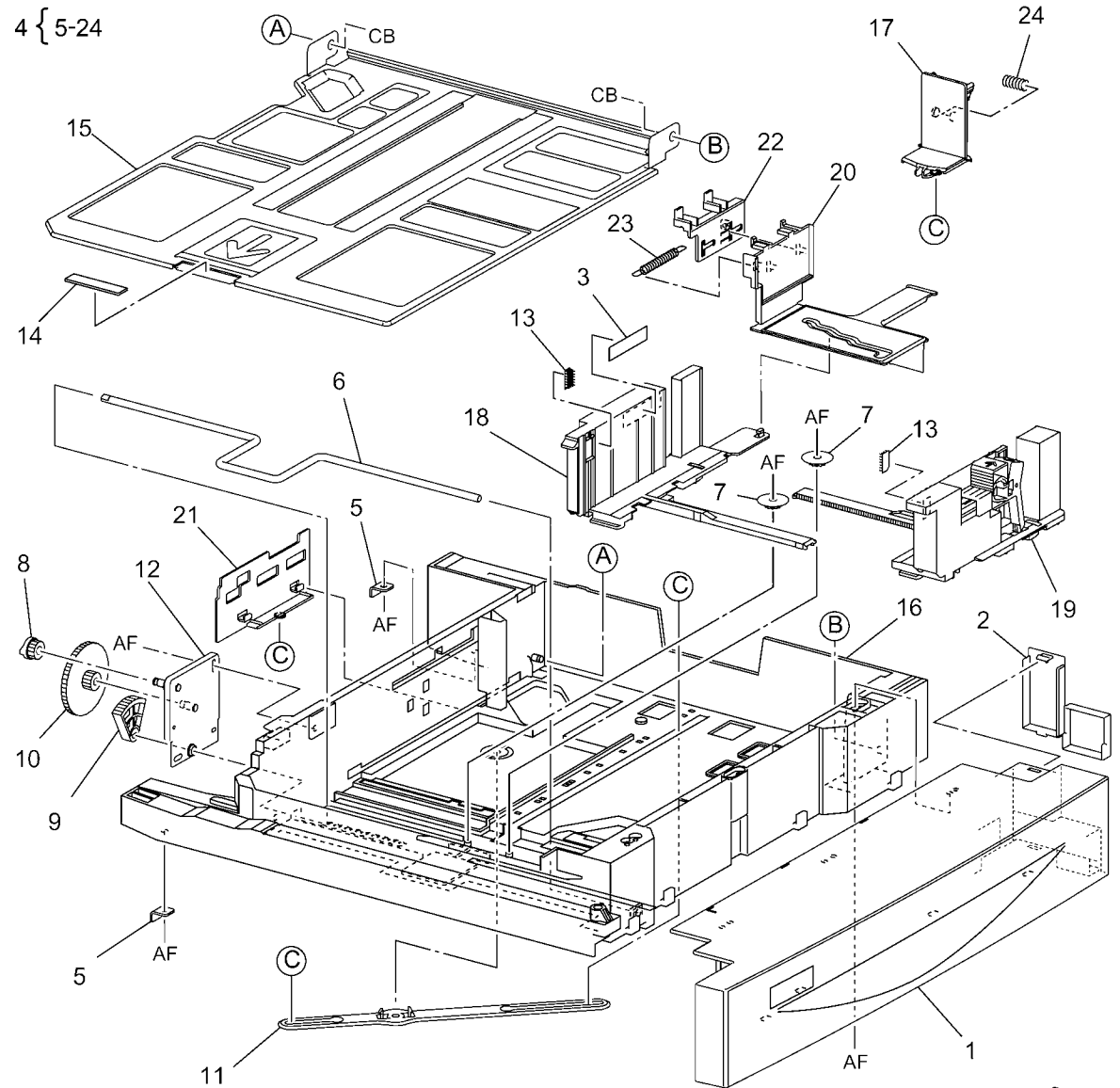
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Tray 1 Cover (Not Spared)          |
| 2    | -         | Cover (Not Spared)                 |
| 3    | 893E09490 | Label (Max)                        |
| 4    | -         | Tray 1                             |
| 5    | -         | Stopper (P/O PL 2.4 Item 4)        |
| 6    | -         | Lift Shaft (P/O PL 2.4 Item 4)     |
| 7    | -         | Pinion (P/O PL 2.4 Item 4)         |
| 8    | 007E78431 | Gear (13T)                         |
| 9    | 007E78440 | Gear (60T)                         |
| 10   | 007E78450 | Gear (13T/60T)                     |
| 11   | -         | End Guide Link (P/O PL 2.4 Item 4) |
| 12   | -         | Plate (P/O PL 2.4 Item 4)          |
| 13   | 019E39131 | Pad                                |
| 14   | 019K94400 | Bottom Plate Pad                   |
| 15   | -         | Bottom Plate (P/O PL 2.4 Item 4)   |
| 16   | -         | Cassette (P/O PL 2.4 Item 4)       |
| 17   | 038E26532 | End Guide                          |
| 18   | 038E26550 | Rear Guide                         |
| 19   | -         | Front Guide                        |
| 20   | -         | Actuator (P/O PL 2.4 Item 4)       |
| 21   | -         | Actuator (P/O PL 2.4 Item 4)       |
| 22   | -         | Actuator (P/O PL 2.4 Item 4)       |
| 23   | -         | Spring (P/O PL 2.4 Item 4)         |
| 24   | -         | Spring (P/O PL 2.4 Item 4)         |



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# PL 2.5 Tray 2 Assembly

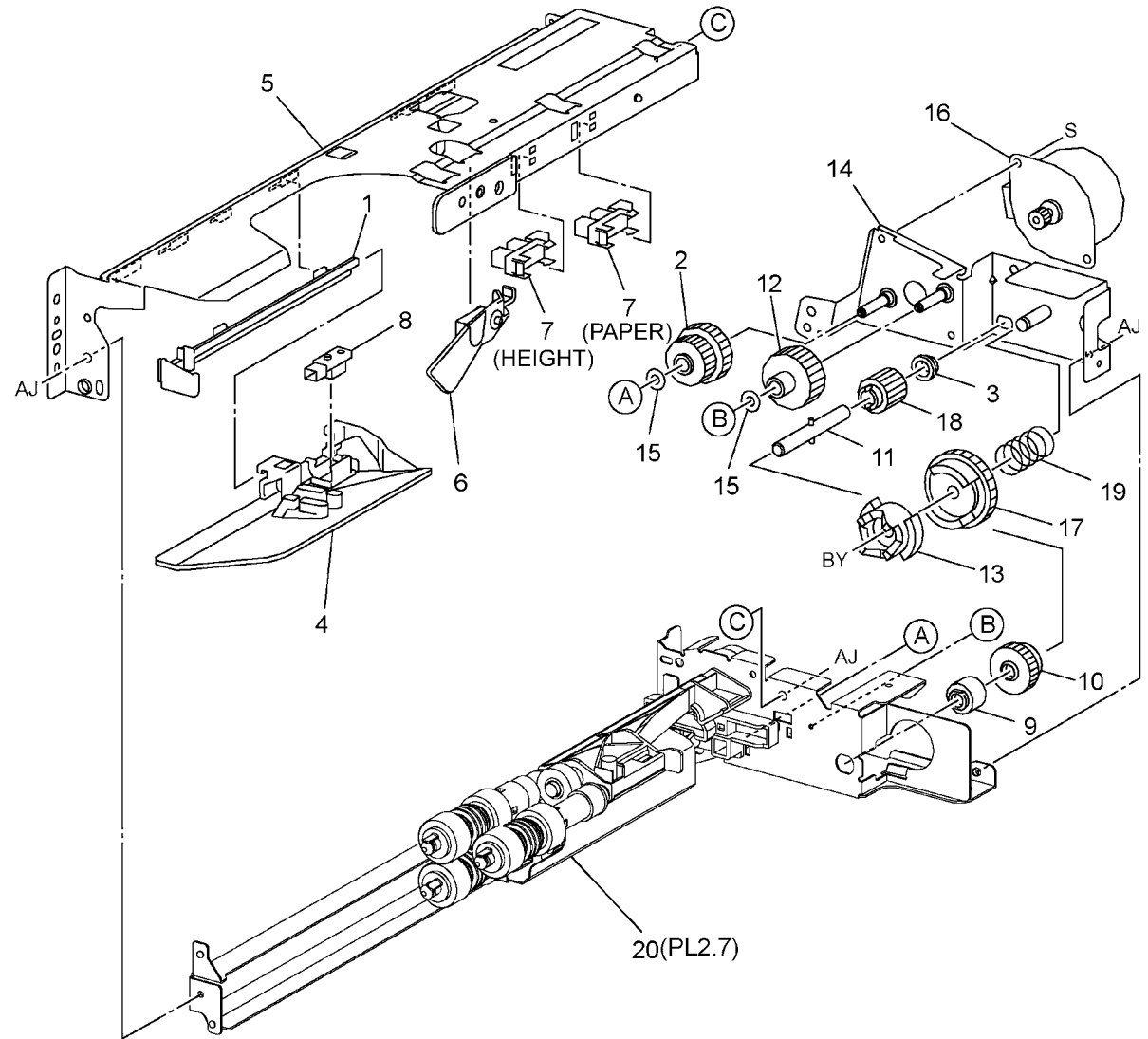
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Tray 2 Cover (Not Spared)          |
| 2    | -         | Cover (Not Spared)                 |
| 3    | 893E09490 | Label (Max)                        |
| 4    | -         | Tray 2                             |
| 5    | -         | Stopper (P/O PL 2.5 Item 4)        |
| 6    | -         | Lift Shaft (P/O PL 2.5 Item 4)     |
| 7    | -         | Pinion (P/O PL 2.5 Item 4)         |
| 8    | 007E78431 | Gear (13T)                         |
| 9    | 007E78440 | Gear (60T)                         |
| 10   | 007E78450 | Gear (13T/60T)                     |
| 11   | -         | End Guide Link (P/O PL 2.5 Item 4) |
| 12   | -         | Plate (P/O PL 2.5 Item 1)          |
| 13   | 019E39131 | Pad                                |
| 14   | 019K94400 | Bottom Plate Pad                   |
| 15   | -         | Bottom Plate (P/O PL 2.5 Item 1)   |
| 16   | -         | Cassette (P/O PL 2.5 Item 4)       |
| 17   | 038E26532 | End Guide                          |
| 18   | 038E26550 | Rear Guide                         |
| 19   | -         | Front Guide                        |
| 20   | -         | Actuator (P/O PL 2.5 Item 4)       |
| 21   | -         | Actuator (P/O PL 2.5 Item 4)       |
| 22   | -         | Actuator (P/O PL 2.5 Item 4)       |
| 23   | -         | Spring (P/O PL 2.5 Item 4)         |
| 24   | -         | Spring (P/O PL 2.5 Item 4)         |



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## PL 2.6 Tray 1 Feed Assembly (1 of 2)

| Item | Part      | Description                                     |
|------|-----------|-------------------------------------------------|
| 1    | -         | Rail (Not Spared)                               |
| 2    | -         | Gear (28T/21T)                                  |
| 3    | 013E92890 | Bearing (6)                                     |
| 4    | -         | Chute (Not Spared)                              |
| 5    | -         | Upper Frame Assembly (Not Spared)               |
| 6    | 120E22481 | Actuator                                        |
| 7    | 930W00113 | Tray 1 Stack Height Sensor, Tray 1 Paper Sensor |
| 8    | 930W00211 | Tray 1 Pre Feed Sensor                          |
| 9    | 005K83081 | One Way Clutch                                  |
| 10   | 007K85730 | One Way Gear                                    |
| 11   | -         | Shaft Assembly Drive                            |
| 12   | -         | Gear (29T)                                      |
| 13   | -         | Spacer (Not Spared)                             |
| 14   | -         | Bracket (Not Spared)                            |
| 15   | -         | Washer (Not Spared)                             |
| 16   | 127K38170 | Tray 1 Lift/Feed Motor                          |
| 17   | -         | Gear (31T) (Not Spared)                         |
| 18   | -         | Gear (13T) (Not Spared)                         |
| 19   | -         | Spring (Not Spared)                             |
| 20   | -         | Rear Frame Assembly (Not Spared)                |

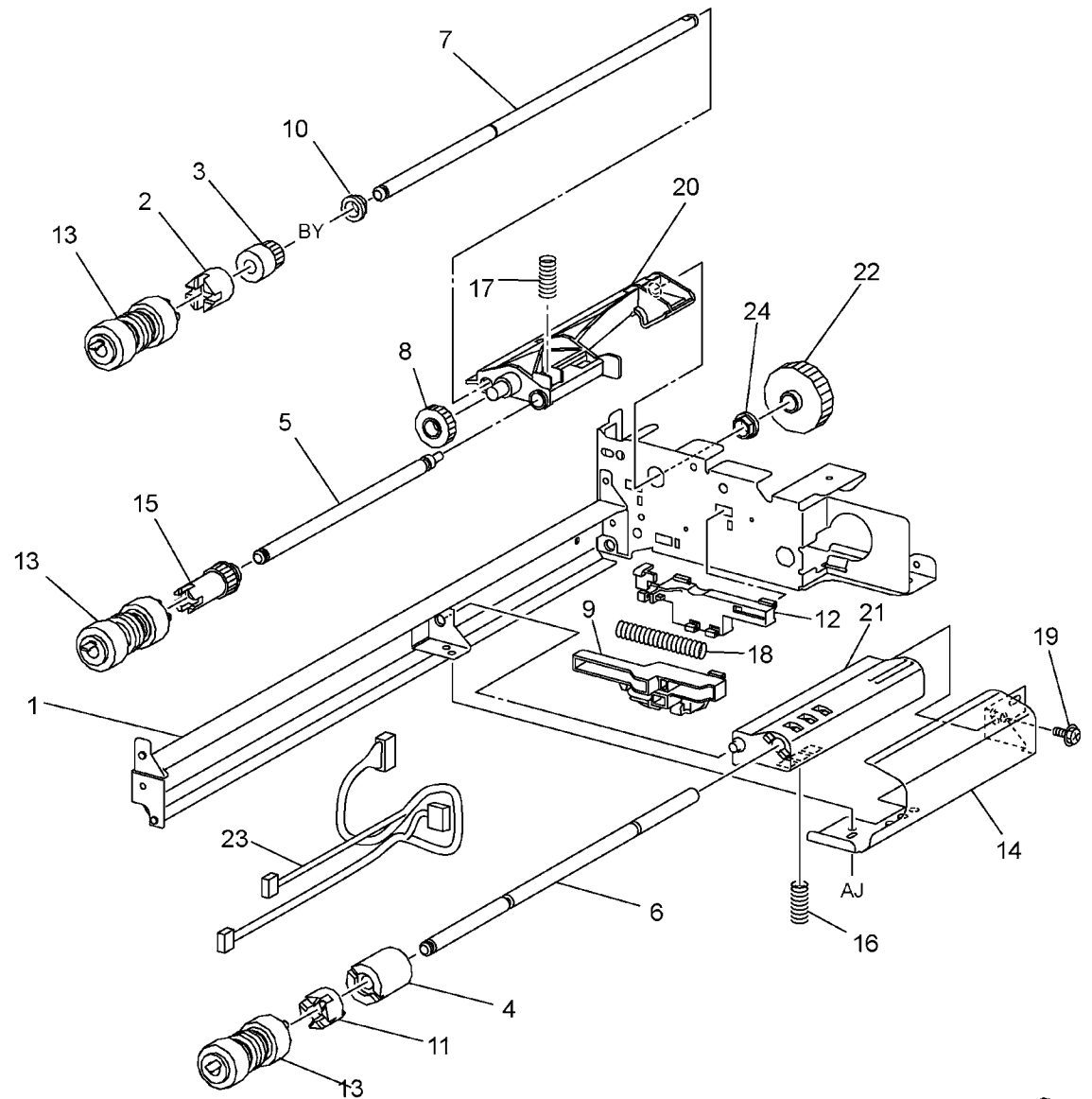


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## PL 2.7 Tray 1 Feed Assembly (2 of 2)

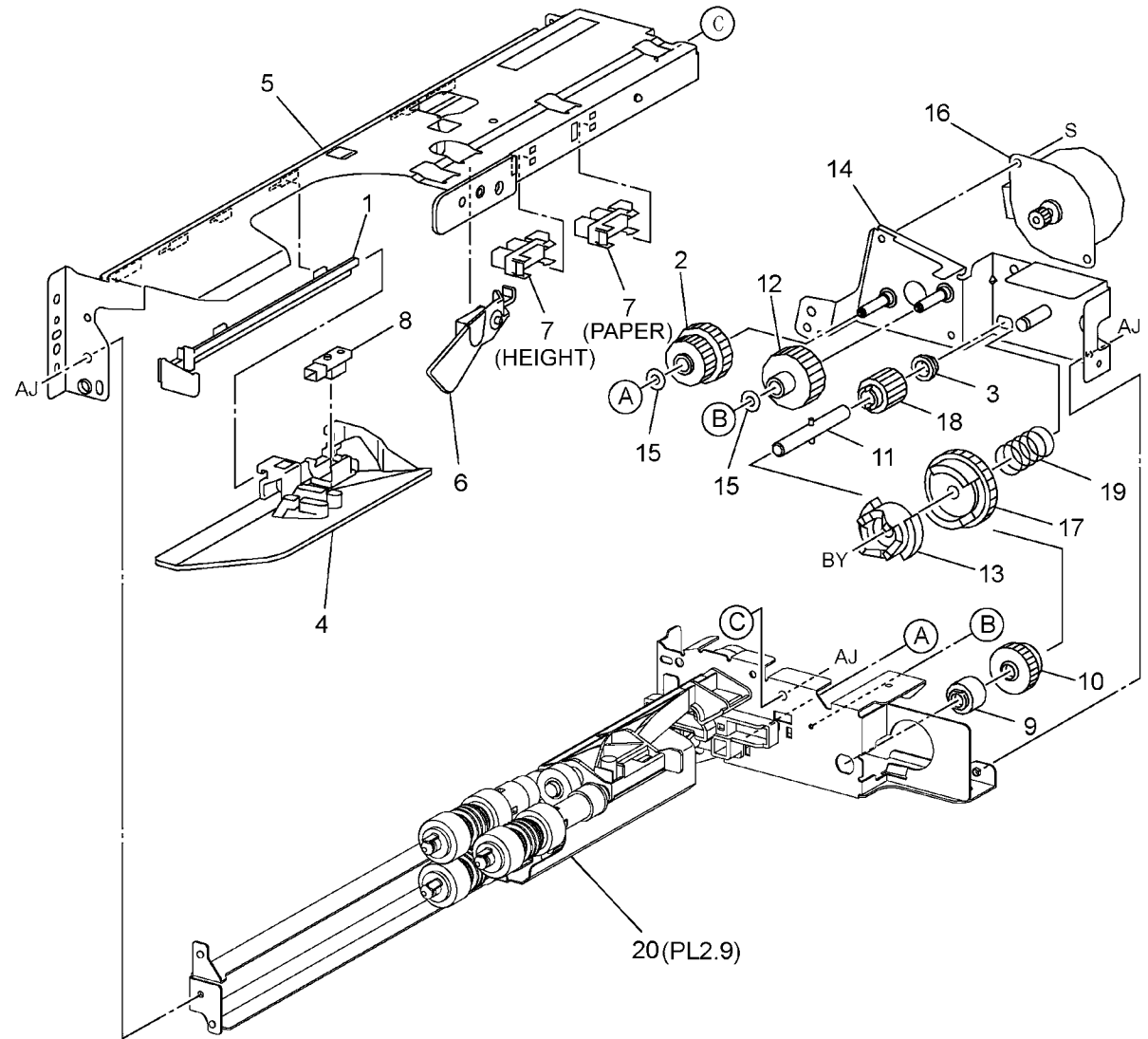
| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Rear Frame (Not Spared)                |
| 2    | 005K05890 | Oneway Clutch                          |
| 3    | 005K06760 | Clutch (22T)                           |
| 4    | 005K07010 | Friction Clutch                        |
| 5    | -         | Nudger Shaft                           |
| 6    | -         | Retard Shaft                           |
| 7    | -         | Feed Shaft                             |
| 8    | 007E79380 | Gear (33T)                             |
| 9    | -         | Lever (Not Spared)                     |
| 10   | 013E92890 | Bearing (6)                            |
| 11   | -         | Spacer (Not Spared)                    |
| 12   | -         | Holder (Not Spared)                    |
| 13   | 600K78460 | Feed/Nudger/Retard Roll Kit (REP 7.24) |
| 14   | -         | Feed in Chute (Not Spared)             |
| 15   | -         | Gear (25T) (Not Spared)                |
| 16   | -         | Spring (Not Spared)                    |
| 17   | -         | Spring (Not Spared)                    |
| 18   | -         | Spring (Not Spared)                    |
| 19   | -         | Screw (Not Spared)                     |
| 20   | -         | Nudger Support (Not Spared)            |
| 21   | -         | Retard Support (Not Spared)            |
| 22   | -         | Gear (27T) (Not Spared)                |
| 23   | -         | Wire Harness (Not Spared)              |
| 24   | -         | Bearing (Not Spared)                   |



0502007A-OLY

## PL 2.8 Tray 2 Feed Assembly (1 of 2)

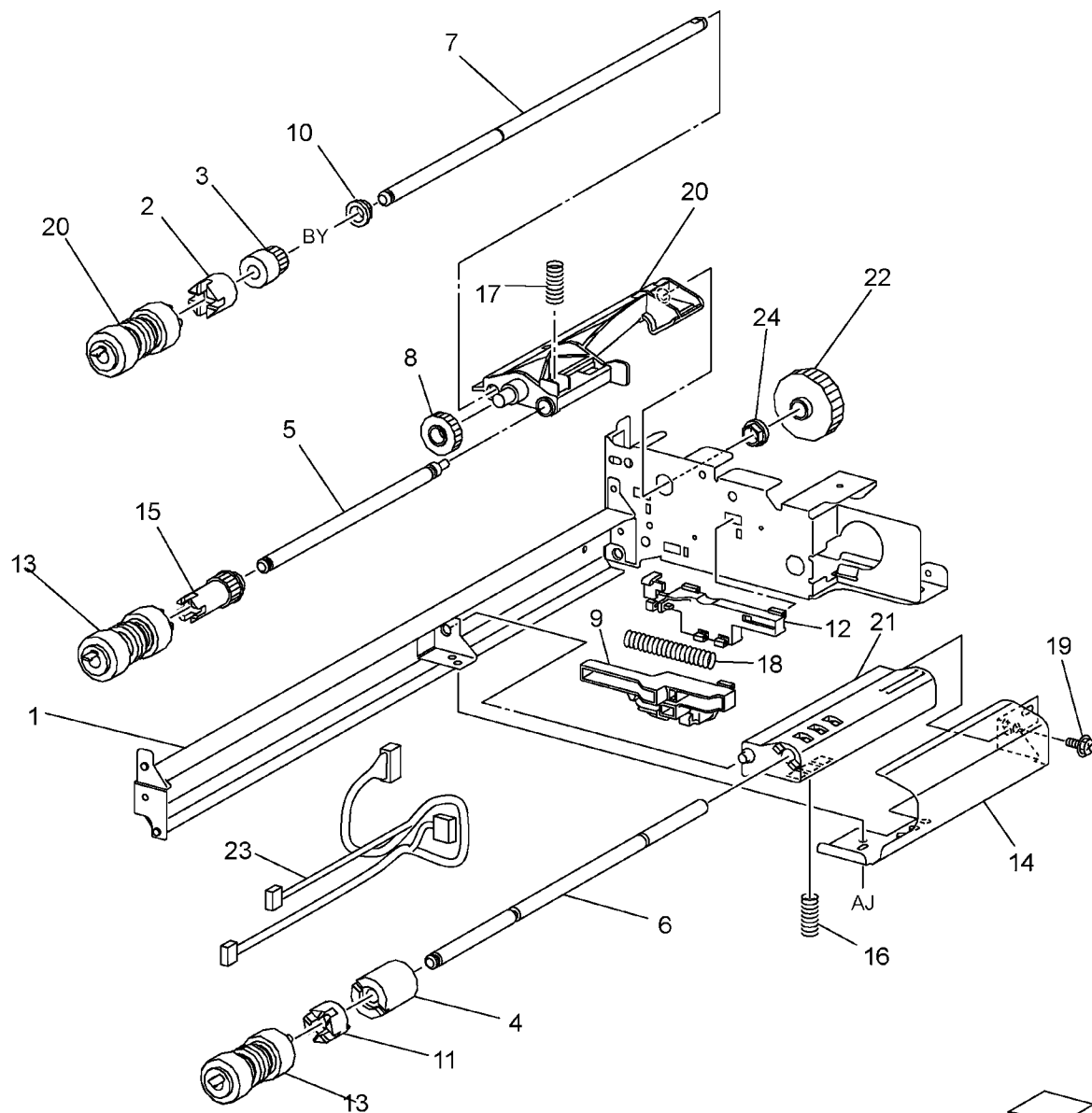
| Item | Part      | Description                                     |
|------|-----------|-------------------------------------------------|
| 1    | -         | Rail (Not Spared)                               |
| 2    | -         | Gear (28T/21T)                                  |
| 3    | 013E92890 | Bearing (6)                                     |
| 4    | -         | Chute (Not Spared)                              |
| 5    | -         | Upper Frame Assembly (Not Spared)               |
| 6    | 120E22481 | Actuator                                        |
| 7    | 930W00113 | Tray 2 Stack Height Sensor, Tray 2 Paper Sensor |
| 8    | 930W00211 | Tray 2 Pre Feed Sensor                          |
| 9    | 005K83081 | One Way Clutch Assembly                         |
| 10   | 007K85730 | One Way Gear Assembly                           |
| 11   | -         | Shaft Assembly Drive                            |
| 12   | -         | Gear (29T)                                      |
| 13   | -         | Spacer (Not Spared)                             |
| 14   | -         | Bracket (Not Spared)                            |
| 15   | -         | Washer (Not Spared)                             |
| 16   | 127K38170 | Tray 2 Lift/Feed Motor                          |
| 17   | -         | Gear (31T) (Not Spared)                         |
| 18   | -         | Gear (13T) (Not Spared)                         |
| 19   | -         | Spring (Not Spared)                             |
| 20   | -         | Rear Frame Assembly (Not Spared)                |



0502008A-OLY

## PL 2.9 Tray 2 Feed Assembly (2 of 2)

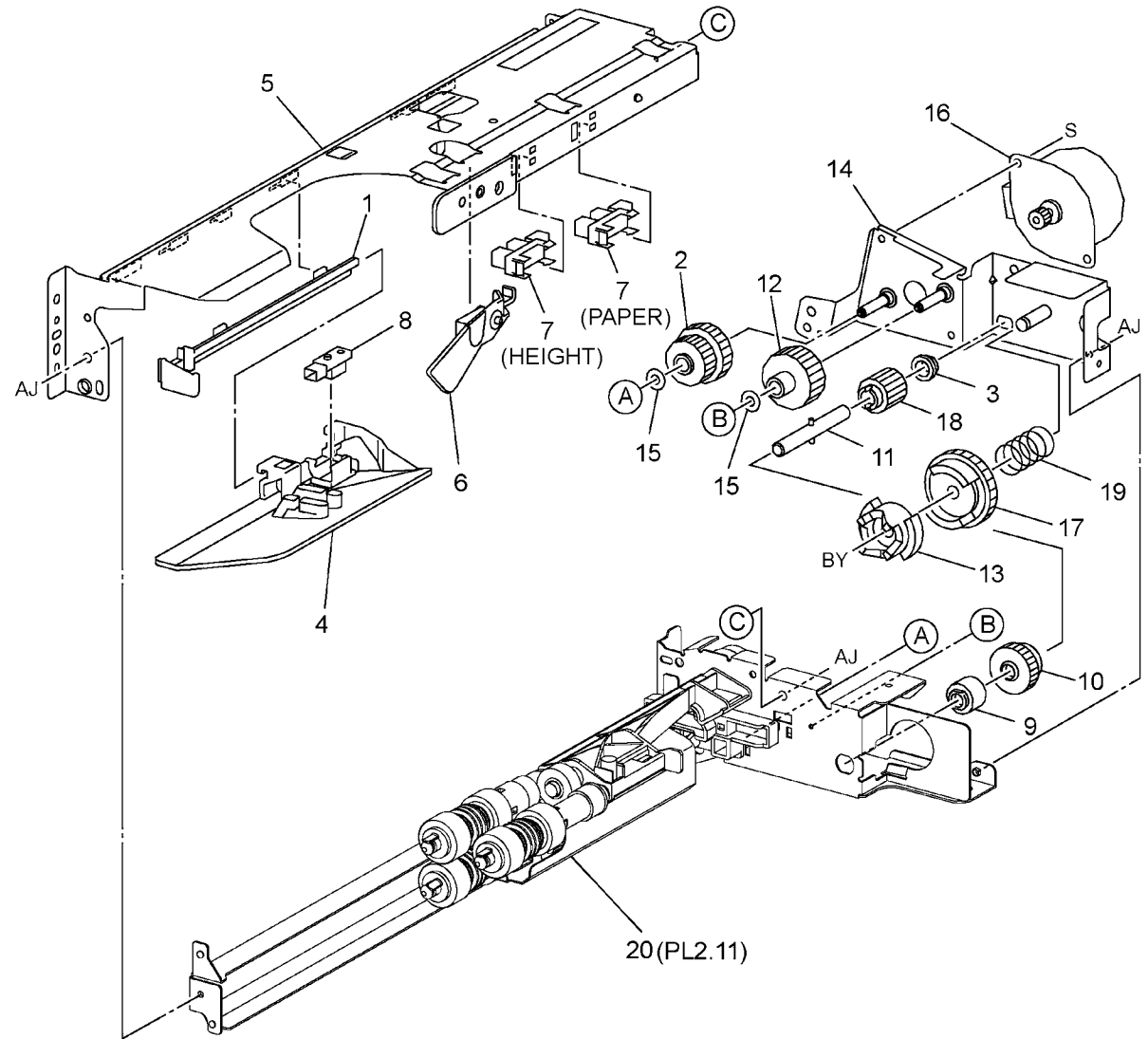
| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Rear Frame (Not Spared)                |
| 2    | 005K05890 | One Way Clutch                         |
| 3    | 005K06760 | Clutch (22T)                           |
| 4    | 005K07010 | Friction Clutch                        |
| 5    | -         | Nudger Shaft                           |
| 6    | -         | Retard Shaft                           |
| 7    | -         | Feed Shaft                             |
| 8    | 007E79380 | Gear (33T)                             |
| 9    | -         | Lever (Not Spared)                     |
| 10   | 013E92890 | Bearing (6)                            |
| 11   | -         | Spacer (Not Spared)                    |
| 12   | -         | Holder (Not Spared)                    |
| 13   | 600K78460 | Feed/Nudger/Retard Roll Kit (REP 7.24) |
| 14   | -         | Feed In Chute (Not Spared)             |
| 15   | -         | Gear (25T) (Not Spared)                |
| 16   | -         | Spring (Not Spared)                    |
| 17   | -         | Spring (Not Spared)                    |
| 18   | -         | Spring (Not Spared)                    |
| 19   | -         | Screw (Not Spared)                     |
| 20   | -         | Nudger Support (Not Spared)            |
| 21   | -         | Retard Support (Not Spared)            |
| 22   | -         | Gear (27T) (Not Spared)                |
| 23   | -         | Wire Harness (Not Spared)              |
| 24   | -         | Bearing (Not Spared)                   |



0502009A-OLY

## PL 2.10 Tray 3 Feed Assembly (1 of 2)

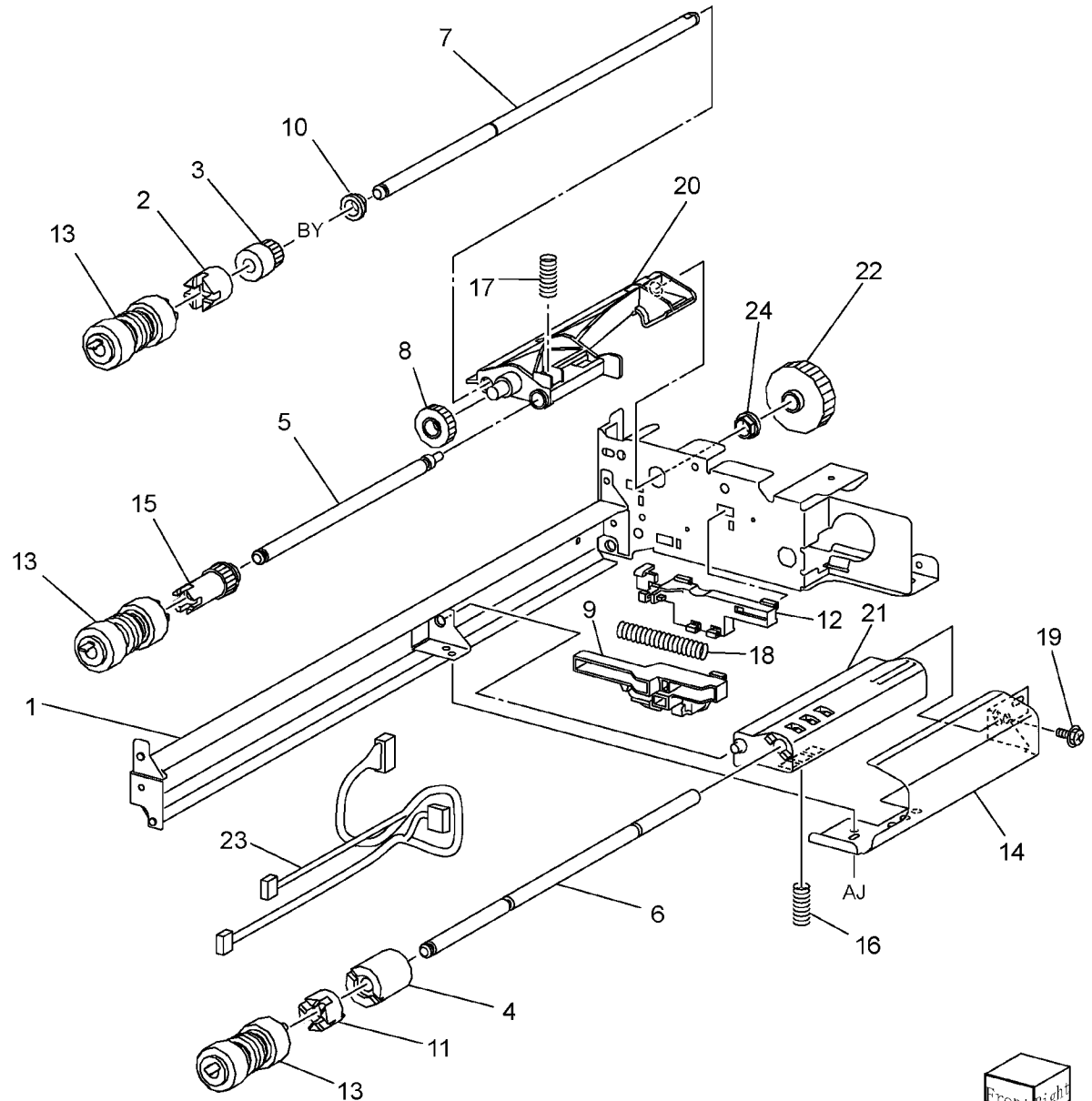
| Item | Part      | Description                                     |
|------|-----------|-------------------------------------------------|
| 1    | -         | Rail (Not Spared)                               |
| 2    | -         | Gear (28T/21T)                                  |
| 3    | 013E92890 | Bearing (6)                                     |
| 4    | -         | Chute (Not Spared)                              |
| 5    | -         | Upper Frame Assembly (Not Spared)               |
| 6    | 120E22481 | Actuator                                        |
| 7    | 930W00113 | Tray 3 Stack Height Sensor, Tray 3 Paper Sensor |
| 8    | 930W00211 | Tray 3 Pre Feed Sensor                          |
| 9    | 005K83081 | One Way Clutch Assembly                         |
| 10   | 007K85730 | One Way Gear Assembly                           |
| 11   | -         | Shaft Assembly Drive                            |
| 12   | -         | Gear (29T)                                      |
| 13   | -         | Spacer (Not Spared)                             |
| 14   | -         | Washer (Not Spared)                             |
| 15   | -         | Washer (Not Spared)                             |
| 16   | 127K38170 | Tray 3 Lift/Feed Motor                          |
| 17   | -         | Gear (31T) (Not Spared)                         |
| 18   | -         | Gear (13T) (Not Spared)                         |
| 19   | -         | Spring (Not Spared)                             |
| 20   | -         | Rear Frame Assembly (Not Spared)                |



0502010A-OLY

## PL 2.11 Tray 3 Feed Assembly (2 of 2)

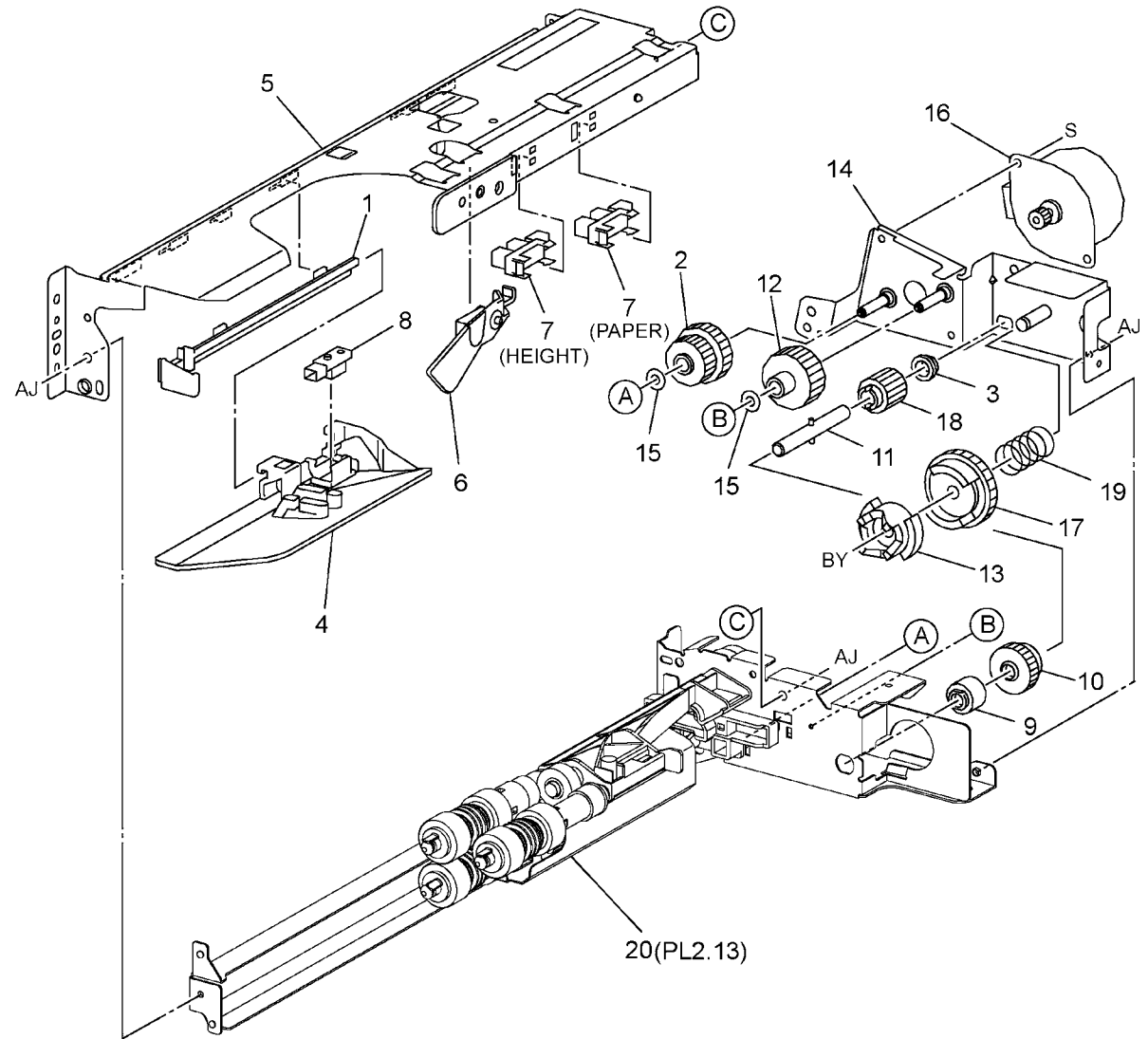
| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Rear Frame (Not Spared)                |
| 2    | 005K05890 | Oneway Clutch                          |
| 3    | 005K06760 | Clutch (22T)                           |
| 4    | 005K07010 | Friction Clutch                        |
| 5    | -         | Nudger Shaft                           |
| 6    | -         | Retard Shaft                           |
| 7    | -         | Feed Shaft                             |
| 8    | 007E79380 | Gear (33T)                             |
| 9    | -         | Lever (Not Spared)                     |
| 10   | 013E92890 | Bearing (6)                            |
| 11   | -         | Spacer (Not Spared)                    |
| 12   | -         | Holder (Not Spared)                    |
| 13   | 600K78460 | Feed/Nudger/Retard Roll Kit (REP 7.25) |
| 14   | -         | Feed In Chute (Not Spared)             |
| 15   | -         | Gear (25T) (Not Spared)                |
| 16   | -         | Spring (Not Spared)                    |
| 17   | -         | Spring (Not Spared)                    |
| 18   | -         | Spring (Not Spared)                    |
| 19   | -         | Screw (Not Spared)                     |
| 20   | -         | Nudger Support (Not Spared)            |
| 21   | -         | Retard Support (Not Spared)            |
| 22   | -         | Gear (27T) (Not Spared)                |
| 23   | -         | Wire Harness (Not Spared)              |
| 24   | -         | Bearing (Not Spared)                   |



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## PL 2.12 Tray 4 Feed Assembly (1 of 2)

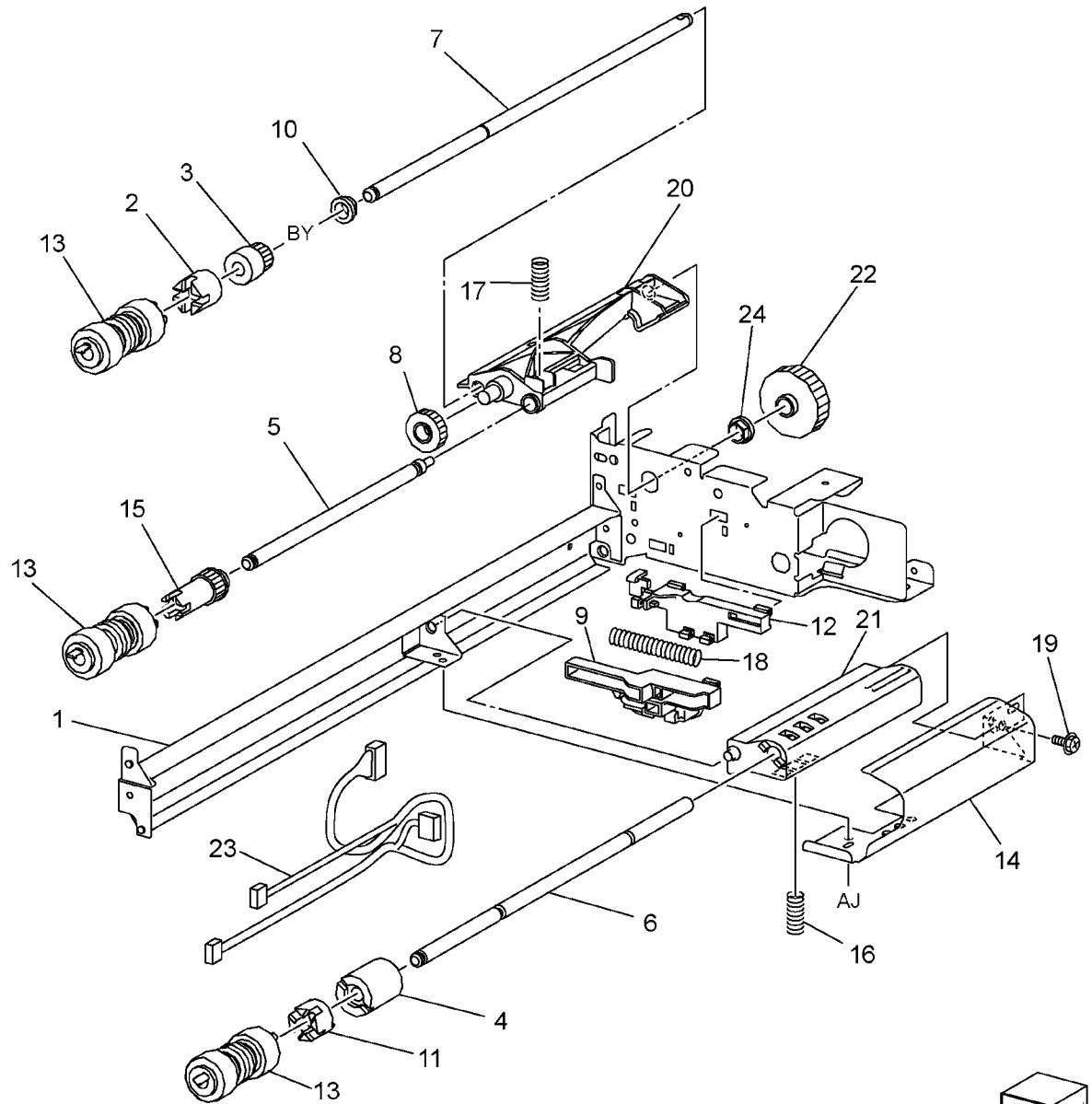
| Item | Part      | Description                                     |
|------|-----------|-------------------------------------------------|
| 1    | -         | Rail (Not Spared)                               |
| 2    | -         | Gear (28T/21T)                                  |
| 3    | 013E92890 | Bearing (6)                                     |
| 4    | -         | Chute (Not Spared)                              |
| 5    | -         | Upper Frame Assembly (Not Spared)               |
| 6    | 120E22481 | Actuator                                        |
| 7    | 930W00113 | Tray 4 Stack Height Sensor, Tray 4 Paper Sensor |
| 8    | 930W00211 | Tray 4 Pre Feed Sensor                          |
| 9    | 005K83081 | Oneway Clutch Assembly                          |
| 10   | 007K85730 | Oneway Gear Assembly                            |
| 11   | -         | Shaft Assembly Drive                            |
| 12   | -         | Gear (29T)                                      |
| 13   | -         | Spacer (Not Spared)                             |
| 14   | -         | Bracket (Not Spared)                            |
| 15   | -         | Washer (Not Spared)                             |
| 16   | 127K38170 | Tray 4 Lift/Feed Motor                          |
| 17   | -         | Gear (31T) (Not Spared)                         |
| 18   | -         | Gear (13T) (Not Spared)                         |
| 19   | -         | Spring (Not Spared)                             |
| 20   | -         | Rear Frame Assembly (Not Spared)                |



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## PL 2.13 Tray 4 Feed Assembly (2 of 2)

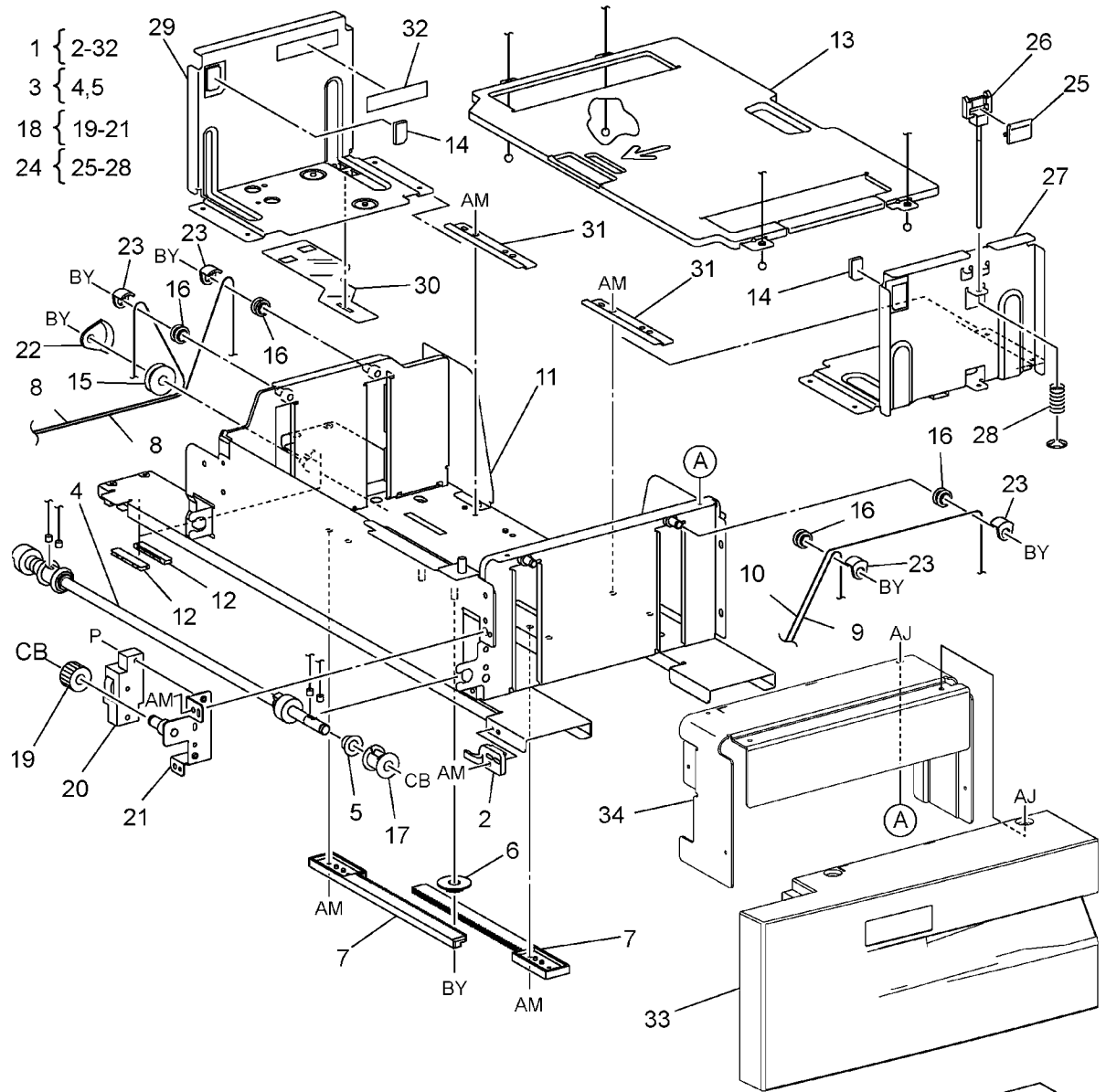
| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Rear Frame (Not Spared)                |
| 2    | 005K05890 | Oneway Clutch                          |
| 3    | 005K06760 | Clutch (22T)                           |
| 4    | 005K07010 | Friction Clutch                        |
| 5    | -         | Nudger Shaft                           |
| 6    | -         | Retard Shaft                           |
| 7    | -         | Feed Shaft                             |
| 8    | 007E79380 | Gear (33T)                             |
| 9    | -         | Lever (Not Spared)                     |
| 10   | 013E92890 | Bearing (6)                            |
| 11   | -         | Spacer (Not Spared)                    |
| 12   | -         | Holder (Not Spared)                    |
| 13   | 600K78460 | Feed/Nudger/Retard Roll Kit (REP 7.26) |
| 14   | -         | Feed In Chute (Not Spared)             |
| 15   | -         | Gear (25T) (Not Spared)                |
| 16   | -         | Spring (Not Spared)                    |
| 17   | -         | Spring (Not Spared)                    |
| 18   | -         | Spring (Not Spared)                    |
| 19   | -         | Screw (Not Spared)                     |
| 20   | -         | Nudger Support (Not Spared)            |
| 21   | -         | Retard Support (Not Spared)            |
| 22   | -         | Gear (27T) (Not Spared)                |
| 23   | -         | Wire Harness (Not Spared)              |
| 24   | -         | Bearing (Not Spared)                   |



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# PL 2.14 Tray 3 Assembly

| Item | Part      | Description                              |
|------|-----------|------------------------------------------|
| 1    | -         | Tray 3                                   |
| 2    | 003E49861 | Stopper                                  |
| 3    | 006K23661 | Lift Shaft Assembly                      |
| 4    | -         | Lift Shaft (P/O PL 2.14 Item 3)          |
| 5    | 413W77559 | Bearing                                  |
| 6    | 007E78190 | Pinion                                   |
| 7    | -         | Rack                                     |
| 8    | 012E11100 | Rear Cable (REP 7.14)                    |
| 9    | 012E11111 | Front Left Cable                         |
| 10   | 012E11121 | Front Right Cable                        |
| 11   | -         | Frame Assembly (P/O PL 2.14 Item 1)      |
| 12   | -         | Spacer (P/O PL 2.14 Item 1)              |
| 13   | -         | Bottom Plate (P/O PL 2.14 Item 1)        |
| 14   | 019E58260 | Pad                                      |
| 15   | 020E36560 | Pulley                                   |
| 16   | 020E36830 | Pulley                                   |
| 17   | -         | Pulley (P/O PL 2.14 Item 1)              |
| 18   | 030K75540 | Brake Assembly                           |
| 19   | 007E78390 | Gear (18T)                               |
| 20   | 019K93921 | Brake                                    |
| 21   | -         | Bracket Assembly (P/O PL 2.14 Item 17)   |
| 22   | 032E20890 | Wire Guide                               |
| 23   | 032E21250 | Wire Guide                               |
| 24   | 038K87160 | Front Guide Assembly                     |
| 25   | -         | Knob                                     |
| 26   | -         | Knob Assembly                            |
| 27   | -         | Front Guide (P/O PL 2.14 Item 24)        |
| 28   | -         | Spring (P/O PL 2.14 Item 24)             |
| 29   | -         | Rear Guide Assembly (P/O PL 2.14 Item 1) |
| 30   | -         | Actuator                                 |
| 31   | -         | Bracket (P/O PL 2.14 Item 1)             |
| 32   | 893E09490 | Label (Max)                              |
| 33   | -         | Tray 3 Cover                             |
| 34   | -         | Bracket (Not Spared)                     |

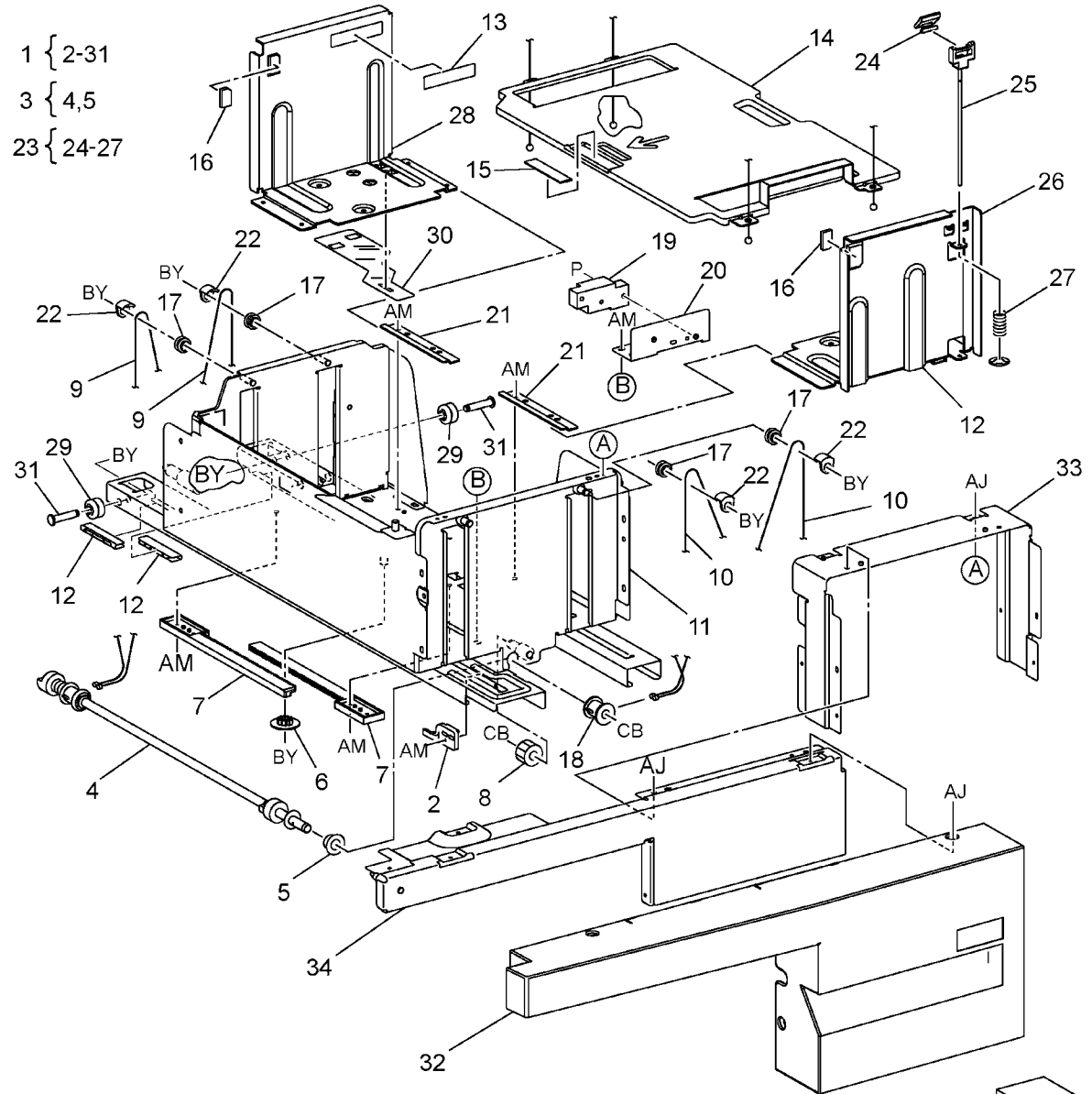


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# PL 2.15 Tray 4 Assembly

| Item | Part      | Description                         |
|------|-----------|-------------------------------------|
| 1    | -         | Tray 4                              |
| 2    | 003E49861 | Stopper                             |
| 3    | 006K23661 | Lift Shaft Assembly                 |
| 4    | -         | Lift Shaft (P/O PL 2.15 Item 3)     |
| 5    | 413W77559 | Bearing                             |
| 6    | 007E78190 | Pinion                              |
| 7    | -         | Rack                                |
| 8    | 007E78390 | Gear (18T)                          |
| 9    | 012E11130 | Rear Cable (REP 7.30)               |
| 10   | 012E11140 | Front Cable (REP 7.29)              |
| 11   | -         | Frame Assembly (P/O PL 2.15 Item 1) |
| 12   | -         | Spacer (P/O PL 2.15 Item 1)         |
| 13   | 893E09490 | Label (Max)                         |
| 14   | -         | Bottom Plate (P/O PL 2.15 Item 1)   |
| 15   | 019K94400 | Bottom Pad                          |
| 16   | 019E58260 | Pad                                 |
| 17   | 020E36830 | Pulley                              |
| 18   | -         | Pulley (P/O PL 2.15 Item 1)         |
| 19   | 019K93921 | Brake Assembly                      |
| 20   | -         | Bracket (P/O PL 2.15 Item 1)        |
| 21   | -         | Bracket (P/O PL 2.15 Item 1)        |
| 22   | 032E21250 | Wire Guide                          |
| 23   | 038K87120 | Front Guide Assembly                |
| 24   | -         | Knob                                |
| 25   | -         | Knob Assembly                       |
| 26   | -         | Front Guide (P/O PL 2.15 Item 23)   |
| 27   | -         | Spring (P/O PL 2.15 Item 23)        |
| 28   | -         | Rear Guide Assembly                 |
| 29   | -         | Roller                              |
| 30   | -         | Actuator                            |
| 31   | -         | Shaft (P/O PL 2.15 Item 1)          |
| 32   | -         | Tray 4 Cover                        |
| 33   | -         | Bracket (Not Spared)                |
| 34   | -         | Frame Assembly (Not Spared)         |

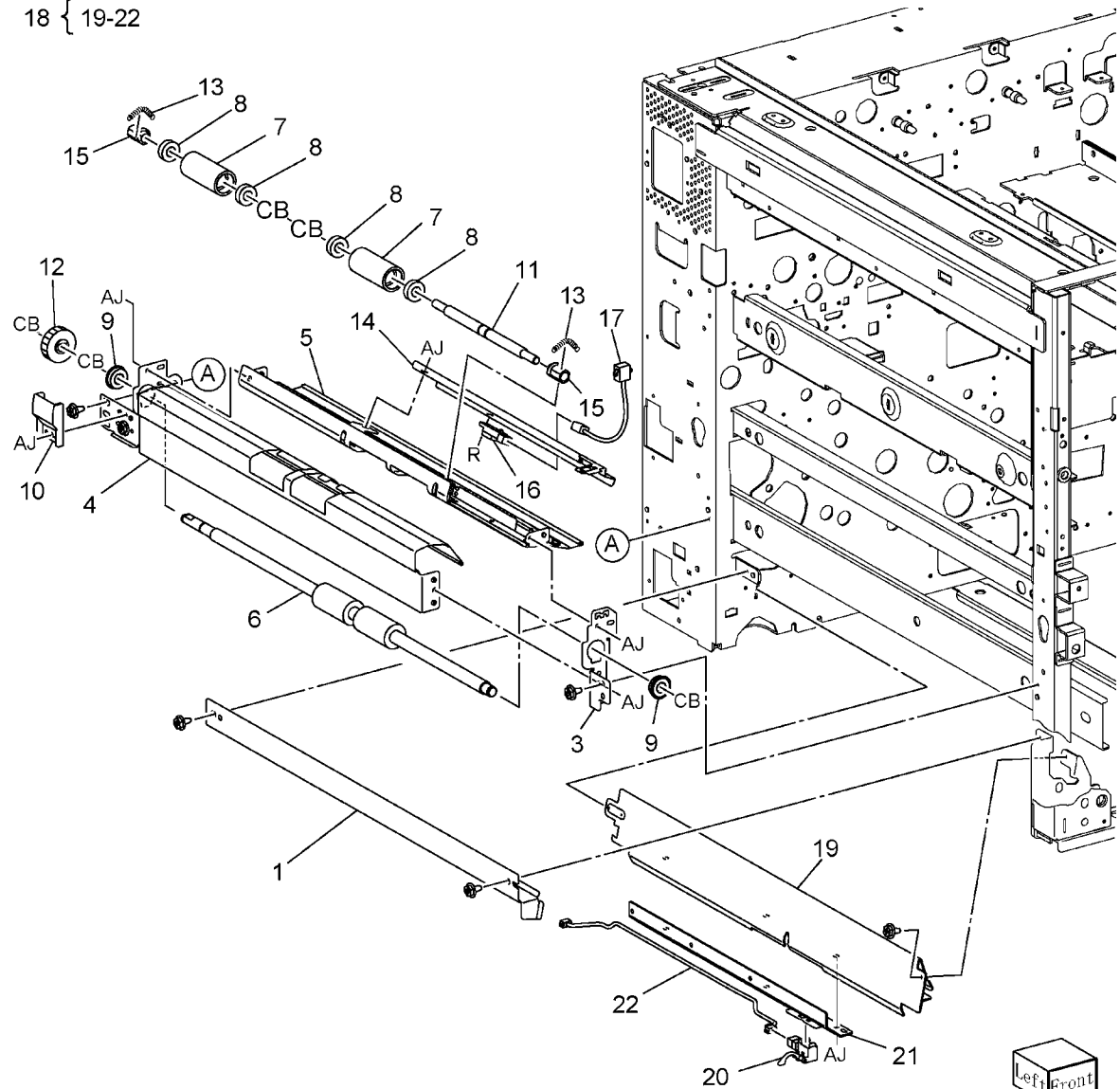


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# PL 2.16 Tray 5 / Bypass Chute Assembly

| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | -         | Chute                                     |
| 2    | -         | Chute Assembly                            |
| 3    | -         | Frame Assembly (P/O PL 2.16 Item 2)       |
| 4    | -         | Lower chute Assembly (P/O PL 2.16 Item 2) |
| 5    | -         | Upper Chute (P/O PL 2.16 Item 2)          |
| 6    | 059K26200 | Roll Assembly                             |
| 7    | 059K37990 | Pinch Roll                                |
| 8    | 413W08050 | Ball Bearing                              |
| 9    | 413W08350 | Bearing                                   |
| 10   | -         | Gear Cover                                |
| 11   | -         | Shaft                                     |
| 12   | -         | Gear (25T)                                |
| 13   | 809E54941 | Spring                                    |
| 14   | -         | Bracket (P/O PL 2.16 Item 2)              |
| 15   | -         | Support (P/O PL 2.16 Item 2)              |
| 16   | 930W00211 | Pre Registration Sensor                   |
| 17   | -         | Wire Harness (P/O PL 2.16 Item 2)         |
| 18   | -         | Chute Assembly                            |
| 19   | -         | Chute (P/O PL 2.16 Item 18)               |
| 20   | 130K67370 | Tray 1 Feed Out Sensor                    |
| 21   | -         | Bracket (P/O PL 2.16 Item 18)             |
| 22   | -         | Wire Harness (P/O PL 2.16 Item 18)        |

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18 { 19-22

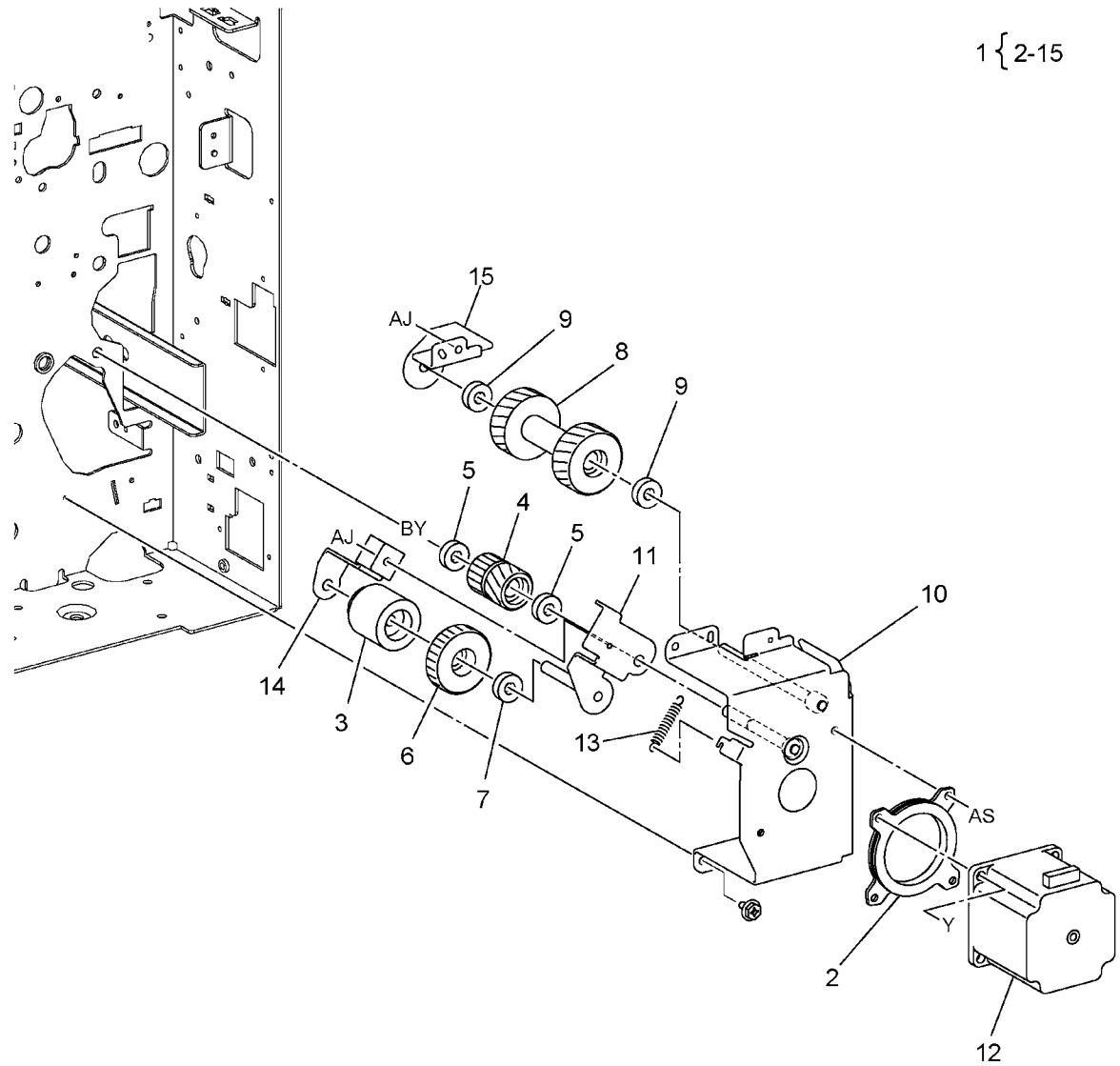


Left Front  
0502016A-OLY

## PL 2.17 Pre Registration Motor Assembly

| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | 015K64791 | Pre Registration Motor Assembly       |
| 2    | -         | Damper (P/O PL 2.17 Item 1)           |
| 3    | -         | Collar (P/O PL 2.17 Item 1)           |
| 4    | -         | Gear (20T)                            |
| 5    | -         | Bearing                               |
| 6    | -         | Gear (34T)                            |
| 7    | -         | Bearing                               |
| 8    | -         | Gear (34T)                            |
| 9    | -         | Bearing                               |
| 10   | -         | Bracket Assembly (P/O PL 2.17 Item 1) |
| 11   | -         | Bracket Assembly (P/O PL 2.17 Item 1) |
| 12   | 127K39650 | Pre Registration Motor                |
| 13   | -         | Spring                                |
| 14   | -         | Bracket (P/O PL 2.17 Item 1)          |
| 15   | -         | Bracket (P/O PL 2.17 Item 1)          |

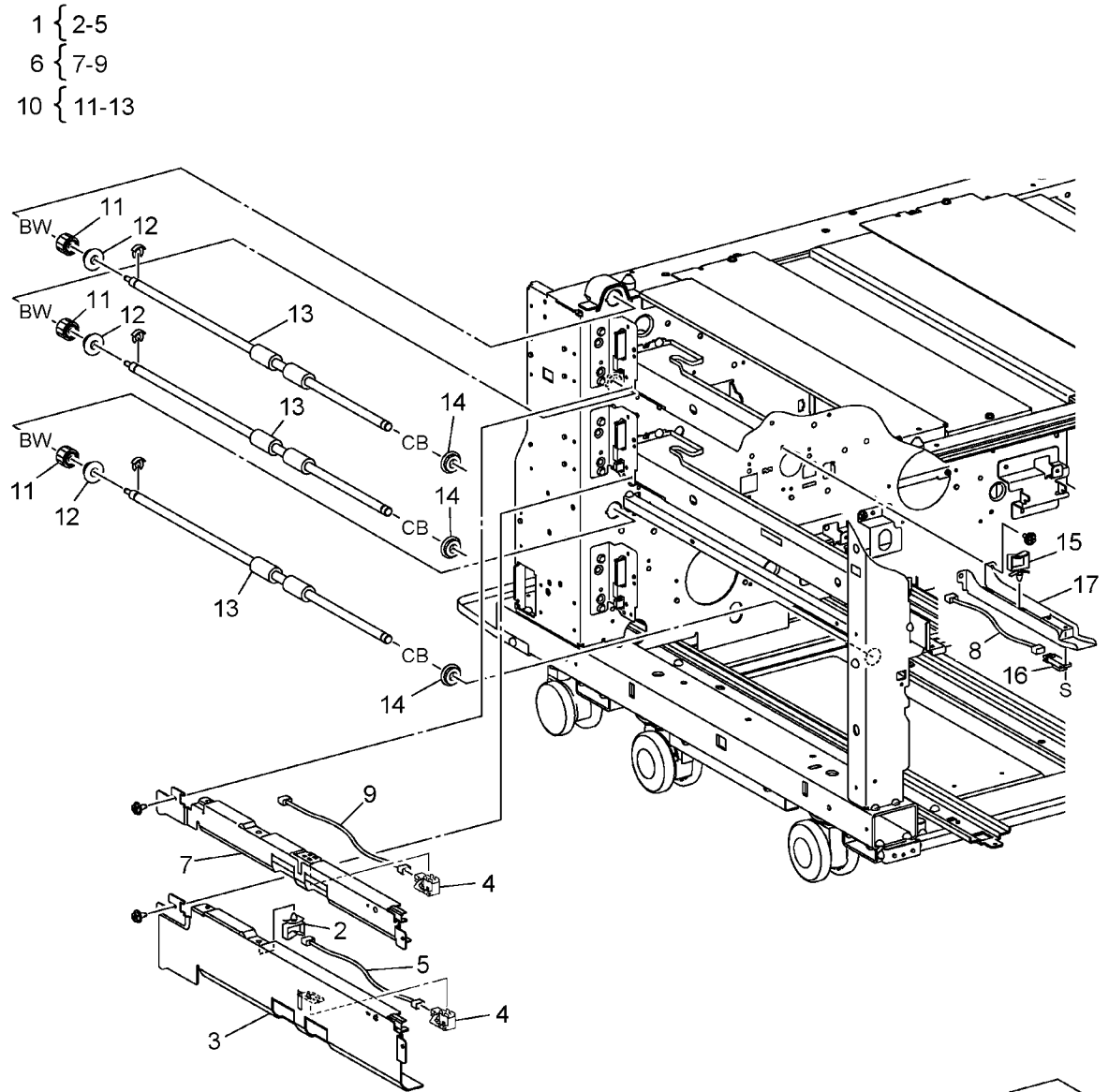
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0502017A-OLY

## PL 2.18 Takeaway Roll

| Item | Part      | Description                         |
|------|-----------|-------------------------------------|
| 1    | -         | Chute Assembly                      |
| 2    | -         | Harness Holder (P/O PL 2.18 Item 1) |
| 3    | -         | Chute (P/O PL 2.18 Item 1)          |
| 4    | 130K88311 | Tray 3 Feed Out Sensor              |
| 5    | -         | Wire Harness (P/O PL 2.18 Item 1)   |
| 6    | -         | Chute Assembly                      |
| 7    | -         | Chute (P/O PL 2.18 Item 6)          |
| 8    | -         | Wire Harness (Not Spared)           |
| 9    | -         | Wire Harness (P/O PL 2.18 Item 6)   |
| 10   | 059K24940 | Takeaway Roll Assembly              |
| 11   | -         | Gear (18T)                          |
| 12   | -         | Bearing                             |
| 13   | -         | Takeaway Roll 1/2/3                 |
| 14   | -         | Bearing                             |
| 15   | -         | Harness Holder (Not Spared)         |
| 16   | 130E84300 | Tray 4 Feed Out Sensor              |
| 17   | -         | Bracket (Not Spared)                |

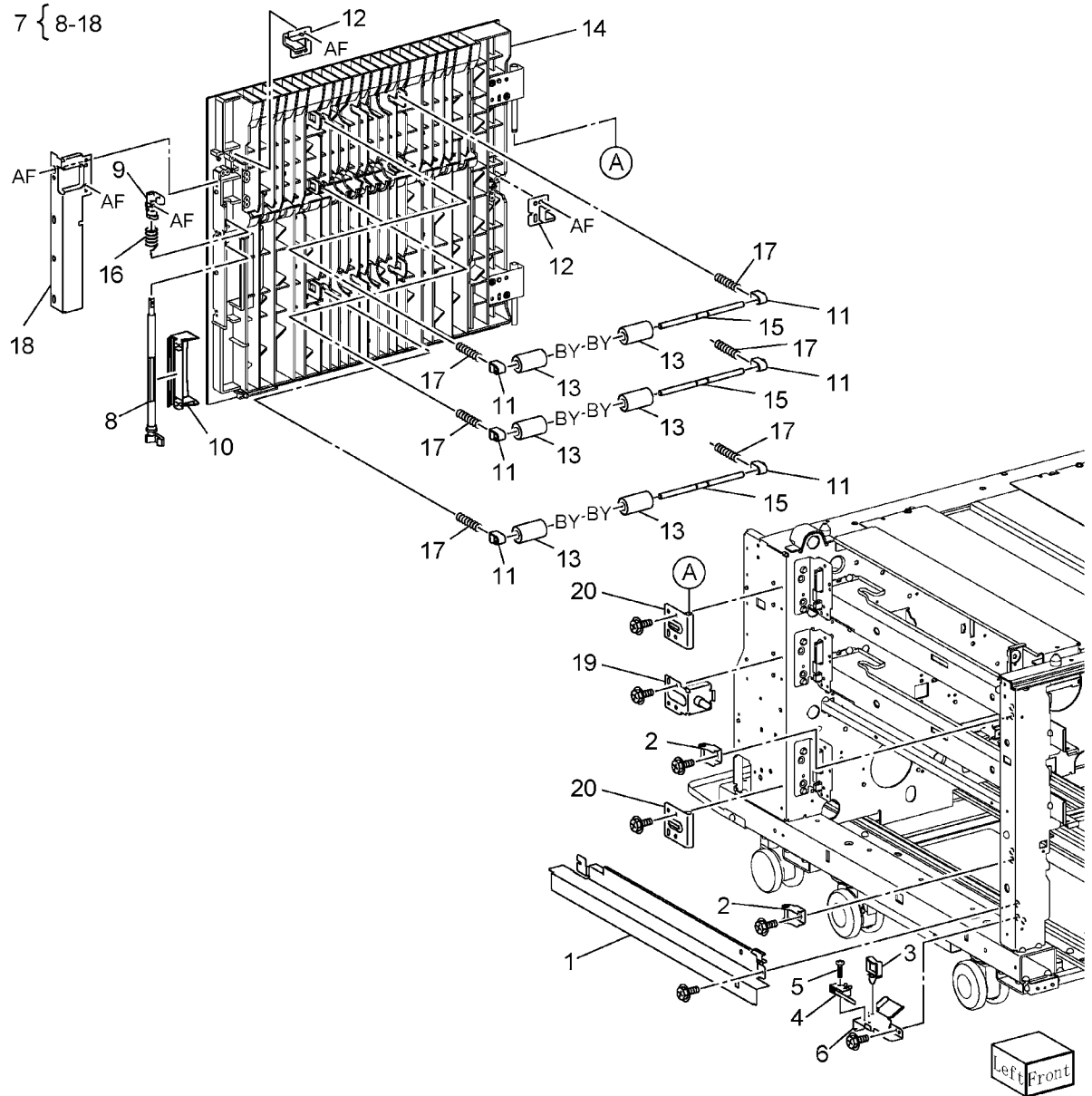


Left Front

0502018A-OLY

## PL 2.19 Left Chute Cover

| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | -         | Cover Bracket                         |
| 2    | -         | Latch Bracket                         |
| 3    | -         | Harness Holder (Not Spared)           |
| 4    | 110E11420 | L/H Cover Interlock Switch            |
| 5    | -         | Screw (Not Spared)                    |
| 6    | -         | Bracket (Not Spared)                  |
| 7    | -         | Left Chute Cover Assembly             |
| 8    | -         | Latch                                 |
| 9    | -         | Hook                                  |
| 10   | -         | Handle                                |
| 11   | 013E26100 | Bearing                               |
| 12   | -         | Guide                                 |
| 13   | 059E99240 | Pinch Roll                            |
| 14   | -         | Left Chute Cover (P/O PL 2.19 Item 7) |
| 15   | -         | Shaft                                 |
| 16   | -         | Spring                                |
| 17   | 809E54780 | Spring                                |
| 18   | -         | Guide Bracket                         |
| 19   | -         | Bracket (Not Spared)                  |
| 20   | -         | Bracket (Not Spared)                  |

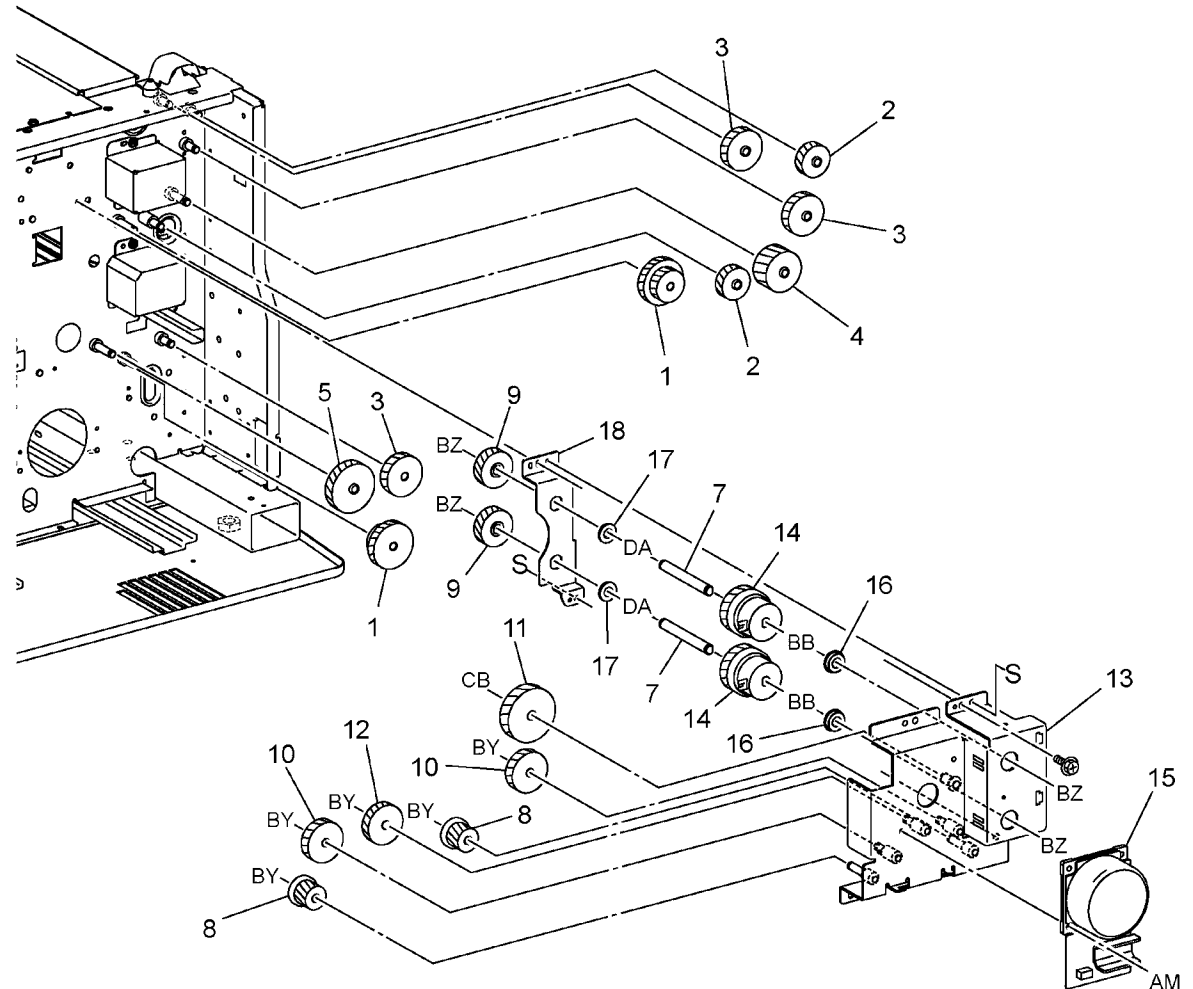


0502019A-OLY

# PL 2.20 T/A Drive

| Item | Part      | Description                  |
|------|-----------|------------------------------|
| 1    | -         | Gear (36T/25T)               |
| 2    | -         | Gear (36T)                   |
| 3    | -         | Gear (46T)                   |
| 4    | -         | Gear (46T)                   |
| 5    | -         | Gear (56T)                   |
| 6    | 007K87670 | T/A Drive Assembly           |
| 7    | -         | Shaft                        |
| 8    | -         | Gear (26T)                   |
| 9    | -         | Gear (41T)                   |
| 10   | -         | Gear (46T)                   |
| 11   | -         | Gear (54T)                   |
| 12   | -         | Gear (45T)                   |
| 13   | -         | Bracket (P/O PL 2.20 Item 6) |
| 14   | 121K33710 | Take Away Clutch 1 And 2     |
| 15   | 127K39520 | T/A Motor                    |
| 16   | 413W08350 | Ball Bearing                 |
| 17   | 413W77359 | Bearing                      |
| 18   | -         | Bracket (P/O PL 2.20 Item 6) |

6 { 7-18

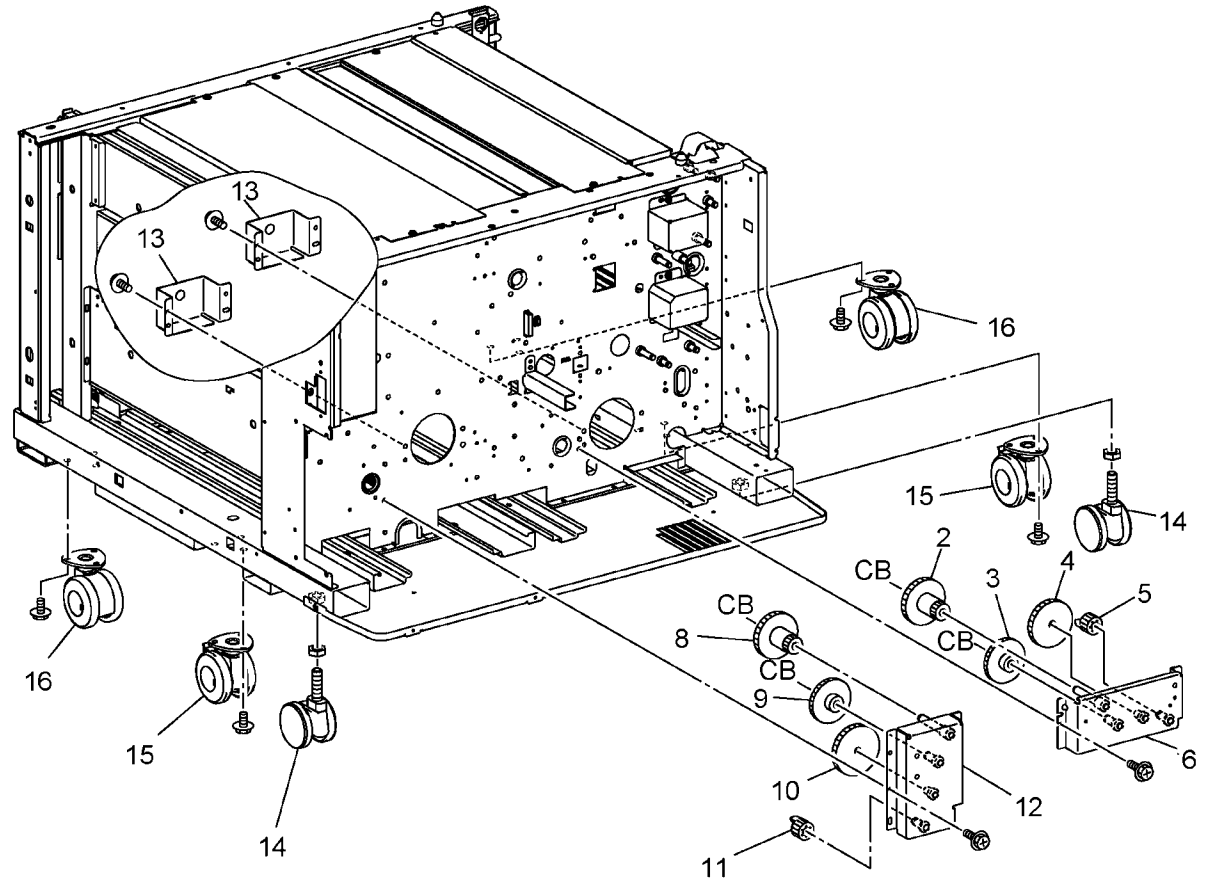


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# PL 2.21 Tray 3/4 Gear Assembly

| Item | Part      | Description                  |
|------|-----------|------------------------------|
| 1    | 030K75451 | Tray 3 Gear Assembly         |
| 2    | -         | Gear (17T/50T)               |
| 3    | -         | Gear (16T/48T)               |
| 4    | -         | Gear (51T)                   |
| 5    | -         | Gear (18T)                   |
| 6    | -         | Bracket (P/O PL 2.21 Item 1) |
| 7    | 030K76141 | Tray 4 Gear Assembly         |
| 8    | -         | Gear (17T/50T)               |
| 9    | -         | Gear (16T/48T)               |
| 10   | -         | Gear (57T)                   |
| 11   | -         | Gear (18T)                   |
| 12   | -         | Bracket (P/O PL 2.21 Item 7) |
| 13   | -         | Bracket                      |
| 14   | 017E94310 | Caster                       |
| 15   | 017K93160 | Caster                       |
| 16   | 017K93170 | Caster                       |

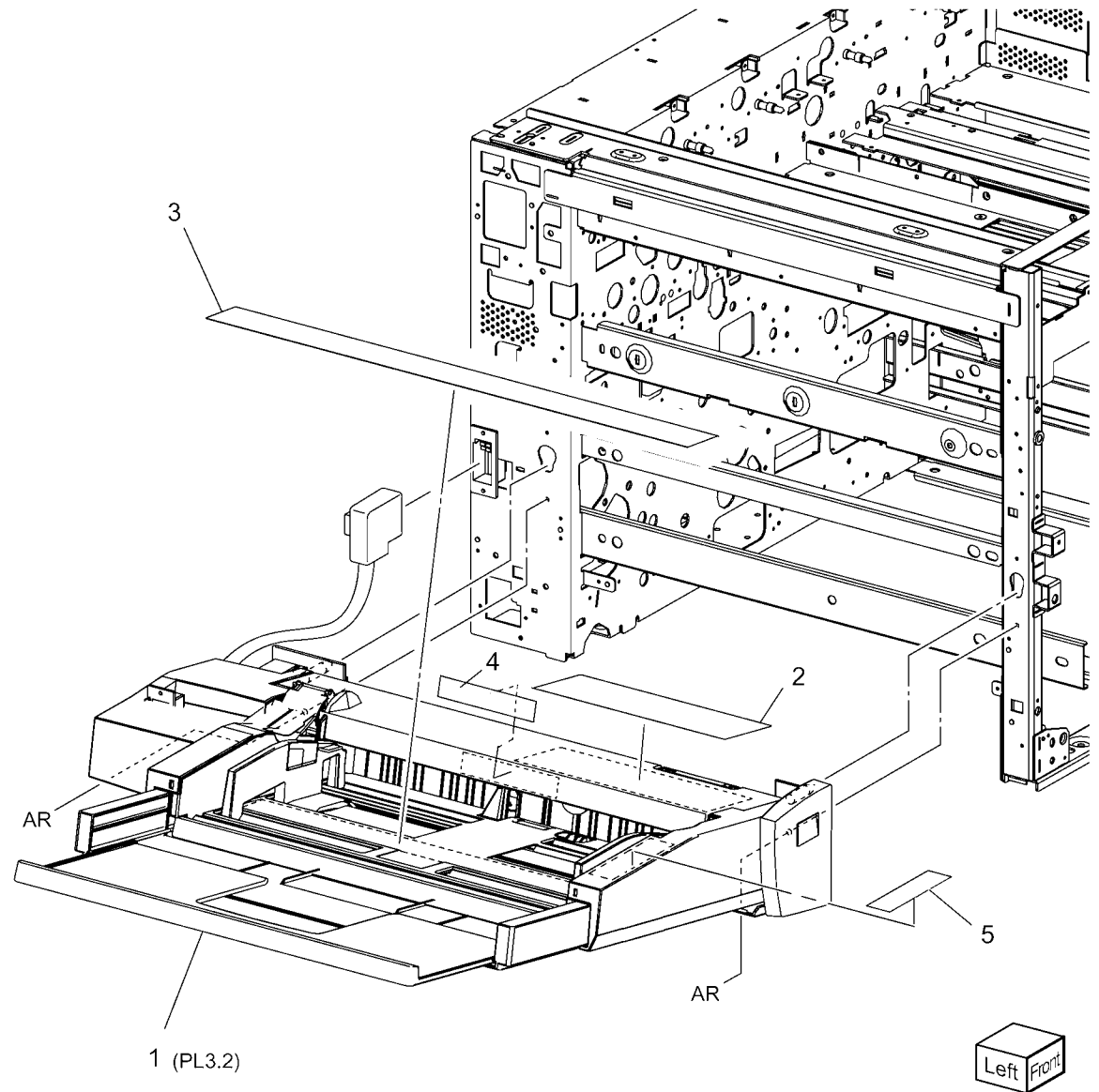
1 { 2-6  
7 { 8-12



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## PL 3.1 Tray 5 / Bypass Accessory

| Item | Part      | Description                  |
|------|-----------|------------------------------|
| 1    | 059K42290 | Tray 5 / Bypass (with Cover) |
| 2    | -         | Label (Instruction)          |
| 3    | -         | Label (Size)                 |
| 4    | -         | Label (Caution)              |
| 5    | -         | Label (Paper Reset)          |

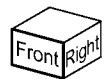
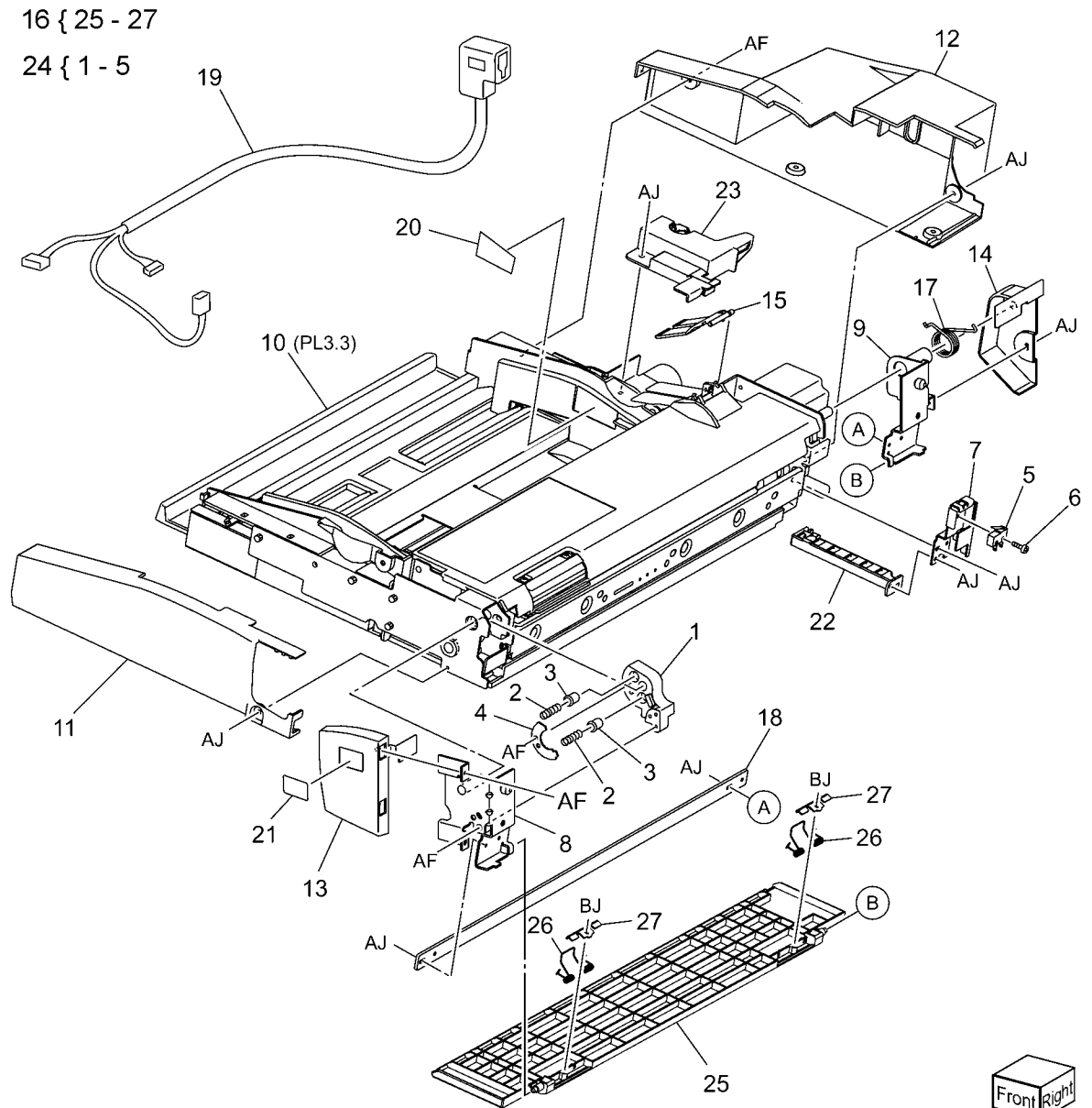


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# PL 3.2 Tray 5 / Bypass Cover

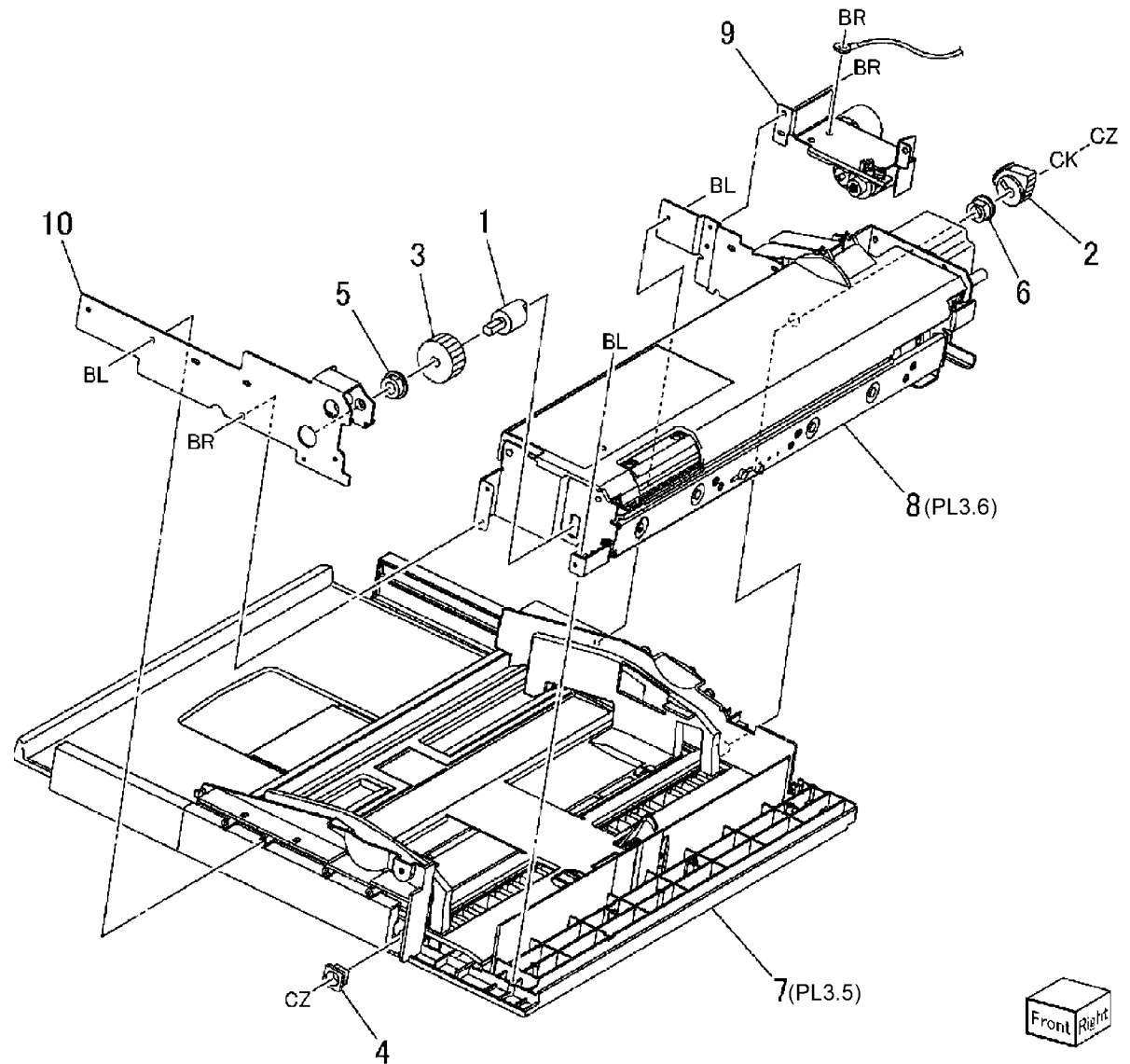
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Sector Gear (P/O PL 3.2 Item 24)   |
| 2    | -         | Compression Spring                 |
| 3    | -         | Lock Pin (P/O PL 3.2 Item 24)      |
| 4    | -         | Lock Plate (P/O PL 3.2 Item 24)    |
| 5    | 110E11430 | Cover Interlock Switch             |
| 6    | -         | Screw (M2.3x9) (P/O PL 3.1 Item 1) |
| 7    | -         | Switch Bracket (P/O PL 3.1 Item 1) |
| 8    | -         | Front Bracket (P/O PL 3.1 Item 1)  |
| 9    | -         | Rear Bracket (P/O PL 3.1 Item 1)   |
| 10   | -         | Tray 5/Bypass                      |
| 11   | 802E55621 | Front Cover 1                      |
| 12   | 802E55633 | Rear Cover 1                       |
| 13   | 802E55640 | Front Cover 2                      |
| 14   | 802E55651 | Rear Cover 2                       |
| 15   | 802E63061 | Upper Cover                        |
| 16   | 802K57484 | Lower Cover Assembly               |
| 17   | -         | Torsion Spring                     |
| 18   | -         | Lower Plate (P/O PL 3.1 Item 1)    |
| 19   | 962K17863 | Wire Harness                       |
| 20   | 893E16170 | Label (Max)                        |
| 21   | 893E15750 | Label (Number)                     |
| 22   | -         | Harness Guide (P/O PL 3.2 Item 16) |
| 23   | -         | Harness Cover (P/O PL 3.1 Item 1)  |
| 24   | -         | Lock Gear Assembly                 |
| 25   | -         | Lower Cover (P/O PL 3.2 Item 16)   |
| 26   | -         | Spring (P/O PL 3.2 Item 16)        |
| 27   | -         | Bracket (P/O PL 3.2 Item 16)       |



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## PL 3.3 Tray 5 / Bypass Component (1 of 2)

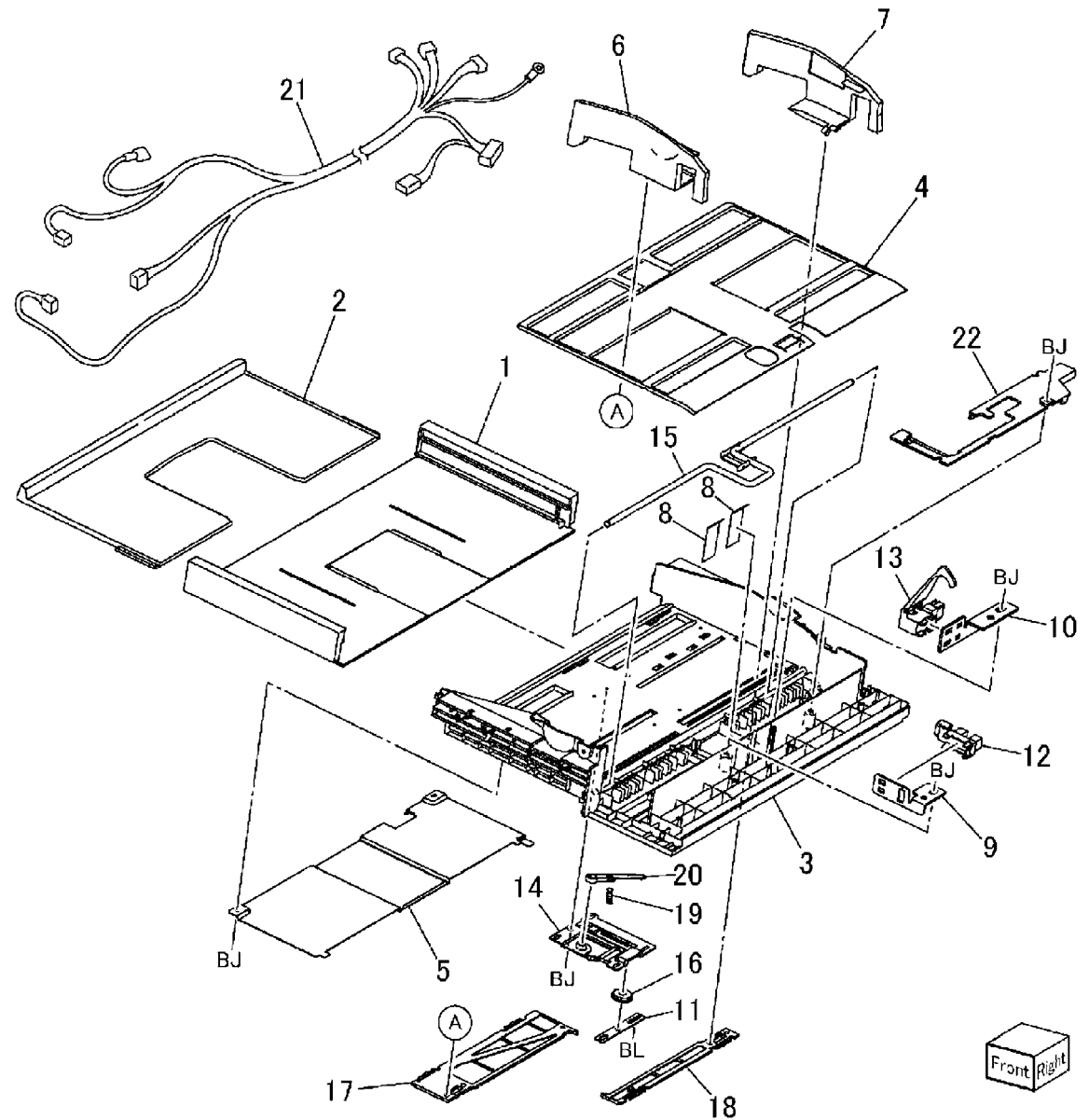
| Item | Part      | Description              |
|------|-----------|--------------------------|
| 1    | -         | Damper                   |
| 2    | 007E79331 | Sector Gear              |
| 3    | 007E79350 | Gear (19T)               |
| 4    | 013E23610 | Sleeve Bearing           |
| 5    | -         | Sleeve Bearing           |
| 6    | 013E92890 | Sleeve Bearing           |
| 7    | -         | Tray                     |
| 8    | -         | Feeder (REP 7.14)        |
| 9    | 801K05033 | Lift Up Motor            |
| 10   | -         | Front Frame (Not Spared) |



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# PL 3.5 Tray 5 / Bypass Tray Component

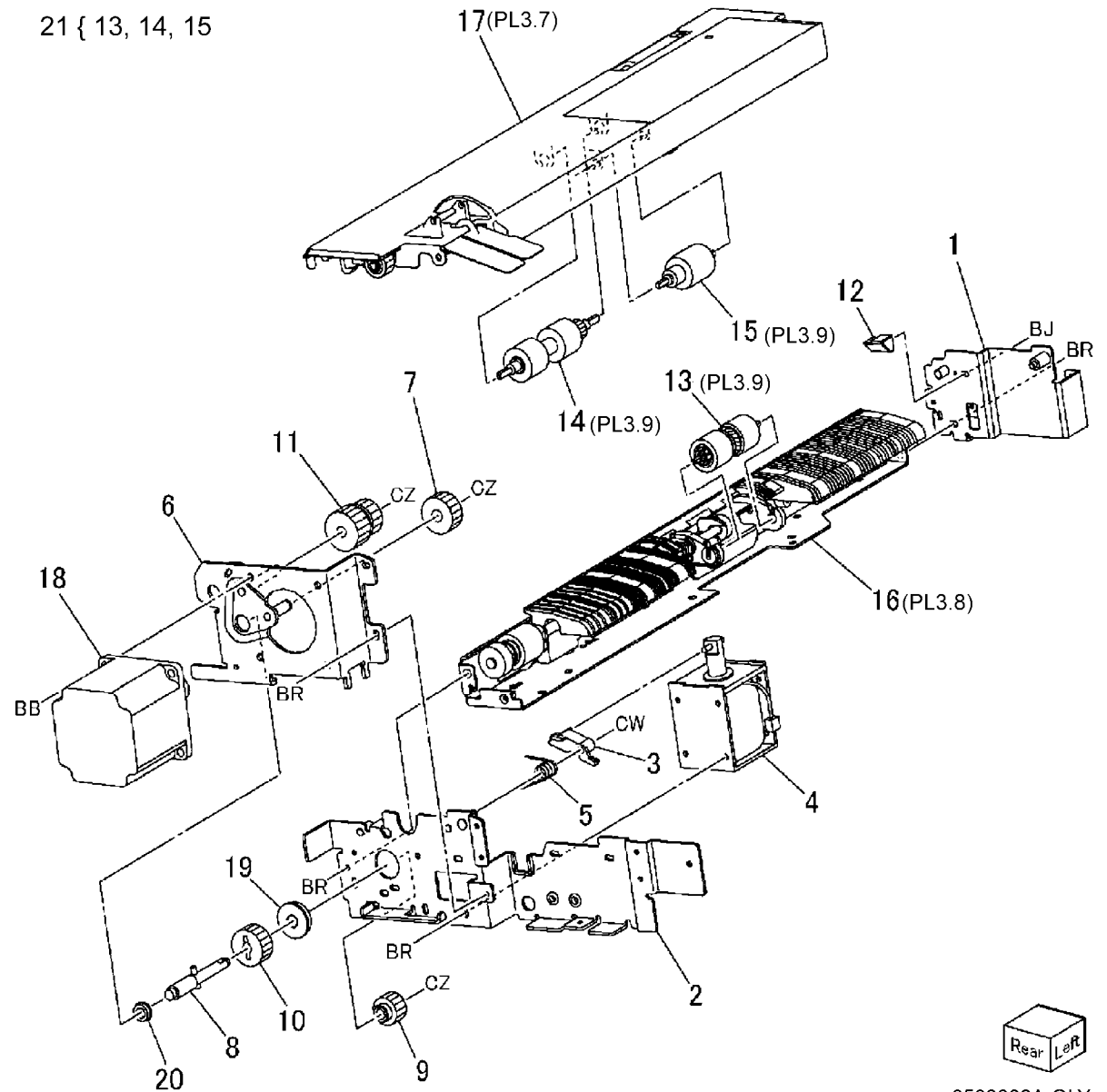
| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | -         | Lower Tray                            |
| 2    | -         | Extension Tray                        |
| 3    | -         | Tray (P/O PL 3.1 Item 1)              |
| 4    | -         | Bottom Plate (P/O PL 3.1 Item 1)      |
| 5    | 802E55680 | Tray Lower Cover                      |
| 6    | -         | Front Side Guide                      |
| 7    | -         | Rear Side Guide                       |
| 8    | -         | Paper Guide                           |
| 9    | -         | Sensor Bracket (P/O PL 3.1 Item 1)    |
| 10   | -         | Sensor Bracket (P/O PL 3.1 Item 1)    |
| 11   | -         | Gear Plate (P/O PL 3.1 Item 1)        |
| 12   | 930W00111 | Lift Down Sensor                      |
| 13   | 130K64360 | Paper Set Sensor                      |
| 14   | 130K64431 | Size Sensor                           |
| 15   | -         | Shaft (P/O PL 3.1 Item 1)             |
| 16   | 007E79700 | Pinion Gear                           |
| 17   | -         | Front Rack Gear                       |
| 18   | -         | Rear Rack Gear                        |
| 19   | 809E49930 | Compression Spring                    |
| 20   | 012E11760 | Sensor Link                           |
| 21   | -         | Tray Wire Harness (P/O PL 3.1 Item 1) |
| 22   | -         | Harness Cover (P/O PL 3.1 Item 1)     |



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# PL 3.6 Tray 5 / Bypass Feeder Component

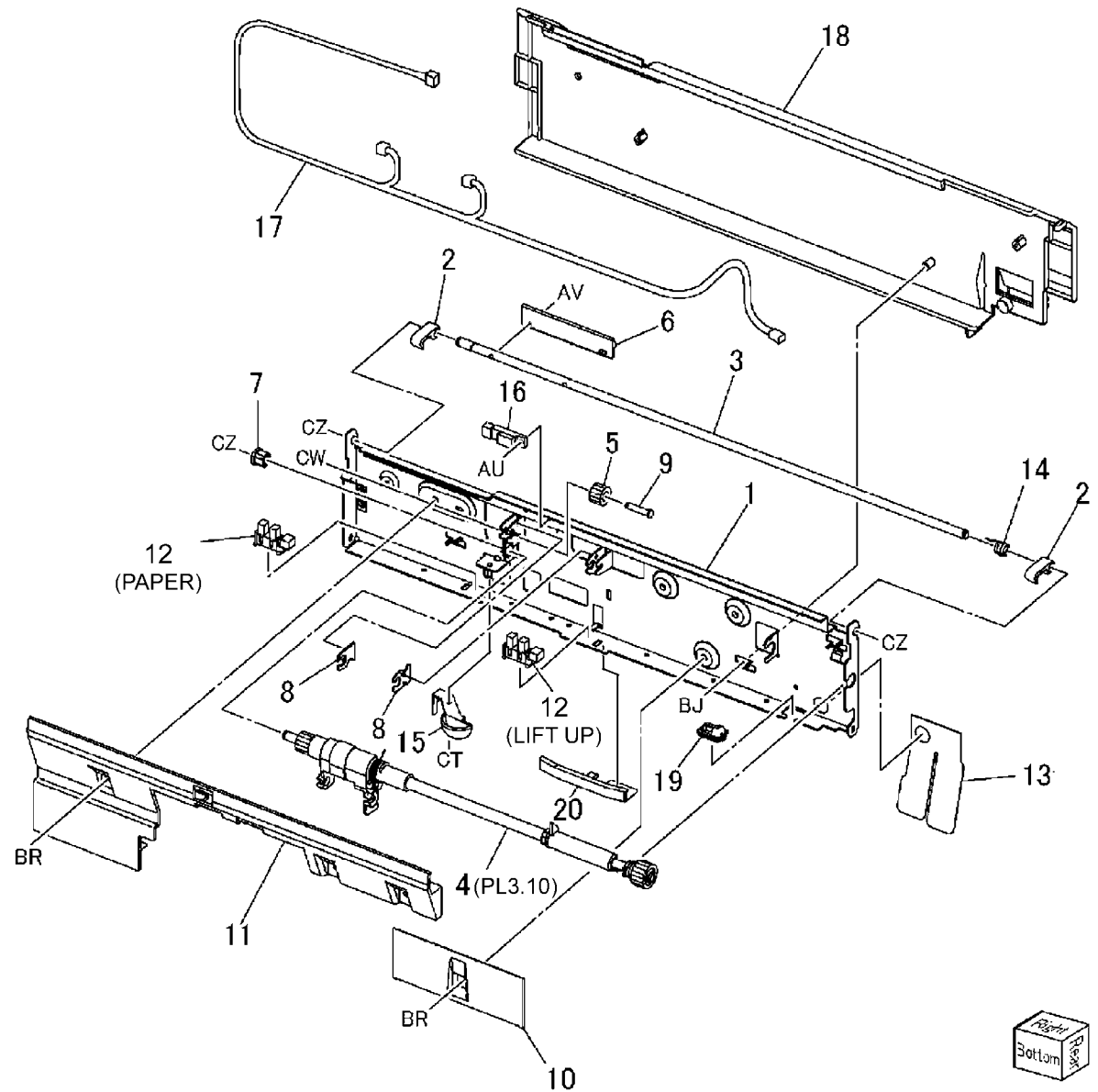
| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | -         | Feeder Front Frame (P/O PL 3.3 Item 8)     |
| 2    | -         | Feeder Rear Frame (P/O PL 3.3 Item 8)      |
| 3    | 012E11041 | Solenoid Link                              |
| 4    | 121K31340 | Nudger Solenoid                            |
| 5    | -         | Torsion Spring                             |
| 6    | -         | Motor Bracket (P/O PL 3.3 Item 8)          |
| 7    | 007E78770 | Gear (25T)                                 |
| 8    | -         | Shaft (P/O PL 3.3 Item 8)                  |
| 9    | 007E78760 | Gear (19T)                                 |
| 10   | 007E78780 | Gear (25T)                                 |
| 11   | 007K88730 | One Way Clutch Gear (23T/27T)              |
| 12   | -         | Block (P/O PL 3.3 Item 8)                  |
| 13   | 059K26591 | Retard Roll (REP 7.15)                     |
| 14   | 059K26691 | Feed Roll (REP 7.15)                       |
| 15   | 059K26700 | Nudger Roll (P/O PL 3.3 Item 8) (REP 7.15) |
| 16   | -         | Lower Feeder (P/O PL 3.3 Item 6)           |
| 17   | 059K29534 | Upper Feeder (PL8.7)                       |
| 18   | 127K38252 | Feed Motor                                 |
| 19   | 013E25530 | Sleeve Bearing                             |
| 20   | 413W66250 | Ball Bearing                               |
| 21   | 604K23660 | Retard, Feed, Nudger Roll Kit              |



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# PL 3.7 Tray 5 / Bypass Upper Feeder Component

| Item | Part      | Description                                    |
|------|-----------|------------------------------------------------|
| 1    | -         | Upper Feeder Frame (P/O PL 3.6 Item 17)        |
| 2    | 003E59570 | Latch                                          |
| 3    | -         | Latch Shaft (P/O PL 3.6 Item 17)               |
| 4    | 006K23312 | Feed/Nudger Shaft                              |
| 5    | 007E78180 | Gear (25T)                                     |
| 6    | -         | Lever (P/O PL 3.6 Item 17)                     |
| 7    | 013E25540 | Sleeve Bearing                                 |
| 8    | -         | Spacer                                         |
| 9    | -         | Pin                                            |
| 10   | -         | Upper Rear Chute (P/O PL 3.6 Item 17)          |
| 11   | -         | Upper Chute (P/O PL 3.6 Item 17)               |
| 12   | 930W00112 | Lift Up Sensor, No Paper Sensor                |
| 13   | -         | Solenoid Guide (P/O PL 3.6 Item 17)            |
| 14   | -         | Torsion Spring                                 |
| 15   | 120E21900 | Actuator                                       |
| 16   | 930W00211 | Pre Feed Sensor                                |
| 17   | -         | Upper Feeder Wire Harness (P/O PL 3.6 Item 17) |
| 18   | -         | Upper Feeder Cover (P/O PL 3.6 Item 17)        |
| 19   | -         | Guide (P/O PL 3.6 Item 17)                     |
| 20   | -         | Upper Guide (P/O PL 3.6 Item 17)               |

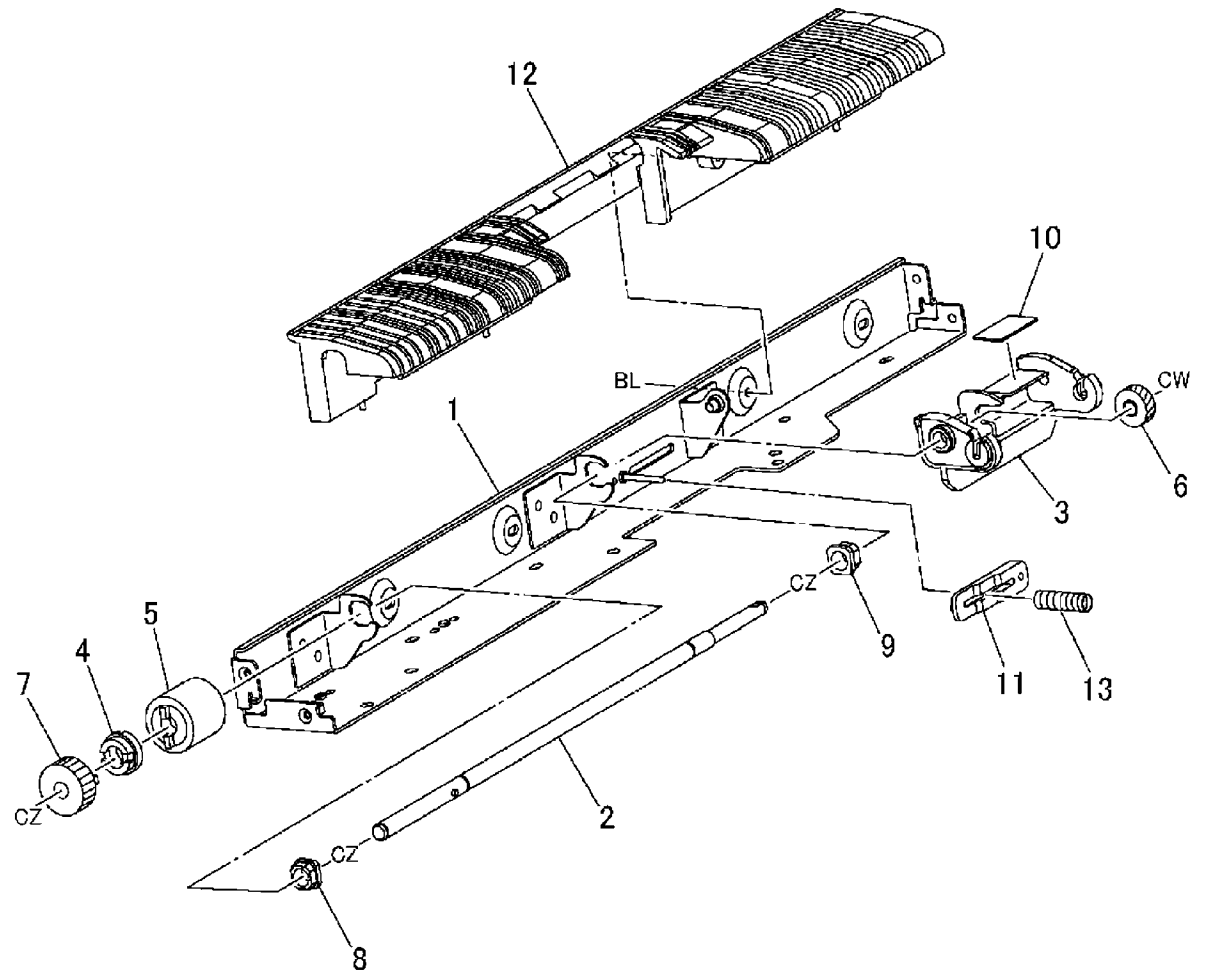


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## PL 3.8 Tray 5 / Bypass Lower Feeder Component

| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Lower Feeder Frame (P/O PL 3.3 Item 8) |
| 2    | -         | Retard Shaft (P/O PL 3.3 Item 8)       |
| 3    | -         | Retard Bracket (P/O PL 3.3 Item 8)     |
| 4    | -         | Collar                                 |
| 5    | 005K06700 | Friction Clutch                        |
| 6    | 007E78170 | Gear (15T)                             |
| 7    | 007E89760 | Gear (22T)                             |
| 8    | 013E23600 | Sleeve Bearing (Length: 5mm)           |
| 9    | 013E23610 | Sleeve Bearing (Length: 6.6mm)         |
| 10   | -         | Pad                                    |
| 11   | -         | Retard Slide (P/O PL 3.3 Item 8)       |
| 12   | -         | Lower Chute (P/O PL 3.3 Item 8)        |
| 13   | 809E41221 | Compression Spring                     |
| 14   | -         | Retard Shaft Assembly                  |

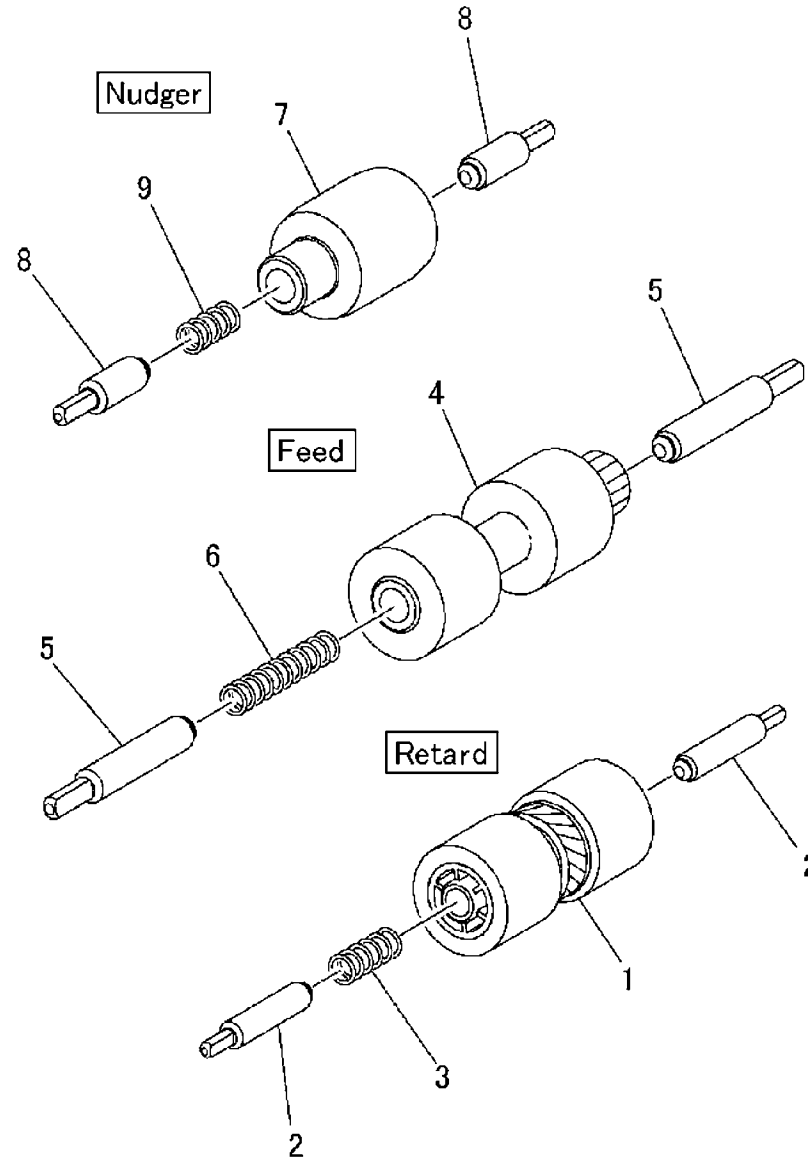
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## PL 3.9 Retard/Feed/Nudger Roll Component

| Item | Part | Description                             |
|------|------|-----------------------------------------|
| 1    | -    | Retard Roll (P/O PL 3.7 Item 4)         |
| 2    | -    | Pin (P/O PL 3.6 Item 13)                |
| 3    | -    | Compression Spring (P/O PL 3.6 Item 3)  |
| 4    | -    | Feed Roll (P/O PL 3.6 Item 14)          |
| 5    | -    | Pin (P/O PL 3.6 Item 14)                |
| 6    | -    | Compression Spring (P/O PL 3.6 Item 14) |
| 7    | -    | Nudger Roll (P/O PL 3.6 Item 15)        |
| 8    | -    | Pin (P/O PL 3.6 Item 15)                |
| 9    | -    | Compression Spring (P/O PL 3.6 Item 15) |

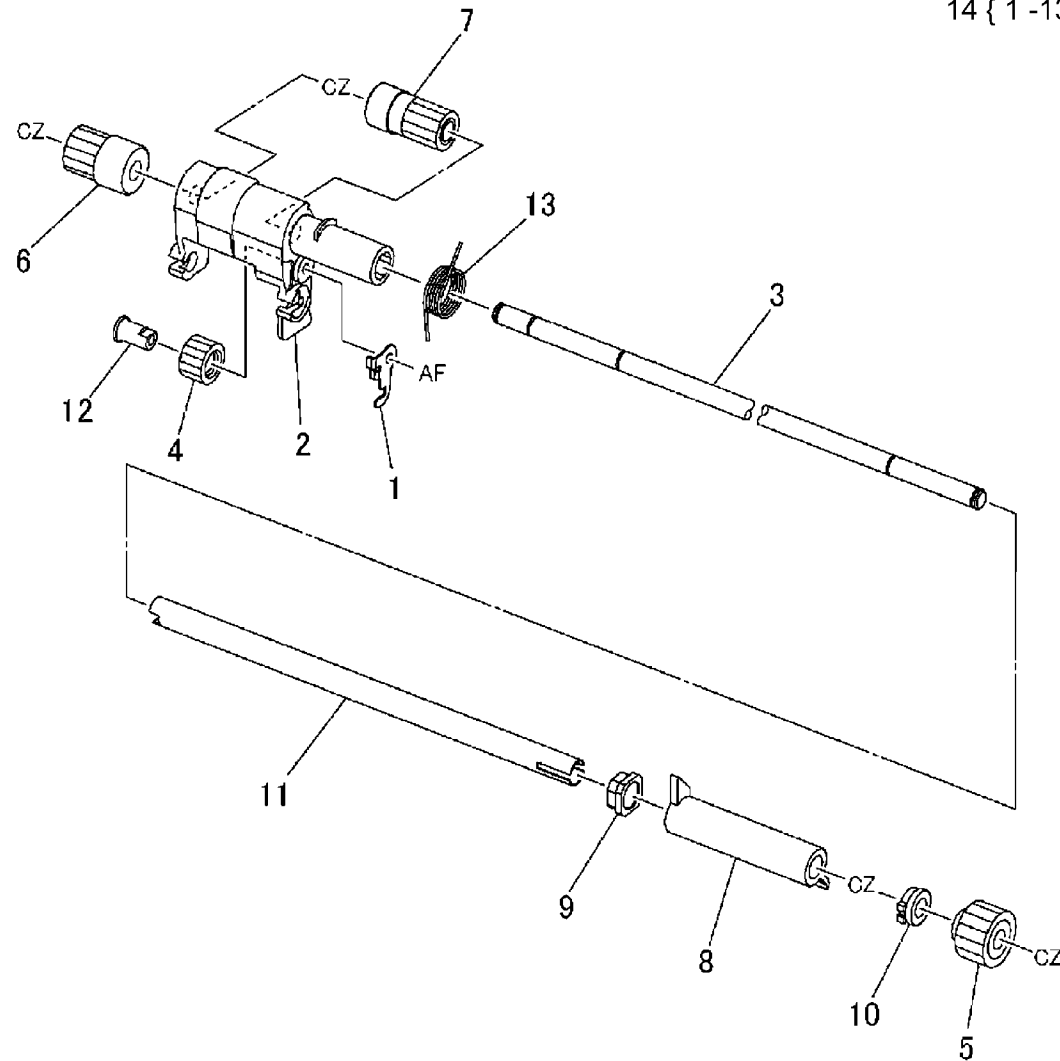


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## PL 3.10 Feed/Nudger Shaft Component

| Item | Part      | Description                                   |
|------|-----------|-----------------------------------------------|
| 1    | -         | Nudger Support (P/O PL 3.7 Item 4)            |
| 2    | -         | Nudger Bracket (P/O PL 3.7 Item 4) (REP 7.16) |
| 3    | -         | Shaft (P/O PL 3.7 Item 4)                     |
| 4    | -         | Gear (23T) (P/O PL 3.7 Item 4)                |
| 5    | -         | Gear (20T) (P/O PL 3.7 Item 4)                |
| 6    | -         | One Way Clutch Gear (26T) (P/O PL 3.7 Item 4) |
| 7    | -         | One Way Clutch Gear (22T) (P/O PL 3.7 Item 4) |
| 8    | -         | Nudger Lever (P/O PL 3.7 Item 4) (REP 7.16)   |
| 9    | -         | Sleeve Bearing (P/O PL 3.7 Item 4)            |
| 10   | -         | Sleeve Bearing (P/O PL 3.7 Item 4)            |
| 11   | -         | Spacer (P/O PL 3.7 Item 4)                    |
| 12   | -         | Pin (P/O PL 3.7 Item 4)                       |
| 13   | -         | Torsion Spring (P/O PL 3.7 Item 4) (REP 7.16) |
| 14   | 006K23312 | Feed/Nudger Shaft Assembly                    |

14 { 1 -13

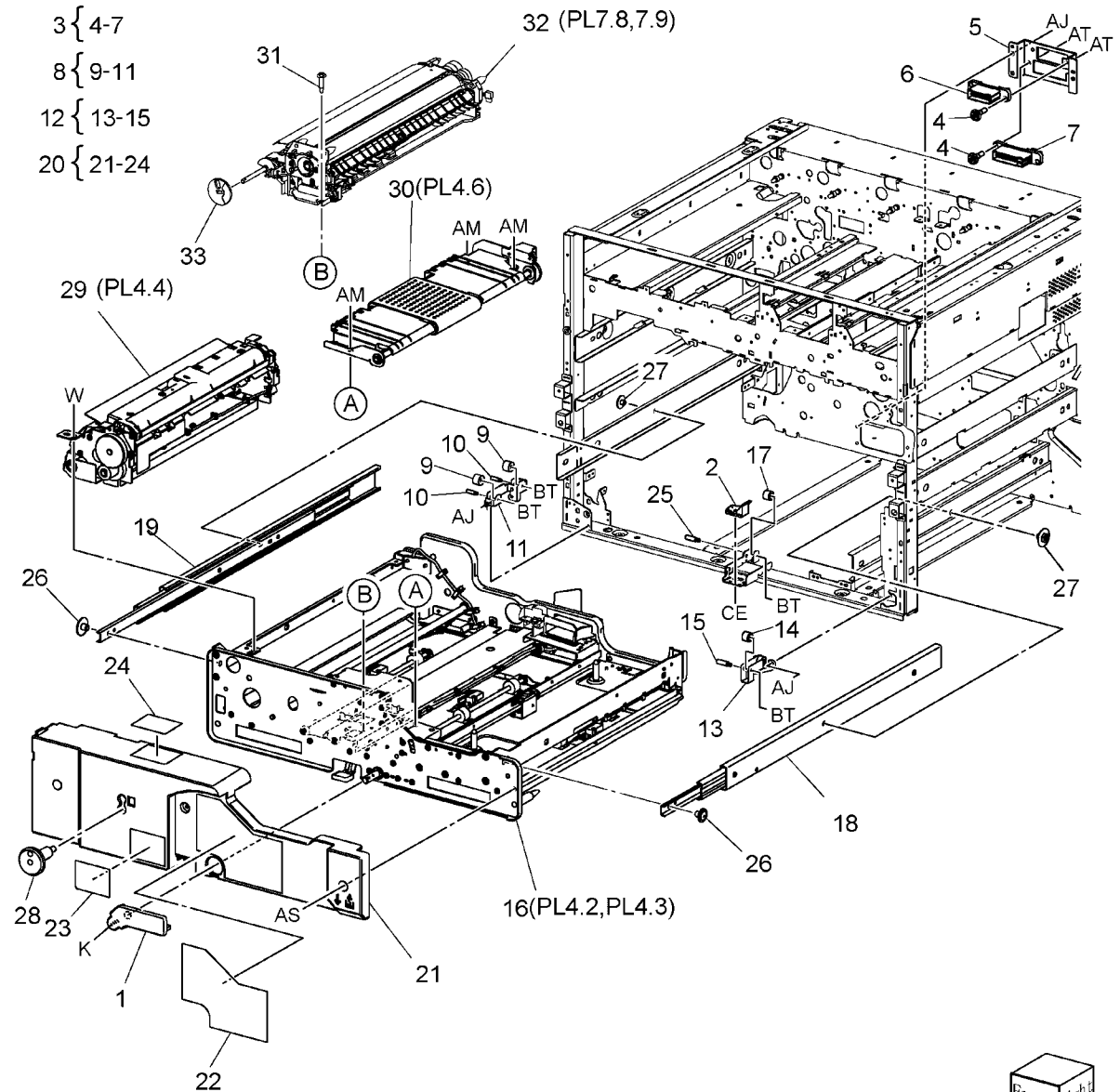


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# PL 4.1 Transfer Module Assembly (1 of 2)

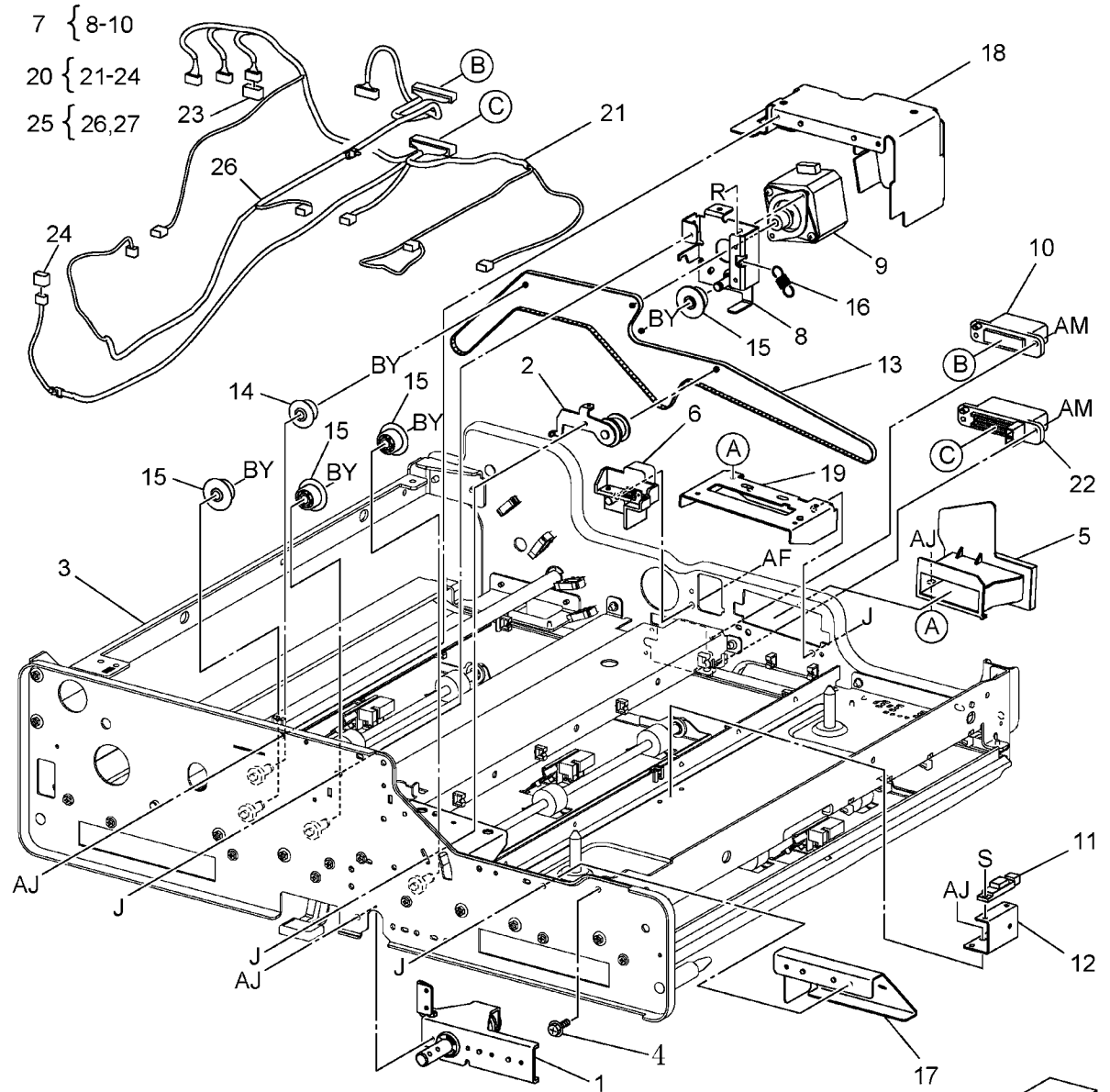
| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | 003E61300 | Knob                                      |
| 2    | -         | Block                                     |
| 3    | -         | Connector Bracket Assembly                |
| 4    | -         | Shoulder Screw (P/O PL 4.1 Item 3)        |
| 5    | -         | Bracket (P/O PL 4.1 Item 3)               |
| 6    | 913W12117 | Connector (P/O PL 4.1 Item 3)             |
| 7    | 913W12124 | Connector                                 |
| 8    | -         | Guide Assembly                            |
| 9    | -         | Roller                                    |
| 10   | -         | Shaft                                     |
| 11   | -         | Bracket (P/O PL 4.1 Item 8)               |
| 12   | -         | Guide Assembly                            |
| 13   | -         | Bracket (P/O PL 4.1 Item 12)              |
| 14   | -         | Roller                                    |
| 15   | -         | Shaft                                     |
| 16   | -         | Transfer Module Assembly                  |
| 17   | -         | Roller                                    |
| 18   | 801K14822 | Right Rail                                |
| 19   | 801K14832 | Left Rail                                 |
| 20   | -         | Cover Assembly                            |
| 21   | -         | Cover (P/O PL 4.1 Item 20)                |
| 22   | -         | Label                                     |
| 23   | -         | Label (Instruction 2A)                    |
| 24   | -         | Label (Instruction 2B)                    |
| 25   | -         | Shaft                                     |
| 26   | -         | Shoulder Screw                            |
| 27   | -         | Screw                                     |
| 28   | -         | Indicator Stopper                         |
| 29   | 059K33168 | Registration Transport Assembly (REP 8.1) |
| 30   | 059K33522 | V-Transport Assembly (REP 10.2)           |
| 31   | -         | Guide Pin                                 |
| 32   | 059K42034 | 2nd BTR Assembly (REP 9.4)                |
| 33   | -         | Indicator                                 |



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# PL 4.2 Transfer Module Assembly (2 of 2)

| Item | Part      | Description           |
|------|-----------|-----------------------|
| 1    | -         | Drawer Latch          |
| 2    | -         | Tensioner             |
| 3    | -         | Frame Assembly        |
| 4    | -         | Screw                 |
| 5    | -         | Duct                  |
| 6    | -         | Connector             |
| 7    | 127K39742 | Dup Motor Assembly    |
| 8    | -         | Bracket               |
| 9    | -         | Dup Motor             |
| 10   | 913W12113 | Connector             |
| 11   | -         | Fuser Entrance Sensor |
| 12   | -         | Bracket               |
| 13   | 423W01554 | Belt                  |
| 14   | 499W14524 | Pulley                |
| 15   | 499W17061 | Idler Pulley          |
| 16   | -         | Spring                |
| 17   | -         | Bracket               |
| 18   | -         | Bracket               |
| 19   | -         | Bracket               |
| 20   | -         | Wire Harness Assembly |
| 21   | -         | Wire Harness          |
| 22   | 913W12114 | Connector             |
| 23   | -         | Connector             |
| 24   | -         | Connector             |
| 25   | -         | Wire Harness Assembly |
| 26   | -         | Wire Harness          |

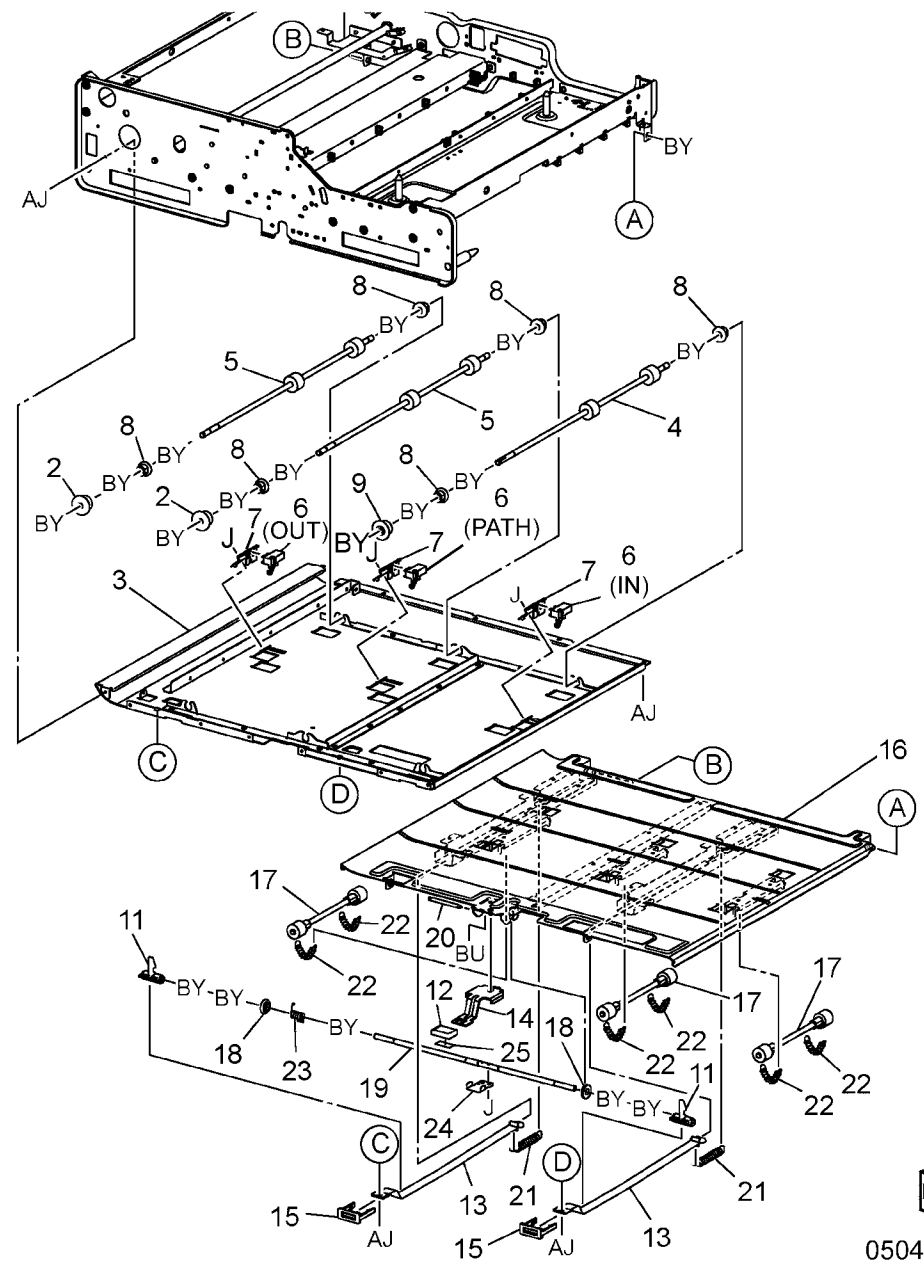


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# PL 4.3 Duplex Transport

| Item | Part      | Description                                    |
|------|-----------|------------------------------------------------|
| 1    | -         | Dup Upper Chute Assembly                       |
| 2    | -         | Pulley                                         |
| 3    | -         | Dup Upper Chute (P/O PL 4.3 Item 1)            |
| 4    | 059K33501 | Dup Roller 2                                   |
| 5    | 059K33511 | Dup Roller 3                                   |
| 6    | 130K87880 | Dup In Sensor, Dup Path Sensor, Dup Out Sensor |
| 7    | -         | Bracket (P/O PL 4.3 Item 1)                    |
| 8    | -         | Bearing                                        |
| 9    | 499W14124 | Pulley                                         |
| 10   | -         | Lower Dup Chute Assembly                       |
| 11   | -         | Latch                                          |
| 12   | -         | Knob                                           |
| 13   | -         | Stopper                                        |
| 14   | -         | Lever                                          |
| 15   | -         | Tape Guide                                     |
| 16   | -         | Lower Dup Chute (P/O PL 4.3 Item 10)           |
| 17   | 059K33350 | Pinch Roll                                     |
| 18   | 413W75659 | Bearing                                        |
| 19   | -         | Latch Shaft (P/O PL 4.3 Item 10)               |
| 20   | -         | Lever Shaft (P/O PL 4.3 Item 10)               |
| 21   | -         | Spring                                         |
| 22   | 809E55080 | Spring                                         |
| 23   | -         | Spring (P/O PL 4.3 Item 10)                    |
| 24   | -         | Bracket (P/O PL 4.3 Item 10)                   |
| 25   | -         | Label                                          |

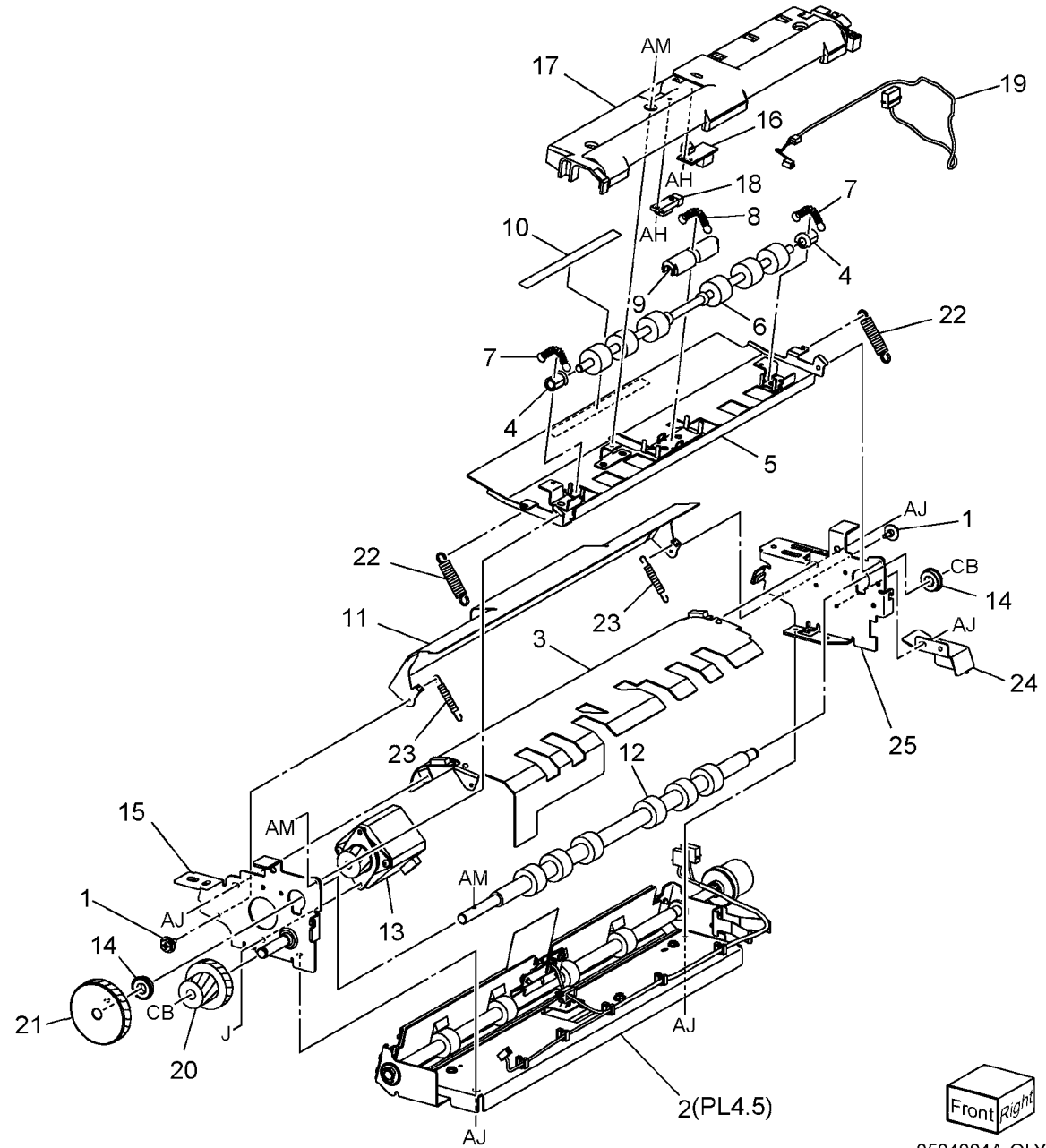
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# PL 4.4 Registration Transport Assembly

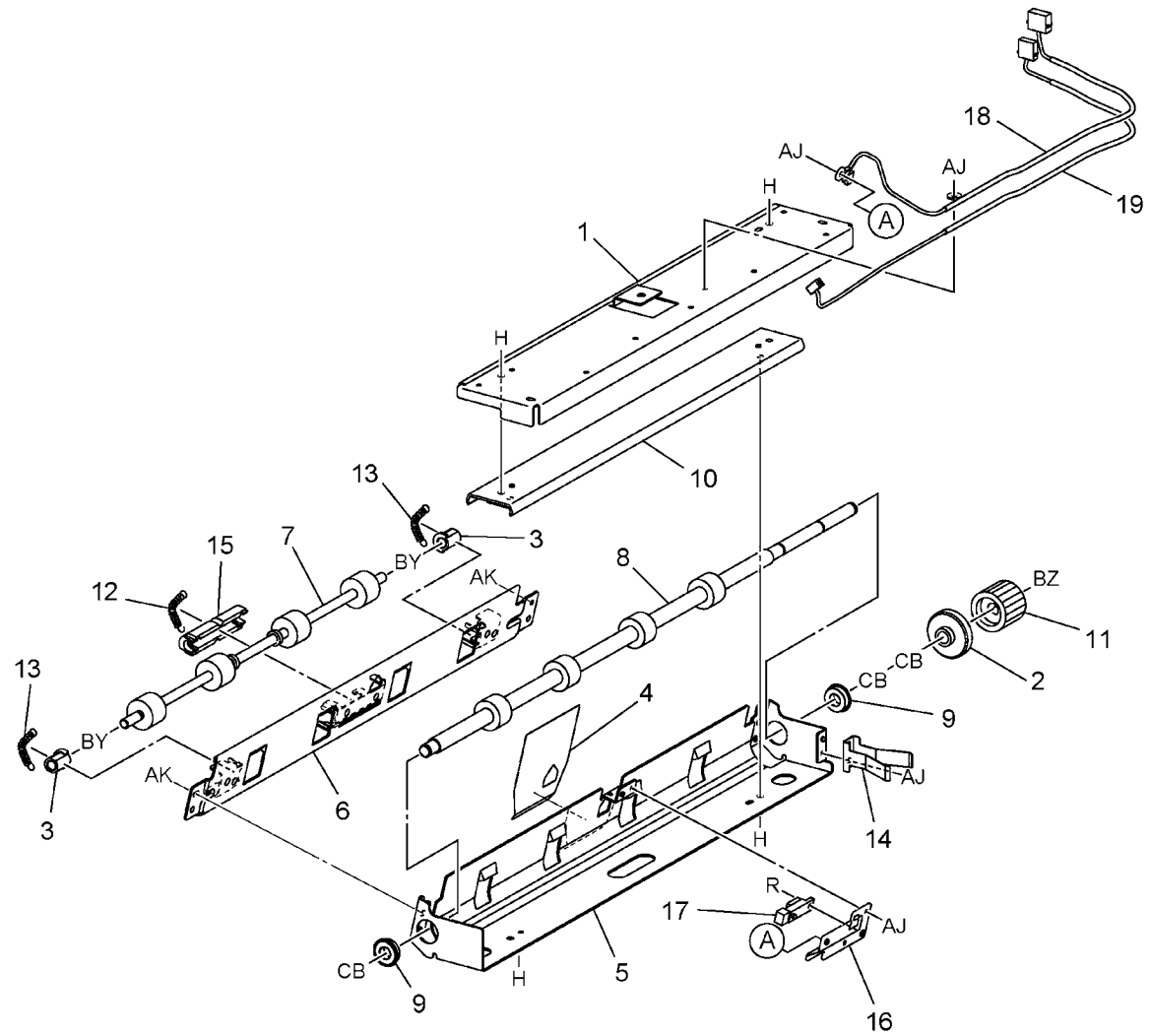
| Item | Part      | Description                 |
|------|-----------|-----------------------------|
| 1    | -         | Screw                       |
| 2    | -         | Pre Registration Slide      |
| 3    | -         | Lower Chute                 |
| 4    | 013E23631 | Bearing                     |
| 5    | -         | Roll Assembly               |
| 6    | 059K26180 | Spring                      |
| 7    | 809E09430 | Spring                      |
| 8    | 809E55300 | Spring                      |
| 9    | 830E60740 | Support                     |
| 10   | -         |                             |
| 11   | -         | Registration Chute Assembly |
| 12   | 059K26160 | Registration Roll           |
| 13   | 127K39641 | Registration Motor          |
| 14   | 413W08350 | Bearing                     |
| 15   | -         | Front Frame Assembly        |
| 16   | 160K74960 | Transparency Sensor         |
| 17   | -         | Registration Cover          |
| 18   | 930W00211 | Registration Sensor         |
| 19   | -         | Wire Harness                |
| 20   | -         | Gear (20T/35T)              |
| 21   | -         | Gear (47T)                  |
| 22   | 809E41710 | Spring                      |
| 23   | 809E52460 | Spring                      |
| 24   | -         | Bracket Assembly            |
| 25   | -         | Rear Frame Assembly         |



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# PL 4.5 Pre Registration Slide Assembly

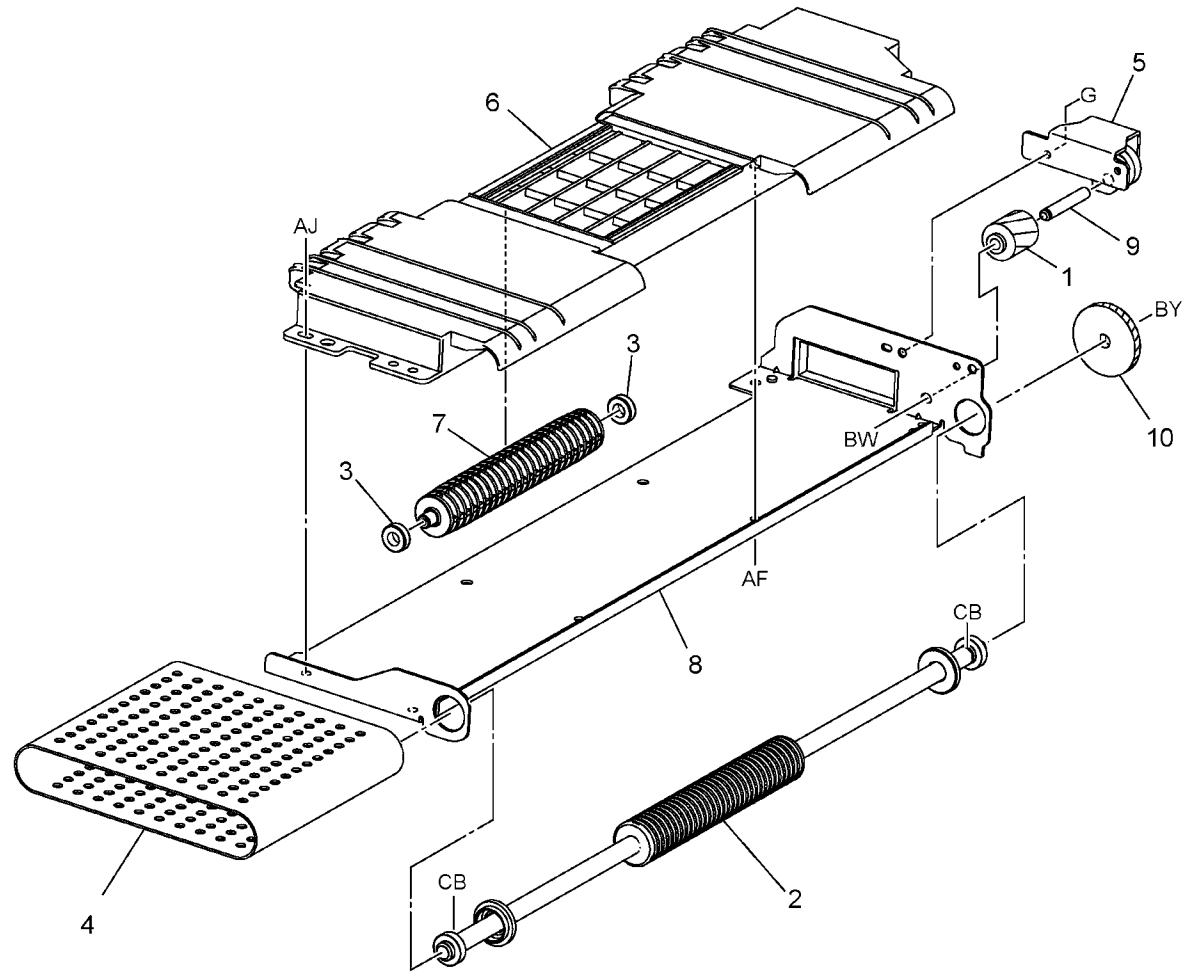
| Item | Part      | Description                  |
|------|-----------|------------------------------|
| 1    | -         | Inner Frame                  |
| 2    | -         | Collar                       |
| 3    | 013E23631 | Bearing                      |
| 4    | -         | Paper Guide                  |
| 5    | -         | Pre Registration Lower Chute |
| 6    | -         | Chute Assembly               |
| 7    | 059K26190 | Pinch Roll                   |
| 8    | 059K33170 | Pre Registration Roll        |
| 9    | 413W08350 | Bearing                      |
| 10   | -         | Rail                         |
| 11   | -         | Gear (25T)                   |
| 12   | 809E54920 | Spring                       |
| 13   | 809E54930 | Spring                       |
| 14   | -         | Spring                       |
| 15   | 830E60740 | Support                      |
| 16   | -         | Bracket                      |
| 17   | 930W00211 | Pre Registration Sensor      |
| 18   | -         | Wire Harness                 |
| 19   | -         | Wire Harness                 |



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## PL 4.6 V-Transport Assembly

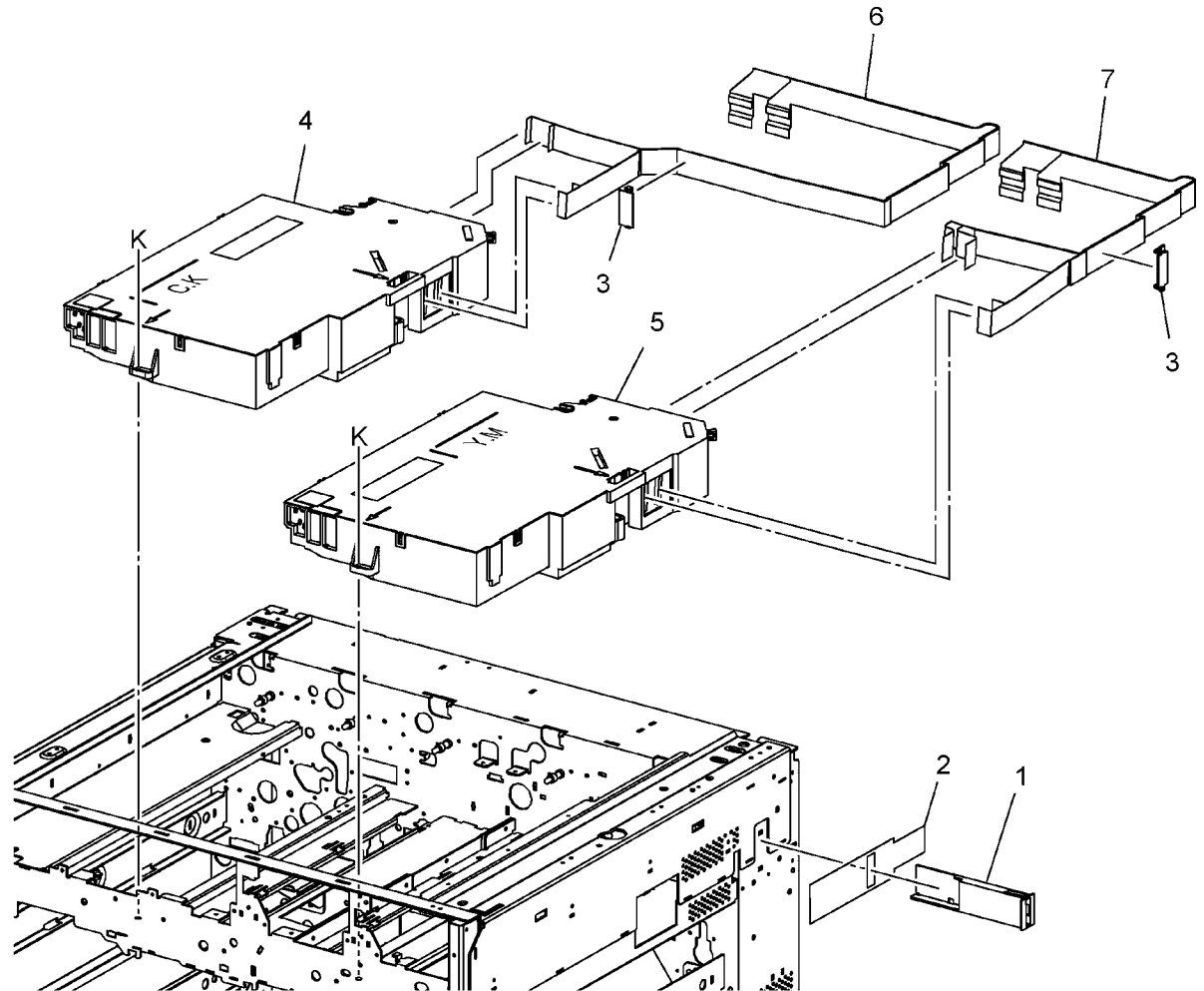
| Item | Part      | Description               |
|------|-----------|---------------------------|
| 1    | -         | Gear (15T)                |
| 2    | -         | Shaft                     |
| 3    | -         | Ball Bearing              |
| 4    | 023E21400 | Transport Belt (REP 10.3) |
| 5    | -         | Bracket                   |
| 6    | -         | Transport Chute           |
| 7    | -         | Roller                    |
| 8    | -         | Frame Assembly            |
| 9    | -         | Shaft                     |
| 10   | -         | Gear (29T)                |



0504006A-OLY

## PL 5.1 ROS

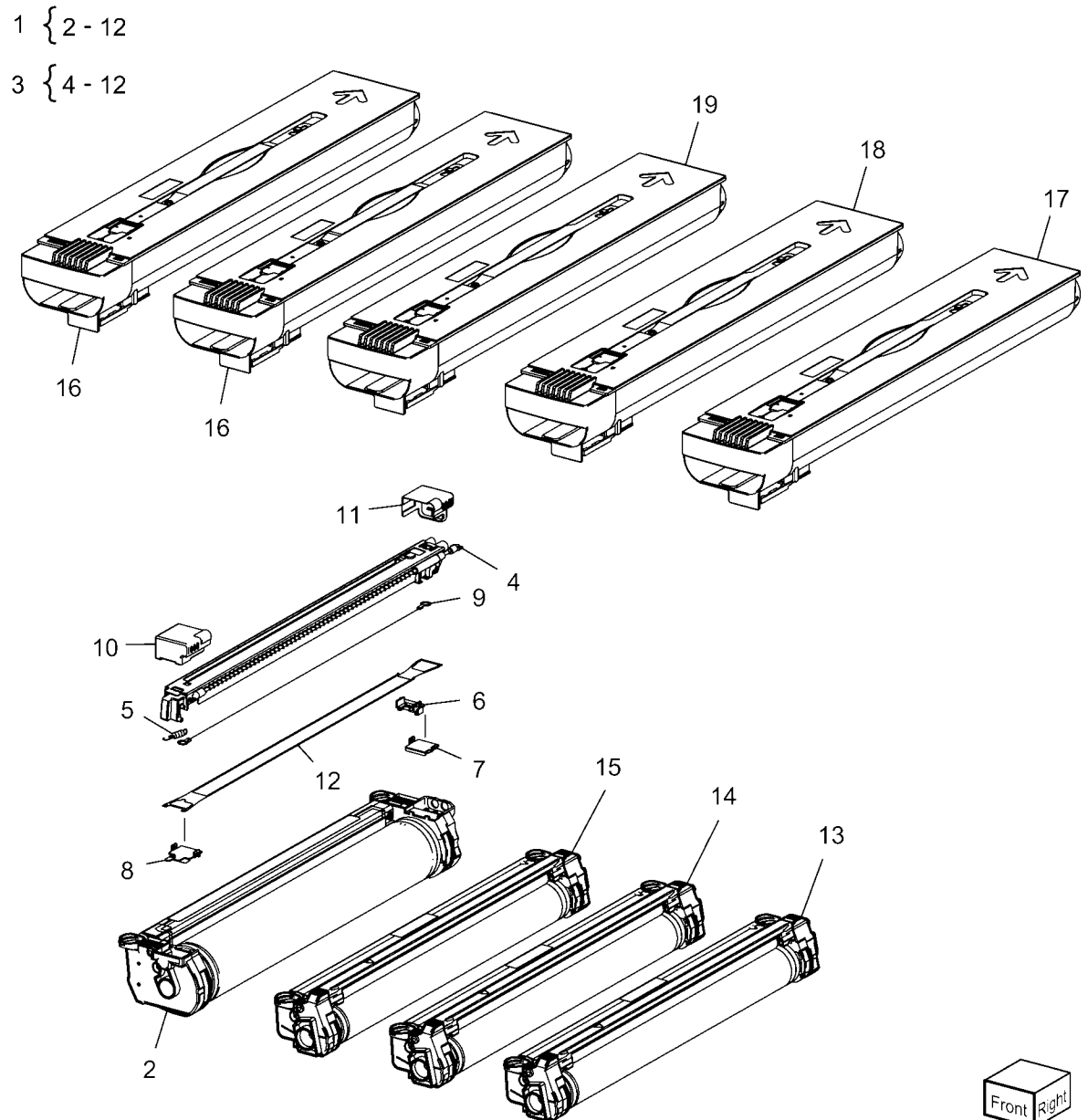
| Item | Part      | Description                   |
|------|-----------|-------------------------------|
| 1    | -         | Guide (Not Spared)            |
| 2    | -         | Seal (Not Spared)             |
| 3    | -         | Clamp                         |
| 4    | 062K15037 | ROS Assembly (C, K) (REP 6.1) |
| 5    | 062K15047 | ROS Assembly (Y, M) (REP 6.2) |
| 6    | 962K24311 | Flat Cable (C, K)             |
| 7    | 962K24321 | Flat Cable (Y, M)             |



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## PL 6.1 Drum/Toner Cartridge

| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | -         | Drum Cartridge Assembly (K) (Not Spared)  |
| 2    | -         | Drum (P/O PL 6.1 Item 1)                  |
| 3    | -         | Scorotron Unit Assembly                   |
| 4    | -         | Scorotron (P/O PL 6.1 Item 1)             |
| 5    | 009E97011 | Spring Wire (P/O PL 6.1 Item 1) (REP 9.8) |
| 6    | -         | Cleaner (P/O PL 6.1 Item 1)               |
| 7    | -         | Rear Shield (P/O PL 6.1 Item 1)           |
| 8    | -         | Front Shield (P/O PL 6.1 Item 1)          |
| 9    | -         | Corotron Wire (P/O PL 6.1 Item 1)         |
| 10   | -         | Front Cover (P/O PL 6.1 Item 1)           |
| 11   | -         | Rear Cover (P/O PL 6.1 Item 1)            |
| 12   | -         | Grid Plate (P/O PL 6.1 Item 1)            |
| 13   | -         | Y Drum Cartridge (Not Spared) (ADJ)       |
| 14   | -         | M Drum Cartridge (Not Spared) (REP 9.8)   |
| 15   | -         | C Drum Cartridge (Not Spared) (REP 9.8)   |
| 16   | -         | K Toner Cartridge (Not Spared)            |
| 17   | -         | Y Toner Cartridge (Not Spared)            |
| 18   | -         | M Toner Cartridge (Not Spared)            |
| 19   | -         | C Toner Cartridge (Not Spared)            |

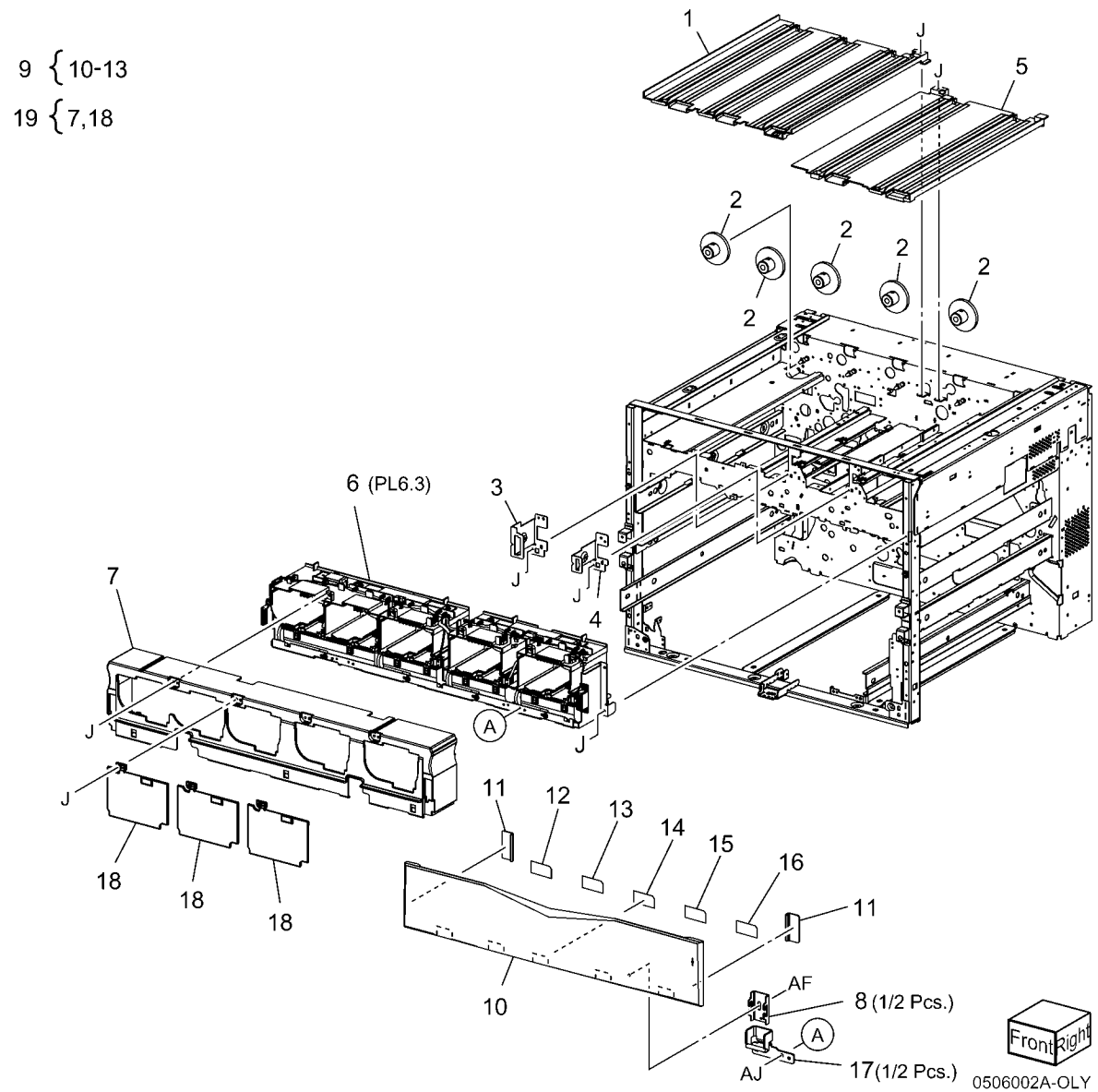


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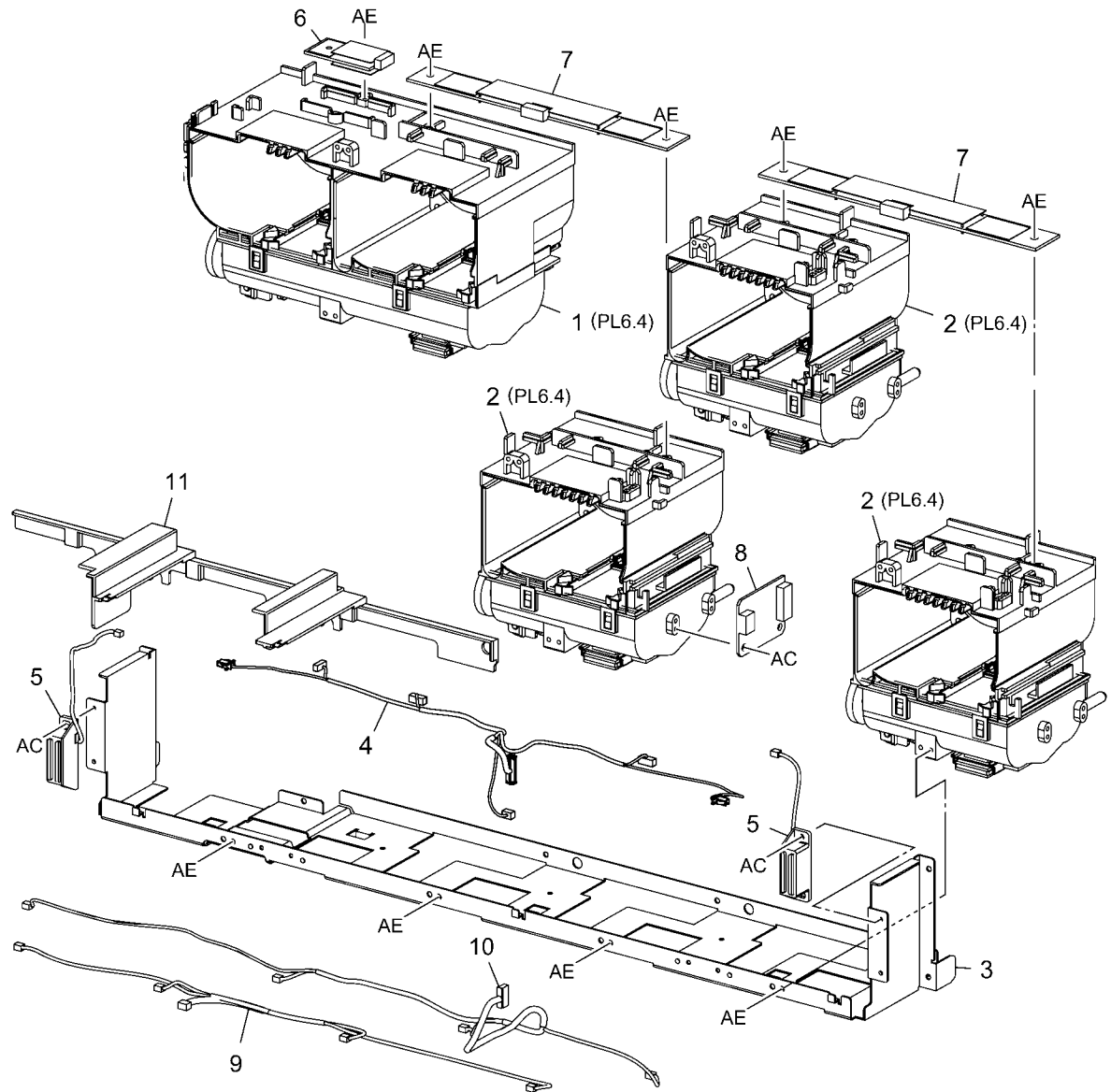
## PL 6.2 Dispense Unit

| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | -         | Left Plate                                |
| 2    | 807E02800 | Gear                                      |
| 3    | -         | Bracket (Not Spared)                      |
| 4    | -         | Bracket (Not Spared)                      |
| 5    | -         | Right Plate                               |
| 6    | -         | Dispense (Y,M,C,K) (REP 9.9)              |
| 7    | -         | Inner Cover                               |
| 8    | -         | Hinge                                     |
| 9    | 802K65463 | Toner Cartridge Cover Assembly            |
| 10   | -         | Toner Cartridge Cover (P/O PL 6.2 Item 9) |
| 11   | -         | Magnet Plate (P/O PL 6.2 Item 9)          |
| 12   | -         | K1 Label (P/O PL 6.2 Item 9)              |
| 13   | -         | K2 Label (P/O PL 6.2 Item 9)              |
| 14   | -         | Y Label                                   |
| 15   | -         | M Label                                   |
| 16   | -         | C Label                                   |
| 17   | -         | Hinge                                     |
| 18   | -         | Plate                                     |
| 19   | -         | Inner Cover Assembly                      |



## PL 6.3 Dispense Assembly (Y, M, C, K)

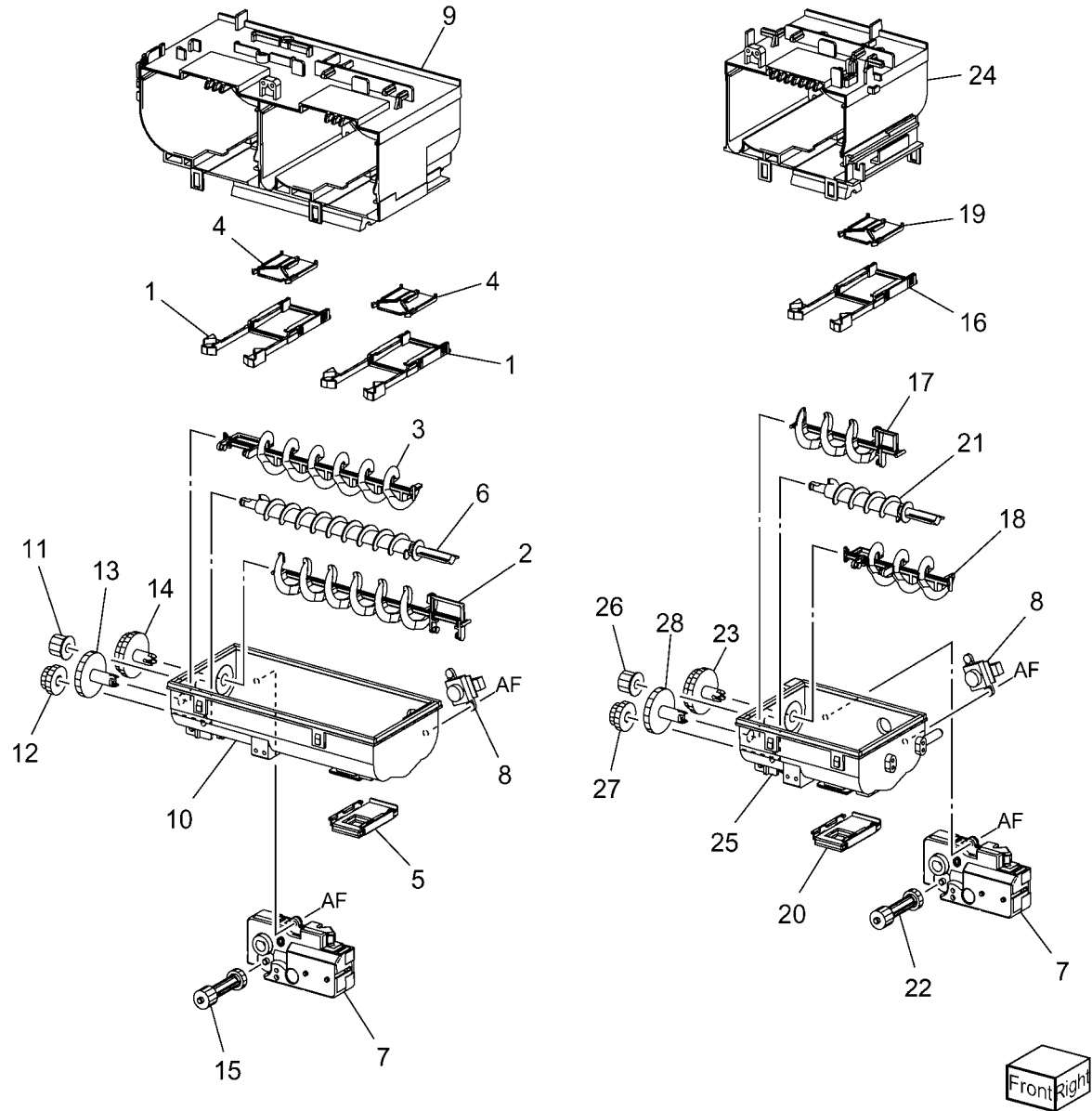
| Item | Part      | Description                                                       |
|------|-----------|-------------------------------------------------------------------|
| 1    | 094K04542 | K Dispense (REP 9.16)                                             |
| 2    | 094K04551 | Y Dispense, C Dispenser, M Dispenser (REP 9.17 REP 9.18 REP 9.19) |
| 3    | -         | Base (Not Spared)                                                 |
| 4    | -         | Wire Harness (Not Spared)                                         |
| 5    | 110K12080 | Switch                                                            |
| 6    | 160K95830 | Toner Cartridge CRUM PWB K                                        |
| 7    | 160K95840 | Toner Cartridge CRUM PWB (C, M, Y)                                |
| 8    | 960K01281 | Low Toner Sensor PWB (REP 9.20)                                   |
| 9    | -         | Wire Harness (Not Spared)                                         |
| 10   | -         | Wire Harness (Not Spared)                                         |
| 11   | -         | Guide (Not Spared)                                                |



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# PL 6.4 Dispense Assembly

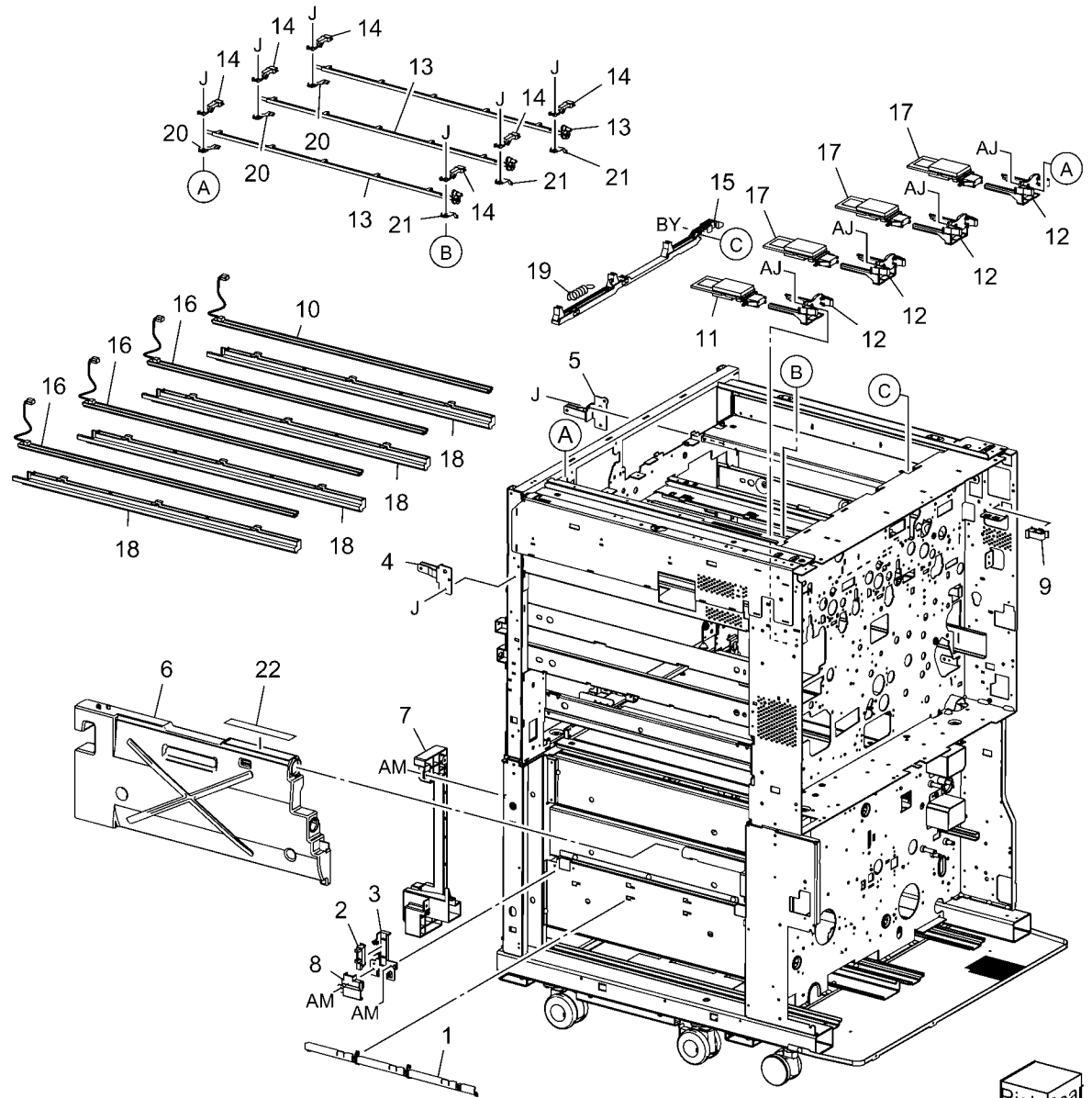
| Item | Part      | Description                                            |
|------|-----------|--------------------------------------------------------|
| 1    | -         | Stopper                                                |
| 2    | -         | K Agitator (Not Spared)                                |
| 3    | -         | K Agitator (Not Spared)                                |
| 4    | -         | Shutter                                                |
| 5    | -         | Shutter                                                |
| 6    | -         | K Auger (Not Spared)                                   |
| 7    | 127K39530 | Motor Assembly                                         |
| 8    | 130E85200 | Low Toner Sensor (REP 9.21 REP 9.22 REP 9.23 REP 9.24) |
| 9    | -         | K Cover (Not Spared)                                   |
| 10   | -         | Housing (Not Spared)                                   |
| 11   | -         | Gear (15T)                                             |
| 12   | -         | Gear (23T)                                             |
| 13   | -         | Gear (35T) (Front)                                     |
| 14   | -         | Gear (35T) (Rear)                                      |
| 15   | -         | Gear                                                   |
| 16   | -         | Stopper                                                |
| 17   | -         | Actuator (Y,M,C) (Not Spared)                          |
| 18   | -         | Agitator (Y,M,C) (Not Spared)                          |
| 19   | -         | Shutter                                                |
| 20   | -         | Shutter                                                |
| 21   | -         | Auger (Y,M,C) (Not Spared)                             |
| 22   | -         | Gear                                                   |
| 23   | -         | Gear (35T) (Rear)                                      |
| 24   | -         | Y Cover (Not Spared)                                   |
| 25   | -         | Housing (Not Spared)                                   |
| 26   | -         | Gear (15T)                                             |
| 27   | -         | Gear (23T)                                             |
| 28   | -         | Gear (35T) (Front)                                     |



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# PL 6.5 Dispense Unit (1 of 3)

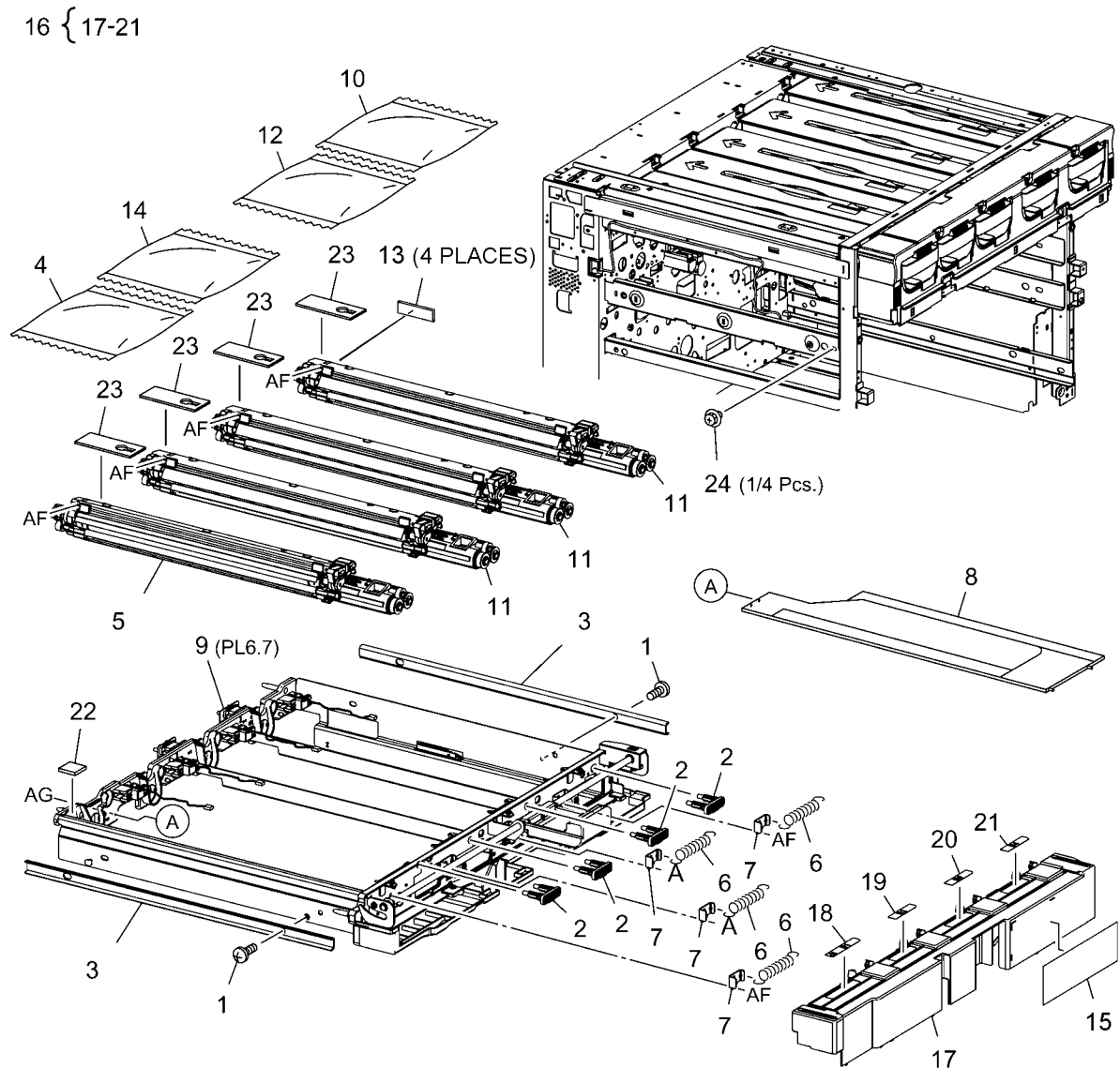
| Item | Part      | Description                  |
|------|-----------|------------------------------|
| 1    | -         | Harness Guide (Not Spared)   |
| 2    | 130E91010 | Waste Bottle Full Sensor     |
| 3    | -         | Bracket (Not Spared)         |
| 4    | -         | Right Bracket                |
| 5    | -         | Left Bracket                 |
| 6    | -         | Waste Bottle                 |
| 7    | -         | Inner Cover                  |
| 8    | -         | Connector Cover              |
| 9    | -         | Wire (Not Spared)            |
| 10   | 122K93640 | Erase Lamp                   |
| 11   | 160K95830 | Xero CRUM PWB M              |
| 12   | -         | Cam Holder (Not Spared)      |
| 13   | -         | Cam                          |
| 14   | -         | Holder                       |
| 15   | -         | Bar                          |
| 16   | 122K93570 | Erase Lamp                   |
| 17   | -         | Xero CRUM PWB (K, C, Y)      |
| 18   | -         | Erase Lamp Rail (Not Spared) |
| 19   | -         | Spring                       |
| 20   | -         | Ground Clip                  |
| 21   | -         | Ground Clip                  |
| 22   | -         | Label (Not Spared)           |



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# PL 6.6 Dispense Unit (2 of 3)

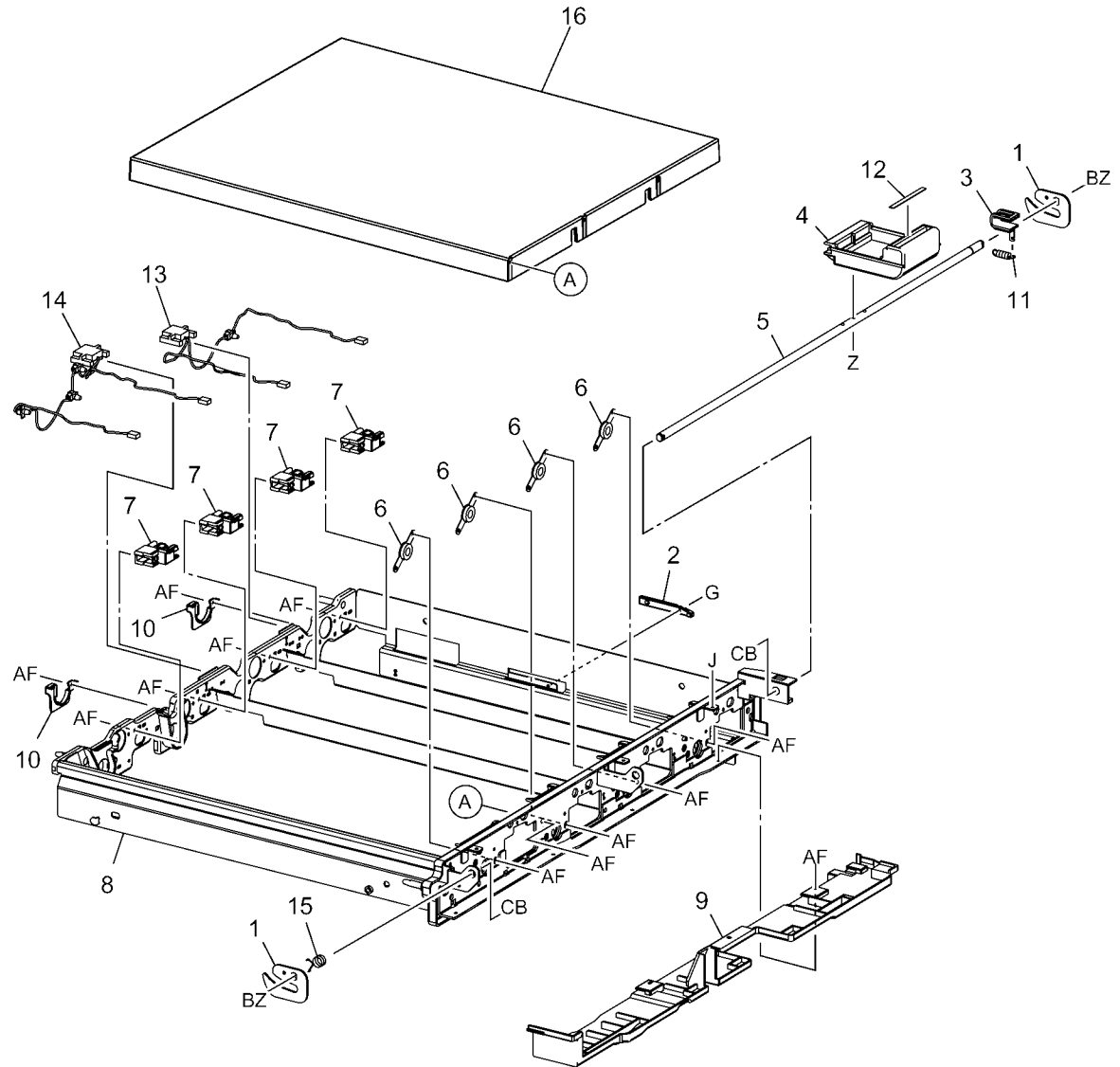
| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | -         | Screw (Not Spared)                         |
| 2    | 030K76610 | Bracket                                    |
| 3    | 801K14311 | Rail                                       |
| 4    | 695K13530 | K Developer (REP 9.15)                     |
| 5    | 604K24210 | K Developer Housing Kit (REP 9.14)         |
| 6    | -         | Spring (Not Spared)                        |
| 7    | -         | Tension Plate (Not Spared)                 |
| 8    | -         | Duct (Not Spared)                          |
| 9    | -         | Xero/Dev Drawer Unit                       |
| 10   | 695K13500 | Y Developer (REP 9.15)                     |
| 11   | 604K24220 | Developer Housing Kit (Y, M, C) (REP 9.14) |
| 12   | 695K13510 | M Developer (REP 9.15)                     |
| 13   | 130K67340 | ATC Sensor Assembly (REP 9.14)             |
| 14   | 695K13520 | C Developer (REP 9.15)                     |
| 15   | -         | Label (Not Spared) (9.14)                  |
| 16   | -         | Inner Cover Assembly                       |
| 17   | -         | Inner Cover (Not Spared)                   |
| 18   | -         | Label Drum ID R1                           |
| 19   | -         | Label Drum ID R2                           |
| 20   | -         | Label Drum ID R3                           |
| 21   | -         | Label Drum ID R4                           |
| 22   | -         | Gasket (Not Spared)                        |
| 23   | -         | ATC Cover                                  |
| 24   | -         | Screw                                      |



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## PL 6.7 Dispense Unit (3 of 3)

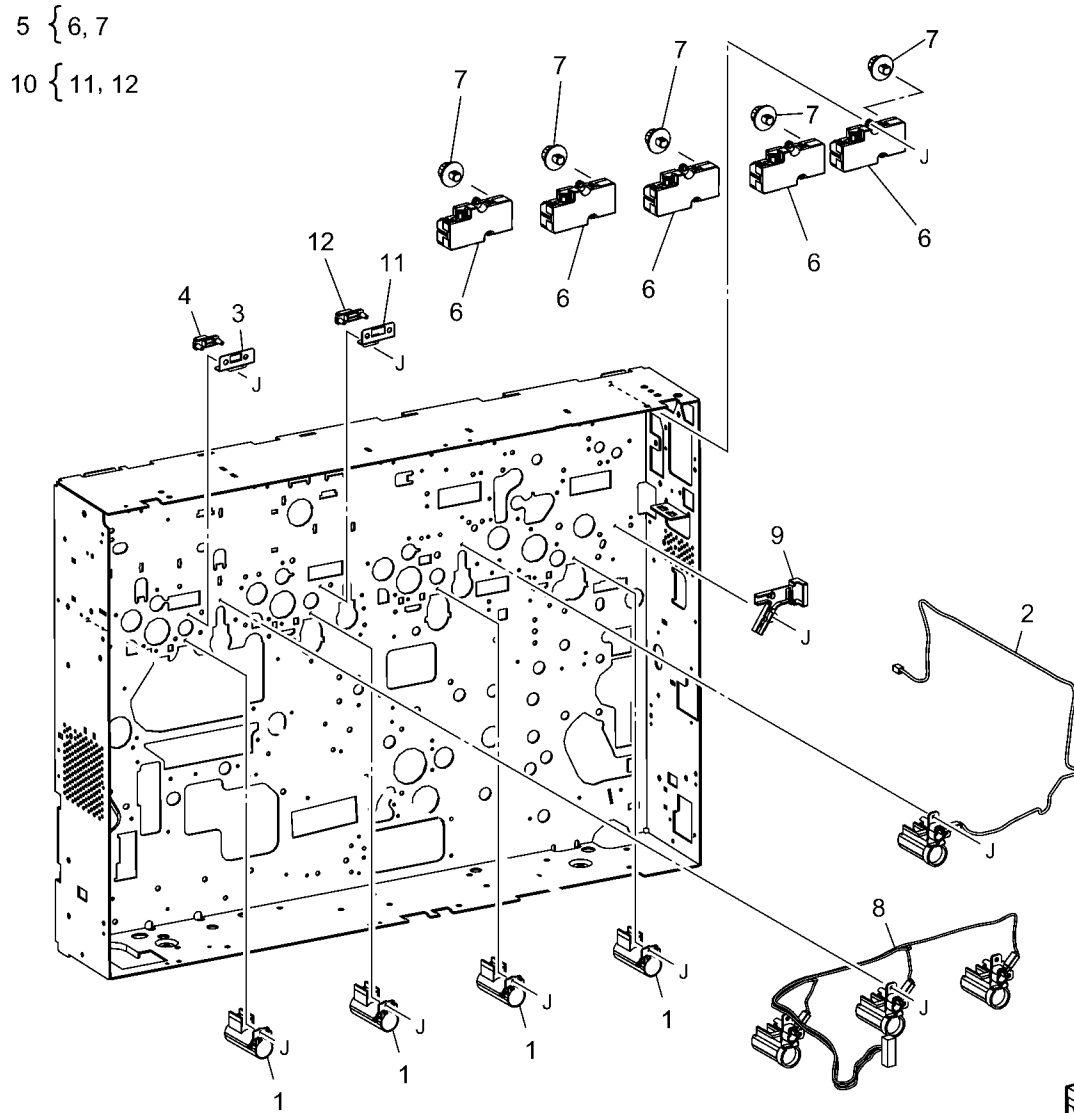
| Item | Part      | Description                                  |
|------|-----------|----------------------------------------------|
| 1    | -         | Cam                                          |
| 2    | -         | Plate                                        |
| 3    | -         | Stopper                                      |
| 4    | -         | Handle                                       |
| 5    | -         | Shaft                                        |
| 6    | -         | Bearing                                      |
| 7    | 014K82101 | Block                                        |
| 8    | -         | Xerographic Developer Drawer<br>(Not Spared) |
| 9    | -         | Base Cover                                   |
| 10   | -         | Harness Cover (Not Spared)                   |
| 11   | -         | Spring                                       |
| 12   | -         | Label                                        |
| 13   | 962K23382 | Wire Harness (Y, M)                          |
| 14   | 962K23392 | Wire Harness (C, Y)                          |
| 15   | -         | Spring (Not Spared)                          |
| 16   | -         | Cover                                        |



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# PL 6.8 Rear Frame (1 of 2)

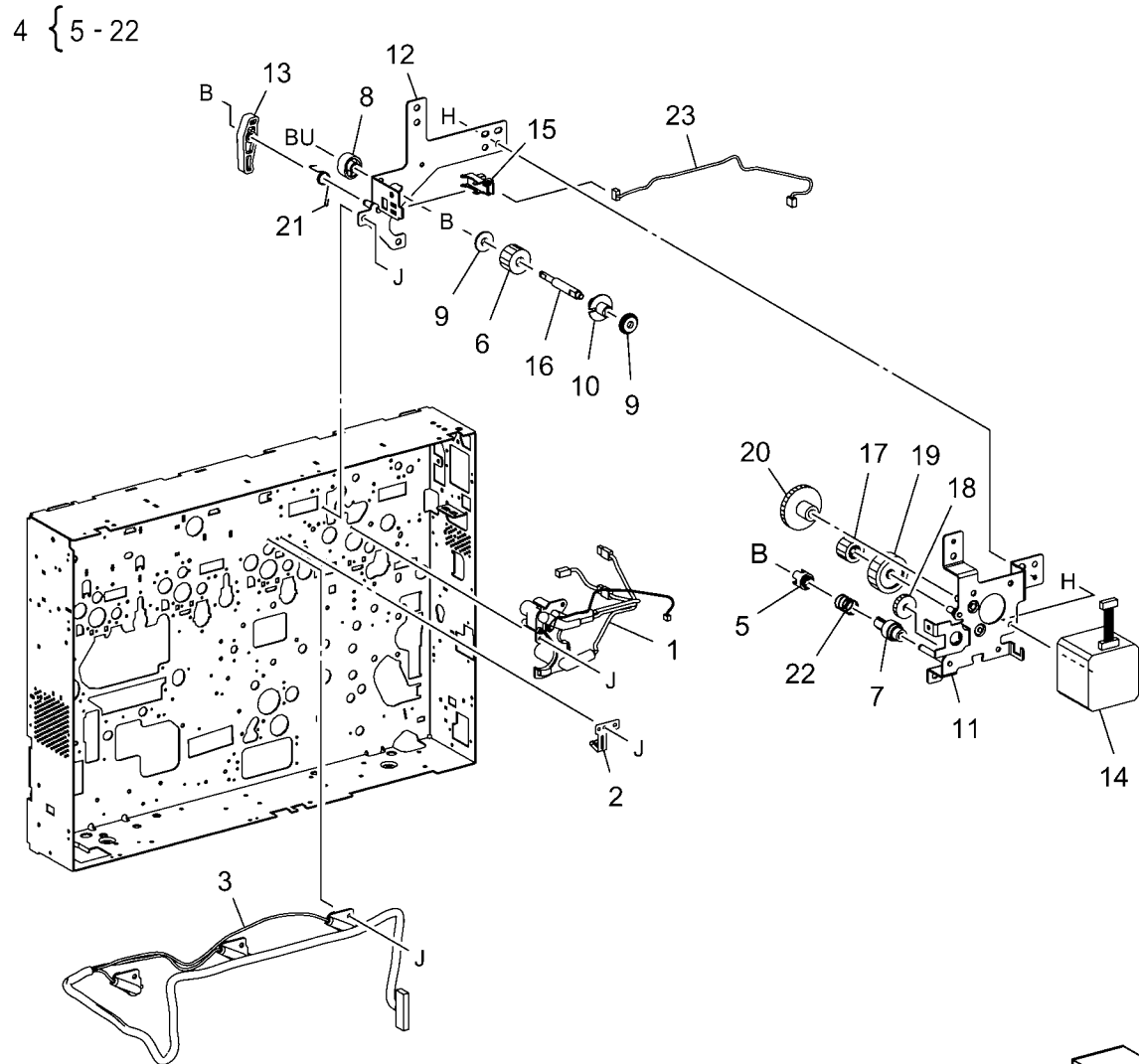
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Support Assembly                   |
| 2    | -         | Wire Harness (K)                   |
| 3    | -         | Bracket (Not Spared)               |
| 4    | -         | Connector                          |
| 5    | 127K39540 | Toner Cartridge Motor              |
| 6    | -         | Toner Cartridge Motor Kit (K1, K2) |
| 7    | -         | Gear                               |
| 8    | -         | Wire Harness (Y, M, C)             |
| 9    | -         | Guide                              |
| 10   | -         | Bracket Assembly                   |
| 11   | -         | Bracket (P/O PL 6.8 Item 10)       |
| 12   | -         | Connector (P/O PL 6.8 Item 10)     |



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## PL 6.9 Rear Frame (2 of 2)

| Item | Part      | Description                                     |
|------|-----------|-------------------------------------------------|
| 1    | -         | Connector (K)                                   |
| 2    | -         | Ground Clip                                     |
| 3    | -         | Connector Assembly (BCR)                        |
| 4    | 127K39750 | Cleaning Motor Assembly                         |
| 5    | -         | Coupling (P/O PL 6.9 Item 4)                    |
| 6    | -         | Gear (34T) (P/O PL 6.9 Item 4)                  |
| 7    | -         | Gear (P/O PL 6.9 Item 4)                        |
| 8    | -         | Cam (P/O PL 6.9 Item 4)                         |
| 9    | -         | Bearing (P/O PL 6.9 Item 4)                     |
| 10   | -         | Spacer (P/O PL 6.9 Item 4)                      |
| 11   | -         | Bracket (P/O PL 6.9 Item 4)                     |
| 12   | -         | Bracket (P/O PL 6.9 Item 4)                     |
| 13   | -         | Arm (P/O PL 6.9 Item 4)                         |
| 14   | 127K39760 | BCR/ScoroTron Cleaner Motor (P/O PL 6.9 Item 4) |
| 15   | 130E82530 | BCR Cleaner Position Sensor (P/O PL 6.9 Item 4) |
| 16   | -         | Shaft (P/O PL 6.9 Item 4)                       |
| 17   | -         | Gear (29T) (P/O PL 6.9 Item 4)                  |
| 18   | -         | Gear (31T) (P/O PL 6.9 Item 4)                  |
| 19   | -         | Gear (18T/52T) (P/O PL 6.9 Item 4)              |
| 20   | -         | Gear (20T/61T) (P/O PL 6.9 Item 4)              |
| 21   | -         | Spring (P/O PL 6.9 Item 4)                      |
| 22   | -         | Spring (P/O PL 6.9 Item 4)                      |
| 23   | -         | Wire Harness (Not Spared)                       |



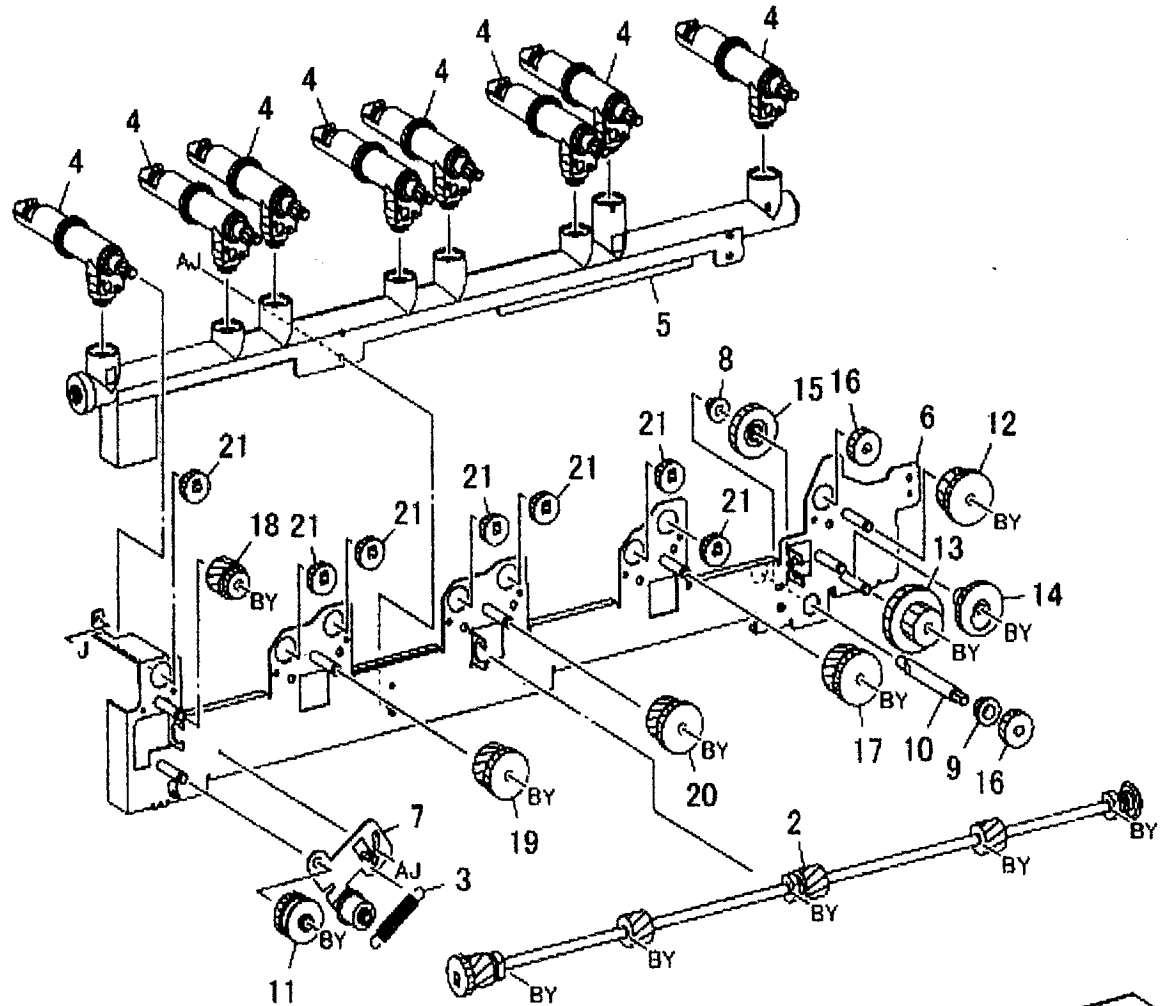
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# PL 6.10 Direct Pipe Assembly

| Item | Part      | Description                       |
|------|-----------|-----------------------------------|
| 1    | 068K24134 | Direct Pipe Assembly              |
| 2    | -         | Direct Shaft (P/O PL 6.10 Item 1) |
| 3    | -         | Spring (P/O PL 6.10 Item 1)       |
| 4    | -         | Joint (P/O PL 6.10 Item 1)        |
| 5    | -         | Pipe (P/O PL 6.10 Item 1)         |
| 6    | -         | Bracket (P/O PL 6.10 Item 1)      |
| 7    | -         | Bracket                           |
| 8    | -         | Bearing                           |
| 9    | 413W77559 | Bearing                           |
| 10   | -         | Drive Shaft (P/O PL 6.10 Item 1)  |
| 11   | -         | Gear Pulley (21T/24T)             |
| 12   | -         | Gear (38T/30T)                    |
| 13   | -         | Gear (45T/25T)                    |
| 14   | -         | Gear (22T/35T)                    |
| 15   | -         | Drive Gear                        |
| 16   | -         | Drive Gear (23T)                  |
| 17   | -         | Gear (K)                          |
| 18   | -         | Gear (Y)                          |
| 19   | -         | Gear (M)                          |
| 20   | -         | Gear (C)                          |
| 21   | -         | Joint Gear (21T)                  |

1 { 2-21

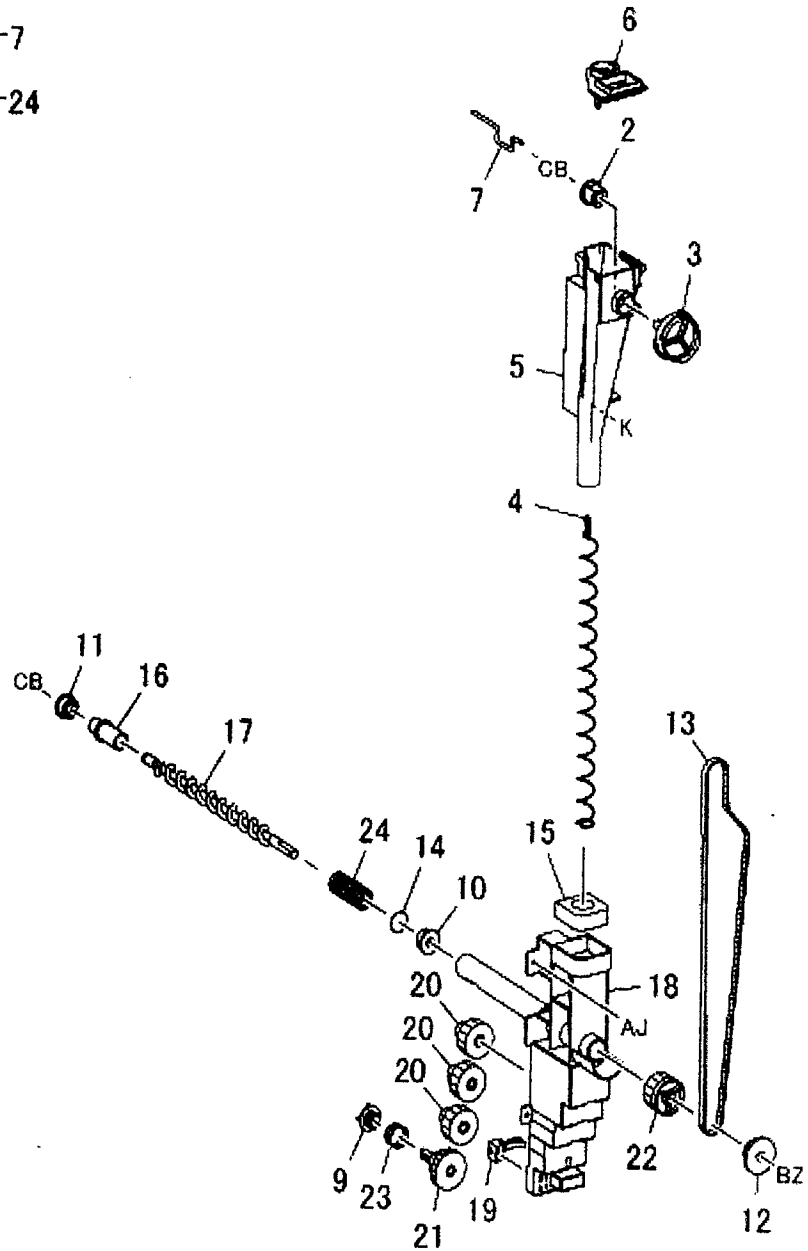


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# PL 6.11 Joint/Leveler Box Assembly

| Item | Part      | Description                  |
|------|-----------|------------------------------|
| 1    | 011K97591 | Joint Assembly               |
| 2    | -         | Bearing                      |
| 3    | -         | Pulley                       |
| 4    | -         | Agitator                     |
| 5    | -         | Joint (Down)                 |
| 6    | -         | Joint (UP)                   |
| 7    | -         | Crank Shaft                  |
| 8    | 119K00290 | Leveler Box Assembly         |
| 9    | -         | Joint                        |
| 10   | -         | Bearing (P/O PL 6.11 Item 8) |
| 11   | -         | Bearing                      |
| 12   | -         | Pulley                       |
| 13   | -         | Belt                         |
| 14   | -         | Oil Seal                     |
| 15   | -         | Seal                         |
| 16   | -         | Shutter                      |
| 17   | -         | Auger                        |
| 18   | -         | Leveler Box                  |
| 19   | 130K93230 | Waste Bottle Set Sensor      |
| 20   | -         | Gear (18T/37T)               |
| 21   | -         | Gear (40T)                   |
| 22   | -         | Gear (35T)                   |
| 23   | -         | Spring                       |
| 24   | -         | Spring                       |

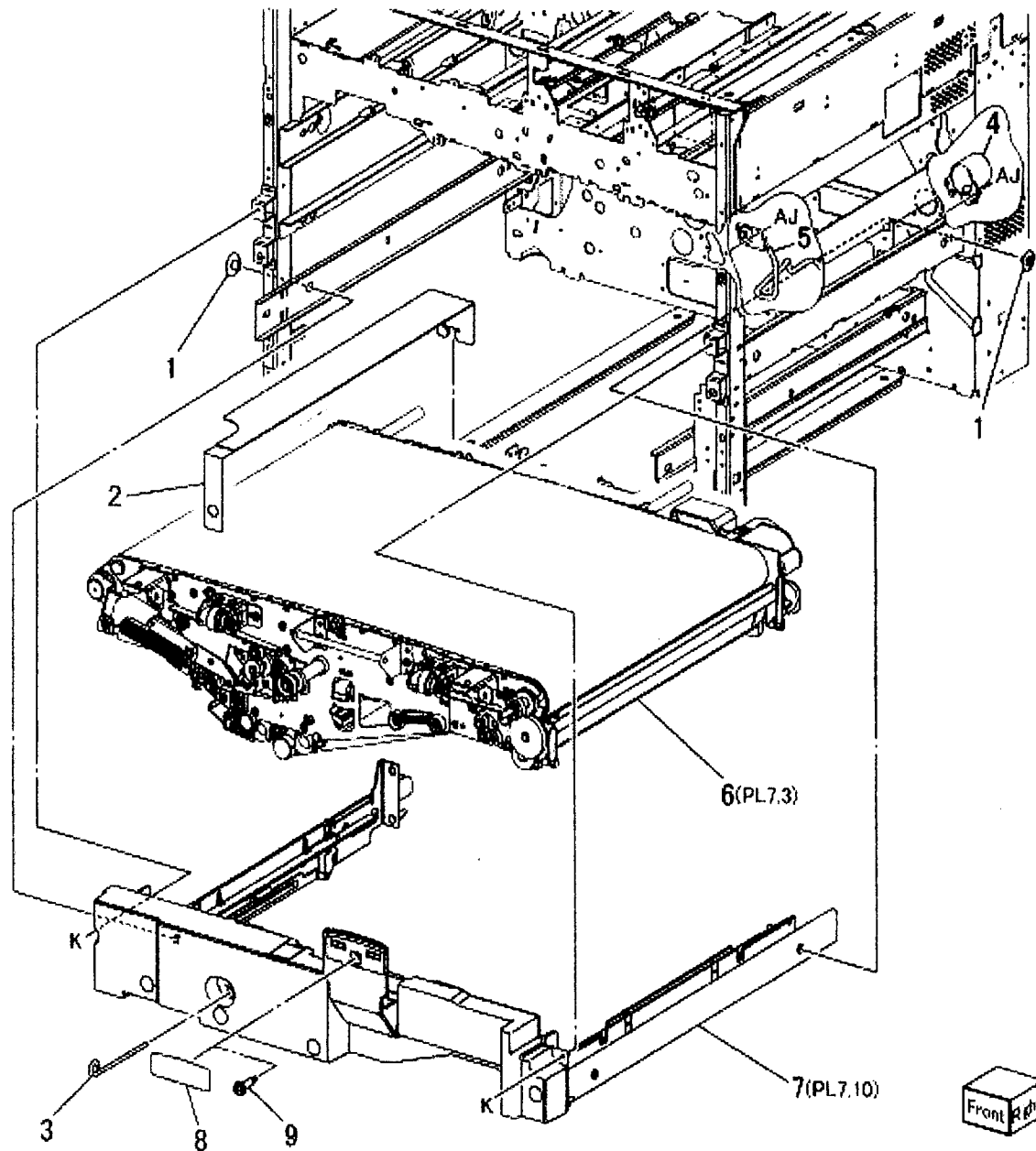
1 { 2-7  
8 { 9-24



0506011A-OLY

## PL 7.1 IBT Unit (1 of 2)

| Item | Part      | Description                  |
|------|-----------|------------------------------|
| 1    | —         | Screw                        |
| 2    | —         | Cushion                      |
| 3    | —         | Shaft                        |
| 4    | —         | Joint (Not Spared)           |
| 5    | —         | Connector (Not Spared)       |
| 6    | 064K91910 | Transfer Belt Unit (REP 9.1) |
| 7    | —         | IBT Drawer (Not Spared)      |
| 8    | —         | Label (Not Spared)           |
| 9    | —         | Screw                        |

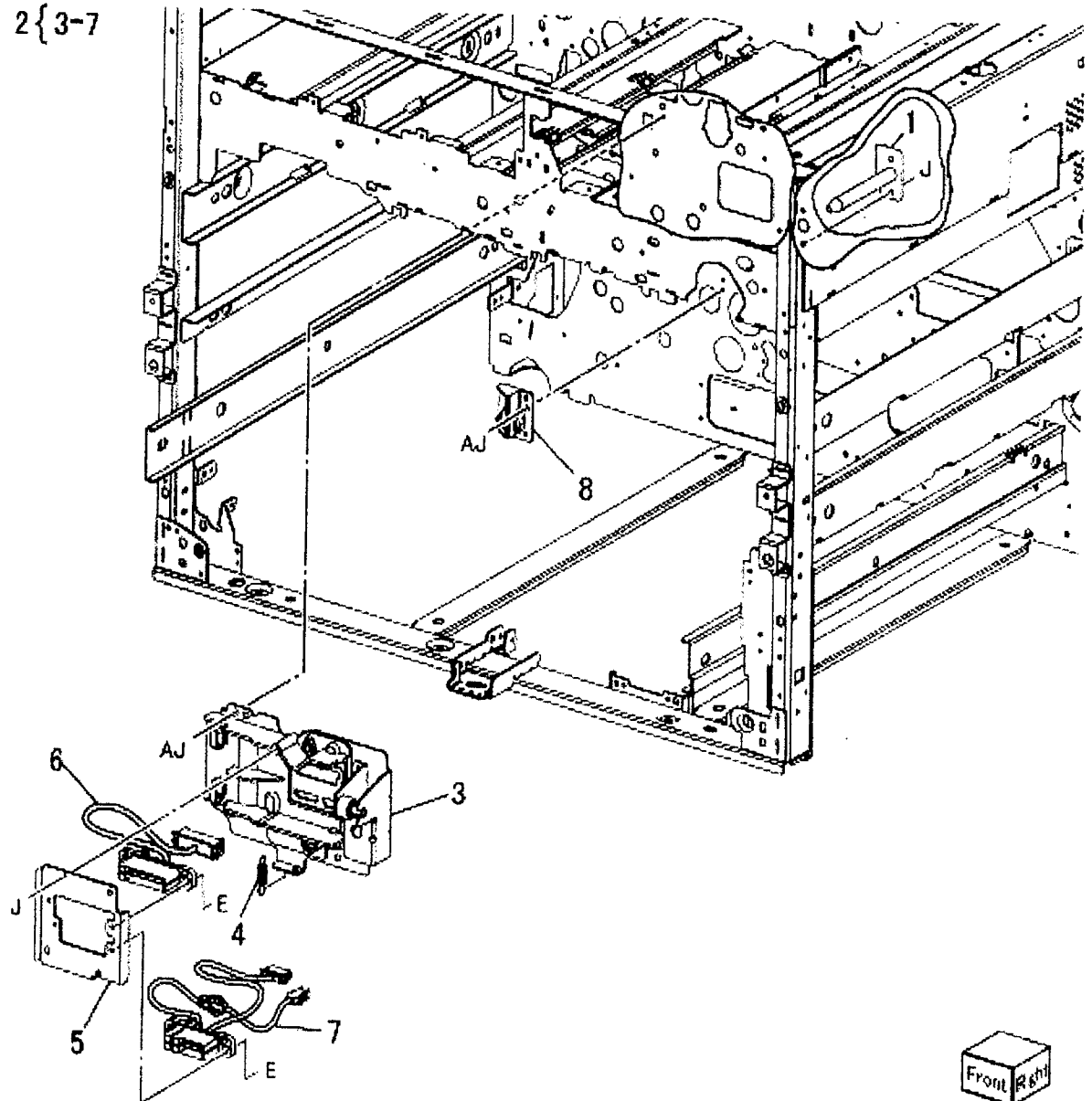


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## PL 7.2 IBT Unit (2 of 2)

| Item | Part      | Description                 |
|------|-----------|-----------------------------|
| 1    | -         | Bracket                     |
| 2    | 114K82050 | Connector Assembly          |
| 3    | -         | Bracket (P/O PL 7.2 Item 2) |
| 4    | -         | Spring (P/O PL 7.2 Item 2)  |
| 5    | -         | Bracket (P/O PL 7.2 Item 2) |
| 6    | -         | Wire Harness                |
| 7    | -         | Wire Harness                |
| 8    | -         | Block (Not Spared)          |

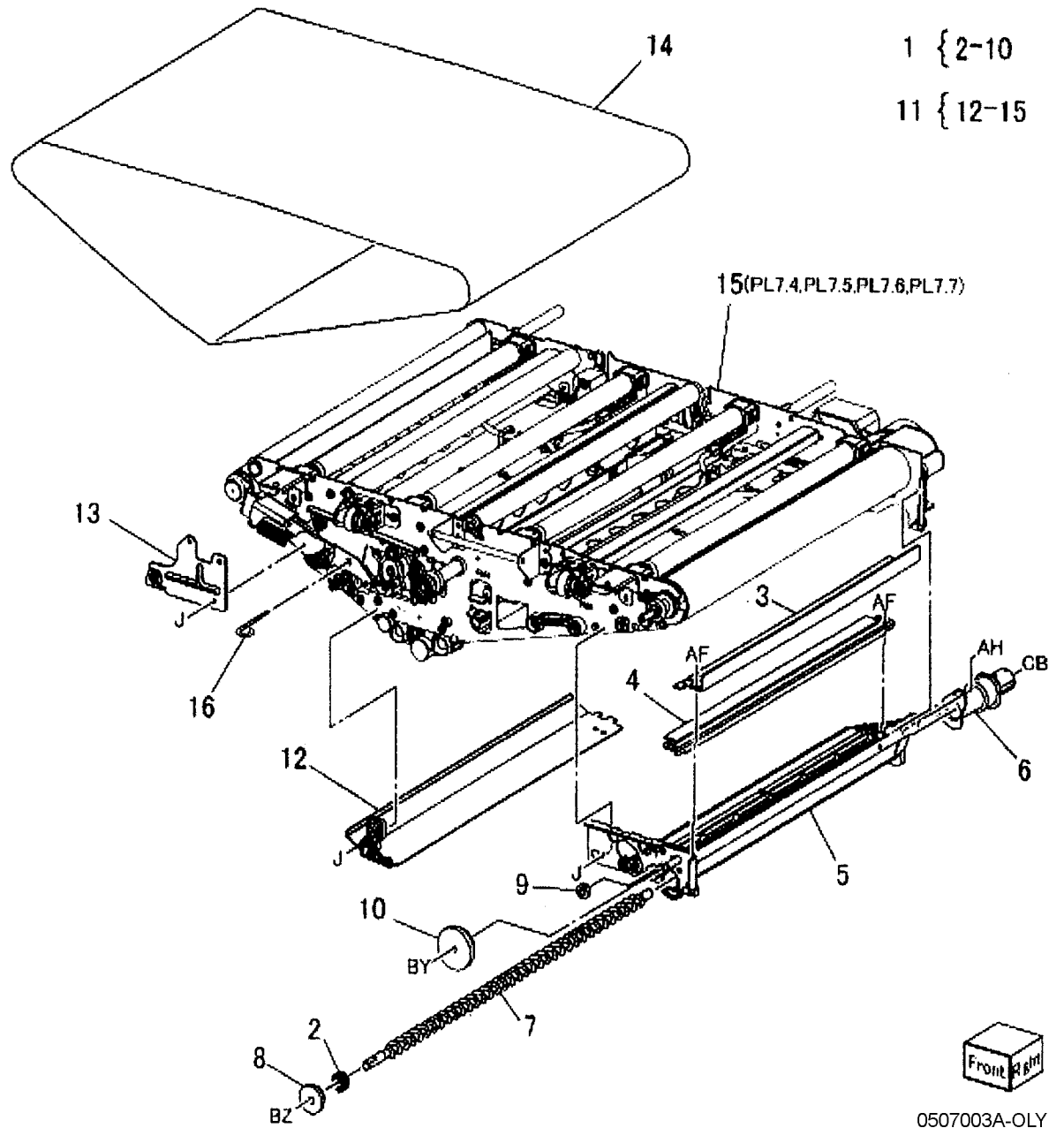
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# PL 7.3 Transfer Belt Unit

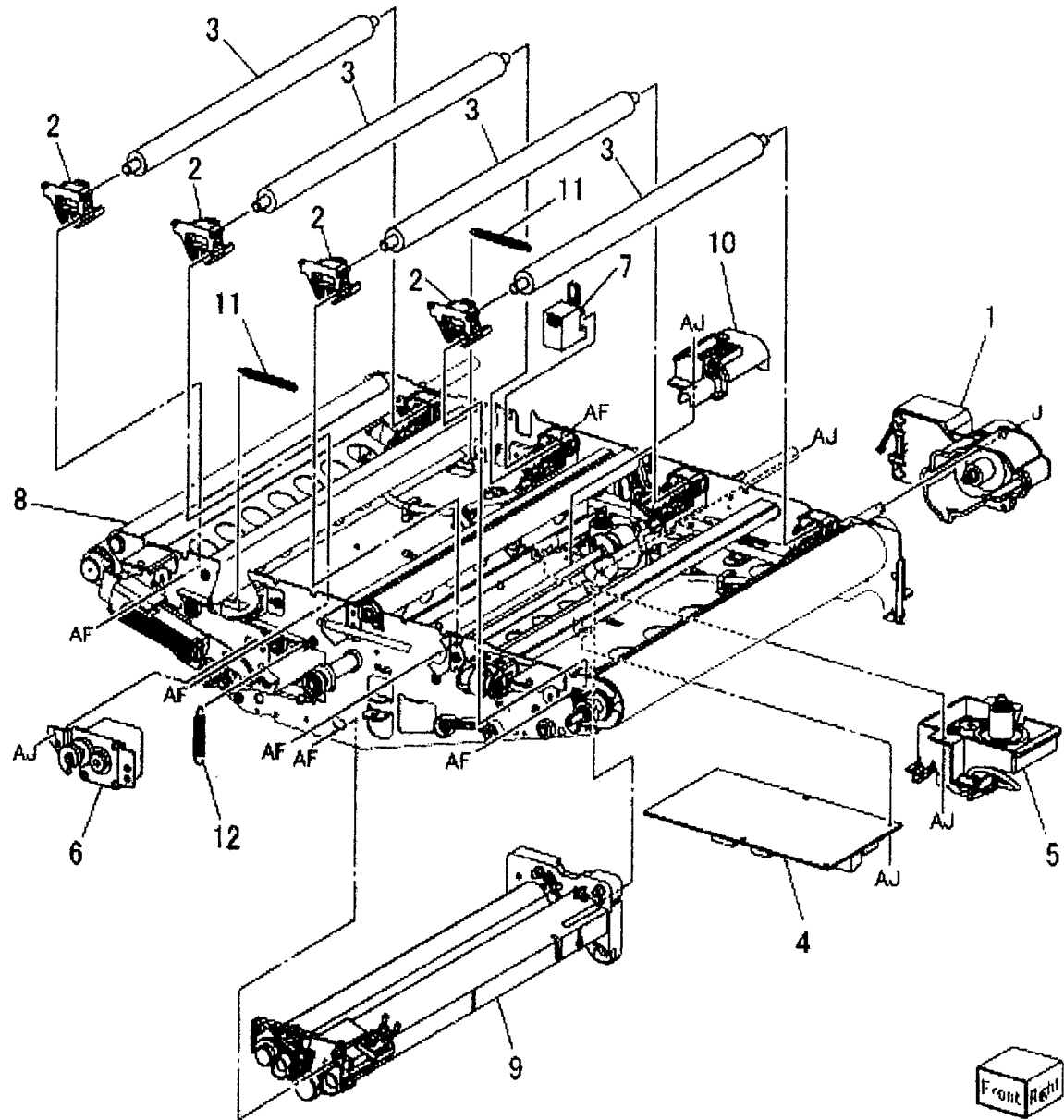
| Item | Part      | Description                         |
|------|-----------|-------------------------------------|
| 1    | 042K92753 | IBT Cleaner Assembly (REP 9.2)      |
| 2    | -         | Bearing (P/O PL 7.3 Item 1)         |
| 3    | -         | Plate                               |
| 4    | 033K94680 | Blade                               |
| 5    | -         | Cleaner Housing (P/O PL 7.3 Item 1) |
| 6    | -         | Cleaner Cover (P/O PL 7.3 Item 1)   |
| 7    | -         | Auger (P/O PL 7.3 Item 1)           |
| 8    | -         | Auger Gear                          |
| 9    | -         | Gear                                |
| 10   | -         | Gear                                |
| 11   | -         | Transfer Belt Kit                   |
| 12   | -         | Inlet                               |
| 13   | -         | Support (Not Spared)                |
| 14   | 064K91930 | Transfer Belt (REP 9.3)             |
| 15   | -         | IBT Frame (Not Spared)              |
| 16   | -         | Pin (P/O PL 7.3 Item 11)            |



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# PL 7.4 IBT Frame Assembly (1 of 4)

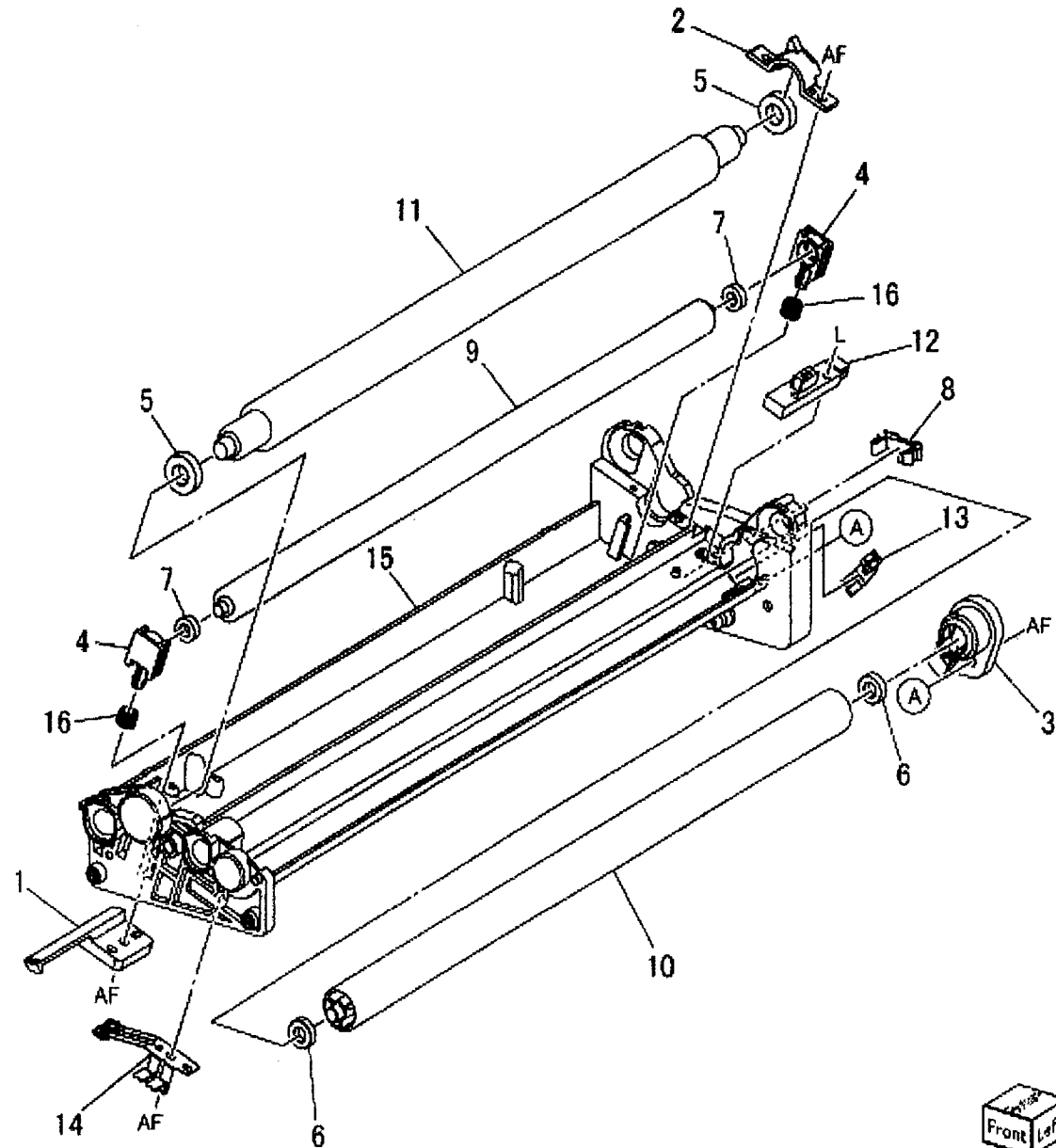
| Item | Part      | Description                    |
|------|-----------|--------------------------------|
| 1    | 007K87831 | IBT Drive Assembly             |
| 2    | 019K98882 | BTR Holder Assembly            |
| 3    | 059K32491 | 1ST BTR Roll                   |
| 4    | 105E12580 | 1ST BTR HVPS (REP 9.7)         |
| 5    | 127K39100 | 1st BTR Retract Motor          |
| 6    | 127K39120 | IBT Steering Motor             |
| 7    | 130K60830 | Transfer Belt Edge Sensor      |
| 8    | -         | Frame (Not Spared)             |
| 9    | -         | BTR Housing                    |
| 10   | -         | Contact / Retract Sensor Cover |
| 11   | -         | Spring                         |
| 12   | -         | Spring                         |



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## PL 7.5 IBT Frame Assembly (2 of 4)

| Item | Part      | Description                      |
|------|-----------|----------------------------------|
| 1    | -         | Stopper (Front) (Not Spared)     |
| 2    | -         | Stopper (Rear) (Not Spared)      |
| 3    | -         | Collar (Not Spared)              |
| 4    | -         | Collar (Not Spared)              |
| 5    | -         | Ball Bearing (8x16) (Not Spared) |
| 6    | -         | Sleeve Bearing (Not Spared)      |
| 7    | -         | Ball Bearing (5x10) (Not Spared) |
| 8    | -         | Clamp (Not Spared)               |
| 9    | 059E99540 | Contact Roll                     |
| 10   | 059K32510 | Idler Roll                       |
| 11   | 059K33740 | Backup Roll                      |
| 12   | 130E84270 | Transfer Belt Home Sensor        |
| 13   | -         | Contact (Not Spared)             |
| 14   | -         | Conductor (Not Spared)           |
| 15   | -         | BTR Housing (Not Spared)         |
| 16   | -         | Spring (Not Spared)              |

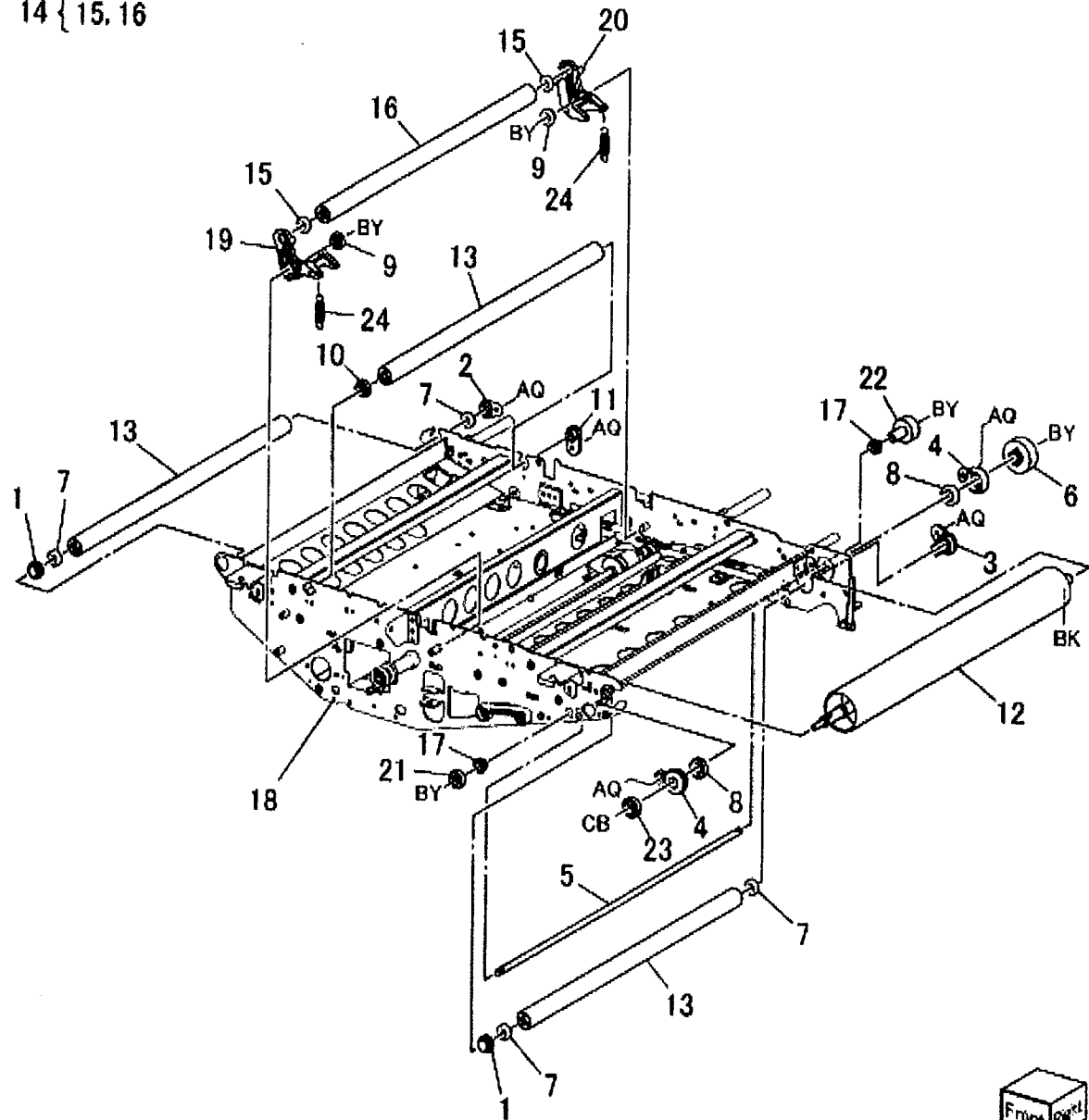


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# PL 7.6 IBT Frame Assembly (3 of 4)

| Item | Part      | Description           |
|------|-----------|-----------------------|
| 1    | -         | Collar                |
| 2    | -         | Collar                |
| 3    | -         | Collar                |
| 4    | -         | Collar                |
| 5    | -         | Shaft                 |
| 6    | -         | Drive Gear            |
| 7    | -         | Ball Bearing (6x12)   |
| 8    | -         | Ball Bearing (10x19)  |
| 9    | -         | Bearing               |
| 10   | -         | Bearing (Front)       |
| 11   | -         | Bearing (Rear)        |
| 12   | 059K32500 | Drive Roll            |
| 13   | -         | Idler Roll            |
| 14   | -         | Retract Roll Assembly |
| 15   | -         | Ball Bearing (6x12)   |
| 16   | -         | Retract Roll          |
| 17   | -         | Sleeve Bearing        |
| 18   | -         | Rear Frame            |
| 19   | -         | Front Housing         |
| 20   | -         | Rear Housing          |
| 21   | -         | Gear (Front)          |
| 22   | -         | Gear (Rear)           |
| 23   | -         | Drive Gear            |
| 24   | -         | Spring                |

14 { 15, 16

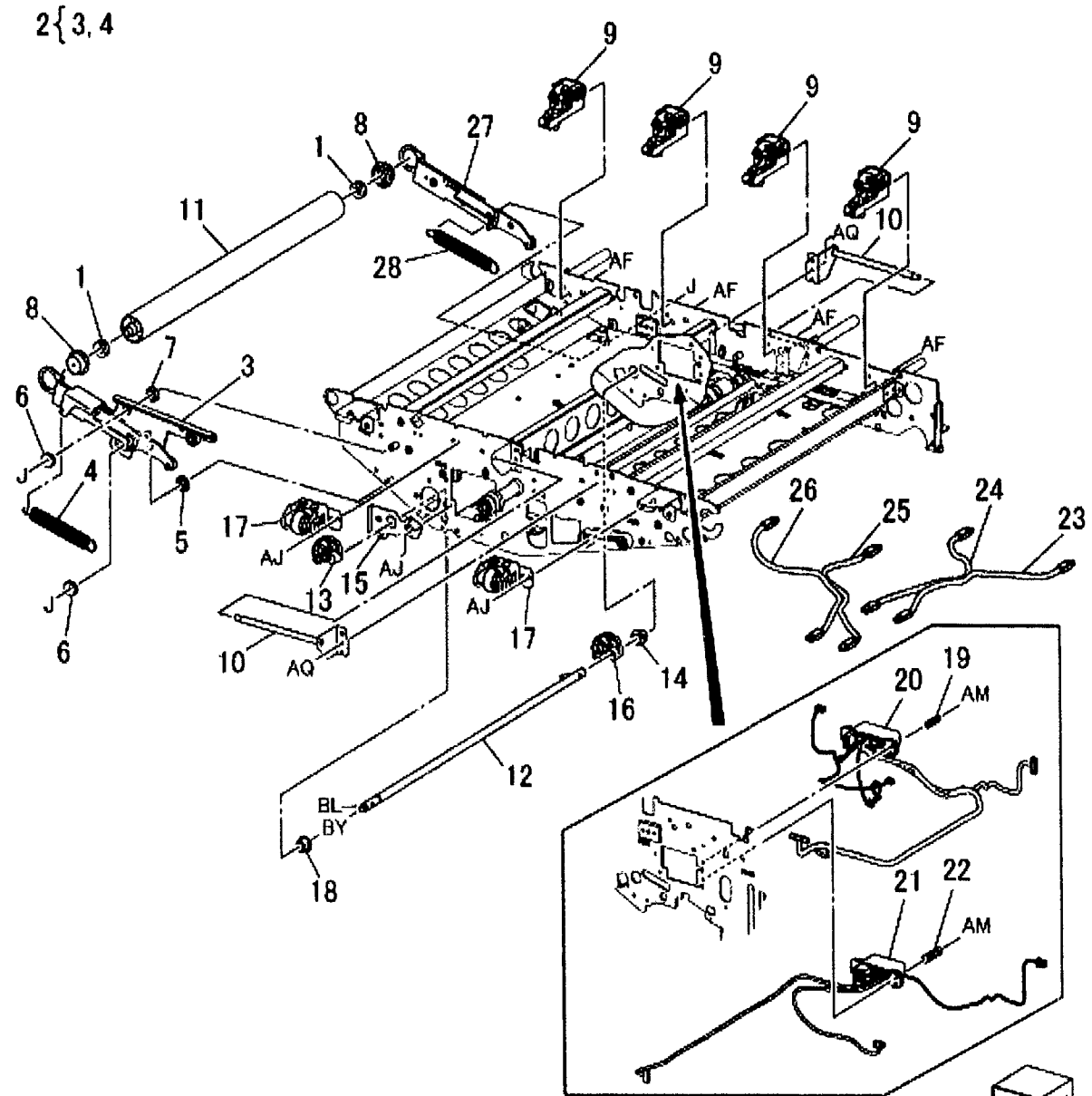


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# PL 7.7 IBT Frame Assembly (4 of 4)

| Item | Part      | Description                       |
|------|-----------|-----------------------------------|
| 1    | -         | Ball Bearing (8x16)               |
| 2    | -         | Tension Plate Assembly            |
| 3    | -         | Tension Plate (P/O PL 7.7 Item 2) |
| 4    | -         | Tension Spring                    |
| 5    | -         | Bush (Inner)                      |
| 6    | -         | Bush (Outer)                      |
| 7    | -         | Bush (Inner)                      |
| 8    | -         | Holder                            |
| 9    | 019K99041 | Holder                            |
| 10   | -         | Bracket                           |
| 11   | 059K32520 | Steering Roll                     |
| 12   | -         | Shaft                             |
| 13   | -         | Cam                               |
| 14   | -         | Bearing                           |
| 15   | -         | Cam Plate                         |
| 16   | -         | Tension Cam                       |
| 17   | -         | Slider                            |
| 18   | -         | Bearing                           |
| 19   | -         | Spring                            |
| 20   | -         | Wire Harness (IBT1)               |
| 21   | -         | Wire Harness (IBT2)               |
| 22   | -         | Spring                            |
| 23   | -         | Wire Harness (BTR, Y)             |
| 24   | -         | Wire Harness (BTR, M)             |
| 25   | -         | Wire Harness (BTR, C)             |
| 26   | -         | Wire Harness (BTR, K)             |
| 27   | -         | Tension Plate                     |
| 28   | -         | Tension Spring                    |

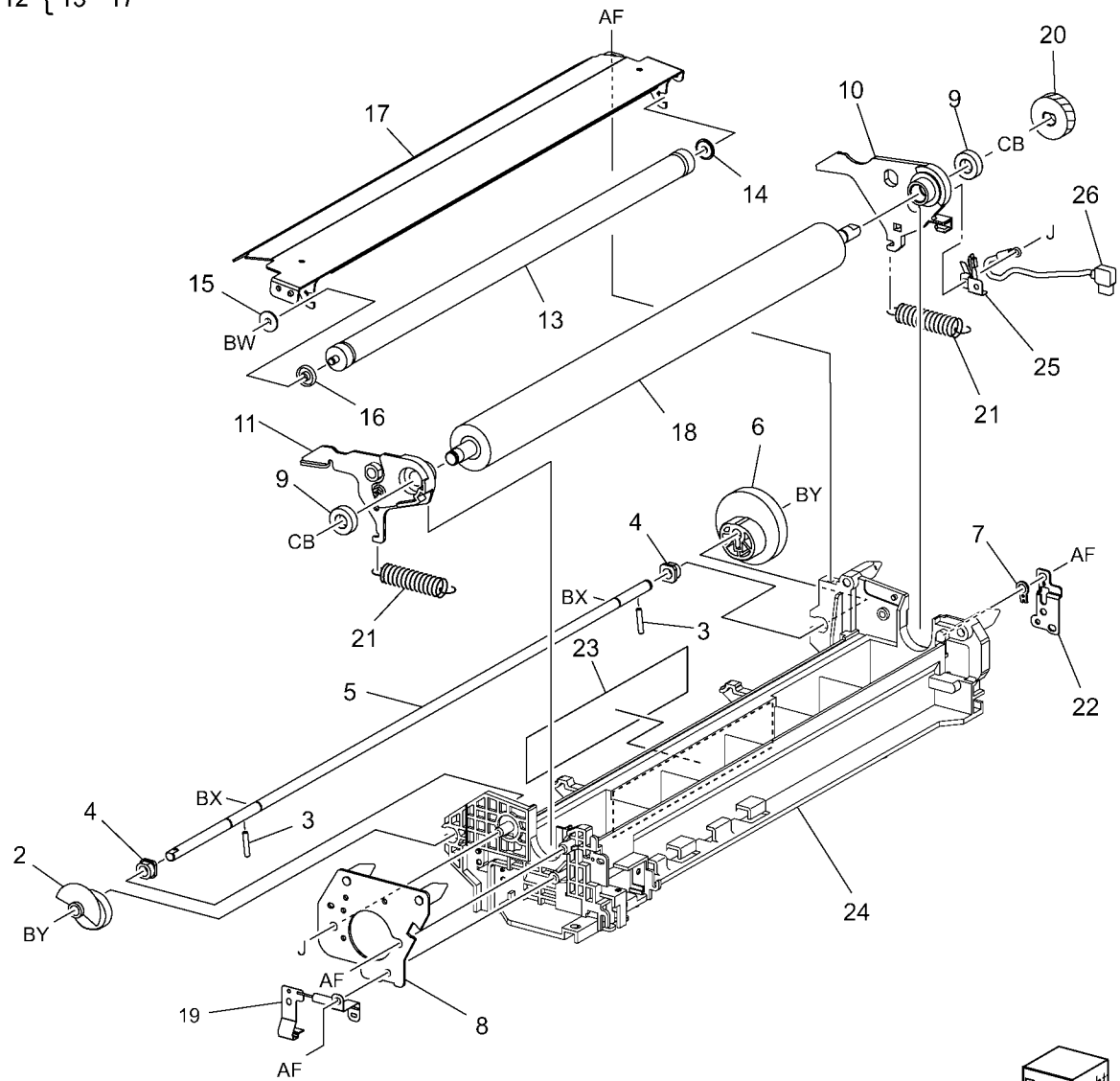


0507007A-OLY

# PL 7.8 2nd BTR Roll Assembly (1 of 2)

| Item | Part      | Description                      |
|------|-----------|----------------------------------|
| 1    | -         | Cam Assembly                     |
| 2    | -         | Cam (P/O PL 7.8 Item 1)          |
| 3    | -         | Pin (P/O PL 7.8 Item 1)          |
| 4    | 413W11660 | Sleeve Bearing                   |
| 5    | -         | Shaft (P/O PL 7.8 Item 1)        |
| 6    | -         | Gear                             |
| 7    | -         | Lever (Not Spared)               |
| 8    | -         | Plate (Not Spared)               |
| 9    | -         | Ball Bearing (8x16)              |
| 10   | -         | Rear Arm                         |
| 11   | -         | Front Arm (Not Spared)           |
| 12   | 054K26613 | Inlet Chute Assembly             |
| 13   | -         | Brush                            |
| 14   | -         | Bearing                          |
| 15   | -         | Bearing (P/O PL 7.8 Item 12)     |
| 16   | -         | Insulator (P/O PL 7.8 Item 12)   |
| 17   | -         | Inlet Chute (P/O PL 7.8 Item 12) |
| 18   | 059K33430 | 2nd BTR Roll (REP 9.5)           |
| 19   | -         | Resistor                         |
| 20   | -         | Gear                             |
| 21   | -         | Spring                           |
| 22   | -         | Bracket (Not Spared)             |
| 23   | -         | Warning Label (Not Spared)       |
| 24   | -         | BTR Housing                      |
| 25   | -         | Conductor                        |
| 26   | -         | Wire Harness                     |

1 { 2 - 6  
 12 { 13 - 17

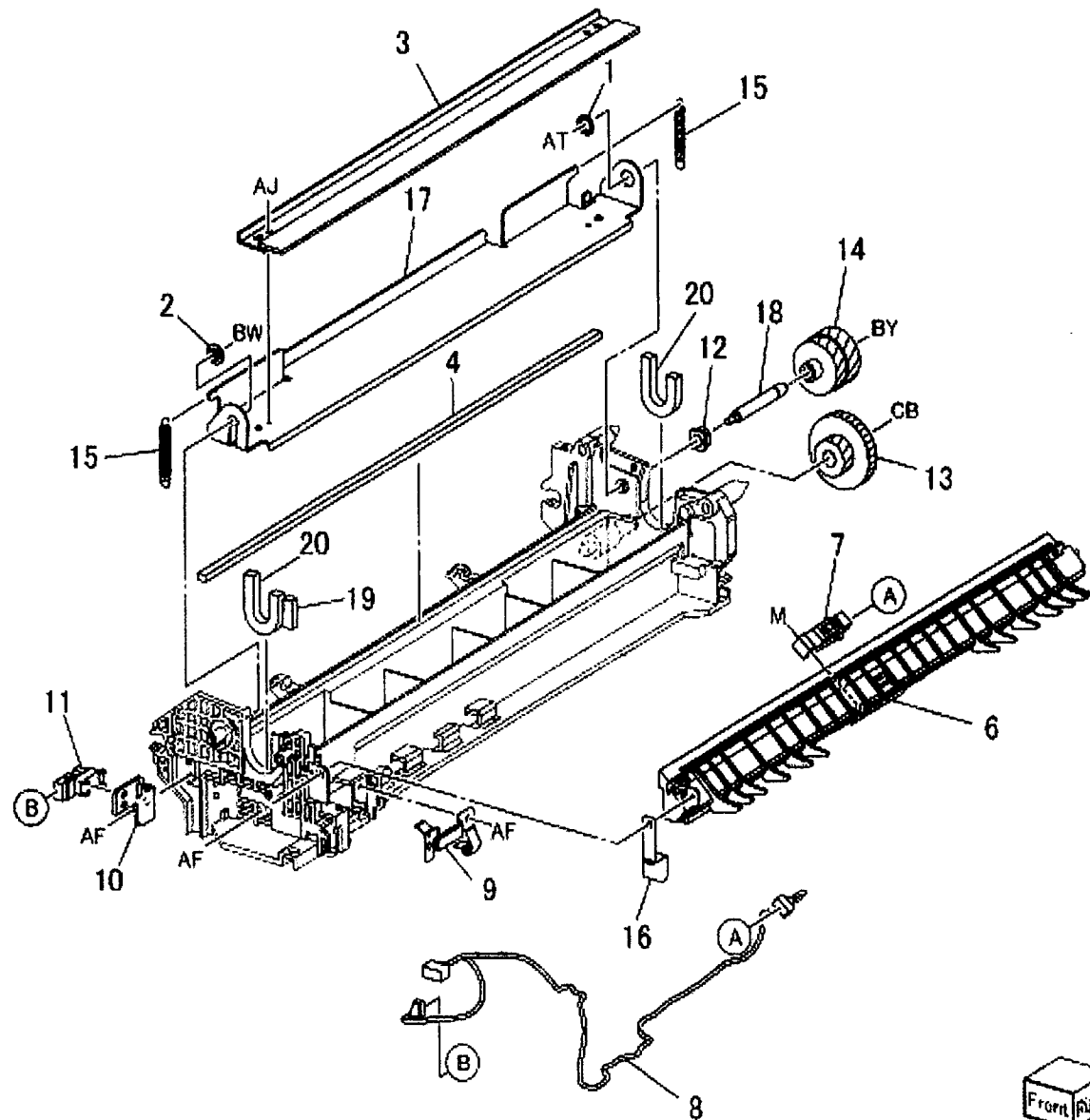


0507008A-OLY

## PL 7.9 2nd BTR Roll Assembly (2 of 2)

| Item | Part      | Description                      |
|------|-----------|----------------------------------|
| 1    | -         | Bearing (Rear) (Not Spared)      |
| 2    | -         | Bearing (Front) (Not Spared)     |
| 3    | 033K94721 | Blade Assembly (REP 9.6)         |
| 4    | -         | Housing Seal (Not Spared)        |
| 5    | -         | Exit Chute Assembly              |
| 6    | -         | Exit Chute (P/O PL 7.9 Item 5)   |
| 7    | 130E88770 | Post 2nd BTR Sensor              |
| 8    | -         | Wire Harness (P/O PL 7.9 Item 5) |
| 9    | 103K81152 | Resistor                         |
| 10   | -         | 2nd BTR Contact Retract          |
| 11   | 930W00111 | 2nd BTR Contact Retract Sensor   |
| 12   | 413W11660 | Sleeve Bearing                   |
| 13   | -         | Gear                             |
| 14   | -         | Gear                             |
| 15   | -         | Spring                           |
| 16   | -         | Ground Clip (Not Spared)         |
| 17   | -         | Plate (Not Spared)               |
| 18   | -         | Stud (Not Spared)                |
| 19   | -         | Exit Housing Seal (Not Spared)   |
| 20   | -         | Side Housing Seal (Not Spared)   |

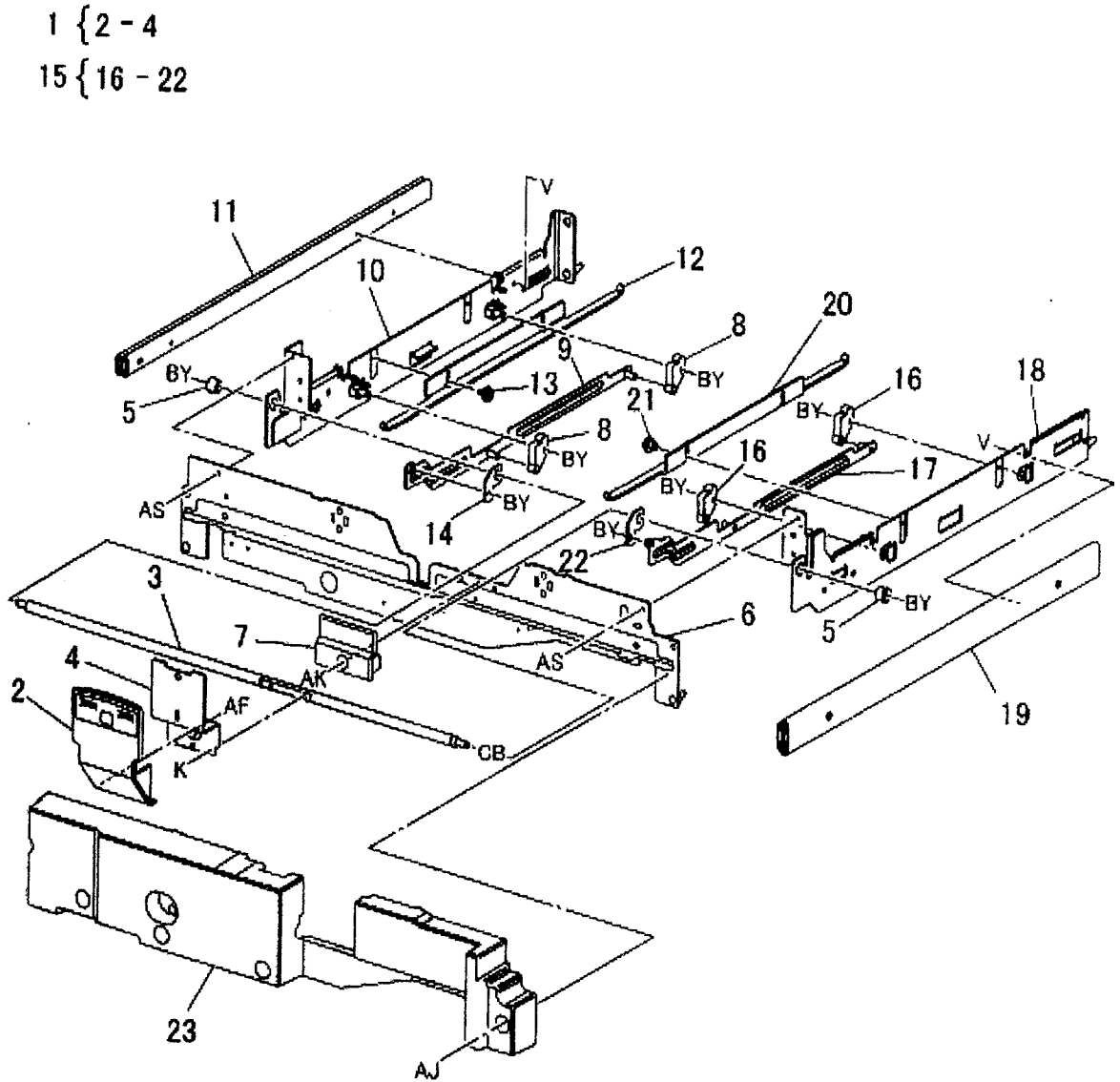
5 { 6 - 8



0507009A-OLY

# PL 7.10 IBT Drawer

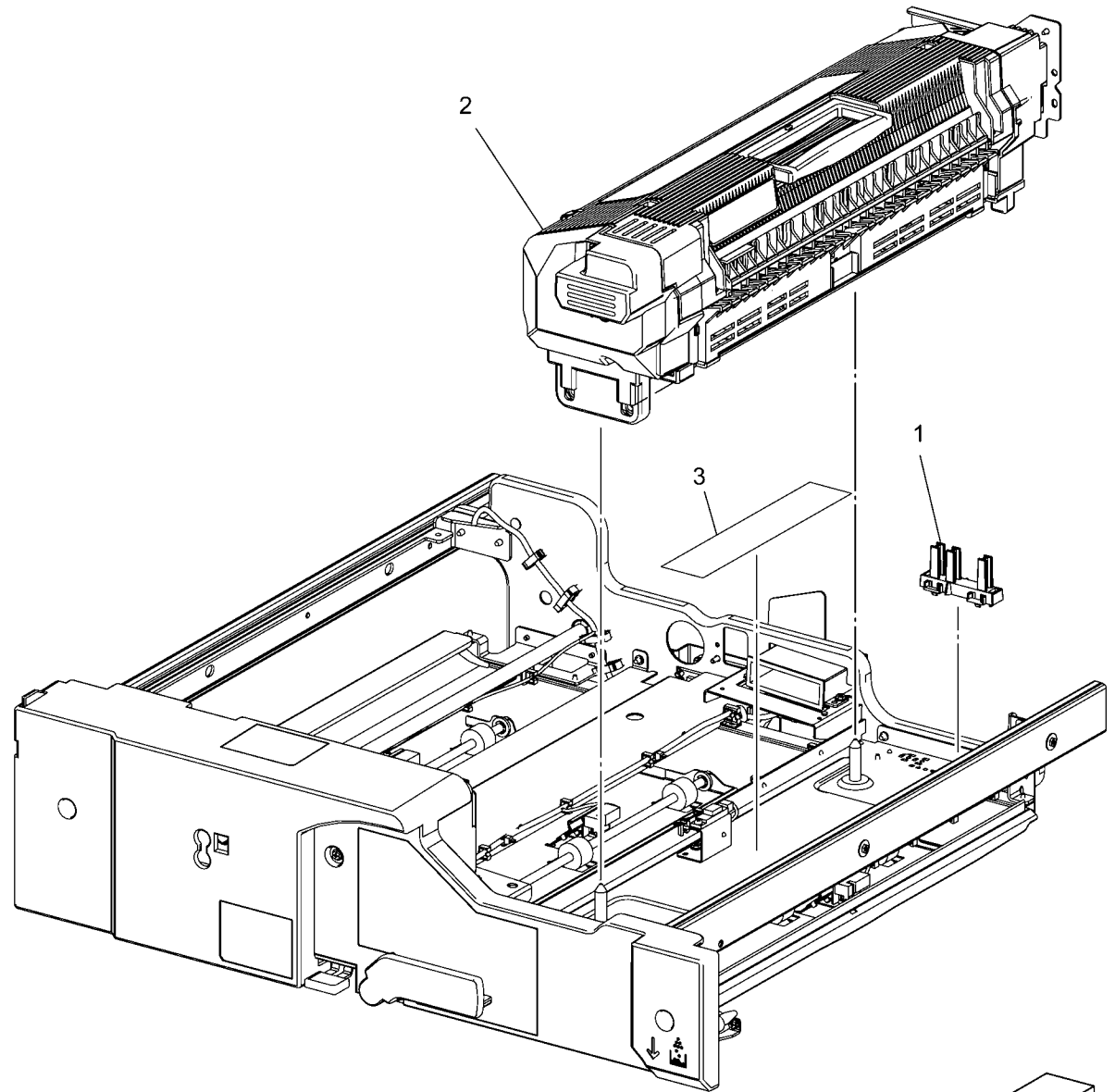
| Item | Part      | Description                          |
|------|-----------|--------------------------------------|
| 1    | -         | Handle Assembly                      |
| 2    | -         | Handle (P/O PL 7.10 Item 1)          |
| 3    | -         | Shaft                                |
| 4    | -         | Plate (P/O PL 7.10 Item 1)           |
| 5    | -         | Bearing                              |
| 6    | -         | Front Frame (Not Spared)             |
| 7    | -         | Cover                                |
| 8    | -         | Cam                                  |
| 9    | -         | Link                                 |
| 10   | -         | Frame (Not Spared)                   |
| 11   | 801K14911 | Left Rail                            |
| 12   | -         | Plate Spring (Not Spared)            |
| 13   | -         | Shoulder Screw                       |
| 14   | -         | Plate (Not Spared)                   |
| 15   | -         | Right Rail Assembly                  |
| 16   | -         | Cam (P/O PL 7.10 Item 15)            |
| 17   | -         | Link                                 |
| 18   | -         | Frame (Not Spared)                   |
| 19   | 801K14921 | Right Rail                           |
| 20   | -         | Plate Spring (P/O PL 7.10 Item 15)   |
| 21   | -         | Shoulder Screw (P/O PL 7.10 Item 15) |
| 22   | -         | Plate (P/O PL 7.10 Item 15)          |
| 23   | -         | Inner Cover                          |



0507010A-OLY

## PL 8.1 Fuser Unit

| Item | Part | Description |
|------|------|-------------|
| 1    | -    | Block       |
| 2    | -    | Fuser       |
| 3    | -    | Label       |

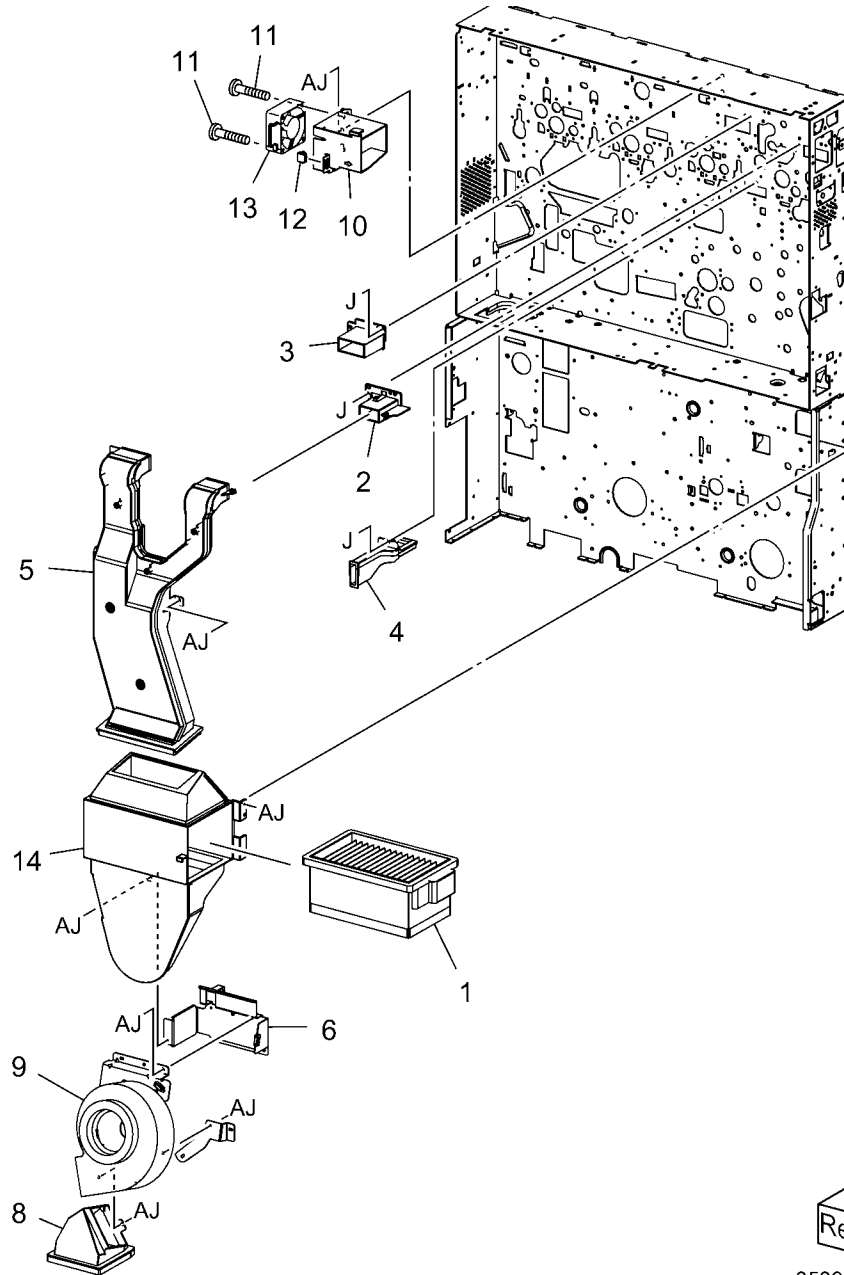


0508001A-OLY

# PL 9.1 Air System (1 of 3)

| Item | Part      | Description                     |
|------|-----------|---------------------------------|
| 1    | 053K91940 | Ozone Filter                    |
| 2    | -         | PCC Duct (Not Spared)           |
| 3    | -         | CC Duct (Not Spared)            |
| 4    | -         | Duct (Not Spared)               |
| 5    | -         | Main - K Duct (Not Spared)      |
| 6    | -         | Bracket Assembly (Not Spared)   |
| 7    | -         | Blower Assembly                 |
| 8    | -         | Blower Duct (P/O PL 9.1 Item 7) |
| 9    | 127K37892 | Blower (P/O PL 9.1 Item 7)      |
| 10   | -         | Fan Duct (Not Spared)           |
| 11   | -         | Screw (Not Spared)              |
| 12   | 913W01206 | Connector                       |
| 13   | 927W00024 | Rear Cooling Fan                |
| 14   | -         | Filter Case (Not Spared)        |

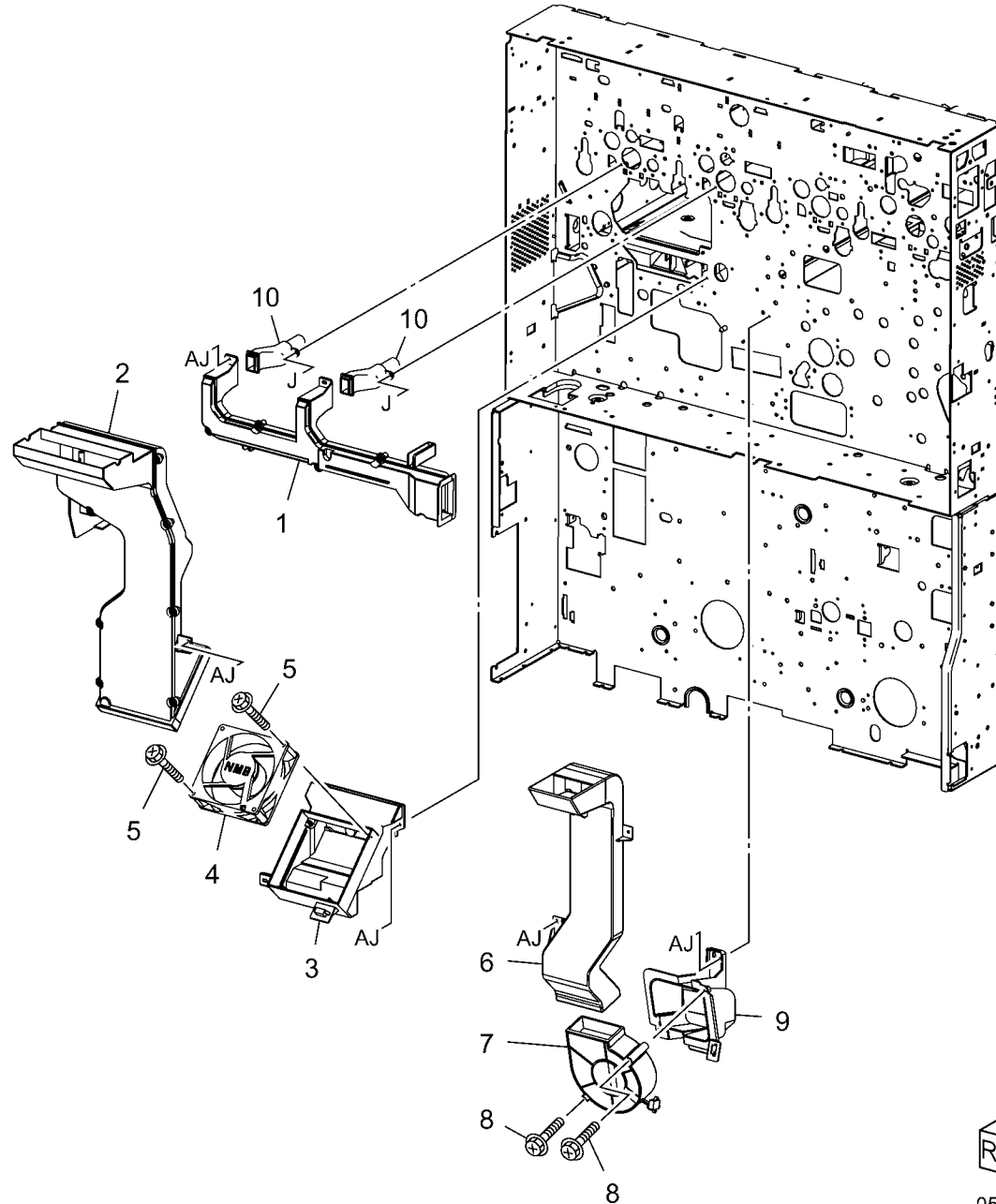
7 { 8-9



0509001A-OLY

## PL 9.2 Air System (2 of 3)

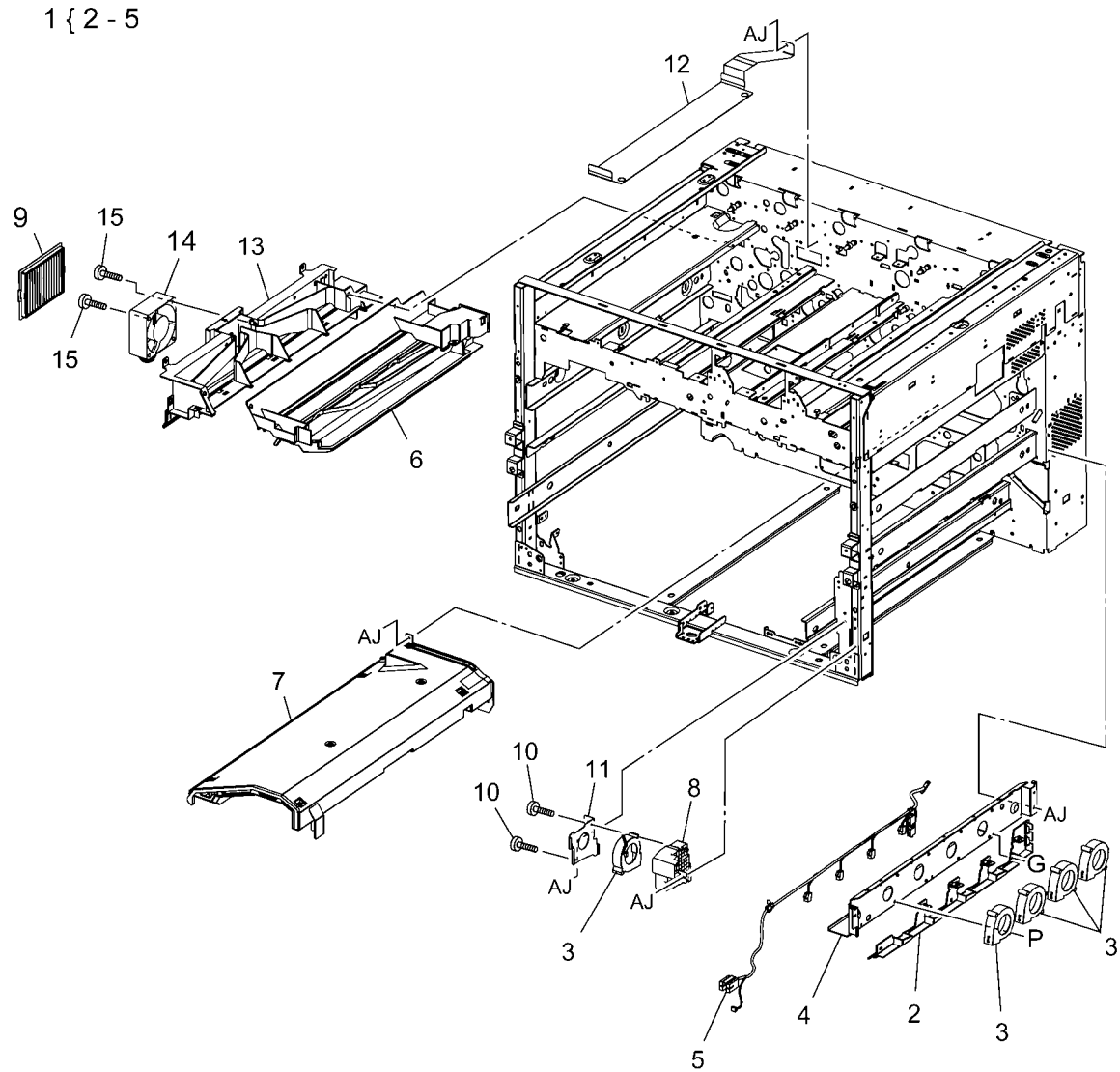
| Item | Part      | Description                   |
|------|-----------|-------------------------------|
| 1    | -         | Y,M Cooling Duct (Not Spared) |
| 2    | -         | Duct (Not Spared)             |
| 3    | -         | Duct (Not Spared)             |
| 4    | 127K45850 | Fuser Exhaust Fan             |
| 5    | -         | Screw (Not Spared)            |
| 6    | -         | V-Transport Duct (Not Spared) |
| 7    | 127K39571 | V-Transport Fan               |
| 8    | -         | Screw (Not Spared)            |
| 9    | -         | Duct (Not Spared)             |
| 10   | -         | Duct (Not Spared)             |



0509002A-OLY

## PL 9.3 Air System (3 of 3)

| Item | Part      | Description                                                  |
|------|-----------|--------------------------------------------------------------|
| 1    | -         | Paper Cool Duct Assembly                                     |
| 2    | -         | Duct (P/O PL 9.3 Item 1)                                     |
| 3    | 127K39580 | Exit Roll Fan 1, Exit Roll Fan 2, Exit Roll Fan 3, Front Fan |
| 4    | -         | Bracket (P/O PL 9.3 Item 1)                                  |
| 5    | -         | Wire Harness (P/O PL 9.3 Item 1)                             |
| 6    | -         | CC Duct (Not Spared)                                         |
| 7    | -         | Fuser Duct (Not Spared)                                      |
| 8    | -         | Duct (Not Spared)                                            |
| 9    | 053K91980 | CC Filter                                                    |
| 10   | -         | Screw (Not Spared)                                           |
| 11   | -         | Bracket (Not Spared)                                         |
| 12   | -         | CC Seal (Not Spared)                                         |
| 13   | -         | Duct (Not Spared)                                            |
| 14   | 127K39560 | CC Fan                                                       |
| 15   | -         | Screw                                                        |

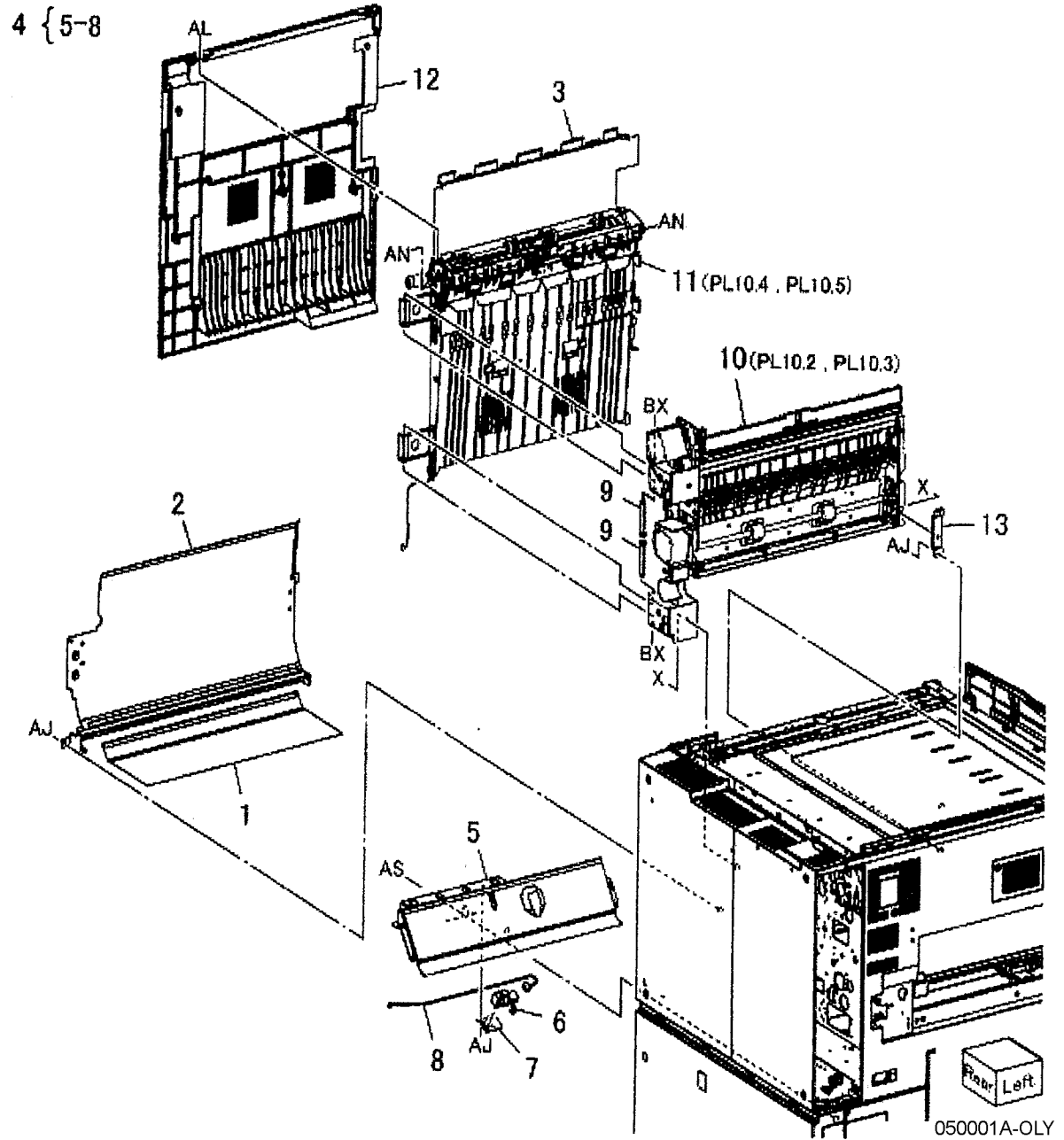


0509003A-OLY



# PL 10.1 Inverter

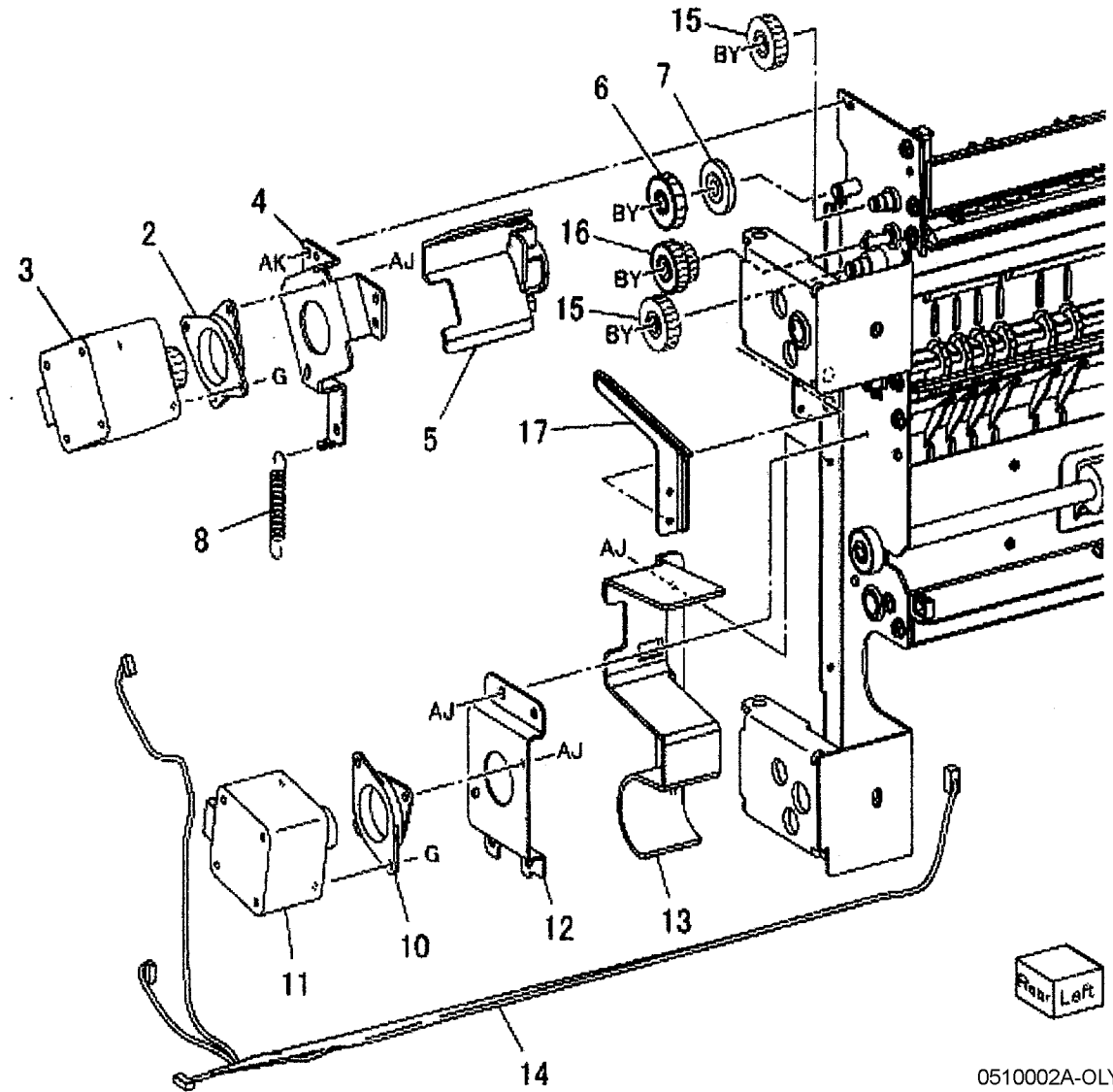
| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | 038E31521 | Bottom Guide                          |
| 2    | -         | Inverter 3 Chute                      |
| 3    | -         | OCT Exit Chute                        |
| 4    | -         | Inverter 4 Chute Assembly             |
| 5    | -         | Inverter 4 Chute (P/O PL 10.1 Item 4) |
| 6    | 130K87810 | Inverter End Sensor                   |
| 7    | -         | Bracket (P/O PL 10.1 Item 4)          |
| 8    | -         | Wire Harness (P/O PL 10.1 Item 4)     |
| 9    | -         | Pin                                   |
| 10   | 059K42353 | Inverter 1 Transport (REP 8.3)        |
| 11   | 059K41974 | Invert 2 Transport (REP 8.3)          |
| 12   | -         | Inverter Cover                        |
| 13   | -         | Bracket                               |



# PL 10.2 Inverter 1 Transport (1 of 2)

| Item | Part      | Description                          |
|------|-----------|--------------------------------------|
| 1    | 127K39730 | Exit Motor Assembly                  |
| 2    | -         | Damper (P/O PL 10.2 Item 1)          |
| 3    | -         | Exit Motor                           |
| 4    | -         | Bracket (P/O PL 10.2 Item 1)         |
| 5    | -         | Gear Cover (Not Spared)              |
| 6    | -         | Gear (26T)                           |
| 7    | -         | Collar                               |
| 8    | 809E55030 | Spring                               |
| 9    | 127K39720 | Inverter Motor Assembly              |
| 10   | -         | Damper (P/O PL 10.2 Item 9)          |
| 11   | -         | Inverter Motor (P/O PL 10.2 Item 9)  |
| 12   | -         | Bracket (P/O PL 10.2 Item 9)         |
| 13   | -         | Motor Cover (Not Spared)             |
| 14   | -         | Wire Harness (Not Spared)            |
| 15   | -         | Gear Assembly (23T) (Not Spared)     |
| 16   | -         | Gear Assembly (22T/16T) (Not Spared) |
| 17   | -         | Support Bracket (Not Spared)         |

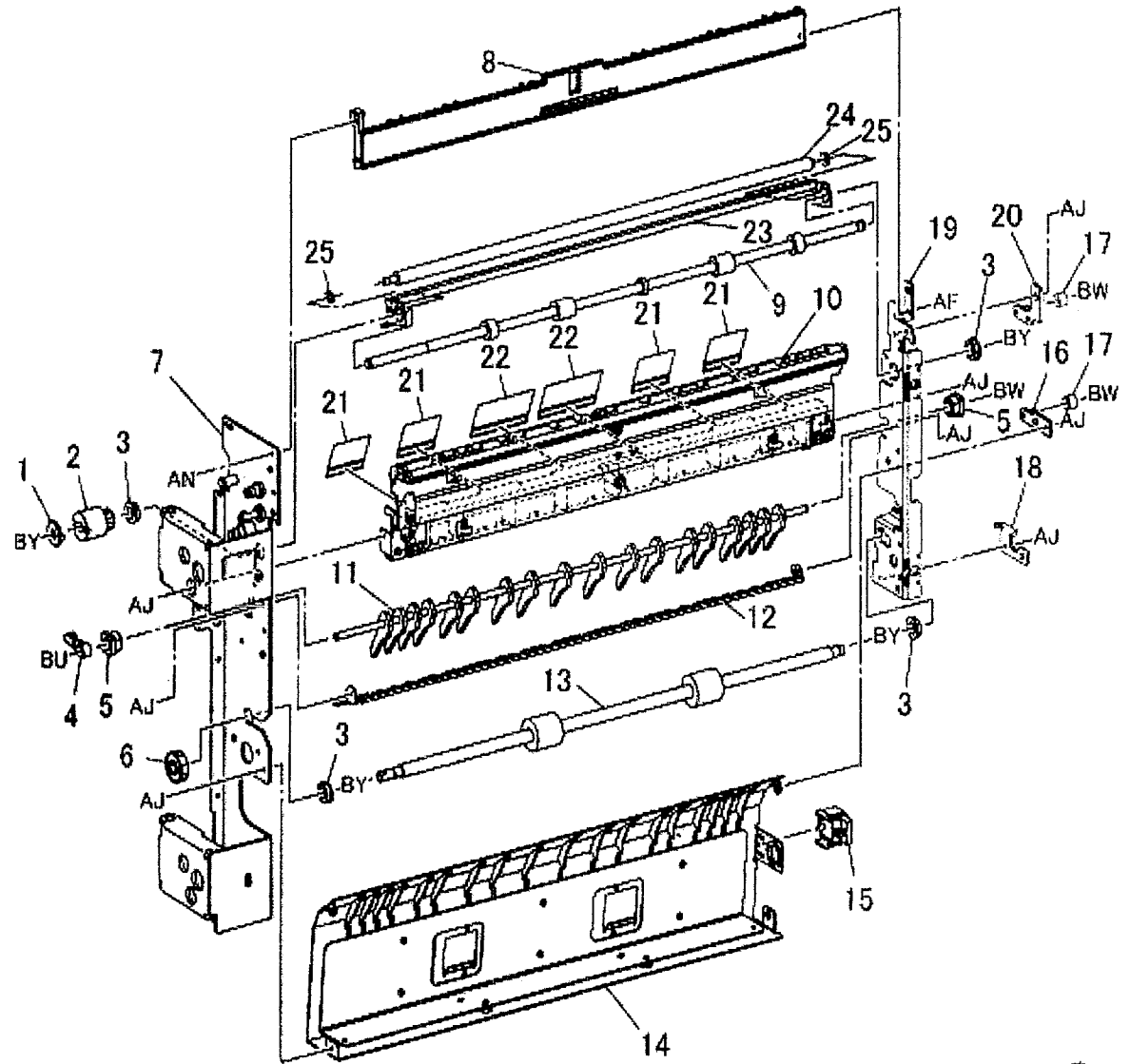
1 { 2 - 4  
 9 { 10 - 12



0510002A-OLY

## PL 10.3 Inverter 1 Transport (2 of 2)

| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | -         | Stopper                                    |
| 2    | 005K07680 | Gear (14T)                                 |
| 3    | 013E17670 | Bearing                                    |
| 4    | -         | Gate Link                                  |
| 5    | -         | Bearing (P/O PL 10.1 Item 10)              |
| 6    | -         | Gear (17T)                                 |
| 7    | -         | Rear Frame (P/O PL 10.3 Item 10)           |
| 8    | -         | Top Chute (P/O PL 10.1 Item 10)            |
| 9    | 059K42372 | Inverter Roll                              |
| 10   | -         | Upper Chute (P/O PL 10.1 Item 10)          |
| 11   | -         | Gate (P/O PL 10.1 Item 10)                 |
| 12   | -         | Middle Chute (P/O PL 10.1 Item 10)         |
| 13   | 059K33310 | inverter Duplicator Roll                   |
| 14   | -         | Lower Chute (P/O PL 10.1 Item 10)          |
| 15   | 110E93440 | Cabinet Interlock Switch                   |
| 16   | -         | Hinge (P/O PL 10.1 Item 10)                |
| 17   | -         | Collar (P/O PL 10.1 Item 10)               |
| 18   | -         | Stopper (P/O PL 10.1 Item 10)              |
| 19   | -         | Front Frame (P/O PL 10.1 Item 10)          |
| 20   | -         | inverter Upper Hinge (P/O PL 10.1 Item 10) |
| 21   | -         | Decurler Guide 1 (P/O PL 10.1 Item 10)     |
| 22   | -         | Decurler Guide 2 (P/O PL 10.1 Item 10)     |
| 23   | -         | Tie Bracket (P/O PL 10.1 Item 10)          |
| 24   | -         | Pinch Shaft (P/O PL 10.1 Item 10)          |
| 25   | -         | Bearing (P/O PL 10.1 Item 10)              |

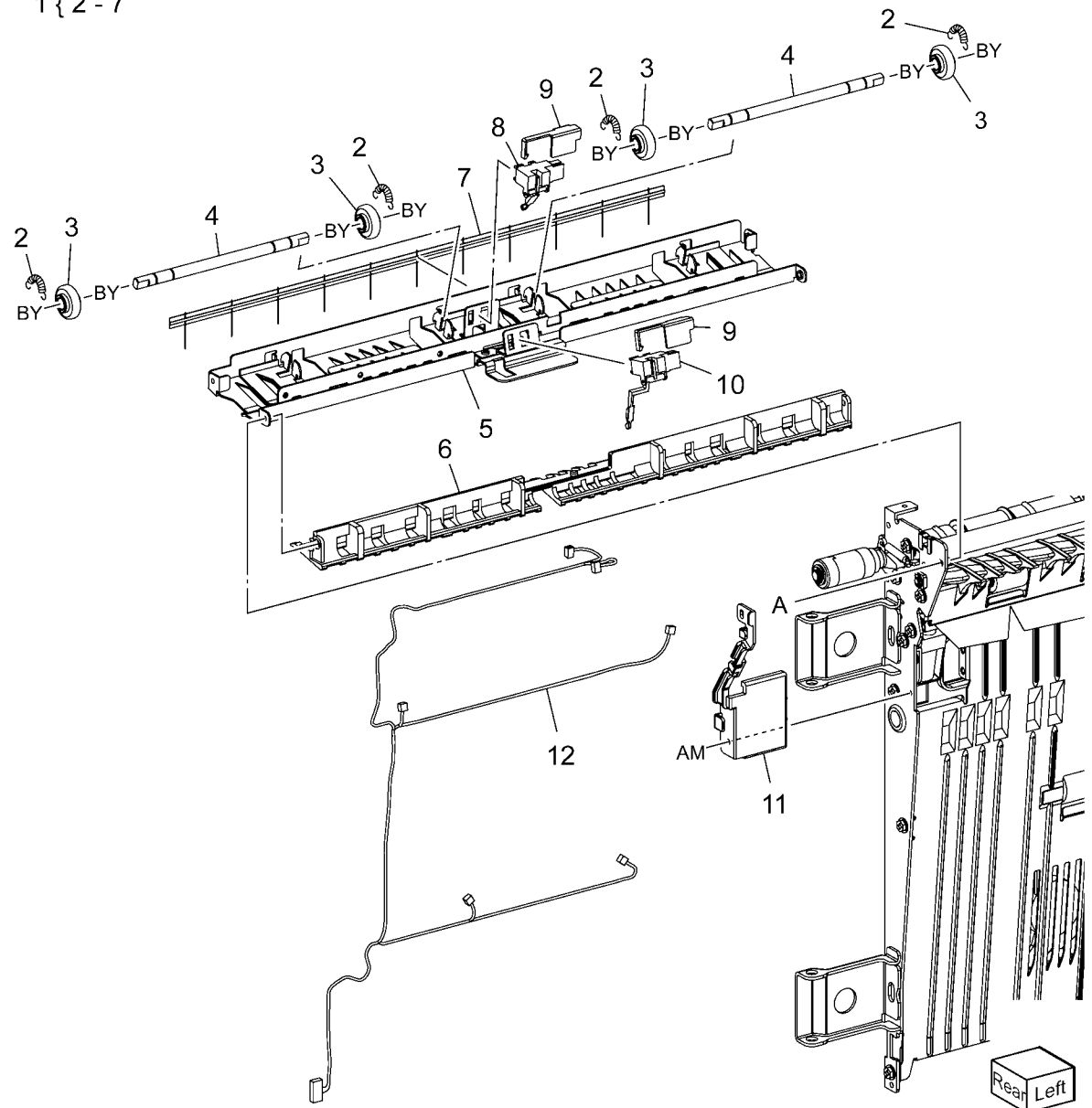


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# PL 10.4 Inverter 2 Transport (1 of 2)

| Item | Part      | Description                      |
|------|-----------|----------------------------------|
| 1    | 054K26415 | Upper Chute Assembly             |
| 2    | -         | Spring                           |
| 3    | -         | Pinch Roll (P/O PL 10.4 Item 1)  |
| 4    | -         | Shaft (P/O PL 10.4 Item 1)       |
| 5    | -         | Chute (P/O PL 10.4 Item 1)       |
| 6    | -         | Upper Chute (P/O PL 10.4 Item 1) |
| 7    | -         | Eliminator (P/O PL 10.4 Item 1)  |
| 8    | 130K88400 | IOT Exit Sensor                  |
| 9    | -         | Sensor Cover (Not Spared)        |
| 10   | 130K87710 | Invert In Sensor                 |
| 11   | -         | Nip Solenoid Cover               |
| 12   | -         | Wire Harness (Not Spared)        |

1 { 2 - 7

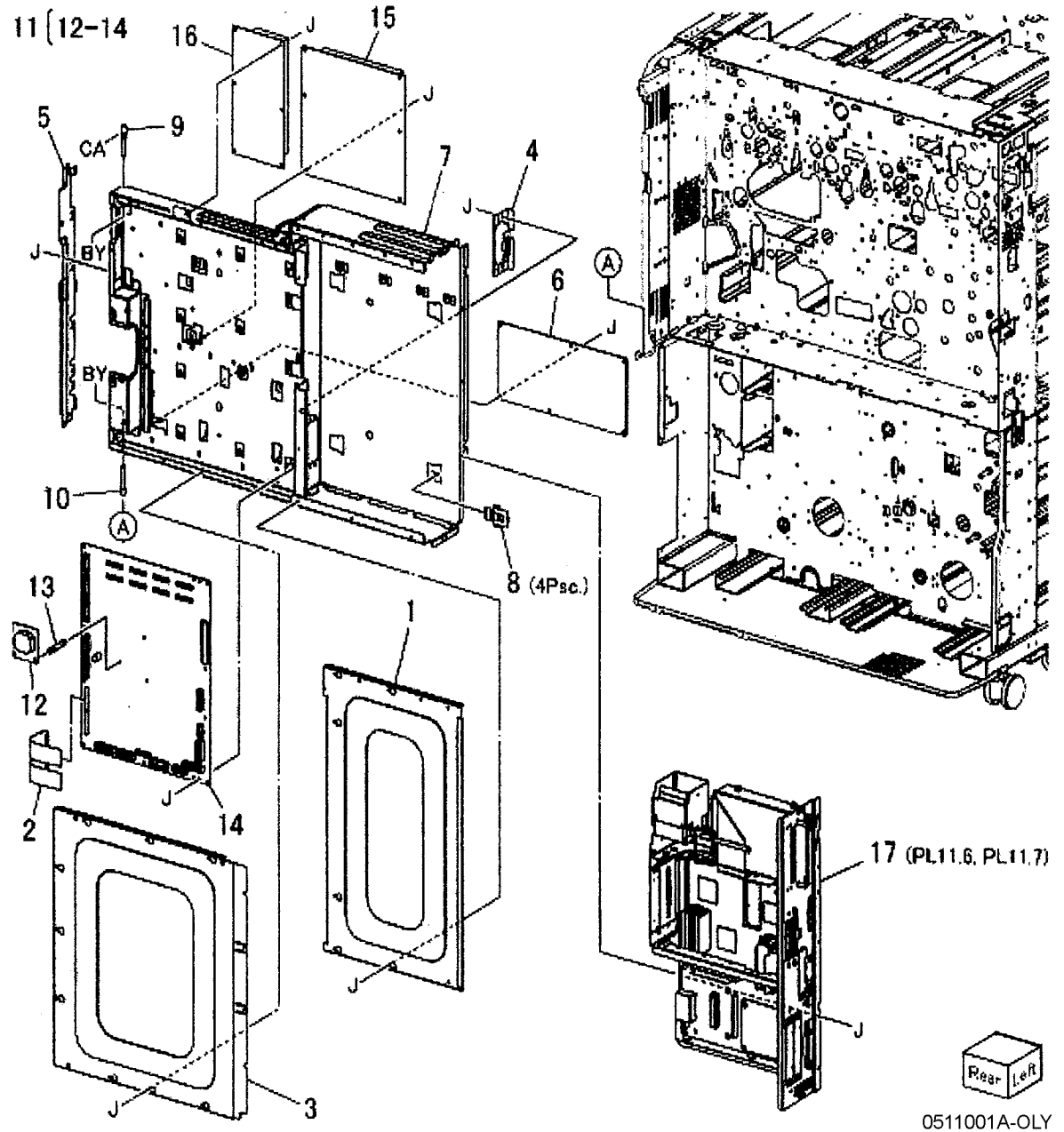


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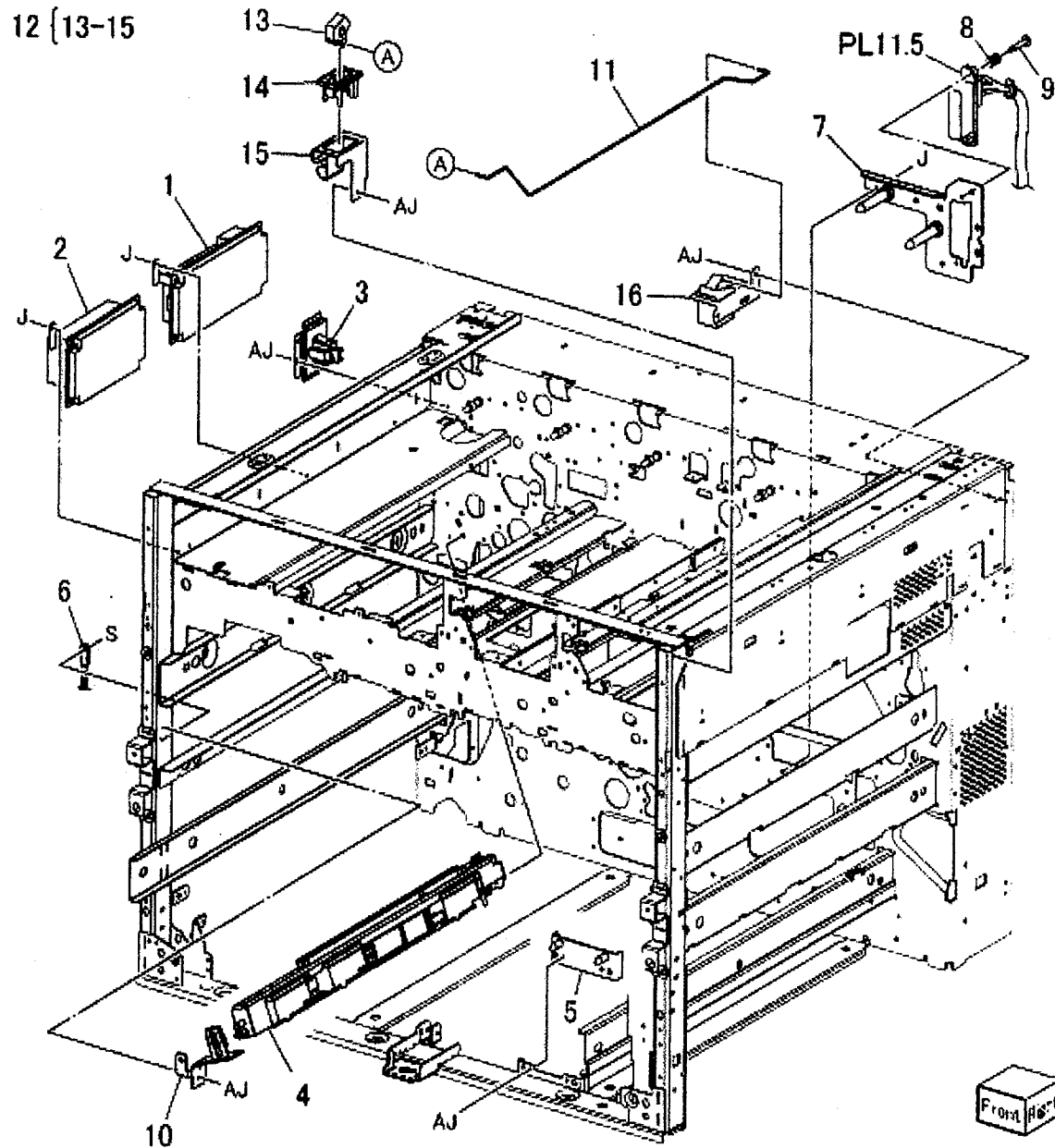
# PL 11.1 Electrical (1 of 3)

| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | -         | Control Cover                              |
| 2    | 117E23961 | Flat Cable                                 |
| 3    | -         | MCU Cover                                  |
| 4    | -         | Bracket (Not Spared)                       |
| 5    | -         | Bracket (Not Spared)                       |
| 6    | 960K00393 | IOT Driver PWB                             |
| 7    | -         | Chassis Assembly (Not Spared)<br>(REP 3.1) |
| 8    | -         | Plate Spring (Not Spared)                  |
| 9    | -         | Pin (Upper)                                |
| 10   | -         | Pin (Lower)                                |
| 11   | 960K01727 | MCU PWB Assembly                           |
| 12   | 160K95230 | MCU NVM PWB (P/O PL 11.1 Item<br>11)       |
| 13   | -         | Spacer (P/O PL 11.1 Item 11)               |
| 14   | -         | MCU PWB (P/O PL 11.1 Item 11)              |
| 15   | 105K20751 | Charge (Y,M,C) HVPS                        |
| 16   | 105K20760 | Developer Bias (Y,M,C) HVPS                |
| 17   | -         | Control Unit (Not Spared) (REP 3.2)        |



## PL 11.2 Electrical (2 of 3)

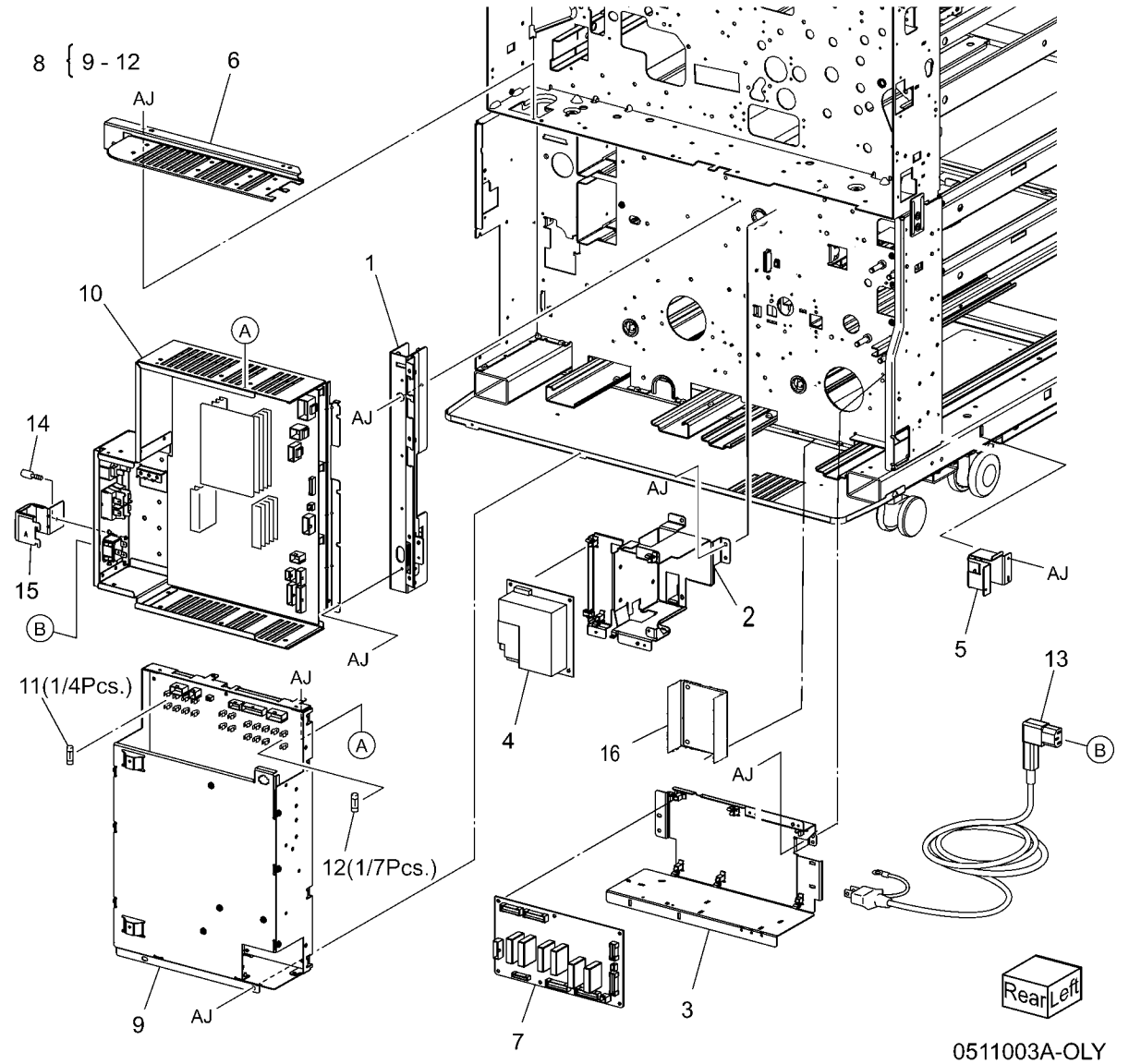
| Item | Part      | Description                   |
|------|-----------|-------------------------------|
| 1    | 105K20970 | Change (K) Preclean HVPS      |
| 2    | 105K20980 | Developer Bias (K) HVPS       |
| 3    | 068K23802 | Outlet (220V)                 |
| -    | 068K23692 | Outlet (120V)                 |
| 4    | 130K87701 | MOB ADC Assembly (REP 9.13)   |
| 5    | -         | Bracket                       |
| 6    | 130K88740 | Environment Sensor            |
| 7    | -         | Frame Assembly (Not Spared)   |
| 8    | 809E49990 | Spring                        |
| 9    | 826E08080 | Shoulder Screw                |
| 10   | -         | Plate Assembly (Not Spared)   |
| 11   | -         | Switch Rod                    |
| 12   | -         | Main Switch Assembly          |
| 13   | -         | CAM                           |
| 14   | -         | Case (P/O PL 11.2 Item 12)    |
| 15   | -         | Bracket (P/O PL 11.2 Item 12) |
| 16   | 110K12030 | Power Switch                  |



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# PL 11.3 Electrical (3 of 3)

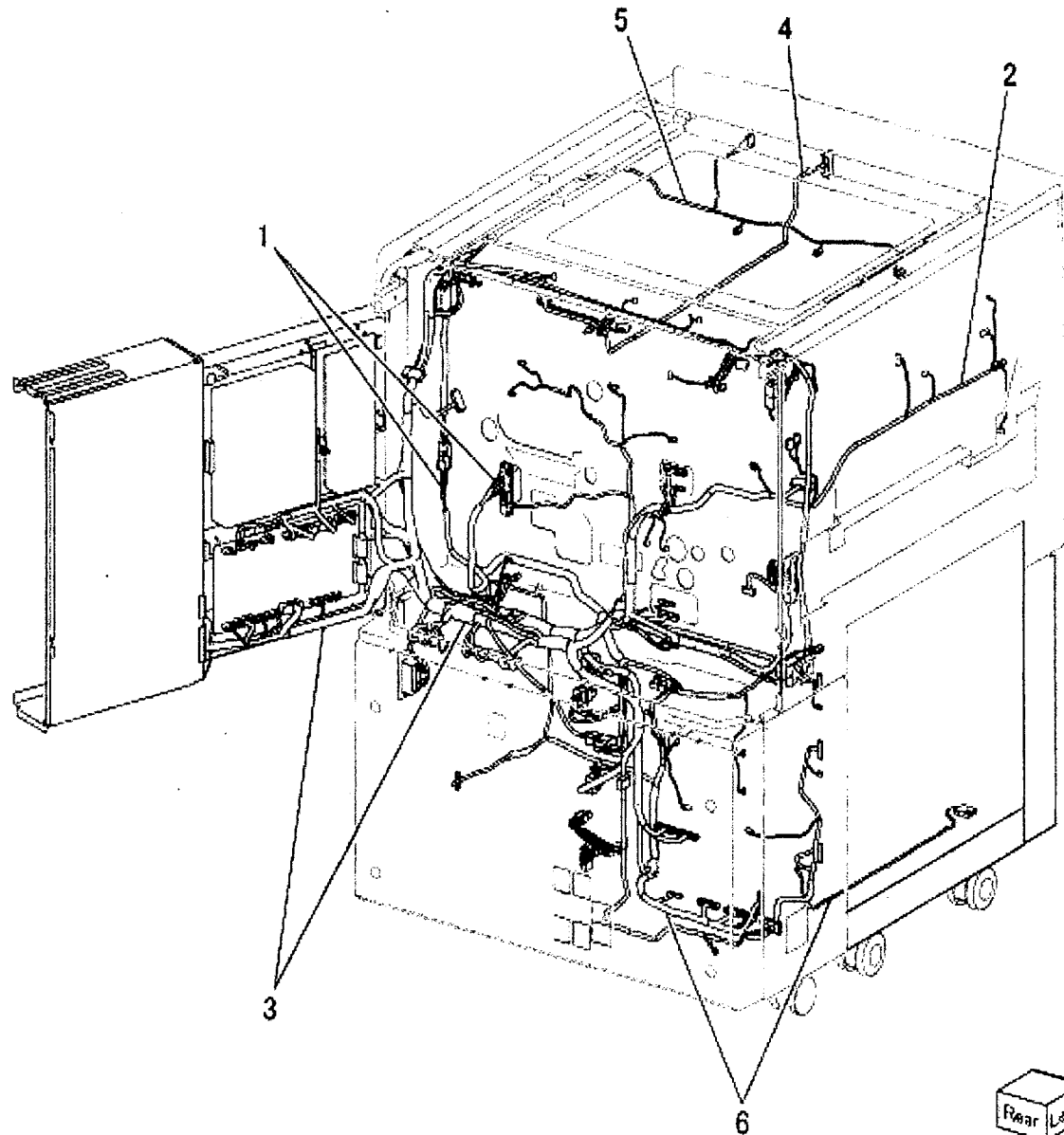
| Item | Part      | Description                                    |
|------|-----------|------------------------------------------------|
| 1    | -         | Bracket Assembly (Not Spared)                  |
| 2    | -         | Bracket Assembly (Not Spared)                  |
| 3    | -         | Bracket Assembly (Not Spared)                  |
| 4    | 105K20741 | 2nd BTR HVPS                                   |
| 5    | -         | Bracket (Not Spared)                           |
| 6    | -         | Bracket (Not Spared)                           |
| 7    | 960K00405 | Tray Module PWB                                |
| 8    | 105K20841 | Power Unit (120V)                              |
| -    | 105K20931 | Power Unit (220V) (REP 1.1)                    |
| 9    | -         | Main LVPS                                      |
| 10   | -         | AC Unit G1                                     |
| 11   | -         | 5A Fuse 1/2/3/4 (P/O PL 11.3 Item 9)           |
| 12   | -         | 6.3A Fuse 5/6/7/8/9/10/11 (P/O PL 11.3 Item 8) |
| 13   | -         | Power Cord                                     |
| 14   | -         | Screw (Not Spared)                             |
| 15   | -         | Bracket (Not Spared)                           |
| 16   | 105K21550 | IIT LVPS (220V)                                |





## PL 11.4 Wire Harness

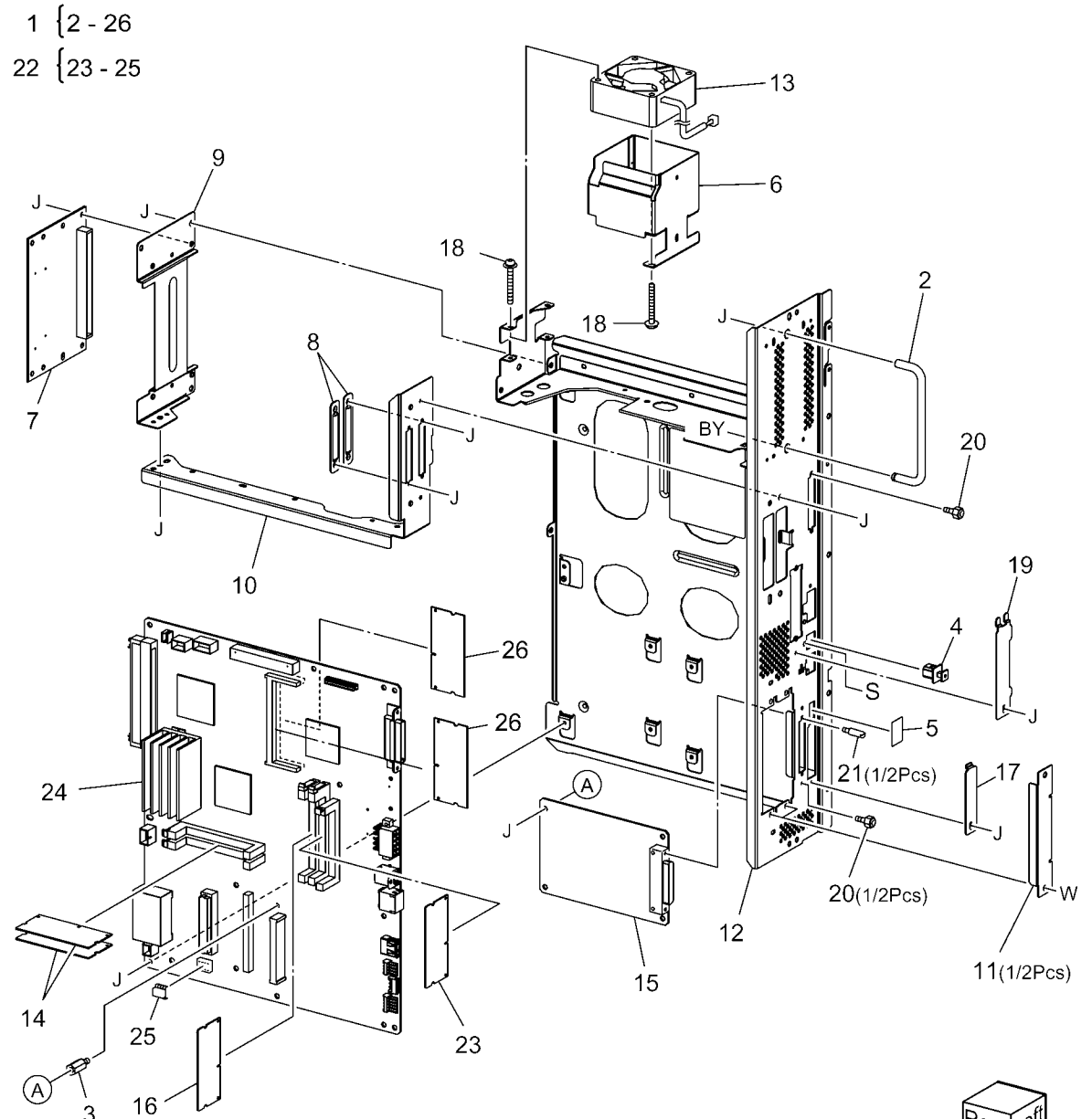
| Item | Part | Description                         |
|------|------|-------------------------------------|
| 1    | -    | Wire Harness (AC) (Not Spared)      |
| 2    | -    | Wire Harness (Signal) (Not Spared)  |
| 3    | -    | Wire Harness (Power) (Not Spared)   |
| 4    | -    | Wire Harness (Control) (Not Spared) |
| 5    | -    | Wire Harness (R/H) (Not Spared)     |
| 6    | -    | Tray Module Harness (Not Spared)    |



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# PL 11.5 Control Unit (1 of 2)

| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | -         | Control Housing Assembly              |
| 2    | -         | Handle                                |
| 3    | -         | Spacer                                |
| 4    | -         | Cap (USB B)                           |
| 5    | -         | Seal (USB A)                          |
| 6    | -         | Duct (P/O PL 11.5 Item 1)             |
| 7    | 160K95381 | BP PWB                                |
| 8    | -         | Dummy Plate (P/O PL 11.5 Item 1)      |
| 9    | -         | Plate (P/O PL 11.5 Item 1)            |
| 10   | -         | Bracket (P/O PL 11.5 Item 1)          |
| 11   | -         | Panel                                 |
| 12   | -         | Housing Assembly (P/O PL 11.5 Item 1) |
| 13   | 127K38181 | ESS Fan                               |
| 14   | 960K00022 | ESS Memory (512MB)                    |
| -    | 133K23690 | Memory (256MB)                        |
| 15   | -         | UI Interface PWB                      |
| 16   | 537K68651 | MF ROM                                |
| 17   | -         | Blind Cover                           |
| 18   | -         | Screw (P/O PL 11.5 Item 1)            |
| 19   | -         | Cover                                 |
| 20   | -         | Locks crew (P/O PL 11.5 Item 1)       |
| 21   | -         | Screw (P/O PL 11.5 Item 1)            |
| 22   | -         | ESS PWB Assembly                      |
| 23   | 160K99200 | ESS NVM PWB                           |
| 24   | 960K05563 | ESS PWB (with Item 25) (REP 3.5)      |
| 25   | -         | EEP ROM (w/o Item 24) (Not Spared)    |
| 26   | -         | 128 MB Page Memory                    |

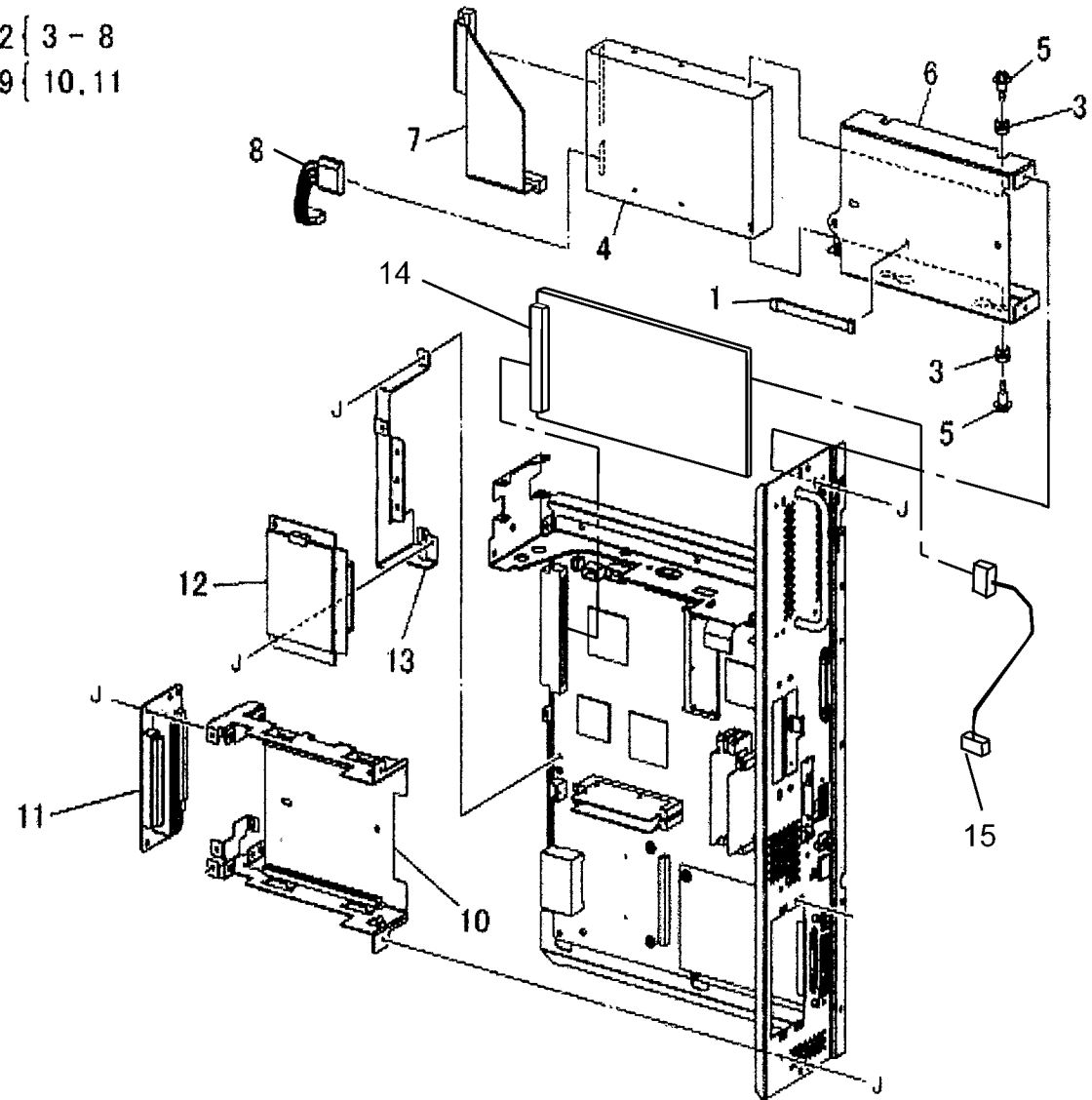


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## PL 11.6 Control Unit (2 of 2)

| Item | Part      | Description                    |
|------|-----------|--------------------------------|
| 1    | -         | Clamp                          |
| 2    | 068K24451 | Hard Drive Assembly (80G)      |
| 3    | -         | Damper (P/O PL 11.6 Item 2)    |
| 4    | -         | Hard Drive (40G)               |
| 5    | -         | Screw (P/O PL 11.6 Item 2)     |
| 6    | -         | Bracket (P/O PL 11.6 Item 2)   |
| 7    | 962K19860 | Wire Harness                   |
| 8    | 962K19871 | Wire Harness                   |
| 9    | -         | Riser PWB Bracket Assembly     |
| 10   | -         | Bracket (P/O PL 11.6 Item 9)   |
| 11   | 960K05670 | Riser PWB (P/O PL 11.6 Item 9) |
| 12   | 160K97580 | JPEG PWBA                      |
| 13   | -         | Bracket                        |
| 14   | -         | VSEL PWB                       |
| 15   | -         | VSEL Cable                     |

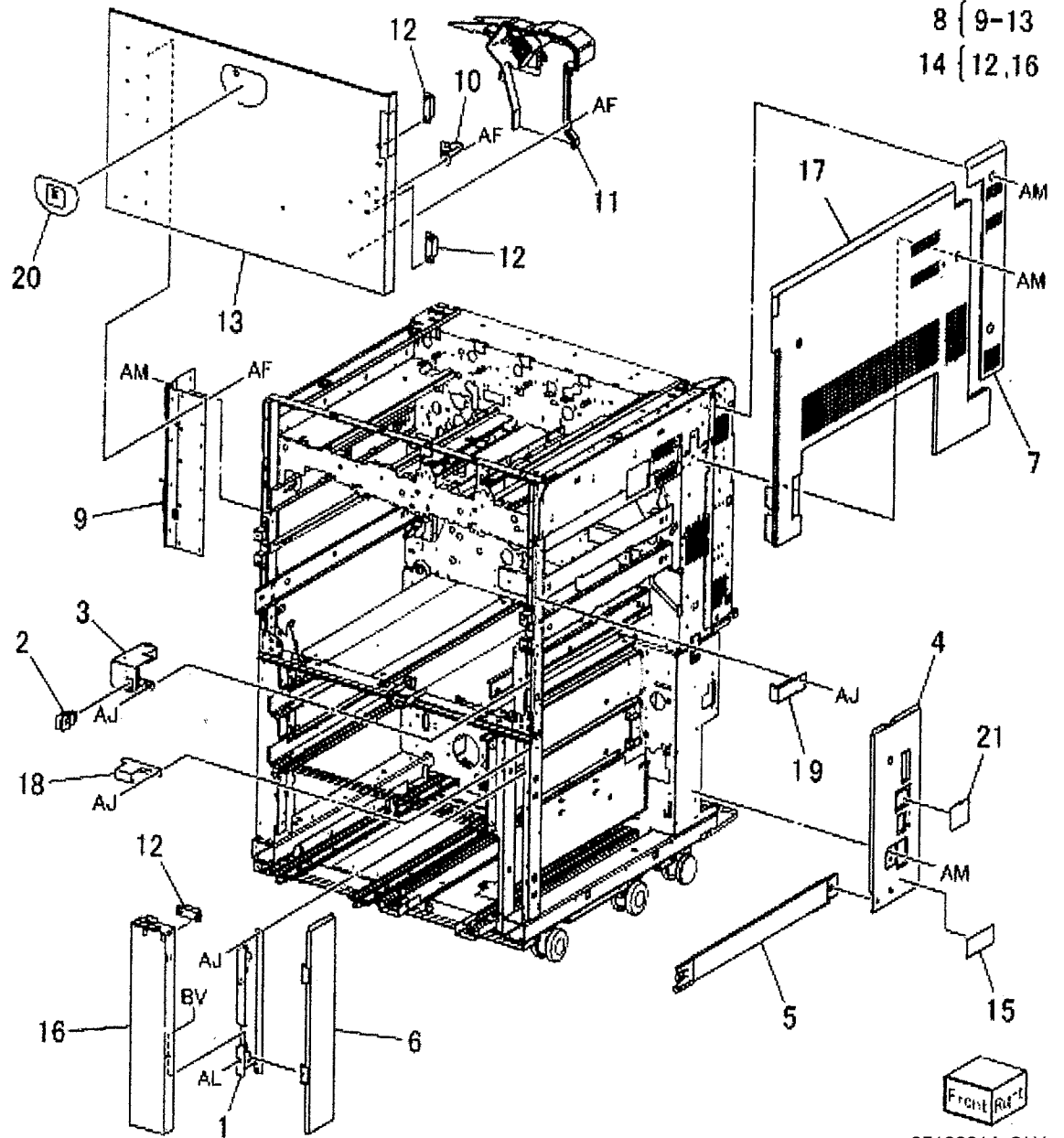
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# PL 12.1 Cover (1 of 2)

| Item | Part      | Description                      |
|------|-----------|----------------------------------|
| 1    | -         | Hinge                            |
| 2    | 110E11980 | Front Cover Interlock Switch     |
| 3    | -         | Bracket (Not Spared)             |
| 4    | -         | Right Rear Lower Cover           |
| 5    | -         | Right Lower Cover                |
| 6    | -         | Right Front Lower Cover          |
| 7    | -         | Right Rear Upper Cover           |
| 8    | 802K65451 | Front Cover Assembly             |
| 9    | -         | Hinge                            |
| 10   | 032E21490 | Guide                            |
| 11   | -         | Fuser Duct (P/O PL 12.1 Item 8)  |
| 12   | 121E85020 | Magnet Catch                     |
| 13   | -         | Front Cover (P/O PL 12.1 Item 8) |
| 14   | 802K65501 | Bottle Cover                     |
| 15   | -         | Label (Earth) (Not Spared)       |
| 16   | -         | Bottle Cover                     |
| 17   | -         | Right Upper Cover                |
| 18   | -         | Bracket (Not Spared)             |
| 19   | -         | Bracket (Not Spared)             |
| 20   | -         | Logo Plate                       |
| 21   | 802E63660 | Blind Cover                      |

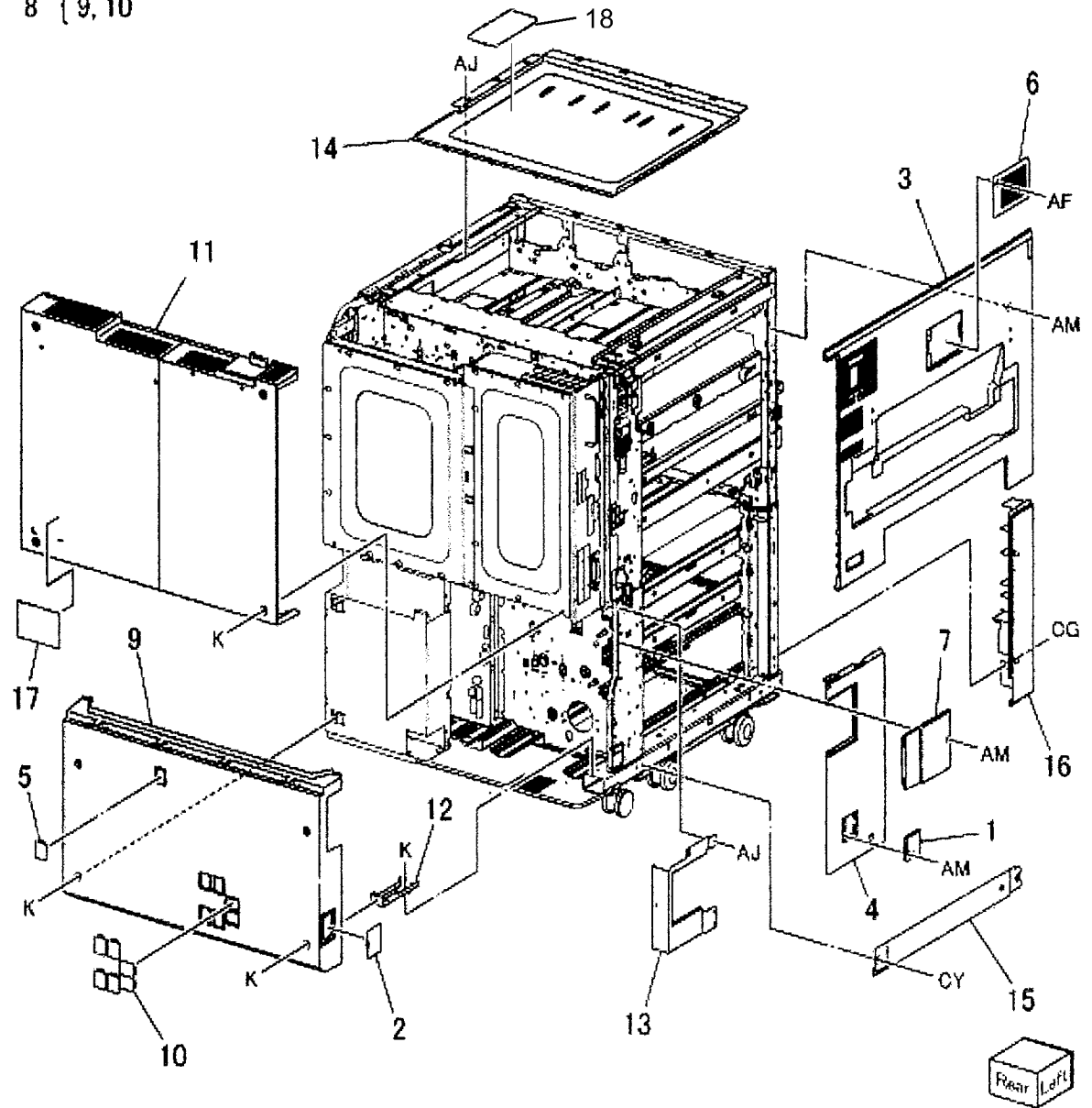


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## PL 12.2 Cover (2 of 2)

| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | -         | Cover                                 |
| 2    | 802E63660 | Blind Cover                           |
| 3    | -         | Left Upper Cover                      |
| 4    | -         | Left Rear Lower Cover                 |
| 5    | -         | Cover                                 |
| 6    | -         | Filter                                |
| 7    | 802K56961 | Filter Cover                          |
| 8    | -         | Rear Lower Cover                      |
| 9    | -         | Rear Lower Cover (P/O PL 12.2 Item 8) |
| 10   | -         | Blind Cover (P/O PL 12.2 Item 8)      |
| 11   | -         | Rear Upper Cover                      |
| 12   | -         | Bracket (Not Spared)                  |
| 13   | -         | Bracket (Not Spared)                  |
| 14   | -         | IIT Plate                             |
| 15   | -         | Cover                                 |
| 16   | -         | Cover                                 |
| 17   | -         | Data Plate                            |
| 18   | -         | Label (CE)                            |

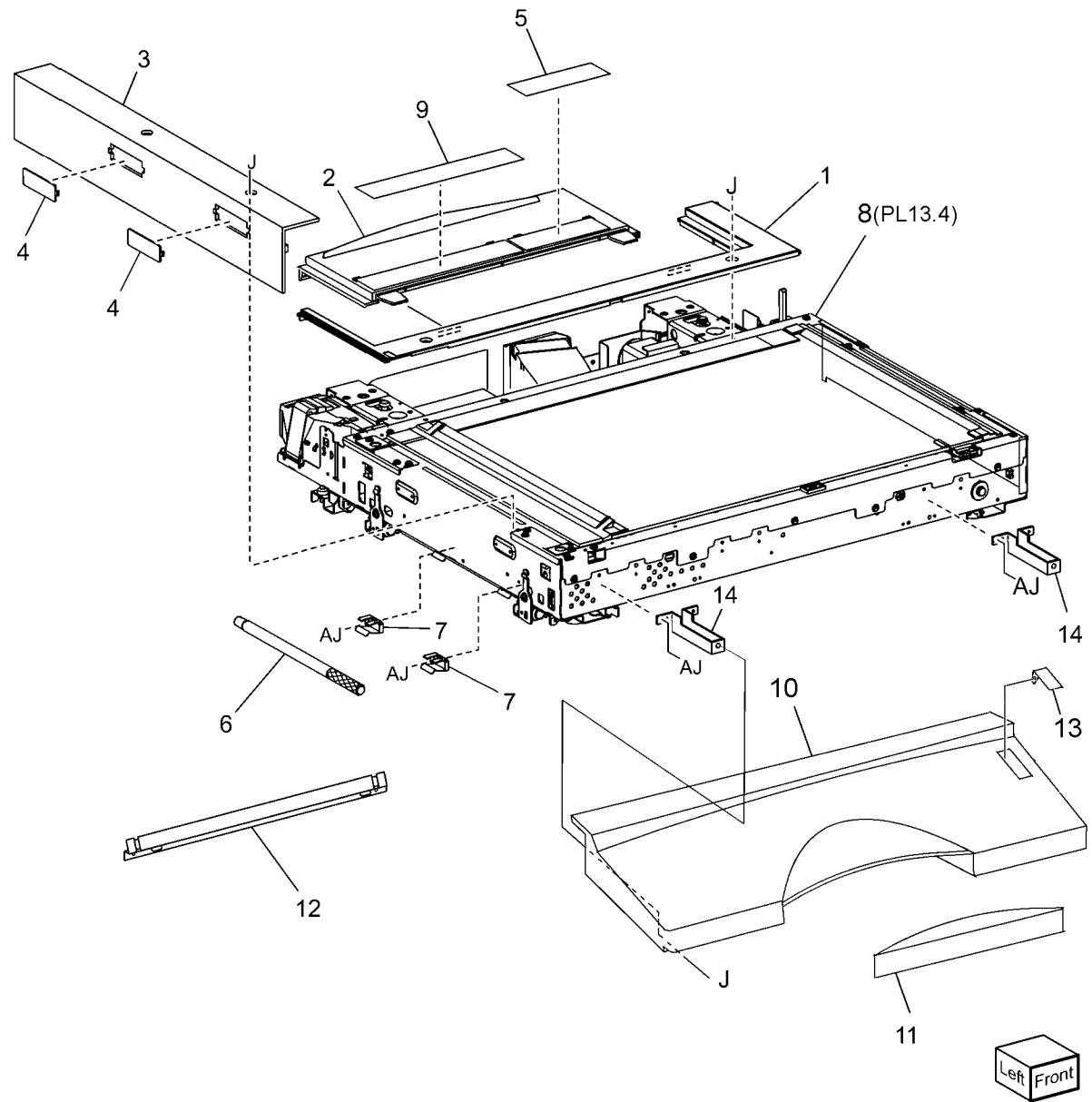
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## PL 13.1 IIT Cover - Front/Top

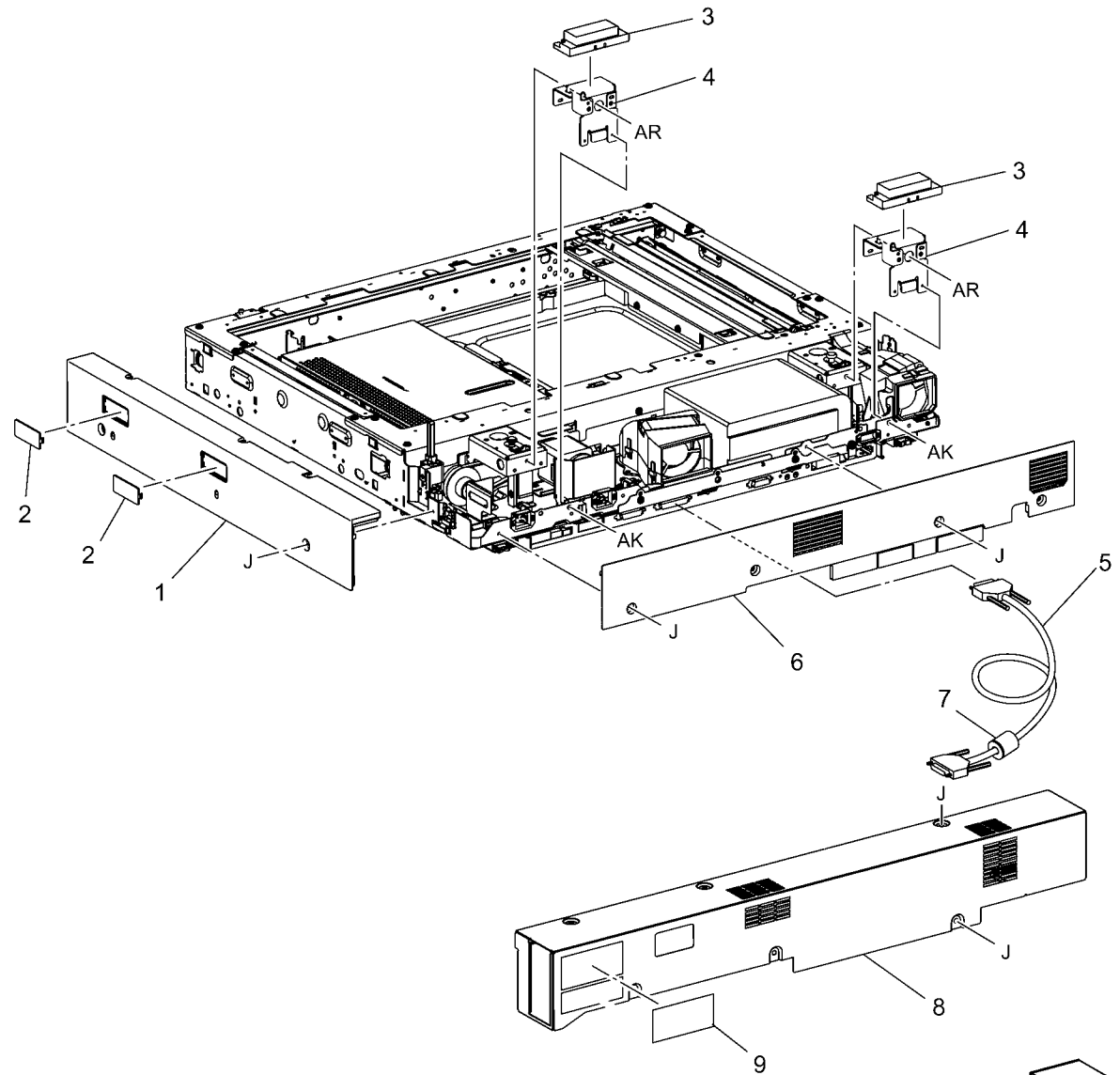
| Item | Part      | Description                          |
|------|-----------|--------------------------------------|
| 1    | -         | Top Rear Cover 1                     |
| 2    | 802E62451 | Top Rear Cover 2                     |
| 3    | -         | IIT Left Cover                       |
| 4    | 802E63030 | Blind Cover                          |
| 5    | -         | Sensor Shield (Not Spared)           |
| 6    | -         | Lift Arm                             |
| 7    | -         | Arm Holder (Not Spared)              |
| 8    | -         | IIT Assembly (Not Spared) (REP 5.24) |
| 9    | -         | Caution Label (Not Spared)           |
| 10   | -         | IIT Front Cover (Not Spared)         |
| 11   | -         | Name Label                           |
| 12   | -         | Shading Jig                          |
| 13   | 849E29921 | Switch Cover                         |
| 14   | -         | Bracket (Not Spared)                 |



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# PL 13.2 IIT Cover - Rear/Right, Power Chassis (DADF-250)

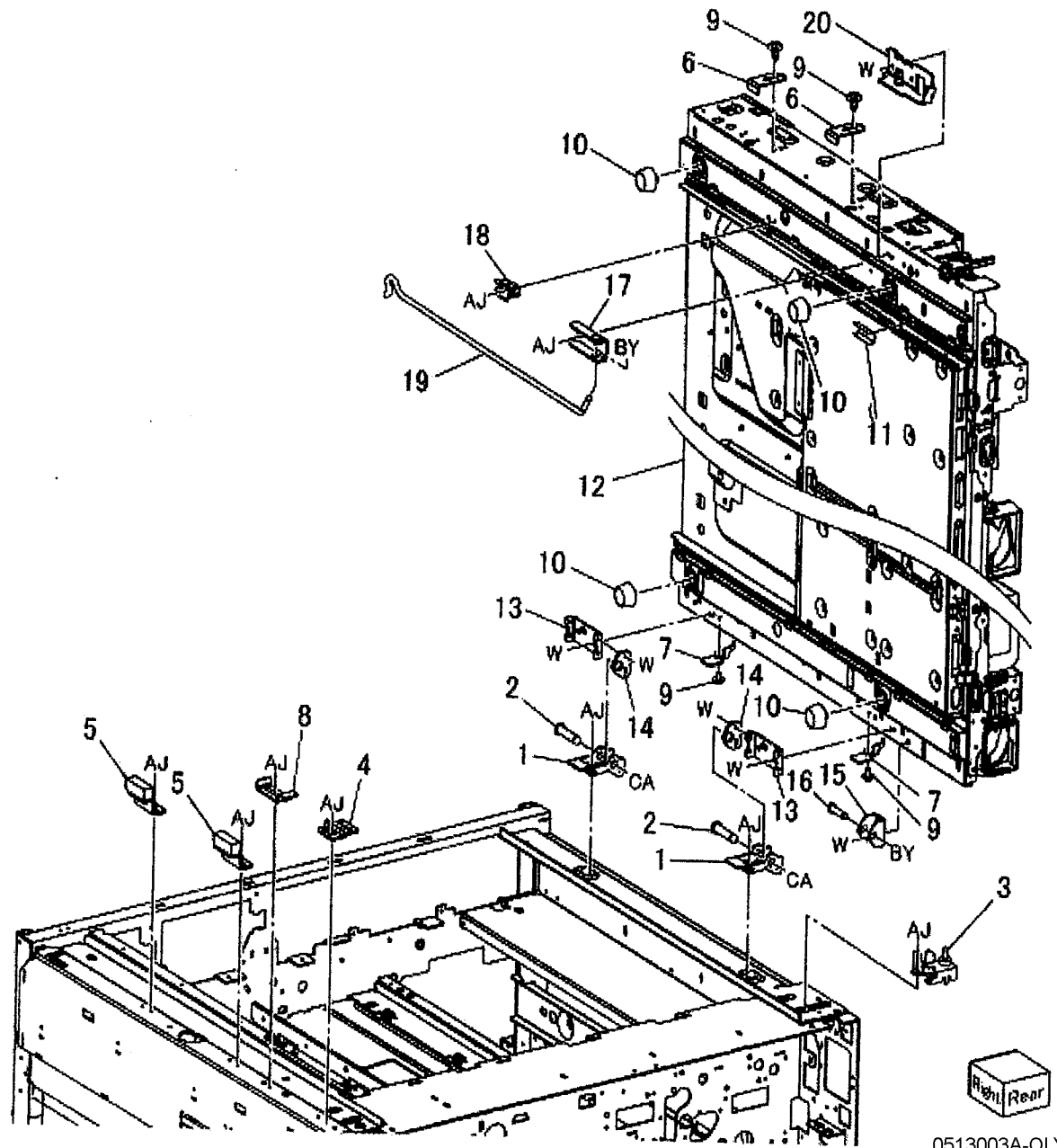
| Item | Part      | Description                       |
|------|-----------|-----------------------------------|
| 1    | 802E56502 | IIT Right Cover                   |
| 2    | 802E63030 | Blind Cover                       |
| 3    | 802E67240 | Blind Cover                       |
| 4    | -         | DADF Support Bracket (Not Spared) |
| 5    | 117E21690 | IIT ESS Cable                     |
| 6    | 802E64371 | IIT Rear Cover                    |
| 7    | -         | Core                              |
| 8    | -         | Power Chassis Cover               |
| 9    | -         | Label                             |



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# PL 13.3 IIT Bottom Bracket

| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Pivot Bracket (Not Spared)         |
| 2    | -         | Pivot Stud (Not Spared)            |
| 3    | -         | Left Locator Bracket (Not Spared)  |
| 4    | -         | Right Locator Bracket (Not Spared) |
| 5    | -         | Foot Bracket (Not Spared)          |
| 6    | -         | Right Stopper (Not Spared)         |
| 7    | -         | Left Stopper (Not Spared)          |
| 8    | -         | Lock Brace Bracket (Not Spared)    |
| 9    | -         | Forming Screw (Not Spared)         |
| 10   | 017E92060 | Foot                               |
| 11   | -         | Bottom Seal (Not Spared)           |
| 12   | -         | IIT Frame (Not Spared)             |
| 13   | -         | Pivot Bracket (Not Spared)         |
| 14   | -         | Pivot Plate (Not Spared)           |
| 15   | -         | Locate Bracket (Not Spared)        |
| 16   | -         | Locate Stud (Not Spared)           |
| 17   | -         | Brace Bracket (Not Spared)         |
| 18   | -         | Brace Holder (Not Spared)          |
| 19   | -         | Brace Shaft (Not Spared)           |
| 20   | -         | Arm Bracket (Not Spared)           |

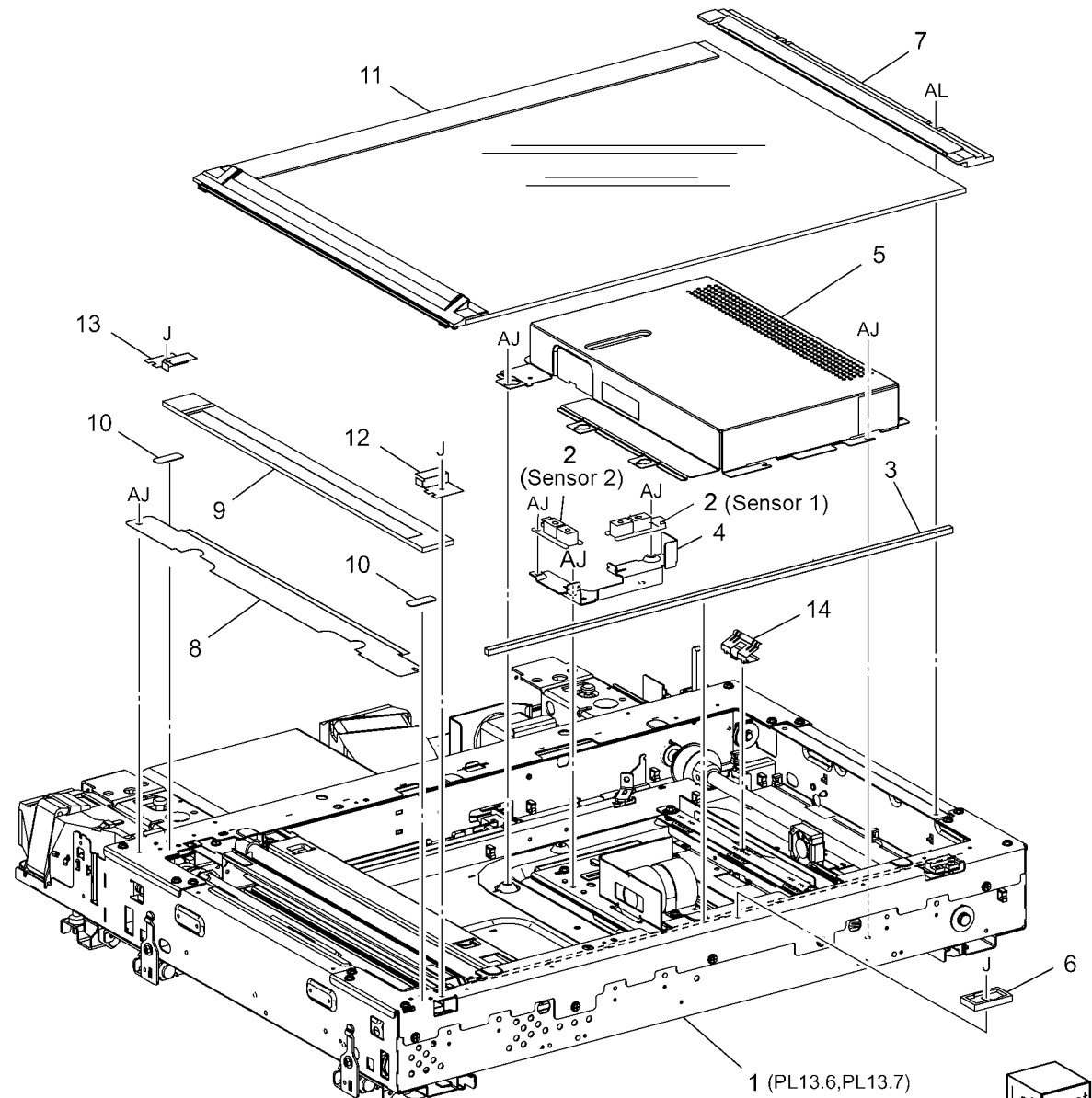


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# PL 13.4 IIT Component

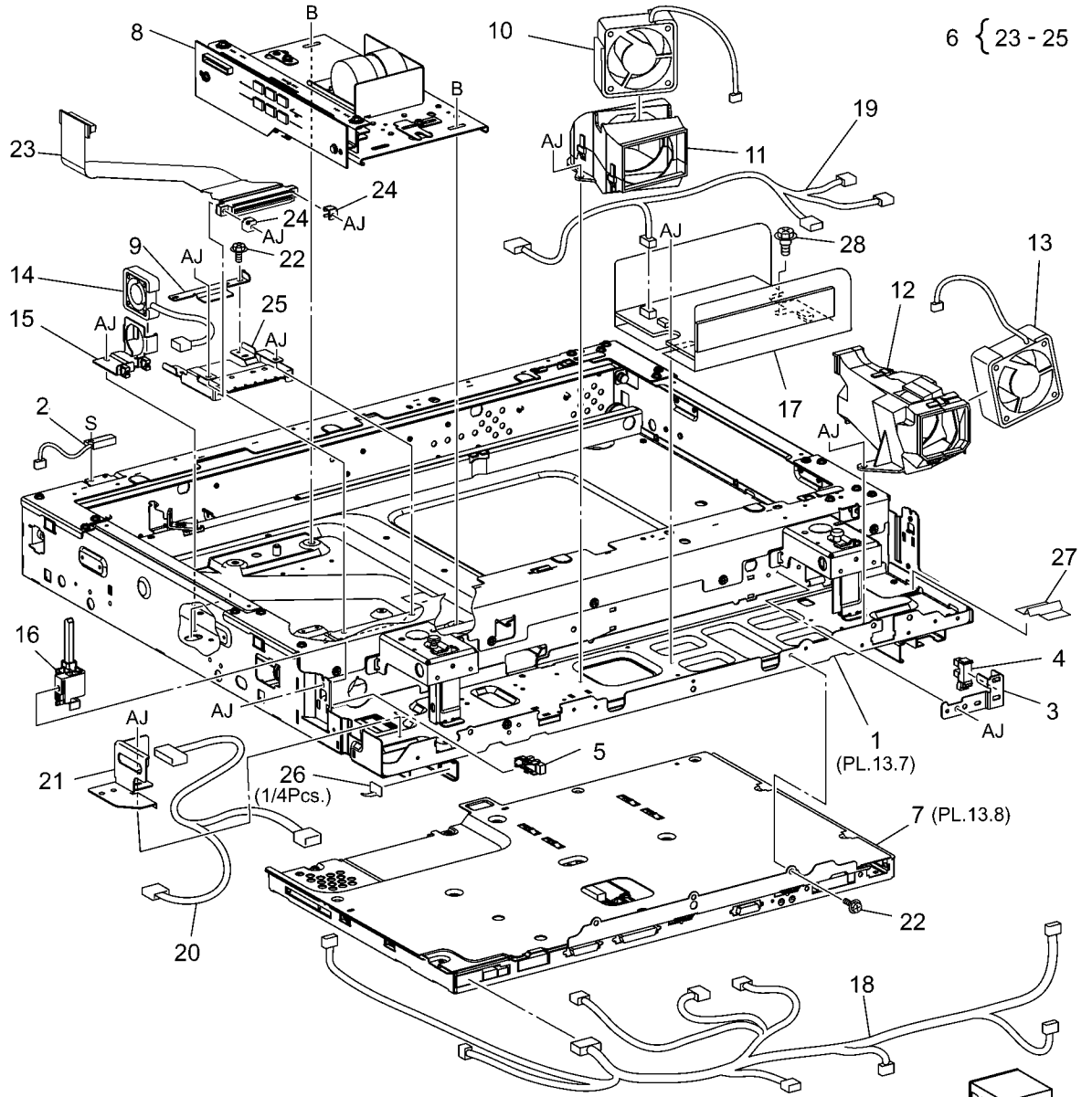
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | IIT Housing                        |
| 2    | 130K64150 | APS Sensor 1, APS Sensor 2         |
| 3    | -         | Front Seal                         |
| 4    | -         | Sensor Bracket (Not Spared)        |
| 5    | -         | Lens Cover (Not Spared) (REP 5.25) |
| 6    | -         | Platen Glass Support (Not Spared)  |
| 7    | 815E05551 | Right Plate                        |
| 8    | 815E05190 | CVT Glass Plate                    |
| 9    | 090K93100 | CVT Platen Glass                   |
| 10   | -         | Spacer                             |
| 11   | 090K93002 | Platen Glass                       |
| 12   | -         | Front Support (Not Spared)         |
| 13   | -         | Rear Support (Not Spared)          |
| 14   | -         | Conductor Plate (Not Spared)       |



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# PL 13.6 IIT Housing - Electrical

| Item | Part      | Description                                        |
|------|-----------|----------------------------------------------------|
| 1    | -         | IIT Frame                                          |
| 2    | 110K11960 | Platen Interlock Switch                            |
| 3    | -         | Sensor Bracket (Not Spared)                        |
| 4    | 107E08680 | IIT Registration Sensor (REP 5.26)                 |
| 5    | 130E85970 | Platen Angle Sensor (REP 5.27)                     |
| 6    | -         | Charge Coupling Device Flex Print Cable (REP 5.28) |
| 7    | -         | IIT/IPS Unit (REP 5.36)                            |
| 8    | 604K21501 | Lens Assembly (REP 5.29)                           |
| 9    | -         | Gasket Bracket (Not Spared)                        |
| 10   | 127K38620 | IPS Fan (REP 5.30)                                 |
| 11   | -         | Duct (Not Spared)                                  |
| 12   | -         | Duct (Not Spared)                                  |
| 13   | 127K38632 | Lamp Fan (REP 5.31)                                |
| 14   | 127K38641 | Charge Coupling Device Fan (REP 5.32)              |
| 15   | -         | Fan Bracket (Not Spared)                           |
| 16   | 120K91990 | Actuator                                           |
| 17   | -         | IIT LVPS (24v)                                     |
| 18   | 962K20212 | IIT Wire Harness                                   |
| 19   | -         | DC Wire Harness                                    |
| 20   | -         | DC Wire Harness (Not Spared)                       |
| 21   | -         | Connection Bracket (Not Spared)                    |
| 22   | -         | Screw (Blue) (Not Spared)                          |
| 23   | 962K19801 | Cable                                              |
| 24   | -         | Spacer (Not Spared)                                |
| 25   | -         | Bracket (Not Spared)                               |
| 26   | -         | Clamp                                              |
| 27   | -         | Seal                                               |
| 28   | -         | Shoulder Screw                                     |



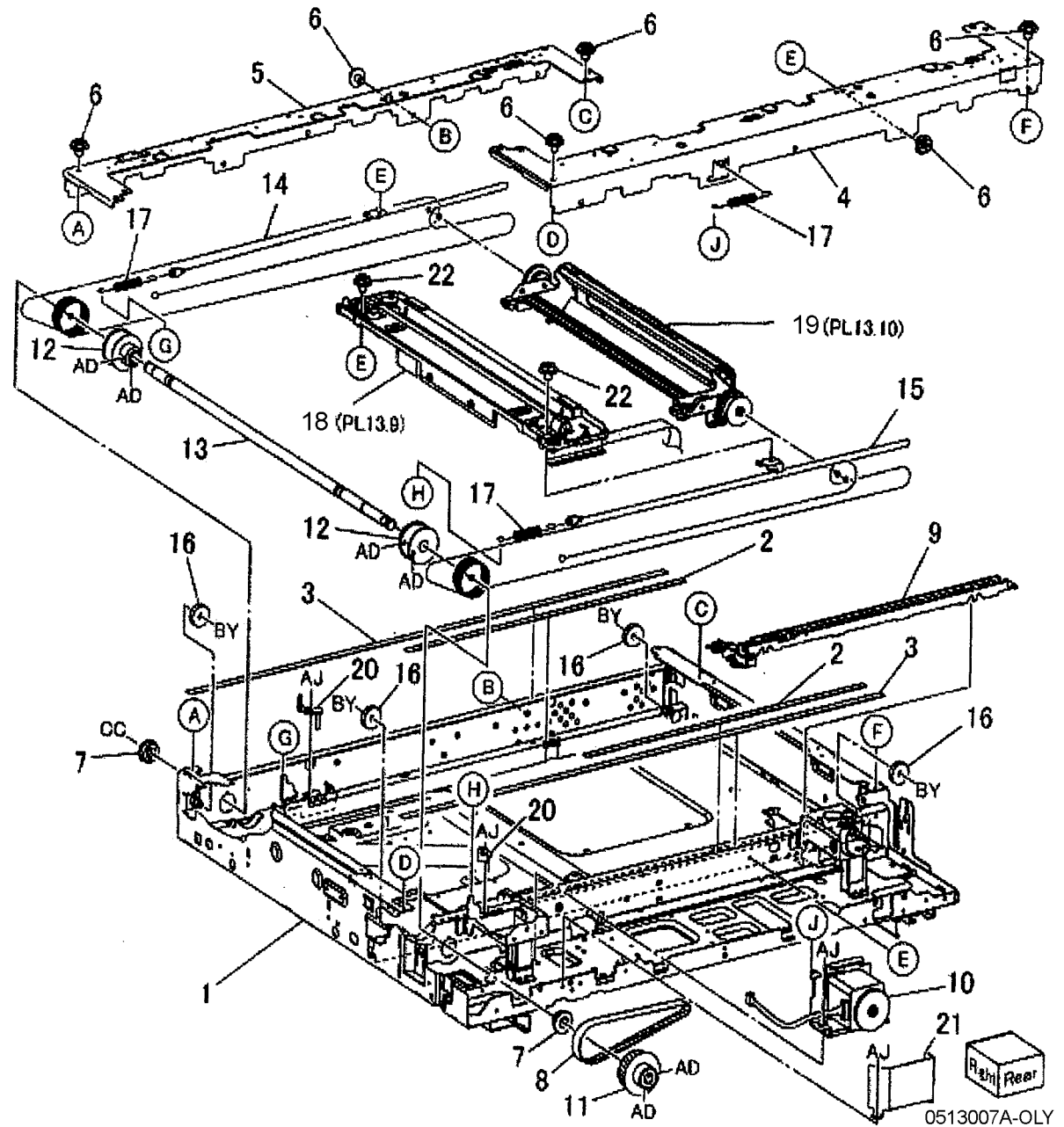
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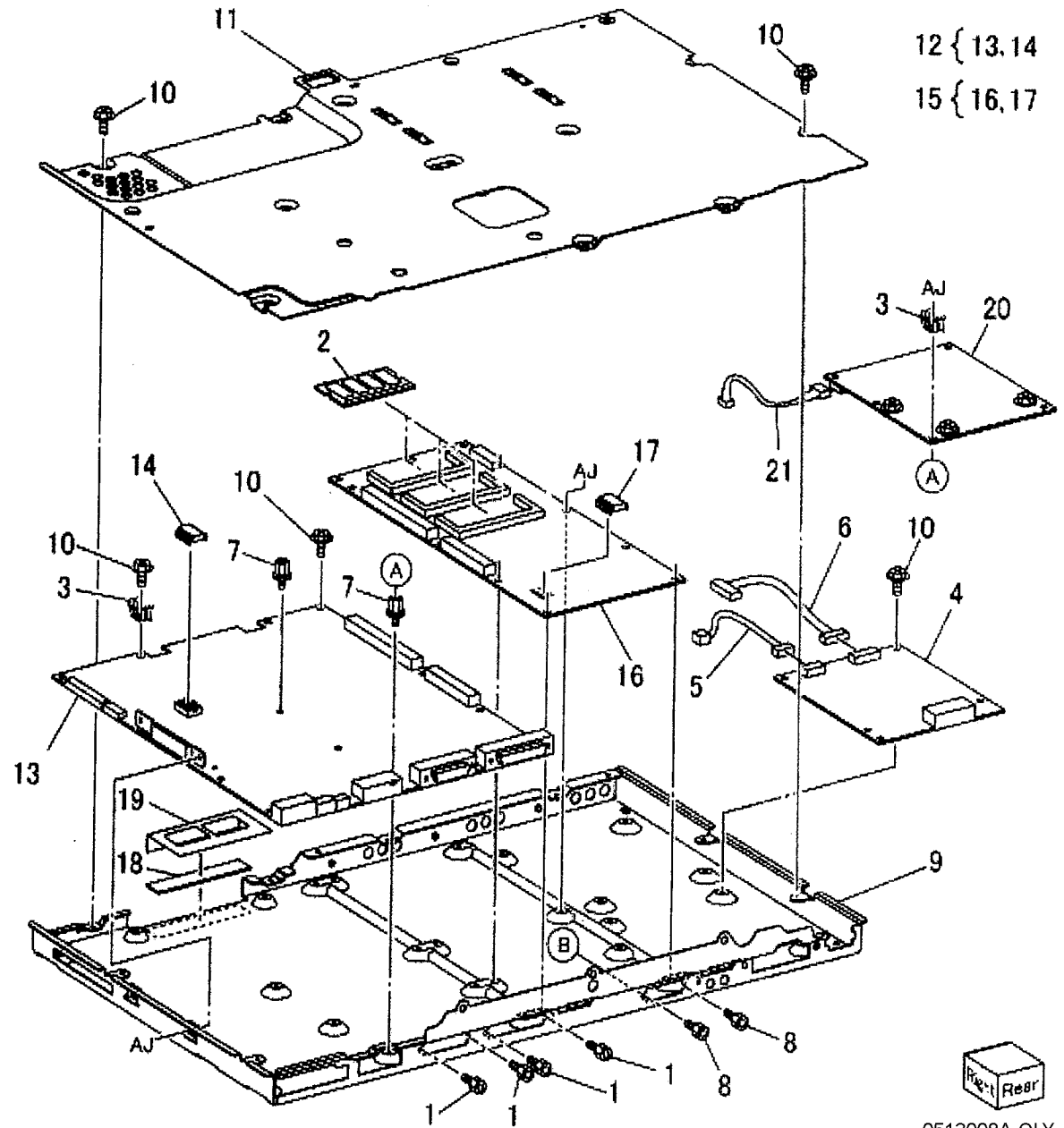
# PL 13.7 IIT Housing - Carriage

| Item | Part      | Description                             |
|------|-----------|-----------------------------------------|
| 1    | -         | IIT Frame (Not Spared)                  |
| 2    | -         | Tape (Half Rate Carriage) (Not Spared)  |
| 3    | -         | Tape (Full Rate Carriage) (Not Spared)  |
| 4    | -         | Front Top Frame (Not Spared)            |
| 5    | -         | Rear Top Frame (Not Spared)             |
| 6    | -         | Screw (Red) (Not Spared)                |
| 7    | 013E24910 | Sleeve Bearing                          |
| 8    | 023E21370 | Belt                                    |
| 9    | -         | Harness Guide (Not Spared)              |
| 10   | 127K38491 | Carriage Motor (REP 5.33)               |
| 11   | -         | Pulley                                  |
| 12   | 020E36980 | Capstan Pulley                          |
| 13   | -         | Capstan Shaft (Not Spared)              |
| 14   | 012K94480 | Front Carriage Cable (Black)            |
| 15   | 012K94490 | Rear Carriage Cable (Silver) (REP 5.38) |
| 16   | 020E21630 | Pulley                                  |
| 17   | 809E41740 | Tension Spring                          |
| 18   | 041K94524 | Full Rate Carriage (REP 5.34)           |
| 19   | 041K94553 | Half Rate Carriage (PL13.10)            |
| 20   | -         | Jig (Not Spared)                        |
| 21   | -         | Motor Guard (Not Spared)                |
| 22   | -         | Screw (Blue)                            |



# PL 13.8 IIT/IPS Unit

| Item | Part      | Description                         |
|------|-----------|-------------------------------------|
| 1    | 826E06490 | Screw                               |
| 2    | 133K23610 | Memory (128MB)                      |
| 3    | -         | Conductor (Not Spared)              |
| 4    | 160K94661 | PSDC PWB                            |
| 5    | -         | Wire Harness (4 pin)                |
| 6    | -         | Wire Harness (9 pin)                |
| 7    | -         | Spacer Screw                        |
| 8    | -         | Screw (Not Spared)                  |
| 9    | -         | IIT/IPS Chassis (Not Spared)        |
| 10   | -         | Screw TP (Not Spared)               |
| 11   | -         | IIT/IPS Cover (Not Spared)          |
| 12   | 960K00442 | IIT/IPS PWB (REP 5.36)              |
| 13   | -         | IIT/IPS PWB (Not Spared) (REP 5.36) |
| 14   | -         | EEP ROM (Not Spared)                |
| 15   | 960K06841 | Extension Memory PWB                |
| 16   | -         | Extension Memory PWB (Not Spared)   |
| 17   | -         | EEP ROM (Not Spared)                |
| 18   | -         | Gasket (Not Spared)                 |
| 19   | -         | Seal (Not Spared)                   |
| 20   | 160K99672 | BDEC PWB                            |
| 21   | -         | Wire Harness                        |



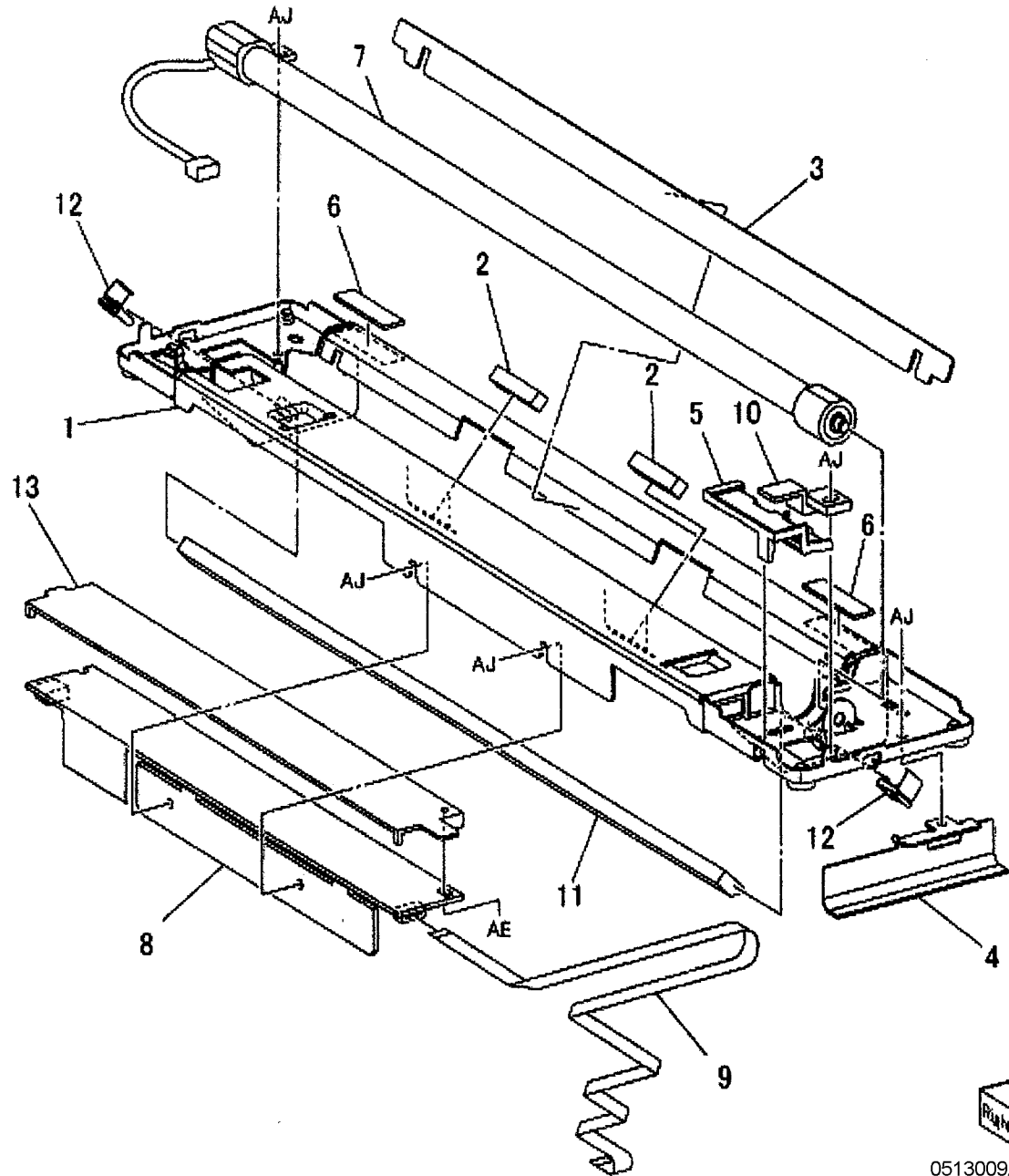
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# PL 13.9 Full Rate Carriage Component

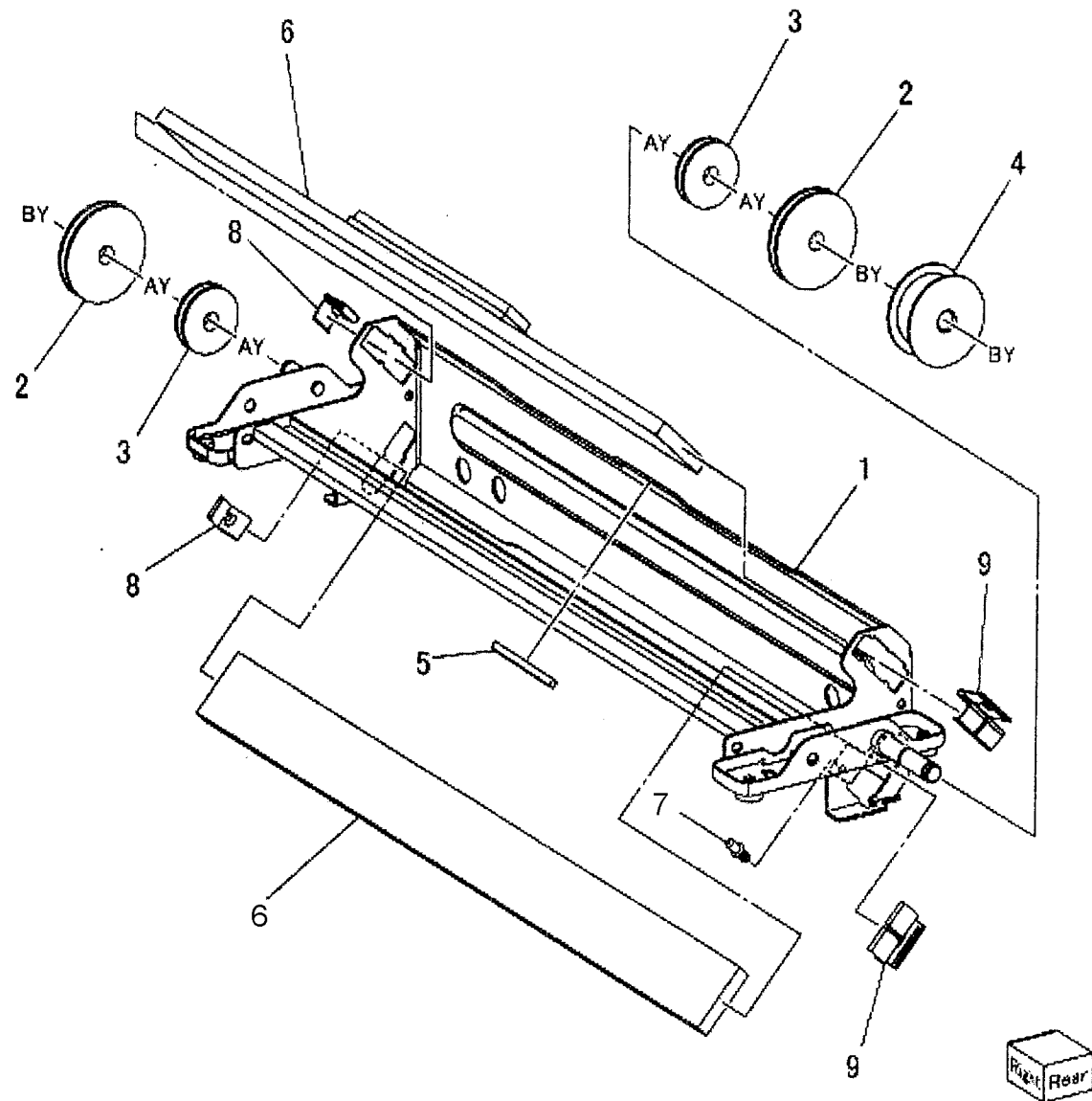
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Full Rate Carriage (Not Spared)    |
| 2    | -         | Damper (Not Spared)                |
| 3    | -         | Reflector Plate (Not Spared)       |
| 4    | -         | Actuator Plate (Not Spared)        |
| 5    | -         | Harness Guide (Not Spared)         |
| 6    | -         | Cushion (Not Spared)               |
| 7    | 122E92130 | Exposure Lamp (REP 5.37)           |
| 8    | 105E12301 | Lamp Ballast PWB (REP 5.38)        |
| 9    | -         | Slide Cord (Not Spared) (REP 5.39) |
| 10   | -         | Harness Guide (Not Spared)         |
| 11   | 062E10040 | No. 1 Mirror                       |
| 12   | 809E51350 | Clip (Single)                      |
| 13   | -         | Insulator                          |



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# PL 13.10 Half Rate Carriage Component

| Item | Part      | Description                     |
|------|-----------|---------------------------------|
| 1    | -         | Half Rate Carriage (Not Spared) |
| 2    | -         | Pulley (Not Spared)             |
| 3    | -         | Pulley (Not Spared)             |
| 4    | -         | Harness Pulley (Not Spared)     |
| 5    | -         | Damper (Not Spared)             |
| 6    | 062K14580 | No.2 Mirror                     |
| 7    | -         | Adjust Screw (Not Spared)       |
| 8    | 809E51350 | Clip (Single)                   |
| 9    | 809E51360 | Clip (Double)                   |

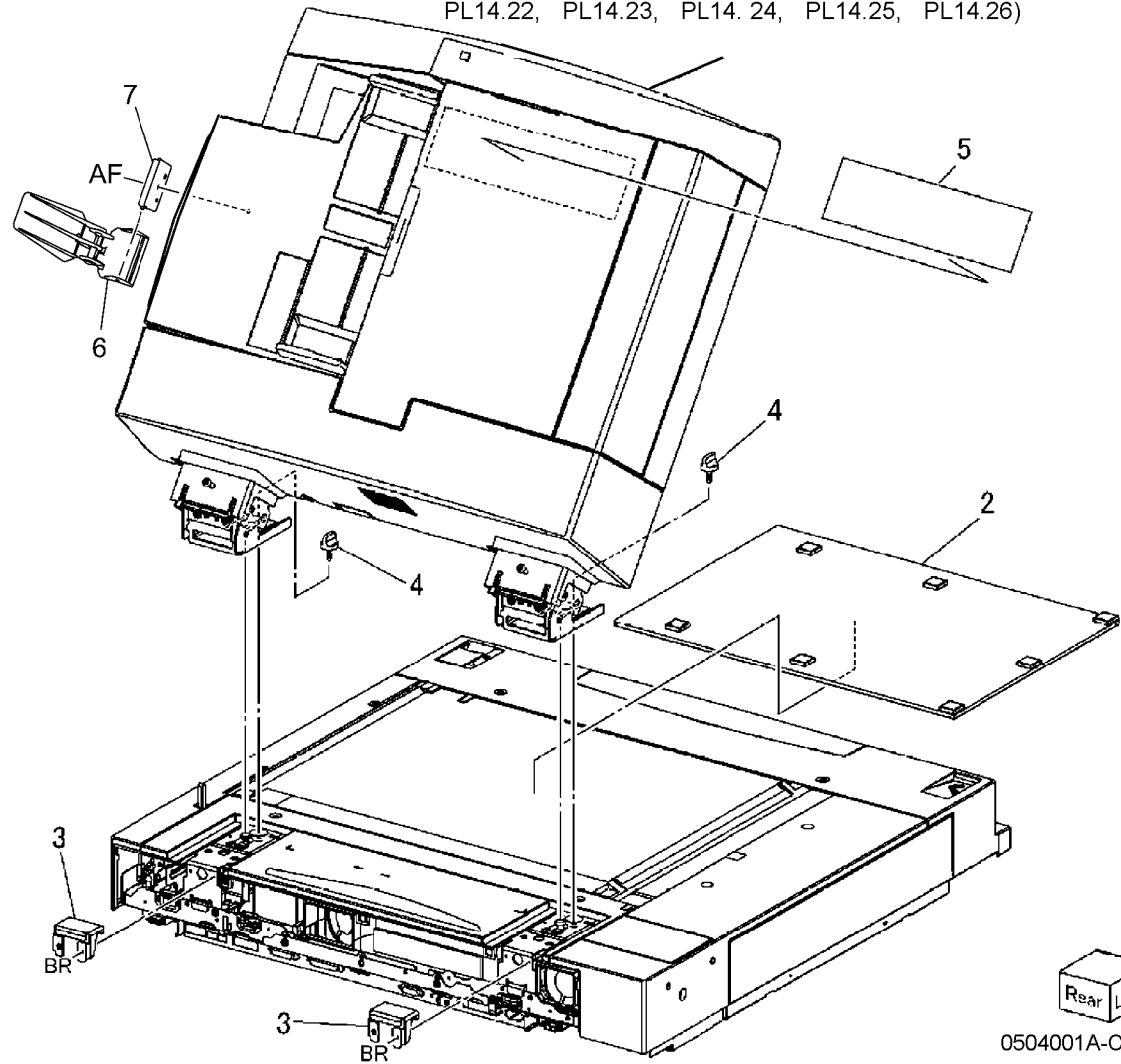


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# PL 14.1 DADF

| Item | Part      | Description                     |
|------|-----------|---------------------------------|
| 1    | 059K38841 | DADF Assembly (REP 5.1,REP 5.2) |
| 2    | 004K92582 | Platen Cushion                  |
| 3    | -         | DADF Support                    |
| 4    | 003K91881 | Knob Screw                      |
| 5    | -         | Label                           |
| 6    | 003K13752 | Paper Stop                      |
| 7    | 003E62120 | Hinge                           |

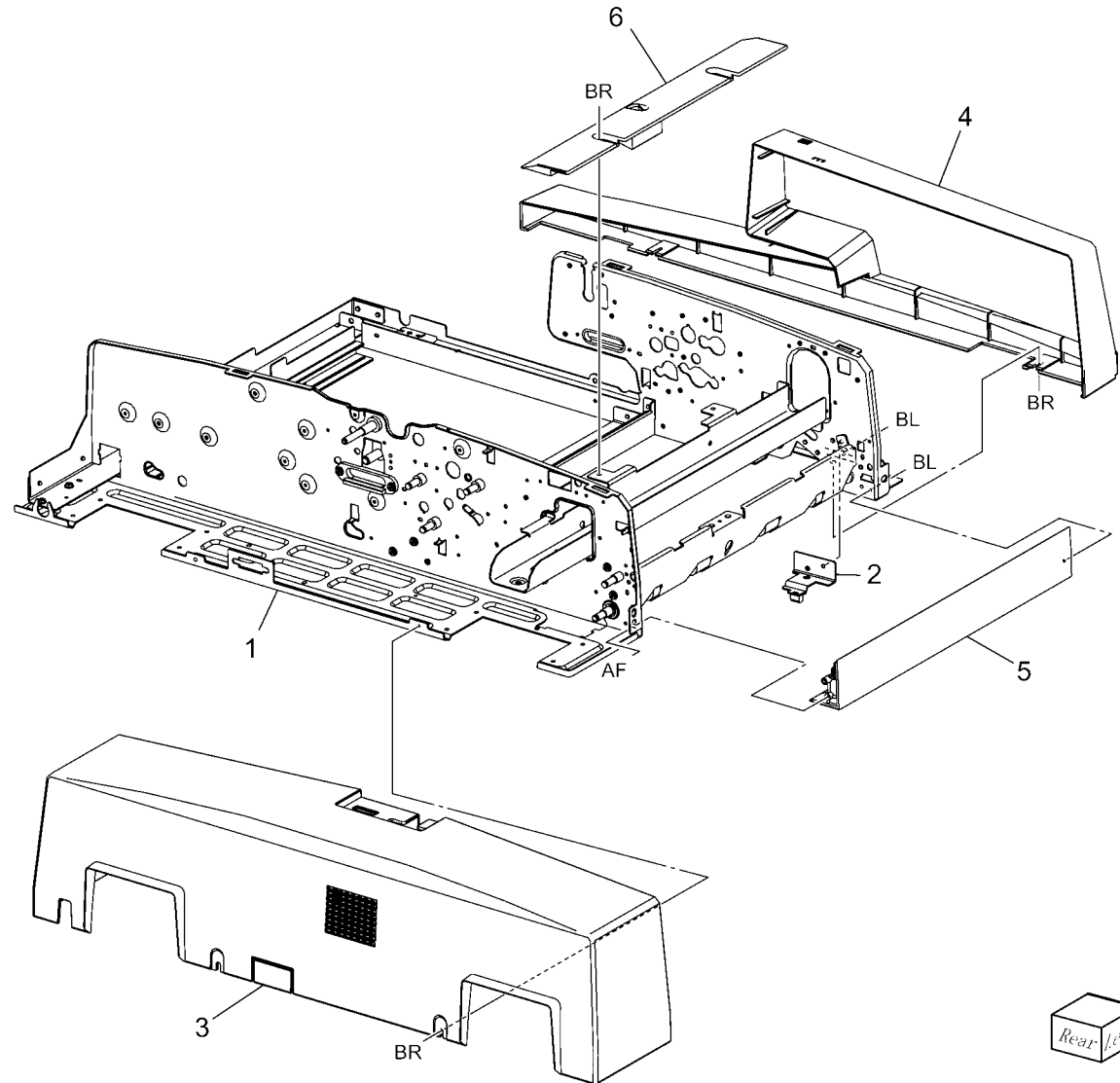
1 (PL14.2, PL14.3, PL14.4, PL14.5, PL14.6, PL14.7, PL14.8, PL14.9, PL14.10, PL14.11, PL14.12, PL14.13, PL14.14, PL14.15, PL14.16,, PL14.17, PL14.18, PL14.19, PL14.20, PL14.21 PL14.22, PL14.23, PL14.24, PL14.25, PL14.26)



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## PL 14.2 DADF Cover

| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Frame (P/O PL 14.1 Item 1)             |
| 2    | -         | Harness Guide (P/O PL 14.1 Item 1)     |
| 3    | 802E56800 | DADF Rear Cover (REP 5.3)              |
| 4    | 802E56891 | DADF Front Cover (REP 5.3)             |
| 5    | 802E56900 | DADF Left Lower Cover (REP 5.3)        |
| 6    | -         | Upper Guide Chute (P/O PL 14.1 Item 1) |

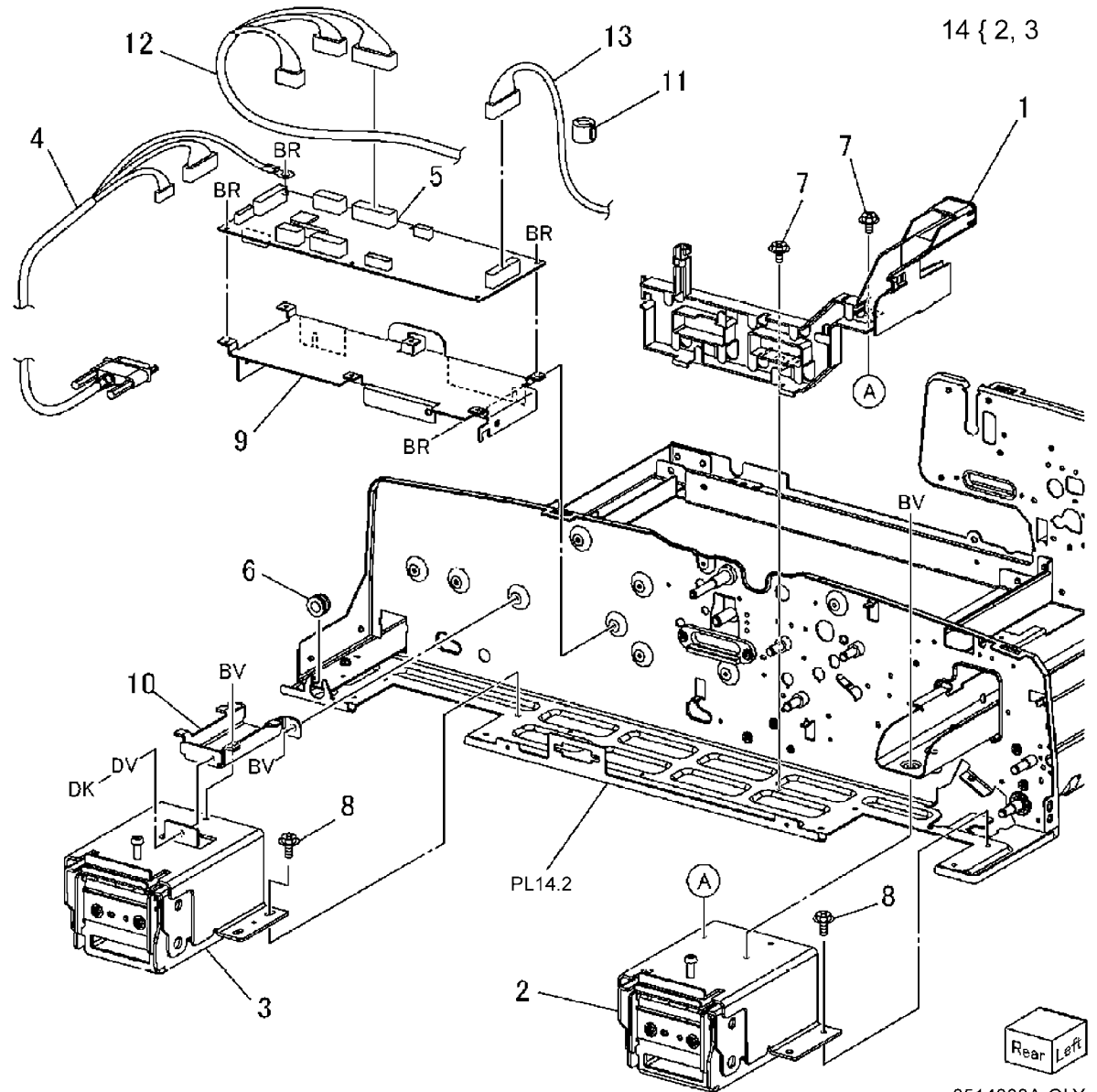


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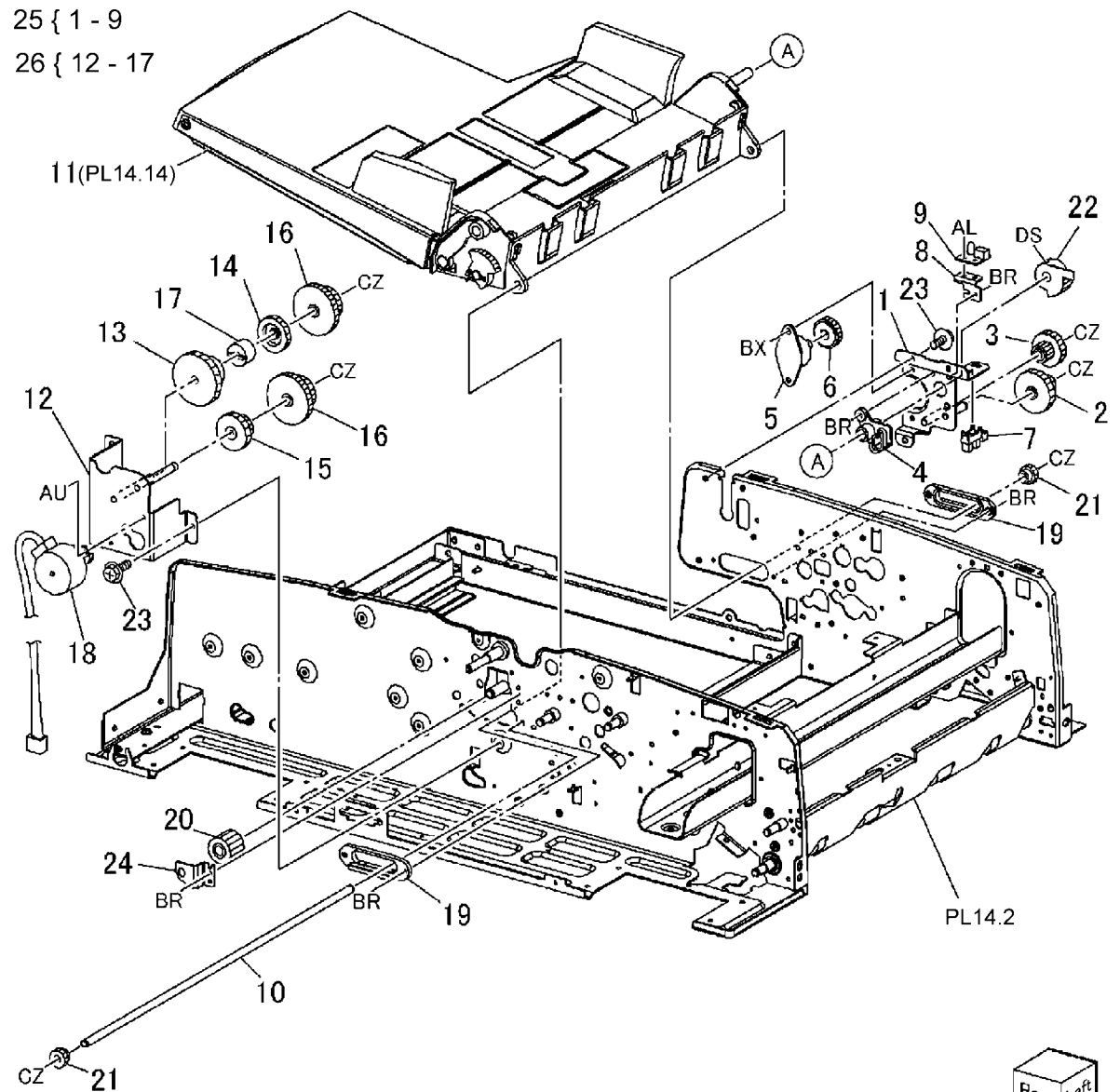
# PL 14.3 DADF PWB, Counter Balance

| Item | Part      | Description                                  |
|------|-----------|----------------------------------------------|
| 1    | -         | Harness Guide (P/O PL 14.1 Item 1)           |
| 2    | -         | Right Counter Balance (REP 5.5)              |
| 3    | -         | Left Counter Balance (REP 5.4)               |
| 4    | 117E21621 | IIT-DADF Cable                               |
| 5    | 160K97351 | DADF PWB (REP 5.6)                           |
| 6    | -         | Grommet (P/O PL 14.1 Item 1)                 |
| 7    | -         | Round Point Screw (M3) (Not Spared)          |
| 8    | 826E09640 | Round Point Screw (M4)                       |
| 9    | -         | PWB Bracket (P/O PL 14.1 Item 1)             |
| 10   | -         | Bracket (P/O PL 14.1 Item 1)                 |
| 11   | -         | Core (P/O PL 14.1 Item 1)                    |
| 12   | -         | DADF Front Wire Harness (P/O PL 14.1 Item 1) |
| 13   | -         | DADF Motor Wire Harness (P/O PL 14.1 Item 1) |
| 14   | 604K25240 | Counter Balance Kit                          |



# PL 14.4 DADF Document Tray, Tray Motor

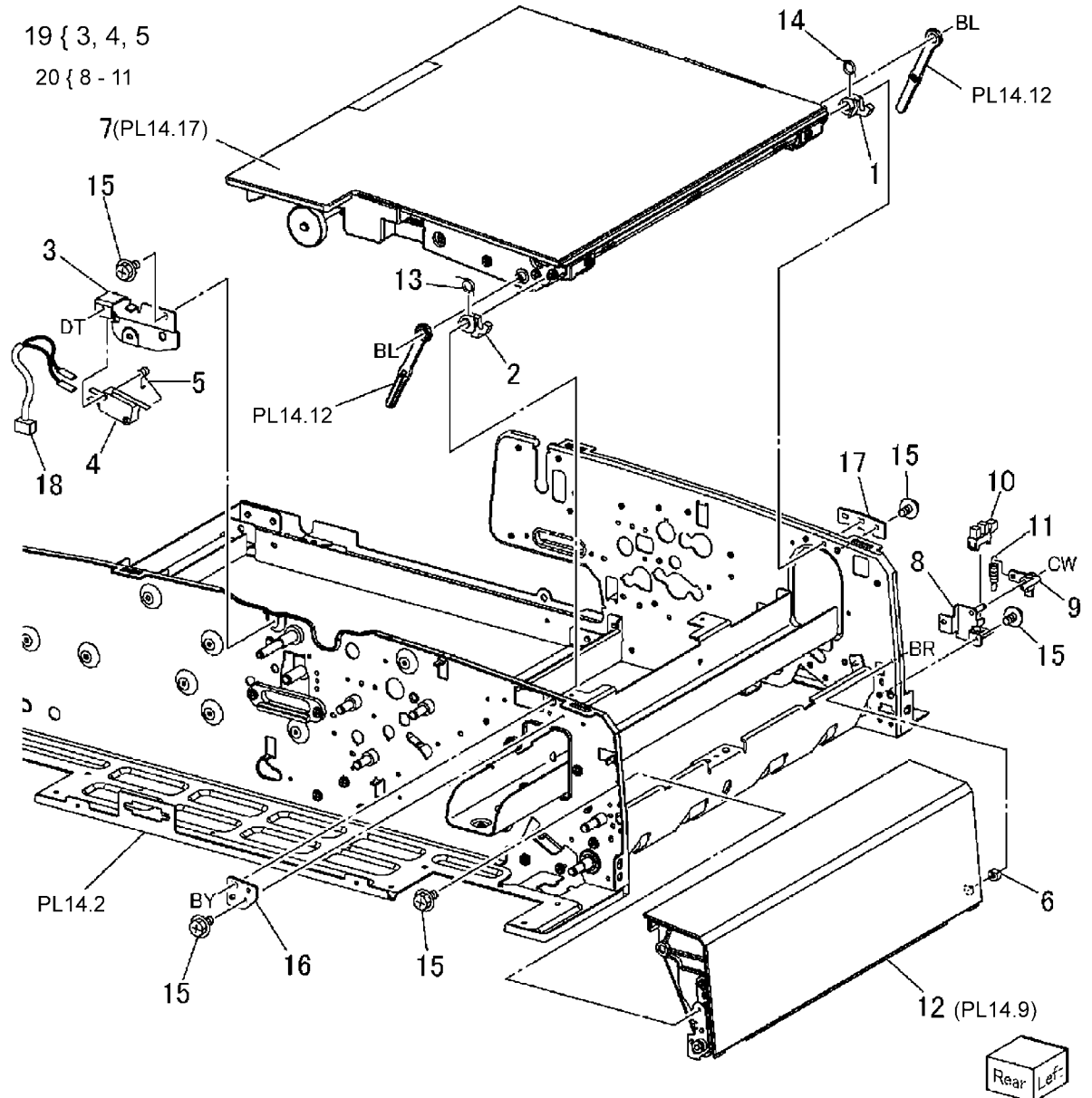
| Item | Part      | Description                       |
|------|-----------|-----------------------------------|
| 1    | -         | Bracket (P/O PL 14.1 Item 1)      |
| 2    | -         | Gear (40T/16T)                    |
| 3    | -         | Gear (32T/16T)                    |
| 4    | -         | Hinge                             |
| 5    | -         | Oil Damper                        |
| 6    | -         | One Way Clutch Gear (27T)         |
| 7    | 130E84280 | Tray Interlock Sensor             |
| 8    | -         | LED Bracket (P/O PL 14.1 Item 1)  |
| 9    | 160K97600 | Document Set LED                  |
| 10   | -         | Pinion Shaft (P/O PL 14.1 Item 1) |
| 11   | 050K49688 | DADF Document Tray                |
| 12   | -         | Bracket (P/O PL 14.1 Item 1)      |
| 13   | -         | Gear (48T)                        |
| 14   | -         | Gear (33T)                        |
| 15   | -         | Gear (33T/18T)                    |
| 16   | -         | Gear (48T/18T)                    |
| 17   | -         | Torque Limiter                    |
| 18   | -         | Tray Motor                        |
| 19   | 032E21190 | Rack Guide                        |
| 20   | 807E00310 | Gear (25T)                        |
| 21   | 807E00470 | Pinion Gear                       |
| 22   | 807E00670 | Sector Gear                       |
| 23   | -         | Round Point Screw                 |
| 24   | -         | Bracket (P/O PL 14.1 Item 1)      |
| 25   | 004K01941 | Oil Damper Assembly               |
| 26   | 030K76270 | Lift Gear Assembly                |



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# PL 14.5 Feeder Upper Chute, DADF Left Upper Cover

| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | 003E60310 | Left Cover Front Latch                    |
| 2    | 003E60320 | Left Cover Rear Latch                     |
| 3    | -         | Switch Bracket (P/O PL 14.1 Item 1)       |
| 4    | -         | Feeder Cover Interlock Switch             |
| 5    | -         | Torsion Spring                            |
| 6    | -         | Bushing (P/O PL 14.1 Item 1)              |
| 7    | 054K24442 | Feeder Upper Chute                        |
| 8    | -         | Bracket (P/O PL 14.1 Item 1)              |
| 9    | -         | Actuator                                  |
| 10   | 130E84280 | L/H Cover Interlock Sensor                |
| 11   | -         | Tension Spring                            |
| 12   | 802K57191 | DADF Left Upper Cover                     |
| 13   | 809E51451 | Torsion Spring                            |
| 14   | 809E51461 | Torsion Spring                            |
| 15   | -         | Round Point Screw                         |
| 16   | -         | Hinge Bracket (P/O PL 14.1 Item 1)        |
| 17   | -         | Hinge Bracket (P/O PL 14.1 Item 1)        |
| 18   | -         | Wire Harness (P/O PL 14.1 Item 1)         |
| 19   | 003K13291 | Feeder Cover Interlock Switch Assembly    |
| 20   | 130K64480 | Left Hand Cover Interlock Switch Assembly |

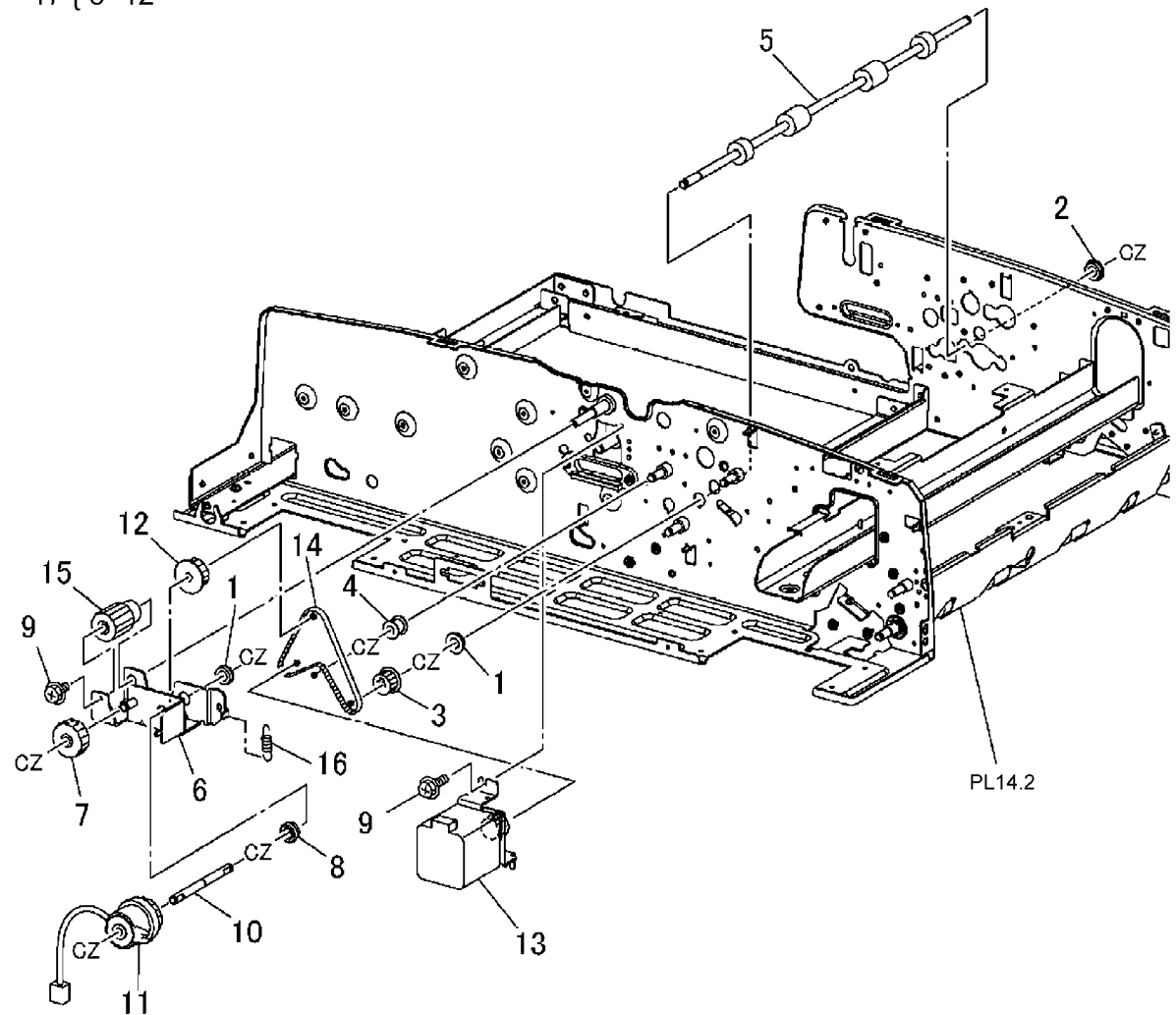


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# PL 14.6 Feed Motor, Feed Clutch, Invert Drive Roll

17 { 6 -12

| Item | Part      | Description                         |
|------|-----------|-------------------------------------|
| 1    | 013E24840 | Ball Bearing                        |
| 2    | 013E26250 | Sleeve Bearing                      |
| 3    | -         | Pulley                              |
| 4    | -         | Pulley                              |
| 5    | 059K29470 | Invert Drive Roll (REP 5.7)         |
| 6    | -         | Clutch Bracket (P/O PL 14.1 Item 1) |
| 7    | -         | Gear (24T)                          |
| 8    | -         | Sleeve Bearing                      |
| 9    | -         | Round Point Screw                   |
| 10   | -         | Clutch Shaft (P/O PL 14.1 Item 1)   |
| 11   | 121K31860 | DADF Feed Clutch (REP 5.8)          |
| 12   | -         | Pulley                              |
| 13   | 127K38300 | DADF Feed Motor                     |
| 14   | 423W32054 | Feed Motor Belt (REP 5.9)           |
| 15   | 807E00660 | Gear (20T)                          |
| 16   | 809E54581 | Tension Spring                      |
| 17   | 121K31882 | DADF Feed Clutch Assembly           |

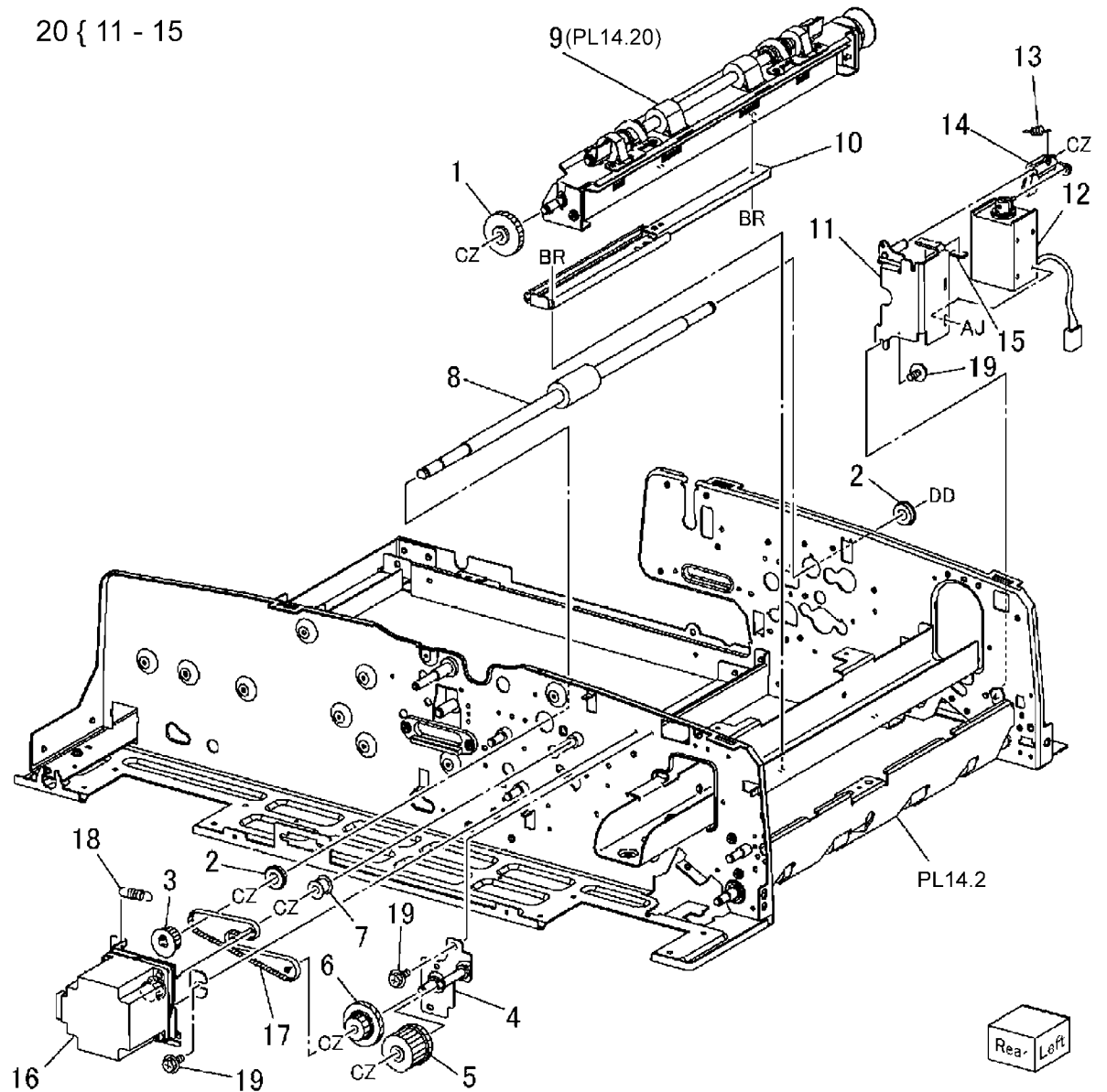


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# PL 14.7 Pre Registration Motor, Pre Registration Roll Chute, Take Away Roll, Baffle Solenoid

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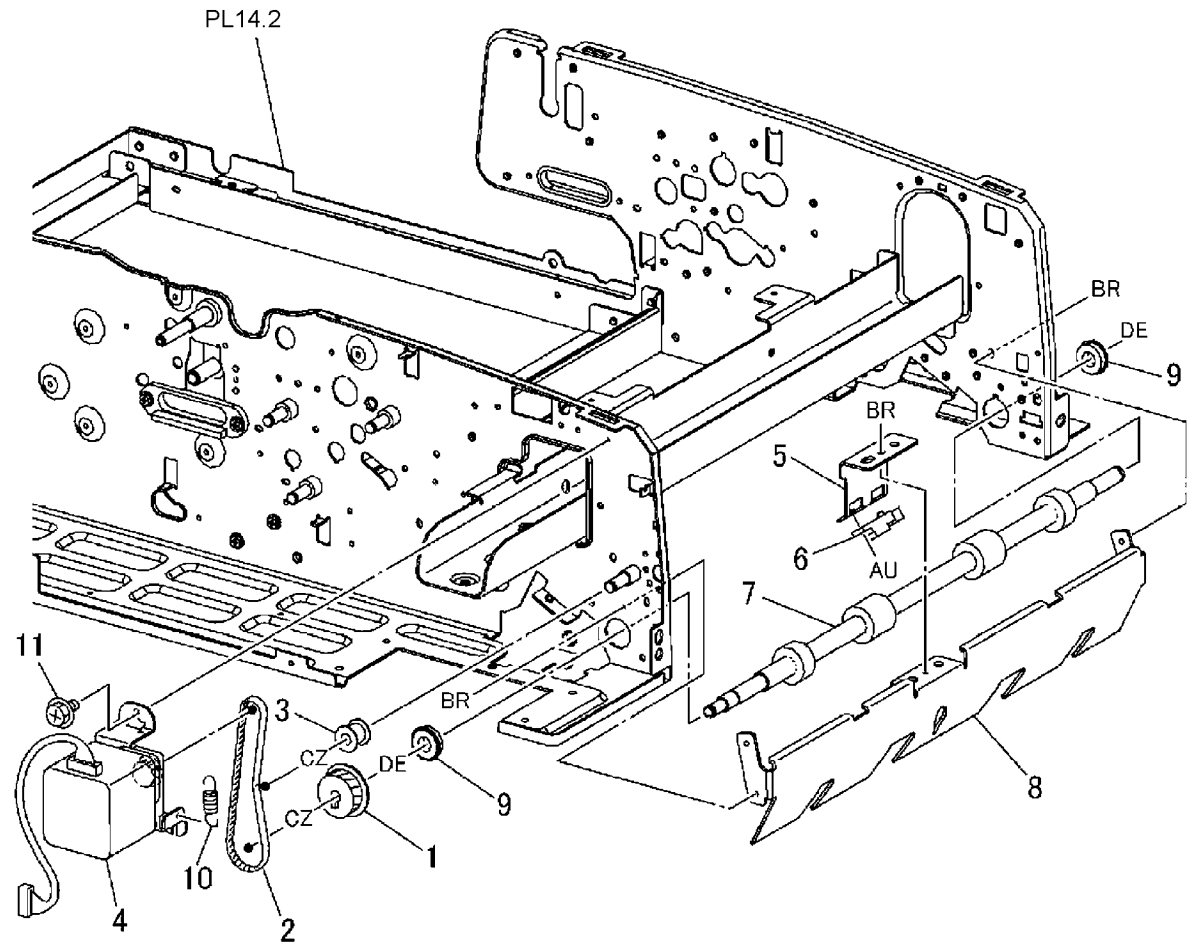
| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | One Way Clutch Gear (38T)              |
| 2    | 013E24670 | Ball Bearing                           |
| 3    | 020E36770 | Pulley                                 |
| 4    | -         | Stud Bracket (P/O PL 14.1 Item 1)      |
| 5    | -         | Gear (33T/ 33T)                        |
| 6    | -         | Gear Pulley                            |
| 7    | -         | Pulley                                 |
| 8    | 059K31090 | Take Away Roll (REP 5.10)              |
| 9    | 059K31110 | Pre Registration Roll Chute            |
| 10   | 001E74762 | Rail                                   |
| 11   | -         | Solenoid Bracket (P/O PL 14.7 Item 20) |
| 12   | -         | Baffle Solenoid (P/O PL 14.7 Item 20)  |
| 13   | -         | Tension Spring (P/O PL 14.7 Item 20)   |
| 14   | -         | Actuator (P/O PL 14.7 Item 20)         |
| 15   | -         | Damper (P/O PL 14.7 Item 20)           |
| 16   | 127K38320 | DADF Pre Registration Motor            |
| 17   | 423W34554 | Pre Registration Motor Belt            |
| 18   | -         | Tension Spring                         |
| 19   | -         | Round Point Screw (Not Spared)         |
| 20   | 121K31890 | Baffle Solenoid                        |



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## PL 14.8 Registration Motor, Registration Roll

| Item | Part      | Description                                  |
|------|-----------|----------------------------------------------|
| 1    | 020E36780 | Pulley                                       |
| 2    | 023E21300 | Registration Motor Belt                      |
| 3    | -         | Pulley                                       |
| 4    | 127K38341 | DADF Registration Motor                      |
| 5    | -         | Sensor Bracket (P/O PL 14.1 Item 1)          |
| 6    | 930W00211 | Lead Registration Sensor (REP 5.11)          |
| 7    | 059K31080 | Registration Roll (REP 5.12)                 |
| 8    | -         | Registration In 2 Chute (P/O PL 14.1 Item 1) |
| 9    | 013E24670 | Ball Bearing                                 |
| 10   | 809E50880 | Tension Spring                               |
| 11   | -         | Round Point Screw (Not Spared)               |

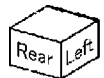
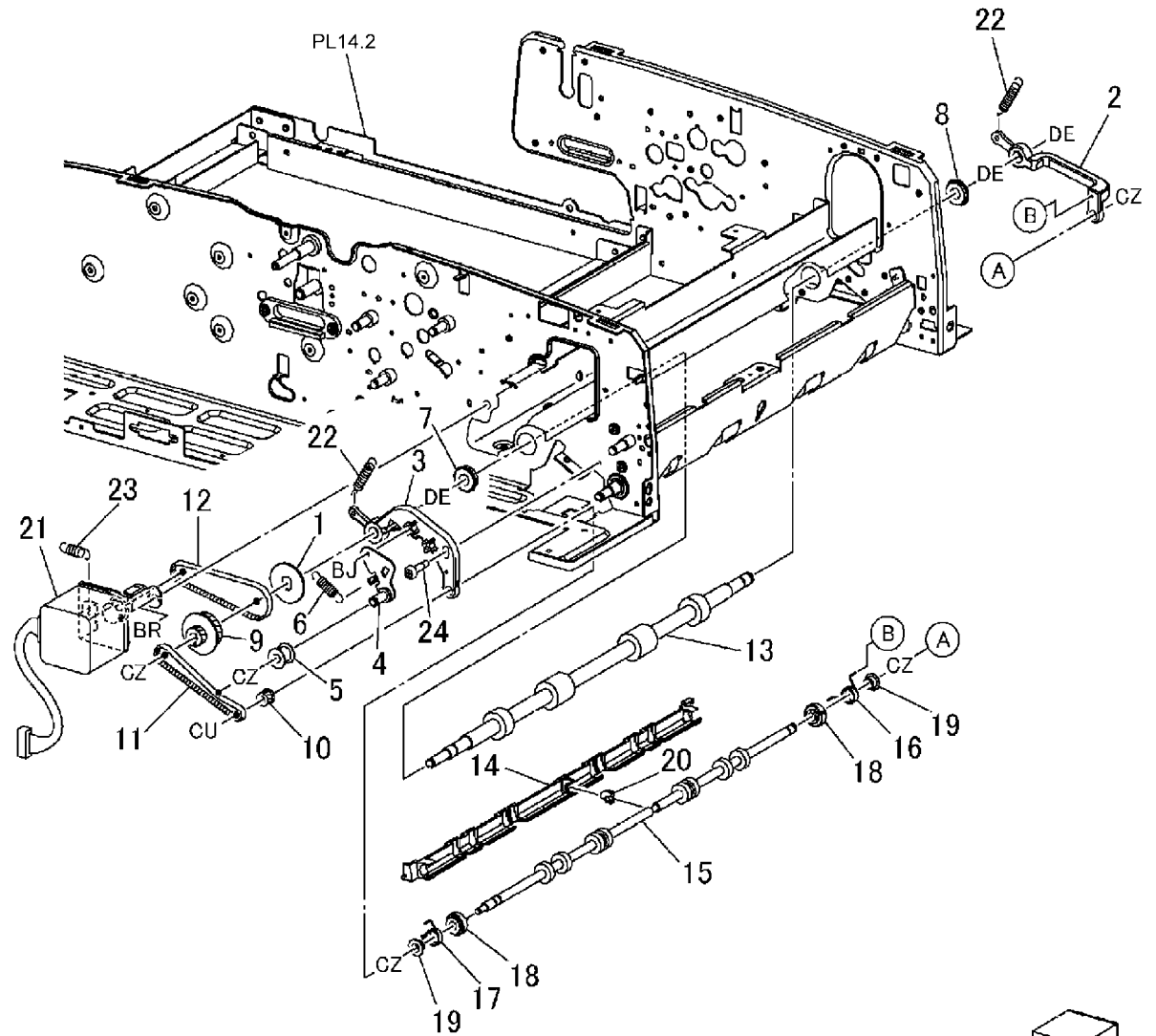


0514008A-OLY

# PL 14.9 Platen Motor, Platen Roll, Out Roll

| Item | Part      | Description                   |
|------|-----------|-------------------------------|
| 1    | -         | Flange                        |
| 2    | -         | Platen Front Link             |
| 3    | -         | Platen Rear Link              |
| 4    | -         | Tension Bracket (Not Spared)  |
| 5    | -         | Pulley                        |
| 6    | -         | Tension Spring                |
| 7    | 013E24670 | Ball Bearing                  |
| 8    | 013E25910 | Sleeve Bearing                |
| 9    | -         | Pulley                        |
| 10   | 020E36800 | Pulley                        |
| 11   | -         | Belt (Width:4mm)              |
| 12   | -         | Platen Motor Belt (Width:6mm) |
| 13   | -         | Platen Exit Roll (REP 5.23)   |
| 14   | -         | Platen Back Plate             |
| 15   | -         | Platen Roll                   |
| 16   | -         | Torsion Spring                |
| 17   | -         | Torsion Spring                |
| 18   | -         | Sleeve Bearing                |
| 19   | -         | Collar                        |
| 20   | -         | Platen Collar                 |
| 21   | 127K38341 | Platen Motor                  |
| 22   | -         | Platen Spring (Length 30.8mm) |
| 23   | 809E50880 | Platen Spring (Length 23mm)   |
| 24   | -         | Shoulder Screw                |
| 25   | 604K25230 | Platen Motor Drive Kit        |

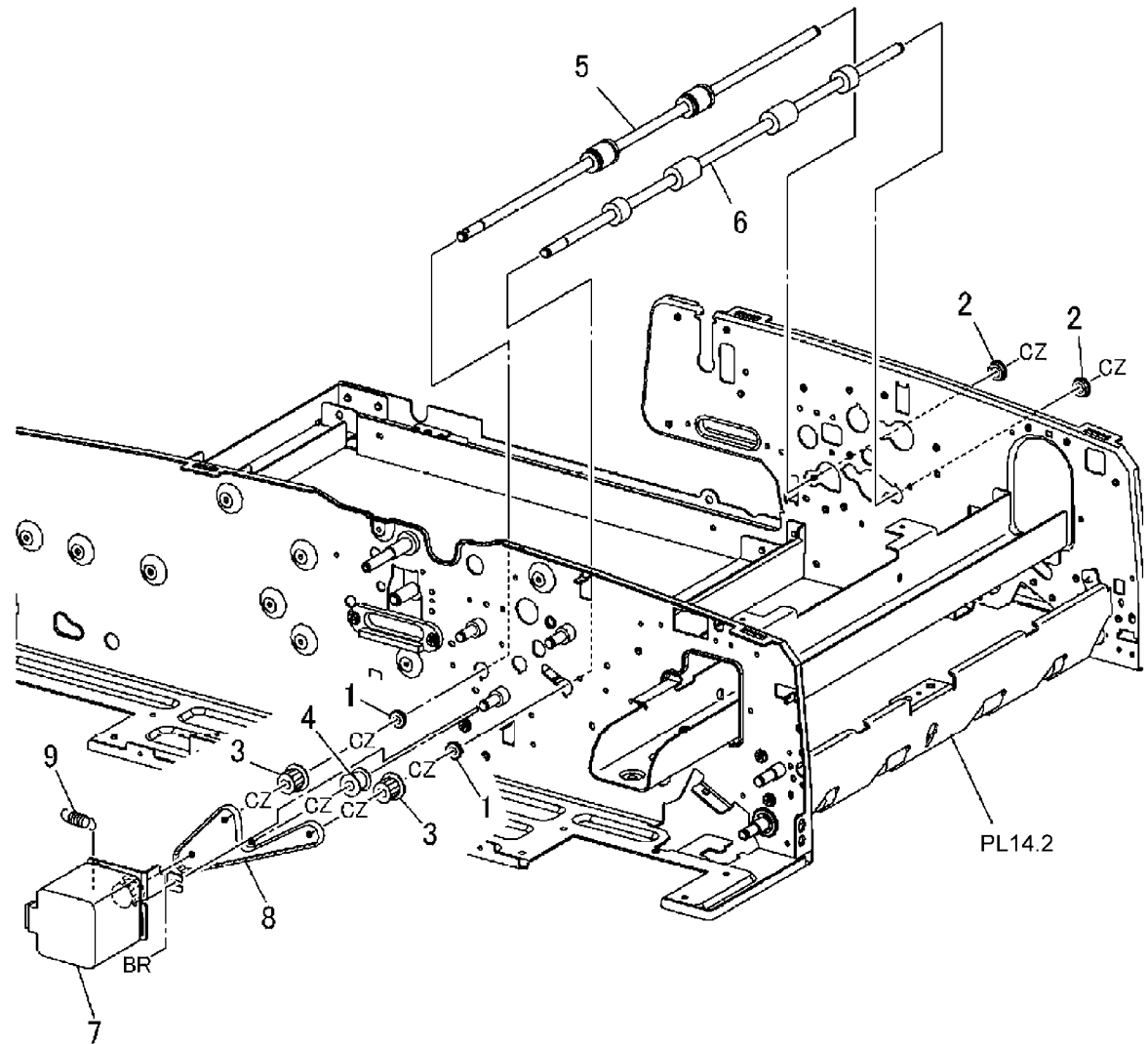
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0514009A-OLY

## PL 14.10 Exit Motor, Exit Roll

| Item | Part      | Description            |
|------|-----------|------------------------|
| 1    | 013E24840 | Ball Bearing           |
| 2    | 013E26250 | Sleeve Bearing         |
| 3    | 020E36810 | Pulley                 |
| 4    | -         | Pulley (Not Spared)    |
| 5    | 059K27200 | Exit Roll 1 (REP 5.13) |
| 6    | 059K29480 | Exit Roll 2 (REP 5.14) |
| 7    | 127K38300 | DADF Exit Motor        |
| 8    | 423W33554 | Exit Motor Belt        |
| 9    | 809E50880 | Tension Spring         |

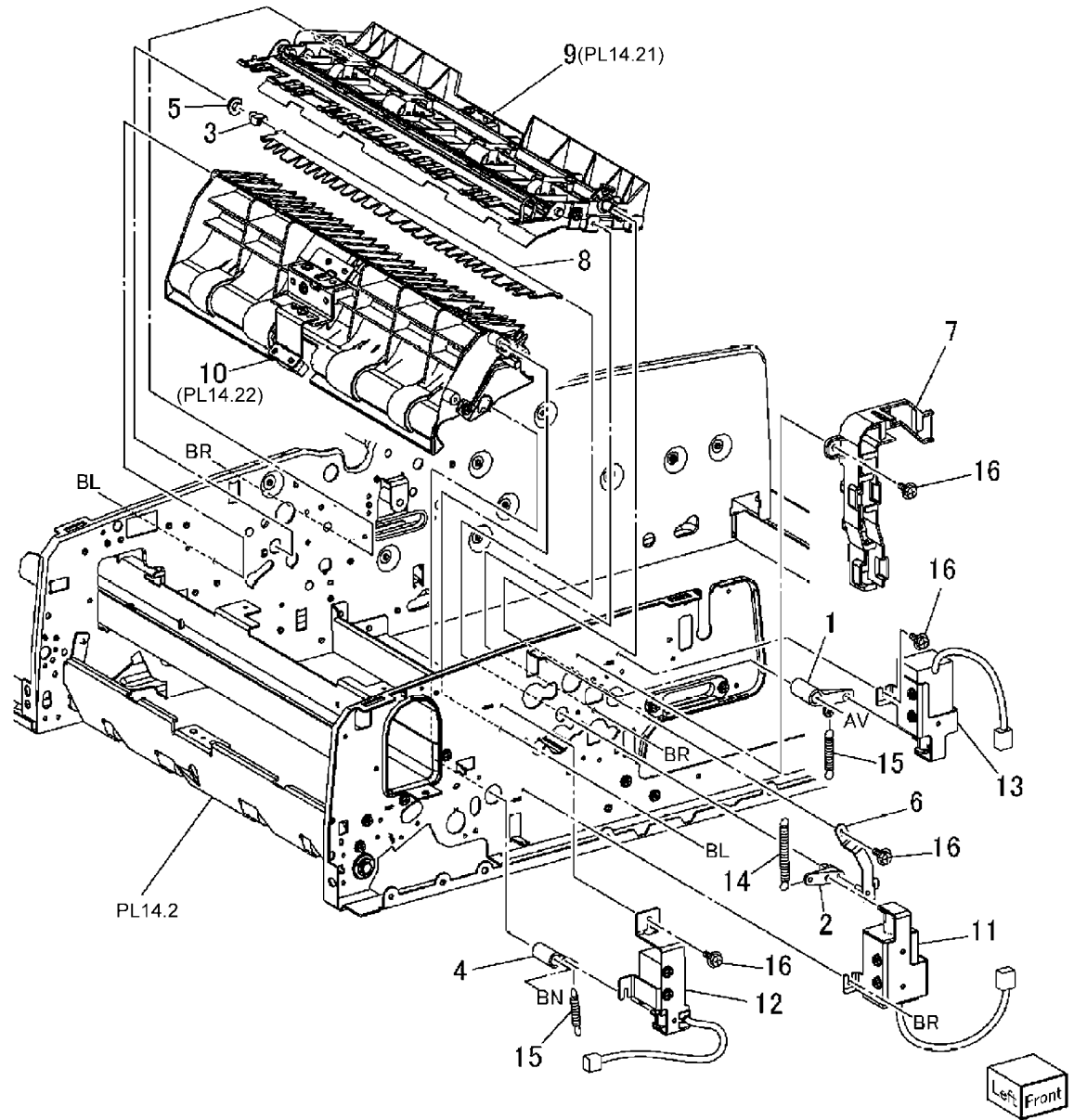


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# PL 14.11 Exit Gate Solenoid, Simp/Dup Gate Solenoid, Nip Solenoid, Inverter Exit Chute, Guide Chute

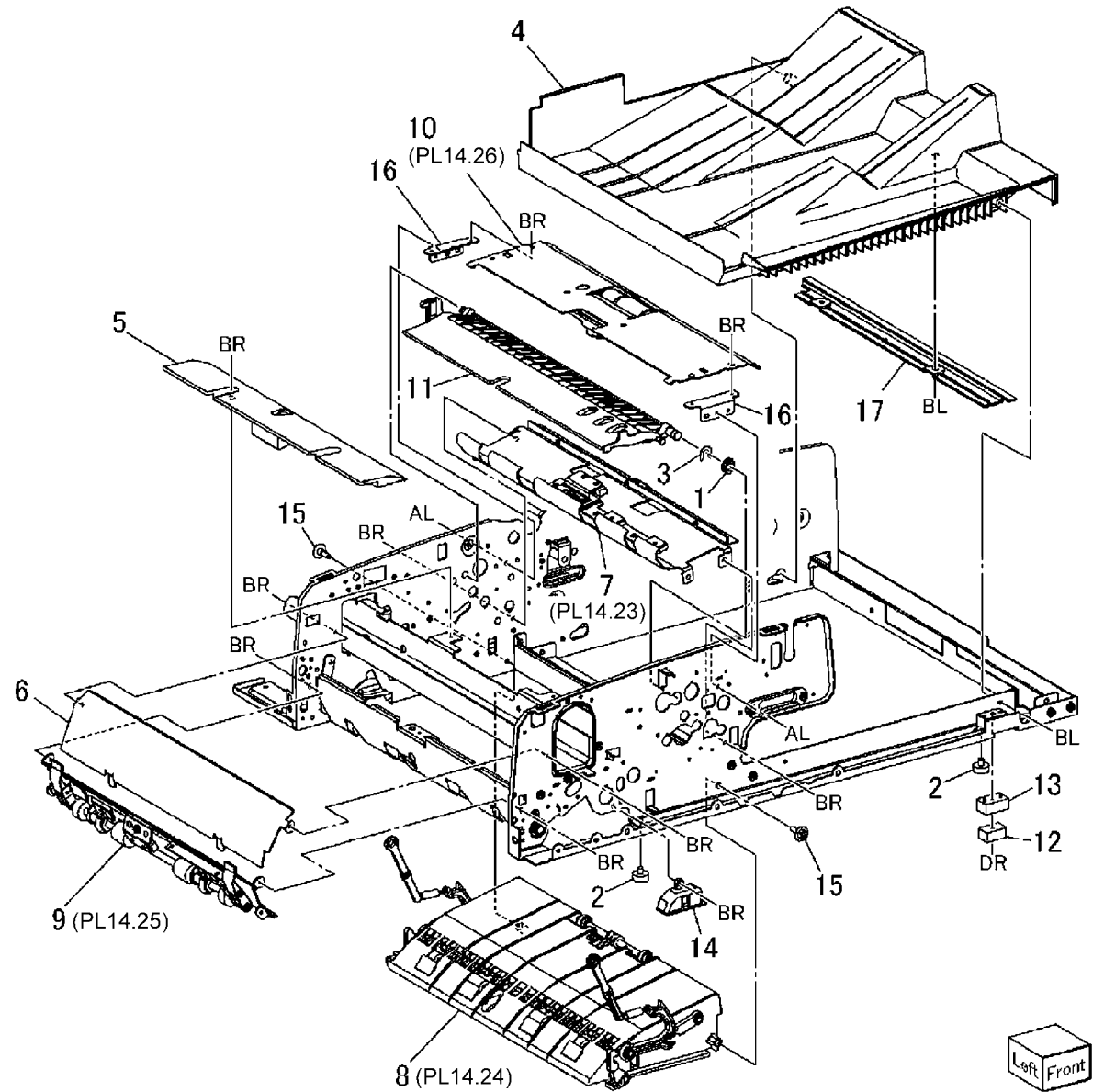
| Item | Part      | Description                                          |
|------|-----------|------------------------------------------------------|
| 1    | -         | Link                                                 |
| 2    | -         | Link                                                 |
| 3    | -         | Gate Rear Link                                       |
| 4    | -         | Link                                                 |
| 5    | 013E24160 | Sleeve Bearing                                       |
| 6    | -         | Gate Link Bracket (P/O PL 14.1 Item 1)               |
| 7    | -         | Harness Guide (P/O PL 14.1 Item 1)                   |
| 8    | 050K49650 | Inverter Lower Gate                                  |
| 9    | 054K24216 | Inverter Exit Chute                                  |
| 10   | 054K24231 | Guide Chute                                          |
| 11   | 121K31680 | Exit Gate Solenoid, Invert Roll Nip/Release Solenoid |
| 12   | 121K31700 | Simplex / Duplex Gate Solenoid                       |
| 13   | -         | Round Point Screw (Not Spared)                       |
| 14   | -         | Tension Spring (Length 34.15mm)                      |
| 15   | 809E49700 | Tension Spring (Length 22.5mm)                       |
| 16   | -         | Round Point Screw                                    |



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# PL 14.12 Exit Upper/Lower Chute, Registration Out Chute, Feeder Lower Chute

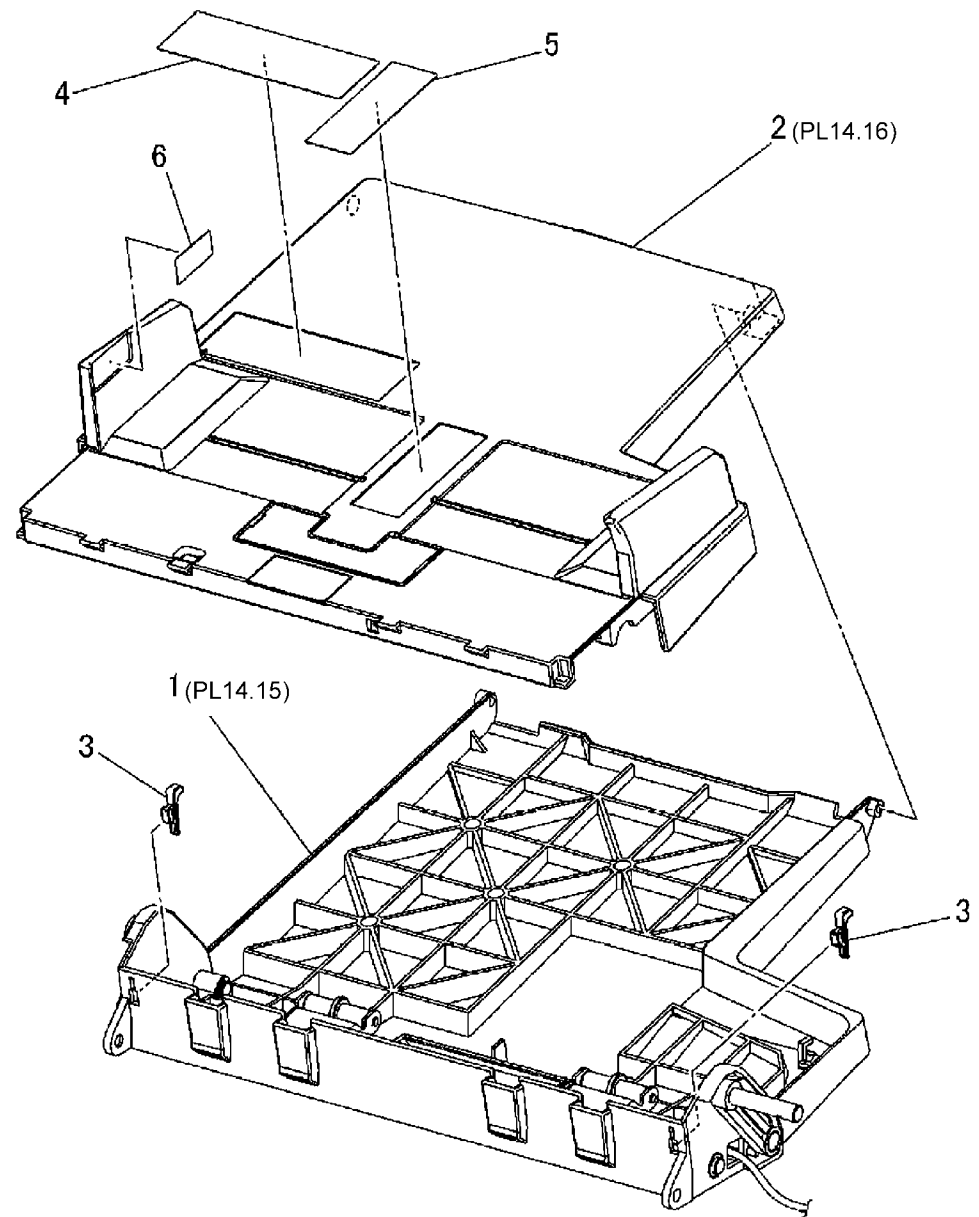
| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | 013E24171 | Sleeve Bearing                             |
| 2    | 017E92760 | Foot                                       |
| 3    | -         | C-Clip (Not Spared)                        |
| 4    | 050E19951 | DADF Exit Tray                             |
| 5    | -         | Guide Upper Chute (P/O PL 14.1 Item 1)     |
| 6    | -         | Registration In Chute (P/O PL 14.1 Item 1) |
| 7    | 054K24195 | Exit Upper Chute (P/O PL 14.1 Item 1)      |
| 8    | 054K24434 | Exit Low Chute                             |
| 9    | 054K24460 | Registration Out Chute                     |
| 10   | 054K24493 | Feeder Lower Chute                         |
| 11   | 054K26031 | Invert Chute                               |
| 12   | 121E90620 | Interlock Magnet (P/O PL 14.1 Item 1)      |
| 13   | -         | Magnet Cover (P/O PL 14.1 Item 1)          |
| 14   | -         | Cover (P/O PL 14.1 Item 1)                 |
| 15   | -         | Shoulder Screw                             |
| 16   | -         | Bracket (P/O PL 14.1 Item 1)               |
| 17   | -         | Tray Plate (P/O PL 14.1 Item 1)            |



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# PL 14.14 DADF Document Tray Component

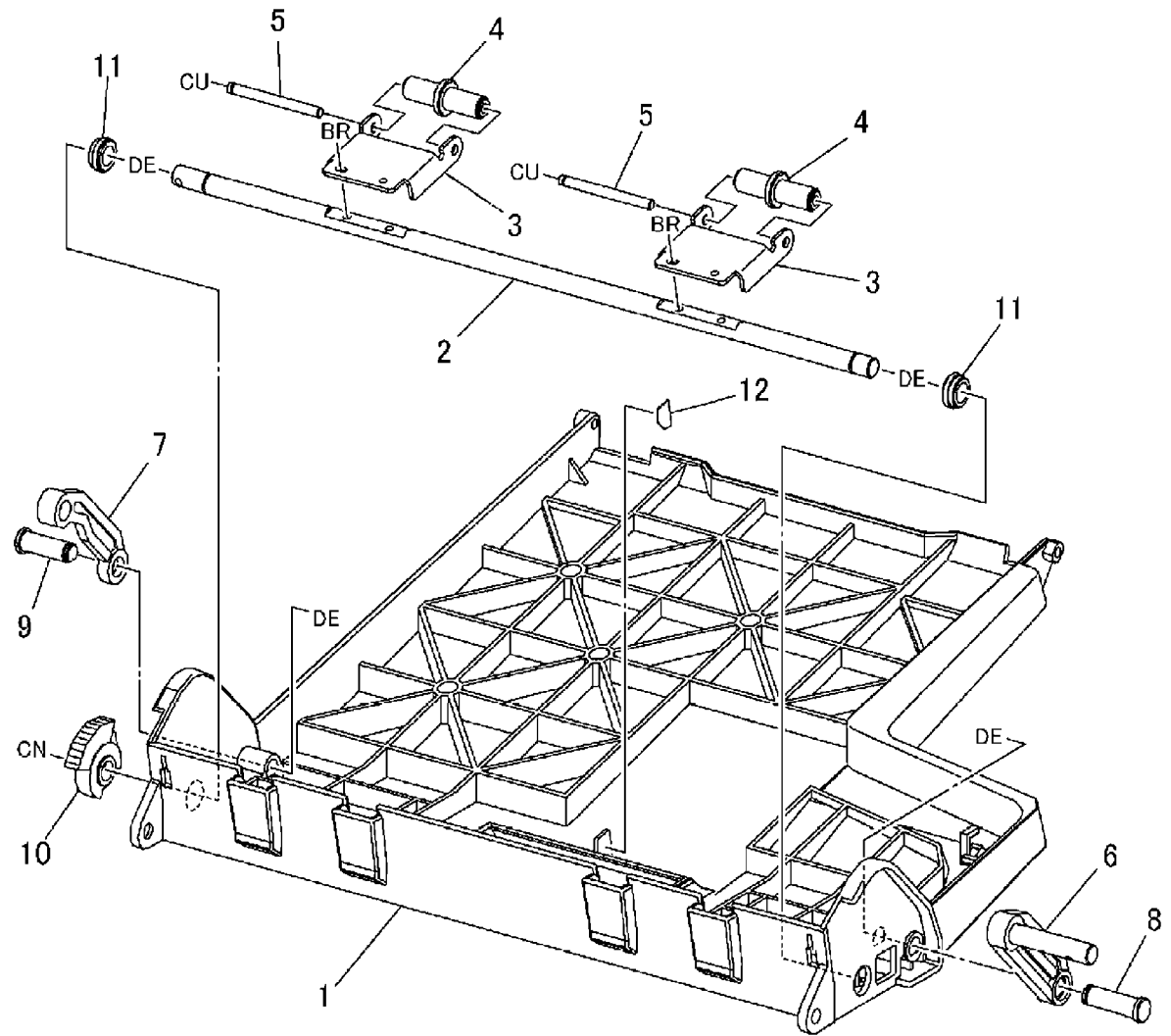
| Item | Part      | Description                                       |
|------|-----------|---------------------------------------------------|
| 1    | -         | DADF Document Bottom Tray (P/O<br>PL 14.1 Item 1) |
| 2    | -         | DADF Document Upper Tray (P/O<br>PL 14.1 Item 1)  |
| 3    | 014E44881 | Tray Block                                        |
| 4    | 893E09600 | Label (Size)                                      |
| 5    | 893E03340 | Label (Instruction)                               |
| 6    | 893E09660 | Label (Max)                                       |



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# PL 14.15 DADF Document Bottom Tray Component

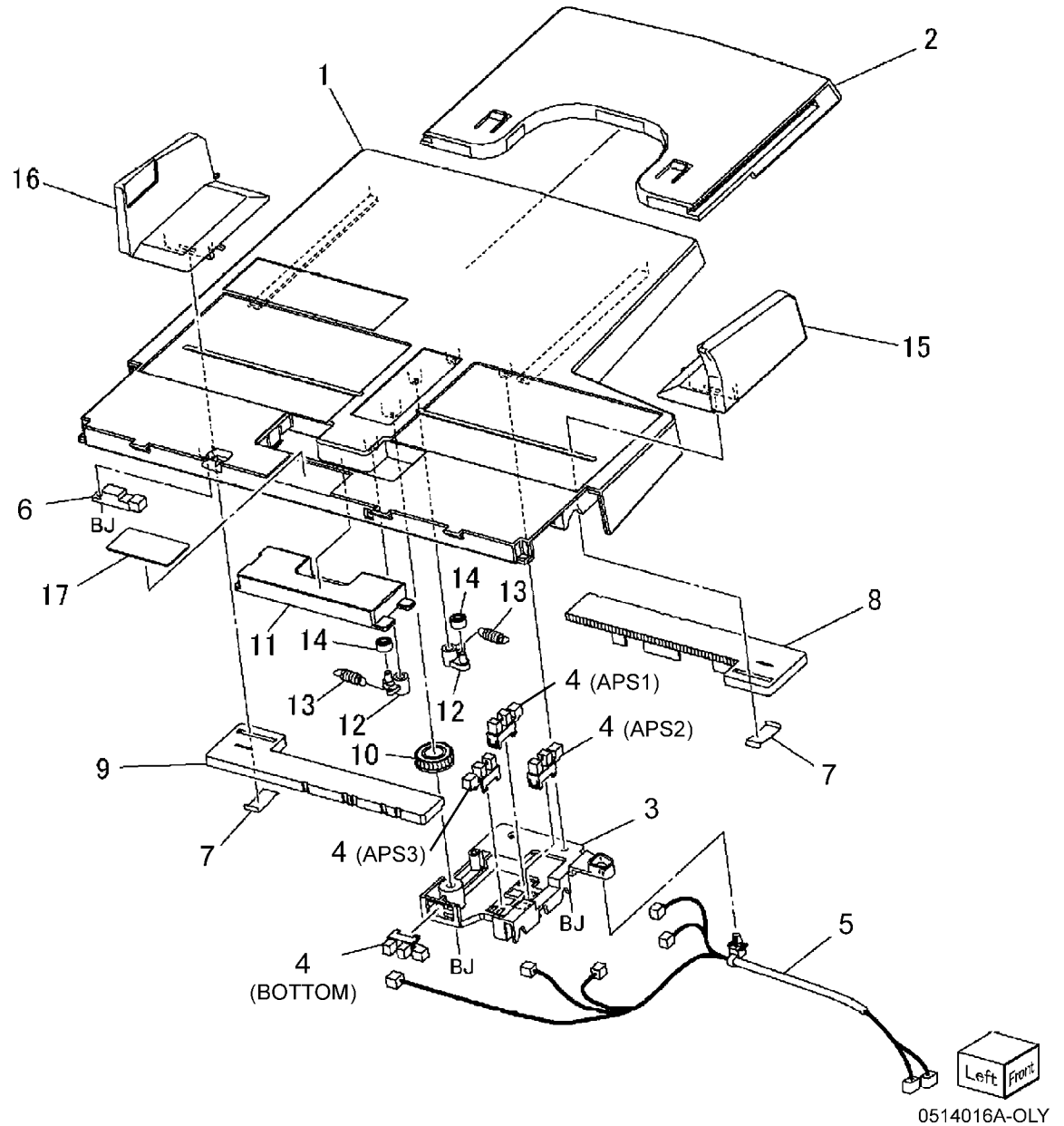
| Item | Part      | Description                          |
|------|-----------|--------------------------------------|
| 1    | -         | Bottom Tray (P/O PL 14.4 Item 11)    |
| 2    | -         | Lift Shaft (P/O PL 14.4 Item 11)     |
| 3    | -         | Lift Lever (P/O PL 14.4 Item 11)     |
| 4    | 059E98610 | Roll                                 |
| 5    | -         | Shaft (P/O PL 14.4 Item 11)          |
| 6    | -         | Front Link (P/O PL 14.1 Item 1)      |
| 7    | -         | Rear Link (P/O PL 14.1 Item 1)       |
| 8    | -         | Front Stud (P/O PL 14.4 Item 11)     |
| 9    | -         | Rear Stud (P/O PL 14.4 Item 11)      |
| 10   | -         | Sector Gear (P/O PL 14.1 Item 1)     |
| 11   | -         | Sleeve Bearing (P/O PL 14.4 Item 11) |
| 12   | -         | Sensor Film (P/O PL 14.4 Item 11)    |



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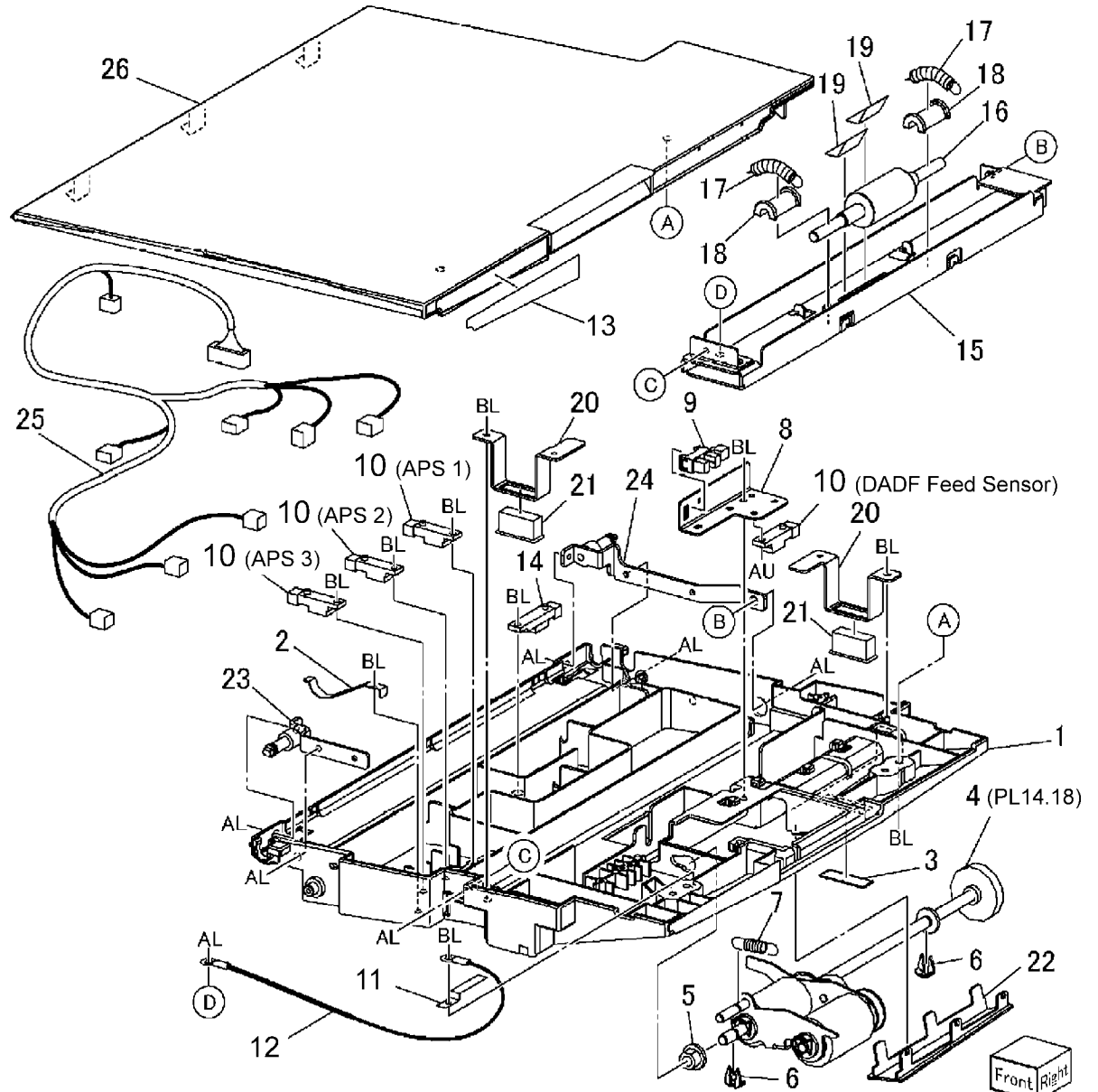
# PL 14.16 DADF Document Upper Tray Component

| Item | Part      | Description                                  |
|------|-----------|----------------------------------------------|
| 1    | -         | Upper Tray (P/O PL 4.4 Item 1)               |
| 2    | 050E20040 | Entrance Add Tray                            |
| 3    | -         | Sensor Housing (P/O PL 4.4 Item 1)           |
| 4    | 930W00111 | Tray APS1, APS2, APS3, Bottom Sensor         |
| 5    | -         | DADF Tray Wire Harness (P/O PL 14.4 Item 11) |
| 6    | 930W00211 | Document Set Sensor                          |
| 7    | -         | Rear Gear Spring (P/O PL 14.4 Item 11)       |
| 8    | -         | Front Rack Gear (P/O PL 14.4 Item 11)        |
| 9    | -         | Rear Rack Gear (P/O PL 14.4 Item 11)         |
| 10   | -         | Pinion Gear (P/O PL 14.4 Item 11)            |
| 11   | -         | Window Plate (P/O PL 4.4 Item 1)             |
| 12   | -         | Roll Link (P/O PL 14.4 Item 11)              |
| 13   | -         | Tension Spring (P/O PL 14.4 Item 11)         |
| 14   | -         | Roll (P/O PL 14.4 Item 11)                   |
| 15   | 032E21200 | Front Side Guide                             |
| 16   | 032E21210 | Rear Side Guide                              |
| 17   | 019K99061 | Retard Pad                                   |



# PL 14.17 Feeder Upper Chute Component

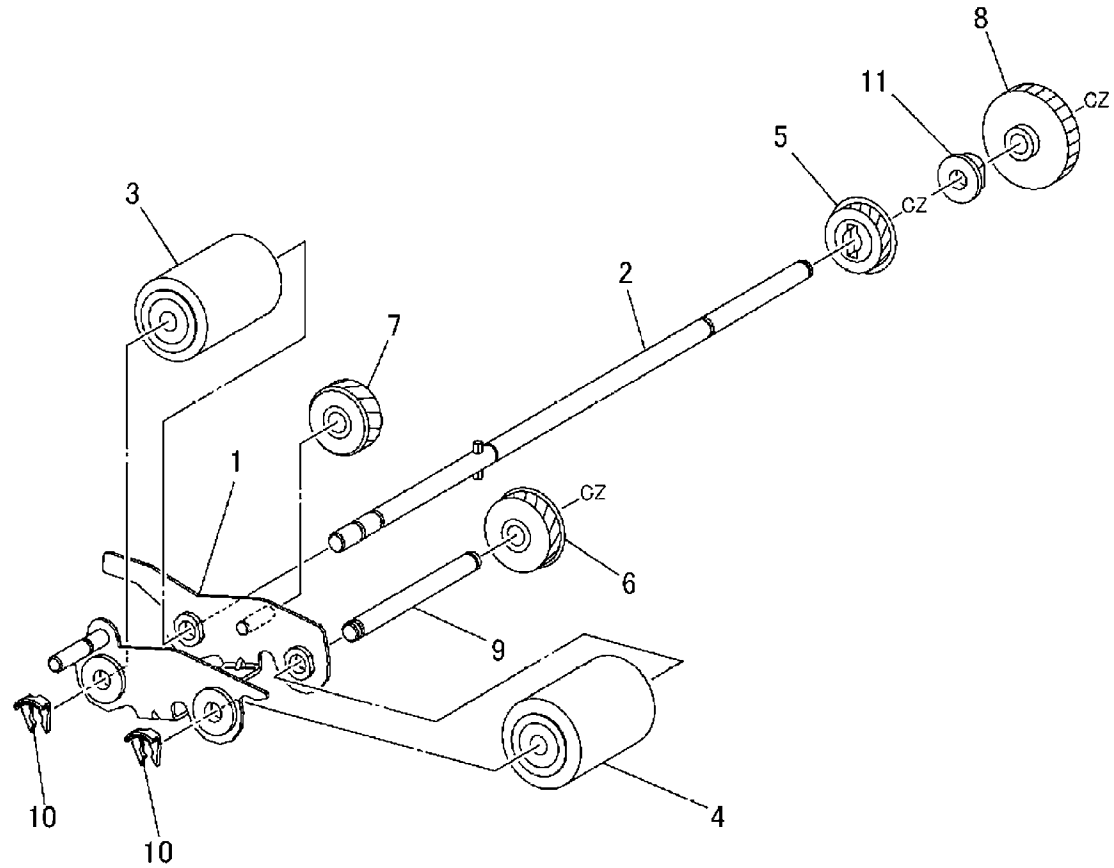
| Item | Part      | Description                                   |
|------|-----------|-----------------------------------------------|
| 1    | -         | Feeder Upper Chute                            |
| 2    | 809E50920 | Plate Spring                                  |
| 3    | -         | Sensor Shield (P/O PL 14.5 Item 7)            |
| 4    | 802K57201 | Feeder/Nudger Roll                            |
| 5    | -         | Sleeve Bearing (P/O PL 14.5 Item 7)           |
| 6    | 028E94260 | KL-Clip                                       |
| 7    | 809E50120 | Tension Spring                                |
| 8    | -         | Sensor Bracket (P/O PL 14.5 Item 7)           |
| 9    | 930W00111 | DADF Stack Height Sensor                      |
| 10   | 930W00211 | DADF Feed Sensor                              |
| 11   | -         | Plate Spring (P/O PL 14.5 Item 7)             |
| 12   | -         | Ground Wire (P/O PL 14.5 Item 7)              |
| 13   | 893E09610 | Label (Size)                                  |
| 14   | 130E84300 | Pre Registration Sensor                       |
| 15   | -         | Pinch Roll Housing (P/O PL 14.5 Item 7)       |
| 16   | -         | Pinch Roll (P/O PL 14.5 Item 7)               |
| 17   | 809E50250 | Tension Spring                                |
| 18   | 013E24660 | Garter Bearing                                |
| 19   | 105K21190 | Eliminator                                    |
| 20   | -         | Magnet Bracket (P/O PL 14.5 Item 7)           |
| 21   | -         | Magnet Catch (P/O PL 14.5 Item 7)             |
| 22   | 032E21170 | Chute Guide                                   |
| 23   | -         | Front Hinge (P/O PL 14.5 Item 7)              |
| 24   | -         | Rear Hinge (P/O PL 14.5 Item 7)               |
| 25   | -         | DADF Feeder Wire Harness (P/O PL 14.5 Item 7) |
| 26   | 802E56930 | Feeder Upper Cover                            |



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# PL 14.18 Feeder/Nudger Roll Component

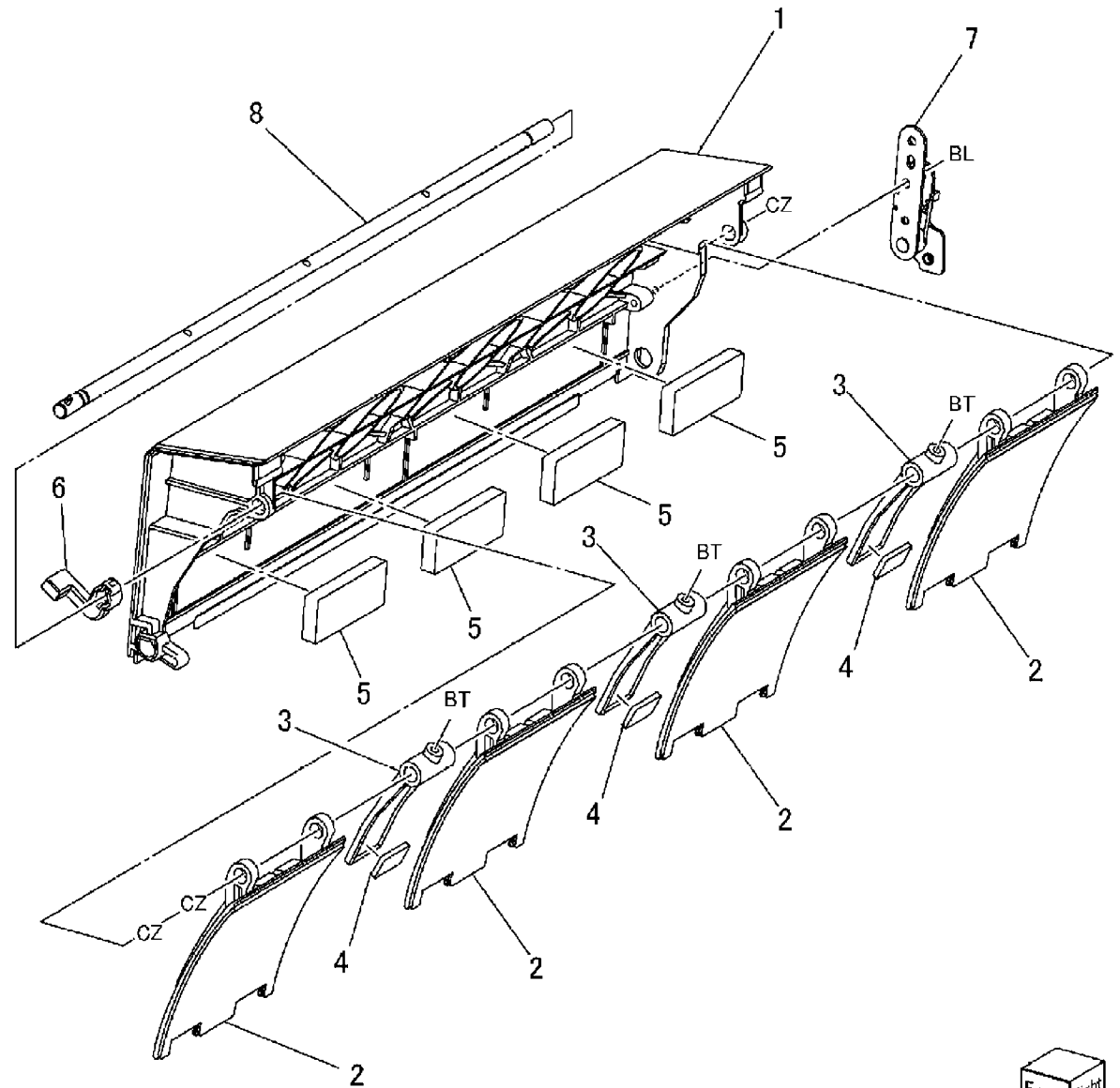
| Item | Part      | Description                          |
|------|-----------|--------------------------------------|
| 1    | -         | Nudger Bracket (P/O PL 14.17 Item 4) |
| 2    | -         | Feed Shaft (P/O PL 14.17 Item 4)     |
| 3    | 059K29520 | Feed Roll                            |
| 4    | 059K29510 | Nudger Roll                          |
| 5    | -         | Gear (38T) (P/O PL 14.17 Item 4)     |
| 6    | -         | Gear (44T) (P/O PL 14.17 Item 4)     |
| 7    | -         | Gear (39T) (P/O PL 14.17 Item 4)     |
| 8    | -         | Gear (29T) (P/O PL 14.17 Item 4)     |
| 9    | -         | Nudger Shaft (P/O PL 14.17 Item 4)   |
| 10   | 028E94260 | KL-Clip                              |
| 11   | -         | Sleeve Bearing (P/O PL 14.17 Item 4) |



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# PL 14.19 DADF Left Upper Cover Component

| Item | Part | Description                       |
|------|------|-----------------------------------|
| 1    | -    | Left Upper Cover (PL14.5 Item 12) |
| 2    | -    | Baffle (PL14.5 Item 12)           |
| 3    | -    | Baffle Stopper (PL14.5 Item 12)   |
| 4    | -    | Damper (PL14.5 Item 12)           |
| 5    | -    | Baffle Cushion (PL14.5 Item 12)   |
| 6    | -    | Actuator (PL14.5 Item 12)         |
| 7    | -    | Hinge (PL14.5 Item 12)            |
| 8    | -    | Baffle Shaft (PL14.5 Item 12)     |

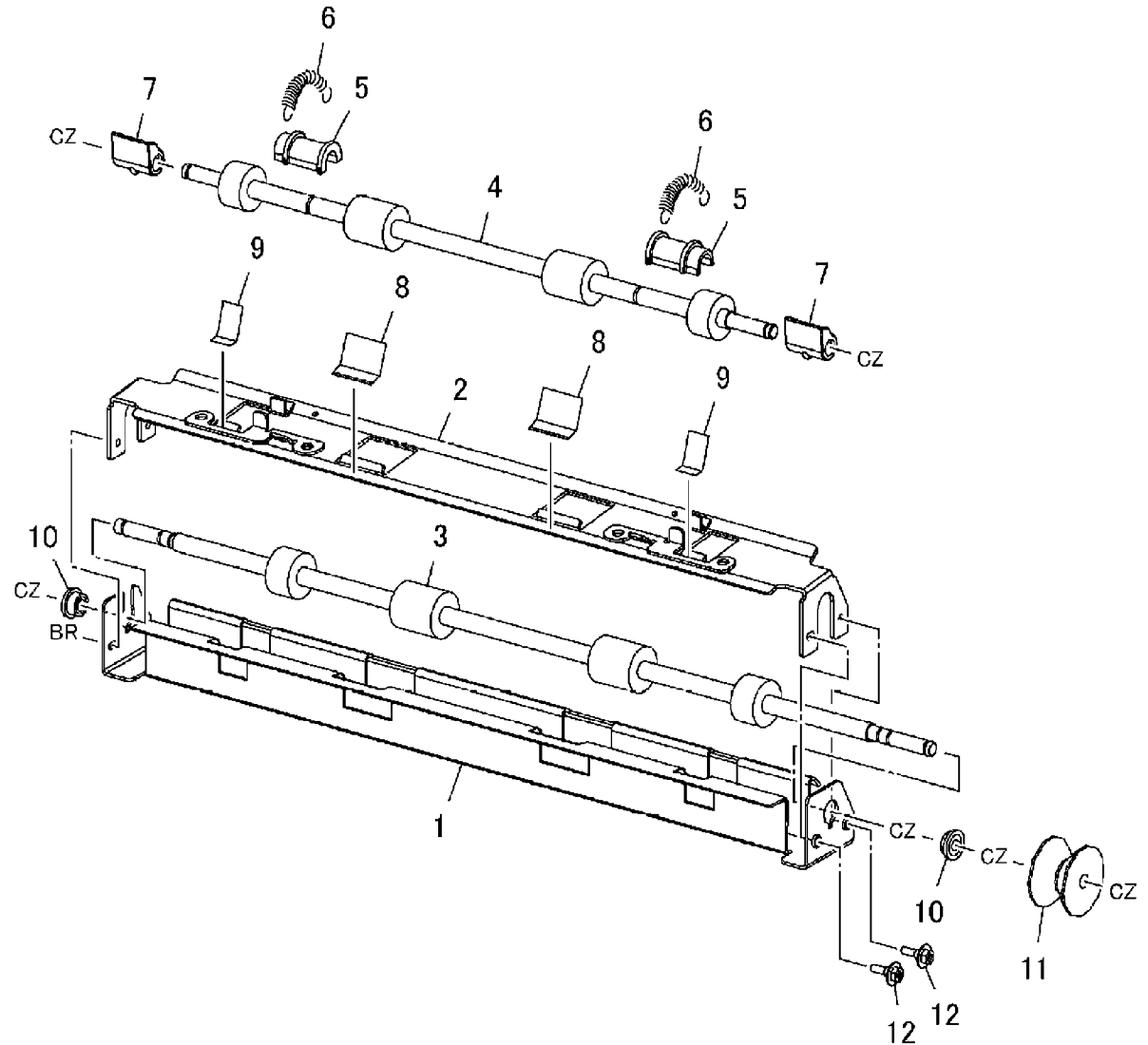


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# PL 14.20 Pre Registration Roll Chute Component

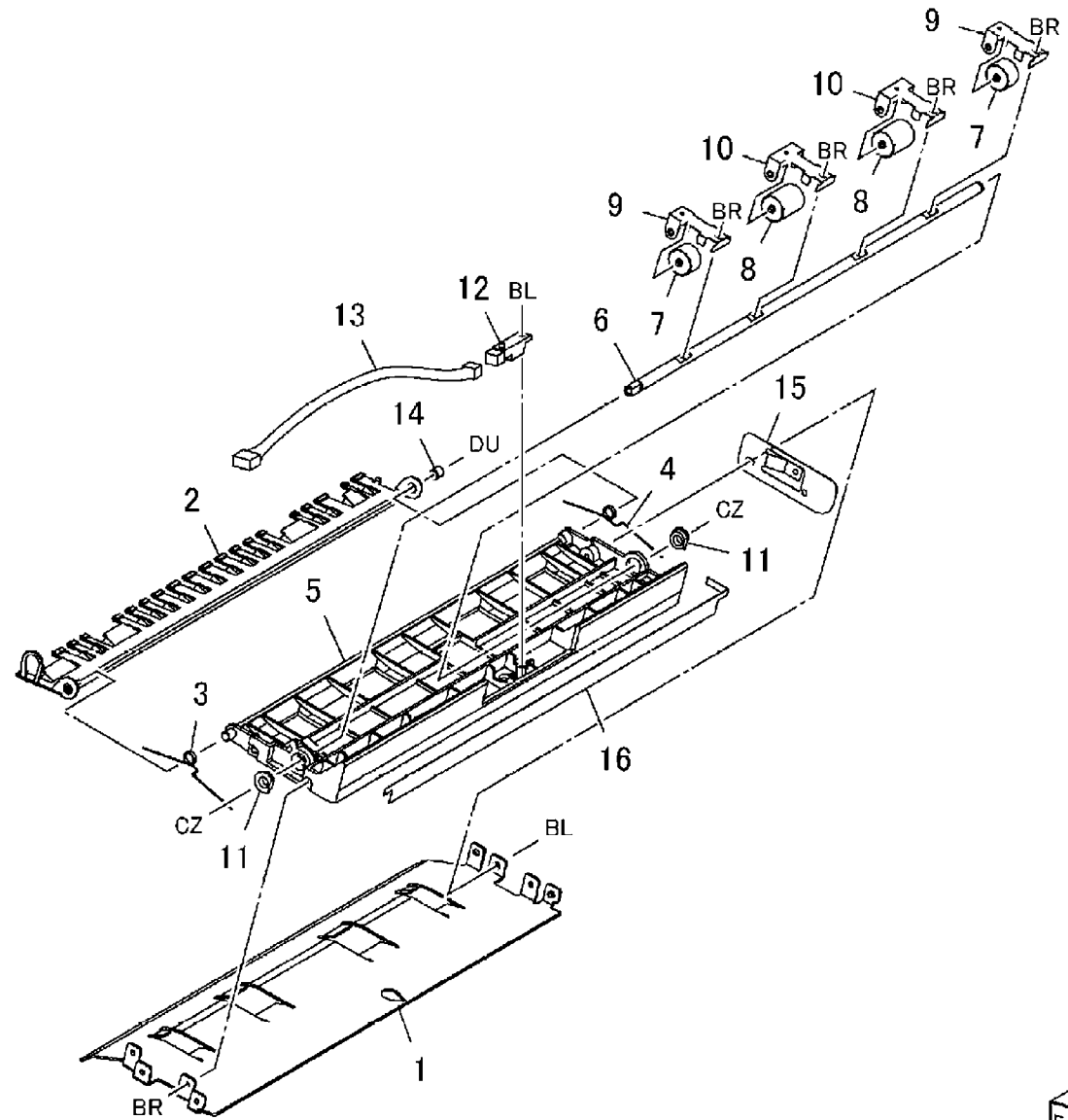
| Item | Part      | Description                                  |
|------|-----------|----------------------------------------------|
| 1    | -         | Pre Registration Lower Chute (PL14.7 Item 9) |
| 2    | -         | Pre Registration Upper Chute (PL14.7 Item 9) |
| 3    | -         | Pre Registration Roll (PL14.7 Item 9)        |
| 4    | -         | Pinch Roll (PL14.7 Item 9)                   |
| 5    | -         | Garter Bearing (PL14.7 Item 9)               |
| 6    | -         | Tension Spring (PL14.7 Item 9)               |
| 7    | -         | Release Cam (PL14.7 Item 9)                  |
| 8    | -         | Eliminator                                   |
| 9    | -         | Eliminator (PL14.7 Item 9)                   |
| 10   | 013E24840 | Ball Bearing (PL14.7 Item 9)                 |
| 11   | -         | Home Pulley (PL14.7 Item 9)                  |
| 12   | -         | Shoulder Screw                               |



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# PL 14.21 Inverter Exit Chute Component

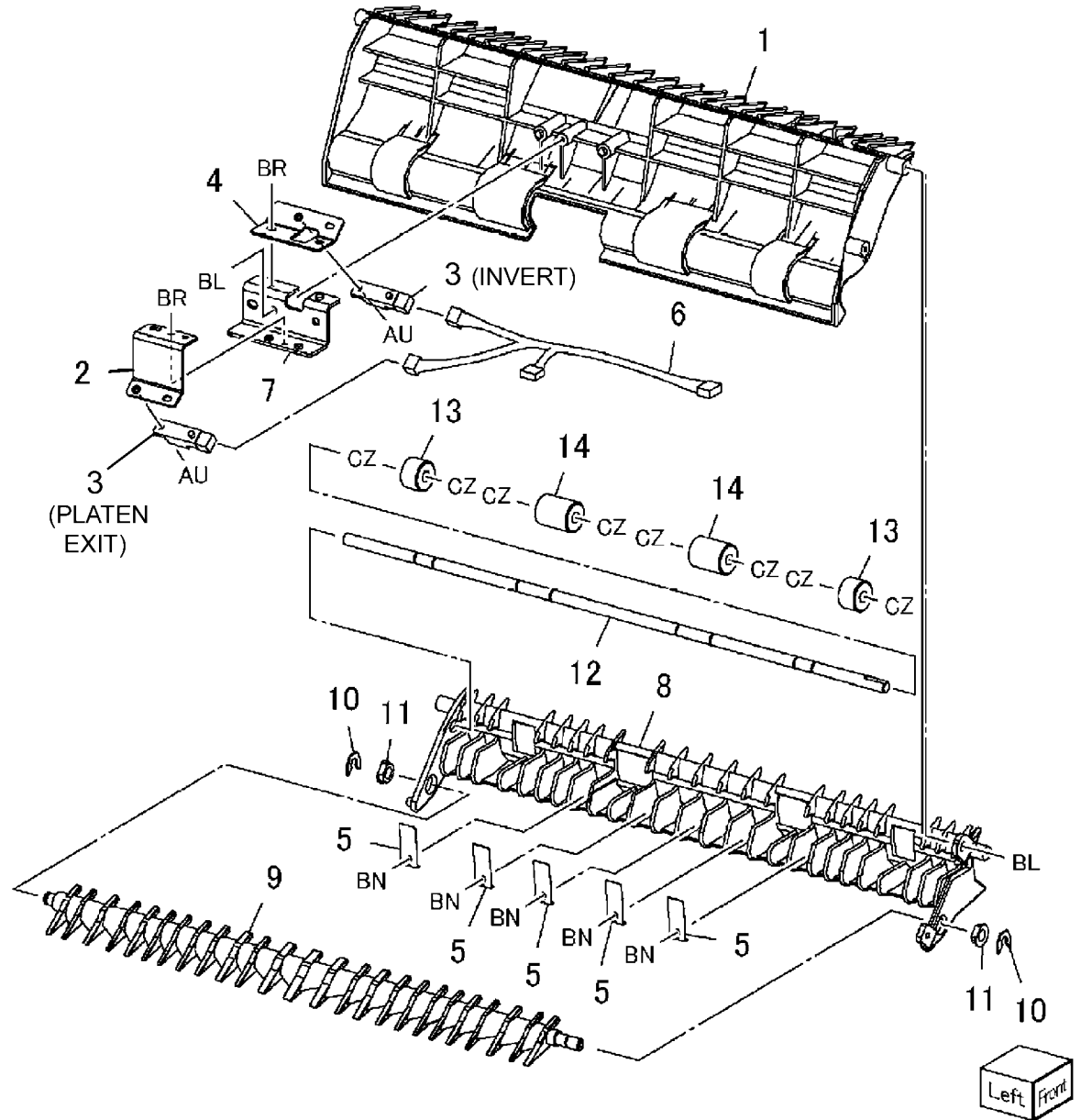
| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | -         | Inverter Exit Chute (P/O PL 14.11 Item 9) |
| 2    | -         | Inverter Upper Gate (P/O PL 14.11 Item 9) |
| 3    | -         | Torsion Spring (P/O PL 14.11 Item 9)      |
| 4    | -         | Torsion Spring (P/O PL 14.11 Item 9)      |
| 5    | -         | Pinch Roll Housing (P/O PL 14.11 Item 9)  |
| 6    | -         | Shaft (P/O PL 14.11 Item 9)               |
| 7    | -         | Pinch Roll (P/O PL 14.11 Item 9)          |
| 8    | -         | Pinch Roll (P/O PL 14.11 Item 9)          |
| 9    | -         | Pinch Spring (P/O PL 14.11 Item 9)        |
| 10   | -         | Pinch Spring (P/O PL 14.11 Item 9)        |
| 11   | -         | Sleeve Bearing (P/O PL 14.11 Item 9)      |
| 12   | 930W00211 | Invert Sensor 2                           |
| 13   | -         | Sensor Wire Harness (P/O PL 14.11 Item 9) |
| 14   | -         | Spacer (P/O PL 14.11 Item 9)              |
| 15   | -         | Earth Spring (P/O PL 14.11 Item 9)        |
| 16   | -         | Eliminator (P/O PL 14.11 Item 9)          |



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## PL 14.22 Guide Chute Component

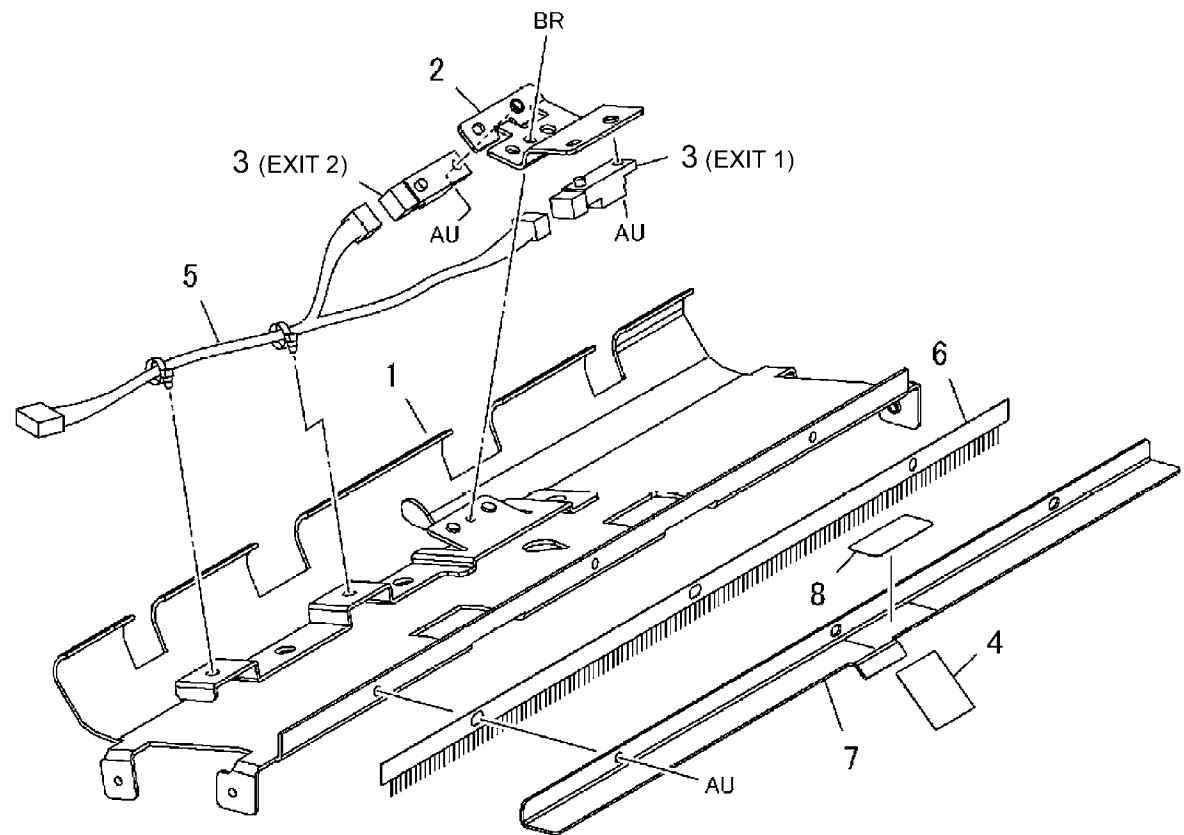
| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | -         | Guide Chute (P/O PL 14.11 Item 10)         |
| 2    | -         | Sensor Bracket (P/O PL 14.11 Item 10)      |
| 3    | 930W00211 | Platen Exit Sensor, Invert Sensor 1        |
| 4    | -         | Sensor Bracket (P/O PL 14.11 Item 10)      |
| 5    | -         | Pinch Spring (P/O PL 14.11 Item 10)        |
| 6    | -         | Sensor Wire Harness (P/O PL 14.11 Item 10) |
| 7    | -         | Sensor Bracket (P/O PL 14.11 Item 10)      |
| 8    | -         | Gate Housing (P/O PL 14.11 Item 10)        |
| 9    | -         | Simp/Dup Gate (P/O PL 14.11 Item 10)       |
| 10   | -         | C-Clip (P/O PL 14.11 Item 10)              |
| 11   | -         | Sleeve Bearing (P/O PL 14.11 Item 10)      |
| 12   | -         | Shaft (P/O PL 14.11 Item 10)               |
| 13   | -         | Pinch Roll (P/O PL 14.11 Item 10)          |
| 14   | -         | Pinch Roll (P/O PL 14.11 Item 10)          |



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## PL 14.23 Exit Upper Chute Component

| Item | Part      | Description                      |
|------|-----------|----------------------------------|
| 1    | -         | Exit Upper Chute (Not Spared)    |
| 2    | -         | Sensor Bracket (Not Spared)      |
| 3    | 930W00211 | DADF Exit Sensor1, Exit Sensor 2 |
| 4    | -         | Guide Film                       |
| 5    | -         | Sensor Wire Harness (Not Spared) |
| 6    | 105E12240 | Static Eliminator                |
| 7    | -         | Guide Bracket                    |
| 8    | 055K28390 | Sensor Shield                    |

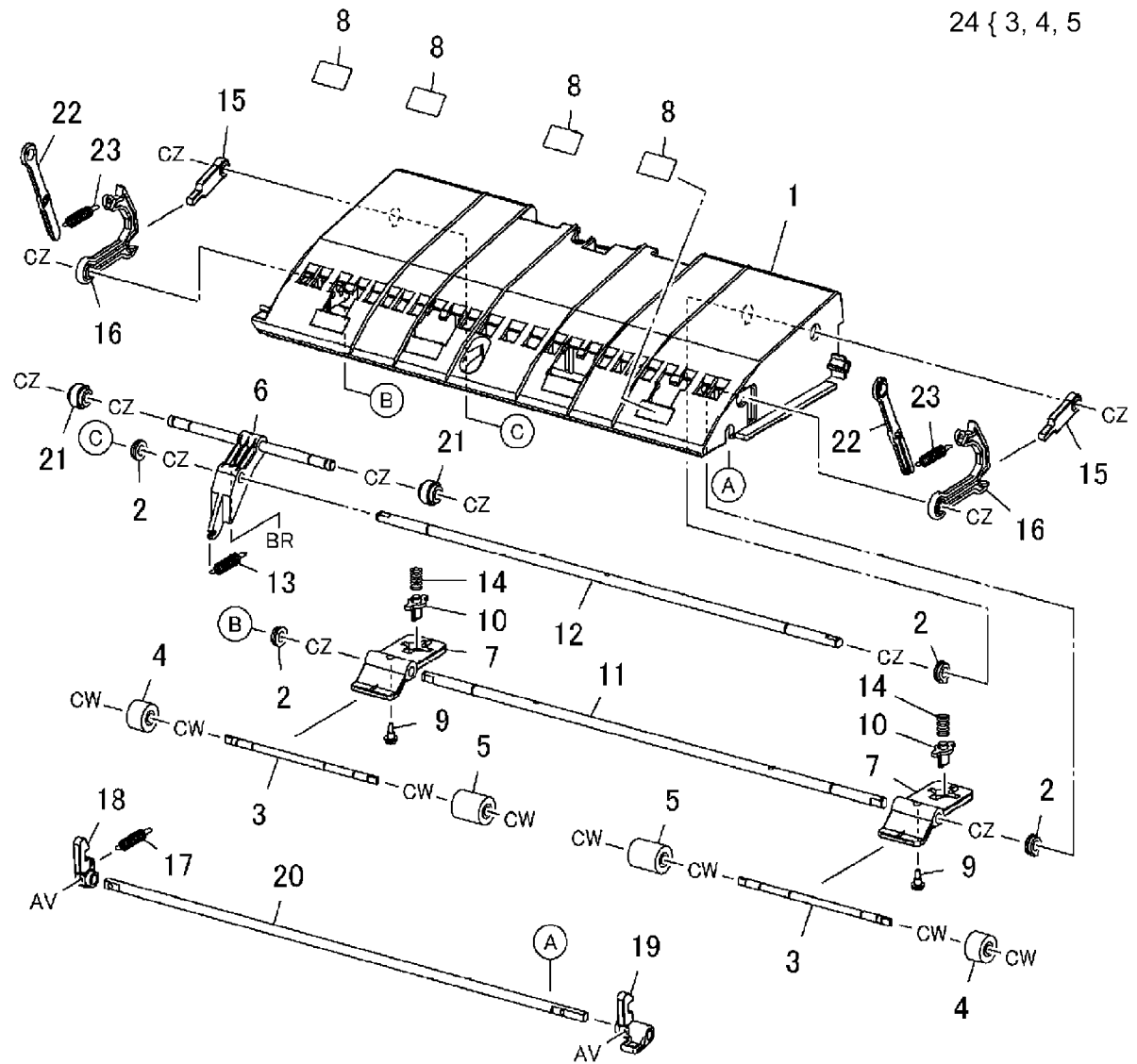


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# PL 14.24 Exit Lower Chute Component

24 { 3, 4, 5

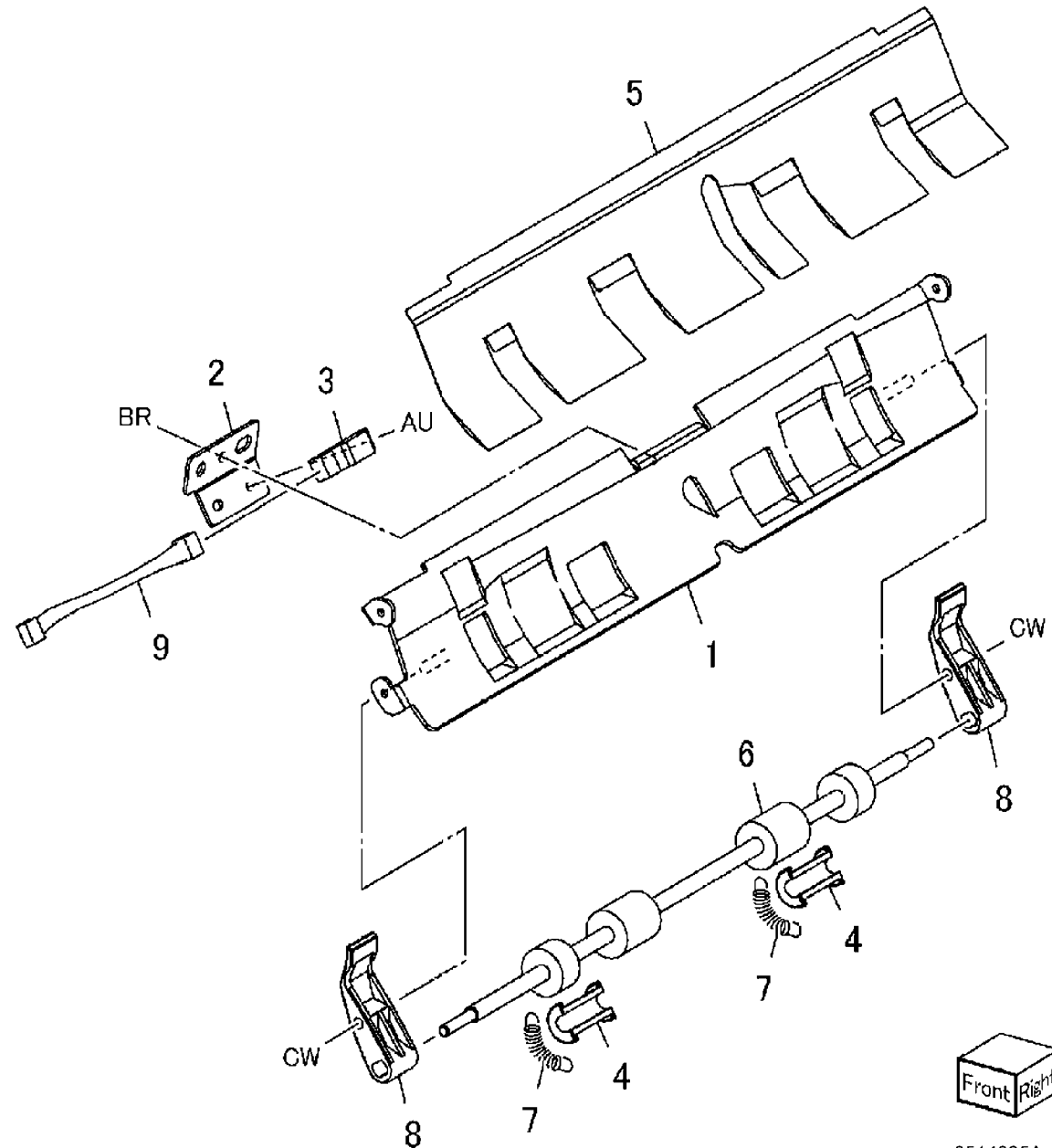
| Item | Part      | Description                              |
|------|-----------|------------------------------------------|
| 1    | -         | Exit Lower Chute (P/O PL 14.12 Item 8)   |
| 2    | -         | Sleeve Bearing (P/O PL 14.12 Item 8)     |
| 3    | -         | Pinch Roll Shaft (P/O PL 14.12 Item 8)   |
| 4    | -         | Pinch Roll                               |
| 5    | -         | Pinch Roll                               |
| 6    | -         | Pinch Roll Shaft (P/O PL 14.12 Item 8)   |
| 7    | -         | Pinch Plate (P/O PL 14.12 Item 8)        |
| 8    | 103E29870 | Film                                     |
| 9    | -         | Shoulder Screw (P/O PL 14.12 Item 8)     |
| 10   | -         | Spring Cap (P/O PL 14.12 Item 8)         |
| 11   | -         | Shaft (P/O PL 14.12 Item 8)              |
| 12   | -         | Shaft (P/O PL 14.12 Item 8)              |
| 13   | -         | Tension Spring (P/O PL 14.12 Item 8)     |
| 14   | -         | Compression Spring (P/O PL 14.12 Item 8) |
| 15   | -         | Link (P/O PL 14.12 Item 8)               |
| 16   | -         | Link (P/O PL 14.12 Item 8)               |
| 17   | -         | Tension Spring (P/O PL 14.12 Item 8)     |
| 18   | 012E11600 | Rear Latch                               |
| 19   | 012E11590 | Front Latch                              |
| 20   | -         | Latch Shaft (P/O PL 14.12 Item 8)        |
| 21   | -         | Pinch Roll (P/O PL 14.12 Item 8)         |
| 22   | -         | Link (P/O PL 14.12 Item 8)               |
| 23   | -         | Tension Spring (P/O PL 14.12 Item 8)     |
| 24   | 059K31033 | Pinch Roll Assembly                      |



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# PL 14.25 Registration Out Chute Component

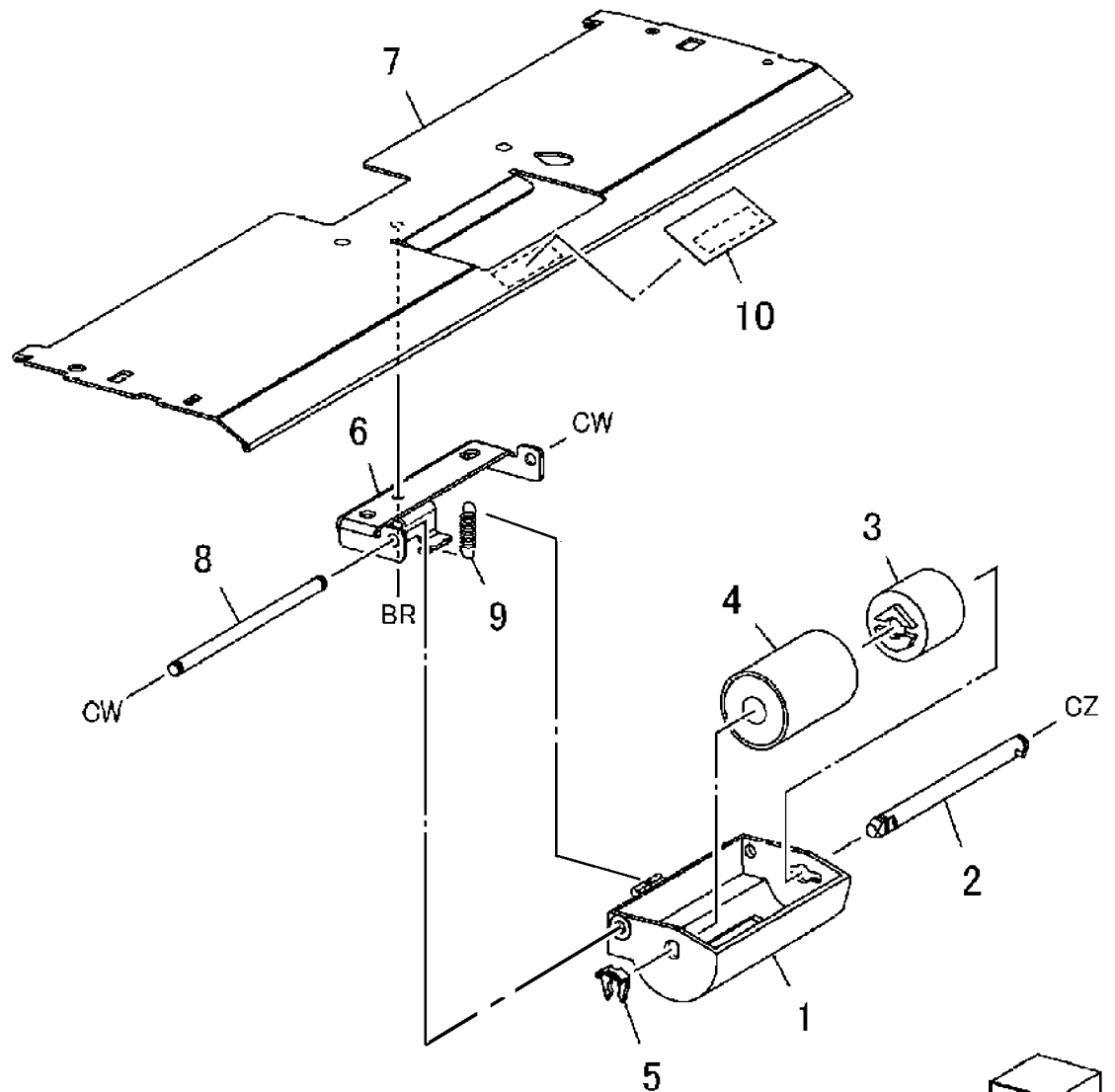
| Item | Part      | Description                                  |
|------|-----------|----------------------------------------------|
| 1    | -         | Registration Out Chute (P/O PL 14.12 Item 9) |
| 2    | -         | Sensor Bracket (P/O PL 14.12 Item 9)         |
| 3    | 930W00211 | DADF Registration Sensor                     |
| 4    | 013E24660 | Garter Bearing                               |
| 5    | -         | Film (P/O PL 14.12 Item 9)                   |
| 6    | -         | Pinch Roll                                   |
| 7    | 809E50270 | Tension Spring                               |
| 8    | 012E11430 | Link                                         |
| 9    | -         | Sensor Wire Harness (P/O PL 14.12 Item 9)    |



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## PL 14.26 Feeder Lower Chute Component

| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | -         | Retard Roll Housing (P/O PL 14.12 Item 10) |
| 2    | -         | Retard Roll Shaft (P/O PL 14.12 Item 10)   |
| 3    | 005K06810 | Torque Limiter                             |
| 4    | 059K30951 | Retard Roll                                |
| 5    | 028E94260 | KL-Clip                                    |
| 6    | -         | Bracket (P/O PL 14.12 Item 10)             |
| 7    | -         | Feeder Lower Chute                         |
| 8    | -         | Shaft (P/O PL 14.12 Item 10)               |
| 9    | -         | Tension Spring (P/O PL 14.12 Item 10)      |
| 10   | -         | Film (P/O PL 14.12 Item 10)                |

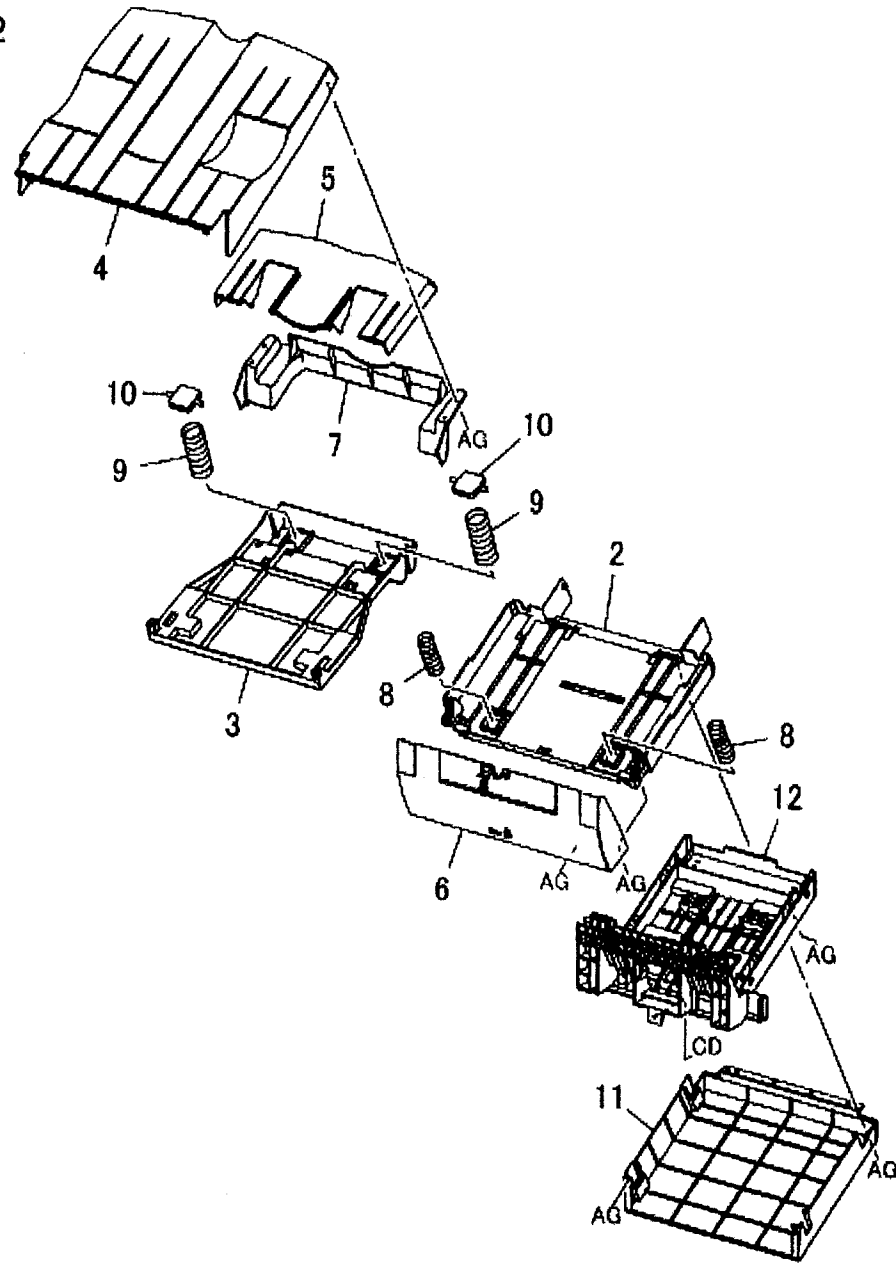


0514026A-OLY

# PL 16.1 SCT

| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | 050K50991 | SCT                                   |
| 2    | -         | Base Tray (P/O PL 16.1 Item 1)        |
| 3    | -         | Center Tray (P/O PL 16.1 Item 1)      |
| 4    | -         | Catch Tray (P/O PL 16.1 Item 1)       |
| 5    | -         | Extension Tray (P/O PL 16.1 Item 1)   |
| 6    | -         | Wall Tray (P/O PL 16.1 Item 1)        |
| 7    | -         | Catch Tray Cover (P/O PL 16.1 Item 1) |
| 8    | -         | Spring (P/O PL 16.1 Item 1)           |
| 9    | -         | Spring (P/O PL 16.1 Item 1)           |
| 10   | -         | Plate (P/O PL 16.1 Item 1)            |
| 11   | -         | Bottom Cover (P/O PL 16.1 Item 1)     |
| 12   | -         | Support (P/O PL 16.1 Item 1)          |

1 {2-12}



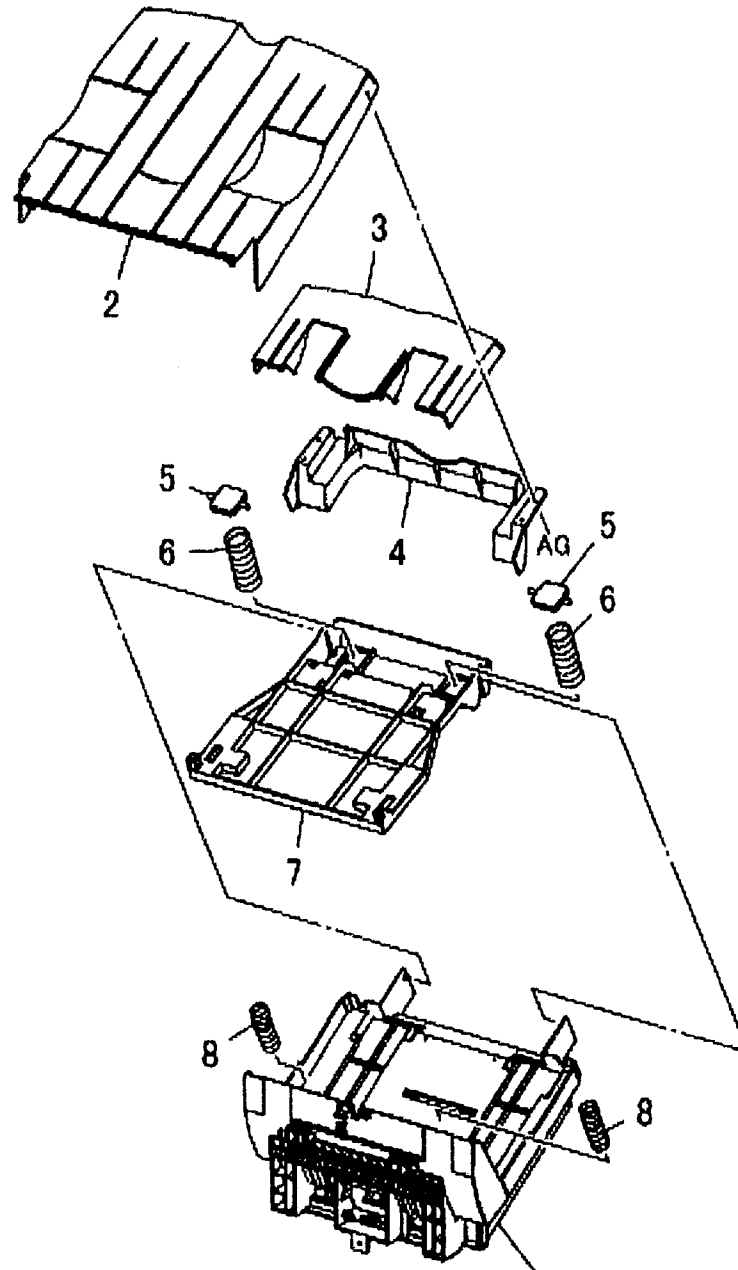
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# PL 16.2 OCT (1 of 2)

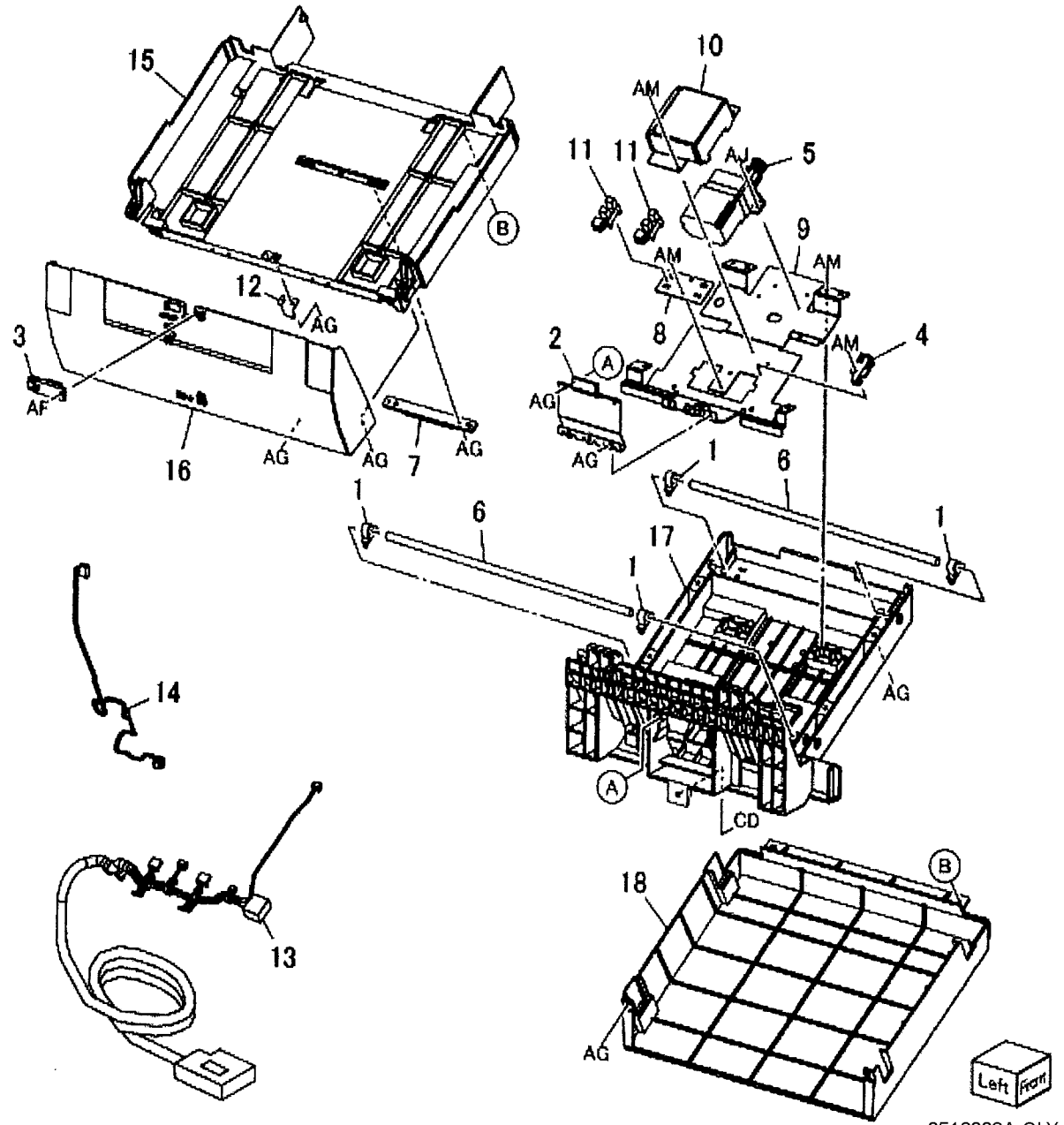
| Item | Part      | Description                             |
|------|-----------|-----------------------------------------|
| 1    | 050K50983 | OCT                                     |
| 2    | -         | Catch Tray (P/O PL 16.2 Item 1)         |
| 3    | -         | Extension Tray (P/O PL 16.2 Item 1)     |
| 4    | -         | Catch Tray Cover (P/O PL 16.2 Item 1)   |
| 5    | -         | Plate (P/O PL 16.2 Item 1)              |
| 6    | -         | Spring (P/O PL 16.2 Item 1)             |
| 7    | -         | Center Tray (P/O PL 16.2 Item 1)        |
| 8    | -         | Spring (P/O PL 16.2 Item 1)             |
| 9    | -         | Base Tray Assembly (P/O PL 16.2 Item 1) |

1 { 2 - 9



# PL 16.3 OCT (2 of 2)

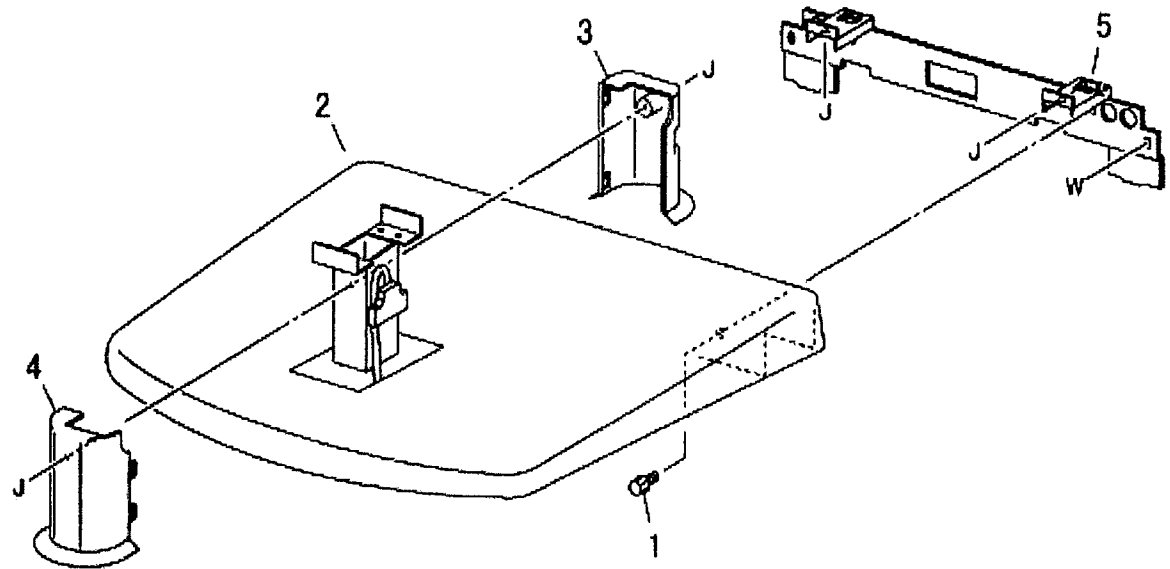
| Item | Part      | Description          |
|------|-----------|----------------------|
| 1    | -         | Bearing              |
| 2    | -         | Gasket               |
| 3    | 930W00211 | Tray Full Sensor     |
| 4    | -         | Clamp                |
| 5    | 127K39971 | OCT Motor            |
| 6    | -         | Shaft                |
| 7    | -         | Rack                 |
| 8    | -         | Bracket              |
| 9    | -         | Plate                |
| 10   | -         | Motor Cover          |
| 11   | 930W00111 | Rear Position Sensor |
| 12   | -         | Actuator             |
| 13   | -         | Wire Harness         |
| 14   | -         | Wire Harness         |
| 15   | -         | Base Tray            |
| 16   | -         | Wall Tray            |
| 17   | -         | Support              |
| 18   | -         | Bottom Cover         |



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## PL 17.2 UI (Left)

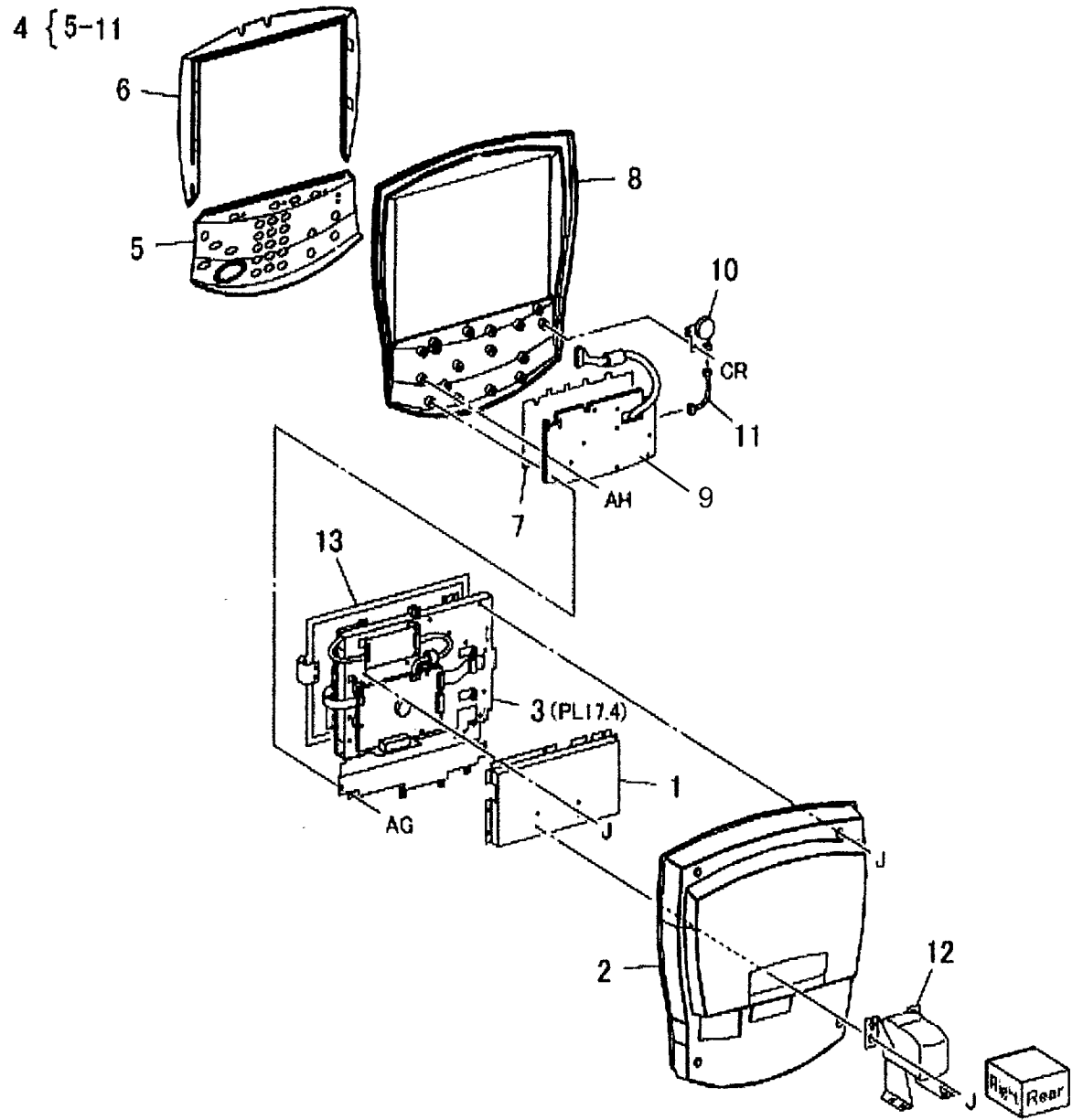
| Item | Part      | Description      |
|------|-----------|------------------|
| 1    | 003E63230 | Screw Thumb      |
| 2    | -         | Tray Assy        |
| 3    | -         | Neck Right Cover |
| 4    | -         | Neck Left Cover  |
| 5    | -         | Bracket          |



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# PL 17.3 UI

| Item | Part      | Description                          |
|------|-----------|--------------------------------------|
| 1    | -         | Cover EME                            |
| 2    | -         | Cover Rear Base                      |
| 3    | 802K56472 | LCD Touch Panel                      |
| 4    | 802K71730 | Control Panel Assembly (XC)          |
| -    | 802K74430 | Control Panel Assembly (XE)          |
| 5    | -         | Overlay Cover (P/O PL 17.3 Item 4)   |
| 6    | -         | Bezel Cover (P/O PL 17.3 Item 4)     |
| 7    | -         | Mylar Sheet (P/O PL 17.3 Item 4)     |
| 8    | -         | Case (P/O PL 17.3 Item 4)            |
| 9    | -         | Switch/Led/ PWB (P/O PL 17.3 Item 4) |
| 10   | -         | VR PWB (P/O PL 17.3 Item 4)          |
| 11   | -         | VR Cable (P/O PL 17.3 Item 4)        |
| 12   | 802K63681 | Tilt Swivel                          |
| 13   | -         | ESD Sheet (Not Spared)               |

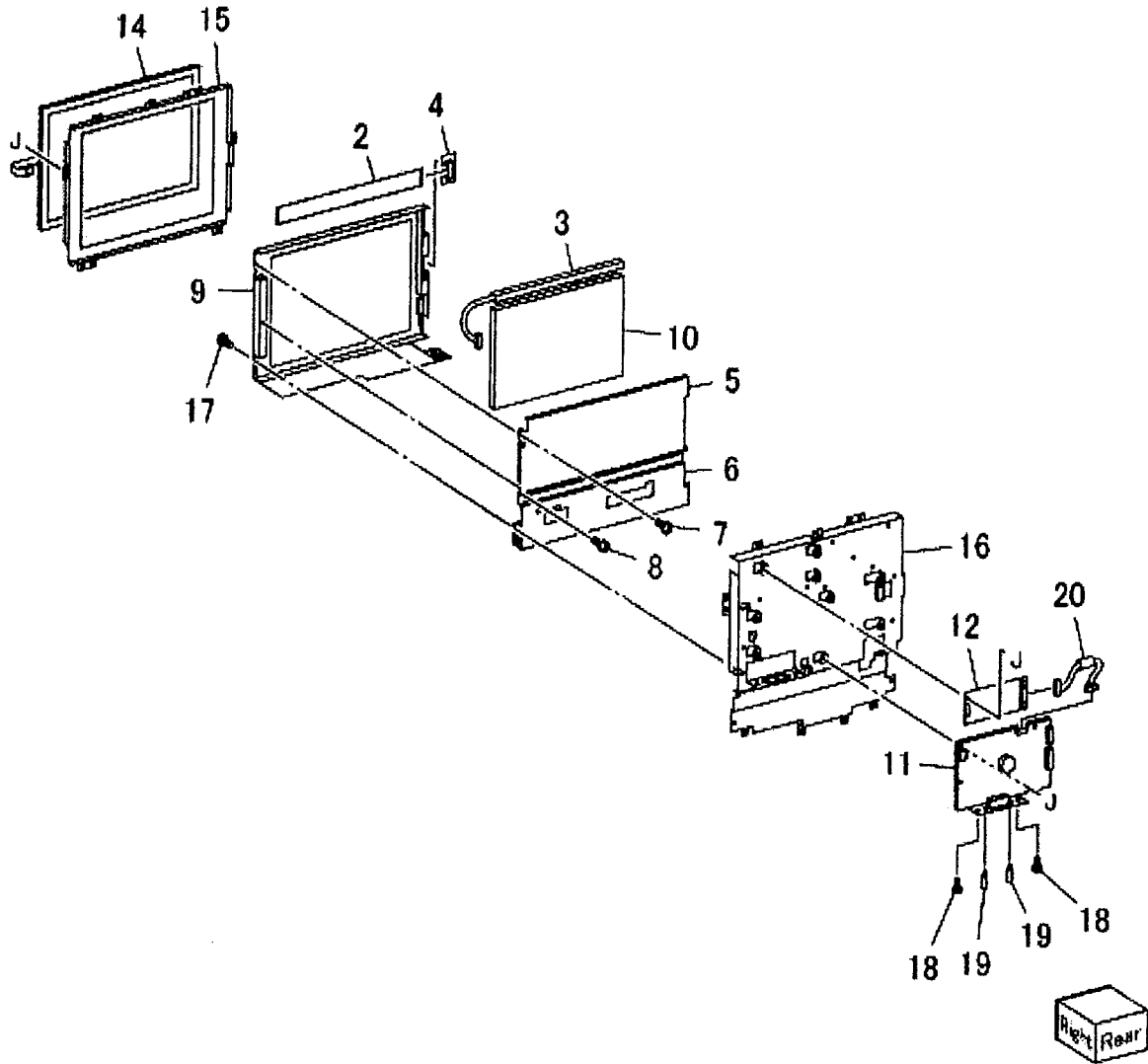


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# PL 17.4 LCD Touch Panel

| Item | Part      | Description                                 |
|------|-----------|---------------------------------------------|
| 1    | 123K96541 | LCD Module Assembly                         |
| 2    | 117E23951 | Flexible Printer Cable (P/O PL 17.4 Item 1) |
| 3    | -         | Lamp (P/O PL 17.4 Item 1)                   |
| 4    | -         | LCD PWB (P/O PL 17.4 Item 1)                |
| 5    | -         | Cover (P/O PL 17.4 Item 1)                  |
| 6    | -         | Cover (P/O PL 17.4 Item 1)                  |
| 7    | -         | Screw (P/O PL 17.4 Item 1)                  |
| 8    | -         | Tapping Screw (P/O PL 17.4 Item 1)          |
| 9    | -         | LCD Frame (P/O PL 17.4 Item 1)              |
| 10   | -         | LCD (P/O PL 17.4 Item 1)                    |
| 11   | 160K97893 | UI PWB                                      |
| 12   | 160K97901 | Inverter PWB                                |
| 13   | 802K65291 | Touch Panel Assembly                        |
| 14   | -         | Touch Panel (P/O PL 17.4 Item 13)           |
| 15   | -         | Touch Panel Plate (P/O PL 17.4 Item 13)     |
| 16   | -         | LCD Plate (Not Spared)                      |
| 17   | -         | Screw (Not Spared)                          |
| 18   | -         | Screw                                       |
| 19   | 826E08490 | Screw                                       |
| 20   | -         | Wire Harness (Not Spared)                   |

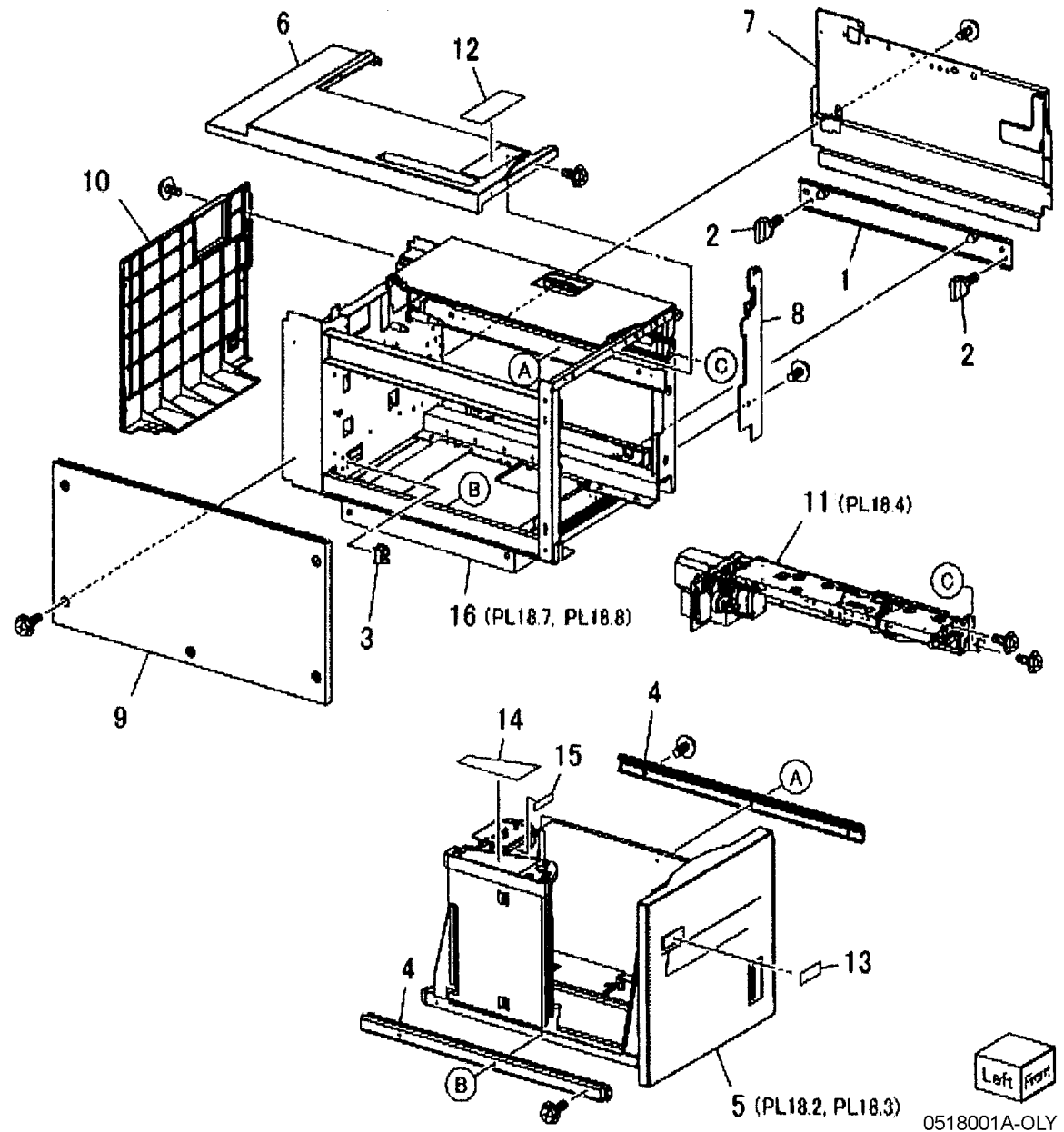
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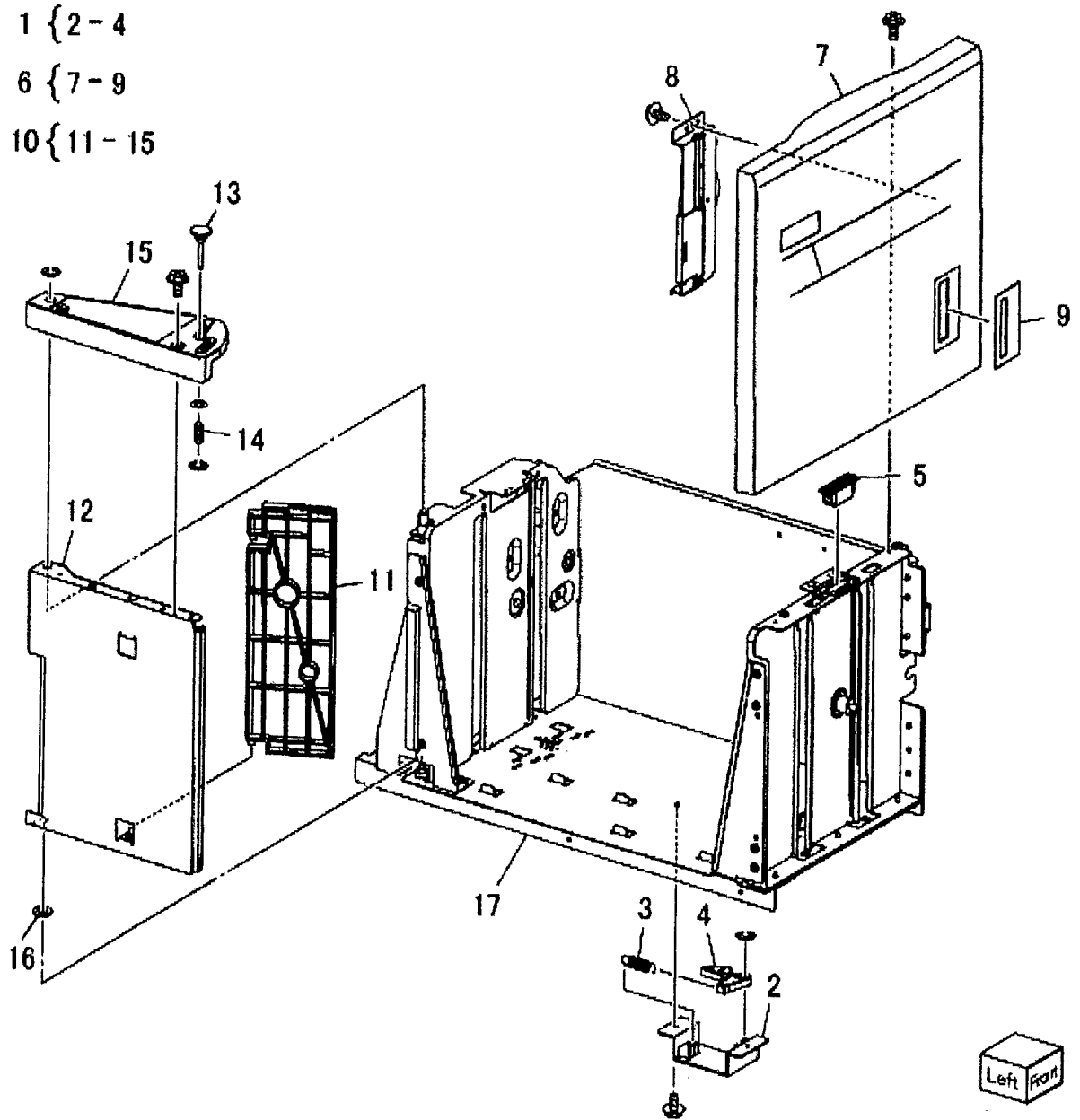
# PL 18.1 HCF Unit

| Item | Part      | Description                 |
|------|-----------|-----------------------------|
| 1    | -         | Joint Plate (Not Spared)    |
| 2    | 003K91881 | Knob                        |
| 3    | 130K55590 | HCF Tray Set Sensor         |
| 4    | 801K15700 | Tray Rail                   |
| 5    | 050K51970 | HCF Tray 6 (REP 7.1)        |
| 6    | -         | Left Top Cover              |
| 7    | -         | Right Cover                 |
| 8    | -         | Front Right Cover           |
| 9    | -         | Left Cover                  |
| 10   | -         | Rear Cover                  |
| 11   | 059K26664 | HCF Feeder (REP 7.2)        |
| 12   | -         | Label (Top)                 |
| 13   | -         | Label (Tray Number)         |
| 14   | -         | Label (End)                 |
| 15   | 893E46200 | Label (Size)                |
| 16   | -         | Frame Assembly (Not Spared) |



# PL 18.2 HCF Tray 6 (1 of 2)

| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Tray Latch Assembly                |
| 2    | 003K03590 | Tray Latch                         |
| 3    | -         | Spring (P/O PL 18.2 Item 1)        |
| 4    | -         | Latch Lever (P/O PL 18.2 Item 1)   |
| 5    | -         | Magnet                             |
| 6    | -         | Front Cover Assembly               |
| 7    | -         | Front Cover                        |
| 8    | 068K25370 | Gear Bracket                       |
| 9    | -         | Label (Gauge) (P/O PL 18.2 Item 6) |
| 10   | -         | End Guide Assembly                 |
| 11   | -         | Plate                              |
| 12   | -         | Bracket                            |
| 13   | -         | Pin                                |
| 14   | -         | Spring (P/O PL 18.2 Item 10)       |
| 15   | -         | Top Plate                          |
| 16   | -         | Wave Washer                        |
| 17   | -         | Frame                              |

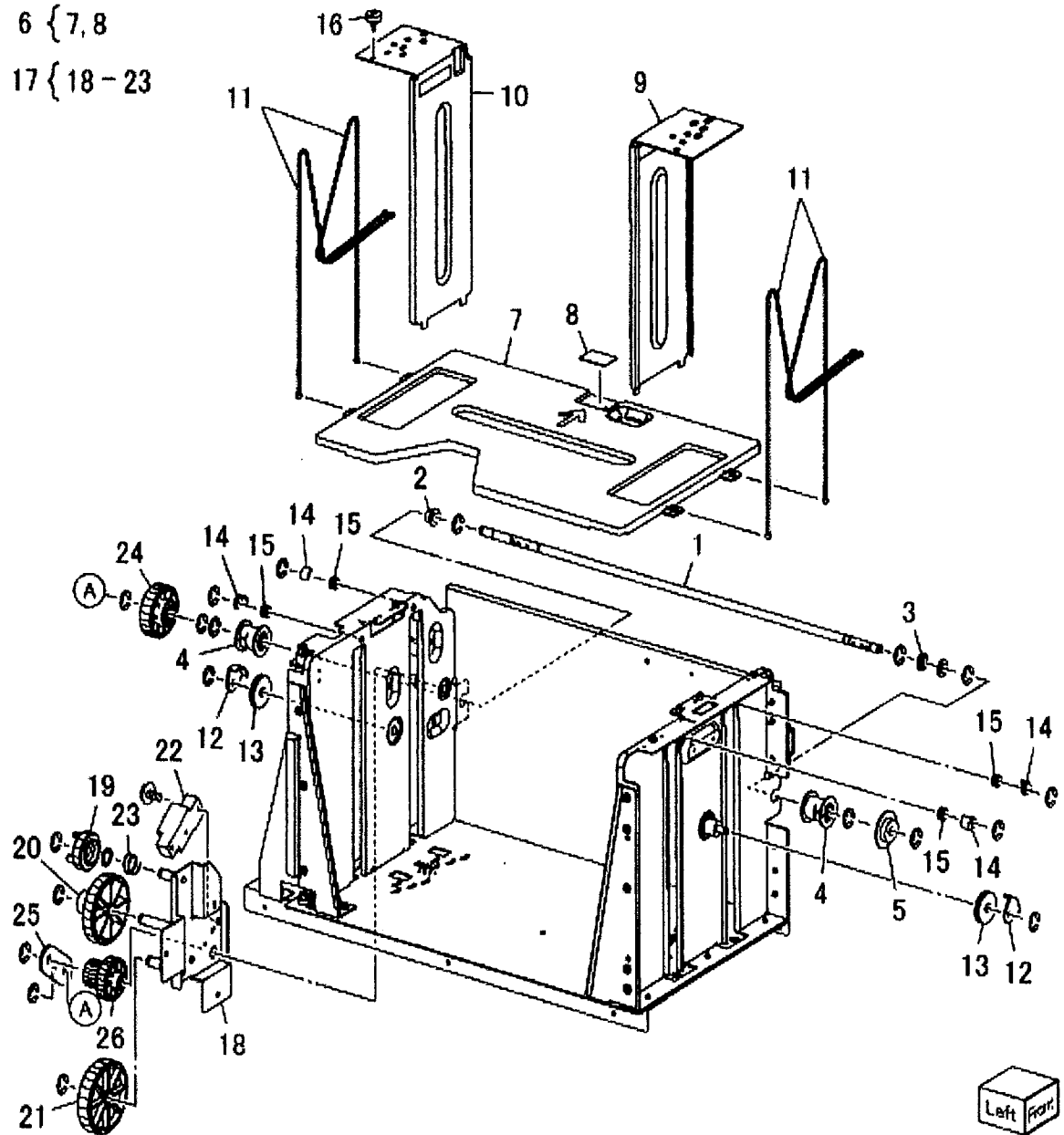


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# PL 18.3 HCF Tray 6 (2 of 2)

| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Lift Shaft                         |
| 2    | -         | Bearing                            |
| 3    | -         | Bearing                            |
| 4    | 020E37620 | Tray Cable Pulley                  |
| 5    | -         | Gear                               |
| 6    | -         | Bottom Plate Assembly              |
| 7    | 815E09030 | Bottom Plate                       |
| 8    | 019E58620 | Pad                                |
| 9    | -         | front Side Guide                   |
| 10   | -         | Rear Side Guide                    |
| 11   | 604K19980 | Tray Cable Pulley (REP 7.4)        |
| 12   | 032E22410 | Wire Guide (L)                     |
| 13   | 020E37630 | Pulley                             |
| 14   | -         | Wire Guide (S)                     |
| 15   | -         | Pulley                             |
| 16   | 826E11700 | Screw                              |
| 17   | 015K65530 | Gear Bracket Assembly              |
| 18   | -         | Gear Bracket (P/O PL 18.3 Item 17) |
| 19   | -         | Contact Gear                       |
| 20   | -         | Gear                               |
| 21   | -         | Gear                               |
| 22   | -         | Brake (P/O PL 18.3 Item 17)        |
| 23   | -         | Spring (P/O PL 18.3 Item 17)       |
| 24   | 807E04500 | Lift Gear                          |
| 25   | -         | Plate                              |
| 26   | -         | Gear                               |

6 { 7, 8  
17 { 18 - 23



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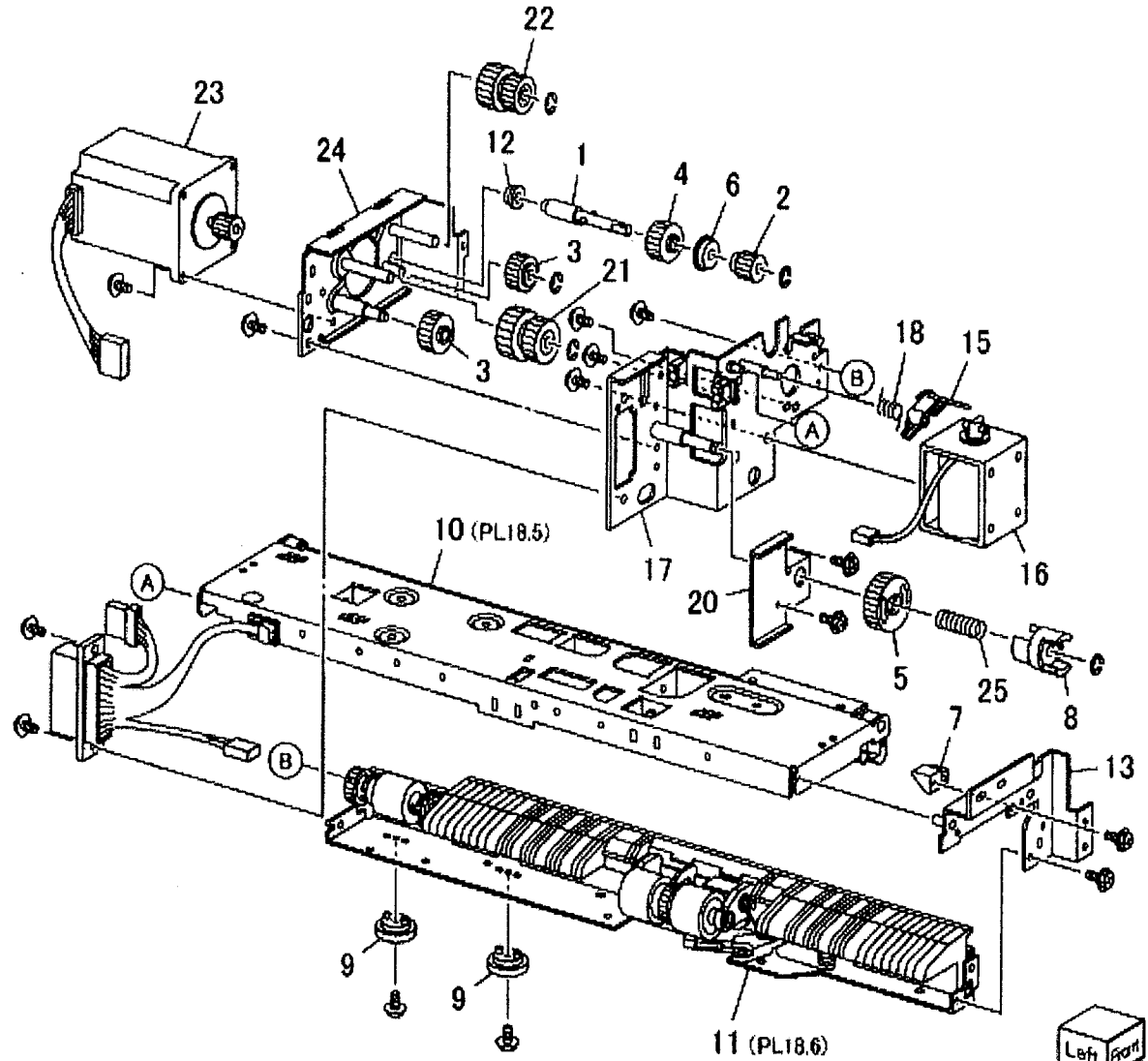


# PL 18.4 HCF Feeder (1 of 3)

| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Shaft                                  |
| 2    | 007E78760 | Gear (19T)                             |
| 3    | 007E78770 | Gear (25T)                             |
| 4    | 007E78780 | Gear (25T)                             |
| 5    | 007E78790 | Gear (40)                              |
| 6    | 013E25540 | Bearing                                |
| 7    | -         | Block                                  |
| 8    | -         | Spacer                                 |
| 9    | 019E56470 | Holder                                 |
| 10   | -         | Upper Feeder Assembly                  |
| 11   | -         | Lower Feeder Assembly                  |
| 12   | 413W66250 | Ball Bearing                           |
| 13   | -         | Front Frame                            |
| 14   | -         | Rear Frame Assembly                    |
| 15   | 012E11041 | Link                                   |
| 16   | 121K31340 | Nudger Solenoid (REP 7.13)             |
| 17   | -         | Rear Frame (P/O PL 18.4 Item 14)       |
| 18   | -         | Spring (P/O PL 18.4 Item 14)           |
| 19   | -         | Drive Gear Assembly                    |
| 20   | -         | Bracket (Not Spared)                   |
| 21   | 007K88520 | Gear (23T/27T)                         |
| 22   | 007K88530 | Gear (31T/36T)                         |
| 23   | 127K37901 | Lift/Feed Motor (REP 7.12)             |
| 24   | -         | Lift/Motor Frame (P/O PL 18.4 Item 19) |
| 25   | -         | Spring (Not Spared)                    |

14 { 15 - 18

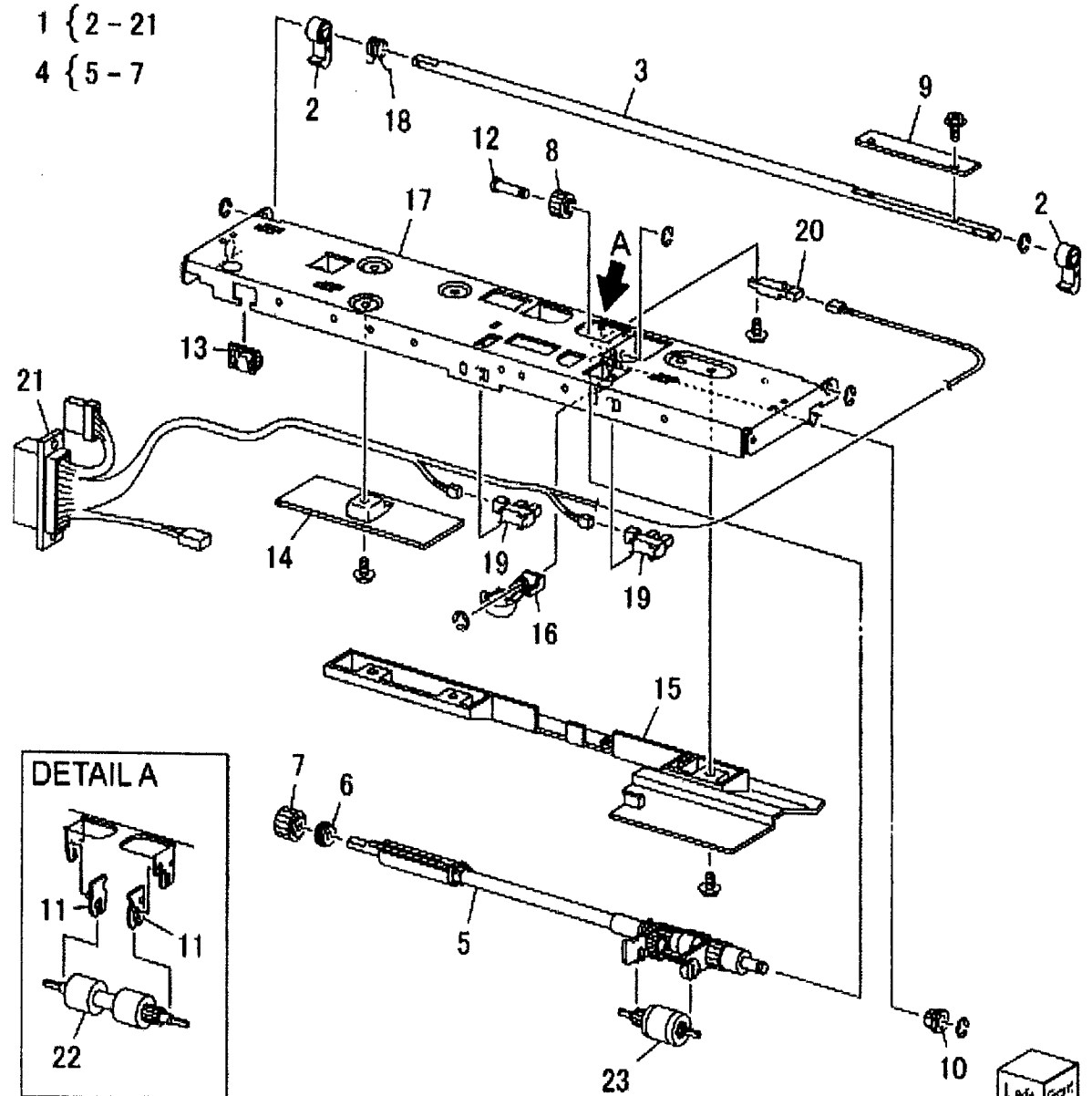
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## PL 18.5 HCF Feeder (2 of 3)

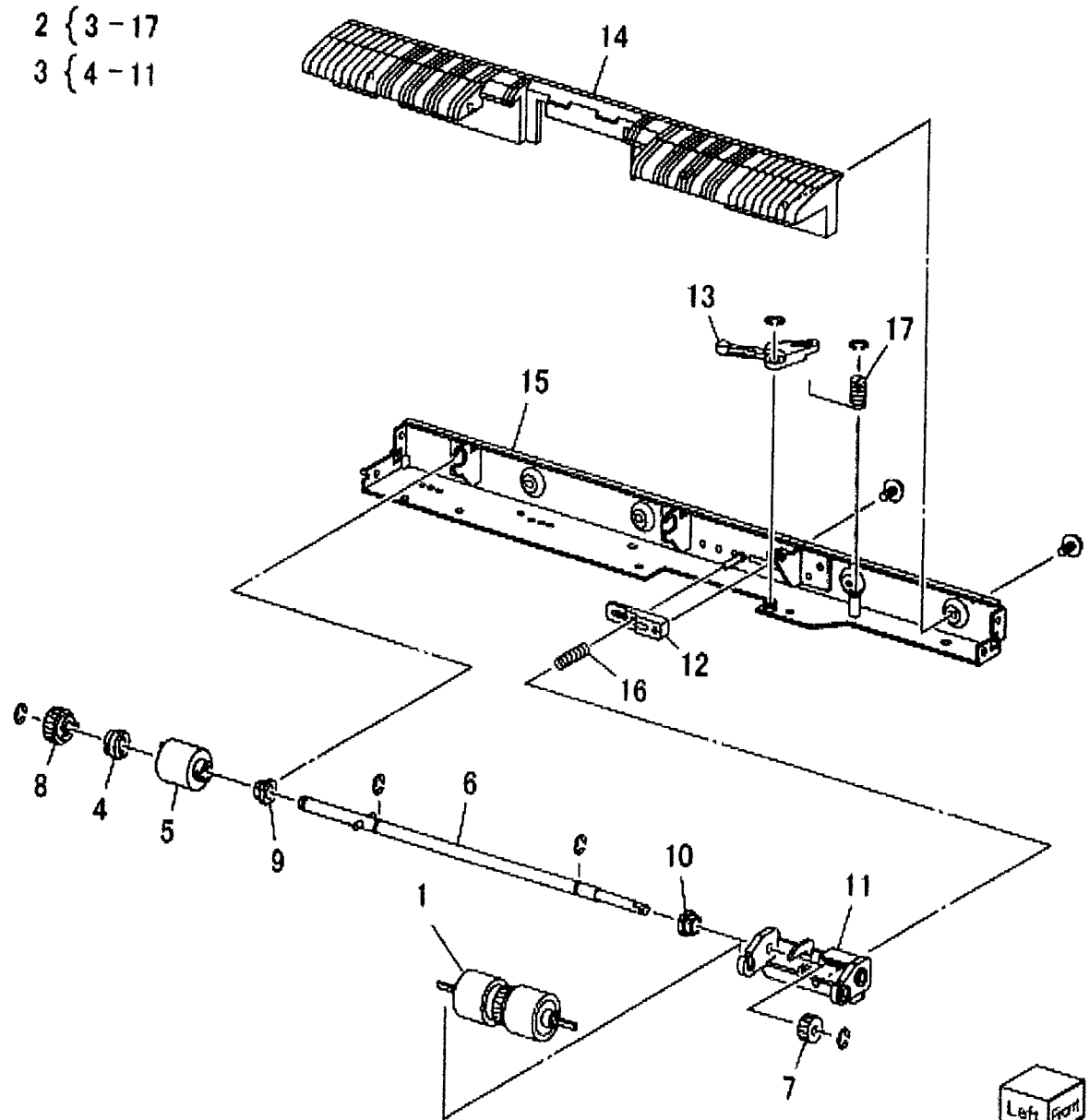
| Item | Part      | Description                                  |
|------|-----------|----------------------------------------------|
| 1    | -         | Upper Feeder Assembly                        |
| 2    | 003E59570 | Latch                                        |
| 3    | -         | Shaft Latch                                  |
| 4    | 006K23122 | Feed Shaft Assembly                          |
| 5    | -         | Feed Shaft (P/O PL 18.5 Item 4)<br>(REP 7.6) |
| 6    | 413W66250 | Ball Bearing                                 |
| 7    | -         | Gear (20T) (P/O PL 18.5 Item 4)              |
| 8    | 007E78180 | Feed Gear (25T)                              |
| 9    | -         | Lever (P/O PL 18.5 Item 1)                   |
| 10   | -         | Bearing (P/O PL 18.5 Item 1)                 |
| 11   | -         | Spacer (P/O PL 18.5 Item 1)                  |
| 12   | -         | Pin Drive (P/O PL 18.5 Item 1)               |
| 13   | -         | Guide                                        |
| 14   | -         | Rear Upper Chute (P/O PL 18.5<br>Item 1)     |
| 15   | -         | Upper Chute (P/O PL 18.5 Item 1)             |
| 16   | 120E21900 | Actuator                                     |
| 17   | -         | Upper Frame (P/O PL 18.5 Item 1)             |
| 18   | -         | Spring (P/O PL 18.5 Item 1)                  |
| 19   | 930W00112 | HCF Stack Height Sensor, HCF<br>Paper Sensor |
| 20   | 930W00211 | HCF Pre Feed Sensor                          |
| 21   | -         | Wire Harness (P/O PL 18.5 Item 1)            |
| 22   | 059K26691 | Feed Roll (REP 7.5)                          |
| 23   | 059K26700 | Nudger Roll (REP 7.5)                        |



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## PL 18.6 HCF Feeder (3 of 3)

| Item | Part      | Description                           |
|------|-----------|---------------------------------------|
| 1    | 059K26591 | Retard Roll (REP 7.5)                 |
| 2    | -         | Lower Feeder Assembly                 |
| 3    | 006K23131 | Retard Shaft Assembly                 |
| 4    | -         | Collar (P/O PL 18.6 Item 3)           |
| 5    | 005K06700 | Friction Clutch                       |
| 6    | -         | Shaft (P/O PL 18.6 Item 3)            |
| 7    | 007E78170 | Gear (15T)                            |
| 8    | 007E89760 | Gear (22T)                            |
| 9    | 013E23600 | Bearing                               |
| 10   | 013E23610 | Bearing                               |
| 11   | -         | Retard Bracket (P/O PL 18.6 Item 2)   |
| 12   | -         | Slide (P/O PL 18.6 Item 2)            |
| 13   | -         | Lever (P/O PL 18.6 Item 2)            |
| 14   | -         | Lower Chute (P/O PL 18.6 Item 2)      |
| 15   | -         | Lower Frame (P/O PL 18.6 Item 2)      |
| 16   | -         | Spring (P/O PL 18.6 Item 2)           |
| 17   | -         | Spring (P/O PL 18.6 Item 2) (REP 7.7) |

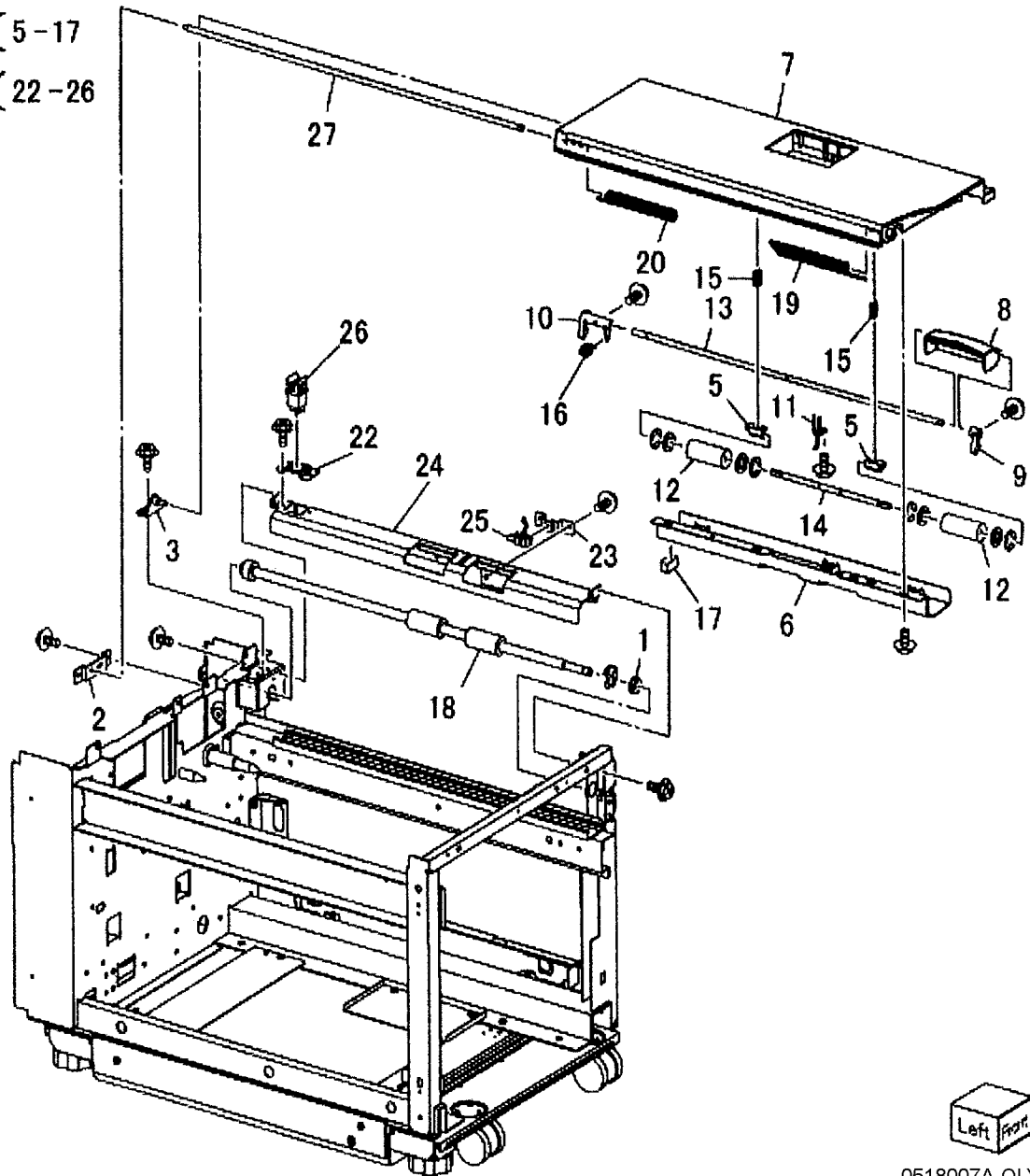


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# PL 18.7 HCF Top Cover Unit

| Item | Part      | Description                      |
|------|-----------|----------------------------------|
| 1    | 013E17100 | Bearing                          |
| 2    | -         | Bracket                          |
| 3    | -         | Pivot Bracket                    |
| 4    | 802K67080 | Top Cover Assembly               |
| 5    | -         | Bearing                          |
| 6    | -         | Upper Chute (P/O PL 18.7 Item 4) |
| 7    | -         | Top Cover                        |
| 8    | -         | Knob                             |
| 9    | -         | Latch                            |
| 10   | -         | Latch                            |
| 11   | -         | Spring                           |
| 12   | 059E01430 | Pinch Roller                     |
| 13   | -         | Shaft                            |
| 14   | -         | Shaft                            |
| 15   | -         | Spring                           |
| 16   | -         | Spring                           |
| 17   | -         | Gasket (P/O PL 18.7 Item 4)      |
| 18   | 059K36260 | Takeaway Roll (REP 7.10)         |
| 19   | -         | Spring (Left)                    |
| 20   | -         | Spring (Right)                   |
| 21   | -         | Lower Chute Assembly             |
| 22   | -         | Bracket                          |
| 23   | -         | Bracket                          |
| 24   | -         | Lower Chute                      |
| 25   | 130K88150 | Takeaway Sensor                  |
| 26   | 110E94770 | Top Cover Interlock Switch       |
| 27   | -         | Pivot Shaft                      |

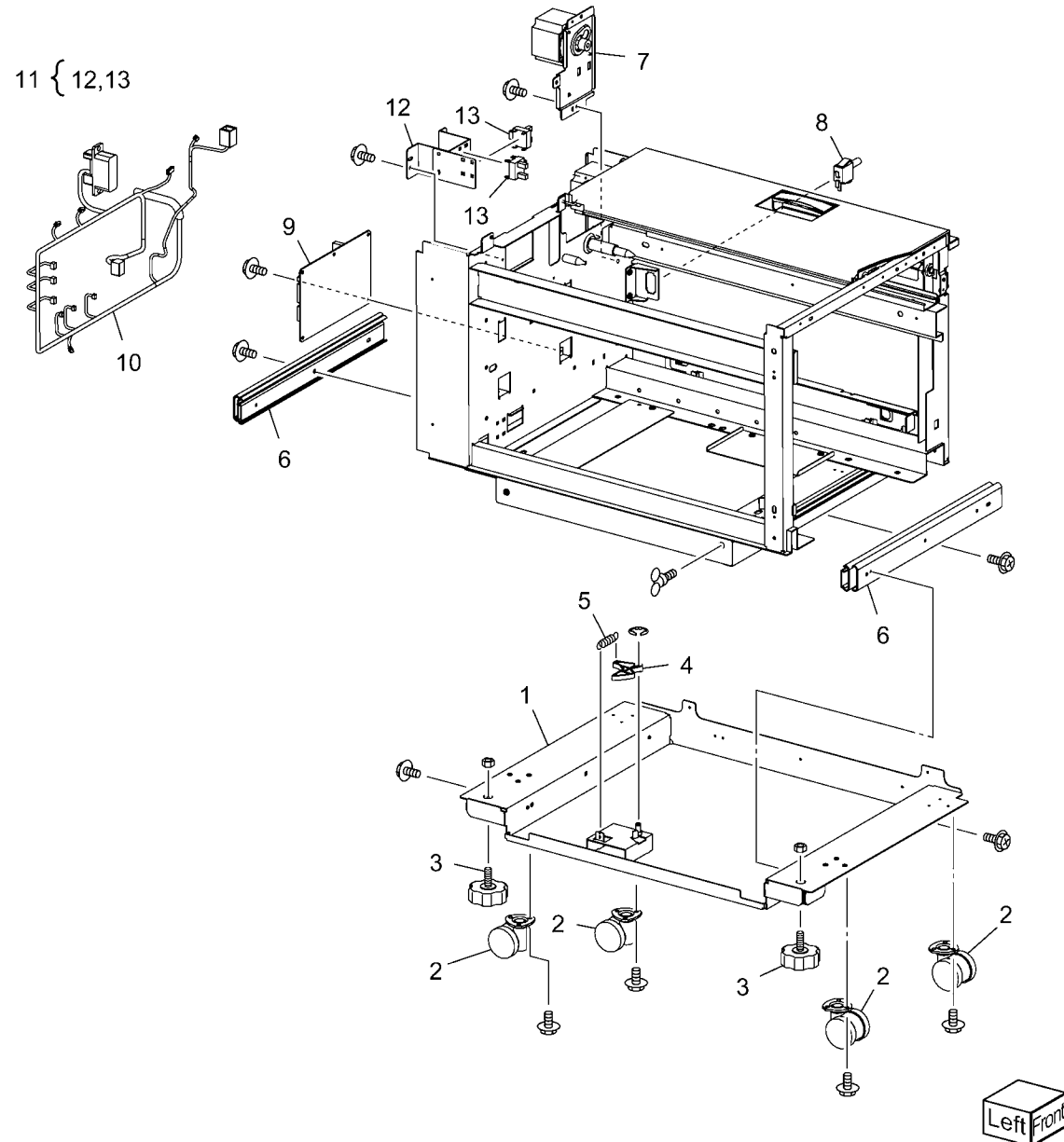
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# PL 18.8 HCF Electrical and Rail

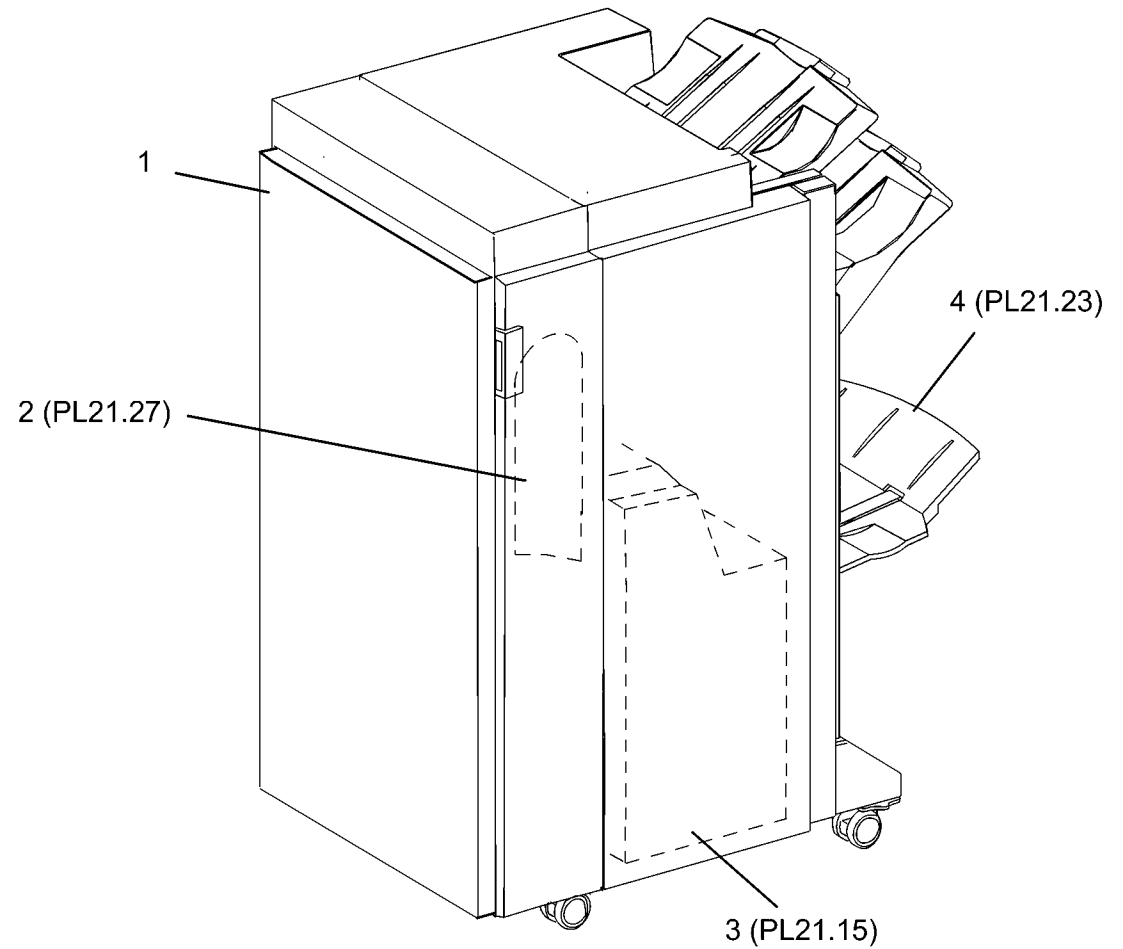
| Item | Part      | Description              |
|------|-----------|--------------------------|
| 1    | -         | Plate                    |
| 2    | 017E92820 | Rack Caster (REP 7.9)    |
| 3    | -         | Foot                     |
| 4    | -         | Latch Lever              |
| 5    | -         | Spring (Not Spared)      |
| 6    | 801K15690 | Rail                     |
| 7    | 127K47150 | Takeaway Motor           |
| 8    | 110E10380 | Docking Interlock Switch |
| 9    | 960K08930 | HCF PWB (REP 7.11)       |
| 10   | -         | Wire Harness             |
| 11   | -         | HCF Size Sensor Assembly |
| 12   | -         | Bracket                  |
| 13   | 130K55590 | HCF Size Sensor R and L  |



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## PL 21.1 A/P Finisher

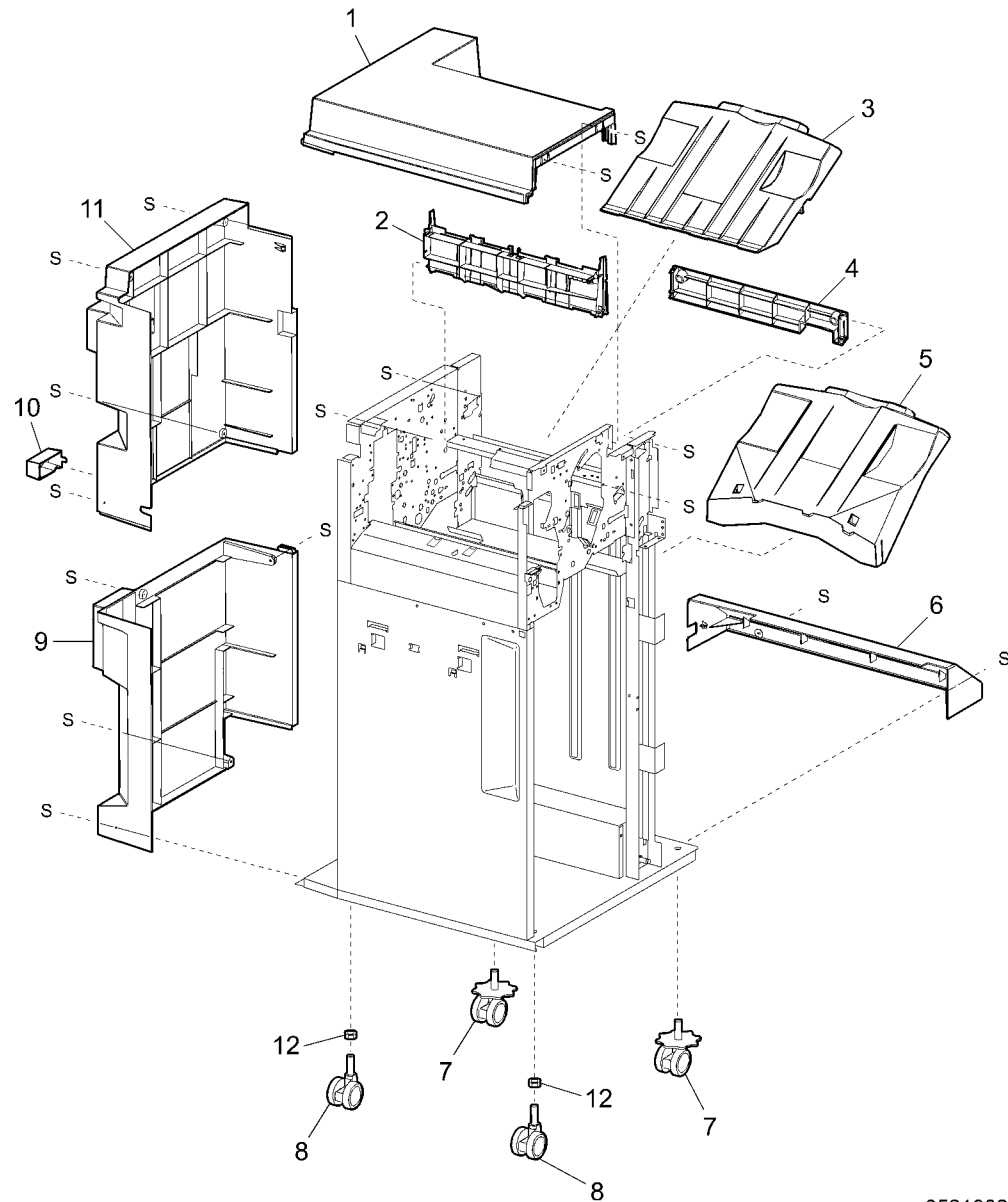
| Item | Part | Description                                    |
|------|------|------------------------------------------------|
| 1    | -    | A/P Finisher (Not Spared) (REP 12.50,ADJ 12.2) |
| 2    | -    | I/F Module (REP 12.3)                          |
| 3    | -    | Booklet Maker                                  |
| 4    | -    | Booklet Tray                                   |



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## PL 21.2 Finisher Cover: 1 of 2

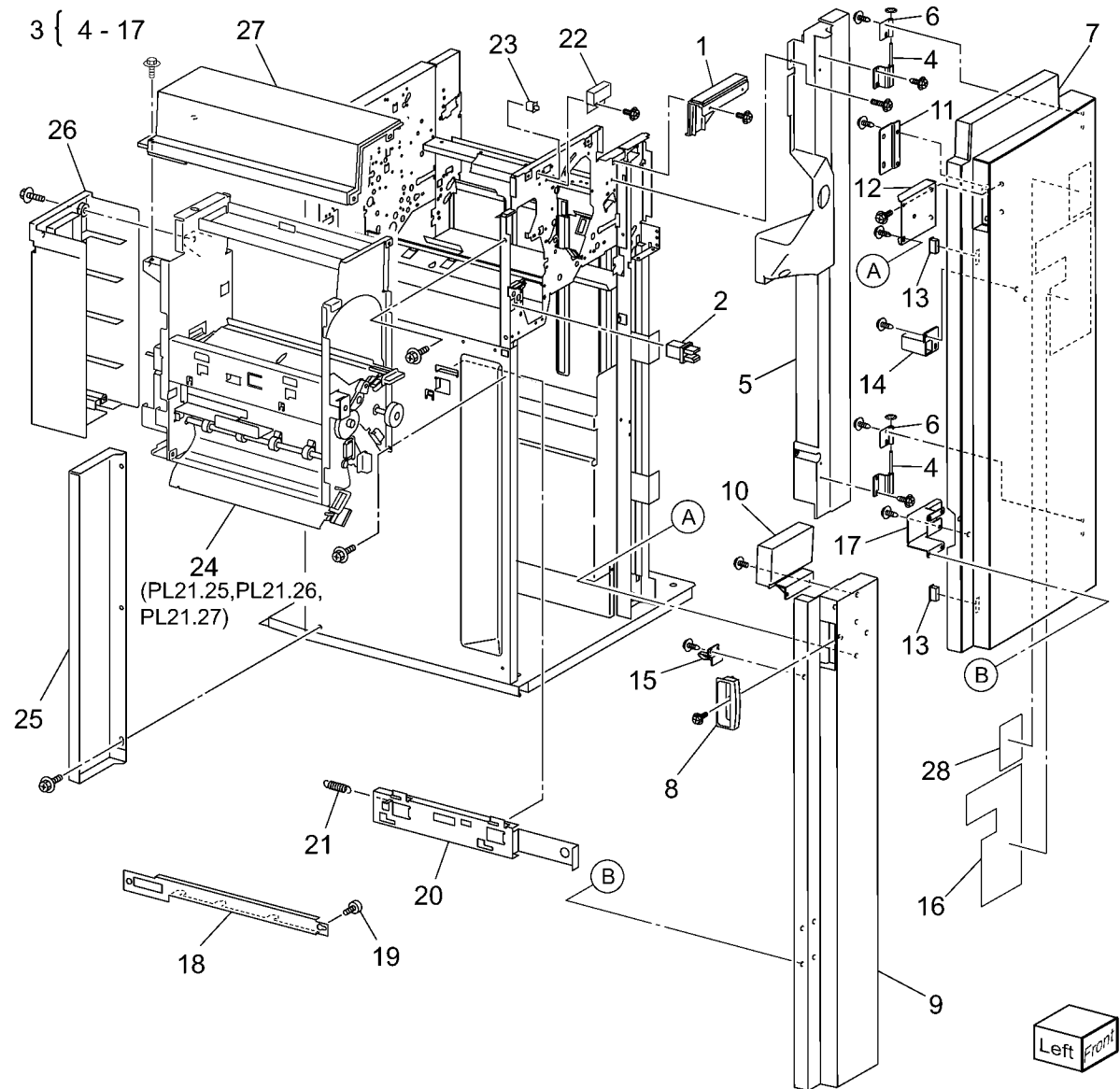
| Item | Part      | Description                                |
|------|-----------|--------------------------------------------|
| 1    | -         | Top Cover (Not Spared) (REP 12.43)         |
| 2    | -         | Tray Spring Guide (Not Spared) (REP 12.47) |
| 3    | 050K51270 | Top Tray (Not Spared) (REP 12.45)          |
| 4    | -         | Eject Cover (Not Spared) (REP 12.46)       |
| 5    | 050K51280 | Stacker Tray (Not Spared) (REP 12.58)      |
| 6    | -         | Bottom Cover (Not Spared)                  |
| 7    | 017E97220 | Caster                                     |
| 8    | 017E97230 | Caster                                     |
| 9    | -         | Rear Lower Cover (Not Spared) (REP 12.42)  |
| 10   | -         | H-Transport Connector Cover (Not Spared)   |
| 11   | -         | Rear Upper Cover (Not Spared) (REP 12.41)  |
| 12   | -         | Nut M12X1.25 (Not Spared)                  |



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## PL 21.3 Finisher Cover: 2 of 2

| Item | Part      | Description                              |
|------|-----------|------------------------------------------|
| 1    | -         | Front Top Cover (Not Spared) (REP 12.44) |
| 2    | 110E97990 | Front Door Interlock Switch              |
| 3    | 802K75100 | Front Door Assembly (REP 12.40)          |
| 4    | -         | Hinge Bracket (P/O PL 21.3 Item 3)       |
| 5    | -         | Inner Cover (P/O PL 21.3 Item 3)         |
| 6    | -         | Bracket (P/O PL 21.3 Item 3)             |
| 7    | -         | Front Door (P/O PL 21.3 Item 3)          |
| 8    | -         | Handle                                   |
| 9    | -         | I/F Cover (Not Spared)                   |
| 10   | -         | I/F Upper Cover (P/O PL 21.3 Item 3)     |
| 11   | -         | Door Plate (P/O PL 21.3 Item 3)          |
| 12   | -         | Upper Bracket (P/O PL 21.3 Item 3)       |
| 13   | 121E92890 | Magnet (P/O PL 21.3 Item 3)              |
| 14   | -         | Stopper (P/O PL 21.3 Item 3)             |
| 15   | -         | Latch (P/O PL 21.3 Item 3)               |
| 16   | -         | Support (P/O PL 21.3 Item 3)             |
| 17   | -         | Lower Bracket (P/O PL 21.3 Item 3)       |
| 18   | -         | IOT Docking Plate Assembly (Not Spared)  |
| 19   | -         | Screw (Not Spared)                       |
| 20   | -         | Docking Plate (Not Spared)               |
| 21   | -         | Spring (Not Spared)                      |
| 22   | -         | Cover (Not Spared)                       |
| 23   | -         | Download Access Switch (Not Spared)      |
| 24   | -         | I/F Module (Not Spared) (REP 12.3)       |
| 25   | -         | Plate (Not Spared)                       |
| 26   | -         | I/F Rear Cover (Not Spared) (REP 12.1)   |
| 27   | -         | I/F Top Cover (Not Spared) (REP 12.2)    |
| 28   | -         | Label (Instruction) (Not Spared)         |

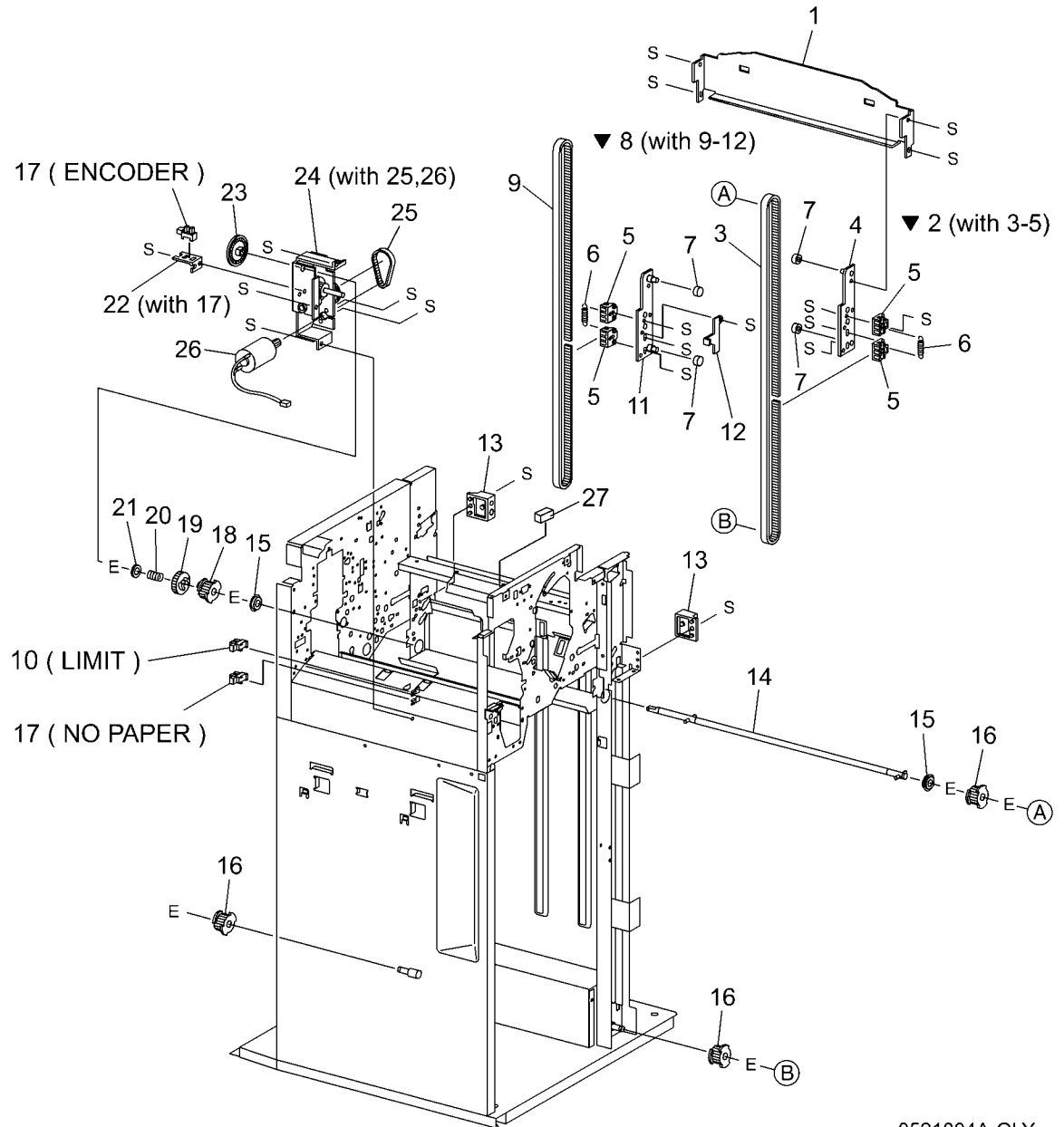


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# PL 21.4 Finisher Stack

| Item | Part      | Description                                                                            |
|------|-----------|----------------------------------------------------------------------------------------|
| 1    | -         | Stacker Tray Bracket (Not Spared)                                                      |
| 2    | 041K94720 | Left Carriage Assembly                                                                 |
| 3    | -         | Stacker Drive Belt (P/O PL 21.4 Item 2) (REP 12.60)                                    |
| 4    | -         | Left Carriage Bracket (P/O PL 21.4 Item 2)                                             |
| 5    | 019E58660 | Belt Clamp (P/O PL 21.4 Item 8)                                                        |
| 6    | 809E56850 | Spring                                                                                 |
| 7    | -         | Carriage Bearing                                                                       |
| 8    | 041K94730 | Right Carriage Assembly                                                                |
| 9    | 023E21520 | Stacker Drive Belt (P/O PL 21.4 Item 8) (REP 12.60)                                    |
| 10   | 130E88340 | Upper Limit Sensor                                                                     |
| 11   | -         | Right Carriage Bracket (P/O PL 21.4 Item 8)                                            |
| 12   | -         | Stacker Sensor Actuator (P/O PL 21.4 Item 8)                                           |
| 13   | 802K67140 | Stack Height Sensor (Front, Rear)                                                      |
| 14   | -         | Elevator Drive Shaft (Not Spared)                                                      |
| 15   | 413W77559 | Bearing                                                                                |
| 16   | 020E37720 | Pulley (18T)                                                                           |
| 17   | 130K88770 | Stacker Encoder Sensor, Stacker No Paper Sensor (No Paper), Upper Limit Sensor (Limit) |
| 18   | 020E37710 | Clutch Pulley                                                                          |
| 19   | 807E04730 | Clutch Gear                                                                            |
| 20   | 809E56860 | Spring                                                                                 |
| 21   | -         | Washer                                                                                 |
| 22   | -         | Sensor Bracket (Not Spared)                                                            |
| 23   | 146E01770 | Stacker Encoder                                                                        |
| 24   | 015K65900 | Elevator Motor Assembly                                                                |
| 25   | -         | Elevator Motor Drive Belt (P/O PL 21.4 Item 24)                                        |
| 26   | -         | Elevator Motor (P/O PL 21.4 Item 24)                                                   |
| 27   | -         | Down Load Interlock Switch                                                             |

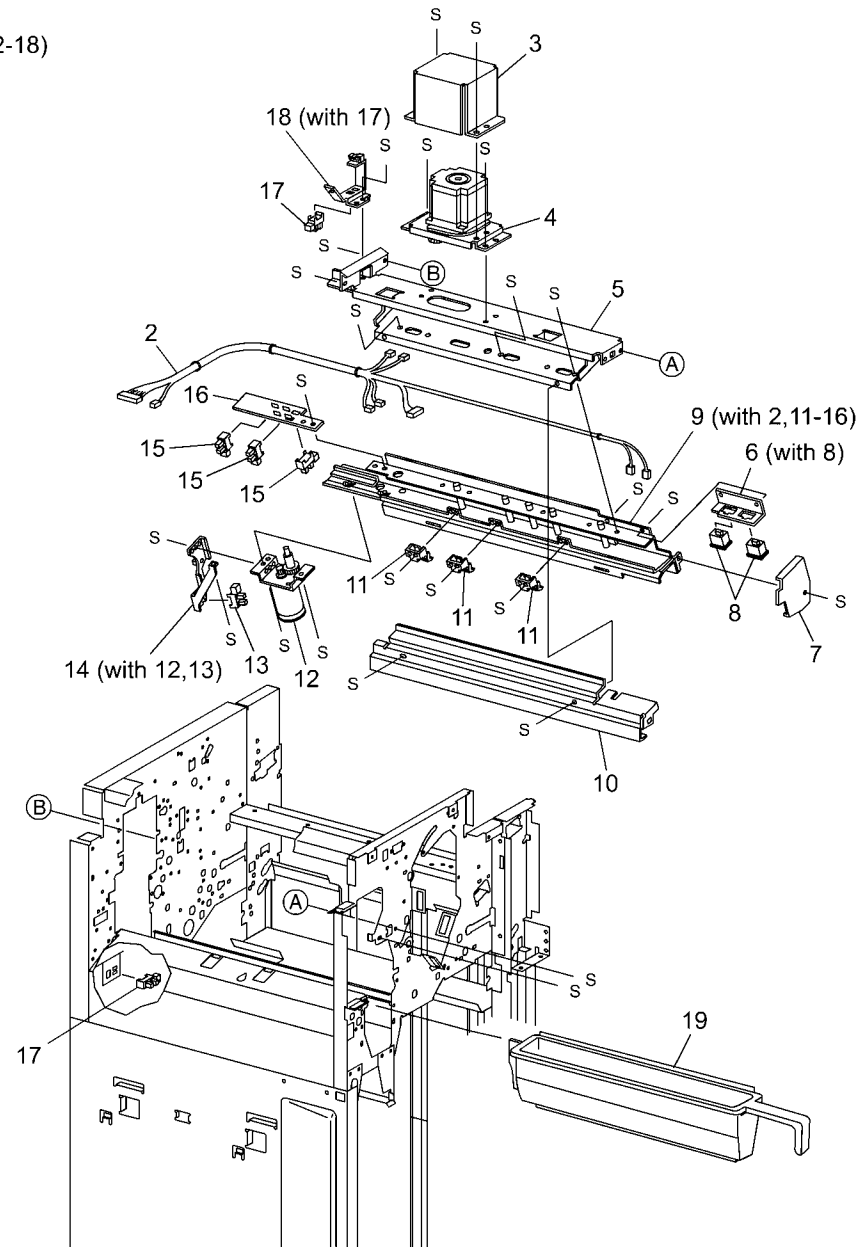


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## PL 21.5 Finisher Punch

| Item | Part      | Description                                                                                                |
|------|-----------|------------------------------------------------------------------------------------------------------------|
| 1    | 801K16780 | Puncher Frame Assembly (REP 12.52)                                                                         |
| 2    | -         | Puncher Unit Harness (P/O PL 21.5 Item 9)                                                                  |
| 3    | -         | Puncher Motor Cover (P/O PL 21.5 Item 9)                                                                   |
| 4    | 015K65880 | Puncher Move Motor                                                                                         |
| 5    | -         | Frame Assembly Holder (Not Spared)                                                                         |
| 6    | 015K65840 | Sensor Registration Bracket Assembly                                                                       |
| 7    | -         | Front Punch Cover (Not Spared)                                                                             |
| 8    | 130E88350 | Side Registration Sensor 1 (Reg 1) and 2 (Reg 2) (P/O PL 21.5 Item 6)                                      |
| 9    | -         | Punch Bracket Assembly                                                                                     |
| 10   | -         | Left Punch Cover (Not Spared)                                                                              |
| 11   | -         | Guide Assembly (P/O PL 21.5 Item 9)                                                                        |
| 12   | 127K46120 | Punch Motor Assembly (P/O PL 21.5 Item 9)                                                                  |
| 13   | 130E85800 | Punch Motor Sensor (P/O PL 21.5 Item 14)                                                                   |
| 14   | -         | Punch Motor Bracket Assembly                                                                               |
| 15   | 130E85790 | Front Punch Sensor (Front), Home Punch Sensor (Home), Hole Select Punch Sensor (Hole) (P/O PL 21.5 Item 9) |
| 16   | -         | Sensor Bracket (P/O PL 21.5 Item 9)                                                                        |
| 17   | 130K88770 | Punch Move Home Sensor, Puncher Box Set Sensor (P/O PL 21.5 Item 18)                                       |
| 18   | 015K65830 | Punch Move Home Sensor Assembly                                                                            |
| 19   | -         | Puncher Waste Bin                                                                                          |

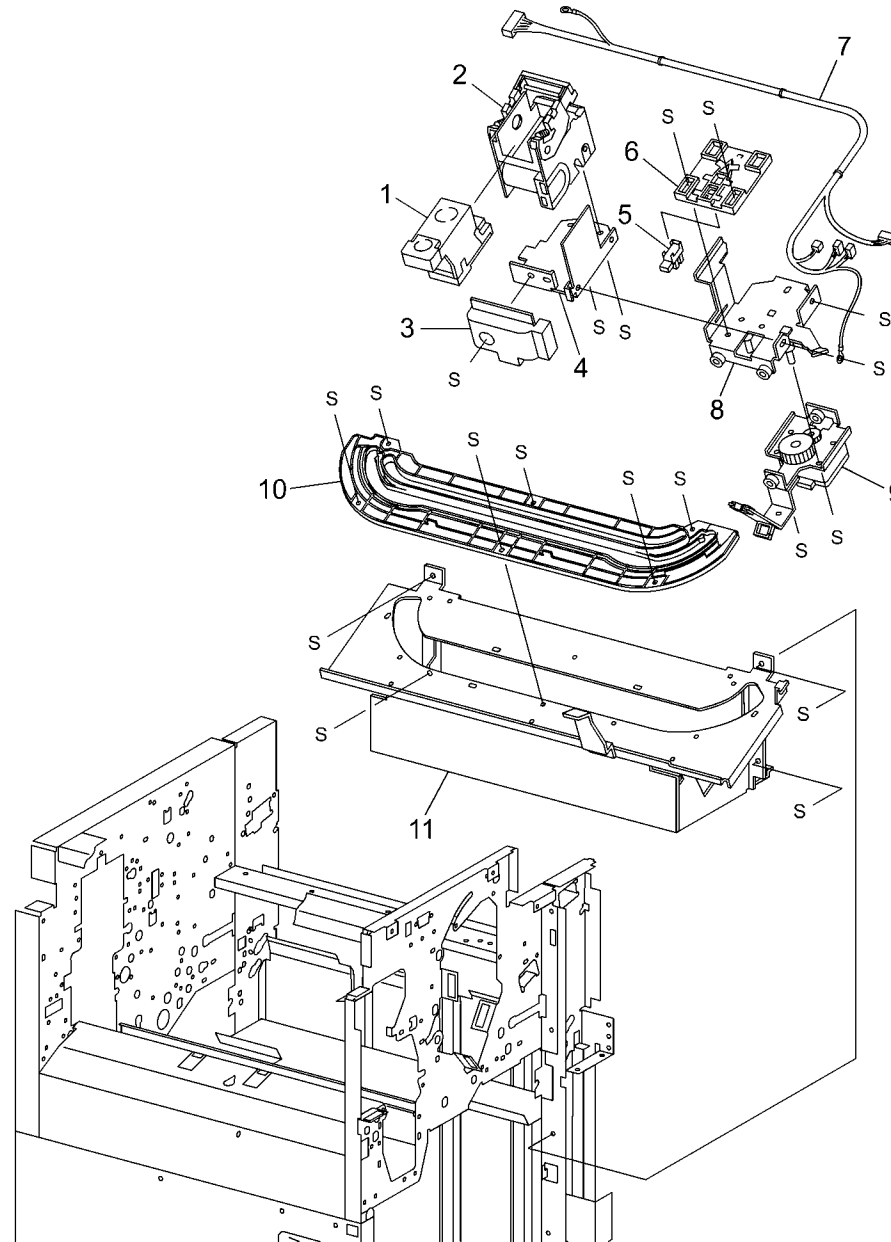
▼ 1 (with 2-18)



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## PL 21.6 Finisher Stapler

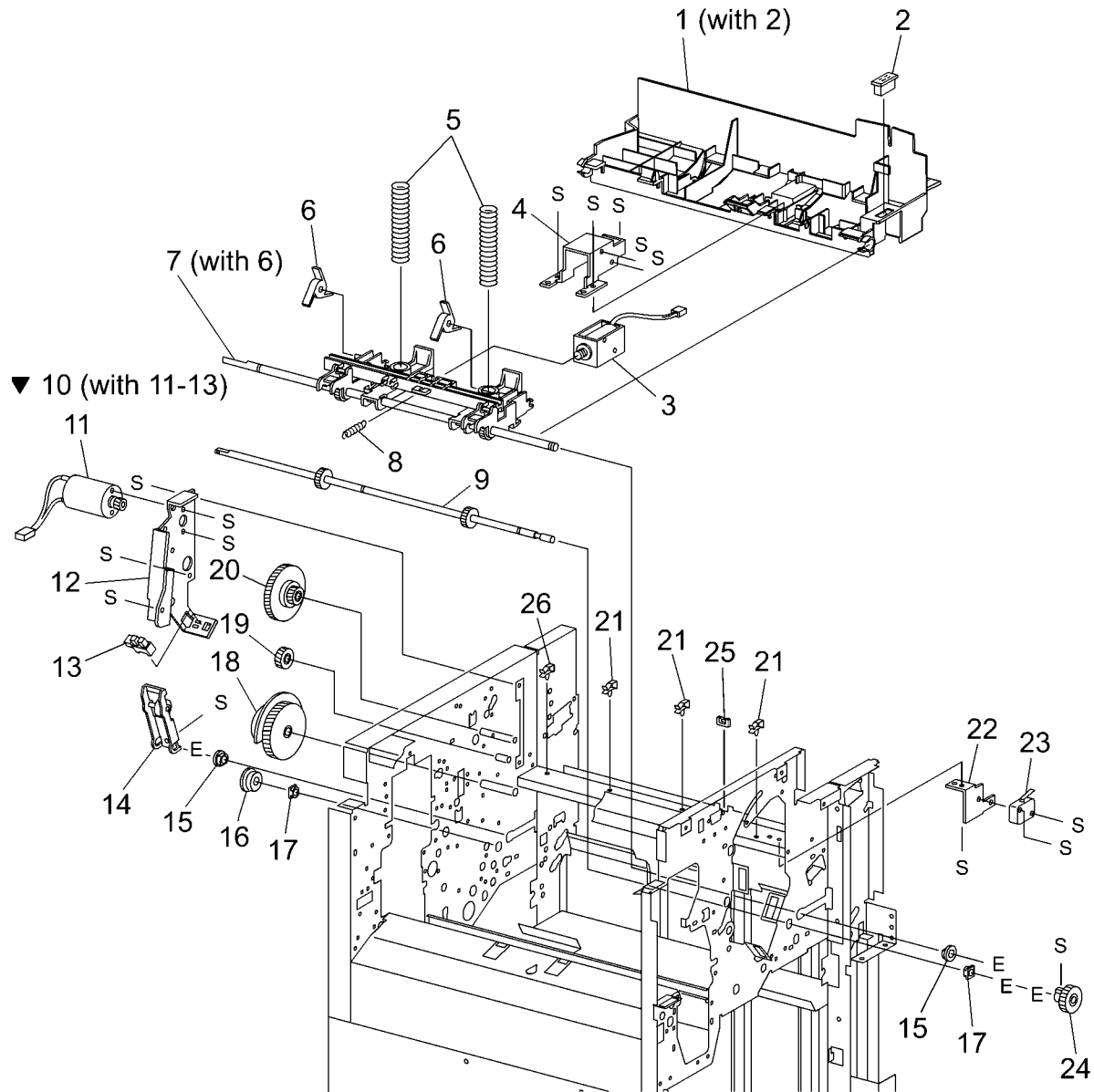
| Item | Part      | Description                         |
|------|-----------|-------------------------------------|
| 1    | -         | Staple Cartridge (Not Spared)       |
| 2    | 029K92151 | Stapler Assembly (REP 12.53)        |
| 3    | -         | Stapler Cover (Not Spared)          |
| 4    | -         | Stapler Holder (Not Spared)         |
| 5    | 130K88770 | Stapler Move Position Sensor        |
| 6    | -         | Stapler Harness Guide (Not Spared)  |
| 7    | -         | Staple Harness (Not Spared)         |
| 8    | -         | Upper Stapler Carriage (Not Spared) |
| 9    | 041K94750 | Stapler Move Motor                  |
| 10   | 001E66640 | Stapler Rail (REP 12.54)            |
| 11   | -         | Stapler Frame (Not Spared)          |



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# PL 21.7 Finisher Eject: 1 of 3

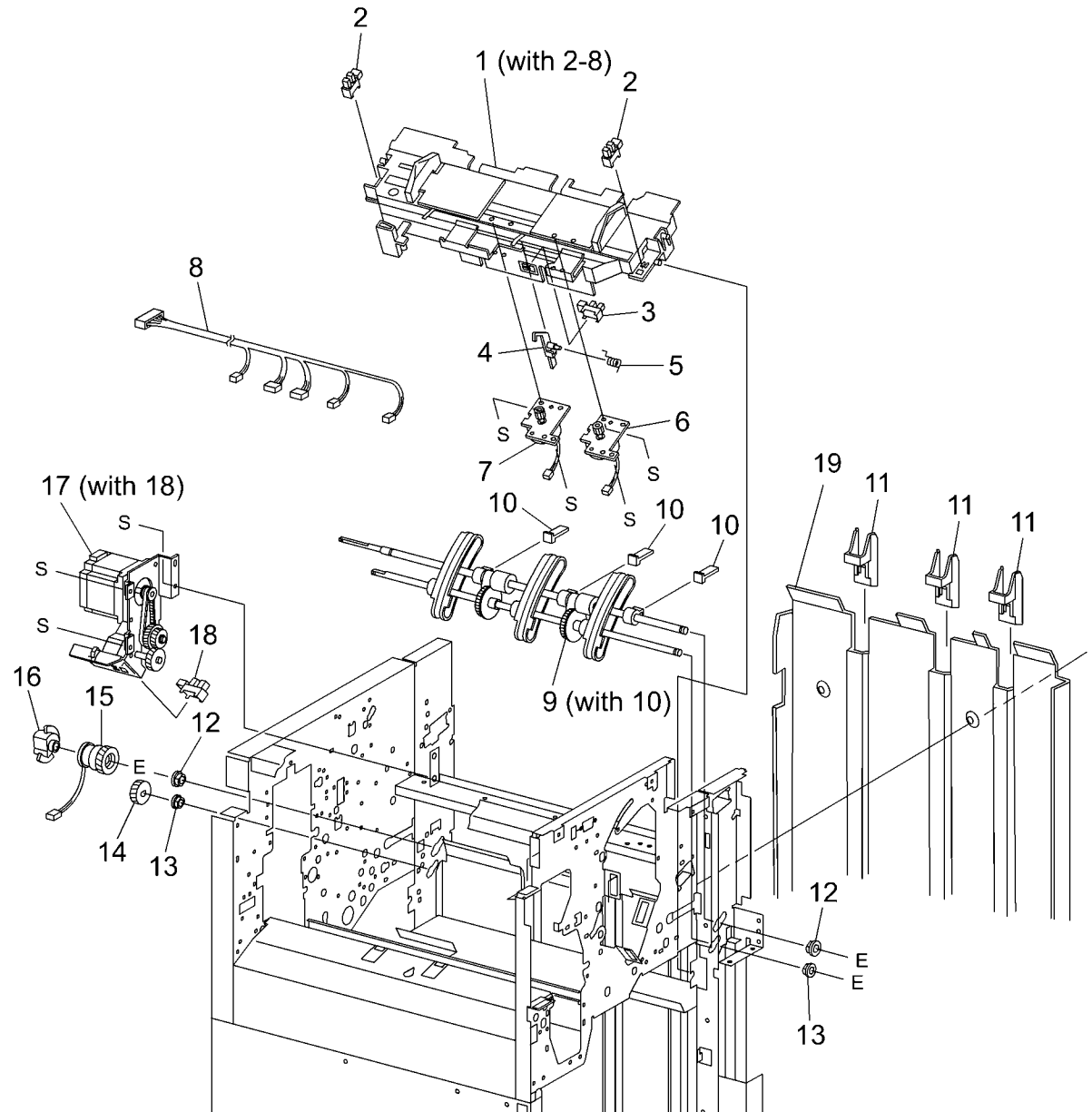
| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | -         | Eject Chute Assembly (REP 12.67)          |
| 2    | 121E92890 | Magnet (Not Spared)                       |
| 3    | 121K34620 | Sub Paddle Solenoid                       |
| 4    | -         | Solenoid Bracket (Not Spared)             |
| 5    | -         | Pinch Spring (Not Spared)                 |
| 6    | -         | Cyclone Paddle (P/O PL 21.7 Item 7)       |
| 7    | -         | Eject Pinch Shaft Assembly                |
| 8    | 809E56880 | Solenoid Spring                           |
| 9    | -         | Paddle Shaft                              |
| 10   | 015K65860 | Eject Clamp Motor Assembly (with 11-13)   |
| 11   | -         | Eject Clamp Motor (P/O PL 21.7 Item 10)   |
| 12   | -         | Eject Clamp Bracket (P/O PL 21.7 Item 10) |
| 13   | 130K88780 | Eject Clamp Home Sensor                   |
| 14   | 011K97710 | Eject Cam Follower                        |
| 15   | 413W77559 | Bushing                                   |
| 16   | 807E04700 | Gear (23T)                                |
| 17   | 413W11660 | Bushing                                   |
| 18   | 807E04750 | Cam Gear (70T)                            |
| 19   | 807E08990 | Gear (23T)                                |
| 20   | 807E04740 | Gear (68T/20T)                            |
| 21   | -         | Wire Clip (Not Spared)                    |
| 22   | -         | Switch Bracket (Not Spared)               |
| 23   | 110E11590 | Eject Cover Switch                        |
| 24   | -         | Entrance Knob (Not Spared)                |
| 25   | -         | Wire Clamp (Not Spared)                   |
| 26   | -         | Wire Clip (Not Spared)                    |



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## PL 21.8 Finisher Eject: 2 of 3

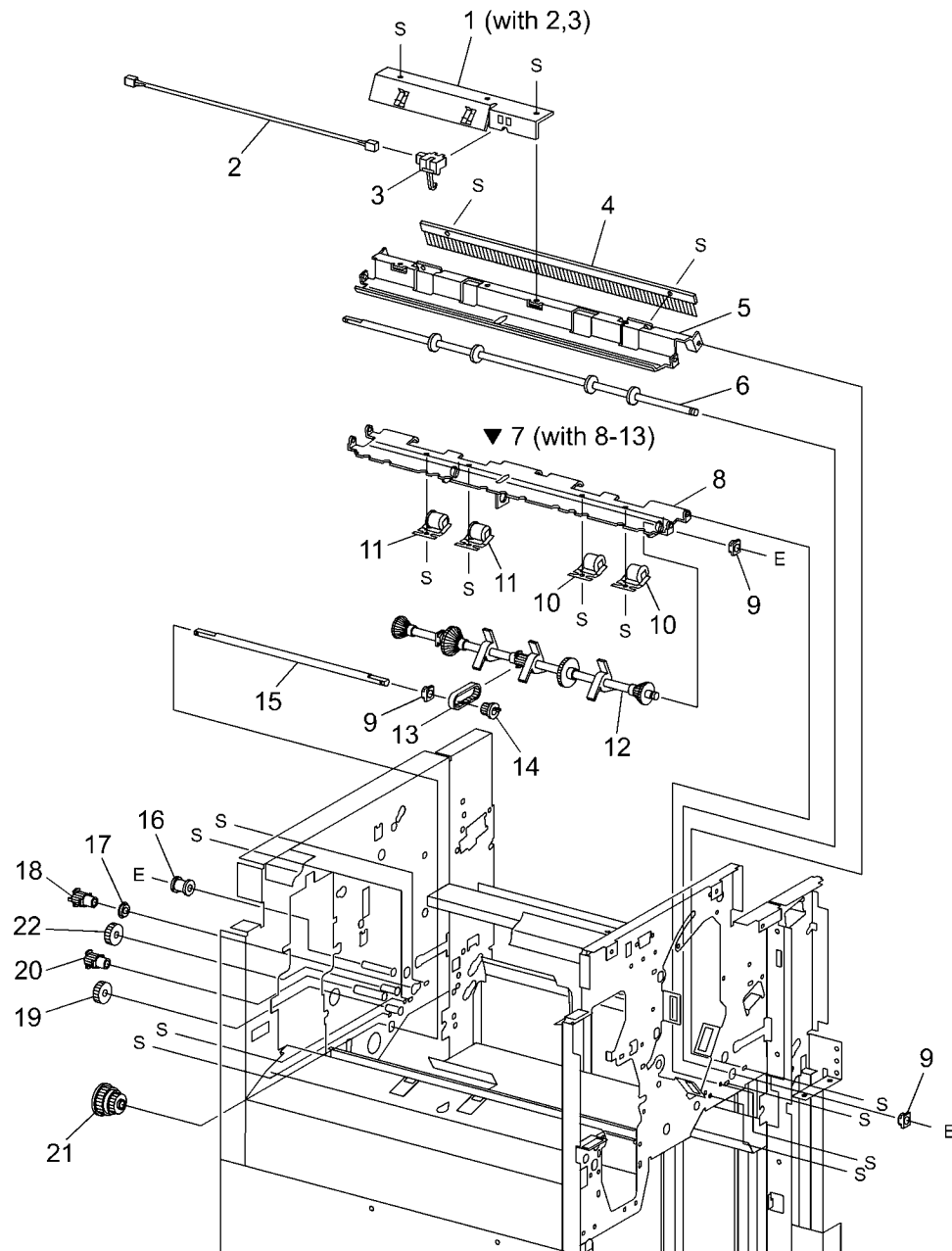
| Item | Part      | Description                                           |
|------|-----------|-------------------------------------------------------|
| 1    | –         | Compiler Tray Assembly (REP 12.57)                    |
| 2    | 130K88770 | Tamper Home Sensor (Front, Rear) (P/O PL 21.8 Item 1) |
| 3    | 130K88780 | Compiler Tray No Paper Sensor (P/O PL 21.8 Item 1)    |
| 4    | –         | Sensor Actuator (P/O PL 21.8 Item 1)                  |
| 5    | –         | Torsion Spring (P/O PL 21.8 Item 1)                   |
| 6    | 127K40310 | Front Tamper Motor (P/O PL 21.8 Item 1)               |
| 7    | 127K40270 | Rear Tamper Motor (P/O PL 21.8 Item 1)                |
| 8    | 962K27670 | Compiler Harness (P/O PL 21.8 Item 1)                 |
| 9    | –         | Eject Roll Shaft Assembly                             |
| 10   | –         | Set Clamp Paddle (P/O PL 21.8 Item 9)                 |
| 11   | –         | Paddle Guide (Not Spared)                             |
| 12   | 413W77559 | Bushing (Not Spared)                                  |
| 13   | –         | Bushing (Not Spared)                                  |
| 14   | 807E04760 | Gear (39T)                                            |
| 15   | 121K34630 | Set Clamp Clutch (34T)                                |
| 16   | 120E24310 | Set Clamp Actuator                                    |
| 17   | 015K65850 | Eject Motor Assembly                                  |
| 18   | 130E88780 | Set Clamp Home Sensor (P/O PL 21.8 Item 17)           |
| 19   | –         | Inner Cover (Not Spared) (REP 12.48)                  |



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## PL 21.9 Finisher Eject: 3 of 3

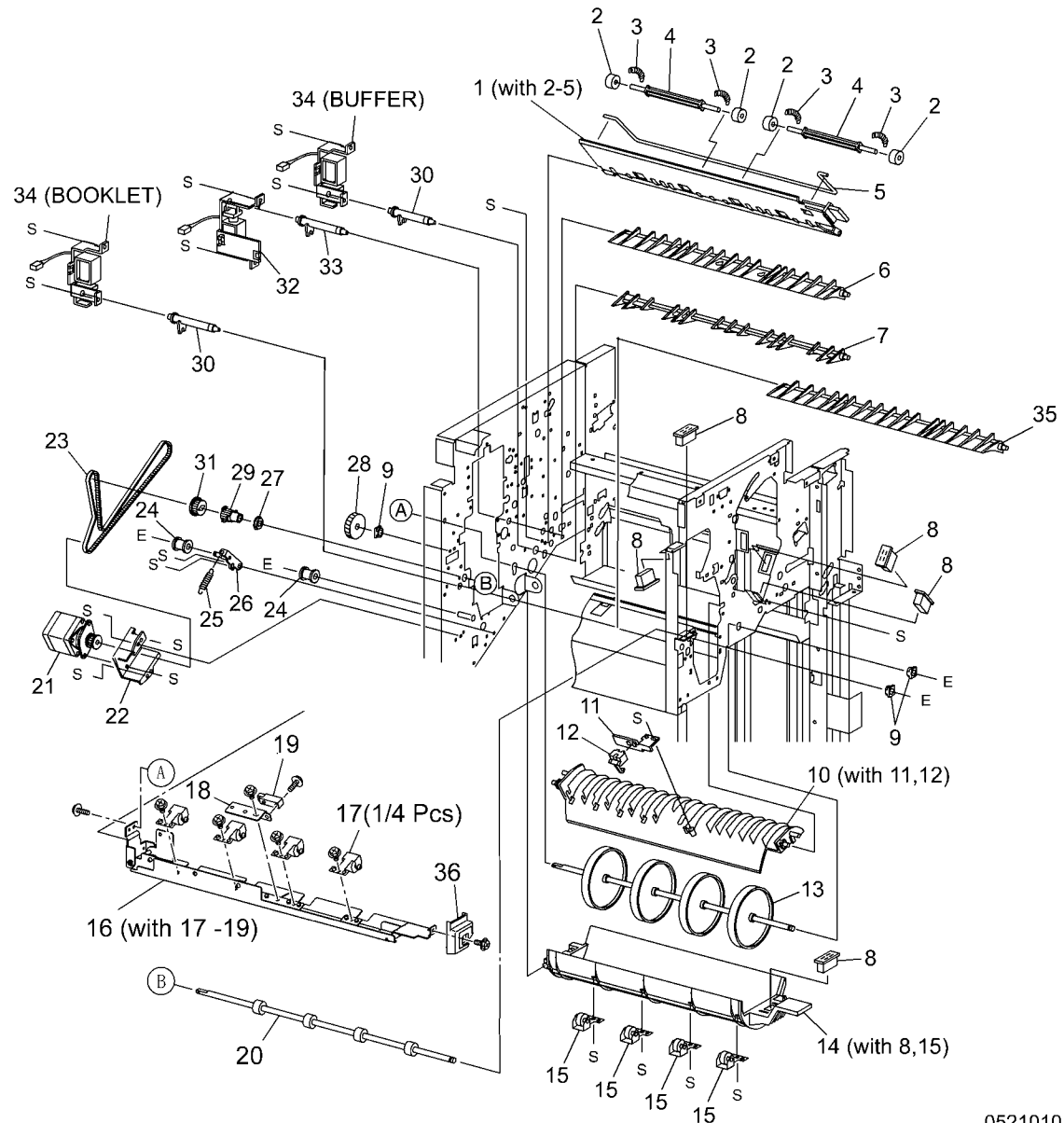
| Item | Part      | Description                                   |
|------|-----------|-----------------------------------------------|
| 1    | -         | Sensor Bracket Assembly                       |
| 2    | -         | Complier Sensor Harness (P/O PL 21.9 Item 1)  |
| 3    | 130K88190 | Complier Exit Sensor (P/O PL 21.9 Item 1)     |
| 4    | 105E13100 | Static Eliminator                             |
| 5    | -         | Upper Exit Chute (Not Spared)                 |
| 6    | -         | Lower Exit Roll (Not Spared)                  |
| 7    | -         | Lower Exit Roll Chute Assembly                |
| 8    | -         | Lower Exit Roll Chute (P/O PL 21.9 Item 7)    |
| 9    | -         | Bushing (P/O PL 21.9 Item 7)                  |
| 10   | 022K67870 | Exit Pinch Roller 1 (P/O PL 21.9 Item 7)      |
| 11   | 022K67880 | Exit Pinch Roller 2 (P/O PL 21.9 Item 7)      |
| 12   | -         | Paddle Shaft (P/O PL 21.9 Item 7) (REP 12.59) |
| 13   | 423W25554 | Synchronous Belt (55T) (P/O PL 21.9 Item 7)   |
| 14   | -         | Pulley (17T) (Not Spared)                     |
| 15   | 022K67860 | Paddle Drive Shaft (Not Spared)               |
| 16   | -         | Pulley (Not Spared)                           |
| 17   | 413W66250 | Bearing (Not Spared)                          |
| 18   | 020E37690 | Pulley (20T)                                  |
| 19   | -         | Gear (23T) (Not Spared)                       |
| 20   | 020E37660 | Pulley (20T)                                  |
| 21   | 020E37670 | Pulley (44T/20T)                              |
| 22   | -         | Gear (23T) (Not Spared)                       |



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# PL 21.10 Finisher Transport: 1 of 2

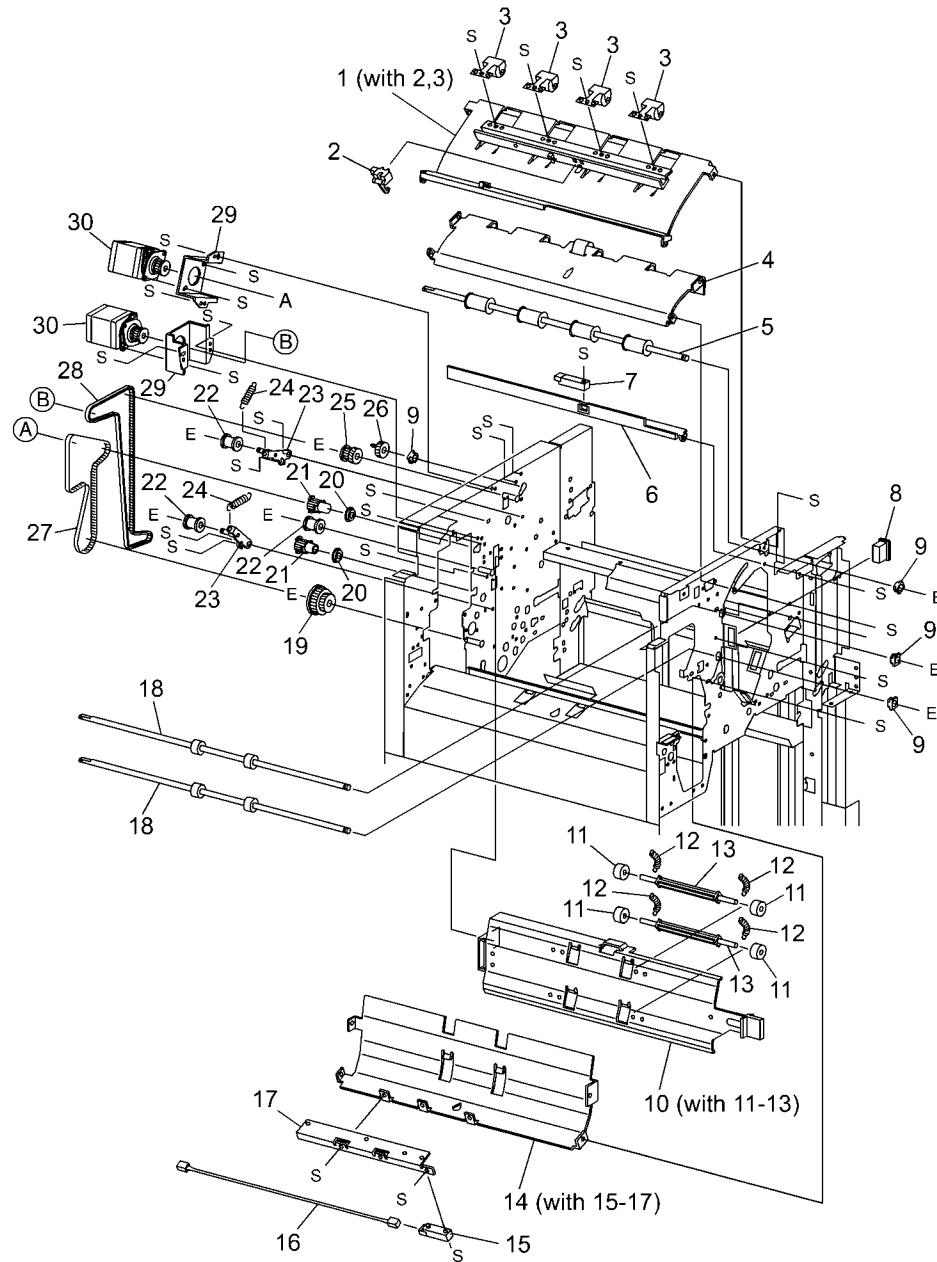
| Item | Part      | Description                                           |
|------|-----------|-------------------------------------------------------|
| 1    | -         | Upper Exit Open Chute Assembly                        |
| 2    | -         | Pinch Roller (P/O PL 21.10 Item 1)                    |
| 3    | -         | Spring (P/O PL 21.10 Item 1)                          |
| 4    | -         | Shaft (P/O PL 21.10 Item 1)                           |
| 5    | -         | Torsion Spring (P/O PL 21.10 Item 1)                  |
| 6    | -         | Transport Gate (Not Spared)                           |
| 7    | -         | Buffer Gate (Not Spared)                              |
| 8    | 121E92890 | Magnet (P/O PL 21.10 Item 14)                         |
| 9    | 413W11660 | Bushing                                               |
| 10   | -         | Top Buffer Chute Assembly                             |
| 11   | -         | Sensor Bracket (P/O PL 21.10 Item 10)                 |
| 12   | 130K88190 | Buffer Path Sensor (P/O PL 21.10 Item 10) (REP 12.67) |
| 13   | 022K67890 | Buffer Roll (REP 12.64)                               |
| 14   | 054K27160 | Bottom Buffer Chute Assembly (REP 12.65)              |
| 15   | 022K67860 | Exit Pinch roller (P/O PL 21.10 Item 14)              |
| 16   | -         | Upper Entrance Chute Assembly                         |
| 17   | 022K67850 | Entrance Pinch Roller (P/O PL 21.10 Item 16)          |
| 18   | -         | Sensor Bracket (P/O PL 21.10 Item 16)                 |
| 19   | 130E85780 | Transport Entrance Sensor (P/O PL 21.10 Item 16)      |
| 20   | 022K71410 | Entrance Roll                                         |
| 21   | 127K40281 | Finisher Transport Motor                              |
| 22   | -         | Motor Bracket (Not Spared)                            |
| 23   | 423W87054 | Finisher Transport Motor Belt                         |
| 24   | -         | Pulley (Not Spared)                                   |
| 25   | -         | Tension Spring (Not Spared)                           |
| 26   | -         | Tension Bracket (Not Spared)                          |
| 27   | 413W66250 | Bearing                                               |
| 28   | 807E04710 | Gear (46T)                                            |
| 29   | 020E37660 | Pulley (20T)                                          |
| 30   | 012E11990 | Buffer Link                                           |
| 31   | 807E04700 | Gear (23T)                                            |
| 32   | 015K65810 | Transport Gate Solenoid                               |
| 33   | 012E11980 | Transport Link                                        |
| 34   | 015K65820 | Buffer Gate Solenoid, Booklet Gate Solenoid           |
| 35   | -         | Booklet Gate (Not Spared)                             |



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## PL 21.11 Finisher Transport: 2 of 2

| Item | Part      | Description                                    |
|------|-----------|------------------------------------------------|
| 1    | -         | Top Tray Exit Baffle Assembly (Not Spared)     |
| 2    | 130K88190 | Top Tray Exit Sensor (P/O PL 21.11 Item 1)     |
| 3    | 022K67850 | Exit Pinch Roller (P/O PL 21.11 Item 1)        |
| 4    | -         | Top Tray Lower Exit Baffle (Not Spared)        |
| 5    | 022K71500 | Exit Drive Shaft                               |
| 6    | -         | Sensor Bracket (Not Spared)                    |
| 7    | 130E85780 | Top Tray Full Sensor (REP 12.63)               |
| 8    | 121E92890 | Magnet                                         |
| 9    | 413W11660 | Bushing                                        |
| 10   | 054K28220 | Lower Top Exit Chute Assembly                  |
| 11   | -         | Pinch Roller (P/O PL 21.11 Item 10)            |
| 12   | -         | Spring (P/O PL 21.11 Item 10)                  |
| 13   | -         | Shaft (P/O PL 21.11 Item 10)                   |
| 14   | -         | Upper Top Exit Chute Assembly                  |
| 15   | 130E87410 | Gate Sensor (P/O PL 21.11 Item 14) (REP 12.62) |
| 16   | -         | Sensor Harness (P/O PL 21.11 Item 14)          |
| 17   | -         | Sensor Bracket (P/O PL 21.11 Item 14)          |
| 18   | 022K71430 | Transport Roll                                 |
| 19   | 020E37680 | Pulley (53T/23T)                               |
| 20   | 413W66250 | Bearing                                        |
| 21   | 020E37690 | Pulley (20T)                                   |
| 22   | -         | Pulley (Not Spared)                            |
| 23   | -         | Tension Bracket (Not Spared)                   |
| 24   | -         | Tension Spring (Not Spared)                    |
| 25   | -         | Pulley (20T/20T)                               |
| 26   | -         | Gear (20T)                                     |
| 27   | 423W40054 | Registration Motor Drive Belt                  |
| 28   | 423W86454 | Exit Motor Drive Belt                          |
| 29   | -         | Motor Bracket (Not Spared)                     |
| 30   | 127K40281 | Registration Motor (Reg) and Exit Motor (Exit) |

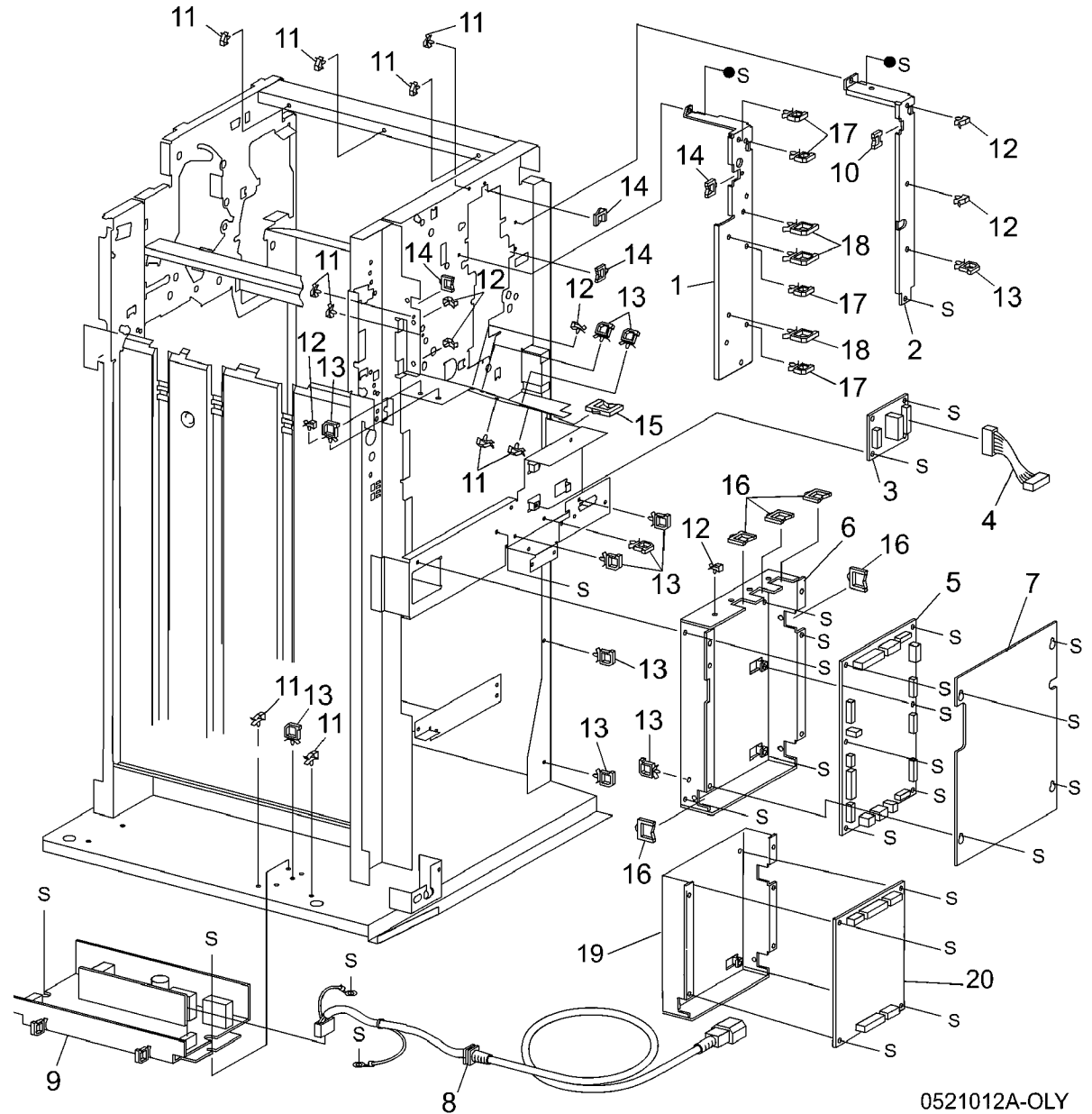


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## PL 21.12 Finisher Electrical

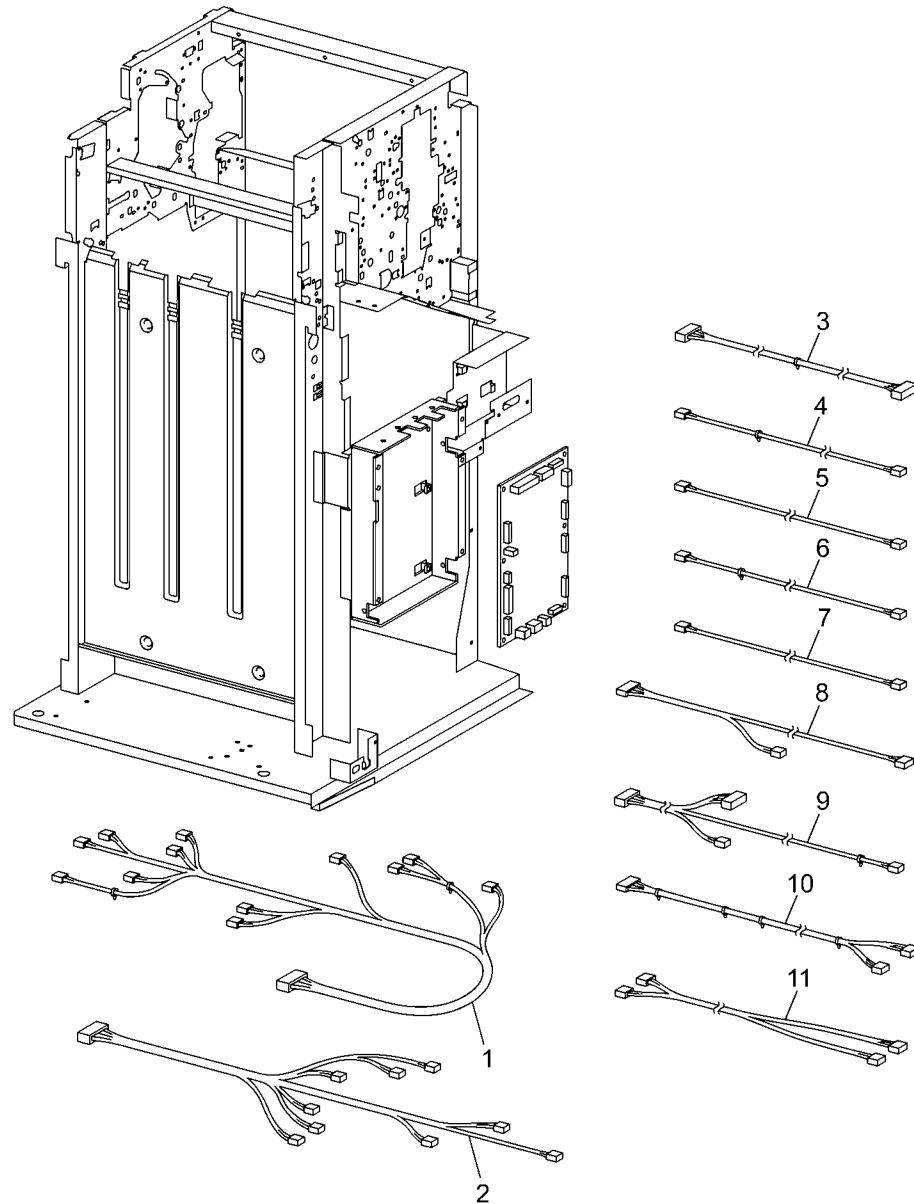
| Item | Part      | Description                        |
|------|-----------|------------------------------------|
| 1    | -         | Left Harness Bracket (Not Spared)  |
| 2    | -         | Right Harness Bracket (Not Spared) |
| 3    | 960K07590 | H-Transport PWB                    |
| 4    | -         | Harness                            |
| 5    | 960K07310 | Finisher PWB (REP 12.68)           |
| 6    | -         | Finisher PWB Bracket (Not Spared)  |
| 7    | -         | Finisher PWB Cover (Not Spared)    |
| 8    | 962K36610 | AC Inlet Harness                   |
| 9    | 105K21080 | Finisher LVPS                      |
| 10   | -         | Wire Clamp (Not Spared)            |
| 11   | -         | Wire Clip (Not Spared)             |
| 12   | -         | Wire Clip (Not Spared)             |
| 13   | -         | Wire Clip (Not Spared)             |
| 14   | -         | Wire Clamp (Not Spared)            |
| 15   | -         | Wire Clamp (Not Spared)            |
| 16   | -         | Wire Clamp (Not Spared)            |
| 17   | -         | Wire Clip (Not Spared)             |
| 18   | -         | Wire Clip (Not Spared)             |
| 19   | -         | Booklet PWB Bracket (Not Spared)   |
| 20   | 960K04670 | Booklet PWB                        |



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## PL 21.13 Finisher Harness

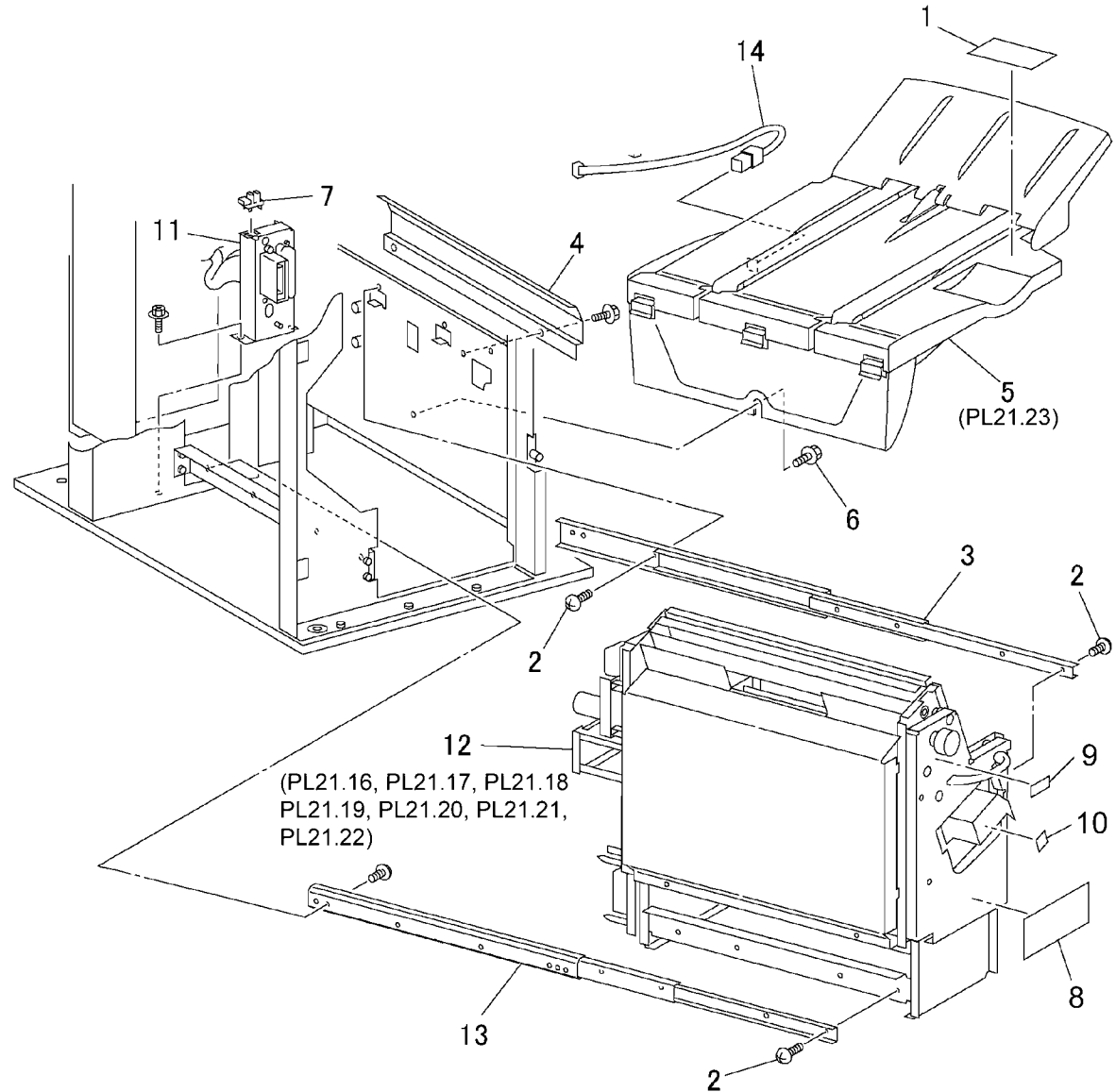
| Item | Part | Description                                    |
|------|------|------------------------------------------------|
| 1    | -    | Main Sensor Harness (Not Spared)               |
| 2    | -    | Main Drive Harness (Not Spared)                |
| 3    | -    | Interface Harness (Not Spared)                 |
| 4    | -    | Transport Entrance Sensor Harness (Not Spared) |
| 5    | -    | Buffer Sensor Harness (Not Spared)             |
| 6    | -    | Top Exit Sensor Harness (Not Spared)           |
| 7    | -    | Top Sensor Harness (Not Spared)                |
| 8    | -    | Punch Drive Harness (Not Spared)               |
| 9    | -    | Punch Sensor Harness (Not Spared)              |
| 10   | -    | LVPS Harness (Not Spared)                      |
| 11   | -    | Interlock Harness (Not Spared)                 |



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## PL 21.15 Booklet Accessory

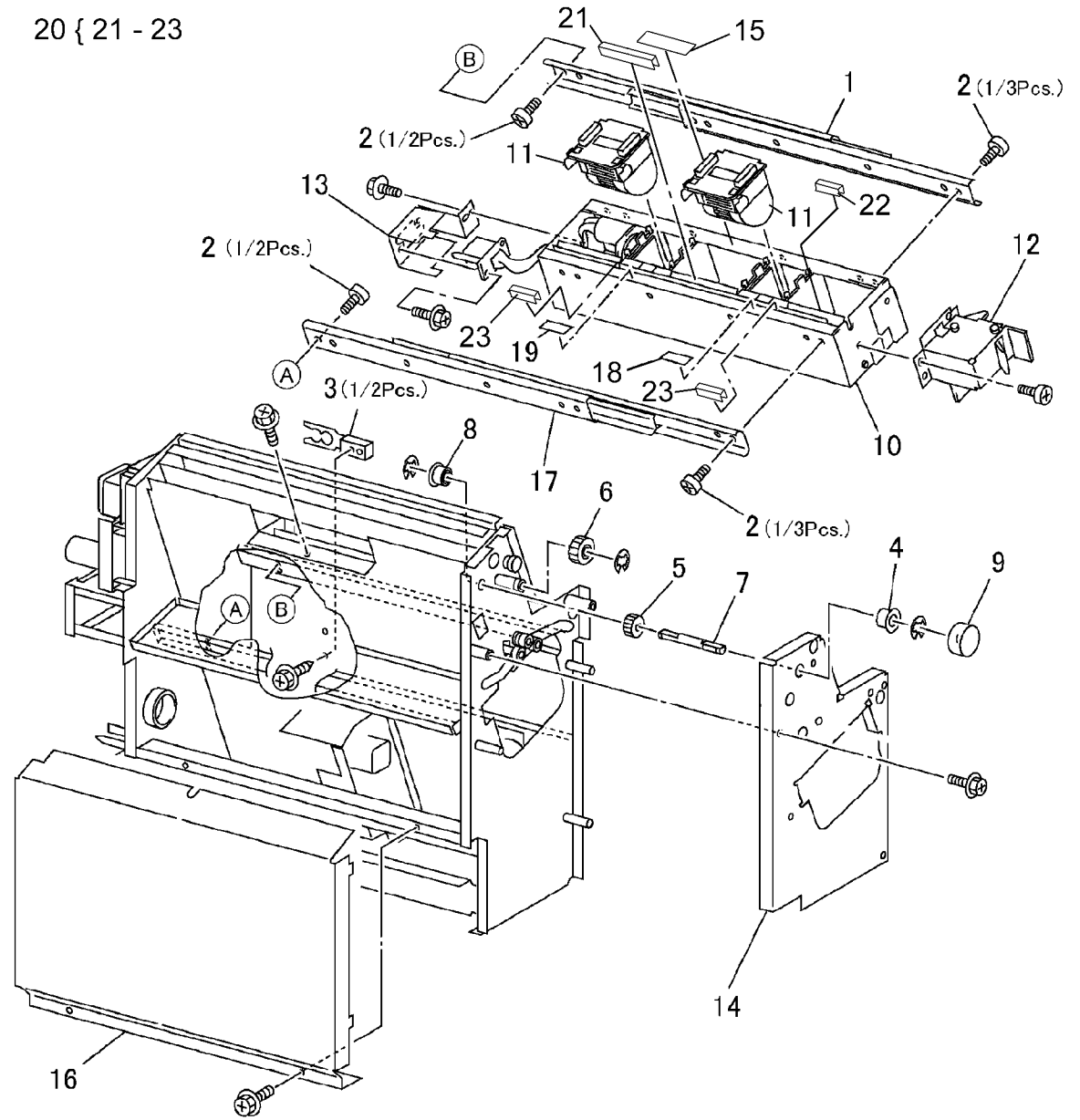
| Item | Part      | Description                                                                                 |
|------|-----------|---------------------------------------------------------------------------------------------|
| 1    | -         | Label (Not Spared)                                                                          |
| 2    | -         | Screw (Not Spared)                                                                          |
| 3    | -         | Right Rail                                                                                  |
| 4    | -         | Cover (Not Spared)                                                                          |
| 5    | -         | Booklet Tray Assembly                                                                       |
| 6    | -         | Knob Screw (Not Spared)                                                                     |
| 7    | 130E82530 | Booklet Drawer Set Sensor                                                                   |
| 8    | -         | Label (Not Spared)                                                                          |
| 9    | -         | Label (Not Spared)                                                                          |
| 10   | -         | Label (Not Spared)                                                                          |
| 11   | 015K67240 | Connector                                                                                   |
| 12   | 801K16551 | Booklet Drawer Assembly (REP<br>12.55, ADJ 12.4, ADJ 12.4, ADJ<br>12.5, ADJ 12.8, ADJ 12.9) |
| 13   | -         | Left Rail (Not Spared)                                                                      |
| 14   | -         | Wire Harness (Not Spared)                                                                   |



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# PL 21.16 Booklet Component - 1

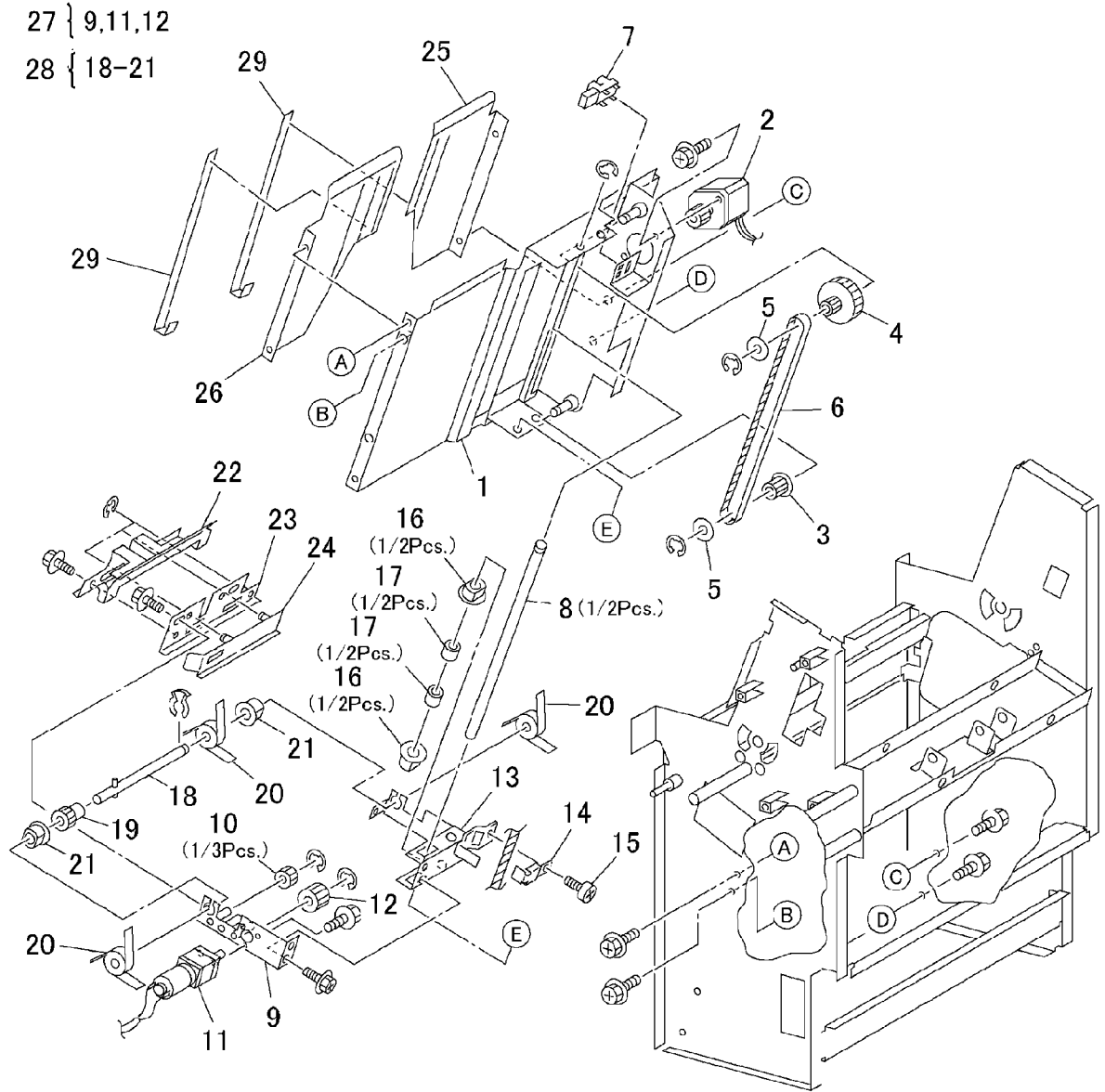
| Item | Part      | Description                                        |
|------|-----------|----------------------------------------------------|
| 1    | 801K18730 | Right Rail                                         |
| 2    | -         | Screw (Not Spared)                                 |
| 3    | 003E59690 | Stopper                                            |
| 4    | -         | Bearing (Not Spared)                               |
| 5    | 407W07717 | Gear (17T)                                         |
| 6    | 407W07731 | Gear (31T)                                         |
| 7    | -         | Shaft (Not Spared)                                 |
| 8    | -         | Ball Bearing (Not Spared)                          |
| 9    | 003K13680 | Knob                                               |
| 10   | 029K03713 | Stapler (REP 12.56, ADJ 12.6, ADJ 12.7, ADJ 12.10) |
| 11   | 029K92041 | Staple                                             |
| 12   | 015K67280 | Latch                                              |
| 13   | -         | Bracket (Not Spared)                               |
| 14   | -         | Front Cover (Not Spared)                           |
| 15   | -         | Label (Not Spared)                                 |
| 16   | -         | Left Cover (Not Spared)                            |
| 17   | 801K16581 | Left Rail                                          |
| 18   | 893E51380 | Label                                              |
| 19   | 893E55730 | Label                                              |
| 20   | -         | Paper Skew Guide Kit                               |
| 21   | 038K88480 | Paper Guide (Center)                               |
| 22   | 038K88490 | Paper Guide (Front)                                |
| 23   | -         | Paper Guide (Clinch) (Not Spared)                  |



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# PL 21.17 Booklet Component -2 (End Guide)

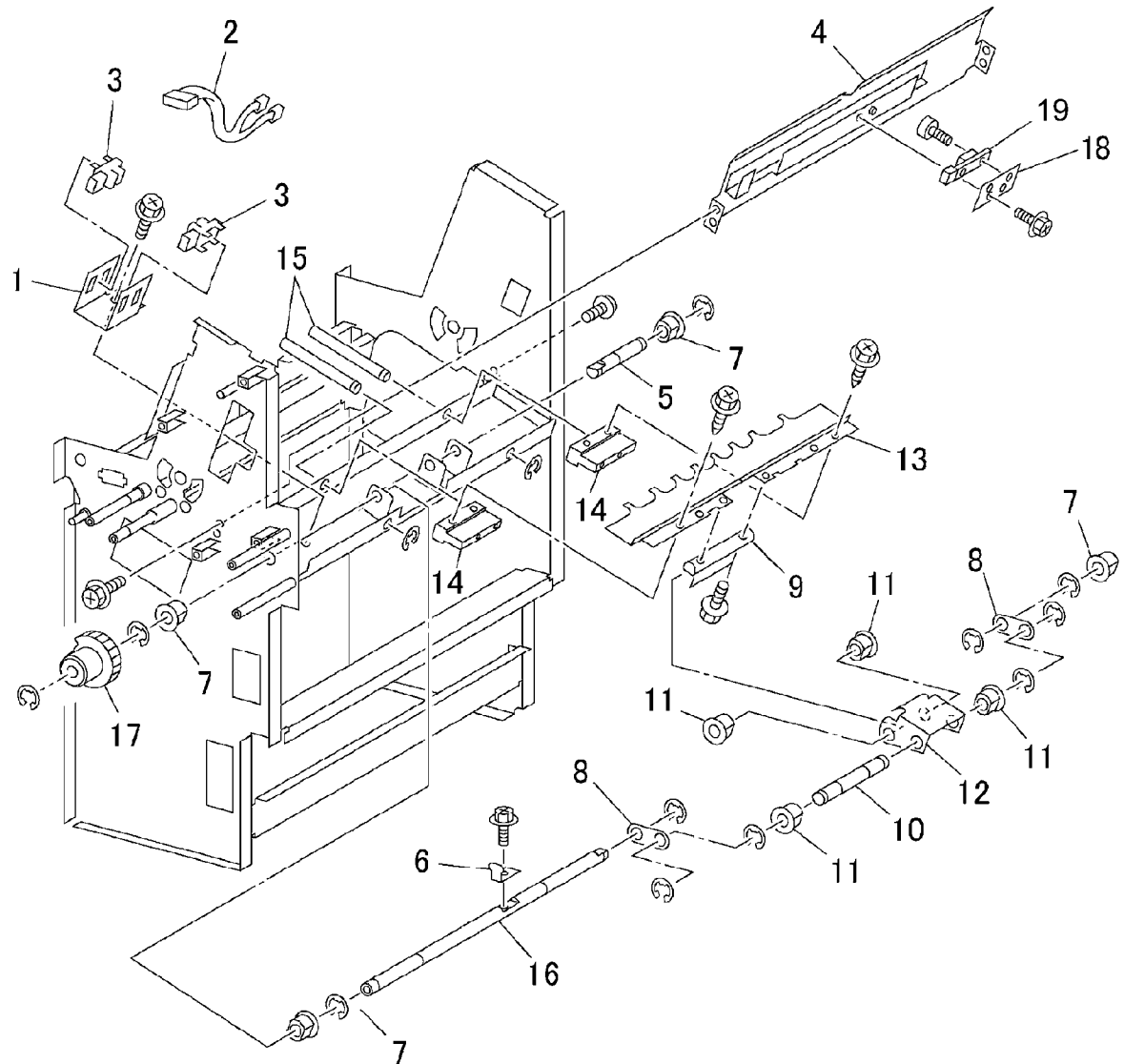
| Item | Part      | Description                                 |
|------|-----------|---------------------------------------------|
| 1    | -         | Compile Chute (Not Spared)                  |
| 2    | 127K46170 | Booklet End Guide Motor                     |
| 3    | 020E37210 | Pulley                                      |
| 4    | 807E02050 | Gear Pulley (40T/20T)                       |
| 5    | -         | Washer (Not Spared)                         |
| 6    | 423W86254 | Belt                                        |
| 7    | 130E82540 | Booklet End Guide Home Sensor               |
| 8    | -         | Shaft (Not Spared)                          |
| 9    | -         | Bracket (P/O PL 21.17 Item 27)              |
| 10   | 807E02070 | Gear (14T)                                  |
| 11   | -         | Booklet Paddle Motor (P/O PL 21.17 Item 27) |
| 12   | -         | Gear (14T) (P/O PL 21.17 Item 27)           |
| 13   | -         | Bracket (Not Spared)                        |
| 14   | -         | Stopper (Not Spared)                        |
| 15   | -         | Screw (Not Spared)                          |
| 16   | -         | Bearing (Not Spared)                        |
| 17   | -         | Roll (Not Spared)                           |
| 18   | -         | Shaft (P/O PL 21.17 Item 28)                |
| 19   | -         | Gear (14T) (P/O PL 21.17 Item 28)           |
| 20   | -         | Paddle (P/O PL 21.17 Item 28)               |
| 21   | -         | Bearing (P/O PL 21.17 Item 28)              |
| 22   | -         | End Guide (Not Spared)                      |
| 23   | -         | Support Bracket (Not Spared)                |
| 24   | -         | Adjust Bracket (Not Spared) (ADJ 12.4)      |
| 25   | -         | Chute (Front) (Not Spared)                  |
| 26   | -         | Chute (Rear) (Not Spared)                   |
| 27   | 015K60410 | Booklet Paddle Motor Assembly               |
| 28   | 006K22960 | Paddle Shaft Assembly                       |
| 29   | -         | Paper Guide (Not Spared)                    |



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## PL 21.18 Booklet Component -3

| Item | Part      | Description                            |
|------|-----------|----------------------------------------|
| 1    | -         | Bracket (Not Spared)                   |
| 2    | -         | Wire Harness                           |
| 3    | 130E82540 | Knife Home Sensor, Knife Folder Sensor |
| 4    | -         | Chute (Not Spared)                     |
| 5    | -         | Shaft (Not Spared)                     |
| 6    | -         | Actuator (Not Spared)                  |
| 7    | -         | Bearing (Not Spared)                   |
| 8    | -         | Joint (Not Spared)                     |
| 9    | -         | Shaft (Not Spared)                     |
| 10   | -         | Shaft (Not Spared)                     |
| 11   | -         | Bearing (Not Spared)                   |
| 12   | -         | Bracket (Not Spared)                   |
| 13   | 015K67270 | Knife                                  |
| 14   | -         | Guide (Not Spared)                     |
| 15   | -         | Shaft (Not Spared)                     |
| 16   | -         | Shaft (Not Spared)                     |
| 17   | 807E02060 | Gear (42T)                             |
| 18   | -         | Bracket (Not Spared)                   |
| 19   | 130E84140 | Booklet Compile No Paper Sensor        |

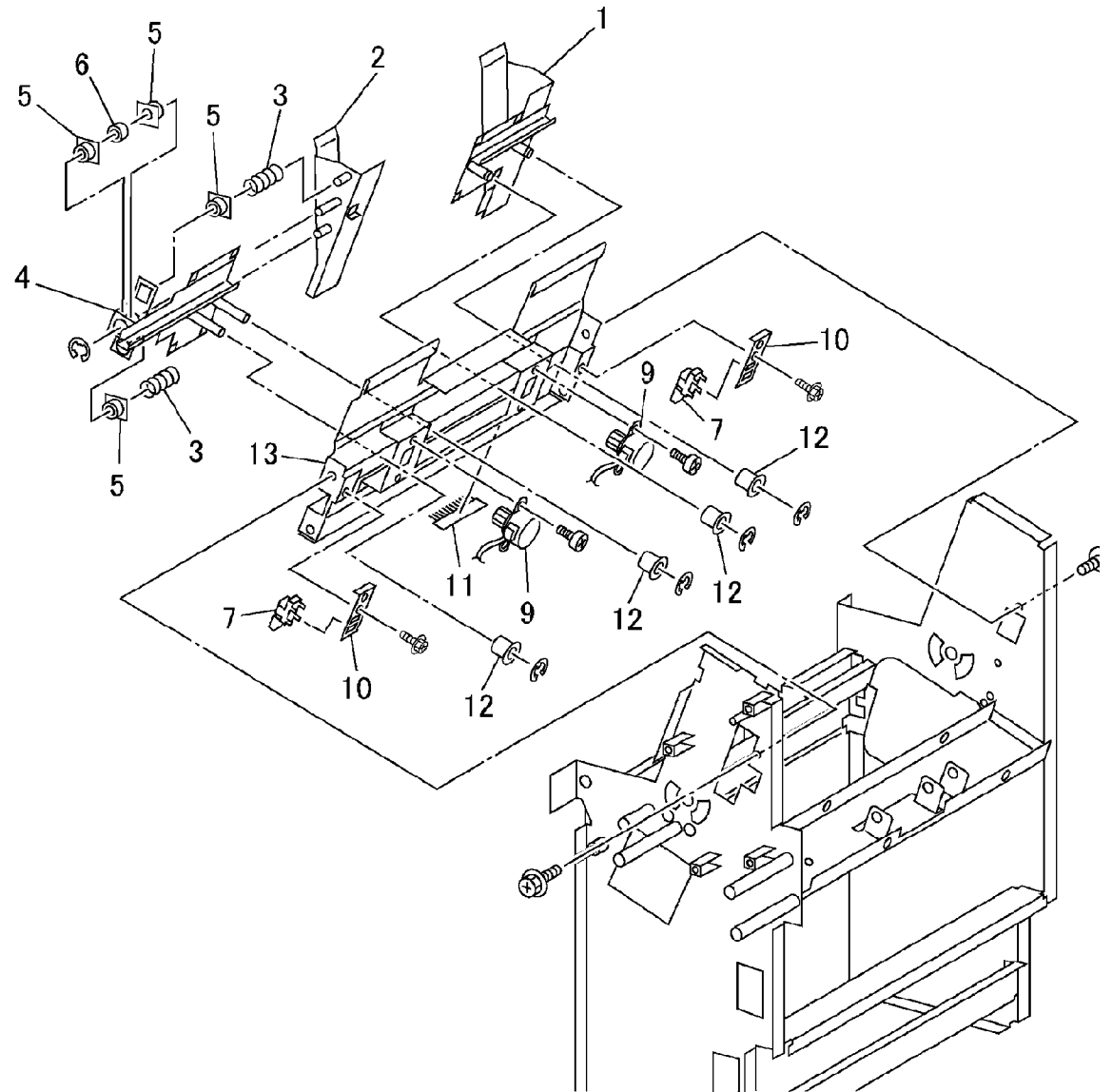


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## PL 21.19 Booklet Component -4

| Item | Part      | Description                                 |
|------|-----------|---------------------------------------------|
| 1    | -         | Front Tamper Guide                          |
| 2    | -         | Rear Tamper Guide (P/O PL 21.19 Item 8)     |
| 3    | -         | Spring (P/O PL 21.19 Item 8)                |
| 4    | -         | Rack (P/O PL 21.19 Item 8)                  |
| 5    | -         | Bearing (P/O PL 21.19 Item 8)               |
| 6    | -         | Roll (P/O PL 21.19 Item 8)                  |
| 7    | 130E82540 | Booklet Tamper Home Sensor (Front and Rear) |
| 8    | 038K87371 | Rear Tamper Assembly                        |
| 9    | 127K32850 | Booklet Tamper Motor (Front and Rear)       |
| 10   | -         | Bracket (Not Spared) (Not Spared)           |
| 11   | 101E12070 | Static Eliminator                           |
| 12   | 013E25490 | Roll                                        |
| 13   | -         | Frame (Not Spared)                          |

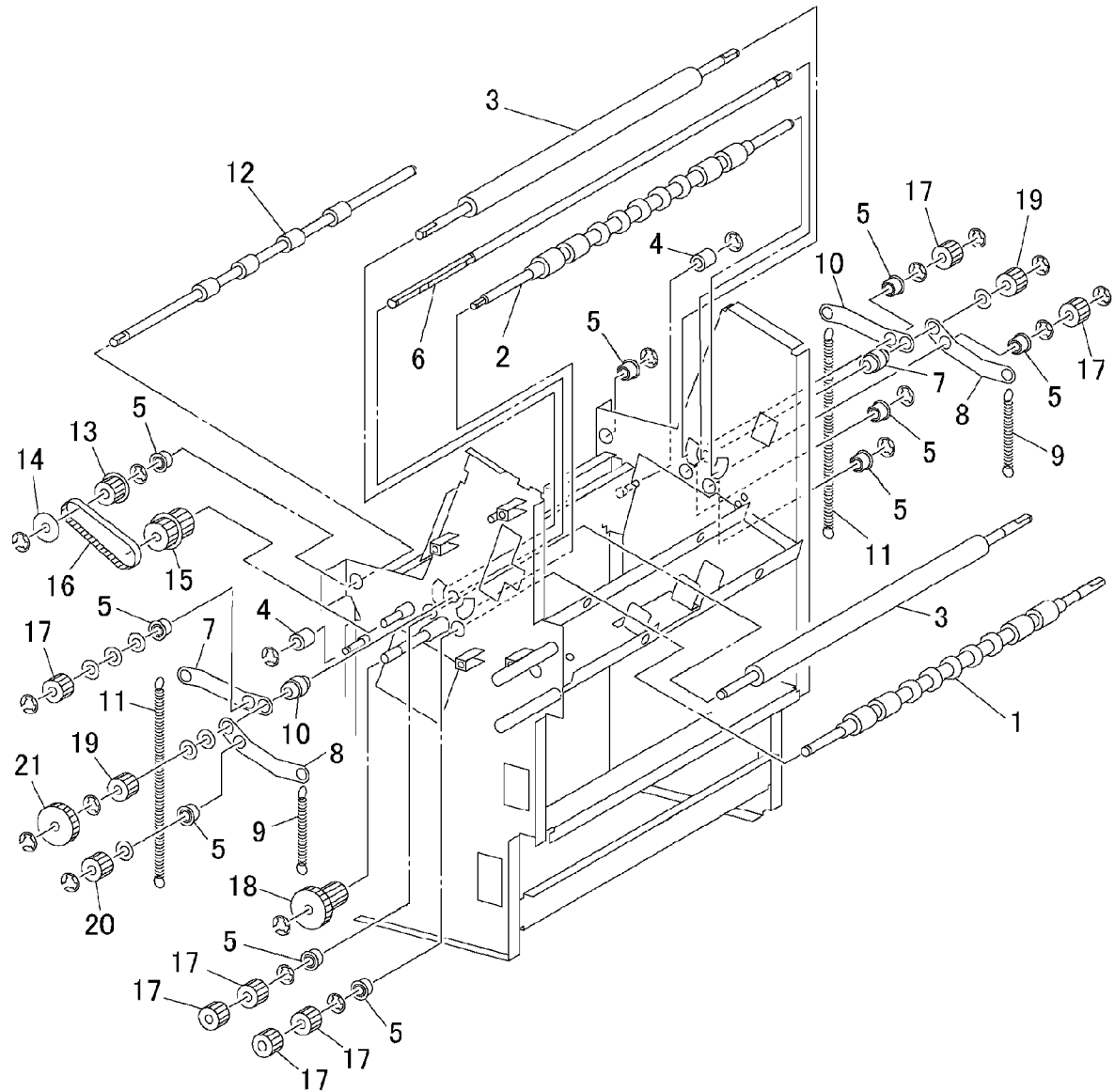
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0521019/

## PL 21.20 Booklet Component -5

| Item | Part      | Description                     |
|------|-----------|---------------------------------|
| 1    | 022K71020 | Booklet Pre-Folding Roll        |
| 2    | 022K71040 | Booklet Pre-Folding Nip Roll    |
| 3    | 022K66870 | Booklet Folding Roll            |
| 4    | 022K66880 | Booklet Folding Nip Roll        |
| 5    | -         | Ball Bearing (Not Spared)       |
| 6    | -         | Shaft (Not Spared)              |
| 7    | 013E25480 | Bearing                         |
| 8    | -         | Tension Plate 1 (Not Spared)    |
| 9    | 809E59990 | Spring (ADJ 12.7)               |
| 10   | -         | Tension Plate 2 (Not Spared)    |
| 11   | 809E59980 | Spring                          |
| 12   | -         | Booklet Eject Roll (Not Spared) |
| 13   | -         | Pulley (16T) (Not Spared)       |
| 14   | -         | Flange (Not Spared)             |
| 15   | 807E02040 | Gear Pulley (20T/25T)           |
| 16   | 423W46754 | Belt                            |
| 17   | 007E89980 | Gear (16T)                      |
| 18   | 007E89990 | Gear (38T/18T)                  |
| 19   | 007E89970 | Gear (18T)                      |
| 20   | 807E09510 | Gear (16T)                      |
| 21   | 007E77770 | Gear (38T)                      |



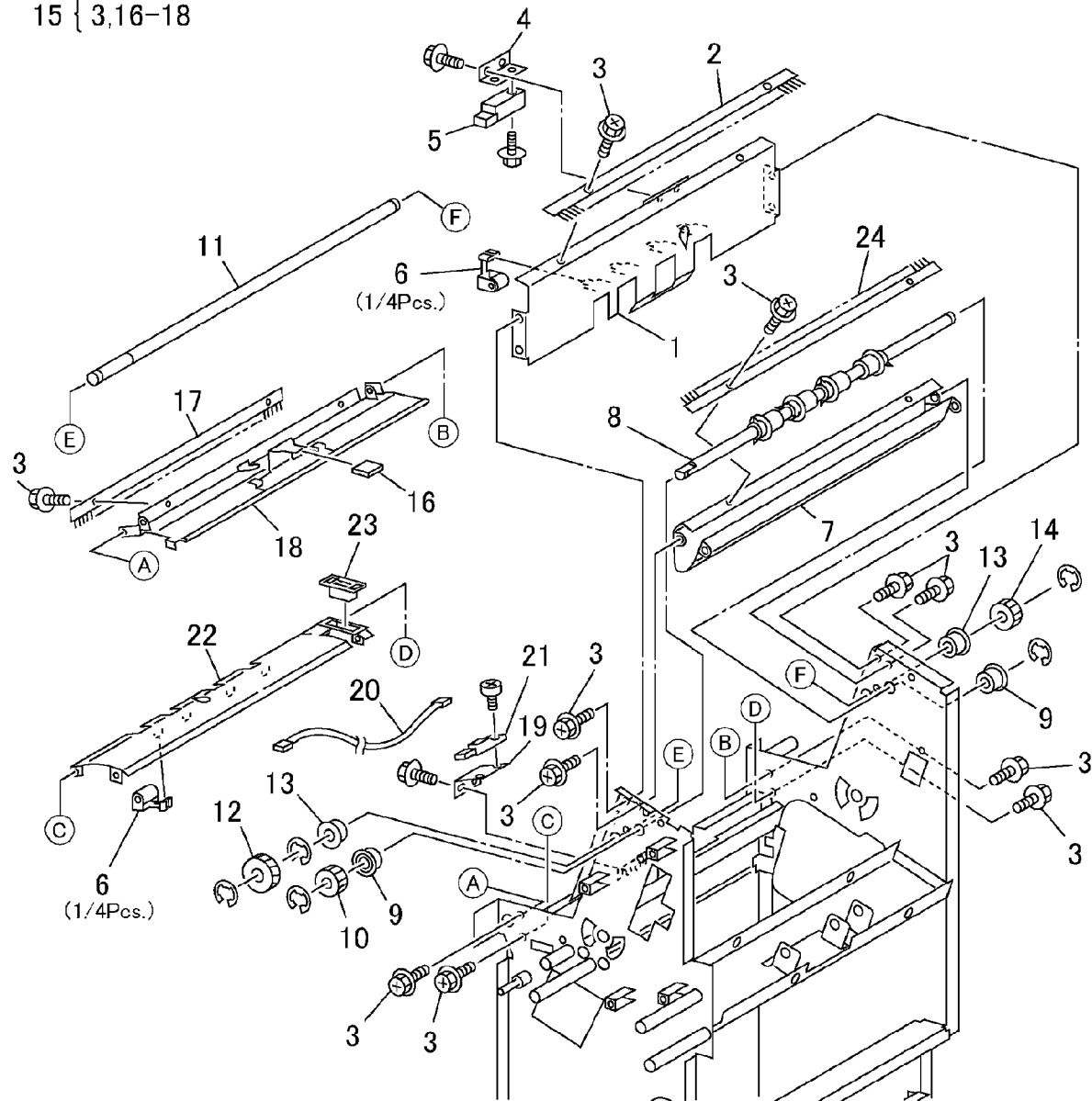
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# PL 21.21 Booklet Component -6 (Chute)

| Item | Part      | Description                             |
|------|-----------|-----------------------------------------|
| 1    | -         | Chute (Not Spared)                      |
| 2    | 105E12060 | Static Eliminator                       |
| 3    | -         | Screw (P/O PL 21.21 Item 15)            |
| 4    | -         | Bracket (Not Spared)                    |
| 5    | 130E85780 | Booklet In Sensor                       |
| 6    | 059K00521 | Pinch Roll                              |
| 7    | -         | Chute (Not Spared)                      |
| 8    | 022K70810 | Booklet In Roll                         |
| 9    | -         | Ball Bearing (Not Spared)               |
| 10   | 807E09510 | Gear (16T)                              |
| 11   | -         | Shaft (Not Spared)                      |
| 12   | 807E09500 | Gear (27T)                              |
| 13   | -         | Bearing (Not Spared)                    |
| 14   | -         | Gear (17T) (Not Spared)                 |
| 15   | 054K02391 | Upper Exit Chute Assembly               |
| 16   | 003K13150 | Knob                                    |
| 17   | 105E12170 | Static Eliminator                       |
| 18   | -         | Upper Exit Chute (P/O PL 21.21 Item 15) |
| 19   | -         | Bracket (Not Spared)                    |
| 20   | 962K18410 | Wire Harness                            |
| 21   | 130E84140 | Booklet Folder Roll Exit Sensor         |
| 22   | -         | Lower Exit Chute (Not Spared)           |
| 23   | 121E89590 | Magnet                                  |
| 24   | -         | Static Eliminator                       |

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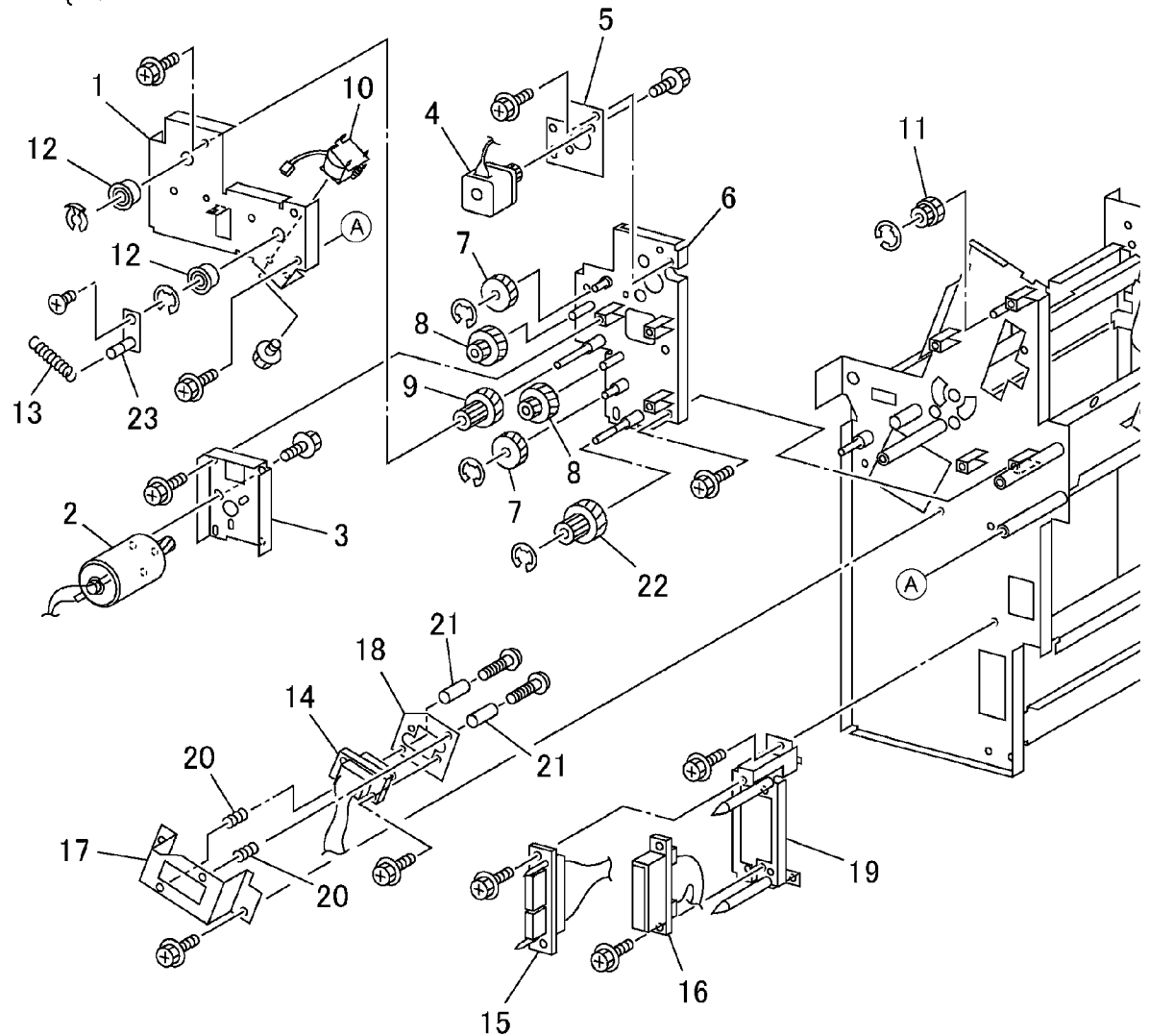


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## PL 21.22 Booklet Component -7

| Item | Part      | Description                               |
|------|-----------|-------------------------------------------|
| 1    | -         | Bracket (Not Spared)                      |
| 2    | -         | Booklet Fold Motor (P/O PL 21.22 Item 24) |
| 3    | -         | Bracket (P/O PL 21.22 Item 24)            |
| 4    | 127K46170 | Booklet Paper Path Motor                  |
| 5    | -         | Bracket (P/O PL 21.22 Item 25)            |
| 6    | -         | Bracket (Not Spared)                      |
| 7    | 007E77620 | Gear (45T)                                |
| 8    | 007E77610 | Gear (43T/14T)                            |
| 9    | 007E77600 | Gear (44T/16T)                            |
| 10   | 121K31360 | Knife Solenoid                            |
| 11   | 807E01750 | Gear (27T/34T)                            |
| 12   | -         | Ball Bearing (Not Spared)                 |
| 13   | 809E41620 | Spring                                    |
| 14   | 962K18420 | Wire Harness                              |
| 15   | 962K18430 | Wire Harness                              |
| 16   | 962K18440 | Wire Harness                              |
| 17   | -         | Bracket (Not Spared)                      |
| 18   | -         | Bracket (Not Spared)                      |
| 19   | -         | Bracket (Not Spared)                      |
| 20   | 809E41570 | Spring                                    |
| 21   | -         | Spacer (Not Spared)                       |
| 22   | 807E02080 | Gear (48T/18T)                            |
| 23   | -         | Link (Not Spared)                         |
| 24   | 015K69650 | Booklet Fold Motor Assembly               |
| 25   | 015K60340 | Booklet Paper Path Motor Assembly         |

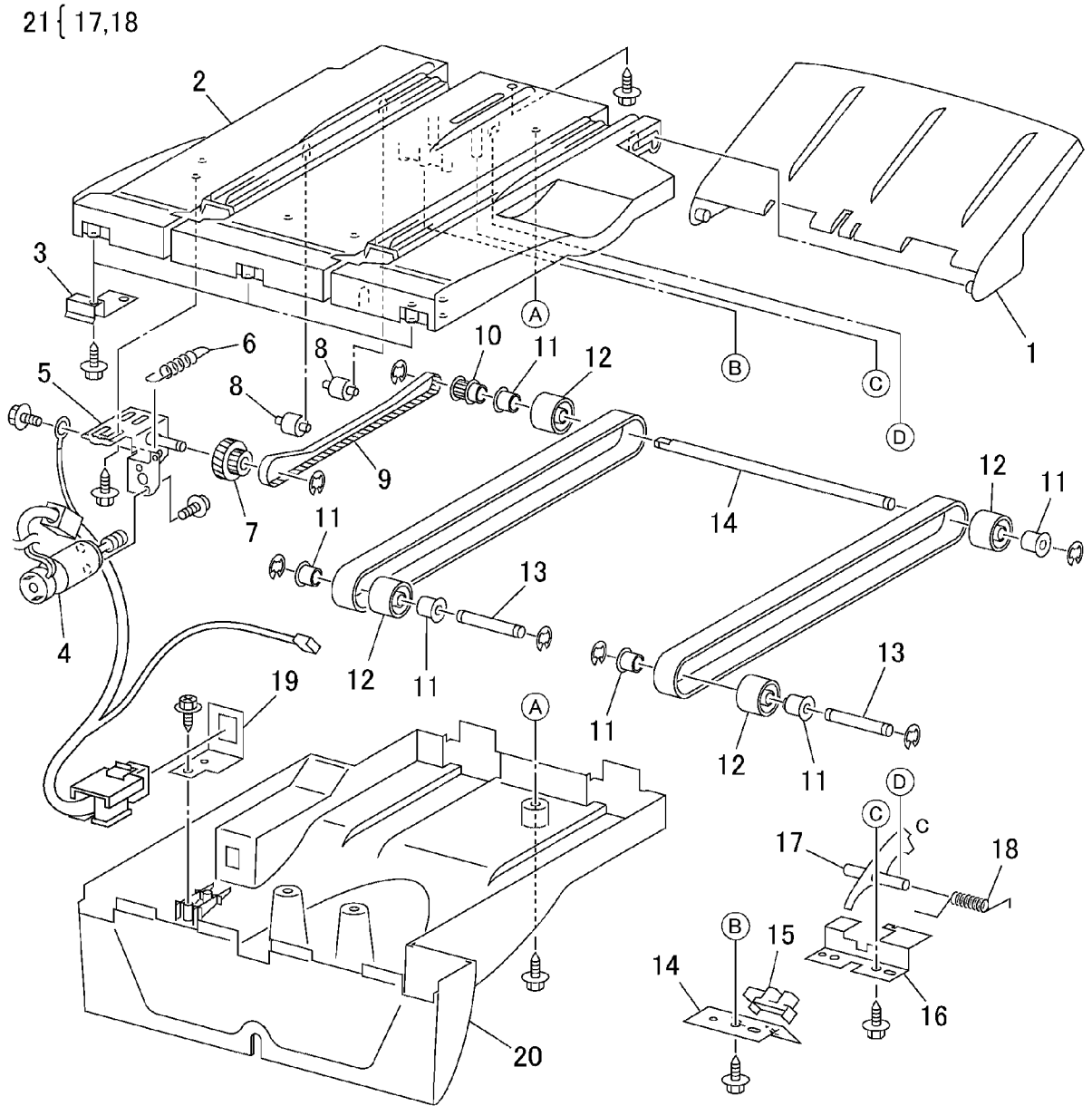
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# PL 21.23 Booklet Tray Component

| Item | Part      | Description                     |
|------|-----------|---------------------------------|
| 1    | 050E19900 | Tray                            |
| 2    | -         | Upper Tray (Not Spared)         |
| 3    | -         | Bracket (Not Spared)            |
| 4    | 127K38050 | Tray Belt Drive Motor           |
| 5    | -         | Bracket (Not Spared)            |
| 6    | -         | Spring (Not Spared)             |
| 7    | -         | Gear Pulley (Not Spared)        |
| 8    | -         | Roll (Not Spared)               |
| 9    | -         | Belt (Not Spared)               |
| 10   | -         | Pulley (Not Spared)             |
| 11   | -         | Bearing (Not Spared)            |
| 12   | -         | Roll (Not Spared)               |
| 13   | -         | Shaft (Not Spared)              |
| 14   | -         | Shaft (Not Spared)              |
| 15   | 130K64300 | Booklet No Paper Sensor         |
| 16   | -         | Bracket (Not Spared)            |
| 17   | -         | Actuator (P/O PL 21.23 Item 21) |
| 18   | -         | Spring (P/O PL 21.23 Item 21)   |
| 19   | -         | Bracket (Not Spared)            |
| 20   | -         | Lower Tray (Not Spared)         |
| 21   | 604K13840 | Actuator Assembly               |

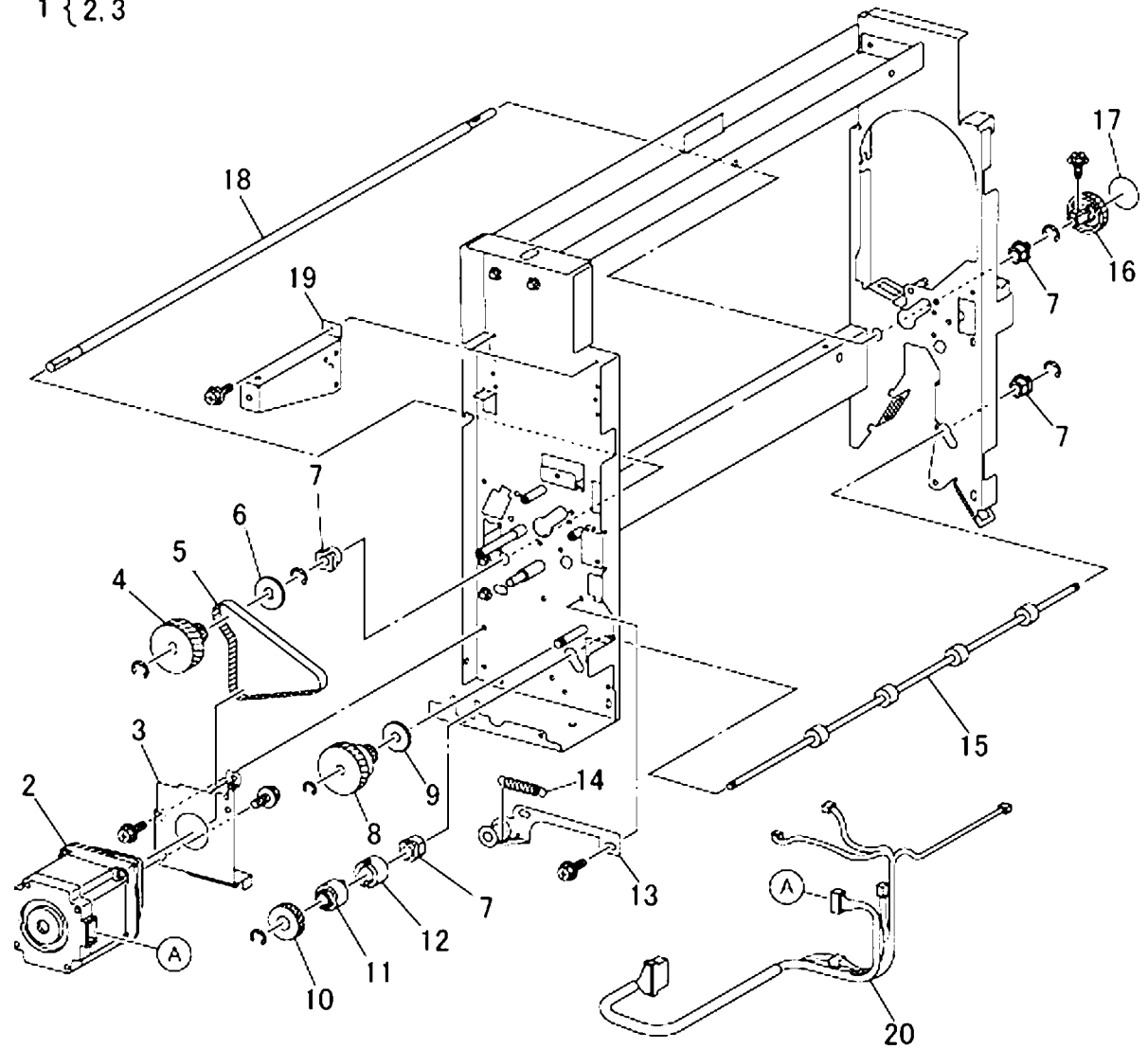


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# PL 21.25 I/F Module Component (Drive)

1 { 2.3

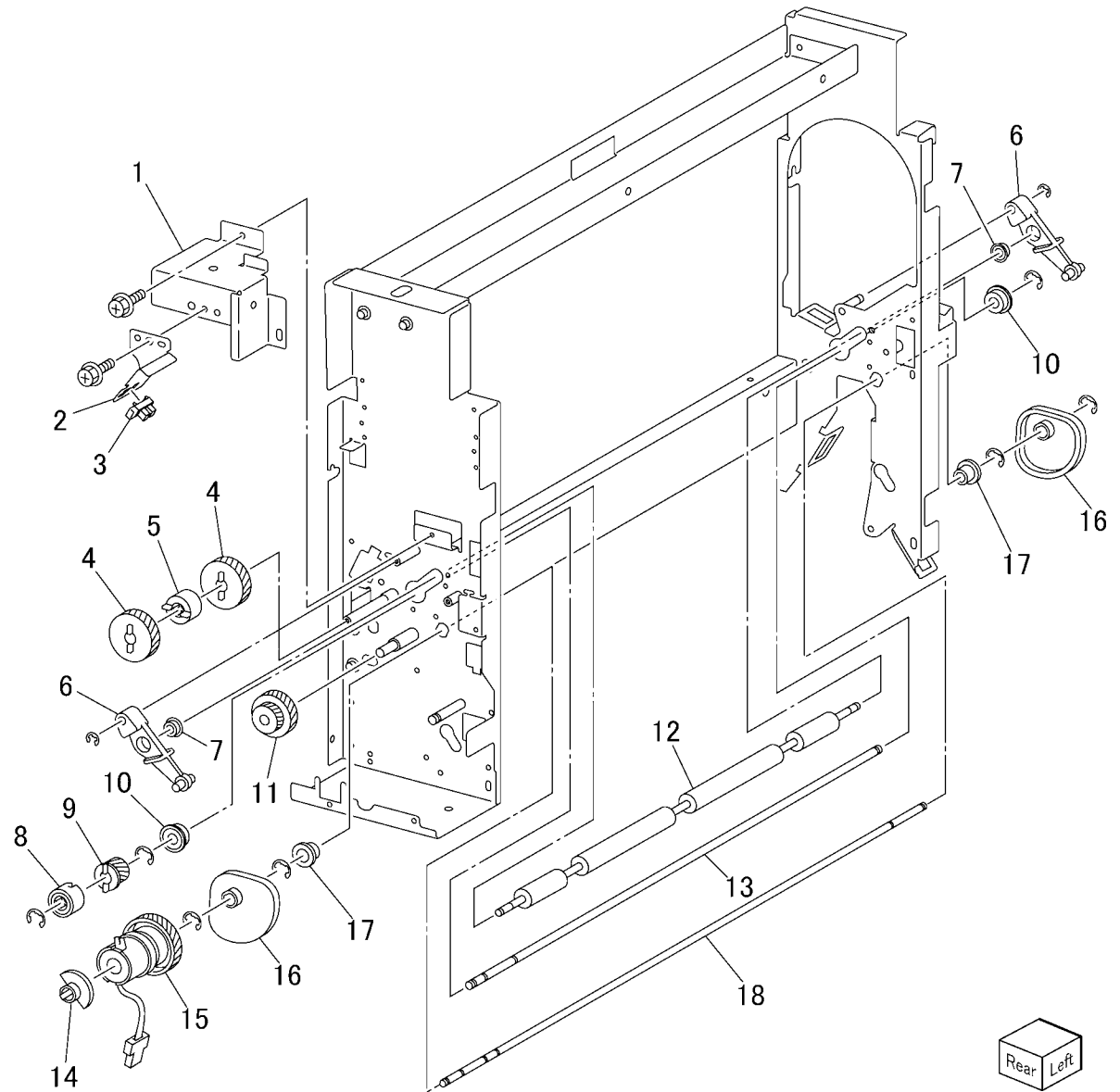
| Item | Part      | Description                       |
|------|-----------|-----------------------------------|
| 1    | 130K76920 | Decurler Transport Motor Assembly |
| 2    | -         | Decurler Transport Motor          |
| 3    | -         | Motor Bracket                     |
| 4    | -         | Gear (34T/20T)                    |
| 5    | -         | Decurler Transport Motor Belt     |
| 6    | -         | Collar                            |
| 7    | -         | Bearing                           |
| 8    | -         | Gear (34T/25T)                    |
| 9    | -         | Collar                            |
| 10   | -         | Gear (24T)                        |
| 11   | 005E19610 | Clutch                            |
| 12   | 005K06730 | Clutch                            |
| 13   | -         | Tension Bracket                   |
| 14   | -         | Tension Spring                    |
| 15   | 022K71490 | Roll Assembly                     |
| 16   | 003K13600 | Knob                              |
| 17   | -         | Label (1c)                        |
| 18   | -         | Shaft                             |
| 19   | -         | Cover Bracket                     |
| 20   | -         | Wire Harness                      |



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# PL 21.26 I/F Module Component (Decurler)

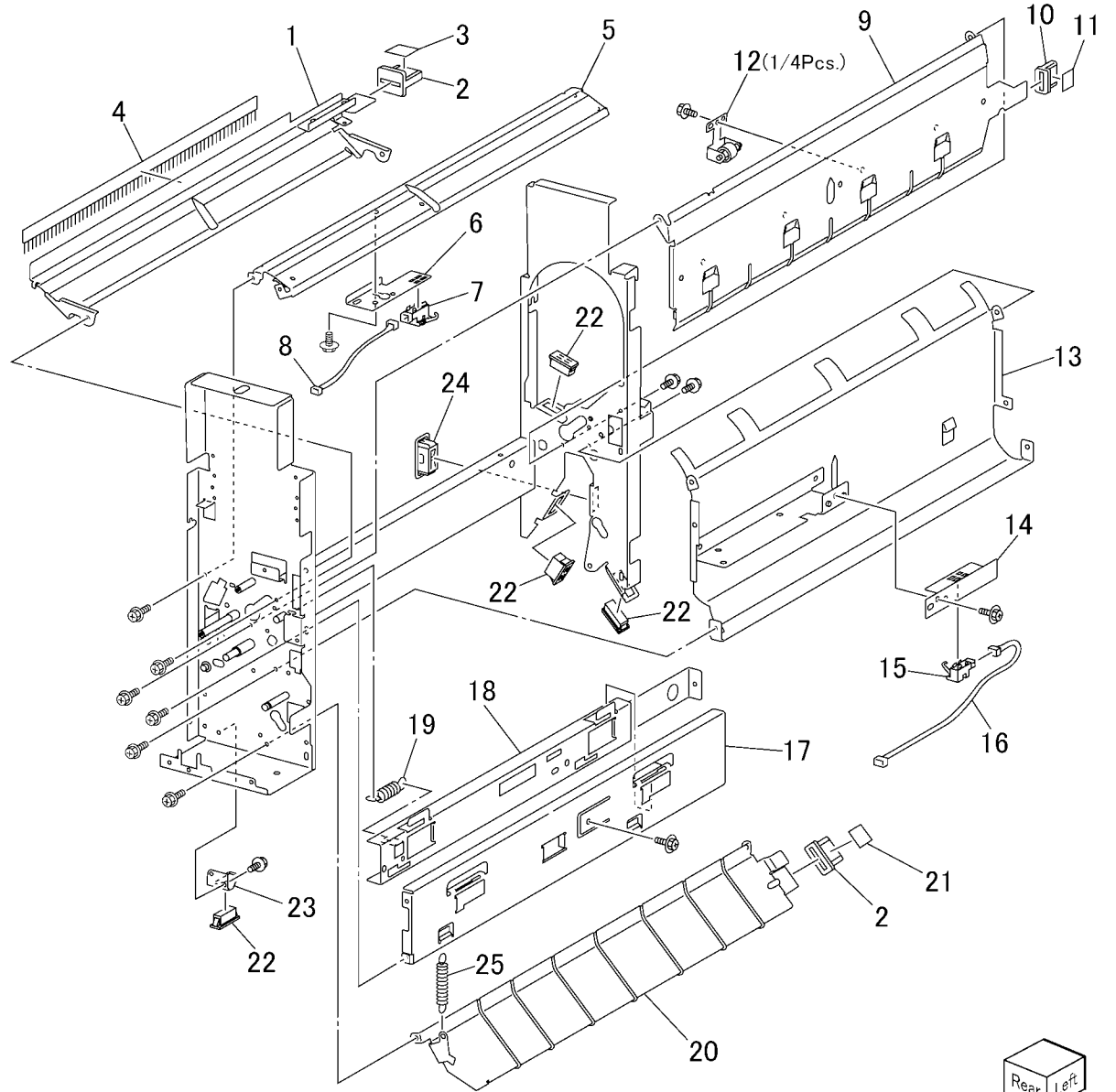
| Item | Part      | Description          |
|------|-----------|----------------------|
| 1    | -         | Bracket              |
| 2    | -         | Sensor Bracket       |
| 3    | 130K88780 | Decurler Home Sensor |
| 4    | -         | Gear (34T)           |
| 5    | 005E19600 | Clutch               |
| 6    | -         | Decurler Arm         |
| 7    | 413W66250 | Ball Bearing         |
| 8    | 005K06730 | Clutch               |
| 9    | -         | Gear (15T)           |
| 10   | -         | Ball Bearing         |
| 11   | -         | Gear (21T/35T)       |
| 12   | 022K71480 | Roll Assembly        |
| 13   | -         | Shaft                |
| 14   | -         | Actuator             |
| 15   | 121K24610 | Decurler Cam Clutch  |
| 16   | -         | Decurler Cam         |
| 17   | 413W77559 | Bearing              |
| 18   | -         | Cam Shaft            |



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# PL 21.27 I/F Module Component (Chute)

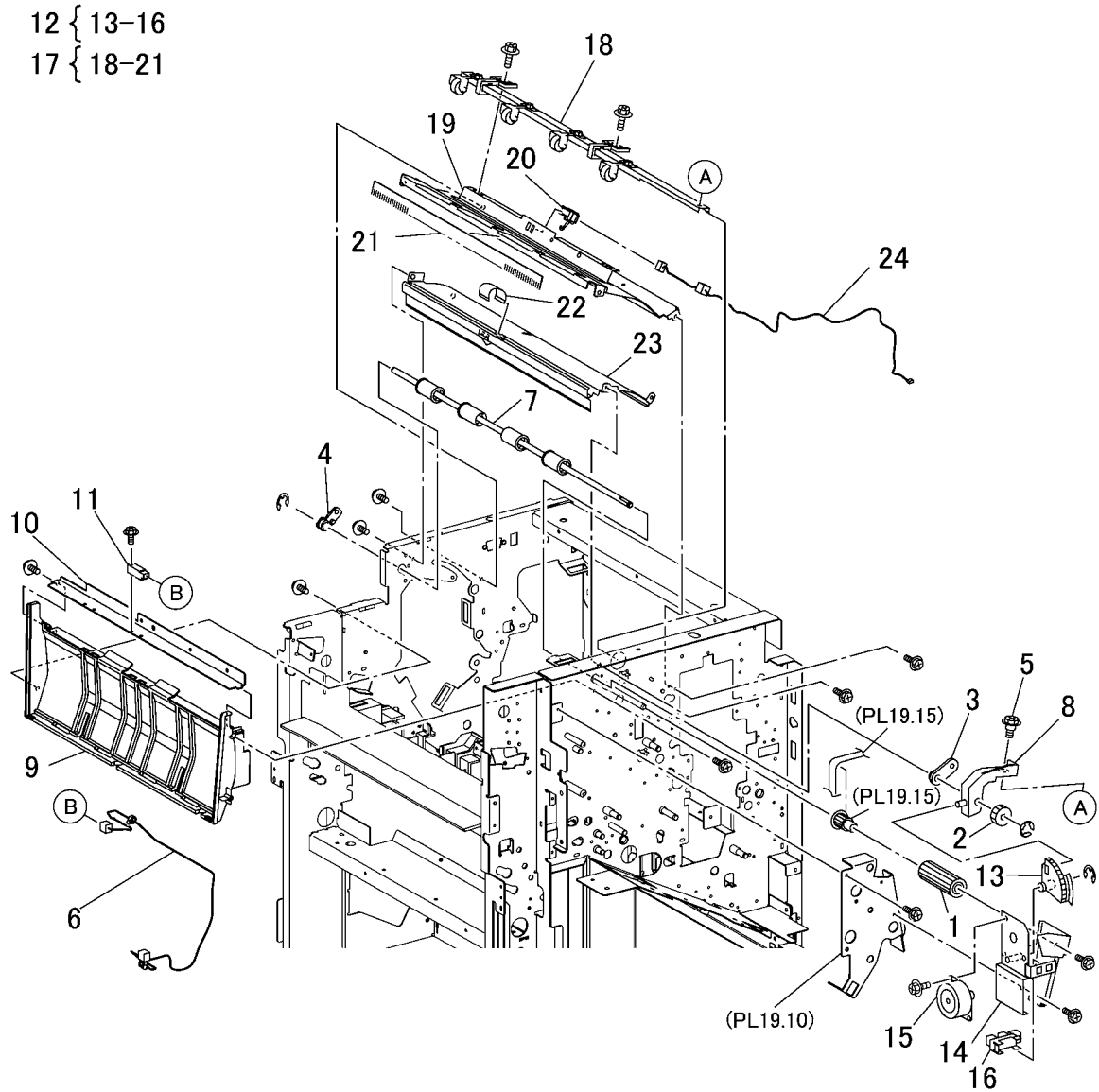
| Item | Part      | Description               |
|------|-----------|---------------------------|
| 1    | -         | Exit Upper Chute Assembly |
| 2    | -         | Knob                      |
| 3    | -         | Label (1d)                |
| 4    | -         | Eliminator                |
| 5    | -         | Exit Chute Assembly       |
| 6    | -         | Sensor Bracket            |
| 7    | 130K88970 | Decurler Out Sensor       |
| 8    | -         | Wire Harness              |
| 9    | -         | Low Chute Assembly        |
| 10   | -         | Knob                      |
| 11   | -         | Label (1b)                |
| 12   | 022K67850 | Pinch Roll Assembly       |
| 13   | -         | Upper Chute Assembly      |
| 14   | -         | Sensor Bracket            |
| 15   | 130K88790 | Decurler in Sensor        |
| 16   | -         | Wire Harness              |
| 17   | -         | Plate                     |
| 18   | -         | Docking Plate             |
| 19   | -         | Spring                    |
| 20   | -         | Entrance Chute Assembly   |
| 21   | -         | Label (1a)                |
| 22   | 121E92890 | Magnet (25N)              |
| 23   | -         | Magnet Bracket            |
| 24   | -         | Magnet (40N)              |
| 25   | 009E94910 | Spring                    |



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# PL 21.28 Finisher OCT

| Item | Part      | Description                    |
|------|-----------|--------------------------------|
| 1    | -         | Gear (16T)                     |
| 2    | -         | Gear (16T)                     |
| 3    | -         | Bearing                        |
| 4    | -         | Bearing                        |
| 5    | -         | Stud Screw                     |
| 6    | -         | Wire Harness                   |
| 7    | 022K71420 | OCT Roll                       |
| 8    | -         | Arm                            |
| 9    | -         | Tray Guide                     |
| 10   | -         | Bracket                        |
| 11   | 130E85780 | Top Tray Full Sensor           |
| 12   | 030K76880 | Top Tray Offset Motor          |
| 13   | -         | Gear (P/O PL 21.28 Item 12)    |
| 14   | -         | Bracket (P/O PL 21.28 Item 12) |
| 15   | -         | Top Tray Offset Motor          |
| 16   | 130K88780 | Top Tray Offset Sensor         |
| 17   | 054K28190 | OCT Upper Chute Assembly       |
| 18   | -         | Slide Rail Assembly            |
| 19   | -         | OCT Upper Chute                |
| 20   | 130K88190 | Sensor                         |
| 21   | -         | Eliminator                     |
| 22   | -         | Paper Guide                    |
| 23   | -         | OCT Lower Chute                |
| 24   | -         | Wire Harness                   |



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**Common Hardware**



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| 003K13150   | PL 21.21  |
| 003K13291   | PL 14.5   |
| 003K13600   | PL 21.25  |
| 003K13680   | PL 21.16  |
| 003K13752   | PL 14.1   |
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|             | PL 2.15   |
| 003E59570   | PL 18.5   |
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| 003E60320   | PL 14.5   |
| 003E61200   | PL 10.5   |
| 003E61300   | PL 4.1    |
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| 003E63230   | PL 17.2   |
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| 004K92582   | PL 14.1   |
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|             | PL 2.7    |
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|             | PL 21.26  |
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|             | PL 2.7    |
|             | PL 2.9    |
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| 005K07010   | PL 2.11   |
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| 005K07230   | PL 10.5   |
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| 005E17830   | PL 1.5    |
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| 005E19600   | PL 21.26  |
| 005E19610   | PL 21.25  |
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| 006K22960   | PL 21.17  |
| 006K23122   | PL 18.5   |
| 006K23131   | PL 18.6   |
| 006K23312   | PL 3.10   |
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| 007E77770   | PL 21.20  |
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|             | PL 2.5    |
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| 007E78770   | PL 18.4   |
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| 009E94920   | PL 1.5    |
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| 011K97710   | PL 21.7   |
| 012E11041   | PL 18.4   |
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| 012E11990   | PL 21.10  |
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| 013E26250   | PL 14.10  |
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| 020E36780   | PL 14.8   |
| 020E36800   | PL 14.9   |
| 020E36810   | PL 14.10  |
| 020E36830   | PL 2.14   |
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| 020E36980   | PL 13.7   |
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| 020E37620   | PL 18.3   |
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| 020E37720   | PL 21.4   |
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| 022K67850   | PL 21.10  |
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|             | PL 2.15   |
|             | PL 2.4    |
|             | PL 2.5    |
| 893E09600   | PL 14.14  |
| 893E09610   | PL 14.17  |
| 893E09660   | PL 14.14  |
| 893E15750   | PL 3.2    |
| 893E16170   | PL 3.2    |
| 893E21870   | PL 2.2    |
| 893E21880   | PL 2.2    |
| 893E46200   | PL 18.1   |
| 893E51380   | PL 21.16  |
| 893E55730   | PL 21.16  |
| 893E64430   | PL 2.1    |
| 893E64440   | PL 2.1    |
| 913W01206   | PL 9.1    |
| 913W12113   | PL 4.2    |
| 913W12114   | PL 4.2    |
| 913W12117   | PL 4.1    |
| 913W12124   | PL 4.1    |
| 927W00024   | PL 9.1    |
| 930W00111   | PL 14.16  |
|             | PL 7.9    |
|             | PL 3.5    |
|             | PL 16.3   |
|             | PL 14.17  |
| 930W00112   | PL 18.5   |
|             | PL 3.7    |
| 930W00113   | PL 2.10   |
|             | PL 2.6    |
|             | PL 2.8    |
|             | PL 2.12   |
| 930W00211   | PL 14.16  |

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| Part Number | Part List |
|-------------|-----------|
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|             | PL 14.23  |
|             | PL 2.10   |
|             | PL 4.5    |
|             | PL 4.4    |
|             | PL 3.7    |
|             | PL 2.8    |
|             | PL 2.6    |
|             | PL 2.16   |
|             | PL 2.12   |
|             | PL 18.5   |
|             | PL 16.3   |
|             | PL 14.8   |
|             | PL 14.25  |
|             | PL 14.22  |
|             | PL 14.17  |
| 960K00022   | PL 11.5   |
| 960K00393   | PL 11.1   |
| 960K00405   | PL 11.3   |
| 960K00442   | PL 13.8   |
| 960K01281   | PL 6.3    |
| 960K01611   | PL 1.2    |
| 960K01727   | PL 11.1   |
| 960K04670   | PL 21.12  |
| 960K05563   | PL 11.5   |
| 960K05670   | PL 11.6   |
| 960K06841   | PL 13.8   |
| 960K07310   | PL 21.12  |
| 960K07590   | PL 21.12  |
| 960K08930   | PL 18.8   |
| 962K17863   | PL 3.2    |
| 962K18410   | PL 21.21  |
| 962K18420   | PL 21.22  |
| 962K18430   | PL 21.22  |
| 962K18440   | PL 21.22  |
| 962K19801   | PL 13.6   |
| 962K19860   | PL 11.6   |
| 962K19871   | PL 11.6   |
| 962K20212   | PL 13.6   |
| 962K23382   | PL 6.7    |
| 962K23392   | PL 6.7    |

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| Part Number | Part List |
|-------------|-----------|
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| 962K24321   | PL 5.1    |
| 962K27670   | PL 21.8   |
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## Change Tags



## Entering and exiting CE mode

Certain diagnostic routines and reports are available locally (on the UI) through CE mode.

### Entering

To enter the CE mode:

1. Press and hold the **0** key for 5 seconds, then while still holding down the **0** key, press the **Start** button.  
The **CE Access Number** screen will appear.
2. Enter **6789** and press **Confirm**.
3. The topmost area of the UI display will be reversed to let the user know that the mode has changed to the CE mode.

**NOTE:** *If a system failure has occurred when the machine is turned ON but it has not been rectified, the diagnostic operation will not be guaranteed.*

### Exiting

There are three ways to exit from CE mode:

- Switch the power Off then On (If actions performed in CE mode cause the machine to restart upon exiting, the machine will come back up in normal user mode).
- Press and hold the **0** key then press the **Start** button.
- Select **Abort the Operation and Exit** on the **Maintenance/Diagnostics** screen.

## Functions enabled in CE mode

Functions available in CE mode can be divided into two groups; Diagnostics and Reports

### UI Diagnostics

Several diagnostic routines are available. Note that these are a subset of the more complete suite of tools available through use of the PWS (see [Accessing UI Diagnostics](#)).

### Printable Reports

Several machine history reports can be printed in CE mode. These reports are in addition to the reports normally available in System Admin mode (see [Printing CSE Reports](#)).

## Accessing UI Diagnostics

1. Enter the CE mode ([Entering and exiting CE mode](#)).
2. Press the Log In/Out button on the UI. The **System Settings** screen appears.
3. Select **System Settings**.
4. Select **Common Settings**.
5. Select **Maintenance / Diagnostics**. The following selections will appear:
  - [Software Options](#)
  - [Print Test Patterns](#)
  - [MAX Setup](#)
  - [Initialize Hard Disk](#)
  - [NVM Initialization](#)
  - [Component Control](#)
  - Sub System - this selection opens the following menu:
    - Belt Edge Learn
  - [Delete All Data](#)
  - [NVM Read/Write](#)
  - Registration - this selection opens the following menu:
    - Tray 5 Guide Adjust
    - Registration Control - Setup Cycle
    - Registration Control - Measurement Cycle
    - Registration Control - Sensor Check Cycle
  - Adjustment / Others - this selection opens the following menu:
    - [Machine ID/Billing Data Settings](#)
    - [Initialize HFSI Counter](#)

## Software Options

Certain optional features must be enabled in software by entering a password (supplied by sales).

### Procedure

1. Enter UI Diagnostics (see [Accessing UI Diagnostics](#))
2. Select **Software Options** on the **Maintenance/Diagnostics** screen.
3. Select **Keyboard**.
4. Enter the password of the software option on the keyboard displayed on the UI.
5. Select **Save**.
6. Select **Reboot**.



# Print Test Patterns

## Purpose

This routine outputs test patterns from the built-in Pattern Generator. This routine is also available in PWS Diagnostic mode (dC612).

**NOTE:** Error message is displayed if print cannot be made with the specified tray. Make sure that there is sufficient paper in the trays before starting the routine. If a jam or system fault occurs, the process stops but a recovery message is not displayed. The fault code is displayed but it is not recorded in History.

## Procedure

1. Enter UI Diagnostics (see [Accessing UI Diagnostics](#)), then select **NVM Read/Write**. Make the NVM changes listed in [Table 1](#) for the pattern you wish to print.

**NOTE:** To switch from a test pattern requiring one set of NVM values to a test pattern requiring a different set of values, you must exit UI Diagnostic mode and allow the machine to reboot before entering the new NVM values (Exiting the CE mode and rebooting the machine will make the NVM values reset to their respective default values.)

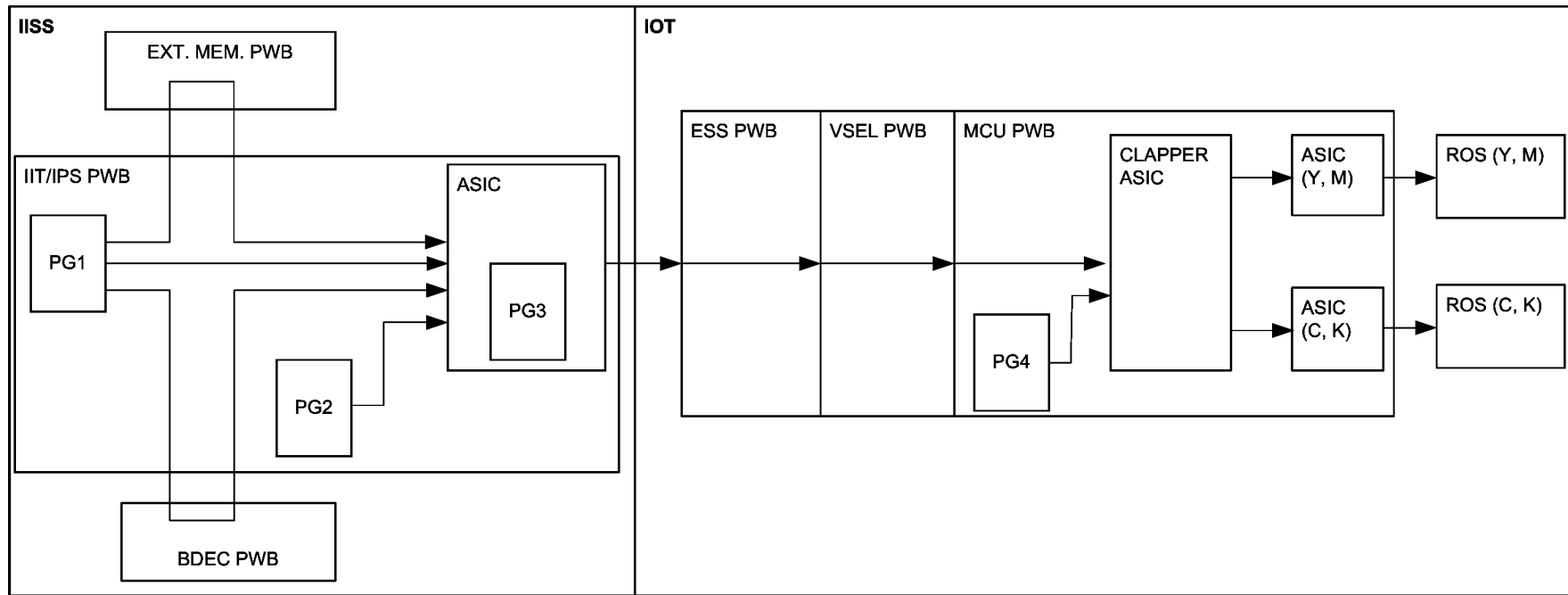
2. Close the **NVM Read/Write** screen and return to the Diagnostics screen. Select **Test Pattern Print**.
3. Enter Test Pattern Number (3 digits).
4. Select the paper tray, color, and density (where applicable).
5. Press the **Start** button. [Figure 1](#) shows the test pattern signal path.

**Table 1 Pattern Numbers**

| Pattern # | Test Pattern Name                      | Source      | NVM to be set                      |                                    |
|-----------|----------------------------------------|-------------|------------------------------------|------------------------------------|
| 001       | Registration Grid                      | MCU PWB     | 870-205: Default is 0, change to 3 |                                    |
| 002       | Grid 45 Degree                         | MCU PWB     |                                    |                                    |
| 003       | Color Registration                     | MCU PWB     |                                    |                                    |
| 004       | Color Registration - Visual            | MCU PWB     |                                    |                                    |
| 005       | Banding                                | MCU PWB     |                                    |                                    |
| 006       | Ted/starvation                         | MCU PWB     |                                    |                                    |
| 007       | Automatic Tone Correction - Adjustment | MCU PWB     |                                    |                                    |
| 008       | Automatic Tone Correction - Check      | MCU PWB     |                                    |                                    |
| 009       | ProCon                                 | MCU PWB     |                                    |                                    |
| 010       | 16 tone                                | MCU PWB     |                                    |                                    |
| 011       | Halftone                               | MCU PWB     |                                    |                                    |
| 012       | In/out Adjustment (Primary Colors)     | MCU PWB     |                                    | 870-207: Default is 0, change to 6 |
| 013       | In/out Adjustment (Secondary Colors)   | MCU PWB     |                                    |                                    |
| 014       | In/out Adjustment (Single Color)       | MCU PWB     |                                    |                                    |
| 015       | Highlight Adjustment                   | MCU PWB     |                                    |                                    |
| 016       | Color Patch 182                        | MCU PWB     |                                    |                                    |
| 017       | Gradation                              | MCU PWB     |                                    |                                    |
| 018       | Adjustment in SS direction_YC          | MCU PWB     |                                    |                                    |
| 019       | Adjustment in SS direction_MK          | MCU PWB     |                                    |                                    |
| 110       | IIT Analog Gradation RGB               | IIT/IPS PWB | 870-205: Default is 0, change to 3 |                                    |
| 112       | IIT Analog Gradation BW                | IIT/IPS PWB |                                    |                                    |
| 113       | Pre-IPS_FS Increment RGB               | IIT/IPS PWB |                                    |                                    |
| 115       | Pre-IPS_FS Increment BW                | IIT/IPS PWB |                                    |                                    |
| 117       | Pre-IPS_SS Increment RGB               | IIT/IPS PWB |                                    |                                    |
| 119       | Pre-IPS_SS Increment BW                | IIT/IPS PWB |                                    |                                    |
| 121       | Pre-IPS_Grid BW                        | IIT/IPS PWB |                                    |                                    |
| 122       | Pre-IPS_Shading Data Color             | IIT/IPS PWB |                                    |                                    |
| 123       | Pre-IPS_Shading Data BW                | IIT/IPS PWB |                                    | 870-207: Default is 0, change to 2 |
| 124       | Pre-IPS_Vertical Stripes               | IIT/IPS PWB |                                    |                                    |
| 125       | Pre-IPS_8 Tone Patch                   | IIT/IPS PWB |                                    |                                    |
| 126       | Pre-IPS_Solid                          | IIT/IPS PWB |                                    |                                    |
| 127       | Post-IPS_4C                            | IIT/IPS PWB |                                    |                                    |
| 128       | Post-IPS_BW                            | IIT/IPS PWB |                                    |                                    |
| 129       | Post-IPS_FSRE Grid                     | IIT/IPS PWB |                                    |                                    |
| 130       | Post-IPS_FSRE Diagonal Grid            | IIT/IPS PWB |                                    |                                    |
| 131       | Post-IPS_Bit Pattern 2 Level BW        | IIT/IPS PWB |                                    |                                    |
| 132       | Post-IPS_Bit Pattern 2 Level 4C        | IIT/IPS PWB |                                    |                                    |

**Table 1 Pattern Numbers**

| Pattern # | Test Pattern Name                          | Source      | NVM to be set                      |
|-----------|--------------------------------------------|-------------|------------------------------------|
| 133       | Post-IPS_Bit Pattern Multi-level BW        | IIT/IPS PWB | 870-205: Default is 0, change to 3 |
| 134       | Post-IPS_Bit Pattern Multi-level 4C        | IIT/IPS PWB | 870-207: Default is 0, change to 8 |
| 135       | TAG Fixed Copy 1                           | IIT/IPS PWB | 870-205: Default is 0, change to 3 |
| 136       | TAG Fixed Copy 2                           | IIT/IPS PWB |                                    |
| 137       | Pre-IPS_FS Increment (Ext Bypass)          | IIT/IPS PWB | 870-207: Default is 0, change to 2 |
| 138       | Pre-IPS_SS Increment (Ext Bypass)          | IIT/IPS PWB |                                    |
| 139       | Pre-IPS_Verical Stripes (Ext Bypass)       | IIT/IPS PWB |                                    |
| 140       | Pre-IPS_FS Increment (via Ext Mem. PWB)    | IIT/IPS PWB |                                    |
| 141       | Pre-IPS_SS Increment (via Ext Mem. PWB)    | IIT/IPS PWB |                                    |
| 142       | Pre-IPS_Verical Stripes (via Ext Mem. PWB) | IIT/IPS PWB |                                    |



PG1: PATTERNS 113~126  
 PATTERNS 137~139  
 PATTERNS 140~142

PG2: PATTERNS 110~112

PG3: PATTERNS 127~134

PG4: PATTERNS 1~19

**Figure 1 Test Pattern Signal Flow**

## MAX Setup

MAX Setup consists of a group of several related Image Quality and Process Control adjustments. The selections available in UI Diagnostic mode may not be as thorough as those available in PWS Diagnostic mode.

Some routines must be performed in a specific sequence; go to the referenced **ADJ** and/or **dC** procedures for comprehensive instructions.

The MAX setup menu contains the following items:

- Procon ON/OFF Print (see [ADJ 9.5](#))
- IIT Calibration (see [ADJ 5.11](#))
- In/Out Manual Setup (see [ADJ 9.11](#))
- ATC Sensor Setup (see [ADJ 9.2](#))
- TRC Adjust (see [ADJ 9.4](#))
- Tone Up/Down (see [ADJ 9.3](#))
- Color Balance (see [ADJ 9.6](#))

## NVM Initialization

### Procedure

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)). Select **Initialize NVM**. Selections for the following 7 subsystems appear:
  - IOT
  - OUTPUT (Finisher)
  - IISS (IIT/IPS)
  - IISS-Extension
  - Input Device
  - Sys-SYSTEM
  - Sys-USER
2. Select the subsystem to be initialized and select **Start**.

#### CAUTION

*All NVM for the selected subsystem will be reset to the default values. Any machine-specific, region-specific, or customer-specific information will need to be re-entered. Make sure that this information is available before proceeding.*

3. A confirmation message appears. Select **Yes**.
4. A message indicating completion will appear.
5. Select the **Confirm** button.

This completes the initialization. Remember to re-enter any machine-specific NVM data.

## Initialize Hard Disk

### Purpose

This routine initializes Partition A of the HDD. Partition A contains the following data: added fonts, forms for ART EX, ART IV (optional), PC-PR201H, ESC/P, and HP-GL/2 (optional), ART IV User Defined Data, and SMB folder.

A more thorough HDD initialization can be performed using [dC355](#) in PWS Diagnostic mode.

### Initialization Procedure

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)). Select **Initialize Hard Disk**. The **Partition A** selection appears.
2. Select **Partition A** then select **Start**.
3. A confirmation message appears. Select **Yes**.
4. A message indicating the completion appears. Select **Confirm**.

This completes the initialization of Partition A.

## Delete All Data

### Purpose

This procedure deletes user-defined/registered information and information recorded automatically by the system from the hard disk, the ESS NVM PWB and Buffer RAM.

### Procedure

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)).
2. Select **Delete All Data**.
3. Select **Start**.
4. A confirmation message appears. Select **Yes**.
5. The **Deleting data** message appears.
6. When the message indicating the completion appears, exit UI Diagnostic mode, Switch off the power, then switch on the power.

## NVM Read/Write

### Procedure

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)).
2. Select **NVM Read/Write**.

#### CAUTION

*The names of the NVM locations are not displayed on the UI. Input the Chain-Link No. with care. The NVM Rear/Write routine in PWS Diagnostic mode (dC131) will display NVM names, default, and min-max values.*

3. Input the Chain-Link number for the location you wish to read or change. Enter 6 digits - the machine requires that all leading zeroes be entered.
4. Select **Change Settings**.
5. The **Current Value** is displayed. The **New Value** column appears.
6. Use the keypad on the UI to input the new value.
7. Select **Save**. The changed number will appear in the **Current Settings** column.

This completes the NVM Read/Write operation.

## Machine ID/Billing Data Settings

### Purpose

The serial no., product no., and billing count are stored at three locations; the MCU NVM PWB (IOT), the SEEP ROM (SYS1) on the ESS PWB, and the ESS NVM PWB (SYS2). This procedure allows the data in all three locations to be synchronized in case of replacement of one of the PWBs, or due to data corruption associated with one of the following faults:

- 124-324 (3 Billing Counter Mismatch)
- 124-325 (1 Billing Counter Mismatch; Unable to recover Billing Counter during recovery)
- 124-312 (Product No. Mismatch)
- 124-313 (Serial No. Mismatch)
- 124-310 (Product No. Failure: Not initialized)
- 124-311 (Serial No. Failure: Not initialized)

### Procedure

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)).
2. Select **Adjustment/Others**.
3. Select **Machine ID/Billing Data Settings**.
4. Select a PWB with the correct data.
5. Select **Start**.
6. Enter the correct serial number in the **Serial Number** screen and then select **Confirm**.

## Initialize HFSI Counter

### Purpose

This routine sets the counter for a specific High Frequency Service item to 0.

### Procedure

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)).
2. Select **Adjustment/Others**.
3. Select **Initialize HFSI Counter**.
4. Enter the Chain-Link No. for HFSI Counter (6 digits), using the keypad on the UI.
5. Select **Reset Current Value**.

## Component Control

### Purpose

The purpose of Component Control is to display the logic state of input signals and to energize output components. Up to 12 components, including Input and Output components, can be operated simultaneously. If the selected components cannot output simultaneously, the prior input component is turned OFF and the latter input component is turned ON. (Last Precedence Control). When multiple components that cannot output simultaneously are selected, the relevant components are all turned OFF and then the latter input components are turned ON.

### Procedure

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)).
2. Select **Component Control**.
3. Enter the chain-link number of the component (6 digits), using the keypad.
4. Press the **Start** button on the UI to energize the output component or to read the status of the input component.
5. Select **Cycle Motion** for the component to repeat the operation.
6. Input/Output column (component type), Status column (Operation status), and Counter column (Operation Count) are displayed on the **Component Control** screen.
7. Press the **Stop** button on the UI to halt the component operation.
8. Select **Close** to exit from Component Control.

# Printing CSE Reports

## Reports Menu

To access the menu of printable reports:

1. Enter the CE mode (see [Entering and exiting CE mode](#)).
2. Press the **Machine Status** button on the Control Panel.
3. The **Machine Status** screen appears.
4. Select the **Billing Meter/Print Report** tab.
5. Select **Print Report/List**.
6. Select **CE**. The following report selections will be displayed:
  - Debug Log Report
  - HFSI Counter Report
  - Jam Counter Report
  - Shutdown History Report
  - Failure Counter Report
7. Select the required report and press **Start**. The report will be printed.

### Debug Report

This report prints out debug messages with the time when the data was stored. The output format is as follows: YYYY/MM/DD HH:MM:SS "xxxx" (Recorded message)

### HFSI Counter Report

The HFSI information stored in the IOT will be displayed. [Table 1](#) shows the format.

**Table 1 HFSI Counter Report**

| Chain-Link                 | Current                         | Replacement                      | Average per Month                        | Job History (P1)                                                                        | Job History (P2)                                                                | Job History (P3)                                                                |
|----------------------------|---------------------------------|----------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| xxx-xxx<br>6-digit Display | current<br>count in<br>location | count<br>when<br>replacement due | average<br>monthly (30<br>days)<br>usage | Count at<br>most recent<br>replacement<br>Reason<br>code:<br>U=UM,<br>S= SM<br>O= Other | Count at 2<br>replacements<br>ago<br>Reason code:<br>U=UM,<br>S= SM<br>O= Other | Count at 3<br>replacements<br>ago<br>Reason code:<br>U=UM,<br>S= SM<br>O= Other |

### Jam Counter Report

The Jam Counter report displays a pre programmed list of jam faults, and the number of occurrences since that last time the counter was cleared.

### Shutdown History Report

The Shutdown History report displays the 50 most recent shutdowns in three categories: System Faults, Paper Jams, and Document Jams. The date of occurrence, and the copy count when the fault occurred, are listed.

### Fail Counter Report

The Fail Counter report displays a pre programmed list of non-jam faults, and the number of occurrences since that last time the counter was cleared.





## Entering PWS Diagnostic mode

### Procedure

The following procedure describe how to enter the Diagnostics mode with the PWS.

1. Inform the customer that the machine will be undergoing service and will not be available. (Copy jobs and local print jobs will be stopped).
2. Disconnect the machine from the customer network.
3. Connect the Portable Work Station (PWS) to the machine (Figure 1).

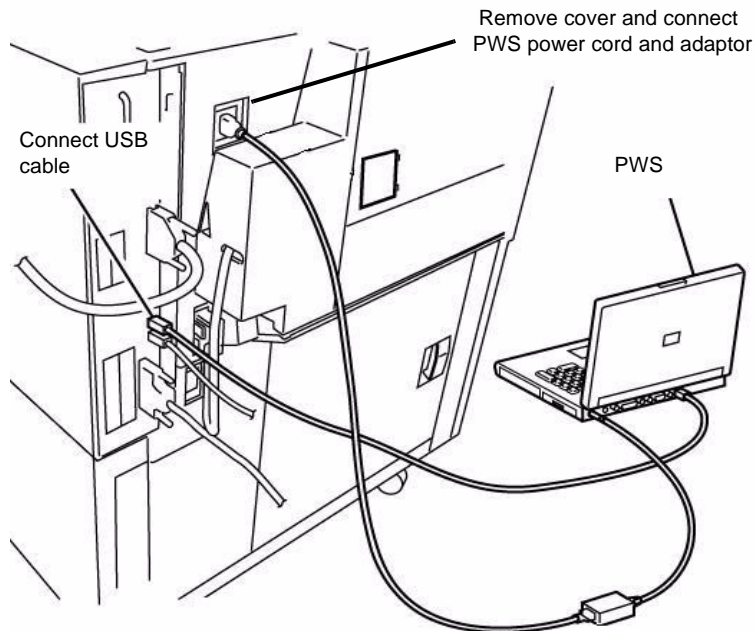


Figure 1 Connecting the PWS

4. Switch on the PWS.
5. Make sure the machine is not copying or printing. The machine UI should display **Ready to Copy** when there are no pending jobs.
6. At the PWS, enter the **GSNLock Password** and select **OK**.
7. From the Start menu in the lower left corner, select Programs\Xerox Applications\PWS Diagnostic Tools. Select the appropriate PWS for the machine.

**NOTE:** The PWS cannot connect to the machine if it is in Power Save mode. Ensure that the machine indicates **Ready to Copy** before launching the PWS Tools.

8. The **Diagnostics Tool** screen will display.

- a. Select **Enter Diagnostics** from the **Diagnostics Tool** screen. The **PWS Diagnostic Service Entry Window** displays.
  - b. While the machine is connected to the PWS, the machine UI will display the message, **Connecting to the PWS**.
9. When the tool starts obtaining machine data, that data is displayed on the Service Entry Screen. When the system has obtained the machine data, it displays **Complete** at the upper left corner of the Service Entry Screen.  
The data listed in Table 1 will be displayed.

Table 1 Machine Data displayed at Service Entry

| Heading                             | Contents                           | Description                                                                              |
|-------------------------------------|------------------------------------|------------------------------------------------------------------------------------------|
| Machine Data                        | Product Code                       | Displays a code allocated to each machine type.                                          |
|                                     | Serial Number                      | Displays the 10 digit number allocated to each machine.                                  |
|                                     | Total Copies                       | Displays the total number of copies/prints                                               |
|                                     | Copies Since Last Call             | Displays the total number of copies/prints since the last CSE visit (complete closeout). |
|                                     | Software Version                   | Displays current IOT S/W Version                                                         |
| Non-Zero Jams                       | ID, Description, Occurrences       | Displays the Jams that have occurred since the last complete closeout.                   |
| HFSI Requiring Replacement          | ID, Description, Threshold, Count. | Displays the component(s) (HFSI) that has exceeded the life Threshold).                  |
| Faults in Progress (Current Faults) | ID, Description, Primary           | Displays current (active) faults in the machine.                                         |

10. If communication is lost between the PWS and the machine, click **Reconnect** from the main file menu.
11. To exit the Diagnostic Mode:
  - a. Select **Serv Exit**.
  - b. Click on the appropriate close-out button:
    - **Complete Closeout**
    - **Temporary Closeout**
  - c. After the PWS has disconnected from the machine, select **Exit PWS** to close the tool.

## DC Quick

Once in the Service Mode, diagnostic routines can be selected from the DC Quick menu.

### Procedure

1. Enter the **Diagnostic Mode** (Entering PWS Diagnostic mode).

2. Using the DC Quick pull-down menu (upper-right side of Diagnostics Service Entry Screen), select the desired dC routine.

**Table 1** is a complete list of diagnostic routines that are available from the DC Quick pull-down menu.

**Table 1 dC Routines**

| Selection | Name                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 118       | Jam Counter                        | Displays the number of jam events since the last Complete Closeout                                                                                                                                                                                                                                                                                                                                                              |
| 120       | Fault Counters                     | Displays the number of Fault events since the last Complete Closeout                                                                                                                                                                                                                                                                                                                                                            |
| 122       | Shut-down History                  | Displays the 40 most recent Faults                                                                                                                                                                                                                                                                                                                                                                                              |
| 128       | Finisher Setup                     | For Finisher fold position adjustment                                                                                                                                                                                                                                                                                                                                                                                           |
| 129       | System Registration Setup          | The IOT lead registration and side registration are adjusted.                                                                                                                                                                                                                                                                                                                                                                   |
| 131       | dC131 NVM                          | You can read or change the NVM data.                                                                                                                                                                                                                                                                                                                                                                                            |
| 135       | HFSI Counters                      | Displays the regular part replacement life expectancy (threshold) and current value (usage). You can change the replacement life expectancy to a preset value in the PWS database and reset the current value.                                                                                                                                                                                                                  |
| 140       | Analog Monitor                     | Monitor the values of analog sensors (A/D conversion) while operating the components. You can temporarily change the output value.                                                                                                                                                                                                                                                                                              |
| 301       | NVM Initialization                 | Initiates NVM Data initialization                                                                                                                                                                                                                                                                                                                                                                                               |
| 305       | UI Component Check                 | Checks the UI Screen alignment and Component Panel Button operation.                                                                                                                                                                                                                                                                                                                                                            |
| 330       | Component Control                  | Displays the instructions and results of the Input Component Check and Output Component Check<br><ol style="list-style-type: none"> <li>1. You can monitor each Input Component or check the operation of each Output Component.</li> <li>2. You can simultaneously check multiple Input Components and Output Components up to 11 total.</li> </ol>                                                                            |
| 351       | NVM Background Processing          | <ol style="list-style-type: none"> <li>1. Saves and restores values of all NVM in PWS dC131 database.</li> </ol> <p><b>NOTE:</b> Background Read must complete prior to saving.</p> <ol style="list-style-type: none"> <li>2. Start and Stop background NVM Read.</li> <li>3. Saves/restores machine settings. Saves NVM values listed:</li> <li>4. Resets all HFSI.</li> <li>5. Batch write of region-specific NVM.</li> </ol> |
| 355       | HDD Diagnostics                    | Perform maintenance on HDD.                                                                                                                                                                                                                                                                                                                                                                                                     |
| 527       | Auto Correct Size Detection        | DADF Calibration                                                                                                                                                                                                                                                                                                                                                                                                                |
| 612       | Color Test Pattern Print           | Generates test pattern from the pattern generator in the machine. Patterns for use in identifying IQ problems, setting registration, and performing adjustments                                                                                                                                                                                                                                                                 |
| 671       | Regicon Measurement Cycle Control  | Part of Color Registration/Skew setup                                                                                                                                                                                                                                                                                                                                                                                           |
| 673       | Regicon Sensor Check Cycle Control | Part of Color Registration/Skew setup                                                                                                                                                                                                                                                                                                                                                                                           |
| 675       | Regicon Setup Cycle Control        | Part of Color Registration/Skew setup                                                                                                                                                                                                                                                                                                                                                                                           |
| 710       | No Paper Run                       | Cycles transports and drive w/out paper feed                                                                                                                                                                                                                                                                                                                                                                                    |
| 726       | Paper Path Timing                  | Displays timing data at selected point in paper path                                                                                                                                                                                                                                                                                                                                                                            |
| 740       | Bypass Guide Adjustment            | Calibrates paper size detection in Tray 5/Bypass                                                                                                                                                                                                                                                                                                                                                                                |
| 919       | Color Balance Adjustment           | Print mode Color Balance Adjustment                                                                                                                                                                                                                                                                                                                                                                                             |
| 924       | TRC Adjustment                     | Manually fine adjust each color (low/mid/high density) in PG.                                                                                                                                                                                                                                                                                                                                                                   |
| 931       | In/Out Manual Density Control      | Manual adjustment for inboard-to-outboard density variation                                                                                                                                                                                                                                                                                                                                                                     |
| 937       | ProCon On/Off Print                | Prints ProCon Test pattern with and without ADC/ATC corrections                                                                                                                                                                                                                                                                                                                                                                 |

**Table 1 dC Routines**

| <b>Selection</b> | <b>Name</b>              | <b>Description</b>                                                                                                                                                                                                                                                                                                                                        |
|------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 945              | IIT calibration          | <ol style="list-style-type: none"><li>1. Calculate and set the white reference compensation coefficient.</li><li>2. Correct the IIT sensitivity variation.</li></ol>                                                                                                                                                                                      |
| 950              | ATC Calibration          | Enter ATC Sensor Calibration code into NVM.                                                                                                                                                                                                                                                                                                               |
| 956              | Belt Edge Learn          | Set up the Belt Edge Sensor.                                                                                                                                                                                                                                                                                                                              |
| 991              | Tone Up/Tone Down        | Manual density adjustment                                                                                                                                                                                                                                                                                                                                 |
| Download         | IOT S/W Download         | IOT S/W Download tool                                                                                                                                                                                                                                                                                                                                     |
| Faults           | Faults in Progress       | Lists active faults                                                                                                                                                                                                                                                                                                                                       |
| Serv Entry       | Service Entry Screen     | <ol style="list-style-type: none"><li>1. Displays the Service Routine Tree.</li><li>2. Lists Active Faults</li><li>3. Lists the item names of the HFSIs that exceeded life expectancy.</li><li>4. Lists the jams that have occurred since the last Call Closeout.</li><li>5. Displays IOT S/W Version.</li><li>6. Lists the total copies/prints</li></ol> |
| Serv Exit        | Service Mode Exit Screen | Displays the requirements for exit from the Service Mode.                                                                                                                                                                                                                                                                                                 |

## dC118 Jam Counter

### Purpose

Displays the number of occurrences of Jams since the last **Complete Closeout** on service exit.

**NOTE:** *This procedure does not count jams detected while in the Service Mode.*

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC118 from the [DC Quick](#) menu.
3. The screen displays all jam-related fault codes, and the number of times that the fault has occurred since the last time the **Complete Closeout** option was selected when exiting Diagnostic Mode.
4. The following subsets of data are selectable from the menu tree:
  - All Jams
    - This is the default. All jam-related faults are listed
  - DADF Jams
    - Selecting this option lists only the DADF jam codes.
  - Paper Jams
    - Selecting this option lists only the paper supply and paper feeding jam codes.
  - Non-Zero Jams
    - Selecting this option lists only those jam codes that have had at least one occurrence since the last time the **Complete Closeout** option was selected.

## dC120 Fault Counter

### Purpose

Displays the number of occurrences of each fault since the last Service Exit with the Complete Closeout option selected.

### NOTE:

- *The machine does not count the faults detected while in the Service Mode.*
- *The machine does not count interlock open detected faults while the Main Processor is stopped.*

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC120 from the [DC Quick](#) menu.
3. The screen displays all fault codes that have occurred since the last time the **Complete Closeout** option was selected when exiting Diagnostic Mode.

The codes are listed in ascending order; to list in descending order, click on **ID** in the table header.

If machine data was previously saved to diskette, and Diagnostic Mode was entered with the **Read From Diskettes** option selected, the previous fault history #Occurrence will display in the P1 column. If this same procedure was performed previously, the fault history #Occurrence will display in P2, then P3, up to columns P7.
4. The following subsets of data are selectable:
  - All Faults
  - DADF Faults
  - System faults
  - Xero Faults

## dC122 Shutdown History

### Purpose

To display the Last 40 faults.

#### NOTE:

1. *faults detected while in Service Mode are not counted.*
2. *An Interlock open while the machine is stopped is not counted.*
3. *If multiple faults occurred in the machine, the primary fault is recorded.*

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC122 from the **DC Quick** menu.
3. The system displays the faults that occurred in Customer Mode since the last service call closeout, up to a maximum of 40 faults.
4. The following subsets of data are available:
  - **Last 40 Faults History** (default screen).
    - displays the 40 newest faults and lists copy count when each occurred.
  - **Last 40 Faults Occurrences**
    - displays the 40 newest faults and lists the number of occurrences.
  - **DADF Jams**
    - displays the 40 newest DADF jams and lists copy count when each occurred.
  - **Paper Jams**
    - displays the 40 newest paper jams and lists copy count when each occurred.
  - **Faults**
    - displays the 40 newest non-jam faults and lists copy count when each occurred.
5. To clear the shutdown history, select **Complete Closeout** in the Service Mode Exit screen. Exiting from the Service Mode clears all data in the Shut-Down History.

## dC128 Finisher Setup

### Purpose

This procedure allows access to the NVM locations affecting the Booklet Maker folding and staple position setup. Refer to [ADJ 12.5](#) for instructions

## dC129 System Registration Setup

### Purpose

This procedure is used to align the Lead Edge and Side Edge of the developed image with media fed from the various paper trays. Refer to [ADJ 9.7](#) for instructions

## dC131 NVM Read/Write

### Purpose

Reads, sets or changes the NVM data.

### Procedure

#### Module Selection

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC131 from the **DC Quick** menu.
3. The system displays one of the Read/Write Screens. dC131 NVM - All is the default screen.
4. Select a sub-system from the menu tree on the left. The default selection is **All**.

**Table 1 NVM Sub-systems**

| Module item                     | Chain number allocation                                                     |
|---------------------------------|-----------------------------------------------------------------------------|
| All                             | 700 - 999                                                                   |
| Controller                      | 700, 780, 785, 790, 810                                                     |
| IISS                            | 710, 715, 716, 717, 719                                                     |
| DADF                            | 711                                                                         |
| IOT                             | 740, 748, 759                                                               |
| Drive/Nohad                     | 7410                                                                        |
| Paper Handling                  | 742                                                                         |
| Fuser                           | 744                                                                         |
| Transfer (Xfer)                 |                                                                             |
| ROS                             | 749                                                                         |
| Xero/Cleaner                    |                                                                             |
| Process Control (ProCon)        | 752, 754                                                                    |
| Developer                       | 746, 747, 762                                                               |
| OutCon                          |                                                                             |
| Finisher                        | 763                                                                         |
| Errors (number of errors)       | Displays and NVM outside of the ranges listed in the PWS database.          |
| Changed (number pending change) | Displays any with new value entered in the New column, but not written yet. |

#### Reading NVM

1. Select an **ID** from the Sub-System Table, then click **Read NVM**, or double click on the line **ID** and the value will be read in the **Value** column.  
The **Range Check** column will fill in.

#### Writing NVM

1. To change a value, enter a new value in the **New** column and press **Enter**.
2. When a new value is entered, the **Changed** tab will turn green. The number in parentheses count the number of pending NVM values. Clicking this tab will show a list of all the changed values. These locations can be written individually or as a block from this tab, or can be canceled.

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.
  - b. If the input value is invalid, the system displays the following message in the information screen, The **given NVM value is out of range. NVM was not changed**.
  - c. If the NVM cannot be changed (Write protected NVM), the system displays the following message, **The specified NVM is read only**.
4. When the system writes the new value in the specified NVM code, the value is updated in the **New** box and reduces the count in the **Changed** list.

## dC135 HFSI Counters

### Purpose

This routine displays the service life (Threshold) and the current value (count) of the periodic replacement parts. Replacement life change, and current value resets are possible.

### Procedure

#### Reading and resetting HFSI

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC135 from the **DC Quick** menu.
3. The **HFSI Counters** screen displays the replacement life (Threshold) and the current value (count) of the periodic replacement parts. Two vertical tabs allow display of all HFSI counters, or only those counters that are over threshold.
4. Refer to [Detailed Maintenance Activities](#) in Section 1. Perform the listed Service Action for all HFSI counters that are at or near threshold (near threshold indicated by yellow diamond in the percent column).
5. To reset the count after replacing the parts, select the appropriate HFSI item, then select the **Reset Counter** button.

#### Changing Thresholds

The PWS tool has two **Threshold** columns. One (**Threshold**) represents the threshold value as stored within the PWS tool; the other (**Machine Threshold**) represents the data stored in the machine NVM. The Machine Threshold can be modified as follows:

#### CAUTION

*Changing HFSI thresholds may adversely affect machine performance. Do not perform this procedure unless specifically directed to do so.*

1. Select **Change Threshold** on the menu tree.
2. Select the counter you wish to modify.
3. To reset the machine threshold to the same value as the PWS value, press the **Set Threshold** button.
4. To reset the machine threshold to a value other than the current machine or PWS value, enter the value into the **New Threshold:** box, then select **Set New Threshold**.
5. Select **Refresh** to display the updated value.

## dC140 Analog Monitor

### Purpose

This routine allows you to monitor the status of certain analog machine sensors (Fuser temperature sensors and paper tray size sensors) Temporary change of output values is possible.

**NOTE:** At launch, there were no Output components enabled for this product. The instructions regarding outputs are included for future expansion.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC140 from the **DC Quick** menu.
3. The system displays the Analog Monitor Screen.
  - a. The system displays the analog output component names and the analog input component names with the Chain Link Numbers (ID column) in the table in the order of Chain Link number.
  - b. The status of all output components show **Disabled**. The **Level** columns are blank.
4. To run an output component check:
  - a. Select a component to check.
  - b. Select **Start** in the output component check.
  - c. The output component in the machine is switched on.
  - d. The PWS changes the output component status to **Enable**.
  - e. You can switch on an input component to monitor the output component in the machine.

**NOTE:** If the component has a runtime restriction, the component is switched on for that period and automatically switched off.

**NOTE:** Some components cannot be energized at the same time as another component. If you activate such a combination of components, the first component switched on will be automatically switched off.

**NOTE:** If the component cannot be automatically turned off, the following message appears: **Cannot check the component. Stop another output component.**

### Checking multiple components

1. To check multiple components simultaneously, repeat Step 4a through 4e.
2. To stop the check, select **Stop** while the component is selected, or select **Stop All**, which switches off all output components.

### Changing output levels

1. You can temporarily change the output level of some output component by using the [+] or [-] to increment/decrement the output level by 1.
2. Select the component whose output level you want to change. Select [+] to increment or [-] to decrement.
3. Increment or decrement the output level by 1. The new output level is input into the system and the Analog Monitor shows the new output level in the Level column. If the output level entered is out of the range, the Information screen shows the following message: **Invalid value. Enter again.** (A value that is out of the range is a value that is higher than the upper limit or lower than the lower limit defined by the machine.)

## dC301 NVM Initialization

### Purpose

This procedure may be needed when the machine cannot recover for some unknown reasons, including problems such as producing blank copies/prints, continuously declaring system faults, etc. It is also required as part of the software upgrade process.

### Initial Actions

- Disconnect any Foreign Interface devices.
- Obtain all of the following information:
  - Saved Machine Settings - a known-good diskette or a new recording, if possible - refer to [dC351](#) for procedure.
  - NVM value factory setting report (typically it is located in the Tray 1 pocket)
  - Any customer setting Auditron account from the system administrator
  - Any setting changes (specifically NVM settings) shown on the machine's service log.
  - Any customer settings in the Tools mode.
- If possible, save Machine Settings ([dC351](#)).

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC301 from the **DC Quick** menu.
3. The NVM Initialize screen is displayed
4. The NVM for each software module is individually initialized. Follow the instructions in the procedure that sent you here when choosing the areas to be initialized and the correct sequence.
5. After the initialization is complete, use the data accumulated in **Initial Actions** to restore the machine to its previous configuration.



## dC330 Component Control

### Purpose

The purpose of the dC330 Component Control is to display the logic state of input signals and to energize output components.

**NOTE:** Refer to the PWS for a list of all components arranged by Input/Output, and Chain/Link number.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select the **Diagnostics Tab** on the Service Entry Screen.
3. Select **Component Control** (dC330) on the Diagnostic Entry Screen.
4. The dC330 Screen is displayed. The display indicates the following:
  - Input/Output Components
  - ID Number (chain/link order)
  - Active Stack (including ID and state of component)
5. The Component Control Codes are arranged in categories, such as: Processor, System, Finisher, etc. Select the appropriate vertical tab.

#### CAUTION

*Some components have special machine safety requirements, such as removing the IBT assembly before running the IBT Drive, etc. These caution statements are listed in the Quick-Help window for each code. Be careful to read and fully comply with these messages, in order to avoid machine damage.*

6. Activate the desired component code by double clicking on the Chain/Link ID number or by clicking once on the Chain/Link ID number then selecting the **Start Button**. The ID's will display in the Active Stack.

**NOTE:** If the component has a runtime restriction, the component is switched on for that period and automatically switched off.

7. Press the **Stop** or **Stop All** button, or double click the active component in the Active Stack box to end the test. The ID and Active Stack components are removed from the Active Stack box.

### Stacking Component Codes

**NOTE:** Some components cannot be energized at the same time as another component. If you activate such a combination of components, the first component switched on will be automatically switched off. If the component cannot be automatically turned off, the following message appears: **Cannot check the component. Stop another output component**

1. To stack several codes, select the first code and press **Start**, then select the next code and press **Start**. Continue to enter up to eleven codes.
2. The selected ID appears in the ID column of the Active Stack box and the state changes to Run; H or L as applicable.
3. Stop a highlighted component by pressing **Stop** or double click the active component in the Active Stack Box
4. To switch Off all components and clear the screen, press **Stop All**.

## dC351 NVM Background Processing

### Purpose

Consists of 5 subroutines:

- **Machine Settings** - This routine saves the current machine settings or restores the previously-saved machine settings.
- **Special Batch Write** - Automatically loads a region-specific set of values into NVM.
- **Reset** - This routine sets all HFSI counters to zero.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC51 from the [DC Quick](#) menu.

### Saving Machine Settings

**NOTE:** Individual subsystems are not selectable when **saving** Machine Settings; the routine automatically saves **All** NVM values.

1. Press the **Save Machine Settings** button to record the values of the NVM locations containing data unique to a specific machine. The data is saved on the PWS hard drive. The data remains available until the PWS is connected to a different machine.  
To make a permanent record of machine settings, perform the following:
  - a. Go to the Service Exit screen. Select **Temporary Call Closeout**, then **Exit PWS**.
  - b. The PWS will ask you if you want to save machine data. Select **Yes**. The PWS will display a browse window, defaulted to the Floppy drive if one is installed, or to the default directory on the PWS' hard drive. Use the default location and the assigned file name. Select **Save**.

### Restoring Machine Settings

**NOTE:** The machine settings for the separate subsystems can be restored individually, or all of the settings can be restored at once. Use the radio buttons under the **Restore Machine Settings** selection to choose.

The procedure to restore machine settings depends on whether or not the PWS Tool has been closed since the machine settings were saved:

- If the PWS session has not been closed since the settings were saved, the machine settings are still present in the temporary session database.
- If the PWS Tool has been closed since the settings were saved, you must restart the tool with the **Use Saved Database** box selected. Navigate to the correct database to be restored. The tool will perform a comparison of the serial number recorded in the saved database and the machine serial number; if they do not match, the Restore operation will be aborted.

To load previously saved machine settings into NVM, select the subsystem to be restored (the default is **All**) then press the **Restore Machine Settings** button.

### Special Batch Write

This routine is intended primarily for initial setup prior to shipment to a customer location, but it can be used to restore machine setting to their as-delivered state.

1. Select the market region for the installation.
2. Press the **Batch Write NVM** button.

## dC355 Hard Disk Diagnostics/Setup

### Purpose

To perform diagnostics and setup (initialization) of each partition in the hard disk.

**NOTE:** Perform this procedure only after the customer's approval is obtained. Check what kind of data are stored in each partition according to the list below since some partitions store fonts etc. that the customer has installed.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC355 from the **DC Quick** menu.
3. Select the appropriate **Partition** (see [Table 1](#)), then press **Start**.

**Table 1**

| Partition No.                                  | Size (GB) | Stored information and usages                                                                                                                                                |
|------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALL                                            | 38.4G     | All the items in Partition 1~8                                                                                                                                               |
| Partition 1 (A)Resource                        | 3.6G      | Font, Form/Logo, SMB Folder (Config. txt, driver), Job Template                                                                                                              |
| Partition 2 (B)Print                           | 3.6G      | EPC Print Temporary Data                                                                                                                                                     |
| Partition 3 (C)Mailbox                         | 14.6G     | Extended Mailbox, Scan, Report, Secure Print, Proof Print, Delay Print                                                                                                       |
| Partition 4 (D)PDL                             | 3.6G      | PDL and Mail Temporary data                                                                                                                                                  |
| Partition 5 (E)Copy                            | 6.3G      | EPC Copy Temporary Data                                                                                                                                                      |
| Partition 6 (F)Scan                            | 1.8G      | Scan To Server, Scan To PC, E-mail, JFS Temporary Data                                                                                                                       |
| Partition 7 (G)DOMS/<br>XDOD                   | 0.9G      | DOMS Scan Data, XDOD FTP Data                                                                                                                                                |
| Partition 8 (H)Adminis-<br>tration Information | 0.9G      | Spool Cont. Administration Information (PFlite User Document Store), Job Recovery Data, Instruction Manual, Job Log, Log during trouble, Audit Log, Device verification data |

## dC527 DADF Document Calibration

### Purpose

This procedure calibrates the document size detection circuitry in the DADF.

Perform this adjustment whenever any the following occur:

- Replacement of the DADF.
- When an error is detected after replacing components of the DADF.
- When a size detection error is reported.

Refer to [ADJ 5.7](#) for instructions.

# dC612 Test Pattern Print

## Purpose

Outputs the built-in test patterns, to help identify Image Quality problems.

## Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC355 from the **DC Quick** menu.
3. Select the **Pattern** from the menu. [Figure 1](#) shows the test pattern signal path

**NOTE:** Not all of the following parameters are applicable to all test patterns; and some test patterns require a specific set of parameters

4. Select the **Paper Tray**.
5. Select **Simplex/Duplex**
6. Select **Paper Type**
7. Select **Screen Type**
8. Select **Color Mode**
9. Set the **number of prints** to output in the Print Count Box and select **Start**.

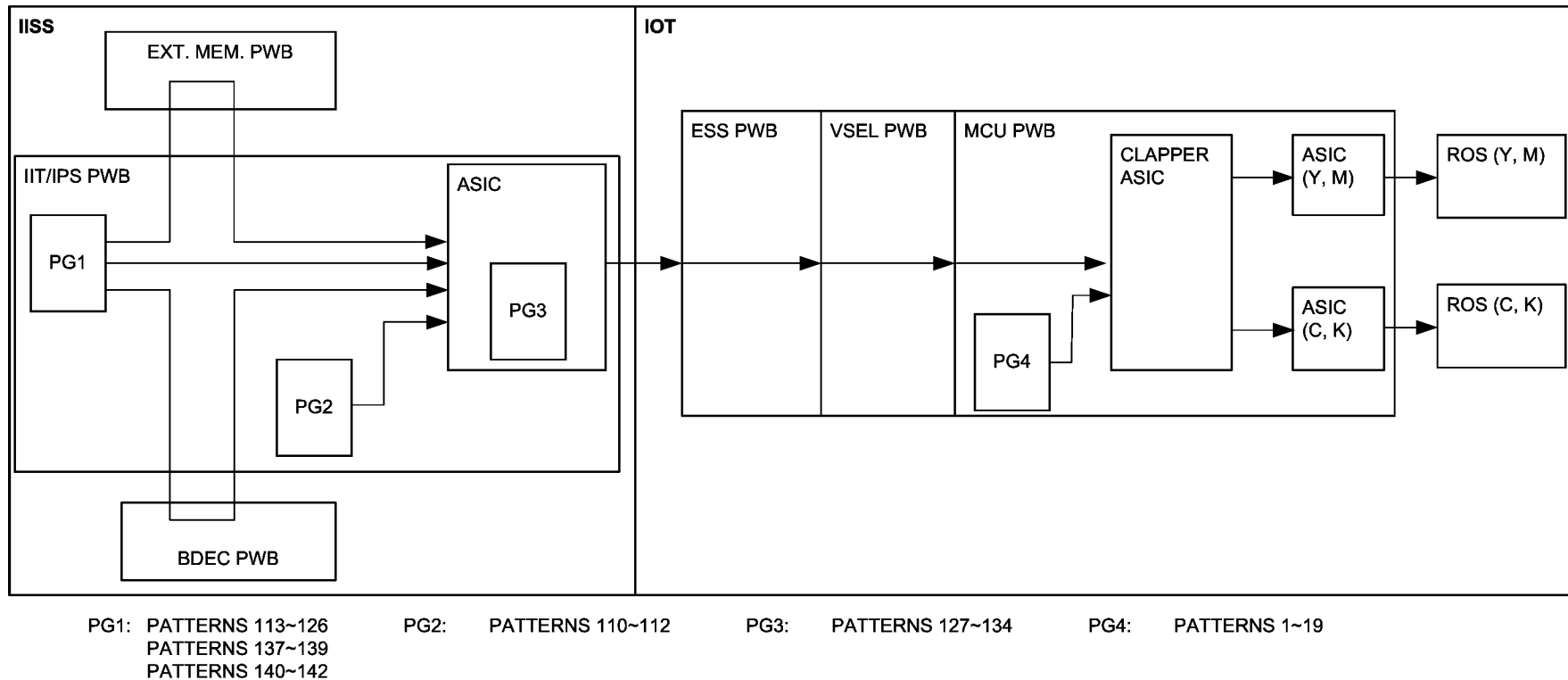


Figure 1 Test Pattern Signal Flow

## dC671 RegiCon Measurement Cycle Control

### Purpose

This procedure checks and adjusts color registration.

- Performs measurement to determine the condition of the registration control.
- Checks that the Belt control etc. are operating normally.
- Measures/displays the amount of color shift relative to Black in the Fast Scan/Slow Scan direction.
- Displays the results as either **OK** or **NG**

For instructions, refer to [ADJ 9.9](#).

## dC673 RegiCon Sensor Check Cycle Control

### Purpose

This is a self-diagnostic cycle for checking that the registration detection system is operating normally. Color shift is detected using a Cyan patch. Any misregistration detected in the MOB sensor is displayed on the UI screen. This result is compared with the target value to determine the **OK** or **NG** status. Correction is not performed.

For instructions, refer to [ADJ 9.10](#).

## dC675 RegiCon Setup Cycle Control

### Purpose

This is a setup procedure to be used after replacement of the ROS, the Transfer Belt, or the IBT Assembly

For instructions, refer to [ADJ 9.8](#).

## dC710 No Paper Run

### Purpose

This routine operates all of the media feed and transport functions without actually feeding media, to enable examination of the subsystem operation.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC710 from the [DC Quick](#) menu.
3. Enter the number (1 - 10) of simulated print cycles you wish to run. Select **Start** to activate.
4. Select **Stop** to immediately halt the routine.

## dC726 Paper Path Timing

### Purpose

This procedure allows you to monitor the timing of paper feed/transport past a selected sensor during repeated print cycles, and displays the result graphically.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering PWS Diagnostic mode](#).
2. Select dC726 from the **DC Quick** menu.
3. Select the sensor to be monitored by clicking on one of the rows in the central table.
4. Select a paper tray where applicable (some sensor selections do not allow a choice of trays).
5. Enter the number of sheets to be fed. The default value is 20.

## dC740 Tray 5 Guide Adjustment

### Purpose

This procedure calibrates the paper size detection circuits for Tray 5.

Refer to [ADJ 7.1](#) for instructions

## dC919 Color Balance

### Purpose

This procedure allows you to perform fine adjustment of the center value of the low density/medium density/high density output balance for each color for **copy** images.

Refer to [ADJ 9.6](#) for instructions.

## dC924 TRC Adjustment

### Purpose

This procedure allows you to perform a manual density adjustment. It sets an offset amount of the ADC-LUT created by the ADC patch to finely adjust the gradation.

Refer to [ADJ 9.4](#) for instructions.

## dC937 ProCon On/Off Print

### Purpose

This procedure prints out the Process Control Test Pattern in two different modes. The comparison between the two prints can help isolate process control-related image quality problems.

Refer to [ADJ 9.5](#) for instructions.

## dC945 IIT Calibration

### Purpose

This procedure sets the following:

- White Reference Correction Coefficient.
- IIT sensitivity dispersion (CCD Calibration).
- Platen-to-Lens-to-CCD alignment (Optical Axis)

Refer to [ADJ 5.11](#) and [ADJ 5.12](#) for instructions.



## dC950 ATC Sensor Setup

### Purpose

To set the calibration values [ATC Correction Coefficient], [ATC Correction Offset] in NVM to calibrate the new ATC Sensor

Refer to [ADJ 9.2](#) for instructions.

## dC991 Tone Up/Tone Down

### Purpose

This procedure compares measured toner concentration against a target, and allows manual adjustment of TC.

Refer to [ADJ 9.3](#) for instructions.



## GP 1 Special Boot Modes

The following modes are enabled by pressing a combination of keys and turning ON the main power switch, Use these modes when the system is unable to enter Diag mode due to troubles or to clear error data from HDD spooling.

Table 1

| Boot Mode                       | Boot Method                                                               | Function                                                                                                                                                                                                                              |
|---------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Long Boot Diagmode              | Turn ON the power while pressing the Power Saver key and the Start key.   | Automatically determines the condition of each Sub-System feature/ parts, and the causes for communication errors. It keeps the past 3 Long Boot Diagnostic results in the NVM of ESS and IOT when the specific diagnostic completes. |
| Forced NVM Initialization       | Turn ON the power while pressing the Power Saver key, Stop key and 3 key. | Initializes the NVM of the configuration range (Printer Settings etc.) inside the Controller and starts up.                                                                                                                           |
| Forced LPR Spool Initialization | Turn ON the power while pressing the Power Saver key, Stop key and 6 key. | If an error occurs during LPR spooling and the system failed to start up after turning the power OFF then ON, initializes the domain that stores the print data by LPR spooling and starts up.                                        |
| Forced HDD Format               | Turn ON the power while pressing the Power Saver key, Stop key and 4 key. | This operation resets the HDD to partitions at factory settings. Use it as a countermeasure when Fault Code 116-354 (see <a href="#">116-354 RAP HDD Product Fail</a> ) occurs.                                                       |
| Software Download-mode          | Turn ON the power while pressing the Power Saver key.                     | Power up in Software Download mode when performing Firmware Upgrade. (Refer to <a href="#">GP 2</a> )                                                                                                                                 |

## GP 2 Software Download

### Purpose

#### CAUTION

*This procedure is generic in nature, and is intended as an overview only. **Always** follow the instruction that come with the software. There may be additional steps added, or other special requirements that vary from version to version.*

This procedure enables updating the machine firmware (ESS, IISS, IOT, Finisher), or when reinstallation of the machine software is required due to failure of some sort.

### Procedure

1. Print the Copy Mode Settings and the System Settings List in Extended Controller Jobs Report (see [GP 6](#)).
2. Make a copy of the Color Test Pattern and check for Image Quality problems. Resolve any problems before performing the software loading.
3. Connect the PWS. Enter the **Diagnostic Mode** (refer to [Entering PWS Diagnostic mode](#)).

**NOTE:** *The actual instructions that accompany the software may have additional steps here, such as a list of NVM locations that need to be recorded.*

4. Select **dC351** from the **DC Quick** menu. Save the Machine Settings.
5. Switch off the power. Wait at least 1 minute. Disconnect the network input from the External Controller.
6. Turn on the power while pressing the Power Saver key. This will start up the machine in download mode.
7. Connect the PWS. When the title screen is displayed, select **Enter Software Download**.

**NOTE:** *The actual instructions that accompany the software will list the files that need to be selected.*

*Generally, the All-in-One file is used when upgrading to a newer version of software. If you are reinstalling software at the same version, you must use individual files, as the All-in-One option will not overwrite a*

8. Select the appropriate file(s) for download.
9. Select **Start Download...** the screen will display "Processing."  
(Servicing time: Approx. 15 min.)
10. When the download is done, the machine will reboot.
11. Exit then re-enter the PWS tool.

**NOTE:** *The actual instructions that accompany the software will indicate which NVM modules will need to be initialized.*

12. Enter **dC301**. Initialize the appropriate NVM module(s).
13. Enter **dC351**. Restore the machine settings, and reenter any NVM values that were manually recorded.
14. Perform any additional steps or procedures per the actual instructions that accompany the software.

## GP 3 Jam Bypass Mode

### Procedure

1. Enter UI Diagnostics (see [Accessing UI Diagnostics](#))
2. Select **NVM Read/Write**.
3. DADF Jam Bypass: change location 711-297 (Communication Fail Bypass) from **0** to **1**.  
IOT Jam Bypass: change location 742-002 (Jam Bypass Switching) from **0** to **1**.
4. Exit the UI Diagnostics mode without rebooting the Controller. If the machine reboots, the settings for the Jam Bypass mode will be reset to 0.
5. Jam Bypass operation starts with the copy operation from the User Mode. Stop it with the Stop key.
6. To cancel Jam Bypass mode switch off the machine power:

## GP 4 Serial Number Synchronization Procedure

### Purpose

This procedure is used to maintain serial number and billing data integrity when certain PWBs must be replaced. This data is stored at three locations; the MCU NVM PWB (IOT), the EEP ROM (SYS1) on the ESS PWB (SYS1), and the ESS NVM PWB (SYS2). This procedure allows the data in all three locations to be synchronized in case of replacement of one of the PWBs, or due to data corruption associated with one of the following faults:

- 124-324 (3 Billing Counter Mismatch)
- 124-325 (1 Billing Counter Mismatch; Unable to recover Billing Counter during recovery)
- 124-312 (Product No. Mismatch)
- 124-313 (Serial No. Mismatch)
- 124-310 (Product No. Failure: Not initialized)
- 124-311 (Serial No. Failure: Not initialized)

### Procedure

#### CAUTION

*To maintain the integrity of the serial number and billing data, never replace all three PWBs at once. If any of the following billing data PWBs needs replacing, replace them **ONE PWB AT A TIME**, according to this procedure:*

- *ESS PWB and/or EEP ROM (PL 11.5).*
- *MCU NVM PWB (PL 11.1).*
- *ESS NVM PWB (PL 11.5).*

*Ensure that the software on the PWBs is at the correct version before and after PWB replacement. Print the System Settings List (GP 6), and compare the ROM values to the table in the software installation instructions on the current software upgrade CD.*

1. Enter UI Diagnostic mode (see [Accessing UI Diagnostics](#)).
2. Select **Adjustment/Others**.
3. Select **Machine ID/Billing Data Settings**.
4. Select a PWB with the correct data.
5. Select **Start**.
6. Enter the correct serial number in the **Serial Number** screen and then select **Confirm**.

**NOTE:** For any of the following conditions, escalate the call to Field engineering or the NTC:

- *The displayed serial numbers all match each other but do not match the data plate.*
  - *Two or more numbers do not agree with the data plate and the third number*
  - *The displayed numbers are all different.*
7. If one serial number or billing counter does not match the others, highlight that column. Enter the correct serial number in the **Serial Number** box. The **Set Serial Number** button will become active. Click on the button.

#### CAUTION

*Replacing all three PWBs at once will cause unrecoverable NVM corruption. If a PWB needs replacing, replace **ONE AT A TIME**. If the problem is not resolved, reinstall the original PWB and re-enter the serial number (if necessary) before attempting to replace a different PWB.*

8. If any PWB will not synchronize, replace that PWB and re-synchronize.

## GP 5 Hard Stop Procedure

### Procedure

1. Enter UI Diagnostics (see [Accessing UI Diagnostics](#))
2. Select **NVM Read/Write**.
3. To Hard Stop DADF: Change location 711-296 (Independent Operation Time) from **0** to a value between **2** and **999**, where the value represents the time between start of the feed operation and the timed of the desired Hard Stop (each bit = 10 msec).  
To Hard Stop IOT: Change location 740-012 (Paper Intentional Stop Timer) from **0** to a value between **1** and **999**, where the value represents the time between start of the feed operation and the timed of the desired Hard Stop (each bit = 10 msec).
4. Exit UI Diagnostics mode without rebooting the Controller. If the machine reboots, the settings for the Hard Stop mode will be cleared.
5. Paper Intentional Stop operation starts with the copy operation from the User Mode (1 copy with Paper Tray settings as Simp, Dup, Inv etc.).  
The M/C stops at the specified timing. Stop the operation by shutting down the M/C. The M/C performs recovery operation (Marking recovery) when it restarts after shutting down.
6. To cancel Hard Stop mode switch off the machine power:

## GP 6 Printing Reports

### Purpose

This procedure lists the various printed reports that can be generated by the machine, and describes the procedure for accessing them.

There are three levels of reports available. Some reports are available to anyone, in User mode. There are additional reports that are only available in System Administrator mode (the User mode reports are also available). A third group of reports is only available to CSEs (the reports available in the other modes are also accessible).

### User Mode Reports

1. Press the **Machine Status** button on the UI surround.
2. Select the **Billing Meter/Print Report** tab on the UI screen.
3. Select **Print Report List**. The following report selections will be displayed:
  - Job Status  
Under this selection there are two choices:
    - Job History Report
    - Error History Report
  - Scan Mode Settings
  - Copy Mode Settings
  - Extended Controller Jobs Report  
Under this selection there are 4 choices:
    - Job History Report
    - Error History report
    - Fonts List
    - System Settings List
4. Select the report you wish to print, and press the **Start** button.

### System Administrator Mode Reports

1. Press the **Log In/Out** button on the UI surround.
2. Enter the SA password (the default is **11111**).
3. Follow the procedure for User Mode. The following additional reports are available:
  - Job Counter Report
  - Text Effect Sample List
4. To exit SA mode, press the **Log In/Out** button on the UI surround then select **Cancel**.

### CSE Reports

Refer to [Printing CSE Reports](#) in the UI Diagnostics section.

## GP 7 Network Printing Simulation

### Purpose

This procedure details a method of troubleshooting network printing problems.

#### CAUTION

*This procedure was written based on pre-release data. The software installation procedure and the screens described may be different in the final version.*

### Procedure

#### Prerequisites

- Crossover Cable and a PWS equipped with a Network Interface Card.
- User software CD or driver files downloaded and extracted to a folder on the PWS.

#### Windows 2000/Windows XP

1. Connect the PWS to the printer with the Crossover Cable.
2. Configure the PWS IP Address so that the final digit is 1 higher or lower than that of the printer. Use the same Subnet Mask. If not available, this can be obtained from Tools mode, or by printing the Extended Controller System Settings List (GP 6).
3. Click the Windows **Start** button.
4. Select **Settings**, then **Printers**.
5. Select **Add Printer**.
6. On the **Add Printer Wizard** screen, click **Next**.
7. On the next screen, select **Local printer**, then click **Next**.
8. When the **Add Printer Wizard** asks you to select the printer port, select **Create a new port**. In the Type: menu, select **Standard TCP/IP Port**, then click **Next**. This will open the **Add Standard TCP/IP Printer Port Wizard**. Click **Next**.
9. Enter the IP address of the printer. If not available, this can be determined from Tools mode, or by printing the Extended Controller Settings list. Click **Next**.
10. Select **Custom**, then click on **Settings...**
11. in the **Protocol** box, select **LPR**. In the **LPR Settings** box, type **print** for **Queue Name:**, then click **OK**.
12. Click **Next**. Click **Finish** to return to the **Add Printer Wizard**.
13. If the printer driver was previously loaded on the PWS, select the printer from the list and click **Next**. Otherwise, click **Have Disk**. Print Drivers can be found on the customer User Software CD. The drivers can be downloaded from the Controller via Web Tools. The latest driver can also be downloaded from the Xerox website. Navigate to the CD or downloaded driver for your PWS' operating system. Click **OK**.
14. On the **Name Your Printer** screen, enter a name for the printer. Do not set this printer as the default. Click **Next**.
15. Select **Do not share...**
16. Select **Yes** when asked if you want to print a test page. Correct printing indicates a functioning network connection.

## GP 8 Auto Gradation Procedure

### Purpose

This procedure adjusts gradation when the reproducibility of density or color in copies or prints has deteriorated.

### Procedure

1. Press the **Log In /Out** button on the UI panel.
2. Enter the SA password (default is 11111).
3. Check that the **Copy Defaults** are set as follows:
  - Lighten/Darken = Normal
  - Color Shift = Normal
  - Color Saturation = Normal
  - Color Balance = 0

**NOTE:** Remember to return the defaults to their original settings after this procedure

4. Select **System Settings**, then **Common Settings**. Auto Gradation is found under **Image Quality Adjustment**.
5. Load tray 1 with 11x17" or A3 paper if available.
6. Select Screen Type:
  - Copy Job
  - Print Job 1
  - Print Job 2
7. Select **Paper Supply**, then **Tray 1**.
8. Select **Target**. Typically you would select **Copy & Print** unless using external calibration for print output.
9. Select **Start**.
10. After the test pattern is printed, follow the instructions on the UI for placing the test pattern onto the platen.
11. Select **Start**.
12. When the calibration is complete, select **Confirm**.
13. Repeat steps 6 -12 for the remaining screen types.
14. Reset any **Copy Defaults** changed in Step 3 to their original values.
15. Exit the SA mode.

## GP 10 Billing Meter PWBs

Refer to [GP 4](#).





## Space Requirements

Installation space requirements are shown in [Figure 1](#) and [Figure 2](#).

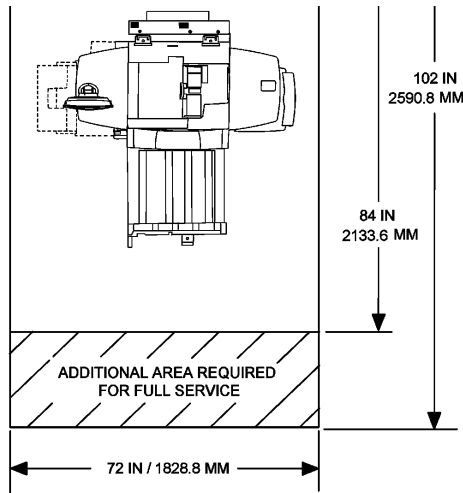


Figure 1 DocuColor 250 with OCT

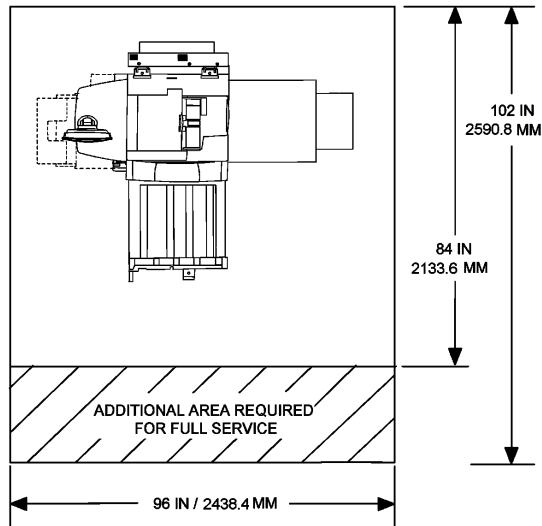


Figure 2 DocuColor 250 with Finisher

## Component Weights

Table 1 Shipping Weights

| Component            | Weight (approx.)                              |
|----------------------|-----------------------------------------------|
| Copier/Printer       | 265 kg (583 lb.)                              |
| UI and mounting wing | 10.3 kg (22.7 lb.)                            |
| HCF                  | 34 kg (75 lb.)                                |
| Finisher             | 80 kg (176 lb.) Adv.<br>106 kg (233 lb.) Pro. |
| Network Controller   |                                               |

## Environmental Requirements

- Temperature: 10 ~ 32 degrees Centigrade
- Humidity 15 ~ 85% (no condensation - max. humidity@ 32 degrees = 62%, 85% @ 28 degrees)
- Altitude: 8600 feet max.
- Must be level +/- 5 mm front-to-rear; 10 mm side-to-side
- Ambient Light: 3,000 lx max (no direct sunlight) max.

# Product Specifications

## Product Codes

**Table 1 Product Codes**

| Item                            | Product Code |
|---------------------------------|--------------|
| DocuColor 250/240 IOT 120 VAC   | VGW          |
| DocuColor 250/240 IOT 220 VAC   | VGY          |
| Professional Finisher (XC)      | VKP          |
| Advanced Finisher (XC)          | VKM          |
| Professional Finisher (XE)      | VKL          |
| Advanced Finisher (XE)          | VKN          |
| 2000 Sheet HCF                  | VKK          |
| User Interface (XC)             | VVC          |
| User Interface (XE)             | VVD          |
| EFI Bustle Print Controller     | WUP          |
| EFI Standalone Print Controller | WYM          |
| CREO Bustle Print Controller    | YCC          |

## Voltage Requirements

- Single phase (two wires plus ground)
- 110 VAC/60 Hz (99 - 121 VAC, 55 to 62 Hz)
- 220 - 240 VAC/50 Hz (198 to 255 VAC, 48.5 to 51.5 Hz)

## Power Consumption

- 2.2 KVA maximum
- 143 watts in low power mode
- 5.7 watts in sleep mode

## Warmup Time

- At Power On: 150 sec.
- From Sleep mode: 150 sec.
- From Low Power mode: 30 sec.

## FCOT

First Copy Output Time; 8.5" x 11" (A4); Tray 1;

- Color
  - 7.8 sec max (Platen to SCT; Color Priority mode)
  - 8.9 sec max (Platen to SCT; B/W Priority mode)
  - 9.9 sec max (DADF to OCT; Color Priority mode)
  - 9.0 sec max (Platen to Finisher Top Tray; Color Priority mode)
  - 11.3 sec max (DADF to Finisher Top Tray; Color Priority mode)
- B/W
  - 6.9 sec max (Platen to SCT; Color Priority mode)
  - 4.1 sec max (Platen to SCT; B/W Priority mode)
  - 5.8 sec max (DADF to OCT; B/W Priority mode)

- 5.6 sec max (Platen to Finisher Top Tray; B/W Priority mode)
- 7.2 sec max (DADF to Finisher Top Tray; B/W Priority mode)

## Copy Speed

- B/W (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 55 ppm (DC240), 65 ppm (DC250)
  - letter size SEF: 40 ppm (DC240), 47 ppm (DC250)
  - legal size: 32 ppm (DC240), 38 ppm (DC250)
  - A3/11x17 in.: 27 ppm (DC240), 32 ppm (DC250)
- Color (plain paper; gloss off, simplex; fed from Tray 1)
  - letter size LEF: 40 ppm (DC240), 50 ppm (DC250)
  - letter size SEF: 29 ppm (DC240), 36 ppm (DC250)
  - legal size: 23 ppm (DC240), 29 ppm (DC250)
  - A3/11x17 in.: 20 ppm (DC240), 25 ppm (DC250)

## Paper Capacities

**Table 2 Paper Capacities**

| Specification              | Paper Trays 1 - 4                                                                                                                                                                    | Tray 5 (Bypass)                                       | Tray 6 (HCF)                     |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------|
| Paper Sizes                | <b>Tray 1 &amp; 2</b><br>Min: A5 SEF (148x210 mm)<br>Max: A3/11 x 17 in.<br><br><b>Trays 3 &amp; 4</b><br>A4, 8.5 x 11 in., or B5 LEF only                                           | Min: 100 x 140 mm (postcard)<br>Max: SRA3/12 x 19 in. | A4, 8.5 x 11 in., or B5 LEF only |
| Paper Weights              | Optimum: 24 lb./90 gsm<br>Range: 64 - 220 gsm                                                                                                                                        | Range: 64 - 300 gsm (280 gsm for coated paper)        | Range: 64 - 220 gsm              |
| Capacities 24 lb. (90 gsm) | 3110 sheets total: <ul style="list-style-type: none"> <li>• Tray 1: 500 sheets</li> <li>• Tray 2: 500 sheets</li> <li>• Tray 3: 870 sheets</li> <li>• Tray 4: 1140 sheets</li> </ul> | 250 sheets                                            | 2000 sheets                      |

## IIT/DADF Specifications

**Table 3 DADF Specifications**

|                       |                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------|
| Document Size: Platen | Max size: 334 x 452 mm<br>Max scannable area: 297 x 432 mm                             |
| Document Size: DADF   | 5.5" x 8.5" (A5) LEF to 11" x 17" SEF (A3)<br>Max: 297 x 432 mm<br>Min: 148.5 x 210 mm |
| Document Weight: DADF | Min: 28 gsm<br>Max: 200 gsm/32lb (110 gsm in Duplex mode)                              |

**Table 3 DADF Specifications**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Document Capacity: DADF | 250 sheets 80 gsm or less<br>150 sheets 81 to 128 gsm<br>100 sheets 128 to 200 gsm                                                                                                                                                                                                                                                                                                                |
| R/E Capability:         | Variable Percentages: 25% to 400% in 1% increments<br>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> Preset can be changed in Tools mode |

**Common Tools****Table 1 Common Tools**

| Description                  | Part Number |
|------------------------------|-------------|
| Screw Driver (-) 3 x 50      | 600T40205   |
| Screw Driver (+) 6 x 100     | 600T1989    |
| Screw Driver (+) NO.1        | 499T356     |
| Stubby Driver (+) (-)        | 600T40210   |
| Screw Driver (-) 100MM       | 499T355     |
| Spanner and Wrench 5.5 x 5.5 | 600T40501   |
| Spanner and Wrench 7x 7      | 600T40502   |
| Hex Key Set                  | 600T02002   |
| Box Driver 5.5MM             | 600T1988    |
| Side Cutting Nipper          | 600T40903   |
| Round Nose Pliers            | 600T40901   |
| Digital Multi-meter Set      | 600T2020    |
| Interlock Cheater            | 600T91616   |
| Silver Scale 150MM           | 600T41503   |
| CE Tool Case                 | 600T1901    |
| Magnetic Screw Pick-up Tool  | 600T41911   |
| Scriber Tool                 | 600T41913   |
| Magnetic pickup              | 600T41911   |
| Loupe                        | 600T42008   |
| Flash Light                  | 600T1824    |
| Brush                        | 600T41901   |
| Tester Lead Wire (red)       | 600T 9583   |
| Tester Lead Wire (black)     | 600T2030    |

## Product Tools and Test Patterns

Table 1 Tools and Test Patterns

| Description                                            | Part Number |
|--------------------------------------------------------|-------------|
| Color Test Pattern                                     | 82E13120    |
| Geometric Test Pattern                                 | 82E8220     |
| HVPS test probe (1/10X)                                | 600T1653    |
| HVPS test probe adapter                                | 600T1996    |
| Copy Paper Carrying Case                               | 600T1999    |
| Copy Paper Zip Lock Bag                                | 600T2000    |
| Xerox Color Xpressions Plus 24# 11x17 in,              | 3R5465      |
| Colotech + - 90 gsm - A3                               | 3R94642     |
| Service and Machine NVM Log                            | 700P97436   |
| Serial cable                                           | 600T2058    |
| Network Interface (Crossover) cable                    | 600T02252   |
| Parallel printer cable                                 | 117E19340   |
| PWS power cord adapter                                 | 600T2018    |
| Miniature Probe                                        | 600T02177   |
| Machine Resident Disk Kit<br>(Machine Settings Floppy) | 300K63850   |

## Cleaning Materials

Table 1 Cleaning Materials

| Description                         | NASG Part Number | ESG Part Number |
|-------------------------------------|------------------|-----------------|
| Cleaning fluid<br>(8oz., Formula A) | 43P48            | 8R90034         |
| Film remover (8 oz.)                | 43P45            | 8R90176         |
| Lens/mirror cleaner                 | 43P81            | 8R90178         |
| Lint-free (white) cleaning cloth    | 19P3025          | 19P3025         |
| Lint-free Optics cleaning cloth     | 499T90417        | 499T90417       |
| Cleaning towels                     | 35P3191          | 600S4372        |
| Drop cloth                          | 35P1737          | 35P1737         |
| Cotton Swab                         | 35P2162          | 35P2162         |

## Machine Consumables

Table 1 Consumables

| Name                            | Part Number                                   |
|---------------------------------|-----------------------------------------------|
| Color Drum Cartridge            | 13R00603                                      |
| Black Drum Cartridge            | 13R00602                                      |
| Black Toner Cartridge           | 6R01219 - NASG, DMO-W<br>6R01223 - ESG, DMO-E |
| Cyan Toner Cartridge            | 6R01222 - NASG, DMO-W<br>6R01226 - ESG, DMO-E |
| Magenta Toner Cartridge         | 6R01221 - NASG, DMO-W<br>6R01225 - ESG, DMO-E |
| Yellow Toner Cartridge          | 6R01220 - NASG, DMO-W<br>6R01224 - ESG, DMO-E |
| Waste Toner Bottle              | 8R12990                                       |
| Booklet Maker Staple Cartridge  | 8R12925                                       |
| Staple Cartridge (A/P Finisher) | 008R12964                                     |
| Staple Refills (A/P Finisher)   | 008R12941                                     |
| Scorotron (K)                   | 13R00604                                      |
| Fuser                           | 8R12988- 110 Volt<br>8R12989 - 220 Volt       |

## Glossary of Terms

Table 1

| Term   | Description                                                                                                                                     |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| A/D    | Analog to Digital refers to conversion of signal                                                                                                |
| 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.            |
| 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                                                                                                              |
| Chip   | Integrated Circuit (IC)                                                                                                                         |
| CRU    | Customer Replaceable Unit                                                                                                                       |
| CYMK   | Toner colors for machine; Y=yellow, C=cyan, M=magenta, and K=black                                                                              |
| 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.                                |
| 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. |
| ESD    | Electrostatic Discharge. A transfer of charge between bodies at different electrostatic potential.                                              |
| FS     | Fast Scan (direction) - Inboard-to Outboard                                                                                                     |
| GND    | Ground                                                                                                                                          |
| HFSI   | High Frequency Service Item                                                                                                                     |
| HVPS   | High Voltage Power Supply                                                                                                                       |
| 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                                                                                                                        |

**Table 1**

| <b>Term</b> | <b>Description</b>                                                                                                                                            |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MF          | Multi-Function                                                                                                                                                |
| MN          | Multinational                                                                                                                                                 |
| NIC         | Network Interface Card                                                                                                                                        |
| NVM         | Non Volatile Memory                                                                                                                                           |
| OEM         | Original equipment manufacturer                                                                                                                               |
| OGM         | On-going Maintenance                                                                                                                                          |
| PC          | Personal Computer                                                                                                                                             |
| PJ          | Plug Jack (electrical connections)                                                                                                                            |
| PL          | Parts List                                                                                                                                                    |
| P/O         | Part of (Assembly Name)                                                                                                                                       |
| PWB         | Printed Wiring Board                                                                                                                                          |
| PWS         | Portable Workstation for Service                                                                                                                              |
| R/E         | Reduction/Enlargement refers to features selection or components that enable reduction or enlargement                                                         |
| RAM         | Random Access Memory                                                                                                                                          |
| RAP         | Repair Analysis Procedure for diagnosis of machine status codes and abnormal conditions                                                                       |
| 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                                                                                                                                            |
| 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                                                                                                                                           |
| SS          | Slow Scan (direction) - LE - to - TE                                                                                                                          |
| TE          | Trail Edge of copy or print paper, with reference to definition of term LE                                                                                    |
| UI          | User Interface                                                                                                                                                |
| UM          | Unscheduled Maintenance                                                                                                                                       |
| 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                                                                                                                                                  |
| XE          | Xerox Europe - also referred to as ESG (European Solutions Group)                                                                                             |
| XLA         | Xerox Latin America                                                                                                                                           |
| XMEX        | Xerox Mexico                                                                                                                                                  |
| YCMK        | Toner colors for machine; Y=yellow, C=cyan, M=magenta, and K=black                                                                                            |

**TAG: No Tag at this time.**





**Plug/Jacks**

7.1 How to use the Plug/Jack Location List ..... 7-3  
7.1.2 Plug/Jack Location Illustrations..... 7-12

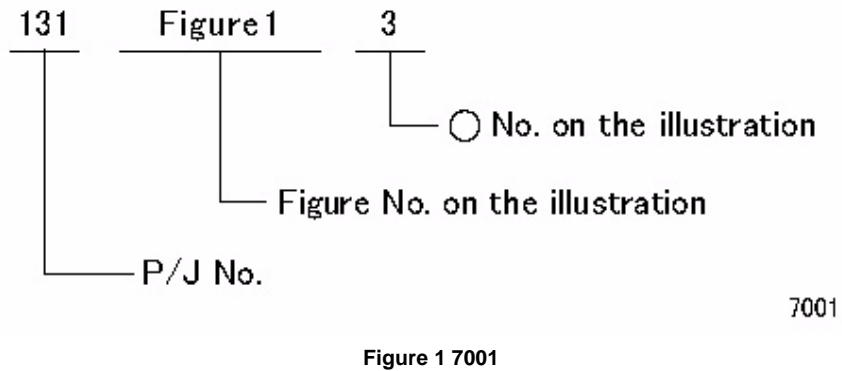


## 7.1 How to use the Plug/Jack Location List

### How to use the Plug/Jack Location List

- To find the location of a connector, find its Illustration Number in the Plug/Jack Location List section. Then, refer to the corresponding Illustration and item number in the Plug/Jack Location illustration section.
- The Plug/Jacks in the Plug/Jack Location List are identified by the following method:
  - J250 represents Jack 250.
  - P250 represents Plug 250.
  - CN1 represents Connector 1.
  - P/J250 represents Double Plug 250.

Example :



### 7.1.1 Plug/Jack Location List

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly        |
|---------|------------|------|--------------------|
| P/J1    | Figure 1   | 8    | UI(HB)             |
| P/J1    | Figure 2   | 12   | FCW                |
| P/J1    | Figure 49  | 9    | Finisher AC Filter |
| P/J1 R2 | Figure 13  | 8    | ROS                |
| P/J1BK  | Figure 13  | 9    | ROS                |
| P/J1AK  | Figure 13  | 10   | ROS                |
| P/J1 R1 | Figure 13  | 14   | ROS                |
| P/J1BM  | Figure 13  | 15   | ROS                |
| P/J1AM  | Figure 13  | 16   | ROS                |
| P/J2    | Figure 54  | 4    | Tray Module Rear   |
| P/J2A   | Figure 8   | 8    | DADF               |
| P/J2B   | Figure 9   | 5    | DADF               |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly          |
|----------|------------|------|----------------------|
| P/J2     | Figure 2   | 6    | FCW                  |
| P/J2     | Figure 49  | 10   | Finisher LVPS        |
| P/J3 R1  | Figure 13  | 17   | ROS                  |
| P/J3 R2  | Figure 13  | 11   | ROS                  |
| P/J3     | Figure 2   | 5    | FCW                  |
| P/J3     | Figure 2   | 11   | FCW                  |
| J4A R1   | Figure 13  | 2    | ROS                  |
| J4A R2   | Figure 13  | 7    | ROS                  |
| P/J4B R1 | Figure 13  | 18   | ROS                  |
| P/J4B R2 | Figure 13  | 12   | ROS                  |
| P/J5 R1  | Figure 13  | 3    | ROS                  |
| P/J5 R2  | Figure 13  | 13   | ROS                  |
| P/J5     | Figure 2   | 2    | FCW                  |
| P/J6     | Figure 2   | 4    | FCW                  |
| P/J6 R1  | Figure 13  | 1    | ROS                  |
| P/J6 R2  | Figure 13  | 4    | ROS                  |
| P/J7     | Figure 2   | 7    | FCW (UI I/F PWB)     |
| P/J7     | Figure 2   | 10   | FCW (Switch/LED PWB) |
| P/J10    | Figure 2   | 8    | FCW                  |
| P/J11    | Figure 2   | 9    | FCW                  |
| P/J11    | Figure 37  | 9    | LVPS                 |
| P/J12    | Figure 38  | 13   | LVPS                 |
| P/J13A   | Figure 38  | 14   | LVPS                 |
| P/J13B   | Figure 38  | 15   | LVPS                 |
| P/J14    | Figure 38  | 26   | LVPS                 |
| P/J15    | Figure 38  | 7    | LVPS                 |
| P/J16    | Figure 38  | 6    | LVPS                 |
| P/J17    | Figure 38  | 12   | LVPS                 |
| P/J60A   | Figure 32  | 17   | IOT Rear             |
| P/J60B   | Figure 32  | 17   | IOT Rear             |
| P/J60C   | Figure 32  | 17   | IOT Rear             |
| P/J60D   | Figure 32  | 17   | IOT Rear             |
| P/J61A   | Figure 23  | 4    | Fuser Assy           |
| P/J61B   | Figure 23  | 9    | Fuser Assy           |
| P/J62A   | Figure 23  | 3    | Fuser Assy           |
| P/J62B   | Figure 23  | 11   | Fuser Assy           |
| P/J63A   | Figure 23  | 5    | Fuser Assy           |
| P/J63B   | Figure 23  | 10   | Fuser Assy           |
| P/J70A   | Figure 33  | 11   | IOT Rear             |
| P/J70B   | Figure 33  | 11   | IOT Rear             |
| P/J70C   | Figure 33  | 11   | IOT Rear             |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly        |
|---------|------------|------|--------------------|
| P/J75   | Figure 9   | 1    | DADF               |
| P/J77   | Figure 9   | 3    | DADF               |
| P/J80   | Figure 32  | 16   | IOT Rear           |
| P/J81   | Figure 33  | 10   | IOT Rear           |
| P/J101  | Figure 34  | 2    | Tray 1-4 Feeder    |
| P/J102  | Figure 34  | 3    | Tray 1-4 Feeder    |
| P/J103  | Figure 34  | 4    | Tray 1-4 Feeder    |
| P/J104  | Figure 24  | 6    | Drawer Frame       |
| P/J105  | Figure 24  | 4    | Drawer Frame       |
| P/J106  | Figure 24  | 2    | Drawer Frame       |
| P/J107  | Figure 24  | 3    | Drawer Frame       |
| P/J108  | Figure 27  | 3    | Inverter Transport |
| P/J110  | Figure 27  | 11   | Inverter Transport |
| P/J111  | Figure 27  | 2    | Inverter Transport |
| P/J112  | Figure 27  | 13   | Inverter Transport |
| P/J113  | Figure 20  | 10   | MSI                |
| P/J114  | Figure 20  | 8    | MSI                |
| P/J115  | Figure 20  | 9    | MSI                |
| P/J116  | Figure 20  | 4    | MSI                |
| P/J117  | Figure 20  | 5    | MSI                |
| P/J118  | Figure 20  | 6    | MSI                |
| P/J119  | Figure 20  | 7    | MSI                |
| P/J120  | Figure 21  | 3    | Registration Assy  |
| P/J121  | Figure 21  | 8    | Registration Assy  |
| P/J122  | Figure 21  | 5    | Registration Assy  |
| P/J126  | Figure 21  | 4    | Registration Assy  |
| P/J128  | Figure 36  | 3    | Paper Size Sensor  |
| P/J129  | Figure 36  | 5    | Paper Size Sensor  |
| P/J130  | Figure 36  | 6    | Paper Size Sensor  |
| P/J131  | Figure 36  | 4    | Paper Size Sensor  |
| P/J132  | Figure 35  | 4    | Feed Out Sensor    |
| P/J133A | Figure 35  | 3    | Feed Out Sensor    |
| P/J133B | Figure 35  | 2    | Feed Out Sensor    |
| P/J133C | Figure 35  | 5    | Feed Out Sensor    |
| P/J133D | Figure 36  | 7    | Paper Size Sensor  |
| P/J134C | Figure 16  | 3    | Dispenser Unit     |
| P/J134K | Figure 16  | 4    | Dispenser Unit     |
| P/J134M | Figure 16  | 2    | Dispenser Unit     |
| P/J134Y | Figure 16  | 1    | Dispenser Unit     |
| P/J135  | Figure 19  | 2    | MOB Assy           |
| P/J136  | Figure 19  | 5    | MOB Assy           |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly    |
|----------|------------|------|----------------|
| P/J138   | Figure 19  | 6    | MOB Assy       |
| P/J139   | Figure 19  | 4    | MOB Assy       |
| P/J140C  | Figure 15  | 10   | Dispenser Unit |
| P/J140K  | Figure 15  | 12   | Dispenser Unit |
| P/J140M  | Figure 15  | 8    | Dispenser Unit |
| P/J140Y  | Figure 15  | 6    | Dispenser Unit |
| P/J142A  | Figure 14  | 7    | Dispenser Unit |
| P/J142B  | Figure 14  | 1    | Dispenser Unit |
| P/J144   | Figure 26  | 11   |                |
| P/J145A  | Figure 32  | 17   | IOT Rear       |
| P/J145B  | Figure 32  | 17   | IOT Rear       |
| P/J146   | Figure 23  | 12   | Fuser Assy     |
| P/J148   | Figure 24  | 5    | Drawer Frame   |
| P/J149   | Figure 23  | 13   | Fuser Assy     |
| P/J150   | Figure 23  | 15   | Fuser Assy     |
| P/J151   | Figure 23  | 2    | Fuser Assy     |
| P/J152   | Figure 26  | 9    | Waste Bottle   |
| P/J153   | Figure 26  | 8    | Waste Bottle   |
| P/J154   | Figure 33  | 8    | IOT Rear       |
| P/J155   | Figure 17  | 3    | IBT Belt Unit  |
| P/J156   | Figure 17  | 7    | IBT Belt Unit  |
| P/J157   | Figure 17  | 6    | IBT Belt Unit  |
| P/J158   | Figure 22  | 1    | BTR Roll Assy  |
| P/J159   | Figure 22  | 2    | BTR Roll Assy  |
| P/J160   | Figure 19  | 3    | MOB Assy       |
| P/J171C  | Figure 33  | 6    | IOT Rear       |
| P/J171K  | Figure 33  | 14   | IOT Rear       |
| P/J171M  | Figure 33  | 24   | IOT Rear       |
| P/J171Y  | Figure 33  | 26   | IOT Rear       |
| P/J172C  | Figure 14  | 3    | Dispenser Unit |
| P/J172K  | Figure 14  | 2    | Dispenser Unit |
| P/J172Y  | Figure 14  | 6    | Dispenser Unit |
| P/J173   | Figure 23  | 8    | Fuser Assy     |
| P/J174   | Figure 25  | 5    | HVPS           |
| P/J200   | Figure 23  | 1    | Fuser Assy     |
| P/J201C  | Figure 15  | 11   | Dispenser Unit |
| P/J201K  | Figure 15  | 13   | Dispenser Unit |
| P/J201M  | Figure 15  | 9    | Dispenser Unit |
| P/J201Y  | Figure 15  | 7    | Dispenser Unit |
| P/J202K1 | Figure 15  | 1    | Dispenser Unit |
| P/J202K2 | Figure 15  | 2    | Dispenser Unit |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly        |
|---------|------------|------|--------------------|
| P/J202C | Figure 15  | 3    | Dispenser Unit     |
| P/J202M | Figure 15  | 4    | Dispenser Unit     |
| P/J202Y | Figure 15  | 5    | Dispenser Unit     |
| P/J203  | Figure 17  | 1    | IBT Belt Unit      |
| P/J204  | Figure 17  | 2    | IBT Belt Unit      |
| P/J205  | Figure 32  | 3    | IOT Rear           |
| P/J206  | Figure 32  | 4    | IOT Rear           |
| P/J207  | Figure 32  | 1    | IOT Rear           |
| P/J207K | Figure 32  | 7    | IOT Rear           |
| P/J208  | Figure 32  | 2    | IOT Rear           |
| P/J208K | Figure 32  | 6    | IOT Rear           |
| P/J209  | Figure 32  | 9    | IOT Rear           |
| P/J210  | Figure 32  | 8    | IOT Rear           |
| P/J211  | Figure 32  | 13   | IOT Rear           |
| P/J212  | Figure 32  | 14   | IOT Rear           |
| P/J215  | Figure 32  | 10   | IOT Rear           |
| P/J216  | Figure 32  | 12   | IOT Rear           |
| P/J219  | Figure 24  | 7    | Drawer Frame       |
| P/J220  | Figure 34  | 1    | Tray 1-4 Feeder    |
| P/J221  | Figure 27  | 6    | Inverter Transport |
| P/J222  | Figure 27  | 4    | Inverter Transport |
| P/J223  | Figure 27  | 5    | Inverter Transport |
| P/J224  | Figure 27  | 1    | Inverter Transport |
| P/J225  | Figure 20  | 3    | MSI                |
| P/J226  | Figure 20  | 12   | MSI                |
| P/J227  | Figure 20  | 11   | MSI                |
| P/J229  | Figure 21  | 1    | Registration Assy  |
| P/J230  | Figure 21  | 7    | Registration Assy  |
| P/J233  | Figure 39  | 4    | Tray Module Rear   |
| P/J238  | Figure 32  | 11   | IOT Rear           |
| P/J239  | Figure 25  | 7    | HVPS               |
| P/J240  | Figure 32  | 5    | IOT Rear           |
| P/J241  | Figure 32  | 15   | IOT Rear           |
| P/J242  | Figure 37  | 7    | LVPS               |
| P/J243  | Figure 26  | 10   | Exit Fan           |
| P/J244A | Figure 26  | 1    | Exit Fan           |
| P/J244B | Figure 26  | 2    | Exit Fan           |
| P/J244C | Figure 26  | 3    | Exit Fan           |
| P/J244D | Figure 26  | 4    | Exit Fan           |
| P/J245  | Figure 27  | 10   | Inverter Transport |
| P/J246  | Figure 27  | 12   | Inverter Transport |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly    |
|----------|------------|------|----------------|
| P/J247C  | Figure 33  | 5    | IOT Rear       |
| P/J247Y  | Figure 33  | 3    | IOT Rear       |
| P/J248C  | Figure 14  | 12   | Dispenser Unit |
| P/J248K  | Figure 25  | 3    | HVPS           |
| P/J248M  | Figure 14  | 9    | Dispenser Unit |
| P/J248Y  | Figure 14  | 8    | Dispenser Unit |
| P/J250   | Figure 33  | 9    | IOT Rear       |
| P/J252   | Figure 18  | 3    | IBT Belt Unit  |
| P/J253   | Figure 17  | 8    | IBT Belt Unit  |
| P/J300   | Figure 29  | 17   | ESS            |
| P/J302   | Figure 29  | 2    | ESS            |
| J306     | Figure 29  | 18   | ESS            |
| P/J306   | Figure 30  | 5    | ESS            |
| P/J310   | Figure 29  | 3    | ESS            |
| P/J311   | Figure 29  | 1    | ESS            |
| J330     | Figure 29  | 19   | ESS            |
| J331     | Figure 29  | 14   | ESS            |
| J332     | Figure 29  | 6    | ESS            |
| J333     | Figure 29  | 7    | ESS            |
| J334     | Figure 29  | 9    | ESS            |
| P/J335   | Figure 29  | 22   | ESS            |
| P/J336   | Figure 29  | 8    | ESS            |
| J337     | Figure 30  | 1    | ESS            |
| J338     | Figure 29  | 4    | ESS            |
| J340     | Figure 29  | 12   | ESS            |
| P341     | Figure 13  | 2    | ROS            |
| P341     | Figure 13  | 7    | ROS            |
| J342     | Figure 29  | 11   | ESS            |
| P/J345AC | Figure 13  | 5    | ROS            |
| P/J345AY | Figure 13  | 20   | ROS            |
| P/J345BC | Figure 13  | 6    | ROS            |
| P/J345BY | Figure 13  | 19   | ROS            |
| P/J347   | Figure 30  | 2    | ESS            |
| P/J349   | Figure 29  | 15   | ESS            |
| P351     | Figure 29  | 10   | ESS            |
| P/J352   | Figure 29  | 13   | ESS            |
| P/J360   | Figure 29  | 5    | ESS            |
| P361     | Figure 30  | 4    | ESS            |
| P362     | Figure 30  | 3    | ESS            |
| J362     | Figure 30  | 8    | ESS            |
| P370     | Figure 29  | 16   | ESS            |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly    |
|---------|------------|------|----------------|
| P370    | Figure 30  | 8    | ESS            |
| P/J385  | Figure 29  | 21   | ESS            |
| P/J400  | Figure 28  | 10   | MCU PWB        |
| P/J401  | Figure 28  | 17   | MCU PWB        |
| P/J402  | Figure 28  | 18   | MCU PWB        |
| P/J403  | Figure 28  | 16   | MCU PWB        |
| P/J404  | Figure 28  | 15   | MCU PWB        |
| P/J405  | Figure 28  | 13   | MCU PWB        |
| P/J406  | Figure 28  | 22   | MCU PWB        |
| P/J407  | Figure 28  | 8    | MCU PWB        |
| P/J408  | Figure 28  | 23   | MCU PWB        |
| P/J409  | Figure 28  | 14   | MCU PWB        |
| P/J410  | Figure 28  | 11   | MCU PWB        |
| P/J411  | Figure 28  | 24   | MCU PWB        |
| P/J412  | Figure 28  | 9    | MCU PWB        |
| P/J413  | Figure 28  | 19   | MCU PWB        |
| P/J414  | Figure 28  | 20   | MCU PWB        |
| P/J416  | Figure 28  | 12   | MCU PWB        |
| P418    | Figure 28  | 7    | MCU PWB        |
| J418    | Figure 29  | 20   | ESS            |
| P/J420  | Figure 28  | 21   | MCU PWB        |
| JA421   | Figure 28  | 5    | MCU PWB        |
| JB421   | Figure 28  | 6    | MCU PWB        |
| JA422   | Figure 28  | 3    | MCU PWB        |
| JB422   | Figure 28  | 4    | MCU PWB        |
| JA423   | Figure 28  | 2    | MCU PWB        |
| JB423   | Figure 28  | 1    | MCU PWB        |
| JA424   | Figure 28  | 26   | MCU PWB        |
| JB424   | Figure 28  | 25   | MCU PWB        |
| P/J430  | Figure 31  | 9    | IOT Driver PWB |
| P/J431  | Figure 31  | 13   | IOT Driver PWB |
| P/J432  | Figure 31  | 12   | IOT Driver PWB |
| P/J433  | Figure 31  | 4    | IOT Driver PWB |
| P/J434  | Figure 31  | 10   | IOT Driver PWB |
| P/J435  | Figure 31  | 16   | IOT Driver PWB |
| P/J436  | Figure 31  | 18   | IOT Driver PWB |
| P/J437  | Figure 31  | 15   | IOT Driver PWB |
| P/J438  | Figure 31  | 19   | IOT Driver PWB |
| P/J439  | Figure 31  | 11   | IOT Driver PWB |
| P/J440  | Figure 31  | 14   | IOT Driver PWB |
| P/J442  | Figure 31  | 17   | IOT Driver PWB |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly      |
|---------|------------|------|------------------|
| P/J443  | Figure 31  | 2    | IOT Driver PWB   |
| P/J444  | Figure 31  | 1    | IOT Driver PWB   |
| P/J445  | Figure 31  | 5    | IOT Driver PWB   |
| P/J460  | Figure 39  | 16   | Tray Module Rear |
| P/J461  | Figure 39  | 5    | Tray Module Rear |
| P/J462  | Figure 39  | 1    | Tray Module Rear |
| P/J463  | Figure 39  | 13   | Tray Module Rear |
| P/J464  | Figure 39  | 14   | Tray Module Rear |
| P/J465  | Figure 39  | 10   | Tray Module Rear |
| P/J466  | Figure 39  | 15   | Tray Module Rear |
| P/J467  | Figure 39  | 8    | Tray Module Rear |
| P/J468  | Figure 39  | 12   | Tray Module Rear |
| P/J469  | Figure 39  | 9    | Tray Module Rear |
| P/J501  | Figure 37  | 2    | LVPS             |
| P/J502  | Figure 54  | 2    | Tray Module Rear |
| P/J502  | Figure 49  | 12   | Finisher         |
| P/J503  | Figure 37  | 4    | LVPS             |
| P/J504  | Figure 37  | 5    | LVPS             |
| P/J505  | Figure 54  | 3    | Tray Module Rear |
| P/J505  | Figure 49  | 11   | Finisher         |
| P506    | Figure 37  | 10   | LVPS             |
| P/J507  | Figure 37  | 3    | LVPS             |
| P/J508  | Figure 37  | 1    | LVPS             |
| P/J509  | Figure 37  | 6    | LVPS             |
| P/J510  | Figure 38  | 8    | LVPS             |
| P/J511  | Figure 38  | 10   | LVPS             |
| P/J513  | Figure 38  | 9    | LVPS             |
| P/J514  | Figure 38  | 5    | LVPS             |
| P/J515  | Figure 38  | 11   | LVPS             |
| P/J565  | Figure 37  | 8    | LVPS             |
| P/J581  | Figure 18  | 2    | IBT Belt Unit    |
| P/J582  | Figure 54  | 1    | Tray Module Rear |
| P/J584  | Figure 25  | 2    | HVPS             |
| P/J585  | Figure 25  | 4    | HVPS             |
| P/J587  | Figure 31  | 6    | IOT Driver PWB   |
| P/J588  | Figure 31  | 7    | IOT Drawer PWB   |
| P/J589  | Figure 18  | 1    | IBT Belt Unit    |
| P/J591  | Figure 25  | 1    | HVPS             |
| P/J592  | Figure 25  | 6    | HVPS             |
| P/J593  | Figure 31  | 3    | IOT Drawer PWB   |
| P/J594  | Figure 31  | 8    | IOT Drawer PWB   |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly       |
|---------|------------|------|-------------------|
| P601    | Figure 17  | 4    | IBT Belt Unit     |
| P601A   | Figure 17  | 4    | IBT Belt Unit     |
| P601B   | Figure 17  | 4    | IBT Belt Unit     |
| J601    | Figure 33  | 15   | IOT Rear          |
| J601A   | Figure 33  | 15   | IOT Rear          |
| J601B   | Figure 33  | 15   | IOT Rear          |
| P602    | Figure 17  | 5    | IBT Belt Unit     |
| P602A   | Figure 17  | 5    | IBT Belt Unit     |
| P602B   | Figure 17  | 5    | IBT Belt Unit     |
| J602    | Figure 33  | 16   | IOT Rear          |
| J602A   | Figure 33  | 16   | IOT Rear          |
| J602B   | Figure 33  | 16   | IOT Rear          |
| P/J603A | Figure 33  | 7    | IOT Rear          |
| P/J603B | Figure 33  | 7    | IOT Rear          |
| P/J604  | Figure 33  | 20   | IOT Rear          |
| P/J605  | Figure 33  | 19   | IOT Rear          |
| P606    | Figure 22  | 4    | 2nd BTR Roll Assy |
| P606A   | Figure 22  | 4    | 2nd BTR Roll Assy |
| P606B   | Figure 22  | 4    | 2nd BTR Roll Assy |
| J606    | Figure 33  | 22   | IOT Rear          |
| J606A   | Figure 33  | 22   | IOT Rear          |
| J606B   | Figure 33  | 22   | IOT Rear          |
| P607    | Figure 22  | 3    | 2nd BTR Roll Assy |
| P607A   | Figure 22  | 3    | 2nd BTR Roll Assy |
| P607B   | Figure 22  | 3    | 2nd BTR Roll Assy |
| J607    | Figure 33  | 21   | IOT Rear          |
| J607A   | Figure 33  | 21   | IOT Rear          |
| J607B   | Figure 33  | 21   | IOT Rear          |
| P/J608  | Figure 21  | 2    | Registration Assy |
| P/J609  | Figure 21  | 10   | Registration Assy |
| P612    | Figure 23  | 7    | Fuser Assy        |
| P612A   | Figure 23  | 7    | Fuser Assy        |
| P612B   | Figure 23  | 7    | Fuser Assy        |
| J612    | Figure 33  | 25   | IOT Rear          |
| J612A   | Figure 33  | 25   | IOT Rear          |
| J612B   | Figure 33  | 25   | IOT Rear          |
| P/J616  | Figure 19  | 1    | MOB Assy          |
| P/J616A | Figure 19  | 1    | MOB Assy          |
| P/J616B | Figure 19  | 1    | MOB Assy          |
| P/J620  | Figure 26  | 5    | <b>HVPS</b>       |
| P/J624A | Figure 14  | 4    | Dispenser Unit    |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly        |
|---------|------------|------|--------------------|
| P/J624B | Figure 14  | 4    | Dispenser Unit     |
| P/J625  | Figure 14  | 5    | Dispenser Unit     |
| P/J629  | Figure 24  | 1    | Drawer Frame       |
| P/J630  | Figure 21  | 9    | Registration Assy  |
| P/J637  | Figure 33  | 23   | IOT Rear           |
| P/J638  | Figure 20  | 2    | MSI                |
| P/J639  | Figure 20  | 1    | MSI                |
| P/J642  | Figure 23  | 6    | Fuser Assy         |
| P/J644  | Figure 33  | 1    | IOT Rear           |
| P647    | Figure 16  | 5    | Dispenser Unit     |
| J647    | Figure 33  | 4    | IOT Rear           |
| P648    | Figure 16  | 6    | Dispenser Unit     |
| J648    | Figure 33  | 2    | IOT Rear           |
| P/J649  | Figure 33  | 12   | IOT Rear           |
| P/J650  | Figure 33  | 13   | IOT Rear           |
| P/J651  | Figure 26  | 6    | <b>HVPS</b>        |
| P/J652  | Figure 26  | 7    | <b>HVPS</b>        |
| P/J653A | Figure 14  | 11   | Dispenser Unit     |
| P/J653B | Figure 14  | 10   | Dispenser Unit     |
| P/J661  | Figure 35  | 10   | Feed Out Sensor    |
| P/J662  | Figure 35  | 8    | Feed Out Sensor    |
| P/J663  | Figure 35  | 6    | Feed Out Sensor    |
| P/J664  | Figure 36  | 2    | Paper Size Sensor  |
| P/J665  | Figure 35  | 1    | Feed Out Sensor    |
| P/J666  | Figure 35  | 9    | Feed Out Sensor    |
| P/J667  | Figure 35  | 7    | Feed Out Sensor    |
| P/J668  | Figure 36  | 1    | Paper Size Sensor  |
| P/J669  | Figure 27  | 9    | Inverter Transport |
| P/J670  | Figure 27  | 7    | Inverter Transport |
| P/J671  | Figure 27  | 8    | Inverter Transport |
| P/J675  | Figure 21  | 6    | Registration Assy  |
| P/J678  | Figure 33  | 18   | IOT Rear           |
| P/J678A | Figure 33  | 18   | IOT Rear           |
| P/J678B | Figure 33  | 18   | IOT Rear           |
| P/J679  | Figure 33  | 17   | IOT Rear           |
| P/J679A | Figure 33  | 17   | IOT Rear           |
| P/J679B | Figure 33  | 17   | IOT Rear           |
| P/J680  | Figure 54  | 5    | Tray Module Rear   |
| P/J680A | Figure 54  | 5    | Tray Module Rear   |
| P/J680B | Figure 54  | 5    | Tray Module Rear   |
| P/J695  | Figure 23  | 17   | Fuser Assy         |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly          |
|---------|------------|------|----------------------|
| P/J700  | Figure 8   | 1    | DADF                 |
| P/J702  | Figure 8   | 4    | DADF                 |
| P/J703  | Figure 8   | 3    | DADF                 |
| P/J708  | Figure 9   | 9    | DADF                 |
| P/J708  | Figure 10  | 4    | IPS                  |
| P/J709  | Figure 9   | 8    | DADF                 |
| P/J709  | Figure 10  | 3    | IPS                  |
| J710    | Figure 8   | 14   | DADF                 |
| P710    | Figure 10  | 6    | IPS                  |
| P/J714  | Figure 10  | 5    | IPS                  |
| P/J717  | Figure 10  | 8    | IPS                  |
| P/J718  | Figure 10  | 7    | IPS                  |
| P/J719  | Figure 10  | 20   | IPS                  |
| P/J720  | Figure 10  | 2    | IPS                  |
| P/J721  | Figure 10  | 23   | IPS                  |
| P/J722  | Figure 10  | 1    | IPS                  |
| P/J723  | Figure 10  | 22   | IPS                  |
| P/J725  | Figure 8   | 12   | DADF                 |
| P/J727  | Figure 8   | 15   | DADF                 |
| P/J728  | Figure 8   | 6    | DADF                 |
| P/J729  | Figure 8   | 13   | DADF                 |
| P/J730  | Figure 8   | 7    | DADF                 |
| P/J731  | Figure 8   | 10   | DADF                 |
| P732    | Figure 10  | 16   | IPS                  |
| P732    | Figure 11  | 7    | 1P DUP PWB/S2XIF PWB |
| P/J733  | Figure 10  | 19   | IPS                  |
| P/J733  | Figure 11  | 2    | 1P DUP PWB/S2XIF PWB |
| J733    | Figure 11  | 8    | 1P DUP PWB/S2XIF PWB |
| P/J734  | Figure 10  | 12   | IPS                  |
| P/J735  | Figure 10  | 11   | IPS                  |
| P/J736  | Figure 10  | 9    | IPS                  |
| P/J737  | Figure 10  | 10   | IPS                  |
| P/J737  | Figure 11  | 3    | 1P DUP PWB/S2XIF PWB |
| P/J740  | Figure 10  | 18   | IPS                  |
| P/J741  | Figure 10  | 17   | IPS                  |
| P/J741  | Figure 11  | 12   | 1P DUP PWB/S2XIF PWB |
| P/J742  | Figure 11  | 11   | 1P DUP PWB/S2XIF PWB |
| P/J744  | Figure 10  | 14   | IPS                  |
| P/J744  | Figure 11  | 6    | 1P DUP PWB/S2XIF PWB |
| P/J745  | Figure 7   | 12   | DADF                 |
| P/J746  | Figure 7   | 11   | DADF                 |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly          |
|---------|------------|------|----------------------|
| P/J747  | Figure 7   | 13   | DADF                 |
| P/J748  | Figure 10  | 13   | IPS                  |
| P/J748  | Figure 11  | 4    | 1P DUP PWB/S2XIF PWB |
| P749    | Figure 10  | 15   | IPS                  |
| P749    | Figure 11  | 5    | 1P DUP PWB/S2XIF PWB |
| P/J750  | Figure 10  | 21   | IPS                  |
| P/J751  | Figure 6   | 9    | DADF                 |
| P/J752  | Figure 6   | 1    | DADF                 |
| P/J753  | Figure 6   | 4    | DADF                 |
| P/J754  | Figure 6   | 7    | DADF                 |
| P/J755  | Figure 6   | 8    | DADF                 |
| P/J756  | Figure 6   | 2    | DADF                 |
| P/J757  | Figure 6   | 3    | DADF                 |
| P/J758  | Figure 6   | 6    | DADF                 |
| P/J760  | Figure 6   | 5    | DADF                 |
| P/J761  | Figure 4   | 2    | DADF                 |
| P/J762  | Figure 4   | 1    | DADF                 |
| P/J763  | Figure 4   | 7    | DADF                 |
| P764    | Figure 4   | 3    | DADF                 |
| P/J765  | Figure 4   | 6    | DADF                 |
| P/J766  | Figure 4   | 5    | DADF                 |
| P/J767  | Figure 4   | 4    | DADF                 |
| P/J768  | Figure 7   | 9    | DADF                 |
| P/J769  | Figure 5   | 5    | DADF                 |
| P/J770  | Figure 5   | 4    | DADF                 |
| P/J771  | Figure 5   | 2    | DADF                 |
| P/J772  | Figure 5   | 3    | DADF                 |
| P/J773  | Figure 5   | 1    | DADF                 |
| P/J775  | Figure 3   | 3    | DADF                 |
| P/J776  | Figure 3   | 20   | DADF                 |
| P/J777  | Figure 3   | 15   | DADF                 |
| P/J778  | Figure 3   | 1    | DADF                 |
| P/J779  | Figure 3   | 19   | DADF                 |
| P/J780  | Figure 3   | 2    | DADF                 |
| P/J781  | Figure 7   | 3    | DADF                 |
| P/J782  | Figure 7   | 5    | DADF                 |
| P/J783  | Figure 7   | 6    | DADF                 |
| P/J784  | Figure 7   | 4    | DADF                 |
| P/J785  | Figure 7   | 10   | DADF                 |
| P/J786  | Figure 3   | 16   | DADF                 |
| P/J787  | Figure 3   | 17   | DADF                 |



Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly          |
|---------|------------|------|----------------------|
| P/J788  | Figure 3   | 11   | DADF                 |
| P/J789  | Figure 3   | 13   | DADF                 |
| P/J790  | Figure 3   | 6    | DADF                 |
| P/J791  | Figure 3   | 7    | DADF                 |
| P/J792  | Figure 3   | 14   | DADF                 |
| P/J793  | Figure 3   | 9    | DADF                 |
| P/J794  | Figure 3   | 18   | DADF                 |
| P/J795  | Figure 3   | 12   | DADF                 |
| P/J796  | Figure 3   | 10   | DADF                 |
| P/J797  | Figure 3   | 5    | DADF                 |
| P/J798  | Figure 3   | 8    | DADF                 |
| J801    | Figure 12  | 4    | OCT                  |
| J801A   | Figure 12  | 4    | OCT                  |
| J801B   | Figure 12  | 4    | OCT                  |
| P/J801  | Figure 30  | 9    | ESS                  |
| P/J802  | Figure 30  | 6    | ESS                  |
| P/J803  | Figure 12  | 5    | OCT                  |
| P/J804  | Figure 12  | 1    | OCT                  |
| P/J805  | Figure 12  | 6    | OCT                  |
| P/J806  | Figure 12  | 3    | OCT                  |
| P/J807  | Figure 12  | 2    | OCT                  |
| P903    | Figure 39  | 11   | Tray Module Rear     |
| P910    | Figure 39  | 17   | Tray Module Rear     |
| P/J1601 | Figure 30  | 7    | ESS                  |
| P/J5020 | Figure 9   | 6    | DADF                 |
| P/J5021 | Figure 8   | 5    | DADF                 |
| P/J5050 | Figure 9   | 7    | DADF                 |
| P/J5051 | Figure 8   | 9    | DADF                 |
| J7041   | Figure 9   | 10   | DADF                 |
| P/J7061 | Figure 9   | 12   | DADF                 |
| P/J7062 | Figure 9   | 2    | DADF                 |
| P/J7071 | Figure 9   | 11   | DADF                 |
| P/J7072 | Figure 9   | 4    | DADF                 |
| P/J7151 | Figure 11  | 10   | 1P DUP PWB/S2XIF PWB |
| P/J7152 | Figure 11  | 1    | 1P DUP PWB/S2XIF PWB |
| P/J7152 | Figure 11  | 9    | 1P DUP PWB/S2XIF PWB |
| P/J7261 | Figure 8   | 11   | DADF                 |
| P/J7262 | Figure 8   | 2    | DADF                 |
| J7320   | Figure 11  | 7    | 1P DUP PWB/S2XIF PWB |
| P/J7461 | Figure 7   | 8    | DADF                 |
| P/J7471 | Figure 7   | 7    | DADF                 |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly            |
|----------|------------|------|------------------------|
| P/J8175  | Figure 52  | 5    | Finisher Booklet Rear  |
| P/J8176  | Figure 51  | 5    | Finisher Booklet Front |
| P/J8177  | Figure 51  | 2    | Finisher Booklet Front |
| P/J8178  | Figure 51  | 4    | Finisher Booklet Front |
| P/J8179  | Figure 51  | 12   | Finisher Booklet Front |
| P/J8180  | Figure 51  | 11   | Finisher Booklet Front |
| P/J8181A | Figure 52  | 4    | Finisher Booklet Rear  |
| P/J8181B | Figure 52  | 4    | Finisher Booklet Rear  |
| P/J8182  | Figure 52  | 1    | Finisher Booklet Rear  |
| P/J8183  | Figure 52  | 2    | Finisher Booklet Rear  |
| P/J8185  | Figure 51  | 6    | Finisher Booklet Front |
| P/J8186  | Figure 51  | 10   | Finisher Booklet Front |
| P/J8187  | Figure 51  | 7    | Finisher Booklet Front |
| P/J8188  | Figure 51  | 13   | Finisher Booklet Front |
| P/J8189  | Figure 52  | 6    | Finisher Booklet Rear  |
| P/J8190A | Figure 51  | 3    | Finisher Booklet Front |
| P/J8190B | Figure 51  | 3    | Finisher Booklet Front |
| P/J8191A | Figure 51  | 1    | Finisher Booklet Front |
| P/J8191B | Figure 51  | 1    | Finisher Booklet Front |
| P/J8196A | Figure 51  | 9    | Finisher Booklet Front |
| P/J8196B | Figure 51  | 9    | Finisher Booklet Front |
| P/J8197A | Figure 51  | 8    | Finisher Booklet Front |
| P/J8197B | Figure 51  | 8    | Finisher Booklet Front |
| P8201    | Figure 52  | 3    | Finisher Booklet Rear  |
| J8201    | Figure 52  | 9    | Finisher Booklet Rear  |
| P8202    | Figure 52  | 7    | Finisher Booklet Rear  |
| J8202    | Figure 53  | 6    | Finisher Booklet PWB   |
| P8203    | Figure 52  | 8    | Finisher Booklet Rear  |
| J8203    | Figure 53  | 7    | Finisher Booklet PWB   |
| P/J8300  | Figure 50  | 6    | Finisher Main PWB      |
| P/J8301  | Figure 50  | 7    | Finisher Main PWB      |
| P/J8302  | Figure 50  | 15   | Finisher Main PWB      |
| P/J8303A | Figure 48  | 10   | Finisher Rear          |
| P/J8303B | Figure 48  | 10   | Finisher Rear          |
| P/J8304  | Figure 50  | 1    | Finisher Main PWB      |
| P/J8305  | Figure 50  | 17   | Finisher Main PWB      |
| P/J8306  | Figure 50  | 4    | Finisher Main PWB      |
| P/J8307  | Figure 50  | 5    | Finisher Main PWB      |
| P/J8308  | Figure 50  | 2    | Finisher Main PWB      |
| P/J8309  | Figure 50  | 18   | Finisher Main PWB      |
| P/J8310  | Figure 50  | 8    | Finisher Main PWB      |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly           |
|----------|------------|------|-----------------------|
| P8311    | Figure 50  | 14   | Finisher Main PWB     |
| P/J8312A | Figure 48  | 8    | Finisher Rear         |
| P/J8312B | Figure 48  | 8    | Finisher Rear         |
| P/J8313  | Figure 50  | 11   | Finisher Main PWB     |
| P/J8314  | Figure 50  | 10   | Finisher Main PWB     |
| P/J8315  | Figure 50  | 12   | Finisher Main PWB     |
| P/J8316  | Figure 50  | 9    | Finisher Main PWB     |
| P/J8317  | Figure 50  | 13   | Finisher Main PWB     |
| P/J8318A | Figure 48  | 16   | Finisher Rear         |
| P/J8318B | Figure 48  | 16   | Finisher Rear         |
| P/J8319  | Figure 43  | 7    | Finisher Transport    |
| P/J8320  | Figure 44  | 1    | Finisher Transport    |
| P/J8321  | Figure 43  | 2    | Finisher Transport    |
| P/J8322  | Figure 43  | 3    | Finisher Transport    |
| P/J8324  | Figure 48  | 25   | Finisher Rear         |
| P/J8325  | Figure 48  | 23   | Finisher Rear         |
| P/J8326  | Figure 49  | 4    | Finisher              |
| P/J8327  | Figure 49  | 3    | Finisher              |
| P/J8328  | Figure 48  | 21   | Finisher Rear         |
| P/J8330  | Figure 49  | 1    | Finisher              |
| P/J8331  | Figure 49  | 2    | Finisher              |
| P/J8332  | Figure 48  | 17   | Finisher Rear         |
| P/J8333  | Figure 48  | 14   | Finisher Rear         |
| P/J8334  | Figure 48  | 5    | Finisher Rear         |
| P/J8335  | Figure 48  | 4    | Finisher Rear         |
| P/J8336  | Figure 48  | 24   | Finisher Rear         |
| P/J8338A | Figure 48  | 22   | Finisher Rear         |
| P/J8338B | Figure 48  | 22   | Finisher Rear         |
| P/J8339  | Figure 48  | 1    | Finisher Rear         |
| P/J8340  | Figure 44  | 2    | Finisher Transport    |
| P/J8341  | Figure 48  | 20   | Finisher Rear         |
| P/J8342  | Figure 48  | 13   | Finisher Rear         |
| P/J8344  | Figure 47  | 3    | Finisher Puncher Unit |
| P/J8345  | Figure 48  | 11   | Finisher Rear         |
| P/J8346  | Figure 47  | 8    | Finisher Puncher Unit |
| P/J8347  | Figure 47  | 7    | Finisher Puncher Unit |
| P/J8348  | Figure 47  | 1    | Finisher Puncher Unit |
| P/J8349  | Figure 48  | 12   | Finisher Rear         |
| P/J8350  | Figure 47  | 5    | Finisher Puncher Unit |
| P/J8351  | Figure 47  | 4    | Finisher Puncher Unit |
| P/J8352  | Figure 47  | 2    | Finisher Puncher Unit |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly           |
|----------|------------|------|-----------------------|
| P/J8353  | Figure 47  | 6    | Finisher Puncher Unit |
| P/J8354  | Figure 45  | 3    | Finisher Stapler Unit |
| P/J8355  | Figure 48  | 15   | Finisher Rear         |
| P/J8356  | Figure 45  | 1    | Finisher Stapler Unit |
| P/J8357  | Figure 45  | 2    | Finisher Stapler Unit |
| P/J8358  | Figure 45  | 4    | Finisher Stapler Unit |
| P/J8359  | Figure 46  | 2    | Finisher Tamper Unit  |
| P/J8360  | Figure 46  | 3    | Finisher Tamper Unit  |
| P/J8361  | Figure 46  | 1    | Finisher Tamper Unit  |
| P/J8362A | Figure 46  | 5    | Finisher Tamper Unit  |
| P/J8362B | Figure 46  | 5    | Finisher Tamper Unit  |
| P/J8363A | Figure 46  | 4    | Finisher Tamper Unit  |
| P/J8363B | Figure 46  | 4    | Finisher Tamper Unit  |
| P/J8364  | Figure 44  | 3    | Finisher Transport    |
| P/J8365  | Figure 43  | 6    | Finisher Transport    |
| P/J8371  | Figure 49  | 7    | Finisher              |
| P/J8373  | Figure 49  | 6    | Finisher              |
| P/J8376  | Figure 50  | 16   | Finisher Main PWB     |
| P/J8377  | Figure 53  | 3    | Finisher Booklet PWB  |
| P/J8378  | Figure 53  | 2    | Finisher Booklet PWB  |
| P/J8383  | Figure 43  | 5    | Finisher Transport    |
| J8384    | Figure 43  | 4    | Finisher Transport    |
| P/J8385A | Figure 48  | 2    | Finisher Rear         |
| P/J8385B | Figure 48  | 2    | Finisher Rear         |
| P/J8386  | Figure 48  | 3    | Finisher Rear         |
| P/J8389  | Figure 50  | 3    | Finisher Main PWB     |
| P/J8391A | Figure 48  | 26   | Finisher Rear         |
| P/J8391B | Figure 48  | 26   | Finisher Rear         |
| P/J8392  | Figure 44  | 4    | Finisher Transport    |
| P/J8393A | Figure 48  | 27   | Finisher Rear         |
| P/J8393B | Figure 48  | 27   | Finisher Rear         |
| P/J8394  | Figure 48  | 6    | Finisher Rear         |
| P/J8396  | Figure 49  | 5    | Finisher              |
| P/J8400  | Figure 42  | 6    | Finisher I/F Module   |
| P/J8401  | Figure 42  | 4    | Finisher I/F Module   |
| P/J8402  | Figure 42  | 3    | Finisher I/F Module   |
| P/J8403  | Figure 42  | 2    | Finisher I/F Module   |
| P/J8404  | Figure 42  | 7    | Finisher I/F Module   |
| P/J8405  | Figure 53  | 4    | Finisher Booklet PWB  |
| P/J8406  | Figure 53  | 10   | Finisher Booklet PWB  |
| P/J8407  | Figure 53  | 9    | Finisher Booklet PWB  |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly          |
|----------|------------|------|----------------------|
| P/J8408  | Figure 53  | 8    | Finisher Booklet PWB |
| P/J8409  | Figure 48  | 9    | Finisher Rear        |
| P/J8411A | Figure 53  | 1    | Finisher Booklet PWB |
| P/J8411B | Figure 53  | 1    | Finisher Booklet PWB |
| P/J8429  | Figure 53  | 5    | Finisher Booklet PWB |
| P/J8432  | Figure 43  | 1    | Finisher Transport   |
| P/J8434A | Figure 48  | 7    | Finisher Rear        |
| P/J8434B | Figure 48  | 7    | Finisher Rear        |
| P/J8440A | Figure 48  | 18   | Finisher Rear        |
| P/J8440B | Figure 48  | 18   | Finisher Rear        |
| P/J8441A | Figure 48  | 19   | Finisher Rear        |
| P/J8441B | Figure 48  | 19   | Finisher Rear        |
| P/J8454A | Figure 42  | 5    | Finisher I/F Module  |
| P/J8454B | Figure 42  | 5    | Finisher I/F Module  |
| P/J8455A | Figure 42  | 1    | Finisher I/F Module  |
| P/J8455B | Figure 42  | 1    | Finisher I/F Module  |
| P/J8460  | Figure 49  | 13   | Finisher             |
| P/J8461A | Figure 49  | 8    | Finisher             |
| P/J8461B | Figure 49  | 8    | Finisher             |
| P/JA421  | Figure 28  | 5    | MCU PWB              |
| P/JA422  | Figure 28  | 3    | MCU PWB              |
| P/JA423  | Figure 28  | 2    | MCU PWB              |
| P/JA424  | Figure 28  | 26   | MCU PWB              |
| P/JB421  | Figure 28  | 6    | MCU PWB              |
| P/JB422  | Figure 28  | 4    | MCU PWB              |
| P/JB423  | Figure 28  | 1    | MCU PWB              |
| P/JB424  | Figure 28  | 25   | MCU PWB              |
| CN1      | Figure 1   | 5    | UI(HB)               |
| CN1      | Figure 2   | 3    | UI(FCW)              |
| CN1-1    | Figure 38  | 20   | LVPS                 |
| CN1-2    | Figure 38  | 23   | LVPS                 |
| CN1-3    | Figure 38  | 21   | LVPS                 |
| CN2      | Figure 1   | 9    | UI(HB)               |
| CN2      | Figure 2   | 1    | FCW                  |
| CN2-1    | Figure 38  | 17   | LVPS                 |
| CN2-2    | Figure 38  | 16   | LVPS                 |
| CN3      | Figure 1   | 4    | UI(HB)               |
| CN3-1    | Figure 38  | 18   | LVPS                 |
| CN3-2    | Figure 38  | 19   | LVPS                 |
| CN4      | Figure 1   | 6    | UI(HB)               |
| CN4-1    | Figure 38  | 4    | LVPS                 |

Table 1 Plug/Jack List

| P/J No.  | Figure No. | Item | Subassembly |
|----------|------------|------|-------------|
| CN4-2    | Figure 38  | 1    | LVPS        |
| CN4-3    | Figure 38  | 3    | LVPS        |
| CN4-4    | Figure 38  | 2    | LVPS        |
| CN5      | Figure 1   | 3    | UI(HB)      |
| CON CN3  | Figure 1   | 11   | UI(HB)      |
| CP CN1   | Figure 1   | 7    | UI(HB)      |
| F1       | Figure 7   | 2    | DADF        |
| F2       | Figure 7   | 1    | DADF        |
| FS001    | Figure 40  | 4    | HCF         |
| FS002    | Figure 40  | 4    | HCF         |
| FS003    | Figure 40  | 9    | HCF         |
| FS004    | Figure 40  | 9    | HCF         |
| FS2E     | Figure 38  | 22   | LVPS        |
| FS2L     | Figure 38  | 22   | LVPS        |
| FS2N     | Figure 38  | 22   | LVPS        |
| FS31L    | Figure 38  | 24   | LVPS        |
| FS31N    | Figure 38  | 24   | LVPS        |
| FS32L    | Figure 38  | 24   | LVPS        |
| FS32N    | Figure 38  | 24   | LVPS        |
| FS64     | Figure 23  | 16   | Fuser Assy  |
| FS65     | Figure 23  | 14   | Fuser Assy  |
| FS84     | Figure 38  | 25   | LVPS        |
| FS85     | Figure 38  | 25   | LVPS        |
| FS86     | Figure 38  | 25   | LVPS        |
| INV CN1  | Figure 1   | 10   | UI(HB)      |
| INV CN2  | Figure 1   | 1    | UI(HB)      |
| LCD CN1  | Figure 1   | 2    | UI(HB)      |
| PF/JF01  | Figure 41  | 4    | HCF         |
| PF/JF02  | Figure 41  | 5    | HCF         |
| PF/JF03  | Figure 41  | 6    | HCF         |
| PF/JF04  | Figure 41  | 7    | HCF         |
| PF/JF05  | Figure 41  | 8    | HCF         |
| PF/JF06  | Figure 41  | 9    | HCF         |
| PF/JF08  | Figure 41  | 3    | HCF         |
| PF/JF51  | Figure 41  | 2    | HCF         |
| PF/JF52  | Figure 41  | 1    | HCF         |
| PF/JF53  | Figure 41  | 10   | HCF         |
| PF/JF54  | Figure 40  | 3    | HCF         |
| PF/JF56  | Figure 40  | 10   | HCF         |
| PF/JF56A | Figure 40  | 10   | HCF         |
| PF/JF56B | Figure 40  | 10   | HCF         |

Table 1 Plug/Jack List

| P/J No. | Figure No. | Item | Subassembly |
|---------|------------|------|-------------|
| PF/JF57 | Figure 41  | 11   | HCF         |
| PF/JF58 | Figure 40  | 1    | HCF         |
| PF/JF59 | Figure 40  | 2    | HCF         |
| PF/JF60 | Figure 40  | 8    | HCF         |
| PF/JF61 | Figure 40  | 6    | HCF         |
| PF/JF62 | Figure 40  | 7    | HCF         |
| PF/JF67 | Figure 40  | 5    | HCF         |

## 7.1.2 Plug/Jack Location Illustrations

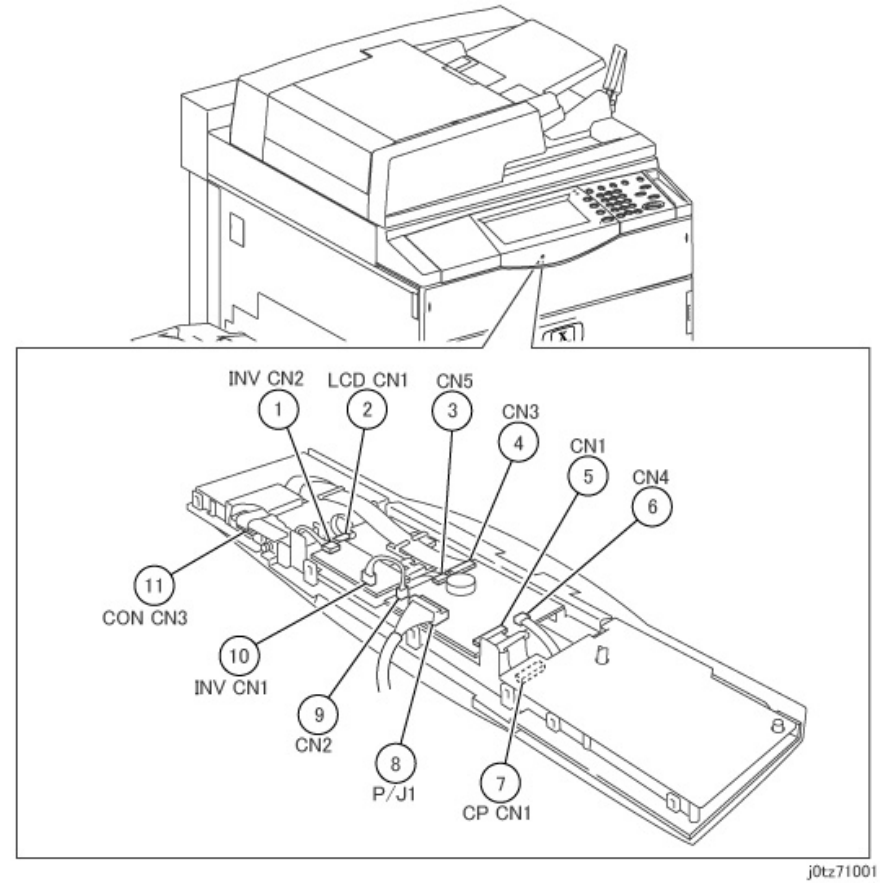


Figure 1 UI(HB) (j0tz71001)

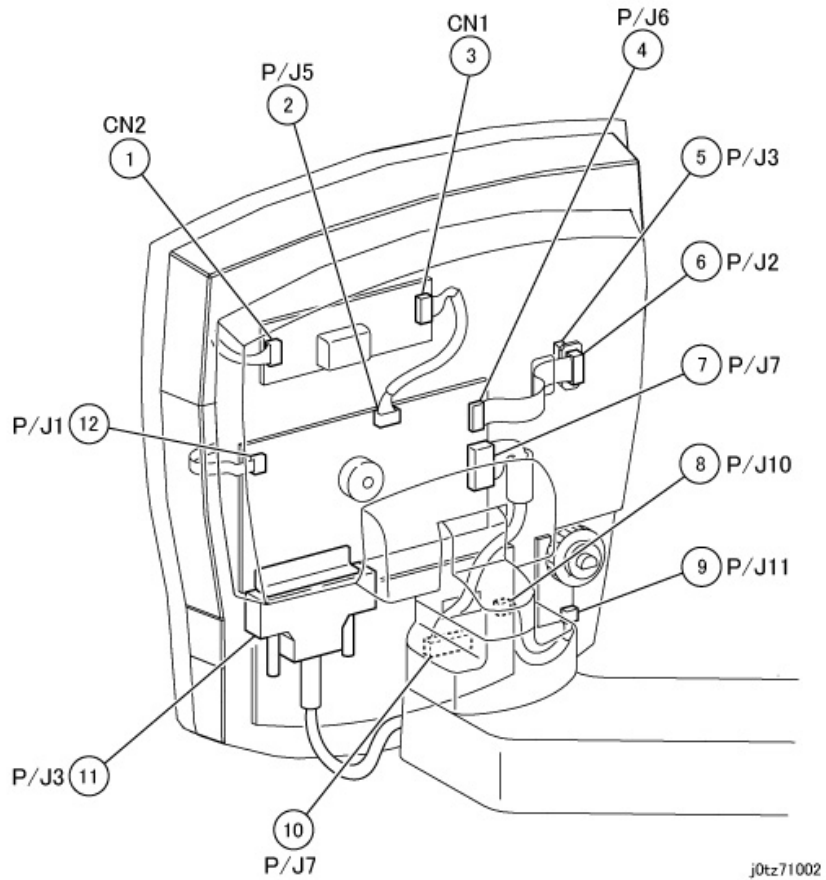


Figure 2 UI(FCW) (j0tz71002)

j0tz71002

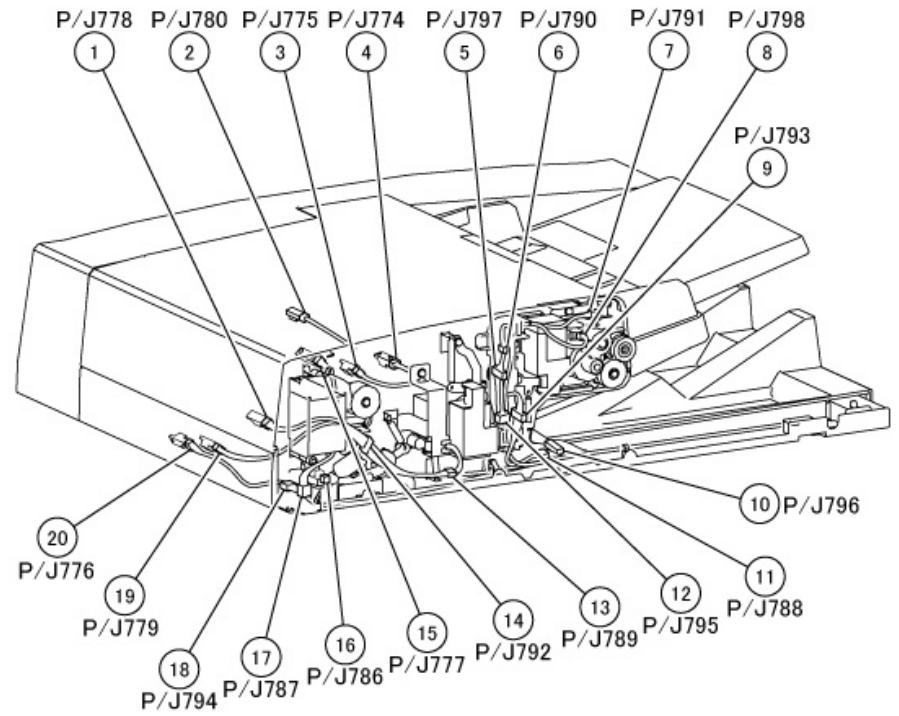


Figure 3 DADF 1/5 (j0tz71005)

j0tz71005

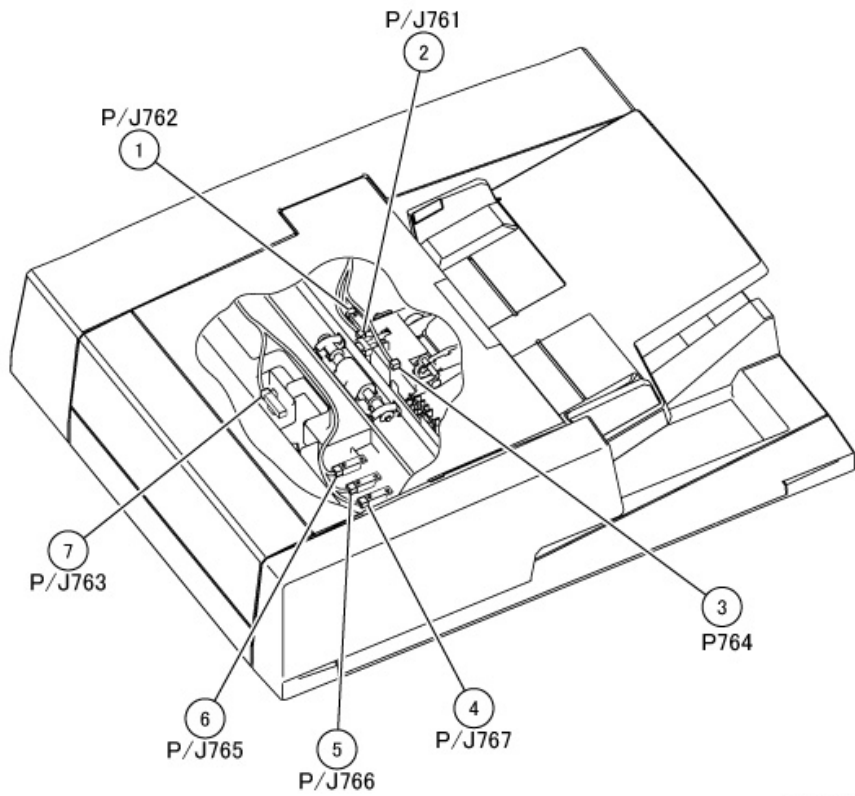


Figure 4 DADF 2/5 (j0tz71006)

j0tz71006

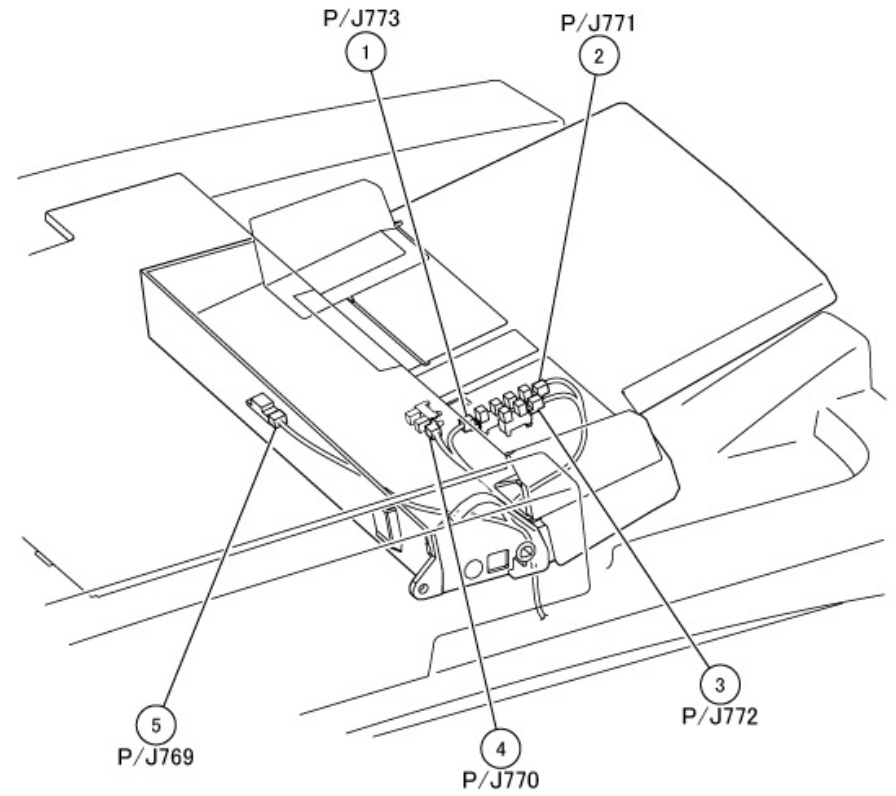


Figure 5 DADF 3/5 (j0tz71007)

j0tz71007

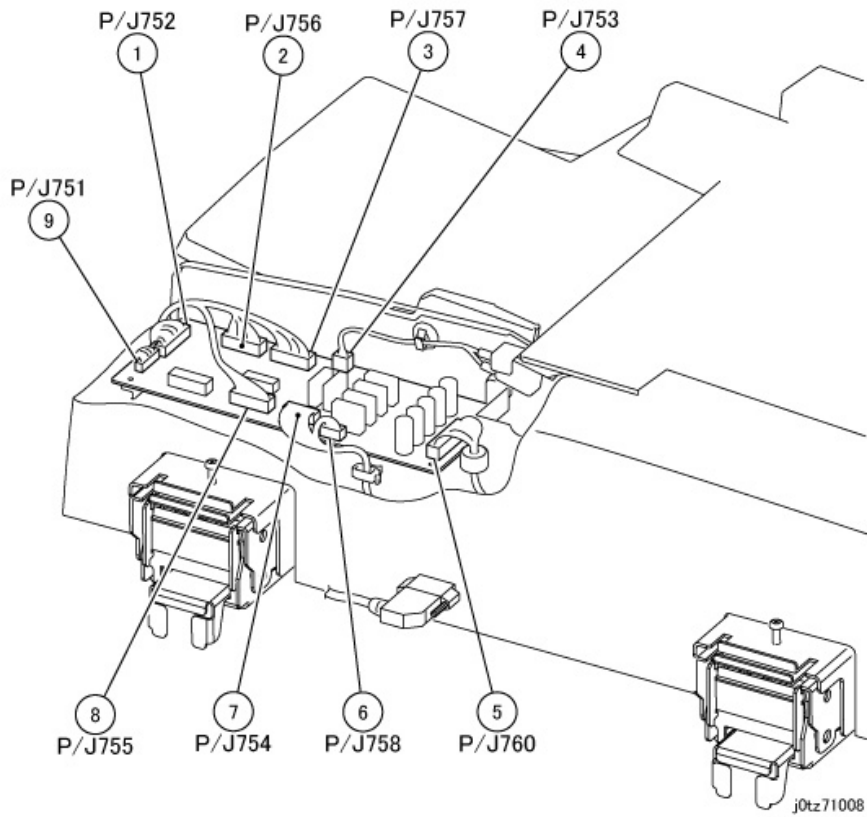


Figure 6 DADF 4/5 (j0tz71008)

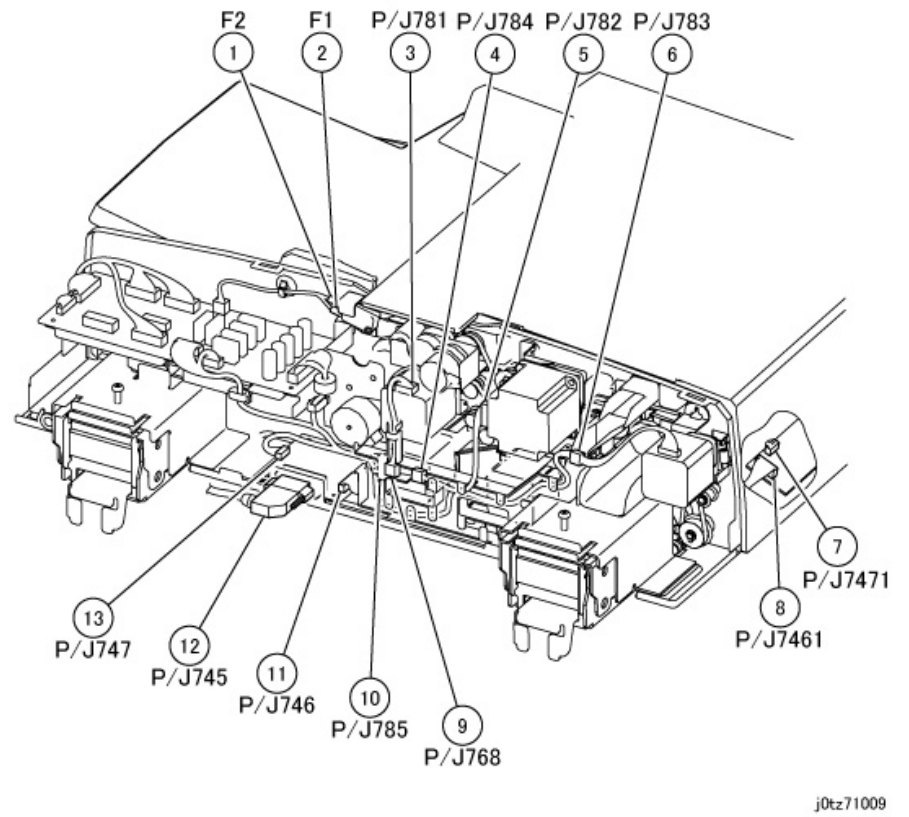
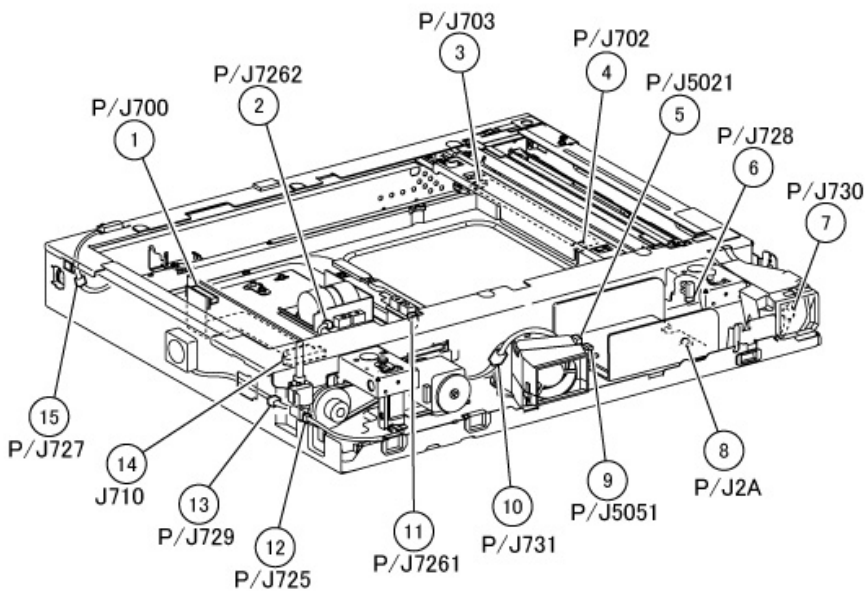
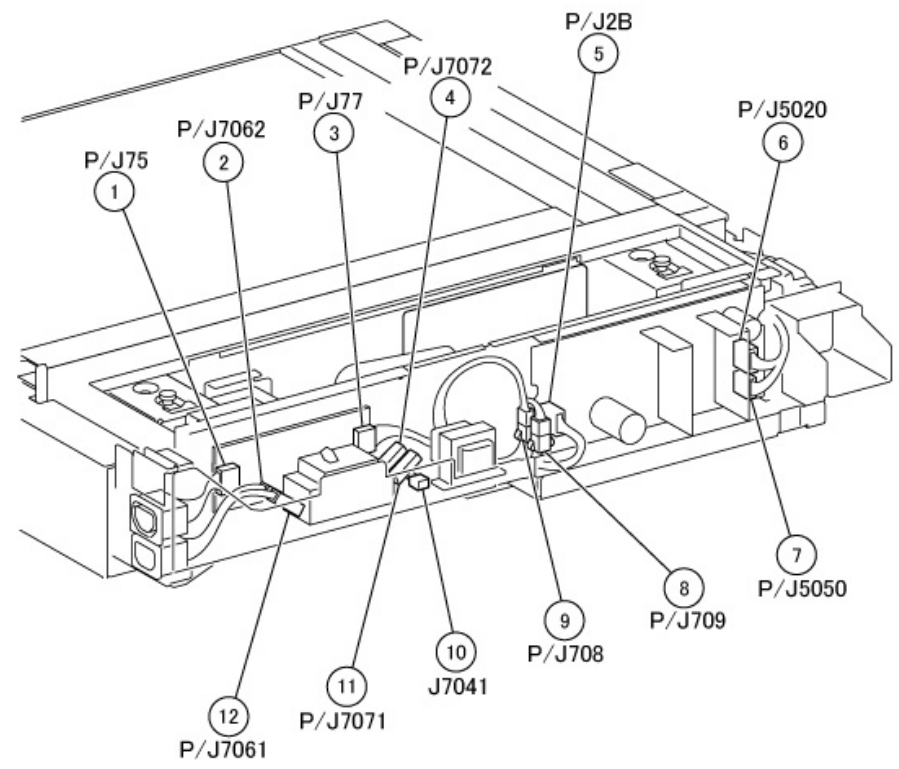


Figure 7 DADF 5/5 (j0tz71009)



j0tz71011

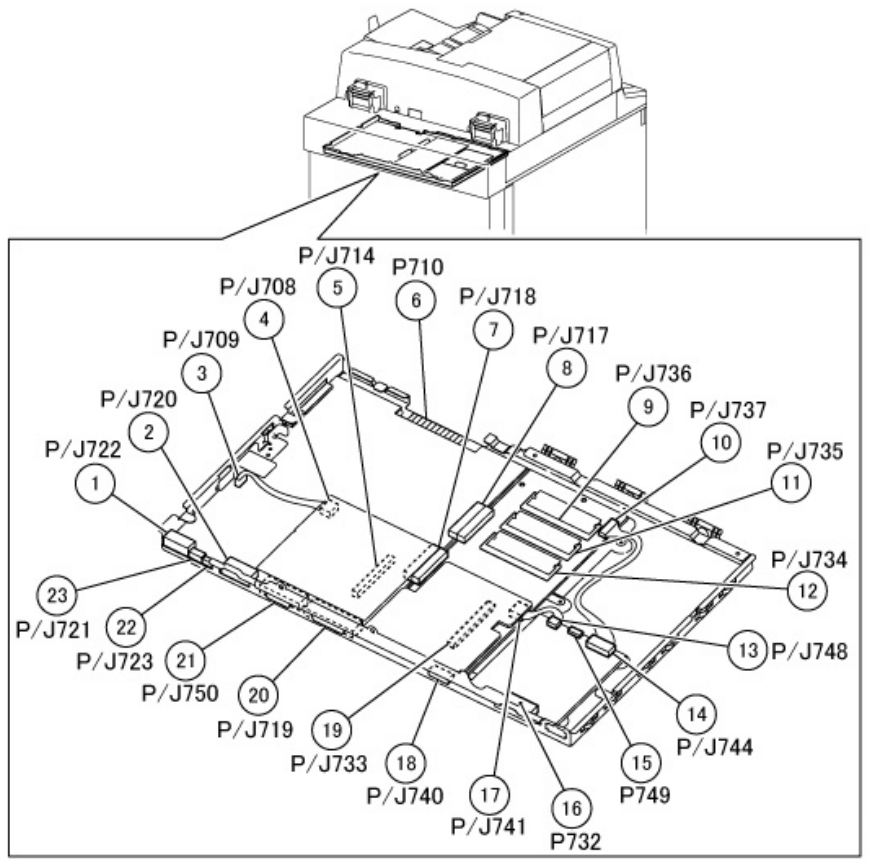
Figure 8 IIT (DADF) (j0tz71011)



j0tz71012

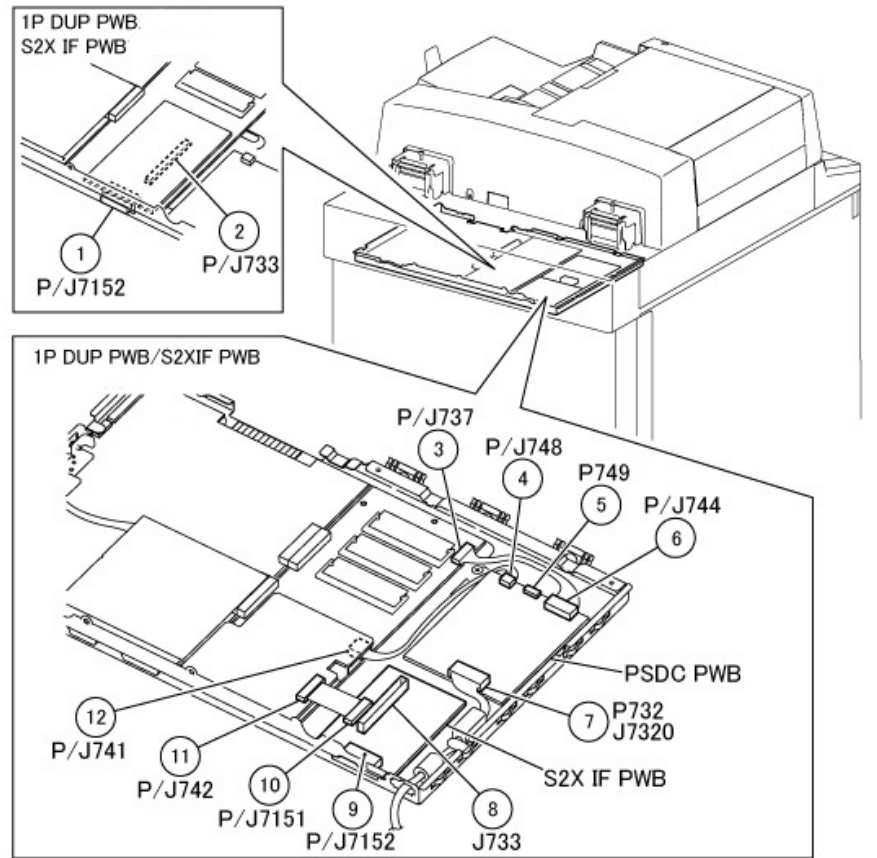
Figure 9 Power Chassis (DADF) (j0tz71012)





j0tz71013

Figure 10 IPS (j0tz71013)



j0tz71014

Figure 11 IPS(S2X IF PWB) (j0tz71014)

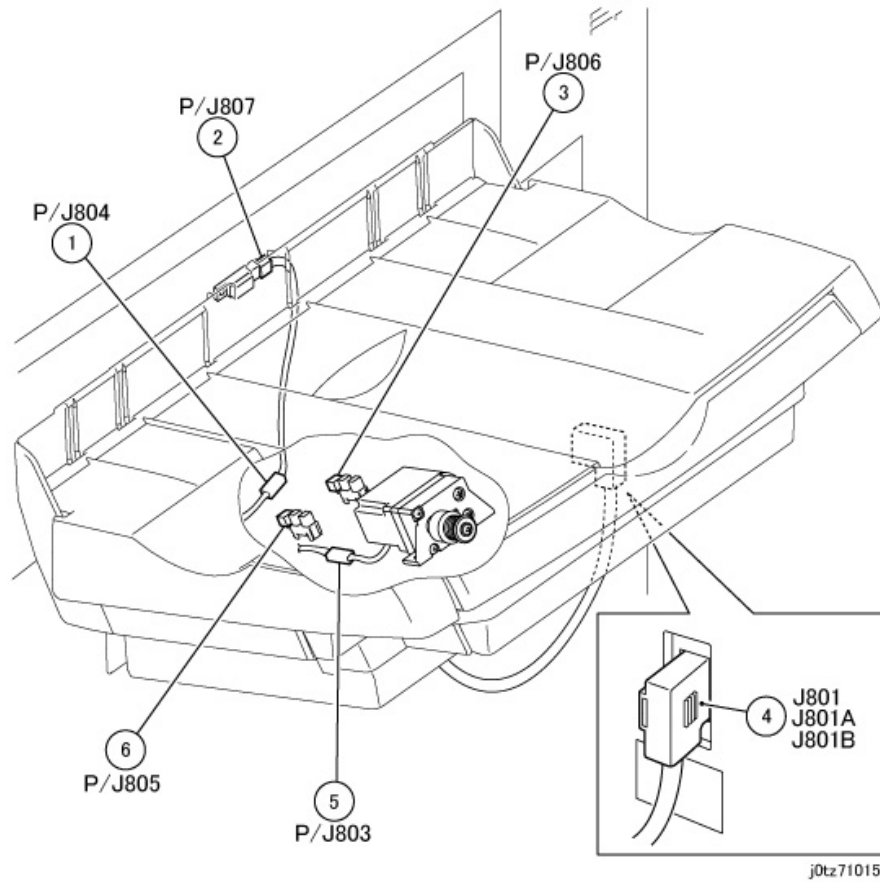


Figure 12 OCT (j0tz71015)

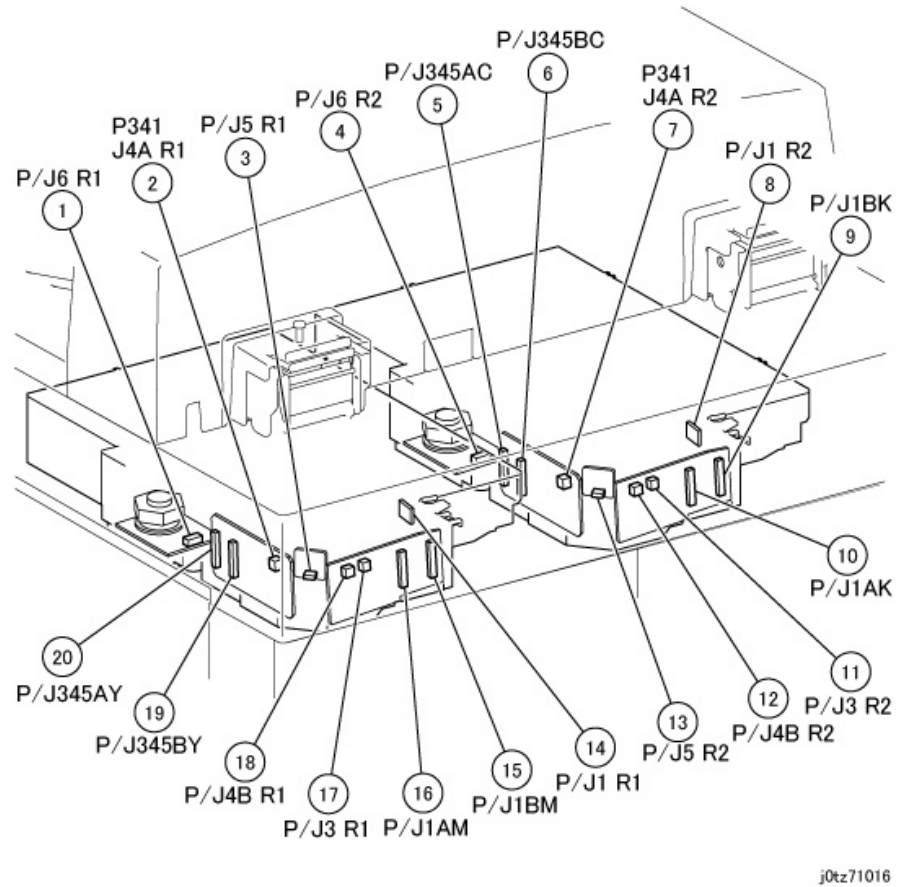
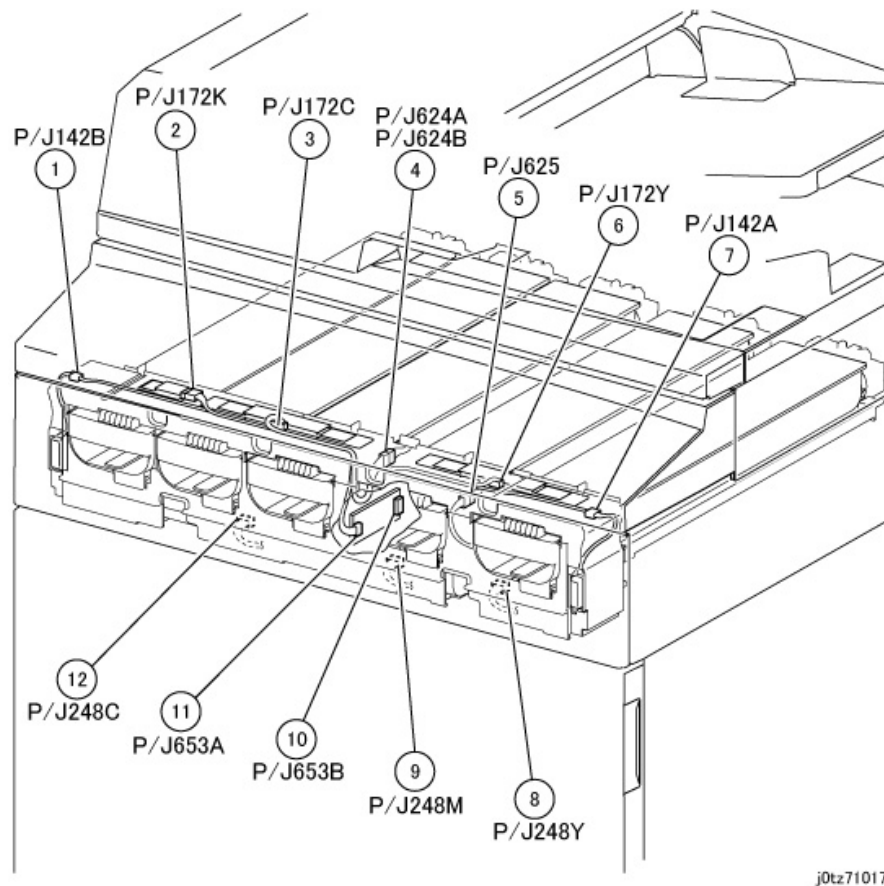
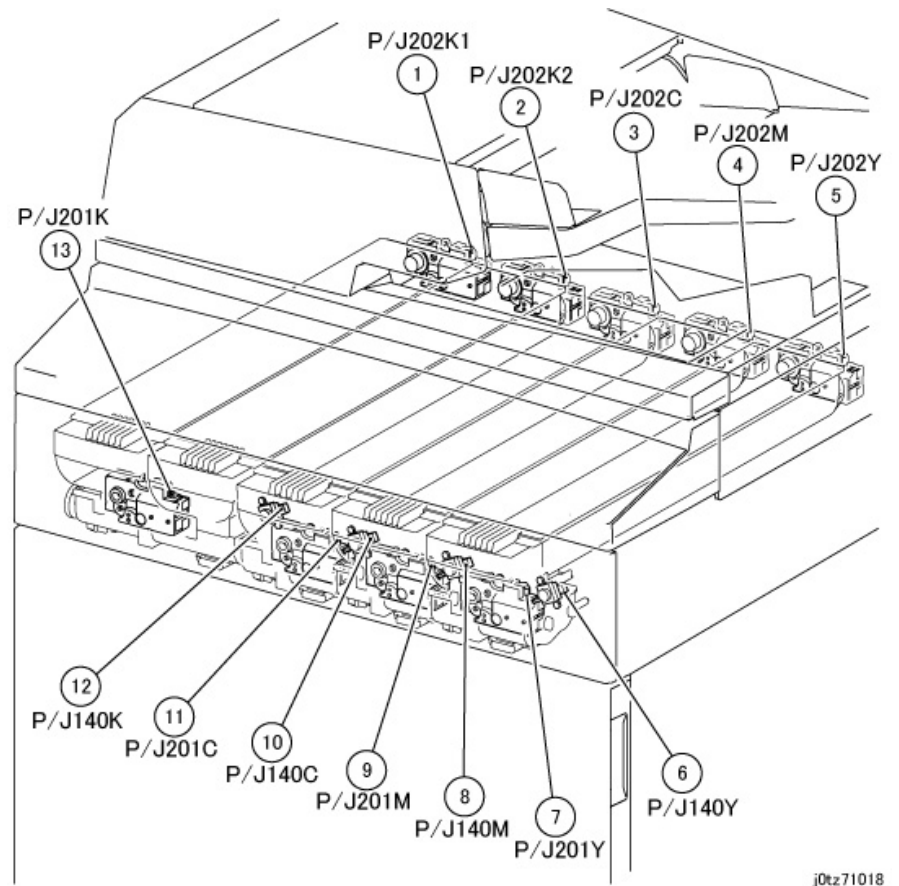


Figure 13 ROS (j0tz71016)



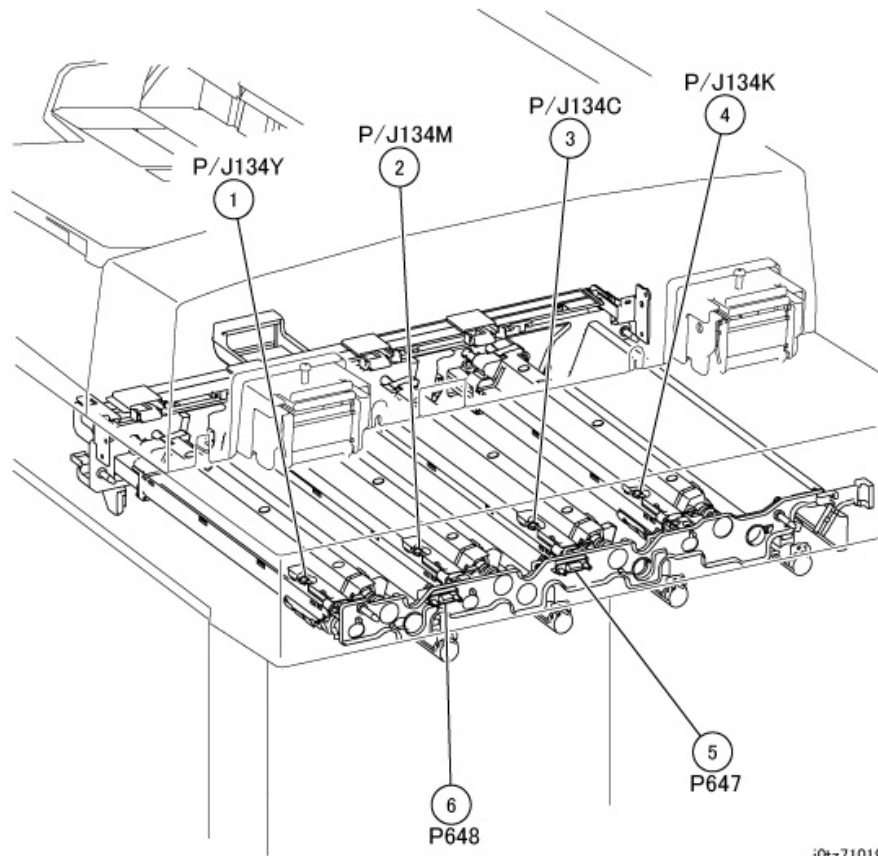
j0tz71017

Figure 14 Dispenser Unit 1/3 (j0tz71017)



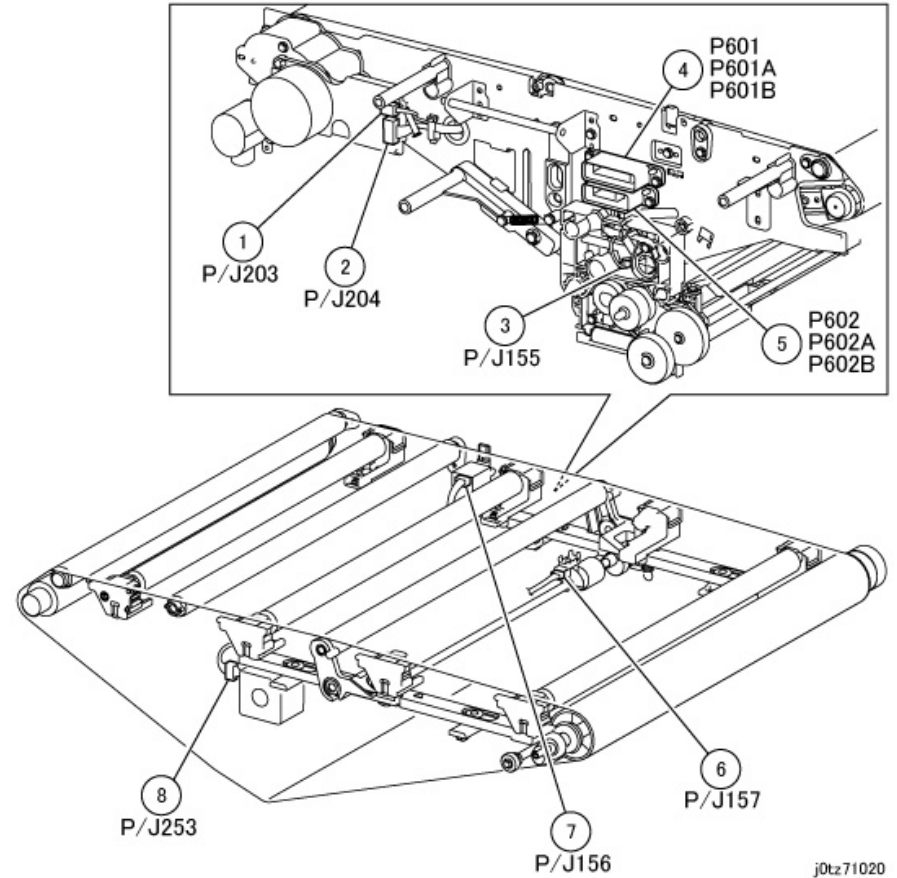
j0tz71018

Figure 15 Dispenser Unit 2/3 (j0tz71018)



j0tz71019

Figure 16 Dispenser Unit 3/3 (j0tz71019)



j0tz71020

Figure 17 IBT Belt Unit 1/2 (j0tz71020)

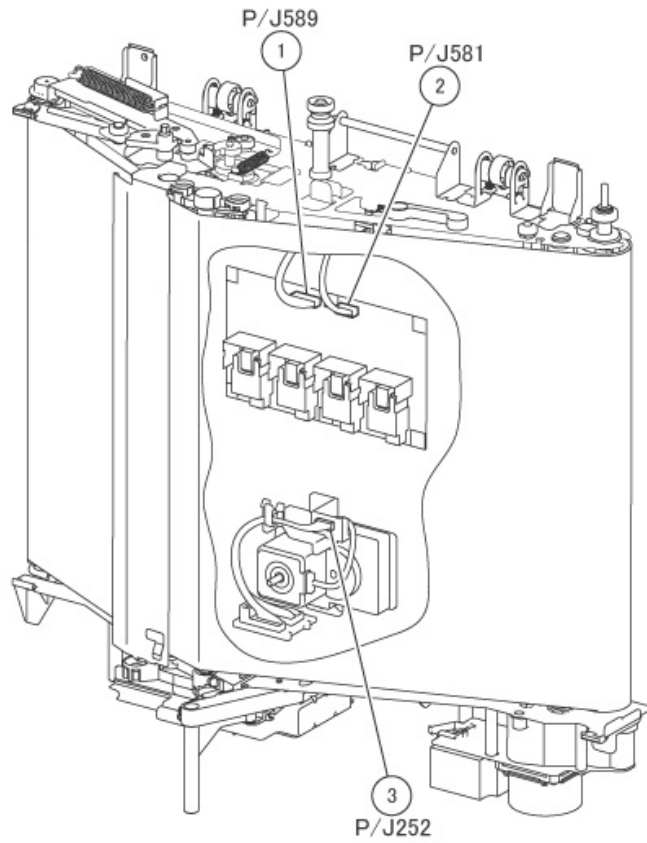


Figure 18 IBT Belt Unit 2/2 (j0tz71021)

j0tz71021

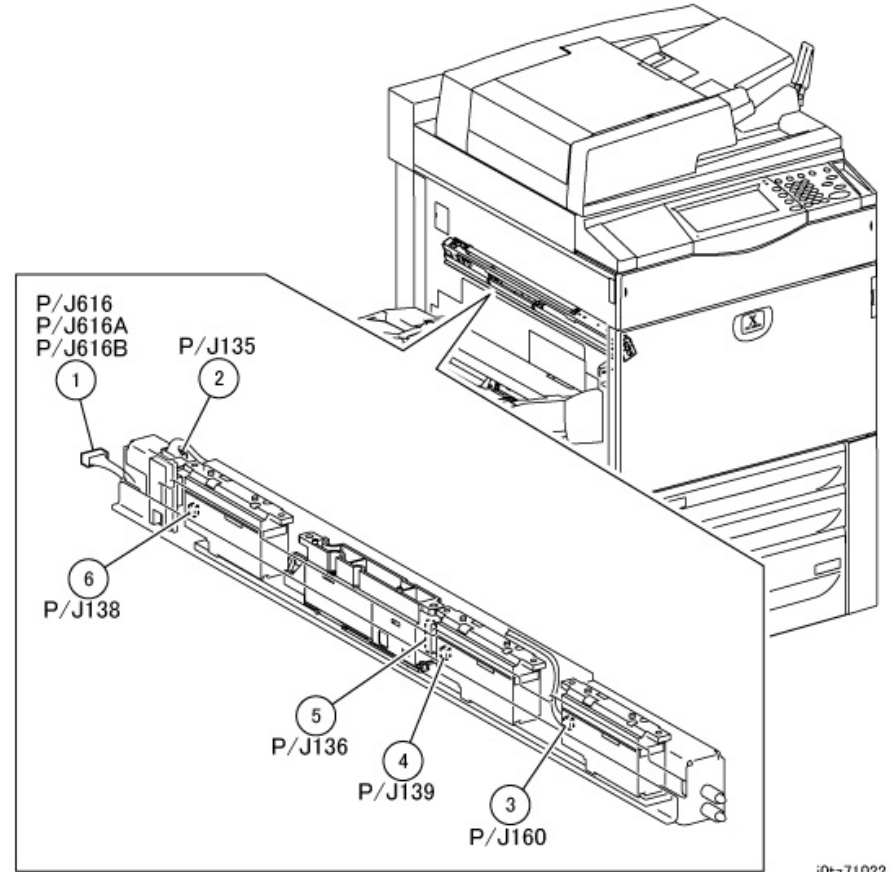
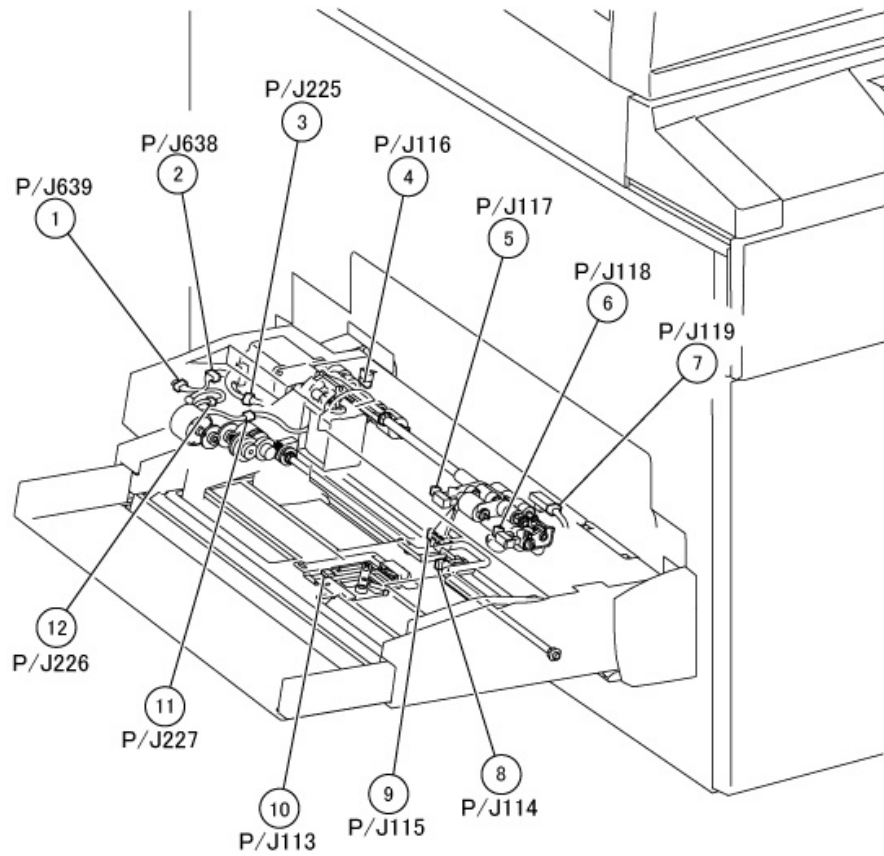


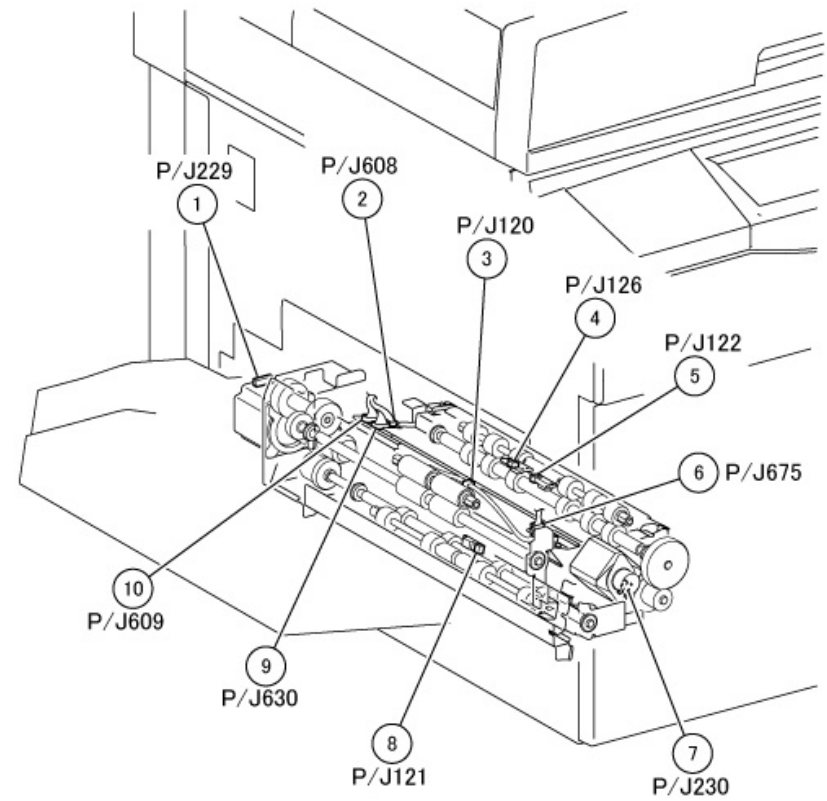
Figure 19 MOB Assembly (j0tz71022)

j0tz71022



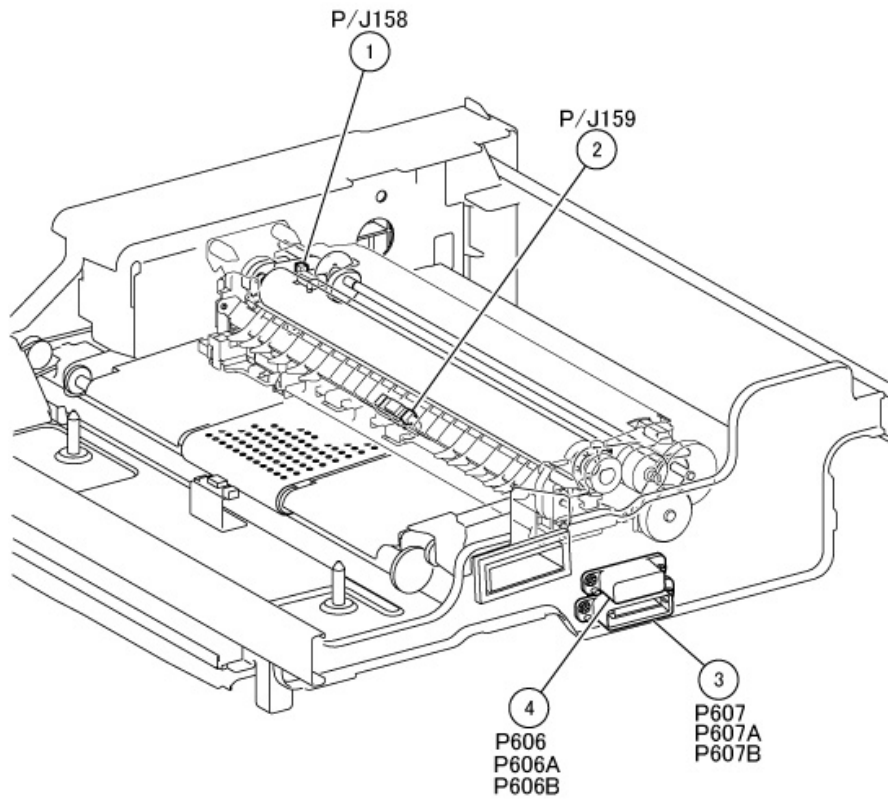
j0tz71023

Figure 20 MSI (j0tz71023)



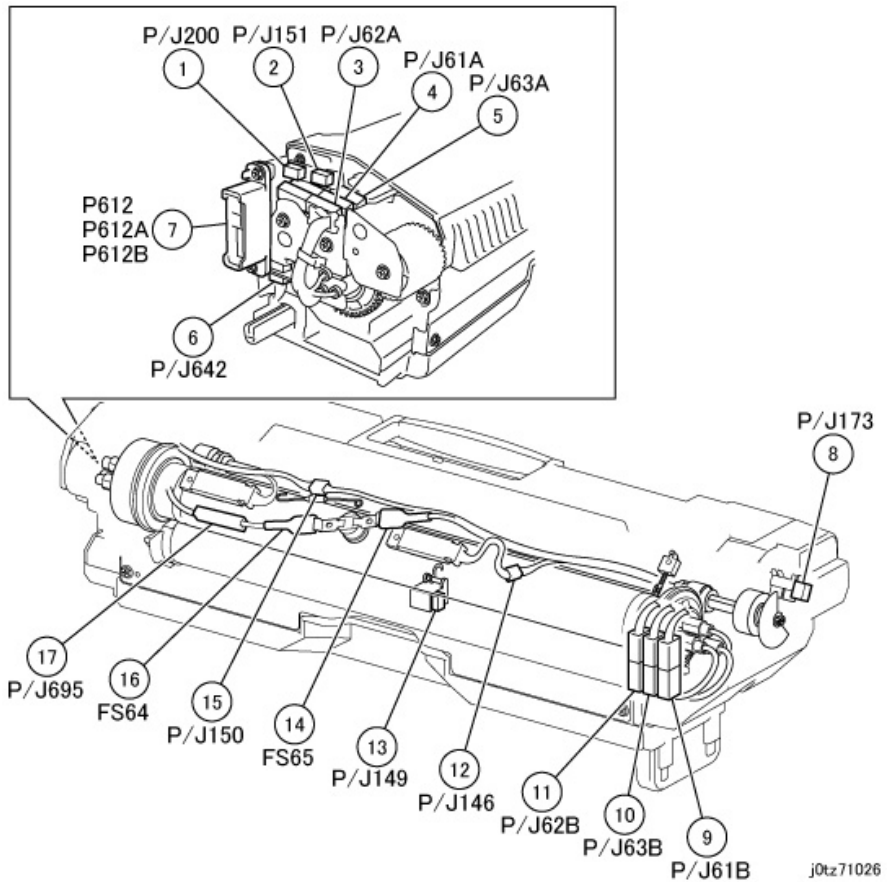
j0tz71024

Figure 21 Registration Assembly (j0tz71024)



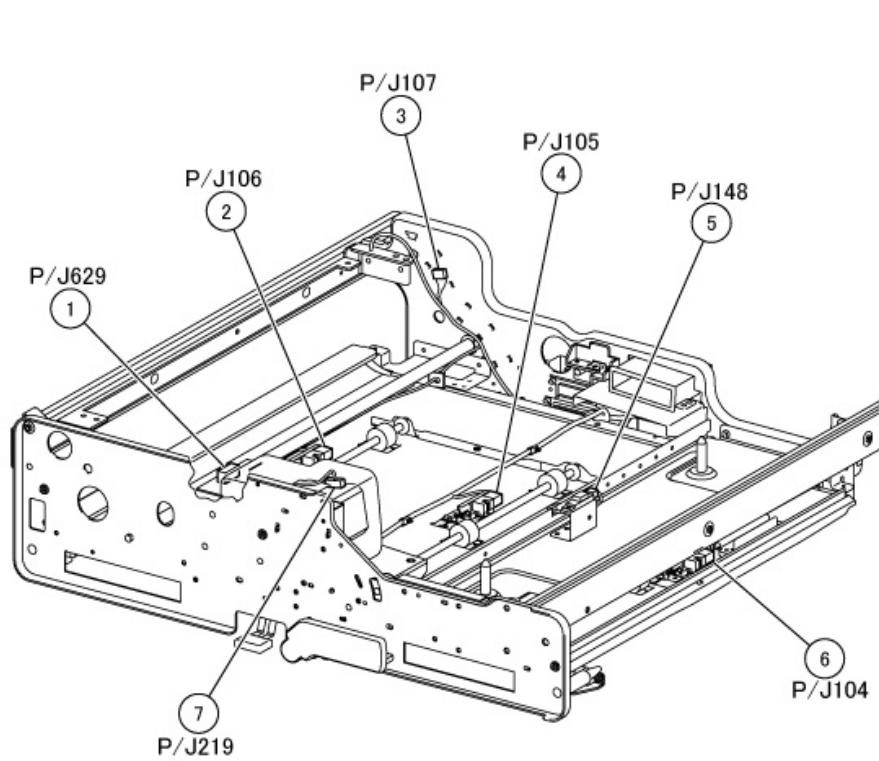
j0tz71025

Figure 22 2nd BTR Roll Assembly (j0tz71025)



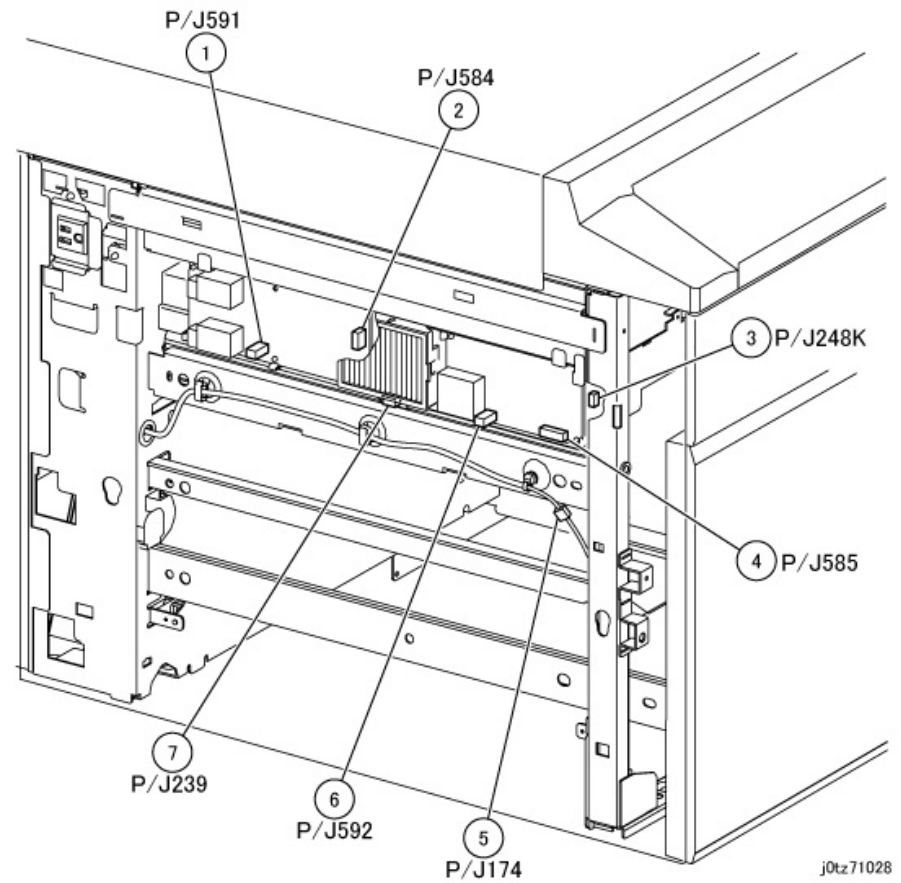
j0tz71026

Figure 23 Fuser Assembly (j0tz71026)



j0tz71027

Figure 24 Drawer Frame (j0tz71027)



j0tz71028

Figure 25 HVPS S4,S5 (j0tz71028)



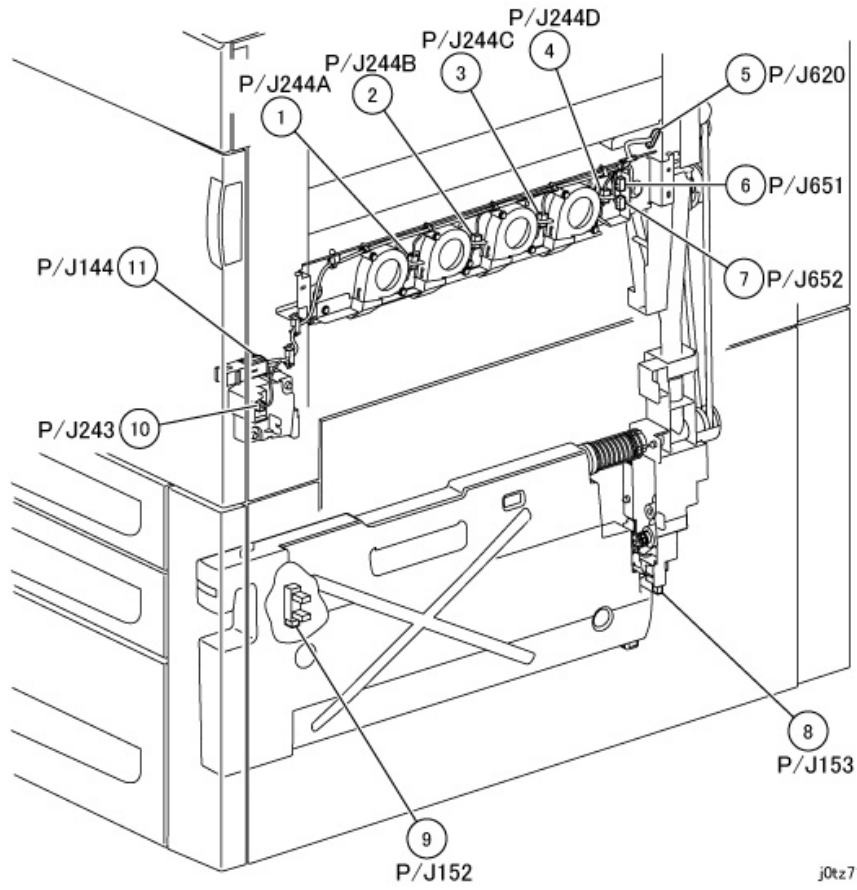


Figure 26 Exit Fan, Waste Bottle Full Sensor (j0tz71029)

j0tz71029

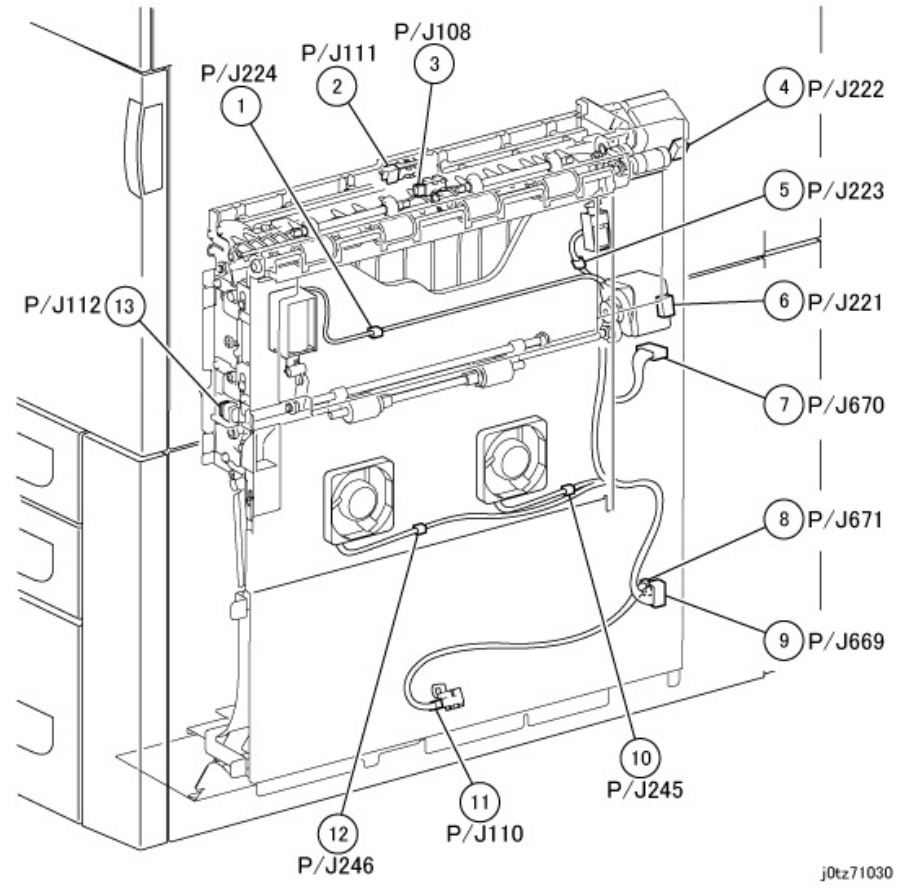


Figure 27 Inverter Transport (j0tz71030)

j0tz71030

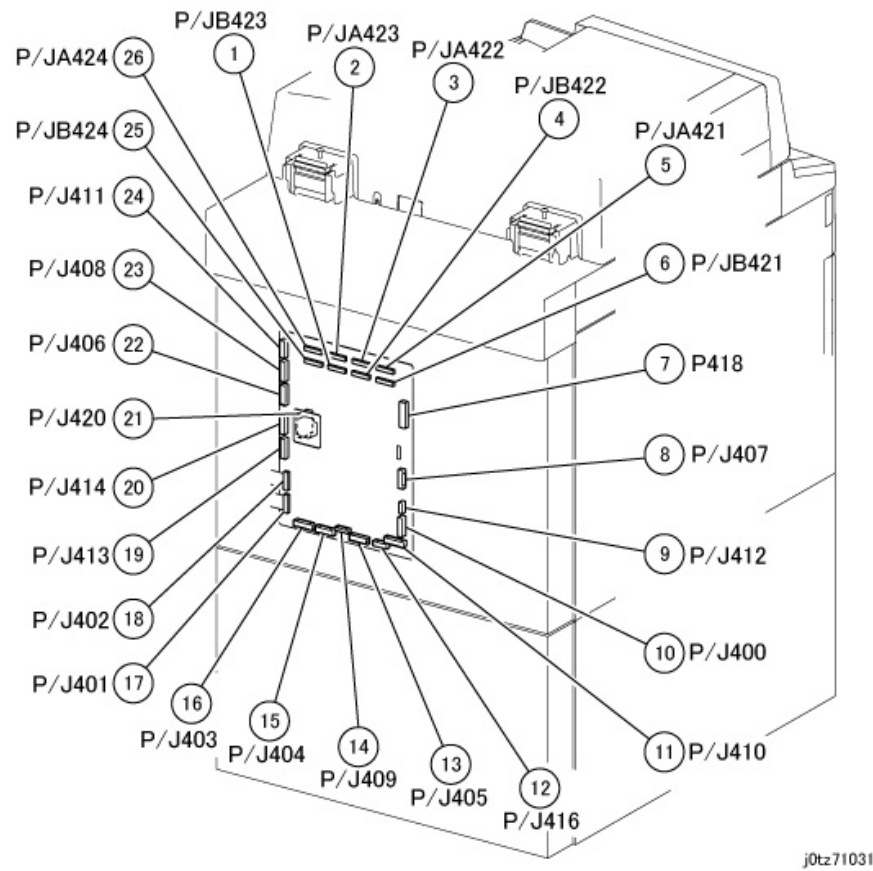


Figure 28 MCU PWB (j0tz71031)

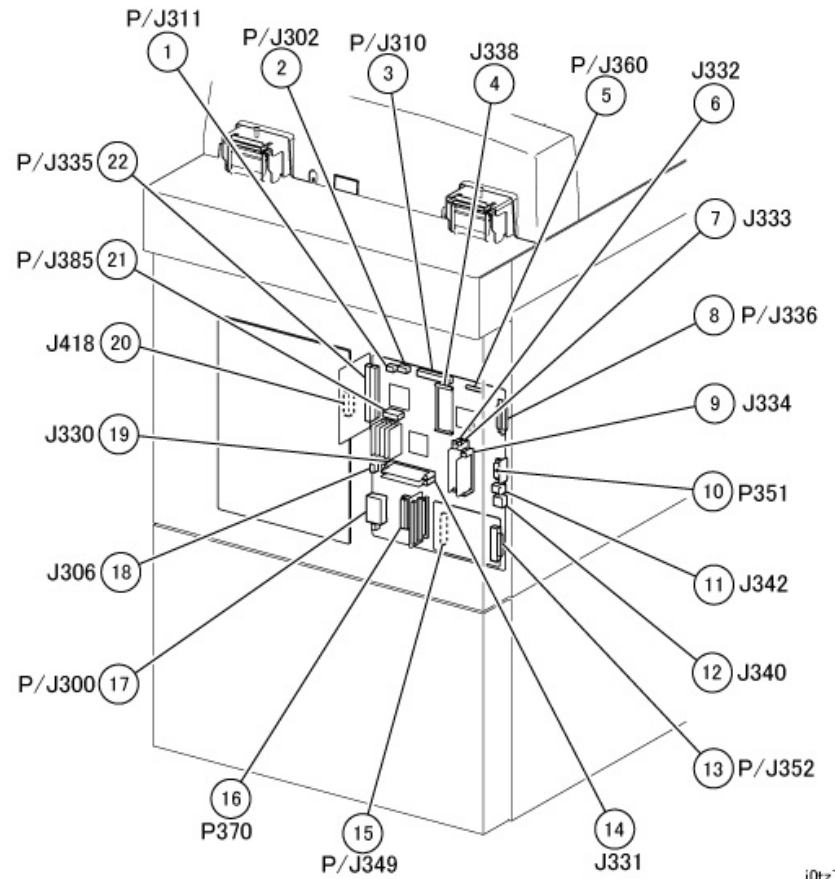


Figure 29 ESS 1/2 (j0tz71032)

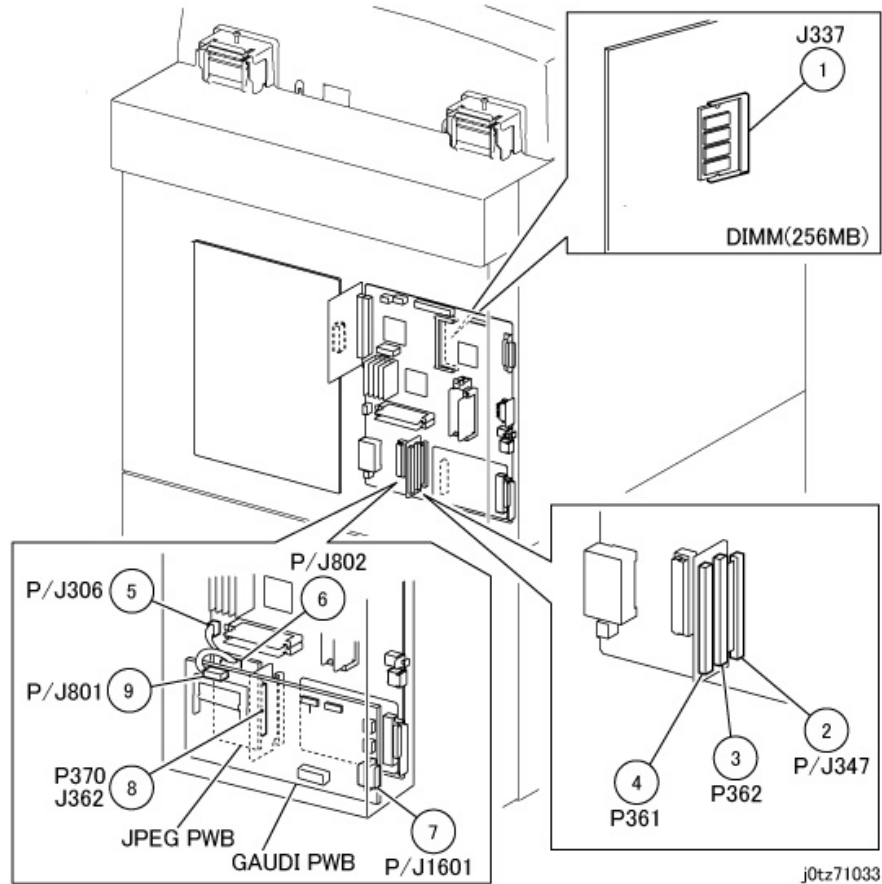


Figure 30 ESS 2/2 (j0tz71033)

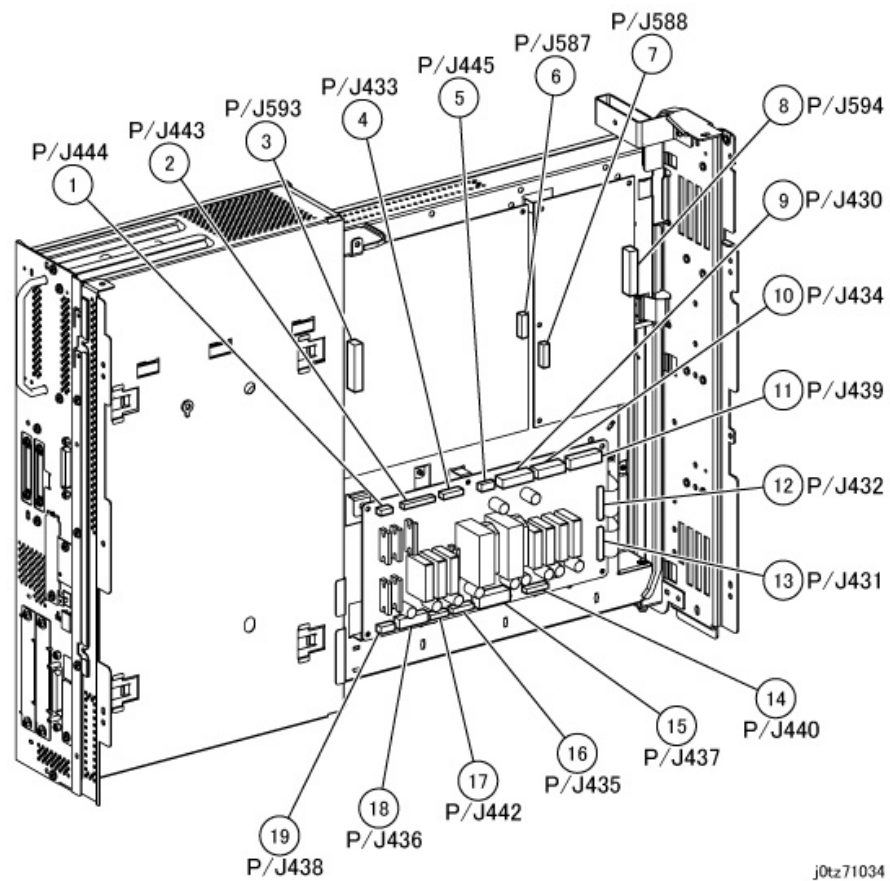


Figure 31 IOT Driver PWB, HVPS (j0tz71034)

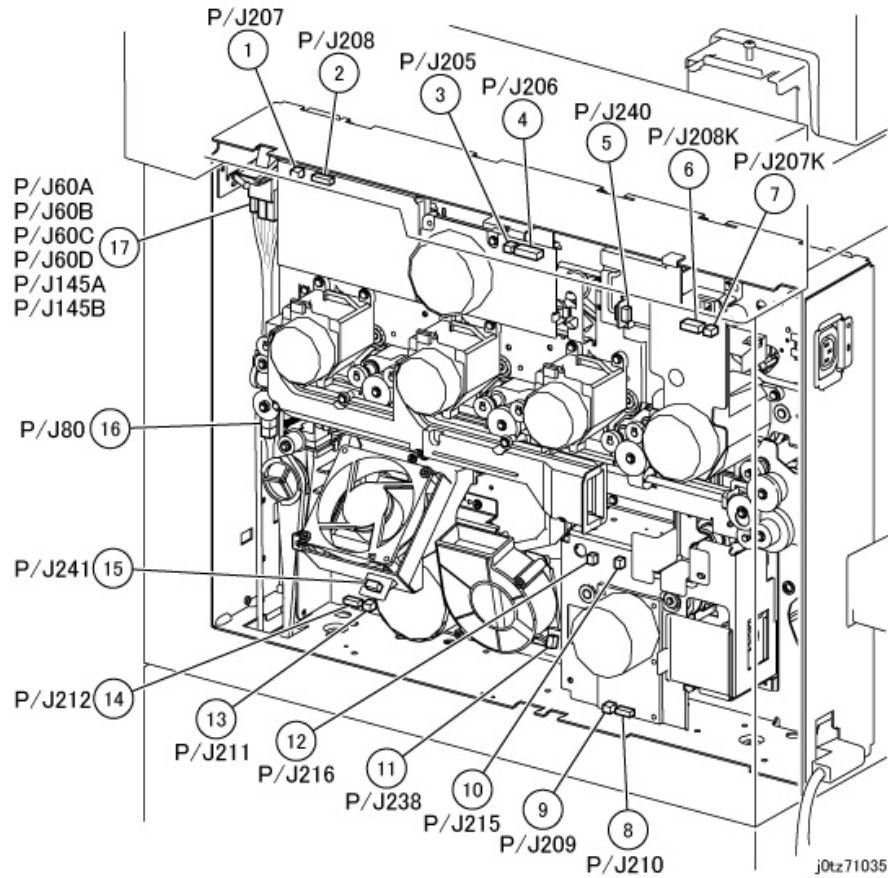


Figure 32 IOT Rear 1/2 (j0tz71035)

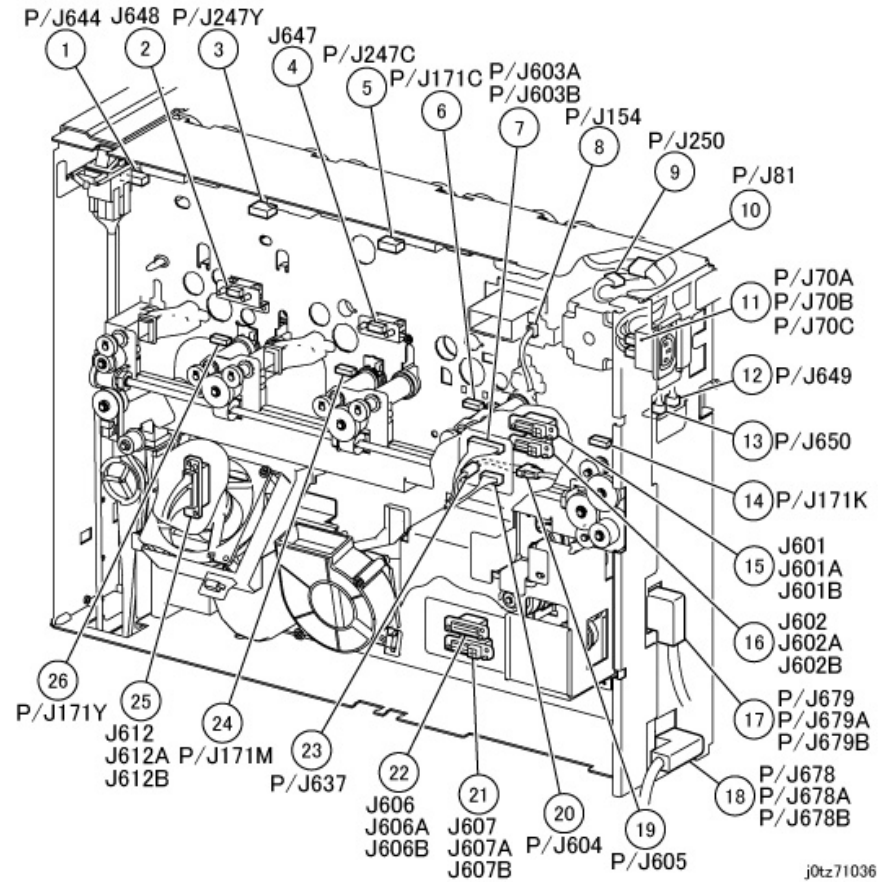


Figure 33 IOT Rear 2/2 (j0tz71036)

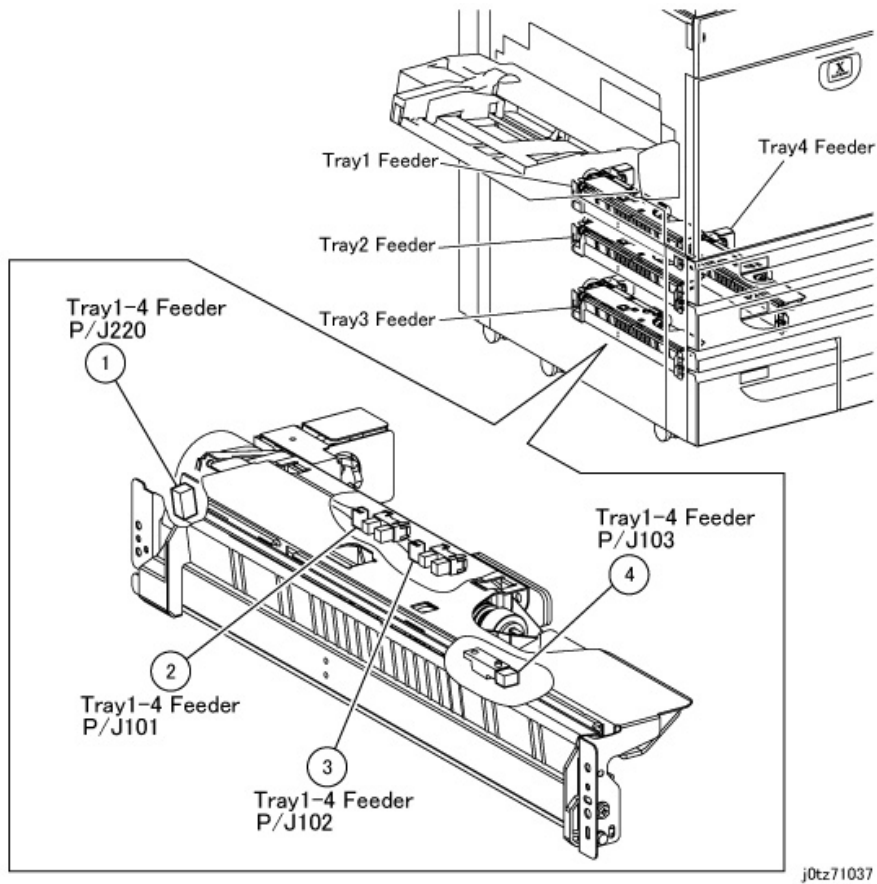


Figure 34 Tray 1-4 Feeder (j0tz71037)

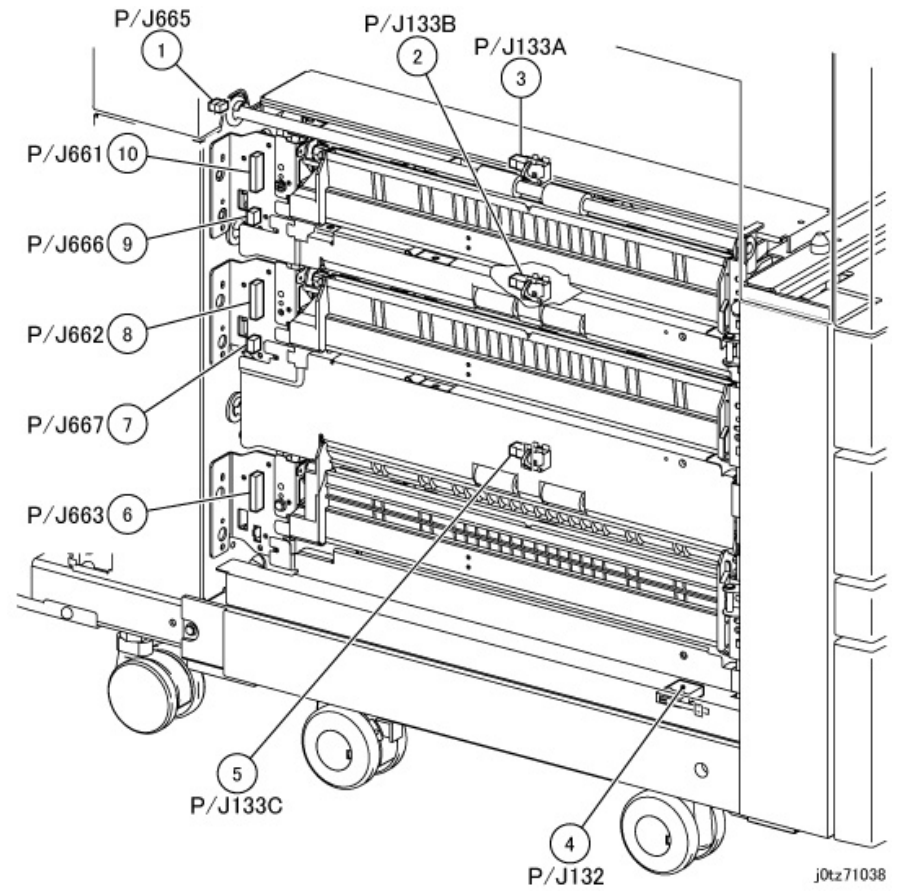


Figure 35 Feed Out Sensor 1-3 (j0tz71038)

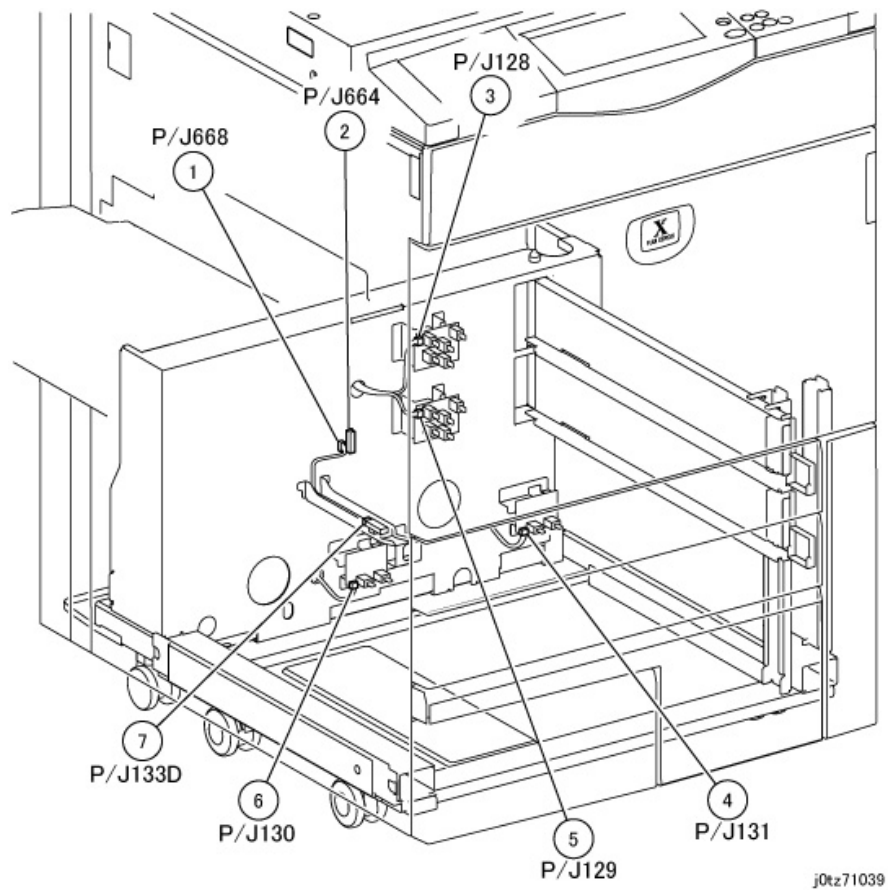


Figure 36 Paper Size Sensor (j0tz71039)

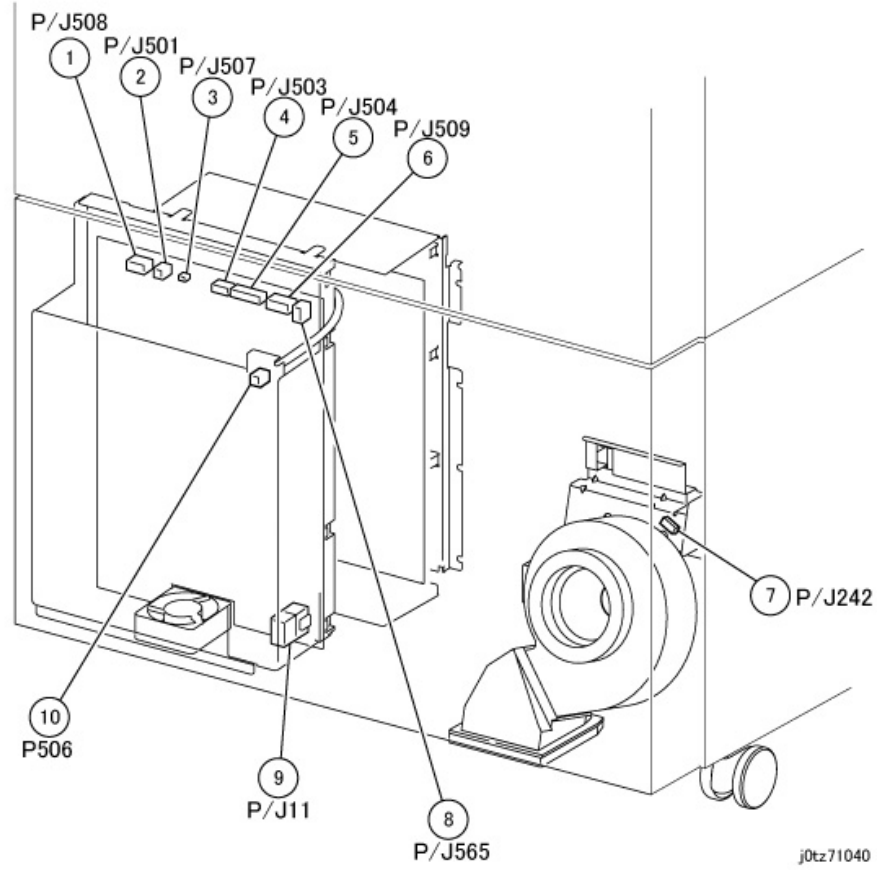


Figure 37 LVPS 1/2 (j0tz71040)

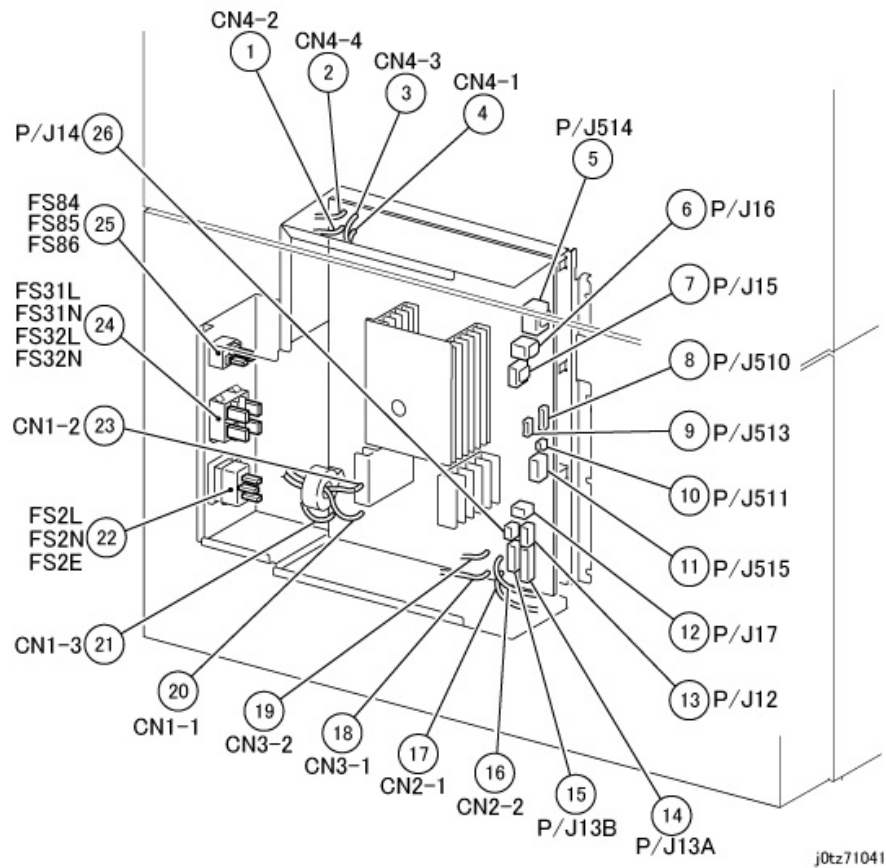


Figure 38 LVPS 2/2 (j0tz71041)

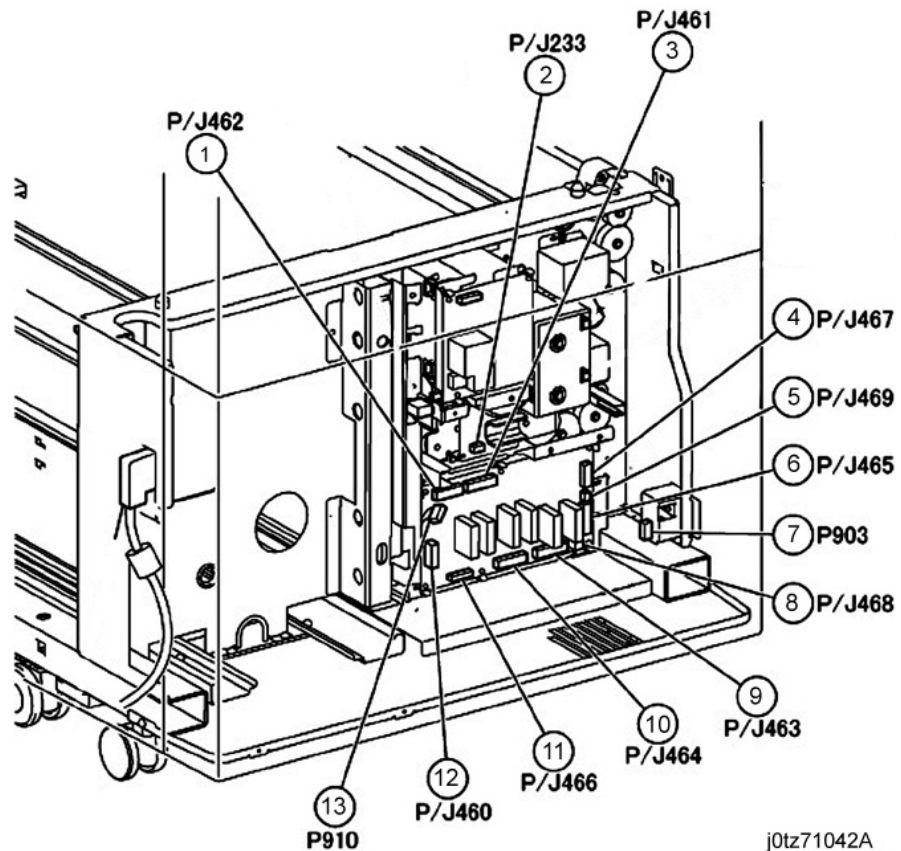
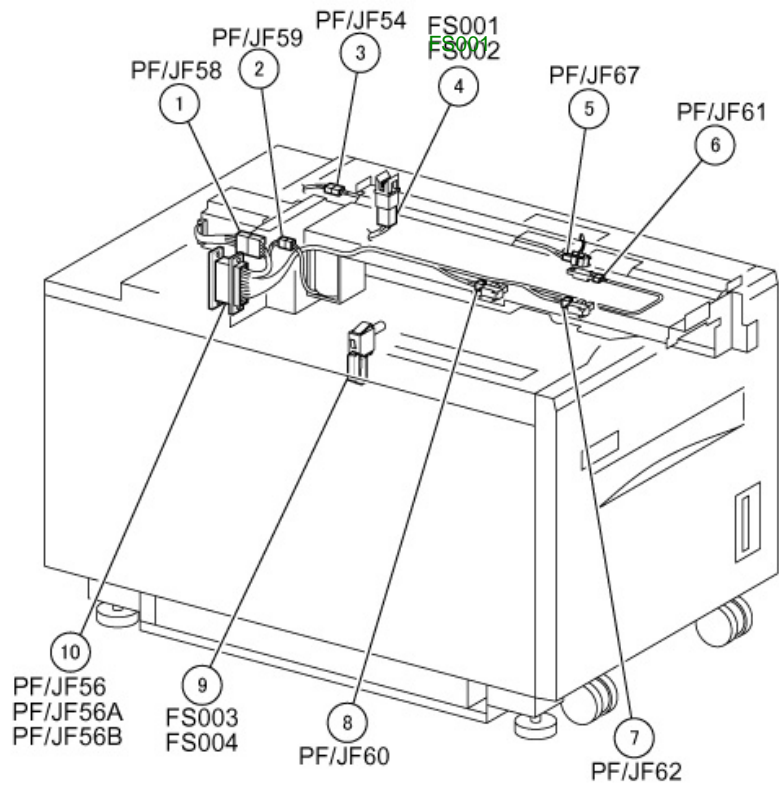
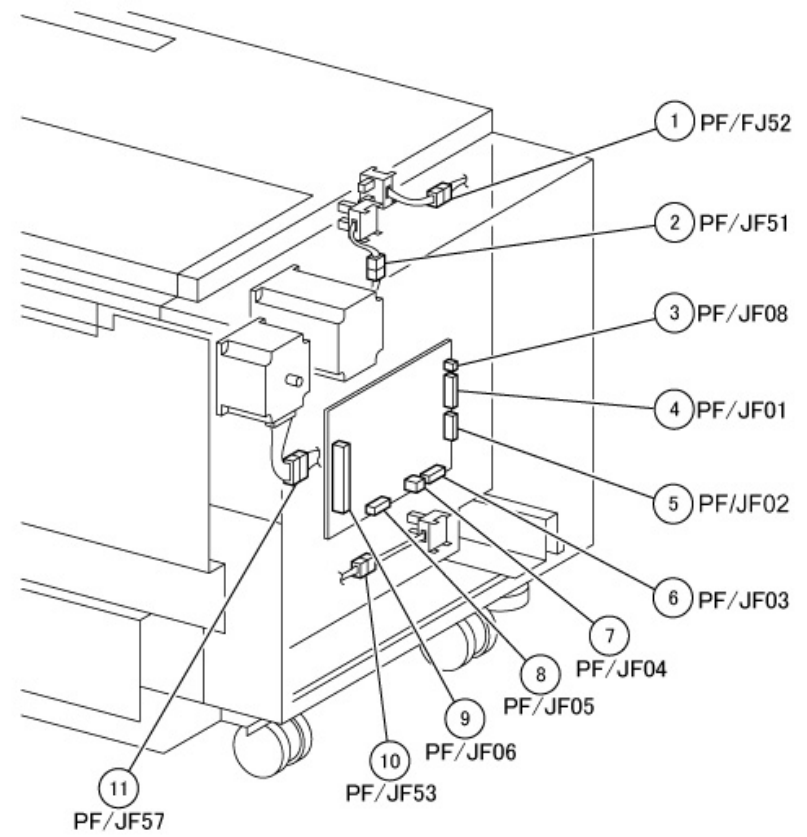


Figure 39 Tray Module Rear (j0tz71042a)



j0tz71043

Figure 40 HCF 1/2 (j0tz71043)



j0tz71044

Figure 41 HCF 2/2 (j0tz71044)



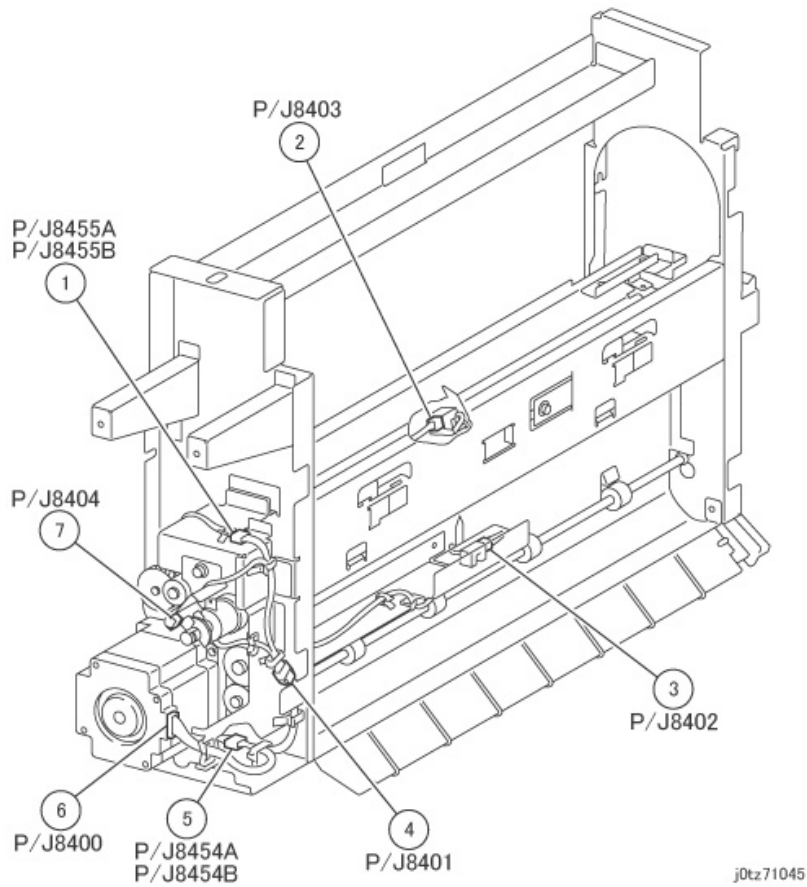


Figure 42 Finisher I/F Module (j0tz71045)

j0tz71045

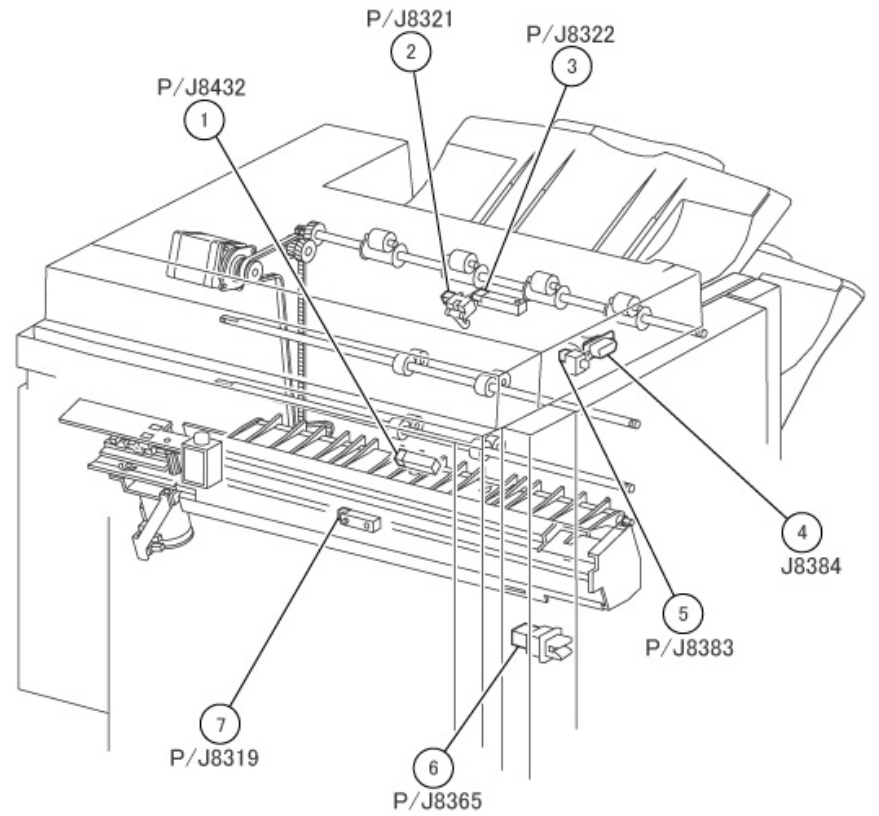
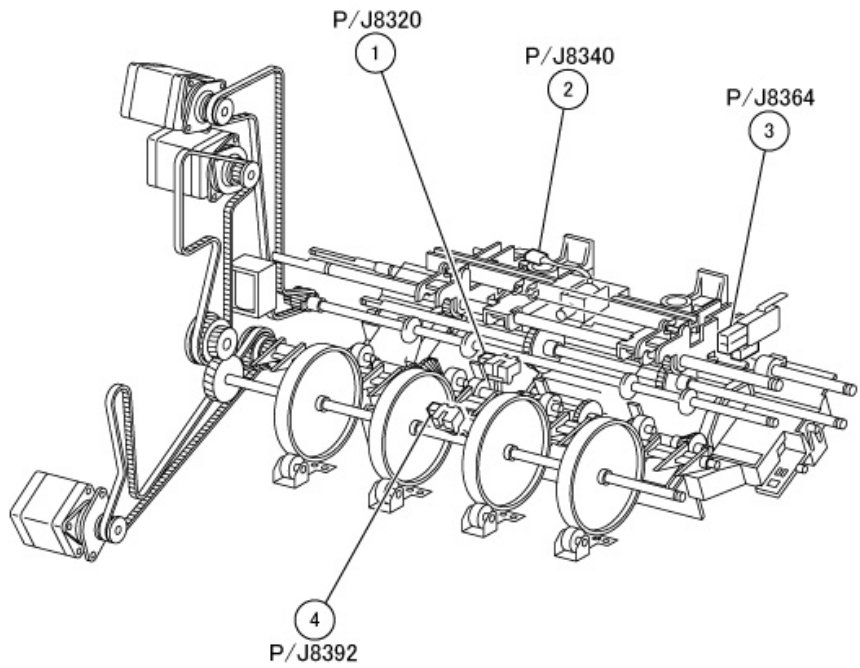


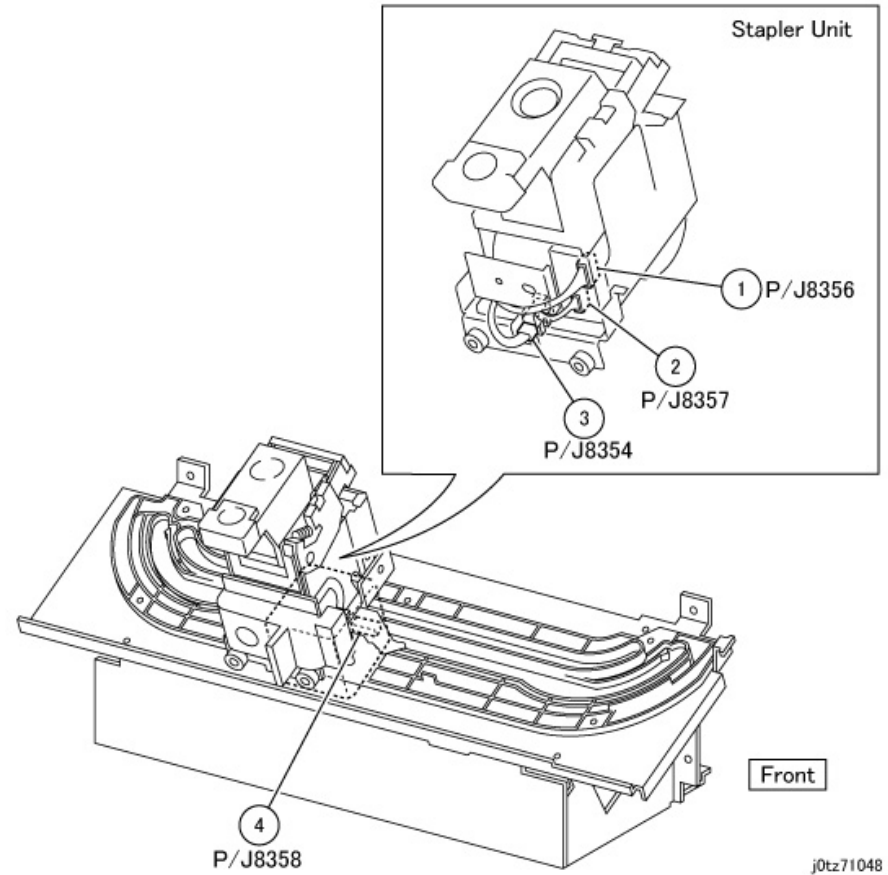
Figure 43 Finisher Transport 1/2 (j0tz71046)

j0tz71046



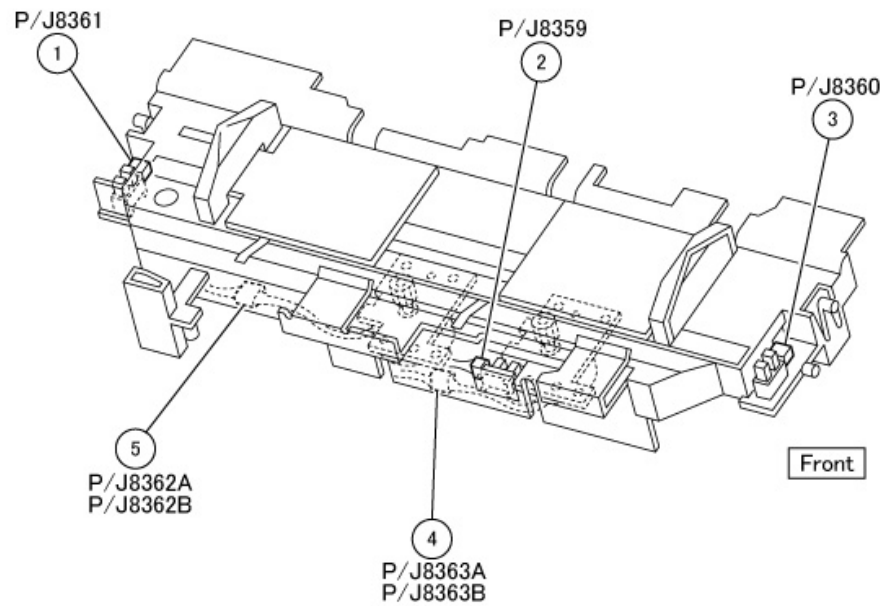
j0tz71047

Figure 44 Finisher Transport 2/2 (j0tz71047)



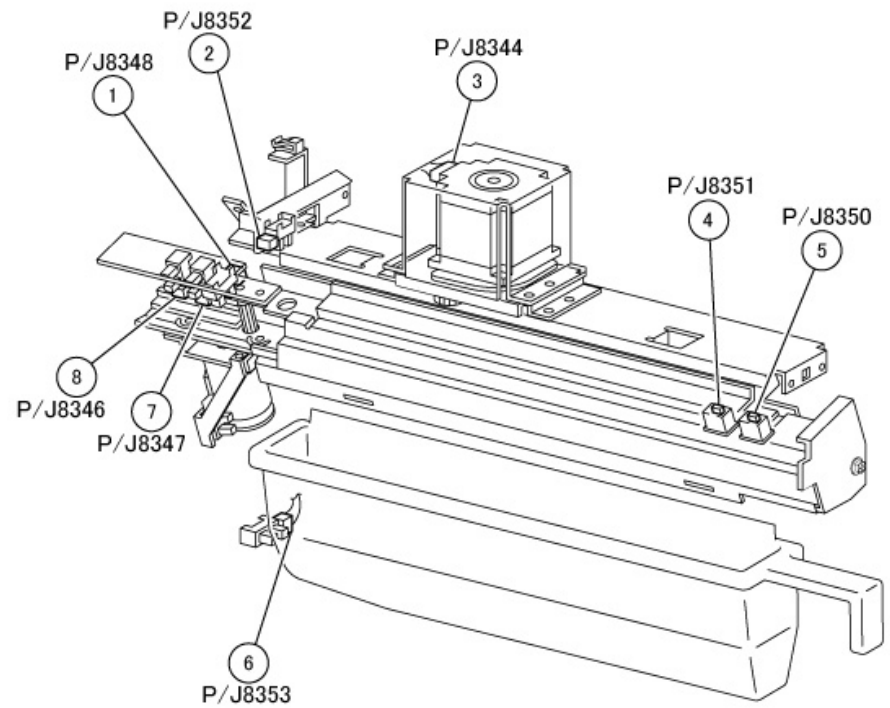
j0tz71048

Figure 45 Finisher Stapler Unit (j0tz71048)



j0tz71049

Figure 46 Finisher Tamper Unit (j0tz71049)



j0tz71050

Figure 47 Finisher Puncher Unit (j0tz71050)

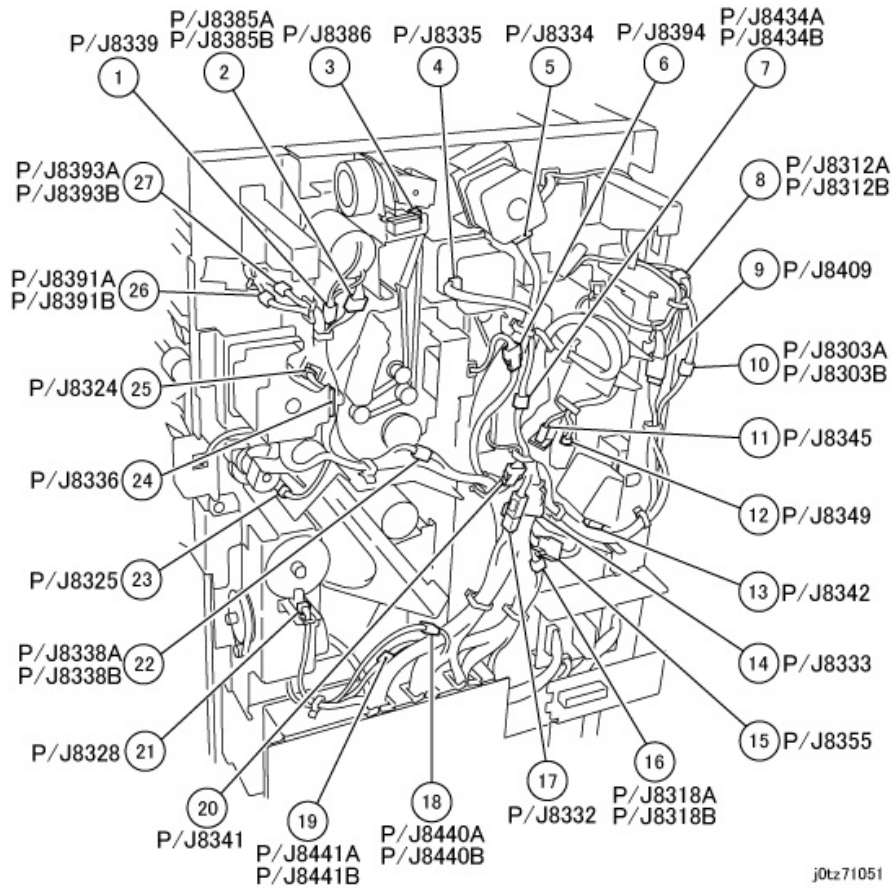


Figure 48 Finisher Rear (j0tz71051)

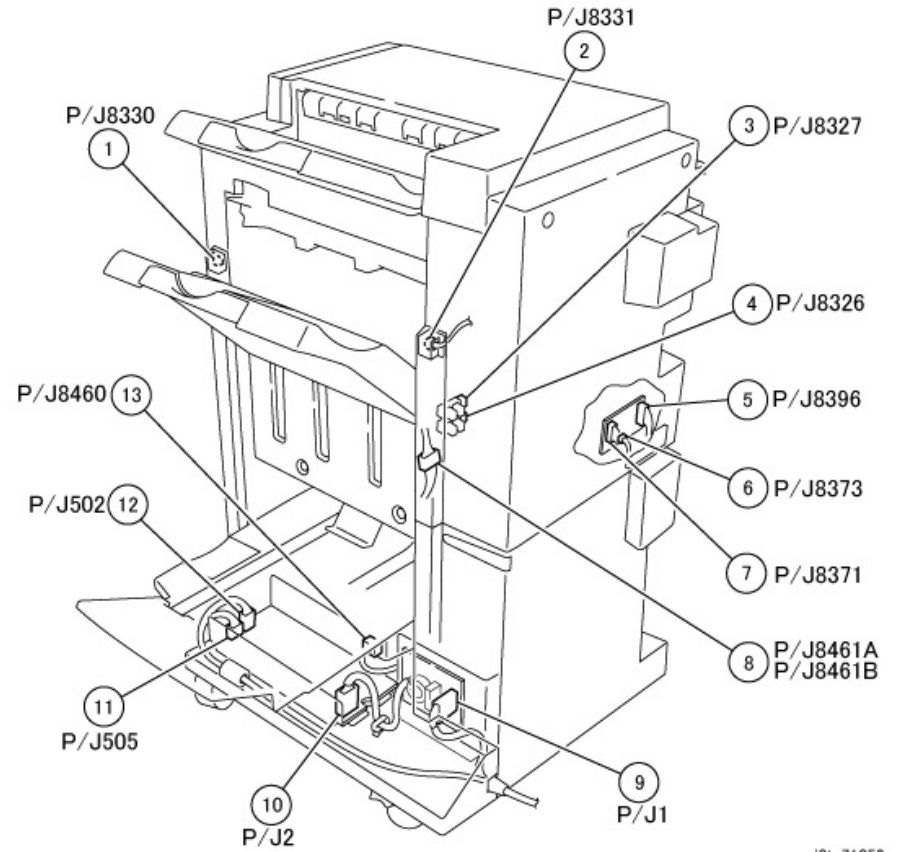


Figure 49 Finisher PWB, LVPS (j0tz71052)

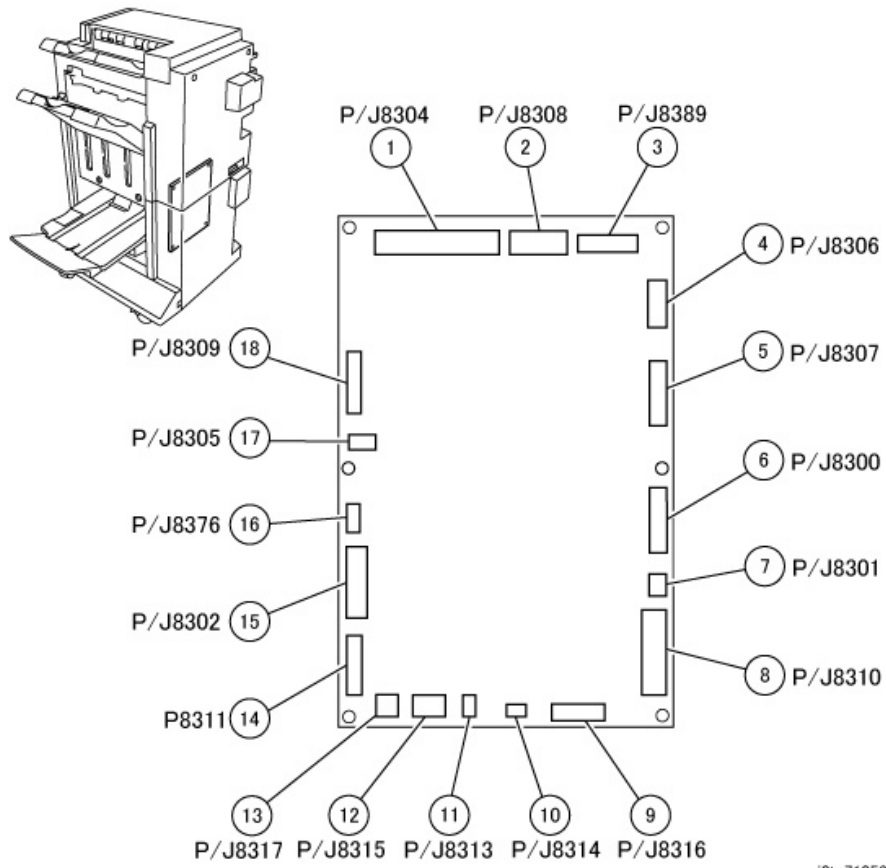


Figure 50 Finisher Main PWB (j0tz71053)

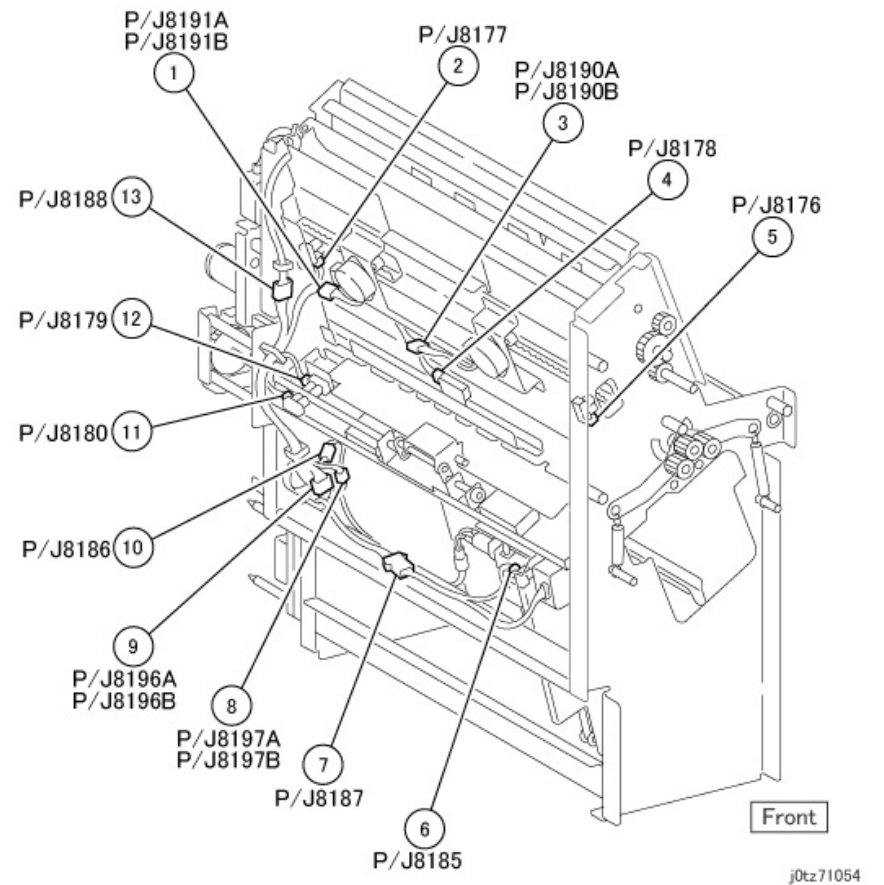


Figure 51 Finisher Booklet Front (j0tz71054)

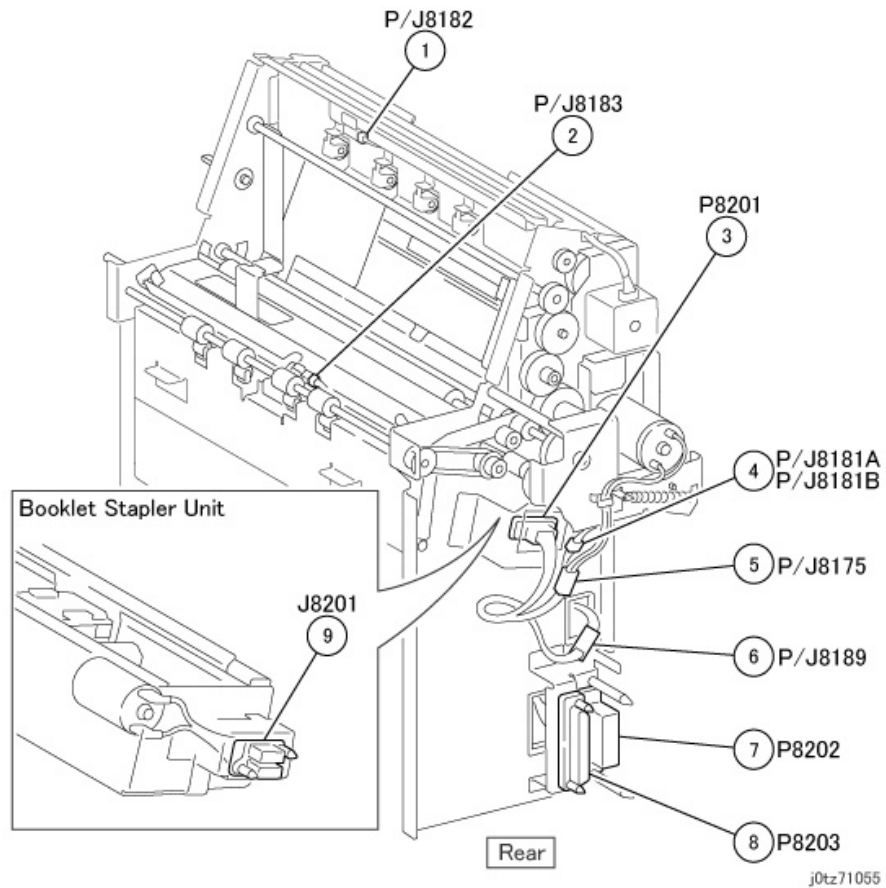


Figure 52 Finisher Booklet Rear (j0tz71055)

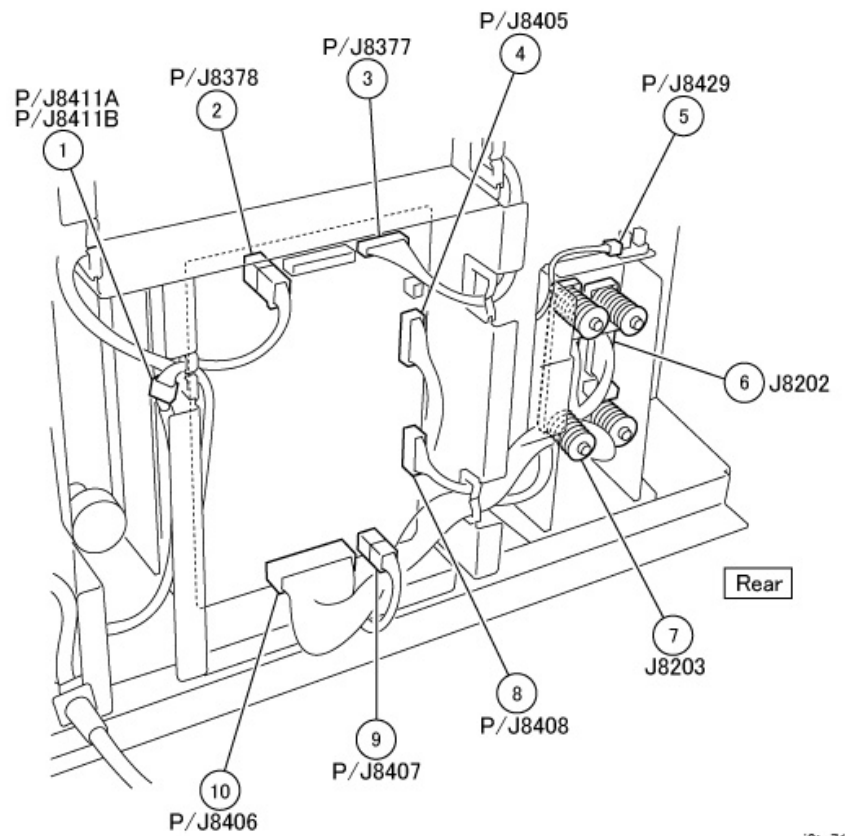
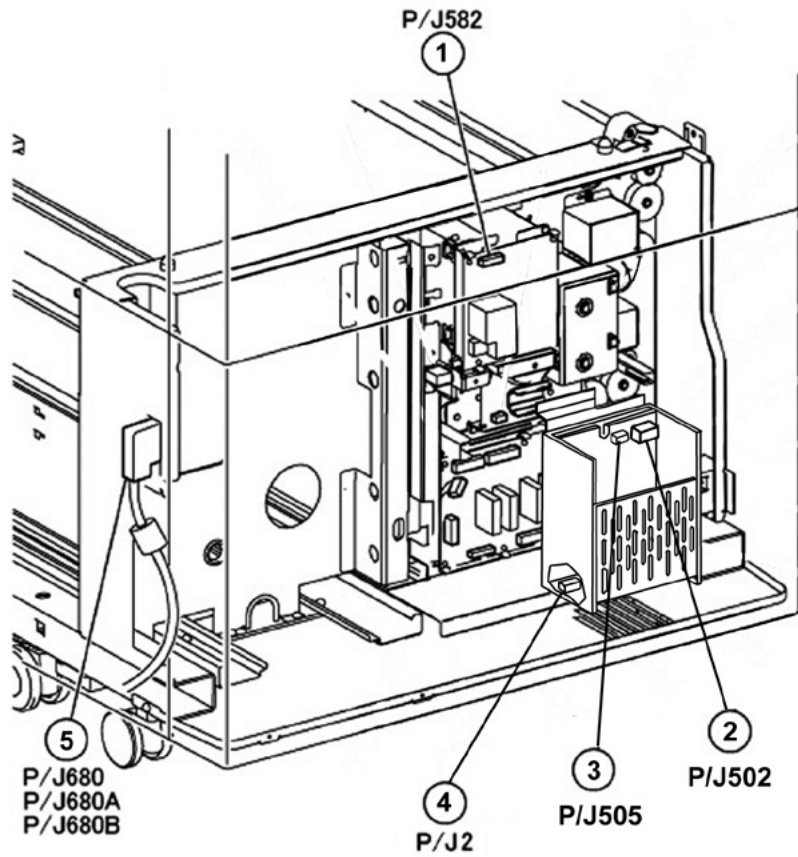


Figure 53 Finisher Booklet PWB (j0tz71056)



j0tz71042B

Figure 54 Tray Module Rear (j0tz710429b)