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# Xerox® WorkCentre® 5790 Family Multifunctional Printer Service Manual



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## About This Manual

This manual is part of a multinational service documentation system that is structured in the standard Xerox service manual format.

### Organization

The service manual is the document used as the primary information source for repairing and maintaining this family of products and is available as EDOC on a CDROM, or in PDF format. The information within the manual is divided into an introduction and eight other sections.

#### Section 1 Service Call Procedures

This section is used to start and complete a service call. The procedures in this section will either direct you to a Repair Analysis Procedure (RAP), or identify a faulty component or sub-assembly.

#### Section 2 Status Indicator Repair Analysis Procedures

This section contains the Repair Analysis Procedures (RAPs) and checkouts necessary to diagnose, isolate and repair faults other than image quality faults.

#### Section 3 Image Quality

This section contains the Image Quality Repair Analysis Procedures (IQ RAPs), checkouts and setup procedures necessary to diagnose, isolate and repair image quality faults.

#### Section 4 Repairs/Adjustments

This section contains the instructions for removal, replacement, and adjustment of parts within the machine.

#### Section 5 Parts List

This section contains the detailed and illustrated spare parts list. Any part that is spared or that must be removed to access a spared part is illustrated.

#### Section 6 General Procedures / Information

This section contains all other procedures, product specifications and general information. It also contains Tag / MOD information. The abbreviations used in this Manual are in [GP 40](#) Glossary of Terms, Acronyms and Abbreviations.

#### Section 7 Wiring Data

This section contains PWB locations, [PJ Locations](#) and [Wiring Diagrams](#).

#### Section 8 Accessories

This section contains details of any accessories that the machine may have.

#### Publication Comments Sheet

A Publication Comment Sheet is provided at the rear of the PDF version of the manual.

## How To Use This Manual

Always start with the Service Call Procedures, Section 1. Perform Initial Actions and verify the problem, then follow the directions given.

### How to Differentiate Between Machine Variants

When a procedure, parts list description or other reference is unique across different speeds of machine, the appropriate speed range will be quoted. For example, 35-55 ppm, 65-90 ppm. Any artwork will also be specific.

Some machines are configured as copiers only. Refer to [GP 30](#) Copier Only Machine Identification.

**NOTE:** *This manual services all configurations of the machine. Ignore references to options not installed on the machine.*

### Warnings, Cautions And Notes



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

**A translated version of all warnings is in [Translation of Warnings](#).**



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

**NOTE:** *A note is used where it is essential to highlight a procedure, practice, condition or statement.*

## Change History

This page gives information on major changes to the service manual. Please go to the relevant update.

- [Bus Update December 2010](#)
- [Service Manual Update July 2011](#)
- [Bus Update March 2012](#)
- [Bus Update May 2012](#)
- [Bus Update May 2013](#)
- [Bus Update November 2014](#)

### Bus Update December 2010

The following procedures are updated:

- Change History page added.
- REP 8.39 Retard Roll Friction Clutch.
- 11-300-171, 11-302-171, 11-303-171 HVF Docking and Interlock RAP
- Parts List updated
- TAG: D-006
- TAG: D-007
- TAG: V-008
- TAG: L-001

### Service Manual Update July 2011

This revision of the service manual was produced during the introduction of the W/TAG 151 HCF FAR feeder WC5790F machines, and to support the launch of machine software version SMP 1. Therefore, the updates to the following procedures have been either generic or W/TAG 151 specific. The updates have been listed accordingly below.

The following procedures are updated (W/TAG 151 specific):

- REP 7.22 Tray 3 and Tray 4 Removal (W/TAG 151)
- REP 7.23 Tray 3 and Tray 4 Elevator Motor (W/TAG 151)
- REP 7.24 Tray 3 and Tray 4 Elevator Cables (W/TAG 151)
- REP 7.25 Tray 3 and Tray 4 Stack Height Sensor (W/TAG 151)
- REP 7.26 Tray 3 and Tray 4 Stack Limiter (W/TAG 151)
- REP 7.27 Tray 3 and Tray 4 Home Switch (W/TAG 151)
- REP 7.28 HCF Control PWB (W/O TAG 151)
- REP 7.29 Tray 3 and Tray 4 Elevator Damper and Gears (W/TAG 151)
- REP 8.40 Tray 3 Paper Feed Assembly (W/TAG 151)
- REP 8.41 Tray 4 Paper Feed Assembly (W/TAG 151)
- REP 8.42 Tray 3 and Tray 4 Transport Motor (W/TAG 151)
- REP 8.43 Tray 3 and Tray 4 Transport Gear Pulley (W/TAG 151)
- REP 8.44 Tray 3 Transport Assembly (W/TAG 151)
- REP 8.45 Tray 3 Feed Sensor (W/TAG 151)
- REP 8.46 Tray 3 Takeaway Roll Assembly (W/TAG 151)
- REP 8.47 Tray 3 and Tray 4 Transport Roll (W/TAG 151)
- REP 8.48 Tray 3 Stack Height Sensor (W/TAG 151)

- REP 8.49 Tray 3 Empty Sensor (W/TAG 151)
- REP 8.50 Tray 4 Feed Sensor (W/TAG 151)
- REP 8.51 Tray 4 Stack Height Sensor (W/TAG 151)
- REP 8.52 Tray 4 Empty Sensor (W/TAG 151)
- RAP 07-355 Tray 3 Elevator Lift Failure RAP (W/O Tag 151)
- Mod/Tag. 151 Introduction of the FAR Feeder HCF

The following procedures are updated (Generic):

- Introduction (E-mail address change for USA)
- SCP 1 Initial Actions
- SCP 3 Normal Call Actions
- SCP 4 Fault Analysis
- SCP 5 Subsystem Maintenance
- SCP 7 Machine Features
- RAP 01A Ground Distribution
- RAP 01B 0V Distribution
- RAP 01E +5V Distribution
- RAP 01F +12V Distribution RAP
- RAP 01G +24V Distribution
- RAP 01H Short Circuit and Overload
- RAP 01K Sleep Mode
- RAP 03-359, 03-407 HCF Communications and Detection Error RAP
- RAP 03-412 Foreign Device PWB Fault
- RAP 03-423, 424, 433, 434, 821, 822, 831, 832 Print Command Late
- RAP 03C Hard Disk Failure
- RAP 07D Tray 1 and Tray 2 Wrong Size Paper
- RAP 08-100A Wait Sensor Jam Entry
- RAP 08-150A, 08-151A Registration Jam RAP (35-55 ppm)
- RAP 08-150B, 08-151B Registration Jam RAP (65-90 ppm)
- RAP 10-101A, 10-102A, 10-103A Lead Edge Late to Fuser Exit Switch RAP (35-55 ppm)
- RAP 10-101B, 10-102B, 10-103B Lead Edge Late to Fuser Exit Switch RAP (65-90 ppm)
- RAP 10-120, 10-121, 10-126 IOT Exit Sensor
- RAP 11-100, 11-101-171 HVF Entry Sensor
- RAP 11-083-171, 11-440-171 to 11-443-171 Paper Pusher
- RAP 11-157, 11-161-171 HVF Buffer Position Sensor
- RAP 11-158-171, 11-160-171, 162-171, 163-171 HVF BM Entry
- RAP 11-173-171 to 11-177-172 HVF Offset Unit
- RAP 11-371-171 to 11-377-171 HVF Stapler Position and Priming
- RAP 11-380-171 HVF Punch Unit Paper Edge Detect
- RAP 11-451-171 to 11-455-171 HVF Ejector Roll and Lower Paddle
- RAP 11-460-171 to 11-462-171 HVF Bin 1 Position
- RAP 11-465-171 to 11-468-171 Paddle Unit Position
- RAP 11A-171 HVF Power Distribution
- RAP 11D 2K LCSS Power Distribution

- RAP 11G-110 2K LCSS PWB Damage
- RAP 16A Network Error Entry
- RAP 16B FTP or SMB Unable to Connect to Remote Server
- RAP 16C Remote Directory Lock Failed
- RAP 19-404 Compressor Time-out
- OF1 Audible Noise RAP
- OF3 Dead Machine RAP
- OF4a Status Codes RAP
- OF4b Status messages G to N RAP
- OF5 Boot Up Failure RAP
- OF6 Ozone and Air Systems RAP
- IQ6 Narrow Bands RAP
- IQ5 Print Damage RAP
- IQ13 Cockle Deletion RAP
- REP 8.34 Tray 5 Feed Rolls
- REP 10.1 Short Paper Path Assembly
- REP 10.2 Inverter Assembly
- REP 10.15 Intermediate Drive Belt (W/O TAG 114)
- REP 11.8-110 Stapler Traverse Assembly
- REP 11.12-171 Bin 1 Elevator Motor Assembly
- REP 11.19-171 BM Crease Roll Motor
- REP 11.27-171 BM Staple Heads
- REP 11.54-171 Sensor Assembly
- REP 11.101-171 Paddle Wheel
- REP 12.10-110 Stapler Traverse Assembly
- REP 12.12-110 Paddle Wheel Shaft Assembly
- ADJ 4.1 Machine Lubrication
- ADJ 8.2 Simplex and Duplex Buckle Timing
- ADJ 10.1 Inverter Decurler Adjustment
- ADJ 11.14-171 BM Diverter Solenoid Position
- PL 5.35 Input Tray Assembly
- PL 7.60 Tray 5 Covers
- PL 7.68 Tray 5 Lift assembly (1 of 2)
- PL 7.68 Tray 5 Lift assembly (2 of 2)
- PL 10.11 Inverter Assembly (1 of 4)
- PL 10.12 Inverter Assembly (2 of 4)
- PL 10.25 Short Paper Path
- PL 11.12 2K LCSS Bin 1 Control
- PL 11.20 2K LCSS Staple Head Unit/Traverse Assembly
- PL 11.135 HVF Stacker
- PL 11.150 HVF Main Drives
- PL 31.11 Maintenance/Installation/removal Kits (2 of 5)
- PL Common Hardware

- GP 3 Service Information
- GP 5 Portable Work Station and Tools
- GP 4 Machine Software
- GP 5 Portable Work Station and Tools
- GP 15 How to Set the Machine Configuration
- GP 18 Machine Lubrication
- GP 27 Fuser/Xerographic Module End of Life Extension
- GP 30 Copier Only Machine Identification
- GP 31 How to Set the Date and Time
- GP 32 How to Enable HTTP
- GP 33 How to Configure the PWS to Ping a Device
- GP 34 How to Set the IP Address of the PWS
- GP 35 How to Change Ethernet Speed
- GP 36 How to Disable the Firewall of the PWS
- dC131a NVM Tables
- dC132 NVM Initialization
- dC 305 UI test
- dC330
- Mod/Tag. 114
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- PJ Locations (table 1)
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The following Service Bulletins have been incorporated:

- T7494-04-26 Deletions on Duplex or Simplex Images
- T7580-08-27 Announcement of 5790F copier variant
- T7964-04-11 Boot up failure-blank UI
- T7965-04-12 Boot up failure from cold - Green splash screen

## Bus Update March 2012

The following procedures are updated:

- Change History
- 08-108A Tray 3 or Tray 4 Paper Feed Jam RAP (W/O TAG 151)

The following procedures are new:

- 08-108 Tray 3 or Tray 4 Paper Feed Jam Entry RAP
- 08-108B Tray 3 or Tray 4 Paper Feed Jam RAP (W/TAG 151)

## Bus Update May 2012

The following procedures are updated:

- Change History
- RAP 01B 0V Distribution
- RAP 01G +24V Distribution
- RAP 01H Short Circuit and Overload
- RAP 01J Power On and LVPS Control Signals
- RAP 01K Sleep Mode
- RAP 03-300, 306, 461, 482, 805, 870 Single Board Controller PWB to IOT PWB Error
- RAP 03-320 to 03-324 Single Board Controller PWB to DADH Error
- RAP 03-330A, 03-462A Single Board Controller PWB to Scanner Fault (W/O TAG 150)
- RAP 03-330B, 03-462B Single Board Controller PWB to Scanner Fault (W/TAG 150)
- RAP 03-340, 03-416 Single Board Controller PWB to Network Controller Fault
- RAP 03-423, 424, 433, 434, 821, 822, 831, 832 Print Command Late
- RAP 05A DADH Other Faults
- RAP 07-355 Tray 3 Elevator Lift Failure Entry
- RAP 07L Tray 3 or Tray 4 Out of Paper (W/O TAG 151)
- RAP 08-100A Wait Sensor Jam (35-55 ppm)
- RAP 08-100B Wait Sensor Jam (65-90 ppm)
- RAP 08-101 Tray 1 Misfeed
- RAP 08-102 Tray 2 Misfeed
- RAP 08-106 Lead Edge Late to Tray 1 Feed Sensor
- RAP 08-131 Lead Edge Late to Tray 3 Exit Sensor (W/TAG 151)
- RAP 08-150A, 151A Registration Jam (35-55 ppm)
- RAP 09-060 HVPS Fault
- RAP 09-341, 342 Scorotron Cleaning Failure
- RAP 09-360, 361, 362, 363 Toner Concentration Sensor Failure
- RAP 09-375 Ambient Temperature Sensor Failure
- RAP 09-399 Incompatible Xerographic Module
- RAP 09C Photoreceptor Fan
- RAP 10-101A, 102A, 103A Lead Edge Late to Fuser Exit Switch (35-55 ppm)
- RAP 10-101B, 102B, 103B Lead Edge Late to Fuser Exit Switch (65-90 ppm)
- RAP 10-315, 10-320, 10-321, 10-323, 10-340, 10-350, 10-360, 10-365, 10-380 Fuser Over Temperature
- RAP 11-364-110 Stapling Failure
- RAP 11F-110 2K LCSS PWB DIP Switch Settings

- RAP 11-024-171, 11-026-171 Paddle Roller Position
- RAP 11-371-171 to 11-377-171 HVF Stapler Position and Priming
- RAP 11-380-171 HVF Punch Unit Paper Edge Detect
- RAP 14-703B to 14-706B, 712B, 714B, 718B Failure to Calibrate (W/TAG 150)
- RAP 19-404 Compressor Time-Out
- RAP OF1 Audible Noise
- RAP OF3 Dead Machine
- RAP OF4a Status Codes in Numerical Order
- RAP OF4b Status Messages in Alphabetical Order
- RAP OF5 Boot Up Failure
- RAP OF6 Ozone and Air Systems
- RAP IQ2 Defects
- RAP IQ3 Xerographics
- RAP IQ5 Print Damage
- RAP IQ8 Skew
- REP 4.6 Main Drive PWB (65-90 ppm)
- REP 14.16 Scan Motor and Scan Carriage Drive Belts (W/TAG 150)
- ADJ 3.2 Magnification Adjustment
- ADJ 9.2 Image Quality Adjustment Routine
- ADJ 9.4 Xerographics Cleaning
- Parts List updated
- GP 14 How to Switch Off the Machine or Switch On the Machine
- GP 20 Paper and Media Size Specifications
- PJ Locations Figure 35
- PJ Locations Table 2
- PJ Locations Table 6
- Wiring Diagram 8
- Wiring Diagram 9
- Wiring Diagram 47

The following procedures are new:

- RAP 03D Software Module Failure
- Mod/Tag 103
- Mod/Tag 152
- Mod/Tag 153
- Mod/Tag 154
- Mod/Tag 155
- Mod/Tag 156
- Mod/Tag 157

The following Service Bulletins have been incorporated:

- 162651 Dead machine RAP (how to troubleshoot a dead LVPS)
- 167986 Not compatible, message to replace XCRU
- 170792 Cleaning streaks, spots, toner bridging, solidified in XCRU
- 172538 Detack problem, XCRU stripper finger contamination, marks, spots



- 173384 Bold, dark, smeared (blurred) characters, heat damage to drum
- 338812 XCRU noise, end of cycle grunt, moo, moan
- 640783 Re-occurring reorder fuser, scanner fault, replace XCRU message
- 783324 Output tray 1 out of service, check for obstruction
- 1055407 Dead machine or blank UI at install
- 1139346 08-150 Jams with noise
- 1154339 Ozone Deletions and Seal Repair Kit
- 1172776 09-060 HVPS faults caused by a shorted dev bias harness
- 1183941 Erratic operation, shuts down 4 to 6 seconds after power on
- 1195182 Please check output bin for blank of partially images sheets
- 1223654 RX for 113R672
- T7748-07-01 Ozone Deletion and Seal Repair Kit
- T7764-08-08 Boot up failure after replacing IOT PWB or software module
- T7769-08-22 Decurler Inverter Unit for OCT Configurations
- T7903-03-30 SIP Diagnostic
- T7908-04-02 Toner Contamination
- T312692 09-341 Scorotron cleaning failed

### Bus Update May 2013

The following procedures are updated:

- Change History
- SCP 4 Fault Analysis
- SCP 5 Subsystem Maintenance
- SCP 6 Final Actions
- RAP 01-300 Front Door Open
- RAP 03-360, 03-408 to 03-410, 03-418 IOT to Output Device Error
- RAP 03-412 Foreign Device PWB Fault
- RAP 03B Mark Service Unavailable
- RAP 04A main Drive Motor and Photoreceptor Motor
- RAP 07-353 Tray 1 Elevator Lift Failure
- RAP 07-354 Tray 2 Elevator Lift Failure
- RAP 07-373 Tray 5 Elevator Lift Failure
- RAP 07A Tray 1and Tray 2 Empty
- RAP 07D Bypass Tray
- RAP 07H Tray Out of Service
- RAP 07J Tray 5 Empty
- RAP 08-101 Tray 1 Misfeed
- RAP 08-103B, 08-113B Tray 3 Misfeed RAP (W/TAG 151)
- RAP 08-104B, 08-114B Tray 4 Misfeed RAP (W/TAG 151)
- RAP 08-106 Lead Edge Late to Tray 1 Feed Sensor
- RAP 08-108B Tray 3 or Tray 4 Paper Feed Jam (W/TAG 151)
- RAP 08-115A, 08-117A Tray 5 Misfeed (35-55 ppm)
- RAP 08-115B, 08-117B Tray 5 Misfeed (65-90 ppm)
- RAP 08-132 Tray 3 Paper Feed Jam (W/TAG 151)

- RAP 08-150A, 151A Registration Jam (35-55 ppm)
- RAP 08-150B, 151B Registration Jam (65-90 ppm)
- RAP 08-190 Post Jam Clearance Initialization
- RAP 09-060 HVPS Fault
- RAP 09-310, 09-390 Low Toner Sensor Failure
- RAP 09-341, 09-342 Scorotron Cleaning Failure
- RAP 09-360, 09-361, 09-362, 09-363 Toner Concentration Sensor Failure
- RAP 09-399 Incompatible Xerographic Module
- RAP 09B Waste Toner Full Sensor
- RAP 10-135, 10-136, 10-137, 10-138 Trail Edge Late from Inverter Sensor
- RAP 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 Rear Tamper Move Failure
- RAP 10-315, 10-320, 10-321, 10-323, 10-340, 10-350, 10-360, 10-365, 10-380 Fuser Over Temperature
- RAP 11-130-110, 11-132-110 Paper Exiting to Bin 0
- RAP 11-140-120, 11-142-120 Sheet Late to Bin 1
- RAP 11-300-120, 11-302-120, 11-303-120 Interlocks
- RAP 11-320-120, 11-322-120 Ejector Movement Failure
- RAP 11C-120 1K LCSS Power Distribution
- RAP 11-061-171, 11-416-171 HVF BM Creasing
- RAP 11-188-171, 11-189-171 HVF Nip Split
- RAP 11-140-171, 11-142-171 HVF 2nd to Top Exit Sensor
- RAP 11-300-171, 11-302-171, 11-303-171 HVF Docking and Interlock
- RAP 11-306-171, 11-309-171 HVF Inserter Interlock
- RAP 11-307-171, 11-308-171, 11-303-171 Tri-folder Interlock
- RAP 11-371 to 11-377-171 HVF Stapler Position and Priming
- RAP 11-479-171 Inserter paper Length Fault
- RAP 11A-171 HVF power Distribution
- RAP 11D-171 Booklet Quality
- RAP 11M-171 Curl Suppressor
- RAP 14-110B Scan Carriage Home Sensor (W/TAG 150)
- RAP 19-401, 19-402, 19-403 Out of Memory Resources
- RAP OF1 Audible Noise
- RAP OF3 Dead Machine
- RAP OF4A Status Codes in Numerical Order
- RAP OF4B Status Messages in Alphabetical Order
- RAP OF5 Boot Up Failure
- RAP IQ1 Image Quality Entry
- REP 7.14 Tray 5 Stack Height Sensor
- REP 7.27 HCF Control PWB (W/TAG 151)
- REP 8.5 Registration Clutch
- REP 8.24 Tray 1 or Tray 2 Feed Sensor
- REP 11.1-171 HVF Covers

- REP 11.6-171 HVF Ejector Assembly Removal
- REP 11.11-171 Front Tamper Motor Assembly
- REP 11.21-171 BM Backstop Assembly
- REP 11.48-171 Paddle Module Driving Motor Assembly
- REP 11.69-171 Drive Coupling Assembly
- REP 11.70-171 Tri-Folder Feed Roller and Drive Belt
- REP 11.73-171 Tri-Folder Top Door Cover and Idler Assemblies
- REP 11.77-171 Tri-Folder Door Interlock Switches and Sensor
- REP 11.80-171 Tri-Folder Control PWB
- ADJ 4.1 Machine Lubrication
- ADJ 10.1 Inverter Decurler Adjustment
- ADJ 11.6-171 Booklet Compiling Position
- ADJ 7.6 Tray 5 Stack Height Sensor and Retard Shield
- Parts List updated
- GP 27 Fuser/Xerographic Module End of Life Extension
- dC131a NVM Tables Chain 1 to 10
- dC604 Registration Setup Procedure
- TAGs
- PJ Locations Table 1
- PJ Locations Table 2
- Wiring Diagram 8
- Wiring Diagram 9
- Wiring Diagram 34
- RAP 07-304B Tray 4 Open During Run (W/TAG 151)
- RAP 10-322, 10-324, 10-325, 10-330, 10-370 Fuser Under Temperature
- RAP 11-130-110, 11-132-110 Paper Exiting to Bin 0
- RAP 11-130-120, 11-132-120 Paper Exiting to Bin 0
- RAP 11A-171 HVF Power Distribution
- RAP 20F Fax Tab Not Available
- REP 11.61-171 BM Module
- REP 11.96-171 HVF Fixed and Adjustable Casters
- ADJ 7.6 Tray 5 Stack Height Sensor and Retard Shield
- Parts List updated
- GP 3 Service Information
- GP 21 Installation Space Requirements
- Wiring Diagram 13

The following procedures are new:

- REP 7.29 Tray 5 Elevator Tray Guides
- ADJ 7.6 Tray 5 Stack Height Sensor and Retard Shield
- Mod/Tag 158
- Mod/Tag F-012
- Mod/Tag L-012
- Mod/Tag P-011
- Mod/Tag P-050
- Mod/Tag P-051

The following Service Bulletins have been incorporated:

- 1266820 600T02329 Setup Tool Tray 5 or 6

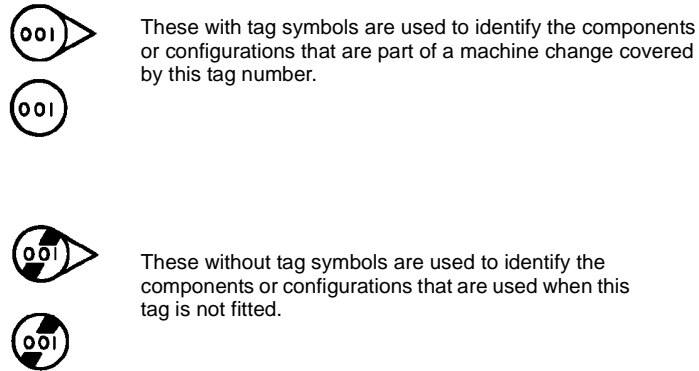
### **Bus Update November 2014**

The following procedures are updated:

- Change History
- Health and Safety Incident Reporting
- RAP 01D +3.3V Distribution Rap
- RAP 03-315, 325, 347, 348, 349, 355, 400 Single Board Controller PWB Failure
- RAP 03-320 to 03-324 Single Board Controller PWB to DADH Error
- RAP 03E Foreign Device PWB Fault
- RAP 05A DADH Other Faults

## Mod / Tag Identification

Figure 1, shows the Mod/Tag identification symbols.



T-1-1088-A

Figure 1 Mod/Tag identification symbols

## Voltages Resistances and Tolerances

For AC power specifications, refer to GP 22 Electrical Power Requirements.

### DC Voltage Levels and Tolerances

DC Voltages should be measured between an available test point and a machine ground. Table 1 shows the range of the common voltages.

Table 1 DC Voltage Levels

Nominal voltage	Voltage tolerance range	RAP reference
0 volts	0.00 to 0.10V	01B 0V Distribution RAP
+3.3V standby	+3.23V to +3.43V	01J Power On and LVPS Control Signals RAP
+3.3V	+3.23V to +3.43V	01D +3.3V Distribution RAP. See notes below
+5.V	+4.75V to +5.25V	01E +5V Distribution RAP
+12V	+11.4V to +12.6V	01F +12V Distribution RAP
+24V	+23.28V to +25.73V	01G +24V Distribution RAP

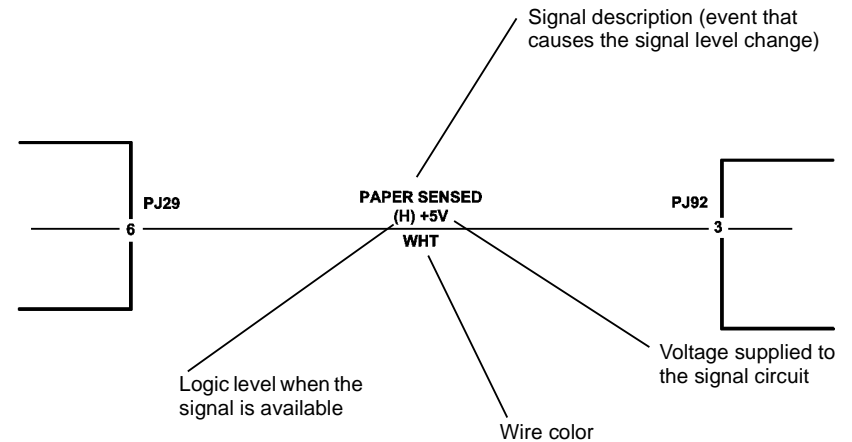
Non-standard voltage levels will be quoted on the relevant circuit diagram. All other voltage levels are plus or minus 10%.

### Resistance Tolerances

All resistance measurement tolerances are plus or minus 10%, unless otherwise stated in the procedure.

### DC Signal Nomenclature

Figure 1 shows the signal nomenclature used in this manual.



TT-1-0281-A

Figure 1 Signal Nomenclature

Table 2 shows the signal tolerances.

Table 2 Signal tolerances

Signal voltage	(H) logic level	(L) logic level
+5V	+3.85V or greater	At or near 0.8V
+3.3V	+2V or greater	At or near 0.8V

Non standard signal tolerances will be quoted on the relevant circuit diagram.

**NOTE:** The logic level shown with the signal name will be the actual signal as measured with a service meter. This will not necessarily be the same as the logic state shown on the diagnostic screen.

### Samples of RAP reference text

Throughout the manual there are linked references that extend the diagnostic procedure or add more information.

Go to [Flag 1](#). Check Q08-300. Refer to:

**NOTE:** This links to a particular part of the circuit diagram within a RAP.

- [GP 11](#) How to Check a Sensor.

**NOTE:** This links to General Procedures information.

- Figure 1, [IOT PWB](#)

**NOTE:** The P/J links to the connector location on the PWB in a circuit diagram.

**NOTE:** The PWB links the connector to the pin layout on the PWB, referenced in the Wiring Diagram section.

- [01D](#) +3.3V Distribution RAP.

**NOTE:** This links to a RAP.

Install new components as necessary:

- Tray 1/2 feed sensor, [PL 7.30 Item 24](#).

**NOTE:** This links to the parts list. If installation of the new component is simple, the parts list artwork is sufficient to show how the component is assembled in the machine. If installation of the new component is not simple, the parts listing will contain cross references to repair procedures and adjustments, as necessary.

### Symbols Used in Circuit Diagrams

Refer to [Figure 2](#).

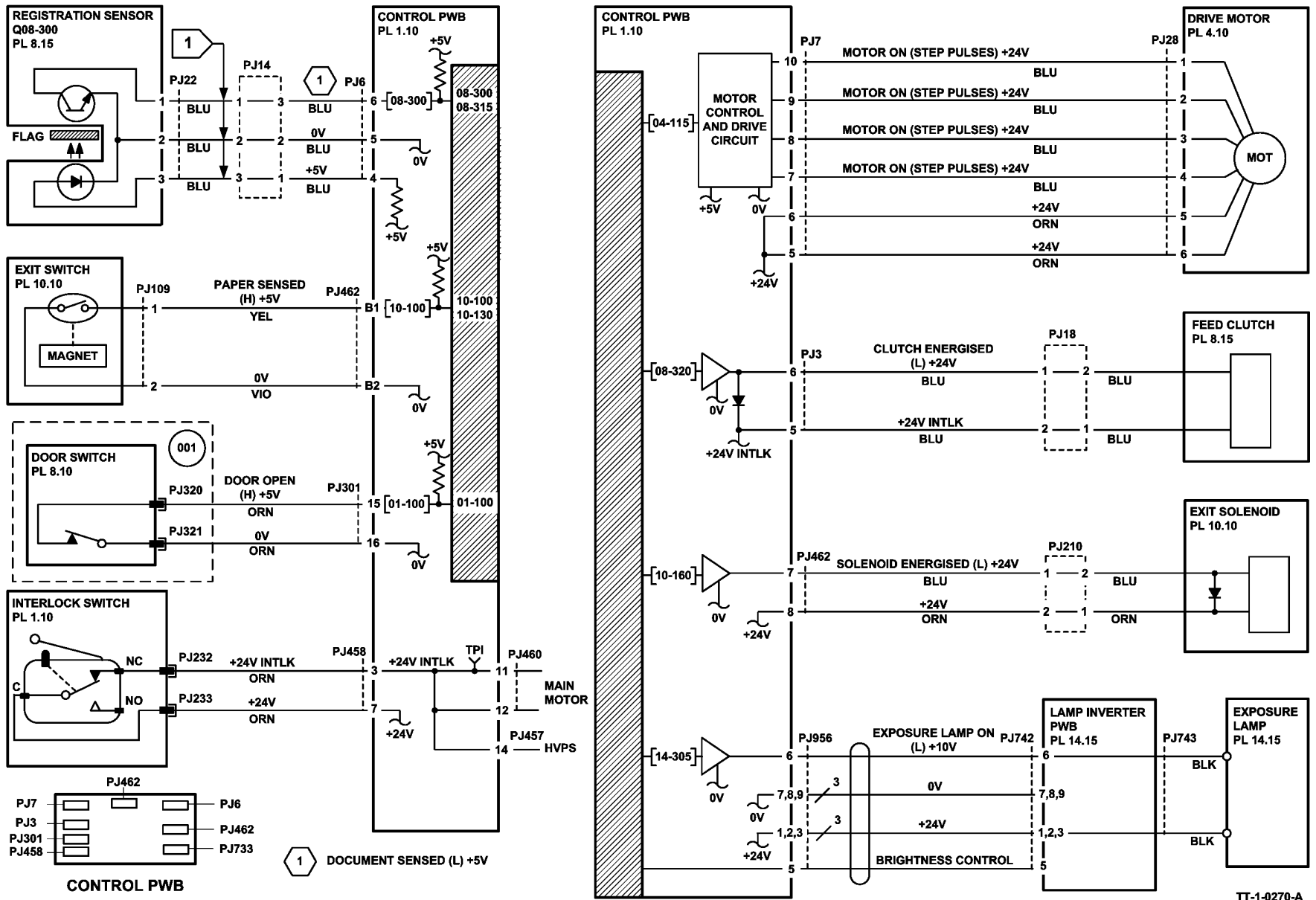


Figure 2 Symbols used in circuit diagrams

## Safety Information

The WARNING that follows is for general guidance when live working.



**Do not work in a confined space. 1m (39 inches) space is needed for safe working.**

### Safety Icons

The safety icons that follow are displayed on the machine:

#### ESD Caution Symbol



*Certain components in this product are susceptible to damage from electrostatic discharge. Observe all ESD procedures to avoid component damage.*

#### Laser Radiation Warning Symbol



**Follow the service procedure exactly as written. Use of controls or adjustments other than those specified in this manual, may result in an exposure to invisible laser radiation. During servicing, the invisible laser radiation can cause eye damage if looked at directly.**

#### Location Arrow Symbol

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



#### Hot Surface Symbol

This symbol indicates hot surfaces. Take care when servicing the machine.



#### Lethal Voltage Symbol

This symbol indicates potentially lethal voltages. Take care when servicing the machine when the power cord is connected.



#### Ozone

During normal operation, this machine produces ozone gas. The amount of ozone produced does not present a hazard to the operator. However, it is advisable that the machine be operated in a well ventilated area.

#### Toner Cartridge

The product contains a dry imager cartridge that is recyclable. Under various state and local laws, it may be illegal to dispose of the cartridge into the municipal waste. Check with the local waste officials for details on recycling options or the proper disposal procedures.

#### Fuses



**Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.**

#### Part Replacement

Only use genuine Xerox approved spare parts or components to maintain compliance with legislation and safety certification. Also refer to [GP 26](#) Restriction of Hazardous Substances (ROHS).

#### Disassembly Precautions

Do not leave the machine with any covers removed at a customer location.

#### Reassembly Precautions

Use extreme care during assembly. Check all harnesses to ensure they do not contact moving parts and do not get trapped between components.

#### General Procedures

Observe all warnings displayed on the machine and written in the service procedures.

Do not attempt to perform any task that is not specified in the service procedures.

# Health and Safety Incident reporting

## I. Summary

This section defines requirements for notification of health and safety incidents involving Xerox products (equipment and materials) at customer locations.

## II. Scope

Xerox Corporation and subsidiaries worldwide.

## III. Objective

To enable prompt resolution of health and safety incidents involving Xerox products and to ensure Xerox regulatory compliance.

## IV. Definitions

Incident:

An event or condition occurring in a customer account that has resulted in injury, illness or property damage. Examples of incidents include machine fires, smoke generation, physical injury to an operator or service representative. Alleged events and product conditions are included in this definition.

## V. Requirements

Initial Report:

1. Xerox organizations shall establish a process for individuals to report product incidents to Xerox Environment Health and Safety within 24 hours of becoming aware of the event.
2. The information to be provided at the time of reporting is contained in Appendix A (Health and Safety Incident Report involving a Xerox product).
3. The initial notification may be made by either of the methods that follow:
  - Email Xerox EH&S at: [usa.product.incident@xerox.com](mailto:usa.product.incident@xerox.com).
  - Fax Xerox EH&S at: +1-585-422-8217 [intelnet 8-222-8217].

**NOTE:** *If sending a fax, please also send the original via internal mail.*

Responsibilities for resolution:

1. Business Groups/Product Design Teams responsible for the product involved in the incident shall:
  - a. Manage field bulletins, customer correspondence, product recalls, safety retrofits.
  - b. Fund all field retrofits.
2. Field Service Operations shall:
  - a. Preserve the Xerox product involved and the scene of the incident inclusive of any associated equipment located in the vicinity of the incident.
  - b. Return any affected equipment/part(s) to the location designated by Xerox EH&S and/or the Business Division.
  - c. Implement all safety retrofits.
3. Xerox EH&S shall:
  - a. Manage and report all incident investigation activities.
  - b. Review and approve proposed product corrective actions and retrofits, if necessary.
  - c. Manage all communications and correspondence with government agencies.
  - d. Define actions to correct confirmed incidents.

## VI. Appendices

The Health and Safety Incident Report involving a Xerox Product (Form # EH&S-700) is available in the locations that follow:

- On electronic documentation (EDOC), located in the folder \safety.
- In the hardcopy, located at the end of the manual.

## Translation of Warnings



### WARNING

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

**DANGER:** Une note Danger est utilisée chaque fois qu'une procédure d'utilisation ou de maintenance peut être cause de blessure si elle n'est pas strictement respectée.

**AVVERTENZA:** Un segnale di avvertenza è utilizzato ogni volta che una procedura operativa o di manutenzione, una pratica, una condizione o un'istruzione, se non strettamente osservata, potrebbe causare lesioni personali.

**VORSICHT:** Weist darauf hin, dass ein Abweichen von den angeführten Arbeits- und Wartungsanweisungen gesundheitliche Schäden, möglicherweise sogar schwere Verletzungen zur Folge haben kann.

**AVISO:** Un aviso se utiliza siempre que un procedimiento de operación o mantenimiento, práctica o condición puede causar daños personales si no se respetan estrictamente.



### WARNING

Do not work in a confined space. 1 m (39 inches) space is needed for safe working.

**DANGER:** Ne pas travailler dans un espace restreint. 1 mètre d'espace est nécessaire pour un dépannage en toute sécurité.

**AVVERTENZA:** Non lavorare in uno spazio limitato; è necessario uno spazio di almeno un metro attorno alla macchina per la sicurezza dell'operatore.

**VORSICHT:** Nur mit ausreichendem Bewegungsspielraum (1 m) arbeiten.

**AVISO:** No trabaje en un espacio reducido. Se necesita 1 metro de espacio para trabajar con seguridad.



### WARNING

Follow the service procedure exactly as written. Use of controls or adjustments other than those specified in this manual, may result in an exposure to invisible laser radiation. During servicing, the invisible laser radiation can cause eye damage if looked at directly.

**DANGER :** Les procédures de dépannage doivent être suivies à la lettre. Si les réglages ou vérifications ne sont pas effectués suivant les instructions de ce manuel, il peut y avoir un risque d'exposition dangereuse au faisceau laser. Celui-ci peut provoquer des lésions oculaires s'il est observé directement.

**AVVERTENZA:** Eseguire le procedure di servizio esattamente come descritto. L'utilizzo di dispositivi di controllo o di registrazione diversi da quelli riportati in questo manuale potrebbe comportare un'esposizione a radiazioni laser invisibili. Tali radiazioni possono danneggiare gli occhi se si guarda direttamente il fascio laser durante gli interventi di servizio.

**VORSICHT:** Die Wartungsarbeiten genau den Anweisungen entsprechend durchführen. Der Umgang mit Steuer- oder Bedienelementen, deren Verwendung nicht ausdrücklich in diesem Handbuch angewiesen wurde, kann dazu führen, dass unsichtbare Laserstrahlung frei gesetzt wird. Direkter Blickkontakt mit dem Laserstrahl kann bleibende Augenschäden verursachen.

**AVISO:** Siga los procedimientos de mantenimiento tal como están descritos. El uso de controles o ajustes no especificados en este manual puede tener como resultado la exposición a radiación láser invisible. Durante las operaciones de mantenimiento, la radiación de láser invisible puede causar daños en los ojos si se mira directamente a ella.



### WARNING

Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.

**DANGER:** Ne pas installer de fusible de type ou de calibre différent. Il existe un risque de surchauffe voire d'incendie.

**AVVERTENZA:** per evitare rischi di surriscaldamento o d'incendio, non installare un fusibile di tipo o carica diversi da quelli esistenti.

**VORSICHT:** Keine Sicherungen anderer Art oder anderer Leistung auf dem IOT-PWB installieren - Überheizungs- und Brandgefahr.

**AVISO:** No instale un fusible de potencia o tipo distinto. Un fusible de potencia o tipo distinto puede producir sobrecalentamiento y el riesgo de incendio.



### WARNING

Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**DANGER :** Mettez la machine hors tension. Reportez-vous à **GP 14**. Déconnectez le cordon d'alimentation de l'alimentation du client lorsque vous réalisez des tâches qui ne nécessitent pas d'électricité. L'électricité peut être à l'origine de blessures, voire d'un accident mortel. Les pièces amovibles peuvent être à l'origine de blessures.

**AVVERTENZA:** Spegnere la macchina. Vedere **GP 14**. Scollegare il cavo di alimentazione dall'alimentatore quando si eseguono attività che non richiedono elettricità. L'elettricità può causare morte o lesioni personali. Le parti in movimento possono causare lesioni personali.

**VORSICHT:** Schalten Sie die Stromversorgung der Maschine ab. Siehe auch **GP 14**. Ziehen Sie das Stromkabel ab, wenn Sie Aufgaben ausführen, für die keine Stromversorgung benötigt wird. Stromschläge können Todesfällen oder Verletzungen verursachen. Bewegliche Teile können zu Verletzungen führen.

**AVISO:** Apague la electricidad de la máquina. Consulte el **GP 14**. Desconecte el cable de alimentación eléctrica de la toma de pared mientras esté realizando tareas que no necesiten corriente. La electricidad puede causar daños o la muerte. Las partes móviles pueden causar daños.



### WARNING

Do not switch on the electricity to the machine while a ground circuit is disconnected. Ground circuits ensure that the machine remains safe during a fault condition.

**DANGER :** Ne pas mettre la machine sous tension si un circuit de mise à la masse est déconnecté. Les circuits de mise à la masse permettent de garantir la sécurité de la machine lors d'un incident.

**AVVERTENZA:** Non accendere la macchina se uno dei conduttori di terra non è con-



nesso. In caso di guasti elettrici, tali conduttori garantiscono la sicurezza del sistema.  
VORSICHT: Stromzufuhr zum Gerät nicht einschalten, wenn keine Erdung gegeben ist.  
AVISO: No encienda la máquina mientras esté desconectado algún circuito de tierra. Los circuitos de tierra mantienen la seguridad de la máquina en las situaciones de averías o errores.



### WARNING

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.  
DANGER: Prendre des précautions lors du relevé de la tension de la prise de courant alternatif. L'électricité peut entraîner des blessures graves voire mortelles.  
AVVERTENZA: Procedere con cautela durante la misurazione della tensione CA della rete. L'elettricità può causare infortuni o morte.  
VORSICHT: Bei der Netzspannungsprüfung stets vorsichtig vorgehen  
AVISO: Tenga cuidado al medir la tensión de la línea de alimentación de corriente alterna. La electricidad puede causar lesiones e incluso la muerte.



### WARNING

Do not repair or install a new fuse F1 on the IOT PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.  
DANGER : Ne pas réparer de fusible F1 ou en installer un nouveau sur la carte d'alimentation de la machine. Il existe un risque de surchauffe voire d'incendie.  
AVVERTENZA: per evitare rischi di surriscaldamento o d'incendio, non riparare o installare un nuovo fusibile F1 sul PWB IOT.  
VORSICHT: Die Sicherung F1 auf dem IOT-PWB nicht reparieren oder neu installieren - Überhitzungs- und Brandgefahr.  
AVISO: No repare un fusible F1 ni instale uno nuevo en la PWB de la IOT. Un fusible reparado o nuevo puede producir sobrecalentamiento y el riesgo de incendio.



### WARNING

Do not repair or install a new fuse F1 on the power distribution PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.  
DANGER : Ne pas réparer de fusible F1 ou en installer un nouveau sur la carte de distribution électrique. Il existe un risque de surchauffe voire d'incendie.  
AVVERTENZA: per evitare rischi di surriscaldamento o d'incendio, non riparare o installare un nuovo fusibile F1 sul PWB distribuzione di alimentazione  
VORSICHT: Die Sicherung F1 auf dem Stromverteilungs-PWB nicht reparieren oder neu installieren - Überhitzungs- und Brandgefahr.  
AVISO: No repare un fusible F1 ni instale uno nuevo en la PWB de distribución de energía eléctrica. Un fusible reparado o nuevo puede producir sobrecalentamiento y el riesgo de incendio.



### WARNING

Do not repair or install a new fuse F1 on the main drive PWB. Repairing or installing a

new fuse can cause overheating and a risk of fire.  
DANGER : Ne pas réparer de fusible F1 ou en installer un nouveau sur la carte d'entraînement principal. Il existe un risque de surchauffe voire d'incendie.  
AVVERTENZA: per evitare rischi di surriscaldamento o d'incendio, non riparare o installare un nuovo fusibile F1 sul PWB azionamento principale.  
VORSICHT: Die Sicherung F1 auf dem Hauptantriebs-PWB nicht reparieren oder neu installieren - Überhitzungs- und Brandgefahr.  
AVISO: No repare un fusible F1 ni instale uno nuevo en la PWB de impulso principal. Un fusible reparado o nuevo puede producir sobrecalentamiento y el riesgo de incendio.



### WARNING

Avoid exposure to laser beam. Invisible laser radiation.  
DANGER : Eviter toute exposition au faisceau laser. Radiation laser invisible.  
AVVERTENZA: Evitare l'esposizione al fascio laser. Radiazioni laser invisibili.  
VORSICHT: Nicht in den Laserstrahl blicken. Verletzungsgefahr durch unsichtbare Laserstrahlung.  
AVISO: Evite la exposición al rayo láser. Radiación de láser invisible.



### WARNING

Take care during this procedure. Motors will become hot during normal operation.  
DANGER : Exécuter cette procédure avec précaution. Les moteurs peuvent devenir très chauds en fonctionnement normal.  
AVVERTENZA: procedere con cautela durante questa procedura. I motori si riscaldano molto durante il funzionamento.  
VORSICHT: Bei diesem Vorgang vorsichtig vorgehen, da Motoren im Normalbetrieb heiß werden können.  
AVISO: Tenga cuidado al efectuar este procedimiento. Los motores alcanzan altas temperaturas durante su funcionamiento normal.



### WARNING

Do not touch the fuser while it is hot.  
DANGER : Ne pas toucher au four pendant qu'il est encore chaud.  
AVVERTENZA: Non toccare il fonditore quando è caldo.  
VORSICHT: Fixierbereich erst berühren, wenn dieser abgekühlt ist.  
AVISO: No toque el fusor mientras está caliente.



### WARNING

Take care not to topple the LCSS. The LCSS is unstable when undocked from the machine. Do not show the customer how to undock the LCSS.  
DANGER: Attention à ne pas faire tomber la trieuse/agrafeuse petite capacité. Elle n'est pas stable lorsqu'elle est détachée de la machine. Ne pas montrer au client comment détacher la trieuse/agrafeuse.  
AVVERTENZA: fare attenzione a non destabilizzare il modulo della pinzatrice/impilatore

da 2000 fogli. Quando è sganciato dalla macchina, il modulo è instabile: non mostrare al cliente come sganciarlo

**VORSICHT:** Stapler nicht umstoßen. Nach Trennung des Staplers vom Document Centre ist dieser sehr instabil

**AVISO:** Tenga cuidado de que no se caiga el apilador/grapadora de baja capacidad. Cuando no está acoplada a la máquina es inestable. No le muestre al cliente como desacoplar el apilador/grapadora de baja capacidad.



### WARNING

Keep away from the crease blade mechanism when working in close proximity to the booklet maker while the machine is powered on. The crease blade mechanism activates quickly and with great force.

**DANGER:** Ne pas s'approcher du mécanisme de la lame de pliage lors d'une activité à proximité de la plieuse/brocheuse pendant que la machine est sous tension. Ce mécanisme s'active rapidement et avec force.

**AVVERTENZA:** Quando la macchina è accesa, tenersi a debita distanza dalla lama di piegatura mentre si opera in prossimità della stazione libretto. Il meccanismo della lama di piegatura si attiva con velocità e forza notevoli.

**VORSICHT:** Wenn bei eingeschaltetem Gerät nahe am Booklet Maker gearbeitet wird, von der Schneidevorrichtung fernhalten. Die Schneidevorrichtung wird schnell und mit viel Druck ausgelöst.

**AVISO:** Manténgase apartado del mecanismo de la cuchilla hendedora cuando trabaje junto al realizador de folletos si la máquina está encendida. Dicho mecanismo se activa de forma rápida y con mucha fuerza.



### WARNING

Take care, a hazardous voltage is present at the XXXX. Electricity can cause death or injury.

**DANGER :** Faire attention, une tension électrique dangereuse est présente au niveau de la sortie de l'inverseur de la lampe d'exposition.

**AVVERTENZA:** fare attenzione alla carica elettrica di uscita dell'invertitore della lampada di esposizione. L'elettricità può causare infortuni o morte.

**VORSICHT:** Achtung: Spannung am Ausgang des Belichtungslampeninverters.

**AVISO:** Tenga cuidado; hay tensión peligrosa en la salida del inversor de la lámpara de exposición. La electricidad puede causar lesiones e incluso la muerte.



### WARNING

Do not touch the test pads on the embedded fax PWB while the machine is switched on. Dangerous voltages may be present that could cause death or injury.

**DANGER :** Ne pas toucher les contacts de test de la carte de circuits imprimés du fax intégré tant que la machine est sous tension. Ils représentent un risque de chocs électriques qui sont un danger de mort ou peuvent entraîner des blessures graves.

**AVVERTENZA:** non toccare le aree di contatto del PWB del fax incorporato mentre la macchina è accesa. La presenza di voltaggi pericolosi comporta il rischio di morte o lesioni personali.

**VORSICHT:** Die Testpads (Prüfkontakte) der Platine für das integrierte Fax nicht berühren, solange das Gerät eingeschaltet ist. An den Pads liegt eine Spannung an; es besteht Stromschlag- bzw. Lebensgefahr!

**AVISO:** No toque la zona terminal de prueba que presenta el circuito impreso del fax interno mientras la máquina está encendida, ya que podría haber tensiones peligrosas que podrían provocar lesiones o incluso la muerte.



### WARNING

Only use the correct plug to connect a power lead to a power outlet.

**DANGER :** Toujours utiliser la fiche appropriée pour connecter le cordon d'alimentation à la prise.

**AVVERTENZA:** Usare la spina corretta per connettere il cavo elettrico alla presa.

**VORSICHT:** Nur Netzkabel mit dem für die vorhandenen Netzsteckdose geeigneten Netzstecker verwenden.

**AVISO:** Utilice solamente un enchufe apropiado para conectar el cable de alimentación a la toma de corriente.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

**DANGER :** Exécuter cette procédure avec précaution. La présence de bords tranchants peut entraîner des blessures.

**AVVERTENZA:** procedere con cautela durante questa procedura. Possono essere presenti oggetti con bordi taglienti pericolosi.

**VORSICHT:** Bei diesem Vorgang vorsichtig vorgehen, damit keine Verletzungen durch die scharfen Kanten entstehen.

**AVISO:** Tenga cuidado al efectuar este procedimiento. Puede haber bordes afilados que podrían producir lesiones.



### WARNING

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

**DANGER :** Prendre des précautions lors du relevé de la tension de la prise de courant alternatif. L'électricité peut entraîner des blessures graves voire mortelles.

**AVVERTENZA:** Procedere con cautela durante la misurazione della tensione CA della rete. L'elettricità può causare infortuni o morte.

**VORSICHT:** Bei der Netzspannungsprüfung stets vorsichtig vorgehen

**AVISO:** Tenga cuidado al medir la tensión de la línea de alimentación de corriente alterna. La electricidad puede causar lesiones e incluso la muerte.



### WARNING

Do not attempt any repairs to the power cord or safety ground harness/conductor.

**DANGER :** Ne pas tenter de réparer le faisceau/conducteur de mise à la masse ou du cordon d'alimentation.

**AVVERTENZA:** non eseguire riparazioni sul cavo dell'alimentazione o sul conduttore di

terra di sicurezza.

VORSICHT: Keine Reparaturen am Netzkabel oder am Schutzleiter vornehmen.

AVISO: No intente reparar el cable de alimentación ni el conductor/mazo de tierra de protección.



### WARNING

Do not remove the DADH while the DADH is lowered. In the lowered position the counterbalance springs are compressed and can cause injury when released.

DANGER : Ne pas retirer le CAD alors qu'il est en position basse. Dans cette position, les ressorts compensateurs sont comprimés et peuvent entraîner des blessures s'ils se relâchent.

AVVERTENZA: non rimuovere l'alimentatore automatico documenti quando è abbassato. In questa posizione, le molle del contrappeso sono compresse e possono causare lesioni al rilascio.

VORSICHT: Vorlageneinzug nicht in abgesenkter Position entfernen. Bei abgesenktem Vorlageneinzug sind die Ausgleichsfedern zusammengedrückt und können bei Freigabe Verletzungen verursachen.

AVISO: No quite el alimentador de documentos automático si está bajado. Cuando está bajado, los resortes de contrapeso están comprimidos y pueden causar lesiones al soltarse.



### WARNING

Take care not to topple Tray 5. Tray 5 is unstable when undocked from the machine. Do not show the customer how to undock Tray 5.

DANGER : Attention à ne pas faire tomber le magasin 5. Le magasin 5 n'est pas stable lorsqu'il est détaché de la machine. Ne pas montrer au client comment détacher le magasin 5.

AVVERTENZA: Fare attenzione a non destabilizzare il vassoio 5. Quando è sganciato dalla macchina, questo vassoio è instabile: non mostrare al cliente come sganciarlo.

VORSICHT: Behälter 5 nicht umstoßen. Der Behälter ist nach der Trennung vom Gerät sehr instabil. Benutzer nicht im Trennen des Behälters vom Gerät einweisen.

AVISO: Tenga cuidado de que no se caiga la bandeja 5. Cuando no está acoplada a la máquina, la bandeja 5 es inestable. No le muestre al cliente como desacoplar la bandeja 5.



### WARNING

Take care when removing the latch. The latch contains a compressed spring, which can cause injury when released.

DANGER: Faites attention en déverrouillant le levier : il comporte un ressort comprimé, ce qui présente un risque de blessure lors du déverrouillage.

AVVERTENZA: Rimuovere il gancio con cura in quanto contiene una molla compressa che può causare lesioni al rilascio.

VORSICHT: Beim Entfernen der Verriegelung mit Vorsicht vorgehen. Es ist eine unter Spannung stehende Feder enthalten, die bei spontaner Freisetzung Verletzungen verursachen kann.

AVISO: Tenga cuidado al soltar el enganche. Tiene un resorte comprimido, que puede causar alguna lesión al soltarlo.



### WARNING

Mandatory safety warning. This procedure must be performed by 2 people. The module is heavy.

DANGER: Avertissement obligatoire. Cette procédure doit être effectuée par 2 personnes. Le module est très lourd.

AVVERTENZA: Avviso di sicurezza obbligatorio. A causa della pesantezza del modulo, questa procedura deve essere eseguita da due persone.

VORSICHT: Verbindliche Sicherheitsvorschrift - dieser Vorgang muss von zwei Personen ausgeführt werden, da das Modul sehr schwer ist.

AVISO: Aviso de seguridad obligatorio. Este procedimiento debe ejecutarse entre dos personas. El módulo pesa mucho.



### WARNING

Use safe handling procedures when removing the module. Refer to GP 16. The module is heavy.

DANGER: Conformez-vous aux procédures de manipulation de sécurité pour le retrait du module. Reportez-vous à GP 16. Le module est lourd.

AVVERTENZA: Utilizzare procedure di gestione sicure durante la rimozione del modulo. Vedere GP 16. Il modulo è pesante.

VORSICHT: Verwenden Sie sichere Vorgehensweisen zum Entfernen des Moduls. Siehe auch GP 16. Das Modul ist sehr schwer.

AVISO: Utilice los procedimientos de seguridad cuando elimine el módulo. Consulte el GP 16. El módulo es pesado.



### WARNING

Do not break the glass. Broken glass can cause injury.

DANGER: Attention à ne pas briser la glace sous risque de blessure.

AVVERTENZA: Per evitare il rischio di lesioni, non rompere il vetro.

VORSICHT: Glas nicht zerbrechen - Verletzungsgefahr.

AVISO: No rompa el cristal. El cristal roto puede ocasionar daños.



### WARNING

Wear protective gloves when using solvents and cleaning agents, PL 26.10 Item 10 .

DANGER : Porter des gants de protection lors de l'utilisation de solvants et de produits de nettoyage, PL 26.10 Item 10.

AVVERTENZA: utilizzare guanti protettivi durante l'impiego di solventi e soluzioni per pulizia PL 26.10 Item 10.

VORSICHT: Beim Einsatz von Lösungs- und Reinigungsmitteln Handschuhe tragen PL 26.10 Item 10.

AVISO: Póngase guantes de protección cuando utilice disolventes y productos de limpieza PL 26.10 Item 10.



### WARNING

Do not use the on/off switch as a safety disconnect device. The on/off switch is not a disconnect device. Disconnect the power cord from the supply to isolate the equipment.

**DANGER :** Ne pas utiliser l'interrupteur comme système d'arrêt d'urgence. Déconnecter le cordon d'alimentation de la prise pour isoler l'équipement.

**AVVERTENZA:** Non usare l'interruttore di accensione/spengimento come dispositivo di sicurezza per il disinserimento dell'elettricità, in quanto l'interruttore non è stato disegnato per questa funzione. Per isolare la macchina dalla corrente elettrica, scollegare il cavo dell'alimentazione dalla presa a muro.

**VORSICHT:** Der Netzschalter reicht zur Trennung von der Netzspannung NICHT aus. Um das Gerät von der Netzspannung zu trennen, den Netzstecker abziehen.

**AVISO:** No utilice el interruptor de encendido/apagado como dispositivo de desconexión seguro. El interruptor de encendido/apagado no es un dispositivo de desconexión. Para aislar el equipo totalmente, desconecte el cable de alimentación de la toma de corriente.



### WARNING

USA and Canada. Do not install this machine in a hallway or exit route that does not have 1.12 m (44 inches) of space additional to the normal space requirements in front of the machine. To conform with fire regulations this additional 1.12 m (44 inches) of space is needed in front of the machine in hallway and exit routes.

**DANGER :** États-Unis et Canada. Si cette machine est installée dans un couloir ou une voie de sortie, 1,12 m (44 pouces) d'espace supplémentaire à l'espace normal doit être disponible devant la machine conformément aux normes de sécurité d'incendie.

**AVVERTENZA:** N/A

**VORSICHT:** N/A

**AVISO:** Estados Unidos y Canadá. No instale esta máquina en un corredor o ruta de salida que no tenga 1.12 m (44 pulgadas) de ancho delante de la máquina, sin incluir el espacio que ocupe la máquina. Este espacio adicional de 1.12 m (44 pulgadas) delante de la máquina en corredores y rutas de salida es necesario para cumplir los requisitos de las normas sobre incendios.



### WARNING

Do not use the W/TAG 148 right hand cover with an output device other than the OCT Transport assembly. The right hand cover will expose moving parts if not used correctly. Moving parts can cause injury.

**AVERTISSEMENT:** Ne pas utiliser le capot de droite W/TAG 148 avec un périphérique de sortie autre que le module de transport OCT (bac à décalage). Ce capot expose des pièces mobiles s'il n'est pas utilisé correctement. Les pièces mobiles risquent d'entraîner des blessures.

**AVVERTENZA:** Non utilizzare la copertura destra W/TAG 148 con un dispositivo di uscita tranne il complessivo del trasporto OCT. Se questa copertura non viene utilizzata in modo corretto, si potrebbero esporre parti meccaniche in movimento con rischio di infortuni.

**ACHTUNG:** Rechtsseitige Abdeckung (W/TAG 148) NUR mit Ausgabegeräten vom Typ

OCT-Transporteinheit verwenden. Bei unsachgemäßer Verwendung bietet die rechtsseitige Abdeckung Zugang zu sich bewegenden Teilen die Verletzungen verursachen können.

**AVISO:** No utilizar la cubierta derecha (W/TAG 148) con otro dispositivo de salida que no sea el conjunto de Transporte de OCT (Bandeja Receptora de Compaginación). Si no se utiliza bien, la cubierta derecha deja expuestas piezas móviles que pueden causar lesiones.

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# 1 Service Call Procedures

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## SCP 1 Initial Actions

Use the Service Call Procedures to find a problem with the machine.

Use the Initial Actions to collect the information on the machine performance.

Also refer to [SCP 7 Machine Features](#).

### Initial Actions

- Certain service procedures described within this service manual are unique to the 5790F copier only machines. Refer to [GP 30](#) for details on how to identify a copier only configured machine and their service procedures.
- Switch off the machine, then switch on the machine, [GP 14](#).
- If the machine cannot be switched off, go to [03-374 Power Off Failure RAP](#).

**NOTE:** The May 2011 revision of the WC5790F service manual was specifically prepared to support the launch of machine software version SMP 1, which contains a multitude of fixes.

- Ensure that the machine has the latest available machine software loaded before commencing any diagnostic or repair procedures.

### Procedure



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Do not work in a confined space. 1m (39 inches) space is needed for safe working.

1. Take note of problems, error messages or error codes. If necessary, refer to [Machine Status](#).
2. Ask the operator to describe or demonstrate the problem.
3. If the problem is the result of an incorrect action by the operator, refer the operator to the user documentation.
4. Check the steps that follow:
  - a. The power lead is connected to the wall outlet and to the machine.
  - b. The documents are not loaded in the DADH or on the document glass.
  - c. The paper is loaded correctly.
  - d. All paper trays are closed.
  - e. All covers are closed or installed.
  - f. If a telephone line cable is installed, make sure that the cable is connected between the line socket and the wall jack.
  - g. If a telephone line cable is installed, make sure that the customer telephone line is functioning.
5. Check the machine service log book for previous actions that are related to this call.

6. If this service call is the first service call to this machine, go to [SCP 2 First Call Actions](#). If this service call is not the first call, go to [SCP 3 Normal Call Actions](#).

### Machine Status

To display a list of the last 6 fault codes on the UI, perform the steps that follow:

1. Press the Machine Status key on the UI.
2. Touch the Fault tab on the UI.
3. Touch the All Faults button on the UI.

To print a fault history report of the last 40 fault codes, perform the steps that follow:

1. Simultaneously press the \* and Log in/out key on the UI.
2. Use the numerical keypad to input the code 734040.
3. Touch the enter tab on the UI.

**NOTE:** There will be a short delay of approximately 10 second before the fault history report is printed.

To display the event log on the UI, perform the steps that follow:

1. Press the Machine Status key on the UI.
2. Touch the Fault tab on the UI.
3. Touch the Event Log button on the UI.

To display the active messages on the UI, perform the steps that follow:

1. Press the Machine Status key on the UI.
2. Touch the Fault tab on the UI
3. Touch the Active Messages button on the UI.

## SCP 2 First Call Actions

Use the First Call Actions for the first service call.

### Initial Actions

- Switch off the machine, then switch on the machine, [GP 14](#).
- If the machine cannot be switched off, go to [03-374 Power Off Failure RAP](#).

### Procedure

1. Check the machine configuration with the customer. Check that all the required hardware and software is installed. Check that all the required hardware and software is enabled.
2. Check that all the machine settings are entered correctly.
3. Mark off the hardware options, software options or Tags installed on the Tag matrix cards and [dC111 Tag Matrix](#).
4. **35-55 ppm Only.** If the machine has a OCT, install the OCT fingers. Go to [REP 12.1](#).

**NOTE:** The OCT fingers are supplied with the OCT but must be installed by a CSE at the first service call. They are located in a plastic wallet on the rear of the machine. The OCT fingers improve feeding to the OCT.

5. If a fault is found, go to [SCP 3 Normal Call Actions](#). If a fault is not found, go to [SCP 6 Final Actions](#).
6. Check the machine for waste toner contamination. Refer to the [OF11 Waste Toner Contamination RAP](#).
7. Save the NVM. Refer to [GP 5 Portable Workstation and Tools](#).
8. Perform [GP 19 Network Clone Procedure](#).

**NOTE:** The clone file must be taken whenever the customer changes the network controller setting or after the system software is changed.

9. Enter the machine information and the customer information in the service logbook.
10. If the machine has a tray 5 installed, check the top edge registration, [ADJ 7.4](#).

## SCP 3 Normal Call Actions

Use the Normal Call Actions to find the reason for the service call.

### Initial Actions

- Switch off the machine, then switch on the machine, [GP 14](#).
- If the machine cannot be switched off, go to [03-374 Power Off Failure RAP](#).

### Procedure

**NOTE:** If an error message appears, go to the RAP for the error message. If necessary refer to [OF4 Status Codes and Messages RAP](#).

Perform the steps that follow:

1. Review the copy, print and Fax samples.
2. Make sure the user access settings are correct. If necessary refer to the user documentation.
3. To prevent the deletion of the customer information and soft machine settings, perform NVM Save and Restore. Refer to [GP 5](#).
4. Perform [GP 19 Network Clone Procedure](#).

**NOTE:** The clone file must be taken whenever the customer changes the network controller setting or after the system software is changed.

5. Before pressing the on/off switch or clear the memory, check for a customer job in the memory.
6. Check and record the total print counter.
7. Check the machine for waste toner contamination. Refer to the [OF11 Waste Toner Contamination RAP](#).
8. Clean the optical sensors that follow:
  - (40-90 ppm) DADH feed sensor, [PL 5.17 Item 2](#).
  - (40-90 ppm) DADH document present sensor, [PL 5.35 Item 19](#).
  - DADH length sensors, [PL 5.35 Item 8](#).
  - Tray 1 feed sensor, [PL 7.30 Item 24](#).
  - Tray 2 feed sensor, [PL 7.30 Item 24](#).
  - W/TAG 151. Tray 3 feed sensor, [PL 8.32 Item 6](#).
  - W/O TAG 151. Tray 4 feed sensor, [PL 8.31 Item 12](#).
  - W/TAG 151. Tray 4 feed sensor, [PL 8.33 Item 3](#).
  - W/TAG 151. HCF exit sensor, [PL 8.33 Item 3](#).
  - Tray 5 feed sensor, [PL 8.45 Item 6](#).
  - Wait sensor, (35-55 ppm) [PL 8.15 Item 3](#), (65-90 ppm) [PL 7.30 Item 25](#).
  - Duplex sensor, (35-55 ppm) [PL 8.22 Item 4](#), (65-90 ppm) [PL 8.20 Item 4](#).
  - Registration sensor, (35-55 ppm) [PL 8.15 Item 3](#), (65-90 ppm) [PL 8.17 Item 3](#).
  - HVF Bin 1 rear wall sensor, [PL 11.140 Item 17](#).
9. Go to [SCP 4 Fault Analysis](#).



# SCP 4 Fault Analysis

Use the Fault Analysis to identify a fault.

## Initial Actions

- Switch off the machine, then switch on the machine, [GP 14](#).
- If the machine cannot be switched off, go to [03-374 Power Off Failure RAP](#).

## Procedure

Use the machine in all modes until the fault is found.

Go to the correct procedure for the machine fault. When the fault is cleared, go to [SCP 5 Sub-system Maintenance](#).

- [Power Up Problems](#)
- [Sleep Mode Problems](#)
- [User Interface Problems](#)
- [Messages, Fault Codes and Status Codes](#)
- [DADH Problems](#)
- [Paper Supply and Paper Feed Problems](#)
- [OCT Problems](#)
- [1K LCSS Problems](#)
- [2K LCSS Problems](#)
- [HVF, HVF BM, Inserter and Tri-Folder Problems](#)
- [Fax Problems](#)
- [Other Problems](#)
- [Xerographic Module \(XRU\) Handling](#)

### Power Up Problems

- Go to the [OF3 Dead Machine RAP](#) if the machine has the problems that follow:
  - The machine will not power up.
  - There is no information on the user interface.
  - There is no LED illumination on the user interface.
- If all the panel lights are on, the UI touch screen is illuminated and the machine then powers off. Go to the [OF3 Dead Machine RAP](#).
- If the UI displays 'system unavailable' or the machine does not come to a 'Ready to scan your job' state. Go to the [OF5 Boot Up Failure RAP](#).
- If the machine displays a 'speed mismatch' or 'configuration error', reset the machine configuration, [GP 15](#).

### Sleep Mode Problems

- If the machine fails to enter or exit sleep mode, go to the [01K Sleep Mode RAP](#).

### User Interface Problems

- Go to the [OF3 Dead Machine RAP](#) if the machine has the problems that follow:
  - The machine is silent.
  - There is no information on the user interface.
  - There is no LED illumination on the user interface.
- If the user interface is not illuminated, go to the [OF2 Touch Screen Failure RAP](#).
- If the user interface is illuminated, but there is no information, go to the [02-309 UI Control Panel Button or Touch Screen RAP](#).

### Messages, Fault Codes and Status Codes

- If the machine has the problems that follow, go to the [19-401, 19-402, 19-403 Out of Memory Resources RAP](#).
  - A message that there is not enough memory to complete the job.
  - The machine does not print a complex job.
  - The customer reports that the print speed is slow.
- If a status code or message is displayed, but not a fault code, go to [OF4 Status Code and Messages RAP](#).
- If a fault code is displayed, go to the Status Indicator RAP for that code.
- If a fault code and the message 'Mark Service Unavailable' is displayed, perform the Status Indicator RAP for that code. If the fault continues after you performed the RAP, go to the [03B Mark Service Unavailable RAP](#).
- If the user interface does not display the features for output devices that are installed, perform one of the procedures that follow:
  - [03-360, 03-408 to 03-410, 03-418 IOT to Output Device Error RAP](#).
  - [11-050-110, 11-360-110 Staple Head Operation Failure RAP](#).

### DADH Problems

- If the DADH does not detect the documents in the DADH input tray, go to [05B Document Present Failure RAP](#).
- If the DADH has a fault, but not a fault code, go to the [05A DADH Other Faults RAP](#).
- If the DADH has detected a document of the wrong size. Perform the procedures that follow:
  - [14A Scanning Document Size Entry RAP](#).
  - [05C Document Size Sensor Failure Entry RAP](#).

### Paper Supply and Paper Feed Problems

- For the paper supply problems that do not have a fault code, perform the procedures that follow, as appropriate:
  - [07A Tray 1 and Tray 2 Empty RAP](#).
  - [07B Tray 3 and Tray 4 False Paper Level Entry RAP](#).
  - [07D Bypass Tray RAP](#).
  - [07E Tray 1 and 2 Wrong Size Paper RAP](#).
  - [07F Tray 3 or Tray 4 Out of Paper Entry RAP](#).
  - [07H Tray Out of Service RAP](#).
  - [07J Tray 5 Empty RAP](#)
- If tray 5 is not set to the correct paper size, perform [ADJ 7.2 Tray 5 Paper Tray Guide Setting](#).
- If the machine produces a multifeed, go to the [OF8 Multi-feed RAP](#).

### OCT Problems

- Go to the [12-301 Offset Catch Tray Failure RAP](#).
- If the prints adhere to each other in the OCT, go to the [OF6 Ozone and Air Systems RAP](#).

### 1K LCSS Problems

- If the machine has a 1K LCSS fault, but not a fault code, perform the procedures that follow, as appropriate:
  - [11A-120 Bin 1 Overload RAP](#).
  - [11B-120 Initialization Failure RAP](#).
  - [11C-120 1K LCSS Power Distribution RAP](#).
  - [11D-120 1K LCSS to Machine Communication Interface RAP](#).

- 11E-120 1K LCSS PWB DIP Switch Settings RAP.
  - 11F-120 1K LCSS PWB Damage RAP.
  - 11G-120 Copy Damage in the 1K LCSS RAP.
  - 11H-120 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.
  - 11J-120 1K LCSS Poor Stacking RAP.
  - If the machine has the problems that follow, go to the 11E-120 1K LCSS PWB DIP Switch Settings RAP:
    - False jam clearance messages.
    - Communication errors between the LCSS and the machine.
  - If the staples of a stapled set are not correct, go to the 11-364-120 Stapling Failure RAP.
  - If the prints bond together in the LCSS trays, go to OF6 Ozone and Air Systems RAP.
- 11K-171 HVF Initialization Failure RAP.
  - 11L-171 Tri-Folder Not Detected RAP.
  - 11M-171 Curl Suppressor RAP
  - 11N-171 Chad Bin Present and Bin Full RAP.
  - 11P-171 Buffer Clamp RAP
  - If the staples of a booklet are not correct, perform the correct procedure that follows:
    - 11-063-171, 11-411-171 HVF BM Staple Unit 1 Failure RAP.
    - 11-403-171, 11-413-171, 11-414-171 HVF BM Stapler head 2 and Staple Module RAP.
  - If the tri-folder paper fold is not in the correct position, perform ADJ 11.2-171 Tri-Folder Paper Settings.

## 2K LCSS Problems

- If the machine has an 2K LCSS fault, but not a fault code, perform the procedures that follow, as appropriate:
  - 11A-110 Offline Stapling Faults RAP.
  - 11B-110 Bin 1 Overload RAP.
  - 11C-110 2K LCSS Initialization Failure RAP.
  - 11D-110 2K LCSS Power Distribution RAP.
  - 11E-110 2K LCSS to Machine Communications Interface RAP.
  - 11F-110 2K LCSS PWB DIP Switch Settings RAP.
  - 11G-110 2K LCSS PWB Damage RAP.
  - 11H-110 Copy Damage in the 2K LCSS RAP.
  - 11J-110 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.
  - 11K-110 2K LCSS Poor Stacking RAP.
- If the punched holes are out of position, perform ADJ 11.3-110 Hole Punch Position.
- If the machine has the problems that follow, go to the 11F-110 2K LCSS PWB DIP Switch Settings RAP:
  - False jam clearance messages.
  - Communication errors between the LCSS and the machine.
- If the staples of a stapled set are not correct, go to the 11-364-110 Stapling Failure RAP.
- If the prints bond together in the LCSS trays, go to OF6 Ozone and Air Systems RAP.

## HVF, HVF BM, Inserter and Tri-Folder Problems

- If the machine has a fault in the HVF or HVF BM, but with no fault code, perform the procedures that follow, as appropriate:
  - 11-300-171, 11-302-171, 11-303-171 HVF Docking and Interlocks RAP
  - 11A-171 HVF BM Power Distribution RAP.
  - 11B-171 HVF BM to Machine Communications Interface and BM Present RAP.
  - 11C-171 HVF BM Bin 2 Failure RAP.
  - 11D-171 Booklet Quality RAP.
  - 11E-171 Copy Damage in the HVF BM RAP.
  - 11F-171 Mis-Registration in Stapled and Unstapled Sets RAP.
  - 11G-171 HVF BM Poor Stacking RAP.
  - 11H-171 Pause To Unload (PTU) RAP.
  - 11J-171 Inserter Paper Sensing and +5V Supply RAP.

## Fax Problems

- For Fax problems with no fault code, perform the procedures that follow, as appropriate:
  - 20A Fax Entry RAP.
  - 20B Unable To Send A Fax RAP.
  - 20C Unable To Send A Fax To Some Machines RAP.
  - 20D Unable To Receive A Fax RAP.
  - 20E Fax Will Not Print RAP.
  - 20F Fax Tab Not Available RAP.
  - 20G Embedded Fax Checkout RAP.
  - (W/O TAG X-001 machines only) 20H Embedded Fax PWB Voltage Checkout.

## Other Problems

- Hot machine. Go to the OF6 Ozone and Air Systems RAP.
- Convenience stapler faults. Go to the OF13 Convenience Stapler RAP.
- If the customer has lost the System Administration password. Go to dC001 Reset Auditron Master PIN.
- Image quality fault. Go to the IQ1 Image Quality Entry RAP.
- Machine noise. Go to the OF1 Audible Noise RAP.
- Machine odour. Go to the OF6 Ozone and Air Systems RAP.
- If the UI displays 'system not available' or the machine continues to boot up, go to OF5 Boot Up Failure RAP.
- The machine will not turn off. Go to 03-374 Power Off Failure RAP.
- Check the fault history. GP 1 Diagnostic Entry, Facilities and Exit.
- Foreign device. Go to ACC 1 Foreign Device Checkout.
- Xerox extensible interface platform faults. Go to the OF14 Xerox Extensible Interface Platform RAP.
- Xerox secure access faults. Go to the OF15 Xerox Secure Access RAP.
- Scan to file failure when using the FTP or SMB protocols. Go to the 16A Network Error Entry RAP.

## Xerographic Module (XRU) Handling

- The Xerographic Module (XRU) must be protected from light shock and mechanical damage.
- Do not expose the photoreceptor drum to bright lights for extended periods.
- When ever the XRU is removed from the IOT, place the XRU in the black plastic bag supplied with the IOT. Store the XRU in a safe place on a clean flat surface, to avoid damage to the photoreceptor drum surface.
- Place the XRU in the black bag if the covers are removed or left open for long periods.

## SCP 5 Subsystem Maintenance

Use the Subsystem Maintenance to maintain the machine.

### Procedure



**Switch off the electricity to the machine, GP 14. Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.**

Go to the correct procedure:

- Installation of New Parts
- HFSI
- Lubrication
- How to Clean the Machine

### Installation of New Parts

The design life of the major components is shown in Table 1.

**Table 1 Component design life**

Part	Life	Parts list reference
Fuser module 35-55 ppm 65-90 ppm	400k prints 400k prints	PL 10.8 Item 1 PL 10.10 Item 1
Ozone filter	400k prints	PL 9.25 Item 3
Xerographic module 35 ppm 40-90 ppm	200k prints 400k prints	PL 9.22 Item 2 PL 9.20 Item 2
Toner cartridge 35-55 ppm 65-90 ppm	36.5k prints at 6% area coverage 50k prints at 6% area coverage	PL 9.17 Item 4 PL 9.15 Item 4
Waste toner bottle	100k	PL 9.10 Item 1
DADH feed roll assembly 35 ppm 40-90 ppm	170k feeds 170k feeds	PL 5.15 Item 1 PL 5.17 Item 1
1K LCSS staple cartridge	3k staples	PL 26.10 Item 26
2K LCSS staple cartridge	5k staples	PL 26.10 Item 11
HVF staple cartridge	5k staples	PL 26.10 Item 22
HVF BM staple cartridge	2k staples	PL 11.168 Item 8

**NOTE:** If a range of machine speeds are specified within Table 1, the life expectancy for the part will be specific for that machine.

If the speed has not been specified, the life expectancy for the part applies to all machines within the product family.

### HFSI

The High Frequency Service Items are shown in Table 2. To change HFSI settings, refer to GP 17 High Frequency Service Items.

**Table 2 High frequency service items**

Item	Component	Description	The recommended life for new component installation	Parts list reference
DADH feeds	Feed roll assembly	The total DADH feeds in all modes after the last HFSI reset	180k feeds	(35 ppm) PL 5.15 Item 1 or (40-90 ppm) PL 5.17 Item 1
Tray 1 feed	Feed rolls	All sheets fed from tray 1 after last HFSI reset	750k feeds	PL 8.26
Tray 2 feed	Feed rolls	All sheets fed from tray 2 after last HFSI reset	750k feeds	PL 8.26
Tray 3 feed W/O TAG 151	Feed rolls	All sheets fed from tray 3 after last HFSI reset	1,500k feeds	PL 8.30 Item 2
Tray 3 feed W/TAG 151	Feed rolls	All sheets fed from tray 3 after last HFSI reset	400k feeds	PL 8.32 Item 11
Tray 4 feed W/O TAG 151	Feed rolls	All sheets fed from tray 4 after last HFSI reset	1,500k feeds	PL 8.31 Item 2
Tray 4 feed W/TAG 151	Feed rolls	All sheets fed from tray 4 after last HFSI reset	400k feeds	PL 8.33 Item 9
Tray 1 trans	Transport roll	The total feeds from tray 1, 2, 3, 4 after last HFSI reset	2,000k feeds	PL 8.25 Item 8
Tray 2 trans	Transport roll	The total feeds from tray 2, 3, 4 after the last HFSI reset	2,000k feeds	PL 8.25 Item 8
Tray 3/4 trans W/O TAG 151	Tray 3 and 4 transport roll	The total feeds from tray 3, 4 after the last HFSI reset	2,500k feeds	PL 8.30 Item 18
Tray 3/4 trans W/TAG 151	Tray 3 and 4 transport roll	The total feeds from tray 3, 4 after the last HFSI reset	2,500k feeds	PL 8.32 Item 4
Bypass feeds	Bypass tray feed roll and retard pad assembly	The total bypass tray feeds after the last HFSI reset	100k feeds	PL 7.30 Item 21

**Table 2 High frequency service items**

Item	Component	Description	The recommended life for new component installation	Parts list reference
Tray 5 feeds	Tray 5 feed roll kit	All sheets fed from tray 5 after last HFSI reset	1,000k feeds	PL 8.45 Item 20 or PL 8.45 Item 22
Insertor	Insertor feed rolls	Total Insertor feeds	80k feeds	PL 11.179 Part of insertor pickup assembly
Inverter feeds	Nip split shaft assembly	The total turned and duplex feeds after the last HFSI reset	2,500k feeds	PL 10.11 Item 4
Duplex sensor	Duplex sensor actuator	The total count of the duplex sensor actuator after the last HFSI reset	1,000k actuator counts	(35-55 ppm) PL 8.22 Item 4
Bias foam	Bias contact	The total sides of copies and prints after the last HFSI reset	500k impressions	PL 8.15 Item 23
Developer	Developer drive gear / pulley and the main drive gear	The total sides of copies and prints after the last HFSI reset	2,500k impressions	(35-55 ppm) PL 9.17 Item 2 or (65-90 ppm) PL 9.15 Item 2
Post Fuser	Post fuser exit roll.	The total sides of copies and prints after the last HFSI reset	1,200k impressions	PL 10.12 Item 9.
HVF Paddle	Paddle wheel	All sheets fed through the HVF after last HFSI reset	200k feeds	PL 11.145 Item 28

## Lubrication

To lubricate the machine, refer to [ADJ 4.1 Machine Lubrication](#).

## How to Clean the Machine

- Perform [ADJ 9.4 Xerographics Cleaning](#).
- Clean the takeaway roll idlers, [PL 5.20 Item 3](#). Refer to [ADJ 5.4 DADH Cleaning Procedure](#).
- Clean the upper surfaces of the CVT glass and document glass, refer to:
  - (W/O [TAG 150](#)) [ADJ 14.1 Optics Cleaning Procedure](#).
  - (W/[TAG 150](#)) [ADJ 14.2 Optics Cleaning Procedure](#).
- (40-90 ppm) Clean the DADH feed sensor and the area around the sensor, [PL 5.17 Item 2](#).
- Clean the tray 1 and tray 2 feed sensors and the area around the sensors, [PL 8.25](#).
- W/O [TAG 151](#). Clean the tray 4 feed sensor and the area around the sensor, [PL 8.31 Item 12](#).
- W/[TAG 151](#). Clean the tray 4 feed sensor and the area around the sensor, [PL 8.33 Item 3](#).
- Clean the duplex sensor and the area around the sensor, (35-55 ppm) [PL 8.22 Item 4](#), (65-90 ppm) [PL 8.20 Item 4](#).
- Clean the registration sensor and the surrounding area, (35-55 ppm) [PL 8.15 Item 3](#), (65-90 ppm) [PL 8.17 Item 3](#).
- For special tools and consumables, refer to [GP 8 Special Tools and Consumables](#).
- Go to [SCP 6 Final Actions](#).

## SCP 6 Final Actions

Use the Final Actions to verify the total operation of the system. Use the Final Actions to complete the service call.

### Procedure

Perform the steps that follow. If a fault is identified, go to [SCP 4](#) Fault Analysis:

1. If necessary, restore the NVM to the machine. Go to [GP 5](#) Portable Workstation and Tools.
2. Perform [GP 19](#) Network Clone Procedure.  
**NOTE:** *The clone file will need to be taken whenever the system software is changed.*
3. Go to [SCP 5](#) Subsystem Maintenance.
4. To clear all fault counters, go to [GP 1](#) Diagnostics Entry, Facilities and Exit.
5. Operate the machine in all modes. Make the copies and prints from all trays, use the DADH and the document glass.
6. Make copies and / or prints from all trays and check the registration and copy quality. To reset the registration, go to [dC604](#) Registration Setup Procedure. For copy quality defects, go to [IQ1](#) Image Quality Entry RAP.
7. Make a proof copy or print of a customer document.
8. If some of the customers selections were changed, return the selections to the customer settings.
9. Mark off the hardware options, software options or Tags installed on the Tag matrix cards, [dC111](#).
10. If some changes were made to the configuration or options were added, print the configuration report. Store the configuration report with the machine log book. Discard the previous version of the configuration report.
11. Remove and destroy all copies of test patterns.
12. Make sure the machine and service area are clean.
13. If necessary, provide the customer with training.
14. At the completion of the service call report the three billing counters in order, billing counter C13, billing counter C1 and billing counter C2.

## SCP 7 Machine Features

### Configuration Options

The WorkCentre 5790F is available as a basic machine with trays 1, 2 and a bypass tray. It is also available in various configurations using the options that follow:

#### General

For the space requirements, environment range and the print out time. Refer to:

- [GP 21](#) Installation Space Requirements
- [GP 23](#) Environmental Data.
- [GP 25](#) First Copy / Print Out Time and Power On / Off Time.

#### Paper supply and paper handling options

- 3600 sheet high capacity feeder (tray 3 and 4) W/O [TAG 151](#).
- 3600 sheet high capacity feeder (tray 3 and 4) W/[TAG 151](#).
- **(35 ppm)** 75 sheet duplex automatic document handler (DADH).
- **(40-90 ppm)** 100 sheet duplex automatic document handler (DADH).
- 4100 sheet high capacity feeder (tray 5).

#### Output options

- 500 sheet offsetting catch tray (OCT).
- 1250 sheet 2 bin stapler stacker tray (1K LCSS).
- 2250 sheet 2 bin stapler stacker tray (2K LCSS).
- 3000 sheet 2 bin stapler stacker with 100 sheet finishing (HVF).
- 250 sheet post print inserter, PPI (HVF)
- 2000 sheet 2 bin stapler stacker with booklet maker (HVF BM).
- 2000 sheet 2 bin stapler stacker with tri-folder (HVF).

#### Accessories and Kits

- 50 sheet convenience stapler.
- Tray 5 Short edge reg kit (A4 / 8.5x11 inch SEF).
- Tray 5 Short edge reg kit (A3 / 17 inch SEF).
- Envelope kit.
- Assistive UI kit (Xerox copier assistant).
- Server Fax kit.
- 2 hole punch kit.
- Legal 2 hole punch kit.
- 3 hole punch kit.
- 4 hole punch kit.
- Swedish 4 hole punch kit.
- Internet Fax kit.
- 1 Line Fax kit.
- 2 Line Fax kit.
- Network accounting kit.
- Scan to file and scan to E-mail.
- Scan to PC desktop SE - standard.
- Scan to PC desktop SE - professional.

- Internet Fax scanning kit.
- Server fax scanning kit.
- Color scanning enablement kit (an option on 65-90 ppm machines, standard on 35-55 ppm machines [W/TAG 150](#)).
- FreeFlow SMART send 3.0.
- FreeFlow SMART send 3.0 Professional.
- Nationalization kits.
- Foreign device interface kit.
- Tray 2/4 lock kit.
- Unicode international printing kit.
- Secure access kit.
- Common access card.
- Memory upgrade (1 GB) kit.
- Copier to MFP conversion kit.

**NOTE:** The service manual covers all of the above configurations. Within the manual, ignore any references to options that are not installed.

## Development History

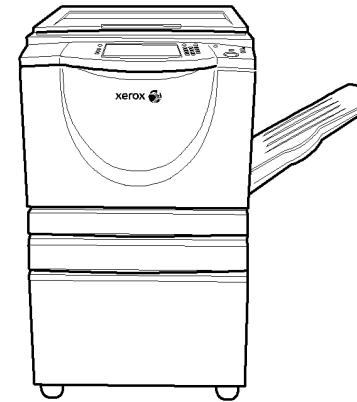
The WC5790F machines have been developed from the WC5687F and offer the following new features:

- New model speeds of 35 and 90 ppm.
- Color user interface.
- Color scanner fitted to all 65-90 ppm machines but an option on 35-55 ppm machines. The installation of the color scanner on 35-55 ppm machines is identifiable by the striking of [TAG 150](#).
- August 2010. Introduction of the copier only 5790F device in the USSG region only. Refer to [GP 30](#) for details on the identification and unique service procedures for the copier only configured machines.
- July 2011. Introduction of the Fully Active Retard Roll (FAR) Feeder HCF module. The FAR Feeder HCF module with proven tray 3 and tray 4 FAR feeder robustness, is expected to produce significant performance improvements in the field. The major improvements for the customer will be in feeding non-standard media and /or in non-standard ambient environments. WC5790F machines with a FAR Feeder HCF module can be identified by change [TAG 151](#).

## Machine Identification

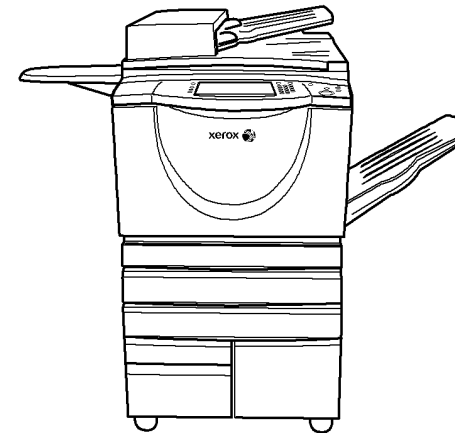
The diagrams that follow illustrate some of the various machine configurations:

- [Figure 1](#) WC5735 with stand, document cover and OCT.
- [Figure 2](#) WC5740 with DADH, HCF, work shelf and OCT.
- [Figure 3](#) WC5745 with DADH, HCF, work shelf and 1K LCSS.
- [Figure 4](#) WC5755 with DADH, HCF, work shelf and 2K LCSS.
- [Figure 5](#) WC5775 with DADH, HCF, work shelf and HVF.
- [Figure 6](#) WC5790 with DADH, HCF, work shelf and HVF BM.



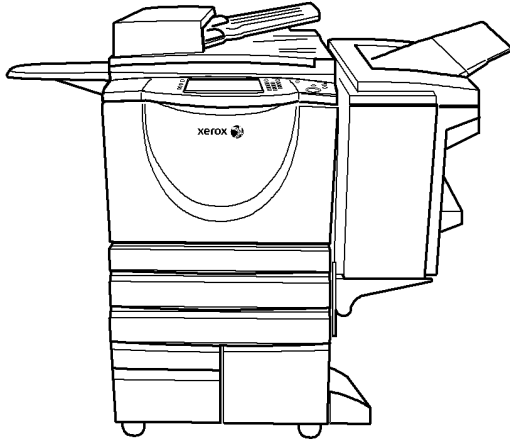
T-1-0001-A

**Figure 1** WC5735 with stand, document cover and OCT



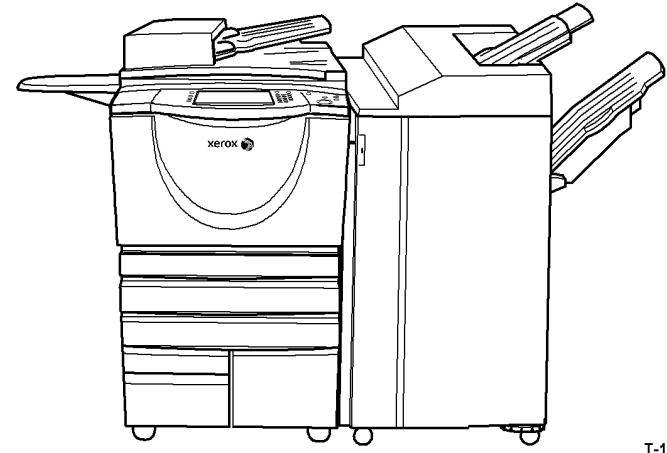
T-1-0002-A

**Figure 2** WC5740 with DADH, work shelf and OCT



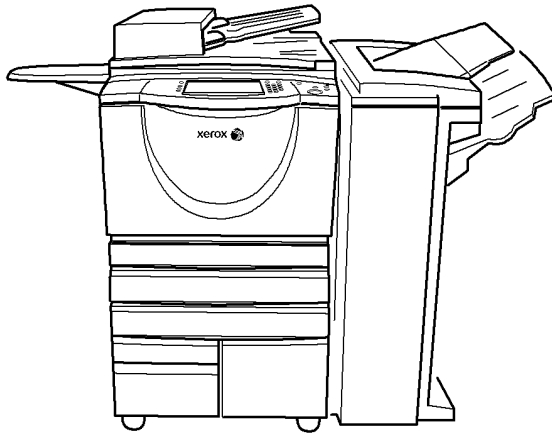
T-1-0003-A

Figure 3 WC5745 with DADH, work shelf and 1K LCSS



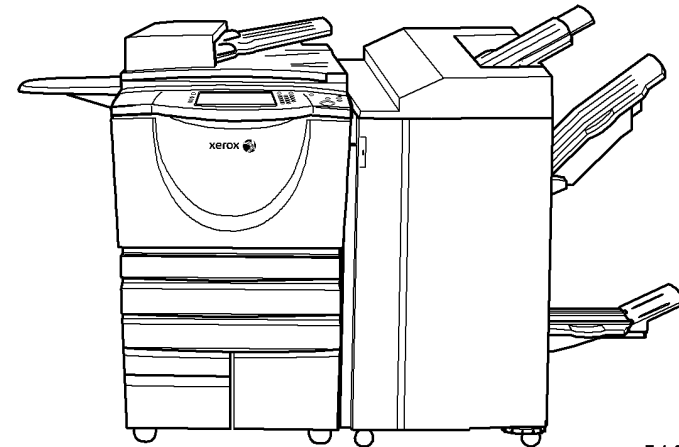
T-1-0007-A

Figure 5 WC5775 with DADH, work shelf and HVF



T-1-0004-A

Figure 4 WC5755 with DADH, work shelf and 2K LCSS



T-1-0008-A

Figure 6 WC5790 with DADH, work shelf and HVF BM





## 2 Status Indicator RAPs

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01-305 Left Hand Door Open RAP .....	2-7
01A Ground Distribution RAP .....	2-8
01B 0V Distribution RAP .....	2-20
01C AC Power RAP .....	2-33
01D +3.3V Distribution RAP .....	2-36
01E +5V Distribution RAP .....	2-39
01F +12V Distribution RAP .....	2-42
01G +24V Distribution RAP .....	2-45
01H Short Circuit and Overload RAP .....	2-52
01J Power On and LVPS Control Signal RAP .....	2-57
01K Sleep Mode RAP .....	2-59

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02-320, 02-380 UI Communication Test RAP .....	2-65
02-390, 02-391, 02-704, 02-706 UI Software Error RAP .....	2-66
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03-359, 03-407 HCF Communications and Detection Error RAP .....	2-84
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07-303B Tray 3 Open During Run RAP (W/TAG 151) .....	2-157
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07-355 Tray 3 Elevator Lift Failure Entry RAP	2-165	08-160B, 08-161B Duplex Paper Path Jam RAP (65-90 ppm)	2-254
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07F Tray 3 or Tray 4 Out of Paper Entry RAP	2-191		
07G Tray 3 or Tray 4 Out of Paper RAP (W/TAG 151)	2-192		
07H Tray Out of Service RAP	2-193		
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07K Tray 3 and Tray 4 False Low Paper Level RAP (W/O TAG 151)	2-195		
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08-104A, 08-114A Tray 4 Misfeed RAP (W/O TAG 151)	2-213		
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		10-101A, 10-102A, 10-103A Lead Edge Late to Fuser Exit Switch RAP (35-55 ppm)	2-285
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11D-110 2K LCSS Power Distribution RAP.....	2-360
11E-110 2K LCSS to Machine Communications Interface RAP.....	2-363
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**Chain 11-120 - 1K LCSS**

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## Chain 22 - System Errors

## 01-300 Front Door Open RAP

01-300 The front door has opened during machine operation.

### Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Enter dC330, code 01-300 front door interlock, Figure 1. Press start, open and close the front door. The display changes.

Y N  
Go to Flag 2. +12V is available at P/J147 pin 4 on the main drive PWB.  
Y N  
Go to Flag 2. +12V is available at P/J147 pin 3 on the main drive PWB.  
Y N  
Go to Flag 2. +12V is available at P/J16 pin 3 on the LVPS and base module.  
Y N  
Go to the 01F +12V Distribution RAP.  
Repair the wiring or the connector pins between P/J16 and P/J147.  
Remove the main drive module, (35-55 ppm) REP 4.1 or (65-90 ppm) REP 4.5. Go to Flag 2. Check the continuity to the xerographic module CRUM at P/J147, between pins 3 and 4. If necessary, check and repair the wiring between the main drive module and the xerographic CRUM, REP 1.2.  
Go to Flag 1. +12V is available at P/J17, pin 5.  
Y N  
Install a new LVPS and base module, PL 1.10 Item 3.  
Go to Flag 1. +12V is available at P/J17, pin 6.  
Y N  
Check S01-300 and associated wiring. Refer to:  

- GP 13 How to Check a Switch.
- P/J17, LVPS and base module.
- REP 1.2 Wiring Harness Repairs.

If necessary, install a new door interlock switch, PL 1.10 Item 7.  
Go to Flag 3. Open the front door, then measure the signal at P/J26 pin 8 on the IOT PWB. +3.3V is measured.  
Y N  
Install a new LVPS and base module, PL 1.10 Item 3.  
Perform OF7 IOT PWB Diagnostics RAP. If the fault remains, install a new IOT PWB, PL 1.10 Item 2.

A

Check that the front door, PL 8.10 Item 10 closes correctly. If not, check the following:

- The jam clearance latch, PL 8.20 Item 5.
- (35 ppm) the xerographic module latch, PL 9.22 Item 7.
- (40-90 ppm) the xerographic module latch, PL 9.20 Item 7.
- (35-55 ppm) the fuser latch, PL 10.8 Item 5.
- (65-90 ppm) the fuser latch, PL 10.10 Item 5.
- The post fuser jam clearance latch, PL 10.15 Item 11.
- The latch cam handle, PL 10.15 Item 14.

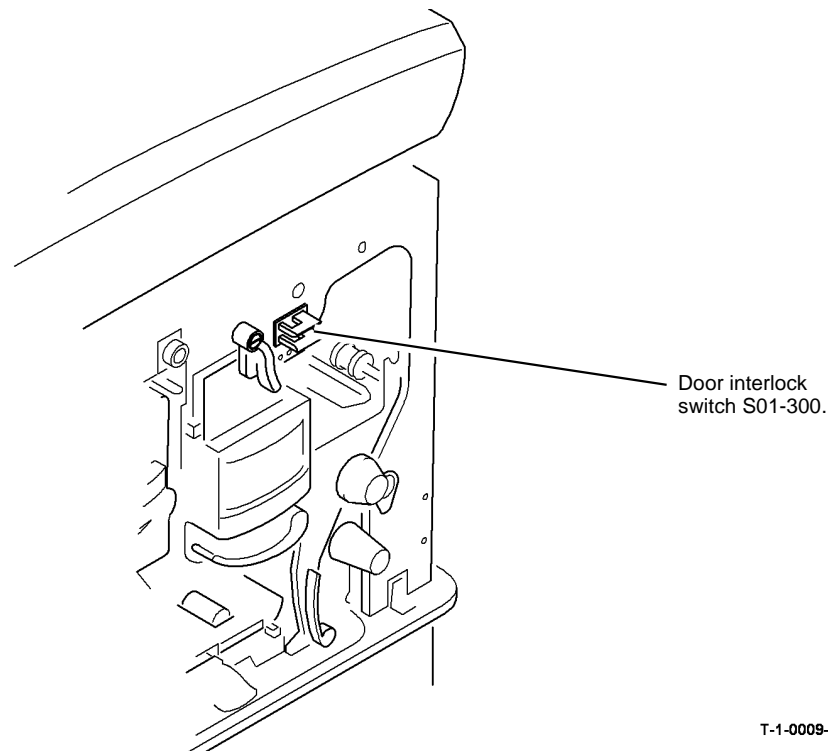
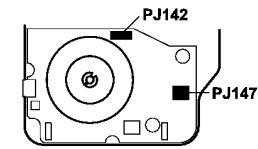
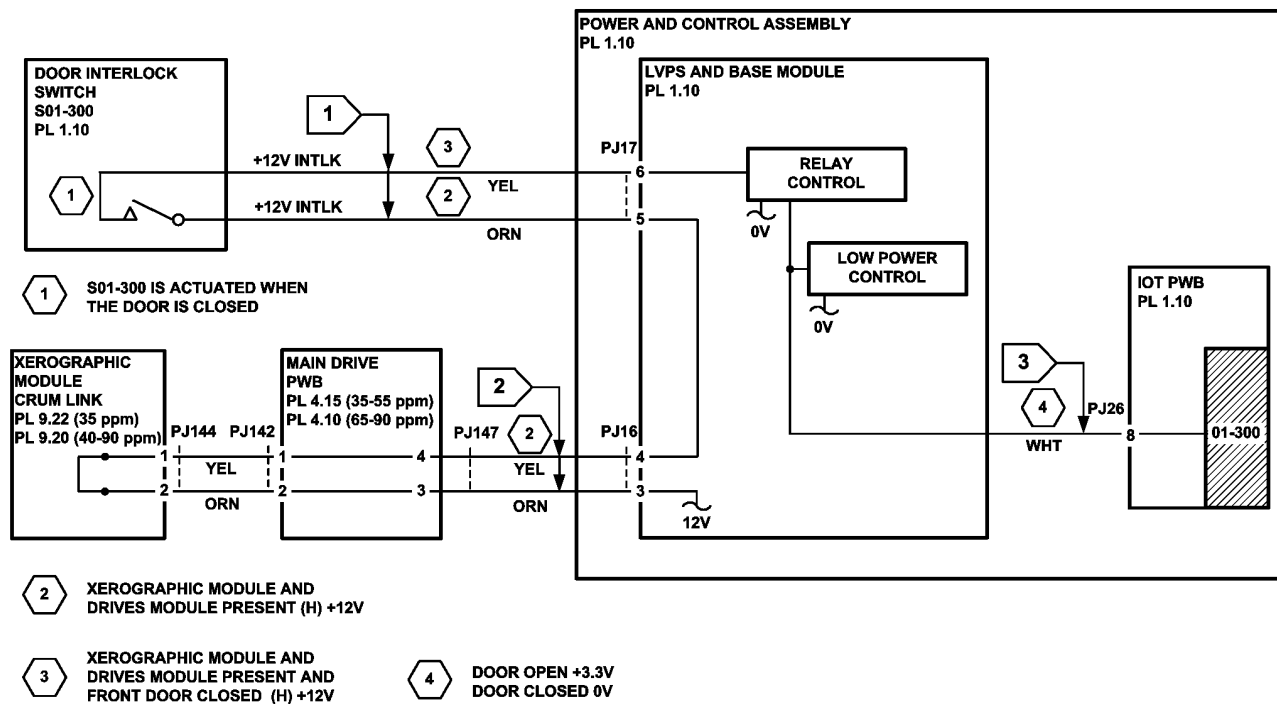


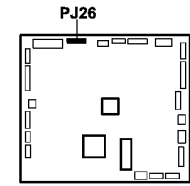
Figure 1 Component Location

T-1-0009-A

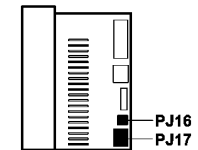
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**MAIN DRIVE PWB**



**IOT PWB**



**LVPS (END VIEW)**

TT-1-0046-A

Figure 2 Circuit diagram

## 01-305 Left Hand Door Open RAP

01-305 The left hand door has been opened during machine operation.

### Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** To access the left door interlock, remove the interlock cover, [PL 7.30 Item 23](#).

Enter [dC330](#), code 01-305 left door interlock. Press Start, open and close the left hand door, [Figure 1](#). The display changes.

Y N

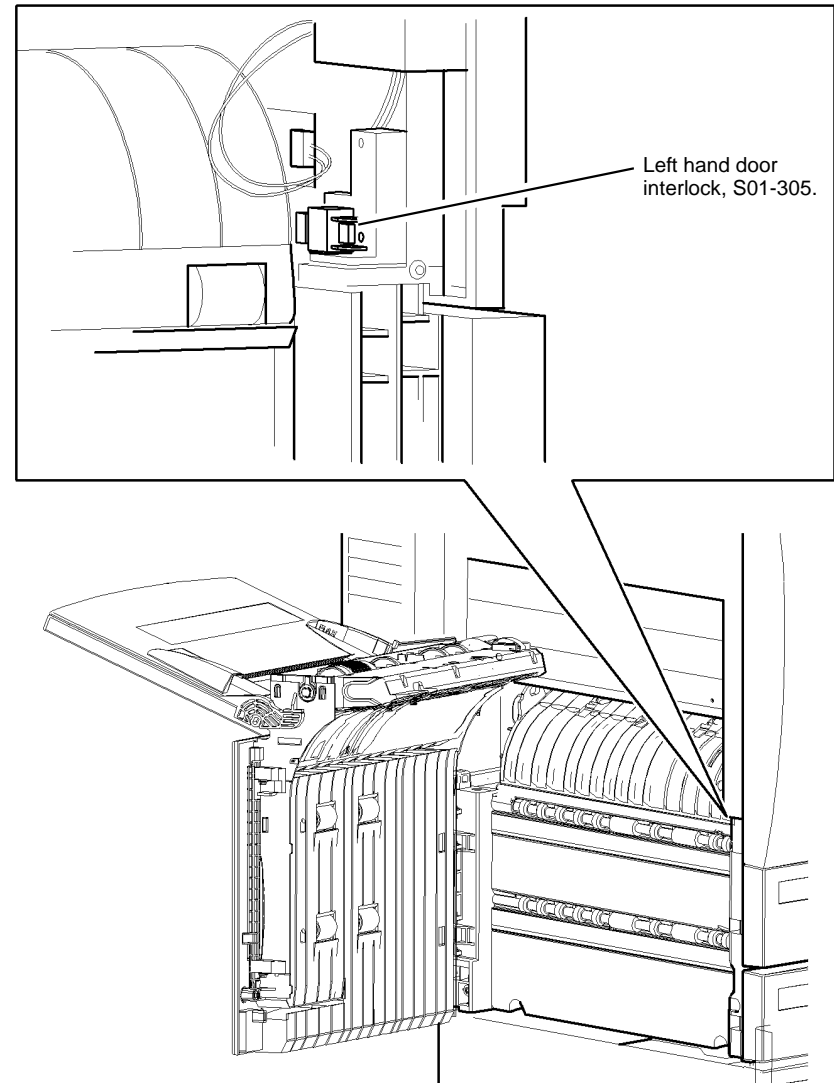
Go to [Flag 1](#). Check the left hand door interlock, S01-305. Refer to:

- [GP 13](#), How to Check a Switch.
- [P/J7](#) on the [IOT PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP

If necessary, install a new left hand door interlock, [PL 7.30 Item 3](#).

Check that the left hand door closes correctly. If not, check the following:

- Hinge pin, [PL 7.30 Item 8](#), is located correctly.
- Left hand door latch, part of the LH door, [PL 7.30 Item 2](#).
- Check that the interlock cover is not loose, [PL 7.30 Item 23](#). If necessary push the cover towards the front and tighten the screws.



T-1-0010-A

Figure 1 Component Location

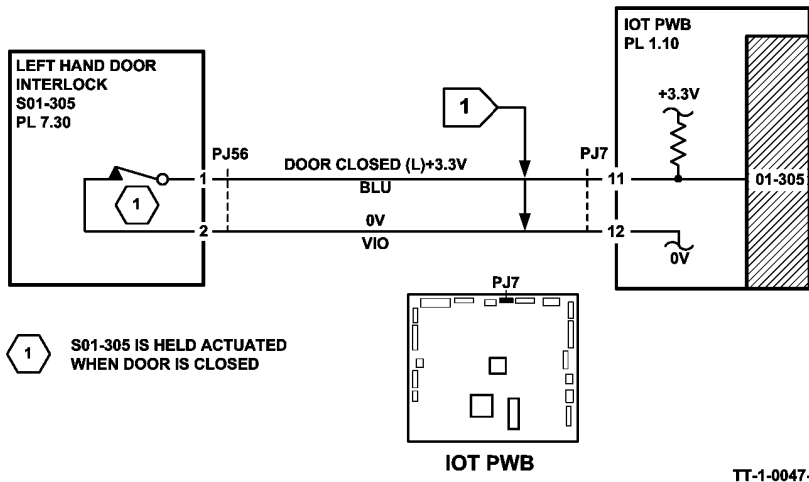


Figure 2 Circuit diagram

TT-1-0047-A

## 01A Ground Distribution RAP

Use this RAP to identify ground distribution faults.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



Do not switch on the electricity to the machine while a ground circuit is disconnected. Ground circuits ensure that the machine remains safe during a fault condition.

**NOTE:** Ground distribution faults must be isolated by continuity checks and visual inspection. Check all circuits between each connection and ground.

Ground distribution faults can cause the following:

- Image quality faults
- Paper feed faults.
- Paper path faults.
- Random logic faults

To diagnose a suspected ground distribution fault, the following must be considered:

- Ensure that all the connectors are not damaged. Check crimping for suspect electrical connections or any mechanical failure that could cause a failed or poor electrical contact. Refer to **REP 1.2** for information concerning wiring harness repairs.
- When making a continuity check on a harness, disconnect the harness at both ends, to ensure that other wiring does not cause continuity readings to be incorrect. Ensure that any in-line connectors are installed correctly.
- When making a check between connectors and ground, preferably use the main frame ground connection, **Figure 1**. Alternatively use any unpainted metal part of the machine frame.
- Check the ground conductor of the main power cord for continuity or damage, if necessary install a new main power cord, **PL 1.10 Item 10**.
- Check that the ground connections that follow are secure:
  - Main Frame
  - Corotron Shield Ground
  - Corotron Shield Ground Return
  - DADH Ground Connection
  - Paper Path
  - Duplex Paper Path
  - Registration Transport
  - Bypass Tray
  - Tray 3 and 4 (W/O TAG 151)
  - Tray 3 and 4 (W/TAG 151)
  - Paper Transport Rolls
  - Embedded Fax PWB
  - Tray 5



## Main Frame

Refer to [Figure 1](#), main input and auxiliary output ground connections. Check for continuity of less than 1 ohm between the ground contact of each mains connector and the main frame ground. Check that the hardware is tight and the harness crimping is good. To improve continuity, disconnect the terminals, clean the contact faces and re-assemble.

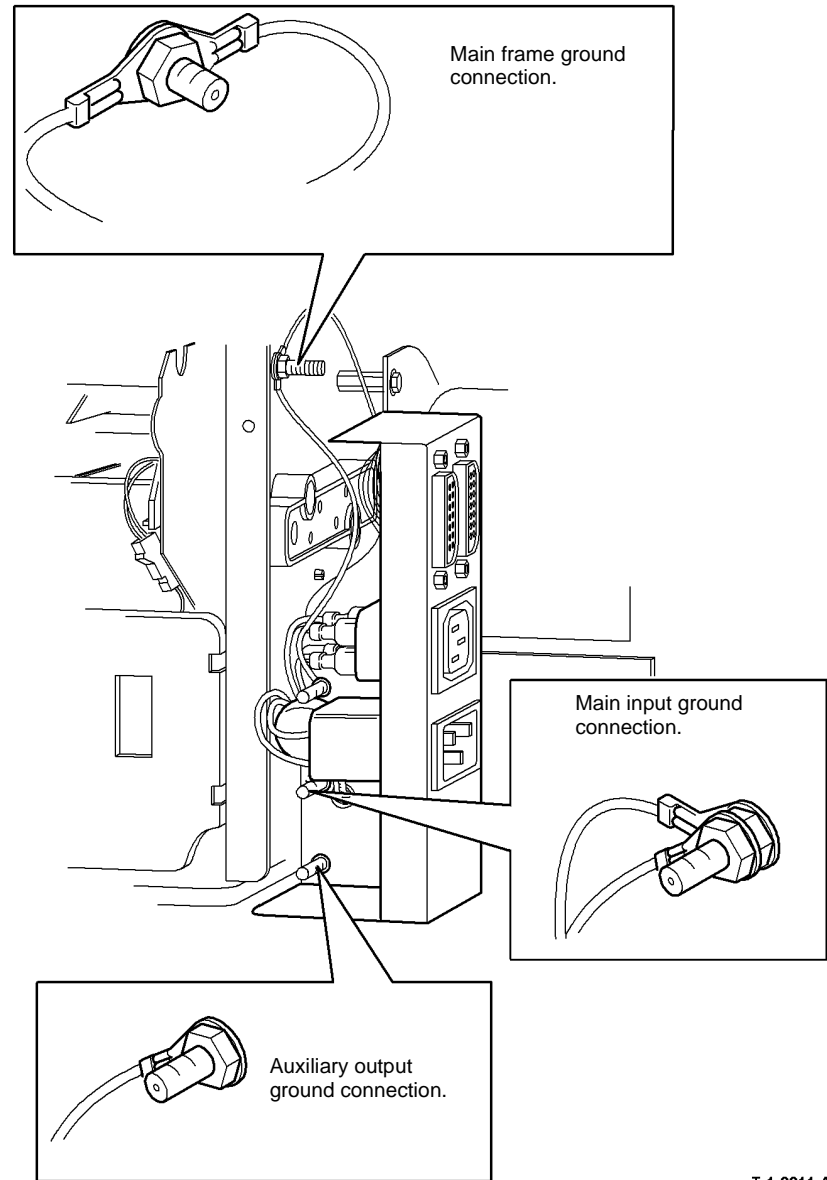
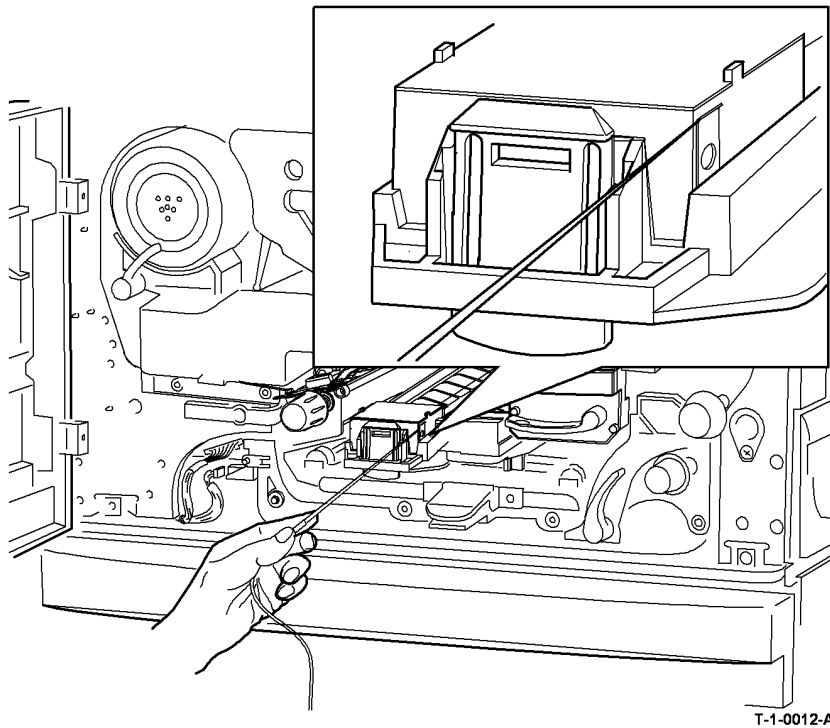


Figure 1 Component location

T-1-0011-A

## Corotron Shield Ground

Refer to [Figure 2](#). Check for continuity of less than 10 ohms between the exposed metal end of the corotron shield and ground. To improve continuity, remove the duplex transport, [REP 8.7](#), then check the corotron shield ground return,

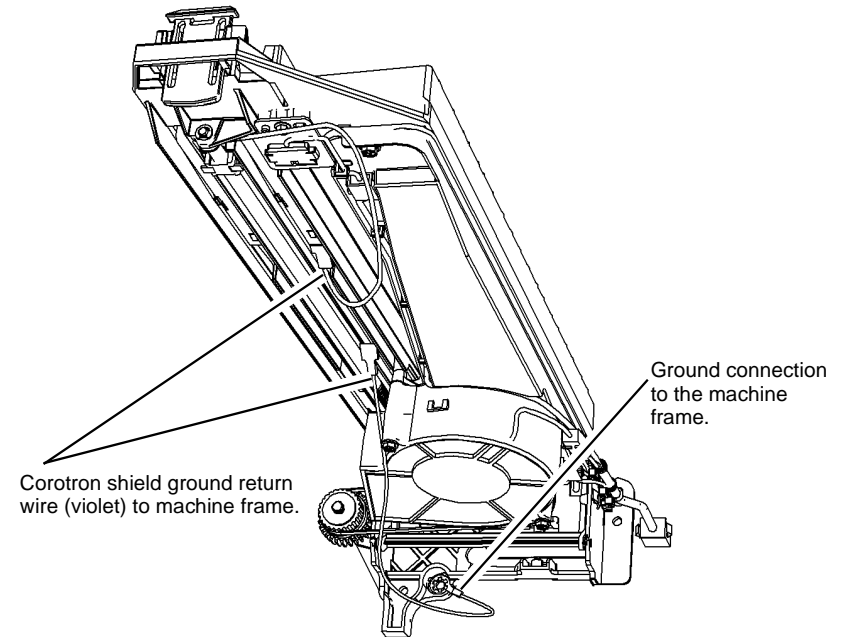


T-1-0012-A

Figure 2 Corotron shield ground

## Corotron Shield Ground Return

Refer to [Figure 3](#). Check the connection of the Faston connector and the tightness of the screw at the rear of the machine frame. If necessary disconnect the terminals, clean the contact faces and re-assemble, to improve continuity.

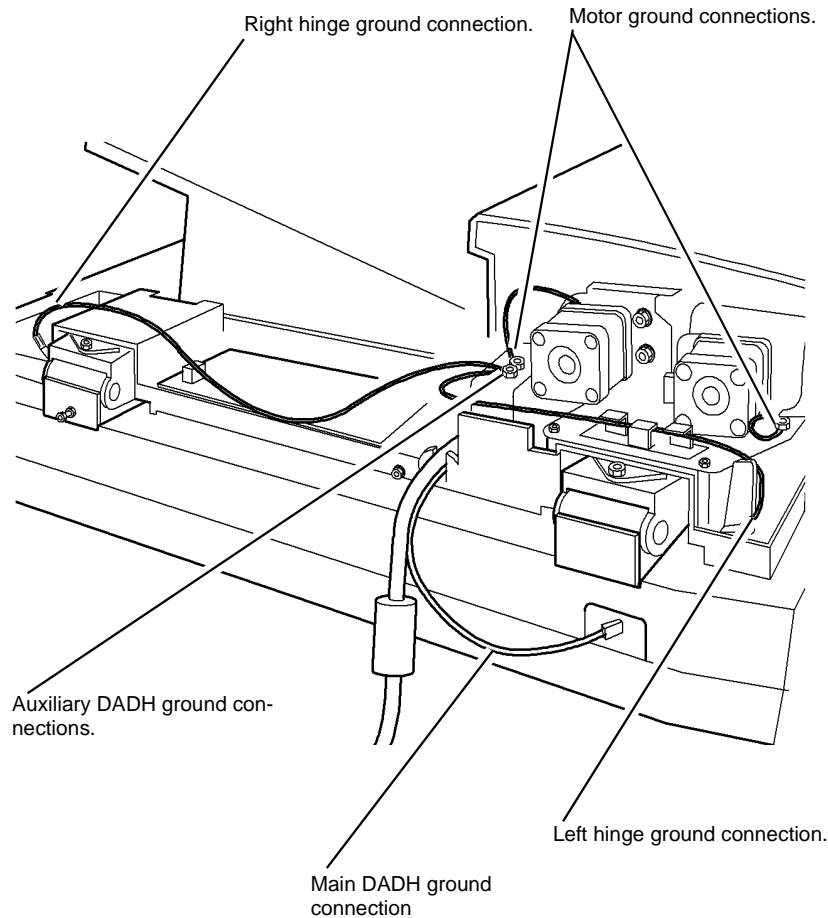


T-1-0013-A

Figure 3 Corotron shield ground return

## DADH Ground Connection

Refer to [Figure 4](#). Remove the DADH rear cover, [PL 5.10 Item 1](#). Check for continuity of less than 1 ohm between the DADH frame and the main frame ground connection. To improve continuity, check that the hardware is tight and the harness crimping is good. If necessary disconnect the terminals, clean the contact faces and re-assemble, to improve continuity.

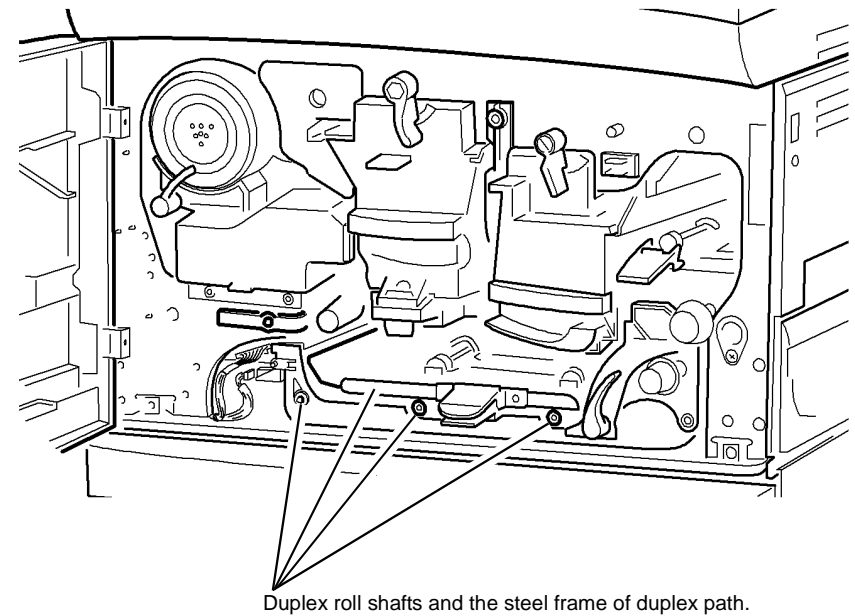


T-1-0014-A

Figure 4 DADH ground connection

## Paper Path

Refer to [Figure 5](#). With the duplex transport in the latched position, check for continuity of less than 1M ohms between the ends of the three duplex roll shafts, the steel frame of the duplex path and the main frame ground connection. Also check for continuity of less than 10 ohms between the steel frame of the duplex path and the ends of the three duplex roll shafts. To improve continuity, remove and re-install the duplex transport, [REP 8.7](#).



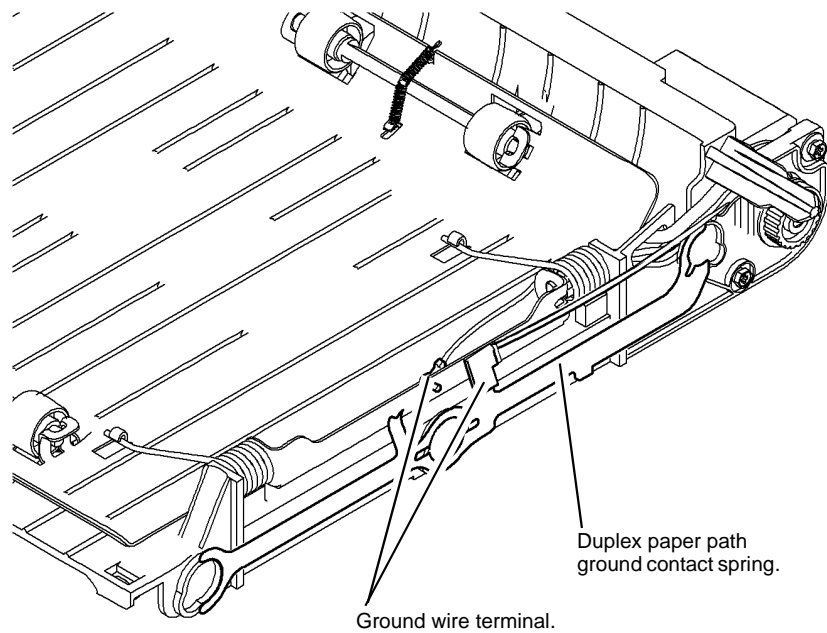
T-1-0015-A

Figure 5 Paper path ground check points

**NOTE:** The (35-55 ppm) duplex transport is shown in [Figure 6](#). The (65-90 ppm) duplex transport has a duplex duct installed, [PL 8.20 Item 12](#).

## Duplex Paper Path

Refer to [Figure 6](#). Check the duplex paper path ground contact spring and ground wire terminal. If necessary remove and clean the spring, shafts and bearings, then re-assemble to improve continuity.

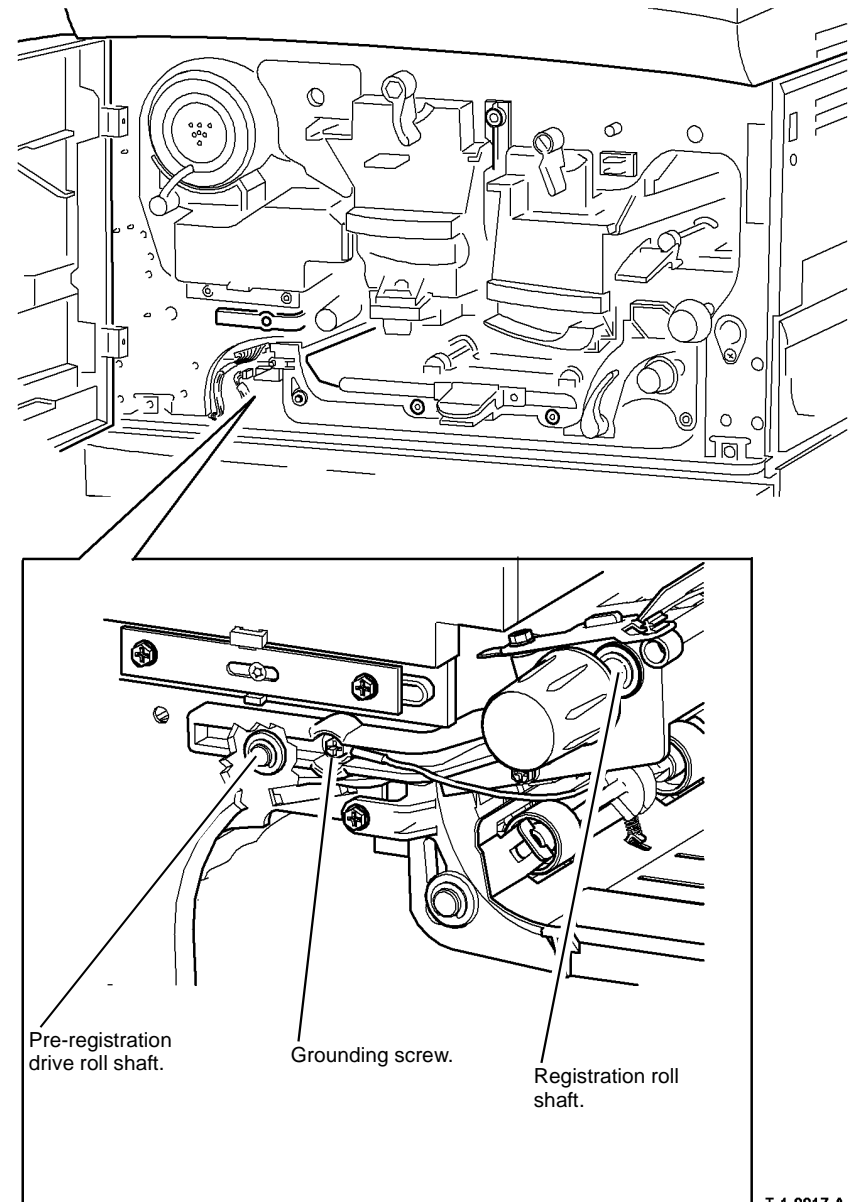


T-1-0016-A

Figure 6 Duplex path ground contact spring

## Registration Transport

Refer to [Figure 7](#). Check for continuity of less than 2k ohms between the ends of the pre-registration drive roll shaft, the registration roll shaft and the grounding screw. To improve continuity, remove and re-install the registration transport, [REP 8.4](#).

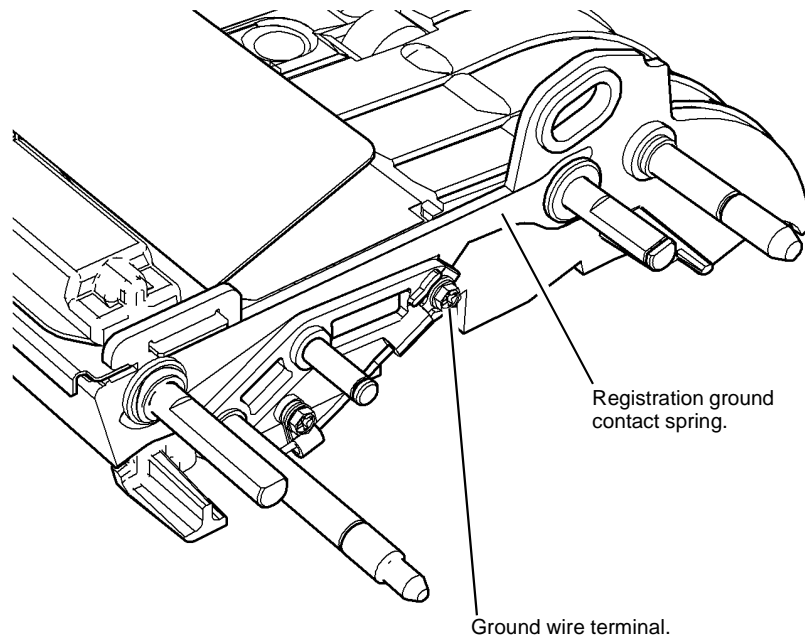


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Figure 7 Registration ground check points

Refer to [Figure 8](#). Check the registration ground contact spring and ground wire terminal. If necessary remove and clean the spring, shafts and bearings, then re-assemble to improve continuity.

**NOTE:** The two bearings in contact with the registration ground contact spring are manufactured from conductive plastic. It is not possible to measure the resistance of these bearings with the standard multi meter.

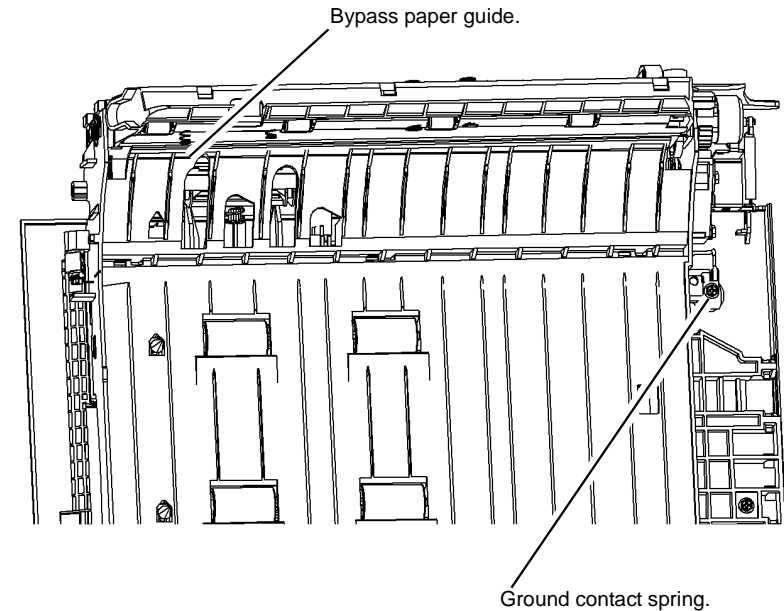


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Figure 8 Registration ground contact spring

## Bypass Tray

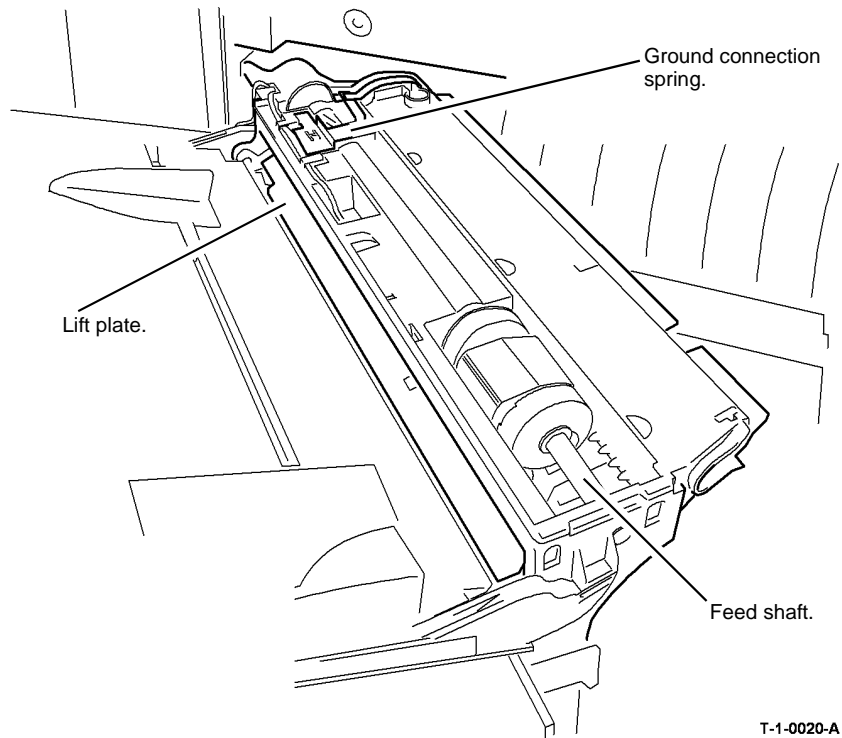
Refer to [Figure 9](#). Check for continuity of less than 2k ohms between the ground contact spring and the lift plate ([Figure 10](#)). Check for continuity of less than 1 ohm between the bypass paper guide and the main frame ground connection, when the left hand door is closed. To improve continuity, disconnect the ground terminals clean the spring contact faces and re-assemble, to improve continuity. Also check and clean, if necessary the part of the machine frame where the ground contact spring makes contact.



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Figure 9 Bypass tray guide

Refer to [Figure 10](#). Check for continuity of less than 2k ohms between the ground contact spring ([Figure 9](#)) and the feed shaft. Check for continuity of less than 2k ohms between the feed shaft and the main frame ground connection when the left hand door is closed. To improve continuity, dismantle the ground connection spring, clean the spring contact faces and re-assemble, to improve continuity.



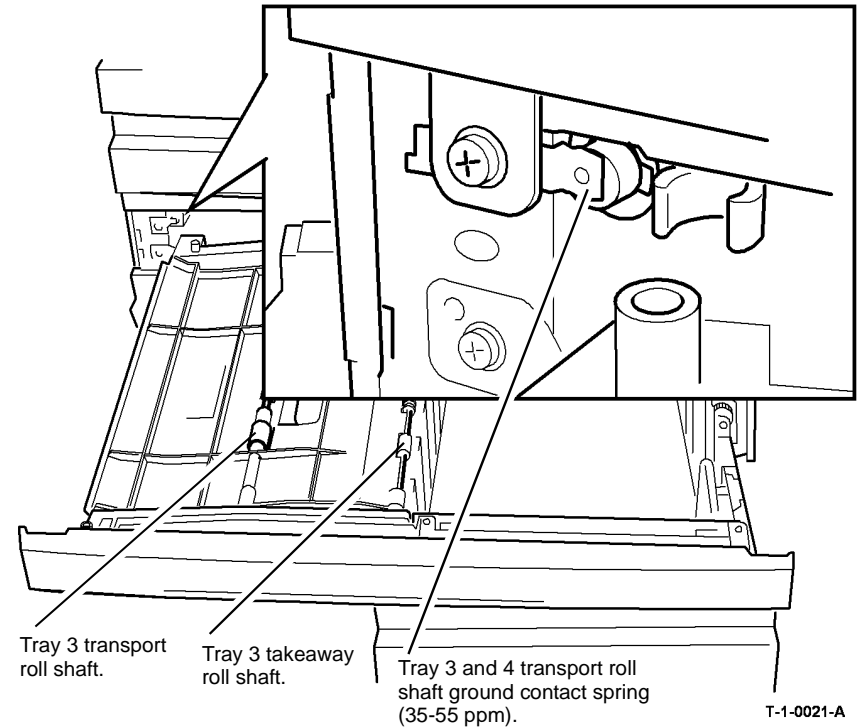
**Figure 10** Bypass tray paper feed

T-1-0020-A

### Tray 3 and 4 (W/O TAG 151)

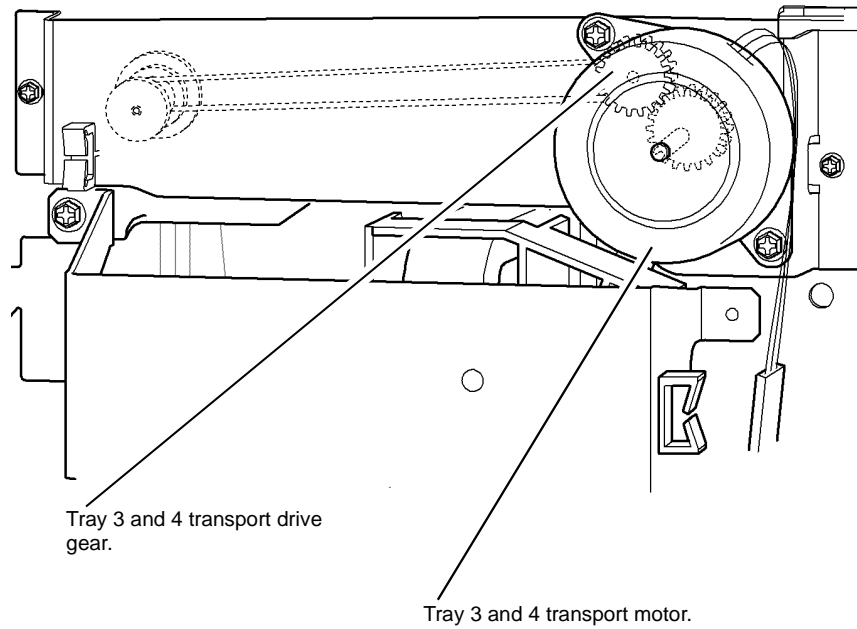
Refer to [Figure 11](#). Remove the tray 3 front cover, [REP 7.2](#). With tray 3 closed, check for continuity of less than 10k ohms between the tray 3 takeaway roll shaft, the tray 3 transport roll shaft and the main frame ground connection. If necessary, perform the following:

1. Open the tray. Rotate the shafts. Close the tray and repeat the measurements.
2. To improve continuity, remove tray 3, [REP 7.2](#). Refer to [Figure 13](#), check the tray 3 ground contact spring.
3. If necessary remove and clean the spring, shafts and bearings, [REP 8.31](#), then re-assemble to improve continuity.  
Refer to [Figure 12](#). Remove, then clean the tray 3 and 4 transport drive gear. Clean the gear on the tray 3 and 4 transport motor, [REP 8.11](#).
4. Clean the area in the back of the tray 3 cavity where the ground spring makes contact.



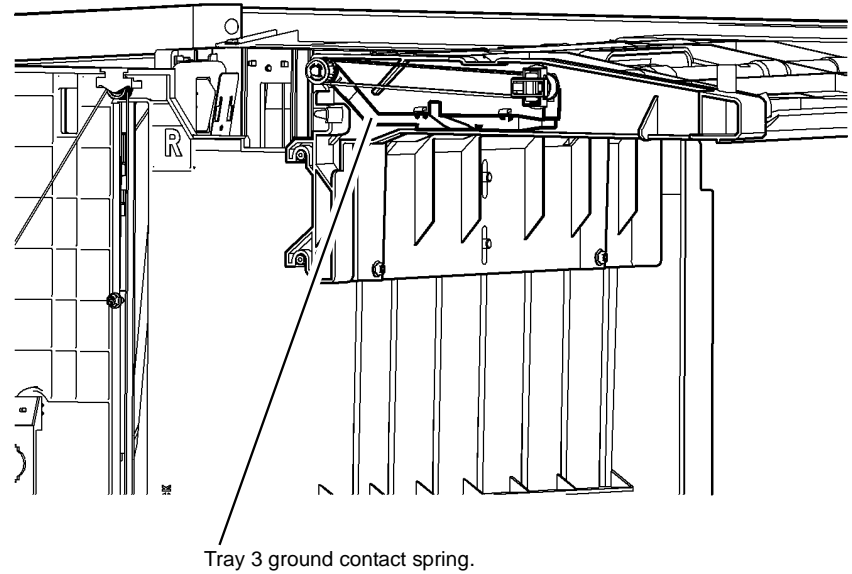
**Figure 11** HCF transport roll assembly

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T-1-0022-A

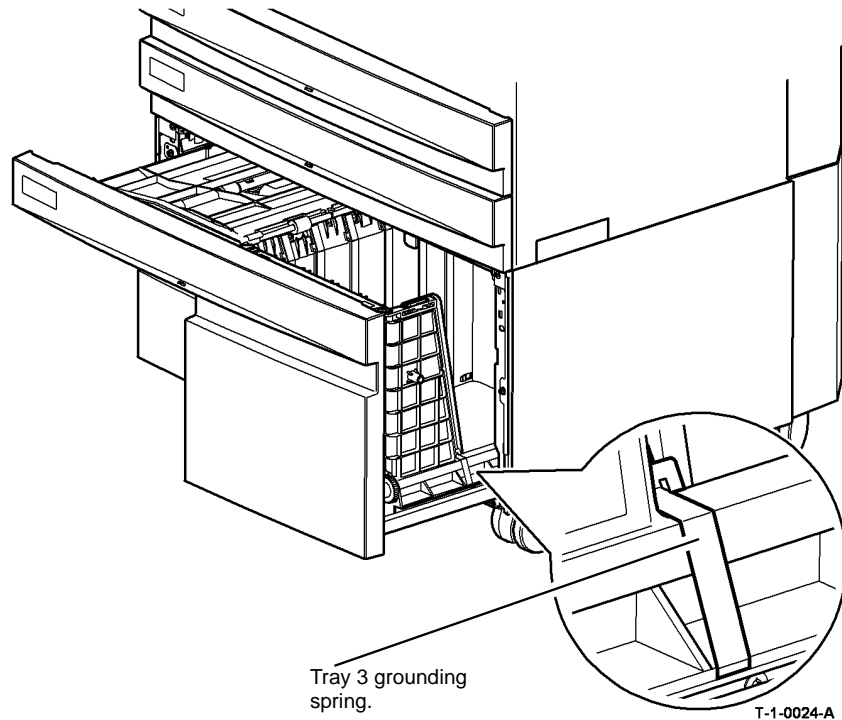
Figure 12 HCF transport drive gear



T-1-0023-A

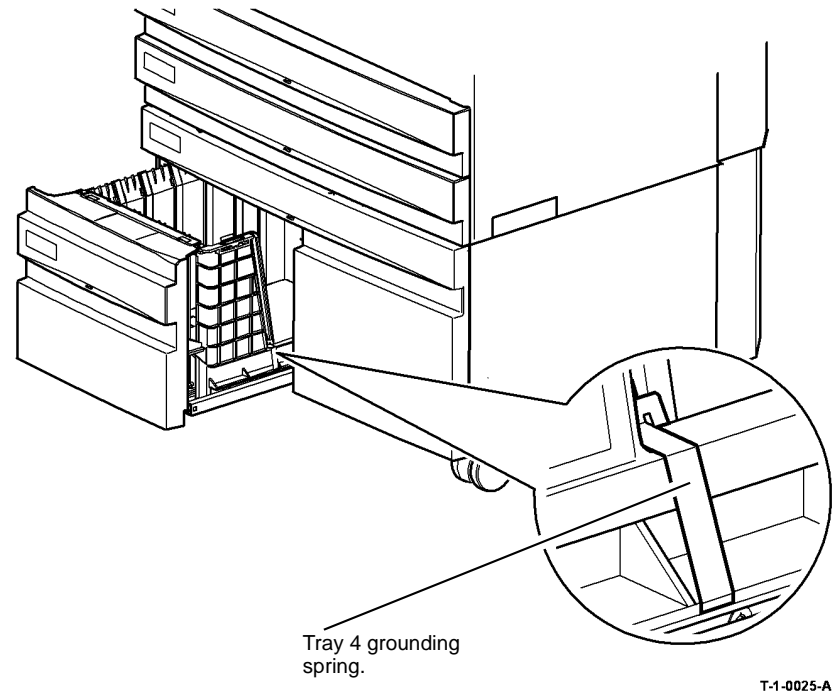
Figure 13 Tray 3 ground contact spring

Refer to [Figure 14](#). Open tray 3, check for continuity of less than 1 ohm between the tray 3 metal side wall and the main frame ground connection. To improve continuity, remove, clean and re-assemble the grounding spring to improve continuity. Also clean the contact area on the metal side wall.



**Figure 14 Tray 3 grounding spring**

Refer to [Figure 15](#). Open tray 4, check for continuity of less than 1 ohm between the tray 4 metal side wall and the main frame ground connection. To improve continuity, remove, clean and re-assemble the grounding spring to improve continuity. Also clean the contact area on the metal side wall.



**Figure 15 Tray 4 grounding spring**

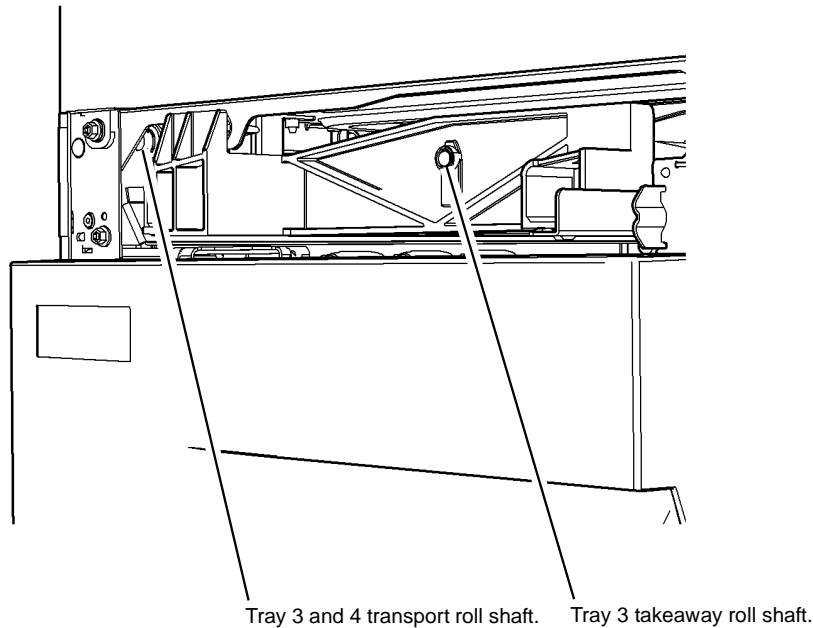


## Tray 3 and 4 (W/TAG 151)

Refer to [Figure 16](#), [Figure 19](#) and [Figure 20](#). Remove the tray 3 front cover, [PL 7.26 Item 5](#) (4 screws). With tray 3 closed, check for continuity of less than 10k ohms between the following points and the main frame ground connection.

- Tray 3 takeaway roll shaft, [PL 8.36 Item 2](#).
- Tray 3 and 4 transport roll shaft, [PL 8.32 Item 4](#).
- Tray 3 lift plate and paper tray guide.
- Tray 4 lift plate and paper tray guide.

If necessary, perform the following:

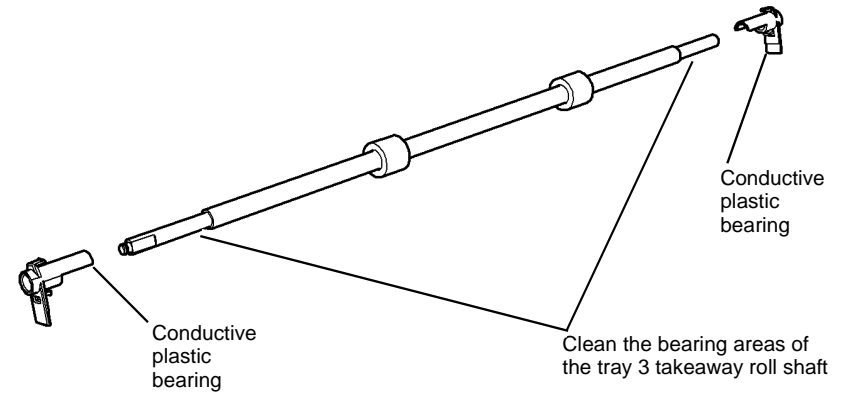


**Figure 16 Continuity check points**

1. Open the tray. Rotate the shafts. Close the tray and repeat the measurements.

2. To improve continuity, remove the tray 3 takeaway roll, [REP 8.46](#). Refer to [Figure 17](#), clean the conductive plastic bearings and shaft. Then install the removed components.

Clean inside and outside of the conductive plastic bearings

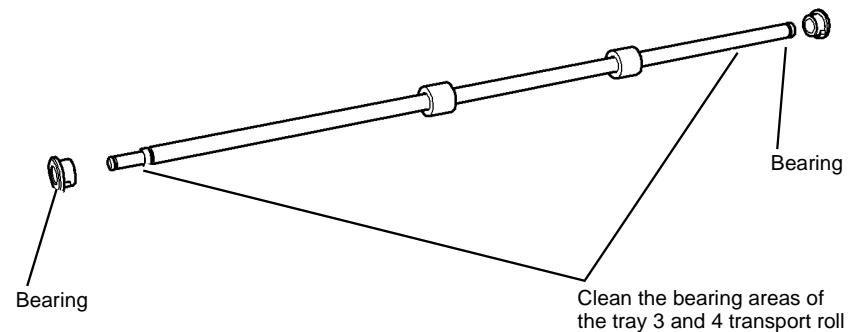


T-1-1229-A

**Figure 17 Component cleaning**

3. If necessary remove the tray 3 and 4 transport roll and bearings, [REP 8.47](#). Refer to [Figure 18](#), clean the bearings and shaft. Then install the removed components.

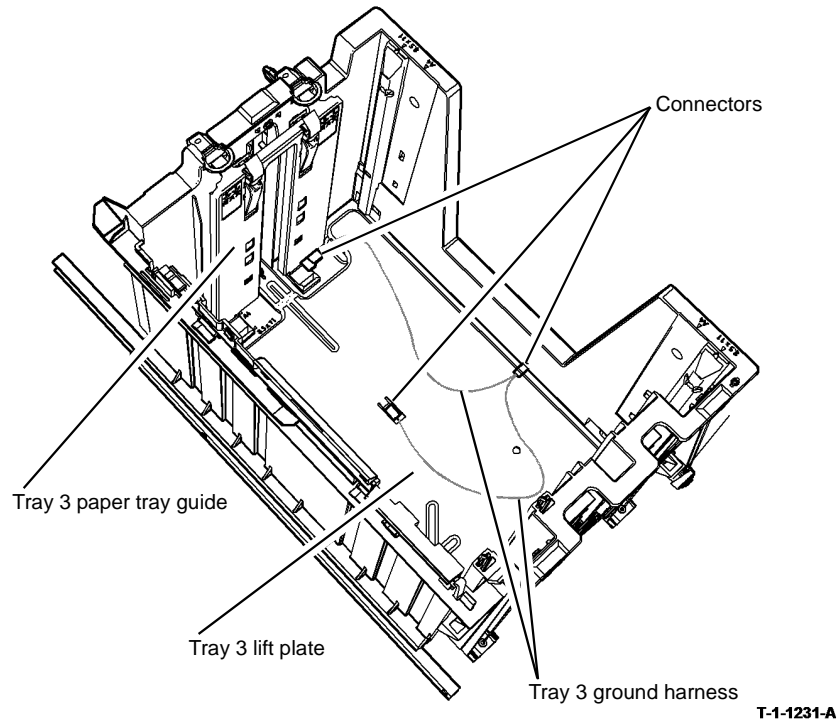
Clean inside and outside of the bearings



T-1-1230-A

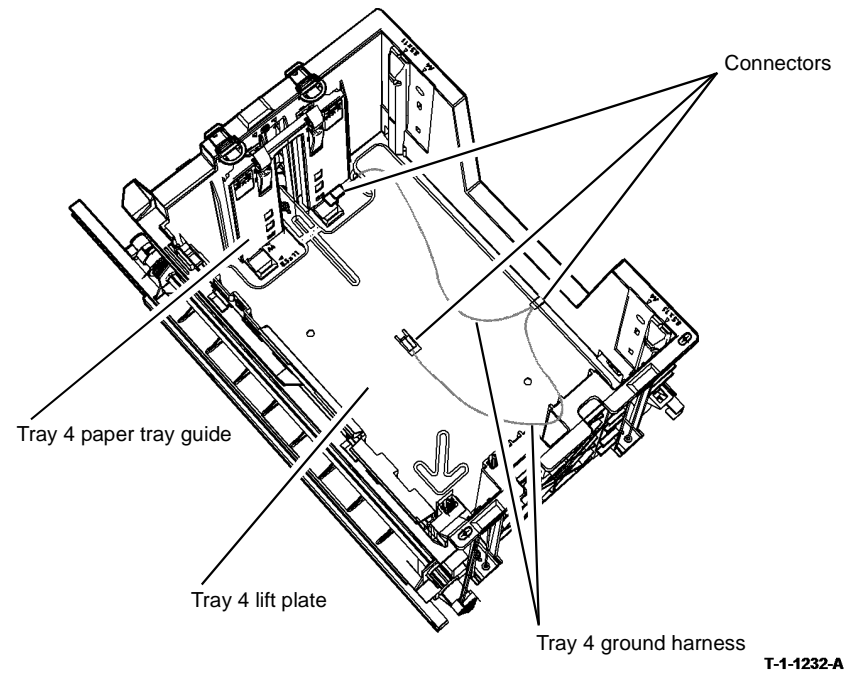
**Figure 18 Component cleaning**

4. Empty tray 3 of paper. Refer to [Figure 19](#), disconnect and clean the tray 3 ground harness connectors. Then install the removed components.



**Figure 19 Tray 3 grounding**

5. Empty tray 4 of paper. Refer to [Figure 20](#), disconnect and clean the tray 4 ground harness connectors. Then install the removed components.



**Figure 20 Tray 4 grounding**

## Paper Transport Rolls

Refer to [Figure 21](#). Open the left hand door. Rotate the rolls by hand and check for continuity of less than 10k ohms between the tray 1 and tray 2 transport roll shaft, tray 3 and 4 transport roll shaft and the main frame ground connection. To improve continuity for the tray 1 and tray 2 transport roll shaft, remove and clean and re-install the shaft and bearing.

To improve continuity for the tray 3 and 4 transport roll shaft, perform the following:

- Remove, clean and re-install the tray 3 and 4 transport roll shaft ground contact spring, [Figure 11](#). If necessary, re-form the spring to make good contact with the end of the shaft.
- Remove and clean the tray 3 and 4 transport drive gear. Clean the gear on the tray 3 and 4 transport motor, [REP 8.11](#).

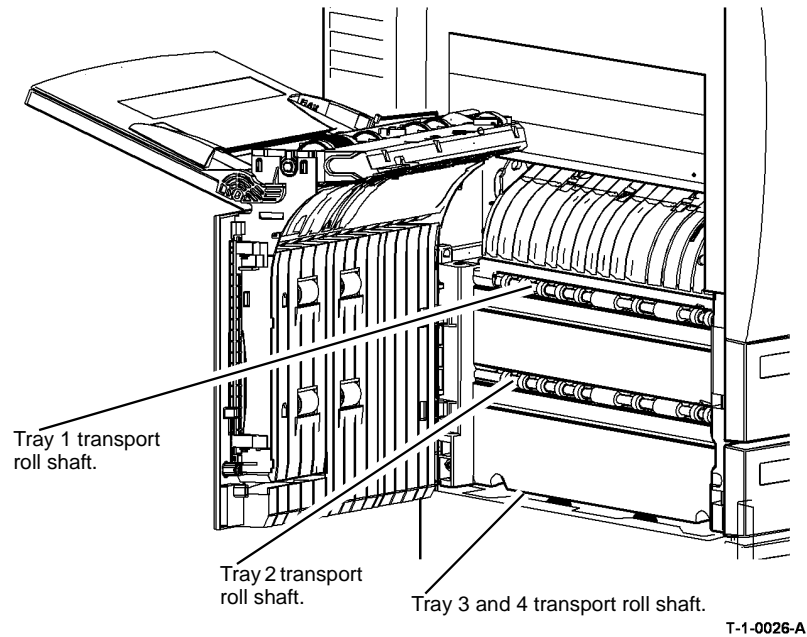


Figure 21 Paper transport rolls

## Embedded Fax PWB

Refer to [Figure 22](#). Ensure the grounding strip is clean and correctly installed.

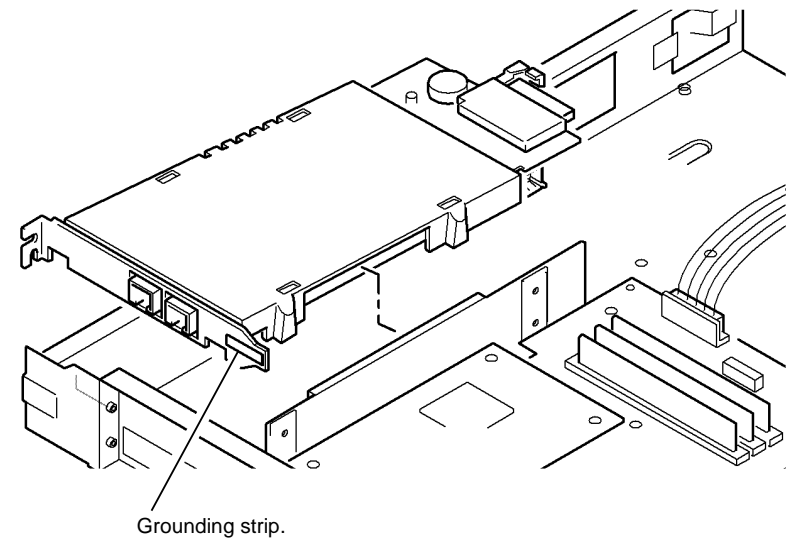


Figure 22 Embedded FAX PWB ground connection

## Tray 5

Refer to [Figure 23](#). Check the ground connection on the frame, the elevator motor and on the base of the paper tray. Ensure that the in-line connectors are connected.

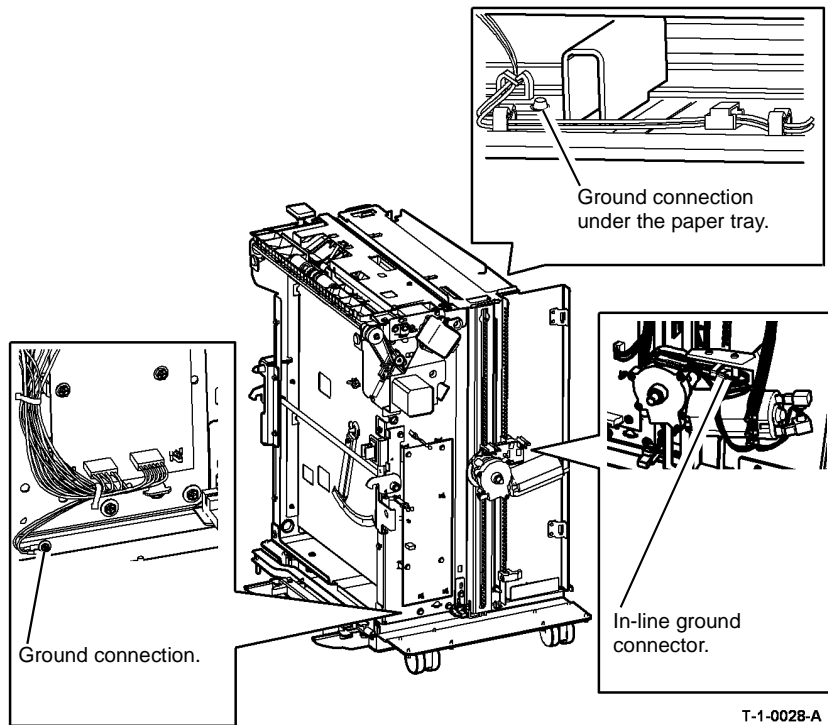


Figure 23 Tray 5 ground connections

## 01B 0V Distribution RAP

Use this RAP to identify 0V distribution faults.

### Procedural Notes

**NOTE:** If a voltage is measured between ground and a return 0V line, then the continuity of that 0V circuit must be checked.

**NOTE:** To isolate a 0V distribution fault, perform the following:

1. Check the continuity of a harness while the harness is disconnected at both ends. This is to ensure that other wiring does not cause false continuity readings.
2. Check the continuity and perform a visual inspection of each connection sequentially, back to its source.
3. Check that any in-line connectors are installed correctly.
4. Check that all connectors are mechanically good. Check crimping for suspect electrical connections or any mechanical failure that could cause a failed or poor electrical contact, [GP 7](#). Refer to [REP 1.2](#) for information concerning wiring harness repairs.

**NOTE:** The expression 'return' is used to identify the 0V line that completes the circuit for a particular voltage.

### Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Go to the 0V circuit that has the suspect problem:

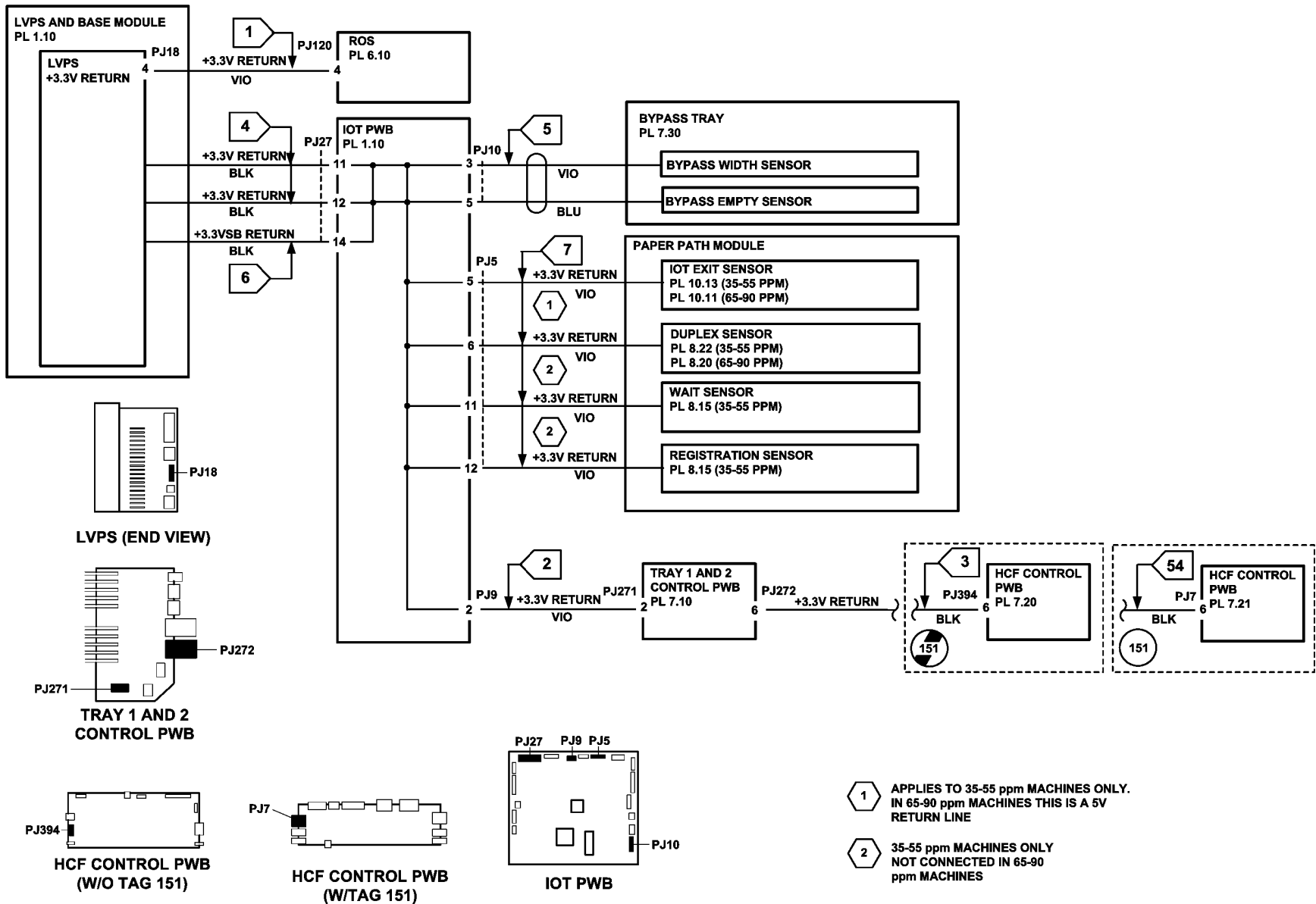
- [01B +3.3V Return](#).
- [01B +5V Return](#).
- [01B +12V Return](#).
- [01B +24V Return](#).

### 01B +3.3V Return

Go to the appropriate component in the list that follows that has the suspect 0V supply. Check the wiring [GP 7](#).

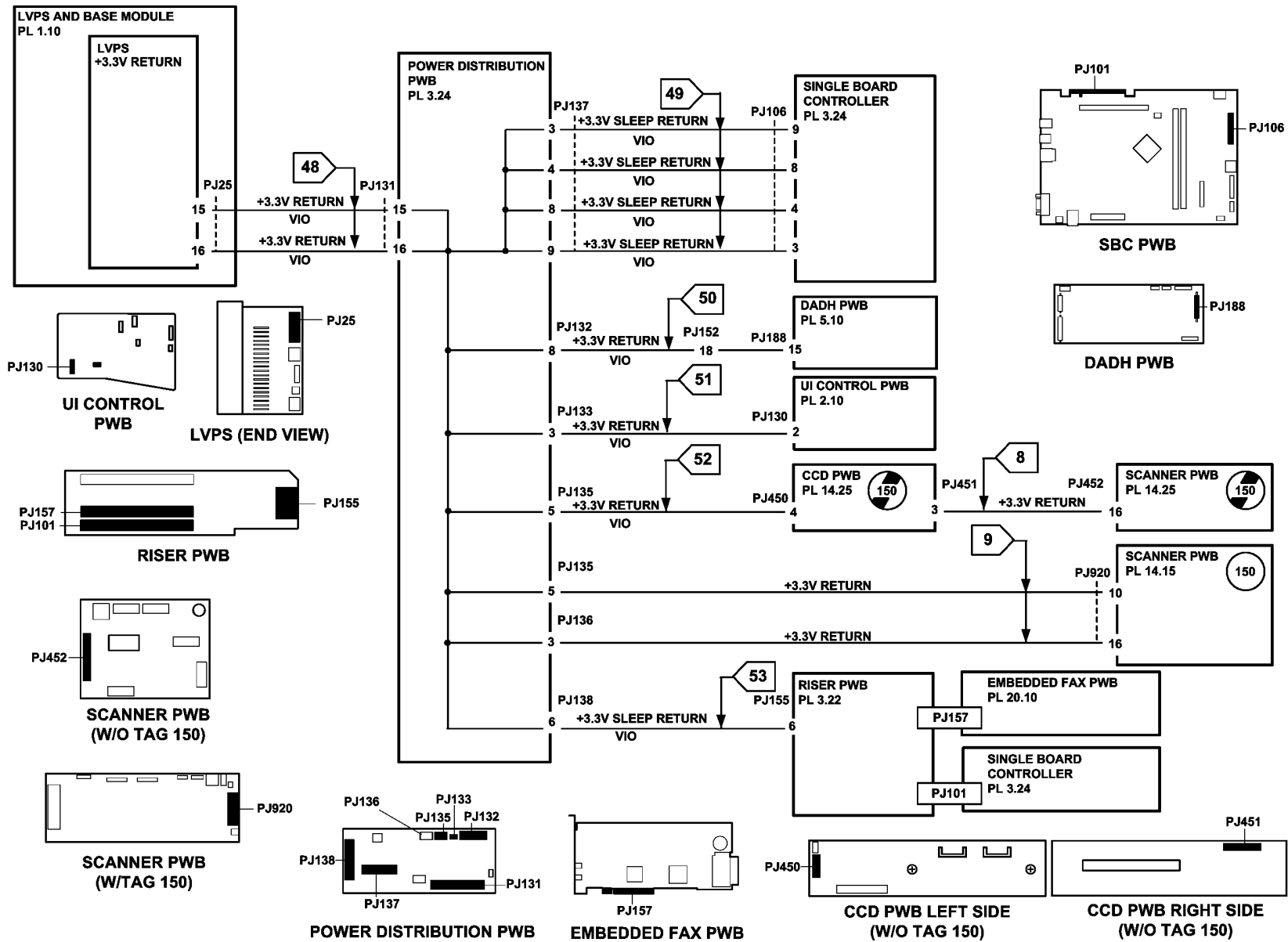
- [ROS, PL 6.10 Item 4](#).
  - [Flag 1, P/J18, P/J120](#).
- [Bypass tray width sensor, PL 7.30 Item 1](#) and [bypass tray empty sensor, PL 7.30 Item 7](#).
  - [Flag 5, IOT PWB, P/J10](#).
  - [Flag 4, IOT PWB, P/J27](#).
- [Paper path module components \(35-55 ppm\); IOT exit sensor, PL 10.11 Item 13, duplex sensor, PL 8.22 Item 4, wait sensor, PL 8.15 Item 3, registration sensor, PL 8.15 Item 3](#).  
[Paper path module components \(65-90 ppm\); IOT exit sensor, PL 10.11 Item 13, duplex sensor, PL 8.20 Item 4, wait sensor, PL 7.30 Item 24, registration sensor, PL 8.17 Item 3](#).
  - [Flag 7, IOT PWB, P/J5](#).
  - [Flag 4, IOT PWB, P/J27](#).

- IOT PWB PL 1.10 Item 2.
  - Flag 4, P/J27.
  - Flag 6, P/J27.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.
  - Flag 2, P/J271, P/J9.
  - Flag 4, P/J27.
- Single board controller PWB, PL 3.24 Item 3.
  - Flag 49, P/J137, P/J106.
  - Flag 48, P/J25, P/J131.
- DADH PWB, PL 5.10 Item 5.
  - Flag 50, P/J132, P/J188, P/J152
  - Flag 48, P/J25, P/J131.
- UI control PWB, PL 2.10 Item 11.
  - Flag 51, P/J133, P/J130.
  - Flag 48, P/J25, P/J131.
- HCF PWB (W/O TAG 151), PL 7.20 Item 2.
  - Flag 3, P/J394, P/J272.
  - Flag 2, P/J271, P/J9.
  - Flag 4, P/J27.
- HCF PWB (W/TAG 151), PL 7.21 Item 2.
  - Flag 54, P/J7, P/J272.
  - Flag 2, P/J271, P/J9.
  - Flag 4, P/J27.
- Scanner PWB, W/TAG 150, PL 14.15 Item 4.
  - Flag 9, P/J920, P/J135.
  - Flag 48, P/J25, P/J131.
- Scanner PWB, W/O TAG 150, PL 14.25 Item 4.
  - Flag 8, P/J451, P/J452.
  - Flag 52, P/J135, P/J450.
  - Flag 48, P/J25, P/J131.
- CCD PWB, W/O TAG 150, PL 14.25 Item 19.
  - Flag 52, P/J135, P/J450.
  - Flag 48, P/J25, P/J131.
- Riser PWB, PL 3.22 Item 3.
  - Flag 53, P/J138, P/J155.
  - Flag 48, P/J25, P/J131.
- Embedded fax PWB, PL 20.10 Item 4.
  - Flag 53, P/J138, P/J155, P/J157,
  - Flag 48, P/J25, P/J131.
- Power distribution PWB, PL 3.24 Item 5.
  - Flag 48, P/J25, P/J131.



TT-1-0048-B

Figure 1 +3.3V Return



TT-1-0049-B

Figure 2 +3.3V Return

## 01B +5V Return

Go to the appropriate component in the list that follow that has the suspect 0V supply. Check the wiring GP 7.

- Xerographic module, xerographic CRUM, (35 ppm) PL 9.22 Item 2 or (40-90 ppm) PL 9.20 Item 2.
  - Flag 17, P/J142, P/J142.
  - Flag 16, P/J149, P/J8.
  - Flag 15, P/J27.
- Fuser module, fuser CRUM, (35-55 ppm) PL 10.8 Item 1 or (65-90 ppm) PL 10.10 Item 1.
  - Flag 18, P/J146, P/J141
  - Flag 16, P/J149, P/J8.
  - Flag 15, P/J27.
- Main drive PWB (35-55 ppm) PL 4.15 Item 1 or (65-90 ppm) PL 4.10 Item 1.
  - Flag 16, P/J149, P/J8.
  - Flag 15, P/J27.
- IOT PWB, PL 1.10 Item 2.
  - Flag 15, P/J27.
  - (65-90 ppm) Flag 47, P/J16.
- HCF control PWB (W/O TAG 151), PL 7.20 Item 2.
  - Flag 20, P/J272, P/J63.
  - Flag 55, P/J394.
  - Flag 19, P/J9, P/J271.
  - Flag 15, P/J27.
- HCF control PWB (W/TAG 151), PL 7.21 Item 2.
  - Flag 20, P/J272, P/J63.
  - Flag 56, P/J7.
  - Flag 19, P/J9, P/J271.
  - Flag 15, P/J27.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.
  - Flag 19, P/J271, P/J9.
  - Flag 19, P/J270, P/J9.
  - Flag 15, P/J27.
  - Flag 15, P/J19.
- Output device, PL 12.10, PL 11.26, PL 11.124, PL 11.130.
  - Flag 21, P/J151, P/J11.
  - Flag 15, P/J27.
- Riser PWB, PL 3.22 Item 3.
  - Flag 24, P/J155, P/J138.
  - Flag 22, P/J131, P/J25.
- Embedded fax, PL 20.10 Item 4.
  - Flag 24, P/J138, P/J155, P/J157.
  - Flag 22, P/J25, P/J131.
- Power distribution PWB, PL 3.24 Item 5.
  - Flag 22, P/J25, P/J131.
- Paper path module components, waste toner switch, PL 9.10 Item 6, left hand door interlock, PL 7.30 Item 2.
  - Flag 45, P/J7, P/J16.
- Tray 5 control PWB, PL 7.68 Item 8
  - Flag 25, P/J502.
- Hard disk drive, PL 3.22 Item 2.
  - Flag 10, P/J999, P/J139.
- Scanner PWB, W/TAG 150, PL 14.15 Item 4.
  - Flag 11, P/J920, P/J136.



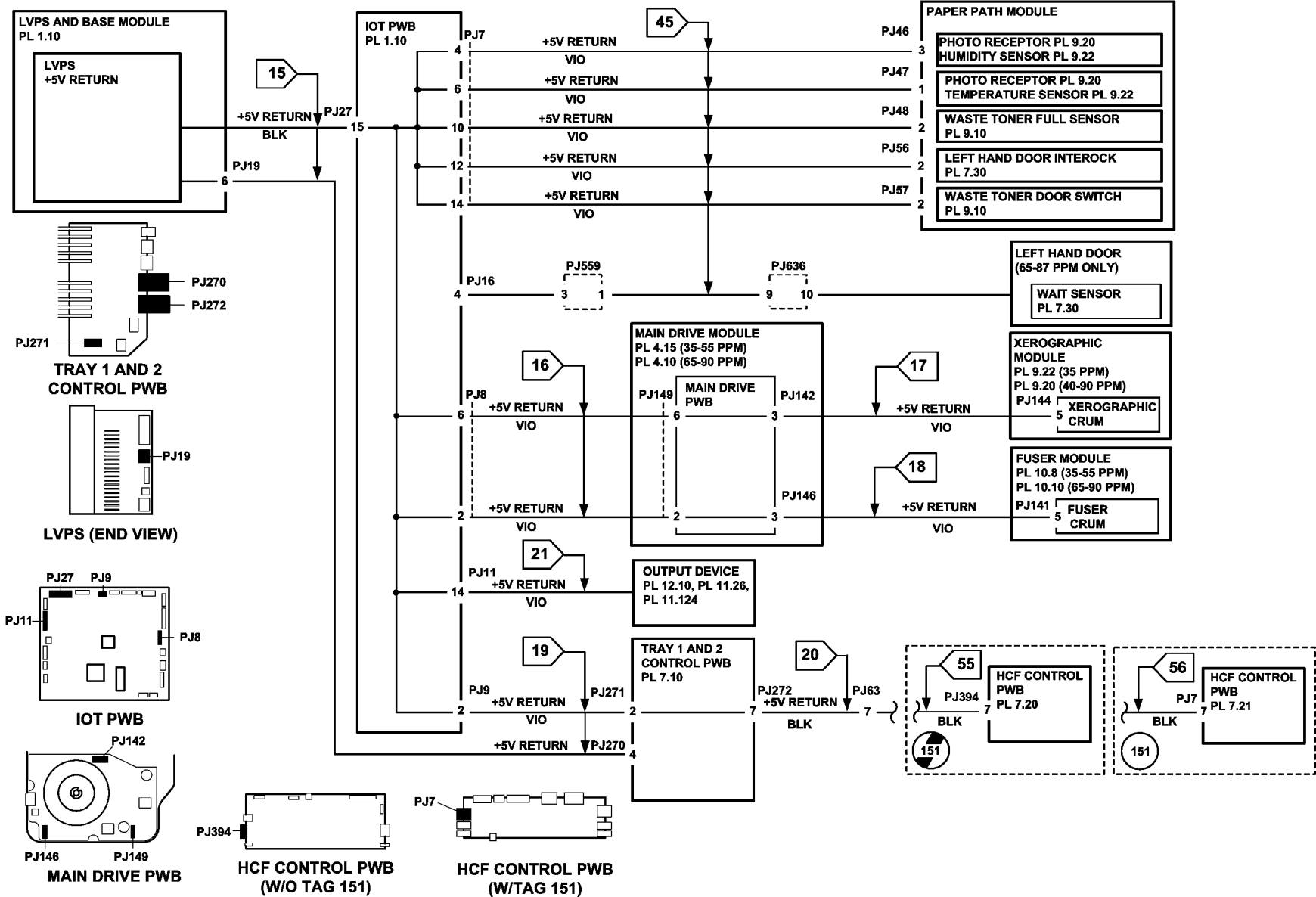


Figure 3 +5V Return

TT-1-0050-C

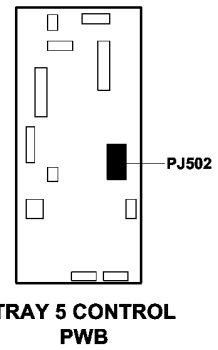
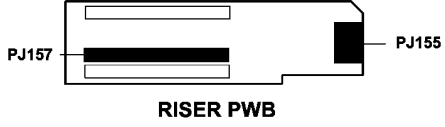
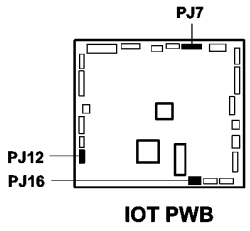
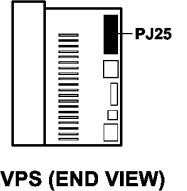
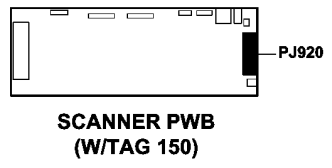
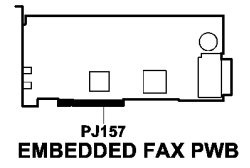
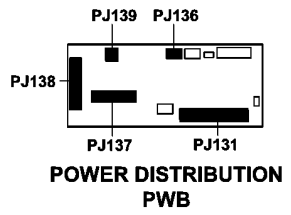
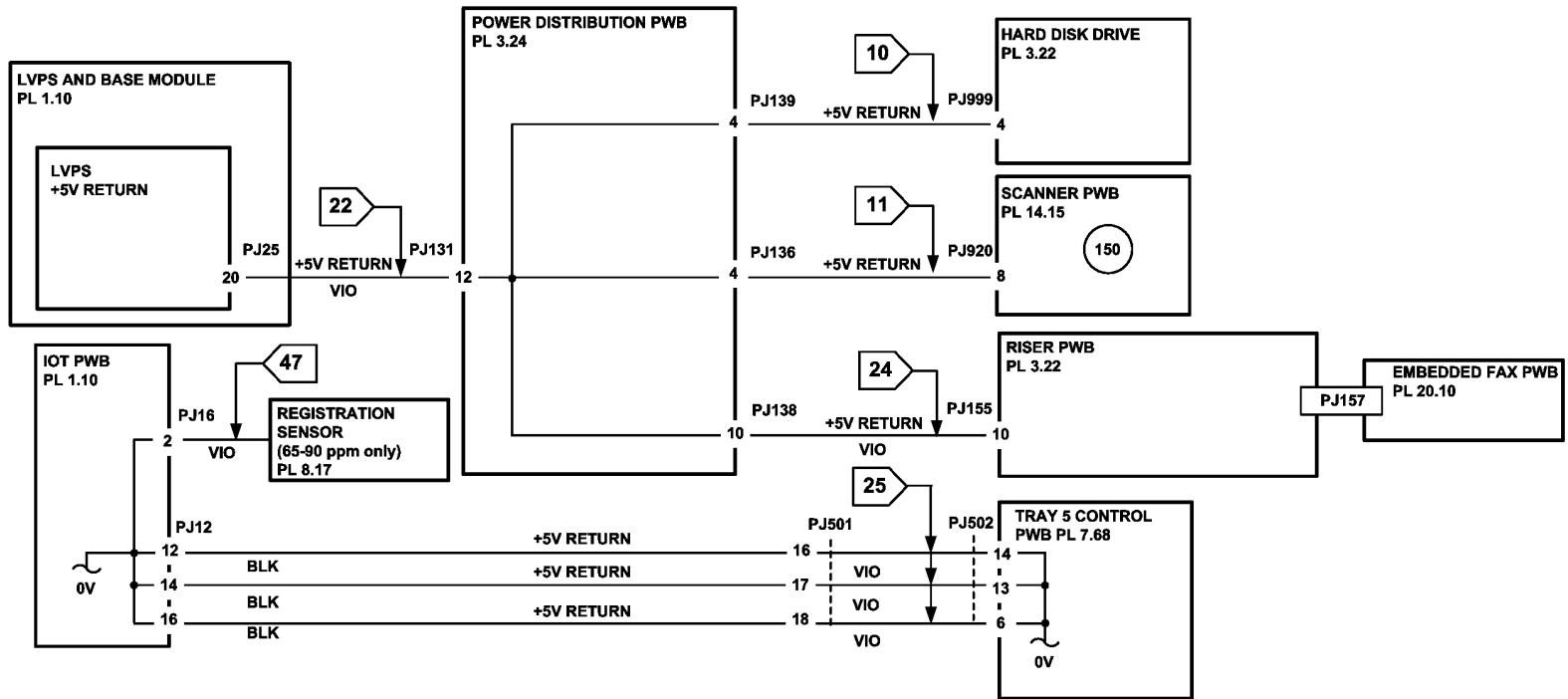


Figure 4 +5V Return

TT-1-0051-B

## 01B +12V Return

Go to the appropriate component in the list that follows that has the suspect 0V supply. Check the wiring GP 7.

- IOT PWB, PL 1.10 Item 2.
  - Flag 26, P/J27.
- UI control PWB, PL 2.10 Item 11.
  - Flag 28, P/J133, P/J130.
  - Flag 27, P/J25, P/J131.
- Scanner PWB, W/TAG 150, PL 14.15 Item 4.
  - Flag 29, P/J135, P/J920.
  - Flag 27, P/J25, P/J131.
- Riser PWB, PL 3.22 Item 3.
  - Flag 30, P/J138, P/J155.
  - Flag 27, P/J25, P/J131.
- Embedded fax PWB, PL 20.10 Item 4.
  - Flag 30, P/J138, P/J155, P/J157.
  - Flag 27, P/J131, P/J25.
- Power distribution PWB, PL 3.24 Item 5.
  - Flag 27, P/J25, P/J131.
- Single board controller PWB, PL 3.24 Item 3.
  - Flag 27, P/J25, P/J131.
  - Flag 30, P/J138, P/J155, P/J101.
- Hard disk drive, PL 3.22 Item 2.
  - Flag 12, P/J139, P/J999.
  - Flag 27, P/J25, P/J131.

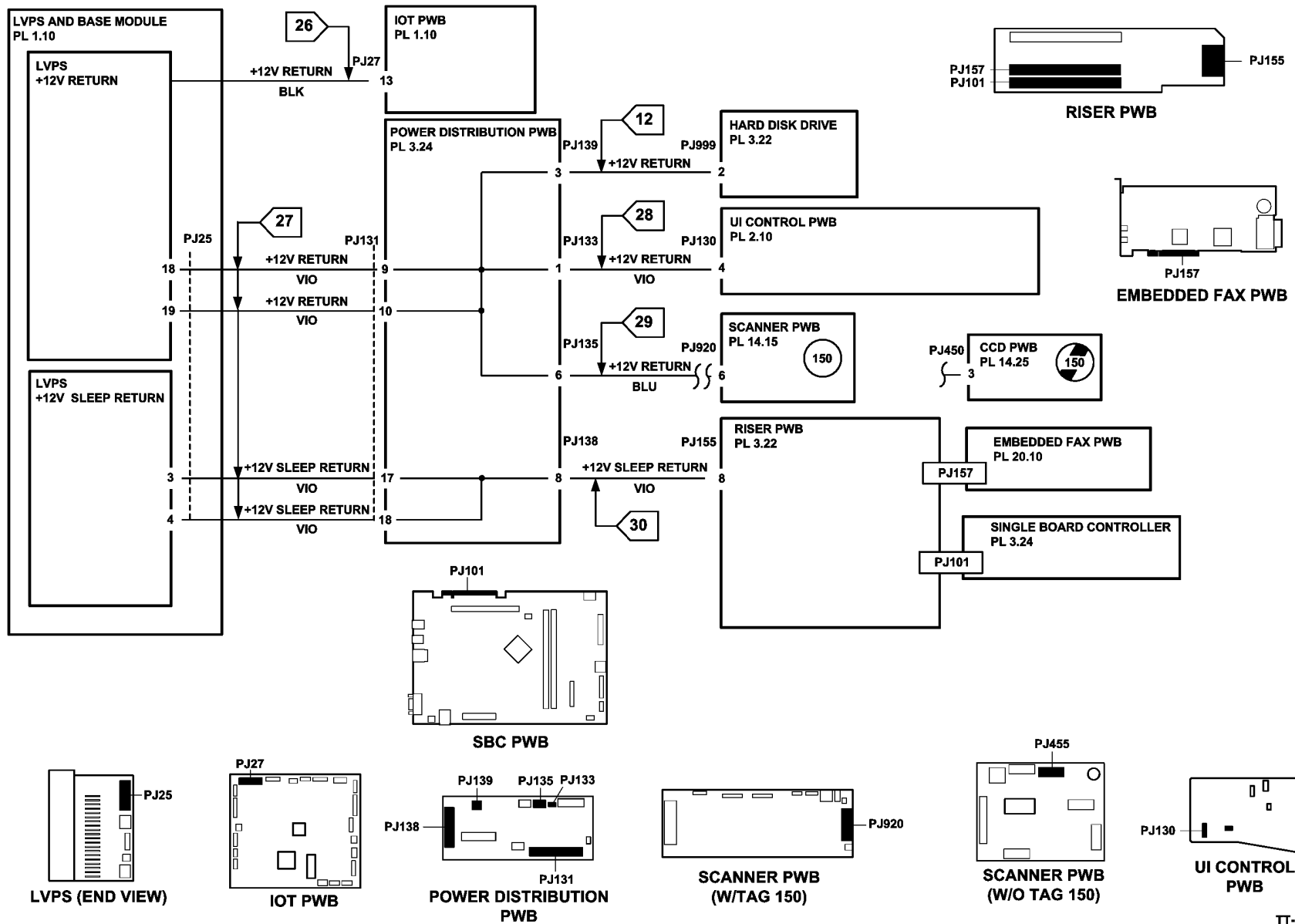


Figure 5 +12V Return

TT-1-0052-C

## 01B +24V Return

Go to the appropriate component in the list that follows that has the suspect 0V supply. Check the wiring GP 7.

- Inverter motor driver PWB, PL 10.11 Item 22.
  - Flag 33, PJ45, PJ4.
  - Flag 32, PJ27.
- Duplex motor driver PWB, (35-55 ppm) PL 8.22 Item 9 or (65-90 ppm) PL 8.20 Item 9.
  - Flag 33, PJ91, PJ40, PJ4.
  - Flag 32, PJ27.
- Toner dispense module, (35-55 ppm) PL 9.17 Item 1 or (65-90 ppm) PL 9.15 Item 1.
  - Flag 34, PJ93, PJ6.
  - Flag 32, PJ27.
- Output device, PL 12.10.
  - Flag 35, PJ151, PJ11.
  - Flag 32, PJ27.
- HVPS, PL 1.10 Item 5.
  - Flag 36, PJ55, PJ14.
  - Flag 32, PJ27.
- IOT PWB, PL 1.10 Item 2.
  - Flag 32, PJ27.
- DADH PWB, PL 5.10 Item 5.
  - Flag 38, PJ132, PJ152, PJ188.
  - Flag 37, PJ25, PJ131.
- Power distribution PWB, PL 3.24 Item 5
  - Flag 37, PJ25, PJ131.
- Scanner PWB
  - (W/O TAG 150) PL 14.25 Item 4.
    - Flag 39, PJ135, PJ455.
    - Flag 37, PJ25, PJ131.
  - (W/TAG 150) PL 14.15 Item 4.
    - Flag 39, PJ135, PJ920.
    - Flag 37, PJ25, PJ131.
- Main drive PWB, part of the main drive module, (35-55 ppm) PL 4.15 Item 1 or (65-90 ppm) PL 4.10 Item 1.
  - Flag 40, PJ16, PJ147.
- ROS, PL 6.10 Item 4.
  - Flag 41, PJ18, PJ120.
- HCF PWB (W/O TAG 151), PL 7.20 Item 2.
  - Flag 43, PJ272, PJ63.
  - Flag 57, PJ394.
  - Flag 42, PJ19, PJ270.
- HCF PWB (W/TAG 151), PL 7.21 Item 2.
  - Flag 43, PJ272, PJ63.
  - Flag 58, PJ7.
  - Flag 42, PJ19, PJ270.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.
  - Flag 42, PJ19, PJ270.
- Tray 5 control PWB, PL 7.68 Item 8.
  - Flag 46, PJ502, PJ112, PJ501.
  - Flag 32, PJ27.

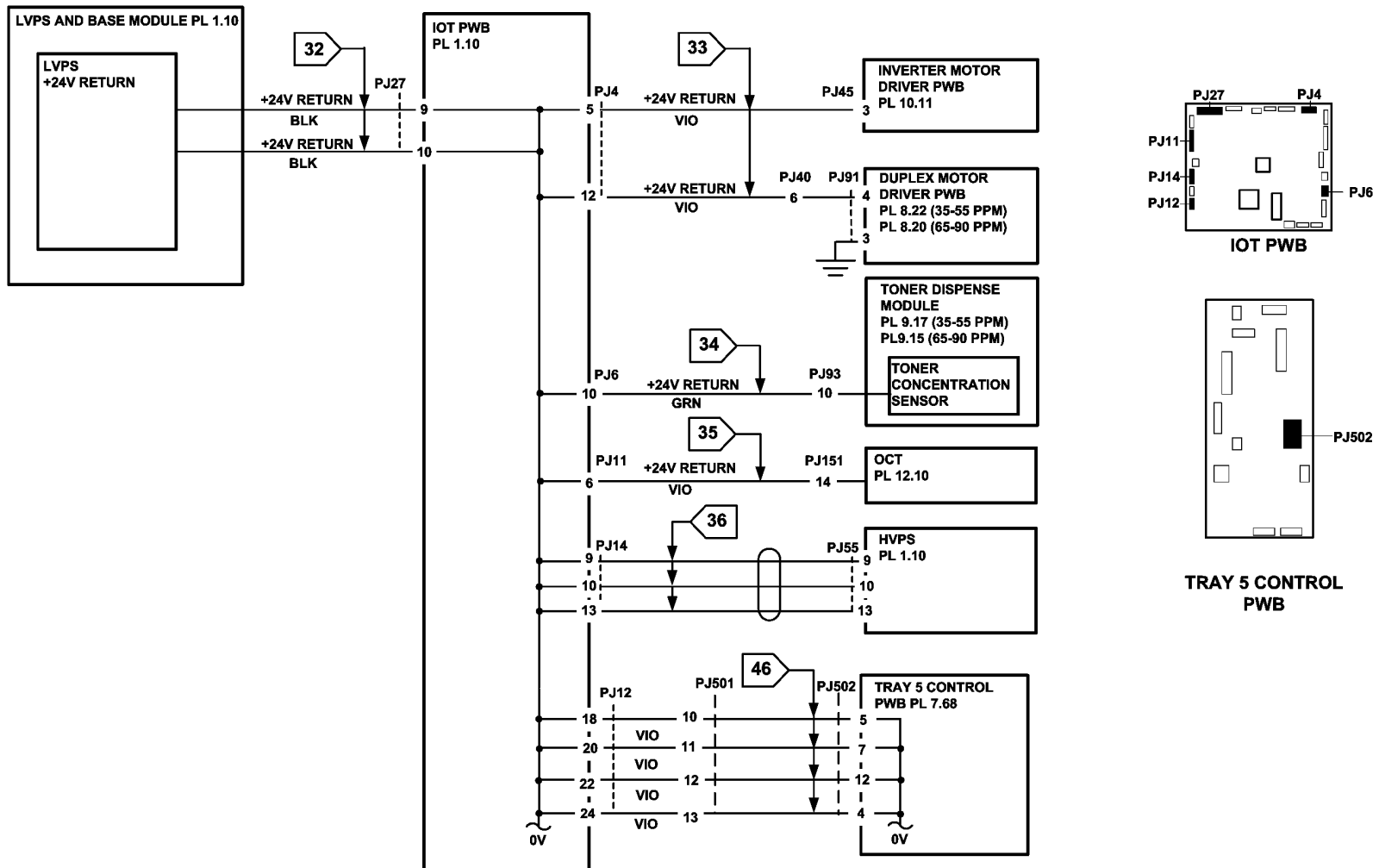


Figure 6 +24V Return

TT-1-0053-A

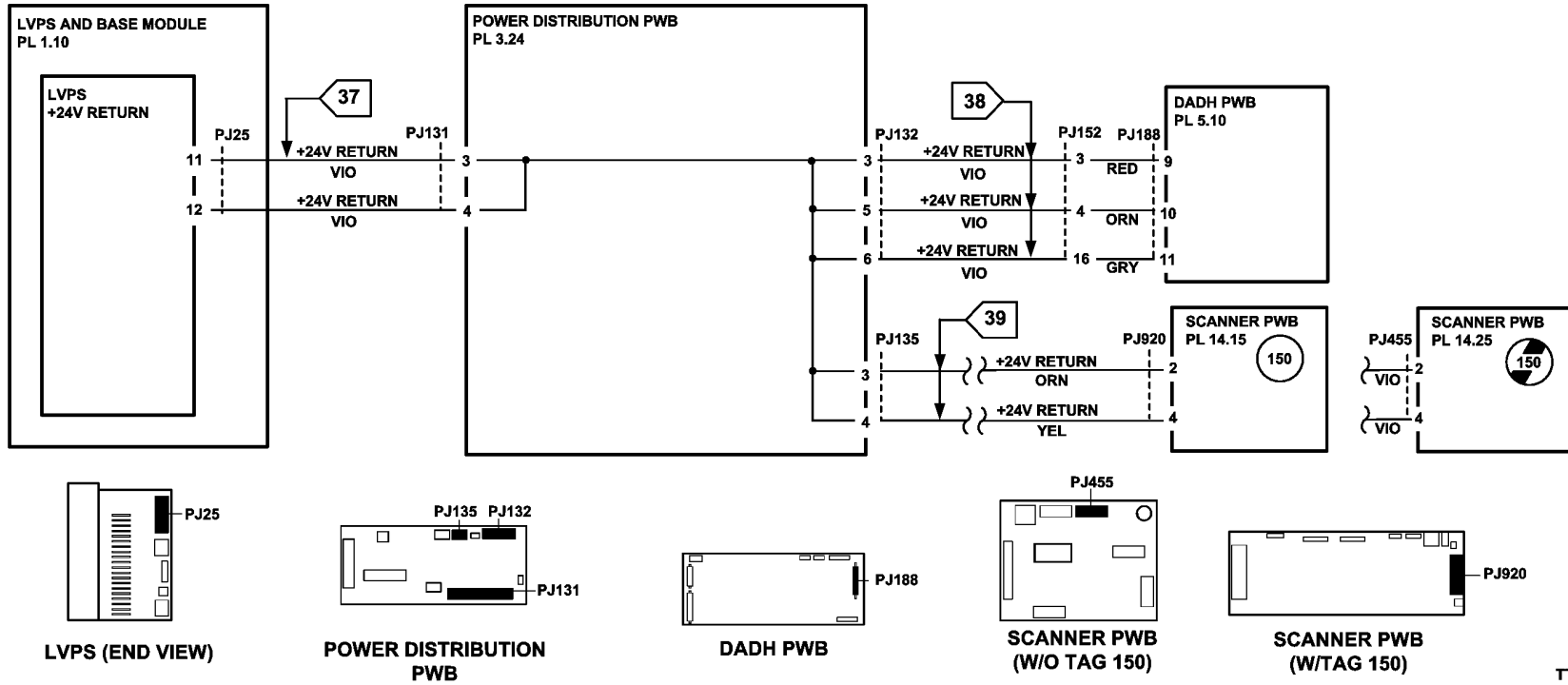
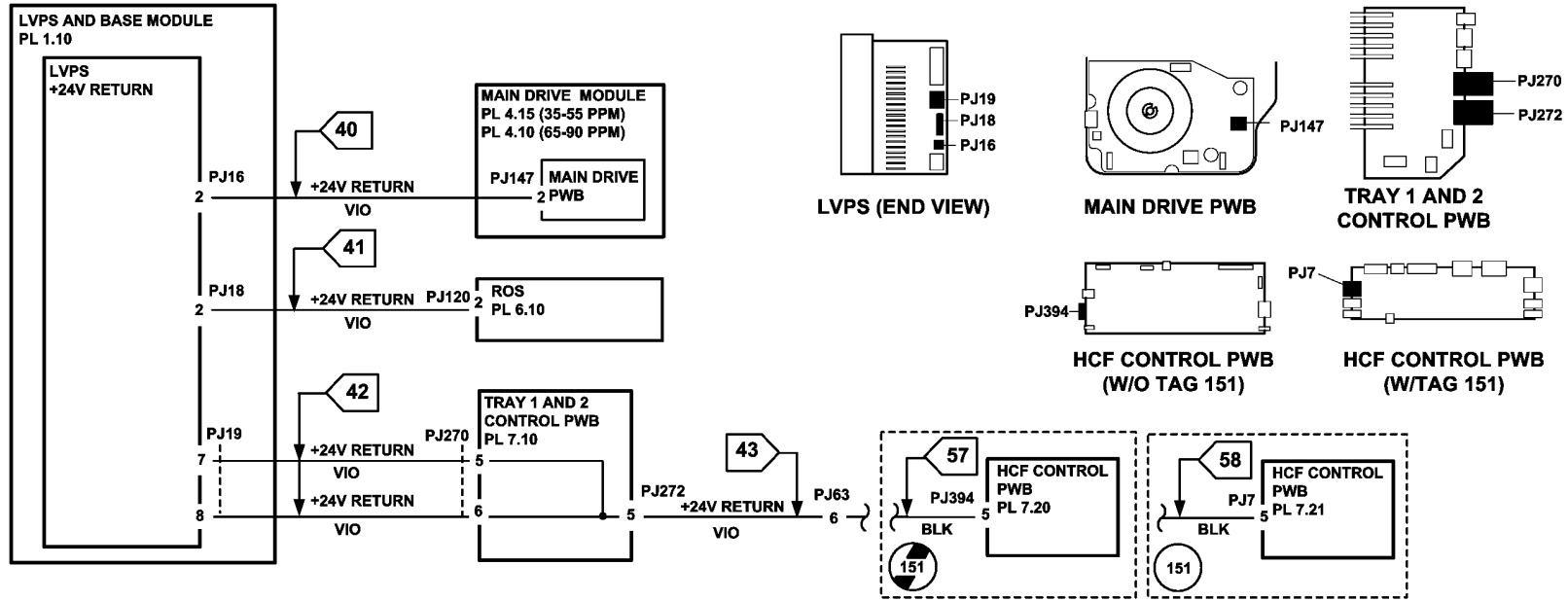


Figure 7 +24V Return

TT-1-0054-A



TT-1-0055-B

Figure 8 +24V Return



## 01C AC Power RAP

Use this RAP to identify AC power input and output failures.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Incorrect voltage may damage the machine. The machine must not be connected to the power outlet if the voltage is incorrect.



#### WARNING

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

Check the AC mains (line) voltage at the customer power outlet. The voltage measured is within the electrical power requirements, GP 22.

Y N

If the voltage is incorrect or the wiring of the main supply is found to be defective, inform your technical manager and the customer. Do not attempt to repair or adjust the customer supply.

Check the main power cord for continuity and damage. The main power cord is good.

Y N

Install a new main power cord, PL 1.10 Item 3.

Switch on the machine, GP 14. Go to Flag 1. Measure the voltage at the outlet connection, PJ22, Figure 1. The voltage measured is within the electrical power requirements, GP 22.

Y N

Go to Flag 2. Check for the AC voltage at PJ24 on the LVPS, Figure 2. The AC voltage is present.

Y N

Switch off the machine, GP 14. Remove the power cord from PJ21, Figure 1. Measure the resistance between ACL and ACN at PJ21 on the LVPS, Figure 1. The resistance reading is greater than 1M Ohms.

Y N

Remove the fuser module. On the fuser module at PJ100 measure the resistance between pin 10 and pins 1, 2, 3 and 4, Figure 3. The reading is infinity, an open circuit.

Y N

Install a new fuser module, (35-55 ppm) PL 10.8 Item 1, (65-90 ppm) PL 10.10 Item 1 and a new LVPS and base module, PL 1.10 Item 3.

Check the wire harness between PJ24 and PJ100, Figure 2. The harness is good.

A

B

C

Y

N

Install a new fuser connector assembly, (35-55 ppm) PL 4.15 Item 9, (65-90 ppm) PL 4.10 Item 9 and a new LVPS and base module, PL 1.10 Item 3.

Install a new LVPS and base module, PL 1.10 Item 3.

Install a new LVPS and base module, PL 1.10 Item 3.

Install a new LVPS and base module, PL 1.10 Item 3.

Check the power cords to the output device.

- 1K LCSS, PL 11.124 Item 8.
- 2K LCSS, PL 11.26 Item 4.
- HVF, PL 11.157 Item 4

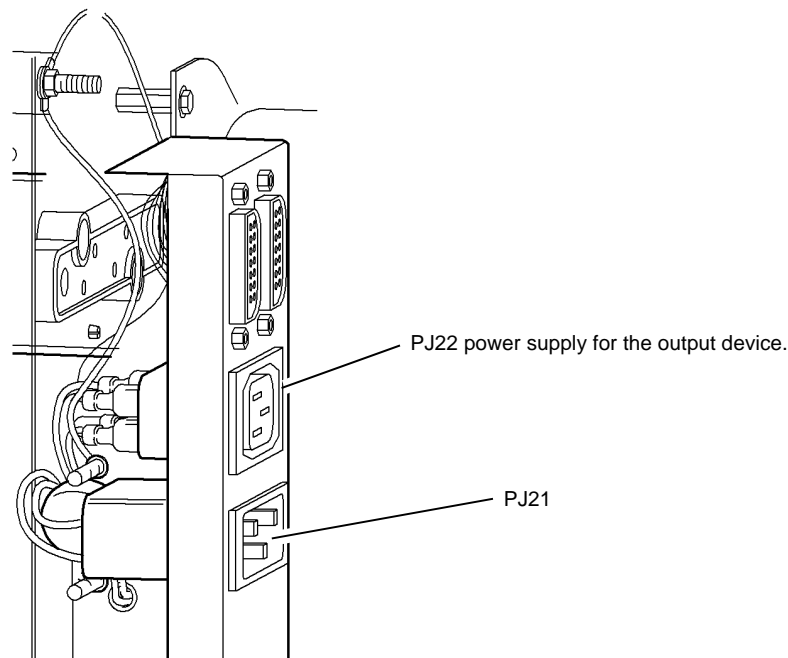
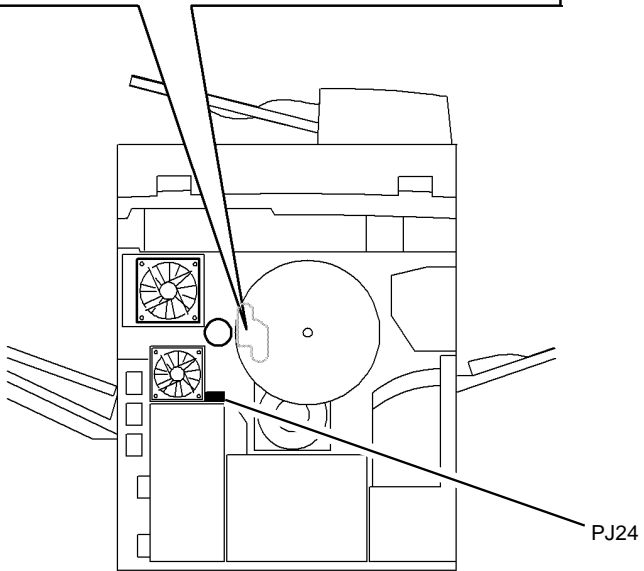
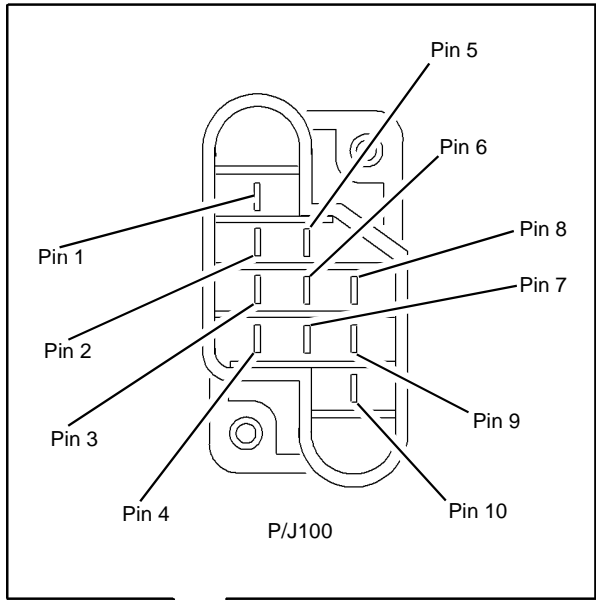


Figure 1 Input and output connections

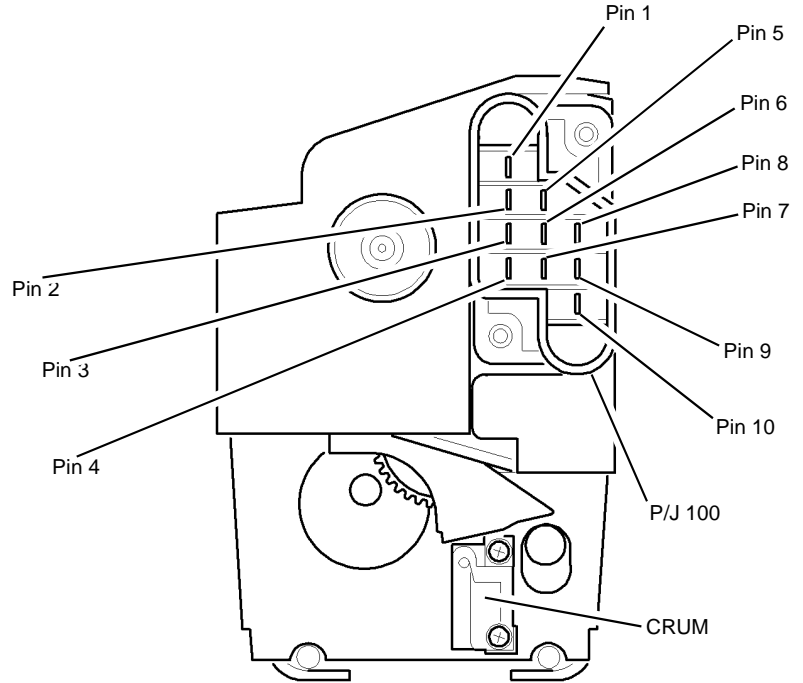
T-1-0029-A

A B C



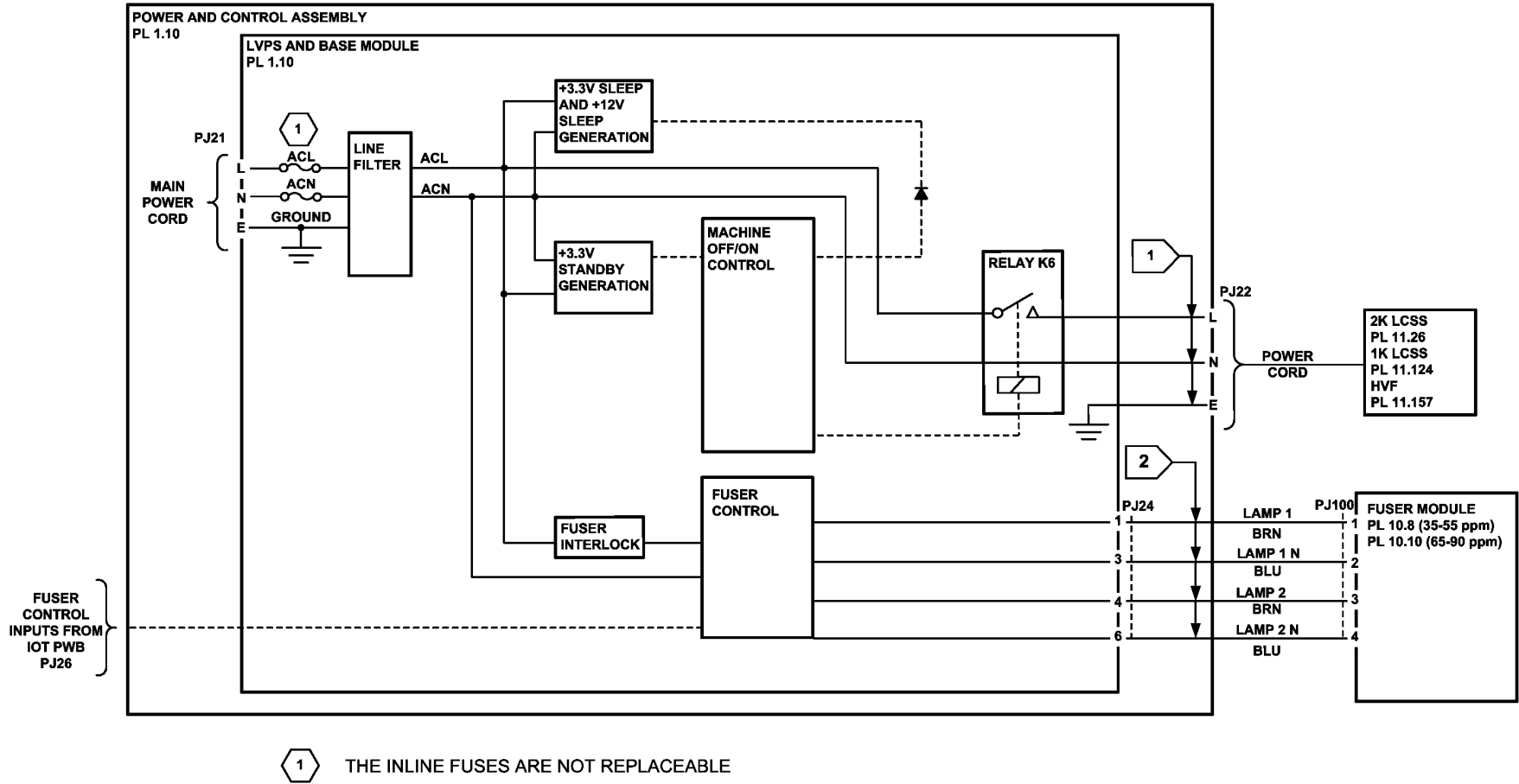
**Figure 2 Supply to the fuser module**

T-1-0030-A



**Figure 3 Fuser module**

T-1-0031-A



TT-1-0056-A

Figure 4 AC circuit diagram

## 01D +3.3V Distribution RAP

Use this RAP to identify +3.3V distribution problems.

**NOTE:** Short circuit or overload of +3.3V or +5V supply will result in all outputs off, except +3.3VSB (standby).

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Refer to [Figure 1](#) and [Figure 2](#). Go to the appropriate component in the list that follows that has a suspect +3.3V supply. Check the wiring, [GP 7](#).

- ROS, [PL 6.10 Item 4](#).
  - [Flag 1](#), [P/J18](#), [PJ120](#).
- Paper path module components, waste toner door switch, [PL 9.10 Item 6](#), left hand door interlock, [PL 7.30 Item 3](#).
  - [Flag 8](#), [P/J7](#).
  - [Flag 5](#), [P/J27](#).
- Bypass tray width sensor and bypass empty sensor, [PL 7.30](#).
  - [Flag 6](#), [P/J10](#).
  - [Flag 5](#), [P/J27](#).
- Paper path module components (35-55 ppm); IOT exit sensor, [PL 10.11 Item 13](#), duplex sensor, [PL 8.22 Item 4](#), wait sensor, [PL 8.15 Item 3](#), registration sensor, [PL 8.15 Item 3](#).  
Paper path module components (65-90 ppm); IOT exit sensor, [PL 10.11 Item 13](#), duplex sensor, [PL 8.20 Item 4](#), wait sensor, [PL 8.15 Item 3](#), registration sensor, [PL 8.17 Item 3](#).
  - [Flag 7](#), [P/J5](#).
  - [Flag 5](#), [P/J27](#).
- Power distribution PWB, [PL 3.24 Item 5](#).
  - [Flag 9](#), [P/J25](#)
- Single board controller PWB, [PL 3.24 Item 3](#).
  - [Flag 10](#), [P/J137](#), [P/J106](#).
  - [Flag 9](#), [P/J25](#), [P/J131](#).
- DADH PWB, [PL 5.10 Item 5](#).
  - [Flag 11](#), [P/J132](#), [PJ152](#), [P/J188](#).
  - [Flag 9](#), [P/J25](#), [P/J131](#).
- UI control PWB, [PL 2.10 Item 11](#).
  - [Flag 12](#), [P/J133](#), [P/J130](#)
- Scanner PWB, W/TAG 150. [PL 14.15 Item 4](#).
  - [Flag 13](#), [P/J135](#), [P/J920](#).
  - [Flag 13](#), [P/J136](#), [P/J920](#).
  - [Flag 9](#), [P/J25](#), [P/J131](#).

- CCD PWB, W/O TAG 150. [PL 14.25 Item 19](#).
  - [Flag 13](#), [P/J135](#), [P/J450](#).
  - [Flag 9](#), [P/J25](#), [P/J131](#).
- Riser PWB, [PL 3.22 Item 3](#).
  - [Flag 14](#), [P/J138](#), [P/J155](#), [P/J157](#).
  - [Flag 9](#), [P/J25](#), [P/J131](#).
- Embedded fax PWB, [PL 20.10 Item 4](#).
  - [Flag 14](#), [P/J138](#), [P/J157](#), [P/J155](#).
  - [Flag 9](#), [P/J25](#), [P/J131](#).
- Foreign device interface PWB, [PL 3.22 Item 4](#).
  - [Flag 15](#), [P/J201](#), [P/J16](#).
  - [Flag 18](#), [P/J100](#).

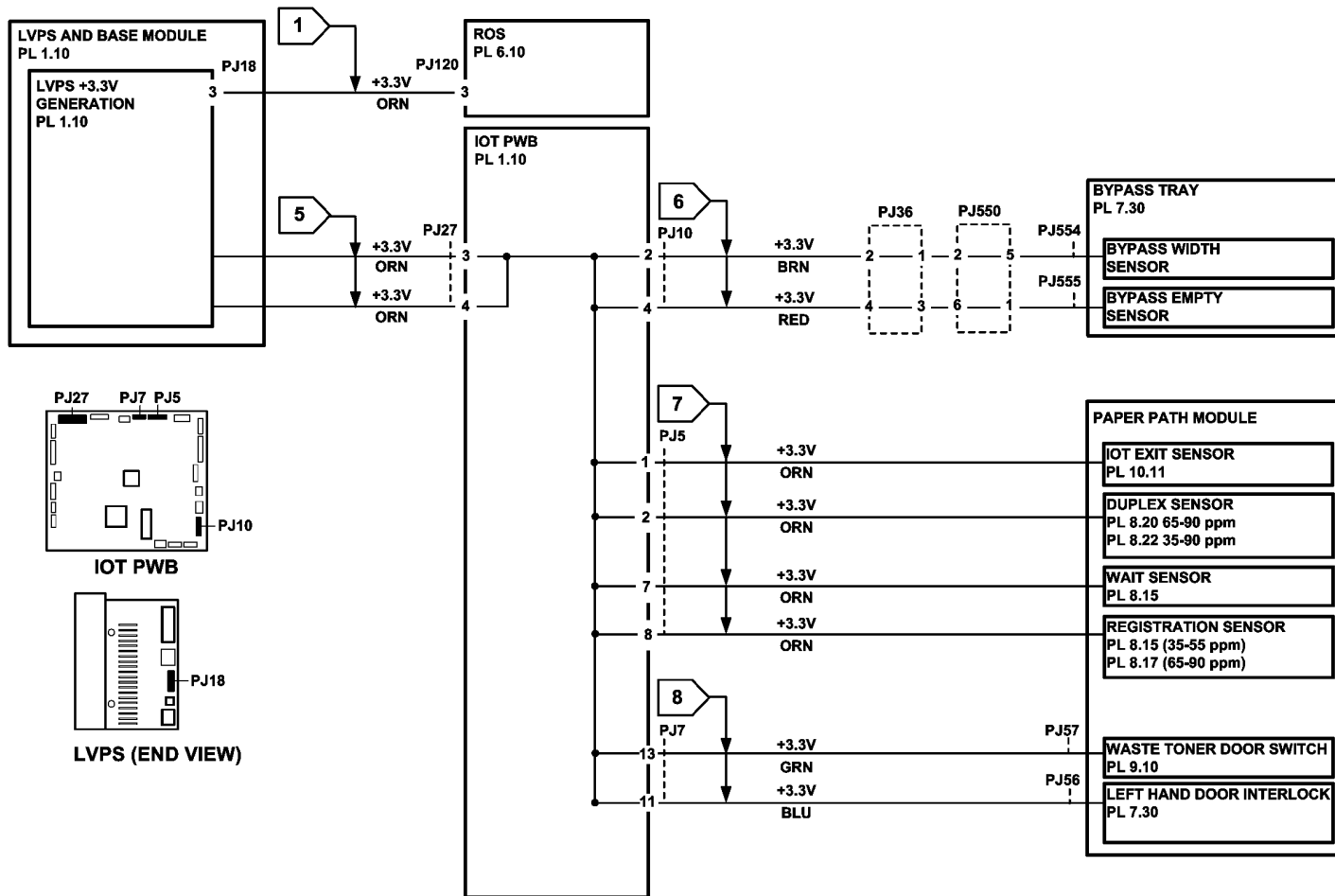


Figure 1 +3.3V distribution circuit diagram

TT-1-0057-A

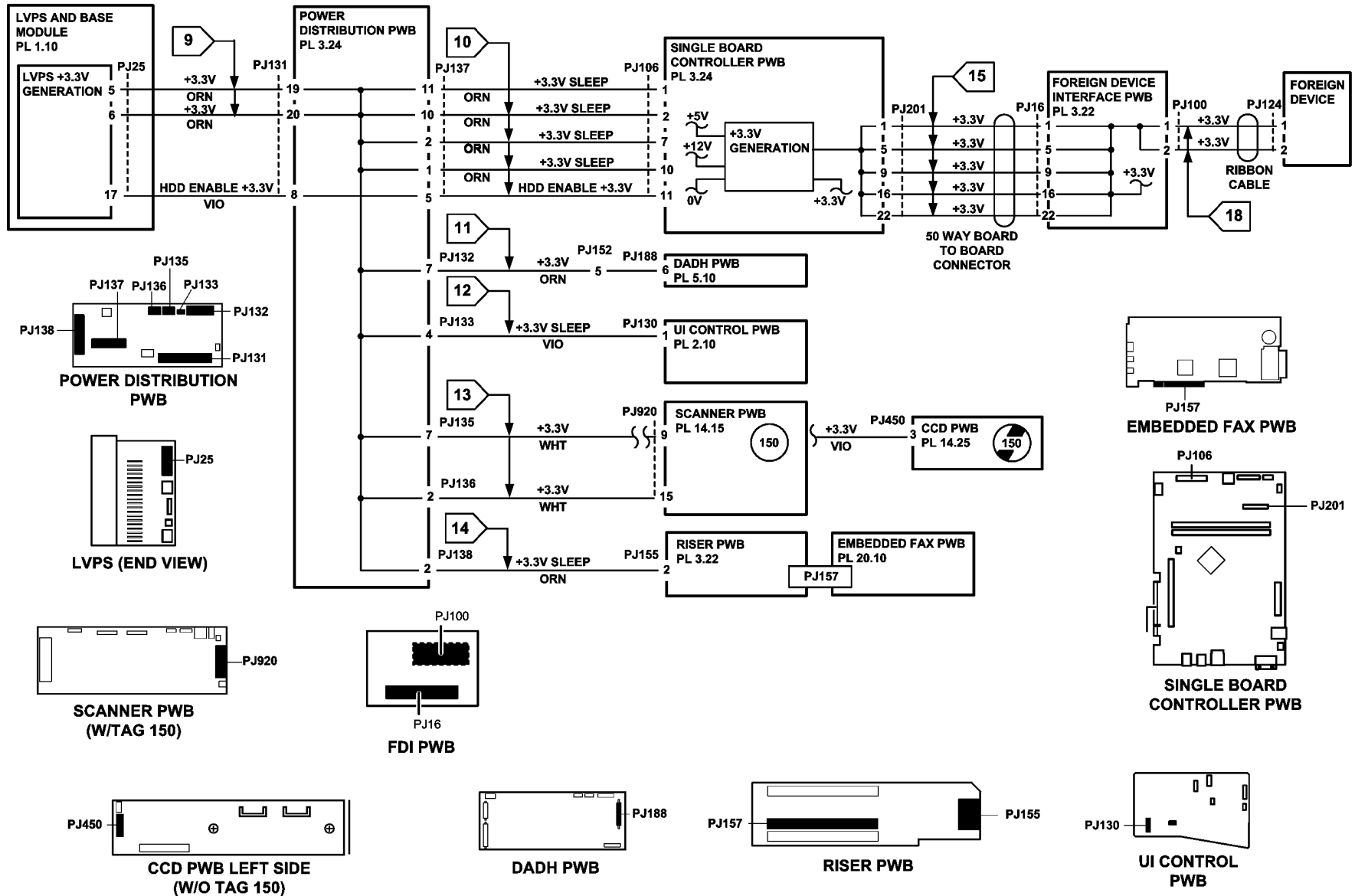


Figure 2 +3.3V distribution circuit diagram

TT-1-0058-C

## 01E +5V Distribution RAP

Use this RAP to identify +5V distribution problems.

**NOTE:** Short circuit or overload of +3.3V or +5V supply will result in all outputs off, except +3.3VSB (standby).

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Refer to [Figure 1](#) and [Figure 2](#). Go to the appropriate component in the list that follows that has a suspect +5V supply. Check the wiring, [GP 7](#).

- Paper path module components (35-55 ppm); developer temperature sensor, [PL 9.22 Item 5](#), relative humidity sensor and ambient temperature sensor, [PL 9.20 Item 4](#), waste toner full sensor, [PL 9.10 Item 2](#), left door interlock, [PL 7.30 Item 3](#), waste toner door switch, [PL 9.10 Item 6](#), registration sensor, [PL 8.15 Item 3](#).  
Paper path module components (65-90 ppm); developer temperature sensor, [PL 9.20 Item 5](#), relative humidity sensor and ambient temperature sensor, [PL 9.20 Item 4](#), waste toner full sensor, [PL 9.10 Item 2](#), left door interlock, [PL 7.30 Item 3](#), waste toner door switch, [PL 9.10 Item 6](#), registration sensor, [PL 8.17 Item 3](#).
  - [Flag 2](#), [P/J7](#).
  - [Flag 1](#), [P/J27](#).
- Xerographic CRUM, part of the [xerographic module](#), (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#).
  - [Flag 4](#), [P/J142](#), [P/J144](#).
  - [Flag 3](#), [P/J149](#), [P/J8](#).
  - [Flag 1](#), [P/J27](#).
- Fuser CRUM, part of the [fuser module](#), [PL 10.10 Item 1](#).
  - [Flag 5](#), [P/J146](#), [P/J141](#).
  - [Flag 3](#), [P/J149](#), [P/J8](#).
  - [Flag 1](#), [P/J27](#).
- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).
  - [Flag 6](#), [P/J19](#), [P/J270](#).
- HCF control PWB (W/O TAG 151), [PL 7.20 Item 2](#).
  - [Flag 7](#), [P/J394](#), [P/J272](#).
  - [Flag 20](#), [P/J394](#).
  - [Flag 6](#), [P/J19](#), [P/J270](#).
- HCF control PWB (W/TAG 151), [PL 7.21 Item 2](#).
  - [Flag 7](#), [P/J272](#).
  - [Flag 21](#), [P/J7](#).
  - [Flag 6](#), [P/J19](#), [P/J270](#).
- OCT Module, [PL 12.10](#).
  - [Flag 8](#), [P/J11](#).
  - [Flag 1](#), [P/J27](#).
- Inverter motor driver PWB, [PL 10.11 Item 22](#).
  - [Flag 9](#), [P/J4](#).
  - [Flag 1](#), [P/J27](#).
- Duplex motor driver PWB, (35-55 ppm) [PL 8.22 Item 9](#) or (65-90 ppm) [PL 8.20 Item 9](#).
  - [Flag 11](#), [P/J4](#).
  - [Flag 1](#), [P/J27](#).
- Single board controller PWB, [PL 3.24 Item 3](#).
  - [Flag 17](#), [P/J137](#), [P/J106](#).
  - [Flag 16](#), [P/J25](#), [P/J131](#).
- Riser PWB, [PL 3.22 Item 3](#).
  - [Flag 16](#), [P/J131](#), [P/J25](#).
  - [Flag 18](#), [P/J138](#), [P/J155](#).
- Embedded FAX PWB, [PL 20.10 Item 4](#).
  - [Flag 18](#), [P/J138](#), [P/J155](#), [P/J157](#).
- Power distribution PWB, [PL 3.24 Item 5](#).
  - [Flag 16](#), [P/J131](#), [P/J25](#).
- IOT PWB, [PL 1.10 Item 2](#).
  - [Flag 1](#), [P/J27](#).
- Tray 5 control PWB, [PL 7.68 Item 8](#).
  - [Flag 15](#), [P/J502](#)
- Hard disk drive, [PL 3.22 Item 2](#).
  - [Flag 19](#), [P/J139](#), [P/J999](#).
  - [Flag 16](#), [P/J25](#), [P/J131](#).
- DADH PWB, [PL 5.10 Item 5](#).  
The +5V supply on the DADH PWB is generated on board from the +3.3V supply, refer to [Figure 2](#).
- Wait sensor, (65-90 ppm), [PL 7.30 Item 25](#).
  - [Flag 10](#), [P/J16](#), [P/J553](#).

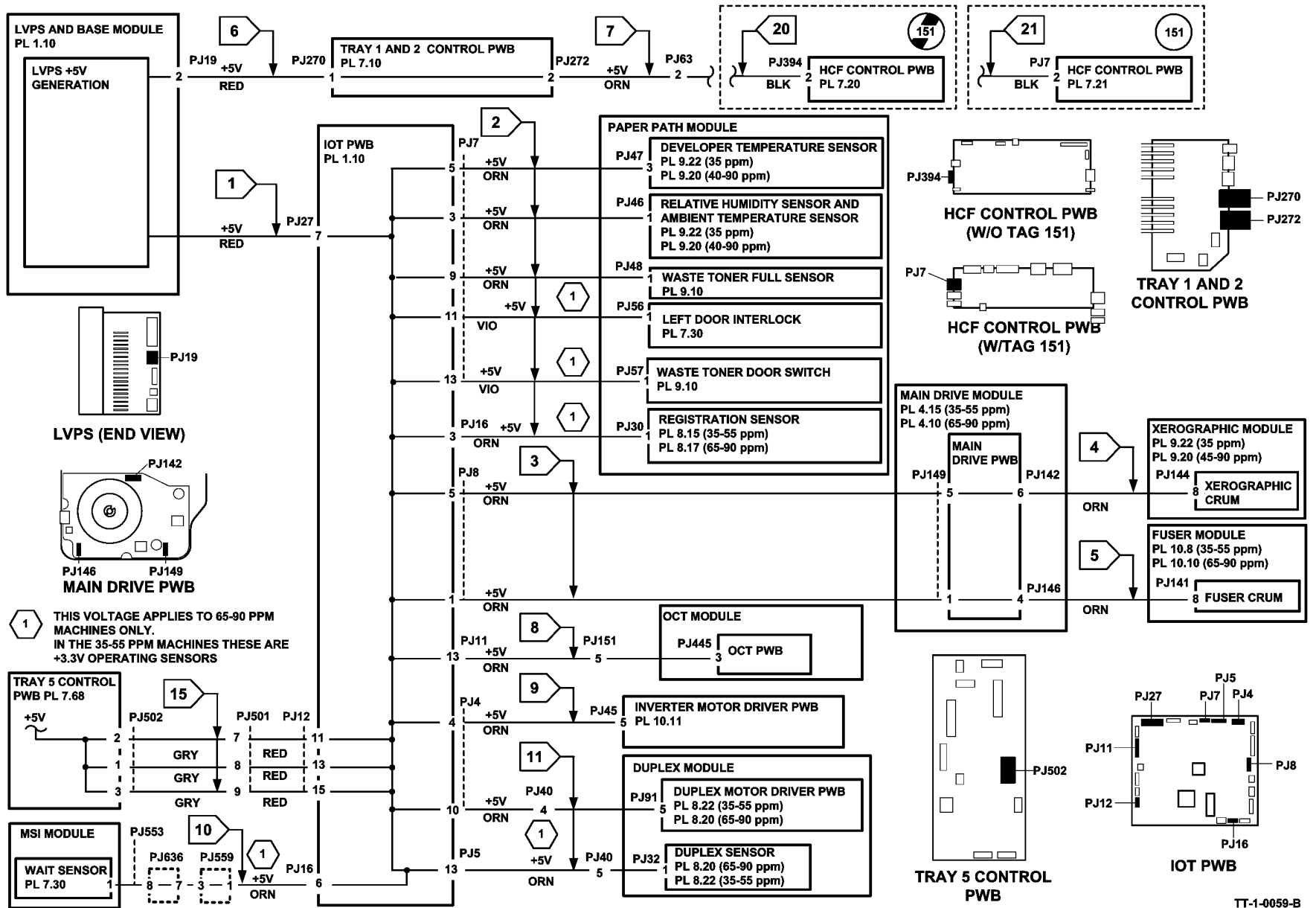
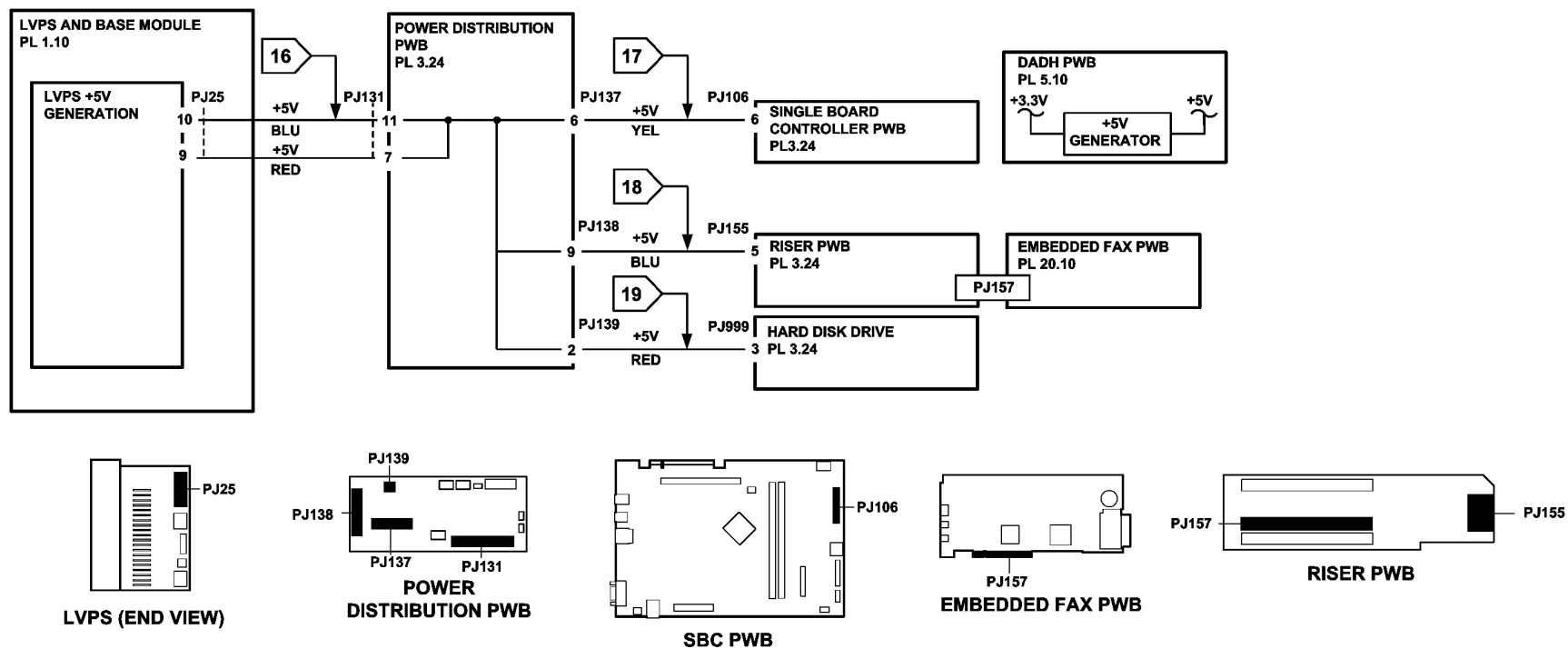


Figure 1 +5V distribution circuit diagram





TT-1-0060-B

Figure 2 +5V distribution circuit diagram

## 01F +12V Distribution RAP

Use this RAP to identify +12V distribution problems.

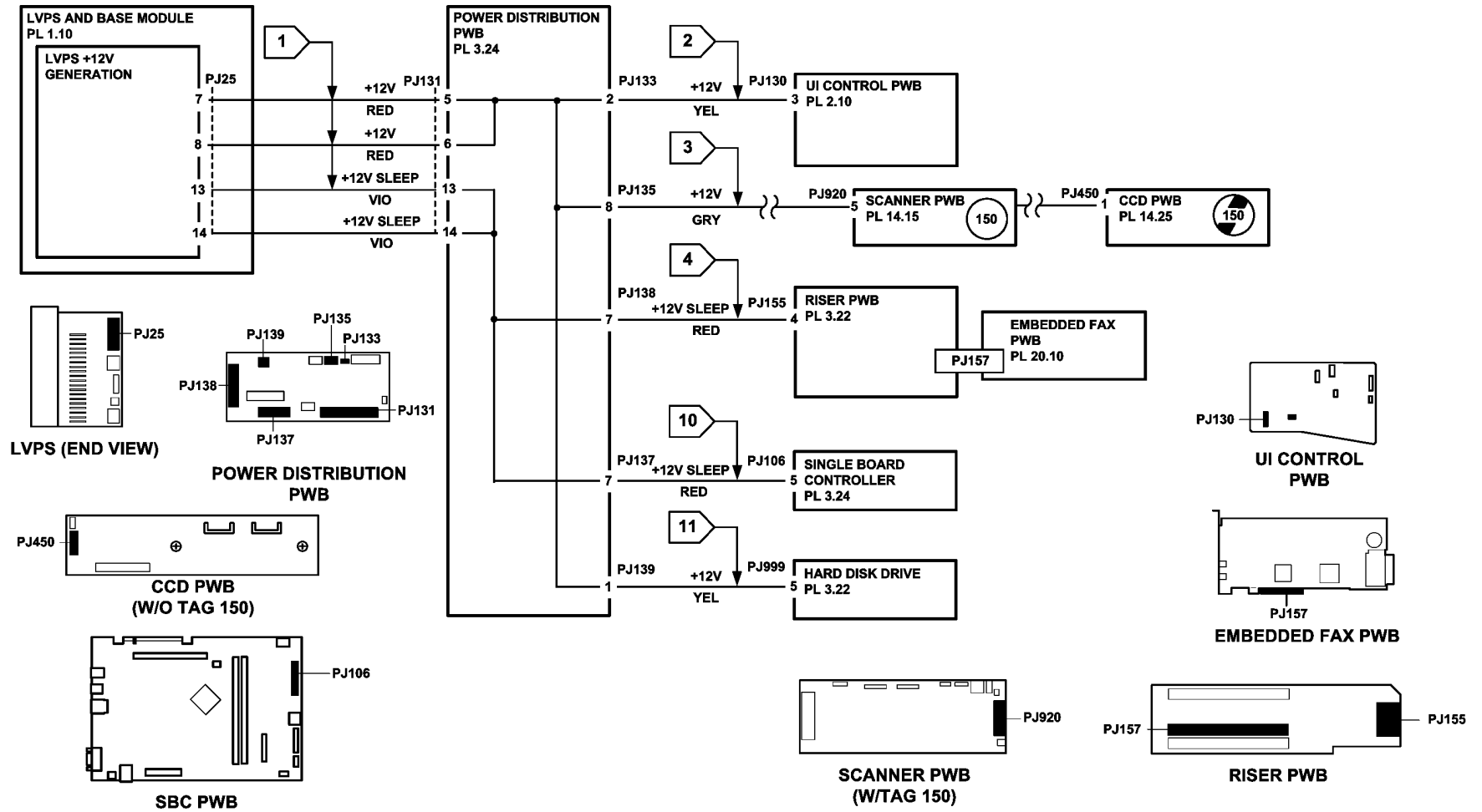
### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

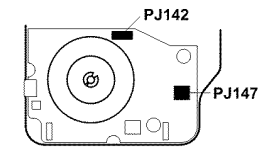
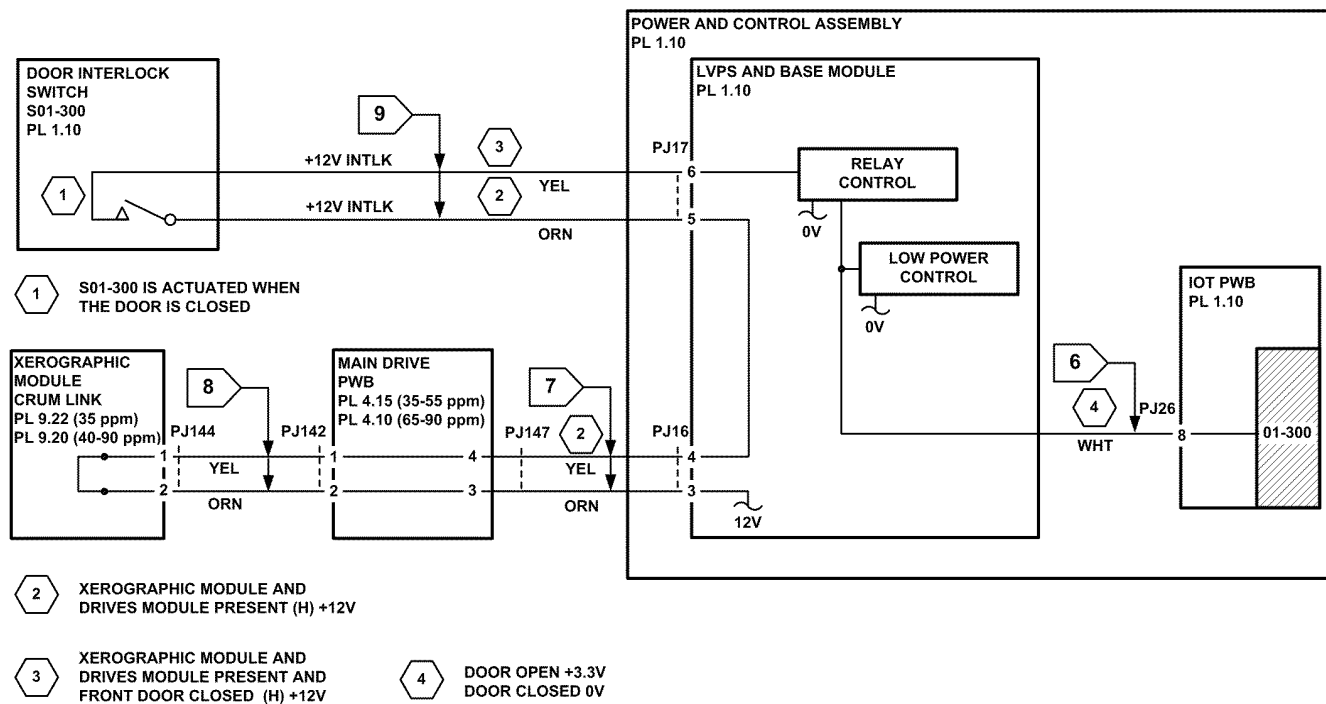
Refer to [Figure 1](#) and [Figure 2](#). Go to the appropriate component in the list that follows that has a suspect +12V supply. Check wiring, [GP 7](#).

- Power distribution PWB, [PL 3.24 Item 5](#).
  - [Flag 1](#), [P/J131](#), [P/J25](#).
- User interface control PWB, [PL 2.10 Item 11](#).
  - [Flag 2](#), [P/J133](#), [P/J130](#).
  - [Flag 1](#), [P/J25](#), [P/J131](#).
- Scanner PWB, [PL 14.15 Item 4](#).
  - [Flag 3](#), [P/J920](#), [P/J135](#).
  - [Flag 1](#), [P/J131](#), [P/J25](#).
- CCD PWB, W/O TAG 150.
  - [Flag 3](#), [P/J450](#), [P/J135](#).
  - [Flag 1](#), [P/J131](#), [P/J25](#).
- Riser PWB [PL 3.22 Item 3](#).
  - [Flag 4](#), [P/J155](#), [P/J138](#).
  - [Flag 1](#), [P/J131](#), [P/J25](#).
- Embedded FAX PWB, [PL 20.10 Item 4](#).
  - [Flag 4](#), [P/J157](#), [P/J155](#), [P/J138](#).
  - [Flag 1](#), [P/J131](#), [P/J25](#).
- IOT PWB, [PL 1.10 Item 2](#).
  - [Flag 6](#), [P/J26](#).
- Xerographic CRUM, part of the [xerographic module](#), (35 ppm) [PL 9.22 Item 2](#), (40-90 ppm) [PL 9.20 Item 2](#).
  - [Flag 8](#), [P/J142](#), [P/J144](#).
  - [Flag 7](#), [P/J147](#), [P/J16](#).
- Main drive PWB (35-55 ppm), [PL 4.15 Item 6](#), (65-90 ppm) [PL 4.10 Item 6](#).
  - [Flag 7](#), [P/J147](#), [P/J16](#).
- Door interlock switch, [PL 1.10 Item 7](#).
  - [Flag 9](#), [P/J17](#).
- Single board controller PWB, [PL 3.24 Item 3](#).
  - [Flag 10](#), [P/J137](#), [P/J106](#).
  - [Flag 1](#), [P/J131](#), [P/J25](#).
- Hard disk drive, [PL 3.22](#).
  - [Flag 11](#), [P/J139](#), [P/J999](#).
  - [Flag 1](#), [P/J25](#), [P/J131](#).

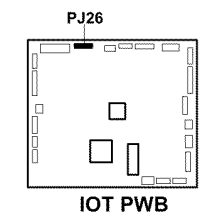


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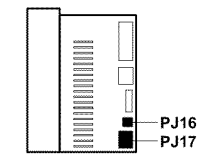
Figure 1 +12V distribution circuit diagram



MAIN DRIVE PWB



IOT PWB



LVPS (END VIEW)

Figure 2 +12V distribution circuit diagram

TT-1-0062-B

# 01G +24V Distribution RAP

Use this RAP to identify +24V distribution problems.

## Initial Actions

Check the following:

- The door interlock switch is closed.
- The xerographic module is correctly installed.

## Circuit Information

The +24V distribution in the machine can be divided into 3 stages; The first stage, +24V Direct is independent of the other two stages. The second stage, +24V Interlocked is derived from +24V Direct. The third stage, +24V Interlocked From the IOT PWB is derived from both +24V Direct and +24V Interlocked.

+24V failures will result in the following UI messages:

- Copying and scanning are unavailable
- Copying and printing are unavailable

Typical faults caused by +24V Copying and scanning are unavailable failures are; 03-480, 03-482, 06-340, 09-060, 14-110 and 14-730.

### +24V Direct

This supply feeds the power distribution PWB, DADH PWB and Scanner PWB. It also feeds the interlocked +24V circuit internally within the LVPS. This supply is not dependant on any interlocks and is available at power on. The supply is not fused, but the LVPS will shut the voltage down if the supply is short circuited. The voltage can be measured on the LVPS at P/J25 pins 1 and 2, but is more easily accessed on the power distribution PWB at P/J131 pins 1 and 2, refer to Figure 2.

### +24V Interlocked

This supply feeds the IOT PWB, main drive module, paper path module, ROS, Tray 1 and 2 control PWB and short paper path assembly. When +24V interlocked is available, CR16 on the IOT PWB is lit. The availability of +24V interlocked is dependant on the +12V interlock circuit being complete through the door interlock switch, xerographic module CRUM link and the main drive PWB, refer to the circuit diagram in the 01-300 Front Door Open RAP. When the +12V interlock circuit is complete, +24V interlocked will be available at P/J27 pins 1 and 2 on the IOT PWB, Figure 3. If the +24V interlocked supply is shorted, it will shut down the +24V direct supply from the LVPS.

### +24V Interlocked From the IOT PWB

The availability of +24V interlocked from the IOT PWB is dependant on +24V interlocked being available at P/J27 pins 1 and 2. The +24V interlocked from the IOT PWB is fused by a surface mounted fuse F1 (non replaceable), so a short on any of the IOT PWB +24V interlocked outputs will result in fuse F1 being blown and all +24V interlocked outputs not available. Be aware that a high resistance short circuit on any of the outputs will damage, but not blow fuse F1, resulting in measurements of +24V at the top cap (input) of fuse F1 and less than +24V (but not 0V) on the bottom cap of fuse F1.

## Procedure



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Do not repair or install a new fuse F1 on the IOT PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.



**WARNING**

Do not repair or install a new fuse F1 on the power distribution PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.



**WARNING**

Do not repair or install a new fuse F1 on the main drive PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.



**WARNING**

Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.



**CAUTION**

If the surface mounted fuse on the power distribution PWB, IOT PWB or main drive PWB has blown, do not install a new PWB until the cause of the fault is repaired.

Remove the rear cover, switch on the machine, GP 14. CR13, CR15 and CR36 on the IOT PWB are lit and stay lit.

Y N  
Go to the OF3 Dead Machine RAP

CR16 is lit.

Y N  
+24V is available at P/J27 pin 1 and pin 2, Flag 5.

Y N  
Switch off the machine, GP 14. Greater than 100 Ohms resistance is measured between P/J27 pin 1 and the machine frame, also between P/J27 pin 2 and the machine frame.

Y N  
There is a short circuit on the +24V interlocked circuit. Disconnect P/J27. Greater than 100 Ohms resistance is measured on the harness between P27 pin 1 and the machine frame, also between P27 pin 2 and the machine frame.

A B C

Y N

The IOT PWB is shorting the +24V interlocked to ground, a new IOT PWB will need to be installed. Before installing a new IOT PWB, check the fuse F1. If the fuse is open circuit the cause of the failure will need to be found, refer to Figure 2, Figure 3 and the Component list. Refer also to the 01H Short Circuit and Overload RAP. When the cause of the high resistance short circuit has been repaired, install a new IOT PWB, PL 1.10 Item 2.

Disconnect P/J18, Flag 16 and P/J19, Flag 17. **Less than 100 Ohms resistance is measured on the harness between P27 pin 1 and the machine frame, also between P27 pin 2 and the machine frame.**

Y N

Refer to Figure 5 and the Component list to isolate and repair the component that is causing the short.

Disconnect P/J17, Flag 15 and P/J16, Flag 11. **Less than 100 Ohms resistance is measured on the harness between P27 pin 1 and the machine frame, also between P27 pin 2 and the machine frame.**

Y N

Refer to Figure 4 and the Component list to isolate and repair the component that is causing the short.

Install a new LVPS and base module, PL 1.10 Item 3.

Switch on the machine, GP 14. **+10.9V or greater is available on P/J17 pin 6 (yellow wire, bottom of connector).**

Y N

The +12V interlock voltage used to maintain the +24V interlocked circuit is not available or below specification, go to the 01-300 Front Door Open RAP to fix the fault.

Switch off the machine, GP 14. Pull out the single board controller PWB module, PL 3.24 Item 1. Disconnect P/J131, Flag 1. Switch on the machine, GP 14. **+24V is available on the harness between P131 pin 1 to the machine frame and P131 pin 2 to the machine frame.**

Y N

Install a new LVPS and base module, PL 1.10 Item 3.

Components in the single board controller PWB module, scanner or DADH are shorting the +24V to ground, refer to Flag 1, Flag 2, Flag 3 and Flag 4 to isolate and repair the short circuit.

The fuse F1 on the IOT PWB is blown, therefore a new IOT PWB will need to be installed. Before installing a new IOT PWB, find the cause of the failure, refer to Figure 2, Figure 3 and the Component list. Refer also to the 01H Short Circuit and Overload RAP. When the cause of the high resistance short circuit has been repaired, install a new IOT PWB, PL 1.10 Item 2.

**NOTE:** CR16 will light at voltages of less than +24V.

**The voltage at P/J27 pin 1 and pin 2 is equal to or greater than +24V**

Y N

Install a new LVPS and base module, PL 1.10 Item 3.

**The voltage measured at the top cap of fuse F1 is the same as the voltage measured on the bottom cap of fuse F1.**

Y N

A high resistance short circuit has damaged the fuse F1. Identify and repair the cause of the high resistance short circuit, refer to Figure 2, Figure 3 and the Component list. Refer also to the 01H Short Circuit and Overload RAP. When the cause of the high resistance short circuit has been repaired, install a new IOT PWB, PL 1.10 Item 2.

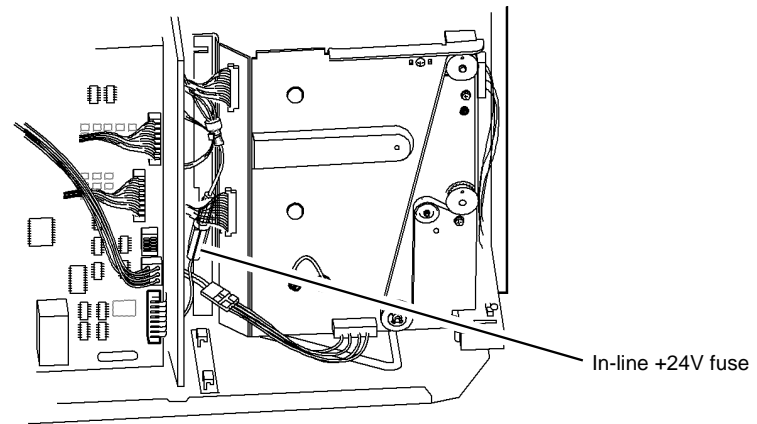
+24V interlocked is available to the IOT PWB, exercise the machine in all possible modes and make a note of what components are energized when the fault occurs. Refer to the Component list and the appropriate circuit diagram to isolate and repair the problem component or circuit.

## Component list

Refer to Figure 2, Figure 3, Figure 4 and Figure 5. Go to the appropriate component in the list that follows that has a suspect +24V supply. Inspect then re-seat all PJs and check the wiring, GP 7.

- Paper path module containing: in-line fuse and wiring, GP 7, PL 1.10 Item 9, Figure 1.
  - Flag 15, Erase lamp, (35 ppm) PL 9.22 Item 1, (45-90 ppm) PL 9.20 Item 1.
  - Flag 15, Inverter path solenoid, PL 10.11 Item 14.
  - Flag 15, Registration clutch, PL 8.15 Item 7.
  - Flag 15, Inverter nip solenoid, PL 10.11 Item 6.
  - Flag 15, Vacuum transport fan (part of short paper path assembly W/O TAG 114), PL 10.25 Item 1.
  - Flag 15, in-line fuse, PL 1.10 Item 9, Figure 1.
- Power distribution PWB, PL 3.24 Item 5.
  - Flag 1, P/J25, P/J131.
- IOT PWB, PL 1.10 Item 2.
  - Flag 5, P/J27.
- Main drive PWB, part of the main drive module, (35-55 ppm) PL 4.15 Item 6, (65-90 ppm) PL 4.10 Item 6.
  - Flag 11, P/J147, P/J16.
- ROS PL 6.10 Item 4
  - Flag 16, P/J18.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.
  - Flag 17, P/J270, P/J19.
- HCF control PWB (W/O TAG 151), PL 7.20 Item 2.
  - Flag 18, P/J272.
  - Flag 23, P/J7.
  - Flag 17, P/J270, P/J19.
- HCF control PWB (W/TAG 151), PL 7.21 Item 2.
  - Flag 18, P/J272.
  - Flag 22, P/J394.
  - Flag 17, P/J270, P/J19.

- DADH PWB, PL 5.10 Item 5.
  - Flag 3, P/J188.
  - Flag 2, P/J132.
  - Flag 1, P/J131, P/J25.
- Tray 5 control PWB, PL 7.68 Item 8.
  - Flag 20, P/J12.
  - Flag 21, P/J502, P/J501.
- Scanner PWB, W/TAG 150, PL 14.15 Item 4.
  - Flag 4, P/J920, P/J135.
  - Flag 1, P/J131, P/J25.
- Scanner PWB, W/O TAG 150, PL 14.25 Item 4.
  - Flag 4, P/J455, P/J135.
  - Flag 1, P/J131, P/J25.
- Inverter motor driver PWB, PL 10.11 Item 22.
  - Duplex motor driver PWB, (35-55 ppm) PL 8.22 Item 9, (65-90 ppm) PL 8.20 Item 9.
    - Flag 6, P/J4.
    - Flag 5, P/J27.
- Toner dispense module, (35-55 ppm) PL 9.17 Item 1, (65-90 ppm) PL 9.15 Item 1.
  - Flag 7, P/J6.
  - Flag 5, P/J27.
- Bypass tray feed solenoid, PL 7.30 Item 4.
  - Flag 8, P/J10.
  - Flag 5, P/J27.
- OCT Module, PL 12.10,
  - Flag 9, P/J11.
  - Flag 5, P/J27.
- HVPS, PL 1.10 Item 5.
  - Flag 10, P/J14, P/J55.
  - Flag 5, P/J27.
- Photoreceptor drive motor, part of the main drive module, (35-55) PL 4.15 Item 17, (65-90 ppm) PL 4.10 Item 17.
  - Flag 12, P/J151.
  - Flag 11, P/J147, P/J16.
- Ozone fan, PL 9.25 Item 1.
  - Flag 13, P/J153.
  - Flag 12, P/J151.
  - Flag 11, P/J147, P/J16.
- Fuser web motor, part of the main drive module, (35-55 ppm) PL 4.17 Item 1, (65-90 ppm) PL 4.12 Item 1.
  - Flag 14, P/J154.
  - Flag 11, P/J147, P/J16.



T-1-0032-A

**Figure 1 +24 volt in-line fuse**

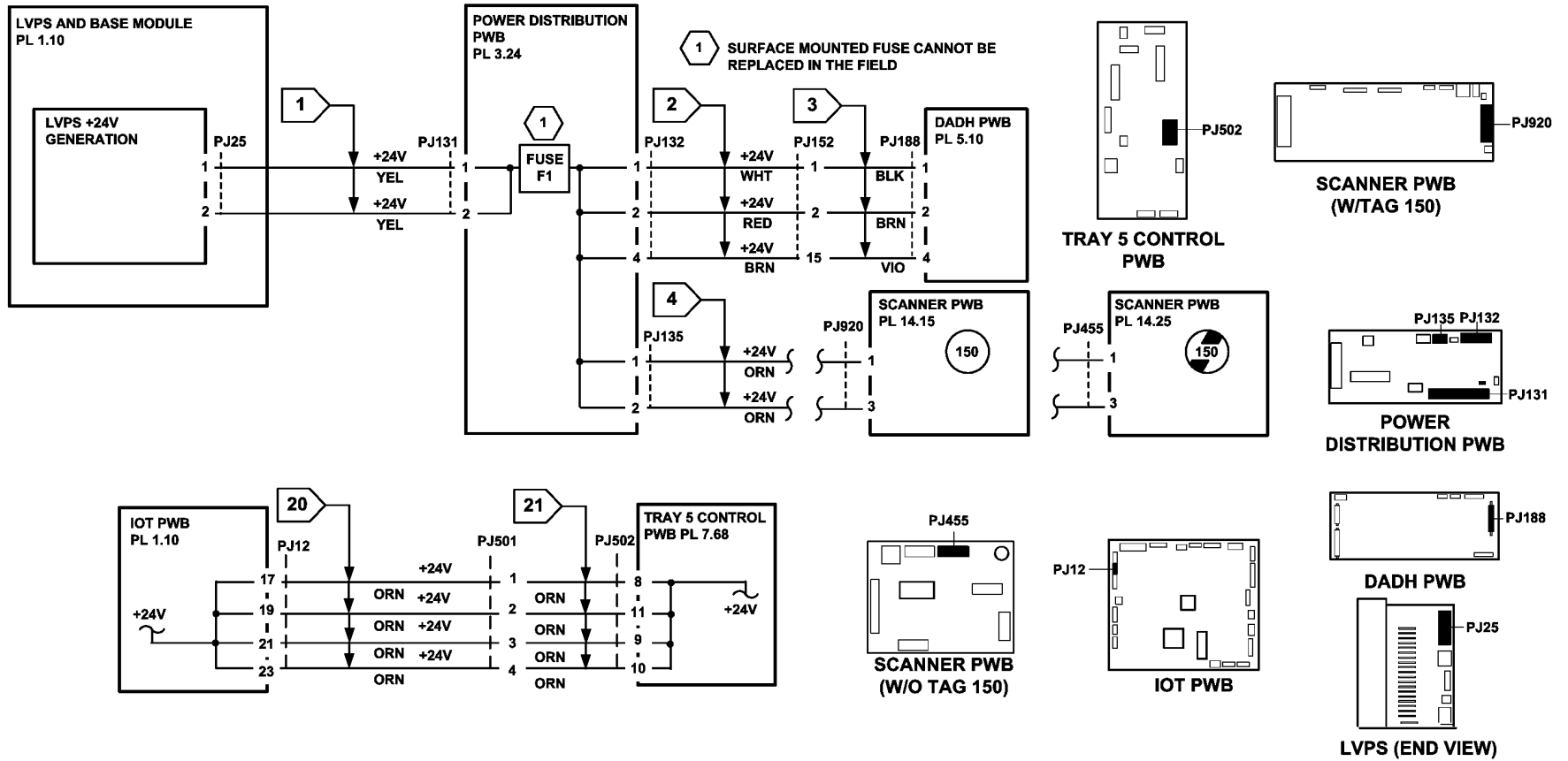


Figure 2 +24V distribution circuit diagram



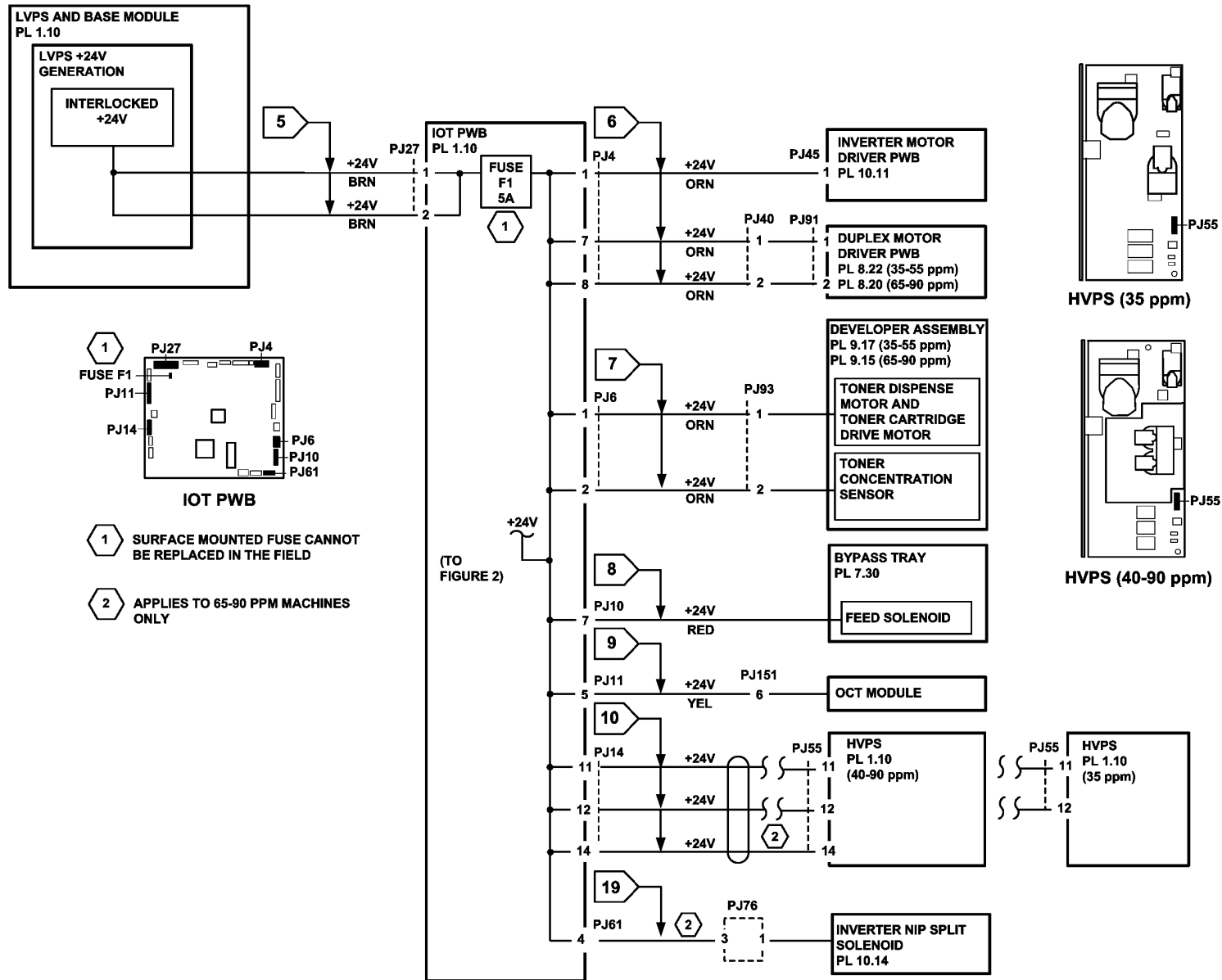
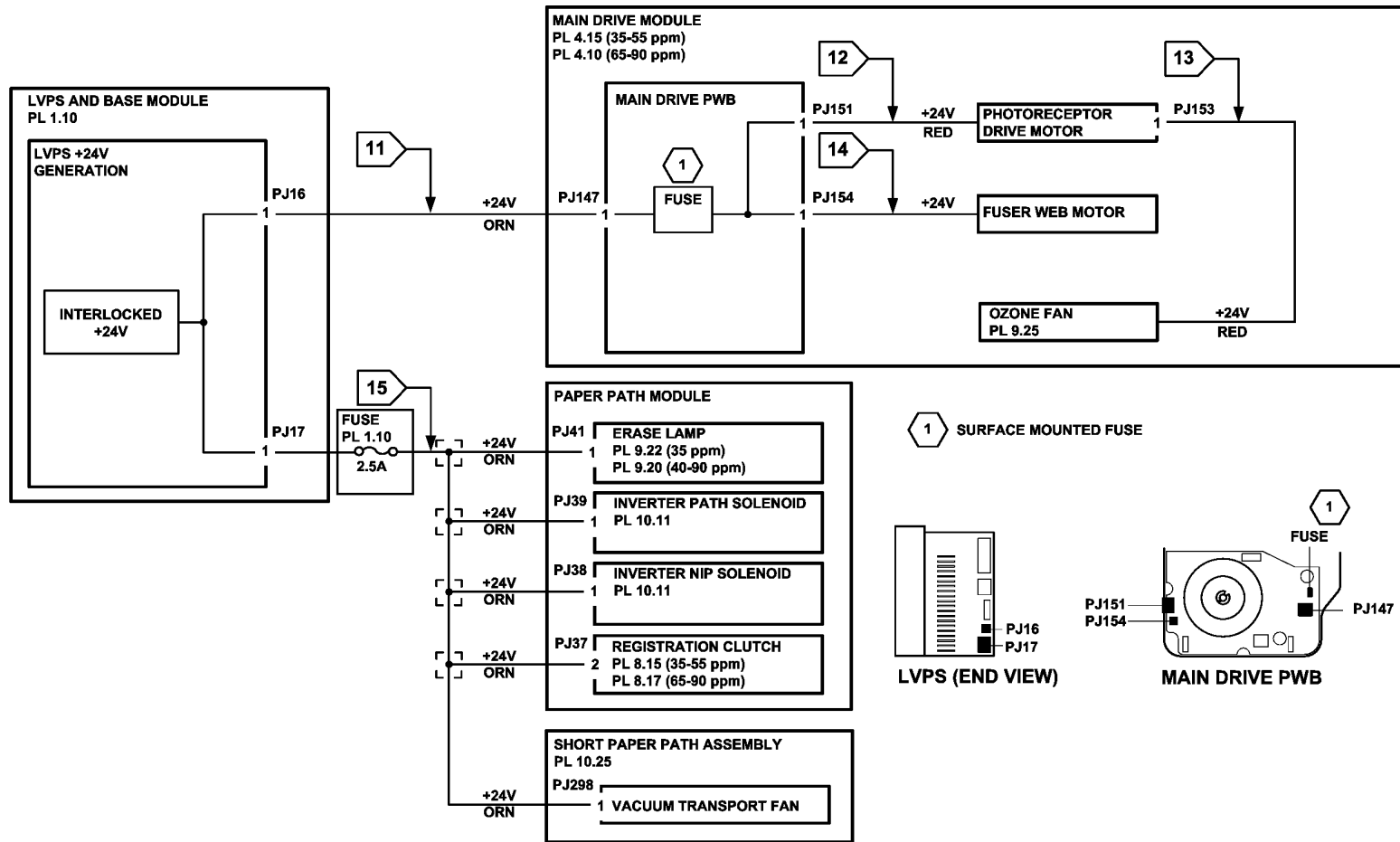


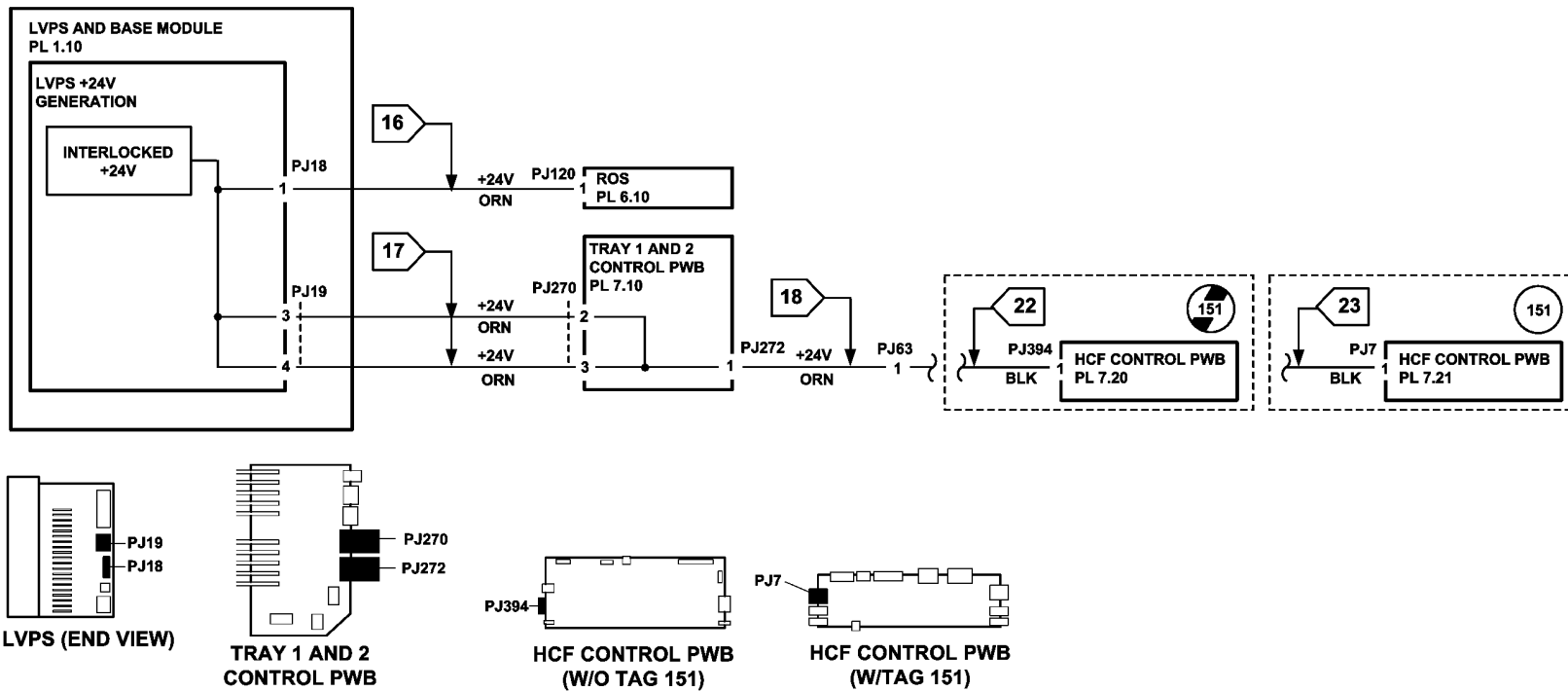
Figure 3 +24V distribution circuit diagram

TT-1-0064-A



TT-1-0065-A

Figure 4 +24V distribution circuit diagram



TT-1-0066-B

Figure 5 +24V distribution circuit diagram

# 01H Short Circuit and Overload RAP

## Procedural Notes



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- The LEDs, **Figure 1**, CR12, CR13, CR14, CR15 and CR36 on the IOT PWB are used to indicate that a supply voltage is available. Refer to **OF7** IOT PWB Diagnostics RAP.
- Short circuit or overload of +3.3VSB (standby) will result in all outputs off.
- Short circuit or overload of +3.3V or +5V will result in all outputs off, except +3.3VSB.
- Short circuit or overload of +12V or +24V will result in only those outputs being off.
- In all instances, when the short circuit or overload is removed all the outputs will recover to normal operating voltages after 10 seconds.
- If +3.3VSB is over voltage, all outputs will be off. To restore to normal, switch off the machine, **GP 14**. Wait two minutes. Switch on the machine.
- If +3.3V, +5V or +12V are over voltage, all outputs will be off, except +3.3VSB. To restore to normal, switch off the machine, **GP 14**. Wait two minutes. Switch on the machine.
- If the +24V is over voltage, only the 24V the output will be off. To restore to normal, switch off the machine, **GP 14**. Wait two minutes. Switch on the machine.



### WARNING

Do not repair or install a new fuse F1 on the IOT PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.



### WARNING

Do not repair or install a new fuse F1 on the power distribution PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.



### WARNING

Do not repair or install a new fuse F1 on the main drive PWB. Repairing or installing a new fuse can cause overheating and a risk of fire.



### WARNING

Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.

## Procedure

Switch off the machine, **GP 14**. Remove the rear cover, **PL 8.10** Item 1. Reconnect the power cord. **CR36 is on, Figure 1**.

Y N

Go to **01J** Power On and LVPS Control Signals RAP.

A

A

**NOTE:** To disconnect the connectors PJ16, PJ17, PJ18, PJ19 and PJ25 on the LVPS, open tray 1 and tray 2. Remove the screw that secures the power and control assembly, **PL 1.10**. Slide the power and control assembly to the left.

**NOTE:** Refer to **Figure 3** for the low voltage distribution. This is an overview of all the low voltage harnesses within the machine.

**NOTE:** Refer to **GP 7** at every harness check and if necessary perform, **REP 1.2**.

To check the output voltages of the LVPS, disconnect the following.

- **Figure 2**. PJ16, PJ17, PJ18, PJ19 and PJ25.
- **Figure 1**. All the PJ connectors on the IOT PWB, except PJ26 **Flag 24**, PJ27 **Flag 25** and PJ5 **Flag 15**.

Press the on / off switch, **PL 1.10** Item 8. **The LED CR36 is on.**

Y N

Check for a short circuit on the AC line. Go to **01C** AC Power RAP.

Press the on/off switch, **PL 1.10** Item 8. **The LEDs, CR12, CR13 and CR15 are on and stay on.**

Y N

Go to **Flag 15**. Measure the voltage at PJ5, pin 19. Press the on / off switch, **PL 1.10** Item 8. **The voltage changes from +3.5V to 0V.**

Y N

Check the wiring to the on / off switch, **GP 7**. If necessary, install a new on / off switch, **PL 1.10** Item 8.

Disconnect PJ26. Measure the voltage at the harness of PJ26, pin 7, **Flag 24**. **+1.16V is available at pin 7.**

Y N

Install a new LVPS and base module, **PL 1.10** Item 3.

Reconnect PJ26. Measure the voltage at the harness of PJ26, pin 7, **Flag 24**. Press the on / off switch. **The voltage changes from +1.16V to 0V and stays at 0V.**

Y N

Install new components in the order that follows:

1. Install a new LVPS and base module, **PL 1.10** Item 3.
2. Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10** Item 2.

Disconnect the power cord. Use a service multi-meter set to DC amps. Ensure the meter leads are connected to the correct meter sockets to measure amps. Connect the black lead to the machine frame. Reconnect the power cord. Use the probe on the red lead to ground PJ26, pin 7 to ground, through the multi-meter. When the LEDs CR27, CR28 and CR29 are flashing, press and release the on / off switch and remove the probe. **The LEDs, CR12, CR13 and CR15 are ON and stay ON.**

Y N

Set the service multi-meter to measure volts. Ensure the meter leads are connected to the correct meter sockets to measure volts. Measure the voltage at the harness of PJ26, pin 7, **Flag 24**. **0V is measured.**

Y N

Check that the F1 fuse on the IOT PWB has not failed. Go to **01H +24 Volt Circuits** before a new IOT PWB is installed, **PL 1.10** Item 2.

B

C

D

- B** | **C** | **D**
- Install a new LVPS and base module, [PL 1.10 Item 3](#).
- Set the service multi-meter to measure volts. Ensure the meter leads are connected to the correct meter sockets to measure volts. Measure the voltage at PJ25, pins 1 and 2, [Flag 5](#). **+24V is measured.**
- Y** | **N**
- Measure the voltage at the harness of PJ26, pin 9, [Flag 24](#). **0V is measured.**
- Y** | **N**
- Check that the F1 fuse on the IOT PWB has not failed. Go to [01H +24 Volt Circuits](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).
- Install a new LVPS and base module, [PL 1.10 Item 3](#).

Disconnect the power cord. Disconnect the in-line fuse in the harness from PJ17. Reconnect PJ16 and PJ17. Set the service multi-meter to measure amps. Ensure the meter leads are connected to the correct meter sockets to measure amps. Clip the black lead to the machine frame. Reconnect the power cord. Use the probe on the red lead to ground PJ26, pin 7 to ground. When the LEDs CR27, CR28 and CR29 are flashing, press and release the on/off switch and remove the probe. **The LEDs, CR12, CR13, CR15 and CR16 are ON and stay ON**

- Y** | **N**
- Check the interlock circuit, [Flag 26](#), [Flag 27](#) and [Flag 28](#). If the circuit is good, check that F1 fuse on the IOT PWB has not failed. Go to [01H +24 Volt Circuits](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

The LVPS is good. Continue at 01H Initial Isolation Check.

Disconnect the power cord. Reconnect PJ16 and PJ17. Connect the power cord. Press the on/off switch. **The LED CR16 is ON.**

- Y** | **N**
- Check the interlock circuit, [Flag 1](#), [Flag 2](#) and [Flag 6](#). If the circuit is good, go to [01H +24 Volt Circuits](#) before a new a new IOT PWB is installed, [PL 1.10 Item 2](#).

The LVPS is good. Go to the [01H Initial Isolation Check](#).

### 01H Initial Isolation Check

**NOTE:** After every disconnection, the on/off switch, [PL 1.10 Item 8](#), must be pressed. If CR12 and CR13 are not on, reconnect and go to the next step.

Disconnect the power cord. Reconnect all the disconnected PJ connections on the IOT PWB, LVPS and the power distribution PWB. Reconnect the power cord. Switch on the machine, [GP 14](#). If ALL the LEDs, [Figure 1](#), CR12, CR13, CR15 and CR16 are OFF, go to step 1. If the CR15 is OFF, go to [01H +12 Volt Circuits](#). If the CR16 is OFF, go to [01H +24 Volt Circuits](#).

- Disconnect PJ25, [Flag 5](#). If the LEDs CR12 and CR13 are on, check the harness from PJ25 to PJ131. If the harness is good, go to [01H +3.3 Volt and +5 Volt Circuits](#).
- Disconnect PJ18, [Flag 3](#). If the LEDs CR12 and CR13 are on, check the harness, [Flag 3](#), from PJ18 to the [ROS](#), [PL 6.10 Item 4](#). [WD 1](#).
- Disconnect PJ19, [Flag 4](#). If the LEDs CR12 and CR13 are on, check the harness, [Flag 4](#), from PJ19 on the [LVPS](#), to the Tray 1 and 2 Control PWB, [PL 7.10](#), [WD 1](#).
  - (W/O [TAG 151](#)) Check the harness at [Flag 7](#), [WD 20](#).
  - (W/[TAG 151](#)) Check the harness at [Flag 29](#), [WD 46](#) and [WD 47](#).
  - Check the harness, [Flag 4](#), from PJ19 on the [LVPS](#), to the Tray 1 and 2 Control PWB, [PL 7.10 Item 2](#), [WD 1](#).

- Disconnect PJ10, [Flag 20](#). If the LEDs CR12 and CR13 are on, check the harness, [Flag 20](#), from PJ10 on the [IOT PWB](#), to the bypass tray, [PL 7.30](#), [WD 10](#).
- Disconnect PJ11, [Flag 21](#). If the LEDs CR12 and CR13 are on, check the harness, [Flag 21](#), from PJ11 on the [IOT PWB](#) to the output devices, [WD 5](#).
- Disconnect PJ7, [Flag 19](#). If the LEDs CR12 and CR13 are on, check the harness, [Flag 19](#), from PJ7 to the components that follow:
  - Developer temperature sensor, (35 ppm) [PL 9.22 Item 5](#), (40-90 ppm) [PL 9.20 Item 5](#), [WD 10](#).
  - Relative humidity sensor, (35 ppm) [PL 9.22 Item 4](#), (40-90 ppm) [PL 9.20 Item 4](#), [WD 10](#).
  - Ambient temperature sensor, (35 ppm) [PL 9.22 Item 4](#), (40-90 ppm) [PL 9.20 Item 4](#), [WD 10](#).
  - Waste toner full sensor, [PL 9.10 Item 2](#), [WD 10](#).

### 01H +3.3 Volt and +5 Volt Circuits

**NOTE:** After every disconnection, the on / off switch, [PL 1.10 Item 8](#), must be pressed. If CR12 and CR13 are not on, reconnect and go to the next step.

- Perform the steps that follow:
  - Disconnect PJ137, [power distribution PWB](#). If the LEDs CR12 and CR13 are on, then check the harness, [Flag 11](#), from the [power distribution PWB](#) to PJ106 on the [single board controller PWB](#), [WD 3](#).
  - Disconnect PJ138 from the [power distribution PWB](#). If the LEDs, CR12 and CR13 are on, then check the harness, [Flag 12](#), to the [riser PWB](#), [WD 3](#)
- If no short circuit is found is found in the +3.3V and +5V circuits, go to [01H +3.3 Volt Circuits](#).

### 01H +3.3 Volt Circuits

**NOTE:** After every disconnection, the on / off switch, [PL 1.10 Item 8](#), must be pressed. If CR12 and CR13 are not on, reconnect and go to the next step.

- Disconnect PJ132, [power distribution PWB](#). If the LEDs, CR12 and CR13 are on, then check the harness, [Flag 8](#), to the [DADH PWB](#), [WD 3](#).
- Disconnect PJ133, [power distribution PWB](#). If the LEDs, CR12 and CR13 are on, then check the harness, [Flag 9](#), to the [UI control PWB](#), [WD 3](#).
- Disconnect PJ135, [power distribution PWB](#). If the LEDs, CR12 and CR13 are on, then check the harness, [Flag 10](#), to the [Scanner PWB](#) and [CCD PWB](#) (W/O [TAG 150](#)).
- If no failure is found in the +3.3V circuits, go to [01H +5 Volt Circuits](#).

### 01H +5 Volt Circuits

**NOTE:** After every disconnection, the on / off switch, [PL 1.10 Item 8](#), must be pressed. If CR12 and CR13 are not on, reconnect and go to the next step.

- Disconnect PJ8, [IOT PWB](#). If the LEDs CR12 and CR13 are on, then check the harness, [Flag 14](#), to the xerographic CRUM, part of the [xerographic module](#), (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#), and to the fuser CRUM, part of the [fuser module](#), (35-55 ppm) [PL 10.8](#) or (65-90 ppm) [PL 10.10 Item 1](#), [WD 6](#).
- Disconnect PJ9, [IOT PWB](#). If the LEDs CR12 and CR13 are on, then check the harness, [Flag 17](#), to tray 1 and 2 control PWB, [PL 7.10 Item 1](#), [WD 10](#).
- Disconnect PJ4, [IOT PWB](#). If the LEDs CR12 and CR13 are on, then check the harness, [Flag 16](#), to the inverter motor driver PWB, [PL 10.11 Item 22](#), and to the duplex motor driver PWB, (35-55 ppm) [PL 8.22 Item 9](#), (65-90 ppm) [PL 8.20 Item 9](#), [WD 7](#).

## 01H +12 Volt Circuits

**NOTE:** Before disconnection, switch off the machine, [GP 14](#). Switch on the machine, [GP 14](#), to check CR15.

CR15 is OFF. Check the harnesses that follow for a short circuit, until CR15 is on, [Figure 1](#).

1. Disconnect PJ25 on the [LVPS](#). CR15 is ON. Check from PJ25, [Flag 5](#), to the power distribution PWB, [WD 2](#). If the harness from PJ25 to PJ131 is good. Reconnect PJ25 and perform the steps that follow:
  - a. Disconnect PJ133 on the [power distribution PWB](#). Check the harness, [Flag 9](#), to PJ130 on the [UI control PWB](#), [PL 2.10](#).
  - b. Disconnect PJ135 on the [power distribution PWB](#). Check the harness, [Flag 10](#), to the [Scanner PWB](#) and [CCD PWB](#) (W/O TAG 150).
  - c. Disconnect PJ138 on the [power distribution PWB](#). Check the harness, [Flag 12](#), to PJ155 on the [riser PWB](#), [PL 3.22 Item 3](#).

## 01H +24 Volt Circuits

**NOTE:** Before disconnection, switch off the machine, [GP 14](#). Switch on the machine, [GP 14](#), to check CR16.

CR16 is OFF. Check the harnesses that follow for a short circuit, until CR16 is on, [Figure 1](#).

1. Disconnect PJ18 on the [LVPS](#). CR16 is ON. Check from PJ18 to the [ROS](#), [PL 6.10 Item 4](#), [WD 1](#).
2. Disconnect PJ19 on the [LVPS](#). CR16 is ON. Check from PJ19, [Flag 4](#), to the [tray 1 and 2 control PWB](#), [WD 1](#), [WD 20](#) and [WD 21](#).
3. Switch off the machine, [GP 14](#).

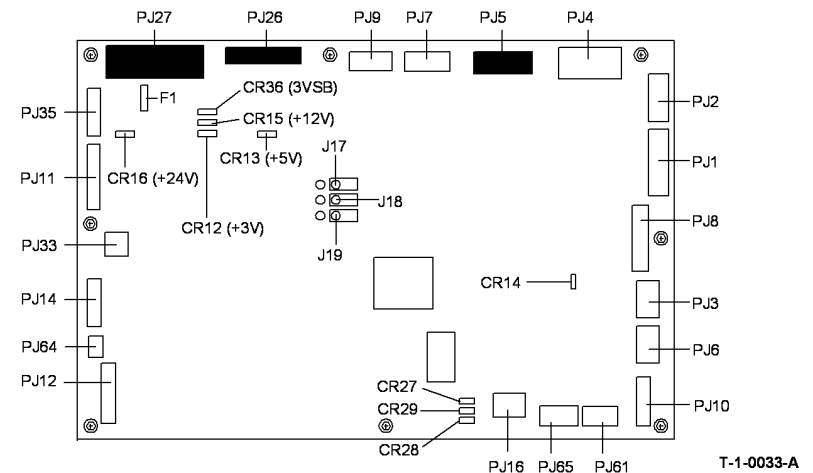
If the F1 fuse on the IOT PWB has failed. Set the meter to measure ohms. Connect the black lead to PJ27 pin 9 or pin 10 and the red lead to the bottom of the F1 fuse on the IOT PWB. If the output is shorted the measurement will be less than 1 ohm.

- a. Disconnect PJ3 on the [IOT PWB](#). If the measurement remains below 1 Ohm, this circuit is good, move to the next step. If the measurement changes to open circuit, check from PJ3, [Flag 13](#), to the [main drive PWB](#), [WD 6](#).
- b. Disconnect PJ4 on the [IOT PWB](#). If the measurement remains below 1 Ohm, this circuit is good, move to the next step. If the measurement changes to open circuit, check from PJ4, [Flag 16](#), to the inverter motor, [PL 10.11 Item 11](#), and the duplex motor, (35-55) [PL 8.22 Item 8](#), (65-90 ppm) [PL 8.20 Item 8](#), [WD 7](#).
- c. Disconnect PJ6 on the [IOT PWB](#). If the measurement remains below 1 Ohm, this circuit is good, move to the next step. If the measurement changes to open circuit, check from PJ6, [Flag 18](#), to PJ93 on the [developer module](#), [WD 10](#).
- d. Disconnect PJ10 on the [IOT PWB](#). If the measurement remains below 1 Ohm, this circuit is good, move to the next step. If the measurement changes to open circuit, check from PJ10, [Flag 20](#), to the paper tray bypass, [PL 7.30](#), [WD 10](#).
- e. Disconnect PJ11 on the [IOT PWB](#). If the measurement remains below 1 Ohm, this circuit is good, move to the next step. If the measurement changes to open circuit, check from PJ11, [Flag 21](#), to P/J151 and onto the output device, [WD 5](#).
- f. Disconnect PJ14 on the [IOT PWB](#). If the measurement remains below 1 Ohm, this circuit is good, move to the next step. If the measurement changes to open circuit, check from PJ14, [Flag 22](#), to PJ55 on the [HVPS](#), [PL 1.10](#), [WD 11](#).
- g. Install a new IOT PWB, [PL 1.10 Item 2](#).

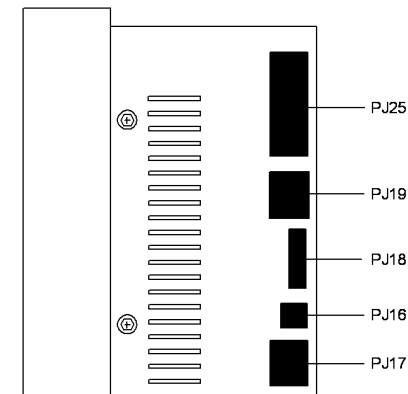
- h. If after completing the checks above, the F1 fuse on the IOT PWB fails. Switch off the machine, [GP 14](#). Install a new IOT PWB, [PL 1.10 Item 2](#).

Disconnect PJ3, PJ4, PJ6, PJ11 and PJ14. Switch off the machine, [GP 14](#) before a PJ is connected. Connect each PJ, one at a time until the PJ is found that causes the fuse to fail. Check and repair the harness or install new components as necessary.

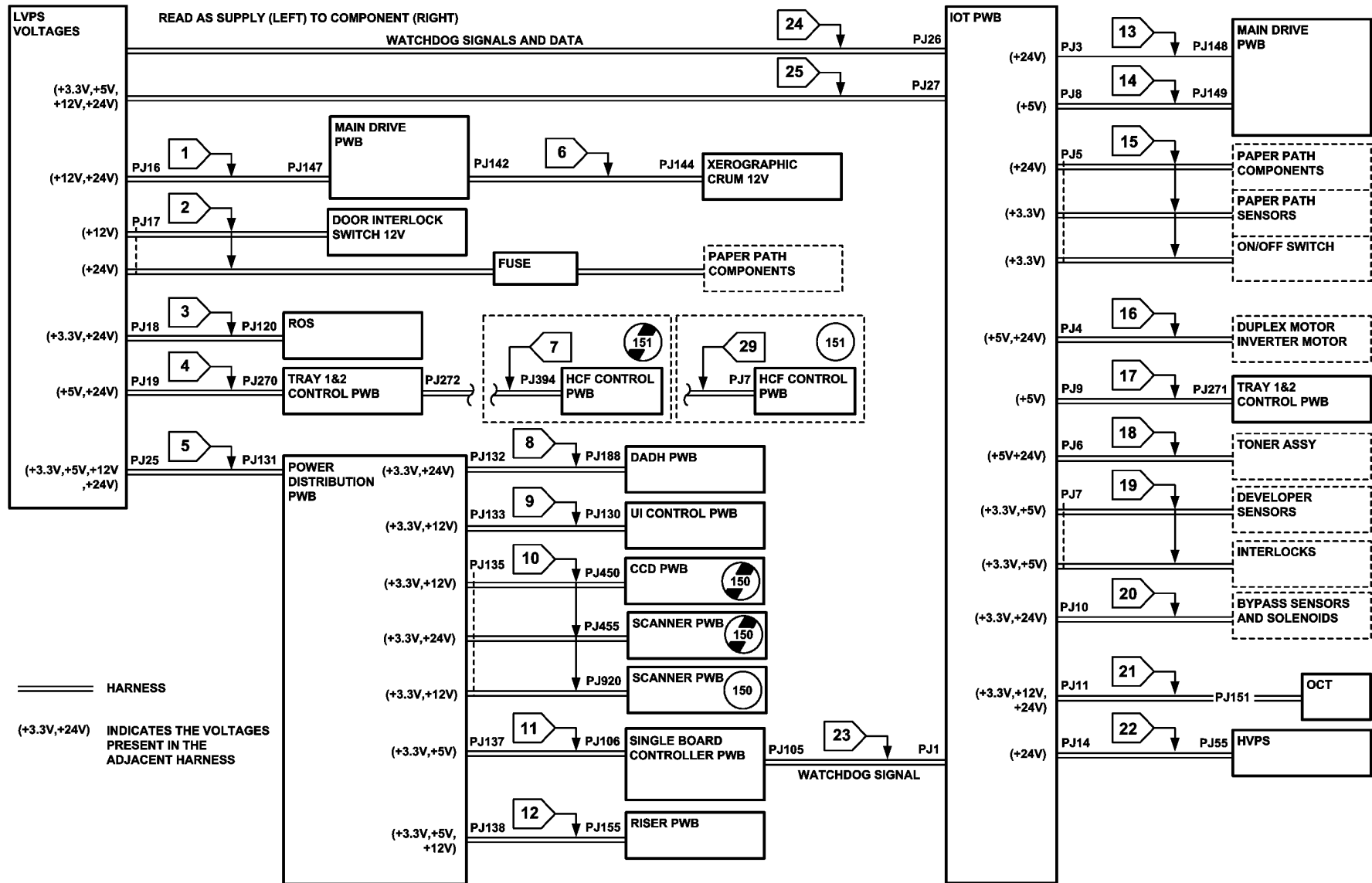
4. Switch on the machine, [GP 14](#).
5. Disconnect PJ132 on the [power distribution PWB](#), check the harness, to DADH, [Flag 8](#).
6. Disconnect PJ135 on the [power distribution PWB](#) check the harness, to the [CCD PWB](#) (W/O TAG 150) or [Scanner PWB](#) (W/TAG 150).



**Figure 1 IOT PWB, LED and PJ location**



**Figure 2 LVPS PJ location**



TT-1-0067-B

Figure 3 Low voltage distribution

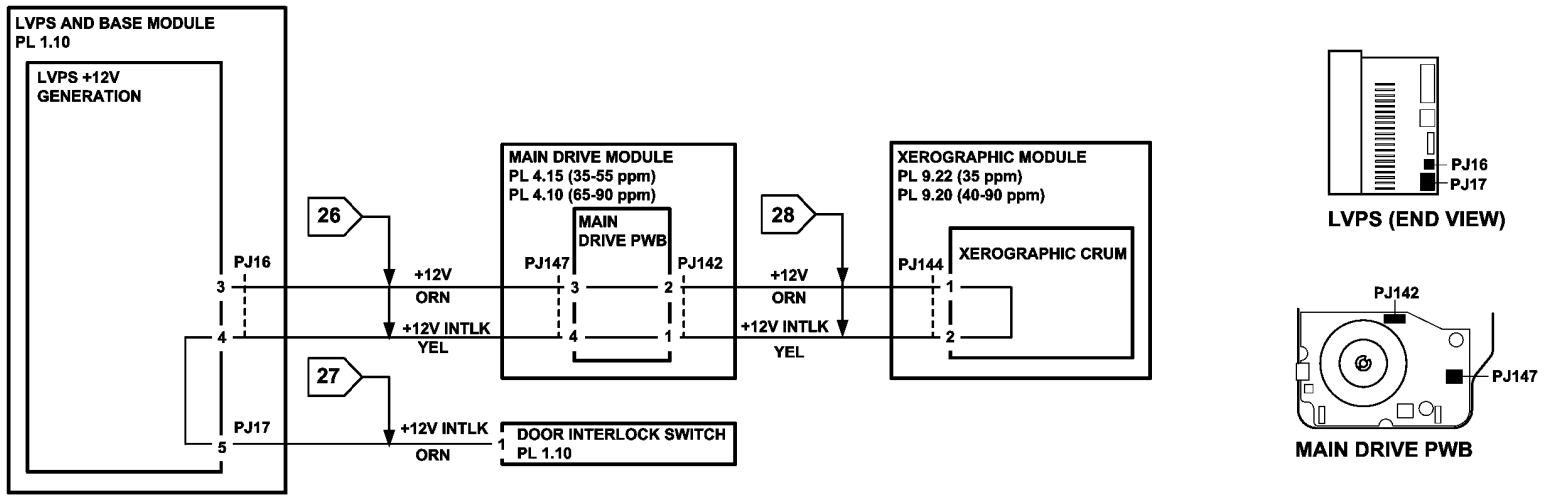


Figure 4 +12V interlock circuit diagram

TT-1-0274-A



## 01J Power On and LVPS Control Signal RAP

Use this RAP to check and identify power on and standby signals from the LVPS.

Also use this rap to identify problems that occur at or shortly after installation of machines fitted with a TAG 155 IOT PWB.

If any of the following problems occur on machines with a TAG 155 IOT PWB, go to the Tag 155 Procedure:

- Machine shuts down 4 to 6 seconds after power on
- Machine reboots
- Green screen at power on
- Copying and printing unavailable
- No media trays available
- Scanner unavailable or failed to initialize
- Configuration sheet does not auto print at power on
- IOT memory corruption
- Lost communications between the IOT PWB and the SBC PWB (fault code 03-300)
- Increased paper jam rate
- General print engine problems
- General finisher problems

### Procedural Notes

**NOTE:** Short circuit or overload of +3.3VSB (standby) will result in all the LVPS outputs off. Short circuit or overload of +3.3V or +5V will result in all the LVPS outputs off, except +3.3VSB.

**NOTE:** For an explanation of the LEDs on the IOT PWB and their function, go to OF7 IOT PWB Diagnostics RAP.

**NOTE:** +3.3VSB (standby) is generated from the LVPS when the machine is connected to the AC supply. +3.3VSB is required to initialize the machine from standby to power on.

**NOTE:** Ensure that the 01C AC Power RAP is performed before starting this RAP.

### Procedure



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Ensure that the machine is switched off, GP 14. Remove the rear cover, PL 8.10 Item 1. Reconnect the power cord. Check CR36, Figure 1. CR36 is on.

- |   |   |  |
|---|---|--|
| Y | N |  |
|   |   | Go to Flag 3. +3.3VSB is available at P/J27, between pin 6 and pin 14, on the IOT PWB.                       |
| Y | N |  |
|   |   | Disconnect P/J27. +3.3VSB is available at the disconnected end of the harness, P/J27, between pins 6 and 14. |
| Y | N |  |
|   |   | Go to 01C AC Power RAP.  |

A B C

A B C

Check the harness and connector P/J27, if necessary repair the harness/connector or install a new LVPS and base module, PL 1.10 Item 3.

Check the pin to pin connections of P/J27. If the connections are good, install a new IOT PWB, PL 1.10 Item 2. Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed.

Go to Flag 1. Monitor the voltage at P/J5, pin 19. Press the on/off switch, PL 1.10 Item 8. The voltage changes to 0V.

Y N

Check the wiring to the switch, GP 7. If necessary, repair the wiring or install a new on/off switch, PL 1.10 Item 8.

Monitor the voltage at P/J26, pin 7. Switch off the machine, then switch on the machine, GP 14. Go to Flag 2. The voltage changes from +2.3V to 0V.

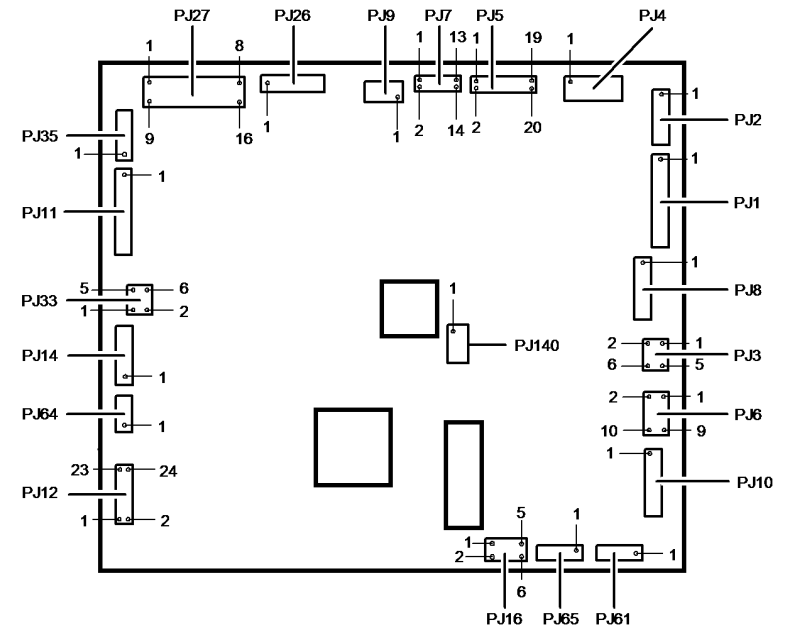
Y N

Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Go to the 01H Short Circuits and Overloads RAP.

### Tag 155 Procedure

Install the TAG 156 IOT jumper kit on J140 of the TAG 155 IOT PWB, Figure 1.



T-1-1038-B

Figure 1 P/J locations on the IOT PWB

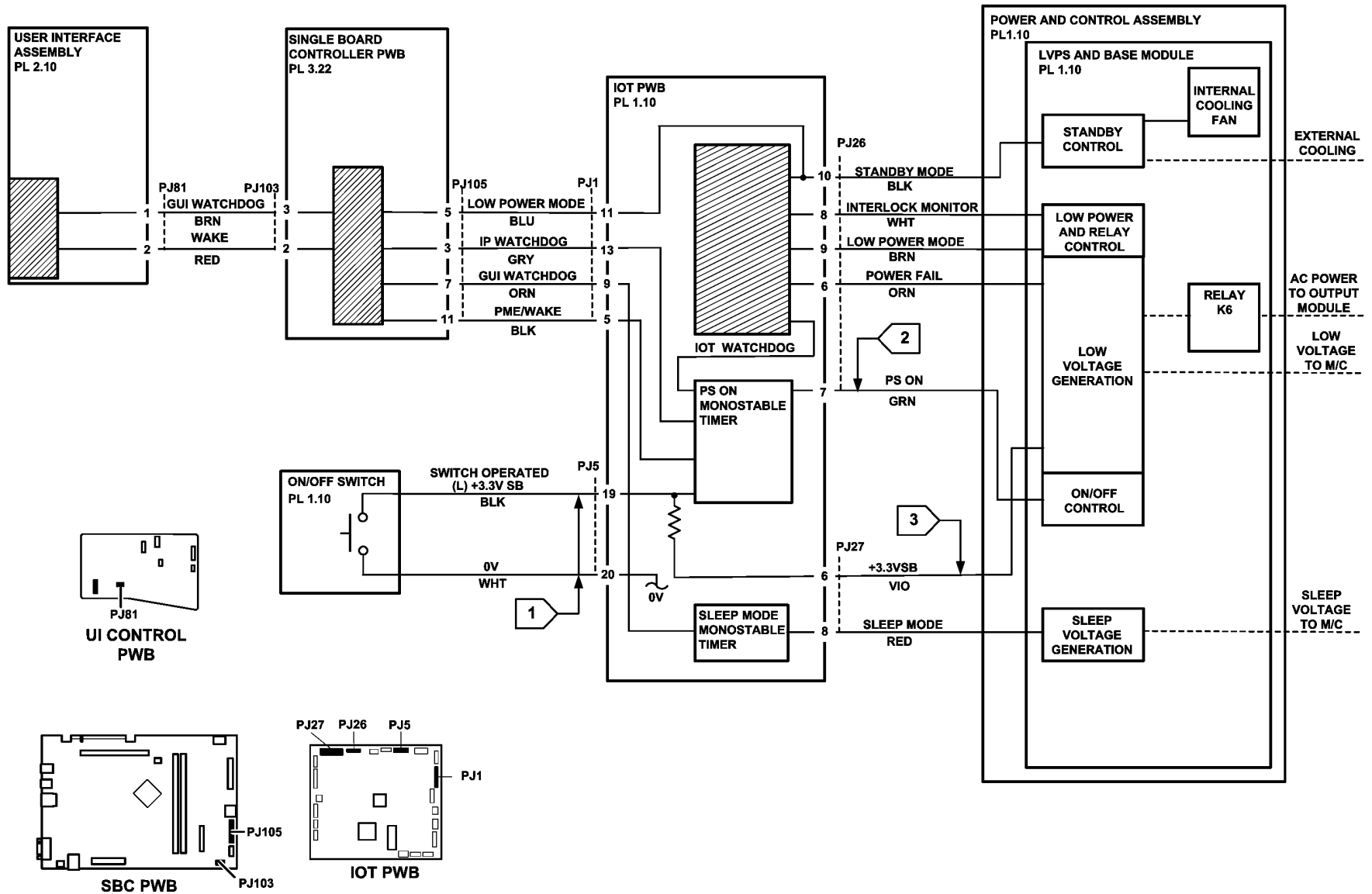


Figure 2 Power ON circuit and dependencies

TT-1-0068-A

## 01K Sleep Mode RAP

Use this RAP to diagnose problems entering or exiting sleep mode.

### Sleep Mode Operation

The machine is designed to be energy efficient by reducing the power consumption after periods of inactivity. The machine has three power modes:

- Standby or run mode - full power consumption. In this mode, the energy saver button, [Figure 1](#), is not illuminated.
- Low power mode - the fuser temperature is reduced to save power, yet allow a quick return to run temperature. In this mode, the energy saver button, [Figure 1](#), is illuminated.
- Sleep mode - power consumption for the whole machine is reduced to below 10 watts by powering down all but the essential parts, see the note below. In this mode, the energy saver button, [Figure 1](#), is blinking.

**NOTE:** When the machine is in sleep mode, +12V sleep is supplied from a special power supply located within the LVPS to the power distribution PWB. The power distribution PWB supplies +3.3V sleep and 12V sleep to power the PWBs that follow:

- Riser PWB.
- Fax PWB.
- Single board controller (SBC) PWB.
- UI control PWB.

### Off to Run Mode

When the On/off button is pressed, the IOT PWB sends the PS ON signal to the LVPS to power-on the low voltage DC outputs of the machine. The PS ON signal is diode coupled within the LVPS to the sleep signal, therefore whenever the main power supply is on, the sleep mode power supply is on. When the machine is in run mode the IOT watchdog signal and the SBC watchdog signal keep the PS ON signal active.

### Run Mode to Sleep Mode

After a period of machine inactivity that equates to the sum of the low power mode duration plus the sleep mode duration, as set in the customer tools options, both the SBC and IOT watchdogs are stopped. After approximately 4.5 seconds the PS ON signal goes inactive, causing the low voltage DC outputs of the machine to switch off. Before the SBC and IOT stop their watchdogs, the UI watchdog is started, this causes the sleep signal to be active; this in turn keeps the sleep mode power supply on when the main power supply switches off.

### Sleep Mode to Run Mode

Exit from sleep mode requires one of the wake events that follows to occur:

- An operator presses the on/off switch. This causes the IOT to generate the PS ON signal to the LVPS, which in turn switches on the low voltage DC outputs of the machine and also asserts the LOW PWR signal to enable AC power to the finisher.
- An operator touches the UI screen or presses any UI buttons. This causes the UI to activate the PME wake up signal. The wake signal is passed through the single board controller PWB to the IOT. This causes the IOT to generate the PS ON signal to the LVPS, which in turn switches on the low voltage DC outputs of the machine and also asserts the LOW PWR signal to enable AC power to the finisher.

- An incoming Fax job. To indicate a wake up call has been initiated the Fax PWB will generate a power management event/wake up (PME/wake up) signal. The PME/wake up signal is sent via the riser PWB through the PCI bus to the single board controller PWB to the IOT PWB. The IOT on/off control circuit detects the PME/wake up line is active and enables the PS ON signal to the LVPS, which in turn switches on the low voltage DC outputs of the machine, and also asserts the LOW PWR signal to enable AC power to the finisher.
- An incoming print job to the single board controller PWB will generate a power management event/wake up (PME/wake up) signal that is passed through single board controller PWB to the IOT PWB. This causes the IOT to generate the PS ON signal to the LVPS, which in turn switches on the low voltage DC outputs of the machine and also asserts the LOW PWR signal to enable AC power to the finisher.

### Reading or Setting the Power Save Duration Times

Access the power save feature by performing the following:

1. Access the customer administration tools screen, [GP 24](#).
2. Touch the More button.
3. Touch the Power Saver Administration button.
4. Set the Standby/Low Power duration times.
5. Touch save.

The default time for standby mode to low power mode is 15 minutes, the minimum value is 1, the maximum value is 120.

The default time for low power mode to sleep mode is 45 minutes, the minimum value is 10, the maximum value is 120.

To change either of the timing values, touch the appropriate input area, enter the new value using the keypad. Touch the Save button to confirm the change.

### Initial Actions

Make sure that the cooling fan, [PL 3.24 Item 2](#) is connected to PJ221 on the [Single Board Controller PWB](#), not PJ134 on the [Power distribution PWB](#).

If the machine does not go into low power mode and the machine has the embedded Fax option, ensure that the embedded Fax option has been enabled and set up. Sleep mode will not operate correctly if the embedded Fax option is not set up.

## Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to [Sleep Mode to Run Mode](#). The machine remains in sleep mode after a wake event.

Y N

Refer to [Run Mode to Sleep Mode](#). The machine remains in standby mode or low power mode after both power save duration times have elapsed.

Y N

The machine switches off when it should enter sleep mode.

Y N

The system is operating correctly, perform [SCP 6](#) Final Actions.

Perform the following:

- Refer to [Reading or Setting the Power Save Duration Times](#). Set both the standby mode to low power mode and the low power mode to sleep mode values to 1 minute.
- Disconnect the Fax telephone lines to prevent a power management event.
- Disconnect the ethernet connection [P/J114](#) to prevent a power management event.

Go to [Flag 1](#). Check the voltage at [P/J27](#) pin 8 on the [IOT PWB](#). After 2 minutes the voltage changes from +3.3V to 0V.

Y N

Go to [Flag 2](#). Check the wiring and connectors between PJ1 pin 9 and [P/J105](#) pin 7. Refer to the information that follows:

- [P/J1 IOT PWB](#).
- [P/J114 Single Board Controller PWB](#).

Go to [Flag 3](#). Check the wiring and connectors between [P/J103](#) pin 3 and PJ81 pin 1. Refer to the information that follows:

- [P/J103 Single Board Controller PWB](#)
- [P/J81 User interface PWB](#).

The wiring and connectors are good.

Y N

Repair the wiring, [REP 1.2](#).

Go to [Flag 8](#). Check for +3.3V at [P/J155](#) between pins 2 and 6, also check for +12V between pins 4 and 8. Refer to the information that follows:

- [P/J155 Riser PWB](#).

The voltages are good.

Y N

Go to [Flag 8](#). Check for +3.3V at the [Power distribution PWB](#) [P/J138](#) between pins 2 and 6, also check for +12V between pins 7 and 8. The voltages are good.

A

B

C

D

Y

N

Go to [Flag 5](#) and [Flag 7](#). Check for +12V at the [Power distribution PWB](#) [P/J131](#) between pins 17 and 13, also check for +12V between pins 14 and 18. The voltages are good.

Y N

Go to [Flag 5](#) and [Flag 7](#). Check for +12V at the [LVPS and base module](#) [P/J25](#) between pins 3 and 13, also check for +12V between pins 4 and 14. The voltages are good.

Y N

Install a new LVPS and base module, [PL 1.10 Item 3](#).

Check the wiring and connectors between [P/J25](#) and [P/J131](#). Repair the wiring as necessary, [REP 1.2](#).

Install a new Power distribution PWB, [PL 3.24 Item 5](#).

Go to [Flag 8](#). Check the wiring and connectors between [P/J138](#) and [P/J155](#). Repair the wiring as necessary, [REP 1.2](#).

Install new parts as necessary:

- User interface harness, [PL 2.10 Item 3](#).
- User interface control PWB, [PL 2.10 Item 11](#).
- User interface touch screen PWB, [PL 2.10 Item 6](#).
- User interface touch screen, [PL 2.10 Item 5](#).
- Single board controller PWB, [PL 3.24 Item 3](#).
- Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Install a new LVPS and base module, [PL 1.10 Item 3](#).

Perform the following:

- If the embedded fax option is installed, ensure it has been enabled and set up. If the customer does not use this option, it may be disabled via the tools menu, but the embedded fax must be set up to allow the operation of the Sleep Mode.
- Refer to [Reading or Setting the Power Save Duration Times](#). Set both the standby mode to low power mode and the low power mode to sleep mode values to 1 minute.
- Disconnect the input Fax line(s) to prevent a power management event.
- Disconnect from the network to prevent a power management event.
- Leave the machine untouched and observe the user interface.

After one minute the energy saver button illuminates, then after a further minute the energy saver button flashes.

Y N

Install a new IOT PWB, [PL 1.10 Item 2](#). Perform [OF7 IOT PWB Diagnostics RAP](#) before the new IOT PWB is installed. Return the power save settings to the previous values and reconnect the Fax and network lines. Perform [SCP 6](#) Final Actions.

The system is operating correctly. Return the power save settings to the previous values and reconnect the Fax and network lines. Perform [SCP 6](#) Final Actions.

A B C D

A

Status Indicator RAPs

01K

November 2014

2-60

Xerox® WorkCentre® 5790 Family

**A**  
Remove the rear cover, [PL 8.10 Item 1](#). Observe the LEDs on the IOT PWB, refer to the [OF7 IOT PWB Diagnostics RAP](#). **Only CR36 is lit.**

**Y N**  
Disconnect the power cord from the machine. Wait two minutes, then re-connect the power cord. **The machine remains in sleep mode.**

**Y N**  
The fault may be intermittent. If the fault re-occurs, perform an Altboot, [GP 4](#). If necessary, install a new single board controller PWB, [PL 3.24 Item 3](#).

Install a new single board controller PWB, [PL 3.24 Item 3](#).

**The wake event is from the user interface.**

**Y N**  
**The wake event is from the network.**

**Y N**  
**The wake event is from the Fax PWB.**

**Y N**  
Go to the [01J Power On and LVPS Control Signals RAP](#), check the operation of the on/off switch.

Perform the following:

1. Refer to [20A Fax Entry RAP](#) and complete all of the initial actions.
2. Remove and re-seat the Fax PWB and riser PWB, [REP 3.2](#).
3. Refer to [Reading or Setting the Power Save Duration Times](#). Set both the standby mode to low power mode and the low power mode to sleep mode values to 1 minute.
4. Go to [Flag 2](#), Measure the voltage at [P/J105](#) pin 11.
5. Leave the machine untouched, allow the machine to enter sleep mode.
6. Arrange for a Fax job to be sent from another machine to this machine.

**The voltage measured changes from +3.3V to 0V when the Fax arrives at the machine.**

**Y N**  
Go to [Flag 8](#). Check for +3.3V at PJ155 between pins 2 and 6, also check for +12V between pins 4 and 8. Refer to the information that follows:

- [P/J155 Riser PWB](#).

**The voltages are good.**

**Y N**  
Go to [Flag 8](#). Check for +3.3V at the [Power distribution PWB P/J138](#) between pins 2 and 6, also check for +12V between pins 7 and 8. **The voltages are good.**

**Y N**  
Go to [Flag 5](#) and [Flag 7](#). Check for +12V at the [Power distribution PWB P/J131](#) between pins 17 and 13, also check for +12V between pins 18 and 14. **The voltages are good.**

**Y N**  
Go to [Flag 5](#) and [Flag 7](#). Check for +12V at the [LVPS and base module P/J25](#) between pins 3 and 13, also check for +12V between pins 4 and 14. **The voltages are good.**

**Y N**  
Install a new LVPS and base module, [PL 1.10 Item 3](#).

**E F G H I J K**

**E F G H I J K**  
Check the wiring and connectors between [P/J25](#) and [P/J131](#). Repair the wiring as necessary, [REP 1.2](#).

Install a new power distribution PWB, [PL 3.24 Item 5](#).

Check the wiring and connectors between PJ138 and PJ155. Refer to the information that follows

- [P/J138 Power distribution PWB](#).
- [P/J155 Riser PWB](#).

Repair the wiring as necessary, [REP 1.2](#).

Install new parts as necessary:

- Fax PWB, [PL 20.10 Item 4](#).
- Riser PWB [PL 3.22 Item 3](#).
- Single board controller PWB [PL 3.24 Item 3](#).

Go to [Flag 2](#). Measure the voltage at [P/J1](#) pin 5 on the [IOT PWB](#).

Arrange for a Fax to be sent from another machine to this machine. **The voltage measured changes from +3.3V to 0V when the Fax arrives at the machine.**

**Y N**  
Check the wiring and connectors between PJ1 and PJ105. Refer to the information that follows:

- [P/J1 IOT PWB](#).
- [P/J114 Single Board Controller PWB](#).

Repair the wiring as necessary, [REP 1.2](#).

Go to [Flag 4](#). Measure the voltage at [P/J26](#) pin 7 on the [IOT PWB](#).

Arrange for a Fax job to be sent from another machine to this machine. **The voltage measured changes from +3.3V to 0V.**

**Y N**  
Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Install a new LVPS and base module, [PL 1.10 Item 3](#).

Go to [P/J114](#). Check the network connection. **The harness and connectors are good.**

**Y N**  
Install a new ethernet harness.

Perform the following:

1. Refer to [Reading or Setting the Power Save Duration Times](#). Set both the standby mode to low power mode and the low power mode to sleep mode values to 1 minute.
2. Disconnect the telephone network harness from the Fax PWB to prevent a power management event.
3. Go to [Flag 2](#). Measure the voltage at [P/J105](#) pin 11. Refer to the information that follows:
  - [P/J114 Single Board Controller PWB](#).
4. Leave the machine untouched, allow the machine to enter sleep mode.
5. Arrange for a print job to be sent from a PC to this machine.

**E**

The voltage measured changes from +3.3V to 0V, when the print job arrives at the machine.

Y N

Go to [Flag 8](#). Check for +3.3V at PJ155 between pins 2 and 6, also check for +12V between pins 4 and 8. Refer to the information that follows:

- [P/J155 Riser PWB](#).

The voltages are good.

Y N

Go to [Flag 8](#). Check for +3.3V at the [Power distribution PWB P/J138](#) between pins 2 and 6, also check for +12V between pins 7 and 8. The voltages are good.

Y N

Go to [Flag 5](#) and [Flag 7](#). Check for +12V at the [Power distribution PWB P/J131](#) between pins 17 and 13, also check for +12V between pins 14 and 18. The voltages are good.

Y N

Go to [Flag 5](#) and [Flag 7](#). Check for +12V at the [LVPS and base module P/J25](#) between pins 3 and 13, also check for +12V between pins 4 and 14. The voltages are good.

Y N

Install a new LVPS and base module, [PL 1.10 Item 3](#).

Check the wiring and connectors between [P/J25](#) and [P/J131](#). Repair the wiring as necessary, [REP 1.2](#).

Install a new power distribution PWB, [PL 3.24 Item 5](#).

Check the wiring and connectors between PJ138 and PJ155. Refer to the information that follows

- [P/J138 Power distribution PWB](#).
- [P/J155 Riser PWB](#).

Repair the wiring as necessary, [REP 1.2](#).

Install new parts as necessary:

- Riser PWB, [PL 3.22 Item 3](#).
- Single board controller PWB, [PL 3.24 Item 3](#).

Go to [Flag 2](#). Measure the voltage at [P/J1](#) pin 5 on the [IOT PWB](#). Arrange for a print job to be sent from a PC to this machine. The voltage measured changes from +3.3V to 0V when the print job arrives at the machine.

Y N

Check the wiring and connectors between PJ1 and PJ105. Refer to the information that follows:

- [P/J1 IOT PWB](#).
- [P/J114 Single Board Controller PWB](#).

Repair the wiring as necessary, [REP 1.2](#).

Go to [Flag 4](#). Measure the voltage at [P/J26](#) pin 7 on the [IOT PWB](#). Arrange for a print job to be sent from a PC to this machine. The voltage measured changes from +3.3V to 0V when the print job arrives at the machine.

Y N

Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Install a new LVPS and base module, [PL 1.10 Item 3](#).

Go to [Flag 3](#). Measure the voltage at [P/J81](#) pin 2 on the [User interface PWB](#).

**NOTE:** Any voltage change will be small. Less than 1V.

The voltage changes when the UI screen is touched or a UI button is pressed.

Y N

Go to [Flag 6](#). +3.3V is available at [P/J130](#) on the [User interface PWB](#) between pins 1 and 2.

Y N

Go to [Flag 6](#). +3.3V is available at [P/J133](#) on the [Power distribution PWB](#) between pins 3 and 4.

Y N

Go to [Flag 5](#) and [Flag 7](#). +12V is available at [P/J131](#) on the [Power distribution PWB](#) between pins 13 and 17 and also between pins 14 and 18.

Y N

Go to [Flag 5](#) and [Flag 7](#). +12V is available at [P/J25](#) on the [LVPS and base module](#) between pins 13 and 3 and also between pins 4 and 14.

Y N

Install a new LVPS and base module, [PL 1.10 Item 3](#).

Check the wiring and connectors between [P/J25](#) and [P/J131](#). Repair the wiring, [REP 1.2](#), as necessary.

Install a new power distribution PWB, [PL 3.24 Item 5](#).

Check the wiring and connectors between [P/J133](#) and [P/J130](#). Repair the wiring, [REP 1.2](#), as necessary.

Install new parts as necessary:

- User interface harness, [PL 2.10 Item 3](#).
- User interface control PWB, [PL 2.10 Item 11](#).
- User interface touch screen PWB, [PL 2.10 Item 6](#).
- User interface touch screen, [PL 2.10 Item 5](#).

Go to [Flag 3](#). Measure the voltage at PJ103 pin 2. Refer to the information that follows:

- [P/J103 Single Board Controller PWB](#)

The voltage changes from +3.3V to 0V when the UI screen is touched or a UI button is pressed.

Y N

Check the wiring and connectors between PJ103 and PJ81.

- [P/J103 Single Board Controller PWB](#)
- [P/J81 User interface PWB](#).

Repair the wiring, [REP 1.2](#), as necessary.

L  
Go to **Flag 2**. Measure the voltage at **P/J105** pin 11. Refer to the information that follows:

- **P/J114 Single Board Controller PWB**

The voltage changes from **+3.3V to 0V** when the UI screen is touched or a UI button is pressed.

Y N

Install a new single board controller PWB, **PL 3.24 Item 3**.

Go to **Flag 2**. Measure the voltage at **P/J1** pin 5 on the **IOT PWB**. The voltage changes from **+3.3V to 0V** when the UI screen is touched or a UI button is pressed.

Y N

Check the wiring and connectors between **PJ1** and **P/J105**. Refer to the information that follows:

- **P/J1 IOT PWB**.
- **P/J114 Single Board Controller PWB**

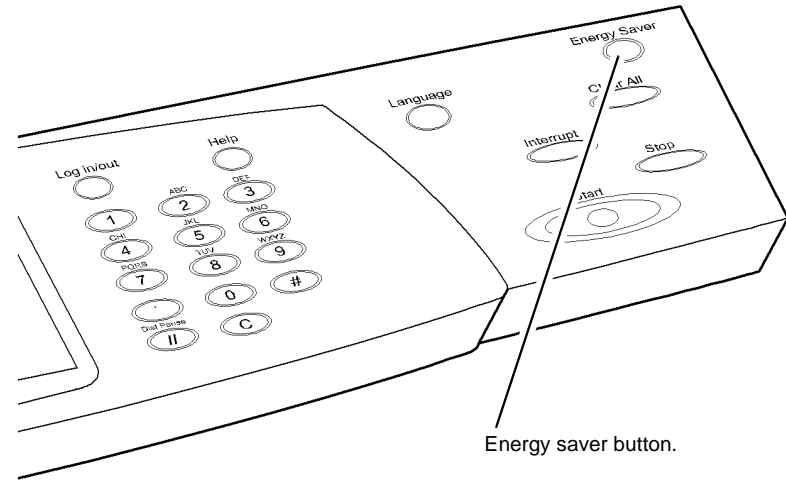
Repair the wiring, **REP 1.2** as necessary.

Go to **Flag 4**. Measure the voltage at **P/J26** pin 7 on the **IOT PWB**. The voltage changes from **+3.3V to 0V** when the UI screen is touched or a UI button is pressed.

Y N

Perform **OF7 IOT PWB Diagnostics RAP** before a new IOT PWB is installed, **PL 1.10 Item 2**.

Install a new LVPS and base module, **PL 1.10 Item 3**.



T-1-0036-A

Figure 1 Component location

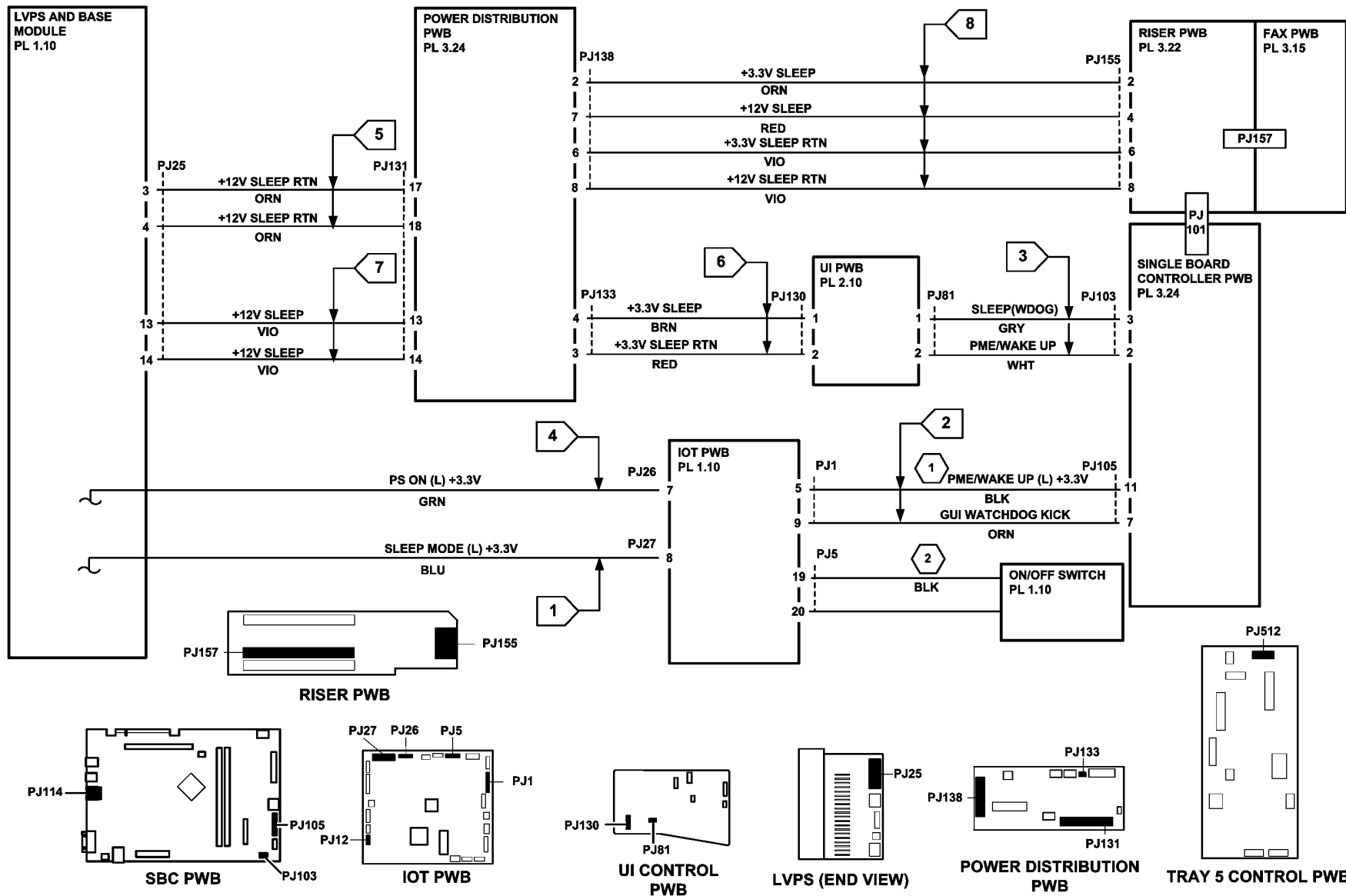


Figure 2 Circuit diagram

TT-1-0069-B



## 02-309 UI Control Panel Button or Touch Screen RAP

02-309 The User Interface Button Test or the Touch Area Test failed during the UI Test.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



*Before a new user interface assembly is installed, identify the software level ([GP 4](#)). Check the compatibility of the software on the new user interface assembly. Install the software to meet the customer machine requirements.*

Perform the next steps:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Reload the UI software, [GP 4](#).
3. Check the condition of CR12 and CR15 on the IOT PWB, refer to the [OF7](#) IOT PWB Diagnostics RAP.
4. Enter [dC305](#) UI test. Perform the Communications Self Test.
5. Check the harness connections between the user interface, [PL 2.10](#) and the single board controller PWB, [PL 3.24](#) Item 3.
6. Install new components as necessary:
  - UI control PWB, [PL 2.10](#) Item 11.
  - UI touch screen PWB, [PL 2.10](#) Item 6.
  - UI touch screen, [PL 2.10](#) Item 5.

## 02-320, 02-380 UI Communication Test RAP

02-320 The UI does not receive the requested data from the single board controller PWB within the correct time out period.

02-380 UI main controller communications test failed.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the next steps:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Enter [dC305](#) UI test. Perform the Communications Self Test.
3. Go to the [03-310](#) Single Board Controller PWB to UI Errors RAP.

## 02-390, 02-391, 02-704, 02-706 UI Software Error RAP

**02-390** All of the configured services have not reached a stable state after five minutes from start.

**02-391** All the services are not registered when the single board controller PWB/UI synchronization has occurred.

**02-704** Application software checksum has failed.

**02-706** UI VRAM failure.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



*Before a new user interface assembly is installed, identify the software level ([GP 4](#)). Check the compatibility of the software on the new user interface assembly. Install the software to meet the customer machine requirements.*

Perform the next steps:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Enter [dC305](#) UI test. Perform the Application Checksum Verification Test.
3. Reload the UI software, [GP 4](#).
4. Install new components as necessary:
  - UI control PWB, [PL 2.10 Item 11](#).
  - UI touch screen PWB, [PL 2.10 Item 6](#).
  - UI touch screen, [PL 2.10 Item 5](#).

## 02-392 Custom Services Access RAP

**02-392** User interface/USB communication error.

### Procedure

Go to the [OF14](#) Extensible Interface Platform RAP.

## 02-705, 02-707, 02-709, 02-712, 02-715 UI Failure RAP

**02-705** The UI audio tones failed to operate.

**02-707** Indicate a fault with a button on the UI control panel.

**02-709** Indicate a fault with the touch screen on the UI.

**02-712** UI LCD module test failed.

**02-715** The LED control panel indicator test has failed.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



*Before a new user interface assembly is installed, identify the software level (GP 4). Check the compatibility of the software on the new user interface assembly. Install the software to meet the customer machine requirements.*

Perform the next steps:

1. Switch off the machine, then switch on the machine, GP 14.
2. Enter dC305 UI test. Perform the relevant test.
3. Reload the UI software, GP 4.
4. Install new components as necessary:
  - UI control PWB, PL 2.10 Item 11.
  - UI touch screen PWB, PL 2.10 Item 6.
  - UI touch screen, PL 2.10 Item 5.



## 03-300, 306, 461, 482, 805, 870 Single Board Controller PWB to IOT PWB Error RAP

**03-300** The single board controller PWB to IOT communications have failed.

**03-306** The IOT PWB has received an inappropriate print command from the single board controller PWB.

**03-461** A speed mismatch has been detected between the single board controller PWB and the IOT PWB, in the NVM settings.

**03-482** The single board controller PWB has failed to receive a +24V on signal from the IOT PWB.

**03-805** The IOT PWB has received an un-recognized message from the single board controller PWB.

**03-870** The IOT PWB cannot be recognized by the single board controller PWB.

### Initial Actions

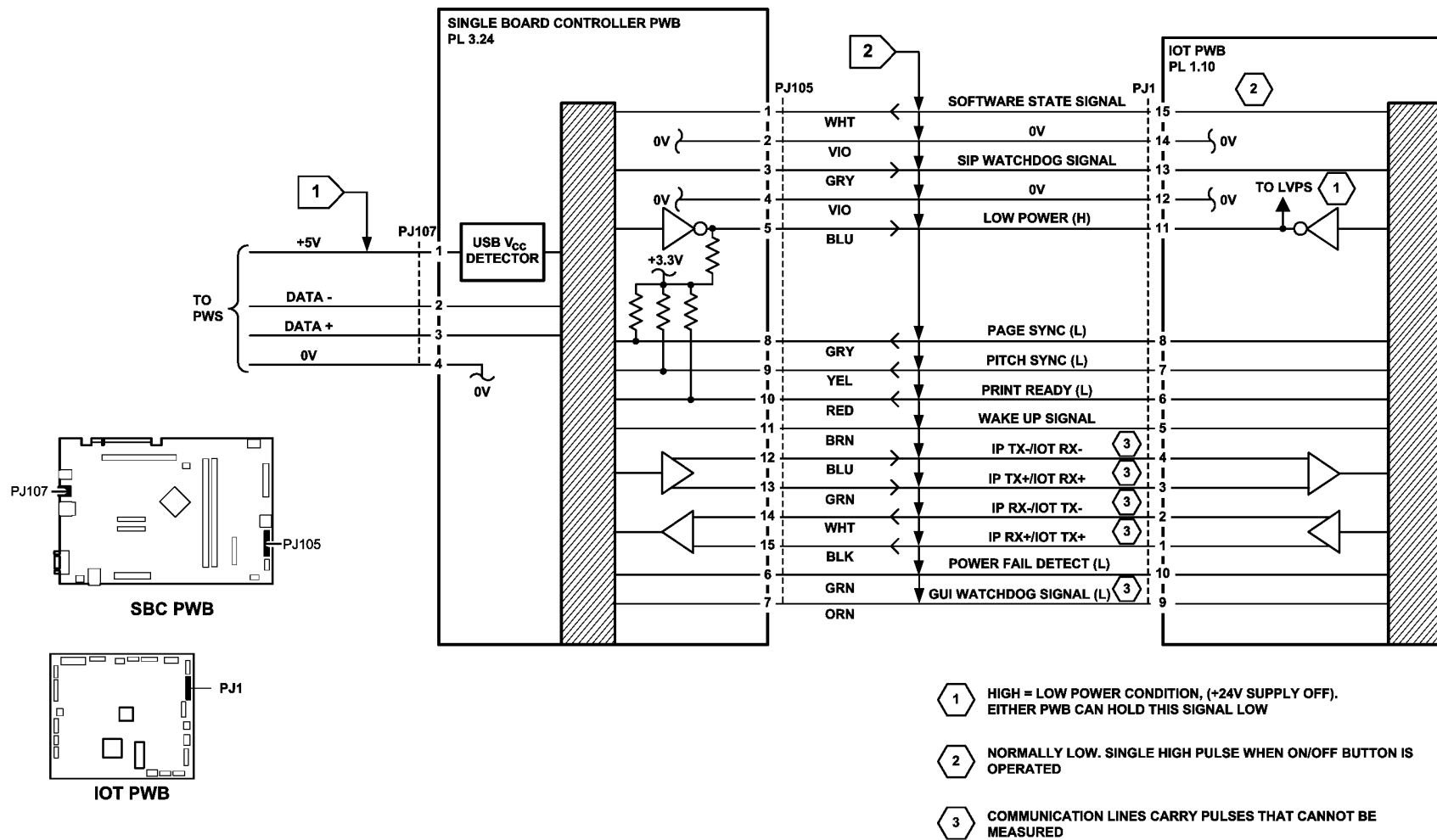


**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- If the fault occurs during a software upgrade, wait 15 minutes for the software programming operation to complete, before the next action.
- Switch off the machine, then switch on the machine, GP 14. If the on/off switch fails to operate, go to the 03-374 Power Off Failure RAP.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to OF10 intermittent Failure RAP.
- If an 03-300 fault occurs with 03-320, 03-330 and 03-340 fault codes, together with a network controller unavailable message, go to the 03D Software Module Failure RAP.

### Procedure

1. Switch off the machine, GP 14. Ensure all the connectors on the single board controller PWB, PL 3.24 Item 3 and the IOT PWB, PL 1.10 Item 2 are correctly and securely seated. Switch on the machine, GP 14.
2. If the fault was detected during a software upgrade, go to Flag 1. Check P/J107 on the single board controller PWB. Re-load the software set, GP 4 Machine Software.
3. Perform OF7 IOT PWB Diagnostics RAP.
4. Go to Flag 2. Check the wiring, GP 7. If necessary, install a new single board controller PWB module / LVPS / IOT PWB harness, PL 3.24 Item 14.
5. **03-461 Only:** Go to the OF7 IOT PWB Diagnostics RAP. Check CR 27 for an indication of NVM Test Failure.
6. Install a new IOT PWB, PL 1.10 Item 2. Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed.
7. Install a new single board controller PWB, PL 3.24 Item 3.



TT-1-0070-A

Figure 1 Circuit diagram

## 03-310 Single Board Controller PWB to UI Error RAP

**03-310** The single board controller PWB cannot communicate with the UI within one minute of power-on or after three retries.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, **GP 14**.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to **OF10** intermittent Failure RAP.

### Procedure

1. Ensure all the connectors on the single board controller PWB, **PL 3.24 Item 3** and UI control PWB, **PL 2.10 Item 11** are correctly and securely seated.
2. Go to **Flag 1**, **Flag 2** and **Flag 3**. Check the wiring. Repair or install new harnesses as necessary, **PL 2.10**.
3. Go to **Flag 1**. Check the voltages. Refer to:
  - **01B** 0V Distribution RAP.
  - **01D** +3.3V Distribution RAP.
  - **01F** +12V Distribution RAP.
4. Install new components as necessary:
  - Single board controller PWB, **PL 3.24 Item 3**.
  - UI control PWB, **PL 2.10 Item 11**.

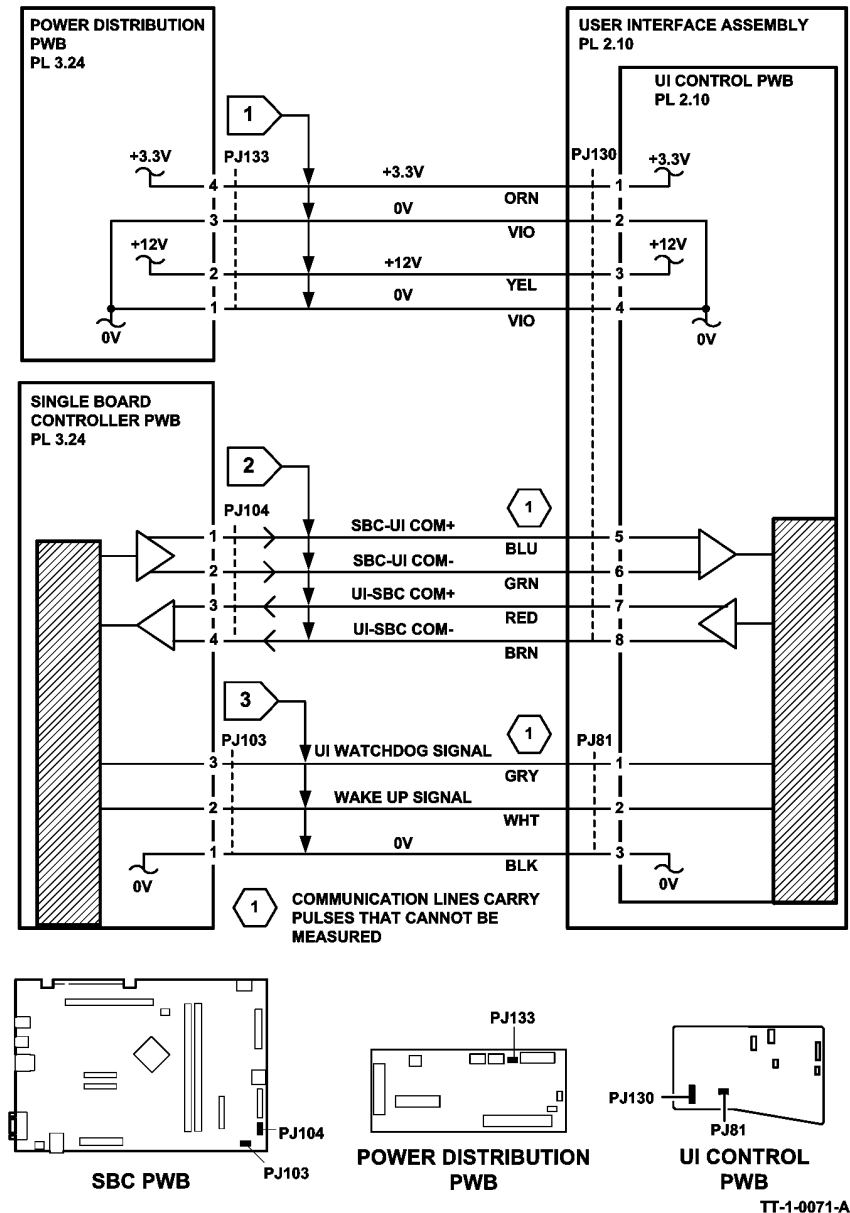


Figure 1 Circuit diagram

## 03-315, 325, 347, 348, 349, 355, 400 Single Board Controller PWB Failure RAP

**03-315** The single board controller PWB has performed a crash recovery procedure.

**03-325** A single board controller PWB clock is not functioning.

**03-347** The single board controller PWB POST has failed the EPC test.

**03-348** The single board controller PWB POST has failed the ASIC test.

**03-349** The single board controller PWB POST has failed the rotation memory test.

**03-355** The single board controller PWB POST has failed the NVM integrity test.

**03-400** The single board controller PWB cannot detect additional EPC memory.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, **GP 14**.
- Check that the single board controller PWB cooling fan is operating. If necessary, go to the **03A** Single Board Controller PWB Cooling Fan Failure RAP.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to **OF10** intermittent Failure RAP.

### Procedure

1. Ensure all the connectors on the PWBs that follow are correctly and securely seated:
  - Single board controller PWB, **PL 3.24 Item 3**.
  - Software module, **PL 3.24 Item 8**.
  - Memory module, **PL 3.24 Item 12**.
  - (W/TAG 150) Scanner daughter PWB, **PL 3.24 Item 20**.
2. Install new parts as necessary:
  - Memory module, **PL 3.24 Item 12**.
  - Software module, **PL 3.24 Item 8**.
  - (W/TAG 150) Scanner daughter PWB, **PL 3.24 Item 20**.
  - Single board controller PWB, **PL 3.24 Item 3**.
3. If a 03-315 fault persists, Remove the Fax PWB and riser PWB. If the 03-315 fault is now cleared, install new parts as necessary:
  - Fax PWB, **PL 20.10**.
  - Riser PWB, **PL 3.22 Item 3**.
  - Compact flash memory (If an R9 Fax is installed), **PL 20.10 Item 3**.

## 03-320 to 03-324 Single Board Controller PWB to DADH Error RAP

**03-320** Communications between the single board controller PWB and the DADH have failed.

**03-321** Communications between the single board controller PWB and the DADH are out of sequence.

**03-322** The DADH has detected a read/write error.

**03-323** The DADH has detected a software error.

**03-324** The DADH has detected a boot check sum error.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Remove originals from the DADH.
- Switch off the machine, then switch on the machine, **GP 14**.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to the **OF10** intermittent Failure RAP.
- If an 03-320 fault occurs with 03-300, 03-330 and 03-340 fault codes, together with a network controller unavailable message, go to the **03D** Software Module Failure RAP.

### W/O TAG 005 Procedure

1. Ensure all the connectors on the PWBs that follow are correctly and securely seated:
  - Single board controller PWB, **PL 3.24 Item 3**.
  - Scanner daughter PWB, **PL 3.24 Item 20**.
  - Power distribution PWB, **PL 3.24 Item 5**.
  - DADH PWB, **PL 5.10 Item 5**.Check also, the in-line connector in the communications/power cable, **PL 5.10 Item 6**.
2. Go to **Flag 2**. Check the voltages. Refer to:
  - **01B** 0V Distribution RAP.
  - **01D** +3.3V Distribution RAP.
  - **01G** +24V Distribution RAP.
3. Go to **Flag 1** and **Flag 2**. Check the wiring, **GP 7**. If necessary, install a new communication/power cable, **PL 5.10 Item 6**.
4. If the fault was detected during a software upgrade, go to **Flag 3**. Check the connection. Reload the software, **GP 4**, Machine Software.
5. Install new components as necessary:
  - Single board controller PWB, **PL 3.24 Item 3**.
  - DADH PWB, **PL 5.10 Item 5**.



## W/TAG 005 Procedure

1. Ensure all the connectors on the PWBs that follow are correctly and securely seated:
  - Scanner PWB, [PL 14.15 Item 4](#).
  - Scanner daughter PWB, [PL 3.24 Item 20](#).
  - Power distribution PWB, [PL 3.24 Item 5](#).
  - DADH PWB, [PL 5.10 Item 5](#).

Check also, the in-line connector in the single board controller PWB/DADH comms/scanner power harness, [PL 14.15 Item 5](#).
2. Go to [Flag 5](#). Check the voltages. Refer to:
  - [01B](#) 0V Distribution RAP.
  - [01D](#) +3.3V Distribution RAP.
  - [01G](#) +24V Distribution RAP.
3. Go to [Flag 4](#) and [Flag 5](#). Check the wiring, [GP 7](#). If necessary, install a new single board controller PWB/DADH comms/scanner power harness, [PL 14.15 Item 5](#).
4. If the fault was detected during a software upgrade, go to [Flag 6](#). Check the connection. Reload the software, [GP 4](#), Machine Software.
5. Install new components as necessary:
  - Scanner PWB, [PL 14.15 Item 4](#).
  - Scanner daughter PWB, [PL 3.24 Item 20](#).
  - Power distribution PWB, [PL 3.24 Item 5](#).
  - DADH PWB, [PL 5.10 Item 5](#).

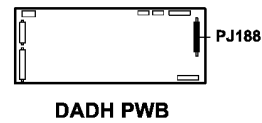
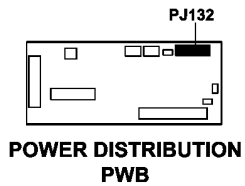
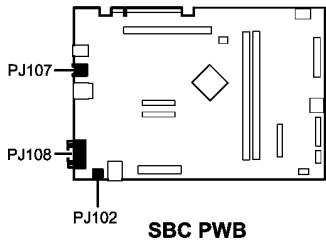
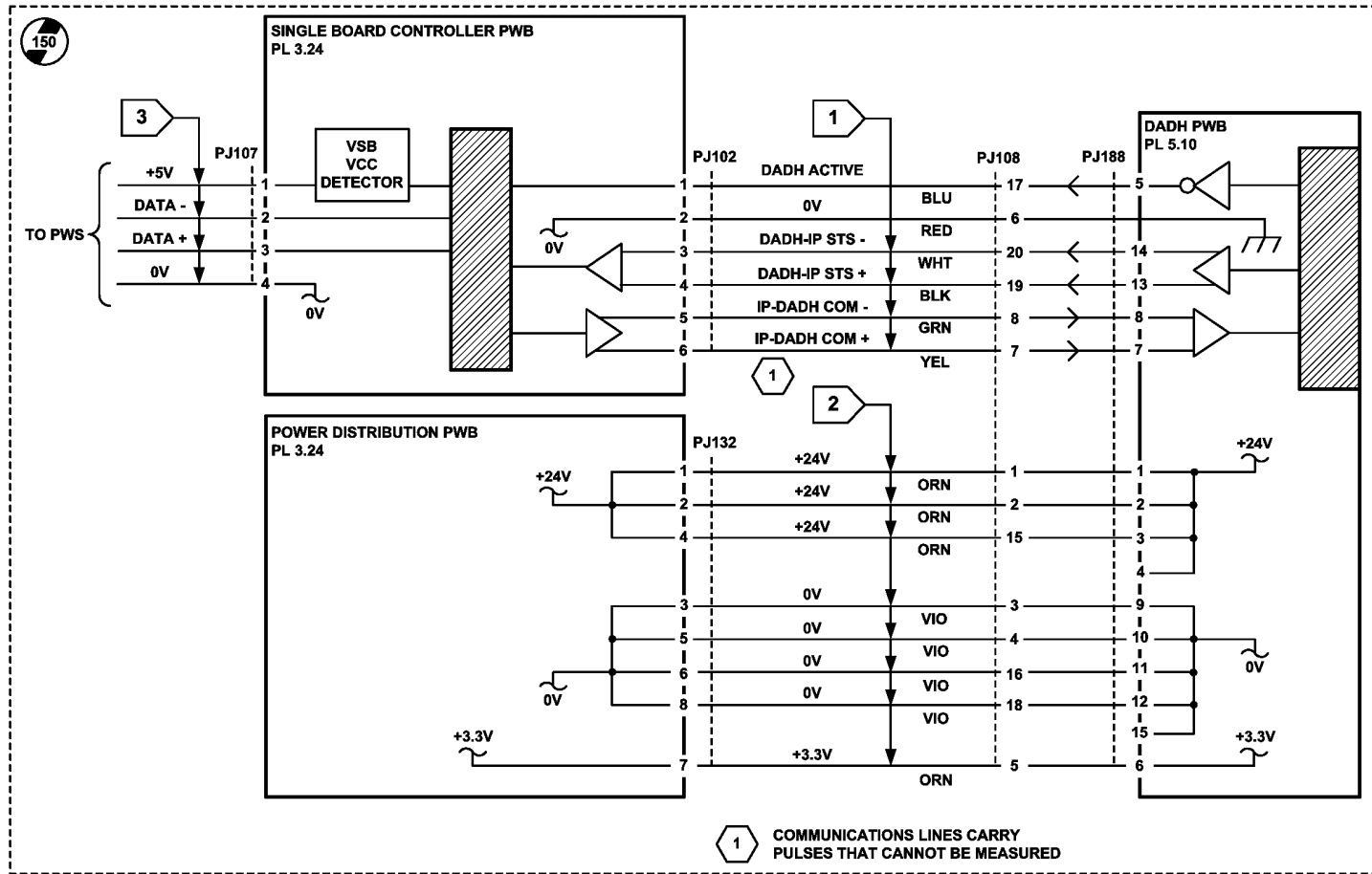


Figure 1 Circuit diagram 1

TT-1-0072-B

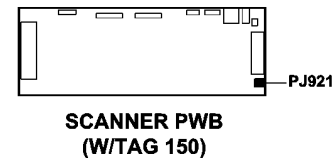
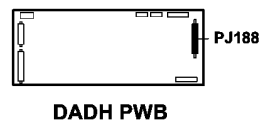
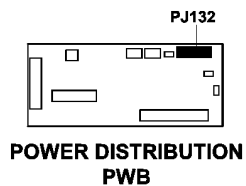
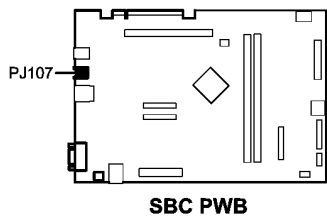
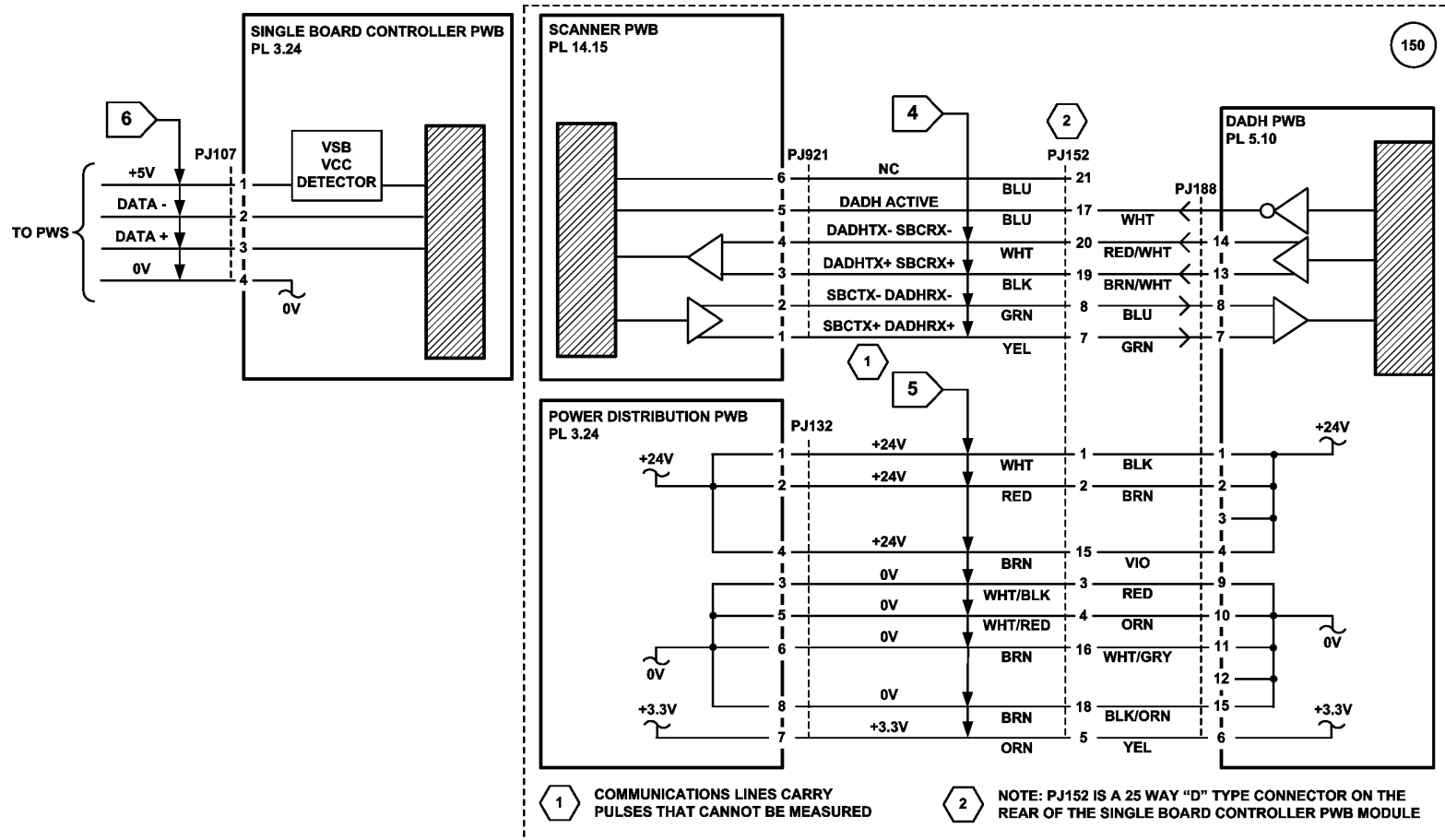


Figure 2 Circuit Diagram 2

TT-1-0298-A

## 03-330, 03-462 Single Board Controller PWB to Scanner Fault Entry RAP

**03-330** A single board controller PWB to scanner PWB communications error has been detected.

**03-462** A speed mismatch between the single board controller PWB and the scanner has been detected in the NVM.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform one of the steps that follow:

- For machines W/O TAG 150, go to the 03-330A, 03-462A Single Board Controller PWB to Scanner Faults RAP (W/O TAG 150).
- For machines W/TAG 150, go to the 03-330B, 03-462B Single Board Controller PWB to Scanner Faults RAP (W/TAG 150).

## 03-330A, 03-462A Single Board Controller PWB to Scanner Fault RAP (W/O TAG 150)

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

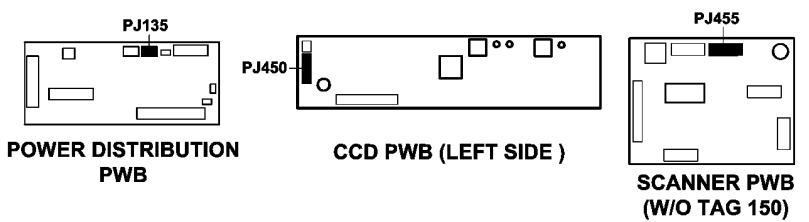
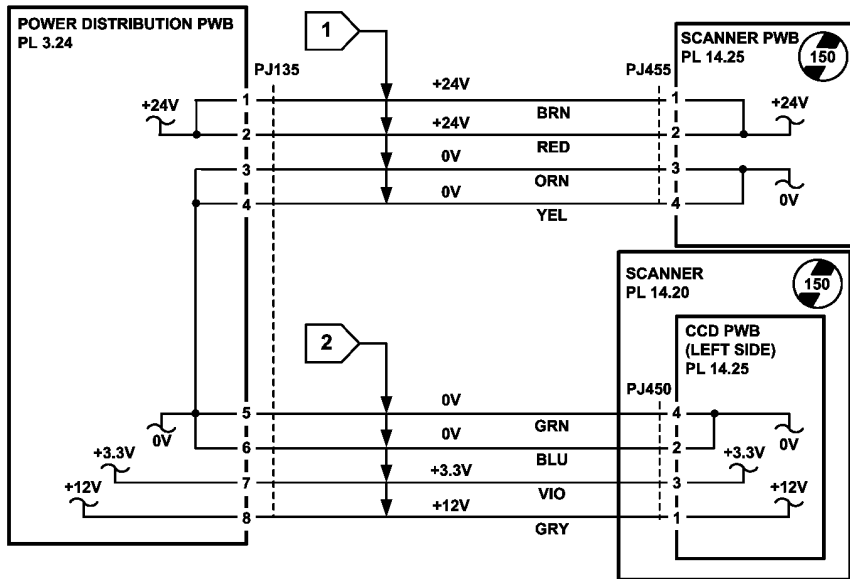
- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 03-330, 03-462 Single Board Controller PWB to Scanner Faults Entry RAP.
- Switch off the machine, then switch on the machine, GP 14.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to OF10 intermittent Failure RAP.
- If an 03-330 fault occurs with 03-300, 03-320 and 03-340 fault codes, together with a network controller unavailable message, go to the 03D Software Module Failure RAP.

### Procedure

1. Ensure all the connectors on the PWBs that follow are correctly and securely seated:
  - Single board controller PWB, PL 3.24 Item 3.
  - Power distribution PWB, PL 3.24 Item 5.
  - Scanner PWB, PL 14.25 Item 4.
  - CCD PWB, PL 14.25 Item 19.

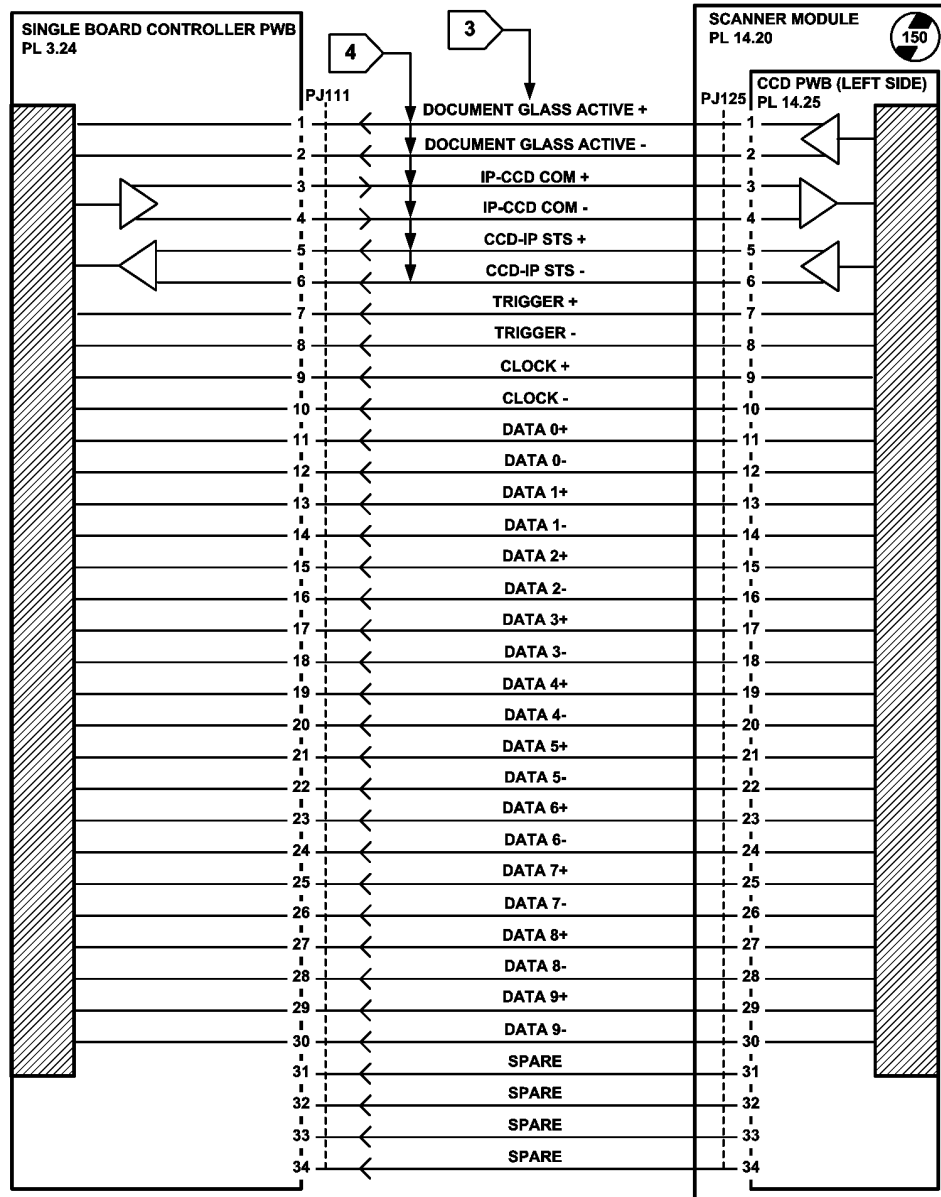
**NOTE:** To gain access to the scanner PWB, remove the document glass, PL 14.20 Item 5 and the scanner PWB cover, PL 14.25 Item 1.
2. Go to Flag 1, Flag 2 and Flag 3. Check the wiring. Repair or install new harnesses as necessary, PL 14.25 Item 5 or PL 14.25 Item 13.

**NOTE:** Flag 4 indicates the main communication lines.
3. Go to Flag 1 and Flag 2. Check the voltages. Refer to:
  - 01B 0V Distribution RAP.
  - 01D +3.3V Distribution RAP.
  - 01F +12V Distribution RAP.
  - 01G +24V Distribution RAP.
4. Re-load the software, GP 4 Machine Software.
5. If necessary, install new components:
  - Single board controller PWB, PL 3.24 Item 3.
  - Power distribution PWB, PL 3.24 Item 5.
  - Scanner PWB, PL 14.25 Item 4.
  - Scanner module, PL 14.20 Item 1.

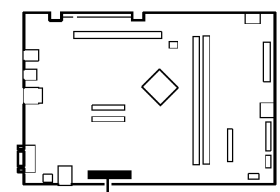


TT-1-0073-A

Figure 1 Circuit diagram



PJ125  
**CCD PWB LEFT SIDE**



PJ111  
**SBC PWB**

Figure 2 Circuit diagram

TT-1-0074-A

# 03-330B, 03-462B Single Board Controller PWB to Scanner Fault RAP (W/TAG 150)

## Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [03-330](#), [03-462](#) Single Board Controller PWB to Scanner Faults Entry RAP.
- Switch off the machine, then switch on the machine, [GP 14](#).
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to [OF10](#) intermittent Failure RAP.
- If an 03-330 fault occurs with 03-300, 03-320 and 03-340 fault codes, together with a network controller unavailable message, go to the [03D](#) Software Module Failure RAP.

## Procedure

1. Ensure all the connectors on the PWBs that follow are correctly and securely seated:
  - Single board controller PWB, [PL 3.24 Item 3](#).
  - Power distribution PWB, [PL 3.24 Item 5](#).
  - Scanner PWB, [PL 14.15 Item 4](#).
  - CCD PWB, [PL 14.15 Item 19](#).
  - Scanner daughter PWB, [PL 3.24 Item 20](#).

**NOTE:** To gain access to the scanner PWB, remove the document glass assembly, [PL 14.10 Item 5](#) and the PWB cover, [PL 14.15 Item 1](#).
2. Go to [Flag 1](#), [Flag 2](#) and [Flag 3](#). Check the harnesses, [GP 7](#). Repair or install new harnesses as necessary:
  - Scanner daughter PWB/scanner PWB video harness, [PL 14.15 Item 13](#).
  - Single board controller/DADH comms/scanner PWB harness, [PL 3.24 Item 7](#).
3. Go to [Flag 3](#). Check the voltages. Refer to:
  - [01B](#) 0V Distribution RAP.
  - [01D](#) +3.3V Distribution RAP.
  - [01E](#) +5V Distribution RAP.
  - [01F](#) +12V Distribution RAP.
  - [01G](#) +24V Distribution RAP.
4. Re-load the software, [GP 4](#), Machine Software.
5. If necessary, install new components:
  - Scanner daughter PWB, [PL 3.24 Item 20](#).
  - Scanner PWB, [PL 14.15 Item 4](#).
  - Power distribution PWB, [PL 3.24 Item 5](#).
  - Single board controller PWB, [PL 3.24 Item 3](#).

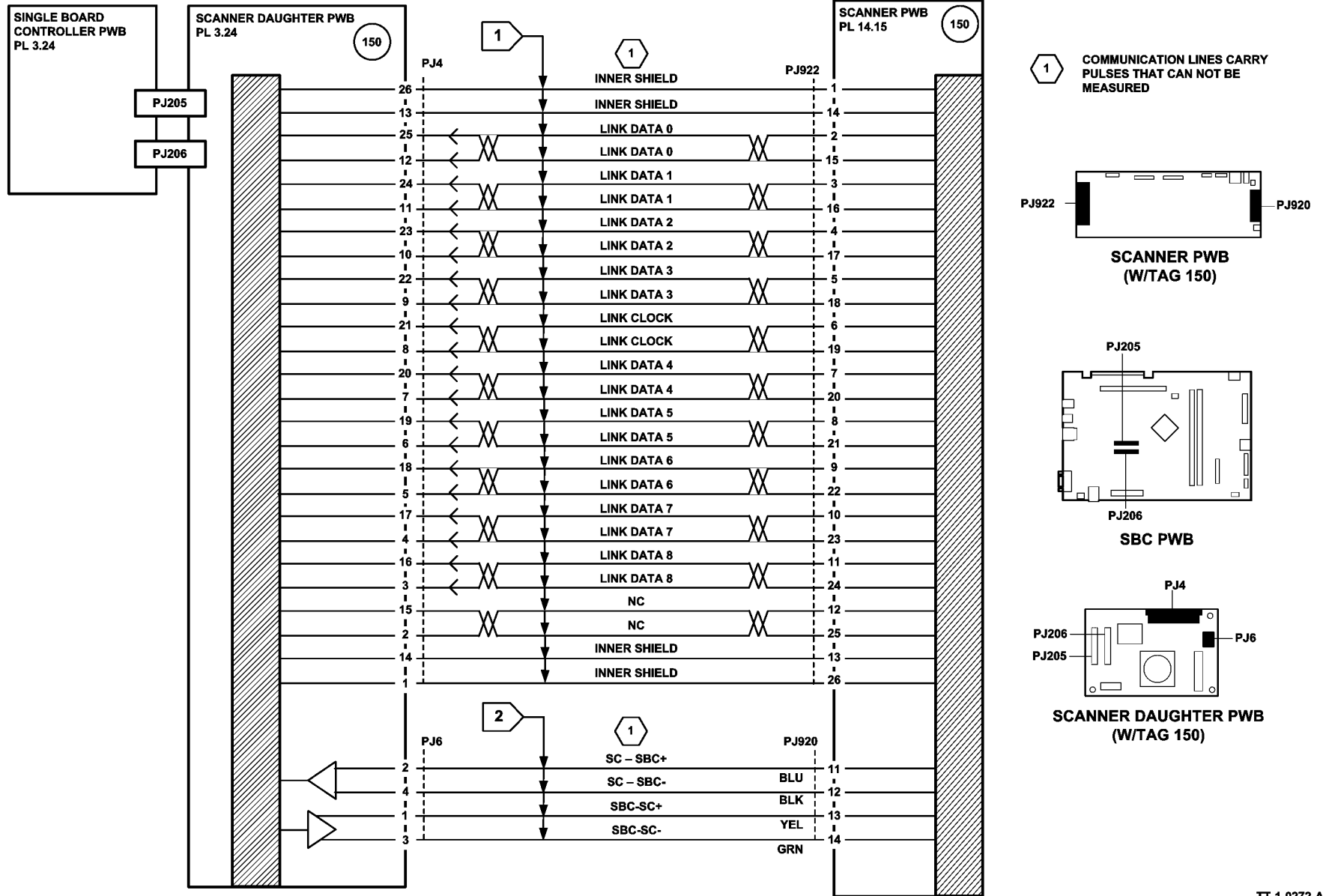


Figure 1 Circuit diagram

TT-1-0272-A



## 03-336 FAX Card Self Test Failure RAP

03-336 Power on self test failure detected on the embedded fax PWB.

### Initial Actions



**WARNING**

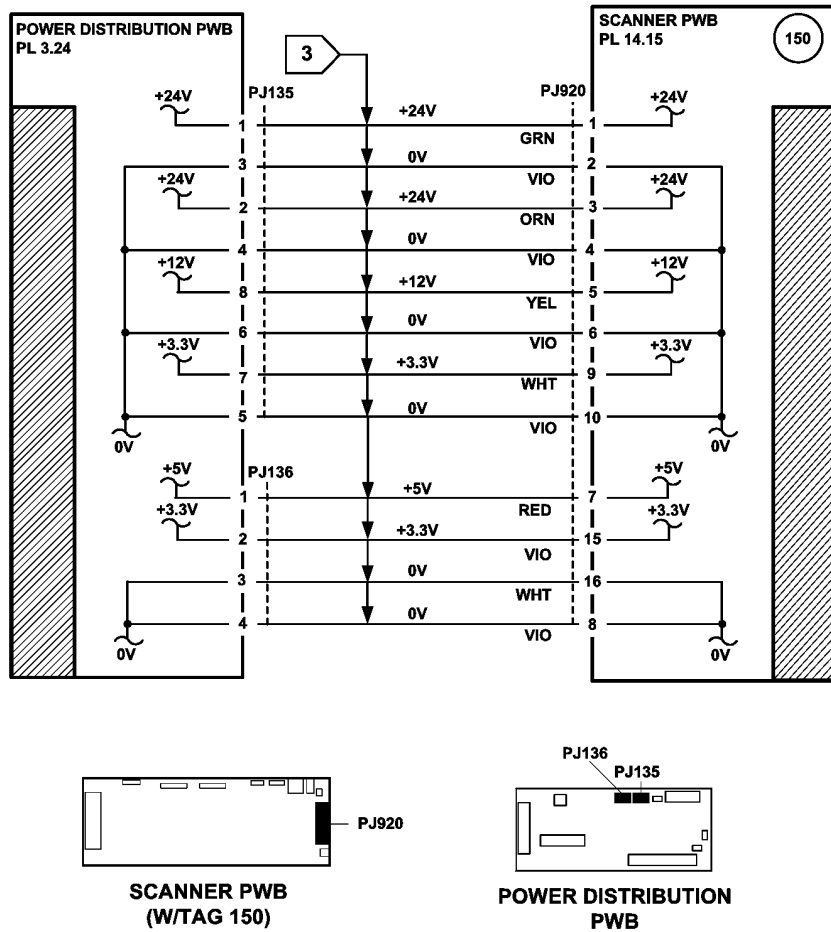
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, GP 14.

### Procedure

Perform the following:

1. Go to 20G Embedded FAX Checkout.
2. Clear the fax card NVM. Go to dC132, select Embedded Fax NVM initialization and perform the routine, Reformat.
3. Install a new embedded fax PWB, PL 20.10 Item 4.



TT-1-0273-A

Figure 2 Circuit diagram

## 03-338 FAX Communication Error RAP

**03-338** No response detected to commands from the single board controller PWB to the embedded fax PWB.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Switch off the machine, then switch on the machine, [GP 14](#).

### Procedure

Perform the following:

1. Remove, then re-install the embedded fax PWB, [PL 20.10 Item 4](#).
2. Go to [20G](#) Embedded Fax Checkout.
3. (W/O [TAG X-001](#)) Install a new compact flash memory, [PL 20.10 Item 3](#).
4. Install new embedded fax PWB, [PL 20.10 Item 4](#).

## 03-340, 03-416 Single Board Controller PWB to Network Controller Fault RAP

**03-340** The network communications with the single board controller PWB have failed.

**03-416** The network controller software version supplied at power on is not compatible with the single board controller PWB software.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Switch off the machine, then switch on the machine, [GP 14](#).
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to [OF10](#) intermittent Failure RAP.
- If an 03-330 fault occurs with 03-300, 03-320 and 03-340 fault codes, together with a network controller unavailable message, go to the [03D](#) Software Module Failure RAP.

### Procedure

1. Ensure that the ethernet connector P/J114 on the [Single Board Controller PWB](#) is securely connected.
2. Perform the [03C](#) Hard Disk Failure RAP.
3. Reload the software, [GP 4](#) Machine Software.
4. Install new components as necessary:
  - Software module, [PL 3.24 Item 8](#).
  - Hard disk drive, [PL 3.22 Item 2](#).
  - Single board controller PWB, [PL 3.24 Item 3](#).

## 03-350, 03-351, 03-354 IOT to Tray 1 and Tray 2 PWB Error RAP

**03-350** The IOT has detected no response from the tray 1 and 2 control PWB to the ping request.

**03-351** Tray 1 and 2 control PWB has detected a feed buffer overflow.

**03-354** Communications failure. Tray 1 and 2 control PWB has detected a communications failure.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, GP 14.

- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to OF10 Intermittent Failure RAP.

### Procedure

- Switch off the machine, GP 14. Ensure P/J9 and P/J271 are correctly and securely connected.
- Go to Flag 1. Check the harness. Repair as necessary, GP 7.
- Go to Flag 2. Check the +3.3V and 0V lines. Refer to:
  - P/J271
  - 01D +3.3V Distribution RAP.
  - 01B 0V Distribution RAP.
- Switch on the machine, GP 14. Perform OF7 IOT PWB Diagnostics RAP.
- Re-load the software, GP 4 Machine Software.
- Install new components as necessary:
  - Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.
  - Tray 1 and 2 control PWB, PL 7.10 Item 2.

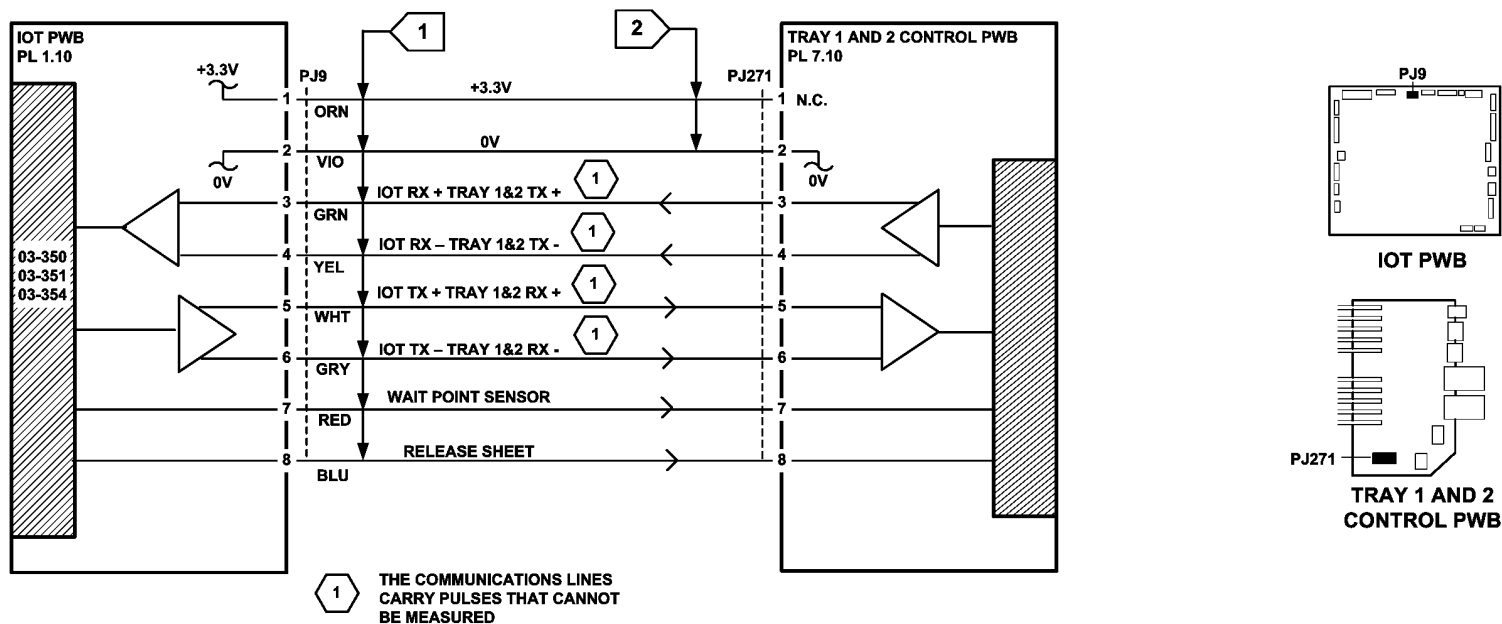


Figure 1 Circuit diagram

TT-1-0076-A

## 03-359, 03-407 HCF Communications and Detection Error RAP

**03-359** The HCF has failed to respond to tray 1 and 2 control PWB ping requests.

**03-407** The system has failed to detect the HCF module at power on.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Switch off the machine, then switch on the machine, GP 14.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to OF10 intermittent Failure RAP.

### Procedure

1. Ensure the P/Js on the tray 1 and 2 control PWB, PL 7.10 Item 2 and the (W/O TAG 151) HCF PWB, PL 7.20 Item 2 or (W/TAG 151) HCF PWB, PL 7.21 Item 2 are correctly and securely connected.
2. Go to Flag 1. Check the harness. Repair as necessary, GP 7.
3. Go to Flag 1. Check the power supply lines. Refer to:
  - 01G +24V Distribution RAP.
  - 01E +5V Distribution RAP.
  - 01B 0V Distribution RAP.
4. Go to Flag 2. Check for the presence of pulses on the two data lines, using the AC volts range of the meter.

***NOTE:** Pulses should be measured approximately every 20 seconds. Between pulses, the voltage should be approximately 1.5VAC.*

5. As necessary, install new components:
  - Tray 1 and 2 control PWB, PL 7.10 Item 2.
  - (W/O TAG 151) HCF control PWB, PL 7.20 Item 2.
  - (W/TAG 151) HCF control PWB, PL 7.21 Item 2.
6. Reload the software, GP 4, Machine Software.

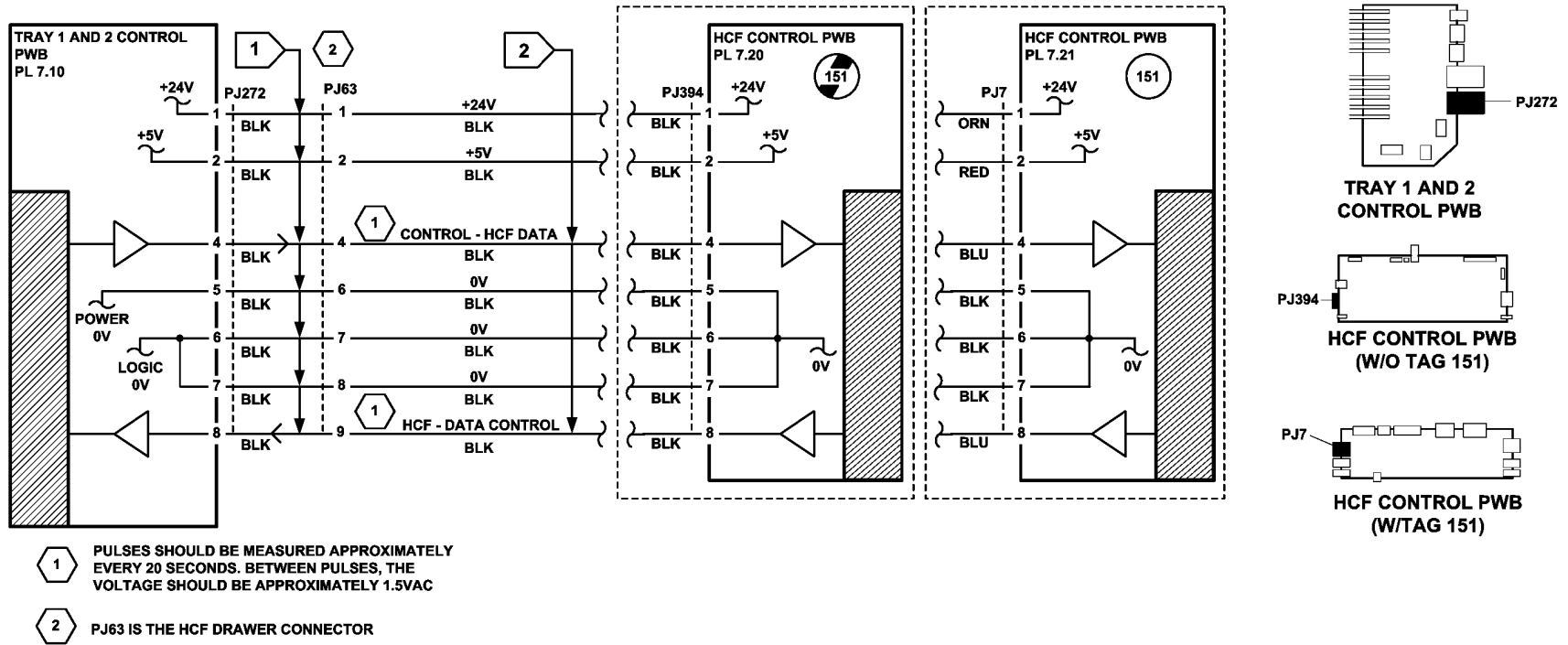


Figure 1 Circuit diagram

TT-1-0077-B

## 03-360, 03-408 to 03-410, 03-418 IOT to Output Device Error RAP

**03-360** The IOT to output device communications have failed.

**03-408** The IOT has failed to detect the OCT at power on.

**03-410** The system failed to detect the output device at power on.

**03-418** The system has detected that the output device software is not compatible with the image processing software.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- **1K LCSS Only.** Un-dock the 1K LCSS from the machine, refer to [REP 11.11-120](#) 1K LCSS Removal. Check that the docking actuator, [PL 11.102 Item 7](#) is correctly installed.
- **2K LCSS Only.** Perform [REP 11.13-110](#) LCSS Un-docking. Check that the docking actuator, [PL 11.4 Item 7](#) is correctly installed.
- **HVF and HVF BM Only.** Perform [11-300-171](#), [11-302-171](#), [11-303-171](#), HVF Un-docking RAP. Check that the docking actuator, [PL 11.130 Item 17](#), is correctly installed.
- Switch off the machine, then switch on the machine, [GP 14](#).
- Ensure the output device power cord is connected to PJ22 on the [Power and Control Module](#).
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to [OF10](#) intermittent Failure RAP.

### Procedure



#### CAUTION

Do not connect the output device power cord directly to the AC wall outlet. The output device cannot operate without the machine. The machine controls the distribution of electricity to the output device for correct power on and power off sequencing.

**NOTE:** No parts of the OCT are spared. Where necessary, install a new OCT, [PL 12.10 Item 2](#).

**NOTE:** [Figure 1](#) and [Figure 2](#) show the external connections to the output devices.

1. As necessary, ensure that the connectors that follow are correctly and securely connected:
  - **OCT Only.** [P/J495](#) on the OCT PWB, [P/J151](#) on the [Power and Control Module](#) and [P/J11](#) on the [IOT PWB](#).
  - **1K LCSS Only.** [P/J3](#) on the [1K LCSS PWB](#), [P/J151](#) on the [Power and Control Module](#) and [P/J11](#) on the [IOT PWB](#).
  - **2K LCSS Only.** [P/J301](#) on the [2K LCSS PWB](#), [P/J151](#) on the [Power and Control Module](#) and [P/J11](#) on the [IOT PWB](#).

2. Go to [Flag 1](#) and [Flag 2](#). Check the harnesses. Repair as necessary, [GP 7](#).
3. Perform the [OF7](#) IOT PWB Diagnostics RAP.
4. **OCT Only.** If the problem persists install a new OCT, [PL 12.10 Item 2](#).
5. **1K LCSS Only.** Perform the following:
  - Go to the [11C-120](#) 1K LCSS Power Distribution RAP. Check the +5V and +24V supply from the power supply module to the 1K LCSS PWB. Ensure that the voltages are steady.
  - Ensure that there is a good ground continuity between the power supply module, [PL 11.124 Item 2](#) and the 1K LCSS frame.
  - Install new components as necessary:
    - Power supply module, [PL 11.124 Item 2](#).
    - 1K LCSS PWB, [PL 11.124 Item 1](#).
6. **2K LCSS Only.** Perform the following:
  - Remove fuse F1 from the 2K LCSS PWB. Check the fuse. If the fuse is good, re-install the fuse. If fuse F1 is blown, install a new 2K LCSS PWB, [PL 11.26 Item 1](#).
  - Go to the [11D-110](#) 2K LCSS Power Distribution RAP. Check the +5V and +24V supply from the power supply module to the 2K LCSS PWB. Ensure that the voltages are steady.
  - Ensure that there is a good ground continuity between the power supply module, [PL 11.26 Item 2](#) and the 2K LCSS frame.
  - Install new components as necessary:
    - Power supply module, [PL 11.26 Item 2](#).
    - 2K LCSS PWB, [PL 11.26 Item 1](#)
7. **HVF and HVF BM Only.** Perform the following:
  - Go to the [11A-171](#) HVF Power Distribution RAP. Check the +5V and +24V supply from the power supply module to the HVF PWB. Ensure that the voltages are steady.
  - Ensure that there is a good ground continuity between the power supply module, [PL 11.157 Item 1](#) and the HVF frame.
  - Install new components as necessary:
    - Power communications cable, [PL 11.157 Item 7](#).
    - Power supply module, [PL 11.157 Item 1](#).
8. If the correct output device is not detected, go to [Flag 3](#). Check that the voltages on the device ID lines are correct according to the table in [Figure 1](#). Install new components as necessary:
  - Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).
  - 1K LCSS PWB, [PL 11.124 Item 1](#).
  - 2K LCSS PWB, [PL 11.26 Item 1](#).
  - HVF PWB, [PL 11.157 Item 2](#).
  - OCT, [PL 12.10 Item 2](#).

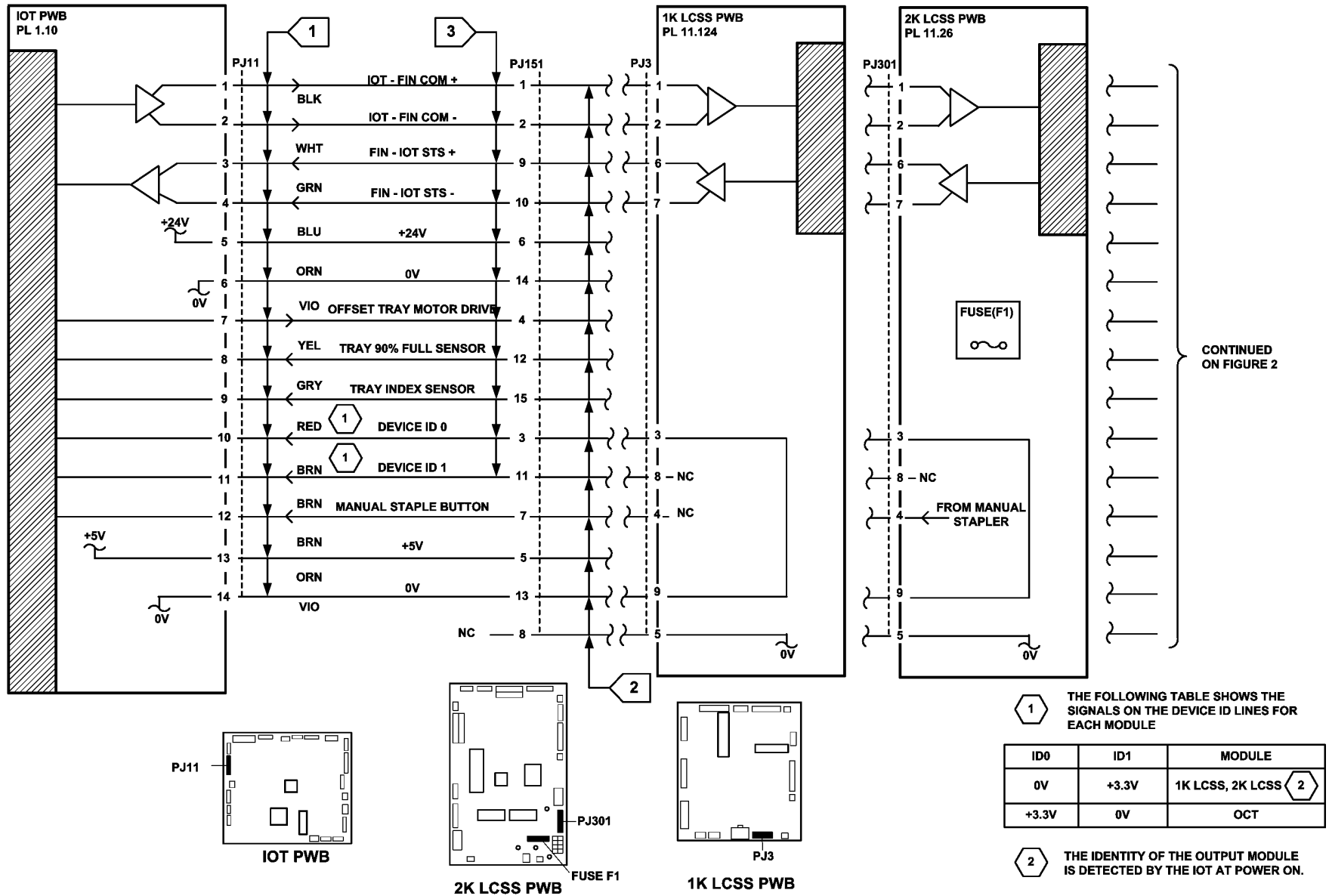


Figure 1 Circuit diagram

## 03-365 IOT Bus Failure RAP

03-365 The communications driver has failed.

**NOTE:** This fault code can occur when the driver fails because of system electrical noise.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, [GP 14](#).
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to [OF10](#) intermittent Failure RAP.

### Procedure

**NOTE:** The IOT controller should clear an I2C bus fault indication after five seconds.

1. Ensure the P/J's on the IOT PWB, [PL 1.10 Item 2](#) are correctly seated.
2. Check that there is continuity between the upper and lower registration guide. Ensure that the screw that secures the upper and lower registration guides is tight, [Figure 1](#).
3. Check that there is continuity between the halo guide and the registration guide. Raise and lower the short paper path assembly, [PL 10.15](#), several times to ensure that the continuity is consistent. If the continuity is inconsistent, perform the following:
  - Examine the registration and halo guide bias contact for deformation or damage, [PL 8.15 Item 23](#).
  - Ensure the transfer / detach harness is routed correctly at the rear of the short paper path, refer to [REP 10.1](#).
4. This fault may be caused by a ground fault, perform [01A](#) Ground Distribution RAP.
5. Reload the software, [GP 4](#) Machine Software.
6. Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

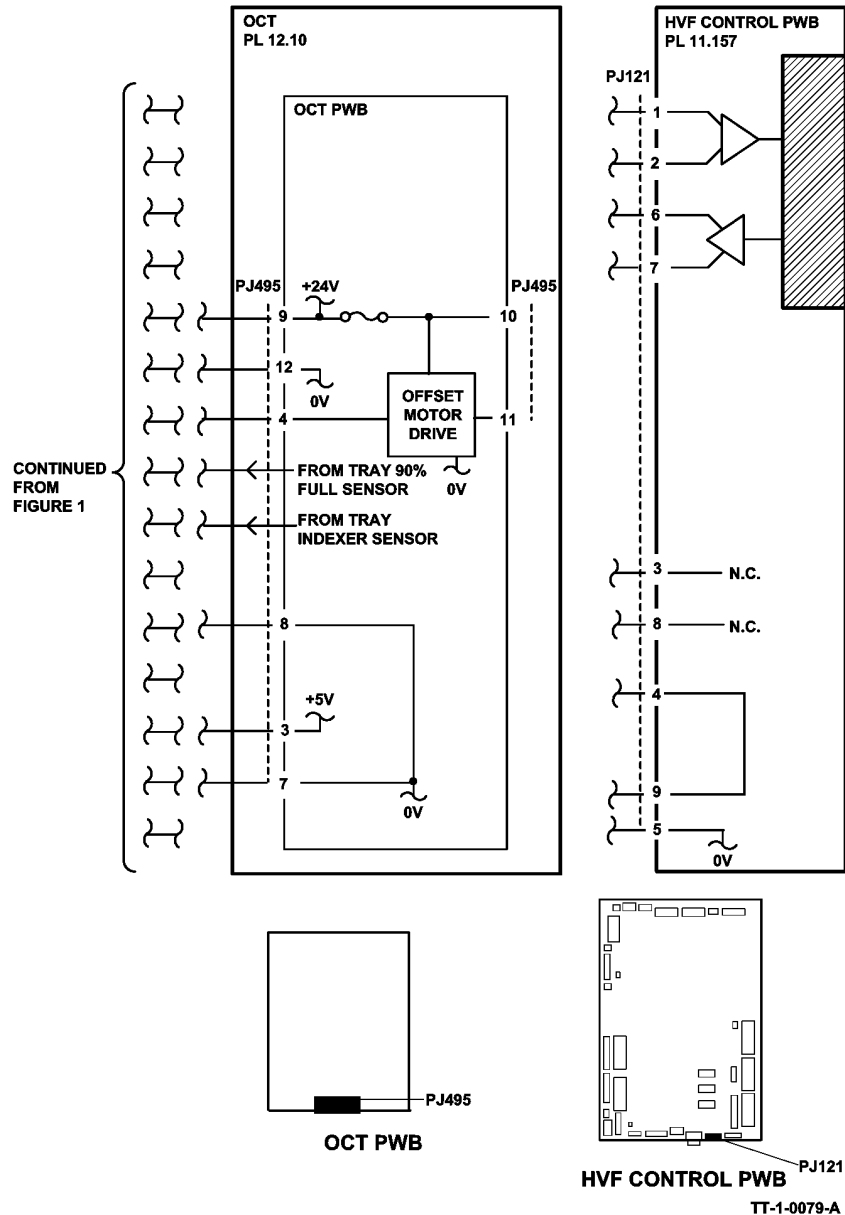
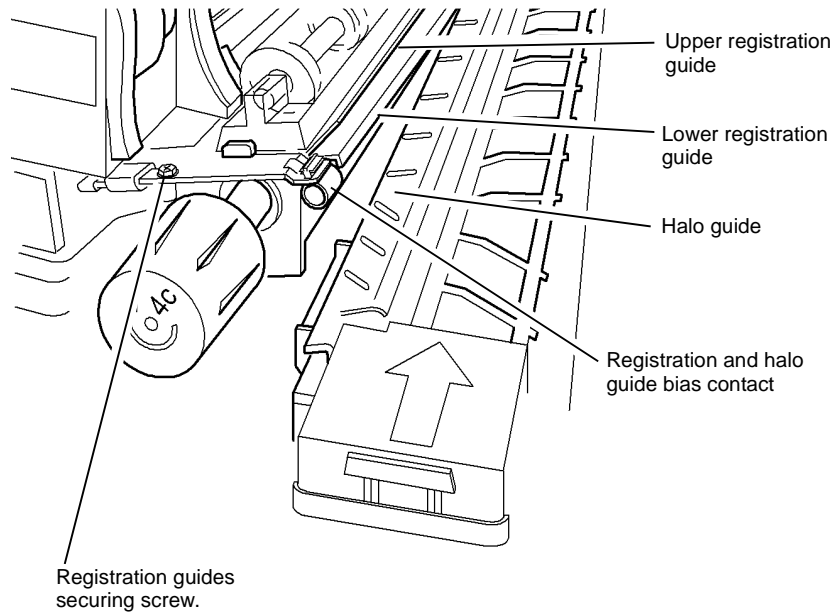


Figure 2 Circuit diagram





T-1-0037-A

Figure 1 Component location

## 03-366 IOT to Tray 5 Module Communication Failure RAP

03-300 The IOT PWB has detected a communications failure with the tray 5 module.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of P/J501 on the sleeved harness from the tray 5 module, paying attention to the condition of the pins.
- Check that P/J501 is correctly and securely connected at the rear of the machine.

### Procedure

1. Go to Flag 1 and check the wiring. Repair the wiring as necessary, GP 7.
2. As necessary, perform the following:
  - Perform OF7 IOT Diagnostics RAP.
  - Install a new tray 5 control PWB, PL 7.68 Item 8.
  - Install a new IOT PWB, PL 1.10 Item 2.

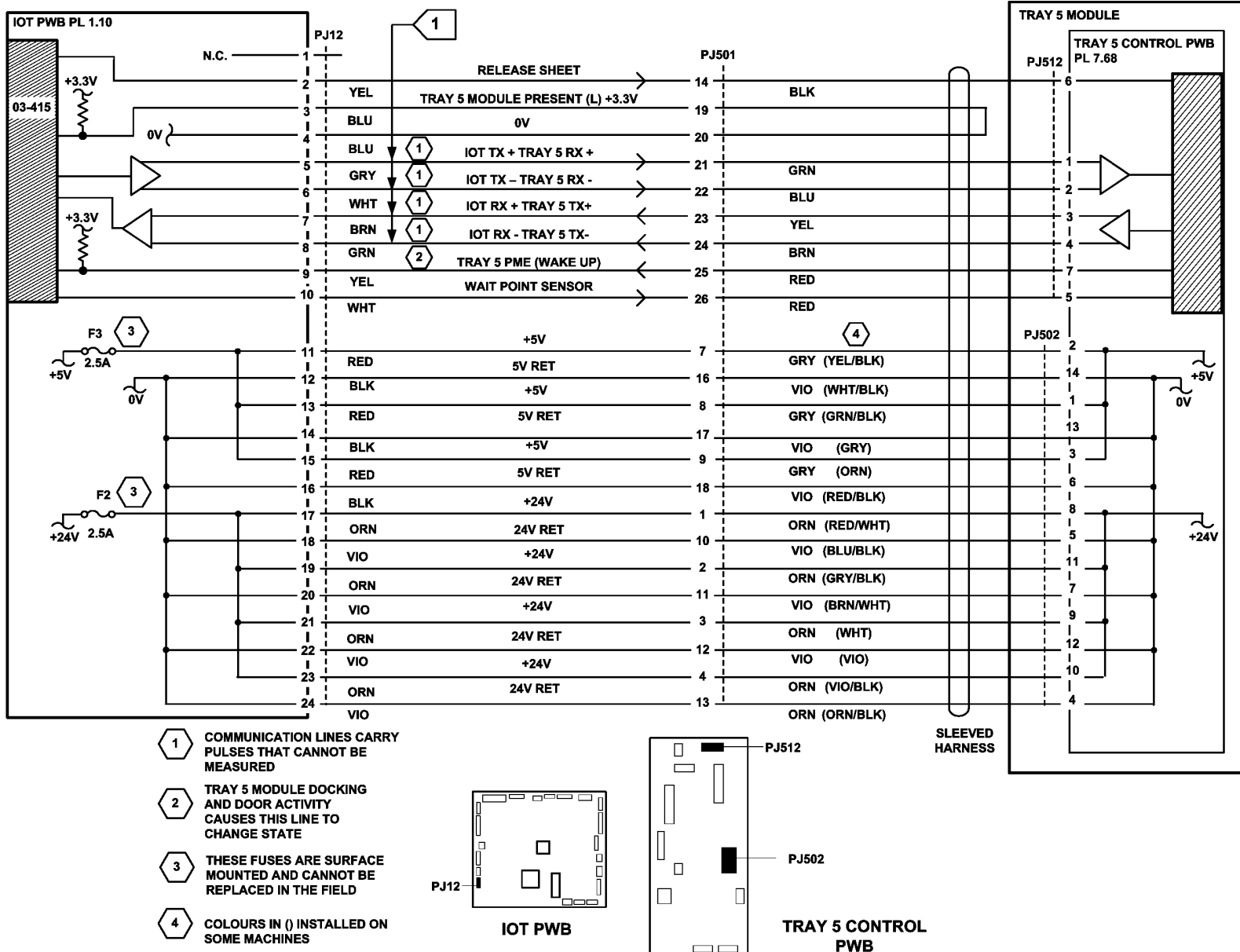


Figure 1 Circuit diagram

TT-1-0080-A

## 03-367 S2X Data Transmission Failure RAP

03-367: The single board controller PWB does not receive the S2X ready line signal within 10 seconds of scan start.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Install a new single board controller PWB, PL 3.24 Item 3.

## 03-371, 03-372 Fuser and Xerographic CRUM Communication Error RAP

03-371: The fuser CRUM communications have failed.

03-372: The xerographics CRUM communications have failed.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, GP 14.
- Ensure the fuser module, (35-55 ppm), PL 10.8 Item 1 or (65-90 ppm), PL 10.10 Item 1 is correctly installed.
- Ensure the xerographic module, PL 9.20 Item 2 is correctly installed.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to OF10 intermittent Failure RAP.

### Procedure



Remove the fuser and xerographic modules to prevent damage to the CRUMs when checking for continuity.

1. Ensure the P/Js on the IOT PWB, PL 1.10 Item 2 and the main drive motor and PWB assembly, (35-55 ppm) PL 4.15 Item 6 or (65-90 ppm) PL 4.10 Item 6 are correctly and securely connected.
2. Perform OF7 IOT PWB Diagnostics RAP.
3. Switch off the machine, GP 14. Go to Flag 1. Disconnect P/J8 on the IOT PWB. Switch on the machine, GP 14. Make a copy. Check the fault history for new occurrences of 03-371 and 03-372 faults. If new occurrences are not listed, install a new IOT PWB, PL 1.10 Item 2.
4. Go to Flag 1. Check the harness, GP 7 and measure the voltages. As necessary, refer to:
  - 01B 0V Distribution RAP.
  - 01E +5V Distribution RAP.

**NOTE:** PJ141 and PJ144 are in-line connectors on the rear panel, (refer to Flag 2 and Flag 3). They are connected when the module is installed and are susceptible to damage. Remove any torn paper / debris from the contacts.

5. **03-371 Only:** Go to Flag 2. Check the harness. Remove any torn paper / debris from the fuser CRUM connector, (35-55ppm) PL 4.17 Item 12 or (65-90ppm) PL 4.12 Item 12. Repair as necessary, REP 1.2.
6. **03-372 Only:** Go to Flag 3. Check the harness. Remove any torn paper / debris from the xerographic CRUM connector, (35-55ppm) PL 4.17 Item 4 or (65-90) PL 4.12 Item 4. Repair as necessary, REP 1.2.

7. Install new components as necessary:
  - **03-371 Only:** Fuser connector assembly, (35-55 ppm) [PL 4.15 Item 9](#) or (65-90 ppm) [PL 4.10 Item 9](#).
  - **03-371 Only:** Fuser Module, (35-55 ppm) [PL 10.8 Item 1](#) or (65-90 ppm) [PL 10.10 Item 1](#).
  - **03-372 Only:** Xerographic module, [PL 9.20 Item 2](#).
  - Main drive motor PWB assembly, (35-55 ppm) [PL 4.15 Item 6](#) or (65-90 ppm) [PL 4.10 Item 6](#).
  - Main Drive Module, (35-55 ppm) [PL 4.15 Item 1](#) or (65-90 ppm) [PL 4.10 Item 1](#).
8. Reload the software, [GP 4 Machine Software](#).

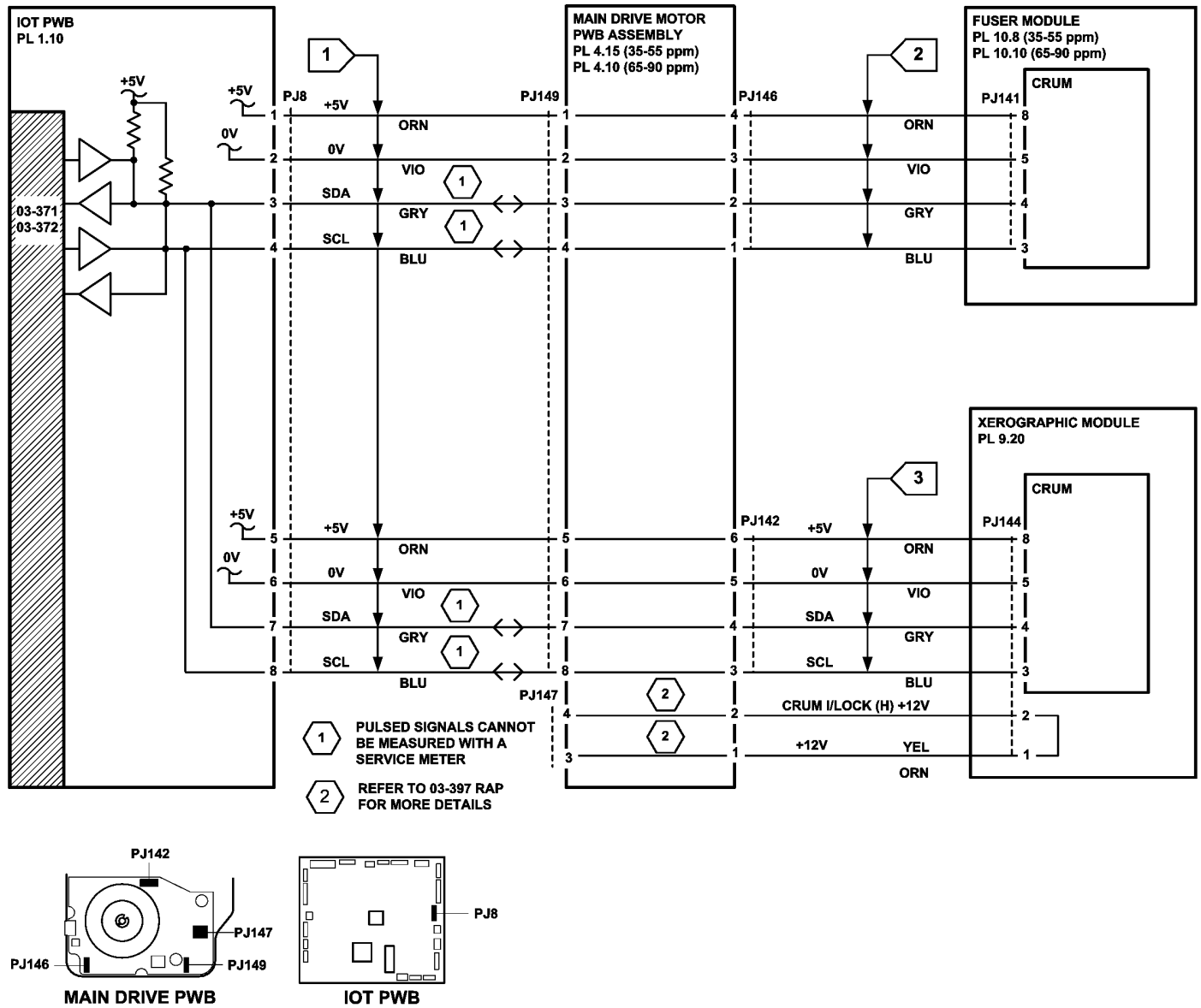


Figure 1 Circuit diagram

TT-1-0081-A

## 03-374 Power Off Failure RAP

**03-374** The single board controller PWB has detected that the LVPS is still on, 30 seconds after a power off request.

### Initial Actions



#### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- If possible, switch off the machine, then switch on the machine GP 14. If the UI fails to respond, perform the 03-310 Single Board Controller PWB to UI Errors RAP.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to OF10 intermittent Failure RAP.
- If the drives module has recently been removed, then check the pins and connections at P/J1 on the IOT PWB.

### Procedure

Ensure the P/Js on the IOT PWB, PL 1.10 Item 2 and the single board controller PWB, PL 3.24 Item 3 are correctly and securely connected. **The fault is still present.**

**Y N**  
Perform SCP 6 Final Actions.

Remove the left hand cover, PL 8.10 Item 3. Go to Flag 1. Measure the voltages at the on/off switch terminals. **The voltages are +3.3V and 0V.**

**Y N**  
Go to:

- GP 13 How to check a switch.
- P/J5.
- 01B, 0V Distribution RAP.
- 01J Power On and LVPS Control Signals RAP.
- If necessary, install a new on/off switch, PL 1.10 Item 8.

**NOTE:** The LVPS is software controlled. When the voltage on PJ26 is low, the LVPS should be on. When the voltage on PJ26 pin 7 is high, the LVPS should be off.

Go to Flag 3. Measure the voltage at P/J26 pin 7 on the IOT PWB. Operate the on / off switch. Select power down then confirm from the UI. **The voltage changes from low to high within 30 seconds.**

**Y N**  
Install new components as required:

- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.
- Single board controller PWB, PL 3.24 Item 3.

Check the state of the LVPS by observing the power indication LEDs on the IOT PWB, (refer to the OF7 IOT PWB Diagnostics RAP). **The LVPS has switched off.**

**Y N**  
Install a LVPS and base module, PL 1.10 Item 3.

Go to Flag 2. Measure the voltage at P/J1 pin 15 on the IOT PWB. Operate the on / off switch. **A single low pulse is detected.**

**Y N**  
Go to Flag 2. Check the wiring. Repair as necessary, GP 7. Install new components as necessary:

- Single board controller PWB, PL 3.24 Item 3.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Go to Flag 2. Set the meter to measure frequency. Check the pulses at P/J1 pin 13, on the IOT PWB. These are approximately 1Hz pulses. **The pulses have stopped.**

**Y N**  
Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Perform the following:

- Check that all associated wiring is in good condition, GP 7.
- Reload the software, GP 4, Machine Software.
- Install a new single board controller PWB, PL 3.24 Item 3.

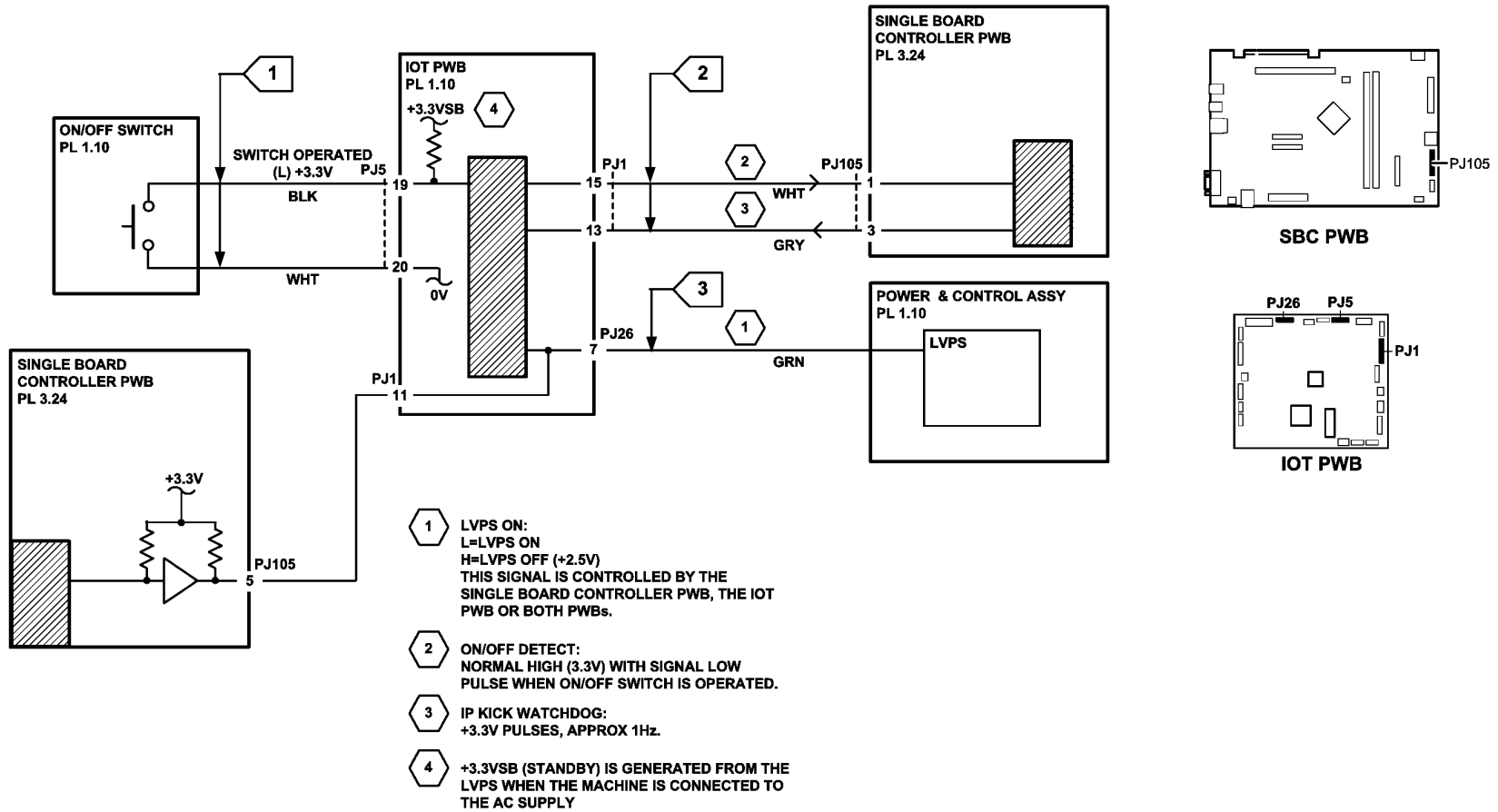


Figure 1 Circuit diagram

TT-1-0082-A

## 03-395, 396, 852, 853 IOT PWB Fault RAP

**03-395** The IOT has cycled without printing.

**03-396** The photoreceptor is detected not turning while the laser is on.

**03-852** IOT has detected that it is out of timers.

**03-853** IOT has detected that it is nearly out of timers.

Also use this RAP for fault code **06-350** ROS Laser Not Under Control.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, **GP 14**.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to the **OF10** intermittent Failure RAP.

### Procedure

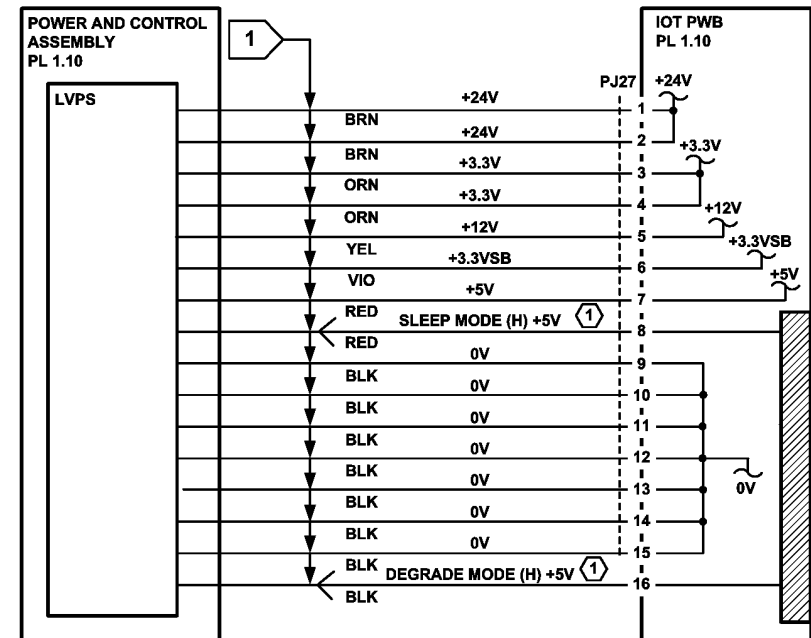
1. Ensure all the P/J's on the IOT PWB, **PL 1.10 Item 2** are correctly and securely connected.
2. **03-395 Only:** This fault can be caused by the following:
  - a. A poor ground on the duplex tray or a paper path problem. Check the active fault list for an 08-XXX or 09-XXX. Go to the indicated RAP.
  - b. A paper guide in a paper tray being set to the wrong paper size. Check the paper guide settings in the paper trays.
  - c. An HVPS fault, perform the **09-060** HVPS Fault RAP.
3. Perform the **OF7** IOT PWB Diagnostics RAP.
4. Reload the software set, **GP 4**, Machine Software.

**NOTE:** The supply harness is a flying lead that is a part of the LVPS and is not spared separately.

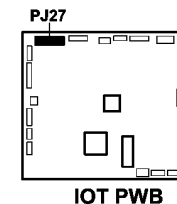
5. Go to **Flag 1**. Check the voltages. As necessary, refer to:
  - **01G** +24V Distribution RAP.
  - **01F** +12V Distribution RAP.
  - **01E** +5V Distribution RAP.
  - **01D** +3.3V Distribution RAP.
  - **01B** 0V Distribution RAP.
6. **03-853 Only:** Print off a fault history report then troubleshoot any codes that coincide with the 03-853 fault, refer to **SCP 1**.
7. **03-396 Only:** If necessary, go to the **04A** Main Drive Motor and Photoreceptor Motor RAP. Perform the photoreceptor motor checkout.

8. As necessary, install new components:

- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.
- LVPS and base module, **PL 1.10 Item 3**.



**1** THESE LINES ARE HELD LOW DURING NORMAL OPERATION BY WATCHDOG ACTIVITY. FAILURE OF THIS ACTIVITY ALLOWS MACHINE TO ENTER SLEEP OR DEGRADE MODE



TT-1-0083-A

Figure 1 Circuit diagram



## 03-397 Main Motor Not Controlled RAP

**03-397** The IOT software has detected that the main motor is not being controlled. The software that monitors the main motor and the photoreceptor motor was not reset within the expected time.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Switch off the machine, then switch on the machine, GP 14.
- Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to the OF10 intermittent Failure RAP.

### Procedure

Ensure that the connectors that follow are securely connected:

- IOT PWB, PL 1.10 Item 2.
- LVPS and base module, PL 1.10 Item 3.
- Main drive motor and PWB, (35-55 ppm) PL 4.15 Item 6 or (65-90 ppm) PL 4.10 Item 6.

**The fault is still present.**

Y N  
Perform SCP 6 Final Actions.

Go to Flag 1 and Flag 2. Check the wiring, GP 7. **The wiring is good.**

Y N  
Repair the wiring, GP 7.

Go to Flag 1. Check the voltages at P/J16, pins 1 and 2 on the LVPS. **The voltages are correct.**

Y N  
As necessary, refer to:

- 01B 0V Distribution RAP.
- 01G +24V Distribution RAP.

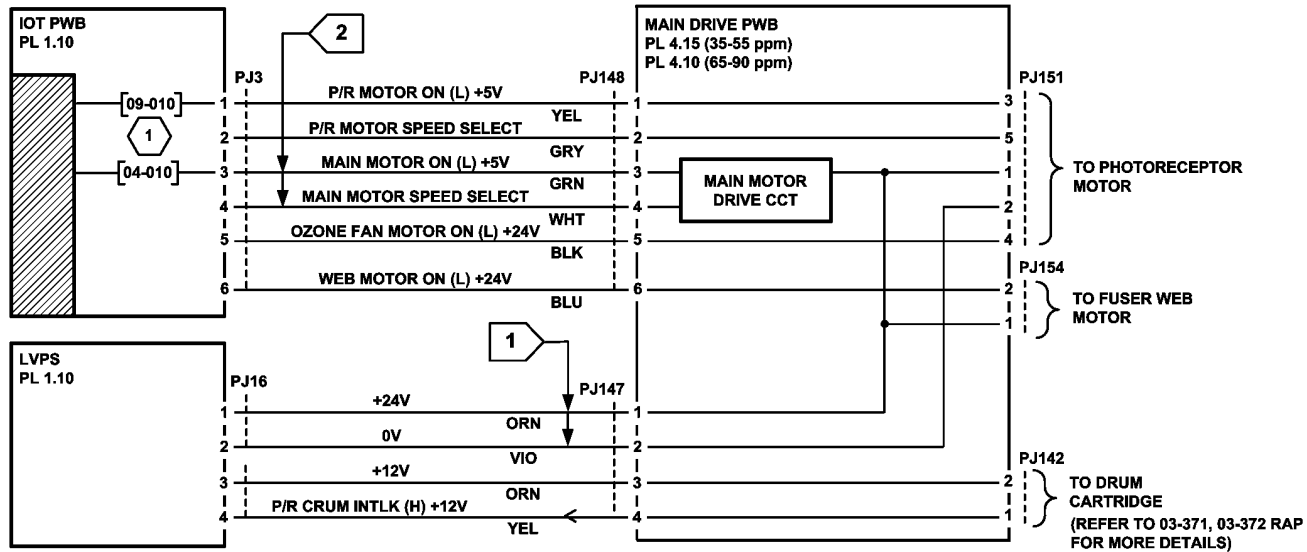
Go to Flag 2. Measure the voltage at P/J3 pin 3, on the IOT PWB. Enter dC330 code 04-010, Main Motor On. Stack the photoreceptor motor code, 09-010. **The voltage changes from high to low and the main motor runs.**

Y N  
Perform the OF7 IOT PWB Diagnostics RAP. If necessary, install new components:

- IOT PWB, PL 1.10 Item 2.
- Main drive motor and PWB, (35-55 ppm) PL 4.15 Item 6 or (65-90 ppm) PL 4.10 Item 6.

Reload the software, GP 4, Machine Software. If necessary, install new components:

- Perform the OF7 IOT Diagnostics RAP before installing a new IOT PWB, PL 1.10 Item 2.
- Main drive motor and PWB, (35-55 ppm) PL 4.15 Item 6 or (65-90 ppm) PL 4.10 Item 6.



1 RUN THE CODE 04-010 WITH 09-010, THE P/R MOTOR

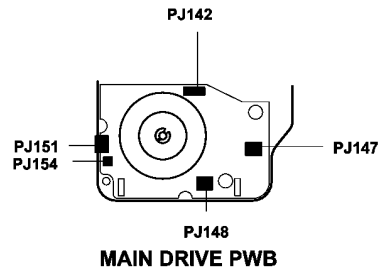
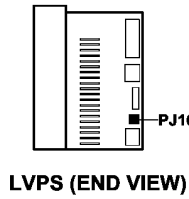
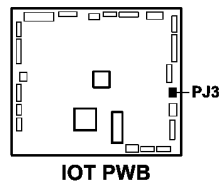


Figure 1 Circuit diagram

TT-1-0084-A

## 03-401, 03-403 Fax Not Detected RAP

03-401 The embedded fax PWB has not been detected or confirmed.

03-403 The extended fax PWB has not been confirmed or detected.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, GP 14.

Perform the following:

1. Check that the embedded fax PWB has been installed, PL 20.10 Item 4.
  2. (W/O TAG X-001) Check that the compact flash is inserted correctly, PL 20.10 Item 3.
  3. Go to 20G Embedded Fax Checkout.
  4. Install a new embedded fax PWB, PL 20.10 Item 4.
- (W/O TAG X-001) Repeat the above checks for the extended fax PWB, and if necessary, install a new extended fax PWB, PL 20.10 Item 2.

## 03-412 Foreign Device PWB Fault RAP

03-412 The foreign interface device was not detected at power on.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Do not show the customer how to install a temporary shorting link. Do not leave a shorting link installed.

- Switch off the machine, then switch on the machine, GP 14.
- Ensure the foreign interface PWB, PL 3.22 Item 4 is securely connected to the single board controller PWB, PL 3.24 Item 3.

**NOTE:** Do not attach a foreign interface vend adaptor with this configuration of foreign interface PWB.

### Procedure

Go to Flag 1. Check the harness. **The harness is good.**

Y N

Perform the following as necessary:

- Repair the harness. Refer to GP 7.
- Install a new foreign interface harness, PL 3.22 Item 5.

**NOTE:** Do not attempt to repair the harness from PJ124 to the foreign device.

Check the +3.3V supply to PJ201 at pins 1, 5, 9, 16 and 22 on the single board controller PWB, **The +3.3V supply is good.**

Y N

Go to:

- 01D +3.3V Distribution RAP.
- 01B 0V Distribution RAP.

Disconnect the foreign device. Install a temporary shorting link between pins 2 and 3 on PJ124. Check the voltage at PJ124 pin 2. **0V is measured.**

Y N

Install a new foreign interface PWB, PL 3.22 Item 4.

If the fault remains, the foreign device is faulty.

Disconnect the foreign device. Install a temporary shorting link between pins 1 and 3 on PJ124. Check the display. Ensure the machine is now enabled to scan or print. **The machine is enabled.**

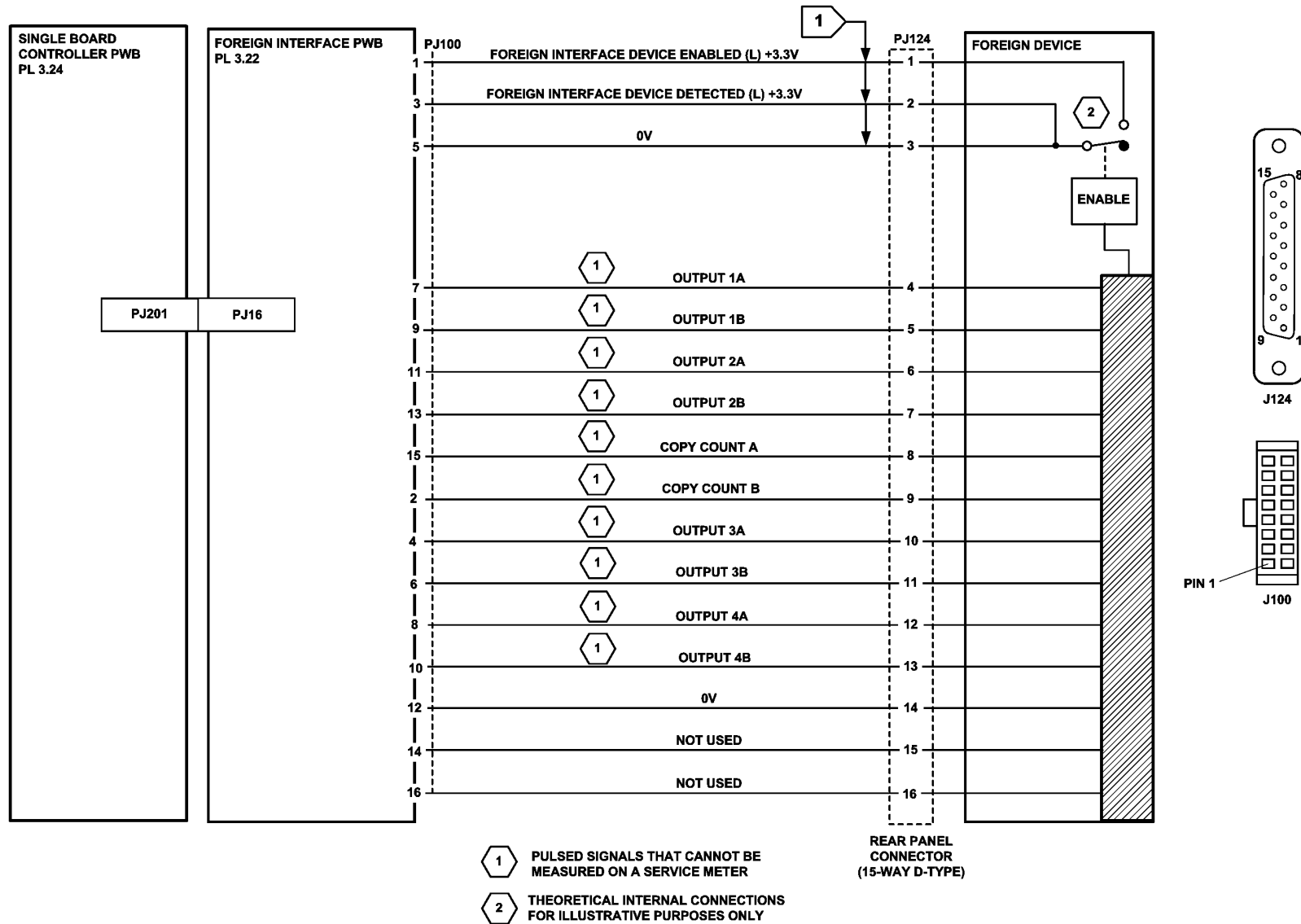
Y N

Install new components as necessary:

- Install a new foreign interface PWB, PL 3.22 Item 4.
- Single board controller PWB, PL 3.24 Item 3.

The enable circuits are working correctly.

**NOTE:** Currently the signals used for billing, e.g. machine function, premium tray, etc. cannot be adequately measured with a standard meter.



TT-1-0085-A

Figure 1 Circuit diagram

## 03-415 Tray 5 Module Not Detected / Confirmed RAP

**03-415** The IOT PWB has not detected the tray 5 module at startup, or has failed to detect the tray 5 module during printing.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check that the sleeved harness from the tray 5 module is correctly and securely connected to PJ501 at the rear of the machine.

### Procedure

Switch off the machine, GP 14. Go to Flag 1. Check that there is continuity between P/J12, pins 3 and 4. **There is continuity.**

**Y N**

Perform the following:

- Check the wiring between P/J12 and P/J501. Repair the wiring as necessary, GP 7.
- Check the wiring between P/J501 and P/J512 on the Tray 5 control PWB. Repair the wiring as necessary, GP 7.
- Check the condition of P/J501, paying attention to the condition of the pins. Repair the wiring as necessary, GP 7.
- Check the loop between pins 19 and 20 on P/J501. Repair the wiring as necessary, GP 7.

Switch on the machine, GP 14. With P/J501 disconnected, check for +3.3V at P/J12, pin 3. Check for 0V at P/J12, pin 4.

As necessary, perform the following:

- Go to 01D +3.3V Distribution RAP.
- Go to 01B 0V Distribution RAP.
- Perform OF7 IOT PWB Diagnostics RAP before installing a new IOT PWB, PL 1.10 Item 2.

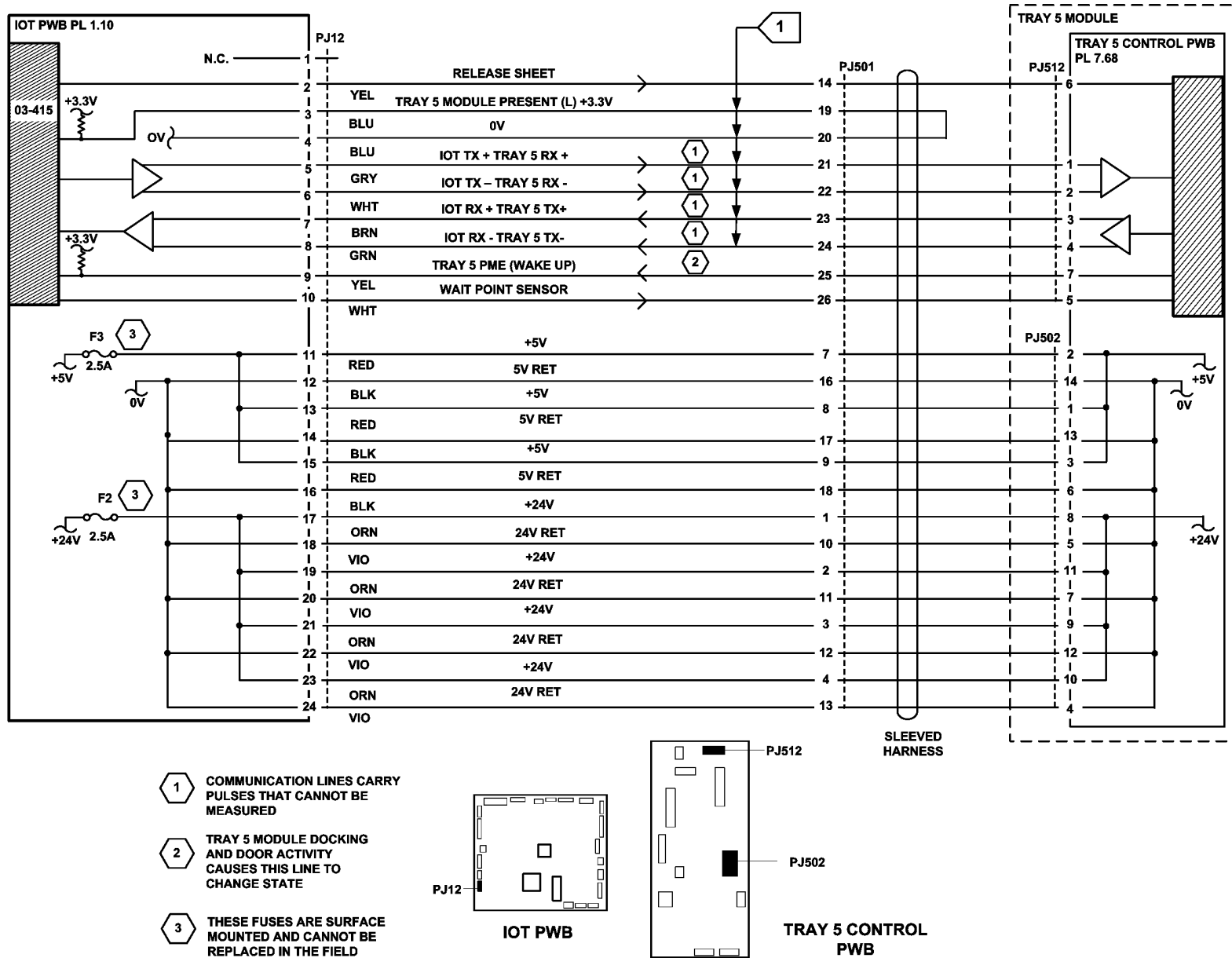


Figure 1 Circuit diagram

## 03-417 Incompatible Fax Software RAP

**03-417** The Fax software version supplied at power up is not compatible with the image processing software.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the machine, then switch on the machine, **GP 14**.
2. Reload the software, **GP 4**.
3. Install a new embedded fax PWB, **PL 20.10 Item 4**.

## 03-419, 03-420 Incompatible Software RAP

**03-419** The IOT, DADH or user interface software version supplied at power on is not compatible with the image processing software.

**03-420** The tray 5 module software version supplied at power on is not compatible with the image processing software.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the machine, then switch on the machine, **GP 14**.
2. Reload the software, **GP 4** Machine Software.
3. Install new parts as necessary:
  - Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.
  - DADH PWB, **PL 5.10 Item 5**.
  - UI control PWB, **PL 2.10 Item 11**.
  - Single board controller PWB, **PL 3.24 Item 3**.

## 03-423, 424, 433, 434, 821, 822, 831, 832 Print Command Late RAP

**03-423** The IOT detected print command late with respect to page sync in simplex 3 mode.

**03-424** The IOT detected print command late with respect to page sync in simplex 4 mode.

**03-433** The IOT detected print command late with respect to page sync in duplex 3 mode.

**03-434** The IOT detected print command late with respect to page sync in duplex 4 mode.

**03-821** The IOT detected print command late with respect to page sync in simplex 1 mode.

**03-822** The IOT detected print command late with respect to page sync in simplex 2 mode.

**03-831** The IOT detected print command late with respect to page sync in duplex 1 mode.

**03-832** The IOT detected print command late with respect to page sync in duplex 2 mode.

All of the above faults will be seen as output pages out of order caused by confused software.

### Procedure

**NOTE:** These codes record events in the fault history file, but may not prevent the machine operating normally. These faults will also result in a blank sheet being delivered to the output tray.

1. Delete the job. Switch off, then switch on the machine, [GP 14](#).
2. Reload the software, [GP 4](#).
3. Install new components as necessary:
  - ROS, [PL 6.10 Item 4](#).
  - Single board controller PWB, [PL 3.24 Item 3](#).
4. If the fault remains, perform the [OF7](#) IOT PWB Diagnostics RAP.

## 03-480 IOT +24V Supply Failure RAP

**03-480** The IOT has detected a +24V supply fault.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Measure the voltage from F1 fuse on the IOT PWB to the machine frame. The F1 is a small white fuse under PJ27 on the IOT PWB. Refer to [01G +24V Distribution RAP](#), Figure 4. If the voltage is less than +24V, install a new LVPS, [PL 1.10 Item 3](#).

### Procedure

1. Perform the [OF7](#) IOT PWB Diagnostics RAP.



## 03-700, 03-780, 03-785, 03-790 Power On / Power Off Event Fault RAP

**03-700** This fault code in the fault history file indicates that the single board controller PWB module has performed the power on sequence.

**03-780** This fault code in the fault history file indicates that quick restart has been selected from the power down options pop up window.

**03-785** This fault code in the fault history file indicates that power off has been selected from the power down options pop up window.

**03-790** This fault code in the fault history file indicates that power off has been selected from the machine fault pop up window.

### Procedure

These codes record events in the fault history file, but do not prevent the machine operating normally. They will be visible in the fault history file adjacent to the fault that caused the user to switch off the machine, then switch on the machine. They can therefore be used as an aid to identifying the root cause of faults.

## 03-720 ODIO Time-out Error RAP

**03-720** The image processing software has not detected on ODIO (On Demand Image Overwrite) completion response within 45 minutes. This indicates that a memory module may be hung up, or may have crashed while overwriting an image.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Switch off the machine, then switch on the machine, [GP 14](#).

### Procedure

When the response time has been exceeded, the system records the event with this fault code and then returns the machine to normal operation. If the machine is not operating normally, perform the following:

1. Check the Fax confirmation report and the ODIO confirmation report to establish which memory module is not overwriting.
2. Install new parts as necessary:
  - **(W/O TAG X-001)** Fax compact flash memory, [PL 20.10 Item 3](#).
  - **(W/TAG X-001)** Embedded fax PWB, [PL 20.10 Item 4](#).
  - Hard disk drive, [PL 3.22 Item 2](#).

## 03-770 IOT PWB Software Reset RAP

**03-770** This fault code in the fault history file indicates that the IOT PWB has been reset due to a software fault.

### Procedure

This code records an event in the fault history file, but does not prevent the machine operating normally.

## 03-777 Power Loss Detected RAP

**03-777** This fault code in the fault history file indicates that the system has previously detected a power input loss.

### Procedure



### **WARNING**

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Check with the customer that the AC mains (line) input power supply is not experiencing interruptions.
2. Check with the customer that the machine does not share a power supply with any other equipment. Sharing a power supply may cause the safety over current device to switch off the electricity to the machine. This would cause a 03-777 fault. If possible, ensure the machine is connected to a dedicated power supply.
3. Go to the **01C** AC Power RAP and check the power input circuit and its connectors.
4. Check the fault history file for other 03-XXX fault codes. If the 03-XXX fault codes occur randomly, the cause may be due to electrical noise. Go to the **OF10** intermittent Failure RAP.

## 03A Single Board Controller PWB Module Cooling Fan Failure RAP

Use this RAP if the single board controller PWB module cooling fan is suspected of failure.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Note the orientation of the cooling fan, [PL 3.24 Item 2](#) before installing a new component.

- Go to [Flag 1](#). Check the cooling fan in the single board controller PWB module. Refer to:
  - [GP 10](#), How to Check a Motor.
  - [P/J221](#) on the [Single Board Controller PWB](#).
  - [01F](#), +12V Distribution RAP.
  - [01B](#), 0V Distribution RAP.
- If necessary, install new components:
  - Cooling fan, [PL 3.24 Item 2](#).
  - Single board controller PWB, [PL 3.24 Item 3](#).

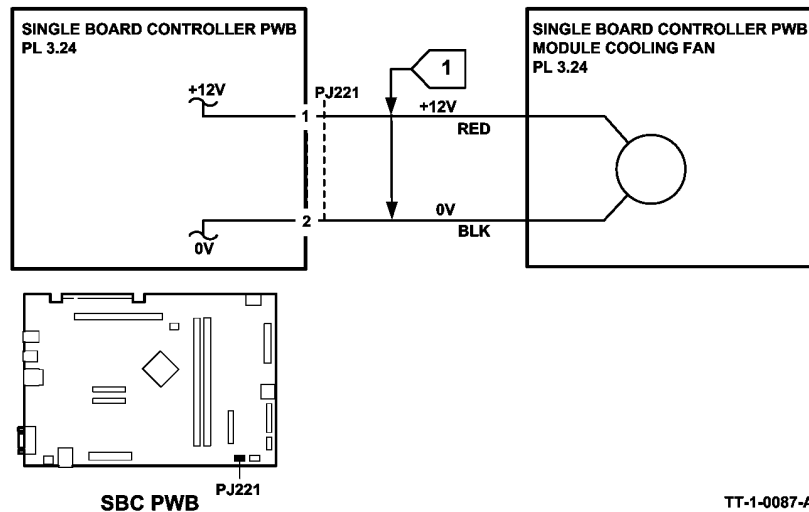


Figure 1 Circuit diagram

## 03B Mark Service Unavailable RAP

Before performing this RAP, any relevant status code RAP must have been performed.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, [GP 14](#).

### Procedure

- Switch off the power, disconnect the power cord and ensure all the P/Js are properly installed on the IOT PWB, [PL 1.10 Item 2](#) and single board controller PWB, [PL 3.24 Item 3](#).
- Reload the software, [GP 4](#), Machine Software.
- Ensure that the output device communications cord is connected and secure, at PJ151 on the [Power and Control Assembly](#) at the rear of the machine.
- Install new components:
  - Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).
  - Single board controller PWB, [PL 3.24 Item 3](#).

## 03C Hard Disk Failure RAP

Use this RAP to determine failure of the hard disk drive.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the Boot Up Failure RAP OF5.

### Procedure

1. Switch off the machine GP 14.
2. Go to [Wiring Diagram 4](#), check the wiring between the hard disk drive, power distribution PWB and single board controller PWB, GP 7.
3. Repair the wiring or install a new harness where necessary.
4. Check for +5V distribution, refer to the [01E +5V Distribution RAP](#).
5. Check for +12V distribution, refer to the [01F +12V Distribution RAP](#).
6. Perform the Forced AltBoot Software Loading Procedure GP 4.
7. If necessary, install new components:
  - Hard disk drive, [PL 3.22 Item 2](#).
  - Power distribution PWB, [PL 3.24 Item 5](#).
  - Single board controller PWB, [PL 3.24 Item 3](#).

## 03D Software Module Failure RAP

Use this RAP to determine failure of the software module.

### Failure Symptoms

- The machine may intermittently display the following re-occurring messages:
  - Scanner fault (but no scanner fault code in fault history)
  - Re-order but do not replace the fuser module (but no fuser fault code in fault history)
  - Local interface problem detected
  - Network controller unavailable
  - Network controller unavailable together with many of one or more of 03-300, 03-320, 03-330 and 03-340 fault codes in fault history
- The machine displays a replace xerographic module message, even though the xerographic module is new or fairly new and nowhere near the end of life total
- After a new xerographic module has been installed, in machine status/supplies, the xerographic module image count should be 0 and projected life should be 365 days. But instead the projected life is 0 days, which triggers the replace xerographic module now / no prints can be made until the xerographic module has been replaced message. In this case, it not just the machine logic erroneously reporting end of life, the CRUM in the xerographic module has been killed and will not function even if installed in a working machine.

### Procedure

The cause of all the failure symptoms is a defective software module, perform the following:

1. Install a new software module, [PL 3.24 Item 8](#).
2. Install a new xerographic module, [PL 9.20 Item 2](#) (40 to 90 ppm) [PL 9.22 Item 2](#) (35 ppm).

## 03E Foreign Device PWB Fault RAP

Use this RAP when the foreign interface device is not detected at power on.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP XX. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Do not show the customer how to install a temporary shorting link. Do not leave a shorting link installed.

- Switch off the machine, then switch on the machine, GP 14.
- Ensure the foreign interface PWB, PL 3.22 Item 4 is securely connected to the single board controller PWB, PL 3.24 Item 1.
- Ensure the foreign device is enabled, refer to GP 24 Customer Administration Tools. Select Tools > Accounting settings > Accounting mode > Auxiliary access > Auxiliary device type. Select, if listed your type of device (?) or Generic > O.K, then exit Tools.

**NOTE:** Do not attach a foreign interface vend adaptor with this configuration of foreign interface PWB.

### Procedure

Go to Flag 1. +3.3V is available at P/J100 between pins 2 and 3, also between pins 1 and 3.

Y N  
Disconnect the foreign device from P/J124. +3.3V is available at the connector on the machine, between pins 2 and 3, also between pins 2 and 3.

Y N  
Disconnect P/J100. +3.3V is available at J100 on the foreign interface PWB between pins 2 and 3, also between pins 1 and 3.

Y N  
Disconnect the foreign interface PWB. +3.3V is available at P/J201 on the single board controller PWB at pins 1, 5, 9, 16 and 22.

Y N  
Check the voltages that follow:

- +5V supply to the +3V generator on the SBC PWB. Refer to the 01D +3.3V Distribution RAP.
- +5V return supply to the +3V generator on the SBC PWB. Refer to the 01B 0V Distribution RAP.

If the supplies are good, perform the 03D SBC PWB Diagnostics RAP.

Install a new foreign interface PWB, PL 3.22 Item 4.

Install a new foreign device interface harness, PL 3.22 Item 4.

The foreign device is faulty.

A  
Disconnect the foreign device. Install a temporary shorting link between pins 2 and 3 on P/J124. Check the voltage at P/J124 pin 1. 0V is measured.

Y N  
Install a new foreign interface PWB, PL 3.22 Item 4. If the fault persists, the foreign device is faulty.

Install a temporary shorting link between pins 1 and 3 on P/J124. Check the display. Ensure the machine is now enabled to scan or print. The machine is enabled.

Y N  
Install a new foreign interface PWB, PL 3.22 Item 4. If the fault persists, perform the 03D SBC PWB Diagnostics RAP.

The enable circuits are working correctly.

**NOTE:** Currently the signals used for billing, e.g. machine function, or premium tray, cannot be adequately measured with a standard service meter.

A

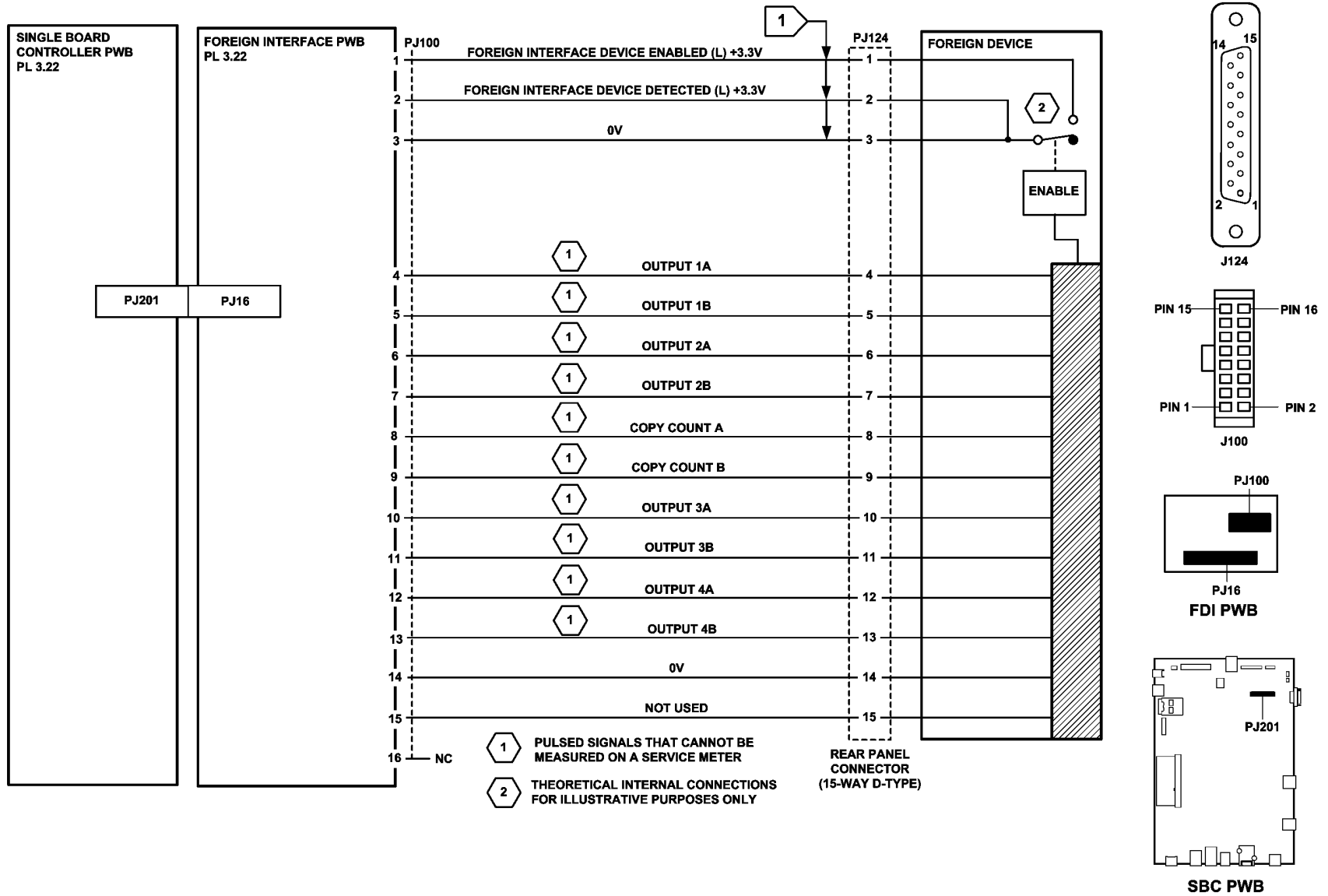


Figure 1 Circuit diagram

TT-1-0299-A

## 04A Main Drive Motor and Photoreceptor Motor RAP

Use this RAP to determine failures of the main drive motor and the photoreceptor motor.

### Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Go to [Flag 1](#). Check for +24V between [P/J147](#) pin 1 and pin 2 on the [Main Drive PWB](#). +24V is measured.

Y N

Ensure that the drum cartridge is correctly installed and that the CRUM connector is not damaged.

Check the wiring, [GP 7](#), to the LVPS. Refer to:

- [01H](#) Short Circuit and Overload RAP.
- [01B](#) 0V Distribution RAP.

Enter [dC330](#), code 04-010 main drive motor and code 09-010 photoreceptor motor, [Figure 1](#). Press Start. The main drive motor and the photoreceptor motor turn.

Y N

If the photoreceptor motor does not turn, go to the [04A Photoreceptor Motor Checkout](#). If the main drive motor does not turn, go to the [04A Main Drive Motor Checkout](#).

Check all the wiring and connections between the IOT PWB and the main drive module for damage and loose connections.

### 04A Photoreceptor Motor Checkout

Go to [Flag 3](#) and [Flag 4](#). Check the wiring, [GP 7](#). Refer to:

- [P/J3](#), [IOT PWB](#).
- [P/J148](#), [Main Drive PWB](#).
- [P/J151](#), [Main Drive PWB](#).

Install new components as necessary:

- Main drive motor and PWB assembly (35 ppm), [PL 4.15 Item 6](#).
- Main drive motor and PWB assembly (40-55 ppm), [PL 4.15 Item 6](#).
- Main drive motor and PWB assembly (65-90 ppm), [PL 4.10 Item 6](#).
- Main drive module (35 ppm), [PL 4.15 Item 1](#).
- Main drive module (40-55 ppm), [PL 4.15 Item 1](#).
- Main drive module (65-90 ppm), [PL 4.10 Item 1](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

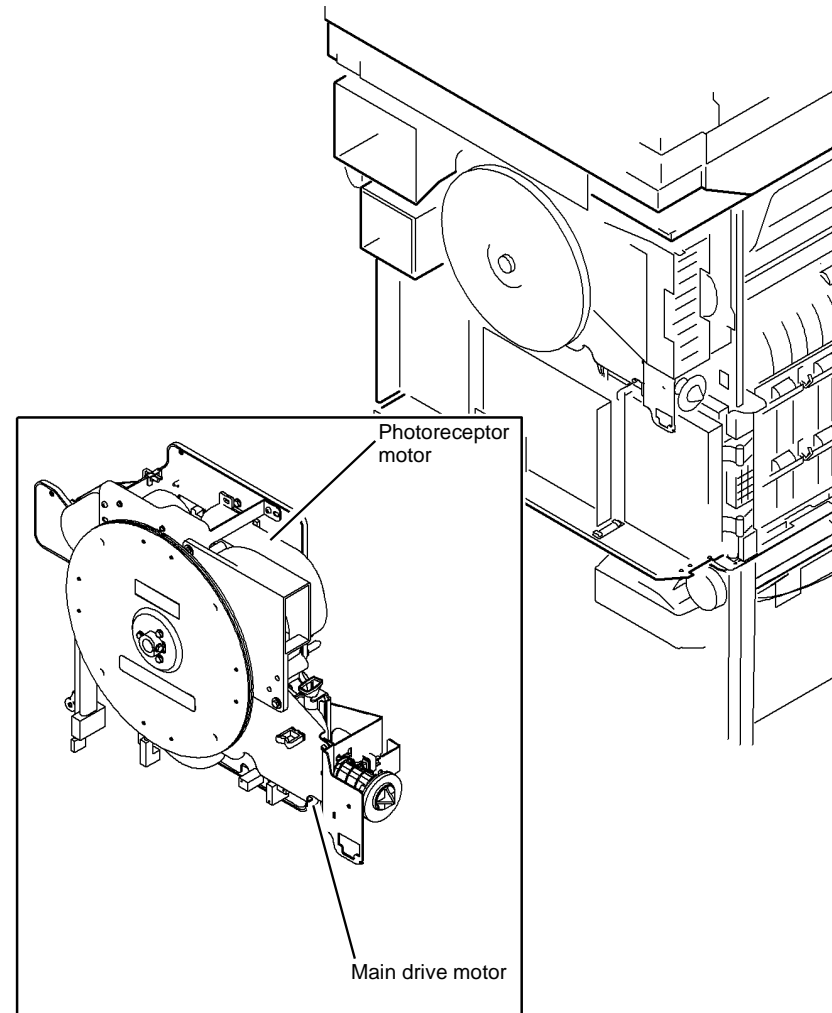
### 04A Main Drive Motor Checkout

Go to [Flag 2](#). Check the wiring, [GP 7](#). Refer to:

- [P/J3](#), [IOT PWB](#)
- [P/J148](#), [Main Drive PWB](#).

Install new components as necessary:

- Main drive motor and PWB assembly (35 ppm), [PL 4.15 Item 6](#).
- Main drive motor and PWB assembly (40- 55 ppm), [PL 4.15 Item 6](#).
- Main drive motor and PWB assembly (65 - 90 ppm), [PL 4.10 Item 6](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).



T-1-0038-A

Figure 1 Component location

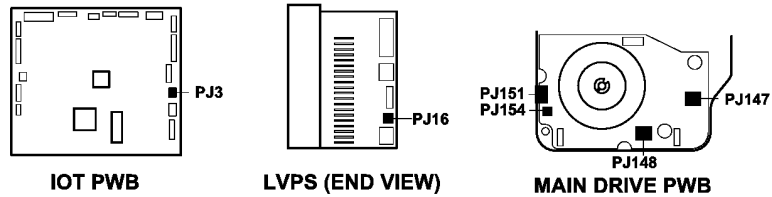
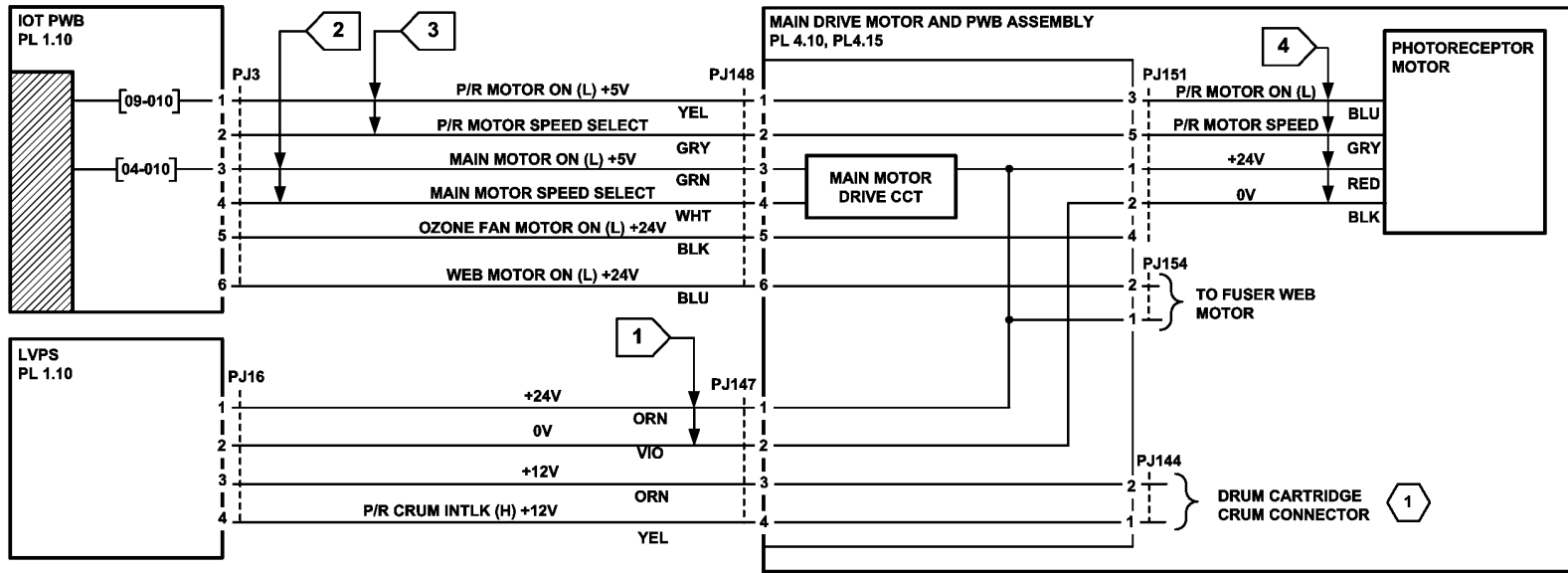


Figure 2 Circuit diagram

TT-1-0088-A



## 05-300 DADH Open RAP

05-300 The DADH closed switch detects that the DADH is open during run.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check that the DADH magnet is installed and aligned correctly. Refer to Figure 1.

### Procedure

**NOTE: (W/O TAG 150)** To get access to the bulkhead connector, remove the user interface assembly, PL 2.10 Item 1. To get access to the DADH closed switch, remove the top cover, PL 14.20 Item 3, from the scanner module. To get access to the scanner PWB, remove the document glass, PL 14.20 Item 5 and the scanner PWB cover, PL 14.25 Item 1.

**NOTE: (W/TAG 150)** To get access to the bulkhead connector, remove the user interface assembly, PL 2.10 Item 1. To get access to the DADH closed switch, remove the top cover, PL 14.10 Item 3, from the scanner module. To get access to the scanner PWB, remove the document glass, PL 14.10 Item 5 and the scanner PWB cover PL 14.15 Item 1.

Enter dC330 code 05-300 to check the DADH closed switch, S05-300. Open and close the DADH. **The display changes.**

Y N

Go to Flag 1. Check S05-300.

References:

- GP 13 How to Check a Switch.
- (W/O TAG 150) P/J453 and the bulkhead connector.
- (W/TAG 150) P/J927 and the bulkhead connector.
- 01D +3.3V Distribution RAP.
- The 3.3V return in the 01B 0V Distribution RAP.

Install new components as necessary:

- DADH closed switch (W/O TAG 150), PL 14.25 Item 6.
- DADH closed switch (W/TAG 150), PL 14.15 Item 6.
- Scanner PWB (W/O TAG 150), PL 14.25 Item 4.
- Scanner PWB (W/TAG 150), PL 14.15 Item 4.

Perform the steps that follow. Install new components as necessary:

- Check that S05-300 is installed correctly.
- Check the DADH frame for distortion, go to ADJ 5.2. If the DADH frame is distorted, install a new DADH, PL 5.10 Item 9.

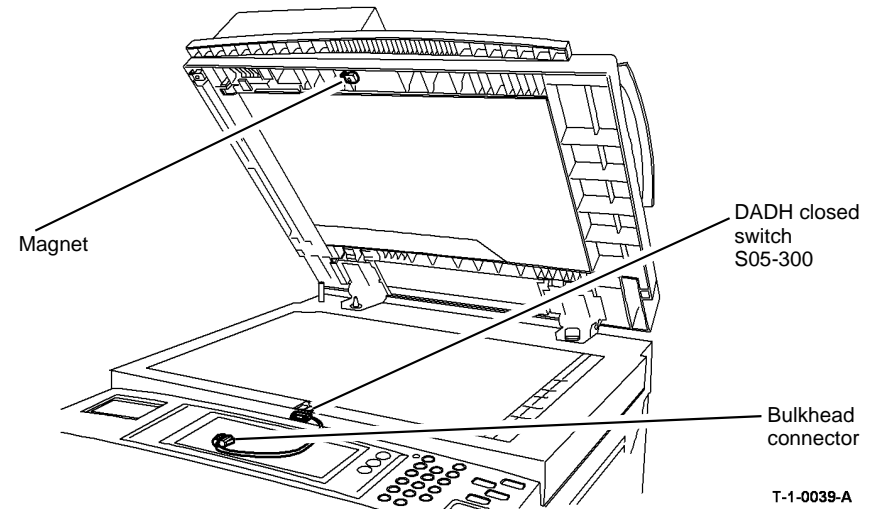


Figure 1 Component location

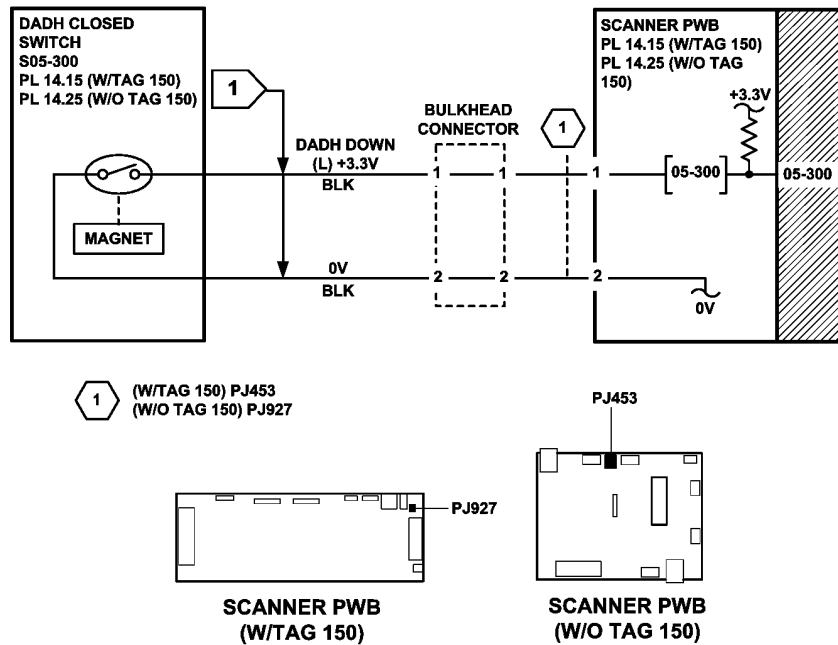


Figure 2 Circuit diagram

TT-1-0089-A

## 05-305 DADH Top Cover Open RAP

05-305 The DADH top cover interlock switch detects that the top cover is open.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Remove all documents from the DADH.
- Check the top cover interlock actuator, Figure 1. If the actuator is damaged, install a new DADH top cover, PL 5.20 Item 15.
- Make sure the latch springs, PL 5.20 Item 7 are installed correctly. Make sure that the top cover closes correctly. If necessary, install a new top access cover assembly, PL 5.20 Item 17.

### Procedure

Enter dC330 code 05-305 to check the DADH top cover interlock switch, S05-305. Activate S05-305. **The display changes.**

Y N

Go to Flag 1. Check S05-305.

References:

- GP 13 How to Check a Switch.
- P/J187, DADH PWB.
- 01G +24V Distribution RAP.
- The 24V return in the 01B 0V Distribution RAP.

Install new components as necessary:

- DADH top cover interlock switch (35 ppm), PL 5.15 Item 11.
- DADH top cover interlock switch (40-90 ppm), PL 5.17 Item 11.
- DADH PWB, PL 5.10 Item 5.

Check that S05-305 is installed correctly. Install new components as necessary.

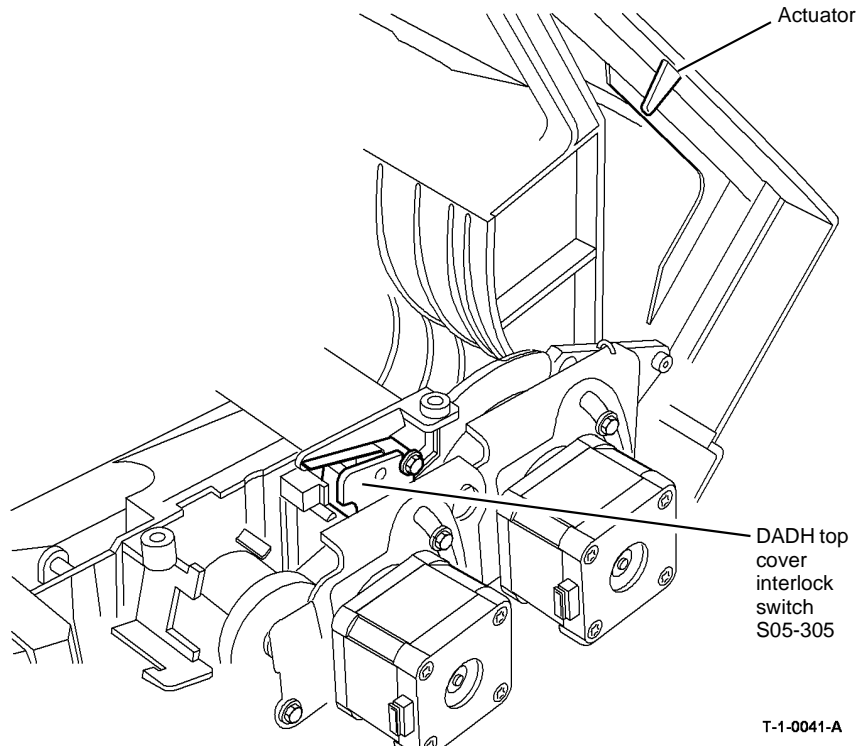
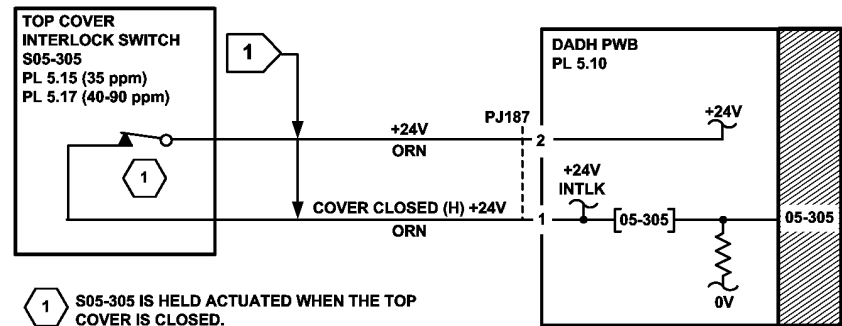


Figure 1 Component location

T-1-0041-A



1 S05-305 IS HELD ACTUATED WHEN THE TOP COVER IS CLOSED.

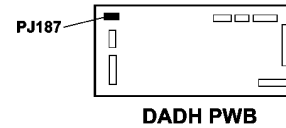


Figure 2 Circuit diagram

TT-1-0090-A

## 05-310 Document too Short RAP

05-310 The DADH detects a document that is shorter than 110mm.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Remove all documents from the DADH.
- Make sure that the documents are longer than 110mm (4.3 inches).
- Check for toner contamination on and in the locality of the feed sensor Q05-330, **PL 5.17** Item 2.

### Procedure

If the documents are longer than 110mm, go to the procedures that follow:

- **05-330, 05-331** DADH Feed Sensor Failure Entry RAP.
- **05-335** DADH Takeaway Sensor Failure RAP.
- **05-350, 05-352** DADH CVT Sensor Failure RAP.
- **05-340** DADH Registration Sensor Failure RAP.

## 05-330, 05-331 DADH Feed Sensor Failure Entry RAP

05-330 The DADH feed sensor does not detect the lead edge of the document within the correct time after the feed motor runs.

05-331 The DADH feed sensor does not detect the trail edge of the document within the correct time.

### Procedure

Identify the speed of the machine, refer to **SCP 7** Machine Features. Perform one of the steps that follow:

- If the speed of the machine is 35 ppm, go to the **05-330A, 05-331A** DADH Feed Sensor Failure RAP (35 ppm).
- If the speed of the machine is 40-90 ppm, go to the **05-330B, 05-331B** DADH Feed Sensor Failure RAP (40-90 ppm).

## 05-330A, 05-331A DADH Feed Sensor Failure RAP (35 ppm)

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 05-330, 05-331 DADH Feed Sensor Failure Entry RAP.
- Remove all documents from the DADH.
- Make sure that the customer is not using damaged documents. If the DADH damages the documents, go to the 05F Damaged Documents RAP.
- Figure 1. Make sure that the feed sensor actuator is not damaged. If necessary, install a new feed sensor, PL 5.15 Item 2.
- Figure 1. Check that the feed roll assembly is installed correctly, go to REP 5.14.
- Figure 1. Make sure that the feed rolls are clean and rotate freely, refer to ADJ 5.4. If necessary, install a new feed roll assembly, PL 5.15 Item 1 or feed roll assembly cover, PL 5.15 Item 21.
- Figure 2. Check the operation of the feed yoke. Make sure that the feed yoke shaft is under the clip. Make sure that the feed yoke spring is connected to the feed assembly and to the feed yoke.
- While the DADH feed solenoid is de-energized, make sure that the feed gates are locked in the down position. Manually activate the DADH feed solenoid then make sure that the feed gates move freely. Manually de-activate the DADH feed solenoid, PL 5.15 Item 5.

**NOTE:** The feed solenoid remains activated (after being energized) until the last document has been fed. Then a reverse pulse de-actuates the armature to lift the nudger roll.

- Check the location of the feed solenoid spring. Make sure the spring is correctly located on the solenoid armature.
- Clean the DADH feed sensor and the area around the sensor, PL 5.15 Item 2.
- Clean the takeaway rolls, PL 5.35 Item 6. Refer to ADJ 5.4.

### Procedure

Open the DADH top cover. Remove the DADH rear cover, PL 5.10 Item 1. Hold the top cover interlock switch closed. Enter dC330 code 05-330 to check the DADH feed sensor, Q05-330. Activate Q05-330. **The display changes.**

Y N

Go to Flag 1. Check Q05-330.

References:

- GP 11 How to Check a Sensor.
- P/J184 DADH PWB.
- 01D +3.3V Distribution RAP.
- The 3.3V return in the 01B 0V Distribution RAP.

A

Install new components as necessary:

- DADH feed sensor, PL 5.15 Item 2.
- DADH PWB, PL 5.10 Item 5.

Enter dC330 code 05-020 to run the DADH feed motor, MOT05-020. **MOT05-020 runs.**

Y N

Go to the 05D DADH Motor Failure RAP.

While MOT 05-020 runs, stack the code 05-025 to energize the DADH feed clutch, CL05-025.

**NOTE:** The feed clutch disengages after 30 seconds. The feed motor stops after 3 minutes.

**CL05-025 energizes, the nudger rolls and the feed rolls rotate.**

Y N

Perform the steps that follow:

- Go to the 05E DADH Feed Clutch Failure RAP and check CL05-025.
- ADJ 5.1, DADH Drive Belt Adjustment.

Enter dC330 code 05-010 to energize the DADH feed solenoid, SOL05-010. **The feed roll assembly lowers, then raises after 10 seconds.**

Y N

Go to Flag 2. Check SOL05-010.

References:

- GP 12 How to Check a Solenoid or Clutch.
- P/J183, DADH PWB and P/J201.
- 01G +24V Distribution RAP.
- The 24V return in the 01B 0V Distribution RAP.

Install new components as necessary:

- DADH feed solenoid, PL 5.15 Item 5.
- DADH feed assembly, PL 5.15 Item 18.
- DADH PWB, PL 5.10 Item 5.

Perform the steps that follow:

- Check that the DADH feed sensor, Q05-330 is installed correctly. If necessary, install a new feed roll assembly, PL 5.15 Item 1.
- Ensure the feed motor drive belt and CVT motor drive belt are tensioned correctly, ADJ 5.1.
- When large documents are fed (A3 or 11x17 inch), check the following:
  - The CVT motor rotates freely, refer to 05D DADH Motor Failure RAP
  - The CVT drive belt, refer to ADJ 5.1 DADH Drive Belt Adjustment.
  - That the CVT roll is clean and rotates freely, refer to ADJ 5.4.

**NOTE:** If necessary install a new CVT motor, PL 5.25 Item 9.

- Go to the 05E DADH Feed Clutch Failure RAP and check CL05-025.
- Make sure that the size of the documents are sensed correctly. Refer to the 05C Document Size Sensor Failure RAP.

A

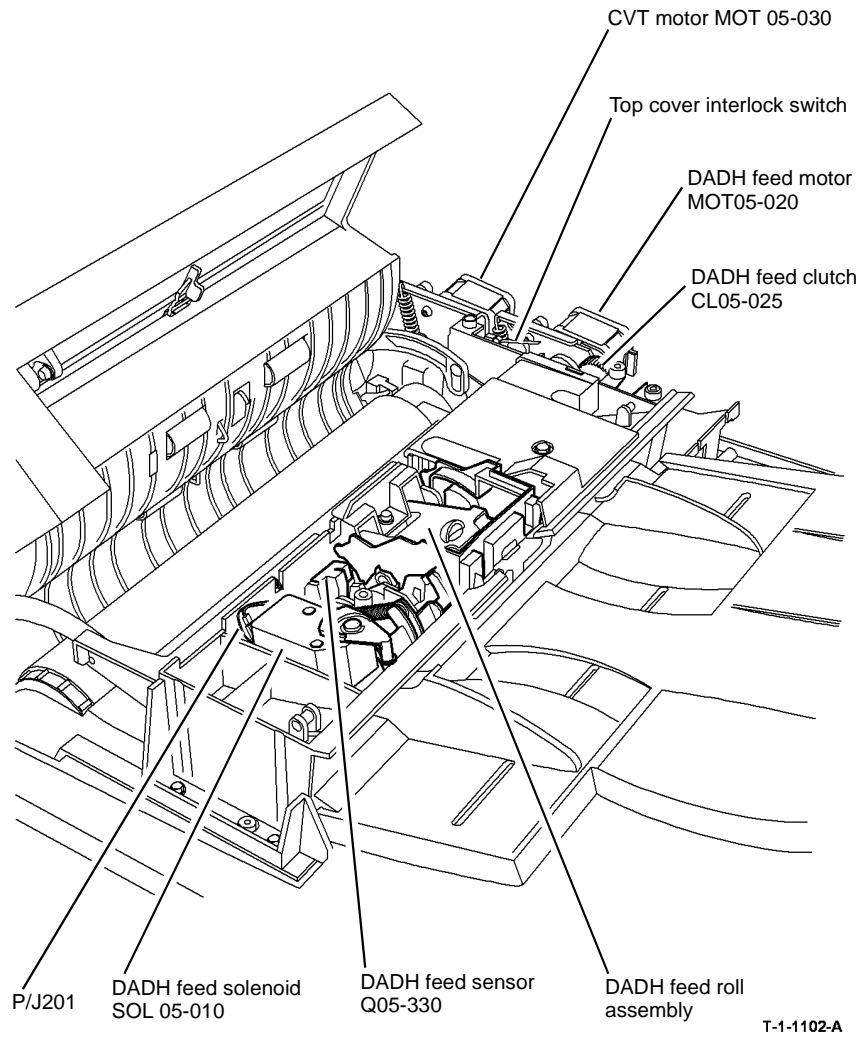


Figure 1 Component location

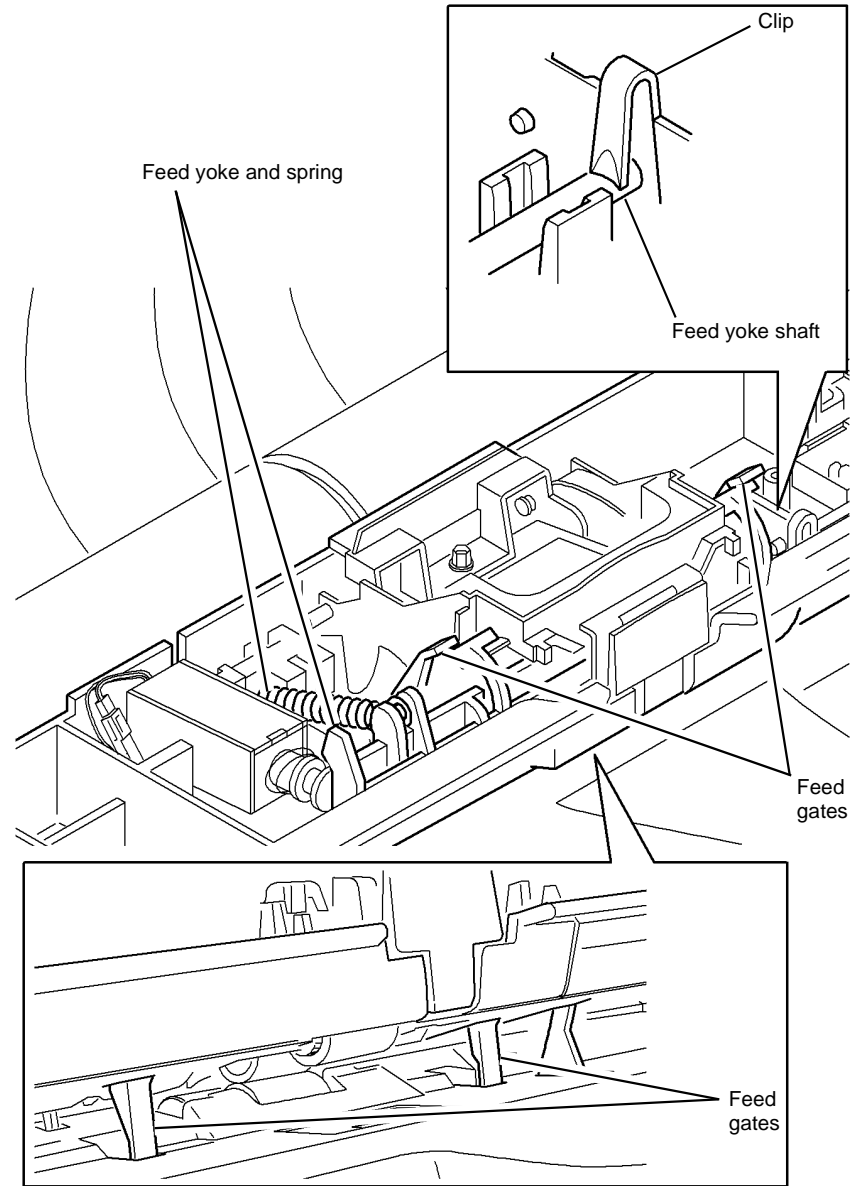


Figure 2 Component location

## 05-330B, 05-331B DADH Feed Sensor Failure RAP (40 to 90 ppm)

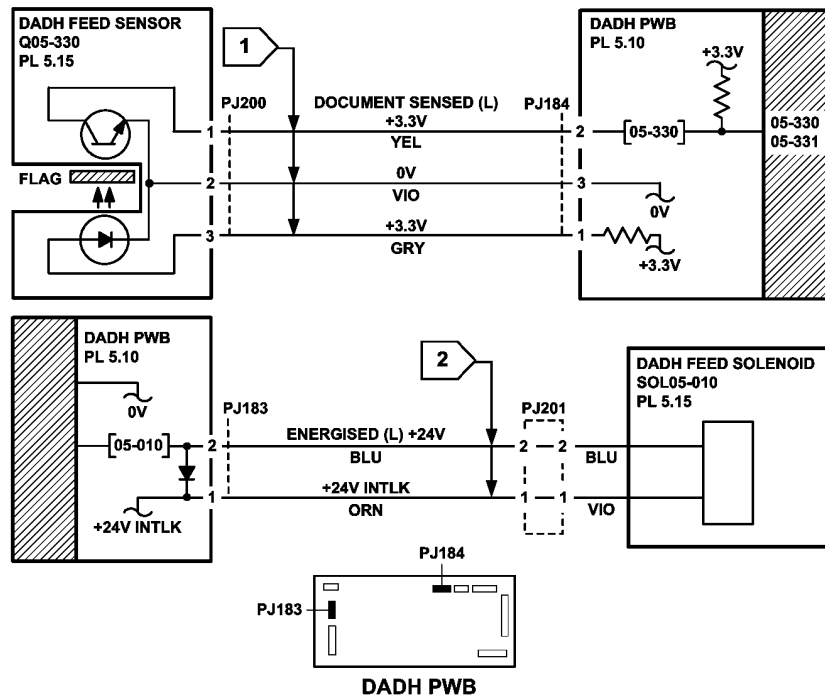
### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 05-330, 05-331 DADH Feed Sensor Failure Entry RAP.
- Remove all documents from the DADH.
- Make sure that the customer is not using damaged documents. If the DADH damages the documents, go to the 05F Damaged Documents RAP.
- Figure 1. Check that the feed roll assembly is installed correctly, go to REP 5.14.
- Figure 1. Make sure that the feed rolls are clean and rotate freely, refer to ADJ 5.4. If necessary, install a new feed roll assembly, PL 5.17 Item 1 or feed roll assembly cover, PL 5.17 Item 21.
- Figure 2. Check the operation of the feed yoke. Make sure that the feed yoke shaft is under the clip. Make sure that the feed yoke spring is connected to the feed assembly and to the feed yoke.
- Figure 2. Check that the feed yoke actuates and locks the feed gates in the down position. If necessary install a new feed yoke, PL 5.17 Item 6.
- Clean the DADH feed sensor and the area around the sensor, PL 5.17 Item 2.
- Clean the takeaway rolls, PL 5.35 Item 6. Refer to ADJ 5.4.



TT-1-0276-A

Figure 3 Circuit diagram

### Procedure

Open the DADH top cover. Remove the DADH rear cover, PL 5.10 Item 1. Hold the top cover interlock switch closed. Enter dC330 code 05-330 to check the DADH feed sensor, Q05-330. Activate Q05-330. **The display changes.**

Y N

Go to Flag 1. Check Q05-330.

References:

- GP 11 How to Check a Sensor.
- P/J184, DADH PWB
- 01E +5V Distribution RAP.
- The 5V return in the 01B 0V Distribution RAP.

Install new components as necessary:

- DADH feed sensor, PL 5.17 Item 2.
- DADH PWB, PL 5.10 Item 5.

Enter dC330 code 05-020 to run the DADH feed motor, MOT05-020. **MOT05-020 runs.**

Y N

Go to the 05D DADH Motor Failure RAP.

While MOT 05-020 runs, stack the code 05-025 to energize the DADH feed clutch, CL05-025.

**NOTE:** The feed clutch disengages after 30 seconds. The feed motor stops after 3 minutes.

**CL05-025 energizes, the nudger rolls and the feed rolls rotate.**

**Y N**  
Perform the steps that follow:

- Go to the **05E** DADH Feed Clutch Failure RAP and check CL05-025.
- **ADJ 5.1** DADH Drive Belt Adjustment.

Enter **dC330** code 05-010 to energize the DADH nudger motor, MOT05-010.

**NOTE:** 40-90 ppm machines are fitted with a nudger motor, **PL 5.17 Item 5**, not a feed solenoid SOL 05-010, **PL 5.15 Item 5** as installed on 35 ppm machines. The component control code 05-010 is used to energize both the nudger motor and feed solenoid. However, the UI displays the message 'doc handler feed solenoid' on both configurations.

**The feed roll assembly lowers, then raises after 10 seconds.**

**Y N**  
Go to **Flag 2**. Check nudger motor, MOT05-010.  
References:

- **GP 10** How to Check a Motor
- **P/J183**, **DADH PWB** and **P/J201**.
- **01G** +24V Distribution RAP.
- The 24V return in the **01B** 0V Distribution RAP.

Install new components as necessary:

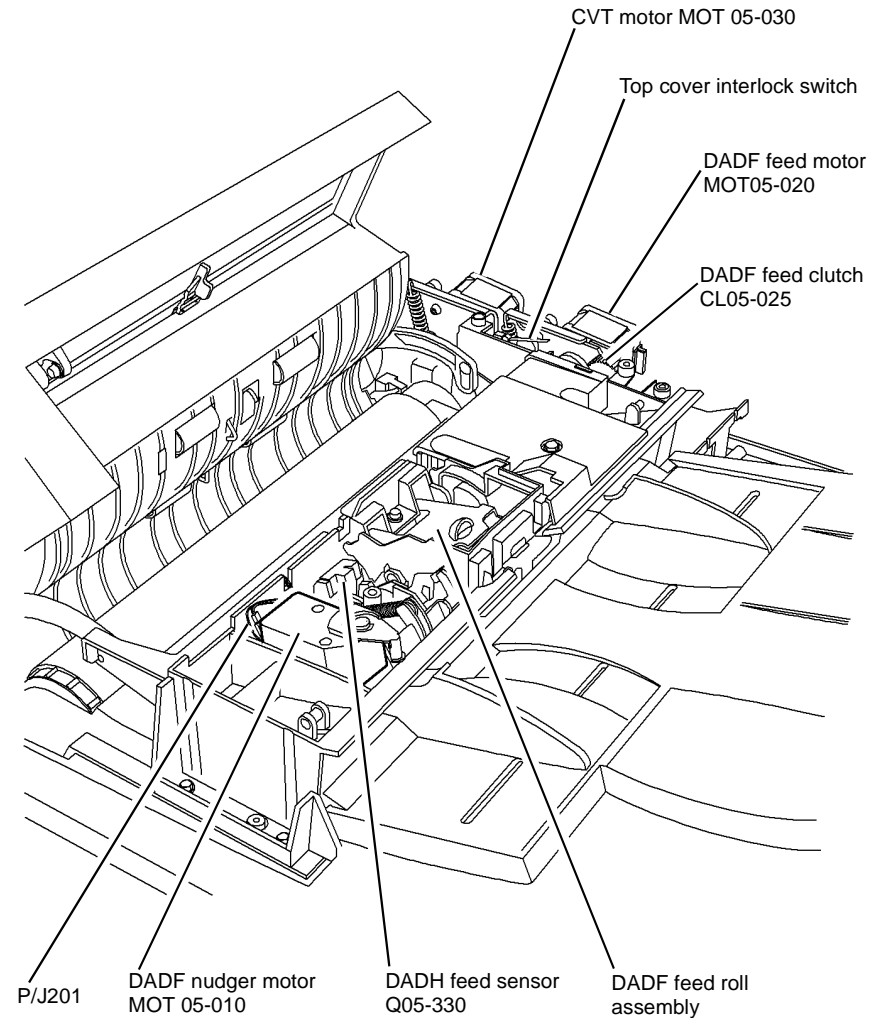
- DADH feed assembly, **PL 5.17 Item 8**.
- DADH PWB, **PL 5.10 Item 5**.
- If **TAG D-003** has not been struck, install a shim kit, **PL 5.17 Item 29**.

Perform the steps that follow:

- Check that the DADH feed sensor, Q05-330 is installed correctly. If necessary, install a new feed roll assembly, **PL 5.17 Item 1**.
- Ensure the feed motor drive belt and CVT motor drive belt are tensioned correctly, **ADJ 5.1**.
- When large documents are fed (A3 or 11x17 inch), check the items that follow:
  - Check that the CVT motor rotates freely, refer to **05D** DADH Motor Failure RAP.
  - Check the CVT drive belt, refer to **ADJ 5.1** DADH Drive Belt Adjustment.
  - Check that the CVT roll is clean and rotates freely, refer to **ADJ 5.4**.

**NOTE:** If necessary install a new CVT motor, **PL 5.25 Item 9**.

- Go to the **05E** DADH Feed Clutch Failure RAP and check CL05-025.
- Make sure that the size of the documents are sensed correctly. Refer to the **05C** Document Size Sensor Failure RAP.



T-1-0042-A

**Figure 1 Component location**



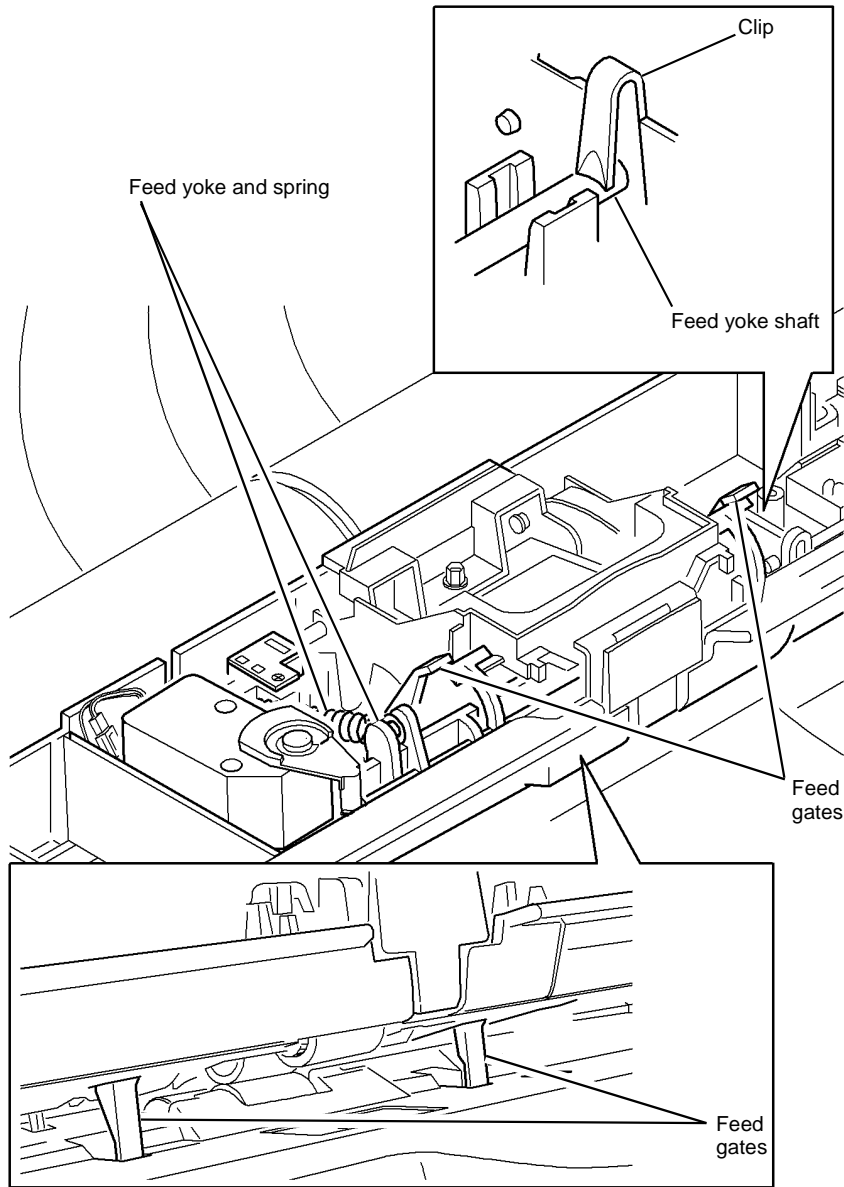


Figure 2 Component location

T-1-0043-A

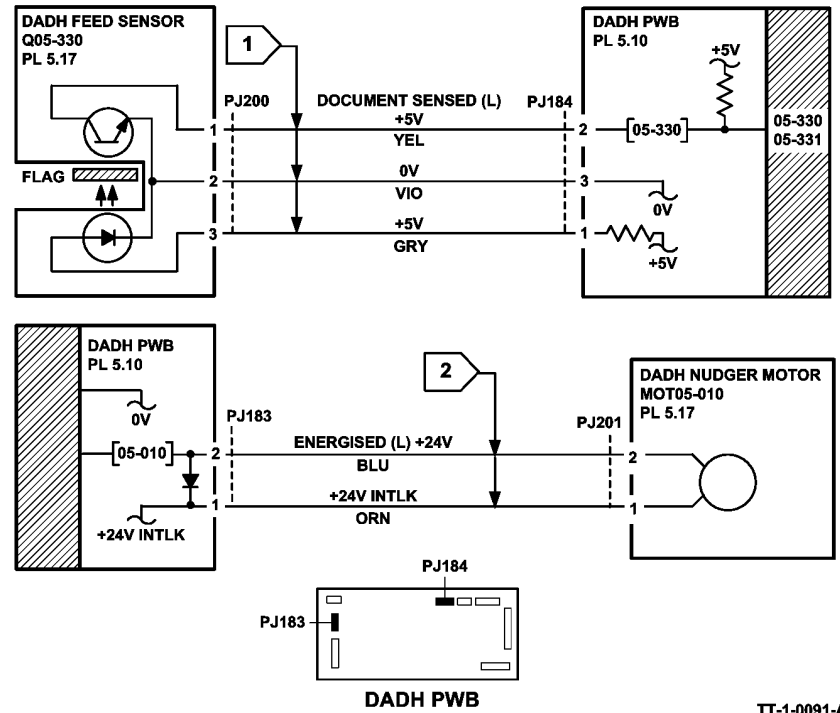


Figure 3 Circuit diagram

TT-1-0091-A

## 05-335 DADH Takeaway Sensor Failure RAP

**05-335** The DADH takeaway sensor does not detect the lead edge of the document within the correct time.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Remove all documents from the DADH.
- [Figure 1](#). Make sure that the takeaway sensor actuator is not damaged. If necessary, install a new takeaway sensor, [PL 5.20 Item 11](#).
- Clean the feed rolls, refer to [ADJ 5.4](#). If necessary, install a new feed roll assembly, (35 ppm) [PL 5.15 Item 1](#) or (40-90 ppm) [PL 5.17 Item 1](#).

### Procedure

**NOTE:** To get access to the DADH takeaway sensor, remove the DADH top cover, [PL 5.20 Item 15](#).

Open the DADH top cover. Enter [dC330](#) code 05-335 to check the DADH takeaway sensor, Q05-335, [Figure 1](#). Activate Q05-335. **The display changes.**

Y N

Go to [Flag 1](#). Check Q05-335.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J186](#), [DADH PWB](#) and [P/J191](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP. Refer to the 3.3V return.

Install new components as necessary:

- DADH takeaway sensor, [PL 5.20 Item 11](#).
- DADH PWB, [PL 5.10 Item 5](#).

Remove the DADH rear cover, [PL 5.10 Item 1](#). Hold the top cover interlock switch closed. Enter [dC330](#) code 05-020 to run the DADH feed motor, MOT05-020. **MOT05-020 runs.**

Y N

Go to the [05D](#) DADH Motor Failure RAP.

**The takeaway roll rotates.**

Y N

Perform the steps follow:

- Check the feed motor drive belt, [PL 5.35 Item 5](#).
- [ADJ 5.1](#), Feed Motor Drive Belt Adjustment.
- Check the takeaway roll and pulley, [PL 5.35 Item 6](#) and [PL 5.35 Item 15](#), refer to [GP 7](#).

A

Perform the steps that follow:

- Check that the DADH feed sensor, Q05-335 is installed correctly.
- Go to the [05E](#) DADH Feed Clutch Failure RAP and check the DADH feed clutch.
- Make sure that the takeaway roll is clean and rotates freely, refer to [ADJ 5.4](#).
- Make sure that the takeaway roll idlers are clean and rotate freely, refer to [ADJ 5.4](#).
- Check the takeaway roll static eliminator and ground harness, [PL 5.35 Item 7](#).
- Make sure that the DADH ground harness is connected correctly, [PL 5.10 Item 11](#).
- [ADJ 5.1](#) Feed Motor Drive Belt Adjustment.

Install new components as necessary:

- DADH takeaway roll, [PL 5.35 Item 6](#).
- DADH input tray assembly, [PL 5.35 Item 1](#).
- DADH top access cover assembly, [PL 5.20 Item 17](#).
- DADH feed assembly (35 ppm), [PL 5.15 Item 18](#).
- DADH feed assembly (40-90 ppm), [PL 5.17 Item 18](#).

If the fault continues, make sure that documents correctly continue past the previous sensor in the document path. Refer to the [05-330](#), [05-331](#) DADH Feed Sensor Failure Entry RAP.

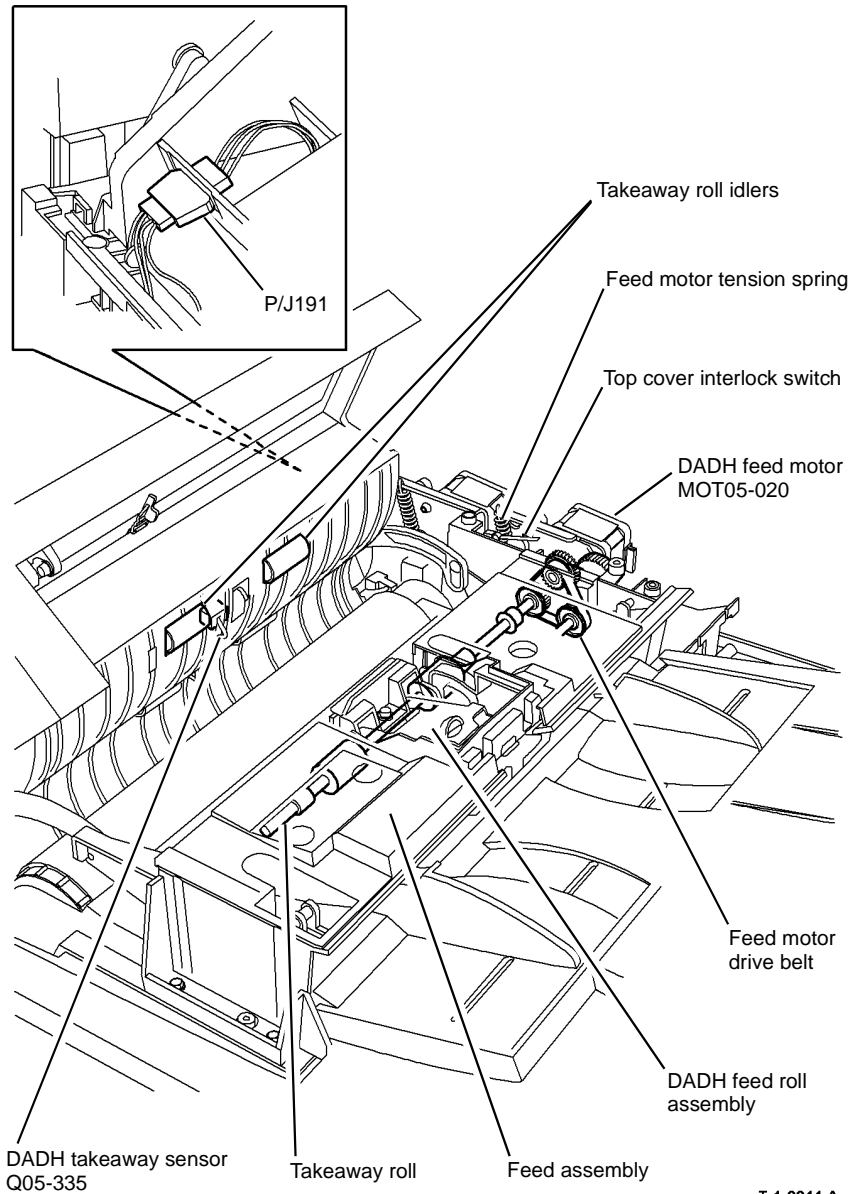


Figure 1 Component location

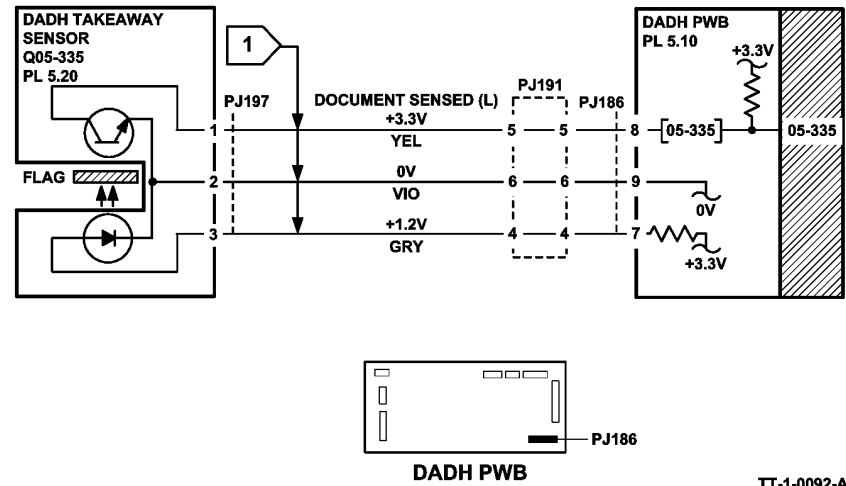


Figure 2 Circuit diagram

## 05-340 DADH Registration Sensor Failure RAP

**05-340** The DADH registration sensor does not detect the lead edge of the document within the correct time.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Remove all documents from the DADH.
- [Figure 1](#). Make sure that the registration sensor actuator is not damaged. If necessary, install a new registration sensor, [PL 5.25 Item 1](#).
- Remove the DADH top cover assembly, [PL 5.20 Item 16](#). Make sure the harnesses are routed correctly and away from the document path, [Figure 1](#).
- Clean the takeaway rolls, [PL 5.35 Item 6](#). Refer to [ADJ 5.4](#).

### Procedure

**NOTE:** To access the DADH registration sensor, remove the DADH top cover, [PL 5.20 Item 15](#).

Open the top access cover assembly. Enter [dC330](#) code 05-340 to check the DADH registration sensor, Q05-340, [Figure 2](#). Activate Q05-340. **The display changes.**

Y N  
Go to [Flag 1](#). Check Q05-340.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J186](#), [DADH PWB](#)
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH registration sensor, [PL 5.25 Item 1](#).
- DADH PWB, [PL 5.10 Item 5](#).

Remove the DADH rear cover, [PL 5.10 Item 1](#). Hold the top cover interlock switch closed. Enter [dC330](#) code 05-030 to check the DADH CVT motor, MOT05-030. **MOT05-030 runs.**

Y N  
Go to the [05D](#) DADH Motor Failure RAP.

**The CVT roll rotates.**

Y N  
Perform the steps that follow:

- Check the CVT motor drive belt, [PL 5.25 Item 11](#).
- Check the CVT motor tension spring. Make sure that the CVT motor drive belt tension is correct, [ADJ 5.1](#).
- Check the CVT roll pulley, refer to [GP 7](#).

If necessary, install a new DADH CVT roll, [PL 5.25 Item 5](#).

**The fault only occurs in duplex mode.**

Y N  
Go to [Final Actions](#).

This fault can be caused by the DADH feed motor running too slowly in reverse. Refer to the [05D](#) DADH Motor Failure RAP. If the fault continues, go to [Final Actions](#).

### Final Actions

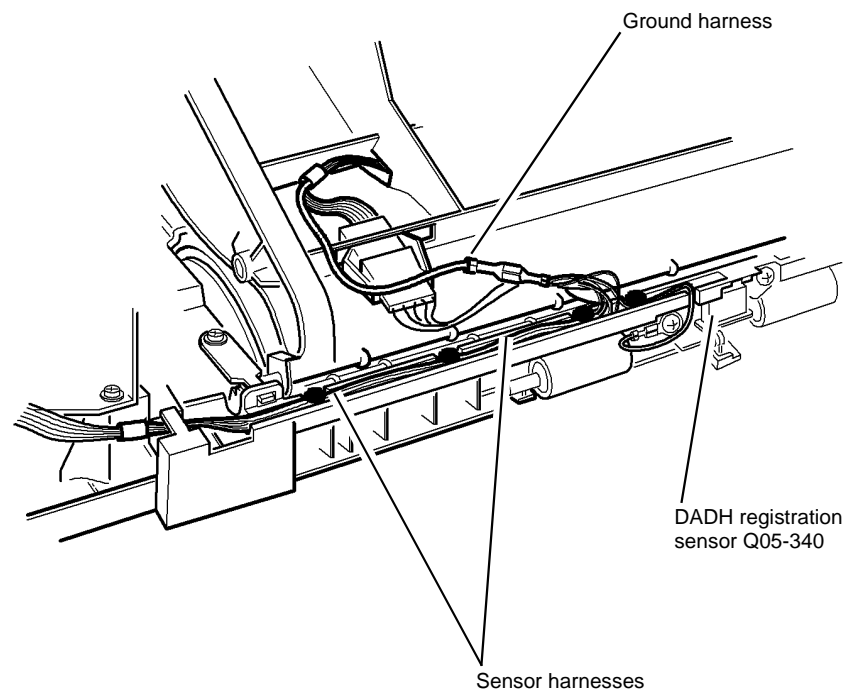
Perform the steps that follow:

- Check that Q05-340 is installed correctly.
- Make sure that the CVT idler rolls are clean and rotate freely, refer to [ADJ 5.4](#).
- Make sure that the CVT roll is clean, refer to [ADJ 5.4](#).
- Make sure the feed motor drive belt and the CVT motor drive belt are tensioned correctly, [ADJ 5.1](#).

Install new components as necessary:

- DADH CVT roll, [PL 5.25 Item 5](#).
- DADH top access cover assembly, [PL 5.20 Item 17](#).

If the fault continues, make sure that documents correctly exit the previous sensor in the document path. Refer to the [05-350](#), [05-352](#) DADH CVT Sensor Failure RAP.



T-1-0045-A

Figure 1 Component location

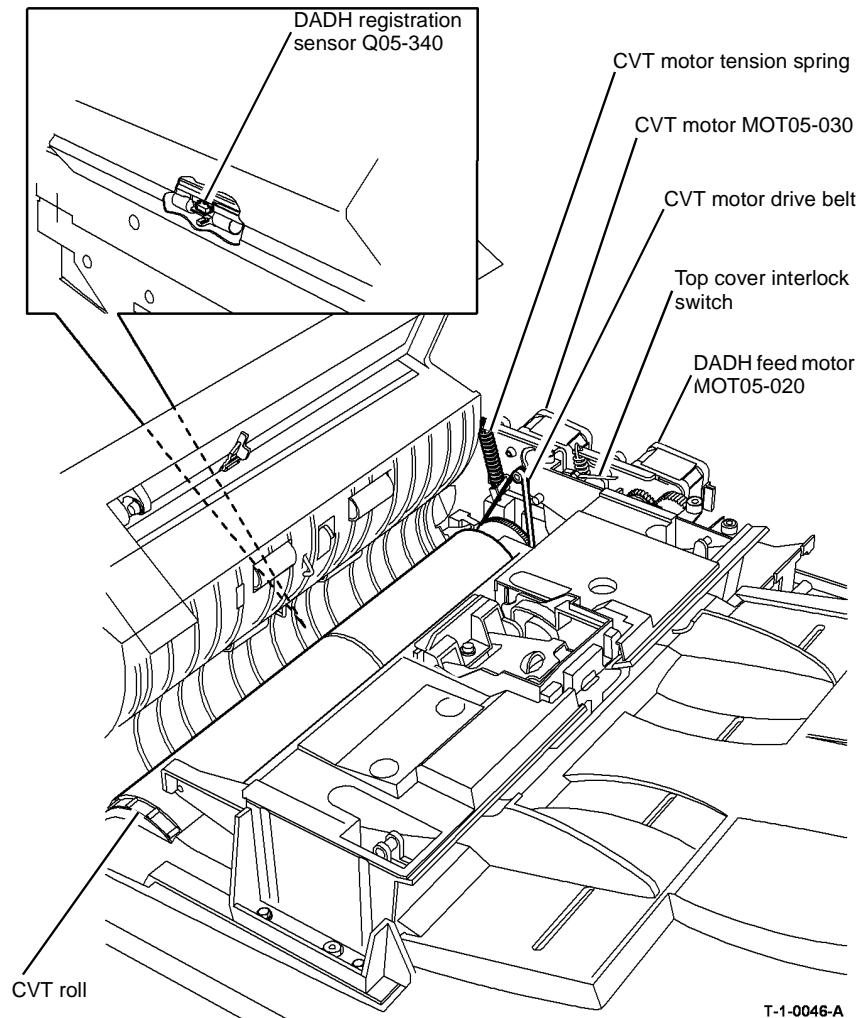
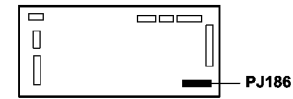
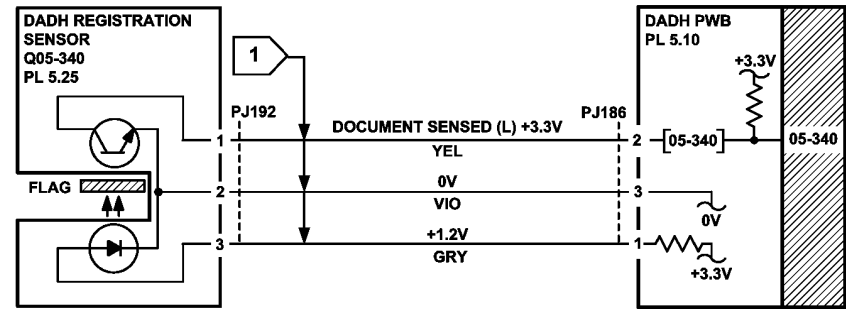


Figure 2 Component location

T-1-0046-A



DADH PWB

TT-1-0093-A

Figure 3 Circuit diagram

## 05-345, 05-346 DADH Exit Sensor Failure RAP

**05-345** The DADH exit sensor does not detect the lead edge of the document within the correct time in the forward mode.

**05-346** The DADH exit sensor does not detect the trail edge of the document within the correct time in the forward mode.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Remove all documents from the DADH exit tray. Raise the DADH, remove all documents that are wound around the CVT roll.
- [Figure 1](#). Make sure that the exit sensor actuator is not damaged. If necessary, install a new exit sensor, [PL 5.30 Item 2](#).
- Make sure that the customer has set the document width guides correctly.

### Procedure

**NOTE:** On 35 ppm machines, the DADH exit sensor is actuated by a flag. On 40-90 ppm machines, the DADH exit sensor is a reflective type sensor.

Enter [dC330](#) code 05-345 to check the DADH exit sensor, Q05-345, [Figure 1](#). Raise the DADH. Activate Q05-345. **The display changes.**

Y N

Go to [Flag 1](#). Check Q05-345.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J189](#), [DADH PWB](#).
- (35 ppm) [01D](#) +3.3V Distribution RAP.
- (35 ppm) [01B](#) 0V Distribution RAP, refer to the 3.3V return.
- (40-90 ppm) [01E](#) +5V Distribution RAP.
- (40-90 ppm) [01B](#) 0V Distribution RAP, refer to the 5V return.

Install new components as necessary:

- DADH exit sensor, [PL 5.30 Item 2](#).
- DADH PWB, [PL 5.10 Item 5](#).

Close the DADH. Open the DADH top cover. Remove the DADH rear cover, [PL 5.10 Item 1](#). Hold the top cover interlock switch closed. Enter [dC330](#) code 05-030 to run the DADH CVT motor, MOT05-030, [Figure 2](#). **MOT05-030 runs.**

Y N

Go to the [05D](#) DADH Motor Failure RAP.

The CVT roll rotates.

Y N

Perform the steps that follow:

- Check the CVT motor drive belt, [PL 5.25 Item 11](#).
  - Check the CVT motor tension spring. Check the CVT motor drive belt tension, [ADJ 5.1](#).
  - Check the CVT roll pulley, refer to [GP 7](#).
- If necessary, install a new DADH CVT roll, [PL 5.25 Item 5](#).

**NOTE:** The exit roll idlers remain lowered for 30 seconds.

Enter [dC330](#) code 05-050 to energize the DADH duplex solenoid, SOL05-050, to lower the exit roll idlers [Figure 3](#). **The exit roll idlers lower.**

Y N

Perform the steps that follow:

- Go to [Flag 2](#). Check SOL050-050.  
References:
  - [GP 12](#) How to Check a Solenoid or Clutch.
  - [P/J181](#), [DADH PWB](#) and [P/J205](#).
  - [01D](#) +3.3V Distribution RAP.
  - [01B](#) 0V Distribution RAP, refer to the 3.3V return.
- Check the baffle assembly link arm, [PL 5.30 Item 13](#). Make sure that the link arm is connected correctly to the DADH duplex solenoid, refer to [REP 5.5](#).

Install new components as necessary:

- DADH duplex solenoid, [PL 5.30 Item 4](#).
- DADH PWB, [PL 5.10 Item 5](#).
- Baffle assembly, [PL 5.30 Item 5](#).

Enter [dC330](#) code 05-020 to run the DADH feed motor, MOT05-020. **MOT05-020 runs.**

Y N

Go to the [05D](#) DADH Motor Failure RAP.

**The exit roll rotates.**

Y N

Perform the steps that follow:

- Check the feed motor drive belt, [PL 5.35 Item 5](#).
  - Check the feed motor tension spring. Check the feed motor drive belt tension, [ADJ 5.1](#).
  - Check the exit roll and pulley, [PL 5.35 Item 6](#) and [PL 5.35 Item 15](#), refer to [GP 7](#).
- If necessary, install a new DADH input tray assembly, [PL 5.35 Item 1](#).

**The fault only occurs in duplex mode.**

Y N

Go to [Final Actions](#).

A

A

**NOTE:** During normal operation, the exit roll idlers remain raised (closed) in simplex mode. In duplex mode, the exit roll idlers remain raised unless the document is longer than 280mm (11 inches). The exit roll idlers raise and lower while feeding longer documents in duplex mode.

Exit the diagnostics mode. Close the DADH top cover. Make two copies in duplex mode. Check that the second document is held in the feed rolls until the first document is fed into the output tray. **The feed rolls held the second document.**

Y N

Go to the 05E DADH Feed Clutch Failure RAP.

Go to [Final Actions](#).

### Final Actions

Perform the steps that follow:

- For 05-345 and 05-346 faults:
  - Check that the pre-scan idlers are clean and rotate freely, refer to [ADJ 5.4](#).
  - Check that the post-scan idlers are clean and rotate freely, refer to [ADJ 5.4](#).
  - Check the CVT ramp assembly for damage and rough edges, (W/O TAG 150) [PL 14.20 Item 13](#) or (W/TAG 150) [PL 14.10 Item 13](#).
  - Check the duplex gate for damage and rough edges, [PL 5.25 Item 12](#).
  - Check that Q05-345 is installed correctly.
  - Make sure that the DADH ground harness is connected correctly, [PL 5.10 Item 11](#).
  - Make sure the feed motor drive belt and CVT motor drive belt are tensioned correctly, [ADJ 5.1](#).

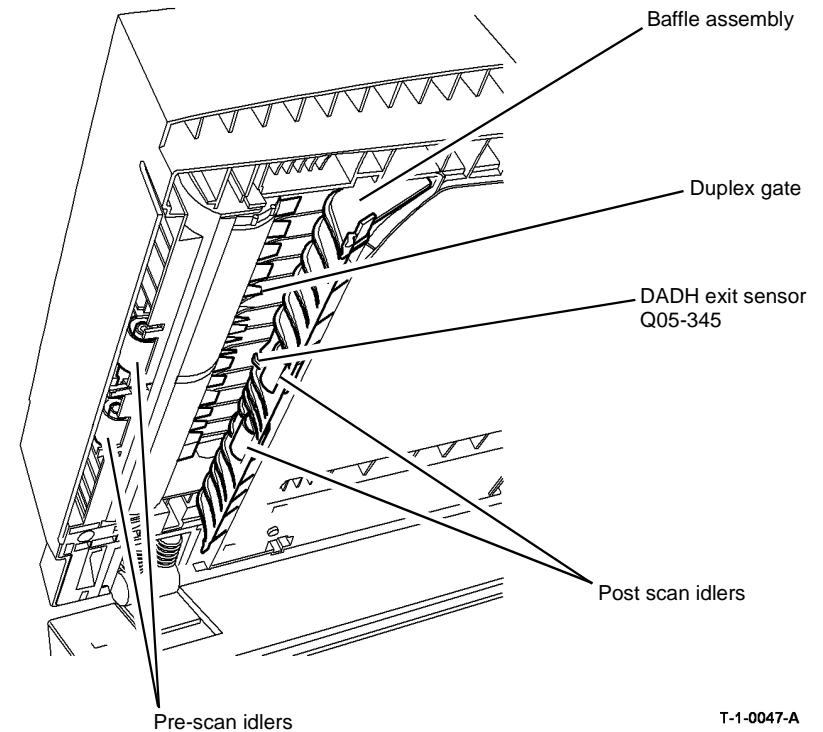
Install new components as necessary:

- Top access cover assembly, [PL 5.20 Item 17](#).
- Baffle assembly, [PL 5.30 Item 5](#).
- For 05-346 faults:
  - Make sure that the exit rolls are clean and rotate freely, refer to [ADJ 5.4](#).
  - Make sure that the exit roll idlers are clean and rotate freely, refer to [ADJ 5.4](#).
  - Make sure the tension springs on the exit roll shaft are in the correct position, refer to [REP 5.5](#)
  - Check the exit roll static eliminator and ground harness, [PL 5.35 Item 7](#).
  - Check the restack arm for damage or rough edges, [PL 5.35 Item 3](#).

Install new components as necessary:

- DADH exit roll, [PL 5.35 Item 6](#).
- DADH input tray assembly, [PL 5.35 Item 1](#).

If the fault continues, make sure that documents correctly exit the previous sensor in the document path. Refer to the [05-340 DADH Registration Sensor Failure RAP](#).



T-1-0047-A

**Figure 1 Component location**

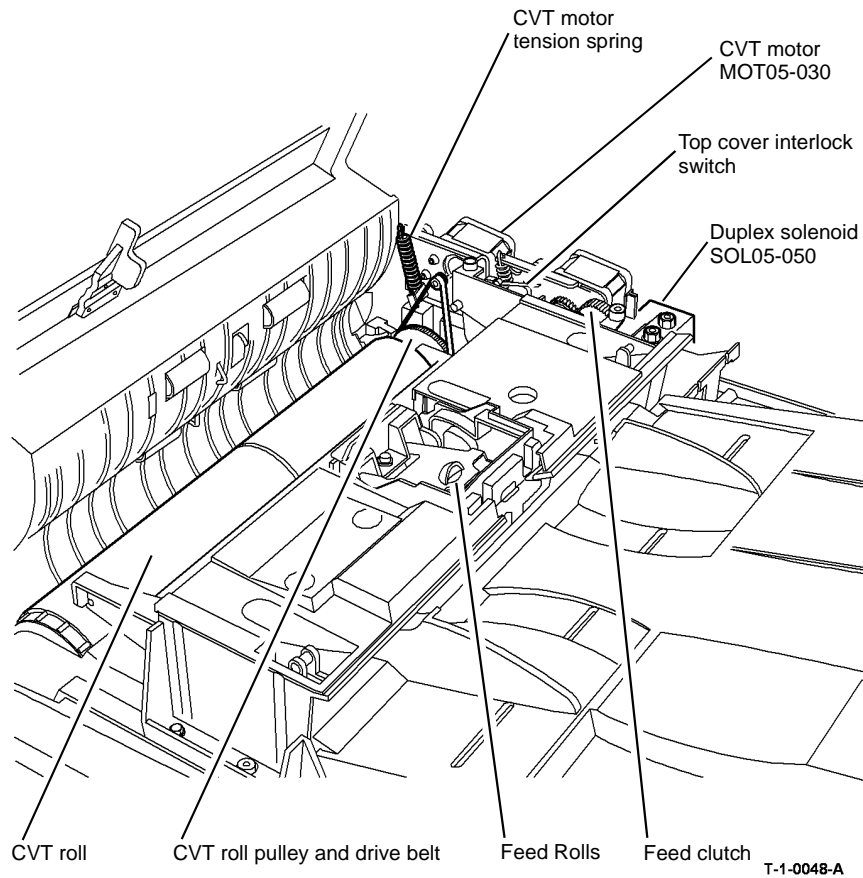


Figure 2 Component location

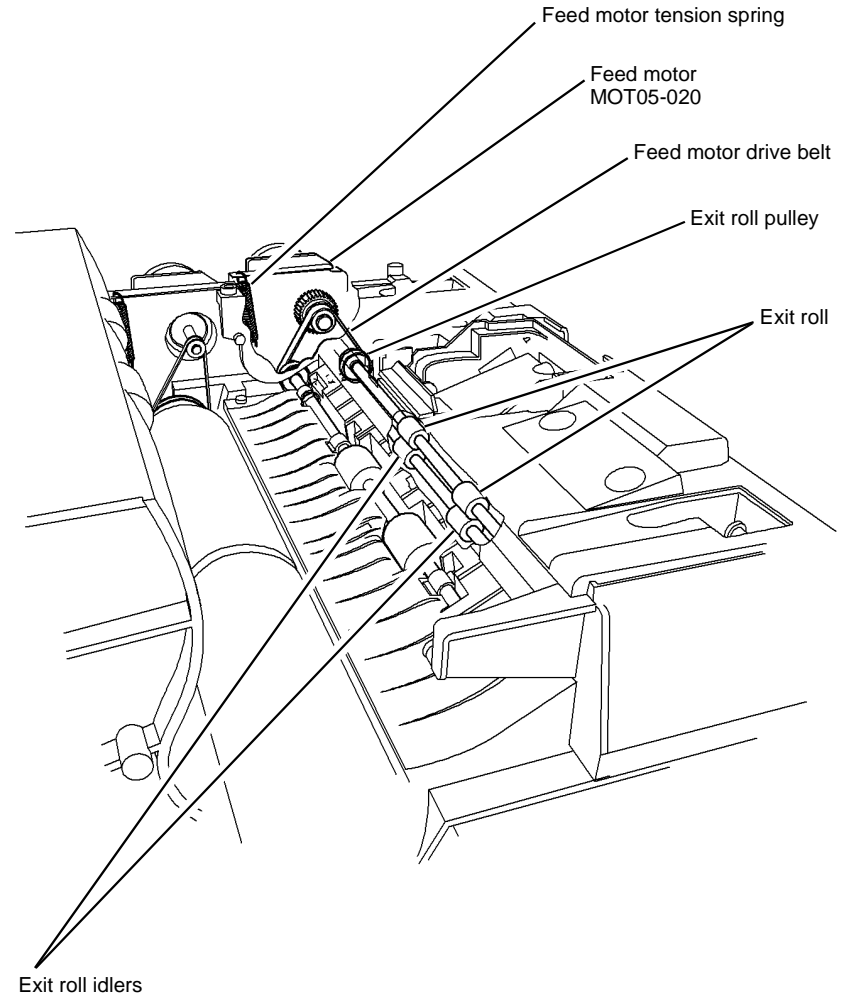


Figure 3 Component location



## 05-350, 05-352 DADH CVT Sensor Failure RAP

**05-350** The DADH CVT sensor does not detect the lead edge of the document within the correct time in the forward mode.

**05-352** The DADH CVT sensor does not detect the lead edge of the document within the correct time in the reverse mode.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Remove all documents from the DADH.
- Figure 1. Make sure that the CVT sensor actuator is not damaged. If necessary, install a new CVT sensor, **PL 5.20 Item 12**.

### Procedure

**NOTE:** To get access to the DADH CVT sensor, remove the DADH top cover, **PL 5.20 Item 15**.

Enter **dC330** code 05-350 to check the DADH CVT sensor, Q05-350, **Figure 1**. Activate Q05-350. **The display changes.**

Y N

Go to **Flag 1**. Check Q05-350.

References:

- GP 11** How to Check a Sensor.
- P/J186** and **P/J191**, **DADH PWB**.
- 01D** +3.3V Distribution RAP.
- 01B** 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH CVT sensor, **PL 5.20 Item 12**.
- DADH PWB, **PL 5.10 Item 5**.

Remove the DADH rear cover, **PL 5.10 Item 1**. Hold the top cover interlock switch closed. Enter **dC330** code 05-030 to check the DADH CVT motor, MOT05-030. **MOT05-030 runs.**

Y N

Go to the **05D** DADH Motor Failure RAP.

**The CVT roll rotates.**

Y N

Perform the steps that follow:

- Check the CVT motor drive belt, **PL 5.25 Item 11**.
- Check the CVT motor tension spring. Make sure that the CVT motor drive belt tension is correct, **ADJ 5.1**.
- Check the CVT roll pulley, refer to **GP 7**.

If necessary, install a new DADH CVT roll, **PL 5.25 Item 5**.

A

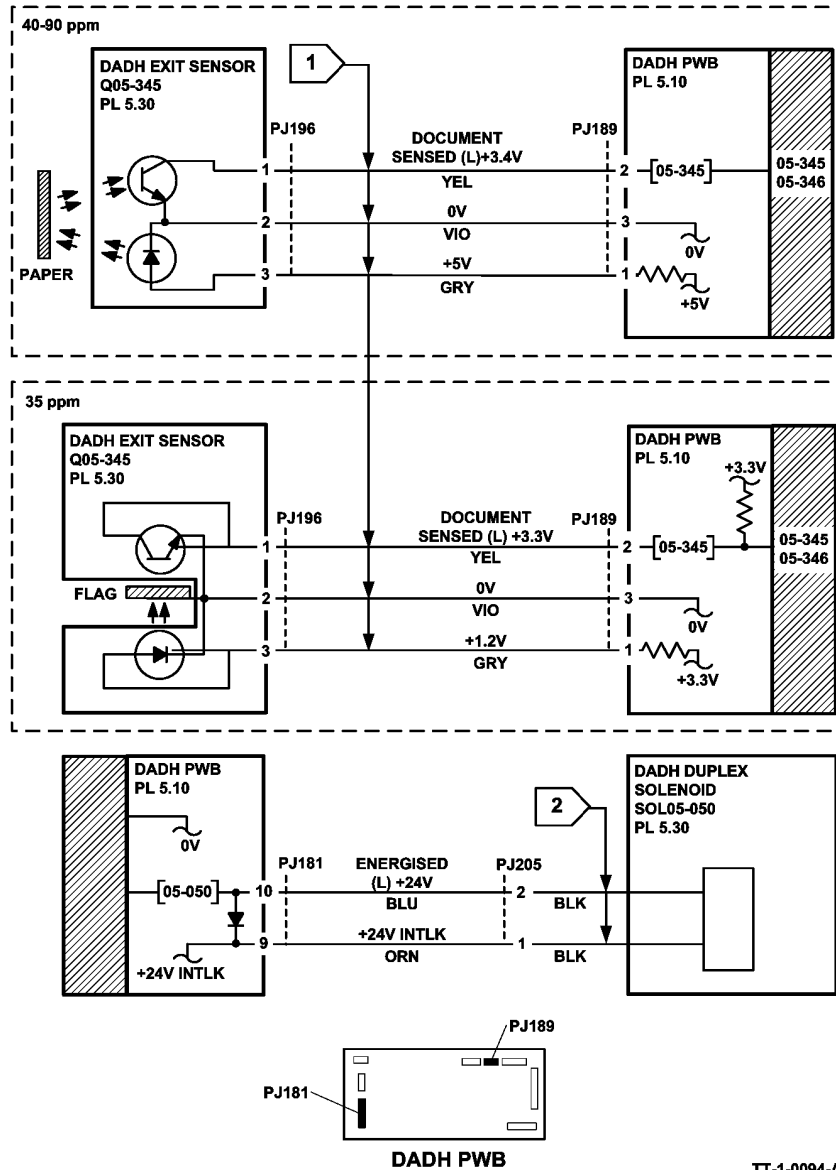


Figure 4 Circuit diagram

A

The fault only occurs in duplex mode (fault code 05-352).

Y N

Go to [Final Actions](#).

**NOTE:** The exit roll idlers remain lowered for 30 seconds.

Enter [dC330](#) code 05-050 to check the DADH duplex solenoid, SOL05-050, to lower the exit roll idlers, [Figure 2](#). The exit roll idlers lower.

Y N

Go to [Flag 2](#). Check SOL050-050.

References:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J181](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH duplex solenoid, [PL 5.30 Item 4](#).
- DADH PWB, [PL 5.10 Item 5](#).
- Baffle assembly, [PL 5.30 Item 5](#).

**NOTE:** During normal operation, the exit roll idlers remain raised (closed) in simplex mode. In duplex mode, the exit roll idlers remain raised unless the document is longer than 280mm (11 inches). The exit roll idlers raise and lower while feeding longer documents in duplex mode.

Exit the diagnostics mode. Close the DADH top cover. Make two copies in duplex mode. Check that the second document is held in the feed rolls until the first document is fed into the output tray. **The feed rolls held the second document.**

Y N

Go to the [05E](#) DADH Feed Clutch Failure RAP.

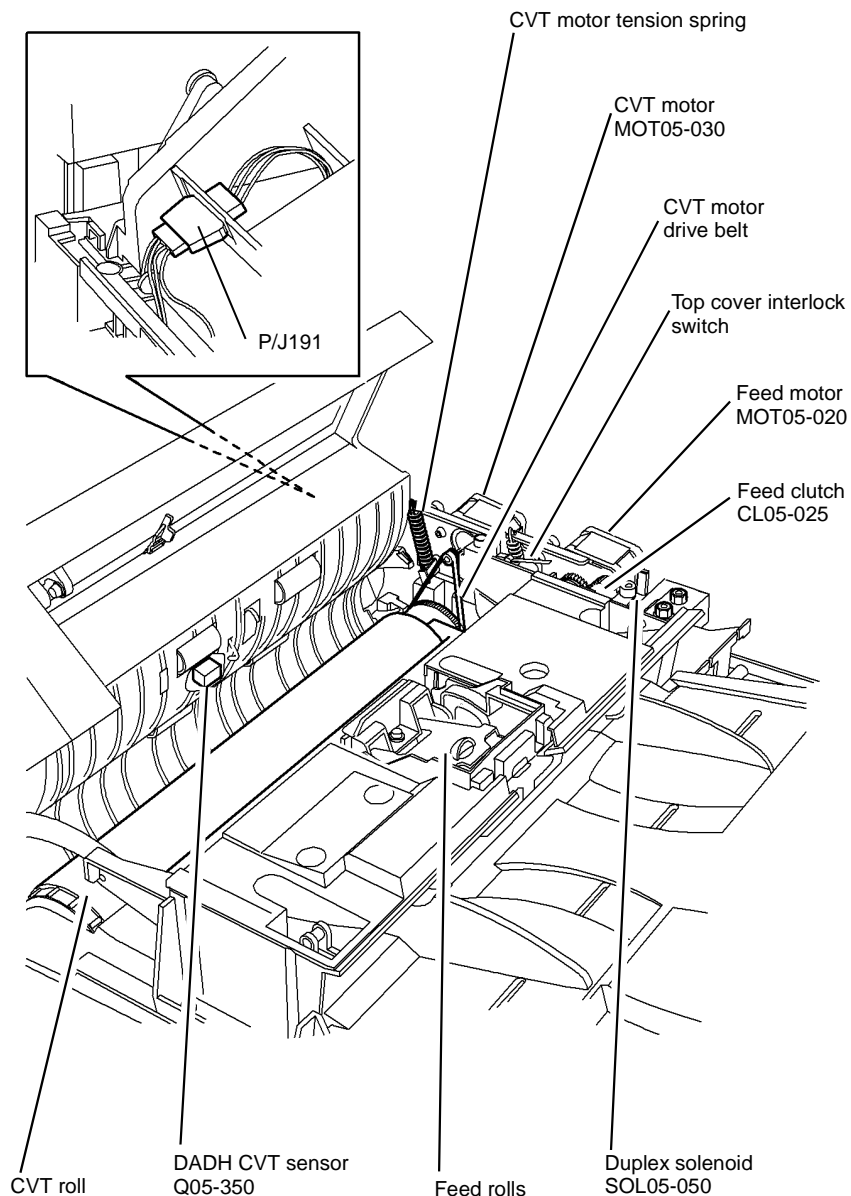
The fault is caused if the DADH feed motor runs too slowly in reverse, refer to the [05D](#) DADH Motor Failure RAP. If the fault continues, go to [Final Actions](#).

### Final Actions

Perform the steps that follow. Install new components as necessary:

- Check that the CVT roll is clean and rotates freely, refer to [ADJ 5.4](#).
- Check that the takeaway roll, [PL 5.35 Item 6](#) is clean, refer to [ADJ 5.4](#). If necessary, install a new takeaway roll.
- Check that the CVT sensor, Q05-350 is installed correctly, [PL 5.20 Item 12](#).
- Check the takeaway roll static eliminator and ground harness, [PL 5.35 Item 7](#).
- Make sure that the DADH ground harness is connected correctly, [PL 5.10 Item 11](#).
- Make sure the feed motor drive belt tension is correct, [ADJ 5.1](#).
- DADH feed assembly, [PL 5.15 Item 18](#).

If the fault continues, make sure that documents correctly exit the previous sensor in the document path. Refer to the [05-335](#) DADH Takeaway Sensor Failure RAP.



T-1-0050-A

Figure 1 Component location

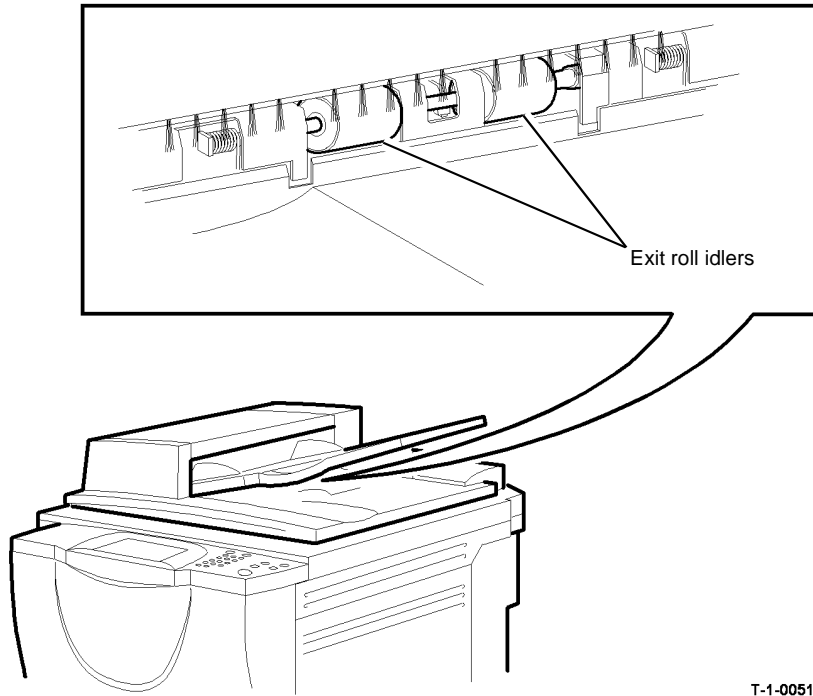


Figure 2 Component location

T-1-0051-A

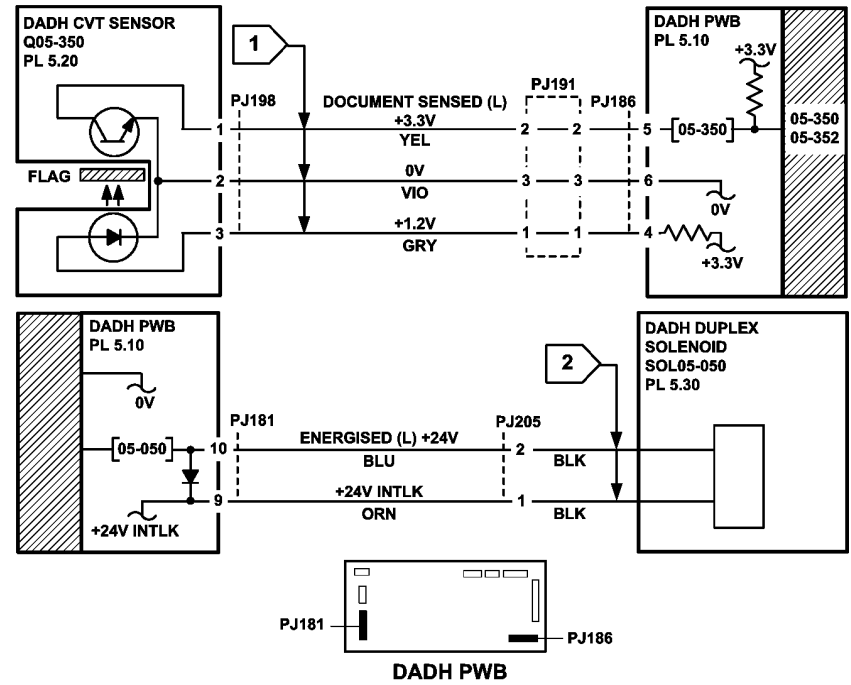


Figure 3 Circuit diagram

TT-1-0095-A

## 05A DADH Other Faults RAP

This RAP gives the additional information on common DADH problems. Perform the RAP for all current fault codes before this RAP is performed.

### Procedure

Go to the correct RAP:

- [05B](#) DADH Document Present Sensor Failure Entry RAP.
- [05C](#) Document Size Sensor Failure Entry RAP.
- [05D](#) DADH Motor Failure RAP.
- [05E](#) DADH Feed Clutch Failure RAP.
- [05F](#) Damaged Documents RAP.

If the documents are not stacking correctly when exiting the DADH, or if 2 sided originals are jamming when they go back into the DADF, perform the following

1. Clean or install new components:
  - Exit roll assembly, [PL 5.35 Item 17](#)
  - Takeaway roll assembly, [PL 5.35 Item 6](#)
2. Ensure that the following static eliminators are in a good condition and are touching the shafts, where appropriate:
  - Static eliminator (small), [PL 5.35 Item 7](#)
  - Static eliminator, [PL 5.17 Item 14](#)
  - Static eliminator, [PL 5.15 Item 14](#)
  - Static eliminator (large), [PL 5.35 Item 10](#)
3. Use a service meter to verify that the wires to the static eliminators are well grounded, giving a resistance reading of less than 3 ohms to ground. if necessary the resistance reading may be improved by removing, cleaning and re-installing the ground wires.

**NOTE:** If the poor stacking problem continues and the machine is in an area with very low humidity or the documents have high quantities of static, install static eliminator (large), [PL 5.35 Item 10A](#).

## 05B DADH Document Present Sensor Failure Entry RAP

Use this RAP when the DADH document present sensor performs as follows:

- The sensor detects a document when a document is not present in the input tray during the startup procedure.
- The sensor detects a document when a document is not present in the input tray after a jam.
- The sensor does not detect a document when a document is present in the input tray.

### Procedure

Identify the speed of the machine, refer to [SCP 7](#) Machine Features. Perform one of the steps that follow, as appropriate:

- If the speed of the machine is 35 ppm, go to the [05G](#) DADH Document Present Sensor Failure RAP (35 ppm).
- If the speed of the machine is 40-90 ppm, go to the [05H](#) DADH Document Present Sensor Failure RAP (40-90 ppm).

## 05C Document Size Sensor Failure Entry RAP

Use this RAP when the DADH is in the Auto Paper Select mode and does not detect the correct size of paper.

Also use this RAP when the DADH detects a document in the input tray when the document tray is empty.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that strong lighting is not above the DADH.
- Remove all documents from the DADH and input tray.
- Make sure that the sensors and the area around the sensors are clean.

### Procedure

Identify the speed of the machine, refer to [SCP 7](#) Machine Features. Perform one of the steps that follow, as appropriate:

- If the speed of the machine is 35 ppm, go to the [05J](#) DADH Document Size Sensor Failure RAP (35 ppm).
- If the speed of the machine is 40-90 ppm, go to the [05K](#) DADH Document Size Sensor Failure RAP (40-90 ppm).

## 05D DADH Motor Failure RAP

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Go to the correct procedure:

- [DADH Feed Motor Failure](#)
- [DADH CVT Motor Failure](#)

**NOTE:** The component location is shown in [Figure 1](#).

### DADH Feed Motor Failure

**NOTE:** In duplex mode, the DADH feed motor runs in the forward and reverse direction. The duplex mode component control code is provided to reverse the drive of the feed motor.

Go to [Flag 1](#). Check the DADH feed motor, MOT05-020.

References:

- [GP 10](#) How to Check a Motor.
- [P/J181](#), [DADH PWB](#) and [P/J204](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 24V return.

Install new components as necessary:

- DADH feed motor, [PL 5.15](#) Item 16.
- DADH PWB, [PL 5.10](#) Item 5.

### DADH CVT Motor Failure

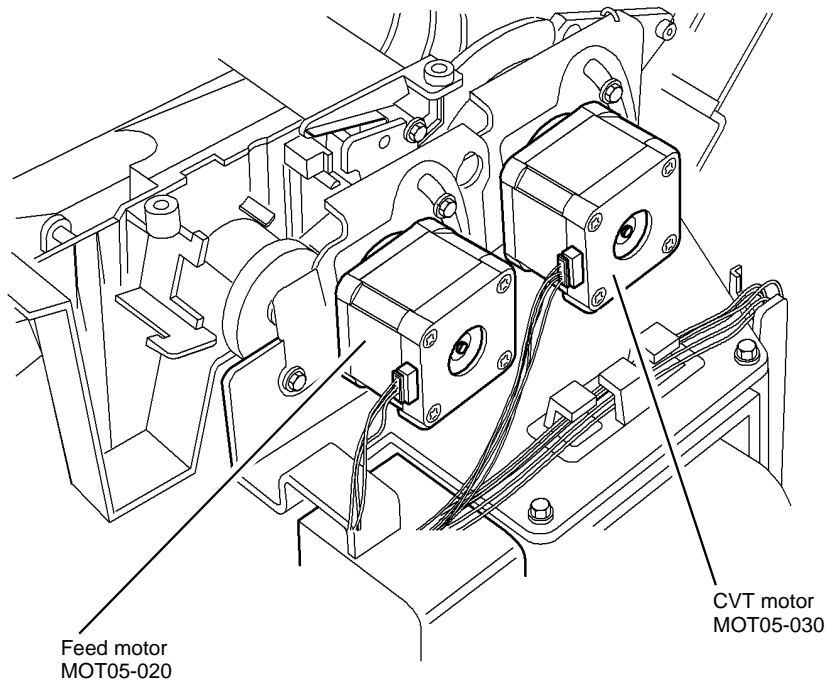
Go to [Flag 2](#). Check the DADH CVT motor, MOT05-030.

References:

- [GP 10](#) How to Check a Motor.
- [P/J181](#), [DADH PWB](#) and [P/J203](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 24V return.

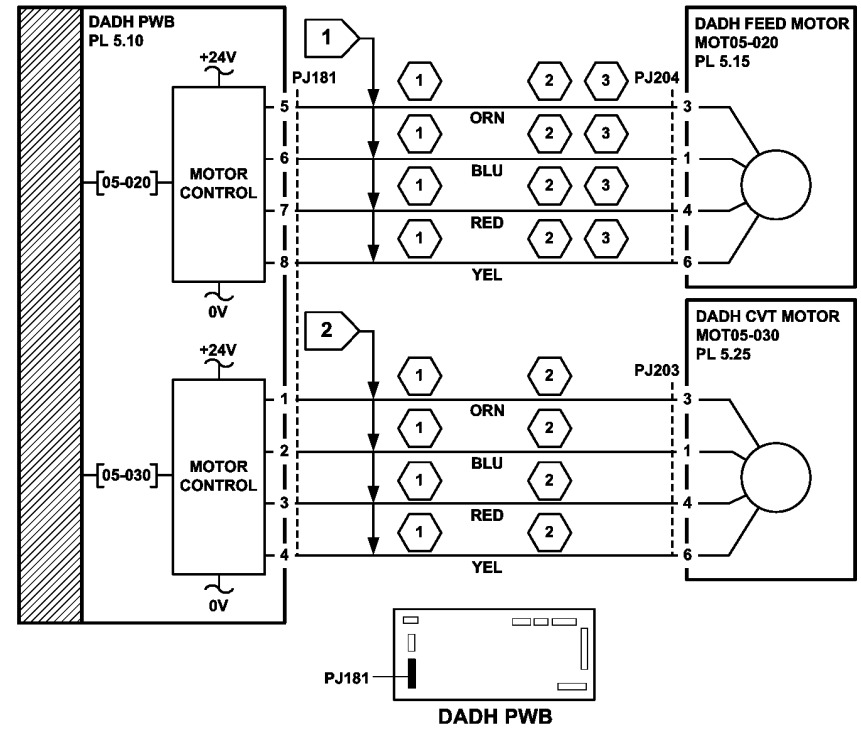
Install new components as necessary:

- DADH CVT motor, [PL 5.25](#) Item 9.
- DADH PWB, [PL 5.10](#) Item 5.



T-1-0052-A

Figure 1 Component location



- 1 MOTOR ON (STEP PULSES) +24V  
STEP PULSES WILL READ +12V  
ON A DIGITAL METER
- 2 MOTOR STANDBY = 0V  
MOTOR FORWARD = +12V (STEP PULSES)
- 3 MOTOR REVERSE = +12V (STEP PULSES)

TT-1-0096-A

Figure 2 Circuit diagram

## 05E DADH Feed Clutch Failure RAP

Use this RAP when the DADH feed clutch does not operate correctly.

Also use this RAP if the feed clutch energizes at the wrong time in duplex mode, which causes:

- Mis-feeds.
- The feed rolls to reverse and eject the original documents into the DADH input tray.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Go to Flag 1. Check the DADH feed clutch, CL05-025, Figure 1.

#### References:

- GP 12 How to Check a Solenoid or Clutch.
- P/J183, DADH PWB and P/J202.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP, refer to the 24V return.

Install new components as necessary:

- DADH feed clutch, PL 5.15 Item 9.
- DADH PWB, PL 5.10 Item 5.
- DADH feed assembly, PL 5.15 Item 18.

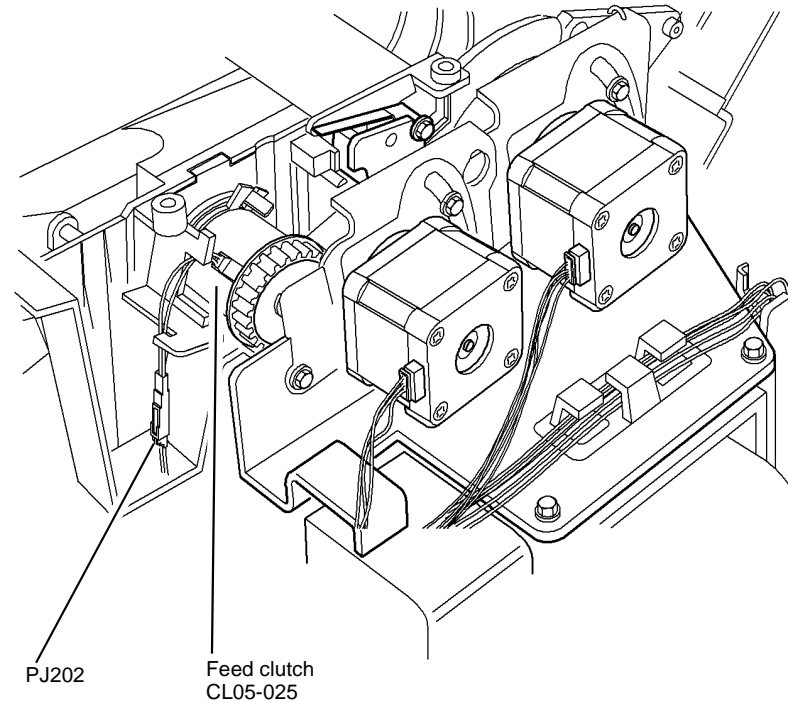


Figure 1 Component location

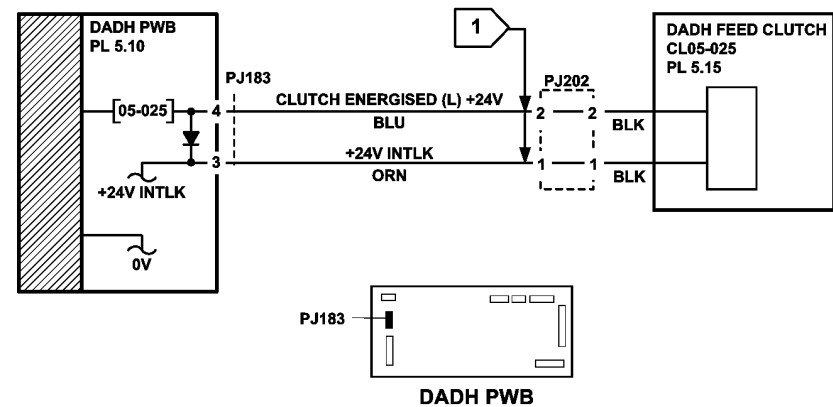


Figure 2 Circuit Diagram

## 05F Damaged Documents RAP

Use this RAP if the documents get damaged by the DADH.

### Procedure

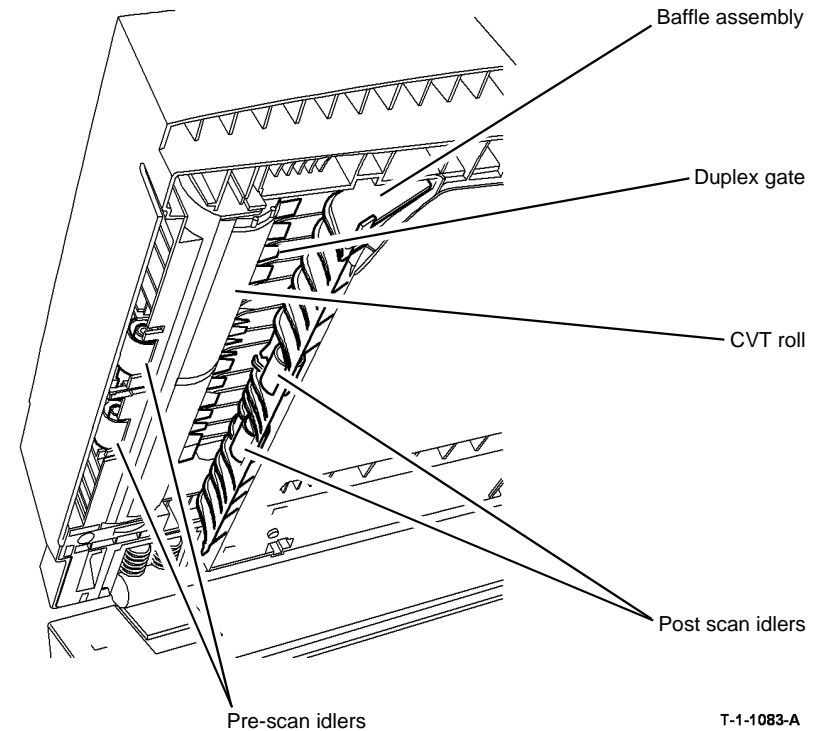


#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. If the DADH damages the bottom of the documents mid-way along the lead edge, install a new feed roll assembly, (35 ppm) [PL 5.15 Item 1](#) or (40-90 ppm) [PL 5.17 Item 1](#).
2. [ADJ 5.2](#) DADH height adjustment.
3. Check the input tray for damage, [PL 5.35 Item 1](#).
  - Make sure that the document width guides move freely.
  - Check that the takeaway roll assembly and exit roll assembly, [PL 5.35 Item 6](#) for damage and contamination, refer to [ADJ 5.4](#).
  - Check the restack arm for damage, [PL 5.35 Item 3](#).
4. Open the DADH top access cover assembly, [PL 5.20 Item 17](#).
  - Check the document path for damage.
  - Check the takeaway roll idlers and CVT roll idlers, [PL 5.20 Item 3](#) for damage. Make sure the idlers are clean and rotate freely, refer to [ADJ 5.4](#).
5. Raise the DADH. Lower the baffle assembly, [Figure 1](#).
  - Remove any pieces of paper.
  - Check the duplex gate, [PL 5.25 Item 12](#) for damage. Make sure the duplex gate moves freely.
  - Check the CVT roll, [PL 5.25 Item 5](#) for damage. If necessary, clean the CVT roll, [ADJ 5.4](#).
  - Check the pre-scan idlers, [PL 5.25 Item 6](#) and post scan idlers, [PL 5.30 Item 6](#) for damage. Make sure the idlers are clean and rotate freely, refer to [ADJ 5.4](#).
  - Check the document path for damage.
  - Check the baffle assembly, [PL 5.30 Item 5](#) for damage.
  - Check the exit roll idlers for damage, [PL 5.30 Item 8](#). Make sure the idlers are clean and rotate freely, [ADJ 5.4](#).
6. Check the CVT ramp assembly, (W/O TAG 150) [PL 14.20 Item 13](#) or (W/TAG 150) [PL 14.10 Item 13](#) for damage.
7. Make sure that the customers documents are within the specification, refer to [GP 20](#).



T-1-1083-A

Figure 1 Component location



# 05G DADH Document Present Sensor Failure RAP (35 ppm)

## Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 05B DADH Document Present Sensor Failure Entry RAP.
- Remove all documents from the DADH.
- Check the actuator for the document present sensor, PL 5.15 Item 12.
- The DADH document present sensor can fail to detect the last document in a document set if static electricity is on the input tray. If necessary, clean the input tray with the anti-static fluid, refer to ADJ 5.4.

## Procedure

Enter dC330 code 05-310 to check the DADH document present sensor, Q05-310, Figure 1. The display changes.

Y N

Go to Flag 1. Check Q05-310.

References:

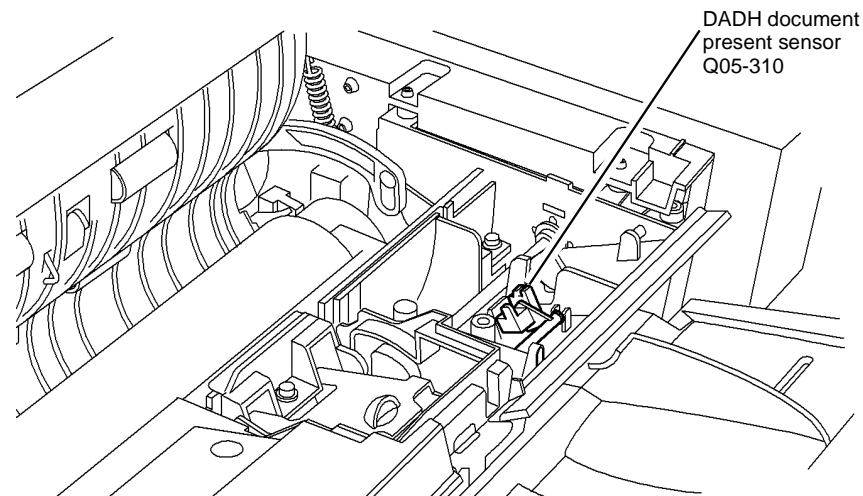
- GP 11 How to Check a Sensor.
- P/J184, DADH PWB.
- 01D +3.3V Distribution RAP.
- 01B 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH document present sensor, PL 5.15 Item 13.
- DADH PWB, PL 5.10 Item 5.

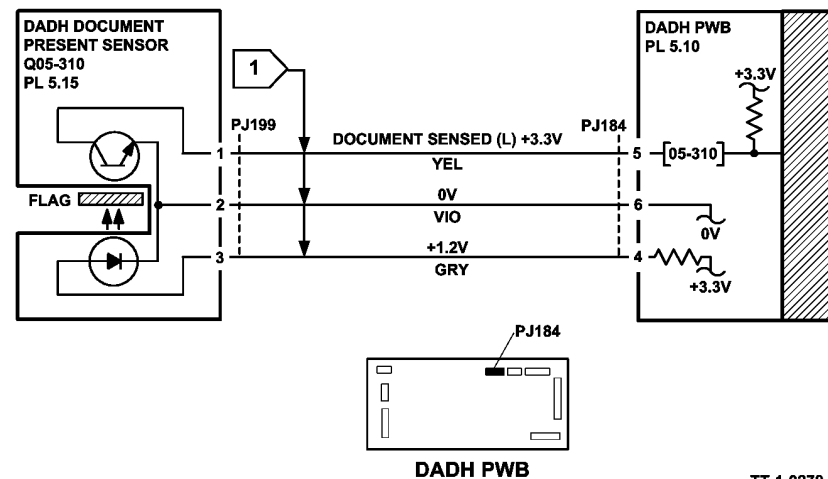
Make sure that the area around the sensor is clean. If the problem continues, install new components as necessary:

- DADH document present sensor, PL 5.15 Item 13.
- DADH PWB, PL 5.10 Item 5.
- DADH document present sensor actuator, PL 5.15 Item 12.



T-1-1104-A

Figure 1 Component location



TT-1-0278-A

Figure 2 Circuit diagram

# 05H DADH Document Present Sensor Failure RAP (40-90 ppm)

## Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 05B DADH Document Present Sensor Failure Entry RAP.
- Remove all documents from the DADH.
- Clean the DADH document present sensor and the area around the sensor, PL 5.35 Item 19.
- The DADH document present sensor can fail to detect the last document in a document set if static electricity is on the input tray. If necessary, clean the input tray with the anti-static fluid, refer to ADJ 5.4.

## Procedure

Enter dC330 code 05-310 to check the DADH document present sensor, Q05-310, Figure 1.

The display changes.

Y N

Go to Flag 1. Check Q05-310.

References:

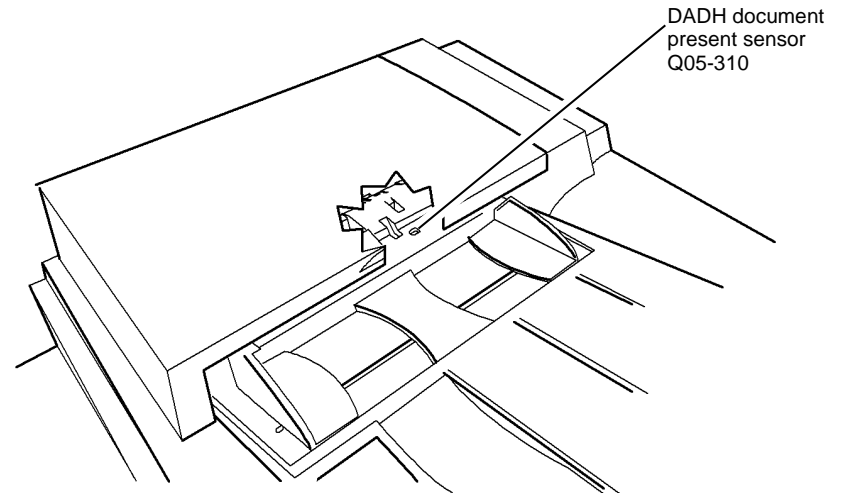
- GP 11 How to Check a Sensor.
- P/J184, DADH PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP, refer to the 5V return.

Install new components as necessary:

- DADH document present sensor, PL 5.35 Item 19.
- DADH PWB, PL 5.10 Item 5.

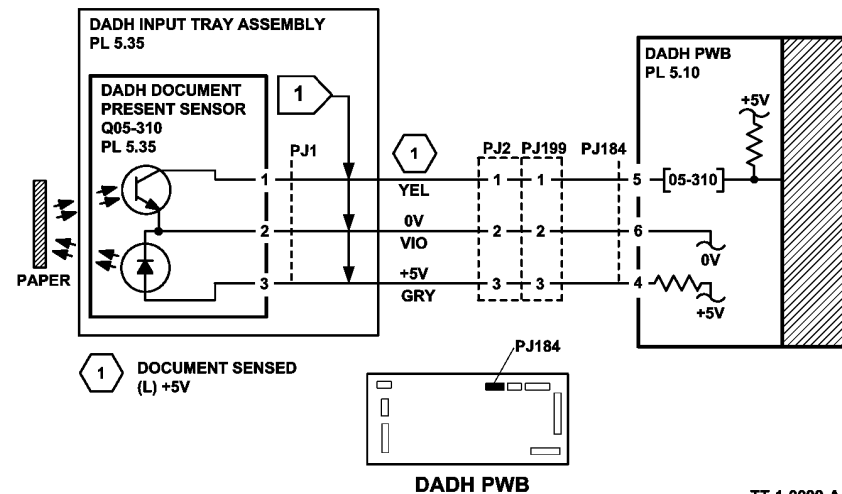
Make sure that the area around the sensor is clean. If the problem continues, install new components as necessary:

- DADH document present sensor, PL 5.35 Item 19.
- DADH PWB, PL 5.10 Item 5.



T-1-0054-A

Figure 1 Component location



TT-1-0099-A

Figure 2 Circuit diagram

## 05J Document Size Sensor Failure RAP (35 ppm)

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [05B DADH Document Present Sensor Failure Entry RAP](#).
- Make sure that a spot light or any direct light source is not above the DADH.
- Remove all documents from the DADH and input tray.
- Make sure that the sensors and the area around the sensors are clean.

### Procedure

Enter [dC330](#) code 05-315 to check the DADH length sensor 1, Q05-315, [Figure 1](#). Activate Q05-315. **The display changes.**

**Y N**  
Go to [Flag 1](#). Check Q05-315.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J190](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH length sensor 1, [PL 5.35 Item 8](#).
- DADH PWB, [PL 5.10 Item 5](#).

Enter [dC330](#) code 05-320 to check the DADH length sensor 2, Q05-320. Activate Q05-320.

**The display changes.**

**Y N**  
Go to [Flag 2](#). Check Q05-320.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J190](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH length sensor 2, [PL 5.35 Item 8](#).
- DADH PWB, [PL 5.10 Item 5](#).

Open the DADH top cover. Enter [dC330](#) code 05-330 to check the DADH feed sensor, Q05-330. Activate Q05-330. **The display changes.**

**Y N**  
Go to [Flag 3](#). Check Q05-330.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J184](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH feed sensor, [PL 5.15 Item 2](#).
- DADH PWB, [PL 5.10 Item 5](#).

Enter [dC330](#) code 05-340 to check the DADH registration sensor, Q05-340. Activate Q05-340.

**The display changes.**

**Y N**  
Go to [Flag 4](#). Check Q05-340.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J186](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH registration sensor, [PL 5.25 Item 1](#).
- DADH PWB, [PL 5.10 Item 5](#).

Completely open the DADH width guides. Go to [Flag 5](#). Measure the voltage at [P/J190](#) pin 8. Completely close the DADH width guides. **The voltage changes from 3.3V to 0V.**

**Y N**  
Remove the DADH input tray assembly, [PL 5.35 Item 1](#). Make sure the arm of the DADH width guide sensor is installed correctly, [Figure 2](#). Check the mechanical operation of the width guides. Install new components as necessary:

- DADH width sensor, [PL 5.35 Item 11](#).
- DADH input tray assembly, [PL 5.35 Item 1](#).

Make sure that the chain 5 NVM parameters for the detection of the size of paper are correct. Refer to [dC131](#).

Install new components as necessary:

- DADH PWB, [PL 5.10 Item 5](#).
- DADH input tray assembly, [PL 5.35 Item 1](#).

A

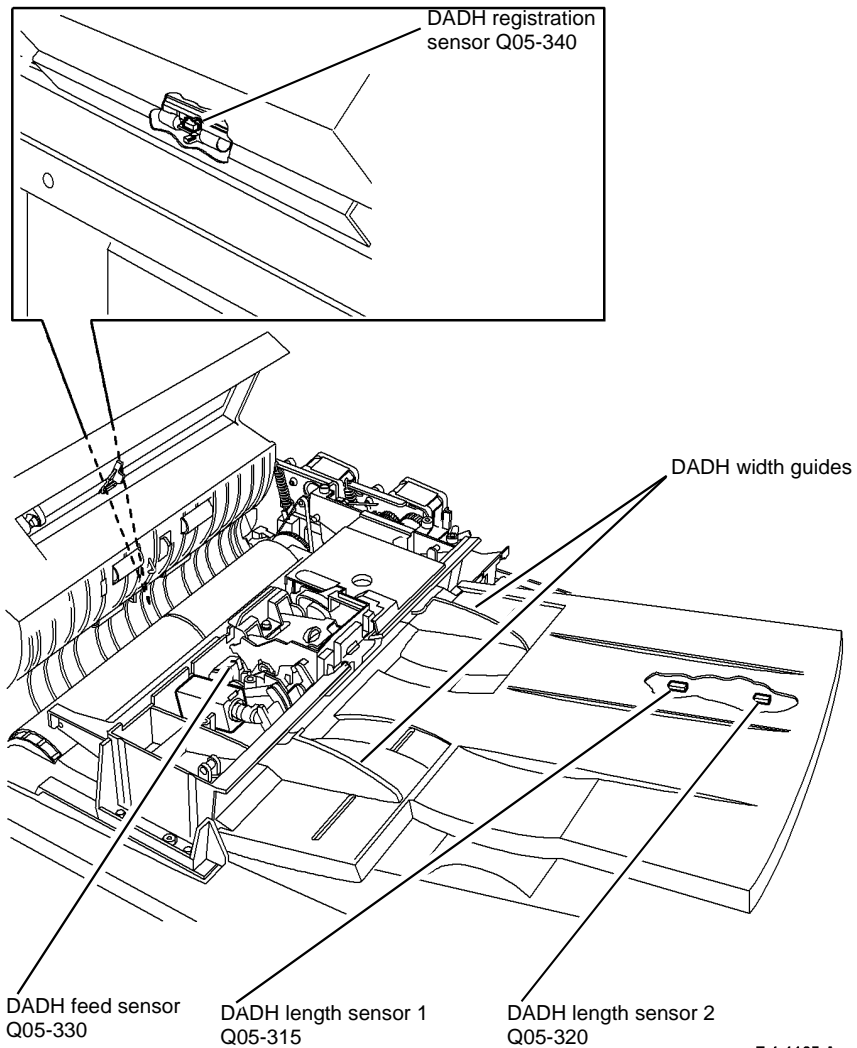


Figure 1 Component location

T-1-1105-A

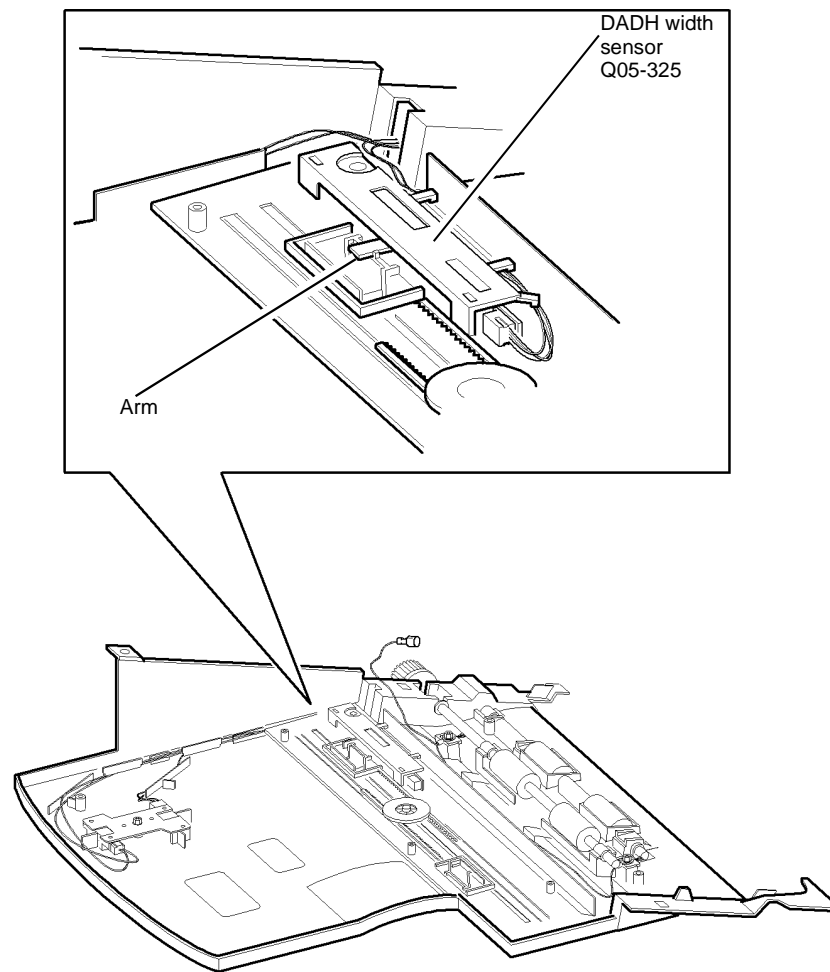


Figure 2 Component location

T-1-1106-A

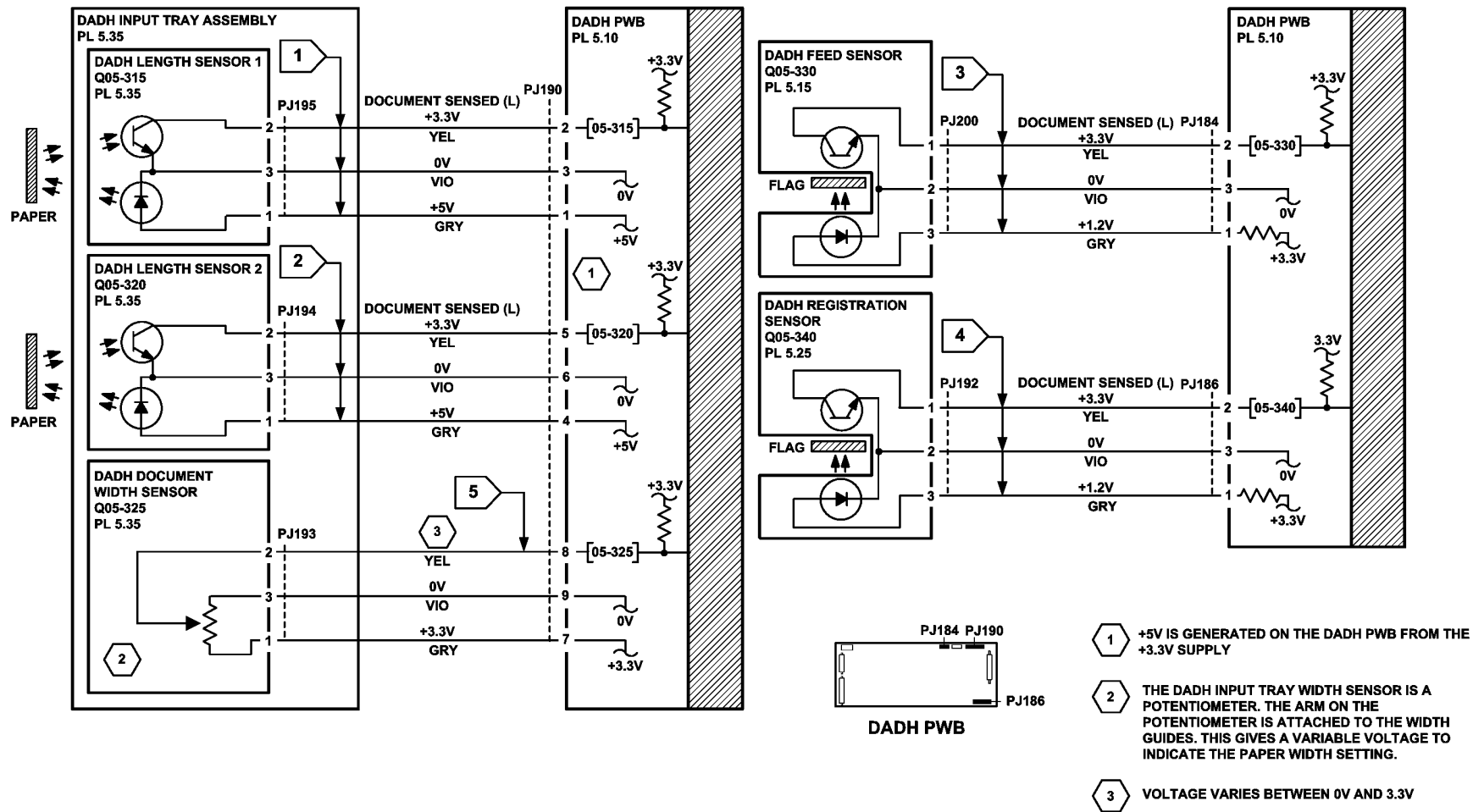


Figure 3 Circuit diagram

TT-1-0279-A

## 05K Document Size Sensor Failure RAP (40-90 ppm)

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [05B DADH Document Present Sensor Failure Entry RAP](#).
- Make sure that a bright light is not above the DADH. If necessary, adjust the position of the machine.
- Remove all documents from the DADH and input tray.
- Make sure that the sensors and the area around the sensors are clean.

### Procedure

Enter [dC330](#) code 05-315 to check the DADH length sensor 1, Q05-315, [Figure 1](#). Activate Q05-315. **The display changes.**

Y N

Go to [Flag 1](#). Check Q05-315.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J190](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH length sensor 1, [PL 5.35 Item 8](#).
- DADH PWB, [PL 5.10 Item 5](#).

Enter [dC330](#) code 05-320 to check the DADH length sensor 2, Q05-320. Activate Q05-320.

**The display changes.**

Y N

Go to [Flag 2](#). Check Q05-320.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J190](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH length sensor 2, [PL 5.35 Item 8](#).
- DADH PWB, [PL 5.10 Item 5](#).

Open the DADH top cover. Enter [dC330](#) code 05-330 to check the DADH feed sensor, Q05-330. Activate Q05-330. **The display changes.**

Y N

Go to [Flag 3](#). Check Q05-330.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J184](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH feed sensor, [PL 5.17 Item 2](#).
- DADH PWB, [PL 5.10 Item 5](#).

Enter [dC330](#) code 05-340 to check the DADH registration sensor, Q05-340. Activate Q05-340.

**The display changes.**

Y N

Go to [Flag 4](#). Check Q05-340.

References:

- [GP 11](#) How to Check a Sensor.
- [P/J184](#), [DADH PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Install new components as necessary:

- DADH registration sensor, [PL 5.25 Item 1](#).
- DADH PWB, [PL 5.10 Item 5](#).

Completely open the DADH width guides. Go to [Flag 5](#). Measure the voltage at [P/J190](#) pin 8. Completely close the DADH width guides. **The voltage changes from 3.3V to 0V.**

Y N

Remove the DADH input tray assembly, [PL 5.35 Item 1](#). Make sure the arm of the DADH width guide sensor is installed correctly, [Figure 2](#). Check the mechanical operation of the width guides. Install new components as necessary:

- DADH width sensor, [PL 5.35 Item 11](#).
- DADH input tray assembly, [PL 5.35 Item 1](#).

Make sure that the chain 5 NVM parameters for the detection of the size of paper are correct. Refer to [dC131](#).

Install new components as necessary:

- DADH PWB, [PL 5.10 Item 5](#).
- DADH input tray assembly, [PL 5.35 Item 1](#).

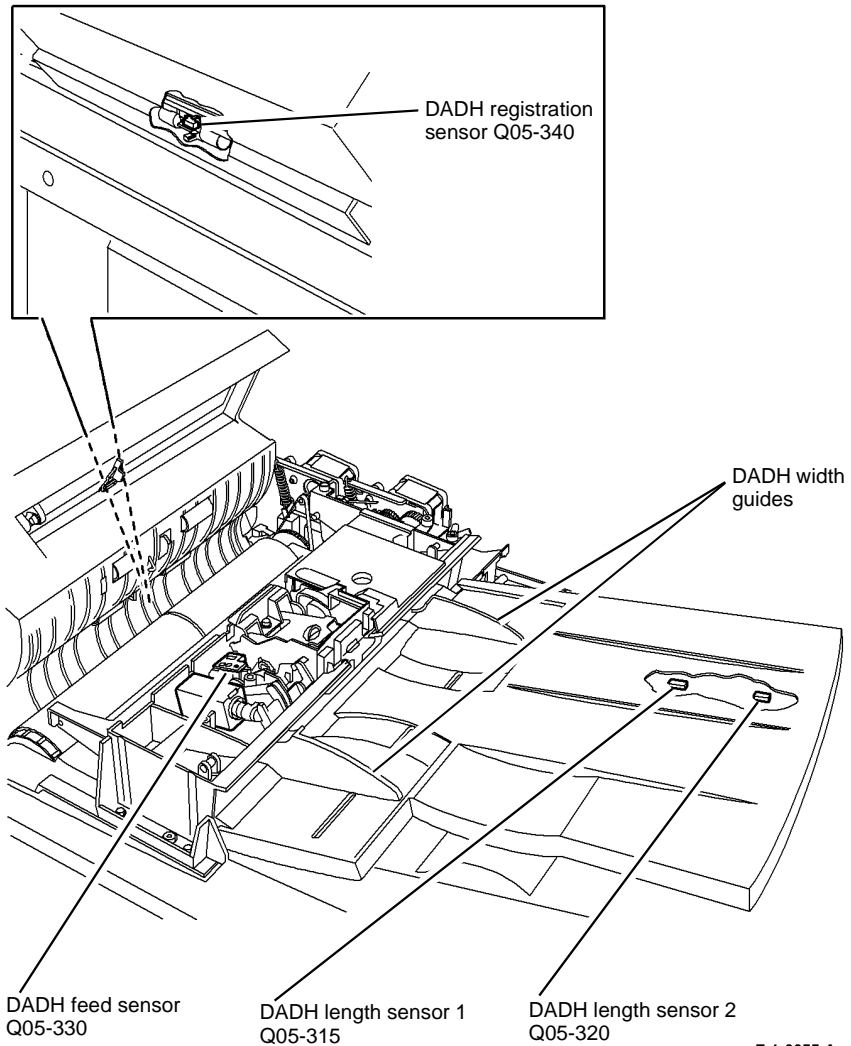


Figure 1 Component location

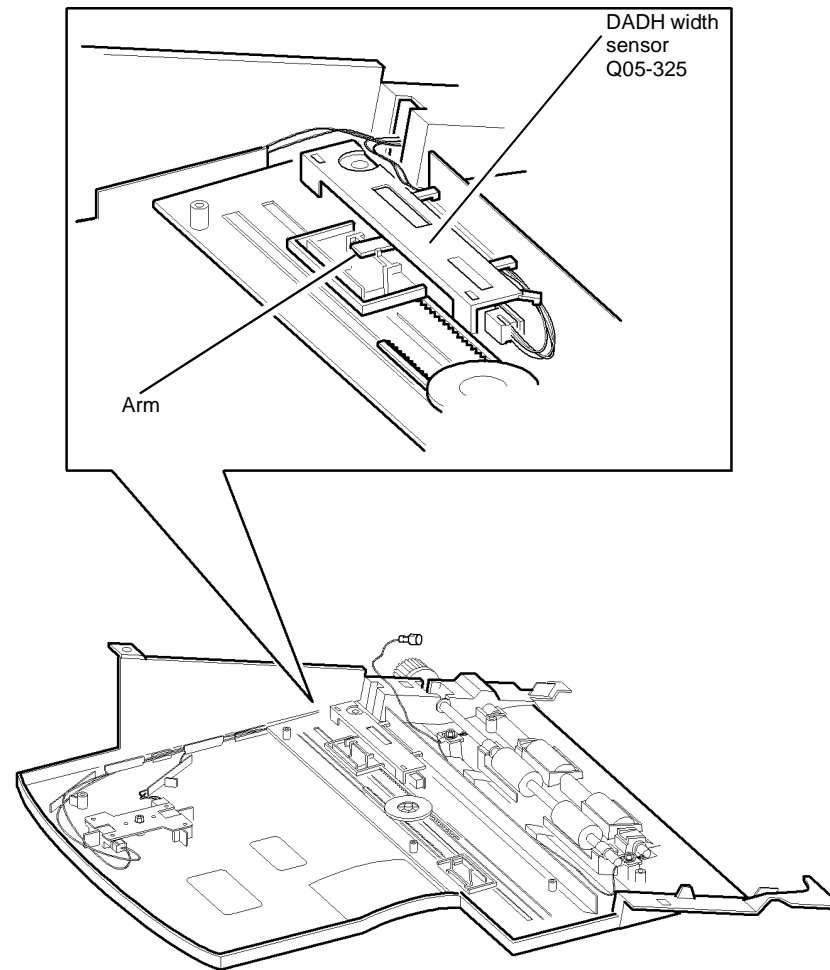


Figure 2 Component location

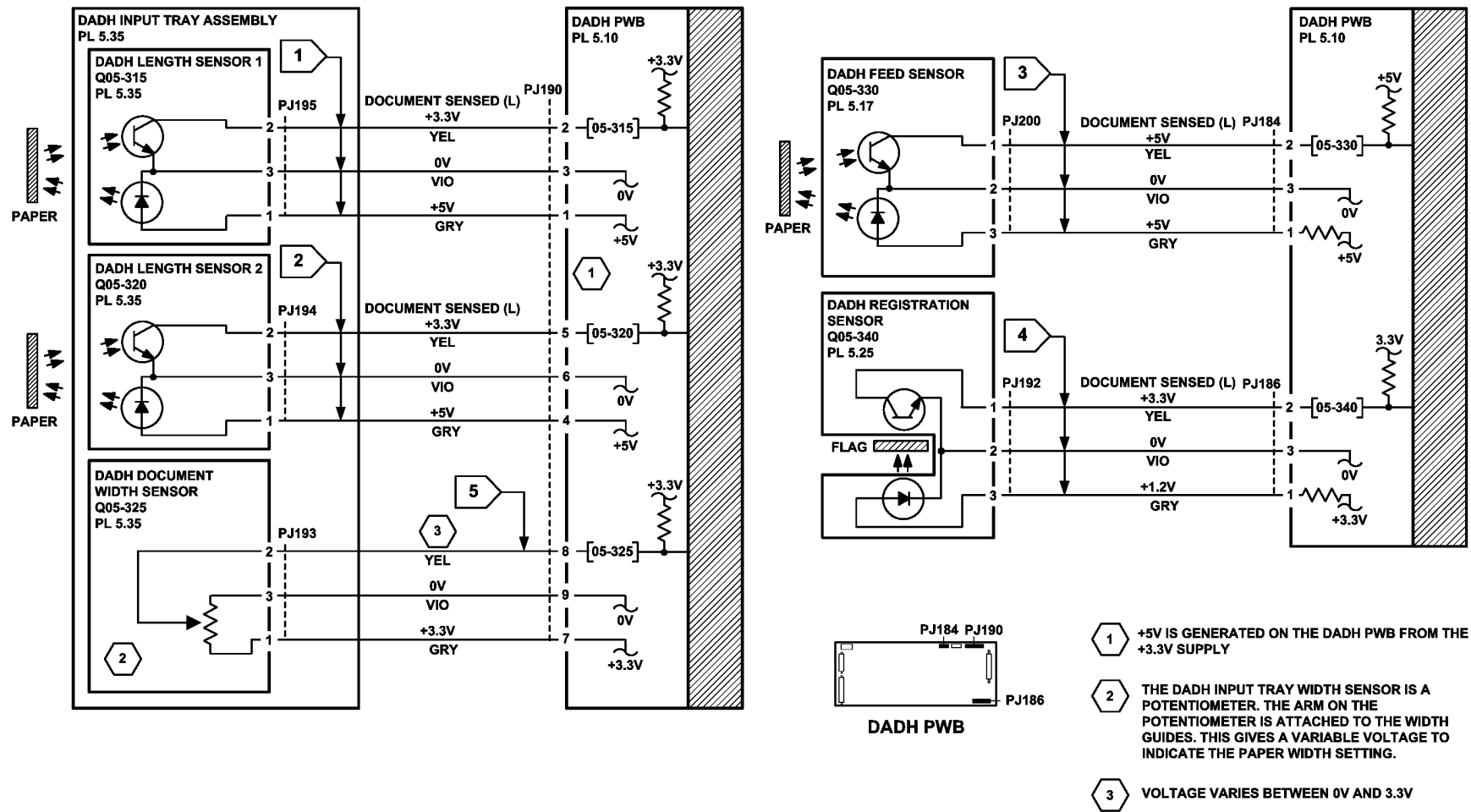


Figure 3 Circuit diagram

TT-1-0100-A



## 06-020 ROS Motor Failure RAP

**06-020.** This fault code has two failure modes.

1. The ROS motor ready signal was not received by the IOT PWB within the set time of the ROS being powered on.
2. The IOT PWB recognizes a change of state of the ROS motor ready signal during operation.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Avoid exposure to laser beam. Invisible laser radiation.

- **Figure 1.** Check that the harness connector at PJ2 on the IOT PWB is fully inserted.
- **Figure 1.** Check that the harness connector at PJ121 on the ROS is fully inserted.

### Procedure



Switch off the machine, then switch on the machine, **GP 14**. The **06-020** fault still exists.

**Y N**  
Perform **SCP 6** Final Actions.

Enter the **dC330** output code 06-020 and listen for the ROS motor. The ROS motor gives a distinctive ascending frequency sound, of a short duration (5 to 6 seconds) during transition from standby to run.

**Y N**  
The xerographic module is fully home and the front door is fully closed or the front door interlock is cheated.

**Y N**  
Correct the condition. If necessary go to the **01-300** Front Door Open RAP.

**A B**

**A B**

Go to **Flag 1**. Check the following voltages at **P/J18** on the LVPS:

- +24V between pins 1 and 2.
- +3.3V between pins 3 and 4.

The voltages are good.

**Y N**

Go to the relevant RAP:

- **01B** 0V Distribution RAP, refer to the 3.3V return and 24V return.
- **01D** +3.3V Distribution RAP.
- **01G** +24V Distribution RAP.

Enter the **dC330** output code 06-020 to run the ROS motor. Go to **Flag 2**. **0V** is available at **P/J2** pin 1 on the IOT PWB.

**Y N**

Go to **Flag 3**. **0V** is available at **P/J2** pin 6 on the IOT PWB.

**Y N**

Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10** Item 2.

**NOTE:** The ROS must be removed from the machine, **REP 6.1**, to disconnect **P/J120** and **P/J121**. The ROS PWB where **P/J120** and **P/J121** are connected may not be marked with the correct PJ numbers. **P/J120** can be identified as a four way power harness. **P/J121** can be identified as a seven way signal harness.

Go to **Flag 1**, **Flag 2** and **Flag 3**. Disconnect **P/J120** and **P/J121** and check the wiring. The wiring is good.

**Y N**

Repair the wiring.

Install a new ROS, **PL 6.10** Item 4.

Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10** Item 2.

Go to **Flag 2**. **0V** is available at **P/J2** pin 1.

**Y N**

**NOTE:** The ROS must be removed from the machine, **REP 6.1**, to disconnect **P/J120** and **P/J121**. The ROS PWB where **P/J120** and **P/J121** are connected may not be marked with the correct PJ numbers. **P/J120** can be identified as a four way power harness. **P/J121** can be identified as a seven way signal harness.

Check the continuity of the seven way signal harness between **P/J2** and **P/J121**. The harness is good.

**Y N**

Install a new ROS power distribution/communication harness, **PL 6.10** Item 5.

Install a new ROS, **PL 6.10** Item 4.

If the fault condition persists, perform the following:

- Check the condition of the associated wiring and connectors. Repair the wiring or install new components as necessary.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10** Item 2.

- Install a new ROS, PL 6.10 Item 4.

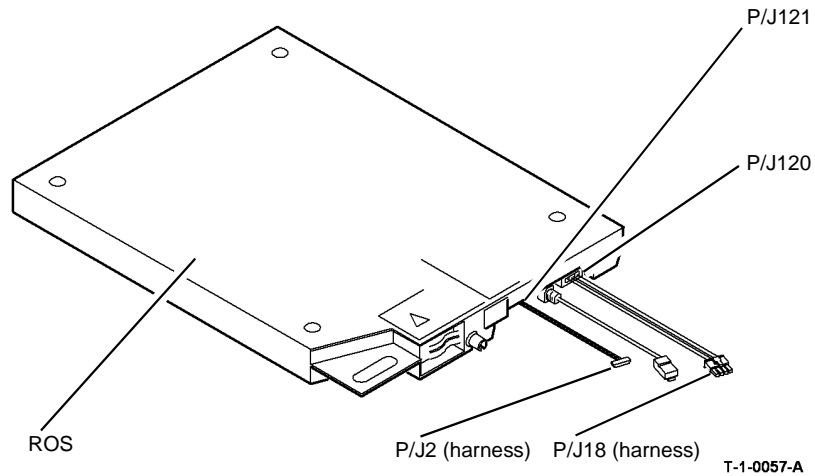


Figure 1 Component location

T-1-0057-A

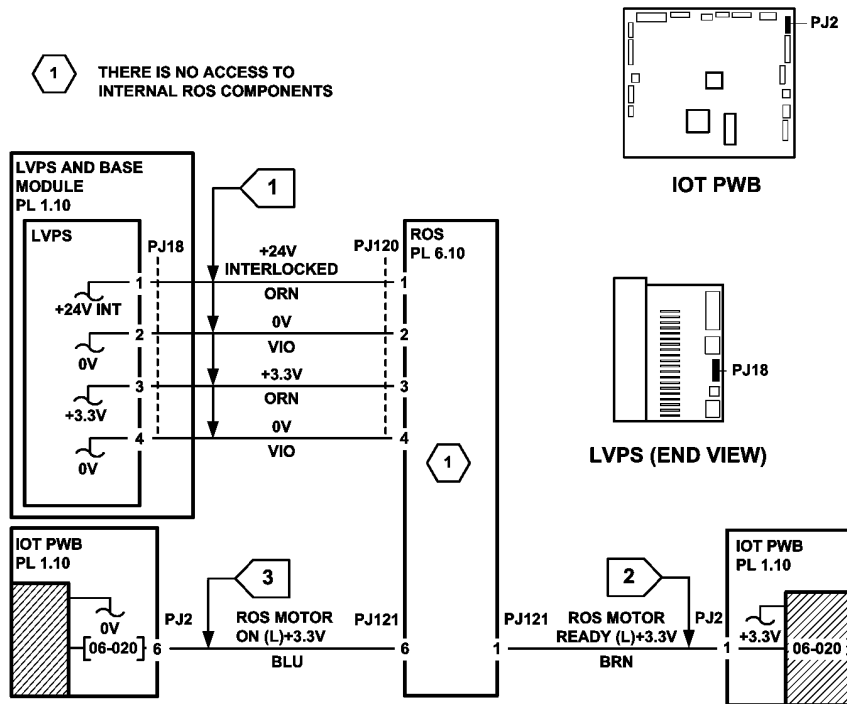


Figure 2 Circuit diagram

## 06-340 ROS Laser Failure RAP

06-340. The IOT PWB has not detected the ROS laser reaching the operating speed.

### Procedure



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Avoid exposure to laser beam. Invisible laser radiation.



Go to Flag 3. Connect a service meter to P/J2 pin 7 and make a set of 5 copies. 0V is measured at P/J2 pin 7 on the IOT PWB during run.

Y N  
The xerographic module is fully home and the front door is fully closed or the front door interlock is cheated.

Y N  
Correct the condition.

Go to Flag 1. Disconnect P/J18 from the LVPS. Check the following voltages on the LVPS:

- +24V between pins 1 and 2.
- +3.3V between pins 3 and 4.

The voltages are good.

Y N  
Go to the relevant RAP:

- 01B 0V Distribution RAP, refer to the 3.3V return and 24V return.
- 01D +3.3V Distribution RAP.
- 01G +24V Distribution RAP.

A B  
Enter the dC330 output code 06-020. Go to Flag 2. The ROS motor gives a distinctive ascending frequency sound, of a short duration (5 to 6 seconds) during transition from standby to run.

Y N  
Go to the 06-020 ROS Motor Failure RAP.

**NOTE:** The ROS must be removed from the machine, REP 6.1, to disconnect P/J122 and P/J121. The ROS PWB where P/J122 and P/J121 are connected may not be marked with the correct PJ numbers. P/J122 can be identified as a four way power harness. P/J121 can be identified as a seven way signal harness.

Check the wiring at Flag 1, Flag 2 and Flag 3. The wiring is good.

Y N  
Repair the wiring or install new harness, PL 6.10 Item 5.

Install a new ROS, PL 6.10 Item 4.

Go to Flag 4. Check P/J113 on the single board controller PWB is securely connected. If the fault is still present, remove the ROS, REP 6.1. Go to Flag 4. Ensure that PJ122 on the ROS is securely connected. If the fault is still present, go to Flag 4 and check the continuity of the ROS data cable (P/J113 to P/J122). The ROS data cable is good.

Y N  
Install a new ROS power distribution/communications harness, PL 6.10 Item 5.

Install new parts in the following order:

- ROS, PL 6.10 Item 4.
- Single board controller PWB, PL 3.24 Item 3.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

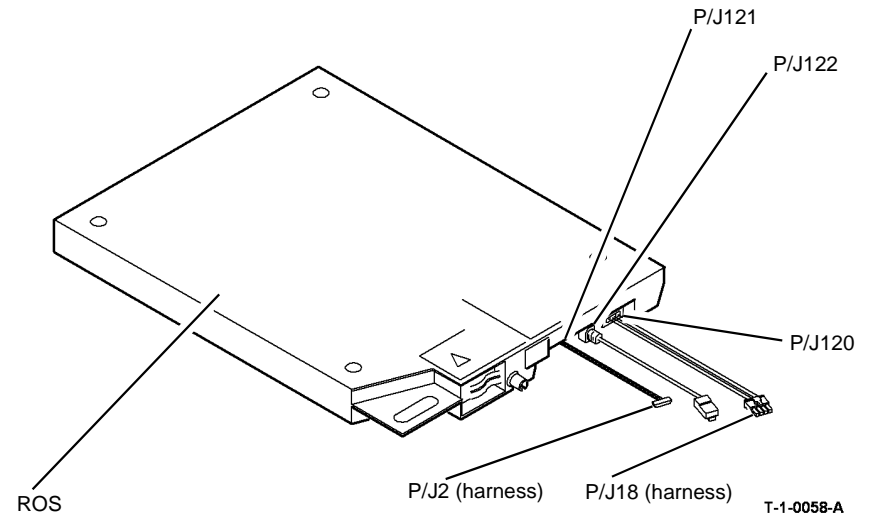


Figure 1 Component Location

A B

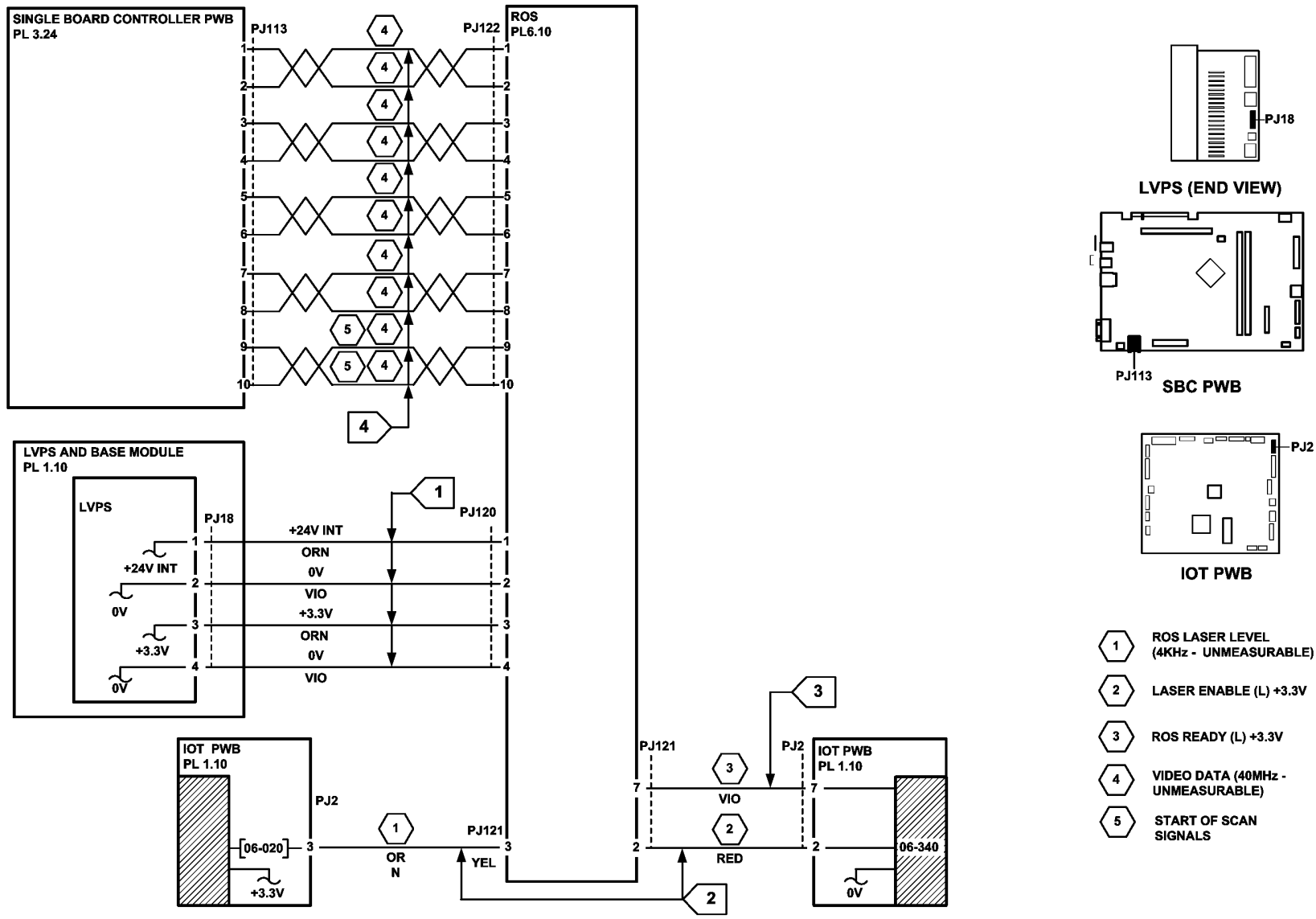


Figure 2 Circuit diagram

TT-1-0103-A

## 06-350 ROS Laser Not Under Control RAP

**06-350.** The IOT monitor has not received a reset command from the IOT ROS controller for more than 5 seconds during print.

### Procedure

Perform the [03-395](#), [396](#), [852](#), [853](#) IOT PWB Faults RAP.



## 07-301 Tray 1 Open During Run RAP

07-301 Tray 1 was opened during run when the paper is fed from tray 1.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Ensure the tray is pushed fully home, [Figure 1](#).
- Check for obstructions behind the tray.

### Procedure

Enter [dC330](#) code 07-301 tray 1 home switch, S07-301. Press Start. Open and fully close the tray. **The display changes.**

Y N

Go to [Flag 1](#). Check S07-301. Refer to:

- [GP 13](#) How to Check a Switch.
- Tray 1 home (H) +5V. Check at the switch terminal on the PWB, [Figure 2](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

Perform the following:

- Check the paper size leaf spring is mounted correctly, [PL 7.10 Item 3](#).
- If [TAG 101](#) has not been struck then install a paper feed module frame repair kit, [PL 31.14 Item 4](#).
- Check the actuator cam on the paper tray, [Figure 1](#).
- If the problem continues, install new Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

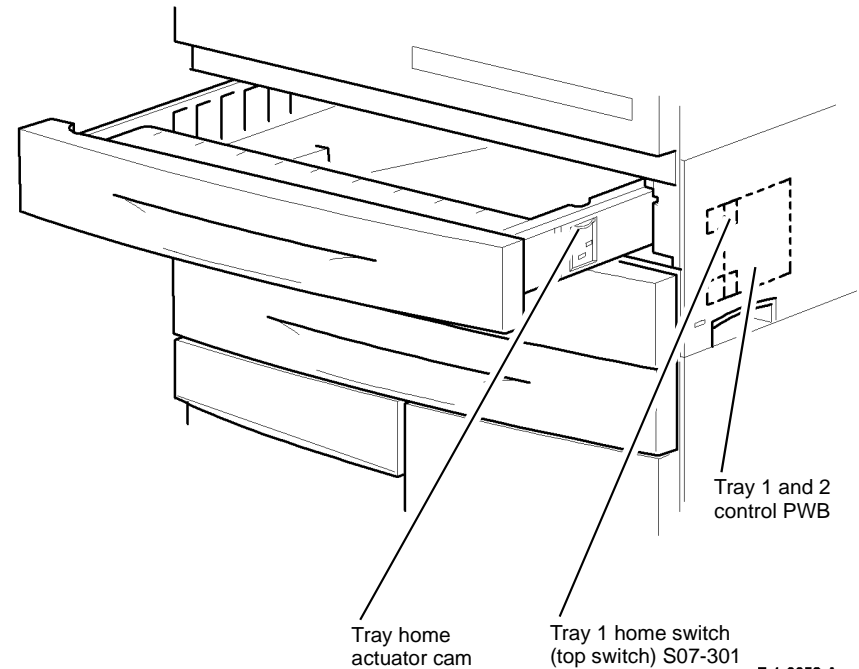


Figure 1 Component location

T-1-0059-A

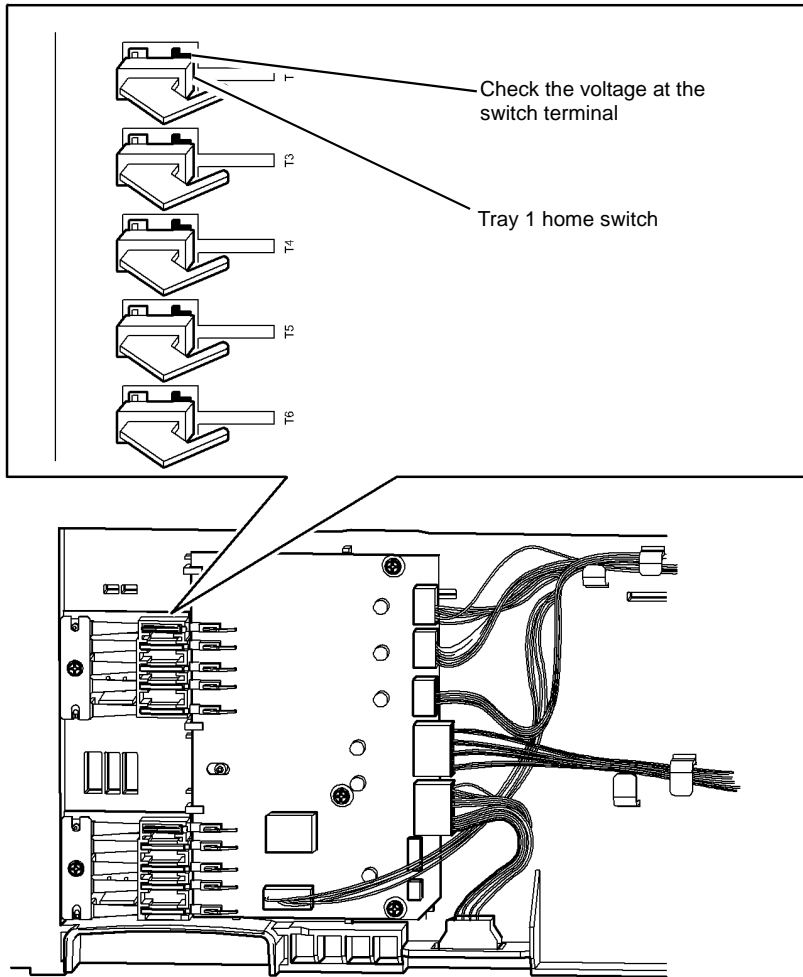
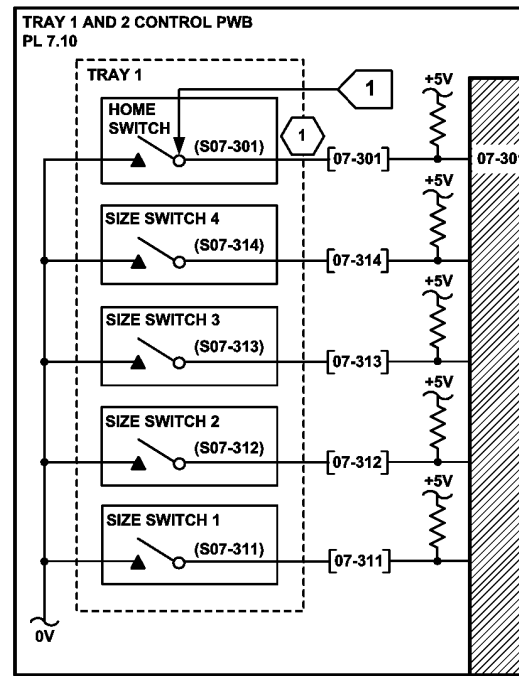
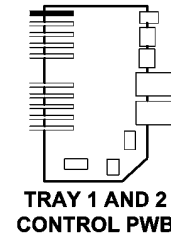


Figure 2 Tray 1 home switch test point

T-1-0060-A



1 TRAY HOME (H) +5V  
(SWITCH NOT ACTUATED)  
CHECK THE VOLTAGE AT  
THE SWITCH LEG ON THE  
PWB



TRAY 1 AND 2  
CONTROL PWB

Figure 3 Tray 1 circuit diagram

TT-1-0104-A



## 07-302 Tray 2 Open During Run RAP

07-302 Tray 2 was opened during run when the paper is fed from tray 2.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Ensure that the tray is pushed fully home, [Figure 1](#).
- Check for obstructions behind the tray.

### Procedure

Enter [dC330](#) code 07-302 tray 2 home switch, S07-302. Press Start. Open and fully close the tray. **The display changes.**

Y N

Go to [Flag 1](#). Check S07-302. Refer to:

- [GP 13](#) How to Check a Switch.
- Tray 1 home (H) +5V. Check at the switch terminal on the PWB, [Figure 2](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

Perform the following:

- Check the paper size leaf spring is mounted correctly, [PL 7.10 Item 3](#).  
If [TAG 101](#) has not been struck then install a paper feed module frame repair kit, [PL 31.14 Item 4](#).
- Check the actuator on the paper tray, [Figure 1](#).
- If the problem continues, install new Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

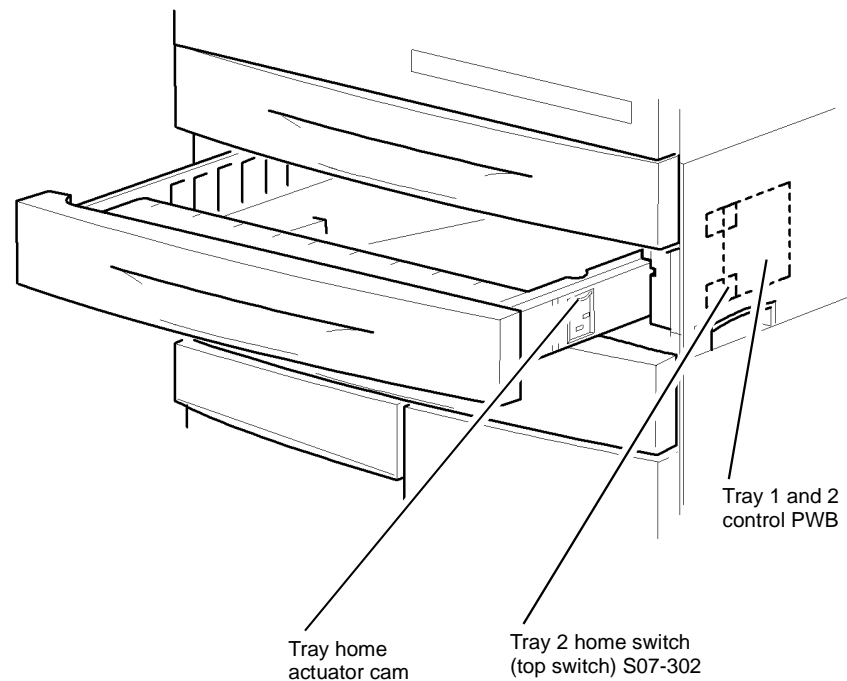
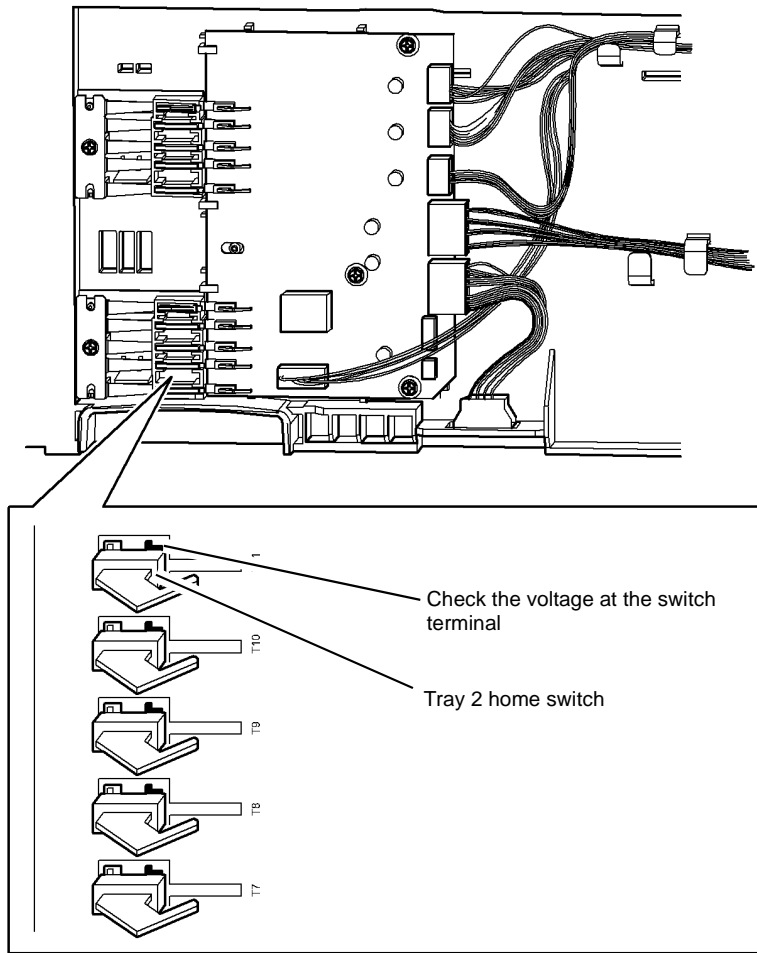


Figure 1 Component location

T-1-0061-A



T-1-0062-A

Figure 2 Home switch test point

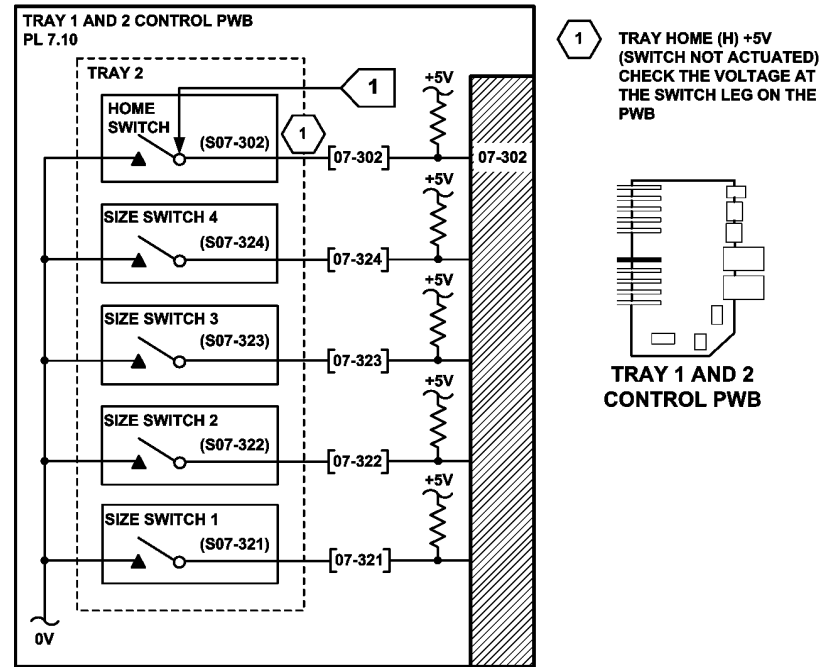


Figure 3 Tray 2 circuit diagram

TT-1-0105-A

## 07-303 Tray 3 Open During Run Entry RAP

07-303 Tray 3 open during run when the paper is fed from tray 3.

### Procedure

Go to the relevant procedure:

- (W/O TAG 151) go to the 07-303A Tray 3 Open During Run RAP (W/O TAG 151).
- (W/TAG 151) go to the 07-303B Tray 3 Open During Run RAP (W/TAG 151).

## 07-303A Tray 3 Open During Run RAP (W/O TAG 151)

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 07-303 Tray 3 Open During Run Entry RAP.
- Check for obstructions behind the tray.
- Ensure that the tray is pushed fully home.
- Check the switch actuator, Figure 1.

### Procedure

Enter dC330 code 07-303 tray 3 home switch, S07-303. Press Start. Open and fully close the tray. **The display changes.**

Y N

Go to Flag 1. Check S07-303. Refer to:

- GP 13 How to Check a Switch.
- P/J392, HCF control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 3 home switch, PL 7.20 Item 4.
- HCF control PWB, PL 7.20 Item 2.

Check the switch holder, PL 7.20 Item 3.

If the problem continues, install new components as necessary:

- Tray 3 home switch, PL 7.20 Item 4.
- HCF control PWB, PL 7.20 Item 2.

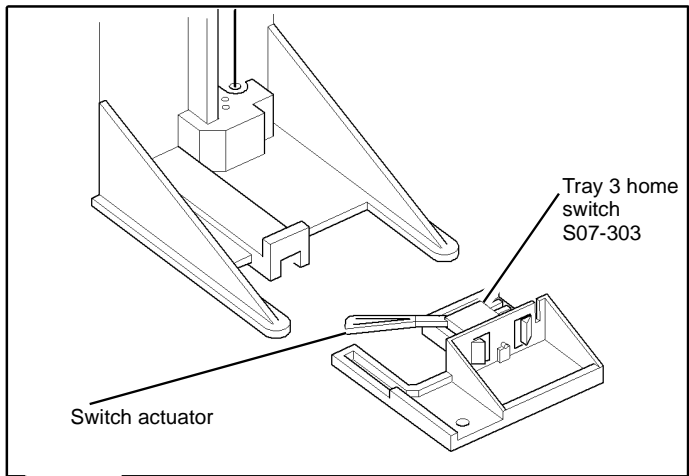


Figure 1 Component location

T-1-0063-A

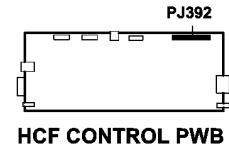
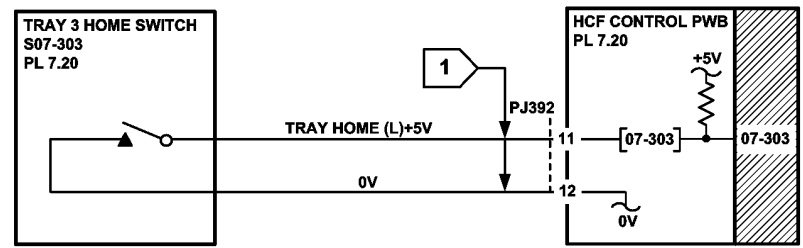


Figure 2 Circuit diagram

TT-1-0106-A

# 07-303B Tray 3 Open During Run RAP (W/TAG 151)

## Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 07-303 Tray 3 Open During Run Entry RAP.
- Check for obstructions behind the tray.
- Ensure that the tray is pushed fully home.
- Check the sensor flag, Figure 1.

## Procedure

Enter dC330 code 07-303 tray 3 home sensor, Q07-303. Press Start. Open and fully close the tray. The display changes.

- Y N**
- Go to Flag 1. Check Q07-303. Refer to:
- GP 11 How to Check a Sensor.
  - P/J1, HCF control PWB.
  - 01E +5V Distribution RAP.
  - 01B 0V Distribution RAP.
- Install new components as necessary:
- Tray 3 home sensor, PL 7.21 Item 4.
  - HCF control PWB, PL 7.21 Item 2.

Check the sensor holder, PL 7.21 Item 3.

If the problem continues, install new components as necessary:

- Tray 3 home sensor, PL 7.21 Item 4.
- HCF control PWB, PL 7.21 Item 2.

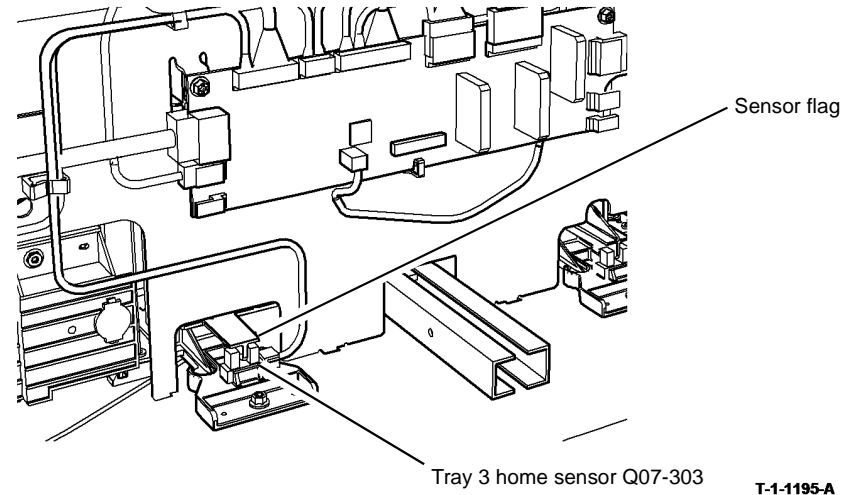


Figure 1 Component location

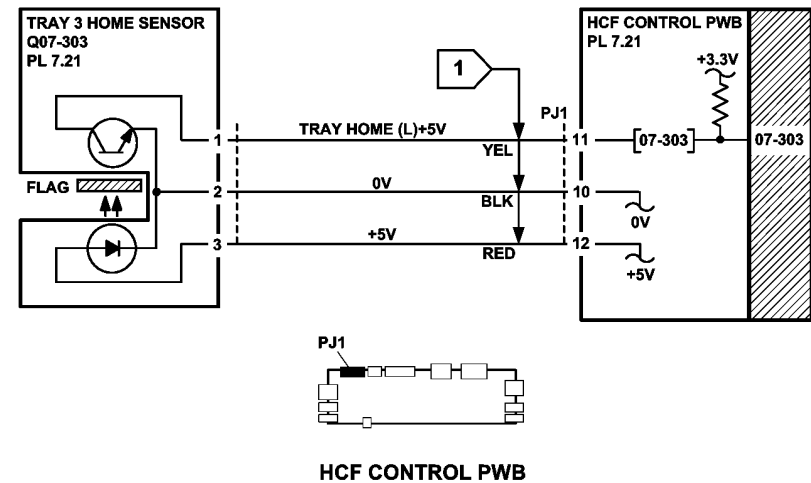


Figure 2 Circuit diagram

## 07-304 Tray 4 Open During Run Entry RAP

07-304 Tray 4 open during run when the paper is fed from tray 4.

### Procedure

Go to the relevant procedure:

- (W/O TAG 151) go to the 07-304A Tray 4 Open During Run RAP (W/O TAG 151).
- (W/TAG 151) go to the 07-304B Tray 4 Open During Run RAP (W/TAG 151).

## 07-304A Tray 4 Open During Run RAP (W/O TAG 151)

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 07-304 Tray 4 Open During Run Entry RAP.
- Check for obstructions behind the tray.
- Ensure that the tray is pushed fully home.
- Check the switch actuator, Figure 1.

### Procedure

Enter dC330 code 07-304 tray 4 home switch, S07-304. Press Start. Open and fully close the tray. **The display changes.**

Y N

Go to Flag 1. Check S07-304. Refer to:

- GP 13 How to Check a Switch.
- P/J392, HCF control PWB.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 4 home switch, PL 7.20 Item 4.
- HCF control PWB, PL 7.20 Item 2.

Check the switch holder, PL 7.20 Item 3.

If the problem continues, install new components as necessary:

- Tray 4 home switch, PL 7.20 Item 4.
- HCF control PWB, PL 7.20 Item 2.

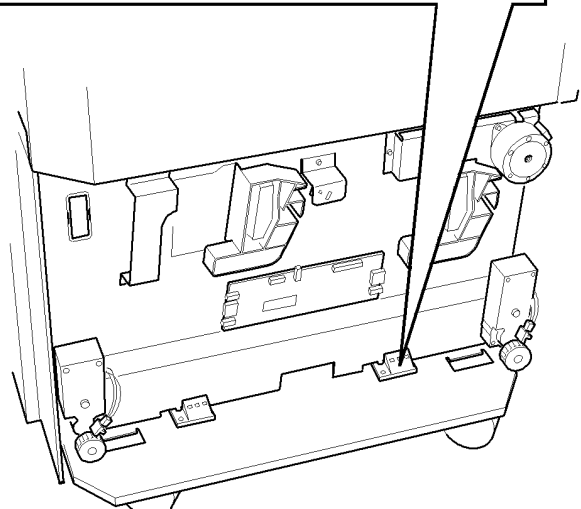
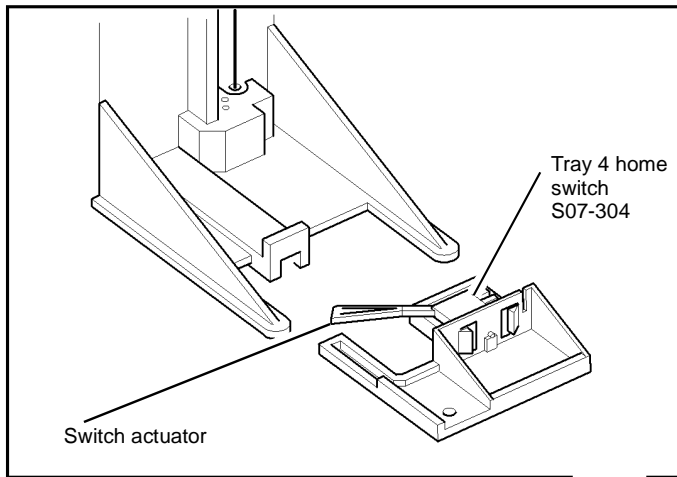


Figure 1 Component location

T-1-0064-A

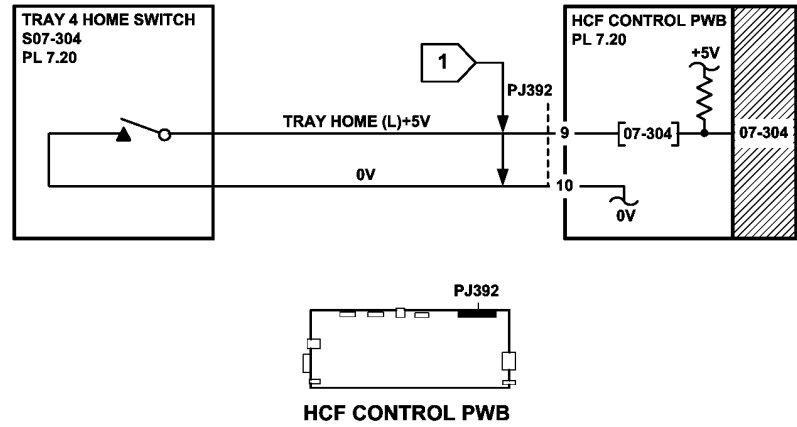


Figure 2 Circuit diagram

TT-1-0107-A

# 07-304B Tray 4 Open During Run RAP (W/TAG 151)

## Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 07-304 Tray 4 Open During Run Entry RAP.
- Check for obstructions behind the tray.
- Ensure that the tray is pushed fully home.
- Check the sensor flag, Figure 1.

## Procedure

Enter dC330 code 07-304 tray 4 home sensor, Q07-304. Press Start. Open and fully close the tray. **The display changes.**

- Y N**
- Go to Flag 1. Check Q07-304. Refer to:
    - GP 11 How to Check a Sensor.
    - P/J1 HCF control PWB.
    - 01B 0V Distribution RAP.
  - Install new components as necessary:
    - Tray 4 home sensor, PL 7.21 Item 4.
    - HCF control PWB, PL 7.21 Item 2.

Check the sensor holder, PL 7.21 Item 3.

If the problem continues, install new components as necessary:

- Tray 4 home sensor, PL 7.21 Item 4.
- HCF control PWB, PL 7.21 Item 2.

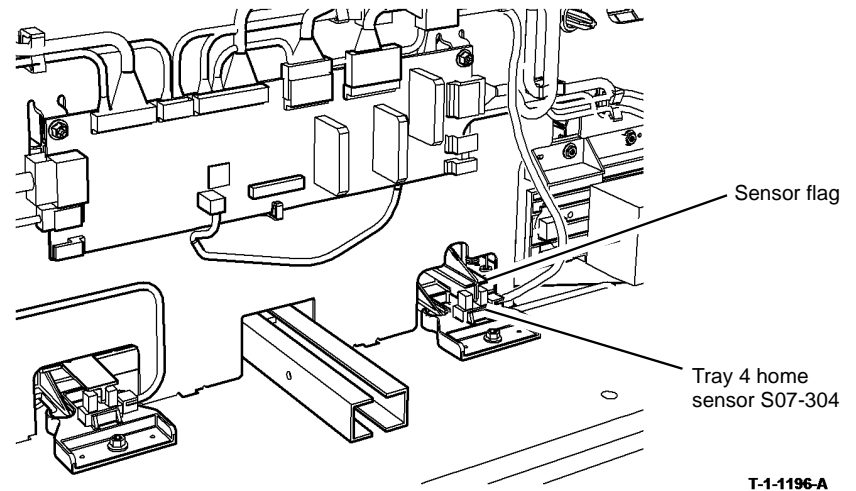


Figure 1 Component location

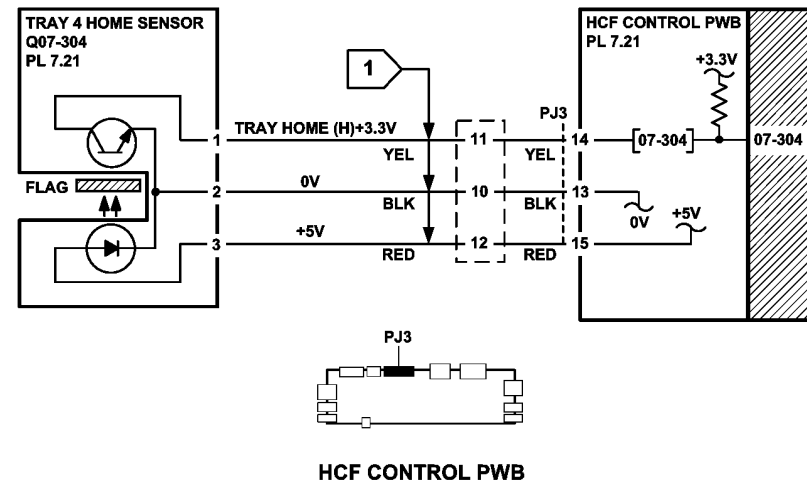


Figure 2 Circuit diagram

TT-1-0285-B



## 07-306 Tray 5 Door Open During Run RAP

07-306 Tray 5 door open during run when the paper is fed from tray 5.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Ensure that the door is pushed fully home.
- Check the switch actuator, Figure 1.

### Procedure

Enter dC330 code 07-306 tray 5 door switch, S07-306 Press Start. Open and fully close the door **The display changes.**

Y N

Go to Flag 1. Check S07-306. Refer to:

- GP 13 How to Check a Switch.
- 01E +5V Distribution RAP
- P/J507, Tray 5 control PWB.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 5 door switch, PL 7.60 Item 6.
- Tray 5 control PWB, PL 7.68 Item 8.

If the problem continues, install new components as necessary:

- Tray 5 door switch, PL 7.60 Item 6
- Tray 5 control PWB, PL 7.68 Item 8.

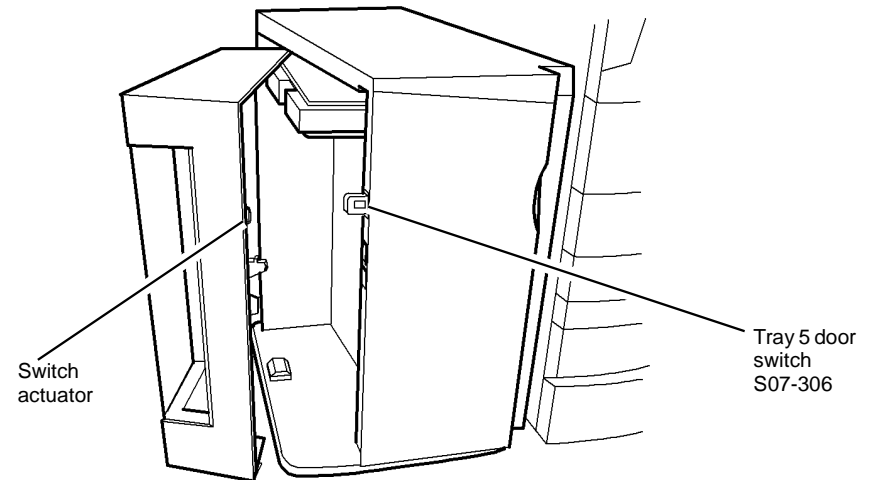


Figure 1 Component location

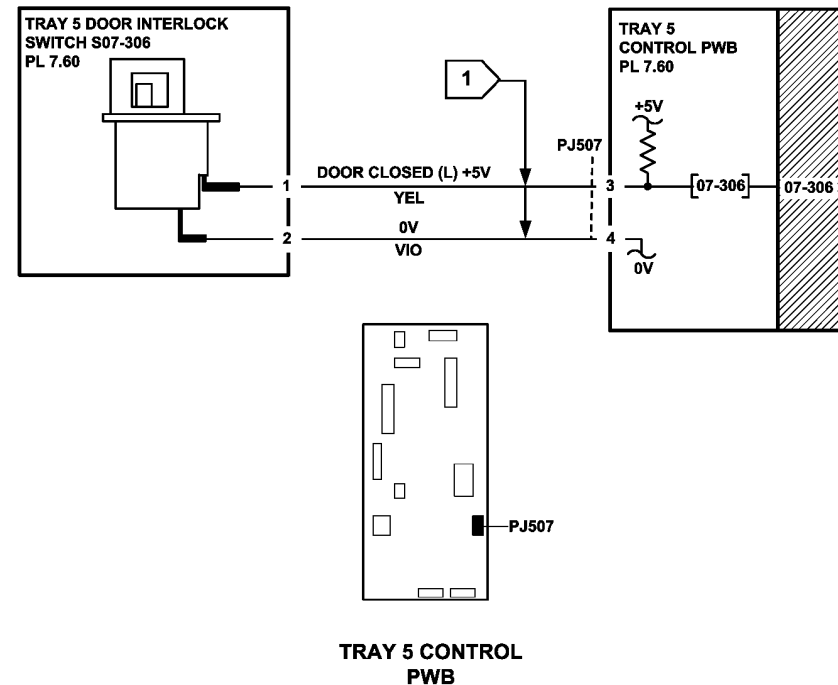


Figure 2 Circuit diagram

TT-1-0108-A

## 07-353 Tray 1 Elevator Lift Failure RAP

**07-353** Tray 1 stack height sensor did not actuate within the correct time after the feed / elevator motor turned on.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for obstructions behind the tray.
- Ensure that the tray is pushed fully home.  
Check the stack height mechanism actuator on the back of the tray, **Figure 1**.
- Check the drive gears and coupling on the tray.
- Check the elevator drive coupling on the feeder assembly.

### Procedure

Enter **dC330** code 07-336 tray 1 stack height sensor, Q07-336. Press Start. Pull out tray 1 and push fully home. **The display changes**

- Y** **N**
- Go to **Flag 1**. Check Q07-383. Refer to:
- **GP 11** How to Check a Sensor.
  - **P/J274, Tray 1 and 2 control PWB**
  - **01E** +5V Distribution RAP.
  - **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 1 stack height sensor, **PL 8.26** Item 8.
- Tray 1 and 2 control PWB, **PL 7.10** Item 2.



#### CAUTION

To prevent damage to the elevator and paper feed mechanism, the paper tray must be pulled out before **MOT07-010** is run in diagnostics.

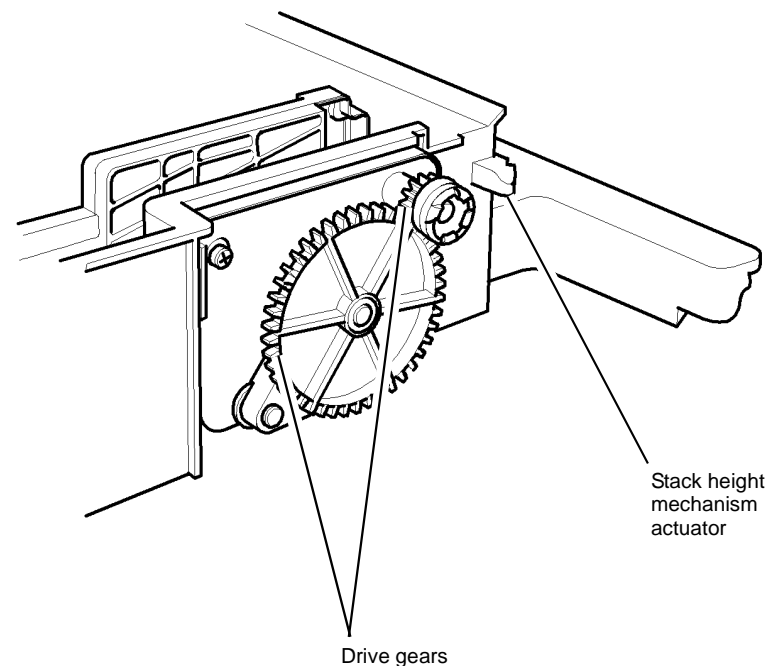
Enter **dC330** code 07-010 tray 1 feed / elevator motor, MOT07-010. Pull out tray 1. Press Start. **The motor runs**

- Y** **N**
- Go to **Flag 2**. Check MOT07-010. Refer to:
- **GP 10** How to Check a Motor.
  - **P/J274, Tray 1 and 2 control PWB**.
  - **01G** +24V Distribution RAP.
  - **01B** 0V Distribution RAP
- Install new components as necessary:
- Tray 1 Feed / elevator motor, **PL 8.26** Item 8.
  - Tray 1 and 2 control PWB, **PL 7.10** Item 2.

A

Perform the following:

- Check the feeder / elevator motor drive gears, **Figure 1**.
  - Check the tray 1 stack height mechanism on the feeder assembly.
- If the fault still occurs then go to **07A** Tray 1 and Tray 2 Empty RAP.



T-1-0066-A

Figure 1 Component location

A

## 07-354 Tray 2 Elevator Lift Failure RAP

07-354 Tray 2 stack height sensor did not actuate within the correct time after the feed / elevator motor turned on.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for obstructions behind the tray.
- Ensure that the tray is pushed fully home.  
Check the stack height mechanism actuator on the back of the tray, Figure 1.
- Check the drive gears and coupling on the tray.
- Check the elevator drive coupling on the feeder assembly.

### Procedure

Enter dC330 code 07-337 tray 2 stack height sensor, Q07-337. Press Start. Pull out tray 2 and push fully home. **The display changes**

Y N

Go to Flag 1. Check Q07-337. Refer to:

- GP 11 How to Check a Sensor.
- P/J275, Tray 1 and 2 control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 2 stack height sensor, PL 8.26 Item 8.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.



To prevent damage to the elevator and paper feed mechanism, the paper tray must be pulled out before MOT07-020 is run in diagnostics.

Enter dC330 code 07-020 tray 2 feed / elevator motor, MOT07-020. Pull out tray 2. Press Start. **The motor runs**

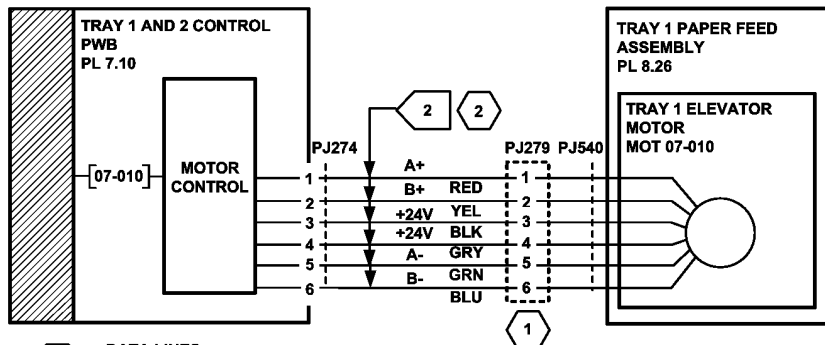
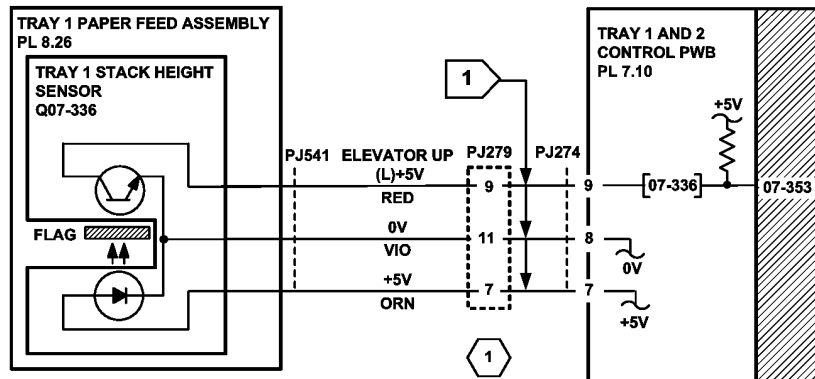
Y N

Go to Flag 2. Check MOT07-020. Refer to:

- GP 10 How to Check a Motor.
- P/J275, Tray 1 and 2 control PWB.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP

Install new components as necessary:

- Tray 2 Feed / elevator motor, PL 8.26 Item 6.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.



2 DATA LINES A AND B PULSE BETWEEN 0V AND +24V WHEN THE MOTOR IS RUNNING

1 BULKHEAD CONNECTOR ON DRIVES PLATE

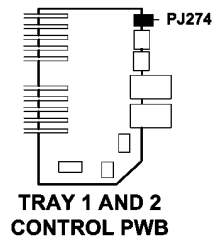


Figure 2 Circuit diagram

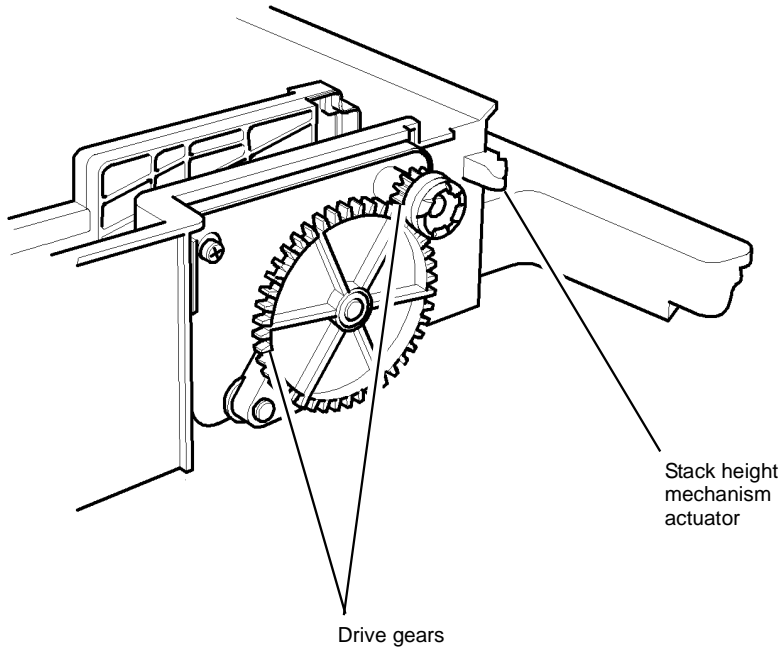
TT-1-0109-A

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Perform the following:

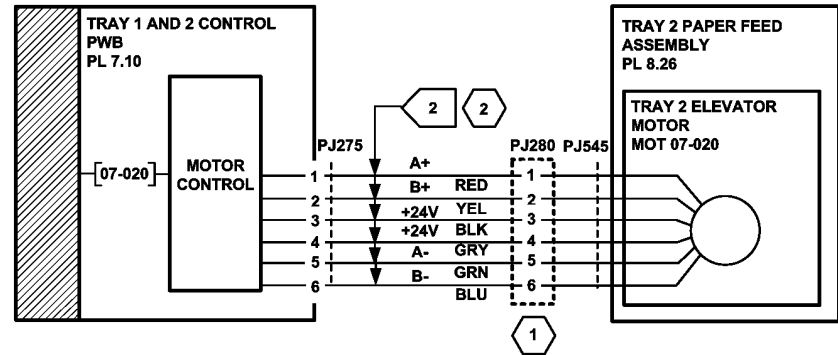
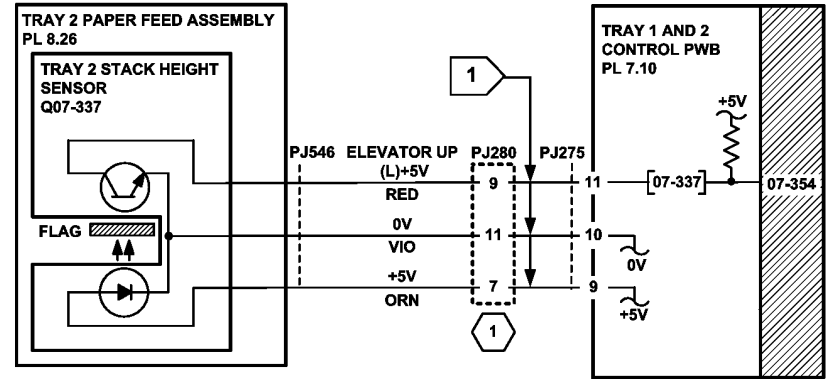
- Check the feeder / elevator motor drive gears, [Figure 1](#).
- Check the tray 2 stack height mechanism on the feeder assembly,

If the fault still occurs then go to [07A](#) Tray 1 and Tray 2 Empty RAP.



T-1-0067-A

Figure 1 Component location



2 DATA LINES  
A AND B PULSE  
BETWEEN 0V  
AND +24V WHEN  
THE MOTOR  
IS RUNNING

1 BULKHEAD  
CONNECTOR ON  
DRIVES PLATE

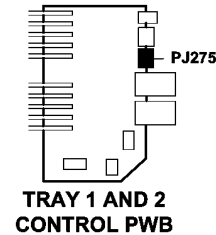


Figure 2 Circuit diagram

TT-1-0110-B

## 07-355 Tray 3 Elevator Lift Failure Entry RAP

07-355 Tray 3 stack height sensor does not actuate within the correct time after the elevator motor turned on.

**NOTE:** Rapid closure of tray 4 when tray 3 is being elevated may cause this fault.

### Procedure

Go to the relevant procedure:

- (W/O TAG 151) go to the 07-355A Tray 3 Elevator Lift Failure RAP (W/O TAG 151).
- (W/TAG 151) go to the 07-355B Tray 3 Elevator Lift Failure RAP (W/TAG 151).

## 07-355A Tray 3 Elevator Lift Failure RAP (W/O TAG 151)

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the 07-355 Tray 3 Elevator Lift Failure Entry RAP.
- Check that the tray elevator cables and mechanisms are located correctly.
- Ensure that the tray is pushed fully home.
- Check for obstructions behind the tray.
- Check the tray 3 home switch, Figure 1.
- If the tray only elevates up by 25mm (1 inch) and stops. Go to 07E RAP and check the tray empty actuator.

### Procedure

Enter dC330 code 07-303 tray 3 home switch, S07-303. Press Start. Pull out the tray and push back in. **The display changes.**

Y N

Go to Flag 1. Check S07-303. Refer to:

- GP 13 How to Check a Switch.
- P/J392, HCF control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP

Install new components as necessary:

- Tray 3 home switch, PL 7.20 Item 4.
- HCF control PWB, PL 7.20 Item 2.

Enter dC330 code 07-383 tray 3 stack height sensor, Q07-383. Press Start. Pull out tray 3 and manually activate the stack height sensor on the paper feed assembly. **The display changes**

Y N

Go to Flag 2. Check Q07-383. Refer to:

- GP 11 How to Check a Sensor.
- P/J392, HCF control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 3 stack height sensor, PL 8.30 Item 21
- HCF control PWB, PL 7.20 Item 2.

Disconnect P/J396 on the HCF control PWB, Flag 3. Connect a service meter between pin 1 and pin 3 on the wiring side of the connector. **Continuity is measured when the switch is deactivated and open circuit is measured when the switch is actuated.**

Y N

Go to **Flag 3**. Check S07-393. Refer to:

- **GP 13** How to Check a Switch.
- **P/J396**, **HCF control PWB**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 3 paper feeder, **PL 8.30 Item 2**.
- HCF control PWB, **PL 7.20 Item 2**.



*To prevent damage to the elevator and paper feed mechanism, the paper tray must be pulled out before MOT07-030 is run in diagnostics.*

Enter **dC330** code 07-030 tray 3 elevator motor, MOT07-030. Pull out tray 3. Press Start. **The motor runs**

Y N

Go to **Flag 4**. Check MOT07-030. Refer to:

- **GP 10** How to Check a Motor.
- **P/J395**, **HCF control PWB**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

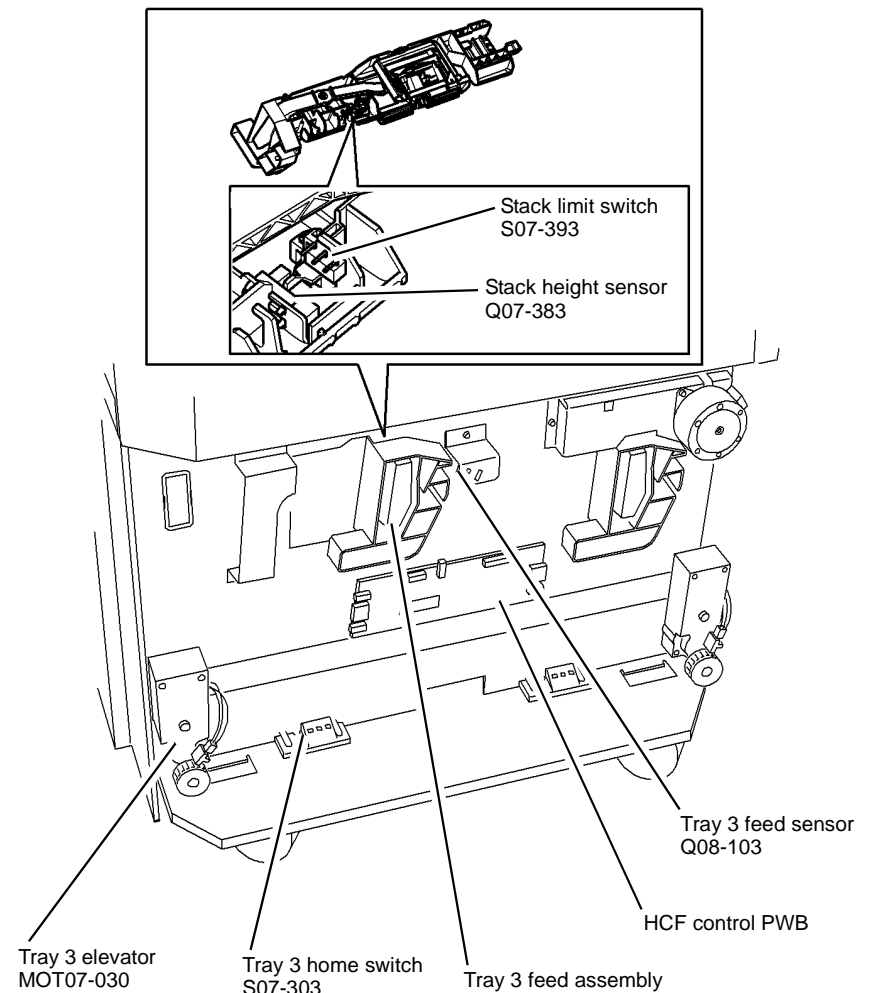
Install new components as necessary:

- Tray 3 elevator motor, **PL 7.20 Item 1**.
- HCF control PWB, **PL 7.20 Item 2**.

Perform the following:

- Check elevator cables, **PL 7.15 Item 4**, **PL 7.15 Item 6**, **PL 7.15 Item 7**.
- Check elevator motor drive coupling, **PL 7.20 Item 1**.
- Check tray elevator drive gears and drive coupling, **PL 7.15**.
- Check the tray 3 empty sensor actuator, **PL 8.30 Item 1**.

If the fault still occurs go to **07E** Tray 3 or Tray 4 Out of Paper RAP.



T-1-0068-A

**Figure 1 Component location**

## 07-355B Tray 3 Elevator Lift Failure RAP (W/TAG 151)

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the **07-355** Tray 3 Elevator Lift Failure Entry RAP.
- Check that the tray elevator cables and mechanisms are located correctly.
- Ensure that the tray is pushed fully home.
- Check for obstructions behind the tray.

### Procedure

Enter **dC330** code 07-303 tray 3 home sensor, Q07-303. Press Start. Pull out the tray and push back in. **The display changes.**

Y N

Go to **Flag 1**. Check S07-303. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J1**, **HCF control PWB**.
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP

Install new components as necessary:

- Tray 3 home sensor, **PL 7.21** Item 4.
- HCF control PWB, **PL 7.21** Item 2.

Enter **dC330** code 07-383 tray 3 stack height sensor, Q07-383. Press Start. Pull out tray 3 and manually activate the stack height sensor on the paper feed assembly. **The display changes**

Y N

Go to **Flag 2**. Check Q07-383. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J1**, **HCF control PWB**.
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 3 stack height sensor, **PL 8.32** Item 7.
- HCF control PWB, **PL 7.21** Item 2.

Disconnect **P/J10** on the HCF control PWB, **Flag 3**. Connect a service meter between pin 1 and pin 2 on the wiring side of the connector. **Continuity is measured when the stack limit switch is deactivated and open circuit is measured when the switch is actuated.**

Y N

Go to **Flag 3**. Check the stack limit switch. Refer to:

- **GP 13** How to Check a Switch.
- **P/J10**, **HCF control PWB**.

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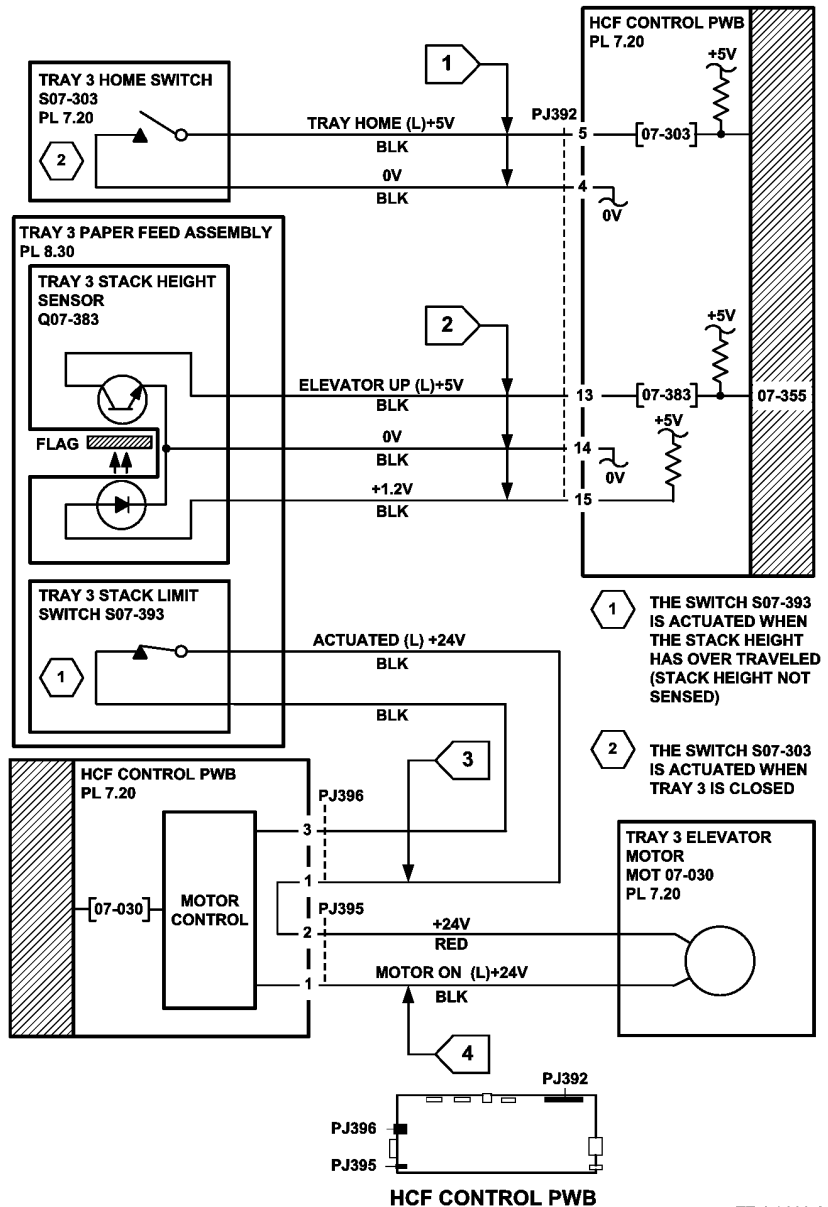


Figure 2 Circuit diagram

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- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 3 over elevate switch, PL 8.32 Item 9.
- HCF control PWB, PL 7.21 Item 2.



*To prevent damage to the elevator and paper feed mechanism, the paper tray must be pulled out before MOT07-030 is run in diagnostics.*

Re-connect P/J10. Enter dC330 code 07-030 tray 3 elevator motor, MOT07-030. Pull out tray 3. Press Start. **The motor runs**

Y N

Go to Flag 4. Check MOT07-030. Refer to:

- GP 10 How to Check a Motor.
- P/J13, HCF control PWB.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP

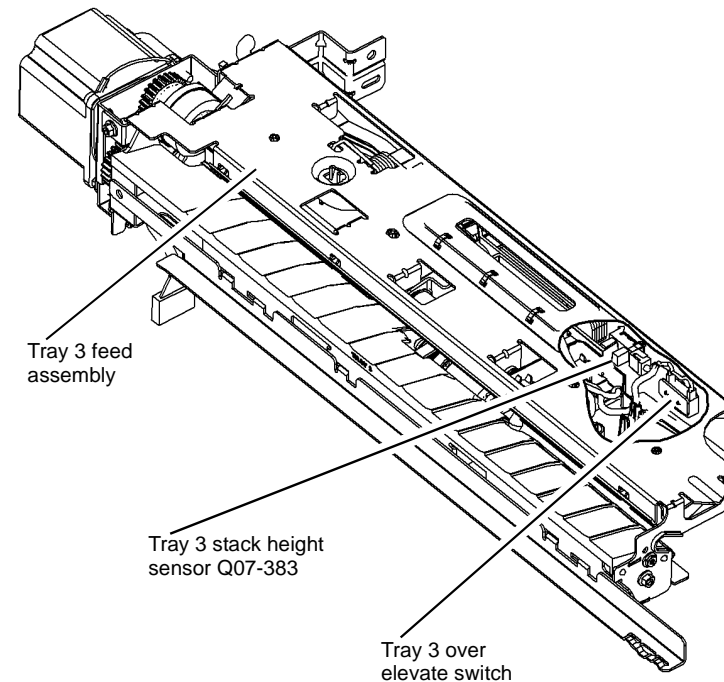
Install new components as necessary:

- Tray 3 elevator motor, PL 7.21 Item 1.
- HCF control PWB, PL 7.21 Item 2.

Perform the following:

- Check the elevator cables, PL 7.18 Item 4, PL 7.18 Item 6, PL 7.18 Item 8.
- Check the elevator drives gear coupling, PL 7.19 Item 10.

If the fault still occurs go to 07E Tray 3 or Tray 4 Out of Paper RAP.



T-1-1197-A

Figure 1 Component location



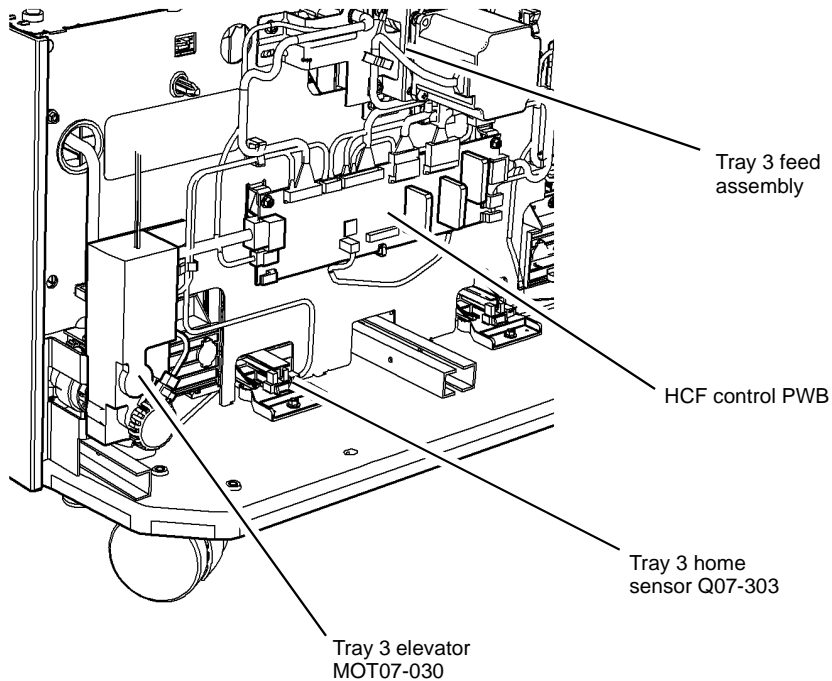


Figure 2 Component location

T-1-1222-A

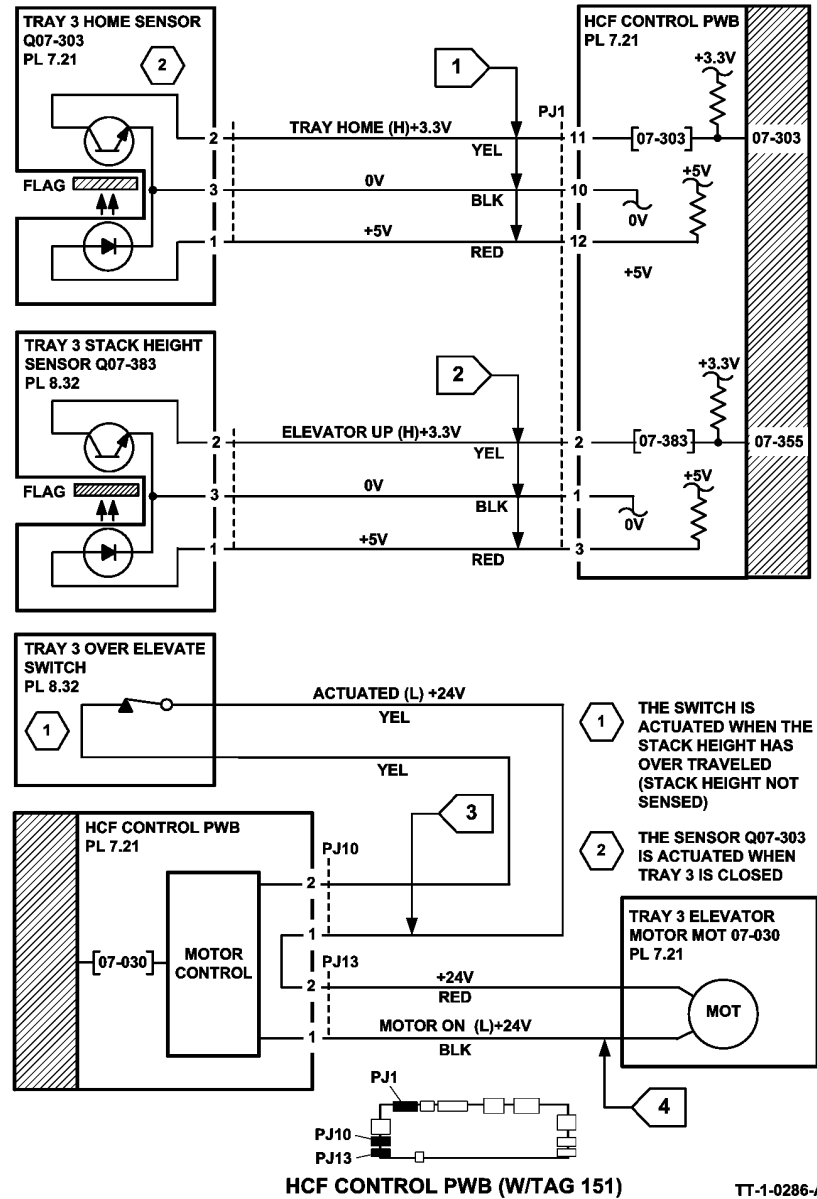


Figure 3 Circuit diagram

## 07-360 Tray 4 Elevator Lift Failure Entry RAP

**07-360** Tray 4 stack height sensor does not actuate within 7 seconds after the elevator motor is turned on.

**NOTE:** Rapid closure of tray 3 when tray 4 is being elevated may cause this fault.

### Procedure

Go to the relevant procedure:

- (W/O TAG 151) go to the **07-360A** Tray 4 Elevator Lift Failure RAP (W/O TAG 151).
- (W/TAG 151) go to the **07-360B** Tray 4 Elevator Lift Failure RAP (W/TAG 151).

## 07-360A Tray 4 Elevator Lift Failure RAP (W/O TAG 151)

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



### CAUTION

Failure of the tray 4 feed motor, MOT 08-840 can cause damage the 24V circuit of the HCF Control PWB. Before replacing a HCF Control PWB ensure the tray 4 feed motor is operational.

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the **07-360** Tray 4 Elevator Lift Failure Entry RAP.
- Check the tray 4 feed motor, MOT08-840. Go to **08-104, 08-114** Tray 4 Misfeed RAP.
- Check that the tray elevator cables and mechanisms are located correctly.
- Ensure that the tray is pushed fully home.
- Check for obstructions behind the tray.
- If the tray only elevates up by 25mm (1 inch) and stops. Go to **07E** RAP and check the tray empty actuator.

### Procedure

Enter **dC330** code 07-304 tray 4 home switch, S07-304. Press Start. Pull out the tray and push back in. **The display changes.**

Y N

Go to **Flag 1**. Check S07-304. Refer to:

- **GP 13** How to Check a Switch.
- **P/J392, HCF control PWB**.
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 4 home switch, **PL 7.20 Item 4**.
- HCF control PWB, **PL 7.20 Item 2**.

Enter **dC330** code 07-384 tray 4 stack height Sensor, Q07-384. Press Start. Pull out tray 4 and manually actuate the stack height sensor on the paper feed assembly. **The display changes.**

Y N

Go to **Flag 2**. Check Q07-384. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J392, HCF control PWB**.
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 4 stack height sensor, **PL 8.31 Item 13**.

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A

- HCF control PWB, [PL 7.20 Item 2](#).

Go to [P/J398](#) pin 6 on the HCF control PWB, [Flag 4](#). Manually activate the tray 4 stack limit switch (S07-394) on the paper feed assembly. **The voltage changes.**

Y N

Go to [Flag 3](#). Check S07-394. Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J398](#), [HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 4 paper feeder, [PL 8.31 Item 4](#).
- HCF control PWB, [PL 7.20 Item 2](#).



**CAUTION**

*To prevent damage to the elevator and paper feed mechanism, the paper tray must be pulled out before MOT07-040 is run in diagnostics.*

Enter [dC330](#) code 07-040 tray 4 elevator motor, MOT07-040. Pull out tray 4. Press Start. **The motor runs.**

Y N

Go to [Flag 4](#). Check MOT07-040. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J397](#), [HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

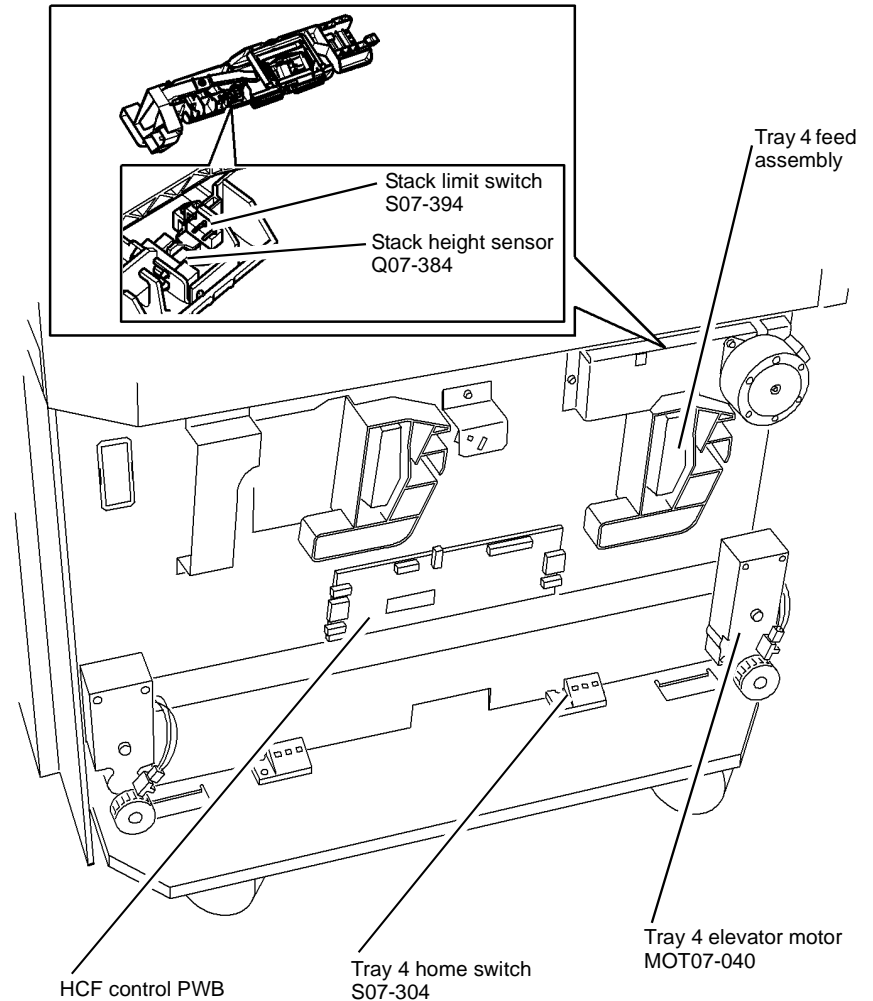
Install new components as necessary:

- Tray 4 elevator motor, [PL 7.20 Item 1](#).
- HCF control PWB, [PL 7.20 Item 2](#).

Perform the following:

- Check elevator cables, [PL 7.15 Item 4](#), [PL 7.15 Item 5](#), [PL 7.15 Item 7](#).
- Check elevator motor drive coupling, [PL 7.20 Item 1](#).
- Check elevator drive gears and drive coupling, [PL 7.15](#).
- Check the tray 4 empty sensor actuator, [PL 8.31 Item 1](#).

If the fault still occurs then go to [07E](#) Tray 3 or Tray 4 Out of Paper RAP.



T-1-0069-A

**Figure 1 Component location**

## 07-360B Tray 4 Elevator Lift Failure RAP (W/TAG 151)

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



Failure of the tray 4 feed motor, MOT 08-840 can cause damage the 24V circuit of the HCF Control PWB. Before replacing a HCF Control PWB ensure the tray 4 feed motor is operational.

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the [07-360](#) Tray 4 Elevator Lift Failure Entry RAP.
- Check the tray 4 feed motor, MOT08-840. Go to [08-104](#), [08-114](#) Tray 4 Misfeed RAP.
- Check that the tray elevator cables and mechanisms are located correctly.
- Ensure that the tray is pushed fully home.
- Check for obstructions behind the tray.

### Procedure

Enter [dC330](#) code 07-304 tray 4 home sensor, Q07-304. Press Start. Pull out the tray and push back in. **The display changes.**

Y N

Go to [Flag 1](#). Check Q07-304. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J3](#), HCF control PWB.
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 4 home sensor, [PL 7.21](#) Item 4.
- HCF control PWB, [PL 7.21](#) Item 2.

Enter [dC330](#) code 07-384 tray 4 stack height Sensor, Q07-384. Press Start. Pull out tray 4 and manually actuate the stack height sensor on the paper feed assembly. **The display changes.**

Y N

Go to [Flag 2](#). Check Q07-384. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J3](#), HCF control PWB.
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 4 stack height sensor, [PL 8.33](#) Item 6.
- HCF control PWB, [PL 7.21](#) Item 2.

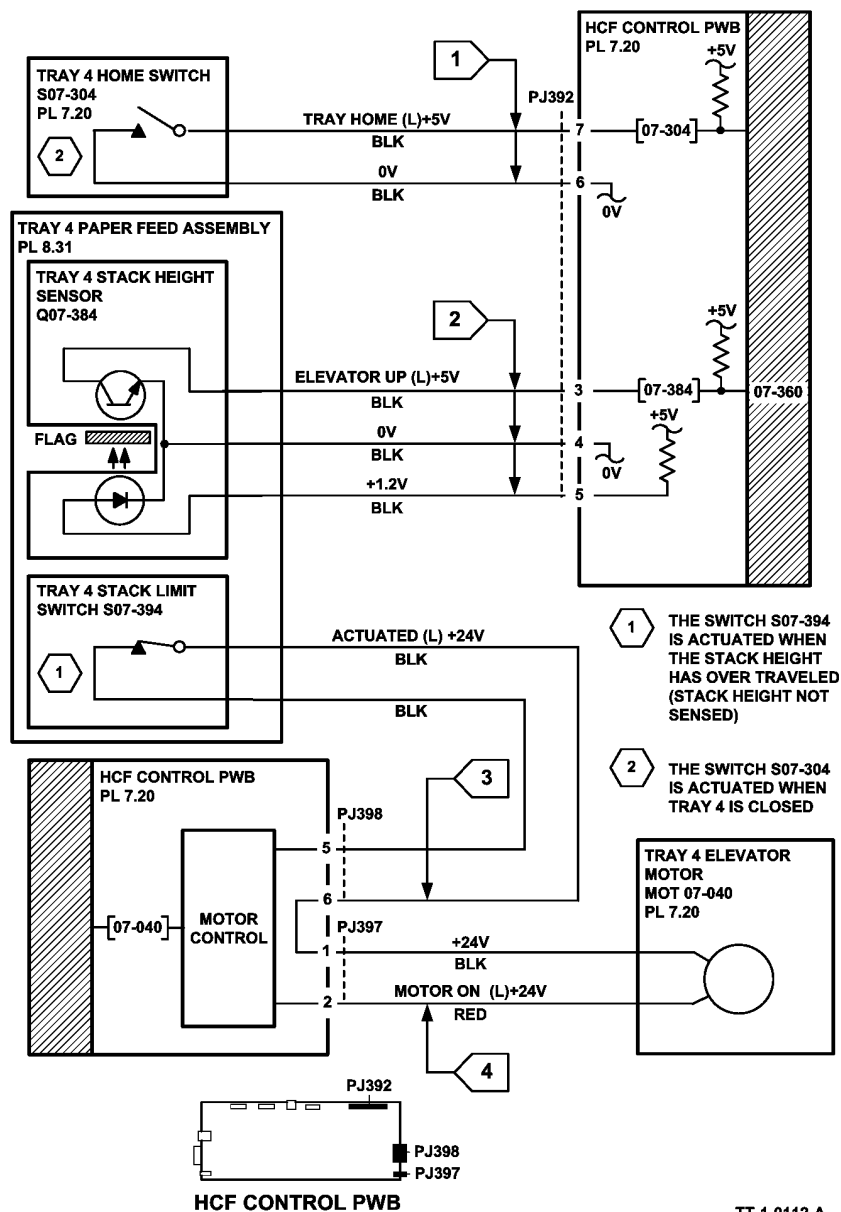


Figure 2 Tray 4 Circuit diagram

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Disconnect **P/J12** on the HCF control PWB, **Flag 3**. Connect a service meter between pin 1 and pin 2 on the wiring side of the connector. **Continuity is measured when the stack limit switch is deactuated and open circuit is measured when the switch is actuated.**

Y N

Go to **Flag 3**. Check the stack limit switch. Refer to:

- **GP 13** How to Check a Switch.
- **P/J12**, **HCF control PWB**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 4 over elevate switch, **PL 8.33** Item 9.
- HCF control PWB, **PL 7.21** Item 2.



**CAUTION**

*To prevent damage to the elevator and paper feed mechanism, the paper tray must be pulled out before MOT07-040 is run in diagnostics.*

Enter **dC330** code 07-040 tray 4 elevator motor, MOT07-040. Pull out tray 4. Press Start. **The motor runs.**

Y N

Go to **Flag 4**. Check MOT07-040. Refer to:

- **GP 10** How to Check a Motor.
- **P/J14**, **HCF control PWB**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

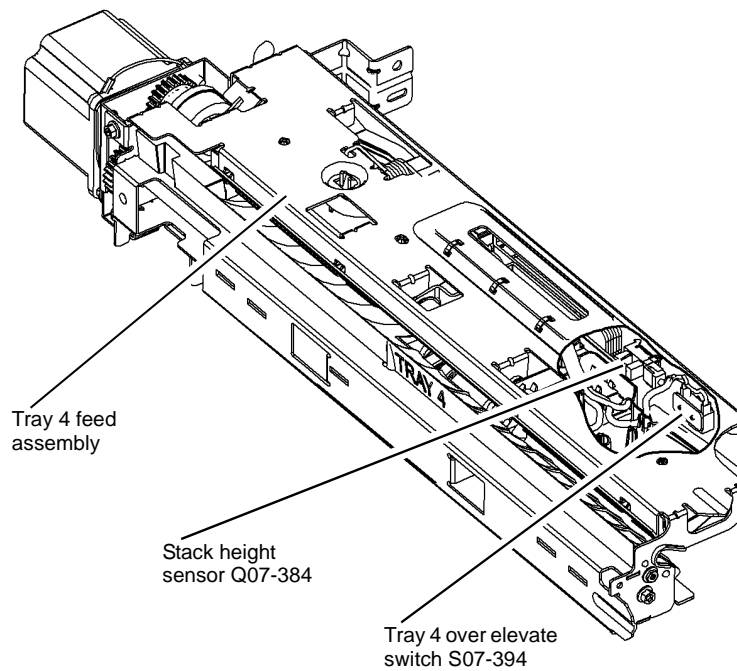
Install new components as necessary:

- Tray 4 elevator motor, **PL 7.21** Item 1.
- HCF control PWB, **PL 7.21** Item 2.

Perform the following:

- Check the elevator cables, **PL 7.18** Item 4, **PL 7.18** Item 5, **PL 7.18** Item 7.
- Check elevator drives gear coupling, **PL 7.19** Item 10.

If the fault still occurs then go to **07E** Tray 3 or Tray 4 Out of Paper RAP.



T-1-1198-A

**Figure 1** Component location

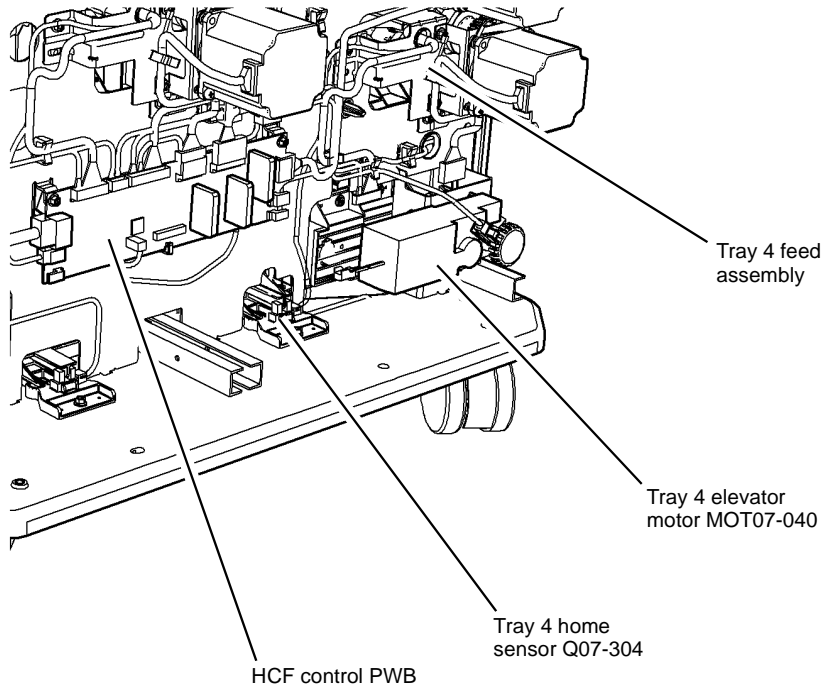


Figure 2 Component location

T-1-1223-A

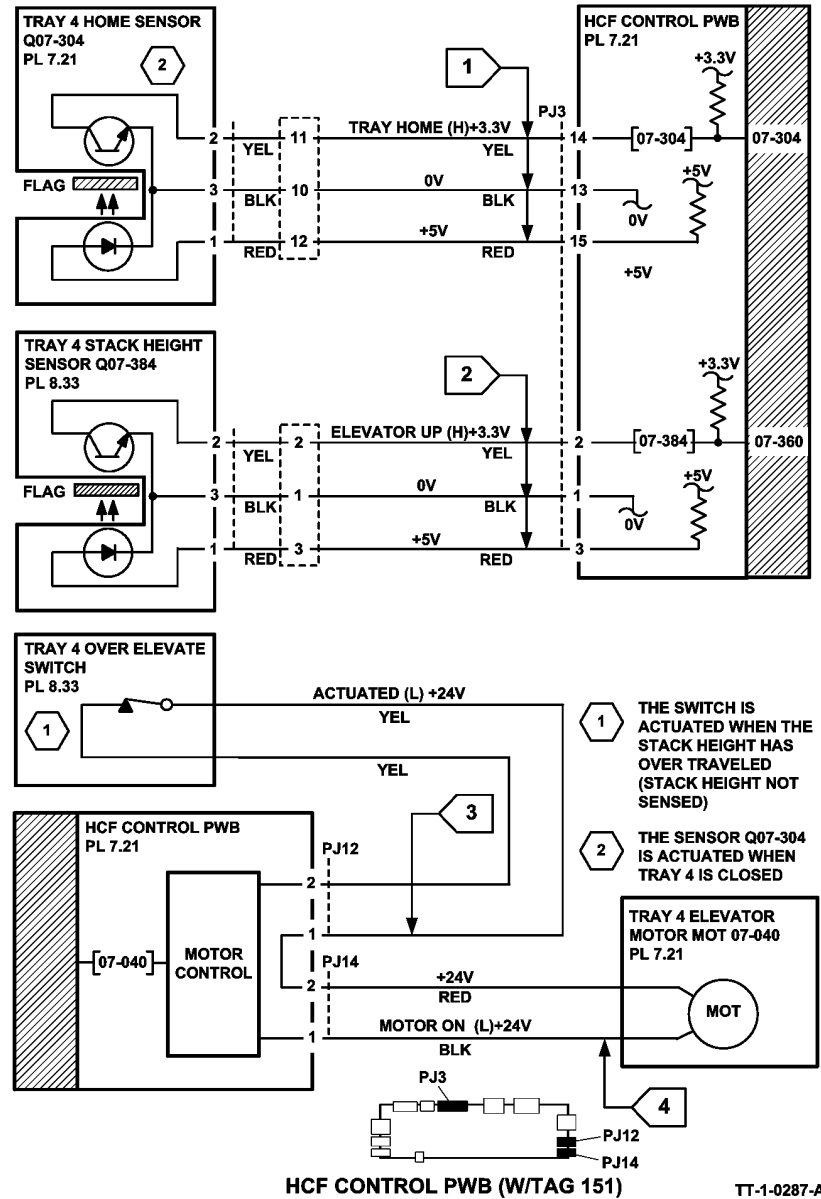


Figure 3 Tray 4 Circuit diagram

## 07-372 Tray 5 Undocked During Run RAP

07-372 Tray 5 was undocked during run when the paper is fed from tray 5.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Ensure the tray is pushed fully home, Figure 1.
- Check for obstructions between the tray and the machine.

### Procedure

Enter dC330 code 07-372 tray 5 docking switch, S07-372. Press Start. Undock and dock tray 5, refer to REP 7.19. The display changes.

Y N

Go to Flag 1. Check S07-372. Refer to:

- GP 13 How to Check a Switch.
- P/J507, Tray 5 control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 5 docking switch, PL 7.64 Item 1
- Tray 5 control PWB, PL 7.68 Item 8

Perform the following:

- Check the docking latch on tray 5 is latched onto the machine, Figure 2.
- Check that the rail assembly is located correctly to the machine.

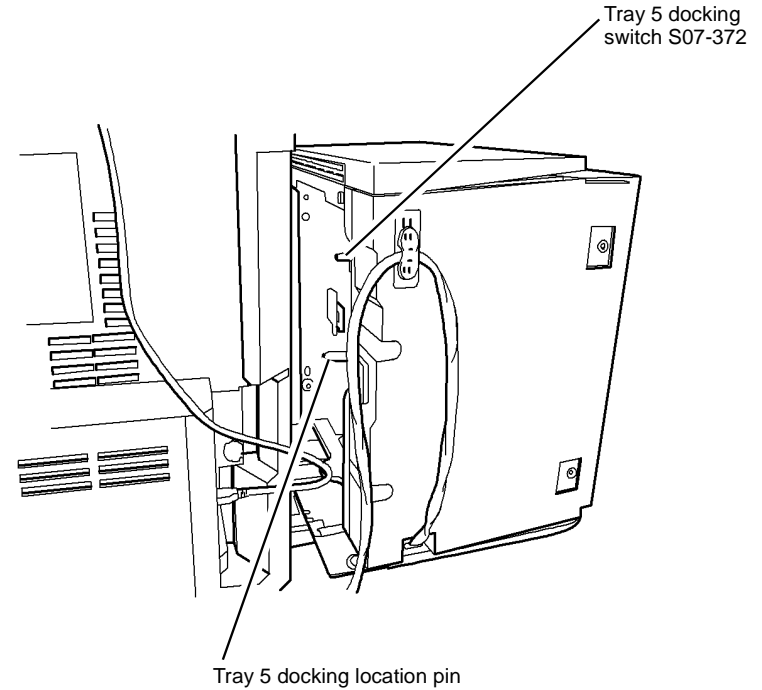


Figure 1 Component location

T-1-0070-A

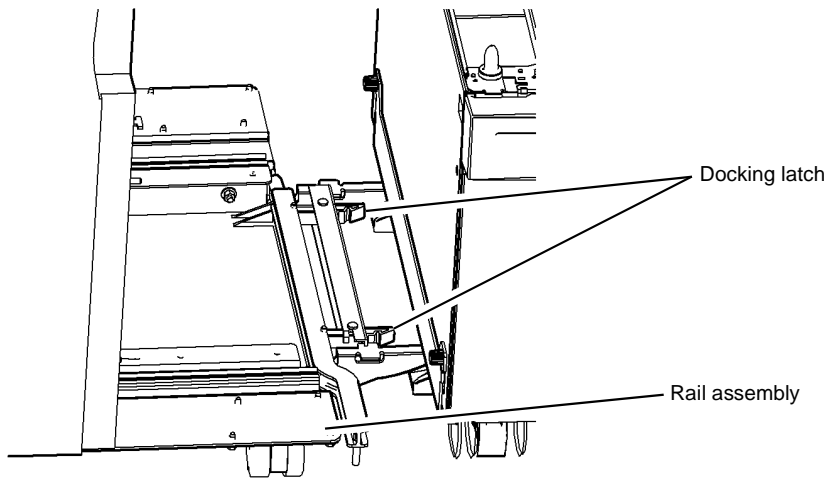
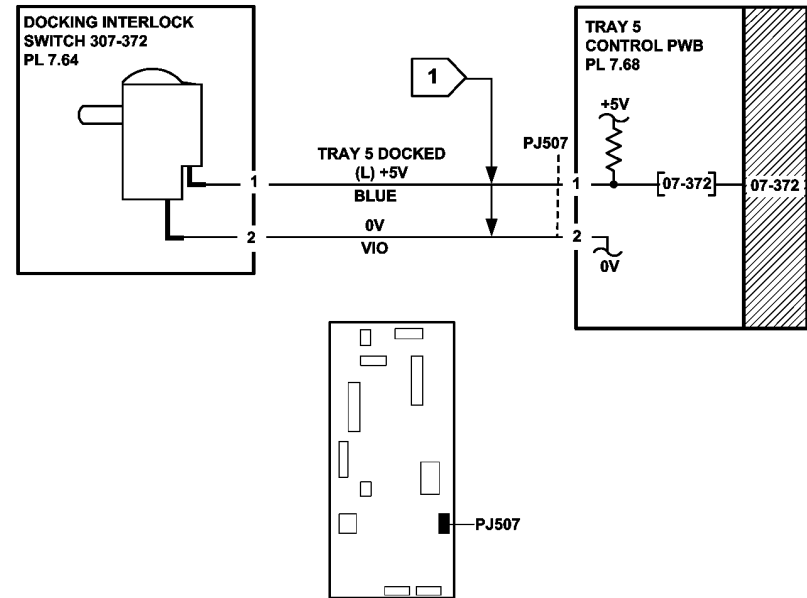


Figure 2 Component location

T-1-0071-A



TRAY 5 CONTROL PWB

Figure 3 Tray 1 circuit diagram

TT-1-0113-A



## 07-373 Tray 5 Elevator Lift Failure RAP

07-373 A signal was not detected by the encoder when the elevator motor was driving up.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for obstructions behind the tray.

### Procedure

[Figure 1](#). Ensure the cable holder [PL 7.68 Item 23](#) is not trapped behind the elevator motor bracket [PL 7.68 Item 6](#). **The cable holder is correctly positioned.**

Y N

Reposition the cable holder so that it does not become trapped behind the elevator motor bracket.

Install new components as necessary:

- Cable holder [PL 7.68 Item 23](#).

Open and close the tray 5 door. **The tray moves up.**

Y N

Enter [dC330](#) code 07-306 tray 5 door interlock switch. Press Start. Manually toggle the door interlock switch. **The display changes.**

Y N

Check the wiring to the switch, [REP 1.2](#).

Go to [Flag 1](#). Check S07-306. Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J507, Tray 5 control PWB](#)
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 door interlock switch, [PL 7.60 Item 6](#)
- Tray 5 control PWB, [PL 7.68 Item 8](#).

Enter [dC330](#) code 07-402 tray 5 stack height sensor, Q07-402. Press Start. Manually activate the stack height sensor on the paper feed assembly. **The display changes**

Y N

Go to [Flag 2](#). Check Q07-402. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J505, Tray 5 control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 stack height sensor, [PL 8.45 Item 7](#)
- Tray 5 control PWB, [PL 7.68 Item 8](#).

A B

Go to PJ504 pin 4 on the Tray 5 control PWB, [Flag 3](#). Manually activate the tray upper limit switch (S07-412) on the paper feed assembly. **The voltage changes.**

Y N

Go to [Flag 3](#). Check S07-412. Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J504, Tray 5 control PWB](#)
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 stack upper limit switch, [PL 7.68 Item 12](#)
- Tray 5 control PWB, [PL 7.68 Item 8](#).

Enter [dC330](#) code 07-406 tray 5 elevator motor encoder sensor, Q07-406. Press Start. Manually lift the motor to activate the sensor. **The display changes**

Y N

Go to [Flag 4](#). Check Q07-406. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J506, Tray 5 control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Elevator motor encoder sensor, [PL 7.68 Item 5](#)
- Tray 5 control PWB, [PL 7.68 Item 8](#)

Enter [dC330](#) code 07-373 tray 5 elevator motor, MOT07-373. Press Start. **The motor runs**

Y N

Go to [Flag 5](#). Check MOT07-373. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J504, Tray 5 control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP

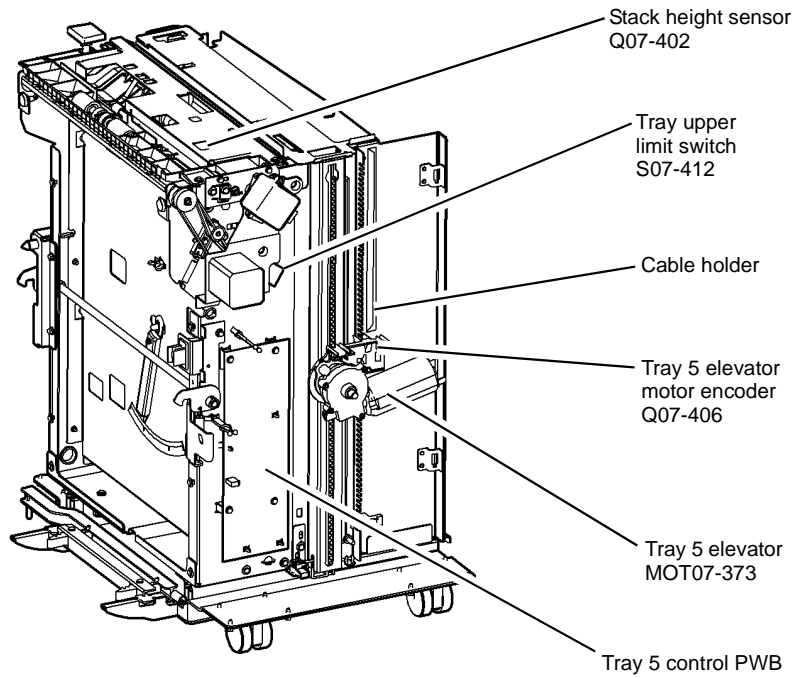
Install new components as necessary:

- Tray 5 elevator motor, [PL 7.68 Item 4](#)
- Tray 5 control PWB, [PL 7.68 Item 8](#)

The tray 5 elevator motor is operating correctly. Perform [ADJ 7.6](#) Tray 5 Stack Height Sensor and Retard Shield, then perform [SCP 6](#) Final Actions.

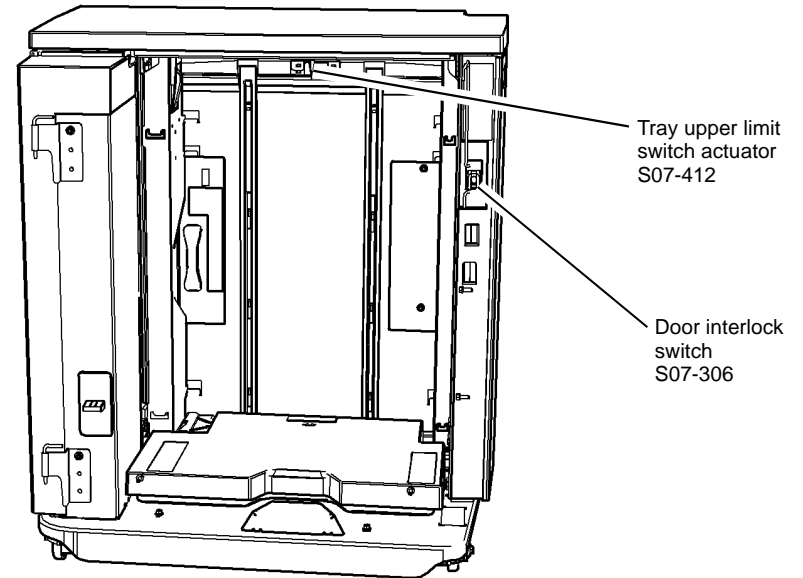
The tray 5 elevator motor is operating correctly. Perform [ADJ 7.6](#) Tray 5 Stack Height Sensor and Retard Shield, then perform [SCP 6](#) Final Actions.

A B



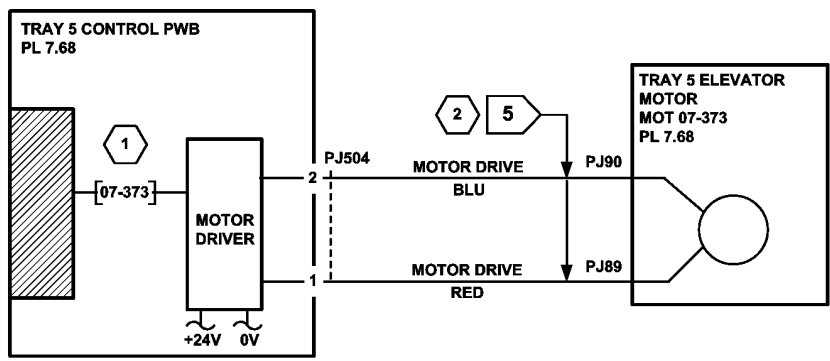
T-1-0072-A

Figure 1 Component location

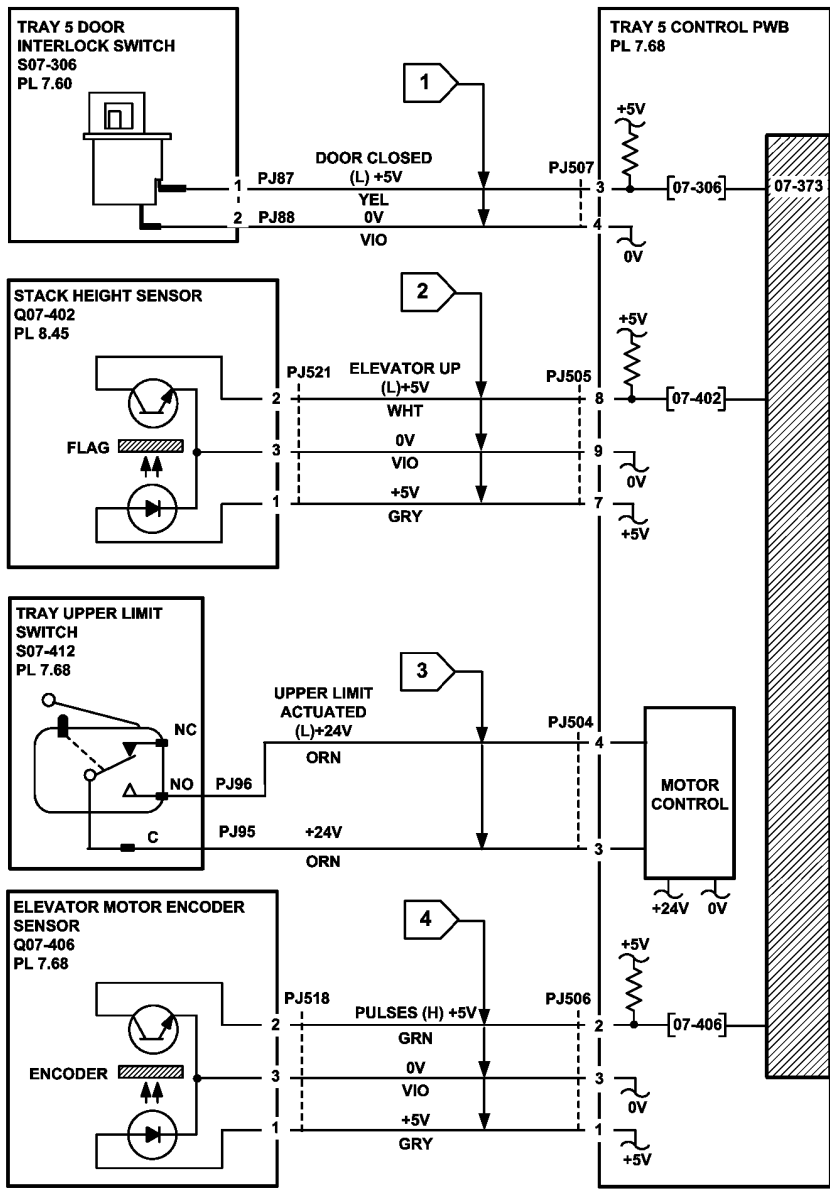
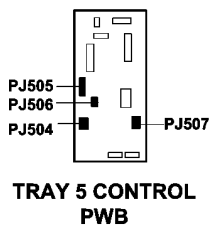


T-1-0073-A

Figure 2 Component location



- 1 ENERGISE THE TRAY 5 ELEVATOR MOTOR TO DRIVE THE TRAY UP
- 2 MOTOR DRIVES TRAY DOWN  
RED = +24V  
BLU = 0V
- MOTOR DRIVES TRAY UP  
RED = 0V  
BLU = +24V



TT-1-0114-A

Figure 3 Circuit diagram

## 07-374 Tray 5 Elevator Lower Failure RAP

07-374 A signal was not detected by the encoder when the elevator motor was driving down.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for obstructions behind the tray.

### Procedure

[Figure 1](#). Ensure the cable holder [PL 7.68 Item 23](#) is not trapped behind the elevator motor bracket [PL 7.68 Item 6](#). **The cable holder is correctly positioned.**

Y N

Reposition the cable holder so that it does not become trapped behind the elevator motor bracket.

Install new components as necessary:

- Cable holder [PL 7.68 Item 23](#).

Open and close the tray 5 door. **The tray moves down.**

Y N

Enter [dC330](#) code 07-306 tray 5 door interlock switch. Press Start. Manually toggle the door interlock switch. **The display changes.**

Y N

Check the wiring to the switch and if necessary install a new switch, [PL 7.60 Item 6](#).

Go to [Flag 1](#). Check S07-306. Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J507, Tray 5 control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 door interlock switch, [PL 7.60 Item 6](#).
- Tray 5 control PWB, [PL 7.68 Item 8](#).

Enter [dC330](#) code 07-405 tray 5 stack down sensor, Q07-405, [Figure 1](#). Press Start. Manually activate the stack down sensor actuator. **The display changes**

Y N

Go to [Flag 2](#). Check Q07-405. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J505, Tray 5 control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 stack down sensor, [PL 7.68 Item 9](#).
- Tray 5 control PWB, [PL 7.68 Item 8](#).

A B

Go to PJ504 pin 6 on the Tray 5 control PWB, [Flag 3](#). Manually activate the tray 5 down limit switch (S07-415) on the paper tray, [Figure 2](#). **The voltage changes.**

Y N

Go to [Flag 3](#). Check S07-415. Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J504, Tray 5 control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 down limit switch, [PL 7.70 Item 2](#).
- Tray 5 control PWB, [PL 7.68 Item 8](#).

Enter [dC330](#) code 07-406 tray 5 elevator motor encoder sensor, Q07-406. Press Start. Manually lift the motor to activate the sensor. **The display changes**

Y N

Go to [Flag 4](#). Check Q07-406. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J506, Tray 5 control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Elevator motor encoder sensor, [PL 7.68 Item 5](#).
- Tray 5 control PWB, [PL 7.68 Item 8](#).

Enter [dC330](#) code 07-373 tray 5 elevator motor, MOT07-373. Press Start. **The motor runs**

Y N

Go to [Flag 5](#). Check MOT07-373. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J504, Tray 5 control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP

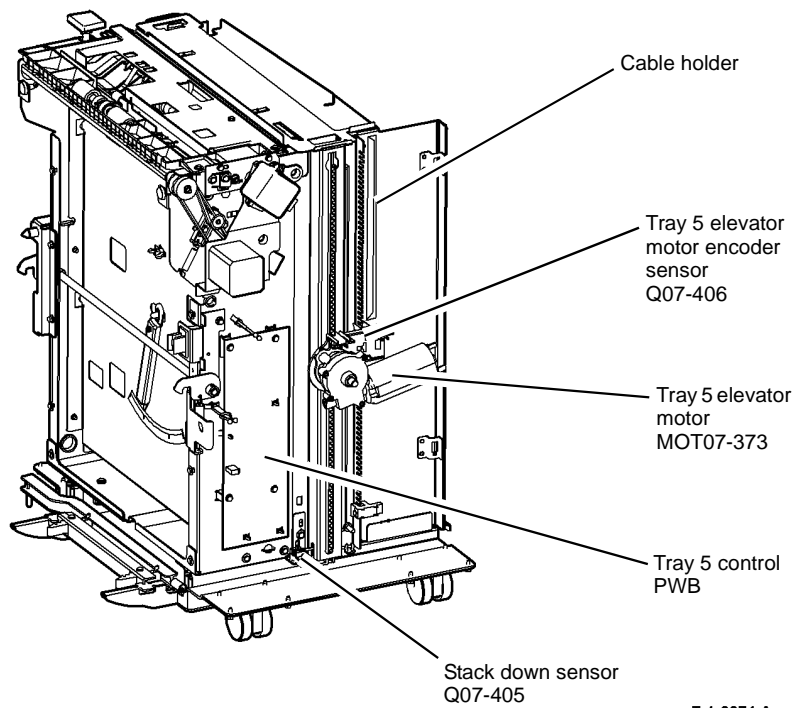
Install new components as necessary:

- Tray 5 elevator motor, [PL 7.68 Item 4](#).
- Tray 5 control PWB, [PL 7.68 Item 8](#).

The tray 5 elevator motor is operating correctly.

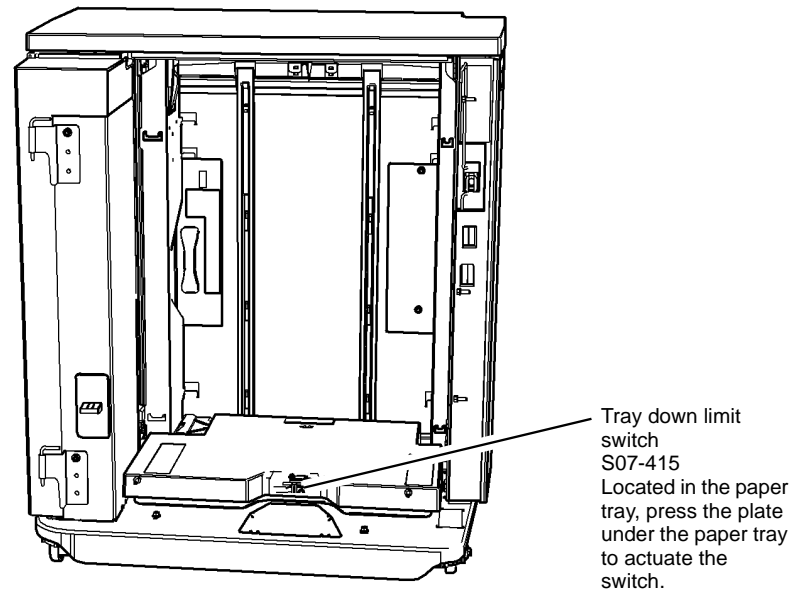
The tray 5 elevator motor is operating correctly.

A B



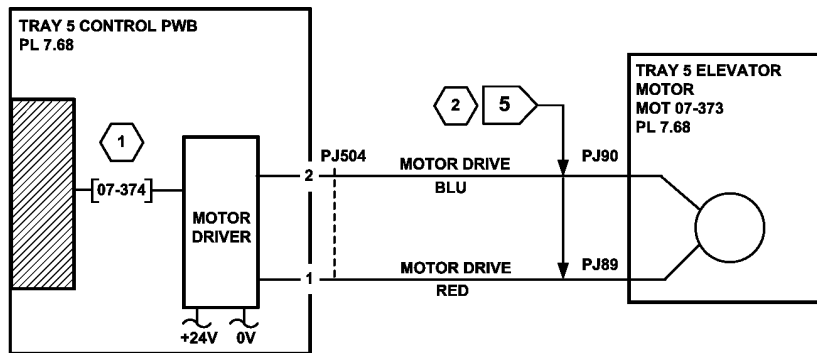
T-1-0074-A

Figure 1 Component location



T-1-0075-A

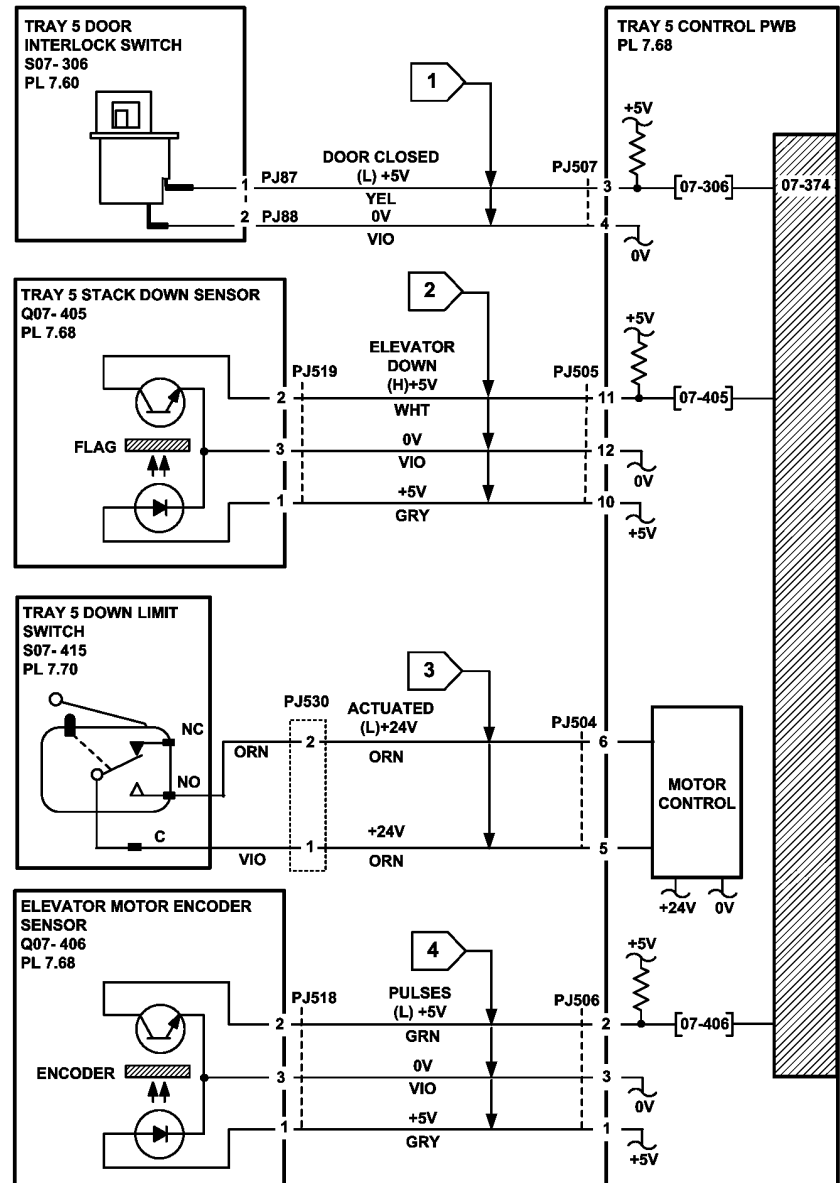
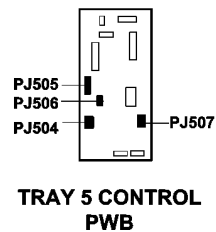
Figure 2 Component location



1 ENERGISE THE TRAY 5 ELEVATOR MOTOR TO DRIVE THE TRAY DOWN

2 MOTOR DRIVES TRAY DOWN  
RED = +24V  
BLU = 0V

MOTOR DRIVES TRAY UP  
RED = 0V  
BLU = +24V



TT-1-0115-A

Figure 3 Circuit diagram

## 07A Tray 1 and Tray 2 Empty RAP

Use this RAP when the copier display instructs the operator to add paper to the tray that is not empty.

**NOTE:** Tray 1 and tray 2 feed mechanisms are identical.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Pull out the relevant tray.

Enter the relevant code to monitor the tray empty sensor:

Tray 1 empty sensor, Q07-331. Enter dC330 code 07-331. Press Start.

Tray 2 empty sensor, Q07-332. Enter dC330 code 07-332. Press Start.

Manually actuate the tray empty sensor. **The display changes.**

**Y N**

Tray 1: Go to Flag 1. Check S07-331. Tray 2: Go to Flag 2. Check Q07-332. Refer to:

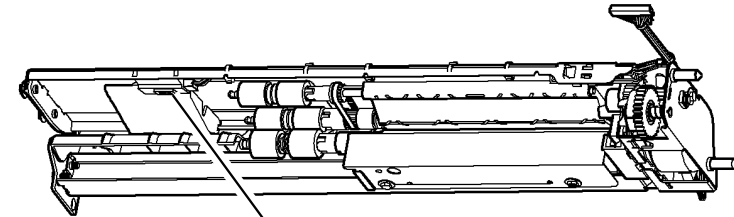
- GP 11 How to Check a Sensor.
- Tray 1 P/J274, Tray 1 and 2 control PWB.
- Tray 2 P/J275, Tray 1 and 2 control PWB
- 01E +5 V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary.

- Tray 1 empty sensor, Figure 1, PL 8.26 Item 8.
- Tray 2 empty sensor, Figure 1, PL 8.26 Item 8.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.

Perform the following:

- Check that the sensor is free of paper dust.
- Check the paper feed mechanism, PL 8.26 Item 1.



Tray 1 empty sensor Q07-331  
Tray 2 empty sensor Q07-342

T-1-0076-A

Figure 1 Component location

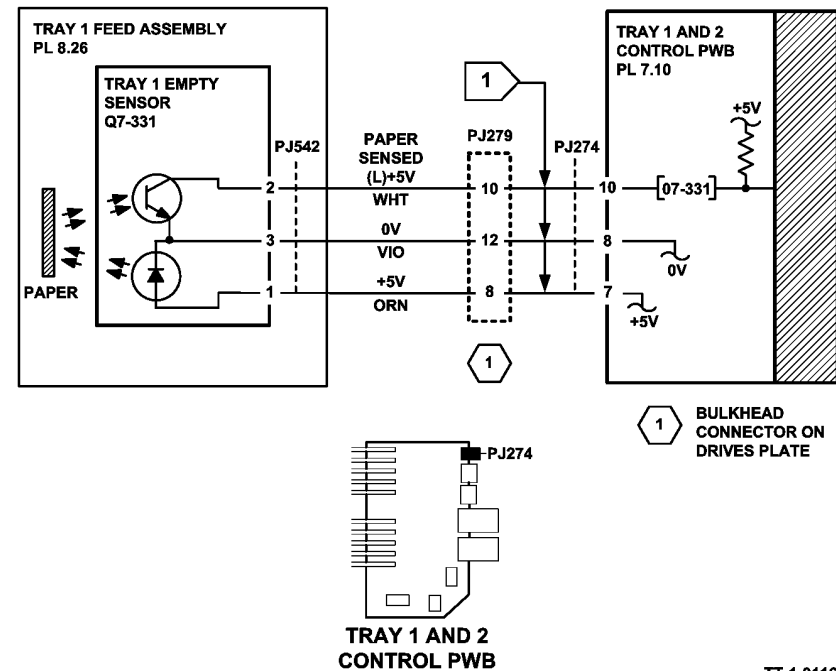


Figure 2 Tray 1 circuit diagram

TT-1-0116-B

## 07B Tray 3 and Tray 4 False Low Paper Level Entry RAP

Use this RAP when the copier displays tray 3 or tray 4 is low on paper when the tray is full. The tray is low on paper message will appear when the tray capacity is at 10%.

The machine measures the time taken for the tray to elevate after being closed, to determine the amount of paper remaining in tray 3 or tray 4. This measurement only occurs if the tray has been open for a minimum of 30 seconds. If the tray is closed within 30 seconds the time-out of the last known paper level is used and no new timing is calculated.

**NOTE:** A low paper condition will be declared if the stack is below approximately 190 sheets.

### Procedure

Go to the relevant procedure:

- 07C Tray 3 and Tray 4 False Low Paper Level RAP (W/TAG 151)
- 07K Tray 3 and Tray 4 False Low Paper Level RAP (W/O TAG 151)

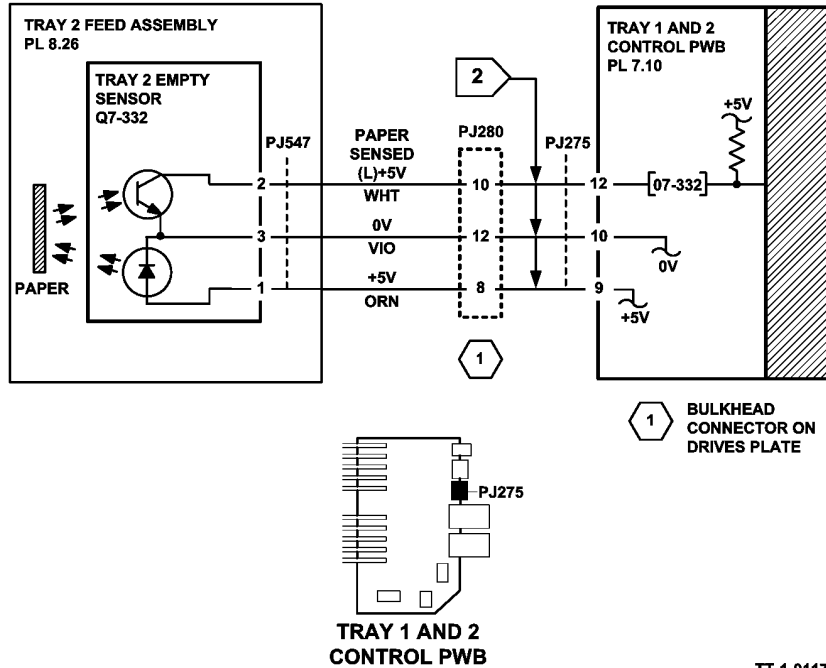


Figure 3 Tray 2 circuit diagram

TT-1-0117-A



## 07C Tray 3 and Tray 4 False Low Paper Level RAP (W/TAG 151)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [07B](#) Tray 3 and Tray 4 False Low Paper Level Entry RAP.

### Procedure

Pull out the relevant tray and allow it to move fully down. Close the tray. **The tray moves up.**

Y N

- Go to [07-355](#) Tray 3 Elevator Lift Up Failure RAP.
- Go to [07-360](#) Tray 4 Elevator Lift Up Failure RAP.

Pull out the tray and load a ream of paper (500 sheets). Wait for 30 seconds before closing the tray. **The message tray is low on paper has changed.**

Y N

- Tray 3: Go to [Flag 1](#). Check the tray 3 level encoder, Q07-338. Tray 4: Go to [Flag 2](#). Check the tray 4 level encoder Q07-339. Refer to:

- [GP 11](#) How to Check a Sensor.

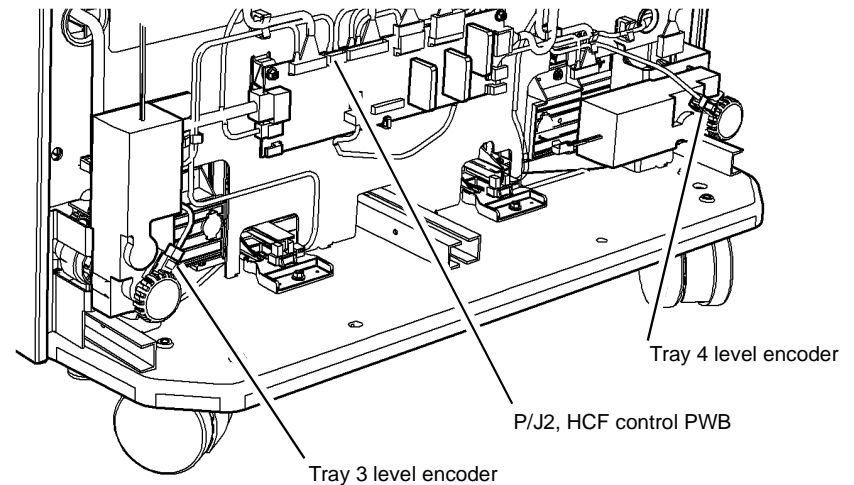
**NOTE:** In this check place a piece of paper between the sensor. The check is difficult due to the problem in moving the timing disc.

- [Figure 1](#).
- [P/J2, HCF control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary.

- Tray 3 elevator motor, [PL 7.21 Item 1](#).
- Tray 4 elevator motor, [PL 7.21 Item 1](#).
- HCF control PWB, [PL 7.21 Item 2](#).

The low paper sensor appears to be working correctly. If the customer is only adding small amounts of paper at a time then the message (Tray is low on paper) will be displayed. If the tray is filled with 190 sheets or more, the message is cancelled.



T-1-1199-A

Figure 1 Component location

## 07D Bypass Tray RAP

Use this RAP to identify and correct problems when using the bypass tray.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the media used in the bypass tray. Refer to [IQ1](#) and [GP 20](#).
- Check that the width guide is touching the edge of the paper, [Figure 1](#).
- If there is a width sensing problem, then check that the bypass tray width sensing potentiometer is not damaged, part of input tray assembly, [PL 7.30 Item 1](#).

### Procedure

Enter [dC330](#) code 07-335 to bypass tray empty sensor Q07-335. Press Start. Manually actuate the sensor. **The display changes.**

Y N

Go to [Flag 2](#). Check Q07-335. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J10, IOT PWB](#).
- [01D](#) +3.3 V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary.

- Bypass tray empty sensor, [PL 7.30 Item 7](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Go to [Flag 1](#). Monitor the voltage on the IOT PWB at PJ10 pin 1 and move the guide in and out. **The voltage varies from 0V to +3V.**

Y N

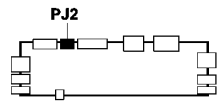
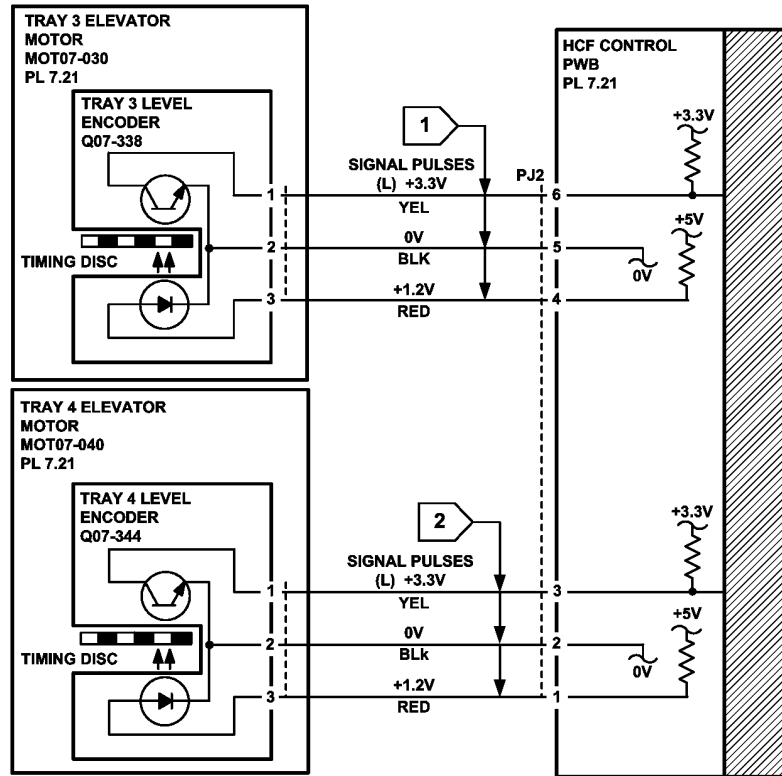
Go to [Flag 1](#). Check Q07-350. Refer to:

- The width sensor is a potentiometer. The arm on the potentiometer is attached to the bypass tray side guide. This gives a variable voltage to indicate the paper width setting.
- [P/J10, IOT PWB](#).
- [01D](#) +3.3 V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary.

- Bypass tray width sensor, part of input tray assembly, [PL 7.30 Item 1](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 08-050 feed solenoid, SOL08-050. Press Start. **The solenoid energized.**



HCF CONTROL PWB  
(W/TAG 151)

Figure 2 Circuit Diagram

TT-1-0288-A

Y N

Go to **Flag 3**. Check SOL08-050. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.
- **P/J10, IOT PWB.**
- **01G +24 V** Distribution RAP.
- **01B 0V** Distribution RAP.

Install new components as necessary.

- Feed solenoid, **PL 7.30 Item 4.**
- Perform **OF7 IOT PWB Diagnostics RAP** before a new IOT PWB is installed, **PL 1.10 Item 2.**

Perform the following:

- Ensure that the customer is not filling the tray above the max fill line.
- Clean the feed roll and retard pad with a cloth dampened with water.
- If necessary install a new feed roll and retard pad assembly, **PL 7.30 Item 21.**

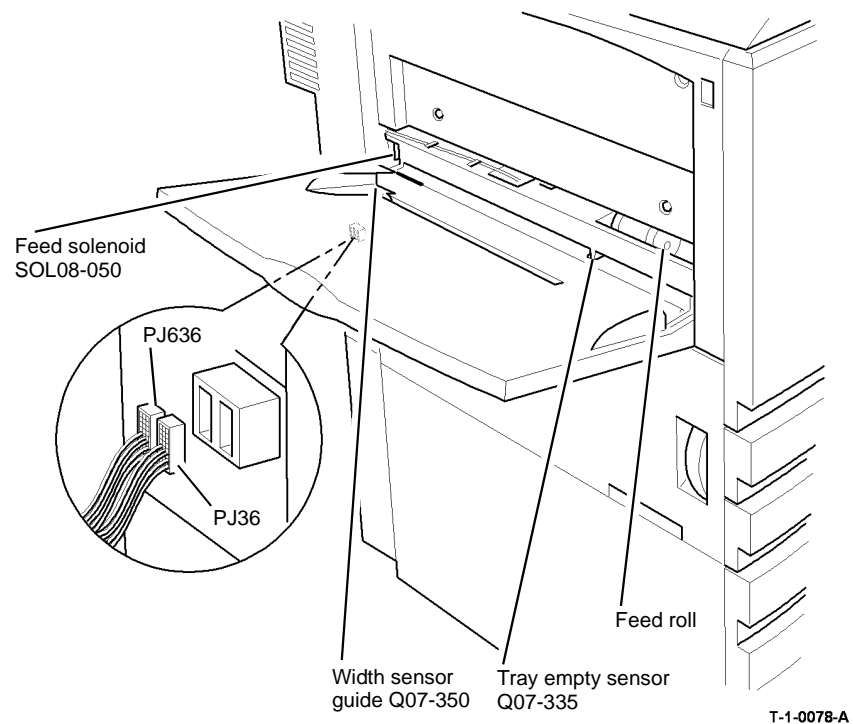
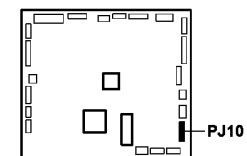
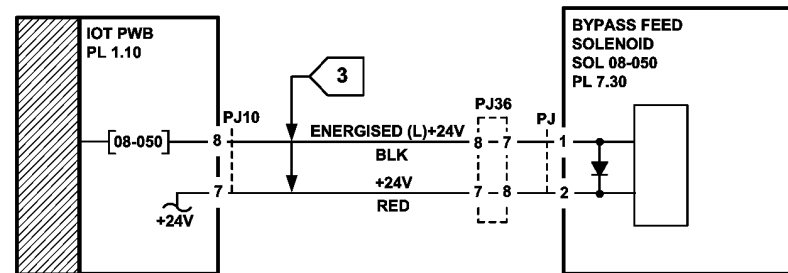
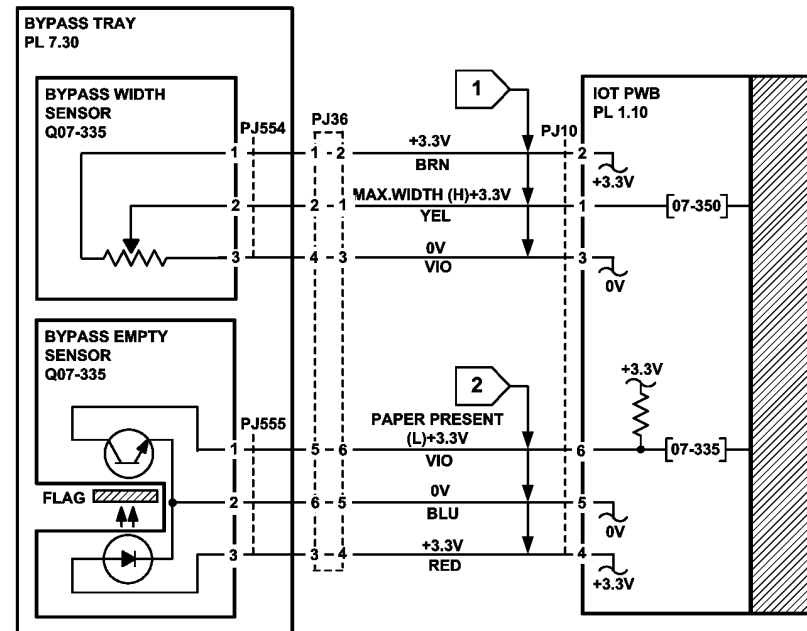


Figure 1 Component location



IOT PWB

Figure 2 Circuit diagram

TT-1-0119-B

## 07E Tray 1 and 2 Wrong Size Paper RAP

Use this RAP when the paper fed from the tray does not match the paper size indicated by the tray paper size switch. Tray 1 and tray 2 feed mechanisms are identical.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the tray paper guides are set up to the edges of the paper.
- The guides are located in the slots in the base of the tray if a standard paper size is used.
- Check the actuator ribbon on the side of the tray, Figure 1.

### Procedure

Check the relevant tray:

Tray 1, Go to Table 1. Compare the paper size in the tray to the size switches actuated.

Tray 2, Go to Table 2. Compare the paper size in the tray to the size switches actuated.

Enter dC330 and relevant component control code as shown in the table. Press Start. Manually activate the paper size switch. **The display changes.**

Y N

Tray 1: Go to Flag 1. Tray 2: Go to Flag 2. Check the relevant size switch. Refer to:

- GP 13 How to Check a Switch.
- Tray 1 size switch 1, 2, 3 and 4 at the switch on the PWB, Figure 2.
- Tray 2 size switch 1, 2, 3 and 4 at the switch on the PWB, Figure 4,
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 1 and 2 control PWB, PL 7.10 Item 2.

Perform the following:

- Check the paper tray, PL 7.10 Item 1.
- Check the paper size leaf spring, PL 7.10 Item 3.
- Go to dC132, perform the copier NVM initialisation.

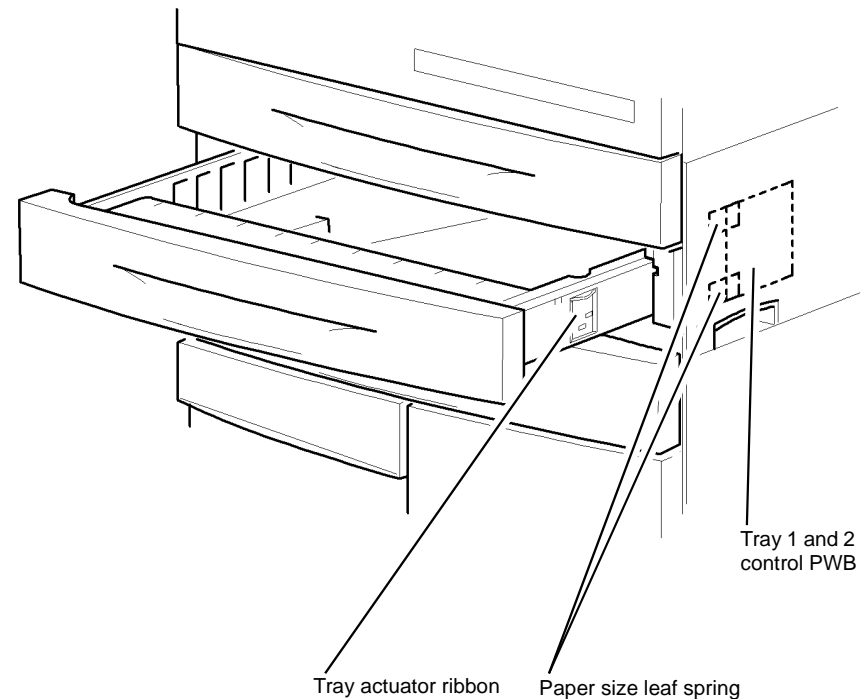


Figure 1 Component location

T-1-0079-A

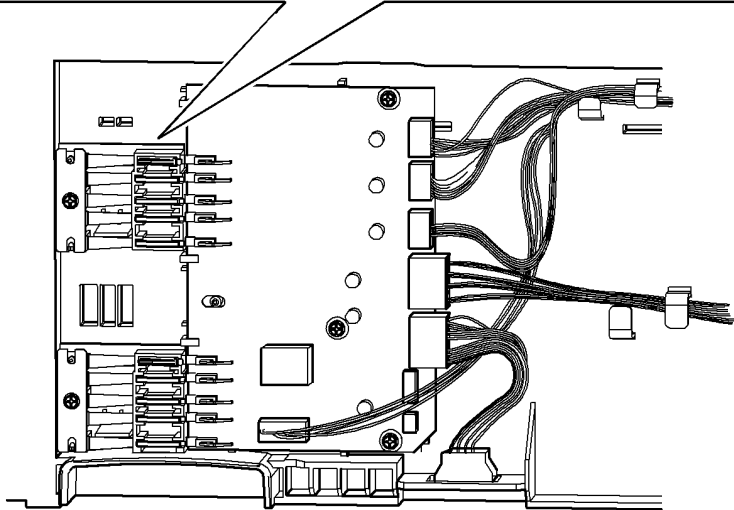
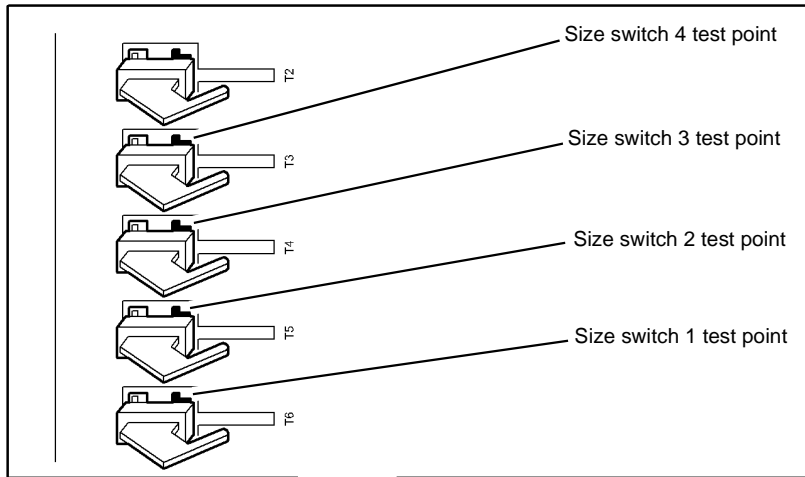


Table 1 Tray 1 paper size table

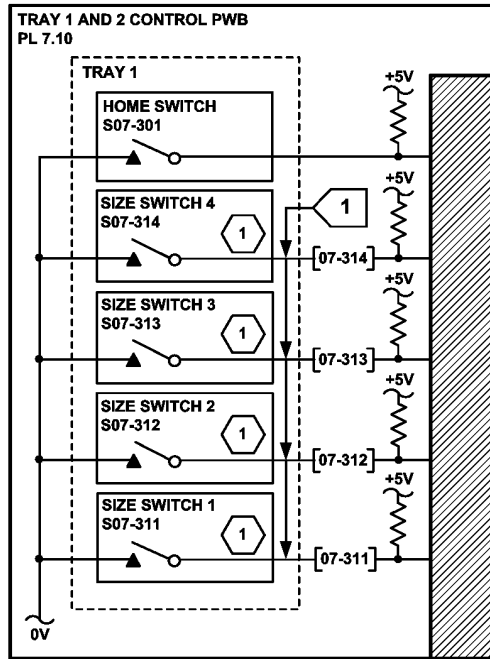
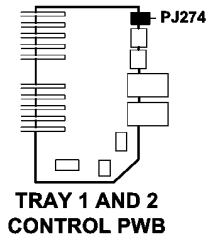
Paper	Size switch 4 (S07-314)	Size switch 3 (S07-313)	Size switch 2 (S07-312)	Size switch 1 (S07-311)
A4 LEF	+5V	+5V	0V	+5V
A4 SEF	0V	+5V	0V	+5V
A5 LEF	0V	0V	0V	+5V
A3 SEF	+5V	0V	+5V	+5V
216 x 315mm SEF	0V	+5V	+5V	0V
216 x 330mm SEF	0V	0V	+5V	0V
8.5 x 11 LEF	0V	+5V	0V	0V
8.5 x 11 SEF	0V	0V	+5V	+5V
8.5 x 5.5 LEF	0V	+5V	+5V	+5V
11 x 17 SEF	+5V	0V	+5V	0V
8.5 x 14 SEF	+5V	+5V	0V	0V
8.5 x 12.4 SEF	0V	+5V	+5V	0V
8.5 x 13 SEF	0V	0V	+5V	0V

T-1-0080-A

Figure 2 Tray 1 size switch test points

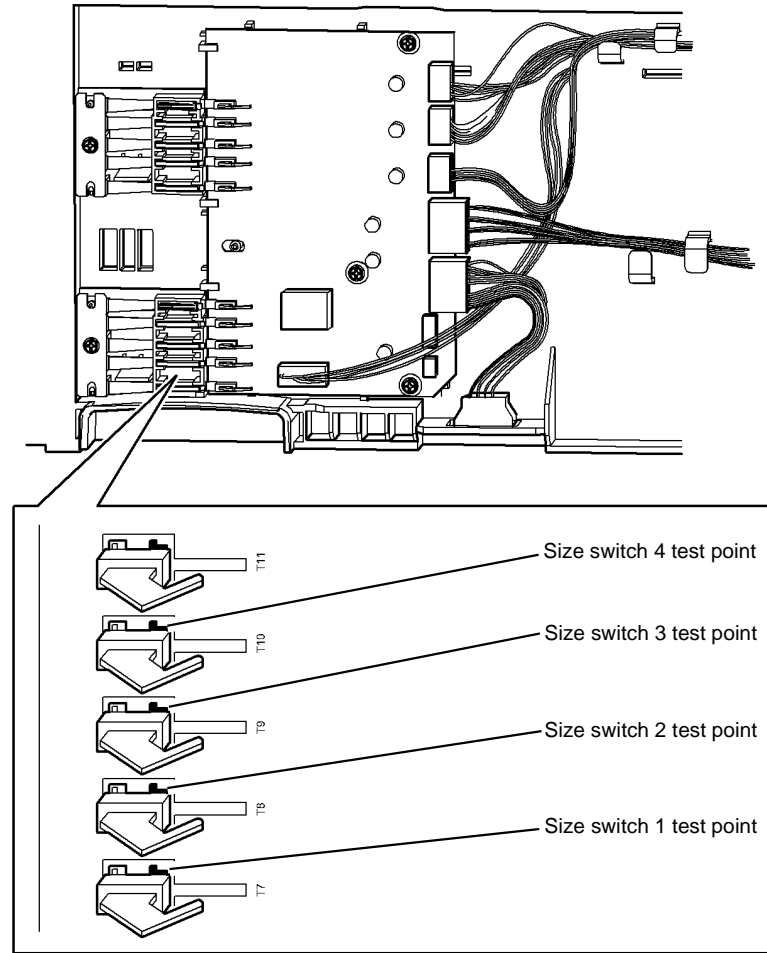
1

SIZE SWITCH ACTUATED (L) +5V  
CHECK THE VOLTAGE AT THE  
SWITCH LEG ON THE PWB



TT-1-0120-A

Figure 3 Tray 1 circuit diagram



T-1-0081-A

Figure 4 Tray 2 size switch test point

Table 2 Tray 2 paper size table

Paper	Size switch 4 (S07-324)	Size switch 3 (S07-323)	Size switch 2 (S07-322)	Size switch 1 (S07-321)
A4 LEF	+5V	+5V	0V	+5V
A4 SEF	0V	+5V	0V	+5V
A5 LEF	0V	0V	0V	+5V

Table 2 Tray 2 paper size table

Paper	Size switch 4 (S07-324)	Size switch 3 (S07-323)	Size switch 2 (S07-322)	Size switch 1 (S07-321)
A3 SEF	+5V	0V	+5V	+5V
216 x 315mm SEF	0V	+5V	+5V	0V
216 x 330mm SEF	0V	0V	+5V	0V
8.5 x 11 LEF	0V	+5V	0V	0V
8.5 x 11 SEF	0V	0V	+5V	+5V
8.5 x 5.5 LEF	0V	+5V	+5V	+5V
11 x 17 SEF	+5V	0V	+5V	0V
8.5 x 14 SEF	+5V	+5V	0V	0V
8.5 x 12.4 SEF	0V	+5V	+5V	0V
8.5 x 13 SEF	0V	0V	+5V	0V

## 07F Tray 3 or Tray 4 Out of Paper Entry RAP

Use this RAP when the copier display instructs the operator to add paper to a tray that is not empty.

**07-543** Tray 3 out of service.

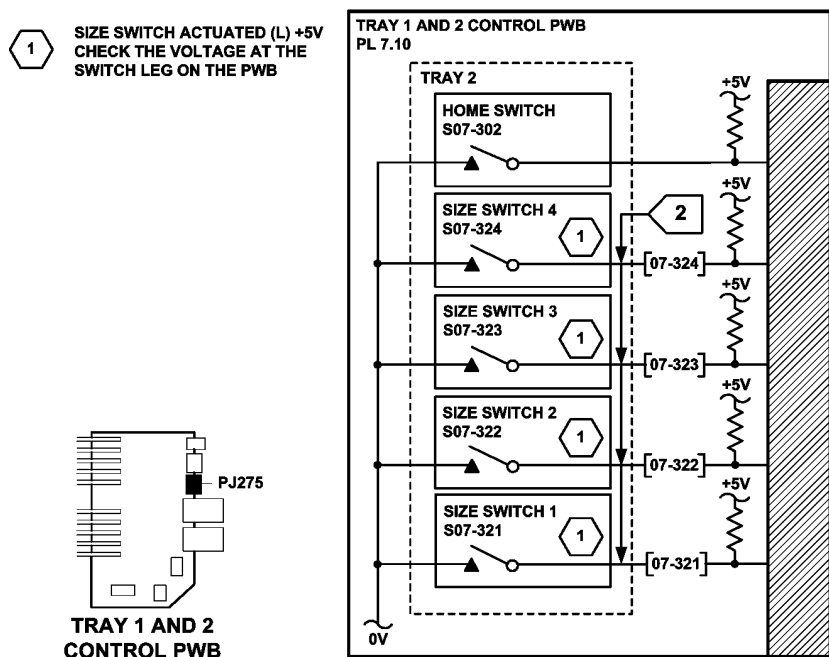
**07-544** Tray 4 out of service.

The above status codes and messages may be generated if the actuator is missing from the tray empty sensor.

### Procedure

Go to the relevant procedure:

- [07G Tray 3 or Tray 4 Out of Paper RAP \(W/TAG 151\)](#)
- [07L Tray 3 or Tray 4 Out of Paper RAP \(W/O TAG 151\)](#)



TT-1-0121-A

Figure 5 Tray 2 circuit diagram

## 07G Tray 3 or Tray 4 Out of Paper RAP (W/TAG 151)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** Tray 3 and tray 4 paper feed assemblies are almost identical.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [07F Tray 3 or Tray 4 Out of Paper RAP](#)
- Check that the feed head drops when the tray is pushed fully home.

### Procedure

Enter the relevant code to monitor the tray empty sensor:

Tray 3 empty sensor, Q07-333. Enter [dC330](#) code 07-333. Press Start.

Tray 4 empty sensor, Q07-334. Enter [dC330](#) code 07-334. Press Start.

Actuate the tray empty sensor with a piece of paper. **The display changes.**

Y N

Tray 3: Go to [Flag 1](#). Check Q07-333. Tray 4: Go to [Flag 2](#). Check Q07-334. Refer to:

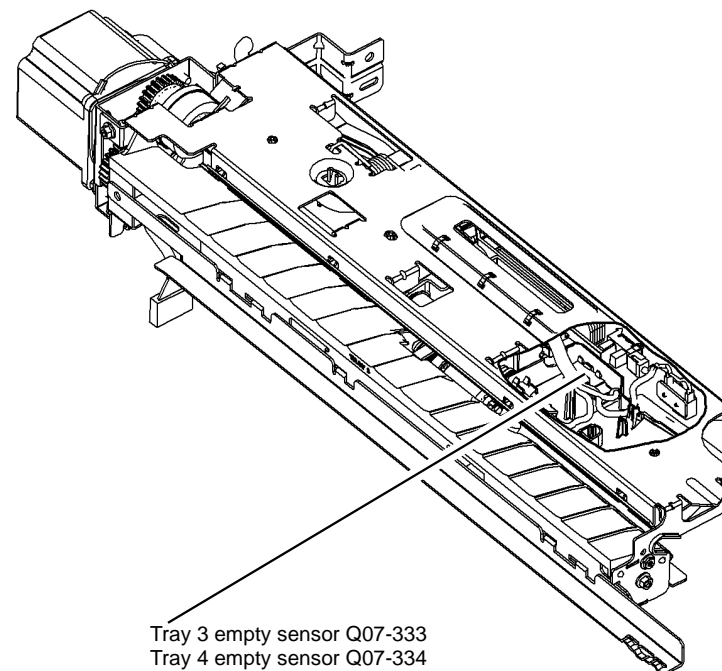
- [GP 11](#) How to Check a Sensor.
- Tray 3 [P/J1](#), [HCF control PWB](#).
- Tray 4 [P/J3](#), [HCF control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 3 empty sensor, [PL 8.32](#) [Item 6](#).
- Tray 4 empty sensor, [PL 8.33](#) [Item 3](#).
- HCF Control PWB, [PL 7.21](#) [Item 2](#).

The fault may be intermittent, check the wiring and connectors between the HCF control PWB and the sensor.

**NOTE:** [Figure 1](#) shows the tray 3 paper feed assembly. The position of the sensor on the tray 4 paper feed assembly is identical.



T-1-1200-A

Figure 1 Component location



## 07H Tray Out of Service RAP

The IOT has detected a fault in the tray and determines that the tray is out of service. The following status codes and messages will be displayed.

07-541 Tray 1 out of service.

07-542 Tray 2 out of service.

07-543 Tray 3 out of service.

07-544 Tray 4 out of service.

07-546 Tray 5 out of service.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, [GP 14](#).
- Check that the tray elevator cables and mechanisms are located correctly.
- Check that the tray is pushed fully home.
- Check for obstructions behind the tray.
- Check the feed heads.

### Procedure

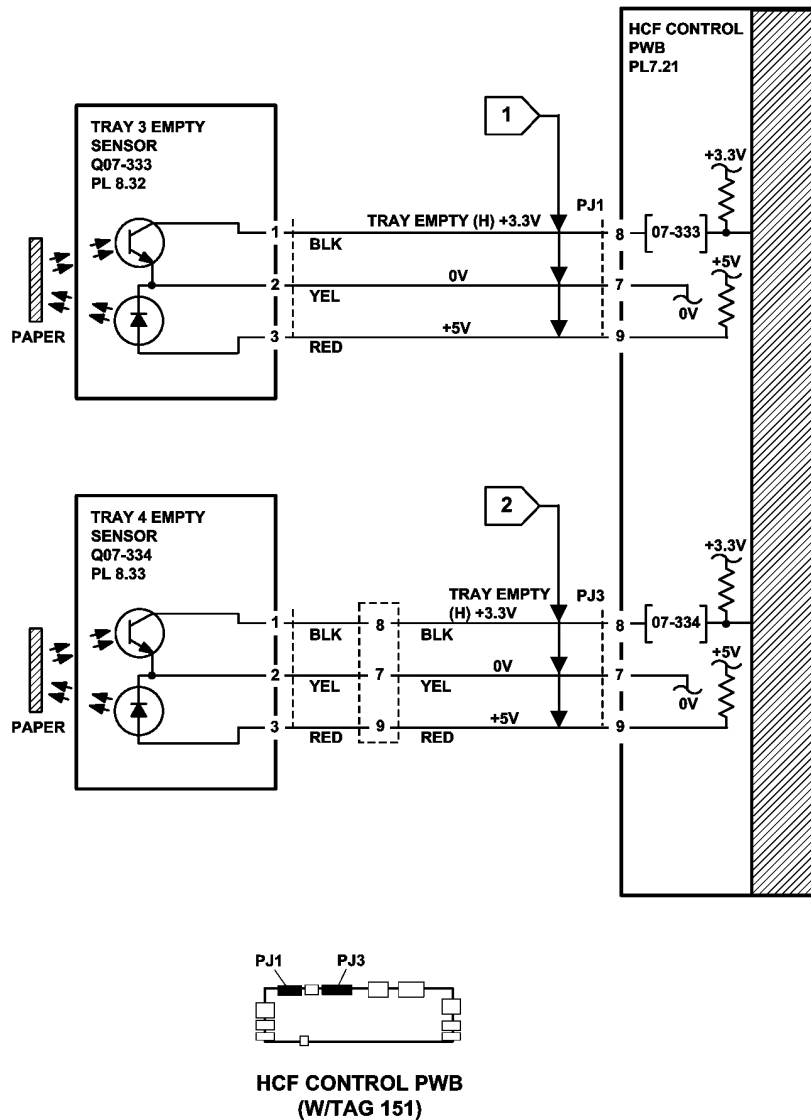
If tray 1 or tray 2 are out of service. Check the following and install new components as necessary:

- Paper tray 1 and 2 assembly, [PL 7.10 Item 26](#).
- Paper tray 2 assembly, [PL 7.10 Item 27](#).
- Tray 1 and 2 paper feed assembly, [PL 8.26 Item 1](#), [PL 8.26 Item 2](#).

If tray 3 or tray 4 are out of service, go to one of the following RAPs:

- [07F](#) Tray 3 or Tray 4 Out of Paper RAP (W/O TAG 151).
- [07G](#) Tray 3 or Tray 4 Out of Paper RAP (W/TAG 151).

If tray 5 is out of service, go to [07J](#) Tray 5 Empty RAP.



TT-1-0289-A

Figure 2 Circuit diagram

## 07J Tray 5 Empty RAP

Use this RAP to solve problems associated with the tray 5 empty sensor.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the hole in the tray, directly under the sensor is clear and empty, [Figure 1](#).
- Check the sensor for contamination.

### Procedure

Enter [dC330](#) code 07-401 tray 5 empty sensor. Press Start.  
Manually actuate the tray empty sensor. **The display changes.**

Y N

Go to [Flag 1](#). Check Q07-401. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J505](#), [Tray 5 control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 empty sensor, [PL 8.45 Item 6](#).
- Tray 5 control PWB, [PL 7.68 Item 8](#).

The fault may be intermittent. Perform the steps that follow:

- Check the wiring harness for damaged wire, [GP 7](#).
- Check that Tray 5 empty sensor is located correctly.

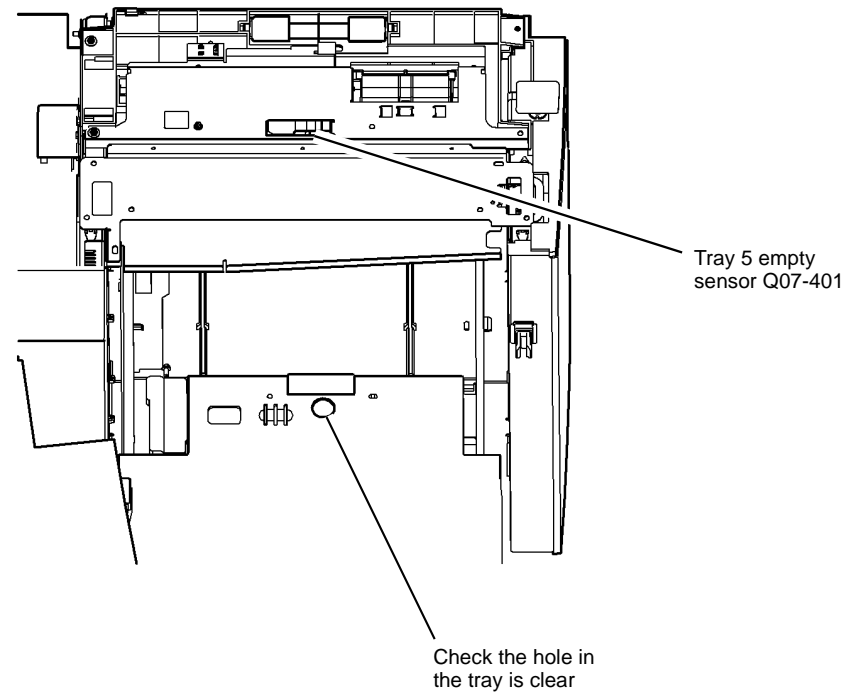


Figure 1 Component location

T-1-0083-A

## 07K Tray 3 and Tray 4 False Low Paper Level RAP (W/O TAG 151)

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [07B](#) Tray 3 and Tray 4 False Low Paper Level Entry RAP.

### Procedure

Pull out the relevant tray and allow it to move fully down. Close the tray. **The tray moves up.**

Y N

- Go to [07-355](#) Tray 3 Elevator Lift Up Failure RAP.
- Go to [07-360](#) Tray 4 Elevator Lift Up Failure RAP.

Pull out the tray and load a ream of paper (500 sheets). Wait for 30 seconds before closing the tray. **The message tray is low on paper has changed.**

Y N

Tray 3: Go to [Flag 1](#). Check low paper sensor, Q07-343. Tray 4: Go to [Flag 2](#). Check low paper sensor, Q07-344. Refer to:

- [GP 11](#) How to Check a Sensor.

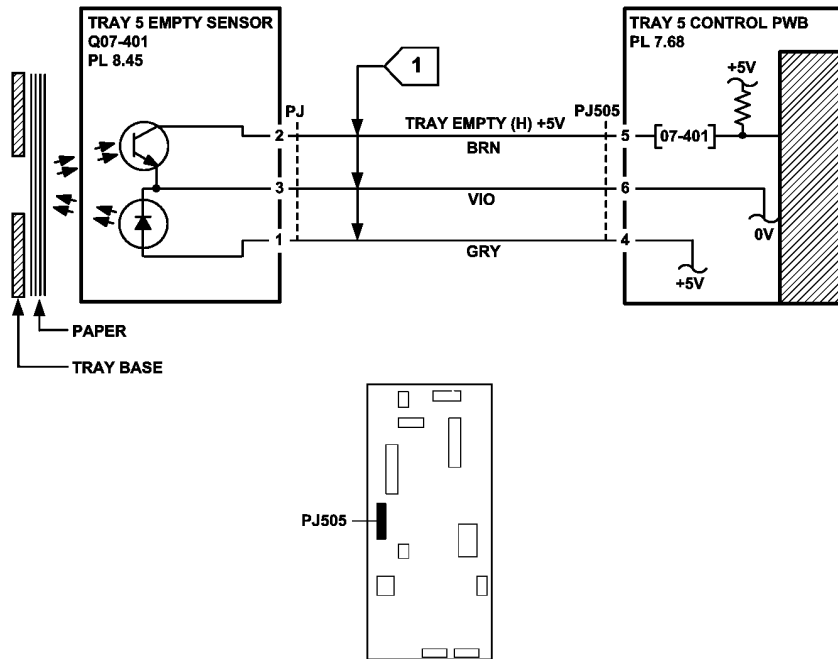
**NOTE:** In this check place a piece of paper between the sensor. The check is difficult due to the problem in moving the timing disc.

- [Figure 1](#).
- [P/J390, HCF control PWB](#).
- [01E +5V](#) Distribution RAP.
- [01B 0V](#) Distribution RAP.

Install new components as necessary.

- Tray 3 elevator motor, [PL 7.20 Item 1](#).
- Tray 4 elevator motor, [PL 7.20 Item 1](#).
- HCF control PWB, [PL 7.20 Item 2](#).

The low paper sensor appears to be working correctly. If the customer is only adding small amounts of paper at a time then the message (Tray is low on paper) will be displayed. If the tray is filled with 190 sheets or more, the message is cancelled.



TRAY 5 CONTROL PWB

Figure 2 Circuit diagram

TT-1-0123-C

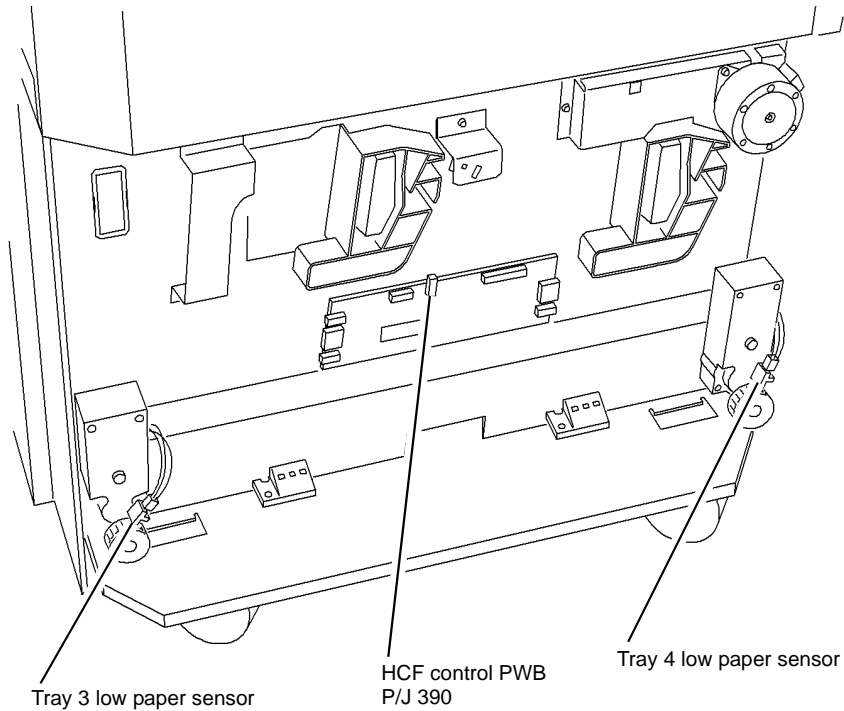
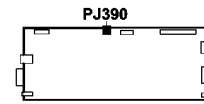
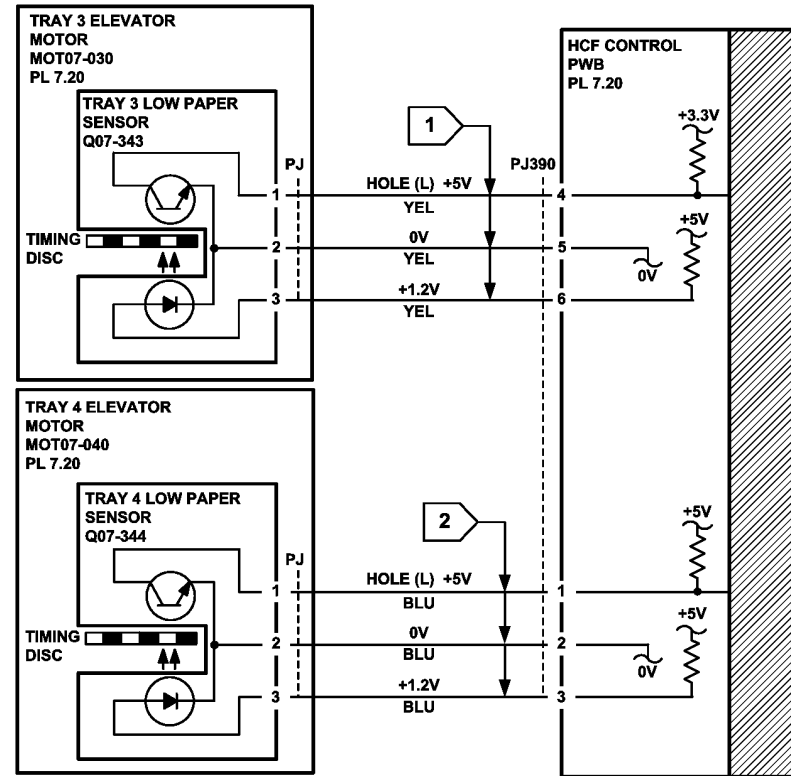


Figure 1 Component location

T-1-0077-A



HCF CONTROL PWB

Figure 2 Circuit Diagram

TT-1-0118-A

## 07L Tray 3 or Tray 4 Out of Paper RAP (W/O TAG 151)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** Tray 3 and tray 4 paper feed assemblies are almost identical.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [07F Tray 3 or Tray 4 Out of Paper RAP](#)
- Check that the feed head drops when the tray is pushed fully home.

### Procedure

Enter the relevant code to monitor the tray empty sensor:

Tray 3 empty sensor, Q07-333. Enter [dC330](#) code 07-333. Press Start.

Tray 4 empty sensor, Q07-334. Enter [dC330](#) code 07-334. Press Start.

Actuate the tray empty sensor with a piece of paper. **The display changes.**

**Y N**

Tray 3: Go to [Flag 1](#). Check Q07-333. Tray 4: Go to [Flag 2](#). Check Q07-334. Refer to:

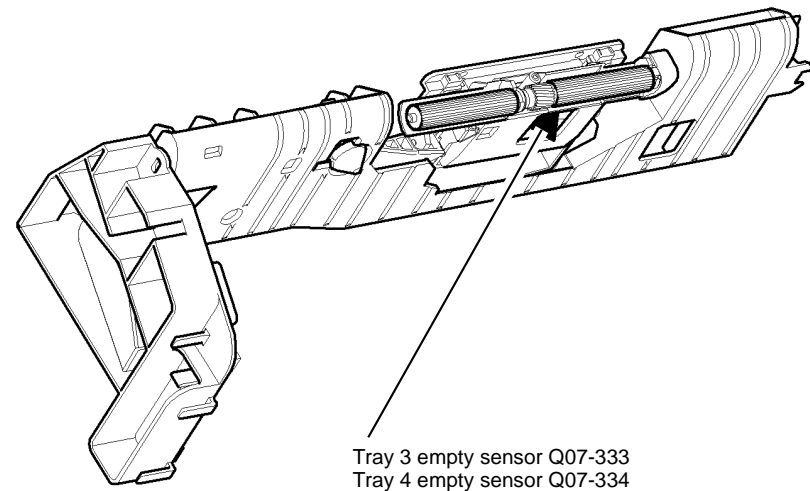
- [GP 11](#) How to Check a Sensor.
- Tray 3 [P/J399](#), [HCF control PWB](#).
- Tray 4 [P/J391](#), [HCF control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 3 paper feed assembly, [PL 8.30 Item 1](#).
- Tray 4 paper feed assembly, [PL 8.31 Item 1](#).
- HCF Control PWB, [PL 7.21 Item 2](#).

The fault may be intermittent, check the wiring and connectors between the HCF control PWB and the sensor.

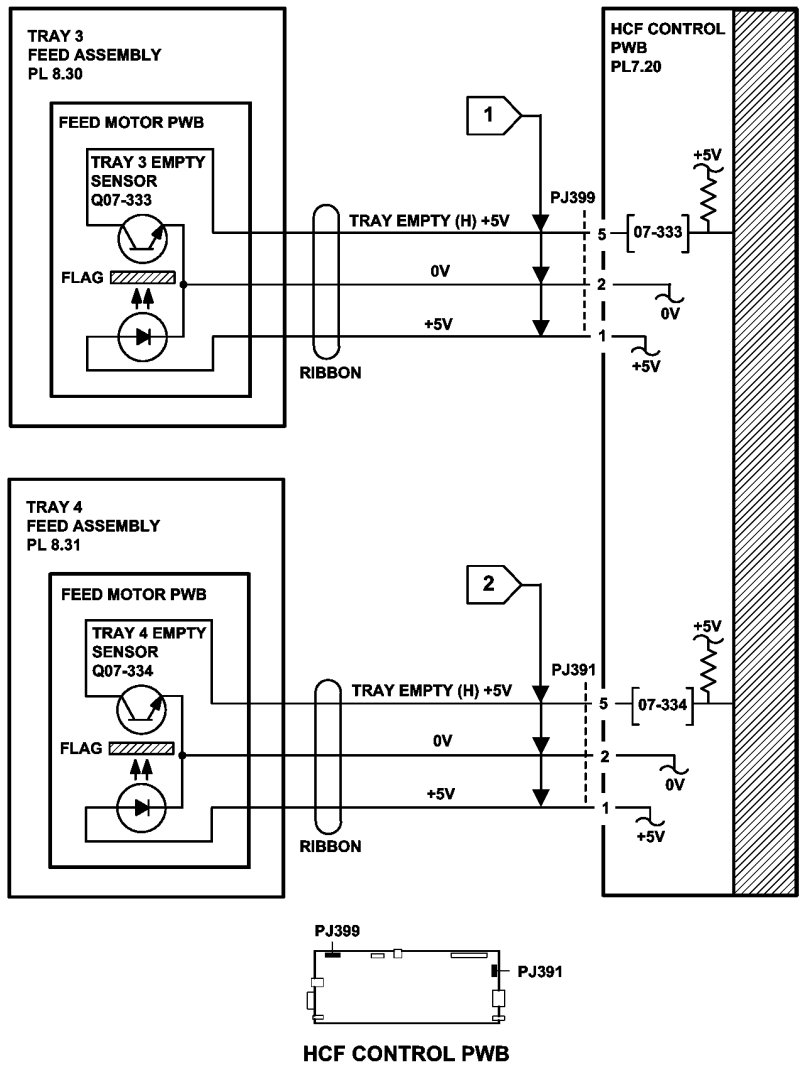
**NOTE:** [Figure 1](#) shows the tray 3 paper feed assembly. The position of the sensor on the tray 4 paper feed assembly is identical.



Tray 3 empty sensor Q07-333  
Tray 4 empty sensor Q07-334

T-1-0082-A

**Figure 1 Component location**



TT-1-0122-A

Figure 2 Circuit diagram

## 08-100 Wait Sensor Jam Entry RAP

**08-100** The lead edge of the paper failed to actuate the wait sensor within the correct time from feed sensor 1.

### Procedure

Identify the speed of the machine, refer to [SCP 7](#) Machine features. Perform one of the steps that follow:

- If the speed of the machine is 35-55 ppm, go to [08-100A](#) Wait Sensor RAP (35-55 ppm)
- If the speed of the machine is 65-90 ppm, go to [08-100B](#) Wait Sensor RAP (65-90 ppm).

## 08-100A Wait Sensor Jam RAP (35-55 ppm)

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [08-100](#) Wait Sensor Jam Entry.
- Check the condition of the paper in all trays. Refer to [IQ1](#) and [GP 20](#).
- Check for obstructions in the paper path.
- Check wait sensor actuator, [Figure 1](#).
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose. [PL 7.30 Item 23](#). Bias the cover to the right and tighten the two screws.
- Make sure the correct paper size is displayed for the size of paper in the tray.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-100 wait sensor, Q08-100. Press Start. Manually actuate the wait sensor. **The display changes.**

Y N

Go to [Flag 1](#). Check Q08-100. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J5](#), [IOT PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Wait sensor, [PL 8.15 Item 3](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 08-101 tray 1 feed sensor, Q08-101. Press Start. Open left hand door and manually actuate the sensor. **The display changes.**

Y N

Go to [Flag 2](#). Check Q08-101. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J276](#), [Tray 1 and 2 control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 1 feed sensor, [PL 7.30 Item 24](#).
- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

A

A  
Enter dC330 code 08-025 transport roll drives motor, MOT08-025. Press Start. The motor runs.

Y N  
Go to **Flag 3**. Check MOT08-025. Refer to:

- **GP 10** How to Check a Motor.
- **P/J273, Tray 1 and 2 control PWB**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Transport roll drives motor, **PL 8.25 Item 5**.
- Tray 1 and 2 control PWB, **PL 7.10 Item 2**.

The transport rolls rotate.

Y N  
Check the drive belt and gears, **GP 7, PL 8.25 Item 2, PL 8.25 Item 3**.

Check the following:

- The bearing, shaft and rolls on the transport roll assembly, **GP 7, PL 8.25 Item 8**.
- The idler rolls in the left hand door, **GP 7, PL 7.30 Item 2**.
- The transport drive belt, **PL 8.25 Item 2**.
- The transport rolls for wear, **PL 8.25 Item 8**.

Install new components as necessary.

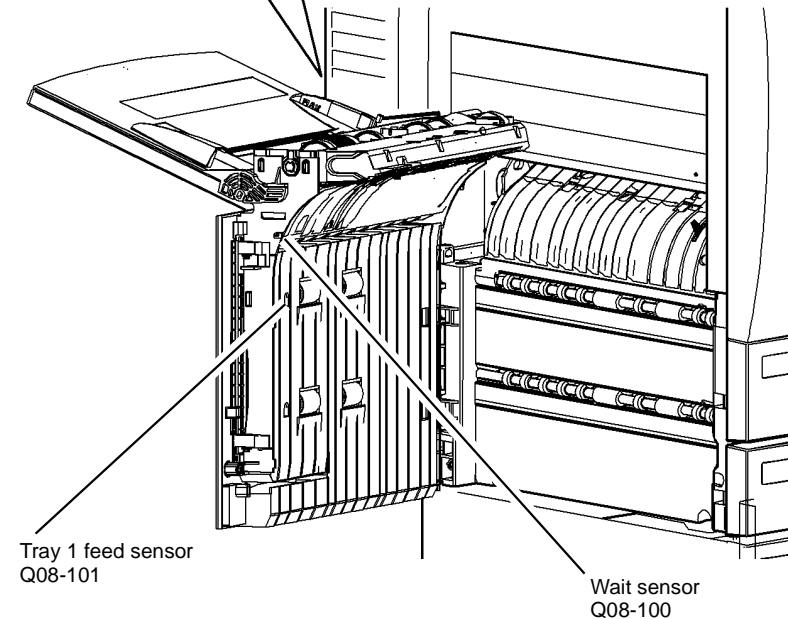
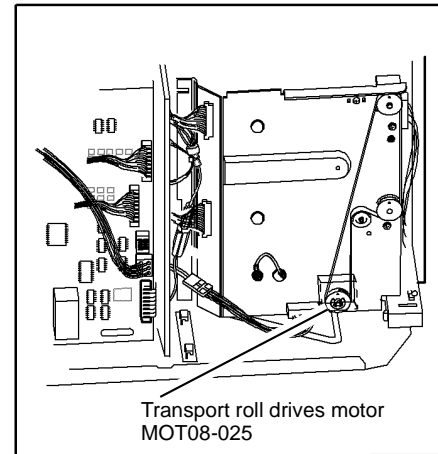


Figure 1 Component location



## 08-100B Wait Sensor Jam RAP (65-90 ppm)

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 08-100 Wait Sensor Jam Entry RAP.
- Check the condition of the paper in all trays. Refer to IQ1 and GP 20.
- Check for obstructions in the paper path.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose. PL 7.30 Item 23. Bias the cover to the right and tighten the two screws.
- Make sure the correct paper size is displayed for the size of paper in the tray.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter dC330 code 08-100 wait sensor, Q08-100. Press Start.

Manually actuate the wait sensor. **The display changes.**

Y N

Go to Flag 1. Check Q08-100. Refer to:

- GP 11 How to Check a Sensor.
- P/J16, IOT PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Wait sensor, PL 7.30 Item 25.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Enter dC330 code 08-101 tray 1 feed sensor, Q08-101. Press Start. Open left hand door and manually actuate the sensor. **The display changes.**

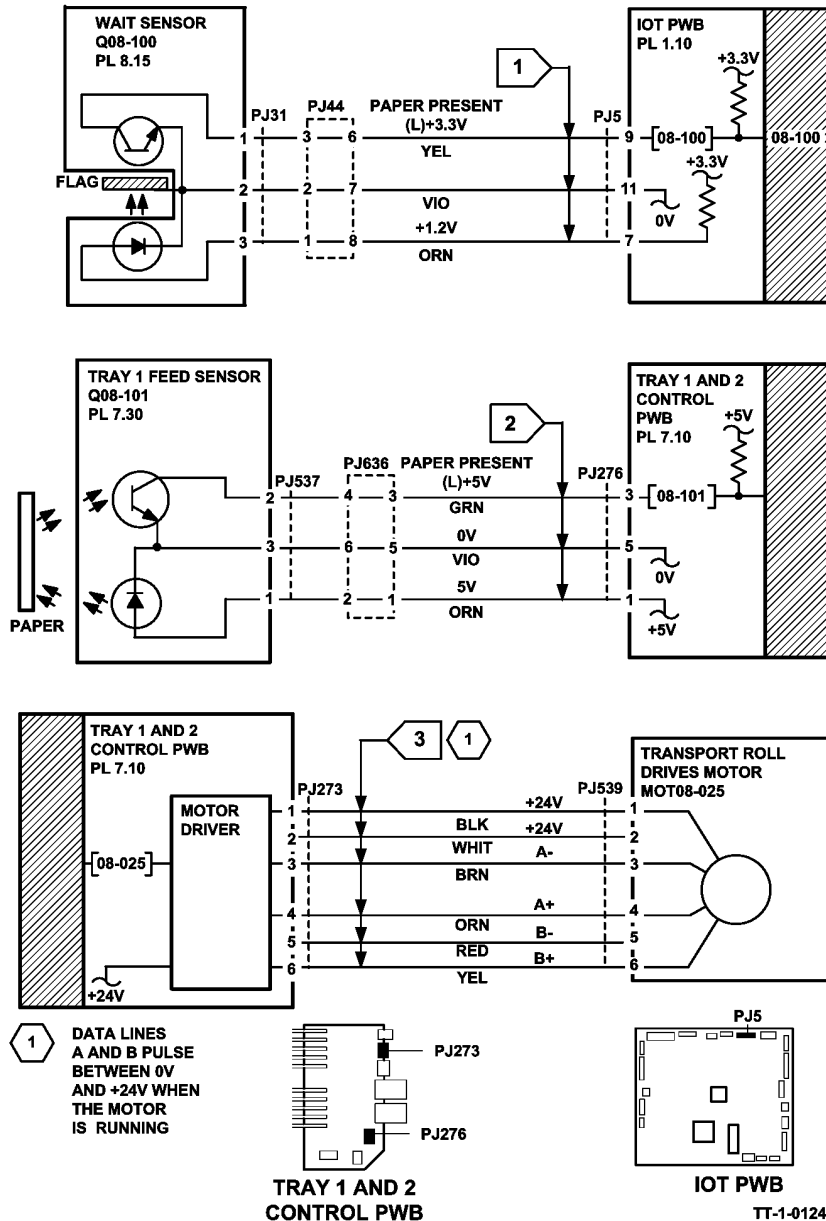
Y N

Go to Flag 2. Check Q08-101. Refer to:

- GP 11 How to Check a Sensor.
- P/J276, Tray 1 and 2 control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 1 feed sensor, PL 7.30 Item 24.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.



A  
Enter **dC330** code 08-025 transport roll drives motor MOT08-025. Press Start. **The motor runs.**

Y N  
Go to **Flag 3**. Check MOT08-025. Refer to:

- **GP 10** How to Check a Motor.
- **P/J276, Tray 1 and 2 control PWB.**
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Transport roll drives motor, **PL 8.25 Item 5.**
- Tray 1 and 2 control PWB, **PL 7.10 Item 2.**

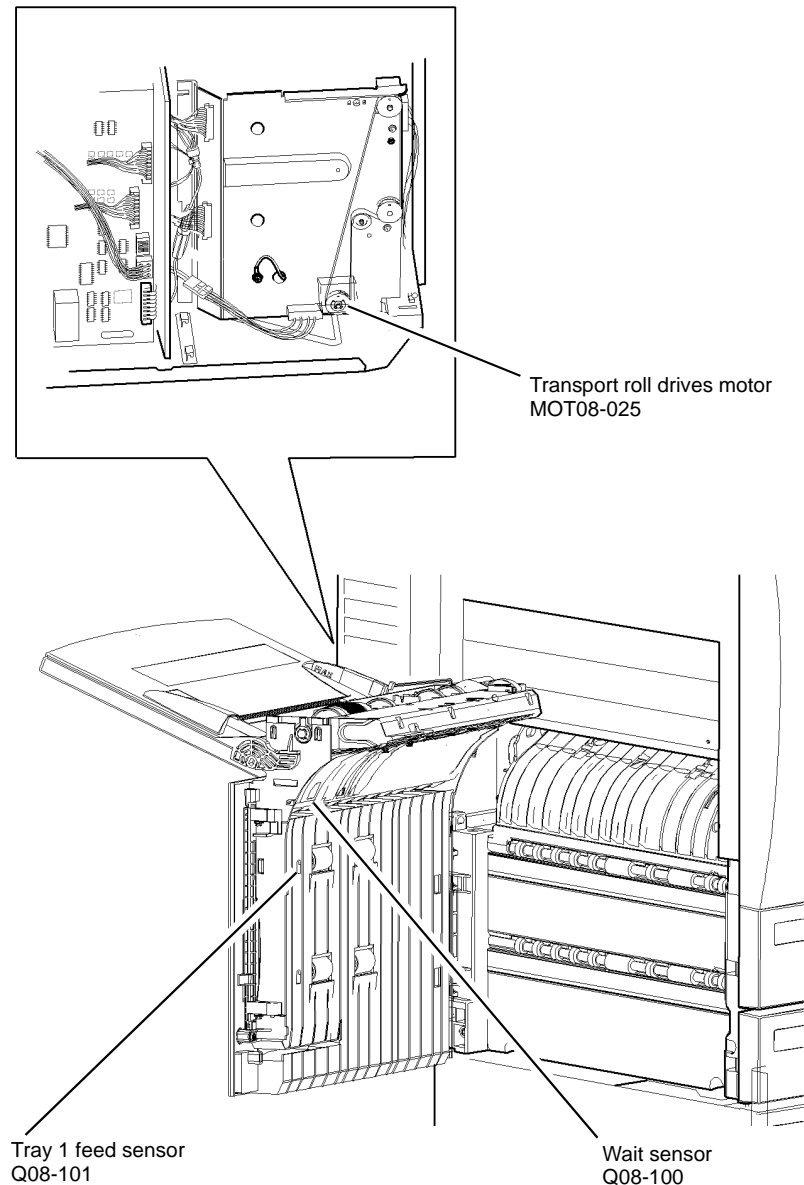
**The transport rolls rotate.**

Y N  
Check the drive belt and gears, **GP 7, PL 8.25.**

Check the following:

- The bearing, shaft and rolls on the transport roll assembly, **GP 7, PL 8.25 Item 8.**
- The idler rolls in the left hand door, **GP 7, PL 7.30 Item 2.**
- The transport drive belt, **PL 8.25 Item 2.**
- The transport rolls for wear, **PL 8.25 Item 8.**

Install new components as necessary.



T-1-0085-A

**Figure 1 Component location**

## 08-101 Tray 1 Misfeed RAP

**08-101** The lead edge of the paper failed to actuate the tray 1 feed sensor within the correct time after feeding paper from tray 1.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper in tray 1. Refer to **IQ1** and **GP 20**.
- Check that the paper guides are set correctly.
- Observe the feeder and check for obstructions.
- Turn and change the paper in the tray.
- Check that the tray elevates to the feed position. Refer to **07-353** Tray 1 Elevator Lift Failure RAP.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, **PL 7.30** Item 23. Bias the cover to the right and tighten the two screws
- Check for damage to the chamfered edge on the left side of the tray. Repair the damaged edge or install a new paper tray, **PL 7.10** Item 1.
- If the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install **TAG 002** on the paper tray to constrain the effect of the curl.
- Check the paper feeder **PL 8.26** Item 2 fully descends. If the paper feeder shaft is binding with the edge of the housing slot, apply plastislip grease to the contact areas.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

**NOTE:** To help fault diagnosis, install the tray 1 paper feed assembly in the tray 2 paper feed assembly position. With tray 1 removed, the operation of the feed assembly can be observed. Refer to **REP 8.1**.

Enter **dC330** code 08-101 tray 1 feed sensor, Q08-101. **Figure 1**. Press Start. Open the left hand door and manually actuate the sensor. **The display changes.**

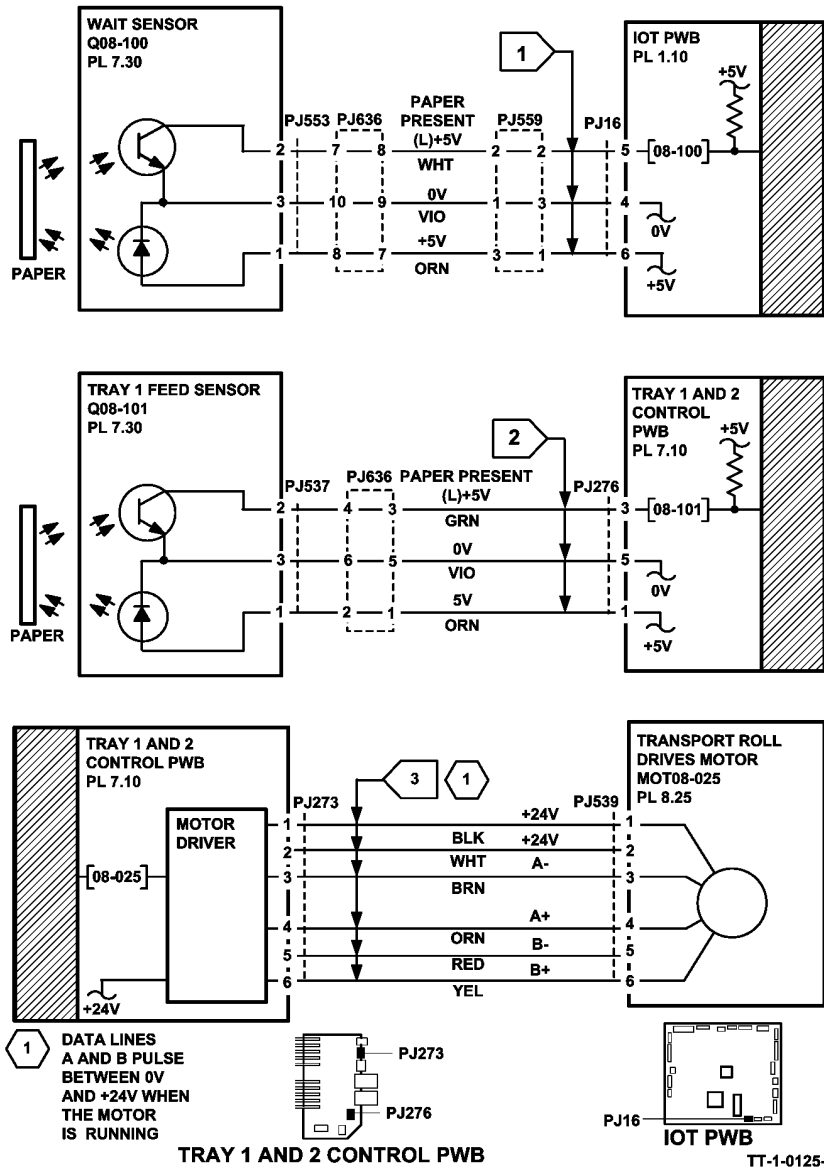
**Y N**

Go to **Flag 1**. Check Q08-101. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J276**, Tray 1 and 2 control PWB.
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 1 feed sensor, **PL 7.30** Item 25.
- Tray 1 and 2 control PWB, **PL 7.10** Item 2.



A  
Enter dC330 code 08-025 transport roll drives motor, MOT08-025. Press Start. **The motor runs.**

Y N  
Go to [Flag 2](#). Check MOT08-025. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J273, Tray 1 and 2 control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Transport roll drives motor, [PL 8.25 Item 5](#).
- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

**The transport rolls rotate.**

Y N  
Check the drive belt, pulley and pulley idler, [PL 8.25](#).



*To prevent damage to the feed mechanism, the paper tray must be pulled out before MOT08-010 is run in diagnostics.*

Enter dC330 code 08-010 tray 1 feed/elevator motor, MOT08-010, Pull out the tray. Press Start. **The feed rolls rotate.**

Y N  
Remove the feed assembly from the machine. Manually rotate the feed roll shaft. **The drive gears rotate.**

Y N  
Check the drive gears for damage. If necessary install new components, [PL 8.26](#).

Install the tray 1 feed assembly.  
Go to [Flag 3](#). Check MOT08-010. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J274, Tray 1 and 2 control PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new Components as necessary:

- Tray 1 feed/elevator motor, [PL 8.26 Item 6](#).
- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

**The nudger roll rotates.**

Y N  
Check the nudger roll drive belt and drive coupling for damage. If necessary install new components, [PL 8.26](#).

Remove the paper tray. Manually activate the retard nip split mechanism. **The retard roll moves against the feed roll.**

Y N  
Check the retard roll drive coupling and mechanism for damage.

B  
If necessary install new components, [PL 8.26](#).

Perform the following:

- Clean the feed roll using a cloth dampened with water.
- Check the roll assembly, [PL 8.26 Item 3](#).
- Check the feed assembly, [PL 8.26 Item 1](#).

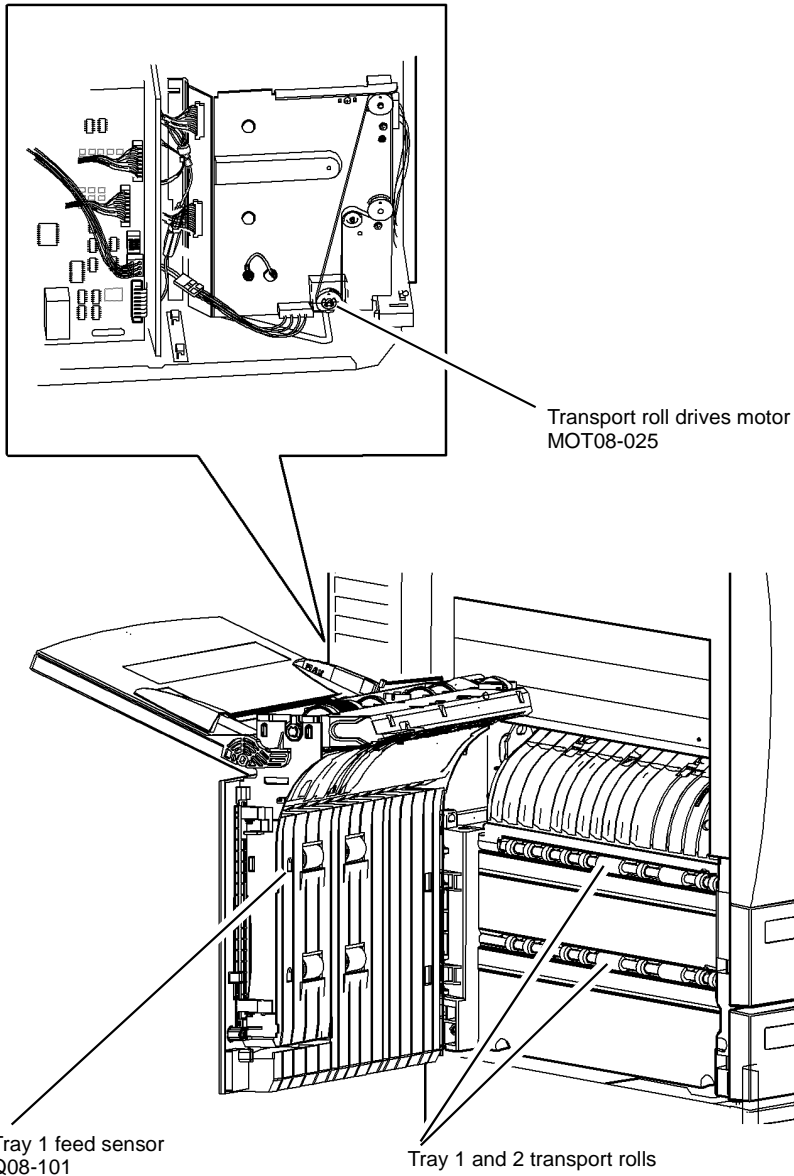


Figure 1 Component location

T-1-0086-A

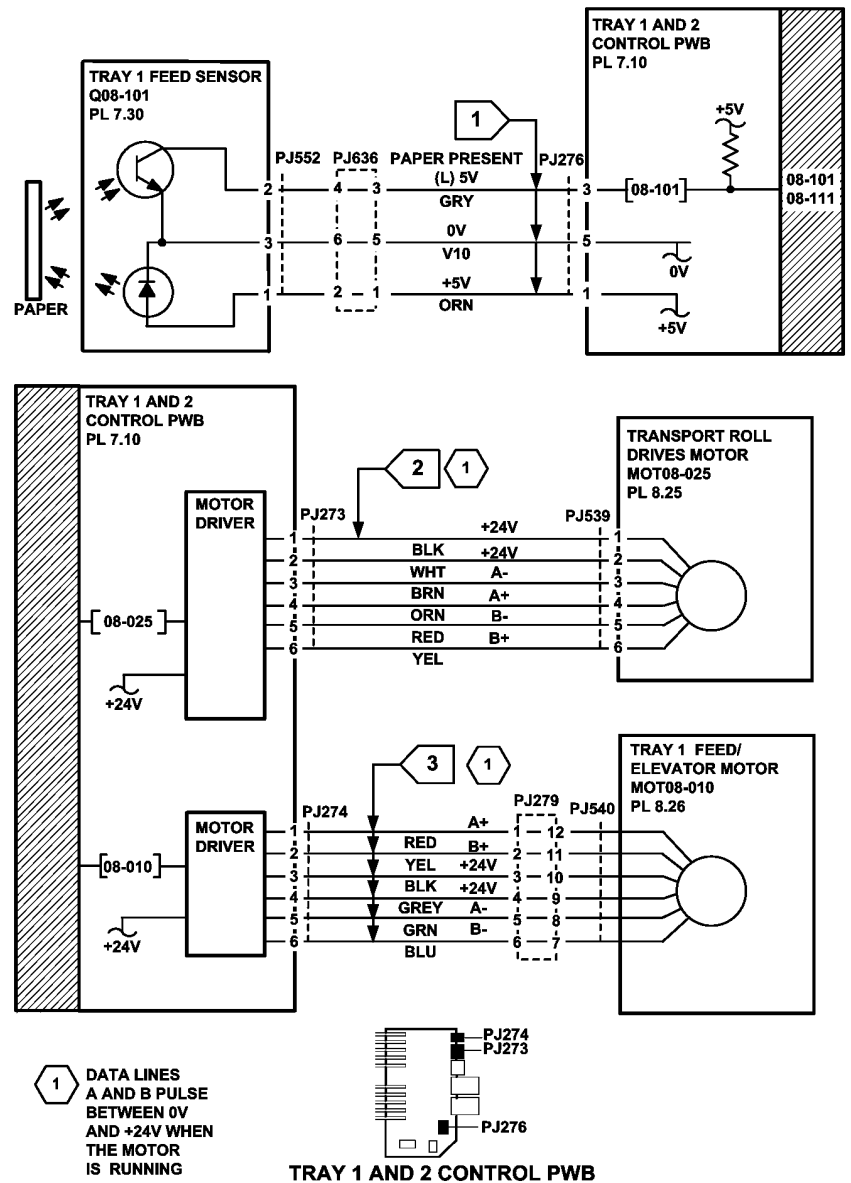


Figure 2 Circuit diagram

TT-1-0126-C

## 08-102 Tray 2 Misfeed RAP

**08-102** The lead edge of the paper failed to actuate the tray 2 feed sensor within the correct time after feeding paper from tray 2.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper in tray 2. Refer to **IQ1** and **GP 20**.
- Check that the paper guides are set correctly.
- Observe the feeder and check for obstructions.
- Turn and change the paper in the tray.
- Check that the tray elevates to the feed position. Refer to **07-354** Tray 2 Elevator Lift Failure RAP.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, **PL 7.30 Item 23**. Bias the cover to the right and tighten the two screws
- Check for damage to the chamfered edge on the left side of the tray. Repair the damaged edge or install a new paper tray, **PL 7.10 Item 1**.
- If the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install **TAG 002** on the paper tray to constrain the effect of the curl.
- Check the paper feeder **PL 8.26 Item 1** fully descends. If the paper feeder shaft is binding with the edge of the housing slot, apply plastislip grease to the contact areas.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter **dC330** code 08-102 tray 2 feed sensor, Q08-102. **Figure 1**. Press Start. Open the left hand door and manually actuate the sensor. **The display changes.**

**Y N**

Go to **Flag 1**. Check Q08-102. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J276**, **Tray 1 and 2 control PWB**.
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 2 feed sensor, **PL 7.30 Item 24**.
- Tray 1 and 2 control PWB, **PL 7.10 Item 2**.

Enter **dC330** code 08-025 transport roll drives motor, MOT08-025. Press Start. **The motor runs.**

**Y N**

Go to **Flag 2**. Check MOT08-025. Refer to:

- **GP 10** How to Check a Motor.
- **P/J273**, **Tray 1 and 2 control PWB**.

- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Transport roll drives motor **PL 8.25 Item 5**.
- Tray 1 and 2 control PWB, **PL 7.10 Item 2**.

**The transport rolls rotate.**

**Y N**

Check the drive belt and gears, **GP 7**, **PL 8.25 Item 2**.



#### CAUTION

To prevent damage to the feed mechanism, the paper tray must be pulled out before **MOT 08-020** is run in diagnostics.

Enter **dC330** code 08-020 tray 2 feed/elevator motor, MOT08-020. Pull out the tray. Press Start. **The motor runs.**

**Y N**

Remove the feed assembly from the machine. Manually rotate the feed roll shaft. **The feed rolls rotate.**

**Y N**

Check the drive gears for damage. If necessary install new components, **PL 8.26**.

Install the tray 2 feed assembly.

Go to **Flag 3**. Check MOT08-020. Refer to:

- **GP 10** How to Check a Motor.
- **P/J275**, **Tray 1 and 2 control PWB**.
- **01E** +5V Distribution RAP.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new Components as necessary:

- Tray 2 feed/elevator motor, **PL 8.26 Item 6**.
- Tray 1 and 2 control PWB **PL 7.10 Item 2**.

**The nudger roll rotates.**

**Y N**

Check the nudger roll drive belt and drive coupling for damage.

If necessary install new components, **PL 8.26**.

Remove the paper tray. Manually activate the retard nip split mechanism. **The retard roll moves against the feed roll.**

**Y N**

Check the retard roll drive coupling and mechanism for damage.

If necessary install new components, **PL 8.26**.

Perform the following:

- Clean the feed roll using a cloth dampened with water.
- Check the feed roll assembly, **PL 8.26 Item 3**.
- Check the feed assembly, **PL 8.26 Item 1**.

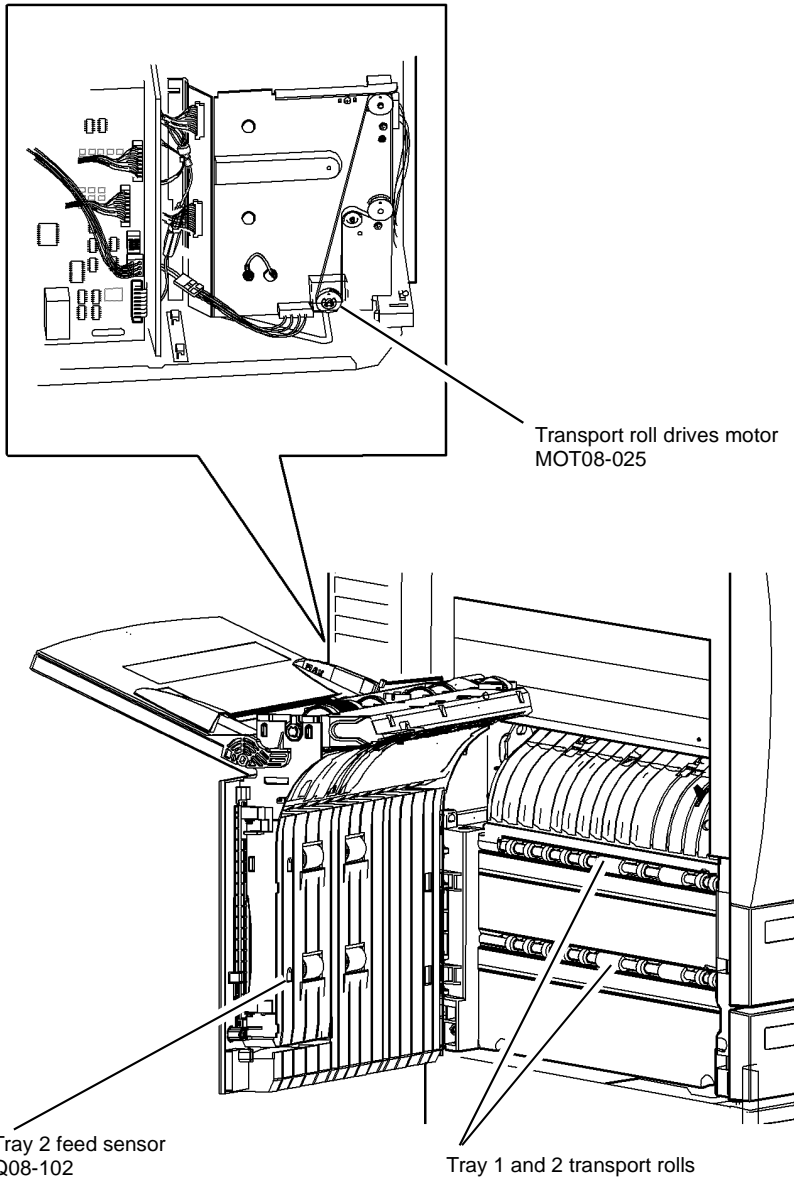
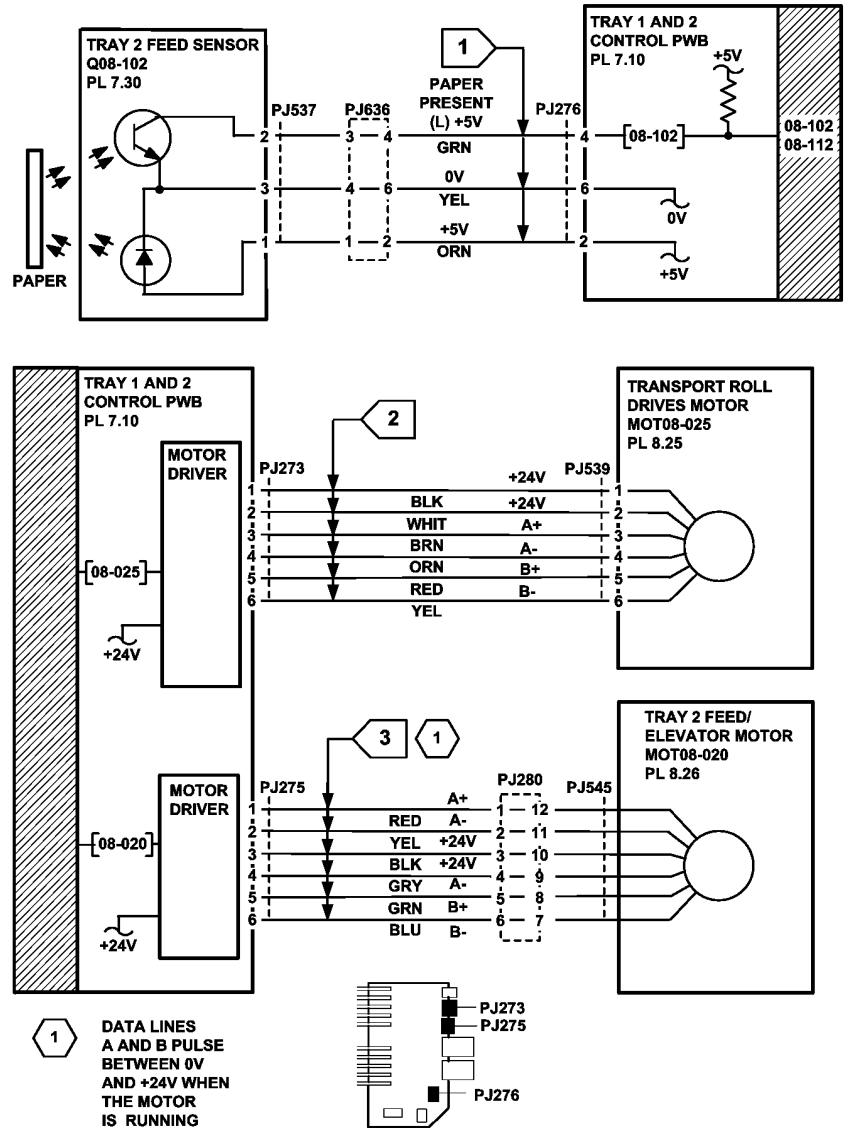


Figure 1 Component location

T-1-0087-A



TRAY 1 AND 2 CONTROL PWB

Figure 2 Circuit diagram

TT-1-0127-C

## 08-103, 08-113 Tray 3 Misfeed Entry RAP

**08-103** The lead edge of the paper failed to actuate the tray 3 feed sensor within the correct time after feeding paper from tray 3.

**08-113** Tray 3 sensor did not de-actuate within the correct time after the sensor was actuated.

### Procedure

Go to the relevant procedure:

- (W/TAG 151) go to the [08-103B, 08-113B Tray 3 Misfeed RAP \(W/TAG 151\)](#).
- (W/O TAG 151) go to the [08-103A, 08-113A Tray 3 Misfeed RAP \(W/O TAG 151\)](#).

## 08-103A, 08-113A Tray 3 Misfeed RAP (W/O TAG 151)

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the [08-103, 08-113 Tray 3 Misfeed Entry RAP](#).
- Check the condition of the paper in tray 3. Refer to [IQ1](#) and [GP 20](#).
- Check the tray 3 feed sensor actuator arm, [PL 7.15 Item 9](#).
- Check that the spacers are on the paper feed assembly, refer to [REP 8.2](#).
- Ensure that the tray is pushed fully home.
- If the misfeed occurs between 15 and 20 paper feeds, then go to [07-355 Tray 3 Elevator Lift Failure RAP](#).

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Remove the rear cover, [PL 7.25 Item 1](#). Locate tray 3 feed sensor, Q08-103. [Figure 1](#). Enter [dC330](#) code 08-103 tray 3 Feed Sensor, Q08-103. Press Start. Manually block and unblock the sensor. **The display changes.**

Y N

Go to [Flag 1](#). Check Q08-103. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J393, HCF control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 3 feed sensor, [PL 8.30 Item 15](#).
- HCF control PWB, [PL 7.20 Item 2](#).

Enter [dC330](#) code 08-045 tray 3 and 4 transport motor, MOT08-045. Press Start. **The motor runs.**

Y N

Go to [Flag 2](#). Check MOT08-045. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J398, HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 3 and 4 transport motor, [PL 8.30 Item 7](#).
- HCF control PWB, [PL 7.20 Item 2](#).

**The transport rolls rotate.**



Y N

Check the gears and drive belt, [GP 7](#), [PL 8.30 Item 8](#), [PL 8.30 Item 9](#).



*To prevent damage to the feed mechanism, the paper tray must be pulled out before MOT 08-030 is run in diagnostics.*

Enter [dC330](#) code 08-030 tray 3 feed motor, MOT08-030. Pull out the tray. Press Start. **The motor runs.**

Y N

Go to [Flag 3](#). Check MOT08-030. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J399](#), [HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 3 paper feed assembly, [PL 8.30 Item 1](#).
- HCF control PWB, [PL 7.20 Item 2](#).

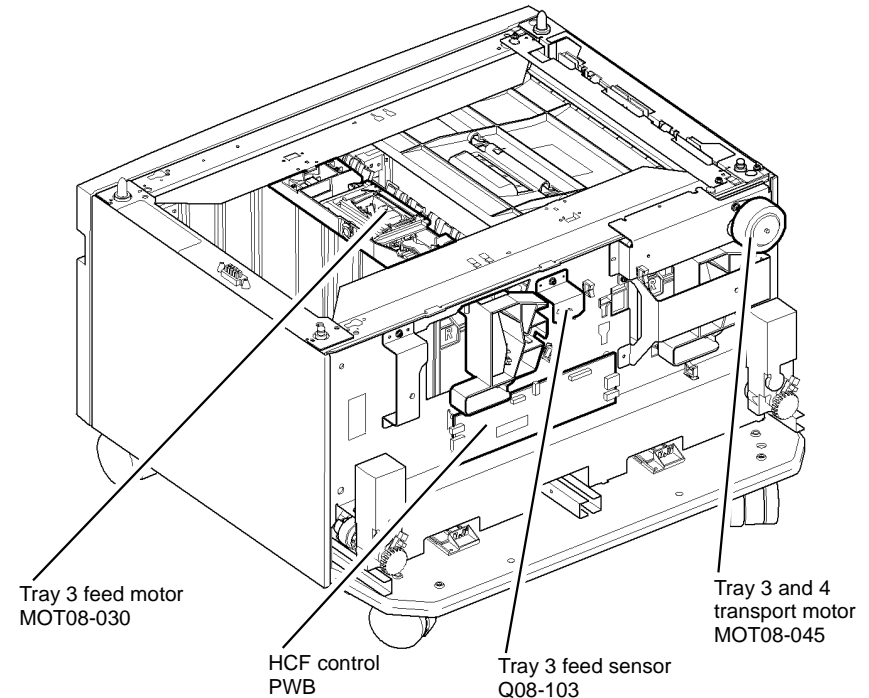
Perform the following:

- Clean the feed roll using a cloth dampened with water.
- Check the feed roll assembly, [PL 8.30 Item 6](#).
  1. Check for [TAG 110](#).
  2. If W/O [TAG 110](#), install feed roll kit [PL 8.30 Item 20](#).
  3. Strike [TAG 110](#).

**NOTE:** [TAG 110](#), [PL 8.30 Item 20](#) feed roll kit must be installed to trays 3 and 4 simultaneously. Refer to [RAP 08-104](#), [RAP 08-114](#), [PL 8.31 Item 10](#).

- Check the tray 3 feed assembly, [PL 8.30 Item 1](#). Refer to [REP 8.2](#) and check the feed head housing location.
- Check the tray 3 stack height sensor actuator on the feed assembly, [PL 8.30](#).
- Check the tray is level.
  1. Remove the tray front cover.
  2. Elevate the tray to the stack height position.
  3. Hold the elevator drive gear and pull out the tray. Check that the tray is level.
  4. If the tray is not level then install new elevator cables, [PL 7.15 Item 10](#).
- Check the stack height.
  1. Remove the front tray cover.
  2. Elevate the tray to the stack height position.
  3. Hold the elevator drive gear and pull out the tray.
  4. Check that the paper stack does not stop below the separator strips.  
Also check in the run mode that the stack does not fall below the separator strips.
  5. If the paper stack stops below the separator strips, then install new elevator cables, [PL 7.15 Item 10](#).

- Check the tray 3 corner separation strip for paper cut damage. If necessary, install new components, [PL 7.15 Item 22](#).
- Check the tray 3 top edge flexure spring for paper cut damage. If necessary, install new components, [PL 7.17 Item 12](#).
- If the fault still occurs, check the following, [GP 7](#):
  - The takeaway roll assembly, [PL 8.35 Item 2](#).
  - The transport roll assembly, [PL 8.35 Item 11](#).
  - The transport roll bearing, [PL 8.35 Item 3](#).



T-1-0088-A

**Figure 1 Component location**

## 08-103B, 08-113B Tray 3 Misfeed RAP (W/TAG 151)

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the [08-103](#), [08-113](#) Tray 3 Misfeed Entry RAP.
- Check the condition of the paper in tray 3. Refer to [IQ1](#) and [GP 20](#).
- Ensure that the tray is pushed fully home.
- If the misfeed occurs between 15 and 20 paper feeds, then go to [07-355](#) Tray 3 Elevator Lift Failure RAP.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Locate the tray 3 feed sensor, Q08-103, [Figure 2](#). Enter [dC330](#) code 08-103 tray 3 feed sensor, Q08-103. Press Start. Manually actuate the sensor using white paper. **The display changes.**

Y N

Go to [Flag 1](#). Check Q08-103. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J4](#), [HCF control PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 3 feed sensor, [PL 8.32](#) Item 6.
- HCF control PWB, [PL 7.21](#) Item 2.

Enter [dC330](#) code 08-045 HCF transport motor, MOT08-045, [Figure 1](#). Press Start. **The motor runs.**

Y N

Go to [Flag 2](#). Check MOT08-045. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J6](#), [HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- HCF transport motor, [PL 8.36](#) Item 13.
- HCF control PWB, [PL 7.21](#) Item 2.

Observe the tray 3 and 4 transport roll, [PL 8.32](#) Item 4 and the takeaway roll assembly, [PL 8.36](#) Item 2. **The transport roll and takeaway roll rotate.**

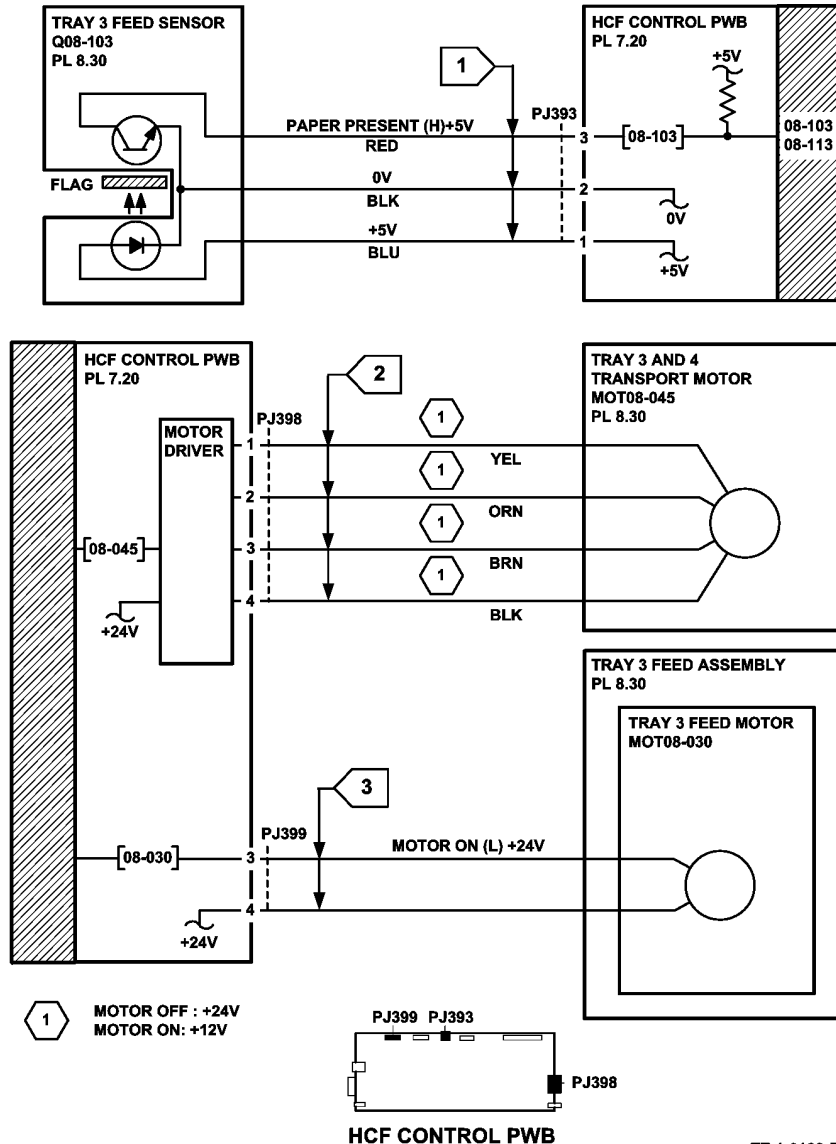


Figure 2 Circuit diagram

Y N

Check the following:

- Drive coupling, [PL 8.36 Item 7](#).
- Drive belt, [PL 8.36 Item 6](#).
- Transport gear pulley, [PL 8.36 Item 12](#).



*To prevent damage to the feed mechanism, the paper tray must be pulled out before MOT 08-030 is run in diagnostics.*

Enter [dC330](#) code 08-030 tray 3 feed motor, MOT08-030, [Figure 1](#). Pull out the tray. Press Start. **The motor runs.**

Y N

Go to [Flag 3](#). Check MOT08-030. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J1](#), [HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 3 feed motor, [PL 8.32 Item 11](#).
- HCF control PWB, [PL 7.21 Item 2](#).

Locate the tray 3 feed clutch, CL08-033. [Figure 2](#). Enter [dC330](#) code 08-030 tray 3 feed motor, MOT08-030, stack the code 08-033 tray 3 feed clutch, CL08-033. Pull out tray 3 and observe the tray 3 feed and nudger rolls. Press Start. **The rolls rotate.**

Y N

Go to [Flag 4](#). Check CL08-033. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J4](#), [HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

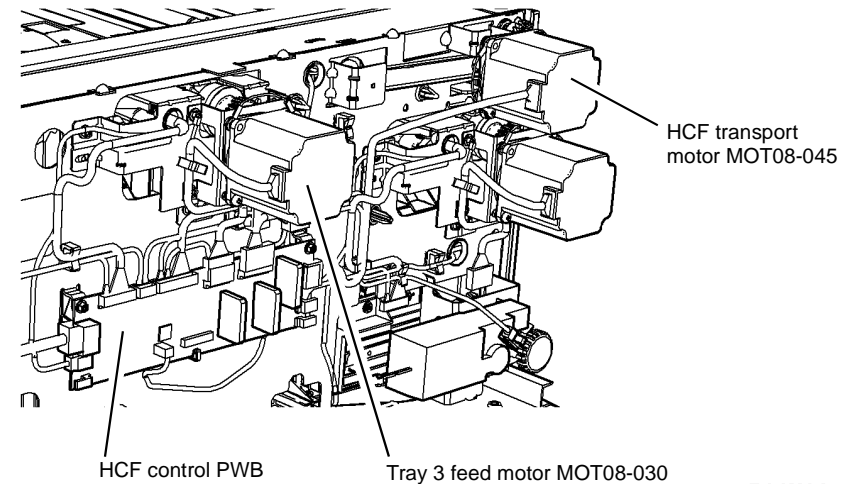
Install new components as necessary:

- Tray 3 paper feed assembly, [PL 8.32 Item 1](#).
- HCF control PWB, [PL 7.21 Item 2](#).

Perform the following:

- Clean the feed roll, nudger roll and retard roll using a cloth dampened with water.
- Check the feed roll, nudger roll and retard roll for wear. If necessary install a new feed roll kit (W/TAG 151), [PL 31.11](#).
- Perform the following adjustments:
  - [ADJ 8.3](#) Tray 3 and Tray 4 Retard Roll Pressure (W/Tag 151)
  - [ADJ 8.4](#) Tray 3 and Tray 4 Nudger Roll Pressure (W/Tag 151)
- Check the tray 3 stack height sensor actuator on the feed assembly, [PL 8.32 Item 7](#).
- Check the tray is level.
  1. Pull out tray 3 and remove all of the paper from the tray.

2. Remove the tray 3 front cover.
  3. Manually elevate the tray to the top of its travel by rotating the elevator cable drum at the front of the tray.
  4. At the three locations where the metal paper tray protrudes through the outer plastic frame of tray 3, check that the top surface of the metal paper tray is the same distance from the inside top of the slots
  5. If the tray is not level, install new elevator cables, [PL 7.18 Item 4](#), [PL 7.18 Item 6](#) and [PL 7.18 Item 8](#).
- Check the tray 3 paper tray guide for paper cut damage. If necessary, install new components, [PL 7.19 Item 7](#).
  - If the fault still occurs, refer to [GP 7](#) and check the following:
    - The takeaway roll assembly, [PL 8.36 Item 2](#).
    - The idler roll assembly, [PL 8.36 Item 8](#).
    - The tray 3 and 4 transport roll, [PL 8.32 Item 4](#).
    - The idler roll assembly, [PL 8.33 Item 2](#).



**Figure 1 Component location**

T-1-1201-A

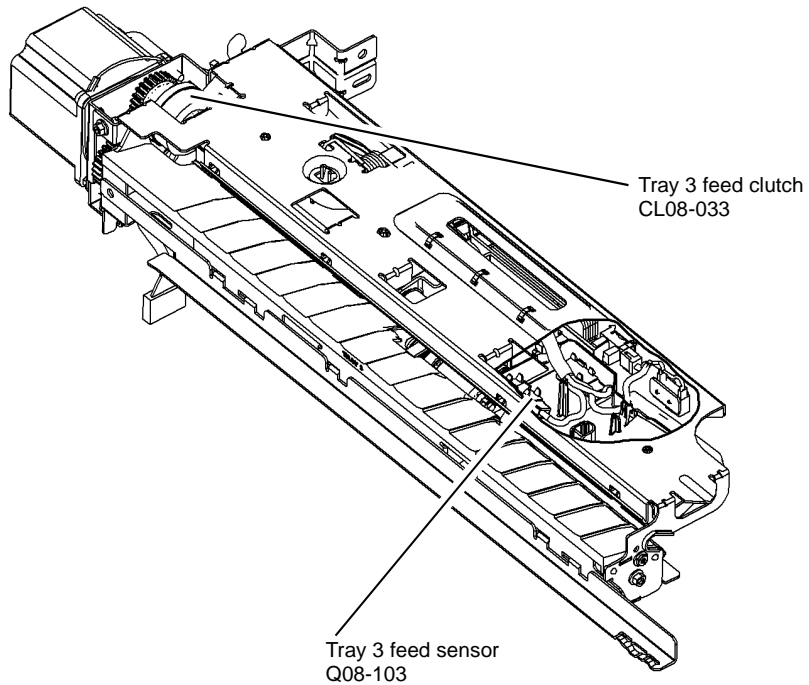


Figure 2 Component location

T-1-1224-A

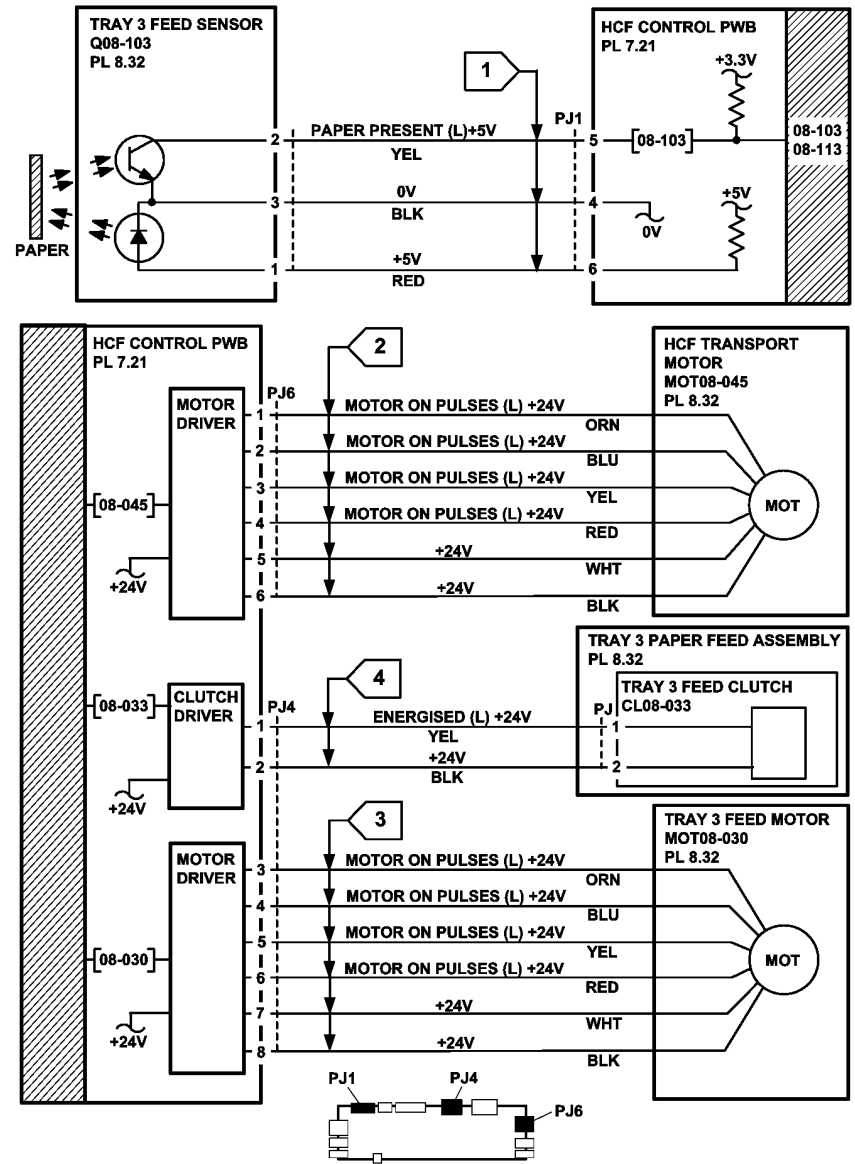


Figure 3 Circuit diagram

TT-1-0290-A

## 08-104, 08-114 Tray 4 Misfeed Entry RAP

**08-104** The lead edge of the paper failed to actuate the tray 4 feed sensor within the correct time after feeding paper from tray 4 (W/O TAG 151).

**08-104** The lead edge of the paper failed to actuate the tray HCF exit sensor within the correct time after feeding paper from tray 4 (W/TAG 151).

**08-114** Tray 4 sensor did not de-actuate within the correct time after the sensor was actuated (W/O TAG 151).

**08-114** The HCF exit sensor did not de-actuate within the correct time after the sensor was actuated (W/TAG 151).

### Procedure

Go to the relevant procedure:

- (W/O TAG 151) go to the [08-104A, 08-114A](#) Tray 4 Misfeed RAP (W/O TAG 151).
- (W/TAG 151) go to the [08-104B, 08-114B](#) Tray 4 Misfeed RAP (W/TAG 151).

## 08-104A, 08-114A Tray 4 Misfeed RAP (W/O TAG 151)

### Initial Actions



### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the [08-104, 08-114](#) Tray 4 Misfeed Entry RAP.
- Check the condition of the paper in tray 4. Refer to [IQ1](#) and [GP 20](#).
- Check that the paper feed assembly is installed correctly, refer to [REP 8.3](#).
- Ensure that the tray is pushed fully home.
- If the misfeed occurs between 15 and 20 paper feeds, then go to [07-360](#) Tray 4 Elevator Lift Failure RAP.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, [PL 7.30 Item 23](#). Bias the cover to the right and tighten the two screws

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-104 tray 4 feed sensor, Q08-104, [Figure 1](#). Press Start. Pull out tray 4 and manually actuate the sensor. **The display changes.**

Y N

Go to [Flag 1](#). Check Q08-104. Refer to:

- How to Check a Sensor.
- [P/J392, HCF control PWB](#).
- [01E +5V](#) Distribution RAP.
- [01B 0V](#) Distribution RAP.

Install new components as necessary:

- Tray 4 feed sensor, [PL 8.31 Item 12](#).
- HCF control PWB, [PL 7.20 Item 2](#).

Enter [dC330](#) code 08-045 tray 3 and 4 transport motor, MOT08-045. Press Start. **The motor runs.**

Y N

Go to [Flag 2](#). Check MOT08-045. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J398, HCF control PWB](#).
- [01G +24V](#) Distribution RAP.
- [01B 0V](#) Distribution RAP.

Install new components as necessary:

- Tray 3 and 4 transport motor, [PL 8.30 Item 7](#).
- HCF control PWB, [PL 7.20 Item 2](#).

A

A

**The transport rolls rotate.**

Y N

Check the drive belt and gears, [GP 7](#), [PL 8.30 Item 9](#), [PL 8.30 Item 8](#).



To prevent damage to the feed mechanism, the paper tray must be pulled out before MOT 08-040 is run in diagnostics.

Enter [dC330](#) code 08-040 tray 4 feed motor, MOT08-040. Pull out the tray. Press Start. **The motor runs.**

Y N

Go to [Flag 3](#). Check MOT08-040. Refer to:

- [GP 10](#) How to Check a motor.
- [P/J391](#), [HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 4 feed assembly, [PL 8.31 Item 4](#).
- HCF control PWB, [PL 7.20 Item 2](#).

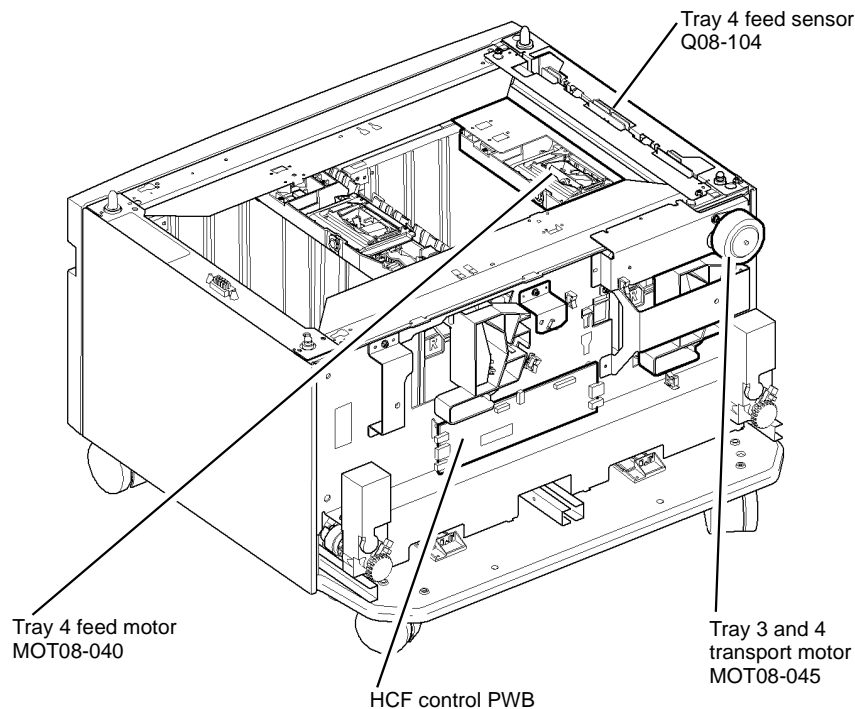
Perform the following:

- Clean the feed roll using a cloth dampened with water.
- Check the feed roll assembly, [PL 8.31 Item 2](#).
  1. Check for [TAG 110](#).
  2. If W/O [TAG 110](#), install feed roll kit [PL 8.31 Item 10](#).
  3. Strike [TAG 110](#).

**NOTE:** [TAG 110](#), [PL 8.31 Item 10](#) feed roll kit must be installed to trays 3 and 4 simultaneously. Refer to [RAP 08-103](#), [RAP 08-113](#), [PL 8.30 Item 20](#).

- Check the tray 4 feed sensor is located correctly and that the flag actuator has free movement. If necessary install a new tray 4 feed sensor, [PL 8.31 Item 10](#).
- Check the tray 4 paper feed assembly, [PL 8.31 Item 1](#). Refer to [REP 8.3](#) replacement procedure and check the feed head housing location.
- Check that the spacers for tray 3 paper feed assembly have not been installed into tray 4. Refer to [REP 8.2](#).
- Check the tray 4 stack height sensor actuator on the feed assembly, [PL 8.31](#).
- Check the tray is level.
  1. Remove the tray front cover.
  2. Elevate the tray to the stack height position.
  3. Hold the elevator drive gear and pull out the tray. Check that the tray is level.
  4. If the tray is not level then install new elevator cables, [PL 7.15 Item 11](#).
- Check the stack height.
  1. Remove the front tray cover.
  2. Elevate the tray to the stack height position.
  3. Hold the elevator drive gear and pull out the tray.

4. Check that the paper stack does not stop below the separator strips. Also check in the run mode that the stack does not fall below the separator strips.
  5. If the paper stack stops below the separator strips, then install new elevator cables, [PL 7.15 Item 11](#).
- Check the tray 4 corner separation strip for paper cut damage. If necessary, install new components, [PL 7.15 Item 22](#).
  - Check the tray 4 top edge flexure spring for paper cut damage. If necessary, install new components, [PL 7.17 Item 12](#).



T-1-0089-A

**Figure 1 Component location**

## 08-104B, 08-114B Tray 4 Misfeed RAP (W/TAG 151)

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the [08-104, 08-114](#) Tray 4 Misfeed Entry RAP.
- Check the condition of the paper in tray 4. Refer to [IQ1](#) and [GP 20](#).
- Ensure that the tray is pushed fully home.
- If the misfeed occurs between 15 and 20 paper feeds, then go to [07-360](#) Tray 4 Elevator Lift Failure RAP.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, [PL 7.30 Item 23](#). Bias the cover to the right and tighten the two screws

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

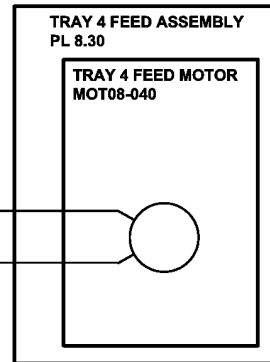
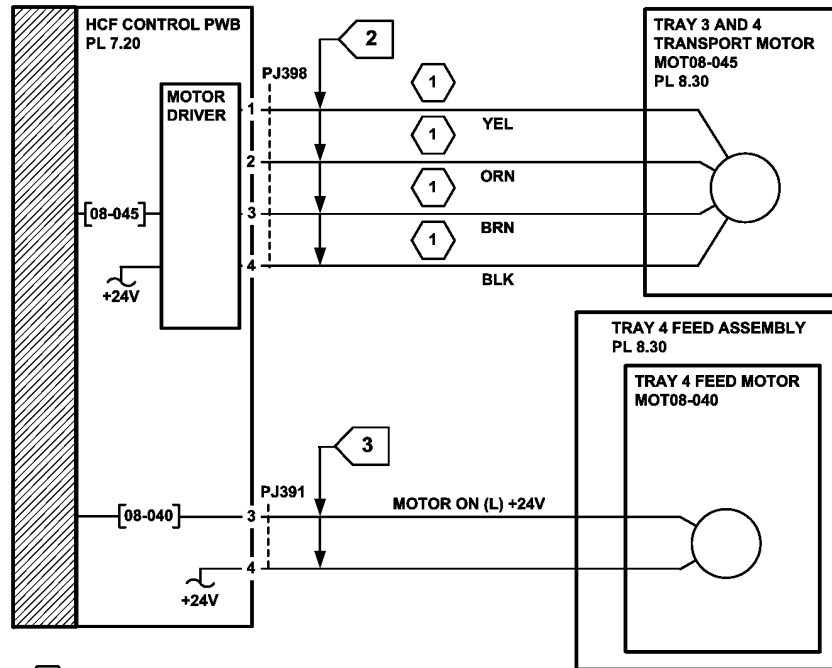
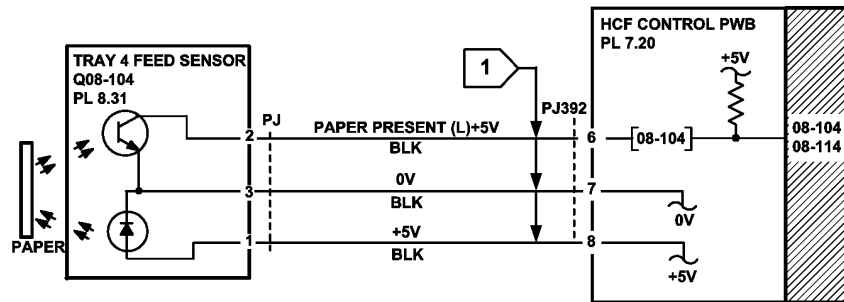
Enter [dC330](#) code 08-104 tray 4 feed sensor, Q08-104, [Figure 2](#). Press Start. Manually actuate the sensor. **The display changes.**

- Y N
- Go to [Flag 1](#). Check Q08-108. Refer to:
- [GP 11](#) How to Check a Sensor.
  - [P/J3](#), [HCF control PWB](#).
  - [01E](#) +5V Distribution RAP.
  - [01B](#) 0V Distribution RAP.
- Install new components as necessary:
- Tray 4 feed sensor, [PL 8.33 Item 3](#).
  - HCF control PWB, [PL 7.21 Item 2](#).

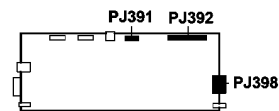
Enter [dC330](#) code 08-045 HCF transport motor, MOT08-045. Press Start. **The motor runs.**

- Y N
- Go to [Flag 2](#). Check MOT08-045. Refer to:
- [GP 10](#) How to Check a Motor.
  - [P/J6](#), [HCF control PWB](#).
  - [01G](#) +24V Distribution RAP.
  - [01B](#) 0V Distribution RAP.
- Install new components as necessary:
- HCF transport motor, [PL 8.36 Item 13](#).
  - HCF control PWB, [PL 7.21 Item 2](#).

Observe the tray 3 and 4 transport roll, [PL 8.32 Item 4](#) and the takeaway roll assembly, [PL 8.36 Item 2](#) **The transport roll and takeaway roll rotate.**



1 MOTOR OFF : +24V  
MOTOR ON: +12V



HCF CONTROL PWB  
Figure 2 Circuit diagram

TT-1-0129-A

Y N

Check the following:

- Drive coupling, [PL 8.36 Item 7](#).
- Drive belt, [PL 8.36 Item 6](#).
- Transport gear pulley, [PL 8.36 Item 12](#).



*To prevent damage to the feed mechanism, the paper tray must be pulled out before MOT 08-040 is run in diagnostics.*

Enter [dC330](#) code 08-040 tray 4 feed motor, MOT08-040. Pull out the tray. Press Start. **The motor runs.**

Y N

Go to [Flag 3](#). Check MOT08-040. Refer to:

- [GP 10](#) How to Check a motor.
- [P/J5, HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 4 feed motor, [PL 8.33 Item 10](#).
- HCF control PWB, [PL 7.21 Item 2](#).

Locate the tray 4 feed clutch, CL08-034. [Figure 1](#). Enter [dC330](#) code 08-040 tray 4 feed motor, MOT08-040, stack the code08-034 tray 4 feed clutch, CL08-034. Pull out tray 4 and observe the tray 3 feed and nudger rolls. Press Start. **The rolls rotate.**

Y N

Go to [Flag 4](#). Check CL08-034. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J5, HCF control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

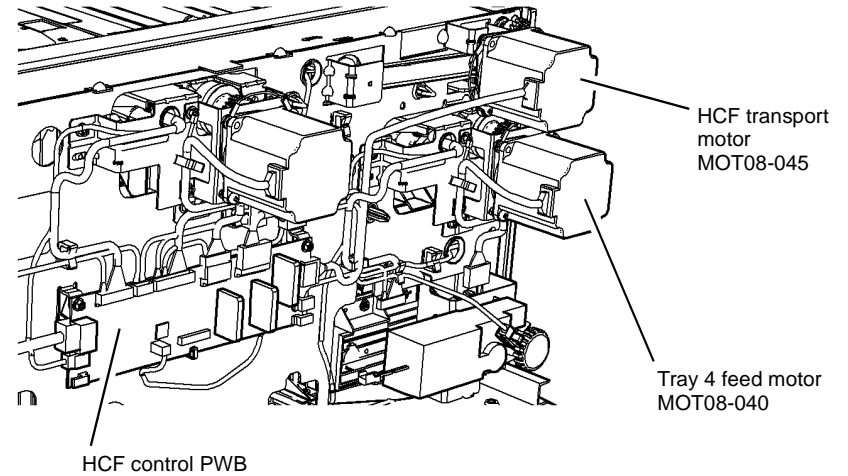
Install new components as necessary:

- Tray 4 paper feed assembly, [PL 8.33 Item 1](#).
- HCF control PWB, [PL 7.21 Item 2](#).

Perform the following:

- Clean the feed roll, nudger roll and retard roll using a cloth dampened with water.
- Check the feed roll, retard roll and nudger roll for wear, If necessary install a new feed roll kit (W/TAG 151), [PL 31.11](#).
- Perform the following adjustments:
  - [ADJ 8.3](#) Tray 3 and Tray 4 Retard Roll Pressure (W/Tag 151)
  - [ADJ 8.4](#) Tray 3 and Tray 4 Nudger Roll Pressure (W/Tag 151)
- Check the tray 4 stack height sensor actuator on the feed assembly, [PL 8.33](#).
- Check the tray is level.
  1. Pull out tray 4 and remove all of the paper from the tray.

2. Remove the tray 4 front cover.
  3. Manually elevate the tray to the top of its travel by rotating the elevator cable drum at the front of the tray.
  4. At the three locations where the metal paper tray protrude through the plastic outer frame of tray 4, check that the top surface of the metal paper tray is the same distance from the inside top of the slots.
  5. If the tray is not level then install new elevator cables, [PL 7.18 Item 4](#), [PL 7.18 Item 5](#) and [PL 7.18 Item 7](#).
- Check the tray 4 paper tray guide for paper cut damage. If necessary, install new components, [PL 7.19 Item 6](#).



T-1-1202-A

Figure 1 Component location



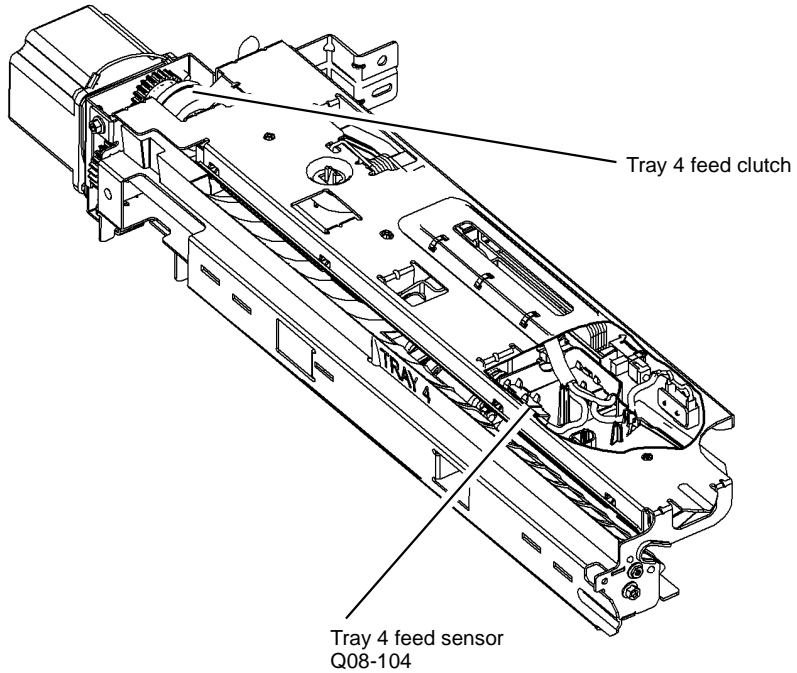


Figure 2 Component location

T-1-1225-A

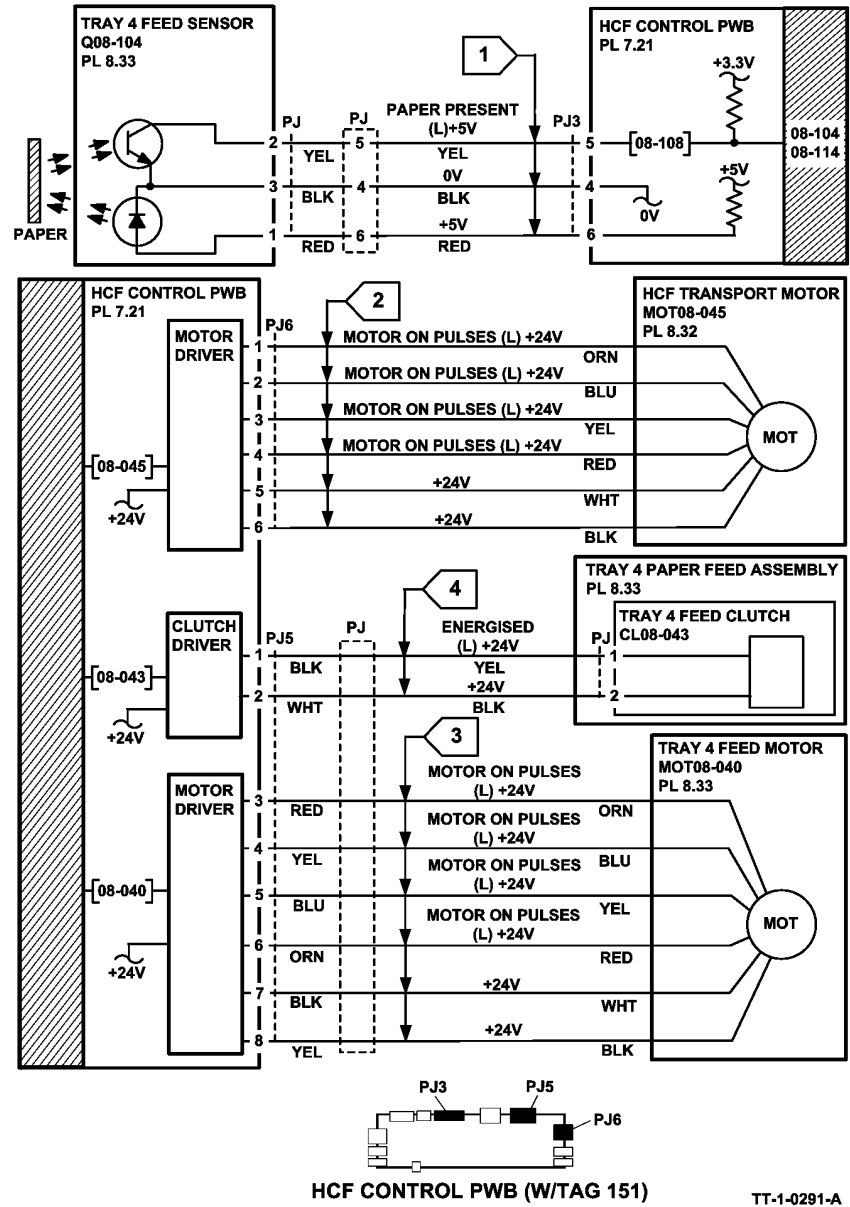


Figure 3 Circuit diagram

TT-1-0291-A

## 08-106 Lead Edge Late to Tray 1 Feed Sensor RAP

**08-106** The lead edge of the paper was late to tray 1 feed sensor when feeding from tray 2. The fault will also occur when feeding from tray 3 or tray 4 providing the trail edge of the sheet has cleared the tray 4 feed sensor.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check the condition of the paper in tray 2. Refer to [IQ1](#) and [GP 20](#).
- Check for obstructions in the paper path.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, [PL 7.30 Item 23](#). Bias the cover to the right and tighten the two screws
- Ensure that the tray is pushed fully home.
- Ensure that the correct size of paper is displayed.
- If intermittent jams are occurring from all trays except the bypass tray, clean the tray 1 feed sensor, [PL 7.30 Item 24](#) and the tray 2 feed sensor, [PL 7.30 Item 24](#).
- If the jam occurs when feeding from tray 2. Check if the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install [TAG 002](#) on the paper tray to constrain the effect of the curl.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-101 tray 1 feed sensor, Q08-101. Press Start. Open the left hand door and manually actuate the sensor, [Figure 1](#). **The display changes.**

**Y N**

Go to [Flag 1](#). Check Q08-101. Refer to:

- Component location, [Figure 1](#).
- [GP 11](#) How to Check a Sensor.
- [P/J276, Tray 1 and 2 control PWB](#).
- [01E +5V Distribution RAP](#).
- [01B 0V Distribution RAP](#).

Install new components as necessary:

- Tray 1 feed sensor, [PL 7.30 Item 24](#).
- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

Enter [dC330](#) code 08-102 tray 2 feed sensor, Q08-102. Press Start. Manually actuate the sensor, [Figure 1](#). **The display changes.**

**Y N**

Go to [Flag 2](#). Check Q08-102. Refer to:

- [GP 11](#) How to Check a Sensor.

**A**

- [P/J276, Tray 1 and 2 control PWB](#).
- [01E +5V Distribution RAP](#).
- [01B 0V Distribution RAP](#).

Install new components as necessary:

- Tray 2 feed sensor, [PL 7.30 Item 24](#).
- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

Enter [dC330](#) code 08-025 transport roll drives motor, MOT08-025. Press Start. **The motor runs.**

**Y N**

Go to [Flag 3](#). Check MOT08-025. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J273, Tray 1 and 2 control PWB](#).
- [01G +24V Distribution RAP](#).
- [01B 0V Distribution RAP](#).

Install new components as necessary:

- Transport roll drives motor, [PL 8.25 Item 5](#).
- Tray 1 and 2 control PWB, [PL 7.10 Item 2](#).

**The transport rolls rotate.**

**Y N**

Check the drive belt and pulleys, [PL 8.25 Item 2](#), [PL 8.25 Item 3](#).

Check the following:

- The bearing, shaft and rolls on the transport roll assembly, [GP 7](#), [PL 8.25 Item 8](#).
- The idler rolls in the left hand door, [GP 7](#), [PL 7.30 Item 2](#).
- The transport drive belt, [PL 8.25 Item 2](#).
- If the fault occurs when feeding from tray 3 or tray 4 but not tray 2 then check the positioning of the tray 3 / 4 transport pinch rolls, [PL 8.30 Item 18](#), and the transport motor bracket, [PL 8.30 Item 14](#), [REP 8.11](#).

Install new components as necessary.

**A**

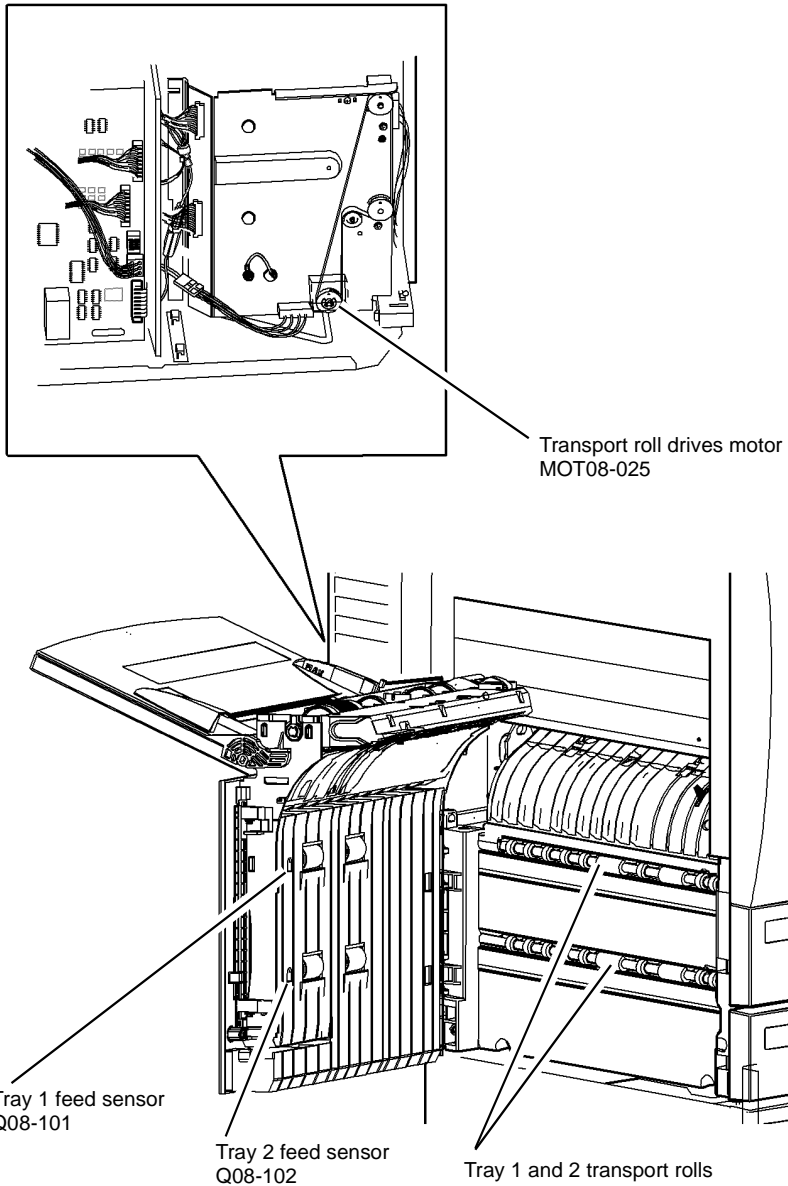
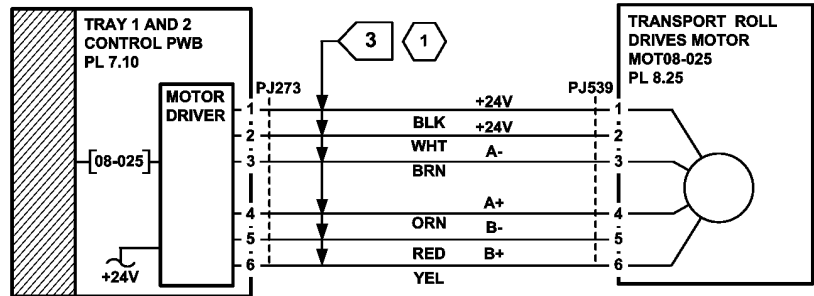
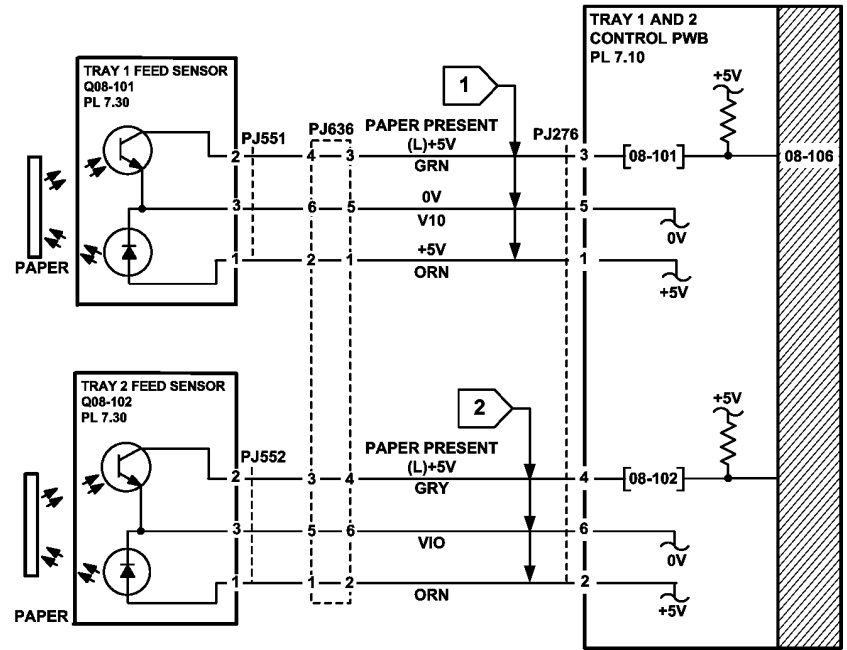
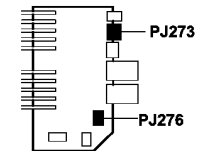


Figure 1 Component location

T-1-0090-A



1 DATA LINES A AND B PULSE BETWEEN 0V AND +24V WHEN THE MOTOR IS RUNNING



TRAY 1 AND 2 CONTROL PWB

TT-1-0130-B

Figure 2 Circuit diagram

## 08-107 Tray 3 Paper Feed Jam RAP (W/O TAG 151)

08-107 The lead edge of the paper was late to tray 4 feed sensor when feeding from tray 3.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper in tray 3. Refer to IQ1 and GP 20.
- Check for obstructions in tray 3 paper path, Figure 2.
- Check the tray 4 feed sensor, Figure 1.
- Ensure that the tray is pushed fully home.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter dC330 code 08-104 tray 4 feed sensor, Q08-104. Press Start. Manually actuate the tray 4 sensor. **The display changes.**

- Y N
- Go to Flag 1. Check Q08-104. Refer to:
- GP 11 How to Check a Sensor.
  - P/J392, HCF control PWB.
  - 01E +5V Distribution RAP.
  - 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 4 feed sensor, PL 8.31 Item 12.
- HCF control PWB, PL 7.20 Item 2.

Enter dC330 code 08-045 tray 3 and 4 transport motor, MOT08-045. Press Start. **The motor runs.**

- Y N
- Go to Flag 2. Check MOT08-045. Refer to:
- GP 10 How to Check a Motor.
  - P/J398, HCF control PWB.
  - 01G +24V Distribution RAP.
  - 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 3 and 4 transport motor, PL 8.30 Item 7.
- HCF control PWB, PL 7.20 Item 2.

**The transport rolls rotate.**

- Y N
- Figure 2. Check the drive belt and drive coupling, PL 8.30 Item 9.

A  
Perform the following:

- Figure 2. Check the tray 3 transport rolls, PL 8.35, PL 8.30.
- Go to RAP 08-103, 08-113 Tray 3 Misfeed RAP.

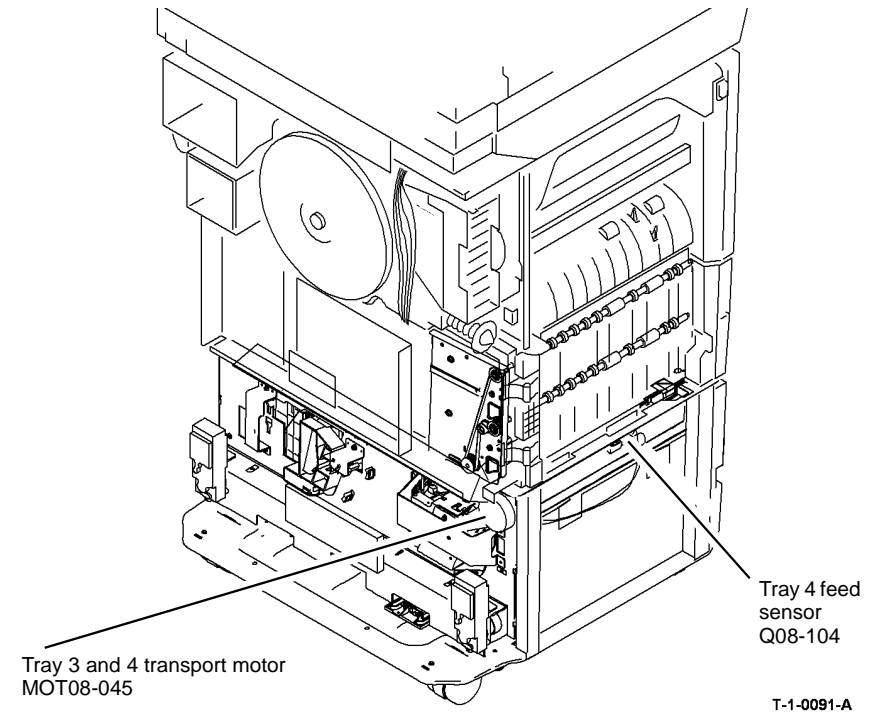


Figure 1 Component location

T-1-0091-A

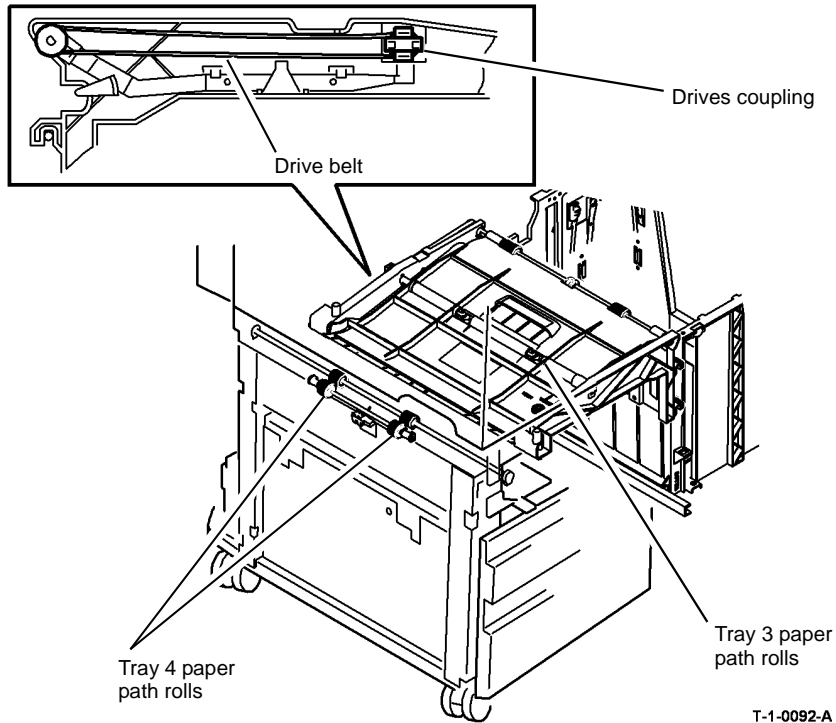
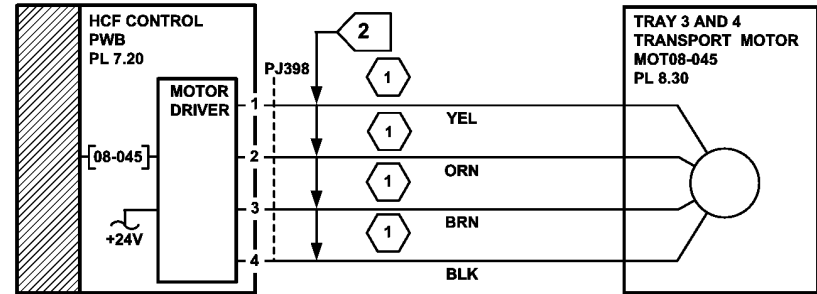
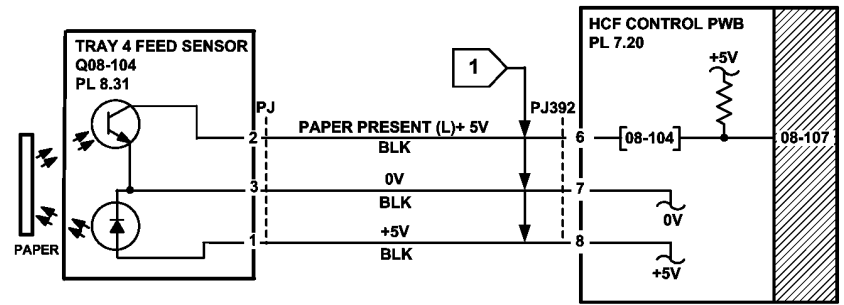
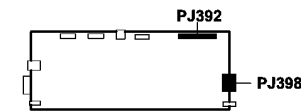


Figure 2 Component location

T-1-0092-A



1 MOTOR OFF : +24V  
MOTOR ON: +12V



HCF CONTROL PWB

Figure 3 Circuit diagram

TT-1-0131-A

## 08-108 Tray 3 or Tray 4 Paper Feed Jam Entry RAP

**08-108** The lead edge of the paper was late to tray 2 feed sensor when feeding from tray 3 or tray 4.

### Procedure

Go to the relevant procedure:

- (W/O TAG 151 ) go to the **08-108A** Tray 3 or Tray 4 Paper Feed Jam RAP (W/O TAG 151).
- (W/TAG 151 ) go to the **08-108B** Tray 3 or Tray 4 Paper Feed Jam RAP (W/TAG 151).

## 08-108A Tray 3 or Tray 4 Paper Feed Jam RAP (W/O TAG 151)

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the **08-108** Tray 3 or Tray 4 Paper Feed Jam Entry RAP.
- Check the condition of the paper in tray 3 and tray 4. Refer to **IQ1** and **GP 20**.
- Check for obstructions in the paper path.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, **PL 7.30 Item 23**. Bias the cover to the right and tighten the two screws
- Ensure that the left door assembly is pushed fully home.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter **dC330** code 08-102 tray 2 feed sensor, Q08-102. Press Start. Manually actuate the sensor, **Figure 1**. **The display changes.**

Y N

Go to **Flag 1**. Check Q08-102. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J276**, **Tray 1 and 2 control PWB**.
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 2 feed sensor, **PL 7.30 Item 24**.
- Tray 1 and 2 control PWB, **PL 7.10 Item 2**.

Enter **dC330** code 08-045 tray 3 and 4 transport motor, MOT08-045. Press Start. **The motor runs.**

Y N

Go to **Flag 2**. Check MOT08-045. Refer to:

- **GP 10** How to Check a Motor.
- **P/J398**, **HCF control PWB**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Tray 3 and 4 transport motor, **PL 8.30 Item 7**.
- HCF control PWB, **PL 7.20 Item 2**.

A

A

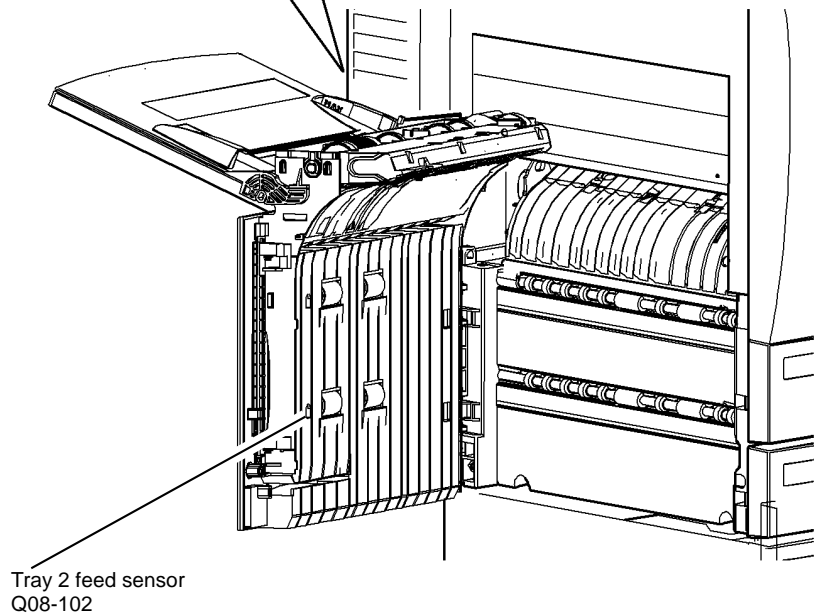
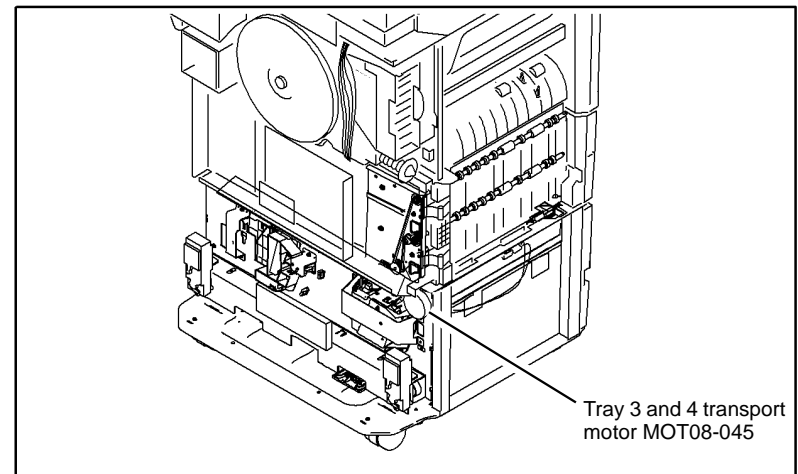
**The transport rolls rotate.**

Y N

Check the gears and drive belt, [PL 8.30 Item 8](#), [PL 8.30 Item 9](#), [GP 7](#).

Perform the following:

- Check the tray 3 and tray 4 transport rolls, [PL 8.30 Item 18](#), [GP 7](#).
- If the fault occurs when feeding from tray 4. Go to RAP [08-104](#), [08-114](#) Tray 4 Misfeed RAP.
- If the fault occurs when feeding from tray 3. Check the following, [GP 7](#):
  - The takeaway roll assembly, [PL 8.35 Item 2](#).
  - The transport roll assembly, [PL 8.35 Item 11](#).
  - The transport roll bearing, [PL 8.35 Item 3](#).
  - Go to RAP [08-103](#), [08-113](#) Tray 3 Misfeed RAP



T-1-0093-A

**Figure 1 Component location**

# 08-108B Tray 3 or Tray 4 Paper Feed Jam RAP (W/TAG 151)

## Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use go to the 08-108 Tray 3 or Tray 4 Paper Feed Jam Entry RAP.
- Check the condition of the paper in tray 3 and tray 4. Refer to IQ1 and GP 20.
- Check for obstructions in the paper path.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, PL 7.30 Item 23. Bias the cover to the right and tighten the two screws
- Ensure that the left door assembly is pushed fully home.

## Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter dC330 code 08-102 tray 2 feed sensor, Q08-102. Press Start. Manually actuate the sensor, Figure 1. **The display changes.**

Y N

Go to Flag 1. Check Q08-102. Refer to:

- GP 11 How to Check a Sensor.
- P/J276, Tray 1 and 2 control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 2 feed sensor, PL 7.30 Item 24.
- Tray 1 and 2 control PWB, PL 7.10 Item 2.

Enter dC330 code 08-045 HCF transport motor, MOT08-045. Press Start. **The motor runs.**

Y N

Go to Flag 2. Check MOT08-045. Refer to:

- GP 10 How to Check a Motor.
- P/J6, HCF control PWB.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- HCF transport motor, PL 8.32 Item 10.
- HCF control PWB, PL 7.21 Item 2.

**The transport rolls rotate.**

Y N

Refer to Figure 2. Check the following, install new components as necessary:

A

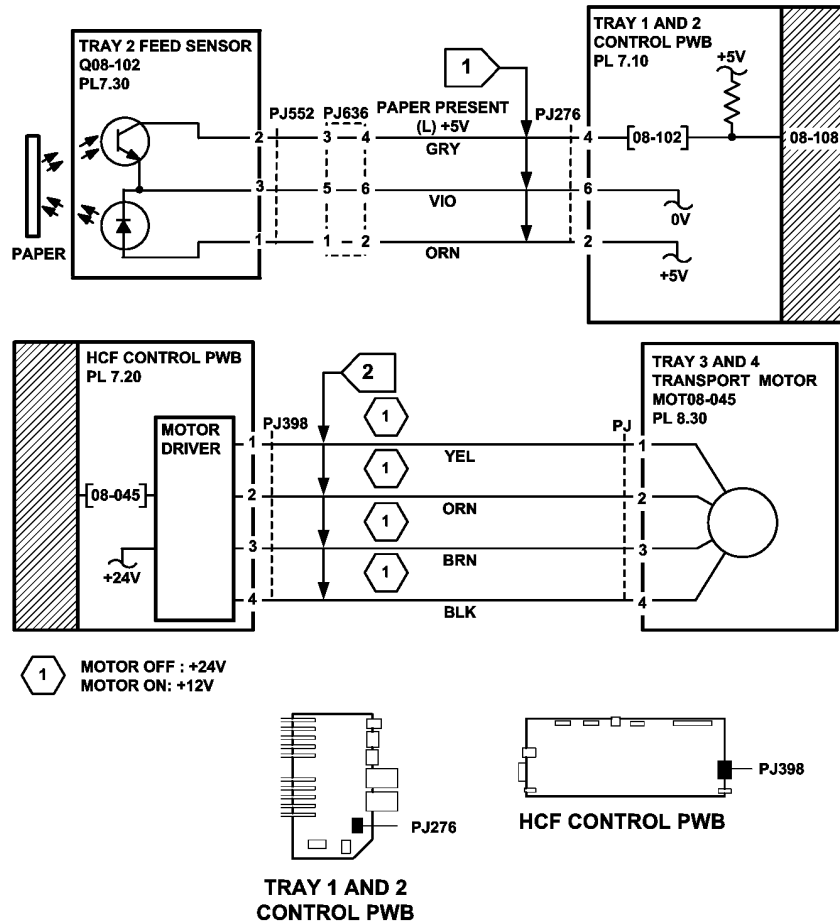


Figure 2 Circuit diagram

TT-1-0132-B

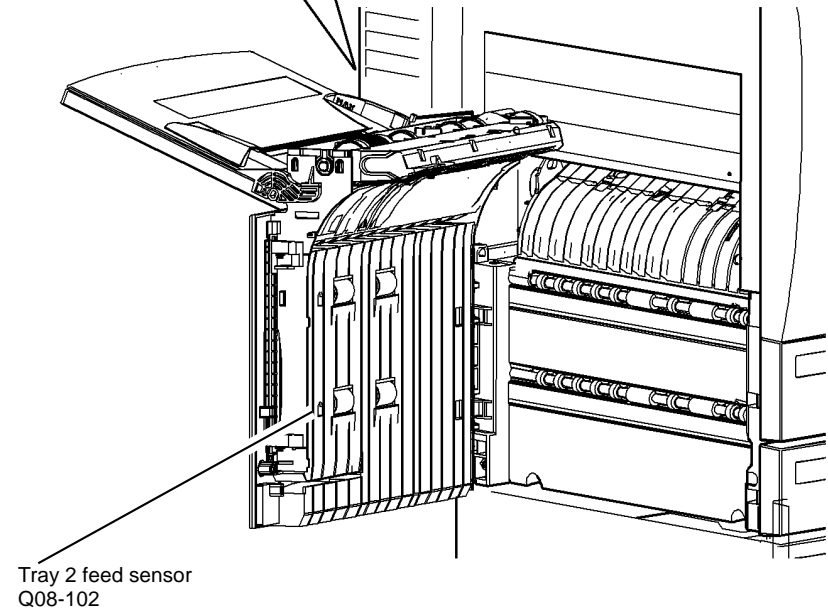
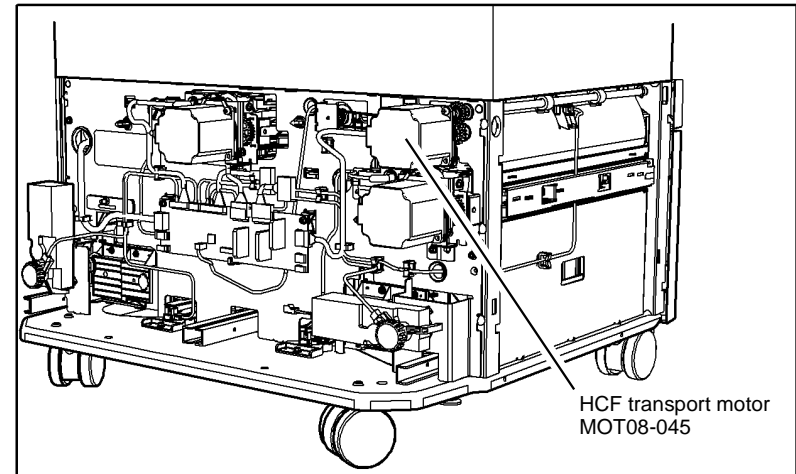


A

- Drive belt, PL 8.36 Item 6.
- Drive coupling, PL 8.36 Item 7.
- Idler roll assembly, PL 8.36 Item 8.
- Tray 3 and 4 transport roll, PL 8.32 Item 4.

Perform the following:

- If the fault occurs when feeding from tray 3, go to 08-132 Tray 3 Paper Feed Jam RAP (W/TAG 151).
- If the fault occurs when feeding from tray 4, go to 08-133 Tray 4 Paper Feed Jam RAP (W/TAG 151).



T-1-1259-A

Figure 1 Component location

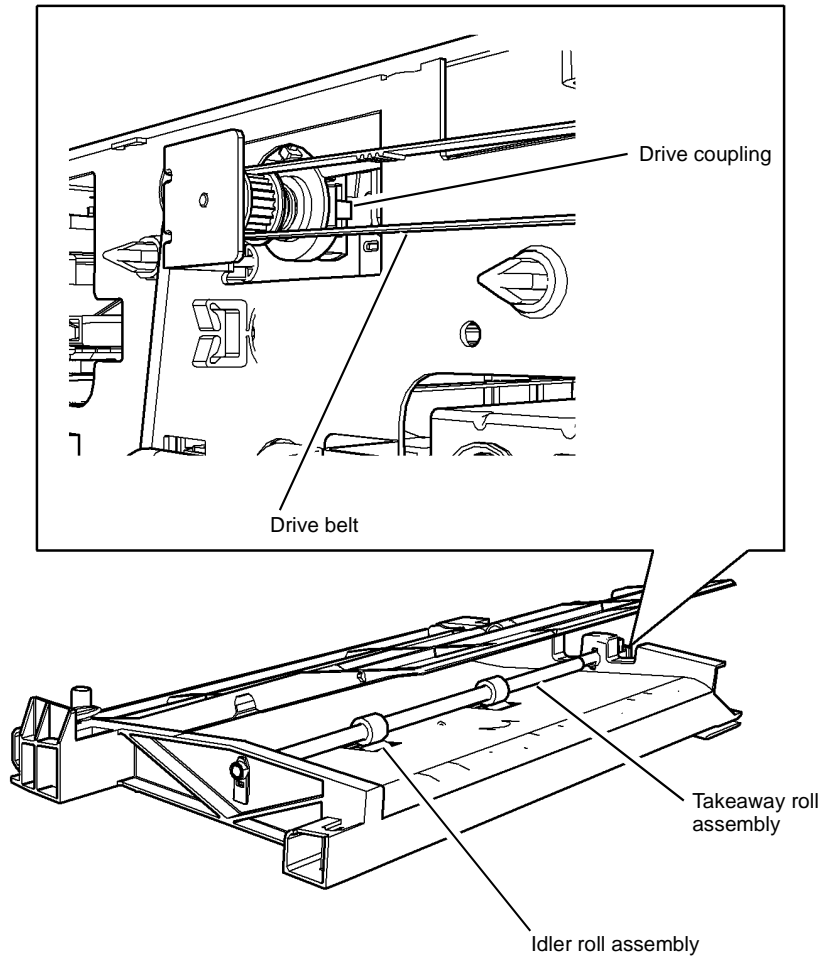


Figure 2 Component location

T-1-1260-A

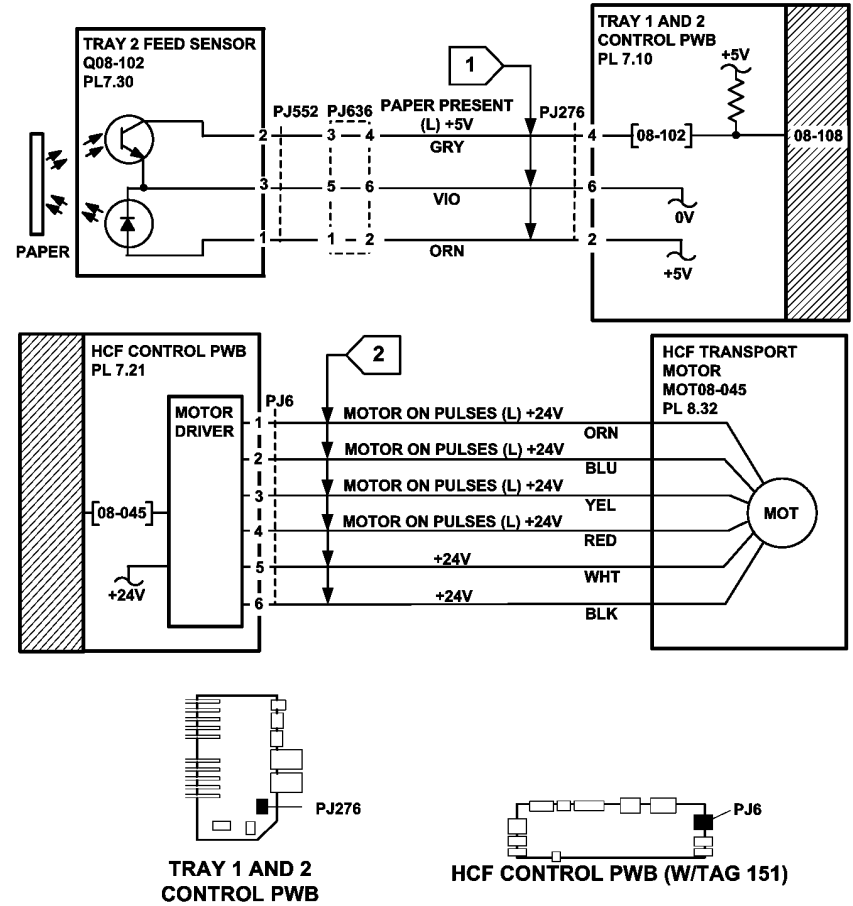


Figure 3 Circuit diagram

TT-1-1261-A

## 08-115, 08-117 Tray 5 Misfeed RAP

**08-115** The lead edge of the paper was late to the wait point sensor.

**08-117** The lead edge of the paper failed to reach the feed sensor within the correct time after paper feed.

### Procedure

Identify the speed of the machine, refer to [SCP 7](#) Machine features. Perform one of the steps that follow:

- If the speed of the machine is 35-55 ppm, go to [08-115A](#), [08-117A](#) Tray 5 Misfeed RAP (35-55 ppm)
- If the speed of the machine is 65-90 ppm, go to [08-115B](#), [08-117B](#) Tray 5 Misfeed RAP (65-90 ppm).

## 08-115A, 08-117A Tray 5 Misfeed RAP (35-55 ppm)

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [08-115](#), [08-117](#) Tray 5 Misfeed RAP.
- Check the condition of the paper in tray 5. Refer to [IQ1](#) and [GP 20](#).
- Check that the left hand door is correctly latched, [Figure 2](#).
- Check that the paper tray is set to the correct paper size.
- Check that tray 5 is set to the correct paper configuration. Enter [dC131](#) NVM chain 8, at location [08-313](#) Tray 5 Configuration.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-105 tray 5 feed sensor, Q08-105, [Figure 1](#). Press Start. Manually actuate the sensor. **The display changes.**

Y N

Go to [Flag 1](#). Check Q08-105. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J505](#), [Tray 5 control PWB](#)
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 feed sensor, [PL 8.45](#) Item 6.
- Tray 5 control PWB, [PL 7.68](#) Item 8.

Enter [dC330](#) code 08-117 tray 5 feed motor, MOT08-117. Open the door. Press Start. **The motor runs.**

Y N

Go to [Flag 4](#). Check MOT08-117. Refer to:

- [GP 10](#) How to Check a motor.
- [P/J511](#), [Tray 5 control PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Tray 5 feed motor, [PL 8.40](#) Item 3.
- Tray 5 control PWB, [PL 7.68](#) Item 8.

**The feed shaft rotates.**

- Y N**  
Check the drive gears between the motor and the feed shaft. Install new components as necessary:
- Motor drive gear, [PL 8.40 Item 5](#).
  - Gear 30T bearing, [PL 8.40 Item 21](#).
  - Gear, [PL 8.45 Item 14](#).

#### The feed roll rotates

- Y N**  
Check the one way coupling, feed roll and clutch. Install new components as necessary:
- One way coupling, [PL 8.45 Item 4](#).
  - Clutch, [PL 8.45 Item 13](#).
  - Feed roll, [PL 8.45 Item 12](#).

#### The nudger roll rotates

- Y N**  
Check the nudger roll and the one way gear. Check the drive belt between the feed roll and the nudger roll. Install new components as necessary:
- One way gear, [PL 8.45 Item 3](#).
  - Drive belt, [PL 8.40 Item 7](#).
  - Nudger roll, [PL 8.45 Item 10](#).

#### The retard roll rotates

- Y N**  
Check the retard roll, retard clutch and clutch. Install new components as necessary:
- Retard clutch, [PL 8.47 Item 11](#).
  - Clutch, [PL 8.47 Item 7](#).
  - Retard roll, [PL 8.47 Item 2](#).

Enter [dC330](#) code 08-046 tray 5 transport motor, MOT08-046. Press Start. **The motor runs.**

- Y N**  
Go to [Flag 3](#). Check MOT08-046. Refer to:
- [GP 10](#) How to Check a Motor.
  - [P/J503](#), [Tray 5 control PWB](#)
  - [01G](#) +24V Distribution RAP.
  - [01B](#) 0V Distribution RAP.
- Install new components as necessary:
- Tray 5 transport motor, [PL 8.40 Item 2](#).
  - Tray 5 control PWB, [PL 7.68 Item 8](#).

Run the motor for 30 seconds. **The motor runs at a constant speed, without slowing.**

- Y N**  
Install a new tray 5 transport motor, [PL 8.40 Item 2](#).

#### The take away roller rotates.

- Y N**  
Check the drive belt and the one way pulley clutch for damage, [GP 7](#). Check the belt tensioner. Install new components as necessary:
- Drive belt, [PL 8.40 Item 7](#).

- A**
- One way pulley clutch, [PL 8.47 Item 4](#).
  - Take away roller, [PL 8.47 Item 5](#).

Enter [dC330](#) code 08-110 T5 wait point sensor, Q08-110. Press Start.

**NOTE:** For trays 1 to 5 the input code 08-100 wait sensor is used to check the operation of the wait sensor. In addition tray 5 uses the input code 08-110 T5 wait point sensor, to check the paper present signal from the IOT PWB to the tray 5 control PWB.

Open the left hand door and manually actuate the wait sensor, [Figure 2](#). **The display changes.**

- Y N**  
Enter [dC330](#) code 08-100 wait sensor, Q08-100. Press Start. Manually actuate the wait sensor, [Figure 2](#). **The display changes.**

- Y N**  
Go to [Flag 2](#). Check Q08-100. Refer to:
- [GP 11](#) How to Check a Sensor.
  - [P/J5](#), [IOT PWB](#).
  - [01D](#) +3.3V Distribution RAP.
  - [01B](#) 0V Distribution RAP.
- Install new components as necessary:
- Wait sensor, [PL 8.15 Item 3](#).
  - Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Go to [Flag 5](#). Manually actuate the wait sensor. Check for a signal change on the IOT PWB at [P/J12](#) pin 10 and on the tray 5 control PWB at [P/J512](#) pin 5.

Check the wiring between the IOT PWB and the tray 5 control PWB.

- Install new components as necessary:
- Tray 5 control PWB, [PL 7.68 Item 8](#).
  - Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Perform the steps that follow:

- [ADJ 7.6](#) Tray 5 Stack Height Sensor and Retard Shield.
- Clean the feed roll using a cloth dampened with water.
- Install a new feed, nudger and retard roll, [PL 8.45 Item 21](#).

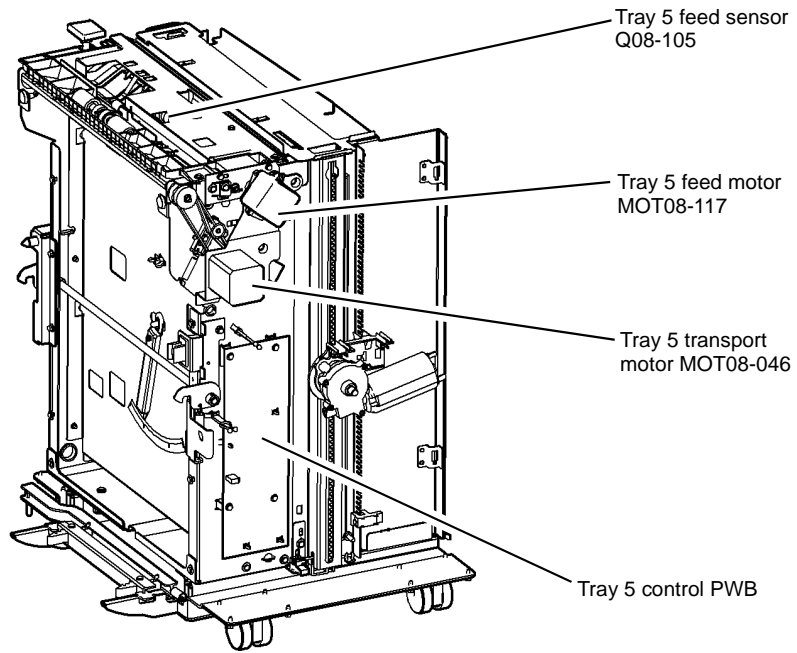


Figure 1 Component location

T-1-0094-A

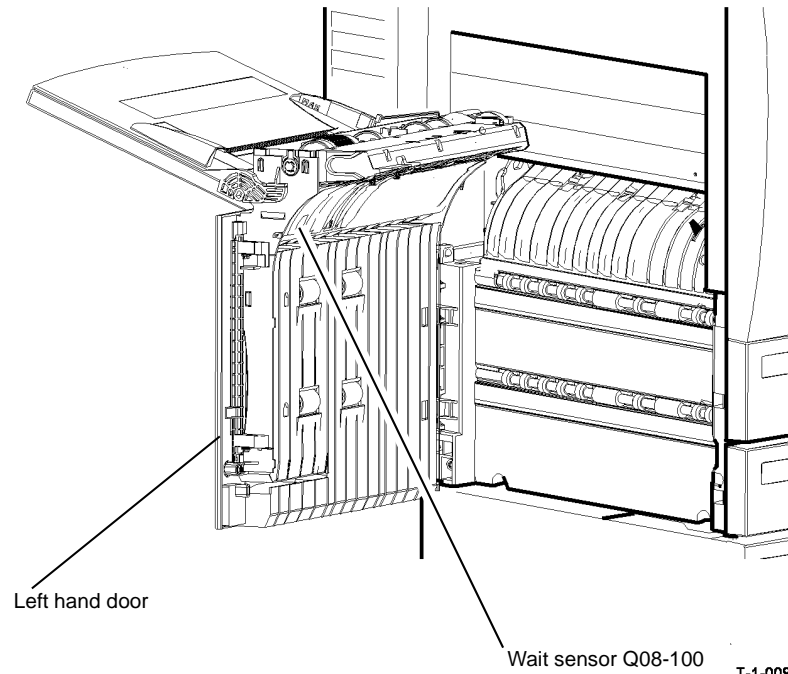


Figure 2 Component location

T-1-0095-A

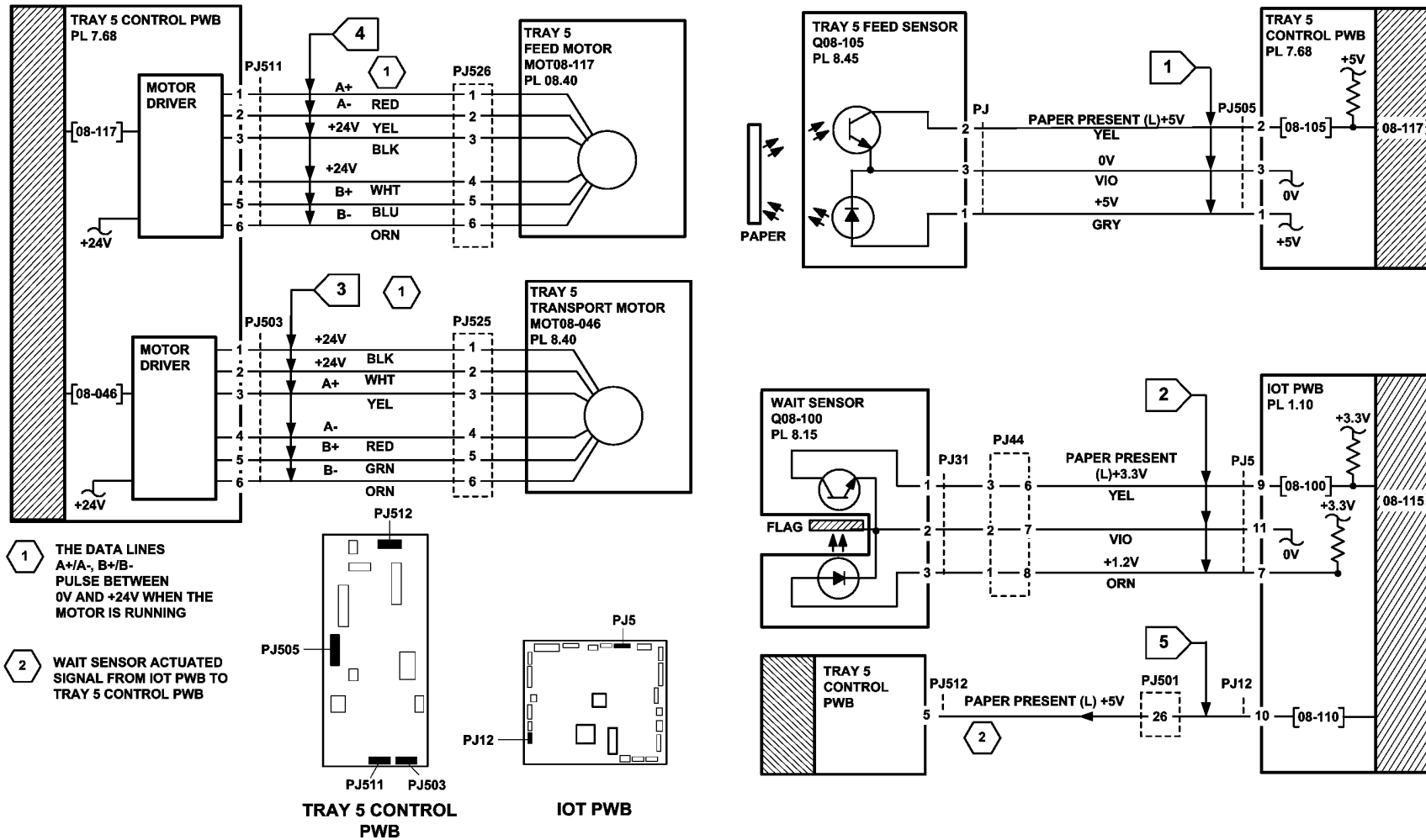


Figure 3 Circuit diagram

TT-1-0133-A

## 08-115B, 08-117B Tray 5 Misfeed RAP (65-90 ppm)

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 08-115, 08-117 Tray 5 Misfeed RAP.
- Check the condition of the paper in tray 5. Refer to IQ1 and GP 20.
- Check that the left hand door is correctly latched, Figure 2.
- Check that the paper tray is set to the correct paper size.
- Check that tray 5 is set to the correct paper configuration. Enter dC131 NVM chain 8, at location 08-313 Tray 5 Configuration.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter dC330 code 08-105 tray 5 feed sensor, Q08-105, Figure 1. Press Start. Manually actuate the sensor. **The display changes.**

- Y N
- Go to Flag 1. Check Q08-105. Refer to:
- GP 11 How to Check a Sensor.
  - P/J505, Tray 5 control PWB
  - 01E +5V Distribution RAP.
  - 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 5 feed sensor, PL 8.45 Item 6.
- Tray 5 control PWB, PL 7.68 Item 8.

Enter dC330 code 08-117 tray 5 feed motor, MOT08-117. Open the door. Press Start. **The motor runs.**

- Y N
- Go to Flag 4. Check MOT08-117. Refer to:
- GP 10 How to Check a motor.
  - P/J511, Tray 5 control PWB.
  - 01G +24V Distribution RAP.
  - 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 5 feed motor, PL 8.40 Item 3.
- Tray 5 control PWB, PL 7.68 Item 8.

**The feed shaft rotates.**

- Y N
- Check the drive gears between the motor and the feed shaft. Install new components as necessary:
- Motor drive gear, PL 8.40 Item 5.
  - Gear 30T bearing, PL 8.40 Item 21.
  - Gear, PL 8.45 Item 14.

#### The feed roll rotates

- Y N
- Check the one way coupling, feed roll and clutch. Install new components as necessary:
- One way coupling, PL 8.45 Item 4.
  - Clutch, PL 8.45 Item 13.
  - Feed roll, PL 8.45 Item 12.

#### The nudger roll rotates

- Y N
- Check the nudger roll and the one way gear. Check the drive belt between the feed roll and the nudger roll. Install new components as necessary:
- One way gear, PL 8.45 Item 3.
  - Drive belt, PL 8.40 Item 7.
  - Nudger roll, PL 8.45 Item 10.

#### The retard roll rotates

- Y N
- Check the retard roll, retard clutch and clutch. Install new components as necessary:
- Retard clutch, PL 8.47 Item 11.
  - Idler roll, PL 8.47 Item 7.
  - Retard roll, PL 8.47 Item 2.

Enter dC330 code 08-046 tray 5 transport motor, MOT08-046. Press Start. **The motor runs.**

- Y N
- Go to Flag 3. Check MOT08-046. Refer to:
- GP 10 How to Check a Motor.
  - P/J503, Tray 5 control PWB
  - 01G +24V Distribution RAP.
  - 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 5 transport motor, PL 8.40 Item 2.
- Tray 5 control PWB, PL 7.68 Item 8.

Run the motor for 30 seconds. **The motor runs at a constant speed, without slowing.**

- Y N
- Install a new tray 5 transport motor, PL 8.40 Item 2.

#### The take away roller rotates.

- Y N
- Check the drive belt and the one way pulley clutch for damage, GP 7. Check the belt tensioner. Install new components as necessary:
- Drive belt, PL 8.40 Item 7.

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- One way pulley clutch, [PL 8.47 Item 4](#).
- Take away roller, [PL 8.47 Item 5](#).

Enter [dC330](#) code 08-110 T5 wait point sensor, Q08-110. Press Start.

**NOTE:** For trays 1 to 5 the input code 08-100 wait sensor is used to check the operation of the wait sensor. In addition tray 5 uses the input code 08-110 T5 wait point sensor, to check the paper present signal from the IOT PWB to the tray 5 control PWB.

Open the left hand door and manually actuate the wait sensor, [Figure 2](#). The display changes.

Y N

Enter [dC330](#) code 08-100 wait sensor, Q08-100. Press Start.

Manually actuate the wait sensor, [Figure 2](#). The display changes.

Y N

Go to [Flag 2](#). Check Q08-100. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J16](#), IOT PWB.
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Wait sensor, [PL 7.30 Item 24](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Go to [Flag 5](#). Manually actuate the wait sensor.

Check for a signal change on the IOT PWB at [P/J12](#) pin 10 and on the Tray 5 control PWB at [P/J512](#) pin 5.

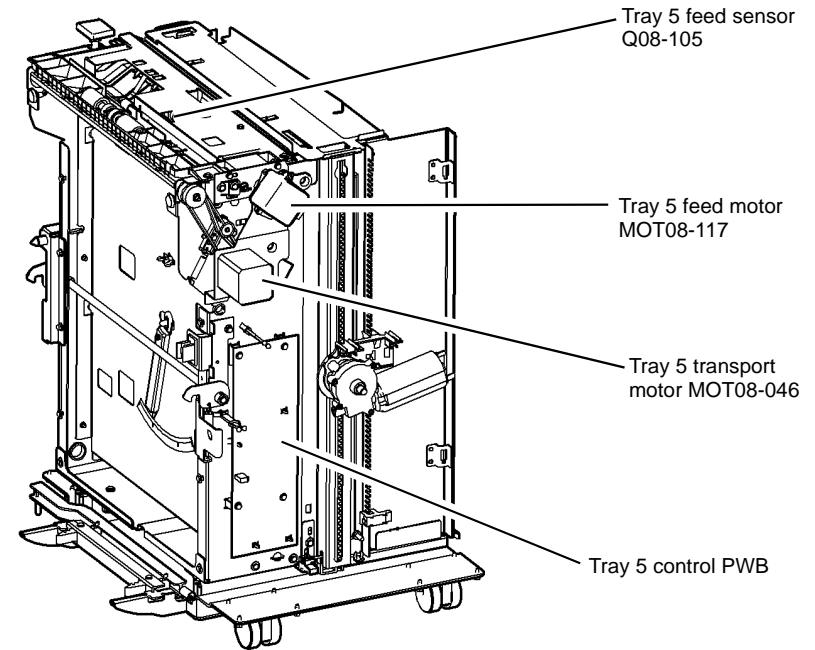
Check the wiring between the IOT PWB and the tray 5 control PWB.

Install new components as necessary:

- Tray 5 control PWB, [PL 7.68 Item 8](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Perform the steps that follow:

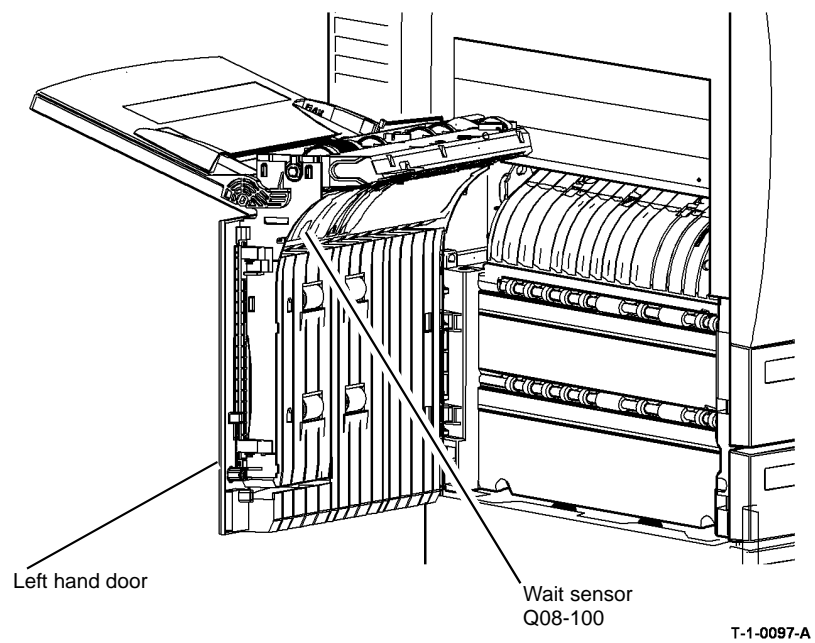
- [ADJ 7.6](#) Tray 5 Stack Height Sensor and Retard Shield.
- Clean the feed roll using a cloth dampened with water.
- Install a new feed, nudger and retard roll, [PL 8.45 Item 21](#).



T-1-0096-A

Figure 1 Component location





**Figure 2 Component location**

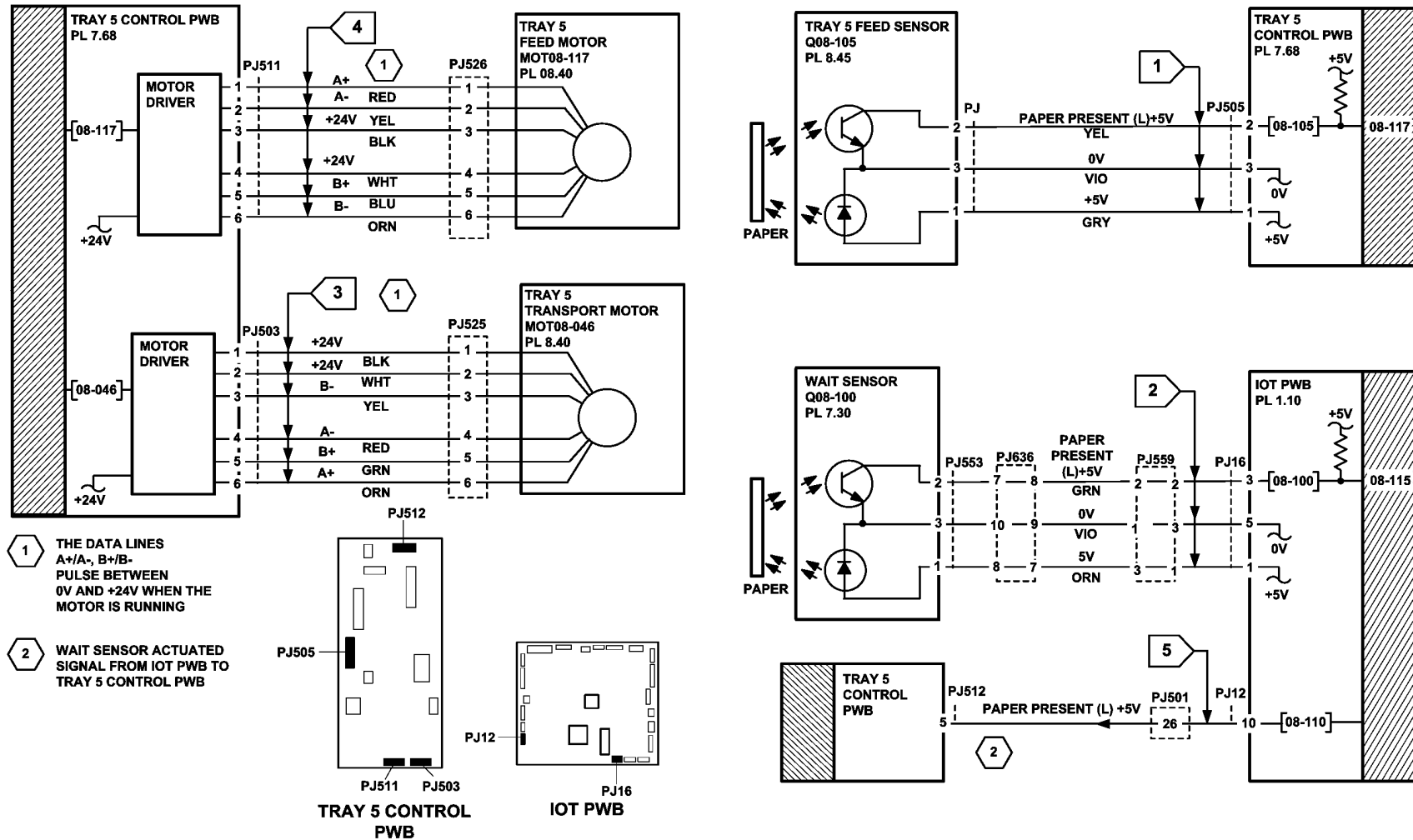


Figure 3 Circuit diagram

TT-1-0134-B

## 08-131 Lead Edge Late to Tray 3 Exit Sensor RAP (W/TAG 151)

08-131 The lead edge of the paper is late to the tray 3 exit sensor.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper in tray 3. Refer to IQ1 and GP 20.
- Ensure that the tray is pushed fully home.
- If a misfeed occurs between 15 and 20 paper feeds, then go to 07-355 Tray 3 Elevator Lift Failure RAP.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Locate the tray 3 exit sensor, Q08-109. Figure 2. Enter dC330 code 08-109 tray 3 exit sensor, Q08-109. Press Start. Manually actuate the sensor using white paper. **The display changes.**

Y N

Go to Flag 1. Check Q08-109. Refer to:

- GP 11 How to Check a Sensor.
- P/J19, HCF control PWB.
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 3 exit sensor, PL 8.32 Item 6.
- HCF control PWB, PL 7.21 Item 2.



#### CAUTION

To prevent damage to the feed mechanism, the paper tray must be pulled out before MOT 08-030 is run in diagnostics.

Enter dC330 code 08-030 tray 3 feed motor, MOT08-030. Pull out the tray. Press Start. **The motor runs.**

Y N

Go to Flag 3. Check MOT08-030. Refer to:

- GP 10 How to Check a Motor.
- P/J4, HCF control PWB.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 3 feed motor, PL 8.32 Item 11.
- HCF control PWB, PL 7.21 Item 2.

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Locate the tray 3 feed clutch, CL08-033. Figure 1. Enter dC330 code 08-030 tray 3 feed motor, MOT08-030, stack the code 08-033 tray 3 feed clutch, CL08-033. Pull out tray 3 and observe the tray 3 feed and nudge rolls. Press Start. **The rolls rotate.**

Y N

Go to Flag 3. Check CL08-033. Refer to:

- GP 12 How to Check a Solenoid or Clutch.
- P/J4, HCF control PWB.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tray 3 paper feed assembly, PL 8.32 Item 1.
- HCF control PWB, PL 7.21 Item 2.

Perform the following:

- Clean the feed roll, nudge roll and retard roll using a cloth dampened with water.
- Check the feed roll, nudge roll and retard roll for wear. If necessary install a new feed roll kit (W/TAG 151), PL 31.11.

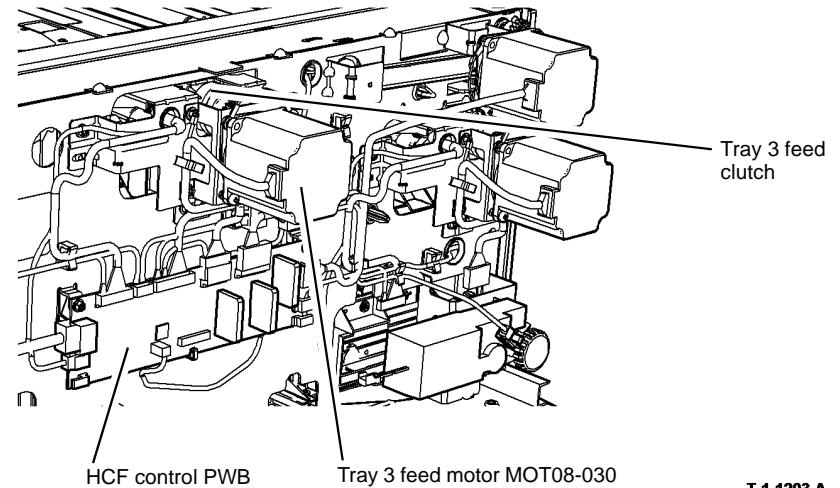


Figure 1 Component location

T-1-1203-A

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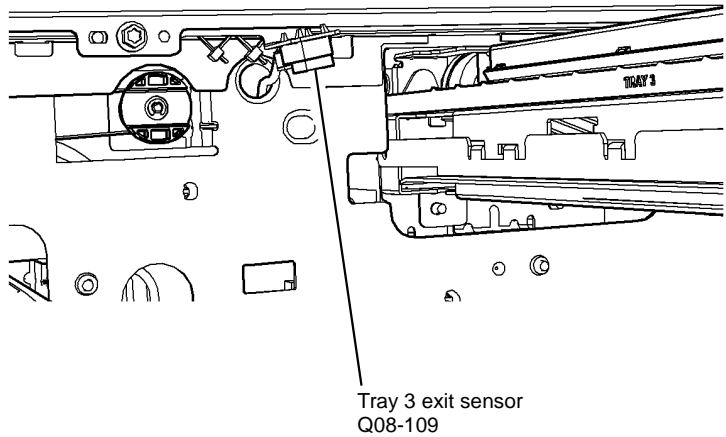
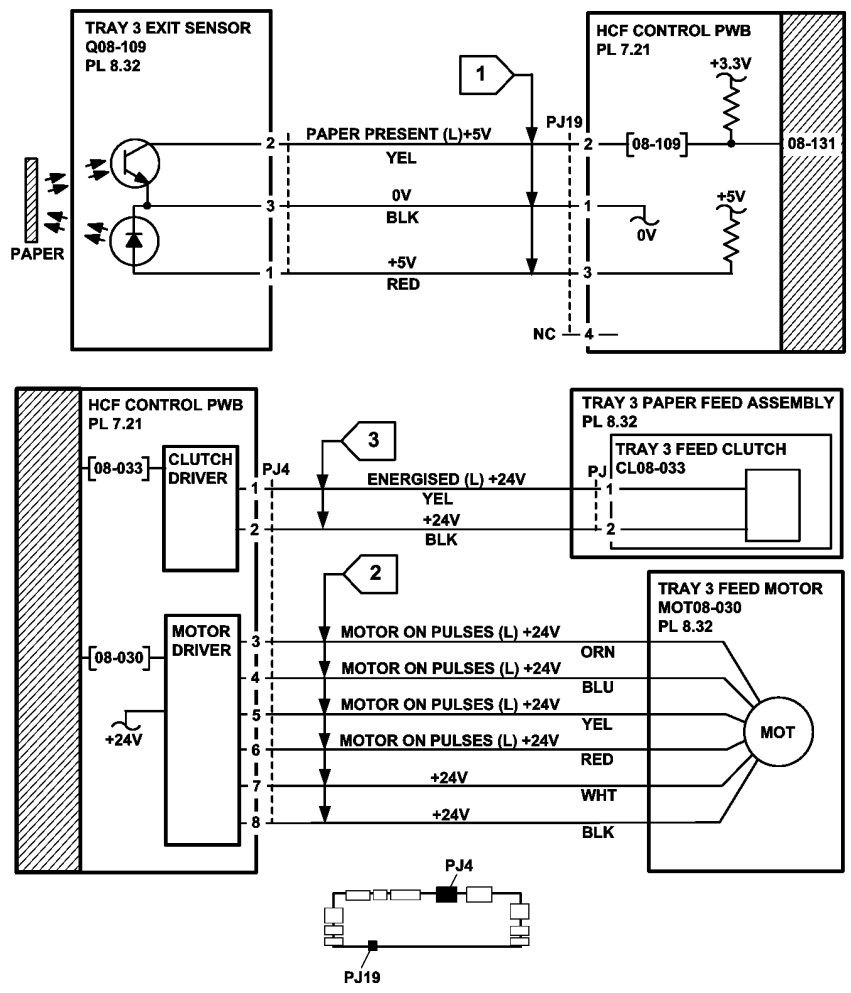


Figure 2 Component location

T-1-1226-A



HCF CONTROL PWB (W/TAG 151)

TT-1-0290-A

Figure 3 Circuit diagram

## 08-132 Tray 3 Paper Feed Jam RAP (W/TAG 151)

08-132 The lead edge of the paper was late to the HCF exit sensor when feeding from tray 3.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper in tray 3. Refer to IQ1 and GP 20.
- Check for obstructions in tray 3 paper path, Figure 2.
- Check the HCF exit sensor, Figure 1.
- Ensure that the tray is pushed fully home.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter dC330 code 08-108 HCF exit sensor, Q08-104. Press Start. Manually actuate the HCF exit sensor. **The display changes.**

- Y N
- Go to Flag 1. Check Q08-108. Refer to:
- GP 11 How to Check a Sensor.
  - P/J3, HCF control PWB.
  - 01E +5V Distribution RAP.
  - 01B 0V Distribution RAP.
- Install new components as necessary:
- HCF exit sensor, PL 8.33 Item 3.
  - HCF control PWB, PL 7.21 Item 2.

Enter dC330 code 08-045 HCF transport motor, MOT08-045. Press Start. **The motor runs.**

- Y N
- Go to Flag 2. Check MOT08-045. Refer to:
- GP 10 How to Check a Motor.
  - P/J6, HCF control PWB.
  - 01G +24V Distribution RAP.
  - 01B 0V Distribution RAP.
- Install new components as necessary:
- HCF transport motor, PL 8.36 Item 13.
  - HCF control PWB, PL 7.21 Item 2.

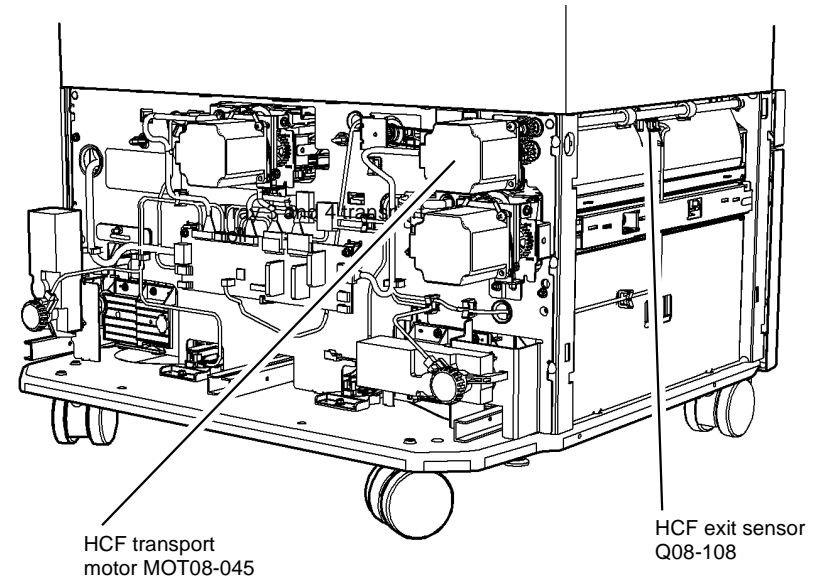
**The transport rolls rotate.**

- Y N
- Check the following:
- Figure 2, drive belt, PL 8.36 Item 6.
  - Figure 2, drive coupling, PL 8.36 Item 7.

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- Figure 2, idler roll assembly, PL 8.36 Item 8.
- Tray 3 and 4 transport roll, PL 8.32 Item 4

Perform the 08-103, 08-113 Tray 3 Misfeed RAP.



T-1-1204-A

Figure 1 Component location

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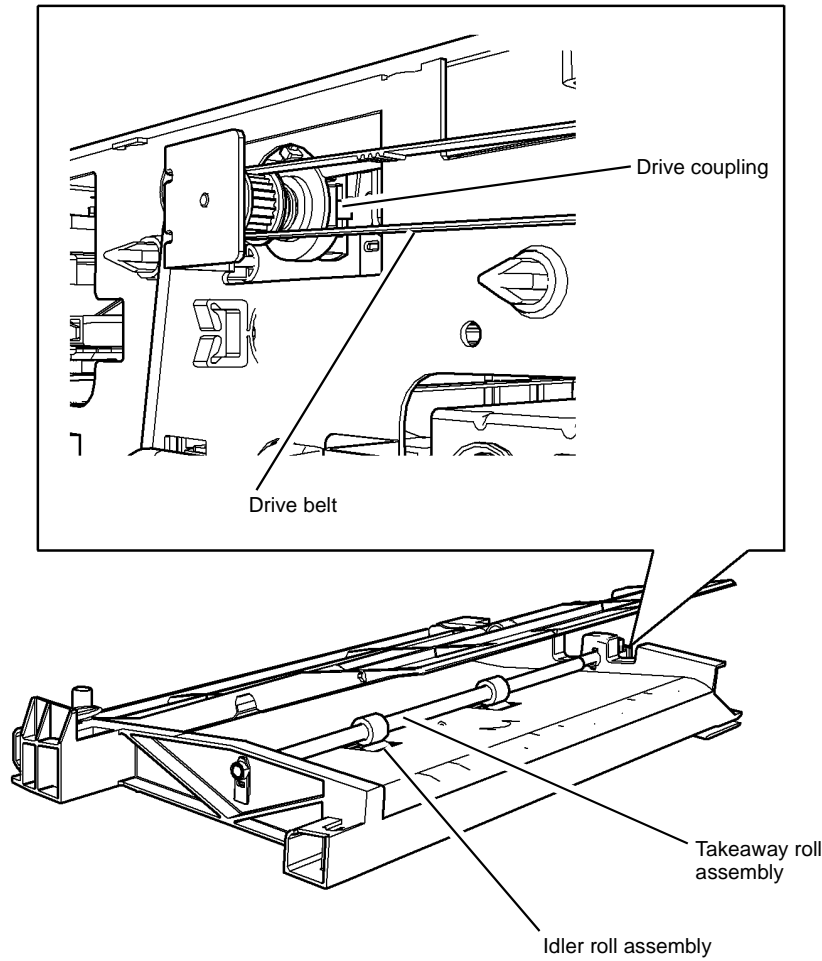
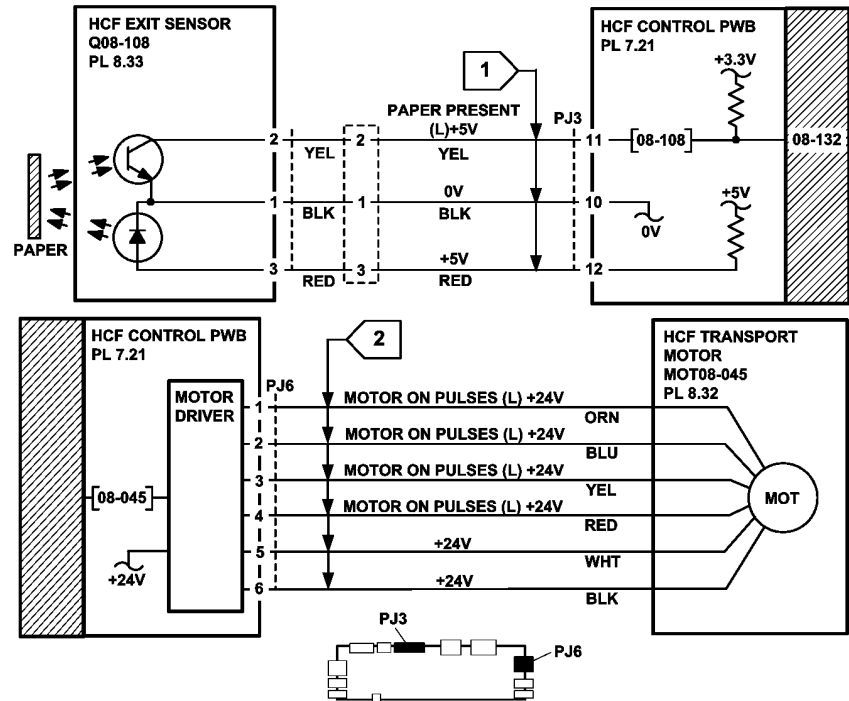


Figure 2 Component location

T-1-1205-A



HCF CONTROL PWB (W/TAG 151)  
Figure 3 Circuit diagram

TT-1-0292-A

## 08-133 Tray 4 Paper Feed Jam RAP (W/TAG 151)

08-133 The lead edge of the paper was late to the HCF exit sensor when feeding from tray 4.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper in tray 4. Refer to IQ1 and GP 20.
- Check the HCF exit sensor, Figure 1.
- Ensure that the tray is pushed fully home.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter dC330 code 08-108 HCF exit sensor, Q08-104. Press Start. Manually actuate the HCF exit sensor. **The display changes.**

- Y N
- Go to Flag 1. Check Q08-108. Refer to:
- GP 11 How to Check a Sensor.
  - P/J3, HCF control PWB.
  - 01E +5V Distribution RAP.
  - 01B 0V Distribution RAP.
- Install new components as necessary:
- HCF exit sensor, PL 8.33 Item 3.
  - HCF control PWB, PL 7.21 Item 2.

Enter dC330 code 08-045 HCF transport motor, MOT08-045. Press Start. **The motor runs.**

- Y N
- Go to Flag 2. Check MOT08-045. Refer to:
- GP 10 How to Check a Motor.
  - P/J6, HCF control PWB.
  - 01G +24V Distribution RAP.
  - 01B 0V Distribution RAP.
- Install new components as necessary:
- HCF transport motor, PL 8.36 Item 13.
  - HCF control PWB, PL 7.21 Item 2.

**The transport rolls rotate.**

- Y N
- Check the tray 3 and 4 transport roll, PL 8.32 Item 4

Perform the 08-104, 08-114 Tray 4 Misfeed RAP.

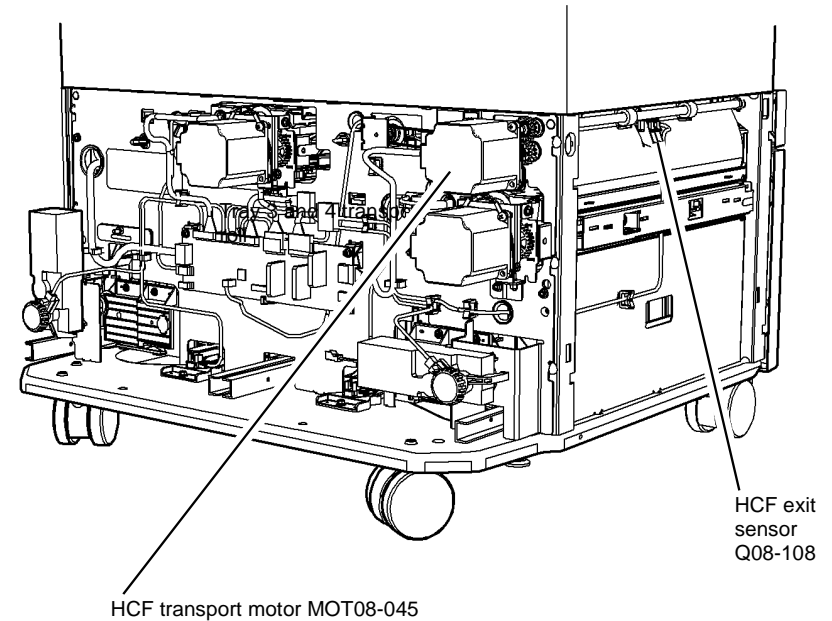


Figure 1 Component location

T-1-1206-A

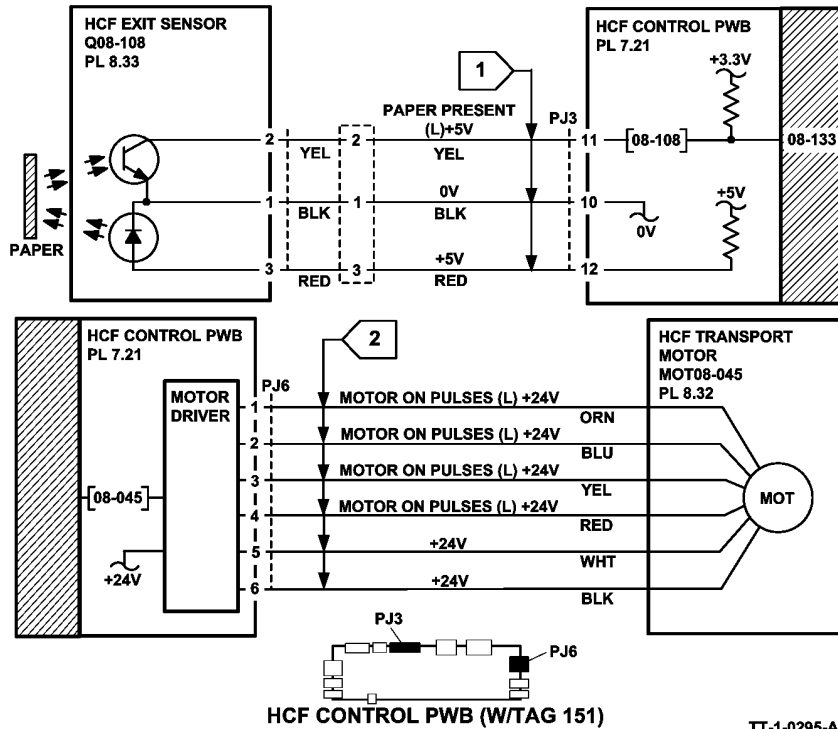


Figure 2 Circuit diagram

TT-1-0295-A

## 08-150, 08-151 Registration Jam Entry RAP

**08-150** The lead edge of the paper failed to actuate the registration sensor within the correct time after the paper was released from the wait point.

**08-151** The trail edge of the paper was late to the registration sensor after the registration clutch, CL08-070 on.

### Procedure

Identify the speed of the machine, refer to [SCP 7 Machine features](#). Perform one of the steps that follow:

- If the speed of the machine is 35-55 ppm, go to [08-150A](#), [08-151A](#) Registration Jam RAP (35-55 ppm)
- If the speed of the machine is 65-90 ppm, go to [08-150B](#), [08-151B](#) Registration Jam RAP (65-90 ppm).



## 08-150A, 08-151A Registration Jam RAP (35-55 ppm)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the **08-150, 08-151** Registration Jam Entry RAP.
- Check the condition of the paper in all trays. Refer to **IQ1** and **GP 20**.
- Check for obstructions in the paper path.
- Check the registration sensor actuator and the wait sensor actuator, **Figure 1**.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, **PL 7.30 Item 23**. Push the cover to the right and tighten the screws
- Check that the short paper path assembly latches without excessive force, **PL 10.25 Item 1**. Go to **REP 10.1**. In Replacement Step 5, check the latch mechanism.
- If the fault code is 08-151 and two sheets of paper are jammed at the registration rolls. Go to **OF8** Multifeed RAP.
- If the fault code 08-151 occurs from the bypass tray. Go to the **07D** Bypass Tray RAP.
- If the power and control assembly has been moved prior to a 08-150. Check that PJ148 is pushed fully home on the **Main Drives PWB**.
- Check the transport drive belt.
- Ensure that all connectors on the tray 1 and 2 Control PWB, **PL 7.10 Item 2** and on the IOT PWB, **PL 1.10 Item 2** are correctly and securely seated.
- If the fault is 08-150 and the paper is fed from tray 1 or tray 2. Check if the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install **TAG 002** on the paper tray to constrain the effect of the curl.
- Check for skew, refer to **IQ8**.
- If the fault occurs when feeding from tray 5, perform **ADJ 7.6** Tray 5 Stack Height Sensor and Retard Shield.

### Procedure

**NOTE:** Ensure that the front door interlock is cheated when checking +24V components.

Enter **dC330** code 08-150 registration sensor, Q08-150. Press Start. Open the left hand door and manually actuate the registration sensor. **The display changes.**

Y N

Go to **Flag 1**. Check Q08-150. Refer to:

- **GP 11** How to check a Sensor.
- **P/J5, IOT PWB**.
- **01D +3.3V** Distribution RAP.
- **01B 0V** Distribution RAP.

Install new components as necessary:

- Registration sensor, (35-55 ppm) **PL 8.15 Item 3**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

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Enter **dC330** code 08-100 wait sensor, Q08-100. Press Start.

Open the left hand door and manually actuate the wait sensor. **The display changes.**

Y N

Go to **Flag 2**. Check Q08-100. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J5, IOT PWB**.
- **01D +3.3V** Distribution RAP.
- **01B 0V** Distribution RAP.

Install new components as necessary:

- Wait sensor, (35-55 ppm) **PL 8.15 Item 3**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 04-010 main drive motor. Press Start. **The motor runs.**

Y N

Go to the **04A** Main Drive Motor and Photoreceptor Motor RAP.

While the motor is running, add code 08-070 registration clutch, CL08-070. Press Start.

**NOTE:** The registration clutch will switch off after 5 seconds.

Switch the registration clutch on / off up to 10 times. **The jam clearance knob 4c, PL 8.15 Item 10, rotates when the registration clutch is energized.**

Y N

Go to **Flag 3**. Check CL08-070. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.
- **P/J5, IOT PWB**.
- **P/J17, LVPS**.
- Fuse, **PL 1.10 Item 9, GP 7**.
- **01G +24V** Distribution RAP.
- **01B 0V** Distribution RAP.

Install new components as necessary:

- Registration clutch, (35-55 ppm) **PL 8.15 Item 7**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Perform the following:

- Check the registration transport rolls and registration rolls, (35-55 ppm) **PL 8.15 Item 1, GP 7**.
- Check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in **REP 8.5**. If necessary, install a new registration clutch, **PL 8.15 Item 7**.
- Check the tray 1 and 2 transport motor, **PL 8.25 Item 5**. Ensure that the motor runs correctly.
- Check the tray 1 and 2 transport roll assemblies, transport drive belt and pulleys, **PL 8.25 Item 2, PL 8.25 Item 3, GP 7**. Install new components as necessary.
- Install a new tray 1 and 2 control PWB, **PL 7.10 Item 2**.
- Refer to **Figure 2**. Make sure PJ44 is securely connected.
- Check the fuser drive gear, **PL 4.17 Item 10** for wear. If necessary, install a new fuser drive gear.

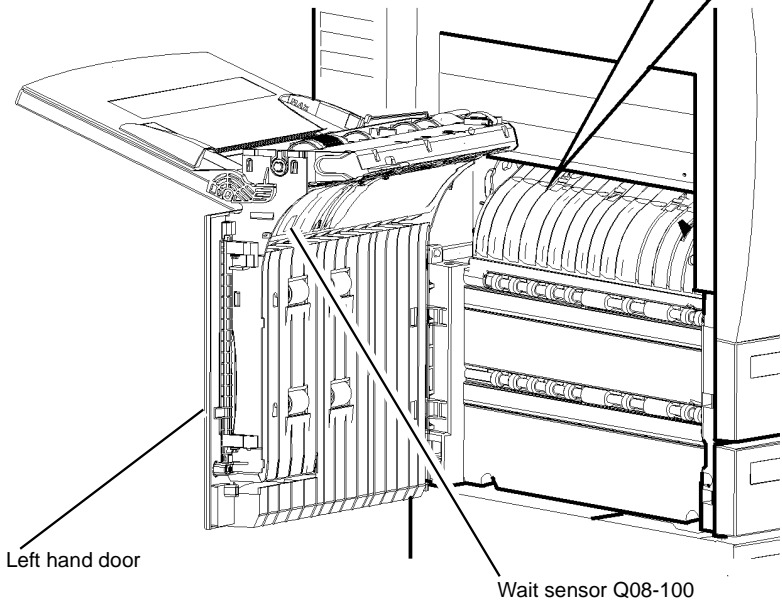
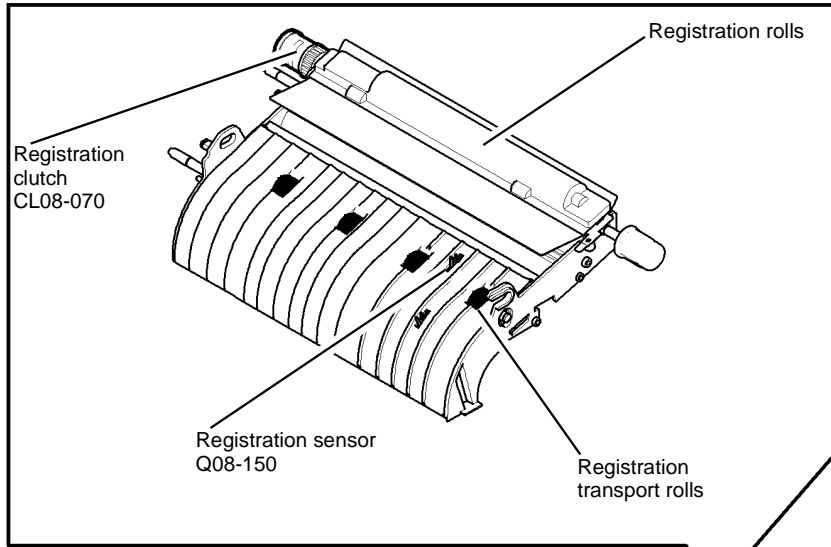


Figure 1 Component location

T-1-0098-A

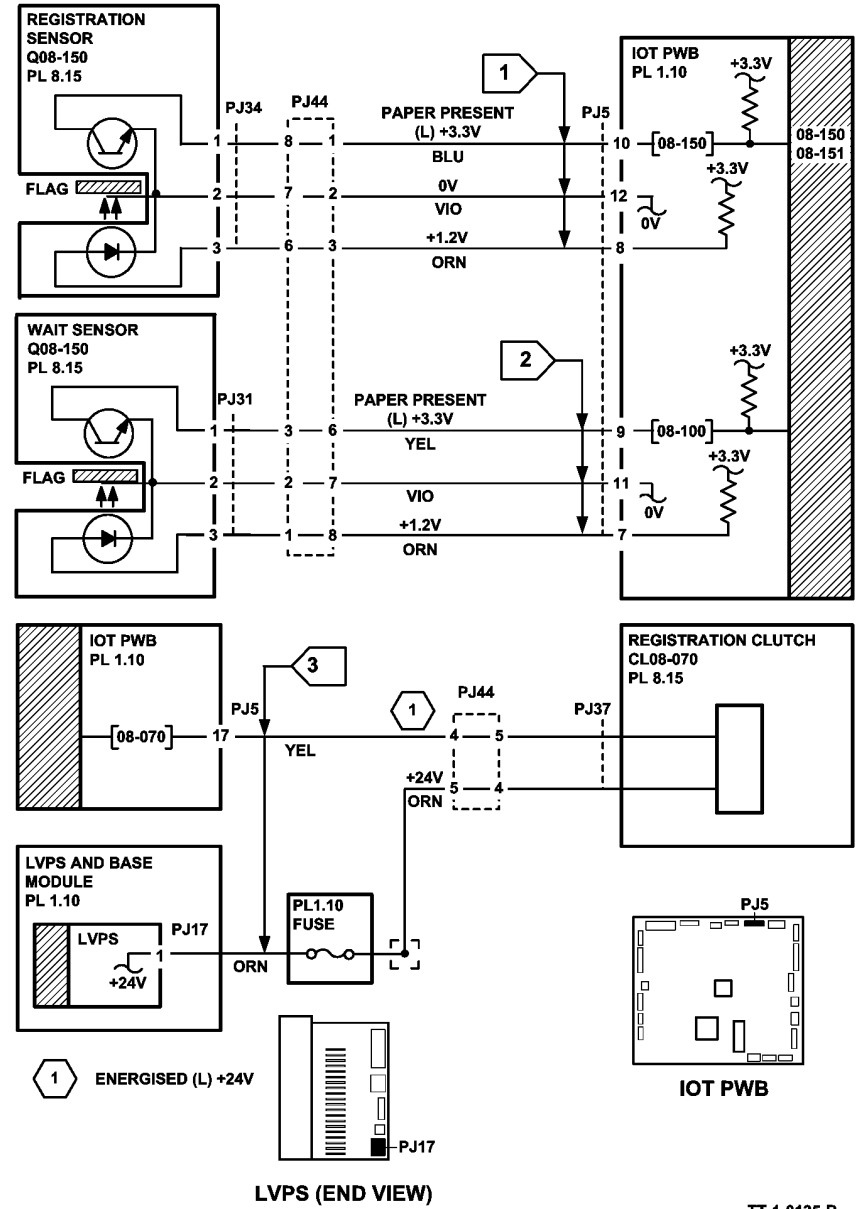


Figure 2 Circuit diagram

TT-1-0135-B

## 08-150B, 08-151B Registration Jam RAP (65-90 ppm)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [08-150, 08-151](#) Registration Jam Entry RAP.
- Check the condition of the paper in all trays. Refer to [IQ1](#) and [GP 20](#).
- Check for obstructions in the paper path.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, [PL 7.30 Item 23](#). Bias the cover to the right and tighten the two screws
- Check that the short paper path assembly latches without excessive force, [PL 10.25 Item 1](#). Go to [REP 10.1](#). In Replacement Step 5, check the latch mechanism.
- If the fault code is 08-151 and two sheets of paper are jammed at the registration rolls. Go to [OF8](#) Multifeed RAP.
- If the fault code 08-151 occurs from the bypass tray. Go to the [07D](#) Bypass Tray RAP.
- If the power and control assembly has been moved prior to a 08-150. Check that PJ148 is pushed fully home on the [Main Drives PWB](#).
- Check the transport drive belt.
- Ensure that all connectors on the tray 1 and 2 Control PWB, [PL 7.10 Item 2](#) and on the IOT PWB, [PL 1.10 Item 2](#) are correctly and securely seated.
- If the fault is 08-150 and the paper is fed from tray 1 or tray 2. Check if the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install [TAG 002](#) on the paper tray to constrain the effect of the curl.
- Check for skew, refer to [IQ8](#).
- If the fault occurs when feeding from tray 5, perform [ADJ 7.6](#) Tray 5 Stack Height Sensor and Retard Shield.

### Procedure

**NOTE:** Ensure that the front door interlock is cheated when checking +24V components.

Enter [dC330](#) code 08-150 registration sensor, Q08-150. Press Start. [Figure 1](#). Open the left hand door and activate the registration sensor. **The display changes.**

- Y N**
- Go to [Flag 1](#). Check Q08-150. Refer to:
- [GP 11](#) How to check a Sensor.
  - [P/J16, IOT PWB](#).
  - [01E](#) +5V Distribution RAP.
  - [01B](#) 0V Distribution RAP.
- Install new components as necessary:
- Registration sensor, (65-90 ppm) [PL 8.17 Item 3](#).
  - Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

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Enter [dC330](#) code 08-100 wait sensor, Q08-100. Press Start.  
Open the left hand door and activate the wait sensor. **The display changes.**

- Y N**
- Go to [Flag 2](#). Check Q08-100. Refer to:
- [GP 11](#) How to Check a Sensor.
  - [P/J16, IOT PWB](#).
  - [01E](#) +5V Distribution RAP.
  - [01B](#) 0V Distribution RAP.
- Install new components as necessary:
- Wait sensor, [PL 7.30 Item 25](#).
  - Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 04-010 main drive motor. Press Start. **The motor runs.**

- Y N**
- Go to the [04A](#) Main Drive Motor and Photoreceptor Motor RAP.

While the motor is running, add code 08-070 registration clutch, CL08-070. Press Start.

**NOTE:** The registration clutch will switch off after 5 seconds.

Switch the registration clutch on / off up to 10 times. **The jam clearance knob 4c, [PL 8.17 Item 10](#), rotates when the registration clutch is energized.**

- Y N**
- Go to [Flag 3](#). Check CL08-070. Refer to:
- [GP 12](#) How to Check a Solenoid or Clutch.
  - [P/J5, IOT PWB](#).
  - [P/J17, LVPS](#).
  - Fuse, [PL 1.10 Item 9, GP 7](#).
  - [01G](#) +24V Distribution RAP.
  - [01B](#) 0V Distribution RAP.
- Install new components as necessary:
- Registration clutch, (65-90 ppm) [PL 8.17 Item 7](#).
  - Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Perform the following:

- Check the registration transport rolls and registration rolls, (65-90 ppm) [PL 8.17 Item 1, GP 7](#).
- Check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in [REP 8.5](#). If necessary, install a new registration clutch, [PL 8.17 Item 7](#).
- Check the tray 1 and 2 transport motor, [PL 8.25 Item 5](#). Ensure that the motor runs correctly.
- Check the tray 1 and 2 transport roll assemblies, transport drive belt and pulleys, [PL 8.26 Item 1, GP 7](#). Install new components as necessary.
- Install a new tray 1 and 2 control PWB, [PL 7.10 Item 2](#).
- Refer to [Figure 2](#). Make sure PJ44 is securely connected.

**A**

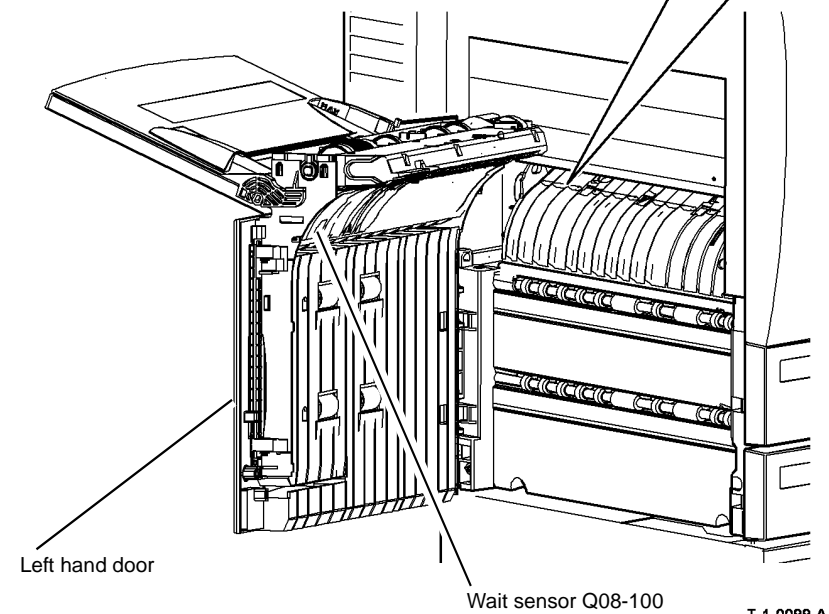
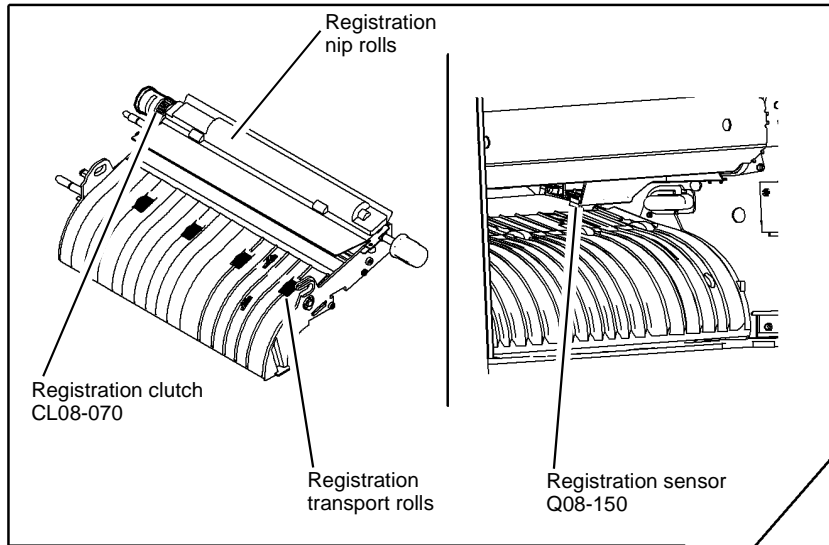


Figure 1 Component location

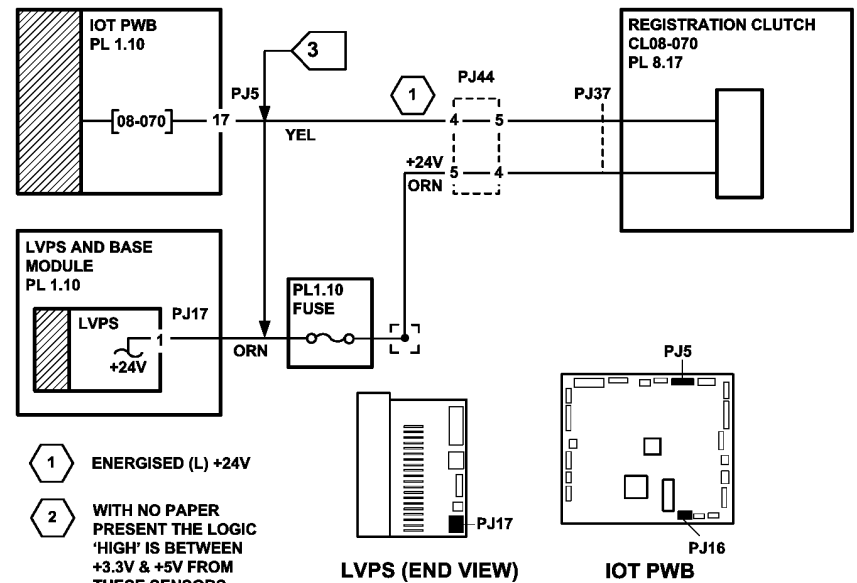
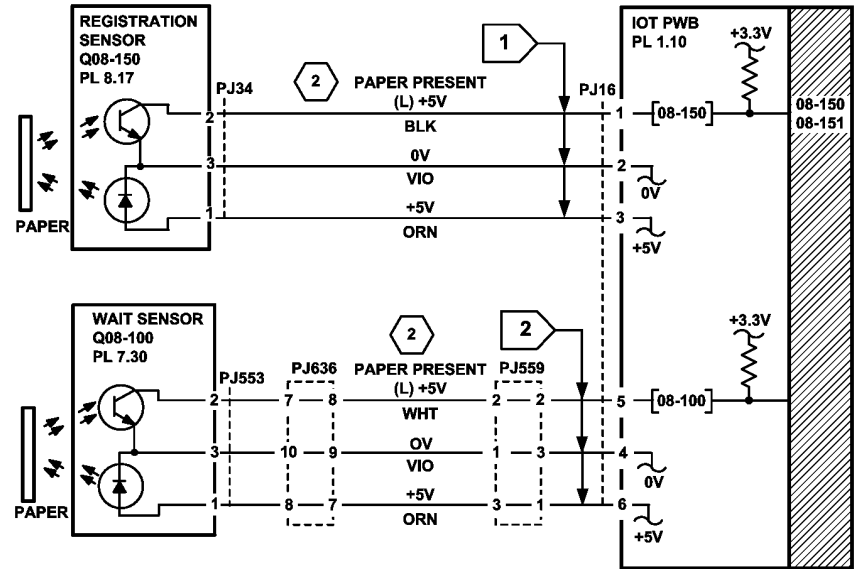


Figure 2 Circuit diagram

## 08-155, 08-156 Bypass Tray Registration Jam Entry RAP

**08-155** The lead edge of the paper failed to actuate the registration sensor within the correct time after start of feed from the bypass tray.

**08-156** The IOT detects that a sheet fed from the bypass has arrived too early at the registration sensor.

### Procedure

Identify the speed of the machine, refer to [SCP 7](#) Machine features. Perform one of the steps that follow:

- If the speed of the machine is 35-55 ppm, go to [08-155A](#), [08-156A](#) Bypass Tray Registration Jam RAP (35-55 ppm)
- If the speed of the machine is 65-90 ppm, go to [08-155B](#), [08-156B](#) Bypass Tray Registration Jam RAP (65-90 ppm).

## 08-155A, 08-156A Bypass Tray Registration Jam RAP (35-55 ppm)

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [08-155](#), [08-156](#) Bypass Tray Registration Jam Entry RAP.
- Check the condition of the paper in the bypass tray. Refer to [IQ1](#) and [GP 20](#).
- Check for obstructions in the paper path.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, [PL 7.30 Item 23](#). Bias the cover to the right and tighten the two screws
- Check that the short paper path assembly latches without excessive force, [PL 10.25 Item 1](#). Go to [REP 10.1](#). In Replacement Step 5, check the latch mechanism.
- If 08-155 is displayed, check the bypass tray empty actuator, [07D](#) Bypass Tray RAP.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-150 registration sensor, Q08-150. Press Start. [Figure 2](#). Manually actuate the registration sensor. **The display changes.**

Y N

Go to [Flag 1](#). Check Q08-150. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J5](#), [IOT PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Registration sensor, [PL 8.15 Item 3](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 04-010 main drive motor, code 08-070 registration clutch, CL08-070. Press Start. **The jam clearance knob, 4c, [PL 8.15 Item 10](#), rotates.**

Y N

Go to [Flag 3](#). Check CL08-070. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J5](#), [IOT PWB](#).
- [P/J17 LVPS](#).
- Fuse, [PL 1.10 Item 9](#), [GP 7](#).

Enter [dC330](#) code 08-050 feed solenoid, SOL08-050. Press Start. **The solenoid energizes.**

Y N

Go to **Flag 2**. Check SOL08-050. Refer to:

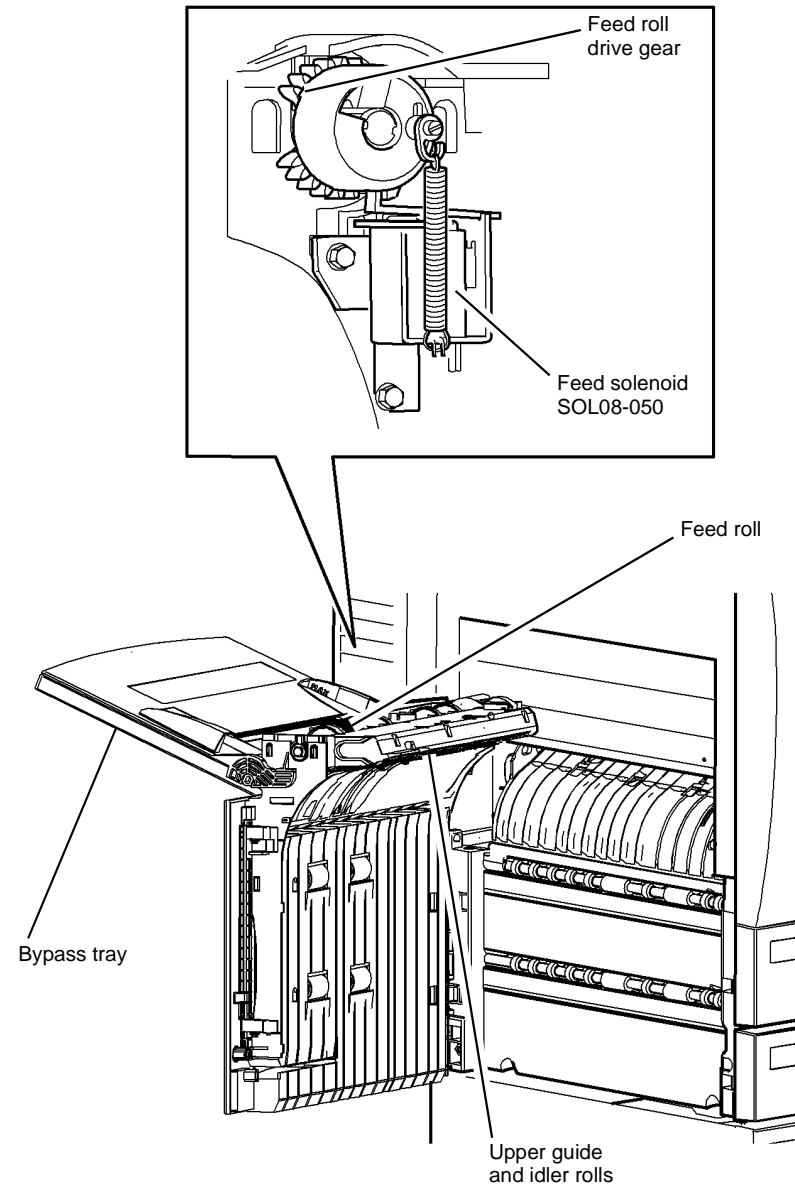
- **GP 12** How to Check a Solenoid or Clutch.
- **Figure 1**.
- **P/J10, IOT PWB**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Feed solenoid, **PL 7.30 Item 4**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Perform the following:

- Check the registration transport rolls and registration nip rolls, **Figure 2, PL 8.15 Item 1**.
- If the fault still occurs, check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in **REP 8.5**.
- Check the idler roll and upper guide on the feed head, **Figure 1**.
- Clean the feed roll and retard pad using a cloth dampened with water.
- If necessary install a new feed and retard pad, **PL 7.30 Item 21**.



T-1-0100-A

**Figure 1 Component location**

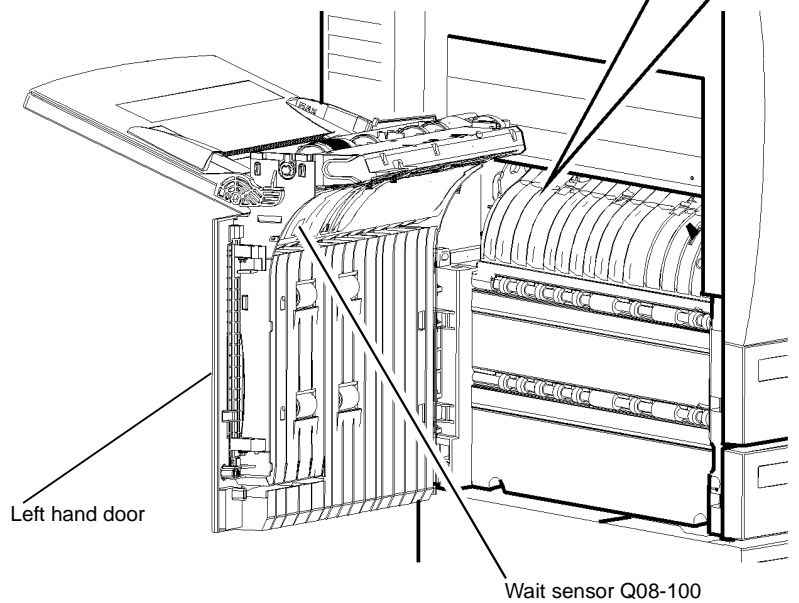
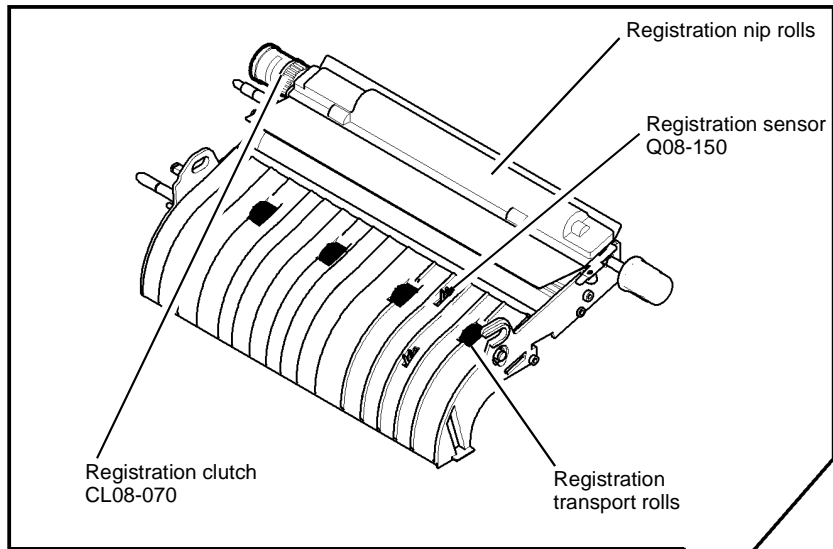
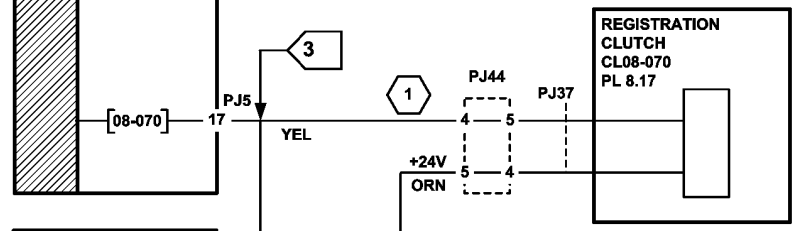
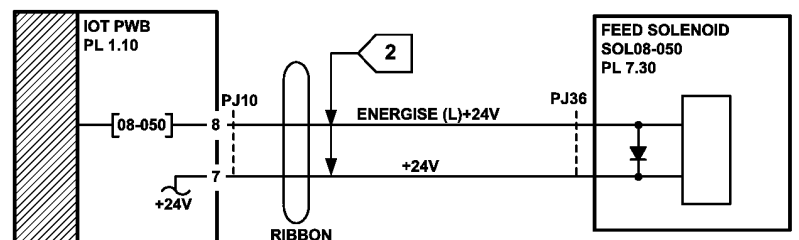
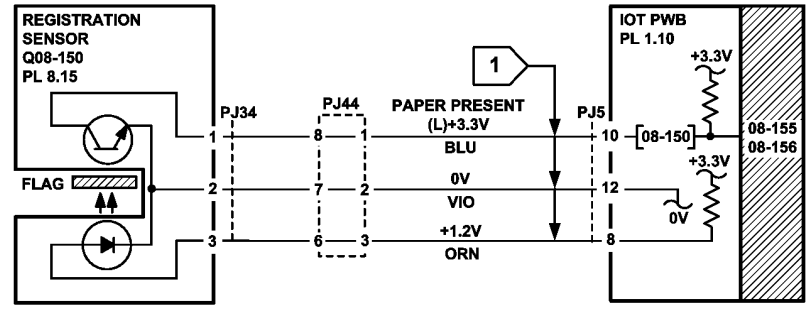


Figure 2 Component location

T-1-0101-A



1 ENERGISED (L) +24V

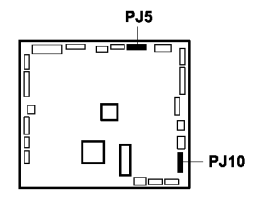
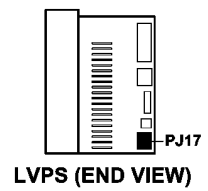


Figure 3 Circuit diagram

TT-1-0137-B

## 08-155B, 08-156B Bypass Tray Registration Jam RAP (65-90 ppm)

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [08-155](#), [08-156](#) Bypass Tray Registration Jam Entry RAP.
- Check the condition of the paper in the bypass tray. Refer to [IQ1](#) and [GP 20](#).
- Check for obstructions in the paper path.
- Check that the left hand door is latched correctly.
- Check that the interlock cover has not come loose, [PL 7.30 Item 23](#). Bias the cover to the right and tighten the two screws
- Check that the short paper path assembly latches without excessive force, [PL 10.25 Item 1](#). Go to [REP 10.1](#). In Replacement Step 5, check the latch mechanism.
- If 08-155 is displayed, check the bypass tray empty actuator, [07D](#) Bypass Tray RAP.

### Procedure

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-150 registration sensor, Q08-150. Press Start. [Figure 2](#). Activate the registration sensor. **The display changes.**

Y N

Go to [Flag 1](#). Check Q08-150. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J16](#), [IOT PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Registration sensor, (65-90 ppm) [PL 8.17 Item 3](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 04-010 main drive motor, code 08-070 registration clutch, CL08-070. Press Start. **The jam clearance knob, 4c, [PL 8.17 Item 10](#), rotates.**

Y N

Go to [Flag 3](#). Check CL08-070. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J5](#), [IOT PWB](#).
- [P/J17](#) [LVPS](#).
- Fuse, [PL 1.10 Item 9](#), [GP 7](#).

Enter [dC330](#) code 08-050 feed solenoid, SOL08-050. Press Start. **The solenoid energizes.**

Y N

Go to [Flag 2](#). Check SOL08-050. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [Figure 1](#).
- [P/J10](#), [IOT PWB](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

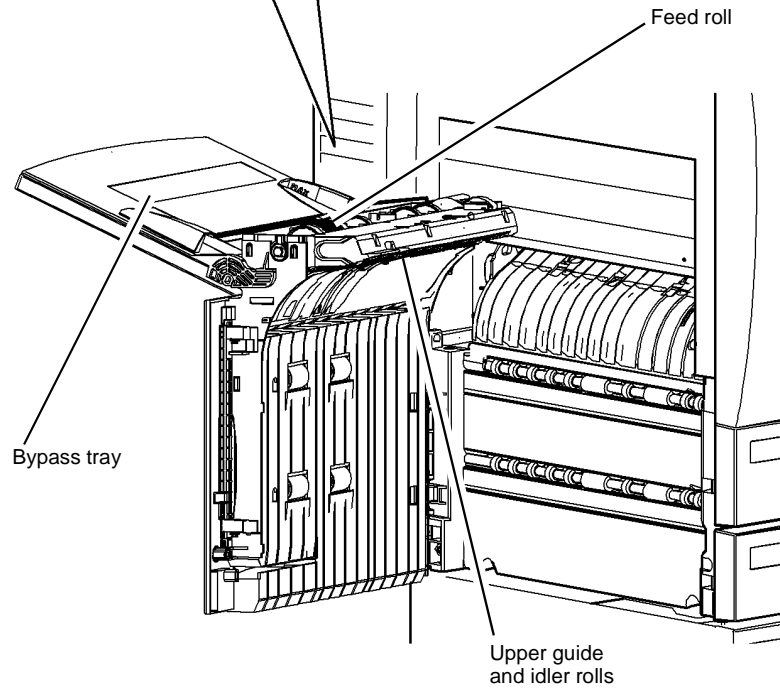
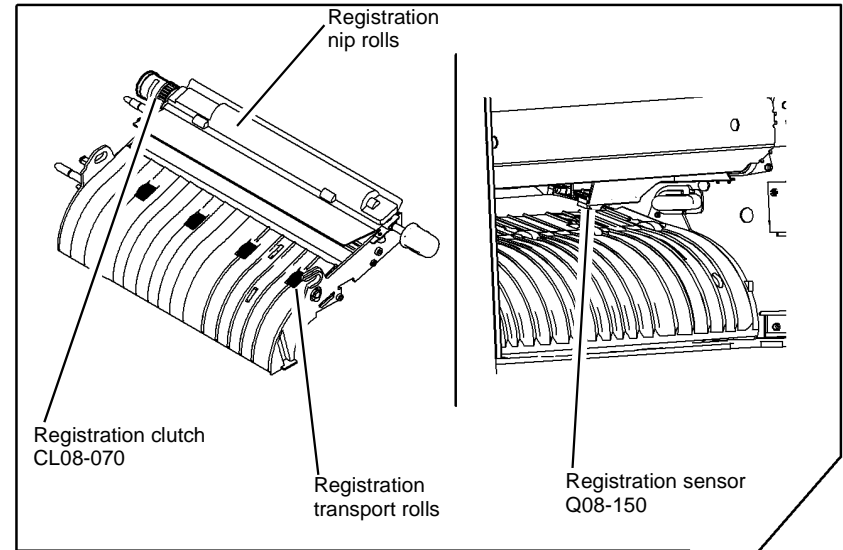
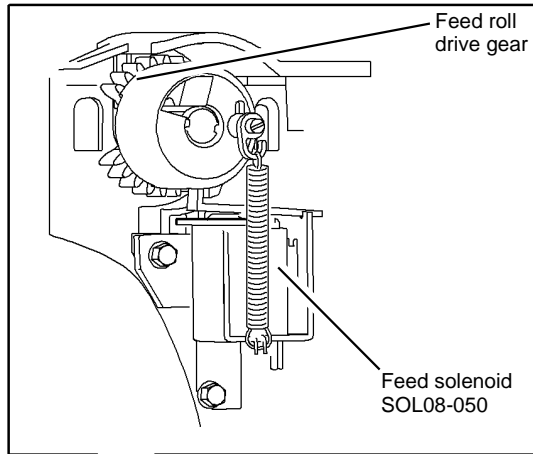
Install new components as necessary:

- Feed solenoid, [PL 7.30 Item 4](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Perform the following:

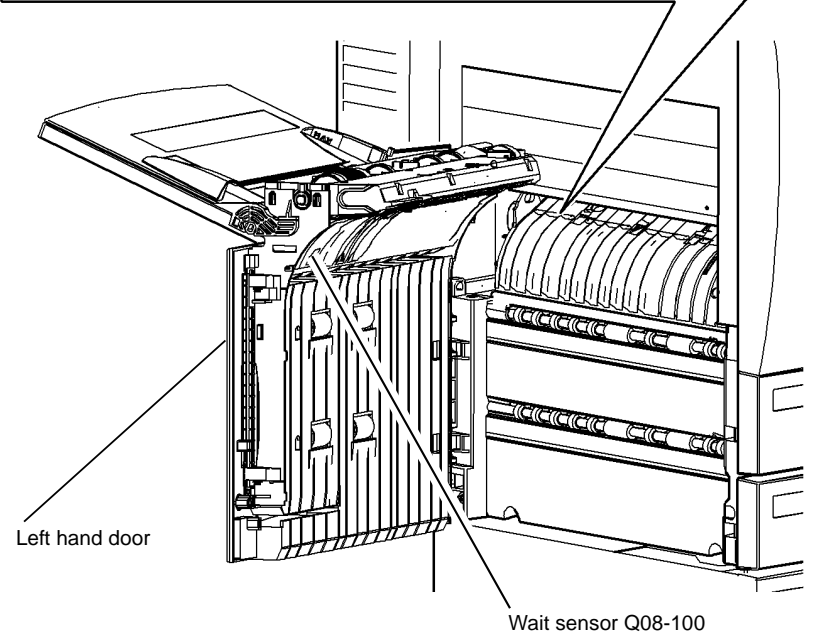
- Check the registration transport rolls and registration nip rolls, [Figure 2](#), [PL 8.17 Item 1](#).
- If the fault still occurs, check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in [REP 8.5](#).
- Check the idler roll and upper guide on the feed head, [Figure 1](#).
- Clean the feed roll and retard pad using a cloth dampened with water.
- If necessary install a new feed and retard pad, [PL 7.30 Item 21](#).





T-1-0102-A

Figure 1 Component location



T-1-0103-A

Figure 2 Component location

## 08-160, 08-161 Duplex Paper Path Jam Entry RAP

**08-160** The lead edge of the first sheet of a job fed into the duplex path failed to actuate the Duplex sensor in the correct time.

**08-161** The trail edge is late to the duplex sensor after of the first sheet of a job fed into the duplex path failed to actuate the duplex sensor in the correct time.

### Procedure

Identify the speed of the machine, refer to [SCP 7](#) Machine features. Perform one of the steps that follow:

- If the speed of the machine is 35-55 ppm, go to [08-160A](#), [08-161A](#) Duplex Paper Path Jam RAP (35-55 ppm)
- If the speed of the machine is 65-90 ppm, go to [08-160B](#), [08-161B](#) Duplex paper path Jam RAP (65-90 ppm).

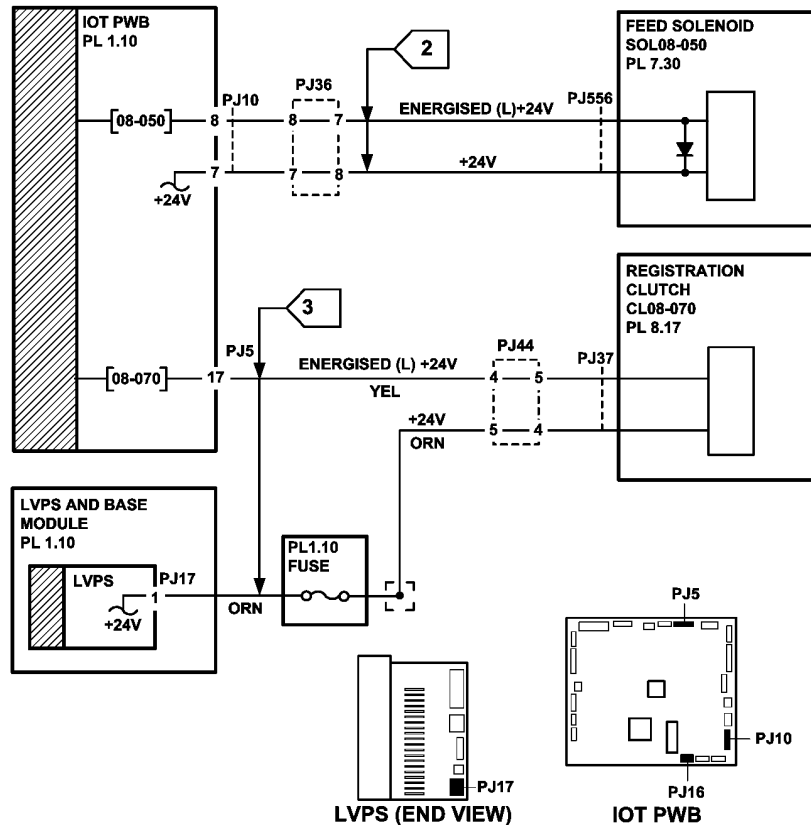
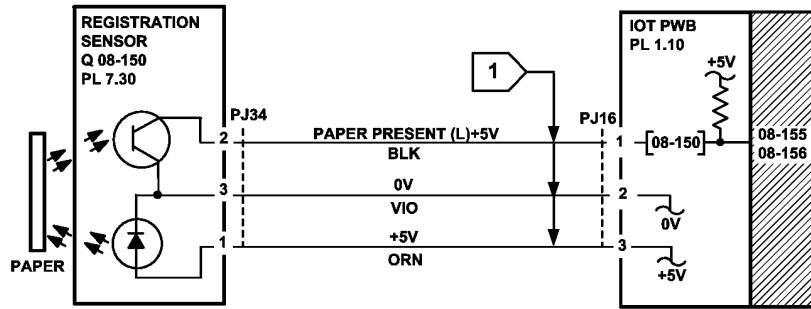


Figure 3 Circuit diagram

TT-1-0138-B

## 08-160A, 08-161A Duplex Paper Path Jam RAP (35-55 ppm)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [08-160](#), [08-161](#) Duplex Paper Path Jam Entry RAP.
- Check the condition of the paper in all trays. Refer to [IQ1](#) and [GP 20](#).
- Check for paper in the inverter and duplex transport.
- Check for obstructions in the paper path.
- If skew occurs when A5 paper is duplexed. Check for contact between the drive rolls and the nip rolls, (35-55 ppm) [PL 8.22 Item 13](#).

### Procedure



#### WARNING

Take care during this procedure. Motors will become hot during normal operation.

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-160 duplex sensor, Q08-160. Press Start. Manually actuate the sensor, [Figure 1](#). **The display changes.**

- Y N
- Go to [Flag 1](#). Check Q08-160. Refer to:
- [GP 11](#) How to Check a Sensor.
  - [P/J5](#), [IOT PWB](#).
  - [01D](#) +3.3V Distribution RAP.
  - [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Duplex sensor, (35-55 ppm) [PL 8.22 Item 4](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 08-060 duplex motor, MOT08-060, [Figure 1](#). Press Start. **The motor runs.**

- Y N
- Go to [Flag 2](#). Check MOT08-060. Refer to:
- [GP 10](#) How to Check a Motor.
  - [P/J4](#), [IOT PWB](#).
  - [P/J50](#), [P/J91](#), duplex motor driver PWB.
  - [01G](#) +24V Distribution RAP.
  - [01E](#) +5V Distribution RAP.
  - [01B](#) 0V Distribution RAP.

A

Install new components as necessary:

- Duplex motor, (35-55 ppm) [PL 8.22 Item 8](#).
- Duplex motor driver PWB, (35-55 ppm) [PL 8.22 Item 9](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

**The transport rolls rotate.**

- Y N
- Check the drive belt and pulleys, (35-55 ppm) [PL 8.22 Item 2](#), [PL 8.22 Item 10](#).

Enter [dC330](#) code 10-030 Inverter Motor, 10-030, [Figure 1](#). Press Start. **The motor runs.**

- Y N
- Go to [Flag 3](#). Check MOT10-030. Refer to:
- [GP 10](#) How to Check a Motor.
  - [P/J4](#), [IOT PWB](#).
  - [P/J45](#), [P/J55](#).
  - [01G](#) +24V Distribution RAP.
  - [01E](#) +5V Distribution RAP.
  - [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Inverter motor, [PL 10.11 Item 11](#).
- Inverter motor driver PWB, [PL 10.11 Item 22](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

**The transport rolls rotate.**

- Y N
- Check drive gears, [GP 7](#), [PL 10.15](#).

Enter [dC330](#) code 10-050 inverter nip solenoid, SOL10-050, [Figure 1](#). Press Start. **The solenoid energizes.**

- Y N
- Go to [Flag 4](#). Check SOL10-050. Refer to:
- [GP 12](#) How to Check a Solenoid or Clutch.
  - [P/J5](#), [IOT PWB](#).
  - [P/J17](#), [LVPS](#).
  - Fuse, [PL 1.10 Item 9](#), [GP 7](#).
  - [01G](#) +24V Distribution RAP.
  - [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Inverter Nip Solenoid, [PL 10.11 Item 6](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 10-045 inverter path solenoid, SOL10 045, [Figure 1](#). Press Start. **The solenoid energizes.**

A

Y N

Go to [Flag 5](#). Check SOL10-045. Refer to:

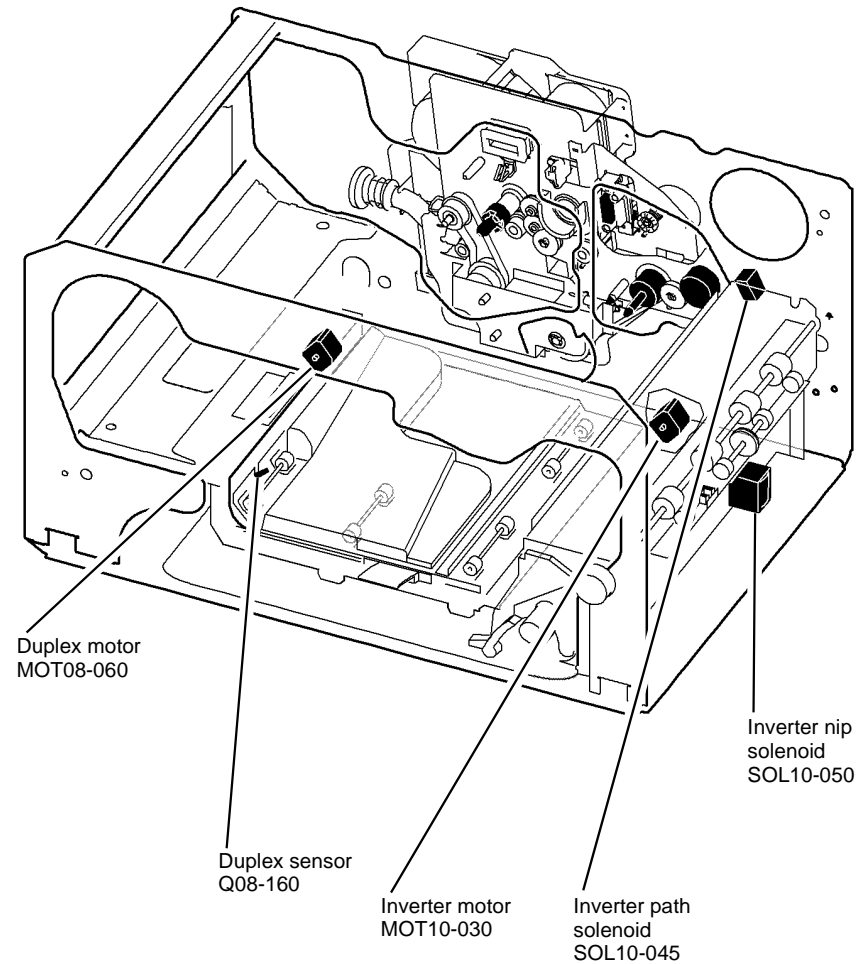
- [GP 12](#) How to check a Solenoid or Clutch.
- [P/J5, IOT PWB](#).
- [P/J17, LVPS](#).
- Fuse, [PL 1.10 Item 9, GP 7](#).
- [01G +24V Distribution RAP](#).
- [01B 0V Distribution RAP](#).

Install new components as necessary:

- Inverter path solenoid, [PL 10.11 Item 14](#).
- Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

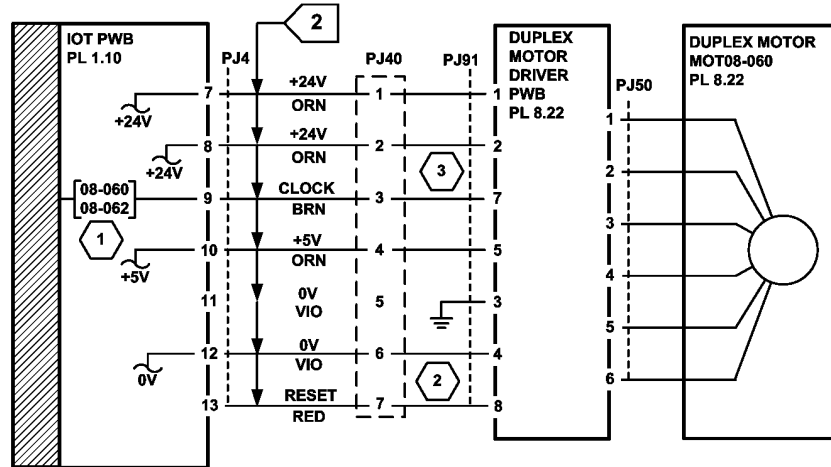
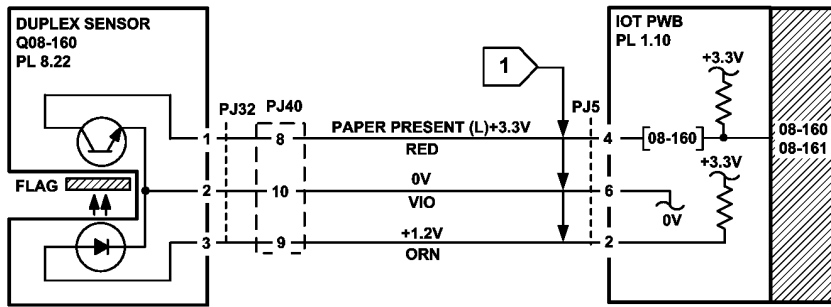
Check the following, refer to [GP 7](#):

- Duplex nip rolls, (35-55 ppm) [PL 8.22 Item 7](#).
- Nip split shaft assembly, [PL 10.11 Item 4](#).
- Idler rolls, [PL 10.12 Item 15](#).
- If the fault still occurs, check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in [REP 8.5](#).



T-1-0104-A

Figure 1 Component location



- 1 08-060 MOTOR SLOW SPEED  
08-062 MOTOR FAST SPEED
- 2 RESETS MOTOR DRIVE CONTROL WHEN MOTOR IS AT REST
- 3 CLOCK CONTROLS THE START OF THE MOTOR

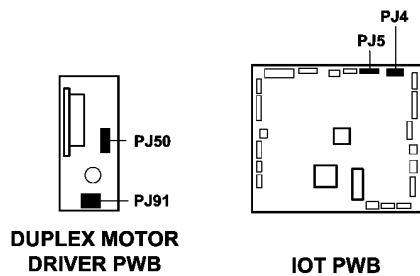
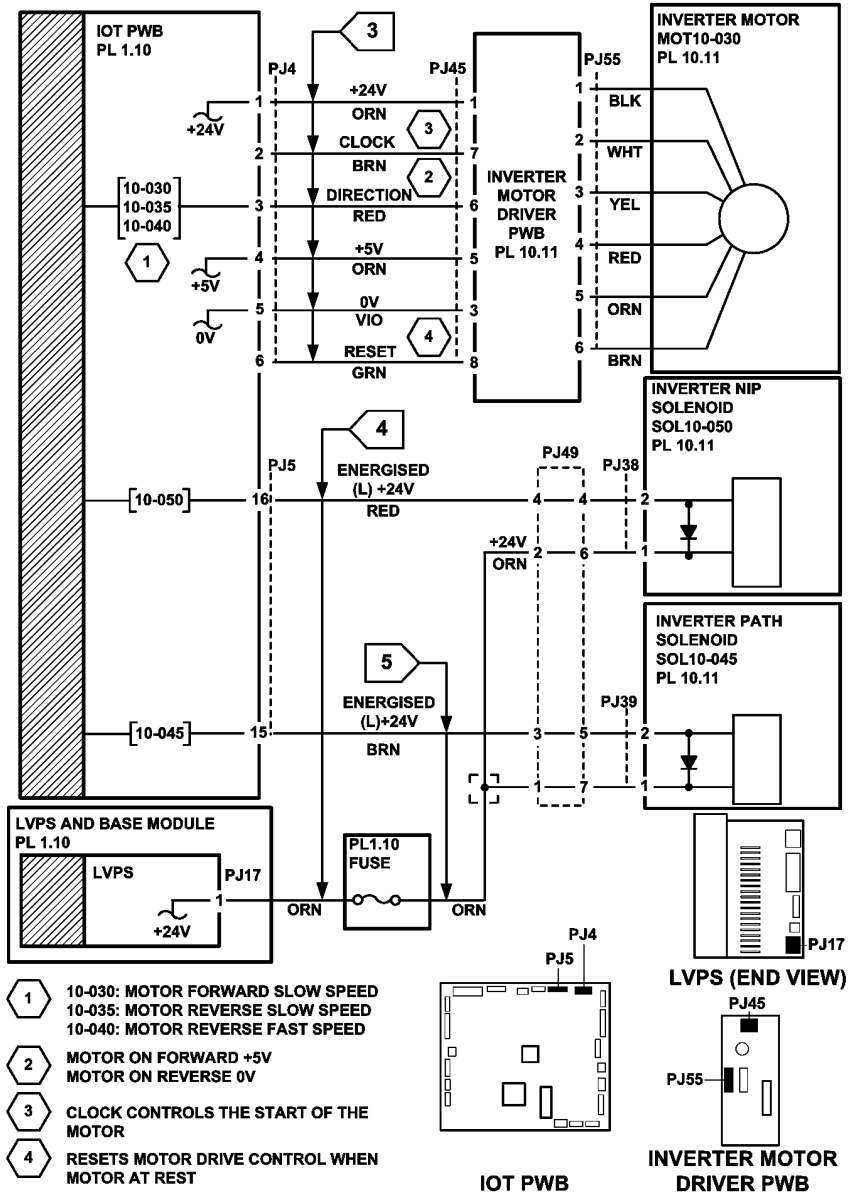


Figure 2 Circuit diagram

TT-1-0139-A



- 1 10-030: MOTOR FORWARD SLOW SPEED  
10-035: MOTOR REVERSE SLOW SPEED  
10-040: MOTOR REVERSE FAST SPEED
- 2 MOTOR ON FORWARD +5V  
MOTOR ON REVERSE 0V
- 3 CLOCK CONTROLS THE START OF THE MOTOR
- 4 RESETS MOTOR DRIVE CONTROL WHEN MOTOR AT REST

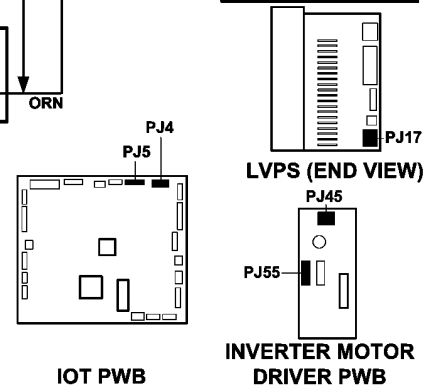


Figure 3 Circuit diagram

TT-1-0140-A

## 08-160B, 08-161B Duplex Paper Path Jam RAP (65-90 ppm)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [08-160](#), [08-161](#) Duplex Paper Path Jam Entry RAP.
- Check the condition of the paper in all trays. Refer to [IQ1](#) and [GP 20](#).
- Check for paper in the inverter and duplex transport.
- Check for obstructions in the paper path.
- If skew occurs when A5 paper is duplexed. Check for contact between the drive rolls and the nip rolls, (65-90 ppm) [PL 8.20 Item 14](#).

### Procedure



#### WARNING

Take care during this procedure. Motors will become hot during normal operation.

**NOTE:** The front door interlock must be cheated when checking +24V components.

Enter [dC330](#) code 08-160 duplex sensor, Q08-160. Press Start. Activate the sensor, [Figure 1](#).

The display changes.

**Y N**  
Go to [Flag 1](#). Check Q08-160. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J5](#), [IOT PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Duplex sensor, (65-90 ppm) [PL 8.20 Item 4](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 08-060 duplex motor, MOT08-060, [Figure 1](#). Press Start. The motor runs.

**Y N**  
Go to [Flag 2](#). Check MOT08-060. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J4](#), [IOT PWB](#).
- [P/J50](#), [P/J91](#), duplex motor driver PWB.
- [01G](#) +24V Distribution RAP.
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Duplex motor, (65-90 ppm) [PL 8.20 Item 8](#).
- Duplex motor driver PWB, (65-90 ppm) [PL 8.20 Item 9](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

The transport rolls rotate.

**Y N**  
Check the drive belt and pulleys, (65-90 ppm) [PL 8.20 Item 2](#), [PL 8.20 Item 10](#).

Enter [dC330](#) code 10-030 Inverter Motor, 10-030, [Figure 1](#). Press Start. The motor runs.

**Y N**  
Go to [Flag 3](#). Check MOT10-030. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J4](#), [IOT PWB](#).
- [P/J45](#), [P/J55](#).
- [01G](#) +24V Distribution RAP.
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Inverter motor, [PL 10.11 Item 11](#).
- Inverter motor driver PWB, [PL 10.11 Item 22](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

The transport rolls rotate.

**Y N**  
Check drive gears, [GP 7](#), [PL 10.15](#).

Enter [dC330](#) code 10-050 inverter nip solenoid, SOL10-050, [Figure 1](#). Press Start. The solenoid energizes.

**Y N**  
Go to [Flag 4](#). Check SOL10-050. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J5](#), [IOT PWB](#).
- [P/J17](#), [LVPS](#).
- Fuse, [PL 1.10 Item 9](#), [GP 7](#).
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Inverter Nip Solenoid, [PL 10.11 Item 6](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 10-045 inverter path solenoid, SOL10 045, [Figure 1](#). Press Start. The solenoid energizes.

Y N

Go to [Flag 5](#). Check SOL10-045. Refer to:

- [GP 12](#) How to check a Solenoid or Clutch.
- [P/J5, IOT PWB](#).
- [P/J17, LVPS](#).
- Fuse, [PL 1.10 Item 9, GP 7](#).
- [01G +24V Distribution RAP](#).
- [01B 0V Distribution RAP](#).

Install new components as necessary:

- Inverter path solenoid, [PL 10.11 Item 14](#).
- Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Check the following, refer to [GP 7](#):

- Duplex nip rolls, (65-90 ppm) [PL 8.20 Item 7](#).
- Nip split shaft assembly, [PL 10.11 Item 4](#).
- Idler rolls, [PL 10.12 Item 15](#).
- If the fault still occurs, check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in [REP 8.5](#).

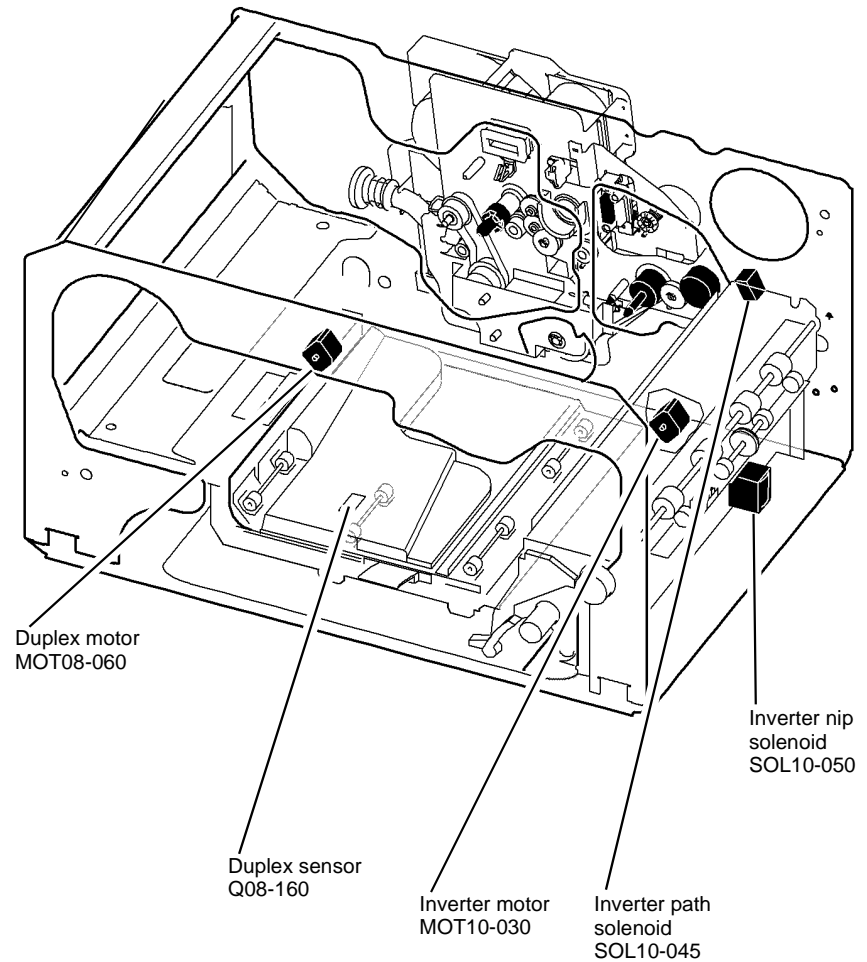
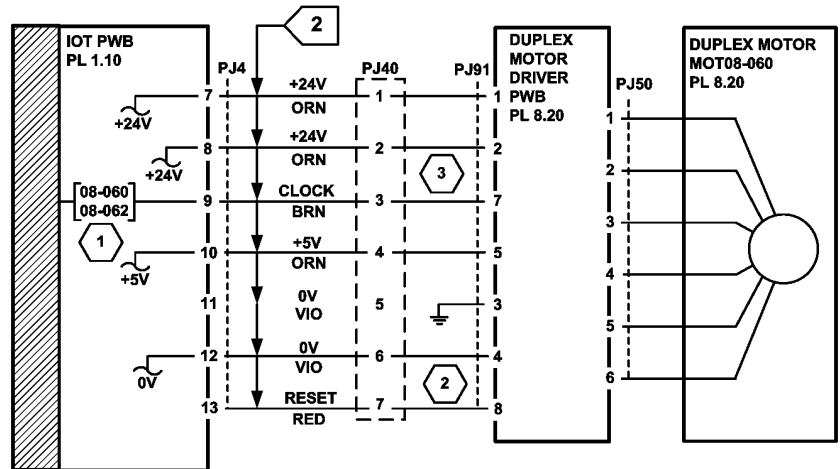
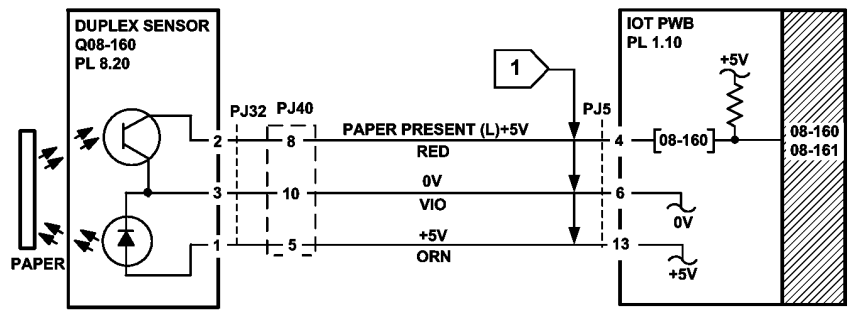
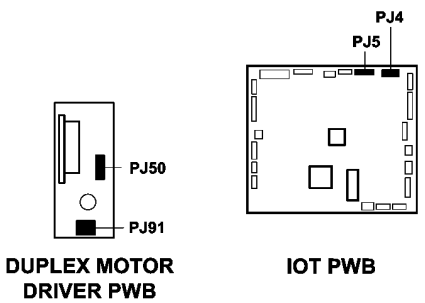


Figure 1 Component location

T-1-0105-A

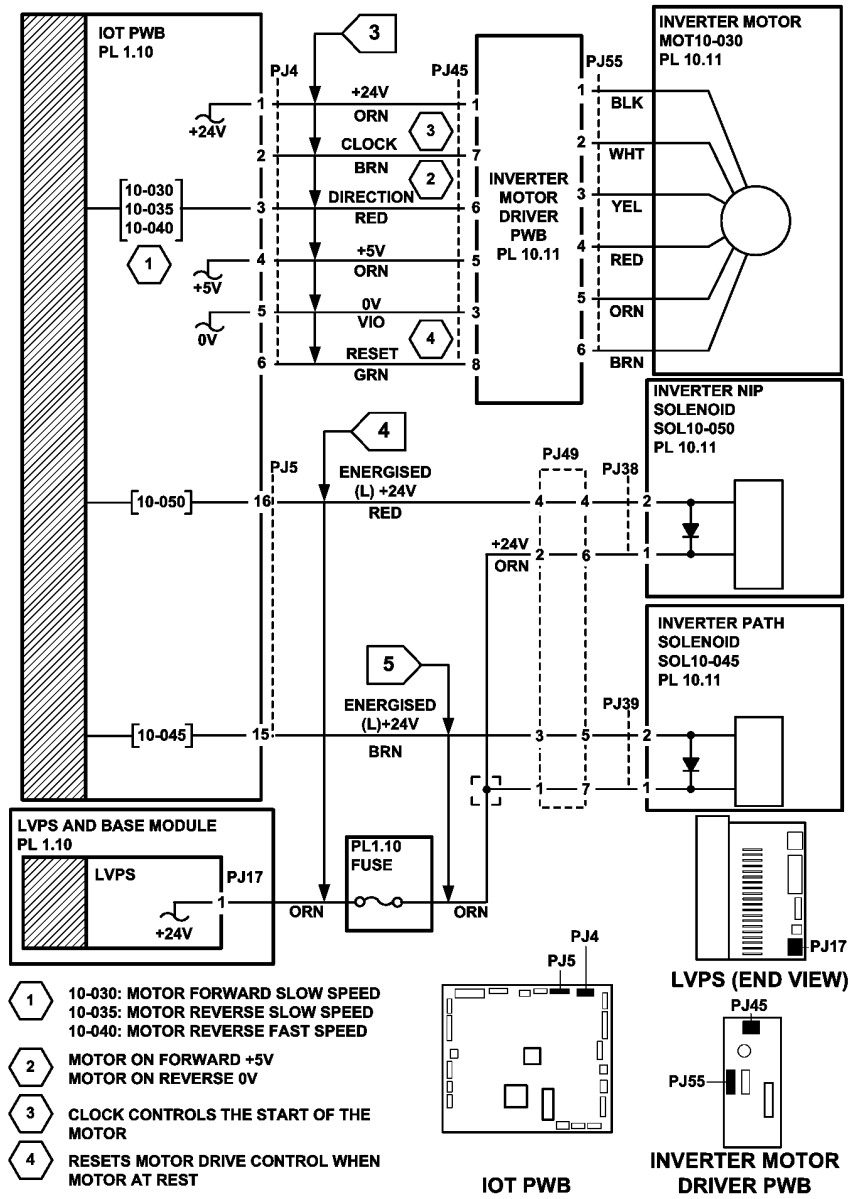


- 1 08-060 MOTOR SLOW SPEED  
08-062 MOTOR FAST SPEED
- 2 RESETS MOTOR DRIVE CONTROL WHEN MOTOR IS AT REST
- 3 CLOCK CONTROLS THE START OF THE MOTOR

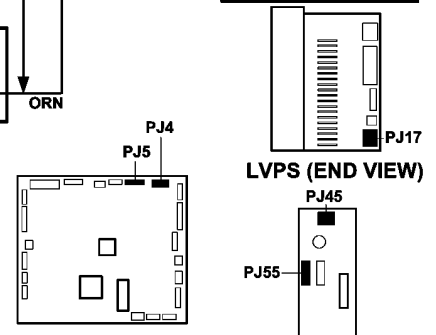


TT-1-0141-A

Figure 2 Circuit diagram



- 1 10-030: MOTOR FORWARD SLOW SPEED  
10-035: MOTOR REVERSE SLOW SPEED  
10-040: MOTOR REVERSE FAST SPEED
- 2 MOTOR ON FORWARD +5V  
MOTOR ON REVERSE 0V
- 3 CLOCK CONTROLS THE START OF THE MOTOR
- 4 RESETS MOTOR DRIVE CONTROL WHEN MOTOR AT REST



TT-1-0142-A

Figure 3 Circuit diagram



## 08-171 Unexpected Time Out RAP

**08-171** The IOT detects an unexpected event for a known sheet. A sheet left in the machine after jam clearance.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Enter the machine status mode and check for the active messages. Refer to **OF4** Status Codes and Message RAP for the jam clearance procedure.
- Check the condition of the paper in all trays, Refer to **IQ1** and **GP 20**.
- Check for obstructions in the paper path.
- Make sure that all covers and paper guides are closed, and latch correctly.
- Check for paper in the output device.

### Procedure

If the initial actions did not resolve the problem. Switch off the machine, then switch on the machine, **GP 14**. If a fault code is displayed then go to the appropriate RAP.

## 08-174 Missing Pre-release Sheet RAP

**08-174** The IOT detected a missing pre-release sheet.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Enter the machine status mode and check for the active messages. Refer to **OF4** Status Codes and Message RAP for the jam clearance procedure.
- Check the condition of the paper in all trays. Refer to **IQ1** and **GP 20**.
- Check for obstructions in the registration paper path.
- Make sure that all covers and paper guides are closed, and latch correctly.

### Procedure

If the initial actions did not resolve the problem. Switch off the machine, then switch on the machine, **GP 14**. If a fault code is displayed then go to the appropriate RAP.

## 08-180 Unable to Feed Next Sheet RAP

**08-180** The machine has detected that the previous sheet has not correctly fed through the paper path.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Clear the paper path.

### Procedure

**35-55 ppm** - Perform the following:

- Check tray 1 feed sensor, Q80-101. Refer to **08-101** Tray 1 Misfeed RAP.  
Install new components as necessary.
- Check tray 2 feed sensor, Q08-102. Refer to **08-102** Tray 2 Misfeed RAP.  
Install new components as necessary.
- Check the registration sensor, Q08-150 and the wait sensor, Q08-100, refer to **08-150A**, **08-151A** Registration Jam RAP (35-55 ppm).  
Install new components as necessary.

**65-90 ppm** - Perform the following:

- Check tray 1 feed sensor, Q80-101. Refer to **08-101** Tray 1 Misfeed RAP.  
Install new components as necessary.
- Check tray 2 feed sensor, Q08-102. Refer to **08-102** Tray 2 Misfeed RAP.  
Install new components as necessary.
- Check the registration sensor, Q08-150 and the wait sensor, Q08-100, refer to **08-150B**, **08-151B** Registration Jam RAP (65-90 ppm).  
Install new components as necessary.

## 08-181 Unexpected Time Out in Simplex Inverted Mode RAP

**08-181** The IOT detected an unexpected time out for a known simplex inverted sheet of paper.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Enter the machine status mode and check for the active messages. Refer to **OF4** Status Codes and Message RAP for the jam clearance procedure.
- Check the condition of the paper in all trays. Refer to **IQ1** and **GP 20**.
- Check for obstructions in the simplex and inverted paper path.
- Make sure that all covers and paper guides are closed, and latch correctly.

### Procedure

If the initial actions did not correct the problem, perform the following:

- Switch off the machine, then switch on the machine, **GP 14**.
- If a fault code is displayed then go to the appropriate RAP.
- Enter **dC330**, code 10-045 and check the operation of the inverter gate, **PL 10.12 Item 7**. It should move freely without binding.

## 08-182 Unexpected Time Out in Duplex Mode RAP

08-182 The IOT detected an unexpected time out for a known duplex sheet of paper.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Enter the machine status mode and check for the active messages. Refer to OF4 Status Codes and Message RAP for the jam clearance procedure.
- Check the condition of the paper in all trays. Refer to IQ1 and GP 20.
- Check for obstructions in the duplex paper path.

### Procedure

If the initial actions did not resolve the problem. Switch off the machine, then switch on the machine, GP 14. If a fault code is displayed then go to the appropriate RAP.

## 08-190 Post Jam Clearance Initialization RAP

08-190 A stray sheet has been detected in either the IOT or finisher device during the post jam clearance initialization routine.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Enter the machine status mode and check for the active messages. Refer to OF4 Status Codes and Message RAP for the jam clearance procedure.
- Check for paper in the machine paper path at all the sensor locations.
- Check for paper in the finisher paper path at all the sensor locations. Use a flashlight to check that the hole punch sensor is clear.:
  - 2K LCSS punch sensor, PL 11.6 Item 7.
  - HVF paper edge sensor, PL 11.153 Item 17.
- Make sure that all the covers and paper guides are closed, and latched correctly.

### Procedure

If the initial actions did not correct the problem. Switch off the machine, then switch on the machine, GP 14. If a fault code is displayed then go to the appropriate RAP.



## 09-060 HVPS Fault RAP

**09-060** The HVPS fault sensor has detected a high voltage fault.

The HVPS fault will occur when:

- The (C) charge high voltage supply has a short or open circuit.
- The (G) charge grid high voltage supply has a short or open circuit.
- The (T) transfer high voltage supply has a short circuit.
- The (DT) detack high voltage supply has a short circuit.
- The (DB) developer bias high voltage supply has a short circuit.
- The +24V supply to the HVPS has a short or open circuit.
- The 24 volt supply is momentarily overloaded.

The HVPS fault will deactivate within 100 milliseconds after the removal of the fault.

**NOTE:** The following defects will NOT cause a 09-060 fault:

- An open circuit or short circuit in the registration chute bias circuit (CB)
- A poor contact of the registration/halo guide bias
- An open circuit in the developer bias circuit
- An open circuit in the transfer corotron circuit
- An open circuit in the detack corotron circuit

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, GP 14.
- Clean the charge scorotron, ADJ 9.1.
- Clean the transfer / detack corotron and check the corotron wire, ADJ 9.1.
- Reseat the high voltage connections on the HVPS, (40-90 ppm) Figure 1, (35 ppm) Figure 2.
- Check the registration transport bias contact, PL 8.15 Item 23, Figure 3.
- Check the bias connection, Figure 3.
- Reseat the developer bias connection, Figure 4.
- If the machine is above 750 metres above sea level, check the transfer / detack assembly for arcing. If necessary go to dC131 NVM Read / Write location 09-098 and select the appropriate altitude.
- Check for any cause of an overload to the 24V supply. For example, very thick multi-feeds causing the main drive motor to stall.

### Procedure

If you were directed from IQ8 Defect RAP, continue below. If the following checks do not resolve the image quality problem, return to IQ3 Xerographic RAP.

**NOTE:** The following are the only values that can be measured from the HVPS.

- Charge scorotron grid, -425V +/- 21V.
- The two terminals identified as G are the same output.
- Registration chute bias, -490V +/- 25V.
- The two terminals identified as CB are the same output.
- Developer bias, -370V +20V / -50V.

**NOTE:** The charge, transfer and detack corotron have 47k Ohms arc suppression resistors within their harnesses.

Check that the surface mounted fuse F1 on the IOT PWB is good. Refer to OF7 IOT PWB Diagnostics RAP, for the location of the F1 surface mounted fuse. **The surface mounted fuse is good.**

Y N

Perform the procedures that follow:

- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.
- 01H Short Circuit and Overload RAP.

Run the xerographic module cleaning routine from the UI tools menu.

Enter dC330. Select component code 09-060 HVPS fault and press save. Press start. **The display for code 09-060 is Low.**

Y N

+24V is available at the bottom cap of fuse F1 on the IOT PWB.

Y N

Perform the 01G +24V Distribution RAP to troubleshoot the fault.

Install a new HVPS, PL 1.10 Item 5.

Add Component code 09-061 charge scorotron. Press start. Time out after 3 seconds. **The display for code 09-060 is Low.**

Y N

Go to Flag 1. Check the charge scorotron harness for an open circuit or short circuit to ground, GP 7. **The scorotron harness and connectors are good.**

Y N

Install a new charge scorotron harness, (35-55 ppm) PL 4.17 Item 18, (65-90 ppm) PL 4.12 Item 20.

Install a new xerographic module, (35 ppm) PL 9.22 Item 2, (40-90 ppm) PL 9.20 Item 2.

If the fault continues, install a new HVPS, PL 1.10 Item 5.

If the fault continues, there is a problem with the charge corotron harness/connector, Install a new main drive module (35-55ppm), PL 4.15 Item 1, (65-90ppm), PL 4.10 Item 1.

Add component code 09-062 charge grid. Press start. Time out after 3 seconds. **The display for code 09-060 is Low.**

Y N

Go to the Flag 1. Check the charge grid harness for open circuit or short circuit to ground, GP 7. **The grid harness and connectors are good.**

Y N

Install a new charge grid harness, (35-55 ppm) PL 4.17 Item 19, (65-90 ppm) PL 4.12 Item 21.

A B

**A B**  
 Install a new xerographic module, (35 ppm) [PL 9.22 Item 2](#), (40-90 ppm) [PL 9.20 Item 2](#).  
 If the fault continues, install a new HVPS, [PL 1.10 Item 5](#).  
 If the fault continues, there is a problem with the charge corotron harness/connector, install a new main drive module (35-55ppm), [PL 4.15 Item 1](#), (65-90ppm), [PL 4.10 Item 1](#).

Add component code 09-063 transfer corotron. Press start. Time out after 3 seconds. **The display for code 09-060 is Low.**

**Y N**  
 Go to the [Flag 2](#). Check the transfer corotron harness for short circuit to ground, [GP 7](#).  
**The transfer corotron harness and connectors are good.**

**Y N**  
 Install a new transfer / detack harness, (35 ppm) [PL 9.22 Item 9](#), (40-90 ppm) [PL 9.20 Item 9](#).

Install a new transfer / detack corotron, (35 ppm) [PL 9.22 Item 8](#), (40-90 ppm) [PL 9.20 Item 8](#).

If the fault continues, install a new HVPS [PL 1.10 Item 5](#).

If the fault continues, there is a problem with the charge corotron harness/connector, install a new main drive module (35-55ppm), [PL 4.15 Item 1](#), (65-90ppm), [PL 4.10 Item 1](#).

Add component code 09-064 detack corotron. Press start. Time out after 3 seconds. **The display for code 09-060 is low.**

**Y N**  
 Go to [Flag 2](#). Check the detack corotron harness for short circuit to ground, [GP 7](#).  
**The detack corotron harness and connectors are good.**

**Y N**  
 Install a new transfer / detack harness, (35 ppm), [PL 9.22 Item 9](#), (40-90), [PL 9.20 Item 9](#).

On the 30 ppm machine, install a new transfer / detack corotron, [PL 9.22 Item 8](#). On the 40-90 ppm machine, install a new transfer / detack corotron, [PL 9.20 Item 8](#).

If the fault continues, install a new HVPS [PL 1.10 Item 5](#).

If the fault continues, there is a problem with the charge corotron harness/connector, install a new main drive module (35-55ppm), [PL 4.15 Item 1](#), (65-90ppm), [PL 4.10 Item 1](#).

Add component code 09-065 registration chute bias. Press start. Time out after 90 seconds. **The display for code 09-060 is low.**

**Y N**  
 Install a new HVPS [PL 1.10 Item 5](#).

Add component code 09-066 developer bias. Press start. Time out after 3 seconds. **The display for code 09-060 is low.**

**Y N**  
 The high display indicates that the developer bias harness is shorted to ground. Confirm this diagnosis by disconnecting the developer bias harness from the HVPS and make no more than ten copies. If copies can be made without the 09-060 fault occurring, the developer bias harness is shorted to ground.

Switch off the machine, [GP 14](#). Remove the input module and scanner. Go to [Flag 3](#). Check the developer bias harness for short circuit to ground, [GP 7](#). **The developer harness and connectors are good.**

**C Y N**  
 Repair the harness or install a new developer bias harness, (35-55 ppm) [PL 9.17 Item 6](#), (65-90 ppm) [PL 9.15 Item 6](#). Secure the harness in position with adhesive tape to prevent re-occurrence of the fault.

Install a new HVPS [PL 1.10 Item 5](#).

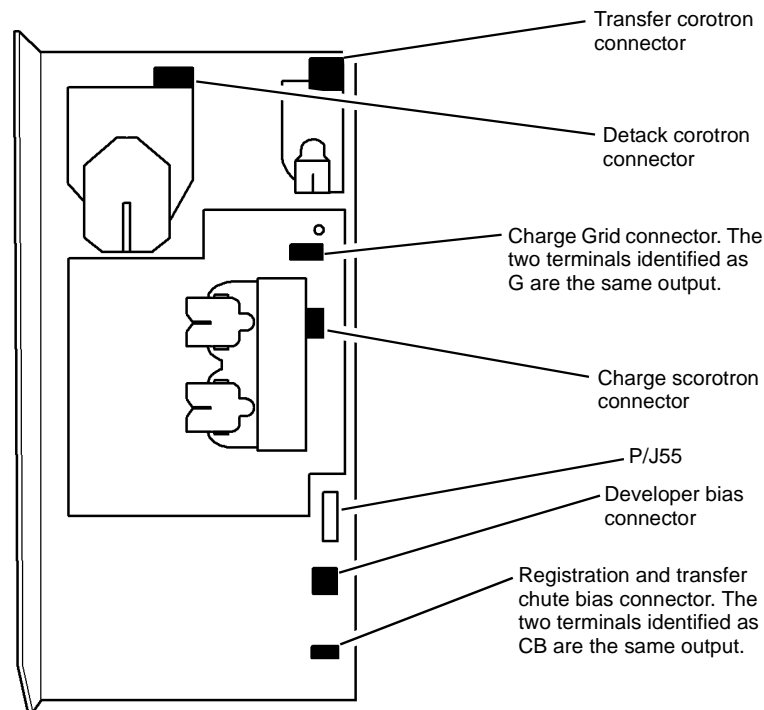
Make 10 copies. **The 09-060 fault code occurs during making copies.**

**Y N**  
 Perform [SCP 6](#) Final Actions.

The problem may be caused by a +24V component pulling the +24V supply down below the lower limit of tolerance. Switch off the machine, then switch on the machine, [GP 14](#). Monitor the +24V interlocked supply at PJ27 pin 1 while copies are being made. **The voltage drops below +23.28V.**

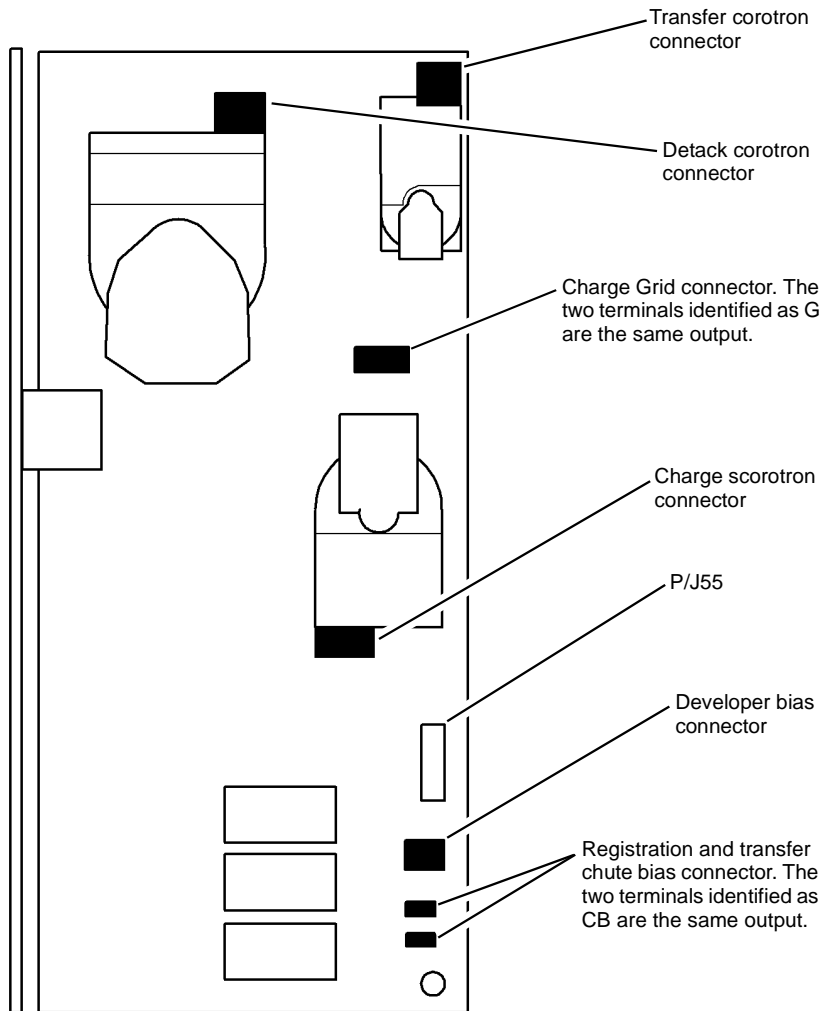
**Y N**  
 Perform [SCP 6](#) Final Actions.

Perform the [01H](#) Short Circuit and Overload RAP, check the +24V circuits to find the component causing the voltage drop. Repair the fault or install a new component.



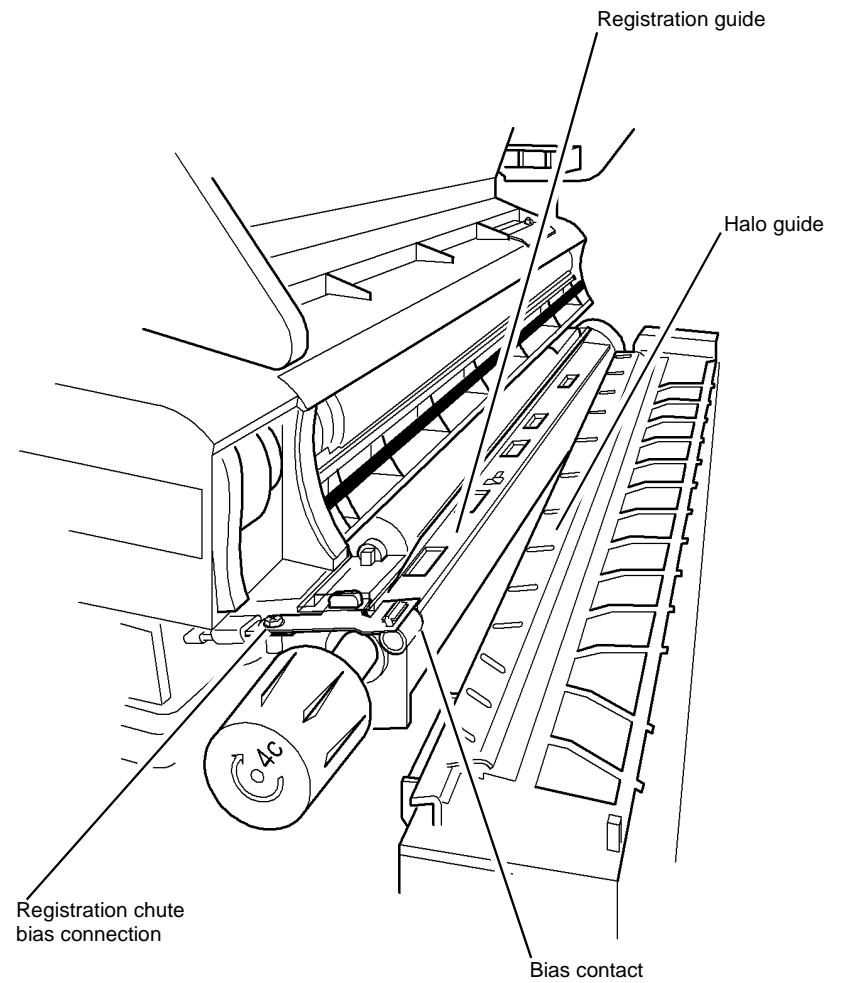
T-1-0106-A

Figure 1 Component location (40-90 ppm)



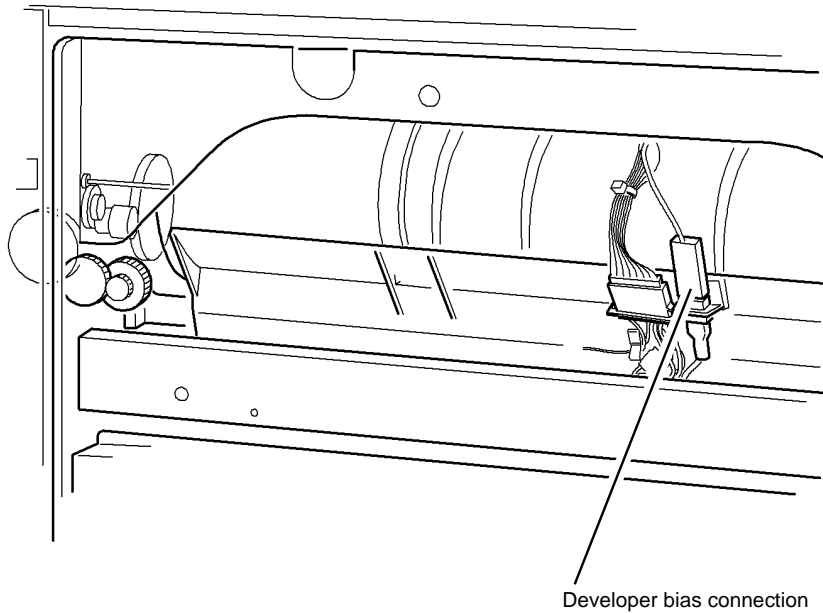
T-1-0107-A

Figure 2 Component location (35 ppm)



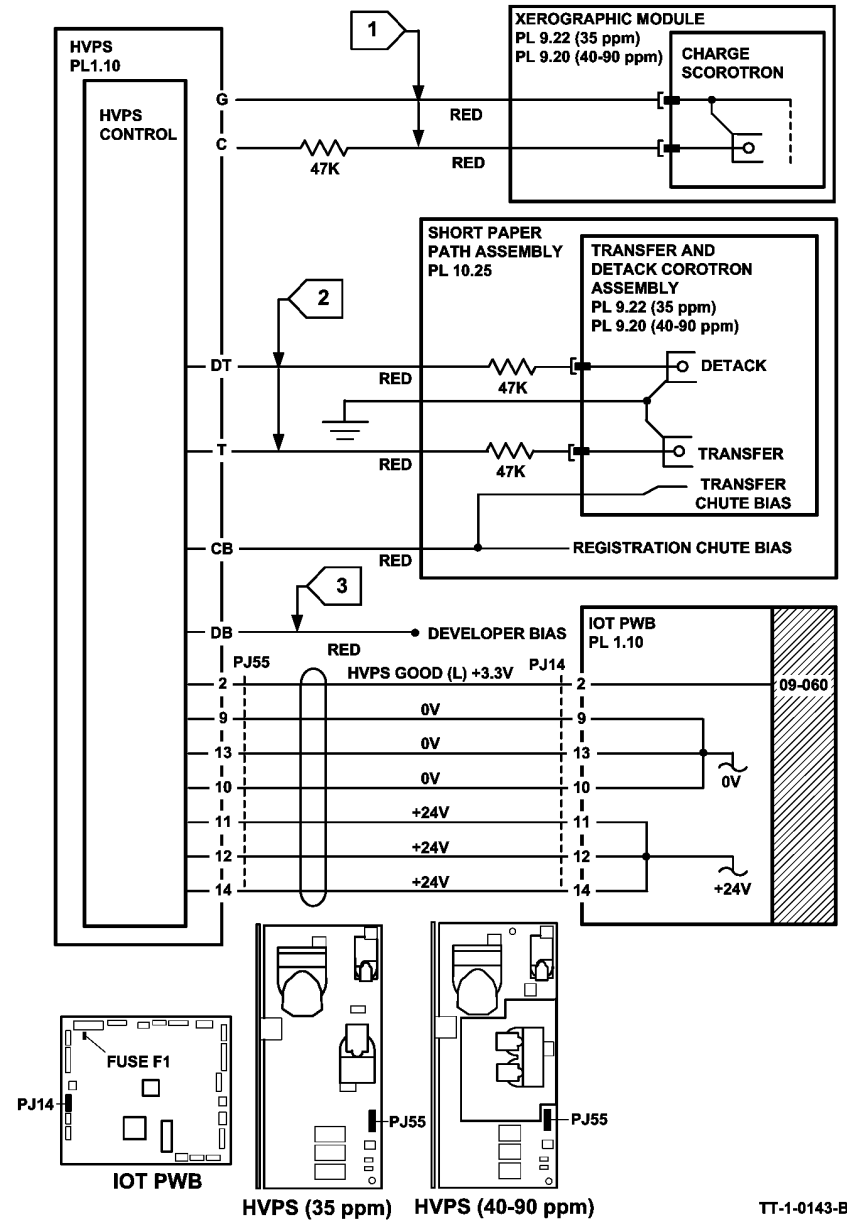
T-1-0108-A

Figure 3 Component location



T-1-0109-A

Figure 4 Component location



TT-1-0143-B

Figure 5 Circuit diagram



## 09-310, 09-390 Low Toner Sensor Failure RAP

**09-310** The toner cartridge motor continues to dispense toner for a period greater than 12 seconds after the low toner sensor detects that the toner dispense module is full.

**09-390** The low toner sensor detects that the toner level is low for a period greater than 70 seconds after toner cartridge motor start.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Figure 1. Ensure the toner cartridge is not empty. If the toner cartridge is empty, install a new toner cartridge, (35-55 ppm) PL 9.17 Item 4, (65-90 ppm) PL 9.15 Item 4.

### Procedure

**NOTE:** The door interlock switch must be cheated when checking +24V components.

**NOTE:** The toner cartridge motor will time out after 5 seconds.

Cheat the door interlock switch. Enter dC330 code 09-045 toner cartridge motor, MOT09-045. Press start. Observe the toner cartridge. **The toner cartridge rotates.**

Y N

The motor runs.

Y N

Go to Flag 1. Check MOT09-045. Refer to:

- GP 10 How to Check a Motor.
- Figure 2.
- P/J6, IOT PWB.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Toner dispense module, (35-55 ppm) PL 9.17 Item 1, (65-90 ppm) PL 9.15 Item 1.
- Developer module, (35-55 ppm) PL 9.17 Item 2, (65-90 ppm) PL 9.15 Item 2.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Check the toner dispense drive gears, Figure 1 and Figure 2.

If necessary install a new toner dispense module, (35-55 ppm) PL 9.17 Item 1, (65-90 ppm) PL 9.15 Item 1.

Enter dC330 code 09-040 toner dispense motor and add the code 09-310 low toner sensor, Q09-310. Press Start.

**NOTE:** It may necessary to enter the codes several times to ensure that the toner dispense motor does actuate and deactivate the low toner sensor. It may be necessary to make several copies to prevent over toning the developer.

The display changes from high to low or low to high.

Y N

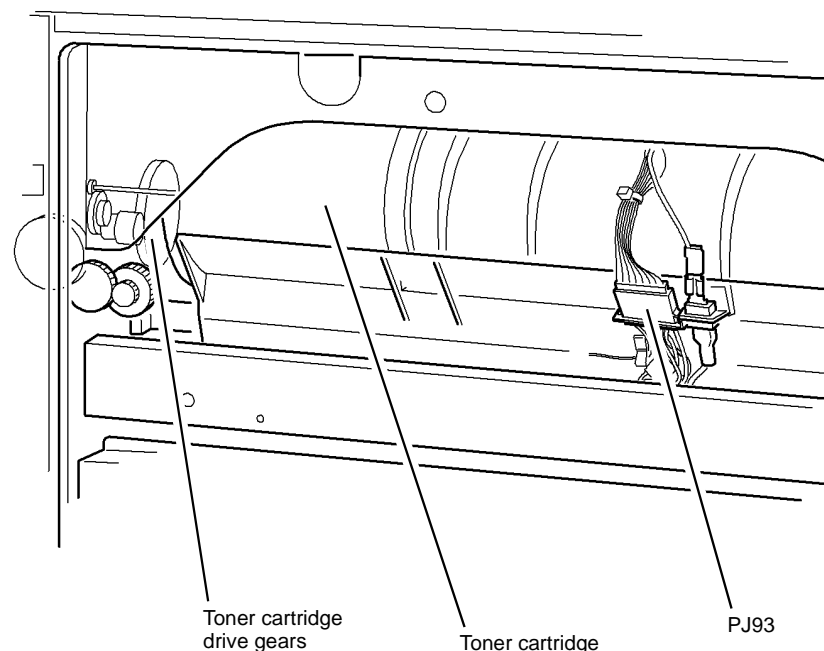
Go to Flag 2. Check Q09-310. Refer to:

- Figure 2.
- P/J6, IOT PWB.
- 01B 0V Distribution RAP.
- 01E +5V Distribution RAP.

Install new components as necessary:

- Low toner sensor, (35-55 ppm) PL 9.17 Item 5, (65-90 ppm) PL 9.15 Item 5.
- Developer module, (35-55 ppm) PL 9.17 Item 2, (65-90 ppm) PL 9.15 Item 2.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

The fault may be intermittent, due to toner bridging inside the toner cartridge. Install a new toner cartridge, (35-55 ppm) PL 9.17 Item 4, (65-90 ppm) PL 9.15 Item 4. Check the image quality and complete SCP 6 Final Actions.



T-1-0110-A

Figure 1 Component location

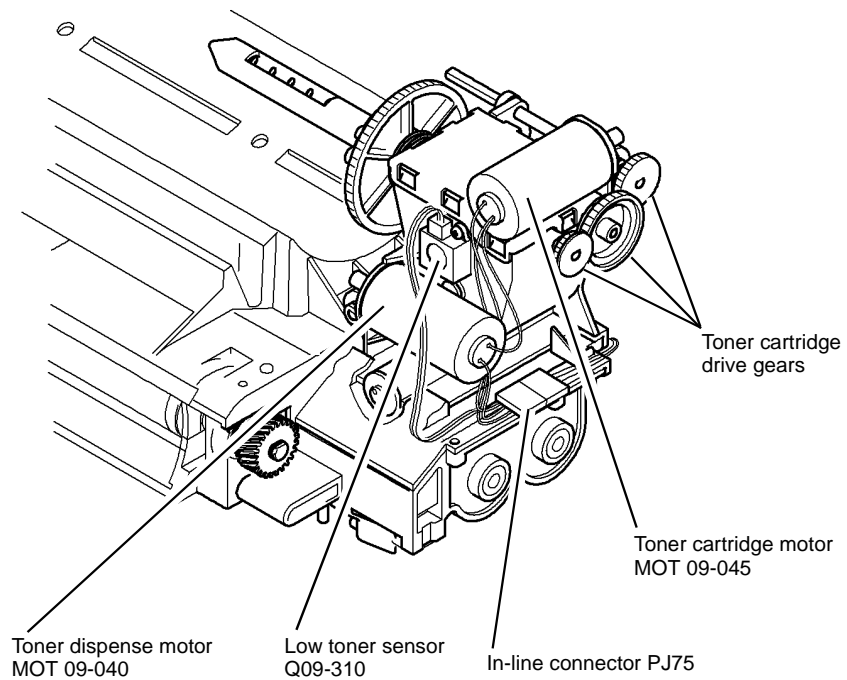
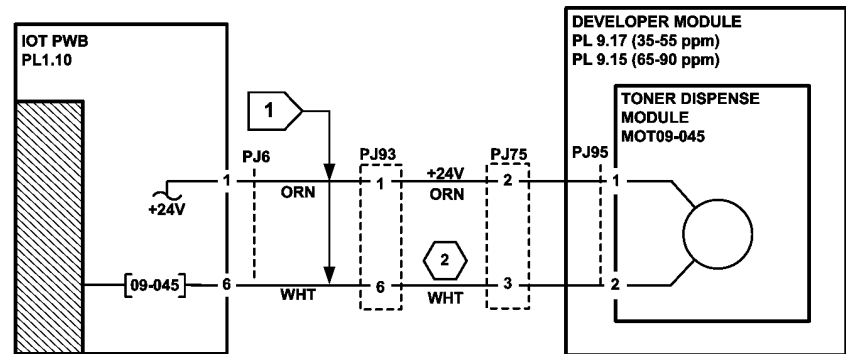
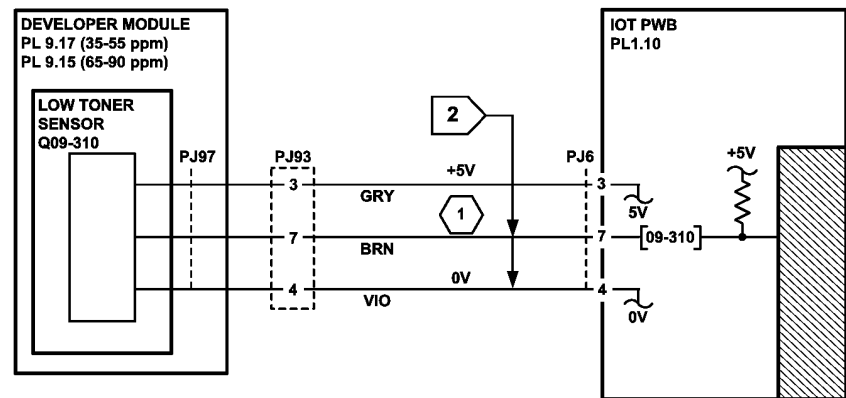
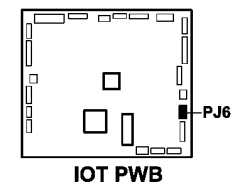


Figure 2 Component Location

T-1-0111-A



- 1 TONER CARTRIDGE FULL = 3.3V  
TONER CARTRIDGE EMPTY = 0V
- 2 MOTOR ON (L) +24V



TT-1-0144-A

Figure 3 Circuit diagram

## 09-341, 09-342 Scorotron Cleaning Failure RAP

09-341 The scorotron cleaning routine has failed to complete.

09-342 A scorotron cleaning warning detected.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the xerographic module is correctly installed.
- Check the scorotron cleaner drive coupling, Figure 1.
- Make sure that the scorotron cleaner home sensor bracket is correctly aligned.

### Procedure

Enter dC330 code 09-071 or 09-072 scorotron cleaner motor. A clicking sound is heard.

Y N  
Go to Flag 2. Check MOT09-043. Refer to:

- GP 10 How to Check a motor.
- P/J64, IOT PWB.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Main drive module, (35-55 ppm) PL 4.15 Item 1, (65-90 ppm) PL 4.10 Item 1.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Enter dC330 code 09-070 scorotron cleaner home sensor, Figure 2. Press Start. Enter dC330 code 09-071 or 09-072 scorotron motor. Actuate the sensor by entering the appropriate code.

The display changes.

Y N  
Go to Flag 1. Check Q09-070. Refer to:

- GP 13 How to Check a Switch.

**NOTE:** The scorotron cleaner home sensor is a magnetic reed switch.

- P/J64, IOT PWB.
- 01D +3.3V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Scorotron cleaner home sensor, (40-55 ppm) PL 4.17 Item 16, (65-90 ppm) PL 4.12 Item 19.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

A  
The fault may be intermittent, perform the following:

- Check the wiring, GP 7. Repair if necessary, REP 1.2.
- Ensure that P/J64 is correctly and securely connected.

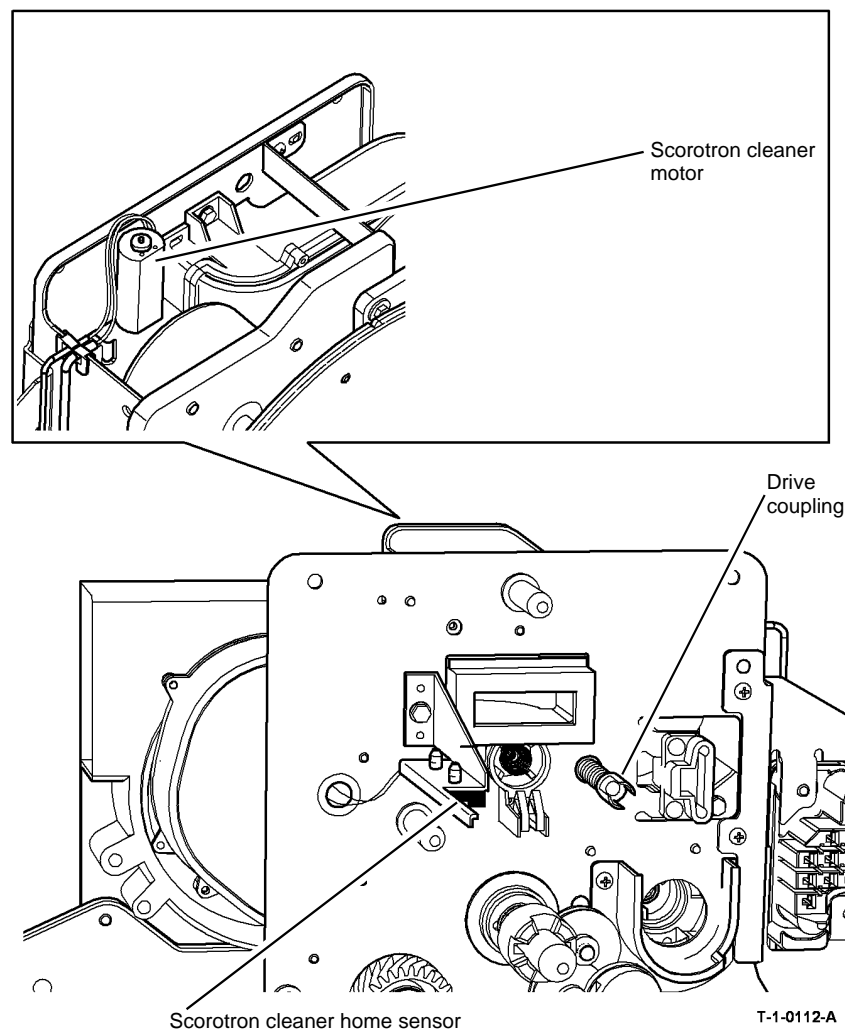


Figure 1 Component location

A

# 09-350 Erase Lamp Failure RAP

09-350 The photoreceptor erase lamp has failed.

## Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

*NOTE:* The xerographic module must be in the machine for the lamp to illuminate.



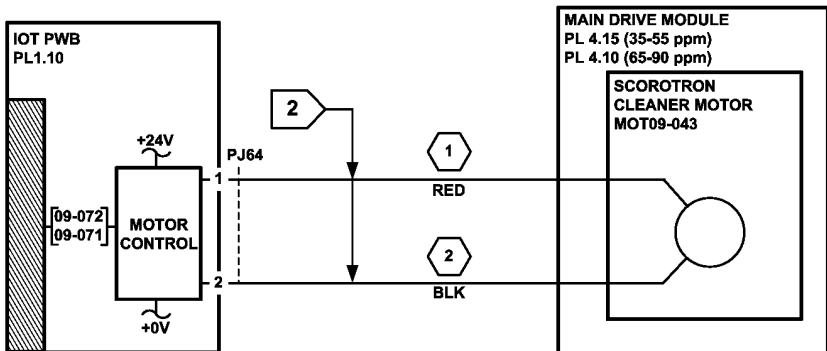
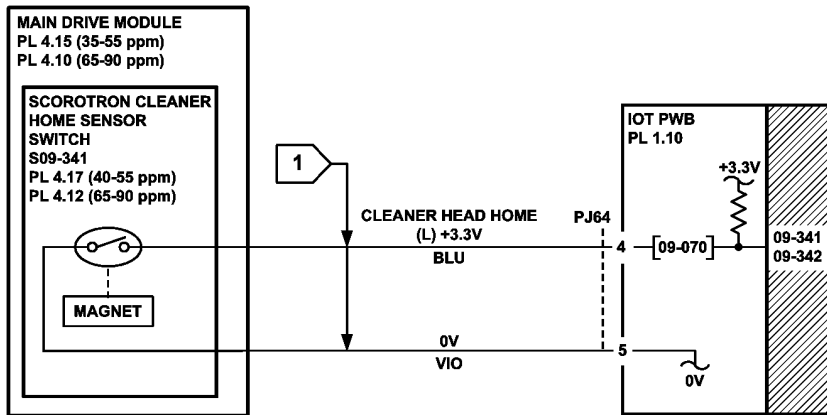
Do not illuminate the erase lamp for an extended length of time as this may cause damage to the xerographic drum.

*NOTE:* The door interlock switch must be cheated when checking +24V components.

Cheat the door interlock switch. Enter dC330 code 09-022, photoreceptor erase lamp. Press start. [Figure 1](#). Observe the erase lamp. All the LEDs of the erase lamp are lit.

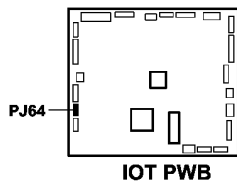
Y	N
Y	N
Some of the LEDs of the erase lamp are lit.	
Y	N
Go to <a href="#">Flag 1</a> . +24V is available at <a href="#">P/J17</a> pin 1 on the <a href="#">LVPS</a> .	
Y	N
Install a new LVPS and base module, <a href="#">PL 1.10 Item 3</a> .	
Y	N
Go to <a href="#">Flag 2</a> . +24V is available at <a href="#">P/J41</a> pin 1.	
Y	N
Go to <a href="#">Flag 1</a> . Check the inline fuse. <b>The fuse is good.</b>	
Y	N
Install a new fuse, <a href="#">GP 7, PL 1.10 Item 9</a> .	
If the fuse blows again, perform the <a href="#">01G +24V Distribution RAP</a> .	
Go to:	
<ul style="list-style-type: none"> <li>Go to <a href="#">01G +24V Distribution RAP</a>.</li> <li><a href="#">01B 0V Distribution RAP</a>.</li> </ul>	
Y	N
Go to <a href="#">Flag 3</a> . +13V is available at <a href="#">P/J5</a> pin 14.	
Y	N
<b>NOTE:</b> To gain access to the erase lamp wiring, remove the main drive module, (35-55 ppm) <a href="#">PL 4.15 Item 1</a> , (65-90 ppm) <a href="#">PL 4.10 Item 1</a> .	
Check the wiring, <a href="#">GP 7</a> , from the in-line fuse to <a href="#">P/J41</a> , pin 2. <b>The wiring is good.</b>	
Y	N
Repair the wiring.	

A B C D



1 +24V WHEN 09-072 IS RUN  
0V WHEN 09-071 IS RUN

2 0V WHEN 09-072 IS RUN  
+24V WHEN 09-071 IS RUN



TT-1-0145-B

Figure 2 Circuit diagram

A B C D

Perform the steps that follow:

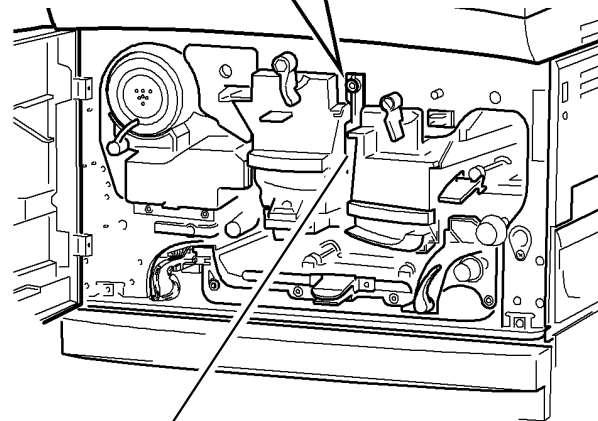
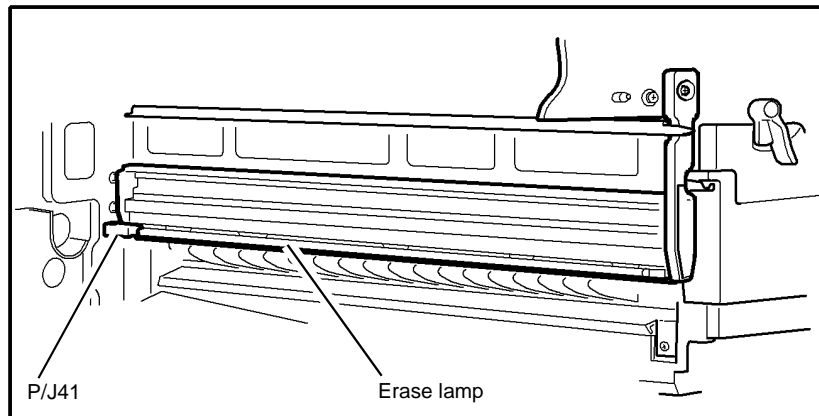
- Check that the connector PJ41 is located correctly in the IOT frame, [Figure 1](#).
- Install a new erase lamp, (35 ppm) [PL 9.22 Item 1](#), (40-90 ppm) [PL 9.20 Item 1](#).

Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Install a new erase lamp, (35 ppm) [PL 9.22 Item 1](#), (40-90 ppm) [PL 9.20 Item 1](#).

The fault may be intermittent. Perform the steps that follow:

- Check the wiring, [GP 7](#) between [P/J41](#) and [P/J17](#) on the LVPS.
- Ensure that the P/Js are correctly and securely connected.
- Malfunction of the following associated circuits can cause 09-350 faults.
  - The inverter paper path and Inverter nip solenoid, go to [10-120](#), [10-121](#), [10-126 IOT Exit Sensor RAP](#).
  - The vacuum transport fan and Registration clutch, go to [10-101A](#), [10-102A](#), [10-103A Lead Edge Late to Fuser Exit Sensor RAP](#).



Erase lamp

T-1-0113-A

**Figure 1 Component location**

## 09-360, 09-361, 09-362, 09-363 Toner Concentration Sensor Failure RAP

**09-360** The toner concentration sensor has registered a reading outside the range, +0.75V to +4.55V for three consecutive sheets.

**09-361** The toner concentration sensor is reading high. This indicates that the toner concentration (TC) is low.

**09-362** The toner concentration sensor is reading low. This indicates that the toner concentration (TC) is high.

**09-363** This code is generated by the following factors:

- The developer is not positioned correctly against the xerographic module.
- The toner concentration is low.
- The machine is being installed.
- On the fifth consecutive occurrence.

GUI message - TONER CONTROL FAILURE

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

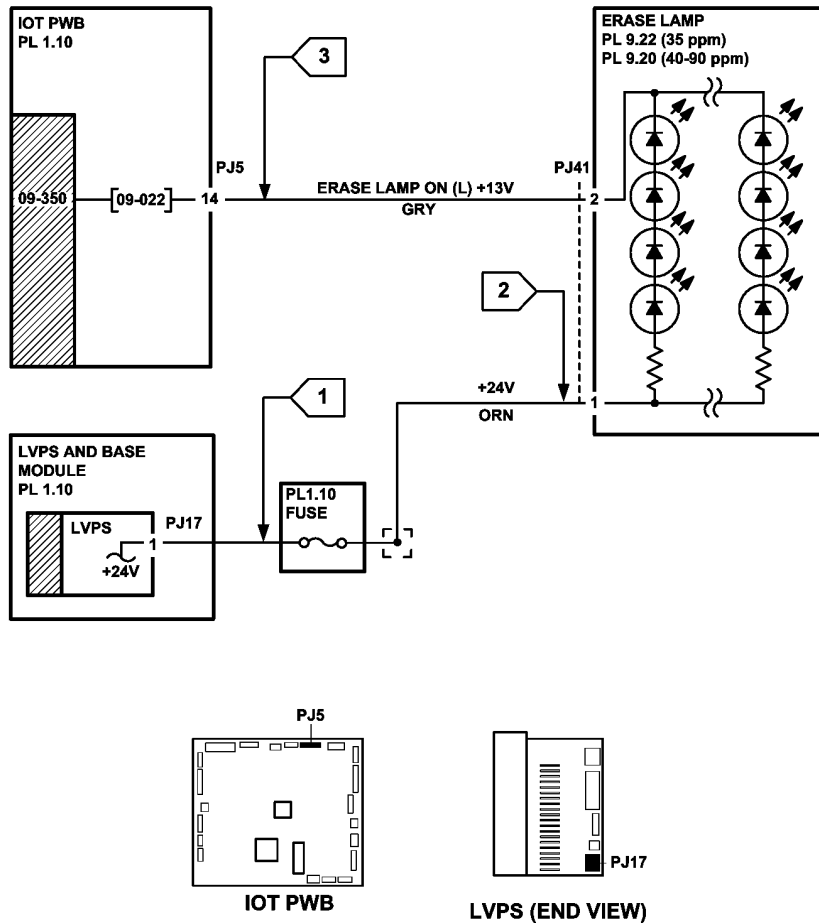
- Check developer roll area for toner and bead contamination. If necessary, go to [IQ1](#) Image Quality Entry RAP.
- If 09-360 fault, enter [dC131](#) location 09-115, sensor failure lockout flag. Check that it is set to '0'. If set at '1' the toner dispense motor will not run.
- If 09-361 fault, enter [dC131](#) location 09-001 TC lockout low. Check that it is set to '0'. If set at '1' the toner dispense motor will not run.
  - Check that when the xerographic module latch is in the locked position, the developer module is correctly installed, [REP 9.2](#).
- If 09-362 fault, enter [dC131](#) location 09-276 TC lockout high. Check that it is set to '0'. If set at '1' the toner dispense motor will not run
- Switch off the machine, then switch on the machine, [GP 14](#).

### Initial Procedure

Make 20 prints. If the following three conditions apply, go to the [09-310, 09-390](#) Low Toner Sensor Failure RAP. If not continue at the [Procedure](#).

**NOTE:** If the machine is unable to make 20 prints, perform the [TC Increase Adjustment](#).

1. The prints or copies are faint.
2. The toner cartridge is not rotating.
3. The low toner sensor, 09-310, reading is high.



TT-1-0146-A

Figure 2 Circuit diagram

## Procedure

**NOTE:** The door interlock switch must be cheated when checking +24V components.

Enter **dC330** code 04-010, to run the main drive motor. Go to **Flag 1**, read the voltage at **P/J93** pin 8 while the main drive motor is running. **The voltage is outside the range of +0.7V to +4.5V.**

**Y N**  
Check the steps that follow:

- Check the wiring, **GP 7**, between **P/J93** to **P/J6** on the **IOT PWB**.
- Refer to the **01B 0V** Distribution RAP.
- The developer module is correctly installed.

**The voltage at P/J93, pin 8, is less than +0.75V.**

**Y N**  
The voltage is greater than +4.5V. Check the wiring, **GP 7**. Go to **Flag 3. +24V is present at P/J93, pin 2.**

**Y N**  
Disconnect **P/J93, Figure 1. +24V is present at the harness end of P/J93, pin 2.**

**Y N**  
Go to:

- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install a new developer module, (35-55 ppm) **PL 9.17 Item 2**, (65-90 ppm) **PL 9.15 Item 2**. Perform **dC905** TC Sensor Calibration.

Go to **Flag 5. 0V is available at P/J93, pin 10.**

**Y N**  
Go to the **01B 0V** Distribution RAP.

Enter **dC131**, 09-069, TC sensor control voltage, and record the displayed value. (100 displayed equals 1 volt). Go to **Flag 4**. Check the voltage at **P/J93**, pin 9. **The displayed value is within 0.2V of the voltage checked at P/J93, pin 9.**

**Y N**  
Disconnect **P/J93**. Check the voltage at pin 9. **The recorded value is within 0.2V of the voltage checked at P/J93, pin 9.**

**Y N**  
Check the wiring, **GP 7**, between **P/J93** and **P/J6** on the **IOT PWB**. **The wiring is good.**

**Y N**  
Repair the wiring, **REP 1.2**. Perform the **TC Increase Adjustment**.

Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**. Perform the **TC Increase Adjustment**.

Install a new developer module, (35-55 ppm) **PL 9.17 Item 2**, (65-90 ppm) **PL 9.15 Item 2**. Perform **dC905** TC Sensor Calibration.

Enter **dC330**. Enter the code 04-010, main drive motor. Press start. Add the code 09-040, toner dispense motor. Press Start.

**NOTE:** The routine 09-040 times out after 5 seconds.

**The toner dispense motor runs.**

**Y N**  
Go to **Flag 2**. Check MOT09-040. Refer to:

- **GP 10** How to Check a Motor.
- **P/J6, IOT PWB**.
- Go to **01G** +24V Distribution RAP.
- Go to **01B** 0V Distribution RAP.

Install new components as necessary:

Toner dispense module, (35-55 ppm) **PL 9.17 Item 1**, (65-90 ppm) **PL 9.15 Item 1**.

Check the toner dispense drive gears, **Figure 1**. **The gears rotate.**

**Y N**  
Install a new toner dispense module, (35-55 ppm) **PL 9.17 Item 1**, (65-90 ppm) **PL 9.15 Item 1**.

Add the code 09-310, low toner sensor. Energize the components in the following order:

- 04-010, main drive motor.
- 09-010, photoreceptor motor.
- 09-040, toner dispense motor.

**When the toner dispense motor stops, the toner level sensor display value is LOW.**

**Y N**  
Go to the **09-310, 09-390** Low Toner Sensor Failure RAP.

Perform the **TC Increase Adjustment**.

Check the wiring, **GP 7**, between **P/J6** on the IOT PWB and **P/J93** on the developer module, **Figure 1**. **The wiring is good.**

**Y N**  
Repair the wiring.

Go to **Flag 3. +24V is present at P/J93, pin 2.**

**Y N**  
Disconnect **P/J93, Figure 1. +24V is present at the harness end of P/J93, pin 2.**

**Y N**  
Go to:

- **01G** +24V Distribution.
- **01B** 0V Distribution RAP.

Install a new developer module, **PL 9.15 Item 2**. Perform **dC905** TC Sensor Calibration.

Go to **Flag 5. 0V is available at P/J93 pin 10.**

**Y N**  
Go to the **01B 0V** Distribution RAP.

Enter **dC131**, 09-069, TC sensor control voltage, and record the displayed value. (100 displayed equals 1 volt). Go to **Flag 4**. Check the voltage at **P/J93**, pin 9. **The displayed value is within 0.2V of the voltage checked at P/J93 pin 9.**

A

Y N  
Disconnect P/J93. Check the voltage at pin 9. The displayed value is within 0.2V of the voltage checked at P/J93 pin 9.

Y N  
Check the wiring, GP 7, between P/J93 and P/J6 on the IOT PWB. The wiring is good.

Y N  
Repair the wiring, REP 1.2. Perform the TC Increase Adjustment

Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2. Perform the TC Increase Adjustment

Install a new developer assembly, (35-55 ppm) PL 9.17 Item 2, (65-90 ppm) PL 9.15 Item 2. Perform dC905 TC Sensor Calibration.

Perform the TC Reduction Adjustment.

If the 09-360 is intermittent and causes the message Machine unavailable. Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Perform the TC Reduction Adjustment.

### TC Reduction Adjustment

Perform the following:

1. Enter dC330, code 04-010, main drive motor; code 09-010, photoreceptor motor; 09-066, developer bias.
2. Start the routine. The start will have to be pressed every 5 seconds to restart the developer bias routine.
3. Monitor the voltage output, Flag 1, at P/J6 pin 8 on the IOT PWB.

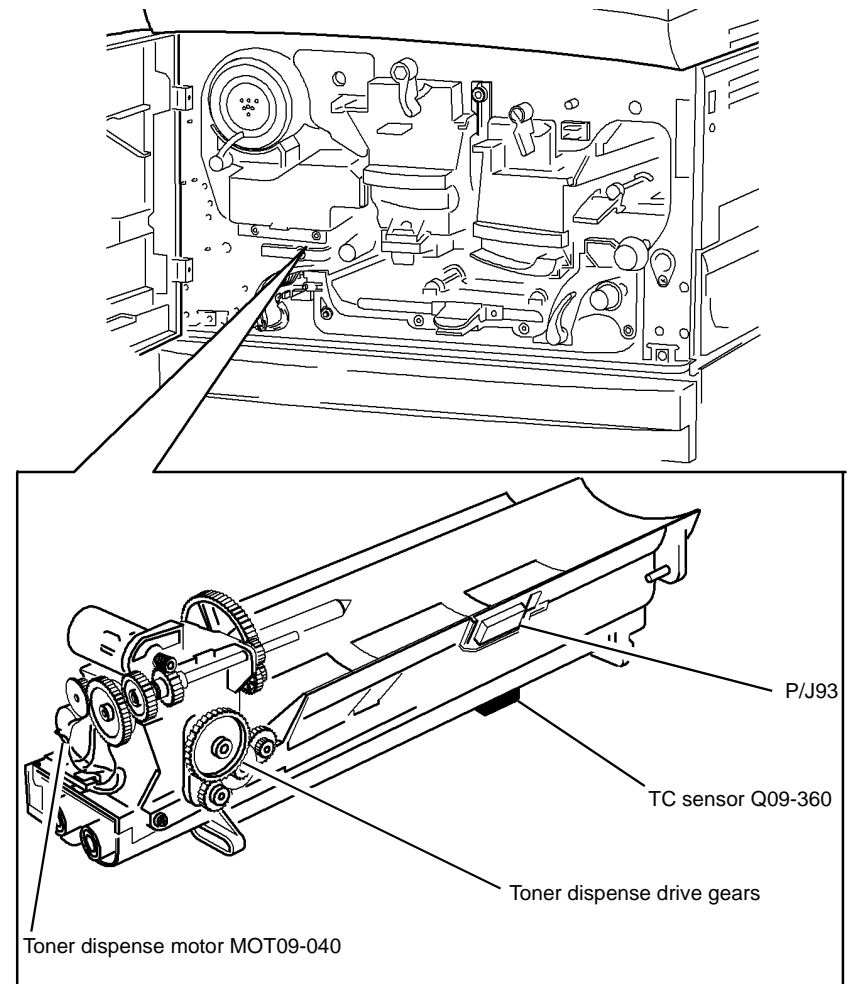
**NOTE:** The toner concentration cannot be adjusted and maintained by making high area coverage prints.

4. Run the routine until the monitored voltage is greater than 0.9 volts.
5. Check the image quality.

### TC Increase Adjustment

Perform the following:

1. Enter dC330, code 04-010, main drive motor; 09-040, toner dispense motor; 09-045, toner cartridge motor.
2. Start the routine. The start will have to be pressed every 5 seconds to restart the toner dispense motor and the toner cartridge routines.
3. Monitor the voltage output, Flag 1, at P/J6 pin 8 on the IOT PWB.
4. Run the routine until the monitored voltage is between 2.2 and 2.8 volts
5. Check the image quality.



T-1-0114-A

Figure 1 Component location



## 09-365 Relative Humidity Sensor Failure RAP

09-365 Average humidity reading is out of limits.

Also use this RAP if the relative humidity sensor is suspected of working incorrectly. A faulty relative humidity sensor can cause image quality problems.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, [GP 14](#).

### Procedure

Enter [dC330](#) code 09-365, relative humidity sensor, Q09-365. Press start. Observe the displayed state of Q09-365. [Figure 1](#). Open the bypass tray, gently blow on the relative humidity sensor PWB. Observe again the displayed state of Q09-365. The displayed state has changed.

Y N  
Go to [Flag 1](#). Check for +5V at [P/J7](#) pin 3 on the IOT PWB. +5V is present.

- Y N  
Go to:
- [01E](#) +5V Distribution RAP.
  - [01B](#) 0V Distribution RAP.

Go to [Flag 1](#). Check for +5V at [P/J46](#) pin 1. +5V is present.

Y N  
Check the wiring between [P/J7](#) on the IOT PWB and [P/J46](#), [GP 7](#). Repair wiring as necessary, [REP 1.2](#).

Install a new relative humidity sensor / ambient temperature sensor, (35 ppm) [PL 9.22](#) [Item 4](#), (40-90 ppm) [PL 9.20](#) [Item 4](#).

If the fault continues, perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10](#) [Item 2](#).

If possible, check the relative humidity of the external environment using a hygrometer. Compare with a reading from the sensor Q09-365. Refer to the NOTE above [Table 1](#). If a hygrometer is not available refer to [Table 1](#) for the approximate expected humidity value. Compare the expected values with Q09-365. If the value of Q09-365 is very different from the expected reading.

Install a new relative humidity sensor / ambient temperature sensor, (35 ppm) [PL 9.22](#) [Item 4](#), (40-90 ppm) [PL 9.20](#) [Item 4](#).

If the fault continues, perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10](#) [Item 2](#).

If the fault is intermittent, perform the steps that follow:

- Check the wiring, [GP 7](#). Repair if necessary, [REP 1.2](#).
- Make sure that the P/Js are correctly and securely connected.

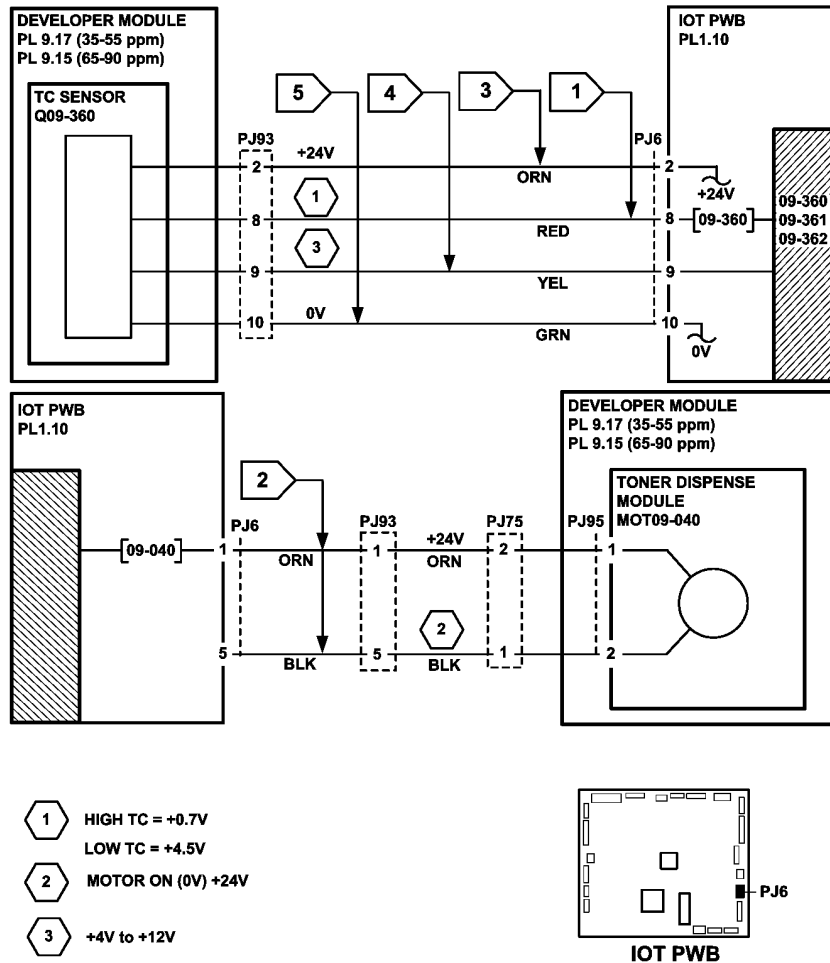
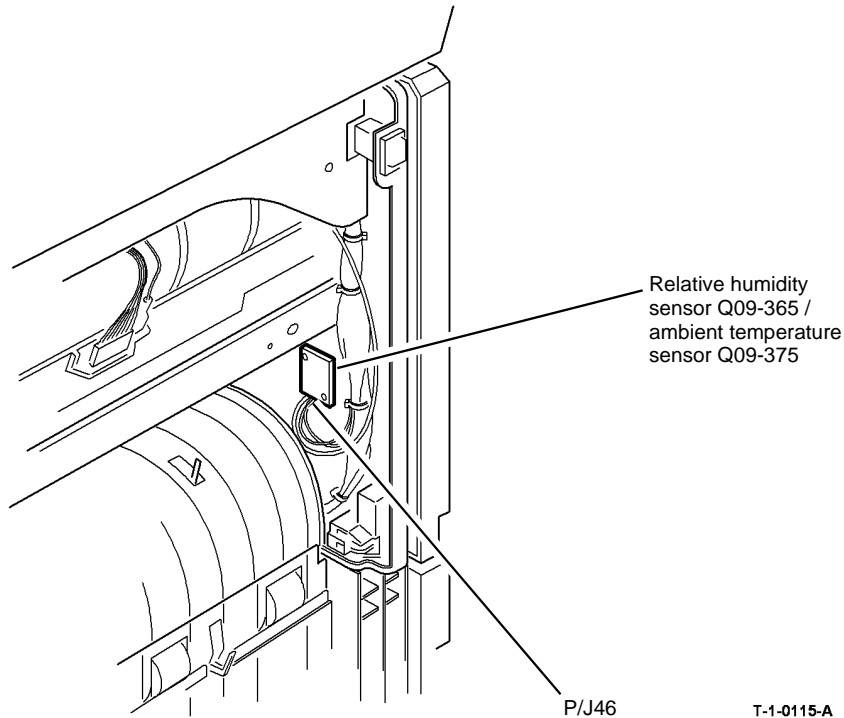


Figure 2 Circuit diagram

**NOTE:** The actual value is not critical. If the reading from Q09-365 is approximately within the range indicated in column 4, [Table 1](#), the sensor is good.

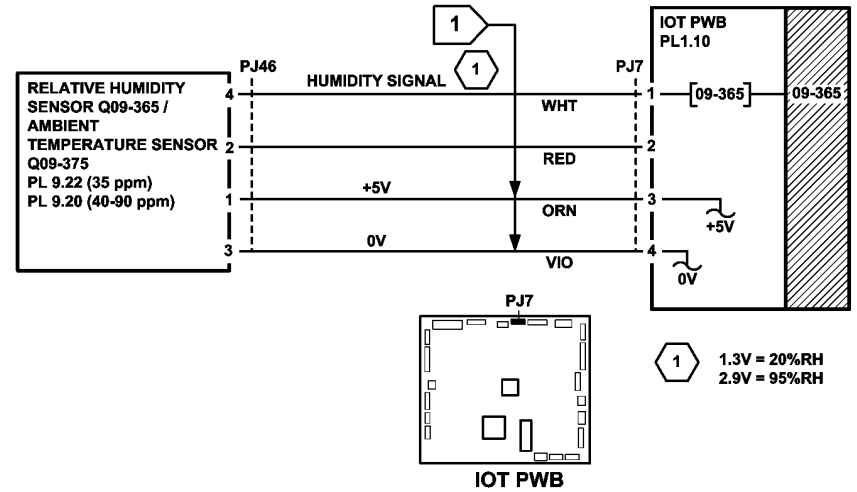
**Table 1** Relative humidity values

External environment	Average relative humidity	Cold machine relative humidity	Warm machine relative humidity
Wet	80%	80%	40% to 50%
Ambient	50%	50%	15% to 30%
Dry	10%	10%	1% to 7%



**Figure 1** Component location

T-1-0115-A



**Figure 2** Circuit diagram

TT-1-0148-A

# 09-370 Developer Temperature Sensor Failure RAP

09-370 The average developer temperature reading is out of limits.

## Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, GP 14.

## Procedure

Enter dC330 code 09-370, developer temperature sensor Q09-370. Press start. Observe the displayed state of Q09-370. Remove the xerographic module. Disconnect P/J47, Figure 1. Cheat the front door interlock. Observe again the displayed state of Q09-370. **The displayed state has changed.**

Y N  
Go to Flag 1. Check for +5V at P/J7 pin 5 on the IOT PWB. **+5V is present.**

- Y N  
Go to:
- 01E +5V Distribution RAP.
  - 01B 0V Distribution RAP.

Go to Flag 1. Check for +5V at P/J47 pin 3. **+5V is present.**

Y N  
**NOTE:** To gain access to the wiring, remove the main drive module, (35-55 ppm) PL 4.15 Item 1, (65-90 ppm) PL 4.10 Item 1 and the left hand cover, PL 8.10 Item 3.

Check the wiring between P/J7 on the IOT PWB and P/J47. Repair the wiring as necessary, REP 1.2.

Install a new temperature sensor, (35 ppm) PL 9.22 Item 5, (40-90 ppm) PL 9.20 Item 5. If the fault persists. Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Q09-370 is working correctly. Reconnect P/J47.

If the fault is intermittent, perform the steps that follow:

- Check the wiring, GP 7. Repair if necessary, REP 1.2.
- Make sure that the P/Js are correctly and securely connected.

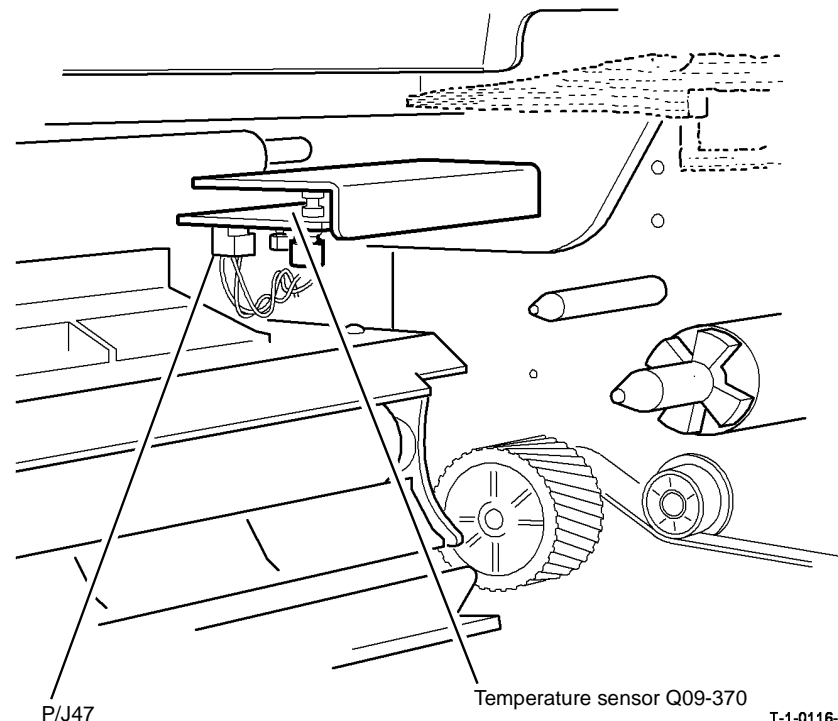


Figure 1 Component Location

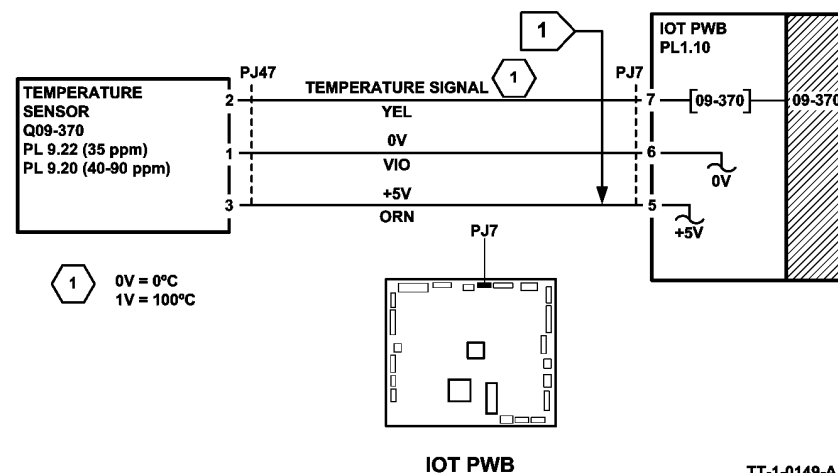


Figure 2 Circuit diagram

## 09-375 Ambient Temperature Sensor Failure RAP

09-375 The average ambient temperature is out of limits.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, GP 14.

Disconnect then re-connect P/J46 on the relative humidity sensor / ambient temperature sensor and P/J7 on the IOT PWB.

### Procedure

Enter dC330, code 09-375 is available to use.

Y N  
Connect a service meter between P/J7 and the machine frame and note the voltage reading. Open the left hand door, gently blow on the temperature sensor PWB. **The meter reading has changed.**

Y N  
Go to Flag 1. Check for +5V at P/J7 pin 3 on the IOT PWB. **+5V is present.**

Y N  
Go to:  
• 01E +5V Distribution RAP.  
• 01B 0V Distribution RAP.

Go to Flag 1. Disconnect P/J46. Check for +5V at P/J46, pin 1. **+5V is present.**

Y N  
Check the wiring between P/J7 on the IOT PWB and P/J46, GP 7. Repair the wiring as necessary.

Install a new relative humidity sensor / ambient temperature sensor, (35 ppm) PL 9.22 Item 4, (40-90 ppm) PL 9.20 Item 4.  
If the fault persists, perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

The ambient temperature sensor is working correctly.  
If the fault is intermittent, perform the steps that follow:

- Check the wiring, GP 7. Repair if necessary, REP 1.2.
- Make sure that the P/Js are correctly and securely connected, GP 11.

Enter dC330 code 09-375, ambient temperature sensor, Q09-375. Press start. Observe the displayed state of Q09-375. Figure 1. Open the left hand door, gently blow on the temperature sensor PWB. Observe again the displayed state of Q09-375. **The displayed state has changed.**

Y N  
Go to Flag 1. Check for +5V at P/J7 pin 3 on the IOT PWB. **+5V is present.**

Y N  
Go to:  
• 01E +5V Distribution RAP.  
• 01B 0V Distribution RAP.

Go to Flag 1. Disconnect P/J46. Check for +5V at P/J46, pin 1. **+5V is present.**

Y N  
Check the wiring between P/J7 on the IOT PWB and P/J46, GP 7. Repair the wiring as necessary.

Install a new relative humidity sensor / ambient temperature sensor, (35 ppm) PL 9.22 Item 4, (40-90 ppm) PL 9.20 Item 4.  
If the fault persists, perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

The ambient temperature sensor is working correctly.  
If the fault is intermittent, perform the steps that follow:

- Check the wiring, GP 7. Repair if necessary, REP 1.2.
- Make sure that the P/Js are correctly and securely connected, GP 11.

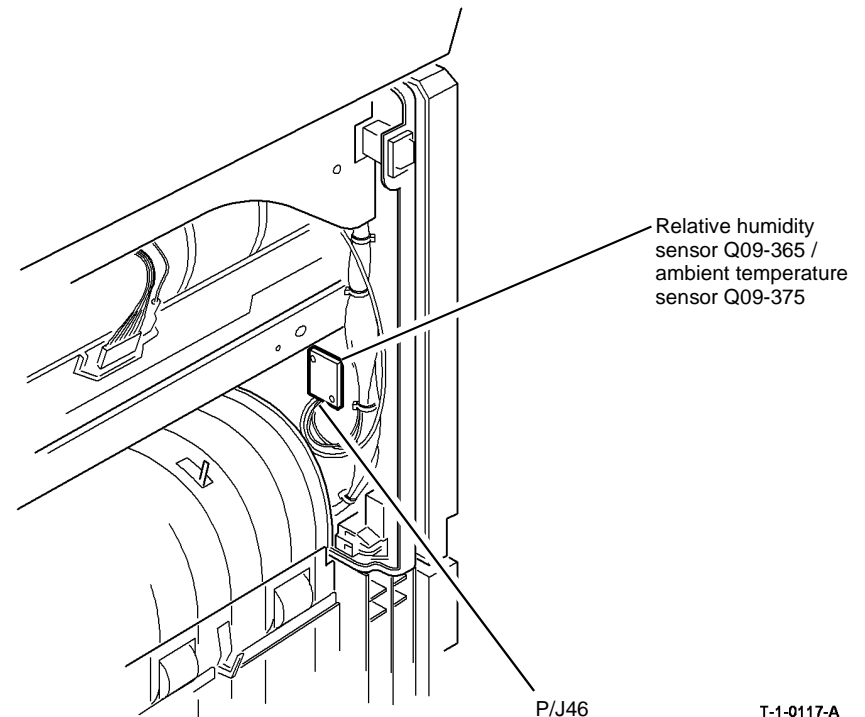


Figure 1 Component location

T-1-0117-A

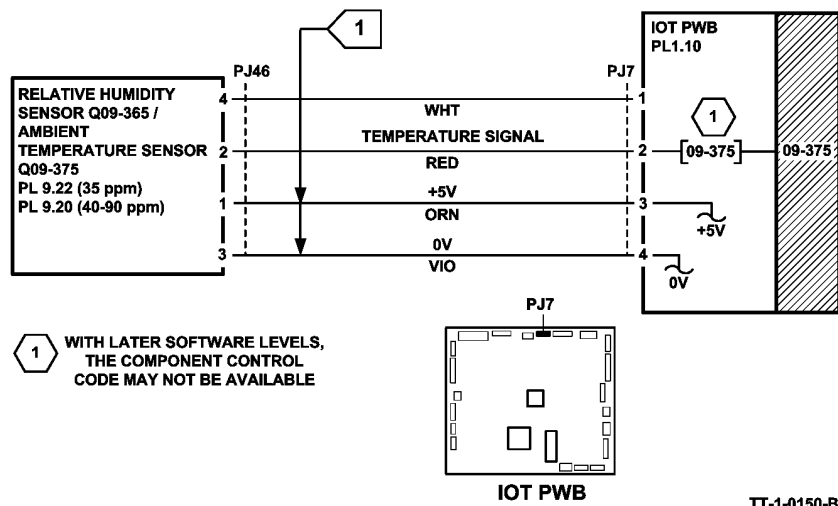


Figure 2 Circuit diagram

## 09-380 Waste Toner Door Switch Failure RAP

09-380 The waste toner door switch has detected that the waste toner bottle is missing or the door is open during run.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1. Ensure that the waste toner door is fully closed.

### Procedure

Enter dC330 code 09-380 waste toner door switch, S09-380. Press start. Open and close the waste toner door. **The display changes.**

Y N

Go to Flag 1. Check S09-380. Refer to:

- GP 13 How to Check a Switch.
- P/J7, IOT PWB.
- 01D +3.3V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Waste toner door switch, (35-55 ppm) PL 4.15 Item 8, (65-90 ppm) PL 4.10 Item 8.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.
- Main drive module, (35-55 ppm) PL 4.15 Item 1, (65-90 ppm) PL 4.10 Item 1.

Make sure that S09-380 is mounted correctly. Install new components as necessary.

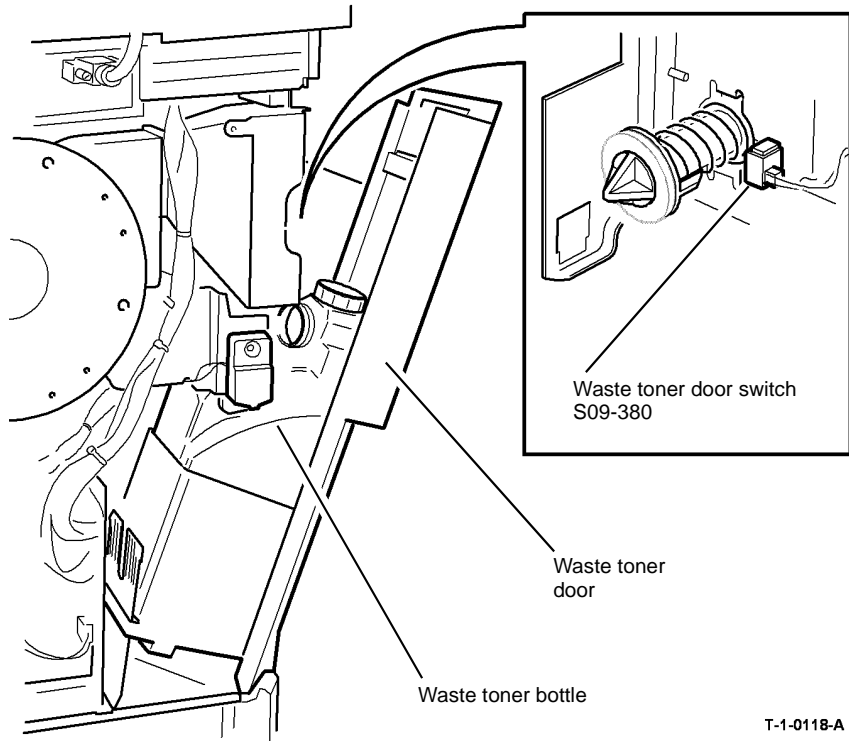


Figure 1 Component location

T-1-0118-A

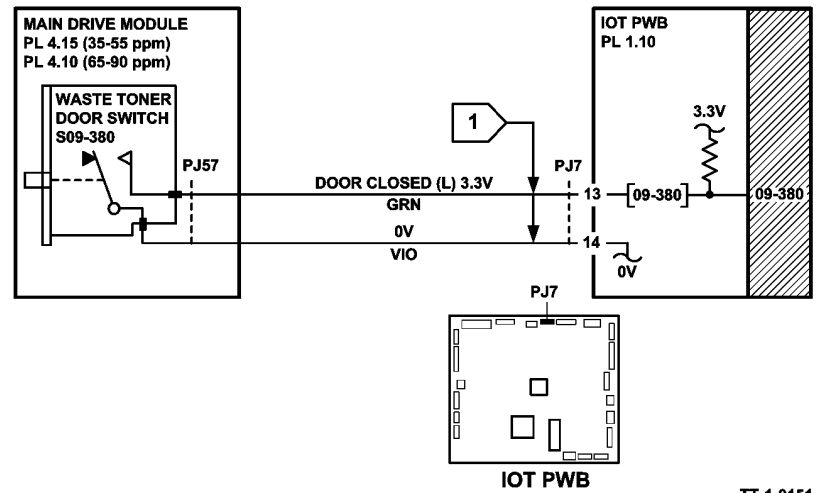


Figure 2 Circuit diagram

TT-1-0151-A

## 09-399 Incompatible Xerographic Module RAP

09-399 The xerographic module CRUM failed the authorization check.

The authorization check is performed to ensure that the xerographic module installed in the system is compatible with the current machine configuration and the customer service plan.

The message **Replace Xerographic Module** that may or may not be accompanied with the message **not compatible** or **incompatible**, with an 09-587 status code in the event log.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Do not install a new sold xerographic module into a meter service plan machine. This will convert the machine to a sold service plan. But this may not be noticed until the sold xerographic module has failed and is renewed with a meter xerographic module.

- Check that the xerographic module matches the customer service plan
- Install a new xerographic module that matches the machine configuration and the customer service plan, (35 ppm) [PL 9.22 Item 2](#), (40-90 ppm) [PL 9.20 Item 2](#)

**NOTE:** If a customer's machine on a B - metered/non-sold plan, has a sold/non-metered xerographic module inadvertently installed, the customer's billing plan will automatically be set to A - sold/non-metered. From that point on, the machine will not accept the customer's usual metered/non-sold xerographic modules.

### Procedure

To check the chosen service plan:

1. Enter Customer Administration Tools, [GP 24](#).
2. Select Consumables Management.
3. Select Service Plan.
4. The greyed out icon will indicate the chosen service plan. Refer to [Table 1](#).

**NOTE:** All new machines are configured to metered. A customer with an unmetered plan should only have new sold xerographic module.

Table 1 Service plan

Service plan type	Service plan description
A	Sold - Xerox service agreement does not include the cost of the xerographic module
B	Meter - Xerox service agreement does include the cost of the xerographic module
C	Aftermarket -System will accept non-Xerox and OEM supplied xerographic module with no CRUM
D	Not used

**NOTE:** There is no communication with the CRUM when the system is configured to aftermarket (3rd party).

5. If the fault persists, perform the following:
  - a. Reset the machine configuration, perform [GP 15](#) How to Set the Machine Configuration.
  - b. [03-371](#), [03-372](#) Fuser and Xerographic CRUM Communication Error RAP.

### To Change the Service Plan Type

1. Ensure a xerographic module to match the new service plan is installed in the machine.
2. Obtain the machine serial number.
3. Enter the Service Plan, refer to the [Procedure](#).
4. Contact the market region technical specialist for a confirmation number.
5. Enter the confirmation number.
6. Press Enter.
7. Follow the message set to Exit.
8. Check that the service plan is correct.

### OpCo ID (Market Region) Validation Criteria

The xerographic module will be sold in the following market regions.

- NASG-N - North american solutions group.
- NASG-S - North american solutions group.
- ESG - European solutions group.
- DMO-E - Developing markets east.
- DMO-W - Developing markets west.

For each market region the system will support the xerographic modules configured as indicated by 'Yes' in [Table 2](#). e.g. a xerographic module configured as NASG-S will function in the following machine / market regions: NASG-N, NASG-S and DMO-W.

Xerographic modules configured to 'world wide' are for all markets.

The system will not accept a xerographic module that does not match the OpCo ID (market region) of the system. If there is a mismatch between the system configuration and the OpCo ID then an incompatible xerographic module message will be displayed on the GUI.

## 09A Photoreceptor Motor RAP

### Procedure

Go to the [04A](#) Main Drive Motor and Photoreceptor Motor RAP.

**Table 2 OpCo ID (Market region)**

Xerographic module	System configuration (Xerox OpCo ID)				
	NASG-N	NASG-S	DMO-W	DMO-E	ESG
NASG-N	Yes	Yes	Yes	No	No
NASG-S	Yes	Yes	Yes	No	No
DMO-W	Yes	Yes	Yes	No	No
DMO-E	No	No	No	Yes	Yes
ESG	No	No	No	Yes	Yes
World wide	Yes	Yes	Yes	Yes	Yes



## 09B Waste Toner Full Sensor RAP

Use this RAP if the message 'waste toner bottle nearly full' appears, when the waste toner bottle is empty.

The waste toner bottle has the capacity to hold the waste toner from over 100K prints at 6% average area coverage.

The waste toner sensor is an infrared transmission sensor. The sensor consists of an infrared emitter on one side of the bottle and an infrared detector on the other side of the bottle.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check if the waste toner bottle is full, [PL 9.10 Item 1](#).
- Check for toner contamination around the waste toner full sensor, [Figure 1](#).

### Procedure

Use thick black card to manually actuate the sensor. Enter [dC330](#) code 09-350 waste toner full sensor, Q09-350. Pass the black card between the sensor transmitter and receiver. The display changes.

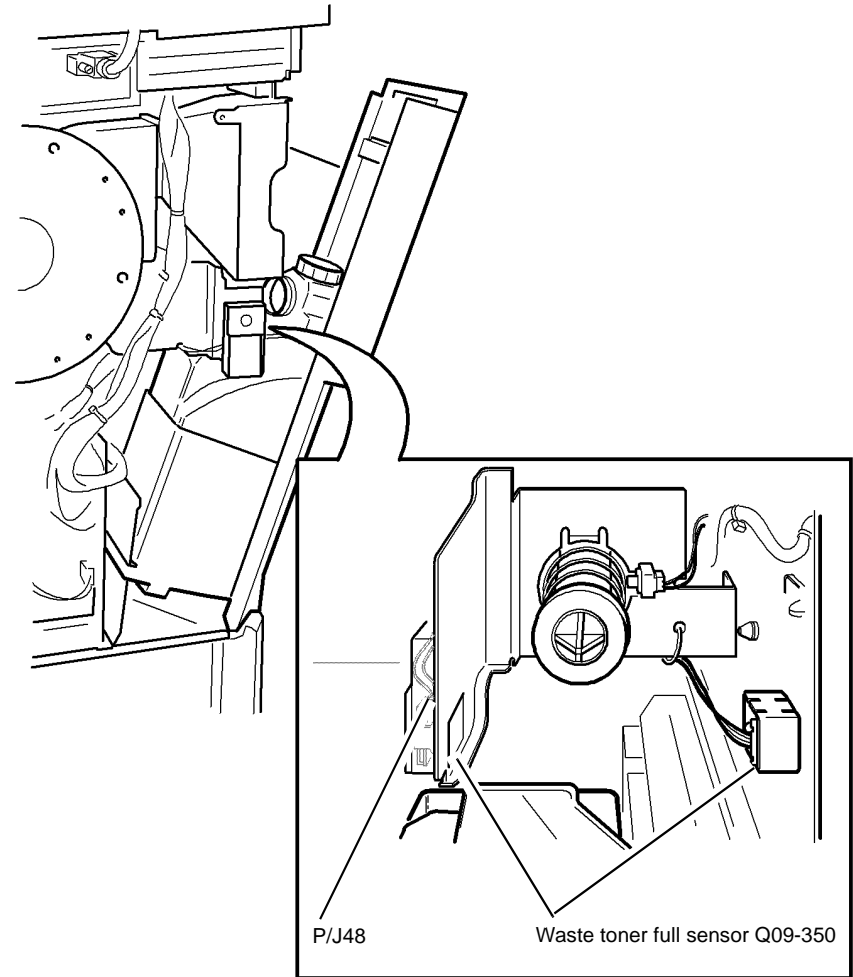
**Y** **N**  
Go to [Flag 1](#). Check Q09-350. Refer to:

- [GP 11](#) How to Check a Sensor.
- [Figure 1](#).
- [P/J7, IOT PWB](#).
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary.

- Waste toner full sensor, [PL 9.10 Item 2](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

The fault may be intermittent. Check that the sensor is located correctly on the support bracket and on the machine frame. Check for damaged components on the sensor, [PL 9.10 Item 2](#).



T-1-0120-A

Figure 1 Component location

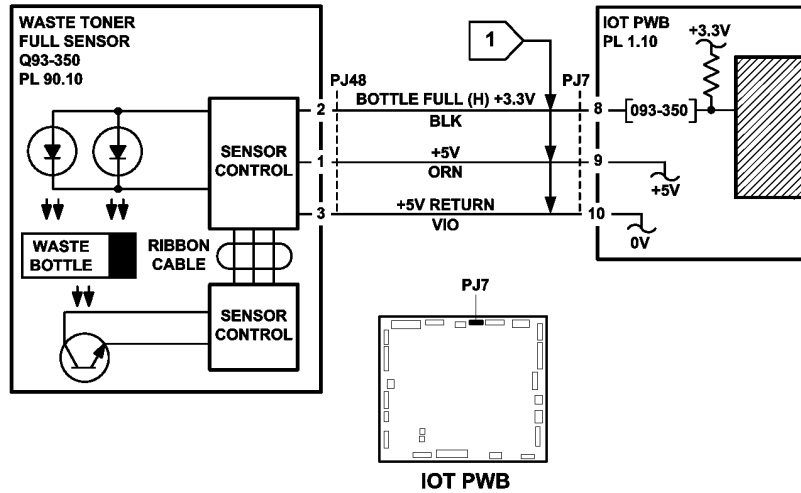


Figure 2 Circuit diagram

TT-1-0152-B

## 09C Photoreceptor Fan RAP

Use this RAP to check the photoreceptor fan.

**NOTE:** A faulty photoreceptor fan can cause image quality problems.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine GP 14. Remove the photoreceptor fan, PL 9.25 Item 7, from the photoreceptor duct. Fans produced during March/April 2006 are known to have a reliability problem. Check the serial number label on the top of the fan frame. The serial number is between F09 to F21.

Y N

Switch on the machine, GP 14. Check the airflow by holding a piece of paper over the fan intake, PL 9.25 Item 6. The fan is running.

Y N

Go to Flag 1. Check the photoreceptor fan motor. Refer to GP 10, How to Check a Motor. Check the following:

- +11V at P/J42 during standby, rising to +15V during run.
- +11V at P/J17 during standby, rising to +15V during run.
- Continuity between P/J42 and P/J17. If necessary repair the harness, REP 1.2.

Install new components as necessary.

- Photoreceptor fan assembly, PL 9.25 Item 6.
- LVPS and base module, PL 1.10 Item 3.

Ensure that the fan is installed correctly. If the fan is installed correctly air will be drawn into the air intake. Refer to the OF6 Ozone and Air Systems RAP.

Observe the fan, if the fan is exhibiting any of the following symptoms, install a new photoreceptor fan assembly, PL 9.25 Item 6 .

- Running at low speed
- Oscillating without turning
- Runs for a few seconds, then stops for a few second repeatedly

The fault may be intermittent, go to Flag 1. Check the harness and the connectors, GP 7. If necessary, install a new photoreceptor fan assembly, PL 9.25 Item 6 .

Install a new photoreceptor fan assembly, PL 9.25 Item 6 .

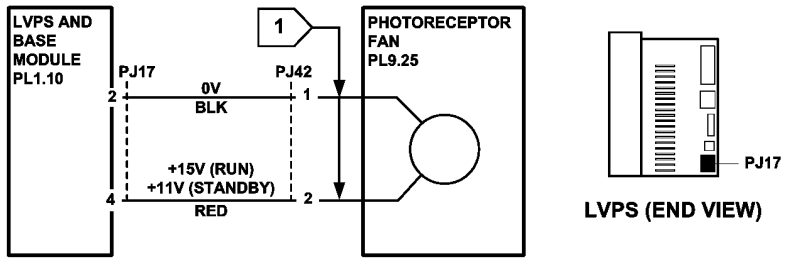


Figure 1 Circuit diagram

TT-1-0153-B



## 10-101, 10-102, 10-103 Lead Edge Late to Fuser Exit Switch Entry RAP

**10-101** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a simplex sheet.

**10-102** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a duplex sheet side 1.

**10-103** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a duplex sheet side 2.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Before performing this procedure, check that the paper is not being skewed at any point between the paper tray and the fuser module. If skew is found, go to [IQ8 Skew RAP](#).

### Procedure

- If the speed of the machine is 35-55 ppm, go to [10-101A, 10-102A, 10-103A](#) Lead Edge Late to Fuser Exit Switch RAP.
- If the speed of the machine is 65-90 ppm, go to [10-101B, 10-102B, 10-103B](#) Lead Edge Late to Fuser Exit Switch RAP.

## 10-101A, 10-102A, 10-103A Lead Edge Late to Fuser Exit Switch RAP (35-55 ppm)

**10-101** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a simplex sheet.

**10-102** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a duplex sheet side 1.

**10-103** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a duplex sheet side 2.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**



**Do not touch the fuser while it is hot.**

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to [10-101, 10-102, 10-103](#) Lead Edge Late to Fuser Exit Switch Entry RAP.
- Check the condition of the paper in all trays. Refer to [IQ1](#) and [GP 20](#).
- Check for obstructions in the registration transport, [Figure 2](#).
- Check for obstructions in the short paper path assembly, [Figure 3](#).
- Check that the short paper path assembly latches without excessive force, [PL 10.25 Item 1](#). Go to [REP 10.1](#). In Replacement Step 5, check the latch mechanism.
- Check the stripper fingers on the xerographic module.
- Check for paper in the fuser module.
- Check the fuser stripper fingers for contamination, (35-55 ppm) [PL 10.8 Item 4](#).
- If a 10-101 is caused by paper fed from the bypass tray, check for paper skew.
- If a 10-103 is caused by a skewed sheet on side 2, check the inverter, [PL 10.12 Item 1](#). Also check the duplex paper path (35-55 ppm) [PL 8.22 Item 1](#). Install new components as necessary.
- If 10-101 jams, check that all of the HT connectors are pushed fully home on the HVPS.
- If the fault is 10-101 and the paper is fed from tray 1 or tray 2. Check if the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install [TAG 002](#) on the paper tray to constrain the effect of the curl.
- Install the XRU skids kit to eliminate paper jams caused by curled copies between the XRU and the fuser module, (35 ppm) [PL 9.22 Item 21](#), (40-90 ppm) [PL 9.20 Item 19](#).
- If 10-101 jams are concurrent with feeding small size media e.g. A5, 8.5 x 5.5 inch paper, ensure a W/O [TAG 114](#) short paper path is installed.
- If 10-101 jams are caused when paper is fed from tray 5, perform [dC132](#) NVM Initialization.

## Procedure

**NOTE:** The door interlock switch must be cheated when checking +24V components.

Enter **dC330** code 10-100 fuser exit switch, S10-100. Press Start. Manually actuate the switch with a piece of paper, **Figure 1**. **The display changes.**

**Y N**  
Go to **Flag 1**. Check S10-100. Refer to:

- **GP 13** How to Check a Switch.
- **Figure 1**.
- **P/J35, IOT PWB**.
- **01D** +3.3V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Fuser exit switch, (35-55 ppm) **PL 10.8 Item 11**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 10-065 vacuum transport fan, MOT10-065. **Figure 3**. Press Start, **The fan runs.**

**Y N**  
Go to **Flag 2**. Check MOT10-065. Refer to:

- **GP 10** How to Check a Motor.
- **Figure 3**.
- **P/J5, IOT PWB**.
- **P/J17, LVPS**.
- Fuse, **PL 1.10 Item 9, GP 7**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Short paper path assembly, **PL 10.25 Item 1**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 04-010 main drive motor. Press Start. Add code 08-070 registration clutch, CL08-070. Press Start.

**NOTE:** The clutch will switch off after 5 seconds.

**The jam clearance knob 4c, PL 8.15 Item 10, rotates.**

**Y N**  
Go to **Flag 3**. Check CL08-070. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.
- **P/J5, IOT PWB**.
- **P/J17, LVPS**.
- Fuse, **PL 1.10 Item 9, GP 7**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

**A**  
Install new components as necessary:

- Registration clutch, (35-55 ppm) **PL 8.15 Item 7**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 08-150 registration sensor, Q08-150. Press Start. Manually actuate the sensor **Figure 2**. **The display changes.**

**Y N**  
Go to **Flag 4**. Check Q08-150. Refer to:

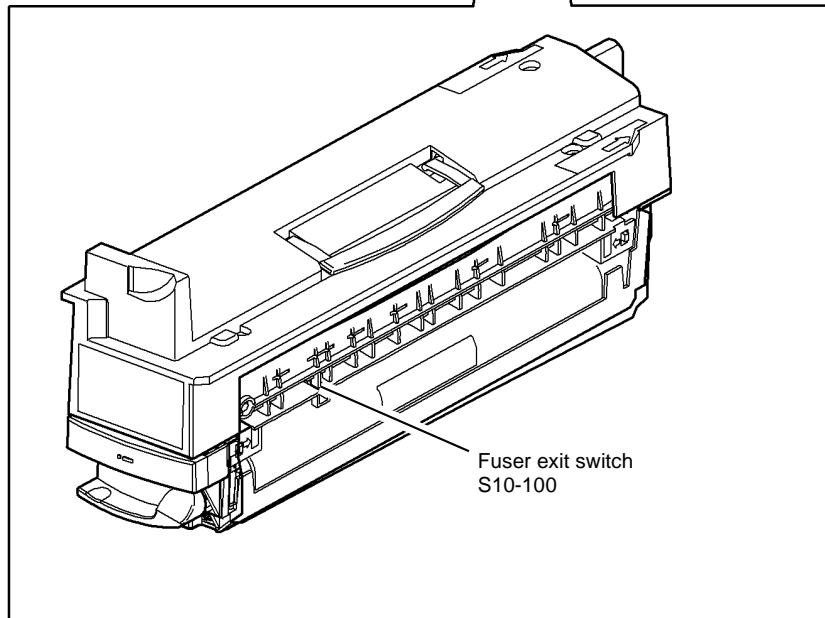
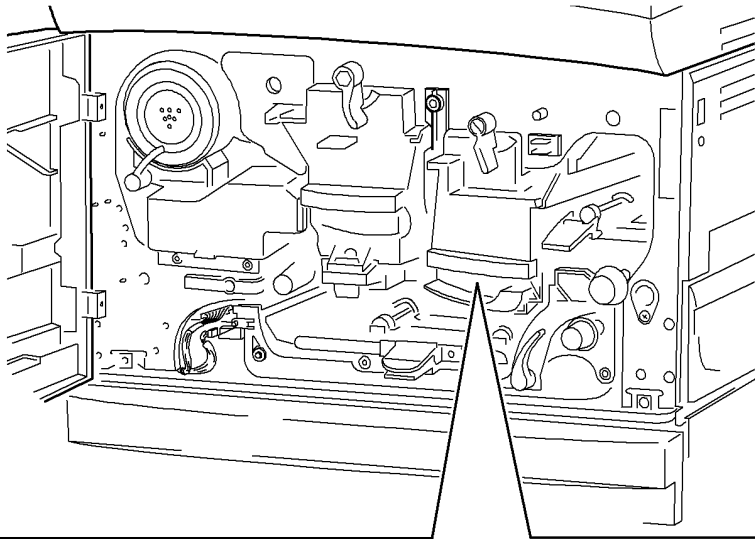
- **GP 11** How to Check a Sensor.
- **Figure 2**.
- **P/J5, IOT PWB**.
- **01D** +3.3V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Registration sensor, (35-55 ppm) **PL 8.15 Item 3**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

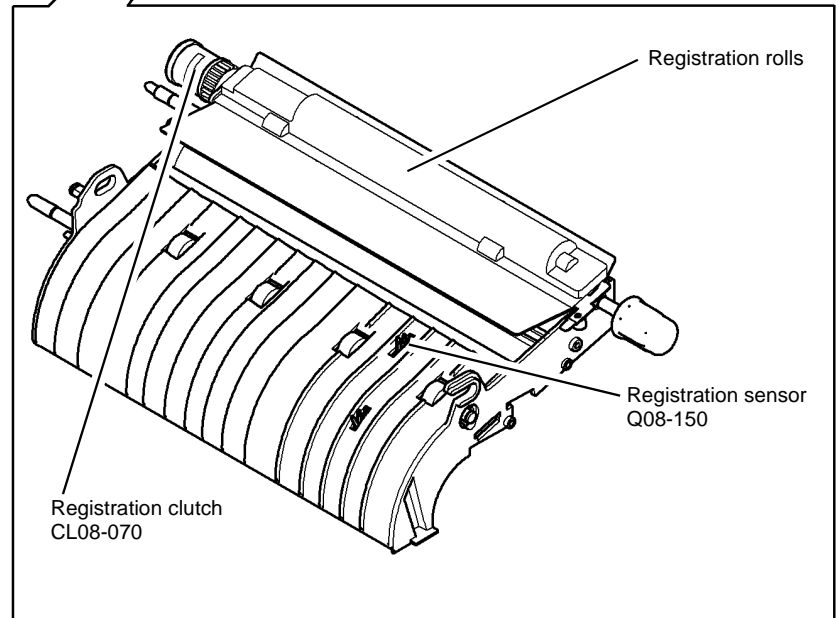
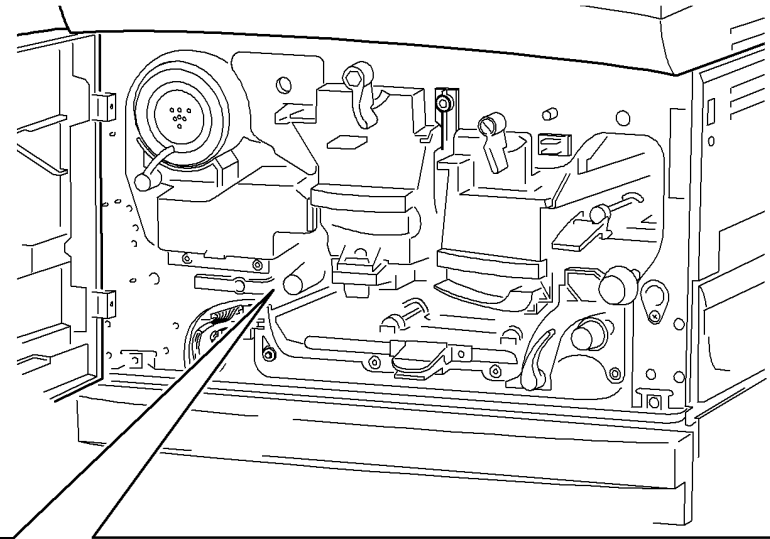
Check the following components, refer to **GP 7**:

- Registration roll, **PL 8.15 Item 9**.
- Roll assembly on the short paper path assembly, **PL 10.25 Item 1**.
- Check the detack corotron and the connection to the HVPS. Refer to **09-060 HVPS Fault RAP**
- The drive gear on the fuser module, (35-55 ppm) **PL 10.8 Item 1**.
- The fuser drive gear on the main drives module, (35-55 ppm) **PL 4.17 Item 10**.
- Fuser web motor and the fuser web, **10A Fuser Web Motor RAP**.
- Check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in **REP 8.5**.
- If the fault still occurs, the +24V supply from the LVPS may be faulty. Install a new LVPS, **PL 1.10 Item 3**.



T-1-0121-A

Figure 1 Component location



T-1-0122-A

Figure 2 Component location

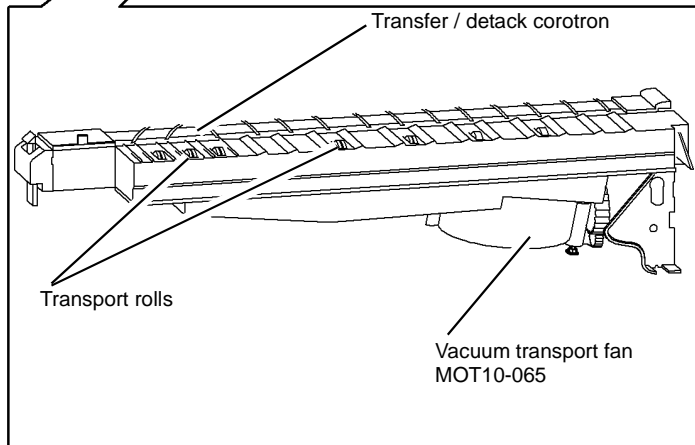
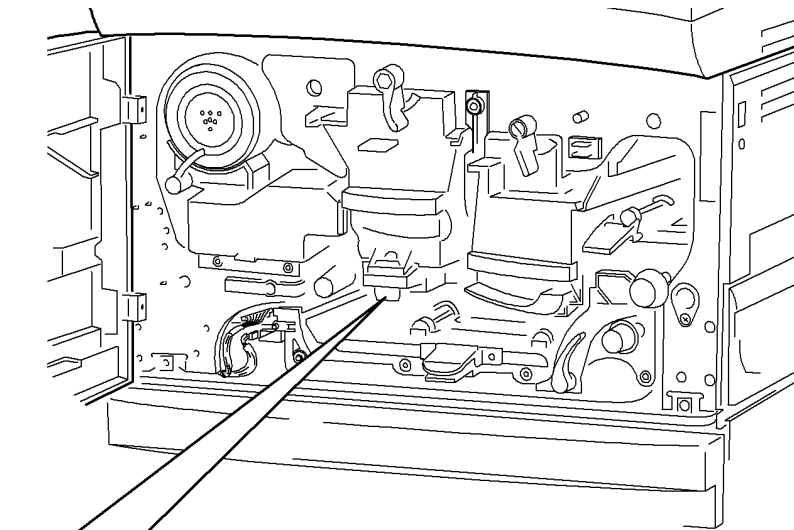


Figure 3 Component location

T-1-0123-A

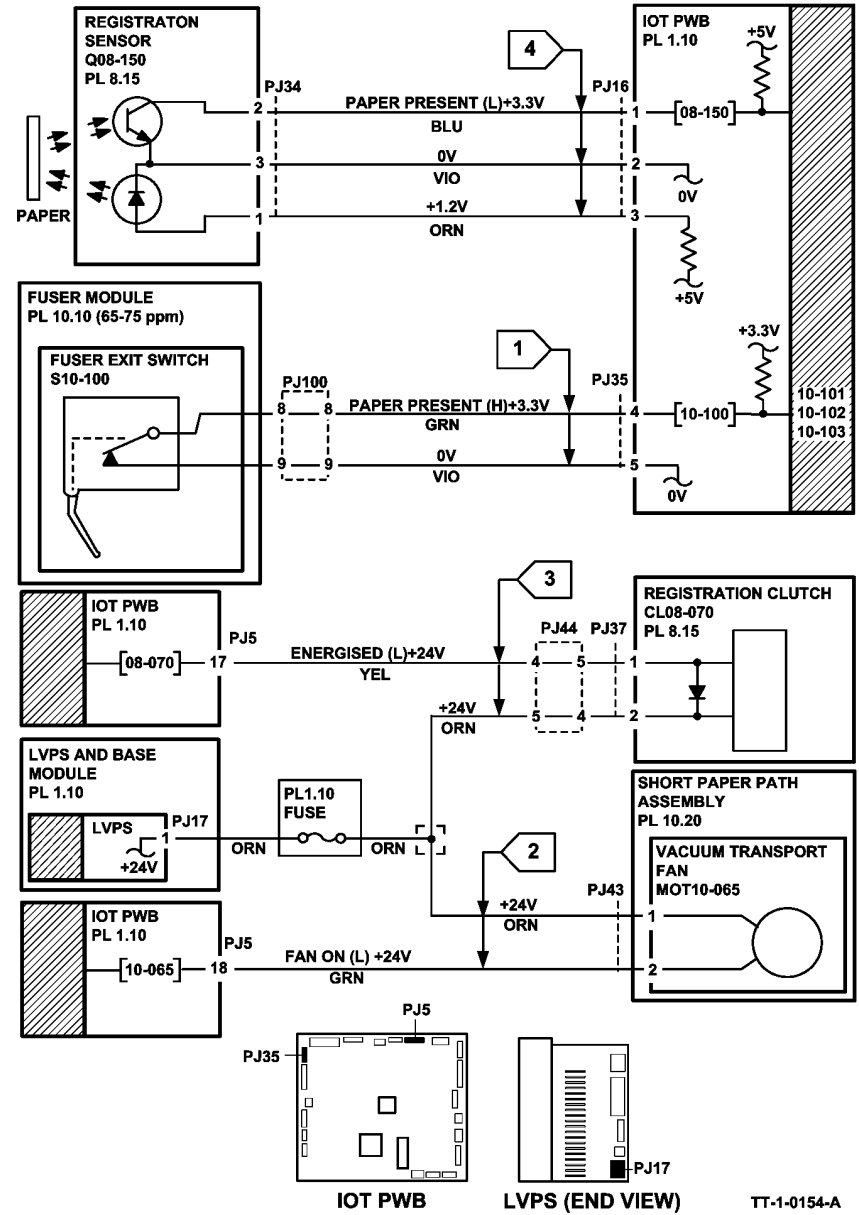


Figure 4 Circuit diagram

TT-1-0154-A



## 10-101B, 10-102B, 10-103B Lead Edge Late to Fuser Exit Switch RAP (65-90 ppm)

**10-101** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a simplex sheet.

**10-102** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a duplex sheet side 1.

**10-103** The lead edge of the paper failed to actuate the fuser exit switch within the correct time after the registration clutch was energized for a duplex sheet side 2.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Do not touch the fuser while it is hot.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to 10-101, 10-102, 10-103 Lead Edge Late to Fuser Exit Switch Entry RAP.
- Check the condition of the paper in all trays. Refer to IQ1 and GP 20.
- Check for obstructions in the registration transport, Figure 2.
- Check for obstructions in the short paper path assembly, Figure 3.
- Check that the short paper path assembly latches without excessive force, PL 10.25 Item 1. Go to REP 10.1. In Replacement Step 5, check the latch mechanism.
- Check the stripper fingers on the xerographic module.
- Check for paper in the fuser module.
- Check the fuser stripper fingers for contamination, (65-90 ppm) PL 10.10 Item 4.
- If a 10-101 is caused by paper fed from the bypass tray, check for paper skew.
- If a 10-103 is caused by a skewed sheet on side 2, check the inverter PL 10.11 Item 23. Also check the duplex paper path (65-90 ppm) PL 8.20 Item 1. Install new components as necessary.
- If 10-101 jams, check that all of the HT connectors are pushed fully home on the HVPS.
- If the fault is 10-101 and the paper is fed from tray 1 or tray 2. Check if the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install TAG 002 on the paper tray to constrain the effect of the curl.
- Install the XRU skids kit to eliminate paper jams caused by curled copies between the XRU and the fuser module, (35 ppm) PL 9.22 Item 21, (40-90 ppm) PL 9.20 Item 19.
- If the fault occurs only when paper is fed from tray 5 (HCF), perform an all machine NVM initialisation from dC132.
- If 10-101 jams are concurrent with feeding small size media e.g. A5, 8.5 x 5.5 inch paper, ensure a W/O TAG 114 short paper path is installed.
- If 10-101 jams are caused when paper is fed from tray 5, perform dC132 NVM Initialization.

### Procedure

**NOTE:** The door interlock switch must be cheated when checking +24V components.

Enter dC330 code 10-100 fuser exit switch, S10-100. Press Start. Manually actuate the switch with a piece of paper, Figure 1. The display changes.

Y N

Go to Flag 1. Check S10-100. Refer to:

- GP 13 How to Check a Switch.
- Figure 1.
- P/J35, IOT PWB.
- 01D +3.3V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Fuser exit switch, (65-90 ppm) PL 10.10 Item 11
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Enter dC330 code 10-065 vacuum transport fan, MOT10-065. Figure 3. Press Start, The fan runs.

Y N

Go to Flag 2. Check MOT10-065. Refer to:

- GP 10 How to Check a Motor.
- Figure 3.
- P/J5, IOT PWB.
- P/J17, LVPS.
- Fuse, PL 1.10 Item 9, GP 7.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Short paper path assembly, PL 10.25 Item 1.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Enter dC330 code 04-010 main drive motor. Press Start. Add code 08-070 registration clutch, CL08-070. Press Start.

**NOTE:** The clutch will switch off after 5 seconds.

The jam clearance knob 4c, PL 8.17 Item 10, rotates.

Y N

Go to Flag 3. Check CL08-070. Refer to:

- GP 12 How to Check a Solenoid or Clutch.
- P/J5, IOT PWB.
- P/J17, LVPS.
- Fuse, PL 1.10 Item 9, GP 7.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

A

A

Install new components as necessary:

- Registration clutch, (65-90 ppm) [PL 8.17 Item 7](#).
- Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) code 08-150 registration sensor, Q08-150. Press Start. Manually actuate the sensor with a piece of paper, [Figure 2](#). **The display changes.**

Y N

Go to [Flag 4](#). Check Q08-150. Refer to:

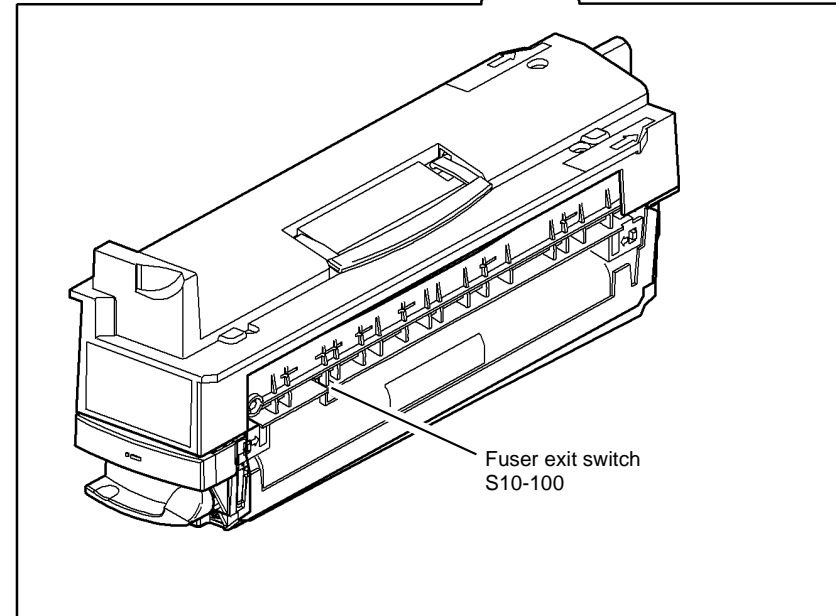
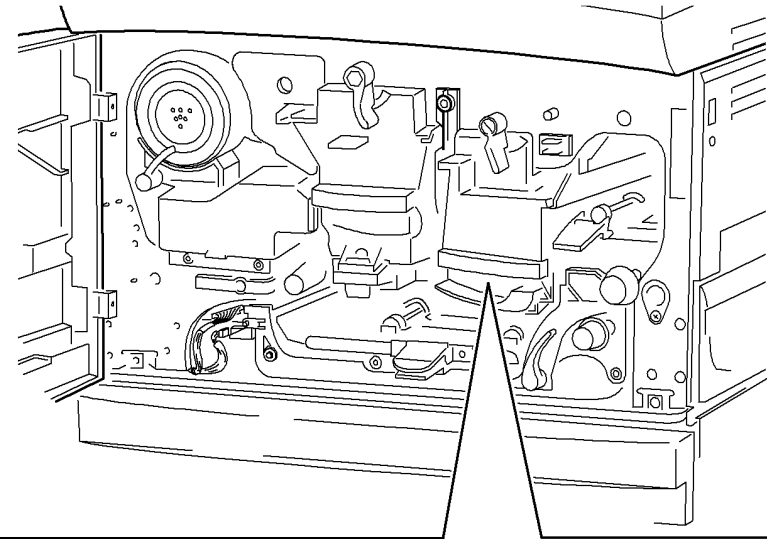
- [GP 11](#) How to Check a Sensor.
- [Figure 2](#).
- [P/J16, IOT PWB](#).
- [01E +5V Distribution RAP](#).
- [01B 0V Distribution RAP](#).

Install new components as necessary:

- Registration sensor, [PL 8.17 Item 3](#).
- Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Check the following components, refer to [GP 7](#):

- Registration roll, (65-90 ppm) [PL 8.17 Item 9](#).
- Roll assembly on the short paper path assembly, [PL 10.25 Item 1](#).
- Check the detack corotron and the connection to the HVPS. Refer to [09-060 HVPS Fault RAP](#)
- The drive gear on the fuser module, (65-90 ppm) [PL 10.10 Item 1](#).
- The fuser drive gear on the main drives module, (65-90 ppm) [PL 4.12 Item 10](#).
- Fuser web motor and the fuser web, [10A Fuser Web Motor RAP](#).
- Check the drives plate on the registration clutch for damage and contamination. Refer to the replacement procedure in [REP 8.5](#).
- If the fault still occurs, the +24V supply from the LVPS may be faulty. Install a new LVPS, [PL 1.10 Item 3](#).



T-1-0124-A

Figure 1 Component location

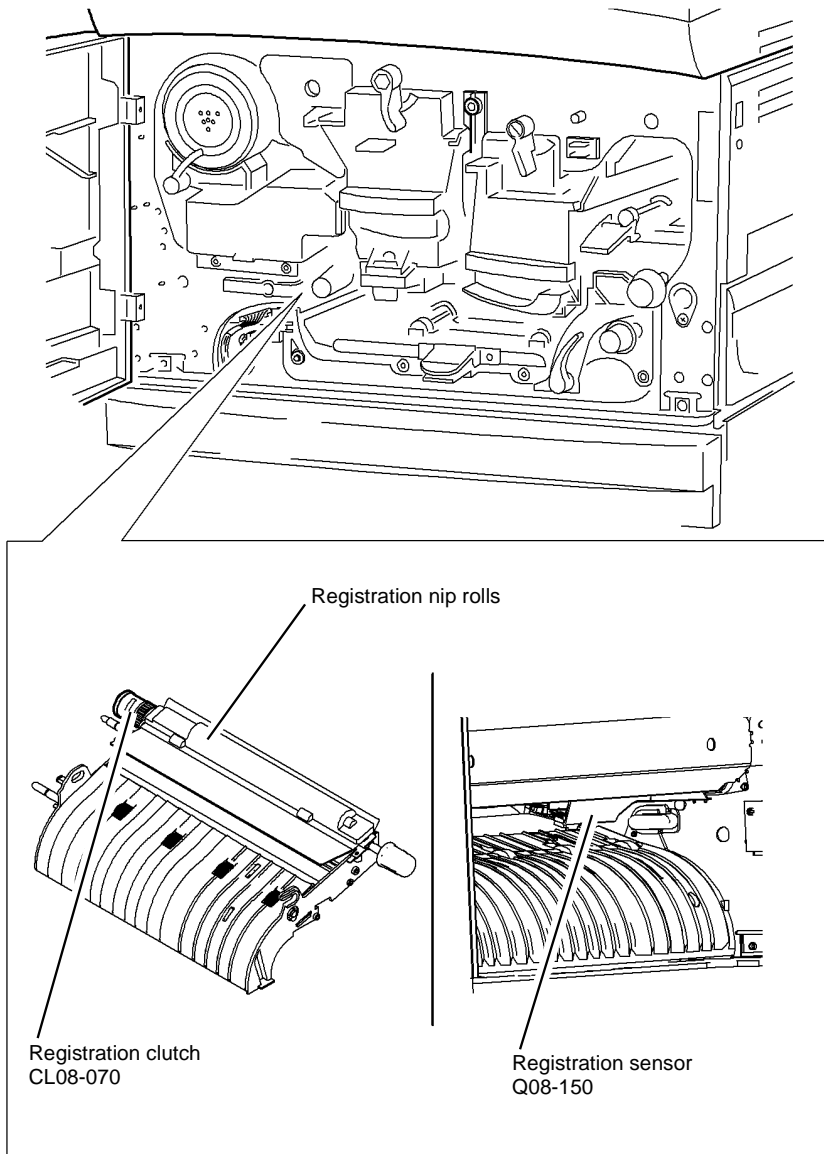


Figure 2 Component location

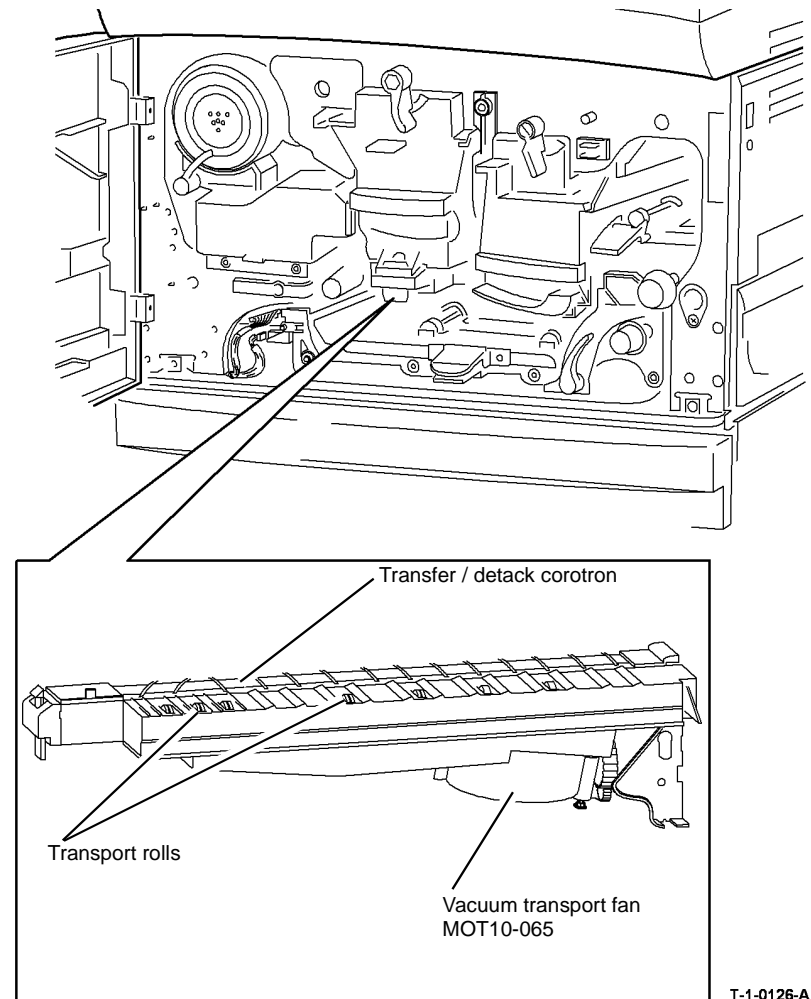


Figure 3 Component location

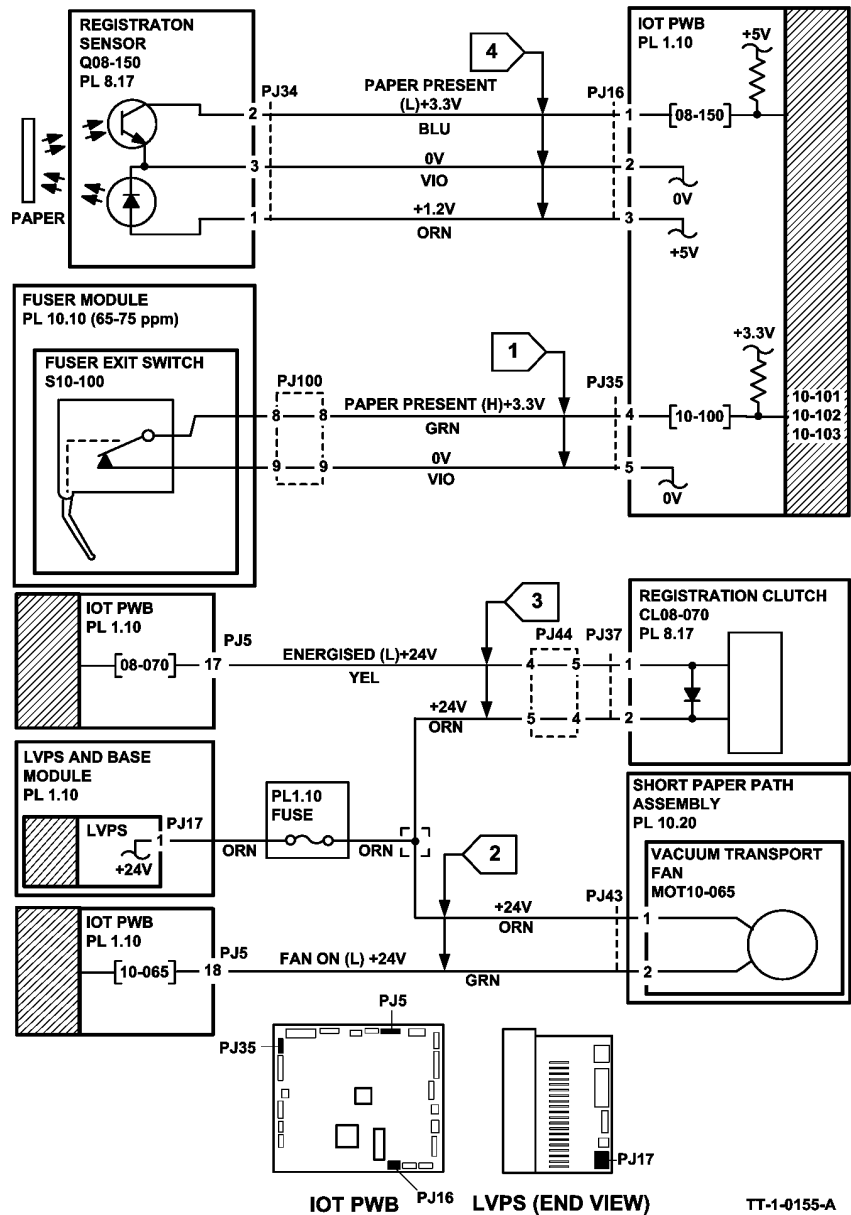


Figure 4 Circuit diagram

## 10-107, 10-108, 10-109, 10-110 Trail Edge Late from Fuser Exit Switch RAP

**10-107** The trail edge of the paper failed to de-actuate the fuser exit switch within the correct time after the trail edge at the registration sensor, for a simplex non inverted sheet.

**10-108** The trail edge of the paper failed to de-actuate the fuser exit switch within the correct time after the trail edge at the registration sensor, for a simplex inverted sheet.

**10-109** The trail edge of the paper failed to de-actuate the fuser exit switch within the correct time after the trail edge at the registration sensor, for a duplex sheet side 1.

**10-110** The trail edge of the paper failed to de-actuate the fuser exit switch within the correct time after the trail edge at the registration sensor, for a duplex sheet side 2.

### Initial Actions

**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Do not touch the fuser while it is hot.

**WARNING**

Take care during this procedure. Motors will become hot during normal operation.

- Check that the paper size information in the UI matches the paper used in the paper trays and the bypass tray.
- Check the condition of the paper in all trays. Refer to IQ1 and GP 20.
- Check that the short paper path assembly latches without excessive force, PL 10.25 Item 1. Go to REP 10.1. In Replacement Step 5, check the latch mechanism.
- Check for paper in the fuser module.
- Check the fuser stripper fingers for contamination, (35-55 ppm) PL 10.8 Item 4, (65-90 ppm) PL 10.10 Item 4.
- Check the inverter upper baffle assembly, (65-90 ppm) Figure 1, (35-55 ppm) Figure 2.
- Check the entrance to the output device and the alignment of the device. (35-55 ppm only) If a OCT is used, check for sticking fingers at the exit to the output tray, REP 12.1.
- (35-55 ppm Only) If the faults occur when feeding a transparency, install TAG 004 inverter transparency feed kit.
- Install the XRU skids kit to eliminate paper jams caused by curled copies between the XRU and the fuser module, (35 ppm) PL 9.22 Item 21, (40-90 ppm) PL 9.20 Item 19.

## Procedure

**NOTE:** The door interlock switch must be cheated when checking +24V components.

Enter dC330 code 10-100 fuser exit switch, S10-100. Press Start. Manually actuate the switch with a piece of paper. **The display changes.**

Y N

Go to **Flag 1**. Check S10-100. Refer to:

- GP 13 How to Check a Switch.
- (35-55 ppm) **Figure 2**.
- (65-90) **Figure 1**.
- P/J35, IOT PWB.
- 01D +3.3V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Fuser exit switch, (35-55 ppm) **PL 10.8 Item 11** or (65-90 ppm) **PL 10.10 Item 11**
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter dC330 code 10-045 inverter path solenoid, SOL10-045. Press Start. **The solenoid energized.**

Y N

Go to **Flag 2**. Check SOL10-045. Refer to:

- GP 12 How to Check a Solenoid or Clutch.
- (35-55 ppm) **Figure 2**.
- (65-90 ppm) **Figure 1**.
- P/J5, IOT PWB
- P/J17, LVPS.
- Fuse, **PL 1.10 Item 9**, GP 7.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Inverter path solenoid, **PL 10.11 Item 14**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter dC330 code 10-030 inverter motor, MOT 10-030. Press start. **The jam clearance knob, 2B, PL 10.15 Item 13, is stationary and the motor can be heard.**

Y N

**The jam clearance knob, 2B, PL 10.15 Item 13, rotates counterclockwise.**

Y N

Go to **Flag 3**. Check MOT10-030. Refer to:

- GP 10 How to Check a Motor.
- P/J4, IOT PWB.
- P/J45, P/J55 inverter motor driver PWB
- 01G +24V Distribution RAP.
- 01E +5V Distribution RAP.

A B

- 01B 0V Distribution RAP.

Install new components as necessary:

- Inverter motor, **PL 10.11 Item 11**.
- Inverter motor driver PWB, **PL 10.11 Item 22**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Install a new inverter motor driver PWB, **PL 10.11 Item 22**.

Check the following components, refer to GP 7:

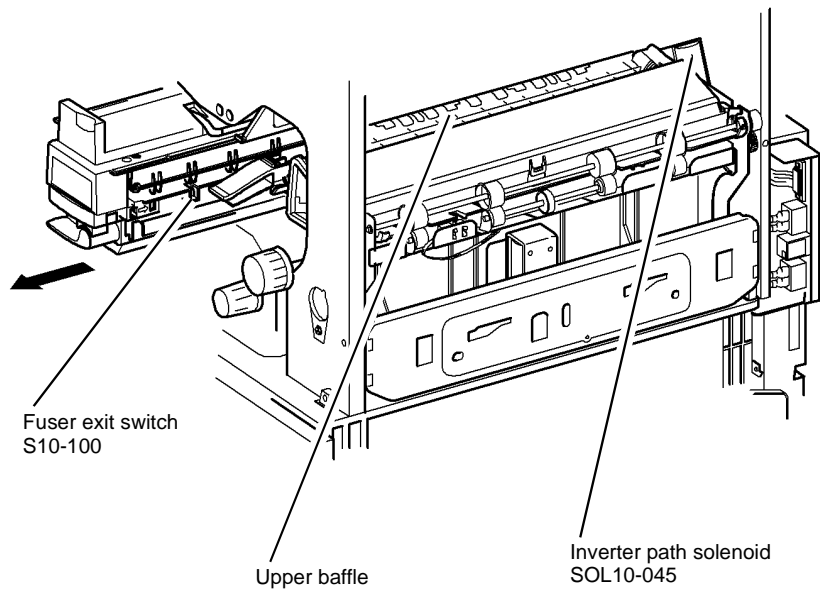
- The drive gear on the fuser module, **PL 10.10 Item 1**.
- The fuser drive gear on the main drives module, (35-55 ppm) **PL 4.17 Item 10**, (65-90 ppm) **PL 4.12 Item 10**.
- Fuser web motor and the fuser web, **10A Fuser Web Motor RAP**.
- Drives between inverter and the main drives module, **PL 10.15**.
- Post fuser exit roller, **PL 10.12 Item 9**.

**NOTE:** Excessive post fuser exit roll wear causes buckle between the fuser and the inverter assembly. This can cause severe ripple on the trail edge of A3 (11x17 inch) sheet and paper jams.

- Upper baffle, (35-55 ppm) **PL 10.12 Item 23**, (65-90 ppm) **PL 10.12 Item 22**.
- Baffle guide, **PL 10.13 Item 3**.

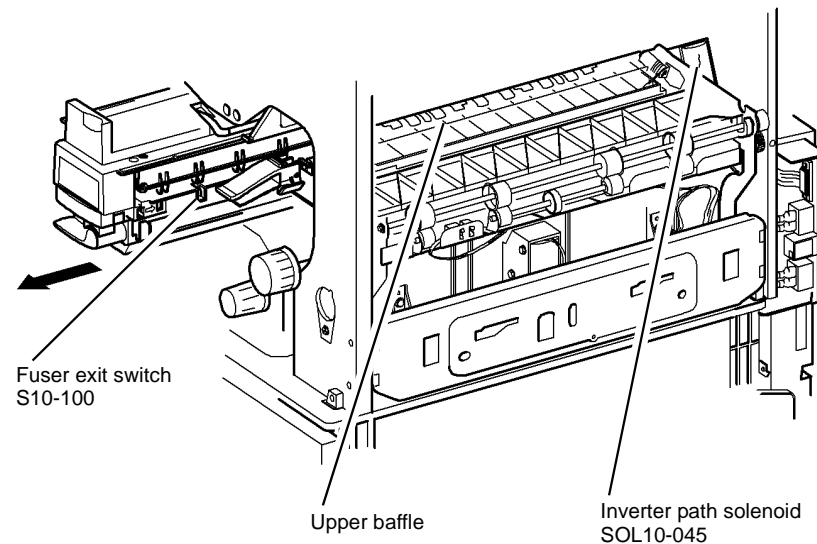
If the fault still occurs, the +24V supply from the LVPS may be faulty. Install a new LVPS, **PL 1.10 Item 3**.

A B



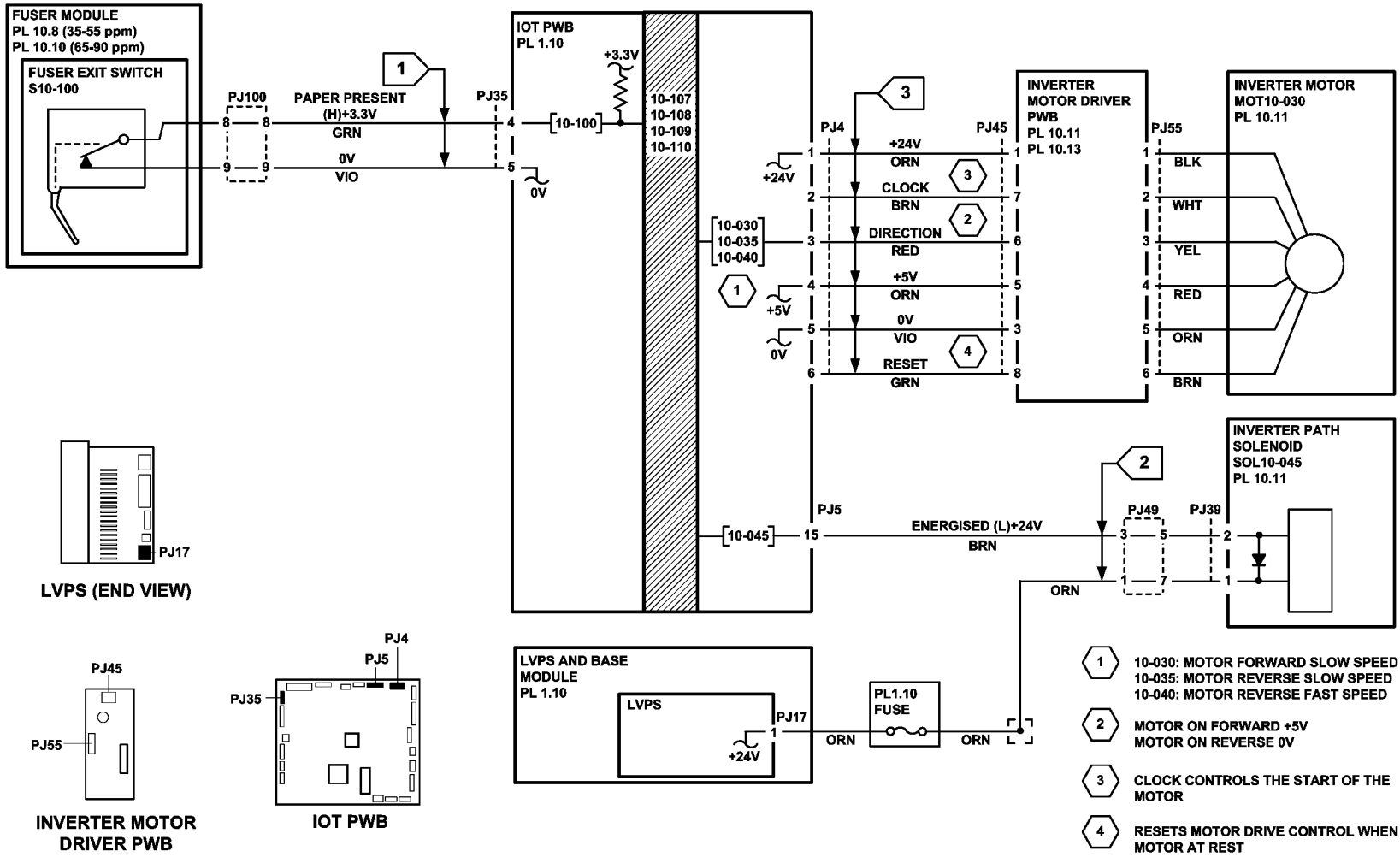
T-1-0127-A

Figure 1 Component location (65-90 ppm)



T-1-0128-A

Figure 2 Component location (35-55 ppm)



TT-1-0156-A

Figure 3 Circuit diagram

## 10-120, 10-121, 10-126 IOT Exit Sensor RAP

**10-120** The lead edge of the paper failed to reach the IOT exit sensor within the correct time after the trail edge at the fuser exit switch for an inverted sheet.

**10-121** The lead edge of the paper failed to reach the IOT exit sensor within the correct time after the trail edge at the fuser exit switch for a non inverted sheet.

**10-126** The trail edge of the paper failed to clear the IOT exit sensor within the correct time.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



Do not touch the fuser while it is hot.



Take care during this procedure. Motors will become hot during normal operation.

- Check the condition of the paper in all trays. Refer to **IQ1** and **GP 20**.

**NOTE:** If the fault occurs only with heavy weight paper of 120gsm (32 lb.) or greater that are being inverted. Then Enter the Tools Mode and Stock Settings. Change the stock type to heavyweight for the respective tray. If the problem persists, perform the RAP.

- If the faults occur when feeding transparency, install **TAG 004** inverter transparency feed kit.
- If the fault is 10-120 and the paper is fed from tray 1 or tray 2. Check if the paper has excessive curl and is causing the paper to be skewed when fed from the tray. Install **TAG 002** on the paper tray to constrain the effect of the curl.
- If the fault is 10-120 and the paper is skewed with up-curl ensure a **W/TAG 114** short paper path assembly is installed.
- Check for obstructions in the inverter area, (35-55 ppm) **Figure 1**, (65-90 ppm) **Figure 2**.
- Check the upper and lower gravity fingers in the inverter, **Figure 3**, **GP 7**.
- If the paper has dog ear on the inboard corner, install **TAG 005** Rear gravity gate mylar kit.
- Check for obstructions in the exit area.
- Check that the output device is parallel to the machine. Refer to the appropriate adjustment:
  - **ADJ 11.2-110** Machine to 2K LCSS Alignment.
  - **ADJ 11.1-171** Machine to HVF/HVF BM, HVF BM to Tri-folder Alignment.
- **35-55 ppm Only.** For 10-126 faults. If the machine has a OCT, make sure that the OCT fingers are installed correctly. Refer to **REP 12.1**.

- For 10-126 faults. If the paper jam is at the entrance to the output device. Go to the relevant output device copy damage RAP:
  - **11G-120** Copy Damage in the 1K LCSS RAP.
  - **11H-110** Copy Damage in the 2K LCSS RAP.
  - **11E-171** Copy Damage in the HVF BM RAP.
- For 10-126 faults. If the paper jam is at the entrance to the output device and the output device fails to initialize after the front door is closed. Go to the relevant output device initialization RAP.
  - **11B-120** 1K LCSS Initialization Failure RAP.
  - **11C-110** 2K LCSS Initialization Failure RAP.
  - **11K-171** HVF Initialization Failure RAP.
- If the fault is caused by a multifeed of sheets, go to the **OF8** Multifeed RAP.

### Procedure

**NOTE:** Ensure that the door interlock switch is cheated when checking +24V components.

Enter **dC330** code 10-120 IOT exit sensor, Q10-120. Press Start. Manually actuate the sensor.

**The display changes.**

Y N  
Go to **Flag 1**. Check Q10-120. Refer to:

- **GP 11** How to Check a Sensor.
- (35-55 ppm) **Figure 1**.
- (65-90 ppm) **Figure 2**.
- **P/J5, IOT PWB**.
- **01D** +3.3V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- IOT exit sensor, **PL 10.11 Item 13**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 10-050 inverter nip solenoid, SOL10-050. Press Start. **The solenoid energises.**

Y N  
Go to **Flag 2**. Check SOL10-050. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.
- (35-55 ppm) **Figure 1**.
- (65-90 ppm) **Figure 2**.
- **P/J5, IOT PWB**.
- **P/J17, LVPS**.
- Fuse, **PL 1.10 Item 9, GP 7**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Inverter nip solenoid, **PL 10.11 Item 6**.



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- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 10-045 inverter path solenoid, SOL 10-045. Press Start. **The solenoid energizes.**

Y N

Go to **Flag 3**. Check SOL 10-045. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.
- (35-55 ppm) **Figure 1**.
- (65-90 ppm) **Figure 2**.
- **P/J5, IOT PWB**
- **P/J17, LVPS**.
- Fuse, **PL 1.10 Item 9, GP 7**.
- **01G** +24V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

- Inverter path solenoid, **PL 10.11 Item 14**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 10-030 inverter motor, MOT10-030. Press Start. **The jam clearance knob, 2B, PL 10.15 Item 13, is stationary and the motor can be heard.**

Y N

**The jam clearance knob, 2B, PL 10.15 Item 13, rotates counterclockwise.**

Y N

Go to **Flag 4**. Check MOT10-030. Refer to:

- **GP 10** How to Check a Motor.
- **P/J4, IOT PWB**
- **P/J45, P/J55**
- **01G** +24V Distribution RAP
- **01E** +5V Distribution RAP.
- **01B** 0V Distribution RAP.

Install new components as necessary:

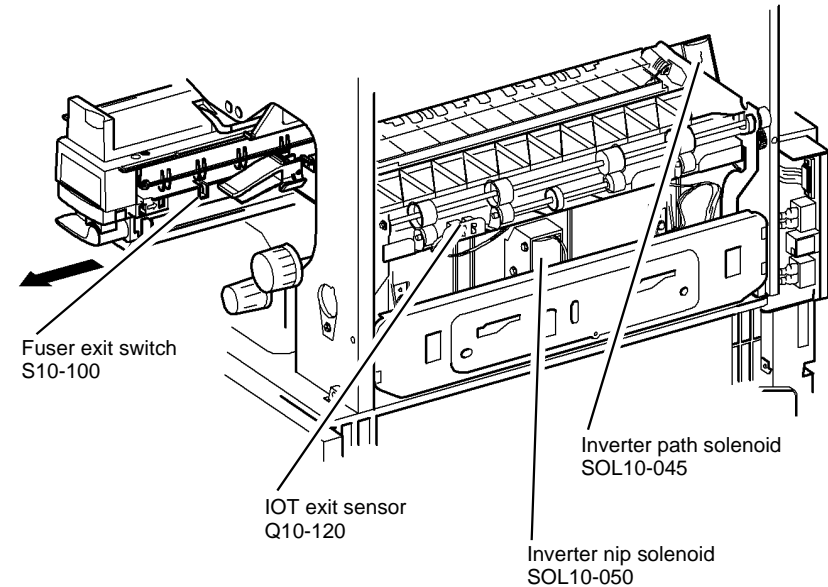
- Inverter motor, **PL 10.11 Item 11**.
- Inverter motor driver PWB, **PL 10.11 Item 22**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Install a new inverter motor driver PWB, **PL 10.11 Item 22**.

Check the following components, refer to **GP 7**:

- Idler roll, **PL 10.12 Item 15**.
- Upper baffle, (35-55 ppm) **PL 10.12 Item 23**, (65-90 ppm) **PL 10.12 Item 22**.
- Double exit nip roll, **PL 10.11 Item 8**.
- Exit shaft assembly, **PL 10.13 Item 4**.
- Nip split shaft assembly, **PL 10.11 Item 4**.

- The drive gear on the fuser module, (35-55 ppm) **PL 10.8 Item 1**, (65-90 ppm) **PL 10.10 Item 1**.
  - The fuser drive gear on the main drives module, (35-55 ppm) **PL 4.17 Item 10**, (65-90 ppm) **PL 4.12 Item 10**.
  - Check the IOT exit sensor mounting bracket on the nip roll guide, **PL 10.11 Item 10**. The bracket holds the IOT exit sensor in the correct position, **PL 10.11 Item 13**.
- If the fault still occurs, the +24V supply from the LVPS may be faulty. Install a new LVPS, **PL 1.10 Item 3**.



T-1-0129-A

Figure 1 Component location 35-55 ppm

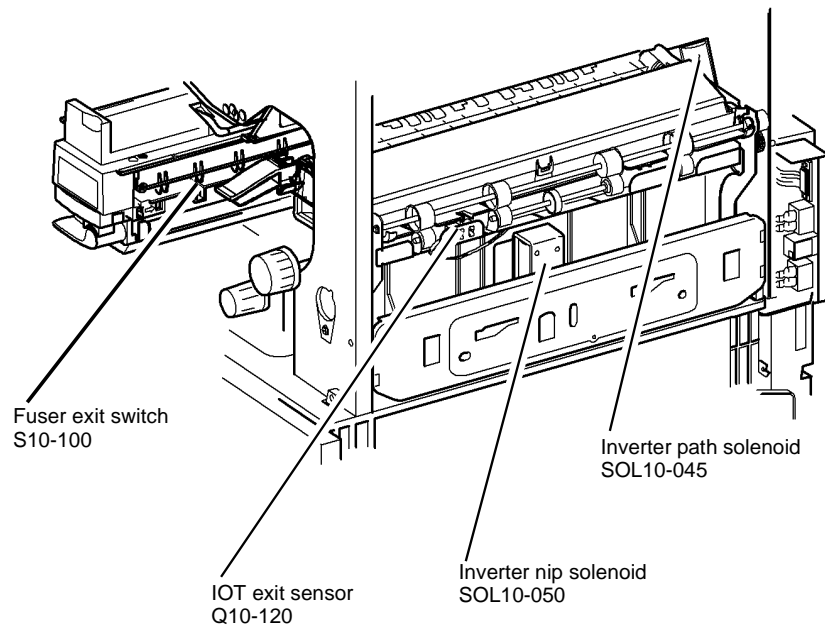
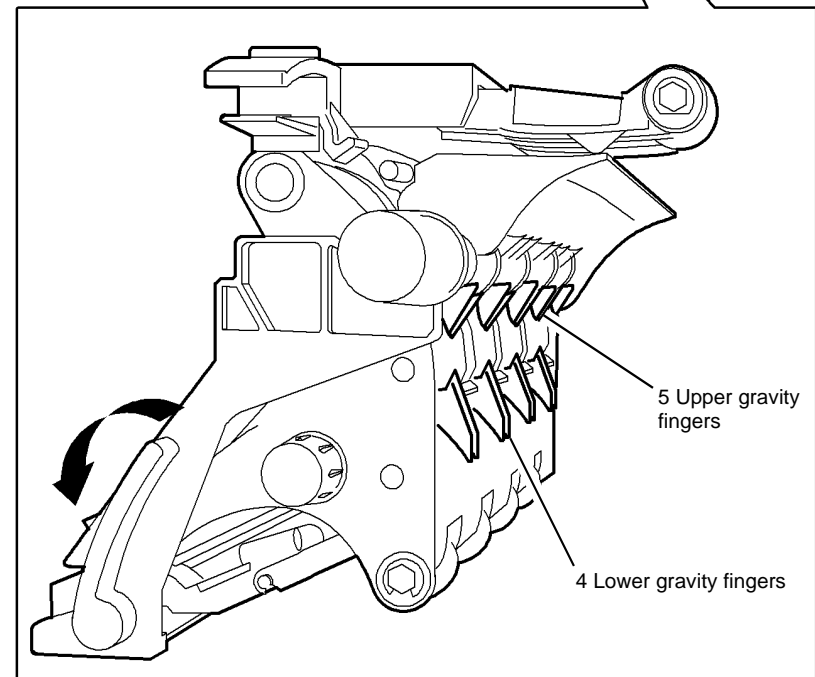
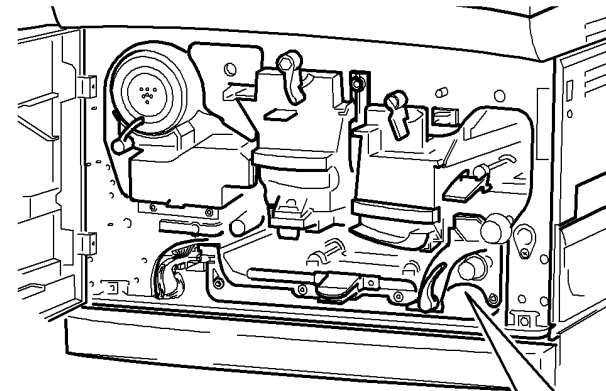


Figure 2 Component location 65-90 ppm

T-1-0130-A



T-1-0131-A

Figure 3 Component location

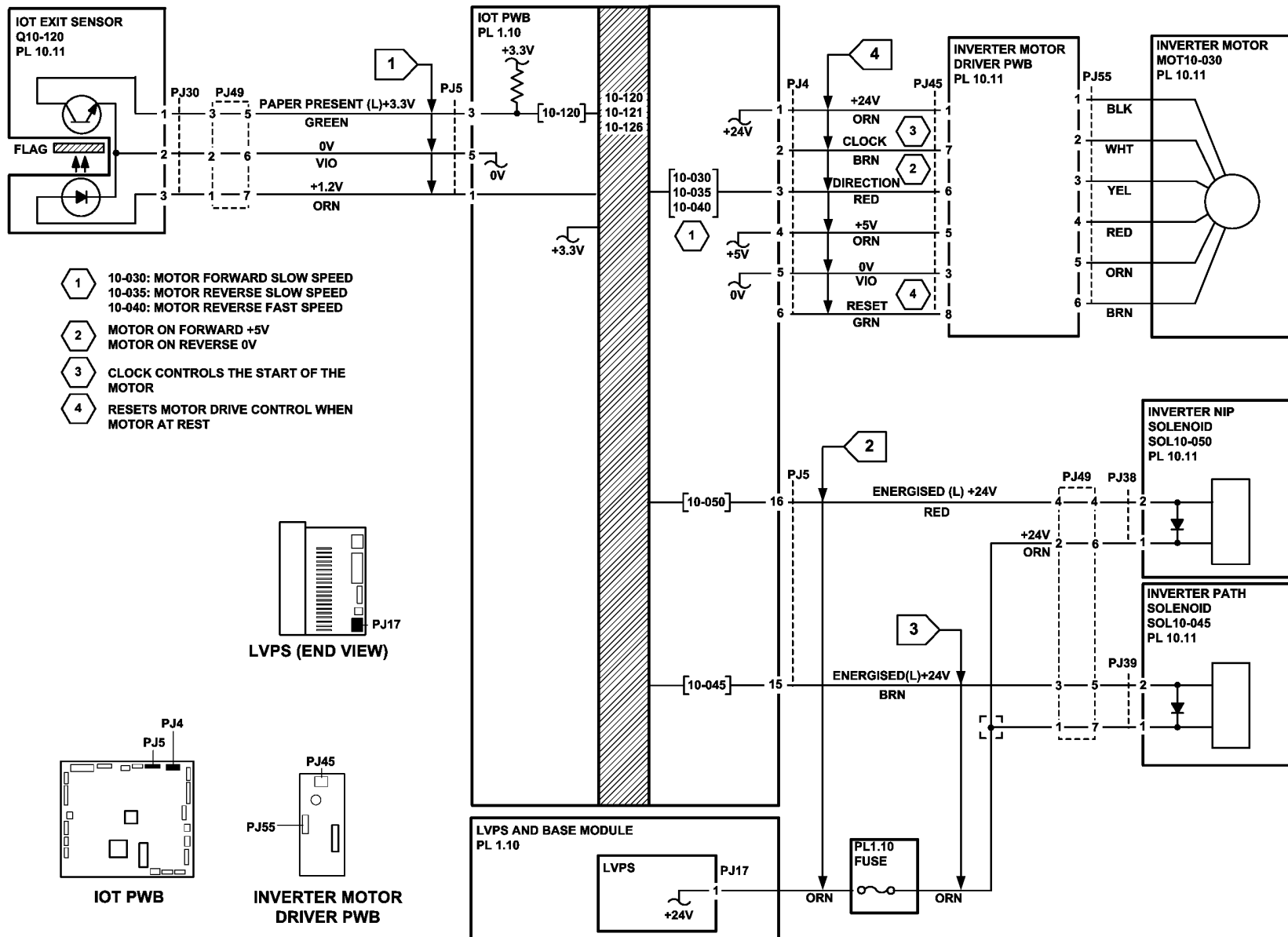


Figure 4 Circuit diagram

TT-1-0157-A

## 10-132, 10-133, 10-134 Lead Edge Late to Inverter Sensor RAP (65-90 ppm)

**10-132** The lead edge of the paper failed to actuate the inverter sensor within the correct time after the fuser exit switch is made, for a simplex sheet.

**10-133** The lead edge of the paper failed to actuate the inverter sensor within the correct time after the fuser exit switch is made, for a duplex 1 sheet.

**10-134** The lead edge of the paper failed to actuate the inverter sensor within the correct time after the fuser exit switch is made, for a duplex 2 sheet.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Do not touch the fuser while it is hot.



**WARNING**

Take care during this procedure. Motors will become hot during normal operation.

- Check that the paper size information in the UI matches the paper used in the paper trays and the bypass tray.
- Check the condition of the paper in all trays. Refer to [IQ1](#) and [GP 20](#).
- Check that the short paper path assembly latches without excessive force, [PL 10.25 Item 1](#). Go to [REP 10.1](#). In Replacement Step 5, check the latch mechanism.
- Check for paper in the fuser module.
- Check the fuser stripper fingers for contamination, [PL 10.10 Item 4](#).
- Check the inverter upper baffle assembly, [Figure 1](#).

### Procedure

**NOTE:** The door interlock switch must be cheated when checking +24V components.

Enter [dC330](#) code 10-100 fuser exit switch, S10-100. Press Start. Manually actuate the switch with a piece of paper. **The display changes.**

Y N

Go to [Flag 1](#). Check S10-100. Refer to:

- [GP 13](#) How to Check a Switch.
- [Figure 1](#).
- [P/J35](#), [IOT PWB](#).
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Fuser exit switch, [PL 10.10 Item 11](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Enter [dC330](#) sensor code 10-105 inverter sensor, Q10-105. Press Start. Use a piece of paper to actuate the sensor. **The display changes.**

Y N

Go to [Flag 2](#). Check Q10-105. Refer to:

- [GP 11](#). How to Check a Sensor.
- [Figure 2](#).
- [P/J61](#), [IOT PWB](#)
- [01E](#) +5V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Install new components as necessary:

- Inverter sensor, [PL 10.12 Item 19](#).
- Perform [OF7](#) IOT PWB Diagnostics RAP before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Check the following components, refer to [GP 7](#):

- The drive gear on the fuser module, [PL 10.10 Item 1](#).
- The fuser drive gear on the main drives module, [PL 4.12 Item 10](#).
- Fuser web motor and the fuser web, [10A](#) Fuser Web Motor RAP.
- Drives between inverter and the main drives module, [PL 10.15](#).
- Post fuser exit roller, [PL 10.12 Item 9](#).

**NOTE:** Excessive post fuser exit roll wear causes buckle between the fuser and the inverter assembly. This can cause severe ripple on the trail edge of A3 (11x17 inch) sheet and paper jams.

- Upper baffle, [PL 10.12 Item 22](#).
- Baffle guide, [PL 10.13 Item 3](#).

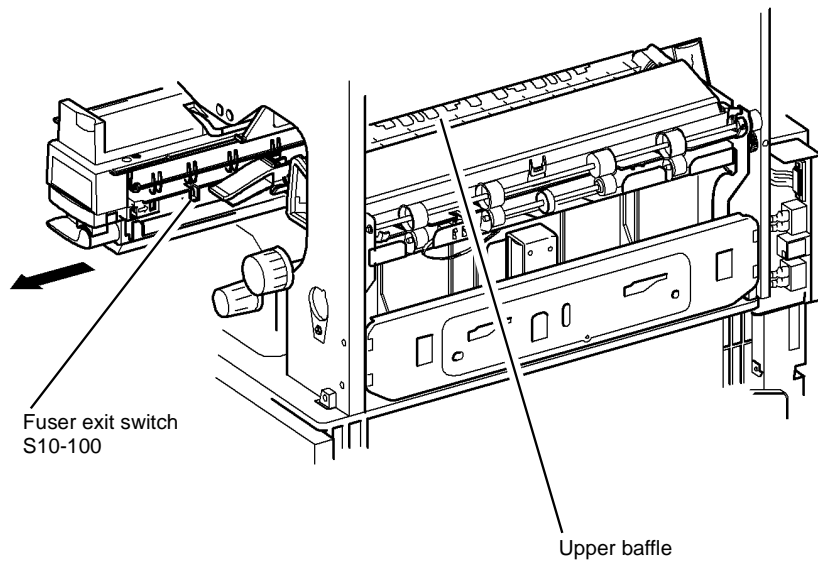


Figure 1 Component location

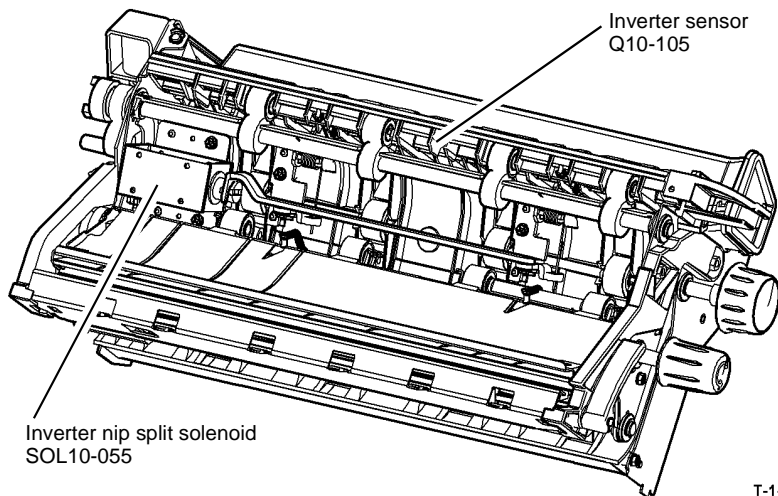


Figure 2 Component location

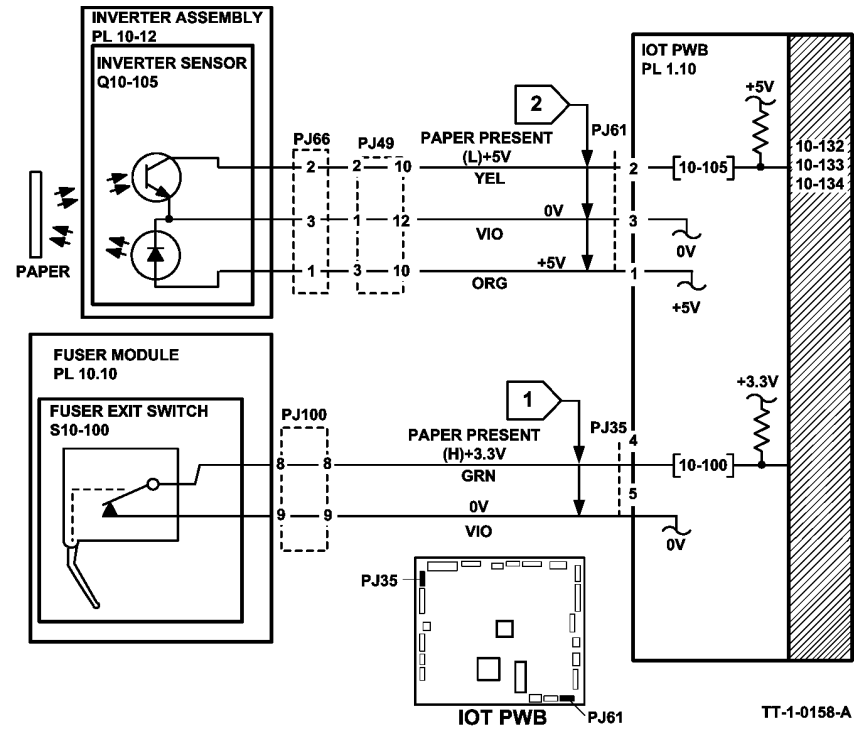


Figure 3 Circuit diagram

TT-1-0158-A

T-1-0133-A

## 10-135, 10-136, 10-137, 10-138 Trail Edge Late from Inverter Sensor RAP

**10-135** The trail edge of the paper failed to de-actuate the inverter sensor within the correct time, for a simplex non invert sheet.

**10-136** The trail edge of the paper failed to de-actuate the inverter sensor within the correct time, for a simplex inverted sheet.

**10-137** The trail edge of the paper failed to de-actuate the inverter sensor within the correct time, for a duplex sheet side 1.

**10-138** The trail edge of the paper failed to de-actuate the inverter sensor within the correct time, for a duplex sheet side 2.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Do not touch the fuser while it is hot.



#### WARNING

Take care during this procedure. Motors will become hot during normal operation.

- Check the condition of the paper in all trays. Refer to **IQ1** and **GP 20**.

**NOTE:** If the fault occurs only with heavy weight paper of 120gsm (32 lb.) or greater that are being inverted, enter the Tools Mode and Stock Settings. Change the stock type to heavyweight for the appropriate tray. If the problem persists, perform the procedure in this RAP.

- Check for obstructions in the inverter area, **Figure 1**.
- Check the upper and lower gravity fingers in the inverter, **Figure 3**, **GP 7**.
- Check for obstructions in the exit area.
- If the fault is caused by a multifeed of sheets, go to **OF8** Multifeed RAP.

### Procedure

**NOTE:** Ensure that the door interlock switch is cheated when checking +24V components.

Enter **dC330** code 10-105 inverter sensor, Q10-105. Press Start. Manually actuate the sensor. The display changes.

- Y N
- Go to **Flag 1**. Check Q10-105. Refer to:
- **GP 11** How to Check a Sensor.

A

A

- **Figure 3**.
- **P/J61**, **IOT PWB**.
- **01E +5V** Distribution RAP.
- **01B 0V** Distribution RAP.

Install new components as necessary:

- Inverter sensor, **PL 10.12 Item 19**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 10-050 inverter nip solenoid, SOL10-050. Press Start. The solenoid energizes.

Y N

Go to **Flag 2**. Check SOL10-050. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.
- **Figure 1**.
- **P/J5**, **IOT PWB**.
- **P/J17**, **LVPS**.
- Fuse, **PL 1.10 Item 9**, **GP 7**.
- **01G +24V** Distribution RAP.
- **01B 0V** Distribution RAP.

Install new components as necessary:

- Inverter nip solenoid, **PL 10.11 Item 6**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 10-045 inverter path solenoid, SOL 10-045. Press Start. The solenoid energizes.

Y N

Go to **Flag 3**. Check SOL 10-045. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.
- **Figure 1**.
- **P/J5**, **IOT PWB**.
- **P/J17**, **LVPS**.
- Fuse, **PL 1.10 Item 9**, **GP 7**.
- **01G +24V** Distribution RAP.
- **01B 0V** Distribution RAP.

Install new components as necessary:

- Inverter path solenoid, **PL 10.11 Item 14**.
- Perform **OF7** IOT PWB Diagnostics RAP before a new IOT PWB is installed, **PL 1.10 Item 2**.

Enter **dC330** code 10-055 tri-roll nip split solenoid, SOL 10-055. Press Start. The solenoid energizes.

Y N

Go to **Flag 5**. Check SOL 10-055. Refer to:

- **GP 12** How to Check a Solenoid or Clutch.

B

B

- Figure 3.
- P/J61, IOT PWB
- P/J17, LVPS.
- Fuse, PL 1.10 Item 9, GP 7.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

- Tri-roll nip split solenoid, PL 10.14 Item 1.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Enter dC330 code 10-030 inverter motor, MOT10-030. Press Start. The jam clearance knob, 2B, PL 10.15 Item 13, is stationary and the motor can be heard.

Y N

The jam clearance knob, 2B, PL 10.15 Item 13, rotates counterclockwise.

Y N

Go to Flag 4. Check MOT10-030. Refer to:

- GP 10 How to Check a Motor.
- P/J4, IOT PWB
- P/J45, P/J55
- 01G +24V Distribution RAP
- 01E +5V Distribution RAP.
- 01B 0V Distribution RAP.

Install new components as necessary:

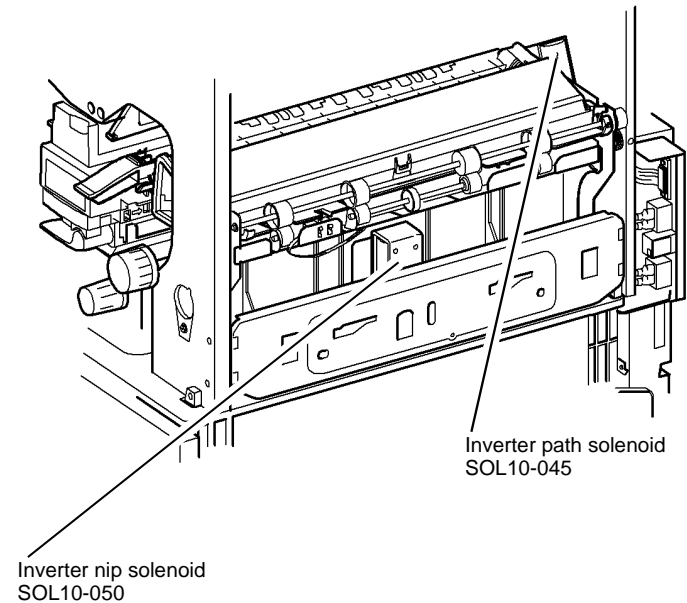
- Inverter motor, PL 10.11 Item 11.
- Inverter motor driver PWB, PL 10.11 Item 22.
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.

Install a new inverter motor driver PWB, PL 10.11 Item 22.

Check the following components, refer to GP 7:

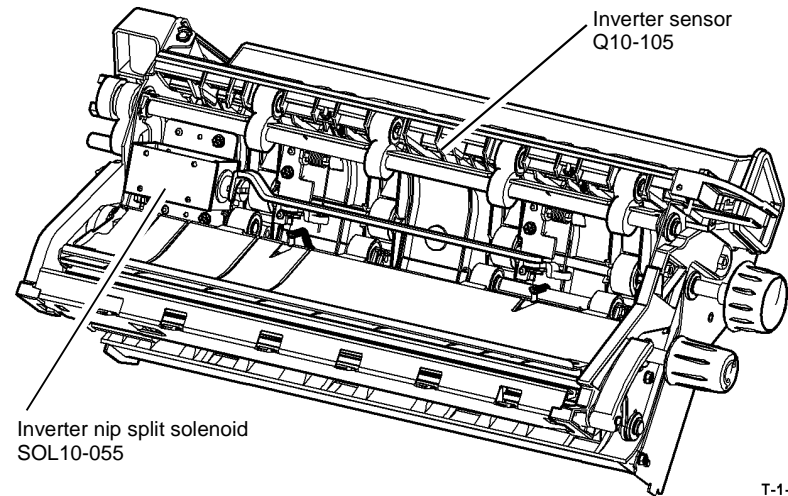
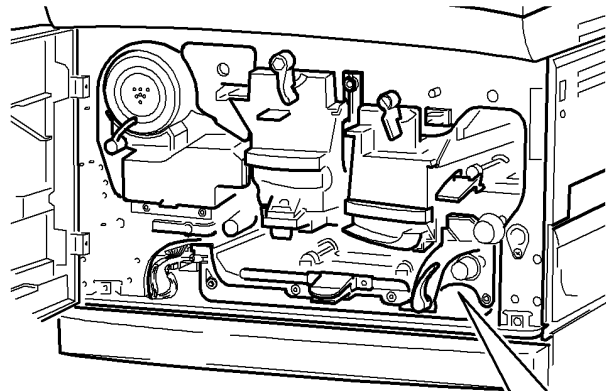
- Idler roll, PL 10.12 Item 15.
- Upper baffle, (65-90ppm) PL 10.12 Item 22, (35-55ppm) PL 10.12 Item 23.
- Double exit nip rolls, PL 10.11 Item 8.
- Exit shaft assembly, PL 10.13 Item 4.
- Nip split shaft assembly, PL 10.11 Item 4.
- The drive gear on the fuser module, PL 10.10 Item 1.
- The fuser drive gear on the main drives module, PL 4.12 Item 10.

If the fault still occurs, the +24V supply from the LVPS may be faulty. Install a new LVPS, PL 1.10 Item 3.



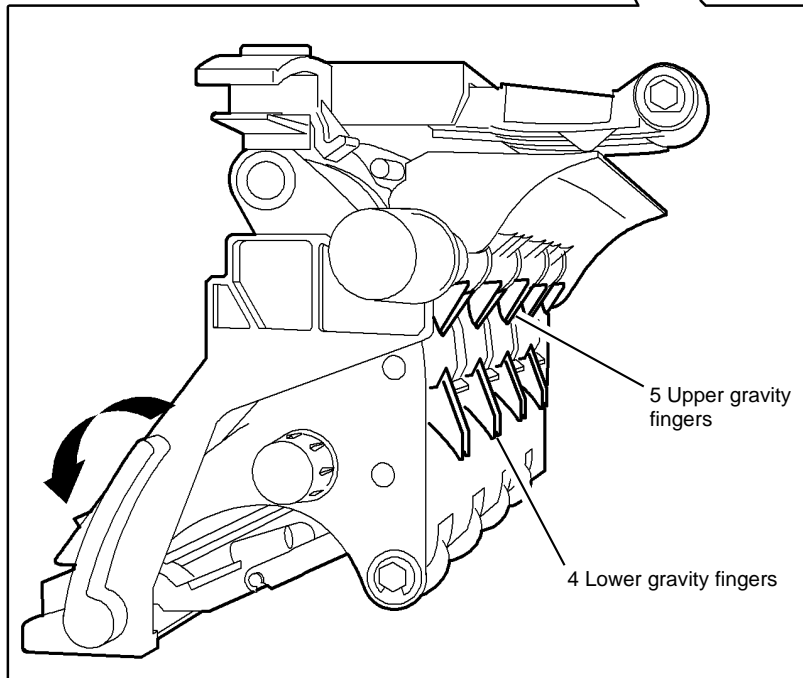
T-1-0134-A

Figure 1 Component location



T-1-0136-A

Figure 3 Inverter assembly



T-1-0135-A

Figure 2 Component location



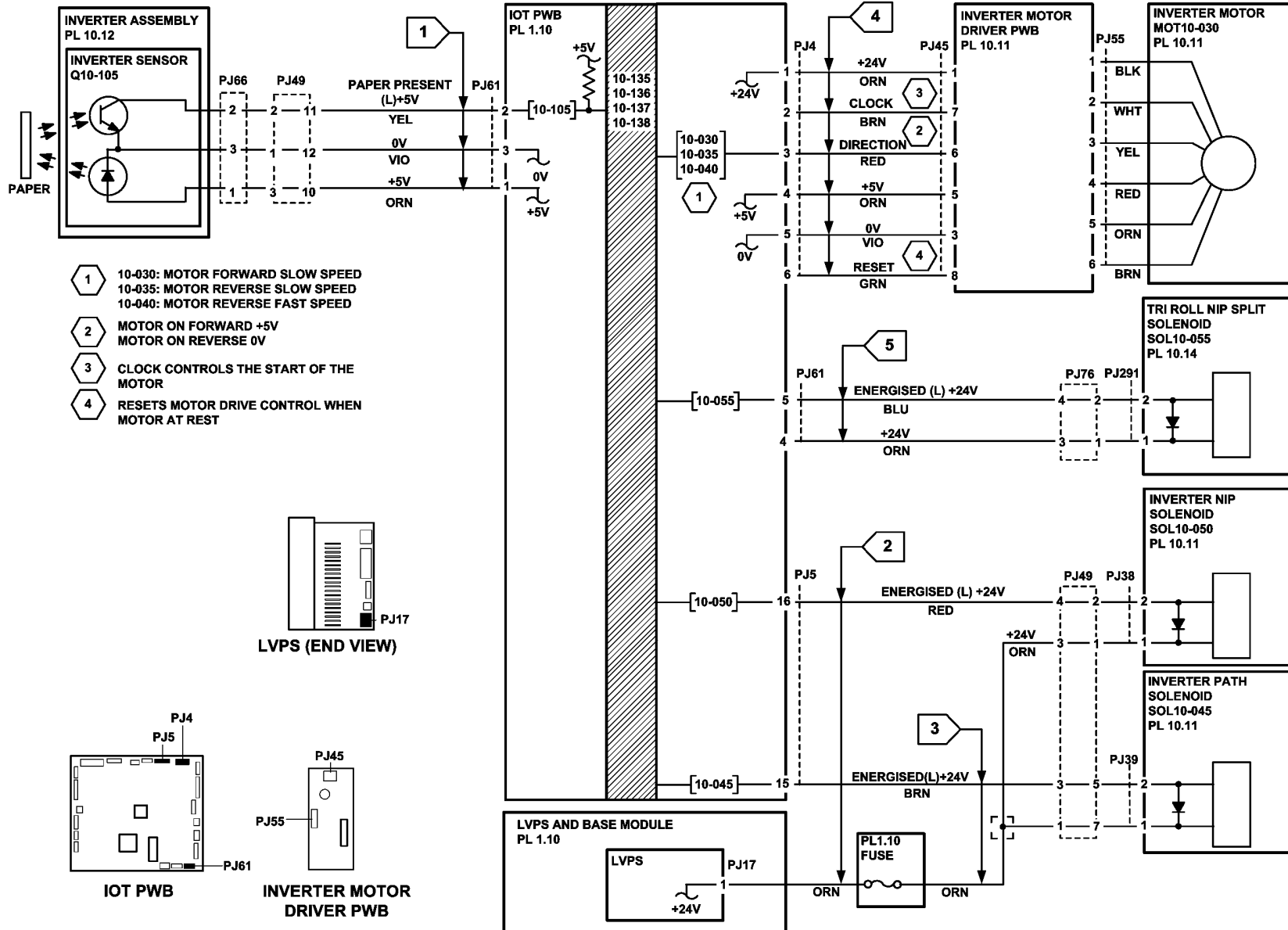


Figure 4 Circuit diagram

TT-1-0159-A

## 10-315, 10-320, 10-321, 10-323, 10-340, 10-350, 10-360, 10-365, 10-380 Fuser Over Temperature RAP

**10-315** The difference between 2 consecutive thermistor readings exceeds a given value.

**10-320** During standby or run mode, the thermistor reading is not within the target temperature range.

**10-321** Over temperature during standby mode, the thermistor reading is not within the target temperature range

**10-323** Over temperature during run mode, the thermistor reading is not within the target temperature range.

**10-340** Fuser temperature sensor A reading monitors above its normal operating temperature.

**10-350** The hardware comparator detects a fuser reading greater than 240 degrees centigrade or a short circuit thermistor.

**10-360** Fuser temperature sensor B reading is greater than the normal operating temperature.

**10-365** The fuser module is above the recommended operating temperature.

**10-380** The fuser delta value between the temperature sensors A and B is to high.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Do not touch the fuser while it is hot.

- If a number of 10-321 fault codes, are in the fault history. Check if the customer has been running transparency jobs of nominal papers at card stock settings. This fault can be generated when the temperature changes between the standby and run. This is a normal function of the machine and should not effect the customer operation.
- Check that the fuser temperature NVM settings in dC131, are set to default. Refer to NVM location 10-028 though to 10-061 and location 08-282 through to 08-295. Ensure that the values are set to the default level. If the values are not at default then, 10-320, 10-321, 10-340 and 10-360 may appear in the fault log.
- Check the fuser module connector, Figure 1.
- Check the fuser connector assembly, Figure 2.
- Check that the photoreceptor fan, PL 9.25 Item 7 is working correctly and that the direction of air flow is into the machine, refer to the 09C Photoreceptor Fan RAP. Check that the intake grille at the rear of the machine is not blocked and there is not a heat source such as a radiator immediately behind the machine. Check that the photoreceptor duct, PL 9.25 Item 5 and the lower duct, PL 9.25 Item 8 are correctly installed.

### Procedure

Switch off the machine, then switch on the machine, GP 14. The display shows Ready to Copy.

Y N

Refer to Figure 5. Go to Flag 1. The voltage at the temperature sensors A and B should be 2.9 volts when the sensors are cold. In standby mode the voltage should be 0.78 to 0.98 volts. Refer to:

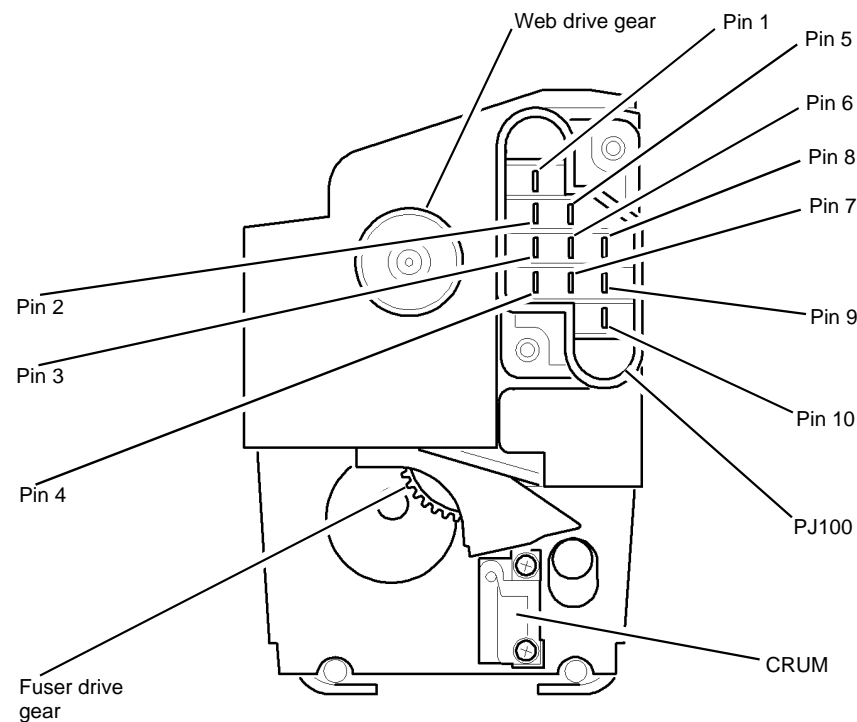
- P/J35, IOT PWB.
- 01D +3.3 V Distribution RAP.
- 01B 0V Distribution RAP

Before new components are installed, restore the NVM values to default.

Install new components as necessary:

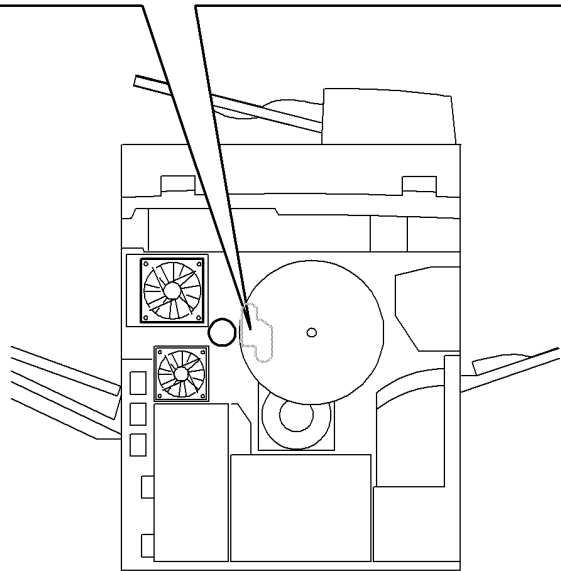
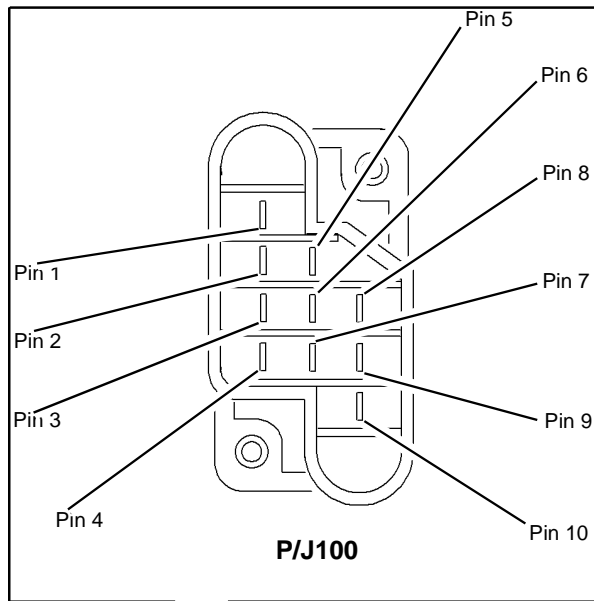
- Perform OF7 IOT PWB Diagnostics RAP before a new IOT PWB is installed, PL 1.10 Item 2.
- LVPS and base module, PL 1.10 Item 3.
- Fuser Module, (35-55 ppm) PL 10.8 Item 1, (65-90 ppm) PL 10.10 Item 1.

Perform SCP 6 Final Actions.



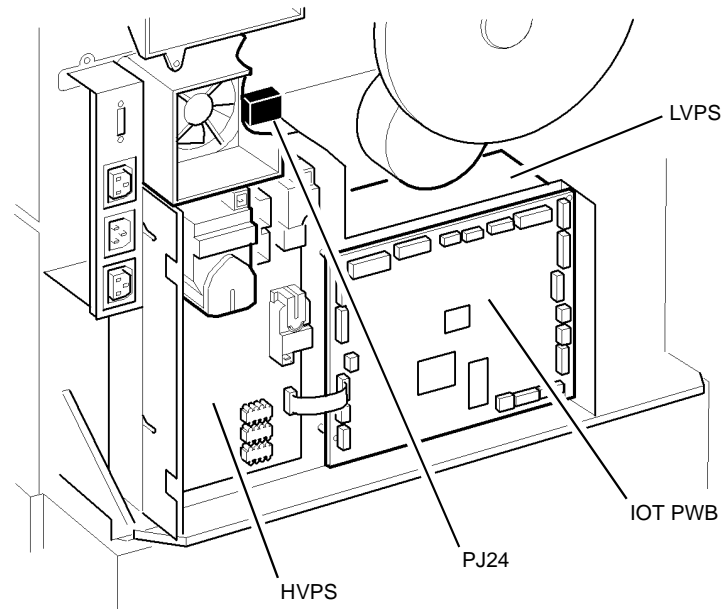
T-1-0137-A

Figure 1 Component location



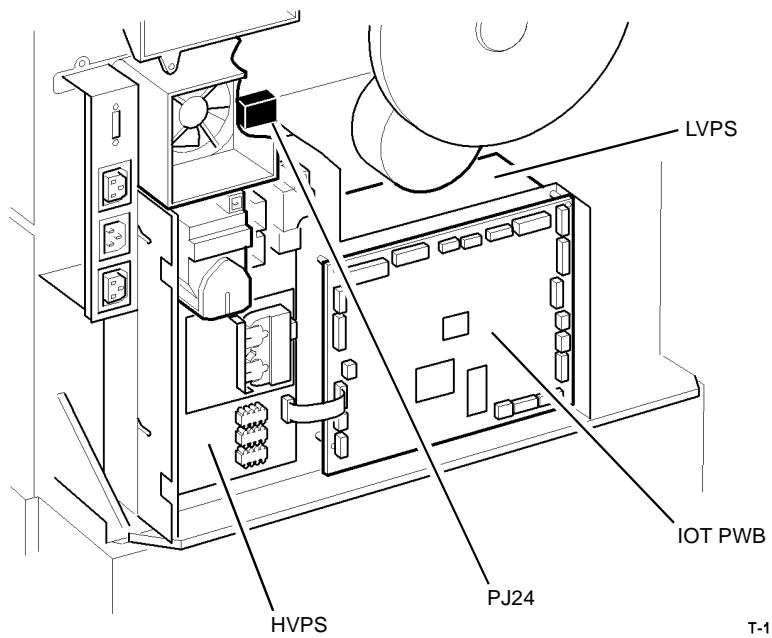
**Figure 2 Component location**

T-1-0138-A



**Figure 3 Component location 35 ppm**

T-1-0139-A



T-1-0140-A

**Figure 4 Component location 40-90 ppm**

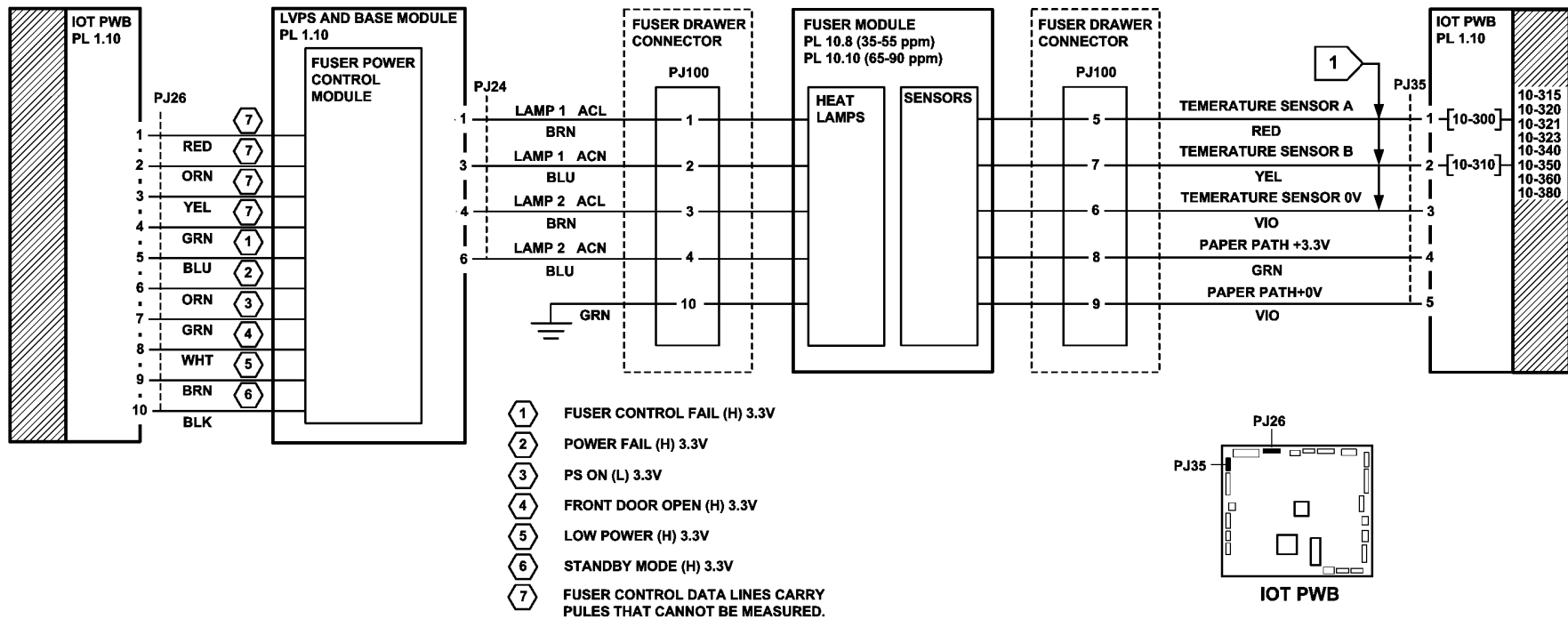


Figure 5 Circuit diagram

TT-1-0160-A

## 10-322, 10-324, 10-325, 10-330, 10-370 Fuser Under Temperature RAP

**10-322** Under temperature during standby mode, the thermistor reading is not within the target temperature range

**10-324** under temperature during run mode, the thermistor reading is not within the target temperature range

**10-325** The fuser control task watchdog timer has not been reset within a specified period.

**10-330** The initial fuser temperature rise was not achieved within 30 seconds from the start of warm up mode or the standby temperature was not reached within 150 seconds.

**10-370** During power save mode, the thermistor reading is not within the target value, after the fuser has cooled to the power save temperature.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Do not touch the fuser while it is hot.

- Switch off the machine, then switch on the machine, [GP 14](#).
- If a number of 10-322 fault codes, are in the fault history. Check if the customer has been running transparency jobs of nominal papers at card stock settings. This fault can be generated when the temperature changes between the standby and run. This is a normal function of the machine and should not effect the customer operation.
- Check that the fuser temperature NVM settings in [dC131](#), are set to default. If the fuser temperatures are not set to default, 10-322 may appear in the fault log.

### Procedure

Switch off the machine [GP 14](#). Remove the fuser module and check the continuity between pin 1 and pin 2 and between pin 3 and pin 4 on the fuser module connector, [Figure 1](#). **There is continuity.**

Y N

Install a new fuser module, (35-55 ppm) [PL 10.8 Item 1](#) or (65-90 ppm) [PL 10.10 Item 1](#).

Install the fuser module and disconnect PJ24, (35 ppm) [Figure 3](#), (40-90 ppm) [Figure 4](#). Go to [Flag 2](#) and check for continuity between pin 1 and 3 and between pins 4 and 6 at the harness end. **There is continuity.**

Y N

Check the fuser connector assembly, [Figure 2](#). If necessary, install a new fuser connector assembly, (35-55 ppm) [PL 4.15 Item 9](#), (65-90 ppm) [PL 4.10 Item 9](#).

Connect PJ24, (35 ppm) [Figure 3](#), (40-90 ppm) [Figure 4](#).



**WARNING**

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

**NOTE:** The voltage will be 100% of the ACL voltage when the machine is switched on from cold and pulse between 60% and 100% during standby.

Go to [Flag 2](#) and check for ACL at PJ24. Switch on the machine, [GP 14](#). **ACL is available at PJ24 between pin 1 and 3, and between pin 4 and 6.**

Y N

Install new components as necessary.

- Perform the [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).
- If the fault still occurs, install a new LVPS and base module, [PL 1.10 Item 3](#)

Go to [Flag 1](#). With the fuser cold, check for +2.9V at PJ 35 pin 1 and at pin 2. **+2.9V is available at both pins.**

Y N

Go to [Flag 1](#). Check the wiring and connectors.

**NOTE:** Do not insert the service meter probes into the PJ100 terminals. This may damage the pins. Access the pins from the wire side of the connector.

Refer to:

- [P/J35, IOT PWB](#).
- PJ100, [Figure 2](#).
- [01D +3.3 V Distribution RAP](#).
- [01B 0V Distribution RAP](#).

**The wiring and connectors are good.**

Y N

As necessary, perform the actions that follow:

- Repair the harness between [P/J35](#) and PJ100, [REP 1.2](#).
- Install a new fuser connector assembly, (65-90 ppm) [PL 4.10 Item 9](#) (35-55 ppm) [PL 4.15 Item 9](#).

Perform the [OF7 IOT PWB Diagnostics RAP](#). If the fault persists, install a new fuser module, (35-55 ppm) [PL 10.8 Item 1](#) or (65-90 ppm) [PL 10.10 Item 1](#).

If the fault persists, install a new fuser module, (35-55 ppm) [PL 10.8 Item 1](#) or (65-90 ppm) [PL 10.10 Item 1](#).

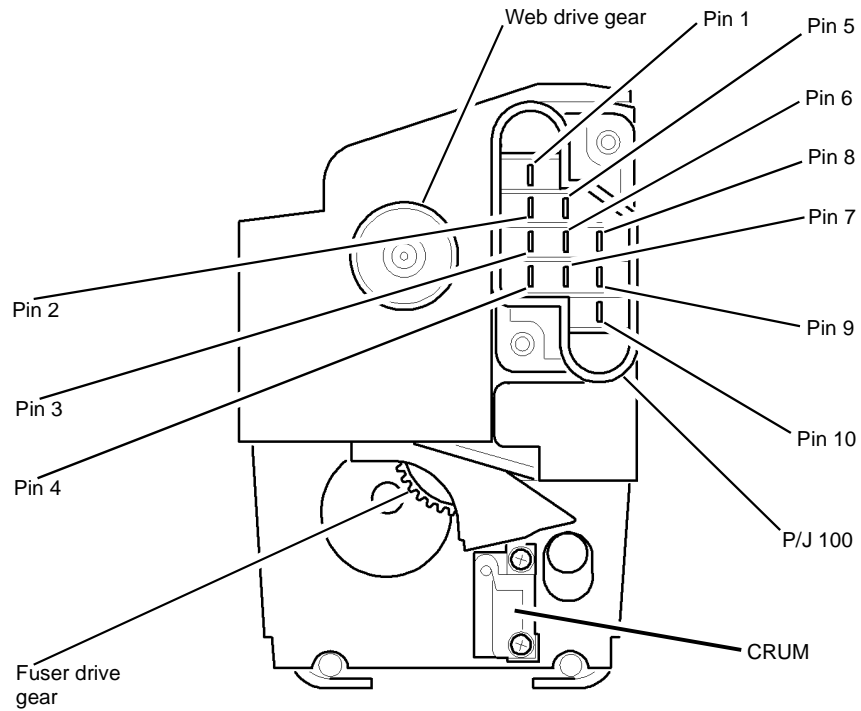


Figure 1 Component location

T-1-0141-A

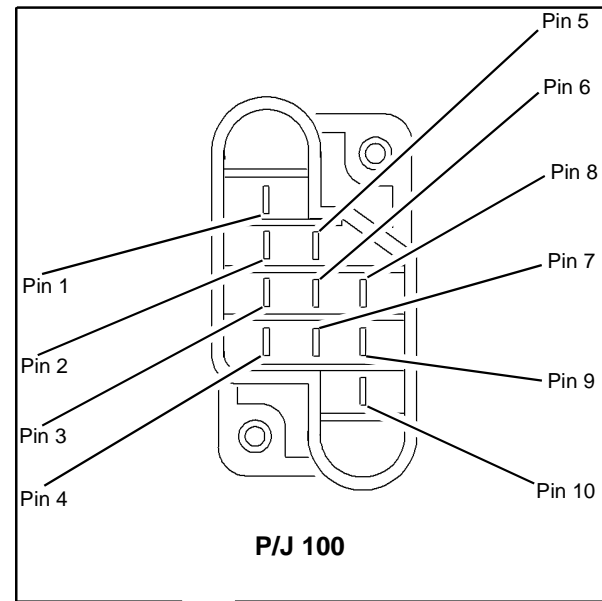
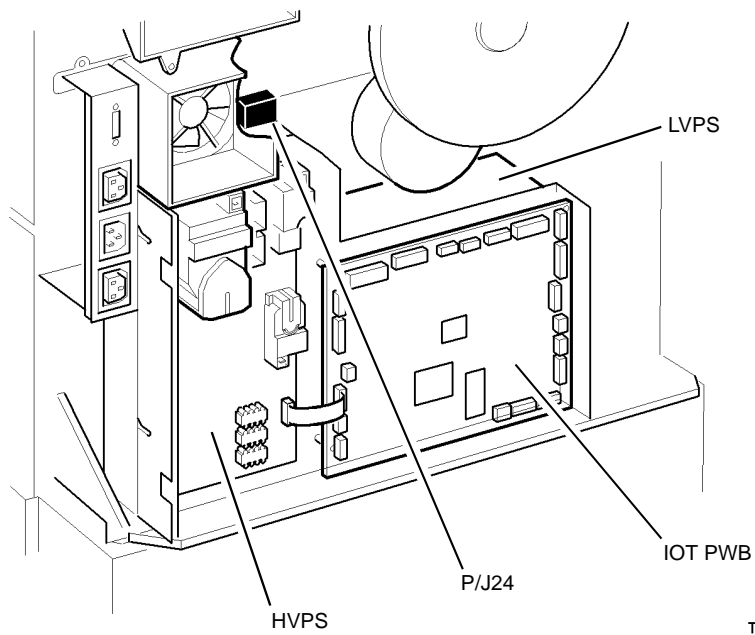


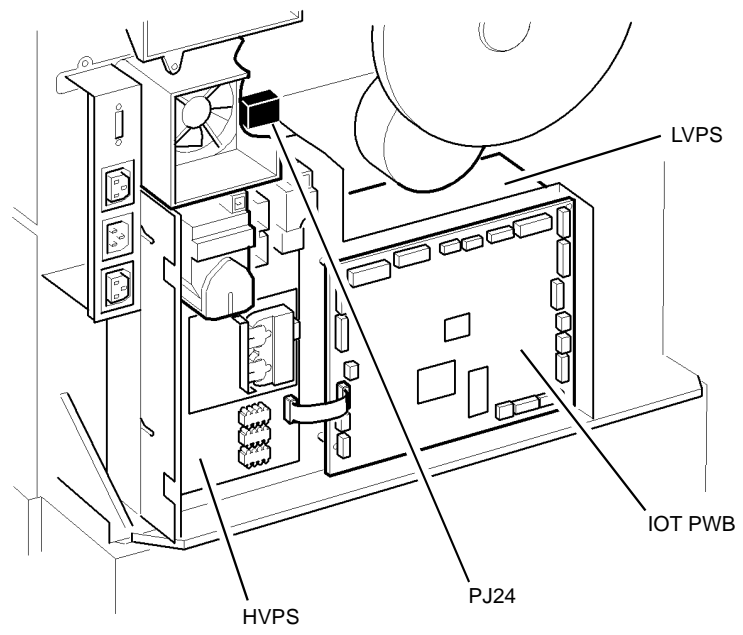
Figure 2 Component location

T-1-0142-A



**Figure 3 Component location 35 ppm**

T-1-0143-A



**Figure 4 Component location 40-90 ppm**

T-1-0144-A



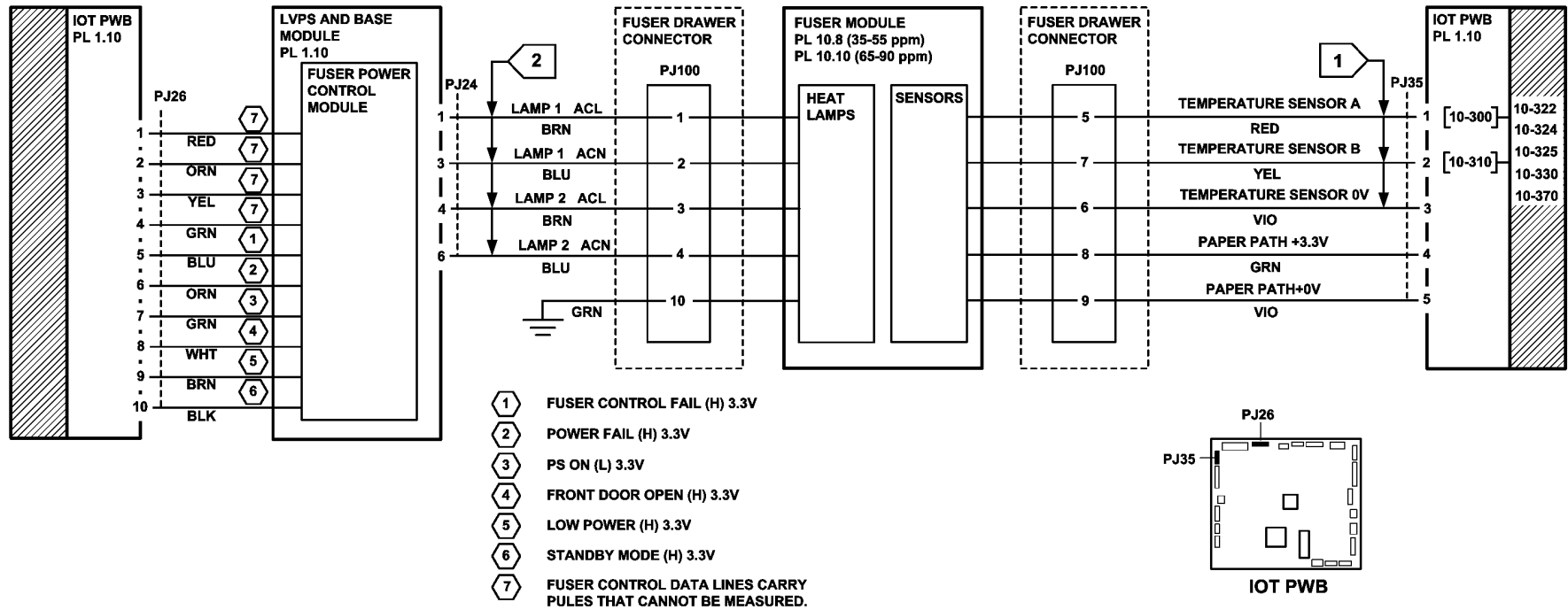


Figure 5 Circuit diagram

TT-1-0161-A

## 10-399 Fuser Authorization Failure RAP

**10-399** The fuser CRUM failed the authorization check.

The authorization check is performed to ensure that the fuser installed in the system is compatible with the machine configuration: 50Hz or 60Hz.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**Do not touch the fuser while it is hot.**

Install a new Fuser module that matches the machine configuration.

- Fuser module (35-55 ppm), [PL 10.8 Item 1](#).
- Fuser module (65-90 ppm), [PL 10.10 Item 1](#).

## 10A Fuser Web Motor RAP

Use this RAP when the fuser web motor is suspected of having failed. Indications of motor failure are contaminated stripper fingers and fuser roll. This fault may also cause paper jams in the inverter.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**Do not touch the fuser while it is hot.**

- Check the fuser web motor drive coupling, [Figure 2](#).
- Check the fuser drawer connector, [Figure 1](#).

### Procedure

**NOTE:** The door interlock switch must be cheated when checking +24V components.

The web motor does not run continuously. It is pulsed on for multiples of 0.9 seconds duration. The pulsing of the motor is felt or heard during the print mode.

Enter [dC330](#) code 10-010 fuser web motor, MOT10-010. The movement is very slow (approximately 0.1 rev per minute). **The motor runs.**

**Y N**

Go to [Flag 1](#). Check MOT10-010. Refer to:

- [Figure 1](#).
- [GP 10](#) How to Check a Motor.
- [P/J154, Main Drives PWB](#).
- [01G +24V](#) Distribution RAP.
- [01B 0V](#) Distribution RAP.

Install new components as necessary:

- Fuser web motor assembly, (35-55 ppm) [PL 4.17 Item 1](#).
- Fuser web motor assembly, (65-90 ppm) [PL 4.12 Item 1](#).
- Main drives module, (35-55 ppm) [PL 4.15 Item 1](#).
- Main drives module, (65-90 ppm) [PL 4.10 Item 1](#).
- Perform [OF7 IOT PWB Diagnostics RAP](#) before a new IOT PWB is installed, [PL 1.10 Item 2](#).

Check the following:

- Drive coupling on the fuser web motor shaft, (65-90 ppm) [PL 4.12 Item 1](#).
- Drive coupling on the fuser web motor shaft, (35-55 ppm) [PL 4.17 Item 1](#).
- Drive coupling on the web assembly, [Figure 2](#).

The life expectancy of the fuser web is the same as the Fuser module. Install new Fuser module, (35-55 ppm) **PL 10.8 Item 1**, (65-90 ppm) **PL 10.10 Item 1**.

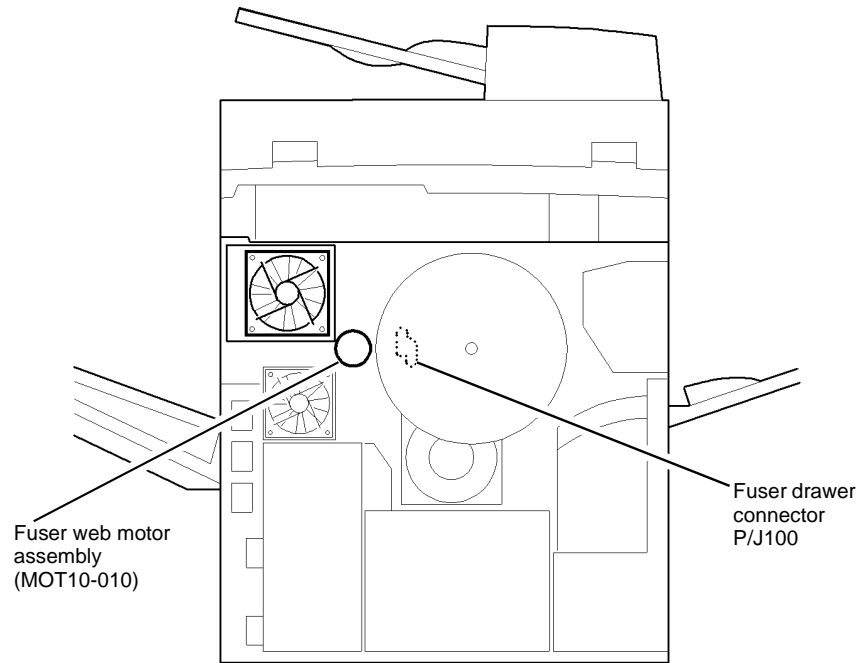


Figure 1 Component location

T-1-0145-A

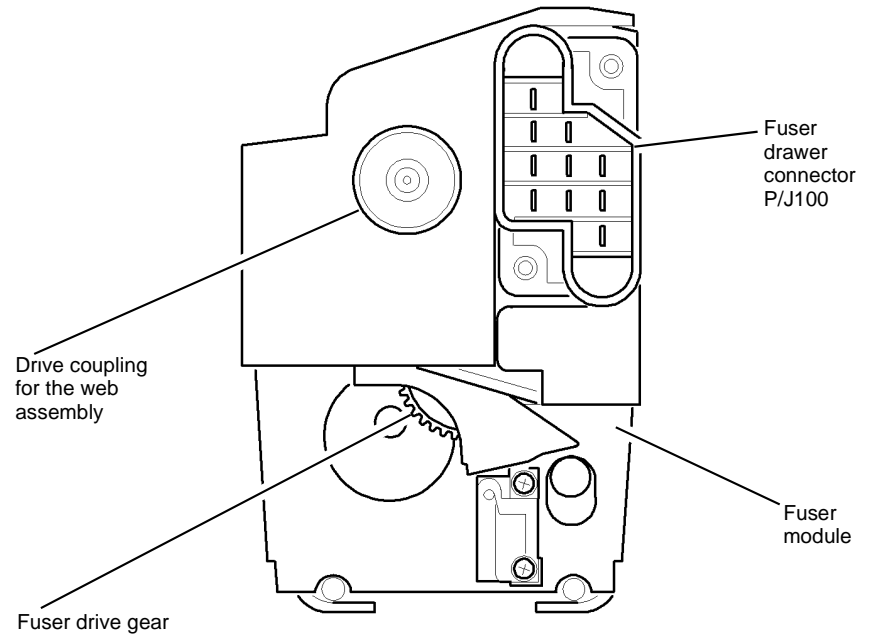


Figure 2 Component location

T-1-0146-A

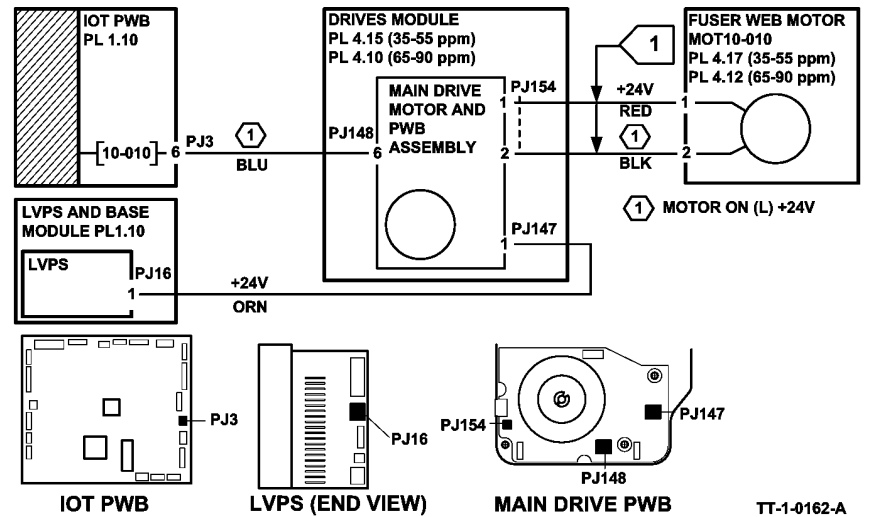


Figure 3 Circuit diagram

TT-1-0162-A



## 11-005-110, 11-006-110, 11-310-110, 11-311-110 Front Tamper Move Failure RAP

11-005-110 Front tamper fails to move to the front position.

11-006-110 Front tamper fails to move to the rear position.

11-310-110 Front tamper not at the front home position.

11-311-110 Front tamper not at the rear home position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Figure 1. Check for damage or obstructions that would prevent the tamper assembly from operating correctly. If necessary, install a new tamper assembly, PL 11.16 Item 1.
- Jams can be caused by removing prints from bin 1 before the machine has finished printing. If the tampers are touched while they are moving, they may stall and cause the machine to shutdown. The resulting shutdown can cause un-clearable jams in the finisher and the tray 3 and tray 4 to paper path interface.
- Jams can also be caused if the tray settings do not match the paper in the trays. Make sure the tray settings are correct.
- Check the condition and the tension of the front tamper drive belt. Tensioning is achieved by a spring on the motor, the motor should be free to move.
- If there is a large jam of paper above bin 1 that has obstructed the tampers, this has probably been caused by poorly stacked sets failing to actuate the bin 1 upper level sensor. Perform the following:
  - Check the paper for defects that could degrade the tamping operation e.g. curl, paper condition, buckling or paper type. Refer to IQ1 Image Quality Entry RAP.
  - Check the operation of the paddle roll, refer to 11-024-110, 11-025-110 Paddle Roll Failure RAP.
  - Check the operation of the bin 1 upper level sensor, refer to 11-030-110, 11-334-110, 11-335-110, 11-336-110 Bin 1 Movement Failure RAP.
  - Refer to the 11J-110 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.
  - Check the 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP.

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter dC330, codes 11-003 and 11-005 alternately The front tamper moves between the home and inboard positions, Figure 1.

Y N

Go to Flag 2. Check the front tamper motor, MOT11-003.

A

Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 10 How to Check a Motor.
- P/J312, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Tamper assembly, PL 11.16 Item 1.
- 2K LCSS PWB, PL 11.26 Item 1.

Enter dC330 code 11-310, actuate the front tamper home sensor. The display changes.

Y N

Go to Flag 1. Check the sensor.

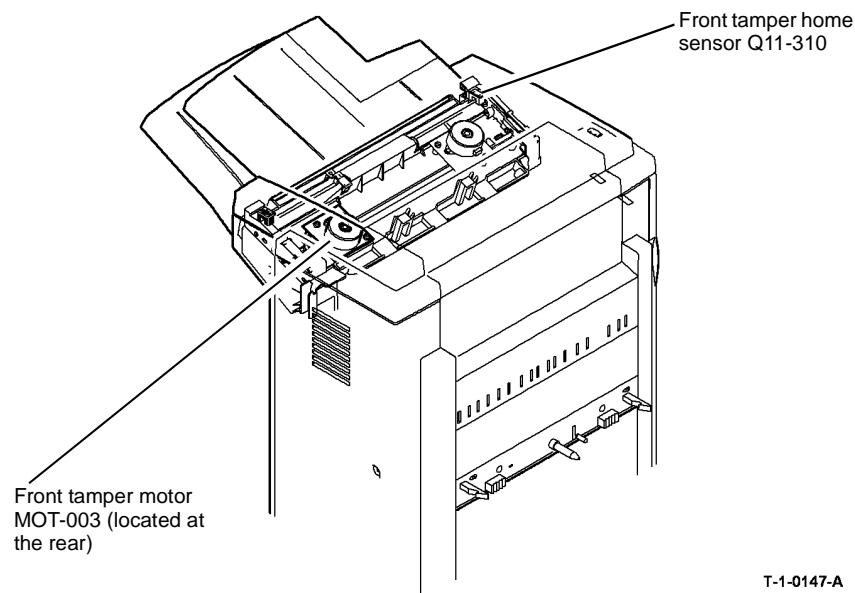
Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 11 How to Check a Sensor.
- P/J312, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Front tamper home sensor, PL 11.16 Item 3.
- 2K LCSS PWB, PL 11.26 Item 1.

Perform SCP 6 Final Actions.



T-1-0147-A

Figure 1 Component location

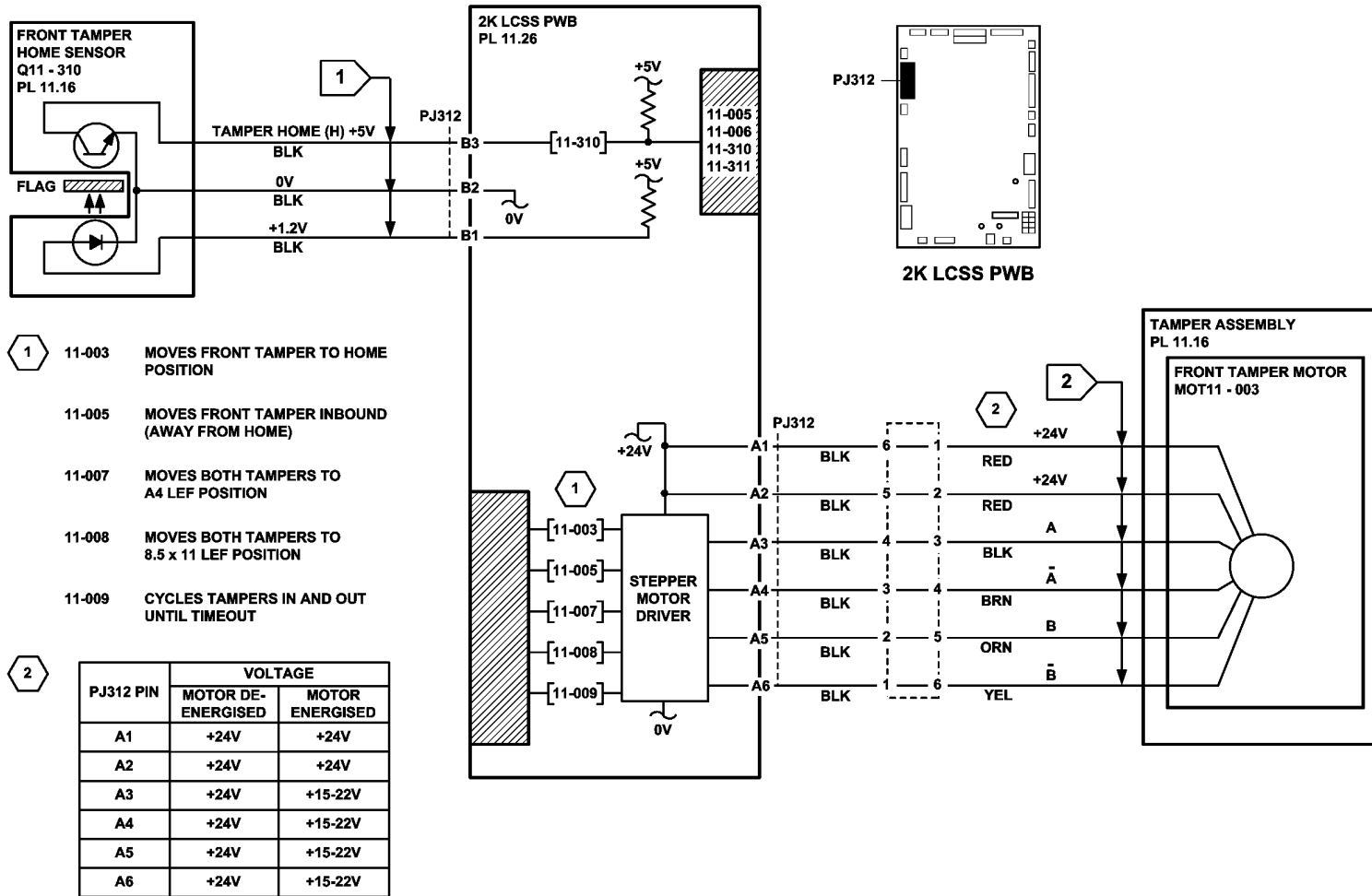


Figure 2 Circuit diagram

## 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 Rear Tamper Move Failure RAP

11-007-110 Rear tamper fails to move to the front position.

11-008-110 Rear tamper fails to move to the rear position.

11-312-110 Rear tamper is not at the front home position.

11-313-110 Rear tamper is not at the rear home position.

11-319-110 Rear tamper is not at the away home position.

**NOTE:** The away home position is with the rear tamper approximately halfway along it's travel.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- [Figure 1](#). Check for damage or obstructions that would prevent the tamper assembly from operating correctly. If necessary, install a new tamper assembly, [PL 11.16 Item 1](#).
- Jams can be caused by removing prints from bin 1 before the machine has finished printing. If the tampers are touched while they are moving, they may stall and cause the machine to shutdown. The resulting shutdown can cause un-clearable jams in the finisher and the tray 3 and tray 4 to paper path interface.
- Jams can also be caused if the tray settings do not match the paper in the trays. Make sure the tray settings are correct.
- Check the condition of the front tamper drive belt and that it is correctly tensioned. Tensioning is achieved by a spring on the motor, the motor should be free to move.
- If there is a large jam of paper above bin 1 that has obstructed the tampers, this has probably been caused by poorly stacked sets failing to actuate the bin 1 upper level sensor. Perform the following:
  - Check the paper for defects that could degrade the tamping operation e.g. curl, paper condition, buckling or paper type. Refer to [IQ1 Image Quality Entry RAP](#).
  - Check the operation of the paddle roll, refer to [11-024-110](#), [11-025-110 Paddle Roll Failure RAP](#).
  - Check the operation of the bin 1 upper level sensor, refer to [11-030-110](#), [11-334-110](#), [11-335-110](#), [11-336-110 Bin 1 Movement Failure RAP](#).
  - Refer to the [11J-110 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP](#).
  - Check the 2K LCSS PWB DIP switch settings, refer to [11F-110 2K LCSS PWB DIP Switch Settings RAP](#).

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter [dC330](#), codes 11-004 and 11-006 alternately. **The rear tamper moves between the home and inboard positions, [Figure 1](#).**

- Y N
- Go to [Flag 3](#). Check the rear tamper motor, MOT11-004.  
Refer to:
- [11G-110 2K LCSS PWB Damage RAP](#).
  - [GP 10](#), How to Check a Motor.
  - [P/J312, 2K LCSS PWB](#).
  - [11D-110 2K LCSS Power Distribution RAP](#).
- Repair or install new components as necessary:
- Tamper assembly, [PL 11.16 Item 1](#).
  - 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#) code 11-311, actuate the rear tamper home sensor Q11-311. **The display changes.**

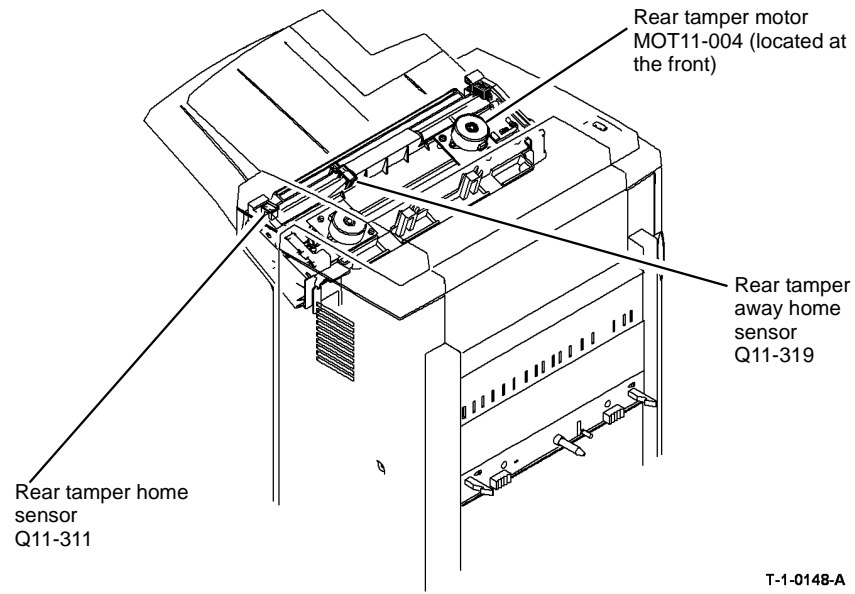
- Y N
- Go to [Flag 1](#) and check Q11-311.  
Refer to:
- [11G-110 2K LCSS PWB Damage RAP](#).
  - [GP 11](#), How to Check a Sensor.
  - [P/J312, 2K LCSS PWB](#).
  - [11D-110 2K LCSS Power Distribution RAP](#).
- Repair or install new components as necessary:
- Rear tamper home sensor, [PL 11.16 Item 3](#).
  - 2K LCSS PWB, [PL 11.26 Item 1](#).

**NOTE:** The away home position is used for short edge feed small paper. This saves unnecessary rear tamper travel.

Enter [dC330](#) code 11-319, actuate the rear tamper away home sensor Q11-319. **The display changes.**

- Y N
- Go to [Flag 2](#) and check Q11-319.  
Refer to:
- [11G-110 2K LCSS PWB Damage RAP](#).
  - [GP 11](#), How to Check a Sensor.
  - [P/J312, 2K LCSS PWB](#).
  - [11D-110 2K LCSS Power Distribution RAP](#).
- Repair or install new components as necessary:
- Rear tamper away home sensor, [PL 11.16 Item 3](#).
  - 2K LCSS PWB, [PL 11.26 Item 1](#).

A  
Perform SCP 6 Final Actions.



**Figure 1 Component Location**



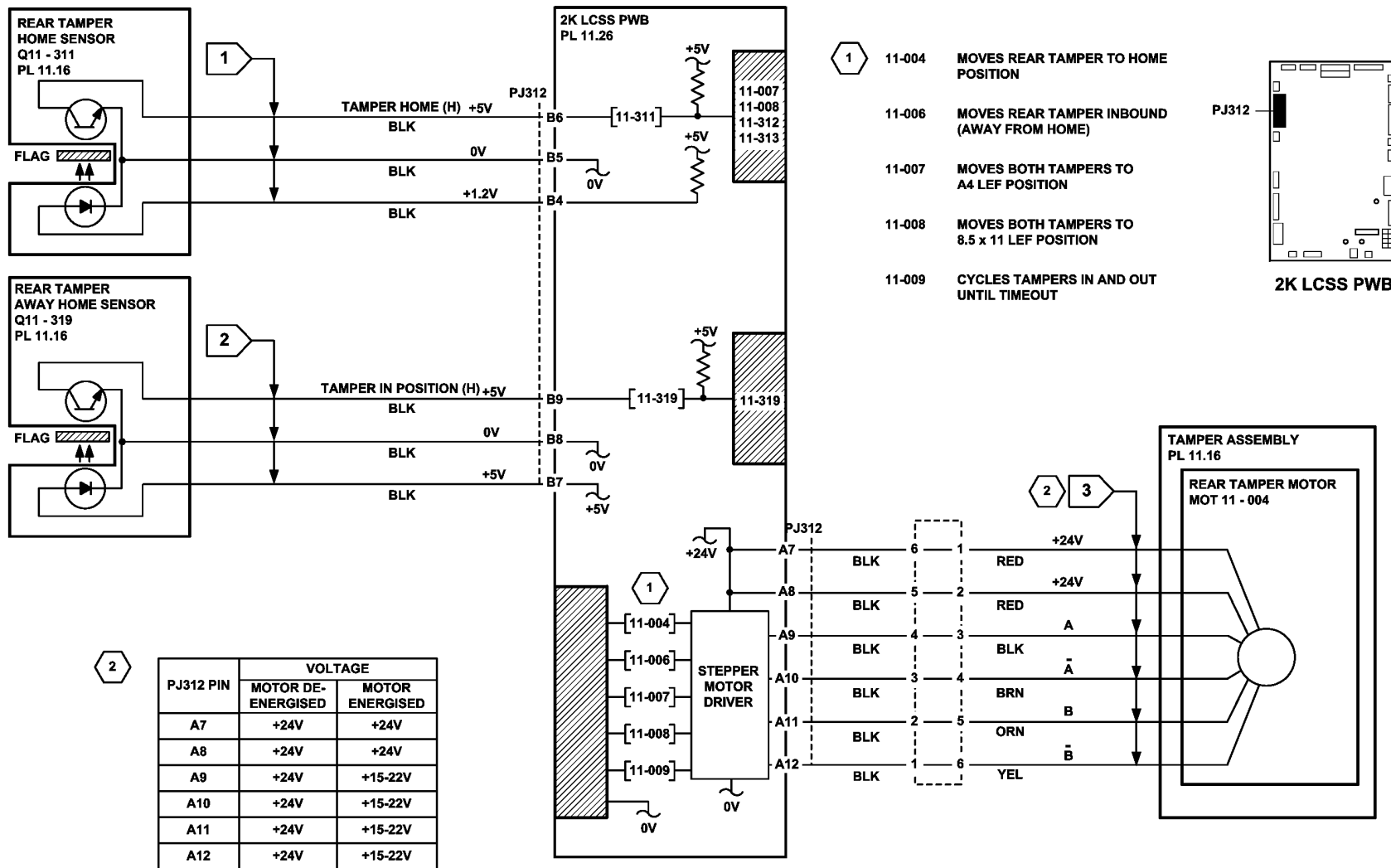


Figure 2 Circuit diagram

TT-1-0164-A

## 11-024-110, 11-025-110 Paddle Roll Failure RAP

11-024-110 The paddle is not at the home position.

11-025-110 The paddle fails to rotate.

**NOTE:** The paddle is in the home position when the sensor flag is located between the sensor jaws. If a jam occurs in the compiler, bin 1 will not be available.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the following:

- That there is no paper or other obstructions in the vicinity of the paddle.
- The paddle roll position sensor bracket is holding the sensor in the correct position, i.e. the flag is in the middle of the sensor gap and the sensor does not touch any moving components.
- Check that paper type is set correctly. If heavyweight paper is used but not set in the UI, the compiler capacity can be exceeded. Refer to 11J-110 Mis-Registration in Stapled Sets and Non-stapled Sets RAP.
- Check the position of the paddles. With the paddle roll in the home position both sets of paddles must be within the output cover, if they are not, refer to REP 11.12-110 Paddle Wheel Shaft Assembly. If any of the paddles are out of alignment to other paddles, install a new paddle wheel shaft assembly, PL 11.8 Item 4.
- 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP.

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter dC330, codes 11-024, paddle home position and 11-025, paddle run. **The paddle rotates correctly.**

Y N

Go to Flag 2. Check the paddle motor, MOT 11-024.

Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 10, How to Check a Motor.
- Figure 1.
- P/J310, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP

Repair or install new components as necessary:

- Paddle motor, PL 11.8 Item 10.

- 2K LCSS PWB, PL 11.26 Item 1.

Enter dC330, code 11-025 and stack the code 11-326, to actuate the paddle roll position sensor Q11-326. **The display cycles high/low.**

Y N

Go to Flag 1. Check Q11-326.

Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 11, How to Check a Sensor.
- Figure 1.
- P/J314, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP

Repair or install new components as necessary:

- Paddle roll position sensor, PL 11.8 Item 11.
- 2K LCSS PWB, PL 11.26 Item 1.

Perform SCP 6 Final Actions.

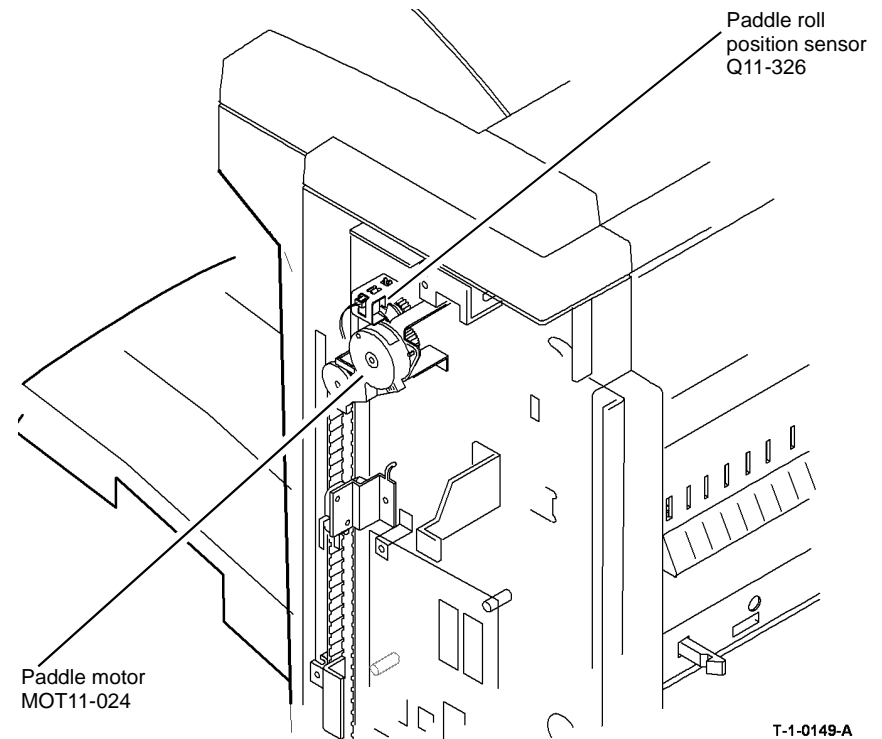
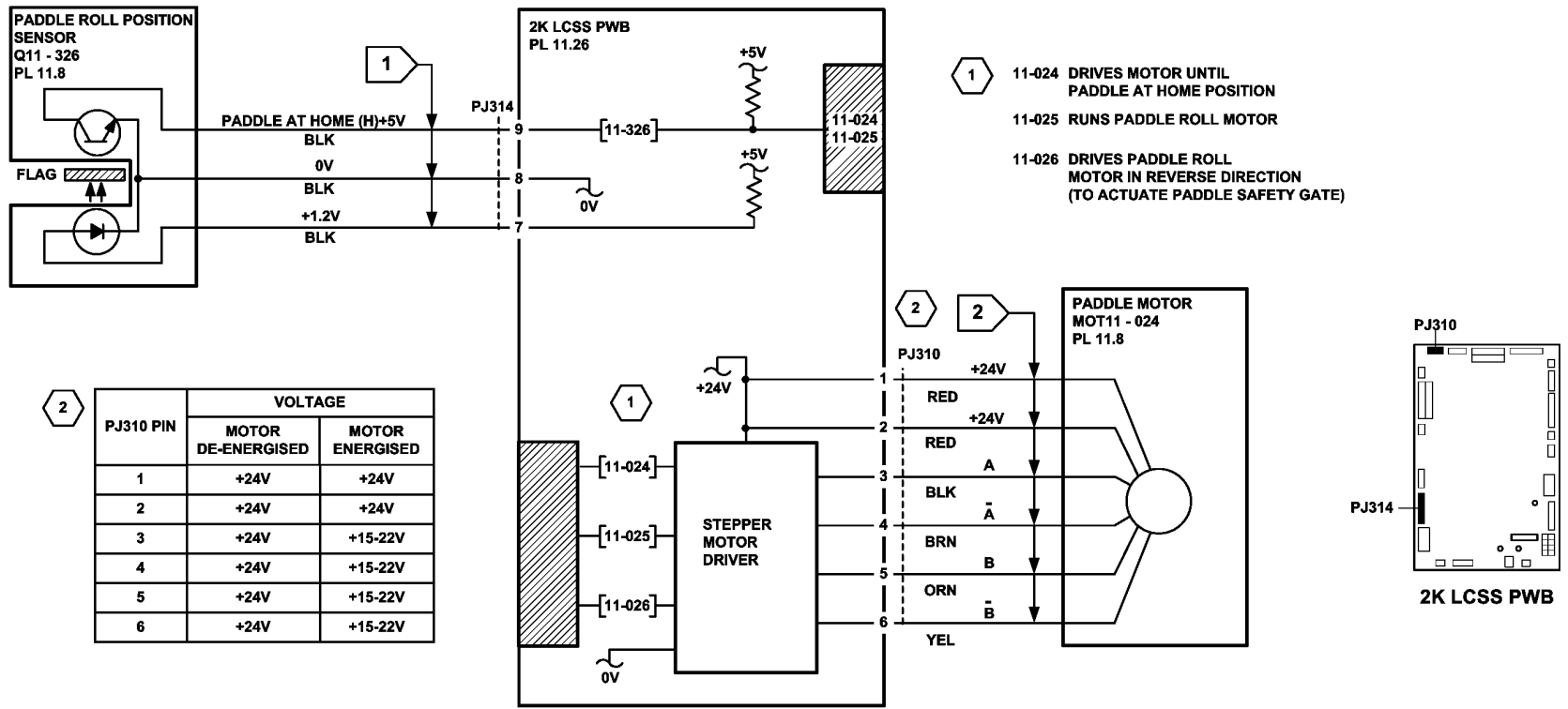


Figure 1 Component location



TT-1-0165-A

Figure 2 Circuit diagram

## 11-030-110, 11-334-110, 11-335-110, 11-336-110 Bin 1 Movement Failure RAP

**11-030-110** Bin 1 fails to move.

**11-334-110** Bin 1 has reached the upper limit of travel.

**11-335-110** Bin 1 has reached the lower limit of travel.

**11-336-110** Bin 1 is not at the home position.

**NOTE:** The home position of bin 1 is when bin 1 is actuating the bin 1 lower level sensor. See the final actions at the end of the procedure.

Three sensors and two switches monitor the level of paper in bin 1 and the position of the tray:

- The bin 1 upper level sensor, the highest of two sensors that detect the top of the paper stack in bin 1, or the empty bin 1, [Figure 1](#).
- The bin 1 90% full sensor detects when the tray has descended to a position where the tray is 90% full, [Figure 2](#).
- The bin 1 lower level sensor, the lowest of two sensors that detects when paper is removed from bin 1, [Figure 1](#).
- Bin 1 upper limit switch, S11-334, [Figure 2](#).
- Bin 1 lower limit switch, S11-335, [Figure 2](#).

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the following:

- Check for a physical obstruction that would prevent bin 1 from moving, such as an item of furniture.
- Check that bin 1 is level front to back, if necessary perform [ADJ 11.1-110](#) 2K LCSS Bin 1 Level.
- Check the 2K LCSS PWB DIP switch settings, refer to [11F-110](#) 2K LCSS PWB DIP Switch Settings RAP.
- Refer to the [11J-110](#) Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.
- If there is a large jam of paper above bin 1, this has probably been caused by poorly stacked sets failing to actuate the bin 1 upper level sensor.

Perform the relevant check:

- If paper is overflowing the tray when it is at the lower limit, check the tray 90% full sensor.
- If paper cannot be fed to bin 1 when it is at the highest position, check the bin 1 paper sensor - low and bin 1 paper sensor - high.

Check the front and rear bin 1 drive belts. If necessary install new components, [PL 11.10](#) Item 1.

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Remove the 2K LCSS rear cover. Enter [dC330](#) code 11-336, bin 1 motor encoder sensor Q11-336, slowly rotate the encoder disk by hand. **The display changes.**

**Y N**  
Go to [Flag 2](#). Check Q11-336.  
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [P/J304, 2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Bin 1 motor encoder sensor Q11-336, [PL 11.10](#) Item 11.
- 2K LCSS PWB, [PL 11.26](#) Item 1.

Enter [dC330](#) code 11-033, bin 1 elevator motor, MOT11-030. **Bin 1 cycles down and up.**

**Y N**  
Go to [Flag 1](#). Check MOT11-030.  
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 10](#) How to Check a Motor.
- [P/J318, 2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Bin 1 elevator motor MOT11-030, [PL 11.10](#) Item 8
- 2K LCSS PWB, [PL 11.26](#) Item 1.

[Figure 1](#), enter [dC330](#), code 11-332. Actuate the bin 1 upper level sensor Q11-332. **The display changes.**

**Y N**  
Go to [Flag 4](#). Check Q11-332.  
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [P/J314, 2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.
- [REP 11.13-110](#) 2K LCSS Un-docking.

Repair or install new components as necessary:

- Bin 1 upper level sensor Q11-332, [PL 11.12](#) Item 3.
- 2K LCSS PWB, [PL 11.26](#) Item 1.

[Figure 1](#), enter [dC330](#), code 11-333. Actuate the bin 1 lower level sensor Q11-333. **The display changes.**

**Y N**  
Go to **Flag 3**. Check Q11-333.

Refer to:

- **11G-110** 2K LCSS PWB Damage RAP.
- **GP 11** How to Check a Sensor.
- **P/J314**, **2K LCSS PWB**.
- **11D-110**, 2K LCSS Power Distribution RAP.
- **REP 11.13-110** 2K LCSS Un-docking.

Repair or install new components as necessary:

- Bin 1 lower level sensor Q11-333, **PL 11.12 Item 3**.
- 2K LCSS PWB, **PL 11.26 Item 1**.

**Figure 2.** Enter **dC330** code 11-334. Actuate the bin 1 upper limit switch, S11-334. **The display changes.**

**Y N**  
Go to **Flag 5**. Check S11-334.

Refer to:

- **11G-110** 2K LCSS PWB Damage RAP.
- **GP 13** How to Check a Switch.
- **P/J315**, **2K LCSS PWB**.
- **11D-110** 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Bin 1 upper limit switch, **PL 11.10 Item 3**.
- 2K LCSS PWB, **PL 11.26 Item 1**.

Enter **dC330** code 11-335, actuate the bin 1 lower limit switch, S11-335. **The display changes.**

**Y N**  
Go to **Flag 6**. Check S11-335.

Refer to:

- **11G-110** 2K LCSS PWB Damage RAP.
- **GP 13** How to Check a Switch.
- **P/J317**, **2K LCSS PWB**.
- **11D-110** 2K LCSS Power Generation RAP.
- **REP 11.13-110** 2K LCSS Un-docking.

Repair or install new components as necessary:

- Bin 1 lower limit switch, **PL 11.12 Item 1**.
- 2K LCSS PWB, **PL 11.26 Item 1**.

Enter **dC330** code 11-331, actuate the bin 1 90% full sensor, Q11-331. **The display changes.**

**Y N**  
Go to **Flag 7**. Check Q11-331.

Refer to:

- **11G-110** 2K LCSS PWB Damage RAP.
- **GP 11** How to Check a Sensor.
- **P/J316**, **2K LCSS PWB**.

- **11D-110**, 2K LCSS Power Distribution RAP.

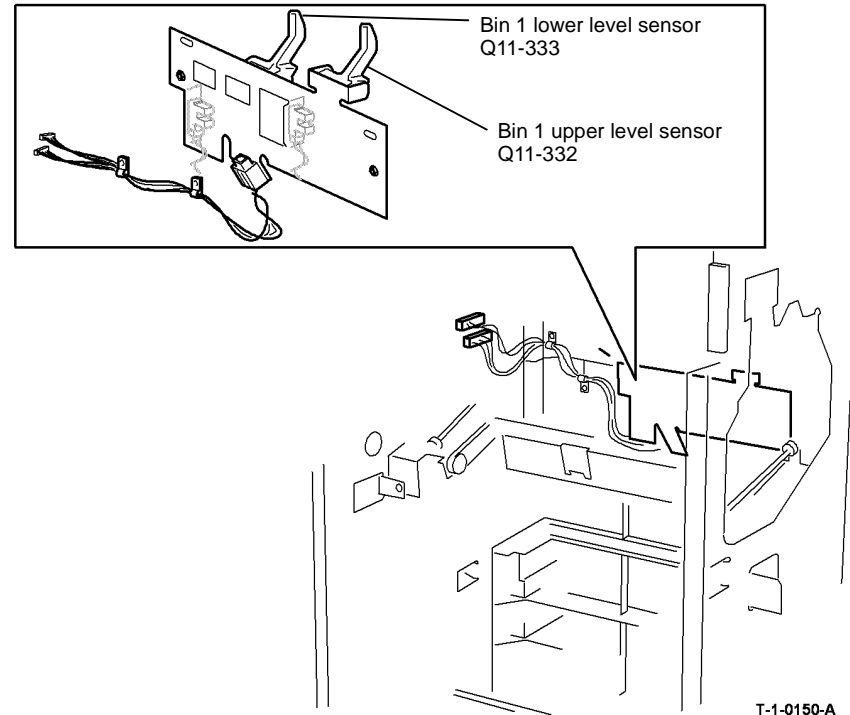
Repair or install new components as necessary:

- Bin 1 90% full sensor Q11-331, **PL 11.10 Item 5**.
- 2K LCSS PWB, **PL 11.26 Item 1**.

As final actions, check the following sequence of operation:

- When bin 1 is empty and at the top, the bin 1 lower level sensor, Q11-333 is actuated by the edge of the tray and the bin 1 upper level sensor, Q11-332 is de-actuated.
- Paper is delivered to the tray until the bin 1 upper level sensor, Q11-332 is actuated.
- The motor lowers the tray until the bin 1 upper level sensor, Q11-332 is de-actuated.
- As the tray is lowered to accommodate the increase in stack height, the Bin 1 lower level sensor, Q11-333 is held actuated by the stack rear edge.
- When the tray is emptied, the tray returns to the home position; the bin 1 lower level sensor, Q11-333 is de-actuated and the tray is elevated until both the bin 1 lower level sensor, Q11-333 and bin 1 upper level sensor, Q11-332 are made. The tray is then lowered until the bin 1 upper level sensor, Q11-332 is just cleared. In the home position the bin one upper limit switch, S11-334 is also actuated.

display



**Figure 1** Component location

A

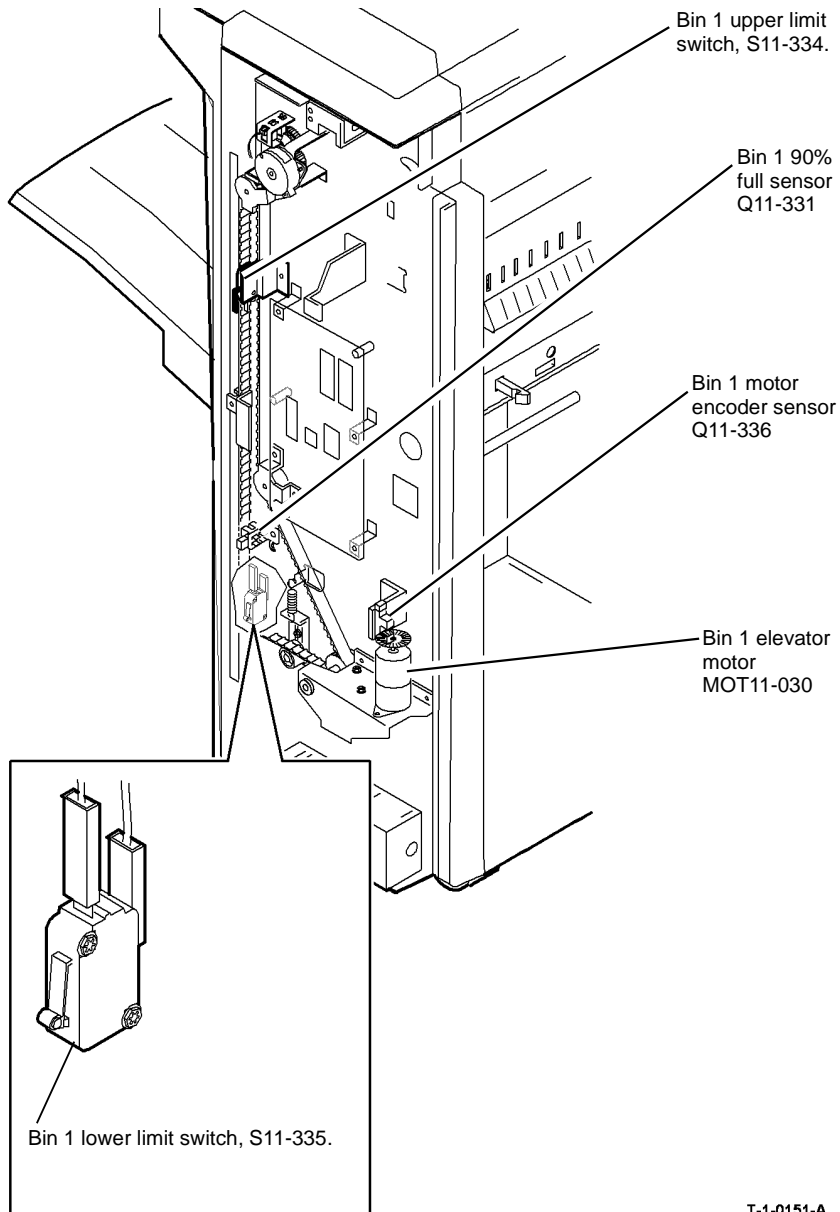


Figure 2 Component location

T-1-0151-A

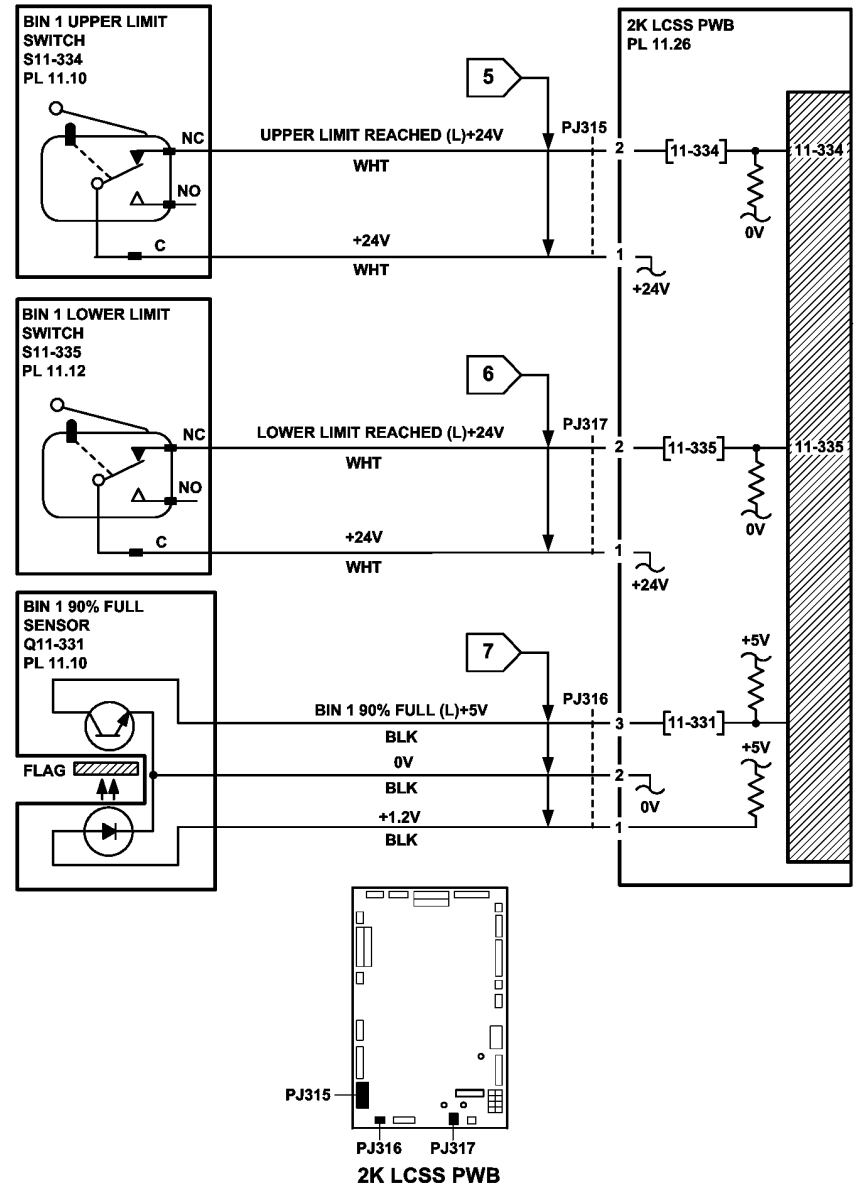


Figure 3 Circuit diagram

TT-1-0166-A

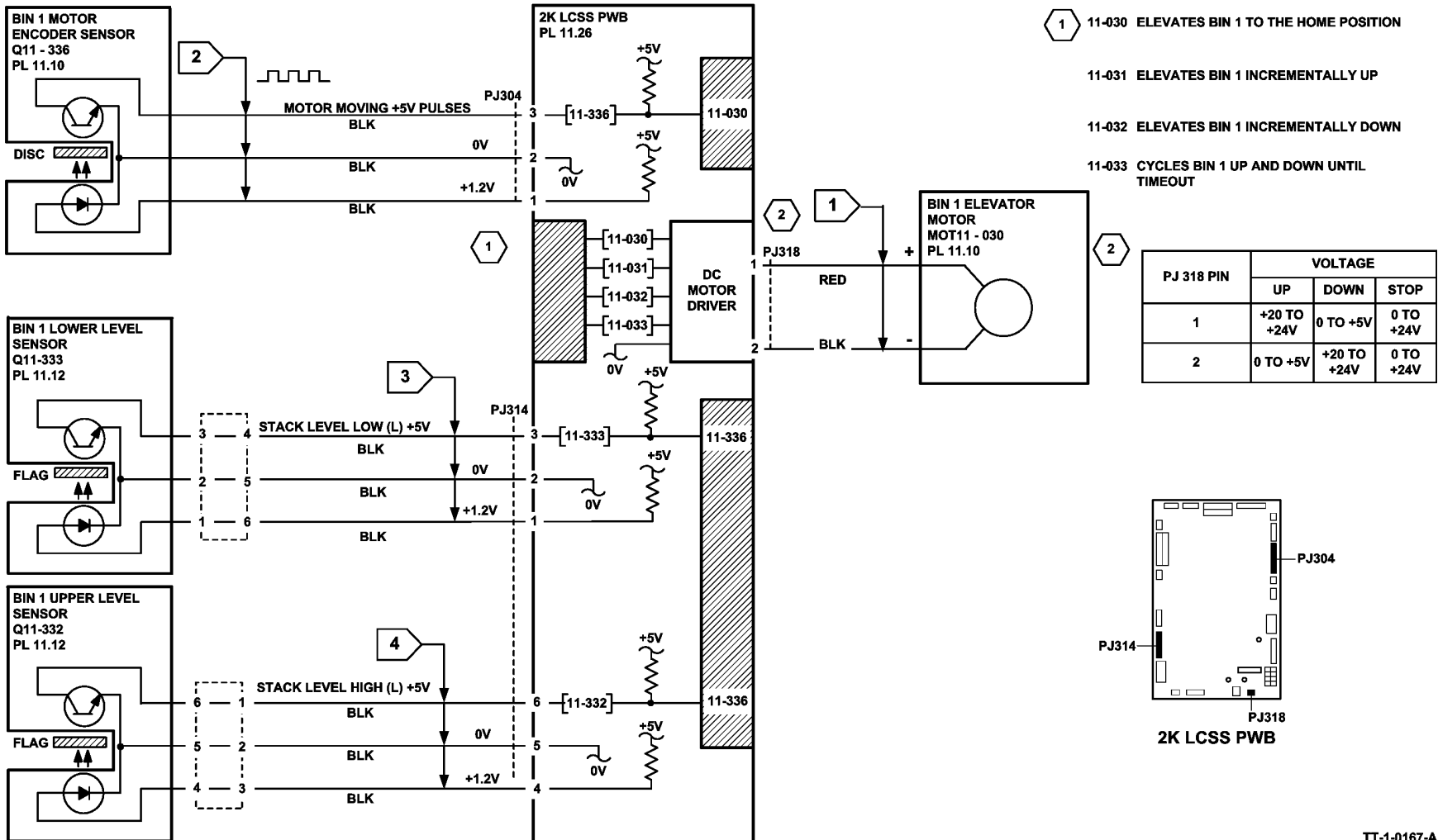


Figure 4 Circuit diagram

TT-1-0167-A

## 11-043-110, 11-350-110 Hole Punch Operation Failure RAP

11-043-110 The hole punch fails to perform a punch cycle.

11-350-110 The hole punch is not at the home position.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP.
- Check that the hole punch is present and correctly installed.
- Check that the punch has not jammed in the down position. This can occur with transparencies and labels.

**NOTE:** The home position of the punch unit is when the cut-out in the actuator is between the punch head home sensor jaws.

### Procedure

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Go to Flag 5. Check the link between P/J307 pins 10 and 11, 2K LCSS PWB. The link is good.

Y N  
Repair the wiring or connector.

Enter dC330, code 11-351, actuate the punch head present sensor, Q11-351, Figure 1. The display changes.

Y N  
Go to Flag 2. Check Q11-351.  
Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 11 How to Check a Sensor.
- P/J307, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Punch head present sensor, PL 11.6 Item 1.
- 2K LCSS PWB, PL 11.26 Item 1.

Enter dC330 code 11-350, actuate the punch head home sensor, Q11-350, Figure 1. The display changes.

Y N  
Go to Flag 1. Check Q11-350.  
Refer to:

- 11G-110 2K LCSS PWB Damage RAP.

- A
- GP 11 How to Check a Sensor.
  - P/J307, 2K LCSS PWB.
  - 11D-110 2K LCSS Power Distribution RAP.
- Repair or install new components as necessary:
- Punch head home sensor, PL 11.6 Item 1.
  - 2K LCSS PWB, PL 11.26 Item 1.

Enter dC330 code 11-043, hole punch motor MOT11-042. The punch cycles.

Y N  
Go to Flag 3. Check MOT11-042.  
Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 10, How to Check a Motor.
- P/J311, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Hole punch motor assembly, PL 11.6 Item 2.
- 2K LCSS PWB, PL 11.26 Item 1.

**NOTE:** The chad bin collects the pieces of paper cut out by the hole punch. The chad bin level sensor will not operate if the tray is incorrectly installed. Ensure the chad bin is fully inserted and the lever engages in the slot.

Enter dC330, code 11-348 chad bin level sensor, Q11-348, Figure 2. Use a strip of paper actuate Q11-348. The display changes.

Y N  
Go to Flag 4. Check Q11-340.  
Refer to:

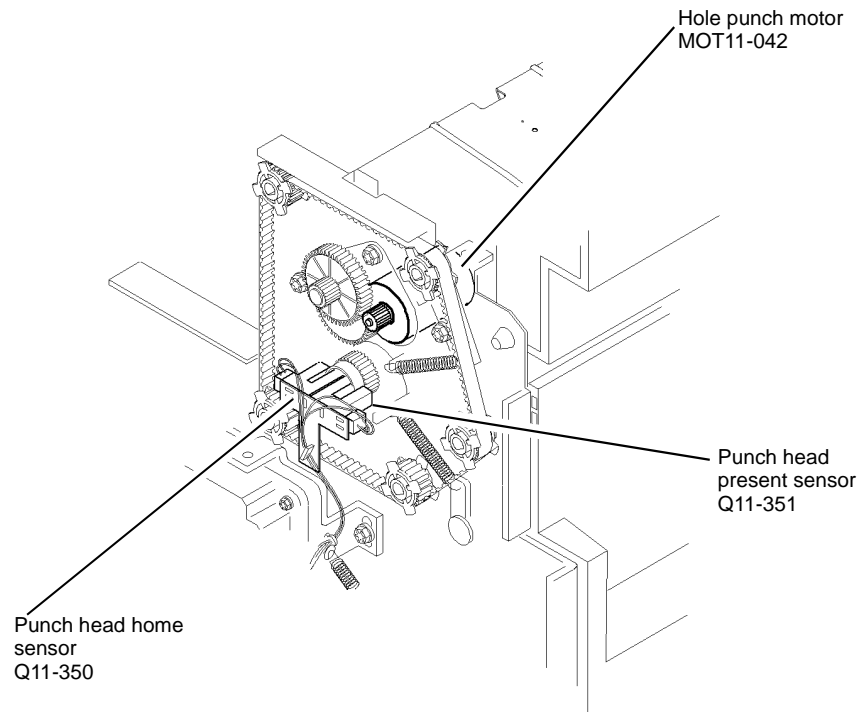
- 11G-110 2K LCSS PWB Damage RAP.
- GP 11 How to Check a Sensor.
- P/J307, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP.

Install new components as follows.

- Chad bin level sensor, PL 11.6 Item 7.
- 2K LCSS PWB, PL 11.26 Item 1.

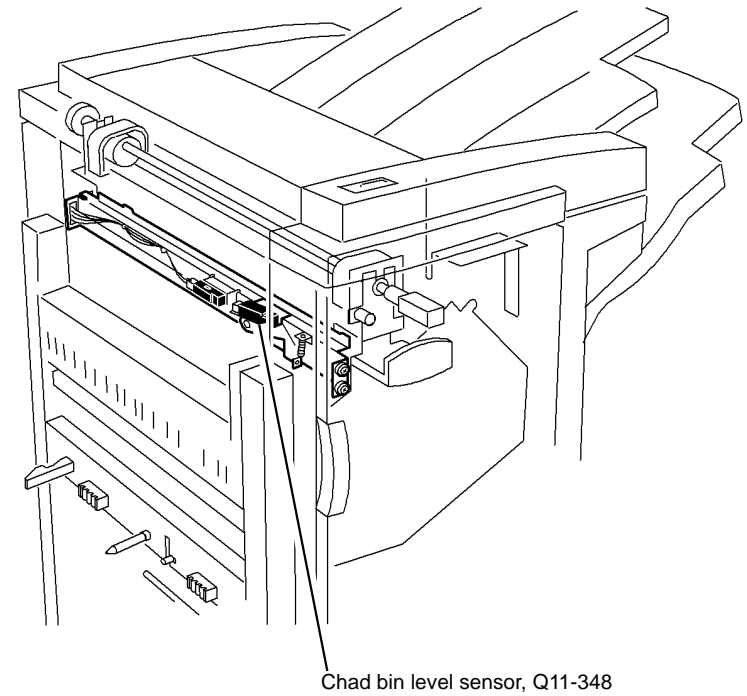
Perform SCP 6 Final Actions.





T-1-0152-A

**Figure 1 Component location**



T-1-0153-A

**Figure 2 Component location**

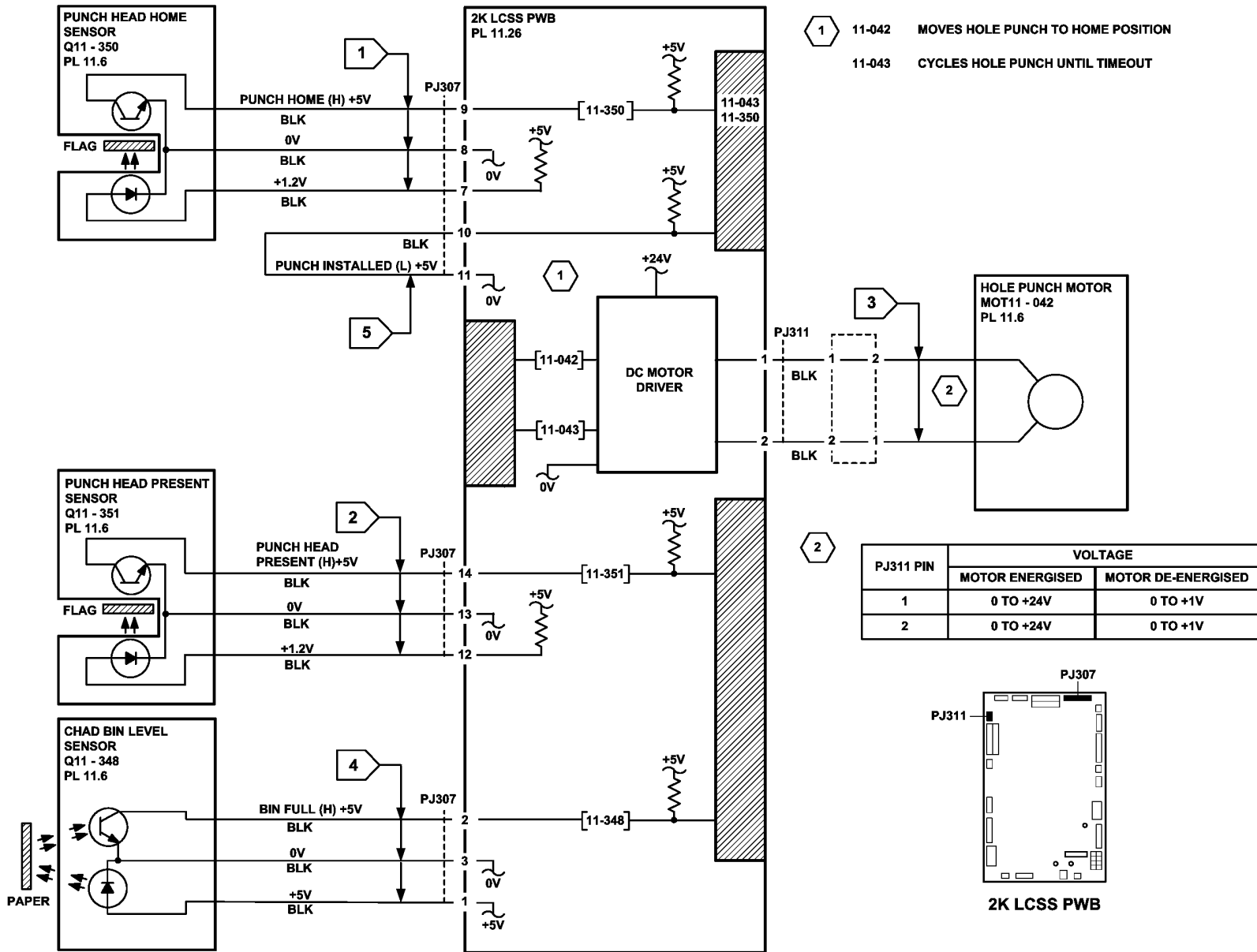


Figure 3 Circuit diagram

## 11-050-110, 11-360-110 Staple Head Operation Failure RAP

**11-050-110** The staple head fails to cycle.

**11-360-110** The staple head is not at the home position.

**NOTE:** The home position is with the jaws of the staple head fully open.

**NOTE:** Staple head operation faults can be caused by offline stapling failures. The user may be attempting to staple a set that exceeds the number of sheets/weight capacity. There may also be an offline stapling problem, refer to [11A-110 Offline Stapling Fault RAP](#).

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Do not run code 11-050 without two sheets of paper in the stapler jaws. Running this code without the paper in position can cause damage to the machine.

Switch off the machine, then switch on the machine, [GP 14](#).

Refer to [Figure 1](#). Check the following:

- The spring and cam are correctly located.
- The switch support bracket is correctly located.
- The safety gate switch connector is fully seated on both sides of the frame.
- The 2K LCSS PWB DIP switch settings, refer to [11F-110 2K LCSS PWB DIP Switch Settings RAP](#).
- The staple head unit is correctly installed.

**NOTE:** [Figure 1](#) shows the switch cam in the auto stapling position. To enable offline stapling, the paddle motor is run in the reverse direction to lower the safety gate, this rotates the switch cam in a counterclockwise direction, actuating the safety gate switch.

### Procedure

**NOTE:** After repairing the fault using this RAP, switch off the machine, then switch on the machine, [GP 14](#), to enable operation of the staple head.

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Place two sheets of paper in the stapler jaws. Enter [dC330](#), code 11-050 to cycle the staple head once, and 11-051 to reverse the staple head to the home position. **The staple head operates as expected.**

Y

N

Go to [Flag 1](#) and [Flag 2](#). Check the wiring and connectors between the 2K LCSS PWB and the staple head. **The wiring is good.**

Y N

Repair the wiring.

Go to [Flag 3](#). Check the SU1 safety gate switch, S11-365. Refer to:

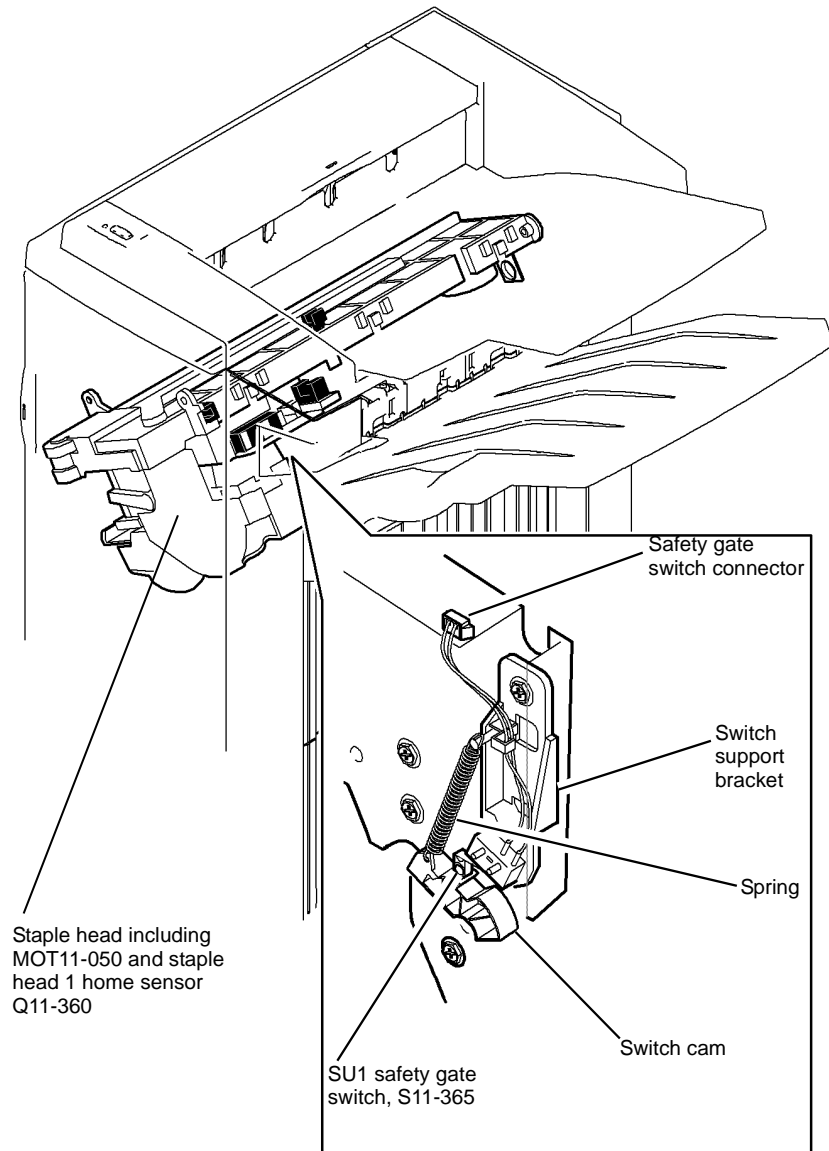
- [11G-110 2K LCSS PWB Damage RAP](#).
- [GP 13](#), How to Check a Switch.
- [Figure 1](#).
- [P/J311, P/J308, 2K LCSS PWB](#)
- [11D-110 2K LCSS Power Distribution RAP](#).
- Ensure that the SU1 safety gate switch is correctly actuated by the switch actuator, [PL 11.8 Item 3](#).

**NOTE:** The switch is closed and supplies +24V to the staple head when the cam is positioned either fully counterclockwise or fully clockwise. During off line stapling when the safety gate is partly down, the cam is in the mid position, the switch is open and +24V is not supplied to the staple head.

Install new components as necessary:

- Staple head unit, [PL 11.20 Item 5](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).
- SU1 safety gate switch, [PL 11.8 Item 1](#).

Perform [SCP 6](#) Final Actions.



T-1-0154-A

Figure 1 Component location

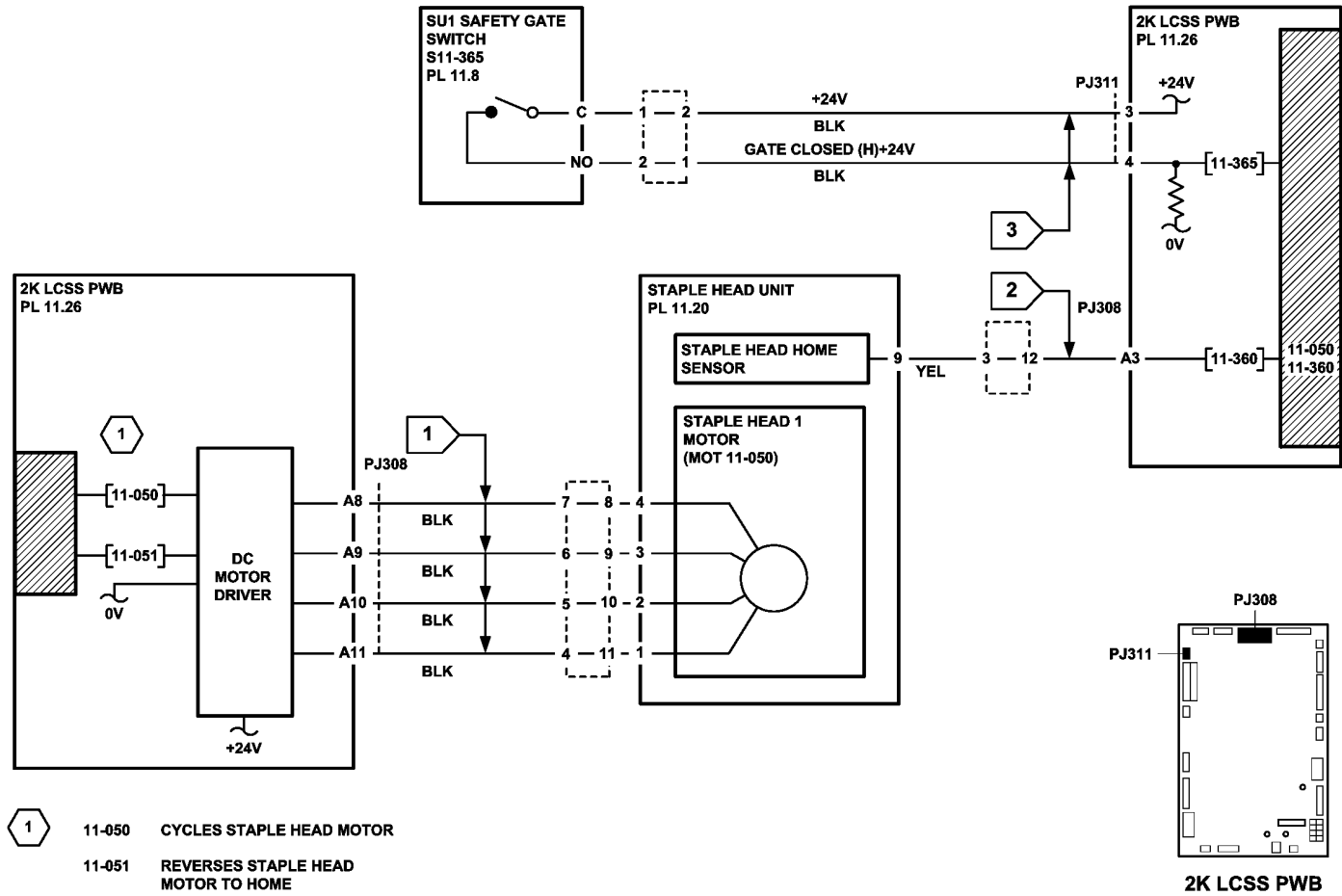


Figure 2 Circuit diagram

TT-1-0169-A

## 11-053-110, 11-370-110 Staple Head Unit Movement Failure RAP

**11-053-110** The staple head unit fails to move.

**11-370-110** The staple head unit is not at the home position.

**NOTE:** The home position is when the staple head unit is at the corner stapling position (fully to the front of the 2K LCSS and rotated through 45 degrees).

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care not to topple the LCSS. The LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the LCSS.

- Check the 2K LCSS PWB DIP switch settings, refer to [11F-110](#) 2K LCSS PWB DIP Switch Settings RAP.
- Un-dock the 2K LCSS from the machine, [REP 11.13-110](#), move the ejector assembly fully to the right, manually move the stapler unit along the full length of the track using the green thumb-wheel. Check the home sensor flag and the two dual position flags for damage, see NOTE. Check for damage or obstructions that would prevent the stapling unit from moving. If necessary, install a new staple head unit, [PL 11.20 Item 5](#) or a new stapler traverse assembly, [PL 11.20 Item 1](#).

**NOTE:** For dual position stapling, the SU1 front index sensor uses two flags.

- Dock the 2K LCSS to the machine.

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter [dC330](#), code 11-021 to move the ejector assembly fully to the right. Enter code 11-055. The stapling unit cycles back and forth along the track.

**Y N**  
Go to [Flag 3](#). Check MOT11-053.  
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 10](#), How to Check a Motor.
- [Figure 1](#).
- [P/J308](#), 2K LCSS PWB.

- A**
- [11D-110](#). 2K LCSS Power Distribution RAP.
- Repair or install new components as necessary:
- Stapler traverse assembly, [PL 11.20 Item 1](#).
  - 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-370. Actuate the SU1 home sensor, Q11-370, by moving the stapler unit to and from the home position using the green thumb-wheel. **The display changes.**

**Y N**  
Go to [Flag 1](#). Check Q11-370.  
Refer to:

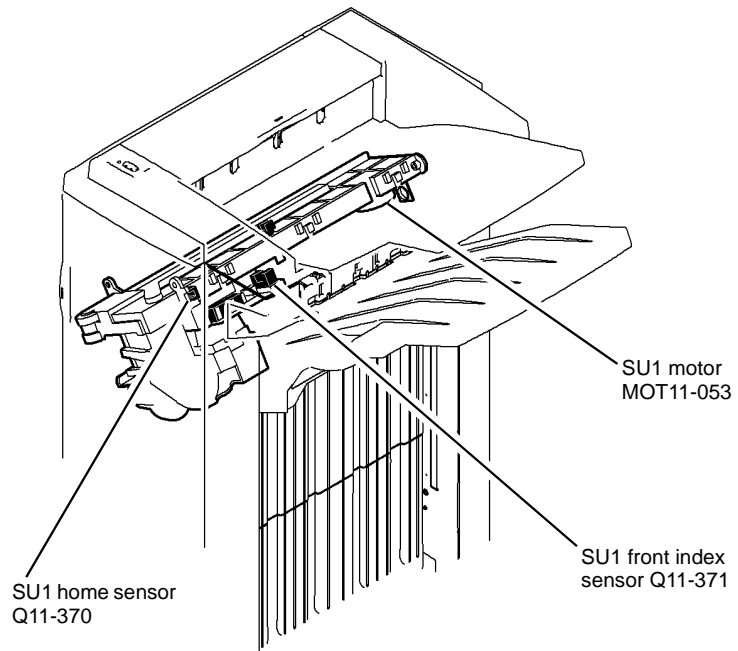
- [11G-110](#) 2K LCSS PWB Damage RAP.
  - [GP 11](#). How to check a sensor.
  - [Figure 1](#).
  - [P/J308](#), 2K LCSS PWB.
  - [11D-110](#) 2K LCSS Power Distribution RAP.
- Repair or install new components as necessary:
- SU1 home sensor, [PL 11.20 Item 3](#).
  - 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-021 to move the ejector assembly fully to the right. Enter code 11-371. Actuate the SU1 front index sensor, Q11-371, by moving the stapler unit to and from the flag position (approximately 115mm (4.5 inches) from the front of the track) using the green thumb-wheel. **The display changes.**

**Y N**  
Go to [Flag 2](#). Check Q11-371.  
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
  - [GP 11](#) How to Check a Sensor.
  - [P/J308](#), 2K LCSS PWB.
  - [11D-110](#) 2K LCSS Power Distribution RAP.
- Repair or install new components as necessary:
- SU1 front index sensor, [PL 11.20 Item 3](#).
  - 2K LCSS PWB, [PL 11.26 Item 1](#).

Perform [SCP 6](#) Final Actions.



T-1-0155-A

**Figure 1 Component location**

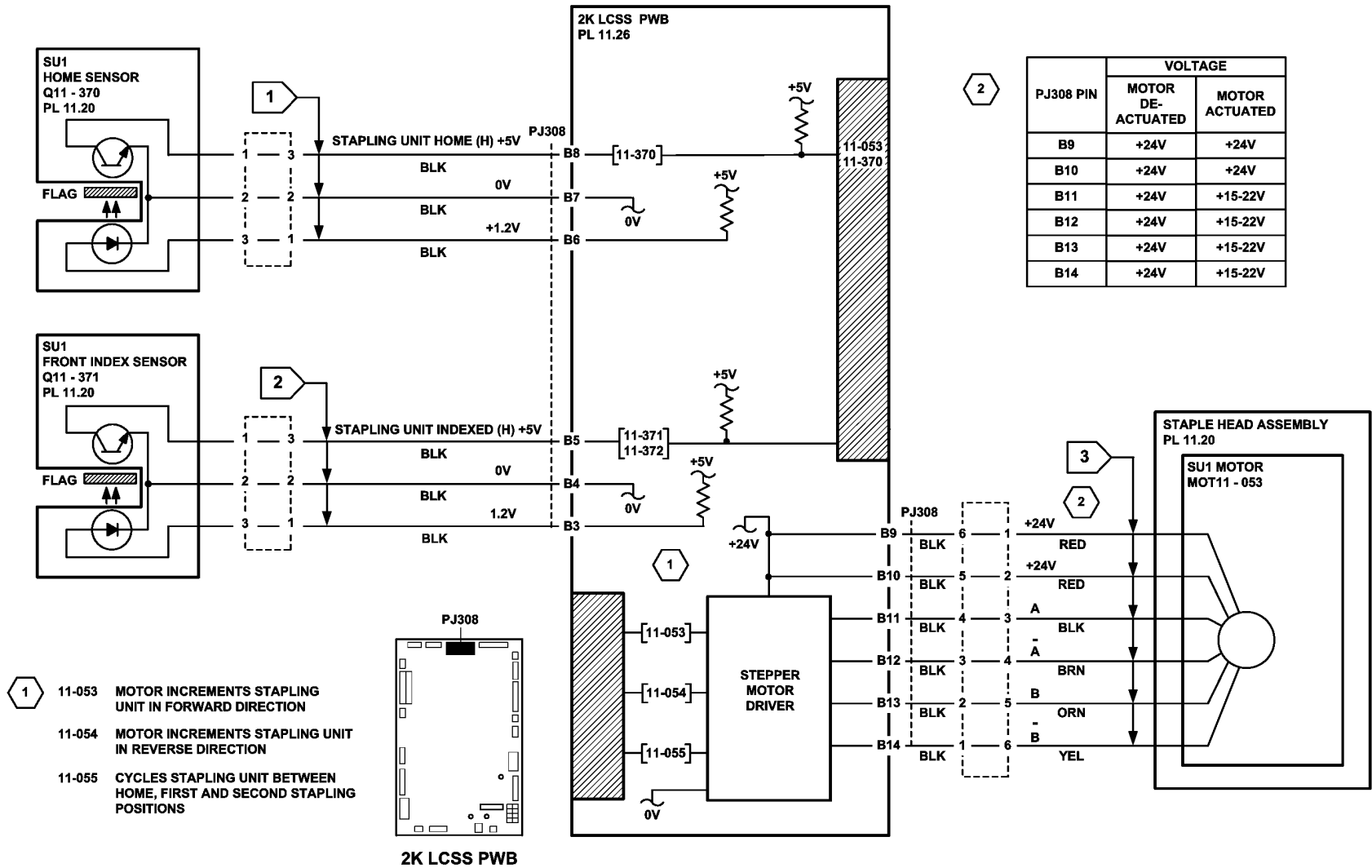


Figure 2 Circuit diagram

TT-1-0170-A



## 11-100-110 2K LCSS Paper Entry RAP

11-100-110 The leading edge of the sheet is late to the entry sensor Q11-100, [Figure 1](#).

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the [11H-110](#) Copy Damage in the 2K LCSS RAP.

Check the following:

- 2K LCSS PWB DIP switch settings, refer to [11F-110](#) 2K LCSS PWB DIP Switch Settings RAP.
- Ensure the paper tray guides are set to the correct position for the size of paper in the tray.
- Check the input guide for damage or wear that could cause paper to jam.
- Paper jam in the machine to 2K LCSS paper path, [ADJ 11.2-110](#) Machine to 2K LCSS Alignment.
- IOT exit path and feed rolls.
- Feeding performance from a paper tray loaded with a new ream of paper.

### Procedure

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Lower the paper entry guide assembly, [PL 11.14](#) [Item 8](#), to access the entry sensor. Enter [dC330](#), code 11-100. Actuate the entry sensor, Q11-100. **The display changes.**

Y N

Go to [Flag 1](#). Check Q11-100.

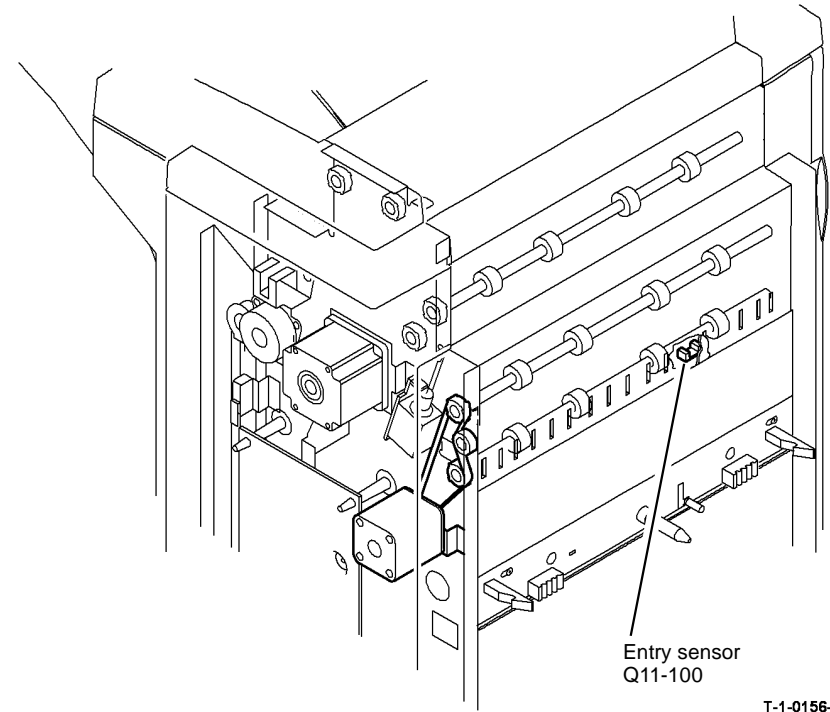
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 11](#), How to Check a Sensor.
- [P/J304](#), [2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Entry sensor, [PL 11.24](#) [Item 3](#).
- 2K LCSS PWB, [PL 11.26](#) [Item 1](#).

Perform [SCP 6](#) Final Actions.



T-1-0156-A

Figure 1 Component location

## 11-110-110 Sheet Late to Hole Punch RAP

11-110-110 Sheet late at the punch sensor.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the following:

- The 2K LCSS PWB DIP switch settings, refer to [11F-110](#) 2K LCSS PWB DIP Switch Settings RAP.
- Ensure the paper tray guides are set to the correct position for the size of paper in the tray.
- For a paper jam at the entrance to the 2K LCSS. Check that there is no obstruction that would prevent a sheet from arriving in position for punching, refer to the [11H-110](#) Copy Damage in the 2K LCSS RAP.
- The punch sensor, Q11-110 for chad debris, [Figure 1](#).

### Procedure

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

[Figure 1](#). Enter [dC330](#), code 11-110. Actuate the punch sensor, Q11-110. The display changes.

Y N

Go to [Flag 1](#). Check Q11-110.

Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 11](#), How to Check a Sensor.
- [P/J307](#), 2K LCSS PWB.
- [11D-110](#) 2K LCSS Power Distribution RAP

Repair or install new components as necessary:

- Punch sensor, [PL 11.6](#) Item 7.
- 2K LCSS PWB, [PL 11.26](#) Item 1.

Perform [SCP 6](#) Final Actions.

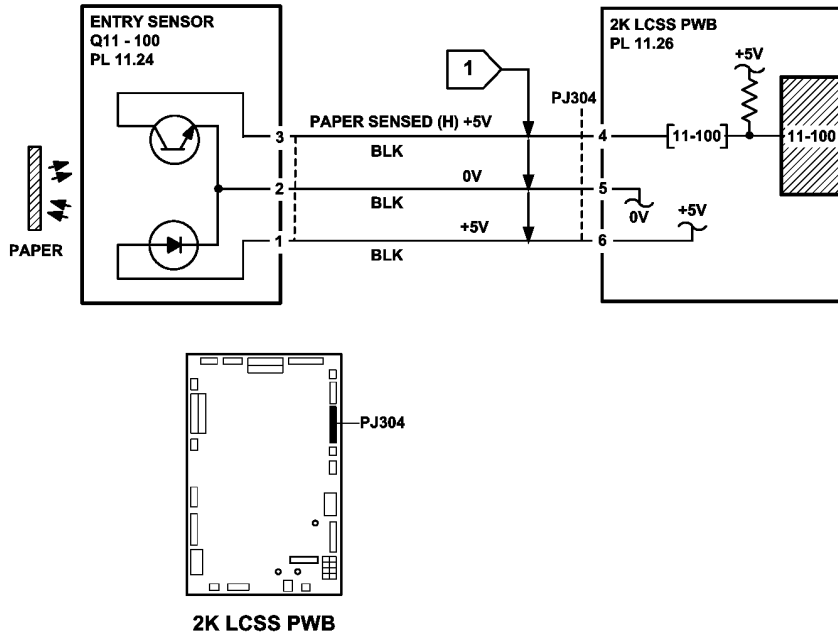


Figure 2 Circuit diagram

TT-1-0171-A

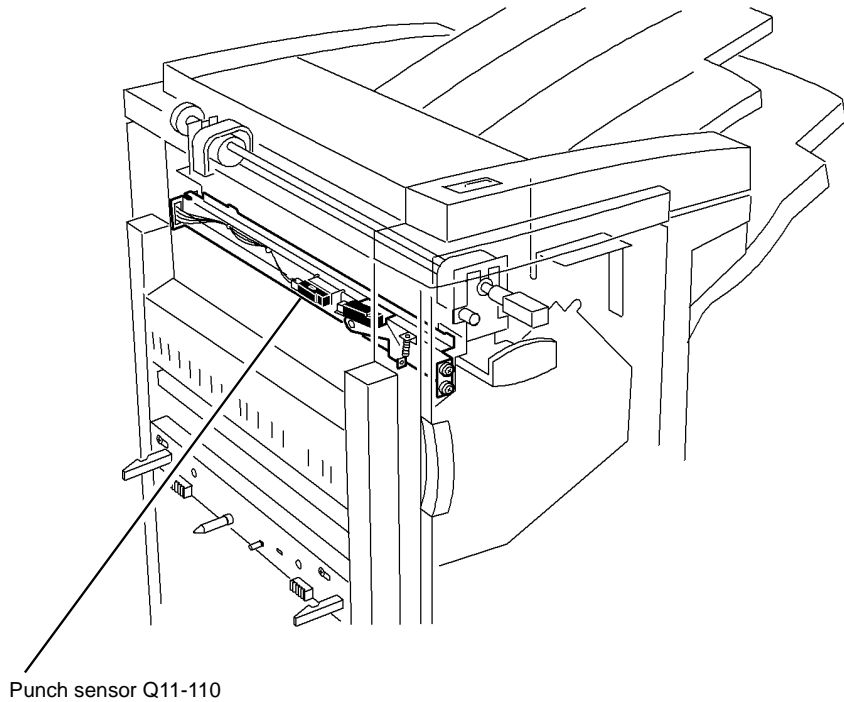


Figure 1 Component location

T-1-0157-A

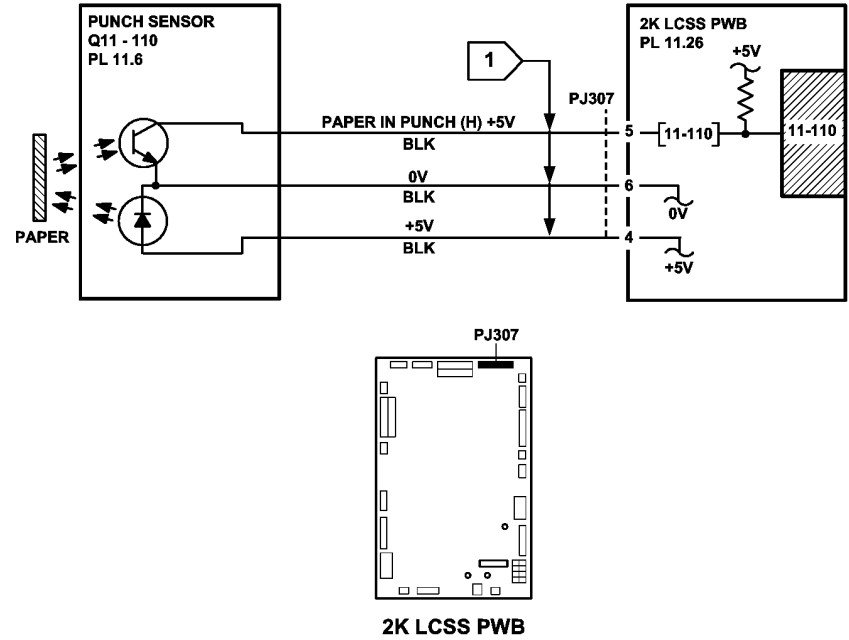


Figure 2 Circuit diagram

TT-1-0172-A

## 11-130-110, 11-132-110 Paper Exiting to Bin 0 RAP

**11-130-110** The leading edge of the sheet is late to the top exit sensor.

**11-132-110** The trailing edge of the sheet is late from the top exit sensor.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the following:

- 2K LCSS PWB DIP switch settings, refer to [11F-110](#) 2K LCSS PWB DIP Switch Settings RAP.
- Ensure the paper tray guides are set to the correct position for the size of paper in the tray.
- The tensioner on the intermediate paper drive belt. Check that the tensioner is free to move and that the tensioner pulley is free to rotate. If necessary lubricate the tensioner and tensioner pulley, [REP 11.3-110](#). Refer to [GP 18](#) Machine Lubrication.
- The drive pulleys on both transport motor 1 and 2 are secure and do not slip on the motor shaft.
- All the transport drive belts are correctly fitted, are in a good condition and are correctly tensioned, refer to [REP 11.4-110](#).
- All the transport rolls and idler pulleys are free to rotate.
- The diverter gate and linkage for free movement.
- A paper jam in the path to bin 0.
- Torn paper fragments from a previous jam clearance action.
- A paper jam in the path to the top tray. If the jams occur shortly after install. Check the gap between the entry guide cover, [PL 11.24 Item 5](#) and the paper guide [PL 11.22 Item 10](#). If the gap is less than 1mm, adjust or install a new entry guide cover. Refer to the replacement procedure in [REP 11.15-110](#).

Refer to the [11H-110](#) Copy Damage in the 2K LCSS RAP and the [11J-110](#) Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.

**NOTE:** Paper is diverted to bin 0 when the diverter gate solenoid is energized. Paper is fed to bin 1 when the diverter gate solenoid is de-energized.

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter [dC330](#), code 11-001 to run transport motor 2, MOT11-001, [Figure 1](#). **The motor runs.**

**Y N**  
Go to [Flag 3](#). Check MOT11-001.

Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 10](#), How to Check a Motor.
- [P/J309](#), [2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Transport motor 2, [PL 11.22 Item 5](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-002 to energize the diverter gate solenoid, S11-002, [Figure 1](#). **The diverter gate solenoid energizes.**

**Y N**  
Go to [Flag 2](#). Check SOL11-002.

Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 12](#), How to Check a Solenoid.
- [P/J306](#), [2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Diverter gate solenoid, [PL 11.22 Item 12](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-130, actuate the top exit sensor, Q11-130, [Figure 1](#). **The display changes.**

**Y N**  
Go to [Flag 1](#). Check Q11-130.

Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 11](#), How to Check a Sensor.
- [P/J313](#), [2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Top exit sensor, [PL 11.22 Item 11](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-000 to energize the transport motor 1, MOT 11-000, [Figure 1](#). **The motor energizes.**

**Y N**  
Go to [Flag 4](#). Check MOT 11-000.

Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 10](#), How to Check a Motor.
- [P/J305](#), [2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

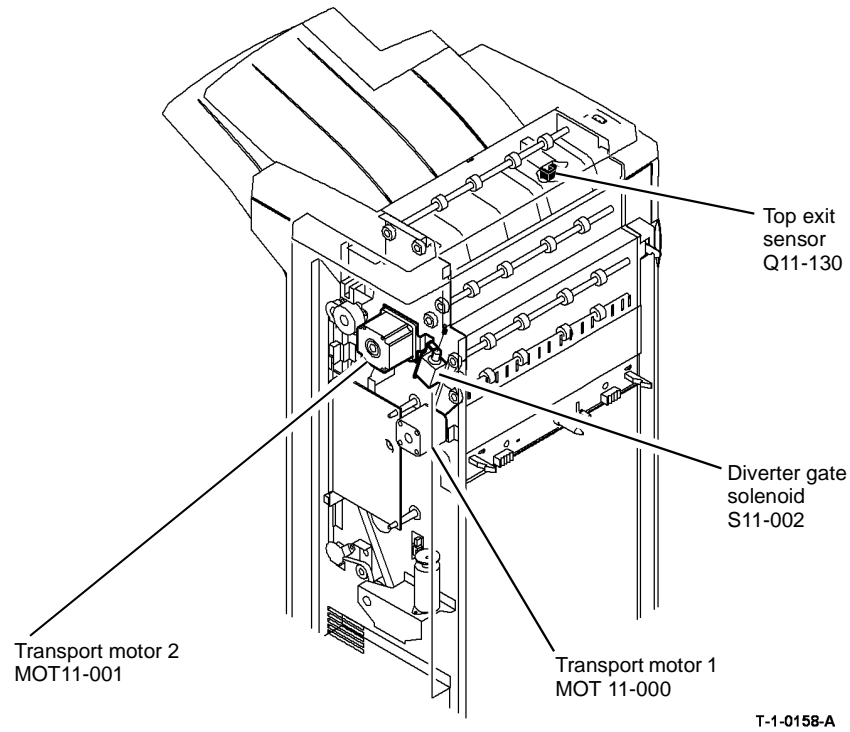
Repair or install new components as necessary:

- Transport motor 1, [PL 11.14 Item 2](#).

B

- 2K LCSS PWB, PL 11.26 Item 1.

Perform SCP 6 Final Actions.



**Figure 1 Component location**

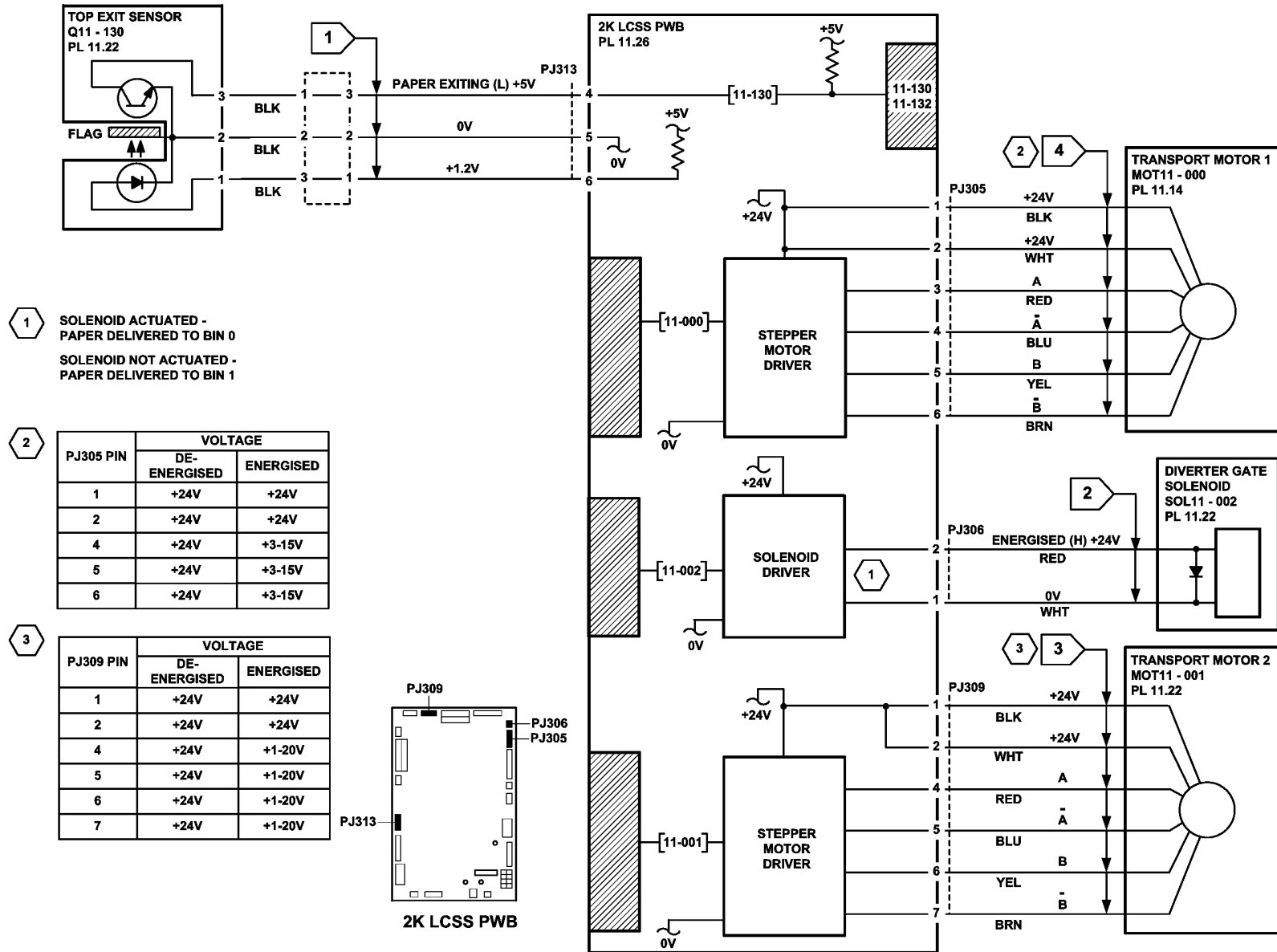


Figure 2 Circuit diagram

TT-1-0173-A

## 11-140-110, 11-142-110 Sheet Late to Bin 1 RAP

**11-140-110** The leading edge of the sheet is late to the 2nd to top exit sensor, Q11-140.

**11-142-110** The trailing edge of the sheet is late to the 2nd to top exit sensor, Q11-140.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** Paper is diverted to bin 0 when the diverter gate solenoid is energized. Paper is fed to bin 1 when the diverter gate solenoid is de-energized.

Check the following:

- 2K LCSS PWB DIP switch settings, refer to **11F-110** 2K LCSS PWB DIP Switch Settings RAP.
- Ensure the paper tray guides are set to the correct position for the size of paper in all trays.

For trays 3 and 4, perform the following:

- Select the systems settings button from the tools screen.
- Select the tray management button and stock settings.
- From the list, select tray 3. Select the change stock size button.
- Select the paper size loaded in the tray. Select the save button.
- Repeat for tray 4.
- Save the stock setting and exit the tools mode.
- The tensioner on the intermediate paper drive belt. Check that the tensioner is free to move and that the tensioner pulley is free to rotate. If necessary re-lubricate the tensioner and tensioner pulley, **REP 11.3-110**. Refer to **GP 18** Machine Lubrication.

**NOTE:** The tensioner arm and the tensioner pulley require different lubricants, refer to **REP 11.3-110** for details

- That the drive pulleys on both transport motor 1 and 2 are secure and do not slip on the motor shaft.
- All the transport drive belts are correctly fitted and are in a good condition
- All the transport rolls and idler pulleys are free to rotate.
- The diverter gate and linkage for free movement.
- A paper jam in the path to bin 1, to the compiler, and for poor stacking on bin 1.
- Ensure that the 2K LCSS is fully latched to the machine, refer to **REP 11.13-110**.
- Torn paper fragments from a previous jam clearance action.
- If the paper has dog ear on the inboard corner, install **TAG 005** Rear gravity gate mylar kit.

Refer to the **11H-110** Copy Damage in the 2K LCSS RAP and the **11J-110** Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

**Figure 1.** Enter **dC330**, code 11-001 to energize the transport motor 2, MOT11-001. **The motor energizes.**

- |   |  |
|---|--|
| Y | N  |
|   | Go to <b>Flag 3</b> . Check MOT11-001.           |
|   | Refer to:  |
|   | • <b>11G-110</b> 2K LCSS PWB Damage RAP.         |
|   | • <b>GP 10</b> , How to check a motor.           |
|   | • <b>P/J309</b> , <b>2K LCSS PWB</b> .           |
|   | • <b>11D-110</b> 2K LCSS Power Distribution RAP. |
|   | Repair or install new components as necessary:   |
|   | • Transport motor 2, <b>PL 11.22 Item 5</b> .    |
|   | • 2K LCSS PWB, <b>PL 11.26 Item 1</b> .          |

Enter **dC330**, code 11-002 to energize the diverter solenoid, S11-002. Energize the solenoid. **The diverter solenoid energizes.**

- |   |   |
|---|---|
| Y | N   |
|   | Go to <b>Flag 4</b> . Check SOL11-002.              |
|   | Refer to:   |
|   | • <b>11G-110</b> 2K LCSS PWB Damage RAP.            |
|   | • <b>GP 12</b> , How to Check a Solenoid or Clutch. |
|   | • <b>P/J306</b> , <b>2K LCSS PWB</b> .              |
|   | • <b>11D-110</b> 2K LCSS Power Distribution RAP.    |
|   | Repair or install new components as necessary:      |
|   | • Diverter gate solenoid, <b>PL 11.22 Item 12</b> . |
|   | • 2K LCSS PWB, <b>PL 11.26 Item 1</b> .             |

**Figure 1.** Enter **dC330**, code 11-140, actuate the 2nd to top exit sensor, Q11-140. **The display changes.**

- |   |  |
|---|--|
| Y | N  |
|   | Go to <b>Flag 1</b> . Check Q11-140.               |
|   | Refer to:  |
|   | • <b>11G-110</b> 2K LCSS PWB Damage RAP.           |
|   | • <b>GP 11</b> , How to Check a sensor.            |
|   | • <b>P/J313</b> , <b>2K LCSS PWB</b> .             |
|   | • <b>11D-110</b> 2K LCSS Power Distribution RAP.   |
|   | Repair or install new components as necessary:     |
|   | • 2nd to top exit sensor, <b>PL 11.23 Item 4</b> . |
|   | • 2K LCSS PWB, <b>PL 11.26 Item 1</b> .            |

Enter **dC330**, code 11-000 to energize the transport motor 1, MOT 11-000. **The motor energizes.**

Y N

Go to [Flag 2](#). Check MOT 11-000.

Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 10](#), How to Check a Motor.
- [P/J305](#), [2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Transport motor 1, [PL 11.14 Item 2](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).

If the fault is still present, perform [11-007-110](#), [11-008-110](#), [11-312-110](#), [11-313-110](#), [11-319-110](#) Rear Tamper Move Failure RAP.

**NOTE:** A software problem can cause the machine to incorrectly display the fault code 11-142-110.

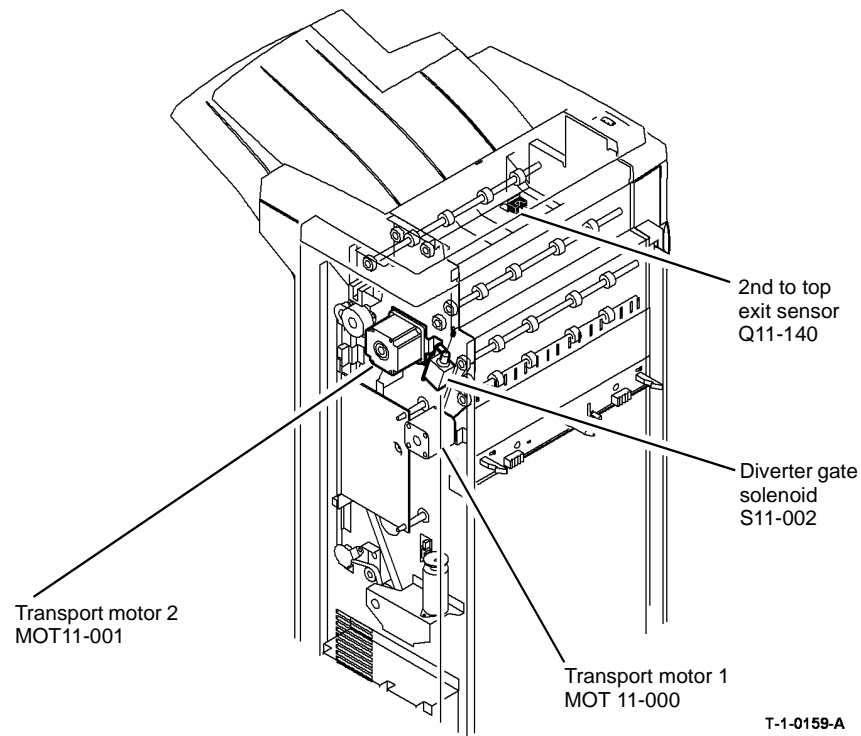
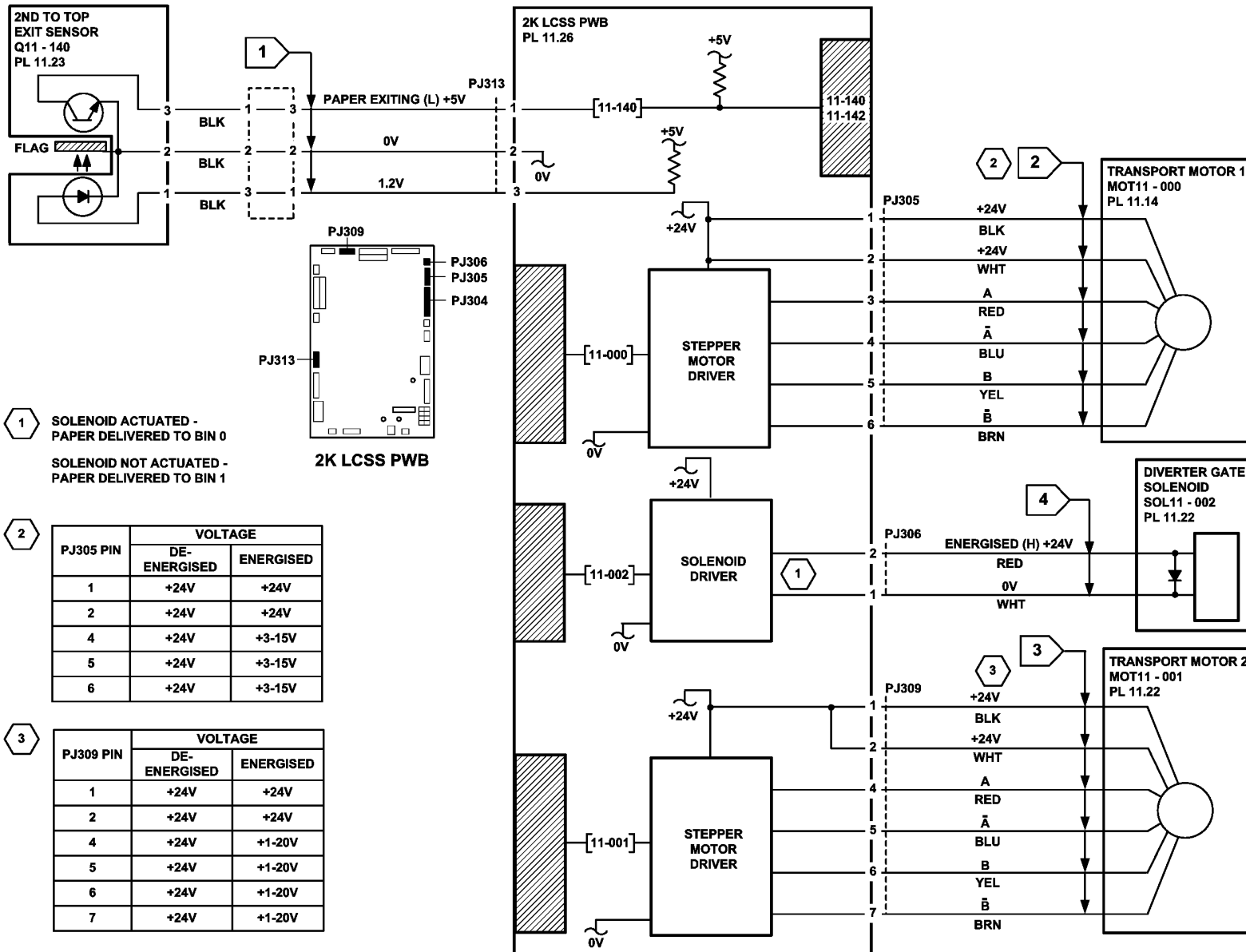


Figure 1 Component location





TT-1-0174-A

Figure 2 Circuit diagram

## 11-300-110, 11-302-110, 11-303-110 Interlocks RAP

11-300-110 The docking interlock is open during run mode.

11-302-110 The top cover interlock is open during run mode.

11-303-110 The front door interlock is open during run mode.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care not to topple the LCSS. The LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the LCSS.

- Check the 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP.
- Check the following:
  - The 2K LCSS is docked to the machine.
  - The 2K LCSS front door is closed.
  - The 2K LCSS top cover is closed.

### Procedure

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Go to Flag 1. Check for +24V on P/J302 pin 1. If the voltage is not present, refer to 11D-110 2K LCSS Power Distribution RAP.

Go to the appropriate RAP:

- 11-300-110 Docking Interlock RAP
- 11-302-110 Top Cover Interlock RAP
- 11-303-110 Front Door Interlock RAP

### 11-300-110 Docking Interlock RAP

Un-dock the 2K LCSS, REP 11.13-110, Check the docking interlock switch, S11-300 as follows:

- Check the interlock actuator on the machine is not damaged or missing.

**NOTE:** . The wiring harness passes underneath the docking interlock switch housing. If this harness is not correctly positioned, the switch can be mis-located, giving intermittent docking interlock problems.

- Enter dC330, code 11-300. Actuate the switch, if the display does not change, refer to:
  - GP 13, How to Check a Switch
  - Figure 1.
  - P/J302, 2K LCSS PWB.
- Go to Flag 1. Check the wiring between P/J302 and the switch.
- If necessary, install a new switch, PL 11.4 Item 2.

### 11-302-110 Top Cover Interlock RAP

Check the top cover interlock switch, S11-302 as follows:

- Check the switch actuator.
- Enter dC330, code 11-302. Actuate the switch, if the display does not change, refer to:
  - GP 13, How to Check a switch
  - Figure 1.
  - P/J315, 2K LCSS PWB.
- Go to Flag 3. Check the wiring between P/J315 and the switch.
- If necessary, install a new switch, PL 11.26 Item 6.

### 11-303-110 Front Door Interlock RAP

Check the front door interlock switch, S11-303 as follows:

- Check the switch actuator.
- Enter dC330, code 11-303. actuate the switch, if the display does not change, refer to:
  - GP 13, How to Check a switch
  - Figure 1.
  - P/J302, 2K LCSS PWB.
- Go to Flag 2. Check the wiring between P/J302 and the switch.
- If necessary, install a new switch, PL 11.26 Item 5.

Perform SCP 6 Final Actions.

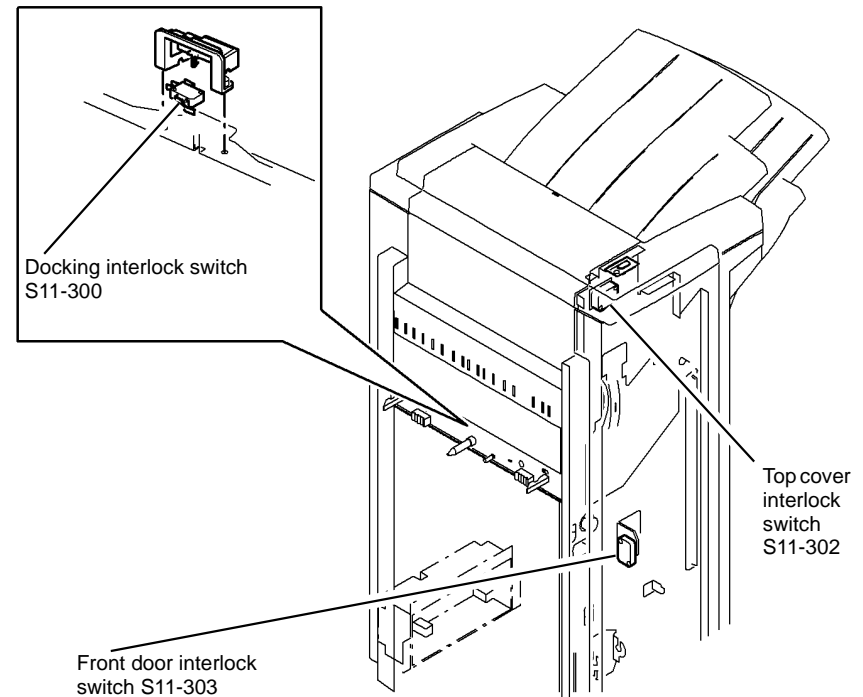
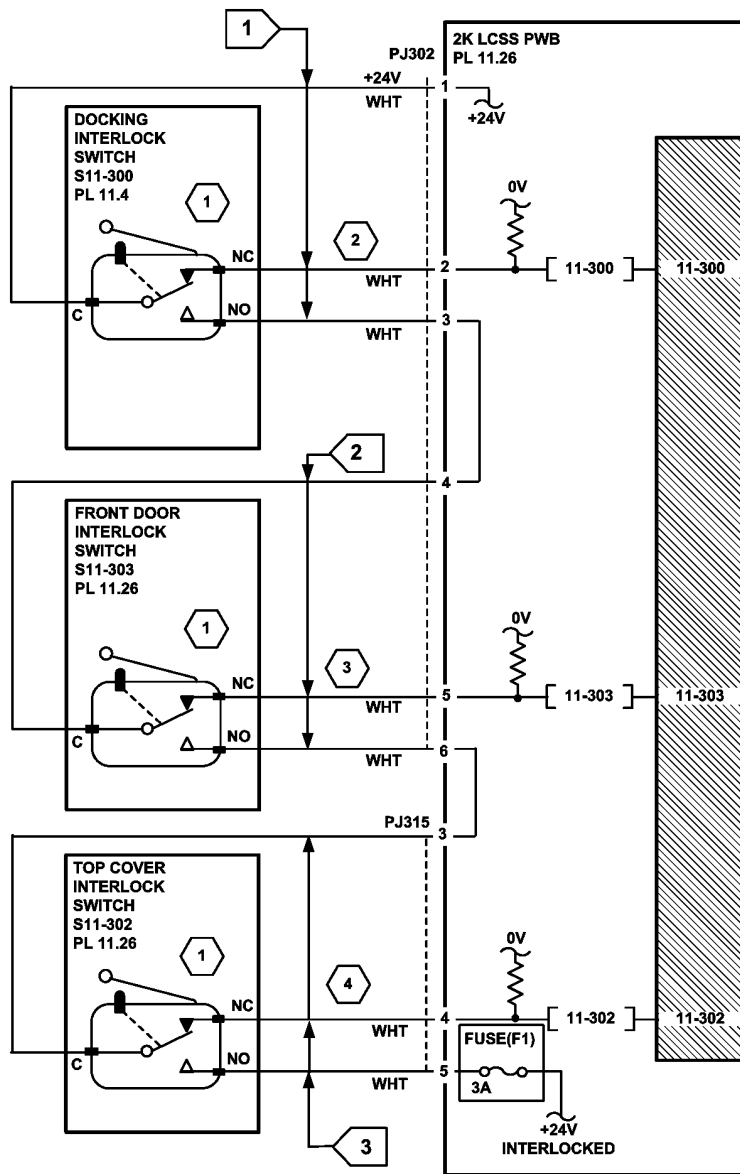


Figure 1 Component location



- 1 SWITCH IS SHOWN DEACTUATED IE. WITH THE 2K LCSS UN-DOCKED, THE FRONT DOOR OPEN OR THE TOP COVER OPEN.
- 2 DOCKING INTERLOCK OPEN (H) +24V
- 3 FRONT DOOR OPEN (H) +24V
- 4 TOP COVER OPEN (H) +24V

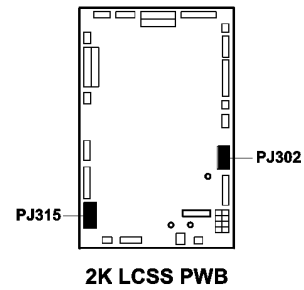


Figure 2 Circuit diagram

TT-1-0175-A

## 11-320-110, 11-322-110 Ejector Movement Failure RAP

**11-320-110** The ejector is not at the home position.

**11-322-110** The ejector fails to perform a cycle of operation.

**NOTE:** A cycle of operation for the ejector is to cycle from the home position to the out position and back to the home position.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care not to topple the LCSS. The LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the LCSS.

- Check the 2K LCSS PWB DIP switch settings, refer to [11F-110](#) 2K LCSS PWB DIP Switch Settings RAP.
- Un-dock the 2K LCSS, [REP 11.13-110](#), Check for any obstructions that would prevent the ejector from moving. Cheat the docking interlock switch.

### Procedure

**NOTE:** All 2K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter [dC330](#), code 11-322, actuate the ejector out sensor, Q11-322. **The display changes.**

**Y N**  
Go to [Flag 2](#). Check Q11-322.  
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [Figure 1](#).
- [P/J304, 2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Ejector out sensor, Q11-322, [PL 11.18 Item 3](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-320, actuate the ejector home sensor, Q11-320. **The display changes.**

**Y N**  
Go to [Flag 1](#). Check Q11-320.

Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [Figure 1](#).
- [P/J304, 2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Ejector home sensor, Q11-320, [PL 11.18 Item 3](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-023 ejector cycle, check the operation of the ejector motor MOT11-020.

**The ejector motor runs.**

**Y N**  
Go to [Flag 3](#). Check the ejector motor, MOT11-020.  
Refer to:

- [11G-110](#) 2K LCSS PWB Damage RAP.
- [GP 10](#), How to Check a Motor.
- [Figure 1](#).
- [P/J303, 2K LCSS PWB](#).
- [11D-110](#) 2K LCSS Power Distribution RAP.

Repair or Install new components as necessary:

- Ejector assembly, [PL 11.18 Item 1](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).

Enter [dC330](#), code 11-023 ejector cycle, check the ejector cycles. Stack the code 11-320 ejector sensor home, then cycle the ejector. Stack the code 11-322 ejector sensor out, then cycle the ejector. **The ejector actuates the ejector home sensor and the ejector out sensor.**

**Y N**  
Refer to [GP 7](#), check the following components;

- [Figure 1](#). Pulley/drive gear, [PL 11.18](#).
- Ejector belt, [PL 11.18 Item 5](#).

Install new components as necessary:

- Pulley/drive gear, [PL 11.18](#).
- Ejector belt, [PL 11.18 Item 5](#).

**The ejector cycles noisily, colliding with the end stops.**

**Y N**  
Check the stapler to ensure the staples are correctly formed. Mis-formed staples can cause the set to hang in the stapler causing ejector movement failures. **The staples are correctly formed.**

**Y N**  
Clear the staple head of any mis-formed staples, then check the operation of the stapler. If necessary, install a new staple head unit, [PL 11.20 Item 5](#).

If the ejector is still not moving, install a new ejector assembly, [PL 11.18 Item 1](#).  
Perform [SCP 6](#) Final Actions.

Go to [Flag 4](#). +5v is available at [P/J304](#) between pins 7 and 8.

Y N

Go to the 11D-110 2K LCSS Power Distribution RAP.

Connect a service meter at P/J304 between pins 8 and 9. Slowly rotate the ejector motor encoder. **The voltage changes between +5V and 0V.**

Y N

Go to **Flag 4**. Check the wiring and connectors between the ejector motor encoder sensor and the 2K LCSS PWB. If necessary repair the wiring, **REP 1.2**. If the wiring is good, install a new ejector motor encoder sensor, **PL 11.18 Item 3**.

Perform the 11G-110 2K LCSS PWB Damage RAP, if necessary install a new 2K LCSS PWB, **PL 11.26 Item 1**.

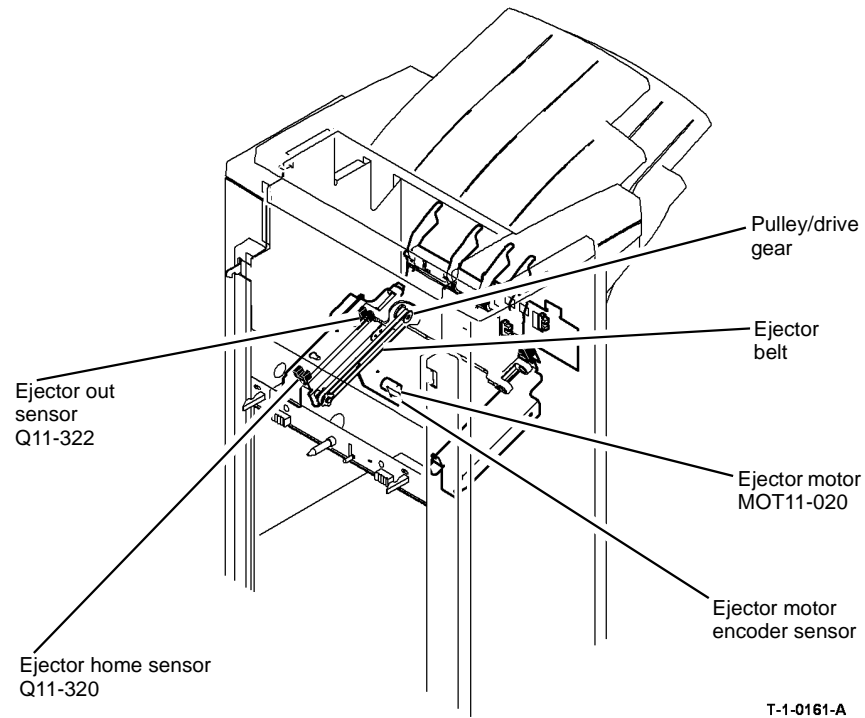
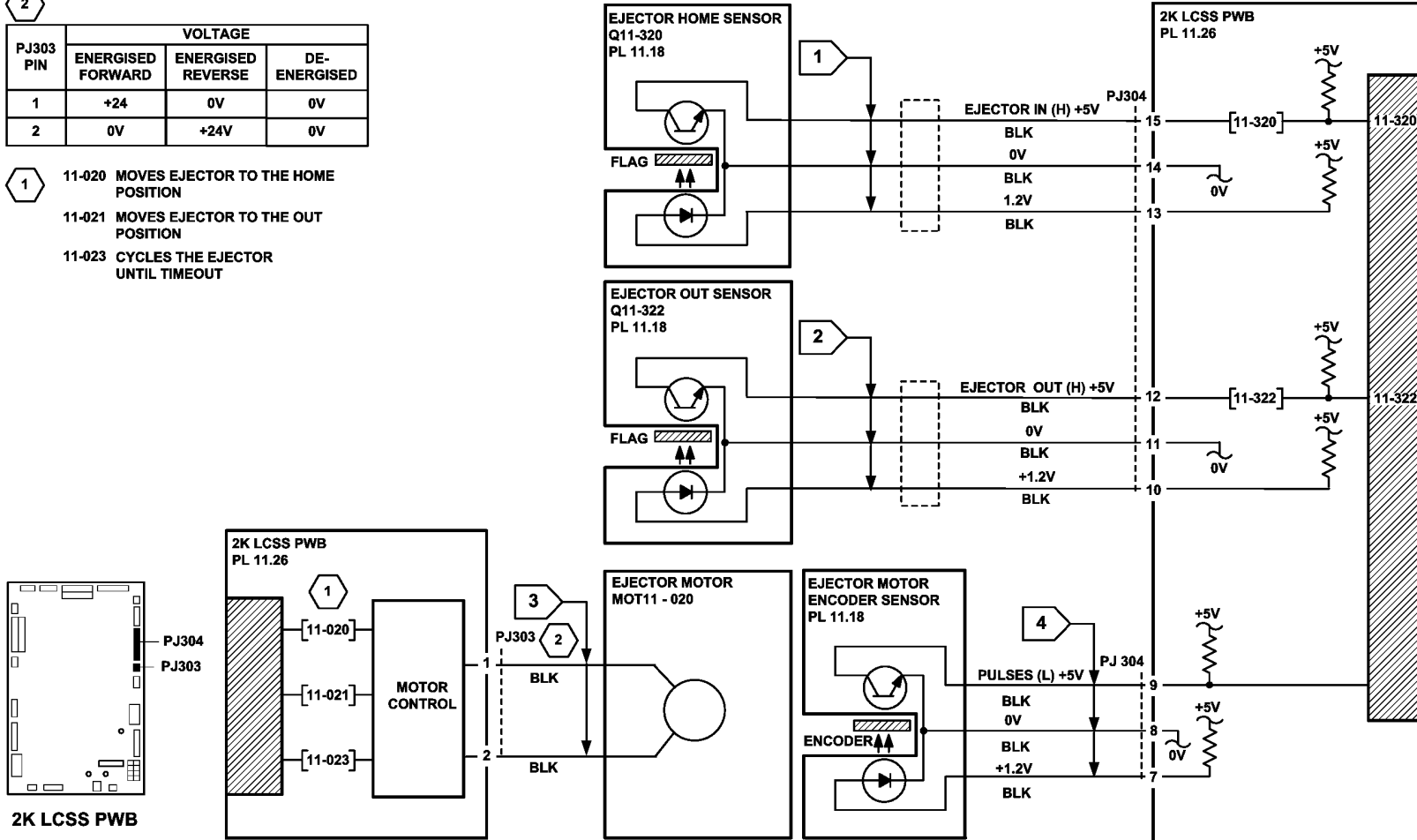


Figure 1 Component location

PJ303 PIN	VOLTAGE		
	ENERGISED FORWARD	ENERGISED REVERSE	DE-ENERGISED
1	+24	0V	0V
2	0V	+24V	0V

- 11-020 MOVES EJECTOR TO THE HOME POSITION
- 11-021 MOVES EJECTOR TO THE OUT POSITION
- 11-023 CYCLES THE EJECTOR UNTIL TIMEOUT



TT-1-0176-A

Figure 2 Circuit diagram

# 11-364-110 Stapling Failure RAP

11-364-110 Staples in the stapling head are not primed.

## Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Switch off the machine, then switch on the machine, GP 14.
- Check the 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP.
- Check the following:
  - The staple cartridge has staples in it and is correctly installed,
  - The leading staples in the staple head have been primed, Figure 2.
  - Check that the sheets of staples in the cartridge are feeding one at a time. If staple sheets overlap, they will jam in the cartridge. If necessary, install a new staple cartridge, PL 26.10 Item 11.
- Refer to the 11A-110 Offline Stapling Fault RAP. Make sure the safety gate switch bulk-head connector is connected.

**NOTE:** The term “priming” refers to 2 staples at the front of the cartridge, that have been performed automatically by the action of the stapler, refer to Figure 2.

**NOTE:** The SH 1 low staples sensor, SH 1 cartridge sensor, SH 1 home sensor and the SH 1 priming sensor are all integral to the staple head unit. These sensors can be checked using component control codes but they cannot be exchanged as components.

## Procedure

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Figure 1. Enter dC330, code 11-361, actuate the SH 1 paper sensor, Q11-361. The display changes.

- Y N**
- Go to Flag 1. Check Q11-361.
  - Refer to:
    - 11G-110 2K LCSS PWB Damage RAP.
    - GP 11, How to Check a Sensor.
    - P/J308, 2K LCSS PWB.
    - 11D-110 2K LCSS Power Distribution RAP.
  - Repair or install new components as necessary:
    - SH 1 paper sensor, PL 11.20 Item 4.
    - 2K LCSS PWB, PL 11.26 Item 1.

A

**NOTE:** If the SH1 priming sensor does not see staples in the primed position, the staple head cycles a number of times to prime the staple head. This occurs when the 2K LCSS interlocks are made.

Follow the customer instruction label inside the 2K LCSS front door to remove the staple cartridge, slide out the top sheet of staples from the cartridge, to expose a fresh sheet of staples on the top of the stack. Ensure the forming plate is fully closed, Figure 2. Install the staple cartridge and close the door. The stapler will now cycle a few times to feed and prime the new sheet of staples. Open the door and remove the staple cartridge. Examine the sheet of staples that have been fed to the staple forming part of the stapler, by opening the forming plate, Figure 3. **The first two staples have been partially formed.**

**Y N**

- Install a new staple cartridge, PL 26.10 Item 11 and repeat the check. If the first two staples are not partially formed, install a new staple head unit, PL 11.20 Item 5. Perform SCP 6 Final Actions

Install a new staple head unit, PL 11.20 Item 5. Perform SCP 6 Final Actions.

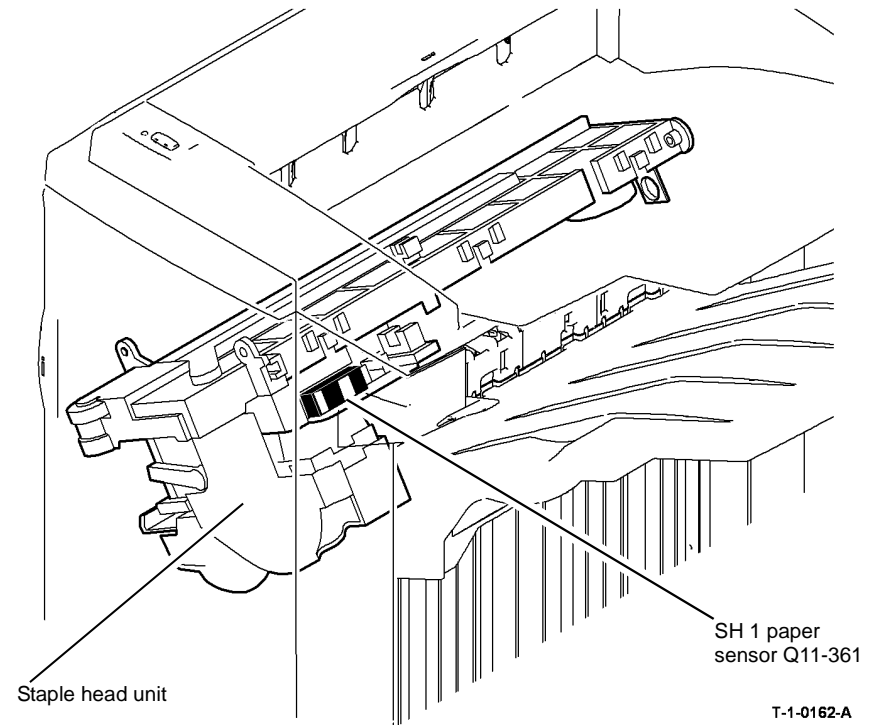
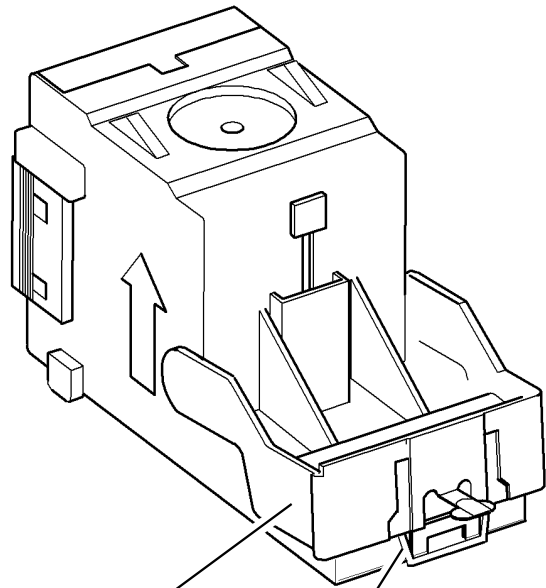


Figure 1 Component location

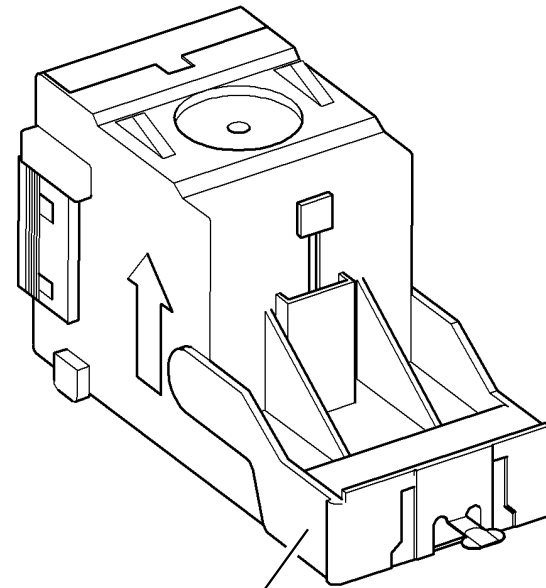
A



Forming plate open      Primed staples

**Figure 2 Staple cartridge open**

R-1-0163-A

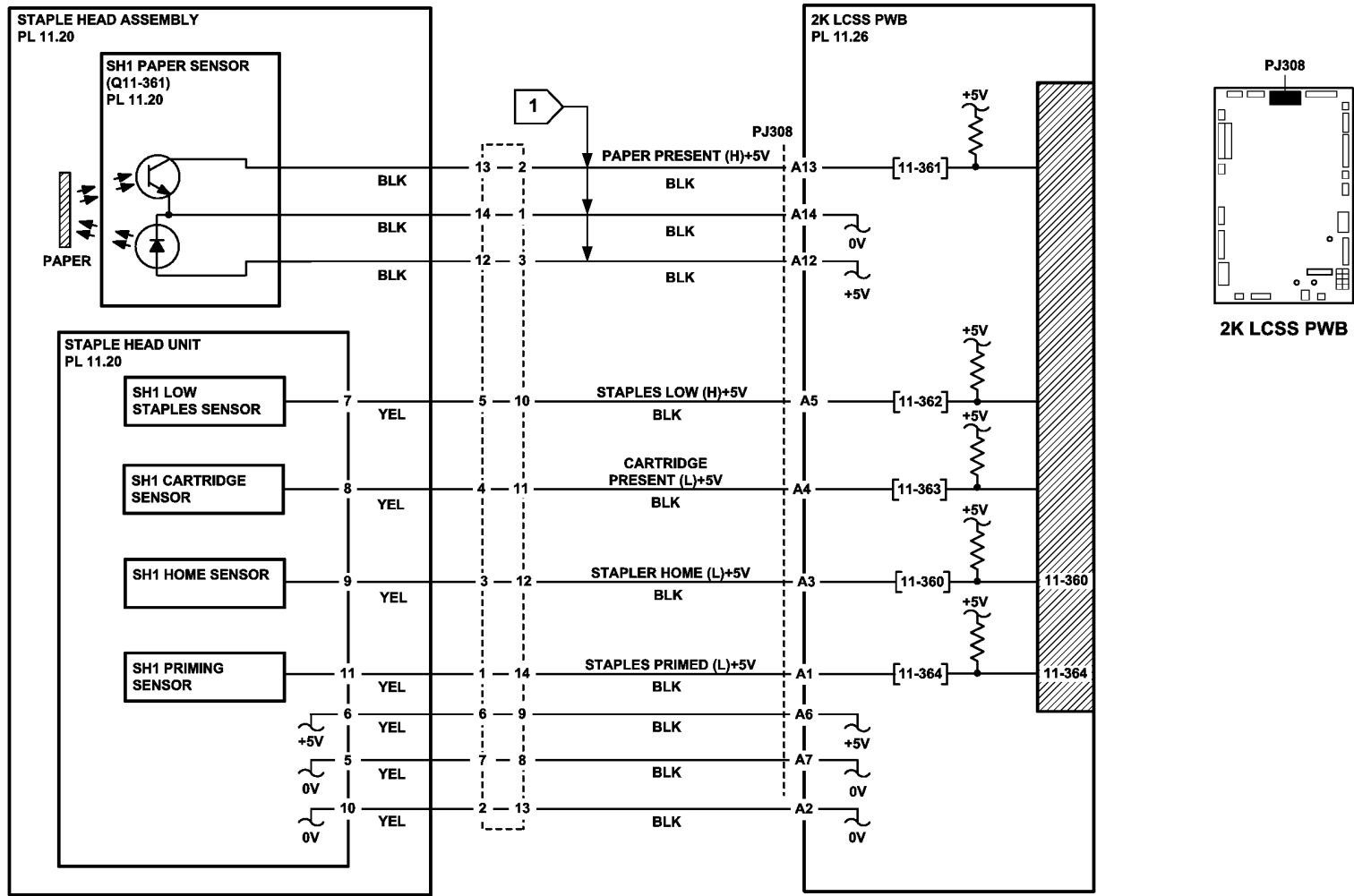


Forming plate fully closed

**Figure 3 Staple cartridge closed**

T-1-0164-A





TT-1-0177-A

Figure 4 Circuit diagram

## 11A-110 Offline Stapling Fault RAP

Use this RAP when offline stapling fails to operate.

**NOTE:** Due to customer difficulty with the offline stapler feature, the feature is no longer promoted. The button has had the staple symbol removed. Also the label that used to be on the front, showing how to put sets in for stapling has been removed. However a customer who knows about this feature may still use it.

The functionality is still present to allow the customer to lower bin 1 to remove documents.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, GP 14.

Refer Figure 2. Check the following:

- The spring and cam are correctly located.
- The switch support bracket is correctly located.
- The safety gate switch connector is fully seated on both sides of the frame.
- The 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP.
- The staple head unit is correctly installed.

**NOTE:** Figure 2 shows the switch cam in the auto stapling position. To enable offline stapling, the paddle motor is run in the reverse direction to lower the safety gate, this rotates the switch cam in a counterclockwise direction, actuating the safety gate switch.

### Operation

Offline stapling should follow the following sequence:

- The offline staple button is pressed.
- Bin 1 lowers to improve access to the stapler area.
- The front tamper moves into position to guide the set to be stapled.
- The set to be stapled is inserted fully into the throat of the stapler.
- The SH 1 paper sensor, Q11-361 detects the set in the throat of the stapler. The edge registration sensor, Q11-367 detects the set in the centre of the compiler. The set is correctly located for stapling when both sensors are made.
- The paddle motor drives in reverse to lower the safety gate until the safety gate interlock switch is made. This process is a safety feature.
- The stapler is then cycled once to staple the set.

### Procedure

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter dC330, code 11-374 to illuminate the offline staple LED. **The LED is illuminated.**

Y N  
Go to Flag 4. Disconnect P/J312. +2V is available at P/J312 between pins B10 and B12 when the code is entered.

Y N  
Perform the 11G-110 2K LCSS PWB Damage RAP, if necessary install a new 2K LCSS PWB, PL 11.26 Item 1.

Check the wiring between the 2K LCSS PWB and the offline staple PWB. **The wiring is good.**

Y N  
Repair the wiring.

Install a new offline staple PWB, PL 11.26 Item 3.

Enter dC330, code 11-373, actuate the offline staple switch, S11-373. **The display changes.**

Y N  
Go to Flag 5. Check the wiring between the 2K LCSS PWB and the offline staple PWB. **The wiring is good.**

Y N  
Repair the wiring.

Refer to the 11G-110 2K LCSS PWB Damage RAP, Install new components as necessary:

- Offline staple PWB, PL 11.26 Item 3.
- 2K LCSS PWB, PL 11.26 Item 1.

Enter dC330, code 11-367, actuate the edge registration sensor, Q11-367. **The display changes.**

Y N  
Go to Flag 2 and Flag 3. Check Q11-120. Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 11, How to Check a Sensor.

**NOTE:** The edge registration sensor Q11-367 that detects paper in position for stapling is an infrared device. It has two parts, the receiver is mounted on the staple traverse assembly and the LED is mounted on the sensor support assembly PL 11.12 Item 5.

- Figure 1.
- P/J308 and P/J314, 2K LCSS PWB.
- 11D-110 2K LCSS Power Distribution RAP.
- REP 11.13-110 2K LCSS Un-docking.

Repair or install new components as necessary:

- Edge registration sensor, PL 11.20 Item 8.
- 2K LCSS PWB, PL 11.26 Item 1.

A

Enter **dC330**, code 11-361, actuate the SH1 paper sensor, Q11-361. **The display changes.**

Y N

Go to **Flag 6**. Check Q11-361.

Refer to:

- **11G-110 2K LCSS PWB Damage RAP.**
- **GP 11**, How to Check a Sensor.
- **Figure 2.**
- **P/J308, 2K LCSS PWB.**
- **11D-110 2K LCSS Power Distribution RAP.**

Repair or install new components as necessary:

- SH 1 paper sensor, **PL 11.12 Item 2.**
- 2K LCSS PWB, **PL 11.26 Item 1.**

Enter **dC330**, code 11-365, manually actuate the SU1 safety gate switch, S11-365. **The display changes.**

Y N

Go to **Flag 1**. Check S11-365. Refer to:

- **11G-110 2K LCSS PWB Damage RAP.**
- **GP 13**, How to Check a Switch.
- **Figure 2.**
- **P/J311, 2K LCSS PWB.**
- **11D-110 2K LCSS Power Distribution RAP.**

Repair or install new components as necessary:

- Safety gate interlock switch, **PL 11.8 Item 1.**
- 2K LCSS PWB, **PL 11.26 Item 1.**

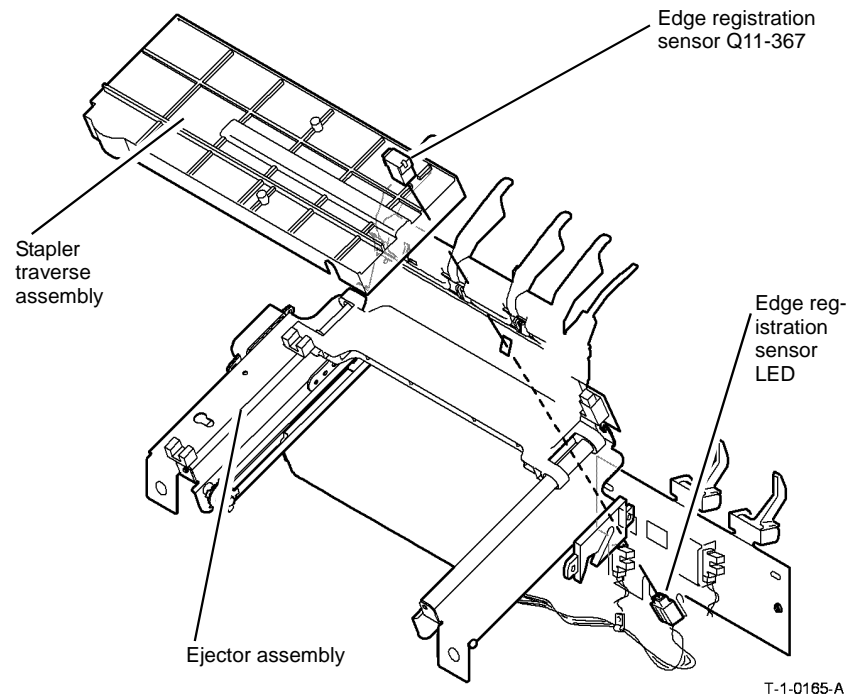
Enter **dC330**, code 11-026 to run the paddle motor in reverse. **The switch cam is rotated counter clockwise to it's end stop.**

Y N

Go to **11-024-110, 11-025-110 Paddle Roll Failure RAP.**

If the stapler is still inoperative, install a new staple head unit, **PL 11.20 Item 5.**

Perform **SCP 6** Final Actions.



**Figure 1 Component location**

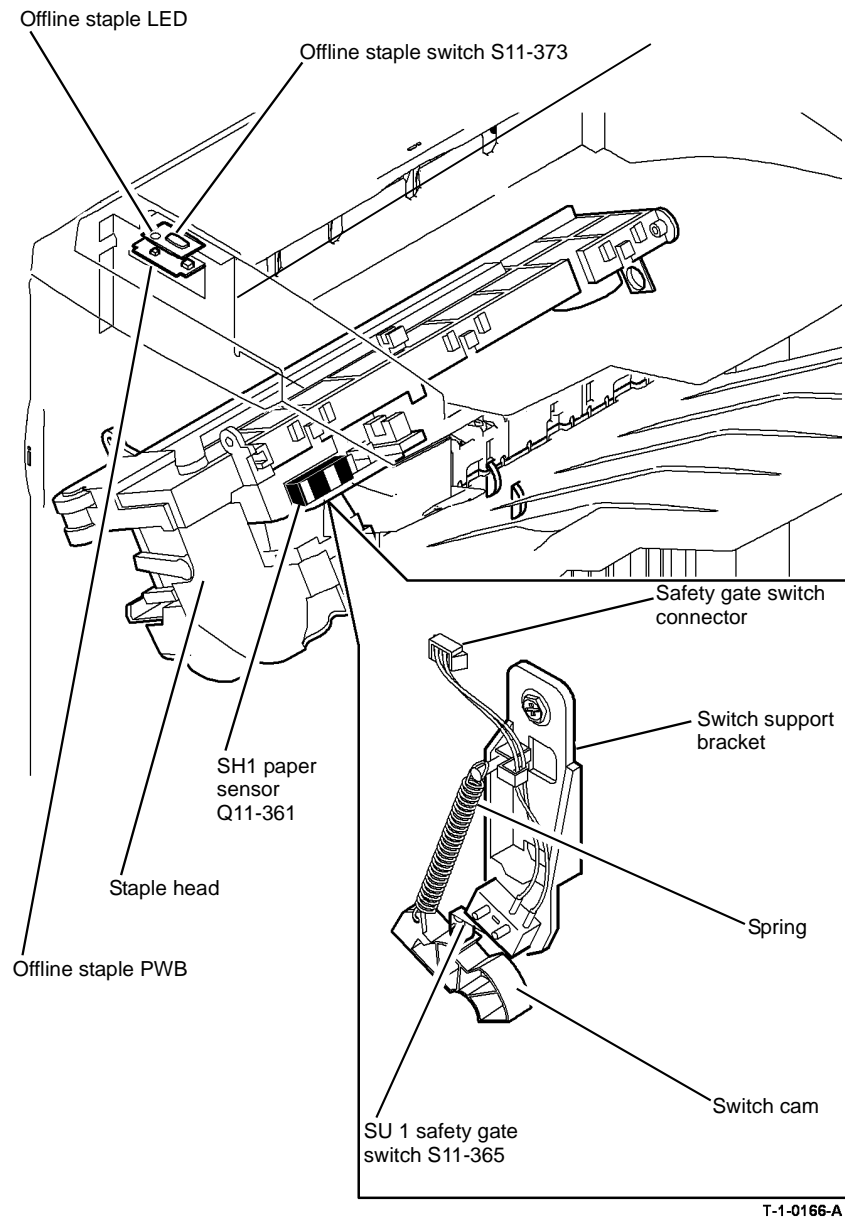


Figure 2 Component location

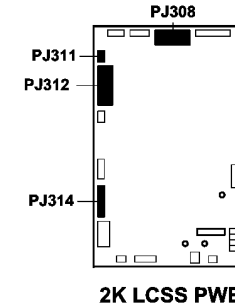
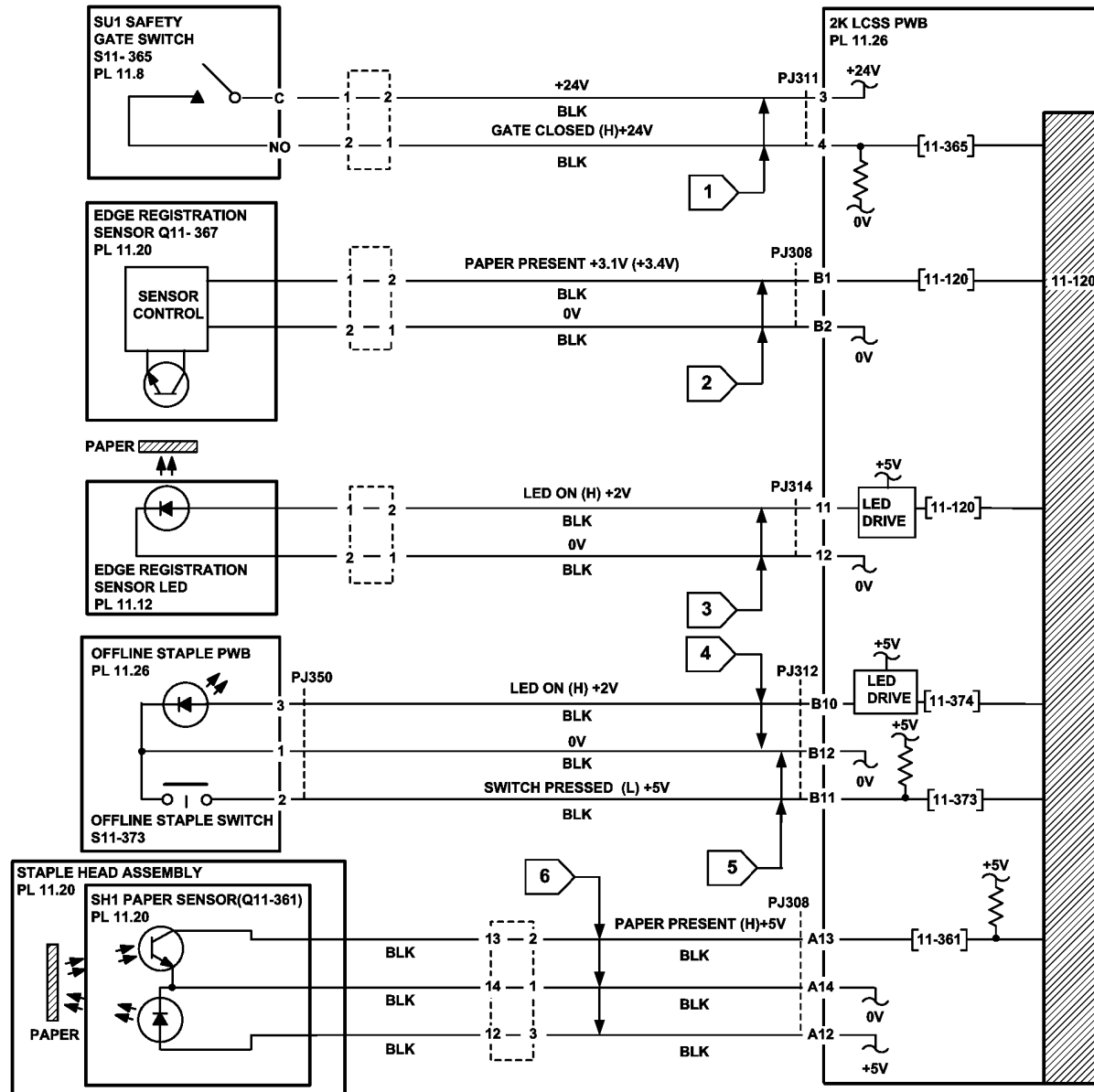


Figure 3 Circuit diagram

TT-1-0178-A

# 11B-110 Bin 1 Overload RAP

Use this RAP to resolve a fault on the bin 1 90% full sensor.

## Procedure



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** In diagnostics, actuating any 2K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter dC330, code 11-331, actuate the bin 1 90% full sensor, Q11-331. The display changes.

**Y N**  
Go to Flag 1. Check Q11-331.  
Refer to:

- 11G-110 2K LCSS PWB Damage RAP.
- GP 11, How to Check a sensor.
- Figure 1.
- P/J316 2K LCSS PWB.
- 11D-110 2K LCSS Power Generation RAP.

Repair or install new components as necessary:

- Bin 1 90% full sensor, PL 11.10 Item 5.
- 2K LCSS PWB, PL 11.26 Item 1.

Perform SCP 6 Final Actions.

display

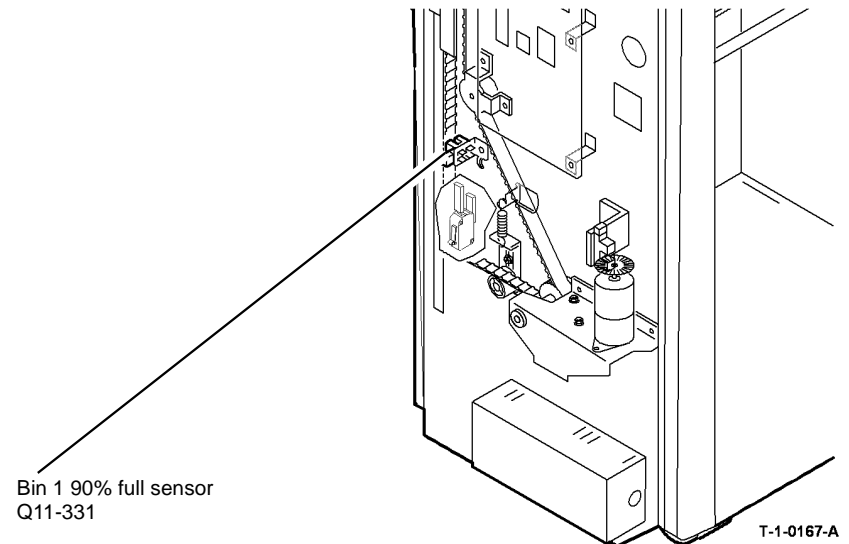


Figure 1 Component location

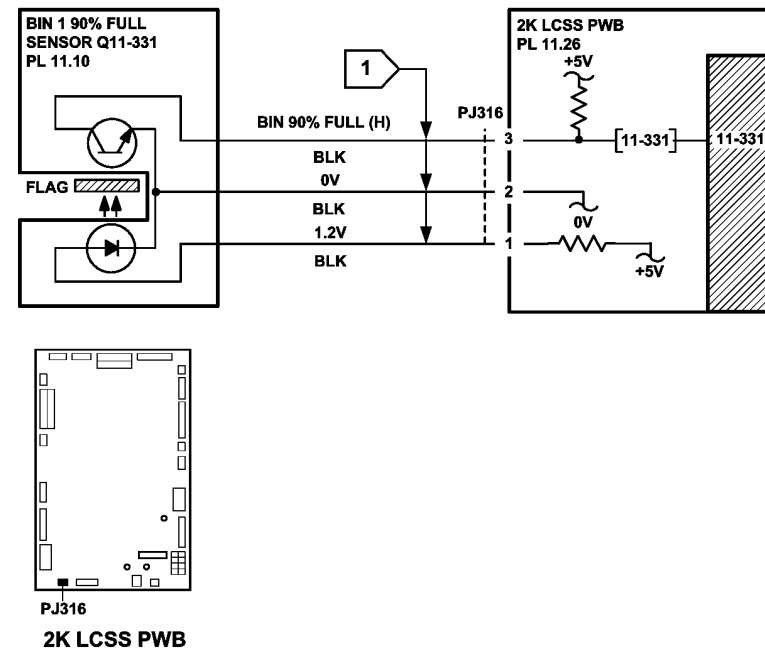


Figure 2 Circuit diagram

## 11C-110 2K LCSS Initialization Failure RAP

When an initialization command is received from the machine, the units are initialized in two stages:

- The following units are initialized sequentially:
  1. If the staple head is not at the home position, it is driven to the home position
  2. If the stapling unit is not at the home position, it is driven to the home position
  3. If the ejector is not at the home position, it is driven to the home position
- The following units are then initialized simultaneously:
  1. If the front tamper is not at the home position, it is driven to the home position
  2. If the rear tamper is not at the home position, it is driven to the home position
  3. If the hole punch is not at the home position, it is driven to the home position
  4. If the paddle is not at the home position, it is driven to the home position
  5. If the stacker is not at the home position, it is driven to the home position

**NOTE:** The staple cartridge must be fully pushed home.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the fuse on the 2K LCSS PWB, If the fuse is good, continue at the procedure. If the fuse not good, install a new 2K LCSS PWB, PL 11.26 Item 1.

Check the 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP.

Remove the 2K LCSS covers, REP 11.1-110, so that the units can be viewed. Cheat the front door interlock switch and the top cover interlock switch. Check that LED 2 is illuminated, this shows that all interlocks are made. If the LED fails to illuminate, go to 11-300-110, 11-302-110, 11-303-110 Interlocks RAP.

### Procedure

Refer to Figure 1. Check that the software heartbeat is present on LED 1. The LED should flash twice per second if the 2K LCSS software is running. If necessary, re-load the 2K LCSS software, refer to GP 4 Machine Software.

If the initialization sequence fails to place any unit at the home position, refer to the appropriate RAPs:

- Front tamper not at home, refer to 11-005-110, 11-006-110, 11-310-110, 11-311-110 Front Tamper Move Failure RAP
- Rear tamper not at home, refer to 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 Rear Tamper Move Failure RAP.
- Paddle not at home, refer to 11-024-110, 11-025-110 Paddle Roll Failure RAP.
- Bin 1 not at home, refer to 11-030-110, 11-334-110, 11-335-110, 11-336-110 Bin 1 Movement Failures RAP.

- Punch not at home, refer to 11-043-110, 11-350-110 Hole Punch Operation Failure RAP
- Staple head not at home, refer to 11-050-110, 11-360-110 Staple Head Operation Failure RAP.
- Stapling unit not at home, refer to 11-053-110, 11-370-110 Staple Head Unit Movement Failure RAP.
- Ejector not at home, refer to 11-320-110, 11-322-110 Compiler Ejector Movement Failure RAP.

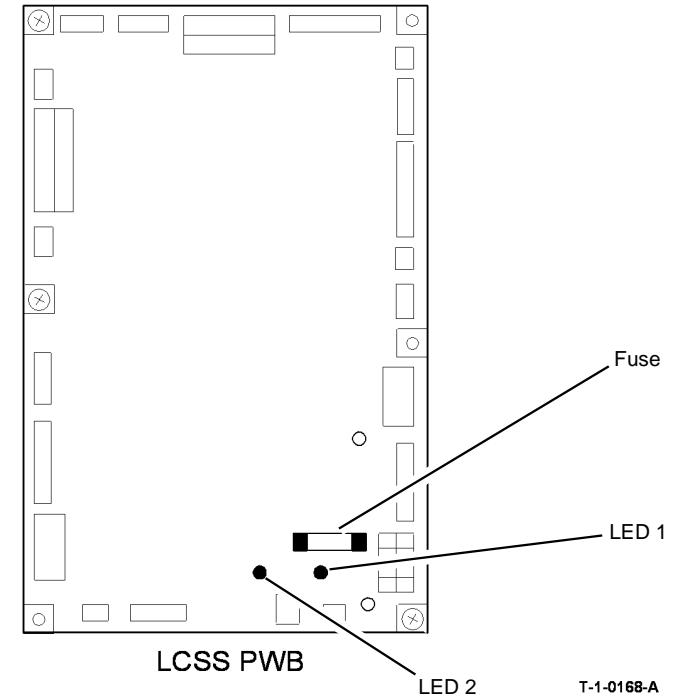


Figure 1 LED location

## 11D-110 2K LCSS Power Distribution RAP

The 2K LCSS has an integral power supply providing +24V and +5V supplies to the 2K LCSS PWB. The AC power for the 2K LCSS power supply comes from the LVPS and base module of the machine.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.



#### CAUTION

Do not connect the finisher power cord directly to the AC wall outlet. The finisher cannot operate without the machine. The machine controls the distribution of electricity to the finisher for correct power on and power off sequencing.

Close or cheat all the 2K LCSS interlocks. LED 2 on the 2K LCSS PWB is illuminated.

Y N

+24V is available at Fuse (F1) on the 2K LCSS PWB.

Y N

Go to Flag 2. Check for +24V between the following pins on P/J300:

- Pin 1 and pin 2
- Pin 1 and pin 3
- Pin 1 and pin 6
- Pin 1 and pin 7
- Pin 5 and pin 2
- Pin 5 and pin 3
- Pin 5 and pin 6
- Pin 5 and pin 7

+24V is available between all the checked pins.

Y N

Disconnect P/J300, check for +24V between the following pins on the end of the harness:

- Pin 1 and pin 2
- Pin 1 and pin 3
- Pin 1 and pin 6
- Pin 1 and pin 7
- Pin 5 and pin 2
- Pin 5 and pin 3
- Pin 5 and pin 6
- Pin 5 and pin 7

A B C

A B C

+24V is available between all the checked pins on the end of the harness.

Y N

Figure 1. Loosen the 4 screws and lift the power supply module away from the 2K LCSS frame. Go to Flag 1. ACL is available at CN1 between pins 1 and 3.

Y N

Go to the 01C AC Power RAP and check the AC output voltages.

Check the wiring between CN2 and P/J300. The wiring is good.

Y N

Repair the wiring.

Install a new power supply module, PL 11.26 Item 2.

Check for a short circuit or an overload in the wiring or components connected to the +24V on the 2K LCSS PWB. Refer to GP 7.

+24 V is available at PJ315 pin 5 on the 2K LCSS PWB.

Y N

Go to the 11-300-110, 11-302-110, 11-303-110 Interlocks RAP.



#### WARNING

Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.

Perform the following:

- Switch off the machine, GP 14.
- Go to Flag 3. Disconnect all the +24V harnesses to components.
- Check each harness for short circuits and overheating, GP 7.
- Repair or install new components as necessary.
- Install a new fuse F1 on the 2K LCSS PWB, switch on the machine, GP 14.
- Monitor the voltage at the left end of the fuse and re-connect the circuits one at a time. Energize the re-connected components using dC330 control codes.
- If the voltage drops below +22V, switch off the machine, GP 14. Re-check the component and harness for overheating or short circuits. Repair or install new components as necessary.

Perform the 11G-110 2K LCSS PWB Damage RAP, if necessary install a new 2K LCSS PWB, PL 11.26 Item 1.

Go to Flag 2. +5V is available at P/J300 between pins 4 and 6, also between pins 7 and 8.

Y N

Disconnect P/J300. +5V is available at P/J300 between pins 4 and 6, also between pins 7 and 8 on the end of the harness.

Y N

Loosen the 4 screws and lift the power supply module away from the 2K LCSS frame. Go to Flag 1. ACL is available at CN1 between pins 1 and 3.

Y N

Go to the 01C AC Power RAP and check the AC output voltages.

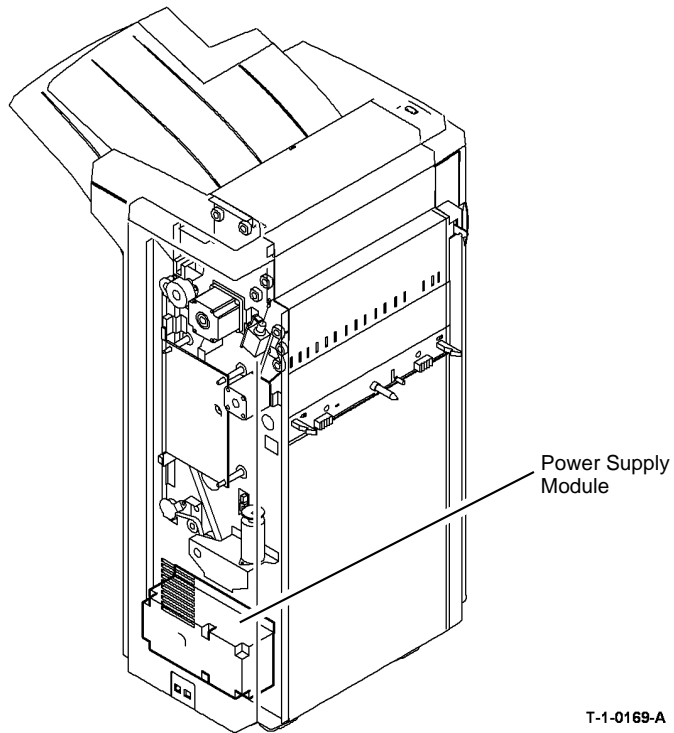
D E F



D  
E  
F  
Check the wiring between CN2 and P/J300. **The wiring is good.**  
Y N  
Repair the wiring.  
Install a new power supply module, **PL 11.26 Item 2.**

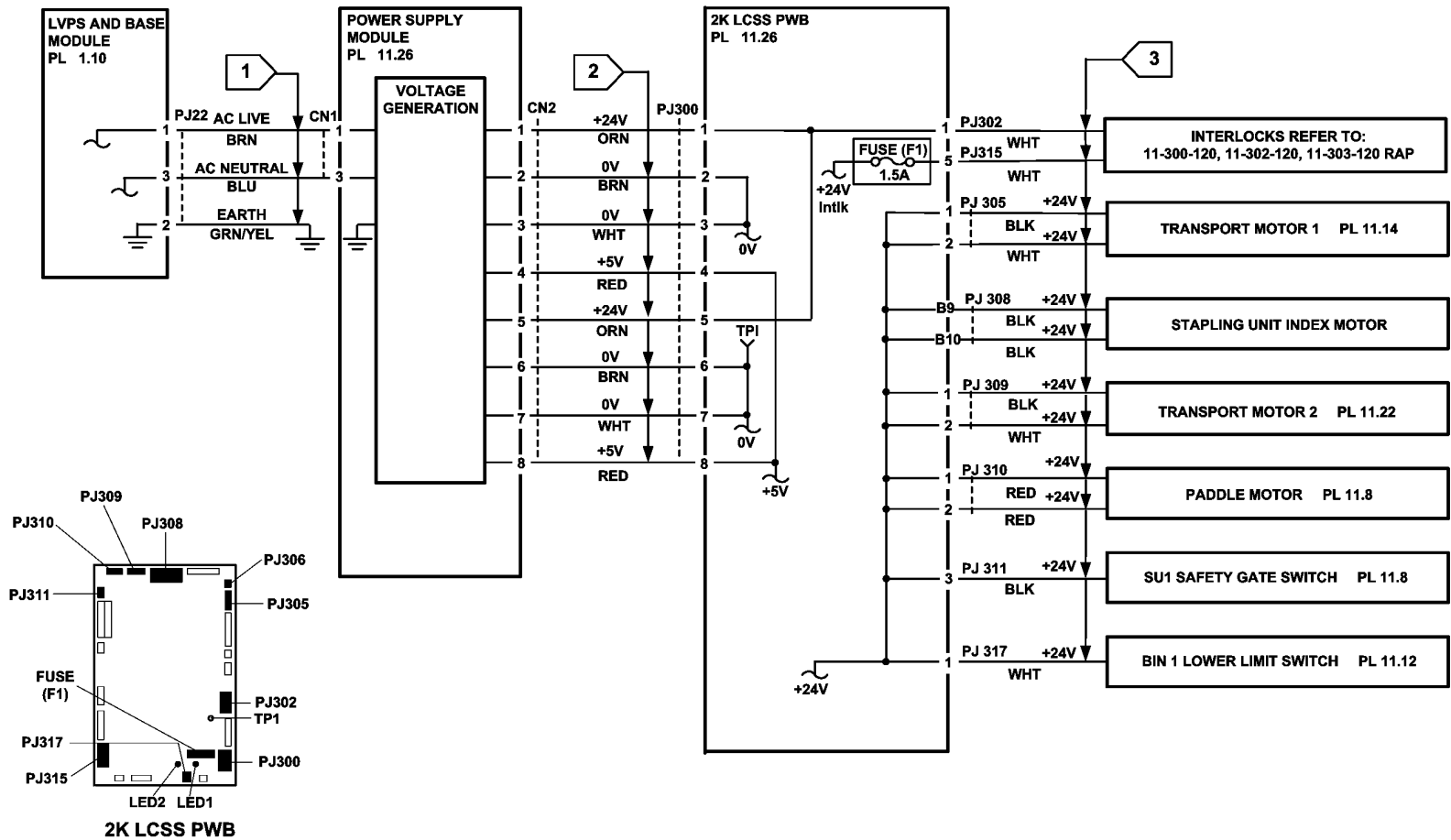
Check for a short circuit or overload in the wiring or components connected to +5V on the 2K LCSS PWB. Refer to **GP 7.**

Perform the **11G-110** 2K LCSS PWB Damage RAP, if necessary install a new 2K LCSS PWB, **PL 11.26 Item 1.**



T-1-0169-A

Figure 1 Component location



TT-1-0180-A

Figure 2 Circuit diagram

## 11E-110 2K LCSS to Machine Communications Interface RAP

All communications between the machine and 2K LCSS are conducted through a single interface cable.

### Procedure

Check the 2K LCSS PWB DIP switch settings, refer to 11F-110 2K LCSS PWB DIP Switch Settings RAP. If the settings are correct, go to 03-360, 03-408 to 03-410, 03-418 IOT to Output Device Error Rap.

## 11F-110 2K LCSS PWB DIP Switch Settings RAP

To show the correct settings for the DIP switches on the 2K LCSS PWB.

### Procedure



### WARNING

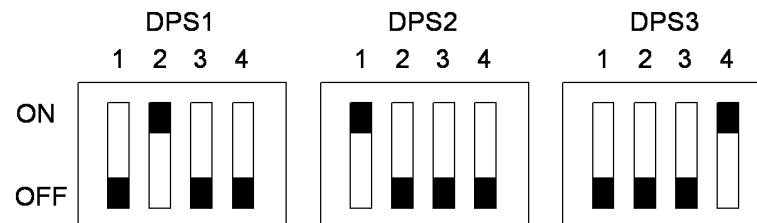
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Problems that can result from incorrect DIP switch settings are:

- False jam clearance instructions for the 2K LCSS and/or the machine exit area.
- Communication errors between the 2K LCSS and machine.
- Erratic behavior of the 2K LCSS.

Check the DIP switch settings, Figure 1. If necessary, switch off the machine, GP 14. Correct the DIP switch setting, then switch on the machine, GP 14.

**NOTE:** On later LCSS PWBs, the DPS2 and DPS3 DIP switches are no longer fitted. DPS1 remains on the later PWBs and should be set as shown in Figure 1.



T-1-0170-A

Figure 1 DIP switch settings

## 11G-110 2K LCSS PWB Damage RAP

Use this RAP to determine the cause of damage to the 2K LCSS PWB, so that the cause can be repaired before a new 2K LCSS PWB is installed.

### Initial Actions



#### WARNING

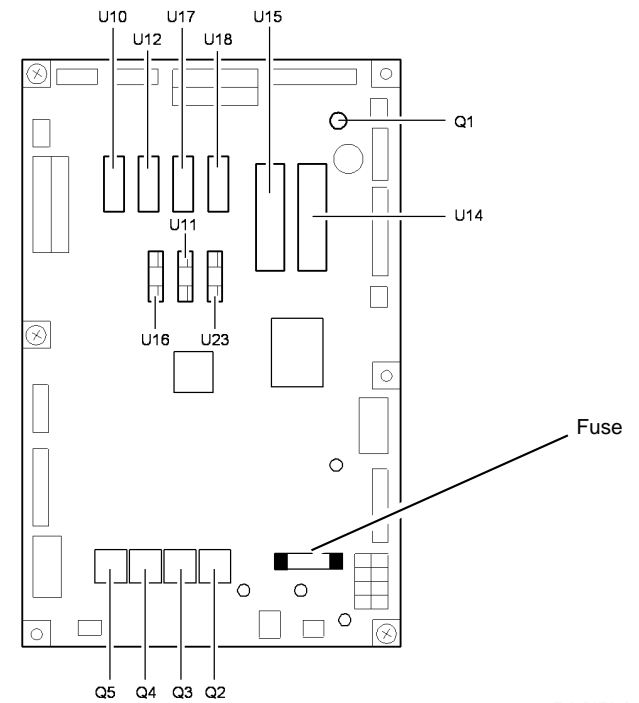
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the fuse on the 2K LCSS PWB. If the fuse is good, continue at the procedure. If the fuse not good, install a new 2K LCSS PWB, PL 11.26 Item 1.

### Procedure

The 2K LCSS PWB can be damaged by a component connected to it going short-circuit. If a new 2K LCSS PWB is installed and power applied to the machine, the new 2K LCSS PWB will be damaged in the same way. The cause of the damage must be found by following this procedure.

Remove the 2K LCSS PWB and inspect the components shown in Figure 1 for damage. The damage to the component may be in the form of a crack, a small crater or a burnt patch. Refer to Table 1 to locate the component causing the damage to the 2K LCSS PWB.



T-1-0171-A

Figure 1 2K LCSS PWB components

Table 1 2K LCSS PWB Drive Components

2K LCSS PWB component	Driven component	Normal resistance measurement +/- 10%	Spared part and references
U10	Rear tamper motor	W/O Tag F-010 PJ312 pin A1 to A3 = 29 ohms pin A1 to A4 = 29 ohms pin A2 to A5 = 29 ohms pin A2 to A6 = 29 ohms W/Tag F-010 PJ312 pin A1 to A3 = 20 ohms pin A1 to A4 = 20 ohms pin A2 to A5 = 20 ohms pin A2 to A6 = 20 ohms	Tamper assembly, PL 11.16 Item 1. 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP
U11	Staple head motor	PJ308 pin A8 to A10 = 20 ohms pin A9 to A11 = 20 ohms	Staple head unit, PL 11.20 Item 5. 11-050-110, 11-360-110 RAP
U12	Front tamper motor	W/O TAG F-010 PJ312 pin A7 to A9 = 29 ohms pin A7 to A10 = 29 ohms pin A8 to A11 = 29 ohms pin A8 to A12 = 29 ohms W/Tag F-010 PJ312 pin A7 to A9 = 20 ohms pin A7 to A10 = 20 ohms pin A8 to A11 = 20 ohms pin A8 to A12 = 20 ohms	Tamper assembly, PL 11.16 Item 1. 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP
U14	Transport motor 1	PJ305 pin 1 to 4 = 4 ohms pin 1 to 5 = infinity pin 2 to 6 = 4 ohms pin 2 to 3 = infinity	Transport motor 1, PL 11.14 Item 2. 11-130-110, 11-132-110 RAP
U15	Transport motor 2	PJ309 pin 1 to 4 = 1.3 ohms pin 1 to 5 = 1.3 ohms pin 2 to 6 = 1.3 ohms pin 2 to 7 = 1.3 ohms.	Transport motor 2, PL 11.22 Item 5. 11-130-110, 11-132-110 RAP
U16	Hole punch motor	PJ311 pin 1 to 2 = 6 ohms	Not spared. 11-043-110, 11-350-110 RAP
U17	Paddle motor	PJ310 pin 1 to 3 = 29 ohms pin 1 to 4 = 29 ohms pin 2 to 5 = 29 ohms pin 2 to 6 = 29 ohms.	Paddle motor assembly, PL 11.8 Item 10. 11-024-110, 11-025-110 RAP
U18	SU1 motor (stapler indexing)	PJ308 pin B9 to B11 = 20 ohms pin B9 to B12 = 20 ohms pin B10 to B13 = 20 ohms pin B10 to B14 = 20 ohms.	Stapler traverse assembly, PL 11.20 Item 1. 11-053-110, 11-370-110 RAP

Table 1 2K LCSS PWB Drive Components

2K LCSS PWB component	Driven component	Normal resistance measurement +/- 10%	Spared part and references
U23	Ejector motor	PJ303 pin 1 to 2 = 8 ohms	Ejector assembly, PL 11.18 Item 1. 11-320-110, 11-322-110 RAP
Q1	Diverter gate solenoid	PJ306 pin 1 to pin 2 = 74 ohms	Diverter gate solenoid, PL 11.22 Item 12. 11-130-110, 11-132-110 RAP
Q2, Q3, Q4, Q5	Bin 1 elevator motor	PJ318 pin 1 to 2 = 7.7 ohms	Bin 1 elevator motor, PL 11.10 Item 8. 11-030-110, 11-334-110, 11-335-110, 11-336-110 RAP

**NOTE:** If difficulty is found in connecting the service meter probes to the connector headers on the 2K LCSS PWB, refer to the RAP quoted in Table 1 and make the measurement at another point in the harness to the driven component.

If the defective driven component is found using the table checks, disconnect the connector closest to the driven component, then check the driven component again to identify any short circuit in the wiring to the driven component. Repair the wiring or install new parts as necessary.

If the defective driven component can not be found using the table checks, refer to GP 7, check each driven component to ensure that it is not seized. Motors should rotate reasonably easily. Solenoid armatures should slide easily in the coil. Also check the drive components to ensure that they rotate easily, if necessary install new parts.

When the a new driven component has been installed or the defective drive components have been repaired, install a new 2K LCSS PWB, PL 11.26 Item 1.

# 11H-110 Copy Damage in the 2K LCSS RAP

Use this RAP to identify and correct the causes of copy damage in the 2K LCSS.

## Procedure

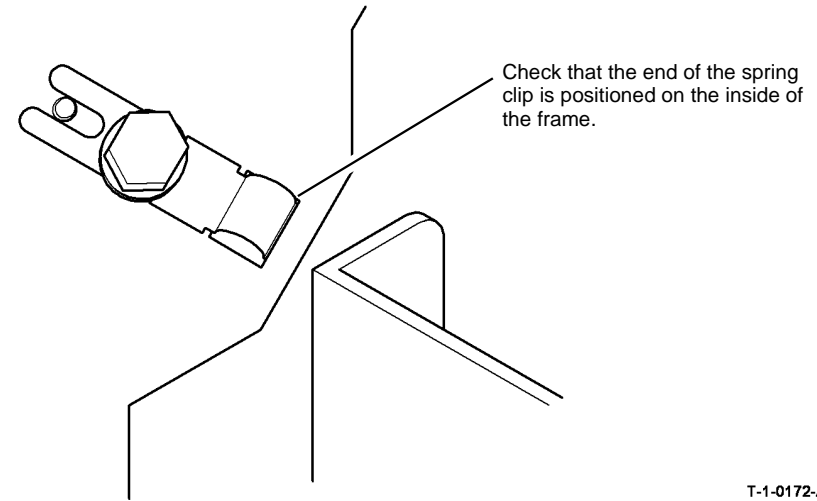


### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the following:

- Look for torn paper in the 2K LCSS paper path. Torn fragments can pass through the IOT and 2K LCSS paper path without causing a problem until they finally wedge themselves at some point. A likely place for a piece of paper to be wedged is at the hole punch assembly, where the top and bottom guides form the narrowest part of the paper path.
- Ensure that the shaft diverter assembly, PL 11.22 Item 13, operates correctly and has full movement.
- Ensure that the hole punches park at the fully open position. If they protrude even slightly, a jam will occur in the narrow paper path of the hole punch.
- Ensure that the jam clearance guide, PL 11.24 Item 6, closes and latches correctly. Check that the magnet at the rear is located and functions correctly. Check the clip at the front is positioned correctly, Figure 1.
- Ensure that all idler rolls in the 2K LCSS paper path are free to rotate, particularly those on the jam clearance guide, where the paper turns through 90 degrees.
- Ensure that the paper path ribs of the jam clearance guide, PL 11.24 Item 6, and the entry guide cover, PL 11.24 Item 5, are free of “scores” and “nicks”. Check also for contamination and glue from label stock.



T-1-0172-A

Figure 1 Position of the spring clip

## 11J-110 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP

Use this RAP to identify and correct the causes of mis-registration in stapled sets, resulting in staples missing some sheets in the set, or poorly registered non-stapled sets.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

The most likely cause of mis-registration is paper condition and/or damage such as curl, wrinkle, creases, dog ears, etc.

Curl, wrinkle and creases are probably caused in the IOT, go to [IQ1 Image Quality Entry RAP](#).

For other copy/print damage and dog ears, go to the [11H-110 Copy Damage](#) in the 2K LCSS RAP.

Check the following:

- Check that bin 1 is seated correctly and the bin 1 alignment clip is in position, [PL 11.2 Item 13](#).
- Turn over the paper stack in the tray in use.
- Use a new ream of paper in the tray in use.
- Paper type especially recycled paper can lead to registration problems. Try changing to a different brand or type of paper.
- Ensure that the guides in the paper trays are correctly set and reported on the UI for the paper size loaded.
- Check that paper type is set correctly. If heavyweight paper is used but not set in the UI, the compiler capacity can be exceeded.
- Check for obstructions in the compiler.
- Ensure that the paddle roll operates correctly and that the paddles are not damaged. The paddles should park completely inside the top section of the compiler, with the shorter paddle in a vertical position. If all of the paddles are out of position, check the paddle roll position sensor, [PL 11.8 Item 11](#), the flag, [PL 11.8 Item 7](#) and the paddle motor assembly, [PL 11.8 Item 10](#). If only one paddle is mis-aligned with the others, it can be re-positioned by hand (they are not bonded to the shaft).
- Make sure the paddles are clean. If necessary, use formula A cleaning fluid, [PL 26.10 Item 2](#) to clean the paddles.
- Ensure that the tampers operate correctly, i.e. are not stalling or losing position during the job. Inspect the tampers for damage, if necessary install new parts. [PL 11.16](#).
- Inspect the bin 1 entry nips for roll damage. The idlers should be held against the rubber driving rolls and they should be free to rotate within their support springs. If necessary, install new parts, [PL 11.23](#).
- Inspect the four spring loaded guides on the output cover, [PL 11.2 Item 7](#). Ensure that they are correctly located and are free to move up and down.

## 11K-110 2K LCSS Poor Stacking RAP

Use this RAP to find the cause of poor stacking in the 2K LCSS.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the following:

- Look for sets that are not dropping back fully in bin 1 and therefore not operating the bin 1 level sensors:
  - Large paper sizes should not be stacked on top of small paper sizes.
  - Ensure that the paper stack in each paper tray has been fanned.
  - Turn over the paper stack in each paper tray.
  - Ensure that all paper or other copy stock being used is within the size and weight specifications. Refer to [GP 20 Paper and Media Size Specifications](#).
  - Try using a fresh ream of paper.
  - Ensure that the edge guides of all paper trays are adjusted correctly for the paper size and that the trays are fully closed.
  - Check that bin 1 is seated correctly and the bin 1 alignment clip is in position, [PL 11.2 Item 13](#).
- Labels must not be fed to bin 1, but to bin 0 only.
- It is recommended that transparencies are fed to bin 0 whenever possible.
- Check that bin 1 is level front to back, if necessary perform [ADJ 11.1-110 2K LCSS Bin 1 Level](#).
- Check that the bin 1 upper level sensor, Q11-332 and the bin 1 lower level sensor, Q11-333 are working correctly. Refer to the [11-030-110](#), [11-334-110](#), [11-335-110](#), [11-336-110 Bin 1 Movement Failure RAP](#).
- Check the operation of the front and rear tampers. Refer to [11-005-110](#), [11-006-110](#), [11-310-110](#), [11-311-110 Front Tamper Move Failure RAP](#) and [11-007-110](#), [11-008-110](#), [11-312-110](#), [11-313-110](#), [11-319-110 Rear Tamper Move Failure RAP](#).
- Check that the output device is not near an air conditioning or ventilation output duct. Air flow across the output bins can cause poor stacking.
- Check if Mod. [TAG F-013 LCSS bin 1 kit](#) is installed on the finisher.
  - Machine that regularly process large stacks of A4/8.5x11 inch LEF paper should have the LCSS bin 1 W/[TAG F-013](#) kit installed, [PL 11.2 Item 16](#).
  - Machines that regular process small stacks of A4/8.5x11 inch LEF, A3/11x17 inch and A4/8.5x11 inch SEF paper should have the standard W/[OTAG F-013](#) bin 1 installed, [PL 11.2 Item 10](#).
- Check the output copies for curl, refer to [IQ5](#).





## 11-005-120, 11-006-120, 11-310-120, 11-311-120 Front Tamper Move Failure RAP

**11-005-120** Front tamper fails to move to the front position.

**11-006-120** Front tamper fails to move to the rear position.

**11-310-120** Front tamper not at the front home position.

**11-311-120** Front tamper not at the rear home position.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- **Figure 1.** Check for damage or obstructions that would prevent the tamper assembly from operating correctly. If necessary, install a new tamper assembly, **PL 11.112 Item 1.**
- Jams can be caused by removing prints from bin 1 before the machine has finished printing. If the tampers are touched while they are moving, they may stall and cause the machine to shutdown. The resulting shutdown can cause un-clearable jams in the finisher and the tray 3 and tray 4 to paper path interface.
- Jams can also be caused if the tray settings do not match the paper in the trays. Make sure the tray settings are correct.
- Check the condition and tension of the front tamper drive belt. Tensioning is achieved by a spring on the motor, the motor should be free to move.
- If there is a large jam of paper above bin 1 that has obstructed the tampers, this has probably been caused by poorly stacked sets failing to actuate the bin 1 upper level sensor. Perform the following:
  - Check the paper for defects that could degrade the tamping operation e.g. curl, paper condition, buckling or paper type. Refer to the **IQ1 Image Quality Entry RAP.**
  - Check the operation of the paddle roll, refer to **11-024-120, 11-025-120 Paddle Roll Failure RAP.**
  - Check the operation of the bin 1 upper level sensor, refer to **11-030-120, 11-334-120, 11-335-120, 11-336-120 Bin 1 Movement Failure RAP.**
  - Refer to the **11J-120 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.**
  - Check the 1K LCSS PWB DIP switch settings, refer to **11E-120 1K LCSS PWB DIP Switch Settings RAP.**

### Procedure

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter **dC330**, codes 11-003 and 11-005 alternately. **The front tamper moves between the home and inboard positions, Figure 1.**

**Y N**

Go to **Flag 2.** Check the front tamper motor, MOT11-003.

**A**

Refer to:

- **11G-120 1K LCSS PWB Damage RAP.**
- **GP 10 How to Check a Motor.**
- **P/J9, 1K LCSS PWB.**
- **11C-120 1K LCSS Power Distribution RAP.**

Repair or install new components as necessary:

- Tamper assembly, **PL 11.112 Item 1.**
- 1K LCSS PWB, **PL 11.124 Item 1.**

Enter **dC330** code 11-310. Actuate the front tamper home sensor, Q11-310. **The display changes.**

**Y N**

Go to **Flag 1.** Check Q11-310.

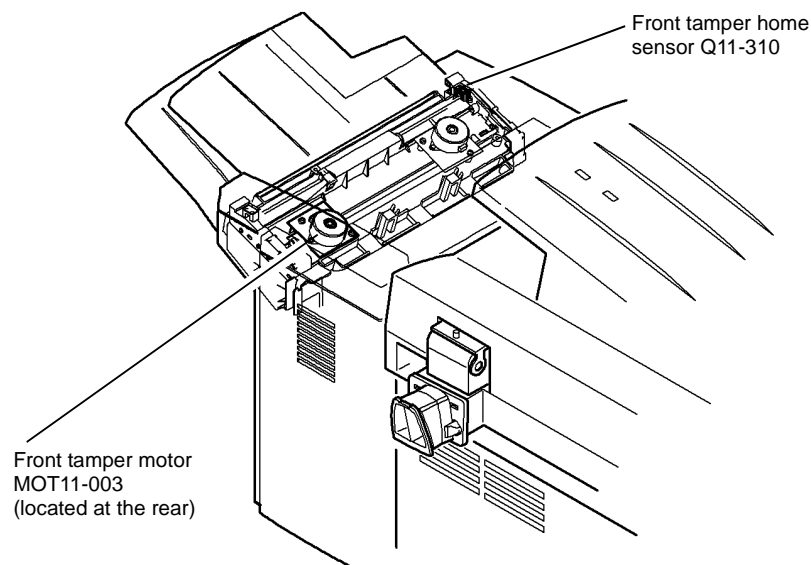
Refer to:

- **11F-120 1K LCSS PWB Damage RAP.**
- **GP 11 How to Check a Sensor.**
- **P/J16, 1K LCSS PWB.**
- **11C-120 1K LCSS Power Distribution RAP.**

Repair or install new components as necessary:

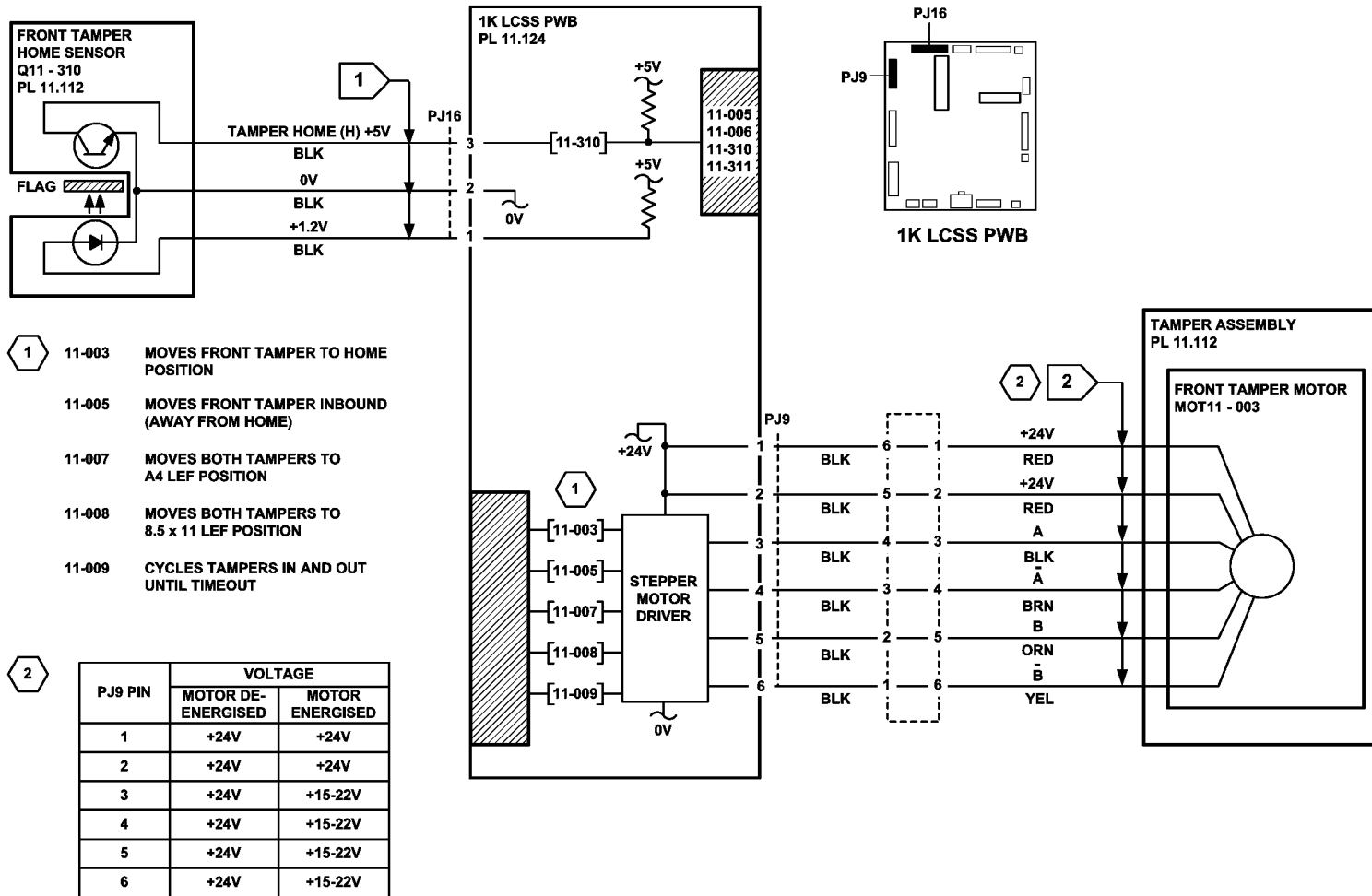
- Front tamper home sensor, **PL 11.112 Item 3.**
- 1K LCSS PWB, **PL 11.124 Item 1.**

Perform **SCP 6** Final Actions.



T-1-0173-A

**Figure 1 Component location**



TT-1-0181-A

Figure 2 Circuit diagram

## 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 Rear Tamper Move Failure RAP

**11-007-120** Rear tamper fails to move to the front position.

**11-008-120** Rear tamper fails to move to the rear position.

**11-312-120** Rear tamper is not at the front home position.

**11-313-120** Rear tamper is not at the rear home position.

**11-319-120** Rear tamper is not at the away home position.

**NOTE:** The away home position is with the rear tamper approximately halfway along it's travel.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- **Figure 1.** Check for damage or obstructions that would prevent the tamper assembly from operating correctly. If necessary, install a new tamper assembly, [PL 11.112 Item 1](#).
- Jams can be caused by removing prints from bin 1 before the machine has finished printing. If the tampers are touched while they are moving, may stall and cause the machine to shutdown. The resulting shutdown can cause un-clearable jams in the finisher and the tray 3 and tray 4 to paper path interface.
- Jams can also be caused if the tray settings do not match the paper in the trays. Make sure the tray settings are correct.
- Check the condition and tension of the front tamper drive belt. Tensioning is achieved by a spring on the motor, the motor should be free to move.
- If there is a large jam of paper above bin 1 that has obstructed the tampers, this has probably been caused by poorly stacked sets failing to actuate the bin 1 upper level sensor. Perform the following:
  - Check the paper for defects that could degrade the tamping operation e.g. curl, paper condition, buckling or paper type. Refer to the [IQ1 Image Quality Entry RAP](#).
  - Check the operation of the paddle roll, refer to [11-024-120](#), [11-025-120](#) Paddle Roll Failure RAP.
  - Check the operation of the bin 1 upper level sensor, refer to [11-030-120](#), [11-334-120](#), [11-335-120](#), [11-336-120](#) Bin 1 Movement Failure RAP.
  - Refer to the [11J-120 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP](#).
  - Check the 1K LCSS PWB DIP switch settings, refer to [11E-120 1K LCSS PWB DIP Switch Settings RAP](#).

### Procedure

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter **dC330**, codes 11-004 and 11-006 alternately. **The rear tamper moves between the home and inboard positions, Figure 1.**

- Y N**
- Go to **Flag 3**. Check the rear tamper motor, MOT11-004.  
Refer to:
- [11F-120 1K LCSS PWB Damage RAP](#).
  - [GP 10](#), How to Check a Motor.
  - [P/J9, 1K LCSS PWB](#).
  - [11C-120 1K LCSS Power Distribution RAP](#).
- Repair or install new components as necessary:
- Tamper assembly, [PL 11.112 Item 1](#).
  - 1K LCSS PWB, [PL 11.124 Item 1](#).

Enter **dC330** code 11-311. Actuate the rear tamper home sensor Q11-311. **The display changes.**

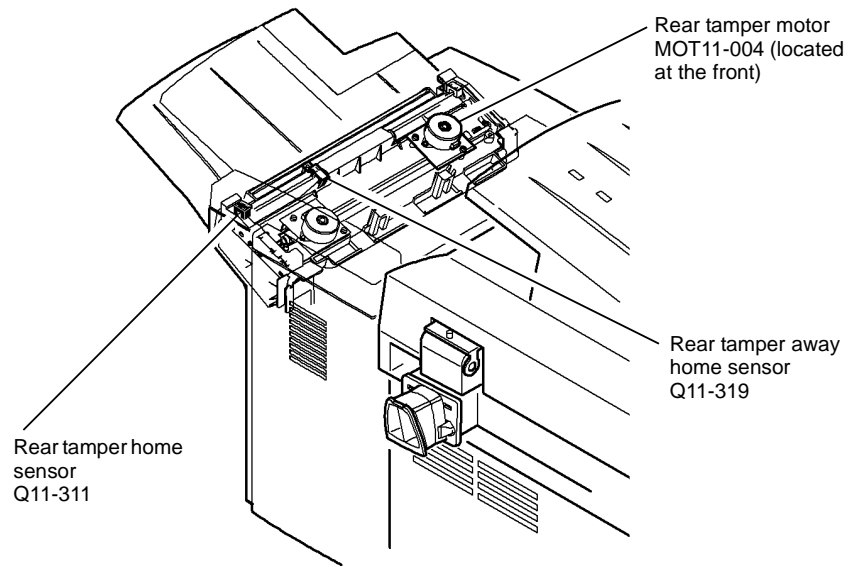
- Y N**
- Go to **Flag 1**. Check Q11-311.  
Refer to:
- [11F-120 1K LCSS PWB Damage RAP](#).
  - [GP 11](#), How to Check a Sensor.
  - [P/J16, 1K LCSS PWB](#)
  - [11C-120 1K LCSS Power Distribution RAP](#).
- Repair or install new components as necessary:
- Rear tamper home sensor, [PL 11.112 Item 3](#).
  - 1K LCSS PWB, [PL 11.124 Item 1](#).

**NOTE:** The away home position is used for short edge feed small paper. This saves unnecessary rear tamper travel.

Enter **dC330**. Actuate the rear tamper away home sensor Q11-319. **The display changes.**

- Y N**
- Go to **Flag 2**. Check Q11-319.  
Refer to:
- [11F-120 1K LCSS PWB Damage RAP](#).
  - [GP 11](#), How to Check a Sensor.
  - [P/J16, 1K LCSS PWB](#)
  - [11C-120 1K LCSS Power Distribution RAP](#).
- Repair or install new components as necessary:
- Rear tamper away home sensor, [PL 11.112 Item 3](#).
  - 1K LCSS PWB, [PL 11.124 Item 1](#).

Perform **SCP 6** Final Actions.



**Figure 1 Component Location**

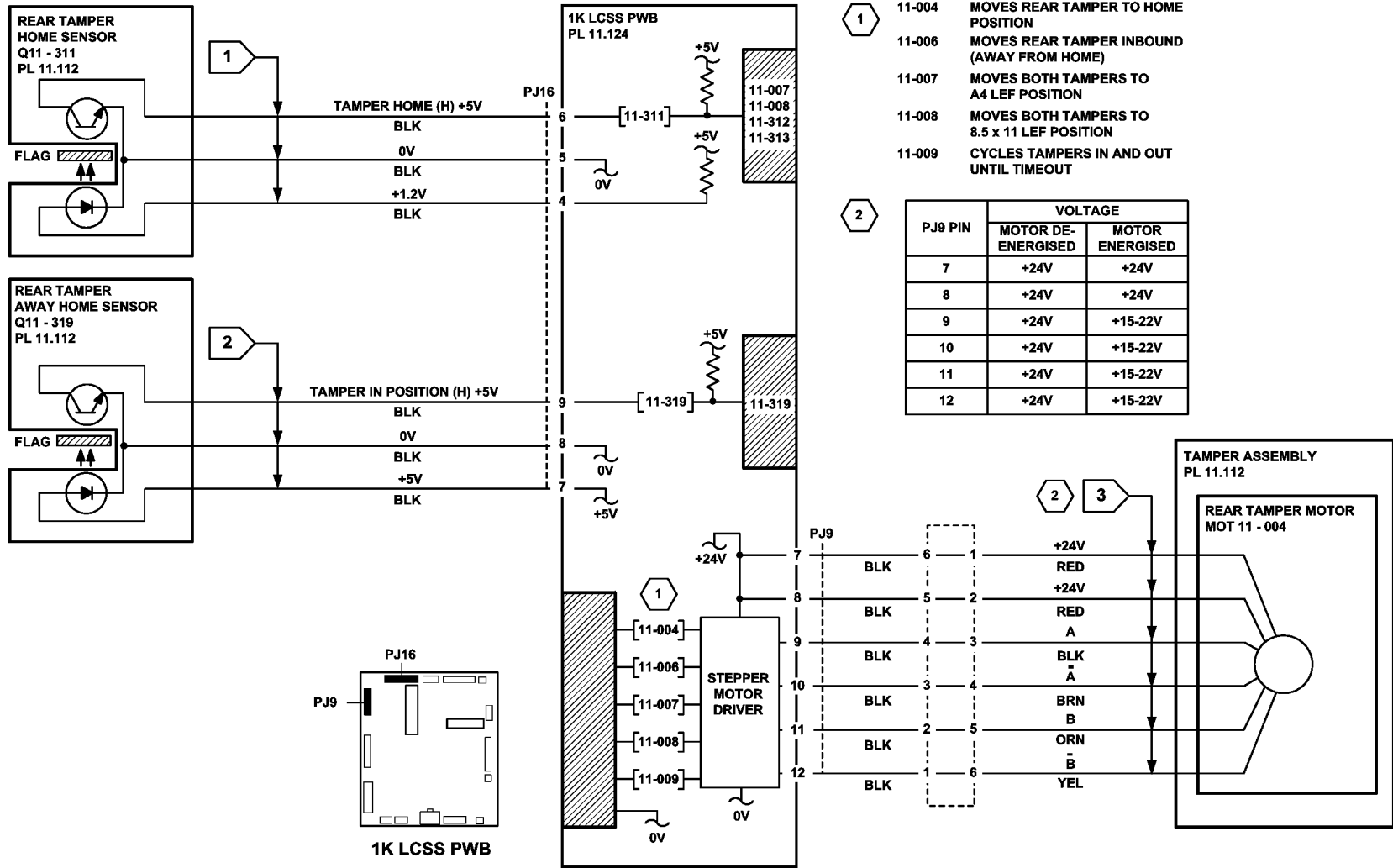


Figure 2 Circuit diagram

TT-1-0182-A

## 11-024-120, 11-025-120 Paddle Roll Failure RAP

11-024-120 The paddle is not at the home position.

11-025-120 The paddle fails to rotate.

**NOTE:** The home position of the paddle is when the sensor flag is located between the sensor jaws. Jams will occur in the compiler and bin 1 cannot be used.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the following:

- That there is no paper or other obstructions in the vicinity of the paddle.
- The paddle roll position sensor bracket is holding the sensor in the correct position, i.e. the flag is in the middle of the sensor gap and the sensor does not touch any moving components.
- Check that paper type is set correctly. If heavyweight paper is used but not set in the UI, the compiler capacity can be exceeded. Refer to 11H-120 Mis-Registration in Stapled Sets and Non-stapled Sets RAP.
- Check the position of the paddles. With the paddle roll in the home position both sets of paddles must be within the output cover, if they are not, refer to REP 11.10-120 Paddle Wheel Shaft Assembly. If any of the paddles are out of alignment to other paddles, install a new paddle wheel shaft assembly, PL 11.104 Item 4.
- 1K LCSS PWB DIP switch settings, refer to 11E-120 1K LCSS PWB DIP Switch Settings RAP.

### Procedure

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter dC330, codes 11-024, paddle home position and 11-025, paddle run. **The paddle rotates correctly.**

Y N

Go to Flag 2. Check the paddle motor, MOT 11-024.

Refer to:

- 11F-120 1K LCSS PWB Damage RAP.
- GP 10, How to Check a Motor.
- Figure 1.
- P/J14, 1K LCSS PWB.
- 11C-120 1K LCSS Power Distribution RAP

Repair or install new components as necessary:

- Paddle motor, PL 11.104 Item 10.

- 1K LCSS PWB, PL 11.124 Item 1.

Enter dC330, code 11-025 and stack the code 11-326, to actuate the paddle roll position sensor Q11-326. **The display cycles high/low.**

Y N

Go to Flag 1. Check Q11-326.

Refer to:

- 11F-120 1K LCSS PWB Damage RAP.
- GP 11, How to Check a Sensor.
- Figure 1.
- P/J2, 1K LCSS PWB
- 11C-120 1K LCSS Power Distribution RAP

Repair or install new components as necessary:

- Paddle roll position sensor, PL 11.104 Item 11.
- 1K LCSS PWB, PL 11.124 Item 1.

Perform SCP 6 Final Actions.

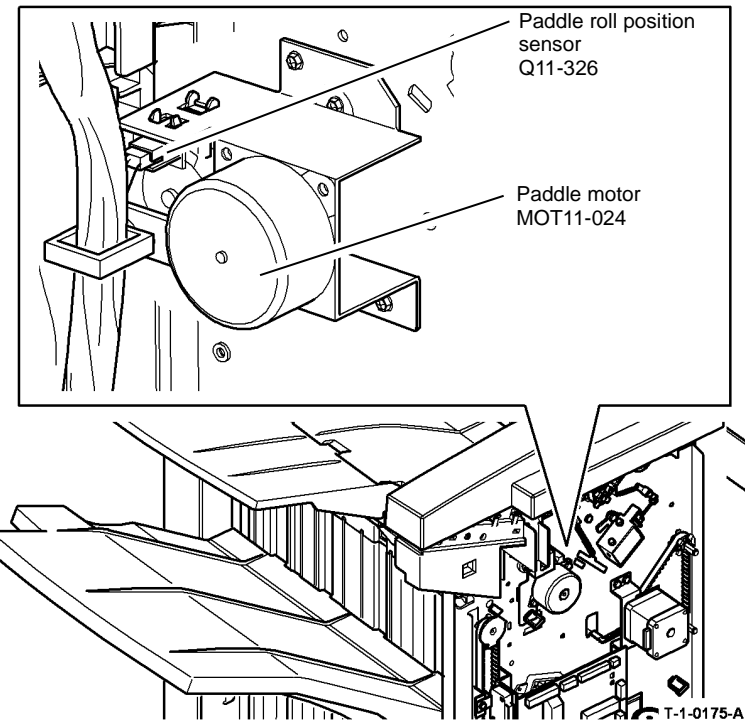


Figure 1 Component location

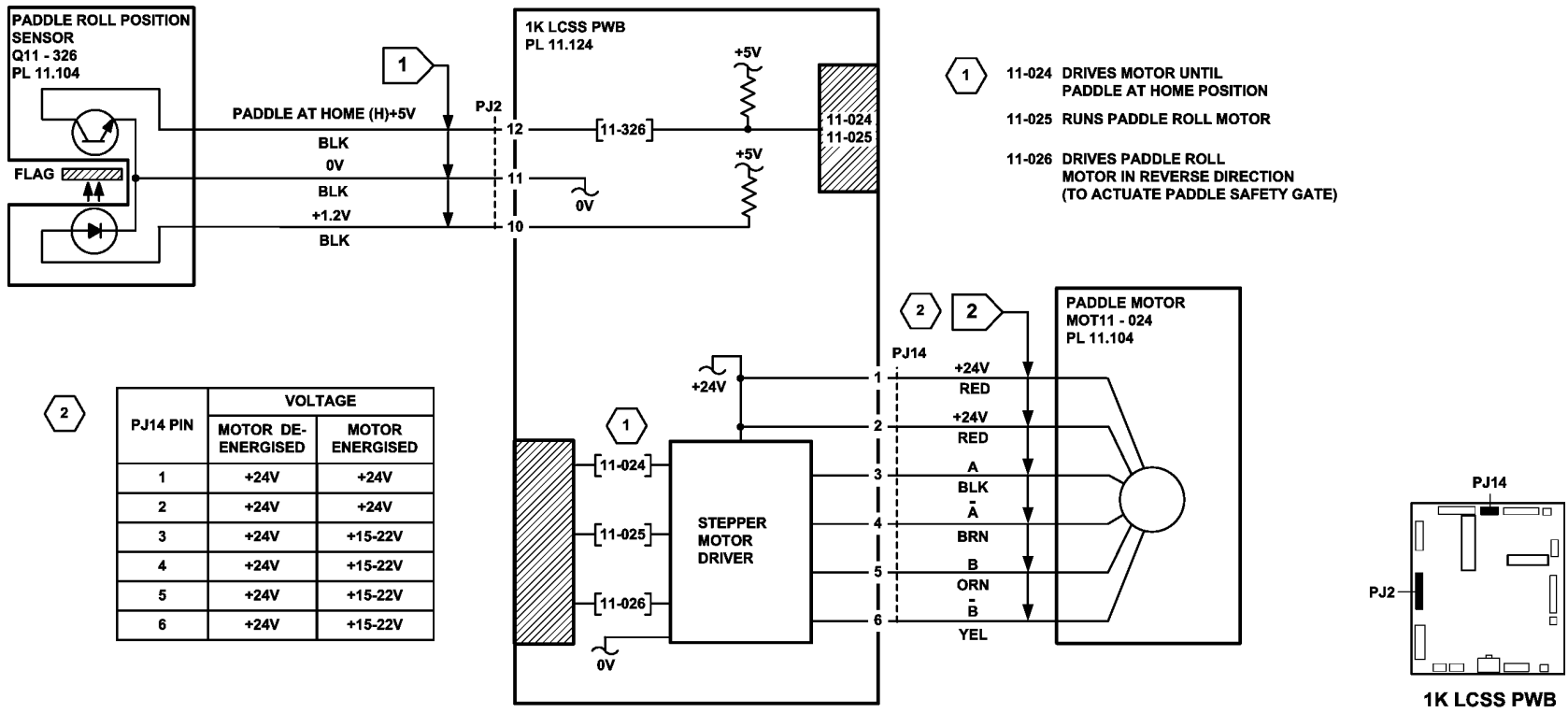


Figure 2 Circuit diagram

TT-1-0183-A

## 11-030-120, 11-334-120, 11-335-120, 11-336-120 Bin 1 Movement Failure RAP

**11-030-120** Bin 1 fails to move.

**11-334-120** Bin 1 has reached the upper limit of travel.

**11-335-120** Bin 1 has reached the lower limit of travel.

**11-336-120** Bin 1 is not at the home position.

**NOTE:** The home position of bin 1 is when bin 1 is actuating the bin 1 upper limit switch. See the final actions at the end of the procedure.

Two sensors and two switches monitor the level of paper in bin 1 and the position of the tray

- The bin 1 upper level sensor detects the top of the paper stack in bin 1, [Figure 1](#).
- The bin 1 90% full sensor detects when the tray has descended to a position where the tray is 90% full, [Figure 2](#).
- Bin 1 upper limit switch, S11-334, [Figure 2](#).
- Bin 1 lower limit switch, S11-335, [Figure 2](#).

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the following:

- Check for a physical obstruction that would prevent bin 1 from moving, such as an item of furniture.
- Check that bin 1 is level front to back, if necessary perform [ADJ 11.1-120](#) 1K LCSS Bin 1 Level.
- Check the 1K LCSS PWB DIP switch settings, refer to [11E-120](#) 1K LCSS PWB DIP Switch Settings RAP.
- If the fault code is 11-030. Check that the screws to secure the motor damper and the motor bracket are not loose. This will cause the encoder disc to move away from the encoder sensor. Push the motor bracket towards the encoder sensor and tighten the screws. Refer to [Figure 2](#).
- Refer to the [11H-120](#) Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.
- If there is a large jam of paper above bin 1, this has probably been caused by poorly stacked sets failing to actuate the bin 1 upper level sensor.

Perform the relevant check:

- If paper is overflowing the tray when it is at the lower limit, check the tray 90% full sensor.
- If paper cannot be fed to bin 1 when it is at the highest position, check the bin 1 paper sensor - low and bin 1 paper sensor - high.

Check the front and rear bin 1 drive belts. If necessary install new components, [PL 11.106](#) Item 1.

### Procedure

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Remove the 1K LCSS rear cover. Enter [dC330](#) code 11-336, bin 1 motor encoder sensor Q11-336. Slowly rotate the encoder disk by hand. **The display changes.**

Y N  
Go to [Flag 2](#). Check Q11-336.  
Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [P/J8, 1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Bin 1 motor encoder sensor Q11-336, [PL 11.106](#) Item 11.
- 1K LCSS PWB, [PL 11.124](#) Item 1.

Enter [dC330](#) code 11-033, bin 1 elevator motor, MOT11-030. **Bin 1 cycles down and up.**

Y N  
Go to [Flag 1](#). Check MOT11-030.  
Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 10](#) How to Check a Motor.
- [P/J12, 1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Bin 1 elevator motor, [PL 11.106](#) Item 8.
- 1K LCSS PWB, [PL 11.124](#) Item 1.

[Figure 1](#). Enter [dC330](#), code 11-332, bin 1 upper level sensor, Q11-332. Actuate Q11-332. **The display changes.**

Y N  
Go to [Flag 3](#). Check Q11-332.  
Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [P/J2, 1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Bin 1 upper level sensor Q11-332, [PL 11.106](#) Item 5.
- 1K LCSS PWB, [PL 11.124](#) Item 1.



A

**Figure 2.** Enter dC330 code 11-334, bin 1 upper limit switch, S11-334. Actuate S11-334. **The display changes.**

Y N  
Go to **Flag 4**. Check S11-334.  
Refer to:

- **11F-120** 1K LCSS PWB Damage RAP.
  - **GP 13** How to Check a Switch.
  - **P/J5, 1K LCSS PWB**
  - **11C-120** 1K LCSS Power Distribution RAP.
- Repair or install new components as necessary:
- Bin 1 upper limit switch, **PL 11.106 Item 3**.
  - 1K LCSS PWB, **PL 11.124 Item 1**.

Enter dC330 code 11-335, bin 1 lower limit switch, S11-335, actuate S11-335. **The display changes.**

Y N  
Go to **Flag 5**. Check S11-335.  
Refer to:

- **11F-120** 1K LCSS PWB Damage RAP.
  - **GP 13** How to Check a Switch.
  - **P/J4, 1K LCSS PWB**.
  - **11C-120** 1K LCSS Power Distribution RAP.
  - **REP 11.13-110** 1K LCSS Un-docking.
- Repair or install new components as necessary:
- Bin 1 lower limit switch, **PL 11.106 Item 11**.
  - 1K LCSS PWB, **PL 11.124 Item 1**.

Enter dC330 code 11-331, bin 1 90% full sensor, Q11-331. Actuate Q11-331. **The display changes.**

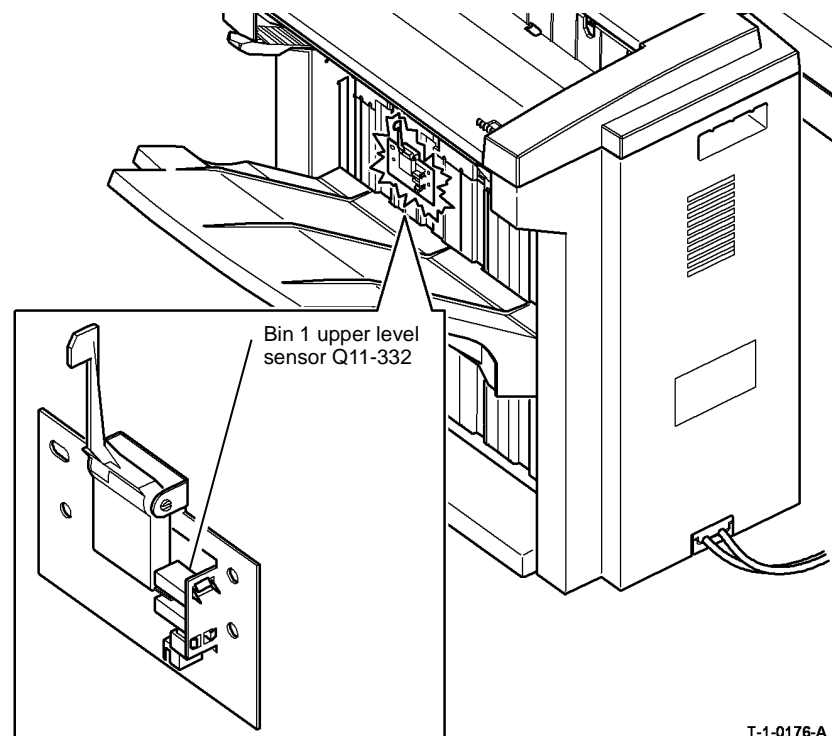
Y N  
Go to **Flag 6**. Check Q11-331.  
Refer to:

- **11F-120** 1K LCSS PWB Damage RAP.
  - **GP 11** How to Check a Sensor.
  - **P/J2, 1K LCSS PWB**.
  - **11C-120** 1K LCSS Power Distribution RAP.
- Repair or install new components as necessary:
- Bin 1 90% full sensor Q11-331, **PL 11.106 Item 5**.
  - 1K LCSS PWB, **PL 11.124 Item 1**.

As final actions, check the following sequence of operation:

- When bin 1 is empty and at the top, bin 1 upper limit switch, S11-334 is actuated and the bin 1 upper level sensor, Q11-332 is de-actuated.
- Paper is delivered to the tray until the bin 1 upper level sensor, Q11-332 is actuated.
- The motor lowers the tray until the bin 1 upper level sensor, Q11-332 is de-actuated.

- When the tray is emptied, the tray returns to the home position. In the home position the bin one upper limit switch, S11-334 is actuated.



T-1-0176-A

**Figure 1 Component location**

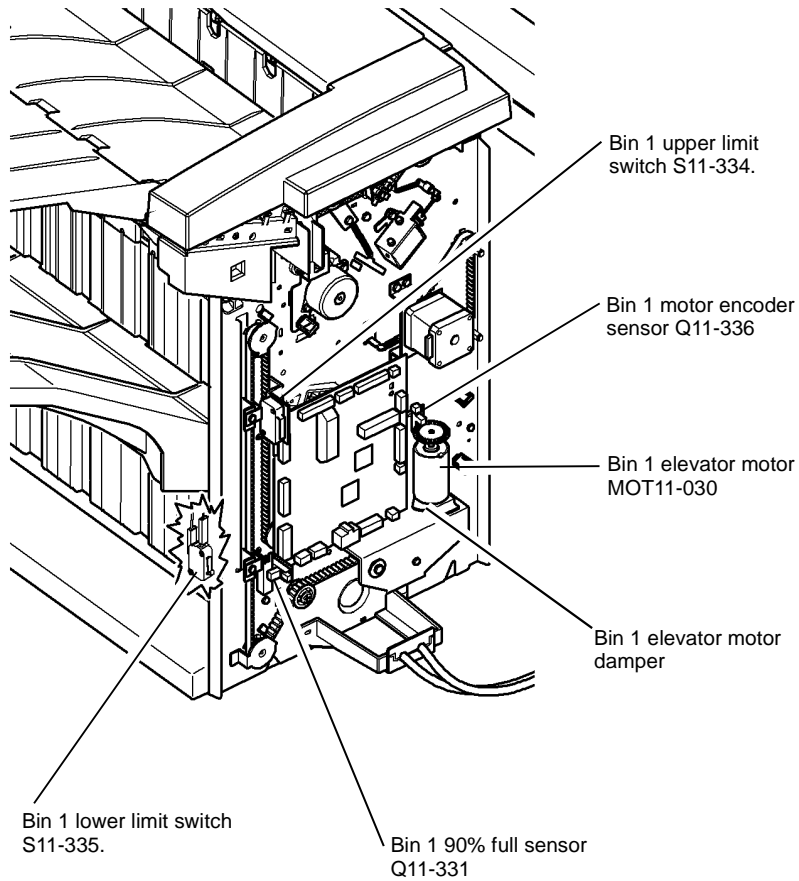
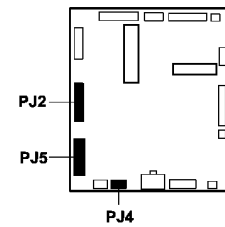
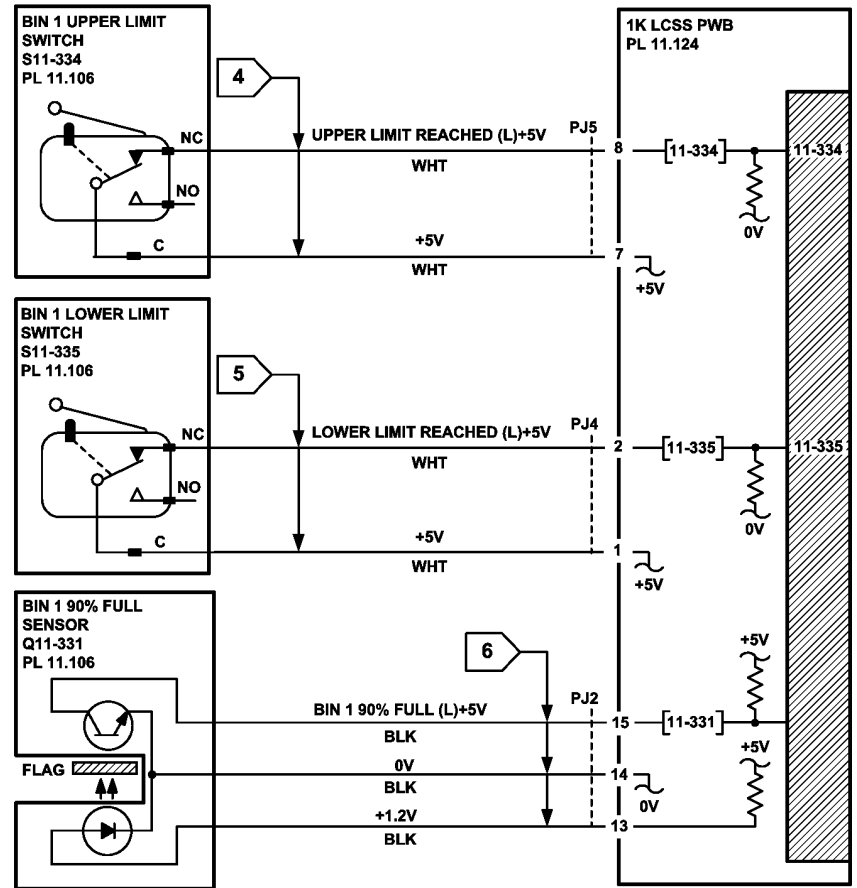


Figure 2 Component location

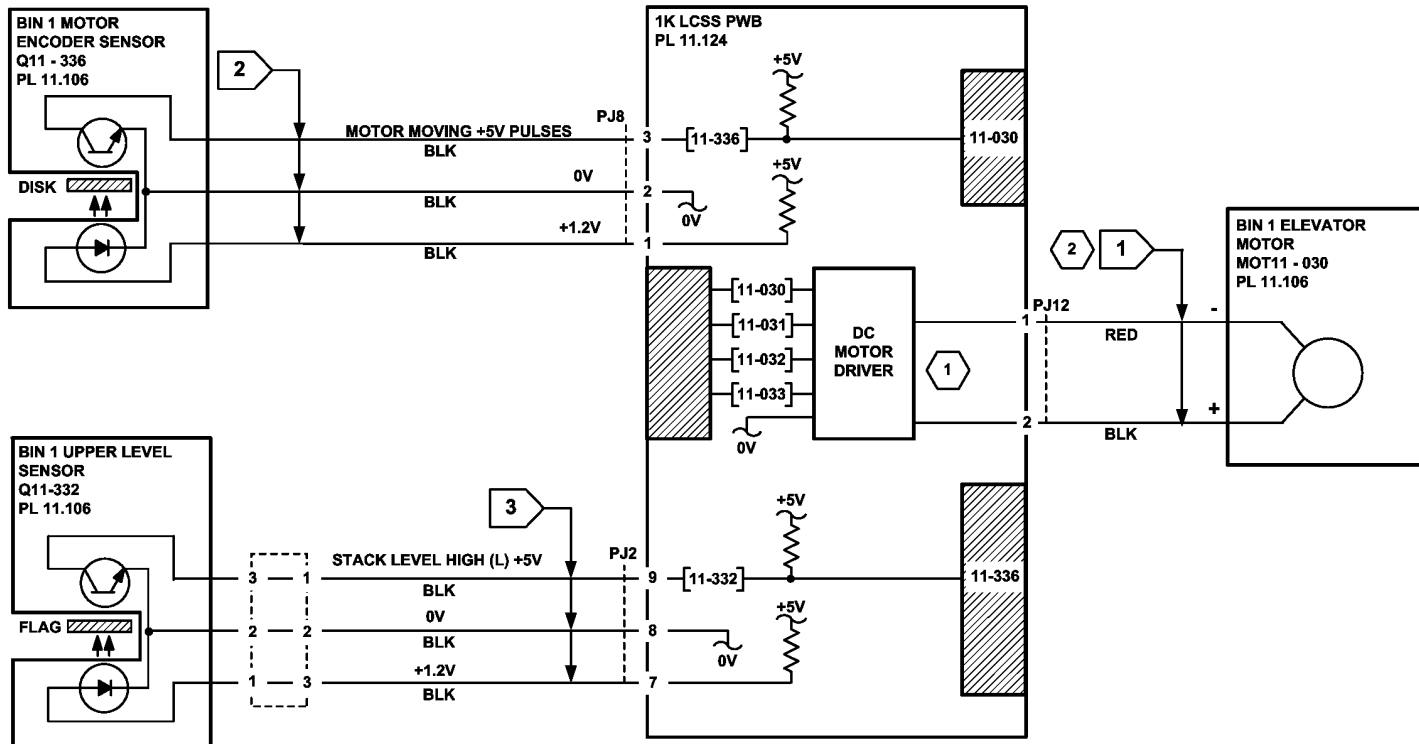
T-1-0177-A



1K LCSS PWB

TT-1-0184-A

Figure 3 Circuit diagram



- 1 11-030 ELEVATES BIN 1 TO HOME POSITION
- 11-031 ELEVATES BIN 1 INCREMENTALLY UP
- 11-032 ELEVATES BIN 1 INCREMENTALLY DOWN
- 11-033 CYCLES BIN 1 UP AND DOWN UNTIL TIMEOUT

2

PJ 12 PIN	VOLTAGE		
	UP	DOWN	STOP
1	+20 TO +24V	0 TO +5V	0 TO +24V
2	0 TO +5V	+20 TO +24V	0 TO +24V

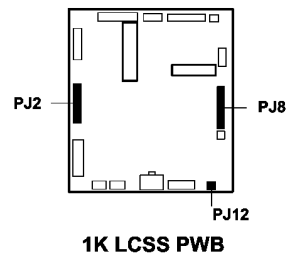


Figure 4 Circuit diagram

TT-1-0185-A

## 11-050-120, 11-360-120 Staple Head Operation Failure RAP

11-050-120 The staple head fails to cycle.

11-360-120 The staple head is not at the home position.

**NOTE:** The home position is with the jaws of the stapler head fully open.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Do not run code 11-050 without two sheets of paper in the stapler jaws. Running this code without the paper in position can cause damage to the machine.

- Switch off the machine, then switch on the machine, GP 14.
- Figure 1. Check the following:
  - The 1K LCSS PWB DIP switch settings, refer to 11E-120 1K LCSS PWB DIP Switch Settings RAP.
  - The staple head unit is correctly installed.

### Procedure

**NOTE:** After repairing the fault using this RAP, switch off the machine, then switch on the machine, GP 14, to enable operation of the staple head.

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Place two sheets of paper in the stapler jaws. Enter dC330, code 11-050, staple head motor 1, to cycle the staple head once. **The staple head operates as expected.**

Y N

Go to Flag 1 and Flag 2. Check the wiring and connectors between the 1K LCSS PWB and the staple head. **The wiring is good.**

Y N

Repair the wiring.

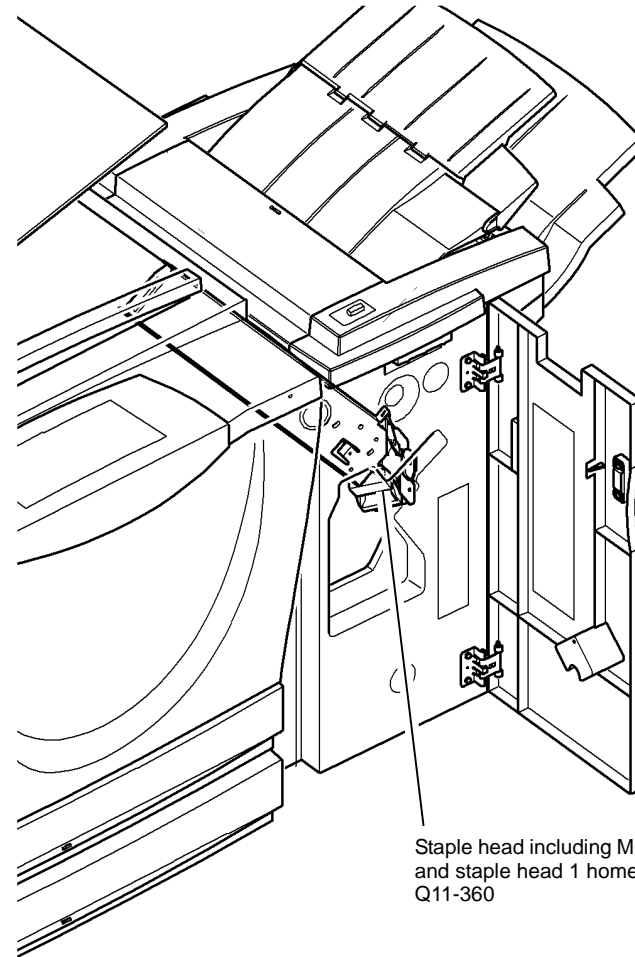
Perform the following procedures:

- 11C-120 1K LCSS Power Distribution RAP.
- 11F-120 1K LCSS PWB Damage RAP.

Install new components as necessary:

- Staple head unit, PL 11.116 Item 5.
- 1K LCSS PWB, PL 11.124 Item 1.

Perform SCP 6 Final Actions.



Staple head including MOT11-050 and staple head 1 home sensor Q11-360

T-1-0178-A

Figure 1 Component location

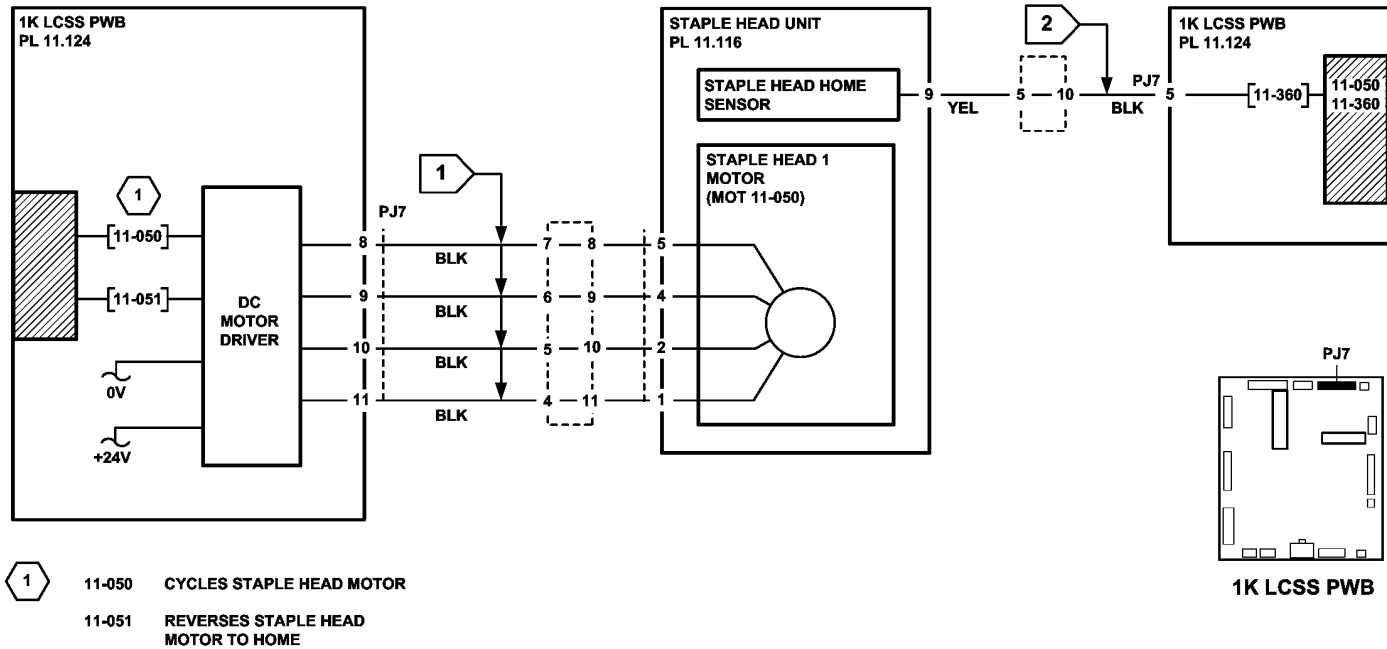


Figure 2 Circuit diagram

TT-1-0186-A

## 11-100-120 1K LCSS Paper Entry RAP

11-100-110 The leading edge of the sheet is late to the entry sensor Q11-100.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the 11G-120 Copy Damage in the 1K LCSS RAP.

Check the following:

- 1K LCSS PWB DIP switch settings, refer to 11E-120 1K LCSS PWB DIP Switch Settings RAP.
- Ensure the paper tray guides are set to the correct position for the size of paper in the tray.
- Check the input guide for damage or wear that could cause paper to jam.
- Paper jam in the machine to 1K LCSS paper path.
- IOT exit path and feed rolls.
- Feeding performance from a paper tray loaded with a new ream of paper.

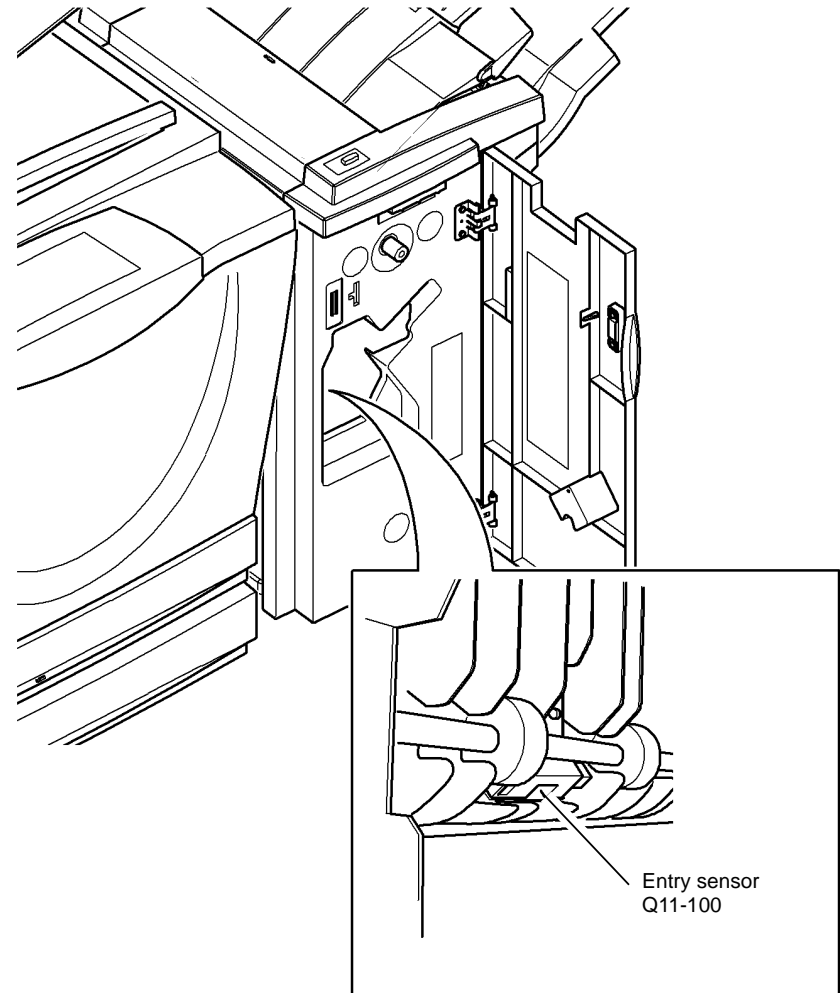
### Procedure

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Figure 1. Lower the paper entry guide assembly, PL 11.110 Item 8, to access the entry sensor. Enter dC330, code 11-100, entry sensor, Q11-100. Actuate Q11-100. The display changes.

- Y N
- Go to Flag 1. Check Q11-100.  
Refer to:
- 11F-120 1K LCSS PWB Damage RAP.
  - GP 11 How to Check a Sensor.
  - P/J8, 1K LCSS PWB
  - 11C-120 1K LCSS Power Distribution RAP.
- Repair or install new components as necessary:
- Entry sensor, PL 11.122 Item 3.
  - 1K LCSS PWB, PL 11.124 Item 1.

Perform SCP 6 Final Actions.



T-1-0179-A

Figure 1 Component location

## 11-130-120, 11-132-120 Paper Exiting to Bin 0 RAP

11-130-120 The leading edge of the sheet is late to the top exit sensor.

11-132-120 The trailing edge of the sheet is late from the top exit sensor.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the following:

- 1K LCSS PWB DIP switch settings, refer to [11E-120](#) 1K LCSS PWB DIP Switch Settings RAP.
- Ensure the paper tray guides are set to the correct position for the size of paper in the tray.
- The tensioner on the intermediate paper drive belt. Check that the tensioner is free to move and that the tensioner pulley is free to rotate. If necessary lubricate the tensioner and tensioner pulley. Refer to [GP 18](#) Machine Lubrication.
- That the drive pulleys on both transport motor 1 and 2 are secure and do not slip on the motor shaft.
- All the transport drive belts are correctly fitted, are in a good condition and correctly tensioned, refer to [ADJ 11.2-120](#).
- All the transport rolls and idler pulleys are free to rotate.
- The diverter gate and linkage for free movement.
- A paper jam in the path to bin 0.
- Paper fragments from a previous jam clearance action.
- A paper jam in the path to the top tray. If the jams occur shortly after install. Check the gap between the entry guide cover, [PL 11.122 Item 5](#) and the paper guide [PL 11.118 Item 10](#). If the gap is less than 1mm, adjust or install a new entry guide cover. Refer to the replacement procedure in [REP 11.13-120](#).

Refer to the [11G-120](#) Copy Damage in the 1K LCSS RAP and the [11H-120](#) Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.

**NOTE:** Paper is diverted to bin 0 when the diverter gate solenoid is energized. Paper is fed to bin 1 when the diverter gate solenoid is de-energized.

### Procedure

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter [dC330](#), code 11-001 transport motor 2, MOT11-001, [Figure 1](#). MOT11-001 runs.

Y N  
Go to [Flag 3](#). Check MOT11-001.

A

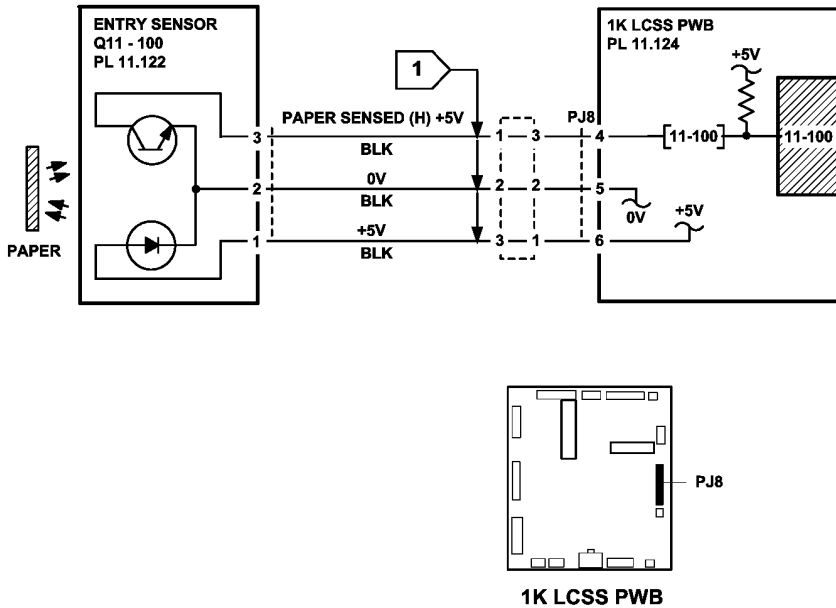


Figure 2 Circuit diagram

TT-1-0187-A

A

Refer to:

- 11F-120 1K LCSS PWB Damage RAP.
- GP 10, How to Check a Motor.
- P/J16, 1K LCSS PWB.
- 11C-120 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Transport motor 2, PL 11.120 Item 13.
- 1K LCSS PWB, PL 11.124 Item 1.

**NOTE:** The diverter gate solenoid remains energized for 5 seconds.

Enter dC330, code 11-002 diverter gate solenoid, SOL11-002. SOL11-002 energizes.

Y N

Go to Flag 2. Check SOL11-002.

Refer to:

- 11F-120 1K LCSS PWB Damage RAP.
- GP 12, How to Check a Solenoid.
- P/J13, 1K LCSS PWB
- 11C-120 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Diverter gate solenoid, PL 11.118 Item 12.
- 1K LCSS PWB, PL 11.124 Item 1.

Enter dC330, code 11-130, top exit sensor, Q11-130. Actuate Q11-130. The changes.

Y N

Go to Flag 1. Check Q11-130.

Refer to:

- 11F-120 1K LCSS PWB Damage RAP.
- GP 11, How to Check a Sensor.
- P/J2, 1K LCSS PWB
- 11C-120 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Top exit sensor, PL 11.118 Item 11.
- 1K LCSS PWB, PL 11.124 Item 1.

Enter dC330, code 11-000, transport motor 1, MOT11-000. MOT11-000 runs.

Y N

Go to Flag 4. Check MOT11-000.

Refer to:

- 11F-120 1K LCSS PWB Damage RAP.
- GP 10, How to Check a Motor.
- P/J17, 1K LCSS PWB.
- 11C-120 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

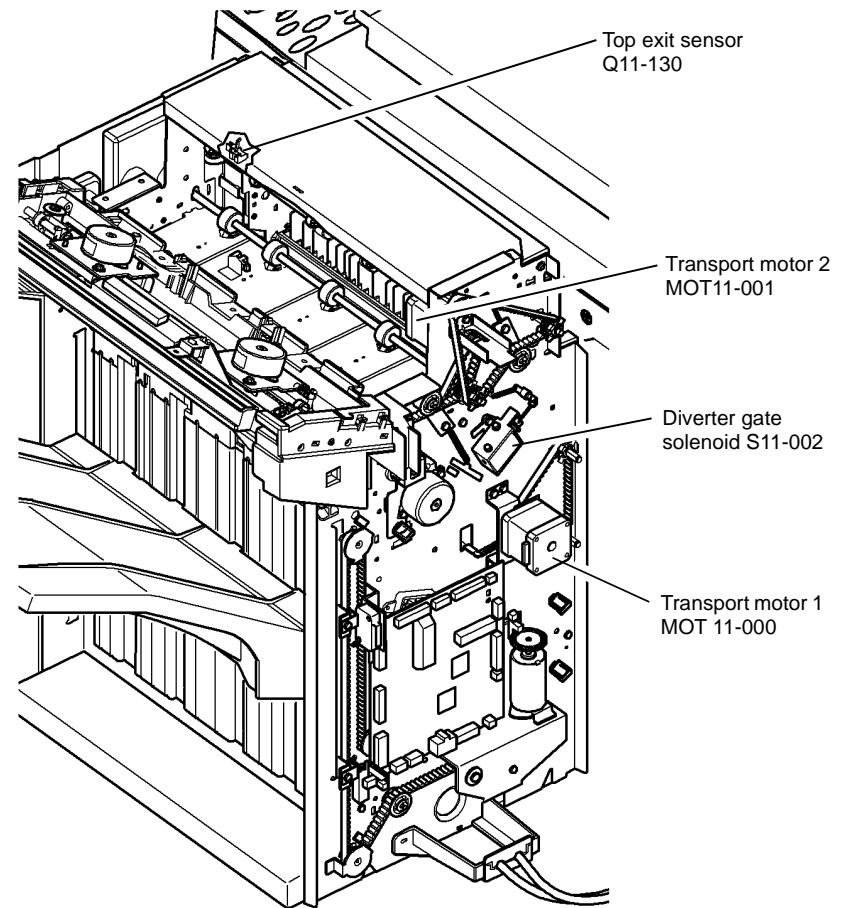
- Transport motor 1, PL 11.110 Item 2.

B

- 1K LCSS PWB, PL 11.124 Item 1.

Perform SCP 6 Final Actions.

display



T-1-0180-A

Figure 1 Component location

B

Status Indicator RAPs

11-130-120, 11-132-120

November 2014

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Xerox® WorkCentre® 5790 Family



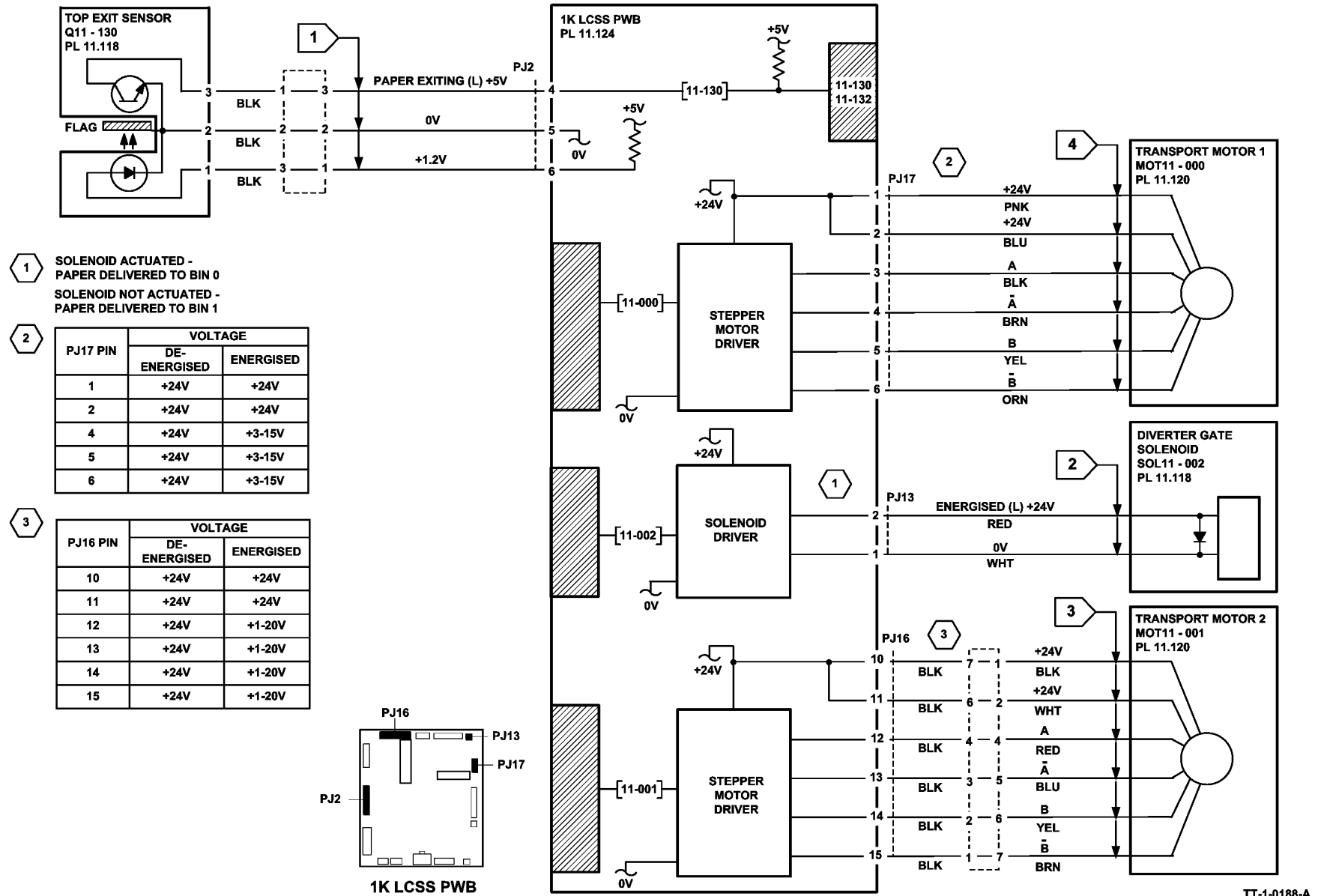


Figure 2 Circuit diagram

## 11-140-120, 11-142-120 Sheet Late to Bin 1 RAP

**11-140-120** The leading edge of the sheet is late to the 2nd to top exit sensor.

**11-142-120** The trailing edge of the sheet is late to the 2nd to top exit sensor.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

**NOTE:** Paper is diverted to bin 0 when the diverter gate solenoid is energized. Paper is fed to bin 1 when the diverter gate solenoid is de-energized.

Check the following:

- 1K LCSS PWB DIP switch settings, refer to [11E-120](#) 1K LCSS PWB DIP Switch Settings RAP.
- Ensure the paper tray guides are set to the correct position for the size of paper in all trays.  
For trays 3 and 4, perform the following:
  - Select the systems settings button from the tools screen.
  - Select the tray management button and stock settings.
  - From the list, select tray 3. Select the change stock size button.
  - Select the paper size loaded in the tray. Select the save button.
  - Repeat for tray 4.
  - Save the stock setting and exit the tools mode.
- The tensioner on the intermediate paper drive belt. Check that the tensioner is free to move and that the tensioner pulley is free to rotate. If necessary re-lubricate the tensioner and tensioner pulley. Refer to [ADJ 4.1](#).
- That the drive pulleys on both transport motor 1 and 2 are secure and do not slip on the motor shaft.
- All the transport drive belts are correctly fitted and are in a good condition
- All the transport rolls and idler pulleys are free to rotate.
- The diverter gate and linkage for free movement.
- If the paper has dog ear on the inboard corner, install [TAG 005](#) Rear gravity gate mylar kit.
- A paper jam in the path to bin 1, to the compiler, and for poor stacking on bin 1.
- Ensure that the 1K LCSS is fully latched to the machine, refer to [REP 11.11-120](#).
- Torn paper fragments from a previous jam clearance action.

Refer to the [11G-120](#) Copy Damage in the 1K LCSS RAP and the [11H-120](#) Mis-Registration in Stapled Sets and Non-Stapled Sets RAP.

### Procedure

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**Figure 1.** Enter [dC330](#), code 11-001 transport motor 2, MOT11-001. **MOT11-001 runs.**

**Y N**  
Go to [Flag 3](#). Check MOT11-001.  
Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 10](#), How to check a motor.
- [P/J16](#), [1K LCSS PWB](#).
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Transport motor 2, [PL 11.118](#) Item 5.
- 1K LCSS PWB, [PL 11.124](#) Item 1.

Enter [dC330](#), code 11-002 diverter solenoid, SOL11-002. **SOL11-002 energizes.**

**Y N**  
Go to [Flag 4](#). Check SOL11-002.  
Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 12](#), How to Check a Solenoid.
- [P/J13](#), [1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Diverter gate solenoid, [PL 11.22](#) Item 12.
- 1K LCSS PWB, [PL 11.26](#) Item 1.

Enter [dC330](#), code 11-140 2nd to top exit sensor, Q11-140. Actuate Q11-140. **The display changes.**

**Y N**  
Go to [Flag 1](#). Check Q11-140.  
Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 11](#), How to Check a sensor.
- [P/J2](#), [1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- 2nd to top exit sensor, [PL 11.120](#) Item 4.
- 1K LCSS PWB, [PL 11.124](#) Item 1.

Enter [dC330](#), code 11-000 transport motor 1, MOT11-000. **MOT11-000 runs.**

**Y N**  
Go to [Flag 2](#). Check MOT11-000.  
Refer to:

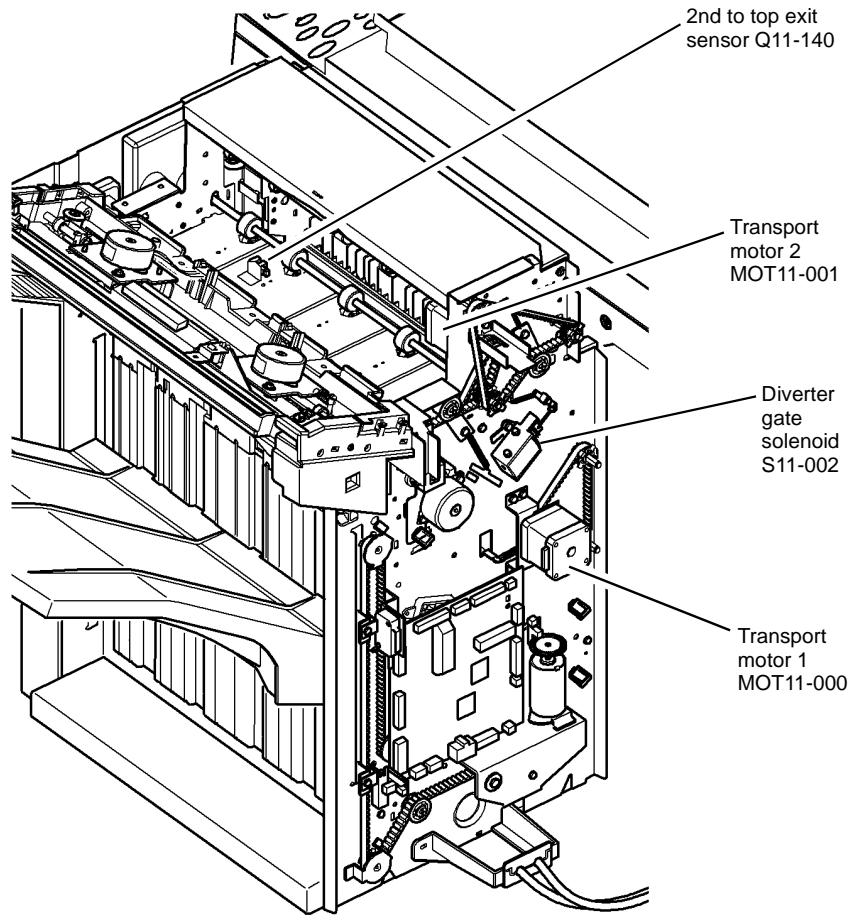
- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 10](#), How to Check a Motor.
- [P/J17](#), [1K LCSS PWB](#).
- [11C-120](#) 1K LCSS Power Distribution RAP.

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Repair or install new components as necessary:

- Transport motor 1, PL 11.110 Item 2.
- 1K LCSS PWB, PL 11.124 Item 1.

Perform SCP 6 Final Actions.



T-1-0181-A

Figure 1 Component location

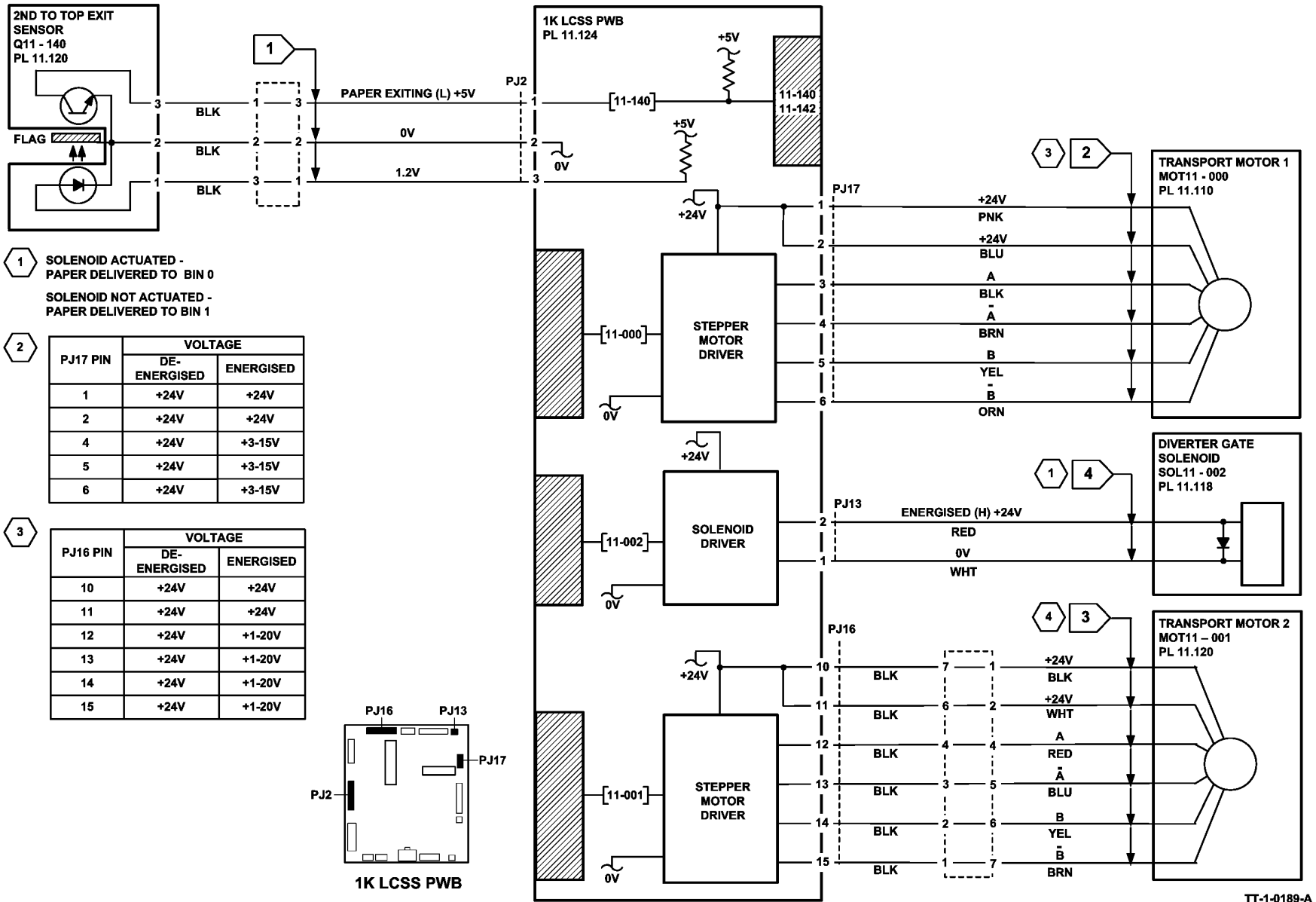


Figure 2 Circuit diagram

## 11-300-120, 11-302-120, 11-303-120 Interlocks RAP

11-300-120 The docking interlock is open during run mode.

11-302-120 The top cover interlock is open during run mode.

11-303-120 The front door interlock is open during run mode.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the 1K LCSS PWB DIP switch settings, refer to 11E-120 1K LCSS PWB DIP Switch Settings RAP.

Check the following:

- The 1K LCSS is installed correctly, refer to REP 11.13-120.
- The 1K LCSS front door is closed.
- The 1K LCSS top cover is closed.

### Procedure

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Go to Flag 1. Check for +24V on P/J6 pin 1. If the voltage is not present, refer to 11C-120 1K LCSS Power Distribution RAP.

Go to the appropriate RAP:

- 11-300-120 Docking Interlock RAP
- 11-302-120 Top Cover Interlock RAP
- 11-303-120 Front Door Interlock RAP

### 11-300-120 Docking Interlock RAP

Undock the 1K LCSS, refer to REP 11.11-120. Figure 1, check the docking interlock switch, S11-300 as follows:

- While supporting the 1K LCSS, slide the 1K LCSS 5cm (2 inches) away from the machine. Check the interlock actuator on the machine is not damaged or missing.

**NOTE:** The wiring harness passes underneath the docking interlock switch housing. If this harness is not correctly positioned, the switch can be mis-located, giving intermittent docking interlock problems.

- Enter dC330, code 11-300, docking interlock switch, S11-300. While supporting the 1K LCSS, slide the 1K LCSS 5cm (2 inches) away from the machine to de-actuate S11-300. If the display does not change, refer to:
  - GP 13, How to Check a Switch
  - P/J6, 1K LCSS PWB

- Go to Flag 1. Check the wiring between P/J6 and S11-300.
- If necessary, install a new docking interlock switch, PL 11.102 Item 2.

### 11-302-120 Top Cover Interlock RAP

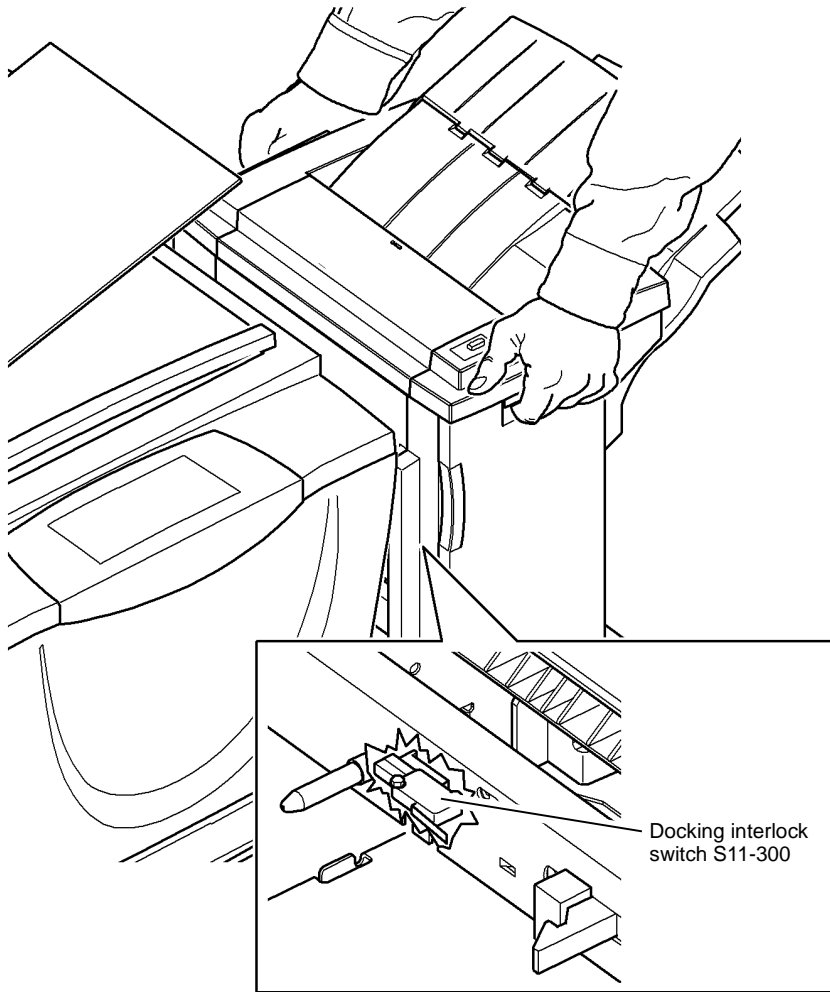
Check the top cover interlock switch, S11-302 as follows:

- Check the switch actuator.
- Enter dC330, code 11-302, top cover interlock switch, S11-302. Actuate S11-302. If the display does not change, refer to:
  - GP 13, How to Check a switch
  - Figure 2.
  - P/J5, 1K LCSS PWB
- Go to Flag 3. Check the wiring between P/J5 and S11-302.
- If necessary, install a new top cover interlock switch, PL 11.124 Item 6.

### 11-303-120 Front Door Interlock RAP

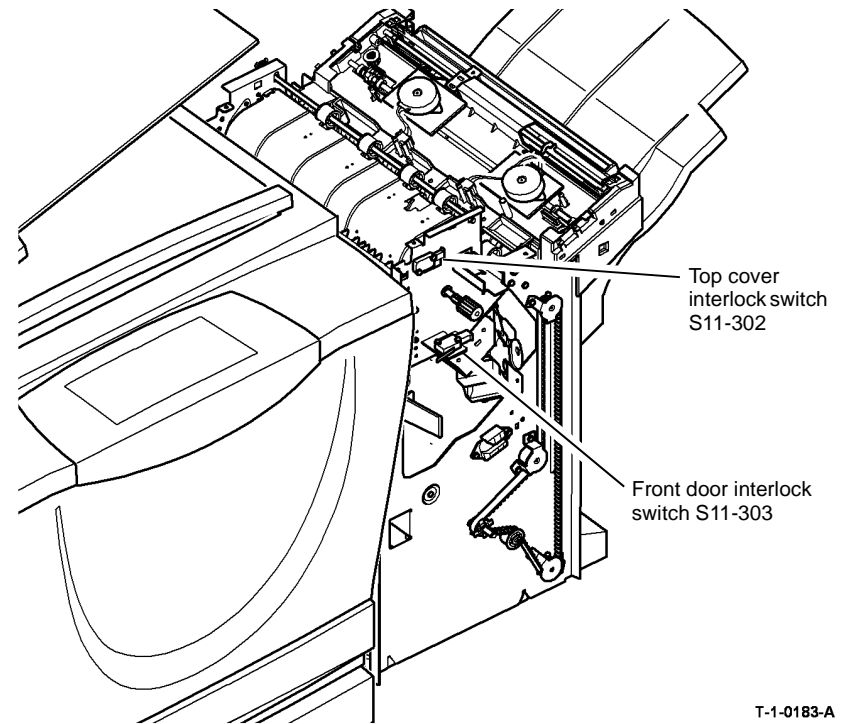
Check the front door interlock switch, S11-303 as follows:

- Check the switch actuator.
  - Enter dC330, code 11-303, front door interlock switch, S11-303. Actuate S11-303. If the display does not change, refer to:
    - GP 13, How to Check a switch
    - Figure 2.
    - P/J5 1K LCSS PWB
  - Go to Flag 2. Check the wiring between P/J5 and S11-303.
  - If necessary, install a new front door interlock switch, PL 11.124 Item 5.
- Perform SCP 6 Final Actions.



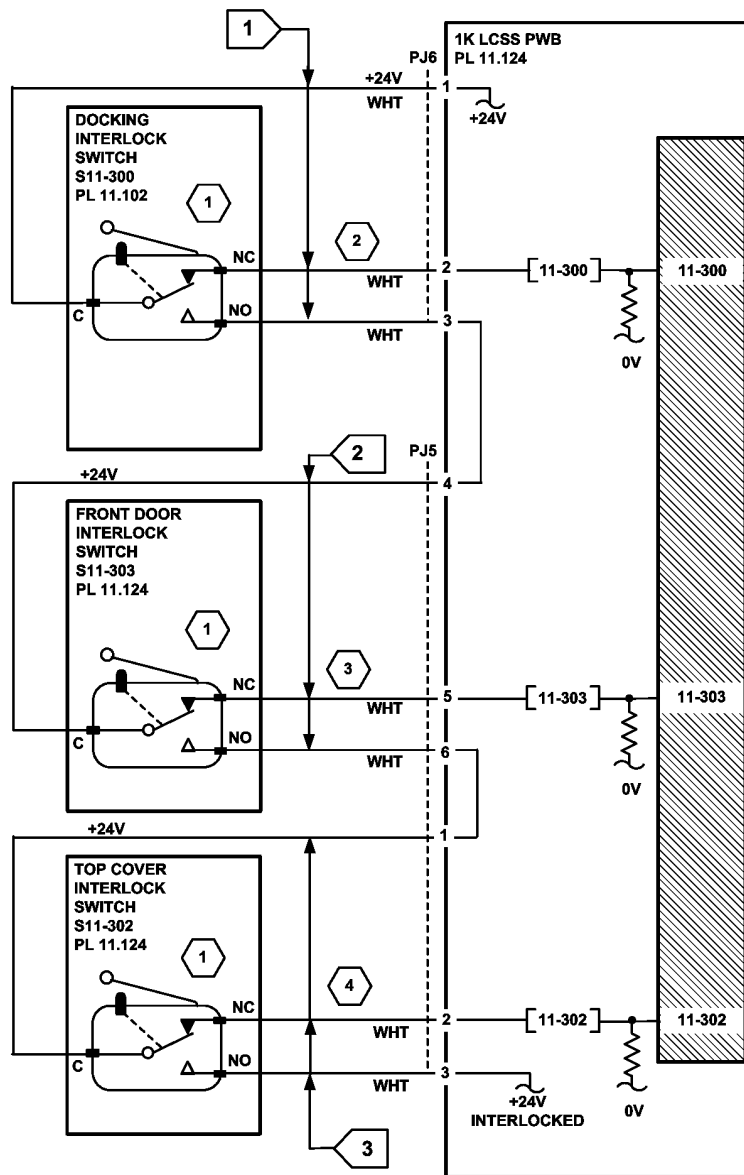
T-1-0182-A

Figure 1 Component location



T-1-0183-A

Figure 2 Component location



- 1 SWITCH IS SHOWN DEACTUATED IE. WITH THE 1K LCSS UN-DOCKED, THE FRONT DOOR OPEN OR THE TOP COVER OPEN.
- 2 DOCKING INTERLOCK OPEN (H) +24V
- 3 FRONT DOOR OPEN (H) +24V
- 4 TOP COVER OPEN (H) +24V

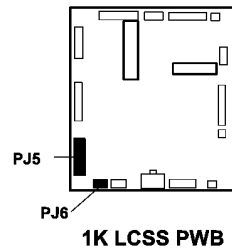


Figure 3 Circuit diagram

TT-1-0190-A

## 11-320-120, 11-322-120 Ejector Movement Failure RAP

**11-320-120** The ejector is not at the home position.

**11-322-120** The ejector fails to perform a cycle of operation.

**NOTE:** A cycle of operation for the ejector is to move from the home position to the out position and back to the home position.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check the 1K LCSS PWB DIP switch settings, refer to [11E-120](#) 1K LCSS PWB DIP Switch Settings RAP.
- Check for any obstructions that would prevent the ejector from moving.
- If the fault code is 11-322. Check that the screws to secure the motor damper and the motor bracket are not loose. This will cause the encoder disc to move away from the encoder sensor. Push the motor bracket towards the encoder sensor and tighten the screws. Refer to [Figure 1](#) and [REP 11.8-120](#).

### Procedure

**NOTE:** All 1K LCSS interlocks must be made to supply +24V to the motors.

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

**NOTE:** For clarity, the 1K LCSS is shown removed from the machine in [Figure 1](#).

Refer to [Figure 1](#). Enter [dC330](#), code 11-322, ejector out sensor, Q11-322. Actuate Q11-322.

**The display changes.**

**Y N**  
Go to [Flag 2](#). Check Q11-322.

Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [P/J8, 1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Ejector out sensor, Q11-322, [PL 11.114 Item 3](#).
- 1K LCSS PWB, [PL 11.124 Item 1](#).

Enter [dC330](#), code 11-320, ejector home sensor, Q11-320. Actuate Q11-320. **The display changes.**

**Y N**  
Go to [Flag 1](#). Check Q11-320.

Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 11](#) How to Check a Sensor.
- [P/J8, 1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- Ejector home sensor, Q11-320, [PL 11.114 Item 3](#).
- 1K LCSS PWB, [PL 11.124 Item 1](#).

Enter [dC330](#), code 11-023 to check the operation of the ejector motor, MOT11-020. **MOT11-020 runs.**

**Y N**  
Go to [Flag 3](#). Check MOT11-020.

Refer to:

- [11F-120](#) 1K LCSS PWB Damage RAP.
- [GP 10](#), How to Check a Motor.
- [P/J15, 1K LCSS PWB](#)
- [11C-120](#) 1K LCSS Power Distribution RAP.

Repair or Install new components as necessary:

- Ejector assembly, [PL 11.114 Item 1](#).
- 1K LCSS PWB, [PL 11.124 Item 1](#).

Enter [dC330](#), code 11-023 ejector cycle, check the ejector cycles. Stack the code 11-320 ejector sensor home, then cycle the ejector. Stack the code 11-322 ejector sensor out, then cycle the ejector. **The ejector actuates the ejector home sensor and the ejector out sensor.**

**Y N**  
Refer to [GP 7](#), check the following components;

- Pulley/drive gear.
- Ejector belt.

Install new components as necessary:

- Pulley/drive gear, [PL 11.114 Item 7](#).
- Ejector belt, [PL 11.114 Item 5](#).

**The ejector cycles noisily, colliding with the end stops.**

**Y N**  
Check the stapler to ensure the staples are correctly formed, refer to the [11-364-120](#) Stapling Failure RAP. Mis-formed staples can cause the set to hang in the stapler causing ejector movement failures. **The staples are correctly formed.**

**Y N**  
Clear the staple head of any mis-formed staples, then check the operation of the stapler. If necessary, install a new staple head unit, [PL 11.116 Item 5](#).

If the ejector is still not moving, install a new ejector assembly, [PL 11.114 Item 1](#). Perform [SCP 6](#) Final Actions.

Go to [Flag 4](#). **+5V is available at P/J8 between pins 7 and 8.**

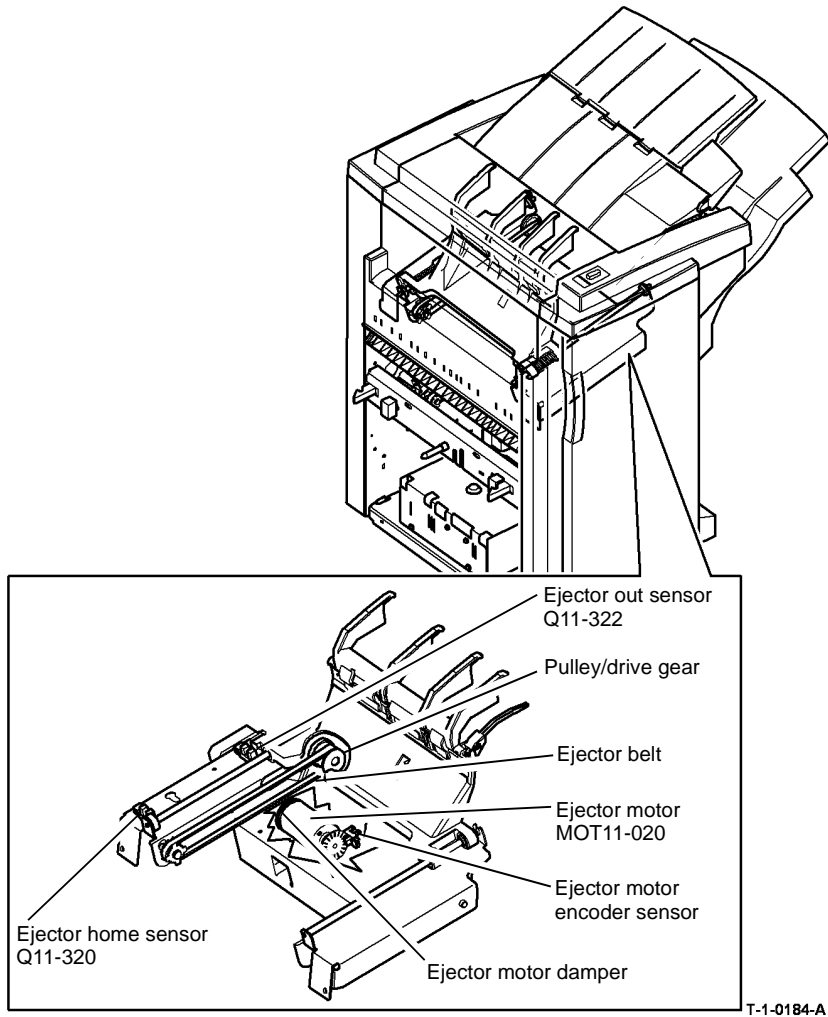
**Y N**  
Go to the [11C-120](#) 1K LCSS Power Distribution RAP.



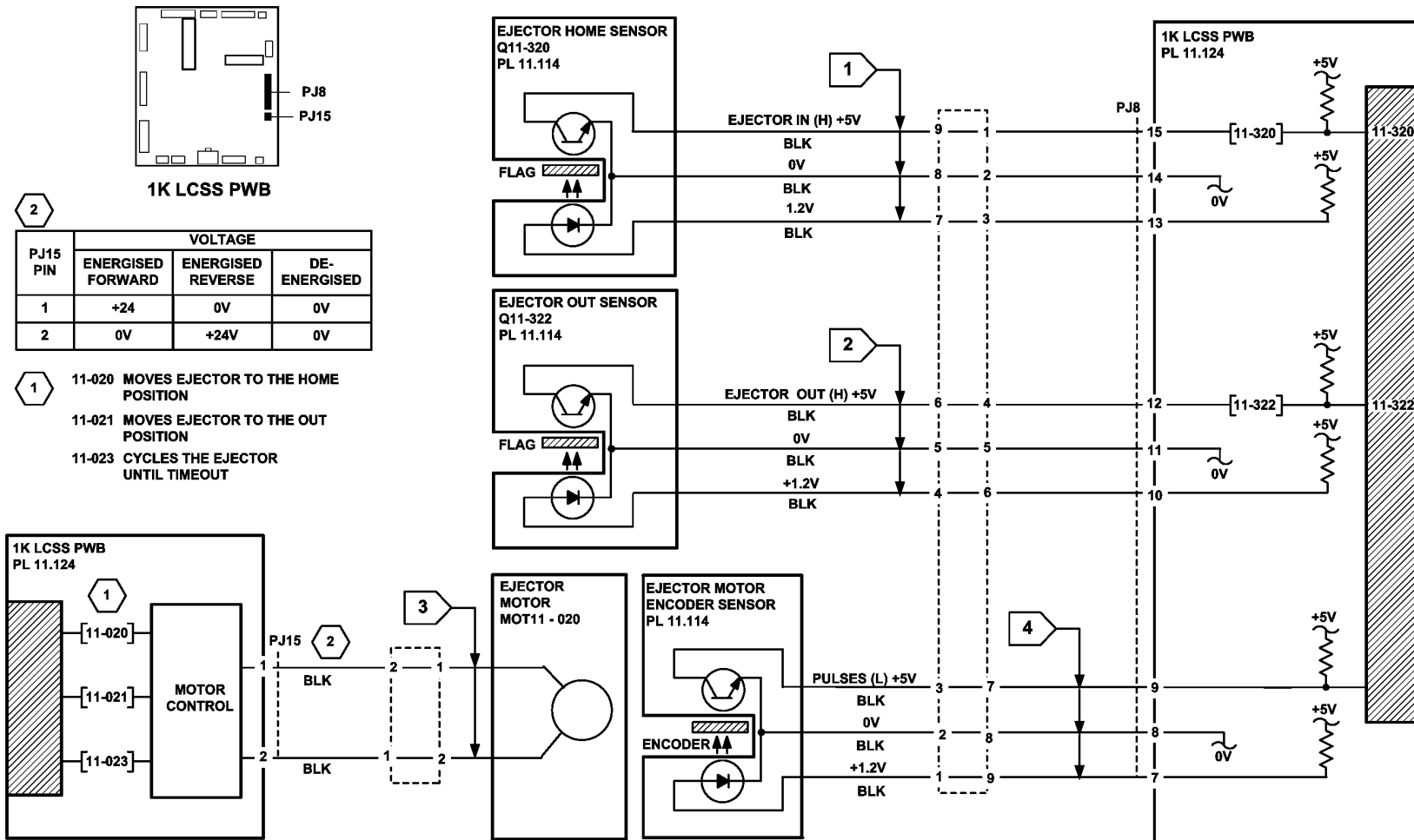
**B**  
Connect a service meter at **P/J8** between pins 8 and 9. Slowly rotate the ejector motor encoder. **The voltage changes between +5V and 0V.**

**Y N**  
Go to **Flag 4**. Check the wiring and connectors between the ejector motor encoder sensor and the 1K LCSS PWB. If necessary repair the wiring, **REP 1.2**. If the wiring is good, install a new ejector motor encoder sensor, **PL 11.114 Item 3**.

Perform the **11F-120** 1K LCSS PWB Damage RAP, if necessary install a new 1K LCSS PWB, **PL 11.124 Item 1**.



**Figure 1 Component location**



TT-1-0191-A

Figure 2 Circuit diagram

# 11-364-120 Stapling Failure RAP

11-364-120 Staples in the stapling head are not primed.

## Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Switch off the machine, then switch on the machine, GP 14.

Check the 1K LCSS PWB DIP switch settings, refer to 11E-120 1K LCSS PWB DIP Switch Settings RAP.

Check the following:

- The staple cartridge has staples in it and is correctly installed,
- The leading staples in the staple head have been primed, Figure 3.
- Check that the sheets of staples in the cartridge are feeding one at a time. If staple sheets overlap, they will jam in the cartridge. If necessary, install a new staple cartridge, PL 26.10 Item 11.

**NOTE:** The term “priming” refers to 2 staples at the front of the cartridge, that have been performed automatically by the action of the stapler, refer to Figure 2.

**NOTE:** The SH 1 low staples sensor, SH 1 cartridge sensor, SH 1 home sensor and the SH 1 priming sensor are all integral to the staple head unit and although they can be checked using component control they cannot be exchanged as components.

## Procedure

Figure 1. Enter dC330, code 11-361, SH 1 paper sensor, Q11-361. Actuate Q11-361. The display changes.

Y N

Go to Flag 1. Check Q11-361.

Refer to:

- 11F-120 1K LCSS PWB Damage RAP.
- GP 10, How to Check a Sensor.
- P/J7, 1K LCSS PWB
- 11C-120 1K LCSS Power Distribution RAP.

Repair or install new components as necessary:

- SH 1 paper sensor, PL 11.116 Item 4.
- 1K LCSS PWB, PL 11.124 Item 1.

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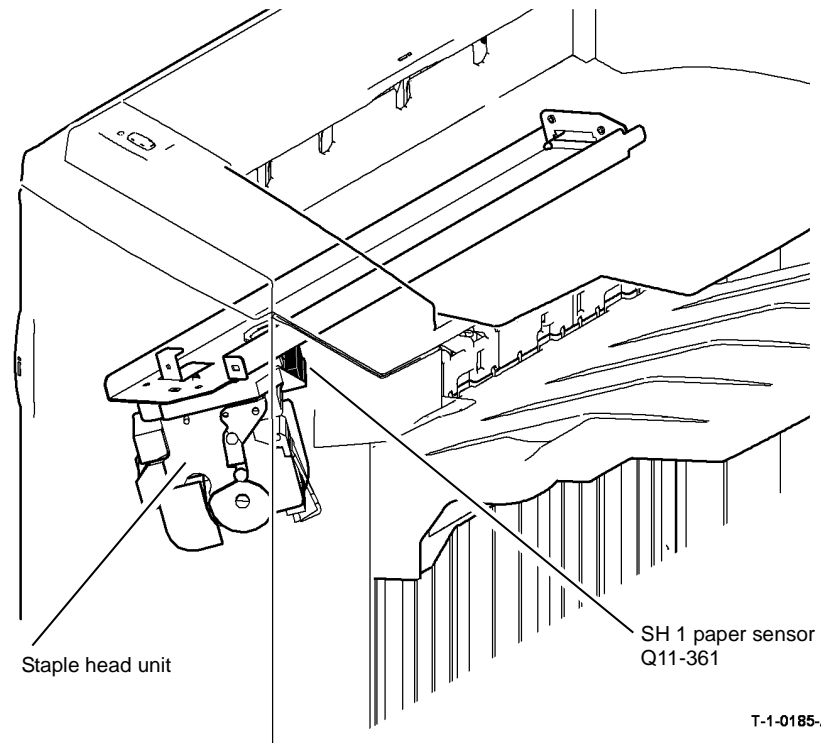
**NOTE:** If the SH1 priming sensor does not see staples in the primed position, the staple head cycles a number of times to prime the staple head. This occurs when the 1K LCSS interlocks are made.

Follow the customer instruction label inside the 1K LCSS front door to remove the staple cartridge, slide out the top sheet of staples from the cartridge, to expose a fresh sheet of staples on the top of the stack. Ensure the forming plate is fully closed, Figure 2. Install the staple cartridge and close the door. The stapler will now cycle a few times to feed and prime the new sheet of staples. Open the door and remove the staple cartridge. Examine the sheet of staples that have been fed to the staple forming part of the stapler, by opening the forming plate, Figure 3. **The first two staples have been partially formed.**

Y N

Install a new staple cartridge, PL 26.10 Item 11 and repeat the check. If the first two staples are not partially formed, install a new stapler assembly, PL 11.116 Item 1. Perform SCP 6 Final Actions

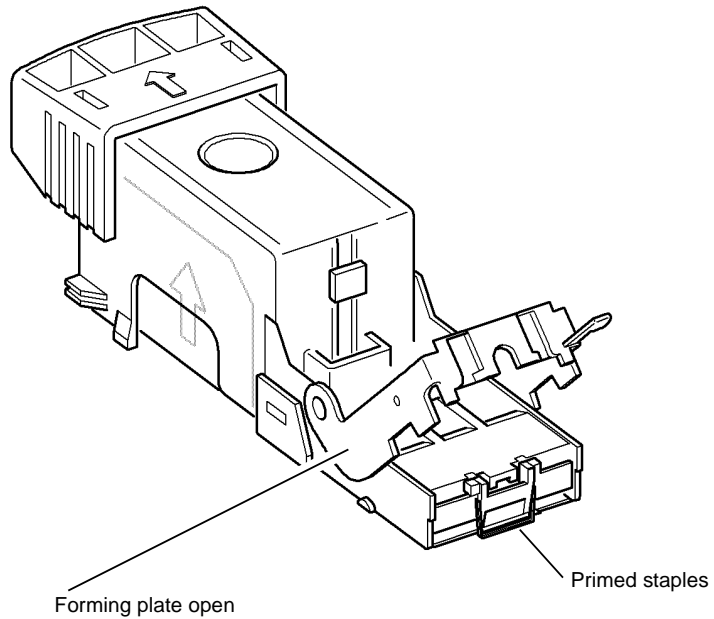
Install a new staple head unit, PL 11.116 Item 5. Perform SCP 6 Final Actions.



T-1-0185-A

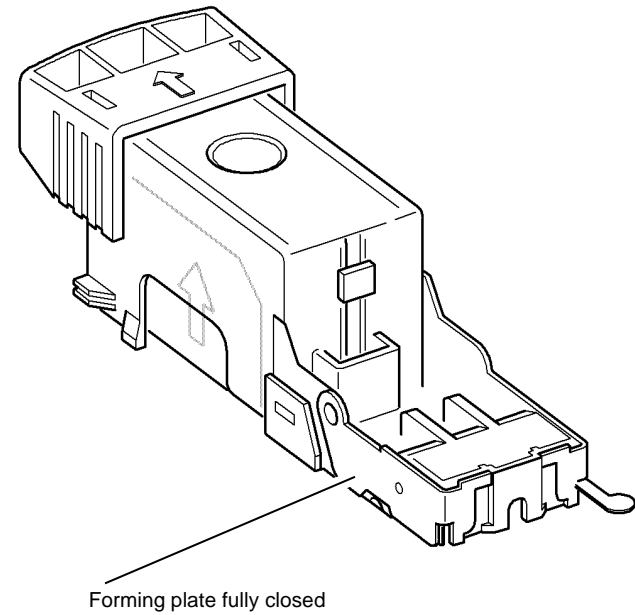
Figure 1 Component location

A



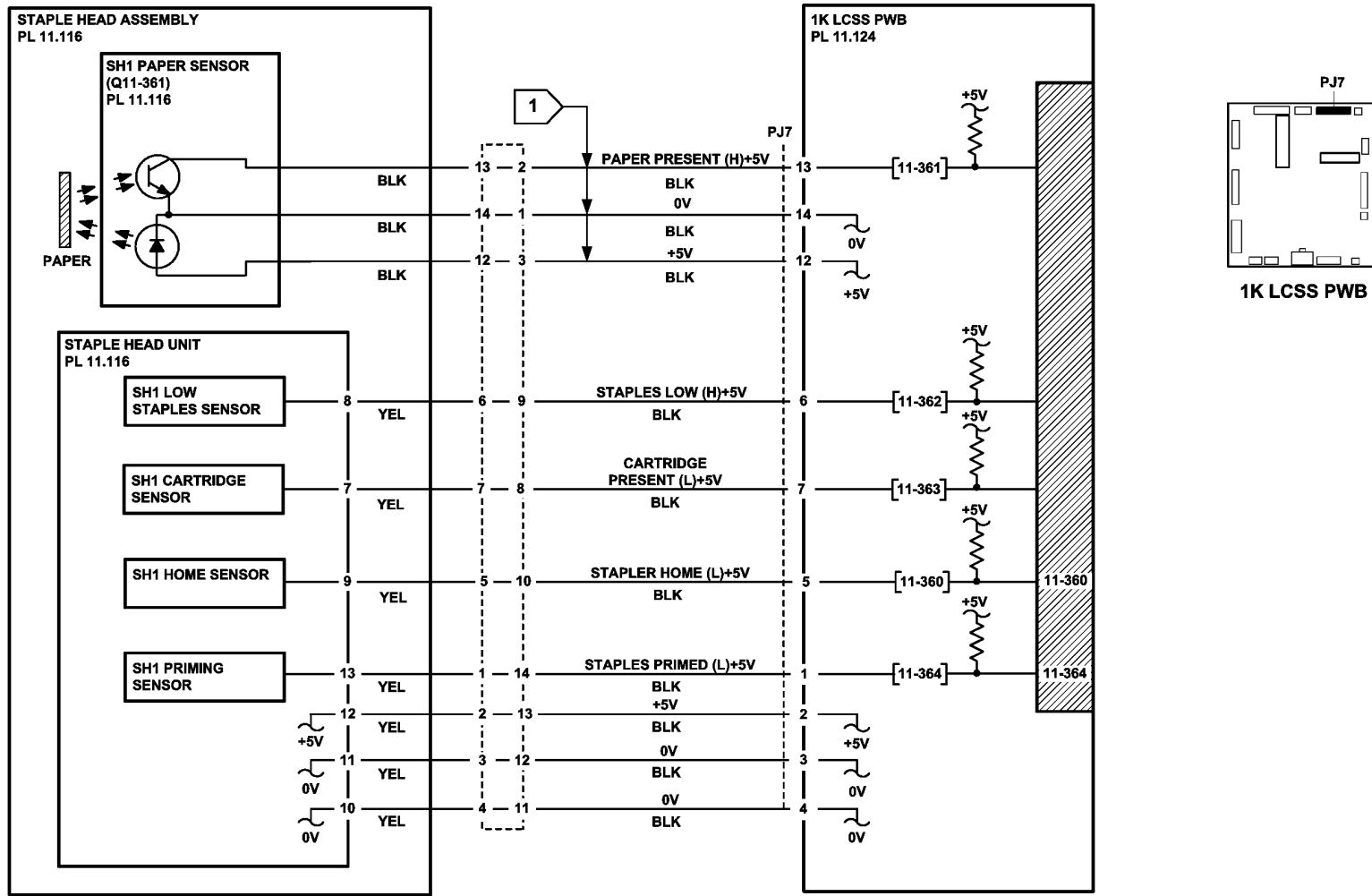
T-1-0186-A

**Figure 2 Staple cartridge open**



T-1-0187-A

**Figure 3 Staple cartridge closed**



TT-1-0192-A

Figure 4 Circuit diagram

# 11A-120 Bin 1 Overload RAP

Use this RAP to resolve a fault on the bin 1 90% full sensor.

## Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

**NOTE:** In diagnostics, actuating any 1K LCSS sensor or switch can change the displayed state on the UI. Make sure that the correct sensor or switch is tested.

Enter **dC330**, code 11-331, bin 1 90% full sensor, Q11-331. Actuate Q11-331. The display changes.

- Y N**
- Go to **Flag 1**. Check Q11-331.
  - Refer to:
    - **11F-120** 1K LCSS PWB Damage RAP.
    - **GP 11**, How to Check a sensor.
    - **Figure 1**.
    - **P/J2, 1K LCSS PWB**
    - **11C-120** 1K LCSS Power Generation RAP.
  - Repair or install new components as necessary:
    - Bin 1 90% full sensor, **PL 11.106** Item 5.
    - 1K LCSS PWB, **PL 11.124** Item 1.

Perform **SCP 6** Final Actions.

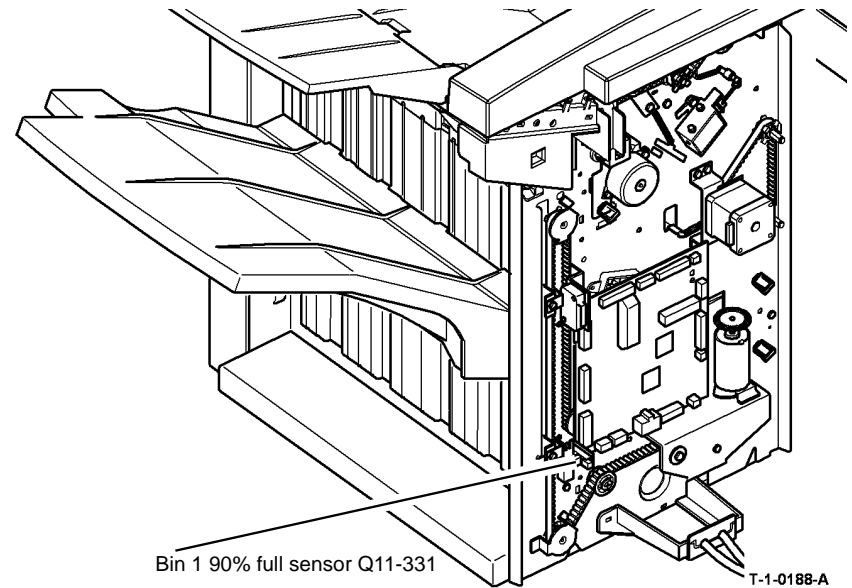


Figure 1 Component location

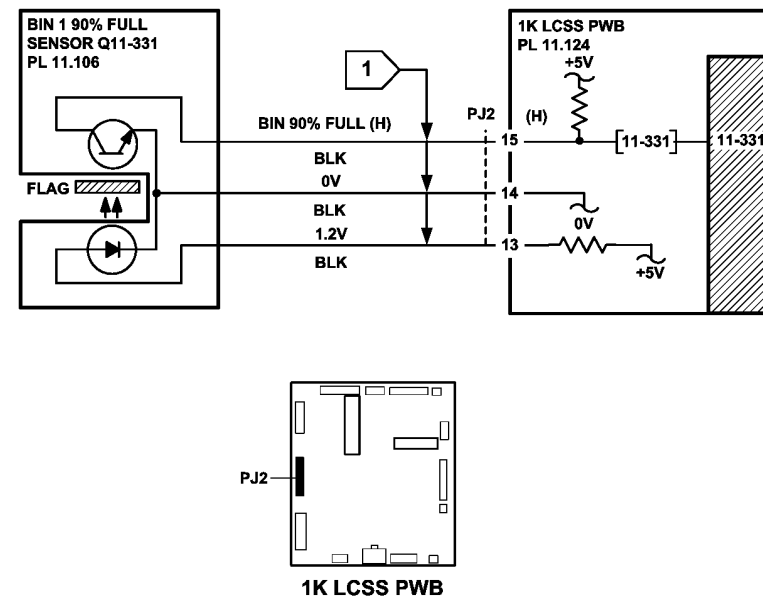


Figure 2 Circuit diagram

## 11B-120 Initialization Failure RAP

When an initialization command is received from the machine, the units are initialized in two stages:

- The following units are initialized sequentially:
  1. If the staple head is not at the home position, it is driven to the home position
  2. If the ejector is not at the home position, it is driven to the home position
- The following units are then initialized simultaneously:
  1. If the front tamper is not at the home position, it is driven to the home position
  2. If the rear tamper is not at the home position, it is driven to the home position
  3. If the paddle is not at the home position, it is driven to the home position
  4. If the stacker is not at the home position, it is driven to the home position

**NOTE:** The staple cartridge must be pushed fully home.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the 1K LCSS PWB DIP switch settings, refer to 11E-120 1K LCSS PWB DIP Switch Settings RAP.

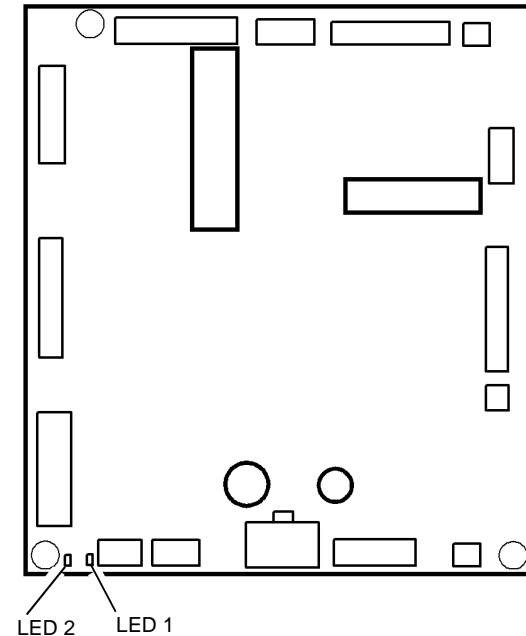
Remove the 1K LCSS covers, REP 11.1-120, so that the units can be viewed. Cheat the front door interlock switch and the top cover interlock switch. Check that LED 2 is illuminated, this shows that all interlocks are made. If the LED fails to illuminate, go to 11-300-120, 11-302-120, 11-303-120 Interlocks RAP.

### Procedure

**Figure 1.** Check that the software heartbeat is present on LED 1. The LED should flash twice per second if the 1K LCSS software is running. If necessary, re-load the 1K LCSS software, refer to GP 4 Machine Software.

If the initialization sequence fails to place any unit at the home position, refer to the appropriate RAPs:

- Front tamper not at home, refer to 11-005-120, 11-006-120, 11-310-120, 11-311-120 Front Tamper Move Failure RAP
- Rear tamper not at home, refer to 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 Rear Tamper Move Failure RAP.
- Paddle not at home, refer to 11-024-120, 11-025-120 Paddle Roll Failure RAP.
- Bin 1 not at home, refer to 11-030-120, 11-334-120, 11-335-120, 11-336-120 Bin 1 Movement Failures RAP.
- Staple head not at home, refer to 11-050-120, 11-360-120 Staple Head Operation Failure RAP.
- Ejector not at home, refer to 11-320-120, 11-322-120 Compiler Ejector Movement Failure RAP.



T-1-0189-A

Figure 1 LED location

## 11C-120 1K LCSS Power Distribution RAP

The 1K LCSS has an integral power supply providing +24V and +5V supplies to the 1K LCSS PWB. The AC power for the 1K LCSS power supply comes from the LVPS and base module of the machine.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.



#### CAUTION

Do not connect the finisher power cord directly to the AC wall outlet. The finisher cannot operate without the machine. The machine controls the distribution of electricity to the finisher for correct power on and power off sequencing.

Close or cheat all the 1K LCSS interlocks. LED 2 on the 1K LCSS PWB is illuminated.

**Y N**  
Go to Flag 2. +24V is available at P/J1 between pins 1 and 2, also between pins 5 and 3.

**Y N**  
Disconnect P/J1. +24V is available at P/J1 between pins 1 and 2, also between pins 5 and 3 on the end of the harness.

**Y N**  
Go to Flag 1. Disconnect the 1K LCSS power cord from PJ22 on the Power and Control Assembly. ACL is available at PJ22 between pins 1 and 3 on the LVPS and base module.

**Y N**  
Go to the 01C AC Power RAP.

Remove the 1K LCSS, REP 11.12-120. Loosen the 2 screws and lift the power supply module away from the 1K LCSS frame. Go to Flag 1. Check the wiring between PJ22 and CN1. The wiring is good.

**Y N**  
Repair the wiring.

Install a new power supply module, PL 11.124 Item 2.

Perform the steps that follow:

- Check for a short circuit or an overload in the wiring or components connected to the +24V on the 1K LCSS PWB. Refer to GP 7.
- Perform the 11F-120 1K LCSS PWB Damage RAP. If necessary install a new 1K LCSS PWB, PL 11.124 Item 1.

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+24 V is available at P/J5 pin 3 on the 1K LCSS PWB.

**Y N**  
Go to the 11-300-120, 11-302-120, 11-303-120 Interlocks RAP.

Perform the steps that follow:

- Switch off the machine, GP 14.
- Go to Flag 3. Disconnect all the +24V harnesses to components.
- Check each harness for short circuits and overheating, GP 7.
- Repair or install new components as necessary.
- Monitor the voltage at P/J6 pin 1. Re-connect the circuits one at a time. Energize the re-connected components using dC330 control codes.
- If the voltage drops below +22V, switch off the machine, GP 14. Re-check the component and harness for overheating or short circuits. Repair or install new components as necessary.

+5V is available between TP3 and TP4 on the 1K LCSS PWB.

**Y N**  
Go to Flag 2. +5V is available at P/J1 between pins 4 and 6, also between pins 7 and 8.

**Y N**  
Disconnect P/J1. +5V is available at P/J1 between pins 4 and 6, also between pins 7 and 8 on the end of the harness.

**Y N**  
Go to Flag 1. Disconnect the 1K LCSS power cord from PJ22. ACL is available at PJ22 between pins 1 and 3 on the LVPS and base module.

**Y N**  
Go to the 01C AC Power RAP.

Remove the 1K LCSS, REP 11.12-120. Loosen the 2 screws and lift the power supply module away from the 1K LCSS frame. Go to Flag 2. Check the wiring between CN2 and P/J1. The wiring is good.

**Y N**  
Repair the wiring.

Install a new power supply module, PL 11.124 Item 2.

Perform the steps that follow:

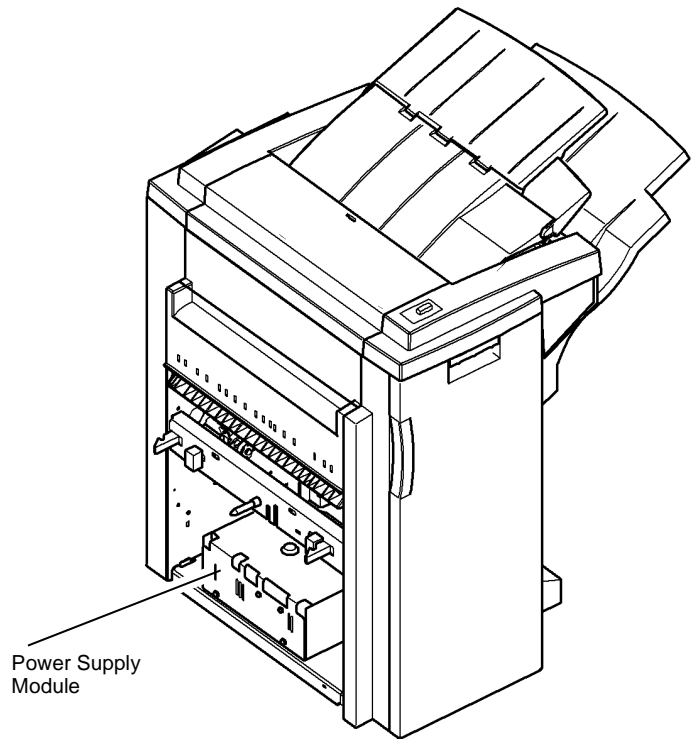
- Check for a short circuit or an overload in the wiring or components connected to the +24V on the 1K LCSS PWB. Refer to GP 7.
- Perform the 11F-120 1K LCSS PWB Damage RAP. If necessary install a new 1K LCSS PWB, PL 11.124 Item 1.

Perform the 11F-120 1K LCSS PWB Damage RAP. If necessary install a new 1K LCSS PWB, PL 11.124 Item 1.

The +24V and +5V supplies on the 1K LCSS PWB are good.

A B

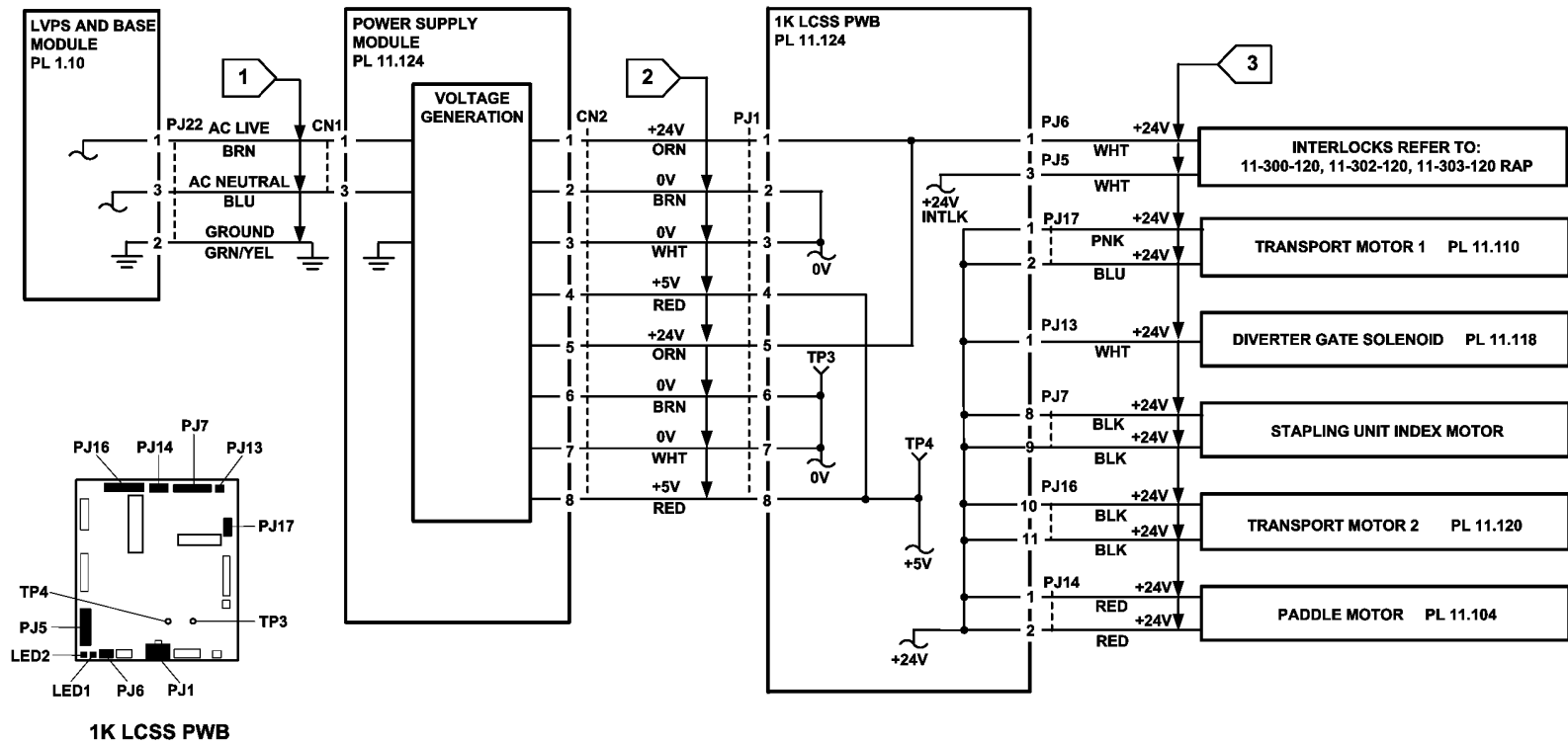




Power Supply  
Module

T-1-0190-A

**Figure 1 Component location**



TT-1-0194-A

Figure 2 Circuit diagram

## 11D-120 1K LCSS to Machine Communications Interface RAP

All communications between the machine and 1K LCSS are conducted through a single interface cable.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the 1K LCSS PWB DIP switch settings, refer to 11E-120 1K LCSS PWB DIP Switch Settings RAP.

Go to 03-360, 03-408 to 03-410, 03-418 IOT to Output Device Error Rap.

## 11E-120 1K LCSS PWB DIP Switch Settings RAP

To show the correct settings for the DIP switches on the 1K LCSS PWB.

### Procedure



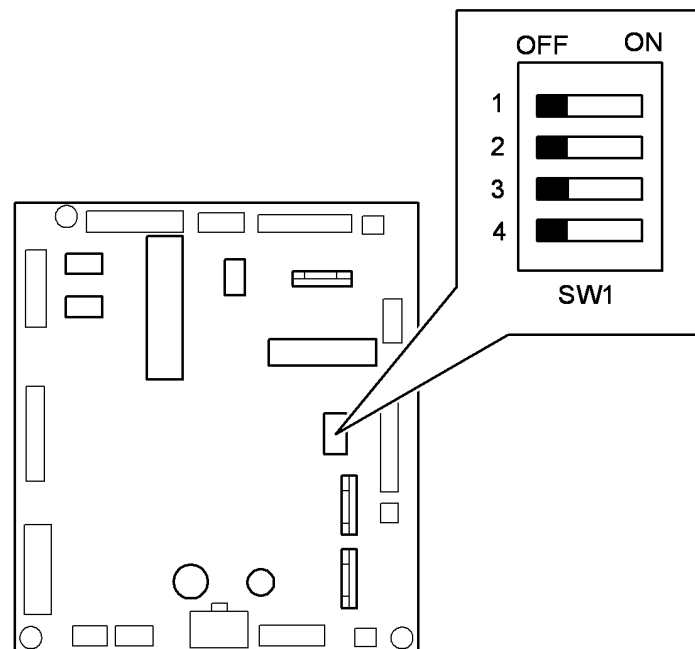
#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Problems that can result from incorrect DIP switch settings are:

- False jam clearance instructions for the 1K LCSS and/or the machine exit area.
- Communication errors between the 1K LCSS and machine.
- Erratic behavior of the 1K LCSS.

Check the DIP switch settings, Figure 1. If necessary, switch off the machine, GP 14. Correct the DIP switch setting, then switch on the machine, GP 14.



T-1-0191-A

Figure 1 DIP switch settings

# 11F-120 1K LCSS PWB Damage RAP

Use this RAP to determine the cause of damage to the 1K LCSS PWB, so that the cause can be repaired before a new 1K LCSS PWB is installed.

## Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

The 1K LCSS PWB can be damaged by a component connected to it going short-circuit. If a new 1K LCSS PWB is installed and power applied to the machine, the new 1K LCSS PWB will be damaged in the same way. The cause of the damage must be found by following this procedure.

Remove the 1K LCSS PWB and inspect the components shown in Figure 1 for damage. The damage to the component may be in the form of a crack, a small crater or a burnt patch. Refer to Table 1 to locate the component causing the damage to the 1K LCSS PWB.

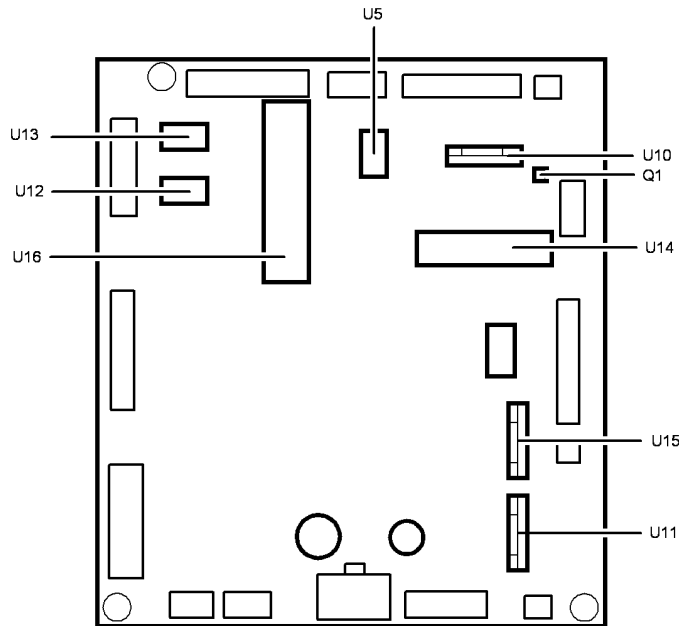


Figure 1 1K LCSS PWB components

Table 1 1K LCSS PWB Drive Components

1K LCSS PWB component	Driven component	Normal resistance measurement +/- 10%	Spared part and references
U5	Paddle motor (MOT11024)	At PJ14: Pin 1 to 3 = 28 ohms. Pin 1 to 4 = 28 ohms. Pin 2 to 5 = 28 ohms. Pin 2 to 6 = 28 ohms.	Paddle motor assembly, PL 11.104 Item 10. 11-024-120, 11-025-120 RAP
U10	Staple head motor (MOT11-050)	At PJ7: Pin 8 to 10 = 12.6 ohms. Pin 9 to 11 = 12.6 ohms	Staple head unit, PL 11.116 Item 5. 11-050-120, 11-360-120 RAP
U11	Bin 1 elevator motor (MOT11-030)	At PJ12: Pin 1 to 2 = 6.4 ohms	Bin 1 elevator motor, PL 11.110 Item 8. 11-030-120, 11-334-120, 11-335-120, 11-336-120 RAP
U12	Front tamper motor (MOT11-003)	At PJ9: Pin 1 to 3 = 20 ohms. Pin 1 to 4 = 20 ohms. Pin 2 to 5 = 20 ohms. Pin 2 to 6 = 20 ohms.	Tamper assembly, PL 11.116 Item 1. 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP
U13	Rear tamper motor (MOT11-004)	At PJ9: Pin 7 to 9 = 20 ohms. Pin 7 to 10 = 20 ohms. Pin 8 to 11 = 20 ohms. Pin 8 to 12 = 20 ohms.	Tamper assembly, PL 11.112 Item 1. 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP
U14	Transport motor 1 (MOT11-000)	At PJ17: Pin 1 to 3 = 2.2 ohms. Pin 1 to 4 = 2.2 ohms. Pin 2 to 5 = 2.2 ohms. Pin 2 to 6 = 2.2 ohms.	Transport motor 1, PL 11.110 Item 2. 11-130-120, 11-132-120 RAP
U15	Ejector motor (MOT11-020)	At PJ15: Pin 1 to 2 = 6.6 ohms	Ejector assembly, PL 11.114 Item 1. 11-320-120, 11-322-120 RAP
U16	Transport motor 2 (MOT11-001)	At PJ16: Pin 10 to 12 = 0.8 ohms. Pin 10 to 13 = 0.8 ohms. Pin 11 to 14 = 0.8 ohms. Pin 11 to 15 = 0.8 ohms.	transport motor 2, PL 11.118 Item 5. 11-130-120, 11-132-120 RAP
Q1	Diverter gate solenoid (S11-002)	At PJ13: Pin 1 to pin 2 = 74 ohms	Diverter gate solenoid, PL 11.118 Item 12. 11-130-120, 11-132-120 RAP

**NOTE:** If difficulty is found in connecting the service meter probes to the connector headers on the 1K LCSS PWB, refer to the RAP quoted in [Table 1](#) and make the measurement at another point in the harness to the driven component.

If the defective driven component is found using the table checks, disconnect the connector closest to the driven component, then check the driven component again to identify any short circuit in the wiring to the driven component. Repair the wiring or install new parts as necessary.

If the defective driven component can not be found using the table checks, refer to [GP 7](#), check each driven component to ensure that it is not seized. Motors should rotate easily. Solenoid armatures should slide easily in the coil. Also check the drive components to ensure that they rotate easily, if necessary install new parts.

When the a new driven component has been installed or the defective drive components have been repaired, install a new 1K LCSS PWB, [PL 11.124 Item 1](#).

## 11G-120 Copy Damage in the 1K LCSS RAP

Use this RAP to identify and correct the causes of copy damage in the 1K LCSS.

### Procedure

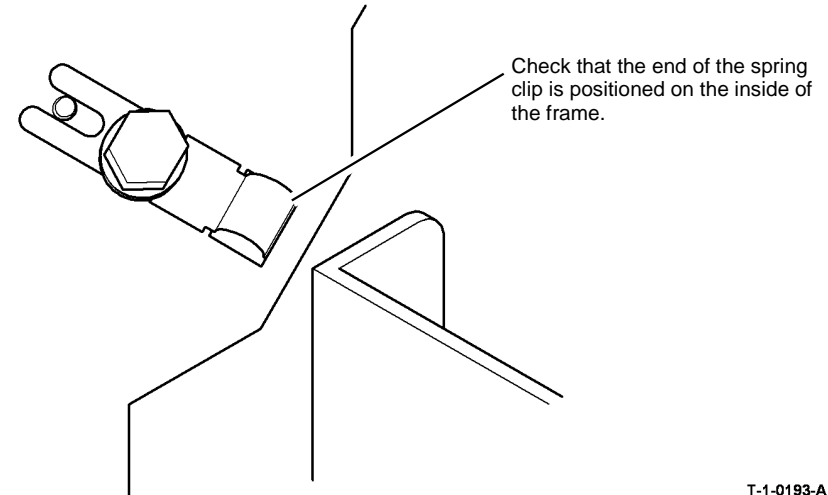


**WARNING**

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the following:

- Look for torn paper in the 1K LCSS paper path. Torn fragments can pass through the IOT and 1K LCSS paper path without causing a problem until they finally wedge themselves at some point.
- Ensure that the shaft diverter assembly, [PL 11.118 Item 13](#), operates correctly and has it's full movement.
- Ensure that the jam clearance guide, [PL 11.122 Item 6](#), closes and latches correctly. Check that the magnet at the rear is located and functions correctly. Check the clip at the front is positioned correctly, [Figure 1](#).
- Ensure that all idler rolls in the 1K LCSS paper path are free to rotate, particularly those on the jam clearance guide, where the paper turns through 90 degrees.
- Ensure that the paper path ribs of the jam clearance guide, [PL 11.122 Item 6](#), and the entry guide cover, [PL 11.122 Item 5](#), are free of "scores" and "nicks". Check also for contamination and glue from label stock.



T-1-0193-A

**Figure 1 Position of the spring clip**

## 11H-120 Mis-Registration in Stapled Sets and Non-Stapled Sets RAP

Use this RAP to identify and correct the causes of mis-registration in stapled sets, resulting in staples missing some sheets in the set, or poorly registered non-stapled sets.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

The most likely cause of mis-registration is paper condition and/or damage such as curl, wrinkle, creases, dog ears, etc.

Curl, wrinkle and creases are probably caused in the IOT, go to the [IQ1](#) Image Quality Entry RAP.

For other copy / print damage and dog ears, go to the [11G-120](#) Copy Damage in the 1K LCSS RAP.

Check the following:

- Check that bin 1 is seated correctly and the bin 1 alignment clip is in position, [PL 11.100 Item 13](#).
- Turn over the paper stack in the tray in use.
- Use a new ream of paper in the tray in use.
- Paper type, especially recycled paper, can lead to registration problems. Try changing to a different brand or type of paper.
- Ensure that the guides in the paper trays are correctly set and reported on the UI for the paper size loaded.
- Check that paper type is set correctly. If heavyweight paper is used but not set in the UI, the compiler capacity can be exceeded.
- Check for obstructions in the compiler.
- Ensure that the paddle roll operates correctly and that the paddles are not damaged. The paddles should park completely inside the top section of the compiler, with the shorter paddle in a vertical position. If all of the paddles are out of position, check the paddle roll position sensor, [PL 11.104 Item 11](#), the flag, [PL 11.104 Item 7](#) and the paddle motor assembly, [PL 11.104 Item 10](#). If only one paddle is mis-aligned with the others, it can be re-positioned by hand (they are not bonded to the shaft).
- Make sure the paddles are clean. If necessary, use formula A cleaning fluid, [PL 26.10 Item 2](#) to clean the paddles.
- Ensure that the tampers operate correctly, i.e. are not stalling or losing position during the job. Inspect the tampers for damage, if necessary install new parts. [PL 11.112](#).
- Inspect the bin 1 entry nips for roll damage. The idlers should be held against the rubber driving rolls and they should be free to rotate within their support springs. If necessary, install new parts, [PL 11.120](#).
- Inspect the four spring loaded guides on the output cover, [PL 11.100 Item 7](#). Ensure that they are correctly located and are free to move up and down.

## 11J-120 1K LCSS Poor Stacking RAP

Use this RAP to find the cause of poor stacking in the 1K LCSS.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the following:

- Look for sets that are not dropping back fully in bin 1 and therefore not operating the bin 1 level sensors:
  - Large paper sizes should not be stacked on top of small paper sizes.
  - Ensure that the paper stack in each paper tray has been fanned.
  - Turn over the paper stack in each paper tray.
  - Ensure that all paper or other copy stock being used is within the size and weight specifications. Refer to [GP 20](#) Paper and Media Size Specifications.
  - Try using a fresh ream of paper.
  - Ensure that the edge guides of all paper trays are adjusted correctly for the paper size and that the trays are fully closed.
  - Check that bin 1 is seated correctly and the bin 1 alignment clip is in position, [PL 11.100 Item 13](#).
- Labels must not be fed to bin 1, but to bin 0 only.
- It is recommended that transparencies are fed to bin 0 whenever possible.
- Check that bin 1 is level front to back, if necessary perform [ADJ 11.1-120](#) 1K LCSS Bin 1 Level.
- Check that the bin 1 upper level sensor, Q11-332 is working correctly. Refer to the [11-030-120](#), [11-334-120](#), [11-335-120](#), [11-336-120](#) Bin 1 Movement Failure RAP.
- Check the operation of the front and rear tampers. Refer to [11-005-120](#), [11-006-120](#), [11-310-120](#), [11-311-120](#) Front Tamper Move Failure RAP and [11-007-120](#), [11-008-120](#), [11-312-120](#), [11-313-120](#), [11-319-120](#) Rear Tamper Move Failure RAP.
- Check that the output device is not near an air conditioning or ventilation output duct. Air flow across the output bins can cause poor stacking.
- Check if Mod. [TAG L-013](#) LCSS bin 1 kit is installed on the finisher.
  - Machine that regularly process large stacks of A4/8.5x11 inch LEF paper should have the LCSS bin 1 W/[TAG L-013](#) kit installed, [PL 11.100 Item 10](#).
  - Machines that regular process small stacks of A4/8.5x11 inch LEF, A3/11x17 inch and A4/8.5x11 inch SEF paper should have the standard W/[OTAG L-013](#) bin 1 installed, [PL 11.100 Item 10](#).
- Check the output copies for curl, refer to [IQ5](#).

## 11-024-171, 11-026-171 Paddle Roller Position RAP

11-024-171 The paddle roller has failed to return to the home position.

11-026-171 The paddle roller has failed to move from the home position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check for damage or any obstruction that would prevent paddle movement. If necessary, install new components.

### Procedure

Figure 1 shows the location of the components.

Enter [dC330](#), code 11-025 Paddle Roll Motor Run, to check the movement of the paddle, [Figure 1](#). The paddle turns.

**Y N**  
Go to [Flag 2](#). Check the wiring and repair as necessary, [REP 1.2](#). Check the paddle roller motor, MOT11-025. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J202](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Paddle module assembly, [PL 11.145 Item 2](#)
- HVF control PWB, [PL 11.157 Item 2](#).

Stack the code 11-326, paddle roller home sensor, Q11-326, [Figure 1](#). The display changes as the paddle rotates.

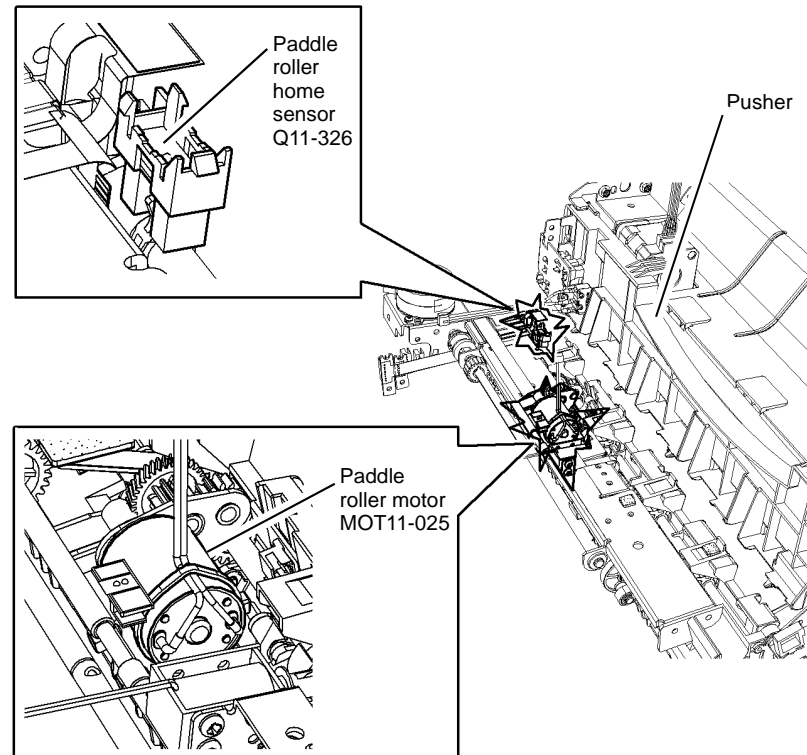
**Y N**  
Go to [Flag 1](#). Check the wiring and repair as necessary, [REP 1.2](#). Check the paddle roller home sensor, Q11-326. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J201](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Paddle module assembly, [PL 11.145 Item 2](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Perform [SCP 6](#) Final Actions.



T-1-0194-A

Figure 1 Component location

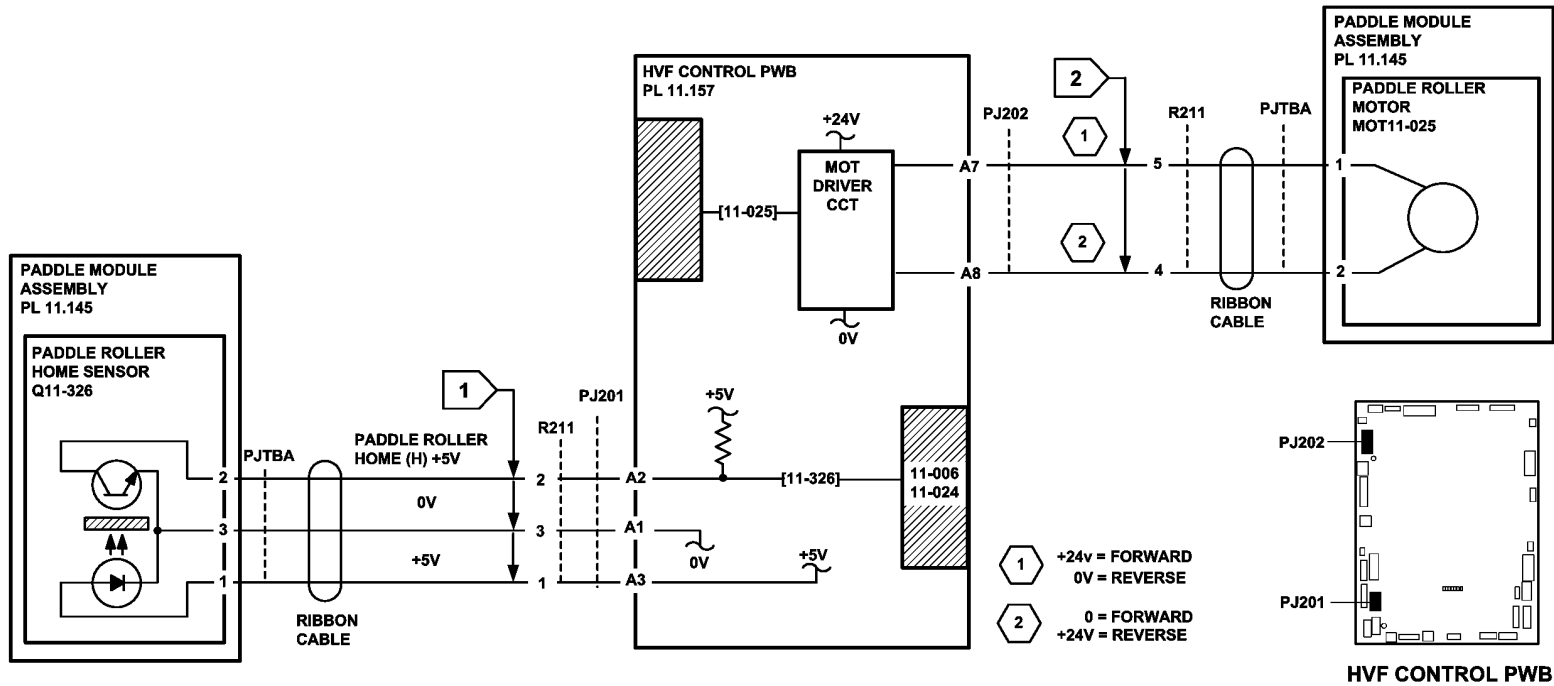


Figure 2 Circuit diagram

TT-1-0195-B



## 11-044-171 to 11-047-171 Punch Unit Head and Position RAP

**11-044-171** The punch head has failed to return to the home position.

**11-045-171** The punch head has failed to move from the home position.

**11-046-171** The punch unit has failed to return to the home position.

**11-047-171** The punch unit has failed to move from the home position.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the punch head area for any obstruction or damage that could prevent the free movement of the head or the unit. If necessary, install new components.

### Procedure

Figure 1 shows the location of the components.

Enter [dC330](#), code 11-043 for the punch head motor. **The motor operates.**

Y N

Go to [Flag 2](#). Check the wiring from the motor to the PWB. Repair as necessary, [REP 1.2](#). Check the punch head motor, MOT11-043. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J502](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- HVF hole punch assembly, [PL 11.153 Item 1](#)
- HVF control PWB, [PL 11.157 Item 2](#).

Enter [dC330](#), code 11-350 for the punch head home sensor and stack the code 11-043 for the punch head motor. Observe the condition of the sensor on the UI. **The display changes.**

Y N

Go to [Flag 1](#). Check the wiring from the sensor to the PWB. Repair as necessary, [REP 1.2](#). Check the punch head home sensor, Q11-350. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J501](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- HVF hole punch assembly, [PL 11.153 Item 1](#)
- HVF control PWB, [PL 11.157 Item 2](#).

Enter [dC330](#), code 11-045 for the motor to travel in the forward direction, or enter the code 11-046 for the motor to travel in the reverse direction. **The motor operates.**

Y N

Go to [Flag 4](#). Check the wiring from the motor to the PWB. Repair as necessary, [REP 1.2](#). Check the punch unit motor, MOT11-045. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J502](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- HVF hole punch assembly, [PL 11.153 Item 1](#)
- HVF control PWB, [PL 11.157 Item 2](#).

Enter [dC330](#), code 11-044 for the punch unit home sensor and stack the code 11-045 or 11-046 to take the punch unit motor into, and out of, the home position. Observe the condition of the sensor on the UI. **The display changes.**

Y N

Go to [Flag 3](#). Check the wiring from the sensor to the PWB. Repair as necessary, [REP 1.2](#). Check the punch unit home sensor, Q11-044. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J501](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- HVF hole punch assembly, [PL 11.153 Item 1](#)
- HVF control PWB, [PL 11.157 Item 2](#).

Perform [SCP 6](#) Final Actions.

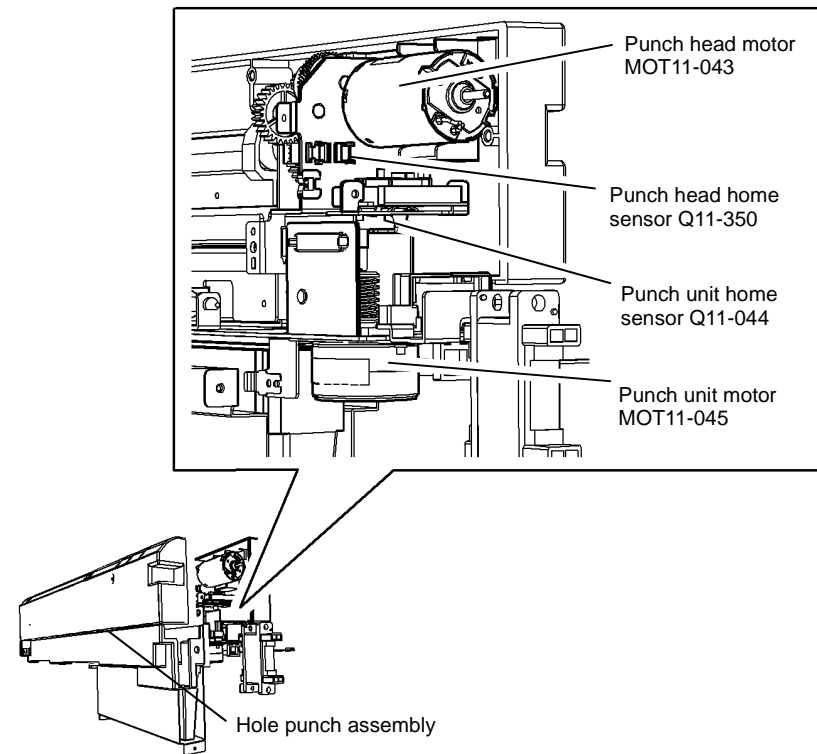


Figure 1 Component location

A

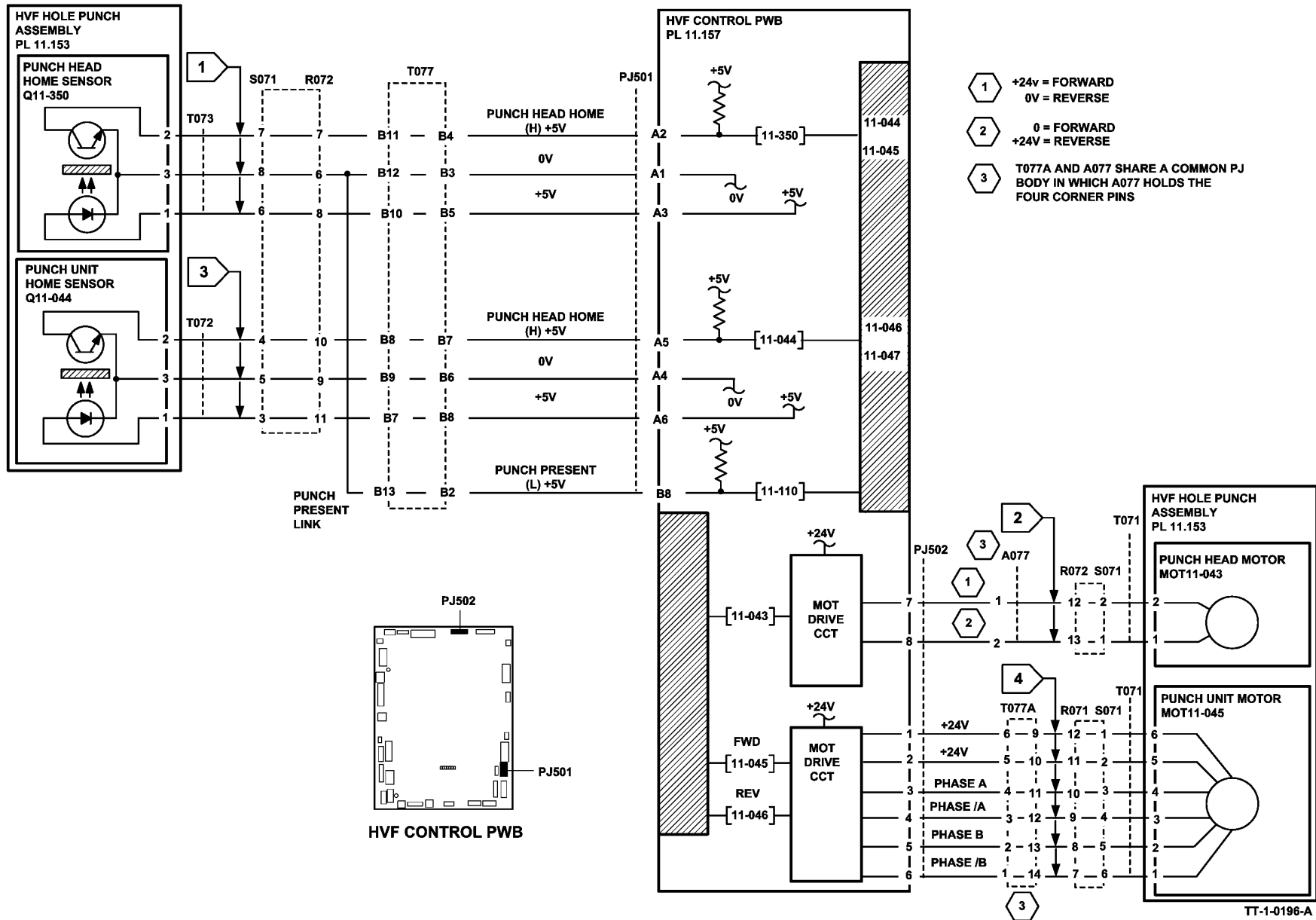


Figure 2 Circuit diagram

## 11-056-171, 11-057-171 Inserter Bottom Plate RAP

11-056-171 The inserter bottom plate has failed to return to the home position.

11-057-171 The inserter bottom plate has failed to lift.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check that the bottom plate area is clear and that there is no damage or obstructions. Install new components as necessary.

### Procedure

Figure 1 shows the location of the components.

Enter dC330, code 11-078 for the inserter motor. **The motor runs.**

Y N

Go to Flag 5 and Flag 6. Check the wiring from the motor to the HVF control PWB. Repair as necessary, REP 1.2. Check the Inserter motor, MOT-078. Refer to:

- GP 10 How to Check a Motor.
- P/J701, HVF Control PWB
- P/J4, P/J12, Inserter PWB
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Inserter Motor, MOT 11-078, PL 11.181 Item 1.
- HVF control PWB, PL 11.157 Item 2.

Enter dC330, code 11-156 for the inserter bottom plate sensor and actuate the sensor. **The display changes.**

Y N

Go to Flag 1 and Flag 2. Check the wiring from the sensor to the HVF control PWB. Repair as necessary, REP 1.2. Check the bottom plate sensor, Q11-156. Refer to:

- GP 11 How to Check a Sensor.
- P/J701, HVF Control PWB
- 11A-171 HVF Power Distribution RAP.
- P/J3, P/J4, Inserter PWB

Install new components as necessary:

- Bottom plate sensor, Q11-156, PL 11.175 Item 16.
- HVF control PWB, PL 11.157 Item 2.

Go to Flag 3 and Flag 4. Check the wiring from the IDG Pickup Sensor to the Inserter PWB.

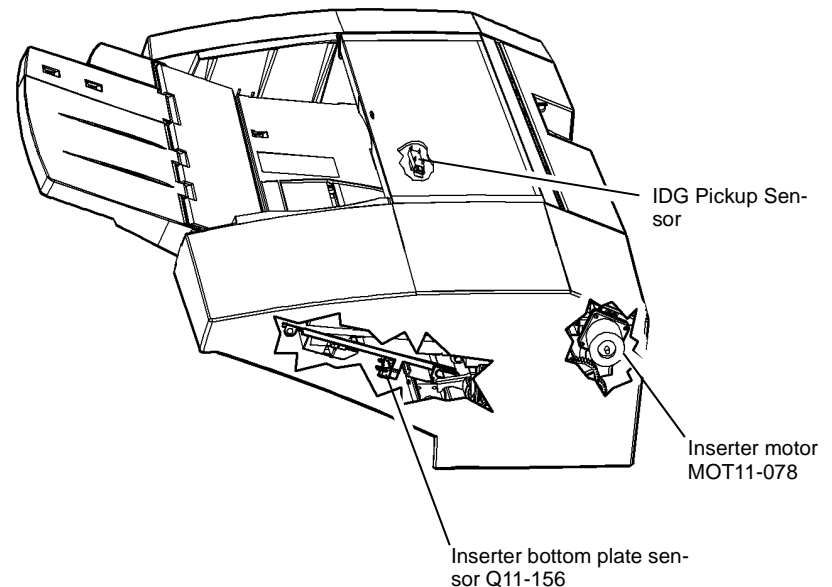
Check the IDG Pickup Sensor. Refer to:

- GP 11 How to Check a Sensor.
- P/J701, HVF Control PWB
- P/J7, P/J4, Inserter PWB

Install new components as necessary:

- IDG Pickup sensor, PL 11.179 Item 10.
- HVF control PWB, PL 11.157 Item 2.

Perform SCP 6 Final Actions.



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Figure 1 Component location

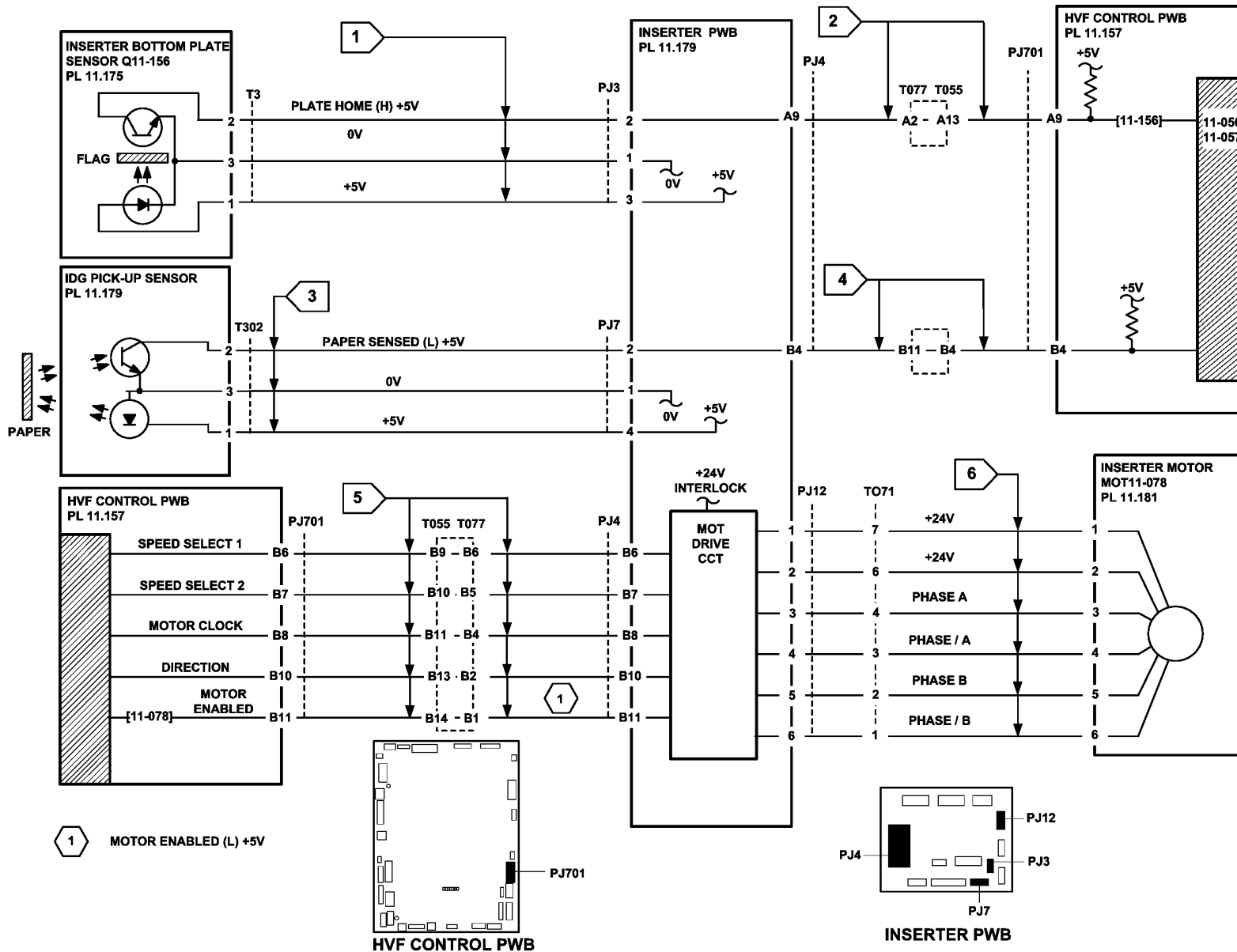


Figure 2 Circuit diagram

TT-1-0197-A

## 11-061-171, 11-416-171 HVF BM Creasing RAP

11-061-171 The crease blade has failed to clear the crease blade home sensor.

11-416-171 The crease blade has failed to return to the home position.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Keep away from the crease blade mechanism when working in close proximity to the booklet maker when the machine is powered on. The crease blade mechanism activates quickly and with great force.

- Refer to Figure 1. Turn the crease blade knob to ensure that the crease blade mechanism is free to move. If necessary, clear any paper jam in the area of the blade.
- Ensure that the crease roll is level front to back and is installed correctly, refer to REP 11.59-171.
- Check the following parts for damage:
  - Crease blade assembly, PL 11.165 Item 13.
  - Drive gear, PL 11.165 Item 6.
  - Connecting rods, PL 11.165 Item 9.
  - Crank, PL 11.165 Item 8.

### Procedure

Enter dC330 code 11-416. Actuate the BM crease blade home sensor, Figure 1, by rotating the crease blade knob, so that the actuator moves into and out of the home sensor. **The display changes.**

Y N

Go to Flag 1. Check the BM crease blade home sensor, Q11-416.

Refer to:

- GP 11, How to Check a Sensor.
- P/J552, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- Crease blade home sensor, PL 11.165 Item 1.

Enter dC330 code 11-418. Actuate the BM crease blade motor encoder sensor, Figure 1, by slowly rotating the crease blade knob. **The display changes.**

Y N

Go to Flag 2. Check the BM crease blade motor encoder sensor, Q11-418.

A

Refer to:

- GP 11, How to Check a Sensor.
- P/J552, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- BM crease blade motor encoder sensor, PL 11.165 Item 1.

Enter dC330, code 11-061 to run the BM crease blade motor, MOT 11-061, Figure 1. **The motor runs.**

Y N

Go to Flag 3. Check the BM crease blade motor, MOT 11-061.

Refer to:

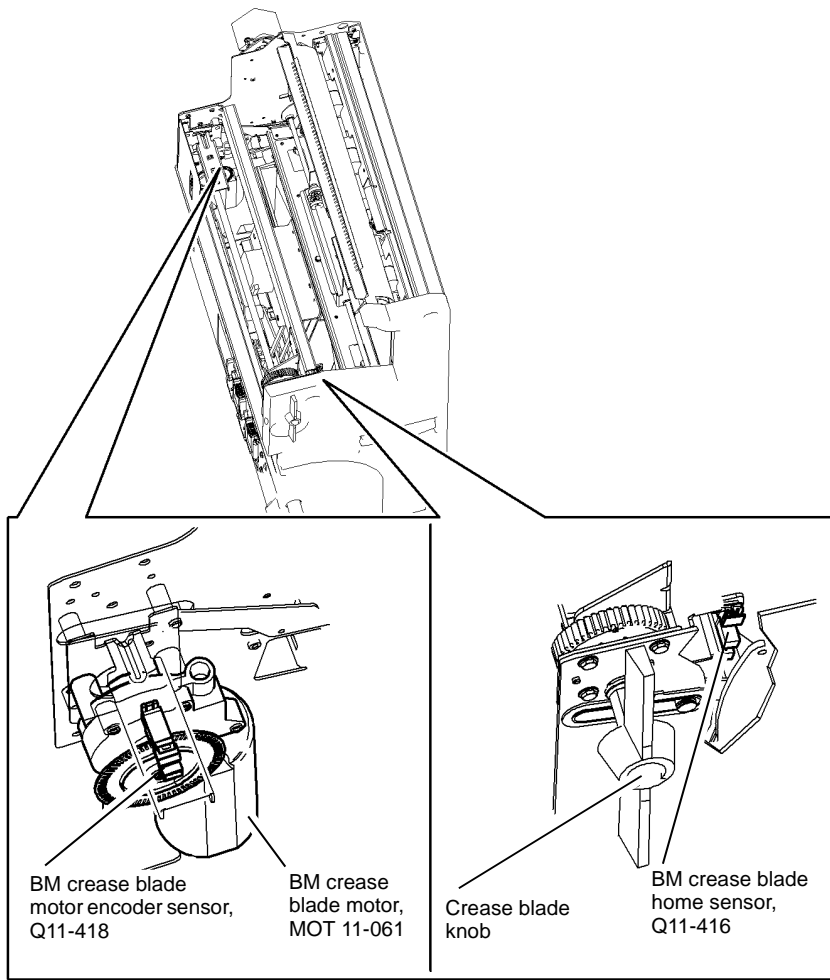
- GP 10 How to Check a Motor.
- P/J557, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM crease blade motor, PL 11.165 Item 3.
- BM PWB, PL 11.166 Item 10.

The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

A



T-1-0197-A

Figure 1 Component location

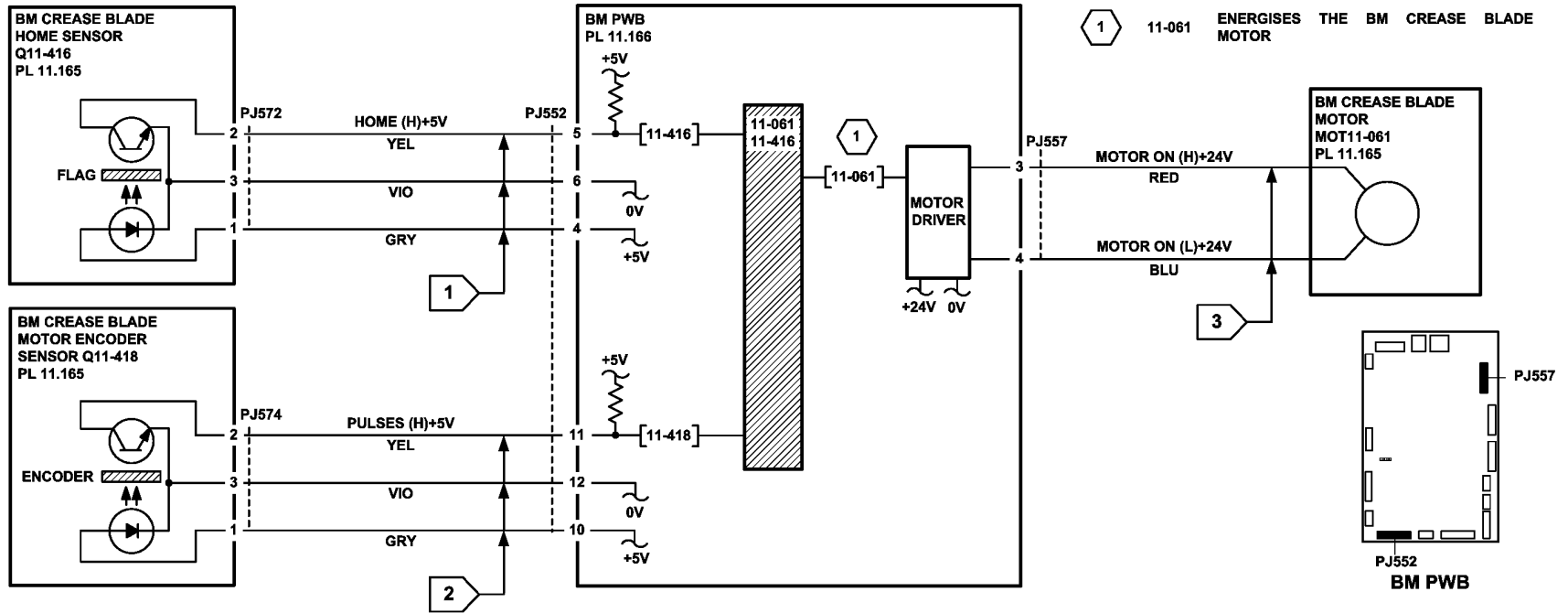


Figure 2 Circuit diagram

TT-1-0198-A

# 11-062-171 HVF BM Crease Roll Failure RAP

11-062-171 The HVF BM crease roll motor has failed to run.

## Initial Actions

Clear any paper jam in the area of the crease rolls.

## Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Keep away from the crease blade mechanism when working in close proximity to the booklet maker when the machine is powered on. The crease blade mechanism activates quickly and with great force.

Release the crease roll nip pressure by moving the crease roll handle, PL 11.161 Item 5, fully counter clockwise. Remove the BM right hand cover, PL 11.168 Item 15, to access the crease rolls. Enter dC330 code 11-419. Actuate the BM crease roll motor encoder sensor by rotating the crease rolls slowly by hand. **The display changes.**

Y N

Go to Flag 1. Check the BM crease roll motor encoder sensor, Q11-419, Figure 1.

Refer to:

- GP 11, How to Check a Sensor.
- P/J552, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- BM crease roll motor encoder sensor, PL 11.166 Item 9.

Enter dC330, code 11-062 to run the BM crease roll motor, MOT 11-062, Figure 1. **The motor runs.**

Y N

Go to Flag 2. Check the BM crease roll motor, MOT 11-062.

Refer to:

- GP 10 How to Check a Motor.
- P/J557, BM PWB.
- 11A-171 HVF Power Distribution RAP.

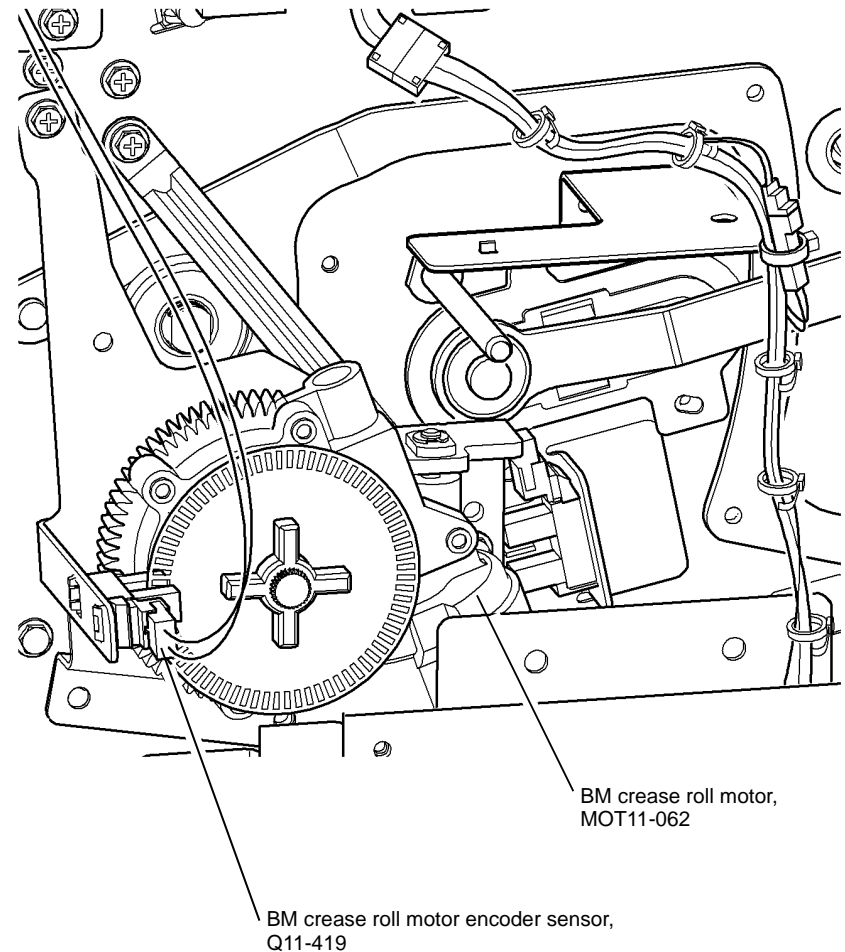
Install new components as necessary:

- BM crease roll motor, PL 11.166 Item 12.
- BM PWB, PL 11.166 Item 10.

A

The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

- BM crease roll motor encoder sensor, PL 11.166 Item 9.
- BM crease roll motor, PL 11.166 Item 12.
- BM PWB, PL 11.166 Item 10



T-1-0198-A

Figure 1 Component location

A



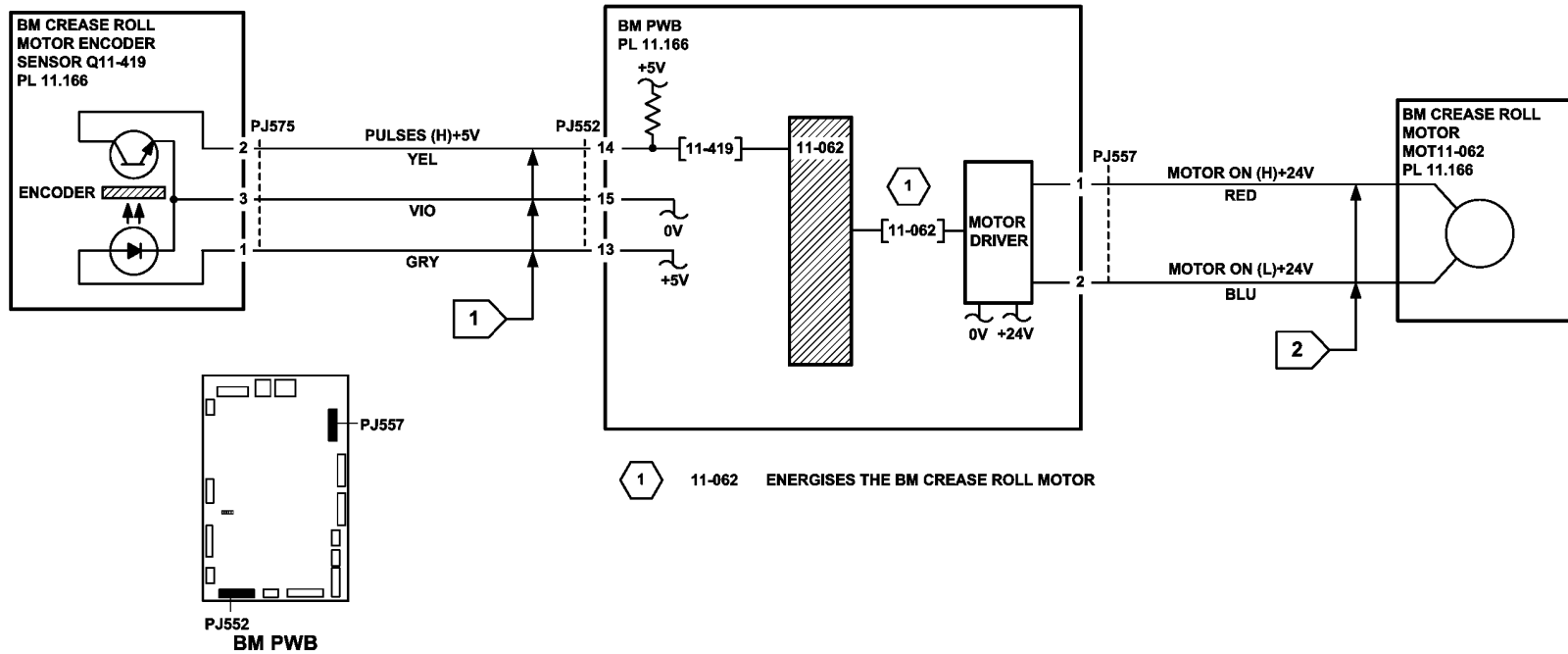


Figure 2 Circuit diagram

TT-1-0199-A

## 11-063-171, 11-411-171 HVF BM Staple Unit 1 Failure RAP

11-063-171 The HVF BM staple unit 1 has failed to leave the home position.

11-411-171 The HVF BM staple unit 1 has failed to return to the home position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that there is no damage or obstruction that would prevent the stapling unit from cycling.
- Check that the sheets of staples in the cartridge are feeding one at a time. If staple sheets overlap, they will jam in the cartridge. If necessary, install a new staple cartridge, PL 26.10 Item 11.
- Check for jammed staples in the stapler head.
- Ensure that the customer job does not exceed the capacity of the booklet maker. Refer to 11D-171 Booklet Quality RAP for booklet maker quality specifications.

### Procedure

Enter dC330, code 11-421 to check the BM staple head carrier closed sensor, Q11-421, Figure 1. Open and close the staple head carrier. The display changes.

Y N  
Go to Flag 1. Check the BM staple head carrier closed sensor, Q11-421.  
Refer to:

- GP 11, How to Check a Sensor.
- P/J552, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM staple head carrier closed sensor, PL 11.168 Item 18.
- BM PWB, PL 11.166 Item 10.

Remove the HVF front door and door support, refer to REP 11.1-171 HVF Covers. Pull out the BM module. Remove the staple head 1 cover, PL 11.168 Item 14. Enter dC330, code 11-411 to check the BM SH1 home switch. Manually rotate the staple head to actuate the BM SH1 home switch. The display changes.

Y N  
Go to Flag 2. Check the BM SH1 home switch, S11-411.  
Refer to:

- GP 13, How to Check a Switch.
- P/J551, BM PWB.
- 11A-171 HVF Power Distribution RAP.

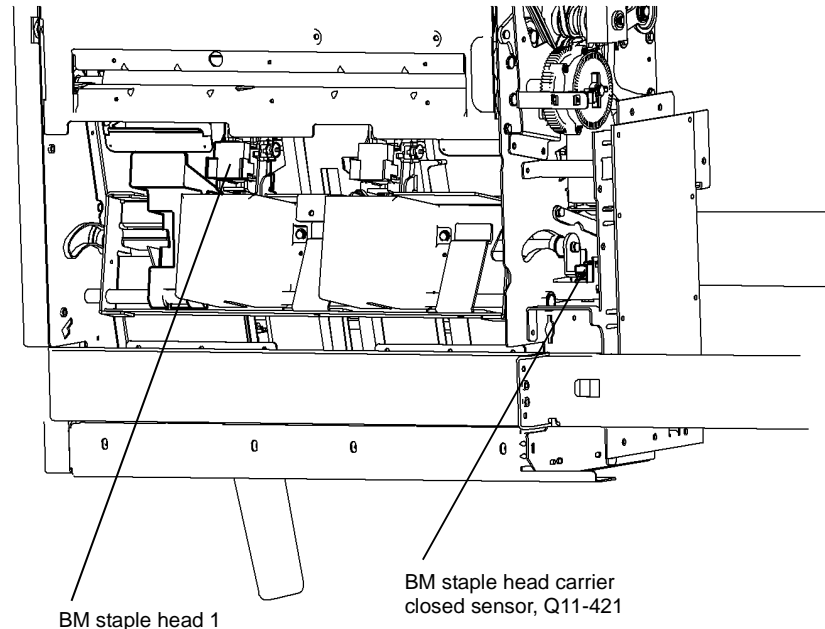
Install new components as necessary:

- BM staple head 1, PL 11.168 Item 7.
- BM PWB, PL 11.166 Item 10.

A  
Enter dC330 code 11-063 to run the BM SH1 motor, Figure 1. The staple head cycled.  
Y N  
Go to Flag 3. Check the wiring and connectors between P/J560 and P/J585. The wiring and connectors are good.  
Y N  
Repair the wiring or connectors, REP 1.2.  
Install a new BM staple head 1, PL 11.168 Item 7.

The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

- BM staple head 1, PL 11.168 Item 7.
- BM PWB, PL 11.166 Item 10.



T-1-0199-A

Figure 1 Component location

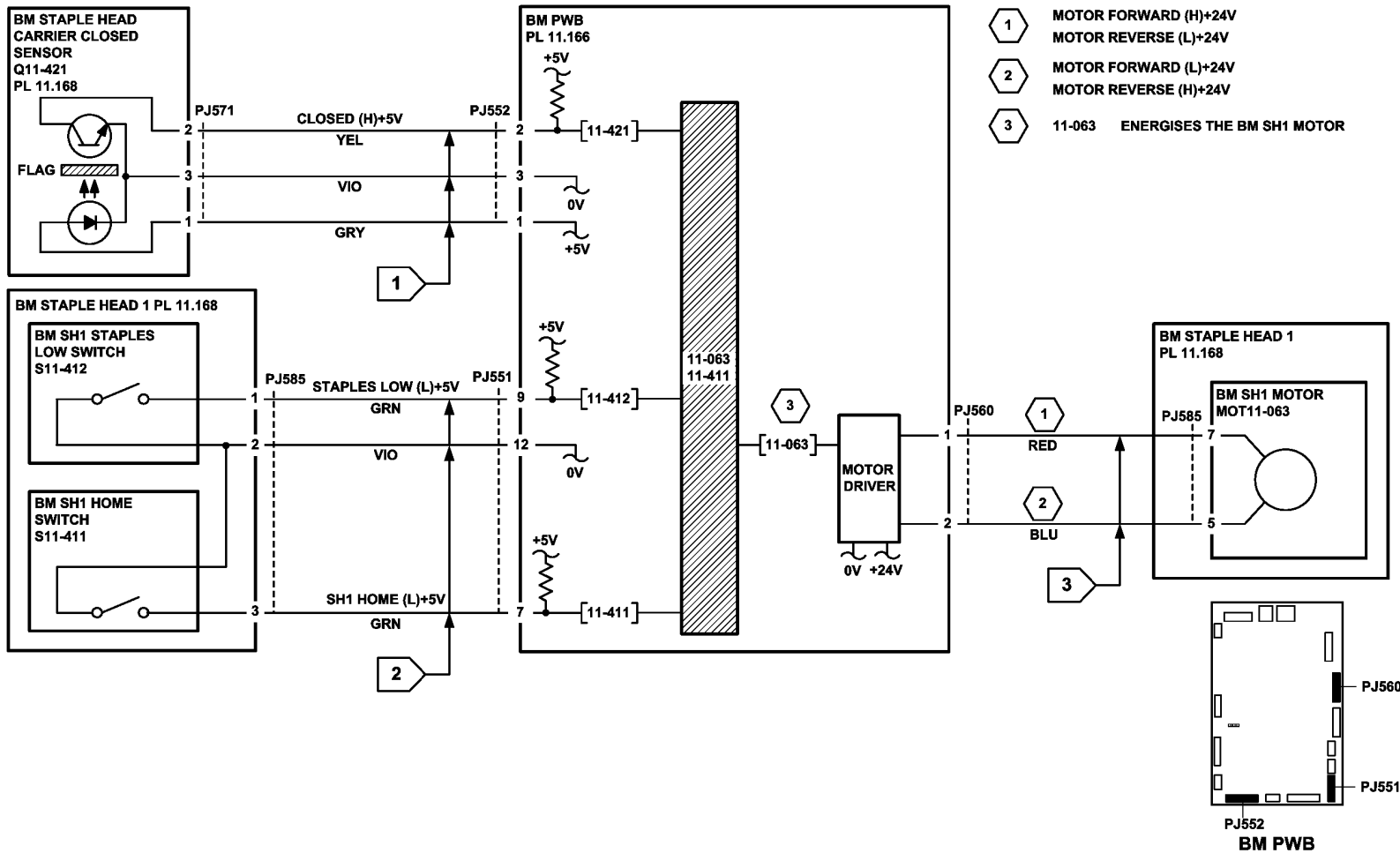


Figure 2 Circuit diagram

TT-1-0200-A

## 11-065-171, 11-383-171 HVF BM Backstop Failure RAP

11-065-171 The HVF BM staple unit 1 has failed to leave the home position.

11-383-171 The HVF BM staple unit 1 has failed to return to the home position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction that could prevent the backstop mechanism from moving.
- Check the following items:
  - Damaged BM back stop drive belt, PL 11.163 Item 7.
  - Damaged BM back stop belt, PL 11.164 Item 15.
  - Damaged pulley, PL 11.163 Item 5.
  - Damaged pulley on the BM back stop drive shaft, PL 11.164 Item 14.
  - Damaged pulley on the BM back stop idler shaft, PL 11.163 Item 13.
  - The BM back stop drive belt is tensioned correctly. Refer to REP 11.20-171.
  - The BM back stop belt is tensioned correctly. Refer to REP 11.26-171.

### Procedure

Enter dC330 code 11-383. Actuate the BM backstop guide home sensor, Figure 1. The display changes.

Y N

Go to Flag 1. Check the sensor, Q11-383.

Refer to:

- GP 11, How to Check a Sensor.
- P/J556, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM backstop guide home sensor, PL 11.163 Item 18.
- BM PWB, PL 11.166 Item 10.

Enter dC330, code 11-065 to run the BM backstop motor, MOT 11-065, Figure 1. The motor runs.

Y N

Go to Flag 2 and Flag 3. Check the motor, MOT 11-065.

Refer to:

- GP 10 How to Check a Motor.
- P/J554, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM backstop motor, PL 11.163 Item 4.
- BM PWB, PL 11.166 Item 10.

Go to Flag 4. Check the BM stack hold solenoid SOL 11-076.

Refer to:

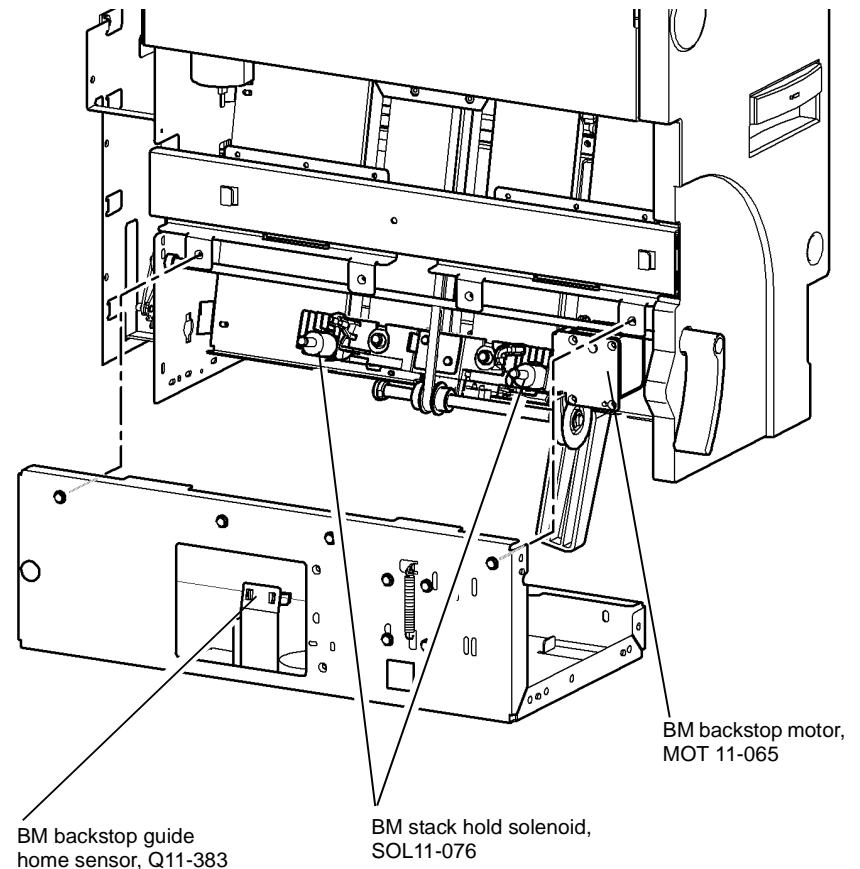
- GP 12, How to Check a Solenoid or Clutch.
- P/J555, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- Back stop assembly, PL 11.164 Item 17.

The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

- BM backstop guide home sensor, PL 11.163 Item 18.
- BM backstop motor, PL 11.163 Item 4.
- BM PWB, PL 11.166 Item 10.



Note: For clarity, the BM base plate is not shown

Figure 1 Component location

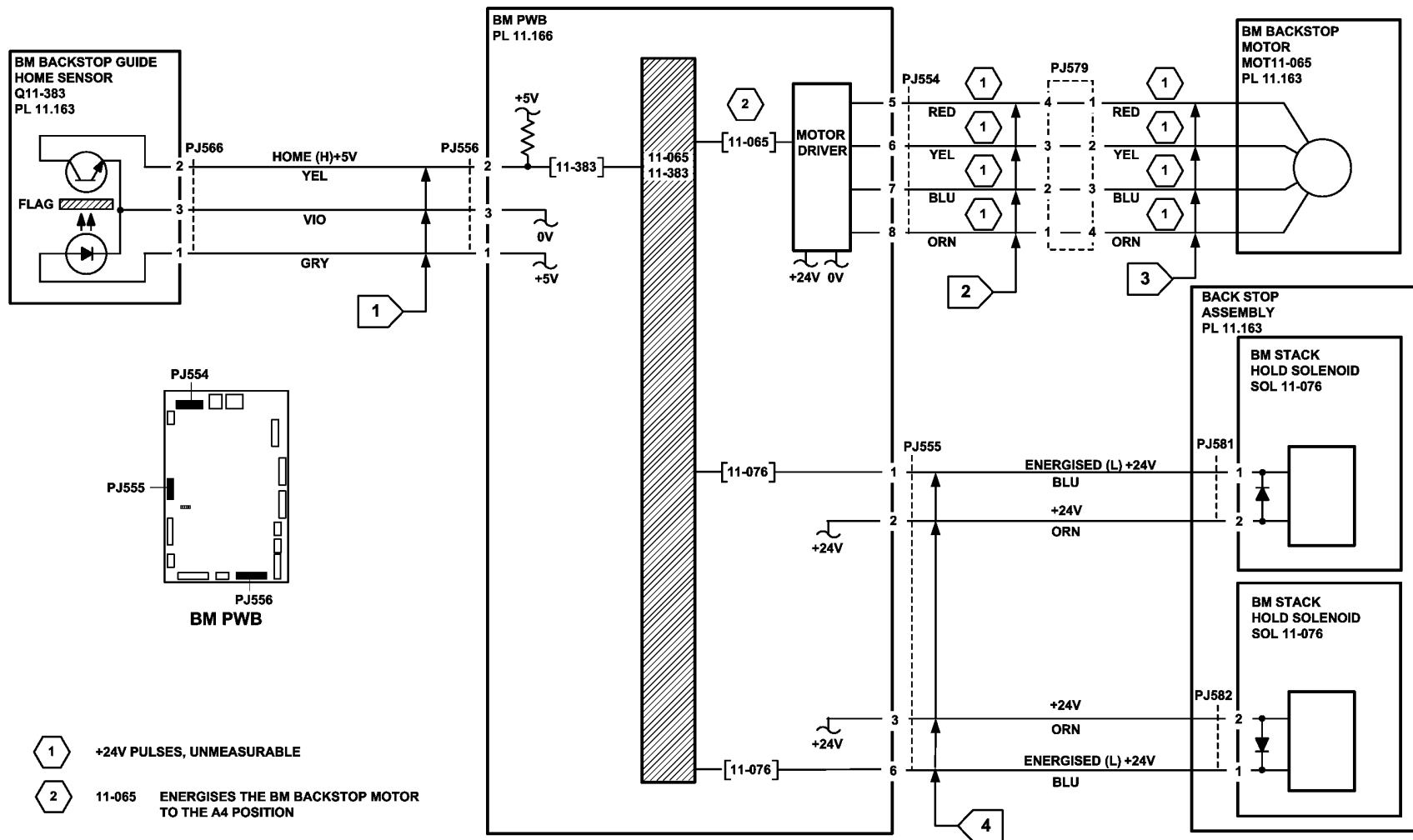


Figure 2 Circuit diagram

TT-1-0201-A

## 11-066-171, 11-384-171 HVF BM Tamper Failure RAP

11-066-171 The HVF tamper has failed to clear the home sensor.

11-384-171 The HVF tamper is not at the home sensor.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction that could prevent the tamper mechanism from moving.
- Check for damaged tamper components, [PL 11.162](#).

### Procedure

Enter [dC330](#) code 11-384 Actuate the BM tamper 1 home sensor, [Figure 1](#). The display

changes.

Y N

Go to [Flag 1](#). Check the sensor, Q11-384.  
Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J556](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- [BM PWB](#), [PL 11.166](#) [Item 10](#).
- [BM tamper 1 home sensor](#), [PL 11.162](#) [Item 1](#).

Enter [dC330](#), code 11-066, to run the BM tamper 1 motor, MOT 11-066, [Figure 1](#). The motor runs.

Y N

Go to [Flag 2](#) and [Flag 3](#). Check the motor, MOT 11-066.  
Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J554](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- [BM PWB](#), [PL 11.166](#) [Item 10](#).
- [BM tamper 1 motor](#), [PL 11.162](#) [Item 3](#).

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install new components:

- [BM tamper 1 home sensor](#), [PL 11.162](#) [Item 1](#).
- [BM tamper 1 motor](#), [PL 11.162](#) [Item 3](#).
- [BM PWB](#), [PL 11.166](#) [Item 10](#).

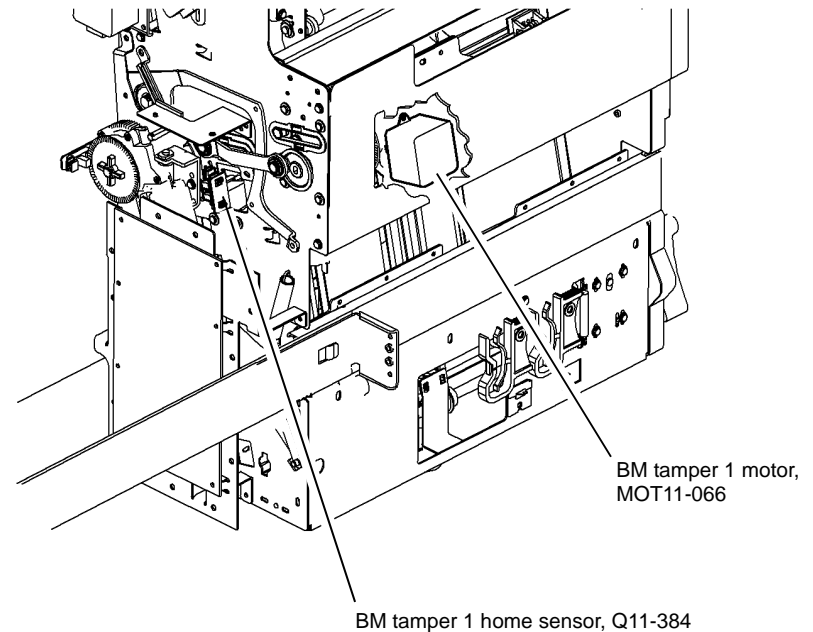


Figure 1 Component location

T-1-0201-A

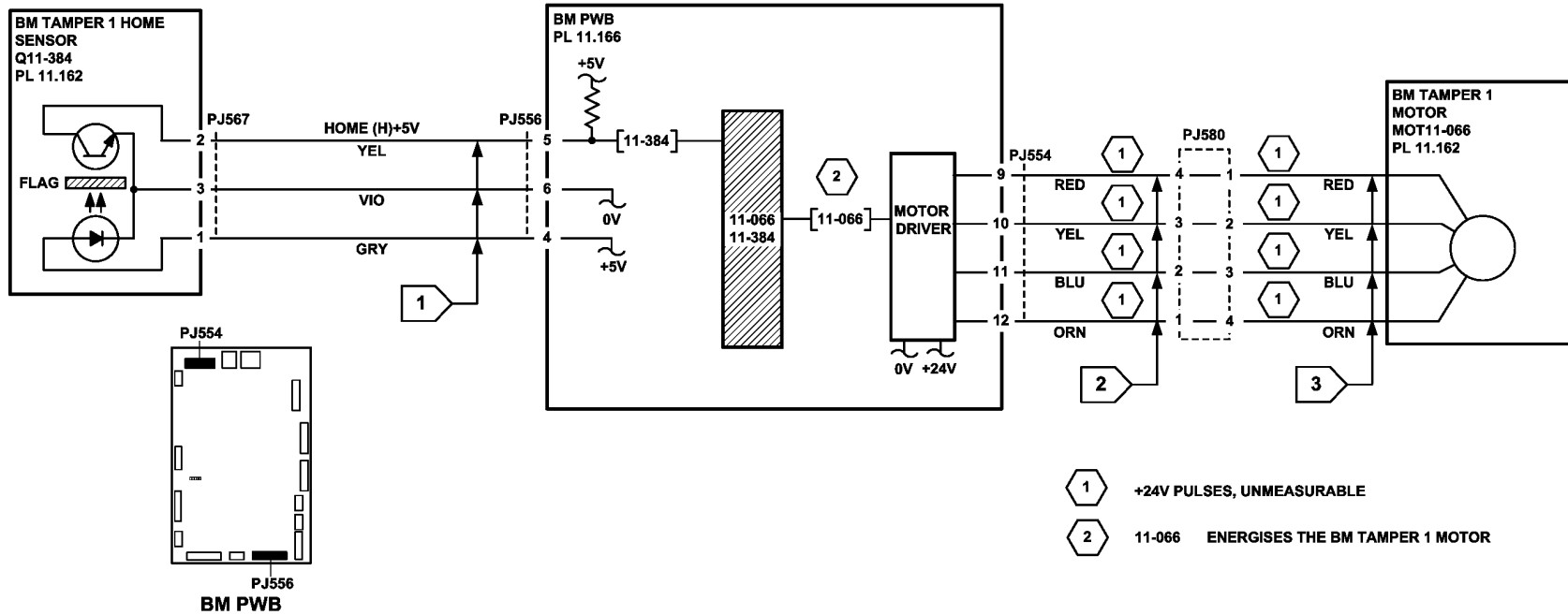


Figure 2 Circuit diagram

TT-1-0202-A

## 11-083-171, 11-440-171 to 11-443-171 Paper Pusher RAP

11-083-171 The paper pusher motor has stalled.

11-440-171 The paper pusher has failed to return to the home, (upper) position.

11-441-171 The paper pusher has failed to move from the home, (upper) position.

11-442-171 The paper pusher has failed to return to the away, (lower) position.

11-443-171 The paper pusher has failed to move from the away, (lower) position.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for a jam or other obstruction that could prevent the paper pusher from moving.
- Check for damaged paper pusher components.

### Procedure

Figure 1. shows the location of the components.

Enter dC330, code 11-083 to run the paper pusher motor, MOT 11-083, Figure 1. The motor runs.

Y N

Go to Flag 2. Check the motor, MOT 11-083.  
Refer to:

- GP 10 How to Check a Motor.
- P/J202, HVF Control PWB
- 11A-171 HVF Power Distribution RAP

Install new components as necessary:

- Paper pusher motor, PL 11.145 Item 13.
- HVF control PWB, PL 11.157 Item 2

Go to Flag 4. Check the stapler gate safety switch S11-365.

Refer to:

- GP 13 How to check a switch
- P/J304, HVF Control PWB
- 11A-171 HVF Power Distribution RAP

The switch is good.

Y N

Install new components as necessary:

- Sensor assembly, PL 11.145 Item 22.
- HVF Control PWB PL 11.157 Item 2.

A

Enter dC330, code 11-171. Manually operate the paper pusher upper sensor, Q11-171. The display changes.

Y N

Go to Flag 1. Check the sensor, Q11-171  
Refer to:

- GP 11 How to Check a Sensor.
- P/J201, HVF Control PWB
- 11A-171 HVF Power Distribution RAP

Install new components as necessary:

- Paper pusher upper sensor, PL 11.145 Item 16.
- HVF Control PWB PL 11.157 Item 2

Enter dC330, code 11-173. Manually actuate the paper pusher lower sensor, Q11-173. The display changes.

Y N

Go to Flag 3. Check the sensor, Q11-173.  
Refer to:

- GP 11 How to Check a Sensor.
- P/J201, HVF Control PWB
- 11A-171 HVF Power Distribution RAP

Install new components as necessary:

- Paper pusher lower sensor, PL 11.145 Item 16.
- HVF Control PWB PL 11.157 Item 2.

The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

- Paper pusher upper sensor, PL 11.145 Item 22.
- Paper pusher lower sensor, PL 11.145 Item 22.
- Paper pusher motor, PL 11.145 Item 13.
- HVF control PWB, PL 11.157 Item 2.
- Stapler gate safety switch, PL 11.145 Item 17.

A



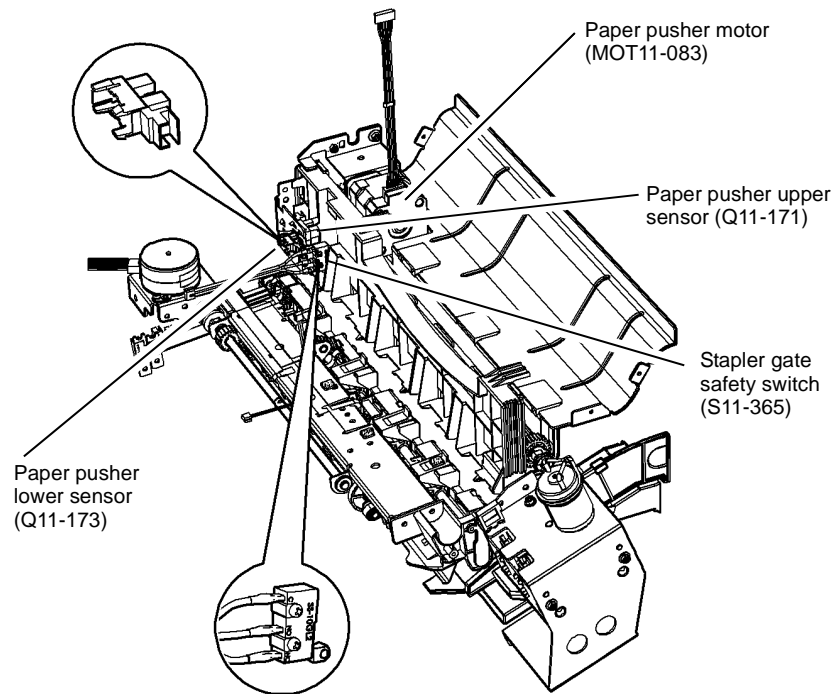


Figure 1 Component location

T-1-0202-A

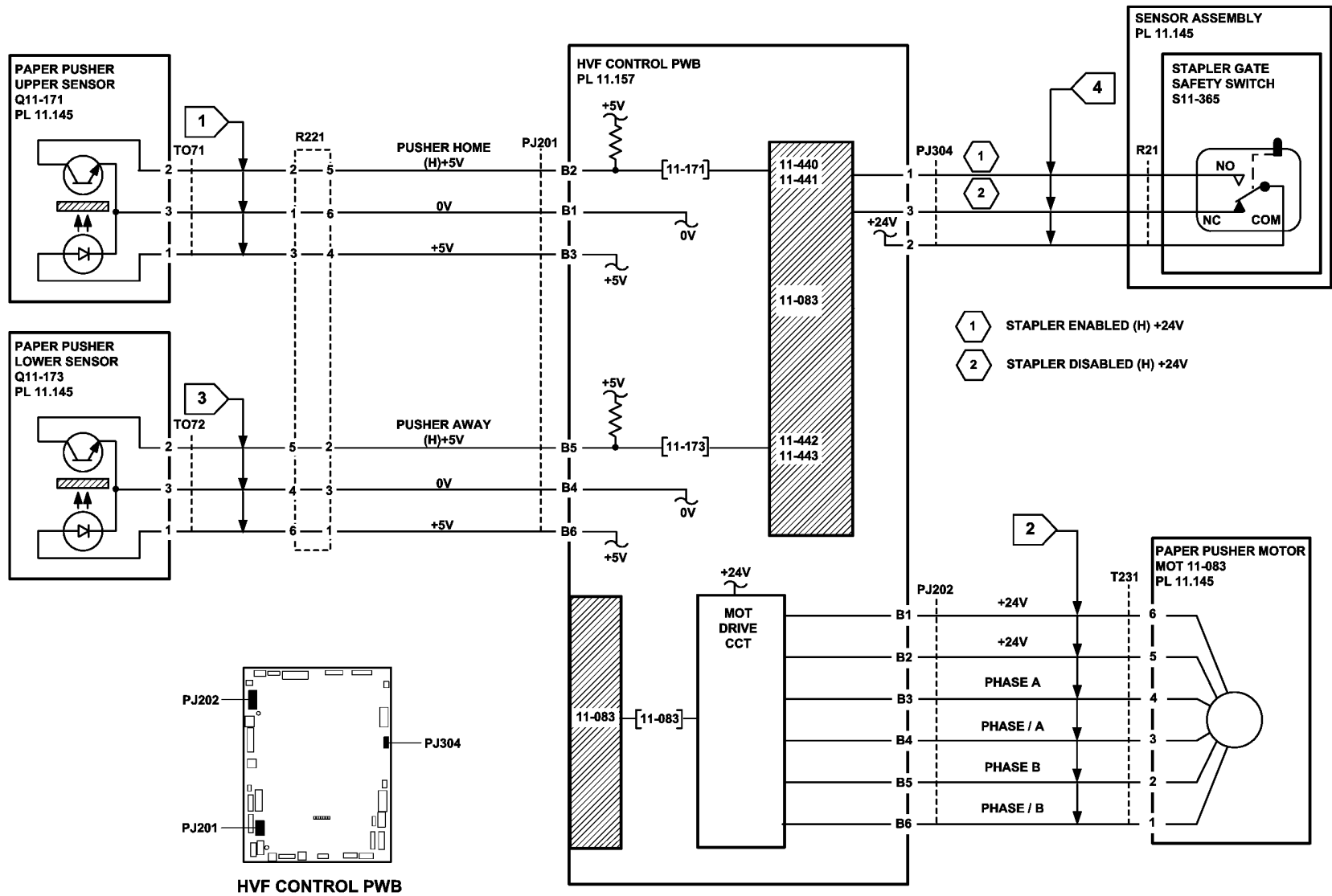


Figure 2 Circuit diagram

TT-1-0203-B

## 11-100-171, 11-101-171 HVF Entry Sensor RAP

11-100-171 The paper leading edge is late arriving at the entry sensor.

11-101-171 The paper trailing edge is late leaving the entry sensor.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction in the entrance guide.
- Check the entrance guide for damage.
- If the paper has dog ear on the inboard corner, install [TAG 005](#) Rear gravity gate mylar kit.
- Check if the HVF module has had the W/TAG V-006 modifications installed. If necessary perform [ADJ 11.13-171](#) HVF Performance Improvement (W/TAG V-006).

### Procedure

[Figure 1](#) shows the location of the components.

Enter [dC330](#), code 11-100. Manually operate the entry sensor, Q11-100, [Figure 1](#). The display changes.

Y N

Go to [Flag 1](#). Check the sensor, Q11-100.

Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J101](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP

Install new components as necessary:

- Entry sensor, [PL 11.156](#) Item 2.
- HVF Control PWB, [PL 11.157](#) Item 2.

Enter [dC330](#), code 11-000 to run the Entry feed motor 1, MOT 11-000, [Figure 1](#). The motor runs.

Y N

Go to [Flag 2](#). Check the entry feed motor 1, MOT 11-000.

Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J102](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP

Install new components as necessary:

- Entry feed motor 1, [PL 11.150](#) Item 2.
- HVF control PWB, [PL 11.157](#) Item 2.

Check the drive belt on the motor. **The drive belt is good.**

Y N

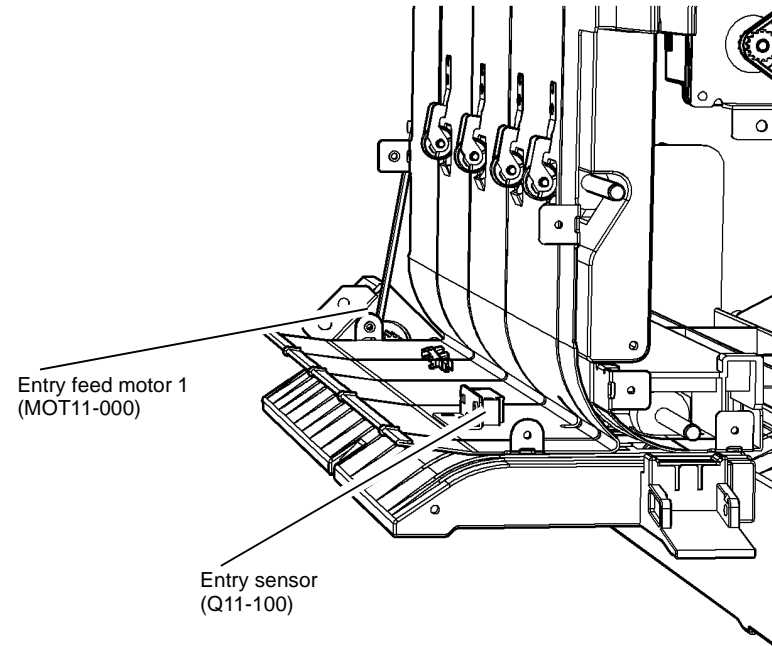
Install a new drive belt, [PL 11.150](#) Item 7.

A

A

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install new components:

- Entry sensor, [PL 11.156](#) Item 2.
- Entry feed motor 1, [PL 11.150](#) Item 2.
- HVF control PWB, [PL 11.157](#) Item 2.
- Check if the HVF module has the W/TAG V-006 modifications installed. If the modifications have not been installed perform [ADJ 11.13-171](#) HVF Performance Improvements W/TAG V-006.



T-1-0203-A

Figure 1 Component location

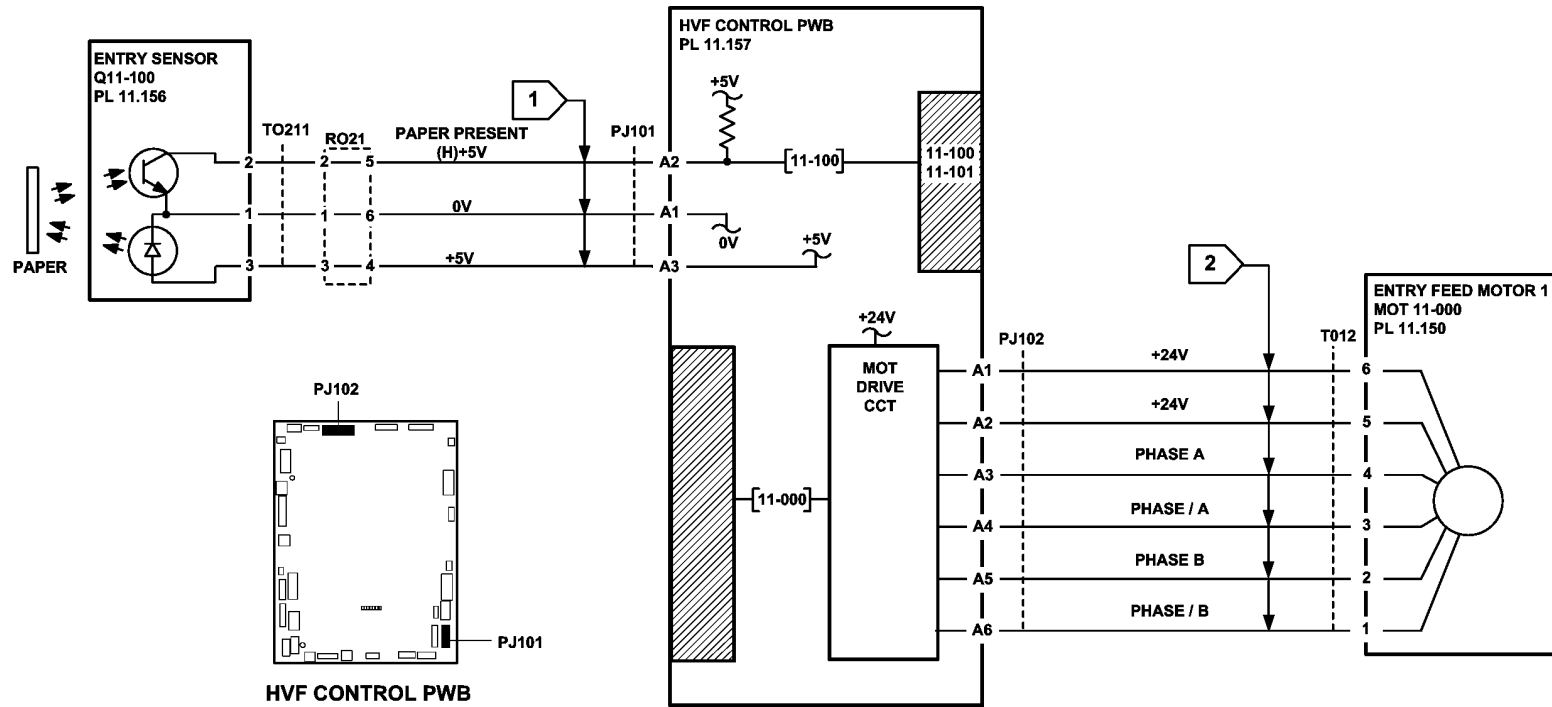


Figure 2 Circuit diagram

TT-1-0204-A

## 11-130-171, 11-132-171 HVF Top Exit Sensor RAP

11-130-171 The paper leading edge is late arriving at the top exit sensor.

11-132-171 The paper trailing edge is late leaving the top exit sensor.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction in the paper guide.
- Check the paper guide for damage.

### Procedure

Figure 1 shows the location of the components.

Enter dC330, code 11-130. Manually operate the top exit sensor, Q11-130, Figure 1. The display changes.

Y N

Go to Flag 1. Check the sensor, Q11-130.  
Refer to:

- GP 11 How to Check a Sensor.
- P/J101, HVF Control PWB
- 11A-171 HVF Power Distribution RAP

Install new components as necessary:

- Top exit sensor, PL 11.156 Item 3.
- HVF Control PWB, PL 11.157 Item 2

Enter dC330, code 11-002. Energize the exit diverter solenoid SOL 11-002, Figure 1. The solenoid energizes.

Y N

Go to Flag 2. Check the solenoid, SOL 11-002.  
Refer to:

- GP 12, How to Check a Solenoid or Clutch.
- P/J102, HVF Control PWB
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Exit diverter solenoid, PL 11.150 Item 4.
- HVF control PWB, PL 11.157 Item 2

Enter dC330, code 11-001 to run the exit feed motor 2, MOT 11-001, Figure 1. The motor runs.

Y N

Go to Flag 3. Check the exit feed motor 2, MOT 11-001.  
Refer to:

- GP 10 How to Check a Motor.

- P/J102, HVF Control PWB
  - 11A-171 HVF Power Distribution RAP
- Install new components as necessary:
- Exit feed motor 2, PL 11.150 Item 1.
  - HVF control PWB, PL 11.157 Item 2.

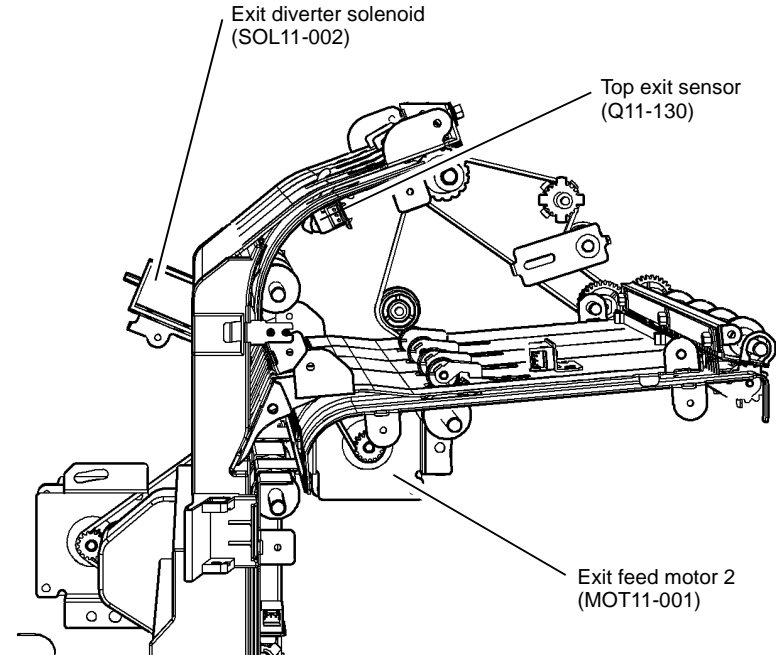
Check the drive belt on the motor. The drive belt is good.

Y N

Install a new drive belt, PL 11.150 Item 7.

The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

- Top exit sensor, PL 11.156 Item 3.
- Exit diverter solenoid, PL 11.150 Item 4.
- Diverter gate, PL 11.153 Item 9.
- Exit feed motor 2, PL 11.150 Item 1.
- HVF control PWB, PL 11.157 Item 2.



T-1-0204-A

Figure 1 Component location

A

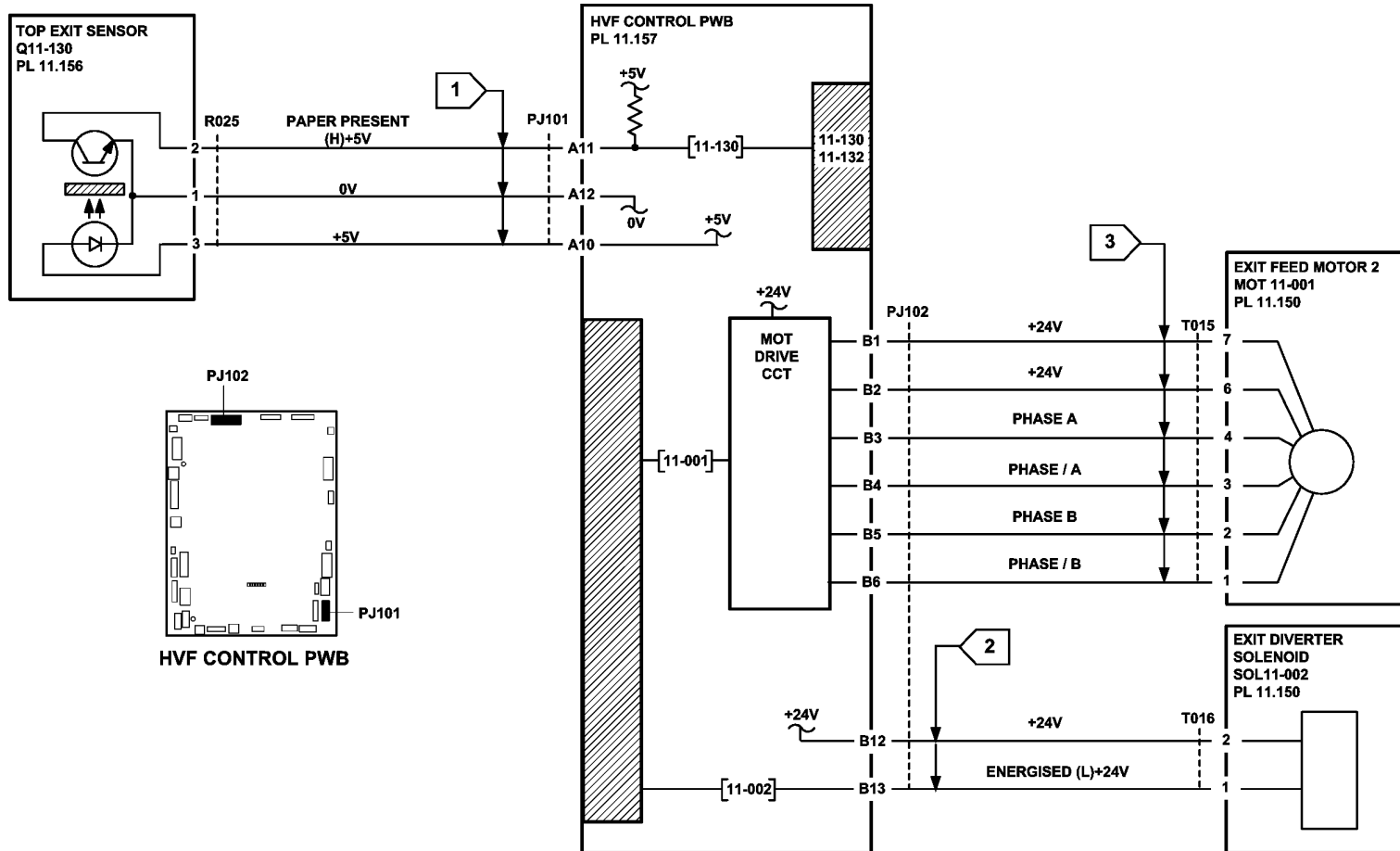


Figure 2 Circuit diagram

TT-1-0205-A

## 11-140-171, 11-142-171 HVF 2nd to Top Exit Sensor RAP

11-140-171 The paper leading edge is late arriving at the 2nd to top exit sensor.

11-142-171 The paper trailing edge is late leaving the 2nd to top exit sensor.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction in the paper guide.
- Check the paper guide for damage.
- If the paper has dog ear on the inboard corner, install [TAG 005](#) Rear gravity gate finger kit.
- Check the buffer guide assembly (5b), [PL 11.153 Item 13](#) for damage.

### Procedure

[Figure 1](#) shows the location of the components.

Enter [dC330](#), code 11-140. Manually activate the 2nd to top exit sensor, Q11-140, [Figure 1](#).

The display changes.

Y N

Go to [Flag 1](#). Check the sensor, Q11-140.

Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J101](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP

Install new components as necessary:

- 2nd to top exit sensor, [PL 11.156 Item 2](#).
- HVF Control PWB, [PL 11.157 Item 2](#)

Enter [dC330](#), code 11-002. Energize the exit diverter solenoid SOL 11-002, [Figure 1](#). The solenoid energizes.

Y N

Go to [Flag 2](#). Check the solenoid, SOL 11-002.

Refer to:

- [GP 12](#), How to Check a Solenoid or Clutch.
- [P/J102](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Exit diverter solenoid, [PL 11.150 Item 4](#).
- HVF control PWB, [PL 11.157 Item 2](#)

Enter [dC330](#), code 11-001 to run the exit feed motor 2, MOT 11-001, [Figure 1](#). The motor runs.

Y N

Go to [Flag 3](#). Check the exit feed motor 2, MOT 11-001.

Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J102](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP

Install new components as necessary:

- Exit feed motor 2, [PL 11.150 Item 1](#).
- HVF control PWB, [PL 11.157 Item 2](#)

Check the drive belt on the motor. The drive belt is good.

Y N

Install a new drive belt, [PL 11.150 Item 10](#).

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install new components:

- 2nd to top exit sensor, [PL 11.156 Item 2](#).
- Exit diverter solenoid, [PL 11.150 Item 4](#).
- Diverter gate, [PL 11.153 Item 9](#).
- Exit feed motor 2, [PL 11.150 Item 1](#).
- HVF control PWB, [PL 11.157 Item 2](#).
- Check if the HVF module has the [W/TAG V-006](#) modifications installed. If the modifications have not been installed perform [ADJ 11.13-171](#) HVF Performance Improvements W/ [TAG V-006](#).

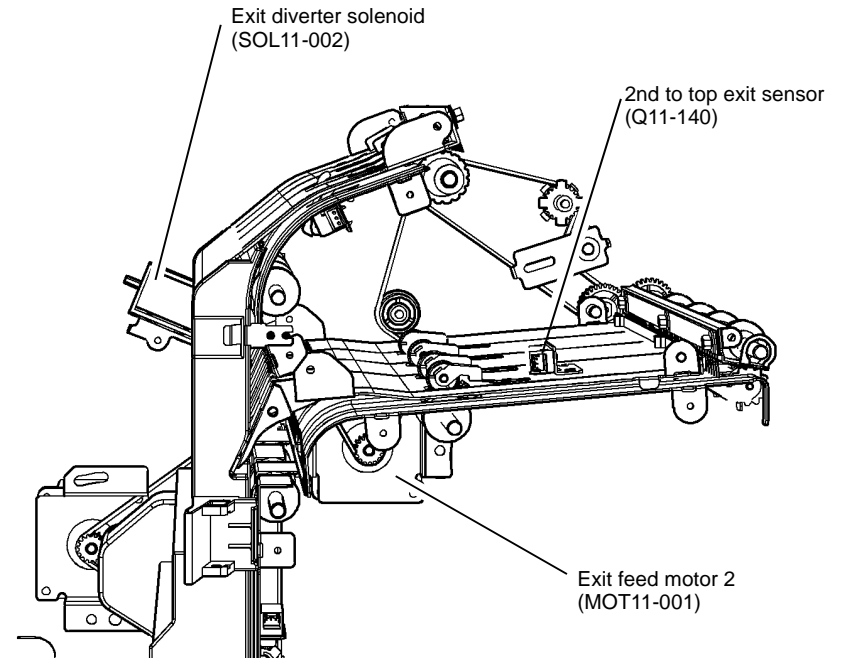


Figure 1 Component location

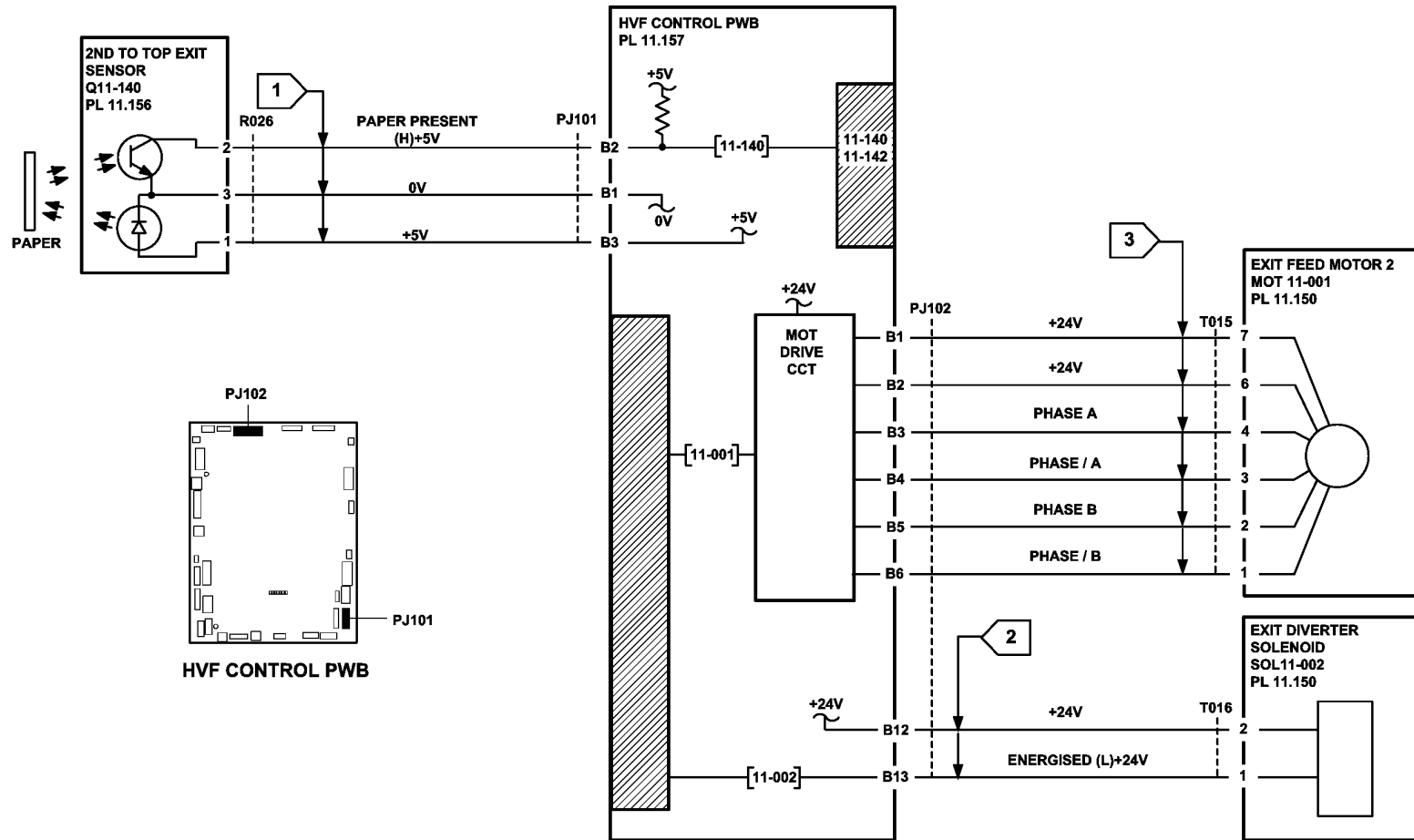


Figure 2 Circuit diagram

TT-1-0206-A



## 11-157-171, 11-161-171 HVF Buffer Position Sensor RAP

11-157-171 The paper leading edge is late arriving at the buffer position sensor.

11-161-171 The paper trailing edge is late leaving the buffer position sensor.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction in inserter transport.
- Check the paper guide for damage.
- Check the paper path of the hole punch assembly for obstructions
- Check if the HVF module has had the W/TAG V-006 modifications installed. If necessary perform ADJ 11.13-171 HVF Performance Improvement (W/TAG V-006).

### Procedure

Figure 1 shows the location of the components.

Enter dC330, code 11-157. Manually activate the buffer position sensor, Q11-157, Figure 1.

The display changes.

Y N  
Go to Flag 1. Check the sensor, Q11-157.  
Refer to:

- GP 11 How to Check a Sensor.
- P/J101, HVF Control PWB
- 11A-171 HVF Power Distribution RAP

Install new components as necessary:

- Buffer position sensor, PL 11.156 Item 2.
- HVF Control PWB PL 11.157 Item 2.

Enter dC330, code 11-000 to run the entry feed motor 1, MOT 11-000, Figure 1. The motor runs.

Y N  
Go to Flag 2. Check the entry feed motor 1, MOT 11-000.  
Refer to:

- GP 10 How to Check a Motor.
- P/J102, HVF Control PWB
- 11A-171 HVF Power Distribution RAP

Install new components as necessary:

- Entry feed motor 1, PL 11.150 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Check the drive belt on the motor. The drive belt is good.

Y N  
Install a new drive belt, PL 11.150 Item 7.

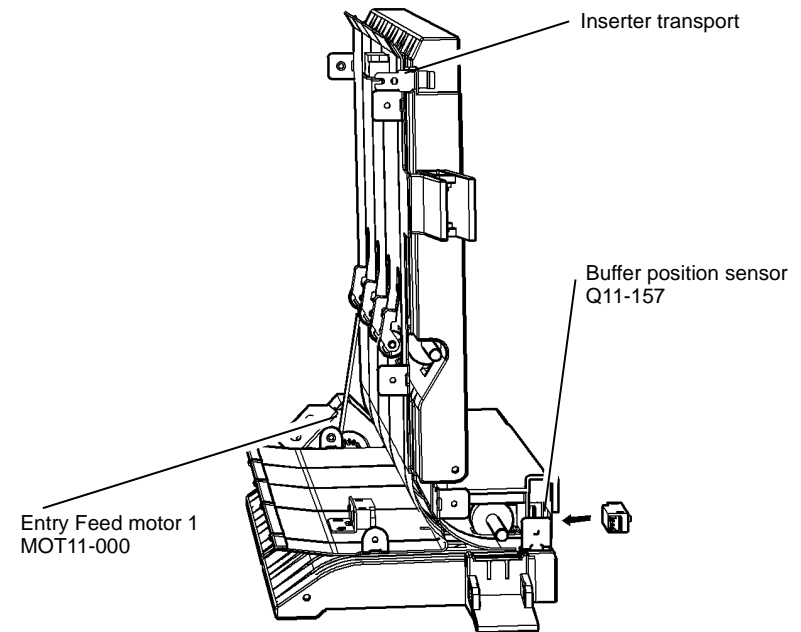
A  
Remove the hole punch assembly. Check the mechanical operation of the hole punch. The hole punch rotates unimpeded.

Y N  
Install a new hole punch assembly, PL 11.153 Item 1.

Check the punch head motor, MOT 11-043 and the Punch head home sensor, Q11-350, refer to RAP 11-044-171 to 11-047-171 Punch Unit Head and Position.

The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

- Buffer position sensor, PL 11.156 Item 2.
- Entry feed motor 1, PL 11.150 Item 2.
- HVF control PWB, PL 11.157 Item 2.
- Hole punch assembly, PL 11.153 Item 1.



T-1-0206-A

Figure 1 Component location

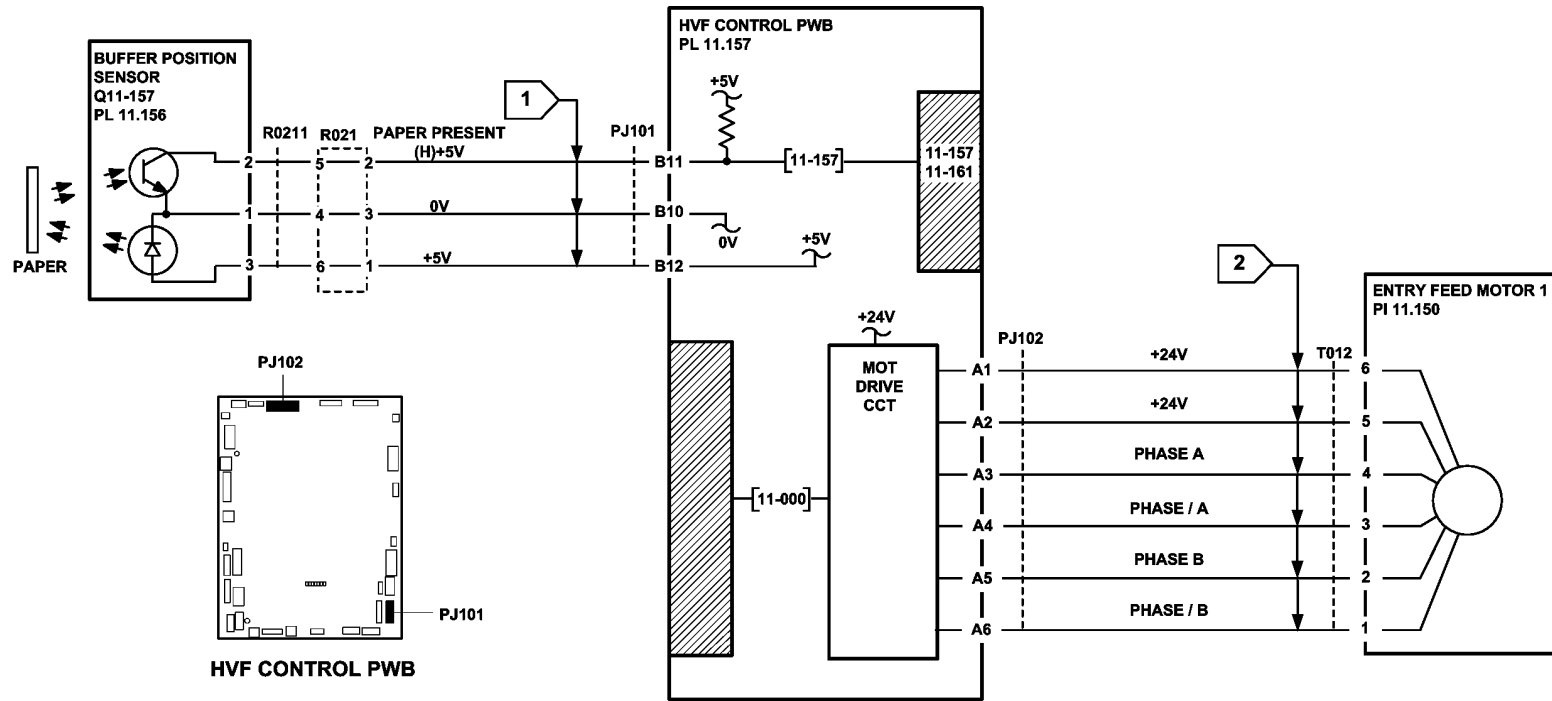


Figure 2 Circuit diagram

TT-1-0207-A

## 11-158-171, 11-160-171, 162-171, 163-171 HVF BM Entry RAP

**11-158-171** The paper leading edge is late leaving the HVF booklet exit sensor to enter into the booklet maker.

**11-160-171** The paper leading edge is late arriving at the booklet maker entry sensor.

**11-162-171** The paper trailing edge is late leaving the booklet maker entry sensor.

**11-163-171** The paper trailing edge is late leaving the HVF booklet exit sensor to enter into the booklet maker.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for a jam or other obstruction in bypass transport.
- Check for a jam or other obstruction in the BM paper entry guide.

### Procedure

Figure 1 and Figure 2 show the location of the components.

Enter dC330, code 11-158. Manually activate the HVF booklet exit sensor, Q11-158, Figure 1.

**The display changes.**

**Y N**  
Go to **Flag 1**. Check the sensor, Q11-158.  
Refer to:

- **GP 11** How to Check a Sensor.
- **P/J101**, **HVF Control PWB**.
- **11A-171** HVF Power Distribution RAP

Install new components as necessary:

- HVF booklet exit sensor, **PL 11.156** Item 3.
- HVF Control PWB, **PL 11.157** Item 2.

Enter dC330, code 11-074. Energize the BM diverter solenoid SOL 11-074, Figure 1. **The solenoid energizes.**

**Y N**  
Go to **Flag 2**. Check the solenoid, SOL 11-074.  
Refer to:

- **GP 12**, How to Check a Solenoid or Clutch.
- **P/J102**, **HVF Control PWB**.
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- BM diverter solenoid, **PL 11.150** Item 4.
- HVF control PWB, **PL 11.157** Item 2.

**A**  
Enter dC330, code 11-080 to run the bypass feed motor, MOT 11-080, Figure 1. **The motor runs.**

**Y N**  
Go to **Flag 3**. Check the bypass feed motor, MOT 11-080.  
Refer to:

- **GP 10** How to Check a Motor.
- **P/J103**, **HVF Control PWB**
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Bypass feed motor, **PL 11.150** Item 2.
- HVF control PWB, **PL 11.157** Item 2.

Check the drive belt on the motor. **The drive belt is good.**

**Y N**  
Install a new drive belt, **PL 11.150** Item 8.

Enter dC330, code 11-160. Manually activate the BM entry sensor, Q11-160, Figure 2. **The display changes.**

**Y N**  
Go to **Flag 4**. Check the sensor, Q11-160.  
Refer to:

- **GP 11** How to Check a Sensor.
- **P/J551**, **BM PWB**.
- **11A-171** HVF Power Distribution RAP

Install new components as necessary:

- BM entry sensor, **PL 11.161** Item 16.
- HVF Control PWB, **PL 11.157** Item 2.

Enter dC330, code 11-060 to run the BM compiler motor, MOT 11-060, Figure 2. **The motor runs.**

**Y N**  
Go to **Flag 5**. Check the BM compiler motor, MOT 11-060.  
Refer to:

- **GP 10** How to Check a Motor.
- **P/J554**, **BM PWB**
- **11A-171** HVF Power Distribution RAP

Install new components as necessary:

- BM compiler motor, **PL 11.166** Item 1.
- HVF control PWB, **PL 11.157** Item 2.

Lower the stapler bracket assembly, Figure 2. Enter dC330 code 11-190 BM paper present sensor, Q11-190. Actuate Q11-190. **The display changes.**

**Y N**  
Go to **Flag 6**. Check the sensor, Q11-190.  
Refer to:

- **GP 11**, How to Check a Sensor.
- **P/J556**, **BM PWB**.

**A**

**B**

B

- 11A-171 HVF Power Distribution RAP.
- Install new components as necessary:
- BM paper present sensor, PL 11.168 Item 5.
  - BM PWB, PL 11.166 Item 10.

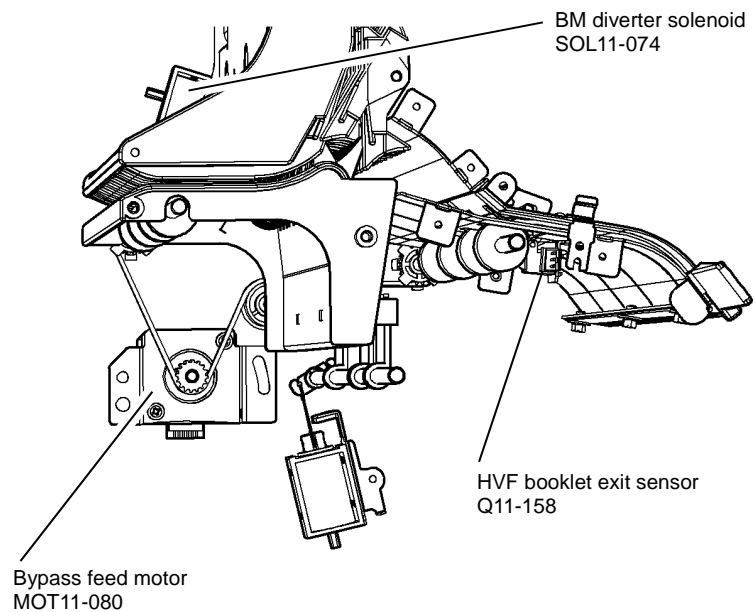
Check the drive belt on the motor. **The drive belt is good.**

Y N

Install a new drive belt, PL 11.166 Item 16.

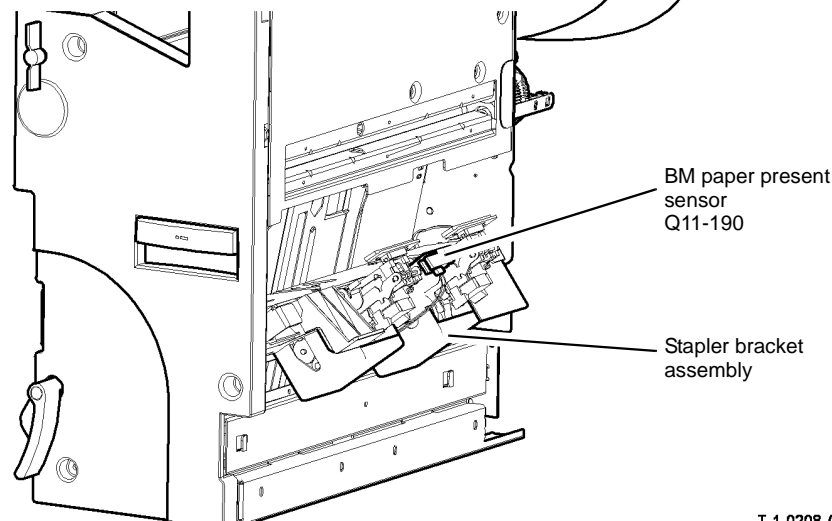
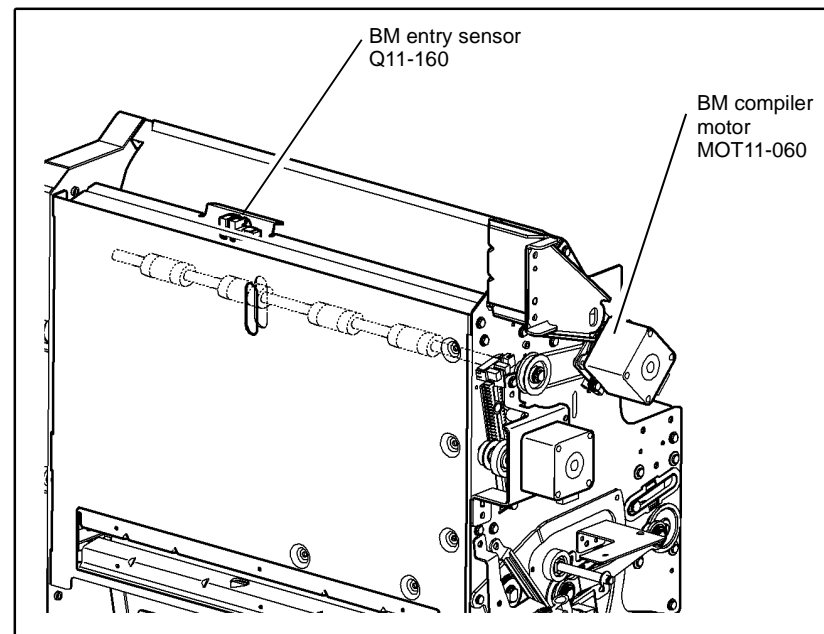
The fault may be intermittent, check for damaged wiring or bad connectors, REP 1.2. If necessary install new components:

- HVF booklet exit sensor, PL 11.156 Item 3.
- BM diverter solenoid, PL 11.150 Item 4.
- BM diverter gate, PL 11.153 Item 9.
- BM compiler motor, PL 11.166 Item 1.
- Bypass feed motor 2, PL 11.150 Item 2.
- HVF control PWB, PL 11.157.



T-1-0207-A

Figure 1 Component location



T-1-0208-A

Figure 2 Component location

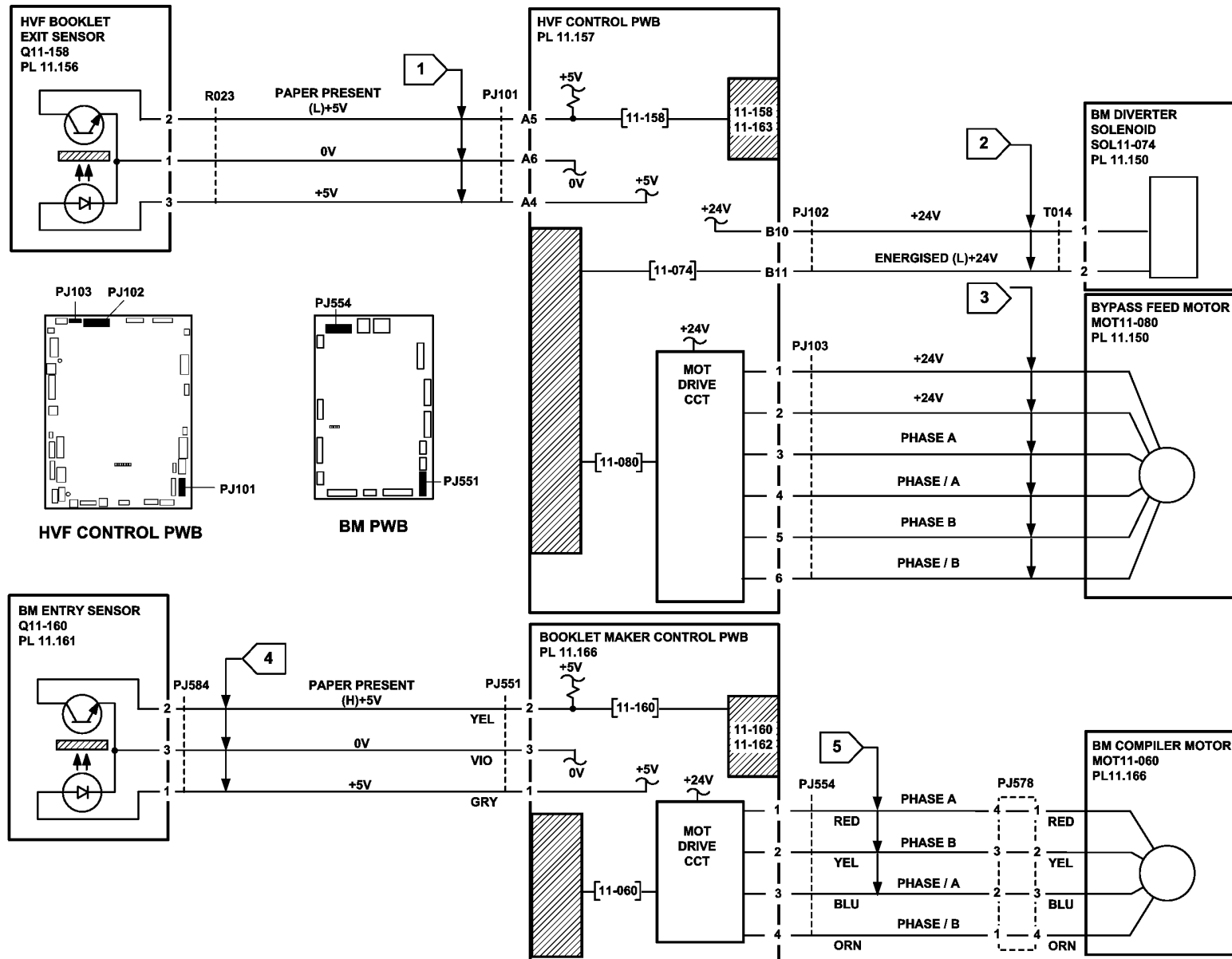


Figure 3 Circuit diagram

TT-1-0208-A

## 11-164-171, 11-165-171 HVF Buffer Path RAP

11-164-171 The paper trailing edge is late leaving the buffer path sensor.

11-165-171 The paper leading edge is late arriving at the buffer path sensor.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction in buffer path transport.
- Check the paper guide for damage.

### Procedure

Figure 1 shows the location of the components.

Enter **dC330**, code 11-164. Manually activate the buffer path sensor, Q11-164, Figure 1. **The display changes.**

**Y N**

Go to **Flag 1**. Check the sensor, Q11-164.  
Refer to:

- **GP 11** How to Check a Sensor.
- **P/J101, HVF Control PWB**
- **11A-171** HVF Power Distribution RAP

Install new components as necessary:

- Buffer path sensor, **PL 11.156** Item 2.
- HVF Control PWB, **PL 11.157** Item 2.

Enter **dC330**, code 11-079 to run the Buffer feed motor 1, MOT 11-079, Figure 1. **The motor runs.**

**Y N**

Go to **Flag 2**. Check the entry feed motor 1, MOT 11-079.  
Refer to:

- **GP 10** How to Check a Motor.
- **P/J102, HVF Control PWB**
- **11A-171** HVF Power Distribution RAP

Install new components as necessary:

- Buffer feed motor, **PL 11.150** Item 1.
- HVF control PWB, **PL 11.157** Item 2

Check the drive belt on the motor. **The drive belt is good.**

**Y N**

Install a new drive belt, **PL 11.150** Item 9.

A

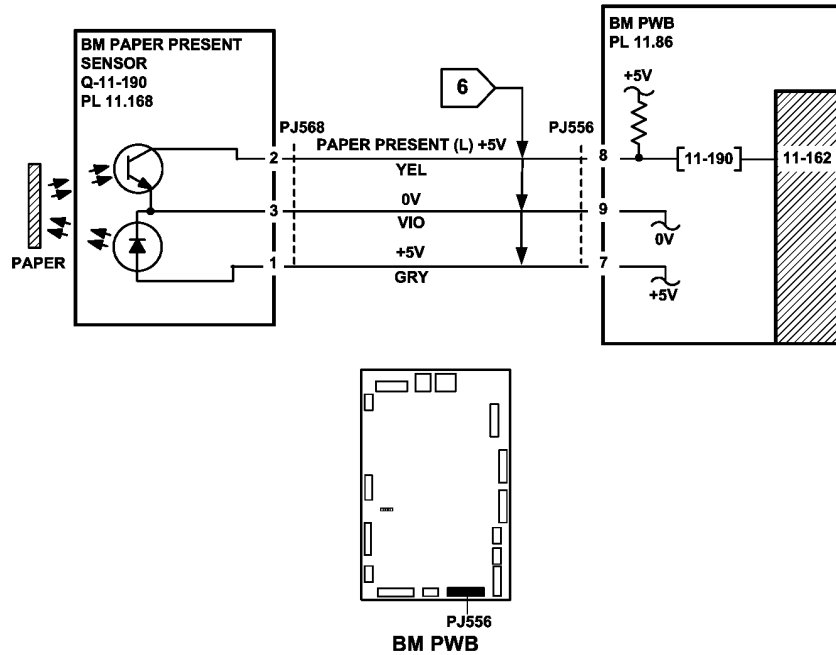


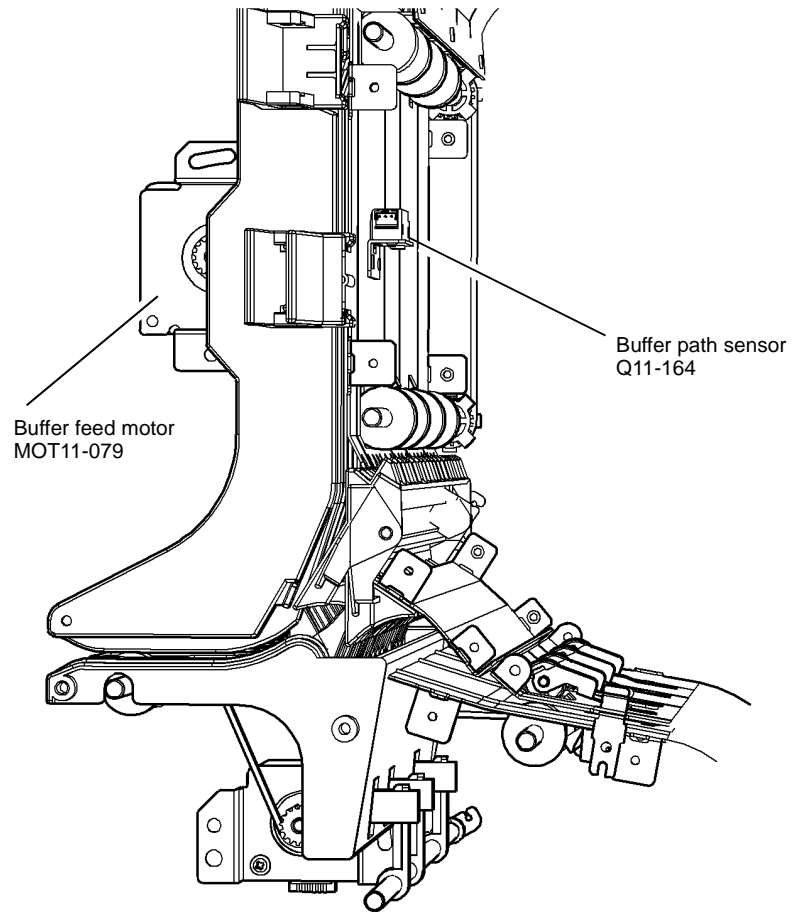
Figure 4 Circuit diagram

TT-1-0297-A

A

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install new components:

- Buffer path sensor, [PL 11.156 Item 2](#).
- Buffer feed motor, [PL 11.150 Item 1](#).
- HVF control PWB, [PL 11.157 Item 2](#).



T-1-0209-A

Figure 1 Component location

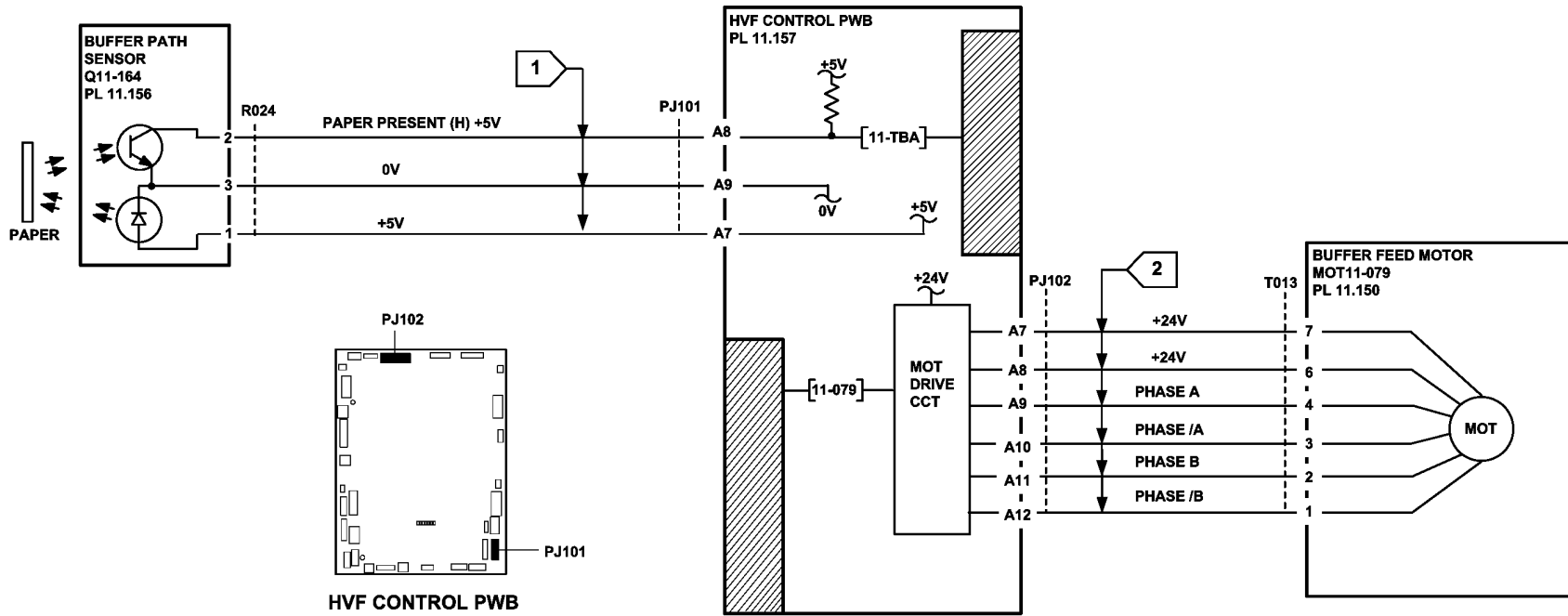


Figure 2 Circuit diagram

TT-1-0209-A



## 11-172-171 HVF BM Compiler Exit Jam RAP

11-172-171 The trail edge is late leaving the BM compiler exit sensor.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- If necessary, remove any paper from the BM.
- Check that there is no damage or obstruction in the booklet compiling area or the paper path to the booklet compiling area.
- Check that the stapler bracket assembly, PL 11.168 Item 10, is correctly latched.
- Check the operation of the BM tampers, refer to the 11-066-171, 11-384-171 HVF BM Tamper Failure RAP. If the tampers are operating correctly, go to ADJ 11.5-171 Booklet Tamping and check the tampers are correctly adjusted.

### Procedure

Lower the stapler bracket assembly, Figure 1. Enter dC330 code 11-190 BM paper present sensor, Q11-190. Actuate Q11-190. **The display changes.**

Y N

Go to Flag 1. Check the sensor, Q11-190.  
Refer to:

- GP 11, How to Check a Sensor.
- P/J556, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM paper present sensor, PL 11.168 Item 5.
- BM PWB, PL 11.166 Item 10.

Go to Flag 1. Check the connectors and harness between PJ568 and P/J556. Refer to GP 7.

**The wiring and connectors are good.**

Y N

Repair the wiring, REP 1.2 or install new components as necessary.

Enter dC330 code 11-060 BM compiler motor, MOT11-060. **MOT11-060 runs.**

Y N

Go to Flag 2. Check MOT11-060.  
Refer to:

- GP 10 How to Check a Motor.
- P/J554, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary

- BM compiler motor, PL 11.166 Item 1.
- BM PWB, PL 11.166 Item 10.

A

Unlatch the entrance baffle assembly, PL 11.161 Item 22. Run again MOT11-060. **The BM entry roll rotates.**

Y N

Check the following components:

- BM compiler motor belt, PL 11.166 Item 15.
- BM entry roll pulley, PL 11.161 Item 14.
- BM entry roll, PL 11.161 Item 15.

Install new components as necessary.

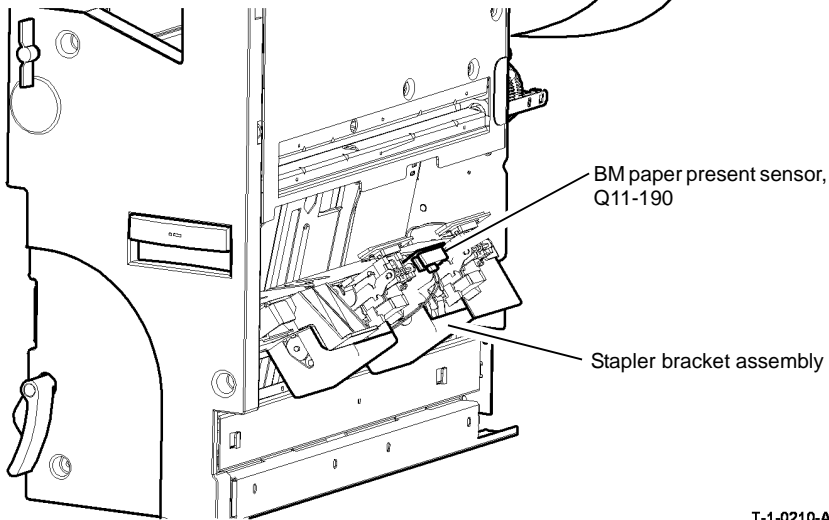
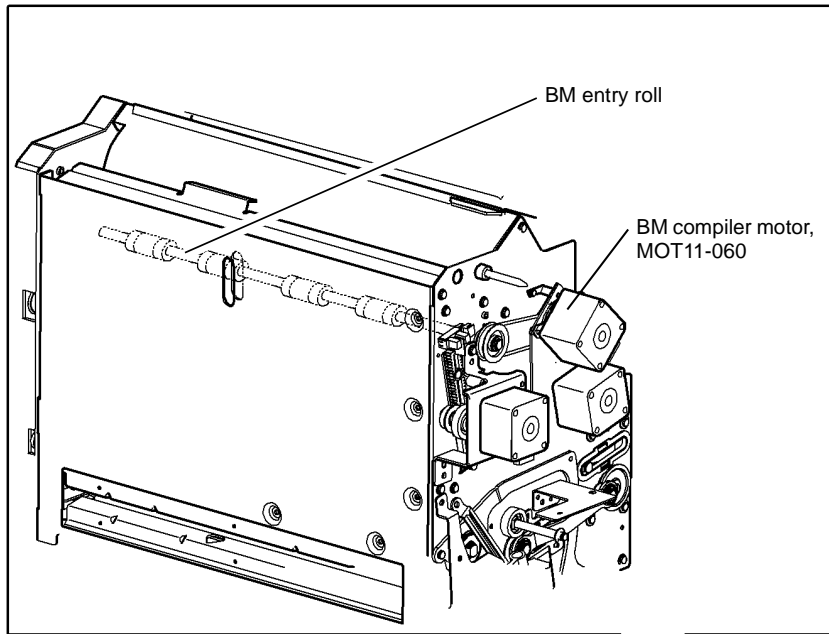
Make a 60 page booklet (15 sheets of paper). Check that the top sheet of paper has not been torn from the booklet. **The booklet is good.**

Y N

Check that the components in the lower crease roll gear and clutch assembly are correctly installed. Refer to the replacement procedure in REP 11.52-171 BM Crease Rolls, Gears and Bearings.

Perform SCP 6 Final Actions.

A



T-1-0210-A

Figure 1 Component location

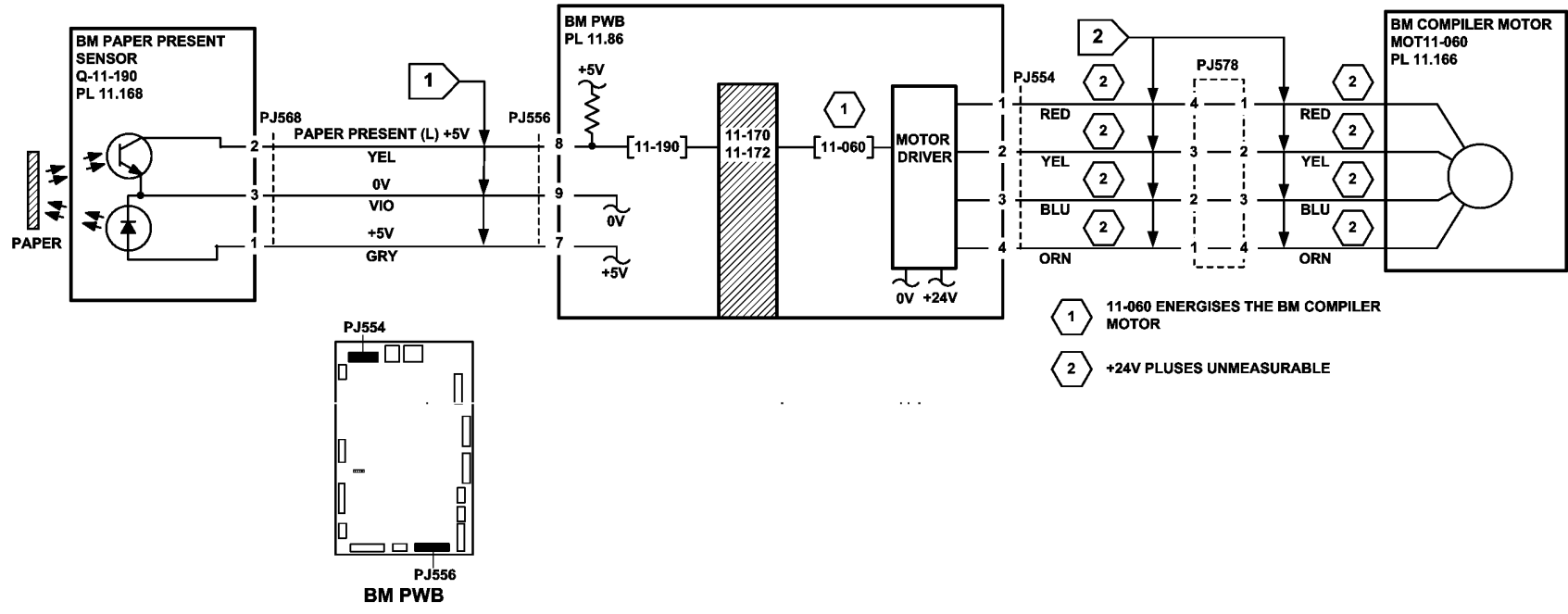


Figure 2 Circuit diagram

TT-1-0210-A

## 11-173-171 to 11-177-171 HVF Offset Unit RAP

11-173-171 The offset unit has failed to find its initialization point.

11-174-171 The offset unit has failed to return the home position.

11-175-171 The offset unit has failed to move from the home position.

11-176-171 The offset unit has failed to return to the away position.

11-177-171 The offset unit has failed to move from the away position.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for a jam or other obstruction in the offset unit.
- Check the offset unit for damage.

### Procedure

Figure 1 shows the location of the components.

Enter **dC330**, code 11-337. Manually activate the bin 1 offset sensor, Q11-337, Figure 1. **The display changes.**

**Y N**  
Go to **Flag 1**. Check the sensor, Q11-337.

Refer to:

- **GP 11** How to Check a Sensor
- **P/J302, HVF Control PWB**
- **11A-171** HVF Power Distribution RAP

Install new components as necessary:

- Bin 1 offset sensor, **PL 11.140 Item 15**
- HVF Control PWB, **PL 11.157 Item 2**

Enter **dC330**, code 11-187. Manually activate the offset index sensor, Q11-187, Figure 1. **The display changes.**

**Y N**  
Go to **Flag 2**. Check the sensor, Q11-187.

Refer to:

- **GP 11** How to Check a Sensor.
- **P/J302, HVF Control PWB**
- **11A-171** HVF Power Distribution RAP

Install new components as necessary:

- Offset index sensor, **PL 11.140 Item 15**
- Ejector assembly, **PL 11.140 Item 2**
- HVF Control PWB, **PL 11.157 Item 2**

Enter **dC330**, code 11-176. Manually activate the offset away sensor, Q11-176, Figure 1. **The display changes.**

**Y N**  
Go to **Flag 3**. Check the sensor, Q11-176.

Refer to:

- **GP 11** How to Check a Sensor
  - **P/J302, HVF Control PWB**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- Offset away sensor, **PL 11.140 Item 15**
  - Ejector assembly, **PL 11.140 Item 2**
  - HVF Control PWB **PL 11.157 Item 2**

Enter **dC330**, code 11-034 to run the bin 1 offset motor, MOT 11-034, Figure 1. **The motor runs.**

**Y N**  
Go to **Flag 4**. Check the bin 1 offset motor, MOT 11-034.

Refer to:

- **GP 10** How to Check a Motor.
  - **P/J801, HVF Control PWB**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- Bin 1 offset motor, **PL 11.140 Item 19**
  - HVF control PWB, **PL 11.157 Item 2**

The fault may be intermittent, check for damaged wiring or bad connectors, **REP 1.2**. If necessary install new components:

- Bin 1 offset sensor, **PL 11.140 Item 15**
- Offset index sensor, **PL 11.140 Item 15**
- Offset away sensor, **PL 11.140 Item 15**
- Bin 1 offset motor, **PL 11.140 Item 19**
- HVF control PWB, **PL 11.157 Item 2**

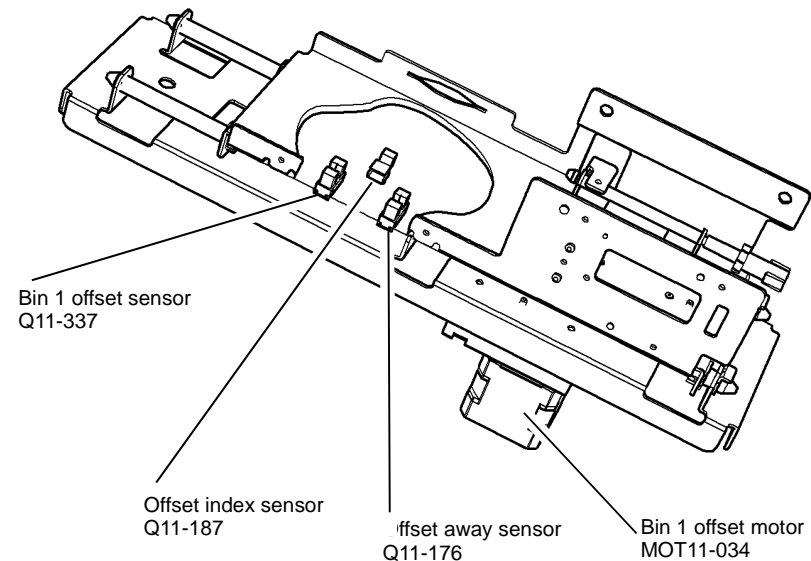


Figure 1 Component location

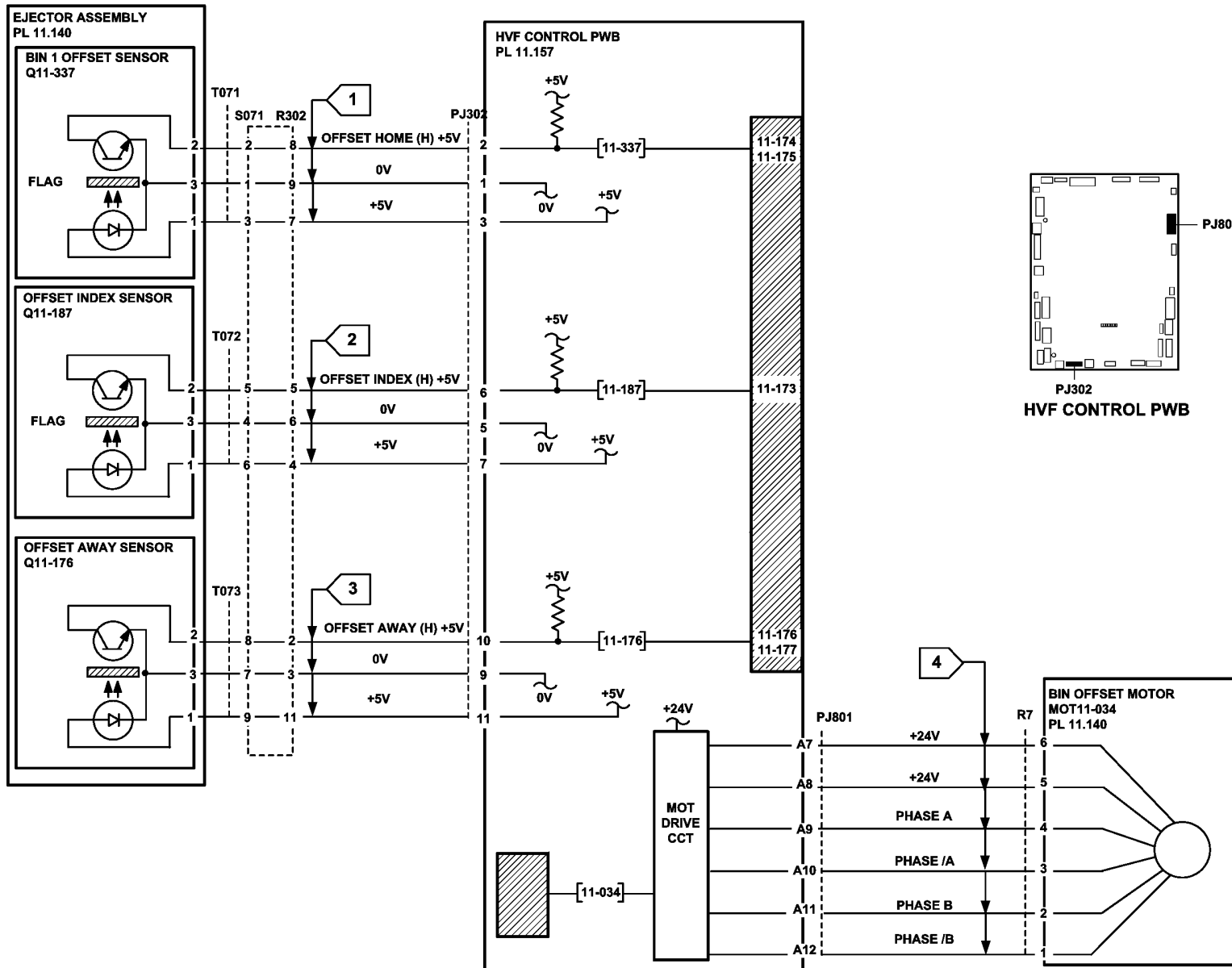


Figure 2 Circuit diagram

TT-1-0211-A

## 11-180-171, 11-182-171 HVF BM Exit Jam RAP

11-180-171 The lead edge is late arriving at the BM exit sensor.

11-182-171 The trail edge is late leaving the BM exit sensor.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Turn the crease blade knob (6d) to ensure that the crease blade mechanism is free to move. If necessary, clear any paper jam in the exit area.

### Procedure

Enter [dC330](#) code 11-418. Actuate the BM crease blade motor encoder sensor, Q11-418, [Figure 1](#) by rotating the crease blade knob (6d). **The display changes.**

Y N

Go to [Flag 1](#). Check the sensor, Q11-418.

Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J552](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, [PL 11.166 Item 10](#).
- BM crease blade motor encoder sensor, [PL 11.165 Item 1](#).

Release the crease roll nip pressure by moving the crease roll handle fully counter clockwise. Remove the BM right hand cover, [PL 11.168 Item 15](#), to access the crease rolls. Enter [dC330](#) code 11-419. Actuate the BM crease roll motor encoder sensor by rotating the crease rolls slowly by hand. **The display changes.**

Y N

Go to [Flag 2](#). Check the sensor, Q11-419.

Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J552](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, [PL 11.166 Item 10](#).
- BM crease roll motor encoder sensor, [PL 11.166 Item 9](#).

Enter [dC330](#) code 11-409. Actuate the BM exit sensor, Q11-409, [Figure 2](#). **The display changes.**

Y N

Go to [Flag 3](#). Check sensor, Q11-409.

A

A

Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J556](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, [PL 11.166 Item 10](#).
- BM exit sensor, [PL 11.168 Item 17](#).

Enter [dC330](#), code 11-062 to run the BM crease roll motor, MOT 11-062. **The motor runs.**

Y N

Go to [Flag 4](#). Check the motor, MOT 11-062.

Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J557](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- BM crease roll motor, [PL 11.166 Item 12](#).
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#), code 11-061 to run the BM crease blade motor, MOT 11-061. **The motor runs.**

Y N

Go to [Flag 5](#). Check the motor, MOT 11-061.

Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J557](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- BM crease blade motor, [PL 11.165 Item 3](#).
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#), code 11-401 to run the BM crease roll gate motor, MOT 11-401. **The motor runs.**

Y N

Go to [Flag 6](#) and [Flag 7](#). Check the motor, MOT 11-401.

Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J555](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- BM crease roll gate motor, [PL 11.166 Item 8](#).
- BM PWB, [PL 11.166 Item 10](#).

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install a new BM PWB, [PL 11.166 Item 10](#).

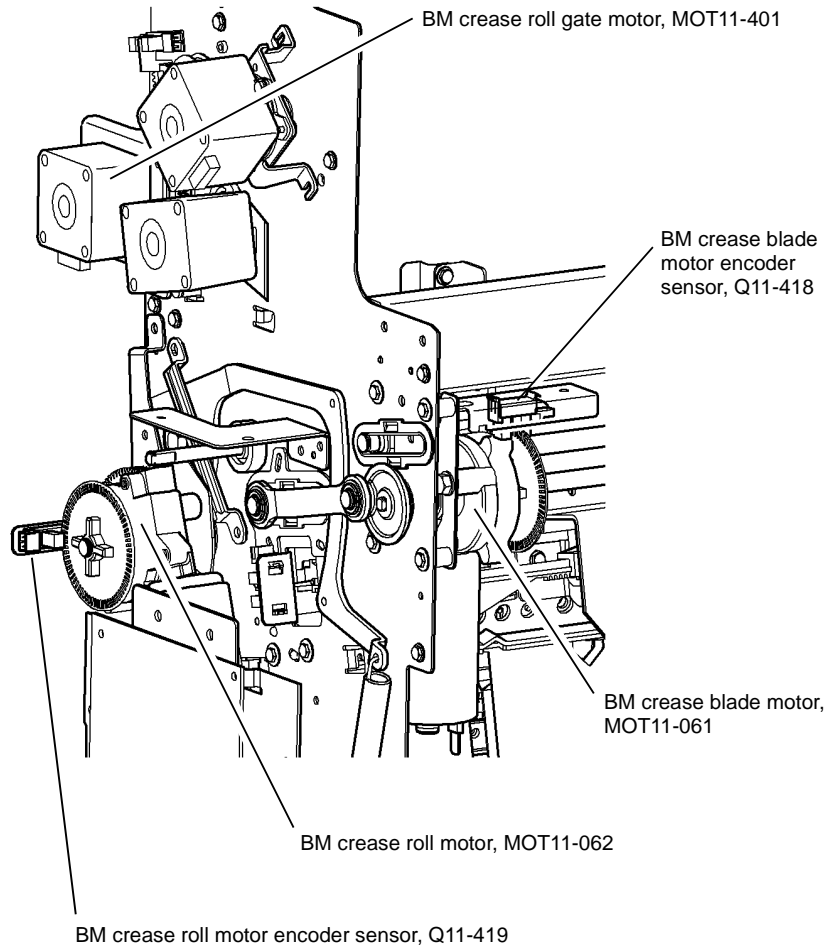


Figure 1 Component location

T-1-0212-A

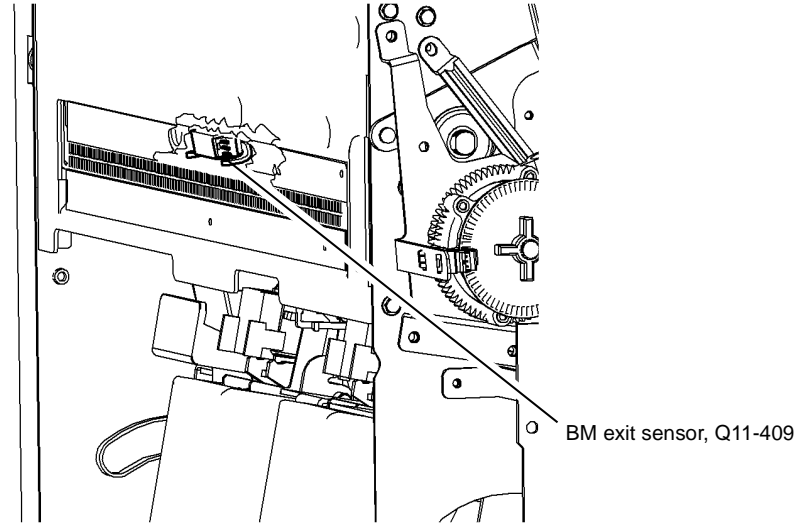


Figure 2 Component location

T-1-0213-A

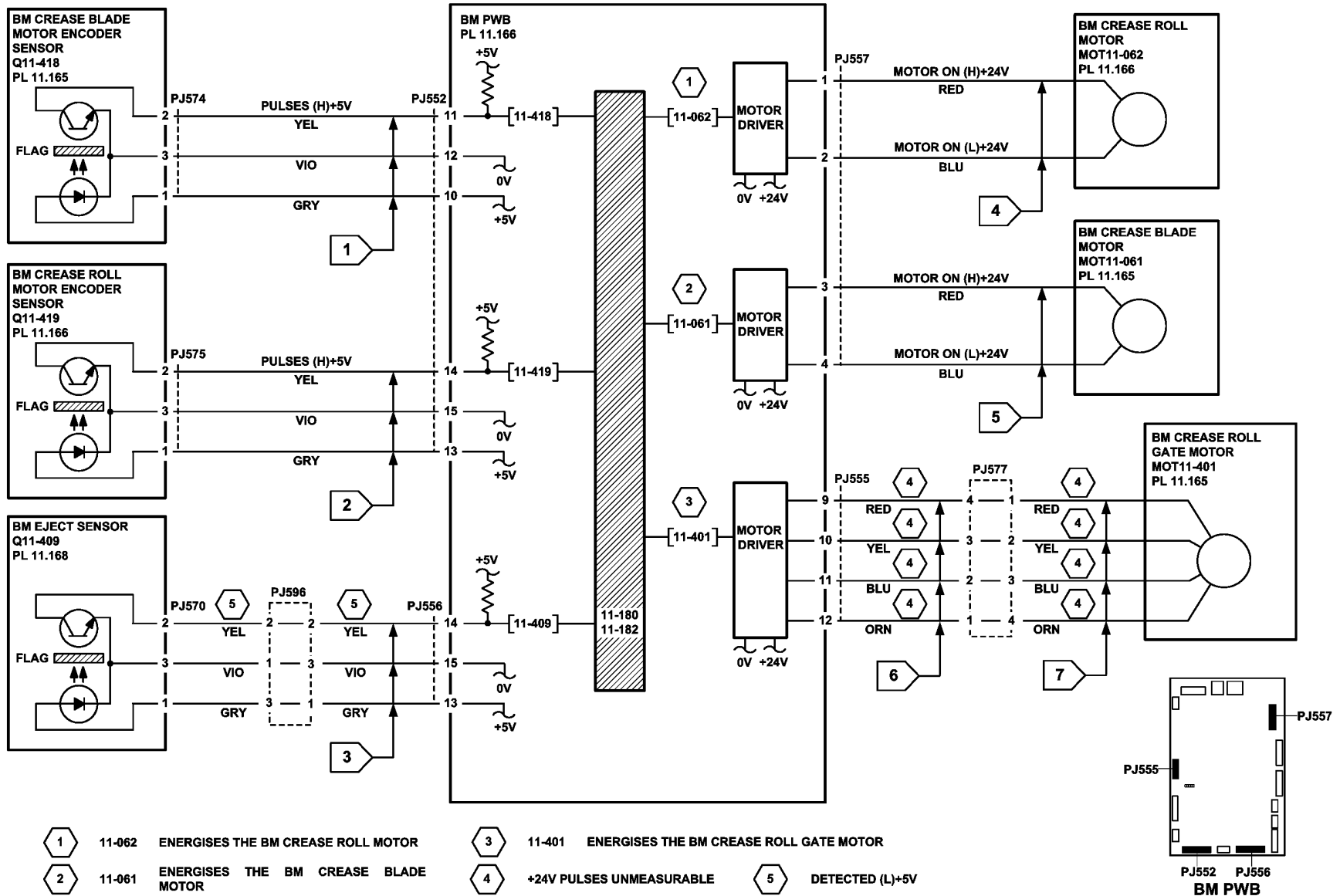


Figure 3 Circuit diagram

TT-1-0212-A



## 11-183-171, 11-184-171 HVF BM Paper Jam RAP

**11-183-171** The BM control PWB has detected an unexpected sheet in the booklet maker paper path.

**11-184-171** The BM control PWB has detected a stray sheet in the booklet maker paper path after jam clearance.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for a jam or other obstruction in the booklet maker paper path.
- Check the paper path for damage.

### Procedure

Figure 3 shows the location of the components.

Enter dC330 code 11-190. Manually actuate the BM paper present sensor, Q11-190, Figure 1.

**The display changes.**

Y N

Go to Flag 1. Check the sensor, Q11-190.

Refer to:

- GP 11 How to Check a Sensor.
- P/J556, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- BM paper present sensor, PL 11.168 Item 5.

Enter dC330 code 11-409. Manually actuate the BM exit sensor, Figure 2. **The display changes.**

Y N

Go to Flag 2. Check the sensor, Q11-409.

Refer to:

- GP 11 How to Check a Sensor.
- P/J556, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- BM exit sensor, PL 11.168 Item 17.

Enter dC330 code 11-160. Manually actuate the BM entry sensor, Q11-160, Figure 1. **The display changes.**

Y N

Go to Flag 3. Check sensor, Q11-160.

A

Refer to:

- GP 11 How to Check a Sensor.
- P/J551, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- BM entry sensor, PL 11.161 Item 16.

Enter dC330 code 11-183. Manually actuate the tri-folder entry sensor, Q11-183, Figure 3.

**The display changes.**

Y N

Go to Flag 4. Check the sensor, Q11-183.

Refer to:

- GP 11 How to Check a Sensor.
- P/J604, Tri Folder Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Tri-folder control PWB, PL 11.193 Item 16.
- Tri-folder entry sensor, PL 11.197 Item 11.

Enter dC330 code 11-183. Manually actuate the tri-folder entry sensor Q11-183. **The display changes.**

Y N

Go to Flag 5. Check between P/J602 pin 10 on the tri-folder control PWB and P/J563 pin 1 on the BM PWB.

Refer to:

- P/J563, BM PWB.
- P/J602, Tri-folder Control PWB
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- BM PWB, PL 11.166 Item 10.
- Tri-folder control PWB, PL 11.193 Item 16.

The fault may be intermittent, check the wiring REP 1.2. If necessary, install a new BM PWB, PL 11.166 Item 10.

A

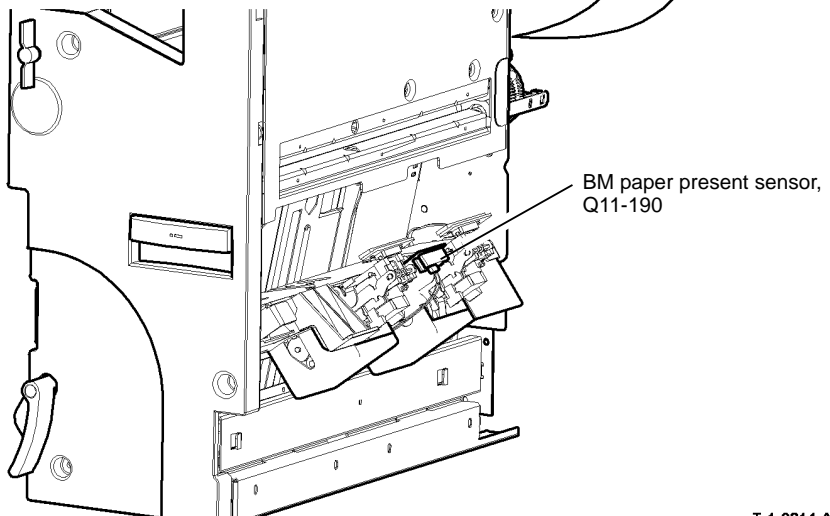
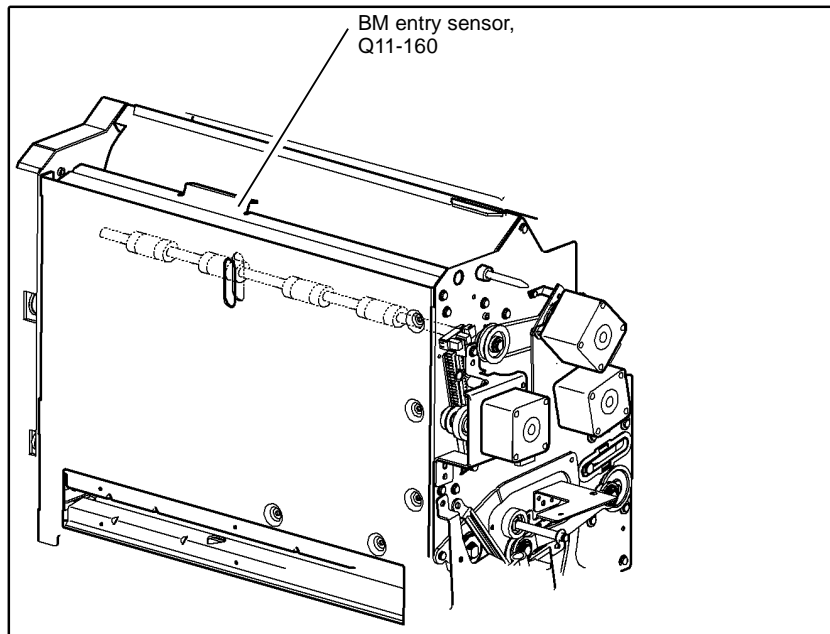


Figure 1 Component location

T-1-0214-A

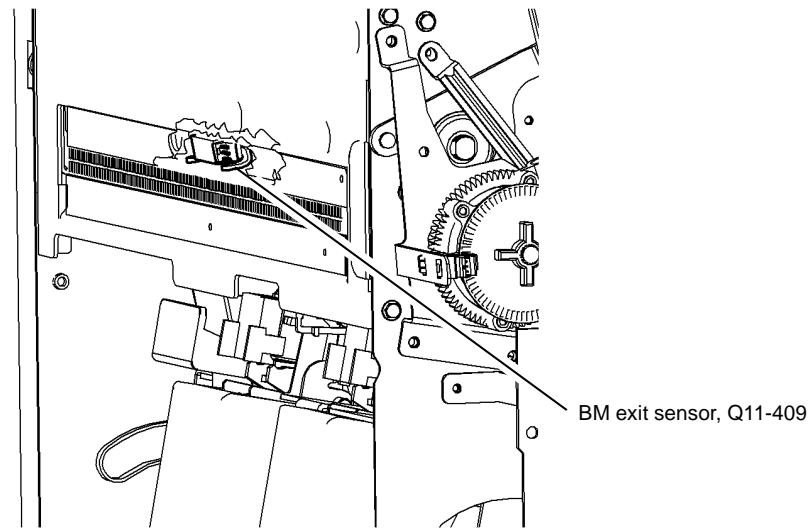


Figure 2 Component location

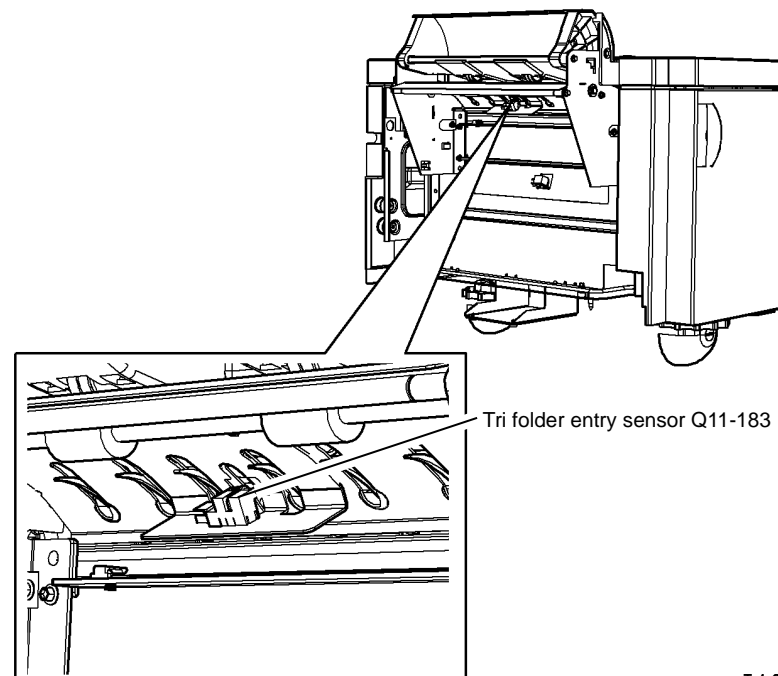


Figure 3 Component location

T-1-0216-A

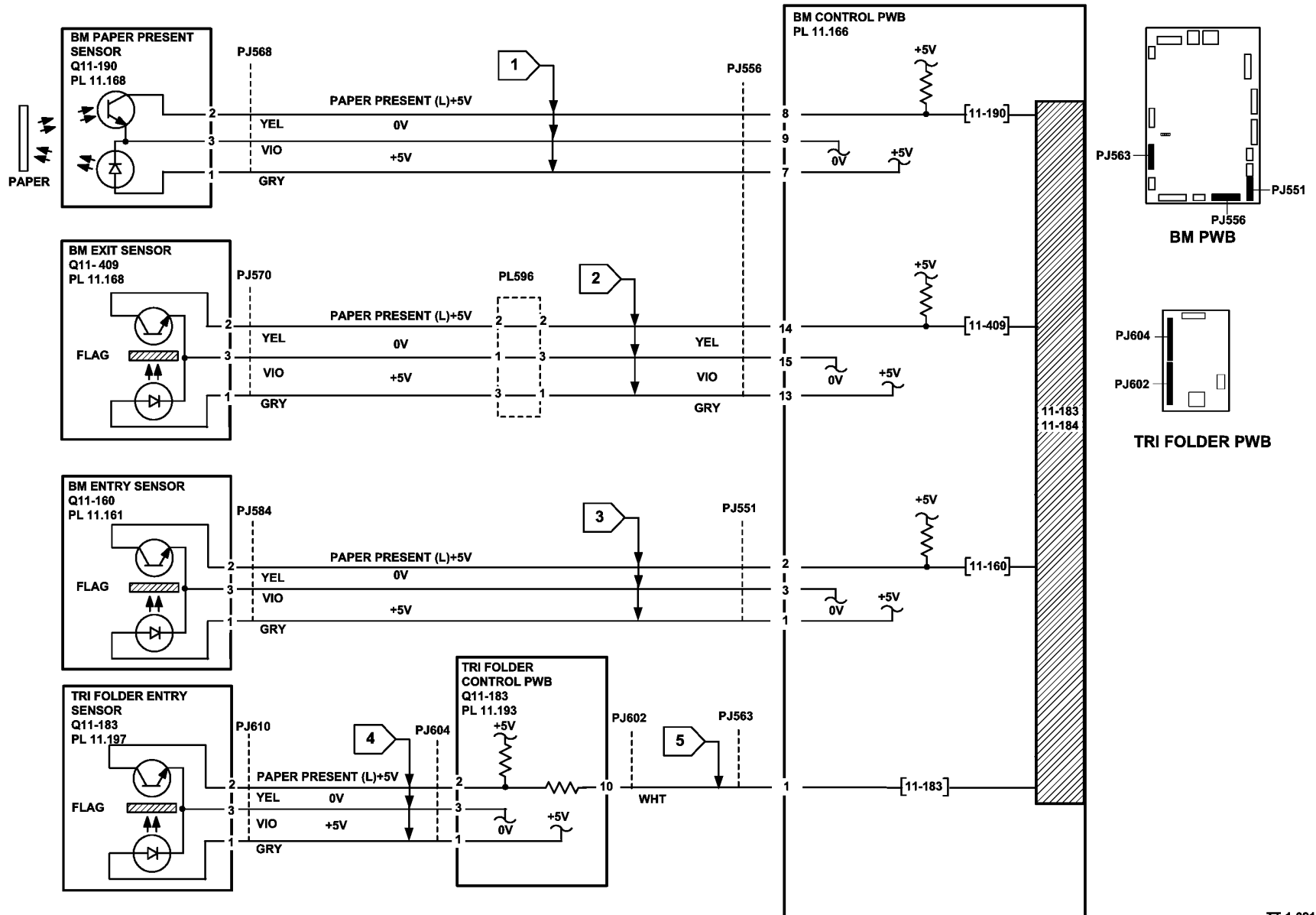


Figure 4 Circuit diagram

TT-1-0213-A

## 11-185-171 to 11-187-171 Tri-Folder Exit Sensor and Assist Sensor RAP

**11-185-171** The lead edge is late arriving at the folder exit sensor.

**11-186-171** The trail edge is late leaving the folder exit sensor.

**11-187-171** The lead edge is late arriving at the tri folder assist sensor.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction in the tri-folder.
- Check the tri-folder for damage.

### Procedure

[Figure 1](#), [Figure 2](#) and [Figure 3](#) show the location of the components.

Enter [dC330](#) code 11-184. Manually actuate the tri folder assist sensor, Q11-184, [Figure 1](#). The display changes.

- Y N
- Go to [Flag 1](#) and [Flag 2](#). Check the sensor, Q11-184.  
Refer to:
- [GP 11](#), How to Check a Sensor.
  - [P/J604](#), [P/J602](#), [Tri Folder Control PWB](#)
  - [P/J563](#), [BM PWB](#).
  - [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Tri folder assist gate sensor, [PL 11.197 Item 6](#).
- Tri-folder control PWB, [PL 11.193 Item 16](#).
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#) code 11-185. Manually actuate the folder exit sensor, [Figure 2](#). The display changes.

- Y N
- Go to [Flag 3](#) and [Flag 4](#). Check the sensor, Q11-185.  
Refer to:
- [GP 11](#), How to Check a Sensor.
  - [P/J604](#), [P/J602](#), [Tri Folder Control PWB](#).
  - [P/J563](#), [BM PWB](#).
  - [11A-171](#) HVF Power Distribution RAP.
- Install new components as necessary:
- Folder exit sensor, [PL 11.197 Item 12](#).
  - Tri-folder control PWB, [PL 11.193 Item 16](#).

- A
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#) code 11-085 to energize the tri folder diverter solenoid, SOL 11-085. The solenoid energizes.

- Y N
- Go to [Flag 5](#) and [Flag 6](#). Check the solenoid, SOL 11-085.  
Refer to:

- [GP 12](#), How to Check a Solenoid or Clutch.
- [P/J602](#), [P/J603](#), [Tri Folder Control PWB](#).
- [P/J563](#), [BM PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Diverter solenoid, [PL 11.197 Item 16](#).
- Tri-folder control PWB, [PL 11.193 Item 16](#).
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#) code 11-086 to energize the tri folder assist gate solenoid, SOL 11-086, [Figure 1](#). The solenoid energizes.

- Y N
- Go to [Flag 7](#) and [Flag 8](#). Check the solenoid, SOL 11-086.  
Refer to:

- [GP 12](#), How to Check a Solenoid or Clutch.
- [P/J563](#), [BM PWB](#).
- [P/J602](#), [P/J603](#), [Tri Folder Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Tri-folder assist solenoid, [PL 11.197 Item 8](#).
- Tri-folder control PWB, [PL 11.193 Item 16](#).
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#) code 11-087 to energize the drive clutch, CL 11-087, [Figure 1](#). The clutch energizes.

- Y N
- Go to [Flag 9](#) and [Flag 10](#). Check the clutch, CL 11-087.  
Refer to:

- [GP 12](#), How to Check a Solenoid or Clutch.
- [P/J563](#), [BM PWB](#).
- [P/J602](#), [P/J603](#), [Tri Folder Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Drive clutch, [PL 11.193 Item 9](#).
- Tri-folder control PWB, [PL 11.193 Item 16](#).
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#), code 11-062 to run the BM crease roll motor, MOT 11-062, [Figure 3](#). The motor runs.

Y N

Go to **Flag 11**. Check the motor, MOT 11-062.

Refer to:

- **GP 10** How to Check a Motor.
- **P/J557, BM PWB**.
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- BM crease roll motor, **PL 11.166 Item 8**.
- BM PWB, **PL 11.166 Item 10**.

Perform **SCP 6** Final Actions.

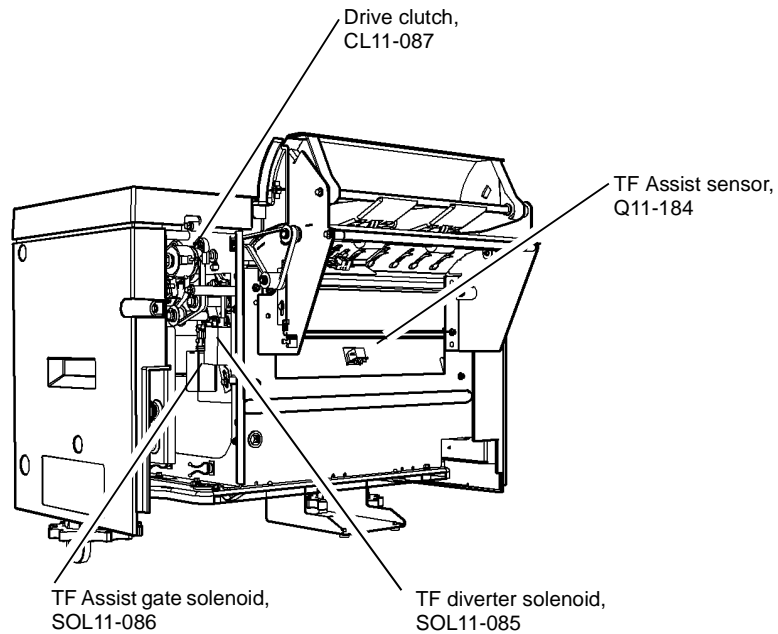


Figure 1 Component location

T-1-0217-A

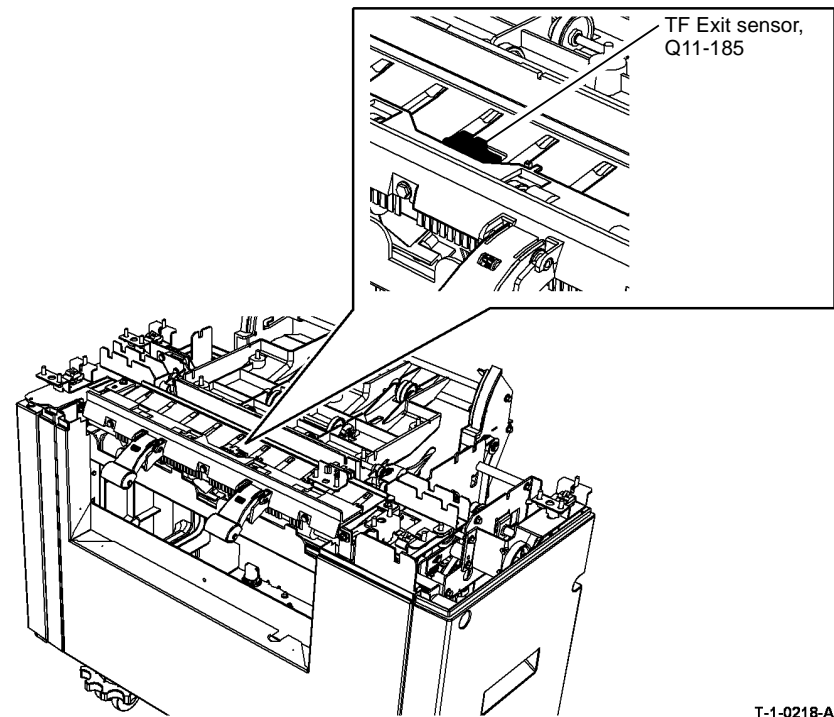
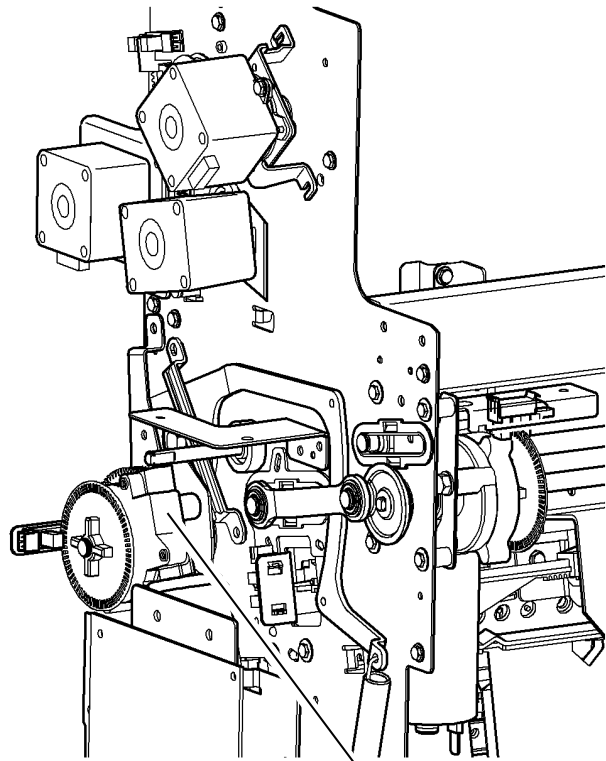


Figure 2 Component location

T-1-0218-A



BM crease roll motor,  
MOT11-062

T-1-0219-A

Figure 3 Component location

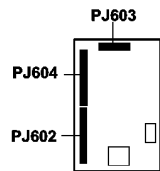
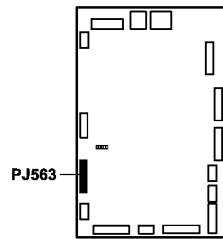
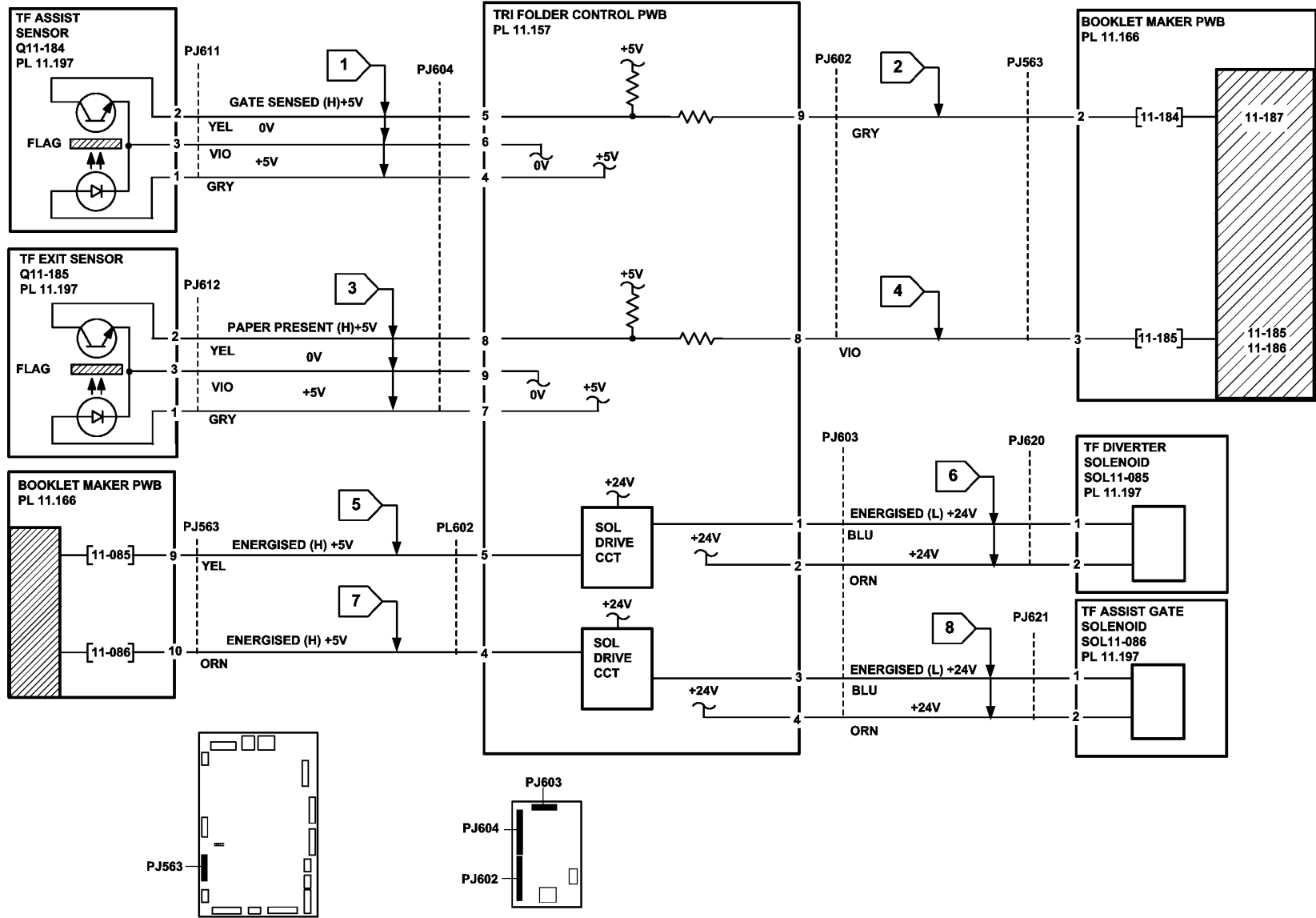
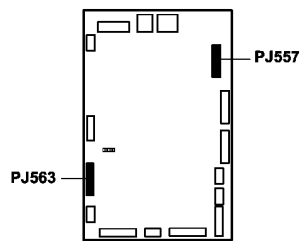
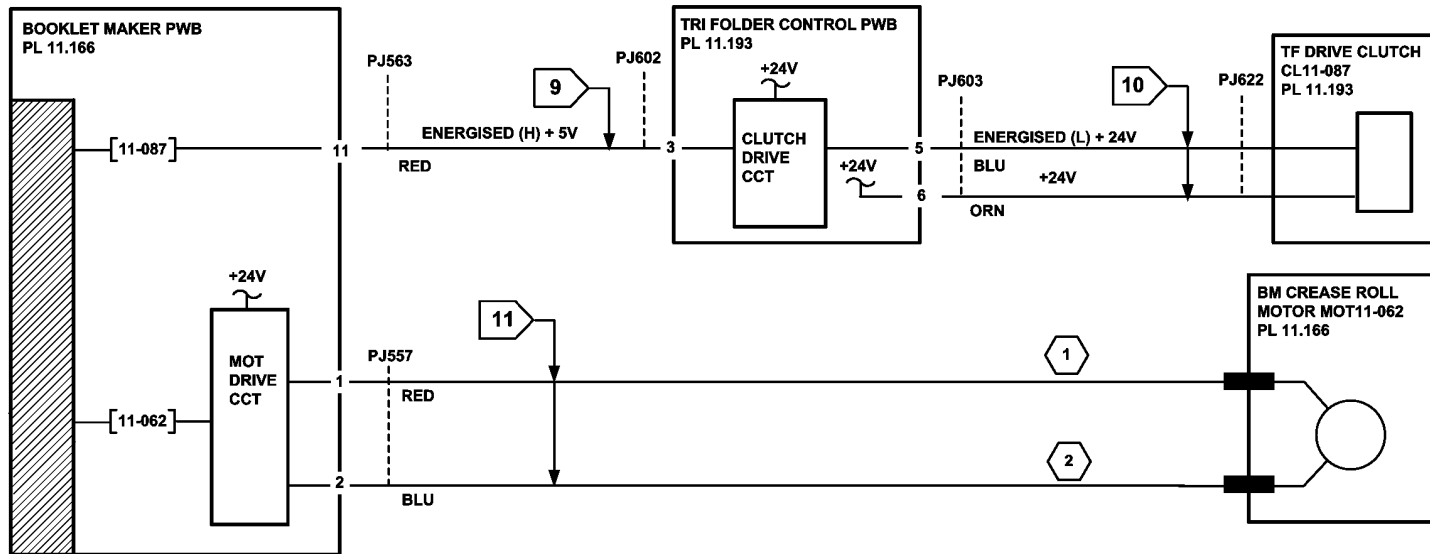
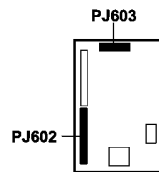


Figure 4 Circuit diagram

TT-1-0214-A



BM PWB



TRI FOLDER PWB

- 1 +24V = FORWARD  
0V = REVERSE
- 2 0V = FORWARD  
+24V = REVERSE

Figure 5 Circuit diagram

TT-1-0215-A



## 11-188-171, 11-189-171 HVF Nip Split RAP

11-188-171 The nip split has failed to operate.

11-189-171 The nip split has failed to return to the home position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction in the nip split.
- Check the nip split for damage.

### Procedure

Figure 1 shows the location of the components.

Enter [dC330](#), code 11-081 to run the nip split motor, MOT 11-081. The nip-split mechanism can be heard.

Y N  
Go to [Flag 3](#). Check the motor, MOT 11-081.  
Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J102](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Nip split motor, [PL 11.153](#) Item 15.
- HVF control PWB, [PL 11.157](#) Item 2.

Enter [dC330](#) code 11-159. Manually actuate the Nip home sensor, Q11-159, [Figure 1](#). The display changes.

Y N  
Go to [Flag 1](#). Check the sensor, Q11-159.  
Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J101](#), [HVF Control PWB](#)
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Nip home sensor, [PL 11.156](#) Item 1.
- HVF control PWB, [PL 11.157](#) Item 2.

Enter [dC330](#) code 11-170. Manually actuate the nip split sensor, Q11-170. The display changes.

Y N  
Go to [Flag 2](#). Check the sensor, Q11-170.  
Refer to:

- [GP 11](#), How to Check a Sensor.

- [P/J101](#), [P/J102](#) HVF Control PWB.
  - [11A-171](#) HVF Power Distribution RAP.
- Install new components as necessary:
- Nip split sensor, [PL 11.156](#) Item 1.
  - HVF control PWB, [PL 11.157](#) Item 2.

Perform [SCP 6](#), Final Actions.

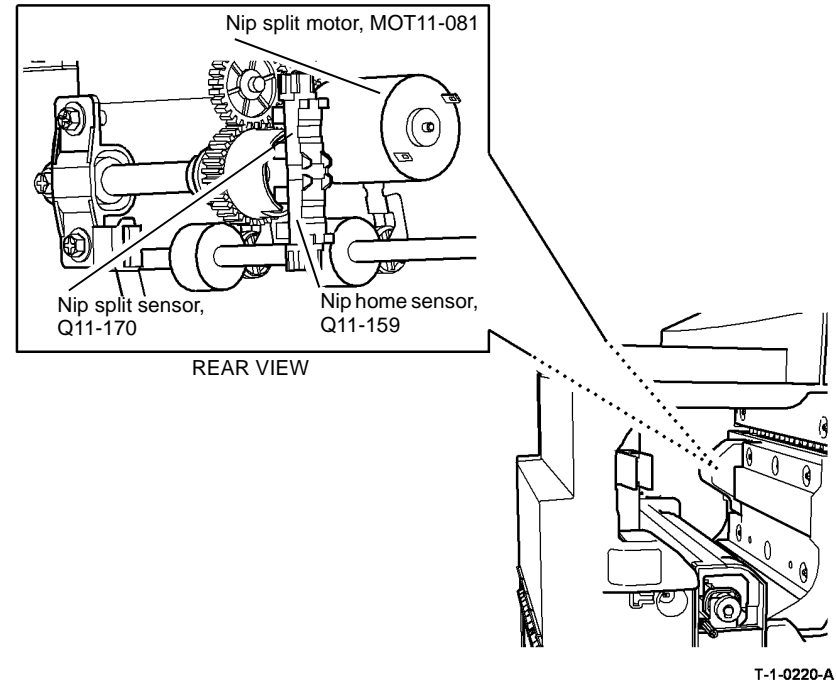


Figure 1 Component location

A

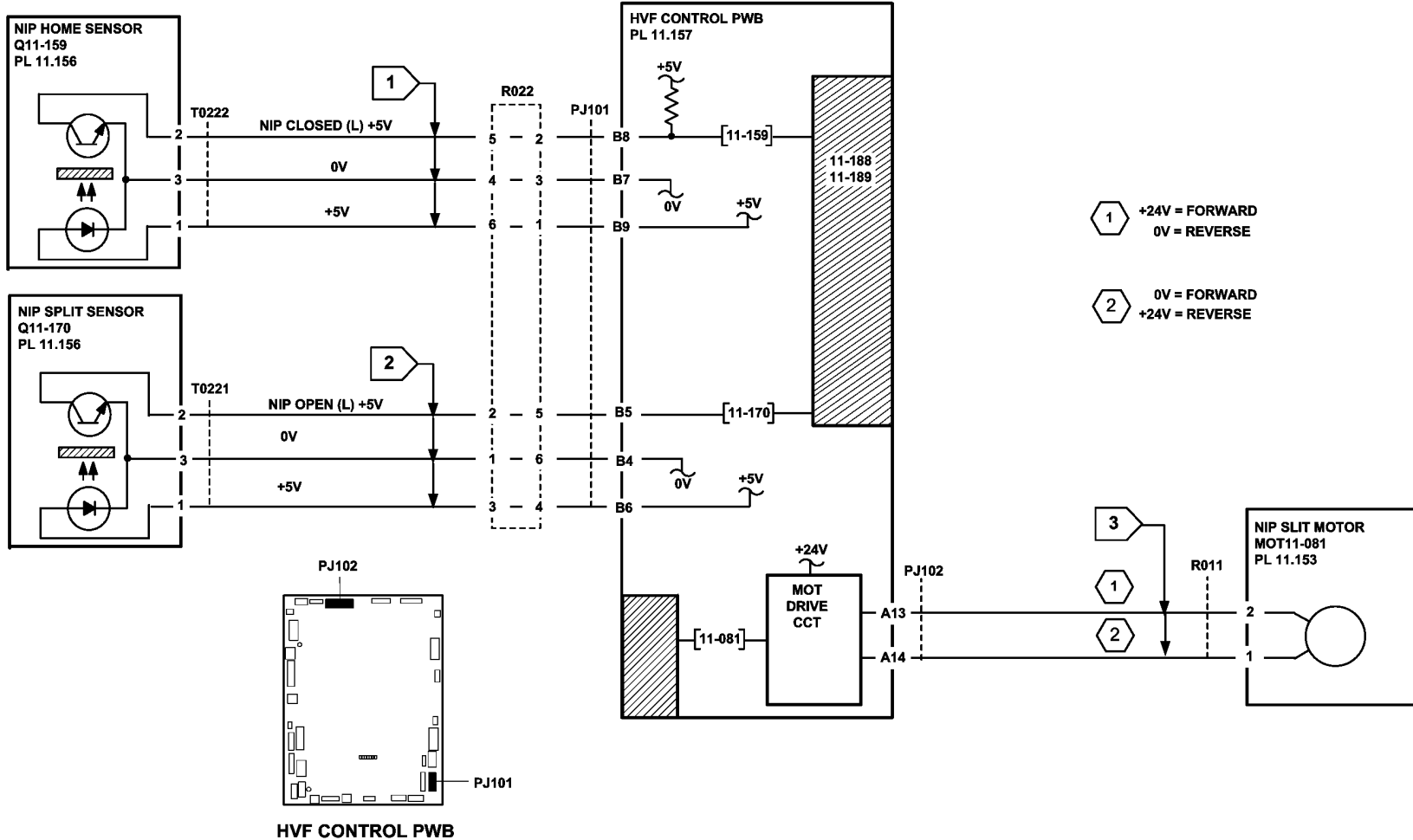


Figure 2 Circuit diagram

TT-1-0216-A

## 11-191-171, 11-193-171, 11-194-171, 11-196-171 Inserter Paper Jam RAP

**11-191-171** The leading edge is late arriving at the inserter standby sensor.

**11-193-171** The trailing edge is late leaving the inserter standby sensor.

**11-194-171** The leading edge is late arriving at the inserter TE sensor.

**11-196-171** The trailing edge is late leaving the inserter TE sensor.

Fault code 11-191 may also be generated where a fault in the inserter causes jamming in the IOT.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for a jam or other obstruction in the inserter.
- Check the inserter for damage.

### Procedure

Figure 1 shows the location of the components. Enter dC330 code 11-155. Manually actuate the inserter TE sensor, Q11-155, Figure 1. **The display changes.**

Y N

Go to Flag 1 and Flag 2. Check the sensor, Q11-155.  
Refer to:

- GP 11, How to Check a Sensor.
- P/J6, P/J4, Inserter PWB.
- P/J701, HVF Control PWB
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Inserter TE sensor, PL 11.179 Item 11.
- Inserter PWB, PL 11.179 Item 9.
- HVF control PWB, PL 11.157 Item 2.

Measure the voltage of pin 2 of P/J11. Manually actuate the acceleration sensor, Figure 1. **The voltage changes.**

Y N

Go to Flag 3 and Flag 4. Check the sensor.  
Refer to:

- GP 11, How to Check a Sensor.
- P/J6, P/J4, Inserter PWB.
- P/J701, HVF Control PWB

Install new components as necessary:

- Acceleration sensor, PL 11.175 Item 10.
- Inserter PWB, PL 11.179 Item 9.
- HVF control PWB, PL 11.157 Item 2.

Measure the voltage at pin 2 of P/J702 on the HVF PWB. Open the front door and open 8a jam clearance guide. Manually actuate the inserter standby sensor with a sheet of paper. **The voltage changes.**

Y N

Go to Flag 5. Check the sensor.

Refer to:

- GP 11, How to Check a Sensor.
- P/J702, HVF Control PWB
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Inserter standby sensor, PL 11.156 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Enter dC330 code 11-077. Energize the inserter, CL 11-077. **The clutch energizes.**

Y N

Go to Flag 6 (W/O TAG V-001) or Flag 10 (With TAG V-001) and Flag 7. Check the clutch, CL 11-077.

Refer to:

- GP 12, How to Check a Solenoid or Clutch.
- P/J12, P/J5, Inserter PWB.
- P/J703, HVF Control PWB
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Inserter clutch, PL 11.179 Item 3.
- Inserter control PWB, PL 11.179 Item 9.
- HVF control PWB, PL 11.157 Item 2.

Enter dC330, code 11-078 to run the inserter motor, MOT 11-078. **The motor runs.**

Y N

Go to Flag 8 and Flag 9. Check the motor, MOT 11-078.

Refer to:

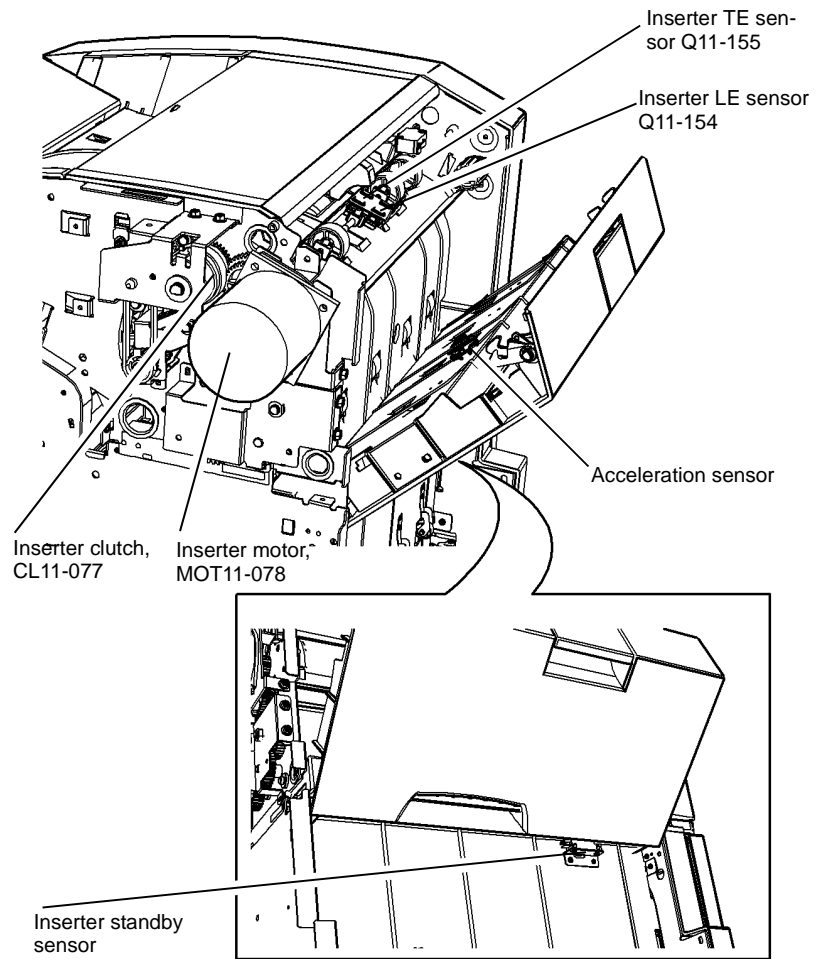
- GP 10 How to Check a Motor.
- P/J701, HVF Control PWB
- P/J4, Inserter PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Inserter motor, PL 11.181 Item 1.
- Inserter control PWB, PL 11.179 Item 9.
- HVF control PWB, PL 11.157 Item 2.

Perform SCP 6 Final Actions.

A



T-1-0221-A

Figure 1 Component location

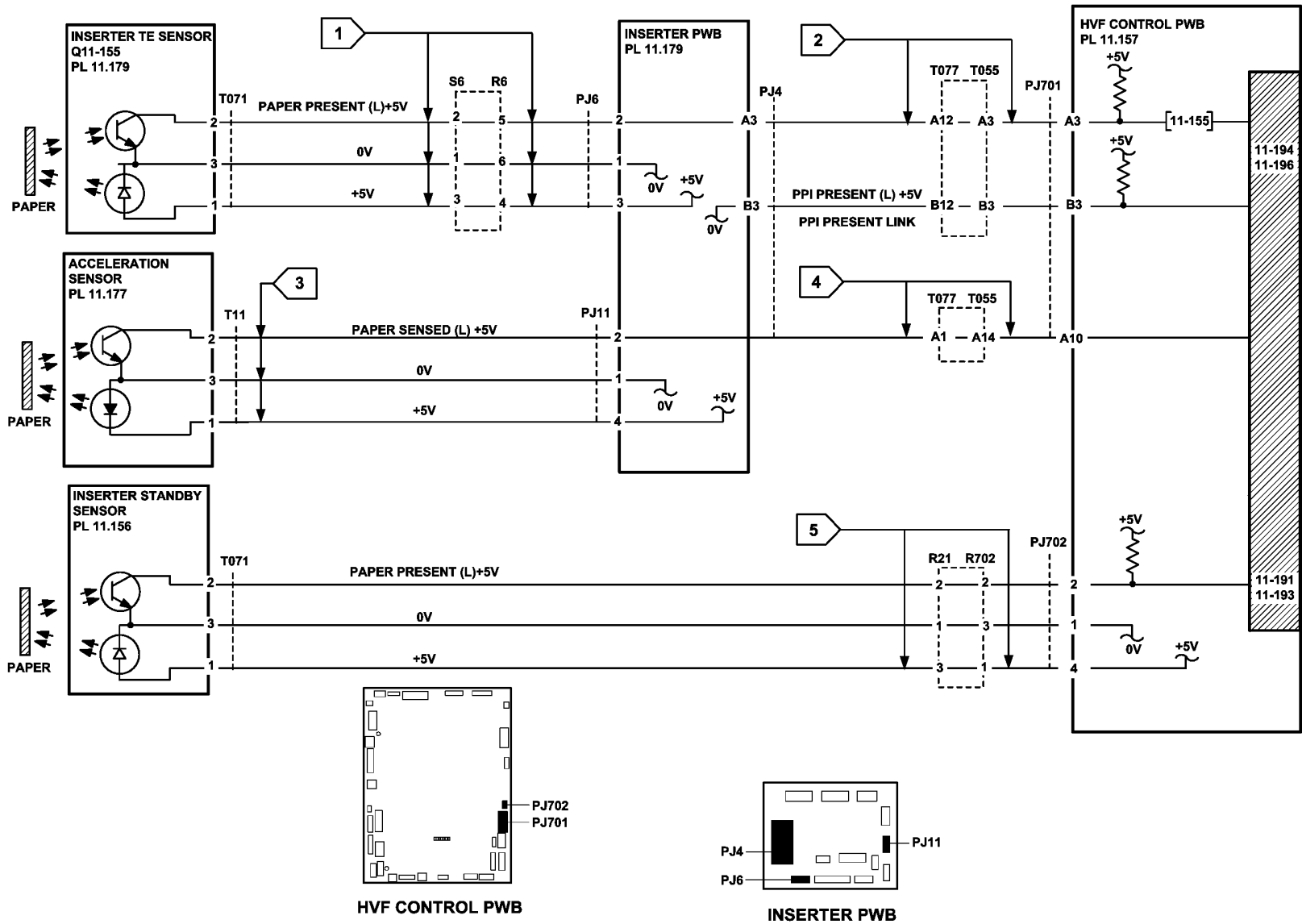
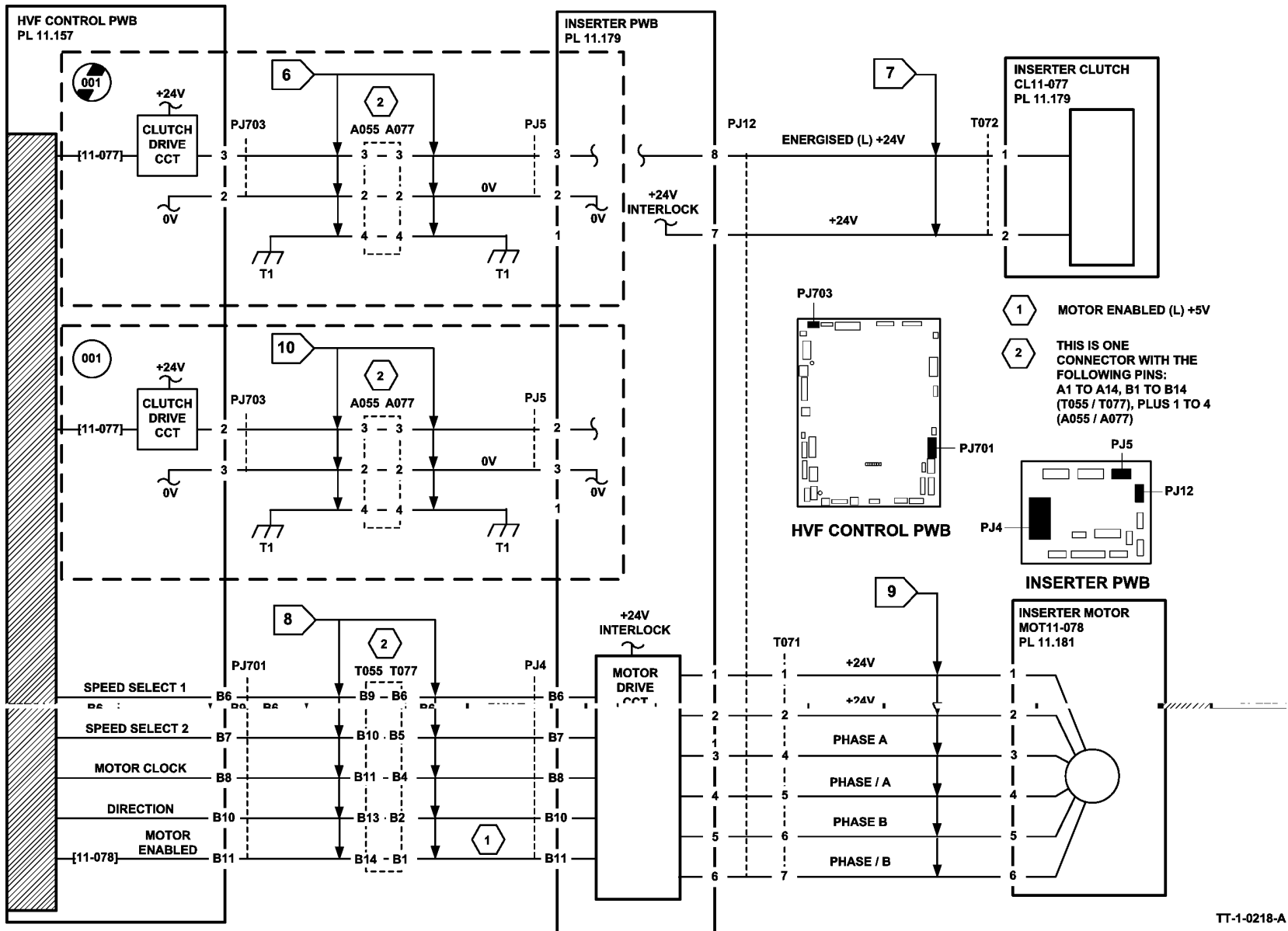


Figure 2 Circuit diagram

TT-1-0217-A



TT-1-0218-A

## 11-198-171, 11-199-171 HVF Paper Jam RAP

**11-198-171** A stray sheet was detected in the finisher, after a jam clearance.

**11-199-171** An unexpected sheet has been detected in the finisher.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for a jam or other obstruction in the HVF paper path.
- Check the paper path for damage.

### Procedure

Figure 1 shows the location of the components.

Enter **dC330**, code 11-100. Manually activate the entry sensor, Q11-100, Figure 1. **The display changes.**

- Y N**
- Go to **Flag 1**. Check the sensor, Q11-100.  
Refer to:
- **GP 11** How to Check a Sensor.
  - **P/J101, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- Entry sensor, **PL 11.156 Item 2.**
  - HVF Control PWB, **PL 11.157 Item 2.**

Enter **dC330**, code 11-157. Manually activate the buffer position sensor, Q11-157, Figure 1. **The display changes.**

- Y N**
- Go to **Flag 2**. Check the sensor, Q11-157.  
Refer to:
- **GP 11** How to Check a Sensor.
  - **P/J101, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- Buffer position sensor, **PL 11.156 Item 2.**
  - HVF Control PWB, **PL 11.157 Item 2.**

Enter **dC330**, code 11-164. Manually activate the buffer path sensor, Q11-164, Figure 1. **The display changes.**

- Y N**
- Go to **Flag 3**. Check the sensor, Q11-164.  
Refer to:
- **GP 11** How to Check a Sensor.

- A**
- **P/J101, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- Buffer path sensor, **PL 11.156 Item 2.**
  - HVF Control PWB, **PL 11.157 Item 2.**

Enter **dC330**, code 11-140. Manually activate the stacker exit sensor, Q11-140, Figure 1. **The display changes.**

- Y N**
- Go to **Flag 4**. Check the sensor, Q11-140.  
Refer to:
- **GP 11** How to Check a Sensor.
  - **P/J101, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- Stacker exit sensor, **PL 11.156 Item 2.**
  - HVF Control PWB, **PL 11.157 Item 2.**

Enter **dC330**, code 11-130. Manually activate the top exit sensor, Q11-130, Figure 1. **The display changes.**

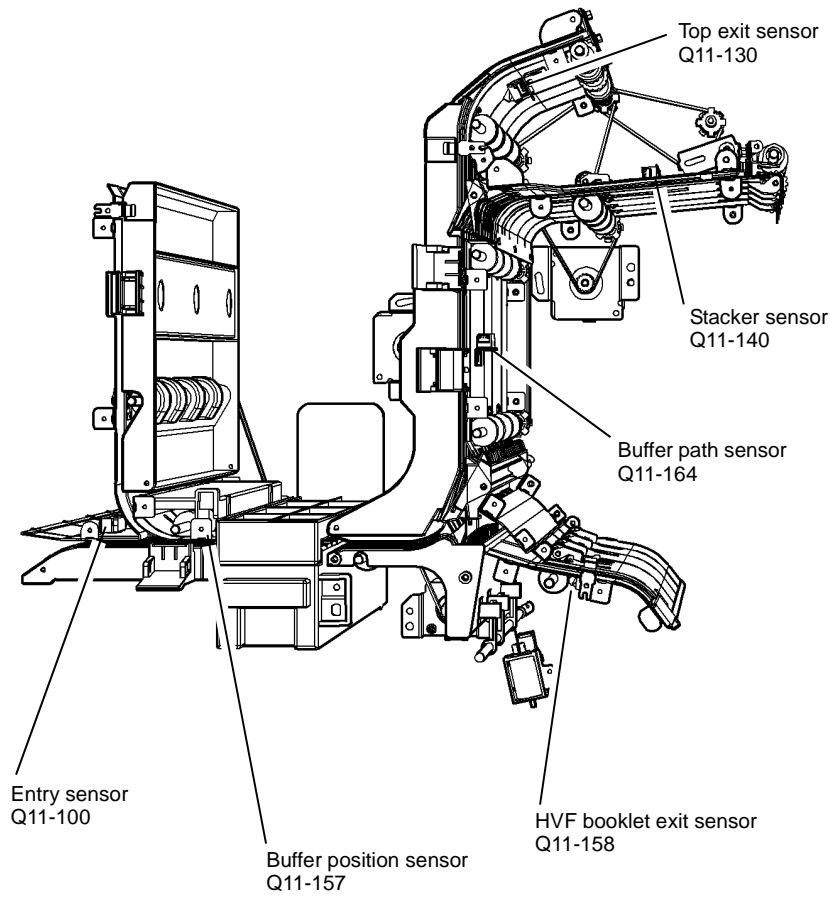
- Y N**
- Go to **Flag 5**. Check the sensor, Q11-130.  
Refer to:
- **GP 11** How to Check a Sensor.
  - **P/J101, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- Top exit sensor, **PL 11.156 Item 3.**
  - HVF Control PWB, **PL 11.157 Item 2.**

HVF BM machines only, enter **dC330**, code 11-158. Manually activate the HVF booklet exit sensor, Q11-158, Figure 1. **The display changes.**

- Y N**
- Go to **Flag 6**. Check the sensor, Q11-158.  
Refer to:
- **GP 11** How to Check a Sensor.
  - **P/J101, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP
- Install new components as necessary:
- HVF booklet exit sensor, **PL 11.156 Item 3.**
  - HVF Control PWB **PL 11.157 Item 2.**

The fault may be intermittent, check for damaged wiring or bad connectors, **REP 1.2**. If necessary install new components.

**A**



T-1-0222-A

Figure 1 Component location



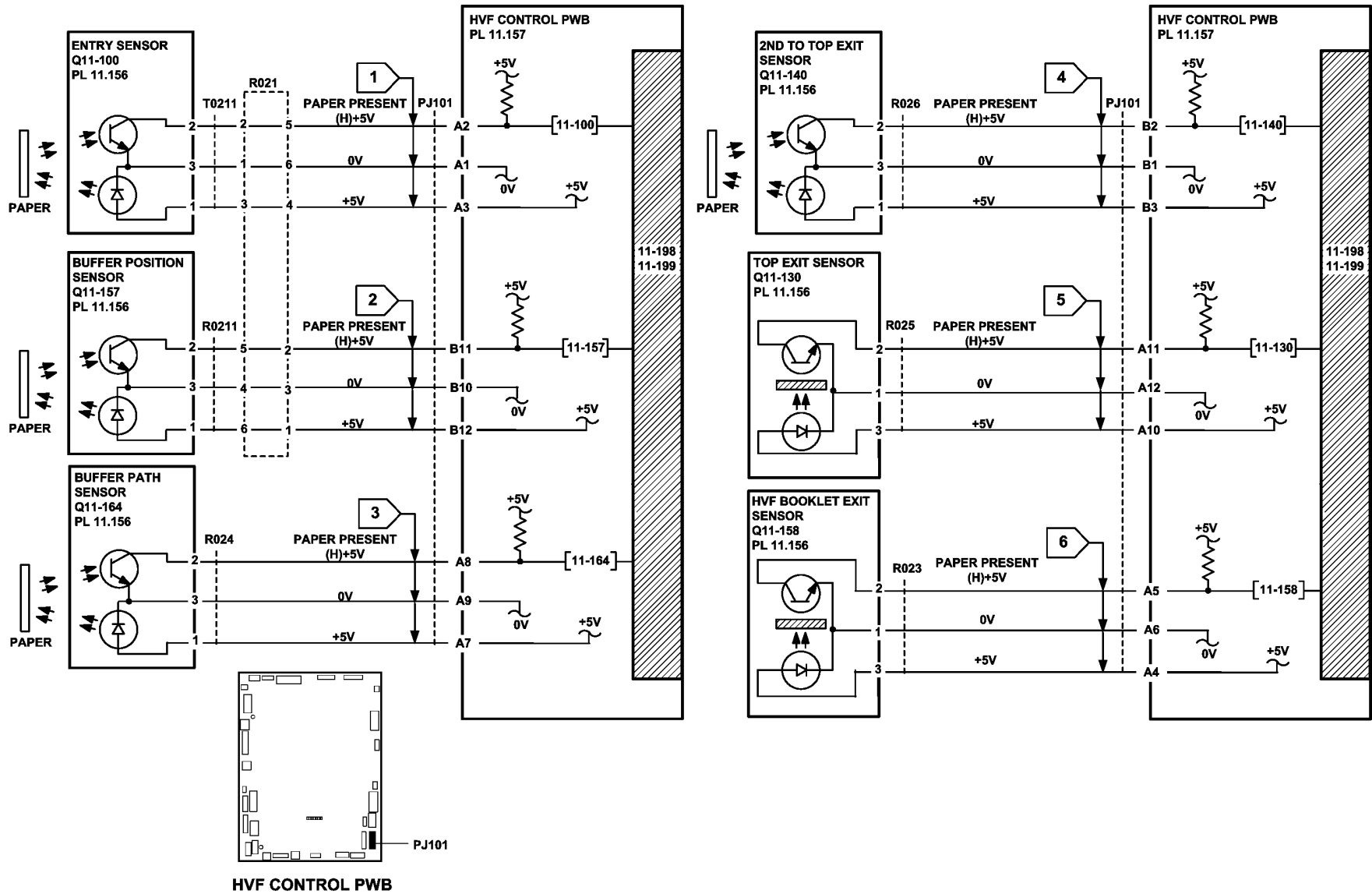


Figure 2 Circuit diagram

TT-1-0219-A

## 11-300-171, 11-302-171, 11-303-171 HVF Docking and Interlock RAP

**11-300-171** The finisher was detected to be undocked in the run mode.

**11-302-171** The top cover interlock was detected open during a run.

**11-303-171** The finisher front door interlock was detected open during a run.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Ensure the HVF is correctly docked to the machine and all interlocks are closed.

### Procedure

Go to the appropriate RAP:

- [11-300-171 Docking Interlock RAP](#)
- [11-302-171 Top Cover Interlock RAP](#)
- [11-303-171 Front Door Interlock RAP](#)

#### 11-300-171 Docking Interlock RAP

Check the docking interlock switch, S11-300, [Figure 1](#).

- Check the switch actuator mounted on the machine is correctly installed and un-broken.
- Enter **dC330**, code 11-300, actuate the switch and check the display.

Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J112, HVF Control PWB](#)
- [Figure 1, Flag 3](#).
- Check the wiring, [GP 7](#).
- If necessary, install new components:
  - Docking interlock switch, [PL 11.130 Item 16](#).

#### 11-302-171 Top Cover Interlock RAP

Check the top cover interlock switch, S11-302, [Figure 1](#).

- Check the switch actuator is not damaged.
- Enter **dC330**, code 11-302 actuate the switch and check the display.

Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J112, HVF Control PWB](#).
- [Figure 1, Flag 1](#).
- Check the wiring, [GP 7](#).
- If necessary, install a new top cover interlock switch, [PL 11.145 Item 24](#).

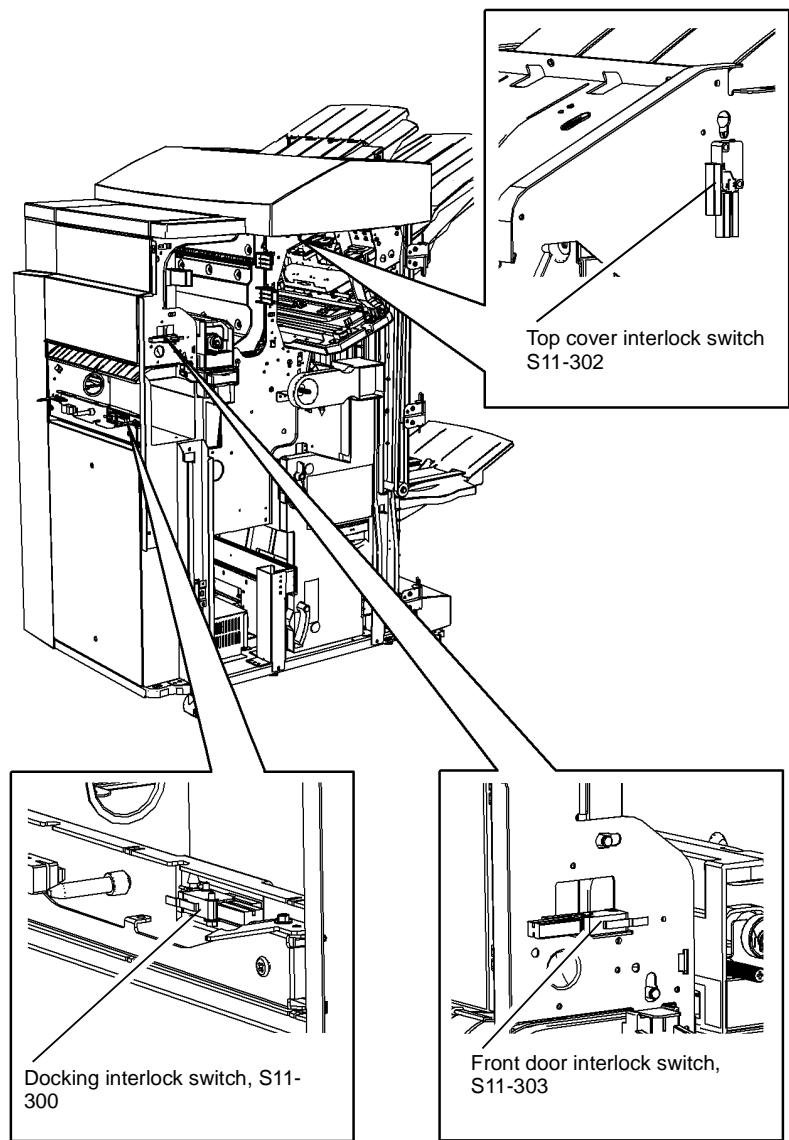
#### 11-303-171 Front Door Interlock RAP

Check the front door interlock switch, S11-303, [Figure 1](#).

- Check the switch actuator on the inside of the front door is not damaged.
- Enter **dC330**, code 11-303 actuate the switch and check the display.

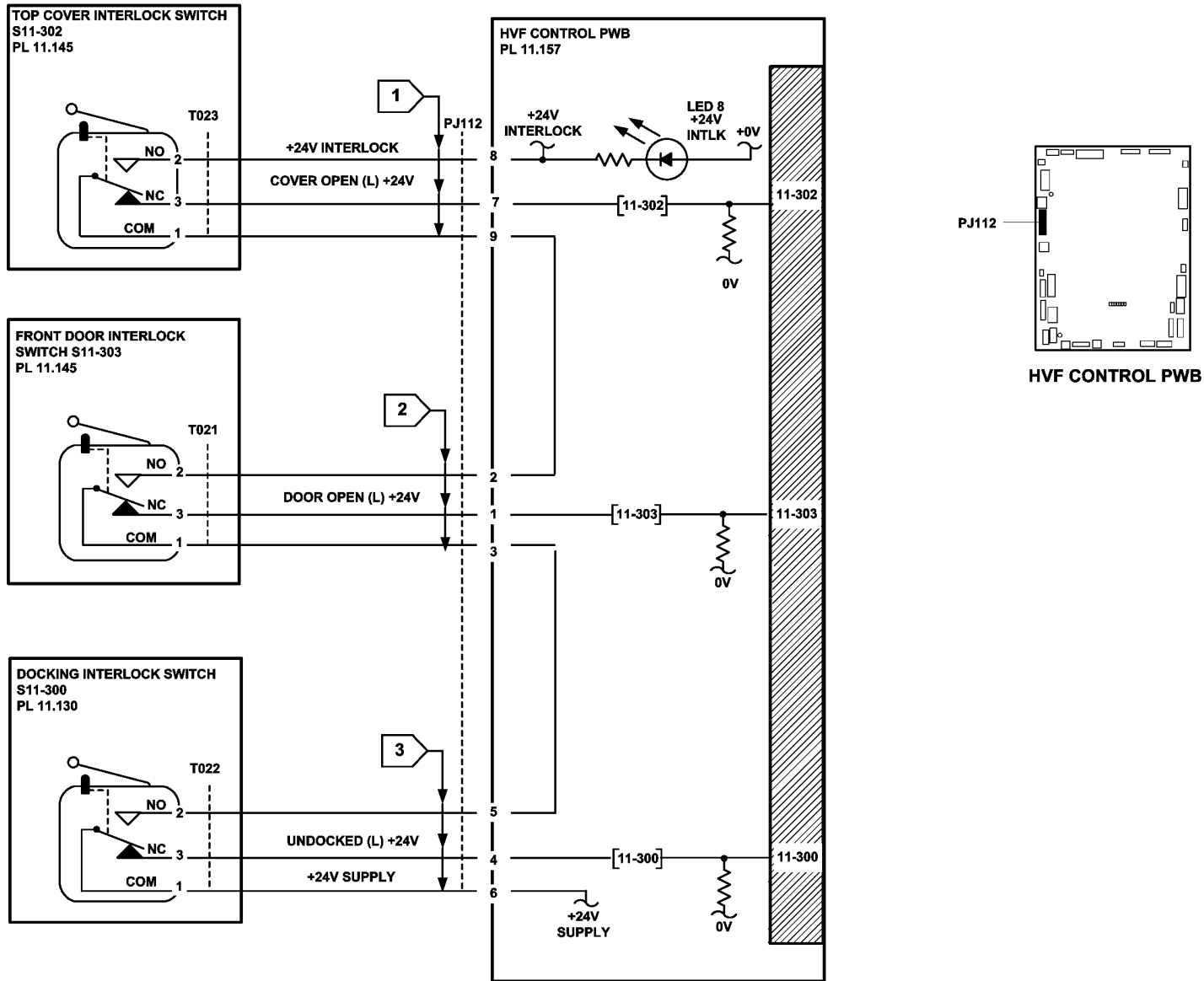
Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J112, HVF Control PWB](#).
- [Figure 1, Flag 2](#).
- Check the wiring, [GP 7](#).
- If necessary, install a new front door interlock switch, [PL 11.145 Item 29](#).



T-1-0223-A

Figure 1 Component location



TT-1-0220-A

Figure 2 Circuit diagram

## 11-306-171, 11-309-171 HVF Inserter Interlock RAP

11-306-171 The inserter top cover interlock was detected open in the run mode.

11-309 The inserter left hand door was detected open in the run mode.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the inserter top cover and left hand door can be fully closed and that the interlocks are operated. Remove any obstruction as necessary.
- Check the actuator on the top cover is not damaged, PL 11.179 Item 17.
- Check the actuator on the top left door is not damaged, PL 11.175 Item 7.

### Procedure

Enter dC330, code 11-306. Open and close the top cover to actuate the switch, Figure 1. The display changes

Y N

Refer to:

- GP 13 How to Check a Switch.
- Figure 1, Flag 1 and Flag 2.
- P/J1, P/J5, P/J4, Inserter PWB.
- P/J701, P/J703, HVF Control PWB.
- Check the wiring, GP 7.

If necessary install new components:

- Inserter top cover interlock switch, PL 11.177 Item 8.
- Inserter PWB, PL 11.179 Item 9.
- HVF Control PWB, PL 11.157 Item 2.

Open the top cover. Enter dC330, code 11-431, open and close the left hand door to actuate the switch. The display changes.

Y N

Refer to:

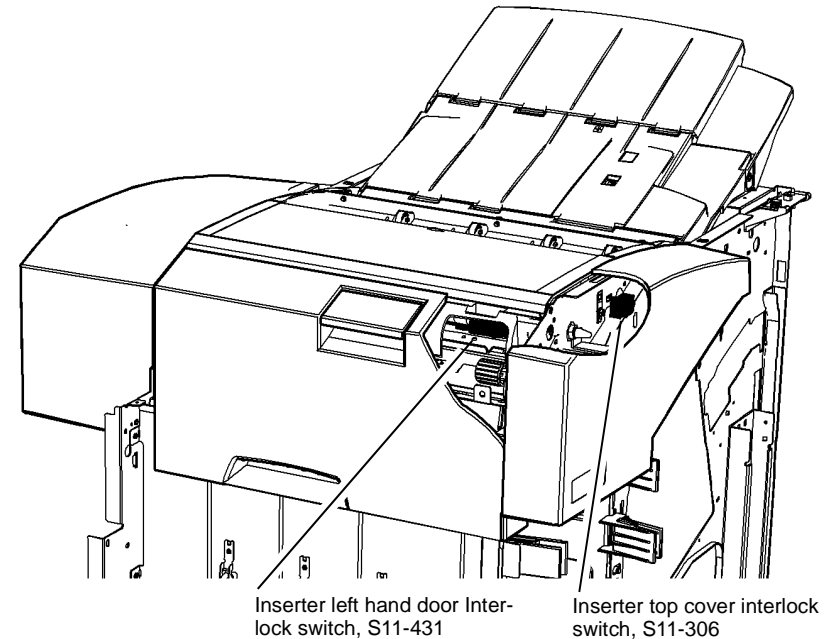
- GP 13 How to Check a Switch.
- Figure 1, Flag 3 and Flag 4.
- P/J2, P/J4, Inserter PWB.
- P/J701, HVF Control PWB
- Check the wiring, GP 7.

If necessary install new components:

- Inserter left door interlock switch, PL 11.175 Item 18.
- Inserter PWB, PL 11.179 Item 9.
- HVF Control PWB, PL 11.157 Item 2.

A

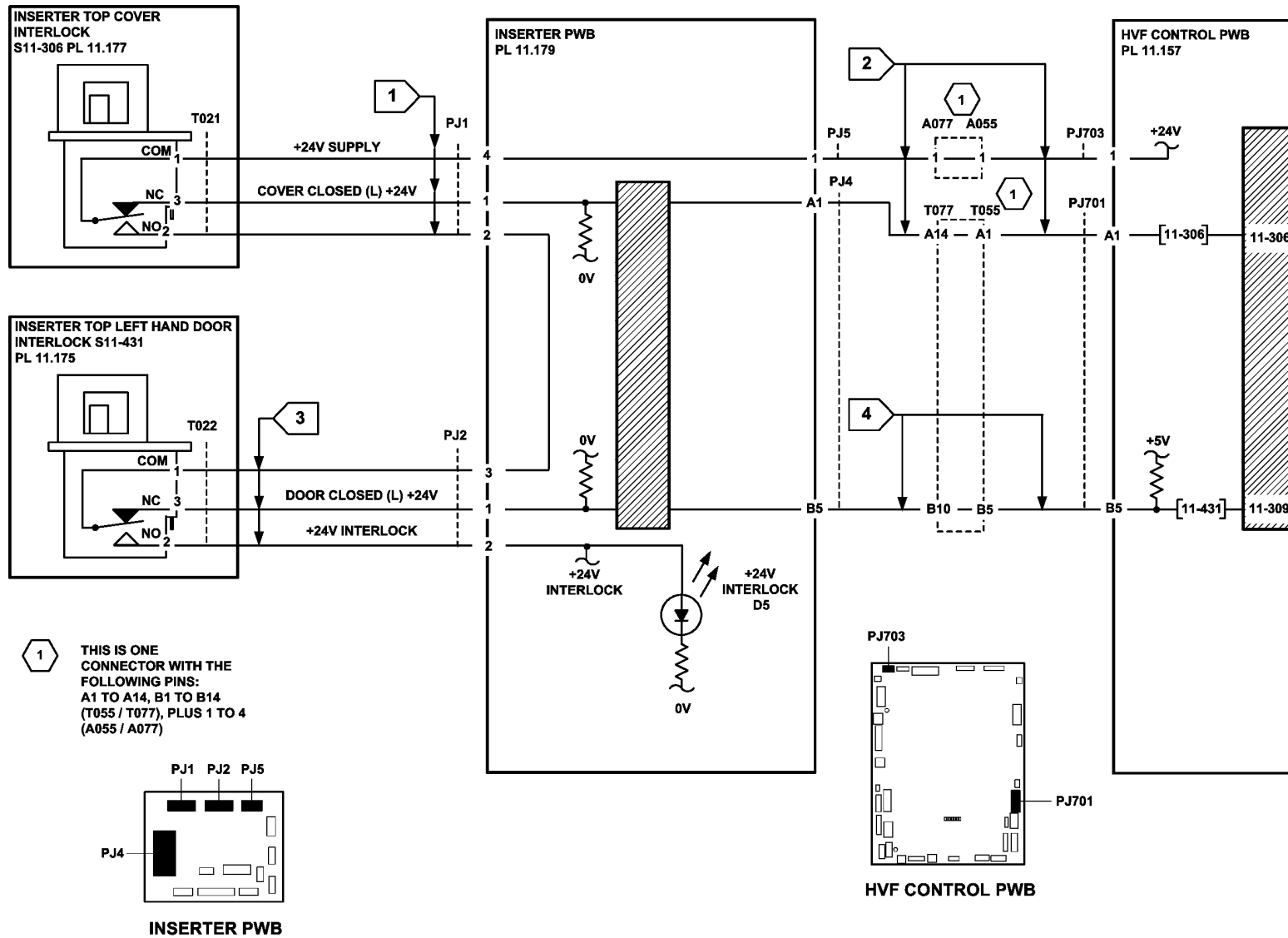
The fault may be intermittent. Check the wiring and the routing of the harness. Refer to GP 7.



T-1-0224-A

Figure 1 Component location

A



TT-1-0221-A

Figure 2 Circuit diagram

## 11-307-171, 11-308-171 Tri-folder Interlock RAP

11-307-171 The Tri-folder top cover interlock was detected open during a run.

11-308-171 The Tri-folder front door interlock was detected open during a run.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check that the tri-folder top cover and front door can be fully closed and that the interlocks are operated. Remove any obstruction as necessary.

### Procedure

**NOTE:** The two yellow, +24V interlock LEDs on the BM PWB will extinguish if a tri-folder interlock is open.

Figure 1 shows the location of the components.

Check that the yellow, +24V interlock LED on the BM PWB is lit. **The LED is lit.**

Y N

Go to Flag 1, Flag 2 and Flag 3. Check the wiring and repair as necessary, REP 1.2. Check the TF top cover interlock switch and the TF front door interlock switch, S11-393. Refer to:

- GP 13 How to Check a Switch.
- P/J601, Tri Folder Control PWB.
- P/J553, BM PWB.
- P/J559, BM PWB.
- P/J131, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Top cover interlock switch, PL 11.197 Item 3.
- Front door interlock switch, PL 11.197 Item 2.
- Tri-folder PWB, PL 11.193 Item 16.
- BM PWB, PL 11.166 Item 10.
- HVF PWB, PL 11.157 Item 2.

Enter dC330, code 11-393. Open the tri-folder front door. **The display changes.**

Y N

Go to Flag 4 and Flag 5. Check the wiring and repair as necessary, REP 1.2. Check the tri-folder front door interlock, S11-393. Refer to:

- GP 13 How to Check a Switch.
- P/J605, P/J602, Tri Folder Control PWB.
- P/J563, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Tri-folder front door interlock switch, PL 11.197 Item 3.
- Tri-folder PWB, PL 11.193 Item 16.
- BM PWB, PL 11.166 Item 10.

Enter dC330, code 11-394. Open the tri-folder top cover door assembly. **The display changes.**

Y N

Go to Flag 6 and Flag 7. Check the wiring and repair as necessary, REP 1.2. Check the Tri-folder top cover interlock sensor, Q11-394. Refer to:

- GP 11 How to Check a Sensor.
- P/J605, P/J602, Tri Folder Control PWB.
- P/J563, BM PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Top cover interlock sensor, Q11-394, PL 11.190 Item 10.
- Tri-folder PWB, PL 11.193 Item 16.
- BM PWB, PL 11.166 Item 10.

Perform SCP 6 Final Actions.

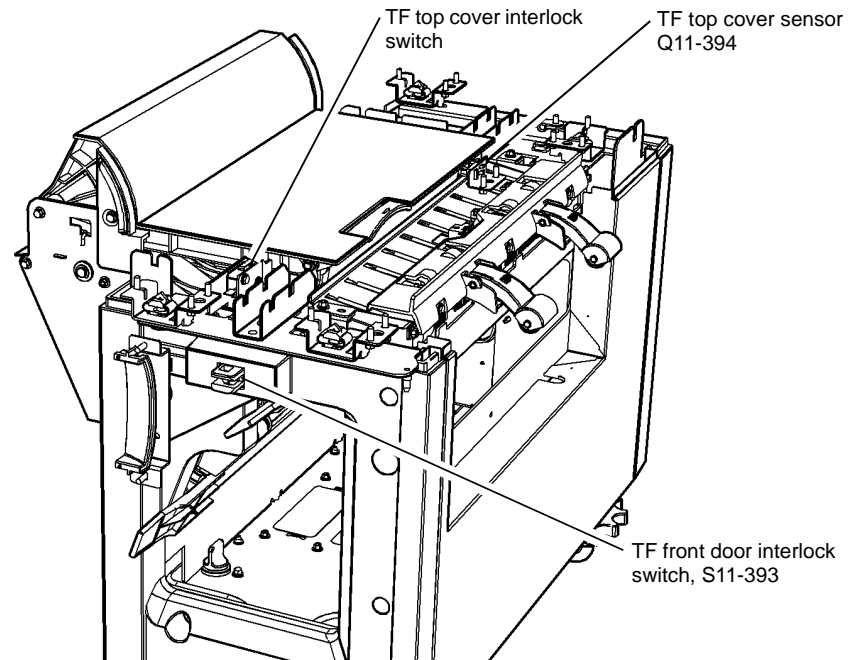
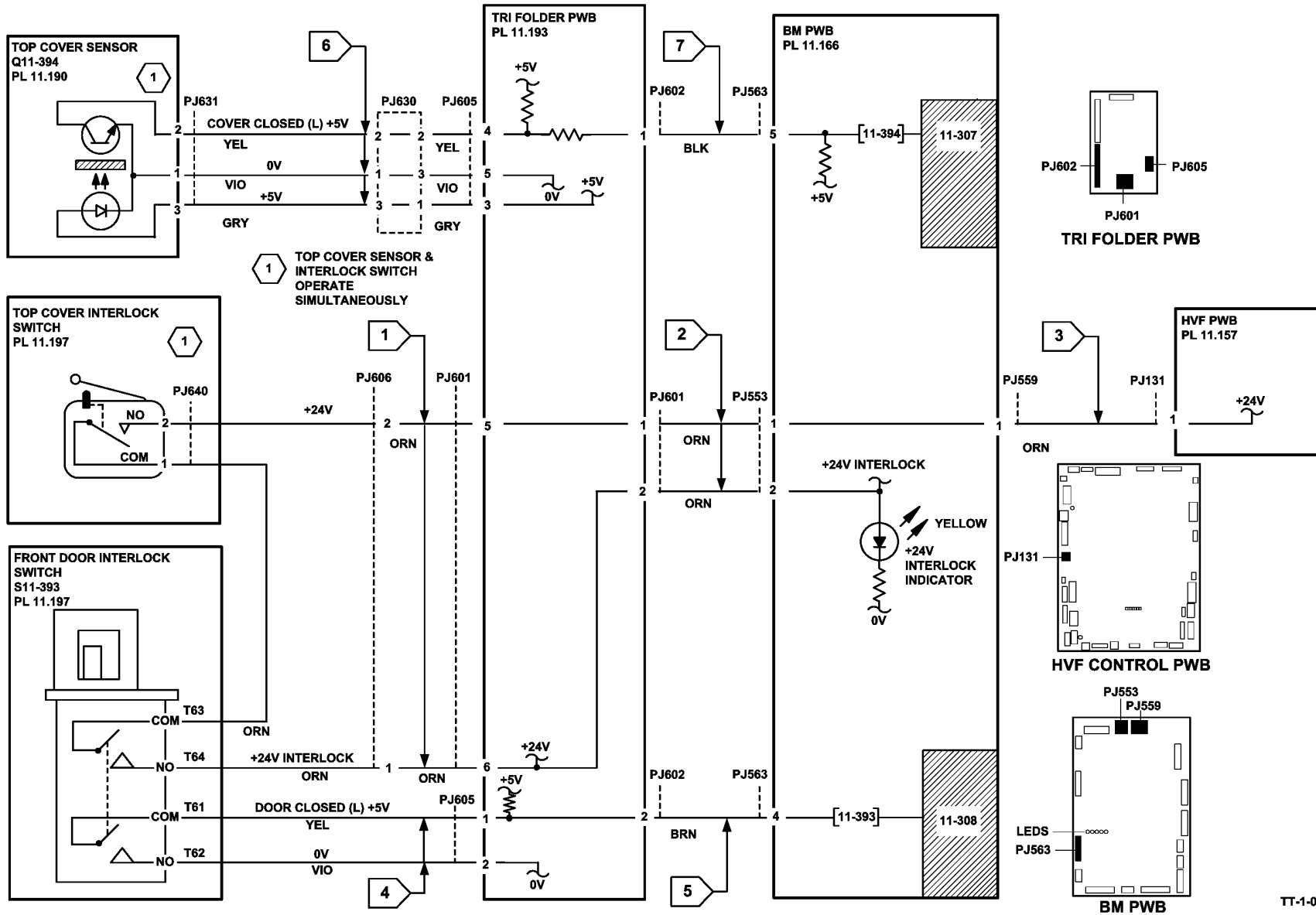


Figure 1 Component location

A



TT-1-0222-B

Figure 2 Circuit diagram



## 11-371-171 to 11-377-171 HVF Stapler Position and Priming RAP

11-371-171 The stapler did not move from the home position.

11-372-171 The stapler did not return to the home position.

11-373-171 The stapler did not enter the mid home position.

11-374-171 The stapler did not leave the mid home position.

11-375-171 The stapler jaw did not enter the home position.

11-376-171 The stapler jaw did not leave the home position.

11-377-171 A stapler priming failure was detected.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Do not run code 11-050 without two sheets of paper in the stapler jaws. Running this code without the paper in position can cause damage to the machine.

If stapling has failed, perform the following:

- Check that the staple head unit is correctly installed.
- Check that the staple cartridge has staples in it and is correctly installed in the staple head.
- Check that the leading staples in the staple head have been primed.
- Check that the sheets of staples in the cartridge are feeding one at a time. If staples sheets overlap, they will jam in the cartridge. If necessary, install a new staple cartridge, [PL 11.140 Item 33](#)

### Procedure

**NOTE:** The sensors Q11-364, Q11-363, Q11-360 and Q11-362 are integral to the staple head unit and although they can be checked they are not separately spared.

Figure 1 and Figure 2 show the locations of the components.

Enter [dC330](#), code 11-053 to run the stapler unit motor, MOT 11-053 and send it to the inboard end of its travel. **The motor runs.**

Y N

Go to [Flag 5](#). Check the motor, MOT 11-053.

Refer to:

- [GP 10](#) How to Check a Motor.

A

- [P/J801](#), [HVF Control PWB](#).
  - [11A-171](#) HVF Power Distribution RAP.
- Install new components as necessary:
- Stapler assembly, [PL 11.140 Item 14](#).
  - HVF control PWB, [PL 11.157 Item 2](#).

With the stapler unit still at the inboard end, enter [dC330](#), code 11-360, stapler home sensor. Manually activate the stapler home sensor, Q11-360, [Figure 2](#). **The display changes.**

Y N

Go to [Flag 1](#). Check the sensor, Q11-360.

Refer to:

- [GP 11](#) How to Check a Sensor.
  - [P/J301](#), [HVF Control PWB](#).
  - [11A-171](#) HVF Power Distribution RAP.
- Install new components as necessary:
- Stapler assembly, [PL 11.140 Item 14](#).
  - HVF Control PWB, [PL 11.157 Item 2](#).

Enter [dC330](#), code 11-054 to send the stapler unit to the outboard end of the machine. Enter code 11-175, stapler unit mid home sensor. Manually activate the stapler unit mid home sensor, Q11-175, [Figure 2](#). **The display changes.**

Y N

Go to [Flag 4](#). Check the sensor, Q11-373.

Refer to:

- [GP 11](#) How to Check a Sensor.
  - [P/J301](#), [HVF Control PWB](#).
  - [11A-171](#) HVF Power Distribution RAP.
- Install new components as necessary:
- Stapler assembly, [PL 11.140 Item 14](#).
  - HVF Control PWB, [PL 11.157 Item 2](#).

Place two sheets of paper in the stapler jaws. Raise the finisher top cover. [Figure 1](#), lower the paper pusher fully down and lower the top cover. Enter [dC330](#), code 11-050 to run the staple head motor, MOT 11-050. **The motor runs.**

Y N

Go to [Flag 6](#). Check the wiring and repair as necessary, [REP 1.2](#). Check the stapler gate safety switch.

Refer to:

- [GP 13](#) How to Check a Switch.
  - [P/J304](#), [HVF Control PWB](#).
  - [11A-171](#) HVF Power Distribution RAP.
- Install new components as necessary:
- Sensor assembly, [PL 11.145 Item 22](#).
  - Stapler assembly, [PL 11.140 Item 14](#).
  - HVF control PWB, [PL 11.157 Item 2](#).

With the paper still in place, re-enter the code 11-050 to run the staple head motor, MOT 11-050. **The motor runs.**

B

A

**B**

**Y N**  
Go to **Flag 2**. Check the motor, MOT 11-050.  
Refer to:

- **GP 10** How to Check a Motor.
- **P/J801**, **HVF Control PWB**.
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Stapler assembly, **PL 11.140 Item 14**.
- HVF control PWB, **PL 11.157 Item 2**.

If the stapler is now working satisfactorily, perform **SCP 6** Final Actions. If necessary, continue with this RAP.

Remove the stapled paper and raise the paper pusher fully upwards. Go to **Flag 3**. **+5V** is available at **T502 between pins 1 and 4, also between pin 1 and 7 on the staple head**.

**Y N**  
Check the wiring between P/J T502 and **P/J301**. **The wiring is good.**

**Y N**  
Repair the wiring, **REP 1.2** or install a new stapler harness and P-clip assembly, **PL 11.140 Item 25**.

Install a new HVF control PWB, **PL 11.157 Item 2**.

Enter **dC330**, code 11-364 actuate the stapler priming sensor, Q11-364, by removing and installing the staple cartridge. **The display changes.**

**Y N**  
Check for a change in signal level at **P/J301** pin 9 when Q11-364 is being actuated. **The signal level changes.**

**Y N**  
Check the wiring between **P/J301** pin 9 and the staple head unit. **The wiring is good.**

**Y N**  
Repair the wiring, **REP 1.2** or install a new stapler harness and P-clip assembly, **PL 11.140 Item 25** as necessary.

Install a new stapler assembly, **PL 11.140 Item 14**.

Install a new HVF Control PWB, **PL 11.157 Item 2**.

Enter **dC330**, code 11-363 actuate the stapler cartridge sensor, Q11-363, by removing and installing the staple cartridge. **The display changes.**

**Y N**  
Check for a change in signal level at **P/J301** pin 10 when Q11-363 is being actuated. **The signal level changes.**

**Y N**  
Check the wiring between **P/J301** pin 10 and the staple head unit. **The wiring is good.**

**Y N**  
Repair the wiring, **REP 1.2** or install a new stapler harness and P-clip assembly, **PL 11.140 Item 25** as necessary.

**C D E**  
Install a new stapler assembly, **PL 11.140 Item 14**.

Install a new HVF Control PWB, **PL 11.157 Item 2**.

Enter **dC330**, code 11-360 to monitor the staple home sensor Q11-360, stack the code 11-050 to cycle the staple head. **The display changes.**

**Y N**  
Go to **Flag 3**. Check for a change in signal level at **P/J301** pin 12, while code 11-050 is running. **The signal level changes.**

**Y N**  
Check the wiring between **P/J301** pin 12 and the staple head unit. **The wiring is good.**

**Y N**  
Repair the wiring, **REP 1.2** or install a new stapler harness and P-clip assembly, **PL 11.140 Item 25** as necessary.

Install a new stapler assembly, **PL 11.140 Item 14**.

Install a new HVF Control PWB, **PL 11.157 Item 2**.

Enter **dC330**, code 11-362, actuate the low staples sensor, Q11-362, by removing and installing the staple cartridge. **The display changes.**

**Y N**  
Go to **Flag 3**. Check for a change in signal level at **P/J301** pin 13 when Q11-362 is being actuated. **The signal level changes.**

**Y N**  
Check the wiring between **P/J301** pin 13 and the staple head unit. **The wiring is good.**

**Y N**  
Repair the wiring, **REP 1.2** or install a new stapler harness and P-clip assembly, **PL 11.140 Item 25** as necessary.

Install a new stapler assembly, **PL 11.140 Item 14**.

Install a new HVF Control PWB, **PL 11.157 Item 2**.

Check the fault history for 11-341 faults. **11-341 faults are in the fault history.**

**Y N**  
The fault may be intermittent, check for damaged wiring or bad connectors, **REP 1.2**. If necessary install new components.

Switch off the machine, **GP 14**. Disconnect PJ131, PJ132 and PJ133 from the **HVF Control PWB**. Switch on the machine, **GP 14**. **The fault is still present.**

**Y N**  
Switch off the machine, **GP 14**. Re-connect PJ131, PJ132 and PJ133. Go to the **11-403-171, 11-413-171, 11-414-171** HVF BM Staple Head 2 and Stapler Module RAP.

The fault may be intermittent, check for damaged wiring or bad connectors, **REP 1.2**. If necessary install new components.

**C D E**

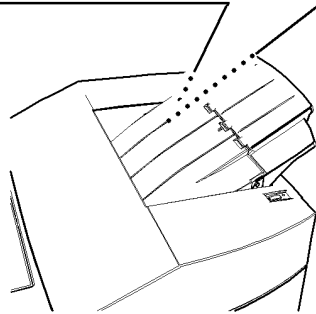
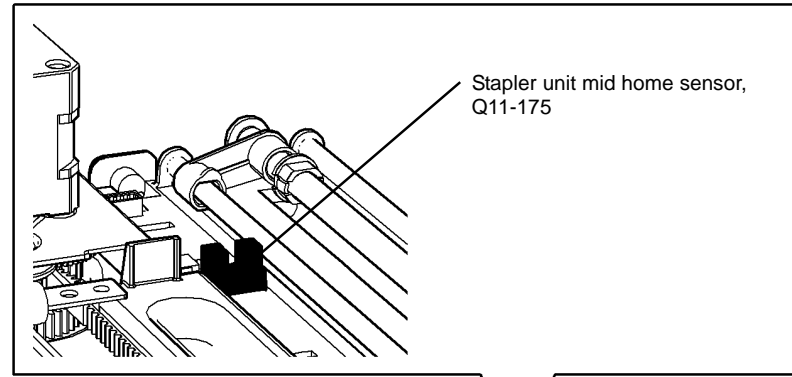
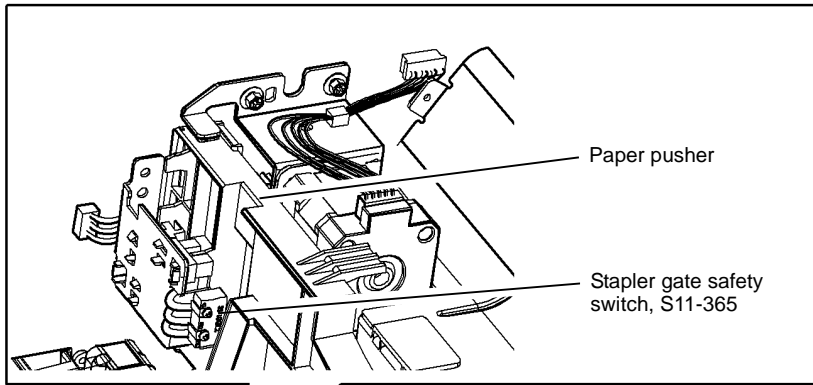


Figure 1 Component location

T-1-0226-A

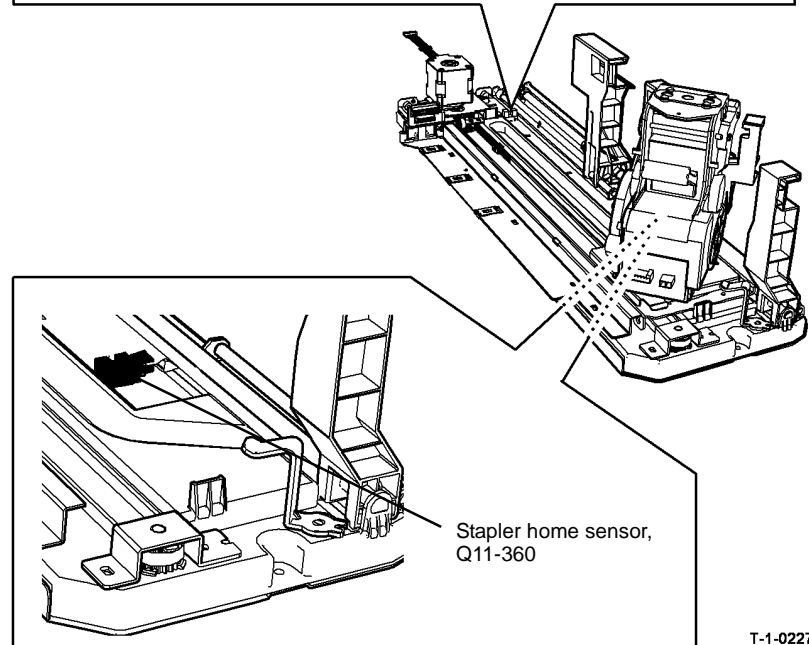


Figure 2 Component location

T-1-0227-A

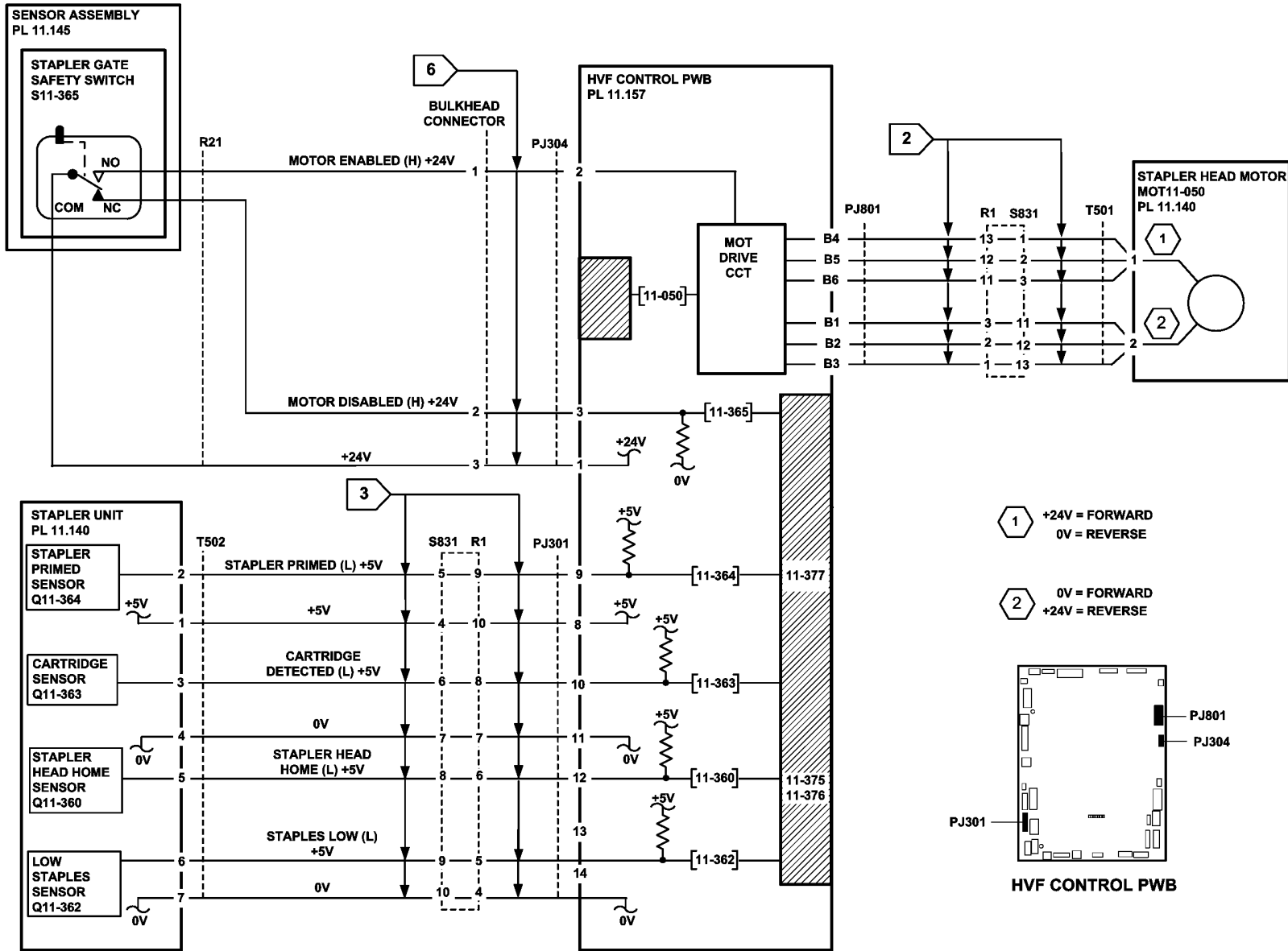


Figure 3 Circuit diagram

TT-1-0223-B

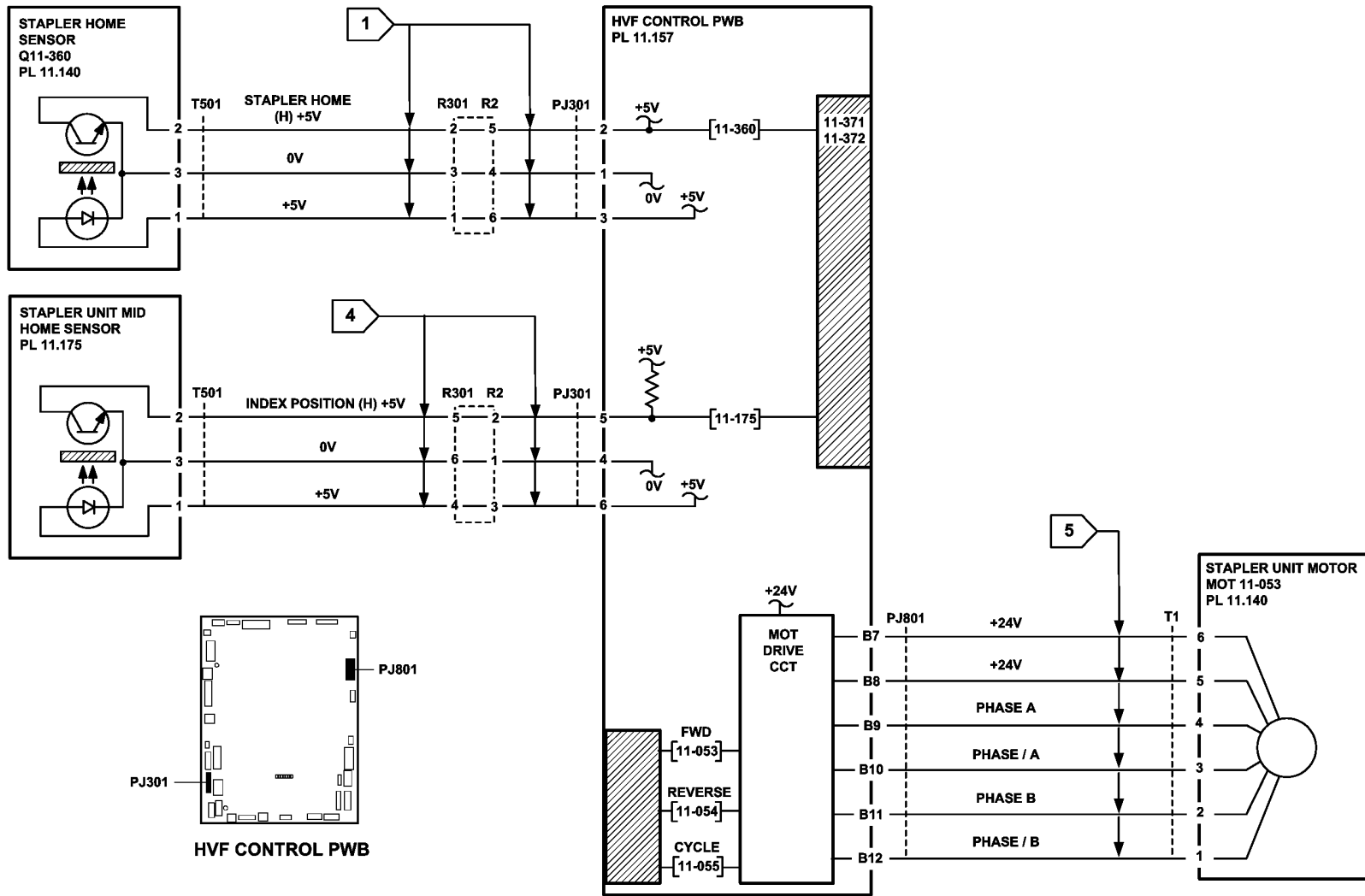


Figure 4 Circuit diagram

TT-1-0224-A

# 11-380-171 HVF Punch Unit Paper Edge Detect RAP

11-380-171 The punch unit failed to detect the edge of the paper.

## Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the paper path through the punch is clear, Figure 1. Check the punch module is seated at the rear of the machine.
- Check if the HVF module has had the W/TAG V-006 modifications installed. If necessary perform ADJ 11.13-171 HVF Performance Improvement (W/TAG V-006).

## Procedure

Go to Flag 1. Check the wiring and repair as necessary, REP 1.2. Check the paper edge sensor, Figure 1 and Figure 2. Refer to:

- GP 11 How to Check a Sensor.
- P/J501, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- HVF hole punch assembly, PL 11.153 Item 1.
- HVF control PWB, PL 11.157 Item 2.

Enter dC330, code 11-000, entry feed motor 1, to check that the motor runs. **The motor runs.**

Y N

Go to Flag 2. Check the wiring and repair as necessary, REP 1.2. Check entry feed motor 1, MOT11-000. Refer to:

- GP 10 How to Check a Motor.
- P/J102, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Entry Feed motor, MOT11-000, PL 11.150 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Perform the following:

- For machines W/TAG 046 or W/TAG 047, decrease the downcurl on prints. Refer to ADJ 10.1.
- Check the tension of the entry feed motor 1 belt, PL 11.150 Item 7. Refer to ADJ 11.10-171.
- If the fault only occurs when paper is fed from tray 5, check the tray 5 alignment. Refer to ADJ 7.4.
- Reload the software, GP 4.

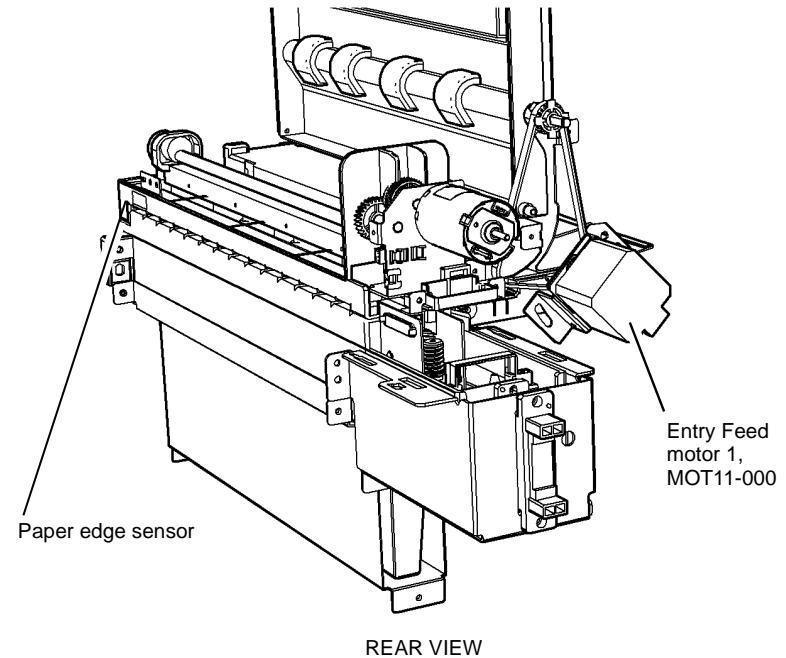


Figure 1 Component location

T-1-0228-A

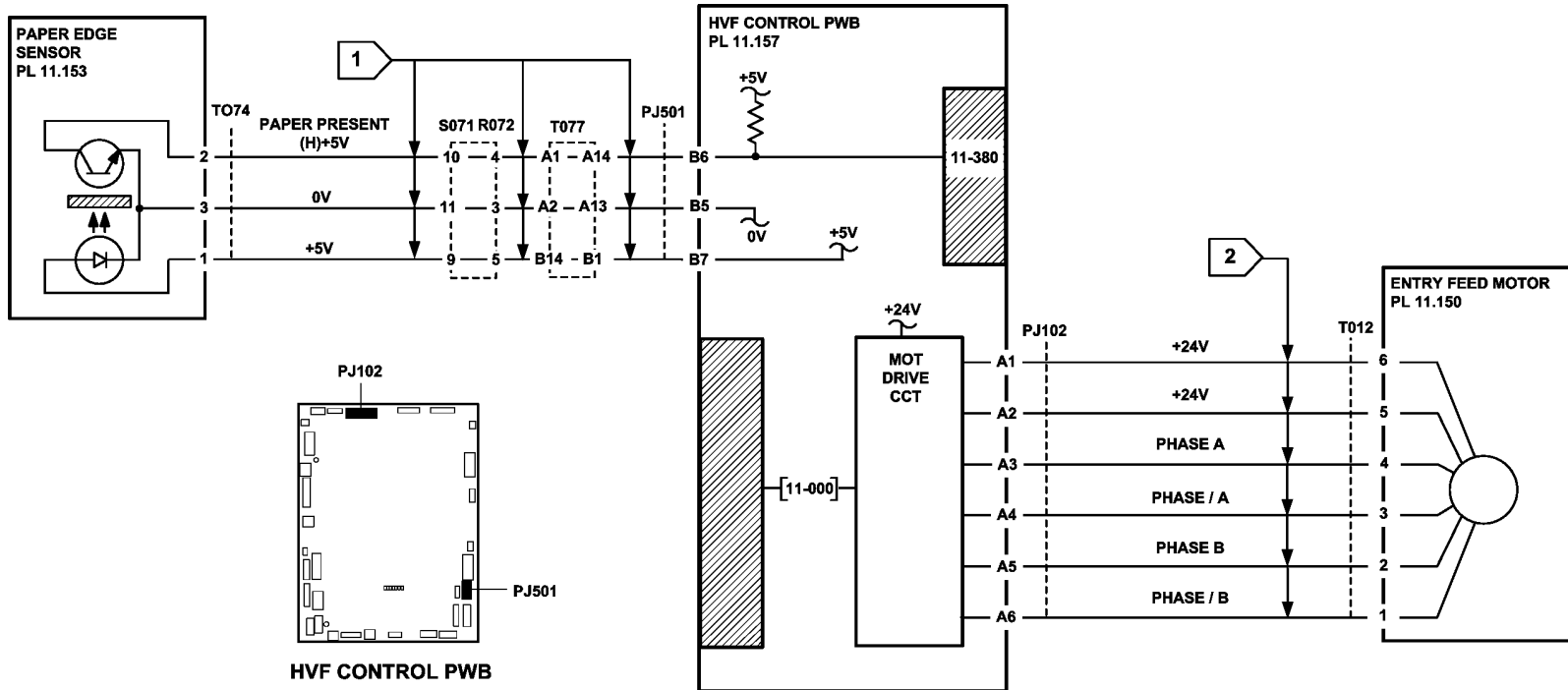


Figure 2 Circuit diagram

TT-1-0225-A

## 11-392-171 to 11-395-171 HVF Front Tamper Tray RAP

11-392-171 The front tamper tray did not move from the home position.

11-393-171 The front tamper tray did not return to the home position.

11-394-171 The front tamper tray did not enter the away position.

11-395-171 The front tamper tray did not move from the away position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for damage or obstructions that would prevent the front tamper tray from operating correctly.
- Jams can be caused if the tray settings do not match the paper in the trays. Make sure the tray settings are correct.

### Procedure

Figure 1 shows the location of the components.

Enter dC330, code 11-003 to move the tamper inboard, and enter 11-005 to move the tamper outboard. **The tamper moves.**

Y N

Go to Flag 1. Check the wiring and repair as necessary, REP 1.2. Check the front tamper motor, MOT11-003. Refer to:

- GP 10 How to Check a Motor.
- P/J902, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Front tamper motor, MOT11-003, PL 11.153 Item 6.
- HVF control PWB, PL 11.157 Item 2.

Stack the dC330 code 11-310, front tamper home sensor. Move the motor using its control code 11-003 or 11-005. **The display changes.**

Y N

Go to Flag 2. Check the wiring and repair as necessary, REP 1.2. Check the front tamper home sensor, Q11-310. Refer to:

- GP 11 How to Check a Sensor.
- P/J901, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Front tamper home sensor, Q11-310, PL 11.156 Item 1.
- HVF control PWB, PL 11.157 Item 2.

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Stack the dC330 code 11-174, front tamper away sensor. Move the motor using its control code 11-003 or 11-005. **The display changes.**

Y N

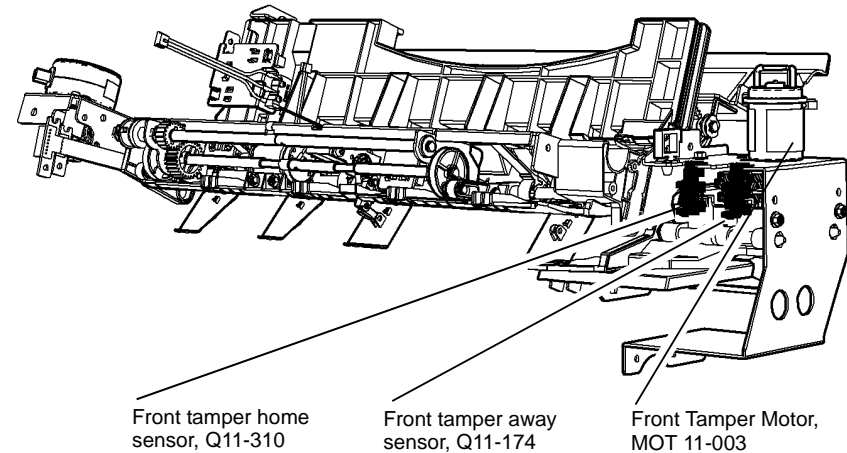
Go to Flag 3. Check the wiring and repair as necessary, REP 1.2. Check the front tamper away sensor, Q11-174. Refer to:

- GP 11 How to Check a Sensor.
- P/J901, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Front tamper away sensor, Q11-174, PL 11.156 Item 1.
- HVF control PWB, PL 11.157 Item 2.

Perform SCP 6 Final Actions.



T-1-0229-A

Figure 1 Component location



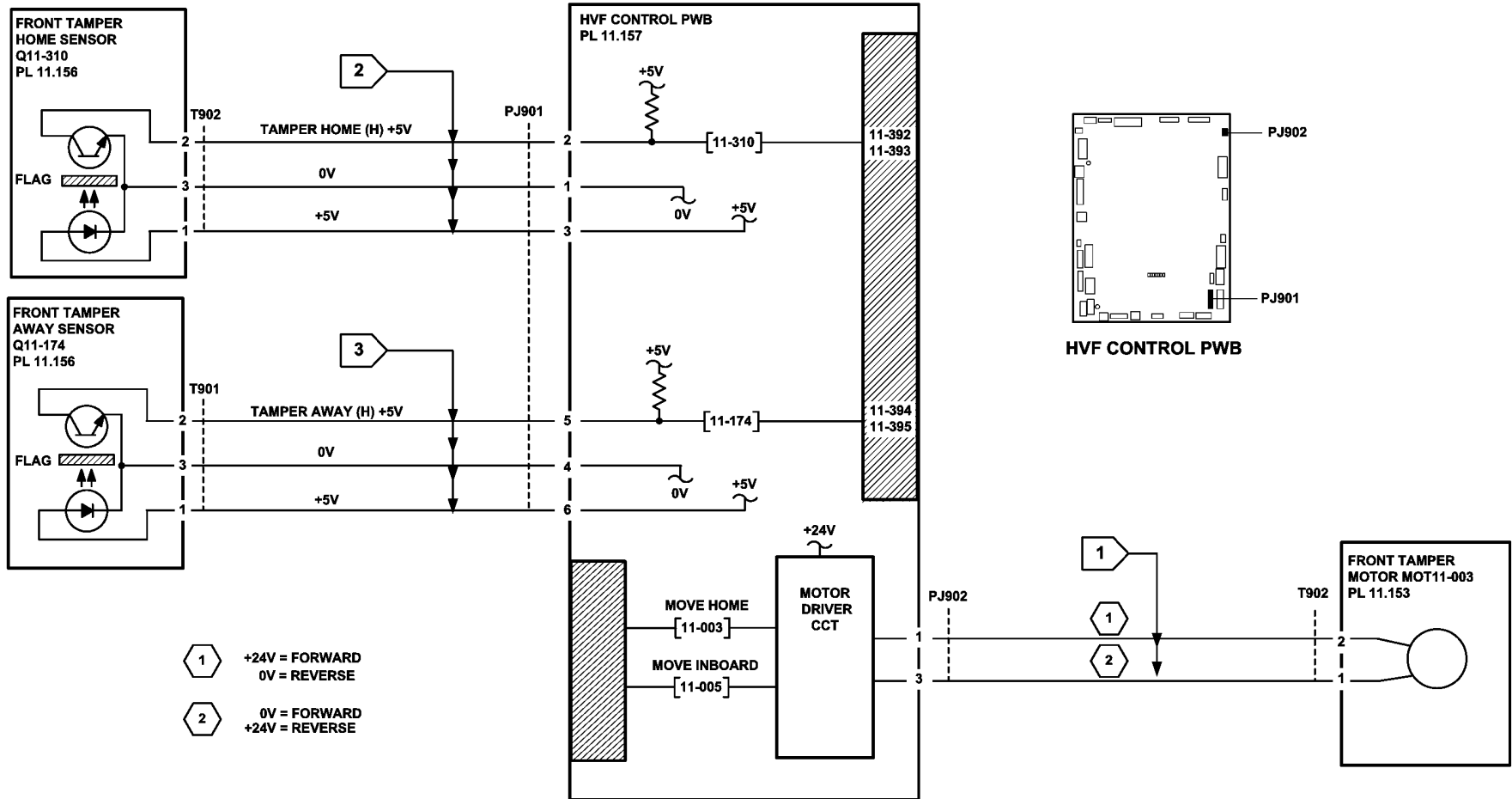


Figure 2 Circuit diagram

TT-1-0226-A

## 11-396-171 to 11-399-171 HVF Rear Tamper Tray RAP

11-396-171 The rear tamper tray did not move from the home position.

11-397-171 The rear tamper tray did not return to the home position.

11-398-171 The rear tamper tray did not move from the away position.

11-399-171 The rear tamper tray did not return to the away position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for damage or obstructions that would prevent the rear tamper tray from operating correctly.
- Check that the drive belt is securely in position. Figure 1.
- Jams can be caused if the tray settings do not match the paper in the trays. Make sure the tray settings are correct.

### Procedure

Enter the dC330 code, 11-006, move rear tamper inboard. **The tamper moves.**

Y N

Go to Flag 1. Check the wiring and repair as necessary, REP 1.2. Check the rear tamper motor, MOT11-004. Refer to:

- GP 10 How to Check a Motor.
- P/J801, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Rear tamper, PL 11.140 Item 13.
- HVF control PWB, PL 11.157 Item 2.

Stack the dC330 code, 11-311, rear tamper home sensor. Move the tamper motor using the code 11-006, move motor inboard. **The display changes.**

Y N

Go to Flag 2. Check the wiring and repair as necessary, REP 1.2. Check the rear tamper home sensor, Q11-311. Refer to:

- GP 11 How to Check a Sensor.
- P/J401, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Rear tamper, PL 11.140 Item 13.
- HVF control PWB, PL 11.157 Item 2.

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Enter the dC330 code, 11-319, rear tamper away sensor. Actuate the rear tamper away sensor, using a piece of paper inserted from the rear of the machine. **The display changes.**

Y N

Go to Flag 3. Check the wiring and repair as necessary, REP 1.2. Check the rear tamper away sensor, Q11-319. Refer to:

- GP 11 How to check a sensor.
- P/J401, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Rear tamper, PL 11.140 Item 13.
- HVF control PWB, PL 11.157 Item 2.

Perform SCP 6 Final Actions.

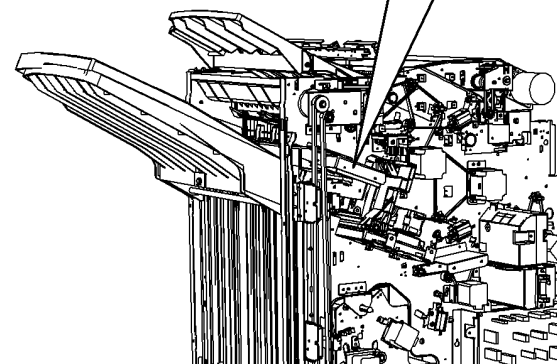
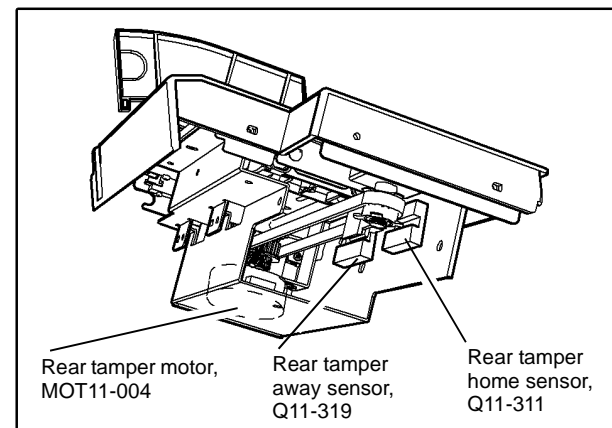


Figure 1 Component location

A

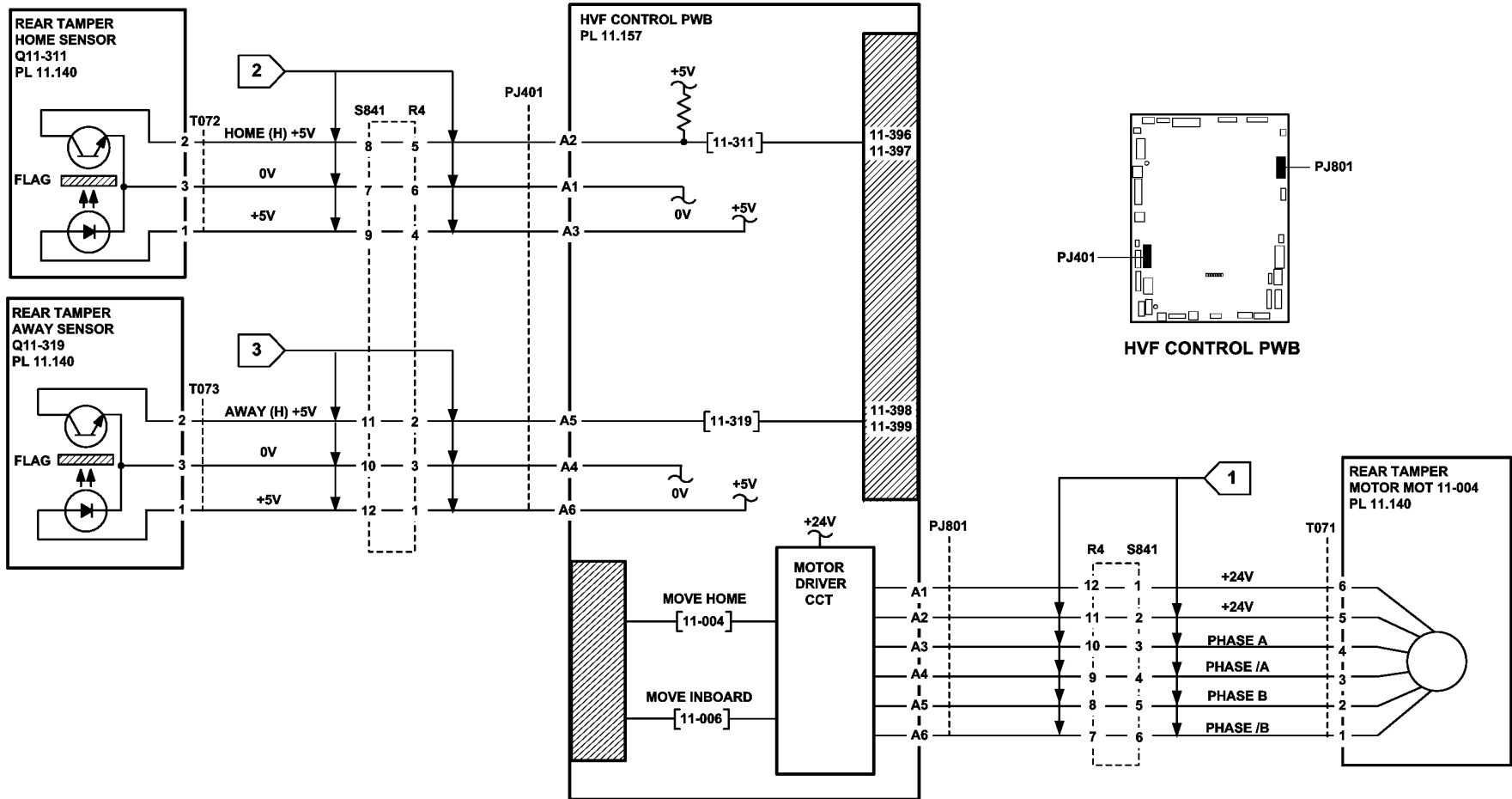


Figure 2 Circuit diagram

TT-1-0227-A

## 11-403-171, 11-413-171, 11-414-171 HVF BM Staple Head 2 and Stapler Module RAP

**11-403-171** The booklet maker staple head 2 motor has failed to move.

**11-413-171** The booklet maker staple head 2 is not detected in the home position.

**11-414-171** The booklet maker stapler module is not detected in the home (staple head closed) position during hard / soft initialize, or at set boundary.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check that there is no damage or obstruction that would prevent the stapling unit from cycling.
- Check that the sheets of staples in the cartridge are feeding one at a time. If staple sheets overlap, they will jam in the cartridge. If necessary, install a new staple cartridge, [PL 11.168 Item 8](#).
- Ensure that the customer job does not exceed the capacity of the booklet maker. Refer to [11D-171 Booklet Quality RAP](#) for booklet maker quality specifications.

### Procedure

Enter [dC330](#), code 11-421 to check the BM staple head carrier closed sensor, Q11-421. Open and close the staple head carrier. **The display changes.**

**Y N**  
Go to [Flag 1](#). Check the staple head carrier closed sensor, Q11-421.  
Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J552](#), [BM PWB](#).
- [11A-171 HVF Power Distribution RAP](#).

Install new components as necessary:

- BM staple head carrier closed sensor, [PL 11.168 Item 18](#).
- BM PWB, [PL 11.166 Item 10](#).

Remove the HVF front door and door support, refer to [REP 11.1-171 HVF Covers](#). Pull out the BM module. Remove the staple head 2 cover, [PL 11.168 Item 14](#). Enter [dC330](#), code 11-413 to check the BM SH2 home switch. Manually rotate the staple head to actuate the BM SH2 home switch. **The display changes.**

**Y N**  
Go to [Flag 2](#). Check the BM SH2 home switch, S11-413.  
Refer to:

- [GP 13](#), How to Check a Switch.
- [P/J551](#), [BM PWB](#).
- [11A-171 HVF Power Distribution RAP](#).

Install new components as necessary:

- BM staple head 2, [PL 11.168 Item 7](#).
- BM PWB, [PL 11.166 Item 10](#).

Enter [dC330](#), code 11-403 to run the BM SH2 motor, [Figure 1](#). **The staple head cycled.**

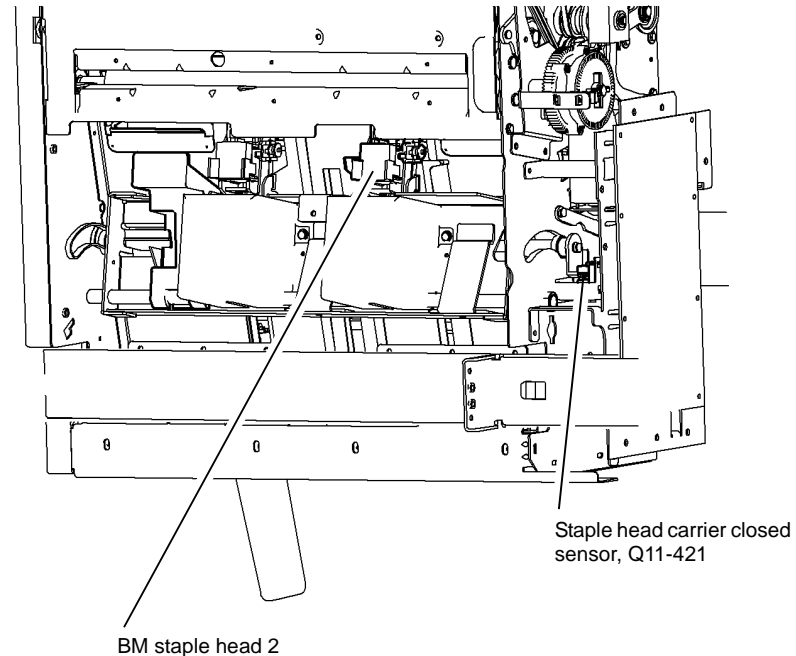
**Y N**  
Go to [Flag 3](#). Check the wiring and connectors between [P/J560](#) and [P/J585](#). **The wiring and connectors are good.**

**Y N**  
Repair the wiring or connectors, [REP 1.2](#).

Install a new BM staple head 2, [PL 11.168 Item 7](#).

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install new components:

- BM staple head carrier closed sensor, [PL 11.168 Item 18](#).
- BM staple head 2, [PL 11.168 Item 7](#).
- BM PWB, [PL 11.166 Item 10](#).



**Figure 1 Component location**

T-1-0231-A

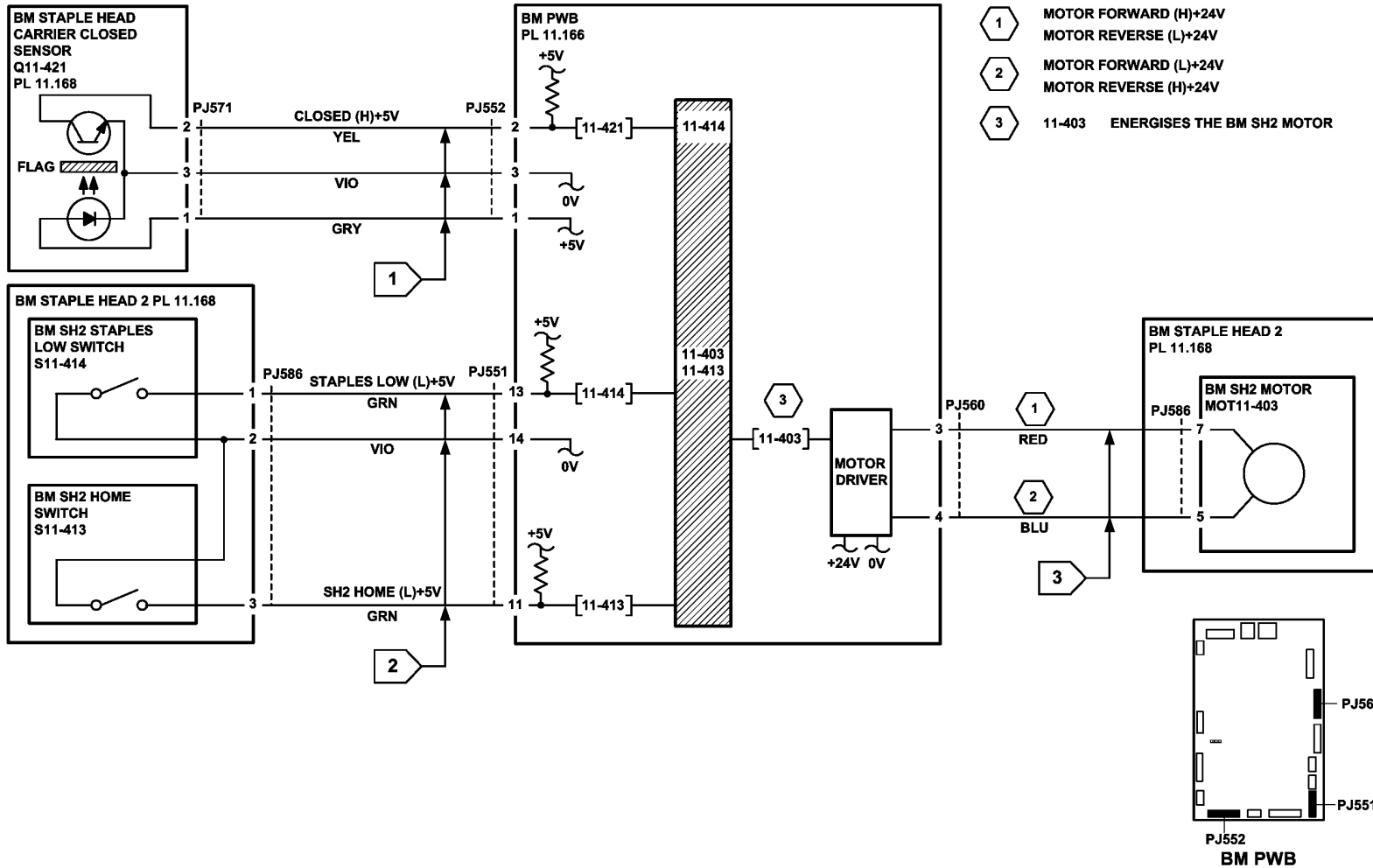


Figure 2 Circuit diagram

TT-1-0228-A

## 11-415-171 HVF BM Crease Roll Gate Home RAP

11-415-171 The crease roll gate is not at the home position.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check for a jam or other obstruction that can prevent the crease roll gate mechanism from moving.
- Check the following parts for damage:
  - Crease roll gate rack gears, [PL 11.167 Item 8](#).
  - Crease roll gate racks, [PL 11.167 Item 14](#).

### Procedure

Enter [dC330](#) code 11-415. Actuate the BM crease roll gate home sensor, Q11-415. The display changes.

Y N

Go to [Flag 1](#). Check the BM crease roll gate home sensor, Q11-415.  
Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J552](#), [BM PWB](#).
- [11A-171 HVF Power Distribution RAP](#).

Install new components as necessary:

- BM PWB, [PL 11.166 Item 10](#).
- BM crease roll gate home sensor [PL 11.166 Item 9](#).

Enter [dC330](#), code 11-401 to run the BM crease roll gate motor, MOT 11-401. The motor runs.

Y N

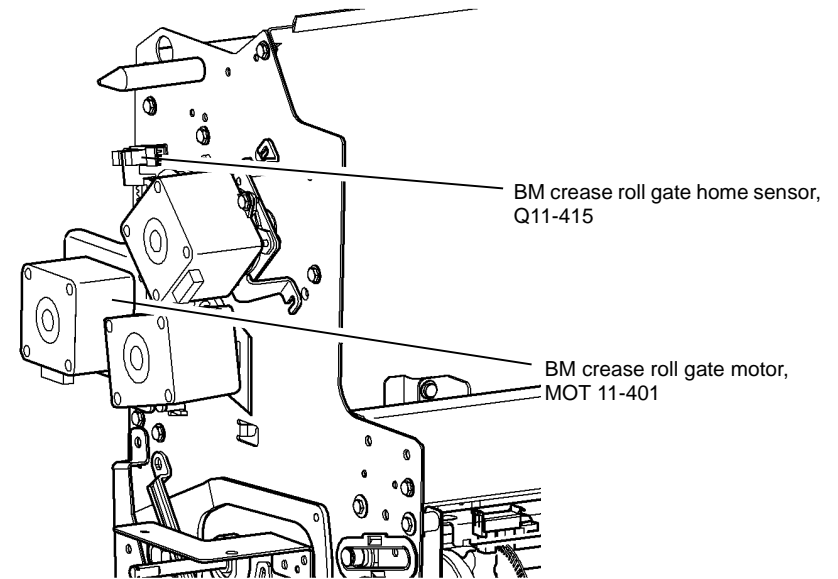
Go to [Flag 2](#) and [Flag 3](#). Check the BM crease roll gate motor, MOT 11-401.  
Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J555](#), [BM PWB](#).
- [11A-171 HVF Power Distribution RAP](#).

Install new components as necessary:

- BM PWB, [PL 11.166 Item 10](#).
- BM crease roll gate motor, [PL 11.166 Item 8](#).

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install a new BM PWB, [PL 11.166 Item 10](#).



T-1-0232-A

Figure 1 Component location

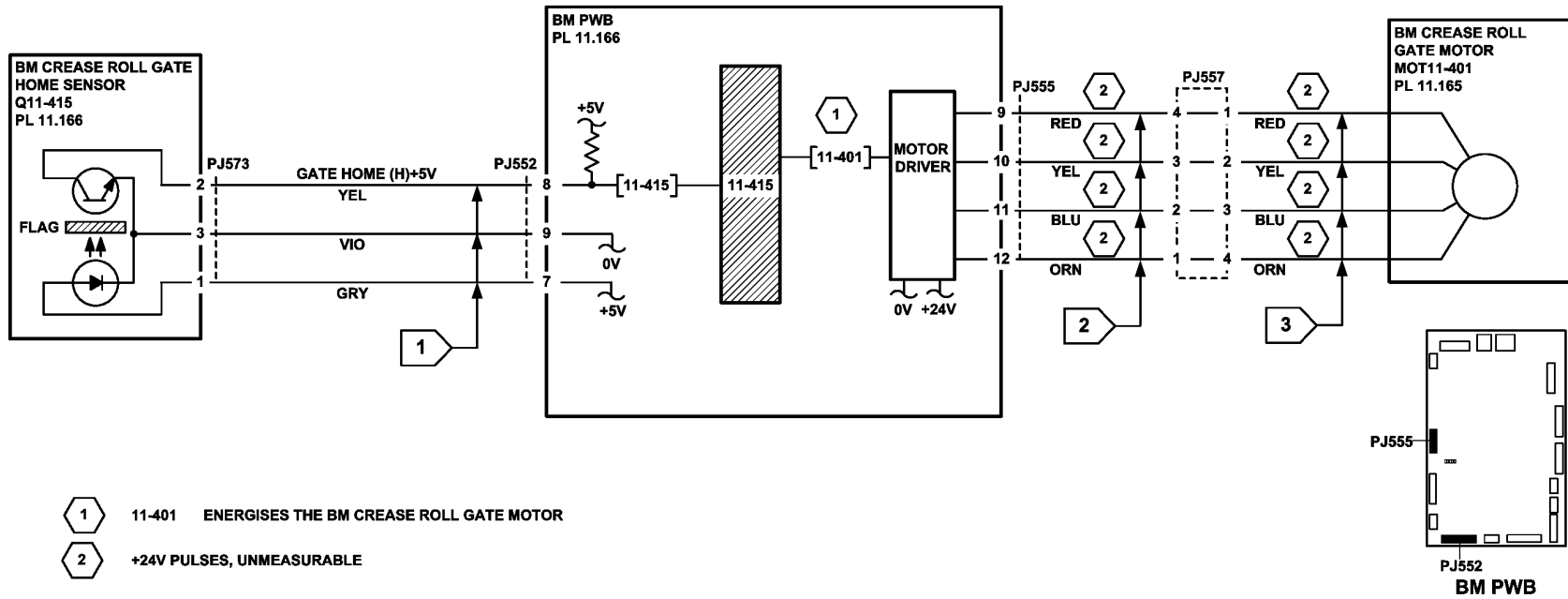


Figure 2 Circuit diagram

TT-1-0229-A

## 11-417-171, 11-418-171 HVF BM Flapper RAP

11-417-171 The booklet maker flapper did not return to the home position.

11-418-171 The booklet maker flapper did not move from the home position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check for damage or obstructions that would prevent the BM flapper from rotating.

### Procedure

**NOTE:** All HVF BM interlocks must be made to supply +24V to the motors.

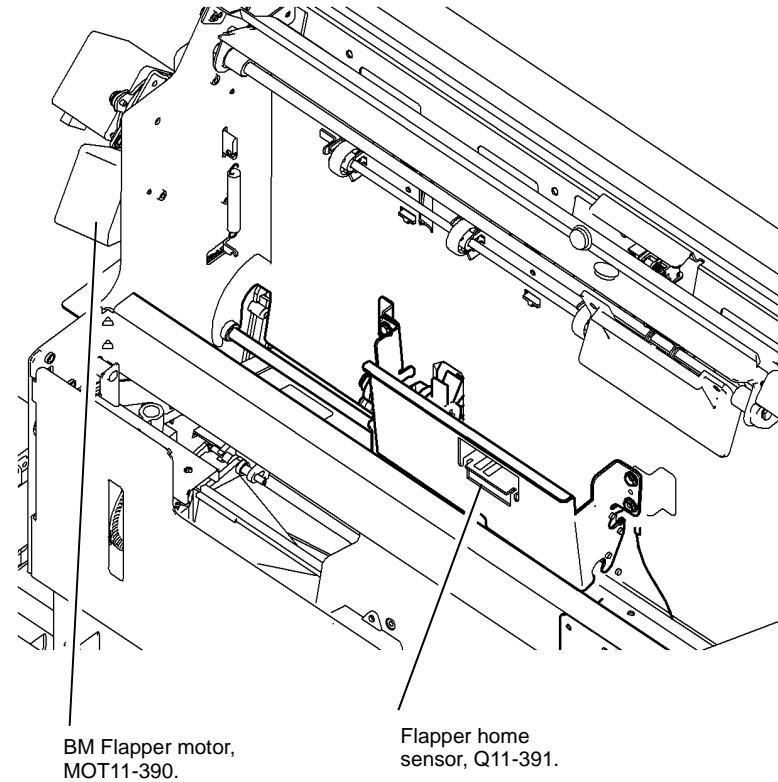
Enter **dC330**, code 11-390 to check the BM flapper motor, MOT11-390, **Figure 1**. The **BM flapper rotates**.

- Y N
- Go to **Flag 2**. Check MOT11-390.  
Refer to:
- **GP 10**, How to Check a Motor.
  - **P/J560**, **BM PWB**.
  - **11A-171**, HVF Power Distribution RAP.
- Install new components as necessary:
- BM flapper motor, **PL 11.166 Item 1**.
  - BM PWB, **PL 11.166 Item 10**.
  - BM flapper, **PL 11.161 Item 23**.

Enter **dC330**, code 11-391. Actuate the flapper home sensor, Q11-391. **The display changes**.

- Y N
- Go to **Flag 1**. Check Q11-391.  
Refer to:
- **GP 11** How to Check a Sensor.
  - **P/J551**, **BM PWB**.
  - **11A-171** HVF Power Distribution RAP.
- Install new components as necessary:
- Flapper home sensor, **PL 11.161 Item 12**.
  - BM PWB, **PL 11.166 Item 10**.

Perform **SCP 6** Final Actions.



T-1-0233-A

**Figure 1** Component location



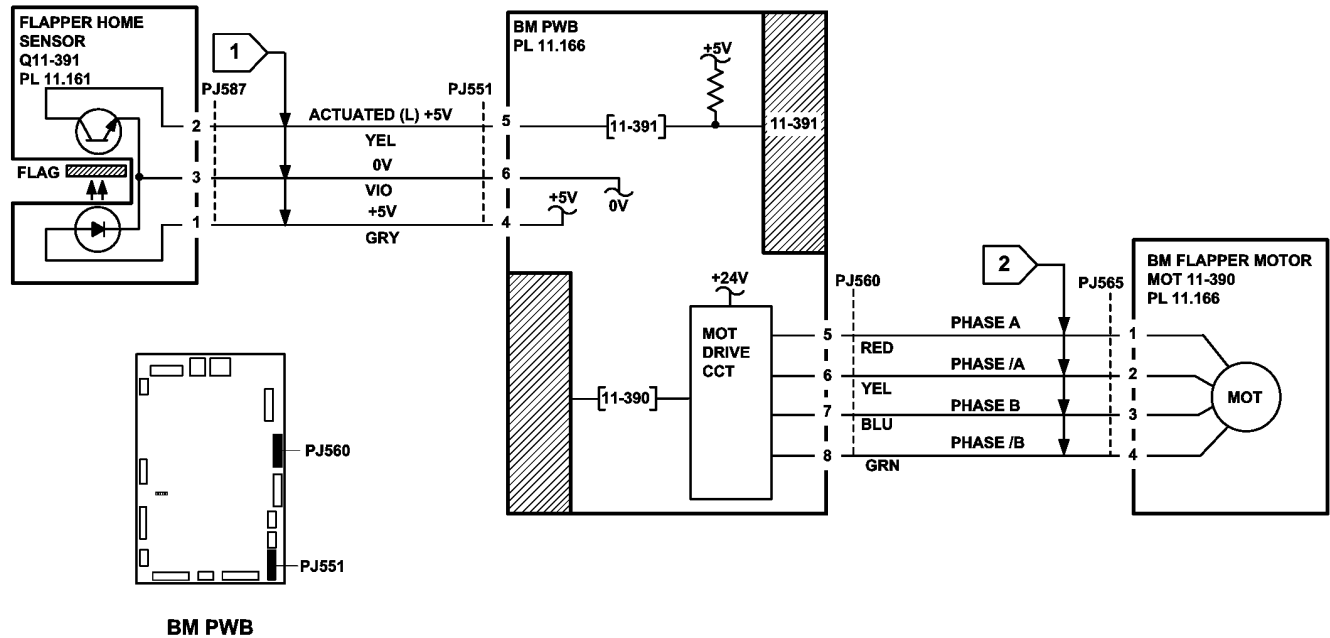


Figure 2 Circuit diagram

TT-1-0230-A

## 11-450-171, 11-456-171 to 11-459-171 HVF Ejector Module RAP

11-450-171 The ejector module motor has stalled

11-456-171 The ejector module did not return to the home position.

11-457-171 The ejector module did not move from the home position.

11-458-171 The ejector module did not return to the out position.

11-459-171 The ejector module did not move from the out position.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check for damage or obstructions that would prevent the ejector module from operating correctly.

### Procedure

Figure 1 shows the location of the components.

Enter the dC330 code 11-320, ejector home sensor. Stack the dC330 code 11-053 to move the stapler unit inboard, and observe the display. This action moves the stapler unit inboard, and moves the ejector module to the out position. **The display changes.**

Y N

The ejector module moved to the out position.

Y N

Go to Flag 2. Check the wiring and repair as necessary, REP 1.2. Check the ejector unit motor, MOT11-023. Refer to:

- GP 10 How to Check a Motor.
- P/J802, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Ejector assembly, PL 11.140 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Go to Flag 1. Check the wiring and repair as necessary, REP 1.2. Check the ejector home sensor, Q11-320. Refer to:

- GP 11 How to Check a Sensor.
- P/J401, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Ejector assembly, PL 11.140 Item 2.
- HVF control PWB, PL 11.157 Item 2.

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Exit the diagnostics mode, selecting the Re-boot option. This returns the ejector module to the home position. Enter the dC330 code, 11-322, ejector unit out sensor. Stack the dC330 code, 11-053 to move the stapler unit inboard. **The display changes.**

Y N

Go to Flag 3. Check the wiring and repair as necessary, REP 1.2. Check the ejector unit out sensor, Q11-322. Refer to:

- GP 11 How to Check a Sensor.
- P/J401, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Ejector assembly, PL 11.140 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Exit the diagnostics mode, selecting the Re-boot option. This returns the ejector module to the home position. Enter the dC330 code 11-177, ejector motor encoder. Stack the dC330 code, 11-053 to move the stapler unit inboard. **The display changes condition for a few seconds.**

Y N

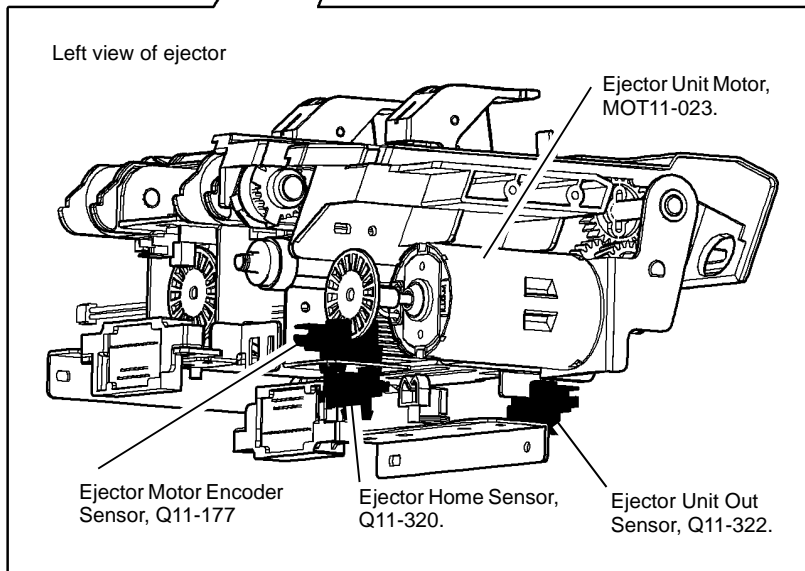
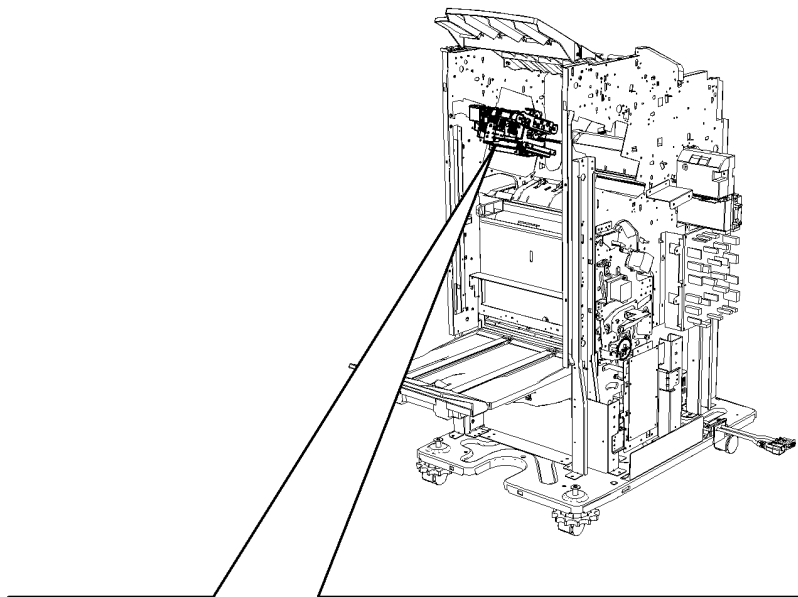
Go to Flag 4. Check the wiring and repair as necessary, REP 1.2. Check the ejector motor encoder, Q11-177. Refer to:

- GP 10 How to Check a Motor.
- P/J401, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Ejector assembly, PL 11.140 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Perform SCP 6 Final Actions.



T-1-0234-A

Figure 1 Component location

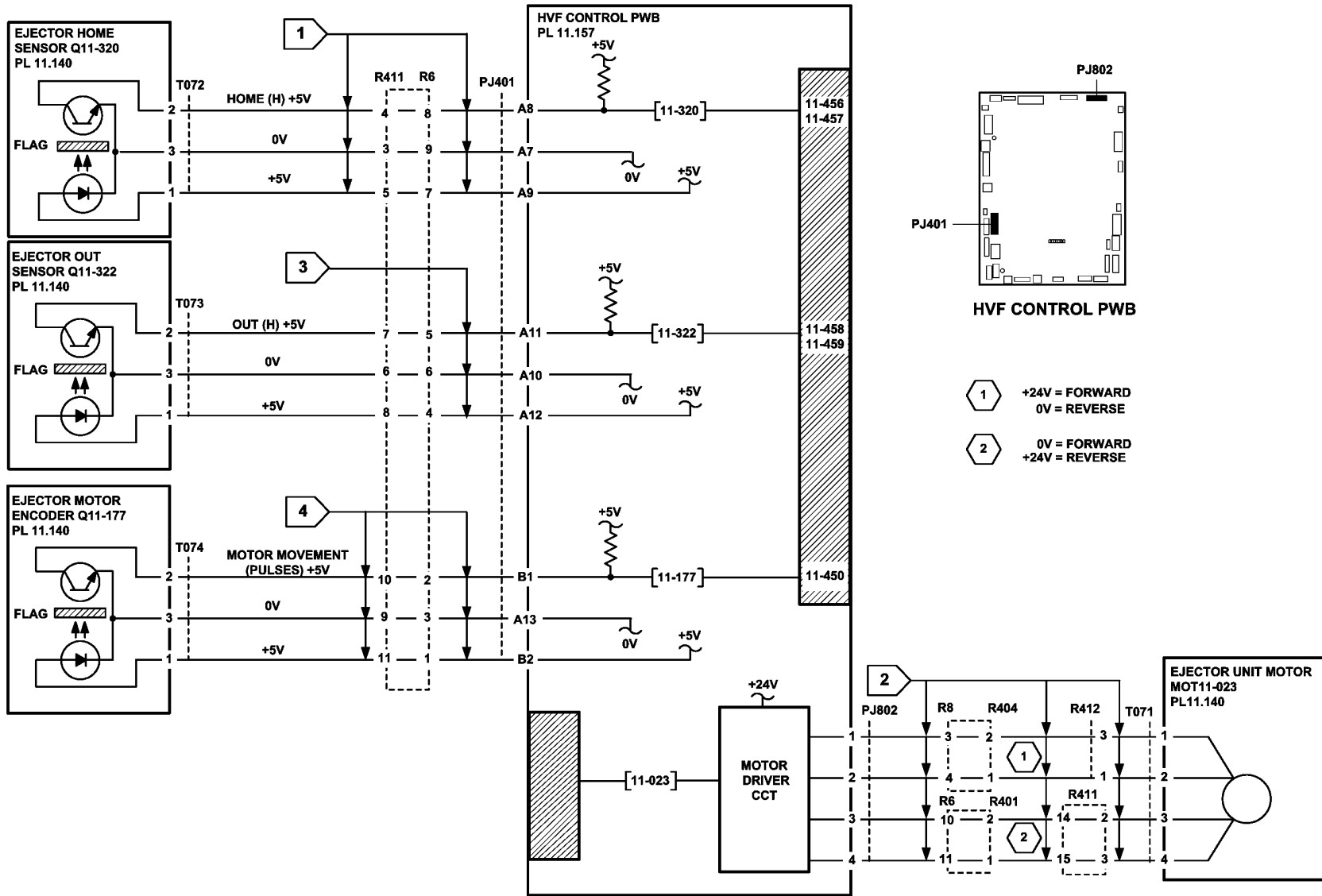


Figure 2 Circuit diagram

TT-1-0231-A

## 11-451-171 to 11-455-171 HVF Ejector Roll and Lower Paddle RAP

11-451-171 The ejector roll motor has stalled.

11-452-171 The ejector roll did not return to the home position.

11-453-171 The ejector roll did not move from the home position.

11-454-171 The lower paddle has failed to return to the home position.

11-455-171 The lower paddle has failed to move from the home position.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for any damage or obstructions that would prevent the ejector roll and lower paddle from operating correctly. Damaged or mis-positioned fingers can catch on the ejector tee bar, causing 11-452-171 faults.
- Check that the curl suppressor solenoid SOL11-084 is operating correctly. If necessary, go to 11M-171 Curl Suppressor RAP.

### Procedure

Figure 1, Figure 2 and Figure 3 show the component locations.

Enter dC330 code, 11-032 to take the bin 1 stacker tray down. Enter code 11-053, staple unit 1 forward to move the ejector module to the out position. Enter code 11-179, ejector plate home sensor. Manually turn the ejector belts a few centimetres. **The display changes.**

Y N  
Go to **Flag 1**. Check the wiring and repair as necessary, **REP 1.2**. Check the ejector plate home sensor, Q11-179. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J401, HVF Control PWB.**
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Ejector assembly, **PL 11.140 Item 2.**
- HVF control PWB, **PL 11.157 Item 2.**

Enter the dC330 code 11-178, ejector plater encoder sensor. Enter the code, 11-088 to rotate the ejector roll motor one cycle of the ejector plates in the forward direction. **The display changes.**

Y N  
**The ejector roll motor turned.**  
Y N  
Go to **Flag 2**. Check the wiring and repair as necessary, **REP 1.2**. Check the ejector roll motor, MOT 11-088. Refer to:

A B

- **GP 10** How to Check a Motor.
  - **P/J802, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP.
- Install new components as necessary:
- Ejector assembly, **PL 11.140 Item 2.**
  - HVF control PWB, **PL 11.157 Item 2.**

Go to **Flag 3**. Check the wiring and repair as necessary, **REP 1.2**. Check the ejector plate encoder sensor, Q11-178. Refer to:

- **GP 11** How to Check a Sensor.
  - **P/J401, HVF Control PWB.**
  - **11A-171** HVF Power Distribution RAP.
- Install new components as necessary:
- Ejector assembly, **PL 11.140 Item 2.**
  - HVF control PWB, **PL 11.157 Item 2.**

Measure the voltage at **P/J401**, pin B4. **Figure 3**, rotate the lower home paddle upwards and inwards for one full rotation. **The voltage changes from a logic high to a low, and then back to high.**

Y N  
Go to **Flag 4**. Check the wiring and repair as necessary, **REP 1.2**. Check the ejector lower paddle switch, S11-180. Refer to:

- **GP 13** How to Check a Switch.
- **P/J401, HVF Control PWB.**
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Ejector assembly, **PL 11.140 Item 2.**
- HVF control PWB, **PL 11.157 Item 2.**

Measure the voltage at **P/J401**, pin B12. Actuate the ejector paper present sensor by placing a sheet of paper on the ejector module. **The voltage changes.**

Y N  
Go to **Flag 5**. Check the wiring and repair as necessary, **REP 1.2**. Check the ejector paper present sensor. Refer to:

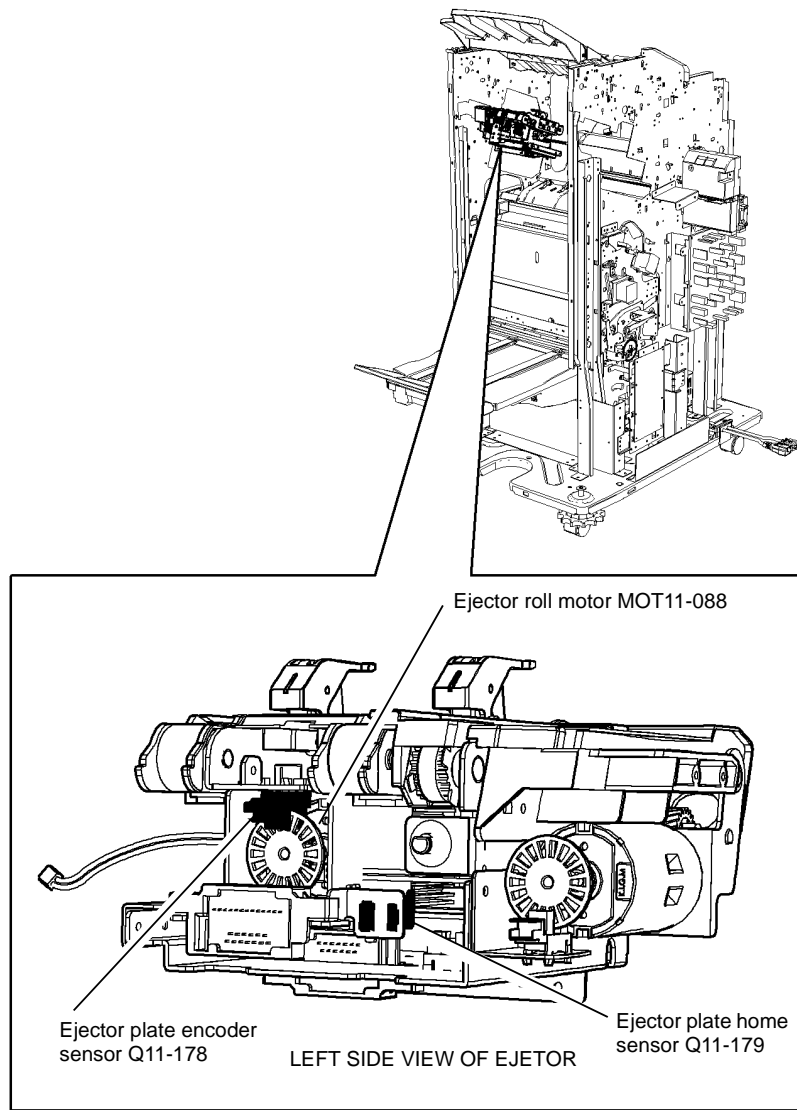
- **GP 11** How to Check a Sensor.
- **P/J401, HVF Control PWB.**
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Ejector assembly, **PL 11.140 Item 2.**
- HVF control PWB, **PL 11.157 Item 2.**

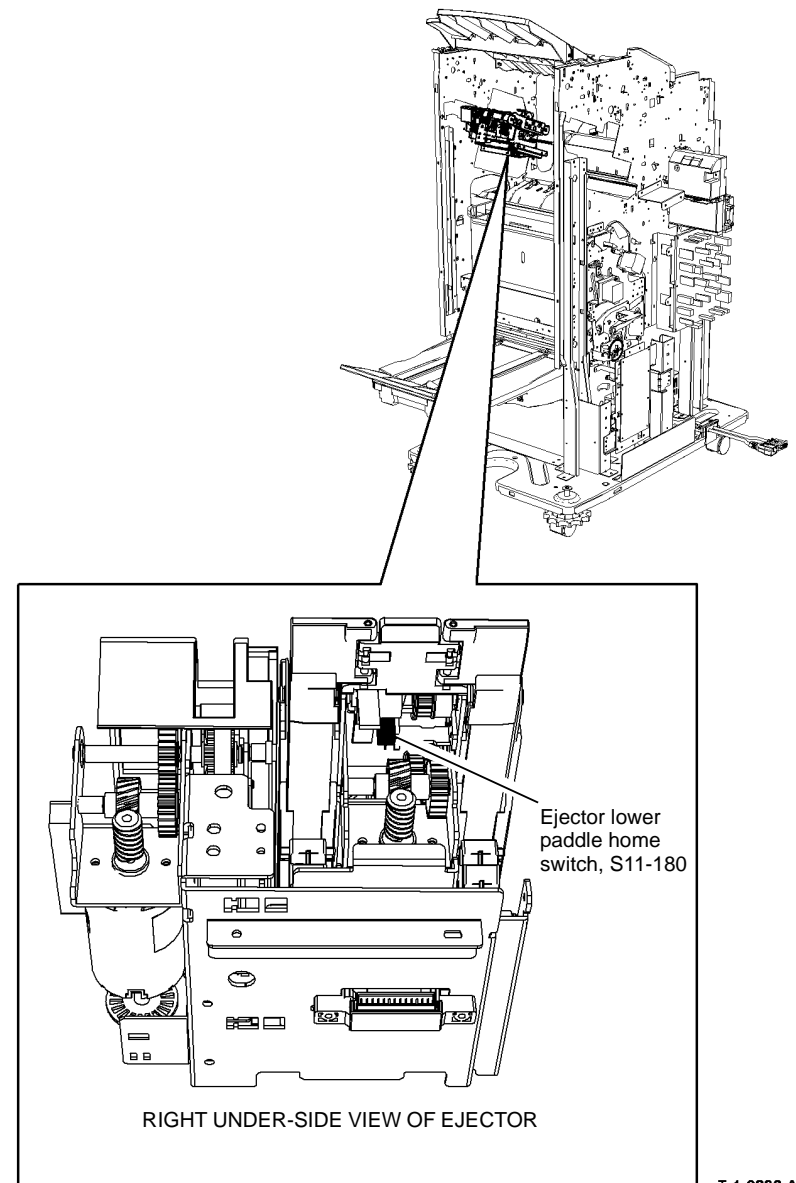
Perform **SCP 6** Final Actions.

A B



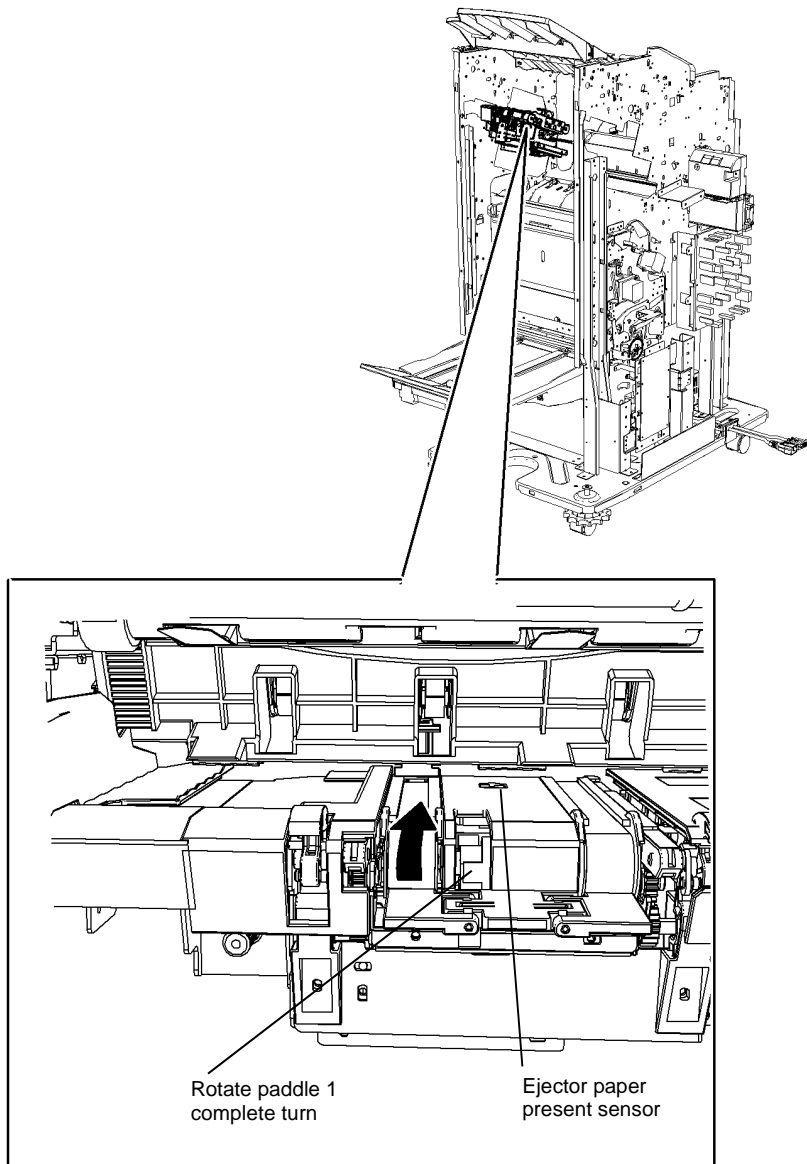
T-1-0235-A

Figure 1 Component location



T-1-0236-A

Figure 2 Component location



T-1-0237-A

Figure 3 Component location

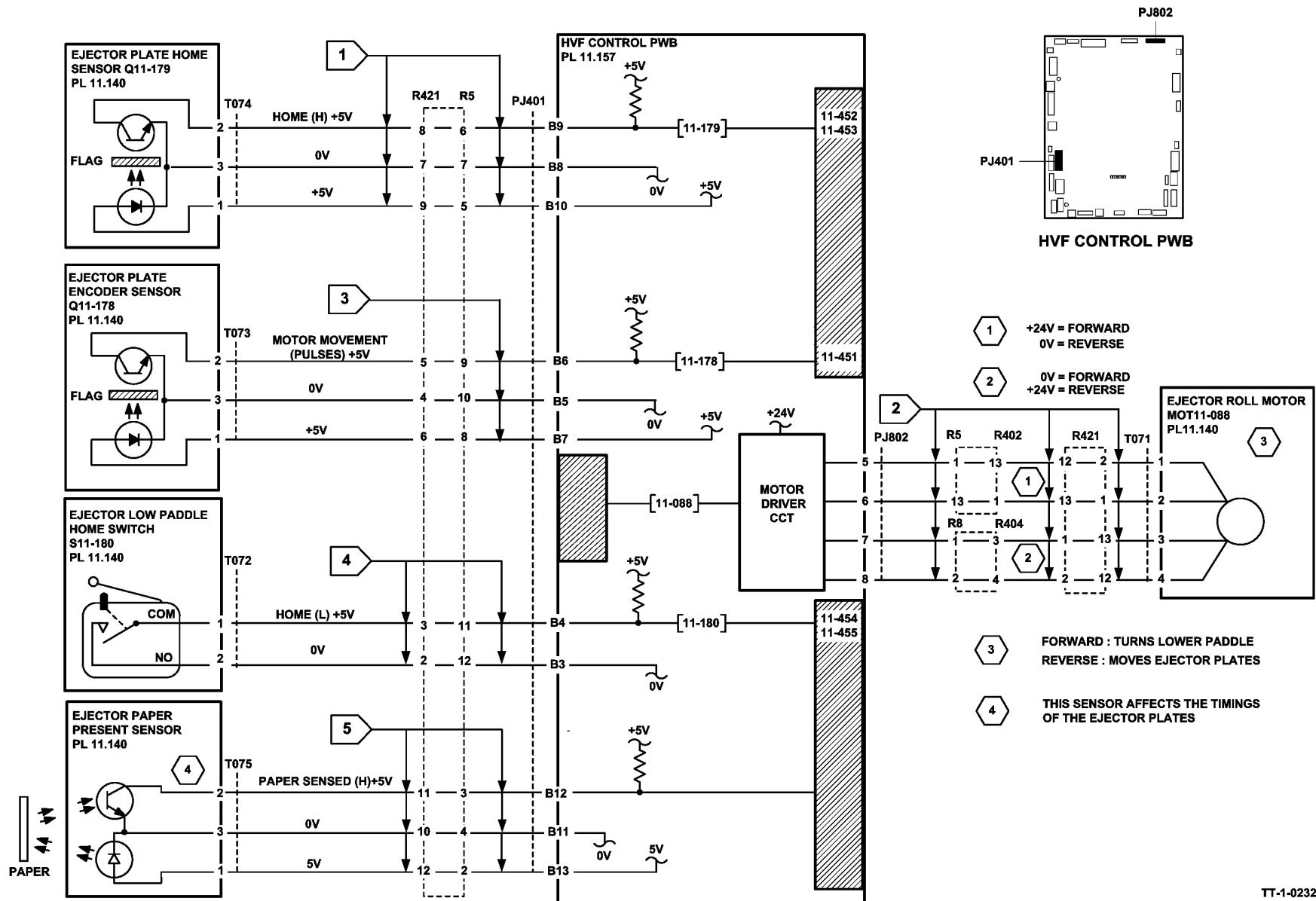


Figure 4 Circuit diagram

TT-1-0232-A



## 11-460-171 to 11-462-171 HVF Bin 1 Position RAP

11-460-171 Bin 1 motor has stalled.

11-461-171 Bin 1 did not actuate the bin 1 upper level sensor during stacking.

11-462-171 Bin 1 did not leave the bin 1 upper level sensor during stacking.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that bin1 is not damaged and there are no obstructions that would prevent bin 1 from moving.
- Remove any obstructions that could prevent the full descent and elevation of bin 1.
- Press the pause to unload button to lower bin 1. Press again the pause to unload button to raise bin 1.
- Poor operation of the inboard and outboard pressing plate fingers can cause poor stacking in bin 1, leading to 11-462 faults. Check the pressing plate fingers move from and return to their home positions correctly. Check the operation of the other mechanical components in the bin 1 and ejector assembly area.

### Procedure

**NOTE:** The bin 1 90% full sensor, Q11-331, and the bin 1 lower limit switch are mounted on the same bracket. This bracket can be in either of two positions. It is in the upper position, only when a tri-folder module is installed.

**NOTE:** The bin 1 upper level sensor controls the height of the tray during normal use. The sensor is in two parts: the transmitter at the front of the tray and the receiver at the rear of the tray. Only the LED of the front sensor is used and only the light sensitive transistor of the rear sensor is used. Refer to [Flag 3](#) and [Flag 4](#).

[Figure 1](#) shows the location of the components.

Place about one centimeter thickness of paper on the bin 1 tray. Switch off, then switch on the machine, [GP 14](#). **The bin 1 tray moves during initialization.**

**Y N**  
If the tray is not at the upper limit, enter the **dC330** code 11-334, bin 1 upper limit switch. Manually actuate the switch. **The display changes.**

**Y N**  
Go to [Flag 5](#). Check the wiring and repair as necessary, [REP 1.2](#). Check the bin 1 upper limit switch, S11-334. Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J602](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Bin 1 upper limit switch, [PL 11.135 Item 7](#).

A B

- HVF control PWB, [PL 11.157 Item 2](#).

If the tray is not at the lower limit, enter the **dC330** code 11-335, bin 1 lower limit switch. Manually actuate the switch. **The display changes.**

**Y N**  
Go to [Flag 6](#). Check the wiring and repair as necessary, [REP 1.2](#). Check the bin 1 lower limit switch, S11-335. Refer to:

- [GP 13](#) How to Check a Switch.
- [P/J602](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Bin 1 lower limit switch, [PL 11.135 Item 7](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Go to [Flag 1](#). Check the wiring and repair as necessary, [REP 1.2](#). Check the bin 1 elevator motor, 11-030. Refer to:

- [GP 10](#) How to Check a Motor.
- [P/J202](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Bin 1 elevator motor, [PL 11.135 Item 10](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Enter the **dC330** code, 11-182, bin 1 encoder sensor. Turn the bin 1 encoder wheel. **The display changes.**

**Y N**  
Go to [Flag 2](#). Check the wiring and repair as necessary. Check the bin 1 encoder sensor, Q11-182. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J601](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Bin 1 encoder sensor, Q11-182, [PL 11.135 Item 3](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Enter the **dC330** code 11-332, bin 1 upper level sensor. Remove the paper from the tray. Actuate the sensor by breaking the light beam from the front transmitter to the rear receiver. **The display changes.**

**Y N**  
Go to [Flag 3](#) and [Flag 4](#). Check the wiring and repair as necessary. Check the two parts of the bin 1 upper level sensor, Q11-332. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J601](#) and [P/J901](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Bin 1 upper level sensor (transmitter), [PL 11.140 Item 20](#).
- Bin 1 upper level sensor (receiver), [PL 11.140 Item 16](#).

A B

C

C

- HVF control PWB, [PL 11.157 Item 2.](#)

Enter the **dC330** code 11-331, bin 1 90% full sensor. Actuate the sensor using a piece of paper. **The display changes.**

Y N

Go to [Flag 7](#). Check the wiring and repair as necessary. Check the bin 1 90% full sensor, Q11-331. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J601](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Bin 1 90% full sensor, [PL 11.135 Item 3.](#)
- HVF control PWB, [PL 11.157 Item 2.](#)

Lower the bin 1 tray by pressing the PTU switch, or by entering the **dC330** code 11-032, bin1 elevator motor down. Enter the **dC330** code 11-196, bin 1 rear wall sensor. Actuate the bin 1 rear wall sensor using a sheet of paper. **The display changes.**

Y N

Go to [Flag 8](#). Check the wiring and repair as necessary, [REP 1.2](#). Check the bin 1 rear wall sensor, Q11-196. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J403](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

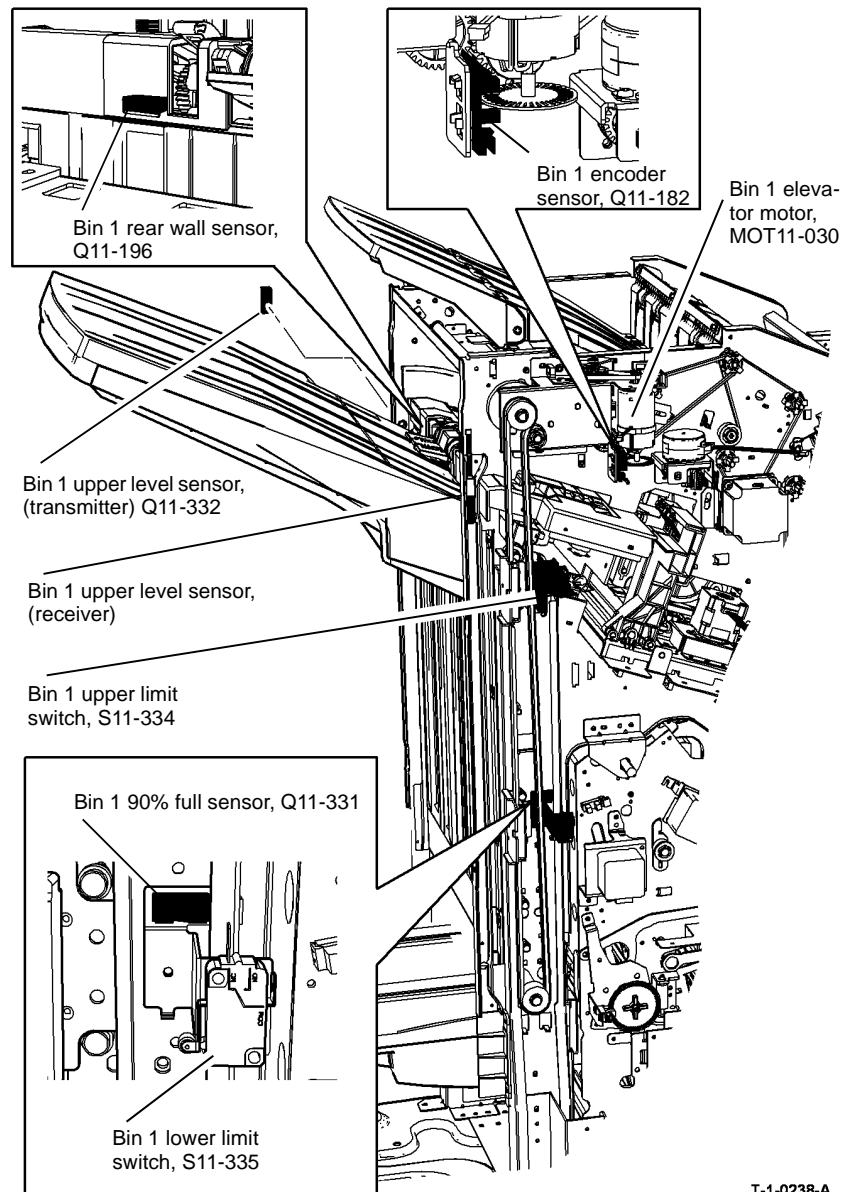
- Bin 1 rear wall sensor, [PL 11.140 Item 17.](#)
- HVF control PWB, [PL 11.157 Item 2.](#)

If the fault is random and Bin 1 has an erratic up / down movement and poor stacking. Check that the Bin 1 rear wall sensor is clean. **The sensor is clean.**

Y N

Clean the Bin 1 rear wall sensor. Use a brush to remove paper dust from the sensor and the plastic surround. Then use a damp cloth to clean the sensor and plastic surround.

Perform [SCP 6](#) Final Actions.



T-1-0238-A

Figure 1 Component location

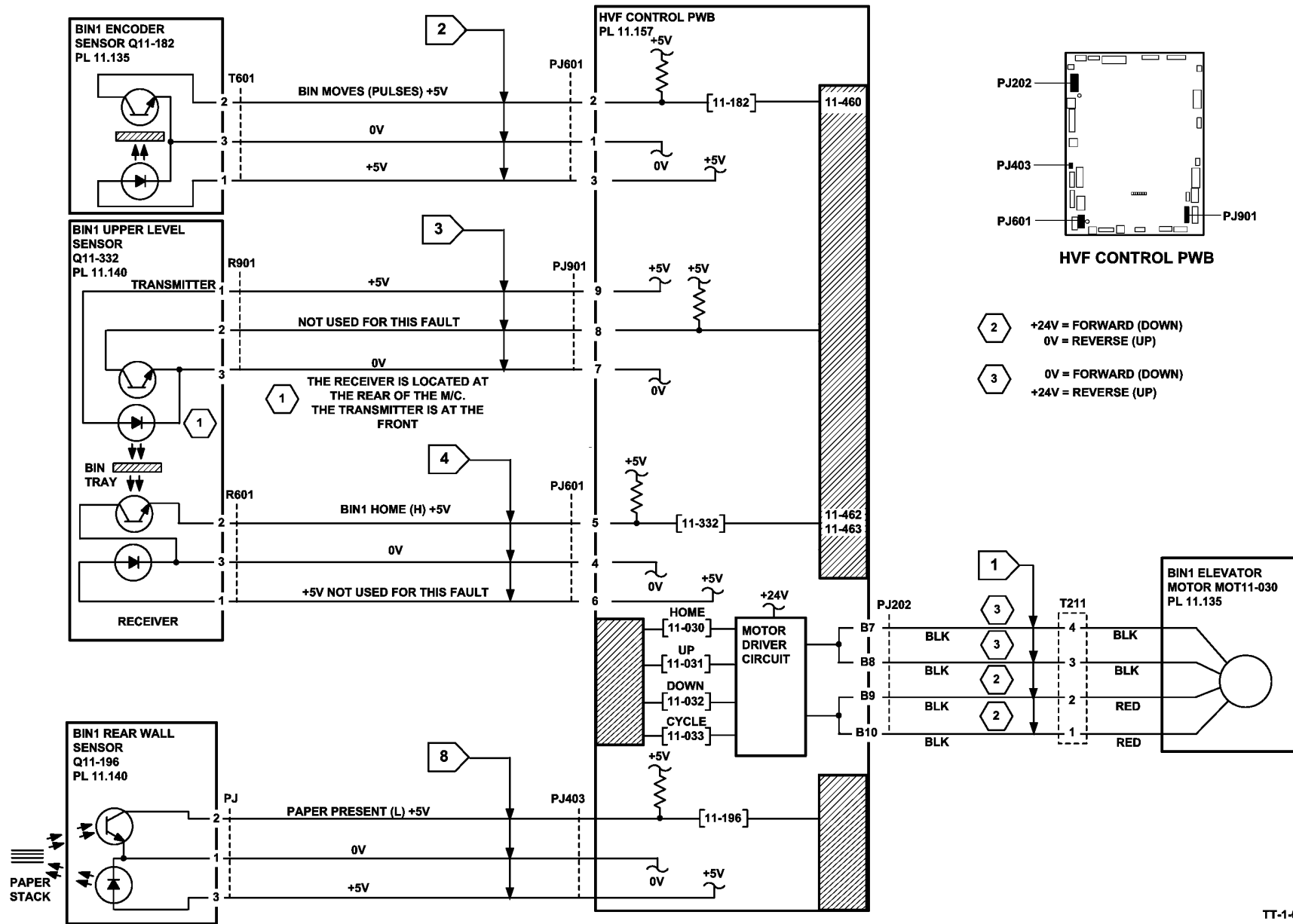


Figure 2 Circuit diagram

TT-1-0233-B

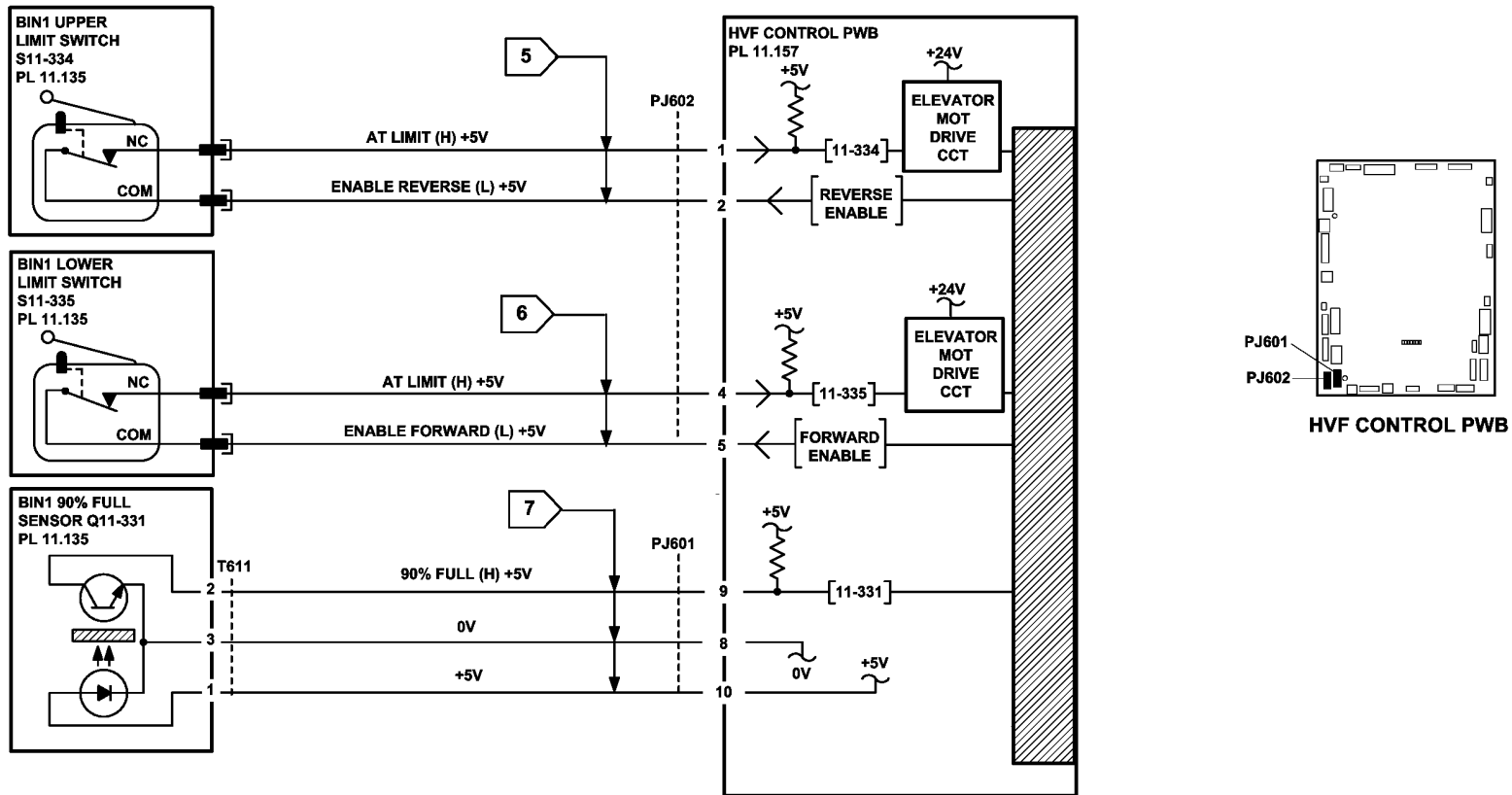


Figure 3 Circuit diagram

TT-1-0234-A

## 11-463-171, 11-464-171 HVF BM +24V Failure RAP

11-463-171 The booklet maker control PWB has failed to detect +24V at the input from the HVF.

11-464-171 The booklet maker control PWB has detected an internal +24V failure, such as over current, short circuit or under voltage.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

- Ensure the HVF BM is correctly docked to the machine and all interlocks are closed.

### Procedure

Close or cheat all the HVF BM interlocks. The HVF BM performs a mechanical reset.

Y N  
Go to **Flag 1. ACL is available at PJ22 on the LVPS and base module between pins 1 and 2.**

Y N  
Go to the **01C AC Power RAP** and check the AC output voltages.

Go to **Flag 2. +24V is available at P/J111 between pins 1 and 4.**

Y N  
Refer to **Figure 1. +24V is available at T001 on the HVF power supply between pins 1 and 5.**

Y N  
Install a new HVF power supply module, **PL 11.157 Item 1.**

Check the connectors and harness between T001 and PJ111. Repair the harness as necessary, **REP 1.2.**

Go to **Flag 3. +24V is available at P/J111 between pins 1 and 4, between pins 2 and 5 and between pins 3 and 6.**

Y N  
Go to the **11-300-171, 11-302-171, 11-303-171 HVF Docking and Interlock RAP.**

Go to **Flag 4. +24V is available at P/J559 between pins 1 and 2.**

Y N  
**+24V is available at P/J131 between pins 1 and 2.**

Y N  
Install a new HVF control PWB, **PL 11.157 Item 2.**

Check the connectors and harness between **P/J559** and **P/J131**. Repair the harness as necessary, **REP 1.2.**

If an inserter is installed, go to **P/J703. +24V is available between P/J703 pin 1 and P/J111 pin 1.**

A  
Y N  
Go to **11-306-171, 11-309-171 HVF Inserter Interlock RAP**  
Go to **Flag 5. +24V is available at P/J601 between pins 1 and pin 4.**  
Y N  
Install a new BM PWB, **PL 11.166 Item 10.**  
Go to **Flag 6. +24V is available at P/J601 between pins 4 and 6.**  
Y N  
Go to the **11-300-171, 11-302-171, 11-303-171 Docking and Interlocks RAP.**  
The +24V supply are good. Go to **SCP 6 Final actions.**  
The +24V supply are good. Go to **SCP 6 Final actions.**

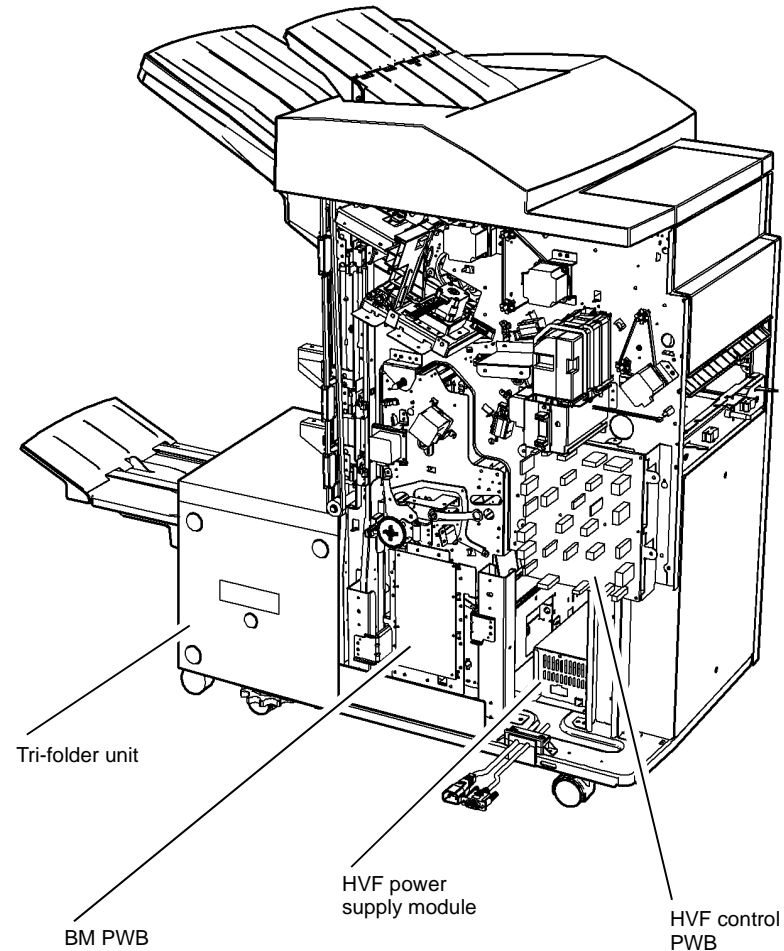
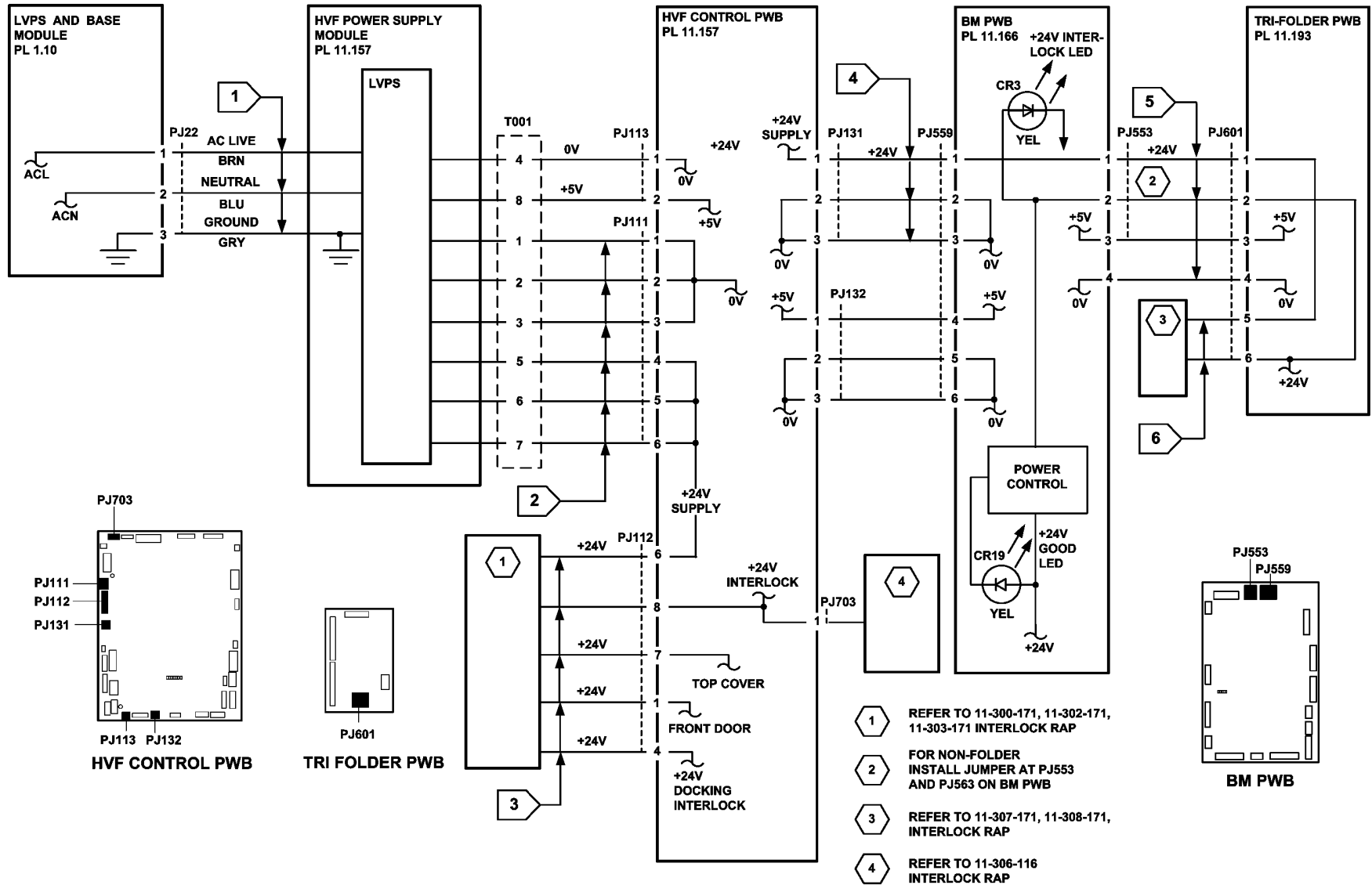


Figure 1 Component location



TT-1-0235-A

Figure 2 Circuit diagram

## 11-465-171 to 11-468-171 Paddle Unit Position RAP

**11-465-171** The paddle unit has failed to return to the upper position.

**11-466-171** The paddle unit has failed to move from the upper position.

**11-467-171** The paddle unit has failed to return to the lower position.

**11-468-171** The paddle unit has failed to move from the lower position.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check for damage or obstructions that would prevent the paddle unit from operating correctly.

### Procedure

**NOTE:** All HVF BM interlocks must be made to supply +24V to the motors.

Enter **dC330**, code 11-027 paddle unit motor, MOT11-027, **Figure 1**. Select code 11-027 and press Start. **The motor runs.**

**Y N**  
Go to **Flag 2**. Check MOT11-027.  
Refer to:

- **GP 10**, How to Check a Motor.
- **P/J202**, HVF Control PWB.
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Paddle module driving motor assembly, **PL 11.150 Item 6**.
- HVF control PWB, **PL 11.157 Item 2**.

Enter **dC330**, code 11-027 to check the paddle unit motor, MOT11-027, **Figure 1**. **The paddle unit moves.**

**Y N**  
Check the drive gears on the paddle unit. Install new components as necessary. **PL 11.145 Item 2**.

Enter **dC330**, code 11-194 paddle unit upper sensor, Q11-194. Select code 11-194 and press Start. Select code 11-027 and press Start. **The sensor status changes.**

**Y N**  
Go to **Flag 1**. Check Q11-194.  
Refer to:

- **GP 11** How to Check a Sensor.
- **P/J201**, HVF Control PWB
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Paddle module assembly, **PL 11.145 Item 2**.
- HVF control PWB, **PL 11.157 Item 2**.

**A**  
Enter **dC330**, code 11-195 paddle unit lower sensor, Q11-195. Select code 11-195 and press Start. Select code 11-027 and press Start. **The sensor status changes.**

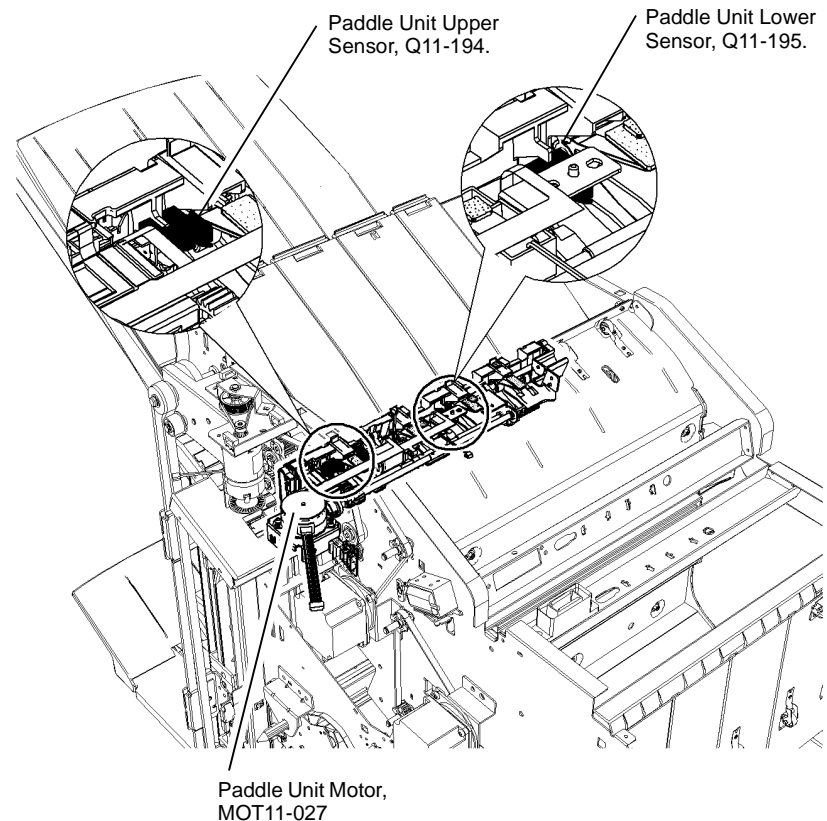
**Y N**  
Go to **Flag 3**. Check Q11-195.  
Refer to:

- **GP 11** How to Check a Sensor.
- **P/J201**, HVF Control PWB.
- **11A-171** HVF Power Distribution RAP.

Install new components as necessary:

- Paddle module assembly, **PL 11.145 Item 2**.
- HVF control PWB, **PL 11.157 Item 2**.

Perform **SCP 6** Final Actions.



**Figure 1 Component location**

**A**

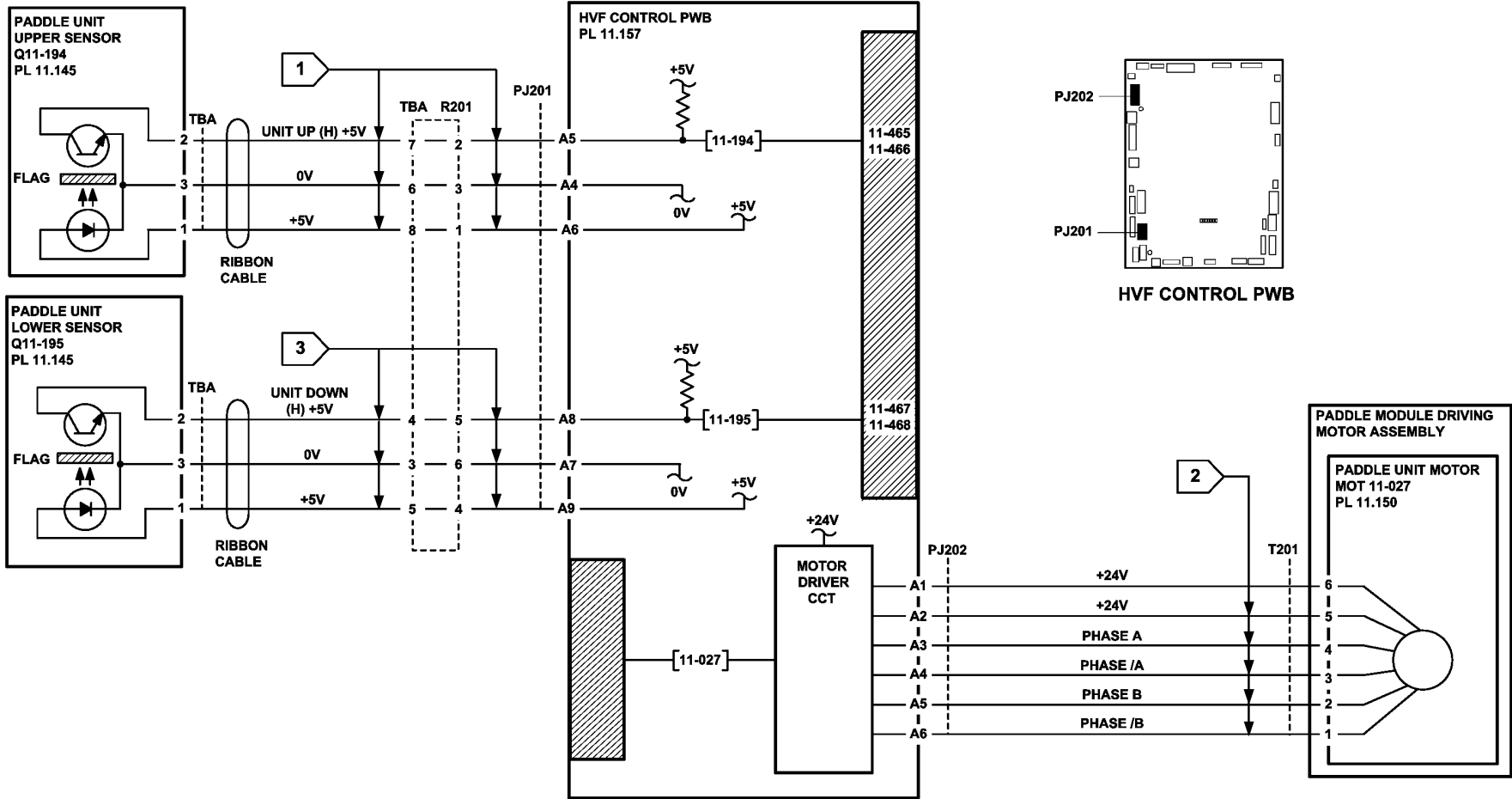


Figure 2 Circuit diagram

TT-1-0236-A



## 11-473-171 to 11-478-171 Support Finger Position RAP

11-473-171 The support finger has failed to return to the initial position.

11-474-171 The support finger has failed to move from the initial position.

11-475-171 The support finger has failed to return to the home position.

11-476-171 The support finger has failed to move from the home position.

11-477-171 The support finger has failed to return to the out position.

11-478-171 The support finger has failed to move from the out position.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

**NOTE:** When manually extending the fingers to check the sensors, the home sensor operates first, followed by the init sensor. The away sensor operates when the fingers are fully extended. All three sensors are spared as part of the rear tamper assembly.

Figure 1 shows the component locations.

Enter dC330 code 11-192, support finger home sensor. Note the position of the support fingers at rest. Using a screwdriver, or with a finger, turn the gear wheel shown in Figure 1, downwards. The support fingers extend to the right as the gear is turned. When the support fingers have extended by about six millimetres, the support finger home sensor changes state. **The display changes from High to Low.**

Y N

Go to Flag 1. Check the support finger home sensor, Q11-192. Refer to:

- GP 11 How to Check a Sensor.
- P/J402, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Rear tamper assembly, PL 11.140 Item 13.
- Ejector assembly, PL 11.140 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Enter the dC330 code 11-191 and continue turning the gear wheel. When the support fingers have extended by about 25mm, the support finger init sensor changes state. **The display changes from High to Low.**

Y N

Go to Flag 2. Check the support finger init sensor, Q11-191. Refer to:

- GP 11 How to Check a Sensor.
- P/J402, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

A

A

Install new components as necessary:

- Rear tamper assembly, PL 11.140 Item 13.
- Ejector assembly, PL 11.140 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Enter the dC330 code 11-193, support finger out sensor, Q11-193 and continue turning the gear wheel. When the support fingers have extended by about 105mm, the support finger out sensor changes state. **The display changes from High to Low.**

Y N

Go to Flag 3. Check the support finger out sensor, Q11-193. Refer to:

- GP 11 How to Check a Sensor.
- P/J402, HVF Control PWB
- 11A-171 HVF Power Distribution RAP.

Install new components as necessary:

- Rear tamper assembly, PL 11.140 Item 13.
- Ejector assembly, PL 11.140 Item 2.
- HVF control PWB, PL 11.157 Item 2.

Make several small sets of copies and observe that the support fingers are extended between each set.

**NOTE:** If copies can not be made, go to the check of the support finger motor encoder.

### The support fingers are extended.

Y N

Remove the HVF top cover and rear cover, REP 11.1-171. Enter the dC330 code 11-172, support finger motor encoder. Figure 1. Manually turn the support motor encoder disc.

**The encoder sensor changes state.**

Y N

Go to Flag 4. Check the support finger motor encoder sensor, Q11-172. Refer to:

- GP 11 How to Check a Sensor.
- P/J402, HVF Control PWB.
- 11A-171 HVF Power Distribution RAP.

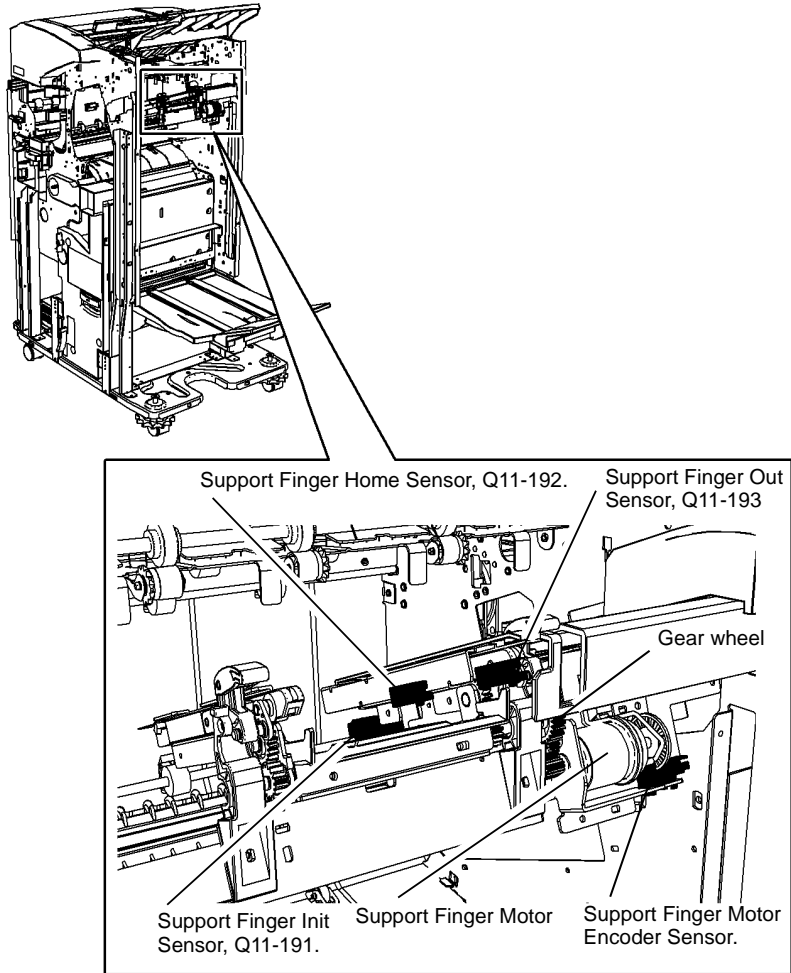
Install new components as necessary:

- Support finger motor encoder sensor, PL 11.140 Item 15.
- HVF control PWB, PL 11.157 Item 2.

Go to Flag 5. Check the wiring between P/J802 and the support finger motor. Repair as necessary, REP 1.2. Install new components as necessary:

- Motor encoder assembly, PL 11.140 Item 18.
- HVF control PWB, PL 11.157 Item 2.

Perform SCP 6 Final Actions.



T-1-0241-A

Figure 1 Component location

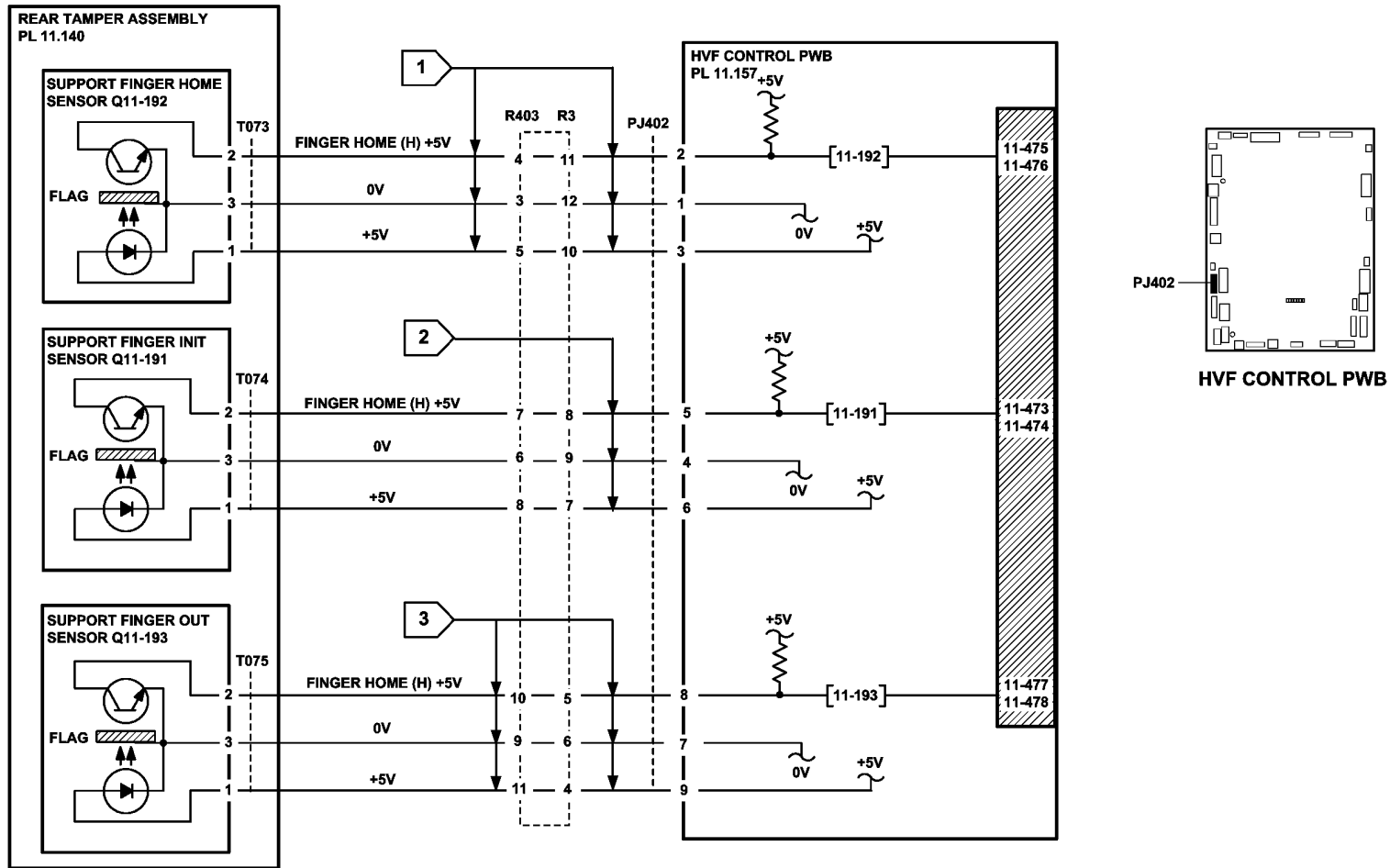
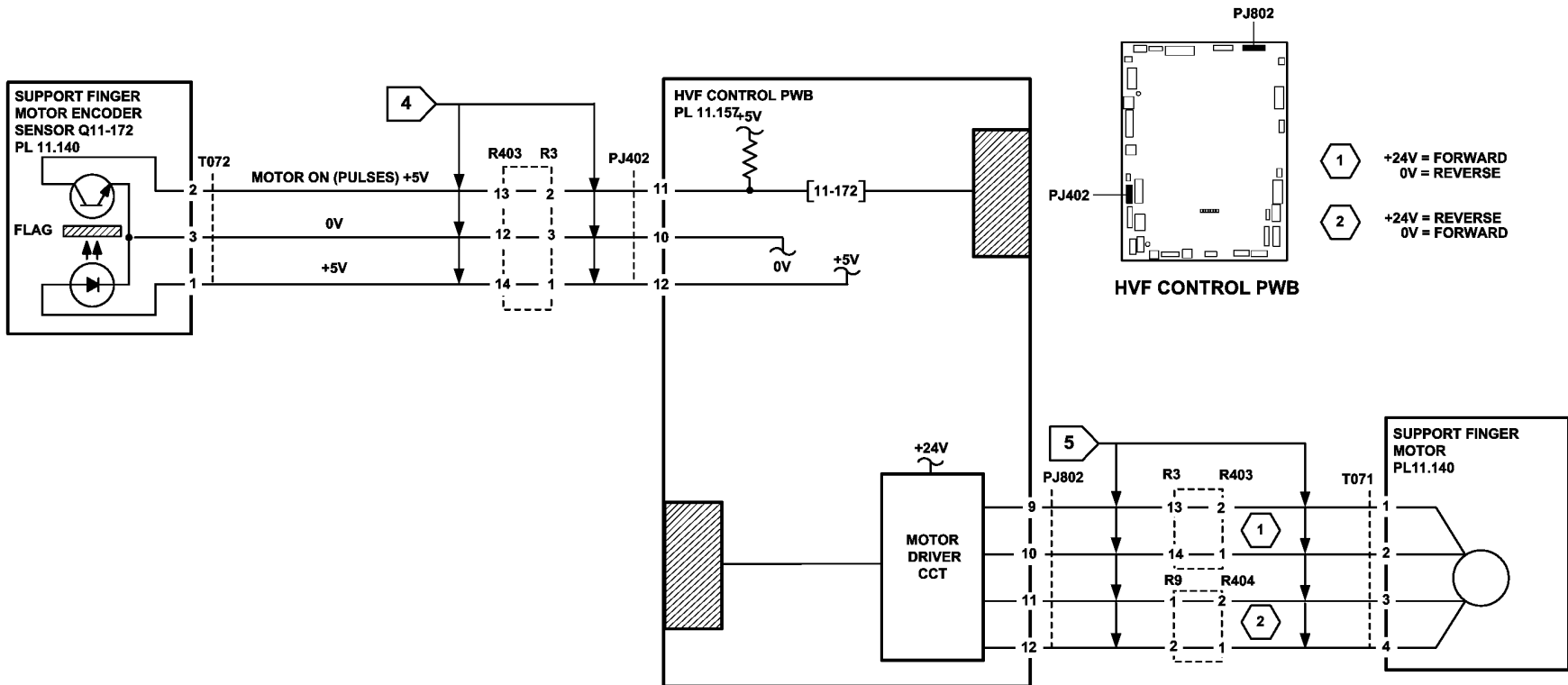


Figure 2 Circuit diagram

TT-1-0237-A



TT-1-0238-A

Figure 3 Circuit diagram

## 11-479-171 Inserter Paper Length Fault RAP

11-479-171 A shorter than expected sheet has been fed from the inserter.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check that the inserter paper path is clear of obstructions and the sensors are clean.

### Procedure

Figure 1 shows the component locations.

Enter the dC330 code 11-150, sheet size detector 1 sensor. Use a piece of paper to actuate the sensor. **The sensor display changes state.**

Y N

Go to [Flag 1](#) and [Flag 2](#). Check Q11-150. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J9](#), [P/J4](#), [Inserter PWB](#).
- [P/J701](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Sheet size detector 1 sensor, [PL 11.175 Item 12](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Enter the dC330 code 11-151, sheet size 2 sensor. Use a piece of paper to actuate the sensor.

**The sensor display changes state.**

Y N

Go to [Flag 3](#) and [Flag 4](#). Check Q11-151. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J9](#), [P/J4](#), [Inserter PWB](#).
- [P/J701](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Sheet size detector 2 sensor, [PL 11.175 Item 12](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Enter the dC330 code 11-155, TE sensor. Use a piece of paper to actuate the sensor. **The sensor display changes state.**

Y N

Go to [Flag 5](#) and [Flag 6](#). Check Q11-155. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J6](#), [P/J4](#), [Inserter PWB](#).

A

- [P/J701](#), [HVF Control PWB](#).
- [11A-171](#), HVF Power Distribution RAP.

Install new components as necessary:

- TE sensor, [PL 11.179 Item 11](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Enter the dC330 code 11-154, LE sensor. Use a piece of paper to actuate the sensor. **The sensor display changes state.**

Y N

Go to [Flag 7](#) and [Flag 8](#). Check Q11-154. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J6](#), [P/J4](#), [Inserter PWB](#).
- [P/J701](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- LE sensor, [PL 11.179 Item 11](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Enter the dC330 code 11-077, to energize the inserter clutch. **The inserter clutch is energised.**

Y N

Go to [Flag 9](#) (W/O TAG V-001) or [Flag 13](#) (With TAG V-001) and [Flag 10](#) and check the inserter clutch, CL11-077. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J703](#), [HVF Control PWB](#).
- [P/J5](#), [P/J12](#), [Inserter PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Inserter clutch, [PL 11.179 Item 3](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Enter the dC330 code 11-078, to run the inserter motor. **The inserter motor runs.**

Y N

Go to [Flag 11](#) and [Flag 12](#). Check the inserter motor, MOT11-078. Refer to:

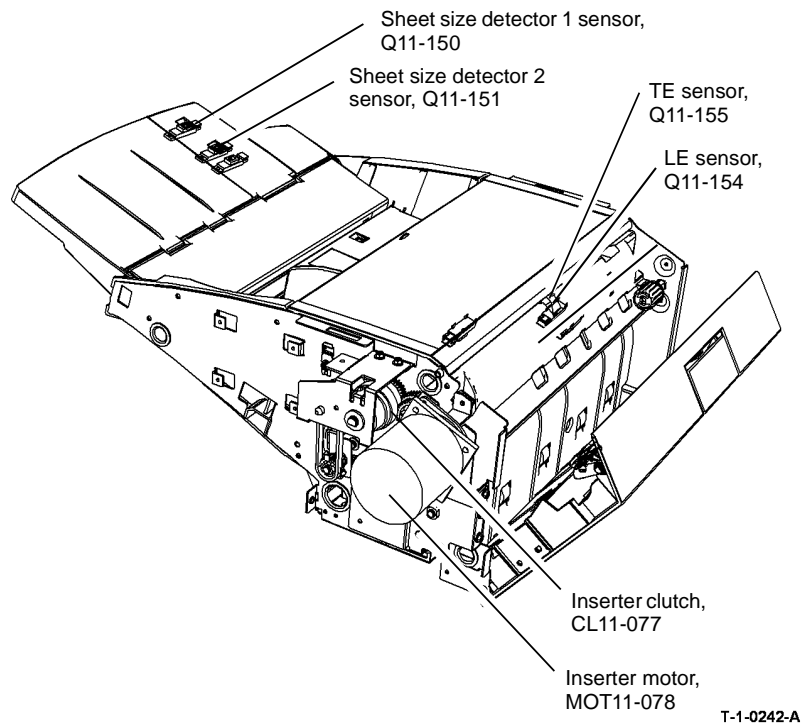
- [GP 10](#) How to Check a Motor.
- [P/J701](#), [HVF Control PWB](#).
- [P/J4](#), [P/J12](#), [Inserter PWB](#).
- [11A-171](#), HVF Power Distribution RAP.

Install new components as necessary:

- Inserter motor, [PL 11.181 Item 1](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Perform [SCP 6](#) Final Actions.

A



**Figure 1 Component location**

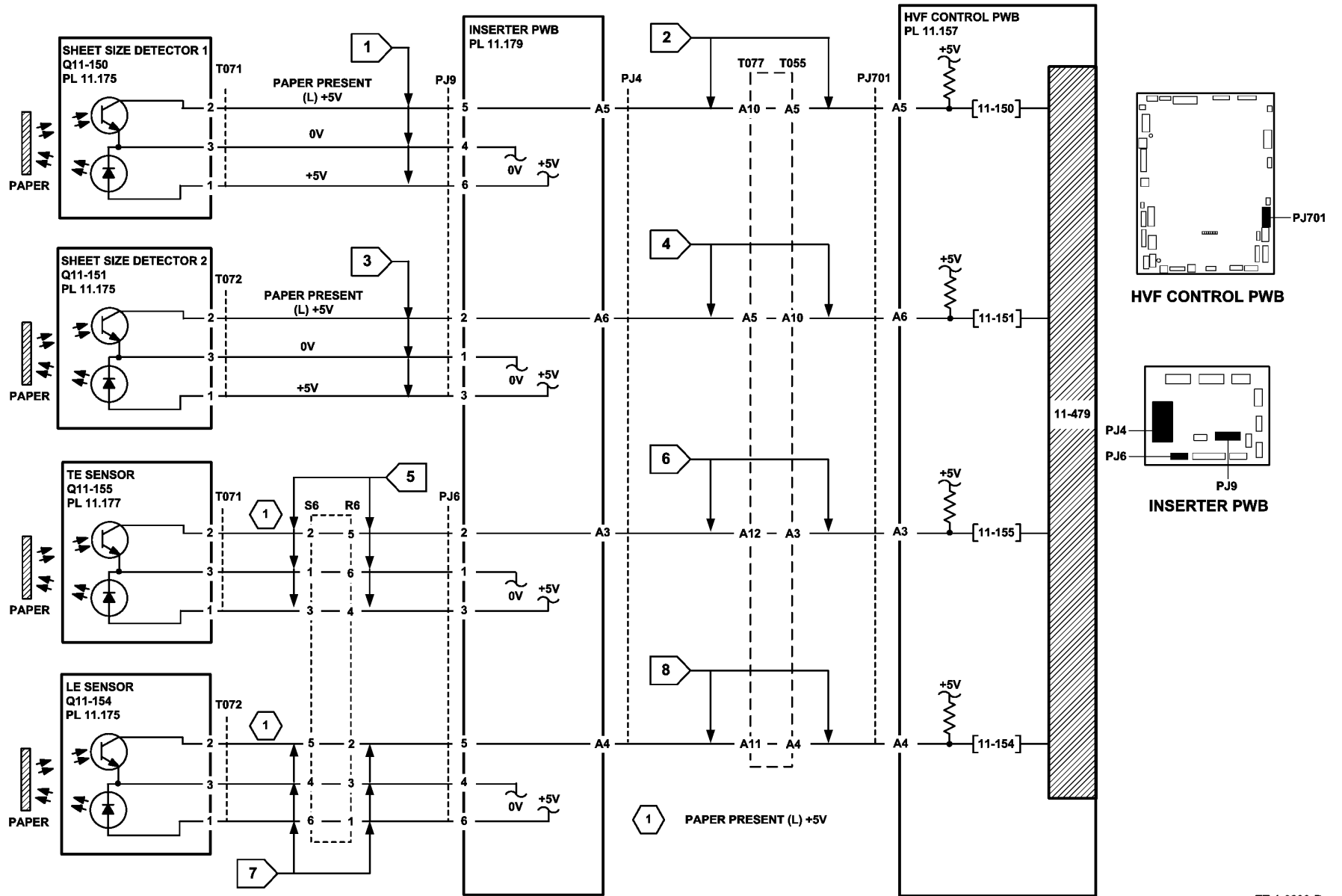


Figure 2 Circuit diagram

TT-1-0239-B

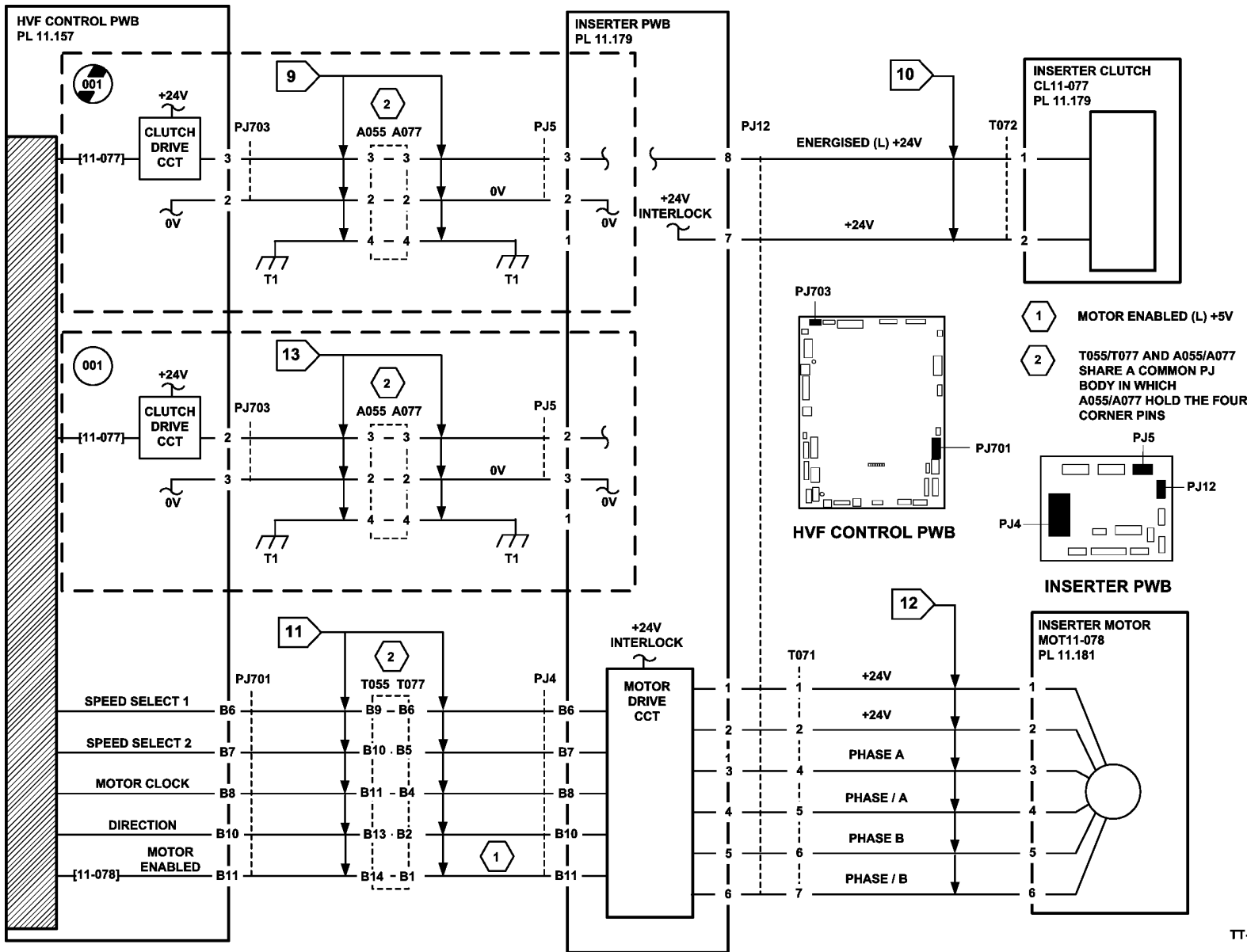


Figure 3 Circuit diagram

TT-1-0240-A



## 11A-171 HVF Power Distribution RAP

The HVF has an integral power supply providing +24V and +5V supplies to the HVF PWB and HVF BM PWB. The AC power for the HVF power supply comes from the LVPS and base module of the machine.



### CAUTION

*Do not connect the HVF power cord directly to the AC wall outlet. The HVF cannot operate without the machine. The machine controls the distribution of electricity to the HVF/HVF BM for correct power on and power off sequencing.*

### Initial Actions



### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**



### WARNING

**Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.**

Ensure the HVF/HVF BM is correctly docked to the machine and all interlocks are closed.

### Procedure

Refer to [Figure 3](#) for the location of components.

Refer to [HVF Control PWB and BM PWB LEDs](#) to identify the status of the PWBs.

Close or cheat all the HVF BM interlocks. **The HVF BM performs a mechanical reset.**

Y	N		
		Go to <a href="#">Flag 2</a> . +5V is available at <a href="#">P/J113</a> between pins 1 and 2.	
Y	N		
		Go to <a href="#">Flag 2</a> . +5V is available at T001 on the HVF power supply module between pins 4 and 8.	
Y	N		
		Go to <a href="#">Flag 1</a> . ACL is available at PJ22 on the LVPS and base module between pins 1 and 2.	
Y	N		
		Go to the <a href="#">01C</a> AC Power RAP and check the AC output voltages.	
		Switch off the machine, <a href="#">GP 14</a> . Disconnect all PJs on the <a href="#">HVF Control PWB</a> except <a href="#">P/J111</a> and <a href="#">P/J113</a> . Switch on the machine, <a href="#">GP 14</a> . Go to <a href="#">Flag 2</a> . +5V is available at T001 on the HVF power supply module between pins 4 and 8.	
Y	N		
		Install a new HVF power supply module, <a href="#">PL 11.157 Item 1</a> .	

**NOTE:** Before each PJ is reconnected, switch off the machine, [GP 14](#).

The HVF has a short circuit. Reconnect each PJ one at a time until short circuit is found. When the short circuit is found, repair the harness, [REP 1.2](#) or install new components as necessary.

Disconnect [P/J113](#). Go to [Flag 2](#). +5V is available at the harness end of [P/J113](#) between pins 1 and 2.

Y N

Check the connectors and harness between T001 and [P/J113](#). Repair the harness as necessary, [REP 1.2](#).

Install a new HVF control PWB, [PL 11.157 Item 2](#).

Go to [Flag 2](#). +24V is available at [P/J111](#) between pins 1 and 4.

Y N

+24V is available at T001 between pins 1 and 6.

Y N

Install a new HVF power supply module, [PL 11.157 Item 1](#)

[Figure 3](#). Check the in-line fuse (10A), and as necessary install a new fuse [PL 11.157 Item 5](#).

Check the connectors and harness between T001 and PJ111. Repair the harness as necessary, [REP 1.2](#).

Go to [Flag 3](#). +24V is available at [P/J111](#) between pins 1 and 4, between pins 2 and 5 and between pins 3 and 6.

Y N

Go to the [11-300-171](#), [11-302-171](#), [11-303-171](#) Docking and Interlocks RAP.

Go to [Flag 4](#). +5V is available at [P/J559](#) between pins 4 and 5.

Y N

+5V is available at [P/J132](#) between pins 1 and 2.

Y N

Install a new HVF control PWB, [PL 11.157 Item 2](#).

Check the connectors and harness between [P/J132](#) and [P/J559](#). Repair the harness as necessary.

Go to [Flag 4](#). +24V is available at [P/J559](#) between pins 1 and 2.

Y N

+24V is available at [P/J131](#) between pins 1 and 2.

Y N

Install a new HVF control PWB, [PL 11.157 Item 2](#).

Check the connectors and harness between [P/J559](#) and [P/J131](#). Repair the harness as necessary, [REP 1.2](#).

If an inserter is installed, go to [P/J703](#). +24V is available between [P/J703](#) pin 1 and [P/J111](#) pin 1.

Y N

Go to [11-306-171](#), [11-309-171](#) HVF Inserter Interlock RAP

A B C D

A E

A E  
 Go to **Flag 5. +5V is available at P/J601 between pins 3 and 4.**  
 Y N  
 +5V is available at **P/J553 between pins 3 and 4.**  
 Y N  
 Install a new HVF control PWB, **PL 11.157 Item 2.**  
 Check the connectors and harness between **P/J553** and **P/J601**. Repair the harness as necessary, **REP 1.2.**

Go to **Flag 5. +24V is available at P/J601 between pins 1 and pin 4.**  
 Y N  
 Install a new BM PWB, **PL 11.166 Item 10.**

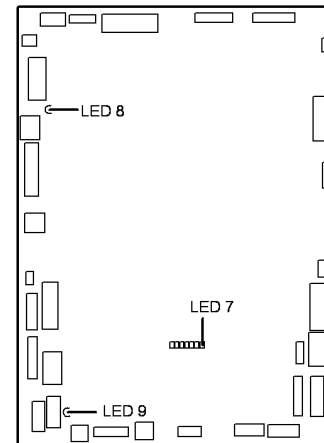
Go to **Flag 6 +24V is available at P/J601 between pins 4 and 6.**  
 Y N  
 Go to the **11-300-171, 11-302-171, 11-303-171** Docking and Interlocks RAP.  
 The +24V and +5V supplies are good. Go to **SCP 6** Final actions.

The +24V and +5V supplies are good. Go to **SCP 6** Final actions.

## HVF Control PWB and BM PWB LEDs

Figure 1 shows the LEDs on the HVF PWB. These are:

- LED 1 - red. Not used.
- LED 2 - red. Not used.
- LED 3 - red, flashing. This indicates the functioning of the CPU. When flashing at 2Hz, (every 1/2 second), the software is running normally. When flashing at about 1/4Hz, (every 4 seconds), this indicates that the software is encountering a code problem and a possible software upgrade is needed. If this LED is OFF, the CPU does not function and a new HVF control PWB is needed.
- LED 4 - red. Not used.
- LED 5 - red, toggling. This changes state whenever the paper is accelerated to 1,300 m/s. It is only used for paper that is longer than 220mm.
- LED 6 - red, steady. When this is ON, a paper jam has been detected. It remains ON until the HVF successfully initializes. In all other cases this LED is OFF.
- LED 7 - red. This LED is used during the machine production and is connected with the activity of the stacker nearly full sensor.
- LED 8 - red, steady. This indicates that the HVF top cover, front door and docking interlocks are all closed and +24V is available at the HVF module.
- LED 9 - red, steady. This indicates that the +5V supply is present in the HVF module.



T-1-0243-A

Figure 1 LEDs on the HVF control PWB

Figure 2 shows the LEDs on the BM PWB. These are:

- LED 1 - red, steady. This indicates a fault or other abnormal status.
- LED 2 - yellow, flashing at about 1Hz. This indicates that the software is operating in normal mode. In other modes, e.g., software downloading, the flashing rate is higher.
- LED 3 - orange, steady. This indicates either:
  - that the tri-folder front door and top cover interlocks are closed, and +24V is available to the BM module or, if the tri-folder is not installed;
  - that the interlock cheater is present in PJ553 on the BM control PWB the logic cheater is present in PJ563 on the BM control PWB.
- LED 19 - orange, steady. This indicates that the +24V supply is within voltage and current limits, and that the power limiting circuit has not been active for over a set time limit.
- LED 5 - blue, steady. this indicates that the +5V supply is present in the BM module.

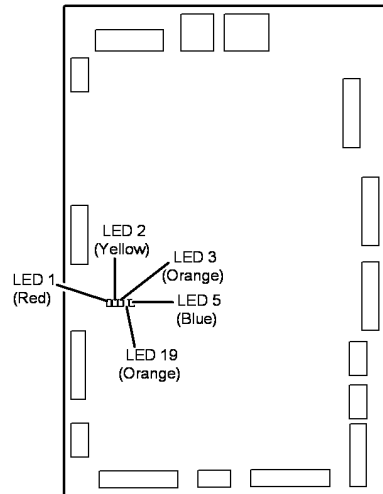
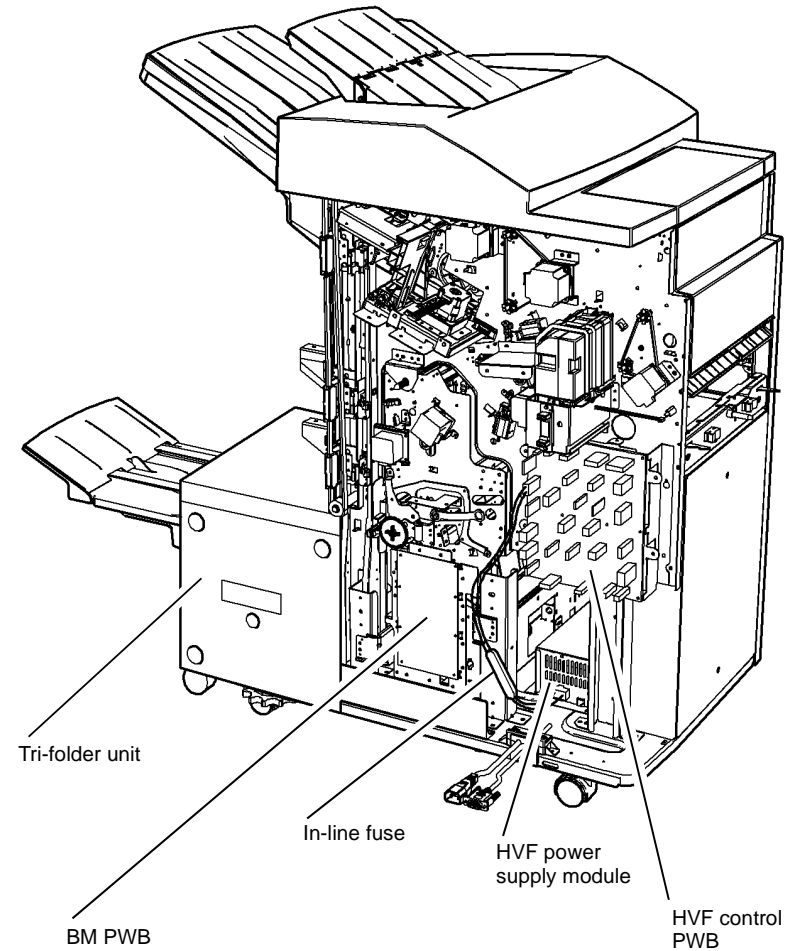


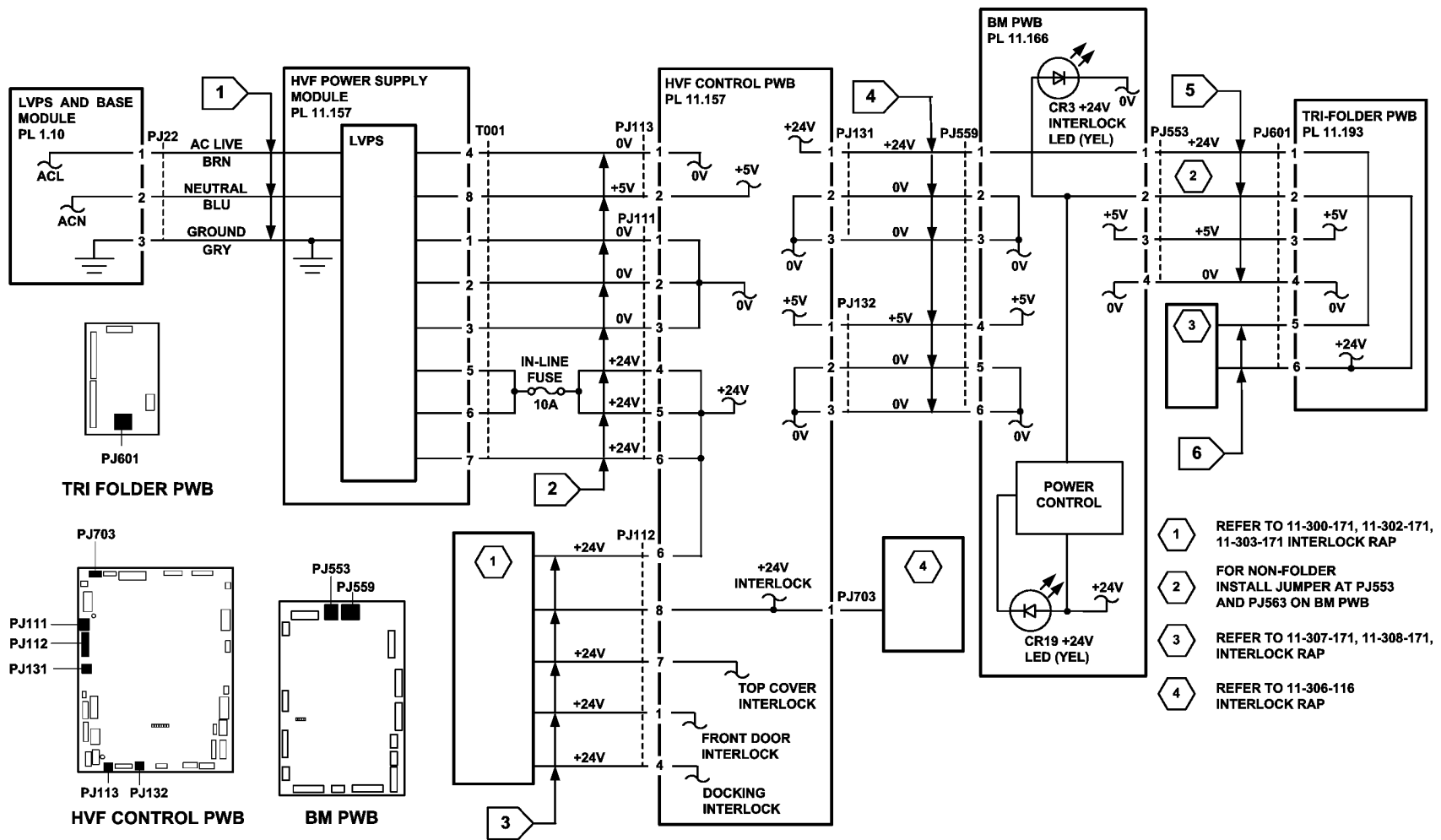
Figure 2 LEDs on the BM PWB

T-1-0244-A



T-1-0245-A

Figure 3 Component location



TT-1-0241-C

Figure 4 Circuit diagram

# 11B-171 HVF BM to Machine Communications Interface and BM Present RAP

A communication fault exists between the HVF BM and the machine.

## Procedure



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 shows the communications between the booklet maker and the HVF control PWB. For communications between the HVF control PWB and the machine, go to the 03-360, 03-408 to 03-410, 03-418 IOT to Output Device Error RAP.

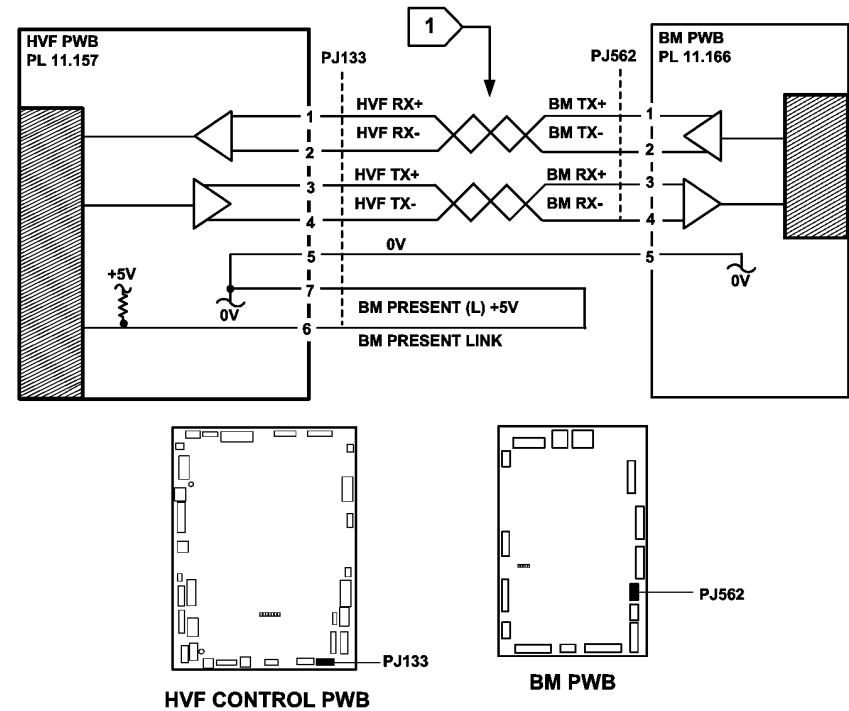
The pulses on the connections at Flag 1 cannot be measured, but may be detected using a meter that can record maximum and minimum voltage levels, or by using an AC voltage range. Check the wiring and repair as necessary, REP 1.2. Refer to:

- P/J133, HVF Control PWB.
- P/J562, BM PWB.

If necessary, install new components:

- BM PWB, PL 11.166 Item 10.
- HVF control PWB, PL 11.157 Item 2.

If the machine indicates that the booklet maker is not present, check that P/J133, pin 6 is held at zero. If necessary, repair the wiring, REP 1.2 or install a new HVF control PWB, PL 11.157 Item 2.



TT-1-0242-A

Figure 1 Circuit diagram

## 11C-171 HVF BM Bin 2 Failure RAP

Bin 2 fails to remove the finished booklets from the exit area of the booklet maker.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check for a jam or any other obstruction that could prevent the conveyor belt mechanism from moving.

### Procedure

Enter [dC330](#) code 11-389. Actuate the BM bin 2 90% full sensor, Q11-389, [Figure 1](#). The display changes.

Y N

If a tri-folder is installed, go to [Flag 4](#). Check the connection at PJ583 on the tri-folder. The connection are good.

Y N

Check the connectors and harness at the tri-folder. Repair the harness as necessary, [REP 1.2](#).

Go to [Flag 1](#). Check Q11-389.

Refer to:

- [GP 11](#), How to Check a Sensor.
- [P/J556](#), [BM PWB](#).
- [11A-171 HVF Power Distribution RAP](#).

Install new components as necessary:

- [BM PWB](#), [PL 11.166 Item 10](#).
- [BM bin 2 90% full sensor](#) [PL 11.169 Item 5](#).

**NOTE:** The BM conveyor belts drive motor stops after 10 seconds.

Enter [dC330](#), code 11-402 to run the BM conveyor belts drive motor, MOT11-402. **MOT11-402 runs.**

Y N

If a tri-folder is installed, go to [Flag 5](#). Check the connection at PJ583 on the tri-folder. The connection are good.

Y N

Check the connectors and harness at the tri-folder. Repair the harness as necessary, [REP 1.2](#).

Go to [Flag 3](#) or [Flag 2](#). Check MOT 11-402.

Refer to:

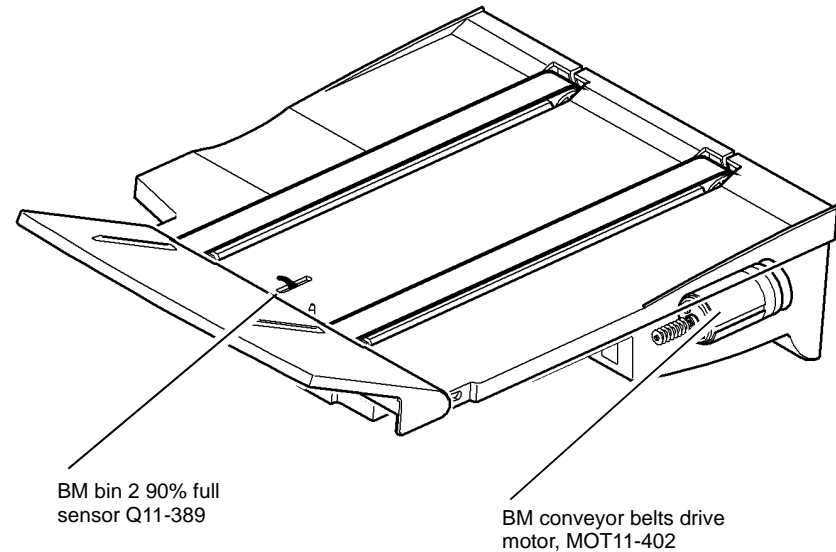
- [GP 10](#) How to Check a Motor.
- [P/J555](#), [BM PWB](#).
- [11A-171 HVF Power Distribution RAP](#).

A

Install new components as necessary:

- [BM conveyor belts drive motor](#), [PL 11.169 Item 4](#).
- [BM PWB](#), [PL 11.166 Item 10](#).

The fault may be intermittent, check for damaged wiring or bad connectors, [REP 1.2](#). If necessary install new conveyor belts, [PL 11.169 Item 1](#).



T-1-0246-A

Figure 1 Component location

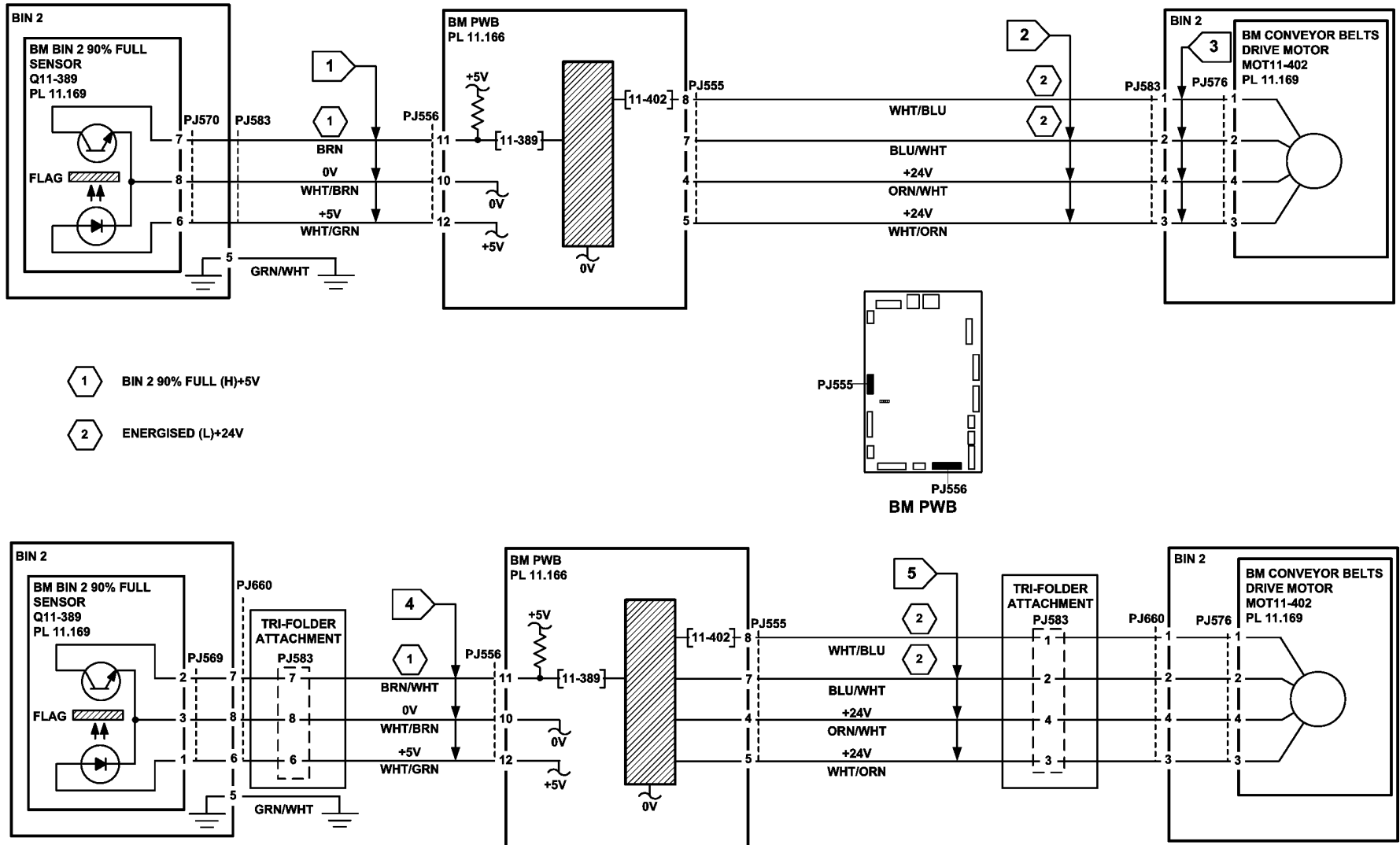


Figure 2 Circuit diagram

TT-1-0243-A

# 11D-171 Booklet Quality RAP

Use this RAP to identify and correct the causes of poor booklet quality in the HVF BM.

The following booklet quality problems are covered in this RAP:

- The alignment of the top and bottom edges of the booklet are not within specification.
- The alignment of the open side edges of the booklet are not within specification.
- The booklet staples are badly formed.
- The booklet compiling is not correct (page order is wrong).
- The booklet crease is skewed greater than the specification.
- The booklet crease is off-centre, greater than the specification.
- The booklet staple position is not within the specification.
- The booklet is not sufficiently creased.

## Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the paper loaded in the paper trays matches the paper size displayed on the UI, refer to 07E Tray 1 and 2 Wrong Size Paper RAP.
- Ensure that the paper being fed to the BM conforms to the specification, GP 20 Paper and Media Size Specification.
- Ensure that the booklets being produced do not exceed the maximum contents given in Table 1.

Table 1 Booklet contents

Media	Paper weight	Maximum number of sheets	Maximum number of booklet pages	Maximum number of unstapled sheets
Plain paper	60 to 80gsm (16 to 21lb bond)	15	60	5
Heavyweight	90gsm (24lb bond)	13	52	-
Heavyweight	120gsm (32lb bond)	10	40	-
Heavyweight	160gsm (43lb bond)	7	28	-
Heavyweight	216gsm (58lb bond)	5	20	-
Plain paper with heavy-weight cover	60 to 80gsm (16 to 21lb bond) with 160gsm (43lb bond) cover	14 including 1 cover	56	-

- Check the machine and HVF BM paper paths for any obstruction that could cause misalignment of the paper fed to the BM compiling area.

## Procedure

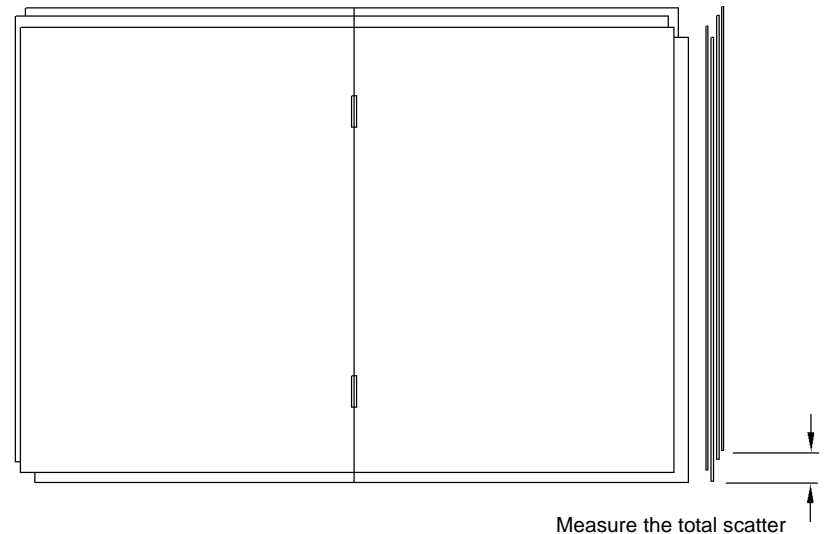
Produce three 4 sheet / 16 page booklets, using 80gsm (20lb) paper. Paper size and weight must conform the specification in GP 20 Paper and Media Size Specification.

Examine the booklets for defects. Refer to the following:

- Top and Bottom Edge Alignment.
- Open Side Edge Alignment.
- Badly Formed Booklet Staples
- Booklet Compiler is Not Correct
- Skewed Booklet Crease.
- Booklet Crease is Off Centre.
- Booklet Staple Position is Not On The Fold.
- The Booklet is Not Sufficiently Creased.

## Top and Bottom Edge Alignment

Figure 1, open out the booklet at the centre page and press it onto a flat surface. Measure the mis-alignment of the top and bottom edges of the booklet.



T-1-0247-A

Figure 1 Top and bottom alignment



**Table 2 Top and bottom edge alignment**

Paper weight	95% of booklets	99.7% of booklets
80gsm (20lb)	1mm	2mm
All other BM approved weights in <a href="#">GP 20</a>	2mm	3mm

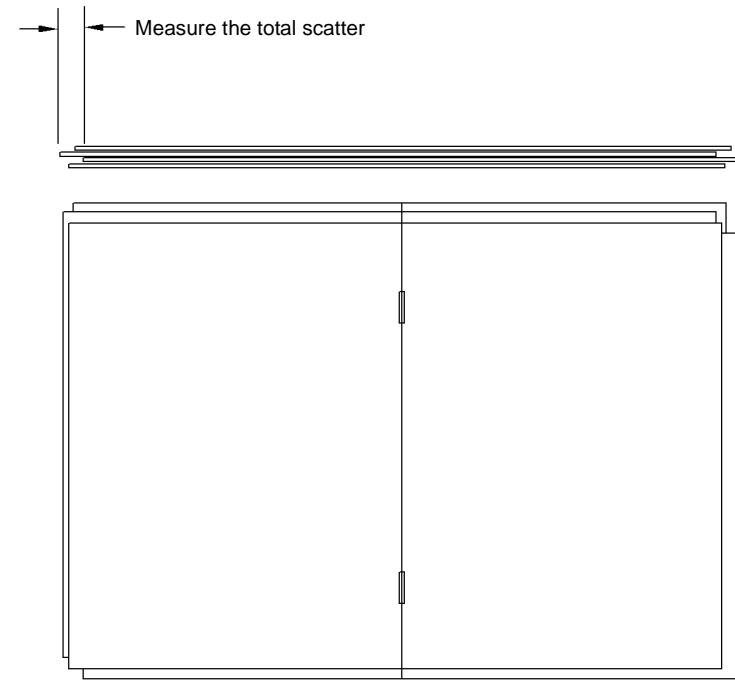
If the top and bottom edge alignment does not conform to the specification in [Table 2](#), check the operation of the BM tampers, refer to the [11-066-171](#), [11-384-171](#) HVF BM Tamper Failure RAP. If the tampers are operating correctly, go to [ADJ 11.5-171](#) Booklet Tamping and check the tampers are correctly adjusted.

If the booklet skew does not conform to the specification in [Table 4](#). Perform the following:

- Check the operation of the BM stack hold solenoids, refer to [11-065-171](#), [11-383-171](#) HVF Booklet Back Stop failure RAP.
- If the stack hold solenoids are operating correctly, check for contamination or debris in the compiling area of the BM that could cause the mis-alignment.
- Perform [ADJ 11.4-171](#) Crease Blade Position.

### Open Side Edge Alignment

[Figure 2](#), open out the booklet at the centre page and press it onto a flat surface. Measure the mis-alignment of the open side edges of the booklet.



T-1-0248-A

**Figure 2 Open side edge alignment**

**Table 3 Open side edge alignment**

Paper weight	95% of booklets	99.7% of booklets
80gsm (20lb)	1mm	2mm
All other BM approved weights in <a href="#">GP 20</a>	2mm	3mm

If the open side edge alignment does not conform to the specification in [Table 3](#), check the operation of the BM stack hold solenoids, refer to the [11-065-171](#), [11-383-171](#) HVF Booklet Back Stop Failure RAP. If the stack hold solenoids are operating correctly, check carefully for any contamination or debris in the compiling area of the BM, that could cause the mis-alignment.

### Badly Formed Booklet Staples

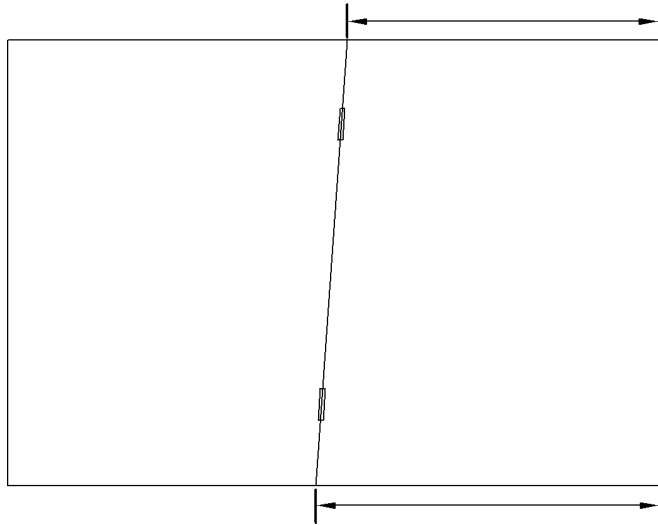
If the booklet staples are not formed correctly, perform [ADJ 11.3-171](#) Staple Anvil Alignment.

### Booklet Compiler is Not Correct

If the page order of the booklets is not correct, perform [ADJ 11.6-171](#) Booklet Compiling Position.

## Skewed Booklet Crease

Figure 3, open out the booklet at the centre page and press it onto a flat surface. Measure the amount of booklet skew.



The amount of skew is the difference between the two measurements

T-1-01249-A

Figure 3 Booklet skew

Table 4 Skew tolerance

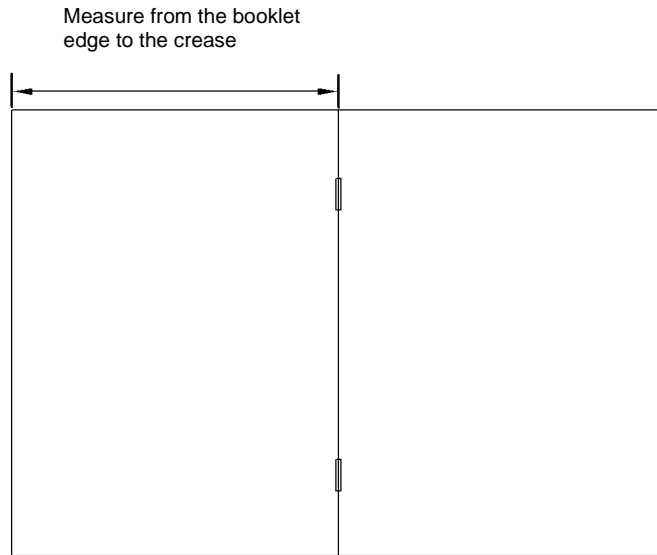
Paper weight	Paper size A4, 8.5x11in, 8.5x13in or 8.5x14in	Paper size A4, 8.5x11in, 8.5x13in or 8.5x14in	Paper size A3 or 11x17in	Paper size A3 or 11x17in
-	95% of booklets	99.7% of booklets	95% of booklets	99.7% of booklets
80gsm (20lb)	Less than 1.0mm	Less than 2.5mm	Less than 1.4mm	Less than 3.1mm
All other booklet maker approved weights in GP 20	Less than 1.5mm	Less than 3.0mm	Less than 2.1mm	Less than 3.6mm

If the booklet skew does not conform to the specification in Table 4, perform the following:

1. Check the operation of the BM stack hold solenoids, refer to the [11-065-171](#), [11-383-171](#) HVF Booklet Back Stop Failure RAP. If the stack hold solenoids are operating correctly, check for any contamination or debris in the compiling area of the BM, that could cause the mis-alignment.
2. [ADJ 11.9-171](#) Booklet Maker Skew.
3. Check the BM back stop assembly for damage. If necessary, install a new BM back stop assembly, [PL 11.164 Item 17](#).

### Booklet Crease is Off Centre

Figure 4, open out the booklet at the centre page and press it onto a flat surface. Measure the position of the booklet crease.

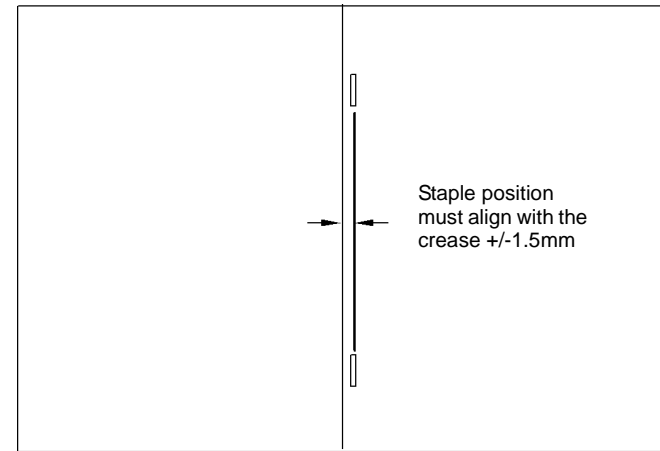


T-1-0250-A

Figure 4 Booklet crease position

### Booklet Staple Position is Not On The Fold

Figure 5, open out the booklet at the centre page and press it onto a flat surface. Measure the position of the booklet staple from the crease line.



T-1-0251-A

Figure 5 Booklet staple position

Table 5 Crease position and tolerance

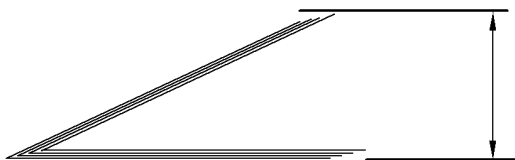
Paper size	Edge to crease measurement
A4	148.5 +/- 1.5mm
A3	210 +/- 1.5mm
8.5x11 inch	139.5 +/- 1.5mm
8.5x13 inch	165.1 +/- 1.5mm
8.5x14 inch	178.0 +/- 1.5mm
11x17 inch	216.0 +/- 1.5mm

If the booklet crease position does not conform to the specification in Table 5, perform ADJ 11.7-171 Booklet Crease Position.

If the booklet staple position does not conform to the specification in Figure 5, perform ADJ 11.8-171 Booklet Staple Position.

## The Booklet is Not Sufficiently Creased

Figure 6, Measure the open dimension of the booklets.



T-1-0252-A

Figure 6 Booklet creasing

Table 6 Creasing tolerance

Paper weight	Paper size A4, 8.5x11in, 8.5x13in or 8.5x14in	Paper size A4, 8.5x11in, 8.5x13in or 8.5x14in	Paper size A3 or 11x17in	Paper size A3 or 11x17in
-	95% of booklets	99.7% of booklets	95% of booklets	99.7% of booklets
80gsm (20lb)	Less than 30mm	Less than 35mm	Less than 22mm	Less than 25mm

If the open dimension of the booklets does not conform to the specification in Table 6, install new crease nip springs, PL 11.165 Item 12.

## 11E-171 Copy Damage in the HVF BM RAP

Use this RAP to identify and correct the causes of copy damage in the HVF BM.

### Procedure



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the following:

- Check the alignment between the IOT and the HVF BM, ADJ 11.1-171.
- Look for paper fragments in the HVF BM paper path. Paper fragments can move through the IOT and HVF BM paper path without causing a problem until they finally wedge themselves at some point. A likely place for a fragment of paper to be wedged is at the hole punch assembly, where the top and bottom guides form the narrowest part of the paper path.
- Ensure that the exit diverter gate solenoid, PL 11.150 Item 4, operates correctly and has its full movement.
- Ensure that the hole punches park at the fully open position. If they protrude, even slightly, a jam will occur in the narrow paper path of the hole punch. Refer to the 11-044-171 to 11-047-171 Punch Head Position RAP.
- Check that all the idler rolls in the HVF BM paper path are free to rotate, particularly those on the jam clearance guides. Refer to ADJ 4.1 Machine Lubrication.
- Make sure that the jam clearance guides 5a, 5b and 5c close and latch correctly.
- Check that the paper path ribs of the jam clearance guide 5b, PL 11.161 Item 7 and the exit path PL 11.168 are free of scores and nicks. Check also for contamination and glue from label stock.
- Make sure that the compiler carriage tampers move to the correct paper size.
- Check that the paper size reported on the user interface corresponds to the actual paper size loaded in the trays, refer to the 07E Tray 1 and 2 Wrong Size Paper RAP.
- Make sure that the BM tampers move to the correct paper size, refer to the 11-066-171, 11-384-171 HVF BM Tamber Failure RAP.
- Ensure that the BM paper guide, PL 11.161 Item 7, closes and latches correctly.
- If the top sheet of paper is being torn from booklets, check that the components in the lower crease roll gear and clutch assembly are correctly installed. Refer to the replacement procedure in REP 11.52-171 BM Crease Rolls, Gears and Bearings.
- If heavy-weight paper is used, the paper can stop in the vertical transport and cause a 10-126 fault. The fault is caused when the vertical transport motor is over loaded. Check the position of the jam clearance guides 5a, 5b and 5c. Check the vertical transport rolls and bearings for contamination. If necessary remove and clean the drive shaft and the bearings. If the problem continues then install a new transport motor.

## 11F-171 Mis-Registration in Stapled and Unstapled Sets RAP

Use this RAP to identify and correct the causes of mis-registration in stapled sets, resulting in staples missing some sheets in the set, or poorly registered non-stapled sets.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

A probable cause of mis-registration is the condition of the paper and/or damage such as, curl, wrinkle, creases, dog ears, etc.

- Curl, wrinkle and creases are probably caused in the IOT, go to the [IQ1 Image Quality Entry RAP](#).
- For other copy / print damage and dog ears, go to the [11E-171 Copy Damage in the HVF BM RAP](#).

Check the following:

- Check the alignment between the IOT and the HVF BM, [ADJ 11.1-171](#).
- Turn over the paper stack in the tray in use.
- Use a new ream of paper in the tray in use.
- Paper type, especially recycled paper, can lead to registration problems. Try changing to a different brand or type of paper.
- Ensure that the guides in the paper trays are correctly set and reported on the UI for the paper size loaded, refer to the [07E Tray 1 and 2 Wrong Size Paper RAP](#).
- Check that paper type is set correctly. If heavyweight paper is used but not set in the UI, the compiler capacity can be exceeded.
- Check for obstructions in the compiler.
- Ensure the paddle roll mechanism in the eject housing operating correctly, refer to the [11-024-171, 11-026-171 Paddle Roll Position RAP](#).
- Make sure that the compiler carriage tampers move to the correct paper size.
- Make sure that the BM tampers move to the correct paper size, refer to [11-066-171, 11-384-171 HVF BM Tamper Failure RAP](#).
- Check if the HVF module has had the [W/TAG V-006](#) modifications installed. If necessary perform [ADJ 11.13-171 HVF Performance Improvement \(W/TAG V-006\)](#).

## 11G-171 HVF BM Poor Stacking RAP

Use this RAP to find the cause of poor stacking in the HVF BM.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the following:

- Look for sets that are not dropping back fully in the bin 1 tray and therefore not being detected by the kicker fingers and sensors:
  - Large paper sizes should not be stacked on top of small paper sizes.
  - Ensure that the paper stack in each paper tray has been fanned.
  - Turn over the paper stack in each paper tray.
  - Ensure that all paper or other copy stock being used is within the size and weight specifications. Refer to [GP 20 Paper and Media Size Specifications](#).
  - Try using a fresh ream of paper.
  - Ensure that the edge guides of all paper trays are adjusted correctly for the paper size and that the trays are fully closed.
- Labels must not be fed to bin1, but to bin 0 only.
- It is recommended that transparencies are fed to bin 0 whenever possible.
- Check that the bin 1 upper limit switch, S11-334 and the bin 1 lower limit switch, S11-335 are working correctly. Refer to the [11-460-171 to 11-462-171 Bin 1 Position RAP](#).
- Make sure that the compiler carriage tampers move to the correct paper size.
- Check that the HVF BM is not positioned near an air conditioning or ventilation output duct. Air flow across the output bins can cause poor stacking.
- Check the output copies for curl, refer to [IQ5](#).

# 11H-171 Pause to Unload (PTU) RAP

Use this RAP to diagnose Pause to Unload (PTU) problems.

## Procedure

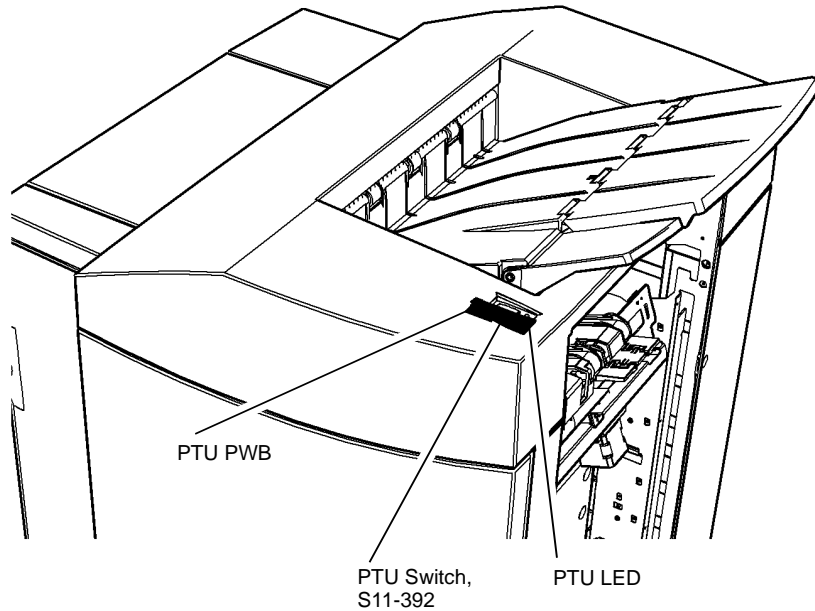


**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

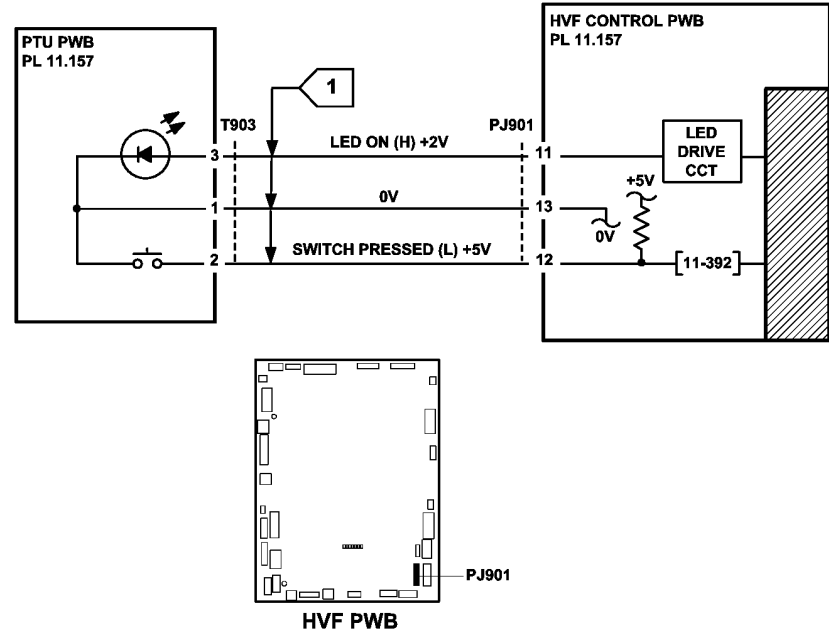
Figure 1 shows the component locations. Go to Flag 1. Check the wiring and the voltages. Refer to P/J901. Repair the wiring as necessary, REP 1.2. Install new components as necessary:

- Pause to unload PWB, PL 11.157 Item 3.
- HVF control PWB, PL 11.157 Item 2.



T-1-0253-A

Figure 1 Component location



TT-1-0244-A

Figure 2 Circuit diagram

## 11J-171 Inserter Paper Sensing and +5V Supply RAP

Use this RAP to find the cause of inserter empty, inserter paper width and +5v supply problems.

### Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

[Figure 1](#) and [Figure 2](#) show the component locations.

If a +5V supply problem is suspected, perform the following:

Go to [11A-171](#) and check the 0V and +5V supply from the HVF control PWB to the inserter control PWB. Repair the wiring as necessary, [REP 1.2](#), or refer to [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

To diagnose inserter paper sensing and paper width problems, perform the following:

Enter the [dC330](#) code 11-153, inserter unit empty sensor. Actuate the sensor using a sheet of paper. **The sensor display changes.**

Y N

Go to [Flag 1](#) and [Flag 2](#). Check the inserter unit empty sensor Q11-153. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J8](#) and [P/J4](#), [Inserter PWB](#).
- [11A-171](#) HVF Power Distribution RAP

Install new component as necessary:

- Unit empty sensor, [PL 11.175 Item 11](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Go to [Flag 3](#) and [Flag 4](#). Measure the voltage from the inserter paper width sensor 1, Q11-152, while sliding paper width guide. **The voltage changes.**

Y N

Check the inserter paper width sensor 1, Q11-152. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J8](#) and [P/J4](#), [Inserter PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Inserter paper width sensor 1, [PL 11.175 Item 13](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Go to [Flag 5](#) and [Flag 6](#). Measure the voltage from the inserter paper width sensor 2, Q11-152 while sliding paper width guide. **The voltage changes.**

Y N

Check the inserter paper width sensor 2, Q11-152. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J8](#) and [P/J4](#), [Inserter PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Inserter paper width sensor 2, [PL 11.175 Item 13](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Go to [Flag 7](#) and [Flag 8](#). Measure the voltage from the acceleration sensor, while actuating the sensor with paper. **The voltage changes.**

Y N

Check the acceleration sensor. Refer To:

- [GP 11](#) How to check a Sensor.
- [P/J11](#) and [P/J4](#), [Inserter PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Acceleration sensor, [PL 11.175 Item 10](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Got to [Flag 9](#) and [Flag 10](#). Measure the voltage from the IDG pickup sensor while actuating the sensor with paper. **The voltage changes.**

Y N

Check the IDG Pickup sensor. Refer to:

- [GP 11](#) How to check a Sensor.
- [P/J7](#) and [P/J4](#), [Inserter PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- IDG pickup sensor, [PL 11.179 Item 10](#).
- Inserter PWB, [PL 11.179 Item 9](#).
- HVF control PWB, [PL 11.157 Item 2](#).

Perform [SCP 6](#) Final Actions.

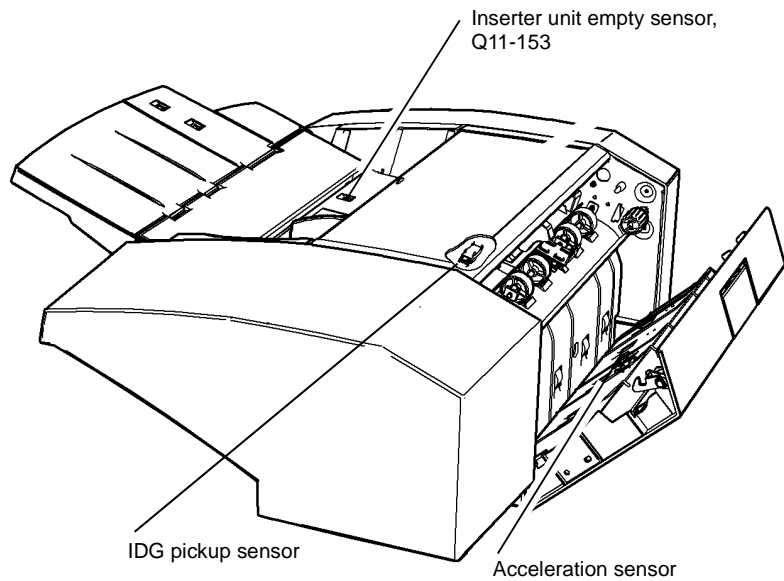


Figure 1 Component location

T-1-0254-A

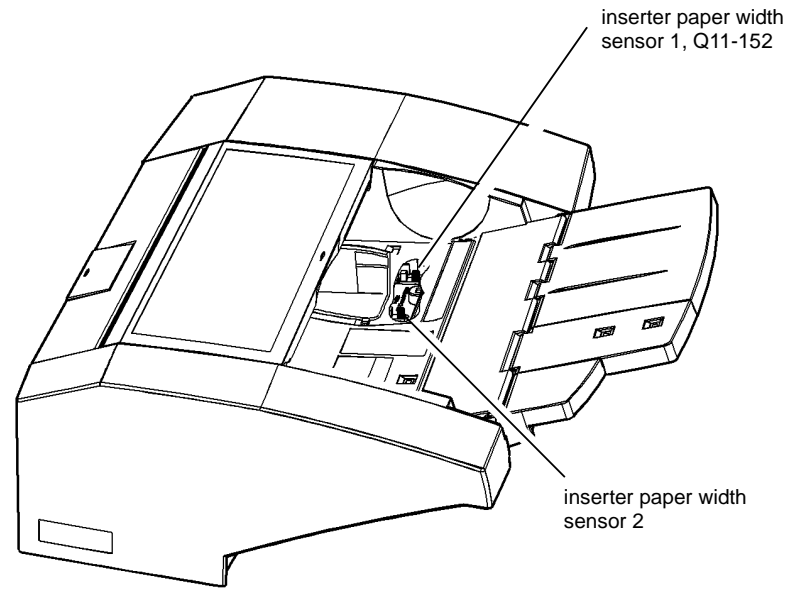


Figure 2 Component location

T-1-0255-A



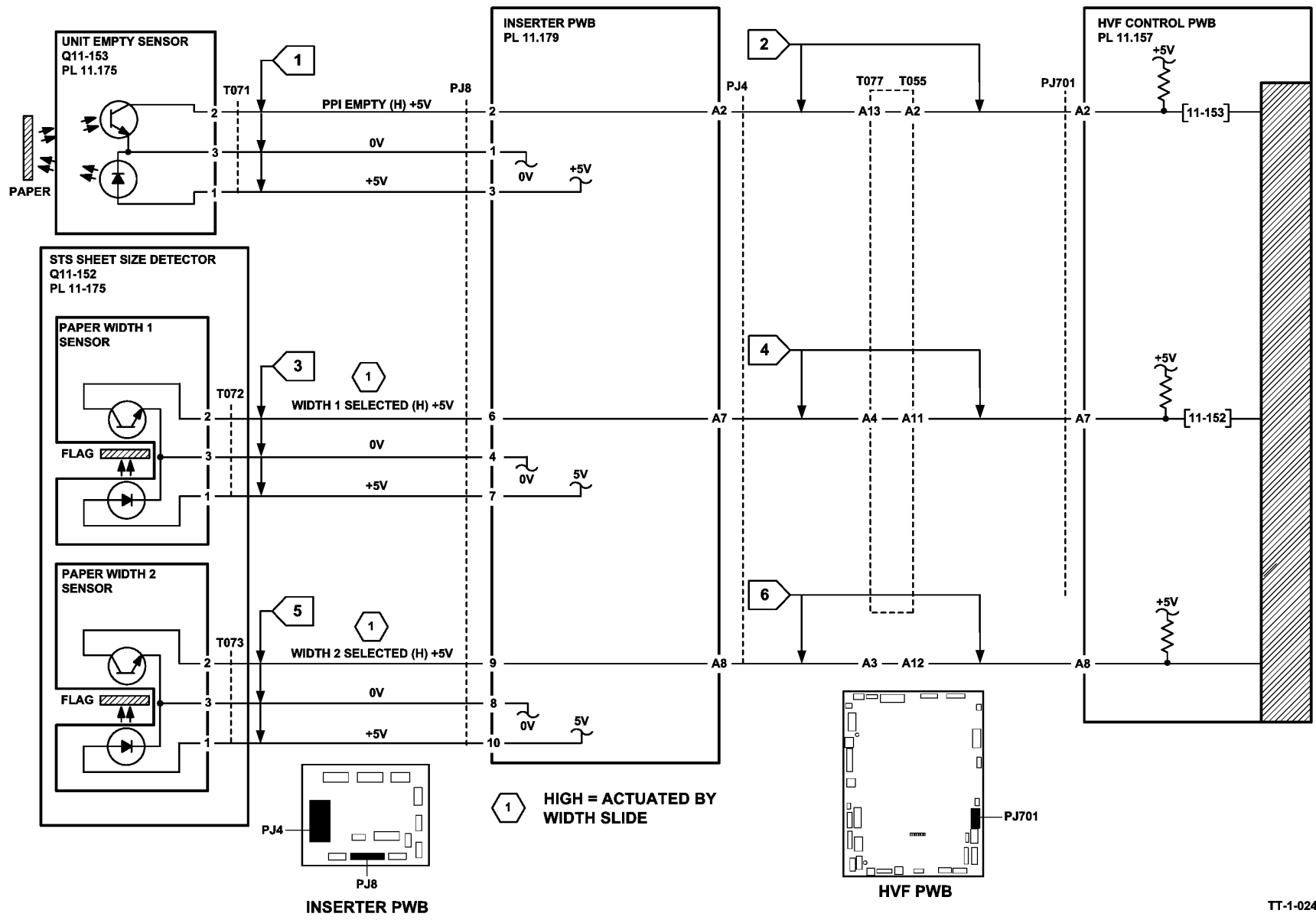


Figure 3 Circuit diagram

TT-1-0245-A

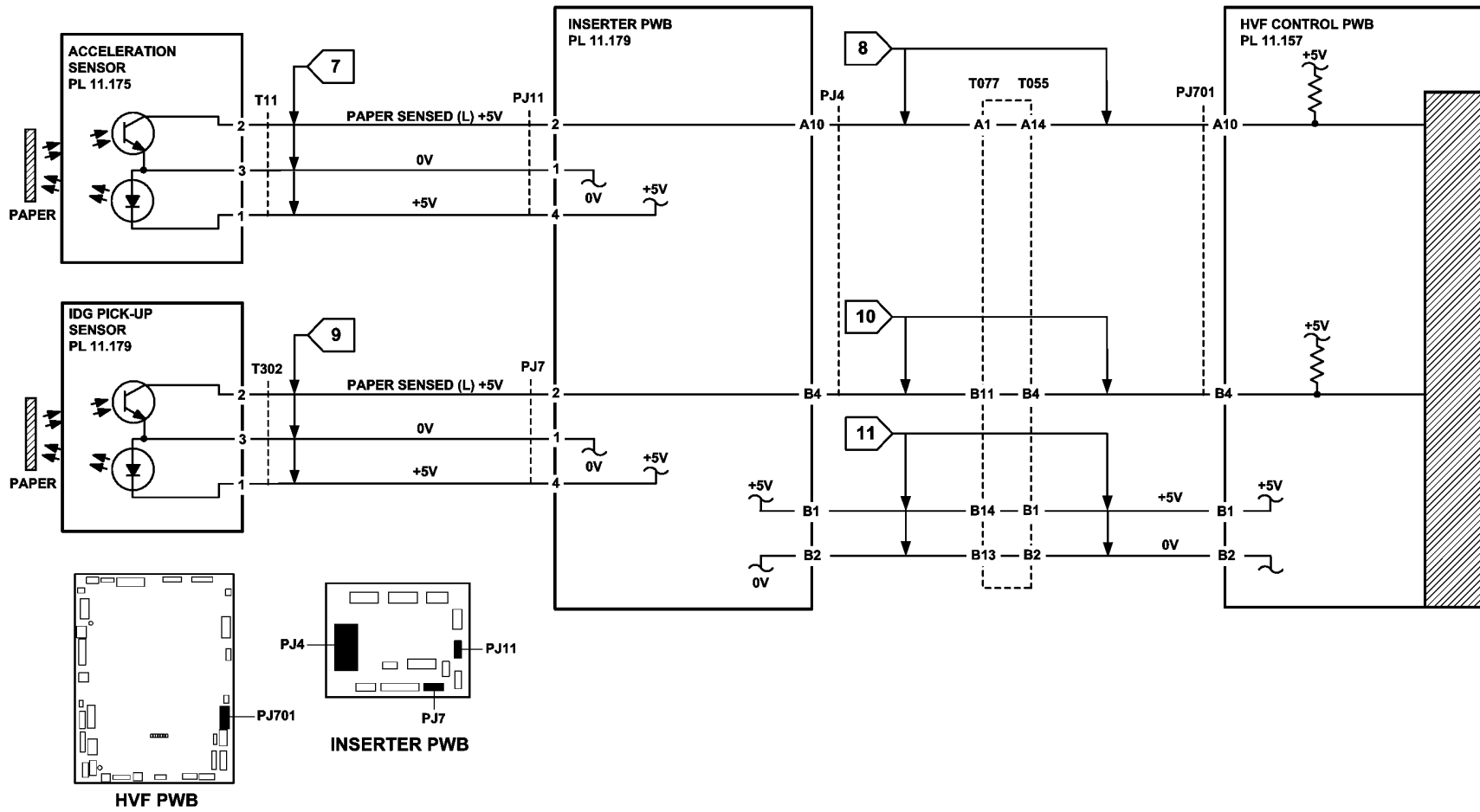


Figure 4 Circuit diagram

TT-1-0246-A

## 11K-171 HVF Initialization Failure RAP

When an initialization command is received from the machine, the HCF polls all of the relevant sensors to check if the various HCF modules are in their home positions. If any sensor reports that a module is not in the home position, the HCF attempts to drive that module to the home position. If unsuccessful, a fault status is raised and that module is disabled. If all modules are reported in their home position, the HVF is initialized with the following actions:

1. Bin 1 lowers then raises.
2. The ejector assembly paddle performs two revolutions.
3. The curl suppression solenoid energises and raises the paddle module's centre flap.
4. The paddle module moves to the up position.
5. The paper pusher moves to the down position.
6. The ejector assembly travels to the out position.
7. The curl suppression solenoid de-energises and the paddle module's centre flap drops down.
8. The stapler module travels to the inboard position.
9. The stapler module returns to the outboard position
10. The curl suppression solenoid energises and raises the paddle module's centre flap.
11. The paper pusher moves to the up position.
12. The ejector assembly returns to the home position.
13. The support finger motor turns on and drives the support fingers to the initialisation position, which in turn pushes the pressing plate fingers down onto bin 1.
14. The support finger motor reverses and drives the support fingers to the home position, which in turn retracts the pressing plate fingers.
15. The the front tamper moves to the away position then moves to the home position.
16. The bin 1 offset motor turns on and moves the ejector assembly, front taper and rear tamper to the away position and then to the home position.
17. The paddle module moves to the down position.
18. The entry feed motor 1, bypass feed motor, buffer feed motor and the exit feed motor 2 turn on.
19. The booklet maker diverter solenoid actuates, if applicable.
20. The exit diverter solenoid actuates.
21. The booklet maker diverter solenoid de-actuates, if applicable.
22. The exit diverter solenoid de-actuates.
23. The hole punch unit motor and hole punch head motor turn on momentarily, if applicable.
24. The entry feed motor 1, bypass feed motor, buffer feed motor and the exit feed motor 2 turn off.

**NOTE:** The HVF initialization procedure can be triggered by opening and closing the HVF front door, or by raising and lowering the top tray. When this is done the tray will not lower completely, but will adjust its position.

The booklet maker is initialized as follows:

1. The BM tampers are driven to their home position, unless already home.
2. The BM backstop is driven to the home position, unless already home
3. The BM crease roll gate is driven to the home position, unless already home
4. The BM crease blade is driven to the home position, unless already home

5. The BM staple heads are driven to their home position, unless already home.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Open the HVF front door. Cheat the front door interlock switch. Fully pull out the BM module

### Procedure

If the initialization sequence fails to place any unit at the home position, refer to the appropriate RAPs:

- The front tamper is not at the home position, refer to [11-392-171 to 11-395-171](#) HVF Front tamper Tray RAP
- The rear tamper is not at the home position, refer to [11-396-171 to 11-399-171](#) HVF Rear Tamper Tray RAP.
- The paddle roll is not at the home position, refer to [11-024-171, 11-026-171](#) Paddle Roll Position RAP.
- Bin 1 is not at the home position, refer to [11-460-171 to 11-462-171](#) HVF Bin 1 Position RAP.
- The punch head is not at the home position, refer to [11-044-171 to 11-047-171](#) Punch head Position RAP
- The staple head not at the home position, refer to [11-371-171 to 11-377-171](#) HVF stapler Position and Priming RAP.
- The ejector is not at the home position, refer to [11-450-171, 11-456-171 to 11-459-171](#) HVF Ejector Module RAP.
- The buffer motor fails to start, refer to [11-164-171, 11-165-171](#) HVF Buffer Path RAP.
- The entry feed motor 1 fails to start, refer to [11-100-171, 11-101-171](#) HVF Entry Sensor RAP.
- The exit feed motor 2 fails to start, refer to [11-130-171, 11-132-171](#) HVF Top Exit Sensor RAP.
- Bin 1 fails to offset, refer to [11-173-171 to 11-177-171](#) HVF Offset Unit RAP.
- The booklet maker diverter solenoid fails to operate, refer to [11-158-171, 11-160-171, 162-171, 163-171](#) HVF BM Entry RAP.
- The exit diverter solenoid fails to operate, refer to [11-130-171, 11-132-171](#) HVF Top Exit Sensor RAP.
- Either of the BM staple heads are not at the home position, refer to [11-063-171, 11-411-171](#) HVF BM Stapler Unit 1 Failure RAP or [11-403-171, 11-413-171, 11-414-171](#) HVF BM Stapler Head 2 and Stapler Module RAP.
- The BM tampers are not at the home position, refer to [11-066-171, 11-384-171](#) HVF BM Tamper Failure RAP.
- The BM backstop is not at the home position, refer to [11-065-171, 11-383-171](#) HVF BM Backstop Failure RAP.
- The BM crease roll gate is not at the home position, refer to [11-415-171](#) HVF BM Crease Roll Gate Home RAP.
- The BM crease blade is not at the home position, refer to [11-061-171, 11-416-171](#) HVF BM Creasing RAP.

## 11L-171 Tri-Folder Not Detected RAP

Use this RAP when the machine fails to detect the tri-folder module.

**NOTE:** The machine must be loaded with A4 or 8.5 x 11 inch SEF paper for the tri-folder to function. Also, booklet mode will only be available if A4, 11, 14 or 17 inch paper is loaded in the machine.

### Initial Actions



### WARNING

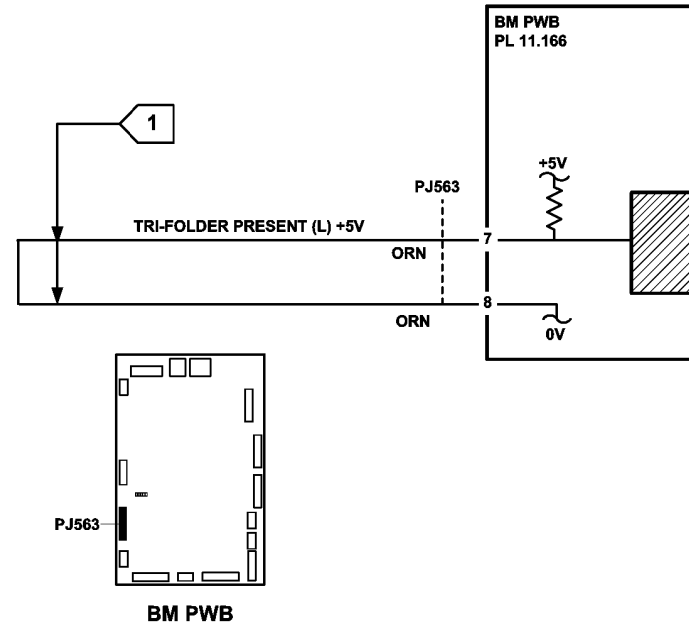
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check for damage or obstructions that would prevent the tri-folder from operating correctly.

### Procedure

Go to Flag 1. Check the wiring of the tri-folder present link, and repair as necessary, REP 1.2. Check for 0V at P/J563 pin 7. Refer to:

- P/J563, BM PWB.
- 11A-171 HVF Power Distribution RAP.



TT-1-0247-A

Figure 1 Circuit diagram

# 11M-171 Curl Suppressor RAP

Use this RAP to fix curl suppressor problems.

## Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Enter [dC330](#), code 11-084 curl suppressor solenoid, SOL11-084, [Figure 1](#). The solenoid energizes.

Y N

Go to [Flag 1](#). Check the curl suppressor solenoid, SOL 11-084.

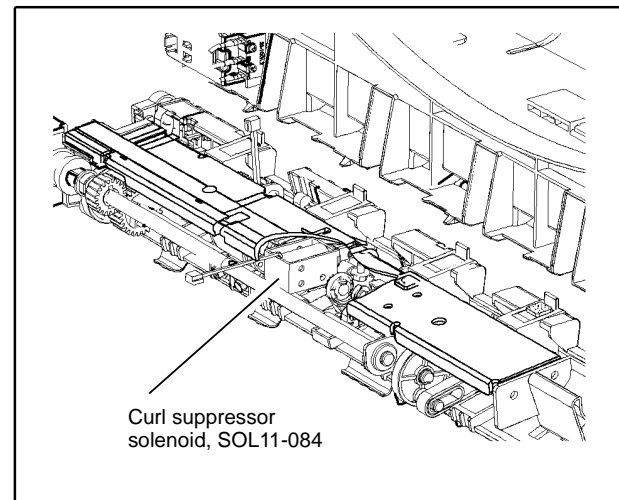
Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J202](#), [HVF Control PWB](#).
- [11A-171](#), [HVF Power Distribution RAP](#).

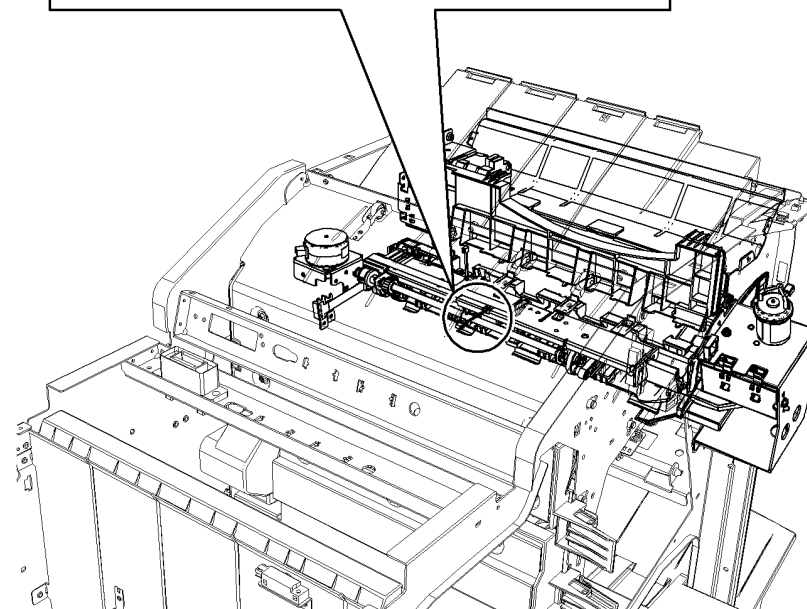
Install new components as necessary:

- Paddle module assembly, [PL 11.145 Item 2](#).
- HVF control PWB, [PL 11.157 Item 2](#)

Perform [SCP 6](#) Final Actions.



Curl suppressor solenoid, SOL11-084



T-1-0256-A

Figure 1 Component location

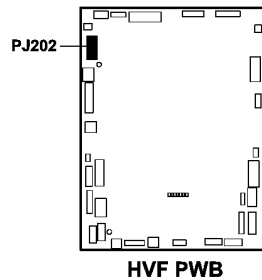
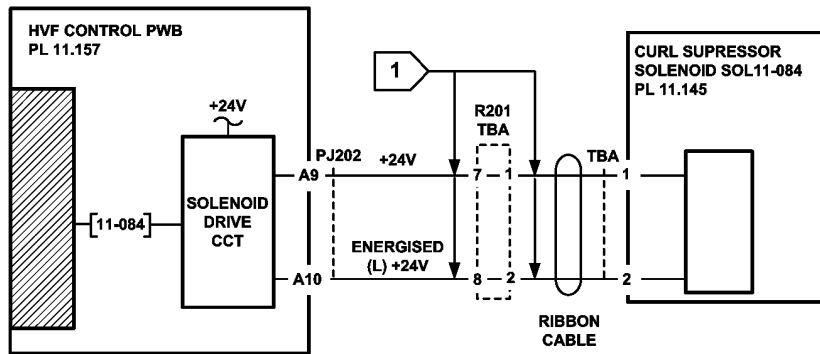


Figure 2 Circuit diagram

TT-1-0248-A

## 11N-171 Chad Bin Present and Bin Full RAP

Use this RAP when there is a false indication of a missing or full chad bin.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check that the chad sensor hole in the side of the bin is clear of obstruction. Check that the bin is fully inserted and is empty.

### Procedure

Figure 1 shows the location of the components.

Enter [dC330](#) code 11-112, chad bin present sensor. Remove the chad bin and operate the sensor manually. **The display changes.**

Y N

Go to [Flag 1](#). Check the wiring. Repair as necessary, [REP 1.2](#). Check the chad bin present sensor, Q11-112. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J501](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

As necessary, install new components:

- Chad bin present sensor, [PL 11.153](#) Item 18.
- HVF control PWB, [PL 11.157](#) Item 2.

Enter the [dC330](#) code, 11-348, chad bin full sensor. Remove the chad bin and activate the sensor with paper. **The display changes.**

Y N

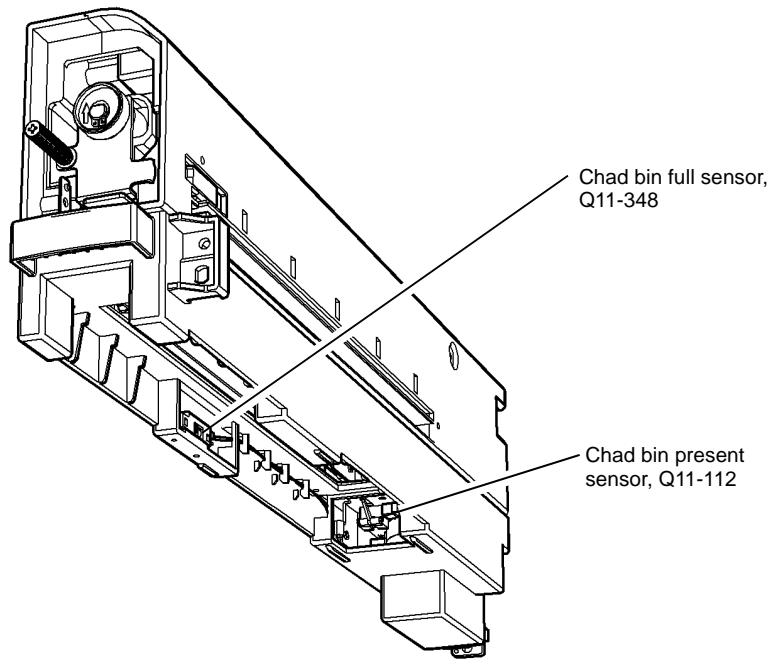
Go to [Flag 2](#). Check the wiring. Repair as necessary, [REP 1.2](#). Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J501](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Chad bin full sensor, [PL 11.153](#) Item 17.
- HVF control PWB, [PL 11.157](#) Item 2.

Perform [SCP 6](#) Final Actions.



UNDERSIDE VIEW

T-1-0257-A

Figure 1 Component location

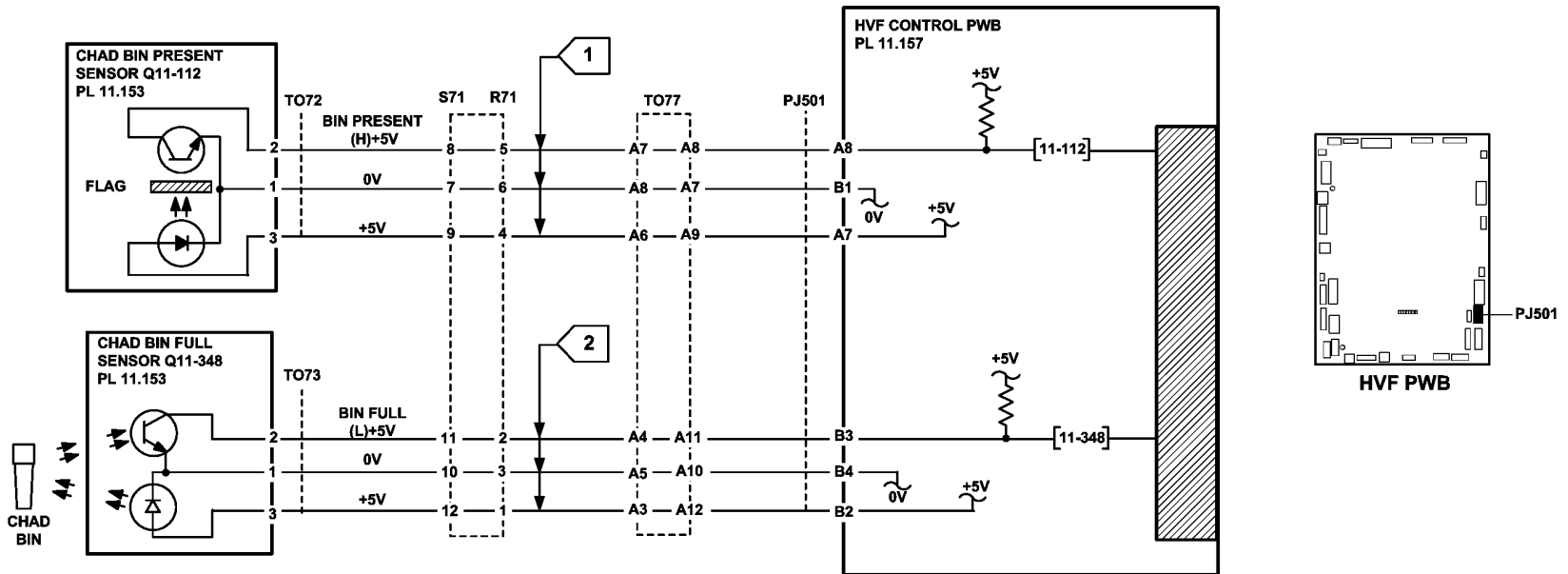


Figure 2 Circuit diagram

TT-1-0249-A



## 11P-171 Buffer Clamp RAP

Use this RAP when having problems with the buffer clamp on the HVF. Problems in this area result in paper jams at the exit and poor compiling.

### Initial Actions



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check that the solenoid and the clamp can move freely without obstruction.

### Procedure

[Figure 1](#) shows the location of the components.

Enter the [dC330](#) code 11-082, buffer clamp solenoid. **The solenoid actuates.**

Y N

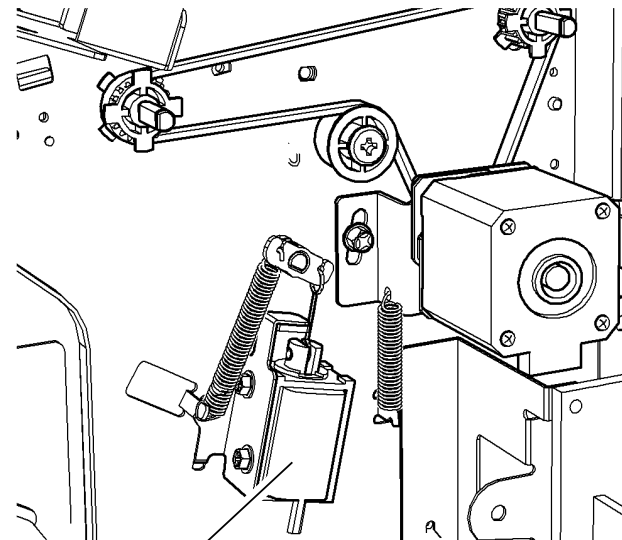
Go to [Flag 1](#). Check the wiring. Repair as necessary, [REP 1.2](#). Check the buffer clamp solenoid, SOL 11-082. Refer to:

- [GP 12](#) How to Check a Solenoid or Clutch.
- [P/J104](#), [HVF Control PWB](#).
- [11A-171](#) HVF Power Distribution RAP.

Install new components as necessary:

- Buffer clamp solenoid, [PL 11.150](#) Item 4.
- HVF control PWB, [PL 11.157](#) Item 2.

Perform [SCP 6](#) Final Actions.



Buffer clamp solenoid,  
SOL 11-082

REAR VIEW

T-1-0258-A

Figure 1 Component location

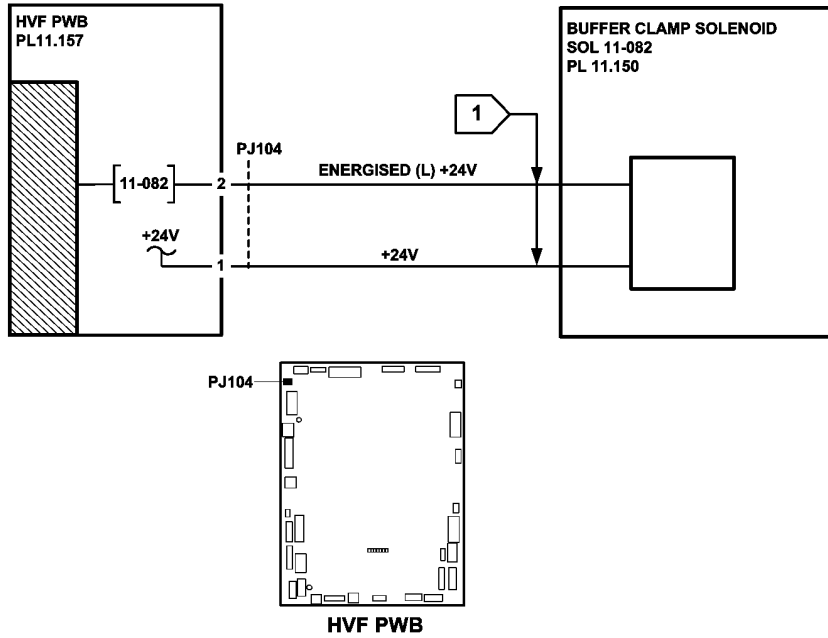


Figure 2 Circuit diagram

TT-1-0250-A

## 12-301 Offset Catch Tray Failure RAP

12-301 The offset catch tray has not made an index position within 450 ms of the last index position being made.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the offset catch tray is correctly installed and there is no obstruction to prevent movement between offset positions. If the tray is damaged, install a new OCT PL 12.10 Item 1.
- **35-55 ppm Only.** Make sure that the OCT fingers are installed correctly. Refer to REP 12.1.

### Procedure

Figure 1. Go to Flag 1 and Flag 2. Check the OCT wiring, GP 7. The wiring is good.

Y N  
Repair the wiring or install a new OCT, PL 12.10 Item 1.

Enter dC330, code 12-005 to check the OCT motor, MOT12-005. MOT12-005 runs.

Y N  
Install a new OCT, PL 12.10 Item 1.

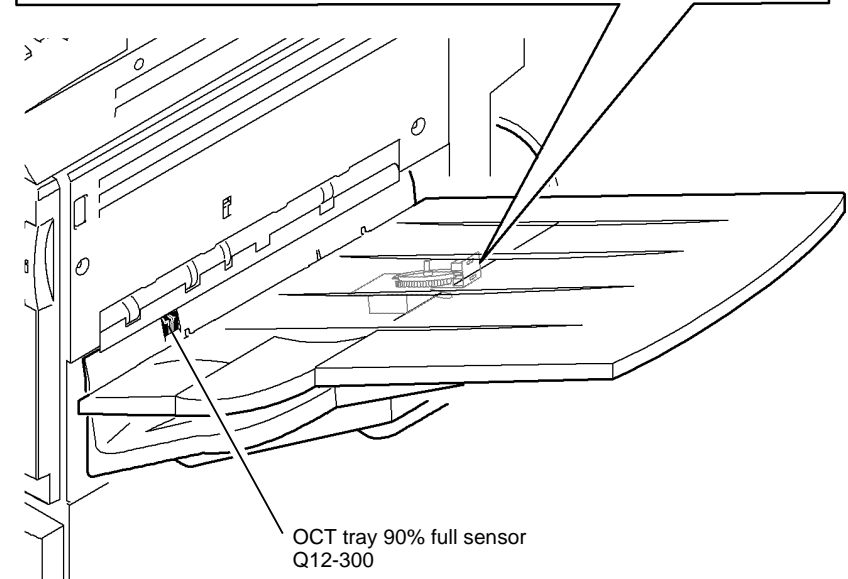
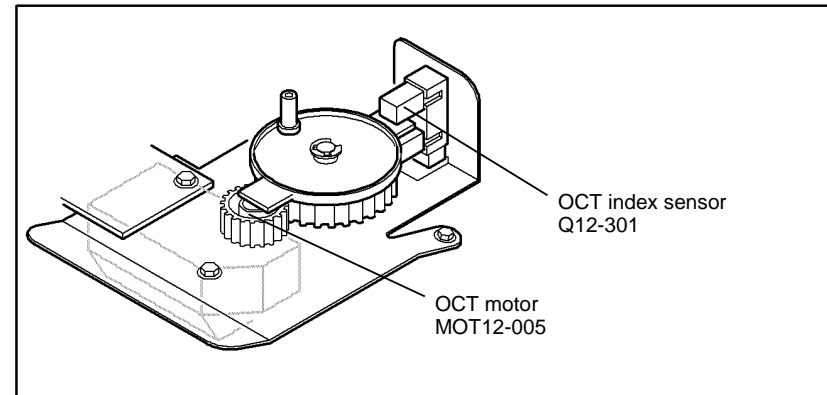
Enter dC330, code 12-005 and stack code 12-301 to check the OCT index sensor, Q12-301. The display changes as the motor runs.

Y N  
Install a new OCT, PL 12.10 Item 1.

Enter dC330, code 12-300 to check the OCT tray 90% full sensor, Q12-300. Actuate the sensor, Figure 1. The display changes.

Y N  
Check the sensor actuator. If necessary install a new OCT, PL 12.10 Item 1.

Perform SCP 6 Final Actions RAP.



T-1-0259-A

Figure 1 Component location

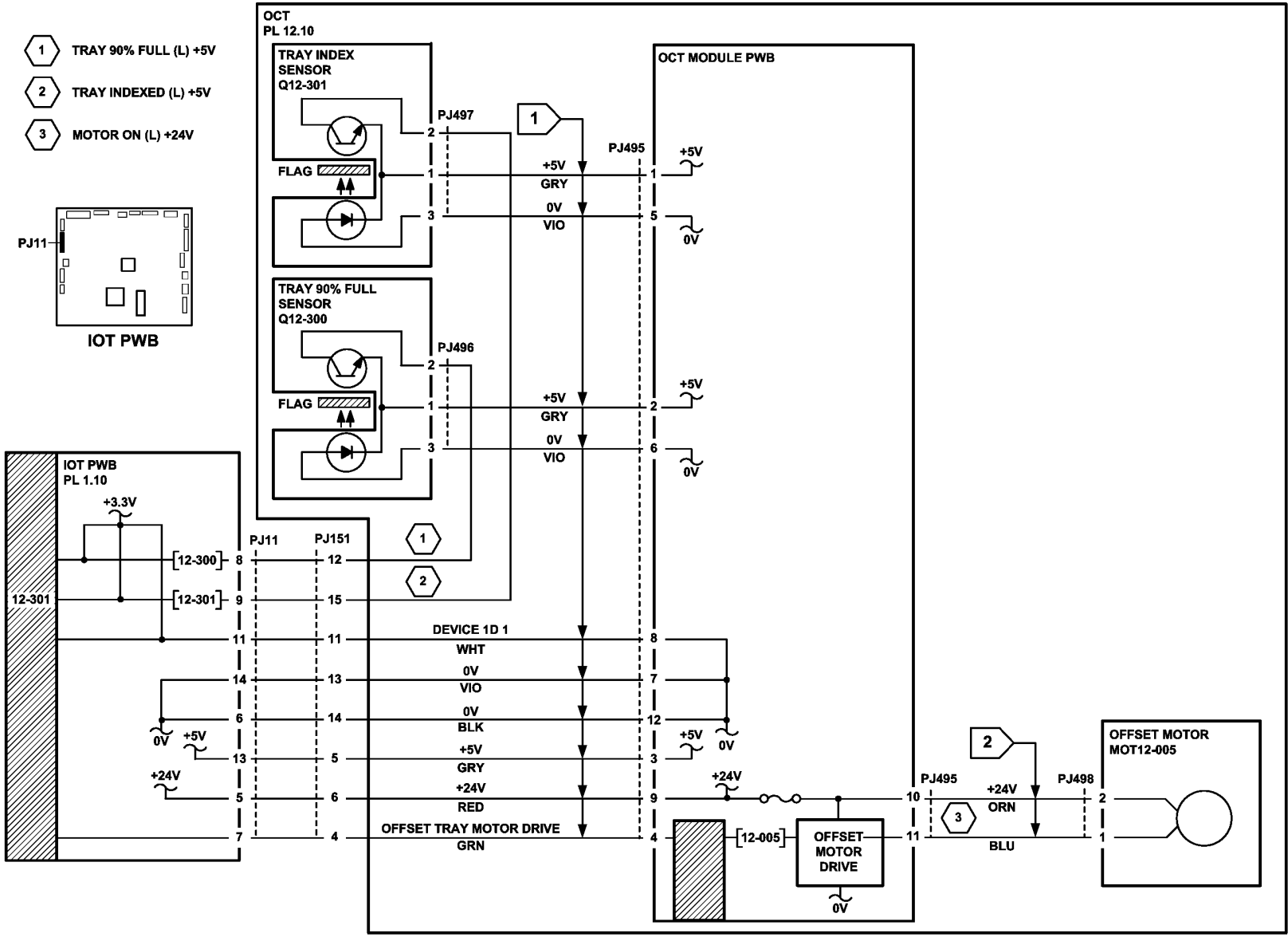


Figure 2 Circuit Diagram

TT-1-0251-A

## 14-110 Scan Carriage Home Sensor Entry RAP

14-110. The scanner PWB has not detected the scan carriage in the home position.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the following:

- (W/O TAG 150), go to the 14-110A Scan Carriage Home Sensor RAP (W/O TAG 150).
- (W/TAG 150), go to the 14-110B Scan Carriage Home Sensor RAP (W/TAG 150).

## 14-110A Scan Carriage Home Sensor RAP (W/O TAG 150)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 14-110 Scan Carriage Home Sensor Entry RAP.
- Check that the scan cables are correctly positioned, Figure 2.
- Visually check the alignment of the scan motor through the document glass, the rubber element of the motor bracket can fail. If necessary, install a new scan motor bracket, PL 14.25 Item 18. Refer to REP 14.11 Scan Motor.
- Check that the harness from PJ152 is not routed under the single board controller PWB. If the harness was under the PWB, examine the harness sleeving for punctures or other damage. If necessary, install a new DADH/power distribution PWB harness, PL 3.24 Item 6. Route the new harness to the right, away from the single board controller PWB. If this has caused a blown fuse F1 on the power distribution PWB, install a new power distribution PWB, PL 3.24 Item 5.

**NOTE:** This fault has been caused on a number of machines by bad routing of the DADH/power distribution PWB harness PL 3.24 Item 6.

### Procedure

Go to Flag 3. Check for +24V on P/J135 between pins 1 to 3 and 2 to 4 on the power distribution PWB. **The voltage is good.**

Y N

As necessary, perform the steps that follow:

- Go to the 01G +24V Distribution RAP.
- Go to the 01B 0V Distribution RAP, refer to the 24V return.

Go to Flag 3. Check for +12V on P/J135 between pins 6 to 8 on the power distribution PWB. **The voltage is good.**

Y N

As necessary, perform the steps that follow:

- Go to 01F +12V Distribution RAP.
- Go to 01B 0V Distribution RAP, refer to the 12V return.

Check that +24V is available in the scanner by entering the dC330 output code 14-005. **The exposure lamp illuminates.**

Y N

Go to Flag 3. Check for +24V on P/J455 between pins 1 to 2 and 3 to 4 on the scanner PWB. Also check for +12V on P/J450 between pins 1 and 2 on the CCD PWB. **The voltages are good.**

A

A

Y N

Check the harnesses between the power distribution PWB, the scanner PWB and the CCD PWB. If necessary, install a new single board controller module/scanner driver PWB/CCD PWB harness [PL 14.25 Item 13](#), CCD PWB/Scanner PWB harness [PL 14.25 Item 23](#).

Go to the [14D Exposure Lamp Failure RAP](#).

Check that +5V is available in the scanner by entering the [dC330](#) input code 14-310, actuate the input module angle sensor by opening and closing the DADH. **The display changes.**

Y N

Go to [Flag 4](#). Check for +5V on [P/J451](#) pins 1 to 2 on the CCD PWB right side. **The voltage is good.**

Y N

Perform the following:

- Check all harness connectors on the scanner PWB and CCD PWB are securely connected.
- Check the CCD PWB for damaged components. Install new components as necessary:
  - Scanner PWB, [PL 14.25 Item 4](#).

Go to the [14A Scanning Document Size RAP](#) and check the input module angle sensor, Q14-310.

Go to [Flag 4](#). Check for +5V on [P/J452](#) pins 17 to 18 on the scanner PWB. **The voltage is good.**

Y N

Check the harness between [P/J451](#) and [P/J452](#). If necessary, install a new harness, [PL 14.25 Item 23](#).

Enter [dC330](#) code 14-100 to check the scan carriage home sensor, Q14-100. Activate Q14-100, [Figure 1](#). **The display changes.**

Y N

Go to [Flag 1](#). Check the scan carriage home sensor, Q14-100. Refer to:

- [GP 11](#) How to Check a Sensor.
- [P/J454](#), scanner PWB.
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V and 5V return.

Repair or install new components as necessary:

- Sensor harness, [REP 1.2](#).
- Scan carriage home sensor, [PL 14.25 Item 16](#).
- Scanner PWB, [PL 14.25 Item 4](#).
- Scanner, [PL 14.20 Item 1](#).

Perform [ADJ 14.1](#) Optics Cleaning Procedure.

Switch off the machine, [GP 14](#). Open the DADH or document cover. Switch on the machine, [GP 14](#). Observe the scan carriage as the machine initializes. **The scan carriage moves away from and back to the scan carriage home sensor.**

Y N

Go to [Flag 2](#). Check the wiring and [P/J457](#). **The wiring and connector are good.**

Y N

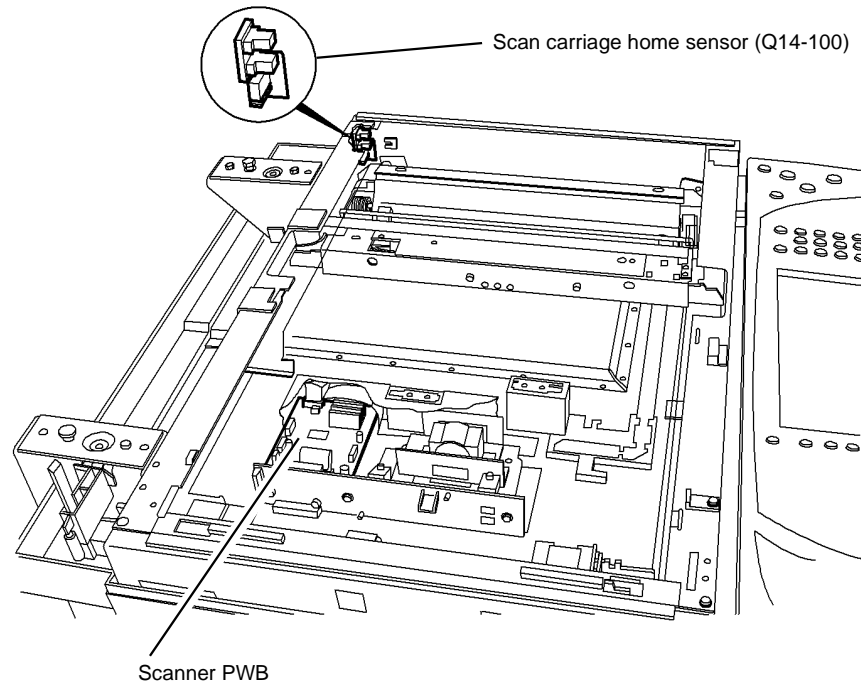
Repair the wiring and connector, [REP 1.2](#). If necessary, install a new scan motor, [PL 14.25 Item 2](#).

Perform the following:

- Check the scan motor bracket, the rubber component can fail, allowing the motor to move out of position. If necessary, install a new scan motor bracket, [PL 14.25 Item 18](#).
- If necessary install a new scan motor, [PL 14.25 Item 2](#).
- If necessary install a new scanner, [PL 14.25 Item 1](#).

The sensor and scan motor are working correctly, the fault may be intermittent. Check the following:

- The connectors are fully seated and the wiring is not damaged.
- Q14-100 is mounted correctly.
- Check that the scanner drive belt is not loose, causing the belt to slip, refer to [REP 14.11](#). If necessary, go to [REP 14.11](#) Scan Motor and re-position the scan motor so that the belt does not slip.
- Check the scan motor bracket, the rubber component can fail, allowing the motor to move out of position. If necessary, install a new scan motor bracket, [PL 14.25 Item 18](#).



T-1-1130-A

Figure 1 Carriage home sensor

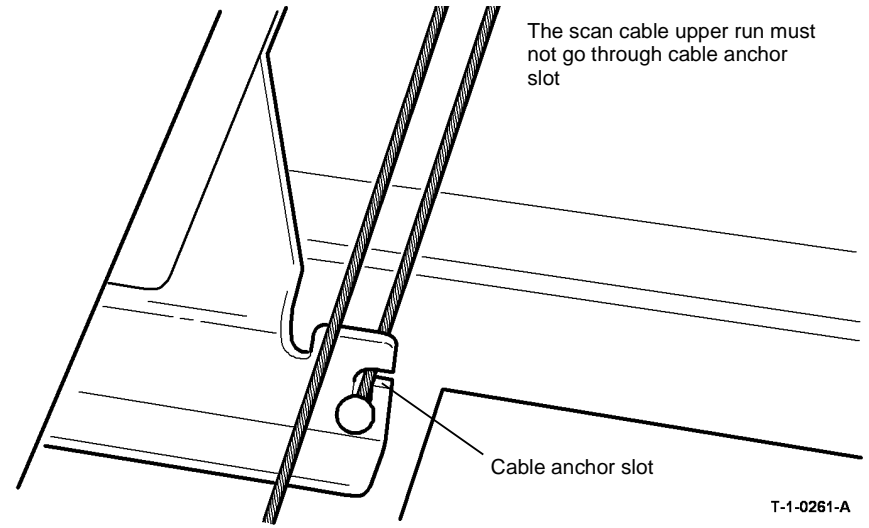


Figure 2 Correct position of the scan cable

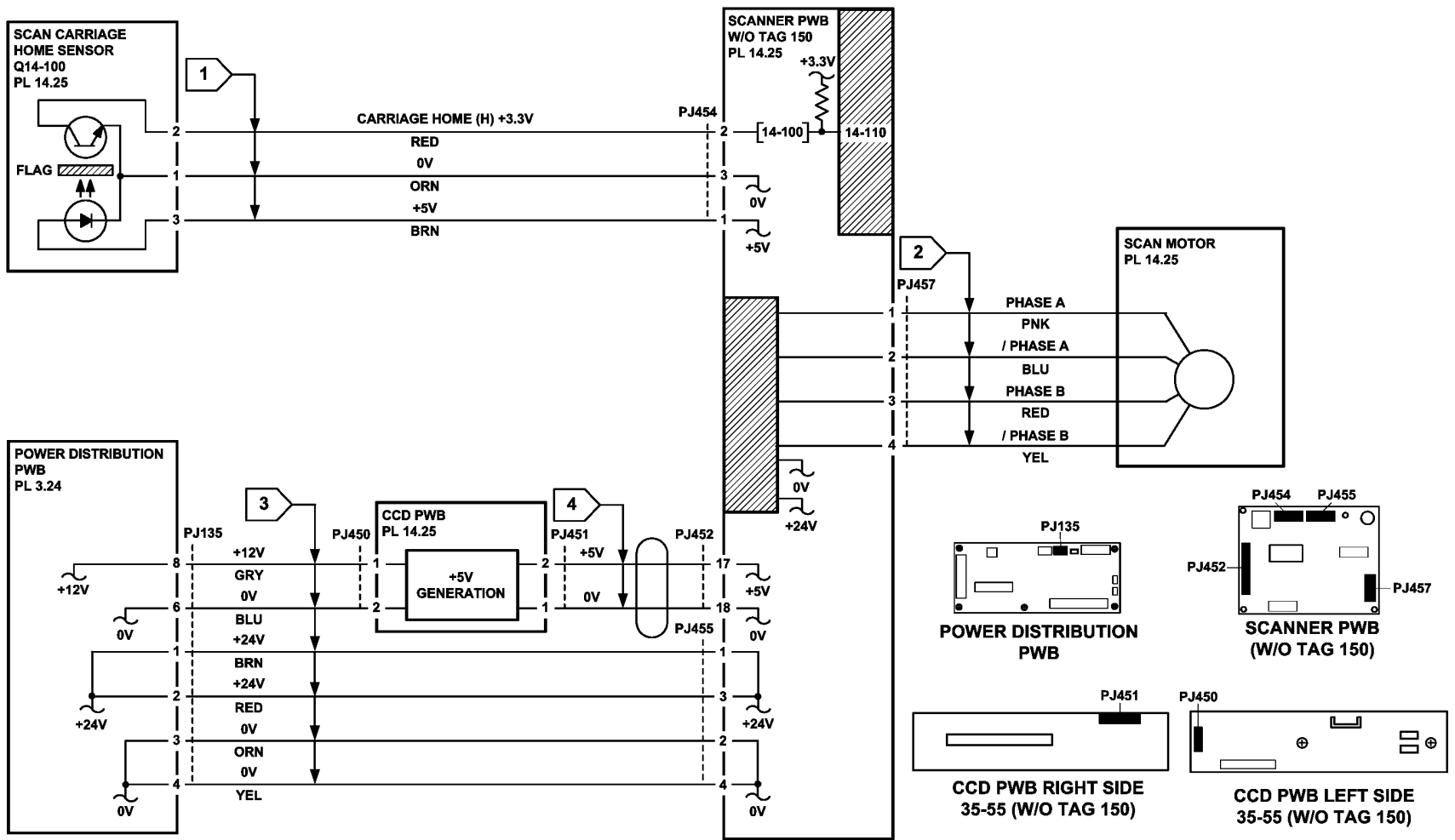


Figure 3 Circuit diagram

TT-1-0252-A



# 14-110B Scan Carriage Home Sensor RAP (W/TAG 150)

## Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the **14-110** Scan Carriage Home Sensor Entry RAP.
- Check that the scan cables are correctly positioned, **Figure 2**.
- Check that the harness from PJ152 is not routed under the single board controller PWB. If the harness was under the PWB, examine the harness sleeving for punctures or other damage. If necessary, install a new DADH/power distribution PWB harness, **PL 3.24 Item 6**. Route the new harness to the right, away from the single board controller PWB. If this has caused a blown fuse F1 on the power distribution PWB, install a new power distribution PWB, **PL 3.24 Item 5**.

**NOTE:** This fault has been caused on a number of machines by bad routing of the DADH/power distribution PWB harness **PL 3.24 Item 6**.

## Procedure

Go to **Flag 3**. Check for +24V on **P/J135** between pins 1 to 3 and 2 to 4 on the power distribution PWB. **The voltage is good.**

Y N

As necessary, perform the steps that follow:

- Go to the **01G** +24V Distribution RAP.
- Go to the **01B** 0V Distribution RAP, refer to the 24V return.

Go to **Flag 3**. Check for +12V on **P/J135** between pins 6 to 8 on the power distribution PWB. **The voltage is good.**

Y N

As necessary, perform the steps that follow:

- Go to **01F** +12V Distribution RAP.
- Go to **01B** 0V Distribution RAP, refer to the 12V return.

Check that +24V is available in the scanner by entering the **dC330** output code 14-005. **The exposure lamp illuminates.**

Y N

Go to **Flag 3**. Check for +24V on **P/J920** between pins 1 to 2 and 3 to 4 on the scanner PWB. Also check for +12V on **P/J920** between pins 1 and 2 on the scanner PWB. **The voltages are good.**

Y N

Check the harnesses between the power distribution PWB and the scanner PWB. If necessary, install a new single board controller PWB/DADH comms/scanner power harness **PL 14.15 Item 5**.

Go to the **14D** Exposure Lamp Failure RAP.

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Check that +5V is available in the scanner by entering the **dC330** input code 14-310, actuate the input module angle sensor by opening and closing the DADH. **The display changes.**

Y N

Go to **Flag 4**. Check for +5V on **P/J136** between pins 1 to 4 on the PDB PWB. Also check for +3.3V on **P/J136** between pins 2 and 3 on the PDB PWB. **The voltages are good.**

Y N

Install new components as necessary:

- PDB PWB, **PL 3.24 Item 5**.

Go to the **14A** Scanning Document Size RAP and check the input module angle sensor, Q14-310.

Go to **Flag 4**. Check for +5V on **P/J920** between pins 7 to 8 on the scanner PWB. Also check for +3.3V on **P/J920** between pins 15 and 16 on the scanner PWB. **The voltages are good.**

Y N

Check the harness between **P/J136** and **P/J920**. If necessary, install a new SBC PWB/DADH comms/scanner power harness, **PL 14.15 Item 5**.

Enter **dC330** code 14-100 to check the scan carriage home sensor, Q14-100. Activate Q14-100. **The display changes.**

Y N

Check Q14-100. Refer to:

- **GP 11** How to Check a Sensor.
- **P/J924**, **Scanner PWB**.
- **01D** +3.3V Distribution RAP.
- **01B** 0V Distribution RAP, refer to the 3.3V and 5V return.

Repair or install new components as necessary:

- Sensor harness, **REP 1.2**.
- Scan carriage home sensor, **PL 14.15 Item 16**.
- Scanner PWB, **PL 14.15 Item 4**.
- Scanner, **PL 14.10 Item 1**.

Perform **ADJ 14.2** Optics Cleaning Procedure.

Switch off the machine, **GP 14**. Open the DADH or document cover. Switch on the machine, **GP 14**. Observe the scan carriage as the machine initializes. **The scan carriage moves away from and back to the scan carriage home sensor.**

Y N

Go to **Flag 2**. Check the wiring and **P/J929**. **The wiring and connector are good.**

Y N

Repair the wiring and connector, **REP 1.2**.

Perform the following:

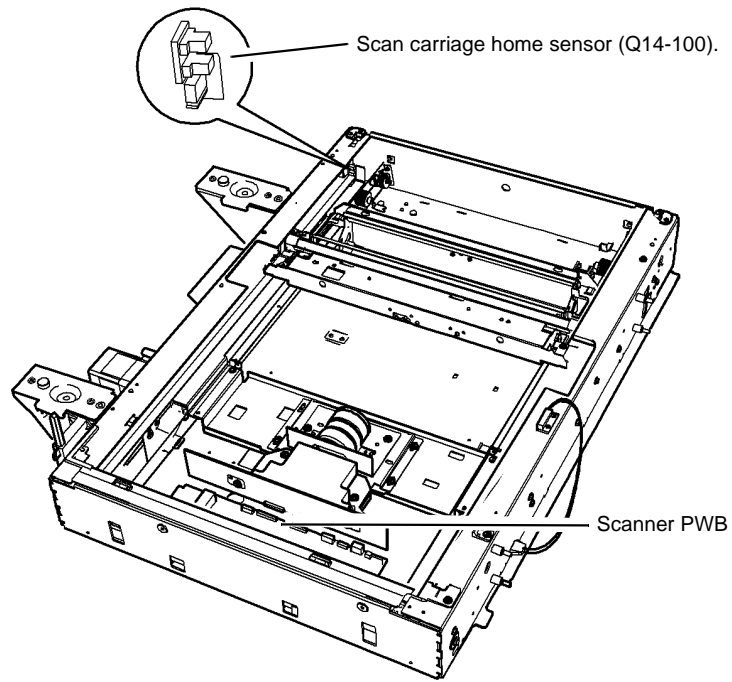
- If necessary install a new scan motor, **PL 14.15 Item 2**.
- If necessary install a new scanner, **PL 14.10 Item 1**.

The sensor and carriage motor are working correctly, the fault may be intermittent. Check the following:

- The connectors are fully seated and the wiring is not damaged.
- Q14-100 is mounted correctly.

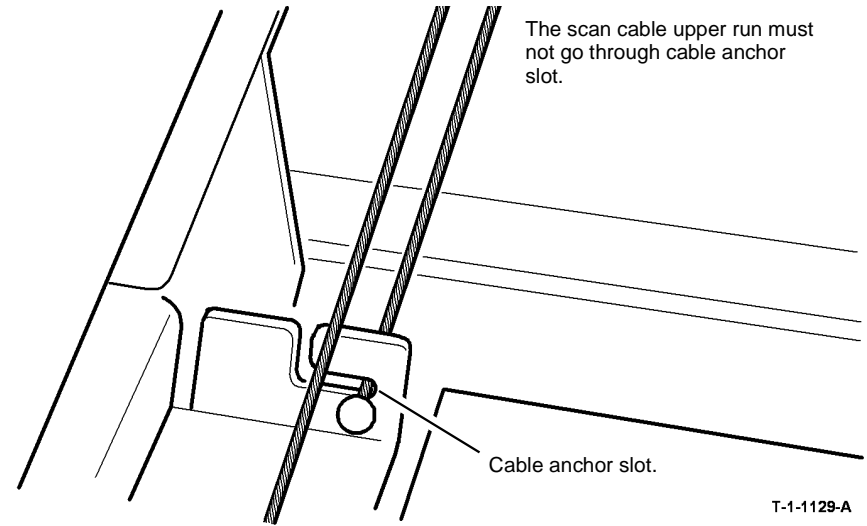
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- Check that the scanner drive belt is not loose, causing the belt to slip. If necessary re-position the scan motor so that the belt does not slip.



T-1-0260-A

Figure 1 Carriage home sensor



T-1-1129-A

Figure 2 Correct position of the scan cable

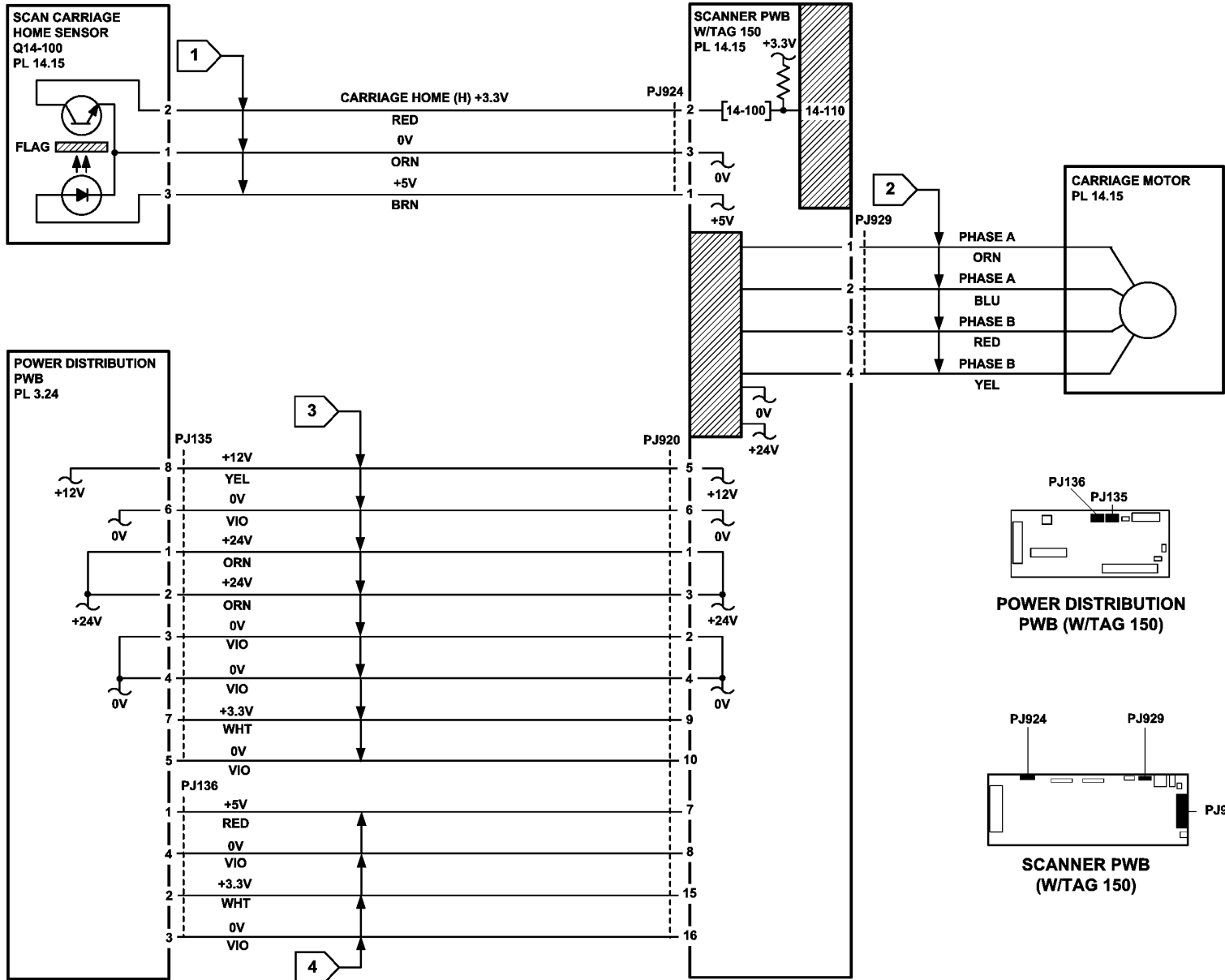


Figure 3 Circuit diagram

TT-1-0253-A

## 14-310 CCD PWB Not Detected RAP (W/O TAG 150)

14-310 The scanner PWB detects an abnormal power supply voltage or a CCD PWB failure.

**NOTE:** This fault code only applies to machines W/O TAG 150.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Go to Flag 1. Check the following voltages at P/J135 on the power distribution PWB:

- +24V between pins 1 and 3.
- +24V between pins 2 and 4.

**The voltages are good.**

Y N

Disconnect P/J135. Check the voltages again at P/J135 on the power distribution PWB.

**The voltages are good.**

Y N

Go to the following RAPs:

- 01B 0V Distribution RAP, refer to the 24V return.
- 01G +24V Distribution RAP.

Check for a short circuit in the harness between P/J135 and P/J455. Repair the harness, REP 1.2, or install a new harness, PL 14.25 Item 13. If the harness is good, install a new scanner PWB, PL 14.25 Item 4.

Check that +24V is available in the scanner by entering the dC330 output code 14-005. **The exposure lamp illuminates.**

Y N

Remove the CVT glass and document glass, REP 14.6.

Remove the PWB cover, 3 screws, PL 14.25 Item 1.

Re-install the scanner top cover and GUI, but do not install the screws. Re-connect the power cord and switch on the machine, GP 14.

Go to Flag 1. Check the following voltages at P/J455 on the scanner PWB, Figure 1:

- +24V between pins 1 and 3.
- +24V between pins 2 and 4.

**The voltages are good.**

Y N

Check for an open circuit on the harness between P/J135 and P/J455. Repair the harness, REP 1.2, or install a new harness, PL 14.25 Item 13. Perform ADJ 14.1 Optics Cleaning Procedure.

Go to the 14D Exposure Lamp Failure RAP.

Go to Flag 2. Check the following voltages at P/J135 on the power distribution PWB:

- +12V between pins 8 and 6.
- +3.3V between pins 7 and 5.

**The voltages are good.**

Y N

Disconnect P/J135. Check the voltages again at the connector on the power distribution PWB. **The voltages are good.**

Y N

Go to the relevant RAP:

- 01B 0V Distribution RAP, refer to the 12V return and 3.3V return.
- 01F +12V Distribution RAP.
- 01D +3.3V Distribution RAP.

Check for a short circuit on the harness between P/J135 and P/J450. Repair the harness, REP 1.2, or install a new harness, PL 14.25 Item 13. Perform ADJ 14.1 Optics Cleaning Procedure.

Go to Flag 2. Check the following voltages at P/J450 on the CCD PWB, Figure 1:

- +12V between pins 1 and 2.
- +3.3V between pins 3 and 4.

**The voltages are good.**

Y N

Check for an open circuit in the harness between P/J135 and P/J450. Repair the harness, REP 1.2, or install a new harness, PL 14.25 Item 13. Perform ADJ 14.1 Optics Cleaning Procedure.

Install new components in the following order:

- CCD harness, PL 14.25 Item 5.
- Scanner PWB, PL 14.25 Item 4.
- Scanner, PL 14.20 Item 1.

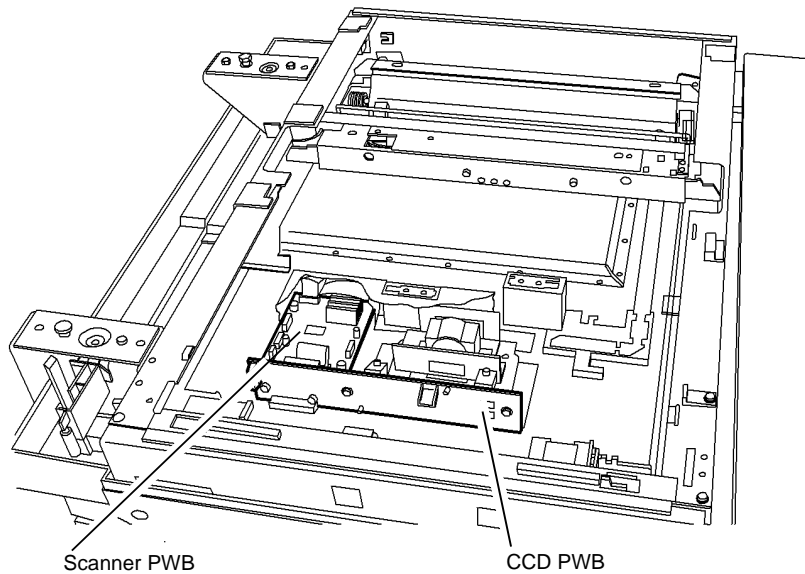


Figure 1 Component location

T-1-0262-A

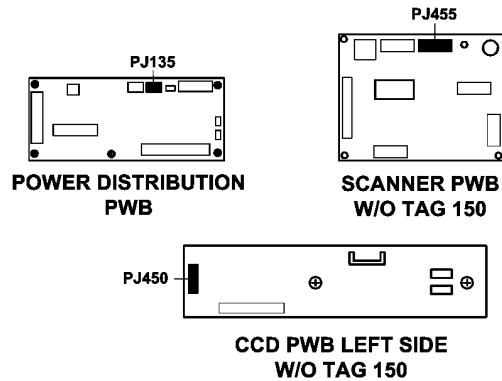
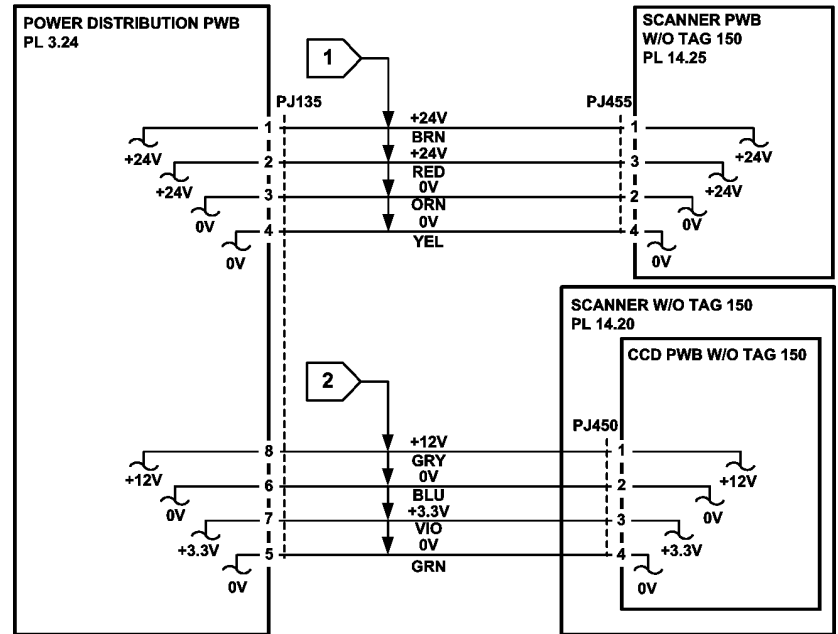


Figure 2 Circuit diagram

TT-1-0254-A

## 14-320 CVT Active Hot Line in Wrong State RAP

14-320 The CVT active hot line (DADH) is in the wrong state before a scan calibration or scan.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, [GP 14](#). The fault code is still present.

Y N  
| Perform [SCP 6](#) Final Actions.

Check the leads and the connections that follow:

- **(W/O TAG 150)** Check between PJ188 pin 5 on the [DADH PWB](#) and PJ102 pin 1 on the [single board controller PWB](#). Refer to wiring diagram [WD 12](#)
  - a. **(W/TAG 150)** Check between PJ921 pin 5 on the [Scanner PWB \(W/TAG 150\)](#), inline connector PJ102, PJ152 pin 17 and PJ188 pin 5 on the [DADH PWB](#). Refer to wiring diagrams [WD 13](#) and [WD 16](#).

## 14-322 Platen Active Hot Line in Wrong State RAP (W/O TAG 150)

14-322 The platen active hot line is in the wrong state before a scan calibration or scan.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, [GP 14](#). The fault code is still present.

Y N  
| Perform [SCP 6](#) Final Actions.

Check between PJ452 pin 5 and pin 6 on the [scanner PWB W/O TAG 150](#) and PJ451 pin 13 and pin 14 on the [CCD PWB](#). Refer to [WD 15](#).

## 14-340 Scanner AGC Failure RAP

**14-340** The scanner AGC (automatic gain control) failure has been detected during calibration or before the start of scan.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Switch off the machine, then switch on the machine, GP 14. **The fault code is still present.**

<b>Y</b>	<b>N</b>
	Perform SCP 6 Final Actions.

Check that the lamp illuminates correctly.  
Install new components as required.

- (W/O TAG 150) Exposure lamp, PL 14.25 Item 9.
- (W/TAG 150) Exposure lamp, PL 14.15 Item 9.

## 14-703 to 14-706, 712, 714, 716, 718 Failure To Calibrate Entry RAP

**14-703.** The scanner PWB failed to calibrate as the pixel gain is too high.

**14-704.** The scanner PWB failed to calibrate as the pixel gain is too low.

**14-705.** The scanner PWB failed to calibrate as one or more pixels are offset higher than the required level.

**14-706.** The scanner PWB failed to calibrate as one or more pixels are offset lower than the required level.

**14-712.** The scanner PWB failed to calibrate due as overall gain is at maximum and fails to raise the brightest pixel to an acceptable level.

**14-714.** The scanner PWB failed to calibrate as the dark gain is at minimum and fails to lower the darkest pixel to an acceptable level.

**14-716.** The scanner PWB failed to calibrate due to an abnormal CCD level.

**14-718.** The scanner PWB failed to auto-calibrate.

**NOTE:** The fault code 14-716 only applies to machines W/O TAG 150.

### Procedure

Identify the speed of the machine, refer to SCP 7 Machine Features. Go to the relevant procedure:

- (W/O TAG 150), go to the 14-703A to 14-706A, 712A, 714A, 716A, 718A Failure to Calibrate RAP (W/O TAG 150).
- (W/TAG 150), go to the 14-703B to 14-706B, 712B, 714B, 718B Failure to Calibrate RAP (W/TAG 150).

# 14-703A to 14-706A, 712A, 714A, 716A, 718A Failure To Calibrate RAP (W/O TAG 150)

## Initial Actions

Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [14-703 to 14-706, 712, 714, 716, 718 Failure to Calibrate Entry RAP](#).

## Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Switch off the machine, then switch on the machine, [GP 14](#). **The fault is still present.**

**Y N**  
Perform [SCP 6](#) Final Actions.

Go to [Flag 1](#) and [Flag 2](#). Check for the following voltages at [P/J135](#) on the power distribution PWB:

- +24V between pins 1 and 3, [Flag 1](#).
- +24V between pins 2 and 4, [Flag 1](#).
- +12V between pins 6 and 8, [Flag 2](#).
- +3.3V between pins 5 and 7, [Flag 2](#).

**The voltages are good.**

**Y N**  
Refer to the following:

- Go to [01B](#) 0V Distribution RAP, refer to the 24V return and 12V return.
- [01G](#) +24V Distribution RAP.
- [01F](#) +12V Distribution RAP.

Remove the CVT glass and document glass [REP 14.6](#). Check that all optics mirrors are securely attached and correctly aligned, [Figure 1](#). Check that the light path to the CCD array is clear of obstructions. **The optical path is good.**

**Y N**  
Correct the mirror alignment, clear the light path or install a new scanner, [PL 14.20 Item 1](#).

Check the CCD assembly for loose electrical connections or misalignment of the assembly, [Figure 2](#). **The CCD assembly is good.**

**Y N**  
Correct the problem or install a new scanner, [PL 14.20 Item 1](#).

Check the scanner PWB for loose connections or damage, [Figure 2](#). **The scanner PWB is good.**

**Y N**  
Install a new scanner PWB, [PL 14.25 Item 4](#).

Check the wiring between [P/J135](#) and [P/J455](#), also between [P/J135](#) and [P/J450](#), refer to [GP 7](#). **The wiring is good.**

**Y N**  
Repair the wiring, [REP 1.2](#).

Check the tension of the scanner drive belt, refer to [REP 14.11](#). A loose drive belt can cause the belt to slip. **The scanner drive belt is good.**

**Y N**  
Refer to [REP 14.11](#) Scan Motor. Re-position the scan motor so that the belt does not slip.

Inspect the calibration strips on the front underside of the CVT glass and document glass. **The calibration strips are undamaged.**

**Y N**  
Install a new CVT glass, [PL 14.20 Item 4](#) and / or a new document glass, [PL 14.20 Item 5](#).

Clean the calibration strips, using a cleaning cloth dampened with water. Re-assemble the parts. Turn on the machine, [GP 14](#). **The fault is still present.**

**Y N**  
Perform [SCP 6](#) Final Actions.

Install new parts in the following order:

- Exposure lamp, [PL 14.25 Item 9](#).
- Single board controller PWB module / CCD PWB harness, [PL 14.25 Item 5](#).
- Scanner PWB, [PL 14.25 Item 4](#).
- Single board controller PWB, [PL 3.24 Item 3](#).
- Scanner, [PL 14.20 Item 1](#).

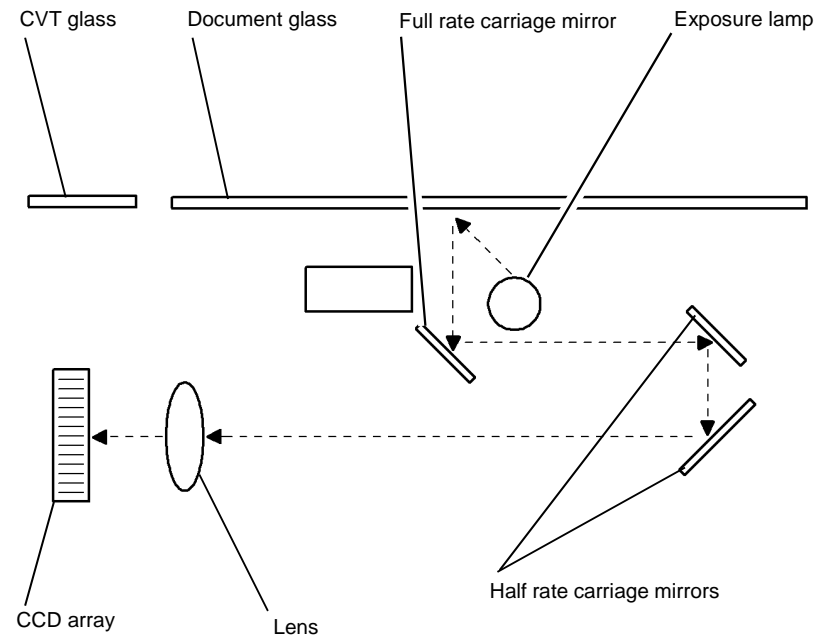


Figure 1 Optical path



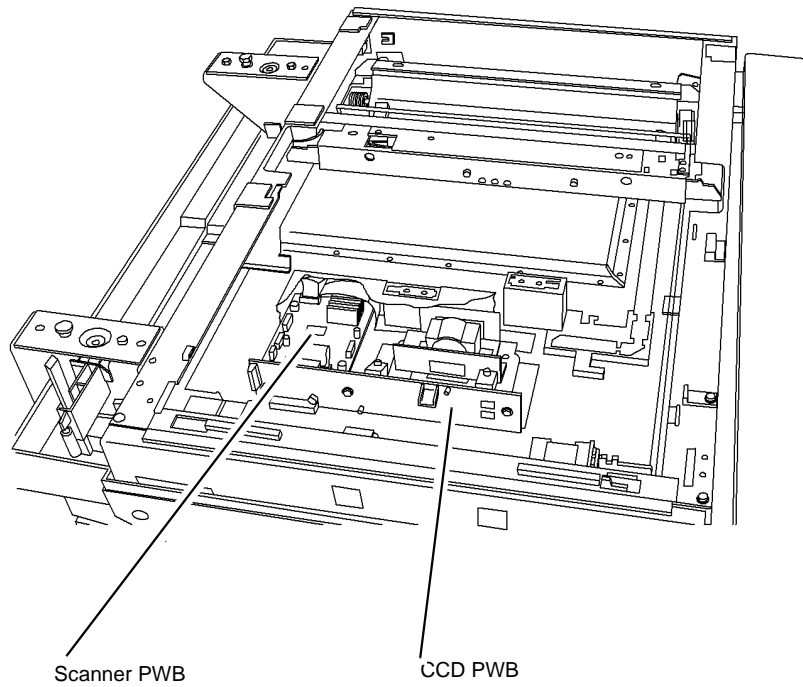


Figure 2 Component location

T-1-0264-A

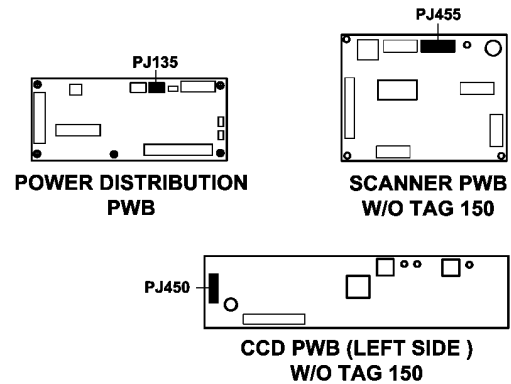
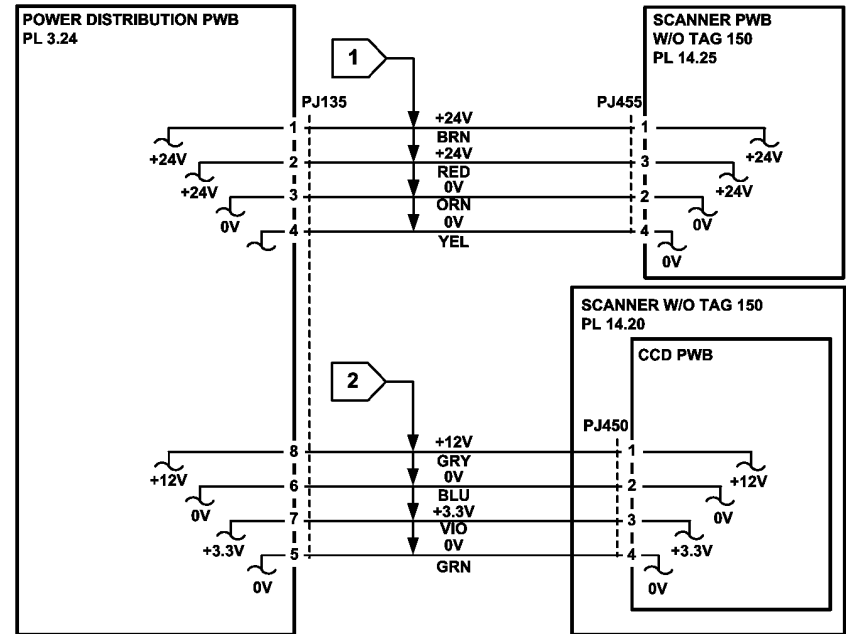


Figure 3 Circuit diagram

TT-1-0255-A

## 14-703B to 14-706B, 712B, 714B, 718B Failure To Calibrate RAP (W/TAG 150)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care, a hazardous voltage is present at the output of the exposure lamp inverter. Electricity can cause death or injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 14-703 to 14-706, 712, 714, 716, 718 Failure to Calibrate Entry RAP.
- Check that the exposure lamp illuminates when the machine is performing the set up procedure. If necessary, enter the dC330 output code, 14-005. If the lamp does not illuminate, go to the W/O TAG 157 Exposure Lamp Check or the W/TAG 157 Exposure Lamp Check.

### Procedure

Figure 1 shows the component location. Switch off the machine, then switch on the machine, GP 14. The fault is still present.

Y N  
| Perform SCP 6 Final Actions.

Perform the following:

- Remove the DADH, REP 5.19.
- Remove the scanner top cover, REP 14.14.
- Reinstall the DADH, REP 5.19.

Go to Flag 1. Check the voltages at P/J135 on the power distribution PWB. As necessary, refer to:

- 01D +3.3V Distribution RAP.
- 01E +5V Distribution RAP.
- 01F +12V Distribution RAP.
- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.

Check that the CCD PWB/Scanner PWB ribbon cable 1, PL 14.15 Item 15 and CCD PWB/Scanner PWB ribbon cable 2, PL 14.15 Item 23 are undamaged and correctly connected. Go to Flag 1. Check the wiring between P/J135 and P/J136 on the power distribution PWB in the SBC PWB module, and P/J920 on the scanner PWB. Repair as necessary, REP 1.2 or install a new SBC PWB/DADH comms/scanner power harness, PL 14.15 Item 5.

Inspect the calibration strips on the front underside of the CVT glass and document glass. The calibration strips are undamaged.

Y N  
| Install a new CVT glass, PL 14.20 Item 4 and/or a new document glass, PL 14.20 Item 5.

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Clean the white CVT strips, under the front edges of the document glass and the CVT glass, using a cleaning cloth dampened with film remover, PL 26.10 Item 4. Re-assemble the parts.

If the fault persists, install new components as necessary:

- Scan carriage ribbon cable, PL 14.15 Item 10.
- Scanner PWB, PL 14.15 Item 4.
- Scanner, PL 14.20 Item 1.

### W/O TAG 157 Exposure Lamp Check

#### Procedure



#### CAUTION

When measuring voltages of the scanner PWB, take special care not to short any two pins together.

Remove the document size sensor cover REP 14.20. +24V is available at P/J926 between pins 5 and 3, also between pins 6 and 1, Flag 2.

Y N  
| Go to Flag 3, disconnect P/J1 at the exposure lamp inverter PWB. +24V is available at P/J926 between pins 5 and 3, also between pins 6 and 1, Flag 2.

Y N  
| Go to Flag 2, disconnect P/J926 at the scanner PWB +24V is available at P/J926 between pins 5 and 3, also between pins 6 and 1.

Y N  
| Install a new Scanner PWB, PL 14.15 Item 4.

Check for a short circuit on the ribbon harness. Repair the harness or install a new scan carriage ribbon harness, PL 14.15 Item 10.

Install a new exposure lamp inverter PWB, PL 14.15 Item 12.

+24V is available at P/J1 between pins 5 and 3, also between pins 6 and 1, Flag 3.

Y N  
| Install a new scan carriage ribbon harness, PL 14.15 Item 10.

Measure the lamp enable signal at P/J926 pin 4 on the scanner PWB (W/TAG 150), Flag 3. enter the dC330 output code 14-005. The signal voltage changes from +24V to 0V when the code is active.

Y N  
| Install a new scanner PWB W/TAG 150, PL 14.15 Item 4.

Measure the lamp enable signal at P/J1 pin 4. enter the dC330 output code 14-005. The signal voltage changes from +24V to 0V when the code is active.

Y N  
| Install a new scan carriage ribbon harness, PL 14.15 Item 10.

Switch off the machine, GP 14. Go to Flag 4, check the wiring and connectors between P/J2 and the exposure lamp. The wiring and connectors are good.

Y N  
| Install a new exposure lamp, PL 14.15 Item 9.

Install a new exposure lamp inverter PWB, PL 14.15 Item 12.

## W/TAG 157 Exposure Lamp Check

### Procedure



*When measuring voltages of the scanner PWB, take special care not to short any two pins together.*

Remove the document size sensor cover **REP 14.20**. **+24V** is available at **P/J926** between pins 5 and 3, also between pins 6 and 1, **Flag 2**.

Y N  
Go to **Flag 3**, disconnect **P/J1** at the LED driver PWB. **+24V** is available at **P/J926** between pins 5 and 3, also between pins 6 and 1, **Flag 3**.

Y N  
Go to **Flag 2**, disconnect **P/J926** at the scanner PWB **+24V** is available at **P/J926** between pins 5 and 3, also between pins 6 and 1.

Y N  
Install a new Scanner PWB, **PL 14.15 Item 4**.

Check for a short circuit on the ribbon harness. Repair the harness or install a new scan carriage ribbon harness, **PL 14.15 Item 10**.

Install a new LED scan carriage assembly, **PL 14.15 Item 26**.

**+24V** is available at **P/J1** between pins 5 and 3, also between pins 6 and 1, **Flag 3**.

Y N  
Install a new scan carriage ribbon harness, **PL 14.15 Item 10**.

Measure the lamp enable signal at **P/J926** pin 4 on the scanner PWB (W/TAG 150). enter the **dC330** output code 14-005. **The signal voltage changes from +24V to 0V when the code is active.**

Y N  
Install a new scanner PWB W/TAG 150, **PL 14.15 Item 4**.

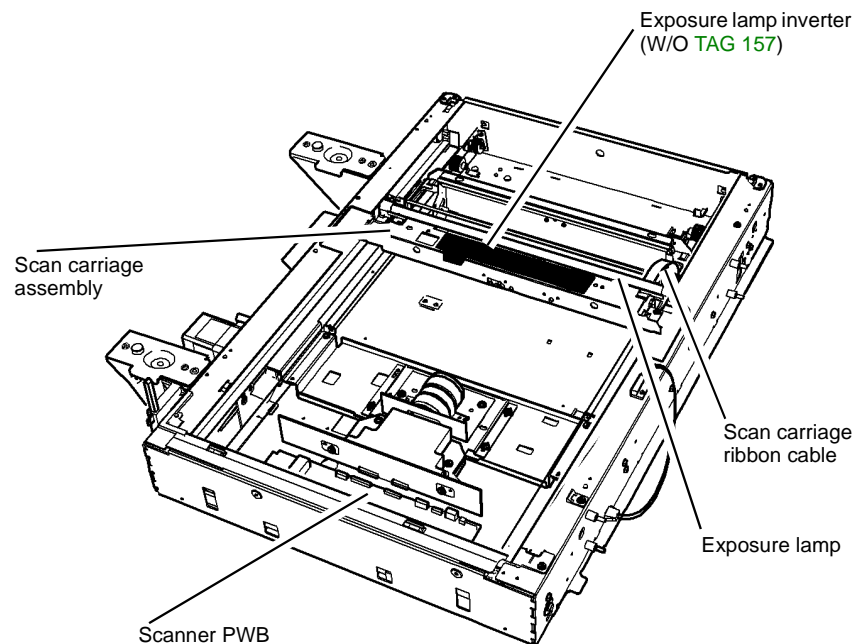
Measure the lamp enable signal at **P/J1** pin 4. enter the **dC330** output code 14-005. **The signal voltage changes from +24V to 0V when the code is active.**

Y N  
Install a new scan carriage ribbon harness, **PL 14.15 Item 10**.

Switch off the machine, **GP 14**. Go to **Flag 6**, check the wiring and connectors between **P/J2** and the LED exposure lamp. **The wiring and connectors are good.**

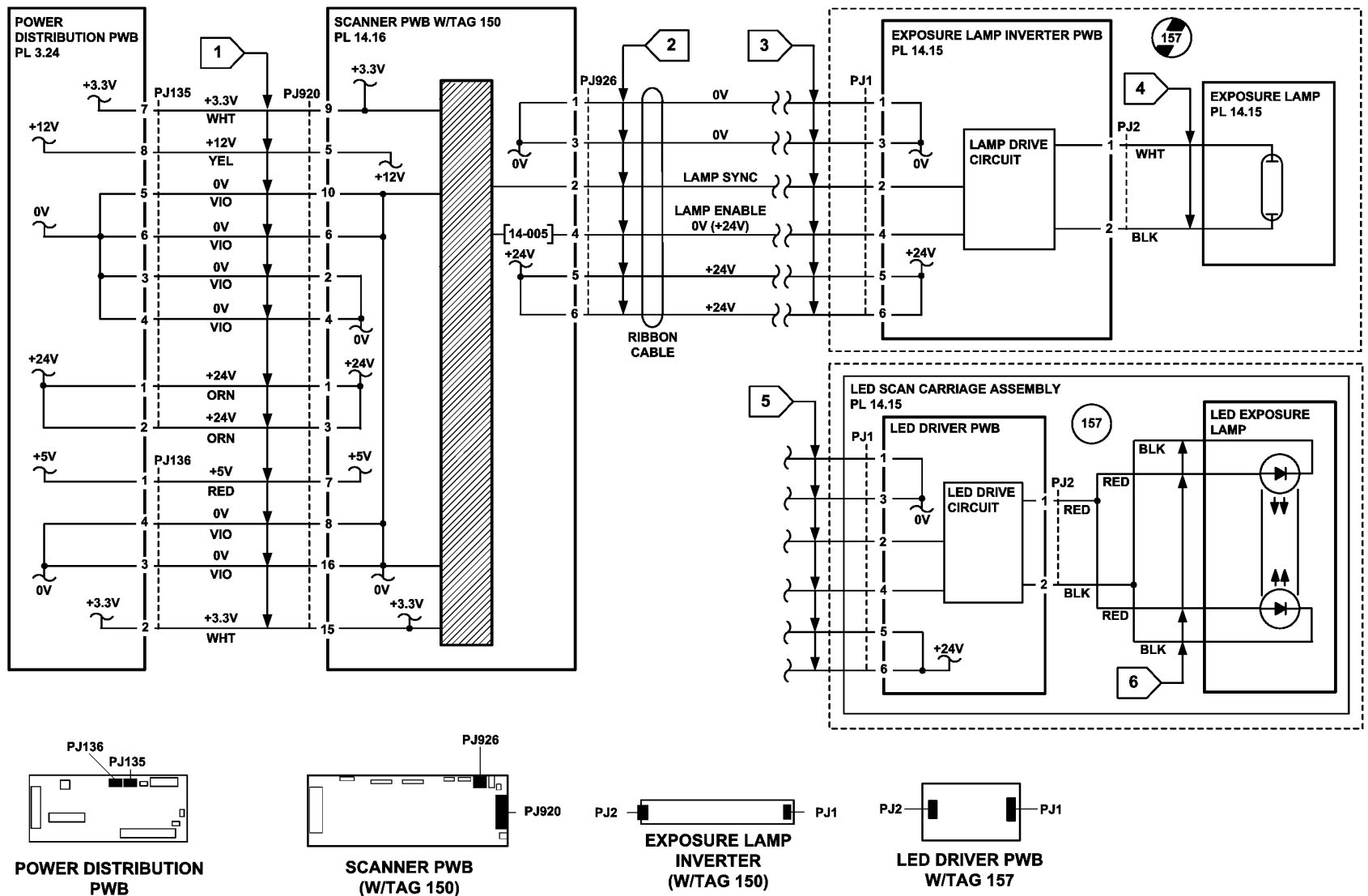
Y N  
Repair the wiring or install a new LED scan carriage assembly, **PL 14.15 Item 26**.

Install a new LED scan carriage assembly, **PL 14.15 Item 26**.



T-1-0265-A

Figure 1 Component location



TT-1-0256-C

Figure 2 Circuit diagram

## 14-710 NVM Value Out Of Range RAP

**14-710** The scanner PWB has received an NVM value from the single board controller PWB that is out of range, high or low.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Switch off the machine, then switch on the machine, GP 14. **The fault is still present.**

Y N

Perform SCP 6 Final Actions.

Perform dC132 NVM Initialization, copier NVM initialization.

## 14-720 Scan Length Out Of Range RAP

**14-720** The scan length request from the single board controller PWB exceeds the physical limits of the scan carriage.

### Procedure

Switch off the machine, then switch on the machine, GP 14.

## 14-730 Scanner Application Card Failure RAP

**14-730** There is no response or an incorrect response to the command issued by the scan service.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Check that the harness from PJ152 is not routed under the single board controller PWB. If the harness was under the PWB, examine the harness sleeving for punctures or other damage. If necessary, install a new DADH/power distribution PWB harness, [PL 3.24 Item 6](#). Route the new harness to the right, away from the single board controller PWB. If this has caused a blown fuse F1 on the power distribution PWB, install a new power distribution PWB, [PL 3.24 Item 5](#).

**NOTE:** This fault has been caused on a number of machines by bad routing of the DADH/power distribution PWB harness [PL 3.24 Item 6](#).

## 14A Scanning Document Size Entry RAP

The scanner has encountered a document that is larger than expected.

The scanner has encountered a document of unknown size. The document size sensors have incorrectly determined the size of the original.

### Procedure

Go to the relevant procedure:

- (W/O [TAG 150](#)), go to the [14B](#) Scanning Document Size RAP (W/O [TAG 150](#)).
- (W/[TAG 150](#)), go to the [14C](#) Scanning Document Size RAP (W/[TAG 150](#)).

# 14B Scanning Document Size RAP (W/O TAG 150)

## Initial Actions

Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [14A Scanning Document Size Entry RAP](#)

## Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check that the input module angle sensor actuator is not damaged, if necessary, install a new input module angle sensor actuator, [PL 14.25 Item 21](#).

Enter the [dC330](#) input code 14-310. Actuate the input module angle sensor, Q14-310 by opening and closing the DADH. **The display changes.**

**Y N**  
Go to [Flag 2](#). Check for +12V on [P/J135](#) between pins 6 and 8 on the power distribution PWB. **The voltage is good.**

**Y N**  
Go to the following RAPs:

- [01B](#) 0V Distribution RAP, refer to the 12V return.
- [01F](#) +12V Distribution RAP.

Go to [Flag 4](#). **+5V is available at pin 3 on Q14-310 connector (yellow wire).**

**Y N**  
Remove the CVT glass and document glass, [REP 14.6](#).  
Remove the PWB cover, 3 screws, [PL 14.25 Item 1](#).  
Re-install the scanner top cover and GUI, but do not install the screws. Re-connect the power cord and switch on the machine, [GP 14](#).  
Go to [Flag 2](#). Check for +12V on [P/J450](#) between pins 1 and 2 on the CCD PWB. **The voltage is good.**

**Y N**  
Check the harness between [P/J135](#) and [P/J450](#) for an open or short circuit. Repair the wiring, [REP 1.2](#), or install a new harness, [PL 14.25 Item 13](#).

Go to [Flag 3](#). Check for +5V on [P/J451](#) between pins 1 and 2 on the [scanner PWB](#). **The voltage is good.**

**Y N**  
Install a new scanner, [PL 14.20 Item 1](#).

Go to [Flag 3](#). Check for +5V on [P/J452](#) between pins 17 and 18. **The voltage is good.**

**Y N**  
Check the connectors on the ribbon cable between [P/J451](#) and [P/J452](#) are correctly installed. If necessary install a new harness, [PL 14.25 Item 5](#).

**+5V is available at [P/J458](#) pins 1 and 4, also on [P/J454](#) pin 4.**

**A B**  
**Y N**  
Install a new scanner drive PWB, [PL 14.25 Item 4](#).  
Check the wiring between [P/J454](#) and Q14-310 for an open circuit.

Go to [Flag 4](#). Check the input module angle sensor, refer to:

- [P/J454](#), [scanner PWB](#).
- [GP 11](#) How to Check a Sensor.
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Repair or install new components as necessary:

- Input module angle sensor, [PL 14.25 Item 16](#).
- Scanner PWB, [PL 14.25 Item 4](#).
- Scanner, [PL 14.20 Item 1](#).

Raise the DADH. Enter the [dC330](#) input code 14-315. Actuate the document size sensor 1 by placing a piece of paper on the document glass above the sensor, [Figure 1](#). Enter the [dC330](#) input code 14-320 and repeat the test for document size sensor 2. **The display changes for both sensors.**

**Y N**  
Go to [Flag 1](#). Check the document size sensors 1 and 2, refer to:

- [GP 11](#) How to Check a Sensor.

**NOTE:** *If necessary, temporarily install the document glass when checking the size sensors, to ensure that the document is the correct distance from the sensor.*

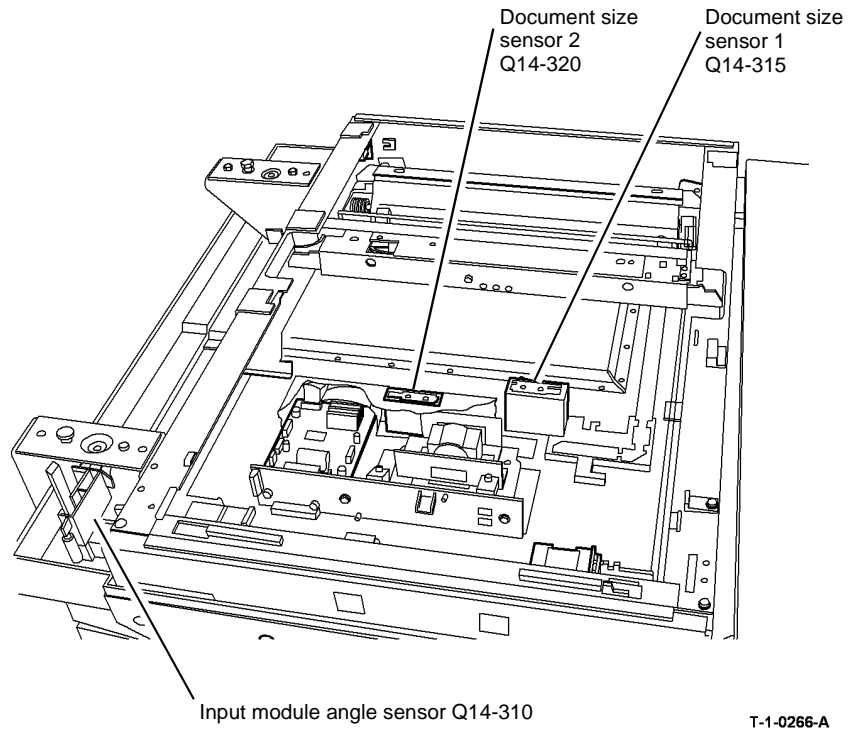
- [01D](#) +3.3V Distribution RAP.
- [01B](#) 0V Distribution RAP, refer to the 3.3V return.

Repair or install new components as necessary:

- Document size sensor, [PL 14.25 Item 3](#).
- Scanner PWB, [PL 14.25 Item 4](#).
- Scanner, [PL 14.20 Item 1](#).

The scanner is working correctly, perform [dC604](#) Registration Setup.

A B



**Figure 1 Component location**



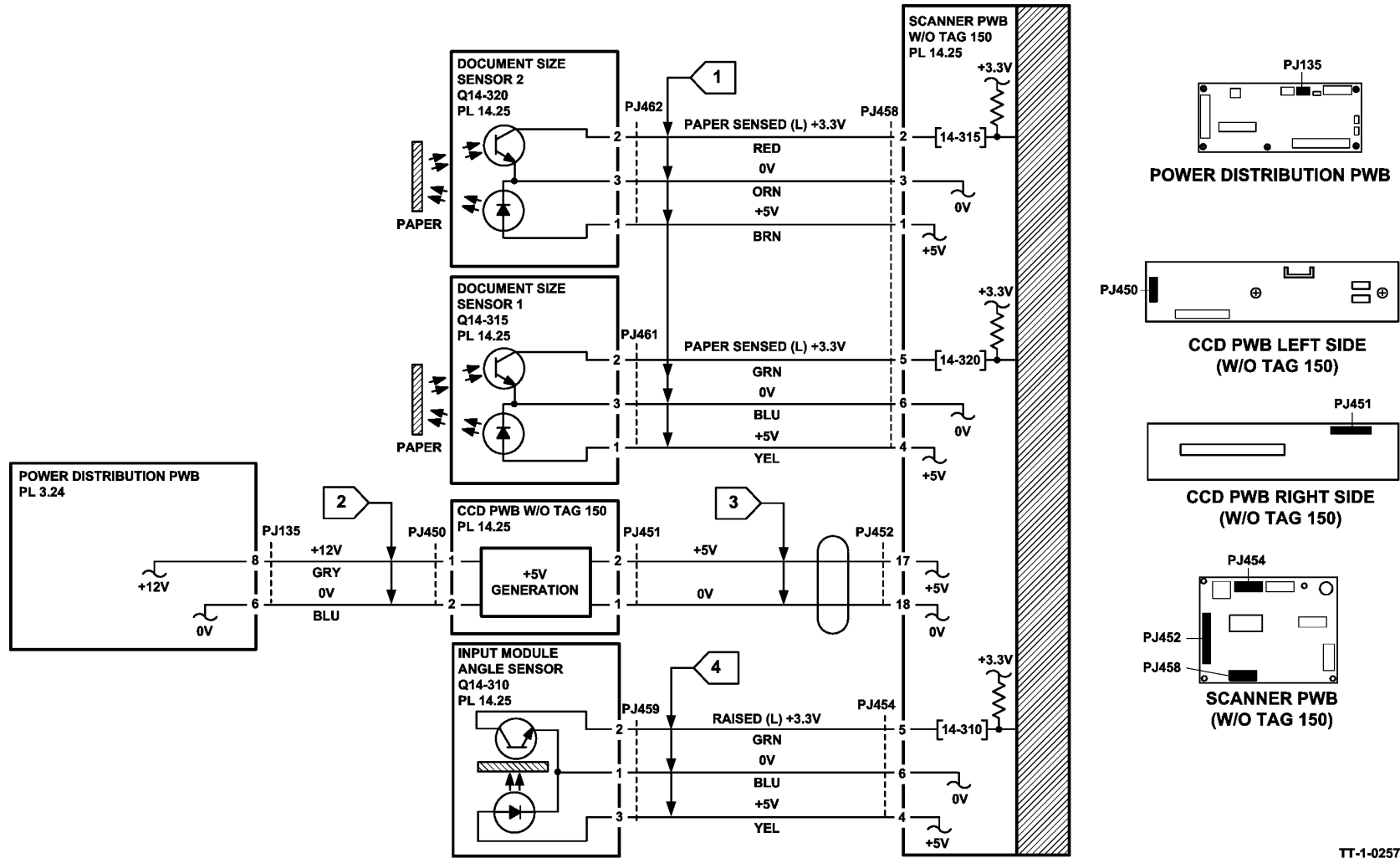


Figure 2 Circuit diagram

TT-1-0257-A

## 14C Scanning Document Size RAP (W/TAG 150)

### Initial Actions

Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [14A Scanning Document Size Entry RAP](#)

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

[Figure 1](#) shows the component location. Go to [Flag 1](#). Check the voltages at [P/J136](#) on the [power distribution PWB](#). As necessary, refer to:

- [01D](#) +3.3V Distribution RAP.
- [01E](#) +5V Distribution RAP.
- [01G](#) +24V Distribution RAP.
- [01B](#) 0V Distribution RAP.

Remove the following components,

- DADH, [REP 5.19](#).
- Document glass, [REP 14.6](#).
- Document size sensor cover, [REP 14.20](#).

Check the wiring between [P/J136](#) on the [power distribution PWB](#) in the single board controller PWB module and [P/J920](#) on the [scanner PWB](#). Repair as necessary, [REP 1.2](#) or install a new single board controller PWB/DADH comms/scanner power harness, [PL 14.15 Item 5](#).

Check that the input module angle sensor actuator is not damaged, if necessary, install a new actuator, [PL 14.15 Item 21](#).

Switch the machine off, then switch the machine on [GP 14](#). **The fault is still present**

Y N

Perform [SCP 6](#) final actions.

Reinstall the DADH, [REP 5.19](#). Enter the [dC330](#) input code 14-310, Document Handler Angle Sensor and actuate the input module angle sensor, Q14-310 by opening and closing the DADH.

**The display changes.**

Y N

Go to [Flag 2](#). Check the input module angle sensor, Q14-310. Refer to [GP 11](#), How to Check a Sensor.

Repair or install new components as necessary:

- Input module angle sensor, [PL 14.15 Item 16](#).
- Scanner PWB, [PL 14.15 Item 4](#).

Reinstall the document size sensor cover, [REP 14.20](#). Raise the DADH, enter the [dC330](#) input code 14-315, actuate the document size sensor 1, Q14-315 by placing a piece of paper above the sensor, [Figure 1](#). Enter the [dC330](#) input code 14-320 and repeat the test for document size sensor 2, Q14-320. **The display changes for both sensors.**

Y N

Go to [Flag 3](#). Check the document size sensors 1 and 2, refer to:

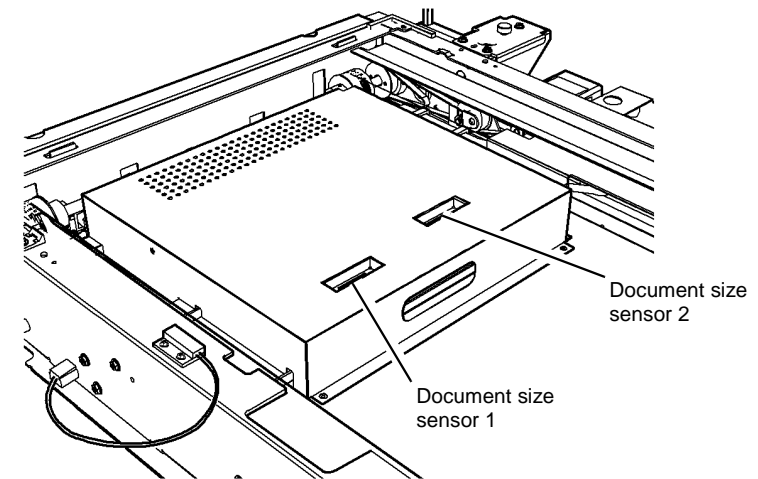
- [GP 11](#) How to Check a Sensor.

**NOTE:** If necessary, temporarily install the document glass when checking the size sensors, to ensure that the document is the correct distance from the sensor.

Repair or install new components as necessary:

- Document size sensor, [PL 14.15 Item 3](#).
- Scanner PWB, [PL 14.15 Item 4](#).

Reassemble the scanner, then perform [dC604](#) Registration Setup.



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**Figure 1 Component location**

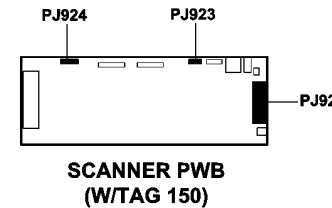
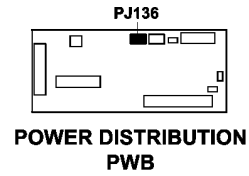
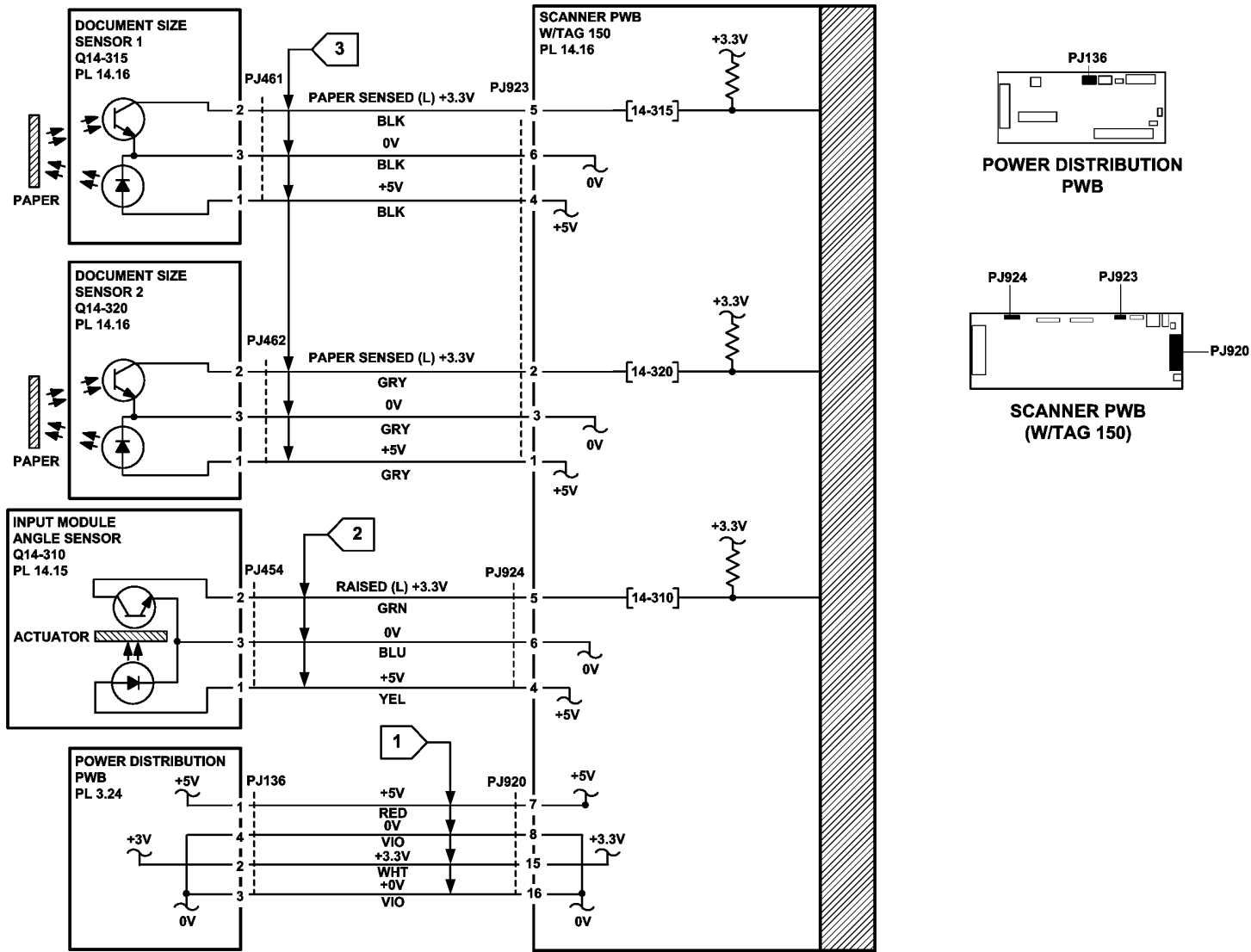


Figure 2 Circuit diagram

TT-1-0258-A

## 14D Exposure Lamp Failure RAP

(W/O TAG 150), use this RAP when the exposure lamp does not light, and there is no automatic gain control signal.

**NOTE:** For W/TAG 150 machines, go to the 14-703B to 14-706B, 712B, 714B, 718B Failure to Calibrate RAP (W/TAG 150).



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care, a hazardous voltage is present at the output of the exposure lamp inverter. Electricity can cause death or injury.

### Procedure

Go to Flag 2. Check the following voltages at P/J135 on the power distribution PWB.

- +24V between pins 1 and 3.
- +24V between pins 2 and 4.

The voltages are good.

Y N

Go to 01B 0V distribution RAP, refer to the 24V return and 01G +24V Distribution RAP.

Remove the CVT glass and document glass, REP 14.6. Remove the PWB cover, 3 screws, PL 14.25 Item 1. Re-install the scanner top cover and GUI, but do not install the screws. Re-connect the power cord, switch on the machine, GP 14.

Go to Flag 2. Check for the following voltages at P/J455 on the scanner PWB.

- +24V between pins 1 and 2.
- +24V between pins 3 and 4.

The voltages are good.

Y N

Check the harness between P/J135 and P/J455. Repair the harness, REP 1.2, or install a new harness, PL 14.25 Item 13.

Enter the dC330 output code 14-005. The exposure lamp illuminates.

Y N



### WARNING

Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.

Check the fuse, Figure 1. Refer to REP 14.2, to remove the fuse. The fuse is good.

Y N

Install a new fuse, PL 14.25 Item 11. Re-install the scanner top cover and GUI, but do not install the screws. Switch on the machine, GP 14. Enter the dC330 output code 14-005. The new fuse fails.

A B

Y N

The lamp is lit.

Y N

Go to Flag 1. Check the lamp ribbon harness between P/J456 and P/J463 for open or short circuits. The lamp ribbon harness is good.

Y N

Install a new lamp ribbon harness, PL 14.25 Item 10.

Install new components in the following order:

- Exposure lamp, PL 14.25 Item 9.
  - Exposure lamp inverter, PL 14.25 Item 12.
- Perform ADJ 14.1 Optics Cleaning Procedure.

Perform ADJ 14.1 Optics Cleaning Procedure.

Install new components in the following order:

- Exposure lamp, PL 14.25 Item 9 and exposure lamp fuse, PL 14.25 Item 11.
- Exposure lamp inverter, PL 14.25 Item 12 and exposure lamp fuse, PL 14.25 Item 11.

Perform ADJ 14.1 Optics Cleaning Procedure.

Switch on the copier. Go to Flag 1. Disconnect P/J456 and check the following voltages at P/J456 on the scanner PWB:

- +24V between pins 1 and 7.
- +24V between pins 2 and 8.
- +24V between pins 3 and 9.

The voltages are good.

Y N

Install a new scanner PWB, PL 14.25 Item 4.

Re-connect P/J456. Disconnect P/J463. Check the following voltages on the inverter end of the harness.

- +24V between pins 1 and 7.
- +24V between pins 2 and 8.
- +24V between pins 3 and 9.

The voltages are good.

Y N

Install a new lamp ribbon harness, PL 14.25 Item 10.

Re-connect P/J463. +10V is available at PJ/463 pin 4.

Y N

Install a new exposure lamp inverter, PL 14.25 Item 12.

+10V is available at PJ/456 pin 6.

Y N

Install a new lamp ribbon harness, PL 14.25 Item 10.

A B

A C

A C  
Go to **Flag 1**. Connect a test meter between pins 6 and 1 of **P/J456** on the **scanner PWB**. Enter the **dC330** output code 14-005. **The voltage changes from +10V to 0V when the code is entered.**

**Y N**

Install new components in the following order:

- Scanner PWB, **PL 14.25 Item 4**.
- Scanner, **PL 14.20 Item 1**.

Check the lamp ribbon harness between **P/J456** and **P/J463**. **The lamp ribbon harness is good.**

**Y N**

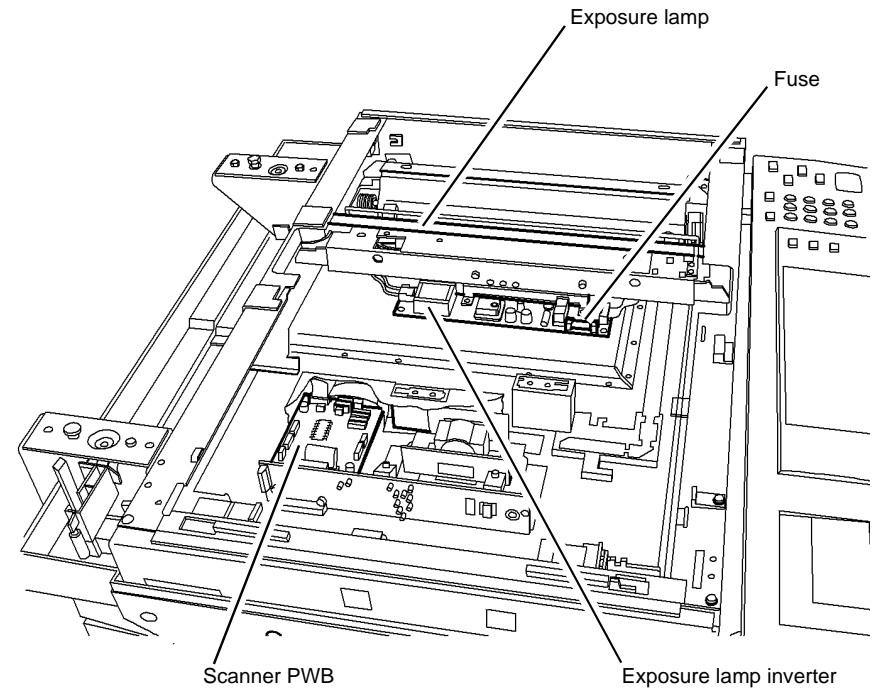
Install a new lamp ribbon harness, **PL 14.25 Item 10**.

Install new components in the following order:

- Exposure lamp, **PL 14.25 Item 9**.
- Exposure lamp inverter, **PL 14.25 Item 12**.
- Scanner PWB, **PL 14.25 Item 4**.

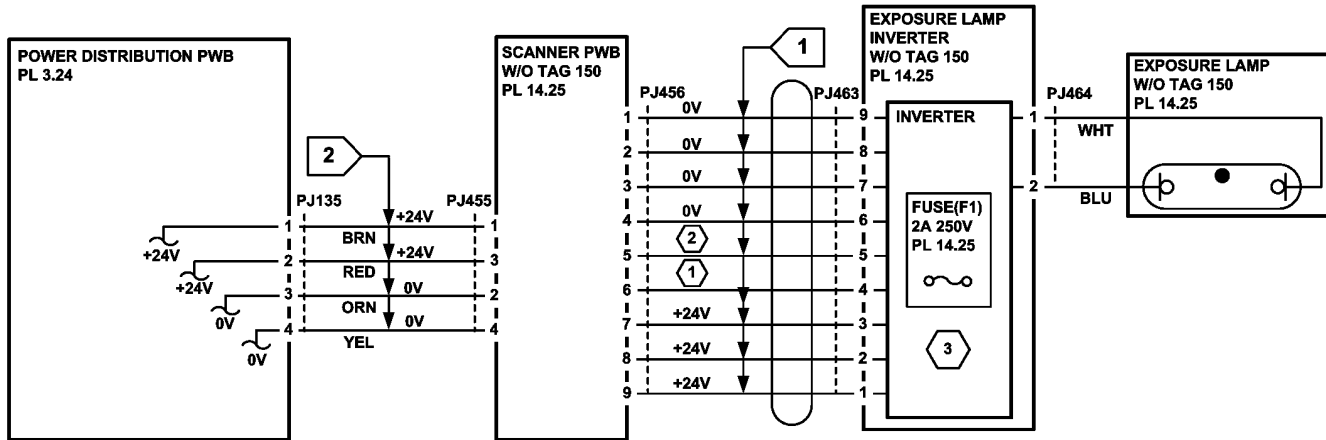
Perform **ADJ 14.1** Optics Cleaning Procedure.

The automatic gain control circuit does not see the light from the exposure lamp. Check for misplaced optics mirrors or an obstruction in the light path. If necessary, install a new scanner, **PL 14.20 Item 1**.



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**Figure 1** Exposure lamp, inverter and fuse.



- 1 LAMP ON (L) +10V
- 2 LAMP BRIGHTNESS CONTROL
- 3 THE +10V AVAILABLE AT PJ463 PIN 4 IS GENERATED ON THE EXPOSURE LAMP INVERTER

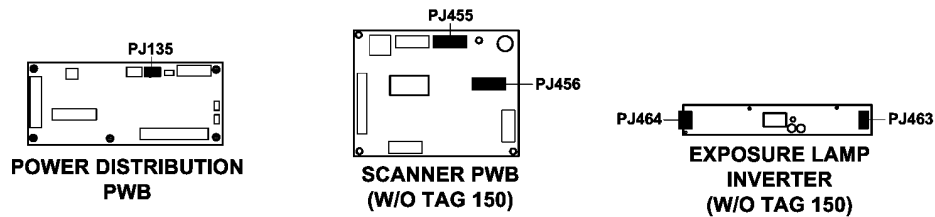


Figure 2 Circuit diagram

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## 16A Network Error Entry RAP

Use this RAP when the customer reports network failures. e.g. Cannot connect to the scan server when using the FPT or SMB protocols, or when a folder on the scan server cannot be opened.

**NOTE:** The fault message will be printed on the confirmation report. The report may take several minutes to print after scanning the document.

### Initial Actions

Consult your manager before troubleshooting the customer's network, as the policy varies according to region.

### Procedure

**NOTE:** If it is possible to log into the web UI by entering the IP address of the machine, then the network controller on the single board controller PWB is good.

Perform the following:

1. Check that the machines date and time are correctly set, refer to [GP 31](#).
2. Print a configuration report.
3. Check with customer that the printing of the confirmation report is enabled. If necessary, ask the customer to enable printing of the confirmation report.
4. Ensure that the machine is configured for scan to file:
  - a. Check the back of the configuration report under the heading Workflow Scanning (Default Repository).
  - b. If a IP address or name is not listed next to Protocol, ask the customer to configure the machine before continuing.
5. Go to the relevant procedure:
  - [16B](#) FTP or SMB Unable to Connect to Remote Server RAP.
  - [16C](#) Remote Directory Lock Failed RAP.

## 16B FTP or SMB Unable to Connect to Remote Server RAP

Either the machine cannot connect, find or login to the scan server.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

**NOTE:** The FTP/SMB protocol will be followed by a colon and port number, :21 is for FTP and :139 is for SMB.

Scan the document using the default template and one other template. **The fault is present on both templates.**

Y N

The template that failed is incorrectly configured. Ask the customer or system administrator to verify the settings of the web template that failed, including the login password.

Ask the customer to open the machines CWIS page. **The machines CWIS page can be opened.**

Y N

Look at the front of the configuration report. Make sure that HTTP is enabled and set to port 80. **The settings are correct.**

Y N

Enable HTTP, [GP 32](#) and set the port to 80 on the UI. Restart this RAP from the beginning. If this path has been followed previously, escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Disconnect the network cable from the machine. Make sure the PWS network adaptor settings are set to Auto. Use a crossover cable, [PL 26.10 Item 6](#) to connect the PWS to the machine. **Either the two LEDs on the SBC PWB or the PWS are lit, indicating a connection.**

Y N

Perform the following:

1. Change the network speed setting of the machine, [GP 35](#).
2. If either the two LEDs on the SBC PWB or the PWS are not lit, repeat the steps in [GP 35](#).
3. If the LEDs light, use the new network speed setting. Inform the customer that the network speed has been changed then follow the Yes path from this step.
4. If the LEDs do not light, install a new single board controller PWB, [PL 3.24 Item 3](#).

Correctly configure the IP address of the PWS, [GP 34](#). Make sure the firewall of the PWS is disabled, [GP 36](#). Ping the machine from the PWS, [GP 33](#).

**NOTE:** Re-enable the PWS firewall after completion of this procedure.

**The machine responds to the ping request.**

A

A

Y N  
Perform an Altboot, [GP 4](#).

**The machine software is up to date.**

Y N  
Upgrade the software, [GP 4](#). **The fault persists.**

Y N  
Perform [SCP 6](#) Final Actions.

Perform the [Customers Settings Check](#). **Changes were made to the customers settings.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job. **The job was successful.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform [SCP 6](#) Final Actions.

Perform the [Customers Settings Check](#). **Changes were made to the customers settings.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job. **The job was successful.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform [SCP 6](#) Final Actions.

Ask the customer to ping the scan servers IP address or name.

**NOTE:** *The scan server is the computer that the job is being sent. The scan servers IP address or name is displayed on the confirmation report.*

**The customer can ping the scan server.**

Y N  
Check the configuration report for default gateway IP address listed under TCP/IPv4 Settings. **A default gateway IP address is listed.**

B

B

Y N  
Perform the [Customers Settings Check](#). **Changes were made to the customers settings.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job. **The job was successful.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform [SCP 6](#) Final Actions.

**The customer can ping the default gateway IP address.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform the [Customers Settings Check](#). **Changes were made to the customers settings.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job. **The job was successful.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform [SCP 6](#) Final Actions.

Perform the [Customers Settings Check](#). **Changes were made to the customers settings.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job. **The job was successful.**

Y N  
Escalate the fault to the system Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform [SCP 6](#) Final Actions.



## Customers Settings Check

**NOTE:** Both the configuration and confirmation reports are required to check the customers settings. Corrections must be made through the machines CWIS page.

Check the following with the customer, ask the customer to correct any errors:

1. That the scan server is switched on and online.

**NOTE:** The scan server is the computer that the job is being sent.

2. That the scan servers IP address or name is correct.
3. That the path and user name are correct.
4. **(SMB protocol only)** That the Share name is correct, referred too as the Volume on the configuration report.
5. Check with System Administrator that the correct password has been entered on the machines CWIS page.

**NOTE:** The password is not printed on the configuration or confirmation reports.

## 16C Remote Directory Lock Failed RAP

Use this RAP when the customer reports that the machine has logged onto the scan server, but cannot create a folder inside of the scan directory. The creation of the scan folder is necessary for the machine to successfully complete the can to file job.

**NOTE:** The scan server is the computer that the job is being sent.

### Procedure

The machines login name that it is using to log onto the scan server, for this file repository, does not have sufficient rights. Ask the customer to verify the rights for this user at the scan server, or escalate the problem to their System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.



## 19-401, 19-402, 19-403 Out of Memory Resources RAP

19-401 Out of memory - stress document.

19-402 Out of memory - stress job.

19-403 Out of memory with greater than one job in EPC.

Also use this RAP when a fault code is not displayed but the machine fails to complete complex jobs.

Also use this RAP when memory related messages appear e.g.:

- Resources low, will start shortly.
- Please wait your job will start shortly.
- System memory is full. Please wait while memory resources are made available to continue your job. Do not press the start button again the scanner will start automatically. Or touch Cancel Job to cancel your job.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Switch off, then switch on the machine, GP 14.

### Procedure

Perform the following:

1. Re-seat the memory module, PL 3.24 Item 12.
2. If the fault remains, install a new components as necessary:
  - Memory module, PL 3.24 Item 12.
  - SBC PWB, PL 3.24 Item 3.

## 19-404 Compressor Time-out RAP

19-404 Video compressor DVMA time-out

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for DADH misfeed.
- Check for jammed paper before the fuser.
- If the job has mixed originals, make sure that Mixed Size Originals is selected on the UI.
- Switch off, then switch on the machine, GP 14.

### Procedure

Perform the following:

1. Check the history files for DADH 05-XX faults and if necessary perform the appropriate RAP.
2. (W/TAG 150 Only) perform the following:
  - a. Re-seat PJ922 on the scanner PWB.
  - b. Re-seat the scanner daughter PWB, PL 3.24 Item 20.
  - c. Install new components as necessary:
    - Scanner daughter PWB, PL 3.24 Item 20.
    - Scanner daughter PWB/scanner PWB video harness, PL 14.15 Item 13.
3. Perform the 03-315, 325, 347, 348, 349, 355, 400 Single Board Controller PWB Failure RAP.
4. If prints are mostly black, fuzzy or scrambled make sure that all grounding straps are secure. If necessary perform the 01A Ground Distribution RAP.

## 19-406 Loopback DVMA Time-out RAP

19-406 Video loop back DVMA time-out detected.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, **GP 14**.

### Procedure

Go to the **03-315, 325, 347, 348, 349, 355, 400** Single Board Controller PWB Failure RAP.

## 19-407, 19-408 Middle Function DVMA Time-out RAP

19-407 Video middle function DVMA input time-out.

19-408 Video middle function DVMA output time-out.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then switch on the machine, **GP 14**.

### Procedure

Go to the **03-315, 325, 347, 348, 349, 355, 400** Single Board Controller PWB Failure RAP.

## 19-409 Video Job Integrity Fault RAP

19-409 Video determines that it cannot guarantee the integrity of the job being processed.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- If the job has mixed originals, make sure that Mixed Size Originals is selected on the UI.
- Switch off the machine, then switch on the machine, [GP 14](#).

### Procedure

Go to the [03-315](#), [325](#), [347](#), [348](#), [349](#), [355](#), [400](#) Single Board Controller PWB Failure RAP.



## 20-302, 20-303 Fax Reset Failure RAP

The embedded fax PWB will automatically reset itself.

**20-302** Unexpected reset on the embedded fax PWB due to hardware or software error.

**20-303** Unrecoverable embedded fax PWB failed due to hardware or software error.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, **GP 5**.

### Procedure

Switch off the machine, then switch on the machine, **GP 14**. **The fault still occurs.**

Y N  
Perform **SCP 6** Final Actions.

Clear the fax card NVM. Go to **dC132**, select Embedded Fax NVM initialization and perform the routine, Reformat. **The fault is cleared.**

Y N  
Reload the software, **GP 4**. **The fault is cleared.**

Y N  
Go to the **20G** Embedded Fax Checkout RAP.

Perform **SCP 6** Final Actions.

Perform **SCP 6** Final Actions.

## 20-305 Fax System Low Memory Unrecoverable RAP

The embedded fax PWB will automatically reset itself.

**20-305** Unrecoverable fax system low memory due to hardware or software error

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, **GP 5**.

### Procedure

Switch off the machine, then switch on the machine, **GP 14**. **The fault still occurs.**

Y N  
Perform **SCP 6** Final Actions.

**(W/O TAG X-001)** The compact flash, **PL 20.10 Item 3** is installed correctly.

Y N  
Remove, then re-install the compact flash memory, **PL 20.10 Item 3**. If necessary install a new compact flash memory, **PL 20.10 Item 3**.

Clear the images from the embedded fax PWB. Go to **dC132** NVM Initialization. Select Embedded Fax NVM Initialization. Perform the routine, Reformat. **The fault is cleared.**

Y N  
Go to **dC132** fax card NVM initialization. Perform the routine Reformat. **The fault is cleared.**

Y N  
Reload the software **GP 4**. If the fault remains, install a new embedded fax PWB, **PL 20.10 Item 4**.

Perform **SCP 6** Final Actions.

Perform **SCP 6** Final Actions.

## 20-320 Fax Fault Not Cleared RAP

**20-320** After five instances of an unrecoverable fax fault and has not been cleared by a card reset.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, GP 5.

### Procedure

Switch off the machine, then switch on the machine, GP 14. **The fault still occurs.**

Y N  
Perform SCP 6 Final Actions.

**(W/O TAG X-001) The compact flash, PL 20.10 Item 3 is installed correctly.**

Y N  
Remove, then re-install the compact flash memory, PL 20.10 Item 3. If necessary install a new compact flash memory, PL 20.10 Item 3.

Clear the fax card NVM. Go to dC132 NVM Initialization. Select Embedded Fax NVM initialisation. Perform the routine, Reformat. **The fault is cleared.**

Y N  
Reload the software, GP 4.

Perform SCP 6 Final Actions.

## 20-322 Fax Non-Volatile Device not Present RAP

**20-322** The non-volatile device has not been installed on the embedded fax PWB.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, GP 5.

### Procedure

Switch off the machine, then switch on the machine, GP 14. **The fault still occurs.**

Y N  
Perform SCP 6 Final Actions.

**(W/O TAG X-001) The compact flash, PL 20.10 Item 3 is installed correctly.**

Y N  
Remove, then re-install the compact flash memory, PL 20.10 Item 3. If necessary install a new compact flash memory, PL 20.10 Item 3.

Clear the fax card NVM. Go to dC132, NVM Initialization. Select Embedded Fax NVM initialisation. Perform the routine, Reformat. **The fault still occurs.**

Y N  
Perform SCP 6 Final Actions.

Install new components as necessary:

- (W/O TAG X-001) Compact flash memory, PL 20.10 Item 3.
- Embedded fax PWB, PL 20.10 Item 4.



## 20-323, 20-324 Fax System Memory Low RAP

**20-323** The fax system memory is low, less than 6Mb.

**20-324** There is not enough memory to use the fax service.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, [GP 5](#).

### Procedure

Switch off the machine, then switch on the machine, [GP 14](#). **The fault still occurs.**

**Y N**  
Perform [SCP 6](#) Final Actions.

**(W/O TAG X-001) The compact flash, [PL 20.10 Item 3](#) is installed correctly.**

**Y N**  
Remove, then re-install the compact flash memory, [PL 20.10 Item 3](#). If necessary install a new compact flash memory, [PL 20.10 Item 3](#).

Clear the fax card NVM. Go to [dC132](#), NVM Initialization. Select Embedded Fax NVM initialisation. Perform the routine, Reformat. **The fault still occurs.**

**Y N**  
Perform [SCP 6](#) Final Actions.

Install new components as necessary:

- (W/O TAG X-001) Compact flash memory, [PL 20.10 Item 3](#).
- Embedded fax PWB, [PL 20.10 Item 4](#).

## 20-327 Extended Fax PWB Failure RAP

**20-327** The registers cannot be accessed on the extended fax PWB.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, [GP 5](#).

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Check if the extended fax PWB is installed, [PL 20.10 Item 2](#).
3. Check that the extended fax PWB is connected correctly to the embedded fax PWB.
4. Check that the embedded fax PWB is connected correctly in the riser PWB.
5. If an extended fax PWB has just been installed and the Fax continues to reset with an error message. Perform the following:
  - a. Remove the extended fax PWB from the embedded fax PWB and install the embedded fax PWB back into the machine.
  - b. Complete the removal procedure in [22-417](#) Embedded Fax Remove Failure RAP.
  - c. Remove the embedded fax PWB and install the extended fax PWB onto it.
  - d. Install the embedded fax PWB and extended fax PWB and complete the install procedure.
6. If necessary, install a new extended fax PWB, [PL 20.10 Item 2](#).

## 20-331, 20-339, 20-341 Fax Network Line 1 Fault RAP

**20-331** No communication via the PSTN 1 port.

**20-339** Fault at fax port 1 on the fax card.

**20-341** Miscellaneous faults on the embedded fax PWB.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Do not touch the test pads on the embedded fax PWB while the machine is switched on. Dangerous voltages may be present that could cause death or injury.

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, **GP 5**.

### Procedure

Switch off the machine, then switch on the machine, **GP 14**. **The fault still occurs.**

**Y N**  
Perform **SCP 6** Final Actions.

(W/O **TAG X-001**) Check the connection pins on the extended Fax PWB, **GP 7**. **The pins are good.**

**Y N**  
Install a new extended fax PWB, **PL 20.10 Item 2**.

Check that the customer line is operational, plug a phone into the line and check for a dial tone. If a phone is not available then use a line test tool, **PL 26.10 Item 3**. **The phone line connection is good.**

**Y N**  
The telephone line has a fault, inform the customer to have the line checked by the telephone company.

Install new components in the following order:

- Telephone cable, **PL 20.10 Item 8**.
- Embedded fax PWB, **PL 20.10 Item 4**.

## 20-332, 20-340 Fax Network Line 2 Fault RAP

**20-332** No communication via the PSTN 2 port.

**20-340** Fault at port 2 on the extender fax PWB.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, **GP 5**.

### Procedure

Switch off the machine, then switch on the machine, **GP 14**. **The fault still occurs.**

**Y N**  
Perform **SCP 6** Final Actions.

Check the connection pins on the extended fax PWB, **GP 7**. **The pins are good.**

**Y N**  
Install a new extended fax PWB, **PL 20.10 Item 2**.

Check that the customer line is operational, plug a phone into the line and check for a dial tone. If a phone is not available then use a line test tool, **PL 26.10 Item 3**. **The phone line connection is good.**

**Y N**  
The telephone line has a fault, advise the customer to have the line checked by the telephone company.

Install new components in the following order:

- Telephone cable, **PL 20.10 Item 8**.
- Embedded fax PWB, **PL 20.10 Item 4**.

## 20-342 Fax File Integrity Fault RAP

**20-342** An error has occur when accessing the file on a non-volatile device.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, GP 5.

### Procedure

Switch off the machine, then switch on the machine, GP 14. **The fault still occurs.**

**Y N**  
Perform SCP 6 Final Actions.

**(W/O TAG X-001) The compact flash, PL 20.10 Item 3 is installed correctly.**

**Y N**  
Remove, then re-install the compact flash memory, PL 20.10 Item 3. If necessary install a new compact flash memory, PL 20.10 Item 3.

Clear the fax card NVM. Go to dC132 NVM Initialization. Select Embedded Fax NVM initialisation. Perform the routine, Reformat. **The fault is cleared.**

**Y N**  
Reload the software, GP 4.

Perform SCP 6 Final Actions.

## 20-701 Fax Phone Book Download Failed Entry RAP

**20-701** The fax phone book down load failed.

### Procedure

Go to the relevant procedure:

- (W/O TAG X-001) 20-701A Fax Phone Book Download Failed RAP (W/O TAG X-001).
- (W/TAG X-001) 20-701B Fax Phone Book Download Failed RAP (W/TAG X-001).

## 20-701A Fax Phone Book Download Failed RAP (W/O TAG X-001)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [20-701 Fax Phone Book Download Failed Entry RAP](#).
- Check that the embedded fax PWB is correctly grounded. Ensure that the grounding strip, [PL 20.10 Item 7](#) is securely attached to the bracket of the embedded fax PWB.
- Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, [GP 5](#).

### Procedure

Switch off the machine, then switch on the machine, [GP 14](#). **The fault still occurs.**

Y N  
Perform [SCP 6 Final Actions](#).

Retry to download the fax phone book. **The phone book downloads.**

Y N  
Check the connection between the embedded fax PWB, [PL 20.10 Item 4](#) and the riser PWB, [PL 3.22 Item 3](#). **The connections are good.**

Y N  
Install new components as necessary:

- Riser PWB, [PL 3.22 Item 3](#).
- Embedded fax PWB, [PL 20.10 Item 4](#).

**The fault still occurs.**

Y N  
Perform [SCP 6 Final Actions](#).

Install a new compact flash memory, [PL 20.10 Item 3](#). If the fault remains, reload the machine software, [GP 4](#).

Perform [SCP 6 Final Actions](#).

## 20-701B Fax Phone Book Download Failed RAP (W/TAG X-001)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the [20-701 Fax Phone Book Download Failed Entry RAP](#).
- Check that the embedded fax PWB is correctly grounded. Ensure that the grounding strip, [PL 20.10 Item 7](#) is securely attached to the bracket of the embedded fax PWB.
- Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, [GP 5](#).

### Procedure

Perform the following:

1. Reload the machine software, [GP 4](#).
2. Install a new single board controller, [PL 3.24 Item 3](#).

## 20-710, 20-711 Image Overwrite Error Entry RAP

**20-710** Immediate image overwrite error has occurred on the fax card when overwriting the job.

**20-711** On demand image overwrite error has occurred on the fax card when overwriting the compact flash memory.

### Procedure

Go to the relevant procedure:

- (W/O TAG X-001) 20-710A, 20-711A Image Overwrite Error RAP (W/O TAG X-001).
- (W/TAG X-001) 20-710B, 20-711B Image Overwrite Error RAP (W/TAG X-001).

## 20-710A, 20-711A Image Overwrite Error RAP (W/O TAG X-001)

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 20-710, 20-711 Image Overwrite Error Entry RAP.
- Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, GP 5.

### Procedure

Switch off the machine, then switch on the machine, GP 14. **The fault still occurs.**

Y N

Perform SCP 6 Final Actions.

**(W/O TAG X-001) The compact flash, PL 20.10 Item 3 is installed correctly.**

Y N

Remove, then re-install the compact flash memory, PL 20.10 Item 3. If necessary install a new compact flash memory, PL 20.10 Item 3.

Clear the fax card NVM. Go to dC132, NVM Initialization. Select Embedded Fax NVM initialisation. Perform the routine, Reformat. **The fault still occurs.**

Y N

Perform SCP 6 Final Actions.

Install new components as necessary:

- Compact flash memory, PL 20.10 Item 3.
- Embedded fax PWB, PL 20.10 Item 4.

## 20-710B, 20-711B Image Overwrite Error RAP (W/TAG X-001)

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Make sure that the correct RAP is used. To identify the correct RAP to use, go to the 20-710, 20-711 Image Overwrite Error Entry RAP.
- Make a backup of the phone book and the customer settings, using the NVM save and restore tool on the PWS. Refer to Portable Work Station and Tools, GP 5.

### Procedure

Switch off the machine, then switch on the machine, GP 14. **The fault still occurs.**

Y N  
Perform SCP 6 Final Actions.

Clear the fax card NVM. Go to dC132, NVM Initialization. Select Embedded Fax NVM initialisation. Perform the routine, Reformat. **The fault still occurs.**

Y N  
Perform SCP 6 Final Actions.

Perform an Altboot, GP 4. **The fault still occurs.**

Y N  
Perform SCP 6 Final Actions.

Install new components as necessary:

- Hard disk drive, PL 3.22 Item 2.
- Embedded fax PWB, PL 20.10 Item 4.
- Single board controller PWB, PL 3.24 Item 3.

## 20A Fax Entry RAP

Use this RAP to isolate components which contribute to Fax communications failure.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check that the telephone line cables are properly connected. Fax line 1 from the telephone line outlet connects to line 1 socket on the machine. If fitted, fax line 2 from the telephone line outlet connects to line 2 socket on the machine, Figure 1.
- Use a hand set to dial remote number and listen to dial type, (tone / pulse)
- (W/O TAG X-001 machines only) Perform 20H Embedded Fax PWB Voltage Checkout.
- Check the ground connection on the embedded fax PWB. Go to the 01A Ground Distribution RAP and refer to figure 16 and figure 17.
- Check the Fault History. If the fault codes are 20-331, 20-339, 20-341 or 20-332, 20-340, then go to the appropriate RAP.
- Check the Fax setup for any active feature that would inhibit the sending of a fax, such as: Delayed start time, Local name and ID are set, Dialing type or junk fax prevention.  
Enter Tools / Fax Setup and check the following:
  - Country setting
  - Line Selection
  - Line Configuration
  - Dial type setting, tone / pulse.
- Enter dC109 Embedded Fax Protocol Report and check for error codes.
- Enter Tools / Fax Setups / Fax Reports. Print a Activity Report and check for error codes.

### Procedure

**The Fax tab is available**

Y N  
Go to the 20F Fax Tab Not Available RAP.

**The machine will send a fax to all machines.**

Y N  
**The machine will send a fax to some machines.**

Y N  
Go to the 20B Unable To Send A Fax RAP.

Go to the 20C Unable To Send A Fax To Some Machines RAP.

**The machine will receive a fax from the remote machine.**

Y N  
Go to 20D Unable To Receive A Fax RAP.

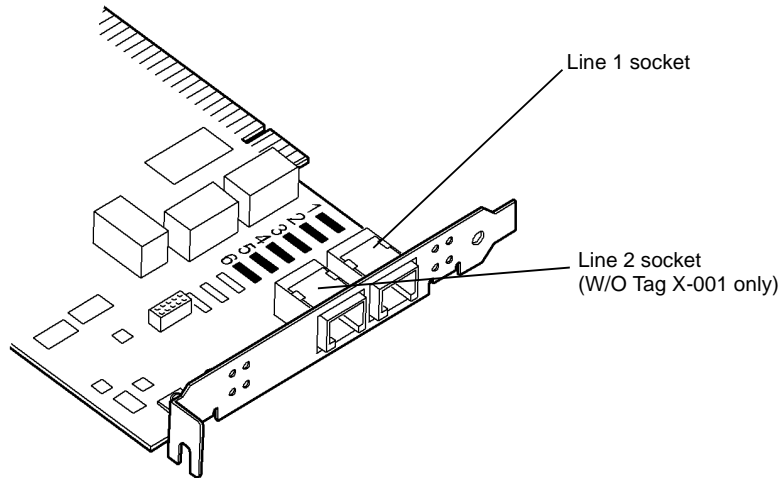
**The fax prints out.**

Y N  
Go to the 20E Fax Will Not Print RAP.

The fault is cleared.

Y N  
Go to the 20G Embedded Fax Checkout RAP.

The fax is working correctly. Send a three page test fax to a known good fax machine. Print a Protocol Report and check for errors.



T-1-0269-A

Figure 1 Line 1 and line 2 sockets

## 20B Unable To Send A Fax RAP

Use this RAP to isolate components which contribute to a send failure.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



Do not touch the test pads on the embedded fax PWB while the fax cable is connected to the machine. Dangerous voltages may be present that could cause death or injury.

Go to the 20A Fax Entry RAP and complete all of the initial actions.

### Procedure

**NOTE:** Refer to the *Fax NVM Document* for the fax NVM values.

Verify with the customer that PSTN / PABX (Public Switched Telephone Network / Private Automatic Branch Exchange) line is operational. Connect a telephone handset into line outlet and listen for a dial tone. Use a known good telephone handset. **The dial tone is present.**

Y N  
Use the line test tool, PL 26.10 Item 3 to check the telephone line. **The green normal indicator light is on.**

Y N  
Ask the customer to request a line check by the telephone company.

Use a telephone handset to dial a known good number. **The ring back is heard.**

Y N  
Ask the customer to request a line check by the telephone company.

Enable audio line monitor (Enter Tools / Fax setups / Fax Transmission defaults / audio line monitor) and set to ON and High volume.

Dial the fax number and listen for a dial tone or dialing and answer tones. **A fax tone is present.**

Y N  
(W/O TAG X-001) Reset the NVM value at the following locations:  
20-281 Line1CurrentDetect = 0  
20-282 Line2CurrentDetect = 0 **A Fax tone is present.**

Y N  
Go to the 20G Embedded Fax Checkout.  
Install new components as necessary:

- Embedded fax PWB, PL 20.10 Item 4.
- Telephone cable, PL 20.10 Item 8.

The fax is working correctly. Send a three page test fax to a known good fax machine. Print a Protocol Report and check for errors.

A B

A B  
**The dial tone and dialling answer tones are present.**

Y N

The exchange is receiving the digits too quickly or is not processing the digits correctly. Ask the customer if the exchange is DTMF (Dual Tone Multiple Frequency) or pulse dialing.

Perform the following:

- Ensure that the machine is set for the correct dialing tone.  
Reset the values at location 20-230 FaxLine1DialTypeDef and at location 20-231 FaxLine2DialTypeDef set to 0 = Tone or 1 = Pulse.
- Insert a pause (,) between the first and second digit of the dial string. In the Dialling Options select Dialling Characters / Pause / Add Character / Save.

The fax only dials once and hangs up or the busy tone has unusual timing, frequency or level. **The busy tones are recognized.**

Y N

Check the number for a voice or tone answer.

Check that the values at location 20-461 to 20-466 are set to the correct defaults to match the appropriate country setting.

The fax is working correctly. Send a three page test fax to a known good fax machine. Print a Protocol Report and check for errors. Re-enter the details from the fax options

Check that the customer is dialing the correct number. **The number is correct.**

Y N

Ask the customer to dial the number using the appropriate access codes.

Enable audio line monitor (Enter Tools / Fax setups / Fax Transmission defaults / audio line monitor) and set to ON max time and High volume.

Dial the fax number and listen for a dial tone or dialing and answer tones. **A fax tone is present.**

Y N

(W/O TAG X-001) Reset the value at the following locations:

20-281 Line1CurrentDetect = 0

20-282 Line2CurrentDetect = 0 **A Fax tone is present.**

Y N

Go to the 20G Embedded Fax Checkout.

Install new components as necessary:

- Embedded fax PWB, PL 20.10 Item 4.
- Telephone cable, PL 20.10 Item 8.

The fax is working correctly. Send a three page test fax to a known good fax machine. Print a Protocol Report and check for errors.

**The dial tone and dialling answer tones are present.**

Y N

The exchange is receiving the digits too quickly or is not processing the digits correctly. Ask the customer if the exchange is DTMF (Dual Tone Multiple Frequency) or pulse dialing.

Perform the following:

- Ensure that the machine is set for the correct dialing tone.

C

Reset the values at location 20-230 FaxLine1DialTypeDef and at location 20-231 FaxLine2DialTypeDef set to 0 = Tone or 1 = Pulse.

- Insert a pause (,) between the first and second digit of the dial string. In the Dialling Options select Dialling Characters / Pause / Add Character / Save.
- Set NVM Location 20-621 FaxTimeBeforeDial to 13.

The fax only dials once and hangs up or the busy tone has unusual timing, frequency or level.

**Are the busy tones recognized.**

Y N

• Check the number for a voice or tone answer.

• Check that the values at location 20-461 to 20-466 are set to the correct defaults to match the appropriate country setting.

The fax is working correctly. Send a three page test fax to a known good fax machine. Print a Protocol Report and check for errors. Re-enter the details from the fax options

C



## 20C Unable To Send A Fax To Some Machines RAP

Use this RAP to isolate components which contribute to a failure to send a Fax to some machines.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Go to the 20A Fax Entry RAP and complete all of the initial actions.

### Procedure

**NOTE:** Refer to the *Fax NVM Document* for the fax NVM values.

The correct number is being dialled to make the connection. **The connection is made.**

- Y N
- The exchange is not processing the digits correctly, the machine needs longer pause between digits.
- Insert a pause (,) between the first and second digit of the dial string. In the Dialling Options select Dialling Characters / Pause / Add Character / Save.
  - Change the setting at location 20-640 FaxDTMFInterdigitTime to 100.

Call the fax number from a known good telephone and listen for the answer fax tone. **The Fax tone is heard.**

- Y N
- Fax on remote end is not picking up or no Fax is connected. Advise customer to check the machine at the remote end.

Enter dC109 and print a Protocol Report. The Protocol Report shows RNR (Receive Not Ready) is received from the remote Fax repeatedly until time out and DCN (Disconnect). Check communication failure after V34-PH2 / V34-PH3 or DCS / TCF. **The remote Fax receives and prints the Fax.**

- Y N
- Compatibility problem with remote Fax.
- Print a Protocol Report and check for communication errors.
  - Line quality too poor for Super G3 to function correctly. Possible mains interference on line.
  - Disable V34 (Super G3). Reset the value at the following locations:
    - 20-287 T30MaxSpeedL1Tx = 11 (14400).
    - 20-288 T30MaxSpeed2Tx = 11 (14400).(W/O TAG X-001) If mains noise, install and use line 2 instead of line 1.
  - (W/O TAG X-001) When sending to a PC fax or fax server that has an ISDN card, need to customize the CEQ values. Set the value at location 20-832 and 20-833 to 0.

A  
The Protocol Report shows MCF (Message Confirmation) is not sent by the remote Fax (last page), only DCN (Disconnect). **The failure report printed out but the remote fax prints multiple copies of the job or failed page.**

- Y N
- The Fax is working correctly. Send a three page test Fax to a known good Fax machine. Print a Protocol Report and check for errors.

The machine will resend up to 10 times before printing the failure report.  
Enter Tools / Fax Setups / Fax Transmission Defaults / Automatic Resend. Set Auto Resend Attempts to 1 or 2.

A

## 20D Unable To Receive A Fax RAP

Use this RAP to isolate components which contribute to the fax not received from the machine.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Do not touch the test pads on the embedded fax PWB while the fax cable is connected to the machine. Dangerous voltages may be present that could cause death or injury.

Go to the **20A** Fax Entry RAP and complete all of the initial actions.

### Procedure

**NOTE:** Refer to the *Fax NVM Document* for the fax NVM values.

Verify with the customer that PSTN / PABX (public switched telephone network / private automatic branch exchange) line is operational. Use a known good telephone handset or use the line test tool, **PL 26.10 Item 3** to check the telephone line. **The dial tone is present.**

**Y N**

Ask the customer to request a line check by the telephone company.  
Ensure Fax service is enabled and supported on that line by a PBX administrator.

Call the handset from another telephone. **The phone rings.**

**Y N**

Ask the customer to request a line check by the telephone company.  
Ensure Fax service is enabled and supported on that line by a PBX administrator.

Enable audio line monitor (Enter Tools / Fax Setups / Fax Transmission defaults / audio line monitor) and set to ON and High volume.

Dial the Fax number and listen for a dial tone or dialing and answer tones. **A Fax tone is present.**

**Y N**

(W/O **TAG X-001**) Reset the value at the following location:  
20-281 Line1CurrentDetect = 0  
20-282 Line2CurrentDetect = 0 **A Fax tone is present.**

**Y N**

Go to **20G** Embedded Fax Checkout  
Install new components as necessary:

- Embedded fax PWB, **PL 20.10 Item 4**.
- Telephone cable, **PL 20.10 Item 8**.

The fax is working correctly. Send a three page test fax to a known good fax machine.  
Enter **dC109** and print a Protocol Report and check for errors.

**A**

Reconnect the fax and call the fax number from a independent telephone line and listen for a Fax tone. **The machine answers and a fax tone is heard.**

**Y N**

Print Activity Report. Check for receive calls on the Activity Report. Machine probably does not bleep to indicate incoming call.

Check that the NVM values at location 20-222 and at location 20-654 to 20-658 are set to the correct defaults to match the appropriate country setting. **The machine answers and a Fax tone is heard.**

**Y N**

Go to the **20G** Embedded Fax Checkout  
Install new components as necessary:

- Embedded fax PWB, **PL 20.10 Item 4**.
- (W/O **TAG X-001**) Compact flash memory, **PL 20.10 Item 3**.

The Fax is working correctly. Send a three page test Fax to a known good Fax machine.  
Print a Protocol Report and check for errors.

Receive a three page test Fax from the original Fax machine. Enter **dC109** and print a Protocol Report and check for errors. **The Protocol Report shows communication failure after CSI / DIS (Called Subscriber Identified / Digital Identification Signal) or DCS / TCF (Digital Command Signal / Training Check) or (W/O TAG X-001) after V34-PH2 / V34-PH3 or EQM (Eye Quality Monitor) value greater than 5000.**

**Y N**

The problem may be intermittent, inform the operator of the remote machine, they should report the problem to the telephone company.

Perform the following:

- Confirm line is standard PSTN / PBX analogue line
  - Line quality too poor for Super G3 or G3 to function correctly. Possible mains interference on line. Possible DSL line, not properly filtered.
  - Ask customer to request Fax capable service from telephone company.
  - If mains noise, install a (W/O **TAG X-001**) embedded fax PWB, **PL 20.10 Item 4** and an extended fax PWB, **PL 20.10 Item 2**. Use line 1.
  - Disable the advanced fax features. Login to Customer Administration Tools, **GP 24**. Select Fax Setups / Receive Defaults / Advanced Capabilities / Disable.
  - Disable V34 (Super G3). Reset the value at the following locations:
    - 20-289 T30MaxSpeedL1Rx = 11 (14400)
    - 20-290 T30MaxSpeedL2Rx = 11 (14400)
- If the problem still exists try a lower line receive (Rx) speed: 12 = 12000, 13 = 9600, 14 = 7200, 15 = 4800, 16 = 2400
- Send a three page test Fax from a known good fax machine. Enter **dC109** and print a Protocol Report and check for errors.

**A**

## 20E Fax Will Not Print RAP

Use this RAP to solve fax printing problems.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper in all trays. Refer to [IQ1](#) and [GP 20](#).
- Check that the paper trays are loaded with the appropriate paper sizes for printing the Fax.

### Procedure

- If the received fax has mixed size documents (example, the first prints are 8.5 x 11 and then followed by 8.5 x 14 prints). Check in the 'All Incomplete Jobs' queue, the job will print 8.5 x 11 pages without printing 8.5 x 14 pages and then the job will be deleted.

Perform the following:

In Tools menu, go to Fax setup and select:

- Receive Defaults.
- Receive Printing mode and change to Manual.
- In paper sizes, select correct page for each size to match the paper in the tray.
- Save and then change back to Auto. Save and Exit.

- If the User Interface is asking for a size paper that is not loaded in trays.

Perform the following:

In Tools menu, go to Fax setup and select:

- Receive Defaults.
- Receive Printing mode.
- Select manual, change small paper setting to None and Save.

**NOTE:** For small, long and large paper sizes select NONE if the corresponding paper is not loaded in the paper trays.

- Change setting to Auto and Save.

## 20F Fax Tab Not Available RAP

Use this RAP to isolate the problem when the Fax tab is not available or greyed out.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off the machine, then switch on the machine, [GP 14](#).
- Check for the correct installation of the embedded fax option. Refer to the system administration guide CD1, for the install instruction. Follow the screen prompts.

### Procedure

**The Fax tab is displayed on the user interface screen.**

Y N

The fax installation was not completed.

Go to Tools / Options services / Embedded Fax. Select Enable and Save. Switch off the machine and switch on the machine, [GP 14](#). This will initiate the 'Fax Install Wizard' and follow the prompts on the screen to complete the install of the Fax. If the procedure fails to result in the Fax tab being displayed, perform a forced AltBoot.

**The Fax tab is displayed after installation.**

Y N

Check that the embedded fax PWB and the (W/O [TAG X-001](#)) compact flash memory are installed correctly. Perform the following:

1. Switch off the machine, [GP 14](#).
2. (W/O [TAG X-001](#)) Remove, then install the compact flash card.
3. Check the following connections:
  - Between the embedded fax PWB, [PL 20.10 Item 4](#) and the riser PWB, [PL 3.22 Item 1](#).
  - Between the single board controller PWB, [PL 3.24 Item 3](#) and the riser PWB, [PL 3.22 Item 1](#).
4. Switch on the machine, [GP 14](#).

**The super fine tab is displayed.**

Y N

The Server Fax may be enabled.

Go to Tools / Optional Services / Embedded Fax and press enable Embedded Fax. This will disable the Server Fax.

**After installing embedded fax. The fax selection tab is greyed out and requesting a pass code to enable the embedded fax (scan to E-mail fitted).**

Y N

The fax is installed correctly. Send a three page test fax to a known good fax machine. Print a Protocol Report and check for errors.

Perform an AltBoot, [GP 4](#).

**NOTE:** Software should only be loaded on a working machine. Loading or reloading software onto a machine (or fax card) that has a fault will not work.

## 20G Embedded Fax Checkout

Use this RAP to check for problems with the embedded Fax PWB.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Do not touch the test pads on the embedded fax PWB while the fax cable is connected to the machine. Dangerous voltages may be present that could cause death or injury.

- Switch off the machine, then switch on the machine, GP 14.
- Check that the embedded fax PWB is located correctly, Figure 1.
- Check that the embedded fax PWB is correctly grounded. Ensure that the grounding strip, PL 20.10 Item 7 is securely attached to the bracket of the embedded fax PWB.
- (W/O TAG X-001) If an extended fax PWB has just been installed and the fax continues to reset with an error message. Refer to 20-327 Extended Fax PWB failure RAP
- For copy quality defects, go to the IQ9 Unacceptable Received Facsimile Image Quality RAP.

### Procedure

Go to Flag 1. Check the voltages at P/J155. The voltages are good.

Y N

Refer to the following:

- 01B 0V Distribution RAP.
- 01D +3.3V Distribution RAP
- 01E +5V Distribution RAP
- 01F +12V Distribution RAP

If necessary install a new riser PWB, PL 3.22 Item 3.

Switch off the machine GP 14. Disconnect the following:

- The embedded fax PWB from the riser PWB.
- The riser PWB from the single board controller PWB.

Check that the connectors are clean and not damaged. If the connectors are damaged then install new components as necessary:

- Riser PWB, PL 3.22 Item 3.
- Embedded fax PWB, PL 20.10 Item 4.
- Single board controller PWB, PL 3.24 Item 3.

Reconnect the following:

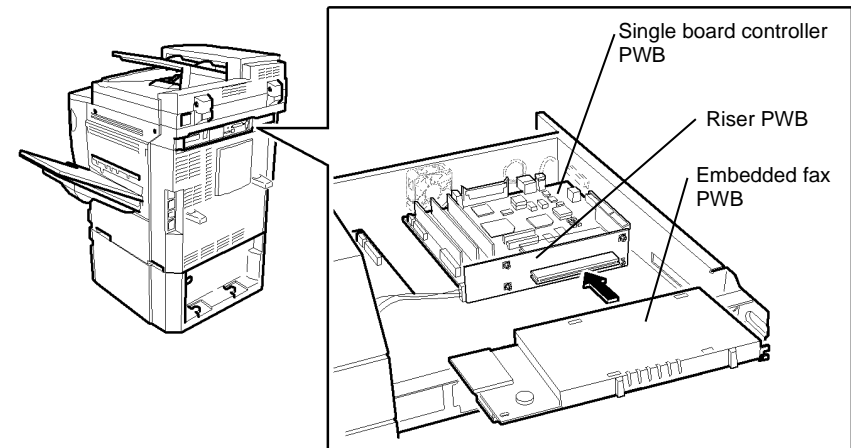
- The riser PWB to the single board controller PWB.
- The embedded fax PWB to the riser PWB.

Switch on the machine, GP 14. The fault is cleared.

Y N

Return to the original fault code RAP and perform the remaining actions in the procedure.

Perform SCP 6 Final Actions.



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Figure 1 Component location

## 20H Embedded Fax PWB Voltage Checkout (W/O TAG X-001)

Use this procedure when there is communication or image quality defects with the fax. The image quality defects are caused by electrical noise on the line.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



Do not touch the test pads on the embedded fax PWB while the fax cable is connected to the machine. Dangerous voltages may be present that could cause death or injury.

**NOTE:** The voltages on the embedded fax PWB test pads can be between 50V to 100V AC if the machine has a ground problem or is in receipt a fax.

Perform the following:

1. Switch off the machine, [GP 14](#).
2. Disconnect the fax cable from the single board controller PWB.
3. Remove the embedded fax PWB, [PL 20.10 Item 4](#).
4. Remove the safety cover, [PL 20.10 Item 1](#) and the lower cover, [PL 20.10 Item 5](#).
5. If installed, remove the extended fax PWB, [PL 20.10 Item 2](#).
6. Install the embedded fax PWB.
7. Connect the fax cable.
8. Switch on the machine, [GP 14](#).
9. On the multimeter, select the AC volts and auto range. Check that the voltage is between 0 and less than 1V on the test pads.
  - a. For line 1. Measure between test pad 1 and test pad 2 and between test pad 2 and test pad 3, [Figure 1](#).
  - b. For line 2. Measure between test pad 4 and test pad 5 and between test pad 5 and test pad 6, [Figure 1](#).

If the voltage is more than 1V, this indicates a possible ground connection problem. Refer to [01A Ground Distribution RAP](#).

If the machine ground connections are good, request that the customer has the power outlet socket checked.

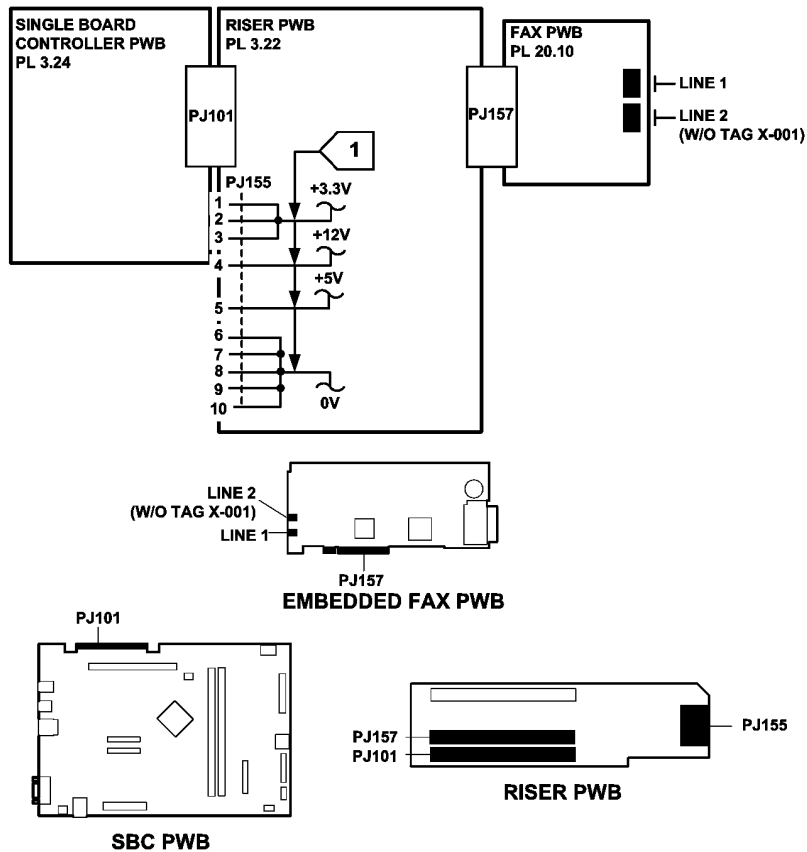


Figure 2 Circuit diagram

TT-1-0260-B

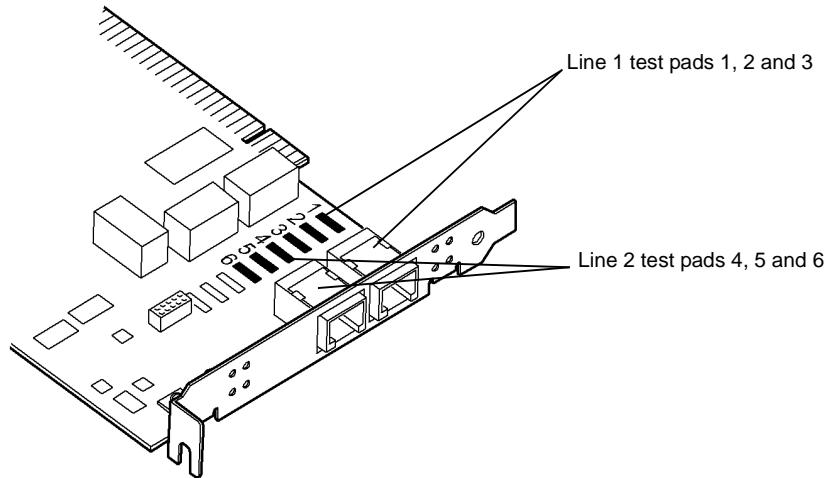


Figure 1 Line 1 and line 2 test pads

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## 20J Fax Problems on Digital Networks RAP

Use this RAP to isolate the problem when using digital networks.

The Fax option was designed as an analogue Group 3 device. This will have the best performance when connected to a dedicated analog phone PSTN (Public Switched Telephone Network) line or POTS (Plain Old Telephone System).

- The Fax option will function on the following technologies:
  - ADSL - Asymmetric Digital Subscriber Line
  - DSL - Digital Subscriber Line
  - VOIP - Voice Over Internet Protocol
  - T1 Trunk / E1 Trunk (Europe).

**NOTE:** Due to the compression used on the technologies. The level of performance will be lower than on a PSTN or POTS.

- The Fax option will not function on the following technologies:
  - ISDN - Integrated services Digital Network
  - FOIP - Fax Over Internet Protocol, (T.38 protocol).

### Initial Actions



#### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Switch off the machine, then switch on the machine, GP 14.
- Check with the customer or IT person on what network the Fax service is being used and what is the quality of service.
- Check that an analogue adapter or a connection for analogue terminals are available.
- Ask the customer to check with service provider that an analogue port for Fax service has been provided and enabled.

### Procedure

**NOTE:** Refer to the [Fax NVM Document](#) for the fax NVM values.

Perform the steps that follow:

1. Perform the [20A Fax Entry RAP](#).
2. Request the latest SPAR release.
3. If a communication fault occurred while sending the fax, decrease the transmission speed by disabling V34 (Super G3).
4. Reset the value at the following locations:
  - 20-287 T30MaxSpeedL1Tx = 11 (14400)
  - 20-288 T30MaxSpeedL2Tx = 11 (14400)
  - 20-289 T30MaxSpeedL1Rx = 11 (14400)
  - 20-290 T30MaxSpeedL2Rx = 11 (14400)
5. If problems are still not resolved after these actions, then escalate the problem using the normal escalation process.

## 22-300 AHA End of Record Error RAP

22-300 AHA end of record error (Advanced Hardware Architecture).

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Clear obstructions from the paper path.
- Re-seat all connectors on the single board controller PWB, PL 3.24 Item 3. Re-seat the software module, PL 3.24 Item 8 and memory module, PL 3.24 Item 12.

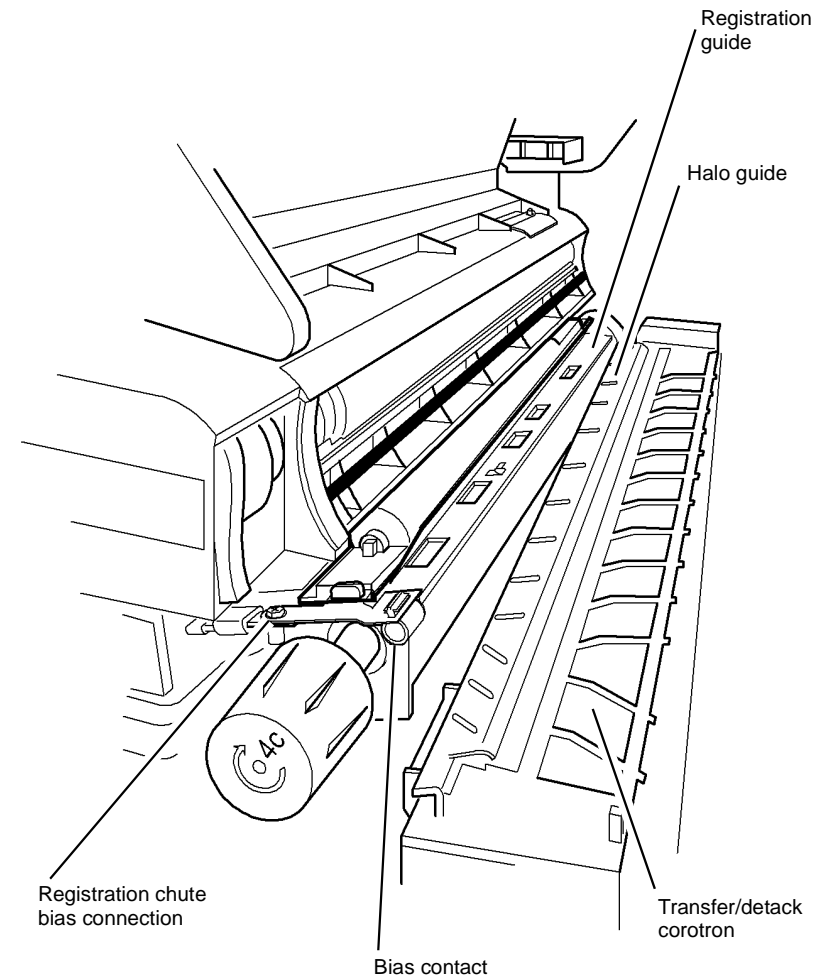
### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, GP 14.
2. Figure 1. Check the conductive path between the transfer / detach corotron halo guide and the bias contact, PL 8.15 Item 23. A bad contact can cause a corrupted image on the print.
3. Measure the resistance between the registration chute and the halo guide. If more than 10 ohms is measured, install a new bias contact, PL 8.15 Item 23.
4. Clean the transfer / detach corotron and check for signs of arcing, ADJ 9.1.
5. Check and if necessary clean the area of the halo guide, registration guide.
  - Check the bias contact, connection.
  - Check that the bias is available at the halo guide while the machine is in run mode. For the voltage range of the registration chute bias, refer to 09-060 HVPS Fault RAP.
6. Xerographic contamination may be caused by the failure of the scorotron cleaner, go to the 09-341, 09-342 Scorotron Cleaning Failure RAP.

**NOTE:** If the fault has been caused by contamination and showing a CQ defect of banding on the prints. Check the fuser module stripper fingers for contamination. If necessary clean the stripper fingers or install a new stripper fingers (35-55 ppm) PL 10.8 Item 4, (65-90 ppm) PL 10.10 Item 4.

7. Check the machine fault history for other fault codes that occurs around the same time as the 22-300 fault code and follow the related RAP.
8. If 22-300 codes persist, the jobs may be beyond the capabilities of the machine. Request the customer to select job parameters that are within the capabilities of the machine.
9. If a 22-300 fault code occurs. There are paper jams on the short paper path and the copies have half the print and black lines on them. The cause can be because of the ROS corrupting the video data lines. Install a new ROS, PL 6.10 Item 4.



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Figure 1 Component location

## 22-306 to 22-315, 22-801, 22-814 System Error RAP

**22-306** No proposal for rejection.

**22-307** Reschedule Error. Can not find reschedule point for rejection.

**22-309** No accept time out error. Consecutive no accepts received from a module exceeds the threshold value (20). Five consecutive 22-309s will cause a 22-819.

**22-310** Image sequence error. Job terminated.

**22-315** Module completion no response fault. One or more modules did not respond with completion message.

**22-801** Module completion message received after IOT returned to standby.

**22-814** Module registration late error. Module registration message received beyond required time window.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Switch off the machine, then switch on the machine, GP 14.
- Check for and clear any obstructions in the paper path.

### Procedure

Perform the following:

1. If a 22-315 fault code is displayed, go to the 06-340 ROS Laser Failure RAP.
2. If the problem persists, the jobs may be beyond the capabilities of the machine. Request the customer select job parameters that are within the capabilities of the machine.

## 22-316, 22-810, 22-820 Capability That Does Not Exist RAP

**22-316** Job requires a paper tray that does not exist. Job terminated.

**22-810** Job required IOT capability that does not exist. Job terminated.

**22-820** Job required finishing capability that does not exist. Job terminated.

### Procedure

Perform the following:

1. Resend the job with acceptable instructions that are within the capabilities of the machine.
2. If the error recurs, switch off the machine, then switch on the machine, GP 14.



## 22-370 Cannot Communicate to the XSA Database RAP

**22-370** A loss of data communications on the single board controller.

The Xerox Standard Accounting (XSA) feature will only be available on a System Terminal (ST) devices. The administrator enables the feature through the machine user Interface or by a Web user interface.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Perform an Altboot, [GP 4](#).

## 22-400 to 22-403, 22-423, 22-426, 22-427, 22-775 Option Install Failure RAP

**22-400** The system manager failed to install the network scanning (scan to file) option.

**22-401** The system manager failed to install the server fax option.

**22-402** The system manager failed to install the E-mail (scan to E-mail) option.

**22-403** The system manager failed to install the internet fax option.

**22-423** The system manager failed to install the searchable fire format option.

**22-426** The system manager failed to install the common access card (CAC) option.

**22-427** The system manager failed to install the colour scan option.

**22-775** The system manager failed to install the CPSR file cabinet option.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Reinstall the failed option. Refer to the system administration guide CD1, for the install instruction. Enter the kit option number found in the software options kit.

## 22-404 to 22-406 Option Install Failure RAP

**22-404** The system manager failed to install the network accounting (JBA) option.

**22-405** The system manager failed to install the on demand image overwrite option.

**22-406** The system manager failed to install the immediate image overwrite option.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Reinstall the failed option. Refer to the system administration guide CD1, for the install instruction. Enter the kit option number found in the software options kit.

## 22-407 Embedded Fax Install Failure RAP

**22-407** The system manager failed to install the embedded fax option.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check if the Fax tab is greyed out.
- Check that the compact flash is installed correctly.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Go to [20G](#) Embedded Fax Checkout.
3. Reinstall the embedded fax option. Refer to the system administration guide, CD1 for the installation instructions. Follow the screen prompts.

## 22-410 to 22-416, 22-423, 22-425, 22-428, 22-777 Option Remove Failure RAP

**22-410** The system manager failed to remove the network scanning (scan to file) option.

**22-411** The system manager failed to remove the server fax option.

**22-412** The system manager failed to remove the E-mail (scan to E-mail) option.

**22-413** The system manager failed to remove the internet fax option.

**22-414** The system manager failed to remove the network accounting (JBA) option.

**22-415** The system manager failed to remove the on demand image overwrite option.

**22-416** The system manager failed to remove the immediate image overwrite option.

**22-424** The system manager failed to remove the searchable fire format option.

**22-425** The system manager failed to remove the common access card (CAC) option.

**22-428** The system manager failed to remove the colour scan option.

**22-777** The system manager failed to remove, disable and delete CPSR file cabinet option.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. To remove the option perform the following:
  - a. Enter Customer Administration Tools, [GP 24](#).
  - b. Select Optional Services.
  - c. Select the option to be disabled.
  - d. Select Disable.  
**NOTE:** An option must be disabled before it can be removed.
  - e. Select Save.
  - f. Wait for the screen to refresh and select the failed option.
  - g. Select Remove.
  - h. Select Save.
  - i. Select Confirm.
  - j. Select Exit Tools.
  - k. The machine system reboots.
  - l. The machine will reset with the new configuration. When complete the optional feature removed will not appear in the machine user interface screen.
3. If the fault persists, reload the software, [GP 4](#).

## 22-417 Embedded Fax Remove Failure RAP

**22-417** The system manager failed to remove the embedded fax option.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. To remove the option perform the following:
  - a. Enter Customer Administration Tools, [GP 24](#).
  - b. Select Optional Services.
  - c. Select the option to be disabled.
  - d. Select Disable.  
**NOTE:** An option must be disabled before it can be removed.
  - e. Select Save.
  - f. Wait for the screen to refresh and select the failed option.
  - g. Select Remove.
  - h. Select Save.
  - i. Select Confirm.
  - j. Select Exit Tools.
  - k. The machine system reboots.  
After the machine system reboot. A Fax Install window appears and the options are to View Install Information, Install now or Install later. Select the option required.
  - l. The machine will reset with the new configuration. When complete the optional feature removed will not appear in the machine user interface screen.
3. If the embedded fax remove failure still occurs, go to [dC132](#) NVM initialization and select All Copier NVM and reset the NVM.
4. If the embedded fax PWB is to be removed from the machine. Switch off the machine, [GP 14](#). Remove the embedded fax PWB. Switch the machine on, [GP 14](#).  
Perform the following:
  - a. An Options not detected window appears.
  - b. Select SA confirm.
  - c. Enter password (1111).
  - d. Select Enter.
  - e. Select line 1 fax card.
  - f. Select Confirm removal of selected option.
  - g. Repeat for line 2 fax card.
  - h. Select Confirm removal of selected option.
  - i. Select Confirm.
  - j. Select Save.

## 22-419 Embedded Fax Enable Failure RAP

22-419 The system manager failed to enable embedded fax option.

### Procedure



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the following:

1. Switch off the machine, then switch on the machine, GP 14.
2. Go to 20G Embedded Fax Checkout.
3. To enable the option perform the following:
  - a. Enter Customer Administration Tools, GP 24.
  - b. Select Optional Services.
  - c. Select the Embedded fax.
  - d. Select Enable.
  - e. Select Save
  - f. Select Exit Tools
  - g. The machine will reset with the new configuration. When complete the optional feature removed will not appear in the machine user interface screen.

## 22-421 Embedded Fax Disable Failure RAP

22-421 The system manager failed to disable embedded fax option.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, GP 14.
2. To disable the option perform the following:
  - a. Enter Customer Administration Tools, GP 24.
  - b. Select Optional Services.
  - c. Select the Embedded fax.
  - d. Select Disable.
  - e. Select Save
  - f. Select Exit Tools
  - g. The machine will reset with the new configuration. When complete the optional feature removed will not appear in the machine user interface screen.
3. If the embedded fax disable failure still occurs. Go to dC132 NVM initialization and select All Copier NVM and reset the NVM.

## 22-450 Test Pattern Standard Grey Level Too High RAP

**22-450** The image quality adjustment routine has determined that the test pattern standard deviation is too high. The standard deviation of the grey levels of the test pattern as scanned by the scanner is too high.

### Initial Actions

Load A4 (8.5x11 inch) white paper LEF in the bypass tray.

### Procedure

Run print samples using a test pattern and inspect the copy quality. All copy quality defects must be rectified before running the image quality adjustment routine. Streaks and non-uniform halftone prints can cause the code to be shown.

Take print samples to check image quality. Refer to **IQ1** Image Quality Entry RAP to resolve image quality defects.

## 22-451 Test Pattern Average Grey Level Too Low RAP

**22-451** The image quality adjustment routine has determined that the average grey level of the test pattern is too low. The grey part of the test pattern as measured by the scanner is too dark (i.e. low grey levels = dark). If this fault occurs the (IQA) image quality adjustment factor will not be readjusted and stay as it is.

### Initial Actions

Load A4 (8.5x11 inch) white paper LEF in the bypass tray.

### Procedure

Perform the following:

1. Make print samples and if the images are dark or black refer to **IQ1** Image Quality Entry RAP to resolve image quality defects for dark or black images.
2. Check that the image quality adjustment factor in the NVM is not too high causing the ROS to have a high level output and very dark test pattern. Enter **dC131** location 06-04 image quality adjustment factor and reset value to 100. Reboot the machine and repeat the **ADJ 9.2** Image Quality Adjustment Routine.
3. Check in **dC131** location 06-01 ROS light level, is correct and not set high. Enter **dC131** location 06-01 ROS light level and reset value to default. Reboot the machine and repeat the **ADJ 9.2** Image Quality Adjustment Routine.
4. Check that the developer bias is not set high. Enter **dC131** location 09-021 developer bias print level and reset value to default.
5. If the fault still occurs the ROS output level may be too high. Go to the RAP **03-395, 396, 852, 853** IOT PWB Fault RAP.

## 22-452 Test Pattern Average Grey Level Too High RAP

**22-452** The image quality adjustment routine has determined that the average grey level of the test pattern is too high. The grey part of the test pattern as measured by the scanner is too light (i.e. high greys levels = light). If this fault occurs the (IQA) image quality adjustment factor will not be re-adjusted and will stay as it is. Subsequent IQ will not be altered.

### Initial Actions

Load A4 (8.5x11 inch) white paper LEF in the Bypass Tray.

### Procedure

Perform the following:

1. Check that the test pattern was fed through the document handler the correct way up.
2. Make print samples and if the images are light or white refer to **IQ1** Image Quality Entry RAP to resolve image quality defects for light or white images.
3. Check that the image quality adjustment factor in the NVM is not too low causing a high ROS light level output, and very light test pattern. Enter **dC131** location 06-04 (IQA) image quality adjustment factor, reset value to 100. Reboot the machine and repeat the **ADJ 9.2** Image Quality Adjustment Routine.
4. Check in **dC131** location 06-01 ROS light level, is correct and not set low. Enter **dC131** location 06-01 ROS light level, reset value to default. Reboot the machine and repeat the **ADJ 9.2** Image Quality Adjustment Routine.
5. Check that the developer bias is not set low. Enter **dC131** location 09-021 developer bias print level and reset value to default.
6. If the fault still occurs the ROS output level may be too low. Go to the RAP **03-395, 396, 852, 853** IOT PWB Fault RAP.

## 22-760 IQA Factor Set to Maximum RAP

**22-760** The (IQA) image quality adjustment factor has been set to the maximum value (dark). The fault will occur if the test pattern is light, but not light enough to create a 22-452 fault. This may result in subsequent image quality being too dark, as the ROS output level may be too high. Check in fault history to find a 22-760 failure.

### Initial Actions

Load A4 (8.5x11 inch) white paper LEF in the Bypass Tray.

### Procedure

Perform the following:

1. Check that the test pattern was fed through the document handler the correct way up.
2. Make print samples and if the images are light or white refer to the **IQ1** Image Quality Entry RAP to resolve image quality defects for light or white images.
3. Check that the image quality adjustment factor in the NVM is not too, low causing high ROS light level output, and very light test pattern. Enter **dC131** location 06-04 (IQA) image quality adjustment factor, reset value to 100. Reboot the machine and repeat the **ADJ 9.2** Image Quality Adjustment Routine.
4. Check in **dC131** location 06-01 ROS light level, is correct and not set low. Enter **dC131** location 06-01 ROS light level, reset value to default. Reboot the machine and repeat the **ADJ 9.2** Image Quality Adjustment Routine.
5. Check that the developer bias is not set low. Enter **dC131** location 09-021 developer bias print level and reset value to default.
6. If the fault still occurs the ROS output level may be too low. Go to the RAP **03-395, 396, 852, 853** IOT PWB Fault RAP.

## 22-761 IQA Factor Set to Minimum RAP

**22-761** The (IQA) image quality adjustment factor has been set to the minimum value (light). The fault will occur if the test pattern is dark, but not dark enough to create a 22-451 fault. This may result in subsequent image quality being too light, as the ROS output level may be too low. Check in fault history to find a 22-761 failure.

### Initial Actions

Load A4 (8.5x11 inch) white paper LEF in the Bypass Tray.

### Procedure

Perform the following:

1. Make print samples and if the images are dark or black refer to the [IQ1](#) Image Quality Entry RAP to resolve image quality defects for dark or black images.
2. Check that the image quality adjustment factor in the NVM is not too high causing high ROS light level output and very dark test pattern. Enter [dC131](#) location 06-04 (IQA) image quality adjustment factor and reset value to 100. Reboot the machine and repeat the [ADJ 9.2](#) Image Quality Adjustment Routine.
3. Check in [dC131](#) location 06-01 ROS light level, is correct and not set high. Enter [dC131](#) location 06-01 ROS light level and reset value to default. Reboot the machine and repeat the [ADJ 9.2](#) Image Quality Adjustment Routine.
4. Check that the developer bias is not set high. Enter [dC131](#) location 09-021 developer bias print level and reset value to default.
5. If the fault still occurs the ROS output level may be too high. Go to the RAP [03-395](#), [396](#), [852](#), [853](#) IOT PWB Fault RAP.

## 22-774 CPSR File Cabinet Enable Failure RAP

**22-774** The system manager failed to enable the CPSR file cabinet option.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. To enable the option perform the following:
  - a. Enter Customer Administration Tools, [GP 24](#).
  - b. Select Optional Services.
  - c. Select the CPSR File Cabinet.
  - d. Select Enable.
  - e. Select Save
  - f. Select Exit Tools
  - g. The machine will reset with the new configuration. When complete the optional feature removed will not appear in the machine user interface screen.

## 22-776 CPSR File Cabinet Disabled Failure RAP

**22-776** The system manager failed to disable the CPSR file cabinet option.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. To disable the option perform the following:
  - a. Enter Customer Administration Tools, [GP 24](#).
  - b. Select Optional Services.
  - c. Select the CPSR File Cabinet.
  - d. Select Disable.
  - e. Select Save
  - f. Select Exit Tools
  - g. The machine will reset with the new configuration. When complete the optional feature removed will not appear in the machine user interface screen.

## 22-819, 22-831 to 22-837 Time Out Error RAP

The 22-83x faults occur when the service fails to respond to the job queue request. This is either because it is busy processing a previous job request, or has failed or locked up.

**22-819** Cycle up / cycle down loop failure. Job terminated. Can be caused by five consecutive 22-309s.

**22-831** List jobs request timed out between single board controller PWB and user interface.

**22-832** List jobs request timed out between single board controller PWB and network controller print service.

**22-833** List jobs request timed out between single board controller PWB and network controller scan to file.

**22-834** List jobs request timed out between single board controller PWB and network controller scan to fax / server fax service.

**22-835** List jobs request timed out between queue utility and either DC job service or the embedded fax services.

**22-836** Network controller scan to distribution service not responding to List jobs RPC call for scan to E-mail or for internet fax.

**22-837** List jobs request time out between the single board controller PWB and file 2 E-Fax services.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check for and clear any obstructions in the paper path.
- Check for other fault codes generated about the same time, in case a more relevant fault code has been generated.

### Procedure

Perform the following:

1. Switch off the machine, then switch on the machine, [GP 14](#).
2. Go to the fault history, [GP 2](#) and perform the relevant RAP for the fault that occurred prior to any of the above faults occurring.
3. If the problem persists, the jobs may be beyond the capabilities of the machine. Request the customer select job parameters that are within the capabilities of the machine.



## OF1 Audible Noise RAP

Use this RAP to isolate unusual noises in the machine.

**NOTE:** Due to the intermittent nature of unusual noises, this RAP can only give guidance on how to isolate noises. This RAP will not find all possible causes. When machines become old and worn, unusual noises may arise that are not covered in this RAP.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Ask the customer if there are any specific machine functions that are noisy.
2. Ask the customer to demonstrate the function of the machine that generates the unusual noise.
3. Check the Fault and Error logs.
4. Switch off the machine, [GP 14](#). Wait for two minutes, switch on the machine. Allow the machine to perform a normal initialization and warm-up.
5. Run the machine in all modes. Also use the diagnostics to run individual components. Go to the relevant subsection:
  - [Main Drives and Paper Transport](#)
  - [DADH](#)
  - [ROS](#)
  - [Tray 1 and 2 Assembly](#)
  - [Tray 3 and 4 Assembly \(W/O TAG 151\)](#)
  - [Tray 3 and 4 Assembly \(W/TAG 151\)](#)
  - [Tray 5 Assembly](#)
  - [Xerographics](#)
  - [Fuser](#)
  - [1K LCSS](#)
  - [2K LCSS](#)
  - [HVF and HVF BM](#)
  - [Scanner](#)

## Main Drives and Paper Transport

- Enter [dC330](#) code 04-010 main drive motor, to run the main drives.

The following components will be run:

- Registration transport [PL 8.15 Item 1](#).
- Developer module (35-55 ppm), [PL 9.17 Item 2](#) or (65-90 ppm), [PL 9.15 Item 2](#).
- Short paper path assembly, W/O [TAG 114](#), [PL 10.25 Item 1](#).
- Fuser module (35-55 ppm), [PL 10.8 Item 1](#) or (65-90 ppm), [PL 10.10 Item 1](#).
- Inverter post fuser and exit rolls and the jam clearance knob 3C rotate.

To isolate the developer module:

- Unlatch the xerographic module to separate the developer from the main drives. If the source of the noise is the developer assembly, check the developer drive gear, [PL 9.15 Item 16](#).

Remove the fuser module to eliminate the noise caused by the fuser. If the source of the noise is the fuser, go to the [Fuser](#) checkout.

To isolate the fuser module:

- Release the jam clearance latch 3b4a on the fuser module, to separate the pressure roll from the fuser roll.

- Enter [dC330](#) code 04-010 and add code 08-070 to energize the registration clutch. The registration rolls and the jam clearance knob 4c rotate.
- Enter [dC330](#) code 10-065 Vac. transport fan, to run the vacuum transport fan, [PL 10.25](#).
- Enter [dC330](#) code 08-060 motor slow or code 08-062 motor fast, to run the duplex transport motor. The duplex transport rolls rotate, (35-55 ppm), [PL 8.22](#) or (65-90 ppm), [PL 8.20](#).
- Enter [dC330](#) code 10-030 Invert Mot Fwd Slow, to rotate the nip split shaft, [PL 10.11 Item 4](#).
- Enter [dC330](#) code 10-035 Invert Mot Rev Slow, to rotate the nip split shaft and the jam clearance knob 2b rotates, [PL 10.11 Item 4](#).
- Enter [dC330](#) code 10-040 Invert Mot Rev Duplex, to rotate the nip split shaft and the jam clearance knob 2b rotates fast, [PL 10.11 Item 4](#).
- Enter [dC330](#) code 10-045 Invert Path solenoid, energizes the solenoid and moves the inverter gate, [PL 10.11 Item 14](#).
- Enter [dC330](#) code 10-050 Invert Nip solenoid, energizes the solenoid and moves the nip split shaft, [PL 10.11 Item 4](#).

Possible causes and potential solutions are:

- **Squeaks.**

Possible causes are:

- Contamination of the drive shafts and the bearings.
- Bearings in cooling fans.
- Incorrectly adjusted or worn drive belts.
- Incorrectly aligned or damaged parts.

Solution:

- Clean the components.
- Remove and clean the drive shafts, bearings and then lubricate. Refer to [ADJ 4.1 Machine Lubrication](#).
- Adjust the components if necessary.
- Check for parts that are damaged or out of position.
- Install new parts as necessary.

- **Squeaks from the duplex tray (65-90 ppm)**

Possible causes are:

- The metal stiffener bracket on the bottom of the duplex tray vibrates against the plastic frame moulding.

Solution:

- Remove the duplex transport, [REP 8.7](#).
- Remove the metal stiffener bracket and reform the securing edge with the two location holes by 5 degrees. Refit the metal stiffener bracket and ensure that the metal bracket is tight against the plastic frame moulding.

- **Clicking.**

Possible causes are:

- The waste toner auger clutch slipping. This clutch is designed to slip to prevent damage to the auger gear box if toner backs up in the waste pipe.
- Drive belt slipping on gear/pulley of the short paper path, W/O [TAG 114](#).

Solution:

- Remove the waste toner bottle and clean the toner from the waste pipe and the auger system. Refer to [REP 9.10](#) Auger Damper.
- Install a new drives module, (35-55 ppm), [PL 4.15 Item 1](#), (65-90 ppm), [PL 4.10 Item 1](#).
- Install a new intermediate drive belt, [PL 10.25 Item 10](#).

## DADH

Run the following components:

- Enter [dC330](#) code 05-030 DADH CVT motor to rotate the DADH CVT roll, [PL 5.25 Item 5](#).
- Enter [dC330](#) code 05-020 feed motor, to run the DADH takeaway rolls, [PL 5.35 Item 6](#).
- Enter [dC330](#) code 05-020 and add code 05-025 feed solenoid, to energize the feed clutch, (35 ppm) [PL 5.15 Item 9](#) or (40-90 ppm) [PL 5.17 Item 9](#).

Possible causes and potential solutions are:

- **Excessive noise from the DADH when duplex documents are being recirculated for copying the second side.**

Possible causes are:

- The DADH speeds up during second side recirculation when in duplex mode.

Solution:

- Switch off the acceleration in duplex mode. Set [dC131](#) NVM location 05-012 DADH Dup Motor Spd to 1.

**NOTE:** The default value for [dC131](#) NVM location 05-012 DADH Dup Motor Spd is 0.

- **Grinding noise.**

Possible causes are:

- The intermediate feed bearing, (35 ppm) [PL 5.15 Item 22](#) or (40-90 ppm) [PL 5.17 Item 22](#) can stick, preventing the feed roll from free wheeling as the document is transported by takeaway roll.
- Large flat spots, confined to one or two areas on the retard roll, which causes feed noise and an increase in 05-330, 05-331 and 05-335 jams.

Solution:

- Install a new the feed assembly, (35 ppm) [PL 5.15 Item 18](#) or (40-90 ppm) [PL 5.17 Item 18](#).

- **Noise from the DADH input tray.**

Possible causes are:

- Document guides.

Solution:

- Clean the DADH input tray in the area below the input guides with antistatic fluid, [PL 26.10 Item 19](#).

- **Squeaks from the DADH.**

Possible causes are:

- DADH exit roll assembly or takeaway roll assembly, [PL 5.35 Item 6](#).

Solution:

- Remove and clean the shafts and plastic bushes with antistatic fluid, [PL 26.10 Item 19](#).

- **Knocking noise.**

Possible causes are:

- The feed motor and CVT motor are not tensioned correctly, causing the drive belts to slip.

Solution:

- Adjust the DADH drive belts, [ADJ 5.1](#).

- **Gear rattle.**

Possible causes are:

- A loose meshing of the feed clutch and motor gears (35 ppm) [PL 5.15 Item 9](#) and [PL 5.15 Item 16](#) or (40-90 ppm) [PL 5.17 Item 9](#) and [PL 5.17 Item 16](#).

Solution:

- Adjust the DADH drive belts, [ADJ 5.1](#).

## ROS

Run the following components:

- Enter [dC330](#) code 06-020 ROS motor, to drive the ROS motor at normal run speed, [PL 6.10 Item 4](#).
- Enter [dC330](#) code 06-025 ROS motor, to drive the ROS motor at standby speed, [PL 6.10 Item 4](#).

The ROS gives out a whining noise of a ascending frequency for a duration between 5 and 6 seconds. The whining noise is the normal sound of the ROS motor accelerating.

## Tray 1 and 2 Assembly

Remove tray 1 and tray 2 and run the following components:

- Enter code **dC330** code 08-010 T1 Feed Motor, to run the tray 1 feed motor, [PL 8.26 Item 6](#).
- Enter code **dC330** code 08-020 T2 Feed Motor, to run the tray 2 feed motor, [PL 8.26 Item 6](#).
- Open left hand door.  
Enter **dC330** code 08-025 Tray 1 and 2 Transport Motor, to run tray 1 and tray 2 transport rolls, [PL 8.25 Item 8](#).

Possible causes and potential solutions are:

- **Squeaks.**

Possible causes are:

- Contamination of the drive shafts and bearings.
- Incorrectly adjusted or worn drive belts.
- Incorrectly aligned or damaged parts.

Solution:

- Remove and clean the drive shafts, bearings and then lubricate. Refer to [ADJ 4.1 Machine Lubrication](#).
- Check for parts that are damaged or out of position.
- Adjust the components if necessary.
- Install new parts as necessary.

## Tray 3 and 4 Assembly (W/O TAG 151)

Run the following components:

- Open the left hand door. Enter **dC330** code 08-045 tray 3 and 4 transport motor, to run the tray 3 and 4 transport roll, [PL 8.30 Item 18](#).
- Pull out tray 3 and let the tray drop, then push the tray back in. Enter **dC330** code 07-030 Tray 3 elevator motor, to elevate tray 3, [PL 7.20 Item 1](#).
- Pull out tray 4 and let the tray drop, then push the tray back in. Enter **dC330** code 07-040 Tray 4 elevator motor to elevate tray 4, [PL 7.20 Item 1](#).

Possible causes and potential solutions are:

- **Knocking noise, no drive or a knocking noise from the tray 3 and 4 transport motor.**

Possible causes are:

- The tray 3 and 4 transport motor.
- Worn or stretched tray 3 elevator cables.
- Worn or stretched tray 4 elevator cables.

Solution:

- Check the drive belt and gears, [PL 8.30 Item 8](#).
- Adjust and install new components as necessary, [PL 7.15](#).
- Check that the paper trays are correctly positioned and that the tray moves freely inside the tray assembly.
- Install new components as necessary, [PL 7.15](#).

## Tray 3 and 4 Assembly (W/TAG 151)

Run the following components:

- Open the left hand door. Enter **dC330** code 08-045 HCF transport motor, to run the tray 3 and 4 transport roll and tray 3 transport drives, [PL 8.36](#) and [PL 8.32 Item 4](#).
- Pull out tray 3 and let the tray drop, then push the tray back in. Enter **dC330** code 07-030 Tray 3 elevator motor, to elevate tray 3, [PL 7.21 Item 1](#).
- Pull out tray 4 and let the tray drop, then push the tray back in. Enter **dC330** code 07-040 Tray 4 elevator motor to elevate tray 4, [PL 7.21 Item 1](#).

Possible causes and potential solutions are:

- **Knocking noise, no drive or a knocking noise from the HCF transport motor.**

Possible causes are:

- The HCF transport motor.
- Tray 3 transport drives.
- Worn or stretched tray 3 elevator cables.
- Worn or stretched tray 4 elevator cables.

Solution:

- Check the tray 3 transport drives, [PL 8.36](#).
- Adjust and install new components as necessary, [PL 7.18](#).
- Check that the paper trays are correctly positioned and that the tray moves freely inside the tray assembly.
- Install new components as necessary, [PL 7.18](#).

## Tray 5 Assembly

Run the components as follows:

- Open the tray 5 door to lower the elevator.
- Close the door or actuate the interlock.
- Enter the **dC330** code 07-373 to drive the tray up.
- Enter the **dC330** code 07-374 to drive the tray down.
- Enter the **dC330** code 08-046 to operate the tray 5 transport motor, [PL 8.40 Item 2](#).
- Enter the **dC330** code 08-117 to operate the tray 5 feed motor, [PL 8.40 Item 3](#).

Check the associated belts, rollers, bearings, sensors and encoders for possible noise sources.

## Xerographics

Run the following components:

- Enter **dC330** code 09-010 P/R motor, to run the photoreceptor drive motor, (35-55 ppm) **PL 4.15 Item 17** or (65-90 ppm) **PL 4.10 Item 17**.
- Enter **dC330** code 09-071 Scorotron Cleaner Motor Forward or 09-072 scorotron cleaner motor Reverse, to run the scorotron cleaner motor.

Possible causes and potential solutions are:

- **A high pitched noise when the corotron is switched on.**

Possible causes are:

- The detack corotron.

Solution:

- None, this is normal behavior.

- **A clicking noise from the Xerographic module.**

Possible causes are:

- The scorotron cleaning mechanism. A clicking noise is made when the scorotron cleaning brush reaches the end of its travel.

Solution:

- None, this is normal behavior. If the scorotron cleaning mechanism is the cause of the noise, inform the customer.

- **A Knocking or clicking noise.**

Possible causes are:

- Xerographic module drive gear is not correctly engaged, **PL 9.20 Item 2**.
- Developer module drive gear is not correctly engaged, **PL 9.15 Item 2**.
- Cooling fan blades catching on a harness, component or cover.

Solution:

- Remove the xerographic module. Re-install the module.
- Remove and lubricate the developer module support pins, **REP 9.2**. Refer to **ADJ 4.1 Machine Lubrication**.
- Ensure that the fan is secured correctly and the area around the fan is clear.
- Install a new fan:

    Cooling fan, **PL 9.25 Item 7**.

    Ozone fan, **PL 9.25 Item 1**.

    Photoreceptor fan assembly, **PL 9.25 Item 6**.

- **A mooring, grunting or moaning noise at the machine cycle down/end of run cycle.**

Cause:

- The noise occurs when the drum moves slowly under the cleaning blade as the drives come to a stop.
- The environment (temperature, humidity, type of media, print density, etc.) will also effect the coefficient of friction between the cleaning blade and the drum, directly effecting the noise.

Solution:

- Dusting the drum with Kynar or zinc stearate will quiet the noise temporarily, but as these lubricants wear off the noise will return.
- A new xerographic module, **PL 9.20 Item 2** (40-90 ppm) or **PL 9.22 Item 2** (35 ppm) may be less noisy than the xerographic module currently in the machine, at a noise sensitive customer's site this may provide a solution, but the old xerographic module should be kept for use in a more noise tolerant environment.

## Fuser

Possible causes and potential solutions are:

- **Grinding noise.**

Possible causes are:

- The fuser web motor not turning the fuser web, causing excessive loading on the fuser drives. This will also cause toner contamination on the stripper fingers and paper jams in the inverter.
- The fuser web drive dog, 35-55 ppm **PL 10.8 Item 2** or 65-90 ppm **PL 10.10 Item 2**.

Solution:

- Go to **10A Fuser Web Motor RAP**.

**NOTE:** Do not change the fuser module, because of the appearance of wrinkles on the pressure roll. This is normal for the pressure roll, caused by the conductive sleeve that stretches as the silicon rubber base of the roll expands. The pressure rolls are more wrinkled due to the higher run temperatures on the 65-90 ppm machines.

## 1K LCSS

Run the following components:

- Enter **dC330** code 11-000 Transport Motor 1, to run the entry transport rolls, **PL 11.110 Item 2** and **PL 11.110 Item 9**, **PL 11.110 Item 6**.
- Enter **dC330** code 11-001 Transport Motor 2, to run the entry rolls, **PL 11.120 Item 13**.
- Enter **dC330** code 11-024 Paddle Wheel Motor Run, rotates the paddle wheel, **PL 11.104 Item 4**.
- Enter **dC330** code 11-009 Tamp Mot Cycle, cycles the front and rear tampers, **PL 11.112 Item 1**.
- Enter **dC330** code 11-023 Eject Mot Cycle, cycles the eject assembly, **PL 11.114 Item 1**.
- Enter **dC330** code 11-033 Bin 1 Elevator Motor Cycle, to move bin 1 up and down, **PL 11.106 Item 8**.

**NOTE:** . The bin will move down and then move up to the home position.

Possible causes and potential solutions are:

- **2 knocks for each stapled set.**

Possible causes are:

- LCSS set ejector.

Solution:

- Go to the **11-320-120, 11-322-120 Ejector Movement Failure RAP**.

- **Clicking Noise from the LCSS.**

Possible causes are:

- The staple head continually operating for approximately 15 seconds. This occurs every time the LCSS top cover or front door is opened then closed, because the stapler is attempting to prime the staple head, by indexing the staple stick forward and pre-forming two staples.

Solution:

- Check the staple cartridge for jammed staples and remove any that are found.
- Ensure the staple cartridge is fully seated.
- Ensure that the correct staple cartridge is installed.
- Perform **11-364-120 Stapling Failure RAP**.

## 2K LCSS

Run the following components:

- Enter **dC330** code 11-000 Transport Motor 1, to run the entry transport rolls, **PL 11.14 Item 6**.
- Enter **dC330** code 11-001 Transport Motor 2, to run the entry rolls, **PL 11.22 Item 5**.
- Enter **dC330** code 11-024 Paddle wheel Motor run, rotates the paddle wheel, **PL 11.8 Item 4**.
- Enter **dC330** code 11-009 Tamp Mot Cycle, cycles the front and rear tampers, **PL 11.16 Item 1**.
- Enter **dC330** code 11-023 Eject Mot Cycle, cycles the eject assembly, **PL 11.18 Item 1**.
- Enter **dC330** code 11-033 Bin 1 Elevator Motor Cycle, to move bin 1 up and down, **PL 11.10 Item 8**.

**NOTE:** The bin will move down and then move up to the home position.

- Enter **dC330** code 11-043 Punch Head run, rotates the punch head, **PL 11.6 Item 3**.
- Enter **dC330** code 11-055 SU1 index Mot Cycle, cycles the stapler from the front to the rear, **PL 11.20 Item 5**.

Possible causes and potential solutions are:

- **2 knocks for each stapled set.**

Solution:

- Go to the **11-320-110, 11-322-110** Ejector Movement Failure RAP.

- **Noise from the right hand side of the machine.**

Possible causes are:

- The LCSS is not aligned correctly.

Solution:

- Check the machine to LCSS alignment, **ADJ 11.2-110**.
- Adjust the components if appropriate.
- Install new parts as necessary.

- **Clicking Noise from the LCSS**

Possible causes are:

- The staple head continually operating for approximately 15 seconds. This occurs every time the LCSS top cover or front door is opened then closed, because the stapler is attempting to prime the staple head, by indexing the staple stick forward and pre-forming two staples.

Solution:

- Check the staple cartridge for jammed staples and remove any that are found.
- Ensure the staple cartridge is fully seated.
- Ensure that the correct staple cartridge is installed.
- Perform **11-364-110** Stapling Failure RAP.

## HVF and HVF BM

Run the following components:



### CAUTION

*Make sure that the first tamper in the compiler carriage is returned to the home position before the second tamper is checked in diagnostics.*

- Enter **dC330** code 11-000 Transport Motor 1, to run the input transport roll, **PL 11.150 Item 2**.
- Enter **dC330** code 11-001 Transport Motor 2, to run the exit drive shafts to feed paper to the top tray or to the stacker tray, **PL 11.150 Item 1**.
- Enter **dC330** code 11-003 Tamp. Mot. Front Home, to move the front tamper to the home position **PL 11.153 Item 6**.
- Enter **dC330** code 11-004 Tamp. Mot. Rear Home, to move the rear tamper to the home position, **PL 11.153 Item 6**.
- Enter **dC330** code 11-005 Tamp. Mot. Front Move, to move the front tamper to the centre of the compiler, **PL 11.153 Item 6**.
- Enter **dC330** code 11-006 Tamp. Mot. Rear Move, to move the rear tamper to the centre of the compiler tray, **PL 11.153 Item 6**.
- Enter **dC330** code 11-025 Paddle Roll Motor Run, to lift the paddle unit and rotate the paddle rolls, **PL 11.145 Item 2**.
- Enter **dC330** code 11-027 Paddle Unit Mot. Home, to lift the paddle unit to the up position, **PL 11.145 Item 2**.
- Enter **dC330** code 11-030 Bin 1 Elevator Motor Home, to move Bin 1 up to the home position, **PL 11.135 Item 10**.
- Enter **dC330** code 11-031 Bin 1 Elevator Motor Up, to move Bin 1 down, **PL 11.135 Item 10**.

**NOTE:** The tray moves up for 15 seconds and then stops.

- Enter **dC330** code 11-032 Bin 1 Elevator Motor Down, to move Bin 1 down, **PL 11.135 Item 10**.

**NOTE:** The tray moves down for 15 seconds and then stops.

- Enter **dC330** code 11-034 Bin 1 Offset Motor, to offset sets and fed to Bin 1, **PL 11.140 Item 19**.
- Enter **dC330** code 11-053 SU1 Motor Forward, to move the stapler unit to the rear, **PL 11.140 Item 12**.
- Enter **dC330** code 11-054 SU1 Motor Reverse, to move the stapler unit to the rear, **PL 11.140 Item 12**.
- Enter **dC330** code 11-060 BM Compiler Motor, runs the compiler BM entry roll, **PL 11.161 Item 15**.

**NOTE:** The tray moves down for 15 seconds and then stops.

- Enter **dC330** code 11-061 BM Blade motor, to move the crease blade assembly, **PL 11.165** and the crease roll gate, **PL 11.167**.
- Enter **dC330** code 11-062 BM Crease Motor, to rotate the two crease rolls, **PL 11.167 Item 7**.
- Enter **dC330** code 11-065 BM Back Stop Motor, to move the back stop assembly, **PL 11.164 Item 17**.

- Enter **dC330** code 11-066 BM Tamper 1 Motor, to move the tamper rack and fingers, [PL 11.162 Item 3](#).
- Enter **dC330** code 11-402 BM conveyor drive motor, to run the output tray conveyor belts, [PL 11.169 Item 1](#).
- Enter **dC330** code 11-390 BM flapper Motor, to run the BM flapper, [PL 11.161 Item 23](#).
- Enter **dC330** code 11-401 BM Crease roll, to move the crease roll gate up and down, [PL 11.166 Item 8](#).
- Enter **dC330** code 11-078 Inserter unit motor, to run inserter main drives, [PL 11.181 Item 1](#)
- Enter **dC330** code 11-062 BM crease roll motor, to run the tri-roller drives, [PL 11.166 Item 12](#).

Possible causes and potential solutions are:

- **Noise from the right hand side of the machine.**

Possible causes are:

- The HVF / HVF BM is not aligned correctly.
- Bin 1 not aligned correctly on the main drive belts, [PL 11.135 Item 6](#).

Solution:

- Check the machine to HVF or HVF BM alignment, [ADJ 11.1-171](#)
- Check that the Bin 1 is level, refer to [REP 11.38-171](#) HVF Stacker Drive Belts.
- Adjust the components if appropriate.
- Install new parts as necessary.

- **Knocking.**

Possible causes are:

- Mis-adjusted or worn drive belts.
- The support fingers on the ejector hit bin1 each time they are moved out.

Solution:

- Adjust the belt tension as required.
- Pre-load bin 1 with 30 sheets of paper this acts a a damper and will stop the noise.
- Install new parts as necessary.

- **Squeak.**

Possible causes are:

- The transport drive shaft or bearings. [PL 11.150](#).
- Check that the paper guides are closed and located correctly.

Solution:

- Install new parts as necessary.

- **Clicking Noise from the HVF / HVF BM.**

Possible causes are:

- The noise is caused by the transport motor 2, **dC330** code 11-001, continually operating for approximately 15 seconds. This occurs every time the top tray, [PL 11.130 Item 9](#), or the front door, [PL 11.130 Item 3](#), is opened then closed.

Solution:

- Ensure the staple cartridge is fully seated and that the correct cartridge is installed.

**NOTE:** When a new staple cartridge is installed the stapler makes a repeating noise. This is normal it is the stapler performing a priming cycle.

- Perform [11-371-171](#) to [11-377-171](#) HVF Stapler Position and Priming RAP.

## Scanner

Possible causes and potential solutions are:

- **Knocking.**

Possible causes are:

- If the scan carriage moves to the right and repeatedly knocks against the frame together with the UI screen remaining blank.

Solution.

- Check the condition of CR15 on the IOT PWB. Refer to the [OF7](#) IOT PWB Diagnostics RAP.

## OF2 Touch Screen Failure RAP

Use this RAP to solve UI touch screen problems when the machine has power but either the display is missing, is too dark or the UI screen responds incorrectly or does not refresh.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Go to the Customer Tools application and adjust the backlight output level.
- Refer to REP 2.1 to access the user interface assembly.
- Check and re-seat all connectors on the UI control PWB, PL 2.10 Item 11 and UI touch screen PWB, PL 2.10 Item 6.
- Enter dC305 UI test. Perform the relevant tests to check the operation of the UI.
- If the problem occurs while entering or exiting sleep mode, go to 01K Sleep Mode RAP.

### Procedure

Go to Flag 1. +3.3V is available at P/J130 between pin 1 and 2.

**Y N**  
Check the harness and wiring, GP 7. Check between P/J130 on the UI control PWB and P/J133 on the power distribution PWB. **The wiring is good.**

**Y N**  
Repair the wiring, REP 1.2 or install a new single board controller PWB module/UI harness, PL 2.10 Item 3.

Refer to:

- 01D +3.3V Distribution RAP.
- 01B 0V Distribution RAP.

Go to Flag 2. +12V is available at P/J130 between pin 3 and 4.

**Y N**  
Check the harness and wiring, GP 7. Check between P/J130 on the UI control PWB and P/J133 on the power distribution PWB. **The wiring is good.**

**Y N**  
Repair the wiring, REP 1.2 or install a new single board controller PWB module/UI harness, PL 2.10 Item 3.

Refer to:

- 01F+12V Distribution RAP.
- 01B 0V Distribution RAP.

Go to Flag 3. Check the harness and wiring, GP 7. Check between PJ104 and PJ130. Refer to the information that follows:

- P/J104, Single Board Controller PWB.
- P/J130, User Interface PWB.

**The wiring is good.**

**Y N**  
Repair the wiring, REP 1.2 or install a new single board controller PWB module/UI harness, PL 2.10 Item 3.

Go to Flag 4. Check the harness and wiring, GP 7. Check between PJ103 and PJ81. Refer to the information that follows:

- P/J103, Single Board Controller PWB.
- P/J81, User Interface PWB.

**The wiring is good.**

**Y N**  
Repair the wiring, REP 1.2 or install a new single board controller PWB module/UI harness, PL 2.10 Item 3.

**The energy saver button on the UI is flashing, Figure 1.**

**Y N**  
Install new components as necessary:

- Memory module, PL 3.24 Item 12.
- Software module, PL 3.24 Item 8.
- UI control PWB, PL 2.10 Item 11.
- UI touch screen PWB, PL 2.10 Item 6.
- UI touch screen, PL 2.10 Item 5.

Switch off the machine GP 14. Check the memory module, PL 3.24 Item 12. **The memory module is correctly installed.**

**Y N**  
Correctly install the memory module, refer to REP 3.4.

Check the software module, PL 3.24 Item 8. **The software module is correctly installed.**

**Y N**  
Correctly install the software module, refer to, REP 3.3.

Install new components as necessary:

- Memory module, PL 3.24 Item 12.
- Software module, PL 3.24 Item 8.
- UI control PWB, PL 2.10 Item 11.
- UI touch screen PWB, PL 2.10 Item 6.
- UI touch screen, PL 2.10 Item 5.

If the fault remains, install a new single board controller PWB, PL 3.24 Item 3.

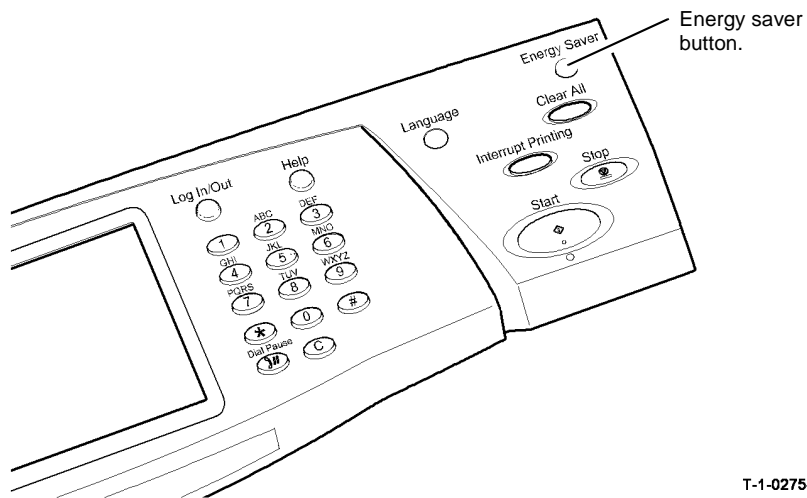


Figure 1 Energy saver button

T-1-0275-A

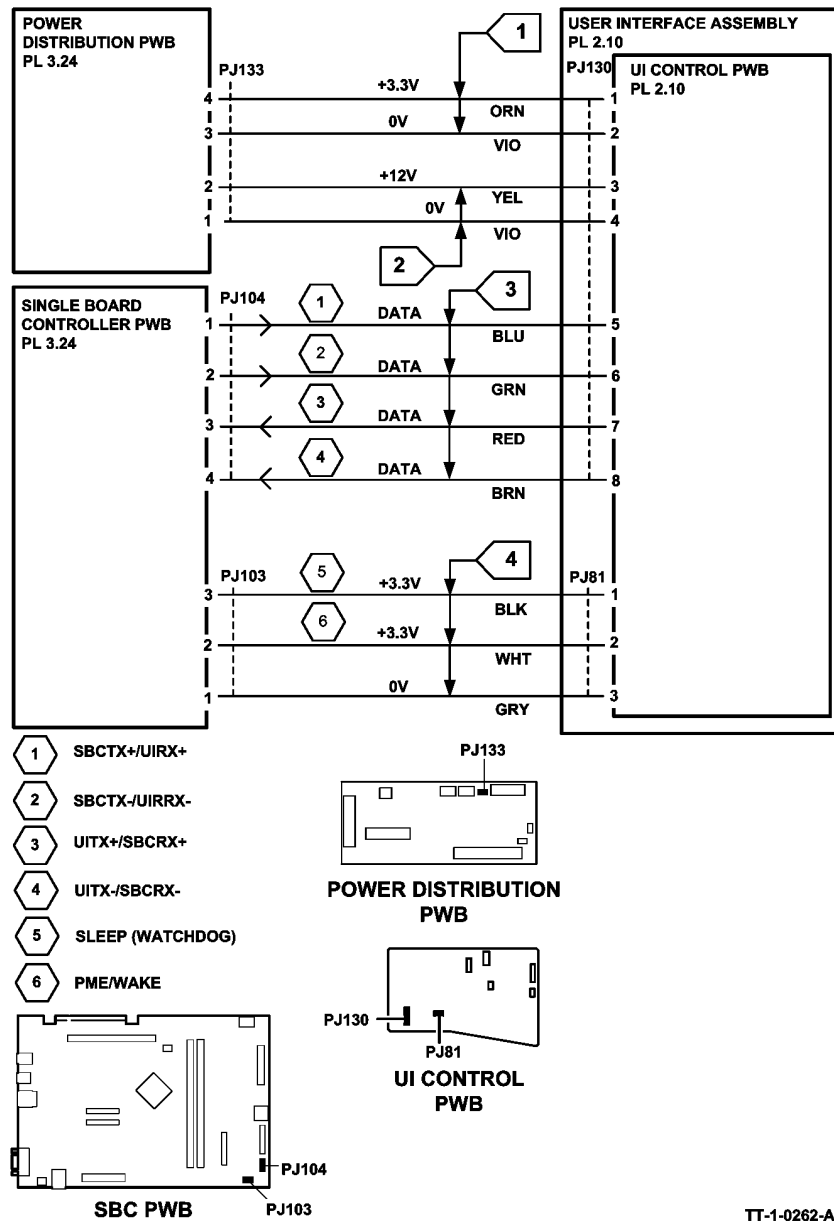


Figure 2 Circuit Diagram

TT-1-0262-A



## OF3 Dead Machine RAP

Use this RAP to diagnose problems with the LVPS that give the following symptoms:

- The machine does not respond after the power button on the UI has been pressed
- The machine responds for an instant to the power button on the UI having been pressed, with a beep, a click or a momentary LED flash, but no power or lights on the UI, no fans running, no motors on and no solenoids on. There may be a slight clicking noise from the relays in the LVPS along with slight flashing of some LEDs on the IOT PWB every five to six seconds
- Directly after a FAX kit has been installed, the only LED on the IOT PWB that is lit is CR36 (+3.3V standby), or the UI touch screen is blank, or an alternating red/green/black checkerboard is displayed on the UI touch screen.

### Initial Actions

- If the machine has a [TAG 155](#) IOT PWB, ensure the mandatory [TAG 156](#) has been installed.
- If the UI touch screen is black or blank, but the LVPS fan is running, or there is an LED lit on the UI, go to the [OF2 Touch Screen Failure RAP](#)
- The LVPS can shut down in response to a power surge, requiring a reset. Disconnect the machine from the AC power supply and leave it disconnected for two minutes, then reconnect
- If the problem occurs while entering or exiting sleep mode, go to [01K Sleep Mode RAP](#)
- Ensure that the correct LVPS and base module has been installed, refer to [PL 1.10 Item 3](#)
- If a FAX kit has just been installed and the machine will not respond to the on/off button, the only LED on the IOT PWB that is lit is CR36 (+3.3V standby), the UI touch screen is blank, or an alternating red/green/black checkerboard is displayed on the UI touch screen, go to the [Fax Installation Checkout](#).

### Checkout Options

If an LVPS test box, [PL 26.11 Item 7](#) is available, go to [LVPS Test Box is Available](#). If an LVPS Test Box is not available go to [LVPS Test Box is Not Available](#).

### LVPS Test Box is Available Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the power and control assembly, [REP 1.1](#).
2. Refer to [Figure 2](#) and [Figure 3](#). Make the following connections:
  - P27 from the top of the IOT PWB to J27 on the test box.
  - P26 from the top of the IOT PWB to J26 on the test box.
  - The supplied test harness into J97 on the test box.
  - P24 from the test harness into J24 on top of the LVPS.
  - P25 from the test harness to J25 on the side of the LVPS.

- P16 from the test harness to J16 on the side of the LVPS.
- P17 from the test harness to J17 on the side of the LVPS.
- The supplied connector with a loop wire into J5 on the IOT PWB.

3. Connect the power cord and switch on. Allow a few seconds for the LVPS to stabilise.

Observe the LEDs on the test box. **The Amber LED is lit.**

Y N

Check that all the connections have been made correctly. Check that there is a good AC neutral, AC live and ground supply at the customers AC supply point and at the machine end of the main power cord. If the AC power supply and connections are good, install a new LVPS and base module, [PL 1.10 Item 3](#).

**The green LED is lit.**

Y N

The red LED is lit or flashing. This indicates the following failures:

- Flashing at 1Hz indicates a +24V failure
- Flashing at 0.33Hz an AC fuser output failure
- Permanently lit indicates a failure of 3.3VSB, +5V(1), +5V(2), +12V(1), +12V(2) or +12V sleep

Install a new LVPS and base module, [PL 1.10 Item 3](#).

The LVPS has passed the test, but there may be a problem with the IOT PWB.

Perform the following IOT PWB check:

1. Switch off the power to the LVPS and disconnect the power cord.
2. Disconnect P26 and P27 from the test box.
3. Connect P26 to J26 on the IOT PWB.
4. Connect P27 to J27 on the IOT PWB.
5. Leave all other connections unchanged.
6. Allow a minimum of 2 minutes before the next switch on to allow the LVPS to recover from any shut downs.
7. Reconnect the power cord and switch on the power to the LVPS.

**CR12, CR13, CR15 and CR36 on the IOT PWB are all lit.**

Y N

Install a new IOT PWB, [PL 1.10 Item 2](#).

**CR16 on the IOT PWB is lit.**

Y N

Switch off the power to the LVPS and disconnect the power cord. Disconnect [P/J14](#). Wait 2 minutes for the LVPS to recover from the +24V shutdown. Reconnect the power cord and switch on the power to the LVPS. **CR16 on the IOT PWB is lit.**

Y N

There is a short circuit on the +24V output from the IOT PWB or an open circuit on the +12V interlock circuit.

- Refer to the circuit diagrams in the [01G +24V Distribution RAP](#). Also refer to the [01H Short Circuit and Overload RAP](#) to locate and repair the short circuit. Install a new IOT PWB, [PL 1.10 Item 2](#). Again perform the IOT PWB check to ensure that the IOT PWB is now good.
- To check for an open circuit on the +12V interlock circuit, refer to the [01-300 Front Door Open RAP](#) circuit diagram.

A B

A B  
Install a new HVPS PWB, [PL 1.10 Item 5](#). Again perform the IOT PWB check to ensure that the HVPS is now good.

**CR12 is lit.**

Y N  
There is a short circuit on the +12V output from the IOT PWB. Refer to the circuit diagrams in the [01F +12V Distribution RAP](#) to locate and repair the short circuit. Again perform the IOT PWB check to ensure that the IOT PWB is now good.

**CR36 is the only led that is lit.**

Y N  
Install a new IOT PWB, [PL 1.10 Item 2](#). Again perform the IOT PWB check to ensure that the IOT PWB is good.

There is a short circuit on the +3.3V or the +5V output from the IOT PWB.

- Refer to the circuit diagrams in the [01D +3.3V Distribution RAP](#). Also refer to the [01H Short Circuit and Overload RAP](#) to locate and repair the short circuit. Again perform the IOT PWB check to ensure that the IOT PWB is now good.
- Refer to the circuit diagrams in the [01E +5V Distribution RAP](#). Also refer to the [01H Short Circuit and Overload RAP](#) to locate and repair the short circuit. Again perform the IOT PWB check to ensure that the IOT PWB is now good.

## LVPS Test Box is Not Available Procedure



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Only use the correct plug to connect a power lead to a power outlet.



**CAUTION**

*Incorrect voltage may damage the machine. The machine must only be connected to the power outlet of the correct voltage.*

Check that there is a good AC neutral, AC live and ground supply at the customers AC supply point and at the machine end of the main power cord. Also check that the main power cord is securely connected at both ends. Refer to [GP 22 Electrical Power Requirements](#). If necessary install a new main power cord, [PL 1.10 Item 10](#). Remove the rear cover and connect the power cord. As soon as the power cord is connected the +3.3V standby LED CR36 should light, [Figure 2](#). **CR36 on the IOT PWB is lit.**

Y N  
Check for a blown fuse in the LVPS. Disconnect the power cord from the machine, measure the resistance between the AC live pin and the AC neutral pin on the receptacle where the power cord connects to the LVPS and base module, [Figure 1](#). **Between 0.250 and 0.750 M Ohms is measured.**

C  
Y N  
A resistance reading of 1 M Ohms or greater indicates that the fuse in the LVPS has blown by a short in the fuser module. Install new parts:

- Fuser Module (35-55 ppm), [PL 10.8 Item 1](#)
- Fuser module (65-90 ppm), [PL 10.10 Item 1](#)
- LVPS and base module, [PL 1.10 Item 3](#)

Disconnect [P/J27](#) on the IOT PWB, [Figure 2](#). **On the IOT PWB less than 100 Ohms is measured between J27 pin 6 and the machine frame.**

Y N  
Install a new IOT PWB, [PL 1.10 Item 2](#).

Install a new LVPS and base module, [PL 1.10 Item 3](#).

Disconnect [P/J5](#) on the IOT PWB. Using a small metal screwdriver or metal paperclip, short between pins 19 and 20 (pin 19 is the top right most pin, pin 20 is the bottom right most pin).

**The power supply remains off (dead).**

Y N  
The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on. The on/off switch or wiring is defective. Go to the [01J Power On and LVPS Control Signals RAP](#) to identify and fix the problem.

Disconnect the power cord. Disconnect all P/Js on the IOT PWB, except for [P/J26](#) and [P/J27](#). Remove the waste toner bottle, [PL 9.10 Item 1](#) and waste toner door, [PL 9.10 Item 3](#). Disconnect [P/J16](#), [P/J17](#), [P/J18](#), [P/J19](#) and [P/J25](#) on the right end of the LVPS. Connect the power cord. Using a small metal screwdriver or metal paperclip, short between pins 19 and 20 (pin 19 is the top right most pin, pin 20 is the bottom right most pin).

**NOTE:** [CR16 \(+24V\)](#), will not illuminate now because the +12V interlock circuit is open circuit with [P/J16](#) and [P/J17](#) disconnected.

**The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on.**

Y N  
Disconnect the power cord. Disconnect [P/J26](#) and [P/J27](#) on the IOT PWB. Measure the resistance between the machine frame ground point, [Figure 1](#) and [P/J27](#) pins 1 to 8 (top row), also [P/J26](#) pins 1 to 10. **Greater than 100 Ohms is measured on all pins.**

Y N  
Install a new IOT PWB, [PL 1.10 Item 2](#).

Install a new LVPS and base module, [PL 1.10 Item 3](#). If the problem continues, install a new IOT PWB, [PL 1.10 Item 2](#).

This indicates that the LVPS itself is good, but that there is a short circuit on one of the +3.3V or +5V circuits that were connected to the LVPS. Disconnect the power cord, reconnect [P/J5](#), and the power cord, then press the on/off switch. **The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on.**

Y N  
This indicates that there is a short circuit on one of the +3.3V or +5V circuits connected to [P/J5](#). Go to the [01D +3.3V Distribution RAP](#) and the [01E +5V Distribution RAP](#) to troubleshoot and repair the cause of the +3.3V or +5V short circuit.

D

Disconnect the power cord. Reconnect [P/J16](#). Reconnect the power cord and then press the on/off switch. **The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on.**

Y N

This indicates that there is a short circuit on one of the +3.3V or +5V circuits connected to PJ16. Go to the [01D](#) +3.3V Distribution RAP and the [01E](#) +5V Distribution RAP to troubleshoot and repair the cause of the +3.3V or +5V short circuit.

Disconnect the power cord. Reconnect [P/J17](#). Reconnect the power cord and then press the on/off switch. **The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on.**

Y N

This indicates that there is a short circuit on one of the +3.3V or +5V circuits connected to P/J17. Go to the [01D](#) +3.3V Distribution RAP and the [01E](#) +5V Distribution RAP to troubleshoot and repair the cause of the +3.3V or +5V short circuit.

Disconnect the power cord. Reconnect [P/J18](#). Reconnect the power cord and then press the on/off switch. **The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on.**

Y N

This indicates that there is a short circuit on one of the +3.3V or +5V circuits connected to P/J18. Go to the [01D](#) +3.3V Distribution RAP and the [01E](#) +5V Distribution RAP to troubleshoot and repair the cause of the +3.3V or +5V short circuit.

Disconnect the power cord. Reconnect [P/J19](#). Reconnect the power cord and then press the on/off switch. **The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on.**

Y N

This indicates that there is a short circuit on one of the +3.3V or +5V circuits connected to P/J19. Go to the [01D](#) +3.3V Distribution RAP and the [01E](#) +5V Distribution RAP to troubleshoot and repair the cause of the +3.3V or +5V short circuit.

Disconnect the power cord. Reconnect [P/J25](#). Reconnect the power cord and then press the on/off switch. **The LVPS is on (IOT PWB LEDs [CR12](#), [CR13](#), [CR14](#) and [CR15](#) are lit, also the LVPS fan is running) and all stay on.**

Y N

This indicates that there is a short circuit on one of the +3.3V or +5V circuits connected to P/J25. Go to the [01D](#) +3.3V Distribution RAP and the [01E](#) +5V Distribution RAP to troubleshoot and repair the cause of the +3.3V or +5V short circuit.

The LVPS, +3.3V circuits and +5V circuits are working correctly, the problem is intermittent, perform the following actions:

- Load software 061.131.221.10401 or greater using the Forced AltBoot Software Loading procedure, [GP 4](#).
- Go to the [01H](#) Short Circuit and Overload RAP to diagnose a short circuit.

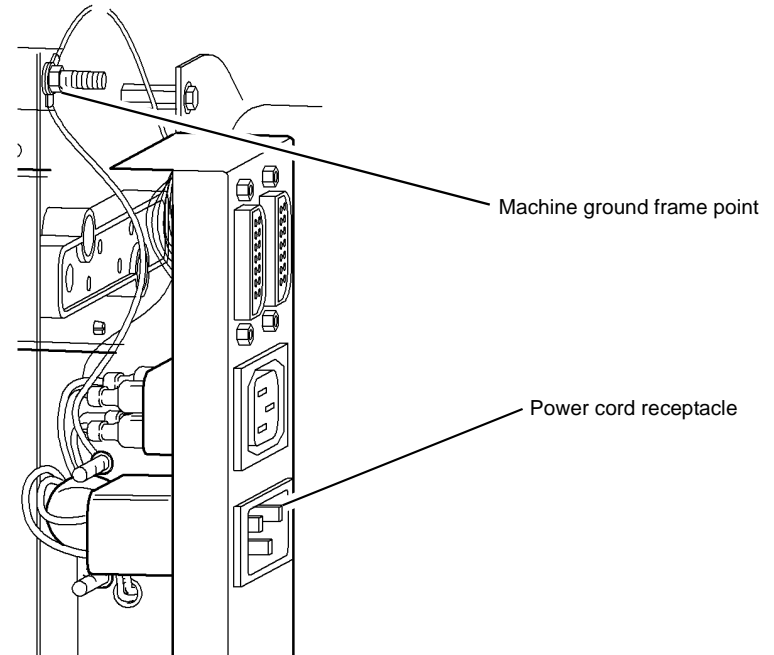
## Fax Installation Checkout

If a FAX kit has just been installed and the one or more of the following symptoms are evident:

- The machine will not respond to the on/off button
- The only LED on the IOT PWB that is lit is CR36 (+3.3V standby)
- The UI touch screen is blank

Disconnect the power cord. Refer to [Figure 4](#), disconnect and correctly reconnect PJ138. Wait 2 minutes for the LVPS to self recover, then reconnect the power cord and switch on the machine, [GP 14](#). The machine should now power on correctly.

If a FAX kit has just been installed and an alternating red/green/black checkerboard is displayed on the UI touch screen, Disconnect the power cord. Refer to [Figure 4](#), disconnect and correctly reconnect PJ138. Wait 2 minutes for the LVPS to self recover, then reconnect the power cord and switch on the machine, [GP 14](#). The machine should now power on correctly. If the machine does not power on correctly, perform an Altboot Software Loading Procedure, [GP 4](#). If the machine still does not power on correctly, install a new Fax kit, [PL 31.35 Item 1](#) (Line 1), or [PL 31.40 Item 1](#) (line 2).



T-1-1262-A

Figure 1 Power connections

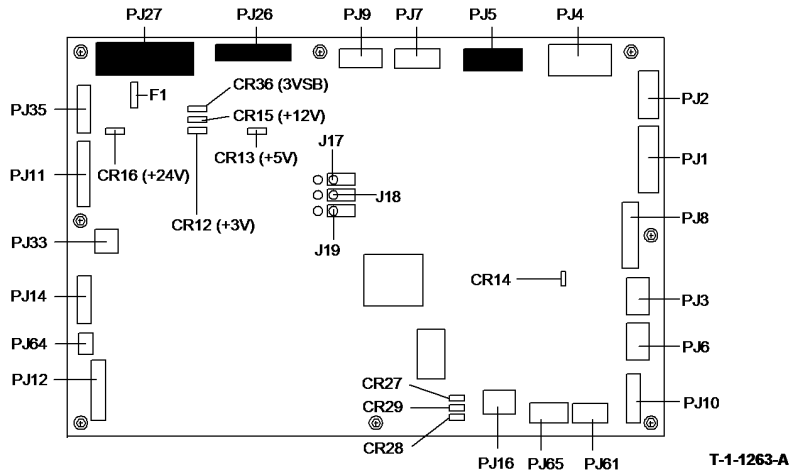


Figure 2 IOT PWB LED and PJ locations

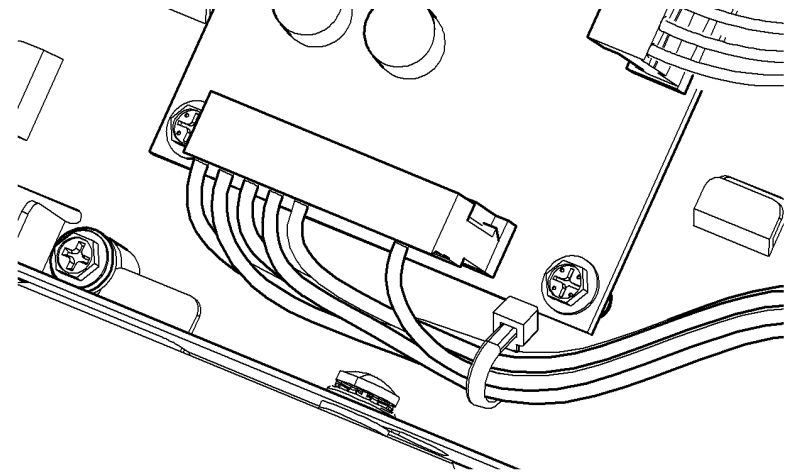


Figure 4 Correctly installed PJ138

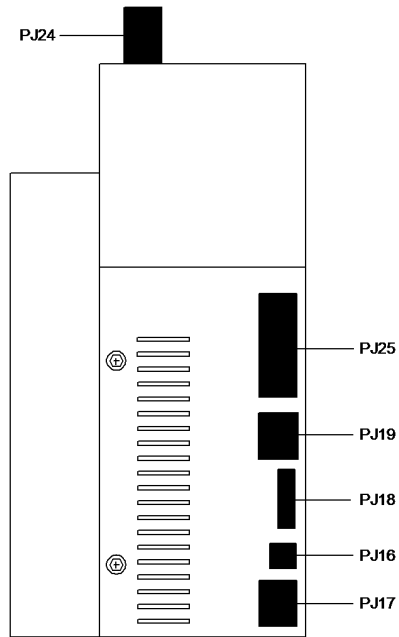


Figure 3 LVPS PJ locations

## OF4 Status Codes and Messages RAP

Use this RAP for faults and messages without fault codes.

The status code numbers are in the series XX-5XX. However a shortage of 500 series numbers means that occasionally other numbers must be used, for example; XX-6XX and XX-9XX. The first two digits identify the relevant functional chain link number. Refer to [GP 2](#) Fault Codes and History Files.

Status codes are used to call up UI status messages and are displayed in the Active Messages Log. Most recent fault and status codes can be displayed on the UI without entering diagnostics, by pressing the Machine Status button on the keypad, touching the Fault tab on the UI, then select as appropriate:

- All Faults.
- Active Messages - status codes and a status message.
- Error Log - fault codes.

The tables in this procedure bring together the status codes, the relevant RAP or procedure references, and some of the UI messages.

**NOTE:** Not all status codes are shown in the active message window. Some status codes have no messages.

### Procedure

Enter the Fault Codes and History Files, [GP 2](#) and identify and clear any active faults. Go to the following RAPs to identify a status code or message:

- [OF4a](#) Status Codes in Numerical Order
- [OF4b](#) Status Messages in Alphabetical Order

## OF4a Status Codes in Numerical Order

### Status Message Tables

- [Table 1](#) 01-5XX Status codes
- [Table 2](#) 02-5XX Status codes
- [Table 3](#) 03-5XX Status codes
- [Table 4](#) 05-5XX Status codes
- [Table 5](#) 06-5XX Status codes
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**Table 1 01-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
01-510	Close front door	Front door open	Perform <a href="#">01-300</a> RAP
01-512	Close left hand door	Left hand door open	Perform <a href="#">01-305</a> RAP
01-514	Close top tray cover	Finisher bin 0 cover open	Perform <a href="#">11-300-110</a> , <a href="#">11-302-110</a> , <a href="#">11-303-110</a> for the 2K LCSS, perform the <a href="#">11-300-120</a> , <a href="#">11-302-120</a> , <a href="#">11-303-120</a> for the 1K LCSS, perform the <a href="#">11-300-171</a> , <a href="#">11-302-171</a> , <a href="#">11-303-171</a> for the HVF.
01-550	No message	System in power save mode	Used internally by the network controller

**Table 2 02-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
02-521	Custom Services not available. Power Off then On and Notify System Administrator	UI gets no response from EIP service within 20 seconds	Switch off machine and switch on machine, <a href="#">GP 14</a> .

**Table 2 02-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
02-530	The User Interface is not available. Please call for assistance	Fault detected at UI. Local UI needs service	Perform <a href="#">02-320</a> , <a href="#">02-380</a> RAP
02-531	Local interface problem detected. Please switch the machine off and on again	Faults declared. UI running in degraded mode	Perform <a href="#">02-309</a> , <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP and the <a href="#">03D</a> Software Module Failure RAP
02-532	Local interface problem detected. Please switch the machine off and on again	Fault declared. UI software error. Fault 02-320 called during power on sequence	Perform <a href="#">02-320</a> , <a href="#">02-380</a> RAP and the <a href="#">03D</a> Software Module Failure RAP
02-533	Not all configurable services have achieved a stable state	Machine not achieved stable state five minutes from power on	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP
02-534	There is a problem with at least one machine service. Please switch the machine off then on again. If this does not solve the problem, switch the machine off and call for assistance	Machine not achieved stable state five minutes from power on	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP
02-535	There is a problem with at least one machine service. Please switch the machine off then on again. If this does not solve the problem, switch the machine off and call for assistance	All services that the UI is waiting for in the registry do not appear even though the Image processing / UI sync occurred	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP
02-536	There is a problem with at least one machine service. Please switch the machine off then on again. If this does not solve the problem, switch the machine off and call for assistance	All services that the UI is waiting for do not appear in the registry	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP
02-540	Installation procedure is not complete. Please complete installation, then switch the machine off then on again	System Manager install phase not set to IpinstallComplete or DC Platform Manager install phase not set to IpinstallComplete	Complete install procedure
02-550	Auto Configuration is disabled. Please re-enable this feature before proceeding	System manager auto-configuration NVM set to disable	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP

**Table 2 02-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
02-560	Remove Reorder Toner Cartridge	Set by the user interface when the user enters *33 code to remove the Reorder Notification message when the Toner Cartridge is replaced.	Cleared by the user interface once Status 09-599 is cleared.
02-561	Unable to access the display list. Please select O.K and then attempt your selection again.	Part of save job for reprint.	Select O.K, then attempt selection again.

**Table 3 03-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
03-500	Printing and scanning are unavailable. Please call for assistance	Voltage not present on +24V rail monitored by IOT	Perform <a href="#">03-480</a> RAP
03-501	Please wait. The system software and the network controller are about to be reset from a remote client. The reset may take several minutes. Any jobs currently being marked will be cancelled	prtgeneralReset MIB object on the network controller is set to a value of powerCycleReset(4)	No action, system automatically reboots which eliminates the request for reboot state
03-503	Fax card not supported	The Fax card capabilities reported to the SIP are not sufficient to function adequately in the system, (e.g. sleep mode not supported).	Perform <a href="#">03-336</a> RAP
03-504	No message	The network controller will simulate this status when the system is taken offline	Clears when the system is put back on line
03-505	Unsupported scanner detected	Scanner software no longer supported	Switch off machine and switch on machine, <a href="#">GP 14</a> . Check software status and upgrade where necessary
03-506	Please wait while your receipt is printing. This may take up to 7 seconds.	This status is raised while auditoron copy activity report is printed	Clears when the report has printed
03-510	Please check the output bin for blank and partially imaged sheets and discard them	Paper is delivered to the output and a video complete has not been received by the single board controller PWB	Perform <a href="#">03-423</a> , <a href="#">424</a> , <a href="#">433</a> , <a href="#">434</a> , <a href="#">821</a> , <a href="#">822</a> , <a href="#">831</a> , <a href="#">832</a> RAP

Table 3 03-5XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
03-511	Output Bin full. Touch pause to hold printing while emptying the bin	The 90% full sensor is cleared before the bin switch timer expires.	Printing will continue automatically 15 seconds after raised if the Pause button is not pressed. Or when the Resume button pressed. Or Automatically 15 minutes after Pause button pressed if Resume button is not pressed.
03-520	Power down failure. Power off cannot be completed. Press the power button on the left side of the machine. If there is no response within 1 minute, then remove the power cord. Wait 3 minutes then reinsert the power cord and switch the machine on.	System fails to power off after request from the UI	Perform <a href="#">03-374</a> RAP
03-525	-	Software upgrade NVM re-initialization	Cleared when the single board controller module has completed initialization, the status will clear
03-526	Restoring configuration setting. Please wait. System will reboot when completed.	Software upgrade configuration reset	Cleared when the single board controller module has completed restoring the configuration settings the status will clear
03-527	Automatic software upgrade failure	Sip NC sync failure prior to power on upgrade	Switch off the machine, then switch on the machine, <a href="#">GP 14</a>
03-535	Please enter your password and press Enter	Machine in service copy mode for password entry	Status clears on leaving service copy mode
03-536	No message	Set on entry to diagnostics. (intrusive diagnostic activity in progress)	Clears on leaving diagnostics
03-537	Software upgrade completing - please wait	Indicates machine in IOT software upgrade status	Clears on leaving IOT software upgrade

Table 3 03-5XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
03-538	An error has occurred - The system is attempting to recover	System attempting to recover from a single board controller PWB to IOT communication failure. Fault 03-300 or 03-320 is raised.	Cleared if communication is established. Perform <a href="#">03-300, 306, 461, 482, 805, 870</a> RAP, <a href="#">03-320 to 03-324</a> RAP
03-539	An error has occurred. The system is attempting to recover.	Comms failure between the IOT and single board controller	Clears when comms re-established, or is converted to status code 03-540 after third recovery attempt
03-540	Communications failure. Please call for assistance	DC-IOT: three times retry fail at 100 ms cycle communication - no response. The DC is unable to communicate with the IOT within one minute of power on or after three retries	Perform the <a href="#">03-300, 306, 461, 482, 805, 870</a> RAP
03-541	No message	Single board controller-UI: three times retry fail at 100 ms cycle communication - no response	Perform <a href="#">03-310</a> RAP
03-542	DADH fault. Please call for assistance	Single board controller-DADH: three times retry fail at 100 ms cycle communication - no response	Clear DADH of originals - use document glass for copy or Fax. Perform <a href="#">03-320 to 03-324</a> RAP
03-543	Scanner fault. Please call for assistance	Single board controller-CCD: three times retry fail at 100 ms cycle communication - no response	Perform <a href="#">14-310</a> RAP and the <a href="#">03D</a> Software Module Failure RAP
03-544	Network controller unavailable. Please call for assistance	Single board controller-network controller: three times retry fail at 100 ms cycle communication - no response	Switch off the machine then switch on the machine, <a href="#">GP 14</a> . Perform the <a href="#">03D</a> Software Module Failure RAP
03-545	Output device communications fault. Please call for assistance.	IOT-Finisher: three times retry fail at 100 ms cycle communication - no response. 03-360	Perform <a href="#">03-360, 03-408 to 03-410, 03-418</a> RAP
03-547	Pull out fuser module, then firmly push it back in	IOT-Fuser comms fault. Fault 03-371 is raised.	Perform <a href="#">03-371, 03-372</a> RAP
03-548	Pull out xerographic module, then firmly push it back in	IOT-X-Crum comms fault. Fault 03-372 is raised.	Perform <a href="#">03-371, 03-372</a> RAP
03-549	Paper Trays are unavailable. Call for assistance	IOT to trays 1 and 2 comms fault. Fault 03-350 is raised.	Perform <a href="#">03-350, 03-351, 03-354</a> RAP
03-551	Fax service is unavailable	Single board controller-FAX: comms error. Fault 03-338 is raised.	Perform <a href="#">03-338</a> RAP

**Table 3 03-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
03-552	Tray 3 and 4 are unavailable. Please call for assistance.	IOT microprocessor to HCF comms error. Fault 03-359 raised	Perform <a href="#">03-359</a> , <a href="#">03-407</a> RAP
03-553	The BM is unavailable. Please call for assistance.	BM communications failure. Fault 03-363 is raised.	Perform <a href="#">11B-171</a> RAP
03-554	Network controller is initiating. Power Off will be available when initialization has completed. Please wait.	Network controller powered up but is still initializing. Fault 03-340 is raised, and will clear when initial is at ion is complete	No action
03-556	Please wait. The system is attempting to recover from a fault	Tray 1 and 2 comms error. Fault codes 03-351 and 03-354 are raised	Perform <a href="#">03-350</a> , <a href="#">03-351</a> , <a href="#">03-354</a> RAP
03-557	Please wait - the system is attempting to recover from a fault	Tray 5 comms error. Fault 03-366 is raised	Perform <a href="#">03-366</a> RAP
03-558	Copying is being prevented by the Access Control device	The foreign Interface is configured and a connected 3rd party accessory is reporting as not enabled.	Perform <a href="#">03-412</a> RAP
03-559	Copying is being prevented by the Access Control device	This status occurs when there is a status 03-558 and the system contains non-held jobs controlled by the Foreign Interface	The status clears when the jobs are deleted. If necessary, perform <a href="#">03-412</a> RAP
03-560	Software cycling control fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services / Printing is unavailable	Laser on without printing. Fault 03-396 raised	Perform <a href="#">03-395</a> , <a href="#">396</a> , <a href="#">852</a> , <a href="#">853</a> RAP
03-561	An internal communications error has occurred. Switch off the machine and call for assistance	Single board controller wall clock is not incrementing. Fault 03-325 is raised.	Perform <a href="#">03-315</a> , <a href="#">325</a> , <a href="#">347</a> , <a href="#">348</a> , <a href="#">349</a> , <a href="#">355</a> , <a href="#">400</a> RAP
03-562	No message	Image processing POST failure. NVM Integrity ASICEPC-Failure. Fault 03-347, 03-348, 03-355 is raised.	Perform <a href="#">03-315</a> , <a href="#">325</a> , <a href="#">347</a> , <a href="#">348</a> , <a href="#">349</a> , <a href="#">355</a> , <a href="#">400</a> RAP
03-563	An internal communications error has occurred. Switch off the machine and call for assistance	Image processing rotation memory POST has failed	Perform <a href="#">03-315</a> , <a href="#">325</a> , <a href="#">347</a> , <a href="#">348</a> , <a href="#">349</a> , <a href="#">355</a> , <a href="#">400</a> RAP

**Table 3 03-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
03-568	Job contains too many sheets to be folded and stapled. See Help for more details.	The single board controller PWB reports that the BM job contains too many sheets for the BM to fold and staple.	Maximum number of output sheets that can be folded and stapled is 15
03-569	Job contains too many sheets to be folded. See Help for more details.	The single board controller PWB reports that the BM job contains too many sheets for the BM to fold	Maximum number of output sheets that can be folded is 15
03-570	Current job exceeds tray capacity, you will be prompted to empty the tray	Job is too large for selected output bin	None
03-571	The installed staple cartridge can staple a maximum of 50 sheets. Please confirm to close this window	50 sheet cartridge installed in the HVF	Press confirm.
03-573	After clearing paper, replace any discarded tabs with identical tab stock in the correct tray	Image processing reports that a jam occurred	Cleared when the IOT has performed stray sheet detection successfully the status clears
03-575	Main motor control fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	Main motor not being controlled. Fault 03-397 raised	Perform <a href="#">03-397</a> RAP
03-576	IOT cycled in without printing	IOT cycled in without printing. Fault 03-395 raised	Perform <a href="#">03-395</a> , <a href="#">396</a> , <a href="#">852</a> , <a href="#">853</a> RAP
03-579	Machine speed configuration error	Speed in image processing NVM does not match speed in DADH	Perform <a href="#">03-320</a> to <a href="#">03-324</a> RAP. Perform <a href="#">03-330</a> , <a href="#">03-462</a> RAP. Refer to <a href="#">GP 15</a> How to Set the Machine Configuration
03-580	Machine speed configuration error	Speed in Image processing NVM does not match speed in IOT NVM. Fault 03-461 is raised.	Perform <a href="#">03-330</a> , <a href="#">03-462</a> RAP. Refer to <a href="#">GP 15</a> How to Set the Machine Configuration
03-581	Machine speed configuration error	Speed in Image processing NVM does not match scanner speed. Fault 03-462 is raised.	Perform <a href="#">03-330</a> , <a href="#">03-462</a> RAP. Refer to <a href="#">GP 15</a> How to Set the Machine Configuration
03-585	Scan to file unavailable	Fault 03-331 raised. The status is cleared when status 03-544 is raised.	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
03-586	FAX service unavailable	The fault 03-401 or 03-403 is raised.	Perform <a href="#">03-401</a> , <a href="#">03-403</a> . Perform <a href="#">20A</a> RAP



**Table 3 03-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
03-587	Machine unavailable	The fault 03-417 is raised.	Perform <a href="#">03-417</a> RAP
03-588	Fax service is unavailable	Basic Fax not detected or confirmed.	Perform <a href="#">03-401</a> , <a href="#">03-403</a> . Perform <a href="#">20A</a> RAP
03-589	Fax Service Error A Fax Service error has occurred. Fax line 2 is unavailable. Fax line 1 is still available. Contact your System Administrator.	Extended Fax not detected or confirmed.	Perform <a href="#">20A</a> RAP
03-590	A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	Fax POST failure status	Perform <a href="#">20A</a> RAP
03-591	Try turning the machine off and on. Please call for assistance if the problem persists	The single board controller PWB reports that its stored machine model ID differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
03-592	Try turning the machine off and on. Please call for assistance if the problem persists	The single board controller PWB reports that its stored machine type differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
03-593	Try turning the machine off and on. Please call for assistance if the problem persists	The single board controller PWB reports that its stored machine speed ID differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
03-594	Try turning the machine off and on. Please call for assistance if the problem persists	The single board controller PWB reports that its stored machine variant ID differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
03-597	The software that controls tray 5 requires updates. Tray 5 is unavailable	Incompatible software detected in the tray 5 controller	Switch the machine off and on, <a href="#">GP 14</a> . Perform <a href="#">03-419</a> , <a href="#">03-420</a>

**Table 3 03-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
03-598	Tray 5 is unavailable. Check cabling connections	Tray 5 software is installed but hardware is not detected	Check that all tray 5 control PWB connections are good. Perform <a href="#">03-366</a> .
03-600	A daylight saving time change has occurred. The device clock has been adjusted.	Daylight saving time has been automatically changed	No action
03-601	Unable to detect card reader	Smart Card authentication has been enabled but no card reader is installed	Perform <a href="#">03-412</a> RAP.

**Table 4 05-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
05-502	Lower the document feeder to use it to scan your documents.	Document present in DADH tray and the DADH cover is open	Close the DADH cover. Perform <a href="#">05-300</a> RAP
05-503	Reload originals and press Start	Not enough originals during recovery	Reload originals
05-504	A nonstandard document has been detected. It will be scanned to match the closest standard size	A document length is detected during the document feed cycle that is not consistent with the document size assumed by the DADH sensors and the market region settings	Cleared when job cancelled or completed. Perform <a href="#">05C</a> RAP
05-507	Job was deleted because a document was larger than expected. Discard output. Try flattening the document and either re-scan it through the document feeder or scan it from the document glass	Fault 05-331 is raised.	Perform <a href="#">05-330</a> , <a href="#">05-331</a> RAP
05-520	Open document feeder top cover	Sheet left over DADH feed sensor after a jam	Remove the sheet. Perform <a href="#">05-330</a> , <a href="#">05-331</a> RAP
05-521	Open document feeder top cover	Sheet left over DADH take away sensor after jam	Perform <a href="#">05-335</a> Take-away Sensor Failure RAP
05-522	Open the document feeder	Sheet left over DADH CVT sensor after jam	Remove sheet. Perform <a href="#">05-350</a> , <a href="#">05-352</a> RAP
05-523	Open the document feeder	Sheet left over DADH registration sensor after jam	Remove sheet. Perform <a href="#">05-340</a> RAP

Table 4 05-5XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
05-524	Open the document feeder	Sheet left over DADH exit sensor after jam	Remove sheet. Perform <a href="#">05-345</a> , <a href="#">05-346</a> RAP
05-525	Remove all documents from the document feeder tray	Sheet left over DADH document present sensor after jam	Remove sheet. Perform <a href="#">05B</a> RAP
05-526	Open document feeder top cover	DADH - sheet near CVT sensor in duplex path. 05-352 fault is raised	Reset when DADH top cover closed after jam cleared. Perform <a href="#">05-350</a> , <a href="#">05-352</a> RAP
05-530	No message	Document in DADH tray	Remove document from tray. Perform <a href="#">05B</a> RAP
05-531	No message	Document in DADH area 2 with no document in area 3	Remove document. Perform <a href="#">05-330</a> , <a href="#">05-331</a> , <a href="#">05-335</a> , <a href="#">05-340</a> RAPs.
05-532	No message	Document in DADH area 2 with document in area 3	Remove document. Perform RAP. Perform <a href="#">05-330</a> , <a href="#">05-331</a> , <a href="#">05-335</a> , <a href="#">05-340</a> RAPs.
05-533	No message	Document in DADH area 3	Remove document. Perform RAP. Perform <a href="#">05-330</a> , <a href="#">05-331</a> , <a href="#">05-335</a> , <a href="#">05-340</a> RAPs.
05-534	Check for a stray original in the document tray	Unscheduled document detected by any sensor	Clear the document path in the DADH. Perform <a href="#">05-330</a> , <a href="#">05-331</a> , <a href="#">05-335</a> , <a href="#">05-340</a> , <a href="#">05-345</a> , <a href="#">05-346</a> RAPs.
05-535	Close Document Feeder Top Cover	Open DADH cover	Close document handler. Perform <a href="#">05-310</a> RAP
05-536	Document feeder is open	Open document feeder	Close document feeder. Perform <a href="#">05-300</a> RAP
05-537	No message	DADH tray empty	Put document in tray. Perform <a href="#">05B</a> RAP
05-538	Document feeder is unavailable	DADH not available. 03-322, 03-323, 03-324 or 14-320 raised	Perform <a href="#">03-320 to 03-324</a> RAP and <a href="#">14-320</a> RAP
05-539	Document feeder feed roll has been replaced	DADH feed head CRU replaced. Message automatically cleared half a second after setting	None

Table 4 05-5XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
05-540	Resort and reload all originals.	DADH document jam is cleared for a single job	Replace document on DADH input tray to enable recovery. Check for blanks in output tray.
05-542	Document feeder is unavailable	Document transport needs service.	Perform <a href="#">05A</a> RAP
05-544	Resort and reload ALL originals in the document feeder	Document jam is cleared (covers cycled and switch cleared) and 'normal job' or 'build job'	Resume job command is given with documents replaced in input tray, if required, or cancel job command is given
05-546	Reload originals or select original size and press Start	On pre-feed the DADH fails to recognize the size of the document	Reload originals or select size. Perform <a href="#">05C</a> RAP
05-547	Re-order but do not replace Document Feeder Feed Roll	DADH feed roll assembly near end of life	Re-order feed roll assembly, (35 ppm) <a href="#">PL 5.15 Item 1</a> or (40-90 ppm) <a href="#">PL 5.17 Item 1</a> .
05-548	Please follow the instructions below to replace the document handler feed roll:	DADH feed roll assembly at end of life	Install a new feed roll assembly, (35 ppm) <a href="#">PL 5.15 Item 1</a> or (40-90 ppm) <a href="#">PL 5.17 Item 1</a> .
05-560	Document is too short to be scanned by the document feeder, use the document glass	Document too short for DADH, use document glass. Fault 05-310 raised	Remove document from DADH during jam clearance, Perform <a href="#">05-310</a> RAP
05-586	Try turning the machine off and on. Please call for assistance if the problem persists	Network controller software version supplied at power-on is not compatible with single board controller PWB. Fault 03-416 is raised	No action
05-588	Try turning the machine off and on. Please call for assistance if the problem persists	Finisher software version supplied is not compatible. Fault 03-418 raised	Perform <a href="#">03-360</a> , <a href="#">03-408 to 03-410</a> , <a href="#">03-418</a> RAP If necessary, reload the software, <a href="#">GP 4</a>
05-589	Try turning the machine off and on. Please call for assistance if the problem persists	IOT, DADH or UI software version supplied at power-on is not compatible with the single board controller PWB.	Perform <a href="#">03-300</a> , <a href="#">306</a> , <a href="#">461</a> , <a href="#">482</a> , <a href="#">805</a> , <a href="#">870</a> RAP, <a href="#">03-320 to 03-324</a> RAP, <a href="#">03-310</a> RAP. If necessary, reload the software, <a href="#">GP 4</a>

**Table 5 06-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
06-520	The ROS motor has failure. Switch the machine off, wait 3 minutes, then switch on the machine again. If the fault persists call for assistance or press Close to use other services.	ROS motor failed.	Perform <a href="#">06-020</a> RAP
06-530	ROS system failure. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	ROS system failed.	Perform <a href="#">06-340</a> RAP
06-540	ROS laser not being controlled	ROS laser not being controlled.	Perform <a href="#">06-350</a> RAP

**Table 6 07-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
07-501	Check the settings for Tray 1	Tray 1 closed or size change from power-on	Confirm the attributes or open the tray
07-502	Check the settings for Tray 2	Tray 2 closed or size change from power-on	Confirm the attributes or open the tray
07-505	Check settings for the bypass tray	Bypass tray size confirmation required	Confirm the attributes
07-506	Adjust position of Tray 1 before proceeding	Tray 1 guides moved out of 'fixed' position	Open tray 1 and reset the paper guides
07-507	Adjust position of Tray 2 before proceeding	Tray 2 guides moved out of 'fixed' position	Open tray 2 and reset the paper guides
07-511	Tray 1 empty, please reload	Tray 1 paper present sensor detects no paper in tray	Reload paper. If necessary perform <a href="#">07A</a> RAP
07-512	Tray 2 empty, please reload	Tray 2 paper present sensor detects no paper in tray	Reload paper. If necessary perform <a href="#">07A</a> RAP
07-513	Tray 3 empty, please reload	Tray 3 paper present sensor detects no paper in tray	Reload paper. If necessary perform <a href="#">07F</a> RAP
07-514	Tray 4 empty, please reload	Tray 4 paper present sensor detects no paper in tray	Reload paper. If necessary perform <a href="#">07F</a> RAP
07-515	Bypass Tray empty, please reload	Paper present sensor detects no paper in bypass tray, while attempting to feed from the bypass	Reload paper. If necessary perform <a href="#">07D</a> RAP

**Table 6 07-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
07-516	Tray 5 empty, please reload	Tray empty sensor detects no paper	Reload paper. If necessary, perform <a href="#">07J</a>
07-517	Insertor empty, please reload	Paper sensor detects no paper	Reload paper.
07-521	Remove misfed sheet. Close tray 1	IOT microprocessor detects Tray 1 open	Close tray. Perform <a href="#">07-301</a> RAP
07-522	Remove misfed sheet. Close tray 2	IOT microprocessor detects Tray 2 open	Close tray. Perform <a href="#">07-302</a> RAP
07-523	Remove misfed sheet. Close tray 3	IOT microprocessor detects Tray 3 open	Close Tray. Perform <a href="#">07-303</a> RAP
07-524	Remove misfed sheet. Close tray 4	IOT microprocessor detects Tray 4 open	Close Tray. Perform <a href="#">07-304</a> RAP
07-526	Close tray 5 door	Tray 5 door has been detected open	Close the door, or perform <a href="#">07-306</a>
07-531	Tray 1 is low on paper	Tray 1 paper low	Perform <a href="#">07A</a> RAP
07-532	Tray 2 is low on paper	Tray 2 paper low	Perform <a href="#">07A</a> RAP
07-533	Tray 3 is low on paper	Tray 3 paper low	IOT microprocessor detects Tray 3 paper level at 25%. Perform <a href="#">07B</a> RAP
07-534	Tray 4 is low on paper	Tray 4 paper low	IOT microprocessor detects Tray 4 paper level at 25%. Perform <a href="#">07B</a> RAP
07-536	Tray 5 is low on paper	Tray 5 paper below 5% full	Add paper. If necessary, perform <a href="#">07-373</a> and <a href="#">07-374</a> RAPs
07-539	Tray 5 is overloaded, please remove excess paper	Paper equals or is more than 100% full in tray 5	Remove some paper. If necessary, perform <a href="#">07-373</a> and <a href="#">07-374</a>
07-541	Tray 1 is out of service, please use a different tray	Tray 1 out of service.	Perform <a href="#">07H</a> RAP
07-542	Tray 2 is out of service, please use a different tray	Tray 2 out of service.	Perform <a href="#">07H</a> RAP
07-543	Tray 3 is out of service, please use a different tray	Tray 3 elevate top sensor does not turn on within 7 seconds after elevator motor on.	Perform <a href="#">07-355</a> RAP
07-544	Tray 4 is out of service, please use a different tray	Tray 4 elevate top sensor does not turn on within 7 seconds after elevator motor on	Perform <a href="#">07-360</a> RAP

**Table 6 07-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
07-546	Tray 5 is out of service, please use a different tray	Tray 5 cannot feed paper	Switch the machine off and on, <a href="#">GP 14</a> . Check that the tray is in the correct position. Perform <a href="#">07-306</a> , <a href="#">07-372</a> , or <a href="#">07-373</a> RAP
07-550	Tray 3 is lifting	Tray 3 is lifting.	Perform <a href="#">07-355</a> RAP
07-551	Tray 1 is lifting	Tray 1 is lifting.	Perform <a href="#">07-353</a> RAP
07-552	Tray 2 is lifting	Tray 2 is lifting.	Perform <a href="#">07-354</a> RAP
07-560	Tray 4 is lifting	Tray 4 is lifting	Perform <a href="#">07-360</a> RAP
07-561	Tray 5 is lifting, please wait	Tray 5 is currently lifting	Perform <a href="#">07-373</a>
07-562	-	Tray 5 is currently lowering	Perform <a href="#">07-374</a>
07-563	Tray 5 is unavailable. Check for obstructions in Tray 5	Tray 5 lifting has stopped	Perform <a href="#">07-373</a>
07-564	Tray 5 is unavailable. Check for obstructions in Tray 5	Tray 5 lowering has stopped	Perform <a href="#">07-374</a>
07-571	Paper size mismatch. Check paper in Tray 1. Some image loss may occur	First sheet fed after a tray 1 status change does not match the confirmed stock	Check the paper in tray 1. Perform <a href="#">07E</a> RAP
07-572	Paper size mismatch. Check paper in Tray 2. Some image loss may occur	First sheet fed after a tray 2 status change does not match the confirmed stock	Check the paper in tray 2. Perform <a href="#">07E</a> RAP
07-573	Paper size mismatch. Check paper in Tray 3. Some image loss may occur	First sheet fed after a tray 3 status change does not match the confirmed stock	Check the paper in tray 3. Check that the tray is set to correct paper size, (W/O <a href="#">TAG 151</a> ) <a href="#">ADJ 7.1</a> or (W/ <a href="#">TAG 151</a> ) <a href="#">ADJ 7.5</a>
07-574	Paper size mismatch. Check paper in Tray 4. Some image loss may occur	First sheet fed after a tray 4 status change does not match the confirmed stock	Check the paper in tray 4. Check that the tray is set to correct paper size, (W/O <a href="#">TAG 151</a> ) <a href="#">ADJ 7.1</a> or (W/ <a href="#">TAG 151</a> ) <a href="#">ADJ 7.5</a>
07-575	Paper size mismatch. Check paper in Bypass tray. Some image loss may occur	First sheet fed after a bypass tray status change does not match the confirmed stock	Check the paper in bypass tray and the side guide is set correctly
07-576	Paper size mismatch. Check paper in tray 5	The first sheet after a tray 5 status change does not match the confirmed stock	Confirm the paper size in the UI

**Table 6 07-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
07-580	Re-order but do not replace the Tray 5 Feed Rolls	Near the end of life - ensure new stock is available	Order new feed roll kit, <a href="#">PL 8.45 Item 2</a>
07-581	Slide Tray 5 up to machine	Tray 5 is un-docked	Perform <a href="#">07-372</a>
07-590	Replace tray 5 feed rolls	The feed head counter has reached the end of life figure	Install new tray 5 feed rolls, <a href="#">PL 8.45 Item 2</a>
07-592	Check the settings for tray	Tray 2 closed or size change from power-on	Confirm the attributes or open the tray

**Table 7 08-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
08-548	Clear jam from right hand side of Tray 5	Sheet did not clear the wait sensor within the expected time	Perform <a href="#">08-115</a> , <a href="#">08-117</a> RAP
08-550	Open left hand door	Sheet over wait sensor	Jam clearance. Perform <a href="#">08-100</a> RAP
08-551	Open left hand door	Tray 1 feed sensor detects paper in feed area on power-on or in standby, 08-101	Jam clearance. Perform <a href="#">08-101</a> RAP
08-552	Open left hand door	Tray 2 feed sensor detects paper in feed area on power-on or in standby. 08-102	Jam clearance. Perform <a href="#">08-102</a> RAP
08-553	Open tray 3	Tray 3 feed sensor detects paper in feed area on power-on or in standby. 08-103	Jam clearance. Perform <a href="#">08-103</a> , <a href="#">08-113</a> RAP. If the fault remains, check the tray 3 exit sensor, refer to the <a href="#">08-131</a> RAP.
08-554	Open left hand door	Tray 4 feed sensor detects paper in feed area on power-on or in standby. 08-104	Jam clearance. Perform <a href="#">08-104</a> , <a href="#">08-114</a> RAP
08-555	Open front door	Registration sensor detects paper in registration area on power-on or in standby. 08-150	Jam clearance. Perform <a href="#">08-150</a> , <a href="#">08-151</a> RAP
08-556	Open front door	Paper in duplex path at power-on or in standby	Jam clearance. Perform <a href="#">08-160</a> , <a href="#">08-161</a> RAP
08-557	Open left hand door	Paper over the registration sensor when feeding from the bypass tray	Jam clearance. Perform <a href="#">08-155</a> , <a href="#">08-156</a> RAP

**Table 7 08-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
08-558	Clear jam in Tray 5	Sheet over the feed sensor	Jam clearance. Perform <a href="#">08-115</a> , <a href="#">08-117</a> RAP
08-561	Open tray 1	Sheet near Tray 1 feed sensor.	Jam clearance. Perform <a href="#">08-106</a> RAP
08-562	Open tray 2	Sheet near Tray 2 feed sensor	Jam clearance. Perform <a href="#">08-106</a> RAP
08-563	Open tray 3	Sheet near Tray 3 feed sensor	Jam clearance. W/O <a href="#">TAG 151</a> Perform <a href="#">08-107</a> RAP. W/ <a href="#">TAG 151</a> Perform <a href="#">08-131</a> RAP, check the tray 3 exit sensor
08-564	Open tray 4	Sheet near Tray 4 feed sensor	Jam clearance. Perform <a href="#">08-108A</a> RAP
08-565	Open left hand door	Sheet near registration sensor	Jam clearance Perform <a href="#">08-150</a> , <a href="#">08-151</a> RAP
08-566	Open front door	Sheet near duplex sensor	Jam clearance. Perform <a href="#">08-160</a> , <a href="#">08-161</a> RAP
08-567	Open left hand door	Paper over the registration sensor when feeding from the bypass tray	Jam clearance. Perform <a href="#">08-155</a> , <a href="#">08-156</a> RAP
08-568	Clear jam in Tray 5	Paper did not reach the tray 5 feed sensor in time	Clear jam or perform <a href="#">08-115</a> , <a href="#">08-117</a> RAP
08-570	Post jam clearance initial is at ion in progress	The IOT and finisher device are performing the post jam clearance initialization process to check for stray sheets	Status clears on completion of initialization process
08-580	Paper jam not fully cleared	A stray sheet has been detected in either the IOT or finisher device during the post jam clearance initialization routine. <a href="#">08-190</a>	Jam clearance. Perform <a href="#">08-190</a> RAP
08-590	An unexpected time-out was detected for a sheet in the paper path. This may be due to a different paper in the trays than the machine expects. Please check and confirm the contents of the paper trays	Unexpected event or time-out for sheet. <a href="#">08-171</a> , <a href="#">08-181</a> , <a href="#">08-182</a>	Perform <a href="#">08-171</a> RAP, <a href="#">08-181</a> RAP, <a href="#">08-182</a> RAP

**Table 8 09-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
09-540	Xerographic Module cleaning in progress. Please wait	The Scorotron cleaning is in progress	Refer to <a href="#">09-341</a> , <a href="#">09-342</a> Scorotron Cleaning Failure RAP
09-541	Xerographic Module Cleaning Failure. Copy and Printing unavailable. Touch Power Off to switch machine off or touch Ignore Error to use other services	Scorotron cleaning failure	Refer to <a href="#">09-341</a> , <a href="#">09-342</a> Scorotron Cleaning Failure RAP
09-543	Xerographic Module Maintenance Please follow the instructions below	Charge scorotron manual cleaning required	Refer to <a href="#">IQ1</a> Image Quality Entry RAP
09-545	Toner cartridge status is disabled	This status is raised when the toner gas gauge is disabled	No action required. The toner gas gauge can be enabled, if required
09-546	Toner adjustments in progress. Please wait.	Replenisher sump refilling	Perform <a href="#">09-360</a> , <a href="#">09-361</a> , <a href="#">09-362</a> , <a href="#">09-363</a> RAP
09-550	Printing is unavailable	Photoreceptor erase lamp has failed. <a href="#">09-350</a> fault	Perform <a href="#">09-350</a> RAP
09-560	Printing and Copying are unavailable	HVPS failure. <a href="#">09-060</a> fault	Perform <a href="#">09-060</a> RAP.
09-570	The Xerographic module is not compatible with this machine. Please refer to the User Guide	Xerographic module CRUM authorization failure. <a href="#">09-399</a> . The status clears when the associated has been cleared	Perform <a href="#">09-399</a> RAP.
09-584	Re-order, but do not replace xerographic module	Xerographic module near end of life	Re-order a new xerographic module, (35 ppm) <a href="#">PL 9.22 Item 2</a> , (40-90 ppm) <a href="#">PL 9.20 Item 2</a> .
09-585	Replace Xerographic Module	Xerographic module end of life	Refer to the <a href="#">03D</a> Software Module Failure RAP before a new xerographic module is installed (35 ppm) <a href="#">PL 9.22 Item 2</a> , (40-90 ppm) <a href="#">PL 9.20 Item 2</a> . Refer to <a href="#">GP 27</a> , End of Life Extension

**Table 8 09-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
09-586	Replace xerographic module	IOT detects an xerographic module failure	Switch the machine off and on, <a href="#">GP 14</a> . Install a new xerographic module
09-587	The Xerographic Module is not compatible with this machine.	The system setting does not match the xerographic module type	Install correct xerographic module or modify setting
09-588	The Xerographic Module is not compatible with this machine.	The system setting does not match the xerographic module market region ID setting	Install correct xerographic module or modify setting
09-589	The Xerographic Module is not compatible with this machine.	The system setting does not match the xerographic module speed setting	Install correct xerographic module or modify speed setting
09-590	Ozone filter near end of life, ensure you have a replacement filter	Ozone life counter near end of life	Order a new ozone filter, <a href="#">PL 9.25 Item 3</a> .
09-591	Replace Ozone Filter	Ozone life counter reaches end of life	Install new ozone filter, <a href="#">PL 9.25 Item 3</a>
09-592	Toner cartridge empty	Toner level sensor registers developer sump not full	Install new toner cartridge, <a href="#">PL 9.15 Item 4</a> , <a href="#">PL 9.17 Item 4</a> .
09-593	Replace toner cartridge	Accumulated toner dispense time value greater than 27 s attained, or cycle out event occurs (Toner cartridge empty). 09-390	Install new toner cartridge. Perform <a href="#">09-310</a> , <a href="#">09-390</a> RAP
09-594	Replace waste toner bottle	Waste toner shutdown counter value attained OR if waste toner shutdown counter value greater than 50% and cycle out event occurs	Install new waste toner bottle, <a href="#">PL 9.10 Item 1</a> .
09-595	Waste toner bottle nearly full, ensure you have a replacement bottle	Waste toner full sensor registers full for greater than 100 pages.	Perform <a href="#">09B</a> RAP
09-596	Ensure waste toner bottle is fitted and waste toner door is closed	IOT detects waste bottle door open.	Ensure waste bottle fitted and door closed. Perform <a href="#">09-380</a> RAP
09-597	Toner control failure	Toner concentration process control failure.	Perform <a href="#">09-360</a> , <a href="#">09-361</a> , <a href="#">09-362</a> , <a href="#">09-363</a> RAP
09-598	Toner control sensor failure	Toner control sensor failure.	Perform <a href="#">09-360</a> , <a href="#">09-361</a> , <a href="#">09-362</a> , <a href="#">09-363</a> RAP

**Table 8 09-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
09-599	Toner cartridge nearly empty. Ensure you have a replacement cartridge	When less than X days predicted until toner cartridge end of life	Order a new toner cartridge, <a href="#">PL 9.15 Item 4</a> , <a href="#">PL 9.17 Item 4</a> . Or cleared when 02-560 status code is raised.

**Table 9 10-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
10-505	The fuser is warming up. Printing may be delayed	Fuser not at temperature	Perform <a href="#">10-322</a> , <a href="#">10-324</a> , <a href="#">10-325</a> , <a href="#">10-330</a> , <a href="#">10-370</a> RAP
10-507	Open front door	Sheet is near the IOT exit sensor in the non-invert path	Jam clearance or perform <a href="#">10-120</a> , <a href="#">10-121</a> , <a href="#">10-126</a>
10-508	Open front door	Sheet is near the IOT exit sensor in the left hand side of the invert path	Jam clearance or perform <a href="#">10-120</a> , <a href="#">10-121</a> , <a href="#">10-126</a>
10-509	Open front door	Sheet is near the IOT exit sensor in the right hand side of the invert path	Jam clearance or perform <a href="#">10-120</a> , <a href="#">10-121</a> , <a href="#">10-126</a>
10-510	Clear jam in IOT zone 4	Post fuser sensor detects paper in post fuser area on power-on or in standby	Perform <a href="#">10-107</a> , <a href="#">10-108</a> , <a href="#">10-109</a> , <a href="#">10-110</a> RAP
10-511	Open front door	Sheet near post fuser sensor	Jam clearance or perform <a href="#">10-107</a> , <a href="#">10-108</a> , <a href="#">10-109</a> , <a href="#">10-110</a> RAP
10-512	Open front door	IOT exit sensor paper in IOT exit area at power -on or start print	Jam clearance. Perform <a href="#">10-120</a> , <a href="#">10-121</a> , <a href="#">10-126</a> RAP
10-513	Open front door	Sheet near IOT exit sensor	Jam clearance. Perform <a href="#">10-120</a> , <a href="#">10-121</a> , <a href="#">10-126</a> RAP
10-516	Output tray nearly full	Printer bin 0 90% full sensor made	Unload the tray
10-520	Replace fuser module	Fuser counter reaches 300 k prints	Install new fuser module, <a href="#">PL 10.10 Item 1</a> , <a href="#">PL 10.8 Item 1</a> . Refer to <a href="#">GP 27</a> , End of Life Extension

**Table 9 10-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
10-521	Re-order but do not replace fuser module	Fuser counter reaches 290 k prints	Refer to the <a href="#">03D Software Module Failure RAP</a> before ordering a new fuser module, <a href="#">PL 10.10 Item 1</a> , <a href="#">PL 10.8 Item 1</a> .
10-523	Replace fuser module	IOT detects fuser failure	Install new fuser module, <a href="#">PL 10.10 Item 1</a> , <a href="#">PL 10.8 Item 1</a> .
10-530	The fuser module is not compatible with this machine. Please refer to the user guide	The system setting does not match the fuser type setting (service offering)	Install new fuser module or modify settings
10-531	Incompatible fuser module	The system setting does not match the fuser type setting (fuser voltage)	Install a new fuser or modify settings
10-532	Incompatible fuser module	The system setting does not match the fuser OpCo ID setting (Market region)	Install a new fuser or modify OpCo ID setting
10-533	Incompatible fuser module	The system setting does not match the fuser product speed setting	Install a new fuser or modify the product speed setting
10-540	Please wait adjusting fuser temperature	Fuser temperature control failure.	Perform <a href="#">10-322</a> , <a href="#">10-324</a> , <a href="#">10-325</a> , <a href="#">10-330</a> , <a href="#">10-370 RAP</a> , <a href="#">10-315</a> , <a href="#">10-320</a> , <a href="#">10-321</a> , <a href="#">10-323</a> , <a href="#">10-340</a> , <a href="#">10-350</a> , <a href="#">10-360</a> , <a href="#">10-365</a> , <a href="#">10-380 RAP</a>
10-545	Fuser module under temperature fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	Fuser warm-up failure.	Perform <a href="#">10-322</a> , <a href="#">10-324</a> , <a href="#">10-325</a> , <a href="#">10-330</a> , <a href="#">10-370 RAP</a>
10-550	Fuser module temperature fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	Hardware detected fuser failure.	Perform <a href="#">10-315</a> , <a href="#">10-320</a> , <a href="#">10-321</a> , <a href="#">10-323</a> , <a href="#">10-340</a> , <a href="#">10-350</a> , <a href="#">10-360</a> , <a href="#">10-365</a> , <a href="#">10-380 RAP</a>
10-555	Fuser module control failure. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	Fuser control software failure.	Perform <a href="#">10-322</a> , <a href="#">10-324</a> , <a href="#">10-325</a> , <a href="#">10-330</a> , <a href="#">10-370 RAP</a>

**Table 9 10-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
10-570	Replace fuser module	FRU CRUM authorization failure. Status active when fault 10-399 raised	Perform <a href="#">10-399 RAP</a>
10-571	Clear the jam in Areas 3,4. Close the front door when the paper has been removed	Paper detected in inverter area on power up or in standby	Perform <a href="#">10-132</a> , <a href="#">10-133</a> , <a href="#">10-134</a> and <a href="#">10-107</a> , <a href="#">10-108</a> , <a href="#">10-109</a> , <a href="#">10-110</a>
10-572	Clear the jam in Areas 3,4. Close the front door when the paper has been removed	Paper detected near the inverter sensor on power up or in standby	Perform <a href="#">10-132</a> , <a href="#">10-133</a> , <a href="#">10-134</a> and <a href="#">10-107</a> , <a href="#">10-108</a> , <a href="#">10-109</a> , <a href="#">10-110</a>

**Table 10 11-5XX to 9XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
11-500	Ensure output module is docked	Output module un-docked in standby.	Dock the output module. Perform <a href="#">11-300-110</a> , <a href="#">11-302-110</a> , <a href="#">11-303-110 RAP</a> for 2K LCSS, <a href="#">11-300-120</a> , <a href="#">11-302-120</a> , <a href="#">11-303-120</a> for 1K LCSS, <a href="#">11-300-171</a> , <a href="#">11-302-171</a> , <a href="#">11-303-171 RAP</a> for HVF
11-501	Close the output module top tray	Output module entry gate opened in standby	Close the exit cover
11-502	Close output module top cover	Output module top cover opened in standby	Perform <a href="#">11-300-110</a> , <a href="#">11-302-110</a> , <a href="#">11-303-110 RAP</a> for 2K LCSS, <a href="#">11-300-120</a> , <a href="#">11-302-120</a> , <a href="#">11-303-120</a> for 1K LCSS, <a href="#">11-300-171</a> , <a href="#">11-302-171</a> , <a href="#">11-303-171 RAP</a> for HVF
11-503	Close output module front door	Output module front door open in standby	Perform <a href="#">11-300-110</a> , <a href="#">11-302-110</a> , <a href="#">11-303-110 RAP</a> for 2K LCSS, <a href="#">11-300-120</a> , <a href="#">11-302-120</a> , <a href="#">11-303-120</a> for 1K LCSS, <a href="#">11-300-171</a> , <a href="#">11-302-171</a> , <a href="#">11-303-171 RAP</a> for HVF

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-506	Close the Top Left door of the Finisher.	HVF Inserter top cover is open	Close cover. Perform 11-306-171, 11-309-171 RAP
11-507	Close the Tri-Folding Unit Top Cover.	HVF Tri-Folder top cover is open	Close cover. Perform 11-307-171, 11-308-171 RAP
11-508	Close the Tri-Folding Unit Front Door.	HVF Tri-Folder front door is open	Close door. Perform 11-307-171, 11-308-171 RAP
11-509	Close the Top Left door of the Finisher.	HVF Inserter left hand door is open	Close cover. Perform 11-306-171, 11-309-171 RAP
11-510	Open output device door	Sheet detected over entry sensor	Perform 11-100-110 RAP for 2K LCSS, 11-100-120 for 2K LCSS, 11-100-171, 11-101-171 RAP for HVF
11-511	Open output device door	Sheet near entry sensor at shutdown	Perform 11-100-110 RAP for 2K LCSS, 11-100-120 for 2K LCSS, 11-100-171, 11-101-171 RAP for HVF
11-512	Open output device door	Sheet detected over punch sensor	Perform 11-110-110 RAP for 2K LCSS, 11-044-171 to 11-047-171 for HVF
11-513	Open output device door	Sheet near punch sensor at shut down	Perform 11-110-110 RAP for 2K LCSS, 11-044-171 to 11-047-171 for HVF
11-514	Open output device door	Sheet detected over compiler sensor	Perform 11-158-171, 11-160-171, 162-171, 163-171 RAP
11-515	Open output device door	Sheet near 2nd to top exit sensor	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
11-516	Open output device door	Sheet detected over edge registration sensor	Perform 11A-110 RAP for 2K LCSS

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-518	Open output device door	Sheet detected over top exit sensor	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF
11-519	Open output device door	Sheet near top exit sensor at shutdown	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF
11-520	Clear jam in area 5	Paper or debris covering the sensors	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
11-521	Open output device door	Sheet near 2nd to top exit sensor	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
11-522	Open output device door	Sheet over the BM exit sensor	Perform 11-180-171, 11-182-171 RAP
11-523	Open output device door	Sheet near the BM exit sensor	Perform 11-180-171, 11-182-171 RAP
11-524	Page-over PPI Pickup Sensor	Sheet over the inserter pickup sensor	Clear the area or perform 11-479-171 RAP
11-525	Page-over PPI Tab Standby Sensor	Sheet over the inserter tab standby sensor	Clear the area or perform 11-191-171, 11-193-171, 11-194-171, 11-196-171 RAP
11-526	Page over Buffer Position Sensor	Sheet over the buffer position sensor	Clear the area or perform 11-198-171, 11-199-171 RAP
11-527	Page over exit HVF into Booklet Maker Sensor	Sheet over the HVF exit into BM sensor	Clear the area or perform 11-198-171, 11-199-171 RAP
11-528	Page over Stacker Bin Exit Sensor	Sheet over the stacker bin exit sensor	Clear the area or perform 11-140-171, 11-142-171



Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-529	Page over Tri-fold Entry Sensor	Sheet over the tri-folder entry sensor	Clear the area or perform 11-183-171, 11-184-171 RAP
11-530	Page-over BB compiler Sensor	Sheet over the booklet maker entry sensor	Clear the area or perform 11-183-171, 11-184-171 RAP
11-538	Job in progress. Manual stapling will be available when the current output job set completes	Offline stapling requested while a print job is in progress for output to any bin other than bin 0 (top bin)	Cleared when current job completed
11-539	Job in progress. Please wait until Manual Stapling job is complete	Offline stapling is 'Ready' and a user requests a print job for output to the stacker, mailboxes or BM	Cleared when offline stapling mode is cancelled
11-540	Replace punch head unit	Punch head present sensor not made	Perform 11-043-110, 11-350-110 RAP for 2K LCSS, 11-044-171 to 11-047-171 RAP for HVF
11-541	Punch Chad Bin Set State	The chad bin has been removed from the finisher	Reinstall the chad bin. Perform 11N-171 RAP
11-542	Staple count low. Please ensure you have replacement Xerox staple cartridge.	BM staples low	Perform 11-063-171, 11-411-171 RAP
11-543	BM out of staples. Please replace the staple cartridges	BM staples empty	Perform 11-063-171, 11-411-171 RAP
11-545	Staple count low. Please ensure you have replacement Staple Cartridge	Staple cartridge low	Perform 11-364-110 RAP for 2K LCSS, 11-364-120 RAP for 1K LCSS, 11-371-171 to 11-377-171 RAP for HVF
11-546	Replace staple cartridge	Staple cartridge empty	Perform 11-364-110 RAP for 2K LCSS, 11-364-120 RAP for 1K LCSS, 11-371-171 to 11-377-171 RAP for HVF
11-549	Empty chad bin	Hole punch chad bin is full and needs emptying	Perform 11-364-110 RAP for 2K LCSS, 11N-171 for HVF

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-550	Hole punching is unavailable	There are too many pages for the punch to operate	Instruct customer to use fewer pages in the set (max 50 sheets)
11-551	Hole punching is unavailable	The punch operation has been taken out of service	Perform 11-043-110, 11-350-110 RAP for 2K LCSS, 11-044-171 to 11-047-171 RAP for HVF
11-552	Hole punching is unavailable	There are too many pages for the punch to operate	Instruct customer to use fewer pages in the set (max 50 sheets)
11-553	Stapling not available. Please call for assistance	Stapling disabled, out of service	Perform 11-050-110, 11-360-110 RAP for 2K LCSS, 11-050-120, 11-360-120 RAP for 1K LCSS, 11-050-120, 11-360-120 RAP for HVF
11-554	Stapling disabled, out of staples	Stapling disabled, out of staples	Perform 11-050-110, 11-360-110 RAP for 2K LCSS, 11-050-120, 11-360-120 RAP for 1K LCSS, 11-050-120, 11-360-120 RAP for HVF
11-555	Stapling feature requires two or more pages	Stapling disabled, zero / one page	Instruct customer
11-560	Staple capacity exceeded. Job completed without stapling	BM disabled - too many pages	Each booklet must not exceed 15 sheets
11-561	BM out of staples. Please replace the staple cartridges	BM disabled - out of staples	Perform 11-063-171, 11-411-171 RAP
11-562	BM requires two or more pages	BM disabled - zero/one page	Requires two or more sheets to enable stapling
11-563	BM is unavailable. Please call for assistance	BM disabled - out of service	Switch off the machine then switch on the machine, GP 14. Perform 11B-171 RAP

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-564	No message	Bin status message received from the finisher indicating bin 0 out of service	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF
11-565	No message	Bin status message received from the finisher indicating bin 1 out of service	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
11-566	No message	Bin status message received from the finisher indicating bin 2 out of service	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
11-570	Finisher bin 0 full	Fifty additional prints have been sent to bin 0 since 90% full sensor made	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF
11-571	Output tray nearly full	Bin 0 90% full sensor made	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF
11-572	Output Tray full. Please empty the Output Tray.	Fifty additional prints have been sent to bin 1 since 90% full sensor made	Perform 11-030-110, 11-334-110, 11-335-110, 11-336-110 RAP for 2K LCSS, 11-030-120, 11-334-120, 11-335-120, 11-336-120 RAP for 1K LCSS, 11-460-171 to 11-462-171 RAP for HVF

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-573	Output tray nearly full	Bin 1 90% full sensor made	Perform 11-030-110, 11-334-110, 11-335-110, 11-336-110 RAP for 2K LCSS, 11-030-120, 11-334-120, 11-335-120, 11-336-120 RAP for 1K LCSS, 11-460-171 to 11-462-171 RAP for HVF
11-574	Output Tray full. Please empty the Output Tray.	Finisher bin 2 full	Perform 11C-171 RAP
11-575	Output tray nearly full	Bin 2 90% full sensor made	Perform 11C-171 RAP
11-598	Output Trays out of service. Remove all paper from Output Trays.	Output trays have reached there capacity.	Cleared when confirm button pressed
11-901	Unable to staple. check for obstructions in the output trays	Tamper move or paddle roll fault	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP for 2K LCSS, 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-024-110, 11-025-110 RAP for 2K LCSS, 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP for 1K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS, 11-024-120, 11-025-120 RAP for 1K LCSS, 11-024-171, 11-026-171, 11-392-171 to 11-395-171, 11-396-171 to 11-399-171 RAP for HVF

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-902	Output tray 1 out of service. Check for obstructions in output tray 1	Tamper move or Bin 1 or compiler eject or staple fault	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP for 2K LCSS, 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-024-110, 11-025-110 RAP for 2K LCSS, 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP for 1K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS, 11-024-120, 11-025-120 RAP for 1K LCSS, 11-024-171, 11-026-171, 11-392-171 to 11-395-171, 11-396-171 to 11-399-171 RAP for HVF
11-903	Some finishing features are unavailable. Check for obstructions in the finisher	Compiler carriage or stapling fault	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-364-110 RAP for 2K LCSS, 11-364-120 RAP for 1K LCSS, 11-172-171, 11-180-171, 11-182-171, 11-185-171 to 11-187-171, 11-371-171 to 11-377-171 RAP for HVF

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-904	Output trays 1 and 2 out of service. Check for obstructions in the output trays	Tamper home or paddle roll or compiler or stapling fault	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP for 2K LCSS, 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-024-110, 11-025-110 RAP for 2K LCSS, 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP for 1K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS, 11-024-120, 11-025-120 RAP for 1K LCSS, 11-024-171, 11-026-171, 11-392-171 to 11-395-171, 11-396-171 to 11-399-171 RAP for HVF

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-905	Offsetting is unavailable from output tray 1. Check for obstructions in output tray 1	Bin 1 offset motor fails to move or home.	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP for 2K LCSS, 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-024-110, 11-025-110 RAP for 2K LCSS, 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP for 1K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS, 11-024-120, 11-025-120 RAP for 1K LCSS, 11-024-171, 11-026-171, 11-392-171 to 11-395-171, 11-396-171 to 11-399-171 RAP for HVF
11-908	Hole punching is unavailable. Check for obstructions in the hole puncher	Punch head motor fails	Clear the paper jam. Perform 11-043-110, 11-350-110 RAP for 2K LCSS, 11-044-171 to 11-047-171 RAP for HVF
11-909	All output trays are unavailable. Check for obstructions in the finisher	Punch head home sensor not made	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-030-110, 11-334-110, 11-335-110, 11-336-110 RAP for 2K LCSS, 11-030-120, 11-334-120, 11-335-120, 11-336-120 RAP for 1K LCSS, 11-044-171 to 11-047-171 RAP for HVF

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-910	Stapler is unavailable. Check for obstructions in the stapler.	Stapler head motor 1 fails to move or not primed	Clear obstruction from stapler. Perform 11-050-110, 11-360-110 RAP for 2K LCSS, 11-050-120, 11-360-120 RAP for 1K LCSS, 11-371-171 to 11-377-171 RAP for HVF
11-911	Stapling is unavailable. Check for obstructions in the BM stapler.	Staple head 2 motor fails to move	Clear obstruction from stapler. Perform 11-063-171, 11-411-171 RAP for HVF
11-912	Some finishing features are unavailable. Check for obstructions in the stapler.	Stapler unit 1 fails to move	Clear obstruction from stapler. Perform 11-053-110, 11-370-110 RAP for 2K LCSS, 11-371-171 to 11-377-171 RAP for HVF
11-913	Booklet making is unavailable. Check for obstructions in the BM	Back stop motor fails to move or not home	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-065-171, 11-383-171, 11-403-171, 11-413-171, 11-414-171 RAP for HVF
11-914	-	Rear tamper away home sensor failure	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS
11-915	-	HVF staple cartridge empty	Replace the staple cartridge. Perform 11-371-171 to 11-377-171 RAP
11-916	-	HVF staples low	Replace the staple cartridge. Perform 11-371-171 to 11-377-171 RAP

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-917	Clear the paper jam in the Finisher.	Sheet over HVF BM compiler paper present sensor	Clear the HVF BM paper present sensor area. Perform <a href="#">11-172-171</a> RAP
11-918	-	Sheet over tri- folder assist sensor	Perform <a href="#">11-185-171</a> to <a href="#">11-187-171</a> RAP
11-919	-	Sheet over tri- folder exit sensor	Perform <a href="#">11-185-171</a> to <a href="#">11-187-171</a> RAP
11-920	The Booklet Maker and Tri-folder are currently unavailable	Failure of any BM or TF function	Check for obstructions in the HVF BM and the tri-folder. Check that the HVF BM and tri-folder interlocks are made. Switch the machine OFF and ON, <a href="#">GP 14</a> . Check the current fault codes list for HVF BM or tri-folder faults and perform the appropriate RAP.
11-921	Please close the Booklet Maker Stapler module	The stapler position sensor indicates the stapler module is not closed in initialisation	Close the BM stapler module. If necessary, perform <a href="#">11-063-171</a> , <a href="#">11-411-171</a> RAP for staple unit 1, and <a href="#">11-403-171</a> , <a href="#">11-413-171</a> , <a href="#">11-414-171</a> RAP for staple unit 2
11-926	Booklet Maker Stapling is currently unavailable	Failure of the booklet maker stapling functions.	Perform <a href="#">11-063-171</a> , <a href="#">11-411-171</a> RAP for staple unit 1, and <a href="#">11-403-171</a> , <a href="#">11-413-171</a> , <a href="#">11-414-171</a> RAP for staple unit 2
11-928	-	Booklet maker output tray is full	Empty the tray. If necessary, perform <a href="#">11C-171</a> RAP
11-929	-	The stacker tray is 90% full	Empty the stacker tray when convenient. If necessary, perform <a href="#">11-460-171</a> to <a href="#">11-462-171</a> RAP
11-930	-	The stacker tray is full	Empty the stacker tray. If necessary, perform <a href="#">11-460-171</a> to <a href="#">11-462-171</a> RAP

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-931	-	Paper is not detected in the inserter tray	Check the paper. If necessary, perform <a href="#">11J-171</a> RAP
11-932	Clear the paper jam in the Finisher.	Sheet detected near the inserter pickup sensor	Clear the sheet. If necessary, perform <a href="#">11-191-171</a> , <a href="#">11-193-171</a> , <a href="#">11-194-171</a> , <a href="#">11-196-171</a> RAP
11-933	Clear the paper jam in the Finisher.	Sheet detected near the inserter tab standby sensor	Check the paper. If necessary, perform <a href="#">11-191-171</a> , <a href="#">11-193-171</a> , <a href="#">11-194-171</a> , <a href="#">11-196-171</a> RAP
11-934	-	Sheet detected near the entry sensor	Clear the sheet. Check the HVF is docked and correctly aligned. If necessary, perform <a href="#">11-100-171</a> , <a href="#">11-101-171</a> RAP
11-935	Clear the paper jam in the Finisher.	Sheet detected near the buffer sensor	Clear the sheet. If necessary, perform <a href="#">11-157-171</a> , <a href="#">11-161-171</a> RAP and <a href="#">11-164-171</a> , <a href="#">11-165-171</a> RAP
11-936	Clear the paper jam in the Finisher.	Sheet detected near Exit HVF to BM entry sensor	Clear the sheet. If necessary, perform <a href="#">11-158-171</a> , <a href="#">11-160-171</a> , <a href="#">162-171</a> , <a href="#">163-171</a> RAP
11-938	Clear the paper jam in the Finisher.	Sheet detected near the top bin exit sensor	Perform <a href="#">11-130-171</a> , <a href="#">11-132-171</a> RAP
11-940	-	Tray ready for unloading	Follow the instructions to unload the tray. If necessary, perform <a href="#">11-460-171</a> to <a href="#">11-462-171</a> RAP for the stacker tray, <a href="#">11-130-171</a> , <a href="#">11-132-171</a> RAP for the top tray, and <a href="#">11C-171</a> for the HVF BM tray
11-941	Pause To Unload Time-out Warning	Machine is paused for unloading. Need to press button on pop up screen	Follow the instructions. If necessary, perform <a href="#">11H-171</a>
11-942	Pause To Unload Time-out Warning	Timer expiry. Wait for machine to pause, then press button on pop up screen	Follow the instructions. If necessary, perform <a href="#">11H-171</a>

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-943	Booklet Making and Tri-folding are unavailable. Check for obstructions	Booklet making or tri-folding capability degraded	Check for obstructions in the HVF BM and the tri-folder. Check that the HVF BM and tri-folder interlocks are made. Switch the machine OFF and ON, GP 14. Check the current fault codes list for HVF BM or tri-folder faults and perform the appropriate RAP.
11-944	inserter is unavailable. Check for obstructions in the inserter	inserter capability degraded	Check for obstructions in the inserter. If necessary, perform 11-191-171, 11-193-171, 11-194-171, 11-196-171 RAP and 11J-171 RAP
11-945	Booklet Making available. All other output trays unavailable	All trays have degraded capability, except booklet maker	Check for obstructions in the buffer, stacker and top tray areas. Switch the machine OFF and ON, GP 14. Check the current fault codes list for faults in the buffer, stacker and top tray areas and perform the appropriate RAP.
11-946	Clear the paper jam in the Tri-Folding Unit	Sheet detected near the tri-fold entry sensor	Clear the sheet. If necessary, perform 11-183-171, 11-184-171 RAP
11-947	Clear the paper jam in the Tri-Folding Unit	Sheet detected near the tri-fold exit sensor	Clear the sheet. If necessary, perform 11-185-171 to 11-187-171
11-948	Clear the paper jam in the Tri-Folding Unit	Sheet detected near the tri-fold assist sensor	Clear the sheet. If necessary, perform 11-185-171 to 11-187-171 RAP

Table 10 11-5XX to 9XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
11-949	Finisher Insert Stock Out of Order	An insert sheet has not arrived at its intended output destination	See the message text. If necessary, perform 11-191-171, 11-193-171, 11-194-171, 11-196-171 RAP and 11-100-171, 11-101-171 RAP
11-950	Unexpected Stock Size in the Finisher	A shorter than expected sheet has been fed from the inserter	Follow the message text. Check the size of the paper in the inserter.
11-951	Clear the paper jam in the finisher	Page detected near the stacker bin exit sensor	Clear the sheet. If necessary, perform 11-140-171, 11-142-171 RAP
11-952	Open the Finisher Front Door	Page over Buffer Path Sensor	Clear Buffer Path Sensor, perform 11-157-171, 11-161-171 RAP and 11-164-171, 11-165-171 RAP for HVF
11-953	Open the Finisher Front Door	Page detected near buffer path sensor	Clear sheet near buffer path sensor, perform 11-157-171, 11-161-171, 11-164-171, 11-165-171 RAP for HVF
11-954	No message	100 sheet staple cartridge installed in finisher	N/A
11-955	Open Finisher Top Cover. Remove Paper. Close Finisher Top Cover.	Page over Inserter Lead Edge Sensor	Clear Inserter Lead Edge Sensor, perform 11-479-171 RAP for HVF

Table 11 12-5XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
12-530	Offsetting is unavailable. Check for obstructions in the output tray	Offsetting catch tray is not in index position.	Perform 12-301 RAP

Table 12 14-5XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
14-508	System error, scanner is unavailable	Status active when start is selected but scan service is unable to acquire resources	Switch off the machine then switch on the machine, GP 14. Wait for a few minutes, if scanning is still not available, go to 03-330, 03-462 RAP
14-560	Scanner is calibrating, please wait	Scanner is calibrating	If calibration does not complete, switch off the machine, then switch on the machine, GP 14. Wait for a few minutes, if the scanner continues to calibrate without completing perform 14-703 to 14-706, 712, 714, 716, 718 RAP
14-561	No message	Downloaded NVM values are out of range and too low. SVCM received NVM data within correct range	Switch off the machine, then switch on the machine, GP 14. Wait for a few minutes, if scanning is still not available perform 03-330, 03-462 RAP
14-562	Adjustments in progress	Scanner ready checks are not complete	If the ready check does not complete, switch off the machine, then switch on the machine, GP 14. Wait for a few minutes, if the scanner continues to check without completing perform 03-330, 03-462 RAP
14-563	Scanner has failed to initialize. Switch off the machine, wait 3 minutes, then switch on the machine. If fault persists call for assistance, or press close to use other services	Scanner needs service	Switch off the machine then switch on the machine, GP 14. Perform 14-110 RAP, 14-310 RAP, 14-710 RAP

Table 12 14-5XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
14-564	No message	Job is incomplete, scan service is ready and needs a resume command	Resume the scanning job, or press the cancel key. If the status code is still present, switch off the machine, then switch on the machine, GP 14
14-565	No message	Document is larger than expected	Close status popup or press start, Perform 14A RAP
14-566	Reload originals and press start	CCD (width) and length sensors cannot determine size of the original	Reposition originals and press start, Perform 14A RAP

Table 13 16-5XX to 7XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
16-500	No message	Print from file cabinet is enabled via the Web UI	The status is disabled when the print from file cabinet is disabled via the Web UI
16-501	Some network services unavailable. Please notify the machine administrator	Not enough memory on the image processing for JBA	Machine restart initiated
16-502	The network controller is about to be reset	Status active when ever the network controller detects that a platform reset is about to occur	Cleared when the network controller reset is initiated
16-504	Some network services unavailable. Please notify the machine administrator	Dynamic domain name registration process failed	Machine restart initiated
16-505	Some network services unavailable. Please notify the machine administrator	Insufficient memory for E-mail	More physical memory needs to be added to the platform
16-506	Machine cloning is in process. This shall take a few minutes to complete	Status raised while Network controller connectivity settings are being cloned	Cleared automatically when cloning is completed
16-507	Some network services unavailable. Please notify the machine administrator	Service location protocol process failed	Machine restart initiated
16-508	Some network services unavailable. Please notify the machine administrator	Autonet address resolution did not work	Machine restart initiated

Table 13 16-5XX to 7XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
16-509	Some network services unavailable. Please notify the machine administrator	Insufficient memory for internet fax	Machine restart initiated
16-510	Some network services unavailable. Please notify the machine administrator	E-mail process failed	Machine restart initiated
16-511	Some network services unavailable. Please notify the machine administrator	Internet fax process failed	Machine restart initiated
16-512	Some network services unavailable. Please notify the machine administrator	USB printer port process failed	Machine restart initiated
16-513	Some network services unavailable. Please notify the machine administrator	Simple service discovery protocol failed	Machine restart initiated
16-514	Some network services unavailable. Please notify the machine administrator	Post office protocol (for inbound IFAX messages) process failed	Machine restart initiated
16-517	Some network services unavailable. Please notify the machine administrator	SMTP process failed	Machine restart initiated
16-518	Some Network Controller services are not available. Please notify the machine administrator	ESS web services edge client interface does not work	Machine restart initiated
16-519	Some Network Controller services are not available. Please notify the machine administrator	ESS web services client controller does not work	Machine restart initiated
16-520	Some Network Controller services are not available. Please notify the machine administrator	ESS web services server controller interface does not work.	Machine restart initiated
16-521	Some Network Controller services are not available. Please notify the machine administrator	The network controller's CPI service process has stopped	Machine restart initiated
16-522	Some Network Controller services are not available. Please notify the machine administrator	The network controller's job log service process has stopped	Machine restart initiated
16-523	Some Network Controller services are not available. Please notify the machine administrator	The network controller's job tracker service process has stopped	Machine restart initiated

Table 13 16-5XX to 7XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
16-524	Some Network Controller services are not available. Please notify the machine administrator	The network controller's Kerberos service process has stopped	Machine restart initiated
16-525	Some Network Controller services are not available. Please notify the machine administrator	The network controller's Scan to Distribution service process has stopped	Machine restart initiated
16-526	Some Network Controller services are not available. Please notify the machine administrator	The network controller's SMB service process has stopped.	Machine restart initiated
16-527	Some Network Controller services are not available. Please notify the machine administrator	The network controller's TCP/IP service process has stopped.	Machine restart initiated
16-528	Some Network Controller services are not available. Please notify the machine administrator	The network controller's WS Scan Temp service process has stopped.	Machine restart initiated
16-529	Some Network Controller services are not available. Please notify the machine administrator	The network controller's Scan Compressor service process has stopped.	Machine restart initiated
16-535	Immediate Job Overwrite failed. Please perform and On Demand Overwrite immediately	ESS Immediate Image Overwrite Error	The status is cleared when the ESS completes the On Demand Image Overwrite
16-536	Network controller error. Please contact system administrator.	The ESS XSA service is unavailable. The fault is due to a failure of internal communication in the network controller.	The ESS XSA service becomes available.
16-537	Incomplete Network Interface window	Any scan to distribution service not available	Switch off the machine then switch on the machine, GP 14.
16-538	Internal address book unavailable. Please notify machine administrator	Could not communicate with the LDAP server	Verify LDAP server setup at web UI, verify server is online, check network connectivity



Table 13 16-5XX to 7XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
16-539	Cannot connect to prime or backup authentication server.	Could not communicate with primary or alternate authentication server	Verify authentication server setup at web UI, verify server is online, check network connectivity. Can configure authentication to use guest mode
16-540	Incomplete Network Interface window	Death of any authentication services	Switch off the machine then switch on the machine, GP 14.
16-541	Cannot receive internet jobs. Please call for assistance	Could not communicate with POP3 server	Verify POP3 server settings at UI. Verify server is online and check network connectivity
16-542	Image too large to process. Please alter job and scan again	Insufficient resources to process the image	Reduce scan size, reduce scan resolution
16-543	Accounting problem. Please notify machine administrator	Network controller - authorization file on the system is corrupted. No jobs can be authorized.	Authorization should be disabled until the accounting SA can purge and reload the authorization database
16-544	Ensure network cables are properly connected	Network controller detected that the network cable is disconnected	Check the network cable connections
16-545	Network scanning communication error. Please notify machine administrator	Network controller - unrecoverable scan to file communication error	Machine restart initiated. Resubmit job
16-546	Network scanning filing error. Please notify machine administrator	Network controller - network repository filing error	Verify destination address; check repository setup; verify repository is online. Check network connectivity. Resubmit the job
16-547	Network scanning templates could not be retrieved. Please notify machine administrator	Network controller - scan to file template retrieval failure	Verify remote template pool settings; verify that the template repository is online. Check network connectivity
16-548	Network scanning error. Please notify machine administrator	Network controller - scan to file job processing error	Resubmit job. If problem persists, Machine restart initiated

Table 13 16-5XX to 7XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
16-549	Network scanning is not available. Please notify machine administrator	Network controller - failure of any scan to file services	If problem persists, Machine restart initiated. Resubmit job.
16-550	System reset required, please switch off the machine, then switch on the machine	Network controller - system enters customer sw upgrade mode	Switch off the machine then switch on the machine, GP 14.
16-551	Accounting out of memory. Please notify machine administrator	Network controller - accounting log is full or a hard disk full state exists	Accounting Administrator needs to retrieve accounting data log from the system
16-552	Software option codes do not match	Network controller - the flag in system manager is not in sync with the network controller PM	Switch off the machine then switch on the machine, GP 14.
16-553	Additional memory required. Please call for assistance	Network controller - not enough physical memory is configured on the platform to support scan to file	Add memory
16-554	Hardware must be added or replaced. Please notify machine administrator	Network controller - the IPA card is either broken or missing	Re-insert or replace IPA card
16-555	Additional memory required to support fax. Please notify machine administrator	Network controller - not enough physical memory is configured on the platform to support lan fax	Add memory
16-556	802.1x Network Error	The request to authenticate the device credentials with the authentication server has failed	Ensure the 802.1x EAP type, username and password for the machine, authentication switch and authentication server match.
16-557	System error, copier is no longer available	Network controller - DC platform fails to recover in less than 5 minutes after a crash	Switch off the machine then switch on the machine, GP 14.
16-558	System error, copier is no longer available	Network controller - DC communications unavailable	DC platform call failed
16-559	BOOTP initialization failure. Please notify machine administrator	Network controller - BOOTP (failure) configuration of IP, will use stored IPdata	Connectivity fix and switch off the machine then switch on the machine, GP 14.

Table 13 16-5XX to 7XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
16-560	Some network services unavailable. Please notify machine administrator	Some processes on the network controller have failed	Switch off the machine then switch on the machine, GP 14.
16-561	Network Scanning Unavailable	Some scan to file processes have died	Switch off the machine then switch on the machine, GP 14.
16-562	Incomplete Network Interface window	Network controller - the line printer Daemon process has failed	Switch off the machine then switch on the machine, GP 14.
16-563	Incomplete Network Interface window	Network controller - the Novell Netware connectivity process has failed	Switch off the machine then switch on the machine, GP 14.
16-564	Incomplete Network Interface window	Network controller - the Net-BIOS connectivity process has failed	Switch off the machine then switch on the machine, GP 14.
16-565	Incomplete Network Interface window	Network controller - the AppleTalk connectivity process has failed	Switch off the machine then switch on the machine, GP 14.
16-567	Incomplete Network Interface window	Network controller - a Postscript interpreter error has occurred, causing the process to fail	Switch off the machine then switch on the machine, GP 14.
16-568	Incomplete Network Interface window	Network controller - a PCL interpreter error has occurred, causing the process to fail	Switch off the machine then switch on the machine, GP 14.
16-570	Incomplete Network Interface window	Network controller - the http server (web-UI) has failed	Switch off the machine then switch on the machine, GP 14.
16-571	Network printing disabled. Please notify machine administrator	Network controller - print service has failed	Switch off the machine then switch on the machine, GP 14.
16-572	Network printing disabled. Please notify machine administrator	Network controller - print SPI service has failed	Switch off the machine then switch on the machine, GP 14.

Table 13 16-5XX to 7XX Status codes

Status Code	UI Message	Reason for Message	Reference / Action
16-573	Network printing disabled. Please notify machine administrator	Network controller - MF print service has failed	Switch off the machine then switch on the machine, GP 14.
16-574	Job status information not available. Please notify machine administrator	The network controller protocol module process has stopped	Switch off the machine then switch on the machine, GP 14.
16-575	Network controller connection is about to be reset	The network controller registration service process has stopped	Automatic network controller reset
16-576	Network controller connection is about to be reset	The network controller event notification service process has stopped	Automatic network controller reset
16-577	Network controller connection is about to be reset	The network controller platform manager service process has stopped	Automatic network controller reset
16-578	Incomplete system information. Please notify machine administrator	The network controller fault service process has stopped (fault logging will be disabled)	Switch off the machine then switch on the machine, GP 14.
16-579	Job status information not available. Please notify machine administrator	The network controller completed job log service and print SPI processes have stopped	Switch off the machine then switch on the machine, GP 14.
16-580	Incomplete system information. Please notify machine administrator	The network controller remote configuration process has stopped	Switch off the machine then switch on the machine, GP 14.
16-581	Some network services unavailable. Please notify machine administrator	The network controller diagnostic service process has stopped	Switch off the machine then switch on the machine, GP 14.
16-582	Some network services unavailable. Please notify machine administrator	The network controller authentication SPI process has stopped	Switch off the machine then switch on the machine, GP 14.
16-583	Incomplete system information. Please notify machine administrator	The network controller counters utility process has stopped	Switch off the machine then switch on the machine, GP 14.
16-584	Network controller connection is about to be reset	The network controller counters document manager process has stopped	Switch off the machine then switch on the machine, GP 14.

**Table 13 16-5XX to 7XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
16-585	Incomplete system information. Please contact the Machine Administrator	The network controller counters remote configuration synchronization process has stopped	Switch off the machine then switch on the machine, GP 14.
16-586	Incomplete system information. Please notify machine administrator	The network controller counters SNMP agent process has stopped	Switch off the machine then switch on the machine, GP 14.
16-588	Some network services unavailable. Please notify machine administrator	The network controller sub-agent process has failed	Switch off the machine then switch on the machine, GP 14.
16-589	Incomplete Network Interface window	Network controller - serial port connectivity failed	Switch off the machine then switch on the machine, GP 14.
16-590	Some network services unavailable. Please notify machine administrator	The network controller connectivity configuration process has failed	Switch off the machine then switch on the machine, GP 14.
16-591	Ethernet functions are not available. Please notify machine administrator	Network controller - Ethernet TCP / IP port connectivity process failed	Connectivity fix and switch off the machine then switch on the machine, GP 14.
16-592	Token Ring functions are not available. Please notify machine administrator	Network controller - Token Ring TCP / IP port connectivity failed	Connectivity fix and switch off the machine then switch on the machine, GP 14.
16-593	DHCP functions are not available. Please notify machine administrator	Network controller - DHCP address resolution failed	Connectivity fix and switch off the machine then switch on the machine, GP 14.
16-594	RARP functions are not available. Please notify machine administrator	Network controller - RARP address resolution fails	Connectivity fix and switch off the machine then switch on the machine, GP 14.
16-595	Incomplete Network Interface window	The network controller Lan-Fax service failed	Switch off the machine then switch on the machine, GP 14.
16-596	Incomplete Network Interface window	The network controller accounting (JBA) service failed	Switch off the machine then switch on the machine, GP 14.

**Table 13 16-5XX to 7XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
16-597	Incomplete Network Interface window	The network controller TIFF interpreter failed	Switch off the machine then switch on the machine, GP 14.
16-598	IP interface error. Please notify machine administrator	Network controller - TCP / IP address is already in use on the network	Contact SA. Another IP address needs to be used
16-599	Some network services unavailable. Please notify the machine administrator.	Raw TCP/IP printing (port 9100) process failed.	Machine restart initiated

**Table 14 17-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
17-500	Job stored as <job name> in <folder name>	CPSR input job has completed storage	No action required. Informational text
17-501	'Save job for Reprint' service is unavailable. Please try again later	Network controller unavailable and customer already within pathway, or CPSR feature suspended	Wait for the network controller to become available. If necessary, Switch off the machine then switch on the machine, GP 14.
17-502	<Entered name> already exists. Please enter a different name	Duplicate file names in CPSR input are not allowed.	Enter a different file name
17-503	Job deleted due to the device storage disk becoming full. Stored jobs will need to be deleted to make space available	CPSR input job in progress has been deleted due to memory full	Make more space for file storage or re-define pathway
17-504	Additional memory is required. Please call for assistance.	Insufficient memory for CPSR filing cabinet	Delete saved jobs from memory
17-510	IP interface error. Please notify system administrator	The IPv6 IP address is already in use	Use a different address
17-511	Build job scanning error	Error during scan to email build job	Inform the customer to rescan the last segment or delete the job.
17-513	IP interface error. Please notify system administrator	The IPv4 IP address is already in use	Use a different address
17-514	IP interface error. Please notify system administrator	External Accounting Device Communication Failure	Contact SA.

**Table 14 17-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
17-518	Some network controller services are not available. Please notify the machine administrator.	WSD discovery failure	Switch off the machine then switch on the machine, GP 14.
17-519	Some network controller services are not available. Please notify the machine administrator.	WSD print service failure	Switch off the machine then switch on the machine, GP 14.
17-520	Some network controller services are not available. Please notify the machine administrator.	WSD scan service failure	Switch off the machine then switch on the machine, GP 14.
17-565	Custom Services are not responding. Try Powering Off then On	Raised by the network controller when EIP service is not responding	Switch off the machine then switch on the machine, GP 14.
17-570	Some network controller services are not available. Contact system administrator.	Communication with NNTP server failed	Switch off the machine then switch on the machine, GP 14.
17-580	Data encryption / decryption is in progress.	Raised by the network controller when disk encryption or decryption has been requested	No action. Cleared by the network controller.

**Table 15 19-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
19-502	Please wait, freeing memory	Out of memory resources. Fault 19-401, 19-402	Perform 19-401, 19-402, 19-403 RAP
19-503	System memory is full etc.	EPC memory resources low	Memory becomes available, job is cancelled or documents are removed from DADH. Perform 19-401, 19-402, 19-403 RAP
19-504	No message	EPC memory resources intermediate	Clears automatically after being raised. Perform 19-404 RAP
19-505	An image data error has occurred etc.	Compressor DVMA time-out. Fault 19-404 is raised.	Perform 19-404 RAP
19-506	Please wait, your job will continue shortly. Do not press the Start button again	Job delayed status	High EPC usage. Perform 19-401, 19-402, 19-403 RAP

**Table 15 19-5XX Status codes**

Status Code	UI Message	Reason for Message	Reference / Action
19-507	System memory is full etc.	Memory resources low	High EPC usage. Perform 19-401, 19-402, 19-403 RAP
19-508	System memory is full etc.	Internal memory handling status	Usage is above intermediate EPC usage threshold. Perform 19-401, 19-402, 19-403 RAP
19-509	System memory is full etc.	Internal memory job truncated	Usage exceeds intermediate EPC usage threshold. Perform 19-401, 19-402, 19-403 RAP
19-510	Please wait, the system is attempting to recover	At power up, the image disk is not present or faulty.	Switch off the machine, then switch on the machine, GP 14. Perform 03C RAP
19-511	Image disk offline. Jobs may take longer than normal	Faulty image disk	Switch off the machine, then switch on the machine, GP 14. Perform 03C RAP
19-512	Image disk offline. Please call for assistance	Image disk read or write failure.	Switch off the machine, then switch on the machine, GP 14. Perform 03C RAP
19-513	Please wait. The image disk is full.	The system has detected that insufficient space is available on the image disk	Wait for space to become available
19-514	An image data error has occurred etc.	Video job integrity fault.	Should clear automatically. If necessary, perform 19-409 RAP
19-515	System memory is full etc.	This status code becomes active when fault 19-403 is raised	Cleared when the current job completes or when the job is deleted. Perform 19-401, 19-402, 19-403 RAP
19-516	System memory is full etc.	EPC memory is full.	The status code is cleared when either the job is cancelled or the user selects the resume option

**Table 16 20-5XX Status codes**

Status Codes	UI Message	Reason for Message	Reference / Action
20-544	The Fax service is initialising. Please wait.	Basic Fax card restarts	User clears or time-out. (W/O TAG X-001) Install a new compact flash, <a href="#">PL 20.10 Item 3</a>
20-545	Fax job could not be sent at this time, please try again.	Error with image processing - fax command	User clears or times out (7 seconds)
20-546	Not enough memory to use fax services. Contact your system administrator.	This status code becomes active when fault 20-324 is raised	Cleared when fault 20-324 is cleared. Perform <a href="#">20-323</a> , <a href="#">20-324</a> RAP
20-547	Fax memory is low. Contact your system administrator.	This status code becomes active when fault 20-323 is raised	Perform <a href="#">20-323</a> , <a href="#">20-324</a> RAP
20-550	A fax service error has occurred. Fax line 2 is unavailable. Fax line 1 is still available. Contact your system administrator.	Extended card failure detected	Install a new extender card and reboot
20-556	A fax service error has occurred. Press the power button on the left side of the machine and choose quick restart. If fault persists, call for assistance.	Basic card failure detected	Switch off the machine, then switch on the machine, <a href="#">GP 14</a> .
20-558	A fax memory error has occurred. Contact your system administrator.	Status active when fault 20-322 is raised	Cleared when fault 20-322 is cleared. Perform <a href="#">20-322</a> RAP
20-559	A fax service error has occurred. Press the power button on the left side of the machine and choose quick restart. If fault persists, call for assistance.	Status active when fault 20-320 is raised	Cleared when fault 20-320 is cleared. Perform <a href="#">20-320</a> RAP
20-562	No communication on fax line 1. Please check external connection	Status active when fault 20-331 is raised	Cleared when fault 20-331 is cleared. Perform <a href="#">20-331</a> , <a href="#">20-339</a> , <a href="#">20-341</a> RAP
20-563	No communication on fax line 2. Please check external connection	Status active when fault 20-332 is raised	Cleared when fault 20-332 is cleared. Perform <a href="#">20-332</a> , <a href="#">20-340</a> RAP
20-565	Max. number of fax jobs in the system has been reached. Contact your system administrator.	All jobs IDs allocated cannot create any more	Cleared when fax job IDs become available

**Table 16 20-5XX Status codes**

Status Codes	UI Message	Reason for Message	Reference / Action
20-570	A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	Status active when the fault 20-342 is raised	Perform <a href="#">20-342</a> RAP
20-571	A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	Status active when the fault 20-339 is raised	Perform <a href="#">20-331</a> , <a href="#">20-339</a> , <a href="#">20-341</a> RAP
20-572	A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	Status active when the fault 20-340 is raised	Perform <a href="#">20-332</a> , <a href="#">20-340</a> RAP
20-580	No message	Set if the NVM values supplied by the Fax are invalid	The user interface requests the single board controller PWB for the Fax NVM values
20-590	Immediate Job Overwrite failed. Please perform an On Demand Overwrite immediately.	Fax immediate image overwrite error. Fault 20-710 is raised.	Perform <a href="#">20-710</a> , <a href="#">20-711</a> RAP.

**Table 17 22-5XX Status codes**

Status Codes	UI Message	Reason for Message	Reference / Action
22-501	Please wait... The system is attempting to recover	Attempting print recovery. 22-306, 22-307, 22-309	Perform <a href="#">22-306</a> to <a href="#">22-315</a> , <a href="#">22-801</a> , <a href="#">22-814</a> RAP
22-502	No UI message appears	Status active when fault 22-310 is raised	Automatically clears after being raised
22-504	Please delete the job. No tray is configured with the required paper size. Press the Job Status button. Then select the Delete Button.	No tray configured for media	Configure one tray for this stock size.
22-511	Media required for held job is not available	This status code becomes active when correct media is not available for held job	Provide media to complete the held job or cancel job

Table 17 22-5XX Status codes

Status Codes	UI Message	Reason for Message	Reference / Action
22-512	All the paper trays have been disabled for Auto Selection. Auto Paper cannot be used with these settings. It is recommended that at least one tray be enabled for Auto Selection	All trays direct select only	Enable one tray for auto select
22-513	Media required for held job is not available	Queued Job being held due to lack of for resources	Add paper to the tray being used to clear queued job
22-515	One or more queued jobs needs resources.	Queued Job being held due to lack of for resources.	Add paper to the tray being used to clear queued job
22-547	Network controller error. Please contact system administrator.	XSA service unavailable. This status code becomes active when the fault 22-370 is raised	Perform 22-370 RAP
22-552	Optional service mismatch detected	Service option mismatch detected	Install or remove service option. If necessary, perform 22-410 to 22-416, 22-423, 22-425, 22-428, 22-777 or 22-400 to 22-403, 22-423, 22-426, 22-427, 22-775
22-553	Optional service installed	Service option installed	Informational only
22-554	Option service removed	Unable to remove optional service	Refer to 22-410 to 22-416, 22-423, 22-425, 22-428, 22-777 RAP, 22-417 RAP
22-555	Unable to install option service	Service option install failed when any of the faults 22-400, 22-401, 22-402, 22-403, 22-404, 22-405, 22-406, 22-407 are raised	Refer to 22-400 to 22-403, 22-423, 22-426, 22-427, 22-775 RAP, 22-404 to 22-406 RAP, 22-407 RAP
22-556	Unable to remove option service	Service option removal failed when any of the faults 22-410, 22-411, 22-412, 22-413, 22-414, 22-415, 22-416, 22-417 are raised	Refer to 22-404 to 22-406 RAP, 22-400 to 22-403, 22-423, 22-426, 22-427, 22-775 RAP, 22-407 RAP
22-557	Annotation error	Annotation Bates number overflow. Set by the system on the next page after the Bates number reaches the maximum of 999999999	Cleared by the single board controller PWB, 7 seconds after raised
22-558	One or more HFSI item needs attention.	An HFSI item has reached or exceeded its threshold	Reset 'Actual' count to zero or reset the threshold

Table 17 22-5XX Status codes

Status Codes	UI Message	Reason for Message	Reference / Action
22-560	Scheduling fault etc.	SML error.	Switch off the machine then switch on the machine, GP 14.

## OF4b Status Messages in Alphabetical Order

### Status Message Tables

The status message tables contain all the messages to which a status code can be attributed.

- [Table 1](#) Status Messages 1 to 9 and A to F.
- [Table 2](#) Status Messages G to N.
- [Table 3](#) Status Messages O to R.
- [Table 4](#) Status Messages S to X.

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
802.1x Network Error	16-556	The request to authenticate the device credentials with the authentication server has failed	Ensure the 802.1x EAP type, username and password for the machine, authentication switch and authentication server match.
A daylight saving time change has occurred. The device clock has been adjusted.	03-600	Daylight saving time has been automatically changed	No action
A fax memory error has occurred. Contact your system administrator.	20-558	When fault 20-322 is raised	When fault 20-322 is cleared. Perform <a href="#">20-322</a> RAP
A fax service error has occurred. Fax line 2 is unavailable. Fax line 1 is still available. Contact your system administrator.	20-550	Extended card failure detected	Install a new extender card and reboot
A fax service error has occurred. Press the power button on the left side of the machine and choose quick restart. If fault persists, call for assistance.	20-556	Basic card failure detected	Switch off the machine, then switch on the machine, <a href="#">GP 14</a> .
A fax service error has occurred. Press the power button on the left side of the machine and choose quick restart. If fault persists, call for assistance.	20-559	When fault 20-320 is raised	When fault 20-320 is cleared. Perform <a href="#">20-320</a> RAP
A Fax Service error has occurred. Fax line 2 is unavailable. Fax line 1 is still available. Contact your System Administrator.	03-589	Extended Fax not detected or confirmed.	Perform <a href="#">20A</a> RAP

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	03-590	Fax POST failure status	Perform <a href="#">20A</a> RAP
A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	20-570	When the fault 20-342 is raised	Perform <a href="#">20-342</a> RAP
A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	20-571	When the fault 20-339 is raised	Perform <a href="#">20-331</a> , <a href="#">20-339</a> , <a href="#">20-341</a> RAP
A Fax Service error has occurred. Press the power button on the left side of the machine and choose Quick Restart. If fault persists, please call for assistance.	20-572	When the fault 20-340 is raised	Perform <a href="#">20-332</a> , <a href="#">20-340</a> RAP
A nonstandard document has been detected. It will be scanned to match the closest standard size	05-504	A document length is detected during the document feed cycle that is not consistent with the document size assumed by the DADH sensors and the market region settings	Cleared when job cancelled or completed. Perform <a href="#">05C</a> RAP
Accounting out of memory. Please notify machine administrator	16-551	Network controller - accounting log is full or a hard disk full state exists	Accounting Administrator needs to retrieve accounting data log from the system
Accounting problem. Please notify machine administrator	16-543	Network controller - authorization file on the system is corrupted. No jobs can be authorized.	Authorization should be disabled until the accounting SA can purge and reload the authorization database
Additional memory required to support fax. Please notify machine administrator	16-555	Network controller - not enough physical memory is configured on the platform to support lan fax	Add memory

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Additional memory required. Please call for assistance	16-553	Network controller - not enough physical memory is configured on the platform to support scan to file	Add memory
Additional memory is required. Please call for assistance	17-504	Insufficient memory for CPSR filing cabinet	Delete saved jobs from memory
Adjust position of Tray 1 before proceeding	07-506	Tray 1 guides moved out of 'fixed' position	Tray 1 is opened or guides set to the 'fixed' position
Adjust position of Tray 2 before proceeding	07-507	Tray 2 guides moved out of 'fixed' position	Tray 2 is opened or guides set to the 'fixed' position
Adjustments in progress	14-562	Scanner ready checks are not complete	If the ready check does not complete, switch off the machine, then switch on the machine, GP 14. Wait for a few minutes, if the scanner continues to check without completing. Perform 03-330, 03-462 RAP
After clearing paper, replace any discarded tabs with identical tab stock in the correct tray	03-573	When the image processing determines that a jam occurred	When the IOT has performed stray sheet detection successfully
All output trays are unavailable. Check for obstructions in the finisher	11-909	Punch head home sensor not made	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-030-110, 11-334-110, 11-335-110, 11-336-110 RAP for 2K LCSS, 11-030-120, 11-334-120, 11-335-120, 11-336-120 RAP for 1K LCSS, 11-044-171 to 11-047-171 RAP for HVF

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
All the paper trays have been disabled for Auto Selection. Auto Paper cannot be used with these settings. It is recommended that at least one tray be enabled for Auto Selection	22-512	All trays direct select only	Enable one tray for auto select
An error has occurred - The system is attempting to recover	03-538	System attempting to recover from a single board controller PWB to IOT communication failure. Fault 03-300 or 03-320 is raised.	Cleared if communication is established. Perform 03-300, 306, 461, 482, 805, 870 RAP, 03-320 to 03-324 RAP
An error has occurred. The system is attempting to recover.	03-539	Comms failure between the IOT and Image processing	Clears when comms re-established, or is converted to status code 03-540 after third recovery attempt
An image data error has occurred etc.	19-514	19-409	Cleared when status 19-514 is raised. Perform 19-409 RAP
An image data error has occurred etc.	19-505	Compressor DVMA time-out. Fault 19-404 is raised.	Perform 19-404 RAP
An internal communications error has occurred. Switch off the machine and call for assistance	03-561	Single board controller wall clock is not incrementing. Fault 03-325 is raised.	Perform 03-315, 325, 347, 348, 349, 355, 400 RAP
An internal communications error has occurred. Switch off the machine and call for assistance	03-563	Image processing rotation memory POST has failed	Perform 03-315, 325, 347, 348, 349, 355, 400 RAP
An unexpected time-out was detected for a sheet in the paper path. This may be due to a different paper in the trays than the machine expects. Please check and confirm the contents of the paper trays	08-590	Unexpected event or time-out for sheet. 08-171, 08-181, 08-182	Perform 08-171 RAP, 08-181 RAP, 08-182 RAP
Annotation error	22-557	Annotation Bates number overflow. Set by the system on the next page after the Bates number reaches the maximum of 999999999	Cleared by the single board controller PWB, 7 seconds after raised



**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Auto Configuration is disabled. Please re-enable this feature before proceeding	02-550	System manager autoConfiguration NVM set to disable	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP
Automatic software upgrade failure	03-527	Sip NC sync failure prior to power on upgrade	Switch off the machine, then switch on the machine, <a href="#">GP 14</a>
BM is unavailable. Please call for assistance	11-563	BM disabled - out of service	Switch off the machine then switch on the machine, <a href="#">GP 14</a> . Perform <a href="#">11B-171</a> RAP
BM out of staples. Please replace the staple cartridges	11-543	BM staples empty	Perform <a href="#">11-063-171</a> , <a href="#">11-411-171</a> RAP
BM out of staples. Please replace the staple cartridges	11-561	BM disabled - out of staples	Perform <a href="#">11-063-171</a> , <a href="#">11-411-171</a> RAP
BM requires two or more pages	11-562	BM disabled - zero/one page	Requires two or more sheets to enable stapling
Booklet Maker Stapling is currently unavailable	11-926	Failure of the booklet maker stapling functions.	Perform <a href="#">11-063-171</a> , <a href="#">11-411-171</a> RAP for staple unit 1, and <a href="#">11-403-171</a> , <a href="#">11-413-171</a> , <a href="#">11-414-171</a> RAP for staple unit 2
Booklet Making and Tri-folding are unavailable. Check for obstructions	11-943	Booklet making or tri-folding capability degraded	Check for obstructions in the HVF BM and the tri-folder. Check that the HVF BM and tri-folder interlocks are made. Switch the machine OFF and ON, <a href="#">GP 14</a> . Check the current fault codes list for HVF BM or tri-folder faults and perform the appropriate RAP.

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Booklet Making available. All other output trays unavailable	11-945	All trays have degraded capability, except booklet maker	Check for obstructions in the buffer, stacker and top tray areas. Switch the machine OFF and ON, <a href="#">GP 14</a> . Check the current fault codes list for faults in the buffer, stacker and top tray areas and perform the appropriate RAP.
Booklet making is unavailable. Check for obstructions in the BM	11-913	Back stop motor fails to move or not home	Clear the paper jam. Switch off the machine then switch on the machine, <a href="#">GP 14</a> . Perform <a href="#">11-065-171</a> , <a href="#">11-383-171</a> , <a href="#">11-403-171</a> , <a href="#">11-413-171</a> , <a href="#">11-414-171</a> RAP for HVF
BOOTP initialization failure. Please notify machine administrator	16-559	Network controller - BOOTP [failure] configuration of IP, will use stored IPdata	Connectivity fix and switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Build job scanning error	17-511	Error during scan to email build job	Inform the customer to rescan the last segment or delete the job.
Bypass Tray empty, please reload	07-515	MSI document present sensor detects no paper in MSI while attempting to feed from the MSI	Perform <a href="#">07D</a> RAP
Cannot connect to prime or backup authentication server.	16-539	Could not communicate with primary or alternate authentication server	Verify authentication server setup at web UI, verify server is online, check network connectivity. Can configure authentication to use guest mode
Cannot receive internet jobs. Please call for assistance	16-541	Could not communicate will POP3 server	Verify POP3 server settings at UI. Verify server is online and check network connectivity
Check for a stray original in the document tray	05-534	Unscheduled document detected by any sensor	Clear the document path in the DADH
Check settings for the bypass tray	07-505	Bypass tray size confirmation required	Attributes confirmed or tray opened

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Check the settings for Tray	07-501	Tray 1 closed or size change from power-on	Attributes confirmed or tray opened
Check the settings for Tray	07-502	Tray 2 closed or size change from power-on	Attributes confirmed or tray opened
Check the settings for Tray	07-592	Tray 2 closed or size change from power-on	Attributes confirmed or tray opened
Clear jam from right hand side of Tray 5	08-548	Sheet did not clear the wait sensor within the expected time	Perform 08-115, 08-117 RAP
Clear jam in area 5	11-520	Paper or debris covering the sensors	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
Clear jam in IOT zone 4	10-510	Post fuser sensor detects paper in post fuser area on power-on or in standby	Perform 10-107, 10-108, 10-109, 10-110 RAP
Clear jam in Tray 5	08-558	Sheet over the feed sensor	Jam clearance. Perform 08-115, 08-117 RAP
Clear jam in Tray 5	08-568	Paper did not reach the tray 5 feed sensor in time	Clear jam or perform 08-115, 08-117 RAP
Clear the jam in Areas 3,4. Close the front door when the paper has been removed	10-571	Paper detected in inverter area on power up or in standby	Perform 10-132, 10-133, 10-134 and 10-107, 10-108, 10-109, 10-110
Clear the jam in Areas 3,4. Close the front door when the paper has been removed	10-572	Paper detected near the inverter sensor on power up or in standby	Perform 10-132, 10-133, 10-134 and 10-107, 10-108, 10-109, 10-110
Clear the paper jam in the Finisher.	11-917	Sheet over HVF BM compiler paper present sensor	Clear the HFV BM paper present sensor area. Perform 11-172-171 RAP
Clear the paper jam in the Finisher.	11-932	Sheet detected near the inserter pickup sensor	Clear the sheet. If necessary, perform 11-191-171, 11-193-171, 11-194-171, 11-196-171 RAP
Clear the paper jam in the Finisher.	11-933	Sheet detected near the inserter tab standby sensor	Check the paper. If necessary, perform 11-191-171, 11-193-171, 11-194-171, 11-196-171 RAP

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Clear the paper jam in the Finisher	11-935	Sheet detected near the buffer sensor	Clear the sheet. If necessary, perform 11-157-171, 11-161-171 RAP and 11-164-171, 11-165-171 RAP
Clear the paper jam in the Finisher.	11-936	Sheet detected near Exit HVF to BM entry sensor	Clear the sheet. If necessary, perform 11-158-171, 11-160-171, 162-171, 163-171 RAP
Clear the paper jam in the Finisher.	11-938	Sheet detected near the top bin exit sensor	Perform 11-130-171, 11-132-171 RAP
Clear the paper jam in the finisher	11-951	Sheet detected near the stacker bin exit sensor	Clear the sheet. If necessary, perform 11-140-171, 11-142-171 RAP
Clear the paper jam in the Tri-Folding Unit	11-946	Sheet detected near the tri-fold entry sensor	Clear the sheet. If necessary, perform 11-183-171, 11-184-171 RAP
Clear the paper jam in the Tri-Folding Unit	11-947	Sheet detected near the tri-fold exit sensor	Clear the sheet. If necessary, perform 11-185-171 to 11-187-171
Clear the paper jam in the Tri-Folding Unit	11-948	Sheet detected near the tri-fold assist sensor	Clear the sheet. If necessary, perform 11-185-171 to 11-187-171 RAP
Close Document Feeder Top Cover	05-535	Open DADH cover	Close document handler cover. Perform 05-310 RAP
Close output module front door	11-503	Output module front door open in standby	Perform 11-300-110, 11-302-110, 11-303-110 RAP for 2K LCSS, 11-300-120, 11-302-120, 11-303-120 for 1K LCSS, 11-300-171, 11-302-171, 11-303-171 RAP for HVF

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Close output module top cover	11-502	Output module top cover opened in standby	Perform 11-300-110, 11-302-110, 11-303-110 RAP for 2K LCSS, 11-300-120, 11-302-120, 11-303-120 for 1K LCSS, 11-300-171, 11-302-171, 11-303-171 RAP for HVF
Close front door	01-510	Front door open	Perform 01-300 RAP
Close left hand door	01-512	Left hand door open	Perform 01-305 RAP
Close the output module top tray	11-501	Output module entry gate opened in standby	Close the exit cover
Close the Top Left door of the Finisher.	11-506	HVF Inserter left hand door is open	Close cover. Perform 11-306-171, 11-309-171 RAP
Close the Top Left door of the Finisher.	11-509	HVF Inserter left hand door is open	Close cover. Perform 11-306-171, 11-309-171 RAP
Close the Tri-Folding Unit Front Door.	11-508	HVF Tri-Folder front door is open	Close door. Perform 11-307-171, 11-308-171 RAP
Close the Tri-Folding Unit Top Cover.	11-507	HVF Tri-Folder top cover is open	Close cover. Perform 11-307-171, 11-308-171 RAP
Close top tray cover	01-514	Finisher bin 0 cover open	Perform 11-300-110, 11-302-110, 11-303-110 for the 2K LCSS, perform the 11-300-120, 11-302-120, 11-303-120 for the 1K LCSS, perform the 11-300-171, 11-302-171, 11-303-171 for the HVF.
Close tray 5 door	07-526	Tray 5 door has been detected open	Close the door, or perform 07-306
Communications failure. Please call for assistance	03-540	DC-IOT: three times retry fail at 100 ms cycle communication - no response. The DC is unable to communicate with the IOT within one minute of power on or after three retries	Perform the 03-300, 306, 461, 482, 805, 870 RAP
Copying is being prevented by the Access Control device	03-558	When the Foreign Interface is configured and a connected 3rd Party accessory is reporting that it is not enabled.	Perform 03-412 RAP

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Copying is being prevented by the Access Control device	03-559	Status 03-558 occurs and the system contains non-held jobs controlled by the Foreign Interface	Perform 03-412 RAP
Current job exceeds tray capacity, you will be prompted to empty the tray	03-570	Job is too large for selected output bin	None
Custom Services not available. Power Off then On and Notify System Administrator	02-521	UI gets no response from EIP service within 20 seconds	Switch off machine and switch on machine, GP 14.
Custom Services are not responding. Try Powering Off then On	17-565	Raised by the network controller when EIP service is not responding	Switch off the machine then switch on the machine, GP 14.
DADH fault. Please call for assistance	03-542	Single board controller-DADH: three times retry fail at 100 ms cycle communication - no response	Clear DADH of originals - use document glass for copy or FAX. Perform 05A RAP
Data encryption / decryption is in progress.	17-580	Raised by the network controller when disk encryption or decryption has been requested	No action. Cleared by the network controller
DHCP functions are not available. Please notify machine administrator	16-593	Network controller - DHCP address resolution failed	Connectivity fix and switch off the machine then switch on the machine, GP 14.
Document feeder is open	05-536	Open document handler	Close document handler. Perform 05-300 RAP
Document feeder feed roll has been replaced	05-539	DADH feed head CRU replaced. Message automatic 0.5 s after setting	None
Document feeder is unavailable	05-538	DADH not available. 03-322, 03-323, 03-324 or 14-320 raised	Perform 05-305 RAP, 03-320 to 03-324 RAP and 14-320 RAP
Document feeder is unavailable	05-542	DADH document transport needs service	Perform 05A RAP
Document is too short to be scanned by the document feeder, use the document glass	05-560	Document too short for DADH, use document glass. Fault 05-310 raised	Remove document from DADH during jam clearance, Perform 05-310 RAP
Ethernet functions are not available. Please notify machine administrator	16-591	Network controller - Ethernet TCP / IP port connectivity process failed	Connectivity fix and switch off the machine then switch on the machine, GP 14.

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Empty chad bin	11-549	Hole punch chad bin is full and needs emptying	Perform <a href="#">11-364-110</a> RAP for 2K LCSS, <a href="#">11N-171</a> for HVF
Ensure output module is docked	11-500	Output module un-docked in standby.	Dock the output module. Perform <a href="#">11-300-110</a> , <a href="#">11-302-110</a> , <a href="#">11-303-110</a> RAP for 2K LCSS, <a href="#">11-300-120</a> , <a href="#">11-302-120</a> , <a href="#">11-303-120</a> for 1K LCSS, <a href="#">11-300-171</a> , <a href="#">11-302-171</a> , <a href="#">11-303-171</a> RAP for HVF
Ensure network cables are properly connected	16-544	Network controller detected that the network cable is disconnected	Check the network harness connections
Ensure waste toner bottle is fitted and waste toner door is closed	09-596	IOT detects waste bottle door open.	Ensure the waste bottle is installed and the door is closed. Perform <a href="#">09-380</a> RAP
Extensible services are not responding. Try powering off then on	17-565	Raised by the network controller when EIP service is not responding	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Fax card not supported	03-503	The Fax card capabilities reported to the SIP are not sufficient to function adequately in the system, (e.g. sleep mode not supported).	Perform <a href="#">03-336</a> RAP
Fax job could not be sent at this time, please try again.	20-545	Error with image processing - fax command	User clears or times out (7 seconds)
Fax service is unavailable	03-551	Single board controller-FAX: communication error. Fault 03-338 is raised.	Perform <a href="#">03-338</a> RAP
FAX service unavailable	03-586	When the fault 03-401 or 03-403 is raised.	Perform <a href="#">20A</a> RAP
Fax service is unavailable	03-588	Basic Fax not detected or confirmed.	Perform <a href="#">20A</a> RAP
Fax memory is low. Contact your system administrator.	20-547	When fault 20-323 is raised	Perform <a href="#">20-323</a> , <a href="#">20-324</a> RAP
Finisher bin 0 full	11-570	Fifty additional prints have been sent to bin 0 since 90% full sensor made	Perform <a href="#">11-130-110</a> , <a href="#">11-132-110</a> RAP for 2K LCSS, <a href="#">11-130-120</a> , <a href="#">11-132-120</a> RAP for 1K LCSS, <a href="#">11-130-171</a> , <a href="#">11-132-171</a> RAP for HVF

**Table 1 Status messages A to F**

UI Message	Status Code	Reason for Message	Reference / Action
Finisher Insert Stock Out of Order	11-949	An insert sheet has not arrived at its intended output destination	See the message text. If necessary, perform <a href="#">11-191-171</a> , <a href="#">11-193-171</a> , <a href="#">11-194-171</a> , <a href="#">11-196-171</a> RAP and <a href="#">11-100-171</a> , <a href="#">11-101-171</a> RAP
Fuser module control failure. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	10-555	Fuser control software failure.	Perform <a href="#">10-322</a> , <a href="#">10-324</a> , <a href="#">10-325</a> , <a href="#">10-330</a> , <a href="#">10-370</a> RAP
Fuser module temperature fault	-	Fuser lamps not under control.	Perform the <a href="#">10-315</a> , <a href="#">10-320</a> , <a href="#">10-321</a> , <a href="#">10-323</a> , <a href="#">10-340</a> , <a href="#">10-350</a> , <a href="#">10-360</a> , <a href="#">10-365</a> , <a href="#">10-380</a> RAP
Fuser module temperature fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	10-550	Hardware detected fuser failure.	Perform <a href="#">10-315</a> , <a href="#">10-320</a> , <a href="#">10-321</a> , <a href="#">10-323</a> , <a href="#">10-340</a> , <a href="#">10-350</a> , <a href="#">10-360</a> , <a href="#">10-365</a> , <a href="#">10-380</a> RAP
Fuser module under temperature fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	10-545	Fuser warm-up failure.	Perform <a href="#">10-322</a> , <a href="#">10-324</a> , <a href="#">10-325</a> , <a href="#">10-330</a> , <a href="#">10-370</a> RAP

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
Hardware must be added or replaced. Please notify machine administrator	16-554	Network controller - the IPA card is either broken or missing	Re-insert or replace IPA card
Hole punching is unavailable	11-550	There are too many pages for the punch to operate	Instruct customer to use fewer pages in the set (max 50 sheets)
Hole punching is unavailable	11-551	The punch operation has been taken out of service	Perform <a href="#">11-043-110</a> , <a href="#">11-350-110</a> RAP for 2K LCSS, <a href="#">11-044-171</a> to <a href="#">11-047-171</a> RAP for HVF

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
Hole punching is unavailable	11-552	There are too many pages for the punch to operate	Instruct customer to use fewer pages in the set (max 50 sheets)
Hole punching is unavailable. Check for obstructions in the hole puncher	11-908	Punch head motor fails	Clear the paper jam. Perform <a href="#">11-043-110</a> , <a href="#">11-350-110</a> RAP for 2K LCSS, <a href="#">11-044-171</a> to <a href="#">11-047-171</a> RAP for HVF
Image disk offline. Jobs may take longer than normal	19-511	Faulty image disk	Switch off the machine, then switch on the machine, <a href="#">GP 14</a> . Perform <a href="#">03C</a> RAP
Image disk offline. Please call for assistance	19-512	Image disk read or write failure.	Switch off the machine, then switch on the machine, <a href="#">GP 14</a> . Perform <a href="#">03C</a> RAP
Image too large to process. Please alter job and scan again	16-542	Insufficient resources to process the image	Reduce scan size, reduce scan resolution
Immediate Job Overwrite failed. Please perform and On Demand Overwrite immediately	16-535	ESS Immediate Image Overwrite Error	The status is cleared when the ESS completes the On Demand Image Overwrite
Immediate Job Overwrite failed. Please perform an On Demand Overwrite immediately.	20-590	Fax immediate image overwrite error. Fault 20-710 is raised.	Perform <a href="#">20-710</a> , <a href="#">20-711</a> RAP.
Incompatible fuser module	10-531	The system setting does not match the fuser type setting (fuser voltage)	Install a new fuser or modify settings
Incompatible fuser module	10-532	The system setting does not match the fuser OpCo ID setting (Market region)	Install a new fuser or modify OpCo ID setting
Incompatible fuser module	10-533	The system setting does not match the fuser product speed setting	Install a new fuser or modify the product speed setting
Incompatible network controller	03-528	Low speed controller fitted to high speed copier	Switch off the machine, then switch on the machine, <a href="#">GP 14</a>
Incomplete Network Interface window	16-537	Any scan to distribution service not available	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
Incomplete Network Interface window	16-540	Death of any authentication services	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-562	Network controller - the line printer Daemon process has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-563	Network controller - the Novell Netware connectivity process has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-564	Network controller - the Net-BIOS connectivity process has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-565	Network controller - the Apple-talk connectivity process has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-567	Network controller - a Post-script interpreter error has occur, causing the process to fail	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-568	Network controller - a PCL interpreter error has occurred, causing the process to fail	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-570	Network controller - the http server (web-UI) has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-589	Network controller - serial port connectivity failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-595	The network controller Lan-Fax service failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete Network Interface window	16-596	The network controller accounting (JBA) service failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
Incomplete Network Interface window	16-597	The network controller TIFF interpreter failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete system information. Please contact the Machine Administrator	16-585	The network controller counters remote configuration synchronization process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete system information. Please notify machine administrator	16-578	The network controller fault service process has stopped (fault logging will be disabled)	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete system information. Please notify machine administrator	16-580	The network controller remote configuration process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete system information. Please notify machine administrator	16-583	The network controller counters utility process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Incomplete system information. Please notify machine administrator	16-586	The network controller counters SNMP agent process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Insertor empty, please reload	07-517	Paper sensor detects no paper	Reload paper.
Insertor is unavailable. Check for obstructions in the insertor	11-944	Insertor capability degraded	Check for obstructions in the insertor. If necessary, perform <a href="#">11-191-171</a> , <a href="#">11-193-171</a> , <a href="#">11-194-171</a> , <a href="#">11-196-171</a> RAP and <a href="#">11J-171</a> RAP
Installation procedure is not complete. Please complete installation, then switch the machine off then on again	02-540	System Manager install phase not set to IpinstallComplete or DC Platform Manager install phase not set to IpinstallComplete	Complete install procedure
Internal address book unavailable. Please notify machine administrator	16-538	Could not communicate with the LDAP server	Verify LDAP server setup at web UI, verify server is online, check network connectivity
Internal power supply failure. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	09-560	HVPS failure. 09-060 fault	Perform <a href="#">09-060</a> RAP.

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
IOT cycled in without printing	03-576	IOT cycled in without printing. Fault 03-395 raised	Perform <a href="#">03-395</a> , <a href="#">396</a> , <a href="#">852</a> , <a href="#">853</a> RAP
IP interface error. Please notify machine administrator	16-598	Network controller - TCP / IP address is already in use on the network	Contact SA. Another IP address needs to be used
IP interface error. Please notify system administrator	17-510	The IPv6 IP address is already in use	Use a different address
IP interface error. Please notify system administrator	17-513	The IPv4 IP address is already in use	Use a different address
IP interface error. Please notify system administrator	17-514	External Accounting Device Communication Failure	Contact SA.
Job contains too many sheets to be folded and stapled. See Help for more details.	03-568	When the BM job contains too many sheets for the BM to fold and staple.	Maximum number of output sheets that can be folded and stapled is 15
Job contains too many sheets to be folded. See Help for more details.	03-569	When the BM job contains too many sheets for the BM to fold	Maximum number of output sheets that can be folded is 15
Job deleted due to the device storage disk becoming full. Stored jobs will need to be deleted to make space available	17-503	CPSR input job in progress has been deleted due to memory full	Make more space for file storage or re-define pathway
Job in progress. Manual stapling will be available when the current output job set completes	11-538	Offline stapling requested while a print job is in progress for output to any bin other than bin 0 (top bin)	Cleared when current job completed
Job in progress. Please wait until Manual Stapling job is complete	11-539	Offline stapling is 'Ready' and a user requests a print job for output to the stacker, mailboxes or BM	Cleared when offline stapling mode is cancelled
Job status information not available. Please notify machine administrator	16-574	The network controller protocol module process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Job status information not available. Please notify machine administrator	16-579	The network controller completed job log service and print SPI processes have stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Job was deleted because a document was larger than expected. Discard output. Try flattening the document and either re-scan it through the document feeder or scan it from the document glass	05-507	Fault 05-331 is raised.	Perform <a href="#">05-330</a> , <a href="#">05-331</a> RAP

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
Local interface problem detected. Please switch the machine off and on again	02-531	Faults declared. UI running in degraded mode	Perform <a href="#">02-309</a> , <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP and the <a href="#">03D</a> Software Module Failure RAP
Local interface problem detected. Please switch the machine off and on again	02-532	Fault declared. UI software error. Fault 02-320 called during power on sequence	Perform <a href="#">02-320</a> , <a href="#">02-380</a> RAP and the <a href="#">03D</a> Software Module Failure RAP
Lower the document feeder to use it to scan your documents	05-502	Document present in DADH tray and the DADH cover is open	Perform <a href="#">05-300</a> RAP
Machine cloning is in process. This shall take a few minutes to complete	16-506	Status raised while Network controller connectivity settings are being cloned	Cleared automatically when cloning is completed
Machine speed configuration error	03-579	Speed in image processing NVM does not match speed in DADH	Perform <a href="#">03-320</a> to <a href="#">03-324</a> RAP. Perform <a href="#">03-330</a> , <a href="#">03-462</a> RAP. Refer to <a href="#">GP 15</a> How to Set the Machine Configuration
Machine speed configuration error	03-580	Speed in Image processing NVM does not match speed in IOT NVM. Fault 03-461 is raised.	Perform <a href="#">03-330</a> , <a href="#">03-462</a> RAP. Refer to <a href="#">GP 15</a> How to Set the Machine Configuration
Machine speed configuration error	03-581	Speed in Image processing NVM does not match scanner speed. Fault 03-462 is raised.	Perform <a href="#">03-330</a> , <a href="#">03-462</a> RAP. Refer to <a href="#">GP 15</a> How to Set the Machine Configuration
Machine unavailable	03-587	The fault 03-417 is raised.	Perform <a href="#">03-417</a> RAP
Main motor control fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	03-575	Main motor not being controlled. Fault 03-397 raised	Perform <a href="#">03-397</a> RAP
Max. number of fax jobs in the system has been reached. Contact your system administrator.	20-565	All jobs IDs allocated cannot create any more	When fax job IDs become available
Media required for held job is not available	22-513	Queued Job being held due to lack of for resources	Add paper to the tray being used to clear queued job
Media required for held job is not available	22-511	When correct media is not available for held job	Provide media to complete the held job or cancel job

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
Network controller connection is about to be reset	16-575	The network controller registration service process has stopped	Automatic network controller reset
Network controller connection is about to be reset	16-576	The network controller event notification service process has stopped	Automatic network controller reset
Network controller connection is about to be reset	16-577	The network controller platform manager service process has stopped	Automatic network controller reset
Network controller connection is about to be reset	16-584	The network controller counters document manager process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Network controller error. Please contact system administrator.	22-547	XSA service unavailable. This status code becomes active when the fault 22-370 is raised	Perform <a href="#">22-370</a> RAP
Network controller error. Please contact system administrator.	16-536	The ESS XSA service is unavailable. The fault is due to a failure of internal communication in the network controller.	The ESS XSA service becomes available.
Network controller is initiating. Power Off will be available when initialization has completed. Please wait.	03-554	network controller machine powered up but network controller still initializing. Fault 03-340 is raised.	No action
Network controller unavailable. Please call for assistance	03-544	Single board controller-network controller: three times retry fail at 100 ms cycle communication - no response	Switch off the machine then switch on the machine, <a href="#">GP 14</a> . Perform the <a href="#">03D</a> Software Module Failure RAP
Network printing disabled. Please notify machine administrator	16-571	Network controller - print service has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Network printing disabled. Please notify machine administrator	16-572	Network controller - print SPI service has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Network printing disabled. Please notify machine administrator	16-573	Network controller - MF print service has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Network scanning communication error. Please notify machine administrator	16-545	Network controller - unrecoverable scan to file communication error	Machine restart initiated Resubmit job

**Table 2 Status messages G to N**

UI Message	Status Code	Reason for Message	Reference / Action
Network scanning error. Please notify machine administrator	16-548	Network controller - scan to file job processing error	Resubmit job. If problem persists, Machine restart initiated
Network scanning filing error. Please notify machine administrator	16-546	Network controller - network repository filing error	Verify destination address; check repository setup; verify repository is online. Check network connectivity. Resubmit the job
Network scanning is not available. Please notify machine administrator	16-549	Network controller - failure of any scan to file services	If problem persists, Machine restart initiated. Resubmit job.
Network scanning is unavailable. Check cabling connections	03-567	S2X job started but S2X_Ready line not detected	Switch the machine off and on, GP 14. Check the connections.
Network scanning templates could not be retrieved. Please notify machine administrator	16-547	Network controller - scan to file template retrieval failure	Verify remote template pool settings; verify that the template repository is online. Check network connectivity
Network Scanning Unavailable	16-561	Some scan to file processes have died	Switch off the machine then switch on the machine, GP 14.
No communication on fax line 1. Please check external connection	20-562	When fault 20-331 is raised	When fault 20-331 is cleared. Perform 20-331, 20-339, 20-341 RAP
No communication on fax line 2. Please check external connection	20-563	When fault 20-332 is raised	When fault 20-332 is cleared. Perform 20-332, 20-340 RAP
No UI message appears	22-502	When fault 22-310 is raised	Automatically clears after being raised
Not all configurable services have achieved a stable state	02-533	Machine not achieved stable state five minutes from power on	Perform 02-390, 02-391, 02-704, 02-706 RAP
Not enough memory to use fax services. Contact your system administrator.	20-546	When fault 20-324 is raised	When fault 20-324 is cleared. Perform 20-323, 20-324 RAP

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Offsetting is unavailable from output tray 1. Check for obstructions in output tray 1	11-905	Bin 1 offset motor fails to move or home.	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP for 2K LCSS, 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-024-110, 11-025-110 RAP for 2K LCSS, 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP for 1K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS, 11-024-120, 11-025-120 RAP for 1K LCSS, 11-024-171, 11-026-171, 11-392-171 to 11-395-171, 11-396-171 to 11-399-171 RAP for HVF
Offsetting is unavailable. Check for obstructions in the output tray	12-530	Offsetting catch tray is not in index position.	Perform 12-301 RAP
One or more HFSI item needs attention.	22-558	An HFSI item has reached or exceeded its threshold	Reset 'Actual' count to zero or reset the threshold
One or more queued jobs needs resources.	22-515	Queued Job being held due to lack of for resources.	Add paper to the tray being used to clear queued job
Open document feeder top cover	05-520	Sheet left over DADH post feed sensor after a jam	Remove sheet
Open document feeder top cover	05-521	Sheet left over DADH TAR sensor after jam	Remove sheet
Open document feeder top cover	05-526	DADH - sheet near CVT sensor in duplex path. 05-352 fault is raised	Reset when DADH top cover closed after jam cleared. Perform 05-350, 05-352 RAP



**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Open output device door	11-510	Sheet detected over entry sensor	Perform 11-100-110 RAP for 2K LCSS, 11-100-120 for 2K LCSS, 11-100-171, 11-101-171 RAP for HVF
Open output device door	11-511	Sheet near entry sensor at shutdown	Perform 11-100-110 RAP for 2K LCSS, 11-100-120 for 2K LCSS, 11-100-171, 11-101-171 RAP for HVF
Open output device door	11-512	Sheet detected over punch sensor	Perform 11-110-110 RAP for 2K LCSS, 11-044-171 to 11-047-171 for HVF
Open output device door	11-513	Sheet near punch sensor at shut down	Perform 11-110-110 RAP for 2K LCSS, 11-044-171 to 11-047-171 for HVF
Open output device door	11-514	Sheet detected over compiler sensor	Perform 11-158-171, 11-160-171, 162-171, 163-171 RAP
Open output device door	11-515	Sheet near 2nd to top exit sensor	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
Open output device door	11-516	Sheet detected over edge registration sensor	Perform 11A-110 RAP for 2K LCSS
Open output device door	11-518	Sheet detected over top exit sensor	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF
Open output device door	11-519	Sheet near top exit sensor at shutdown	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Open output device door	11-521	Sheet near 2nd to top exit sensor	Perform 11-140-110, 11-142-110 RAP for 2K LCSS, 11-140-120, 11-142-120 RAP for 1K LCSS, 11-140-171, 11-142-171 RAP for HVF
Open front door	08-555	Registration sensor detects paper in registration area on power-on or in standby. 08-150	Jam clearance. Perform 08-150, 08-151 RAP
Open front door	08-556	Paper in duplex path at power-on or in standby	Jam clearance. Perform 08-160, 08-161 RAP
Open left hand door	08-557	Paper over the registration sensor when feeding from the bypass tray	Jam clearance. Perform 08-155, 08-156 RAP
Open finisher front door	11-952	Page over Buffer Path Sensor	Clear Buffer Path Sensor, perform 11-157-171, 11-161-171 RAP and 11-164-171, 11-165-171 RAP
Open finisher front door	11-953	Page detected near buffer path sensor	Clear sheet near buffer path sensor, perform 11-157-171, 11-161-171 RAP and 11-164-171, 11-165-171 RAP
Open Finisher Top Cover. Remove Paper. Close Finisher Top Cover.	11-955	Page over Inserter Lead Edge Sensor	Clear Inserter Lead Edge Sensor, perform 11-479-171 RAP
Open front door	08-566	Sheet near duplex sensor	Jam clearance
Open left hand door	08-567	Paper over the registration sensor when feeding from the bypass tray	Jam clearance
Open front door	10-507	Sheet is near the IOT exit sensor in the non-invert path	Jam clearance
Open front door	10-508	Sheet is near the IOT exit sensor in the left hand side of the invert path	Jam clearance
Open front door	10-509	Sheet is near the IOT exit sensor in the right hand side of the invert path	Jam clearance
Open front door	10-511	Sheet near post fuser sensor	Jam clearance
Open front door	10-512	IOT exit sensor paper in IOT exit area at power -on or start print	Jam clearance. Perform 10-107, 10-108, 10-109, 10-110 RAP

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Open front door	10-513	Sheet near IOT exit sensor	Jam clearance. Perform 10-107, 10-108, 10-109, 10-110 RAP
Open left hand door	08-550	Sheet over wait sensor	Jam clearance. Perform 08-100 RAP
Open left hand door	08-551	Tray 1 feed sensor detects paper in feed area on power-on or in standby, 08-101	Jam clearance. Perform 08-101 RAP
Open left hand door	08-552	Tray 2 feed sensor detects paper in feed area on power-on or in standby. 08-102	Jam clearance. Perform 08-102 RAP
Open left hand door	08-554	Tray 4 feed sensor detects paper in feed area on power-on or in standby. 08-104	Jam clearance. Perform 08-104, 08-114 RAP
Open left hand door	08-565	Sheet near registration sensor	Jam clearance
Open output device door	11-522	Sheet over the BM exit sensor	Perform 11-180-171, 11-182-171 RAP
Open output device door	11-523	Sheet near the BM exit sensor	Perform 11-180-171, 11-182-171 RAP
Open the document feeder	05-523	Sheet left over DADH registration sensor after jam	Remove sheet
Open the document feeder	05-524	Sheet left over DADH exit sensor after jam	Remove sheet. Perform 05-345, 05-346 RAP
Open tray 1	08-561	Sheet near tray 1 feed sensor. 08-106	Jam clearance. Perform 08-106 RAP
Open tray 2	08-562	Sheet near tray 2 feed sensor	Jam clearance
Open tray 3	08-553	Tray 3 feed sensor detects paper in feed area on power-on or in standby. 08-103	Jam clearance. Perform 08-103, 08-113 RAP. If the fault remains, check the tray 3 exit sensor, refer to the 08-131 RAP.
Open tray 3	08-563	Sheet near tray 3 feed sensor	Jam clearance. W/O TAG 151 Perform 08-107 RAP. W/TAG 151 Perform 08-131 RAP, check the tray 3 exit sensor
Open tray 4	08-564	Sheet near tray 4 feed sensor	Jam clearance
Option service removed	22-554	Unable to remove optional service	Refer to 22-410 to 22-416, 22-423, 22-425, 22-428, 22-777 RAP, 22-417 RAP
Optional service installed	22-553	Service option installed	

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Optional service mismatch detected	22-552	Service option mismatch detected	Install or remove service option. If necessary, perform 22-410 to 22-416, 22-423, 22-425, 22-428, 22-777 or 22-400 to 22-403, 22-423, 22-426, 22-427, 22-775
Output Bin full	03-511	When the 90% full sensor is cleared before the bin switch timer expires.	Printing will continue automatically 15 seconds after raised if the Pause button is not pressed. Or when the Resume button pressed. Or Automatically 15 minutes after Pause button pressed if Resume button is not pressed.
Output device communications fault. Please call for assistance.	03-545	IOT-Finisher: three times retry fail at 100 ms cycle communication - no response. 03-360	Perform 03-360, 03-408 to 03-410, 03-418 RAP

Table 3 Status messages O to R

UI Message	Status Code	Reason for Message	Reference / Action
Output tray 1 out of service. Check for obstructions in output tray 1	11-902	Tamper move or Bin 1 or compiler eject or staple fault	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP for 2K LCSS, 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-024-110, 11-025-110 RAP for 2K LCSS, 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP for 1K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS, 11-024-120, 11-025-120 RAP for 1K LCSS, 11-024-171, 11-026-171, 11-392-171 to 11-395-171, 11-396-171 to 11-399-171 RAP for HVF

Table 3 Status messages O to R

UI Message	Status Code	Reason for Message	Reference / Action
Output trays 1 and 2 out of service. Check for obstructions in the output trays	11-904	Tamper home or paddle roll or compiler or stapling fault	Clear the paper jam. Switch off the machine then switch on the machine, GP 14. Perform 11-005-110, 11-006-110, 11-310-110, 11-311-110 RAP for 2K LCSS, 11-007-110, 11-008-110, 11-312-110, 11-313-110, 11-319-110 RAP for 2K LCSS, 11-024-110, 11-025-110 RAP for 2K LCSS, 11-005-120, 11-006-120, 11-310-120, 11-311-120 RAP for 1K LCSS, 11-007-120, 11-008-120, 11-312-120, 11-313-120, 11-319-120 RAP for 1K LCSS, 11-024-120, 11-025-120 RAP for 1K LCSS, 11-024-171, 11-026-171, 11-392-171 to 11-395-171, 11-396-171 to 11-399-171 RAP for HVF
Output Tray full. Please empty the Output Tray.	11-572	Fifty additional prints have been sent to bin 1 since 90% full sensor made	Perform 11-030-110, 11-334-110, 11-335-110, 11-336-110 RAP for 2K LCSS, 11-030-120, 11-334-120, 11-335-120, 11-336-120 RAP for 1K LCSS, 11-460-171 to 11-462-171 RAP for HVF
Output Tray full. Please empty the Output Tray.	11-574	Finisher bin 2 full	Perform 11C-171 RAP
Output tray nearly full	10-516	Printer bin 0 90% full sensor made	Unload the tray
Output tray nearly full	11-571	Bin 0 90% full sensor made	Perform 11-130-110, 11-132-110 RAP for 2K LCSS, 11-130-120, 11-132-120 RAP for 1K LCSS, 11-130-171, 11-132-171 RAP for HVF

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Output tray nearly full	11-573	Bin 1 90% full sensor made	Perform <a href="#">11-030-110</a> , <a href="#">11-334-110</a> , <a href="#">11-335-110</a> , <a href="#">11-336-110</a> RAP for 2K LCSS, <a href="#">11-030-120</a> , <a href="#">11-334-120</a> , <a href="#">11-335-120</a> , <a href="#">11-336-120</a> RAP for 1K LCSS, <a href="#">11-460-171</a> to <a href="#">11-462-171</a> RAP for HVF
Output tray nearly full	11-575	Bin 2 90% full sensor made	Perform <a href="#">11C-171</a> RAP
Output Trays out of service. Remove all paper from Output Trays.	11-598	Output trays have reached their capacity.	Cleared when confirm button pressed
Ozone filter near end of life, ensure you have a replacement filter	09-590	Ozone life counter near end of life	Order a new ozone filter, <a href="#">PL 9.25</a> Item 3.
Page-over BB compiler Sensor	11-530	Sheet over the booklet maker entry sensor	Clear the area or perform <a href="#">11-183-171</a> , <a href="#">11-184-171</a> RAP
Page over Buffer Position Sensor	11-526	Sheet over the buffer position sensor	Clear the area or perform <a href="#">11-198-171</a> , <a href="#">11-199-171</a> RAP
Page over exit HVF into Booklet Maker Sensor	11-527	Sheet over the HVF exit into BM sensor	Clear the area or perform <a href="#">11-198-171</a> , <a href="#">11-199-171</a> RAP
Page-over PPI Pickup Sensor	11-524	Sheet over the inserter pickup sensor	Clear the area or perform <a href="#">11-479-171</a> RAP
Page-over PPI Tab Standby Sensor	11-525	Sheet over the inserter tab standby sensor	Clear the area or perform <a href="#">11-191-171</a> , <a href="#">11-193-171</a> , <a href="#">11-194-171</a> , <a href="#">11-196-171</a> RAP
Page over Stacker Bin Exit Sensor	11-528	Sheet over the stacker bin exit sensor	Clear the area or perform <a href="#">11-140-171</a> , <a href="#">11-142-171</a>
Page over Tri-fold Entry Sensor	11-529	Sheet over the tri-folder entry sensor	Clear the area or perform <a href="#">11-183-171</a> , <a href="#">11-184-171</a> RAP
Paper jam not fully cleared	08-580	A stray sheet has been detected in either the IOT or finisher device during the post jam clearance initialization routine. 08-190	Jam clearance. Perform <a href="#">08-190</a> RAP
Paper size mismatch. Check paper in Tray 1. Some image loss may occur	07-571	First sheet fed after a tray 1 status change does not match the confirmed stock	Check the paper in tray 1. Perform <a href="#">07E</a> RAP

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Paper size mismatch. Check paper in Tray 2. Some image loss may occur	07-572	First sheet fed after a tray 2 status change does not match the confirmed stock	Check the paper in tray 2. Perform <a href="#">07E</a> RAP
Paper size mismatch. Check paper in Tray 3. Some image loss may occur	07-573	First sheet fed after a tray 3 status change does not match the confirmed stock	Check the paper in tray 3. Check that the tray is set to correct paper size, (W/O <a href="#">TAG 151</a> ) <a href="#">ADJ 7.1</a> or (W/ <a href="#">TAG 151</a> ) <a href="#">ADJ 7.5</a>
Paper size mismatch. Check paper in Tray 4. Some image loss may occur	07-574	First sheet fed after a tray 4 status change does not match the confirmed stock	Check the paper in tray 4. Check that the tray is set to correct paper size, (W/O <a href="#">TAG 151</a> ) <a href="#">ADJ 7.1</a> or (W/ <a href="#">TAG 151</a> ) <a href="#">ADJ 7.5</a>
Paper size mismatch. Check paper in tray 5	07-576	The first sheet after a tray 5 status change does not match the confirmed stock	Confirm the paper size in the UI
Paper size mismatch. Check paper in Bypass tray. Some image loss may occur	07-575	First sheet fed after a bypass tray status change does not match the confirmed stock	Check the paper in bypass tray and the side guide is set correctly
Paper Trays are unavailable. Call for assistance	03-549	IOT microprocessor: comm error. Fault 03-350 is raised.	Perform <a href="#">03-350</a> , <a href="#">03-351</a> , <a href="#">03-354</a> RAP
Pause To Unload Time-out Warning	11-941	Machine is paused for unloading. Need to press button on pop up screen	Follow the instructions. If necessary, perform <a href="#">11H-171</a>
Pause To Unload Time-out Warning	11-942	Timer expiry. Wait for machine to pause, then press button on pop up screen	Follow the instructions. If necessary, perform <a href="#">11H-171</a>
Please check the output bin for blank and partially imaged sheets and discard them	03-510	When paper is delivered to the output and a video complete has not been received by the single board controller PWB	Perform <a href="#">03-423</a> , <a href="#">424</a> , <a href="#">433</a> , <a href="#">434</a> , <a href="#">821</a> , <a href="#">822</a> , <a href="#">831</a> , <a href="#">832</a> RAP
Please close the Booklet Maker Stapler module	11-921	The stapler position sensor indicates the stapler module is not closed in initialisation	Close the BM stapler module. If necessary, perform <a href="#">11-063-171</a> , <a href="#">11-411-171</a> RAP for staple unit 1, and <a href="#">11-403-171</a> , <a href="#">11-413-171</a> , <a href="#">11-414-171</a> RAP for staple unit 2

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Please delete the job. No tray is configured with the required paper size. Press the Job Status button. Then select the Delete Button.	22-504	No tray configured for media	Configure one tray for this stock size.
Please enter your password and press Enter	03-535	Machine in service copy mode for password entry	Status clears on leaving service copy mode
Please follow the instructions below to replace the document handler feed roll	05-548	DADH feed roll assembly at end of life	Install a new feed roll assembly, (35 ppm) <b>PL 5.15 Item 1</b> or (40-90 ppm) <b>PL 5.17 Item 1</b> .
Please wait, adjusting fuser temperature	10-540	Fuser temperature control failure.	Perform <b>10-322, 10-324, 10-325, 10-330, 10-370 RAP, 10-315, 10-320, 10-321, 10-323, 10-340, 10-350, 10-360, 10-365, 10-380 RAP</b>
Please wait, freeing memory	19-502	Out of memory resources. Fault 19-401, 19-402	Perform <b>19-401, 19-402, 19-403 RAP</b>
Please wait, freeing memory.	17-580	Out of memory resources. Fault 19-401, 19-402	Perform <b>19-401, 19-402, 19-403 RAP</b>
Please wait. The image disk is full.	19-513	The system has detected that insufficient space is available on the image disk	Wait for space to become available
Please wait, the system is attempting to recover	19-510	At power up, the image disk is not present or faulty.	Switch off the machine, then switch on the machine, <b>GP 14</b> . Perform <b>03C RAP</b>
Please wait. The system is attempting to recover from a fault	03-556	When fault codes 03-351 and 03-354 are raised	Perform <b>03-350, 03-351, 03-354 RAP</b>
Please wait - the system is attempting to recover from a fault	03-557	Tray 5 comms error. Fault 03-366 is raised	Perform <b>03-366 RAP</b>
Please wait. The system software and the network controller are about to be reset from a remote client. The reset may take several minutes. Any jobs currently being marked will be cancelled	03-501	prtgeneralReset MIB object on the network controller is set to a value of powerCycleReset(4)	None
Please wait, your job will continue shortly. Do not press the Start button again	19-506	Job delayed status	High EPC usage. Perform <b>19-401, 19-402, 19-403 RAP</b>

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Please wait... The system is attempting to recover	22-501	Attempting print recovery. 22-306, 22-307, 22-309	Perform <b>22-306 to 22-315, 22-801, 22-814 RAP</b>
Please wait while your receipt is printing. This may take up to 7 seconds.	03-506	This status is raised while auditron copy activity report is printed	Clears when the report has printed
Post jam clearance initial is at ion in progress	08-570	The IOT and finisher device are performing the post jam clearance initialization process to check for stray sheets	Status clears on completion of initialization process
Power down failure. Power off cannot be completed. Press the power button on the left side of the machine. If there is no response within 1 minute, then remove the power cord. Wait 3 minutes then reinsert the power cord and switch the machine on.	03-520	System fails to power off after request from the UI	Perform <b>03-374 RAP</b>
Printing and scanning are unavailable. Please call for assistance	03-500	Voltage not present on 24 V rail monitored by IOT	Perform <b>03-480 RAP</b>
Printing is unavailable	09-550	Photoreceptor erase lamp has failed. 09-350 fault	Perform <b>09-350 RAP</b>
Pull out fuser module, then firmly push it back in	03-547	IOT-FRU: unable to read from FRU. Fault 03-371 is raised.	Perform <b>03-371, 03-372 RAP</b>
Pull out xerographic module, then firmly push it back in	03-548	IOT-XRU: unable to read from XRU. Fault 03-372 is raised.	Perform <b>03-371, 03-372 RAP</b>
Punch Chad Bin Set State	11-541	The chad bin has been removed from the finisher	Reinstall the chad bin Perform <b>11N-171</b>
Raise document handler	05-522	Sheet left over DADH CVT sensor after jam	Remove sheet
RARP functions are not available. Please notify machine administrator	16-594	Network controller - RARP address resolution fails	Connectivity fix and switch off the machine then switch on the machine, <b>GP 14</b> .
Reload originals and press start	14-566	CCD (width) and length sensors cannot determine size of the original	Reposition originals and press start, Perform <b>14A RAP</b>
Reload originals and press Start	05-503	Not enough originals during recovery	Reload originals
Reload originals or select original size and press Start	05-546	On pre-feed the DADH fails to recognize the size of the document	Reload originals or select size. Perform <b>05C RAP</b>

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Remove documents from the paper tray and close the cover	05-502	Document present in DADH tray with DADH cover open	Lower the document handler to scan your documents. Perform <a href="#">05-300 RAP</a>
Remove all documents from the document feeder tray	05-525	Sheet left over DADH document present sensor after jam	Remove sheet. Perform <a href="#">05B RAP</a>
Remove misfed sheet. Close tray 1	07-521	IOT microprocessor detects Tray 1 open	Close tray. Perform <a href="#">07-301RAP</a>
Remove misfed sheet. Close tray 2	07-522	IOT microprocessor detects Tray 2 open	Close tray. Perform <a href="#">07-302 RAP</a>
Remove misfed sheet. Close tray 3	07-523	IOT microprocessor detects Tray 3 open	Close Tray. Perform <a href="#">07-303 RAP</a>
Remove misfed sheet. Close tray 4	07-524	IOT microprocessor detects Tray 4 open	Close Tray. Perform <a href="#">07-304 RAP</a>
Remove Reorder Toner Cartridge	02-560	Set by the user interface when the user enters *33 code to remove the Reorder Notification message when the Toner Cartridge is replaced.	Cleared by the user interface once Status 09-599 is cleared.
Re-order but do not replace Document Feeder Feed Roll	05-547	DADH feed head near end of life	Replace feed head or end of life status
Re-order but do not replace fuser module	10-521	Fuser counter reaches 290 k prints	Refer to the <a href="#">03D Software Module Failure RAP</a> before ordering a new fuser module, <a href="#">PL 10.10 Item 1</a> , <a href="#">PL 10.8 Item 1</a> .
Re-order but do not replace the Tray 5 Feed Rolls	07-580	Near the end of life - ensure new stock is available	Order new feed roll kit, <a href="#">PL 8.45 Item 2</a>
Re-order, but do not replace xerographic module	09-584	Xerographic module near end of life	Re-order a new xerographic module
Replace fuser module	10-520	Fuser counter reaches 300 k prints	Install new fuser module, <a href="#">PL 10.10 Item 1</a> , <a href="#">PL 10.8 Item 1</a> .
Replace fuser module	10-523	IOT detects fuser failure	Install new fuser module, <a href="#">PL 10.10 Item 1</a> , <a href="#">PL 10.8 Item 1</a> .
Replace fuser module	10-570	FRU CRUM authorization failure. When fault 10-399 raised	Perform <a href="#">10-399 RAP</a>
Replace Ozone Filter	09-591	Ozone life counter reaches end of life	Install new ozone filter, <a href="#">PL 9.25 Item 3</a>

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Replace punch head unit	11-540	Punch head present sensor not made	Perform <a href="#">11-043-110</a> , <a href="#">11-350-110 RAP</a> for 2K LCSS, <a href="#">11-044-171 to 11-047-171 RAP</a> for HVF
Replace staple cartridge	11-546	Staple cartridge empty	Perform <a href="#">11-364-110 RAP</a> for 2K LCSS, <a href="#">11-364-120 RAP</a> for 1K LCSS, <a href="#">11-371-171 to 11-377-171 RAP</a> for HVF
Replace toner cartridge	09-593	Accumulated toner dispense time value greater than 27 s attained, or cycle out event occurs (Toner cartridge empty). 09-390	Install new toner cartridge. Perform <a href="#">09-310</a> , <a href="#">09-390 RAP</a>
Replace tray 5 feed rolls	07-590	The feed head counter has reached the end of life figure	Install new tray 5 feed rolls, <a href="#">PL 8.45 Item 2</a>
Replace waste toner bottle	09-594	Waste toner shutdown counter value attained OR if waste toner shutdown counter value greater than 50% and cycle out event occurs	Install new waste toner bottle, <a href="#">PL 9.10 Item 1</a> .
Replace Xerographic Module	09-585	Xerographic module end of life	Refer to the <a href="#">03D Software Module Failure RAP</a> before a new xerographic module is installed, (35 ppm) <a href="#">PL 9.22 Item 2</a> , (40-90 ppm) <a href="#">PL 9.20 Item 2</a> . Refer to <a href="#">GP 27</a> , End of Life Extension
Replace xerographics module	09-586	IOT detects an xerographic module failure	Switch the machine off and on, <a href="#">GP 14</a> . Install a new xerographic module
Resort and reload all originals.	05-540	DADH document jam is cleared for a single job	Replace document on DADH input tray to enable recovery. Check for blanks in output tray. Resume or cancel job
Resort and reload ALL the originals in the document feeder	05-544	Document jam is cleared (covers cycled and switch cleared) and 'normal job' or 'build job'	Resume job command is given with documents replaced in input tray, if required, or cancel job command is given

**Table 3 Status messages O to R**

UI Message	Status Code	Reason for Message	Reference / Action
Restoring configuration setting. Please wait. System will reboot when completed.	03-526	Software upgrade configuration reset	When the Image processing module has completed restoring the configuration settings
ROS laser not being controlled	06-540	ROS laser not being controlled.	Perform <a href="#">06-350</a> RAP
ROS system failure. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services	06-530	ROS system failed.	Perform <a href="#">06-340</a> RAP

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
'Save job for Reprint' service is unavailable. Please try again later	17-501	Network controller unavailable and customer already within pathway, or CPSR feature suspended	Wait for the network controller to become available. Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Scan to file unavailable	03-585	Fault 03-331 raised	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Scanner fault. Please call for assistance	03-543	Single board controller-CCD: three times retry fail at 100 ms cycle communication - no response	Perform <a href="#">14-310</a> RAP and the <a href="#">03D</a> Software Module Failure RAP
Scanner has failed to initialize. Switch off the machine, wait 3 minutes, then switch on the machine. If fault persists call for assistance, or press close to use other services	14-563	Scanner needs service	Switch off the machine then switch on the machine, <a href="#">GP 14</a> . Perform <a href="#">14-110</a> RAP, <a href="#">14-310</a> RAP, <a href="#">14-710</a> RAP

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Scanner is calibrating, please wait	14-560	Scanner is calibrating	If calibration does not complete, switch off the machine, then switch on the machine, <a href="#">GP 14</a> . Wait for a few minutes, if the scanner continues to calibrate without completing perform <a href="#">14-703</a> to <a href="#">14-706</a> , <a href="#">712</a> , <a href="#">714</a> , <a href="#">716</a> , <a href="#">718</a> RAP
Scheduling fault etc.	22-560	SML error.	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Slide Tray 5 up to machine	07-581	Tray 5 is un-docked	Perform <a href="#">07-372</a>
Sip FireWire card not supported	03-502	SIP FireWire card vendor and device ID not in list of supported FireWire cards	No action
Software cycling control fault. Printing is unavailable. If fault persists, call for assistance. Touch Ignore Error to use other services / Printing is unavailable	03-560	Laser on without printing. Fault 03-396 raised	Perform <a href="#">03-395</a> , <a href="#">396</a> , <a href="#">852</a> , <a href="#">853</a> RAP
Software option codes do not match	16-552	Network controller - the flag in system manager is not in sync with the network controller PM	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Software upgrade completing - please wait	03-537	IOT software upgrade status	None
Some finishing features are unavailable. Check for obstructions in the finisher	11-903	Compiler carriage or stapling fault	Clear the paper jam. Switch off the machine then switch on the machine, <a href="#">GP 14</a> . Perform <a href="#">11-364-110</a> RAP for 2K LCSS, <a href="#">11-364-120</a> RAP for 1K LCSS, <a href="#">11-172-171</a> , <a href="#">11-180-171</a> , <a href="#">11-182-171</a> , <a href="#">11-185-171</a> to <a href="#">11-187-171</a> , <a href="#">11-371-171</a> to <a href="#">11-377-171</a> RAP for HVF

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Some finishing features are unavailable. Check for obstructions in the stapler.	11-912	Stapler unit 1 fails to move	Clear obstruction from stapler. Perform <a href="#">11-053-110</a> , <a href="#">11-370-110</a> RAP for 2K LCSS, <a href="#">11-371-171</a> to <a href="#">11-377-171</a> RAP for HVF
Some network controller services are not available. Contact system administrator.	17-570	Communication with NNTP server failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Some network services unavailable. Please notify machine administrator	16-560	Some processes on the network controller have failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Some network services unavailable. Please notify machine administrator	16-581	The network controller diagnostic service process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Some network services unavailable. Please notify machine administrator	16-582	The network controller authentication SPI process has stopped	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Some network services unavailable. Please notify machine administrator	16-588	The network controller sub-agent process has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Some network services unavailable. Please notify machine administrator	16-590	The network controller connectivity configuration process has failed	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Some network services unavailable. Please notify the machine administrator	16-501	Not enough memory on the image processing for JBA	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-504	Dynamic domain name registration process failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-505	Insufficient memory for E-mail	More physical memory needs to be added to the platform
Some network services unavailable. Please notify the machine administrator	16-507	Service location protocol process failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-508	Autonet address resolution did not work	Machine restart initiated

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Some network services unavailable. Please notify the machine administrator	16-509	Insufficient memory for internet fax	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-510	E-mail process failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-511	Internet fax process failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-512	USB printer port process failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-513	Simple service discovery protocol failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-514	Post office protocol (for inbound IFAX messages) process failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator	16-517	SMTP process failed	Machine restart initiated
Some network services unavailable. Please notify the machine administrator.	16-599	Raw TCP/IP printing (port 9100) process failed.	Machine restart initiated
Some Network Controller services are not available. Please notify the machine administrator	16-521	The network controller's CPI service process has stopped	Machine restart initiated
Some Network Controller services are not available. Please notify the machine administrator	16-522	The network controller's job log service process has stopped	Machine restart initiated
Some Network Controller services are not available. Please notify the machine administrator	16-523	The network controller's job tracker service process has stopped	Machine restart initiated
Some Network Controller services are not available. Please notify the machine administrator	16-524	The network controller's Kerberos service process has stopped	Machine restart initiated
Some Network Controller services are not available. Please notify the machine administrator	16-525	The network controller's Scan to Distribution service process has stopped	Machine restart initiated



**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Some Network Controller services are not available. Please notify the machine administrator	16-527	The network controller's SMB service process has stopped.	Machine restart initiated
Some Network Controller services are not available. Please notify the machine administrator	16-528	The network controller's WS Scan Temp service process has stopped.	Machine restart initiated
Some Network Controller services are not available. Please notify the machine administrator	16-529	The network controller's Scan Compressor service process has stopped.	Machine restart initiated
Some network controller services are not available. Please notify the machine administrator.	17-518	WSD discovery failure	Switch off the machine then switch on the machine, GP 14.
Some network controller services are not available. Please notify the machine administrator.	17-519	WSD print service failure	Switch off the machine then switch on the machine, GP 14.
Some network controller services are not available. Please notify the machine administrator.	17-520	WSD scan service failure	Switch off the machine then switch on the machine, GP 14.
Staple capacity exceeded. Job completed without stapling	11-560	BM disabled - too many pages	Each booklet must not exceed 15 sheets
Staple count low. Please ensure you have replacement Staple Cartridge.	11-542	BM staples low	Perform 11-063-171, 11-411-171 RAP
Staple count low. Please ensure you have replacement Staple Cartridge	11-545	Staple cartridge low	Perform 11-364-110 RAP for 2K LCSS, 11-364-120 RAP for 1K LCSS, 11-371-171 to 11-377-171 RAP for HVF
Stapling disabled, out of staples	11-554	Stapling disabled, out of staples	Perform 11-050-110, 11-360-110 RAP for 2K LCSS, 11-050-120, 11-360-120 RAP for 1K LCSS, 11-050-120, 11-360-120 RAP for HVF
Stapling feature requires two or more pages	11-555	Stapling disabled, zero / one page	Instruct customer

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Stapler is unavailable. Check for obstructions in the stapler.	11-910	Stapler head motor 1 fails to move or not primed	Clear obstruction from stapler. Perform 11-050-110, 11-360-110 RAP for 2K LCSS, 11-050-120, 11-360-120 RAP for 1K LCSS, 11-371-171 to 11-377-171 RAP for HVF
Stapling is unavailable. Check for obstructions in the BM stapler.	11-911	Staple head 2 motor fails to move	Clear obstruction from stapler. Perform 11-063-171, 11-411-171 RAP for HVF
Stapling not available. Please call for assistance	11-553	Stapling disabled, out of service	Perform 11-050-110, 11-360-110 RAP for 2K LCSS, 11-050-120, 11-360-120 RAP for 1K LCSS, 11-050-120, 11-360-120 RAP for HVF
System error, copier is no longer available	16-557	Network controller - DC platform fails to recover in less than 5 minutes after a crash	Switch off the machine then switch on the machine, GP 14.
System error, copier is no longer available	16-558	Network controller - DC communications unavailable	DC platform call failed
System error, scanner is unavailable	14-508	When start is selected but scan service is unable to acquire resources	Switch off the machine then switch on the machine, GP 14. Wait for a few minutes, if scanning is still not available, go to 03-330, 03-462 RAP
System memory is full etc.	19-503	EPC memory resources low	Memory becomes available, job is cancelled or documents are removed from DADH. Perform 19-401, 19-402, 19-403 RAP
System memory is full etc.	19-507	Memory resources low	High EPC usage. Perform 19-401, 19-402, 19-403 RAP
System memory is full etc.	19-508	Internal memory handling status	Usage is above intermediate EPC usage threshold. Perform 19-401, 19-402, 19-403 RAP

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
System memory is full etc.	19-515	This status code becomes active when fault 19-403 is raised	Cleared when the current job completes or when the job is deleted. Perform <a href="#">19-401</a> , <a href="#">19-402</a> , <a href="#">19-403</a> RAP
System memory is full etc.	19-516	EPC memory is full.	The status code is cleared when either the job is cancelled or the user selects the resume option
System reset required, please switch off the machine, then switch on the machine	16-550	Network controller - system enters customer sw upgrade mode	Switch off the machine then switch on the machine, <a href="#">GP 14</a> .
The BM is unavailable. Please call for assistance.	03-553	BM communications failure. Fault 03-363 is raised.	Perform <a href="#">11B-171</a> RAP
The Booklet Maker and Tri-folder are currently unavailable	11-920	Failure of any BM or TF function	Check for obstructions in the HVF BM and the tri-folder. Check that the HVF BM and tri-folder interlocks are made. Switch the machine OFF and ON, <a href="#">GP 14</a> . Check the current fault codes list for HVF BM or tri-folder faults and perform the appropriate RAP.
The Fax service is initialising. Please wait.	20-544	Basic Fax card restarts	User clears or time-out. (W/O <a href="#">TAG X-001</a> ) Install a new compact flash, <a href="#">PL 20.10 Item 3</a>
The fuser is warming up. Printing may be delayed	10-505	Fuser not at temperature	Perform <a href="#">10-322</a> , <a href="#">10-324</a> , <a href="#">10-325</a> , <a href="#">10-330</a> , <a href="#">10-370</a> RAP
The fuser module is not compatible with this machine. Please refer to the user guide	10-530	The system setting does not match the fuser type setting (service offering)	Install new fuser module or modify settings
The installed staple cartridge can staple a maximum of 50 sheets. Please confirm to close this window	03-571	50 sheet cartridge installed in the HVF	Press confirm.

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
The network controller is about to be reset	16-502	When ever the network controller detects that a platform reset is about to occur	When the network controller reset is initiated
The scanner could not match the original with a known size.		Document size sensor failure. Input module angle sensor failure.	Perform <a href="#">14A</a> RAP
The ROS motor has failure. Switch the machine off, wait 3 minutes, then switch on the machine again. If the fault persists call for assistance or press Close to use other services.	06-520	ROS motor failed.	Perform <a href="#">06-020</a> RAP
The software that controls tray 5 requires updates. Tray 5 is unavailable	03-597	Incompatible software detected in the tray 5 controller	Switch the machine off and on, <a href="#">GP 14</a> . Perform <a href="#">03-419</a> , <a href="#">03-420</a>
The User Interface is not available. Please call for assistance	02-530	Fault detected at UI. Local UI needs service	Perform <a href="#">02-320</a> , <a href="#">02-380</a> RAP
The Xerographic module is not compatible with this machine. Please refer to the User Guide	09-570	Xerographic module CRUM authorization failure. 09-399. The status clears when the associated has been cleared	Perform <a href="#">09-399</a> RAP.
The Xerographic Module is not compatible with this machine.	09-587	The system setting does not match the xerographic module type	Install correct xerographic module or modify setting
The Xerographic Module is not compatible with this machine.	09-588	The system setting does not match the xerographic module market region ID setting	Install correct xerographic module or modify setting
The Xerographic Module is not compatible with this machine.	09-589	The system setting does not match the xerographic module speed setting	Install correct xerographic module or modify speed setting
There is a problem with at least one machine service. Please switch the machine off then on again. If this does not solve the problem, switch the machine off and call for assistance	02-534	Machine not achieved stable state five minutes from power on	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP
There is a problem with at least one machine service. Please switch the machine off then on again. If this does not solve the problem, switch the machine off and call for assistance	02-535	All services that the UI is waiting for in the registry do not appear even though the Image processing / UI sync occurred	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
There is a problem with at least one machine service. Please switch the machine off then on again. If this does not solve the problem, switch the machine off and call for assistance	02-536	All services that the UI is waiting for do not appear in the registry	Perform <a href="#">02-390</a> , <a href="#">02-391</a> , <a href="#">02-704</a> , <a href="#">02-706</a> RAP
Token Ring functions are not available. Please notify machine administrator	16-592	Network controller - Token Ring TCP / IP port connectivity failed	Connectivity fix and switch off the machine then switch on the machine, <a href="#">GP 14</a> .
Toner adjustments in progress. Please wait.	09-546	Replenisher sump refilling	Perform <a href="#">09-360</a> , <a href="#">09-361</a> , <a href="#">09-362</a> , <a href="#">09-363</a> RAP
Toner cartridge empty	09-592	Toner level sensor registers developer sump not full	Install new toner cartridge, <a href="#">PL 9.15 Item 4</a> .
Toner cartridge nearly empty. Ensure you have a replacement cartridge	09-599	When less than X days predicted until toner cartridge end of life	Order a new toner cartridge, <a href="#">PL 9.15 Item 4</a> . Or cleared when 02-560 status code is raised.
Toner cartridge status is disabled	09-545	This status is raised when the toner gas gauge is disabled	No action required. The toner gas gauge can be enabled, if required
Toner control failure	09-597	Toner concentration process control failure.	Perform <a href="#">09-360</a> , <a href="#">09-361</a> , <a href="#">09-362</a> , <a href="#">09-363</a> RAP
Toner control sensor failure	09-598	Toner control sensor failure.	Perform <a href="#">09-360</a> , <a href="#">09-361</a> , <a href="#">09-362</a> , <a href="#">09-363</a> RAP
Tray 1 empty, please reload	07-511	Tray 1 paper present sensor detects no paper in tray	Perform <a href="#">07A</a> RAP
Tray 1 is low on paper	07-531	Tray 1 paper low	Perform <a href="#">07A</a> RAP
Tray 1 is out of service, please use a different tray	07-541	Tray 1 out of service.	Perform <a href="#">07H</a> RAP
Tray 2 empty, please reload	07-512	Tray 2 paper present sensor detects no paper in tray	Perform <a href="#">07A</a> RAP
Tray 2 is low on paper	07-532	Tray 2 paper low	Perform <a href="#">07A</a> RAP
Tray 2 is out of service, please use a different tray	07-542	Tray 2 out of service.	Perform <a href="#">07H</a> RAP
Tray 3 empty, please reload	07-513	Tray 3 paper present sensor detects no paper in tray	Perform <a href="#">07F</a> RAP
Tray 1 is lifting	07-551	Tray 1 is lifting.	Perform <a href="#">07-353</a> RAP
Tray 2 is lifting	07-552	Tray 2 is lifting.	Perform <a href="#">07-354</a> RAP

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Tray 3 is lifting	07-550	Tray 3 is lifting.	Perform <a href="#">07-355</a> RAP
Tray 3 is low on paper	07-533	Tray 3 paper low	IOT microprocessor detects Tray 3 paper level at 25%. Perform <a href="#">07B</a> RAP
Tray 3 is out of service, please use a different tray	07-543	Tray 3 elevate top sensor does not turn on within 7 seconds after elevator motor on.	Perform <a href="#">07-355</a> RAP
Tray 3 and 4 are unavailable. Please call for assistance.	03-552	IOT microprocessor to HCF communication error. Fault 03-359 raised	Perform <a href="#">03-359</a> , <a href="#">03-407</a> RAP
Tray 4 empty, please reload	07-514	Tray 4 paper present sensor detects no paper in tray	Perform <a href="#">07F</a> RAP
Tray 4 is lifting	07-560	Tray 4 is lifting	Perform <a href="#">07-360</a> RAP
Tray 4 is low on paper	07-534	Tray 4 paper low	IOT microprocessor detects Tray 4 paper level at 25%. Perform <a href="#">07B</a> RAP
Tray 4 is out of service, please use a different tray	07-544	Tray 4 elevate top sensor does not turn on within 7 seconds after elevator motor on	Perform <a href="#">07-360</a> RAP
Tray 5 empty, please reload	07-516	Tray empty sensor detects no paper	Reload paper. If necessary, perform <a href="#">07J</a>
Tray 5 is lifting, please wait	07-561	Tray 5 is currently lifting	Perform <a href="#">07-373</a>
Tray 5 is out of service, please use a different tray	07-546	Tray 5 cannot feed paper	Switch the machine off and on, <a href="#">GP 14</a> . Check that the tray is in the correct position. Perform <a href="#">07-306</a> , <a href="#">07-372</a> , or <a href="#">07-373</a> RAP
Tray 5 is overloaded, please remove excess paper	07-539	Paper equals or is more than 100% full in tray 5	Remove some paper. If necessary, perform <a href="#">07-373</a> and <a href="#">07-374</a>
Tray 5 is low on paper	07-536	Tray 5 paper below 5% full	Add paper. If necessary, perform <a href="#">07-373</a> and <a href="#">07-374</a> RAPs
Tray 5 is unavailable. Check cabling connections	03-598	Tray 5 software is installed but hardware is not detected	Check that all tray 5 control PWB connections are good. Perform <a href="#">03-366</a> .
Tray 5 is unavailable. Check for obstructions in Tray 5	07-563	Tray 5 lifting has stopped	Perform <a href="#">07-373</a>

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Tray 5 is unavailable. Check for obstructions in Tray 5	07-564	Tray 5 lowering has stopped	Perform <a href="#">07-374</a>
Try turning the machine off and on. Please call for assistance if the problem persists	03-591	The single board controller PWB reports that its stored machine model ID differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
Try turning the machine off and on. Please call for assistance if the problem persists	03-592	The single board controller PWB reports that its stored machine type differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
Try turning the machine off and on. Please call for assistance if the problem persists	03-593	The single board controller PWB reports that its stored machine speed ID differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
Try turning the machine off and on. Please call for assistance if the problem persists	03-594	The single board controller PWB reports that its stored machine variant ID differs from that stored in the IOT	Switch the machine off and on, <a href="#">GP 14</a> . If necessary, reload the software, <a href="#">GP 4</a> then re-run the install wizard, refer to <a href="#">GP 15</a> .
Try turning the machine off and on. Please call for assistance if the problem persists	05-588	Finisher software version supplied is not compatible. Fault 03-418 raised	Perform <a href="#">03-360</a> , <a href="#">03-408</a> to <a href="#">03-410</a> , <a href="#">03-418</a> RAP If necessary, reload the software, <a href="#">GP 4</a>
Try turning the machine off and on. Please call for assistance if the problem persists	05-589	IOT, DADH or UI software version supplied at power-on is not compatible with the single board controller PWB.	Perform <a href="#">03-300</a> , <a href="#">306</a> , <a href="#">461</a> , <a href="#">482</a> , <a href="#">805</a> , <a href="#">870</a> RAP, <a href="#">03-320</a> to <a href="#">03-324</a> RAP, <a href="#">03-310</a> RAP. If necessary, reload the software, <a href="#">GP 4</a>
Unable to access the display list. Please select O.K and then attempt your selection again.	02-561	Part of save job for reprint.	Select O.K, then attempt selection again.
Unable to detect card reader	03-601	Smart Card authentication has been enabled but no card reader is installed	Perform <a href="#">03-412</a> RAP.

**Table 4 Status messages S to X**

UI Message	Status Code	Reason for Message	Reference / Action
Unable to install option service	22-555	Service option install failed when any of the faults 22-400, 22-401, 22-402, 22-403, 22-404, 22-405, 22-406, 22-407 are raised	Refer to <a href="#">22-400</a> to <a href="#">22-403</a> , <a href="#">22-423</a> , <a href="#">22-426</a> , <a href="#">22-427</a> , <a href="#">22-775</a> RAP, <a href="#">22-404</a> to <a href="#">22-406</a> RAP, <a href="#">22-407</a> RAP
Unable to remove option service	22-556	Service option removal failed when any of the faults 22-410, 22-411, 22-412, 22-413, 22-414, 22-415, 22-416, 22-417 are raised	Refer to <a href="#">22-400</a> to <a href="#">22-403</a> , <a href="#">22-423</a> , <a href="#">22-426</a> , <a href="#">22-427</a> , <a href="#">22-775</a> RAP, <a href="#">22-404</a> to <a href="#">22-406</a> RAP, <a href="#">22-407</a> RAP
Unable to staple. check for obstructions in the output trays	11-901	Tamper move or paddle roll fault	Clear the paper jam. Switch off the machine then switch on the machine, <a href="#">GP 14</a> . Perform <a href="#">11-005-110</a> , <a href="#">11-006-110</a> , <a href="#">11-310-110</a> , <a href="#">11-311-110</a> RAP for 2K LCSS, <a href="#">11-007-110</a> , <a href="#">11-008-110</a> , <a href="#">11-312-110</a> , <a href="#">11-313-110</a> , <a href="#">11-319-110</a> RAP for 2K LCSS, <a href="#">11-024-110</a> , <a href="#">11-025-110</a> RAP for 2K LCSS, <a href="#">11-005-120</a> , <a href="#">11-006-120</a> , <a href="#">11-310-120</a> , <a href="#">11-311-120</a> RAP for 1K LCSS, <a href="#">11-007-120</a> , <a href="#">11-008-120</a> , <a href="#">11-312-120</a> , <a href="#">11-313-120</a> , <a href="#">11-319-120</a> RAP for 1K LCSS, <a href="#">11-024-120</a> , <a href="#">11-025-120</a> RAP for 1K LCSS, <a href="#">11-024-171</a> , <a href="#">11-026-171</a> , <a href="#">11-392-171</a> to <a href="#">11-395-171</a> , <a href="#">11-396-171</a> to <a href="#">11-399-171</a> RAP for HVF
Unexpected Stock Size in the Finisher	11-950	A shorter than expected sheet has been fed from the inserter	Follow the message text. Check the size of the paper in the inserter.
Unsupported scanner detected	03-505	Scanner software no longer supported	Switch off machine and switch on machine, <a href="#">GP 14</a> . Check software status and upgrade where necessary

Table 4 Status messages S to X

UI Message	Status Code	Reason for Message	Reference / Action
Waste toner bottle nearly full, ensure you have a replacement bottle	09-595	Waste toner full sensor registers full for greater than 100 pages.	Perform <a href="#">09B</a> RAP
Xerographic Module Cleaning Failure. Copy and Printing unavailable. Touch Power Off to switch machine off or touch Ignore Error to use other services	09-541	Scorotron cleaning failure	Refer to <a href="#">09-341</a> , <a href="#">09-342</a> Scorotron Cleaning Failure RAP
Xerographic Module cleaning in progress. Please wait	09-540	When the Scorotron cleaning is in progress	Refer to <a href="#">09-341</a> , <a href="#">09-342</a> Scorotron Cleaning Failure RAP
Xerographic Module Maintenance. Please follow the instructions below	09-543	Charge scorotron manual cleaning required	Refer to <a href="#">IQ1</a> Image Quality Entry RAP

## OF5 Boot Up Failure RAP

Use this procedure if the following behavior is seen;

- The machine does not come to a “Ready to scan your job” state
- The UI displays the message “System Unavailable”
- The UI displays a “Please Wait” or “Machine Self Test In Progress” message
- The UI has a black/white, dark/blank or green UI touch screen and the power saver LED on the UI is flashing
- The UI displays the green splash screen, the energy saver led is off but all other LEDs are lit as with normal operation
- The machine has failed to load software

### Initial Actions

- Check that the power cord is connected to the machine.
- Refer to Service Bulletin T7694-04-11 for software information.
- Switch off the machine [GP 14](#). Remove the power cord from the customer power socket. Wait two minutes, then reconnect the plug into the socket. Switch on the machine, [GP 14](#). If the fault still occurs then follow the procedure.
- If a boot up failure has occurred after the installation of new components, ensure those new components are compatible with the machine.
- Check the LEDs on the IOT PWB, [OF7](#) IOT PWB Diagnostics RAP.
- For 35 to 55 ppm machines. Check CR18 on the [single board controller PWB](#), [PL 3.24 Item 3](#) is flashing. If CR18 is not flashing go to:
  - [01F](#) +12V Distribution RAP
  - [01E](#) +5V Distribution RAP
  - [01D](#) +3.3V Distribution RAP
  - [01B](#) 0V Distribution RAP
- Remove then re-install the software module, [PL 3.24 Item 8](#).
- Remove then re-install the memory module(s), [PL 3.24 Item 12](#).
- Disconnect then reconnect all the PJs on the single board controller PWB, [PL 3.24](#).
- Check all the PJs are correctly connected on the UI control PWB, [PL 2.10 Item 11](#).
- Check the UI harness connection to the Single board controller PWB, [Wiring Diagram 12](#), [PL 3.24](#).
- Check the hard disk drive, [03C](#) Hard Disk Failure RAP.
- If the problem occurs while entering or exiting sleep mode, go to [01K](#) Sleep Mode RAP.

## Procedure



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Only use the correct plug to connect a power lead to a power outlet.



### CAUTION

*Incorrect voltage may damage the machine. The machine must only be connected to the power outlet of the correct voltage.*

1. Switch off the machine, [GP 14](#).
2. Disconnect the DADH communication/power cable, [PL 5.10 Item 6](#) from the [single board controller PWB](#).
3. If an LCSS, HVF or HVF BM is installed, disconnect the communication cable from PJ151, and the finisher power cord from PJ22 on the [power and control module](#).
4. Install a finisher bypass harness, [PL 26.10 Item 7](#).
5. If a fax is installed, remove the embedded fax PWB, [PL 20.10 Item 4](#).
6. Switch on the machine, [GP 14](#).

#### The machine boots up.

Y N

Perform the following:

- Check the UI, if necessary perform the [OF2 Touch Screen Failure RAP](#).
- Go to:
  - [01F +12V Distribution RAP](#), check the +12V supplies to the SBC PWB
  - [01E +5V Distribution RAP](#), check the +5V supplies to the SBC PWB
  - [01D +3.3V Distribution RAP](#), check the +3.3V supplies to the SBC PWB
  - [01B 0V Distribution RAP](#), check the 0V supplies to the SBC PWB

#### The voltage supplies are good

Y N

Repair the wiring or connectors or install new part as necessary.

#### CR22 and CR12 on the SBC PWB are lit incessantly, all other LEDs are off.

Y N

#### CR23 and CR24 on the SBC PWB are lit incessantly.

Y N

#### CR18 on the SBC PWB is flashing

Y N

Ensure that the memory module is installed in PJ203 on the [single board controller PWB](#).

Install new components as necessary:

- Single board controller PWB, [PL 3.24 Item 3](#).
- Software model, [PL 3.24 Item 8](#).

#### CR12 on the SBC PWB is flashing at a very dim intensity.

Y N

Reseat the HDD data cable PJ115 on the [single board controller PWB](#) and the HDD power cable on the [power distribution PWB](#). **CR12 on the SBC PWB is flashing at a very dim intensity.**

Y N

Load software 061.131.221.10401 or greater using the Forced Alt-Boot Software Loading procedure, [GP 4](#). If the fault still exists, install new components as necessary:

- Hard disk drive, [PL 3.22 Item 2](#).
- HDD data cable, [PL 3.22 Item 11](#).
- HDD power cable, [PL 3.22 Item 10](#).
- Single board controller PWB, [PL 3.24 Item 3](#).

If the user UI touch screen is still black/white, dark/blank or green and the power saver LED is flashing, load software 061.131.221.10401 or greater using the Forced AltBoot Software Loading procedure, [GP 4](#).

If the user UI touch screen is still black/white, dark/blank or green and the power saver LED is flashing, perform the AltBoot Software Loading procedure, [GP 4](#).

#### The UI displays the green splash screen, the energy saver led is off but all other LEDs are lit as with normal operation

Y N

Install a new single board controller PWB, [PL 3.24 Item 3](#).

Switch off the machine, [GP 14](#). Remove the software module, [PL 3.24 Item 8](#). Check that the contacts of the software module are clean. If necessary, clean the contacts using a lint free wiper, [PL 26.10 Item 13](#). Install the software module fully into the socket. Switch on the machine, [GP 14](#).

If the fault still exists, load software 061.131.221.10401 or greater using the Forced AltBoot Software Loading procedure, [GP 4](#).

If the fault still exists, install a new software module, [PL 3.24 Item 8](#)

Perform the following:

1. Switch off the machine, [GP 14](#). Remove the memory module(s), [PL 3.24 Item 12](#). Check that the contacts of the memory module(s) are clean. If necessary, clean the contacts using a lint free wiper, [PL 26.10 Item 13](#). Install the memory module(s) fully into the socket(s). Switch on the machine, [GP 14](#).
2. Switch off the machine, [GP 14](#). Remove the software module, [PL 3.24 Item 8](#). Check that the contacts of the software module are clean. If necessary, clean the contacts using a lint free wiper, [PL 26.10 Item 13](#). Install the software module fully into the socket. Switch on the machine, [GP 14](#).
3. If the fault is still present, install new components as necessary:
  - Memory module(s), [PL 3.24 Item 12](#)
  - Software module, [PL 3.24 Item 8](#)

A

**NOTE:** Re-install the original embedded fax PWB. Connect the DADH communication/power cable. Connect the output device communication cable and power cord.

Connect the DADH communication/power cable. Switch on the machine, [GP 14](#). **The machine boots up.**

Y N  
Install a new DADH PWB, [PL 5.10 Item 5](#).

**NOTE:** Re-install the original embedded fax PWB. Connect the output device communication cable and power cord.

Connect the output device communication cable and power cord. Switch on the machine, [GP 14](#). **The machine boots up.**

Y N  
**The output device is a HVF with a booklet maker.**

Y N  
Install new components as necessary:

- 1K LCSS PWB, [PL 11.124 Item 1](#).
- 2K LCSS PWB, [PL 11.26 Item 1](#).
- HVF PWB, [PL 11.157 Item 2](#)

Disconnect the booklet maker PWB. **The machine boots up.**

Y N  
Install a HVF PWB, [PL 11.157 Item 2](#).

Install a new BM PWB, [PL 11.166 Item 10](#).

Re-install the original embedded fax PWB. Switch on the machine, [GP 14](#). **The machine boots up.**

Y N  
Install new components as necessary:

- Embedded fax PWB, [PL 20.10 Item 4](#).
- (W/O TAG X-001) Compact flash memory, [PL 20.10 Item 3](#).
- (W/O TAG X-001) Extended fax PWB, [PL 20.10 Item 2](#).
- Riser PWB, [PL 3.22 Item 3](#).
- Install a new single board controller PWB, [PL 3.24 Item 3](#).

If necessary, reload the software. Refer to [GP 4](#) Machine Software.

## OF6 Ozone and Air Systems RAP

Use this RAP to diagnose faulty machine fans. Faulty fans can cause smells or overheating.

### Procedure



**WARNING**

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Identify the suspect fan. Check that the fan is working correctly:

- Photoreceptor Fan
- Ozone Fan
- Power and Control Assembly Fan
- Single Board Controller Cooling Fan
- Vacuum Transport Fan
- Duplex Paper Path Cooling Fans

### Photoreceptor Fan

This fan draws air in at the rear of the machine and uses a duct to direct the air flow over the ROS, through the photoreceptor module and over the post fuser area. If the fan is suspect, go to the [09C](#) Photoreceptor Fan RAP.

### Ozone Fan

This fan draws air from the photoreceptor module and out through the ozone filter. Refer to [PL 9.25 Item 1](#) and to [Wiring Diagram 6](#).

If the components of this system are not in a good condition, ozone will not be removed from the xerographic area and deletions with shortened xerographic module life can be expected. Check the following:

- Check that the ozone seal on the rear face of the short paper path is in a good condition, if necessary install a new seal, [PL 31.10 Item 6](#) seal replacement kit.
- Check that the ozone seal on the front face of the main drive module is in a good condition, if necessary install a new seal, [PL 31.10 Item 6](#) seal replacement kit.
- Enter [dC330](#) code 09-030 to run the ozone fan. If the fan does not run, refer to [Wiring Diagram 6](#), if necessary install a new ozone fan, [PL 9.25 Item 1](#).
- Check that the ozone filter is not blocked, if necessary install a new ozone filter [PL 9.25 Item 3](#).

### Power and Control Assembly Fan

This fan draws in air from the rear of the machine and blows it into the power supply. The fan is hard wired into the power supply. Refer to [PL 1.10 Item 1](#).

## Single Board Controller Cooling Fan

This fan is located within the single board controller PWB module. This fan draws air into the single board controller PWB module and blows the air onto the single board controller PWB.

Refer to the information that follows:

- Single board controller PWB, [PL 3.24 Item 3](#).
- Wiring Diagram 3.

## Vacuum Transport Fan

This fan draws air down through the short paper path to assist the transport of A6 paper. Refer to [PL 10.25 Item 1](#) short paper path (W/O [TAG 114](#)) and [Wiring Diagram 7](#).

## Duplex Paper Path Cooling Fans

This consists of a cooling fan, exhaust fan and a cooling duct assembly, all of which are integrated into the front door. The cooling fan 2 is located in the middle of the front door, [PL 8.11 Item 6](#). This fan draws in air via the cooling duct into the front door and directs the air across the duplex transport area and into the image exit area. The cooling fan 1 is located in the front door, [PL 8.11 Item 3](#). This fan draws air from the inverter base pan area and exhausts the air via the cooling duct in the front door.

**W/O TAG 120 machines.** The fans are turned on and off simultaneously and only operate during the duplex mode. A thermistor is located in the inverter assembly which will switch the fans on when the temperature reaches 48 degrees C (119 degrees F) during a duplex job. If the thermistor fails, then the fans will switch on at the start of a duplex job.

The fans are enabled or disabled in [dC131](#) location 09-116. The fans are run in [dC330](#) code 09-036 Duplex cooling fans.

**W/TAG 120 machines.** There is no thermistor on the inverter assembly. Consequently, there is no thermistor control for cooling fan 1 or cooling fan 2. The fans are turned on only when the green start button is pressed or a print is sent to the machine.

**NOTE:** On 65-90 ppm machines W/TAG 120 there is no inverter thermistor.

Refer to cooling fan 1, cooling fan 2 and the thermistor in [Wiring Diagram 11](#).

## OF7 IOT PWB Diagnostics RAP

### Purpose

To assist in identifying any suspected problems with the IOT PWB. If directed here from another procedure always return to that procedure.

Perform the IOT PWB corruption check before a new IOT PWB is installed. If the fault still occurs after completing this check then install a new IOT PWB.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the following checks:

- [IOT NVM Corruption Check](#).
- [IOT PWB Voltage Check](#).
- [IOT PWB Communications Check](#).

Ensure the machine is in normal mode (not standby mode).

### IOT NVM Corruption Check

Corruption of the IOT NVM can cause paper jams, fuser temperature or xerographic control faults. Perform these steps before a new IOT PWB is installed.

Perform the steps that follow:

1. Enter [dC131](#) location 09-271 Developer Age. Note the developer age value. Also check when the developer was last changed, to ensure that the age value is correct.
2. Go to [dC132](#) NVM initialization - Copier
3. Select Machine Variable NVM.
4. Select Initialize.
5. Switch off the machine, then switch on the machine, [GP 14](#). Check if the fault still occurs.
  - If the fault does not occur, then go to step 6.
  - If the fault still occurs, install a new IOT PWB, [PL 1.10 Item 2](#).
6. Perform [dC604](#) Registration Setup Procedure.
7. Enter [dC131](#) location 09-069 TCSensorCtrlVoltage. Record the value on the NVM sheet stored in the wallet on the rear cover.
8. Enter [dC131](#) location 09-271 Developer Age. Check that the value for the developer age is correct, reset the value if required.
9. Perform [SCP 6](#) Final Actions



## IOT PWB Voltage Check

- On the IOT PWB check that the voltage-present LEDs that follow are on, **Figure 1**:
  - CR12** - Indicates the presence of 3.3V.
  - CR13** - Indicates the presence of 5V.
  - CR15** - Indicates the presence of 12V.
  - CR16** - Indicates the presence of 24V.
  - CR36** - Indicates the presence of 3.3V standby supply voltage.
- If **CR16** is not on, but 24V is present at **P/J27** pin 1, perform the **01G** +24V Distribution RAP. If +24V is not present at **P/J27**, pin 1, check the voltage at **P/J26** pin 9. This is the Low Power Mode Enable signal. If this signal is high, install a new LVPS and base module, **PL 1.10 Item 3**.
- If no LEDs are on, or only the **CR36** 3.3Vsb is on, go to **01H** Short Circuits and Overloads RAP.

## IOT PWB Communications Check

- Switch off the machine **GP 14**. Switch on the machine, **GP 14**. Observe the following conditions, **Figure 1**:
  - CR14** is off.
  - CR27** is flashing at about 2 Hz.
  - CR28** and **CR29** are flashing alternately at about 1 Hz.
- If any of the above conditions do not apply, perform the steps that follow:
  - Switch off the machine, **GP 14**.
  - Use the jumpers to short **J17** pins 1 and 2, **J18** pins 1 and 2, **J19** pins 1 and 2, **Figure 1**.
  - Switch on the machine, **GP 14**.
  - After the machine has power up, switch off the machine, **GP 14**.
  - Lift the jumpers from **J17**, **J18** and **J19**. Park the jumpers on one pin only.
  - Switch on the machine, **GP 14**.
- If any of the above conditions still fail, then install a new IOT PWB, **PL 1.10 Item 2**.

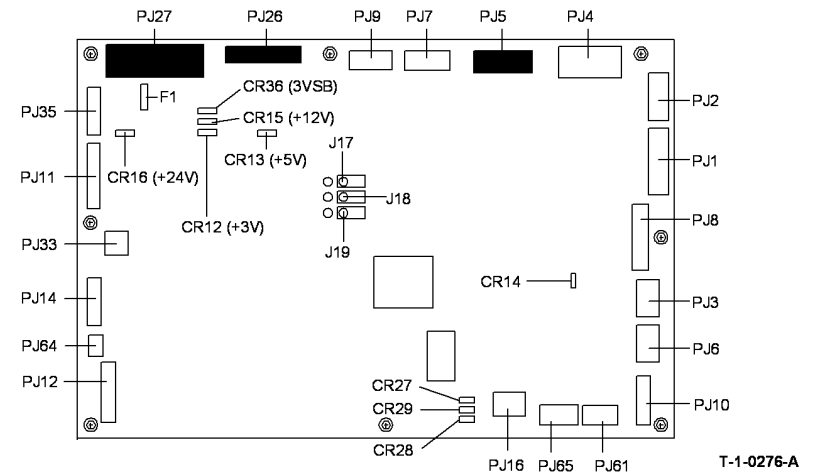


Figure 1 IOT PWB LED and switch locations

## OF8 Multi-feed RAP

To solve several sheet multi-feeds or extra blank sheet output problems.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Check the condition of the paper. Do not use incorrectly cut paper, damp paper, paper with rough edges, badly drilled paper, paper with wrapper wax or glue contamination. Refer to IQ1 Image Quality Entry RAP.
- Check the paper specification, GP 20.
- Multi-feed from the bypass tray, go to 07D By-pass Tray RAP

### Procedure

When checking for multi-feeds always use a new ream of paper. If a new ream can not be used, then perform the following:

- Fan the paper.
- Turn the paper round or turn the paper over.
- Remove four or five sheets from the top of the stack.
- When loading multi-reams of paper into tray 3 or tray 4. Remove the top and bottom sheet from each ream. This will prevent ream interface multi-feeds.

For tray 1 and tray 2 check the following:

- Check that the paper tray side guides are set to the correct paper size.
- The paper tray drops when the tray is pulled out and the tray elevates when pushed in.
  - Check the paper feed assembly, REP 8.1.
  - Check the paper feed rolls, REP 8.35.
  - Install new components as necessary, PL 8.26.
- The paper trays for worn, broken or missing components.
  - Install new components as necessary, PL 7.10 Item 1.

For tray 3 and tray 4 (W/O TAG 151) check the following:

- The tray drops when the tray is pulled out, and elevates when the tray is closed.
  - Check tray 3 paper feed assembly, REP 8.2.
  - Check tray 4 paper feed assembly, REP 8.3.
  - Install new components as necessary, PL 8.30 Item 1.
- The paper trays for worn, broken or missing components.
  - The separation strips are located correctly on the tray, Figure 1.
  - Remove the spacers in the tray 3 feed assembly, Figure 2.

**NOTE:** The tray 3 spacers are fitted to reliably feed the sheets with large amounts of up-curl, which normally occurs in very dry environments. Removing these spacers will decrease the multi-feed rate, but may increase the mis-feed rate if the paper is curled. These spacers are not fitted to any other tray.

- Install new components as necessary, PL 7.15.

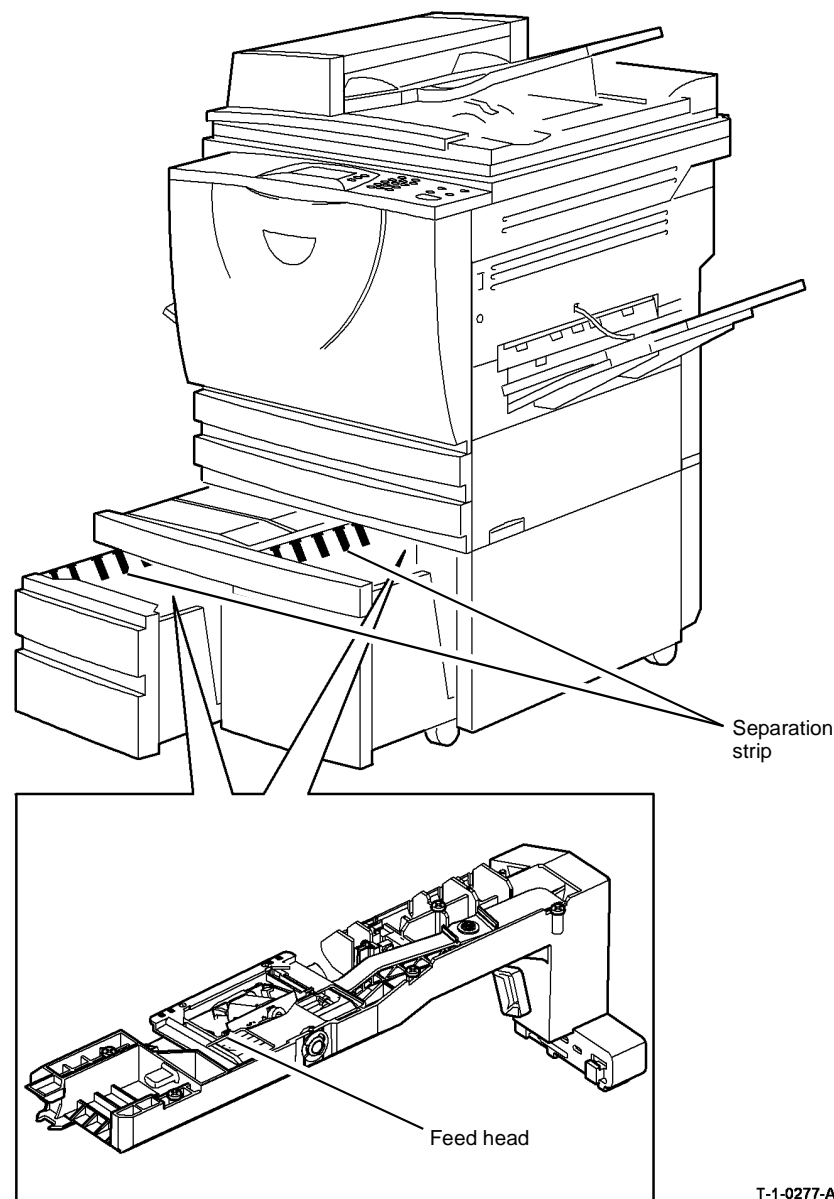
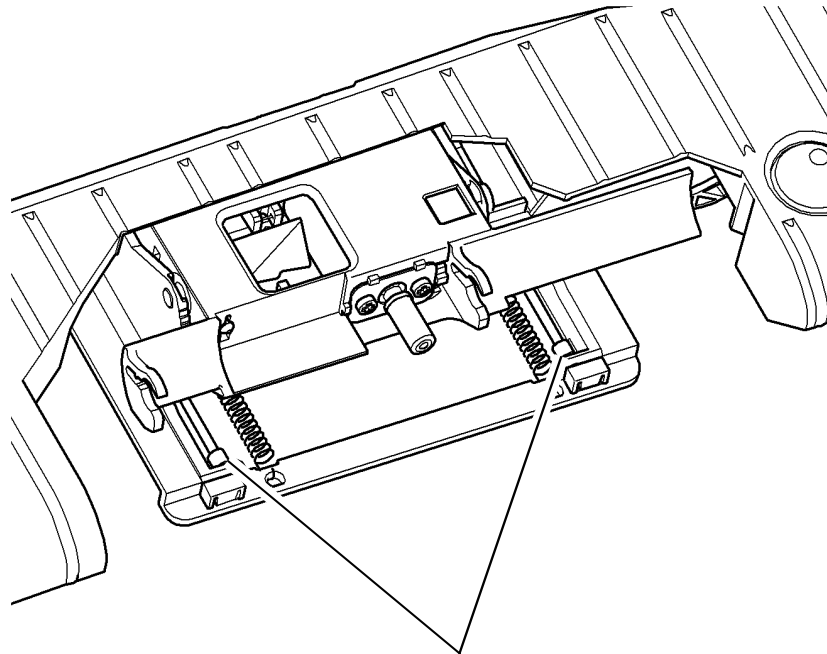


Figure 1 Component location

T-1-0277-A



Remove the spacers

T-1-0278-A

**Figure 2 Tray 3 Spacers**

For tray 3 and tray 4 (W/TAG 151) check the following:

- The tray moves down when the tray is pulled out, and moves up when the tray is closed.
  - Check tray 3 paper feed assembly, [REP 8.40](#).
  - Check tray 4 paper feed assembly, [REP 8.41](#).
  - Install new components as necessary, [PL 8.32](#), [PL 8.33](#).
- The paper trays for worn, broken or missing components.
  - Install new components as necessary, [PL 7.18](#).
- Perform [ADJ 8.3](#) Tray 3 and Tray 4 Retard Roll Pressure (W/Tag 151)

For tray 5 check the following:

- The tray moves down when the door is opened, and moves up when the door is closed.
  - Check the tray 5 paper feed assembly.
  - Check the tray 5 paper feed rolls, [PL 8.45 Item 2](#).
  - Install new components as necessary, [PL 8.45](#).

For the Bypass tray, perform the following:

- Ensure that the customer is not filling the tray above the max fill line.
- Clean the feed roll and retard pad with a damp cloth with water.
- Install a new feed roll, [REP 8.21](#) and retard pad, [REP 8.22](#), [PL 7.30 Item 21](#).

## OF9 False Fuser End of Life RAP

Use this RAP if the fuser module has reached its end of life, 400,000 prints, prematurely.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Enter [dC131](#) location 09-064 FRU Total Count, then check the fuser module image count. If the image count is unexpectedly high, 422,000 or greater, then the CRUM data is corrupted.

### Procedure

Check the following:

1. Refer to [Wiring Diagram 6](#). Check the wiring harness at PJ141. Repair the wiring as necessary, [REP 1.2](#).
2. Check that the wires from the vacuum transport fan have not been trapped in the fuser CRUM socket, [Figure 1](#). Repair the wiring or install a new short paper path assembly, [PL 10.25 Item 1](#). Use a cable tie to route the wires away from the fuser module.
3. Check for damage to the fuser CRUM socket on the drives module, (35-55 ppm) [PL 4.15 Item 1](#), (65-90 ppm) [PL 4.10 Item 1](#).
4. Check for damage to the CRUM plug on the fuser module, (35-55 ppm) [PL 10.8 Item 1](#), (65-90 ppm) [PL 10.10 Item 1](#).
5. If the fault remains, go to [OF10](#) Intermittent Failure RAP and refer to the Electrostatic Discharge Checkout.

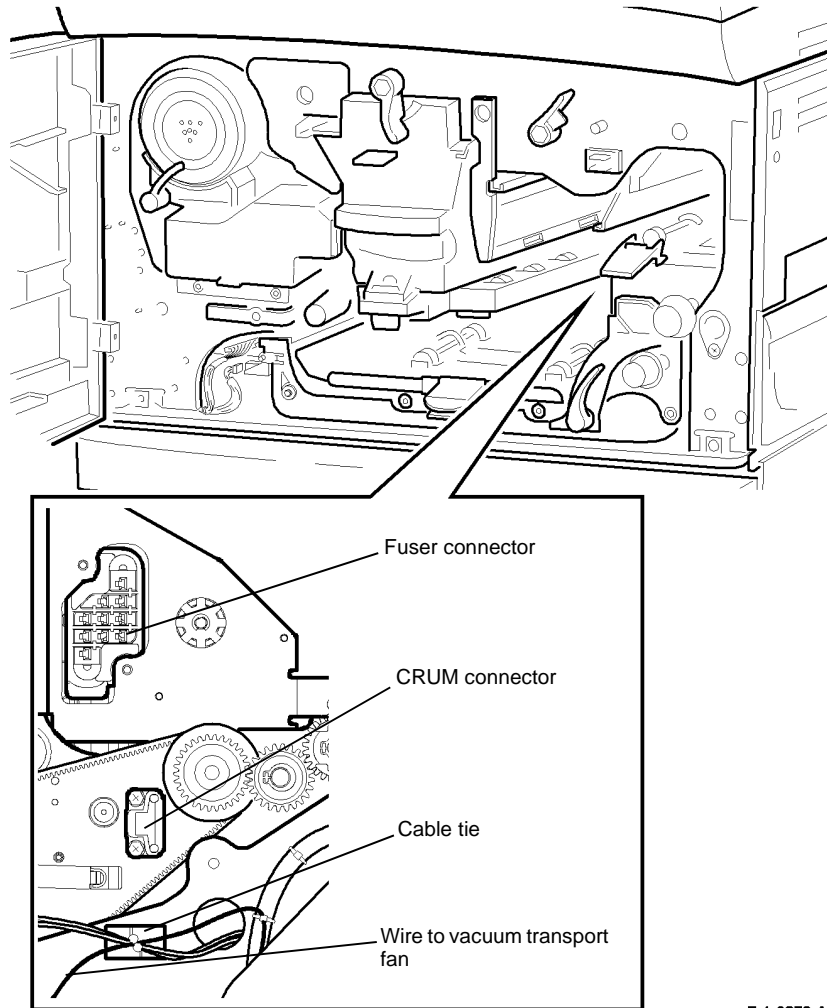


Figure 1 Fuser and CRUM connector

T-1-0279-A

## OF10 Intermittent Failure RAP

Use this RAP to locate failures when no specific cause can be found, i.e. if the machine resets to 'Ready to scan your job' or 'Please wait' during a print / copy run, or a fault code occurs which cannot easily be repeated.

### Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

Perform the following to gather additional information about the fault:

- Ask the customer if there are any specific functions that cause the fault to occur; e.g. using the input or output module, or making reduced images.
- Enter faults mode and check the active messages and the event log. If a fault code is raised when the failure occurs, then go to the appropriate RAP.
- Make copies and observe where the paper stops and which components are switched on or off when the failure occurs.
- Check if there is a repetitive pattern to the failure.

### Procedure

Go to the relevant checkout:

- Customer Power Supply Checkout
- External Electrical Equipment Checkout
- Common Causes Checkout
- Connectors and Wiring Checkout
- Power Supply Checkout
- EPROMs Checkout
- Electric Motors Checkout
- Solenoids and Clutches Checkout
- Switches and Sensors Checkout
- High Voltage Arcing Checkout
- Registration Guide Checkout
- Developer Assembly Checkout
- Xerographic Module and Corotron Checkout
- Electrostatic Discharge Checkout
- Paper Trays 1 to 5 Checkout
- Duplex Transport Assembly Checkout
- Output Device Checkout

## Customer Power Supply Checkout



Take care when measuring AC mains (line) voltage. Electricity causes death or injury.



*If you suspect that the customer power supply is incorrect, do not try to correct the customer power supply. Do not reconnect the printer. Inform the customer and your manager.*

- Measure the customer power supply voltage at the power outlet and check that the customer power supply is within specification; Refer to [GP 22](#) Electrical Power Requirements.
- Check that the customer power supply does not drop below the specification when the copier is making copies; use a digital meter and select "Peak Hold". Refer to [GP 22](#) Electrical Power Requirements.

## External Electrical Equipment Checkout



Take care when measuring AC mains (line) voltage. Electricity causes death or injury.



*If you suspect that the customer power supply is incorrect, do not try to correct the customer power supply. Do not reconnect the machine. Inform the customer and your manager.*

Perform the following:

- Ask the customer if there is any electrical equipment, which uses a large amount of current, that is connected to the same supply circuit as the machine.
- With the customer's assistance, check if the failure occurs when electrical equipment near to the machine is switched ON or OFF.
- If possible, connect the machine to a different supply circuit from the equipment that is causing the problem.

## Common Causes Checkout

Make the following checks of common causes of intermittent failures:

- Check for intermittent connections in the fuser connector assembly, (35-55 ppm) [PL 4.15 Item 9](#), (65-90 ppm) [PL 4.10 Item 9](#).
- Check for intermittent connections in the wiring to the exposure lamp, (W/TAG 150) [PL 14.15 Item 9](#) or (W/O TAG 150) [PL 14.25 Item 9](#).
- Check that the interlock switch S01-300; [PL 1.10 Item 7](#), is fully actuated by the front interlock. If the fault is eliminated when an interlock cheater is installed, check that the interlock actuator bracket is not damaged. Install new parts as necessary.

## Connectors and Wiring Checkout

Refer to [REP 1.2](#) for details of wiring harness repair.

Check the following:

- Visible signs of damage to the wiring and the ribbon cables.

- Check for pinched wires near moving parts.
- The DADH module harness for broken wiring and ensure that the ground terminals are secure.
- For the continuity of harnesses by checking for wire breaks inside insulation. Gently pull the relevant connector and wire while measuring continuity.
- Check that all the PWB and in-line connections are good; refer to [PJ Locations](#).
- Check the continuity of the ground connections to the copy cartridge, fuser module and input and output modules. Refer to the [01A](#) Ground Distribution RAP.
- Check that all the input and output module static eliminators are connected correctly and in good condition; refer to the relevant input or output module RAP.

## Power Supply Checkout

Check the power cord for continuity. Refer to the [01C](#) AC Power RAP.

## EPROMs Checkout

Check that all EPROMs are installed correctly. Refer to [REP 3.4](#) Single Board Controller and Power Distribution PWBs.

## Electric Motors Checkout

Refer to [GP 10](#) How to Check a Motor and perform the following:

- Disconnect each motor in turn to locate the motor that is causing the fault. When the faulty motor has been located, install a new motor.
- If the fault still exists, locate the PWB that drives the motor and install a new PWB.

## Solenoids and Clutches Checkout

Refer to [GP 12](#) How to Check a Solenoid or Clutch and perform the following:

- Check that the components are installed correctly.
- Check that there is no mechanical binding, slipping or interference.
- Enter the relevant output codes and check that the energizing of the components is reliable. Check if the fault is caused when the components de-energize.
- If it is suspected that a clutch or solenoid is faulty, install a new component as necessary.
- If the fault still exists, locate the PWB that drives the component and install a new PWB.

## Switches and Sensors Checkout

Refer to [GP 11](#) How to Check a Sensor and [GP 13](#) How to Check a Switch and perform the following:

- Check that the components are clean and installed correctly. Ensure that the wiring to the components is connected correctly.
- Enter the relevant input codes and check that the sensing of the components is reliable. Check if the fault is caused when the components are actuated.
- If it is suspected that a switch or sensor is faulty, install a new component as necessary.
- If the fault still exists, locate the PWB that controls the component and install a new PWB.

## High Voltage Arcing Checkout

Use this Checkout when there are intermittent 03-XXX failures and the suspect cause is high voltage arcing.

Refer to the [09-060](#) HVPS Fault RAP and complete all of the actions to check the HVPS.

## Registration Guide Checkout

- Check that the upper registration and lower registration guides are not shorted to ground. If a short to ground is found, inspect the guides and harnesses between the registration guide and bias lead at CB terminal on the HVPS.
- Check that there is continuity between the upper and lower registration guide. Check that the registration bias terminal screw is tight.
- Check that the bias contact on the registration guide is not damaged, [PL 8.15 Item 23](#).
- Check that the transfer / detack corotron shield is not damaged. Install a new transfer / detack corotron, (35 ppm) [PL 9.22 Item 8](#), (40-90 ppm) [PL 9.20 Item 2](#). If the registration guide is damaged, install a new guide, (35-55 ppm), [PL 8.15 Item 4](#), (65-90 ppm), [PL 8.17 Item 4](#).

## Developer Assembly Checkout

- Check the harness between DB terminal on the HVPS and PJ94 on the black developer assembly for shorts to ground or damage.
- Check the ground line from PJ93 pin 10 on the developer assembly is in place and that the connector is installed correctly and undamaged. Confirm that there is continuity between the connector and ground.
- Inspect the developer assembly for damage and or incorrect assembly that may cause arcing.
- If no fault is found, install a new developer assembly, (35-55 ppm) [PL 9.17 Item 2](#), (65-90 ppm) [PL 9.15 Item 2](#).

## Xerographic Module and Corotron Checkout

- Check the transfer / detack corotron guide and the surface of the photoreceptor for damage and contamination that indicates that these components are colliding with each other. Ensure that both components are installed correctly.
- Inspect the transfer / detack corotron for correct installation. If any damage or wear is identified, install new transfer / detack corotron, (35 ppm) [PL 9.22 Item 8](#), (40-90 ppm) [PL 9.20 Item 2](#).
- Check that the charge scorotron leaf spring on the drives module for damage. Check the spring and the terminal on the xerographic module for signs of arcing.
- Disconnect the corotron harnesses one at a time from the HVPS. Make copies to determine if the fault is caused by one of these components. Install new components if the fault is determined and isolated.
- Inspect the HVPS and its surrounding area for signs of arcing. If necessary install a new HVPS, [PL 1.10 Item 5](#).
- Check the corotron harnesses on the HVPS for damage and short circuits to ground.
- Check that the corotron wires are correctly tensioned and terminal blocks are clean and free of arcing marks.
- Check the transfer / detack corotron is located correctly in the short paper path assembly. Ensure that the short paper path moves freely and latches in the correct position. Refer to the replacement procedure in [REP 10.1](#).
- Check the bias contact on the registration guide for damage, (35-55 ppm), [PL 8.15 Item 23](#), (65-90 ppm), [PL 8.17 Item 23](#).
- Check that there is continuity between the upper and lower registration guide and that the bias terminal screw is tight.

## Electrostatic Discharge Checkout

Perform the following:

- If the fault only occurs when feeding from a specific paper tray, go to [Paper Trays 1 to 5 Checkout](#).
- If the fault only occurs when only making duplex copies, go to [Duplex Transport Assembly Checkout](#).
- Check that all EPROMs and the NVM are seated correctly and that the connectors are not damaged. Refer to [REP 3.4](#) Single Board Controller and Power Distribution PWBs.

## Paper Trays 1 to 5 Checkout

- Check that the paper tray size detection sensors match the size of paper in the trays. Check that the control panel indicators display the correct size of paper.
- (W/O [TAG 151](#), 35-55 ppm) Check that the ground plate, [PL 8.30 Item 17](#), has good contact with the drive shaft and continuity with the ground. If continuity to ground is an open circuit or high resistance install a new ground plate. Refer to the [01A](#) Ground Distribution RAP.
- Perform the [Electrostatic Discharge Checkout](#).
- Refer to the appropriate RAPs to check the operations of sensors, feed components and associated harnessing.
  - [08-101](#) Tray 1 Misfeed RAP
  - [08-102](#) Tray 2 Misfeed RAP
  - [08-103, 08-113](#) Tray 3 Misfeed Entry RAP
  - [08-104, 08-114](#) Tray 4 Misfeed Entry RAP
  - [08-115, 08-117](#) Tray 5 Misfeed RAP

## Duplex Transport Assembly Checkout

- Check the operation of the duplex tray latch.
- Check the ground connections on the duplex transport assembly. Refer to [01A](#) Ground Distribution RAP.
- Check for continuity between the upper guide and the transport drive shafts.
- Check that the duplex transport is located correctly, [REP 8.7](#) Duplex Transport.

## Output Device Checkout

To run the machine without the output device connected, use a finisher bypass harness, [PL 26.10 Item 7](#). If the problem is cleared, then go to the appropriate output device.

- 1K LCSS. Check the following:
  - Ground connection on the power cord, [PL 11.124 Item 8](#).
  - Static eliminator on bin 0 entry, [PL 11.118 Item 7](#).
  - Static eliminator on the tamper assembly, [PL 11.112 Item 5](#).
  - Static eliminator on the bin 1 entry, [PL 11.120 Item 7](#).
  - Check that all of the connectors on the 1K LCSS PWB are pushed fully home. Ensure that all of the ground wires are connected to the frame.
  - Check all the harnesses for damage and short circuit to ground.
- 2K LCSS. Check the following:
  - Ground connection on the power cord, [PL 11.26](#).
  - Static eliminator on bin 0 entry, [PL 11.22 Item 7](#).
  - Static eliminator on the tamper assembly, [PL 11.16 Item 5](#).
  - Static eliminator on the bin 1 entry, [PL 11.23 Item 7](#).
  - Check that all of the connectors on the LCSS PWB are pushed fully home. Ensure that all of the ground wires are connect to the frame.
  - Check all the harnesses for damage and short circuit to ground.

**NOTE:** The HVF may optionally have a tri folder and inserter unit. Where fitted, these should also be checked.

- HVF. Check the following:
  - Ground connection to the power supply unit, [PL 11.157 Item 1](#).
  - Static eliminator on BM entry, [PL 11.161 Item 26](#).
  - Exit brush on HVF top exit, [PL 11.155](#).
  - Static eliminator on BM exit, [PL 11.168 Item 16](#).
  - Exit brush on the Tri folder right hand frame, [PL 11.190](#).
  - Ground wire on the BM compiler motor, [PL 11.166 Item 4](#).
  - Ground wire on the BM back stop motor, [PL 11.163 Item 1](#).
  - Ground wires to HVF entry and exit feed motors, [PL 11.150](#).
  - Ground wires to HVF buffer reed and bypass feed motors, [PL 11.150](#).
  - Ground wire to front of HVF paddle module, [PL 11.145 Item 2](#).
  - Ground wire to the HVF offset motor, [PL 11.140 Item 19](#).
  - Ground wire to HVF paper pusher motor, [PL 11.145 Item 13](#).
  - Ground wire to HVF staple assembly, [PL 11.140 Item 14](#).
  - Check that all of the connectors on the HVF PWB, and BM PWB are pushed fully home. Ensure that all of the ground wires are connected to the frame.
  - Where the Tri Folder and the Inserter options are installed check that the PWB connectors are pushed fully home. Ensure that all of the ground wires are connected to the frame
  - Ground wire on the inserter PWB, [PL 11.179 Item 9](#).
  - Inserter docking PJ and connector.
  - Check all the harnesses for damage and short circuit to ground.

## OF11 Waste Toner Contamination RAP

Use this RAP if there is excessive waste toner contamination in the machine or on the customer's floor.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

**Waste toner is being deposited in the waste toner bottle.**

Y N

Remove the waste toner bottle and waste toner door, [REP 9.1](#). Place a sheet of paper in the bottom of the aperture from where the waste toner bottle was removed, to collect fallen toner. Enter [dC330](#), code 09-010 photoreceptor motor. Push back the waste toner shutter, [Figure 1](#), to expose the auger. **The auger rotates.**

Y N

Install a new main drive module, (35-55 ppm) [PL 4.15 Item 1](#), (65-90 ppm) [PL 4.10 Item 1](#).

Perform the following

- Remove and examine the shutter, [Figure 1](#). Ensure that the shutter operates correctly and allows waste toner to reach the bottle. If necessary install a new shutter, (35-55 ppm) [PL 4.15 Item 11](#), (65-90 ppm) [PL 4.10 Item 13](#).
- Remove the auger damper, (35-55 ppm) [PL 4.15 Item 13](#), (65-90 ppm) [PL 4.10 Item 11](#). Remove the xerographic module. Use a toner vacuum cleaner to remove waste toner from the duct between the xerographic module and the waste toner bottle. Reinstall all removed components. Monitor the waste toner bottle during subsequent customer use of the machine.

**Waste toner is being deposited in the waste toner bottle**

Y N

Install new components:

1. Xerographic module, (35 ppm) [PL 9.22 Item 2](#), (40-90 ppm) [PL 9.20 Item 2](#).
2. Main drive module, (35-55 ppm) [PL 4.15 Item 1](#), (65-90 ppm) [PL 4.10 Item 1](#).

Perform [SCP 6](#) Final Actions.

Check that the waste toner bottle is undamaged and that the waste toner bottle seal, [Figure 1](#), is undamaged.

If necessary, install new parts:

- Waste toner bottle, [PL 9.10 Item 1](#).
- Shutter assembly, (35-55 ppm) [PL 4.15 Item 11](#), (65-90 ppm) [PL 4.10 Item 13](#).

## OF12 False Xerographic Module End of Life RAP

Use this RAP if the xerographic module has reached its end of life, 400,000 prints, prematurely.

### Initial Actions



#### WARNING

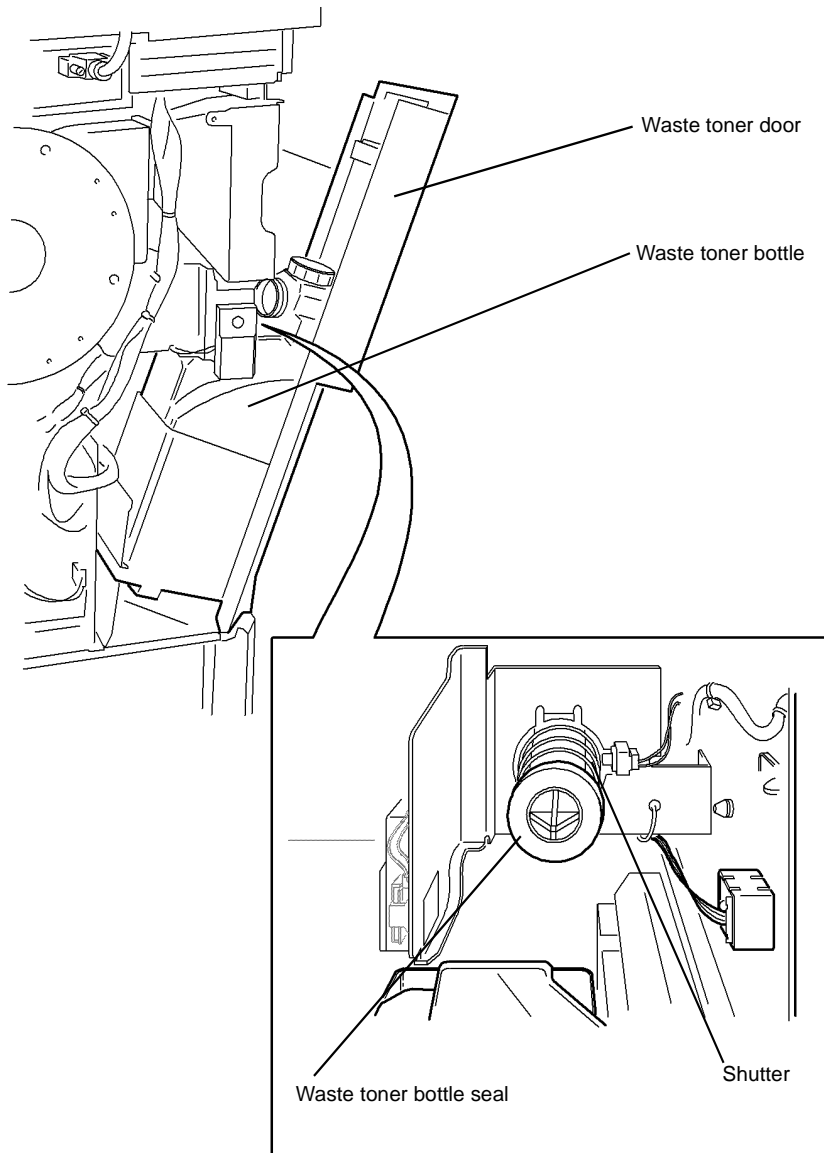
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Enter [dC131](#) location 09-063 XRU Total Count, then check the xerographic module image count. If the image count is unexpectedly high, 422,000 or greater, then the CRUM data is corrupted.

### Procedure

Perform the following:

1. Refer to [Wiring Diagram 6](#). Check the wiring harness at PJ144. Repair the wiring as necessary, [REP 1.2](#).
2. Check for damage to the xerographic module CRUM connector, (35-55 ppm) [PL 4.10 Item 4](#) or (65-90 ppm) [PL 4.12 Item 4](#). If necessary, install a new drives module, (35-55 ppm) [PL 4.15 Item 1](#) or (65-90 ppm) [PL 4.10 Item 1](#).
3. Check for damage to the CRUM plug on the xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#). If necessary, install a new xerographic module.
4. Refer to [Wiring Diagram 11](#). Make sure all connectors on the HVPS and PJ55 are secure.
5. Install a new HVPS, [PL 1.10 Item 5](#).
6. If the fault remains, go to [OF10 Intermittent Failure RAP](#) and refer to the Electrostatic Discharge Checkout.



T-1-0280-A

Figure 1 Component location



## OF13 Convenience Stapler RAP

To identify problems with the convenience stapler.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.



#### CAUTION

*Incorrect voltage may damage the convenience stapler. The convenience stapler must not be connected to the power outlet if the voltage is incorrect.*

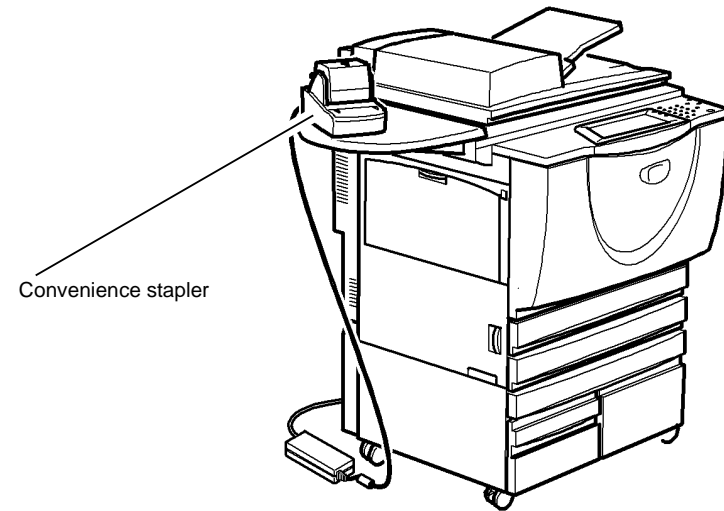
**NOTE:** There are no serviceable components in the convenience stapler.

Check that the power lead is correctly connected to the convenience stapler, [Figure 1](#). Check the AC mains (line) voltage at the customer power outlet. **The voltage measured is within the power requirements, [GP 22](#).**

Y N

If the voltages are incorrect or the wiring of the main supply is found to be defective, inform your technical manager and the customer. Do not attempt to repair or adjust the customer supply.

Install a new convenience stapler, [PL 25.10 Item 1](#).



Convenience stapler

Figure 1 Component location

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## OF14 Extensible Interface Platform RAP

Use this RAP when experiencing faults with the Xerox Extensible Interface Platform.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

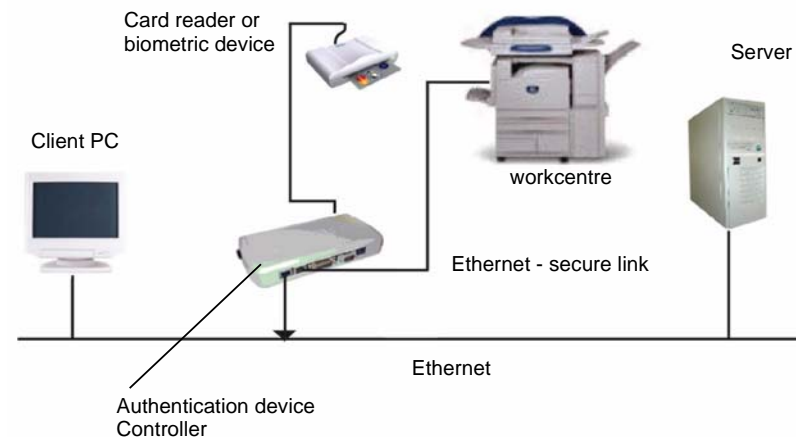
1. As necessary, perform the following:
  - Reload the Machine software, GP 4, using the Altboot process. Ask the customer to resubmit the EIP enablement file and restore EIP settings
  - Install a new UI control PWB, PL 2.10 Item 11.
  - Install a new single board controller PWB, PL 3.24 Item 3.
2. Request the customer to check their network and software.

## OF15 Xerox Secure Access RAP

### Overview

Xerox Secure Access uses an external device, such as a card reader or biometric device, to authorize access to the machine. The reader then passes the information to the controller, which handles the authentication process, including which GUI screens are displayed, accepting GUI responses that defines their content and order. The controller can pass user identities and passwords directly to the machine after gathering the data from an external server. All communication is via a secure network link, Figure 1 Network Diagram.

Xerox Secure Access is controlled via the CentreWare Web GUI. The active status is displayed in tools within Access Control. If communications cannot be established with the Xerox Secure Access Server, the service may be temporarily disabled by touching the now enabled Off button within the Xerox Secure Access tools window. Once communication is re-established the stored Xerox Secure Access setting are restored.



T-1-0282-A

Figure 1 Network Diagram

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

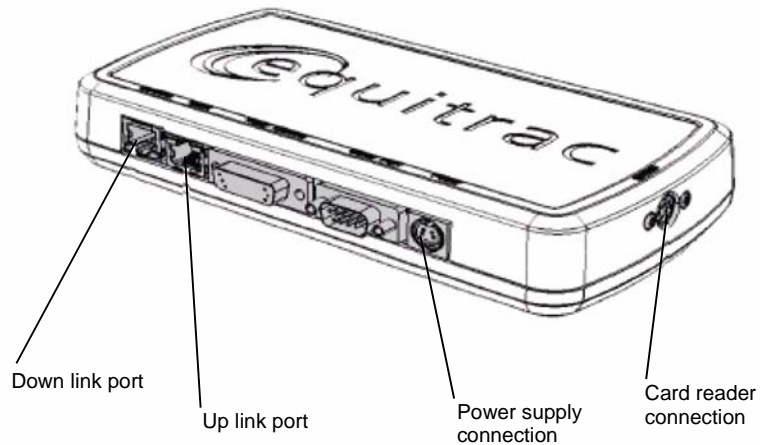
Before working on the Xerox Secure Access, test the machine in the service mode to ensure no faults are displayed and that the machine is functioning properly. If it is not, repair any problems before proceeding with diagnosing the Secure Access Accessory. Diagnostics can be entered to test copier functionality when Secure Access is installed.

Perform the steps that follow:

- Check the connection between the Card Reader and the Secure Access Authentication Device.
- Check which LED's are on or blinking on the Secure Access Authentication Device. If the LEDs on the Secure Access Authentication Device are not operating, go to [Secure Access Authentication Device Failure](#).
- Check for the LED's are on or blinking on the Card Reader. If the LEDs on the Card Reader are not operating, go to Card Reader Failure.
- If customers have problems of install / setting up, or any other problems related to their Secure Access Administrator, they should refer to the Installation / Administration Guide or contact Xerox Technical Support.

### Secure Access Authentication Device Failure

The primary failure modes are power problems or failed hardware components. The symptom of these failures can be detected by observing the LEDs on the Secure Access Authentication Device, [Figure 2](#).



T-1-0283-A

**Figure 2 Authentication device**

Check the power to the Secure Access Authentication Device.

- Check the power supply at the wall socket. If there is no power at the wall socket, have the customer restore power and continue when confirmed.
- Disconnect the power cord from the wall socket and the power supply. Check the power cord for continuity and damage. If necessary install a new power cord. Disconnect the power cord from the power supply and plug the power cord into the wall outlet. Using a multimeter, check for line voltage at the end of the power cord disconnected from the power supply. If there is power at the wall but not at the end of the power cord. Install a new power cord.

- Disconnect the small power cord from the Secure Access Authentication Device. Check there is +5V at the connector that plugs into the Secure Access Authentication Device. If there is no +5V, install a new the power supply.
- There is a 'Keyed' switch on the end of the Secure Access Authentication Device. Obtain the key from the customer. Insert the key into the 'keyed' switch and cycle the switch 1 quarter turn clockwise and then back to its start position. Observe the LEDs and listen for an audible tone.
- If the LEDs on the Secure Access Authentication Device "Uplink" and "Downlink" Ethernet ports do not cycle on and off as the controller goes through its boot-up process, or if the audible tone is not heard. Install a new Secure Access Authentication Device.

**NOTE:** A new device will require the Secure Access Administrator to reconfigure the server with the new MAC address of the new part. Be sure to inform the Secure Access Administrator of the MAC address of the device being removed and the MAC address of the new device

### Card Reader Failure

The primary failure modes are power problems or failed hardware components. The symptom of these failures can be detected by observing the LED on the Card Reader. [Table 1](#).

- The Green LED on the Card Reader is On
- The Green LED on the Card Reader Flashes Rapidly
- The Red LED on the Card Reader is On
- The Red LED on Card Reader Flashes Slowly
- The Red LED on Card Reader Flashes Rapidly
- The Card Reader LED's are not On or Blinking

**Table 1 LED identification**

When the LED on the card reader is	Meaning
Red	The authentication device is in idle mode; there is no active session.
Green	The authentication device is in ready mode; a session is active.
Slow flashing red	The authentication device has no connection to the server.
Slow flashing green	The authentication device is communicating to the server.
Fast flashing red	Invalid card / password; access denied

#### The Green LED on the Card Reader is On

- This indicates an active Secure Access Session and the Card Read correctly corresponds to a valid Secure Access Account.
- If the UI on the machine is locked, check with the customer for a second PIN number for additional security. This PIN number will need to be entered via the soft keys on the UI.
- Ensure that the card corresponds to a valid Secure Access Account.

#### The Green LED on the Card Reader Flashes Rapidly

- This indicates a valid card swipe and in the process of authentication on the server.
- If the UI on the machine is locked, check with the customer for a second PIN number for additional security. This PIN number will need to be entered via the soft keys on the UI.

- If the UI on the machine is locked and no secondary PIN is required. Check that the Xerox Secure Access is installed correctly, and ask customer to check the configuration at the server.

#### **The Red LED on the Card Reader is On**

- This indicates the Card Reader is in an idle state. If the red LED remains on, and the UI remains locked after a card is swiped, re-orient the card and re-swipe.
- Try a known good card in the reader. If the other card is working on the problem Card Reader. Ask customer to make sure the card corresponds to a valid Secure Access Account.
- Try the card in a known good reader. If the card is working on a known good Card Reader, it may be a problem with the Secure Access Authentication Device. Check to see if the LEDs on the Secure Access Authentication Device are on.

#### **The Red LED on Card Reader Flashes Slowly**

- This indicates the reader is connected to the controller but the controller is not connected to the server. Check the Ethernet green LED on the Authentication Device.
- If the Ethernet green LED on the Authentication Device is off, make sure the connectors of the LAN connections are working properly. If the connections are working, this indicates the network may not work properly. Ask customer to check with Network Administrator.
- If the Ethernet green LED on the Authentication Device is either on or flashing, contact the Secure Access Administrator.

#### **The Red LED on Card Reader Flashes Rapidly**

- This indicates a valid card but does not correspond to a valid Secure Access Account at the server, test with a known valid user's card.
- If all cards react the same way, this indicates the Server Configuration may not be correct. Ask customer to check the Server Configuration.
- If all the card react this way, this indicates the cards are not valid. Ask customer to check the Server Configuration

#### **The Card Reader LED's are not On or Blinking**

- Check to see if the Secure Access is correctly installed.
- If there is still no LED on the Card Reader, install a new the Card Reader.

**NOTE:** *if there is another working Card Reader available, the readers can be changed over to confirm failure.*

- If the Card Reader is not functioning, the web page of the machine has a setting that will enable UI keypad access. If the users know their card access number, they can use the machine by manually entering their number. The process is as follows:
  1. Go to the machine web page under properties and then security and check the box that says "Allow local user interface initiation".
  2. Enable the keypad and test with valid credentials. This will validate the rest of the secure access function.
  3. Leave it in this mode until the new card reader can be installed.

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## IQ1 Image Quality Entry RAP

Use this RAP to determine the source of an image quality problem.

On a correctly registered document with border erase either on or off, an image quality defect within 5 mm of the edge of the sheet is acceptable.

### Initial Actions

- Check the condition of the paper. Do not use incorrectly cut paper, damp paper, paper with rough edges, badly drilled paper, paper with wrapper wax or glue. Paper and media should be stored flat, enclosed in wrappers, in a cool dry environment.
- Check that the paper is within specifications. [GP 20](#).
- Check that paper tray guides are set to the correct paper size.
- Check the document guides on the DADH.
- Check the original documents for defects. If the documents are damaged passing through the DADH, go to the [05F Damaged Documents RAP](#).
- Ensure that the image adjustment mode selections are those used by the customer.
- Clean the charge and transfer/detack corotron.

### Procedure

If necessary, refer to [IQ1 Internal Test Patterns](#) for:

- A description of image quality defects.
- The optimum test pattern to be used to diagnose the defect.
- An example of all internal test patterns.

If possible, use the customer job to recreate the image quality problem.

Enter Diagnostics, [GP 1](#). Select Other Routines. Select [dC606](#) Print Test Patterns. Select a suitable test pattern. Select 1 Sided. Press Start Test. **The printed images of the internal test pattern are good.**

Y N  
Go to [IQ2 Defects RAP](#).

Check the back of the prints for toner contamination. **The back of the prints are clean.**

Y N  
Go to [IQ2 Defects RAP](#).

Select a suitable test pattern. Select 2 Sided. Press Start Test. **The printed images of the internal test pattern are good.**

Y N  
Go to [IQ2 Defects RAP](#).

Check the prints for damage. **The prints are not damaged.**

Y N  
Go to the [IQ5 Print Damage RAP](#).

If a facsimile card is installed, send a test facsimile to the machine. **The facsimile image quality is good.**

Y N  
Compare the facsimile print with an internal test pattern print. **The facsimile print and the internal print display the same defect.**

Y N  
Go to [IQ9 Unacceptable Received Facsimile Image Quality RAP](#).  
Go to [IQ2 Defects RAP](#).

A  
Exit diagnostics. Use the prints of the internal test pattern and make copies of these from the DADH. **The copies of the internal test pattern are good.**

Y N  
Go to the [IQ7 DADH, Document Glass and Scanner RAP](#).

Use the print of the internal test pattern and make three copies from the document glass. **The copies of the internal test pattern are good.**

Y N  
Check the image quality defects. **The defects on the copies are identical.**

Y N  
Go to the [IQ2 Defects RAP](#).

Go to the [IQ7 DADH, Document Glass and Scanner RAP](#).

Compare the image dimensions of the internal test pattern with the prints through the DADH and from the document glass. Refer to [IQS 8 Magnification](#). **The dimensions are within specifications.**

Y N  
Go to [ADJ 3.2 Magnification Adjustment](#).

If possible, use the customer document to make a copy from the document glass or through the DADH, at 100% magnification. Make another copy at a different magnification setting. Compare the images, [Figure 1](#). **The defect is on the same part of the image.**

Y N  
Return to the start of this procedure and select a different internal test pattern to check the image quality.

There is a defect on the scanning optics. Refer to [ADJ 14.1 Optics Cleaning Procedure \(W/O TAG 150\)](#) or [ADJ 14.2 Optics Cleaning Procedure \(W/TAG 150\)](#).

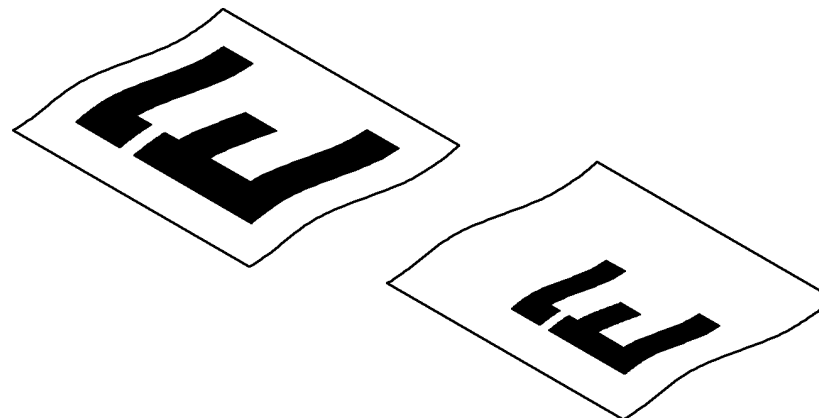


Figure 1 The defect location check

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A

## IQ1 Internal Test Patterns

Table 1 defines the image defect, gives a description of the defect and identifies the optimum test pattern to be used.

Table 2 describes the test patterns and the purpose for which they should be used to identify image quality defects.

Use the test patterns 1, 2, 5, 8, 14, 16 and 19 for image quality analysis. The other test patterns are designed for the use of initial machine calibration by the manufacturer.

**Table 1 Image quality defects**

Image quality defect	Description of defect	Optimum internal test pattern
Background	Uniform darkening across all the non print areas	1
Bands	Grey to dark in the light or non-image areas of the print in the process direction or across the process direction. See also narrow bands.	2, 5
Barber pole deletions	A series of finger print deletions that form a pattern like a barber pole or auger marks. The deletions are repeated at approximately 7 cm and are approximately 30 degrees to the lead edge throughout a grey or dark dusting.	5
Beads on print	Developer beads in the light or non-image areas of the print.	2, 1
Black image	A print that is black or grey all over, but has no visible image of the original document.	1
Blank image	No visible image.	5
Blurred image	Part or whole of the image has the appearance of being out of focus. Refer to <a href="#">IQS 4</a> Resolution.	19, 16
Dark prints	Very dark background with a visible image.	1, 19
Deletions	Areas of the image missing from the print. Deletions may be in the form of white spots, marks, lines, or whole areas of toner missing from the print.	2, 5, 8, 16
Displaced and fragmented image	Distorted images, part images and missing images (scrambled images). Displaced images.	5, 16, 19
Light images	The image is visible on the print, but with insufficient solid area density.	11, 15
Lines	Black or white lines across the process direction or in the process direction. See also the description, displaced and fragmented image.	2, 5, 8
Magnification	At 100% magnification the printed image differs from the size of the image on the original document. Refer to <a href="#">IQS 8</a> Magnification.	11, 19
Marks	Dark marks in the non-image areas of the print.	1, 2
Misregistration	The image on the paper is Misregistration. Refer to <a href="#">IQS 7</a> Registration.	16
Narrow Bands	Bands across the process direction visible in halftone areas.	8

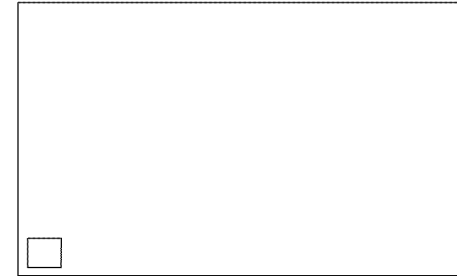
**Table 1 Image quality defects**

Image quality defect	Description of defect	Optimum internal test pattern
Non uniformity	Variation in image quality and density across the print. See also uneven density.	5
Offsetting	A previous image that was not removed from the fuser roll during the cleaning cycle. The image is repeated at regular intervals.	14
Part images and missing images	Incomplete or missing images.	5, 16, 19
Print damage	Creases, curl, cuts, folds, wrinkles, or embossed marks are visible on the print.	5
Repeat images	Refer to offsetting defects and residual image defects.	14, 19
Residual image	A previous image that was not removed from the photoreceptor during the cleaning cycle.	14, 19
Rotated image	The image on the printed document has turned 90 Degrees to the image printed on the original document.	19
Skew	A difference in angular alignment between image on the print and the original document.	16
Skips.	Loss or stretching of the image, and compression of the image, in bands across the process direction.	16
Smears	Loss or stretching of the image, and compression of the image, in bands across the process direction.	16
Smudges	Darker images across the process direction.	5
Spots	Dark spots in the non-image areas of the print.	1, 2
Streaks	Lines on the print, in the process direction of the non-image area.	2, 5
Stretched and distorted images	The image on the paper is stretched or distorted.	16
Toner contamination on the back of prints	Random black spots or marks	2
Uneven density	Variation in image density across the print. See also non uniformity.	5
Unfused prints	The toner image on the finished print is not fused to the print medium.	14



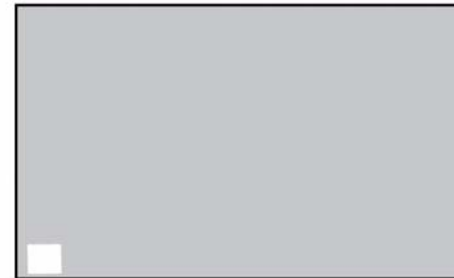
**Table 2 Internal test patterns**

Number	Description	Purpose
1	Blank sheet, <a href="#">Figure 2</a> .	0% area coverage. Background defects spots, scratches.
2	75 dpi, 0 degrees 25% area coverage halftone. <a href="#">Figure 3</a> .	Light density uniformity, deletions, lines, bands, streaks and photoreceptor defects.
3	106 dpi, 45 degrees, 25% area coverage halftone. <a href="#">Figure 3</a> .	Light density uniformity, deletions, lines, bands and streaks.
4	212 dpi, 45 degrees, 25% area coverage halftone. <a href="#">Figure 3</a> .	Reserved for engineering investigations. Stress test pattern. Will not be defect free.
5	106 dpi, 45 degrees, 50% area coverage halftone. <a href="#">Figure 4</a> .	Uniformity, fuser defects, lines, bands, streaks and smears. Barber Pole deletions.
6	212 dpi, 45 degrees, 50% halftone. <a href="#">Figure 4</a> .	Reserved for engineering investigations. Stress test pattern. Will not be defect free.
7	424 dpi, 45 degrees, 50% halftone. <a href="#">Figure 4</a> .	Reserved for engineering investigations. Stress test pattern. Will not be defect free.
8	Perpendicular lines 2 on 2 off. <a href="#">Figure 5</a> .	Motion quality. ROS, developer, registration transport, fuser and intermediate gear trains.
9	Perpendicular lines 8 on 56 off. <a href="#">Figure 7</a> .	Reserved for engineering investigations. Stress test pattern. Will not be defect free.
10	Parallel lines 8 on 56 off. <a href="#">Figure 6</a> .	Lines that run LE to TE.
11	Combined grey scales. <a href="#">Figure 8</a> .	This test pattern is for engineering development and used in the light copies RAP.
12	Perpendicular bands. 25 mm (1 inch) on and 25 mm (1 inch) off black. <a href="#">Figure 9</a> .	Solid area reproducibility. For checking fusing, stripper finger marks, solid area, offsetting and cleaning.
13	Perpendicular lines 2 on 30 off. <a href="#">Figure 10</a> .	Motion quality, wobble (ROS).
14	12cm. (4.75 inches) Lead edge black band. <a href="#">Figure 11</a> .	Fuser offsetting and cleaning failure. Stress test for stripping from the fuser.
15	Tone reproduction curve. Step-wedge 106 dpi, 45 degrees. <a href="#">Figure 12</a> .	21 mm wide strips that run inboard to outboard of varying area coverage. The 50% wedge is used for checking IOT darkness.
16	Quadrille 4 on 60 off. <a href="#">Figure 13</a> .	Used to check for deletions, skew and skips.
17	Ladder chart. <a href="#">Figure 14</a> .	Registration and skew.
18	Manufacturing, tone reproduction curve. 10 mm strips (235 lines), alternating area coverage, 50%, 25%, 75%, 0%, 100% repeating (right to left) with a 3 mm white border. <a href="#">Figure 15</a> .	10 mm wide strips that run inboard to outboard of alternating area coverage. Used in manufacturing for automated measurements.
19	Field test pattern. Uniformity areas, registration marks and resolutions targets. <a href="#">Figure 16</a> .	Registration, resolution, uniformity, streaks and bands



**Figure 2 Test pattern 1.**

T-1-0285-A



**Figure 3 Test patterns 2, 3 and 4**

T-1-0286-A



Figure 4 Test patterns 5, 6 and 7

T-1-0287-A

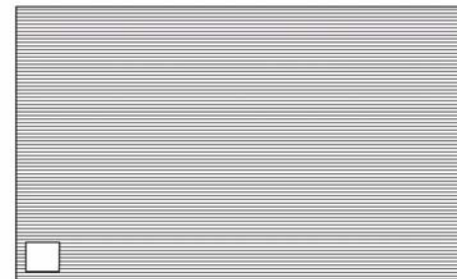


Figure 6 Test pattern 9

T-1-0289-A



Figure 5 Test pattern 8

T-1-0288-A

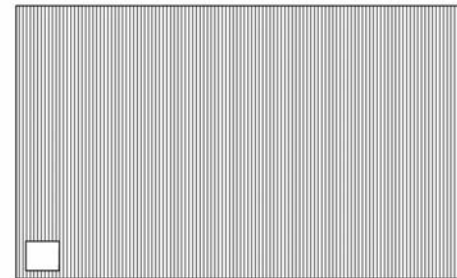


Figure 7 Test pattern 10

T-1-0290-A

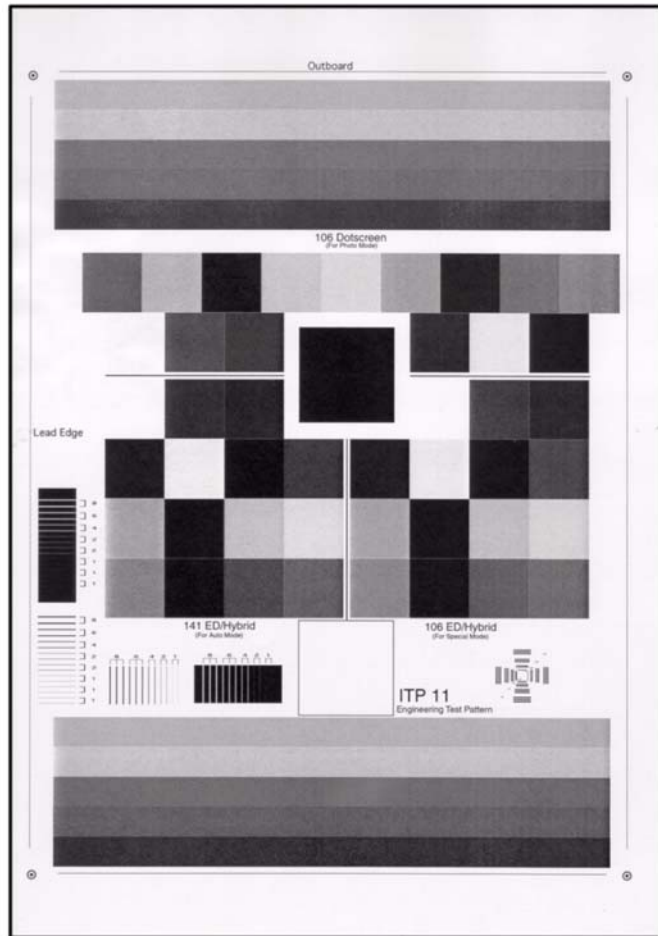


Figure 8 Test pattern 11

T-1-0291-A

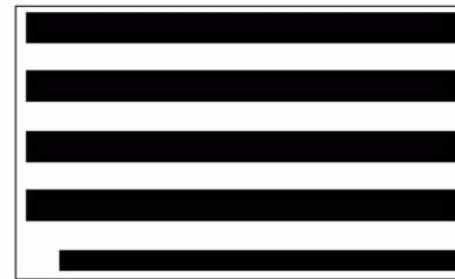


Figure 9 Test pattern 12

T-1-0292-A

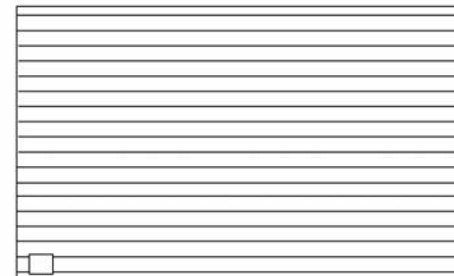


Figure 10 Test pattern 13

T-1-0293-A

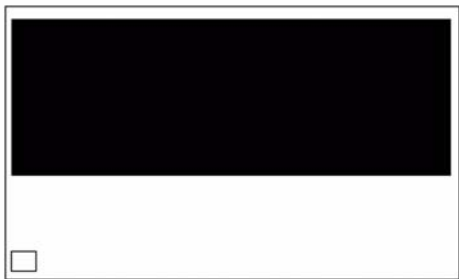


Figure 11 Test pattern 14

T-1-0294-A

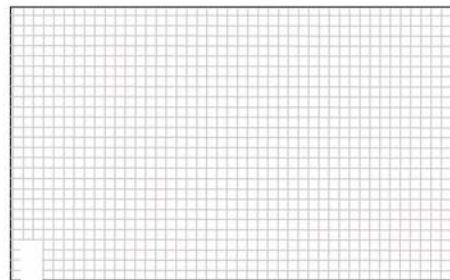


Figure 13 Test pattern 16

T-1-0296-A

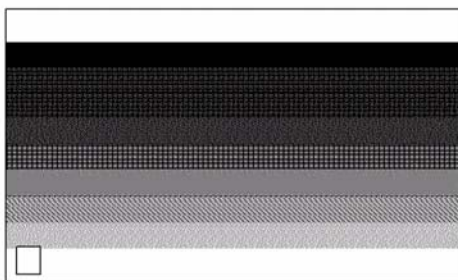
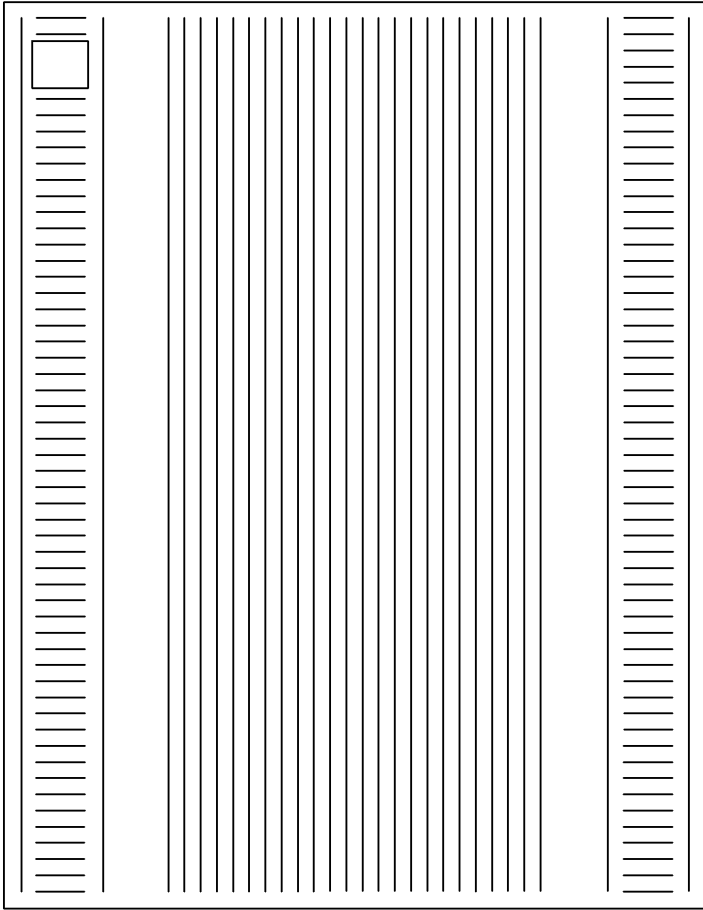


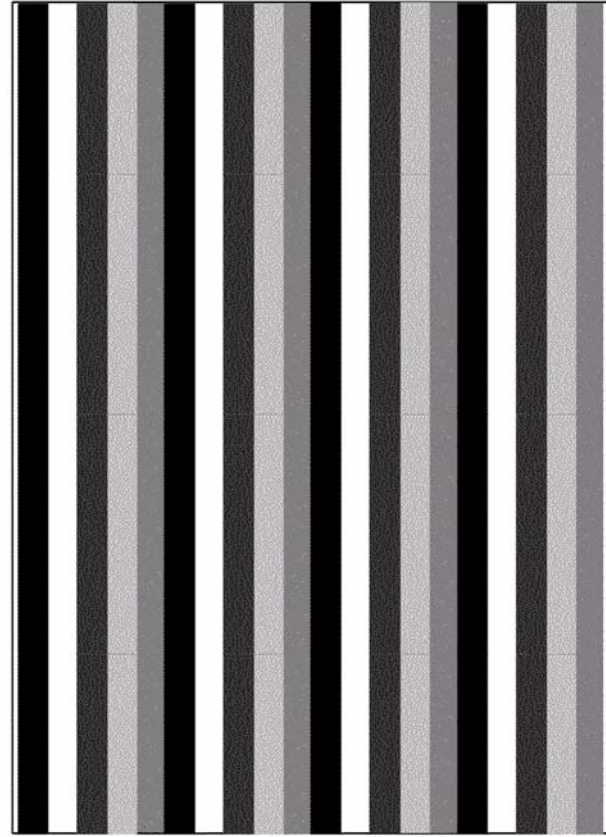
Figure 12 Test pattern 15

T-1-0295-A



T-1-0297-A

Figure 14 Test pattern 17



T-1-0298-A

Figure 15 Test pattern 18

## IQ2 Defects RAP

Use this RAP to resolve image quality defects.

On a properly registered document, with border erase is either on or off, an image defect (deletion/disturbance within 5 mm of the edge of the sheet is acceptable.

Ensure **IQ1** Image Quality Entry RAP is performed before starting this RAP.

### Initial Actions



**WARNING**

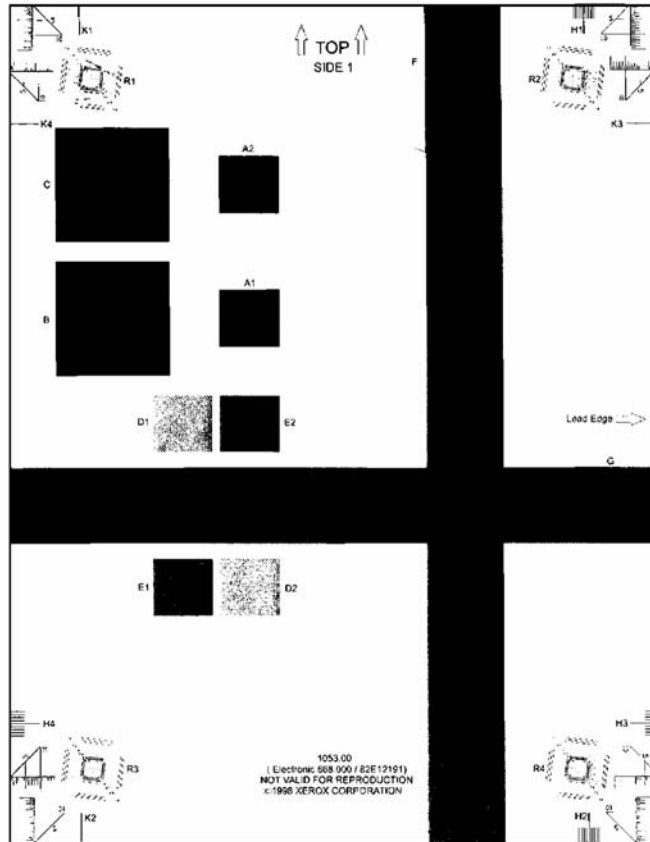
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the error log for the following codes: 09-310, 09-390, 09-360, 09-361, 09-362, 09-363. If any of the codes are displayed, go to the **09-310, 09-390** Low Toner Sensor Failure RAP or the **09-360, 09-361, 09-362, 09-363** Toner Concentration Sensor Failure RAP.

### Procedure

Refer to the appropriate image quality failure and perform the appropriate action.

- **Background.** Refer to the **IQS 6** Copy / Print Defects and **IQS 2** Background. Go to the **IQ3** Xerographic RAP.
- **Bands.** Go to the **IQ3** Xerographic RAP.  
White bands on a grey or dark dusting. Check for developer leakage, refer to **Developer Assembly Checkout**.
- **Barber pole deletions.** A series of finger print deletions that form a pattern like a barber pole or auger marks. The deletions are repeated at proximately 7 cm and are approximately 30 degrees to the lead edge throughout a grey or dark dusting. Go to **IQ12** Barber Pole Deletions/Developer Leakage RAP.
- **Beads on print.** Clean the following:
  - Developer beads hanging from the developer roll and the lower lip, **Figure 1**.
  - The developer roll area, above and in the recesses below the roll, **Figure 1**.
  - The halo guide and the registration guide, **Figure 1**.
  - The drive roll assembly, **PL 8.15 Item 9** and under the registration roll cover, **PL 8.15 Item 5**. Refer to **Figure 1**.
  - The duplex paper path (35-55 ppm) **PL 8.22** or (65-90 ppm) **PL 8.20**.
  - The base pan of the machine.Go to **IQ3** Xerographic RAP and complete the **Xerographic Module and Short Paper Path Checkout** and the **Developer Assembly Checkout**.  
Improperly seated transfer/detack end block covers, or a misadjusted halo guide can score the surface of the drum, leading to developer loss and premature xerographic module replacement. Perform **ADJ 9.4** Xerographic cleaning.
- **Black band.** Copies have a black band 1 inch wide from top of the copy. At start print the scan carriage assembly moves to the right, starts to scan and then pulsates for an inch. Check the connections on the scanner PWB. Install a new scanner PWB, (W/O **TAG 150**) **PL 14.20 Item 1** or (W/**TAG 150**) **PL 14.10 Item 1**.



T-1-0299-A

Figure 16 Test pattern 19

- **Black image.** Check the following conditions:
  - If both the print and the copy are completely black, go to the [06-350 ROS Laser Not Under Control RAP](#).
  - If only the print is good, but the copy is black, go to the [14-703 to 14-706, 712, 714, 716, 718 Failure To Calibrate Entry RAP](#) and perform the Exposure Lamp Check.
  - For other black images, go to the [IQ3 Xerographic RAP](#).
- **Blank image.** Perform the following:
  - Insert a door cheat and make a copy. At the same time use a flashlight and illuminate the photoreceptor between the developer and the xerographic module. Check the following:
    - If the copy is completely blank, go to the [IQ3 Xerographic RAP](#).
    - If the copy has a dark band go to the [06-340 ROS Laser Failure RAP](#).
    - If the blank images are additional output. Go to the [OF8 Multifeed RAP](#)
  - Check the developer drives:
    1. Remove the xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#).
    2. Make a visible bald patch on the developer roll by moving the developer brush.
    3. Re-install the xerographic module.
    4. Enter [dC330](#) code 04-010 main motor, MOT04-010. Run MOT04-010 for approximately 5 seconds.
    5. Remove the xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#).
    6. Check for the visible bald patch on the developer roll. If the patch is still visible, check the drives to the developer, [GP 7](#).
  - If 09-060 faults are in the fault history log, go to the [09-060 HVPS Faults RAP](#).
- **Blurred image.** Check that the documents are flat on the document glass. Use a new ream of paper. Check the transfer and detack corotrons wires are secure and taut. If necessary perform the following:
  1. Install a new transfer / detack corotron, (35 ppm) [PL 9.22 Item 8](#) or (40-90 ppm) [PL 9.20 Item 2](#).
  2. The xerographic drum may be heat damaged by fuser temperature control problems. Look for the indicators that follow:
    - Characters on copies/prints are bold, thick and smeared looking (burred, out of focus).
    - An inspection of the photoreceptor reveals a yellow/green haze on the drum surface.
    - The top photoreceptor seal, which is normally white, may be yellow/brown, curled and shrunken.
    - Make a print of internal test pattern 5, refer to [dC606](#). The defect can sometimes be a fairly well defined darker band approximately 25mm (1 inch) wide running from inboard to outboard on the photoreceptor. Other times it may not be a well defined and there may be more than one defect area on the drum.
    - There may be 10-315 or 10-320 faults in the fault history file.

The cause of this fault is the fuser lamp coming on and staying on in standby, the excessive heat damages the drum, due to an intermittent fault. Perform the actions that follow:
- **Dark prints.** Go to the [IQ3 Xerographic RAP](#).
- **Deletions.** Check the following:
  - If the deletions are on the duplex side of a print or copy, go the [IQ5 Print Damage RAP](#). Also refer to the white lines defect.
  - Intermittent (1 in 50 to 1 in 400 copies) irregularly-shaped deletions positioned near the centre of the leading edge, and on either side of the print. This type of deletion is known as Cockle deletion, refer to [IQ13 Cockle Deletion RAP](#).
  - If the deletions are small spots, this can be caused by beads on the image. Refer to the beads on print defect.
  - If the deletions are faded or deleted areas on the outboard area of prints and copies and installing a new xerographic module removes the defect, but it returns within 2500 prints/copies and the defect gets worse over time, check the ozone system, go to [OF6 Ozone and Air Systems RAP](#).
  - Go to the [IQ3 Xerographic RAP](#).
- **Displaced and fragmented image.** Check the following:
  - If the machine is lower than 750 metres (2461 feet) above sea level, go to the [IQ3 Xerographic RAP](#).
  - If the machine is higher than 750 metres (2461 feet) above sea level, check the transfer / detack assembly for arcing. If necessary go to [dC131 NVM Read / Write location 09-098 Altitude](#). Check the value is correct.
  - Refer to [IQ7 DADH, Document Glass and Scanner RAP](#). Perform the [IQ7 Scanner Checkout](#).
  - Refer to [OF10 Intermittent Failure RAP](#) and perform the [Electrostatic Discharge Checkout](#).
- **Grey images.** Dark grey images too dark or light images too light. Go to [ADJ 9.2 Image Quality Adjustment Routine](#) as an initial action. If [ADJ 9.2](#) fails to solve the problem, go to [ADJ 9.5 Optimize Dark and Light Grey Image](#).
- **Light images.** Go to the [IQ11 Light Copies RAP](#).
- **Lines.** Perform the following:
  - If there are dark lines in the process direction that are continuous from edge to edge of the image, install a new xerographic module, (35 ppm) [PL 9.22 Item 2](#), (40-90 ppm) [PL 9.20 Item 2](#).
- **Install a new xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#).**
- **Perform [dC132 NVM Initialisation](#) and select the All Copier MVN routine. Do not save/restore NVM to/from the machine resident diskette because this may restore corrupted NVM. However if the NVM on the machine resident diskette was saved from a time when the machine did not have the fault, then and NVM restore should be performed.**
- **If the problem continues, Install a new fuser module assembly, [PL 10.8 Item 1](#) (35 to 55 ppm) [PL 10.10 Item 1](#) (65 to 90 ppm).**
- **If the problem continues, perform the [OF7 IOT PWB Diagnostics rap](#), before installing a new IOT PWB, [PL 1.10 Item 2](#).**
- **If the problem continues, Install a new fuser connector assembly, [PL 4.10 Item 9](#) (65 to 90 ppm) [PL 4.15 Item 9](#) (35 to 55 ppm).**
- **If the problem continues, Install a new LVPS and base module [PL 1.10 Item 3](#).**

- White lines or deletions in the process direction that are continuous from edge to edge of the image. Check the following:
  - Contamination of the scorotron. Refer to [IQ3 Xerographic RAP](#)
  - Damage to the fuser roll. Refer to [IQ4 Fuser Module RAP](#)
  - Spots or marks on the CVT glass. Refer to [IQ7 DADH, Document Glass and Scanner RAP](#)
- White lines in the process direction that are continuous from edge to edge of the image can be caused by ROS contamination. Perform the following:
  1. Print test pattern 5.
  2. Remove the xerographic module, (35 ppm) [PL 9.22 Item 2](#), (40-90 ppm) [PL 9.20 Item 2](#).
  3. Remove the ROS securing screw, refer to [REP 6.1](#).
  4. Push the ROS to the rear of the machine.
 

**NOTE:** The ROS will move back approximately 12 mm (0.5 inch).
  5. Install the xerographic module.
  6. Print test pattern 5.
  7. Check the printed test patterns. If the line has moved, perform [ADJ 6.1 ROS Window Cleaning Procedure](#) and if necessary, [ADJ 6.2 ROS Cleaning Procedure](#).
  8. Return the ROS to the correct location. Install the ROS securing screw.
- If the problem persists, go to the [IQ3 Xerographic RAP](#).
- **Magnification.** Refer to [IQS 8 Magnification](#). Go to [ADJ 3.2 Magnification Adjustment](#).
- **Marks and Spots.** Perform the following:
  - Check the original documents for spot and marks.
  - Refer to the [IQS 6 Copy / Print Defects](#). Go to the [IQ3 Xerographic RAP](#).
- **Misregistration.** Perform the following:
  1. Go to [dC131a NVM tables](#) and refer to the chain 8 table and check that the buckle settings are set to default for 08-152, 08-169, 08-170, 08-171 and 08-172. Increase the values in increments of 10 until the problem is resolved.
  2. Open the front door, install a cheat in the front door interlock. Run the copies and observe the jam clearance knob 4b on the front of the registration roll. The knob must turn / stop while making copies. If the knob turns continuously and does not stop, install a new registration clutch, [PL 8.15 Item 7](#) (35-55 ppm), [PL 8.17 Item 7](#) (65-90 ppm).
  3. If the registration is variable after a developer spillage over the registration transport, install a new registration clutch, [PL 8.15 Item 7](#).
  4. If the top edge registration is variable after a [dC604 Registration Setup](#). Check that the ROS securing screw is tight, refer to [REP 6.1 ROS](#).
  5. For any other registration problem, refer to [dC604 Registration Setup](#).
- **Narrow bands.** Go to [IQ6 Narrow Bands RAP](#)
- **Non uniformity.** Perform the following:
  - Go to [IQ3 Xerographic RAP](#) and complete the [ROS Checkout](#).
  - Print internal test pattern 12. If the print has a non uniform density defect, install a new ROS, [PL 6.10 Item 4](#).
  - Go to and complete the [Developer Assembly Checkout](#)
- **Offsetting.** A toner image that adheres to the fuser roll or output rolls and transfers to another area of the print. The repeat intervals for a fuser roll defects are at 110mm for all speeds.
 

The repeat intervals for the pressure roll are 110 mm for 35-55 ppm and 126 mm for 65-90 ppm machine due to the different size of the pressure roll.

Perform the following:

  - Check that the fuser roll is cleaned and lubricated by the fuser web. Go to [IQ4 Fuser Module RAP](#)
  - Check the fuser web motor, refer to the [10A Fuser Web Motor RAP](#)
- **Part images and missing images.** Go to [05C Document Size Sensor Failure RAP](#).
- **Print damage.** Go to the [IQ5 Print Damage RAP](#).
- **Repeat image defects.** Perform the following:
  - If the distance between repeated defects in the process direction on A3 (11X17inches) printed images is 264 mm, install a new xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#).
  - If the repeated distance between defects in the process direction is 110mm (35-55ppm) or 126mm (65-90ppm), go to the [IQ4 Fuser Module RAP](#).
  - If the repeated distance between defects in the cross process direction is 90mm and 80mm (3.54 and 3.15 inches) that line up with the xerographic module stripper fingers, go to the [IQ3 Xerographic RAP](#) and perform the Xerographic Module and Short Paper Path Checkout.
  - If there other defects that are repeated in sequential images, install a new xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#).
- **Residual image.** Perform the following:
  - If the repeated residual image on A3 (11X17 inches) paper is 264 mm, install a new xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#).
  - If the problem persists, go to the [IQ3 Xerographic RAP](#)
- **Rotated image.** Go to the [14A Scanning Document Size Entry RAP](#).
- **Scrambled image.** Perform the following:
  - Check the connections on the ROS data cable, PJ113 on the single board controller PWB and PJ122 on the ROS, [PL 3.24 Item 15](#). Refer to [Wiring Diagram 12](#).
  - Check for a loose or missing bias connection to the halo guide, [PL 8.15 Item 23](#). A bad connection can cause arcing and show on the print as a scrambled image.
- **Skew.** Refer to the [IQS 5 Skew](#) and the [IQ8 Skew RAP](#).
- **Skips.** Skips are associated with a variation in the relative scan speed of the projected image and the rotation speed of the photoreceptor.
 

Refer to the [IQS 6 Copy/Print Defects](#). Go to the [IQ3 Xerographic RAP](#)
- **Smears.** Smears are associated with a variation in the rotation speed of the photoreceptor or speed of the paper.
 

Refer to the [IQS 6 Copy/Print Defects](#). Go to the [IQ3 Xerographic RAP](#)
- **Smudges.** They are caused by the unfused image being disturbed. Go to the [IQ3 Xerographic RAP](#).
- **Streaks.** The result of disturbance either before or after image transfer. Go to the [IQ3 Xerographic RAP](#).
- **Stretched and distorted images.** Perform the following:



- If the defect is present on Fax, Scan to E-mail or Scan to File, send the job at a higher resolution. Select fine or super fine resolution.
- Check for the paper stalling or catching as it passes under the xerographic drum.
- Check for wear or damage on the transport rolls.
- Check the document feed, refer to [IQ7 DADH](#), Document Glass and Scanner RAP. Perform the DADH checkout.

• **Toner contamination on the back of prints and excessive toner contamination inside of the machine.** Perform the following:

- If it is possible to access [dC131](#) location 09-351 and set it to 4, the correct level of software is already loaded, go to step 1, if not load software:

**NOTE:** SPAR releases are case sensitive, enter the code exactly as it appears.

W/O [TAG 155](#) IOT PWB, load general release SMP 1,061.131.221.10401 or higher, available at <http://www.support.xerox.com/support/enus.html>

W/[TAG 155](#) IOT PWB, load SPAR version 061.132.221.29100 or higher, available at [https://www.xrsgsn.com/admin/user/spar\\_release.html](https://www.xrsgsn.com/admin/user/spar_release.html). The SPAR release code is WC57xxSpar.

1. Set NVM values:
  - a. Set [dC131](#) location 09-351 Disp. Const. B to a value of 4.
  - b. Set [dC131](#) locations 09-004, 09-005 and 09-006 to a value of 501.
  - c. Access [dC131](#) location 09-069 and lower the value by 100.

Switch the machine off, then switch the machine on, [GP 14](#). Print 200 of internal test pattern 15 to decrease the toner concentration, refer to [IQ1](#).

2. Clean the contaminated areas:

Base pan

Transfer/detack corotron, [Figure 1](#)

Green handles

Short paper path assembly, (35 ppm) [PL 9.22 Item 3](#) or (40-90 ppm) [PL 9.20 Item 3](#)

Front door

Registration nip assembly, [PL 8.15 Item 5](#)

Tray 1 and tray 2

Lower bias guide, [PL 8.15 Item 22](#)

3. Perform [ADJ 9.3](#) Developer Magnetic Seal Brush Adjustment.
4. Copy test pattern 82E2020 and print internal test patterns 11 and 15. Go to [IQ11](#) Light Copies RAP and assess the image quality.
5. If required, Perform [IQ10](#) Image Quality Improvement RAP to optimize the image quality.

- If the problem persists go to the [IQ3](#) Xerographic RAP.

• **Uneven Density.** Perform the following:

- If the uneven density occurs at 20 mm (0.75 inches) intervals in a band along the lead edge of the paper, perform the following:

Enter Diagnostics, [GP 1](#). Enter [dC131](#). Refer to chain 9 NVM xerographic setting values 09-015 and 09-018. Ensure the values are set to default.

Refer to [IQS 1](#) Solid Area Density, to check for the correct density.

Install a new transfer/detack corotron, (35 ppm) [PL 9.22 Item 8](#) or (40-90 ppm) [PL 9.20 Item 2](#).



**CAUTION**

*If the NVM values are increased, paper stripping faults can occur. The faults can include damage to the lead edge of the paper, paper jams, stripper finger contamination and marks on copies.*

If the uneven density is still present, enter Diagnostics, [GP 1](#). Enter [dC131](#). Refer to chain 9 NVM xerographic setting values 09-015 and 09-018. Increase both values in increments of 5 to a maximum of 150.

- Check that the developer assembly has been correctly installed, [REP 9.2](#).
- [ADJ 6.1](#) ROS Window Cleaning Procedure.
- [ADJ 6.2](#) ROS Cleaning Procedure.
- If problem persists go to [IQ3](#) Xerographic RAP.

- **Unfused prints.** Refer to the [IQS 3](#) Fusing and [IQ4](#) Fuser Module RAP.

## IQ3 Xerographic RAP

Use this RAP to determine the cause of the image quality problem.

Ensure **IQ1** Image Quality Entry RAP is performed before starting this RAP.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Follow the service procedure exactly as written. Use of controls or adjustments other than those specified in this manual, may result in an exposure to invisible laser radiation. During servicing, the invisible laser radiation can cause eye damage if looked at directly.

Perform the following checks and if necessary, install new components:

- Check that the photoreceptor fan is working. If the fan is working, air will be drawn into the air intake. If necessary refer to the **09C** Photoreceptor Fan RAP and the **OF6** Ozone and Air Systems RAP.
- **(65-90 ppm)** Check that the duplex cooling fans are working, refer to the **OF6** Ozone and Air Systems RAP.
- Check that the relative humidity sensor is working. Go to the **09-365** Relative Humidity Sensor Failure RAP.
- Perform **ADJ 9.4** Xerographics Cleaning.
- Check the registration / developer bias harness connection, (35-55 ppm) **PL 9.17 Item 6** or (65-90 ppm) **PL 9.15 Item 6. Figure 1**.
- Check that the corotron lead connections to the HVPS are secure, **PL 1.10 Item 5**. If necessary, refer to **09-060** HVPS Faults RAP.
- Check for loose ground connections. Go to the **01A** Ground Distribution RAP.

Make prints. If the image quality defect is still present perform the procedure.

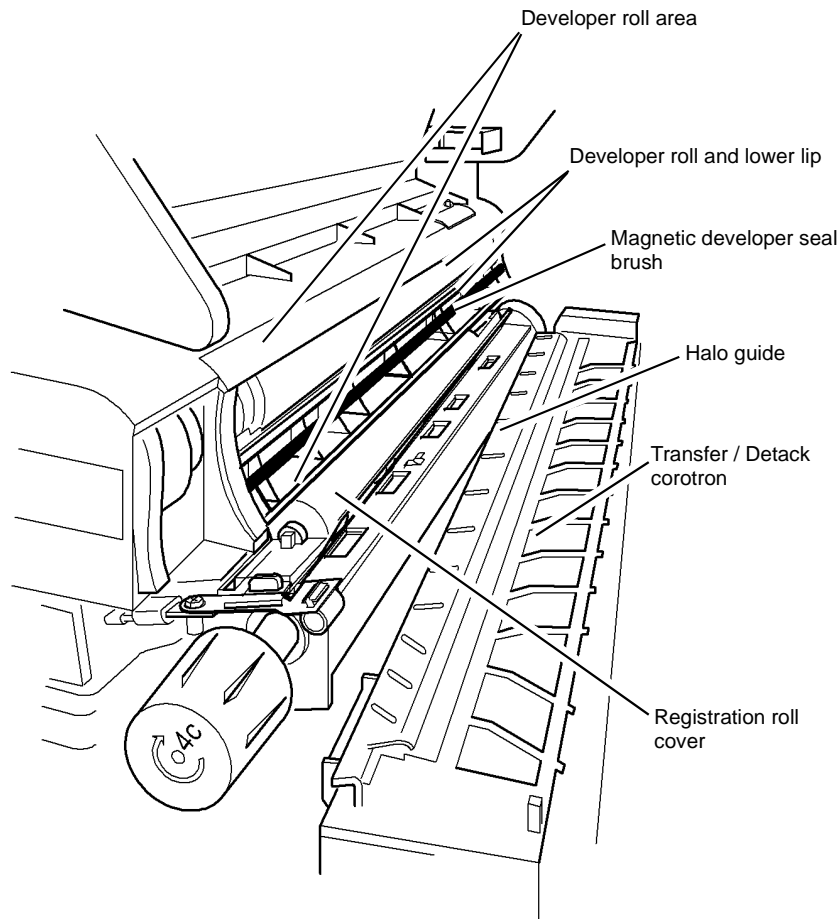
### Procedure

The following components can cause image quality defects. Perform the checks:

- **Xerographic Module and Short Paper Path Checkout**
- **Developer Assembly Checkout**
- **Fuser Module Checkout**
- **ROS Checkout**
- **Scanner Checkout**

### Xerographic Module and Short Paper Path Checkout

- Check the xerographic module stripper fingers for wear, damage and contamination. If necessary install a n XRU skids kit, **PL 9.20 Item 19** (40-90ppm), **PL 9.22 Item 21** (35ppm).



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Figure 1 Component location

- If there are xerographic module stripper finger marks (three marks/dots/spots that line up with the xerographic module stripper fingers) on the edge or the body of the prints/copies, together with some or all of the following symptoms:
  - Toner contamination of the xerographic module stripper fingers and /or star wheels on the stripper finger arms
  - Broken or missing stripper fingers caused by frequent jam clearances
  - Paper wrinkles
  - Inverter jams
  - Dog eared copies/print

The detack transformer in the HVPS has failed or is failing, so there is no voltage or a low voltage supplied to the detack corotron. Perform the following:

1. Detack voltage check:
  - Remove the outboard shield from the transfer/detack corotron
  - Set the service meter to read AC volts, set the range to 0000
  - Connect the positive meter lead to the small spring that tensions the detack corotron wire
  - Connect the negative meter lead to the machine frame
  - Cheat the front door interlock switch
  - Enter **dC330** code 09-064, detack corotron, press start. The meter should read OL (over limit), if it does not, the detack voltage is below specification
2. Ensure the detack lead is connected to the HVPS.
3. Check that there is continuity in the detack circuit by checking for 47K Ohms between the small spring that tensions the detack corotron wire and the HV detack lead at the HVPS. If necessary install a new transfer/detack harness, **PL 9.20 Item 9**.
4. Ensure the chute bias (CB) lead is connected to the HVPS and the other end is connected to the spade connector on the registration transport. Check the continuity of this lead is less than 1 ohm.
5. If checks 2, 3 and 4 are good and check 1 shows that the detack voltage is below specification, install a new HVPS, **PL 1.10 Item 5**.

- If there are xerographic module stripper finger marks (three marks/dots/spots that line up with the xerographic module stripper fingers) on the edge or the body of the prints/copies that only occur on the second side of a duplexed copy/print job, together with some or all of the following symptoms:
  - Toner contamination of the xerographic module stripper fingers and /or star wheels on the stripper finger arms
  - Broken or missing stripper fingers caused by frequent jam clearances
  - Paper wrinkles
  - Inverter jams
  - Dog eared copies/print

Damp, defective or low quality paper. During the first pass through the fuser and inverter the paper develops excessive curl. If the set of the curl matches the curvature of the photoreceptor drum during the duplex pass, there is a greater tendency toward stripper finger marks, jams and dog ears. Perform the following:

1. Use fresh quality paper from an un-opened ream.

2. If the problem continues, Increase the DC component of the Detack LE voltage by decreasing by 20 bits the NVM values in **dC131** code 09-015, detack LE side 1 and **dC131** code 09-018 detack LE side 2.
  3. If the problem continues, reduce the fuser standby temperature, **dC131** code 10-028 and fuser run temperature **dC131** code 10-029 by 10 bits each. Change the fuser card stock offset value, **dC330** code 10-059 from 15 to 30.
  4. If the problem continues, decrease the fuser nip pressure (from and rear) by 2 turns.
- Hold the xerographic module and view the rear end. Check the toner reclaim drive coupling is free to rotate in a clockwise direction. If the black drive coupling does not rotate freely, install a new xerographic module, (35 ppm) **PL 9.22 Item 2** or (40-90 ppm) **PL 9.20 Item 2**.
  - Check that the surface of the photoreceptor is not chipped, scored or scratched. The damage can be caused by the covers on the end blocks of the transfer / detack. Check that the covers are locked in position. Check that the halo guide is not in contact with the drum.  
If the photoreceptor is damaged, install a new xerographic module, (35 ppm) **PL 9.22 Item 2** or (40-90 ppm) **PL 9.20 Item 2**.
  - Check that there is continuity between the halo guide and the registration guide, **Figure 1**. Raise and lower the short paper path assembly, **PL 10.25 Item 1**, several times to ensure that the continuity is consistent. If the continuity is inconsistent, examine the registration and halo guide bias contact for deformation, **PL 8.15 Item 23. Figure 1**.
  - If the transfer / detack corotron, **Figure 1**, is contaminated with toner. Perform the **Developer Assembly Checkout**.
  - Raise and lower the short paper path assembly, **PL 10.25 Item 1**, to ensure that the transfer / detack corotron is parallel to the photoreceptor. Check that the movement of raising the short paper path assembly is smooth, **REP 10.1**.
  - Check the waste toner system, refer to **OF11 Waste Toner Contamination RAP**.

### Developer Assembly Checkout

- Operate the xerographic module latch, (35 ppm) **PL 9.22 Item 7** or (40-90 ppm) **PL 9.20 Item 7**. Check the operation of the latch mechanism. Check the operation of the developer paddle, (35 ppm) **PL 9.22 Item 14** or (40-90 ppm) **PL 9.20 Item 14**.
- Check that the developer assembly moves freely and rests against the xerographic module, refer to **REP 9.2 Developer Assembly**.
- Check the magnetic developer brush seal for a uniform profile. Refer to **ADJ 9.3 Developer Magnetic Seal Brush Adjustment**.
- If the transfer / detack corotron, **Figure 1**, is contaminated with toner, perform **ADJ 9.3 Magnetic Developer Seal Brush Adjustment**.
- Install a new developer module, (35-55 ppm) **PL 9.17 Item 2** or (65-90 ppm) **PL 9.15 Item 2**.

After a new developer module has been installed, check the image quality. Print internal test pattern 2 and 5, run 25 of each. If there is an image quality problem, install a new xerographic module, (35 ppm) **PL 9.22 Item 2** or (40-90 ppm) **PL 9.20 Item 2**.

### Fuser Module Checkout

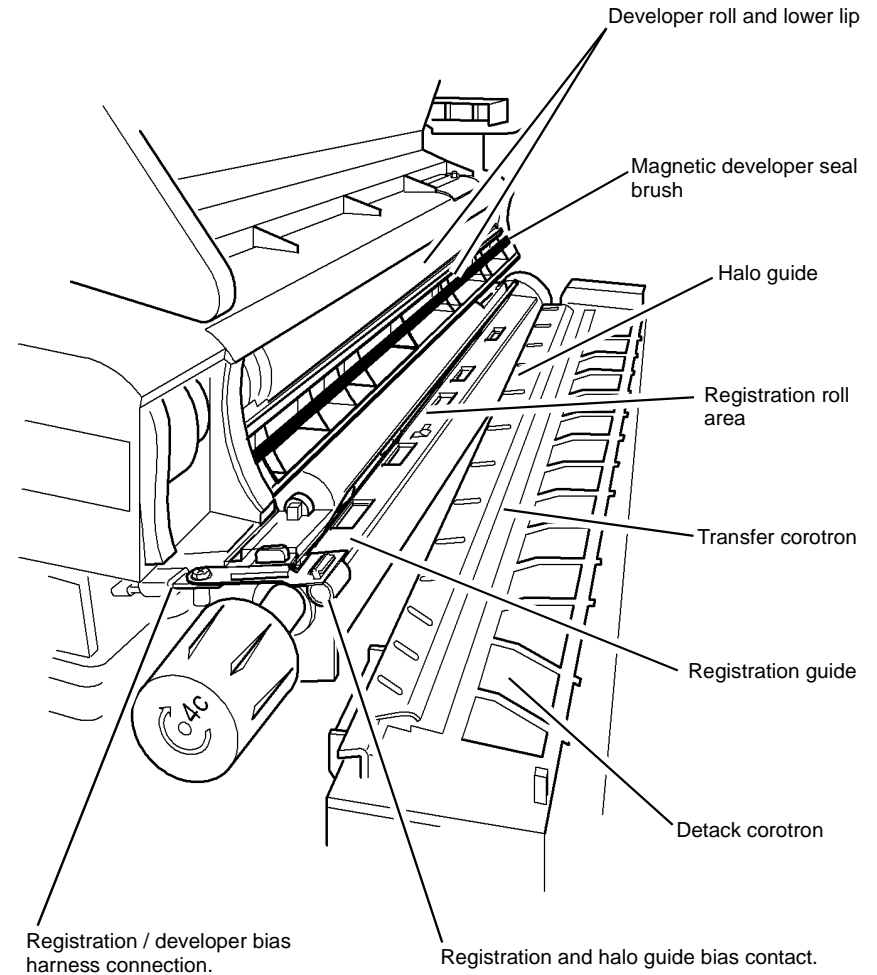
- Check the fuser rolls and stripper fingers for toner and developer contamination. If contamination is present, go to the **IQ4 Fuser Module RAP**.

## ROS Checkout

- Perform [ADJ 6.1](#) ROS Window Cleaning Procedure.
- Perform [ADJ 6.2](#) ROS Cleaning Procedure.
- Check there are no obstructions between the ROS and the photoreceptor window.
- Check the connection PJ122, [Wiring Diagram 12](#) and the ROS power distribution / communication harness, [PL 6.10 Item 5](#), from the ROS to the single board controller PWB.
- Check that all the connections to the single board controller PWB are good, [GP 7](#).
- Check that the ROS securing screw is tight, refer to [REP 6.1](#) ROS.

## Scanner Checkout

Check the exposure lamp (W/O [TAG 150](#)) [PL 14.25 Item 9](#) or (W/[TAG 150](#)) [PL 14.15 Item 9](#).



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Figure 1 Component location

## IQ4 Fuser Module RAP

Use this RAP for fuser module related problems.

Ensure **IQ1** Image Quality Entry RAP is performed before starting this RAP.

### Procedure



#### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the following:

- Enter Diagnostics, **GP 1**. Enter **dC131**. Refer to chain 10 NVM fuser setting values; 10-028; 10-029; 10-059. Check the NVM values. If the NVM values are increased, fusing performance is improved, but contamination can occur. If the NVM values are decreased, fusing performance is reduced.
- Poor fusing can be caused by alternative quality paper and heavily embossed envelopes, **GP 20**. If the customer is using alternative quality paper, select the card stock setting on the GUI. Adjusting 10-059 only changes the fuser temperature when card stock is selected. Some 200 gsm papers do not fuse correctly.
  - Check that the customer is using tray 1 and tray 2 for alternative quality paper or heavy weight paper.
  - Refer to **IQS 3** Fusing.
- Check the following for wear and contamination:
  - Stripper fingers. If possible remove the contamination. If the stripper fingers are damaged or worn, install a new fuser stripper fingers, (35-55 ppm) **PL 10.8 Item 4** or (65-90 ppm) **PL 10.10 Item 4**.
  - Fuser rolls. If the fuser rolls are damaged or worn, install a new fuser module, (35-55 ppm) **PL 10.8 Item 1** or (65-90 ppm) **PL 10.10 Item 1**.

**NOTE:** Do not change the fuser module, because of the appearance of wrinkles on the pressure roll. This is normal for the pressure roll, caused by the conductive sleeve that stretches as the silicon rubber base of the roll expands. The pressure rolls are more wrinkled due to the higher run temperatures on the 65-90 ppm machines.

  - Fuser web. If this is heavily contaminated or shows no sign of advancement, go to the **10A Fuser Web Motor RAP**.

## IQ5 Print Damage RAP

Use this RAP when the prints have nicks, tears, creases, folds, curled edges or wrinkles.

Ensure **IQ1** Image Quality Entry RAP is performed before starting this RAP.

### Procedure



#### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Enter Diagnostics, **GP 1**. Enter **dC606**. Select the internal test pattern 14. Make prints to identify where the prints are damaged.

Check the paper supply for the following:

- Curled paper in the paper trays, go to **Curl Measurement**.
  - If the paper in trays 1 and 2 has excessive curl install **TAG 001** and **TAG 002** Tray 1 and tray 2 Lip kit.
  - In high humidity environments, If there is excessive curl on paper in trays 3 and 4 install **TAG 111** HCF Heater kit.

Check the paper path, **Figure 2** for the following:

- Obstructions.
- Damaged guides and rolls, **GP 7**. Pay particular attention to the areas that align with the damage on the prints. For example, fuser stripper fingers.
- The edges of the paper path for protruding objects.
- Ensure that the paper feed does not skew the paper, go to the appropriate procedure:
  - **08-101** Tray 1 Misfeed RAP
  - **08-102** Tray 2 Misfeed RAP
  - **08-103, 08-113** Tray 3 Misfeed Entry RAP
  - **08-104, 08-114** Tray 4 Misfeed Entry RAP
  - **08-115, 08-117** Tray 5 Misfeed Entry RAP
- Check that the paper strips from the xerographic module and enters the fuser nip correctly. If necessary, perform the following:
  - If the paper does not correctly strip from the xerographic module, ensure that all the HT leads on the HVPS PWB are correctly connected, refer to **REP 1.1**.
  - If the paper is contacting the upper fuser roll before entering the fuser roll nip, check that the short paper path is correctly latched and the transfer/detack corotron, (35 ppm) **PL 9.22 Item 8** or (40-90 ppm) **PL 9.20 Item 2**, is correctly positioned, **ADJ 9.1** Corotron Cleaning.
- Check that the fuser roll stripper fingers are clean.
- If the prints are creased or wrinkled after the fuser module, then install a new fuser module, (35-55 ppm) **PL 10.8 Item 1** or (65-90 ppm) **PL 10.10 Item 1**.
- Ensure that paper path sensor actuators move freely, **GP 7**.
- If the paper is corrugated after passing through the fuser module, install a new tri-roll shaft assembly, **PL 10.12 Item 8**.
- If the paper is curled after passing through the fuser module, go to **Curl Measurement**.
- Check the inverter for damage or wear, **GP 7**.

- If the paper has a dog ear on the inboard corner, install a rear gravity gate finger kit, [PL 10.12 Item 25](#).
- Check the duplex and registration transport assemblies for damage or wear and ensure the jam clearance latch is located correctly.
  - If the paper displays wrinkles due to excessive buckle in the duplex or registration transport, perform [ADJ 8.2 Buckle Timing](#).
- If the output device suffers from poor stacking, perform the following as necessary:
  - Check that the output device is not positioned near an air conditioning or ventilation output duct. Air flow across the output bins can cause poor stacking.
  - [11K-110 2K LCSS Poor Stacking RAP](#).
  - [11J-120 1K LCSS Poor Stacking RAP](#).
  - [11G-171 HVF BM Poor Stacking RAP](#).
- Remove the output device, then connect a finisher bypass harness, [PL 26.10 Item 7](#). Check the paper path through the inverter assembly, [PL 10.11 Item 23](#).  
If the paper has excessive curl after passing through the inverter, install [TAG 046](#) (35-55ppm), [TAG 047](#) (65-90 ppm) Inverter Decurler Kit or [TAG 148](#) for OCT configured machines. For machines [W/TAG 046](#), [W/TAG 047](#) or [W/TAG 148](#) perform [ADJ 10.1 Inverter Decurler Adjustment](#).

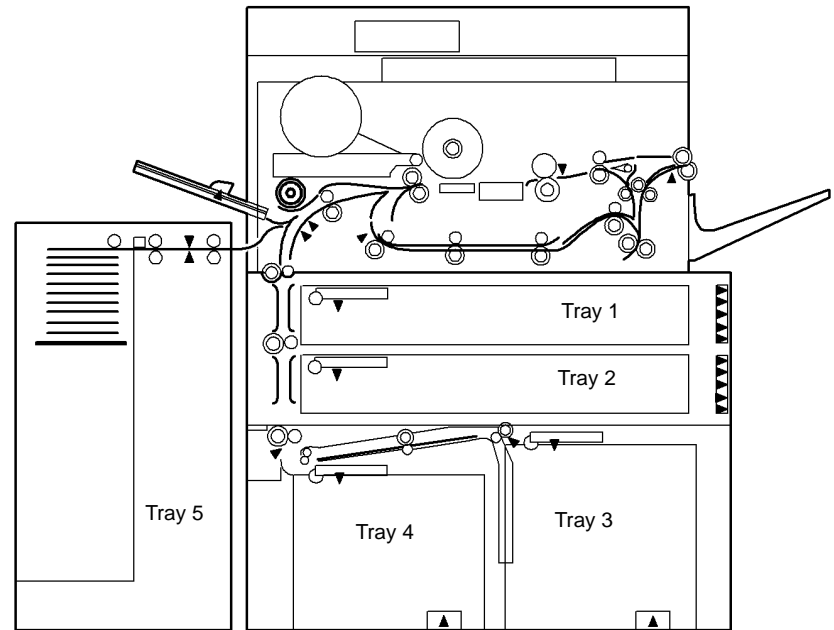
If the paper path and the duplex path are good, check that the paper and other media used, is of the correct weight and size, [GP 20](#).

### Curl Measurement

Make five singled sided prints. Refer to [Figure 1](#). If the curl on the print exceeds 13mm (0.5 inch), perform the following checks:

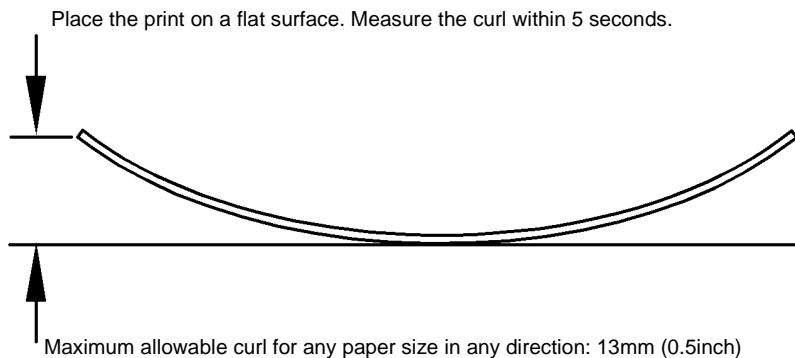
- Check the paper storage and wrapping
- Turnover the paper stack in the paper tray
- Use paper from a new ream
- Install an inverter decurler kit. [PL 10.20 Item 1](#)

If the problem continues, go to the [IQ4 Fuser Module RAP](#).



T-1-0303-A

Figure 2 Paper path



T-1-0302-A

Figure 1 Curl height measurement

## IQ6 Narrow Bands RAP

Use this RAP to determine the cause of narrow bands.

Ensure [IQ1](#) Image Quality Entry RAP is performed before starting this RAP.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Check the pitch of the bands. **The bands have a regular pitch.**

**Y N**

Bands that are irregular are caused by worn gears in the following areas. Examine the gears, the shafts and the bearings, [GP 7](#).

- Registration transport gears; [PL 8.15 Item 17](#), [PL 8.15 Item 18](#) and [PL 8.15 Item 19](#).
- Registration transport drive pulley, (35-55 ppm) [PL 4.17 Item 14](#) or (65-90 ppm) [PL 4.12 Item 15](#).
- Main drive belts; (35-55 ppm) [PL 4.17 Item 9](#) or (65-90 ppm) [PL 4.12 Item 9](#) and [PL 4.12 Item 18](#).
- Developer drive gear, (35-55 ppm) [PL 4.17 Item 15](#) or (65-90 ppm) [PL 4.12 Item 17](#).
- Fuser drive gear, (35-55 ppm) [PL 4.17 Item 10](#) or (65-90 ppm) [PL 4.12 Item 10](#).
- Developer assembly, (35-55 ppm) [PL 9.17](#) or (65-90 ppm) [PL 9.15](#).
- Short paper path (W/O [TAG 114](#)) gears, [PL 10.25 Item 3](#) and [PL 10.25 Item 5](#).
- Install new components as necessary.

The ROS makes the narrow bands that are only visible on half tones prints.

- Machine speed of 35-55 ppm, the pitch is 9.8 bands to 1cm (25 bands to 1 inch).
- Machine speed of 65-90 ppm, the pitch is 10 bands to 1 cm (25 bands to 1 inch).

To resolve banding caused by motion wobble of the ROS, install a new ROS, [PL 6.10 Item 4](#).

## IQ7 DADH, Document Glass and Scanner RAP

Use this RAP to identify failures caused by the DADH, document glass and the scanner.

Ensure [IQ1](#) Image Quality Entry RAP is performed before starting this RAP.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

Perform the following:

- [DADH Checkout](#)
- [Document Glass Checkout](#)
- [Scanner Checkout \(W/O TAG 150\)](#)
- [Scanner Checkout \(W/TAG 150\)](#)

### DADH Checkout

Perform the following:

- Clean the underside of the DADH area around the CVT roll, [PL 5.25](#).
- Clean the top surface of the CVT glass and the document glass. Refer to [ADJ 14.1](#) Optics Cleaning Procedure (W/O [TAG 150](#)) or [ADJ 14.2](#) Optics Cleaning Procedure (W/[TAG 150](#)).
- If the documents are skewed. Check that the document input guides are correctly adjusted.
- Check that the DADH is seated correctly, perform the [ADJ 5.2](#) DADH Height Adjustment.
- Make copies from the DADH and the document glass. If the copies from the DADH are lighter or darker than those from the document glass, perform the following:
  - Go to [dC131](#) NVM Read / Write location 15-007 CVT scanning image gain. The default value is 3. If the value is increased copies made from the DADH will be darker. If the value is decreased, copies made from the DADH will be lighter.
- Make copies from the DADH. If the copies have a background problem, perform the following:
  - Check the DADH height, Refer to [ADJ 5.2](#) DADH Height Adjustment.
  - Check the registration. Refer to [dC604](#) Registration Setup.
  - Copying thick documents can leave the DADH raised above the document glass. Raise and lower the DADH five times. If the DADH is still raised, install new counter-balance, [PL 5.10 Item 2](#) and [PL 5.10 Item 4](#).
- Make copies from the DADH. If the copies are stretched or smudged, perform the following:
  - Lower the height of the DADH by half a turn of the setting screws, refer to [ADJ 5.2](#) DADH Height Adjustment. Make copies from the DADH after each adjustment. If the fault persists, re-adjust the height of the DADH as necessary.
  - If the fault persists after the height of the DADH has been adjusted, install a new DADH baffle assembly, [PL 5.30 Item 5](#). Re-adjust the height of the DADH to the default setting, refer to [ADJ 5.2](#) DADH Height Adjustment.

## Document Glass Checkout

Perform the following:

- Clean the top surface of the CVT glass and the document glass. Refer to [ADJ 14.1 Optics Cleaning Procedure \(W/O TAG 150\)](#) or [ADJ 14.2 Optics Cleaning Procedure \(W/TAG 150\)](#).
- Check the position of the document pad, [ADJ 5.6 DADH Document Pad](#).
- Check that the white AGC strips on the document glass and the CVT glass are at the front and underside of the glass.

## Scanner Checkout (W/O TAG 150)

Perform the following:

- If the copy of the internal test is fragmented and displaced, check the following:
  - The ribbon cable from the CCD PWB to the scanner PWB. Refer to [Wiring Diagram 15](#).
  - The harness connections from the CCD PWB to the single board controller PWB. Refer to [Wiring Diagram 15](#).
  - If fragmented and displaced images appear in a regular pattern across process direction, remove and re-seat all memory modules, [PL 3.24 Item 12](#).
  - If necessary, go to [03-330A](#), [03-462A](#) Single Board Controller PWB to Scanner Faults RAP (W/O TAG 150).
- Raise the DADH. Make a copy from the document glass. If the exposure lamp does not illuminate, go to the [14D Exposure Lamp Failure RAP](#).
- Check the mirrors and exposure lamp for contamination, refer to [ADJ 14.1 Optics Cleaning Procedure \(W/O TAG 150\)](#).

## Scanner Checkout (W/TAG 150)

Perform the following:

- If the copy of the internal test is fragmented and displaced, check the following:
  - The ribbon cables from the CCD PWB to the scanner PWB. Refer to [Wiring Diagram 18](#).
  - The harness connections from the scanner PWB to the scanner daughter PWB. Refer to [Wiring Diagram 16](#) and [Wiring Diagram 19](#).
  - Reseat the scanner daughter PWB, [PL 3.24 Item 20](#).
  - If fragmented and displaced images appear in a regular pattern across process direction, remove and re-seat all memory modules, [PL 3.24 Item 12](#).
  - If necessary, go to [03-330B](#), [03-462B](#) Single Board Controller PWB to Scanner Faults RAP (W/TAG 150).
- Raise the DADH. Make a copy from the document glass. If the exposure lamp does not illuminate, go to the [14-703B to 14-706B](#), [712B](#), [714B](#), [718B](#) Failure To Calibrate RAP (W/TAG 150) and perform the Exposure Lamp Check.
- Check the mirrors and exposure lamp for contamination. Refer to [ADJ 14.2 Optics Cleaning Procedure \(W/TAG 150\)](#).

## IQ8 Skew RAP

Use this RAP to determine the source of skew.

Ensure [IQ1 Image Quality Entry RAP](#) is performed before starting this RAP.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Perform the misregistration procedure in the [IQ2 Defects RAP](#).

### Procedure

Enter [dC606](#). Use the internal test pattern 16 and select 1 Sided. Make 5 prints. Check the prints for skew, [IQS 5 Skew](#). **The prints are skewed.**

Y N

Use the internal test pattern 16 and select 2 Sided. Make 5 prints. Check the prints for skew, [IQS 5 Skew](#). **The prints are skewed.**

Y N

Use a print of the internal test pattern 16 as a master and make 5 copies from the document glass. Check the copies for skew. **The copies are skewed.**

Y N

Use a print of the internal test pattern 16 as a master and make 5 copies fed through the DADH, [Figure 1](#). Check the copies for skew. **The copies are skewed.**

Y N

No skew is present. Re-define the image quality defect. Refer to [IQ1 Image Quality Entry RAP](#).

The skew is originating in the DADH. Go to [ADJ 5.3 DADH Skew Adjustment](#).

There is a skew problem originating in the scanner. Complete a visual check of the following:

- The mirrors are not loose and are held securely in place.
- The scan carriage is not damaged and moves freely.
- The scan cables are wrapped around their drive pulleys, refer to [REP 14.10 Scan Idler Pulleys](#).
- If necessary, install a new scanner, (W/O TAG 150) [PL 14.20 Item 1](#) or (W/TAG 150) [PL 14.10 Item 1](#).

The skew occurs in the duplex paper path.

- Check the nip and drive rolls in the inverter assembly, [PL 10.12](#) and [PL 10.14](#).
- Check the drive and idler rolls in the duplex transport, (35-55 ppm) [PL 8.22 Item 7](#) or (65-90 ppm) [PL 8.20 Item 7](#).
- Install new components as necessary.



A

Using the prints made from dC606, check the prints for distortion by measuring between the lines produced. **The lines are parallel to each other.**

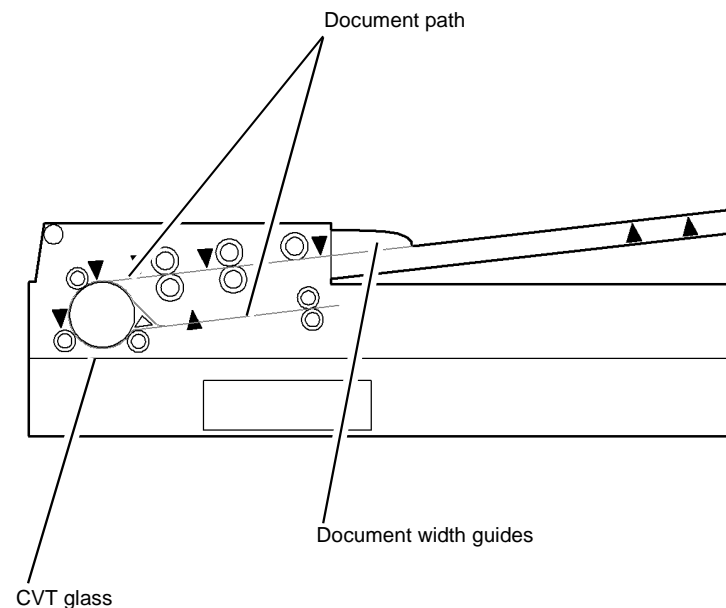
Y

N

Install a new ROS, PL 6.10 Item 4.

Make five prints from each tray and the bypass tray to identify the source of skew.

- Check the feed rolls and guides for contamination.
- Check the feed rolls and transport rolls for wear. Install new parts as necessary. If MOD/TAG 151 is installed and there is skew from tray 3 or tray 4, install a new idler roll assembly (metal shaft), PL 8.36 Item 8 in the tray 3 transport base. Also install a new idler roll assembly (metal shaft), PL 8.33 Item 2 in the HCF exit area.
- If the skew is from the HCF W/TAG 151, install TAG 153. If TAG 153 is already installed, check for wear on the tray 3 and 4 skew brackets. If necessary install new skew brackets, PL 7.18 Item 15 and PL 7.18 Item 16.
- Check that there is no variation in the size or weight of the sheets of paper in each tray.
- Check that the paper weight and type is within the specification. Refer to GP 20 Paper and Media Size Specifications.
- Check that the paper size guides are set correctly.
- Check the separator strips on the paper tray for wear. Refer to OF8 Multifeed RAP.
- Check that the bypass tray width guides are set correctly.
- Check the bypass tray pre-reg nip rolls. If necessary, install a skew bypass tray spares kit, PL 7.30 Item 29.
- Open the left hand door and check for wear on the ribs, Figure 2. If necessary install a new bypass tray and left hand door assembly, PL 7.30 Item 1.
- Check that the interlock cover is not loose, PL 7.30 Item 23. If necessary bias the cover to the right and tighten the two screws.
- Check the paper paths for obstructions. Refer to IQ5 Print Damage RAP.
- Check the registration clutch. Refer to 08-150, 08-151 Registration Jam Entry RAP.
- Check that the locking foot of the registration transport is correctly located in the base frame, REP 8.4.



T-1-0304-A

Figure 1 Document path through the DADH

## IQ9 Unacceptable Received Facsimile Image Quality RAP

Use this RAP to identify the causes of poor reception.

Ensure **IQ1** Image Quality Entry RAP is performed before starting this RAP.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** Refer to the *Fax NVM Document* for the fax NVM values.

Verify the following:

- This problem occurs only when receiving transmissions.
- This problem occurs on all receiving transmissions.
- Check the Facsimile Options Settings. Check the NVM location 20-254 Fax Country setting is correct.

### Procedure

The condition of the original transmission document is good.

Y N  
Generate a new document from the original.

If possible, establish voice contact using the same telecommunication link as used to receive the document. **The line is free of interference sounds and the normal voice can be heard clearly.**

Y N  
Perform the following:

- (W/O TAG X-001) Go 20H Embedded Fax PWB Voltage Checkout.
- (W/TAG X-001) Check the machine ground connections, refer to the **01A** Ground Distribution RAP. If the machine ground connections are good, request that the customer has the power outlet socket checked.

Receive the document at a slower receive speed. Set the NVM location 20-289 Line 1 = 11 and location 20-290 Line 2 = 11. **The image quality is acceptable.**

Y N  
**The telecommunication links and harnesses are connected properly and there is no visible damage.**

Y N  
Correct the connections. If necessary install new line cable and connectors.

Verify the operation of the machine and the communication link by transmitting between machines over a known good link. **All received documents have an acceptable image quality.**

Y N  
Install a new embedded fax PWB, **PL 20.10 Item 4**.

A B

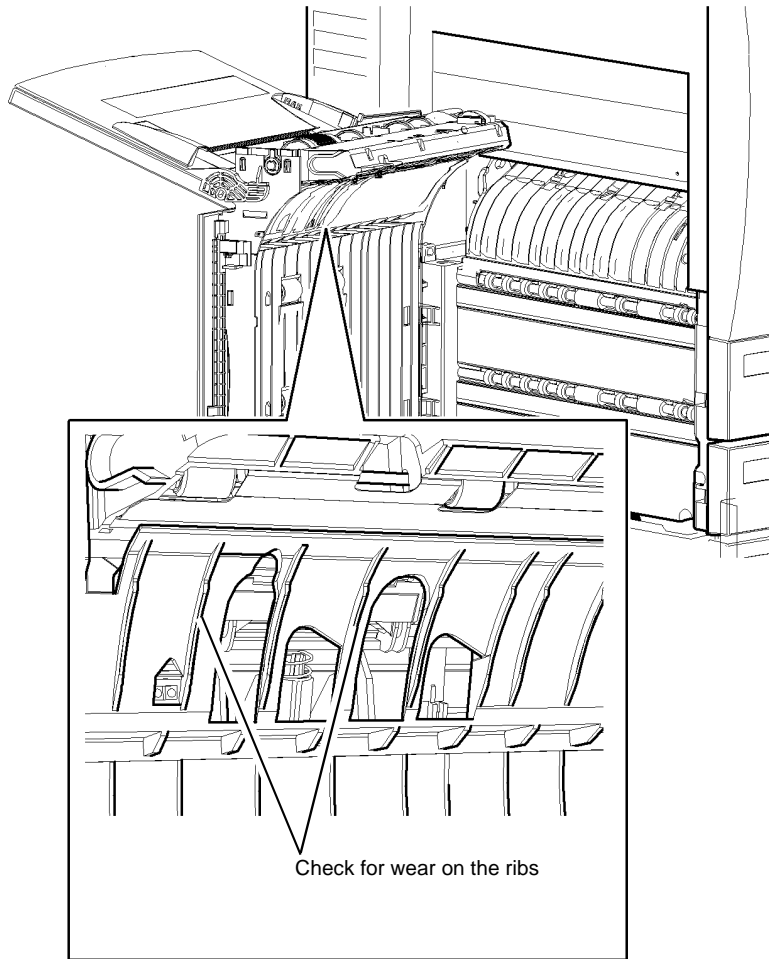


Figure 2 Left hand door

T-1-0305-A

Perform the following:

- (W/O TAG X-001) Go 20H Embedded Fax PWB Voltage Checkout.
- (W/TAG X-001) Check the machine ground connections, refer to the 01A Ground Distribution RAP. If the machine ground connections are good, request that the customer has the power outlet socket checked.

Inform the remote user of the required changes to the settings.

## IQ10 Image Quality Improvement RAP

Use this RAP if the customer is not satisfied with the image quality.

The image quality can be altered by changing the image quality defaults. This will optimize the image quality to the unique requirements of the customer.

A combination of changes may give the best result. It is recommended to change the image quality options and then perform ADJ 9.5 Optimize the Dark and Light Grey Image. The alternative would be to change the image quality options.

### Initial Actions



#### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Perform IQ3 Xerographics RAP before starting this procedure
- Make a copy of the customer document that shows the defect and keep as a reference.
- Ensure that the customer image quality requirements are understood.
- Perform ADJ 9.2 Image Quality Adjustment Routine. If the image quality routine does not correct the image quality defect. Enter dC131 and reset location 09-321 and 09-322 to the default value and continue with the procedure.

### Procedure

Make a copy of the customers document with different image quality setups until the image quality has been improved. Use different combinations of the image quality options that are available. Set the image quality setting, as the default.

Refer to the image adjustments options that follow.

- **Normal.** Standard setting for most originals.
- **Text.** Use for originals containing text or line art.
- **Halftone Photo.** Use for high quality lithographic images or continuous tone photo with text and / or graphics.
- **Photo.** Use for continuous tone photographs.
- **Lighter / Darken.** One to seven levels can be selected by using the slider.
- **Background Suppression.** Select Off or On (default).
- **Sharpness.** One to seven levels can be selected by using the slider
- **Contrast.** One to seven levels can be selected by using the slider
- **Screen.** This option is preset On with Normal, Text and Halftone Photo Original Type options. Set to Special or Auto (default)
  - **Special** Enhances continuous tone photographs or high quality frequency halftone images. Use to create smoother, less grainy output, but risk of blotchy copy quality defects.
  - **Auto.** Eliminates the risk of blotches or small areas that have different texture or pattern appearance than surrounding area. This may produce a grainier picture than if Special is used.

1. Login to Customer Administrator Tools, [GP 24](#). In the Tools Pathway, select:
  - Feature Defaults.
  - Set Copy Defaults.
  - Image Quality.
2. Change the settings as required.

**NOTE:** If the *Text* or the *Halftone Photo* option are selected then the *Sharpness* and *Contrast slider* are greyed out. The *Text* option is the same as *High Contrast 2*. The *Halftone Photo* is the same as *Low Contrast 1*.

**Save** the image quality options to be used as the default setting.

Select End Defaults and Exit Tools.

3. Run different jobs to confirm that the changes made have not caused other image quality problems.
4. If the image quality still does not meet the requirements of the customer, go to [ADJ 9.5](#) Optimize the Dark and Light Grey Image.
5. Record the new values in the machine log book.
6. Perform NVM Save and Restore, [GP 5](#).

## IQ11 Light Copies RAP

Use this RAP when the machine is making light copies.

Perform [IQ1](#) Image Quality Entry RAP before starting this RAP.

### Initial Actions



#### WARNING

**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Examine the fault log and troubleshoot any current 06-XXX, 09-XXX, 10-XXX or 14-XXX faults.
- Clean the platen and CVT glass. Refer to [ADJ 14.1](#) Optics Cleaning Procedure (W/O [TAG 150](#)) or [ADJ 14.2](#) Optics Cleaning Procedure (W/[TAG 150](#)).
- Ensure the white patch on the CVT glass is to the front of the machine and is facing downwards.
- Remove and inspect the xerographic module. If the drum is discolored or hazy, install a new module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#). Check the operation of the photoreceptor and ozone fans, refer to [OF6](#) Ozone and Air Systems RAP.
- Clean the charge corotron, [ADJ 9.4](#).
- Clean the transfer/detack corotron, [ADJ 9.1](#).
- Clean the erase lamp, [ADJ 9.4](#).
- Clean the ROS window, [ADJ 6.1](#).
- With the xerographic module in the machine, remove the fuser module. Reach under the bottom back end of the short paper path, [PL 10.25](#), push it upwards to ensure it is positioned against the bottom frame of the xerographic module. If the short paper path will not latch properly, inspect it for damage and if necessary, install a new short paper path module, [PL 10.25 Item 1](#), [REP 10.1](#).
- Check that there is toner in the toner cartridge.
- Check that the machine is level. If the machine is not level, the developer can leak from the developer module, causing light images.
- Print internal test print 5, [dC606](#) and check for barber pole deletions. Refer to [IQ12](#) Barber Pole Deletions / Developer Leakage RAP.
- Remove the developer unit and check that the magnetic roll can be turned using normal force. If it is too difficult or too easy to turn, or if developer spills out, install a new developer module, and toner dispenser module, [PL 9.15](#), [PL 9.17](#), items 1 and 2.
- If a new developer module and toner dispenser were installed as directed in the previous bullet point, check that the waste toner auger is operating. Refer to the [OF11](#) Waste Toner Contamination RAP.

## Procedure

This procedure is written in two parts. Go to the relevant part.

Part 1 is to be performed on newly installed machines that have not had any new parts or NVM values changed.

Part 2 is to be performed on machines that have had parts or NVM values changed or when performing part 1 does not satisfy the customer's requirements.

### Part 1

1. Make one platen copy of test pattern 82E2010 (A4), or 82E2020 (8.5 x 11 inches).
2. Refer to [Figure 1](#). Evaluate the copy at each numbered area as shown in the figure.

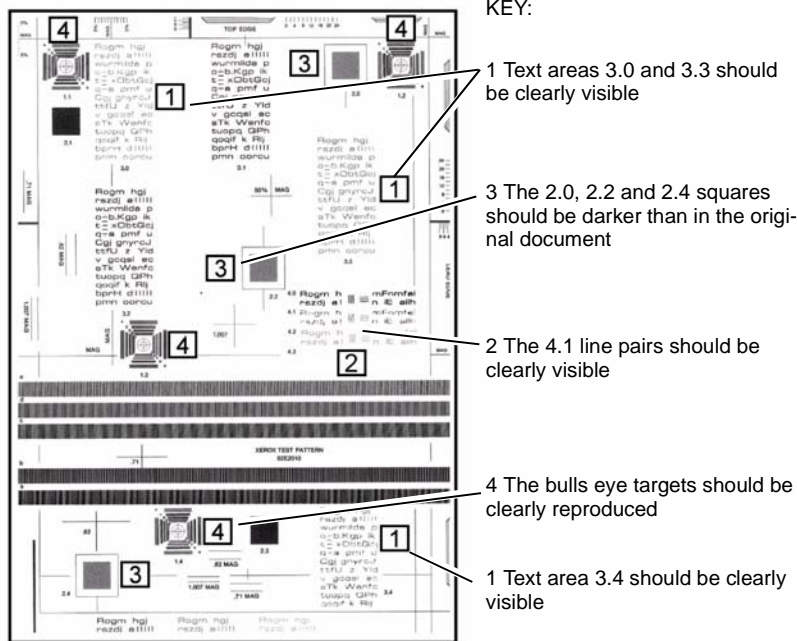


Figure 1 Copy of test pattern 82E2010 / 82E2020

T-1-0306-A



**CAUTION**

*Do not set the charge grid voltage outside the minimum or maximum values*

3. If the copy does not meet the above specification, alter the charge grid voltages. Enter diagnostics [dC131](#), location [09-003](#) and decrease the value by **25**. Refer to [Table 1](#).

**NOTE:** The effect of altering the charge grid voltage is best monitored by observing the 4.1 line pair, the 3.4 text area and the bull's-eye targets on this test pattern. Decreasing the charge grid voltage darkens the grey scale. Increasing the charge grid voltage lightens the grey scale. To save new NVM values, exit diagnostics correctly and ensure the machine reboots.

Table 1 Charge grid NVM location 09-003 values

Speed	Min/Max Values	Default Value
35 ppm	370/470	420
45/55 ppm	380/480	430
65/75/90 ppm	370/470	420

4. Save the new NVM value then exit diagnostics via call closeout. Use the copier reboot option. Evaluate another platen copy of test pattern 82E2010/82E2020. If necessary, lower the value in NVM location [09-003](#) by decrements of **10** until the copy meets the specification.
5. If the copy still fails to meet the specification after decreasing the charge grid value by a total of **50**, go to Part 2 of this procedure.
6. If the copy meets the specification, record the 09-003 NVM value in the machine log book. Save a copy of the test pattern 82E2010/2020 in the log book. Save the NVM, [GP 5](#).

### Part 2

Perform this part of the procedure on machines that have had new parts or have had NVM values changed. Also, perform this part of the procedure when copies have failed to meet the specification in Part 1.

Make the following copies and prints. With normal copy quality settings, make one DADH and one platen copy of test pattern 82E2010 (A4), or 82E2020 (8.5x11 inches). Then run one each of Internal Test Patterns 11, and 15, [dC606](#). Mark these "START" and save them for reference. [Figure 1](#), [Figure 4](#) and [Figure 5](#) show examples of these.

Enter diagnostics [dC131](#). Refer to [Table 2](#). Enter the appropriate NVM values dependant on machine speed. In the table NC = No Change.

Table 2 Image Quality Adjustment Routine Values

Speed	DC131 NVM locations for IQA routine						
	3-400	3-401	3-402	3-403	3-404	3-405	3-406
35 ppm	136	13	NC	NC	NC	NC	NC
45/55 ppm	136	13	2500	1500	0	0	135000
65/75/90 ppm	136	13	NC	NC	NC	NC	NC

Save the new NVM value and exit diagnostics using the call closeout and the machine reboot option.

Perform the Image Quality Adjustment Routine, [ADJ 9.2](#).

Make one DADH and one platen copy of test pattern 82E2010/82E2020. Then run one each of Internal Test Patterns 11, and 15, [dC606](#). Compare these copies and prints to [Figure 1](#), [Figure 4](#) and [Figure 5](#). **The copies fail to meet the specification.**

Y N

The copies are good. Perform [Final Actions](#).

A

A

Remove the xerographic module. Remove the developer module **REP 9.2**. Clear the developer from the developer roll by rotating the drive gear. Re-install the developer and xerographic modules. Enter **dC330**, code 04-010 main motor MOT04-010. Run MOT04-010 for approximately 5 seconds. Remove the xerographic module and inspect the developer roll. **The developer roll has developer on its surface.**

Y N

Check the drives to the developer, **GP 7**. If no problem is found, install a new developer paddle, **PL 9.20 Item 14**. If necessary, install a new developer module, (35-55 ppm) **PL 9.17 Item 2** or (65-90 ppm) **PL 9.15 Item 2**.

If applicable, save the customer auditron, using the PWS Auditron Save and Restore tool. Perform **dC132**, All Copier NVM initialisation. This sets the machine NVM to default. Make one DADH and one platen copy of test pattern 82E2010/82E2020. Then run one each of Internal Test Patterns 11, and 15, **dC606**. Compare these copies and prints to **Figure 1**, **Figure 4** and **Figure 5**. **The copies fail to meet the specification.**

Y N

The copies are good. Perform **Final Actions** within this procedure.

Check **dC131** NVM location 09-069. If the value is between **805** and **1200**, do not perform the following action, but continue with this procedure. If the value is not between **805** and **1200**, perform the following action:

- Change the value to **1000**. Save the new NVM value and exit diagnostics using the call closeout and the machine reboot option. Run 200 copies of internal test print 12 to stabilise the machine. Copy and evaluate test pattern 82E2010/82E2020 and print and evaluate internal test patterns 11 and 15. Refer to **Figure 1**, **Figure 4** and **Figure 5**. If the copies and prints now meet the specification, perform **Final Actions**. If the copies and prints still fail to meet the specification, continue with this procedure.

Produce a solid black print. Refer to the **Solid Black Print Routine**. Evaluate the print as follows: Use the density reference chart 82P520 or 82E8230. Compare the solid black area of the print, with the 1.3-1.5 reference patches of the chart, **Figure 3**. If using 82P520, the solid black print should be darker than the 1.4 reference, but lighter than the 1.5 reference. If using 82E8230, the solid black print should be as dark or darker than the 1.3, but lighter than the 1.5. **The solid black is good and not grey or mottled.**

Y N

Check that the toner dispenser is working. Open the bypass tray and remove the upper left hand cover, **PL 8.10 Item 3**. Refer to **Wiring Diagram 10**. Monitor the voltage on the red wire on pin 8 of PJ93 while printing 20 copies of test pattern 82E2010/82E2020. This is the output of the toner concentration sensor. The voltage should be between +1.5V and +2.8V. **The voltage is correct.**

Y N

If the voltage is consistently above +2.8V, the toner dispenser is not operating correctly. Install a new toner dispenser module, (35-55 ppm) **PL 9.17 Item 1** or (65-90 ppm) **PL 9.15 Item 1**.  
If the voltage is below +1.5V, install a new developer module, (35-55 ppm) **PL 9.17 Item 2** or (65-90 ppm) **PL 9.15 Item 2**.

Enter diagnostics **dC131**, location 09-069. Increase the value by 200, or to the maximum value of 1200 if an increase of 200 is not available.  
Save the new NVM value and exit diagnostics using the call closeout and the machine reboot option.

B

B

Run 200 copies of internal test pattern 12, then produce a solid black print using the **Solid Black Print Routine**. Check the solid black area of the print using the density reference chart, **Figure 3**, as checked previously. **The print is solid black and meets the specification.**

Y N

Install a new developer module, (35-55 ppm) **PL 9.17 Item 2** or (65-90 ppm) **PL 9.15 Item 2**.

The solid black reproduction is good.

Perform the **ROS Check**, then return and continue with this procedure.  
Produce one DADH and one platen copy of 82E2020/2010. Evaluate the copies as shown in **Figure 1**. **The copies fail to meet the specification.**

Y N

The copies are good. Perform **Final Actions**.

Enter diagnostics **dC131**, refer to **Table 2** and enter the appropriate NVM values dependant on machine speed.

Perform the Image Quality Adjustment Routine, **ADJ 9.2**.

Perform **Final Actions**.

### Solid Black Print Routine

Unscrew the head of an AA Mini-Mag Lite, tool number 600T01824. Ensure fresh batteries are installed. With the light lit, place the Mini-Mag Lite in the slot on the top side of the xerographics module, with the back of the Mini-Mag Lite to the rear of the module, **Figure 2**. Run one copy. Remove the Mini-Mag Lite to prevent light shock on the drum.

On the copy, the area of the drum that was blocked by the Mini-Mag Lite should be white. The area of the drum illuminated by the Mini-Mag Lite should be solid black.

### ROS Check

Print one internal test print 15, **dC606**. Evaluate the print, refer to **Figure 4**:



#### CAUTION

*Do not set the laser tight levels outside the minimum or maximum values*

1. The two darkest bands, 7 and 8, should be solid black and almost or completely indistinguishable from each other. If bands 7 and 8 are not solid black, refer to **Table 3**. Enter diagnostics **dC131**, location 06-001. Raise or lower the value by 250. Raising the value darkens the print density and merges the darker bands. Lowering the value lightens the print density and separates the darker bands. If this part of the specification cannot be met, clean the ROS, **ADJ 6.2**. If necessary, install a new ROS, **PL 6.10 Item 4**.
2. Bands 1 to 6 inclusive should all be distinct from each other.
3. Band 1 may be white or light grey. If any of these bands merge, the single board controller PWB is defective. Install a new single board controller PWB, **PL 3.24 Item 3**.

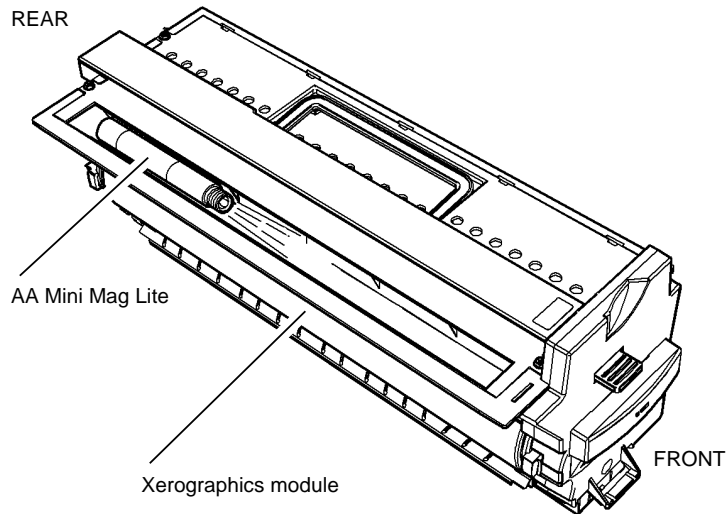
Table 3 Laser light level NVM location 06-001 values

Speed	Min/Max Values	Default Value
35 ppm	3000/4471	3471
45/55 ppm	1500/3050	2250
65/75/90 ppm	1500/3200	2400

- When the specifications in the above three steps are met, the ROS is functioning correctly.

### Final Actions

- Record all changes in the log book for future reference. Perform an NVM Save, GP 5 then SCP 6 Final Actions. Make one DADH and one platen copy of 82E2020/2010. Run one copy each of internal test patterns 11, and 15, dC606. Mark these "FINISH" and write the new NVM values on these prints and copies. Save these documents in the machine for future reference.
- Run sample customer documents. If necessary, use the image quality options (sharpness/contrast/lighter/darker) on the UI to customize the look of the customer's copies as detailed in IQ10.
- Run dC604 Registration Setup Routine.
- Restore the customer's auditron data, using the PWS Auditron Save and Restore Tool.
- Record any image quality options selected onto the customer copy, and save in the machine for future reference.



T-1-0307-A

Figure 2 Xerographics module with AA Mini Mag-lite



T-1-0308-A

Figure 3 Density reference chart 82P520/82E8230

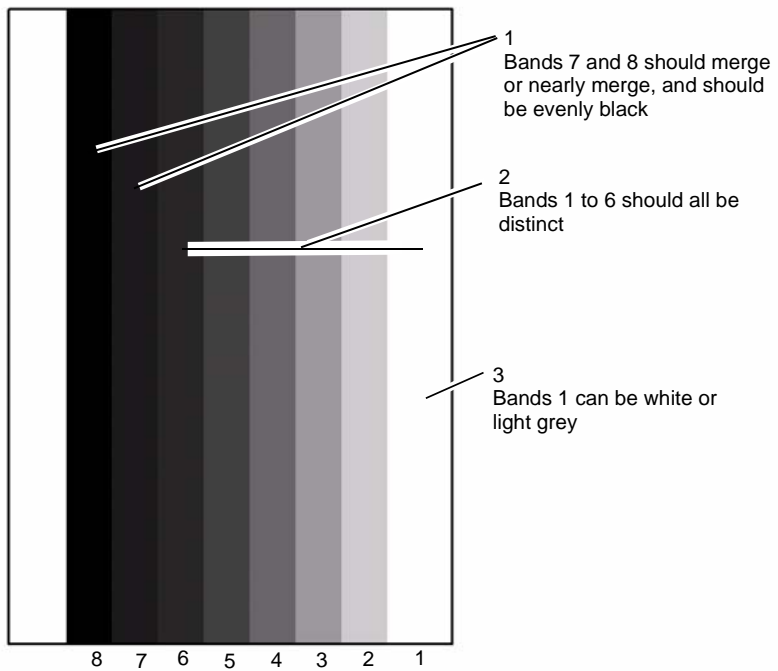


Figure 4 Internal test print 15

T-1-0309-A

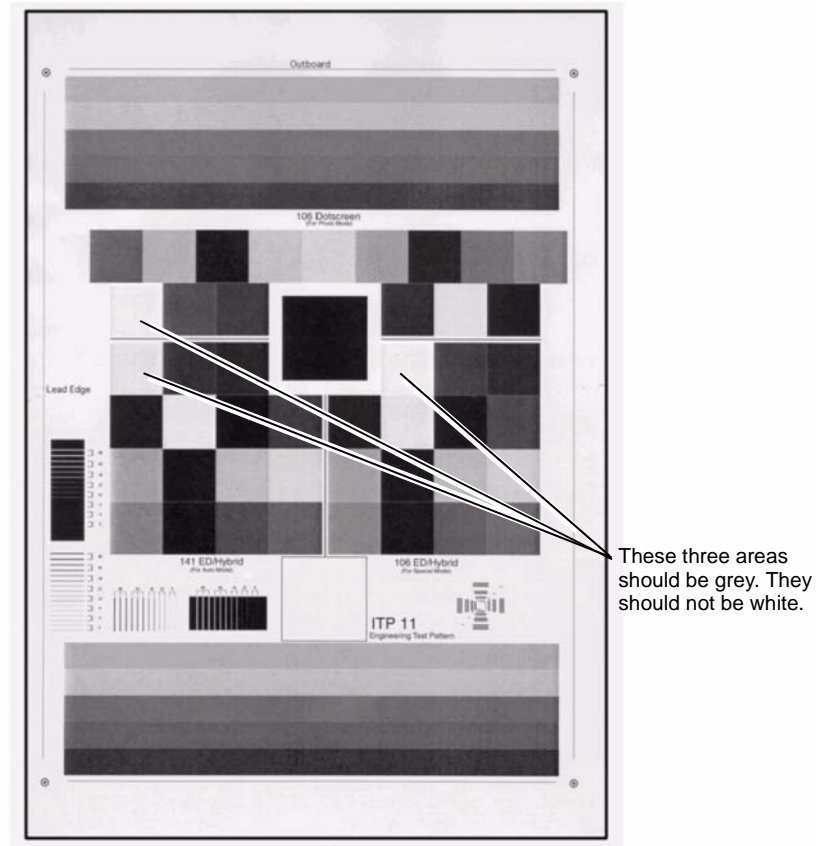


Figure 5 Internal test print 11

T-1-0310-A



## IQ12 Barber Pole Deletions / Developer Leakage RAP

Use this RAP to cure barber pole deletions and developer leakage problems.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Check that the machine is level. If the machine is not level, developer can leak from the developer module.
- Clean the charge scorotron, [ADJ 9.4](#).
- Clean the transfer/detack corotron, [ADJ 9.1](#).
- **(35 ppm)** Ensure the scorotron cleaning tool is fully pushed to the back of the xerographics module.
- Check and clean the erase lamp, [ADJ 9.4](#).
- Check that the high voltage connections and the PJs on the HVPS are correctly and securely seated. Refer to [09-060 HVPS Fault RAP](#).

### Procedure

Print the internal test pattern 5, [dC606](#). If the barber pole deletions are present, they appear as shown in [Figure 1](#).

These deletions appear when 0.5kg (1.1 lbs) or more of the developer is lost from the developer module. This represents half of the developer charge. The causes of loss of developer are:

- A damaged, (scored or scratched), drum. The drum can be scratched by a mis-adjusted or bent detack / transfer corotron.
- A contaminated charge corotron can create an electrostatic 'hot spot' on the drum. Contamination can be caused by excessive book copying without having selected the **Bound Original** feature on the image adjustment screen.
- The machine is not level. A 2 degree tilt, front to rear, causes developer to leak out from the overflow tube in the rear of the developer module, into the waste bottle.
- The spacing between the developer module and the Xerographics module is incorrect. In this case, developer spills out at the magnetic brush into the base pan of the machine.
- A defective developer module. If the magnet separates from the magnetic roll, developer may spill out of the developer module, along the length of the magnetic roll. Worn developer bearings can allow developer to leak out the housing at the inboard and outboard ends.

Remove the xerographics module and examine the drum surface for chips, scores and scratches. It is important to note that the drum is usually scored at the inboard or outboard end, in the non-image area. Scores in these areas are as serious as in the image area. **The drum surface is good.**

Y N

Install a new xerographic module, (35 ppm) [PL 9.22 Item 2](#) or (40-90) [PL 9.20 Item 2](#). Discard the remaining developer and install a full developer charge, (65-90 ppm) [PL 9.15 Item 27](#) or (35-55) [PL 9.17 Item 25](#).

A

Perform the following:

- Remove the upper left hand cover, [PL 8.10 Item 3](#). Run the machine and check for approximately -350V on the single red wire at the high voltage connection to the developer module. [Wiring Diagram 11](#). If necessary, go to [09-060 HVPS Fault RAP](#).
- Ensure there is a good fit between the trickle door at the rear of the developer module and the trickle tube. Refer to [Figure 2](#) and [Figure 3](#).
- If there has been a developer spillage into the base pan of the machine, check the developer module latching. The developer module locates onto two locating pins at the front of the machine and two locating pins in the rear frame of the machine. Refer to [Figure 3](#) and [Figure 4](#). Ensure the locating pins are clean and perpendicular, (at 90 degrees), to the machine rear frame.
- Check for, and remove any excess material round the locating holes on the developer module. If necessary, apply some plastislip grease, [PL 26.10 Item 8](#) around the locating holes to ensure smooth operation. If the developer module still will not latch properly, install a new developer paddle, (35 ppm) [PL 9.22 Item 14](#) or (40-90 ppm) [PL 9.20 Item 14](#).
- If a large amount of developer material has been lost, discard the remaining developer and install a full developer charge, (65-90 ppm) [PL 9.15 Item 27](#) or (35-55) [PL 9.17 Item 25](#). Reset the HFSI developer counter, [GP 17](#).
- If there is still developer leakage, install a new xerographics module, (35 ppm) [PL 9.22 Item 2](#) or (40-90 ppm) [PL 9.20 Item 2](#). At the same time, install a new developer module, (35-55) [PL 9.17 Item 2](#) or (65-90 ppm) [PL 9.15 Item 2](#).
- If the customer copies books, instruct them in the use of the Bound Original feature on the Image Adjustment screen. Also, instruct the customer to use the scorotron cleaning tool, three times every day.

A

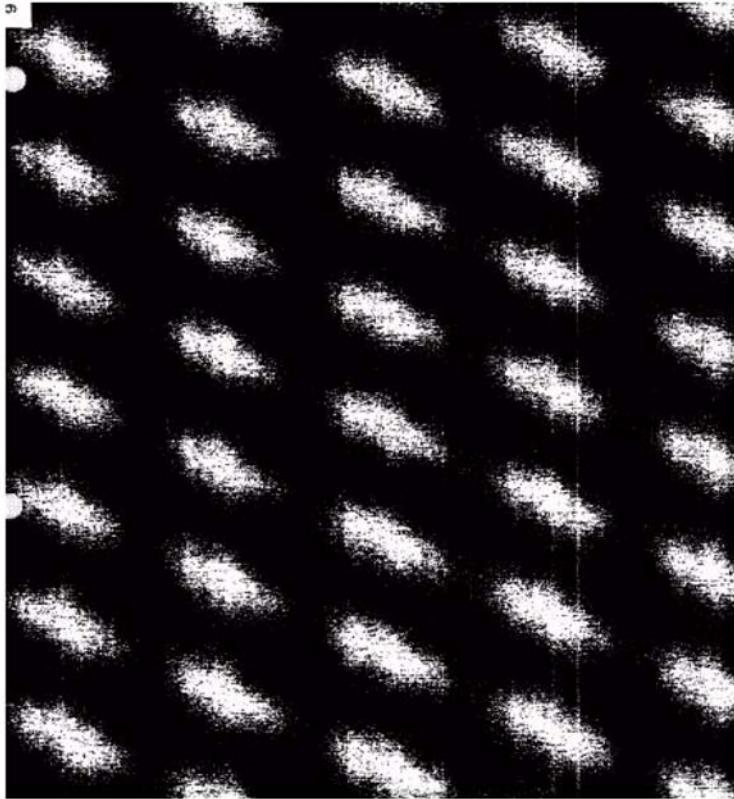


Figure 1 Example of barber pole deletions

T-1-0311-A

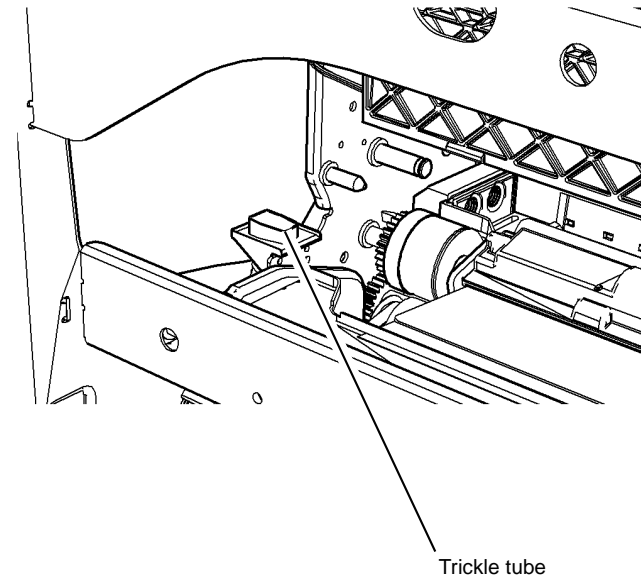
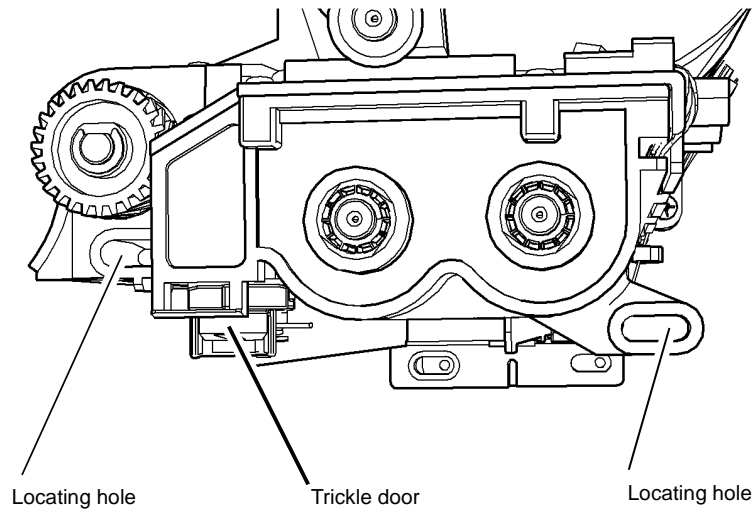


Figure 2 Developer trickle tube

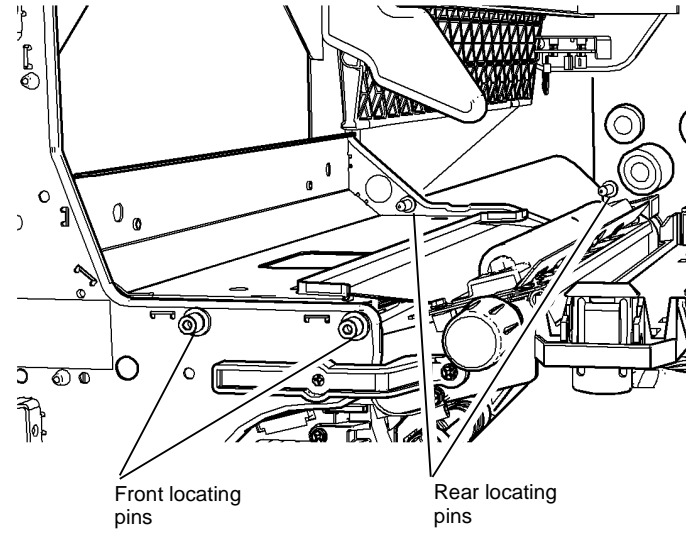
T-1-0312-A



REAR VIEW

T-1-0313-A

Figure 3 Developer trickle door and rear locating holes



T-1-0314-A

Figure 4 Developer module locating pins

## IQ13 Cockle Deletion RAP

Use this RAP to cure intermittent cockle deletion on buckled/rippled copies.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the IQ1 Image entry RAP before starting this RAP.

### Procedure

Print internal test pattern number 16, dC606. Run 20 off 1 and 2 sided copies of test pattern number 16, and then check the copies for cockle deletions. If cockle deletions are present they appear as shown in Figure 1.

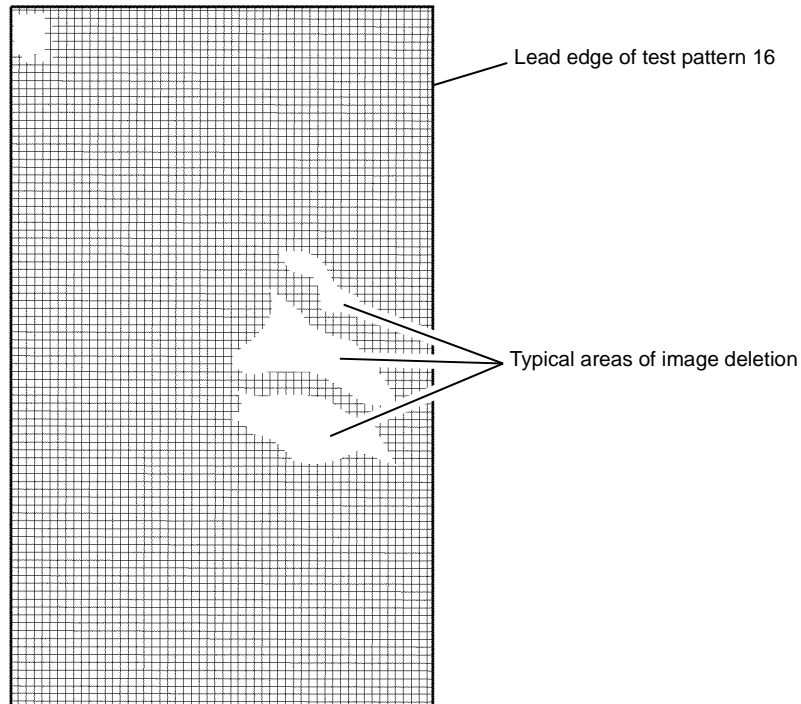


Figure 1 Cockle deletions

T-1-0315-A

These deletions appear when the paper is buckled in the duplex transport and registration transport assemblies. The effect of the buckling forms a permanent ripple in each sheet of paper which leads poor image transfer. The known causes of paper buckle are:

- Worn/damaged components within the duplex transport assembly.
- worn/damaged components within the registration transport assembly

Remove the duplex transport assembly, REP 8.7, then inspect the assembly for damage, GP 7. **The duplex transport assembly is in good condition.**

**Y N**  
Install a new duplex transport assembly, (35-55 ppm) PL 8.22 Item 1 or (65-90 ppm) PL 8.20 Item 1.

Remove the registration transport assembly, REP 8.4, then inspect the assembly for damage, GP 7. **The registration transport assembly is in good condition.**

**Y N**  
Replace the registration transport assembly, (35-55 ppm) PL 8.15 Item 1 or (65-90 ppm) PL 8.17 Item 1.

Refer to GP 18, lubricate the registration transport nip assembly.

Print internal test pattern number 16, dC606. Run 20 off 1 and 2 sided copies of test pattern number 16, and then check the copies for cockle deletions. **The copies are good.**

**Y N**  
Perform ADJ 8.2 Simplex and Duplex Buckle Timing.

Record all changes in the log book for future reference. Perform SCP 6 Final Actions.

# IQS 1 Solid Area Density

## Documents

Test patterns: 82E2000 (A3 and 11X17) 82E2010 (A4) 82E2020 (8.5X11) and the solid area density scale, 82E8230 (SIR 542.00) for reference.

## Specification

Compare the copies of one of the above 82E series test patterns, [Figure 1](#), made from the document glass, with the solid area density scale, 82E8230 (SIR 542.00). The density of the 2.1; 2.3; and 2.5 areas must be as dark or darker than the 1.3 reference, but less than 1.5. The 3.0, 3.3 and 3.4 text areas should all be visible. The 4.1 line pair should be visible. The 2.0, 2.2 and 2.4 squares should be darker than the original document. The bullseye targets should be clearly reproduced.

Compare a print of the internal test pattern 12, [Figure 2](#), with the solid area density scale, 82E8230 (SIR 542.00). The density of the solid areas must be as dark or darker than the 1.3 reference, but less than 1.5.

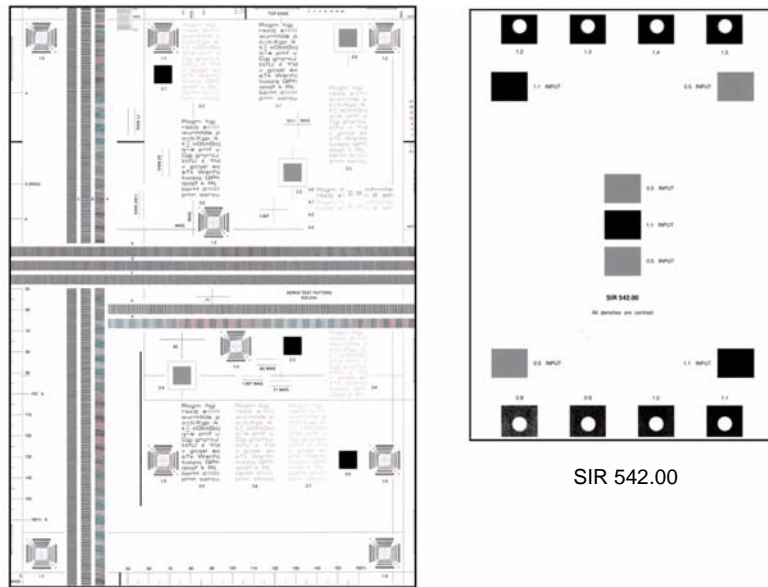
## Corrective action

If the solid area density specification is not met, then go to the [IQ1](#) Image Quality Entry RAP.



T-1-0317-A

Figure 2 Internal test pattern 12



82E2000

SIR 542.00

T-1-0316-A

Figure 1 Test patterns

## IQS 2 Background

### Documents

Test patterns: 82E2000 (A3 and 11X17) 82E2010 (A4) 82E2020 (8.5X11) and visual scale, 82P448 for reference.

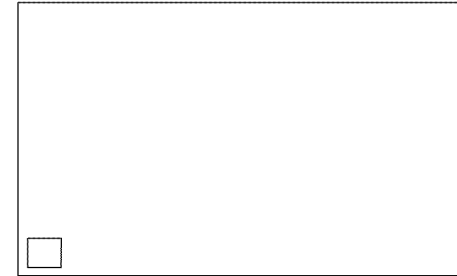
### Specification

Compare the copies of one of the above 82E series test patterns, [Figure 1](#), made from the document glass, with the visual scale, 82P448. The background of the copies must not be darker than the reference area B.

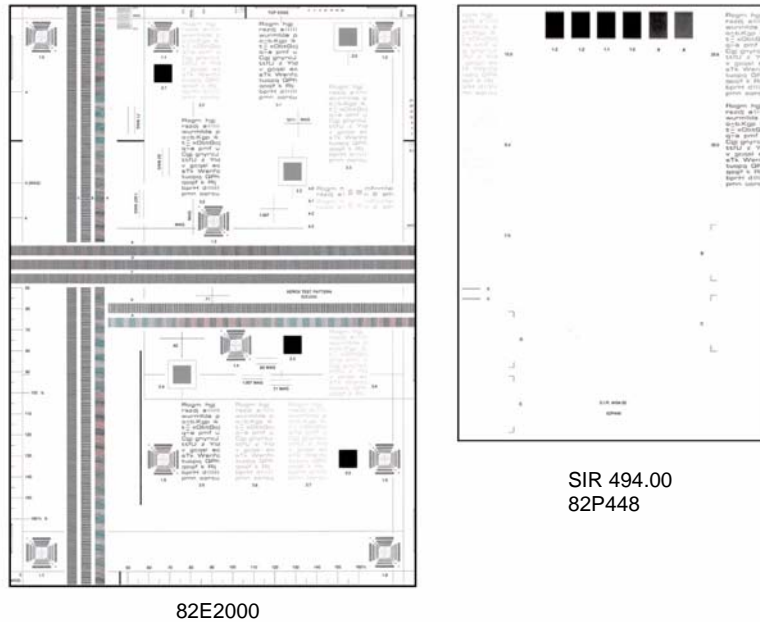
Compare a print of the internal test pattern 1, [Figure 2](#), with the visual scale, 82P448. The background of the print must not be darker than the reference area B.

### Corrective Action

If the background specification is not met, then go to the [IQ1](#) Image Quality Entry RAP.



T-1-0319-A



82E2000

SIR 494.00  
82P448

T-1-0318-A

Figure 1 Test pattern

Figure 2 Internal test pattern 1

## IQS 3 Fusing

### Documents

Test Patterns: 82E2000 (A3 and 11X17) 82E2010 (A4) 82E2020 (8.5X11).

### Procedure

Make 5 copies of the test pattern, [Figure 1](#). Check the fusing by folding one of the copies through the center of a solid area. Use a finger to apply medium pressure along the fold to crease the paper. Unfold the copy. Use a finger to lightly rub the area of the fold and adjacent areas.

### Specification

Any break should measure less than 1mm (1/32 inch) across the line of a fold. Any area rubbed with a cloth should not smudge or the image lift off the surface of the paper. When checking the fusing on heavy weight paper (200gsm), rub the image with a finger. Images fused on the smooth side have a greater resistance to rubbing than images fused on the rough side. Do not attempt to fold heavy weight paper, as this breaks the fibres.

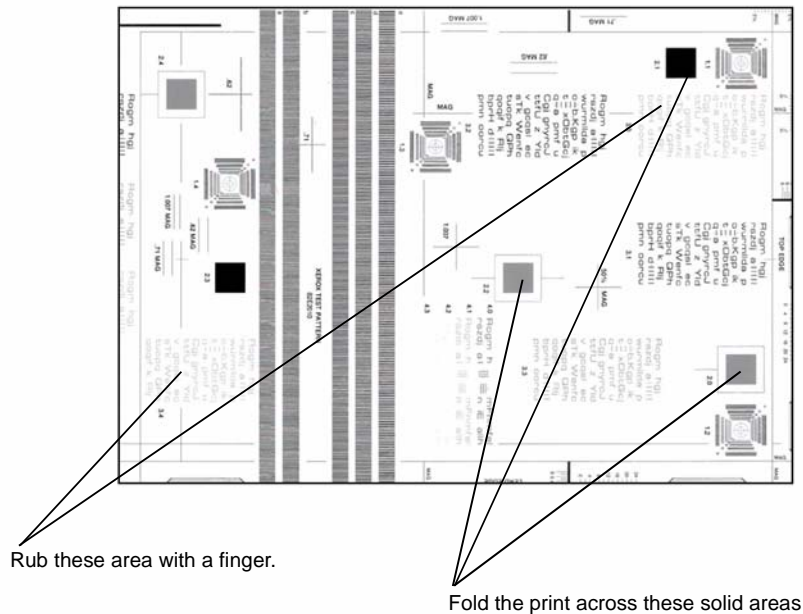


Figure 1 Test pattern

T-1-0320-A

## IQS 4 Resolution

### Documents

Test patterns: 82E2000 (A3 and 11X17) 82E2010 (A4) 82E2020 (8.5X11).

### Specification

Make copies of a test pattern. from the document glass. Examine the targets of the second copy to determine the overall resolution of the copy. The lines identified by the letter H, [Figure 1](#), should be clearly reproduced at 100%

### Corrective action

If the resolution specification is not met, refer to [IQ1](#) Image Quality entry RAP.

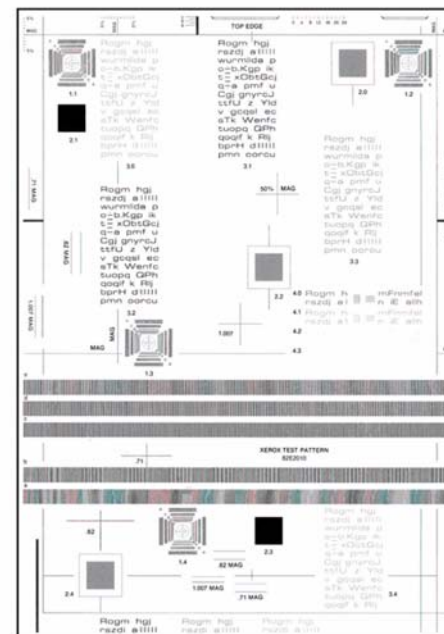


Figure 1 Test pattern

T-1-0321-A

# IQS 5 Skew

## Documents

Test patterns: 82E2000 (A3 and 11X17) 82E2010 (A4) 82E2020 (8.5X11).

## Specification

Refer to [Table 1](#), Skew measurement.

**Table 1 Skew measurement**

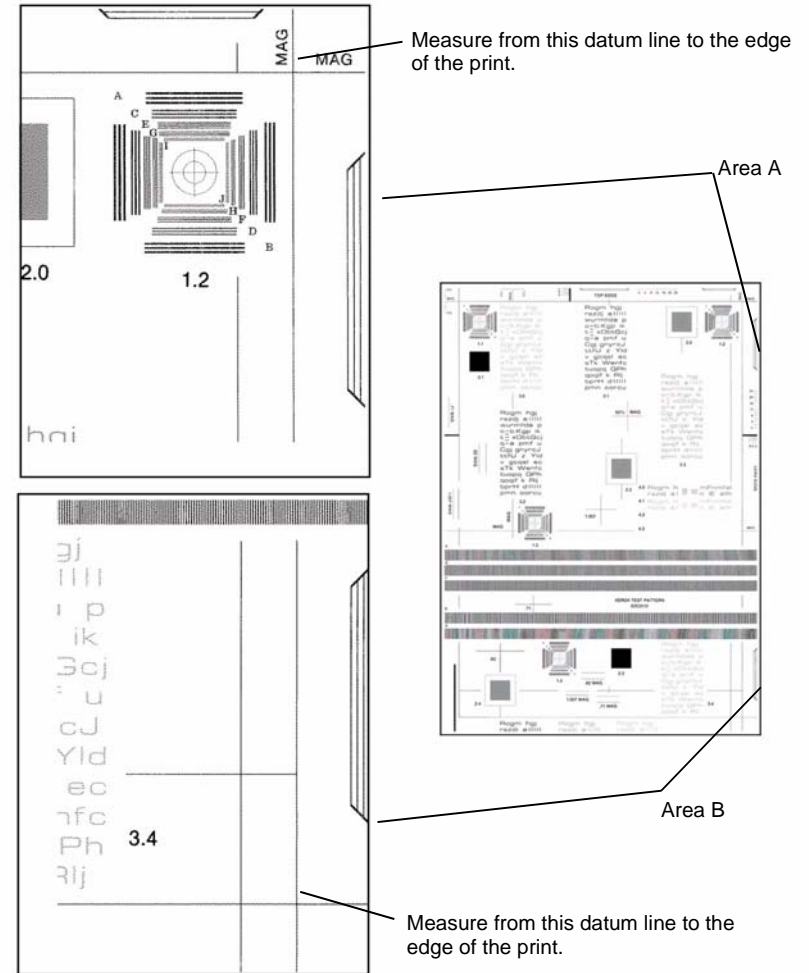
Source of paper	DADH	Document glass	Printer
All trays lead edge registration	3mm (1/8 inch)	1.3mm (1/16 inch)	1mm (1/32 inch)
Bypass tray	3mm (1/8 inch)	1.3mm (1/16 inch)	1mm (1/32 inch)
Duplex	3mm	1.3mm (1/16 inch)	1mm (1/32 inch)

## Skew measurement

The amount of skew is determined by the difference, “A” from “B” [Figure 1](#), measured from the datum line to the lead edge of the print or copy. The distance between area “A” and area “B” is 250mm (10 inches). Use internal test prints 16 or 17 to check printer skew.

## Corrective Action

Refer to [IQ1](#) Image Quality Entry RAP.



T-1-0322-A

**Figure 1 Skew measurement**



## IQS 6 Copy / Print Defects

The printer should produce prints free of defects. Any defects not explicitly covered by this specification should be considered as a fault.

### Show through

No show through of the underside of the document handler should be visible when using Xerox 80gsm (20lb) or heavier paper as an input document. The check is made with the document handler closed and in normal copy / print mode. Some show through might occur using 60gsm (15lbs) paper as documents.

### Oil on copies or prints

No oil should be evident on any print when viewed normally. Oil should not be visible on any transparency when viewed using an overhead projector. It should be possible to mark fused transparencies with a spirit based marker pen.

### Dark spots

Dark spots are toner deposits in the background area of a copy / print. The specification for the number spots and the size of the allowable spot size shown in [Table 1](#). The specification is for the total image area; document glass and CVT glass; and the whole of the imaged area on the photoreceptor. To assess for dark spots use the internal test pattern number 1.

**Table 1 Dark spots**

Spot diameter	Maximum number of spots per photoreceptor circumference, 264 mm (10.4 ins) X width across process direction
0.4 mm. and larger (1/64 inch)	0
	No more than 2 sheets with more than 3 spots per 25x25mm square (per square inch)

### White spots

White spots are areas visible on a half tone or solid area where the toner has failed to be deposited. The specification for the number and size of allowable spots is shown in [Table 2](#). The specification is for the whole of the imaged area on the photoreceptor. To assess for white spots use the internal test pattern 5.

**Table 2 White spots**

Spot diameter	Maximum number of spots per photoreceptor circumference, 264 mm (10.4 ins) X width across process direction
0.4mm. and larger (1/64 inch)	0
	No more than 2 spots in any 25x25mm area (1 square inch)

## Skips and smears

Skips and smears are image disturbances that are assessed using the ladder scale, A. Use one of the test patterns, 82E2000 (A3 and 11X17) 82E2010 (A4) 82E2020 (8.5X11). Refer to [Table 3](#) to assess image disturbances.

**Table 3 Skips and smears**

Magnification ratio%	Maximum number disturbances	Test area of document
All magnification	None	Ladder scale A. 3 line pairs

### Paper wrinkle

Paper wrinkles which result in the loss of information are unacceptable at any level. In any mode, copy / prints containing wrinkles or creases which do not result in the loss of information may occur less frequently than 1 in 500 consecutive copies / prints in that mode. This is applicable to all base line papers; to simplex and duplex prints, provided the paper is stored inside the printer and that the printer is operated within the environmental specification.

### Hole Punch Performance

The hole punch unit makes a set of holes near the trail edge of single copies or prints. The dimension between the holes are set by the hole punch. The position of the holes from the trail edge is controlled by the software that uses timing information from the punch sensor. The specification for the hole positions in the top to bottom direction is +/-2 mm, with A4 / 80 gsm (8.5x11, 75 gsm) simplex, from a single tray in a nominal environment. For all paper sizes, weights, trays and environments, the specification is +/-3 mm.

# IQS 7 Registration

## Documents

Test patterns: 82E2010 (A4), 82E2020 (8.5 X 11)

## Specifications

Refer to [Table 1](#).

**Table 1 Registration measurement**

Source of paper	DADH	Document glass	Printer reference only
All trays, bypass tray and duplex lead edge registration	2.3 mm (3/32 inch)	1.6 mm (1/16 inch)	1.6 mm (1/16 inch)
All trays, bypass tray and duplex top edge registration	3 mm (1/8 inch)	2.1 mm (3/32 inch)	1.6 mm (1/16 inch)

## Registration measurement

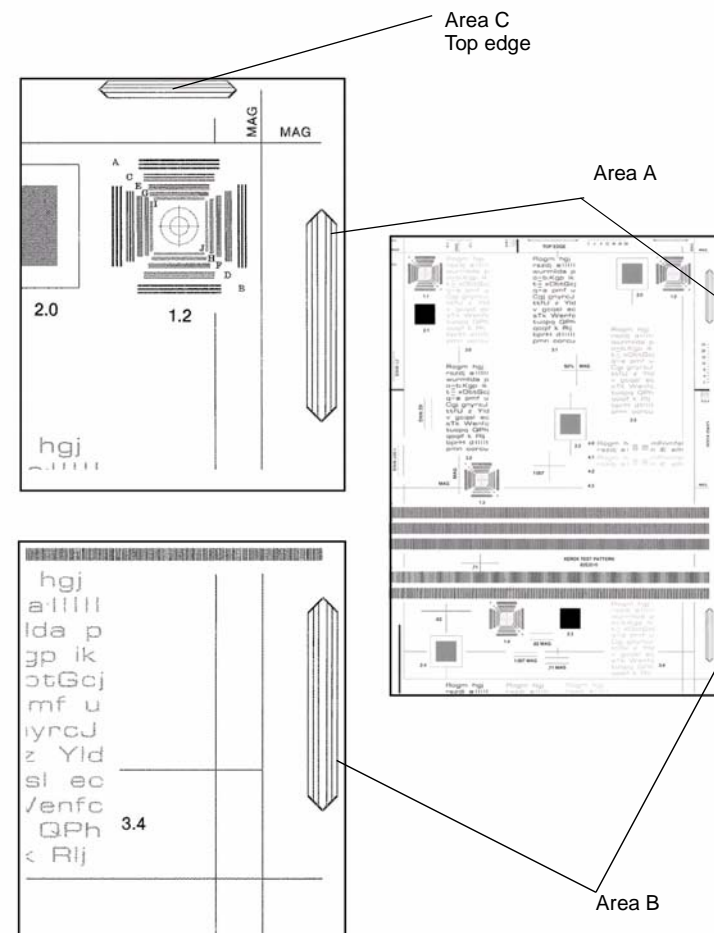
Use the areas A and B on the test pattern, [Figure 1](#), to measure the displacement of the lead edge on the image. Use the area C, [Figure 1](#), to measure the top edge displacement. The displacement measured at A and B should be equal.

**NOTE:** If a difference between measurements at A and B of a DADH copy are greater than 3 mm, refer to [IQS 5 Skew](#).

**NOTE:** If a difference between measurements at A and B of a document glass copy are greater than 1.3 mm, refer to [IQS 5 Skew](#).

## Corrective Action

Refer to [ADJ 3.1](#) Registration Setup.



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**Figure 1 Registration measurement**

# IQS 8 Magnification

**NOTE:** There are no across process direction adjustments.

## Documents

Use the internal test pattern generated in dC604 Registration Setup.

## Specifications

Refer to [Table 1](#).

**Table 1 Specifications**

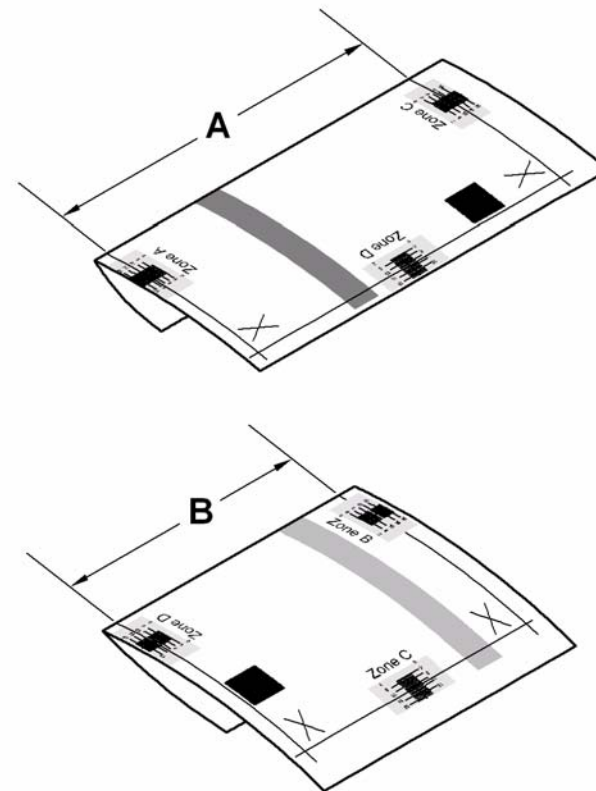
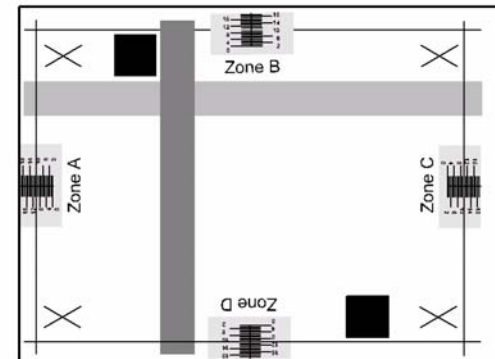
Source of image	In process direction	Across process direction
Printer (In ambient conditions using 80gsm/20lb A4/letter LEF)	equal to and less than 0.4%	equal to and less than 0.4%
Printer (In hot/wet or cool/dry conditions using other papers)	equal to and less than 0.5%	equal to and less than 0.5%
Document glass	less than + 0.7% to -0.7%	less than + 0.7% to -0.7%
DADH	less than + 1% to -0.5%	less than + 0.7% to -0.7%

## Magnification measurement

Make copies of the registration test pattern from the document glass and through the DADH. Fold the printed images across Zone A to Zone C and from Zone B to Zone D. Lay the folded printed images over the unfolded test pattern. Compare the dimensions, [Figure 1](#).

## Corrective action

Refer to [ADJ 3.2](#) Magnification Adjustment.



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**Figure 1** Magnification check



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## REP 1.1 Power and Control Assembly

Parts List on [PL 1.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### CAUTION

Ensure that E.S.D. procedures are observed during the removal and installation of the IOT PWB.



Figure 1 ESD Symbol

**NOTE:** 1. If a new power and control assembly complete with IOT PWB is to be installed refer to [REP 3.1](#) IOT PWB.

**NOTE:** 2. Before starting this procedure, read and record the [dC131](#) NVM values in location 09-271 Developer age, and 09-069 TC sensor control voltage. After installing the new IOT PWB, perform an NVM restore, [GP 5](#), and write the values recorded from the old IOT PWB into NVM locations 09-271 and 09-069. Load software if required, [GP 4](#). In diagnostics, on the 'Service Info' screen, select the serial number box and enter the machine serial number as it appears on the serial number plate on the front frame of the machine.

1. Pull out tray 1 and tray 2 approximately 100mm (4 inches).
2. Disconnect accessories and the output device.
3. Remove the rear cover, [PL 8.10](#) Item 1.
4. Remove the waste toner bottle door assembly, [REP 9.1](#).
5. [Figure 2](#). Disconnect the ground wires from the ground point.

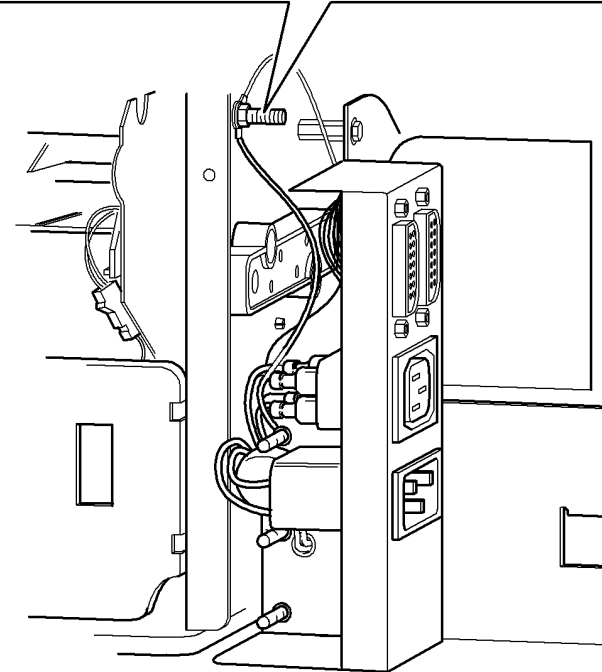
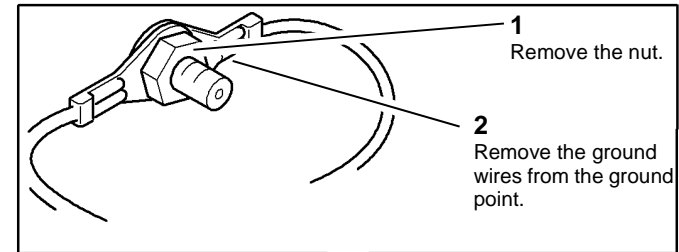
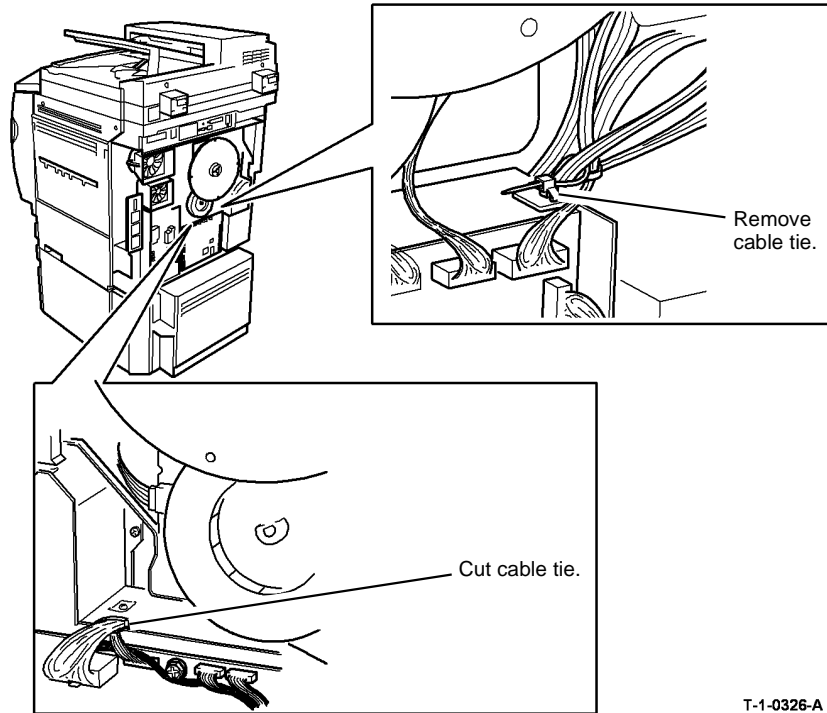


Figure 2 Main frame ground point

T-1-0325-A

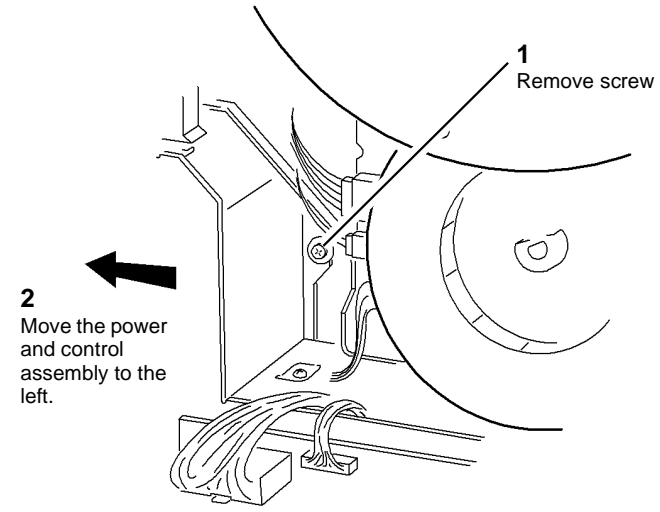
6. **Figure 3.** Remove the cable ties.



**Figure 3** Cable tie and ground connection

T-1-0326-A

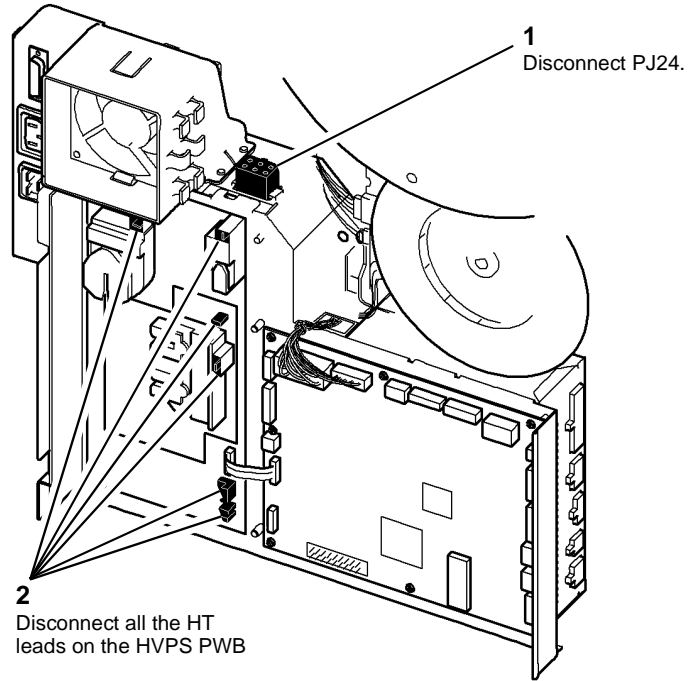
7. **Figure 4.** Remove the securing screw from the power and control assembly.



**Figure 4** Power and control assembly

T-1-0327-A

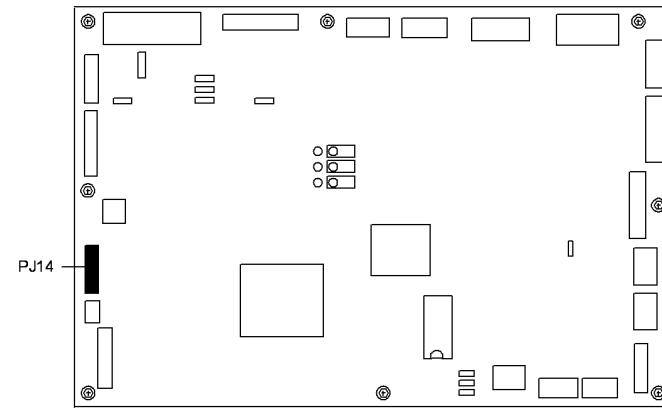
8. **Figure 5.** Disconnect PJ24 and all of the HT leads on the HVPS PWB.



**Figure 5 HVPS PWB**

T-1-0328-A

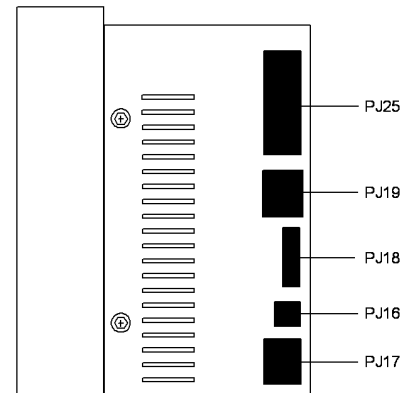
9. **Figure 6.** Disconnect all the PJs on the IOT PWB except PJ14.



**Figure 6 IOT PWB**

T-1-0329-A

10. **Figure 7.** Disconnect all of the PJs from the LVPS.



**Figure 7 LVPS**

T-1-0330-A

11. Remove the power and control assembly.

## Replacement

- If a new LVPS and base module is installed with the HVPS and IOT PWB transferred from the failed LVPS and base module then perform steps 1 to 3.
- If a new power and control assembly complete with IOT PWB has been installed then perform steps 1 to 4.



### CAUTION

Ensure the HT leads are correctly connected. Do not connect the female spade connector between the male spade connector and the outer casing of the HT leads.

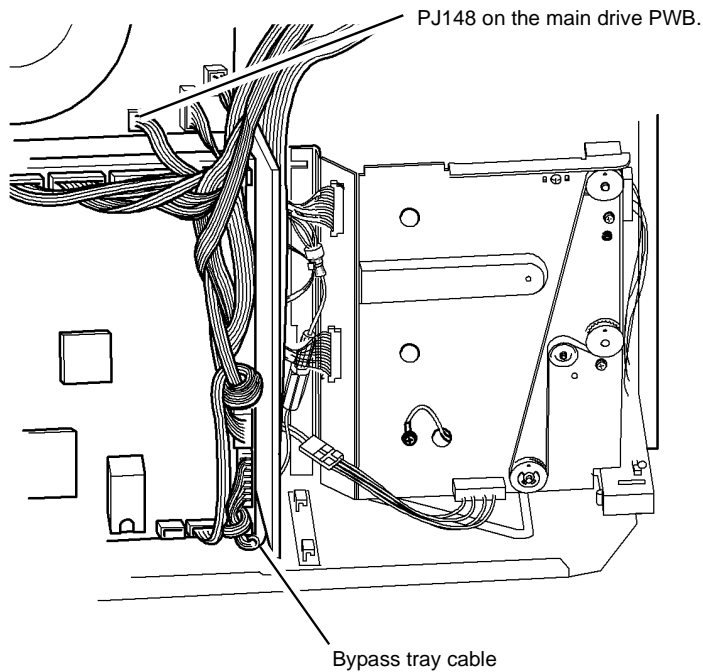


### CAUTION

Do not trap the harnesses when the power and control assembly is installed.

Perform the following:

1. [Figure 8](#). Ensure that the bypass tray cable is routed as shown under the bracket.

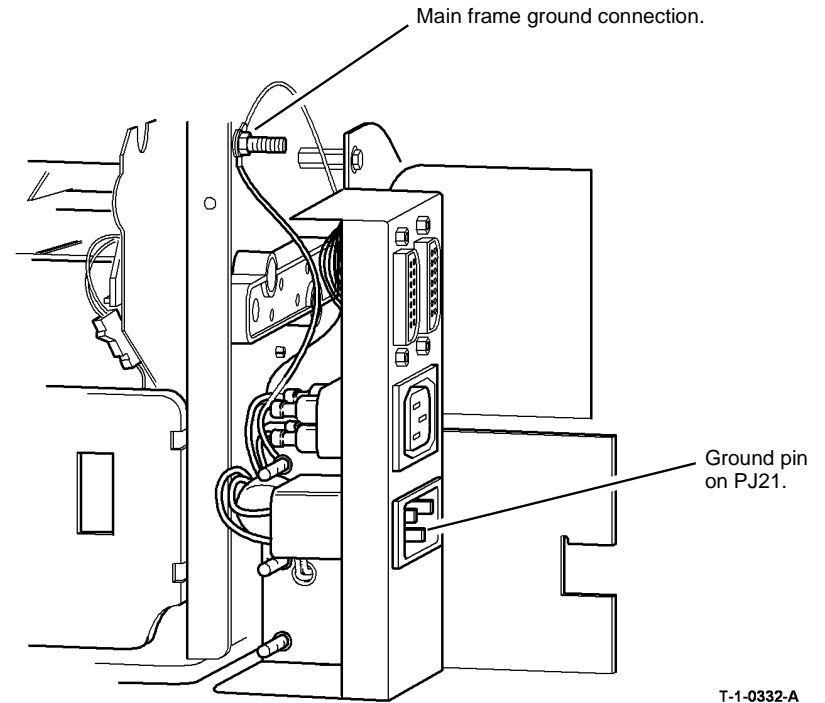


T-1-0331-A

Figure 8 Bypass tray cable

2. Refer to [Figure 8](#). Check that PJ148 has not been disconnected on the [Main Drive PWB](#).

3. [Figure 9](#). Ensure that the nut on the ground connection is tightened to secure the ground terminals.
4. [Figure 9](#). Use a digital multimeter set to a resistance range. Verify that there is continuity between the ground pin on PJ21 and the frame ground connection.



T-1-0332-A

Figure 9 Ground check

5. Reconnect the power cord and switch on the machine, [GP 14](#).
6. If necessary, reload the software set, [GP 4](#).

**NOTE:** After the software reload has been completed, the machine resets and gives a message 'Restoring Configuration Settings'. Do not switch off the machine or intervene during this NVM transformation process.

7. Check the machine serial number and the machine configuration, [GP 15](#).

## REP 1.2 Wiring Harness Repairs

### Purpose



#### WARNING

Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Do not attempt any repairs to the power cord or safety ground harness/conductor.

**NOTE:** Safety ground connections use green/yellow cables, or green cables with a yellow stripe or band.

The steps that follow identify the relevant procedures for repairing the various connectors contained within the copier.

1. If wiring is damaged, use connector splicing blocks to repair damaged wiring.
2. The following harness assemblies are not repairable; install new parts:
  - Any ribbon harness.
  - Single board controller module / LVPS/IOT PWB harness, **PL 3.24 Item 14**.
  - ROS data cable, **PL 3.24 Item 15**.
  - Single board controller module / UI harness, **PL 3.24 Item 11**.
  - Riser PWB/Power distribution PWB harness, **PL 3.22 Item 1**.
  - Single board controller module/CCD PWB harness, **PL 3.24 Item 9**.
  - Single board controller PWB/scanner driver PWB/CCD PWB harness (W/OTAG 150), **PL 3.24 Item 7**.
  - Single board controller PWB/DADH comms/scanner power harness (W/TAG 150) **PL 3.24 Item 7**.
3. The following connectors can be repaired by removing the faulty terminals and installing new terminals:
  - Molex SL connectors - **REP 1.3**.
  - Male Hirose DF1B connectors - **REP 1.4**.
  - AMP EI connectors - **REP 1.5**.
  - Hirose DF11 connectors - **REP 1.6**.
  - AMP CT connectors - **REP 1.7**.
  - Molex Mini-Fit Junior connectors - **REP 1.11**.

## REP 1.3 Molex SL Connectors

### Removal

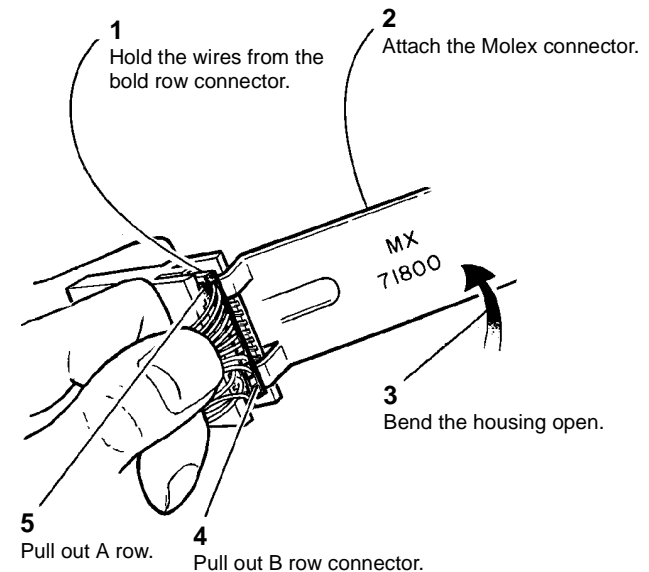


#### WARNING

Switch off the electricity to the machine, **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** Molex connectors have small black housings in single or double rows, formed with miniature square section pins and sockets.

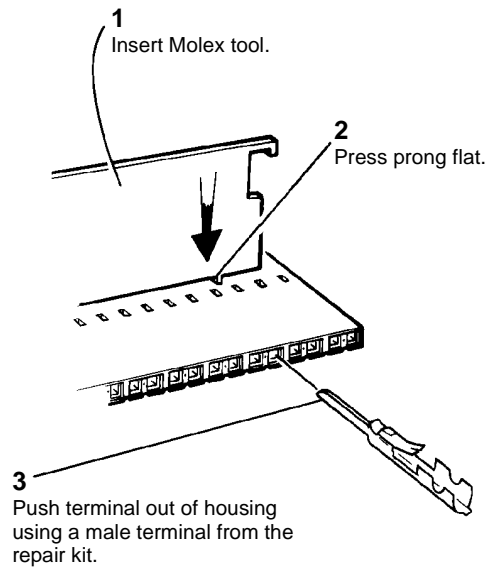
1. If the damaged connector is in the centre of a double row housing beneath the latching clip, the latching prong will not be accessible to release the connector from the housing. Therefore it will be necessary to disassemble the housing as shown in **Figure 1**.



T-1-0333-A

Figure 1 Disassembling the connector.

2. **Figure 2.** Remove the terminal from the connector housing using the Molex extractor tool.



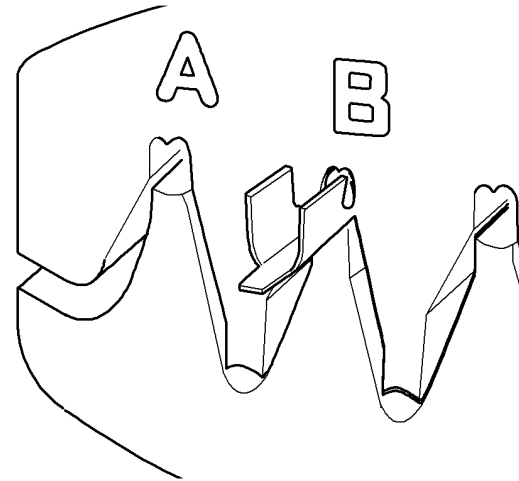
**Figure 2 Removing the terminal.**

T-1-0334-A

3. Cut off the damaged terminal, then strip 3mm of insulation from the end of the wire.

## Replacement

1. Select the correct replacement terminal, and identify the appropriate crimp positions for the terminal.
2. **Figure 3.** Insert a male or female terminal into the appropriate position of the crimp tool, then close the tool just enough to hold the terminal.

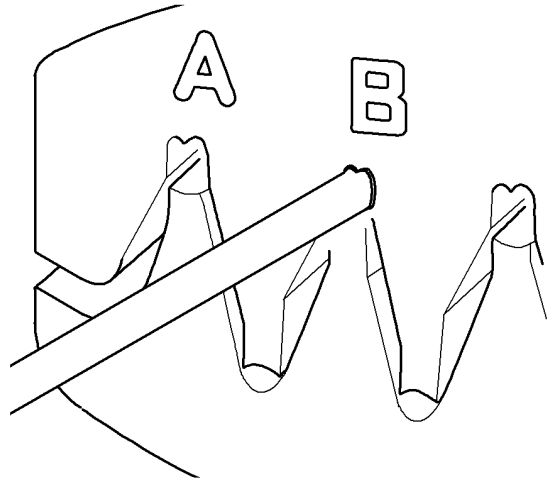


**Figure 3 Crimping the terminal.**

T-1-0335-A

3. Insert the wire fully into the terminal so that the stripped portion of the wire is within the inner grip of the terminal. Close the crimp tool fully to make the crimp.

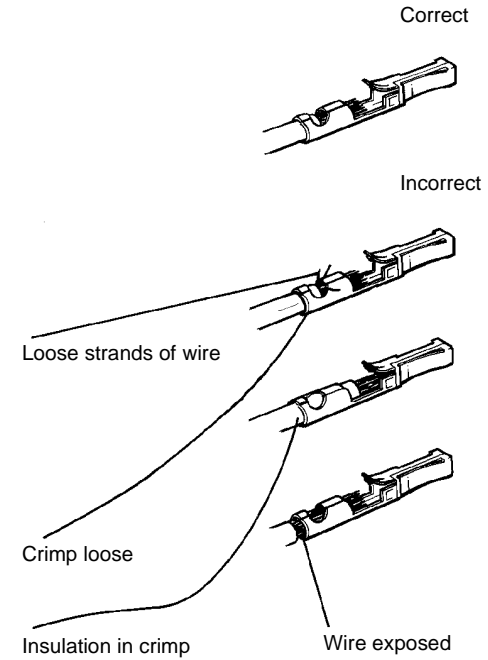
4. **Figure 4.** Insert the crimped terminal into the appropriate position of the crimp tool and close the crimp tool, to fasten the insulation of the wire in the outer grip of the terminal.



**Figure 4 Crimping the insulation grip.**

T-1-0336-A

5. **Figure 5.** Check that the crimp is correctly made.



**Figure 5 Inspecting the finished crimp.**

T-1-0337-A

6. Insert the replacement terminal into the connector housing.
7. If the repair was carried out on a double row connector that was disassembled, push both connectors into the housing taking care that the "A" connector is fitted on the fastener side.

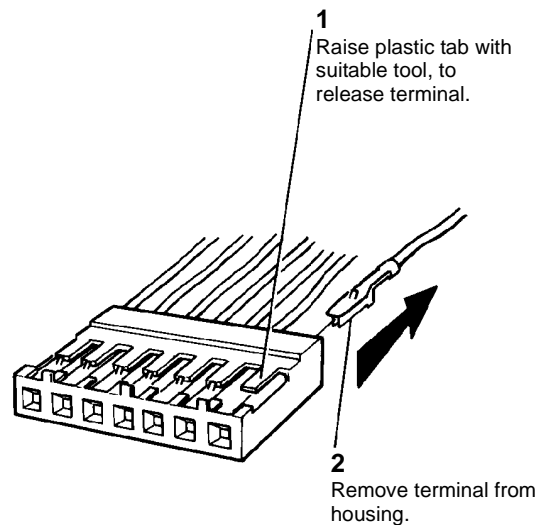
## REP 1.4 Male Hirose DF1B Connectors

### Removal

  
**WARNING**

Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. [Figure 1](#). Remove the damaged terminal from the housing.



T-1-0338-A

**Figure 1 Remove the terminal**

2. Cut off the damaged terminal, then strip 3mm of insulation from the end of the wire.

### Replacement

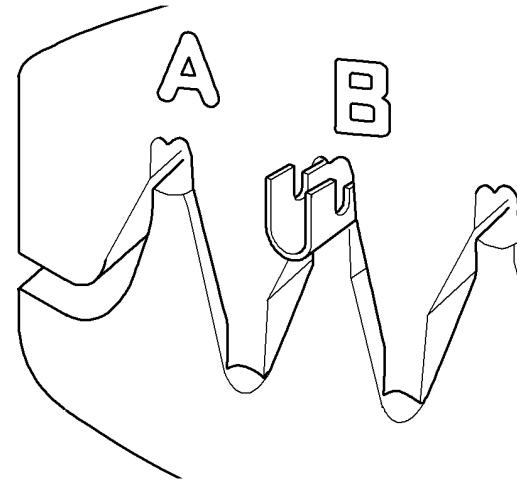
  
**CAUTION**

There are different terminals for large gauge and small gauge wire. Ensure that the correct replacement terminal is used.

1. Select the correct replacement terminal and identify the appropriate crimp positions for the terminal.

**NOTE:** These connectors can be repaired using either crimp terminals or pre-crimped terminals with flying lead and butt connector, as required.

2. [Figure 2](#). Insert the terminal into the appropriate position of the crimp tool and close the tool just enough to hold the terminal.



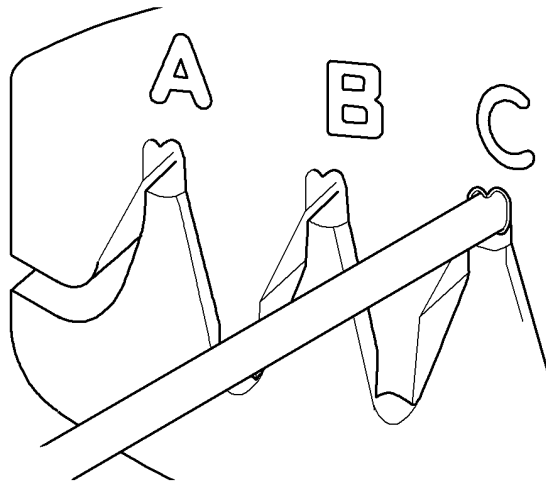
T-1-0339-A

**Figure 2 Crimping the terminal.**

3. Insert the wire fully into the terminal so that the stripped portion of the wire is within the longer grip of the terminal and the insulation of the wire is within the cable grip of the terminal. Close the crimp tool fully to make the crimp; check that the wire is firmly crimped in the terminal.



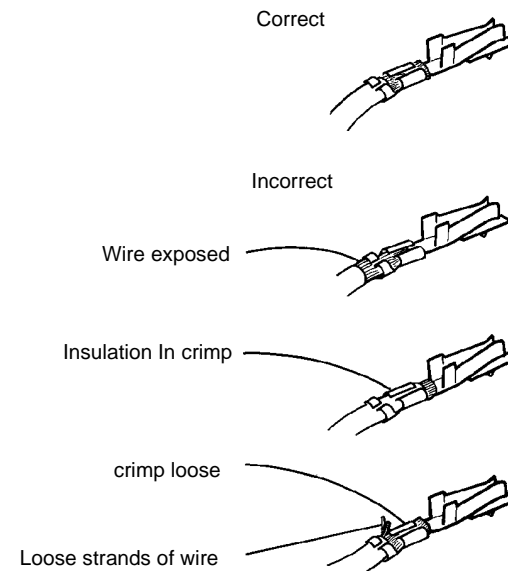
4. **Figure 3.** Insert the crimped terminal into the appropriate position of the crimp tool, then close the crimp tool to firmly fasten the insulation of the wire in the cable grip of the terminal.



**Figure 3 Crimping the insulation grip.**

T-1-0340-A

5. **Figure 4.** Check that the crimp is correctly made.



**Figure 4 Inspecting the finished crimp.**

T-1-0341-A

6. Insert the replacement terminal into the connector housing.

## REP 1.5 AMP EI Connectors

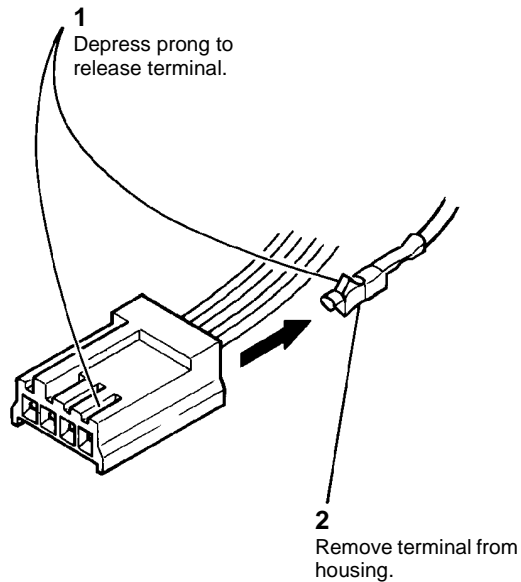
### Removal



Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

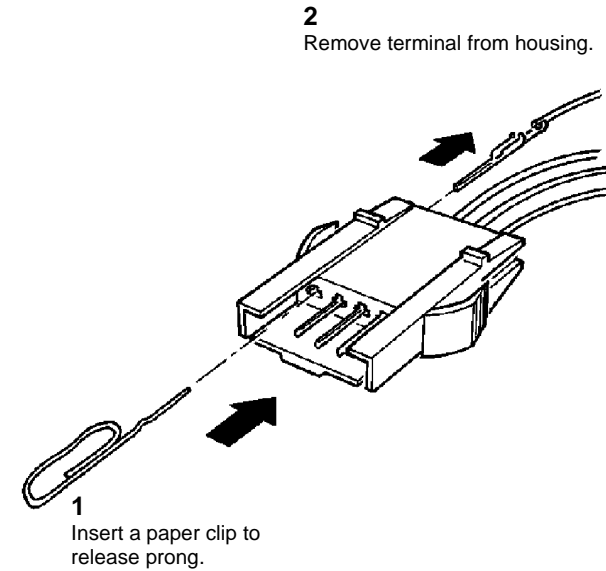
**NOTE:** The male housings contain socket terminals, and the female housings contain pin terminals.

1. Use the extractor tool, to release the terminal from the housing. Refer to Figure 1 to identify the male housing and terminal type. Refer to Figure 2 to identify the female housing and the terminal type.



T-1-0342-A

Figure 1 Terminal removal; male housing.



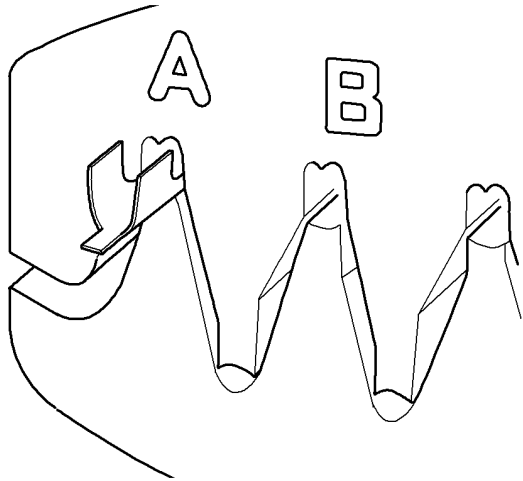
T-1-0343-A

Figure 2 Terminal removal; female housing.

2. Cut off the damaged terminal, then strip 3mm of insulation from the end of the wire.

## Replacement

1. Select the correct replacement terminal and identify the appropriate crimp positions for the terminal.
2. **Figure 3.** Insert the terminal into the appropriate position of the crimp tool and close the tool enough to hold the terminal.

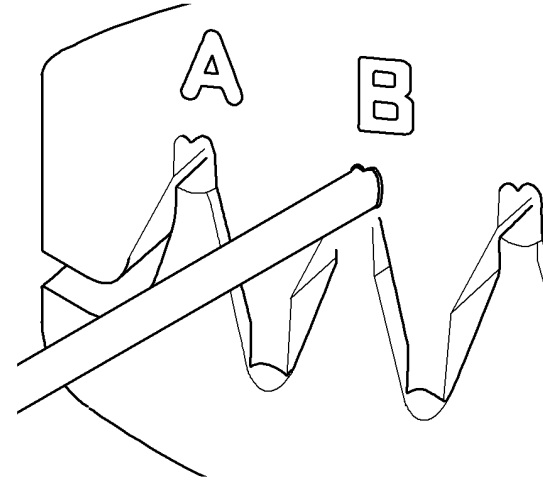


**Figure 3 Crimping the terminal.**

T-1-0344-A

3. Insert the wire completely into the terminal, so that the stripped portion of the wire is in the longer grip of the terminal. The insulation of the wire is within the cable grip of the terminal. Close the crimp tool completely to make the crimp. Check that the wire is crimped firmly in the terminal.

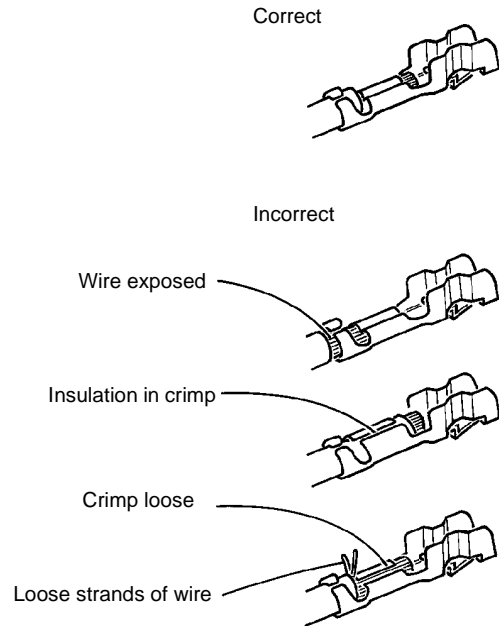
4. **Figure 4.** Insert the crimped terminal into the appropriate position of the crimp tool and close the crimp tool to firmly fasten the insulation of the wire in the cable grip of the terminal.



**Figure 4 Crimping the insulated grip.**

T-1-0345-A

5. **Figure 5.** Check that the crimp is correctly made.



**Figure 5** Inspect the finished crimp

T-1-0346-A

6. Insert the replacement terminal into the connector housing.

## REP 1.6 Hirose DF11 Connectors

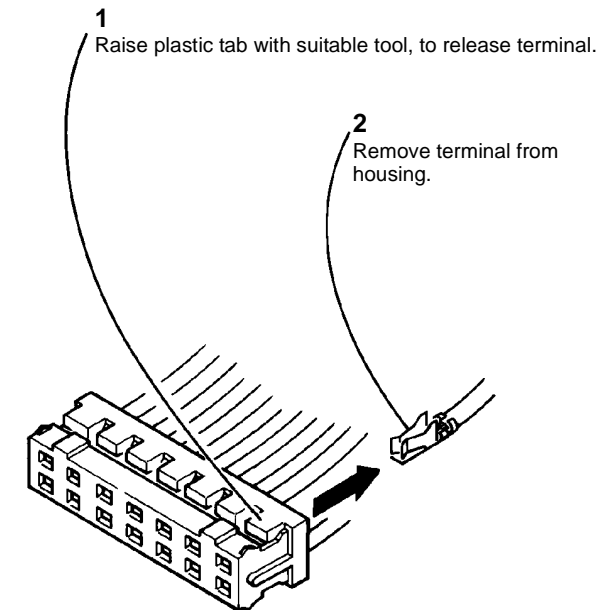
### Removal



**Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.**

**NOTE:** The male housing contains female terminals that cannot be crimped in the field; if a terminal is damaged, install a new terminal with flying lead.

1. **Figure 1.** Remove the damaged terminal from the connector housing.



**Figure 1** Terminal removed

T-1-0347-A

2. Cut the damaged terminal off the wire.

### Replacement

1. Insert the replacement terminal with flying lead into the connector housing.
2. Use a butt connector to connect the flying lead to the original wire.

## REP 1.7 AMP CT Connectors

### Removal

  
**WARNING**

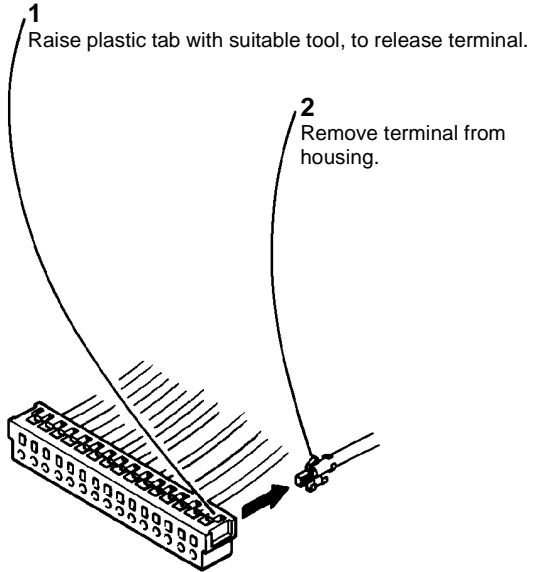
Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

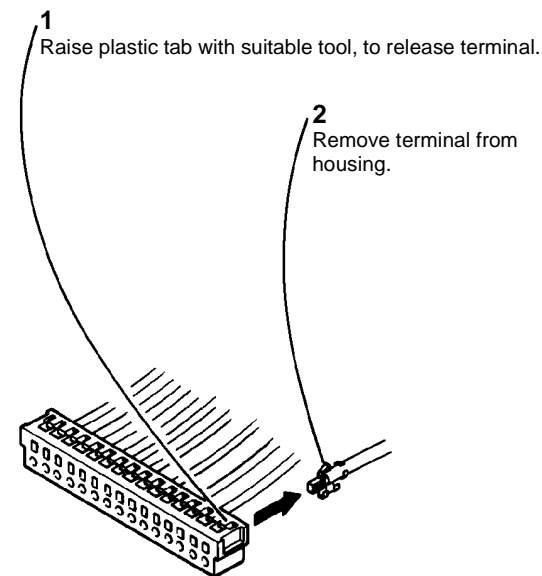
  
**CAUTION**

Amp CT connectors use in-line adaptors to connect housings together. Ensure that the correct adaptor is used for each in-line connection. Do not attempt to disassemble or repair the in-line adaptors.

**NOTE:** There are two types of CT connector: insulation displacement connector (IDC) or crimp terminal. Repairing crimp terminal CT connectors is performed by installing individual replacement terminals with flying leads, connected to the existing wiring with connector splicing blocks (removal steps 2 and 3). Repairing IDC connectors is performed by installing a complete replacement housing with wires already fitted, connected to the existing wiring with connector splicing blocks (removal steps 4 and 5). The replacement procedure is only applicable to crimp terminal connectors.

1. Identify the terminal type. Go to step 2 for a housing containing crimp terminals, or go to step 4 for a housing containing insulation displacement (IDC) terminals.

2. . Remove the damaged crimp terminal from the connector housing.



T-1-0348-A

**Figure 1 Terminal removal.**

3. Cut the damaged crimp terminal off of the wire.
4. IDC housings are repaired by installing a complete replacement housing with wires already fitted, These are connected with connector splicing blocks to the existing wiring. Select the correct replacement connector.
5. Cut one wire from the faulty connector and then reconnect the wire to the appropriate flying lead on the replacement connector. Repeat this process for each wire in turn, until the faulty connector has been fully disconnected and the replacement connector installed in its place.

### Replacement

1. Insert the replacement crimp terminal with flying lead into the connector housing.
2. Use a connector splicing block to connect the flying lead to the original wire.

## REP 1.8 Door Interlock Switch

Parts List on [PL 1.10](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull the fuser module out a short way.
2. [Figure 1](#). Release the door interlock switch.

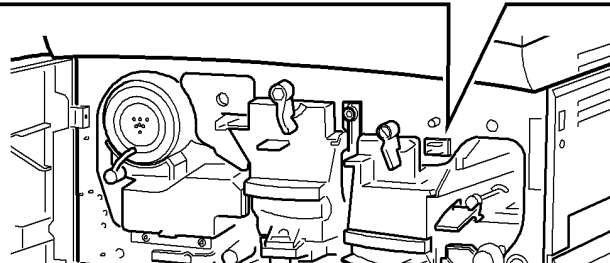
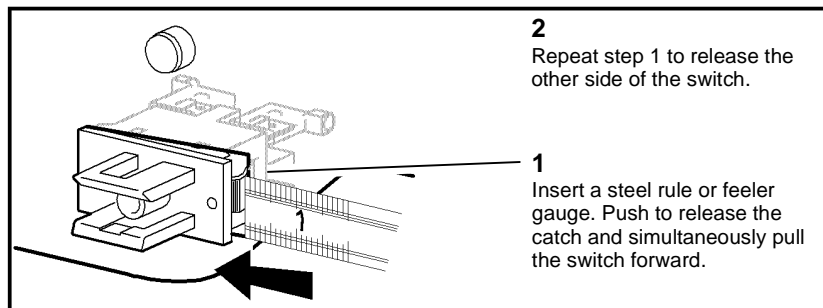
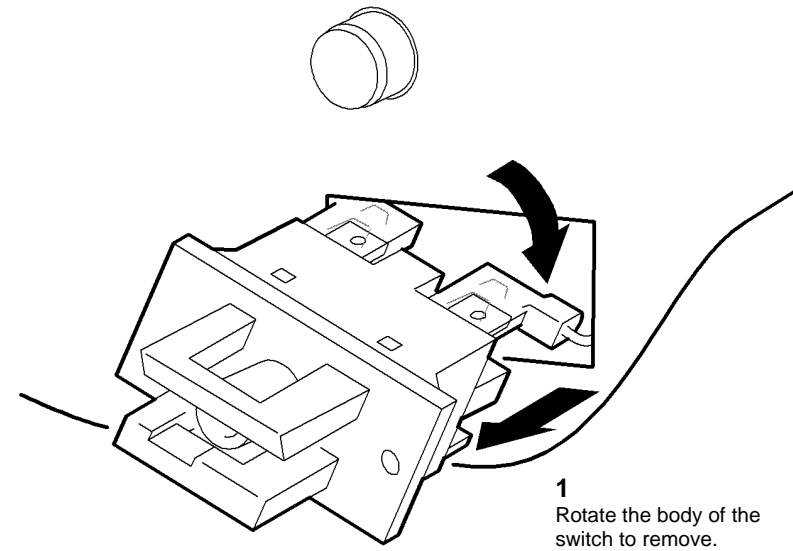


Figure 1 Releasing switch

T-1-0349-A

3. [Figure 2](#). Remove the interlock switch.



T-1-0350-A

Figure 2 Removing switch

### Replacement

Reverse the removal procedure to replace the door interlock switch.

## REP 1.9 LVPS and Base Module

Parts List on [PL 1.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

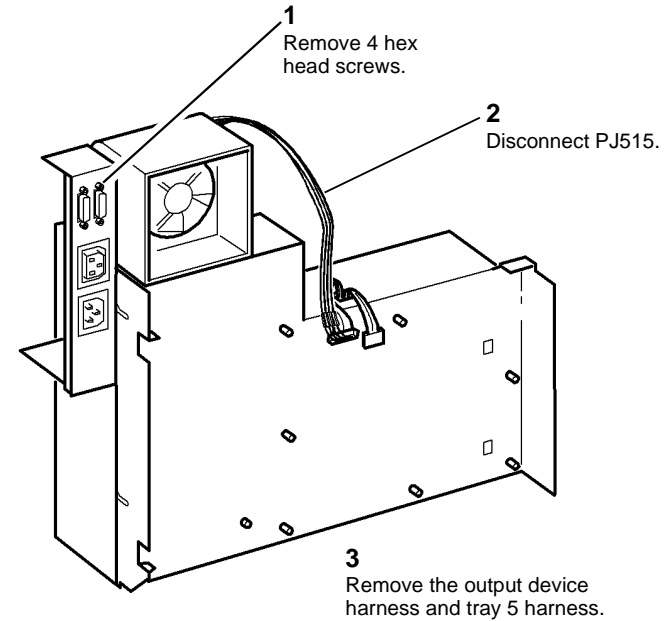
Take care during this procedure. Sharp edges may be present that can cause injury.



Figure 1 ESD Symbol

1. Remove the power and control assembly, [REP 1.1](#).
2. Remove the HVPS, (2 screws) and the IOT PWB, (8 screws), from the old LVPS and base module.
3. Remove the insulating sheet from behind the HVPS.

4. [Figure 2](#). As necessary, remove the output device harness and tray 5 harness from the LVPS and base module.



T-1-0351-A

Figure 2 Remove the output device harness and tray 5 harness

### Replacement



#### CAUTION

*Do not over tighten the four hex head screws. The screws break very easily.*

1. The Replacement procedure is the reverse of the Removal procedure.

## REP 1.10 HVPS

Parts List on [PL 1.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



Figure 1 ESD Symbol

1. Remove the rear cover, [PL 8.10 Item 1](#).

2. [Figure 2](#). Remove the HVPS.

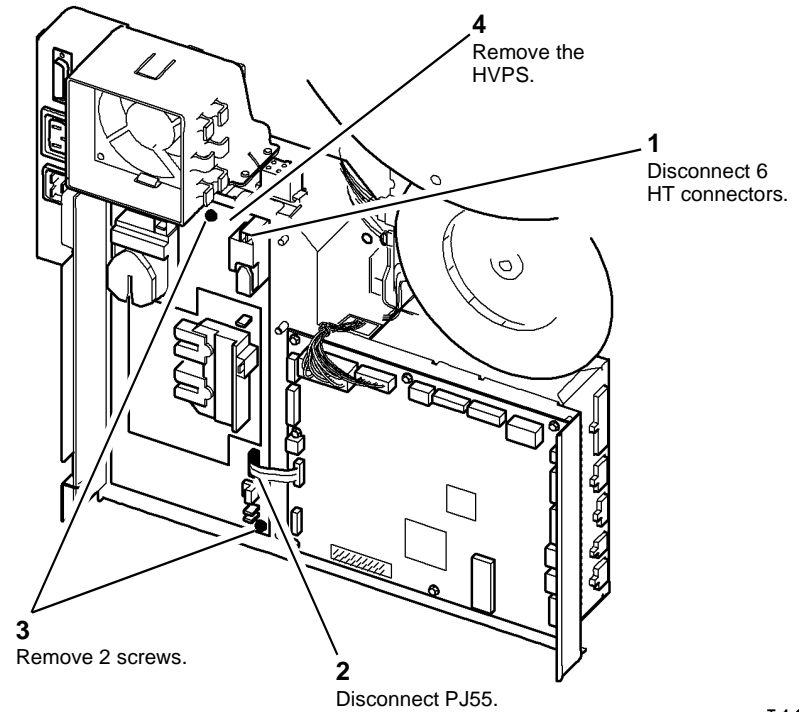


Figure 2 Remove the HVPS

T-1-0352-A



## Replacement

1. Reverse the removal procedure to replace the HVPS.
2. **Figure 3.** Ensure that the white plastic insulator underneath the HVPS is seated correctly under the locating tabs and over the two metal studs.

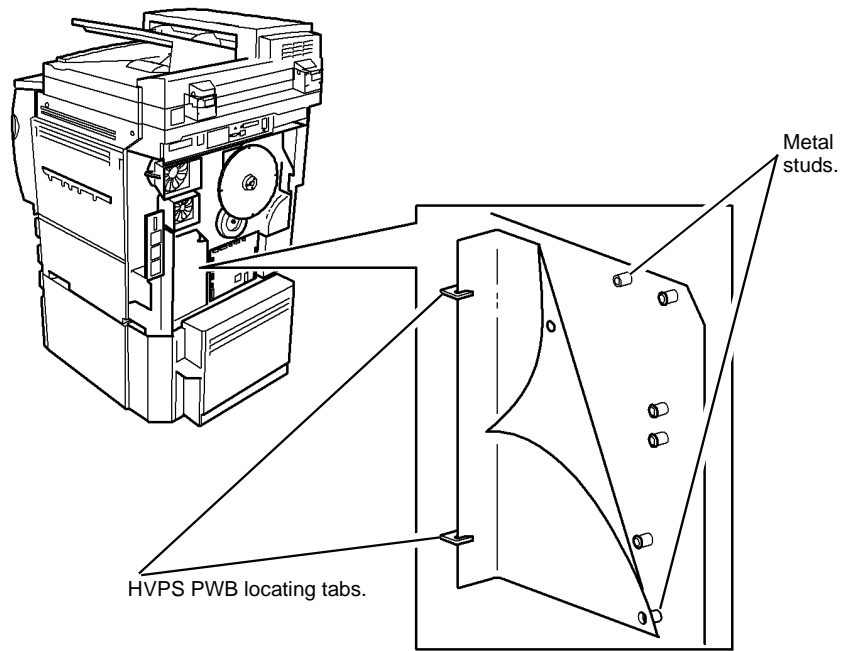


Figure 3 HVPS insulator and push clips

T-1-0353-A

3. **Figure 4.** Use a digital multimeter set to a resistance range. Verify that there is continuity between the ground pin on PJ21 and the frame ground connection.

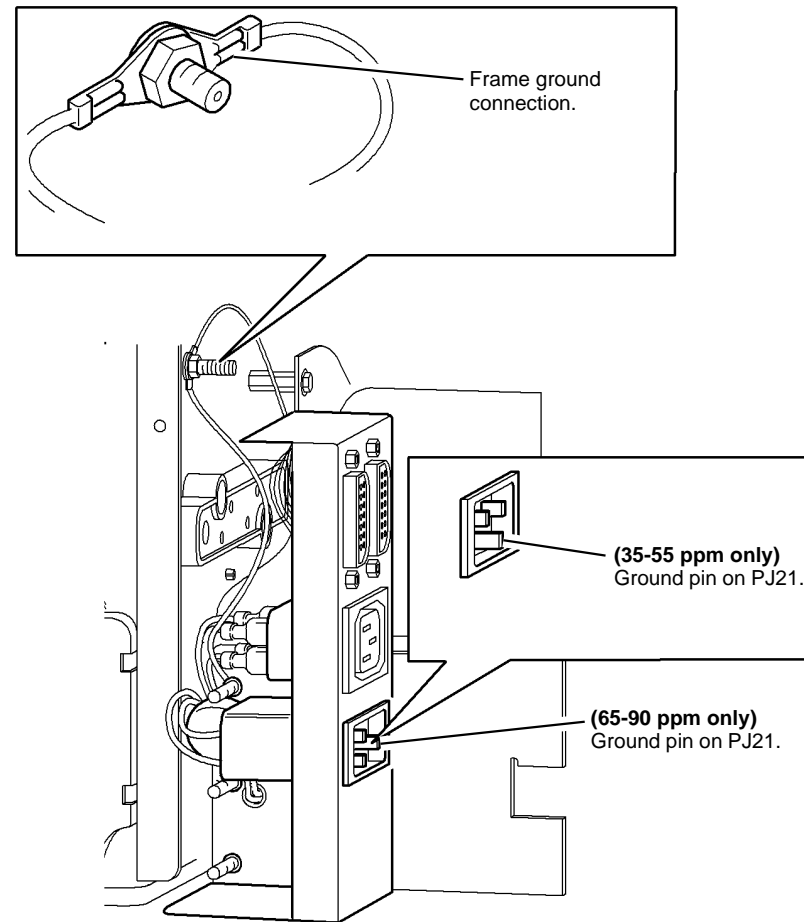


Figure 4 Ground connection check

T-1-0354-A

## REP 1.11 Molex Mini-Fit Junior Connectors

### Removal



#### WARNING

Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



Figure 1 ESD Symbol

1. [Figure 2](#). Remove the terminal from the housing, using the Molex, Mini-Fit extractor tool.

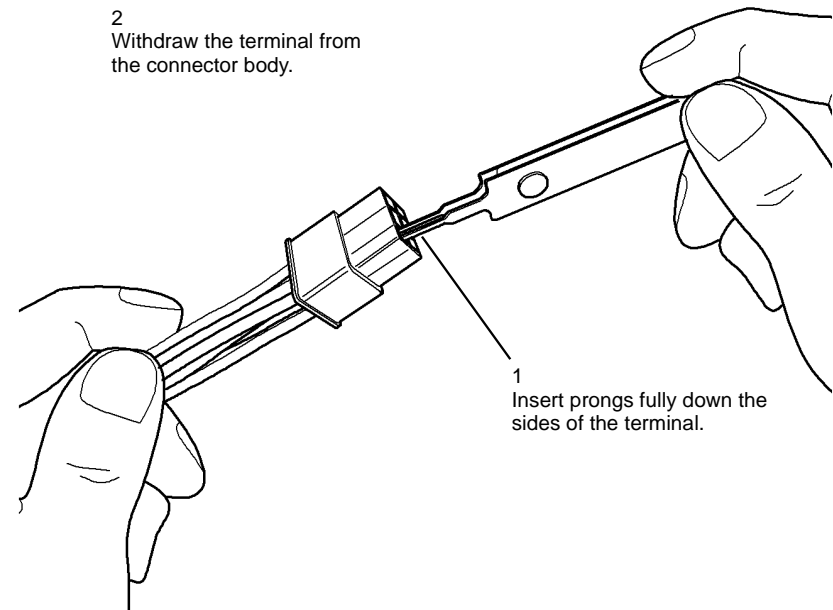


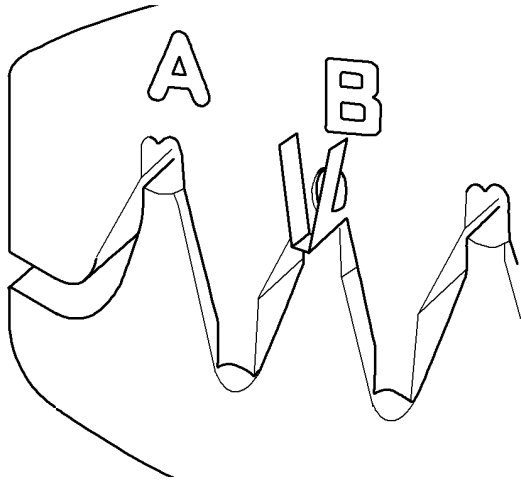
Figure 2 Removing the terminal

T-1-0355-A

2. Cut off the damaged terminal, then strip 4mm of insulation from the end of the wire.

## Replacement

1. Select the correct terminal type.
2. **Figure 3.** Insert the terminal into the appropriate position of the crimp tool and close the tool just enough to hold the terminal.

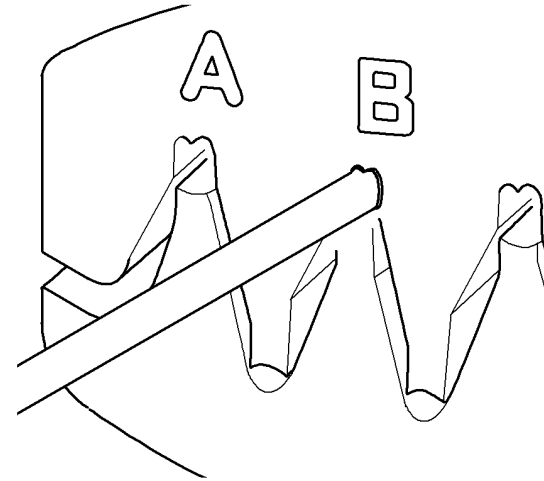


**Figure 3 Crimping the terminal**

T-1-0356-A

3. Insert the wire fully into the terminal so that the stripped portion is within the inner grip of the terminal. Close the crimp tool fully to make the crimp.

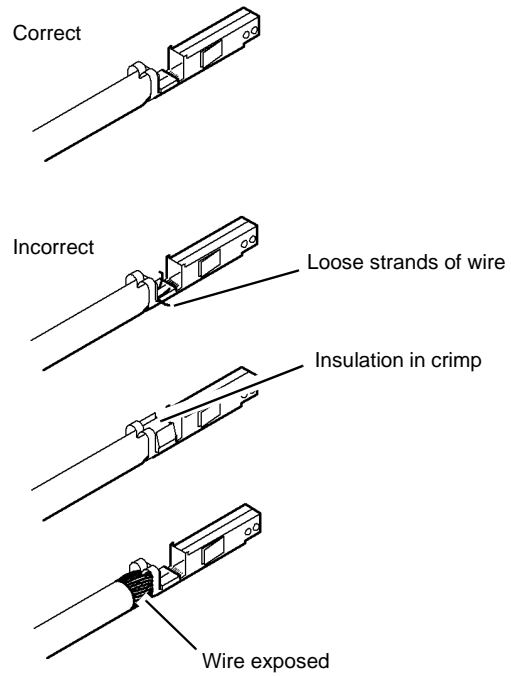
4. **Figure 4.** Insert the crimped terminal into the appropriate position of the crimp tool and close the crimp tool to fasten the wire insulation in the outer grip of the terminal.



**Figure 4 Crimping the insulation grip**

T-1-0357-A

5. **Figure 5.** Check that the crimp is correctly made.



T-1-0358-A

**Figure 5 Inspecting the finished crimp**

6. Insert the replacement terminal into the connector housing.

## REP 2.1 User Interface Assembly

Parts List on [PL 2.10](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



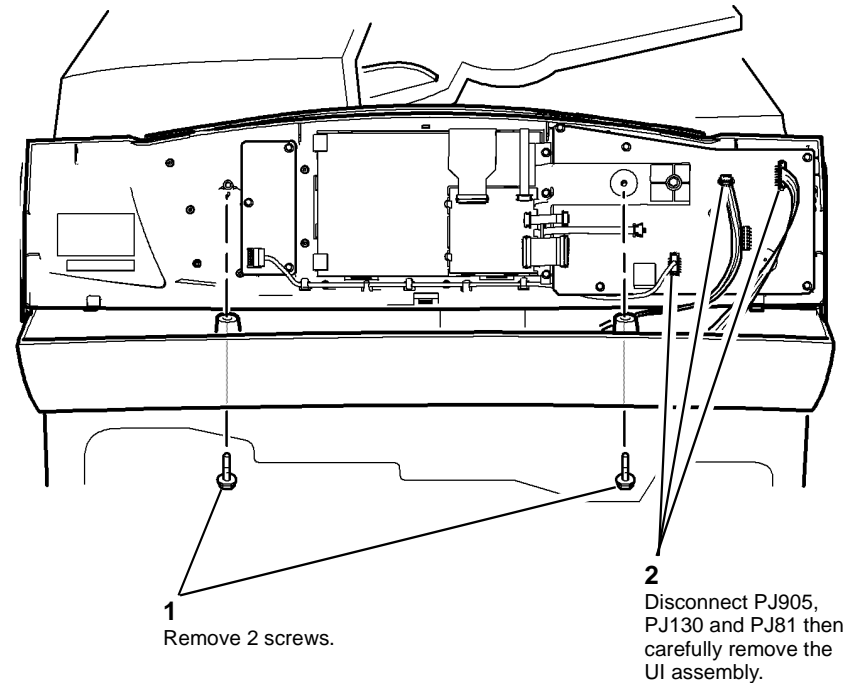
Figure 1 ESD Symbol



Ensure that E.S.D. procedures are observed during the removal and installation of the user interface assembly.

1. Open the front door, [PL 8.10 Item 10](#).

2. Remove the user interface assembly, [Figure 2](#).



T-1-0359-A

Figure 2 UI assembly removal

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before the screws are installed.
2. If prompted, reload the software set, [GP 4](#). The software will automatically upgrade or downgrade when the machine is switched on, [GP 14](#).

## REP 2.2 User Interface Touch Screen PWB

Parts List on [PL 2.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Figure 1 ESD Symbol



#### CAUTION

Ensure that E.S.D. procedures are observed during the removal and installation of the user interface touch screen PWB.

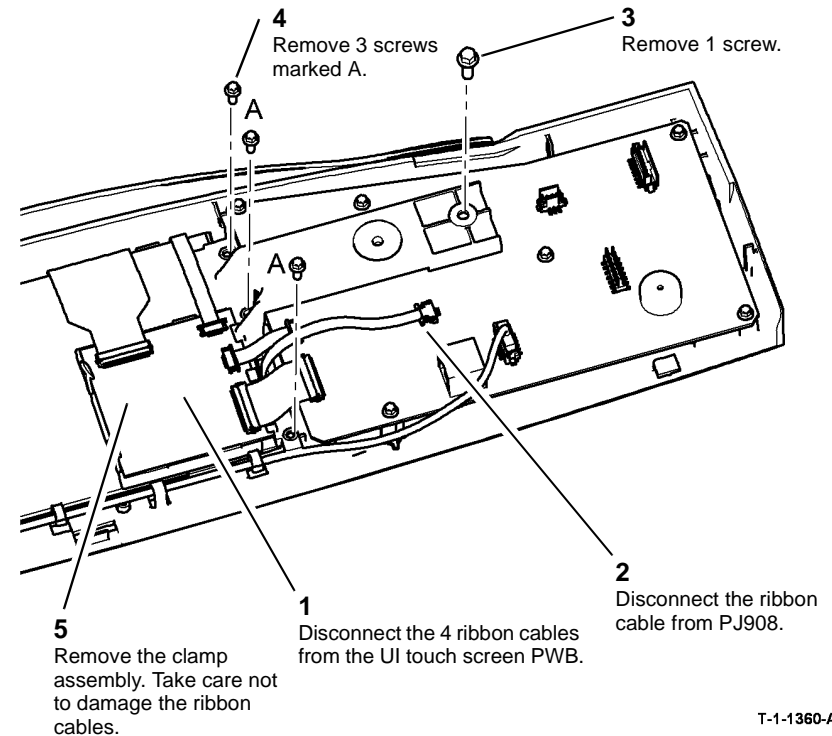
1. Remove the user interface assembly, [REP 2.1](#)
2. Put the user interface assembly on a flat surface.



#### CAUTION

The cable clamps are very fragile and only need to be moved slightly to release the ribbon cables.

3. Remove the user interface touch screen clamp assembly, [Figure 2](#).



T-1-1360-A

Figure 2 Remove the clamp assembly

4. Carefully release the UI control panel PWB from the screen clamp.

### Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before the screws are installed.

## REP 2.3 User Interface Control PWB

Parts List on [PL 2.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Figure 1 ESD Symbol



#### CAUTION

Ensure that E.S.D. procedures are observed during the removal and installation of the user interface control PWB.

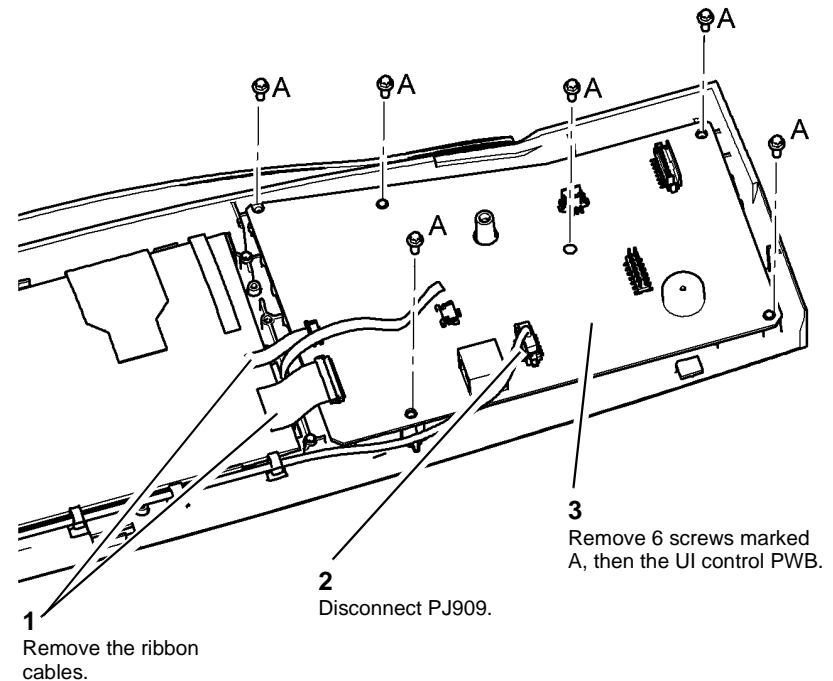
1. Remove the user interface assembly, [REP 2.1](#)
2. Put the user interface assembly on a flat surface.



#### CAUTION

The cable clamps are very fragile and only need to be moved slightly to release the ribbon cables.

3. Remove the user interface control PWB, [Figure 2](#).



T-1-1361-A

Figure 2 UI control PWB removal

### Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before the screws are installed.

## REP 2.4 User Interface Touch Screen

Parts List on [PL 2.10](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



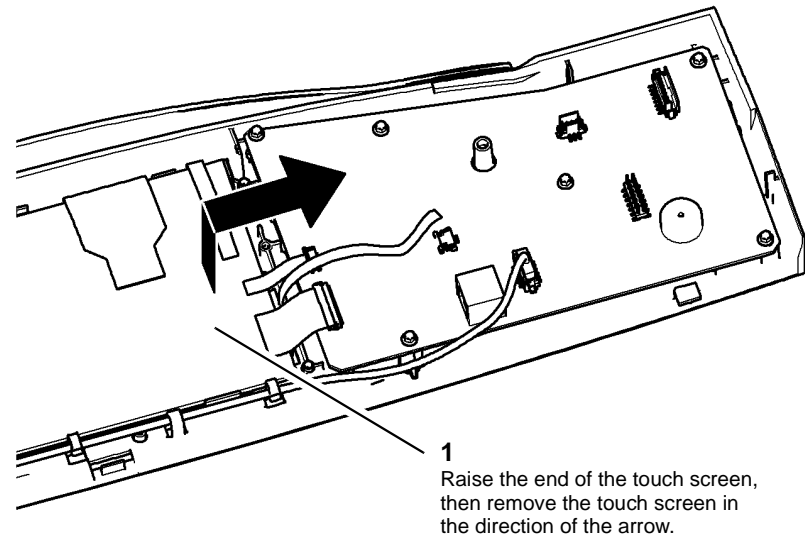
Figure 1 ESD Symbol



Ensure that E.S.D. procedures are observed during the removal and installation of the user interface touch screen.

1. Remove the user interface assembly, [REP 2.1](#)
2. Put the user interface assembly on a flat surface.
3. Remove the user interface screen clamp assembly, refer to [REP 2.2](#).

4. Remove the user interface touch screen, [Figure 2](#).



T-1-1118-A

Figure 2 UI control PWB removal

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before the screws are installed.
2. When replacing the ribbon cables, the blue flash should face away from the UI control PWB.



## REP 3.1 IOT PWB

Parts List on [PL 1.10](#)

### Removal



**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Figure 1 ESD Symbol



**CAUTION**

Ensure that E.S.D. procedures are observed during the removal and installation of the IOT PWB.

1. Remove the rear cover, [PL 8.10 Item 1](#).
2. Enter [dC131](#). Record the developer age value 09-271. Record the TC sensor control voltage 09-069.

**NOTE:** If the developer age is unavailable then record HFSI-developer copies.

3. [Figure 2](#), disconnect the PJs from the IOT PWB.

**NOTE:** 35ppm IOT PWBs do not have PJ33 and PJ64.

4. Remove the IOT PWB (8 screws).

### Replacement

- If a new IOT PWB has been installed, perform steps 1 and 2.
- Install the new IOT PWB. Ensure the IOT PWB ground contact screw is tight on the IOT PWB, [Figure 3](#). Ensure the contact faces are clean. Ensure the screw is bright plated and not black. Perform 1 below.

Perform the following:

1. Reconnect the power cord and switch on the machine, [GP 14](#).

If necessary, reload the software set, [GP 4](#). The machine will automatically upgrade or downgrade the software when the machine is switched on.

**NOTE:** After the software reload has been completed, the machine resets and gives a message 'Restoring Configuration Settings'. Do not switch off the machine or intervene during this NVM transformation process.

2. Check the machine serial number and the machine configuration, [GP 15](#). If necessary, in diagnostics, on the 'Service Info' screen, select the serial number box and enter the machine serial number as it appears on the front frame of the machine.
3. If necessary, perform a NVM restore, [GP 5](#).
4. Enter [dC131](#). Write the developer age value 09-271. Write the TC sensor control voltage 09-069.

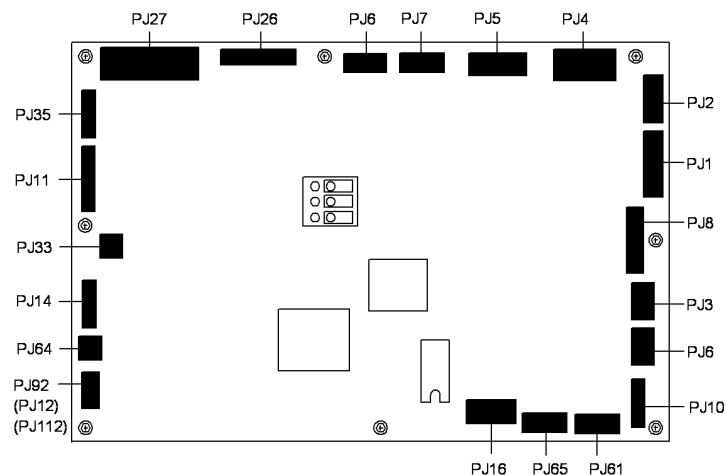


Figure 2 IOT PWB

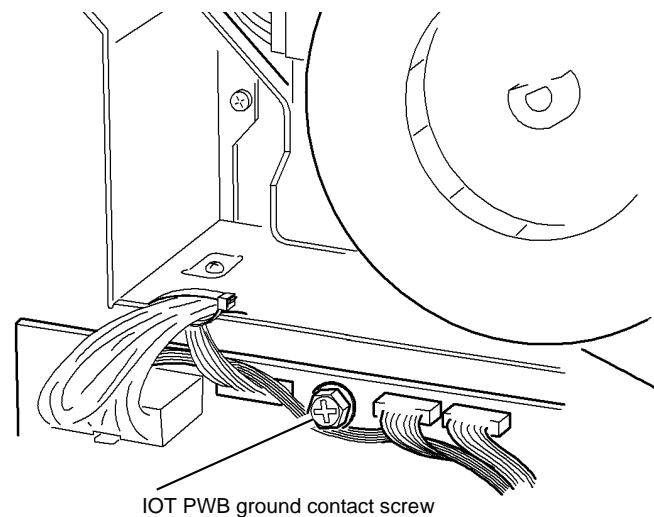


Figure 3 IOT PWB ground contact screw

T-1-0363-A

## REP 3.2 Hard Disk Drive

Parts List on [PL 3.22 Item 2](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Figure 1 ESD Symbol

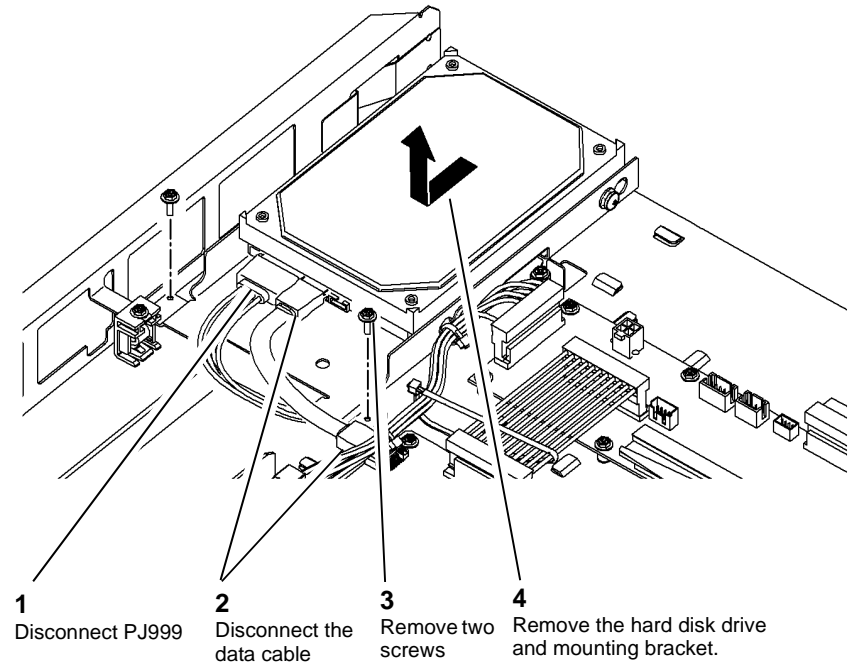


#### CAUTION

Ensure that E.S.D. procedures are observed during the removal and installation of the disk drive.

1. Pull out the single board controller PWB module, [PL 3.24 Item 1](#).

2. Remove the hard disk drive, [Figure 2](#) and [Figure 3](#).



T-1-0368-A

Figure 2 Hard disk drive removal

## REP 3.3 Software Module

Parts List on [PL 3.24](#)

### Removal

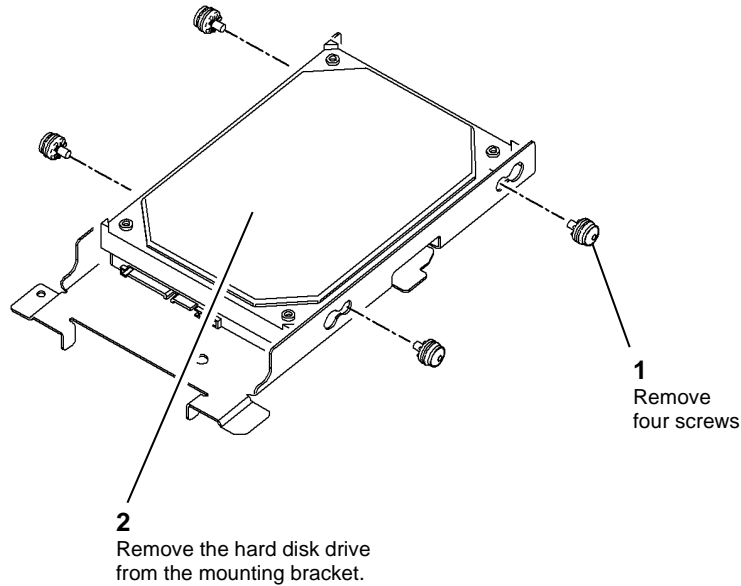


Figure 3 Hard disk drive removal

### Replacement

1. Replacement is the reverse of the removal procedure.
2. Perform an Altboot, [GP 4](#).

T-1-0369-A



### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Figure 1 ESD Symbol

**NOTE:** During this procedure, the most recent Golden NVB Restore file will be required. The file is available from the Office Black & White and ColorQube GSN library, number 10231. Be aware that the file on the faulty software module may be corrupt.

**NOTE:** If the machine does not behave as expected during this procedure, switch off the machine, [GP 14](#), then switch on the machine.

1. Switch off the machine, [GP 14](#).
2. Pull out the single board controller PWB module, [PL 3.24 Item 1](#).
3. If installed, remove the embedded fax PWB, [PL 20.10 Item 4](#).
4. If the machine has a finisher installed, remove the finisher then install a finisher bypass harness, [PL 26.10 Item 7](#). Refer to the relevant procedure:
  - [REP 11.11-120 1K LCSS Removal](#).
  - [REP 11.13-110 2K LCSS Un-Docking](#).
  - [REP 11.13-171 HVF/HVF BM Un-Docking](#).

5. Remove the software module, [Figure 2](#).

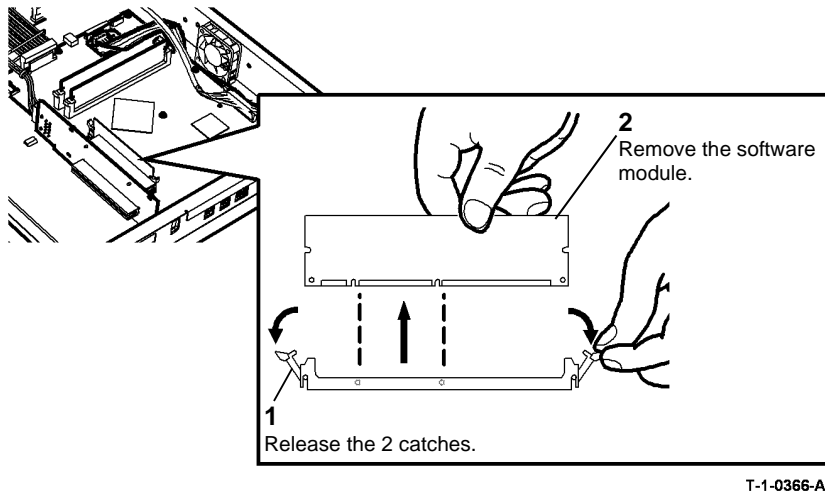


Figure 2 Software module removal

## Replacement

Perform the following:

1. Install the new software module, refer to [Figure 2](#). Press the ends of the module firmly downwards and the catches will return to their original positions.
2. Reconnect the power cord and switch on the machine, [GP 14](#).

**NOTE:** Some or all of the following messages will appear on the UI:

- 'Ready to scan your job'.
- 'Install phase incomplete'.
- Check settings for Tray 1'.
- Machine speed configuration error, power down / ignore.
- Local interface problem detected. Please switch the machine off / on.

3. Perform [GP 15](#) How to Set the Machine Configuration.
4. Perform an AltBoot, [GP 4](#).

**NOTE:** The software module is not upgraded when the machine is switched on.

5. Perform an NVM restore, [GP 5](#).

**NOTE:** The following warning may be displayed; 'The NVM you are trying to restore has been generated from a different version set number'.  
Select Yes to continue.

6. When the restore is complete, close the NVM save and restore tool. The UI should now display 'Ready to scan'. Switch off, then switch on the machine, [GP 14](#).

**NOTE:** This will load the SCD on to the new software module and upgrade the software if necessary.

7. If necessary, switch off the machine, [GP 14](#). Install the finisher then the embedded fax. Switch on the machine, [GP 14](#).
8. Check that the machine has the correct levels of software.
9. Press the Machine Status button.
  - a. Go to Tools / Device Settings / General / Date and Time.
  - b. Set Date: Follow the instructions on the screen to set the correct date.
  - c. Set Time: Select 12 Hour (AM / PM) or 24 Hour clock. Follow the instructions on the screen to set the correct time.
  - d. Press Reboot to exit.
10. Perform [SCP 6](#) Final Actions.

## REP 3.4 Single Board Controller and Power Distribution PWBs

Parts List on [PL 3.24](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Figure 1 ESD Symbol

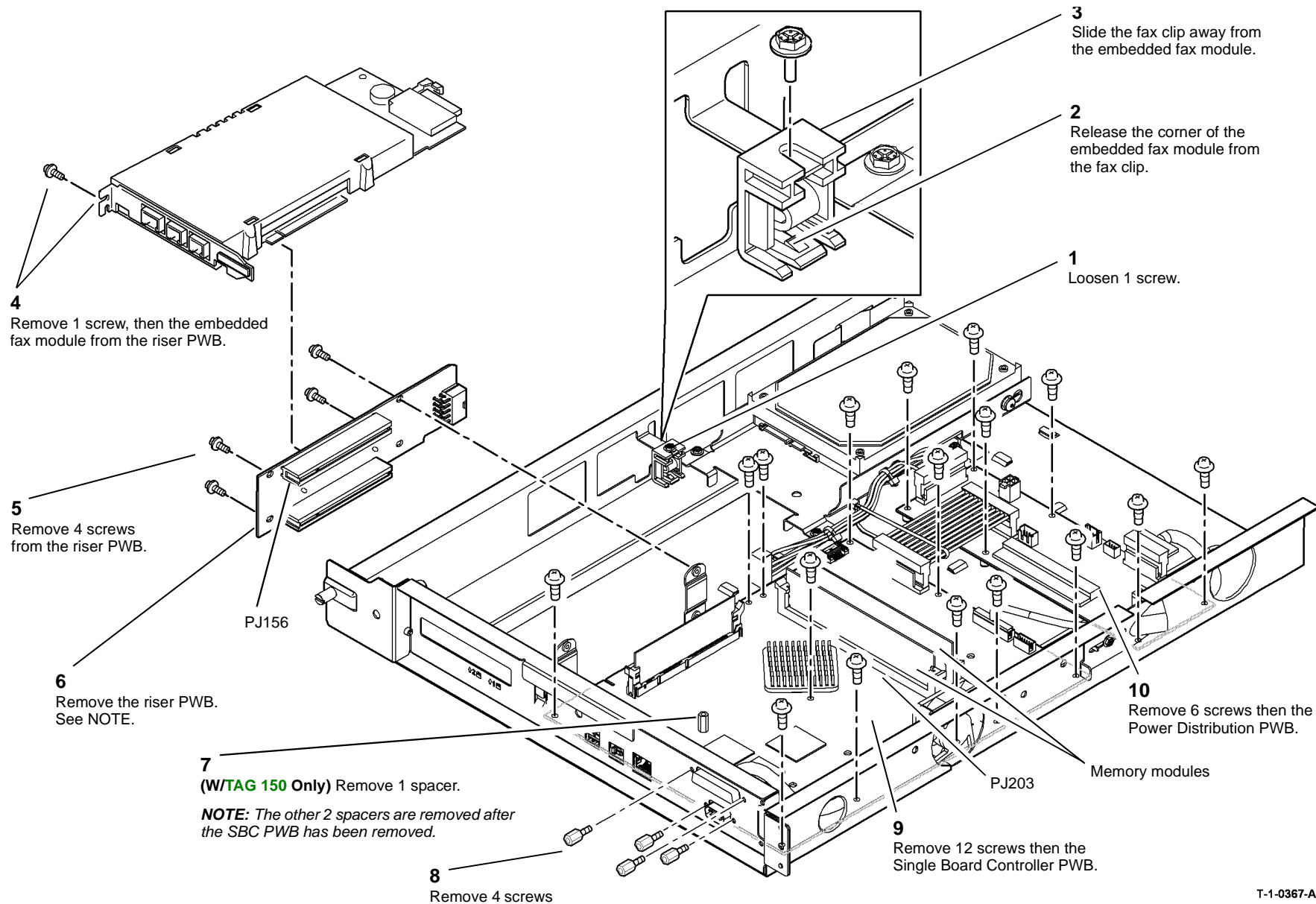
1. Pull out the single board controller PWB module, [PL 3.24 Item 1](#).
2. If installed, remove the foreign interface PWB, [PL 3.22 Item 4](#) from the single board controller PWB.

**NOTE:** Record the location of the memory module(s) before removal.

**NOTE:** Remove the memory module(s) and the software module by pressing the side catches downwards. When reinstalling the memory and software modules, press each end of the modules down firmly and the catches will return to their original position.

3. Remove the memory module, [PL 3.24 Item 12](#) from the single board controller PWB.
4. Remove the software module from the single board controller PWB, [REP 3.3](#).
5. **(W/TAG 150 Only)**. Disconnect the PJs from the scanner daughter PWB, [PL 3.24 Item 20](#). Remove the scanner daughter PWB.
6. Disconnect the PJs from the relevant PWBs:
  - Single board controller PWB, [PL 3.24 Item 3](#).
  - Riser PWB, [PL 3.22 Item 3](#).
7. Remove the embedded fax module, riser PWB or single board controller PWB, [Figure 2](#).

**NOTE:** Only perform steps 1 to 4 of the removal procedure shown in [Figure 2](#) if an embedded fax module is installed. Later riser PWBs do not have PJ156.



T-1-0367-A

Figure 2 Single board controller PWB module

8. (W/TAG 150 Only) Remove the 2 remaining spacers, PL 3.24 Item 19 and nuts from the single board controller PWB.

## Replacement



### CAUTION

*Ensure the DADH / Power distribution PWB harness from PJ152 at the rear of the SIP tray is not routed under the single board controller PWB. It must be routed away from the PWB, to the right.*

1. Ensure the first memory module is installed in PJ203 on the single board controller PWB. Refer to [Figure 2](#).
2. Install the software module, [REP 3.3](#).
3. Connect the power cord and switch on the machine, [GP 14](#).
4. Reload the software, [GP 4](#) Machine Software.





## REP 4.1 Main Drive Module (35-55 ppm)

Parts List on [PL 4.15](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

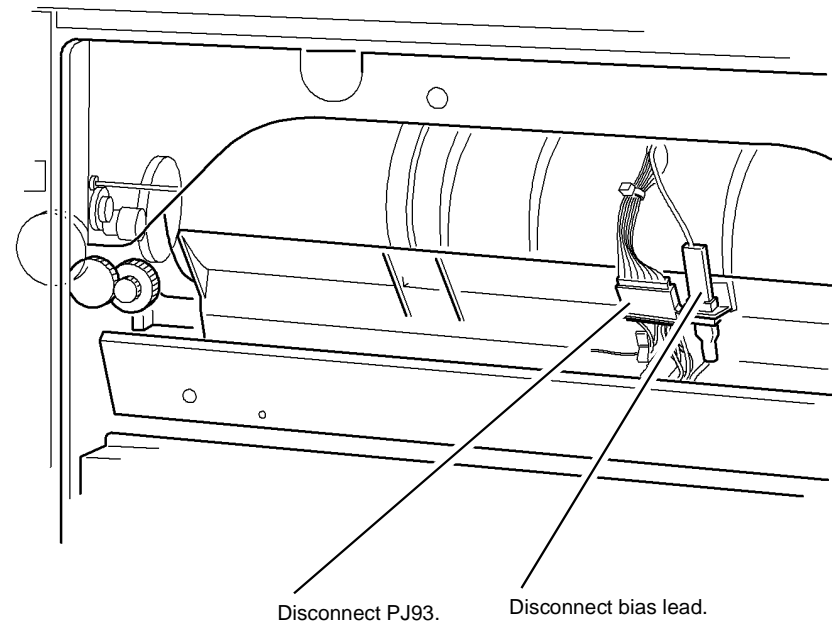


#### CAUTION

*The 35 ppm Main Drive Modules are not interchangeable with 45-55 or 65-90 ppm Main Drive Modules. Before you begin this repair procedure, ensure that the new Main Drive Module is the correct part number for your machine speed and model.*

1. Pull out fuser module approximately 100mm, (4 inches), [PL 10.8 Item 1](#).
2. Drop down the short paper path assembly, [PL 10.25 Item 1](#).
3. Remove the xerographic module, [PL 9.20 Item 2](#), and place in a black bag.
4. Remove the left hand cover, [PL 8.10 Item 3](#).

5. Disconnect PJ93 and the bias lead on the developer module, [Figure 1](#).



T-1-0370-A

**Figure 1 Developer module**

6. Remove the two screws securing the developer module, [REP 9.2](#).
7. Pull the developer module out approximately 100mm (4 inches).
8. Remove the rear cover, [PL 8.10 Item 1](#).
9. Remove the waste toner bottle door assembly, [REP 9.1](#).
10. Remove the ozone filter and duct, [PL 9.25 Item 2](#).

11. Move the power and control assembly to the rear, [Figure 2](#).

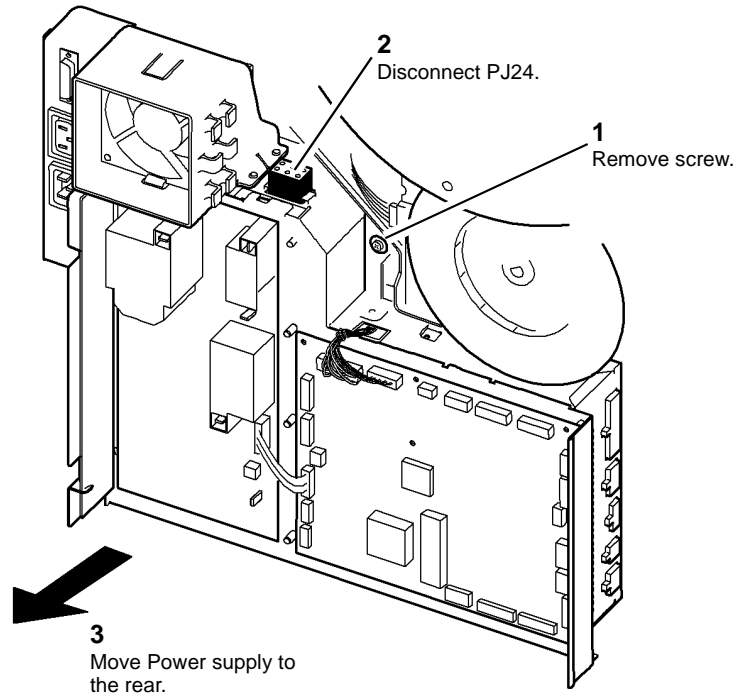


Figure 2 Power supply

T-1-0371-A

**CAUTION**

*Take care when removing PJ1 on the IOT PWB, the pins can be easily damaged.*

12. Disconnect PJs on the power and control assembly, (35 ppm) [Figure 3](#), (40-55 ppm) [Figure 4](#).

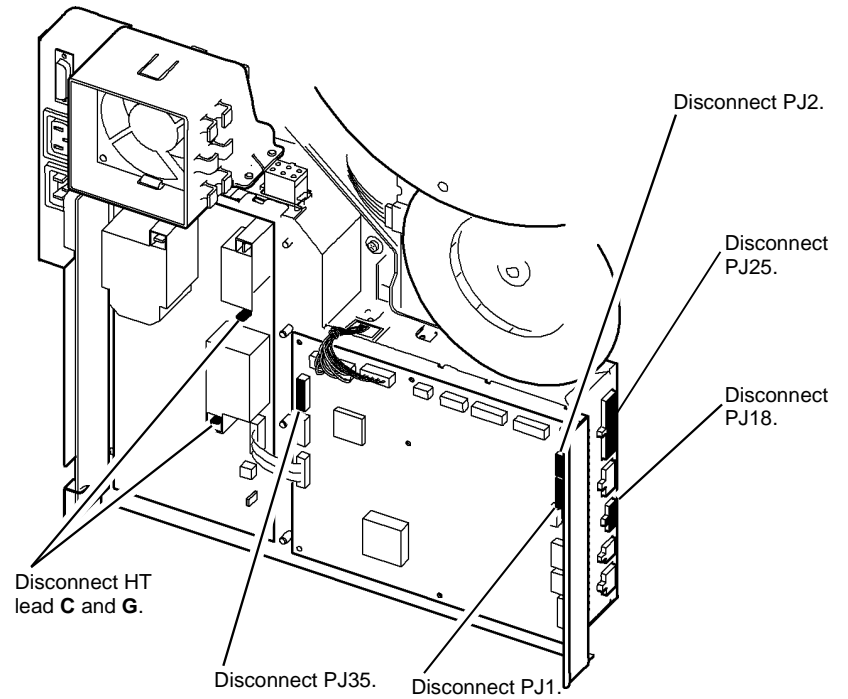
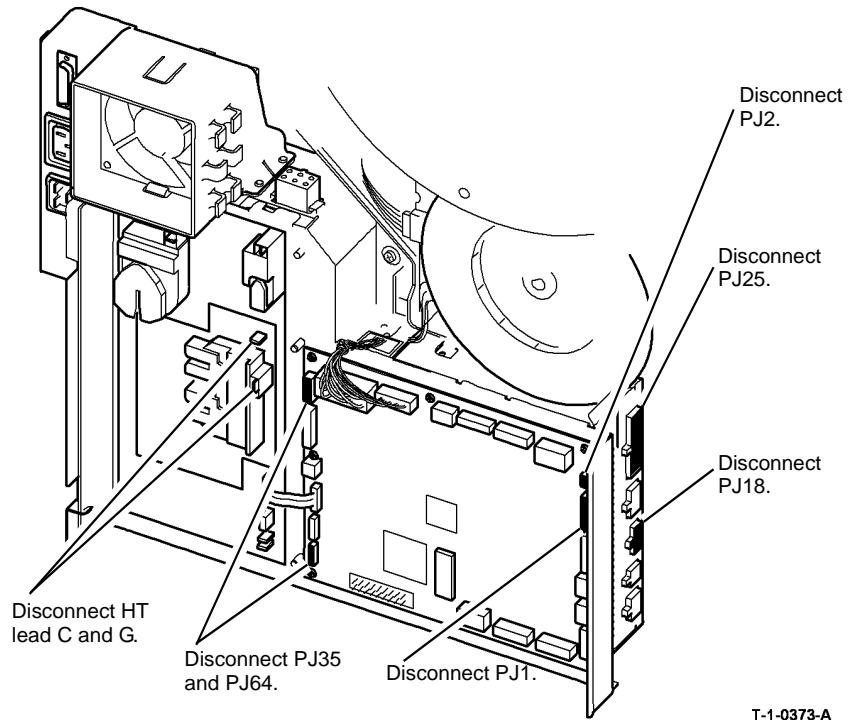


Figure 3 Power and control assembly

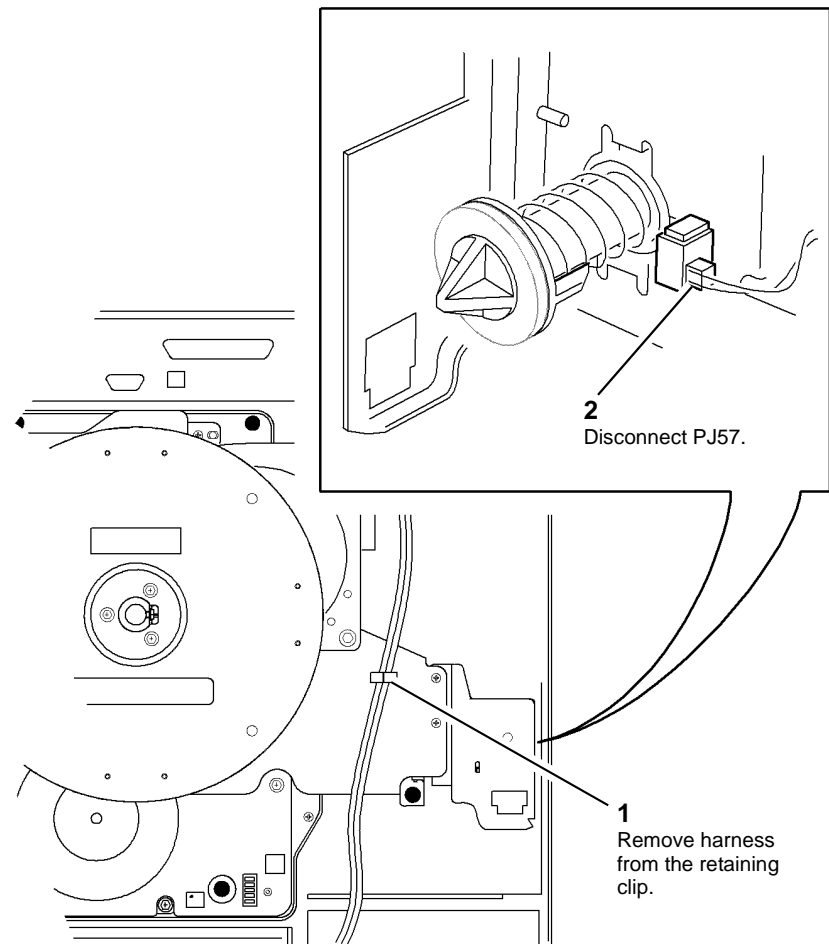
T-1-0372-A



**Figure 4 Power and control assembly**

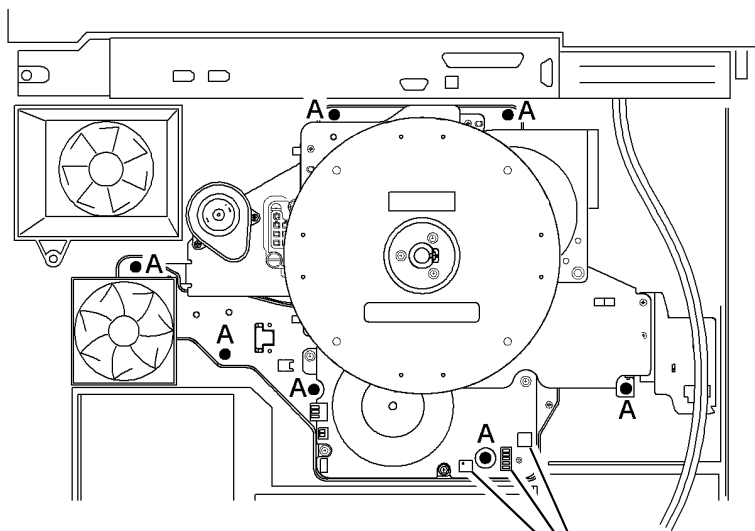
13. Remove the main frame ground wire, refer to the **01A** Ground Distribution RAP.
14. Remove the waste toner full sensor, **REP 9.4**.

15. Unclip the wiring harness from the retaining clip and move the harness away from the drives module, **Figure 5**.
16. Disconnect PJ57 on the waste toner door switch, **Figure 5**.



**Figure 5 Harness and door switch**

17. Prepare to remove the main drive assembly, [Figure 6](#).



**3**  
Slide the assembly off the location dowels.

**2**  
Remove 7 silver screws marked **A**.

**1**  
Disconnect PJ147, PJ148 and PJ149.

T-1-0375-A

**Figure 6 Main drive module**

18. Slide the assembly off of the location dowels.

## Replacement

Replacement is the reverse of the removal procedure.

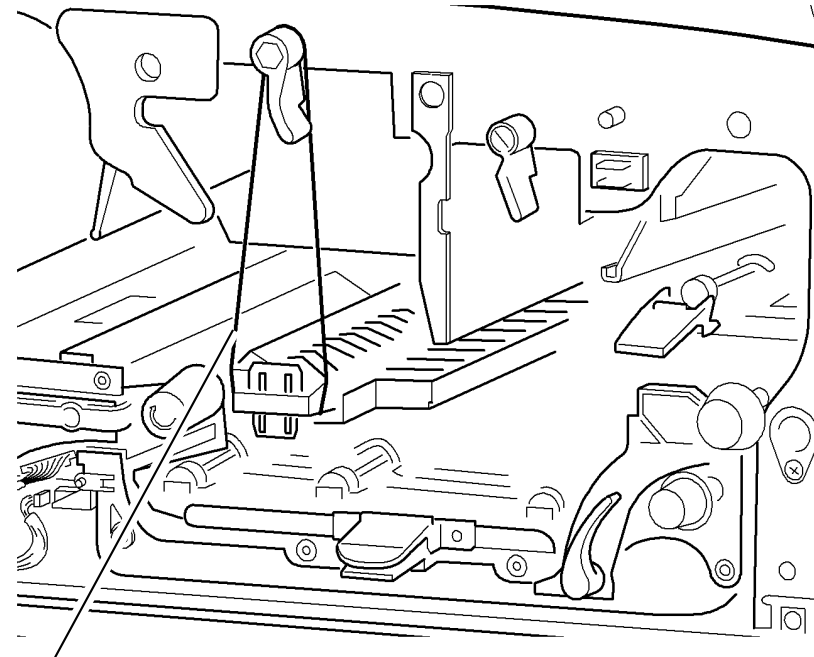


### CAUTION

*Do not trap the harnesses when the main drives module is located onto the dowels. Take care when reconnecting PJ1 on the IOT PWB, the pins can easily be damaged.*

Perform the following:

1. It is important that the short paper path assembly is held in the up position before installing the main drives module, [Figure 7](#).

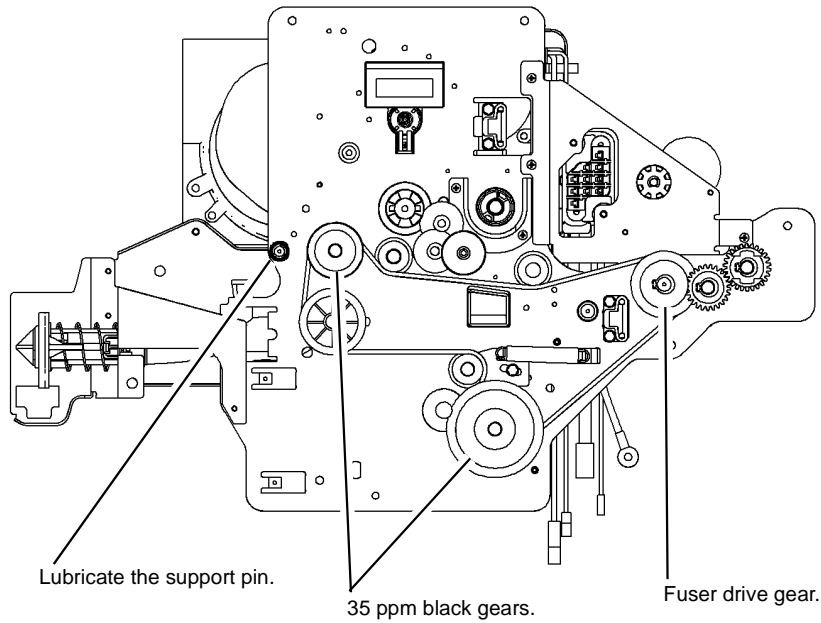


Support the short paper path.

T-1-0376-A

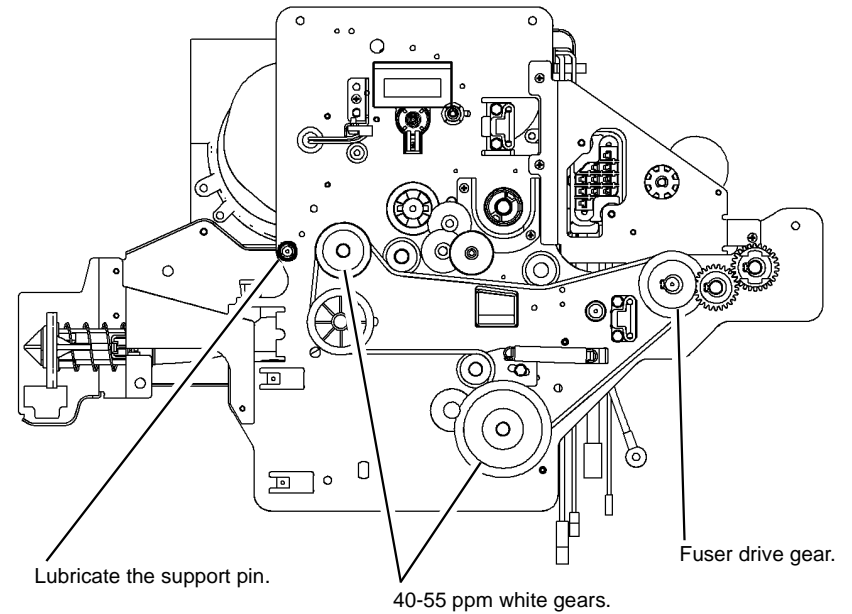
**Figure 7 Short paper path assembly**

- If a new main drives module is installed, check that the drive speed is correct. The 35 ppm modules have black drive gears, [Figure 8](#). The 40-55 ppm modules have white drive gears, [Figure 9](#).
- Lubricate the developer module support pin on the main drive module drives plate with Plastislip grease, (35 ppm) [Figure 8](#), (40-55 ppm) [Figure 9](#).



T-1-0377-A

**Figure 8 Main drives module 35 ppm**



T-1-0378-A

**Figure 9 Main drive module 40-55 ppm**

- Manually rotate the main drive motor to engage the drive between the drives plate and the inverter transport before tightening up the seven mounting screws, [Figure 6](#).
- Take care when connecting PJ1 on the IOT PWB, make sure to align the pins correctly.
- If a new drives module or developer drive gear is installed, reset the developer count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 4.2 Main Drive PWB (35-55 ppm)

Parts List on [PL 4.15](#)

### Removal



#### WARNING

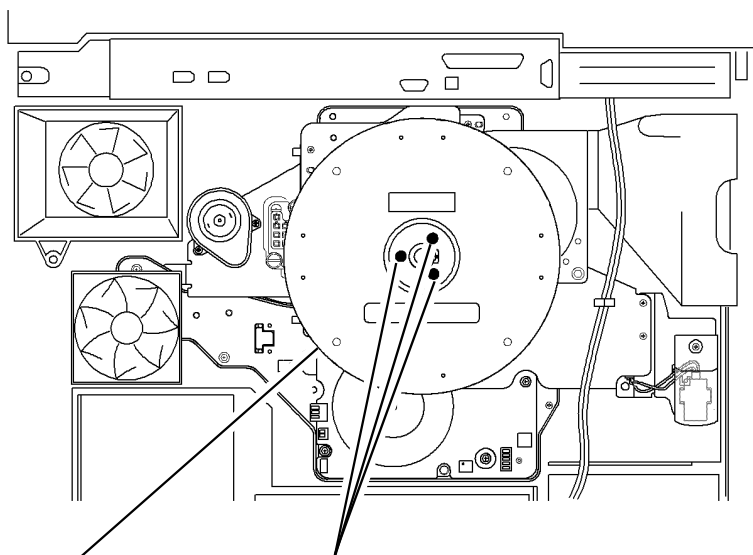
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 8.10 Item 1](#).
2. Remove the flywheel (3 short screws), [Figure 1](#).

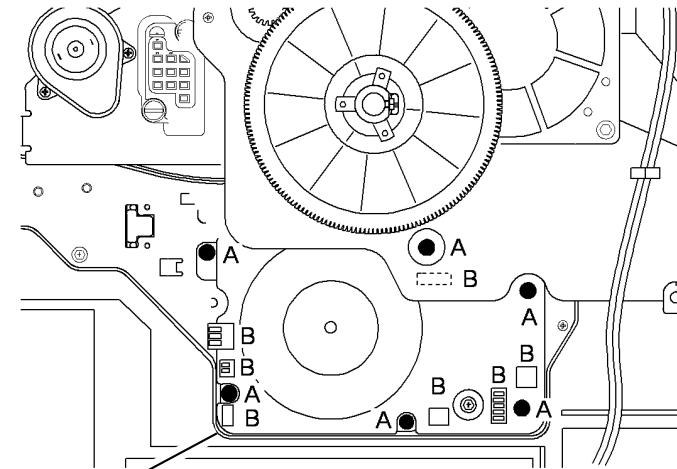


- 1 Remove 3 short screws.
- 2 Remove the flywheel.

T-1-0386-A

Figure 1 Remove the flywheel

3. Remove the main drive PWB, [Figure 2](#).



- 1 Disconnect 7 PJs marked B.
- 2 Remove 6 black screws marked A.
- 3 Remove main drive motor PWB

T-1-0387-A

Figure 2 Main drive PWB

### Replacement

Replacement is the reverse of the removal procedure.

## REP 4.3 Main Drive Belt, Drive Gears and Idlers (35-55 ppm)

Parts List on [PL 4.17](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the main drive module, [REP 4.1](#).
2. To remove the main drive belt, (35 ppm), refer to [Figure 1](#).  
To remove the main drive belt, (40-55 ppm), refer to [Figure 2](#).

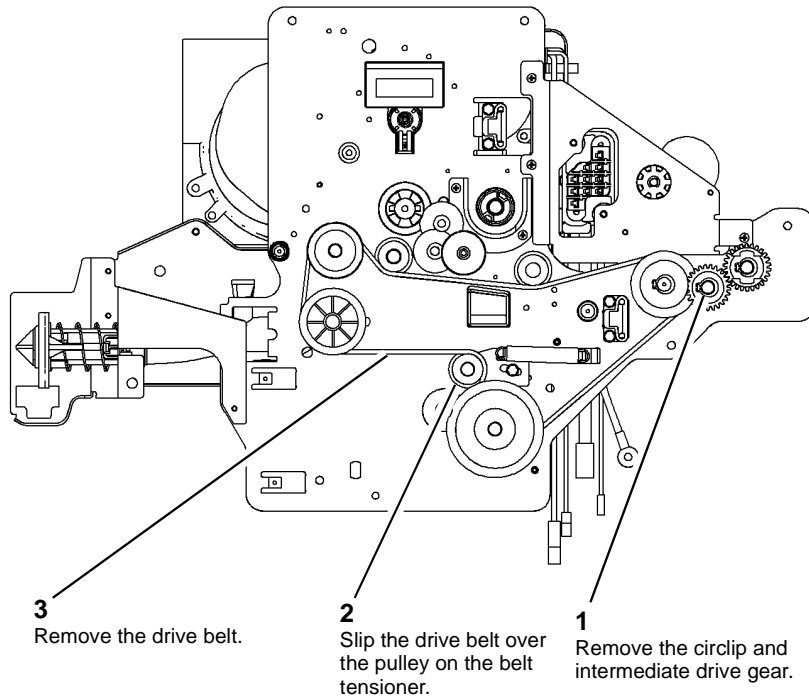


Figure 1 Main drive belt 35 ppm

T-1-0393-A

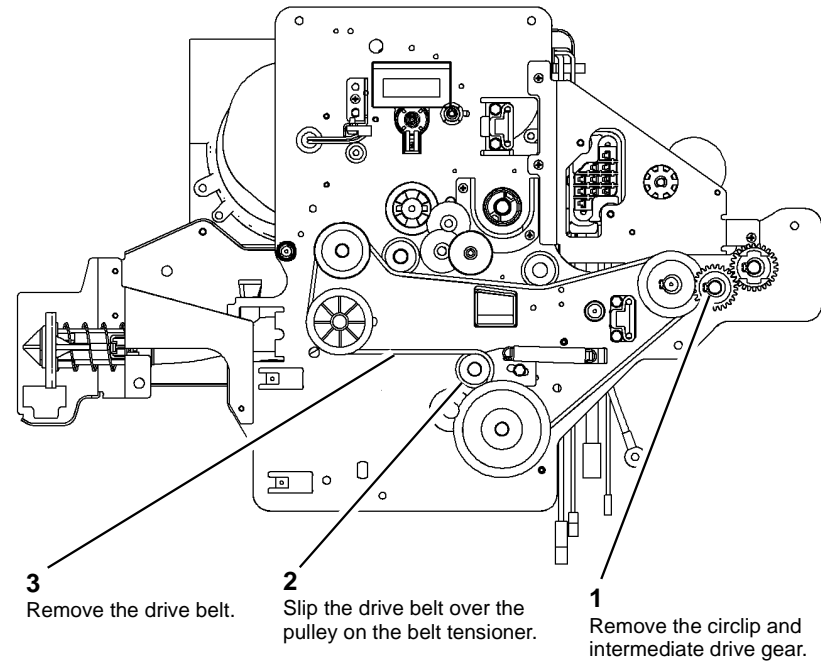
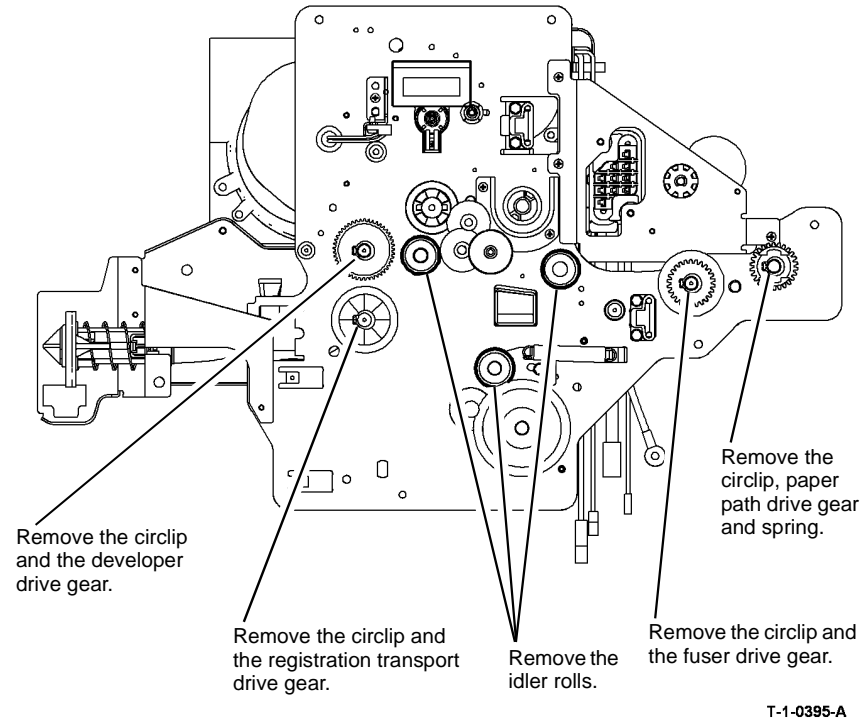


Figure 2 Main drive belt 40-55 ppm

T-1-0394-A

3. Refer to [Figure 3](#), remove the following:
  - Output paper path drive gear.
  - Fuser drive gear.
  - Registration transport drive gear.
  - Developer drive gear.
  - Idler rolls



**Figure 3 Remove drive gears and idlers**

## Replacement



*The spring loaded belt tensioner, [Figure 1](#) is a floating type and should not be locked down.*

Replacement is the reverse of the removal procedure.

If a new developer drive gear is installed, reset the developer count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 4.4 Photoreceptor Drive Gear

Parts List on (35-55 ppm) [PL 4.15](#), (65-90 ppm) [PL 4.10](#).

### Removal



**WARNING**  
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**  
Take care during this procedure. Sharp edges may be present that can cause injury.

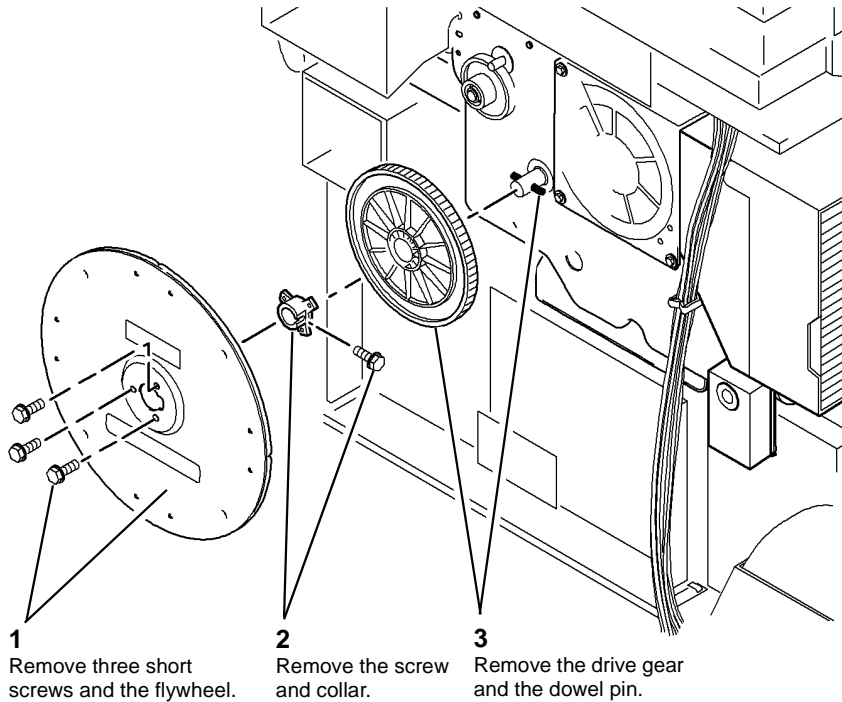
1. Remove rear cover, [PL 8.10](#) Item 1.



**!**  
**CAUTION**

When the drive gear is removed from the shaft, the dowel pin may drop onto the IOT PWB or LVPS.

2. Remove the photoreceptor drive gear, Figure 1.



T-1-0400-A

Figure 1 Photoreceptor drive gear

## Replacement

Replacement is the reverse of the removal procedure. Refer to GP 6 before refitting the screws.

**NOTE:** Turn the drive shaft, so that the dowel pin is horizontal then locate the drive gear onto the drive shaft.

## REP 4.5 Main Drive Module (65-90 ppm)

Parts List on PL 4.10

### Removal

**!**  
**WARNING**

Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**!**  
**WARNING**

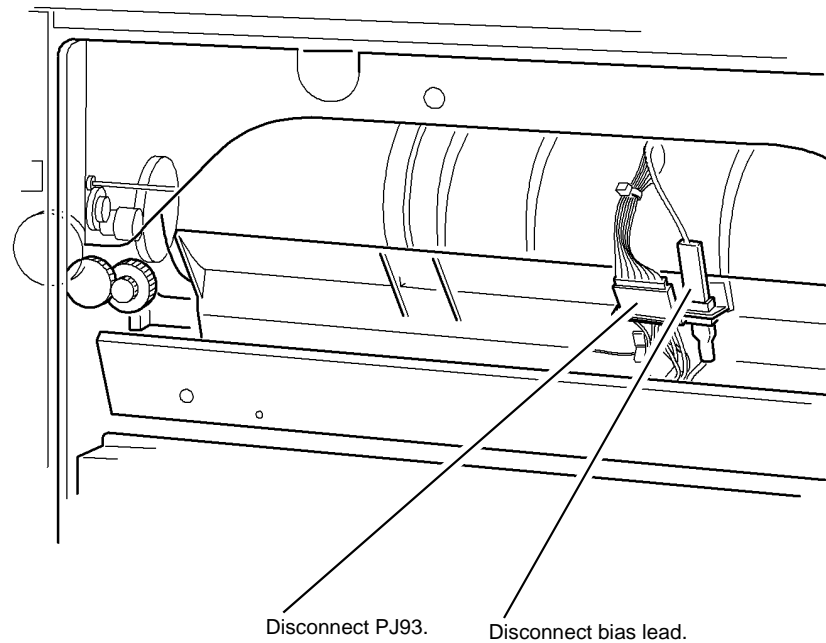
Take care during this procedure. Sharp edges may be present that can cause injury.

**!**  
**CAUTION**

The 35 ppm, 45-55 ppm and 65-90 ppm main drive modules are not interchangeable. Before this procedure is begun, ensure that the new main drive module is the correct part number for the machine.

1. Pull out fuser module approximately 100mm, (4 inches), PL 10.10 Item 1.
2. Drop down short paper path assembly, PL 10.25 Item 1.
3. Remove the xerographic module, PL 9.20 Item 2, and place in a black bag.
4. Remove left hand cover, PL 8.10 Item 3.

5. Disconnect PJ93 and the bias lead on the developer module, [Figure 1](#).

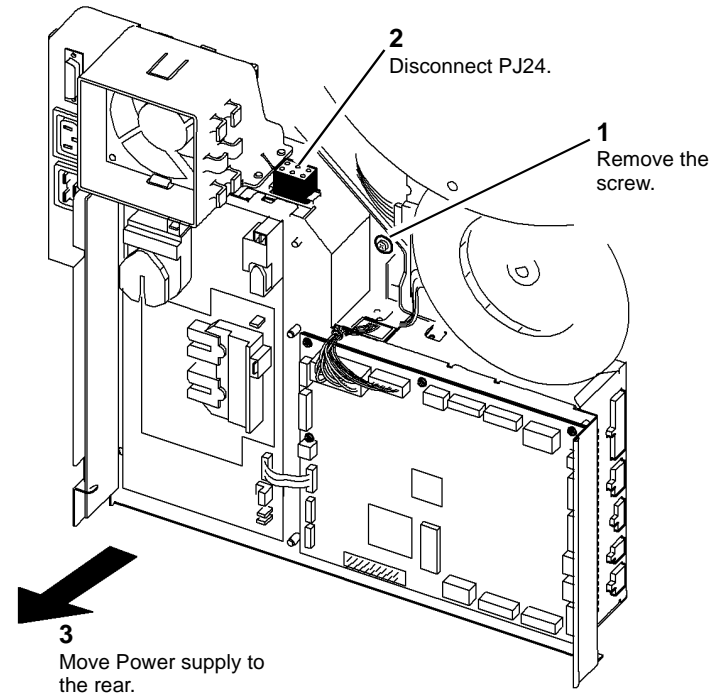


T-1-0379-A

**Figure 1 Developer module**

6. Remove the two screws securing the developer module, [REP 9.2](#).  
7. Pull the developer module out approximately 100mm (4 inches).  
8. Remove the rear cover, [PL 8.10 Item 1](#).  
9. Remove the waste toner bottle door assembly, [REP 9.1](#).  
10. Remove the ozone filter and duct, [PL 9.25 Item 2](#).

11. Move the power and control assembly to the rear, [Figure 2](#).



T-1-0380-A

**Figure 2 Power supply**

**CAUTION**

Take care when removing PJ1 on the IOT PWB, the pins can be easily damaged.

12. Disconnect PJs on the power and control assembly, Figure 3.

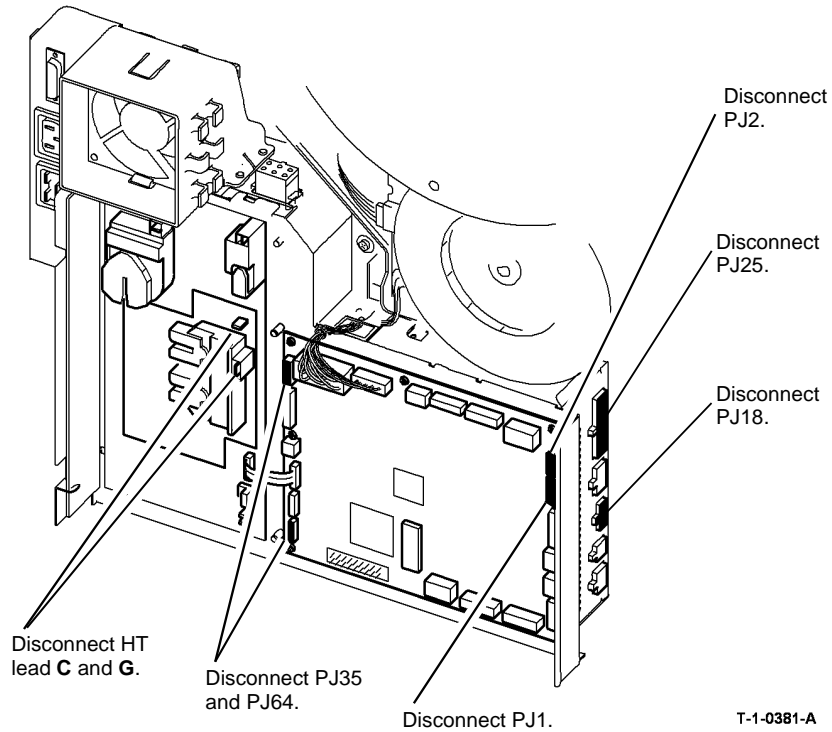


Figure 3 Power and control assembly

13. Remove the main frame ground wire, refer to the 01A Ground Distribution RAP.
14. Remove the waste toner full sensor, REP 9.4.

15. Unclip the wiring harness from the retaining clip and move the harness away from the drives module, Figure 4.
16. Disconnect PJ57 on the waste toner door switch, Figure 4.

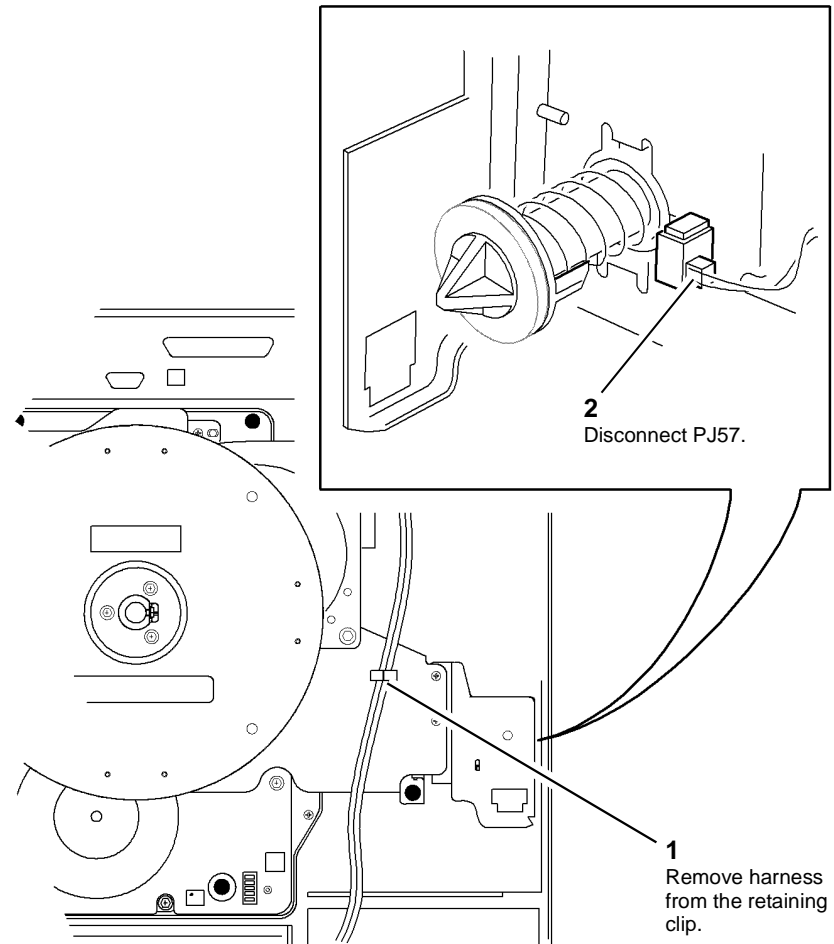
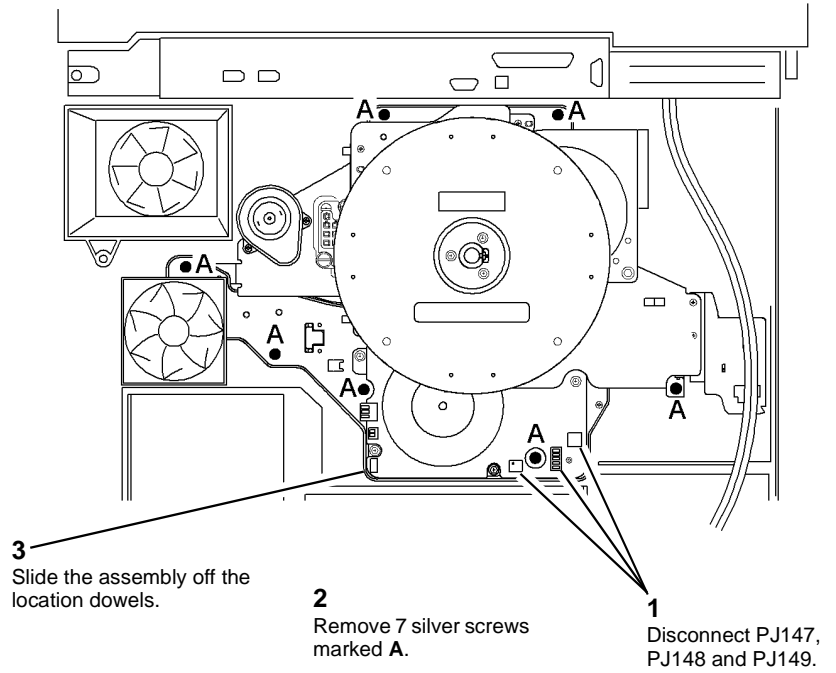


Figure 4 Harness and door switch

17. Prepare to remove the main drive assembly, [Figure 5](#).



3 Slide the assembly off the location dowels.

2 Remove 7 silver screws marked A.

1 Disconnect PJ147, PJ148 and PJ149.

T-1-0383-A

**Figure 5 Main drive module**

18. Slide the assembly off the location dowels.

### Replacement

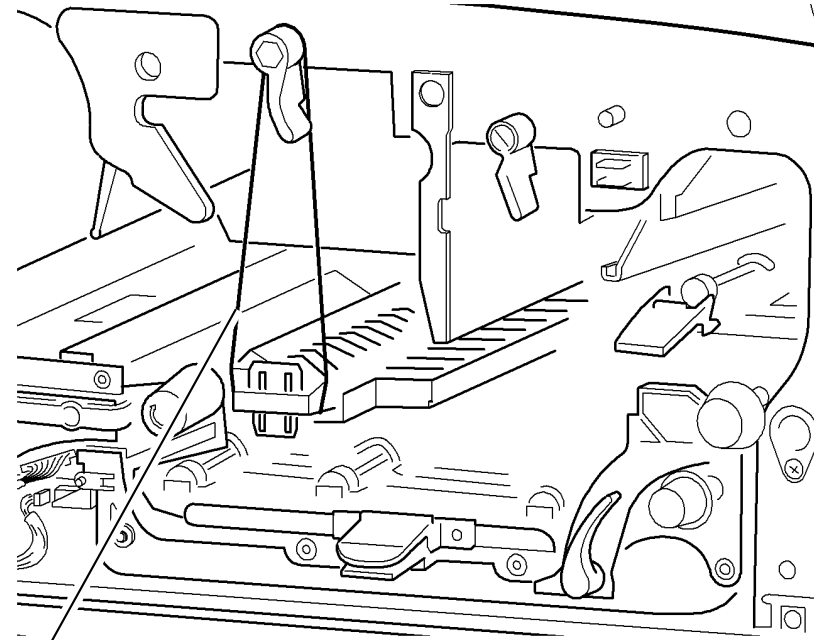
Replacement is the reverse of the removal procedure.

**CAUTION**

*Do not trap the harnesses when the main drives module is located onto the dowels. Take care when reconnecting PJ1 on the IOT PWB, the pins can easily be damaged.*

Perform the following:

1. It is important that the short paper path assembly is held in the up position before installing the main drives module, [Figure 6](#).



Support the short paper path.

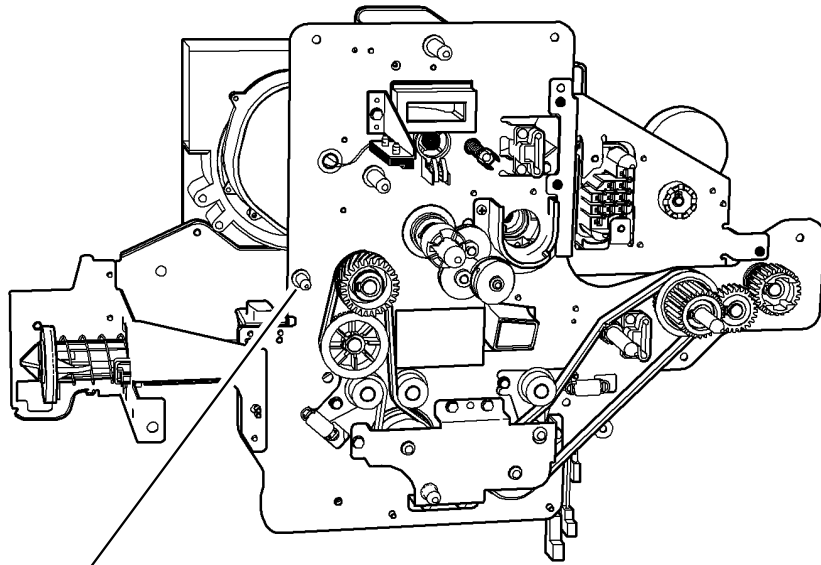
T-1-0384-A

**Figure 6 Short paper path assembly**

**!**  
**CAUTION**

The belt tensioners are of the floating type, and are spring loaded. They should not be locked down.

2. Lubricate the developer module support pin on the main drive module drives plate with Plastislip grease, [Figure 7](#).



Lubricate the support pin.

T-1-0385-A

**Figure 7 Main drives module**

3. Manually rotate the main drive motor to engage the drive between the drives plate and the inverter transport before tightening the seven mounting screws, [Figure 5](#).
4. Rotate the jam clearance knob 4c and ensure that the registration shaft turns freely.
5. Take care when connecting PJ1 on the IOT PWB, make sure to align the pins correctly.
6. If a new drives module or developer drive gear is installed, reset the developer count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 4.6 Main Drive PWB (65-90 ppm)

Parts List on [PL 4.10](#)

### Removal

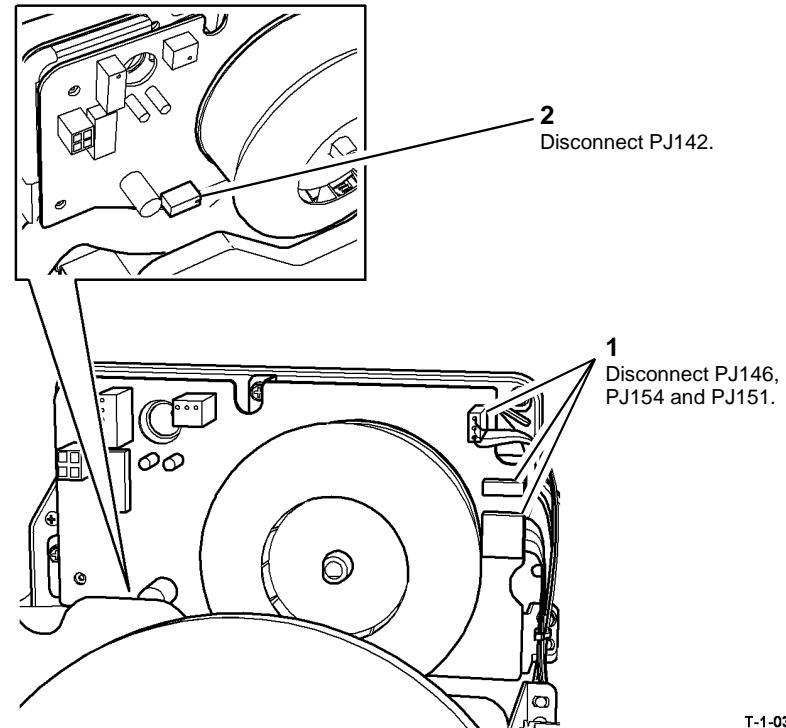
**!**  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**!**  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

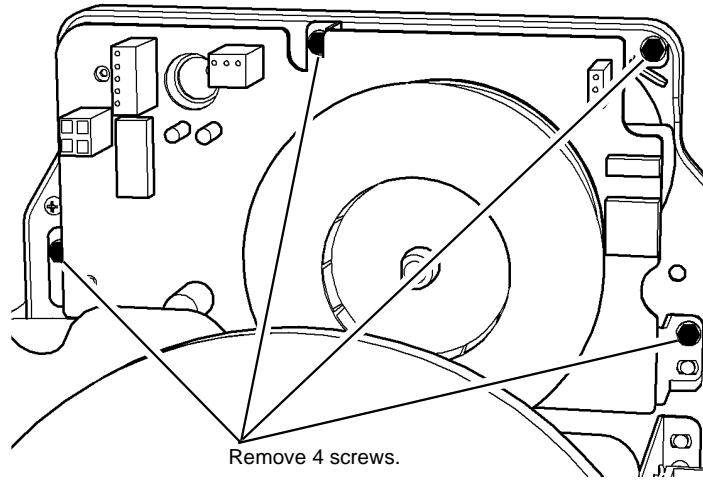
1. Remove the main drive module, [REP 4.5](#).
2. Remove the PJs from the main drive PWB, [Figure 1](#).



T-1-0388-A

**Figure 1 Disconnect the PJs**

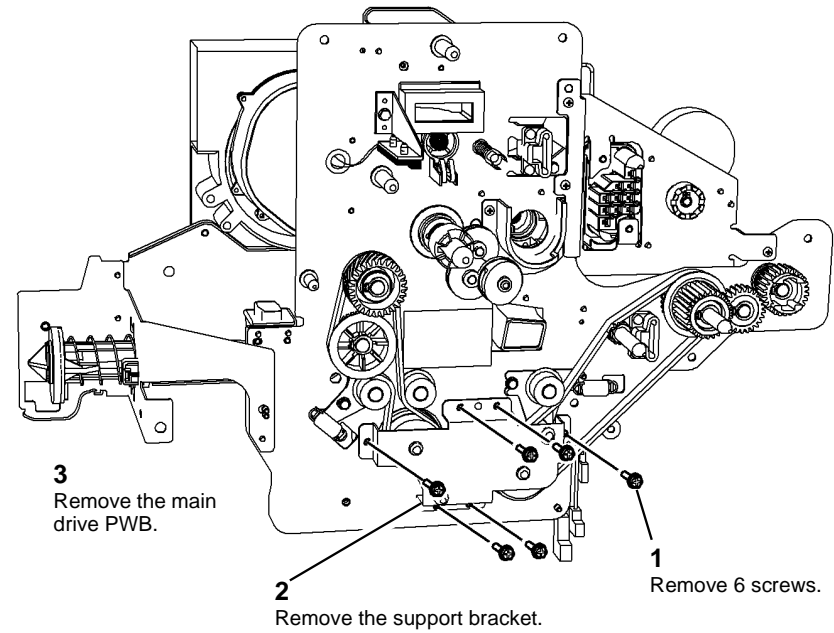
3. Remove the main drive PWB, [Figure 2](#).



T-1-0389-A

**Figure 2 Main drive PWB**

4. Remove the drives support bracket on the main drive module, [Figure 3](#). Then remove the drive belt and the main drive PWB,



T-1-0390-A

**Figure 3 Drives support bracket**

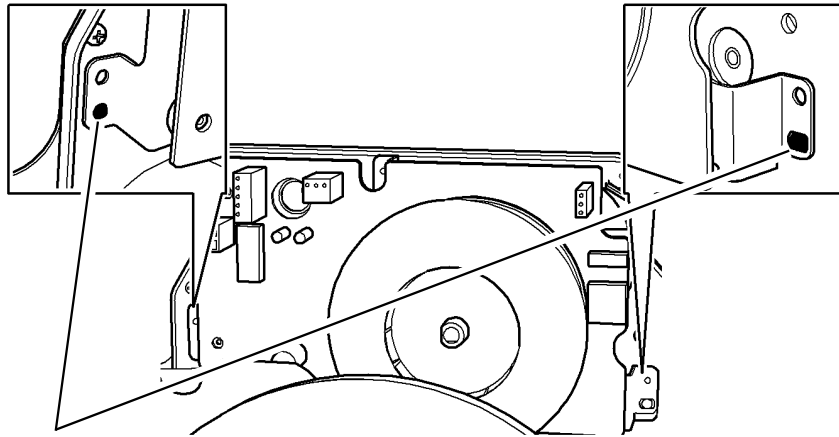
## Replacement

Replacement is the reverse of the removal procedure.



*The belt tensioners are of the floating type, and are spring loaded. They should not be locked down.*

1. Ensure that the drives bracket is located in the tabs on the drives plate, [Figure 4](#). Then secure the main drive PWB to the drives plate.

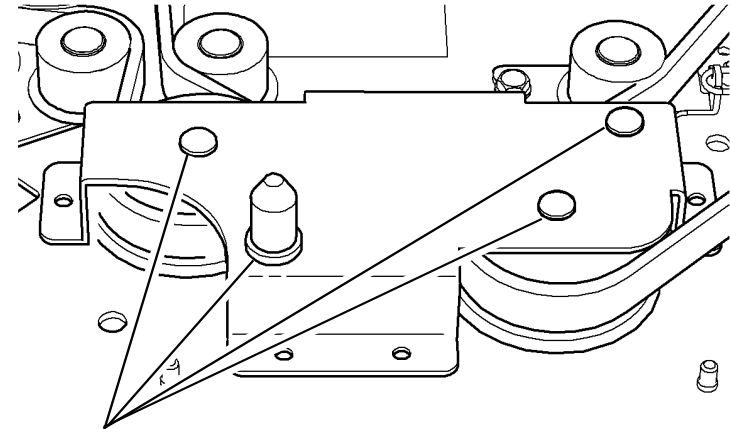


- 1  
Ensure that the tabs are located in the bracket.

T-1-0391-A

**Figure 4 Main drive PWB location**

2. Ensure that the support bracket on the main drive module is located correctly with the drive shafts and the collar, [Figure 5](#). Then secure the support bracket.



Position the collar and 3 shafts correctly in the bracket

T-1-0392-A

**Figure 5 Main drive module support bracket**

3. Before installing the main drive module turn the drive gears by hand to position the drive belts correctly on the drive gears.

## REP 4.7 Main Drive Belts, Drive Gears and Idlers (65-90 ppm)

Parts List on [PL 4.12](#)

### Removal



#### WARNING

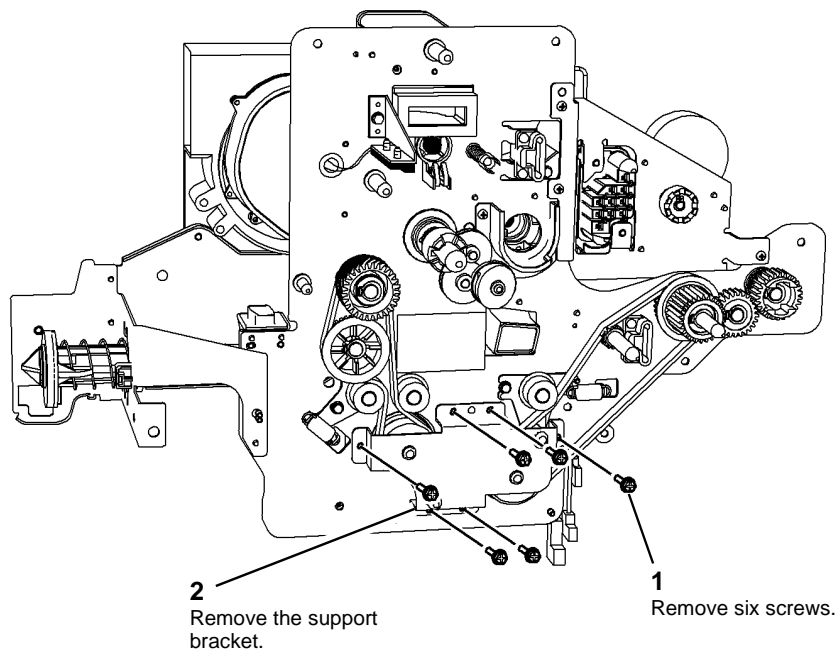
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

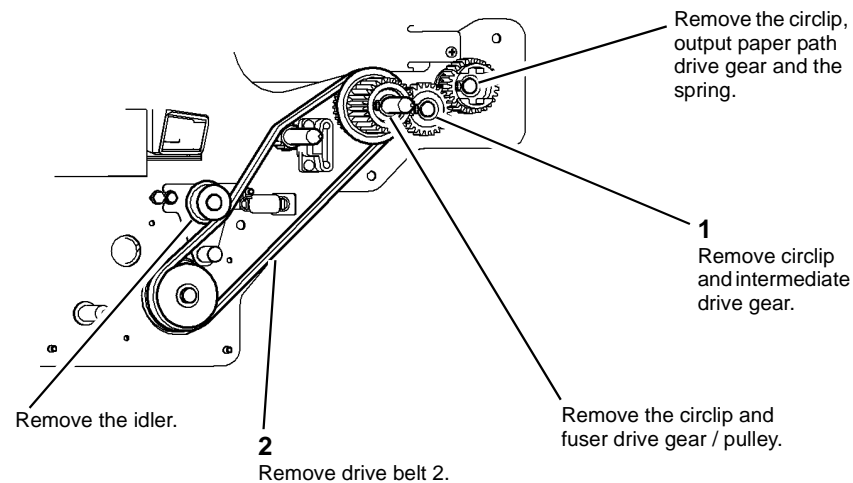
1. Remove the main drive module, [REP 4.5](#).
2. Remove the drives support bracket, [Figure 1](#).



T-1-0396-A

Figure 1 Drives support bracket

3. Refer to [Figure 2](#), to remove the following:
  - Main drive belt 2
  - Fuser drive gear
  - Output paper path drive gear
  - Intermediate drive gear
  - Idler



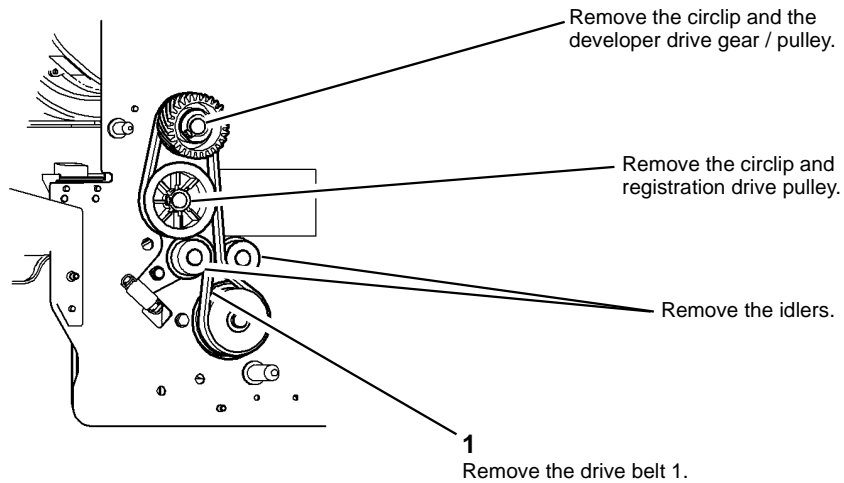
T-1-0397-A

Figure 2 Remove drive belt 2



4. Refer to [Figure 3](#), remove the following:

- Main drive belt 1
- Developer drive gear
- Registration drive gear
- Idlers



**Figure 3 Remove drive belt 1**

T-1-0398-A

## Replacement

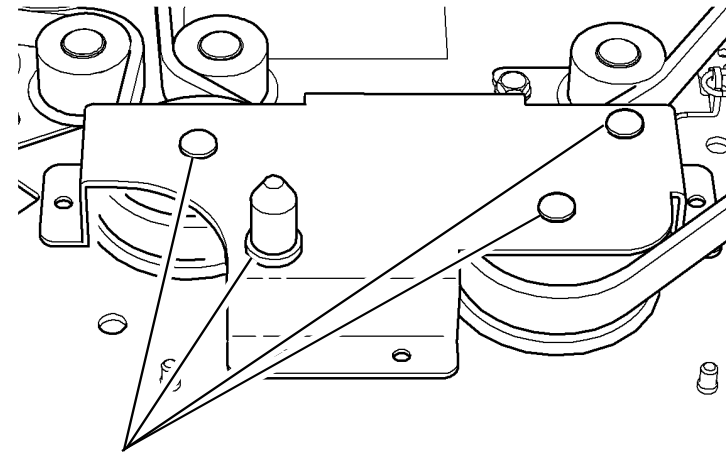
Replacement is the reverse of the removal procedure.



### CAUTION

*The belt tensioners are of the floating type, and are spring loaded. They should not be locked down.*

1. Ensure that the support bracket on the main drive module is located correctly on the drive shafts and the collar, [Figure 4](#).



Position the collar and 3 shafts correctly in the bracket.

T-1-0399-A

**Figure 4 Main drive module support bracket**

2. Turn the drive gears by hand to position the drive belts correctly on the drive gears and tensioner rolls.
3. If a new developer drive gear is installed, reset the developer count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.



## REP 5.1 Top Cover Assembly

Parts List on [PL 5.20](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADH top cover.
2. Remove the DADH top cover assembly, [Figure 1](#).

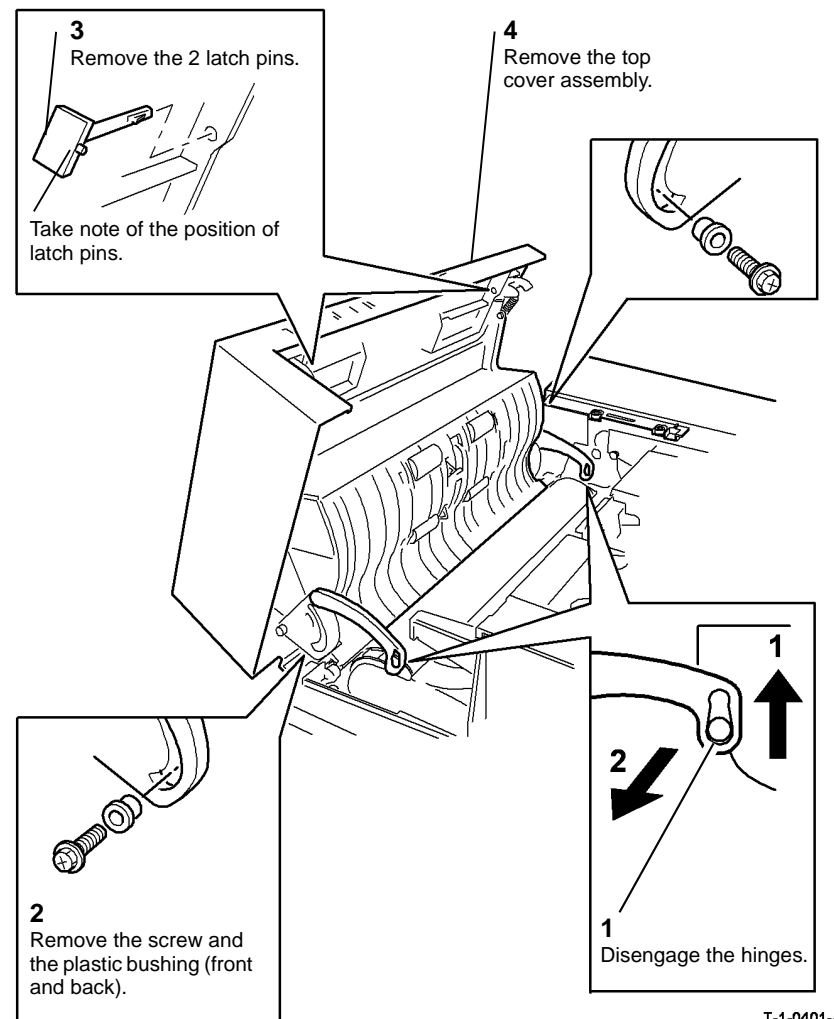


Figure 1 Top cover

### Replacement



Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#).

The replacement is the reverse of the removal procedure. Make sure the latch pins are installed correctly, refer to [Figure 1](#).

## REP 5.2 Top Access Cover Assembly

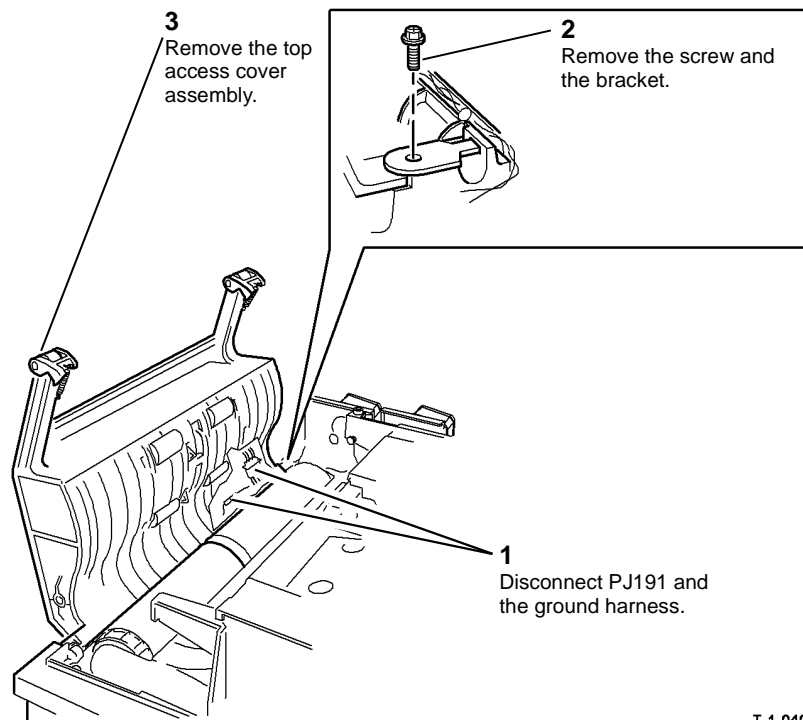
Parts List on [PL 5.20](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADH top cover.
2. Remove the DADH rear cover, [PL 5.10 Item 1](#).
3. Remove the DADH top cover assembly, [REP 5.1](#).
4. Remove the DADH top access cover assembly, [Figure 1](#).



T-1-0402-A

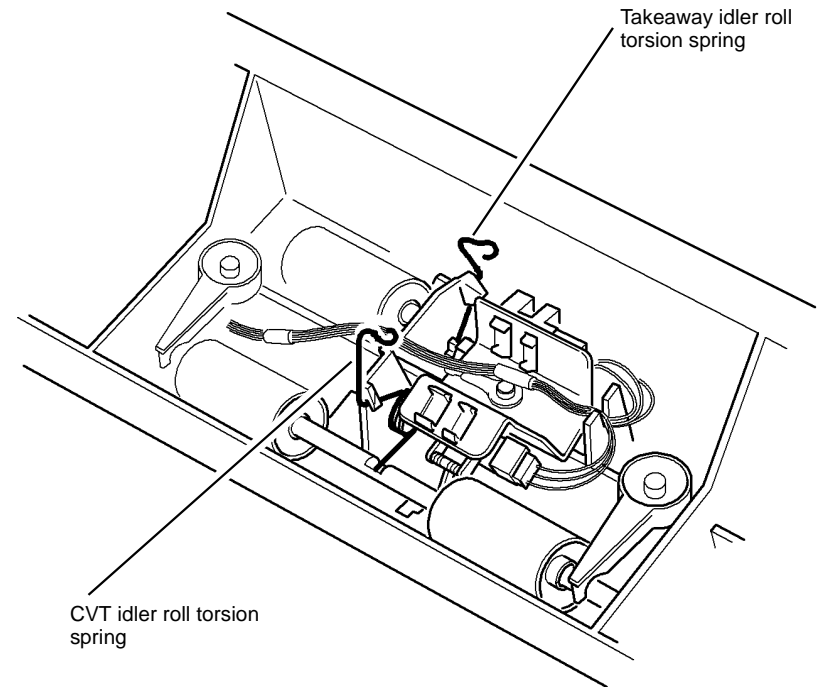
Figure 1 Top access cover assembly

### Replacement



Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#).

The replacement is the reverse of the removal procedure. Make sure that the 2 springs on the idler roll are in the correct position, [Figure 2](#). Then install the top cover.



T-1-0403-A

Figure 2 Torsion springs

## REP 5.3 Feed Assembly

Parts List on (35 ppm) [PL 5.15](#), (40-90 ppm) [PL 5.17](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the DADH top cover.
2. Remove the DADH rear cover, [PL 5.10 Item 1](#).
3. Remove the feed roll assembly, [REP 5.14](#).
4. Remove the feed assembly, [Figure 1](#).

**NOTE:** 40-90 ppm machines have an in-line connector between PJ184 and the document present sensor. Disconnect the in-line connector before removing the feed assembly.

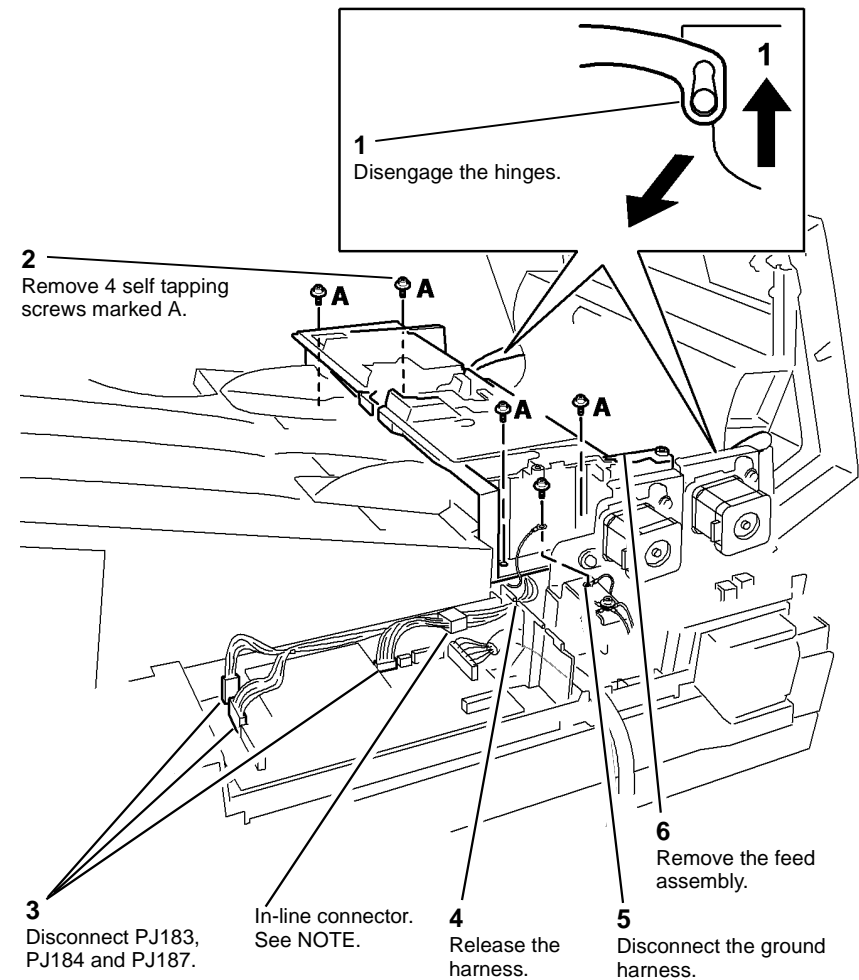


Figure 1 Feed assembly

T-1-0404-A

### Replacement

  
**CAUTION**

Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#). The replacement is the reverse of the removal procedure.

## REP 5.4 Input Tray Assembly

Parts List on [PL 5.35](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



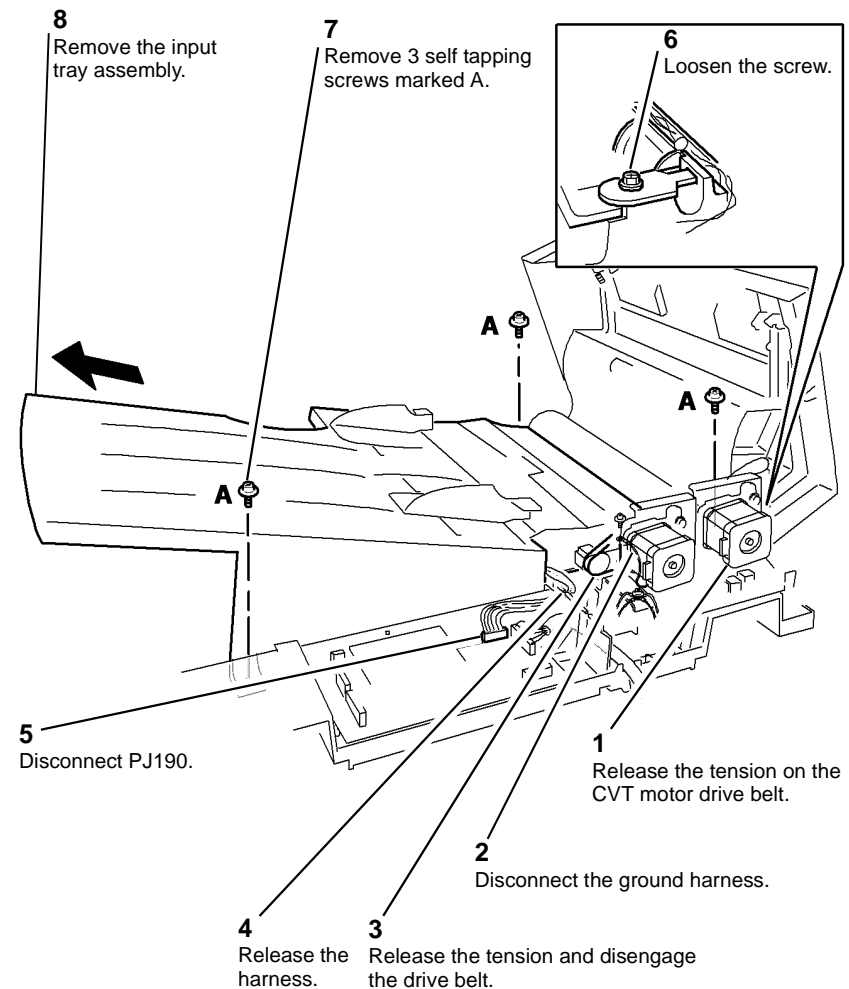
#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, [REP 5.19](#).
2. Remove the feed assembly, [REP 5.3](#).

**NOTE:** To release the tension of the drive belts, refer to [ADJ 5.1](#).

3. Remove the input tray assembly, [Figure 1](#).



T-1-0405-A

Figure 1 Input tray assembly

### Replacement



#### CAUTION

Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#).

1. The replacement is the reverse of the removal procedure.
2. Perform the feed motor and the CVT motor, belt tension adjustment, [ADJ 5.1](#).

## REP 5.5 Baffle Assembly

Parts List on [PL 5.30](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, [REP 5.19](#).
2. Remove the top access cover assembly, [REP 5.2](#).
3. Remove the feed assembly, [REP 5.3](#).
4. Remove the input tray assembly, [REP 5.4](#).
5. Remove the CVT roll, [REP 5.15](#).

6. Prepare to remove the baffle assembly, [Figure 1](#).

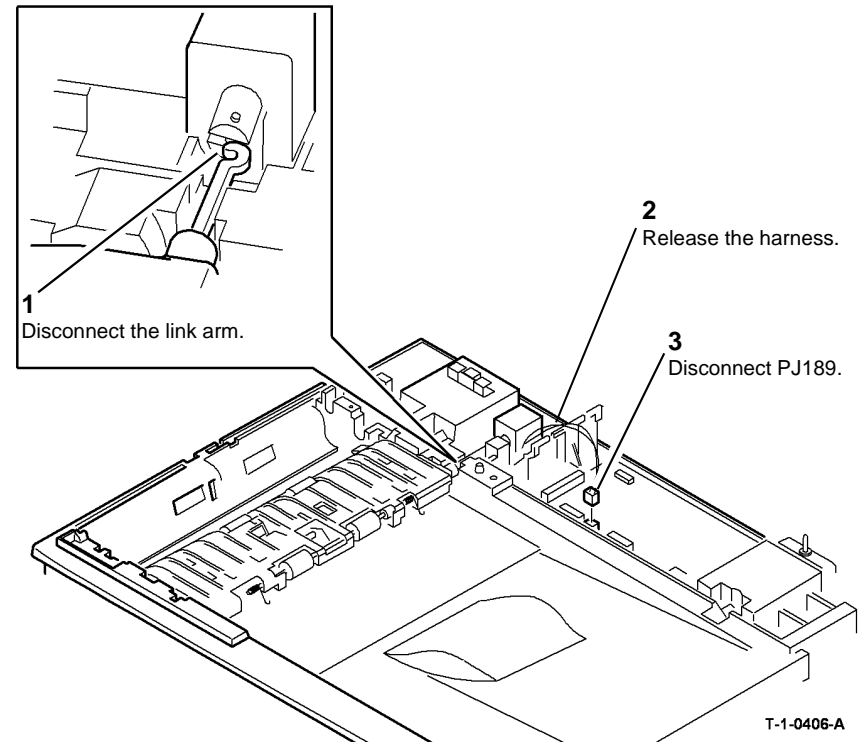


Figure 1 Preparation



#### CAUTION

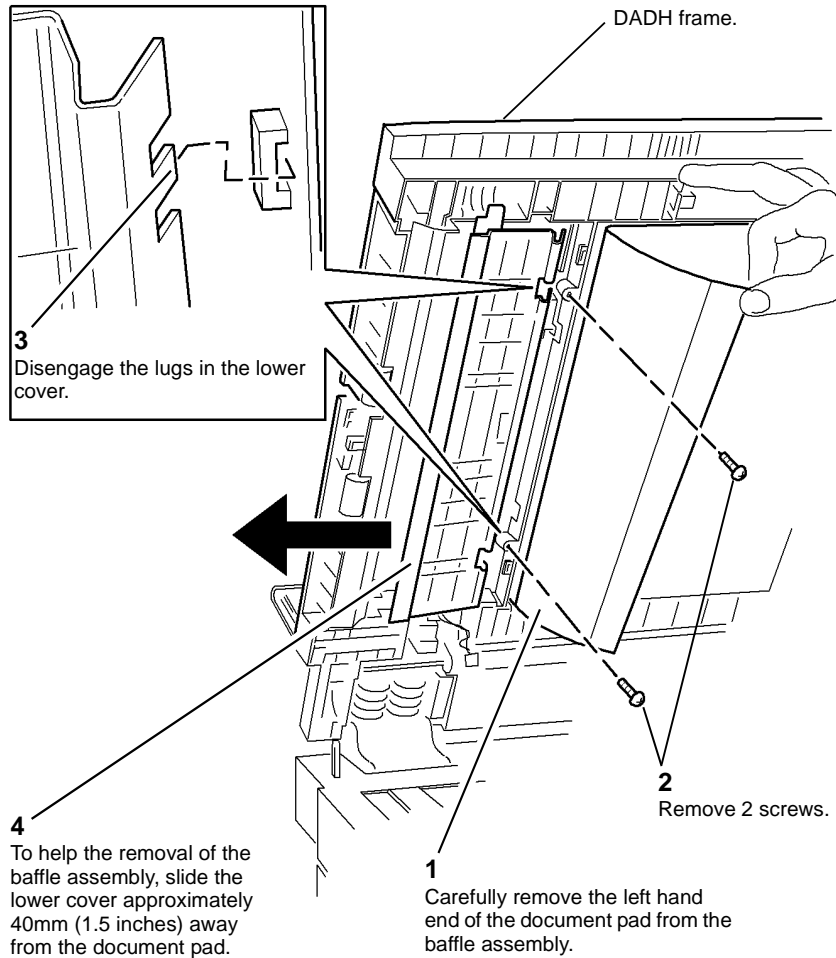
*When the top access cover assembly, feed assembly, input tray assembly and CVT roll are removed the DADH structure is weak. Do not lower the DADH in this configuration.*

7. Carefully install the DADH frame on the machine. Secure the DADH with the two thumb-screws.

**CAUTION**

Be careful to prevent damage to the document pad when the document pad is removed from the baffle assembly.

8. Slide the baffle assembly lower cover, **Figure 2**.



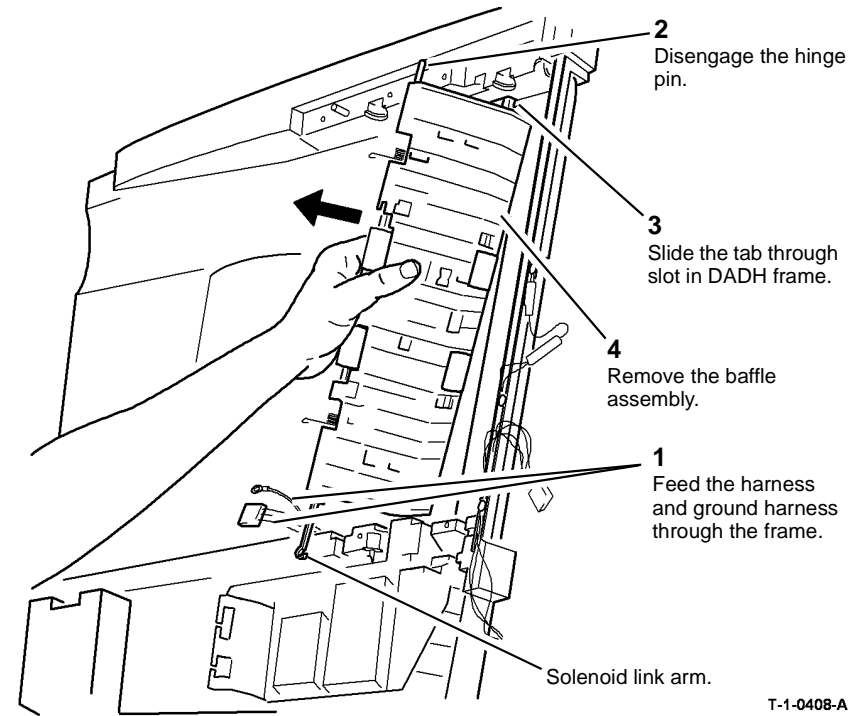
**Figure 2 Lower cover**

T-1-0407-A

**CAUTION**

Take care removing the baffle assembly, do not damage the solenoid link arm.

9. Remove the baffle assembly, **Figure 3**.



**Figure 3 Baffle assembly**

T-1-0408-A



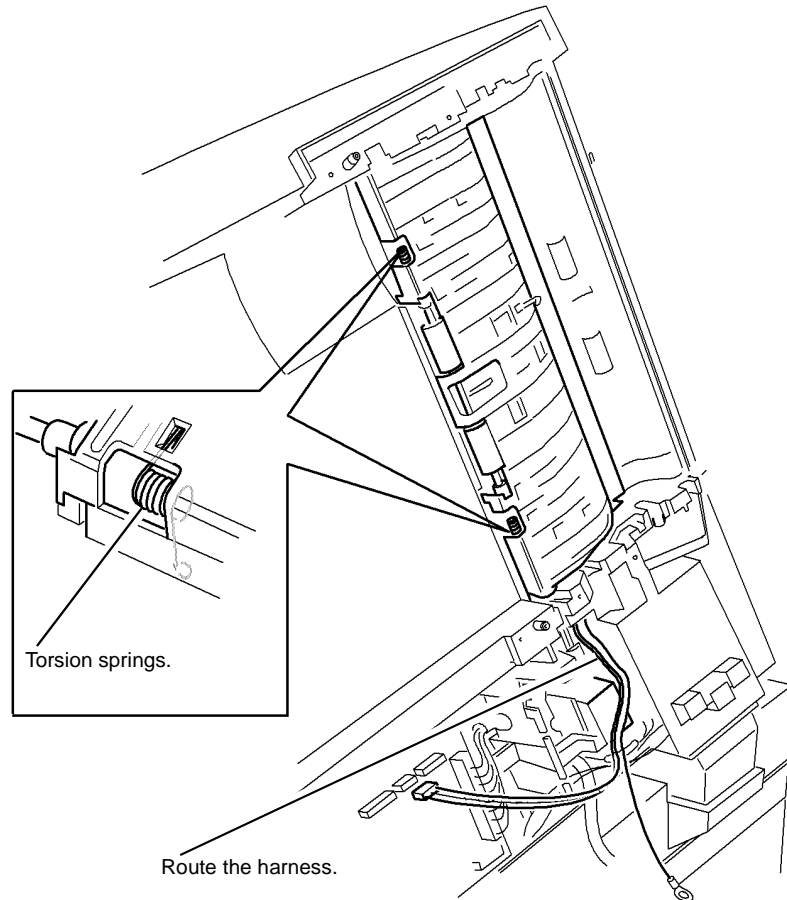
## Replacement



### CAUTION

Be careful when the self tapping screw is installed into a plastic component, refer to GP 6.

The replacement is the reverse of the removal procedure. Make sure that the torsion springs and harness are in the correct position, Figure 4.



T-1-0409-A

Figure 4 Torsion springs and harness

## REP 5.6 Takeaway Roll Assembly

Parts List on PL 5.35

### Removal



### WARNING

Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the feed assembly, REP 5.3.

- Remove the takeaway roll assembly, [Figure 1](#).

**NOTE:** To release the tension of the drive belt on the feed motor, refer to [ADJ 5.1](#).

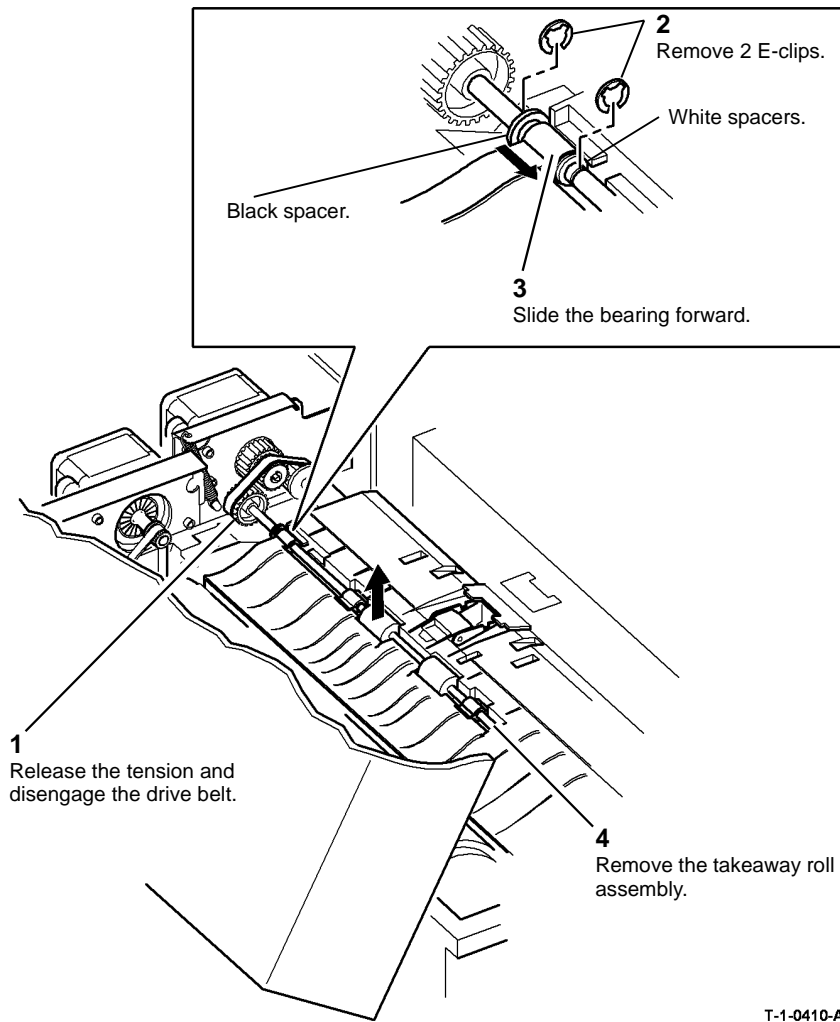


Figure 1 Takeaway roll assembly

### Replacement

The replacement is the reverse of the removal procedure. Make sure the spacers and E-clips are installed correctly, refer to [Figure 1](#).

## REP 5.7 Duplex Solenoid

Parts List on [PL 5.30](#)

### Removal

**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the DADH rear cover, [PL 5.10 Item 1](#).
- Prepare to remove the drive assembly, [Figure 1](#).

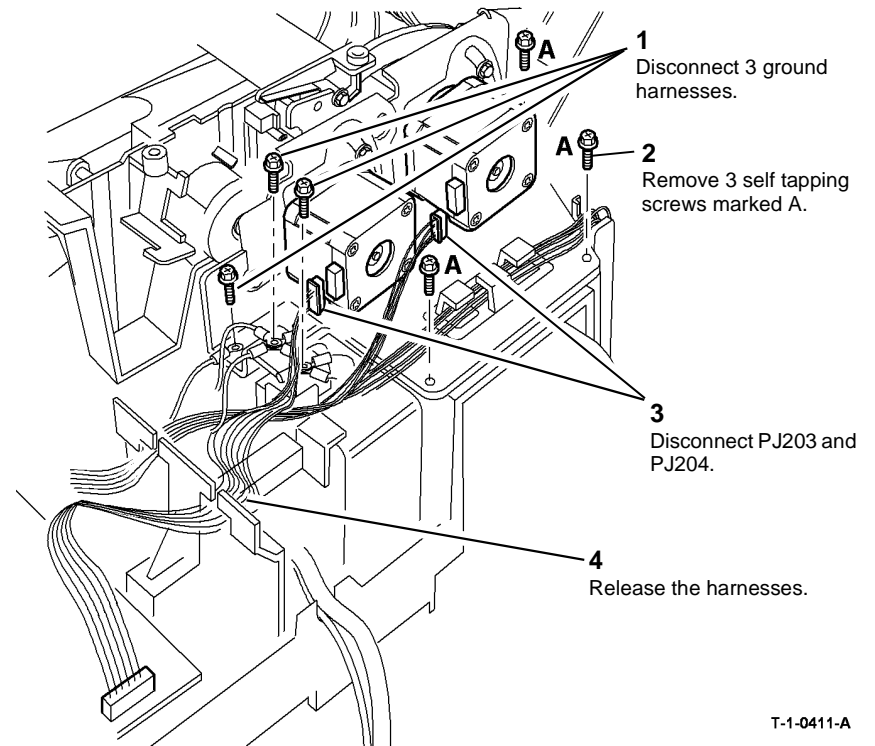


Figure 1 Drives assembly

**NOTE:** To release the tension on the drive belts, refer to [ADJ 5.1](#).

3. Remove the drive assembly, [Figure 2](#).

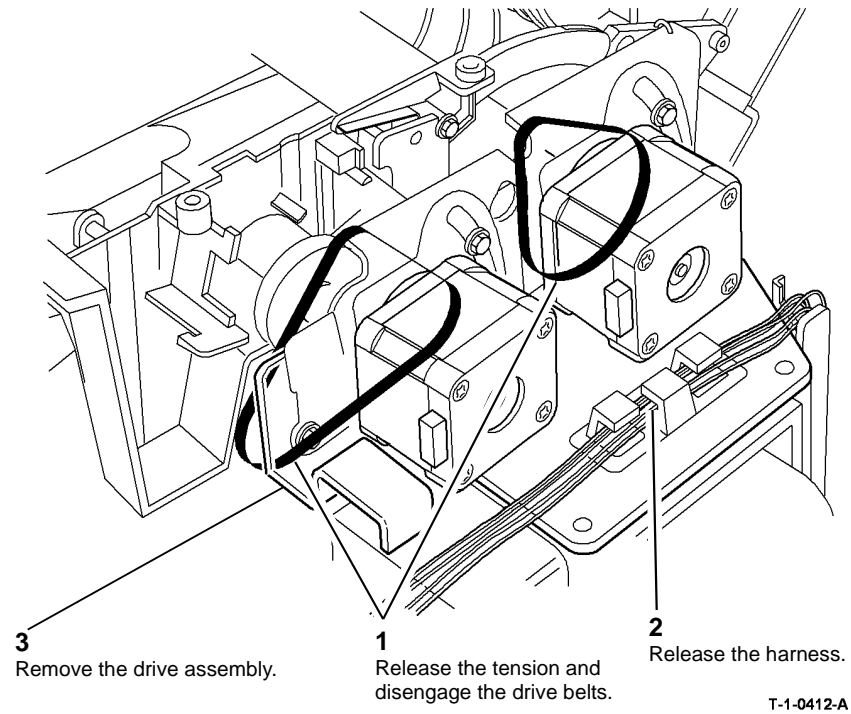


Figure 2 Drives assembly

T-1-0412-A

4. Remove the duplex solenoid, [Figure 3](#).

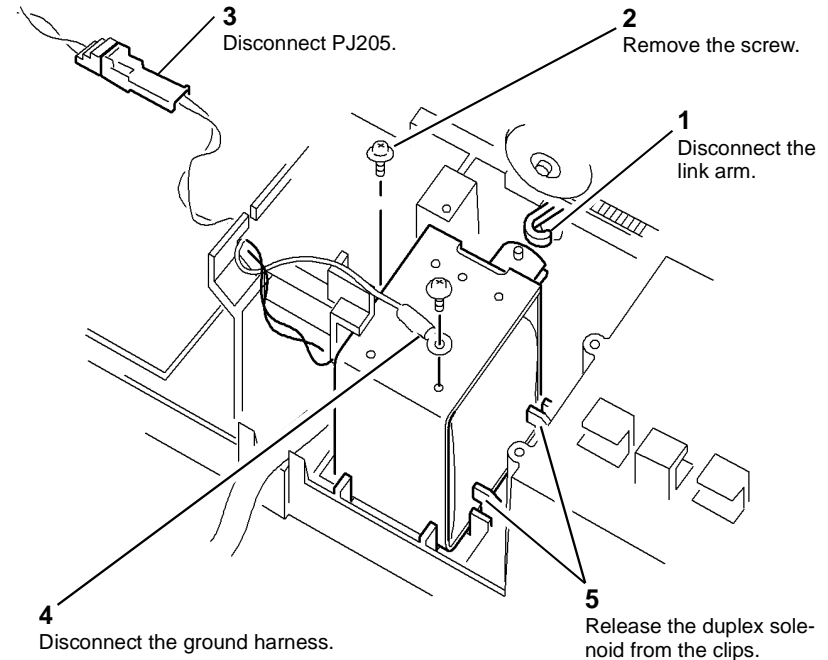


Figure 3 Duplex solenoid

T-1-0413-A

## Replacement

**CAUTION**

*The screw that attaches the ground harness to the duplex solenoid is shorter than the other screws. Do not use the incorrect screw.*

**CAUTION**

*Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#).*

1. The replacement is the reverse of the removal procedure. Make sure that the wiring is not caught below the drive assembly.
2. Perform the DADH motor adjustment, [ADJ 5.1](#).

## REP 5.8 Takeaway and CVT Sensor

Parts List on [PL 5.20](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH top cover assembly, [REP 5.1](#).
2. Remove the takeaway or CVT sensor, [Figure 1](#).

**2**  
Disconnect the correct PJ. Remove the correct sensor.

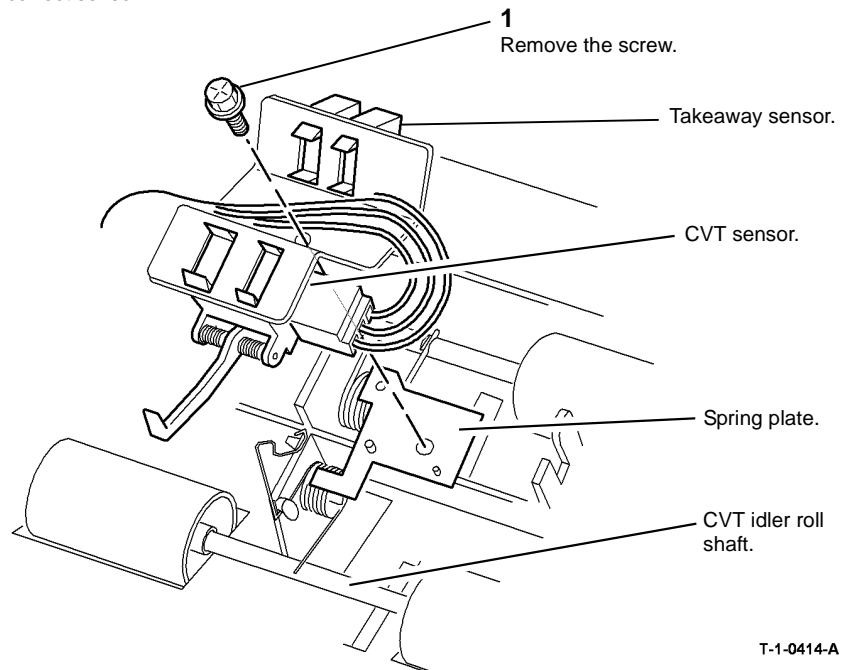


Figure 1 Takeaway and CVT sensors

### Replacement



Be careful when the self tapping screw is installed into plastic component, refer to [GP 6](#)

The replacement is the reverse of the removal procedure. Make sure the spring plate and idler roll torsion springs are in the correct position. Also make sure that the CVT sensor actuator is in the correct position below the CVT roll and the idler shaft. Refer to [Figure 1](#) and [Figure 2](#). Then install the top cover assembly,

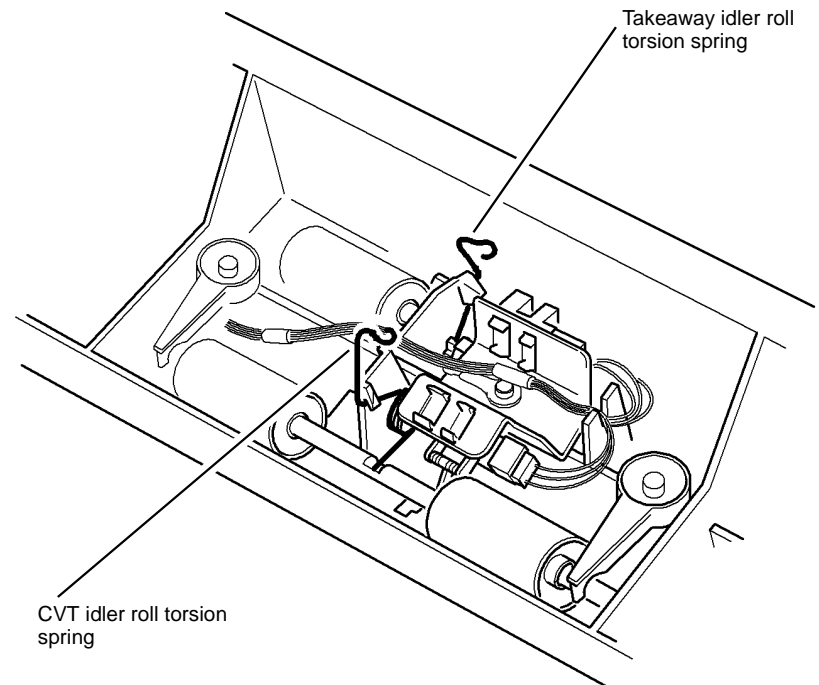


Figure 2 Torsion springs

## REP 5.9 Length Detect Sensors

Parts List on [PL 5.35](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the input tray assembly, [REP 5.4](#).

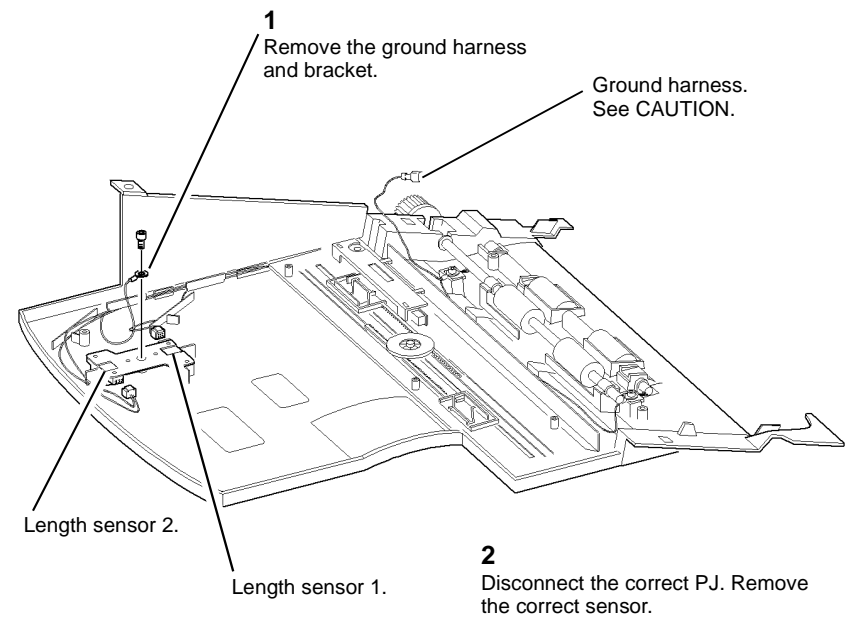


#### CAUTION

Disconnect the ground harness from the static eliminator before the input tray assembly lower cover is removed, refer to [Figure 1](#).

2. Turn the input tray assembly upside down. Remove the relevant cover:
  - (35 ppm) Input tray assembly lower cover, [PL 5.35 Item 21](#).
  - (40-90 ppm) Lower cover (right), [PL 5.35 Item 9](#) and Lower cover (left), [PL 5.35 Item 20](#).

3. Remove the length detect sensors, [Figure 1](#).



T-1-0416-A

Figure 1 Length detect sensors

### Replacement



#### CAUTION

Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#).

The replacement is the reverse of the removal procedure.

## REP 5.10 Registration Sensor

Parts List on [PL 5.25](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADH, top cover assembly, [REP 5.1](#).
2. Remove the registration sensor, [Figure 1](#).

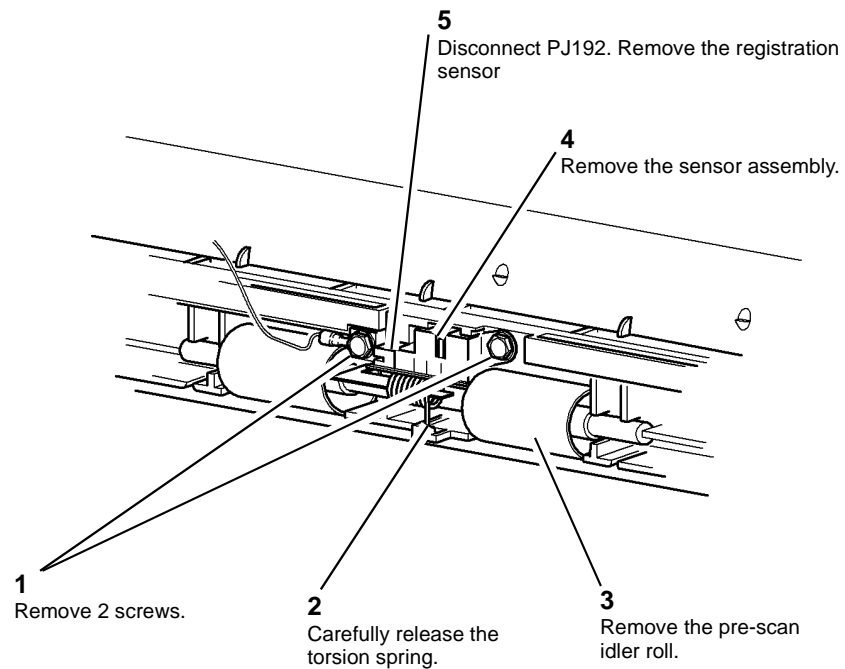


Figure 1 Registration sensor

T-1-0417-A

### Replacement



#### CAUTION

Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#).

The replacement is the reverse of the removal procedure. Make sure that the torsion spring is installed correctly, [Figure 2](#).

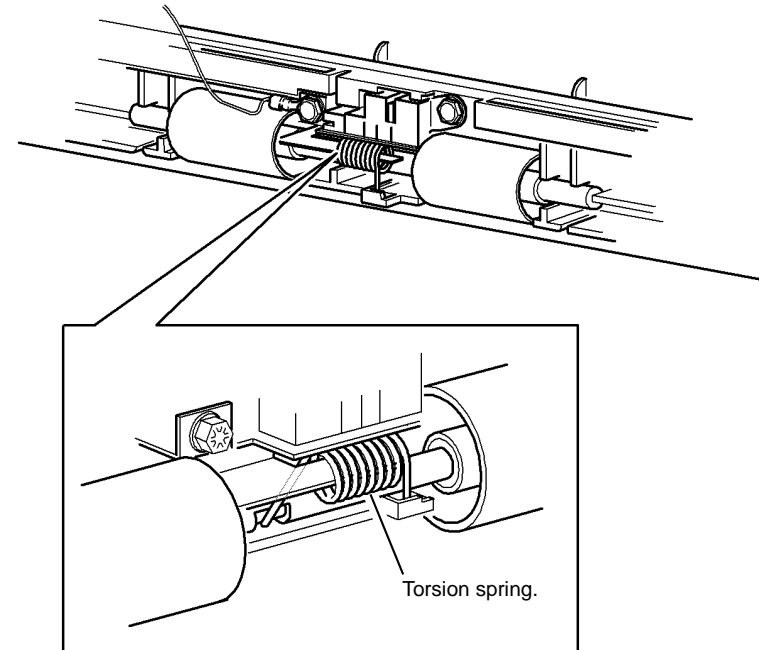


Figure 2 Torsion spring

T-1-0418-A

## REP 5.11 Exit Sensor

Parts List on [PL 5.30](#)

### Removal

  
**WARNING**

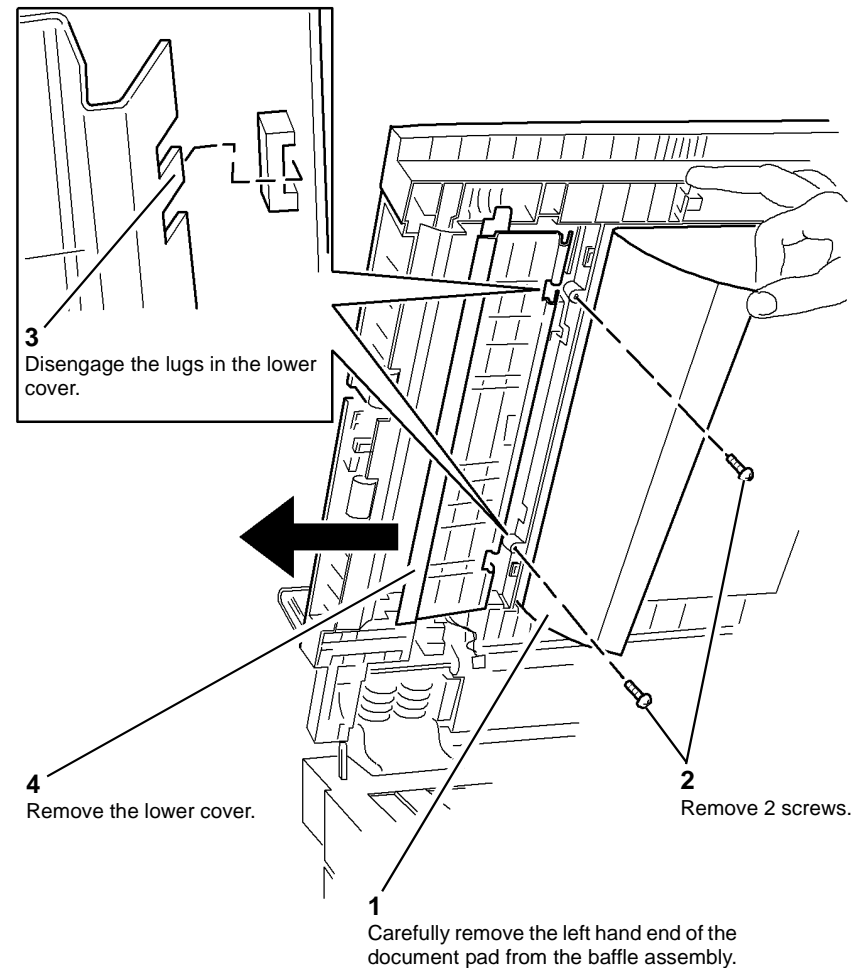
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Raise the DADH.

  
**CAUTION**

Be careful to prevent damage to the document pad when the document pad is removed from the baffle assembly.

2. Prepare to remove the exit sensor, [Figure 1](#).



T-1-0419-A

Figure 1 Preparation

3. Remove the exit sensor, [Figure 2](#).

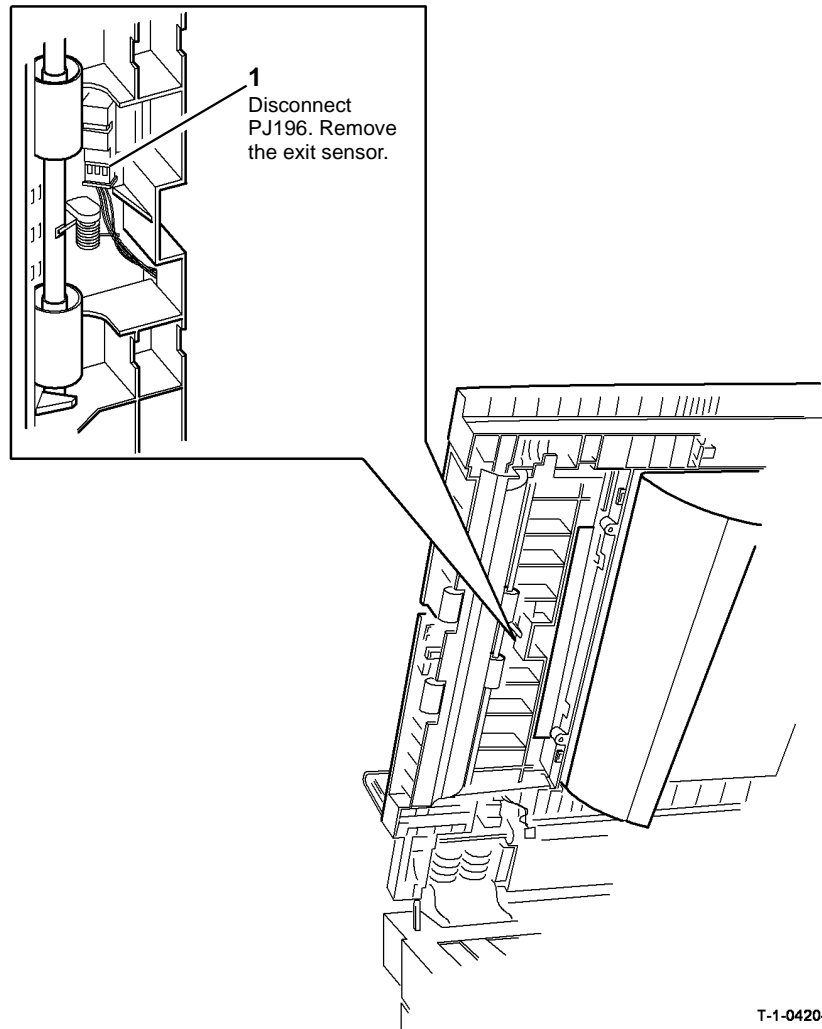


Figure 2 Exit sensor

T-1-0420-A

## Replacement



**CAUTION**

*Take care when installing self tapping screw into plastic components, refer to [GP 6](#).*

The replacement is the reverse of the removal procedure.

## REP 5.12 DADH Counterbalance

Parts List on [PL 5.10](#)

### Removal



**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Do not remove the DADH while the DADH is lowered. In the lowered position the counterbalance springs are compressed and can cause injury when released.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, [REP 5.19](#).
2. Put the DADH upside down on a solid flat surface.

**NOTE:** The counterbalances are different. The removal procedure for the two counterbalances is same.

3. Remove the relevant counterbalance, right, [PL 5.10 Item 2](#) (4 screws) or left, [PL 5.10 Item 4](#) (4 screws).



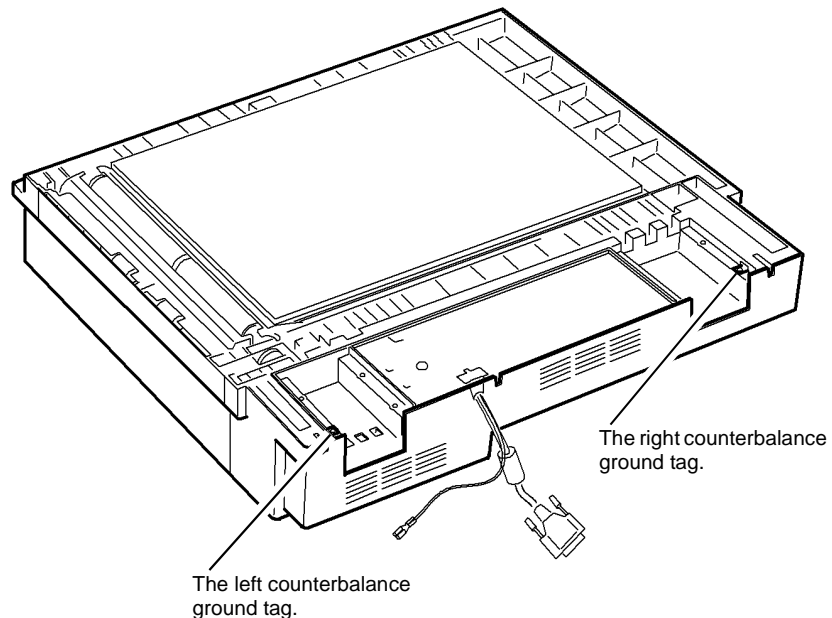
## Replacement



### CAUTION

*Be careful when the self tapping screw is installed into a plastic component, refer to GP 6.*

1. The replacement is the reverse of the removal procedure. Make sure the ground tags are attached when the counterbalances are installed [Figure 1](#).
2. Perform the steps that follow:
  - DADH height adjustment, [ADJ 5.2](#).
  - DADH registration adjustment, [ADJ 5.5](#).
3. If a new right counterbalance has been installed, perform the DADH skew adjustment, [ADJ 5.3](#).



T-1-0421-A

Figure 1 Ground tags

## REP 5.13 Exit Roll Assembly

Parts List on [PL 5.35](#)

### Removal



### WARNING

**Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.**

1. Remove the feed assembly, [REP 5.3](#).
2. Remove the input tray assembly, [REP 5.4](#).



### CAUTION

*Disconnect the ground harness from the static eliminator before the input tray assembly lower cover is removed, refer to [Figure 1](#).*

3. Turn the input tray assembly upside down. Remove the relevant cover:
  - **(35 ppm)** Input tray assembly lower cover, [PL 5.35 Item 21](#).
  - **(40-90 ppm)** Lower cover (right), [PL 5.35 Item 9](#) and Lower cover (left), [PL 5.35 Item 20](#).

4. Remove the exit roll assembly, [Figure 1](#).

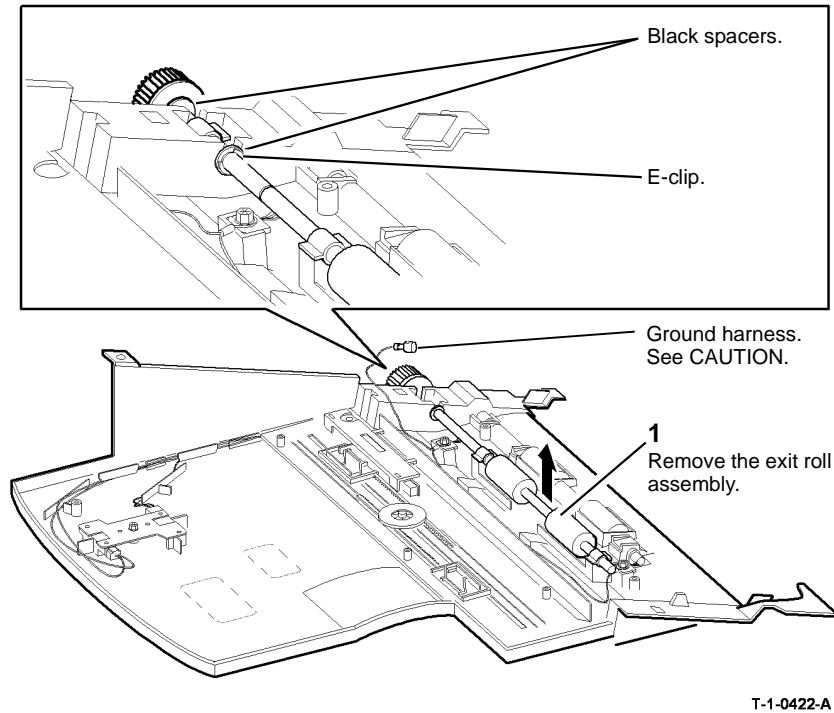


Figure 1 Exit roll assembly

## Replacement



### CAUTION

*Take care when installing self tapping screws into plastic components, refer to [GP 6](#).*

The replacement is the reverse of the removal procedure. Make sure the spacers and E-clips are installed correctly, refer to [Figure 1](#).

## REP 5.14 Feed Roll Assembly

Parts List on (35 ppm) [PL 5.15](#), (40-90 ppm) [PL 5.17](#)

### Removal



### WARNING

**Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.**

1. Open the DADH top cover.

2. Remove the DADH feed roll assembly, [Figure 1](#).

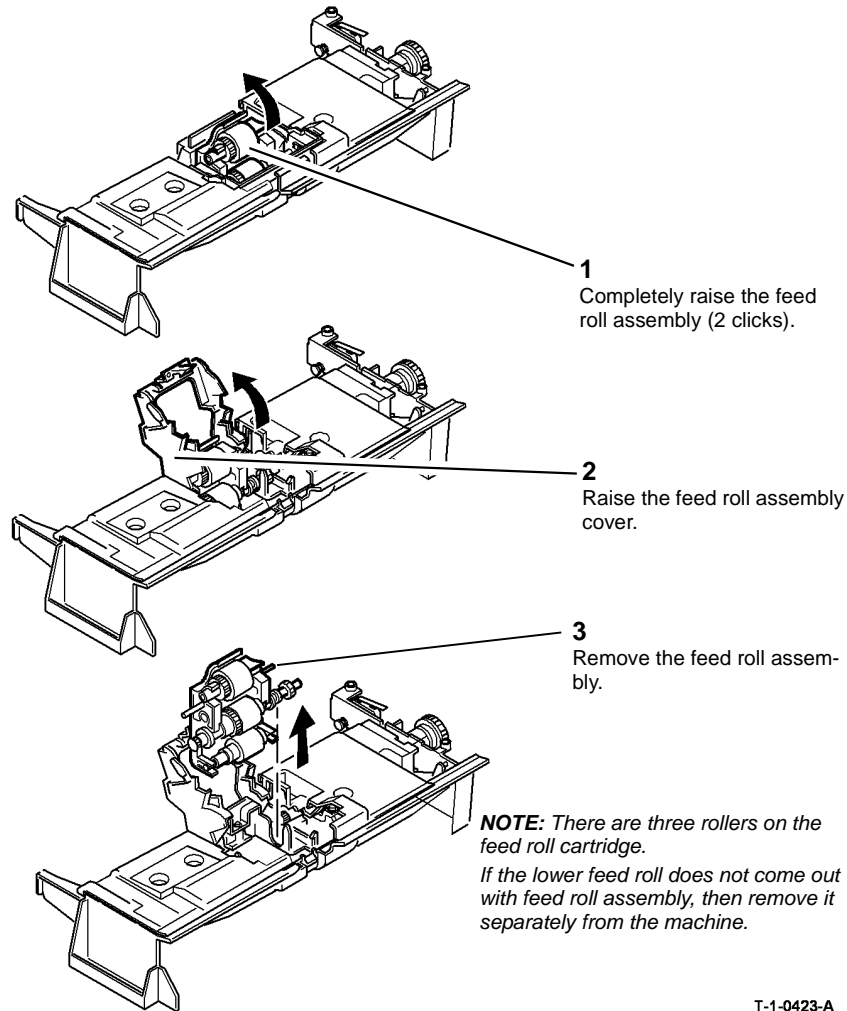


Figure 1 Feed roll assembly

## Replacement

1. The replacement is the reverse of the removal procedure. When the feed rolls are installed, make sure the lowest roll, (retard roll), is positioned as shown in [Figure 2](#).
2. If a new feed roll assembly is installed, select [dC131](#) chain 5, location 05-001 and reset the copy count to zero.
3. If a new feed roll assembly is installed, reset the DADH feed count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency Service Items.

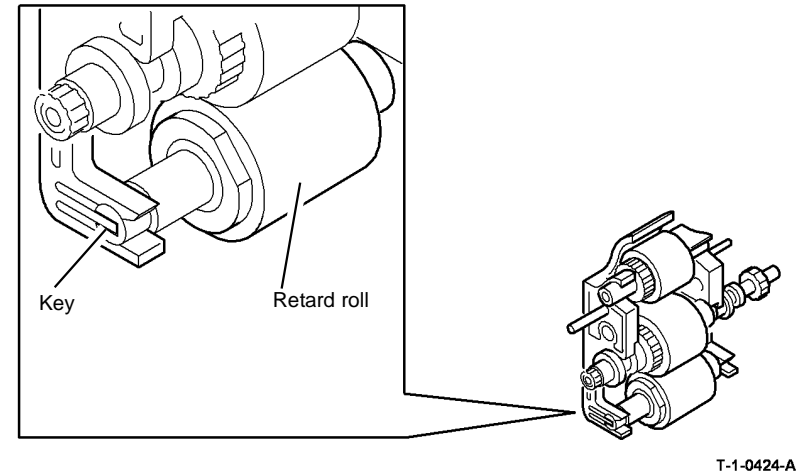


Figure 2 Retard roll position

## REP 5.15 Duplex Gate, CVT Roll and CVT Motor, Drive Belt

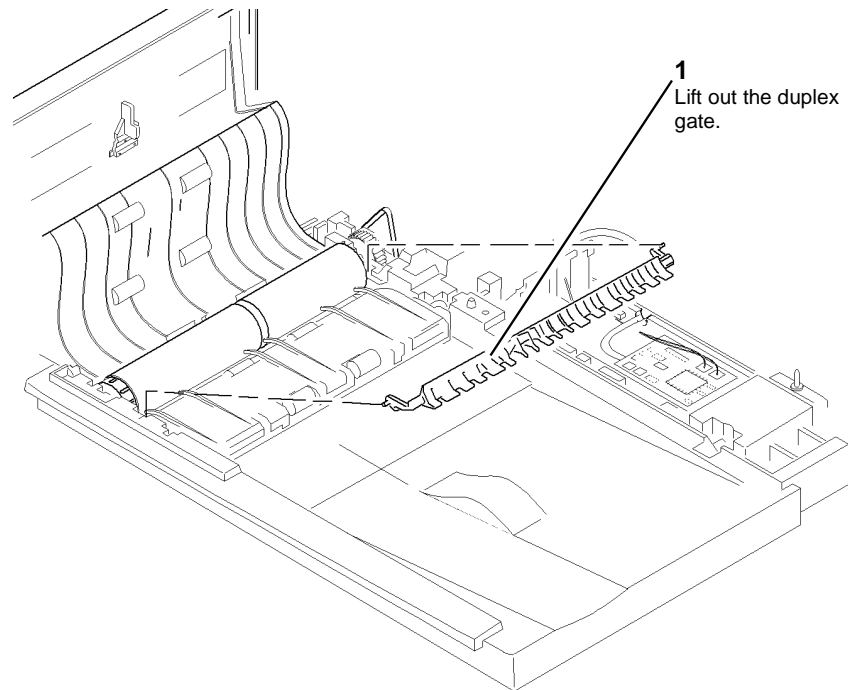
Parts List on [PL 5.25](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the feed assembly, [REP 5.3](#).
2. Remove the input tray assembly, [REP 5.4](#).
3. Remove the DADF drive assembly, refer to [REP 5.7](#).
4. Remove the duplex gate, [Figure 1](#).



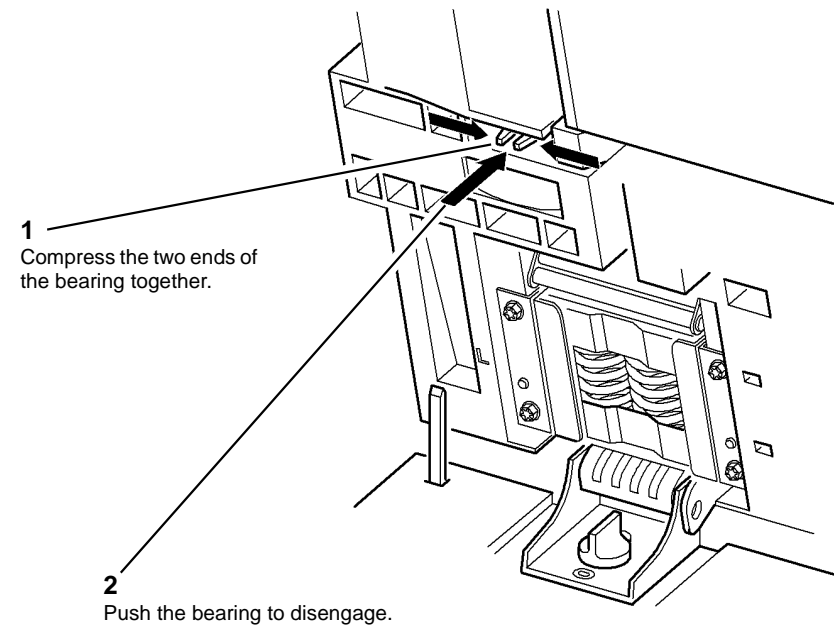
T-1-0425-A

Figure 1 Duplex gate



When the top access cover assembly, feed assembly, input tray assembly and CVT roll are removed the DADH structure is weak. Do not lower the DADH in this configuration

5. Carefully install the DADH frame on the machine. Secure the DADH with the 2 thumb-screws.
6. Disengage the back CVT roll bearing, [Figure 2](#).



T-1-0426-A

Figure 2 Bearing

7. Release the front CVT roll bearing, [PL 5.25 Item 4](#). Remove the CVT roll and CVT motor, drive belt, [Figure 3](#).

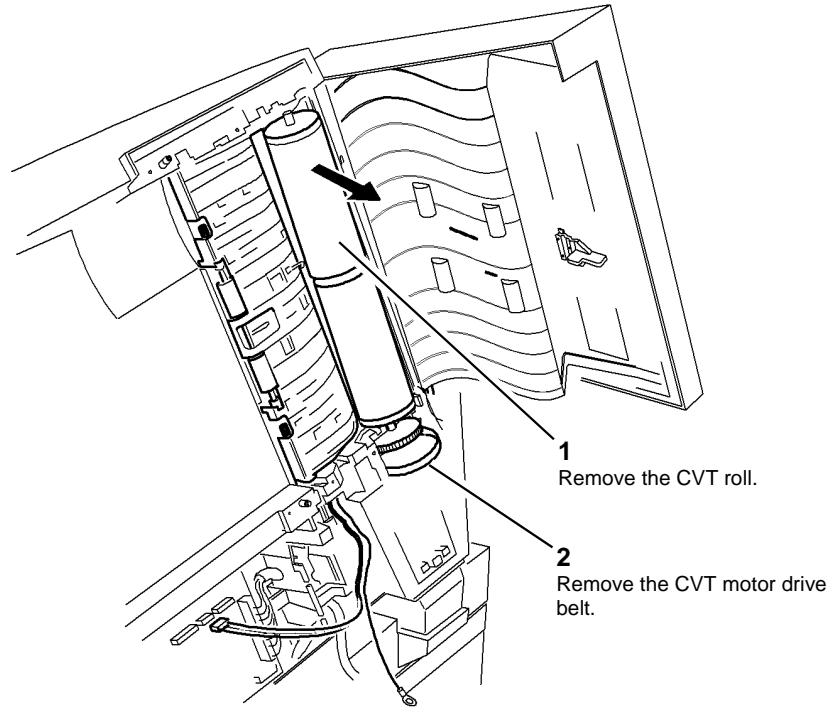


Figure 3 CVT roll

## Replacement

1. The replacement is the reverse of the removal procedure. Make sure the white washer is installed correctly, [Figure 4](#).
2. Perform the DADH CVT motor adjustment, refer to [ADJ 5.1](#).

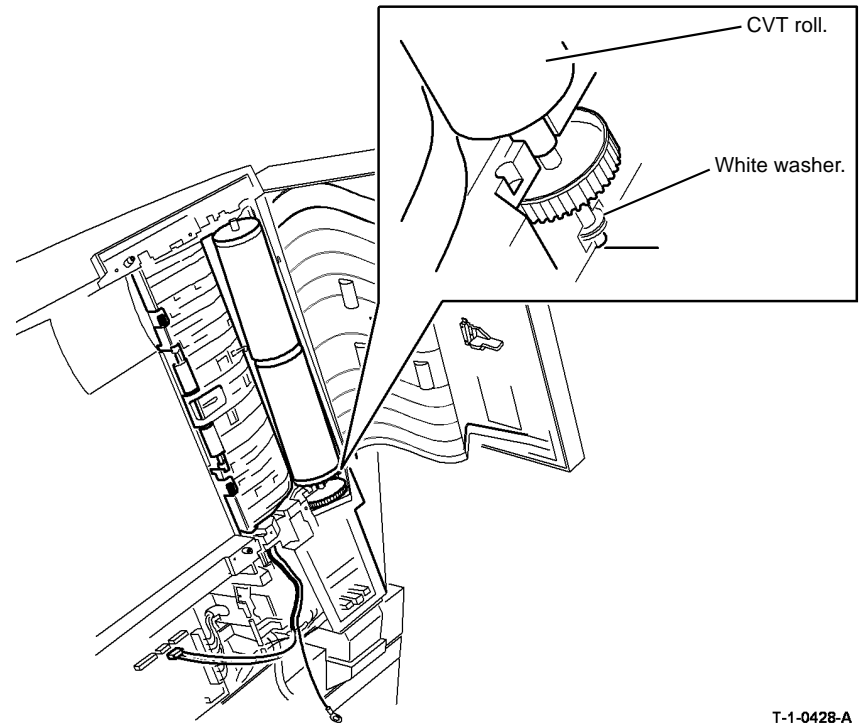


Figure 4 Replacement

## REP 5.16 Document Width Sensor

Parts List on [PL 5.35](#)

### Removal

  
**WARNING**

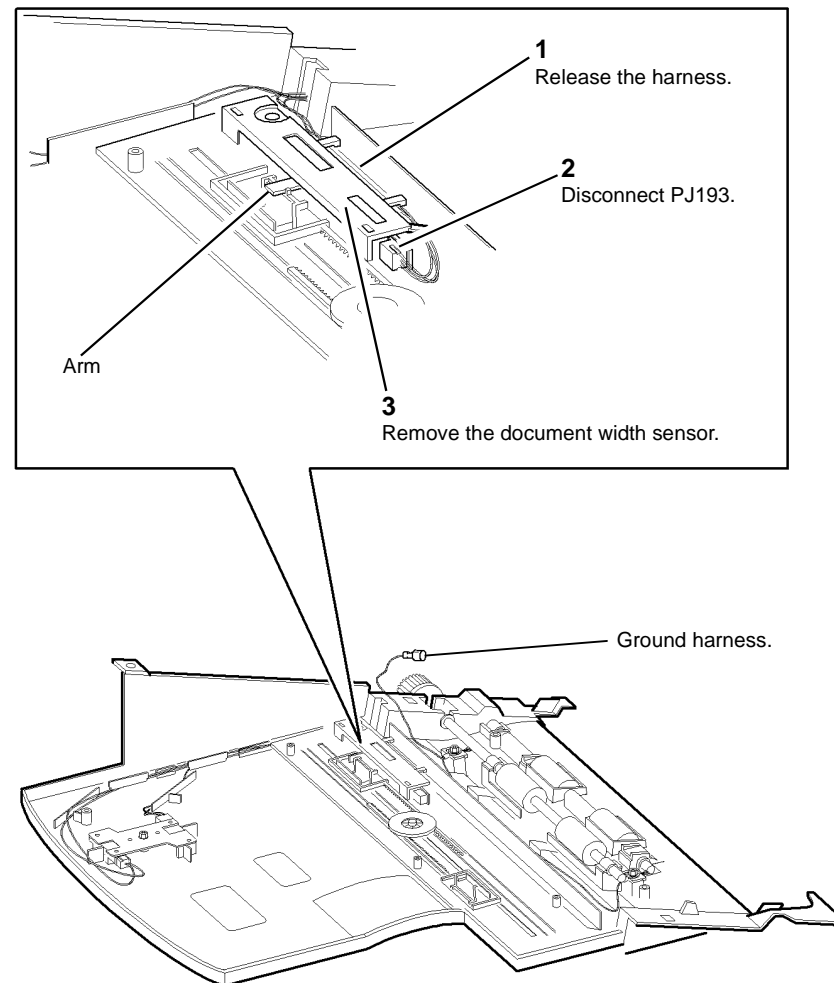
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the feed assembly, [REP 5.3](#).
2. Remove the input tray assembly, [REP 5.4](#).

  
**CAUTION**

Disconnect the ground harness from the static eliminator before the input tray assembly lower cover is removed, refer to [Figure 1](#).

3. Turn the input tray assembly upside down. Remove the relevant cover:
  - (35 ppm) Input tray assembly lower cover, [PL 5.35 Item 21](#).
  - (40-90 ppm) Lower cover (right), [PL 5.35 Item 9](#) and Lower cover (left), [PL 5.35 Item 20](#).
4. Remove the document width sensor, [Figure 1](#).



T-1-0429-A

Figure 1 Document width sensor

### Replacement

  
**CAUTION**

Be careful when the self tapping screw is installed into a plastic component, refer to [GP 6](#).

1. The replacement is the reverse of the removal procedure. Make sure the document width sensor arm is attached correctly, refer to [Figure 1](#).

## REP 5.17 Input Tray Static Eliminator

Parts List on [PL 5.35](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

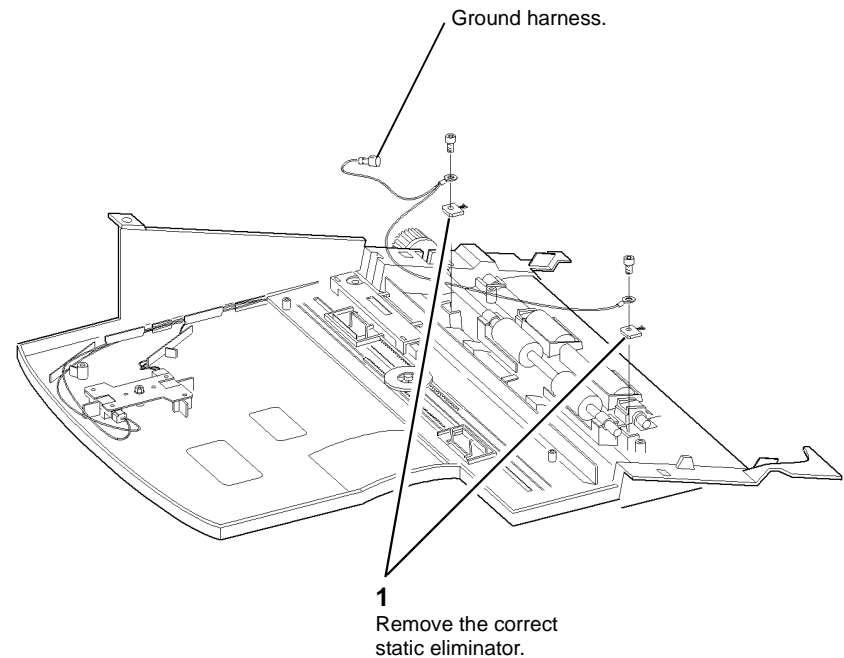
1. Remove the input tray assembly, [REP 5.4](#).

  
**CAUTION**

Disconnect the ground harness from the static eliminator before the input tray assembly lower cover is removed, refer to [Figure 1](#).

2. Turn the input tray assembly upside down. Remove the relevant cover:
  - **(35 ppm)** Input tray assembly lower cover, [PL 5.35 Item 21](#).
  - **(40-90 ppm)** Lower cover (right), [PL 5.35 Item 9](#) and Lower cover (left), [PL 5.35 Item 20](#).

3. Remove the input tray static eliminators, [Figure 1](#).



T-1-0430-A

Figure 1 Static eliminators

### Replacement

  
**CAUTION**

Take care when installing self tapping screws into plastic components, refer to [GP 6](#).

The replacement is the reverse of the removal procedure.

## REP 5.18 Exit Roll Idler

Parts List on [PL 5.30](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the baffle assembly lower cover, [PL 5.30 Item 1](#).
2. Remove the baffle assembly, [REP 5.5](#).
3. Prepare to remove the exit roll idlers, [Figure 1](#).

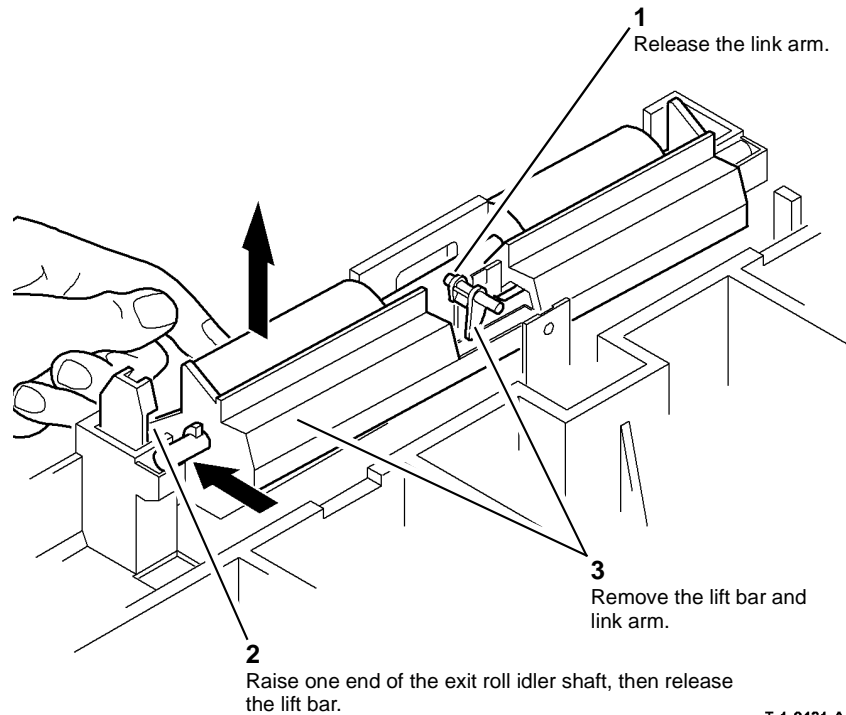


Figure 1 Preparation

4. Remove the exit roll idlers, [Figure 2](#).

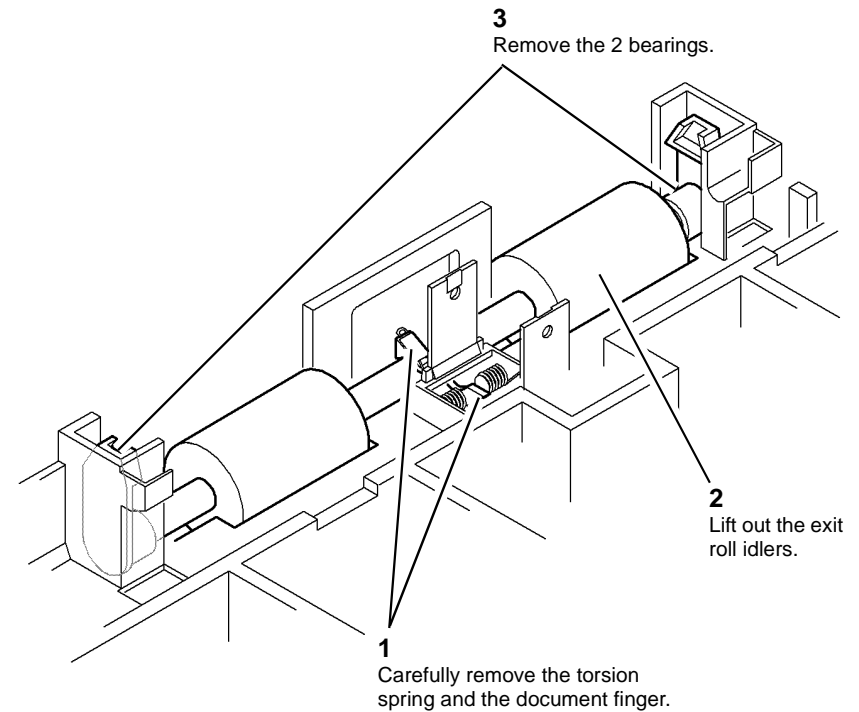


Figure 2 Exit roll idlers



## Replacement



### CAUTION

Take care when installing self tapping screws into plastic components, refer to GP 6.

The replacement is the reverse of the removal procedure. Make sure that the torsion spring and document finger are installed correctly, refer to Figure 3.

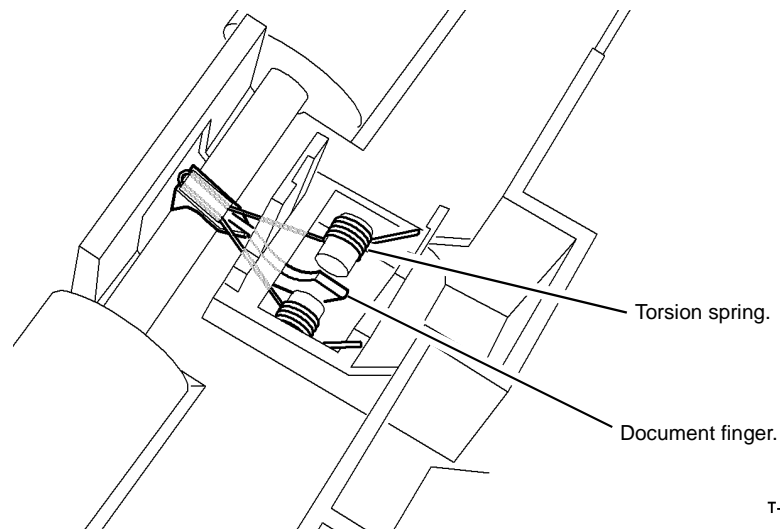


Figure 3 Torsion spring and document finger

## REP 5.19 DADH Removal

Parts List on PL 5.10

### Removal



### WARNING

Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Do not remove the DADH while the DADH is lowered. In the lowered position the counterbalance springs are compressed and can cause injury when released.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Disconnect the communication/power cable, PL 5.10 Item 6 and the DADH ground harness, PL 5.10 Item 11.
2. Raise the DADH.

**! WARNING**

Use safe handling procedures when removing the module, GP 16. The module is heavy.

**NOTE:** The DADH weight is 13Kg (29lb.).

3. Remove the DADH from the machine, Figure 1.

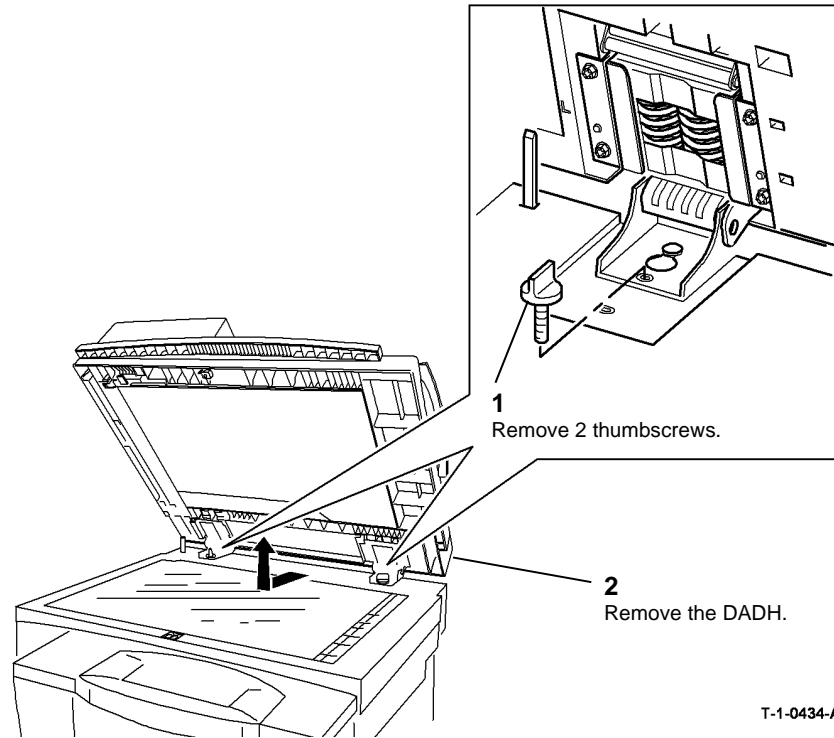


Figure 1 DADH removal

### Replacement

1. The replacement is the reverse of the removal procedure.
2. If a new DADH is installed, perform the steps that follow:
  - a. Attach the document pad, refer to ADJ 5.6.
  - b. Select dC131 chain 5, location 05-001. Reset the copy count to zero.
  - c. Reset the DADH feed count to zero in the HFSI feature screen. Refer to GP 17 High Frequency Service Items.
  - d. DADH height adjustment, ADJ 5.2.
  - e. DADH registration adjustment, ADJ 5.5.
  - f. DADH skew adjustment, ADJ 5.3.

## REP 5.20 Mylar Guide Strip

Parts List on PL 5.30

### Removal

**! WARNING**

Switch off the electricity to the machine, GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Raise the DADH.
2. Open the baffle assembly, PL 5.30 Item 5.
3. Remove the old mylar guide strip, PL 5.30 Item 14.
4. Use cleaning fluid to remove any contamination from the baffle assembly.

### Replacement

1. Remove the 3 backing strips from the pressure sensitive adhesive tape on the mylar guide.
2. Adhere the mylar guide to the baffle assembly, Figure 1.

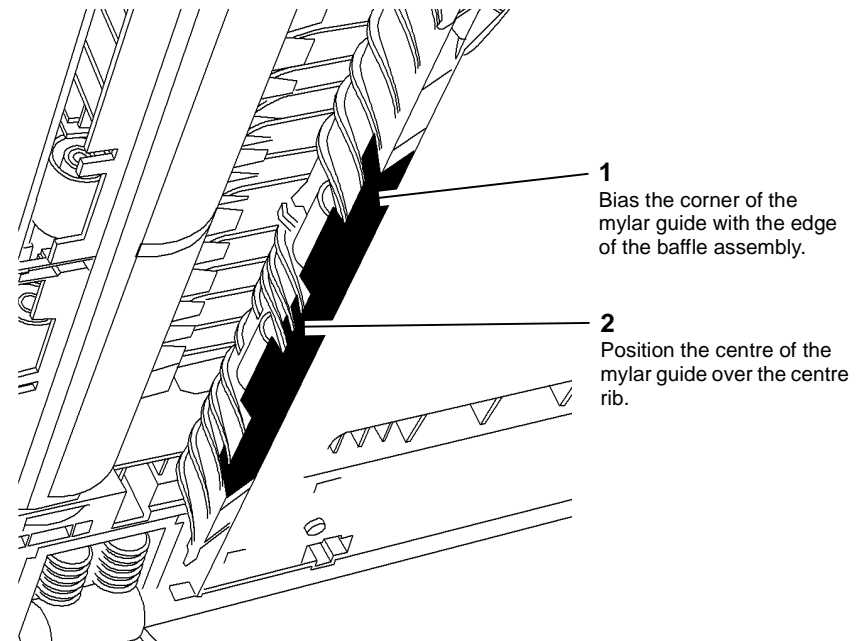


Figure 1 Mylar guide

## REP 6.1 ROS

Parts List on [PL 6.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### WARNING

Avoid exposure to laser beam. Invisible laser radiation.



Figure 1 Laser Beam Symbol



Figure 2 ESD Symbol

1. Remove the scanner, [REP 14.1](#)



#### CAUTION

Take care not to damage the wiring at the rear of the ROS.

2. [Figure 3](#), remove the ROS.

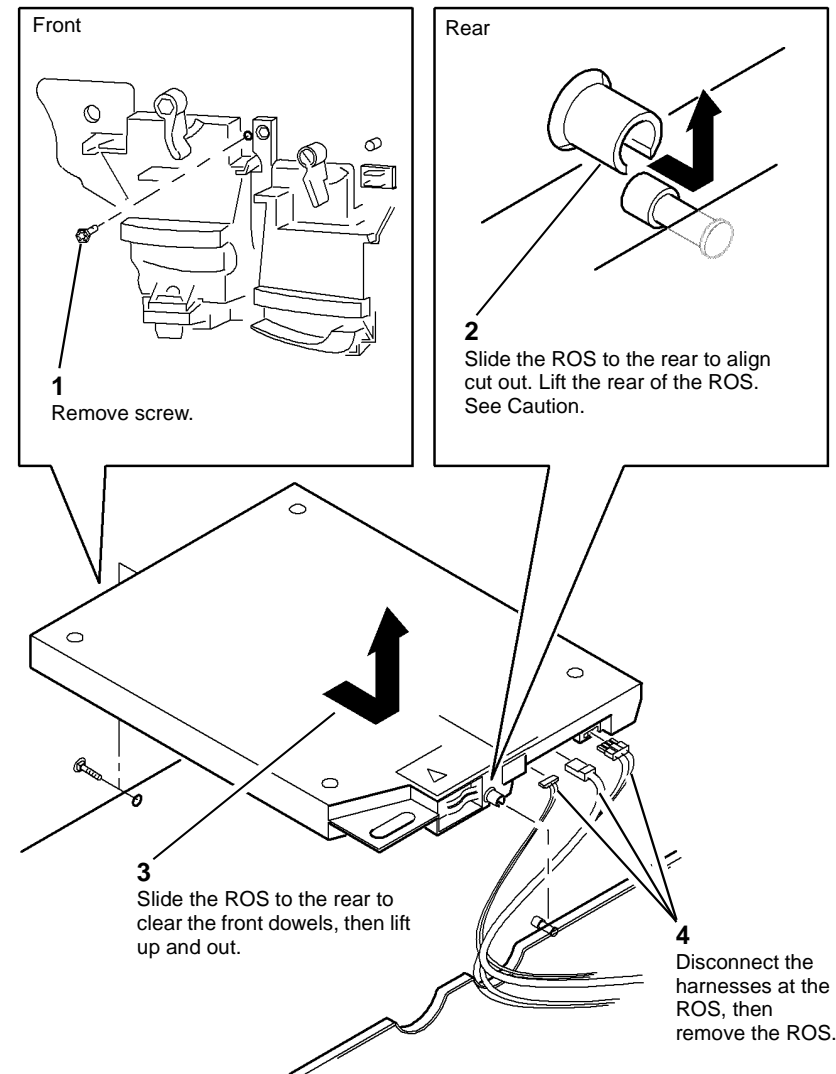


Figure 3 ROS removal

T-1-0436-A

## Replacement

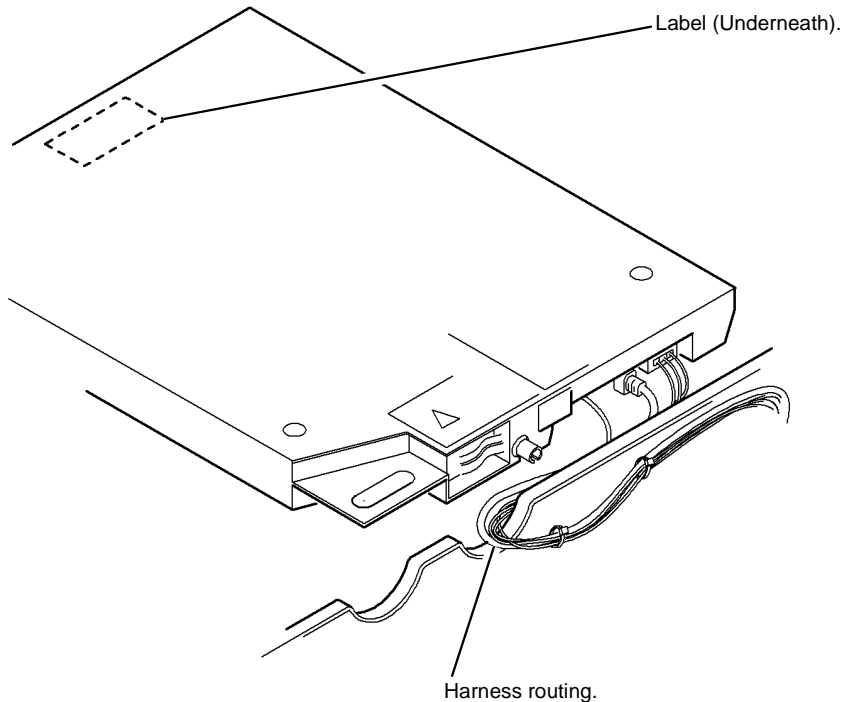
Reverse the removal procedure to replace the ROS.



### CAUTION

*Ensure that the harnesses are not damaged when the ROS is installed.*

1. If installing a new ROS, ensure that the ROS is the correct one for the machine speed. Check that the part number is correct, [PL 6.10 Item 4](#). The part number and the machine speed are labelled on the underside of the ROS, as shown in [Figure 4](#).
2. [Figure 4](#). Ensure that the harness is routed correctly.



T-1-0437-A

**Figure 4 ROS harness routing**

3. Go to [dC604](#) Registration Setup, check/adjust the registration.
4. Perform [ADJ 9.2](#) Image Quality Adjustment Routine.

## REP 7.1 Tray 1 and Tray 2 Removal

Parts List on [PL 7.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

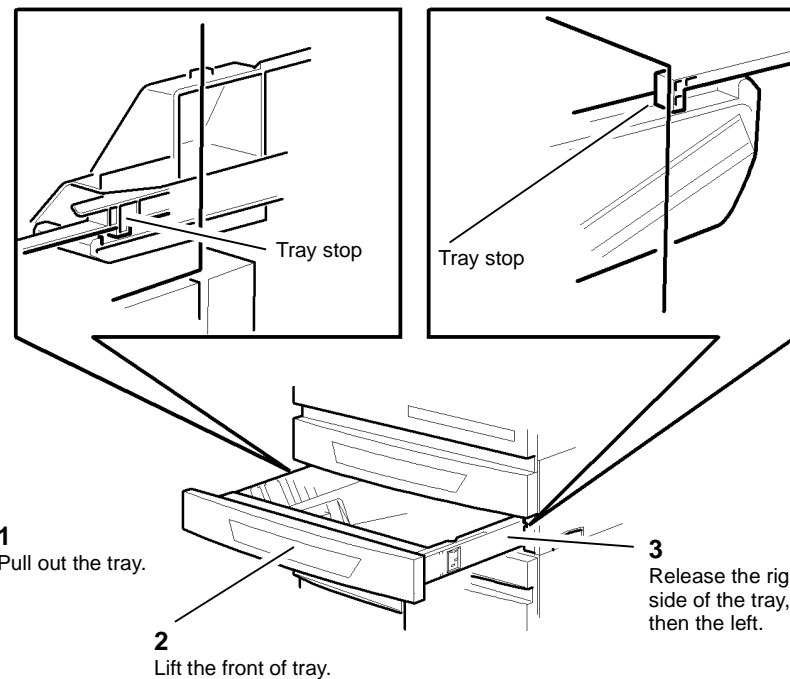


#### CAUTION

Do not stack the trays one on top of the other tray. The top tray can damage the bottom tray, which can cause misfeeds or paper jams.

1. Remove tray 1 or tray 2, [Figure 1](#).

**NOTE:** The removal procedure for tray 1 and tray 2 is the same.



T-1-0438-A

Figure 1 Tray 1 and tray 2 removal

### Replacement

The replacement is the reverse of the removal procedure. Make sure that the left tray slide is located inside the tray stop before inserting the right side of the tray. Refer to [Figure 1](#).

## REP 7.2 Tray 3 and Tray 4 Removal (W/O TAG 151)

Parts List on [PL 7.15](#)

### Removal

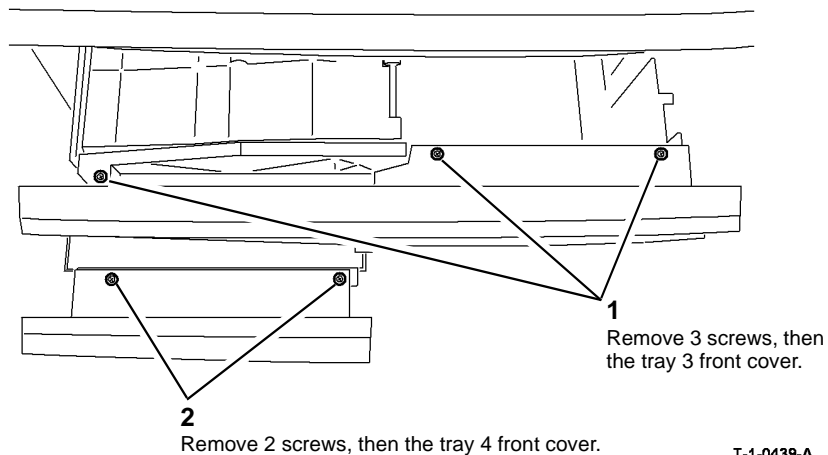
  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the paper from the two trays.
2. Remove the right hand cover, [PL 7.25 Item 7](#).
3. Remove the tray 3 and tray 4 front covers, [Figure 1](#).

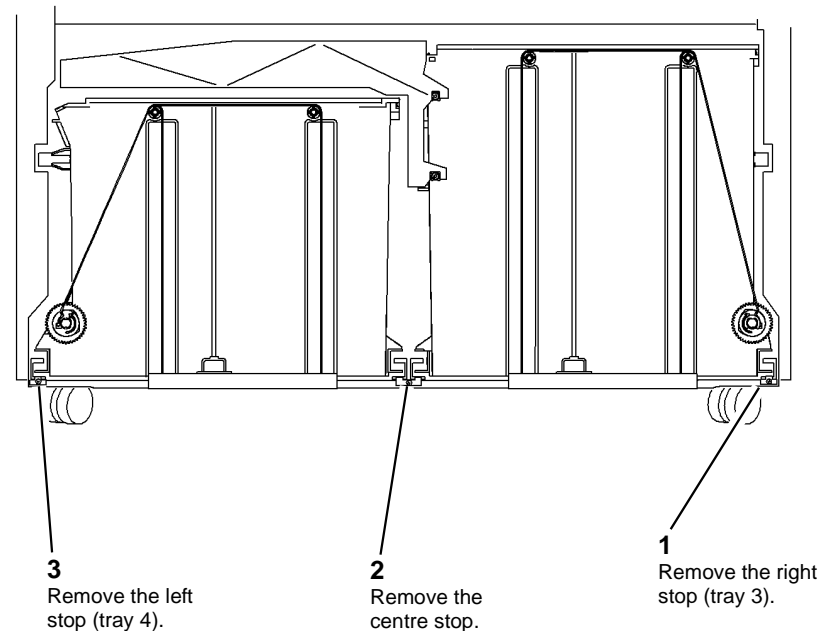


**Figure 1 Tray 3 and tray 4 front covers removal**

**NOTE:** If tray 4 needs to be removed then remove tray 3 first.

**NOTE:** If only tray 3 is to be removed then do not remove the left hand stop.

4. Remove the stops, [Figure 2](#).



**Figure 2 Rail stops removal**

5. Lift and pull to remove the tray complete with the guide rails.

### Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) when refitting the screws to secure tray 3 and tray 4 front covers.

**NOTE:** When installing tray 3 or tray 4 ensure that the tray rails are located correctly in the base of the HCF, [Figure 3](#).

## REP 7.3 Tray 3 and Tray 4 Elevator Motor (W/O TAG 151)

Parts List on [PL 7.20](#)

### Removal

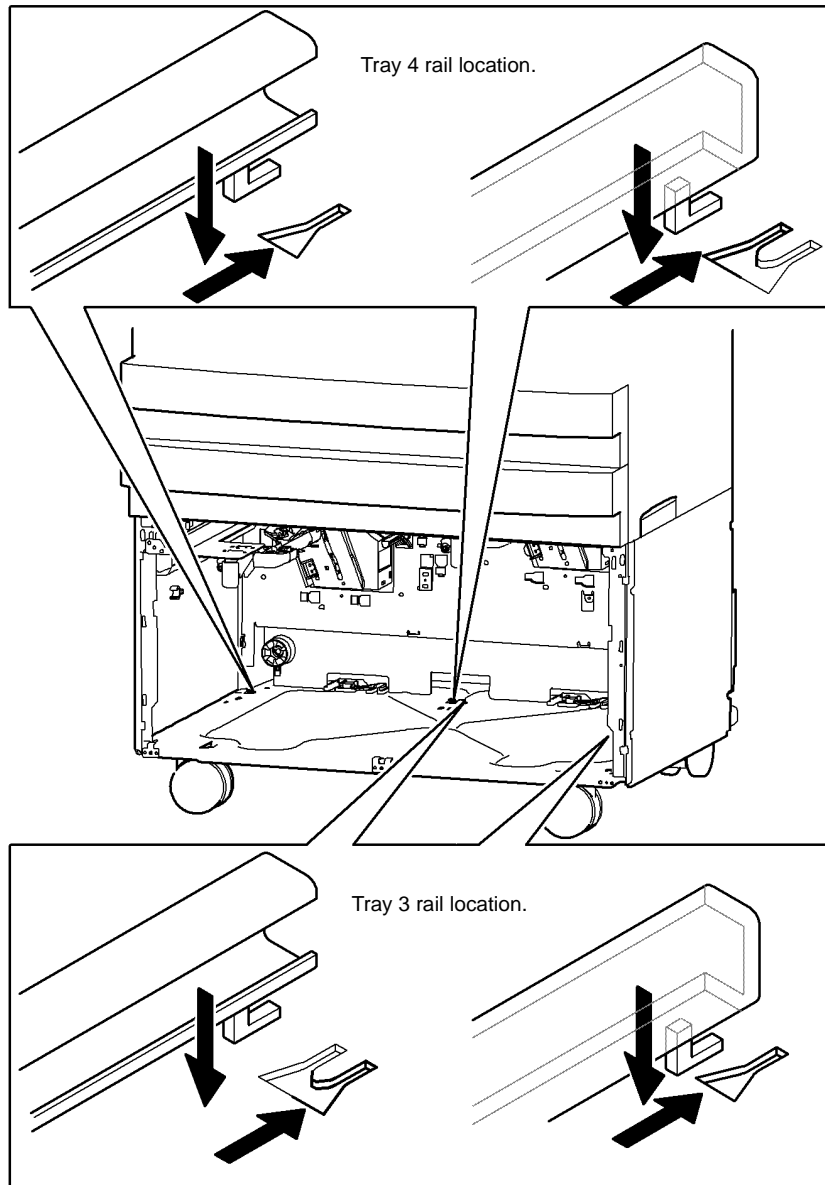


Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull out tray 3 and tray 4.
2. Remove the rear cover from the HCF, [PL 7.25 Item 1](#).
3. Disconnect PJ395 or PJ397 elevator motor harness from the [HCF control PWB](#),
4. Disconnect the harness from the low paper sensor on the elevator motor.



T-1-0441-A

Figure 3 Location of the tray rails

- Remove the tray 3 or tray 4 elevator motor, [Figure 1](#).

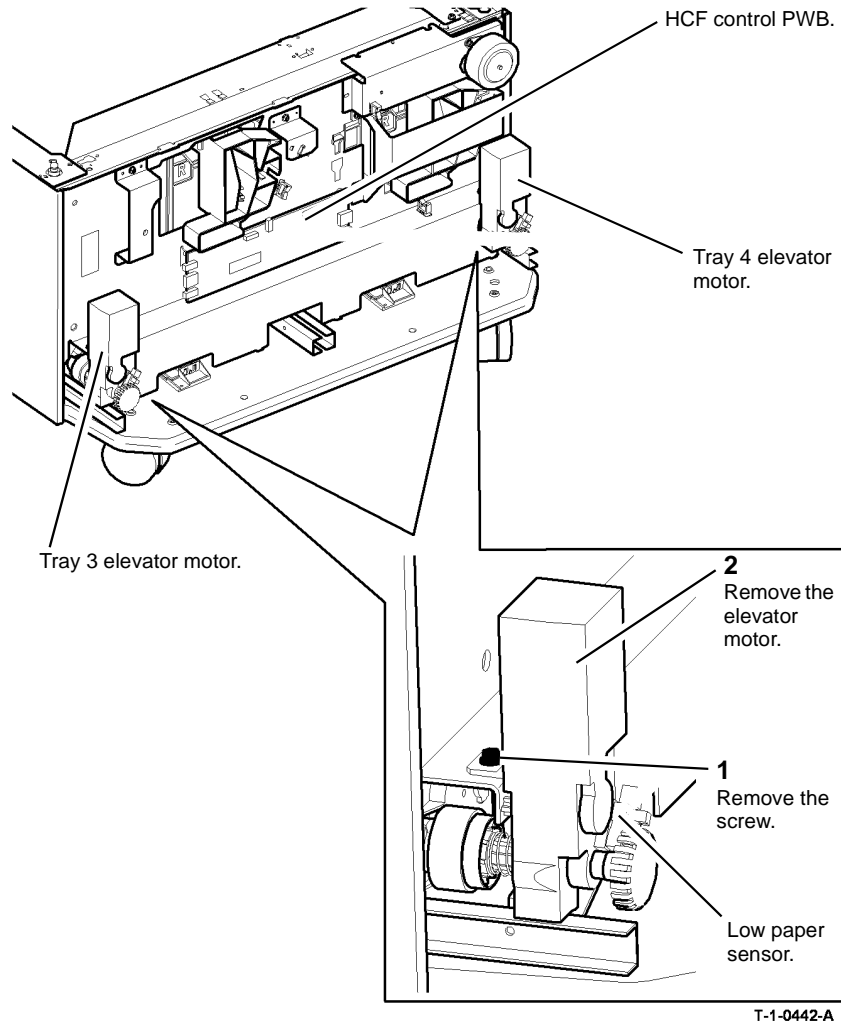


Figure 1 Elevator motor removal

## Replacement

The replacement is the reverse of the removal procedure.

## REP 7.4 Tray 3 and Tray 4 Elevator Cables (W/O TAG 151)

Parts List on [PL 7.15](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** The elevator drives at the front and at the rear are similar for both trays.

- Remove tray 3 (W/O TAG 151) or tray 4 (W/O TAG 151), [REP 7.2](#).
- Release the cables from the appropriate front drive pulley, [Figure 1](#).

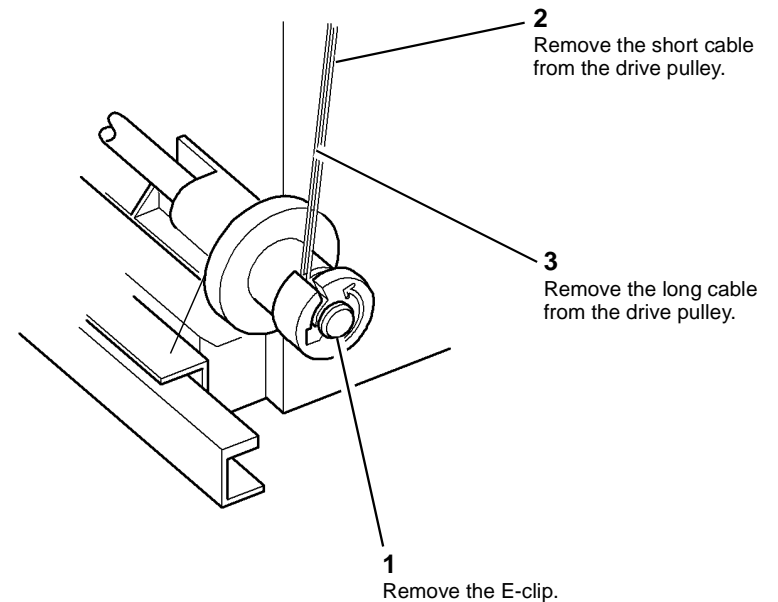


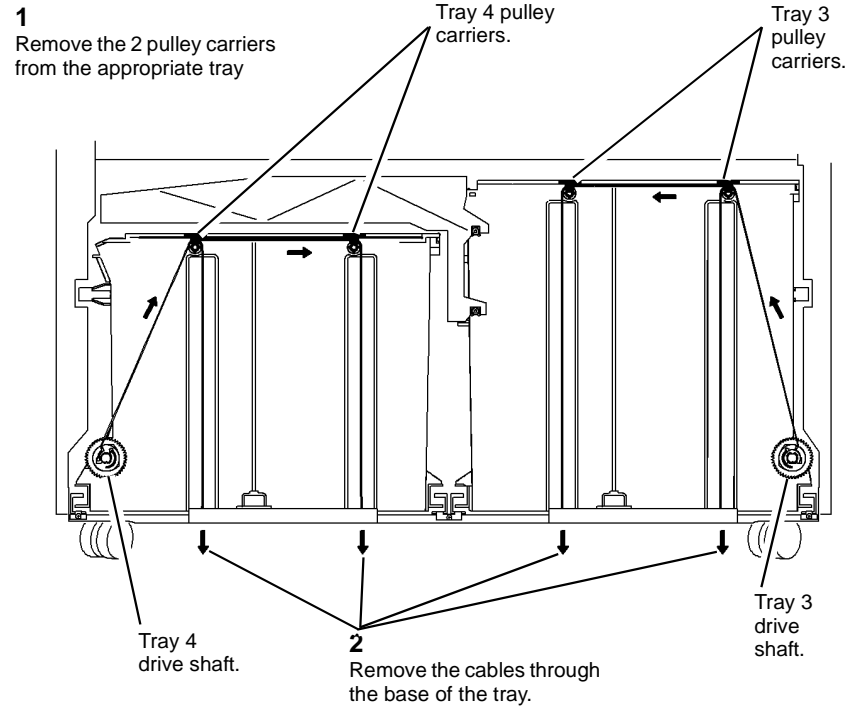
Figure 1 Front elevator cables release

T-1-0443-A



- Remove the appropriate front elevator cables, [Figure 2](#).

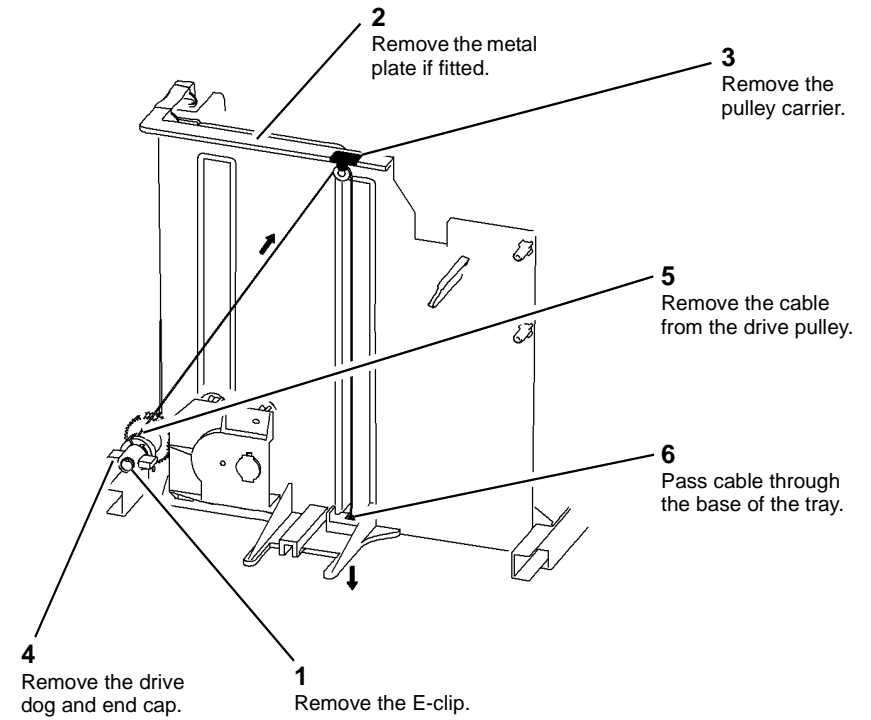
**NOTE:** The short cable is located over the outer pulley and the long cable is located over the inner pulley.



T-1-0444-A

Figure 2 Front elevator cables removal

- Remove the appropriate rear elevator cable:
  - Tray 3, [Figure 3](#)
  - Tray 4, [Figure 4](#)



T-1-0445-A

Figure 3 Tray 3 rear cable removal

## REP 7.5 Bypass Tray and Left Hand Door Assembly

Parts List on [PL 7.30](#)

### Removal



**WARNING**

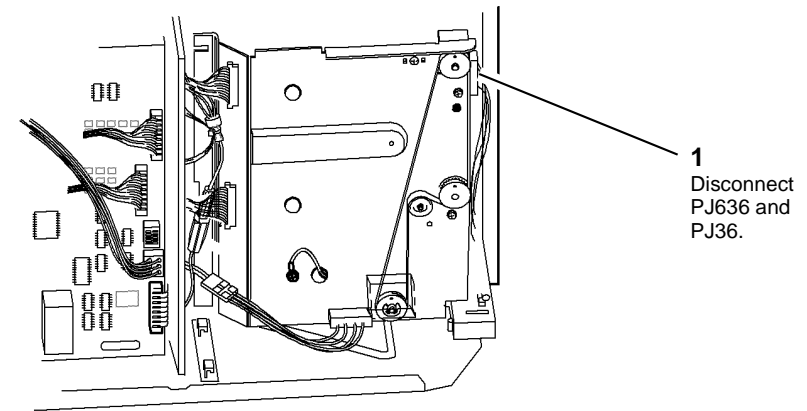
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

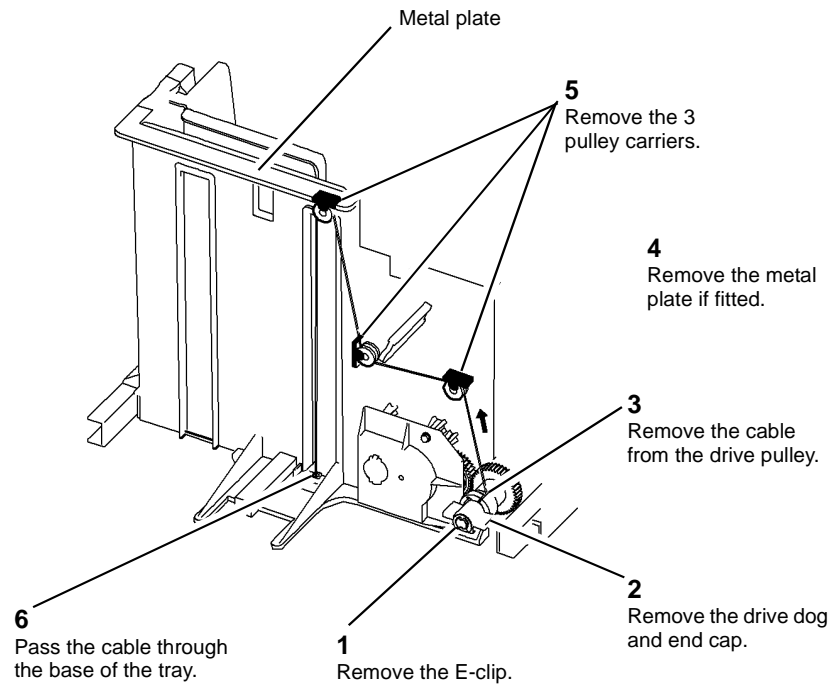
1. Remove rear cover, [PL 8.10 Item 1](#).
2. Remove the waste toner bottle and door, [REP 9.1](#).
3. Prepare to remove the bypass tray, [Figure 1](#).



T-1-0447-A

**Figure 1 Preparation**

4. Remove upper left hand cover, [PL 8.10 Item 3](#).
5. Pull out the extender tray on the bypass tray.



T-1-0446-A

**Figure 4 Tray 4 rear cable removal**

### Replacement

The replacement is the reverse of the removal procedure.

Tray 3 front cables.

1. Thread the short cable over the inner groove on the pulley.
2. Thread the long cable over the outer groove on the pulley.

Tray 3 rear cable.

- Thread the medium length cable over the inner groove on the pulley.

Tray 4 front cables.

1. Thread the long cable over the inner groove on the pulley.
2. Thread the short cable over the outer groove on the pulley.

Tray 4 rear cable.

- Thread the medium length cable over the outer groove on the pulleys.

- Remove the bypass tray and left hand door assembly, [Figure 2](#).

**NOTE:** Check that the point of the hinge pin has not damaged the wiring harness.

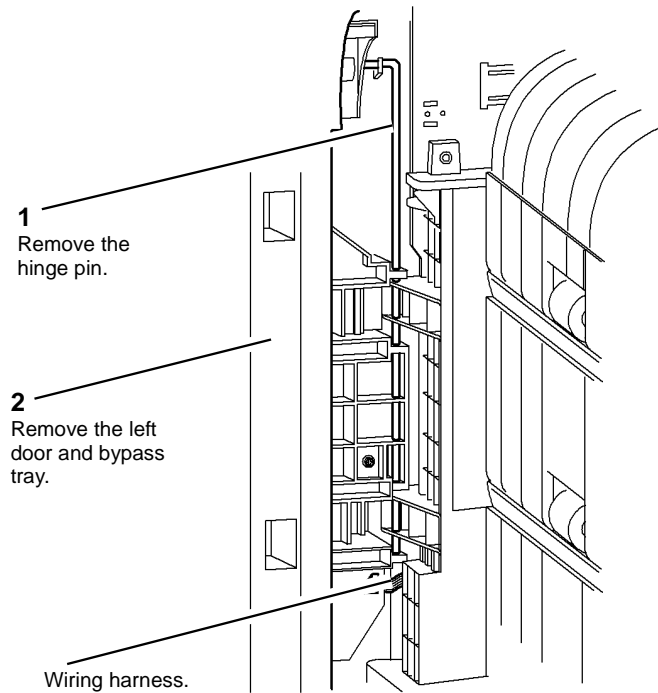


Figure 2 Door and tray removal

T-1-0448-A

## Replacement



*When replacing the hinge pin, do not damage the wire harness.*

- The replacement is the reverse of the removal procedure.
- Connect PJ636 and PJ36 before installing the bypass tray and the left door assembly, refer to [Figure 1](#).
- Make sure that the bypass tray and left door assembly is correctly aligned before inserting the hinge pin.
- Perform the [dC604](#) Registration Setup.

## REP 7.6 Tray 1 and Tray 2 Paper Guides

Parts List on [PL 7.10](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** The removal procedure is the same for tray 1 and for tray 2.

- Remove the paper then remove the tray, [REP 7.1](#).
- Remove the paper width guide and paper lift plate, [Figure 1](#).

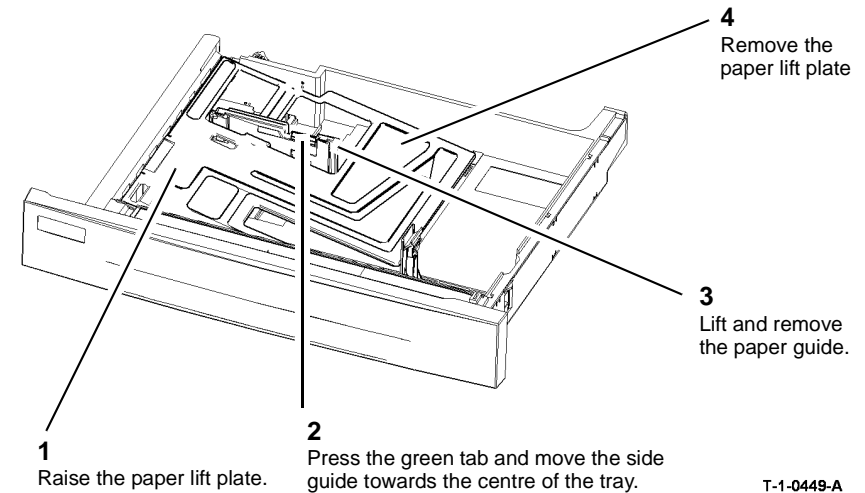


Figure 1 Paper width guide removal

T-1-0449-A

3. Remove the paper length guide, [Figure 2](#).

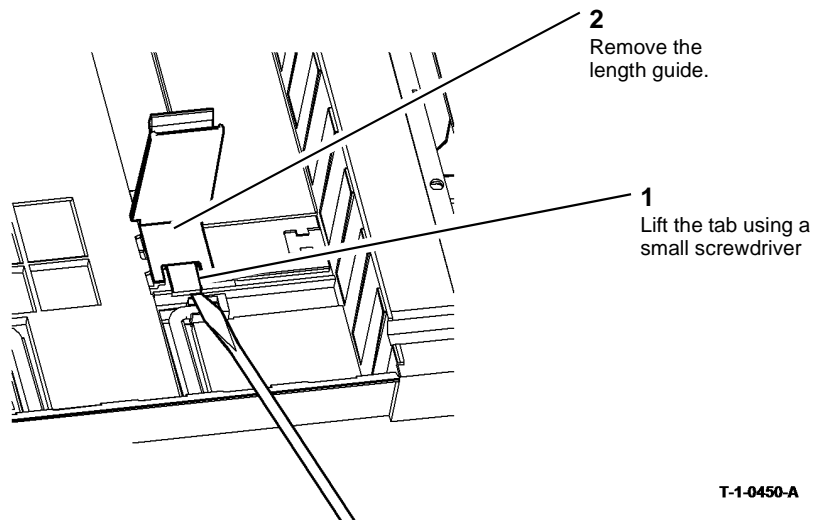


Figure 2 Paper length guide removal

## Replacement

1. The replacement is the reverse of the removal procedure.
2. Locate the paper length guide correctly in the base of the tray, [Figure 3](#).

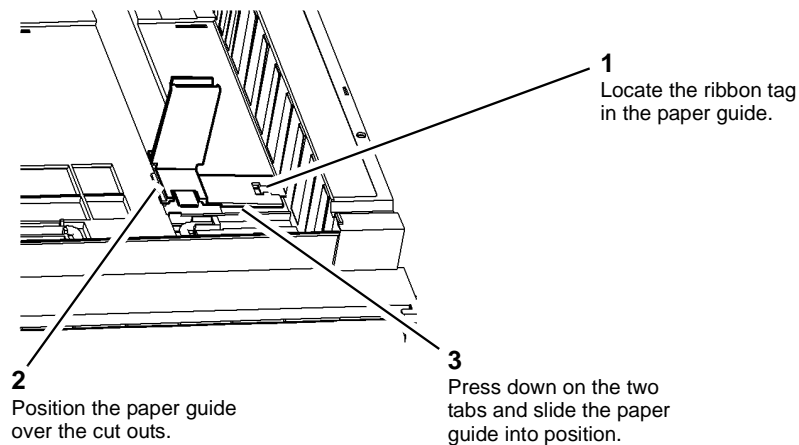


Figure 3 Paper length guide location

## REP 7.7 Tray 3 and Tray 4 Stack Height Sensor (W/O TAG 151)

Parts List on [PL 8.30](#), [PL 8.31](#)

### Removal



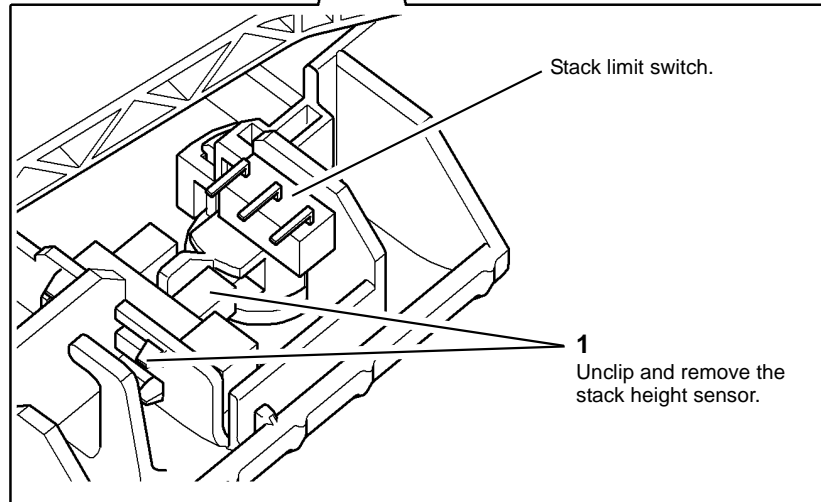
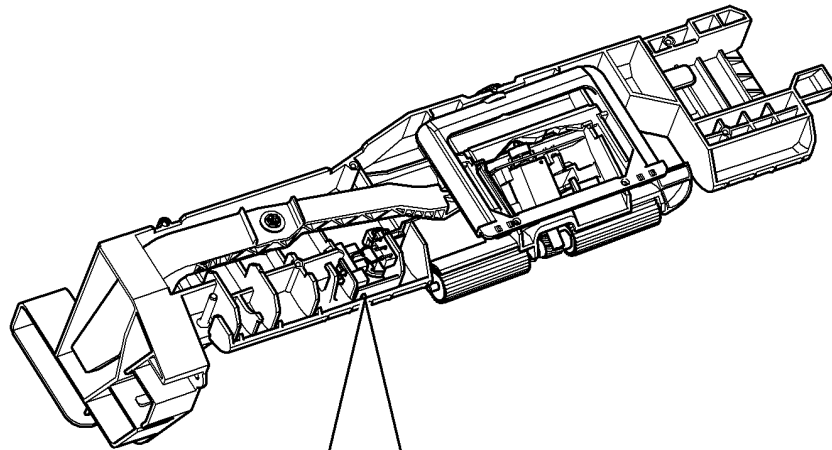
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the required paper feed assembly:
  - Tray 3 paper feed assembly (W/O TAG 151), [REP 8.2](#).
  - Tray 4 paper feed assembly (W/O TAG 151), [REP 8.3](#).

2. Disconnect and remove the stack height sensor, [Figure 1](#).



T-1-0452-A

Figure 1 Stack height sensor removal

### Replacement

The replacement is the reverse of the removal procedure.

## REP 7.8 Tray 3 and Tray 4 Stack Limiter (W/O TAG 151)

Parts List on [PL 7.20](#)

### Removal

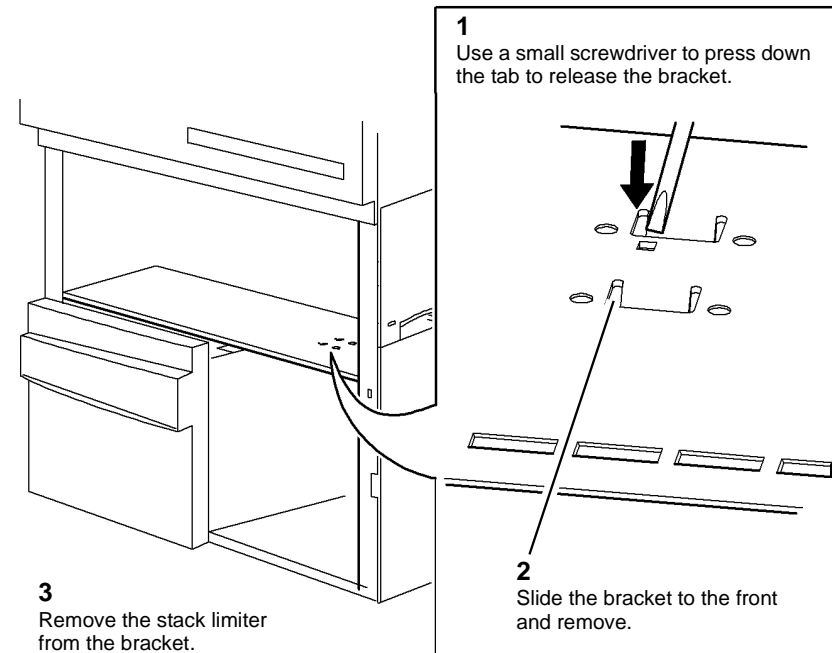
  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 1 and tray 2, [REP 7.1](#).
2. Remove tray 3 (W/O TAG 151), [REP 7.2](#).
3. Perform the following:
  - Remove the tray 3 stack limiter and bracket, [Figure 1](#).
  - Remove the tray 4 stack limiter and bracket, [Figure 2](#).



T-1-0453-A

Figure 1 Tray 3 Limiter and bracket

## REP 7.9 Tray 3 and Tray 4 Home Switch (W/O TAG 151)

Parts List on [PL 7.20](#)

### Removal



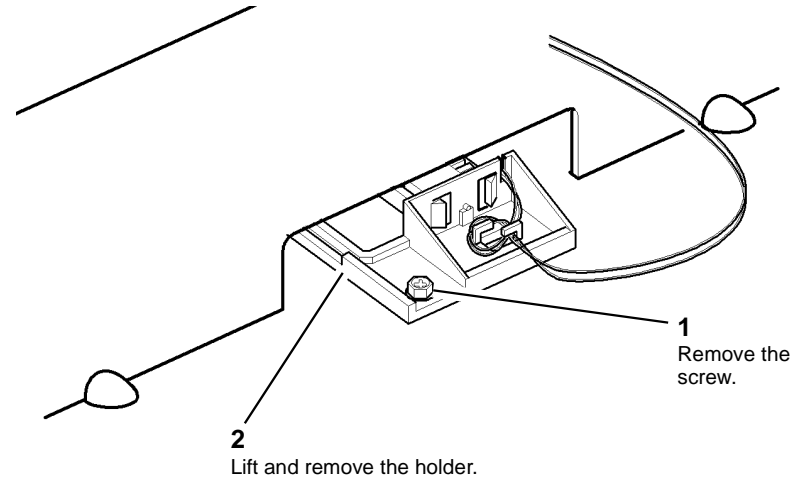
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

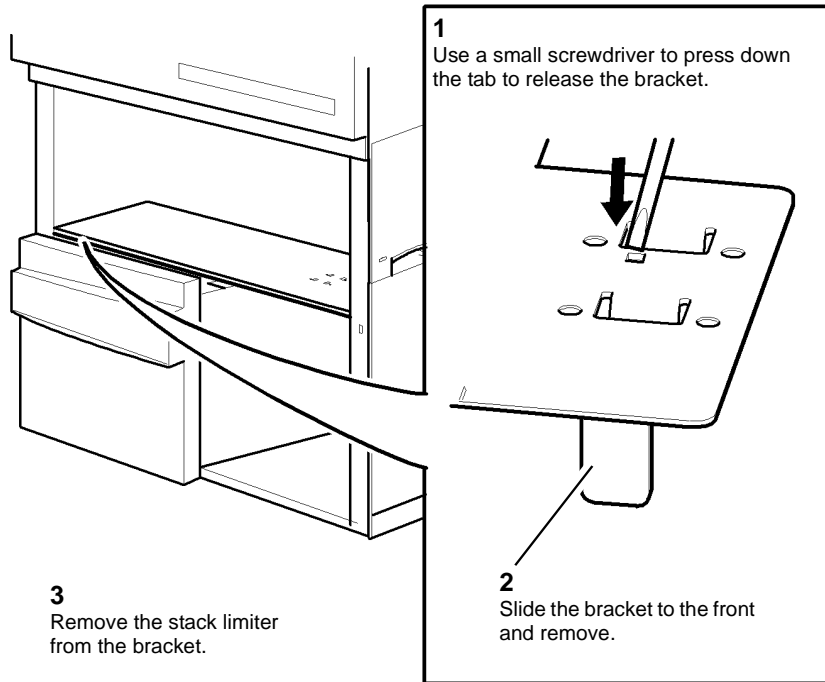
The removal procedure is the same for tray 3 and tray 4.

1. Pull out tray 3 or tray 4.
2. Remove the rear cover, [PL 7.25 Item 1](#).
3. Remove the tray home switch and holder, [Figure 1](#).



T-1-0455-A

Figure 1 Switch and holder removal



T-1-0454-A

Figure 2 Tray 4 stack limiter and bracket

### Replacement

The replacement is the reverse of the removal procedure.

- Remove the tray home switch, [Figure 2](#).

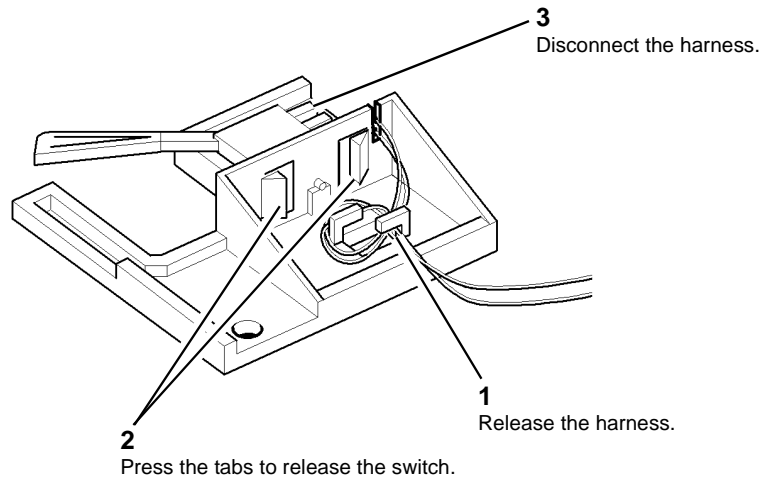


Figure 2 Switch removal

T-1-0451-A

### Replacement

Replacement is the reverse of the removal procedure.

Ensure that the tabs on the switch holder locate correctly in the holes in the base, [Figure 3](#).

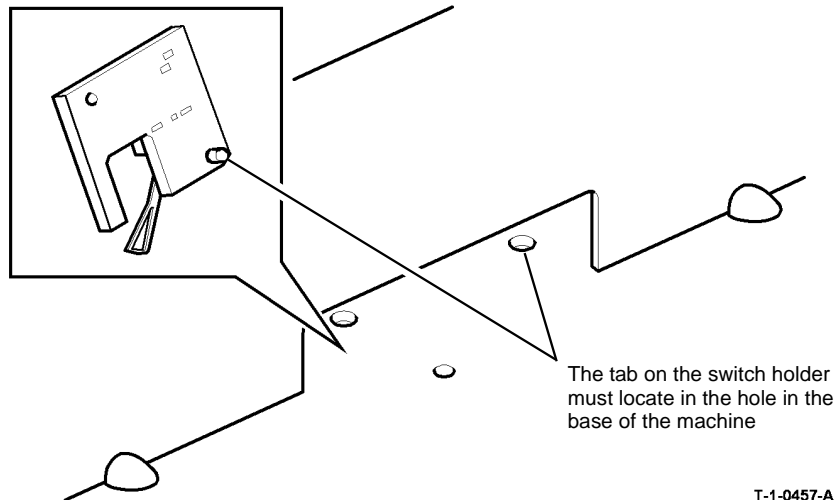


Figure 3 Switch holder location

T-1-0457-A

## REP 7.10 HCF Control PWB (W/O TAG 151)

Parts List on [PL 7.20](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Figure 1 ESD Symbol



Ensure that E.S.D. procedures are observed during the removal and installation of the HCF Control PWB.

- Remove the rear cover, [PL 7.25 Item 1](#).

2. Remove the HCF control PWB, [Figure 2](#).

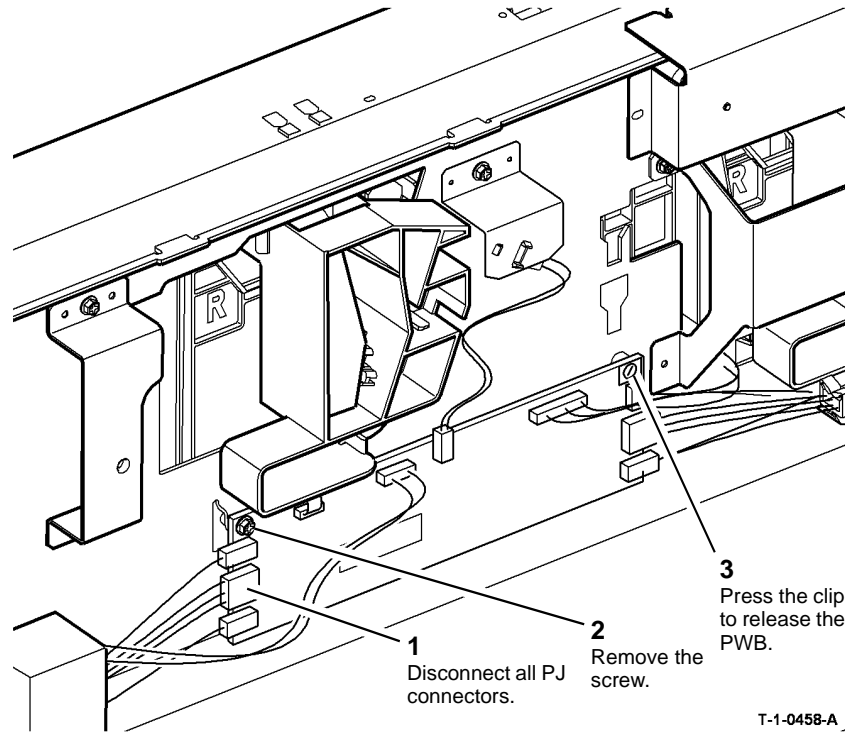


Figure 2 HCF control PWB removal

### Replacement

1. Replacement is the reverse of the removal procedure.
2. After completing the replacement procedure, perform [dC604](#) Registration Setup.

## REP 7.11 Tray 3 and Tray 4 Elevator Damper and Gears (W/O TAG 151)

Parts List on [PL 7.15](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 3 (W/O TAG 151) or tray 4 (W/O TAG 151), [REP 7.2](#).
2. Remove the damper from tray 3, [Figure 1](#).

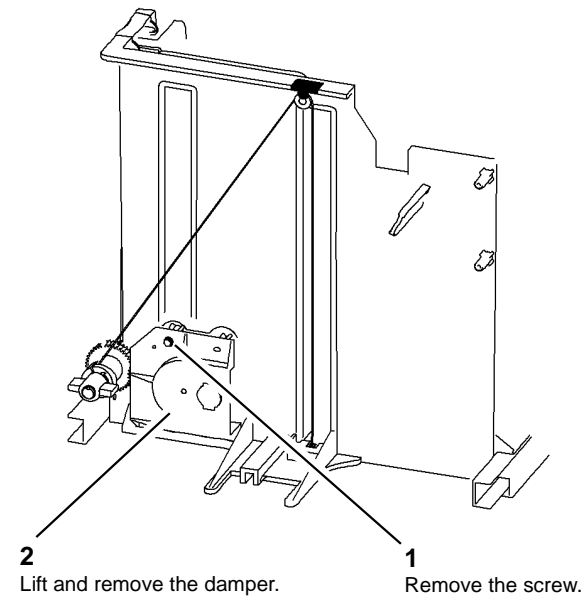
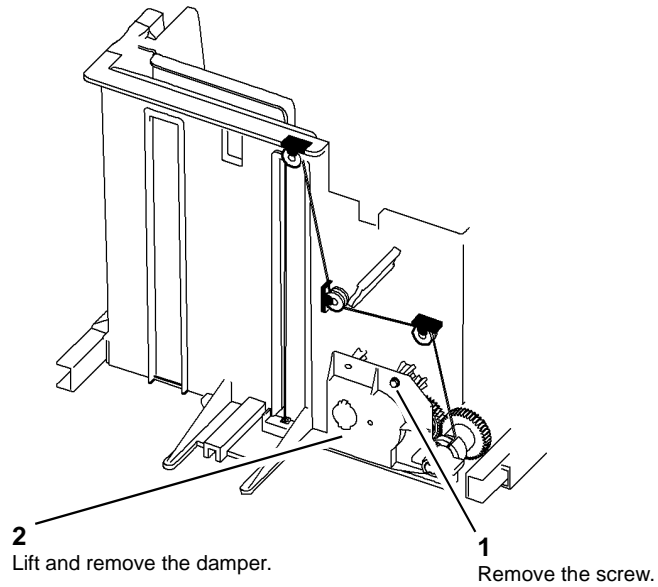


Figure 1 Tray 3 damper removal

T-1-0459-A



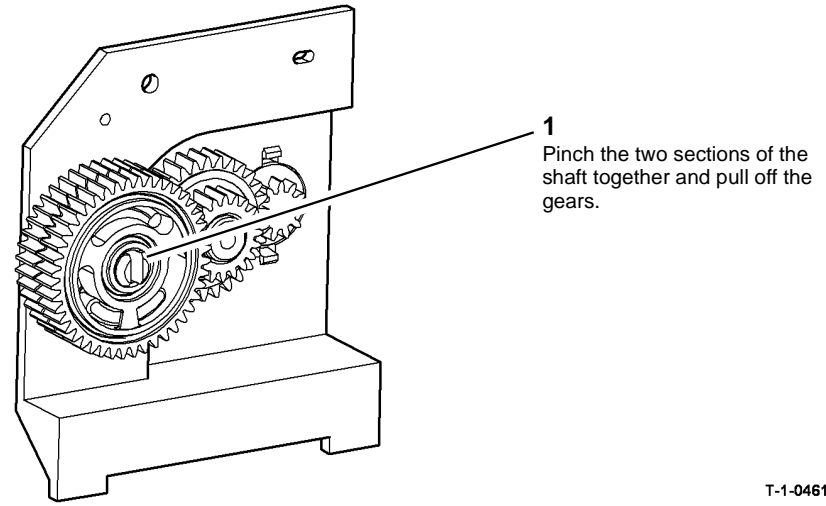
3. Remove the damper from tray 4, [Figure 2](#).



**Figure 2 Tray 4 damper removal**

T-1-0460-A

4. To remove the drive gears, [Figure 3](#).

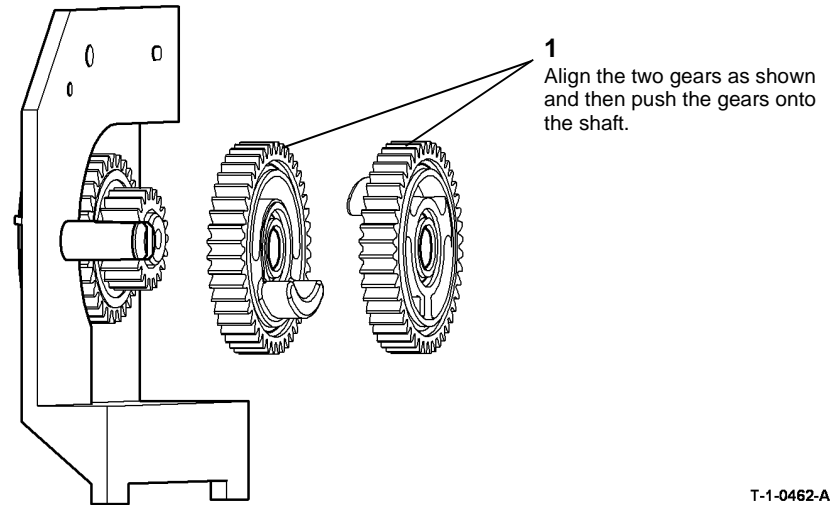


**Figure 3 Gears removal**

T-1-0461-A

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Ensure the gears are correctly aligned, [Figure 4](#).



**Figure 4 Gears installation**

T-1-0462-A

## REP 7.12 Tray 1 and Tray 2 Paper Size Cams

Parts List on [PL 7.10](#)

### Removal

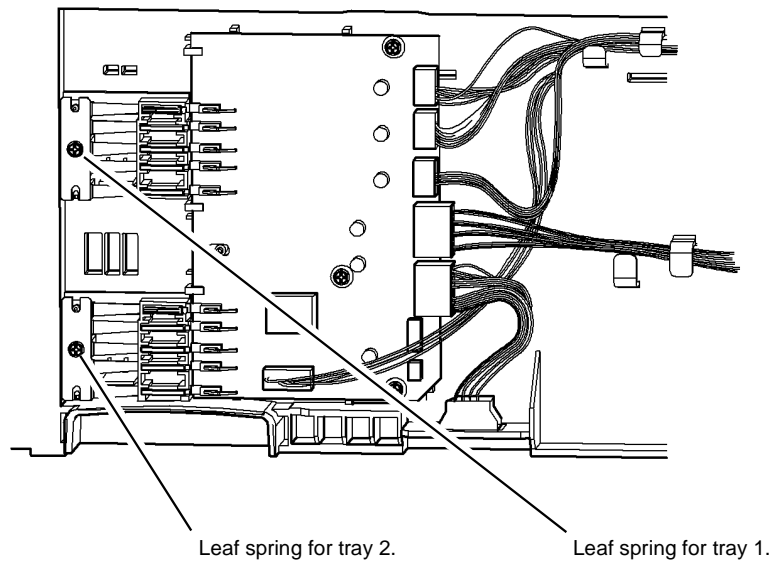
  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the output device.
2. Remove the right hand cover, [PL 8.10 Item 9](#).
3. Remove tray 1 or tray 2 leaf spring, [Figure 1](#).



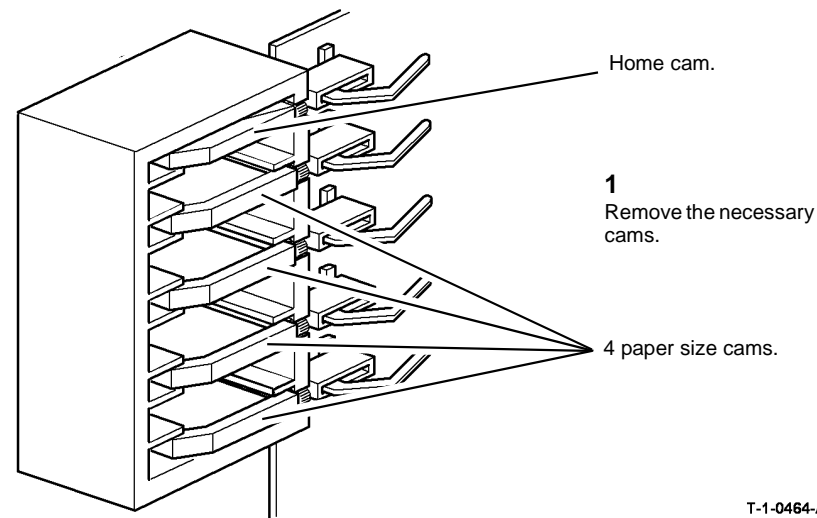
- 1 Remove the screw and leaf spring for the relevant tray.

T-1-0463-A

Figure 1 Leaf springs removal

4. Remove the cams for tray 1 or tray 2, [Figure 2](#).

**NOTE:** The cams are the same for tray 1 and for tray 2. The small cam is for the tray home position and the larger cams are for the paper size position.



T-1-0464-A

Figure 2 Cams removal

### Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 7.13 Tray 5 Empty Sensor

Parts List on [PL 8.45](#)

### Removal



#### WARNING

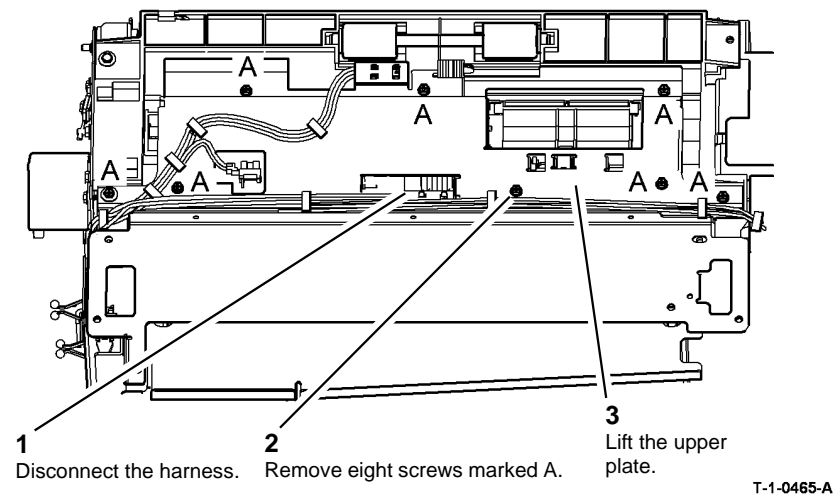
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, [PL 7.60 Item 10](#).
2. Prepare to remove the tray 5 empty sensor, [Figure 1](#).

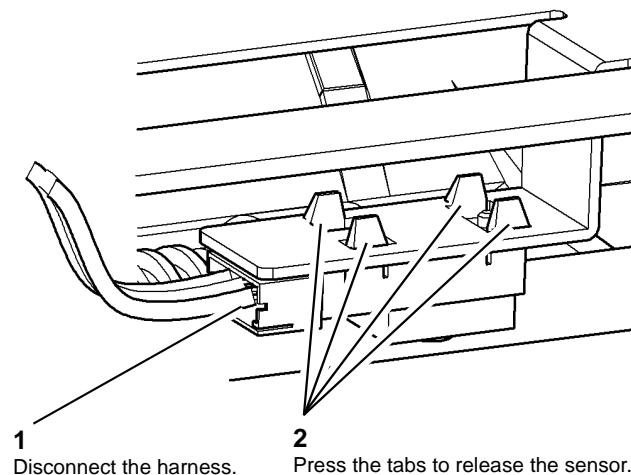


- 1 Disconnect the harness.
- 2 Remove eight screws marked A.
- 3 Lift the upper plate.

T-1-0465-A

Figure 1 Preparation

3. Remove tray 5 empty sensor, [Figure 2](#).



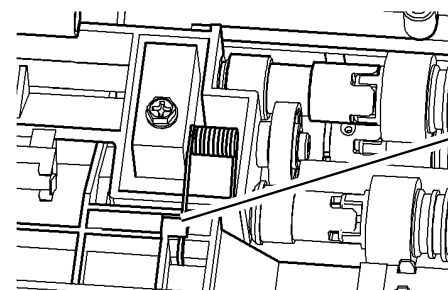
- 1 Disconnect the harness.
- 2 Press the tabs to release the sensor.

T-1-0466-A

Figure 2 Tray 5 empty sensor removal

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Make sure that the spring on the paper feed assembly is in the correct position, [Figure 3](#).

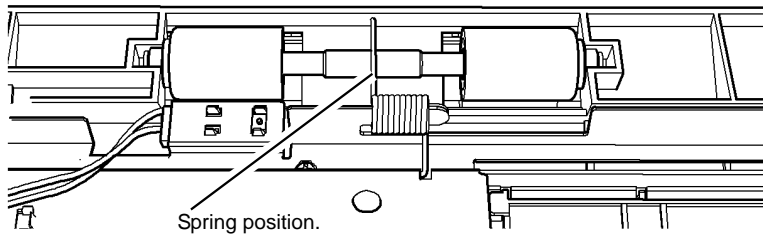


- 1 Place the spring under the post.

T-1-0467-A

Figure 3 Feed assembly spring

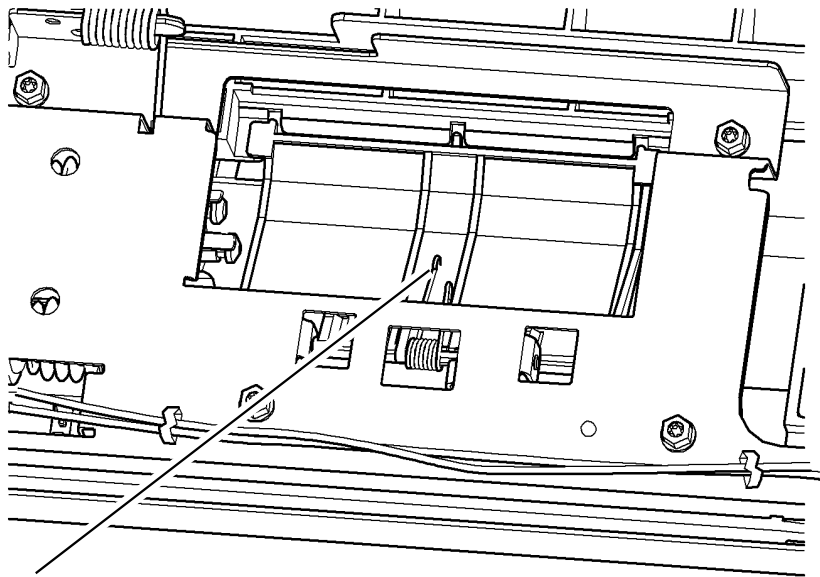
3. Make sure that the spring is positioned on top of the nip roll shaft when the upper plate is installed, [Figure 4](#).



T-1-0468-A

**Figure 4 Nip roll spring**

4. Check that the correct screw is used to attach the upper plate.
5. Check the position of the chute spring, [Figure 5](#).



1  
Position the spring on the top of the chute upper insert.

T-1-0469-A

**Figure 5 Upper insert chute spring**

6. Check that the harness routing is correct, refer to [Figure 1](#).

## REP 7.14 Tray 5 Stack Height Sensor

Parts List on [PL 8.45](#)

### Removal

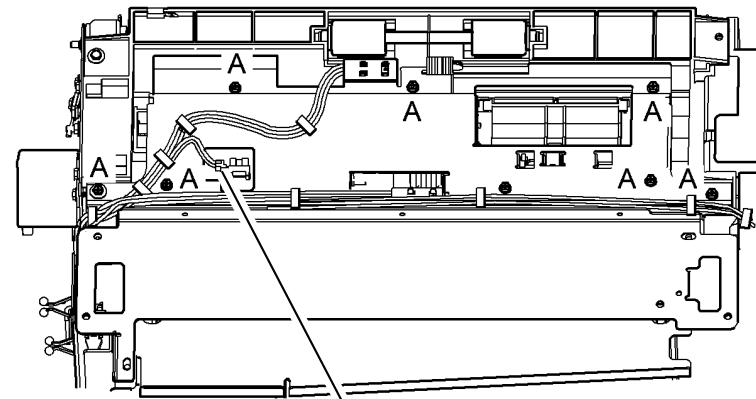


Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, [PL 7.60 Item 10](#).
2. Prepare to remove the tray 5 stack height sensor, [Figure 1](#).

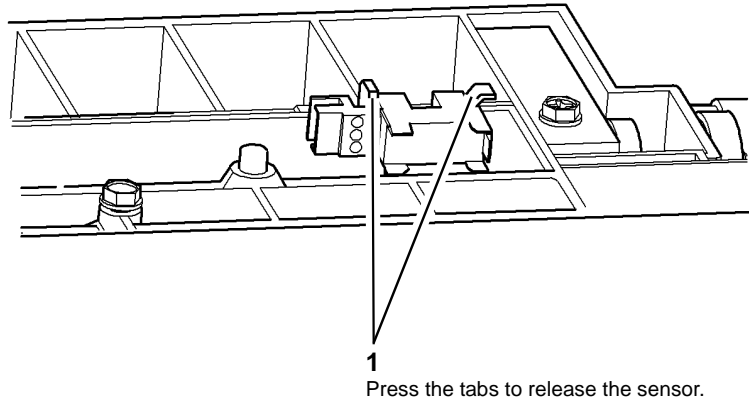


1  
Disconnect the harness.

T-1-0470-A

**Figure 1 Preparation**

- Remove tray 5 stack height sensor, [Figure 2](#).



T-1-0471-A

Figure 2 Sensor removal

### Replacement

- The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
- Check that the harness routing is correct, refer to [Figure 1](#).
- Perform [ADJ 7.6](#) Tray 5 Stack Height Sensor and Retard Shield.

## REP 7.15 Tray 5 Down Sensor

Parts List on [PL 7.68](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the rear cover, [PL 7.60](#) Item 9.
- Remove the tray 5 down sensor, [Figure 1](#).

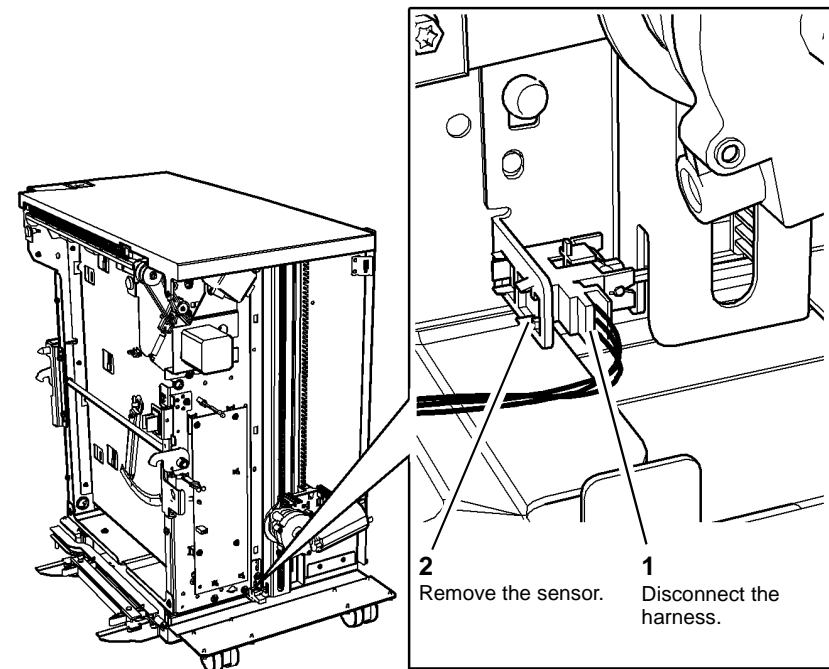


Figure 1 Sensor removal

### Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 7.16 Tray 5 Elevator Motor Assembly

Parts List on [PL 7.68](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

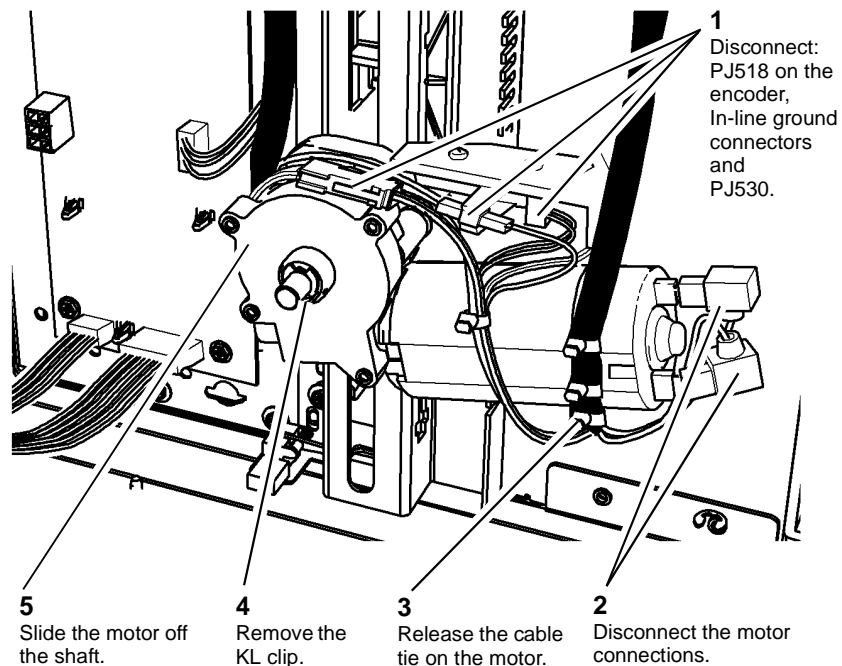


#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the paper from the tray.
2. Remove the rear cover, [PL 7.60 Item 9](#).
3. Remove the tray 5 elevator motor assembly, [Figure 1](#).

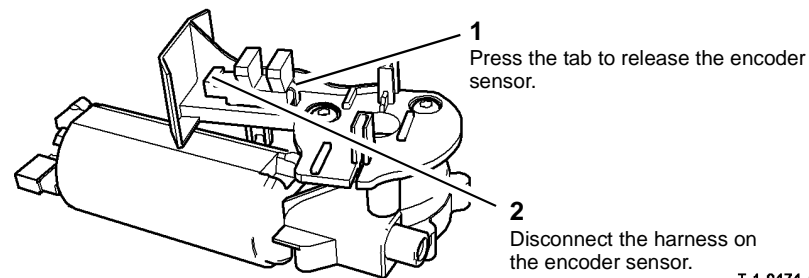
**NOTE:** The tray 5 paper tray must be supported before the elevator motor assembly is removed.



T-1-0473-A

Figure 1 Motor assembly removal

4. If required remove the encoder sensor from the plastic bracket, [Figure 2](#).

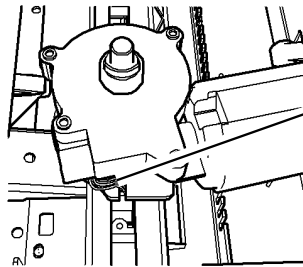


T-1-0474-A

Figure 2 Encoder sensor removal

## Replacement

1. To help with the installing of a new elevator motor, support the paper tray on two reams of paper.
2. Make sure that the encoder sensor is positioned on the elevator motor assembly, [Figure 2](#).
3. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
4. Check that the harness is routed in the channel on the plastic bracket, [Figure 3](#).



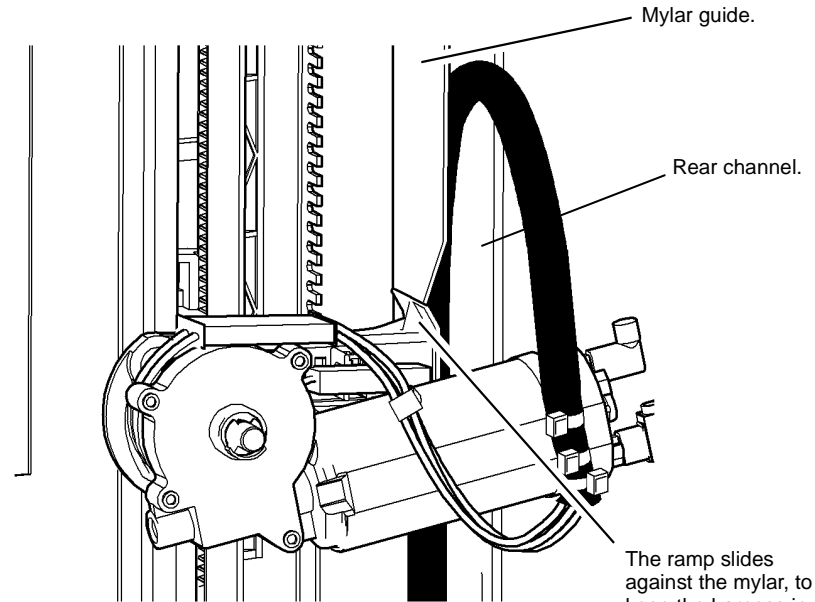
Check that the wires in the harness are not trapped and are free to move.

T-1-0475-A

**Figure 3 Harness position**

5. Ensure that there are no twists in the harness when installing the elevator motor.
6. When the motor is installed, remove the paper supporting the paper tray.

7. Exercise the elevator motor with one sheet of paper in the tray. Observe that the harness tracks properly between the mylar guide and the rear channel. [Figure 4](#).



T-1-0476-A

**Figure 4 Location of the harness**

8. Check the registration, refer to [dC604](#).

## REP 7.17 Tray 5 Upper Limit Switch

Parts List on [PL 8.40](#), [PL 7.68](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 7.60](#) Item 9.
2. Remove the tray 5 upper limit switch, [Figure 1](#).

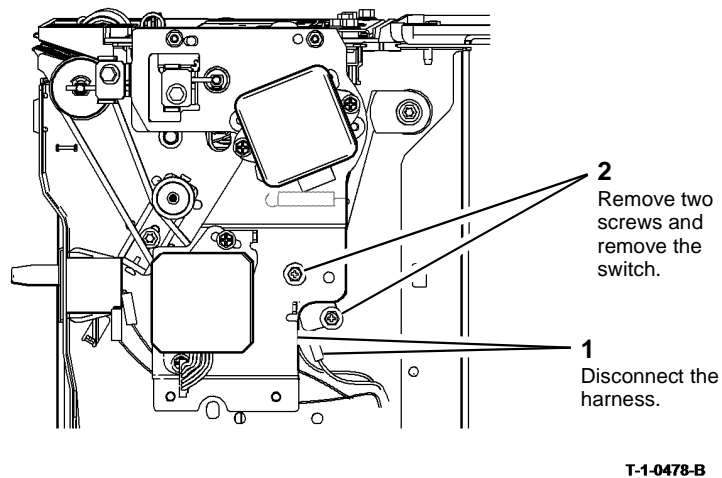


Figure 1 Upper limit switch removal

### Replacement

1. The replacement is the reverse of the removal procedure.

## REP 7.18 Tray 5 Down Limit Switch

Parts List on [PL 7.70](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. The tray needs to be positioned in the middle of its travel. If the tray must be repositioned, refer to [REP 7.16](#). Disengage the elevator motor from the tray and move the tray to the required position. Re-engage the elevator motor to hold the tray.
2. Remove the tray lift top cover, [Figure 1](#).

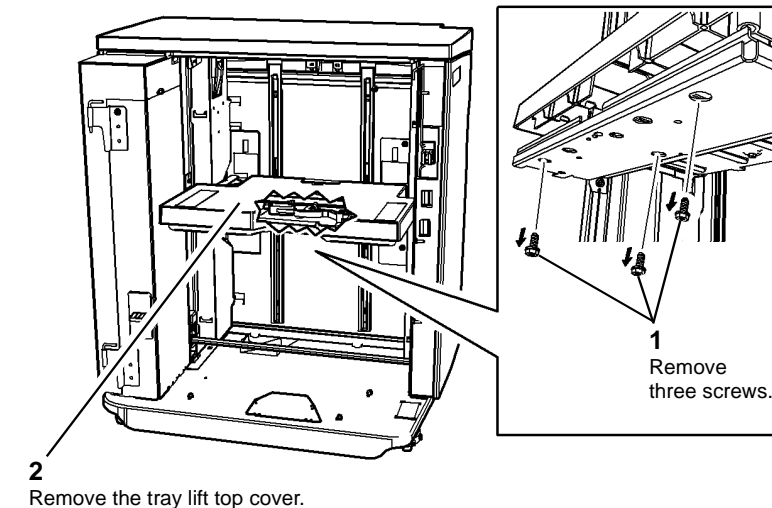
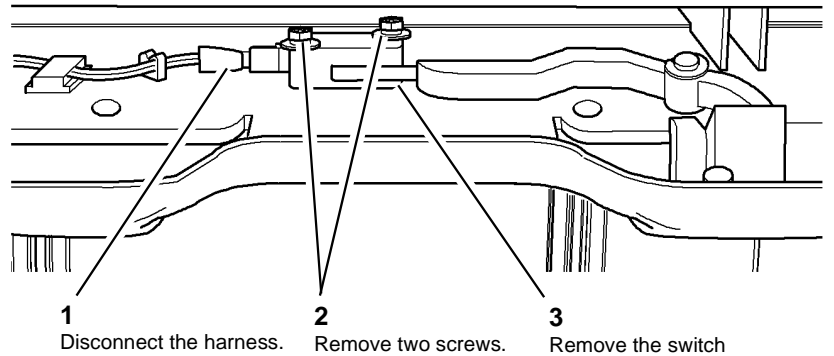


Figure 1 Paper tray release



3. Remove the tray 5 down limit switch, [Figure 2](#).



**Figure 2 Remove tray 5 down limit switch**

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Check that the wires are not trapped when refitting the tray lift top cover.

## REP 7.19 Un-docking and Docking Tray 5

Parts List on [PL 7.64](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### WARNING

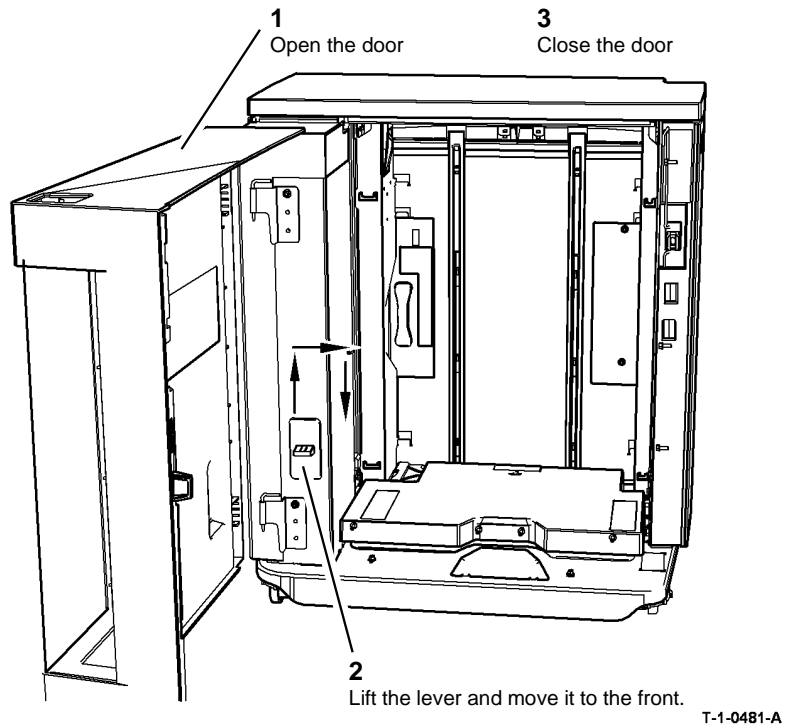
Take care not to topple Tray 5.

Tray 5 is unstable when undocked from the machine.

Do not show the customer how to undock Tray 5.

1. Remove the paper from the tray.

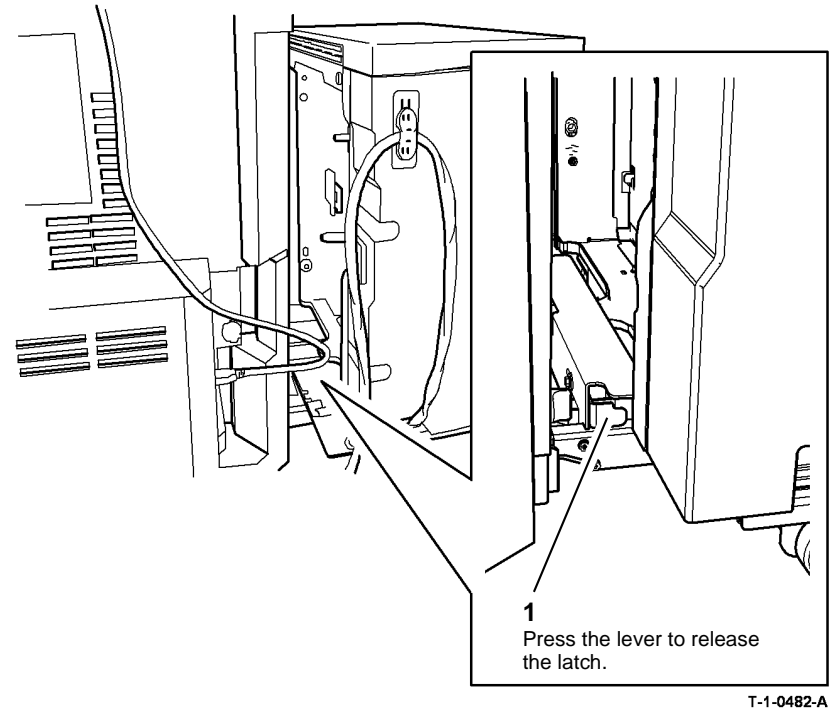
- Engage the transit lock, [Figure 1](#).



**Figure 1 Transit lock engage**

- Pull the tray 5 module away from the machine until the transit lock engages.

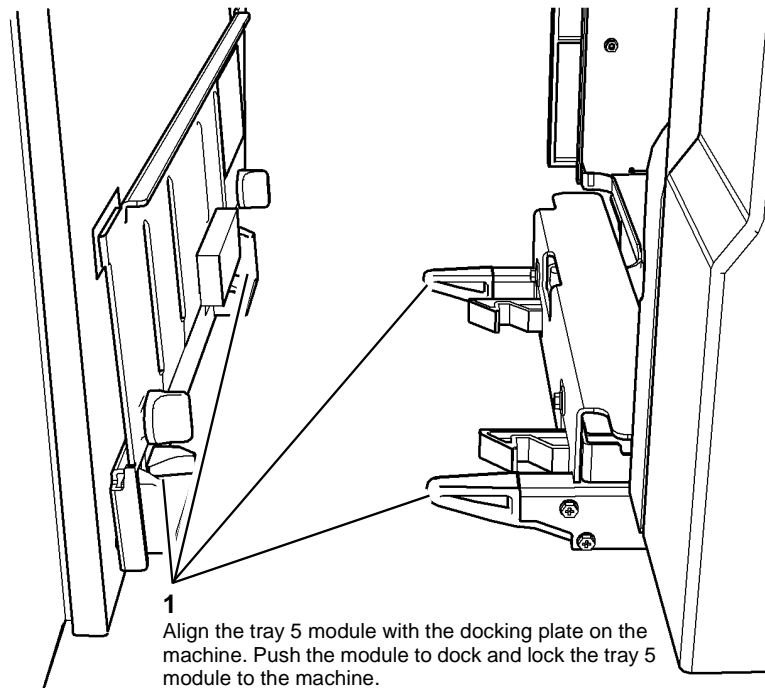
- At the rear of the machine release the docking latch and pull the tray 5 module away from the machine, [Figure 2](#).



**Figure 2 Tray 5 un-docking**

## Replacement

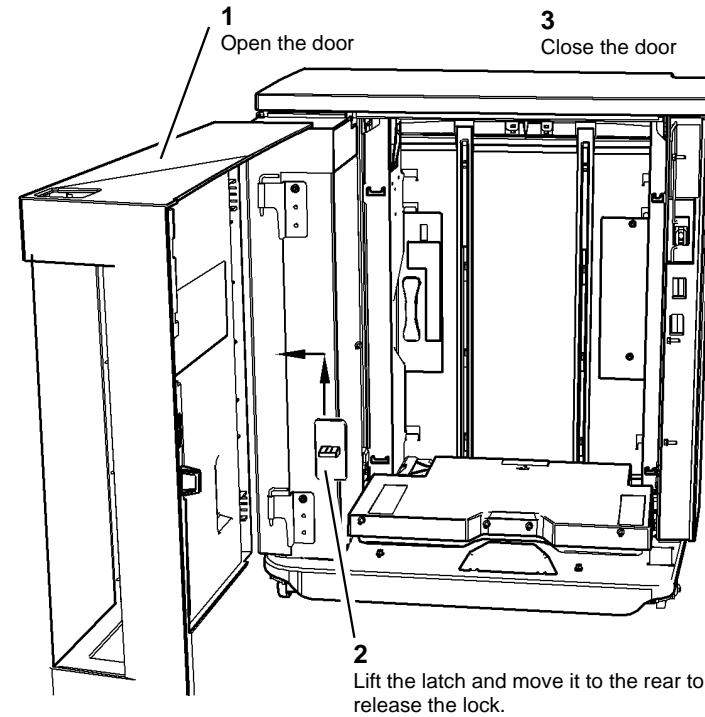
1. The docking is the reverse of the un-docking procedure.
2. Dock and lock the tray 5 module to the machine, [Figure 3](#).



T-1-0483-A

**Figure 3 Tray 5 module docking**

3. Release the transit lock and push the tray 5 module into the working position against the machine, [Figure 4](#).



T-1-0484-A

**Figure 4 Transit lock release**

4. Perform [ADJ 7.3 Machine to Tray 5 Alignment](#).

## REP 7.20 Tray 1 and Tray 2 Lift Gear Assembly

Parts List on [PL 7.10](#)

### Removal

  
**WARNING**

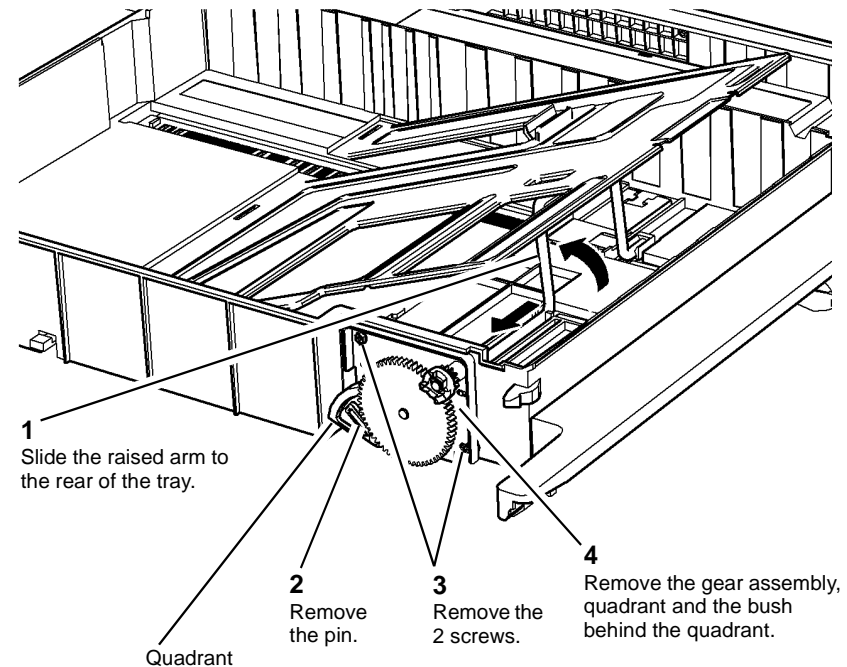
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tray, [REP 7.1](#).
2. Remove the paper width guide, [REP 7.6](#).

- NOTE: Make a note of the position of the two screws on the gear assembly, for replacement purposes.*
3. Raise the paper lift plate. Raise the paper tray lift arm to its fullest extent and slide it towards the rear of the tray. This releases the pin from the quadrant as shown in [Figure 1](#).



T-1-0485-A

Figure 1 Lift gear removal

### Replacement

The existing gears are snap fitted to the shafts and can be removed to allow the new gears to be pushed on.

Engage the lift gear assembly with the spigots on the rear of the tray. The remainder of the replacement procedure is the reverse of the removal procedure.

## REP 7.21 Tray 5 Elevator Rack Assembly

Parts List on [PL 7.68](#)

### Removal

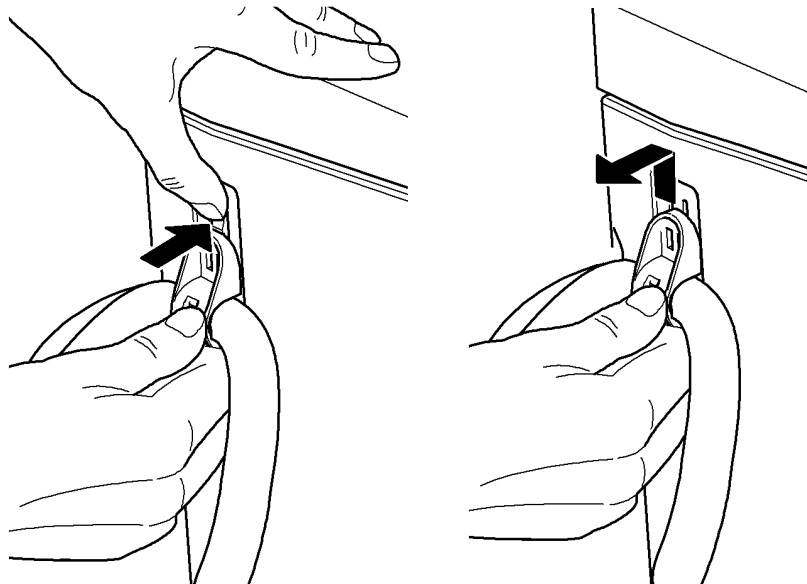


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present can cause injury.

1. Release the cable clamp from the rear cover, [Figure 1](#).



- 1  
Press the locking clip towards the module

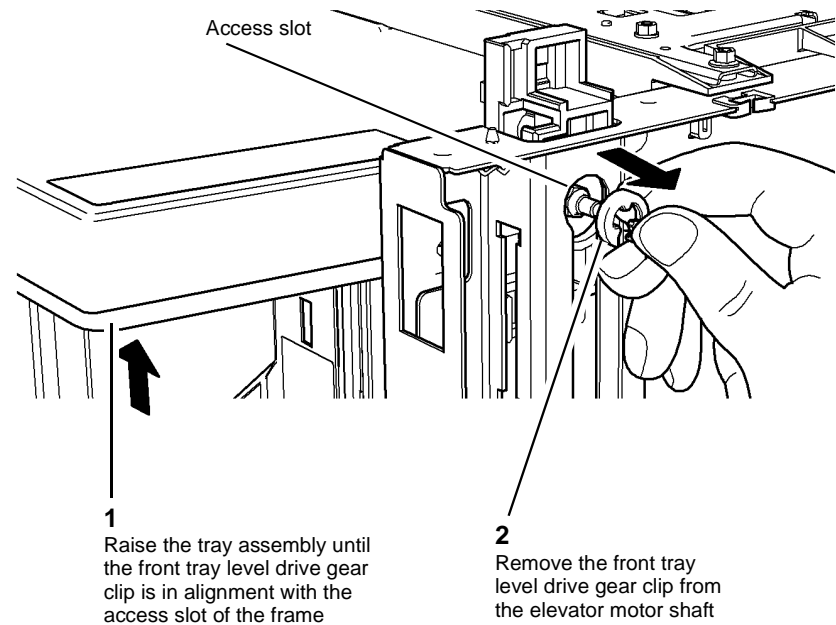
- 2  
Slide the cable clamp upward and remove

T-1-1134-A

Figure 1 Cable clamp release

2. Remove any paper from tray 5, then un-dock tray 5, [REP 7.19](#).
3. Remove the two front door hinge pins, [PL 7.60 Item 3](#), then remove the front door assembly, [PL 7.60 Item 1](#).

4. Remove the top cover [PL 7.60 Item 10](#), front cover [PL 7.60 Item 8](#) and rear cover [PL 7.60 Item 9](#).
5. Remove the tray 5 elevator motor assembly, [REP 7.16](#).
6. Remove the frame top brace, [PL 7.68 Item 3](#).
7. Remove the crash bar, [PL 7.68 Item 2](#).
8. Disconnect the tray 5 transport motor, [PL 8.40 Item 2](#).
9. Disconnect the feed motor, [PL 8.40 Item 3](#).
10. Remove the upper feeder assembly, [PL 8.40 Item 1](#), refer to [REP 8.38](#).
11. Prepare to remove the tray assembly, [Figure 2](#).



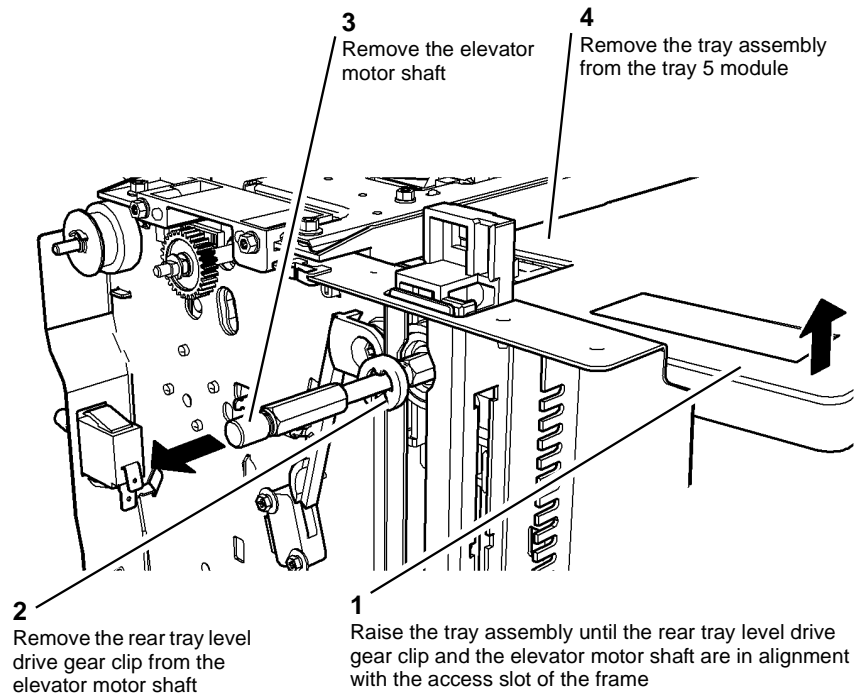
- 1  
Raise the tray assembly until the front tray level drive gear clip is in alignment with the access slot of the frame

- 2  
Remove the front tray level drive gear clip from the elevator motor shaft

T-1-1135-A

Figure 2 Preparation

12. Remove the tray assembly, [Figure 3](#).



**Figure 3** Tray assembly rear view

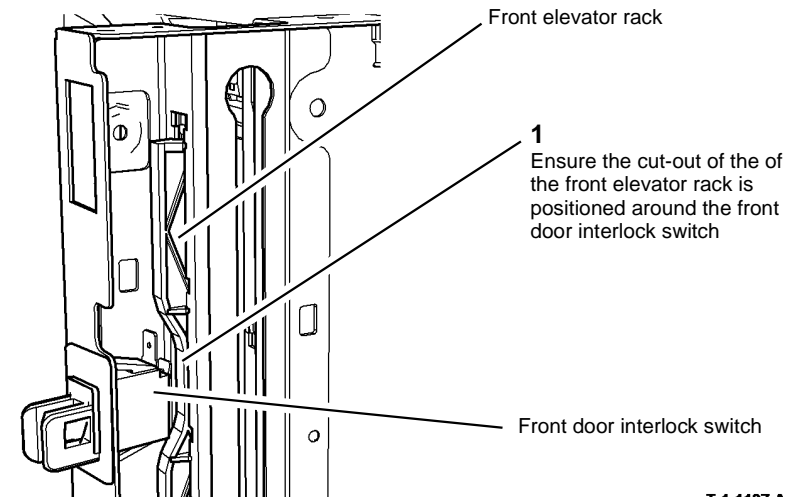
T-1-1136-A

13. Remove the front and rear drive gears, [PL 7.68 Item 28](#).
14. Remove the front elevator rack, [PL 7.68 Item 14](#). Slide the rack upwards within the frame then lift the rack away from the tray 5 module.
15. Remove the rear elevator rack, [PL 7.68 Item 13](#). Slide the rear elevator rack upwards within the frame, then lift the rack away from the tray 5 module.

## Replacement

1. The replacement is the reverse of the removal procedure.
2. Refer to [Figure 4](#) when installing the front elevator rack.

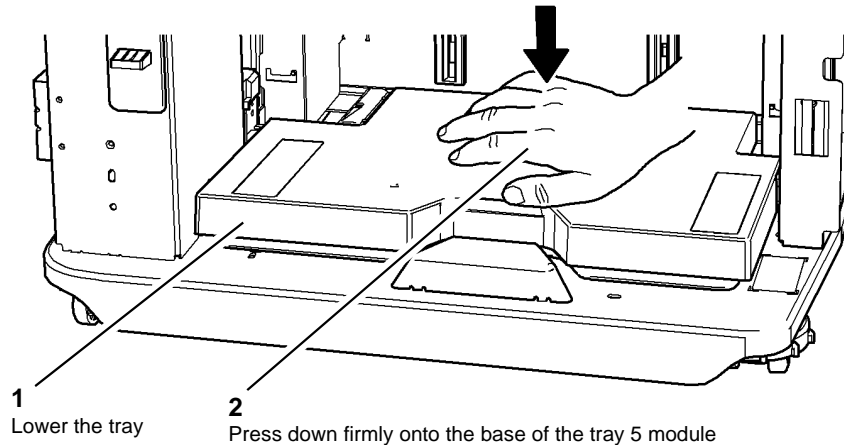
**NOTE:** Only the front elevator rack has a clearance cut-out to accommodate the front door interlock switch, [Figure 4](#).



**Figure 4** Front elevator rack

T-1-1137-A

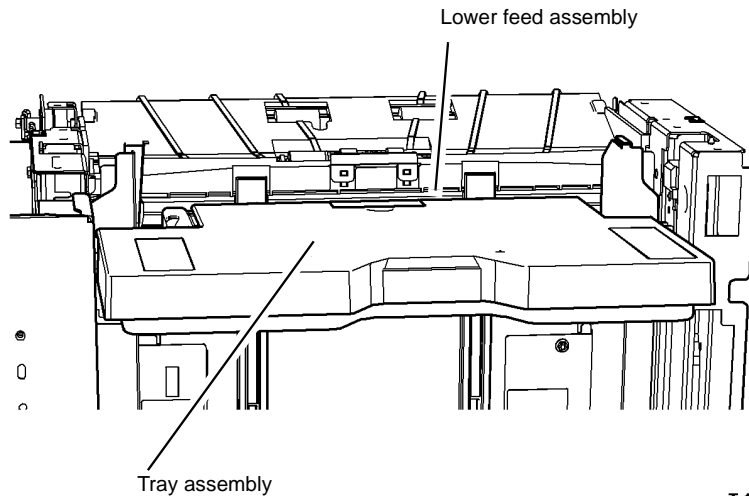
- After the front and rear drive gears are re-installed ensure that the tray assembly is re-installed in the same horizontal plane as the base of the tray 5 module, [Figure 5](#).



T-1-1138-A

Figure 5 Tray alignment check

- Keep the tray assembly against the base of the tray 5 module, then reinstall the elevator motor shaft.
- Raise the tray to ensure that it is in horizontal alignment with the lower feeder assembly, [Figure 6](#). If necessary remove the elevator motor shaft then repeat the replacement procedure from step 3.



T-1-1139-A

Figure 6 Tray alignment

## REP 7.22 Tray 3 and Tray 4 Removal (W/TAG 151)

Parts List on [PL 7.18](#).

### Removal

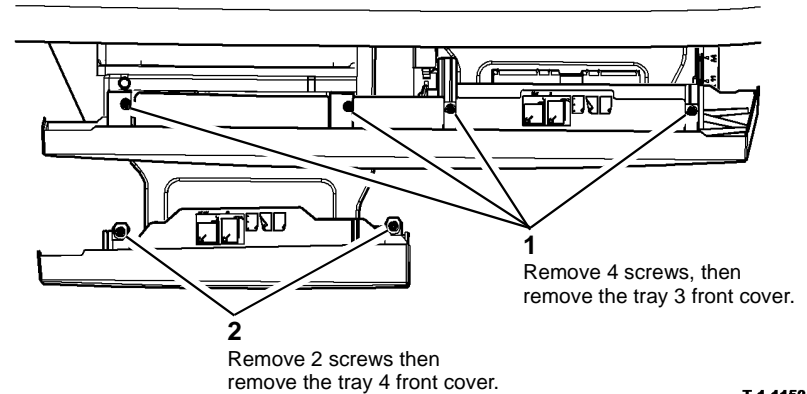
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the paper from the two trays.
- Remove the right hand cover, [PL 7.25 Item 7](#).
- Remove the tray 3 and tray 4 front covers, [Figure 1](#).



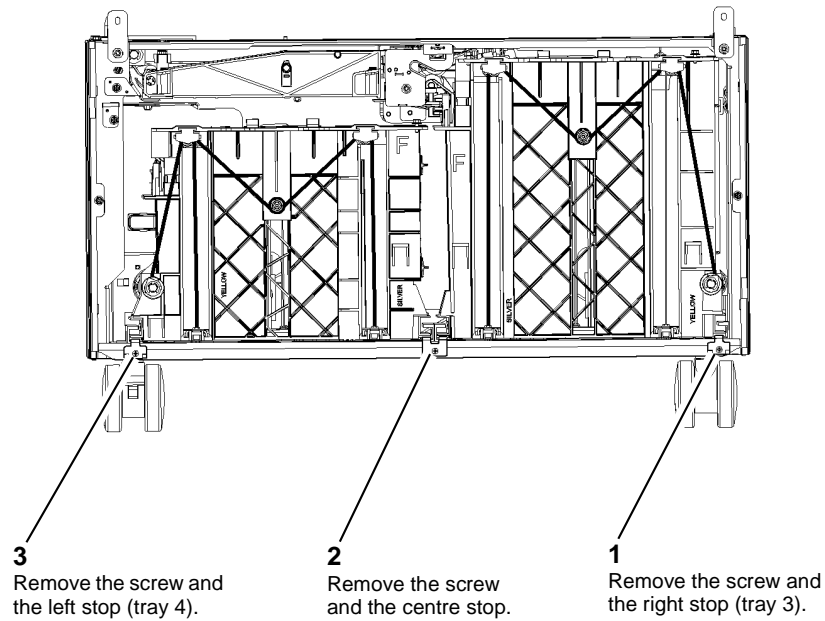
T-1-1150-A

Figure 1 Tray front covers removal

**NOTE:** If only tray 3 is to be removed then do not remove the left hand stop.

**NOTE:** If tray 4 needs to be removed then remove tray 3 first.

4. Remove the stops, **Figure 2**.



T-1-1151-A

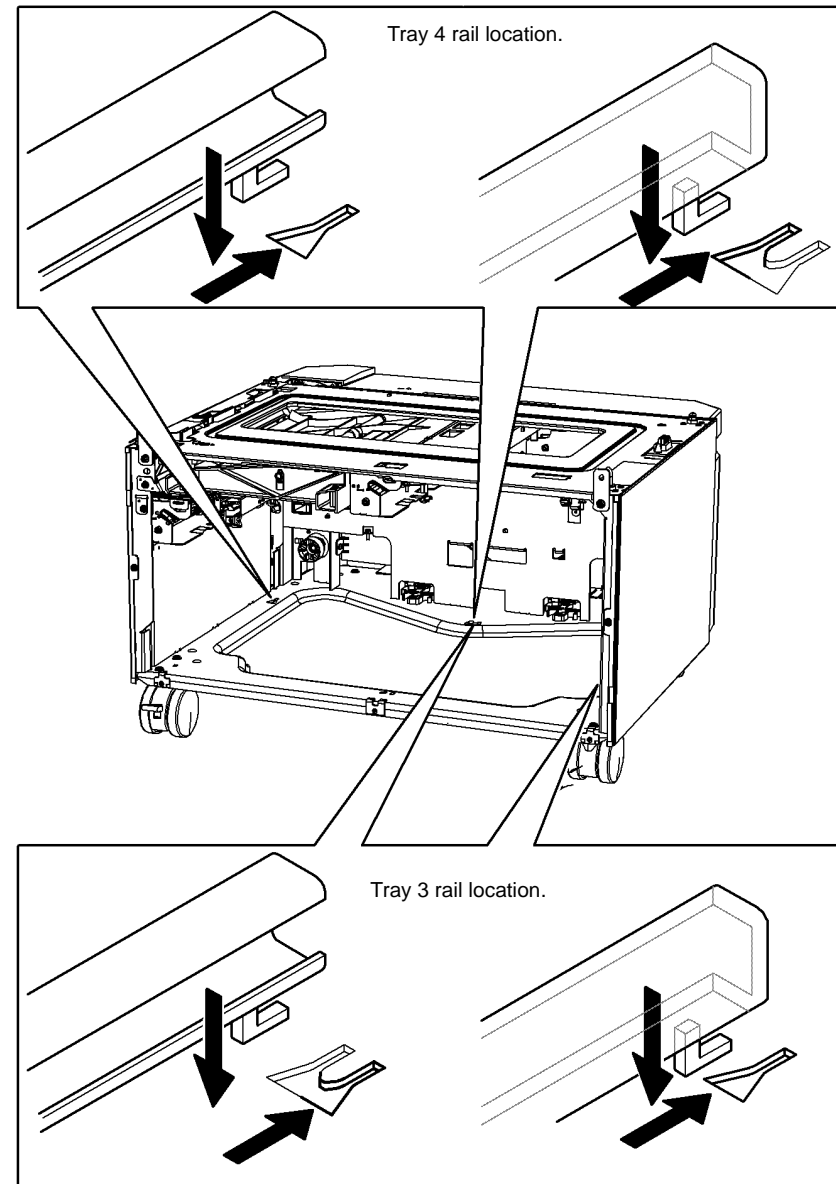
**Figure 2** Tray 3 and tray 4 rail stops

5. Lift and pull to remove the tray complete with the guide rails.

### Replacement

The replacement is the reverse of the removal procedure. Refer to **GP 6** when refitting the screws to secure tray 3 and tray 4 front covers.

**NOTE:** When installing tray 3 or tray 4 ensure that the tray rails are located correctly in the base of the HCF, **Figure 3**.



T-1-1152-A

**Figure 3** Location of the tray rails



## REP 7.23 Tray 3 and Tray 4 Elevator Motor (W/TAG 151)

Parts List on [PL 7.21](#).

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

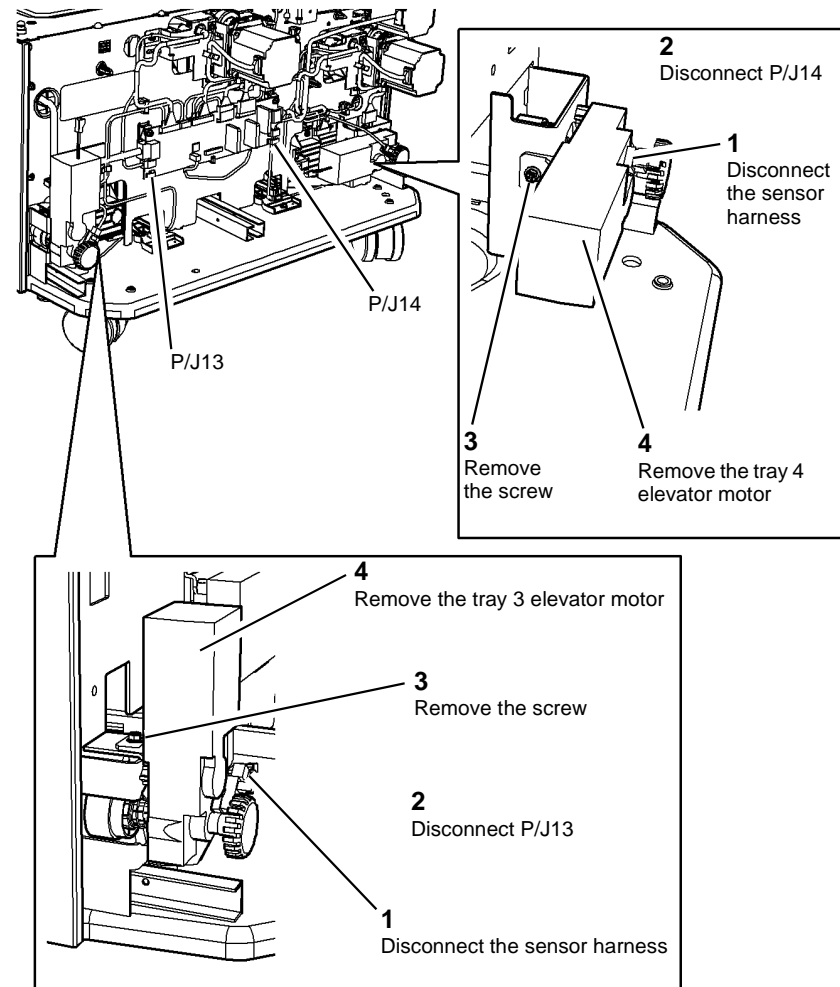


#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull out tray 3 and tray 4.
2. Remove the rear cover from the HCF, [PL 7.25 Item 1](#).
3. Disconnect PJ395 or PJ397 elevator motor harness from the [HCF control PWB](#),
4. Disconnect the harness from the low paper sensor on the elevator motor.

5. Remove the tray 3 or tray 4 elevator motor, [Figure 1](#).



T-1-1153-A

Figure 1 Elevator motor removal

### Replacement

The replacement is the reverse of the removal procedure.

## REP 7.24 Tray 3 and Tray 4 Elevator Cables (W/TAG 151)

Parts List on [PL 7.18](#).

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** The elevator drives at the front and at the rear are similar for both trays.

1. Remove tray 3 or tray 4, [REP 7.2](#).
2. Release the cables from the appropriate front drive pulley, [Figure 1](#).

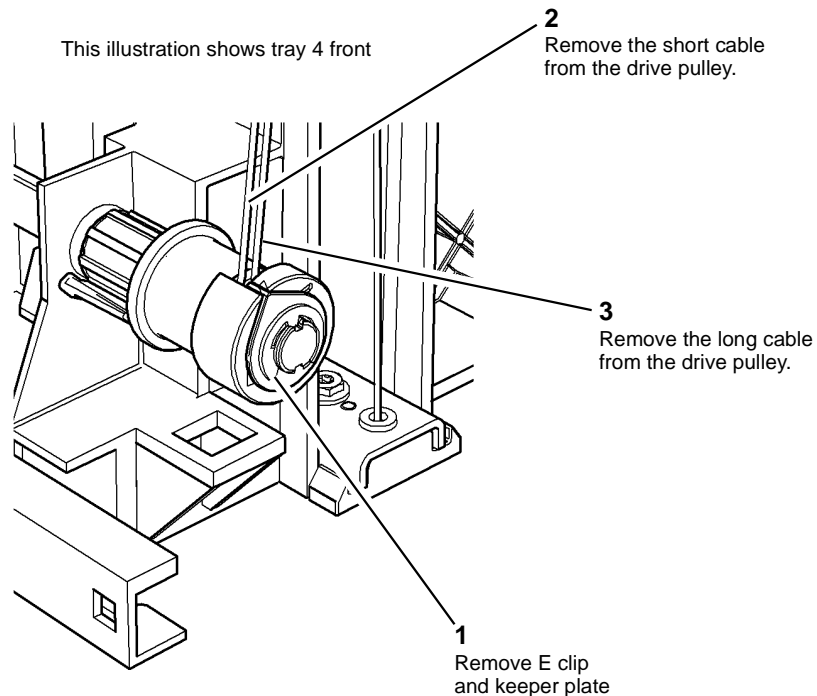


Figure 1 Front elevator cables release

T-1-1154-A

3. Remove the appropriate front elevator cables, [Figure 2](#).

**NOTE:** The short cable is located over the outer pulley and the long cable is located over the inner pulley.

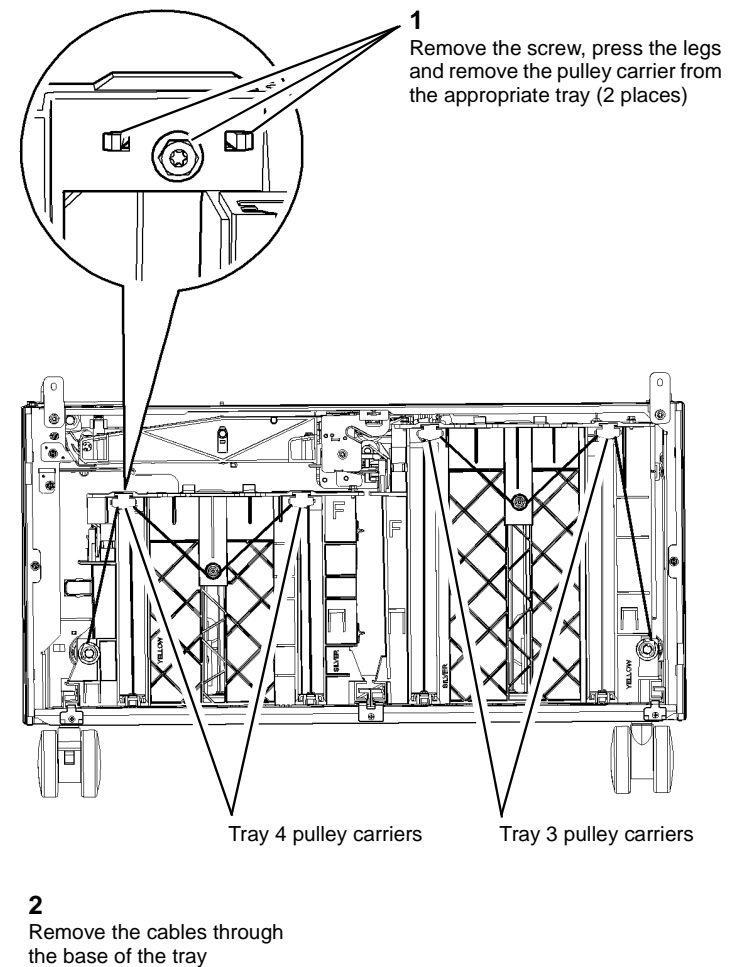


Figure 2 Front elevator cables removal

T-1-1155-A

4. Release the appropriate paper tray guide, refer to [ADJ 7.5](#).

5. Remove the appropriate rear elevator cable:

- Tray 3, [Figure 3](#)
- Tray 4, [Figure 4](#)

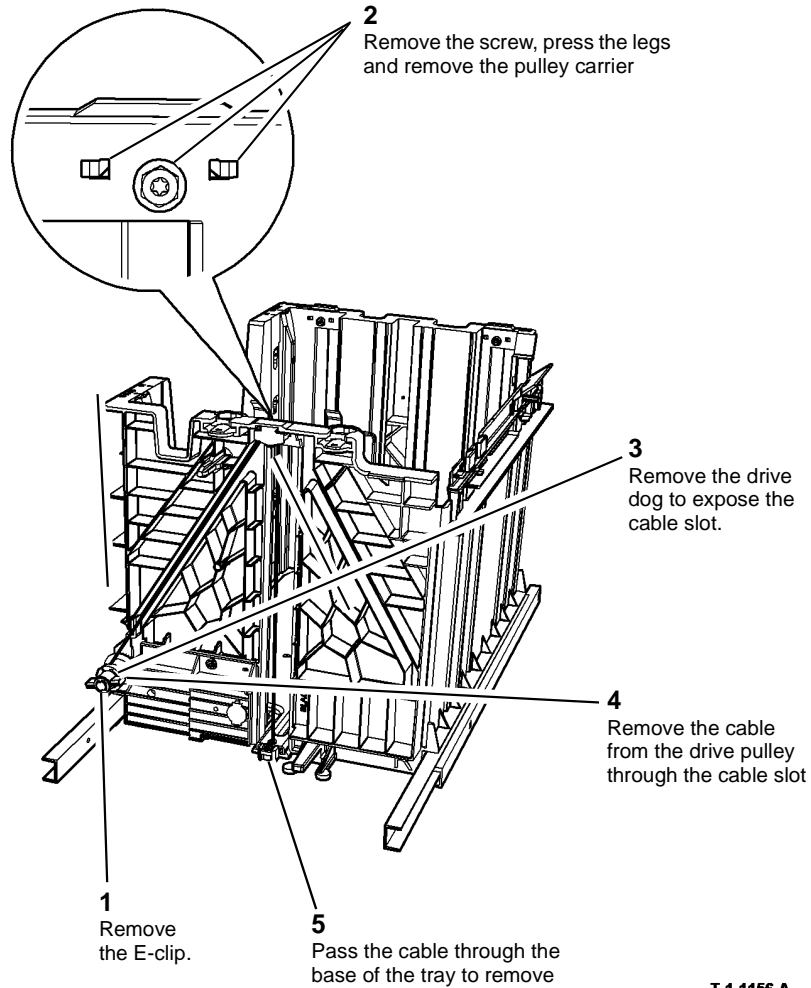


Figure 3 Tray 3 rear cable removal

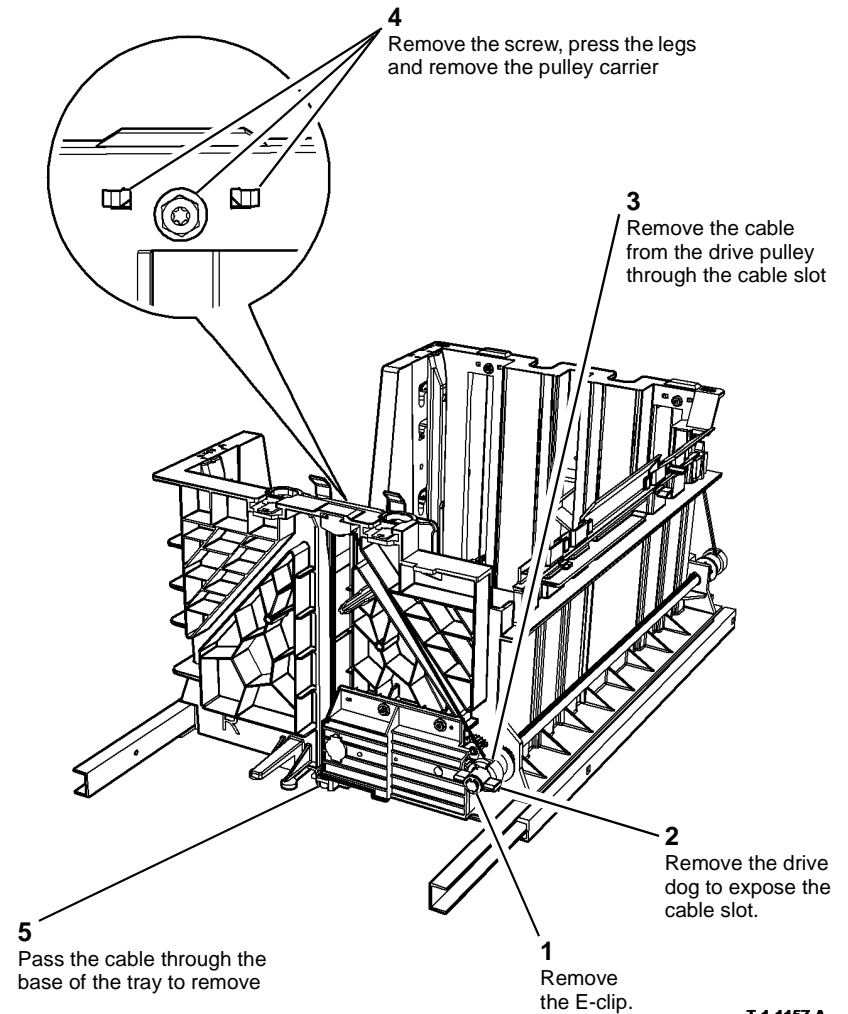


Figure 4 Tray 4 rear cable removal

## Replacement

The replacement is the reverse of the removal procedure.

Tray 3 front cables.

1. Thread the short cable over the inner groove on the pulley.
2. Thread the long cable over the outer groove on the pulley.

Tray 3 rear cable.

- Thread the medium length cable over the inner groove on the pulley.

Tray 4 front cables.

1. Thread the long cable over the inner groove on the pulley.
2. Thread the short cable over the outer groove on the pulley.

Tray 4 rear cable.

- Thread the medium length cable over the outer groove on the pulley.

## REP 7.25 Tray 3 and Tray 4 Stack Height Sensor (W/TAG 151)

Parts List on [PL 8.32](#), [PL 8.33](#).

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

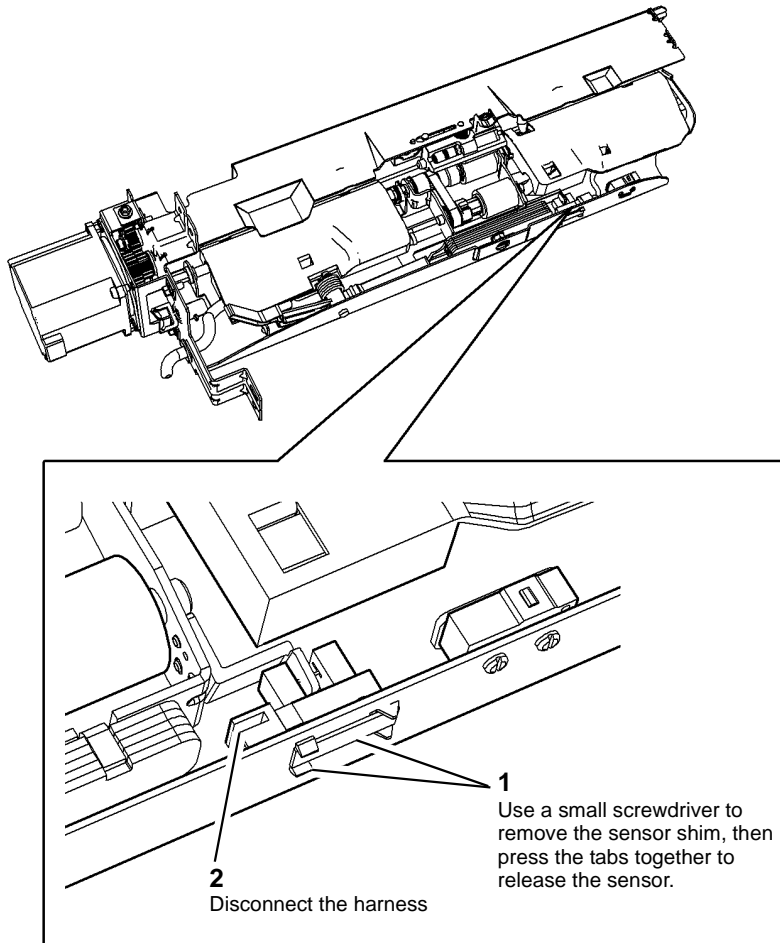


#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the required paper feed assembly:
  - Tray 3 paper feed assembly, [REP 8.40](#).
  - Tray 4 paper feed assembly, [REP 8.41](#).

- Remove the stack height sensor, [Figure 1](#).



T-1-1158-A

Figure 1 Stack height sensor removal

## Replacement

The replacement is the reverse of the removal procedure. Install a new sensor shim to lock the sensor in place.

## REP 7.26 Tray 3 and Tray 4 Home Sensor (W/TAG 151)

Parts List on [PL 7.20](#)

### Removal



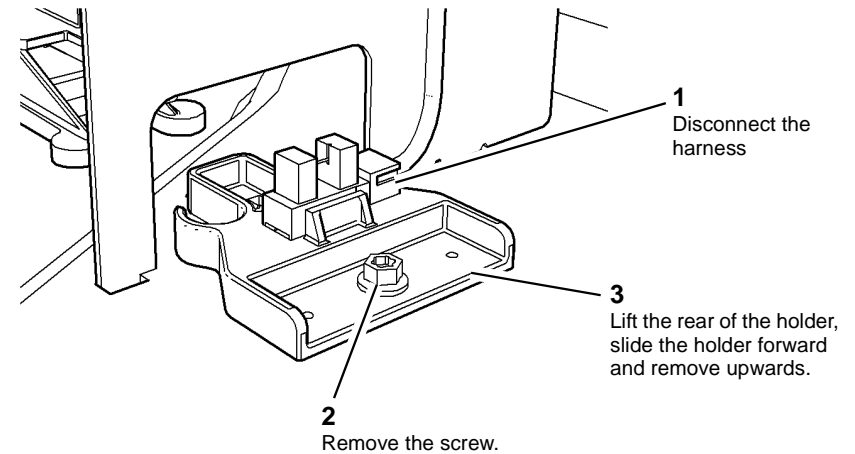
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

The removal procedure is the same for tray 3 and tray 4.

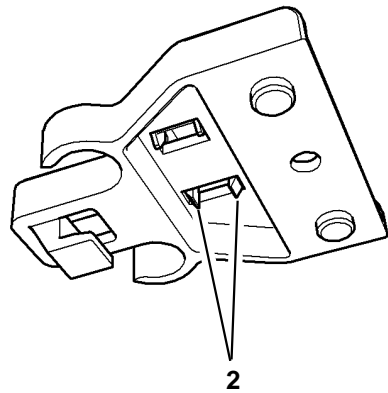
- Pull out tray 3 or tray 4.
- Remove the rear cover, [PL 7.25 Item 1](#).
- Pull out the relevant tray by approximately 50mm (2 inches).
- Remove the tray home sensor and holder, [Figure 1](#).



T-1-1161-A

Figure 1 Tray home switch and holder

- Remove the tray home sensor, [Figure 2](#).



- Press the tabs to release the sensor

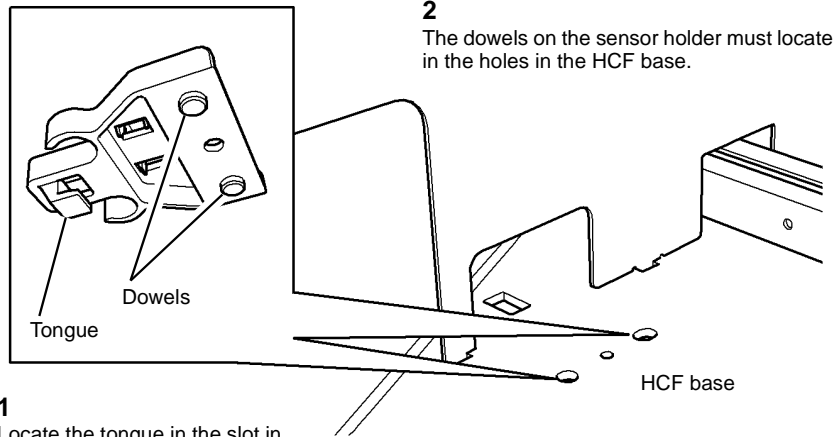
**Figure 2 Sensor removal**

T-1-1162-A

### Replacement

Replacement is the reverse of the removal procedure.

Correctly locate the sensor holder, [Figure 3](#).



- Locate the tongue in the slot in the machine base

- The dowels on the sensor holder must locate in the holes in the HCF base.

**Figure 3 Holder location**

T-1-1163-A

## REP 7.27 HCF Control PWB (W/TAG 151)

Parts List on [PL 7.21](#)

### Removal



**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



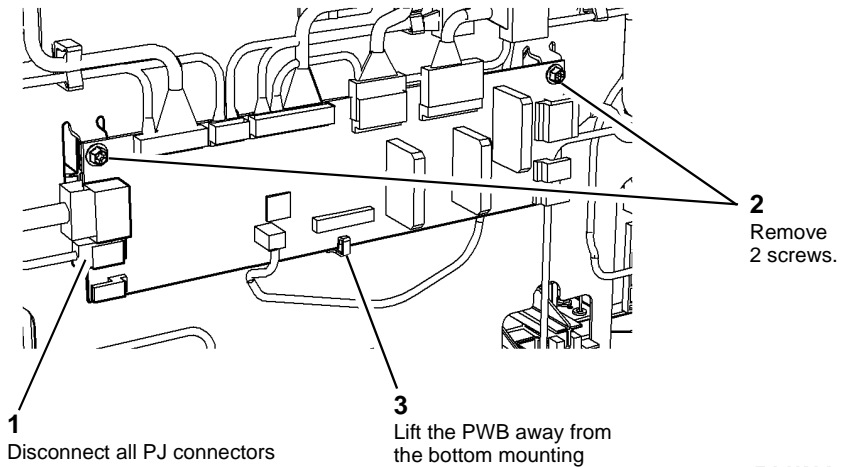
**Figure 1 ESD Symbol**



**CAUTION**

Ensure that E.S.D. procedures are observed during the removal and installation of the HCF Control PWB.

- Remove the rear cover, [PL 7.25 Item 1](#).
- Remove the HCF control PWB, [Figure 2](#).



- Disconnect all PJ connectors

- Lift the PWB away from the bottom mounting

- Remove 2 screws.

**Figure 2 HCF control PWB removal**

T-1-1164-A

### Replacement

- Replacement is the reverse of the removal procedure.
- After completing the replacement procedure, perform [dC604 Registration Setup](#).

## REP 7.28 Tray 3 and Tray 4 Elevate Damper Assembly (W/ TAG 151)

Parts List on [PL 7.18](#)

### Removal



#### WARNING

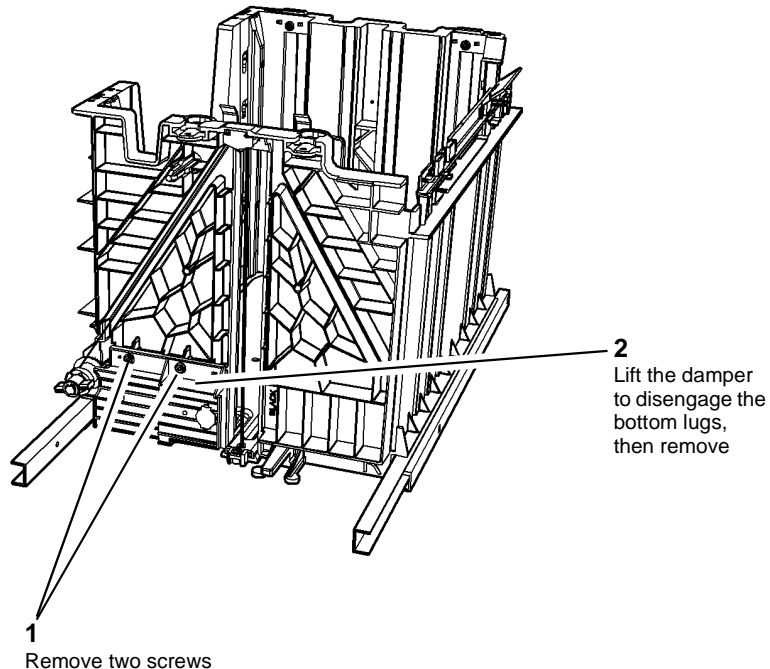
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 3 or tray 4, [REP 7.2](#).
2. Remove the damper from tray 3, [Figure 1](#).



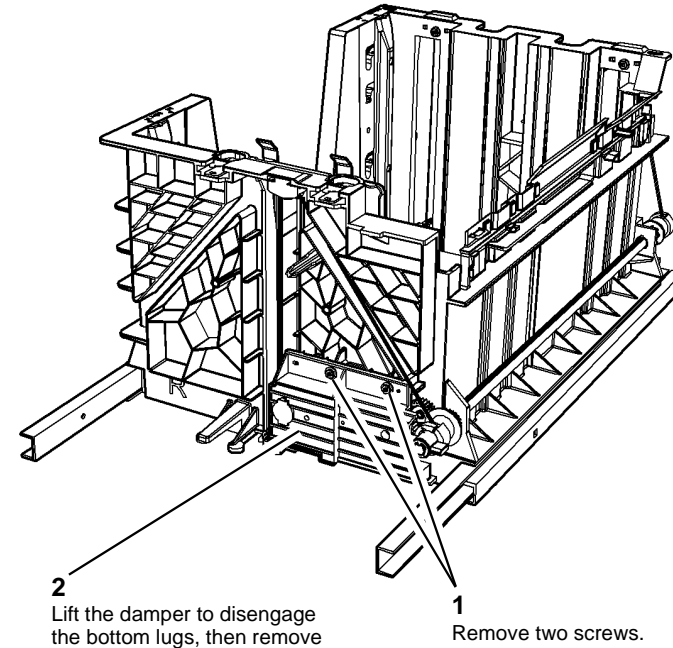
1 Remove two screws

2 Lift the damper to disengage the bottom lugs, then remove

T-1-1165-A

Figure 1 Tray 3 damper removal

3. Remove the damper from tray 4, [Figure 2](#).



2 Lift the damper to disengage the bottom lugs, then remove

1 Remove two screws.

T-1-1166-A

Figure 2 Tray 4 damper removal

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 7.29 Tray 5 Elevator Tray Guides

Parts List on [PL 7.70](#)

### Removal

**! WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**! WARNING**

Take care during this procedure. Sharp edges may be present can cause injury.

1. Remove the tray assembly from the tray 5 module, refer to [REP 7.21](#) and perform steps 1 to 11.
2. Remove the infill plate assembly, [Figure 1](#).

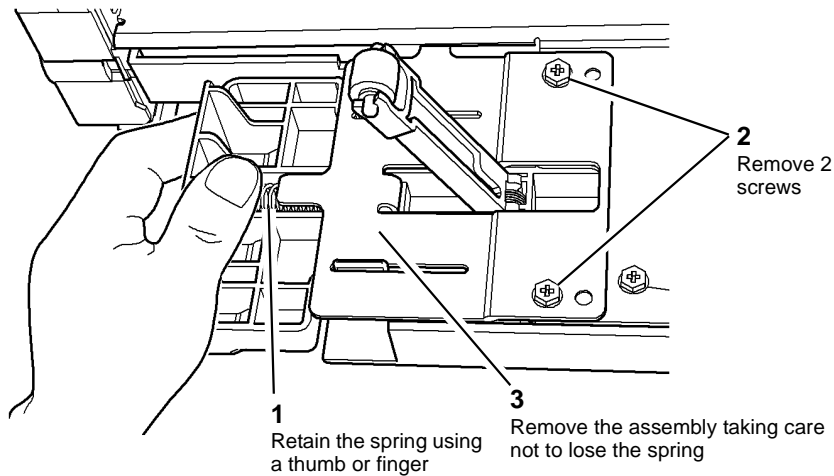
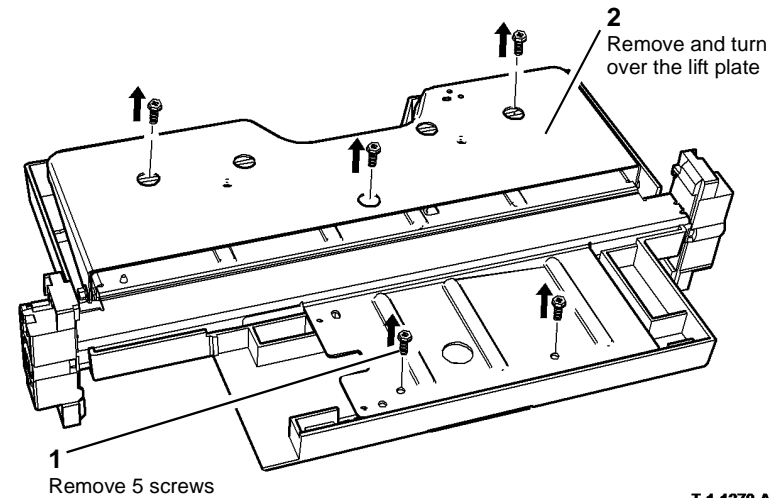


Figure 1 Infill plate assembly removal

T-1-1278-A

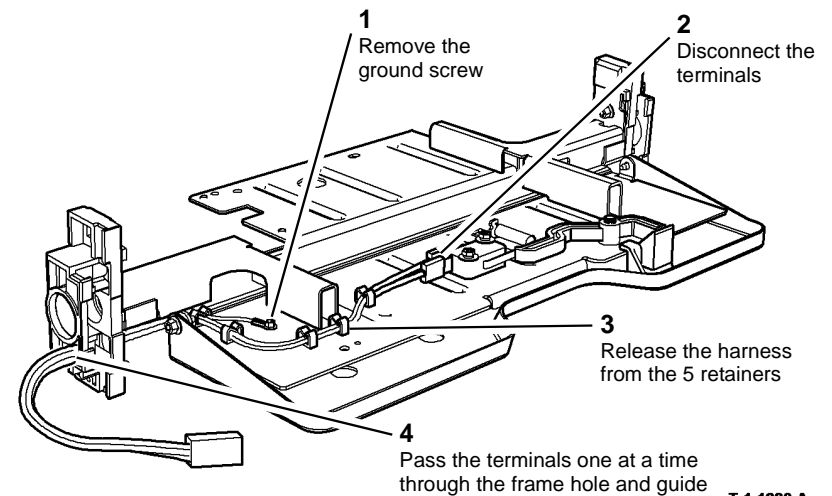
3. Separate the lift plate from the tray lift top cover, [Figure 2](#).



T-1-1279-A

Figure 2 Tray separation

4. Remove the tray 5 elevator harness, [Figure 3](#).

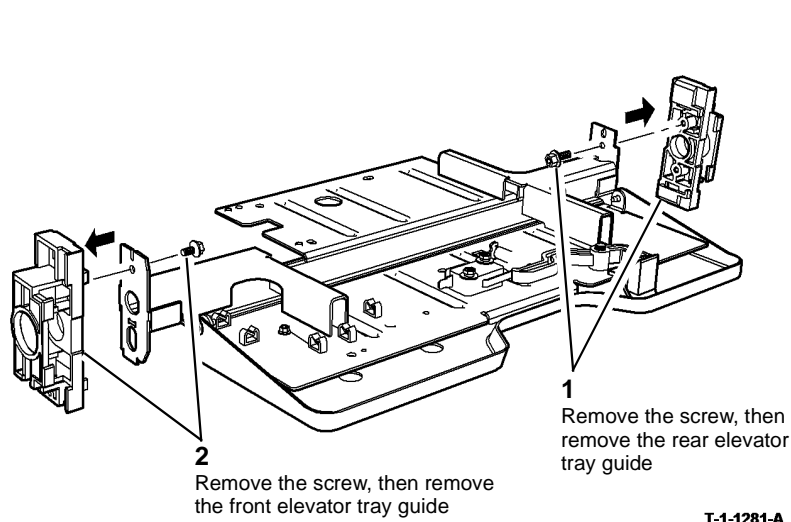


T-1-1280-A

Figure 3 Harness removal



- Remove the elevator tray guides, [Figure 4](#).

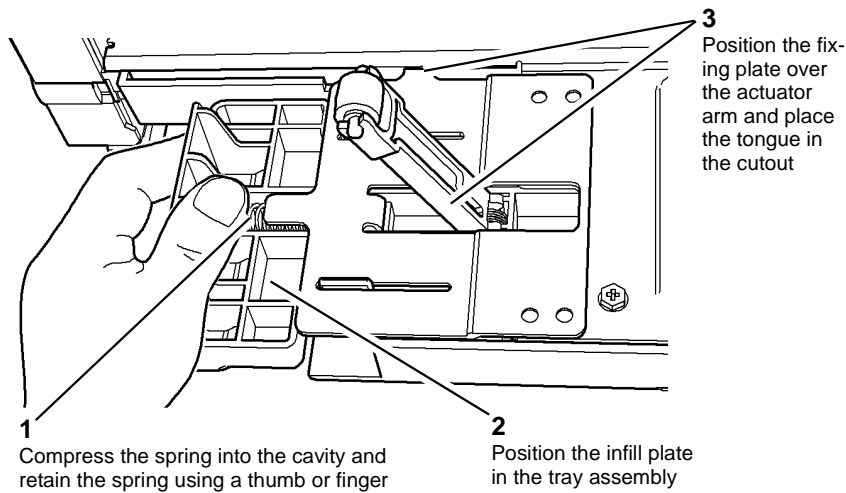


T-1-1281-A

**Figure 4 Elevator tray guides removal**

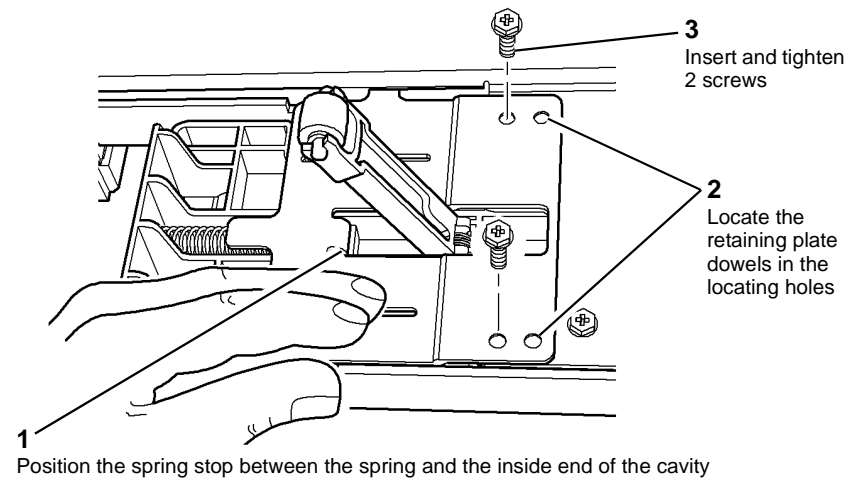
## Replacement

- Re-assemble the elevator tray by reversing the removal steps 3 to 5.
- Install the rear guide assembly, [Figure 5](#) and [Figure 6](#).



T-1-1282-A

**Figure 5 Rear guide assembly install**



T-1-1283-A

**Figure 6 Rear guide assembly install**

- The remainder of the installation is the reverse of the removal procedure, refer to [REP 7.21](#) and perform the replacement procedure.



## REP 8.1 Tray 1 and Tray 2 Paper Feed Assembly

Parts List on [PL 8.26](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 1 or tray 2 as required.
2. Remove tray 1 or tray 2 feed assembly. [Figure 1](#).

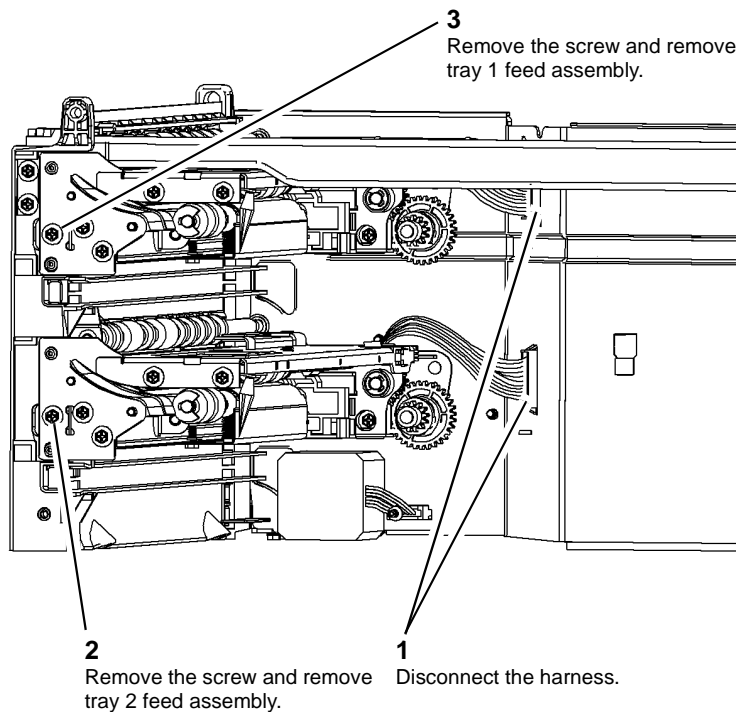


Figure 1 Remove tray 1 or tray 2 paper feeder

### Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. If new feed rolls are installed reset tray 1 or tray 2 feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.2 Tray 3 Paper Feed Assembly (W/O TAG 151)

Parts List on [PL 8.30](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



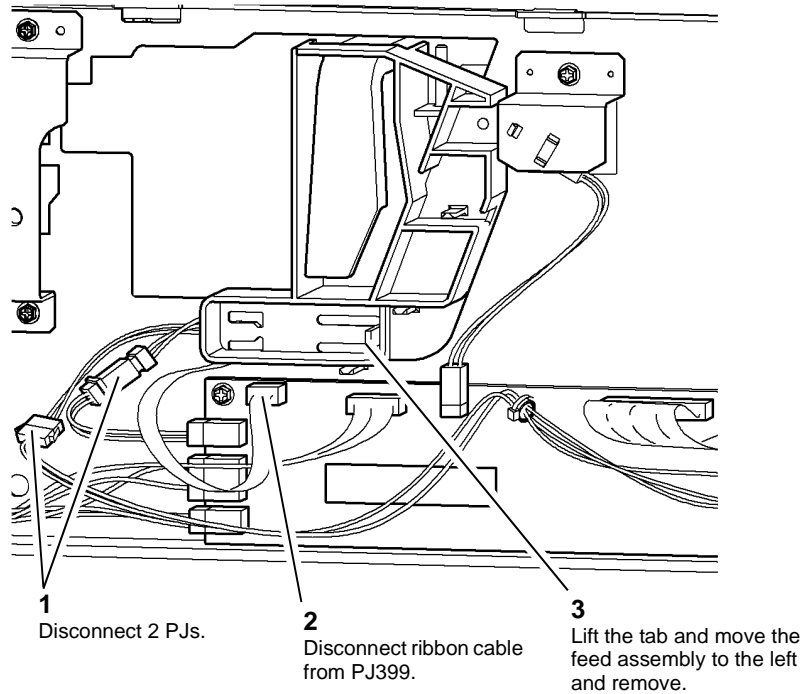
#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull out tray 3.
2. Remove the rear cover, [PL 7.25 Item 1](#).

3. Remove the paper feed assembly, [Figure 1](#).

**NOTE:** Note the position of the blue flash on the ribbon cable when connected into PJ399.

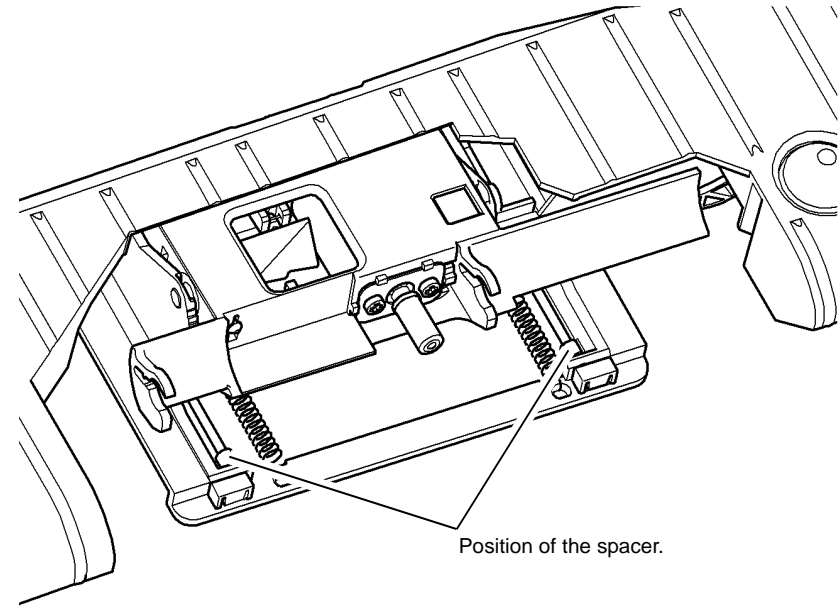


**Figure 1** Tray 3 feed assembly

## Replacement

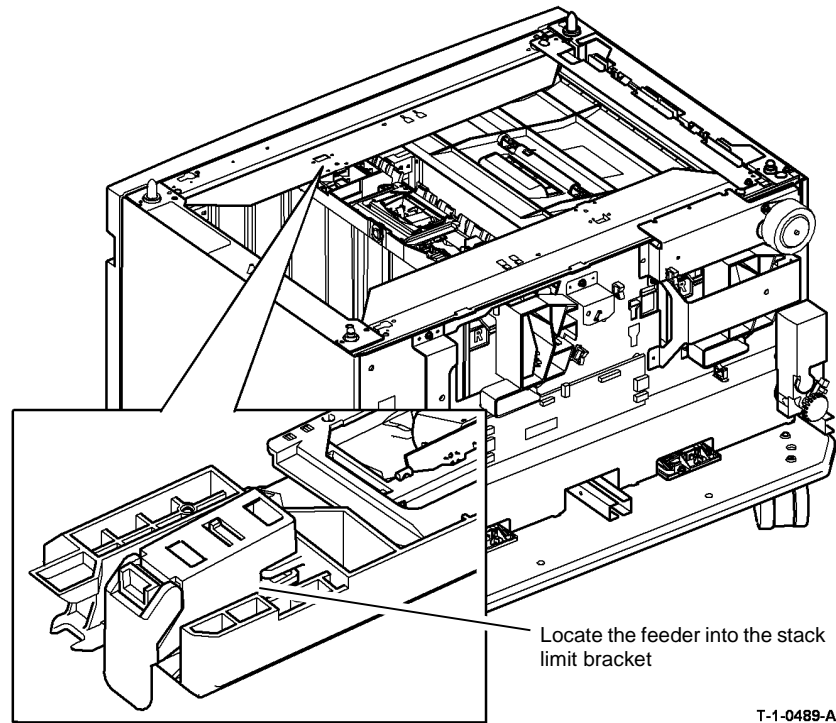
Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

1. Refer to the kit instructions and install the spacers on the paper feed assembly.
2. Slide the spacer to the end of the shaft, [Figure 2](#).



**Figure 2** Location of the spacer

3. Make sure that the feed assembly locates in the stack limiter bracket, [Figure 3](#).



**Figure 3** Locate the paper feeder assembly

T-1-0489-A

4. Install the paper feed assembly and push the tray in slowly.  
**NOTE:** Check that the tray does not touch the feed assembly.
5. Connect the ribbon cable and the PJs, [Figure 1](#).
6. If a new feed roll assembly is installed, reset the tray 3 feed count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.3 Tray 4 Paper Feed Assembly (W/O TAG 151)

Parts List on [PL 8.30](#), [PL 8.31](#)

### Removal



#### WARNING

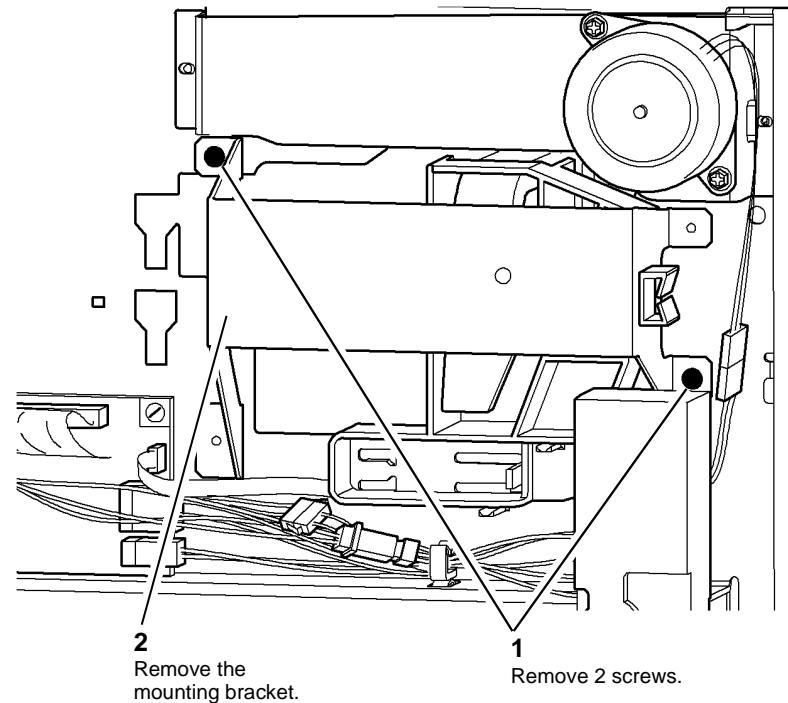
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull out tray 4.
2. Remove the rear cover, [PL 7.25](#) Item 1.
3. Remove the mounting bracket, [Figure 1](#).

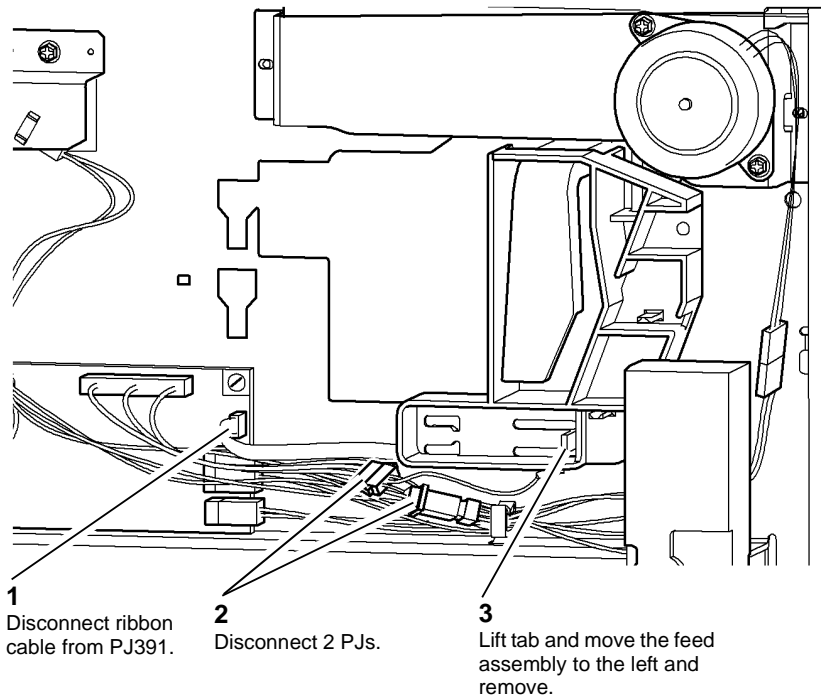


**Figure 1** Mounting bracket removal

T-1-0490-A

4. Remove the paper feed assembly, [Figure 2](#).

**NOTE:** Note the position of the blue flash on the ribbon cable when connected into PJ391.



1 Disconnect ribbon cable from PJ391.

2 Disconnect 2 PJs.

3 Lift tab and move the feed assembly to the left and remove.

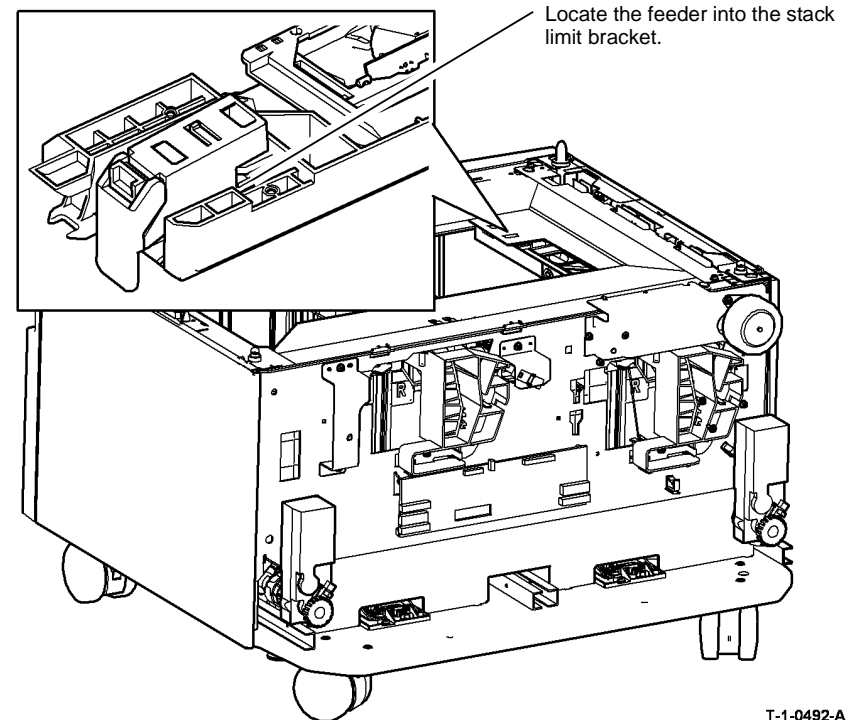
T-1-0491-A

**Figure 2** Tray 4 feed assembly

## Replacement

Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

1. Make sure that the feed assembly locates in the stack limiter bracket., [Figure 3](#).



Locate the feeder into the stack limit bracket.

T-1-0492-A

**Figure 3** Install the paper feed assembly

2. Install the paper feed assembly and push the tray in slowly.

**NOTE:** Check that the tray does not touch the feed assembly.

3. Connect the ribbon cable and the PJs, [Figure 2](#).
4. If a new feed roll assembly is installed, reset the tray 4 feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service items.

## REP 8.4 Registration Transport

Parts List on [PL 8.15](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

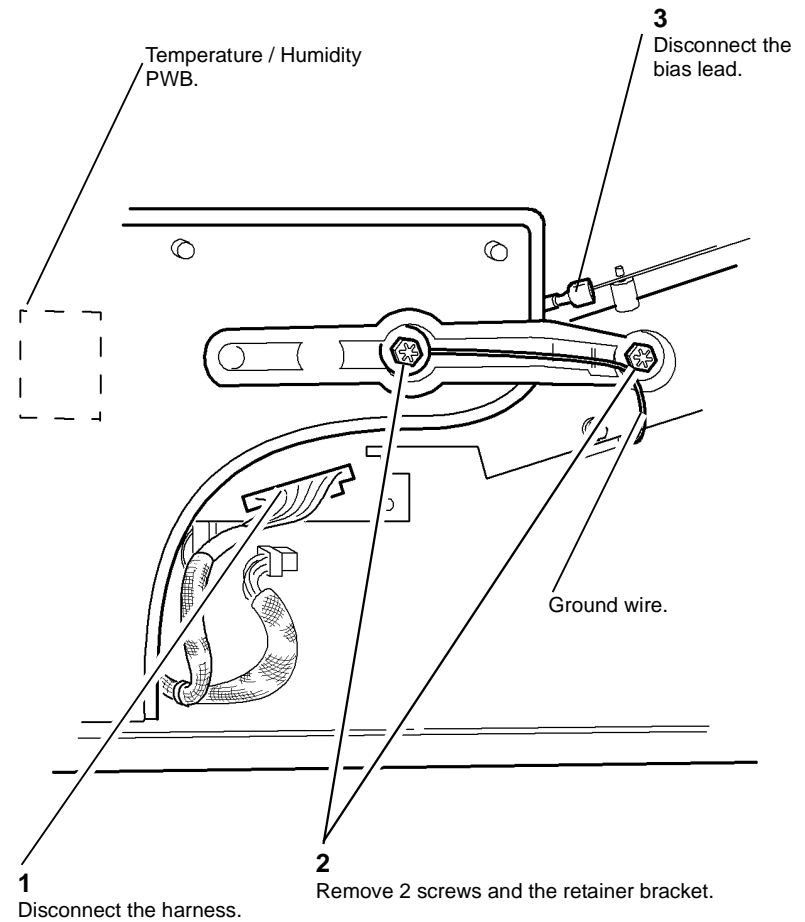
1. Remove the fuser module, [PL 10.10 Item 1](#).
2. Remove the duplex assembly, [REP 8.7](#).
3. Remove the xerographic module, [PL 9.20 Item 2](#).
4. Remove the developer module, [REP 9.2](#).
5. Remove the short paper path assembly, [REP 10.1](#).
6. Open left hand door, [PL 7.30 Item 2](#).



#### CAUTION

*Figure 1. Do not damage the temperature/humidity PWB.*

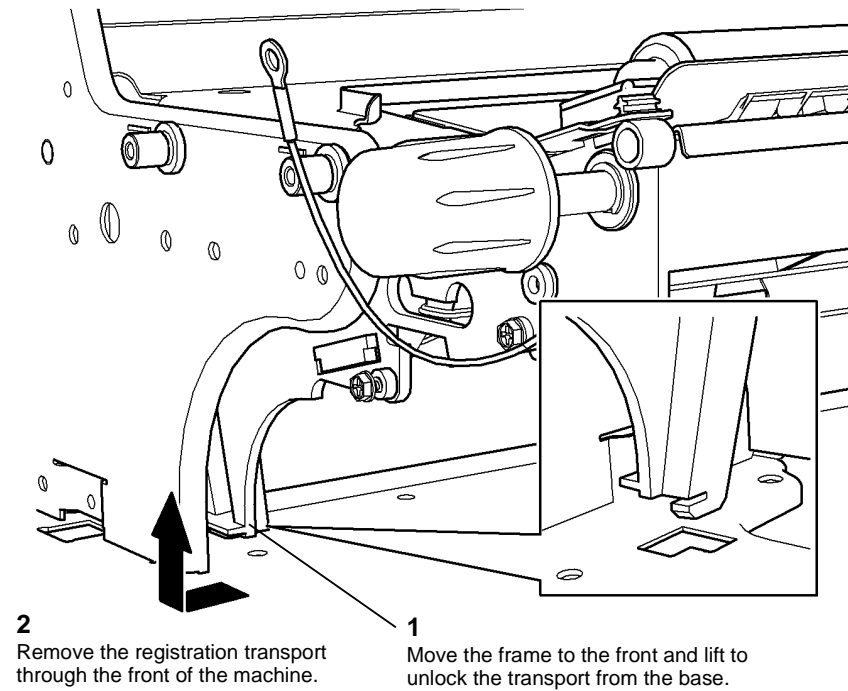
7. Prepare to remove the registration transport, [Figure 1](#).



T-1-0493-A

Figure 1 Preparation

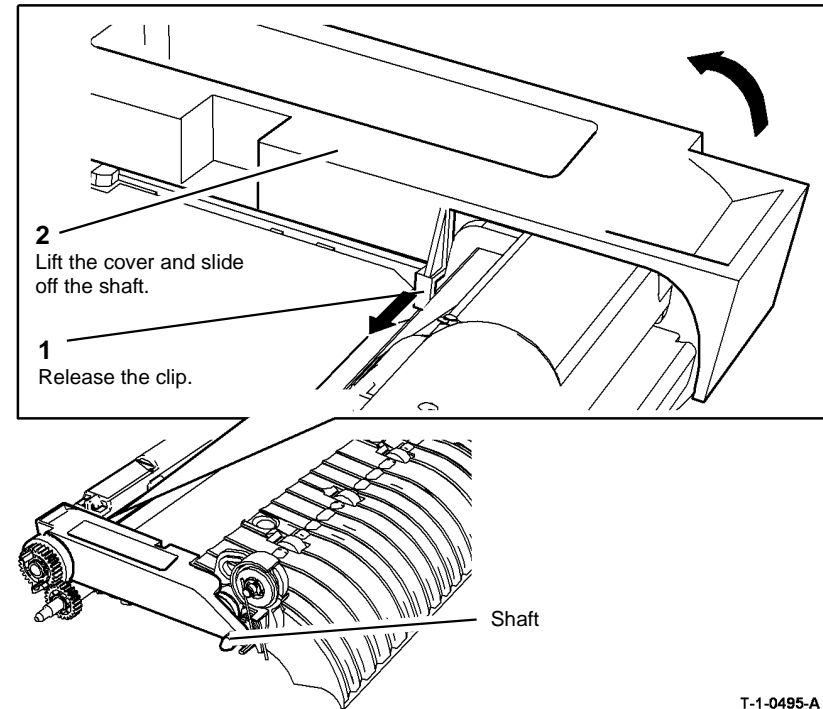
8. Remove the registration transport, [Figure 2](#).



T-1-0494-A

**Figure 2 Transport removal**

9. If required remove the cover from the drive gears, [Figure 3](#).



T-1-0495-A

**Figure 3 Remove the cover**



## Replacement

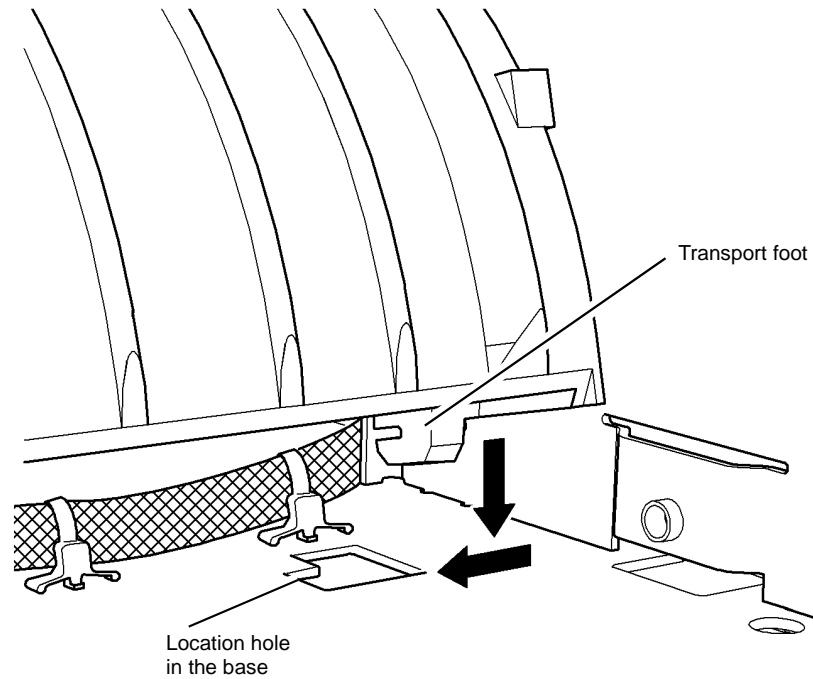
1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screw to the retaining bracket.



### CAUTION

Ensure that the transport foot is correctly located into the base.

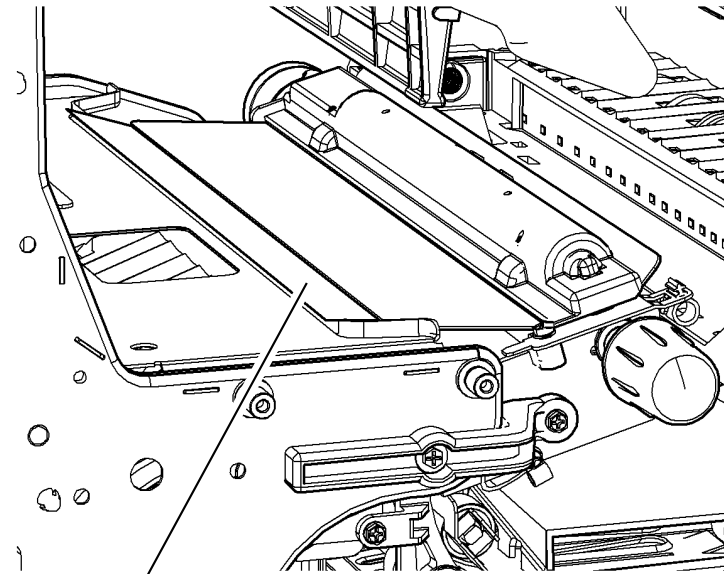
2. Locate the transport foot into the base, [Figure 4](#).



T-1-0496-A

Figure 4 Transport foot location

3. Ensure that the mylar guide on the registration transport is located on the top of the IOT frame and not below the frame, [Figure 5](#).



Position the mylar guide on top of the frame.

T-1-0497-A

Figure 5 Mylar guide position

4. Check that the ground wire is secured, [Figure 1](#), when the retainer bracket is reinstalled.
5. Go to [01A](#) Ground Distribution RAP. Check the grounding of the registration drive shaft and the pre-registration drive shaft.
6. After completing the replacement procedure, perform the [dC604](#) Registration Setup.
7. If a new bias contact is installed, reset the Bias Foam count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.5 Registration Clutch

Parts List on (35-55 ppm) **PL 8.15**, (65-90 ppm) **PL 8.17**

### Removal

**!**  
**WARNING**

Switch off the electricity to the machine, **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**!**  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the registration transport, **REP 8.4**.
2. Remove the clutch cover, **PL 8.15** Item 24.
3. Prepare to remove the clutch, **Figure 1**.

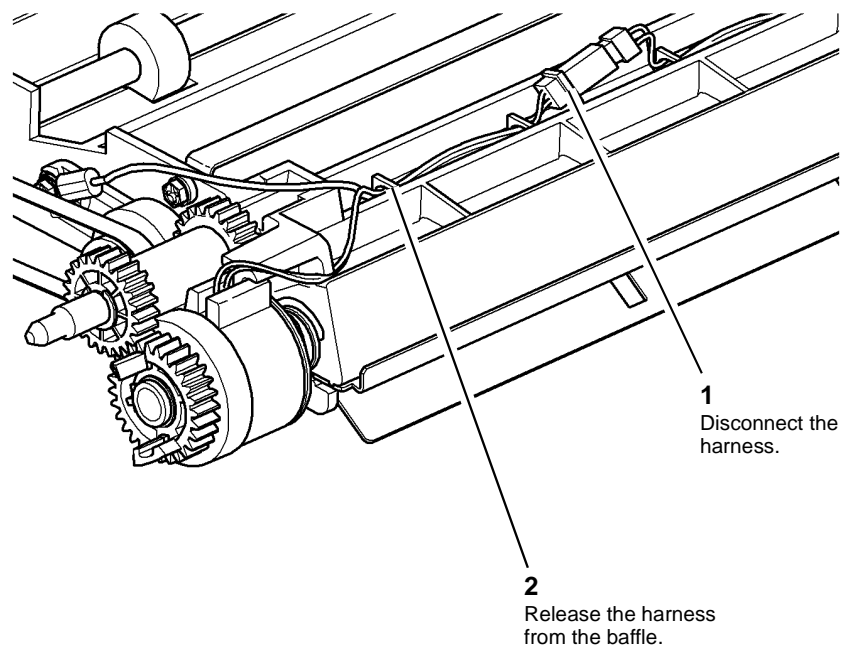


Figure 1 Preparation

T-1-0498-A

4. Remove the registration clutch, **Figure 2**.

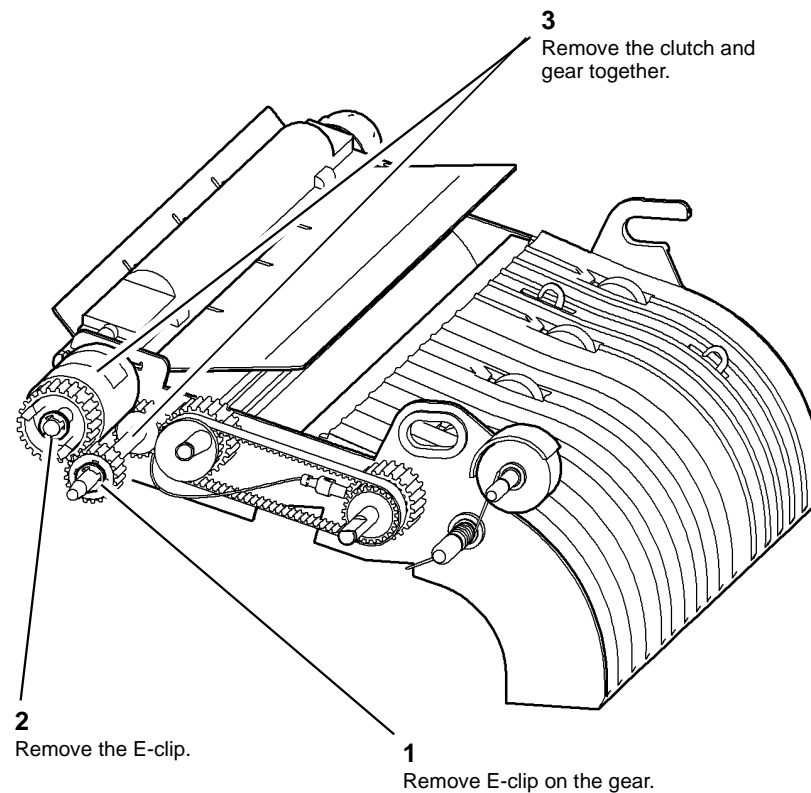


Figure 2 Registration clutch removal

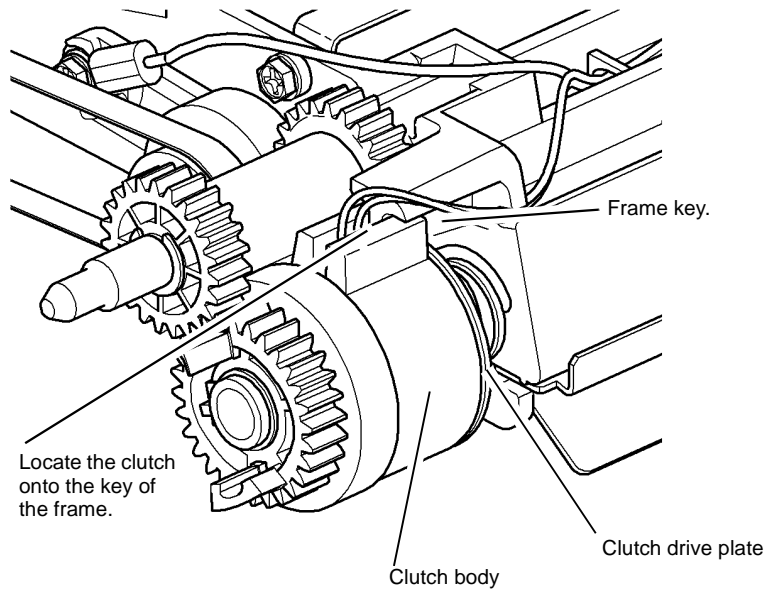
T-1-0499-A

## Replacement

Replacement is the reverse of the removal procedure.

Check the following:

1. The clutch is located with the key on the frame of the registration transport assembly, [Figure 3](#).
2. The clutch harness is correctly routed and secure, [Figure 1](#).
3. Turn the jam clearance knob 4c to rotate the drive shaft. Ensure that the drive plate on the clutch rotates without binding on the clutch body, [Figure 3](#).
4. After completing the replacement procedure, perform the [dC604](#) Registration Setup.



T-1-0500-A

Figure 3 Clutch location

## REP 8.6 Registration Sensor and Wait Sensor (35-55ppm)

Parts List on [PL 8.15](#)

### Removal

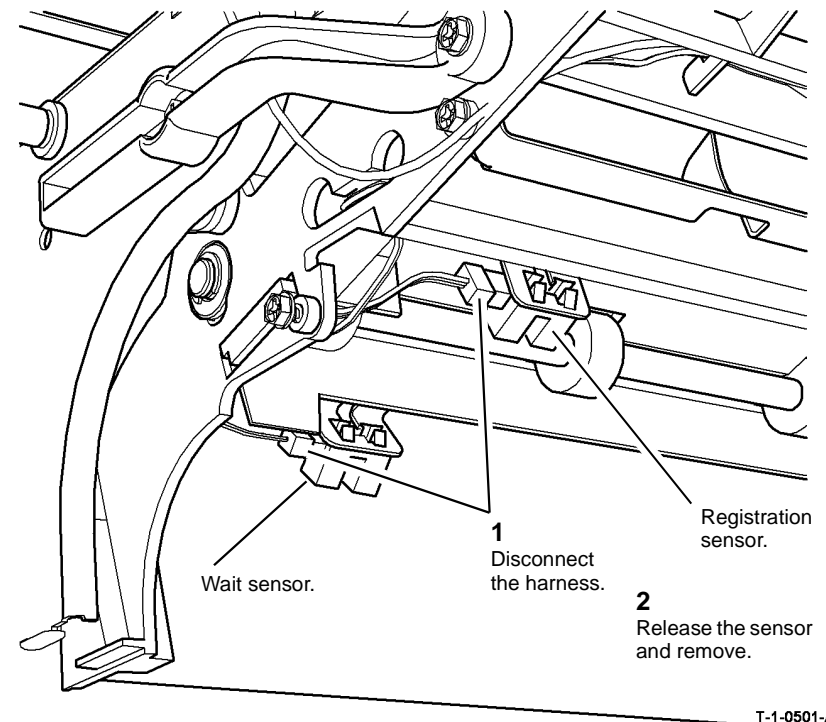


**WARNING**  
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**  
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the registration transport, [REP 8.4](#).
2. Remove the appropriate sensor, [Figure 1](#).



T-1-0501-A

Figure 1 Sensor location

### Replacement

1. Replacement is the reverse of the removal procedure.
2. After completing the replacement procedure, perform the [dC604](#) Registration Setup.

## REP 8.7 Duplex Transport

Parts List on (35-55 ppm) **PL 8.22**, (65-90 ppm) **PL 8.20**

### Removal



Switch off the electricity to the machine, **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

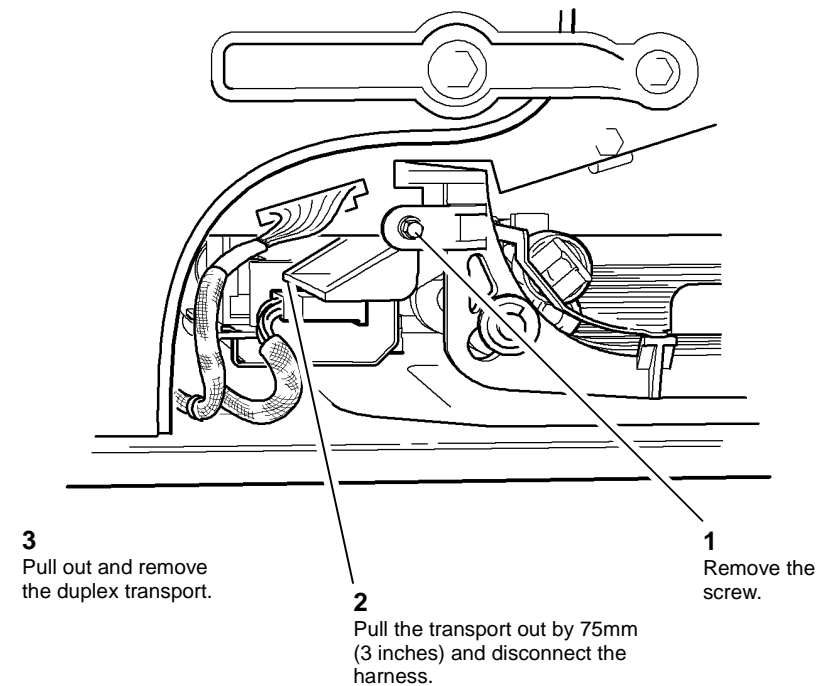


Take care during this procedure. Sharp edges may be present that can cause injury.



Take care during this procedure. Motors will become hot during normal operation.

1. Remove the duplex transport, **Figure 1**.



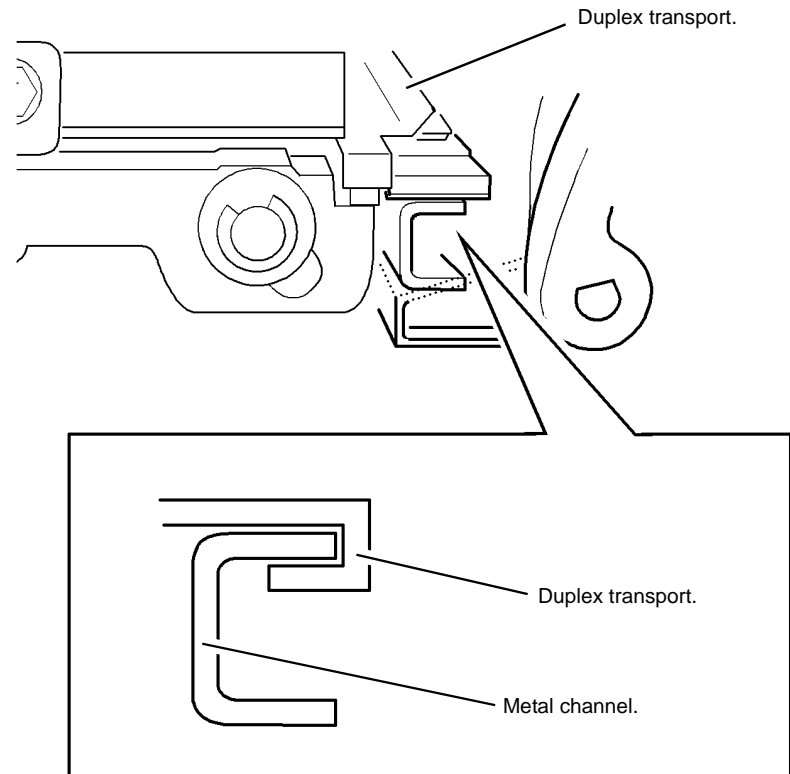
T-1-0502-A

Figure 1 Duplex transport removal

### Replacement

1. Replacement is the reverse of the removal procedure. Refer to **GP 6** before refitting the screw to the duplex transport.
2. Go to **01A** Ground Distribution RAP. Check the grounding of the duplex transport.
3. Check that the duplex transport is located correctly on the metal channel, **Figure 2**.
4. After completing the replacement procedure, perform the **dC604** Registration Setup.

**NOTE:** Lift the left side of the transport to engage the support pin through the rear frame.



T-1-0503-A

Figure 2 Duplex transport location

## REP 8.8 Duplex Motor and Drive Belts

Parts List on (35-55 ppm) [PL 8.22](#), (65-90 ppm) [PL 8.20](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### WARNING

Take care during this procedure. Motors will become hot during normal operation.

1. Remove the duplex transport, [REP 8.7](#).

**NOTE:** The duct on the duplex transport is only used on the 65 - 90 ppm machine.

2. Remove the motor and drive belts, [Figure 1](#).

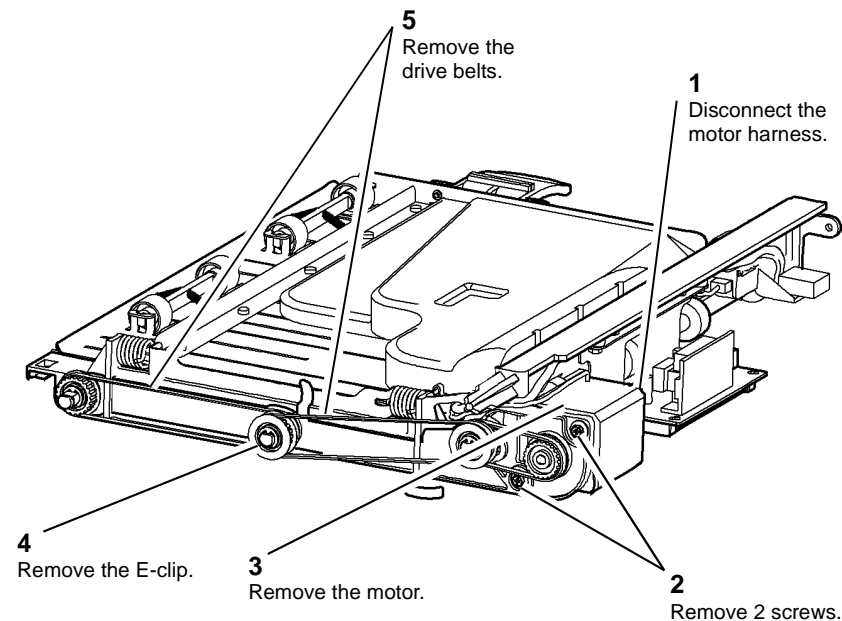


Figure 1 Motor and belts removal

T-1-0504-A

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.9 Bypass Tray Feed Solenoid

Parts List on [PL 7.30](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the bypass tray, [REP 7.5](#).

  
**CAUTION**

Take care not to lose the small spring on the back of the solenoid.

2. Remove the bypass feed solenoid, [Figure 1](#).

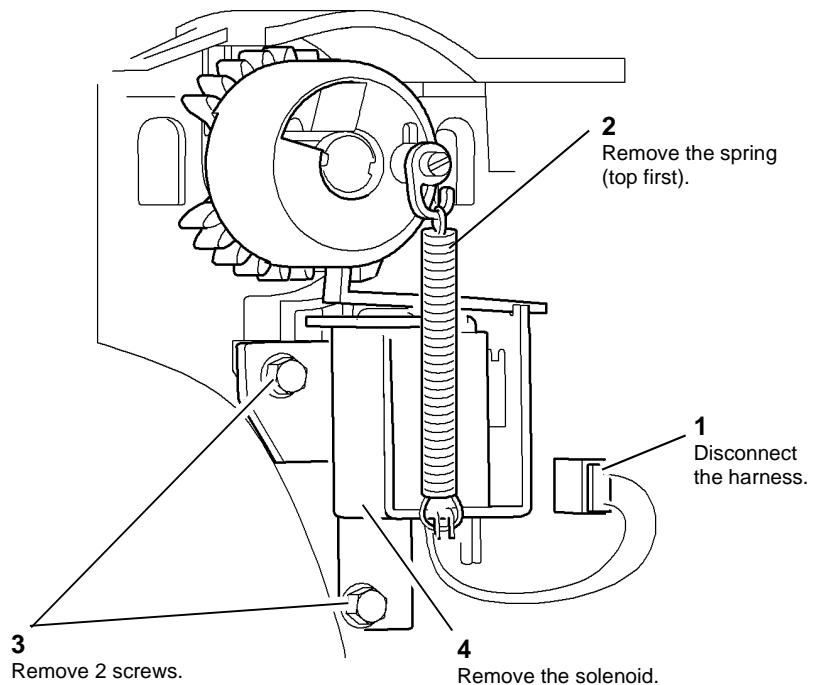


Figure 1 Solenoid removal

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.10 Tray 3 and Tray 4 Transport Motor (W/O TAG 151)

Parts List on [PL 8.30](#)

### Removal

  
**WARNING**

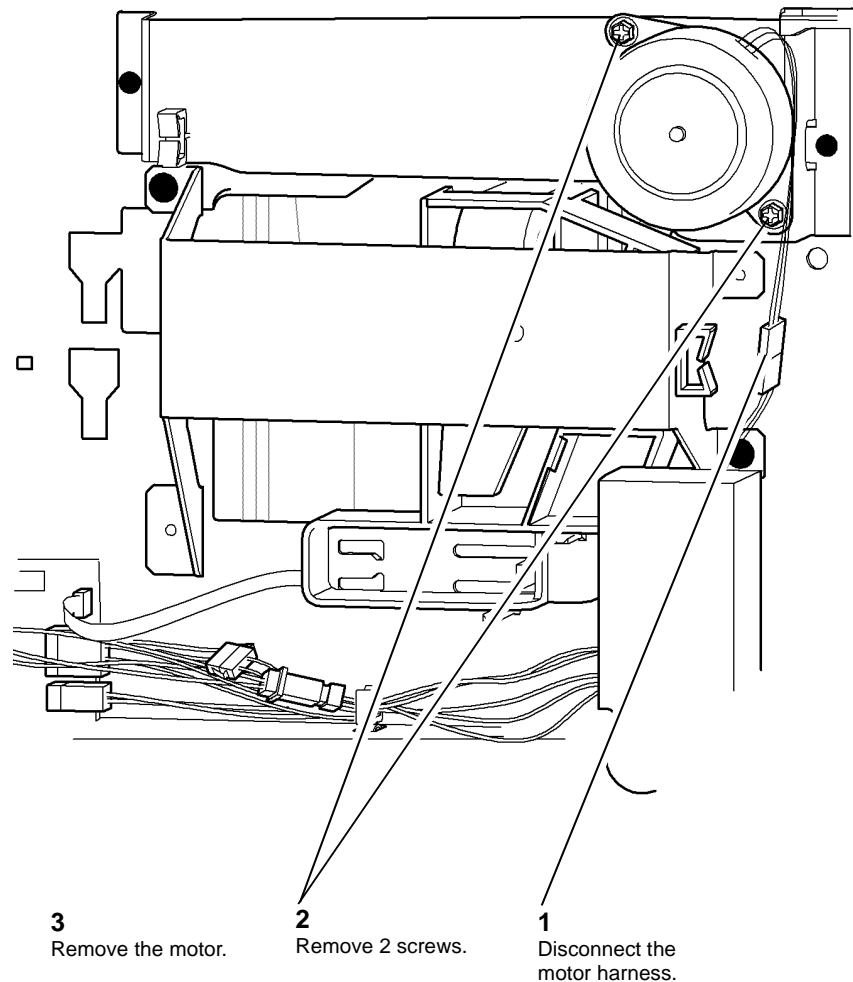
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove HCF rear cover, [PL 7.25](#) Item 1.

2. Remove the Tray 3 and 4 transport motor, [Figure 1](#).



T-1-0506-A

Figure 1 Transport motor removal

### Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. After completing the replacement procedure, perform the [dC604](#) Registration Setup.

## REP 8.11 Tray 3 and Tray 4 Transport Drive Gear (W/O TAG 151)

Parts List on [PL 8.30](#)

### Removal

  
**WARNING**

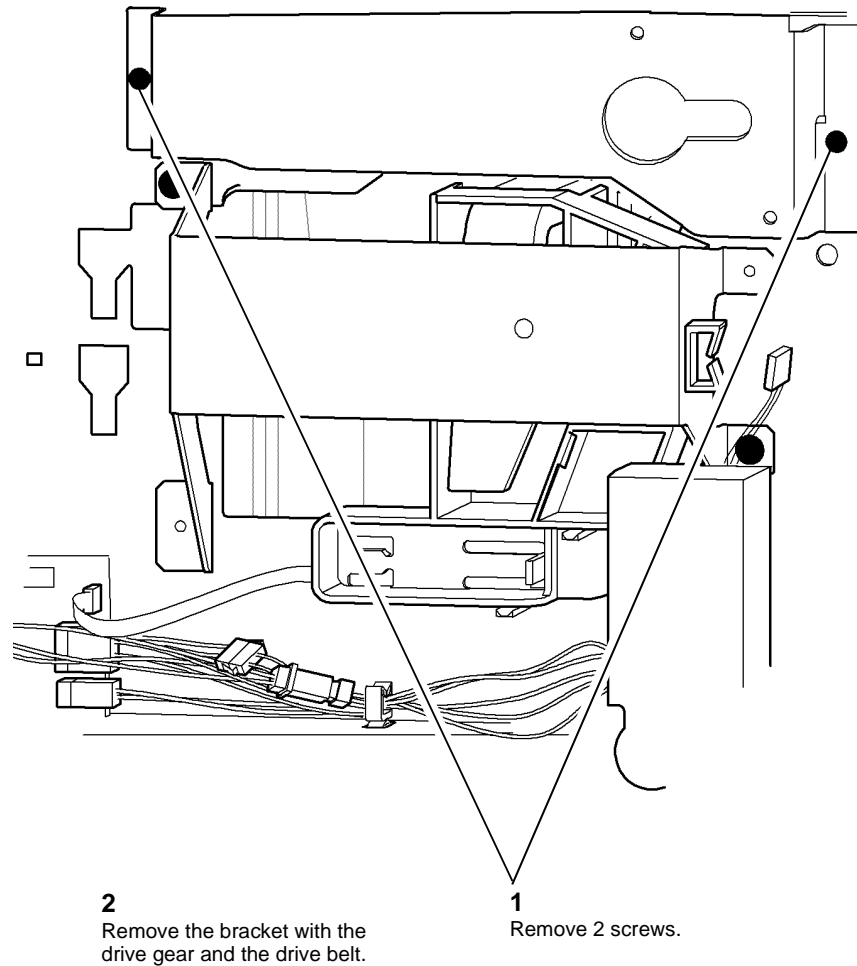
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 7.25](#) Item 1.
2. Remove the tray 3 and 4 transport motor, [REP 8.10](#).

- Remove the tray 3 and 4 transport motor bracket, [Figure 1](#).



T-1-0507-A

**Figure 1 Motor bracket removal**

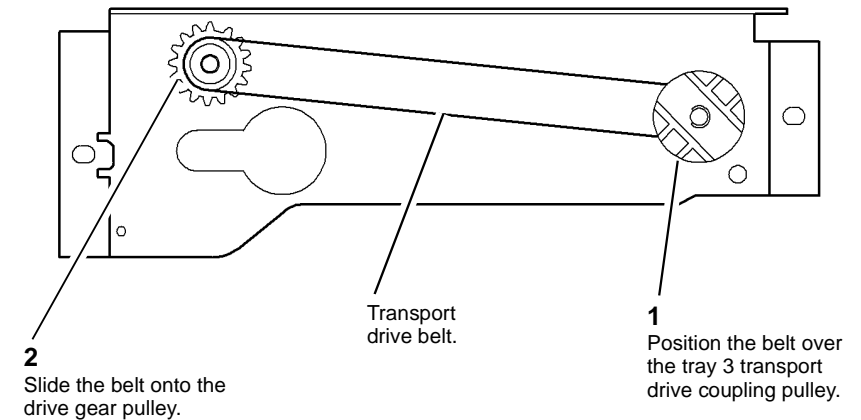
## Replacement

Replacement is the reverse of the removal procedure.



*The needle clutch in the drive gear can be damaged during removal / replacement. Care must be taken when removing / replacing the drive gear onto the take away drive shaft.*

- Install the transport drive belt, [Figure 2](#).

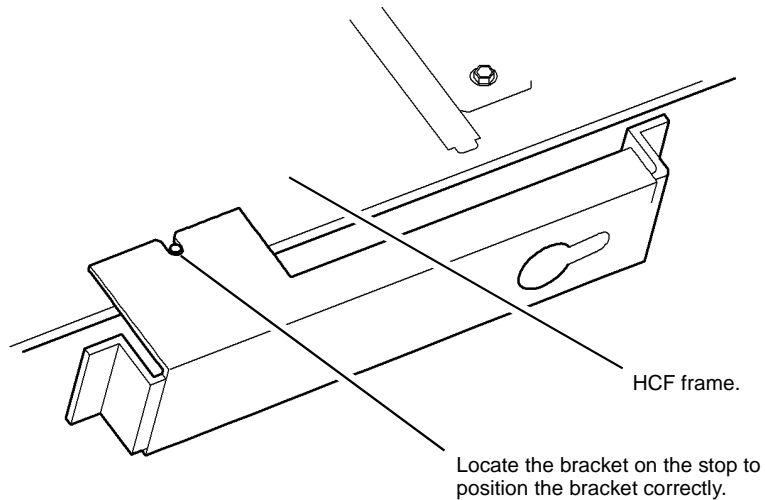


T-1-0508-A

**Figure 2 Drive belt installation**



2. Check that the transport motor bracket is located on the stop on the HCF frame, [Figure 3](#).



**Figure 3 Motor bracket location**

T-1-0509-A

## REP 8.12 Tray 1 and Tray 2 Transport Drive Belt

Parts List on [PL 8.25](#)

### Removal

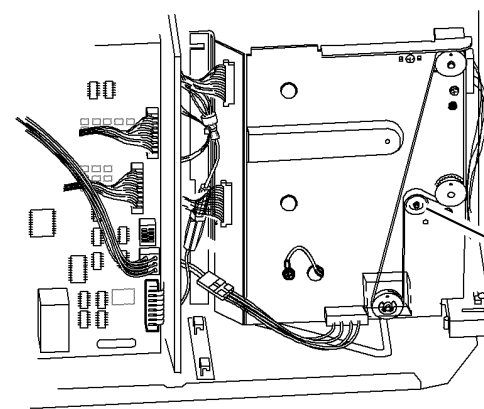


Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove rear cover, [PL 8.10 Item 1](#).
2. Remove waste toner bottle, [PL 9.10 Item 1](#).
3. Remove the tray 1 and tray 2 transport drive belt, [Figure 1](#).



1. Slip the drive belt over the idler roll to remove the drives belt.

T-1-0510-A

**Figure 1 Drive belt removal**

### Replacement

1. Reverse the removal procedure to replace the transport drives belt.
2. After completing the replacement procedure, perform the [dC604](#) Registration Setup.

# REP 8.13 Tray 3 Transport Assembly (W/O TAG 151)

Parts List on [PL 8.35](#)

## Removal



### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



### CAUTION

Take care when removing tray 3 support bracket from its snap in mounting.

1. Remove tray 3 and tray 4 front covers, [Figure 1](#).

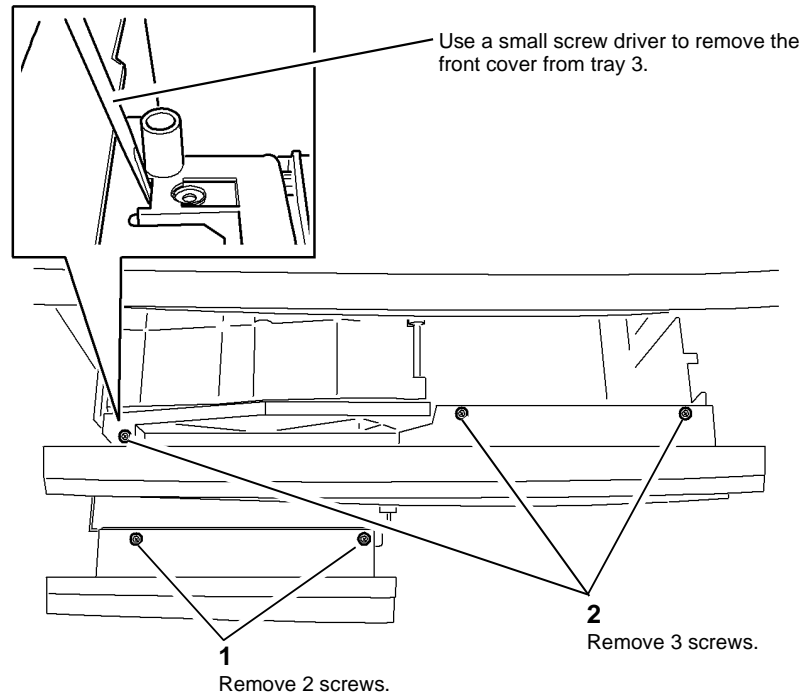


Figure 1 Front covers removal

T-1-0511-A



### CAUTION

Take care to avoid damage to the tray 3 feed sensor flag at the rear of the tray, [PL 7.15 Item 9](#).

2. Remove tray 3 transport assembly, [Figure 2](#).

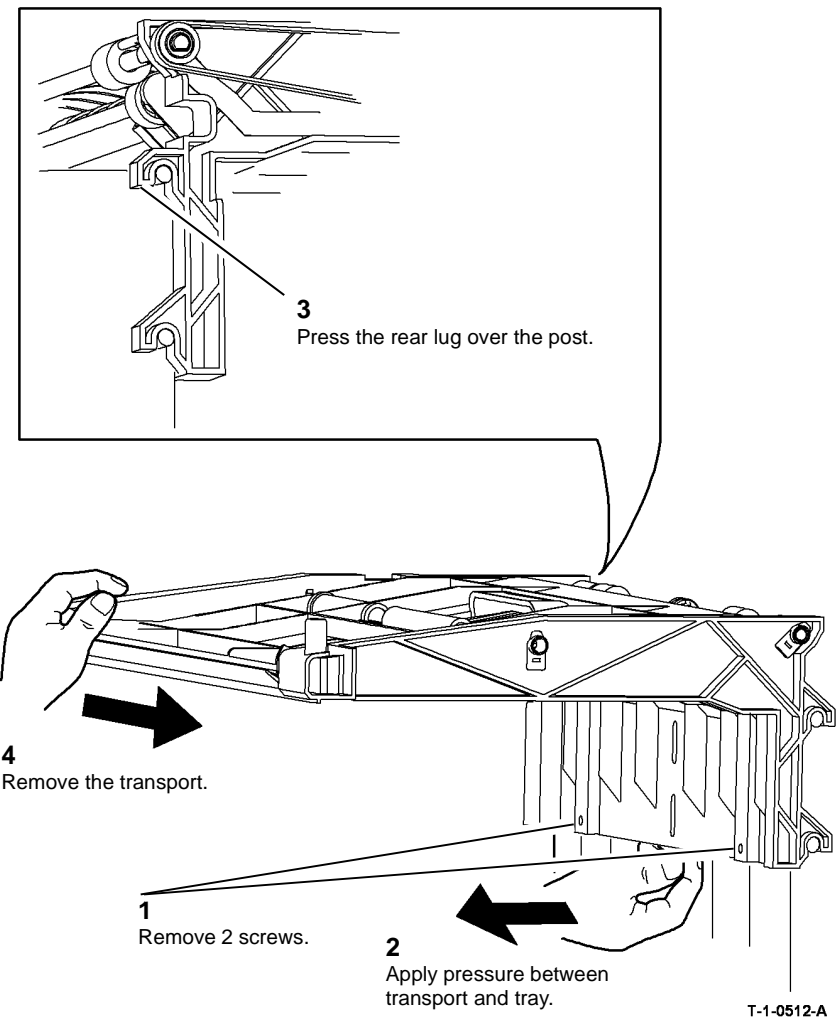


Figure 2 Transport assembly removal

T-1-0512-A

## Replacement

Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 8.14 Tray 3 Feed Sensor Actuator (W/O TAG 151)

Parts List on [PL 7.15](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 3 transport assembly, [REP 8.13](#).
2. Remove tray 3 feed sensor actuator, [Figure 1](#).

**NOTE:** Make a note of how the spring is located.

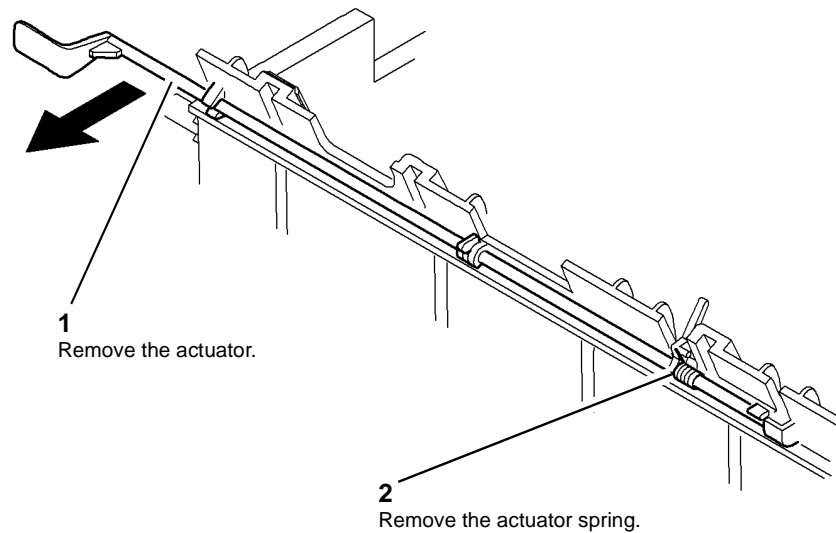


Figure 1 Actuator removal

### Replacement

Replacement is the reverse of the removal procedure.

  
**CAUTION**

Take care when locating the actuator spring, it can be easily deformed or broken

## REP 8.15 Registration Sensor (65-90 ppm)

Parts List on [PL 8.17](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

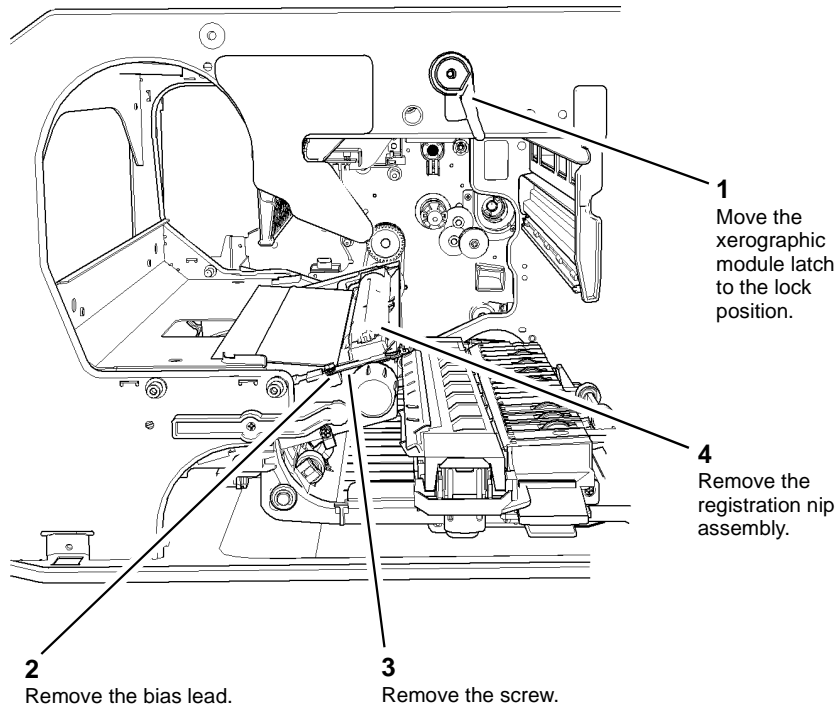
  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the developer assembly, [REP 9.2](#).
2. Remove the xerographic module.

3. Remove the registration nip assembly, [Figure 1](#)

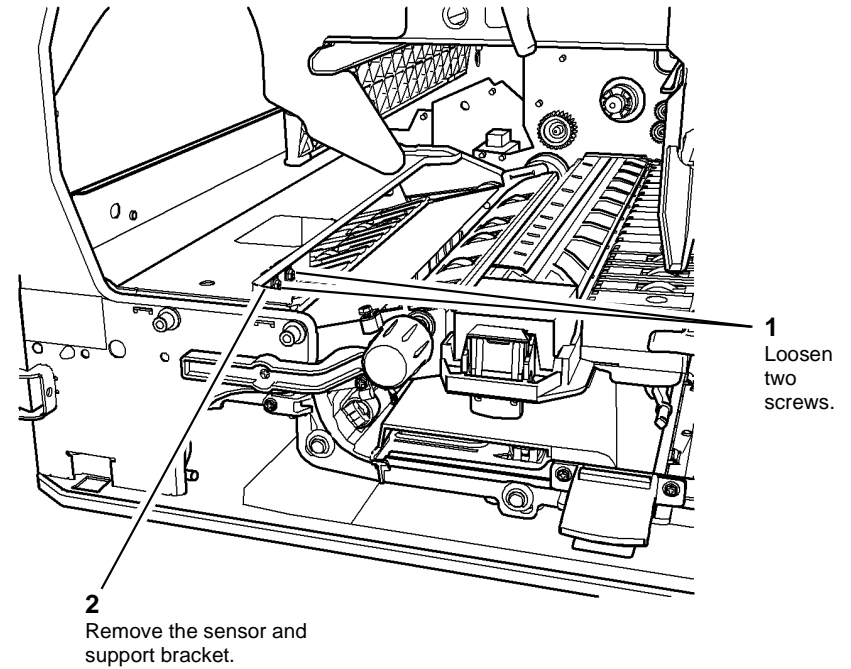
**NOTE:** To improve the access when removing the screw. Move the xerographic module latch to the lock position, this changes the position of the developer paddle.



**Figure 1** Registration nip removal

T-1-0514-A

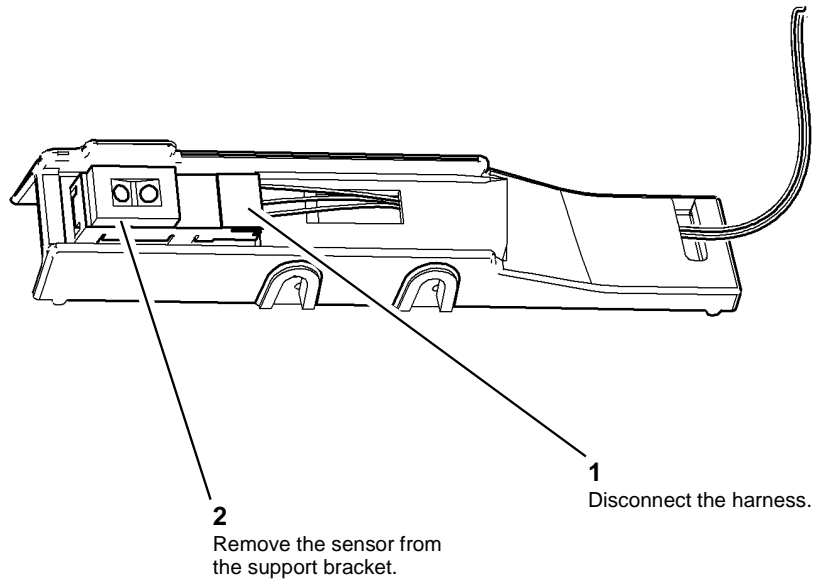
4. Remove the registration sensor and support bracket, [Figure 2](#).



**Figure 2** Sensor and bracket removal

T-1-0515-A

5. Remove the sensor from the support bracket, [Figure 3](#).

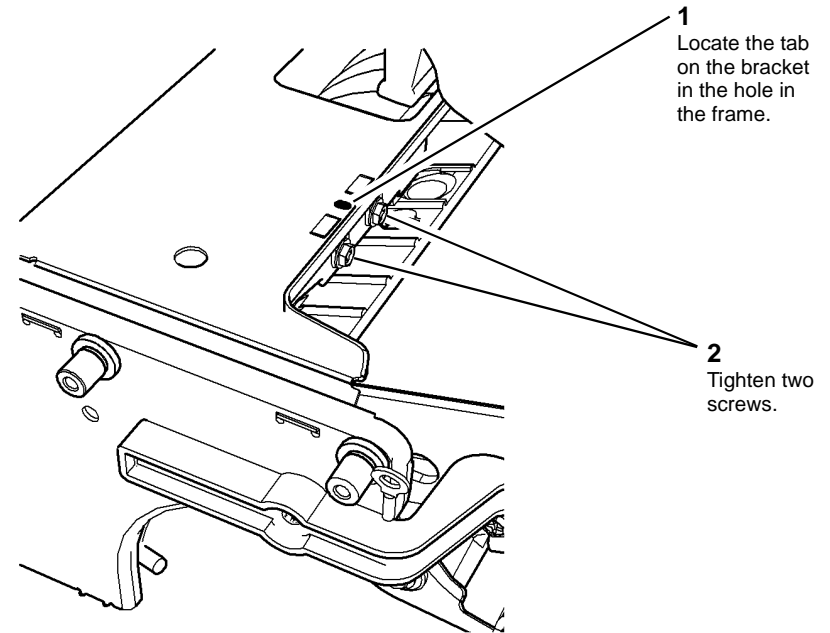


T-1-0516-A

**Figure 3 Sensor removal**

## Replacement

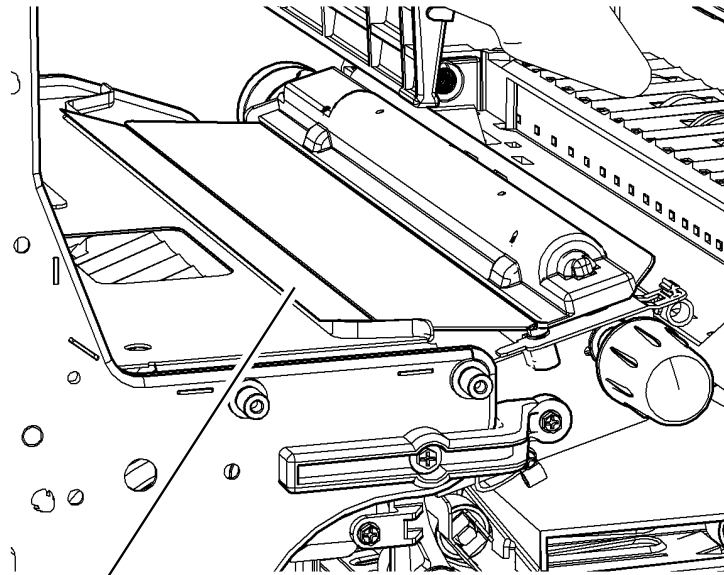
1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting screws.
2. Locate the support bracket on the machine frame and tightened the screws, [Figure 4](#).



T-1-0517-A

**Figure 4 Support bracket position**

3. Ensure that the mylar guide is located correctly, [Figure 5](#).



1  
Position the mylar guide above  
the machine frame.

T-1-0518-A

**Figure 5 Mylar guide position**

4. After completing the replacement procedure, perform the [dC604](#) Registration Setup.

## REP 8.16 Tray 1 and Tray 2 Transport Rolls and Bearings

Parts List on [PL 8.25](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 1 and tray 2, [PL 7.10](#).
2. Remove tray 1 and 2 paper feed assembly, [REP 8.1](#).
3. Remove the rear cover, [PL 8.10](#) Item 1.
4. Remove the waste toner bottle and door, [REP 9.1](#).
5. Remove the tray 1 and tray 2 transport drive belt, [REP 8.12](#).

- Remove the drive shaft and bearings, [Figure 1](#).

**NOTE:** The drive pulleys have a built-in one way clutch. Before the drive pulley is removed, mark the pulley to indicate its installed position. The drive shaft rotates when the pulley is turned in a counter-clockwise direction.

- The removal procedure is the same for the tray 1 and tray 2 transport rolls.
- Remove the front bearing when the shaft has been removed.

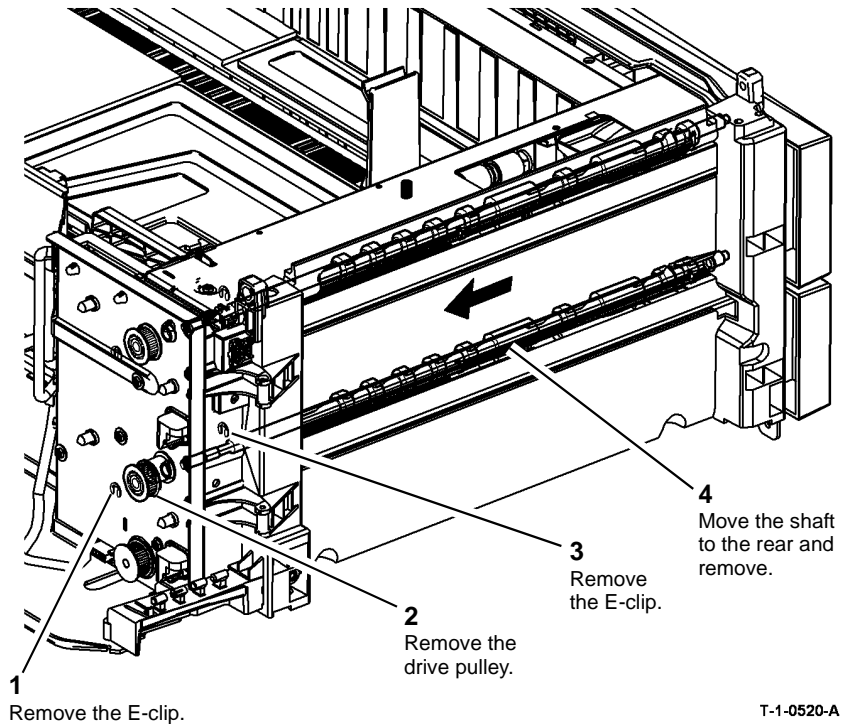


Figure 1 Drive shaft removal

### Replacement

- Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting screws.
- Ensure that the bearings are located correctly.
- If a new transport roll is installed, reset the Tray 1 or Tray 2 trans count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.
- After completing the replacement procedure, perform the [dC604](#) Registration Setup.

## REP 8.17 Wait Sensor (65-90ppm)

Parts List on [PL 7.30](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the left hand door, [REP 7.5](#).
- Prepare to remove the door cover, [Figure 1](#).

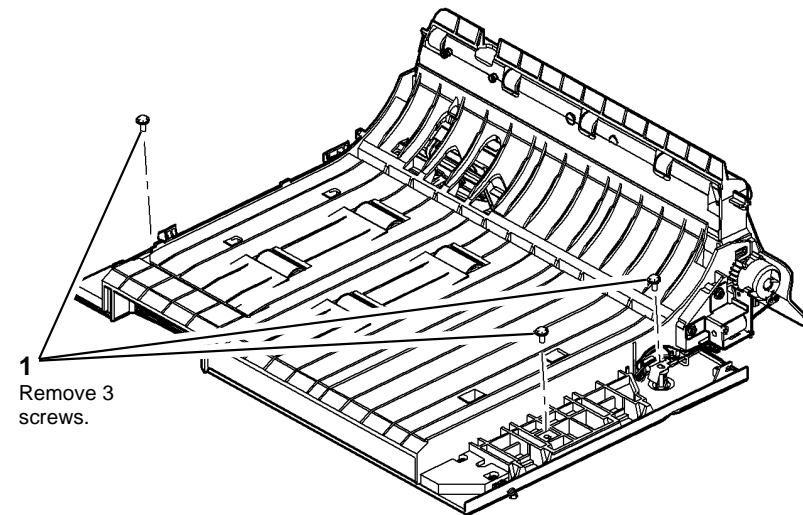
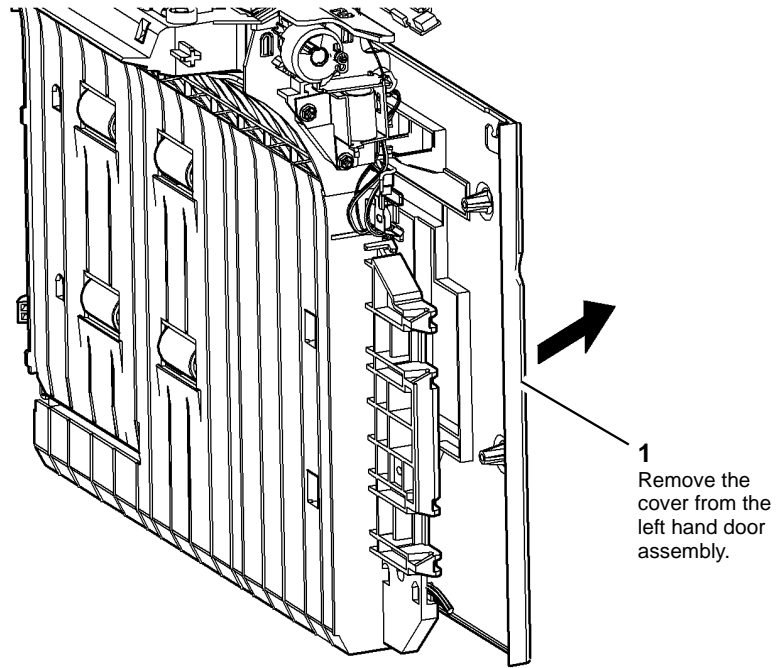


Figure 1 Preparation

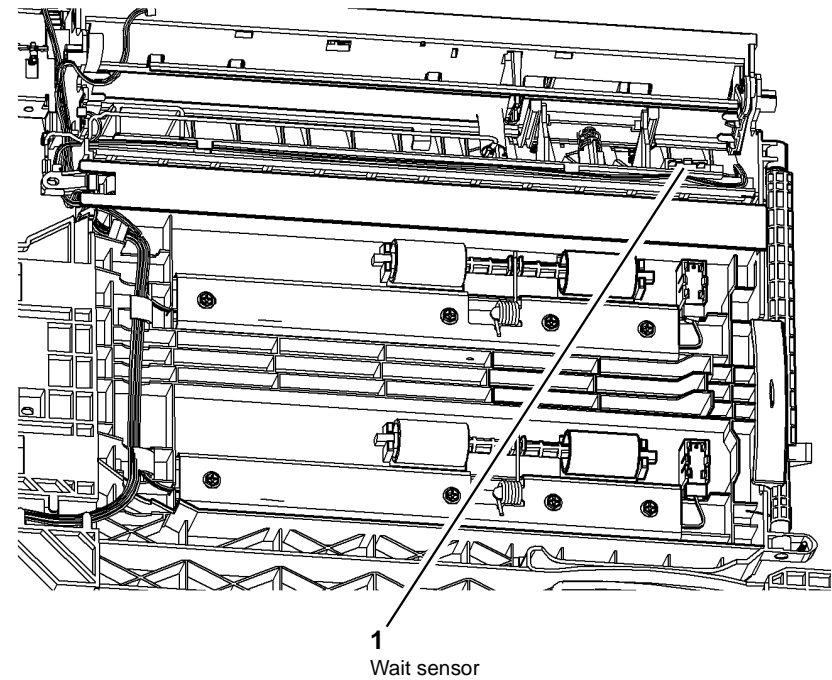
3. Remove the door cover, [Figure 2](#).



T-1-0522-A

**Figure 2 Door cover removal**

4. [Figure 3](#) shows the location of the wait sensor.



T-1-0523-A

**Figure 3 Wait sensor location**



5. Remove the wait sensor, [Figure 4](#).

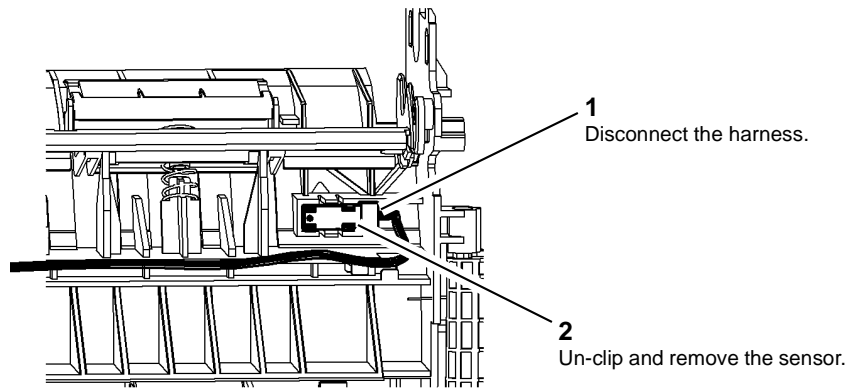
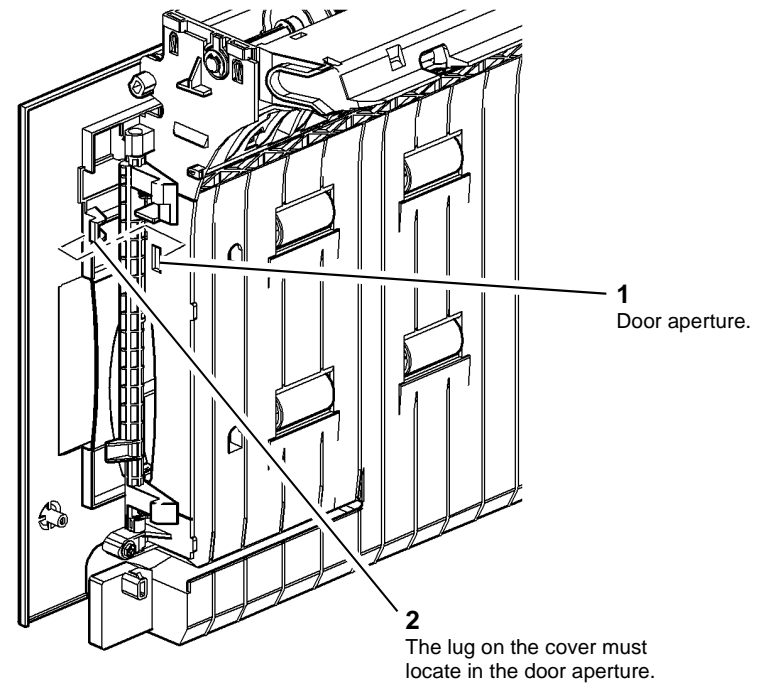


Figure 4 Wait sensor removal

T-1-0524-A

## Replacement

1. Replacement is the reverse of the removal procedure.
2. Ensure that the cover is located correctly on the left hand door assembly, [Figure 5](#).



T-1-0525-A

Figure 5 Cover location

3. After completing the replacement procedure, perform the [dC604 Registration Setup](#).

## REP 8.18 Tray 1 and Tray 2 Transport Roll Drives Motor

Parts List on [PL 8.25](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 8.10 Item 1](#).
2. Remove the waste toner bottle and door, [REP 9.1](#).
3. Remove tray 1 and tray 2.
4. Prepare to remove the transport roll drives motor, [Figure 1](#).

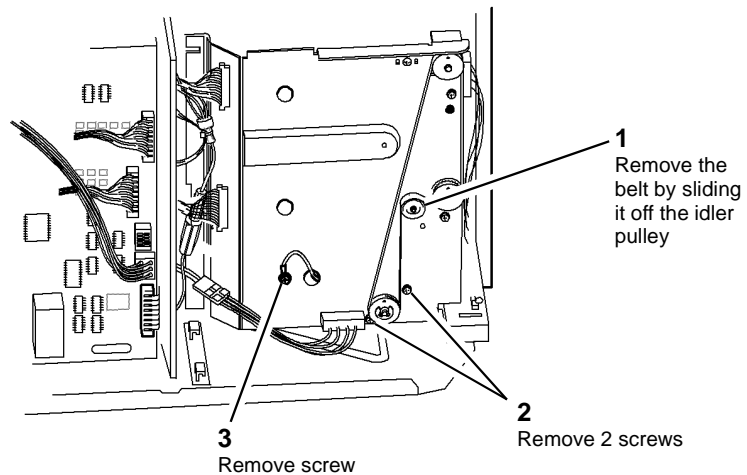
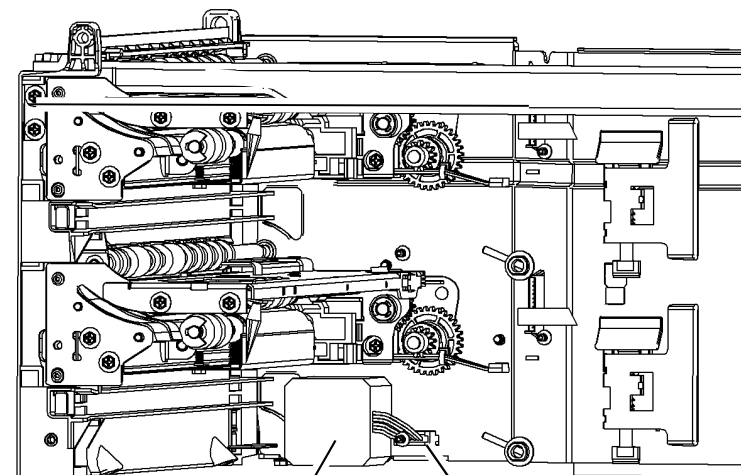


Figure 1 Preparation

T-1-0526-A

5. Remove the transport roll drives motor, [Figure 2](#).



1. Disconnect the harness.
2. Remove the motor and ground wire.

T-1-0527-A

Figure 2 Motor removal

### Replacement

Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 8.19 Bypass Tray Feed Head

Parts List on [PL 7.30](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

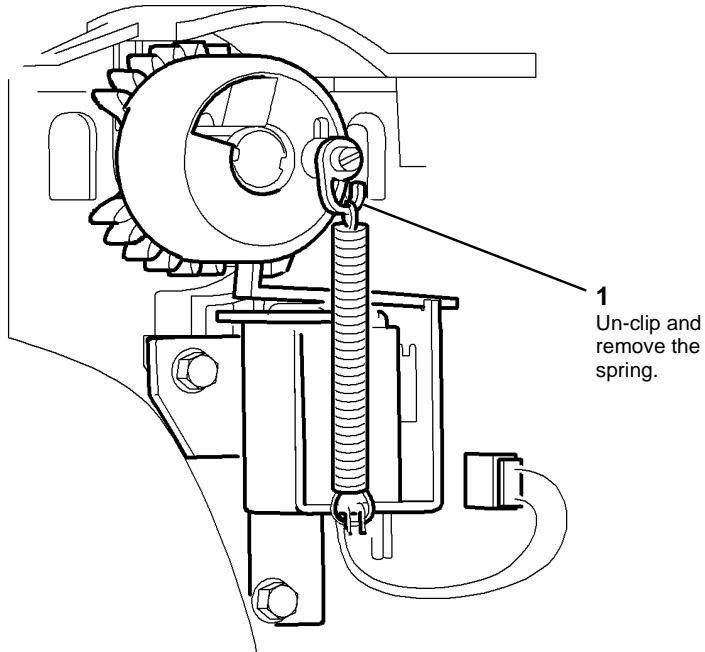
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove left hand cover, [PL 8.10](#) Item 3.

  
**CAUTION**

Take care not to lose the small spring on the back of the solenoid.

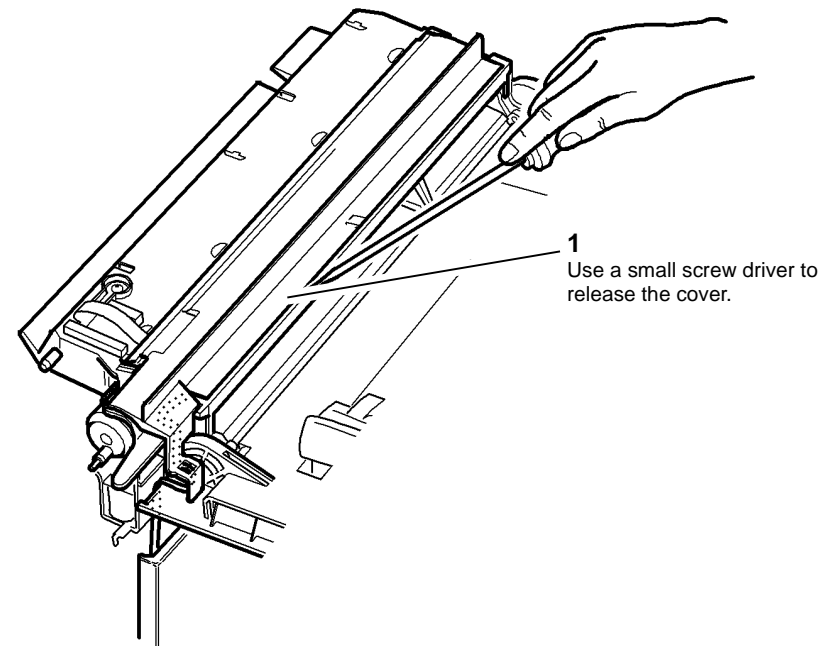
2. Open left hand door and remove the spring from the feed solenoid, [Figure 1](#).



T-1-0528-A

Figure 1 Feed solenoid spring removal

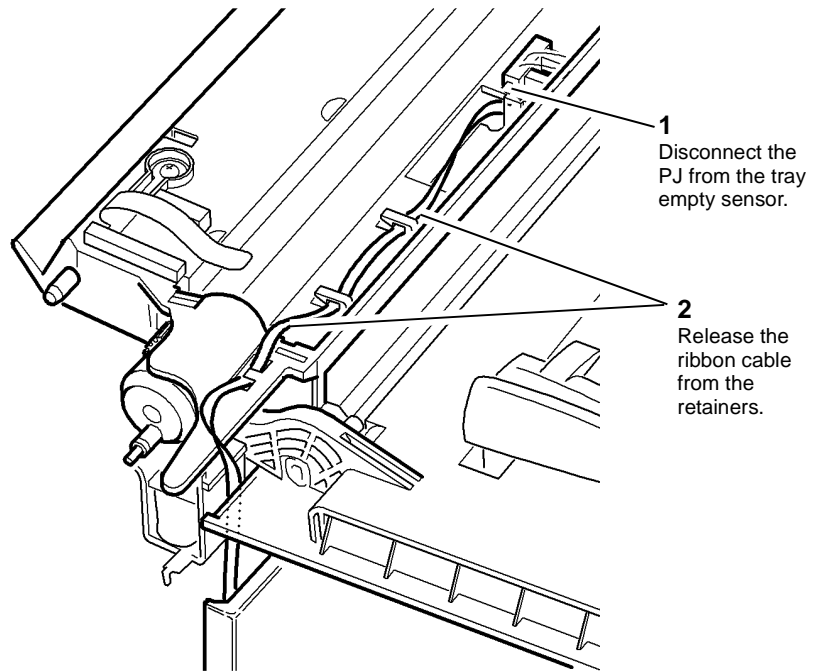
3. Remove the cover from the feed head, [Figure 2](#).



T-1-0529-A

Figure 2 Feed head cover removal

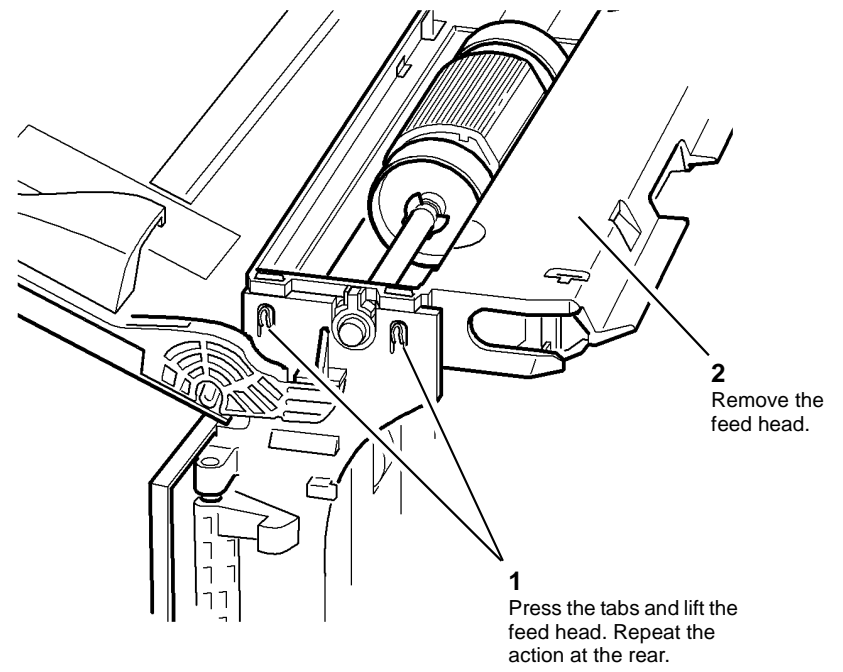
4. Release the ribbon cable from the feed head, [Figure 3](#).



**Figure 3 Ribbon cable release**

T-1-0530-A

5. Remove the feed head, [Figure 4](#).



**Figure 4 Bypass feed head removal**

T-1-0531-A

## Replacement

1. Replacement is the reverse of the removal procedure.
2. Before replacement of the feed head ensure that feed roll, pressure plate cam and drive gear are correctly aligned, [Figure 5](#).
3. When the feed head is replaced, ensure that the bypass tray empty sensor actuator is positioned in the slot in the lift plate. Refer to [Figure 5](#).
4. Manually rotate the drive gear until the tab on the drive gear is engaged with the armature on the bypass tray feed solenoid.

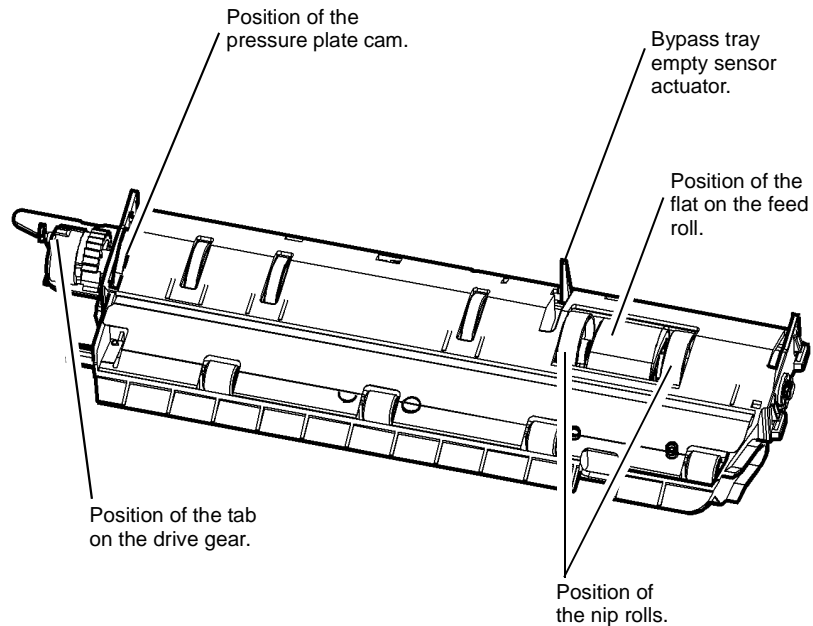


Figure 5 Component alignment

## REP 8.20 Bypass Tray Drive Gear

Parts List on [PL 7.30](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the bypass tray feed head, [REP 8.19](#).
2. Remove the bypass tray drive gear, [Figure 1](#).

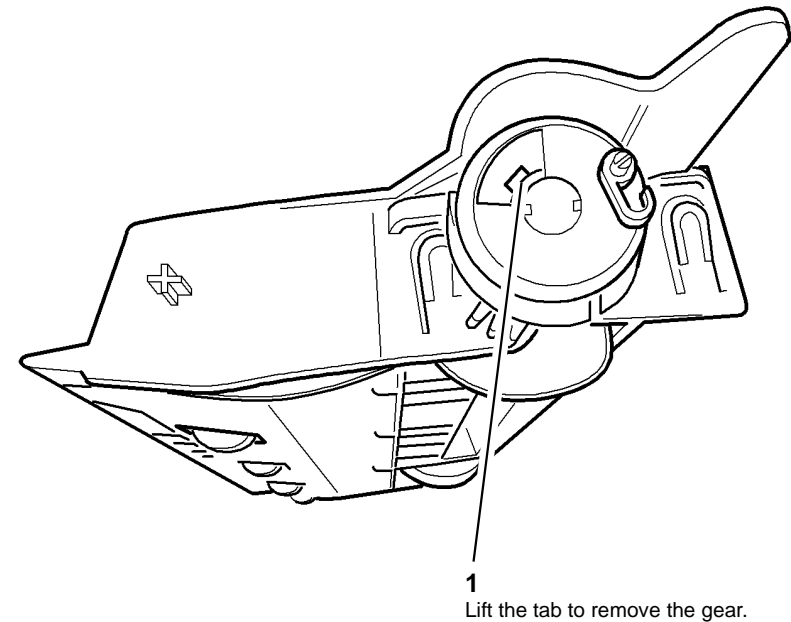


Figure 1 Drive gear removal

## Replacement

1. Replacement is the reverse of the removal procedure.
2. Before replacement of the feed head, ensure that feed roll, pressure plate cam and drive gear are correctly aligned, [Figure 2](#).

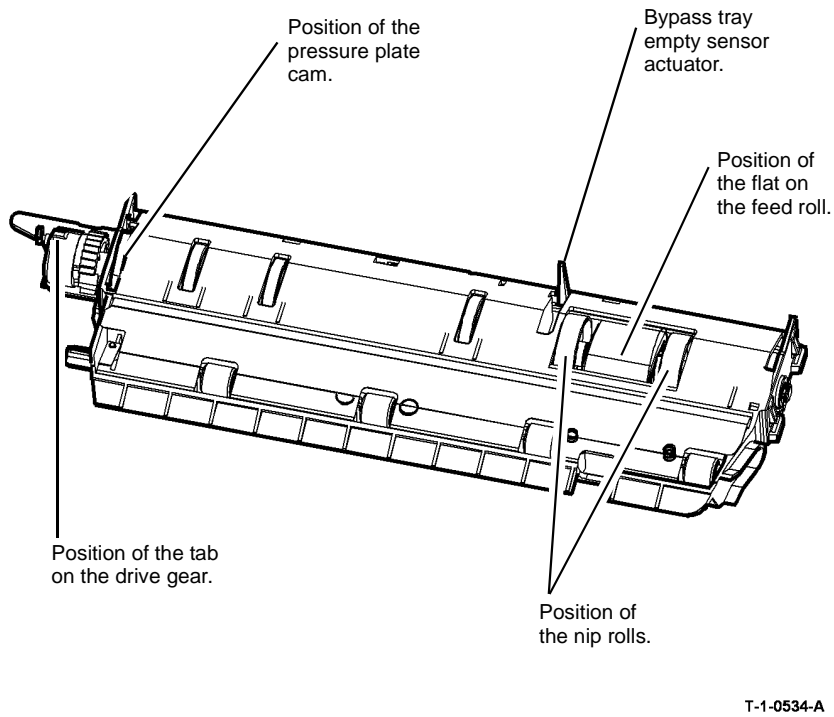


Figure 2 Component alignment

## REP 8.21 Bypass Tray Feed Roll

Parts List on [PL 7.30](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the left hand door, [PL 7.30 Item 2](#).
2. Remove the bypass tray feed head, [REP 8.19](#).
3. Remove the bypass tray drive gear, [REP 8.20](#).
4. Remove the bypass tray feed roll, [Figure 1](#).

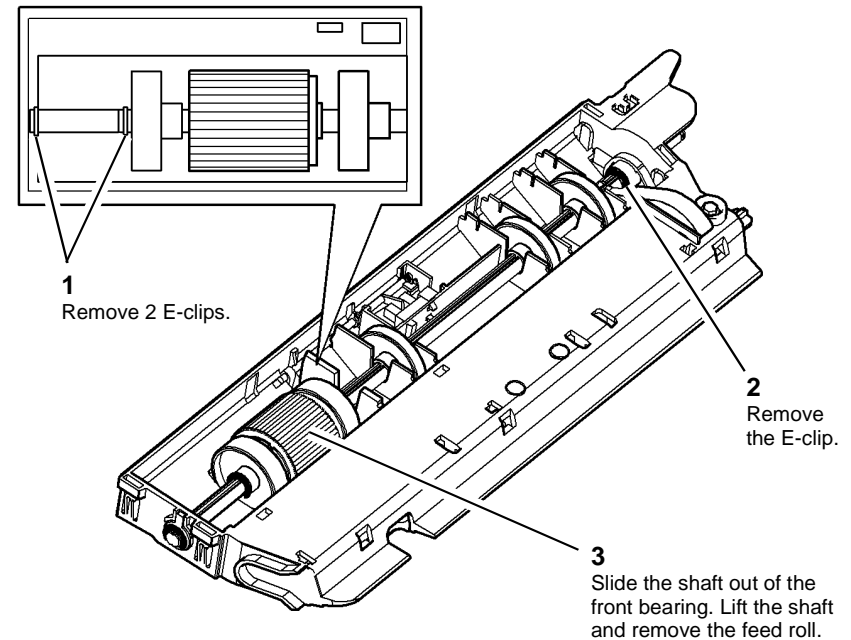
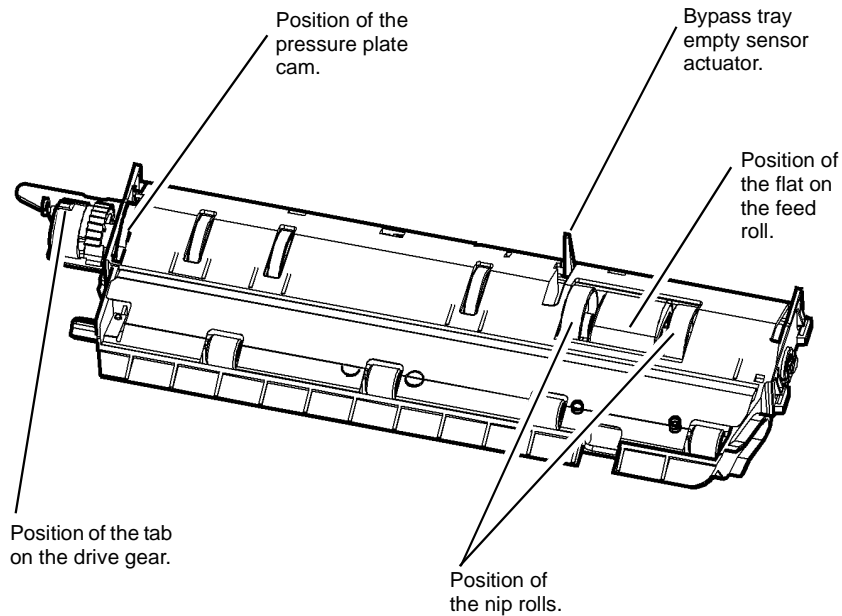


Figure 1 Remove the feed roll

## Replacement

1. Replacement is the reverse of the removal procedure.
2. Ensure that the bearings at both ends of the shaft are correctly located.
3. Check the feed head to ensure that the feed roll, pressure plate cam and drive gear are correctly aligned, [Figure 2](#),



T-1-0536-A

Figure 2 Component alignment

4. If a new feed roll is installed, reset the Bypass feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.22 Bypass Tray Retard Pad

Parts List on [PL 7.30](#)

### Removal

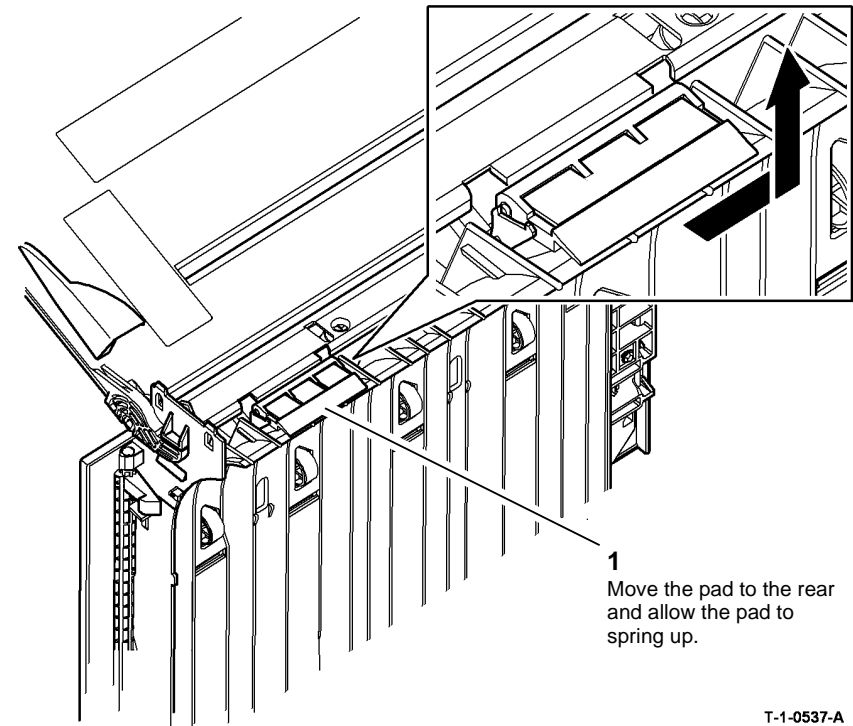


Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

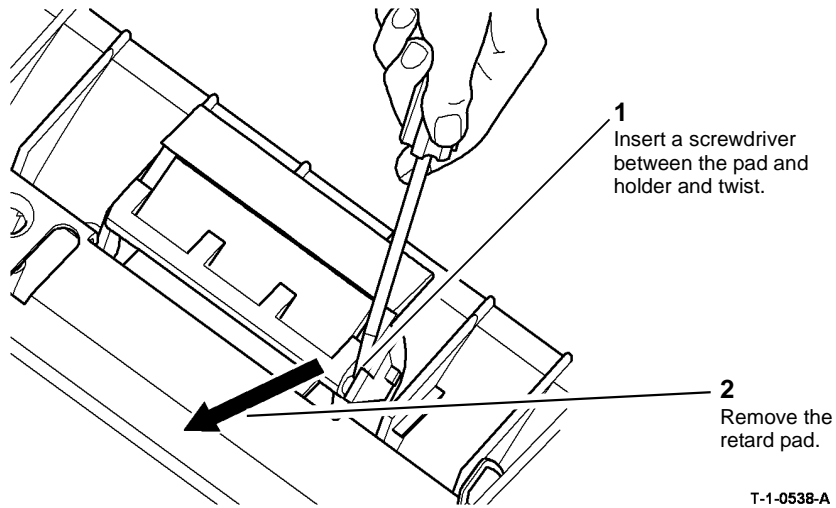
1. Remove the bypass tray feed head, [REP 8.19](#).
2. Prepare to remove the retard pad, [Figure 1](#).



T-1-0537-A

Figure 1 Preparation

- Remove the retard pad, [Figure 2](#).



1  
Insert a screwdriver  
between the pad and  
holder and twist.

2  
Remove the  
retard pad.

T-1-0538-A

Figure 2 Remove the retard pad

### Replacement

- Replacement is the reverse of the removal procedure.
- If a new retard pad is installed, reset the Bypass feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.23 Bypass Tray Empty Sensor

Parts List on [PL 7.30](#)

### Removal

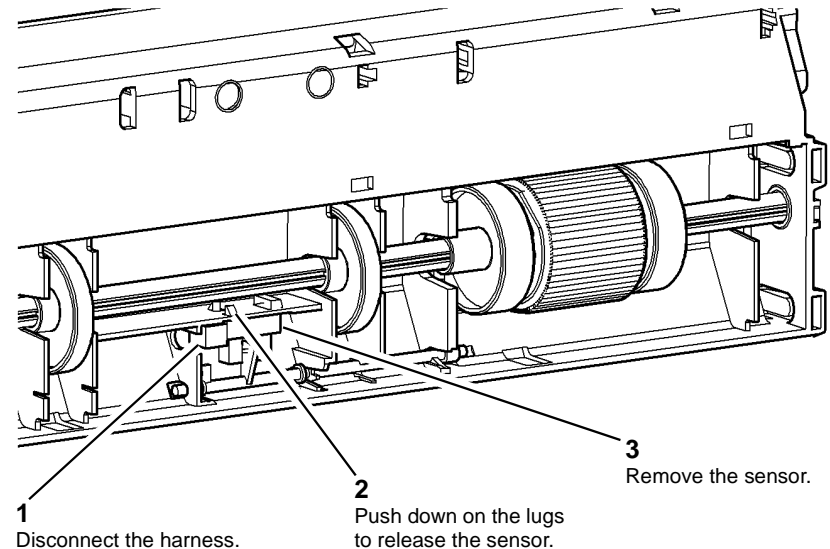
  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the bypass tray feed head, [REP 8.19](#).
- Remove the tray empty sensor, [Figure 1](#).



1  
Disconnect the harness.

2  
Push down on the lugs  
to release the sensor.

3  
Remove the sensor.

T-1-0539-A

Figure 1 Tray empty sensor

### Replacement

Replacement is the reverse of the removal procedure.



## REP 8.24 Tray 1 or Tray 2 Feed Sensor

Parts List on [PL 7.30](#)

### Removal



#### WARNING

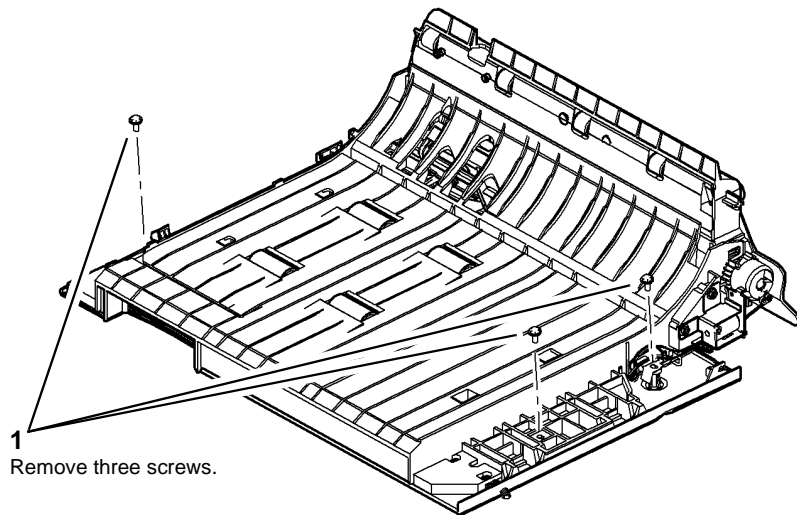
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

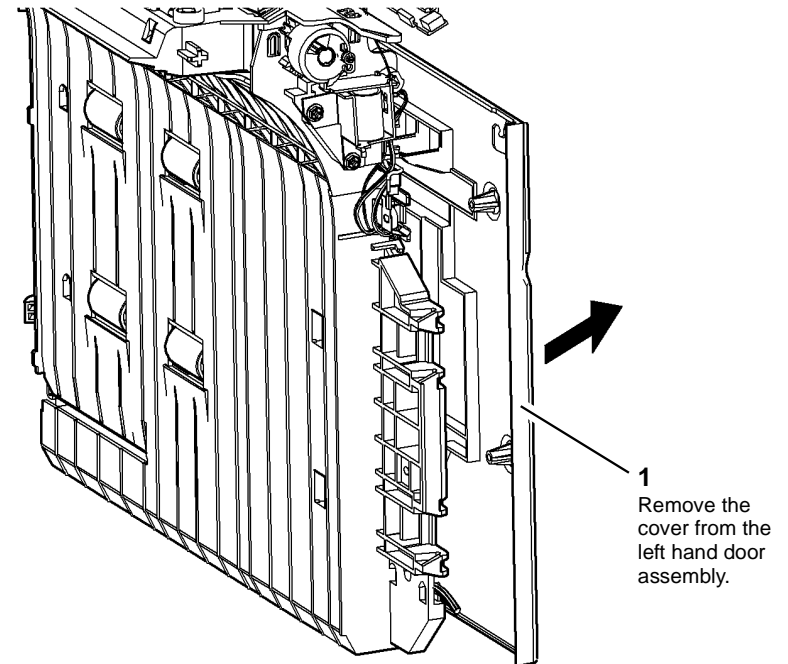
1. Remove the left hand door assembly, [REP 7.5](#).
2. Prepare to remove the left hand door cover, [Figure 1](#).



T-1-0540-A

Figure 1 Preparation

3. Remove the cover from the left hand door assembly, [Figure 2](#).



T-1-0541-A

Figure 2 Remove the cover

4. Figure 3 shows the location of tray 1 and tray 2 feed sensors.

5. Remove the feed sensor, Figure 4.

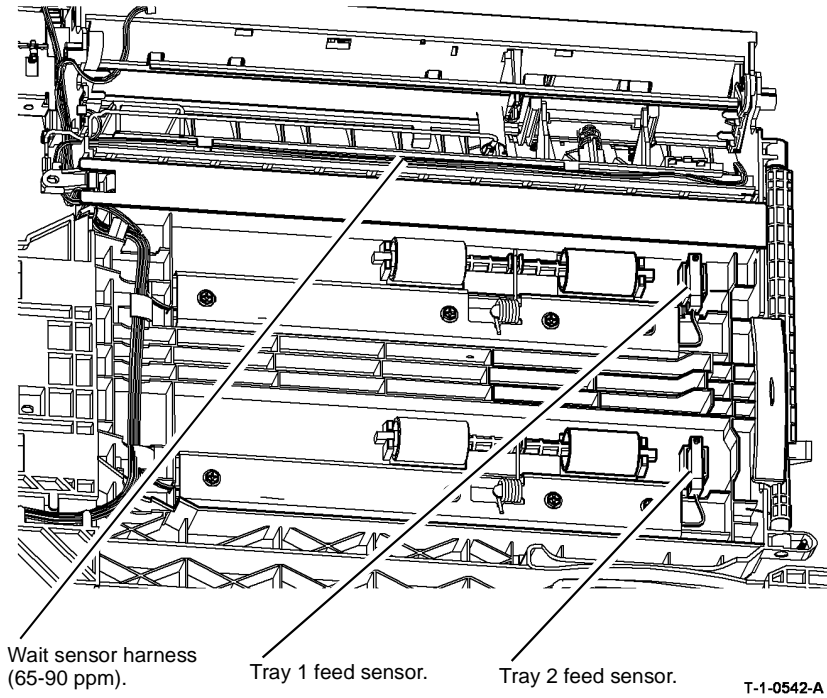


Figure 3 Feed sensor locations

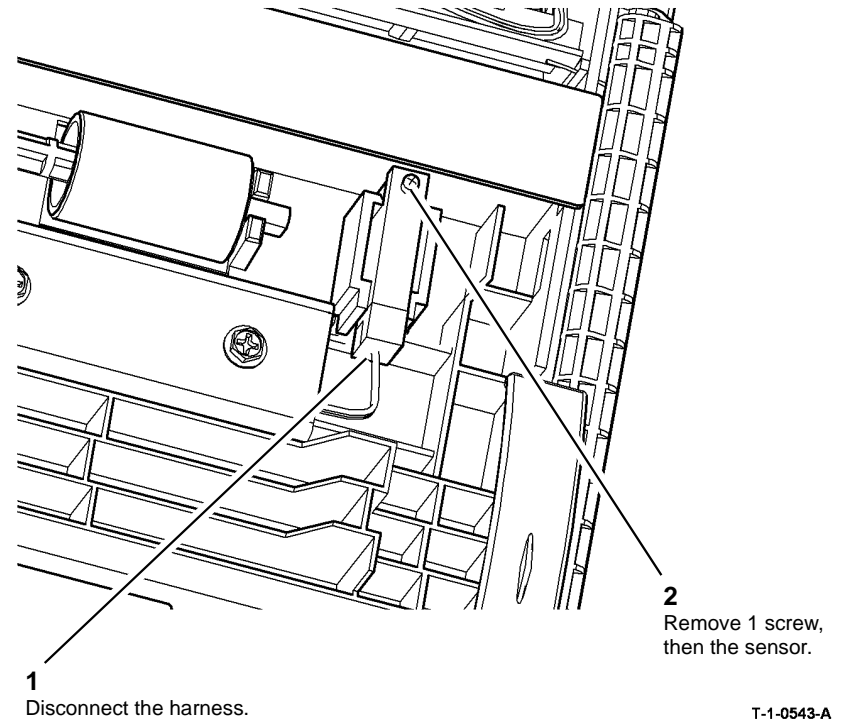


Figure 4 Remove the feed sensor

## Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. **(65-90 ppm Only)** Before refitting the left hand door cover, ensure that the wait sensor harness is correctly located. Refer to [Figure 3](#).
3. Ensure that the cover is located correctly on the left hand door assembly, [Figure 5](#).

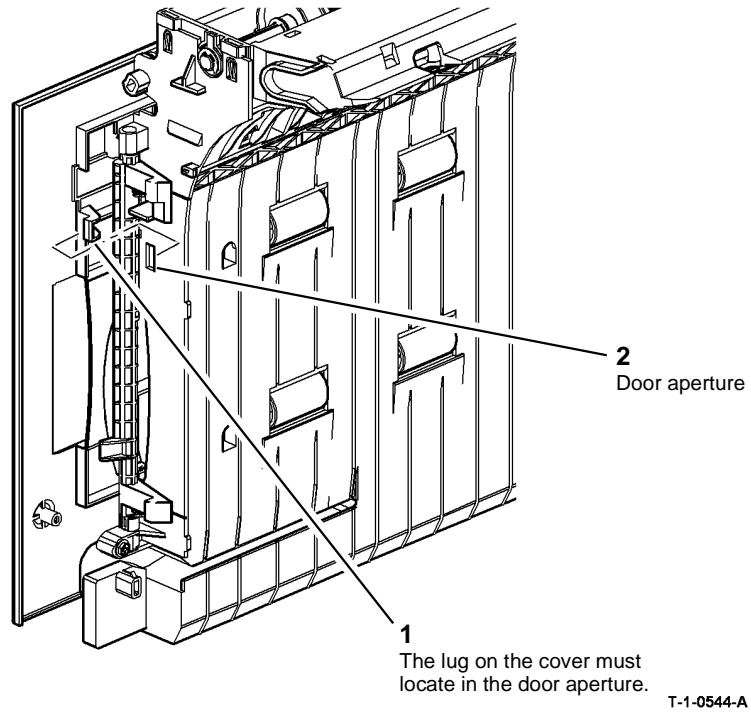


Figure 5 Cover location

## REP 8.25 Tray 5 Feed Sensor

### Parts List on [PL 8.45](#)

## Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, [PL 7.60 Item 10](#).
2. Prepare to remove the tray 5 feed sensor, [Figure 1](#).

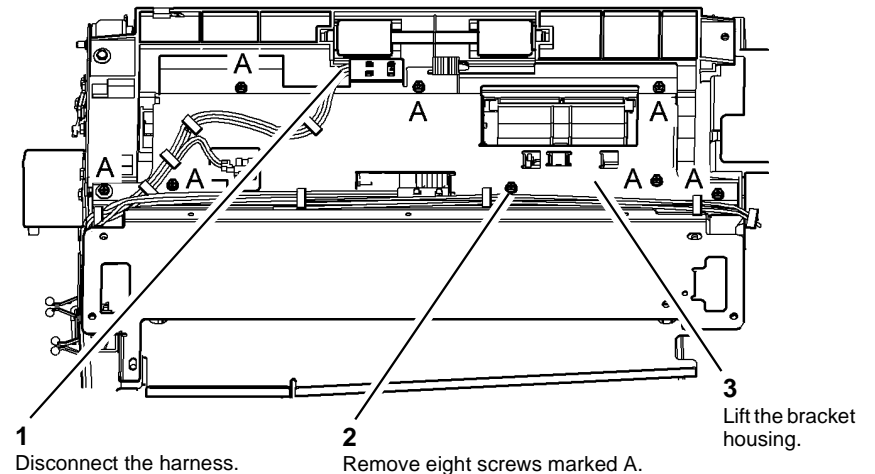
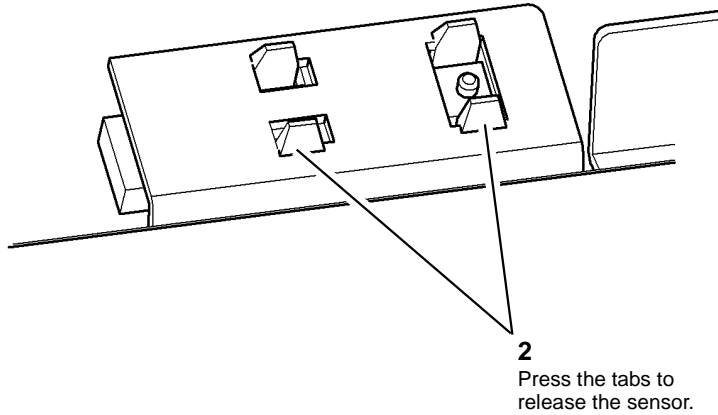


Figure 1 Preparation

- Remove tray 5 feed sensor, [Figure 2](#).

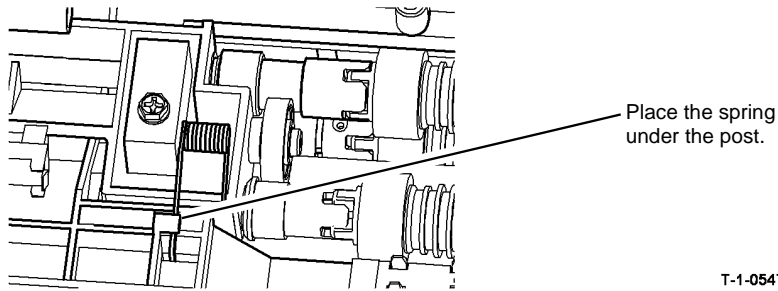


T-1-0546-A

**Figure 2 Feed sensor removal**

### Replacement

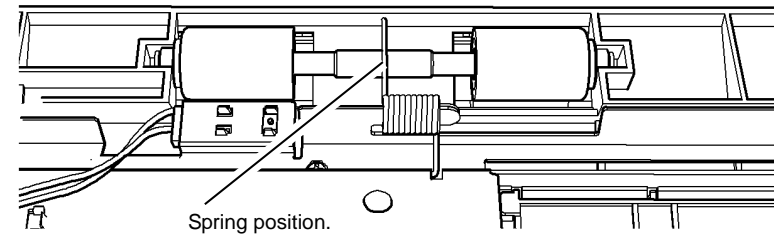
- The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
- Make sure that the spring on the paper feed assembly is in the correct position, [Figure 3](#).



T-1-0547-A

**Figure 3 Spring position**

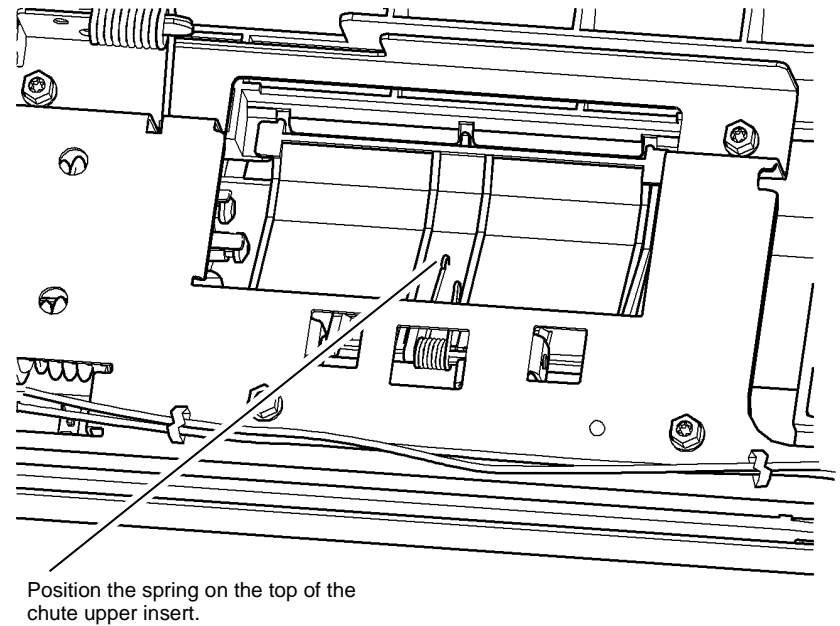
- Make sure that the spring is positioned on top of the nip roll shaft when the bracket housing is installed, [Figure 4](#).



T-1-0548-A

**Figure 4 Nip roll spring position**

- Make sure that the spring is positioned on top of the chute upper insert, [Figure 5](#).



T-1-0549-A

**Figure 5 Upper insert chute spring**

- Check that the correct screw is used to attach the bracket housing.
- Check that the harness routing is correct, [Figure 1](#).

## REP 8.26 Registration Drive Roll Assembly

Parts List on [PL 8.15](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the registration transport, [REP 8.4](#).
2. Remove the registration nip assembly, [Figure 1](#).

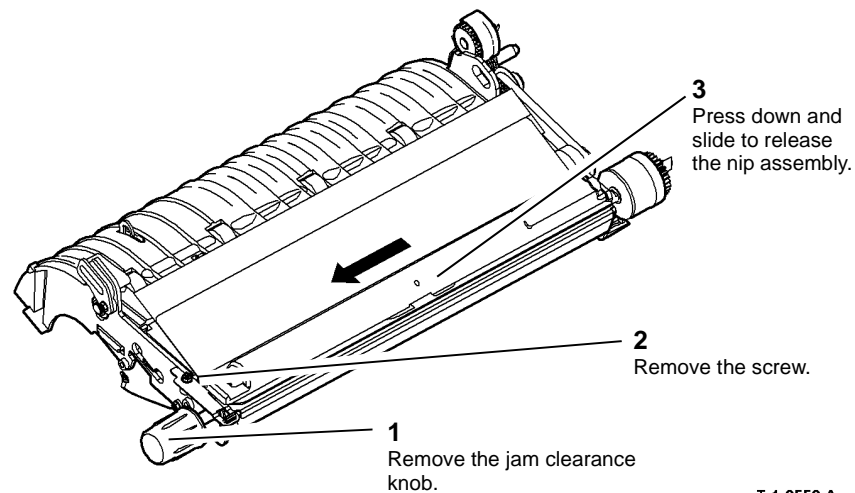
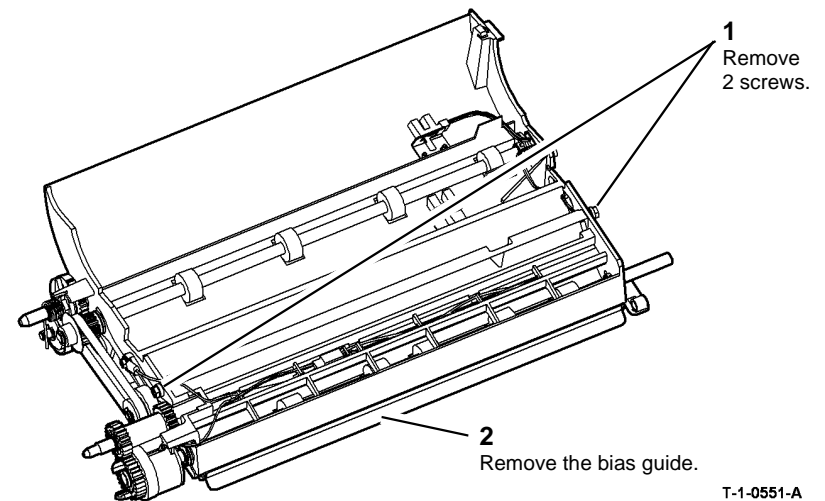


Figure 1 Registration nip assembly

T-1-0550-A

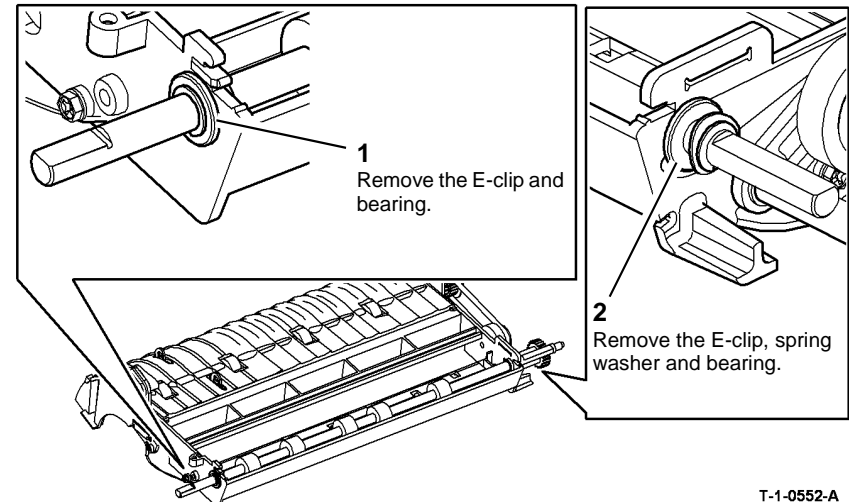
3. Remove the lower registration guide, [Figure 2](#).



T-1-0551-A

Figure 2 Bias guide removal

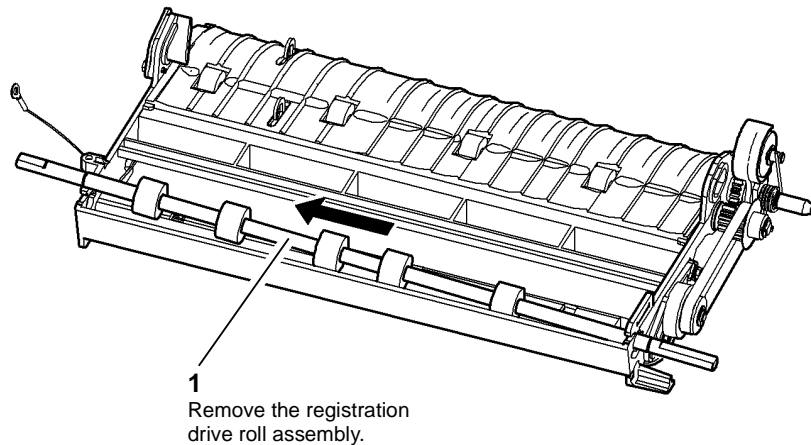
4. Remove the registration clutch, [REP 8.27](#).
5. Prepare to remove the registration drive roll assembly, [Figure 3](#).



T-1-0552-A

Figure 3 Preparation

- Remove the registration drive roll assembly, [Figure 4](#).

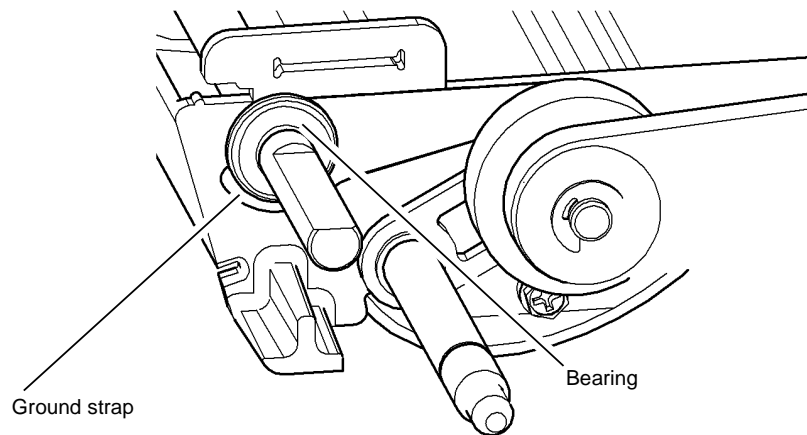


T-1-0553-A

Figure 4 Drive roll removal

### Replacement

- Replacement is the reverse of the removal procedure.
- Ensure that the ground strap is located between the frame and the bearing. [Figure 5](#).



T-1-0554-A

Figure 5 Ground strap location

## REP 8.27 Registration Transport Drive Belt

Parts List on [PL 8.15](#)

### Removal

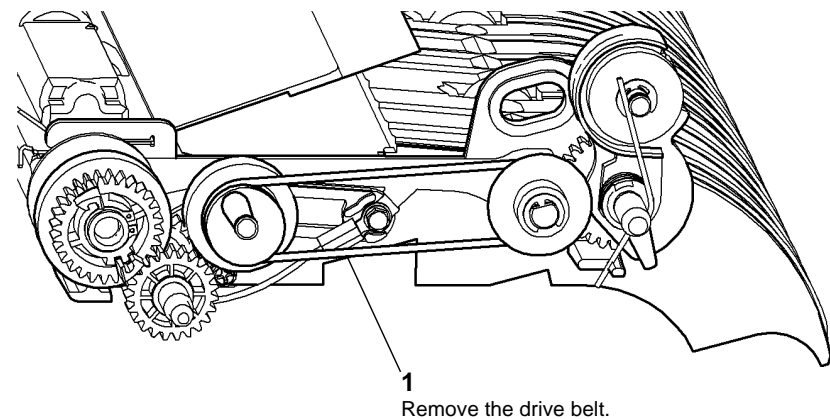
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the registration transport, [REP 8.4](#).
- Remove the drive belt, [Figure 1](#).



T-1-0555-A

Figure 1 Drive belt removal

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.28 Tray 3 Feed Sensor (W/O TAG 151)

Parts List on [PL 8.30](#)

### Removal



#### WARNING

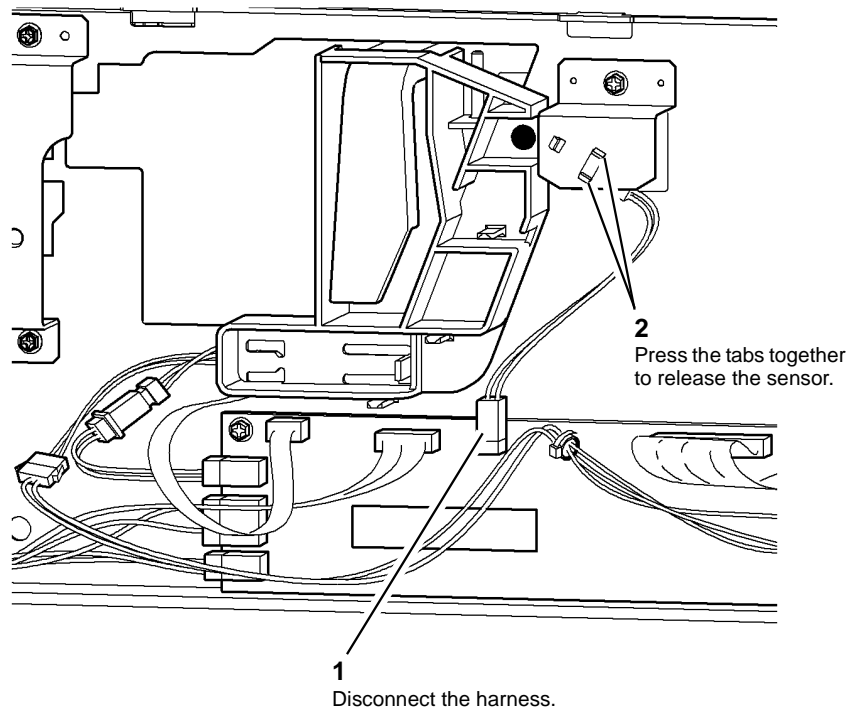
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull out Tray 3.
2. Remove the rear cover, [PL 7.25 Item 1](#).
3. Remove tray 3 feed sensor, [Figure 1](#).



T-1-0556-A

Figure 1 Sensor removal

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.29 Tray 3 Takeaway Roll Assembly (W/O TAG151)

Parts List on [PL 8.35](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 3 transport assembly, [REP 8.13](#).

2. Remove the jam clearance door, [Figure 1](#).

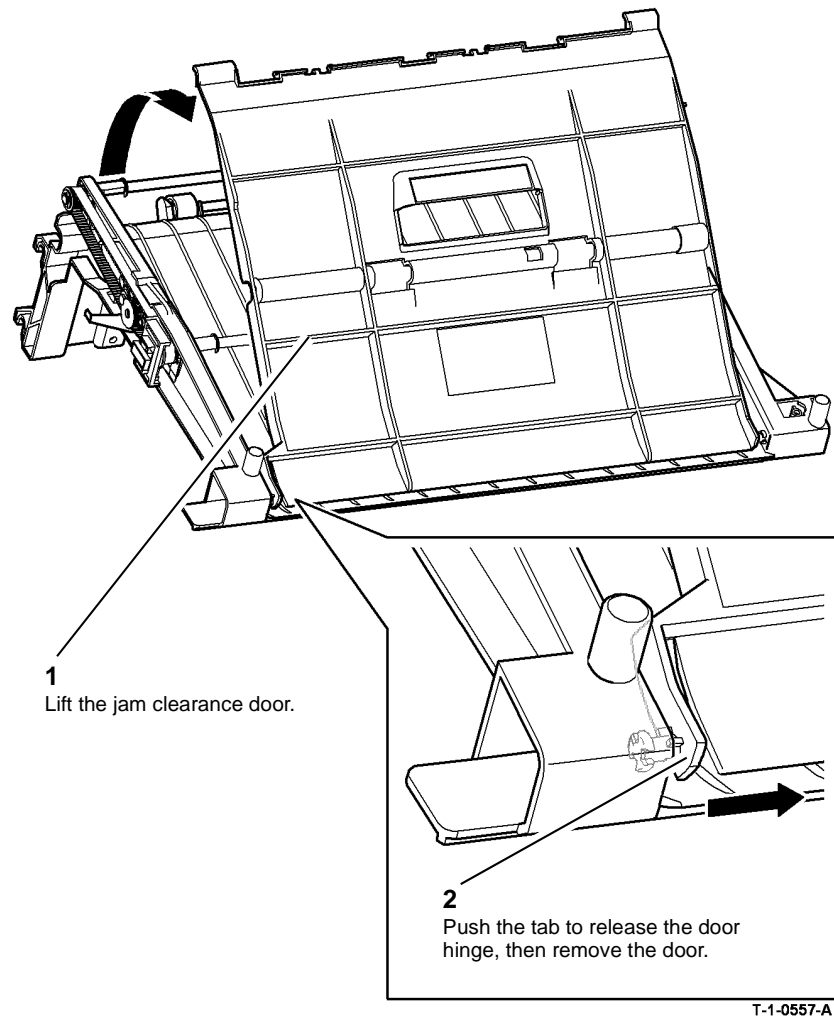


Figure 1 Door removal

3. Preparation to remove the transport roll assembly, [Figure 2](#).

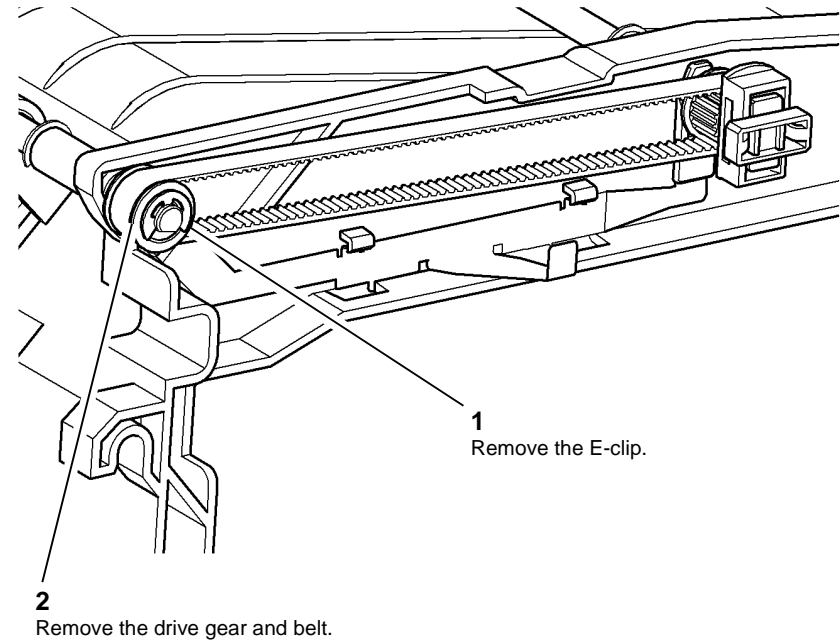
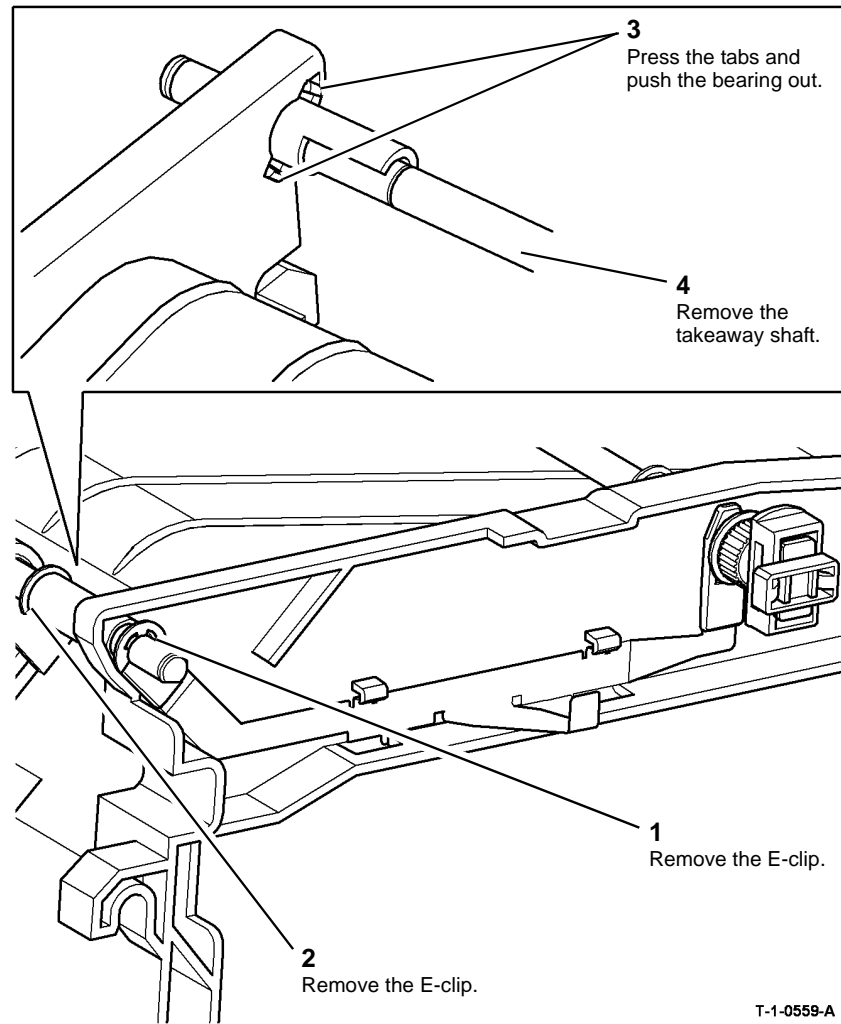


Figure 2 Preparation

T-1-0558-A

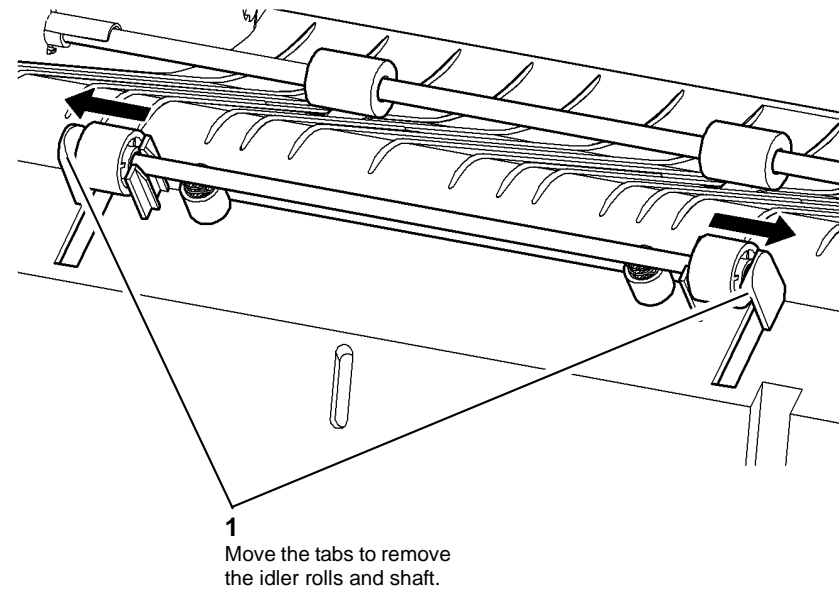


4. Remove the takeaway roll assembly, **Figure 3**.



**Figure 3 Takeaway shaft removal**

5. Remove the idler roll and shaft, **Figure 4**.



**Figure 4 Idler roll and shaft removal**

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.30 Tray 3 Transport Roll Assembly (W/O TAG 151)

Parts List on [PL 8.35](#)

### Removal

  
**WARNING**

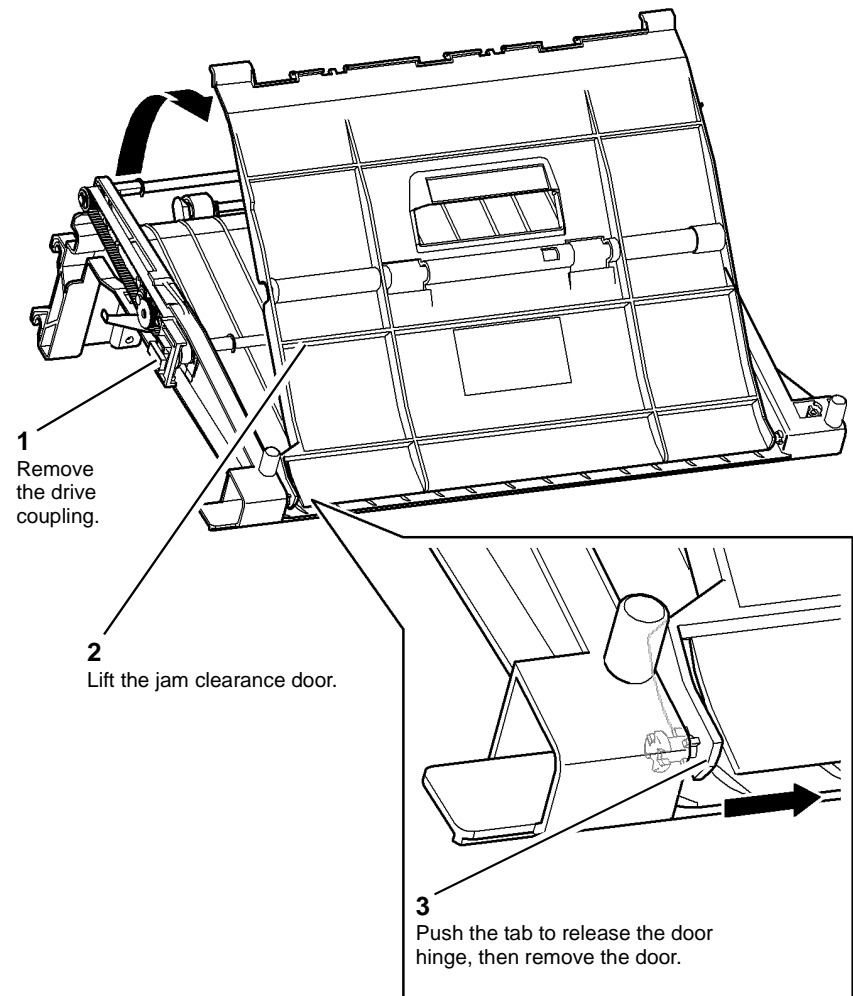
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 3 transport assembly, [REP 8.13](#).

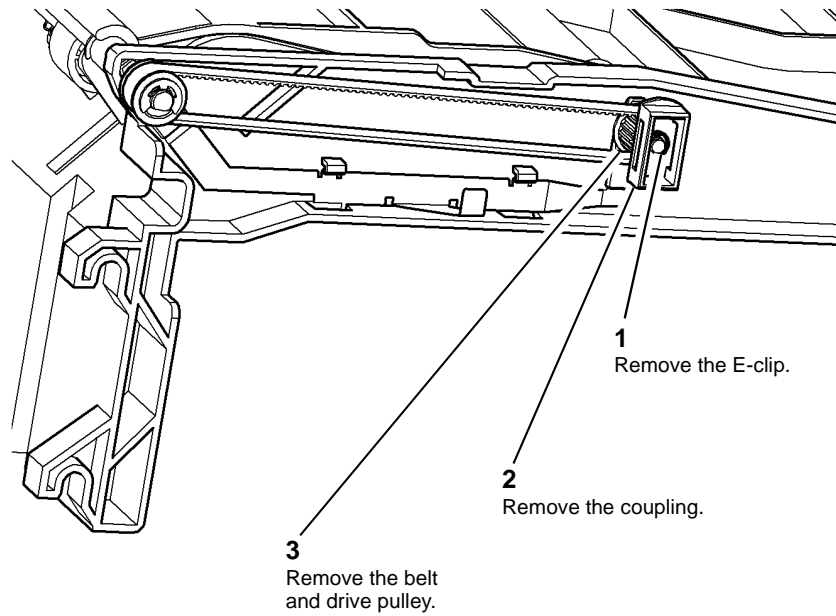
2. Remove the jam clearance door and drive coupling, [Figure 1](#).



T-1-0561-A

Figure 1 Door and coupling removal

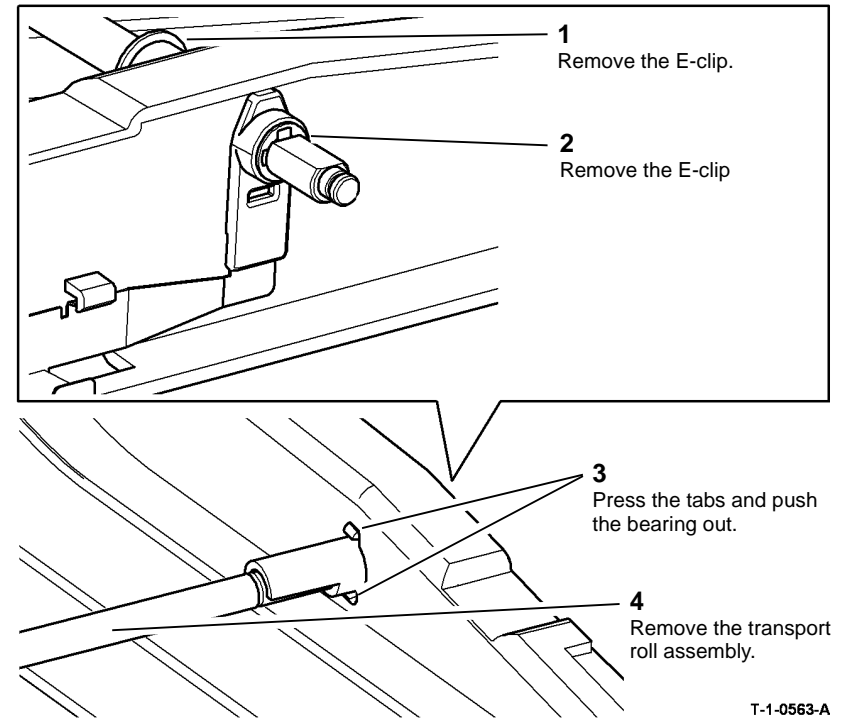
3. Prepare to remove the transport roll assembly, [Figure 2](#).



T-1-0562-A

**Figure 2 Preparation**

4. Remove the transport roll assembly, [Figure 3](#).



T-1-0563-A

**Figure 3 Transport roll removal**

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.31 Tray 3 and Tray 4 Transport Roll (W/O TAG 151)

Parts List on [PL 8.30](#)

### Removal

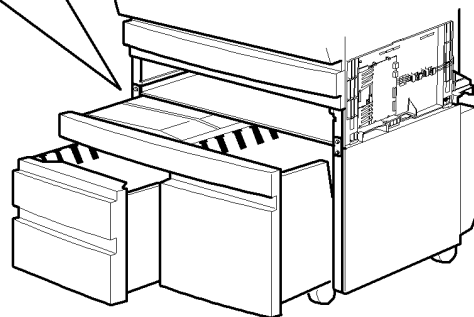
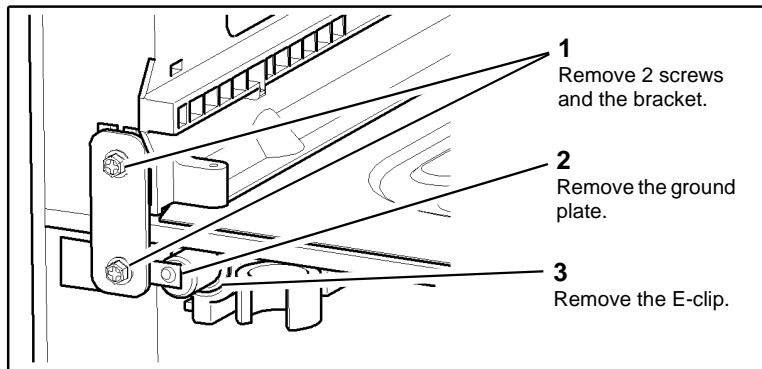


Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

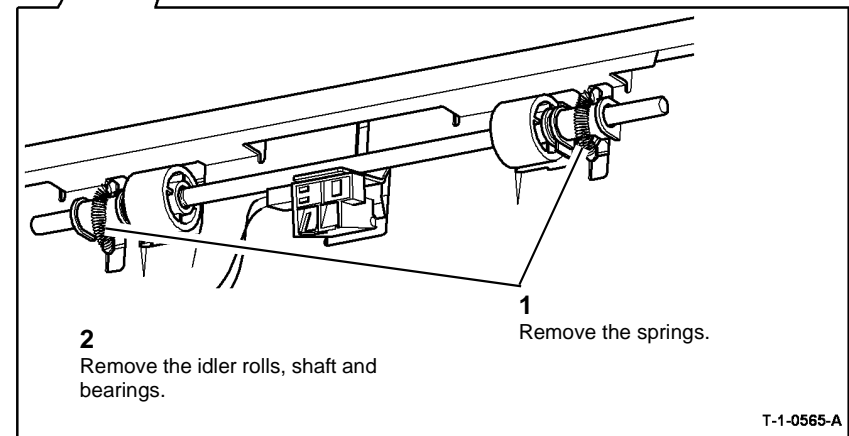
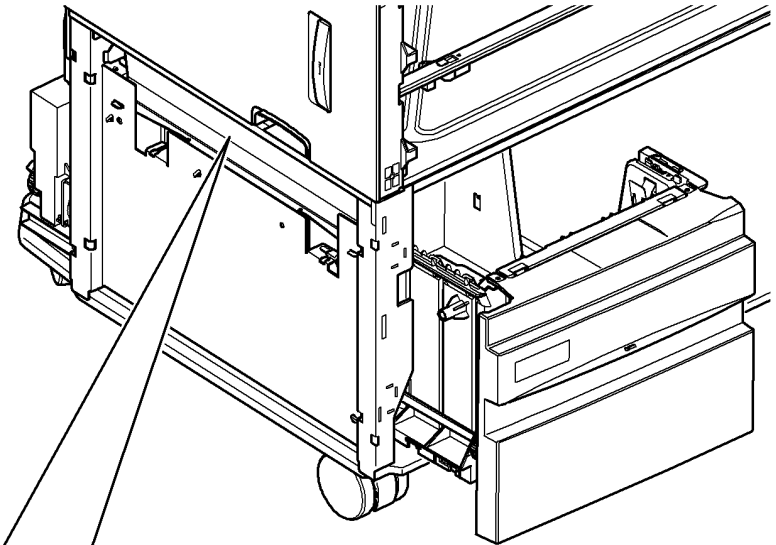
1. Remove tray 3 and tray 4 transport motor, [REP 8.10](#).
2. Remove Tray 3 and tray 4 transport drive gear, [REP 8.11](#).
3. Remove the left cover, [PL 7.25 Item 2](#).
4. Remove paper tray 2, [REP 7.1](#).
5. (35-55 ppm Only) Remove the ground plate, [Figure 1](#).



T-1-0564-A

Figure 1 Ground plate removal

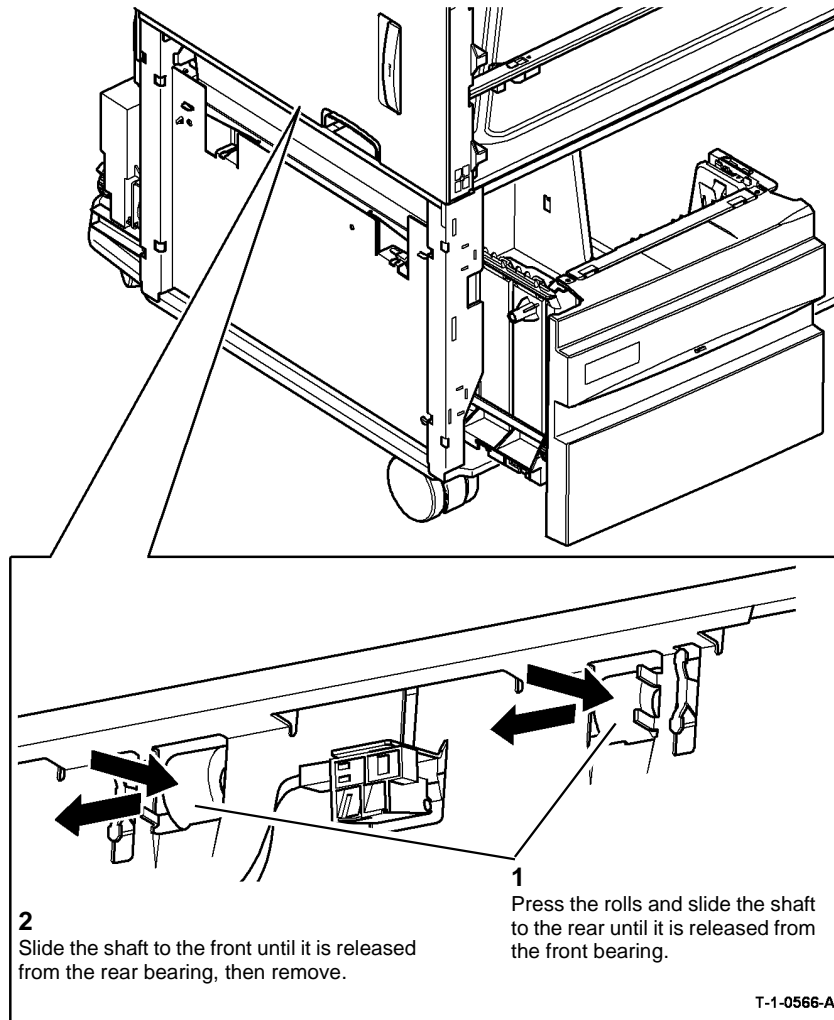
6. Remove tray 3, [REP 7.2](#).
7. Remove the idler shaft assembly, [Figure 2](#).



T-1-0565-A

Figure 2 Idler shaft removal

- Remove tray 3 and tray 4 transport roll, [Figure 3](#).

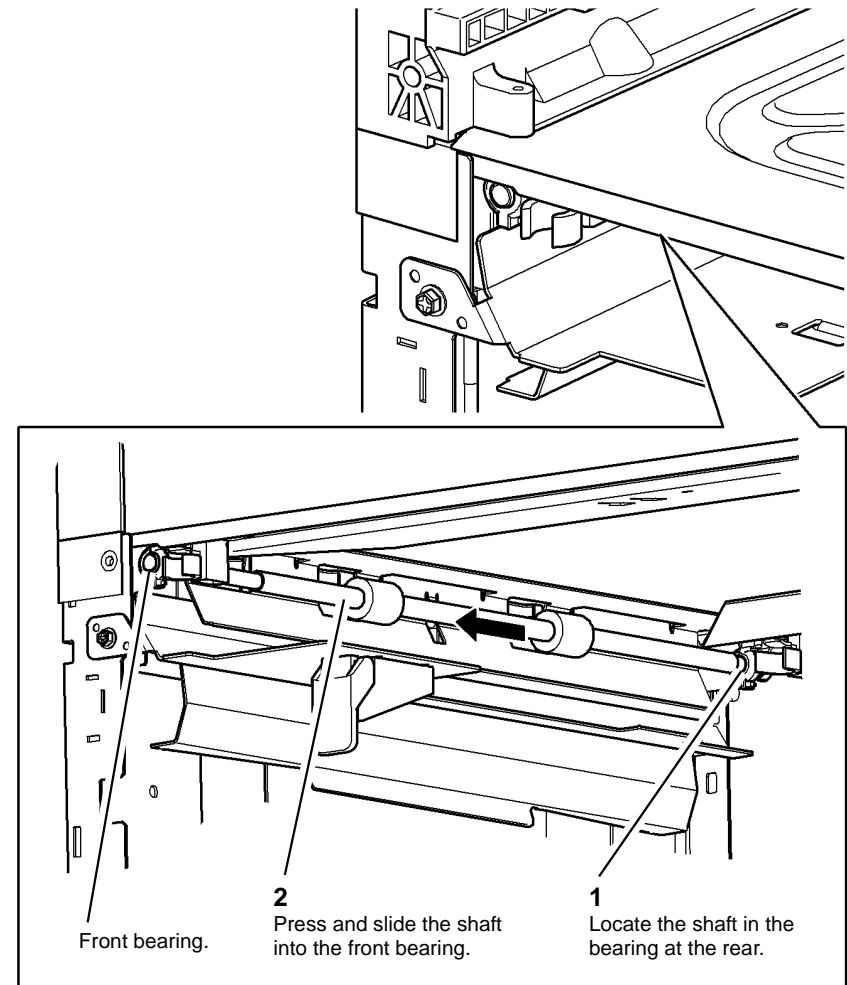


**Figure 3 Remove the transport roll**

## Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

- Install the tray 3 and tray 4 transport roll, [Figure 4](#)



**Figure 4 Install the transport roll**

- (35-55 ppm Only)** Ensure that the ground plate has contact with the transport roll shaft, refer to [Figure 1](#).
- If a new tray 3 and tray 4 transport roll is installed, reset the tray 3 / 4 trans count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.32 Duplex Sensor

Parts List on (35-55 ppm) [PL 8.22](#), (65-90 ppm) [PL 8.20](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### WARNING

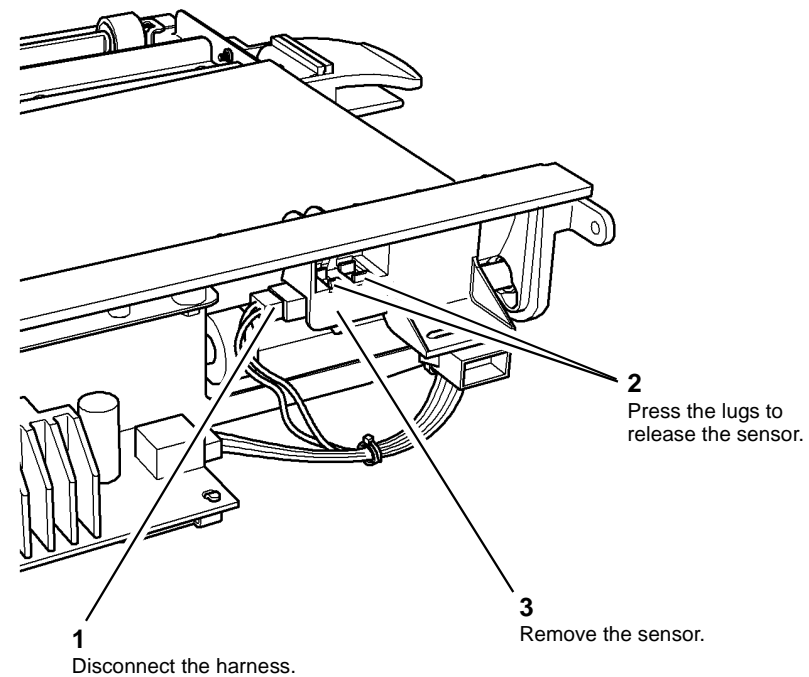
Take care during this procedure. Motors will become hot during normal operation.

1. Remove the duplex transport, [REP 8.7](#).

**NOTE:** The duct on the duplex transport is only on the 65 - 90 ppm machine.

2. Identify the speed of the machine and go to the appropriate procedure:

- a. (35-55 ppm). Remove the duplex sensor, [Figure 1](#).



T-1-0568-A

Figure 1 Duplex sensor (35-55 ppm)

- b. **(65-90 ppm)**. Remove the duct from the duplex transport. Remove a duplex sensor, [Figure 2](#).

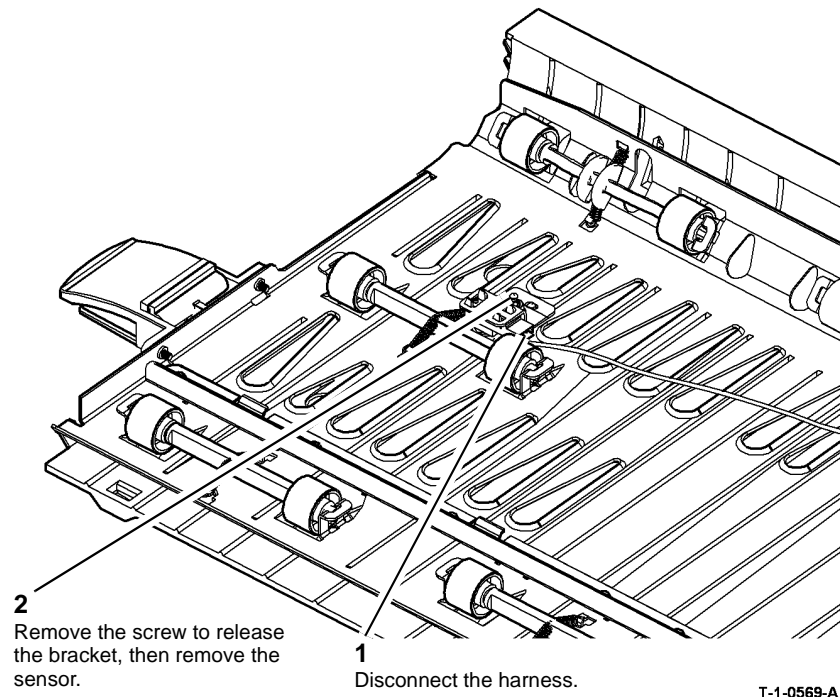


Figure 2 Duplex sensor (65-90 ppm)

T-1-0569-A

## Replacement

1. The replacement is the reverse of the removal procedure.
2. If a new duplex sensor is installed, reset the duplex sensor count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.
3. **(65-90 ppm)**. Check that the tension spring is located correctly on the upper transport guide. Install the duct on the duplex transport. Check that the sensor wires pass through the cut-out in the duct and are not caught under the duct. [Figure 3](#).

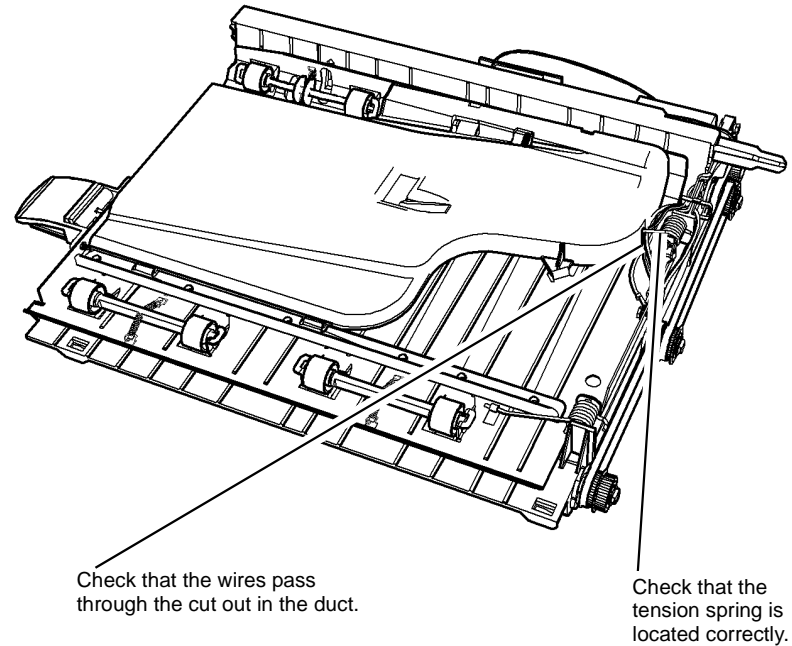


Figure 3 Duplex transport duct

T-1-0570-A

## REP 8.33 Tray 5 Transport Drive Belt

Parts List on [PL 8.40](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 7.60 Item 9](#).
2. Prepare to remove the drive belt, [Figure 1](#).

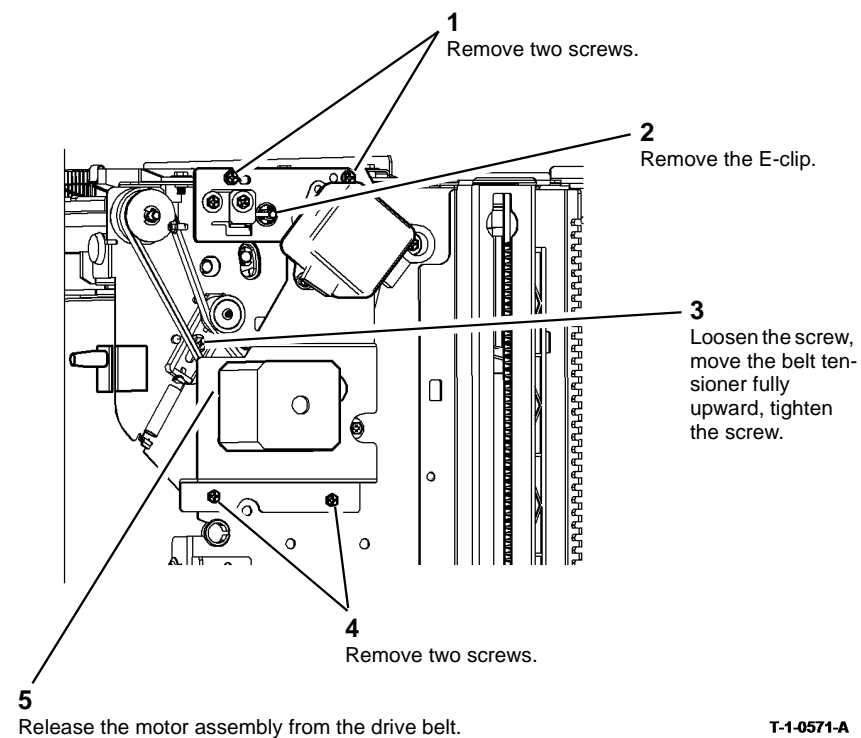


Figure 1 Preparation

3. Remove the transport drive belt, [Figure 2](#).

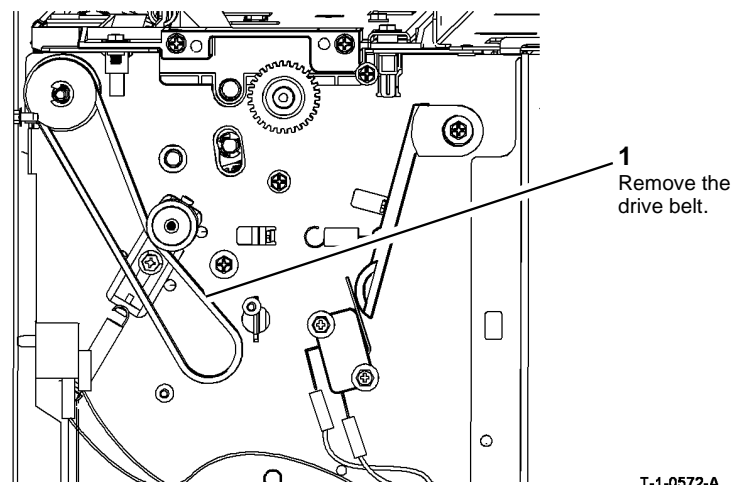


Figure 2 Drive belt removal

### Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Allow the tension idler to tension the belt and then tighten the screw, [Figure 1](#).



## REP 8.34 Tray 5 Feed Rolls

Parts List on [PL 8.45](#)

### Removal



#### WARNING

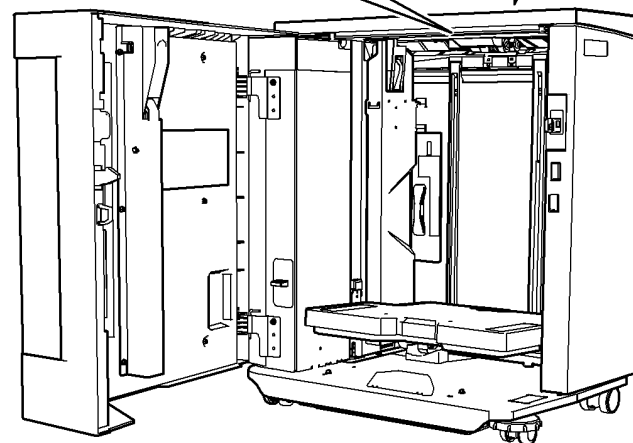
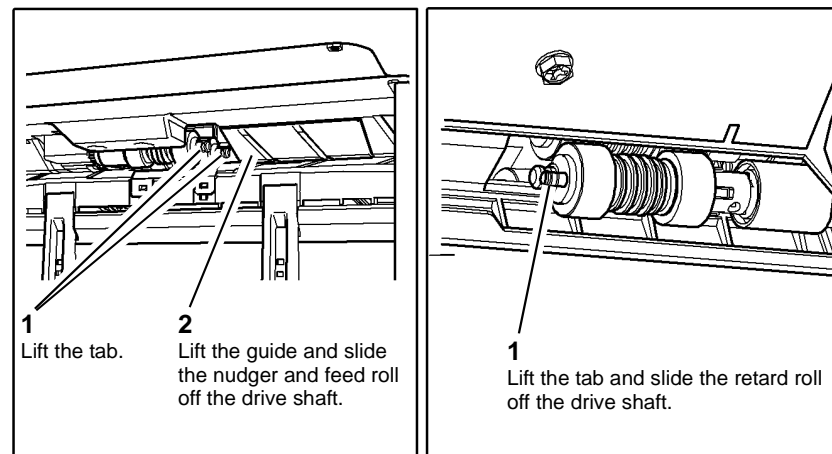
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the tray 5 door and allow the tray to move down.
2. Remove the nudger and the feed roll from the front. Slide the tray 5 module away from the machine and remove the retard roll, [Figure 1](#).



T-1-0573-A

Figure 1 Feed rolls removal

### Replacement

**NOTE:** The feed, retard and nudger rolls W/O [TAG P-002](#) are no longer available as spare parts. If new rolls are required the only option is to install the feed roll retrofit kit W/[TAG P-002](#), [PL 8.45 Item 22](#).

1. The replacement is the reverse of the removal procedure.
2. Ensure that the tabs on the feed roll are located in the drive shaft.
3. Check the registration, refer to [dC604 Registration Setup Procedure](#).
4. If a new nudger, feed and retard roll are installed, reset the tray 5 feeds count to zero in the HFSI feature screen. Refer to [GP 17 High Frequency service Items](#).

## REP 8.35 Tray 1 and Tray 2 Feed Rolls

Parts List on [PL 8.26](#)

### Removal



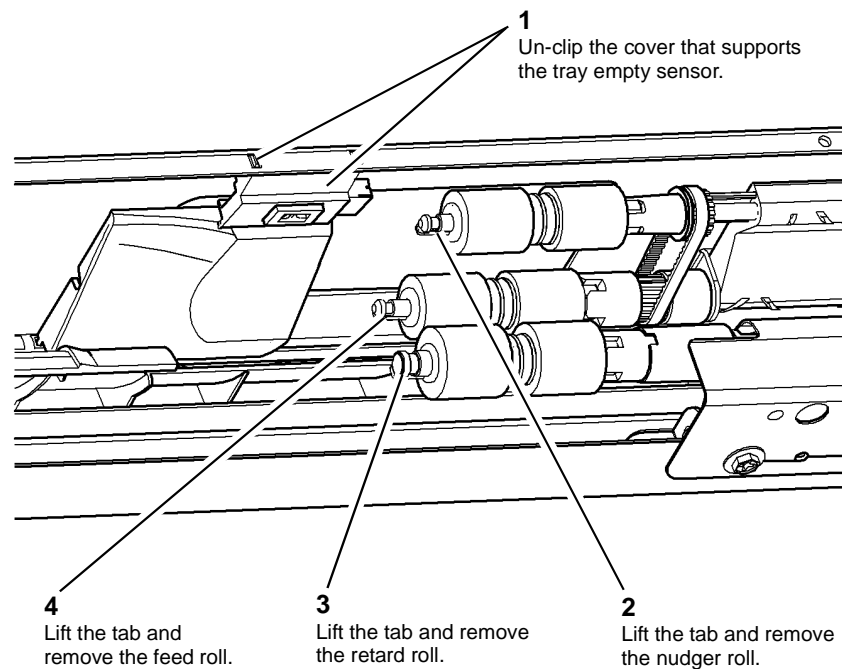
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 1 or tray 2 as required, [REP 8.1](#).
2. Remove tray 1 or tray 2 feed rolls, [Figure 1](#).

**NOTE:** The removal procedure is the same for tray 1 or tray 2. The feed and nudger rolls are the same diameter but the retard roll has a larger diameter.



T-1-0574-A

Figure 1 Feed rolls removal

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Make sure that the tabs on the feed roll are located in the drive shaft.
3. Check that the tray empty sensor is located in the cover and that the cover is located correctly and secure on the feeder frame.
4. Check the registration, refer to [dC604](#) Registration Setup Procedure.
5. When new feed rolls are installed, reset tray 1 or tray 2 Feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.36 Tray 5 Feed Motor

Parts List on [PL 8.40](#)

### Removal

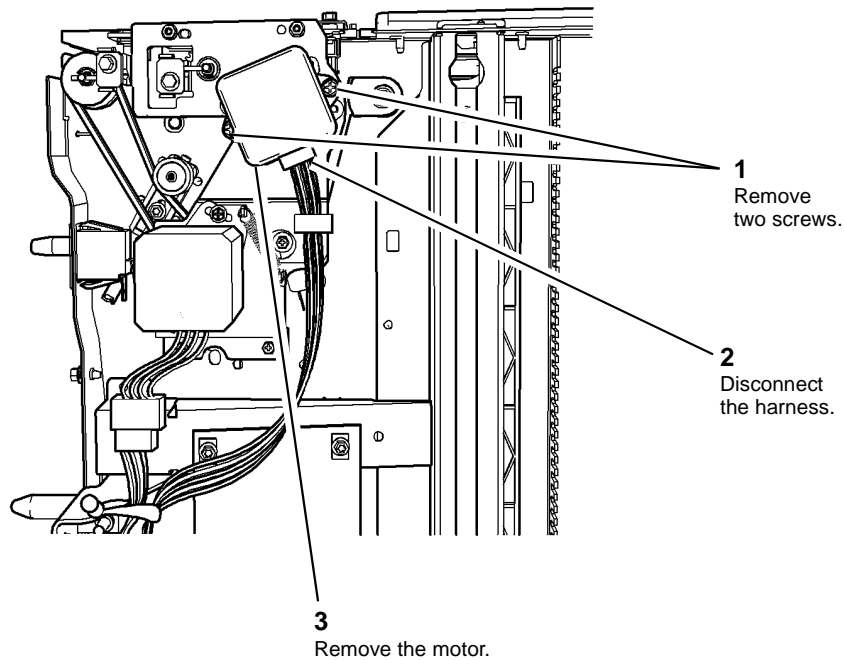
  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 7.60 Item 9](#).
2. Remove tray 5 feed motor, [Figure 1](#).



T-1-0575-A

Figure 1 Feed motor removal

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 8.37 Tray 5 Transport motor

Parts List on [PL 8.40](#)

### Removal

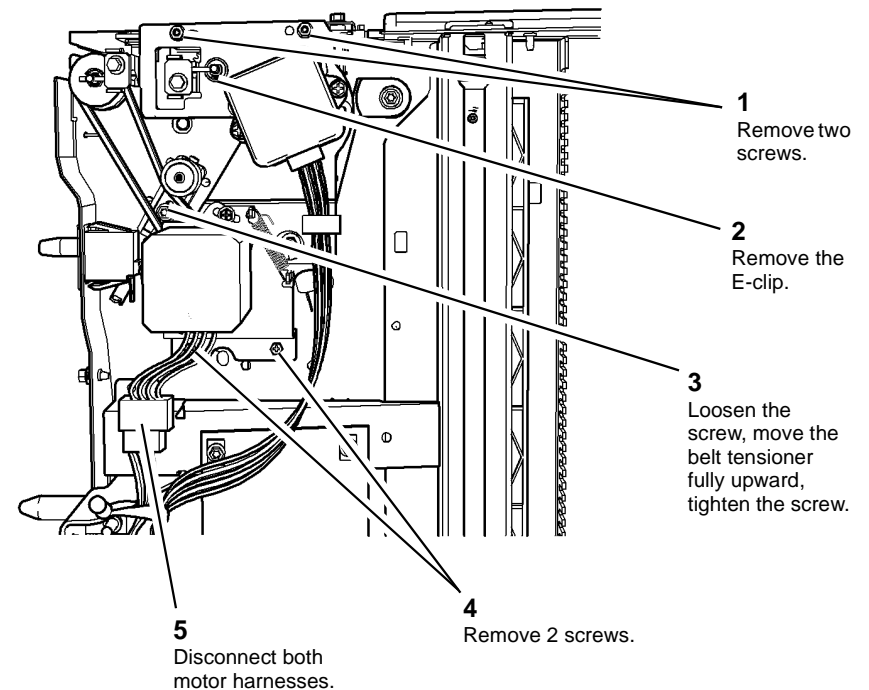
  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 7.60 Item 9](#).
2. Remove the drives plate, [Figure 1](#).



T-1-0576-A

Figure 1 Drives plate removal

3. Remove tray 5 transport motor, [Figure 2](#).

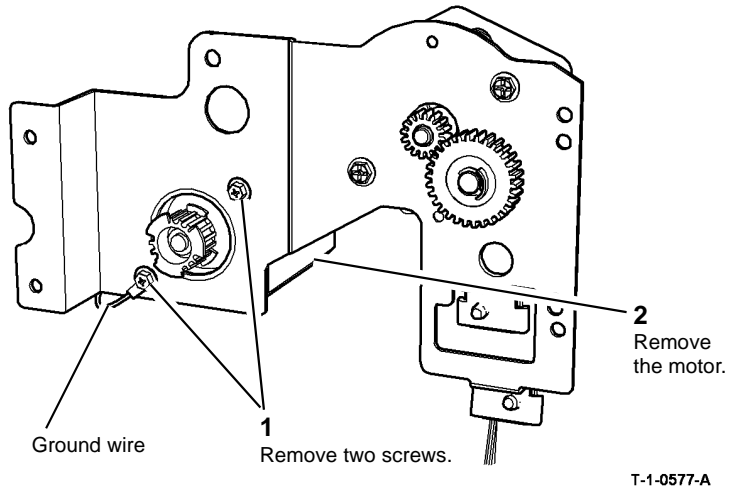


Figure 2 Transport motor removal

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Ensure that the ground wire terminal is located under the motor securing screw, [Figure 2](#).

## REP 8.38 Tray 5 Takeaway Roller

Parts List on [PL 8.45](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 7.60 Item 9](#).
2. Remove the top cover, [PL 7.60 Item 10](#)
3. Remove the transport drive belt, [REP 8.33](#).
4. Prepare to remove the lower feed assembly, [Figure 1](#).

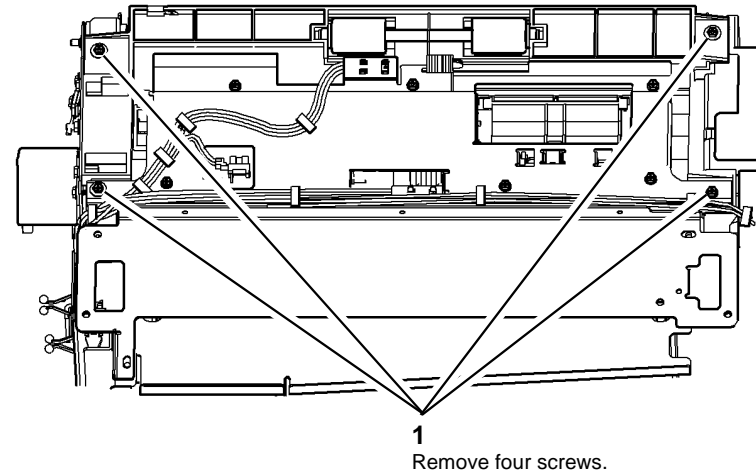
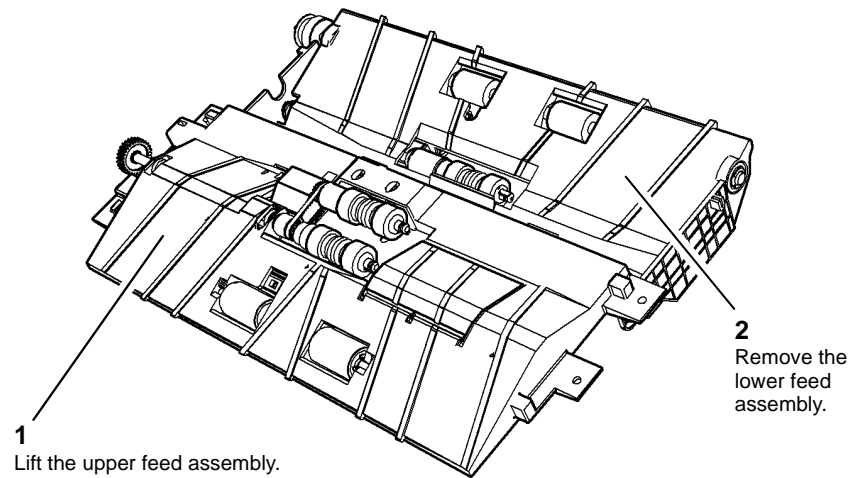


Figure 1 Preparation

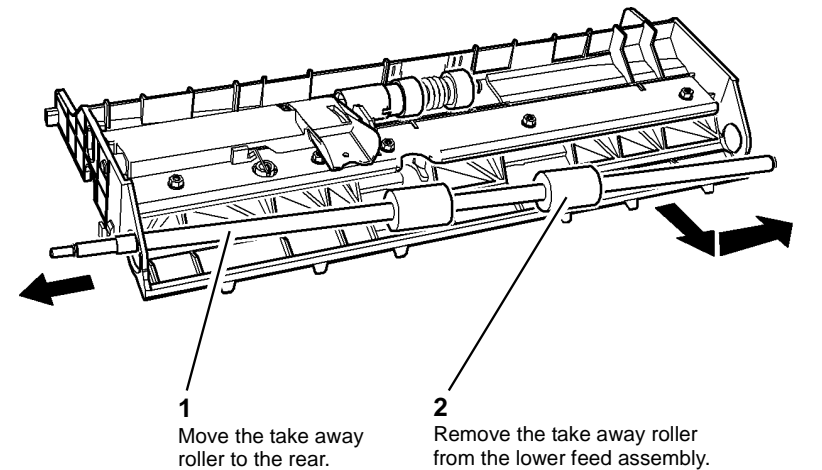
5. Remove the lower feed assembly, [Figure 2](#).



T-1-0579-A

**Figure 2 Lower feed removal**

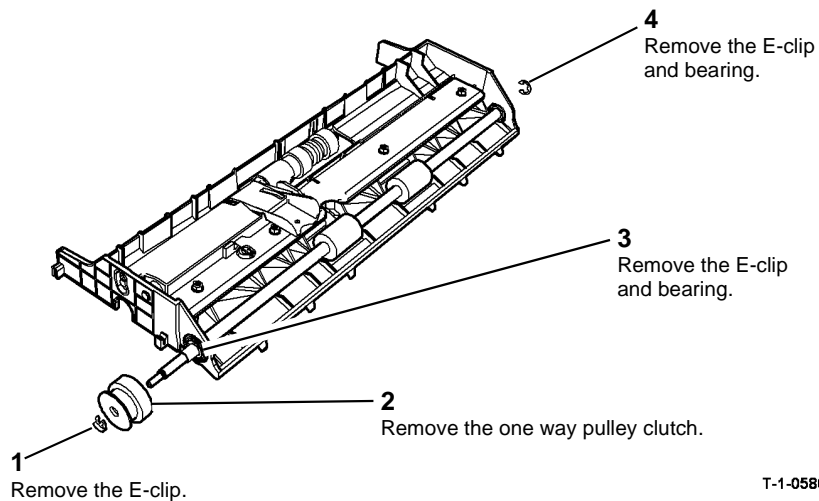
7. Remove the takeaway roller, [Figure 4](#).



T-1-0581-A

**Figure 4 Takeaway roller removal**

6. Remove components, [Figure 3](#).



T-1-0580-A

**Figure 3 Components removal**

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Check that the cable routing is correct, [Figure 1](#)

## REP 8.39 Tray 1 and Tray 2 Retard Roll Friction Clutch

Parts List on [PL 8.26](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the retard roll, [REP 8.35](#).
2. Remove the clutch coupling, [PL 8.26 Item 13](#).
3. Remove the friction clutch, [PL 8.26 Item 2](#).

### Replacement

1. The replacement is the reverse of the removal procedure.

## REP 8.40 Tray 3 Paper Feed Assembly (W/TAG 151)

Parts List on [PL 8.32](#).

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

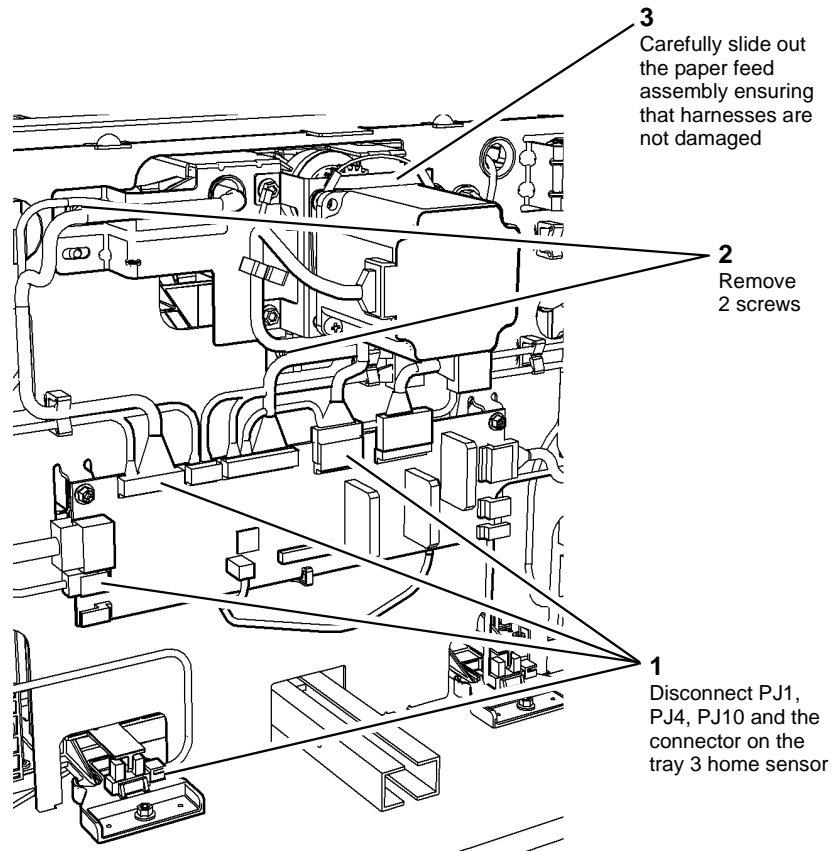


#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull out tray 3.
2. Remove the rear cover, [PL 7.25 Item 1](#).

3. Remove the paper feed assembly, [Figure 1](#).

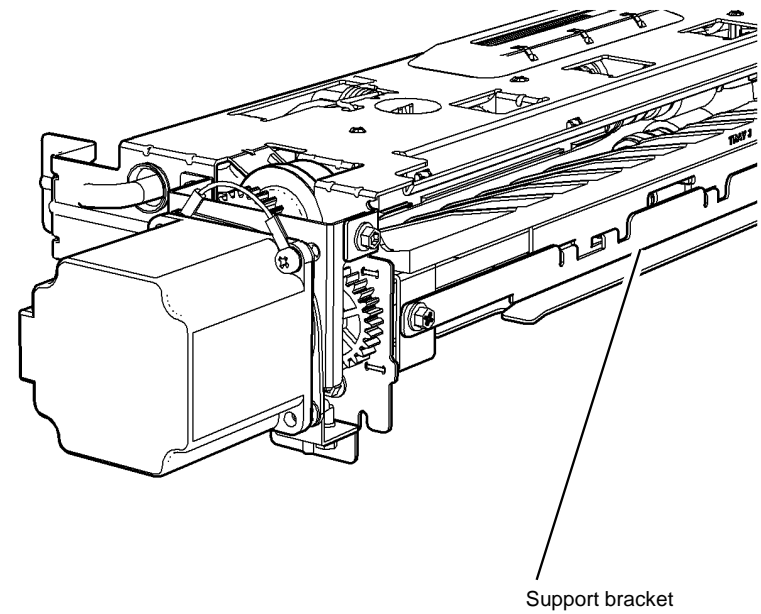


**Figure 1 Feed assembly removal**

T-1-1170-A

## Replacement

1. Ensure the support bracket is present on the tray 3 paper feed assembly, [Figure 2](#).



**Figure 2 Support bracket**

T-1-1171-A

2. Install the paper feed assembly, [Figure 3](#).

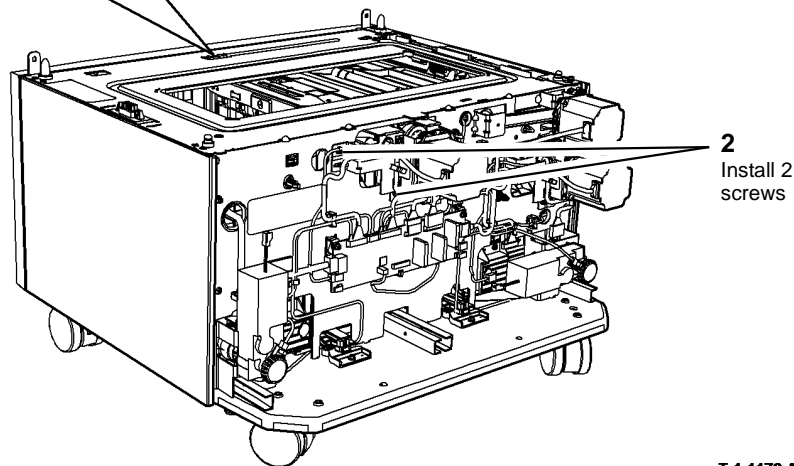
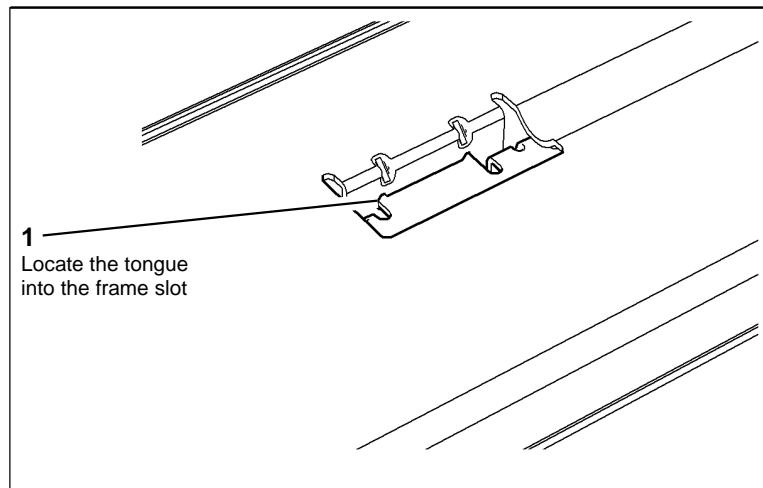


Figure 3 Feed assembly installation

3. Ensure that the tray slide at the rear right of the tray 3 transport assembly, straddles the support bracket when the paper feed assembly is replaced.
4. Push tray 3 in slowly and check that the tray does not foul the paper feed assembly.
5. Connect the four PJs, refer to [Figure 1](#).
6. The remainder of the replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
7. If a new paper feed assembly has been installed, reset the tray 3 feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency Service Items.

## REP 8.41 Tray 4 Paper Feed Assembly (W/TAG 151)

Parts List on [PL 8.33](#).

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

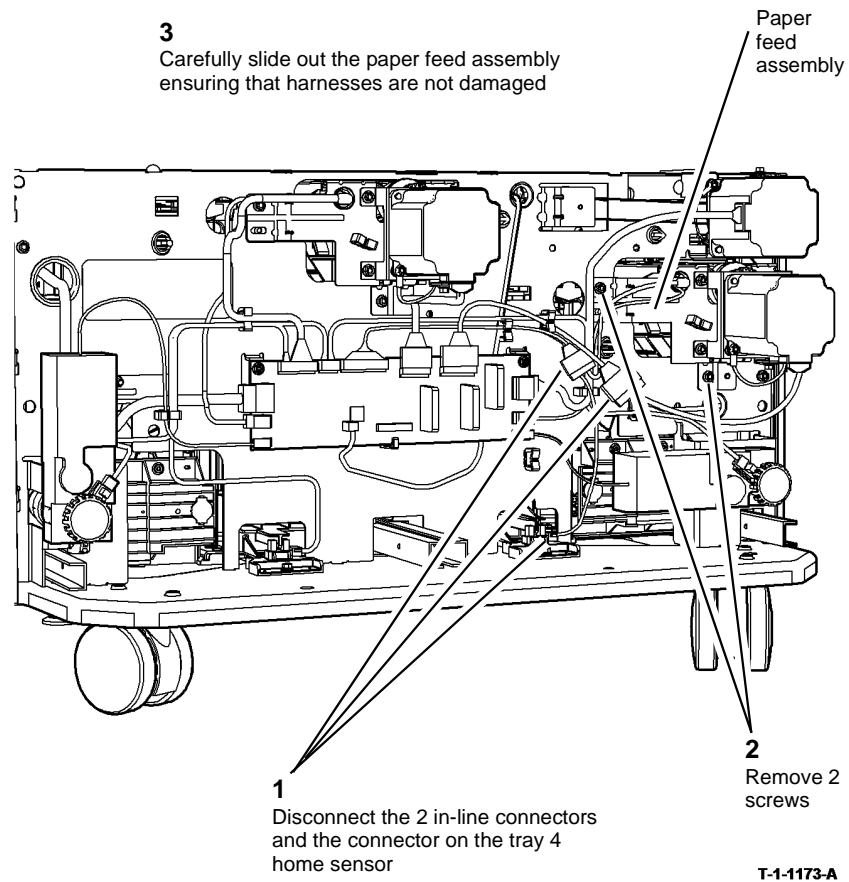


Take care during this procedure. Sharp edges may be present that can cause injury.

1. Pull out tray 4.
2. Remove the rear cover, [PL 7.25 Item 1](#).



- Remove the paper feed assembly, [Figure 1](#).

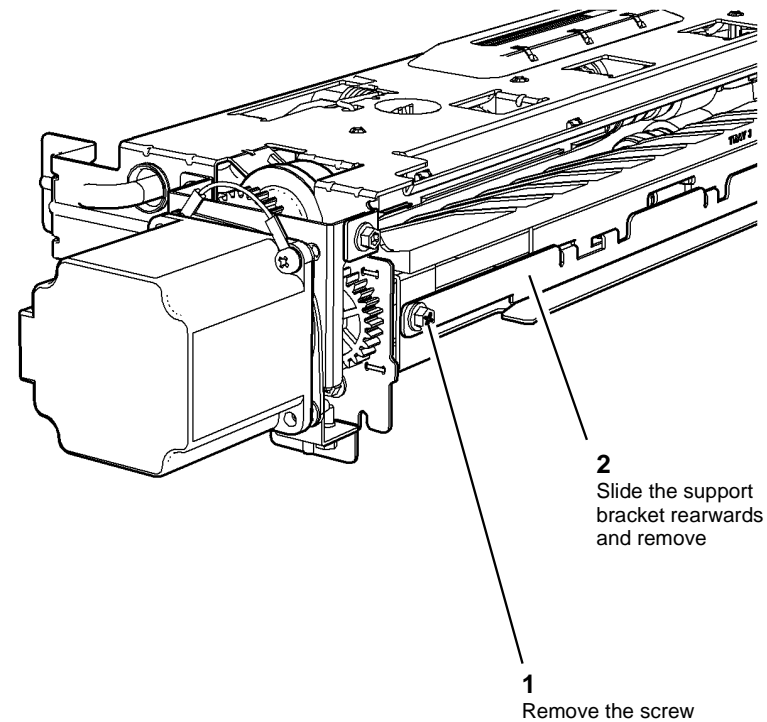


**Figure 1 Feed assembly removal**

## Replacement

**NOTE:** New paper feeder assemblies come ready configured for use in tray 3. When a new tray 4 paper feeder is required, follow the steps below.

- If a new tray 4 paper feed assembly is being installed, perform steps 2 to 9. If the old tray 4 paper feed assembly is being re-installed, perform steps 5 to 9.
- Remove the support bracket, [Figure 2](#).



**Figure 2 Support bracket removal**

- Remove the tray 3 paper guide, [REP 8.55](#).
- Install the tray 4 paper guide, [REP 8.56](#).

5. Install the paper feed assembly, [Figure 3](#).

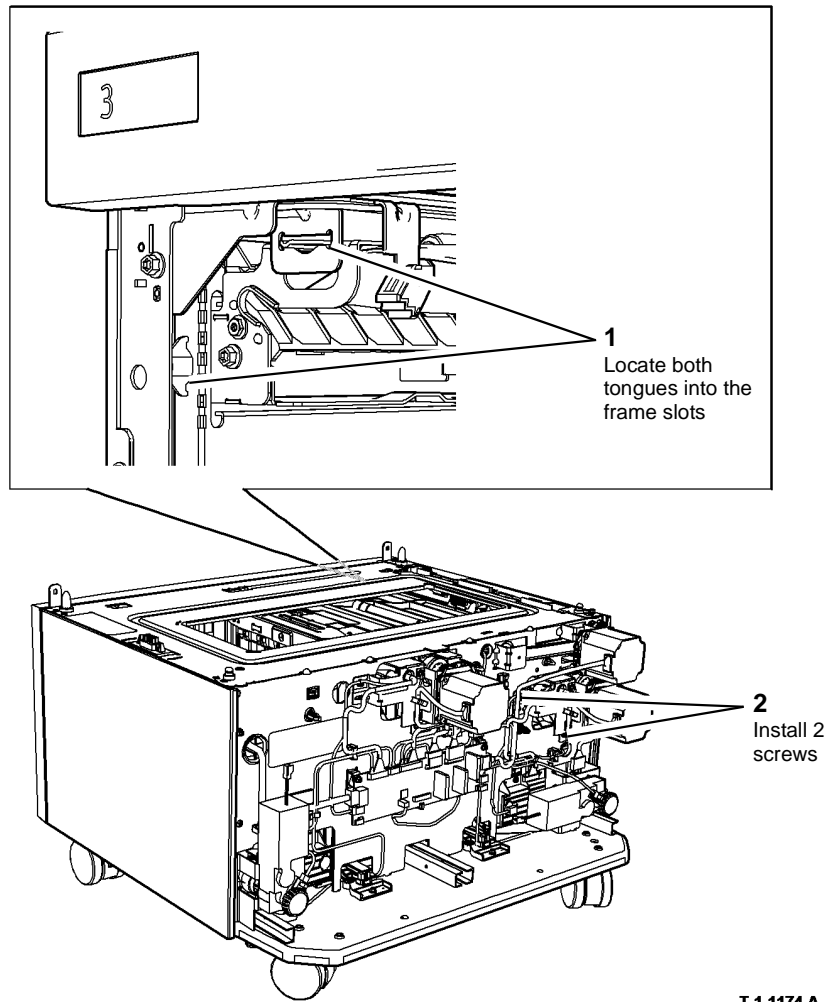


Figure 3 Feed assembly installation

6. Push tray 4 in slowly and check that the tray does not foul the paper feed assembly.
7. Connect the four PJs, refer to [Figure 1](#).
8. The remainder of the replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
9. If a new paper feed assembly has been installed, reset the tray 4 feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 8.42 HCF Transport Motor (W/TAG 151)

Parts List on [PL 8.36](#).

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove HCF rear cover, [PL 7.25](#) Item 1.

- Remove the HCF transport motor, [Figure 1](#).

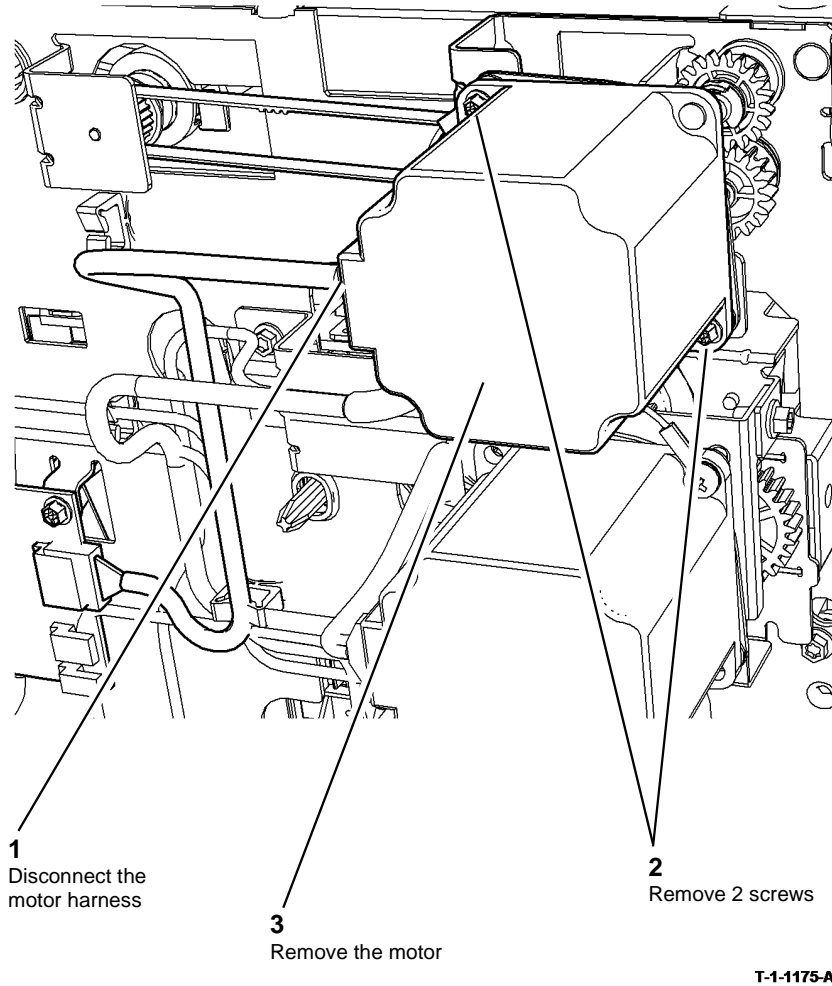


Figure 1 Transport motor removal

### Replacement

- Replacement is the reverse of the removal procedure. Ensure the at the ground wire is installed between the motor and the frame.

## REP 8.43 Tray 3 Transport Gear Pulley (W/TAG 151)

Parts List on [PL 8.36](#).

### Removal

**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the rear cover, [PL 7.25 Item 1](#).
- Remove the HCF transport motor (W/TAG 151), [REP 8.42](#).
- Remove the tray 3 transport gear pulley, [Figure 1](#).

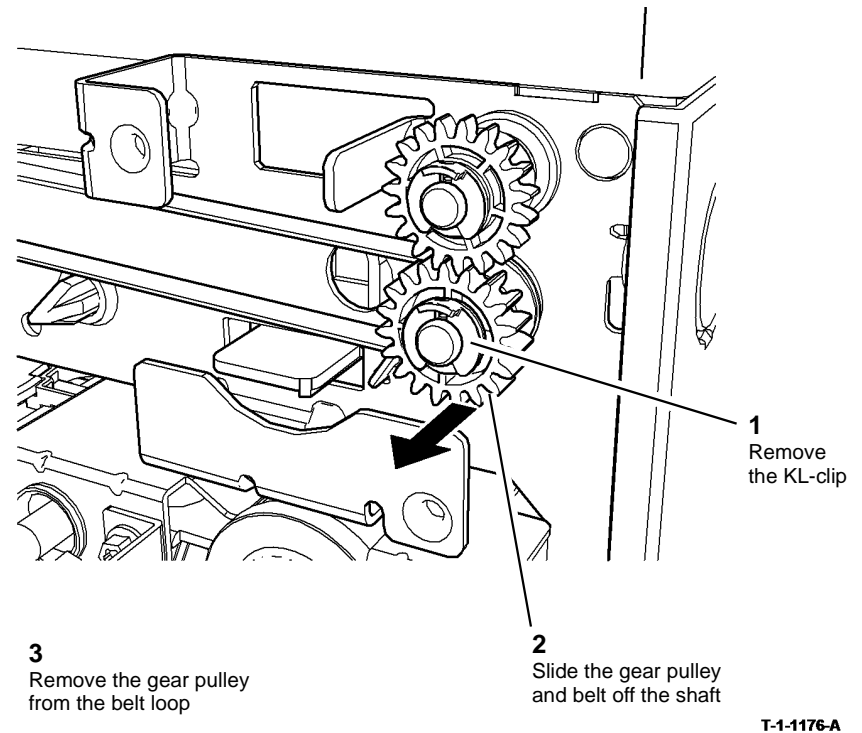
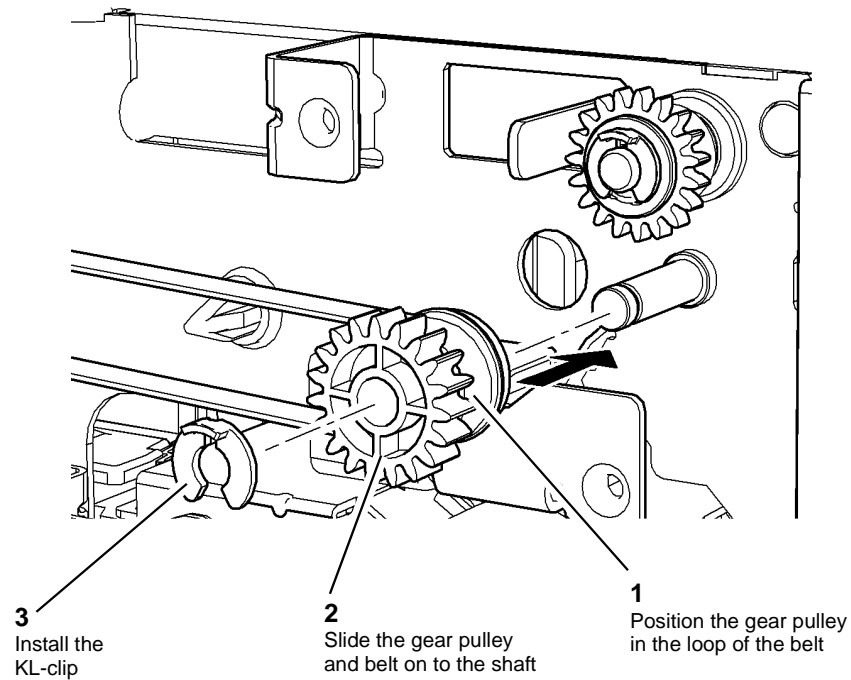


Figure 1 Transport gear removal

## Replacement

1. Install the tray 3 and tray 4 transport gear pulley, [Figure 2](#).



T-1-1177-A

Figure 2 Drive belt installation

2. The remainder of the replacement is the reverse of the removal procedure.

## REP 8.44 Tray 3 Transport Assembly (W/TAG 151)

Parts List on [PL 8.36](#).

### Removal

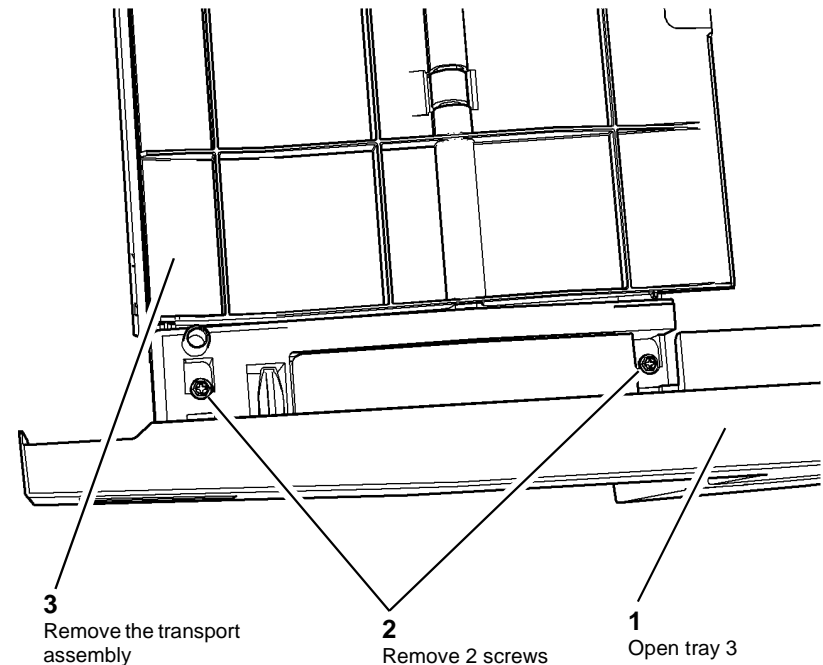


Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 3 transport assembly, [Figure 1](#).



T-1-1178-A

Figure 1 Transport assembly removal

### Replacement

1. Ensure that the tray slide at the rear right of the tray straddles the support bracket when the tray is replaced.
2. The remainder of the replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 8.45 Tray 3 Exit Sensor (W/TAG 151)

Parts List on [PL 8.32](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tray 3 assembly and the tray 4 assembly, [REP 7.22](#).
2. Remove tray 3 exit sensor, [Figure 1](#).

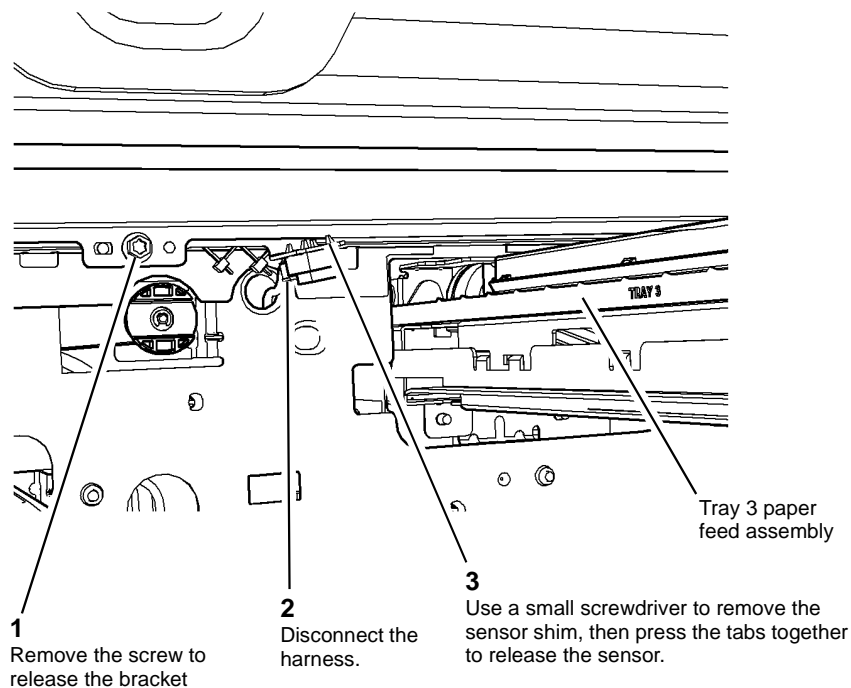


Figure 1 Tray 3 feed sensor removal

T-1-1179-A

### Replacement

Replacement is the reverse of the removal procedure. Install a new sensor shim to lock the sensor in place.

## REP 8.46 Tray 3 Takeaway Roll Assembly (W/TAG151)

Parts List on [PL 8.36](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove tray 3 transport assembly, [REP 8.44](#).
2. Remove the jam clearance door, [Figure 1](#).

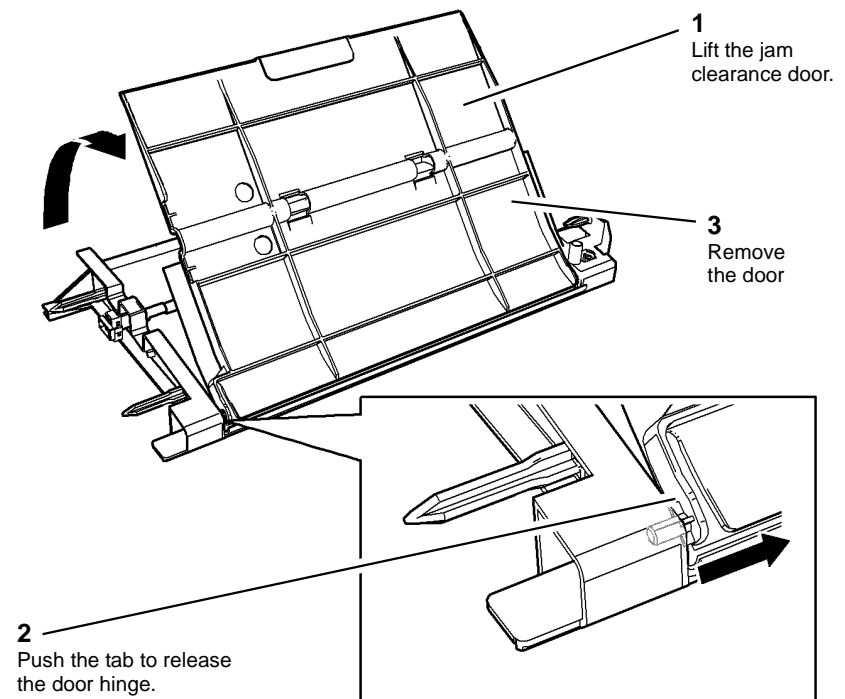


Figure 1 jam clearance door removal

T-1-1180-A

3. Remove the takeaway roll assembly, [Figure 2](#).

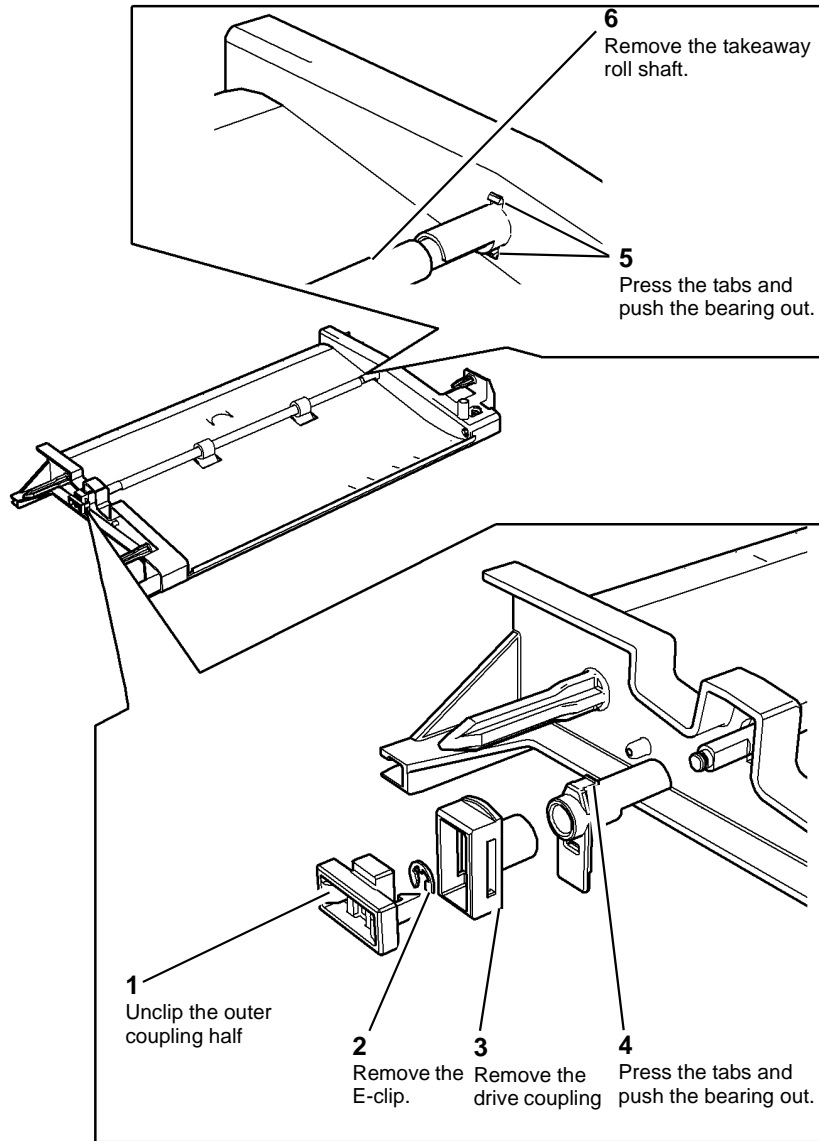


Figure 2 Takeaway roll removal

T-1-1181-A

4. If required remove the tray 3 transport brace, [Figure 3](#), and the idler rolls, [Figure 4](#).

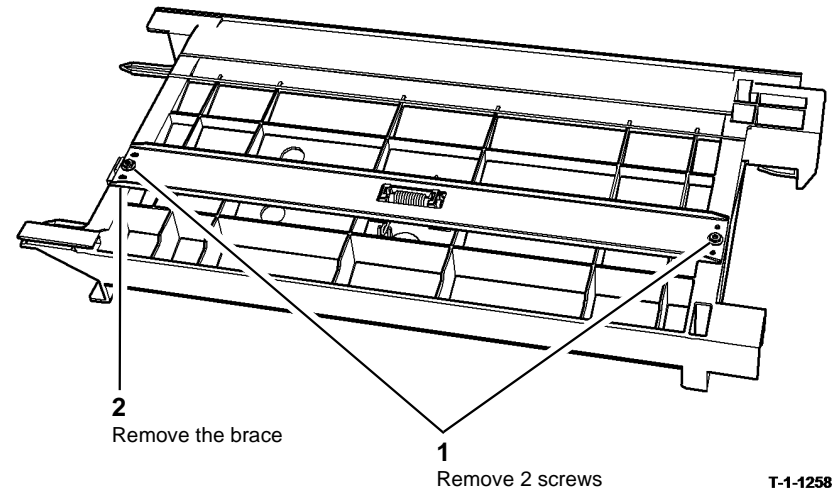


Figure 3 Brace removal

T-1-1258-A

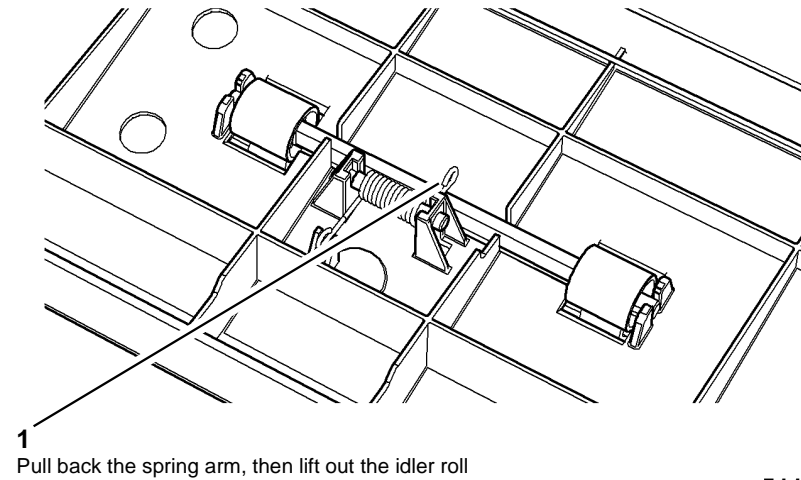


Figure 4 Idler rolls removal

T-1-1182-A

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.47 Tray 3 and Tray 4 Transport Roll (W/TAG 151)

Parts List on [PL 8.32](#).

### Removal



#### WARNING

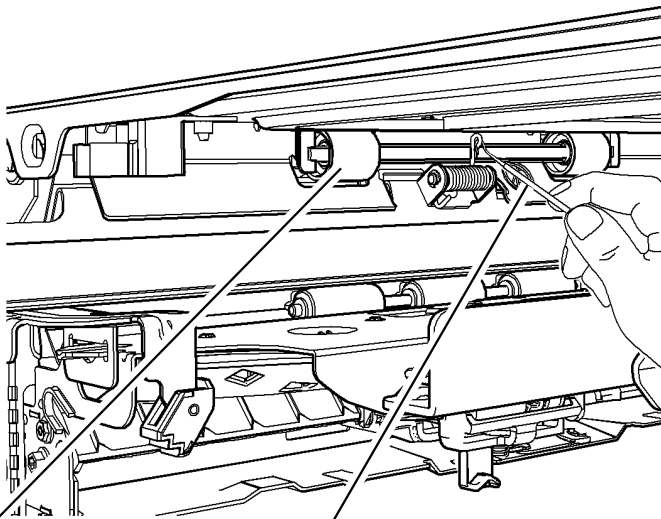
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the left cover, [PL 7.25 Item 2](#).
2. Remove tray 3 and tray 4, [REP 7.22](#).
3. Remove the HCF transport motor (W/TAG 151), [REP 8.42](#).
4. Remove the idler shaft assembly, [Figure 1](#).



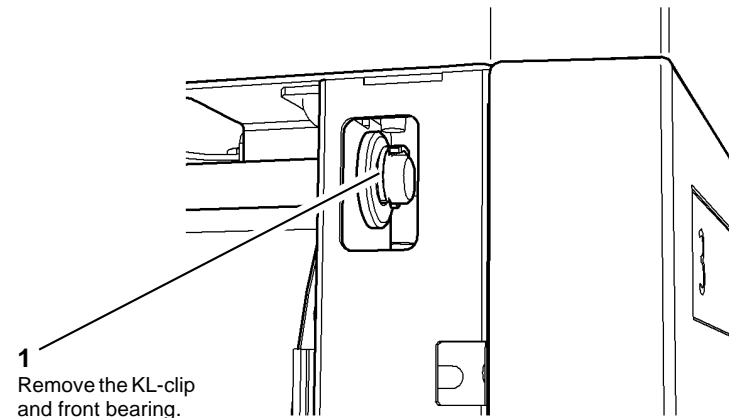
2  
Remove the idler roll assembly

1  
Use a spring hook to pull the spring leg away from the idler shaft

T-1-1183-A

Figure 1 Idler shaft removal

5. Prepare to remove the tray 3 and tray 4 transport roll, [Figure 2](#).



1  
Remove the KL-clip and front bearing.

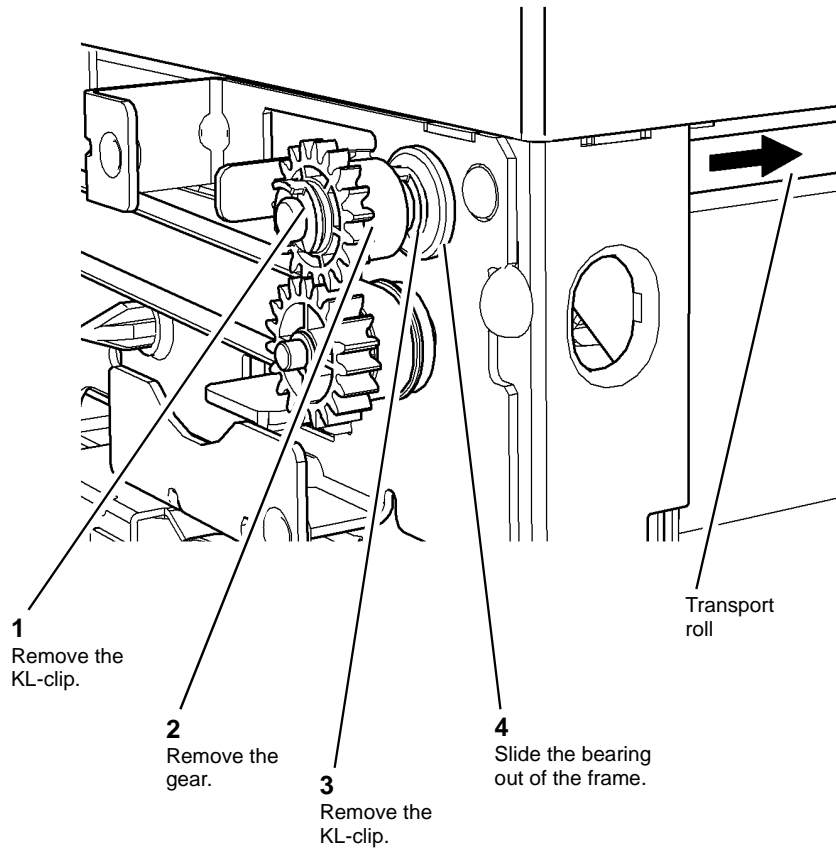
T-1-1184-A

Figure 2 Preparation

6. Remove the tray 3 and tray 4 transport roll, [Figure 3](#).

**6**  
Slide the transport roll to the front and remove.

**5**  
Slide the transport roll to the rear to release the roll from the front of the frame.



T-1-1185-A

Figure 3 Transport roll removal

## Replacement

**!**  
**CAUTION**

*When installing the gear on the shaft, take care not to damage the one-way clutch in the centre of the gear.*

**!**  
**CAUTION**

*Before tightening the motor screws, adjust the position of the motor so that there is a very small amount of backlash between the gears.*

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. If a new transport roll has been installed, reset the tray 3/4 feeds count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.



## REP 8.48 Tray 3 Stack Height Sensor (W/TAG 151)

Parts List on [PL 8.32](#)

### Removal



#### WARNING

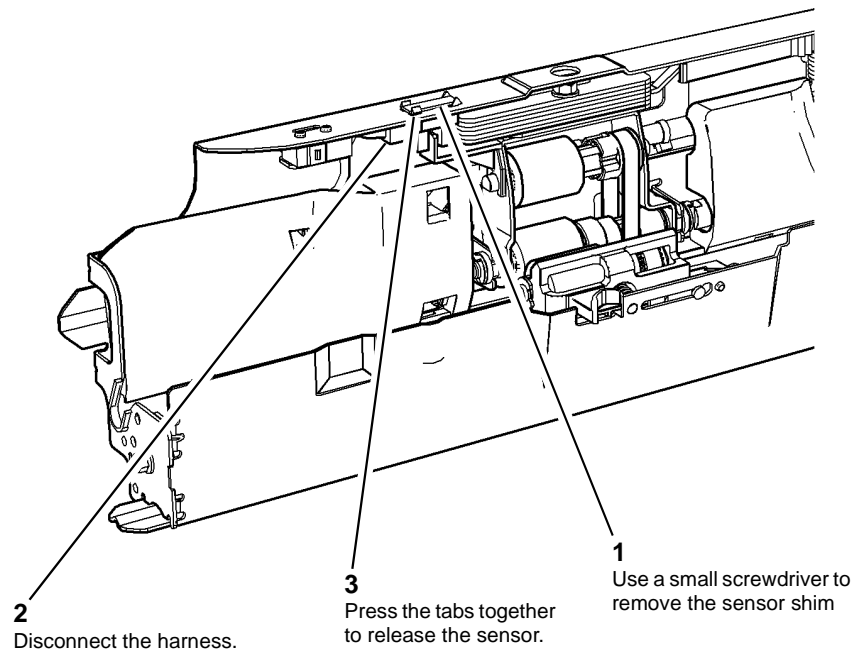
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tray 3 paper feed assembly, [REP 8.40](#).
2. Remove tray 3 stack height sensor, [Figure 1](#).



T-1-1186-A

Figure 1 Sensor removal

### Replacement

Replacement is the reverse of the removal procedure. Install a new sensor shim to lock the sensor in place.

## REP 8.49 Tray 3 Empty Sensor (W/TAG 151)

Parts List on [PL 8.32](#)

### Removal



#### WARNING

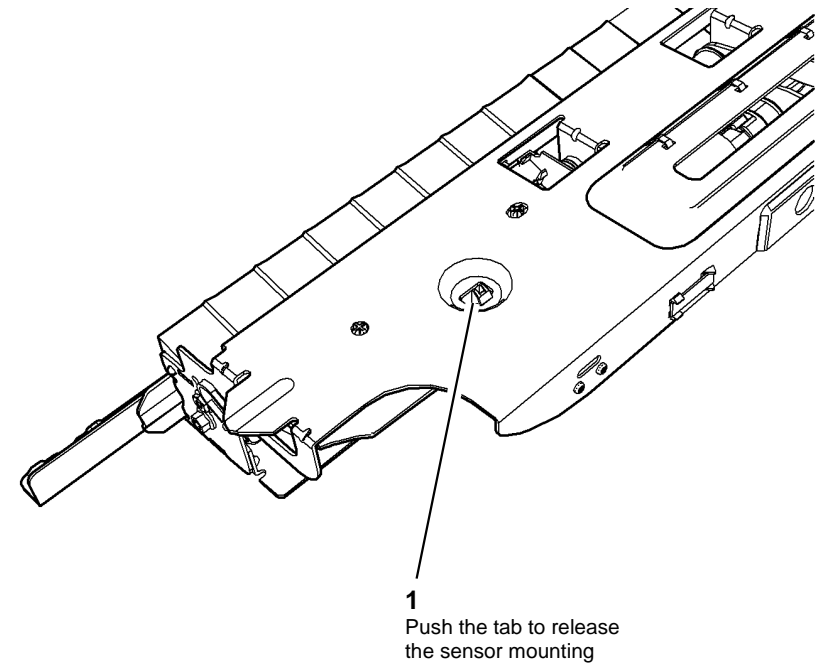
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tray 3 paper feed assembly, [REP 8.40](#).
2. Release the sensor mounting, [Figure 1](#).



T-1-1187-A

Figure 1 Sensor mounting release

3. Remove tray 3 empty sensor, [Figure 2](#).

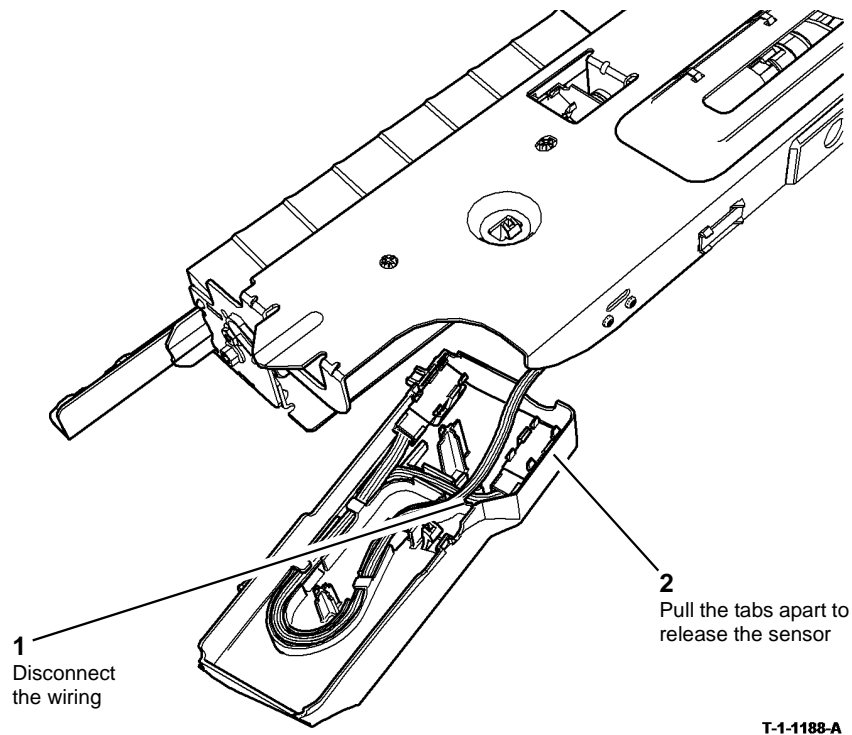


Figure 2 Sensor removal

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.50 Tray 3 Feed Sensor (W/TAG 151)

Parts List on [PL 8.32](#)

### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tray 3 paper feed assembly, [REP 8.40](#).
2. Release the sensor mounting, [Figure 1](#).

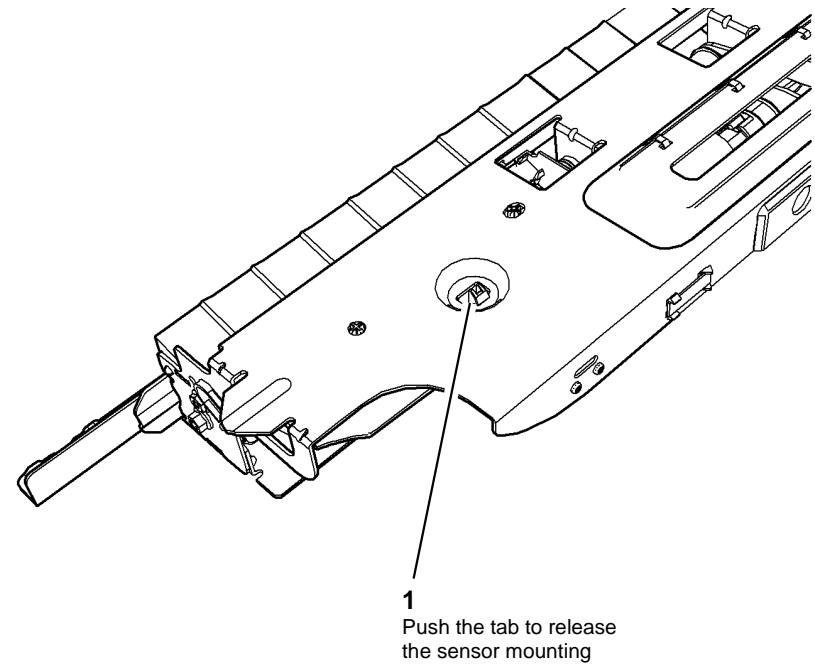
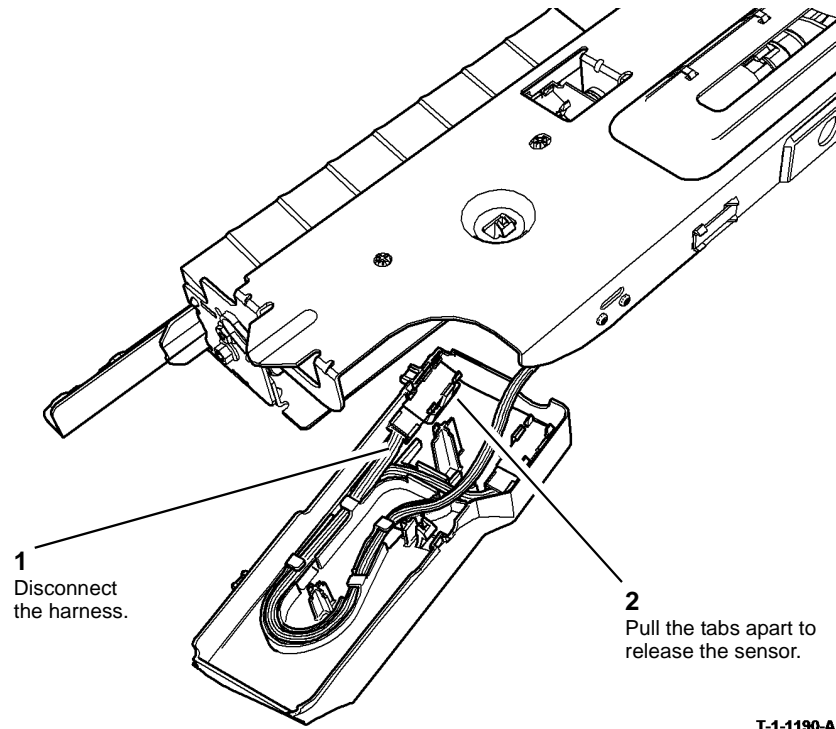


Figure 1 Sensor mounting release

- Remove the tray 3 feed sensor, [Figure 2](#).



1  
Disconnect  
the harness.

2  
Pull the tabs apart to  
release the sensor.

T-1-1190-A

Figure 2 Sensor removal

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.51 Tray 4 Stack Height Sensor (W/TAG 151)

Parts List on [PL 8.33](#)

### Removal

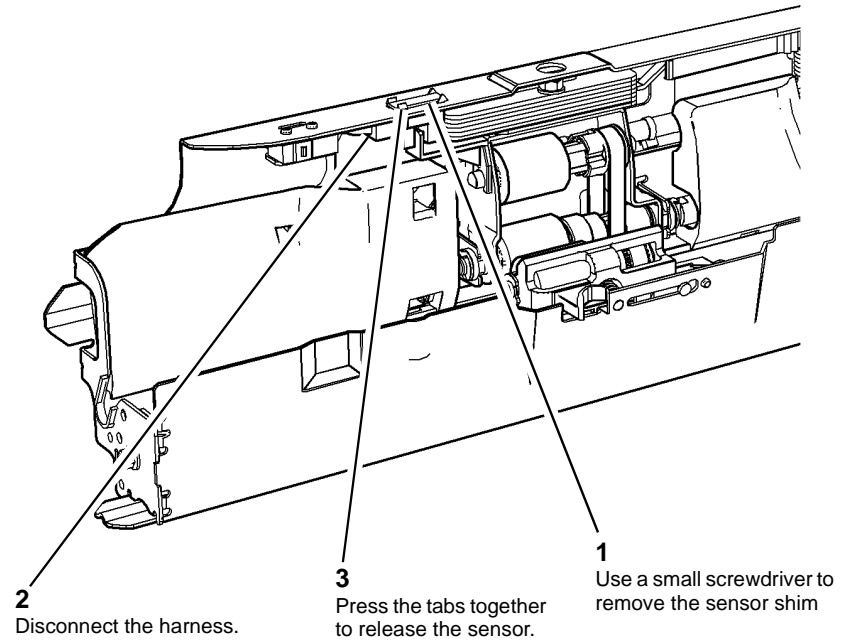
  
**WARNING**

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the tray 4 paper feed assembly, [REP 8.41](#).
- Remove tray 4 stack height sensor, [Figure 1](#).



2  
Disconnect the harness.

3  
Press the tabs together  
to release the sensor.

1  
Use a small screwdriver to  
remove the sensor shim

T-1-1211-A

Figure 1 Sensor removal

### Replacement

Replacement is the reverse of the removal procedure. Install a new sensor shim to lock the sensor in place.

## REP 8.52 Tray 4 Empty Sensor (W/TAG 151)

Parts List on [PL 8.33](#)

### Removal



#### WARNING

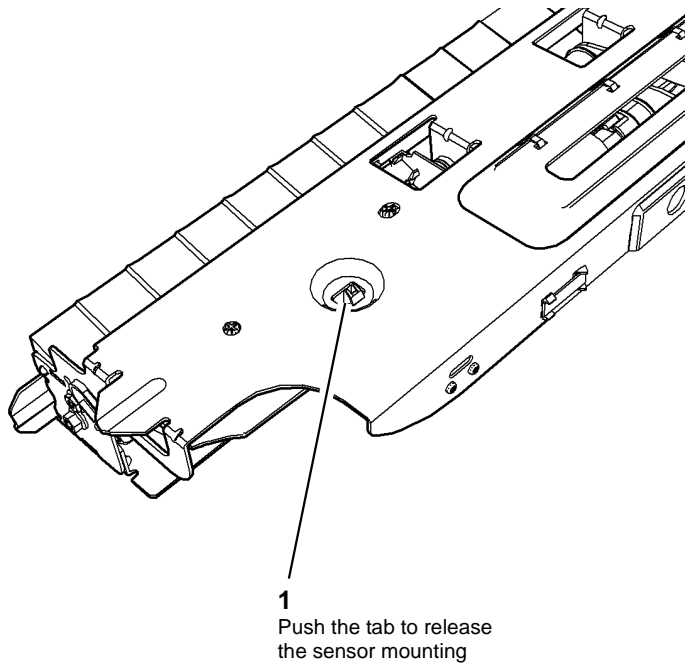
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

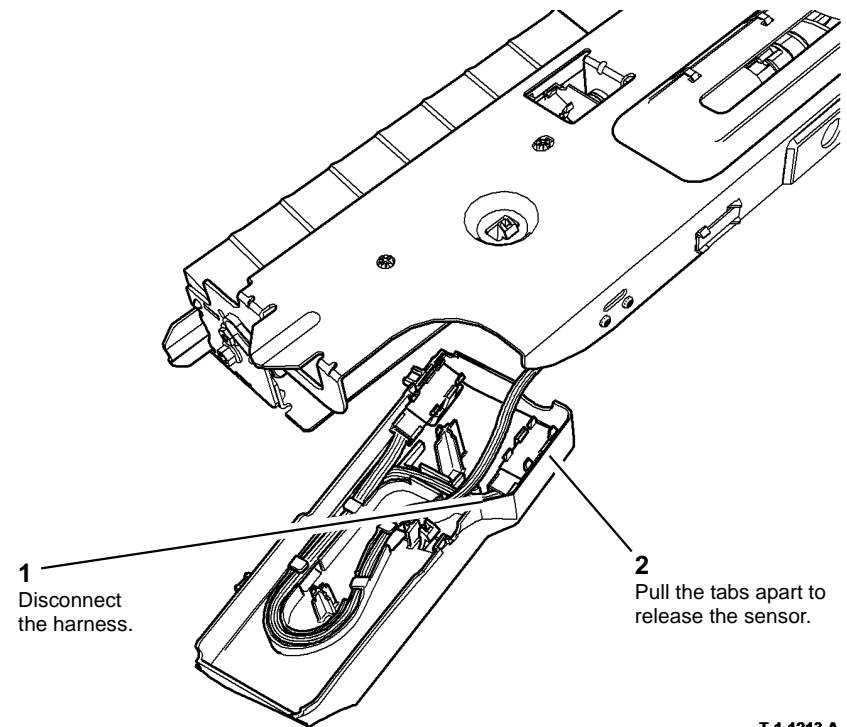
1. Remove the tray 4 paper feed assembly, [REP 8.41](#).
2. Release the sensor mounting, [Figure 1](#).



T-1-1212-A

Figure 1 Sensor mounting release

3. Remove tray 4 empty sensor, [Figure 2](#).



T-1-1213-A

Figure 2 Sensor removal

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.53 Tray 4 Feed Sensor (W/TAG 151)

Parts List on [PL 8.33](#)

### Removal



#### WARNING

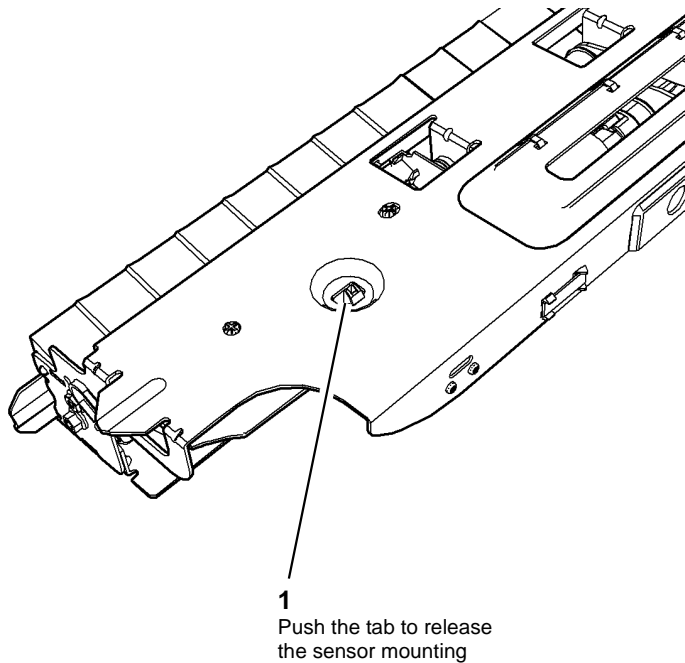
Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

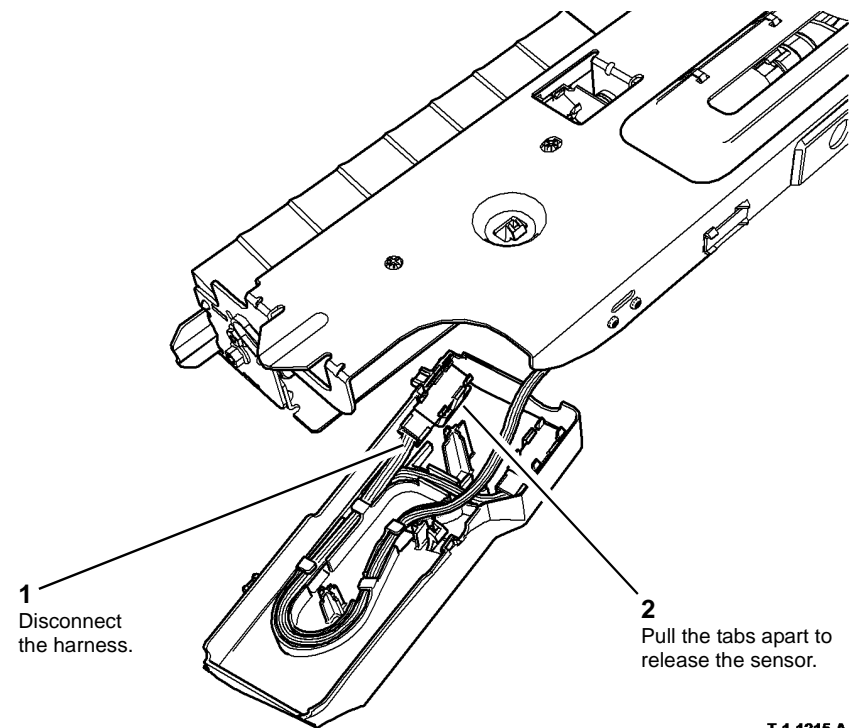
1. Remove the tray 4 paper feed assembly, [REP 8.41](#).
2. Release the sensor mounting, [Figure 1](#).



T-1-1214-A

Figure 1 Sensor mounting release

3. Remove the tray 4 feed sensor, [Figure 2](#).



T-1-1215-A

Figure 2 Sensor removal

### Replacement

Replacement is the reverse of the removal procedure.

## REP 8.54 Tray 3 and Tray 4 Feed Assembly Feed Rolls (W/ TAG 151)

Parts List on [PL 8.32](#), [PL 8.33](#)

### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

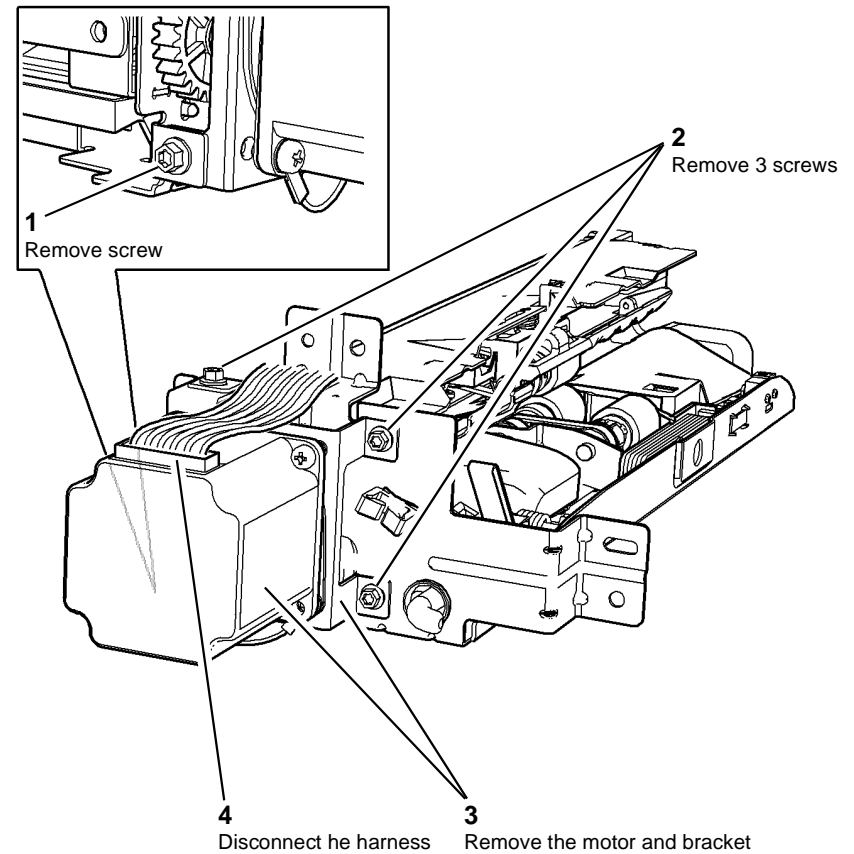
1. Remove the relevant paper feed assembly:

- Tray 3 paper feed assembly, [REP 8.40](#)
- Tray 4 paper feed assembly, [REP 8.41](#)

**NOTE:** This procedure illustrates a tray 3 feed assembly, the procedure for the tray 4 feed assembly is identical.

2. Turn the paper feed assembly upside down and place on a flat work surface.

3. Remove the tray 3 feed motor with the bracket, [Figure 1](#).



T-1-1238-A

Figure 1 Motor and bracket removal

4. Release the rear fixings, [Figure 2](#).

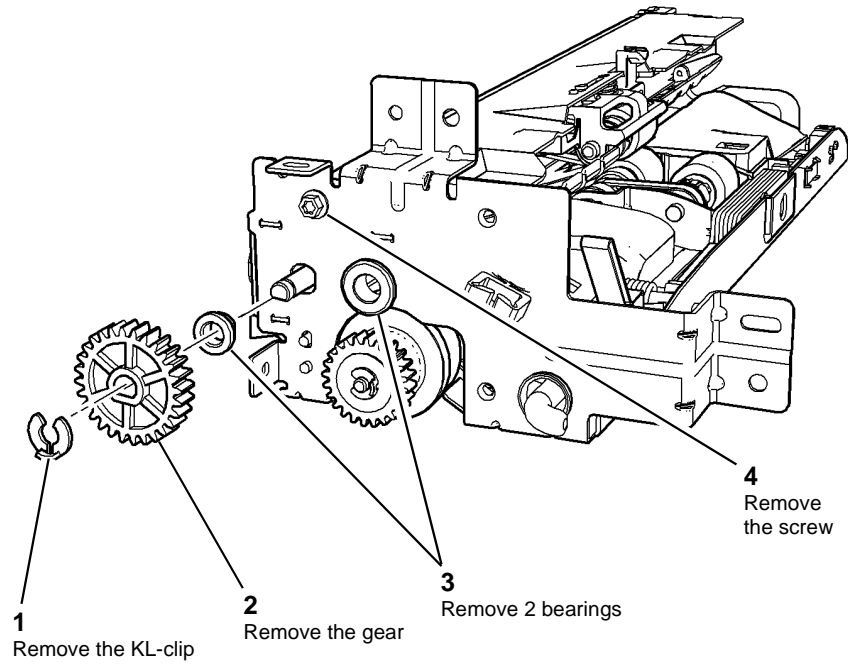


Figure 2 Rear fixings

T-1-1239-A

5. Release the front fixings, [Figure 3](#).

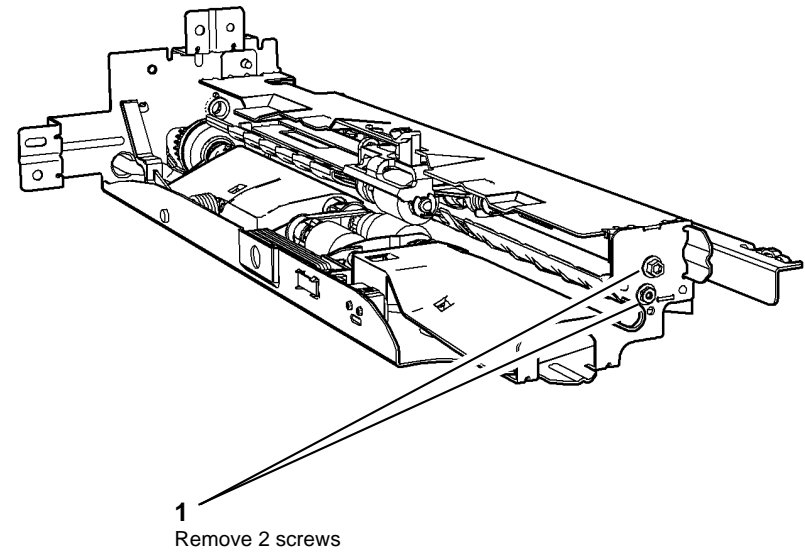
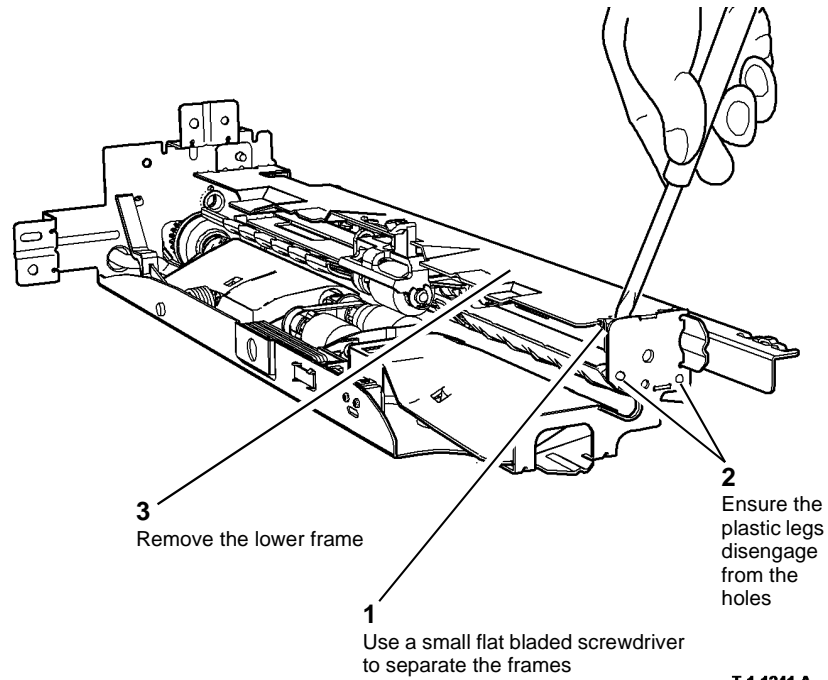


Figure 3 Front fixings

T-1-1240-A

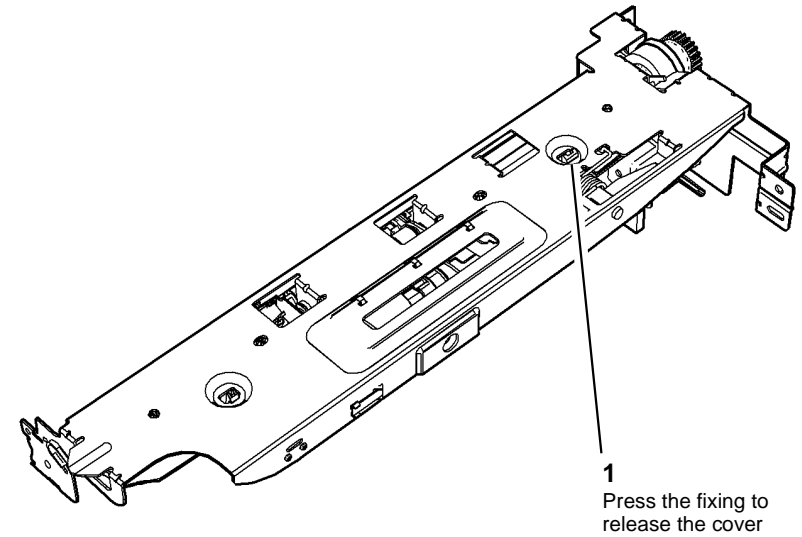
6. Separate the upper and lower frames, [Figure 4](#).



**Figure 4** Frame separation

T-1-1241-A

7. Remove the plastic cover, [Figure 5](#).

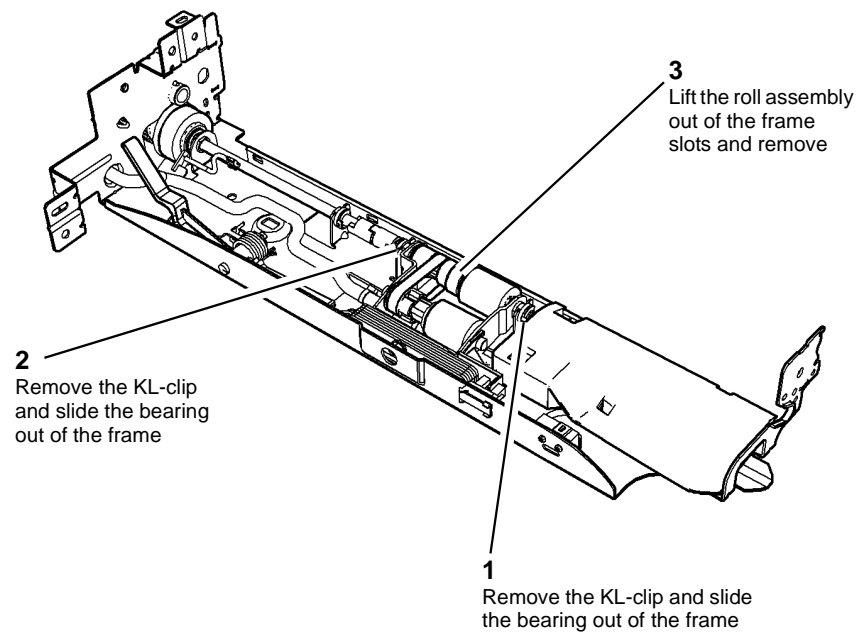


**Figure 5** Cover removal

T-1-1217-A



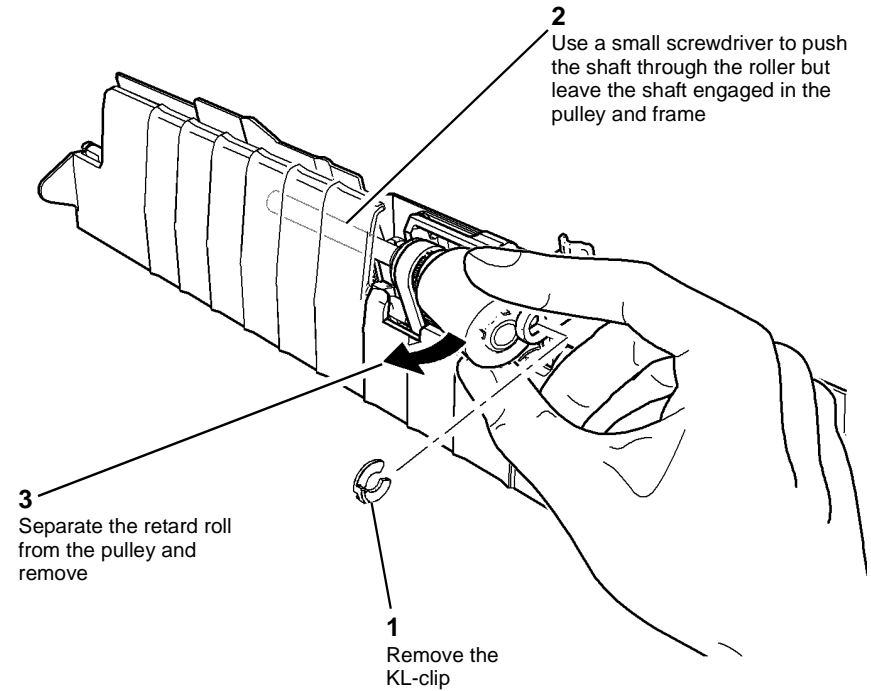
8. Remove the nudger roll and feed roll assembly, **Figure 6**.



T-1-1207-A

**Figure 6 Nudger and feed roll removal**

9. Remove the retard roller, **Figure 7**.

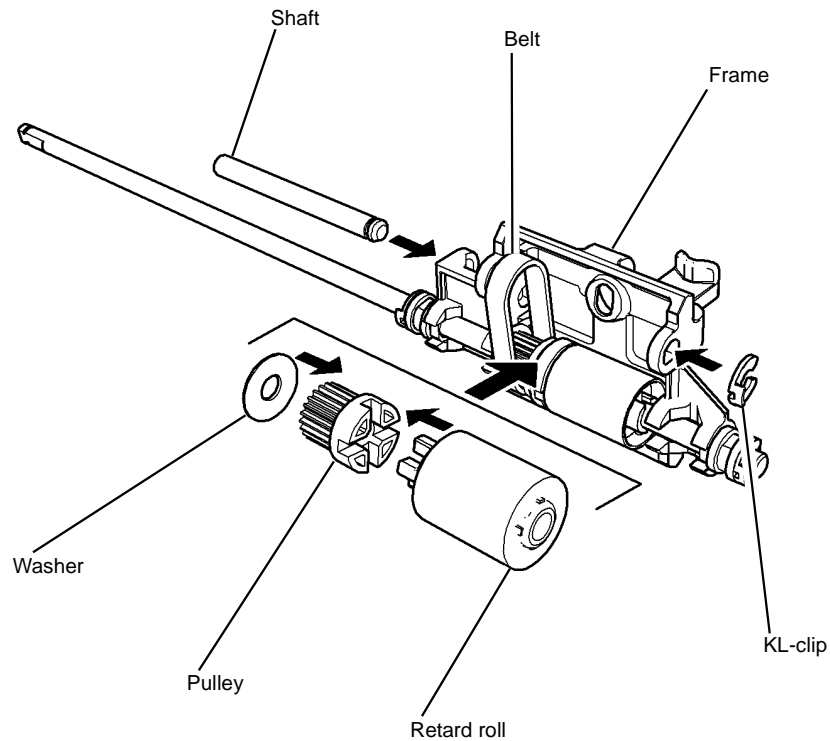


T-1-1208-A

**Figure 7 Retard roll removal**

## Replacement

1. Install the retard roll by reversing the steps in [Figure 7](#).
2. If necessary refer to [Figure 8](#) for the correct assembly of the retard roll components.

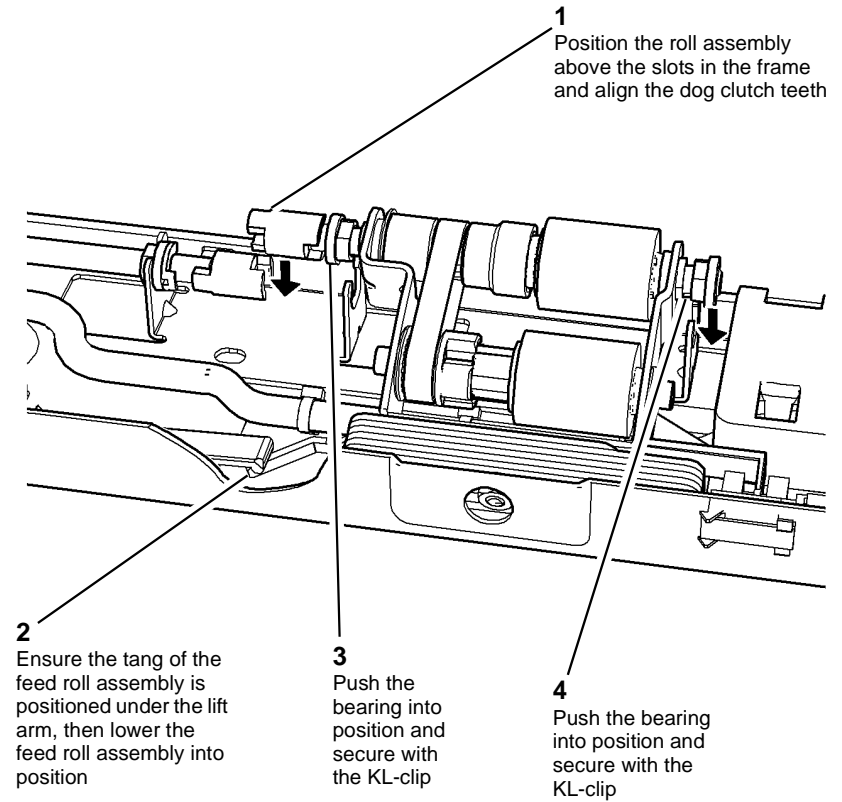


**Figure 8 Exploded view of the retard assembly**

T-1-1257-A

3. Check that the number of weights on the new nudger roll and feed roll assembly is the same as on the old assembly, if necessary correct the number of weights, refer to [ADJ 8.4](#).

4. Install the nudger roll and feed roll assembly, [Figure 9](#).

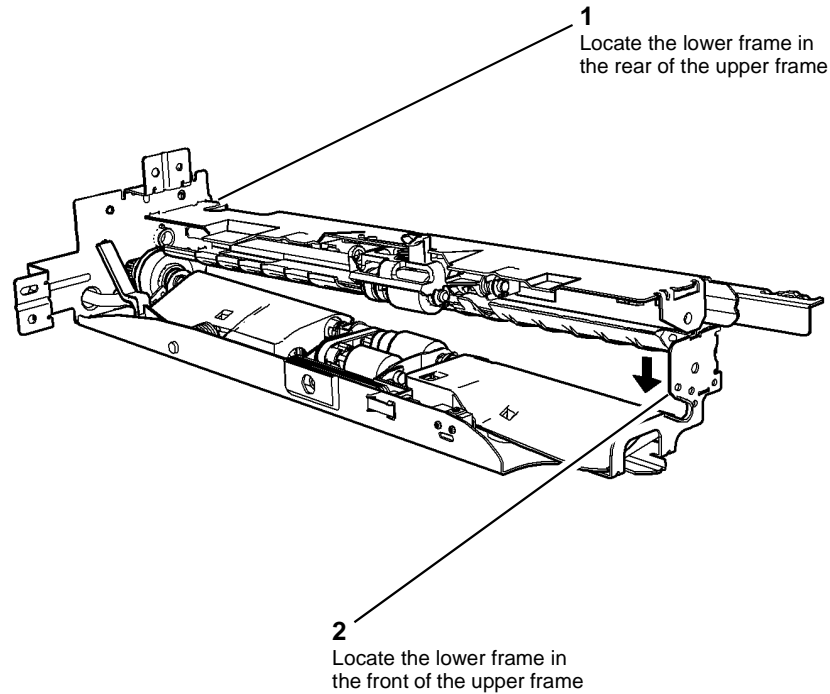


**Figure 9 Nudger and feed roll install**

T-1-1210-A

5. Fasten the plastic cover into position ensuring that the wiring is not trapped, refer to [Figure 5](#).

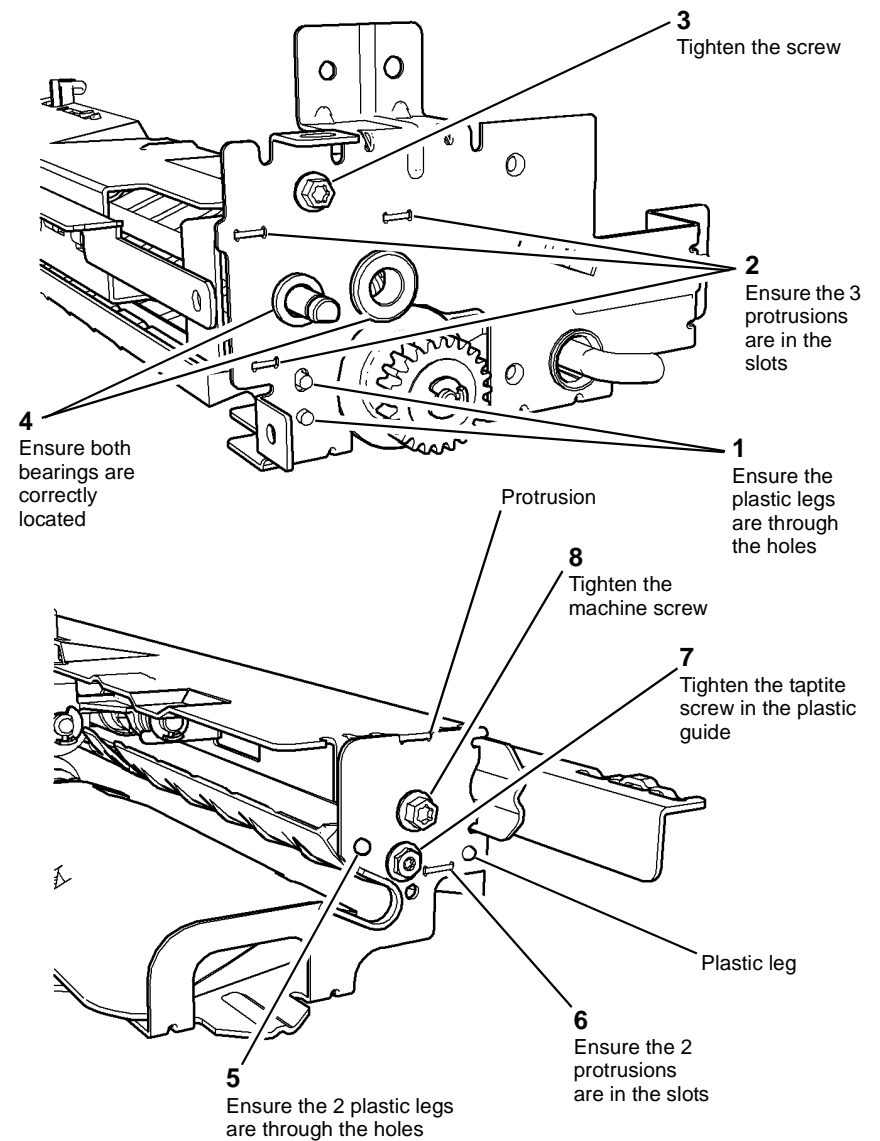
6. Assemble the two halves of the frame, **Figure 10**.



**Figure 10** Frame assembly

T-1-1242-A

7. Align and secure the frame halves, **Figure 11**.



**Figure 11** Final assembly

T-1-1243-A

8. Install the remainder of the removed components.
9. Install the feeder assembly into the machine. Check the feeding performance of the HCF.

## REP 8.55 Tray 3 Paper Guide (W/TAG 151)

Parts List on [PL 8.32](#)

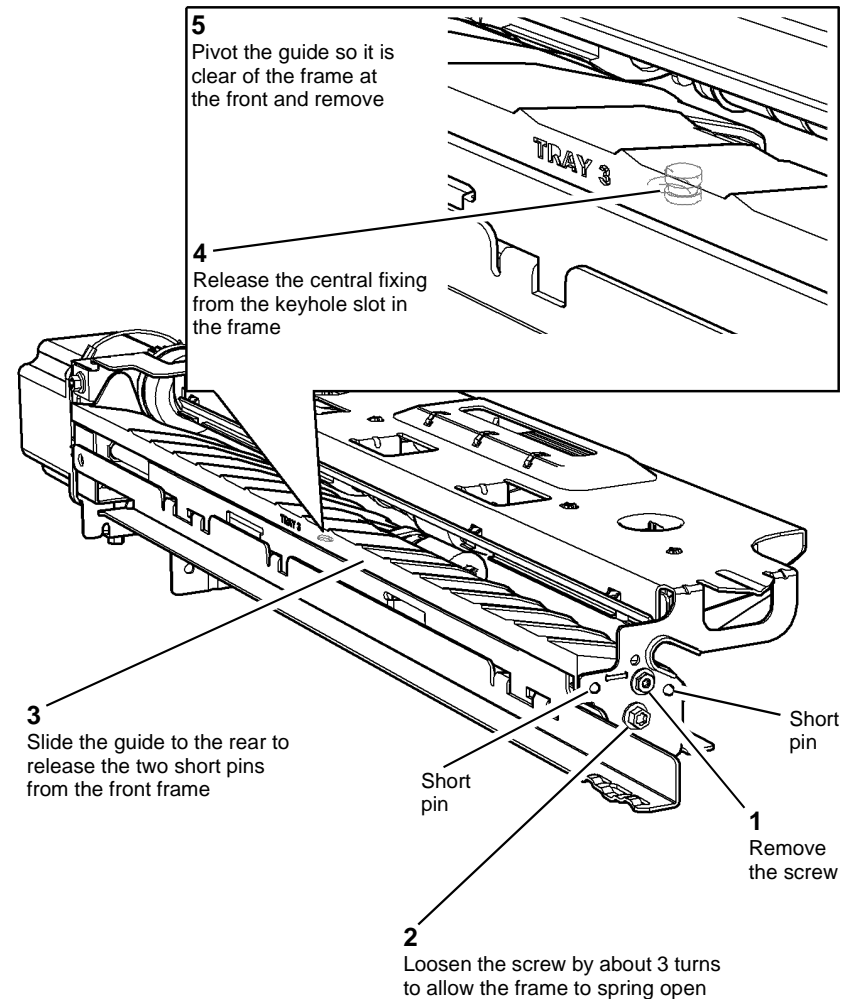
### Removal



Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the tray 3 paper feed assembly, [REP 8.40](#).

2. Remove the tray 3 paper guide, [Figure 1](#).



T-1-1218-A

Figure 1 Paper guide removal

## Replacement

1. Install the tray 3 paper guide, [Figure 2](#).

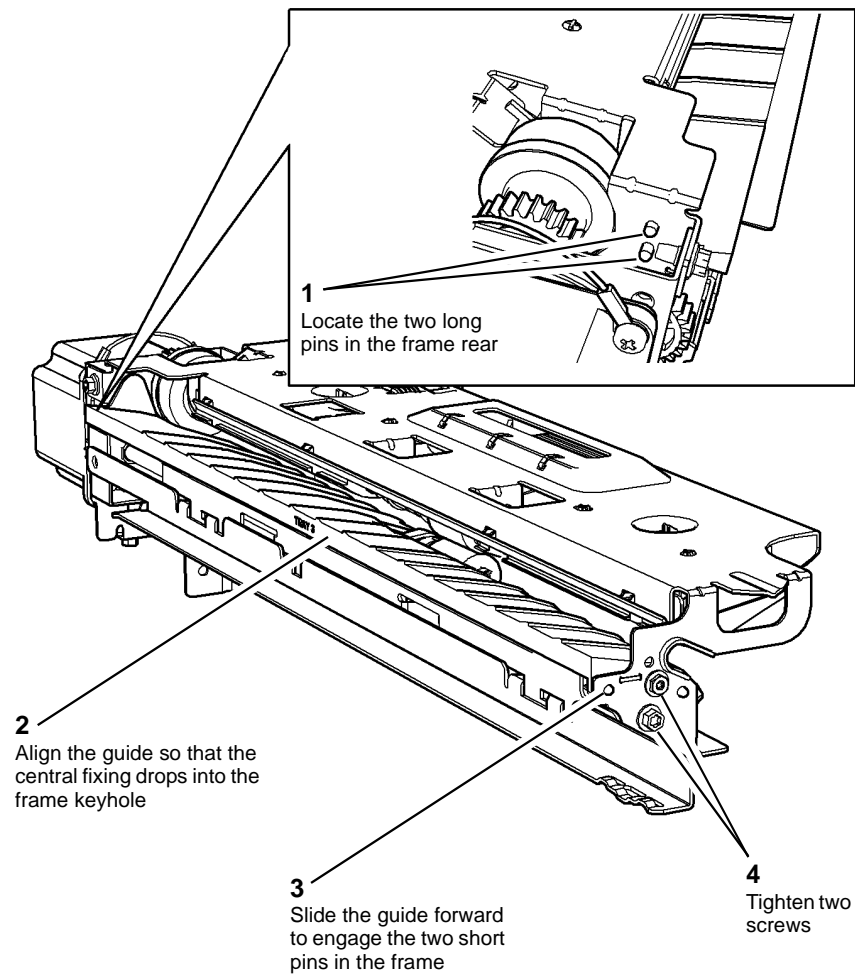


Figure 2 Paper guide replacement

T-1-1219-A

2. The remainder of the replacement is the reverse of the removal procedure.

## REP 8.56 Tray 4 Paper Guide (W/TAG 151)

Parts List on [PL 8.33](#)

### Removal

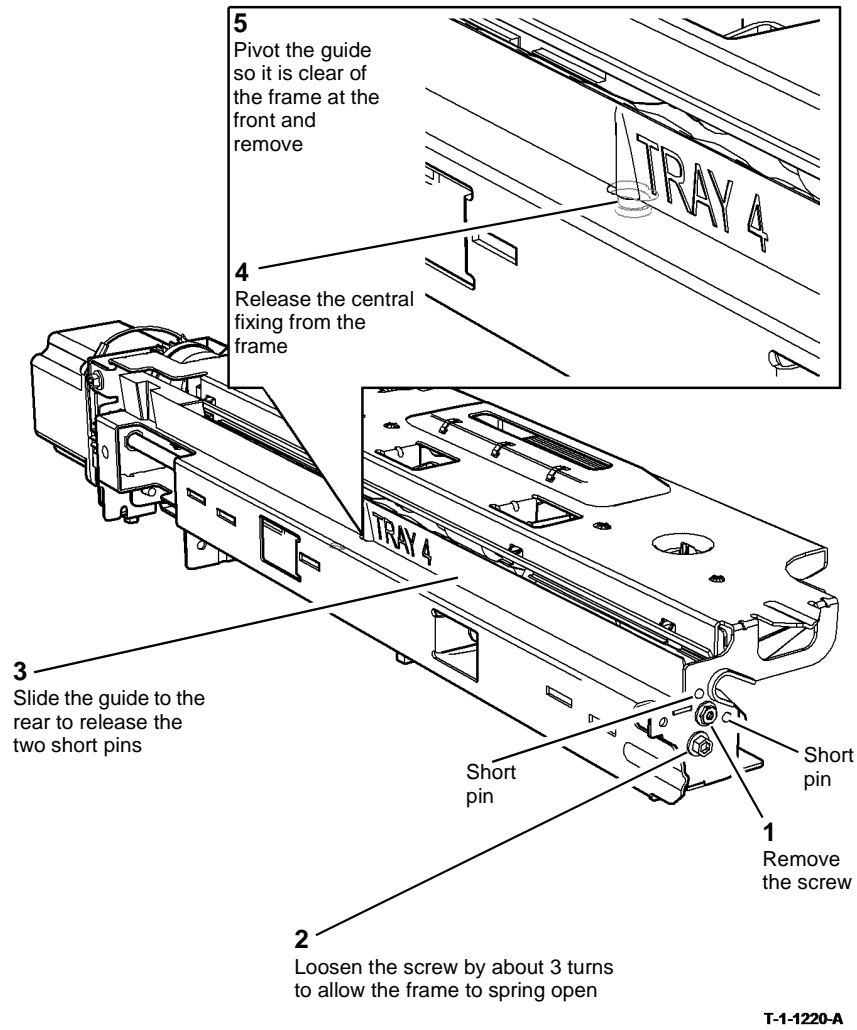


### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the tray 4 paper feed assembly, [REP 8.41](#).

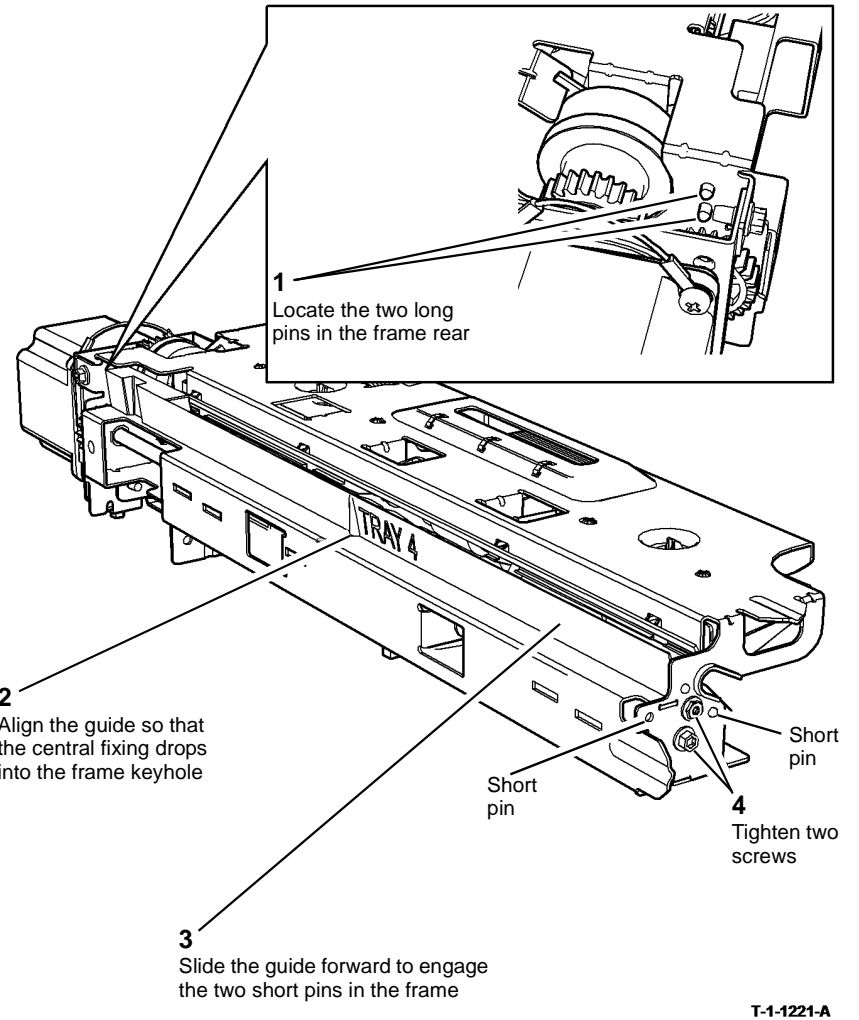
- Remove the tray 4 paper guide, [Figure 1](#).



**Figure 1 Paper guide removal**

## Replacement

- Install the tray 4 paper guide, [Figure 2](#).



**Figure 2 Paper guide replacement**

- The remainder of the replacement is the reverse of the removal procedure.

## REP 8.57 Tray 3 Transport Clutch Drive Assembly (W/TAG 151)

Parts List on [PL 8.36](#)

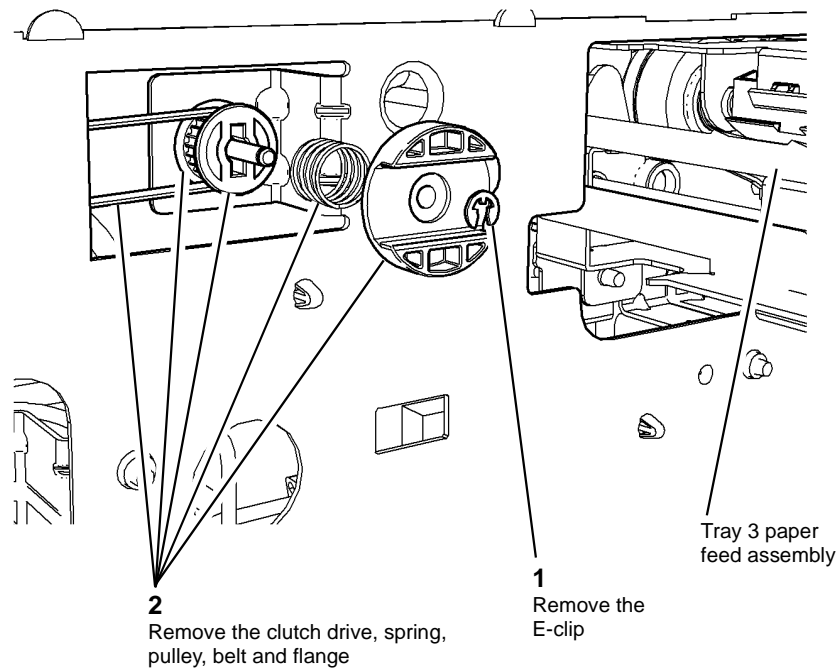
### Removal



#### WARNING

Switch off the electricity to the machine, [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove tray 3 and tray 4, [REP 7.22](#).
2. Remove the tray 3 transport gear pulley (W/TAG 151), [REP 8.43](#).
3. Remove the tray 3 transport clutch drive assembly, [Figure 1](#).



T-1-1227-A

Figure 1 Clutch drive removal

### Replacement

Replacement is the reverse of the removal procedure.

**NOTE:** The E-clip is very small, use a small magnetised screwdriver to position the E-clip whilst pressing the clutch drive against the spring to expose the groove in the shaft.





## REP 9.1 Waste Toner Bottle Assembly

Parts List on [PL 9.10](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 8.10 Item 1](#).
2. Remove the waste toner bottle and the waste toner door, [Figure 1](#).

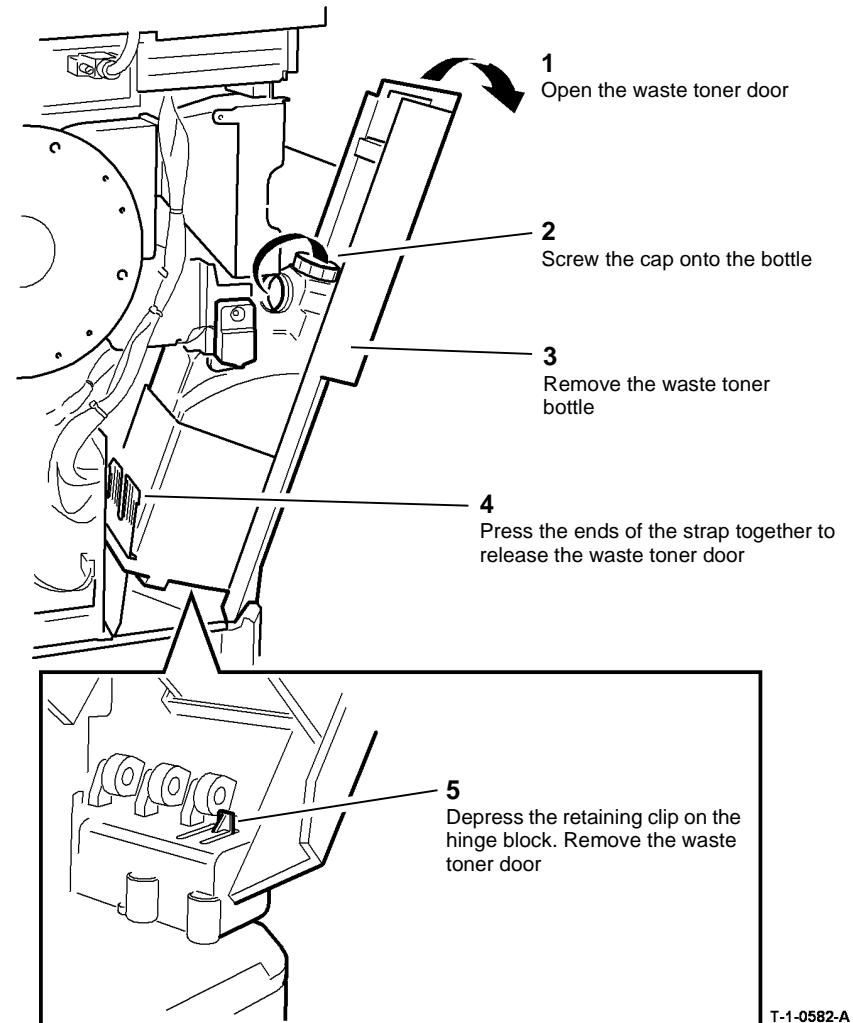


Figure 1 Waste toner door

### Replacement

Replacement is the reverse of the removal procedure.

## REP 9.2 Developer Assembly

Parts List on (35-55 ppm) **PL 9.17**, (65-90 ppm) **PL 9.15**

### Removal

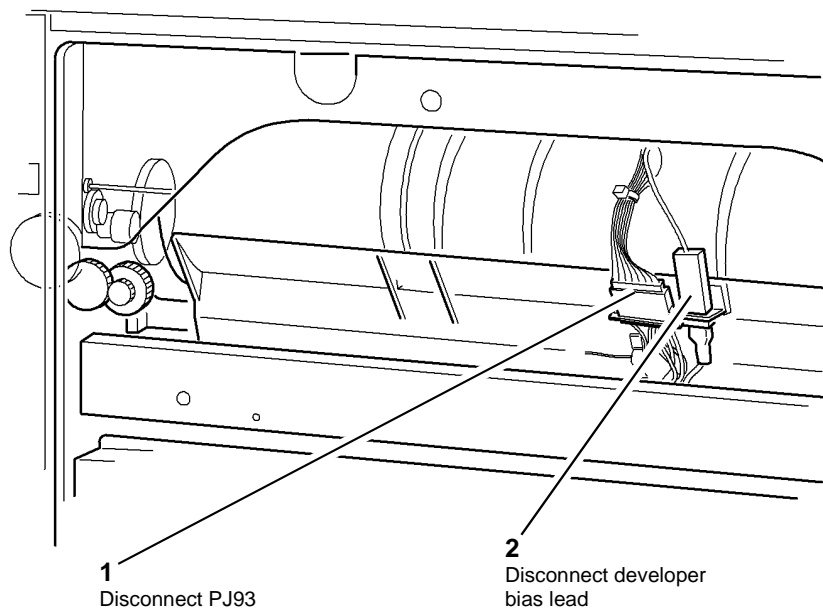
  
**WARNING**

Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

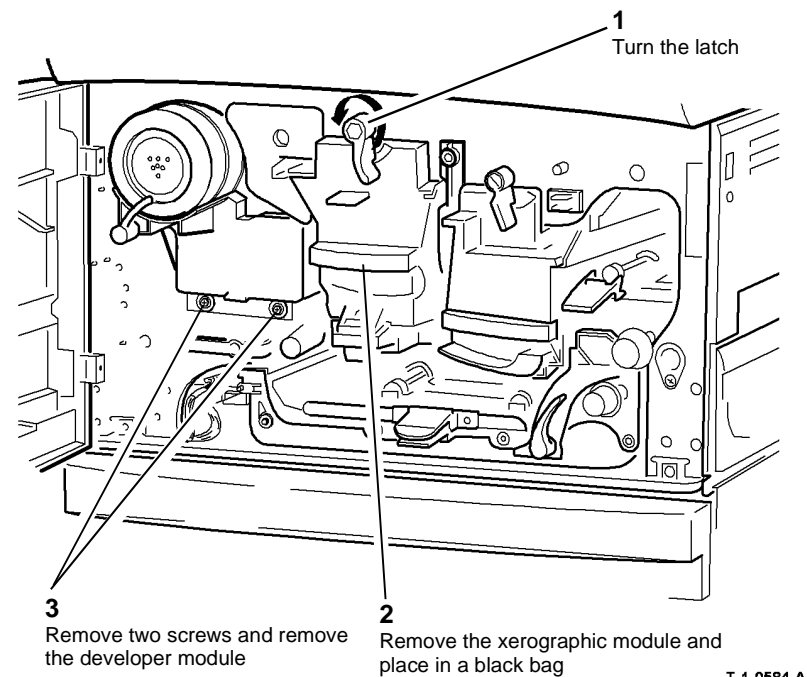
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove left hand cover, **PL 8.10** Item 3.
2. Disconnect PJ93 and the developer bias lead, **Figure 1**.



**Figure 1 Developer bias leads**

3. Remove the developer module, **Figure 2**.



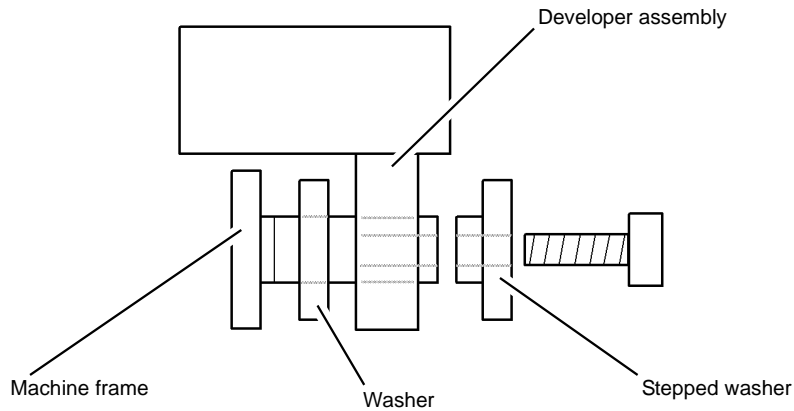
**Figure 2 Remove the developer assembly**

## Replacement

1. Replacement is the reverse of the removal procedure.
2. When installing a new developer module, perform the following:

**NOTE:** When replacing the original developer, perform step C only.

- a. Follow the developer spares pack instruction sheet to prepare the developer module.
- b. **(65-90 ppm only).** Perform [ADJ 9.3 Developer Magnetic Seal Brush Adjustment](#).
- c. Lubricate the developer module support pins, [ADJ 4.1](#).
- d. **(35-55 ppm only).** Ensure that the washer and stepped washer are correctly positioned, [Figure 3](#).
- e. Enter diagnostics, [GP 1](#). Select [dC131](#) location 09-271 developer age and reset to zero.
- f. Perform the [dC905 TC Sensor Calibration](#).
- g. Perform [ADJ 9.2 Image Quality Adjustment Routine](#).
- h. If a new developer assembly is installed, reset the Developer count to zero in the HFSI feature screen. Refer to [GP 17 High Frequency service Items](#).



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**Figure 3 35-55 ppm developer washer location**

## REP 9.3 Ozone Fan

Parts List on [PL 9.25](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



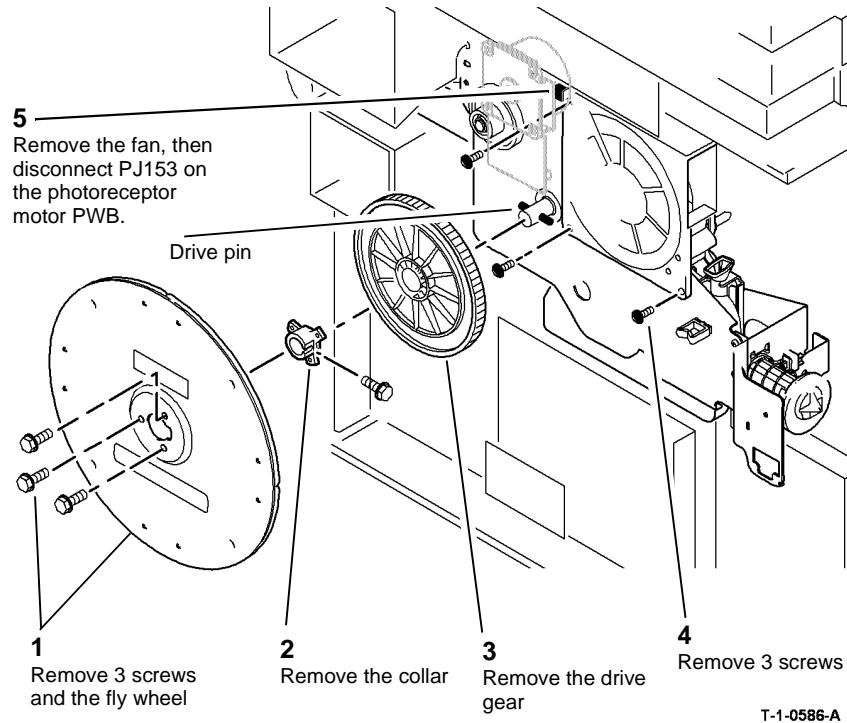
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove rear cover, [PL 8.10 Item 1](#).
2. Remove the waste toner bottle, [REP 9.1](#).
3. Remove ozone filter and duct, [PL 9.25 Item 2](#).

**!**  
**CAUTION**

*When the drive gear is removed, the drive pin may fall onto the IOT PWB or LVPS.*

4. Remove the ozone fan, [Figure 1](#).



**Figure 1 Remove the ozone fan**

### Replacement

Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

**NOTE:** Turn the drive shaft so that the dowel pin is horizontal then locate the drive gear onto the shaft.

## REP 9.4 Waste Toner Full Sensor

Parts List on [PL 9.10](#)

### Removal

**!**  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**!**  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [PL 8.10 Item 1](#).
2. Remove the waste toner bottle, [PL 9.10 Item 1](#).

- Remove the waste toner full sensor, [Figure 1](#).

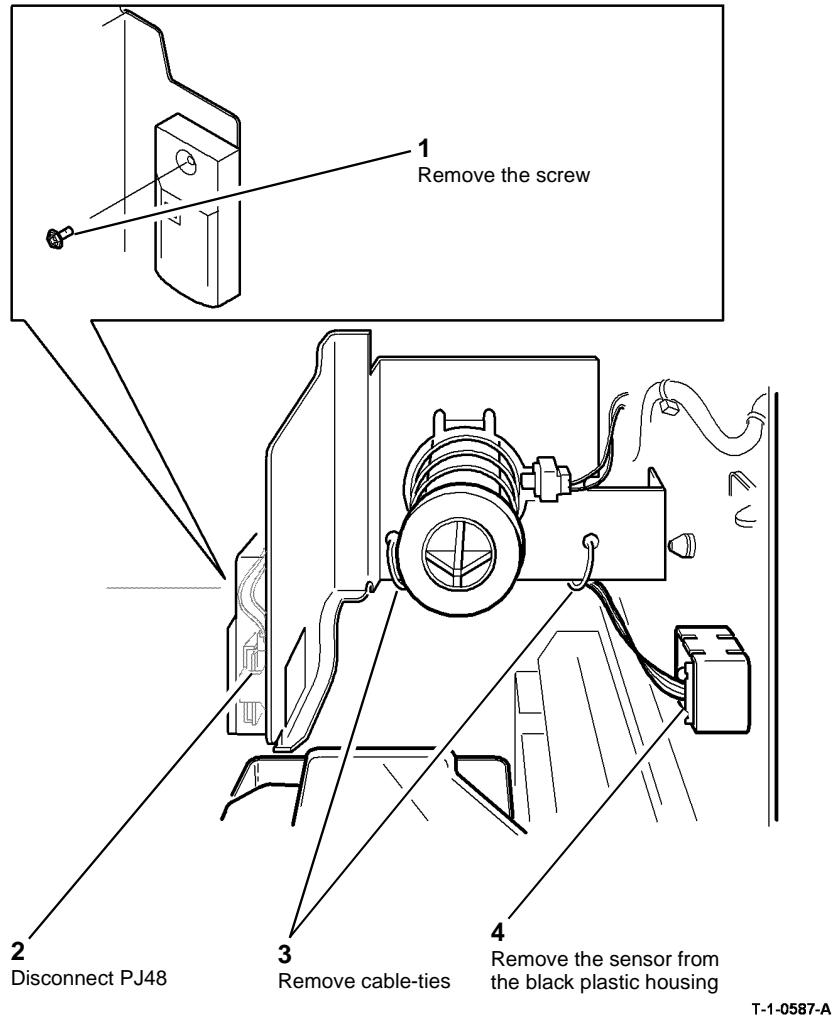


Figure 1 Waste toner full sensor

### Replacement

Replacement is the reverse of the removal procedure.

## REP 9.5 Toner Dispense Module

Parts List on (35-55 ppm) [PL 9.17](#), (65-90 ppm) [PL 9.15](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the developer assembly, [REP 9.2](#).
- Remove the toner cartridge.
- Disconnect the harness PJ97 and PJ75 on the toner dispense module, [Figure 1](#).

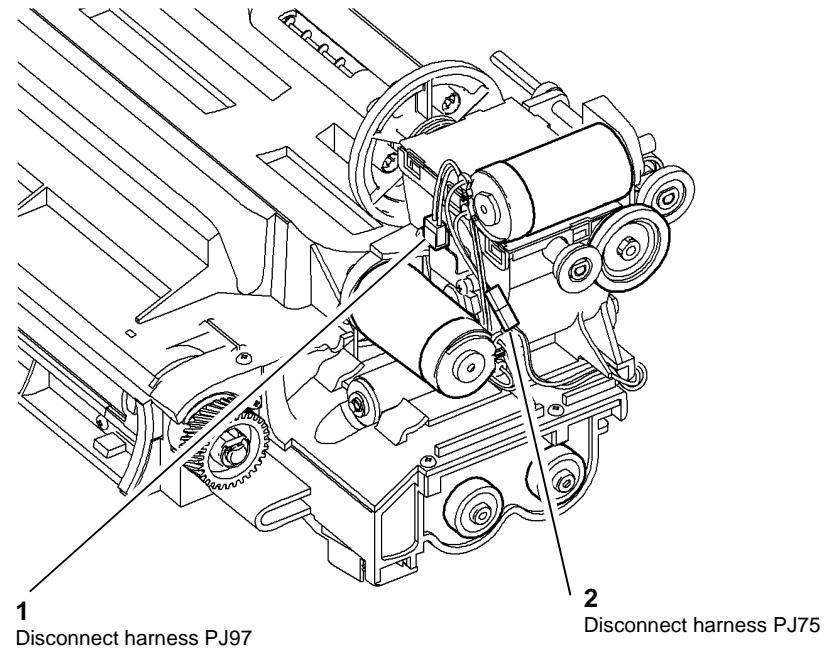
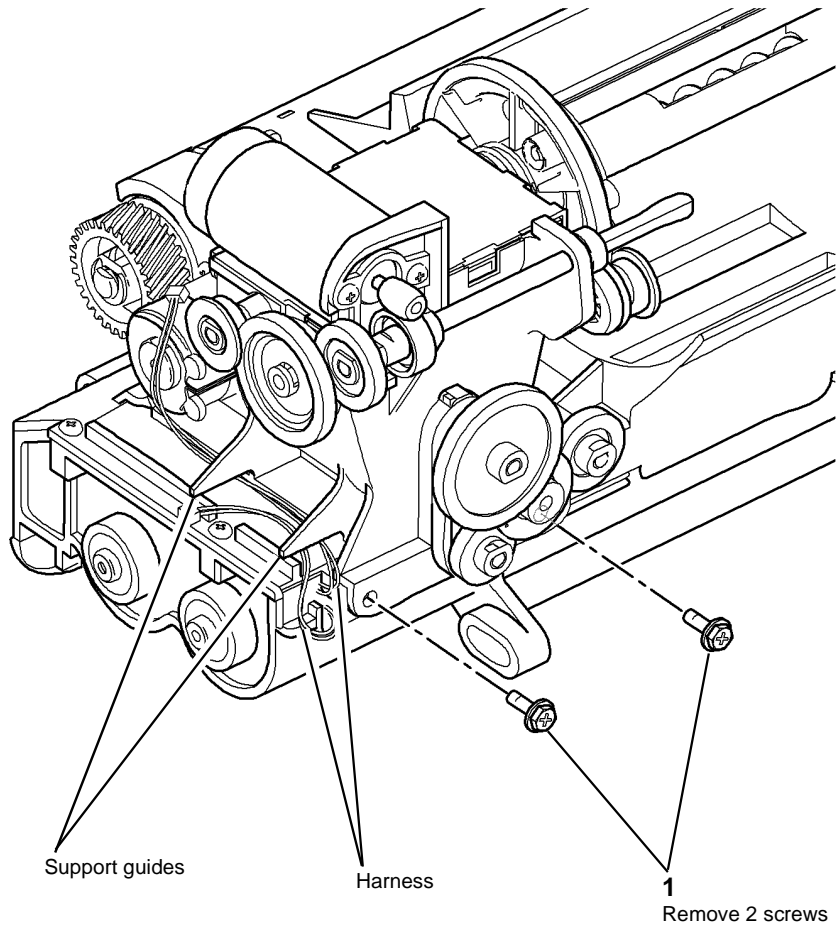


Figure 1 Disconnect the harness

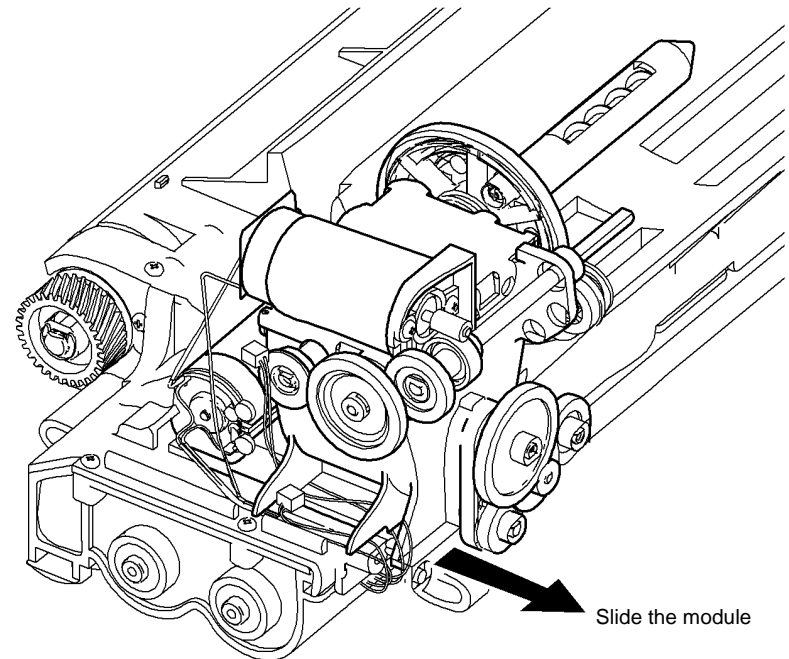
4. Remove the securing screws from the toner dispense module, [Figure 2](#).



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**Figure 2 Remove the securing screws**

5. Remove the toner dispense module by sliding it off the developer assembly, [Figure 3](#).



**Figure 3 Remove the toner dispense module**

### Replacement

1. Replacement is the reverse of the removal procedure.
2. Ensure that the harnesses are routed under the support guides on the toner dispense module, [Figure 2](#).
3. After a new Toner Dispense Module and a Toner Cartridge are installed and the machine is powered on. The toner cartridge motor will turn on, the toner bottle will rotate and toner will be dispense into the toner dispenser sump. Once the toner in the sump reaches the level of the low toner sensor, the toner bottle will stop turning. The toner must then be manually run from the toner sump into the developer module.

To run the toner into the Developer Module:

- a. Remove the top left cover to access the left side of the Developer Module and monitor the toner concentration sensor voltage output at PJ93 pin 8 (red wire)
- b. Enter DC330 code 04-010 main drive motor and 09-040 toner dispense motor.
- c. Start the routine. The start will have to be pressed every 5 seconds to restart the toner dispense motor.
- d. Run the routine until the monitored voltage is between 2.2V and 2.8V at PJ93 pin 8.
- e. Check the density and image quality. Repeat the procedure if the copies are still light.

## REP 9.6 Xerographic Module Latch

Parts List on (35 ppm) [PL 9.22](#), (40-90 ppm) [PL 9.20](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the scanner, [REP 14.1](#).
2. Remove the developer assembly, [REP 9.2](#).
3. Refer to [REP 6.1](#) and move the ROS to the side, [Figure 1](#).

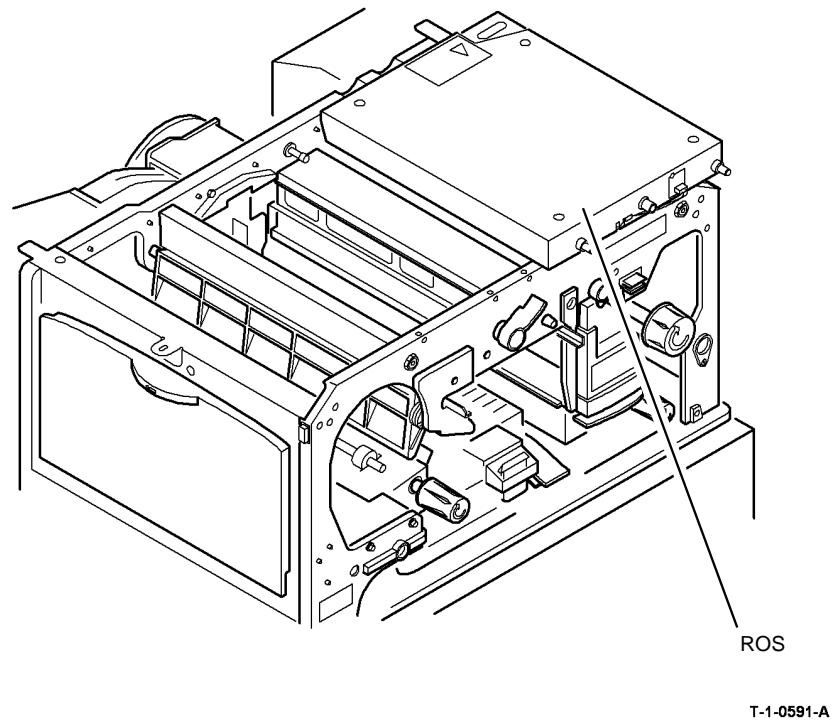


Figure 1 Position the ROS

4. Remove the pivot plate to release the developer paddle, [Figure 2](#).

**NOTE:** Observe where the spring is located on the tie bar and on the developer paddle.

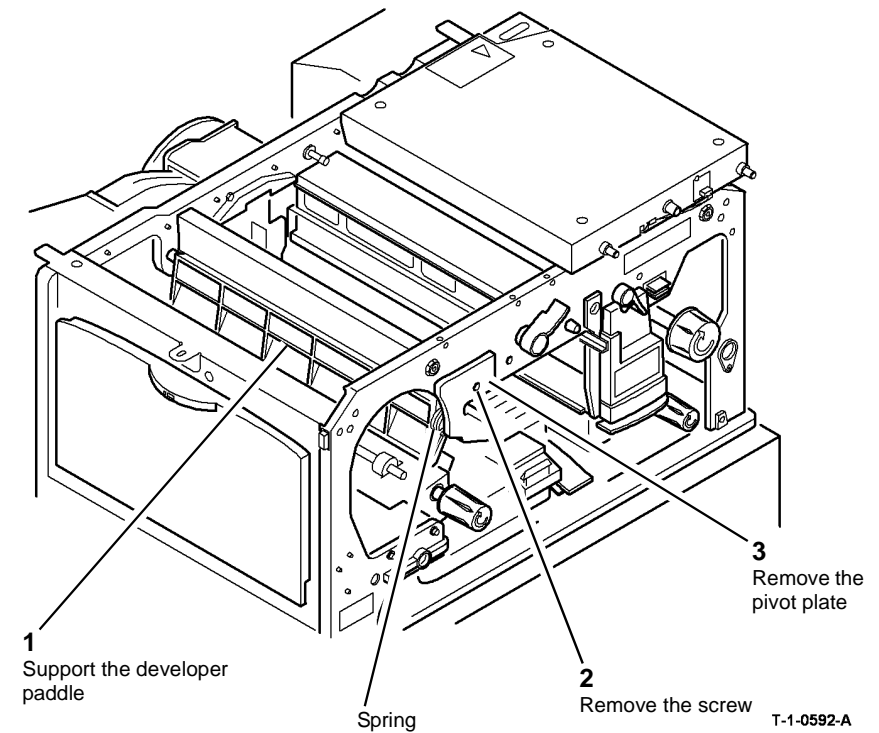


Figure 2 Remove the pivot plate

**!**  
**WARNING**

Take care when removing the latch. The latch contains a compressed spring, which can cause injury when released.

5. Remove the screw from the latch, Figure 3.

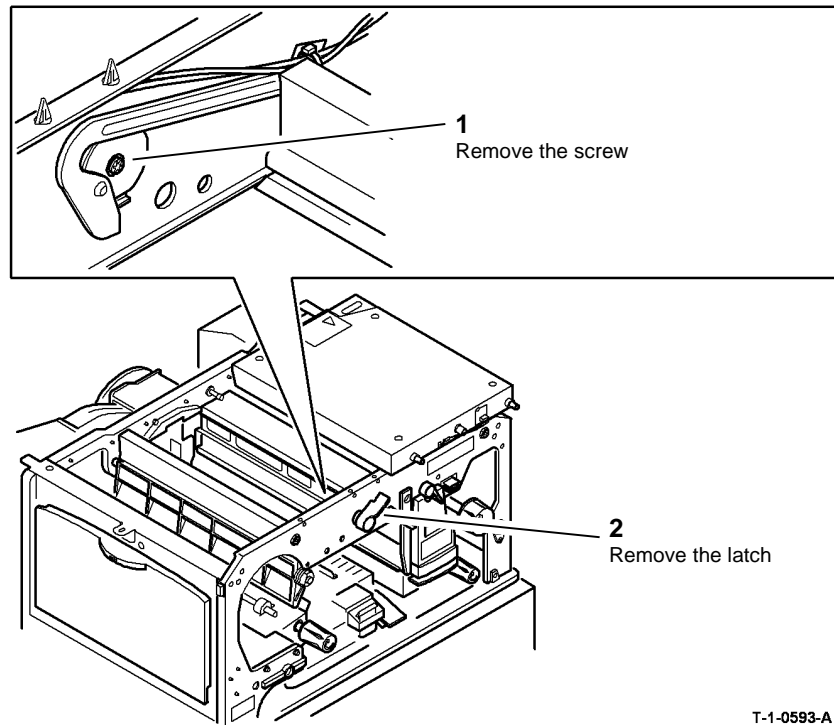


Figure 3 Remove the latch

### Replacement

1. Replacement is the reverse of the removal procedure.
2. Apply plastislip grease, PL 26.10 Item 8, to the internal diameter of the bush on the frame (i.e. the hole the pin fits into) prior to insertion.
3. Refer to Figure 4. Check the following:
  - a. The latch pin is correctly lined up with the flats on the latch plate.
  - b. The latch handle and the latch pin are correctly lined up.
  - c. When reinstalling the developer paddle into the pivot plate, check that the spring is correctly located on the tie bar and on the feature on the developer paddle, Figure 2.

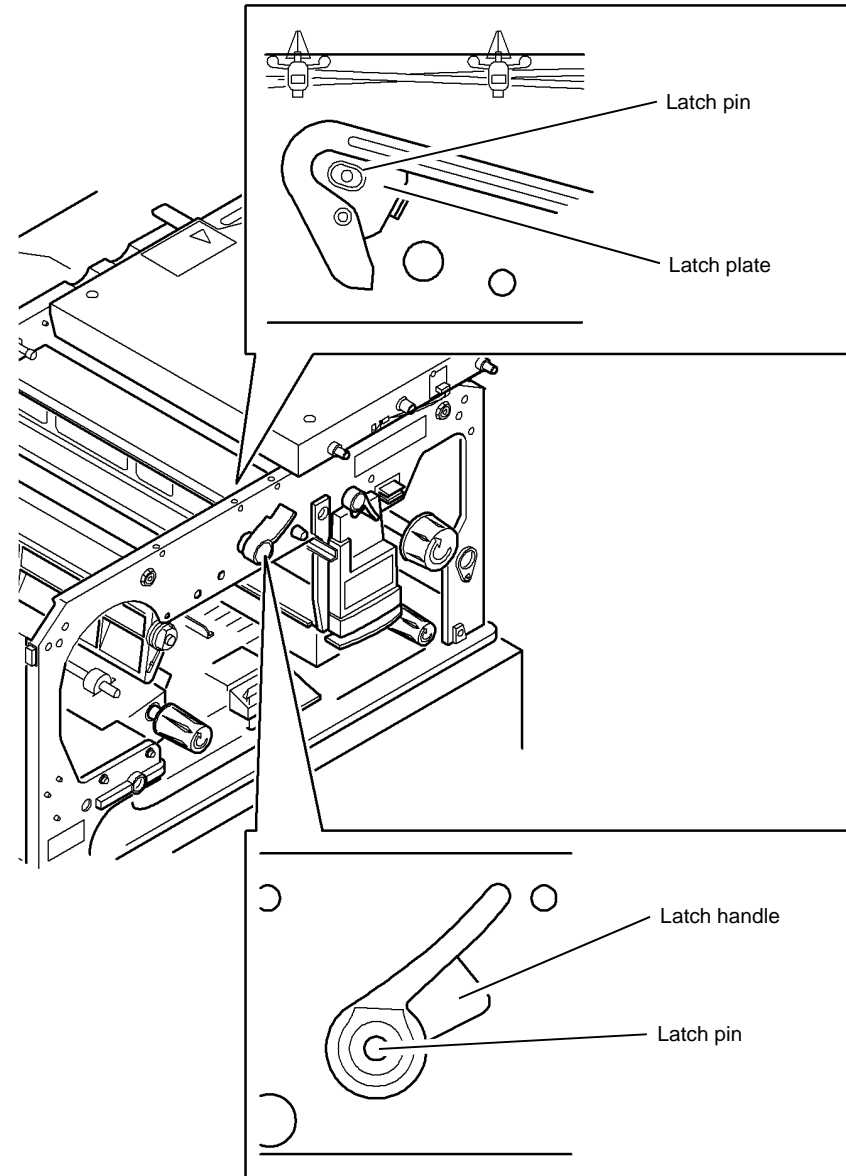


Figure 4 Latch alignment



## REP 9.7 Developer Paddle

Parts List on (35 ppm) [PL 9.22](#), (40-90 ppm) [PL 9.20](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the xerographic module latch, [REP 9.6](#).
2. Remove the developer paddle, [Figure 1](#).

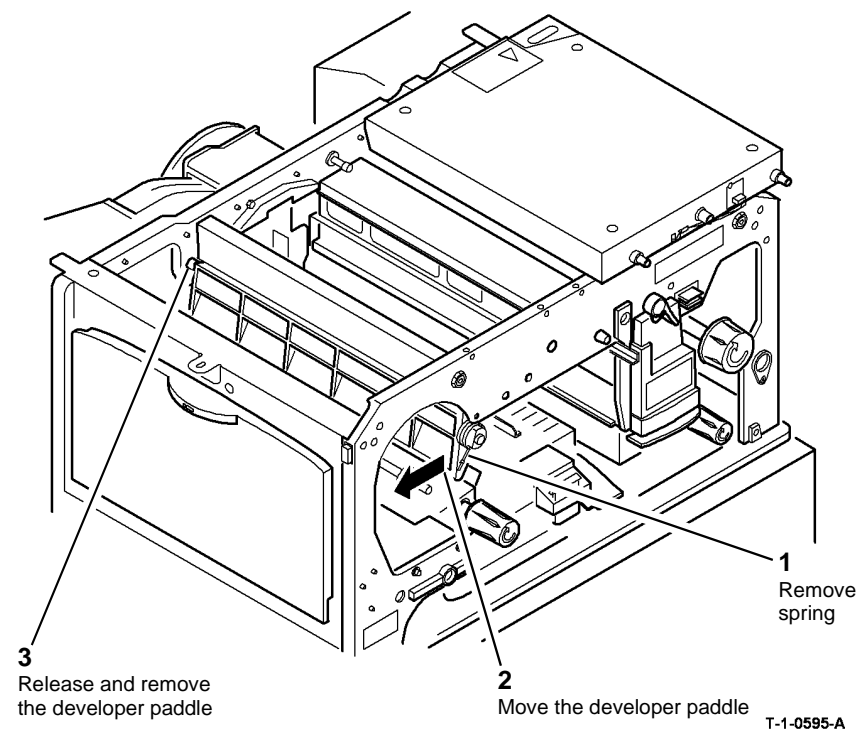


Figure 1 Developer paddle

### Replacement

Replacement is the reverse of the removal procedure.

## REP 9.8 Transfer / Detack Harness

Parts List on (35 ppm) [PL 9.22](#), (40-90 ppm) [PL 9.20](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the short paper path assembly, [REP 10.1](#).
2. Remove the transfer / detack harness, [Figure 1](#).

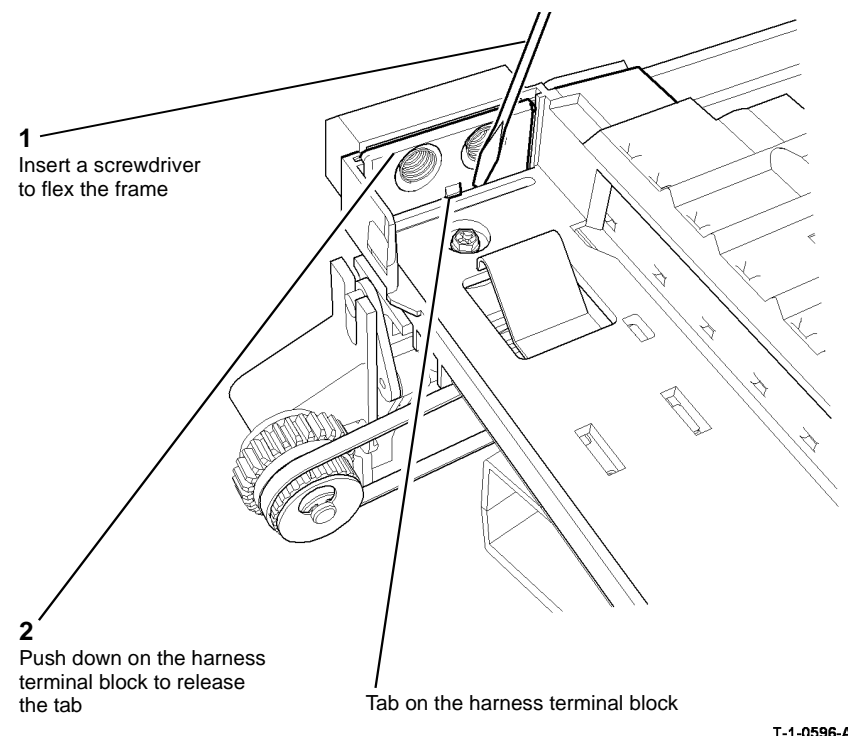


Figure 1 Transfer / detack harness

### Replacement

Replacement is the reverse of the removal procedure.

## REP 9.9 Erase Lamp

Parts List on (35 ppm) **PL 9.22**, (40-90 ppm) **PL 9.20**

### Removal



#### WARNING

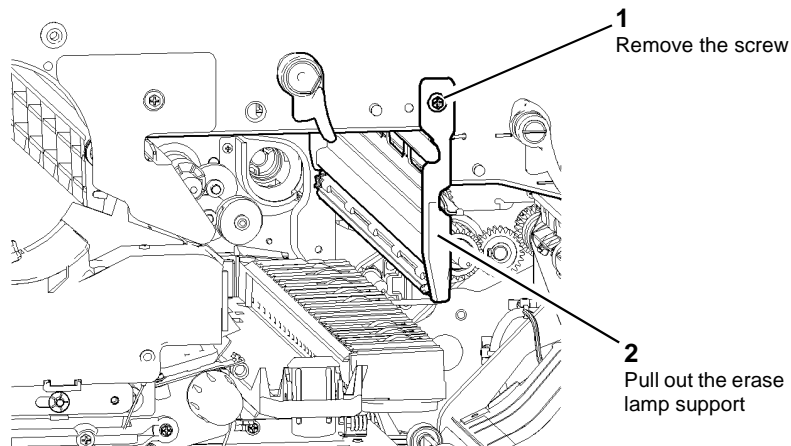
Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

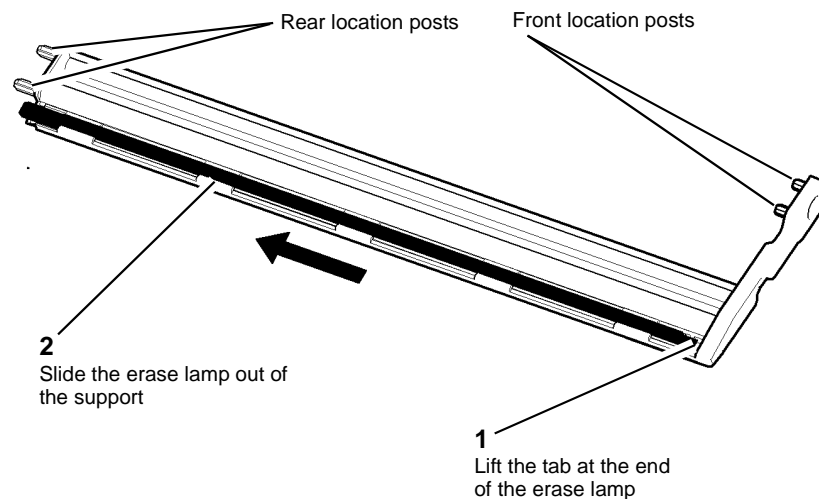
1. Remove the fuser module, **PL 10.10 Item 1**.
2. Remove the xerographic module, **PL 9.20 Item 2**.
3. Remove the erase lamp support, **Figure 1**.



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Figure 1 Erase lamp support

4. Remove the erase lamp, **Figure 2**.

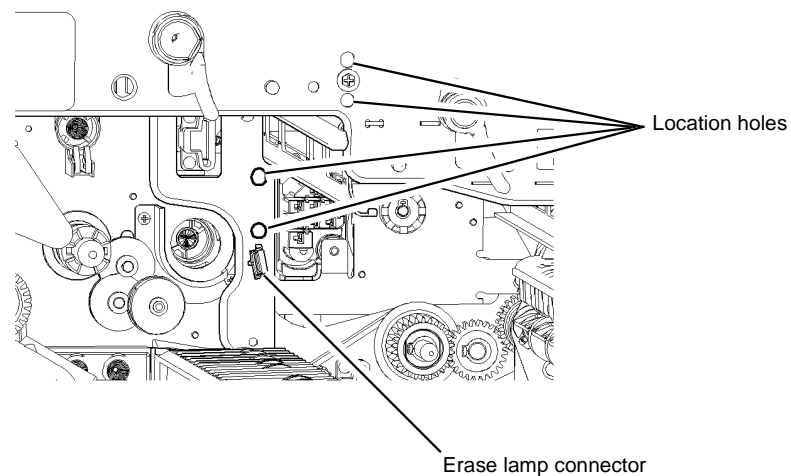


T-1-0598-A

Figure 2 Remove the erase lamp

### Replacement

1. Replacement is the reverse of the removal procedure.
2. Check that the location posts on the erase lamp (**Figure 2**), locate in the holes in the frame, **Figure 3**.



T-1-0599-A

Figure 3 Location holes

## REP 9.10 Auger Damper

Parts List on (35-55 ppm) [PL 4.15](#), (65-90 ppm) [PL 4.10](#)

### Removal

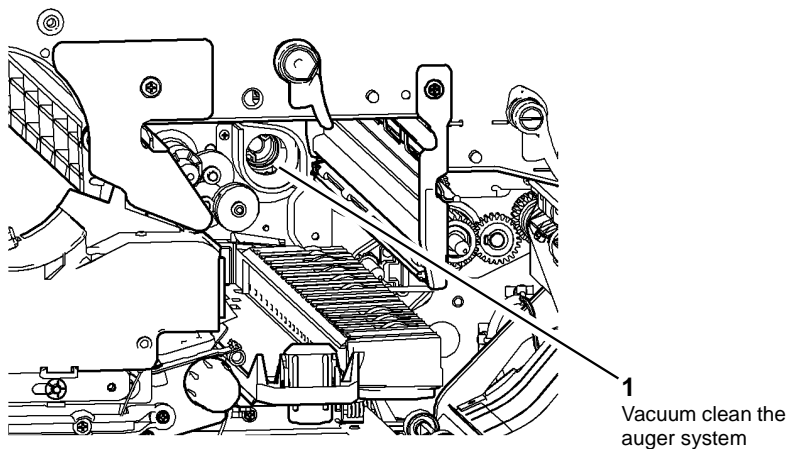


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Cam off the developer module.
2. Remove the xerographic module, [PL 9.20 Item 2](#).
3. Remove the waste toner from the auger system at the front of the machine, [Figure 1](#).

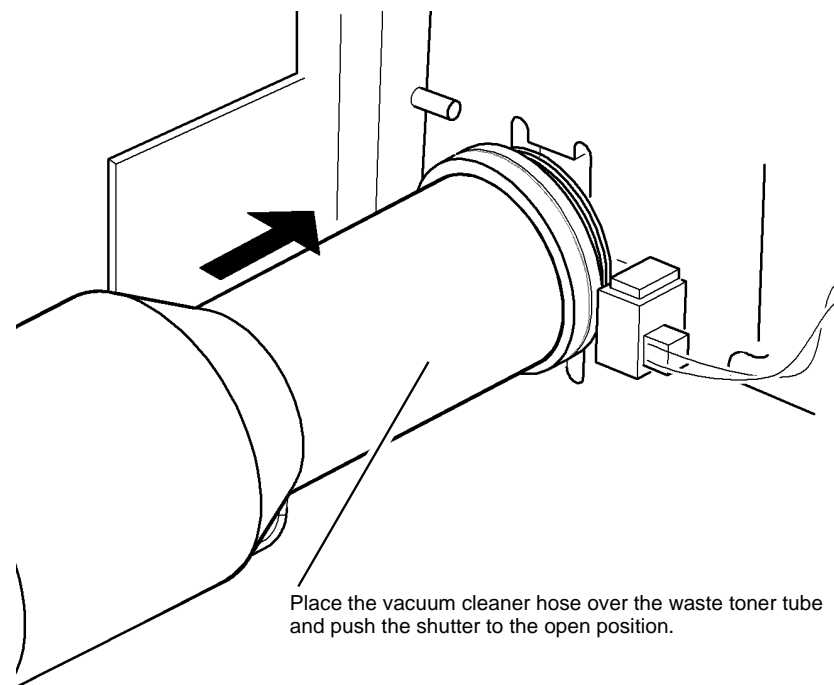


T-1-0600-A

Figure 1 Auger system at the front

4. Remove the waste toner bottle assembly, [REP 9.1](#).

5. Remove the waste toner from the shutter auger tube at the rear of the machine, [Figure 2](#).

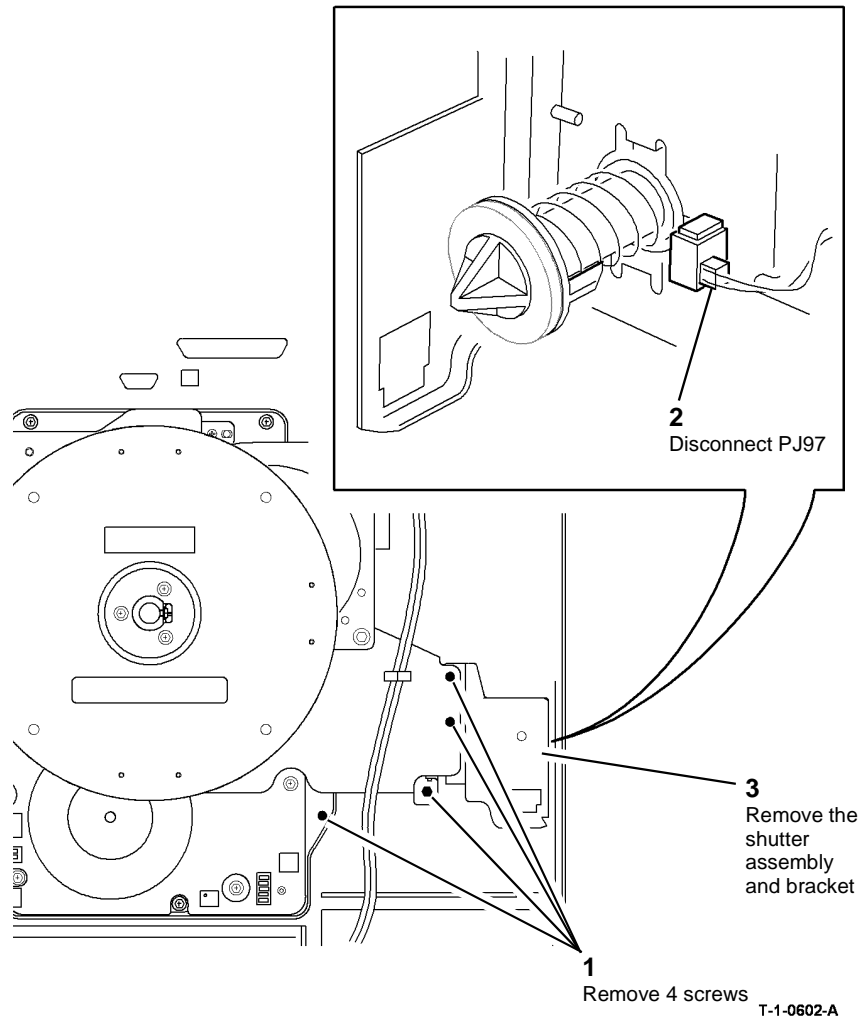


T-1-0601-A

Figure 2 Shutter and waste toner auger

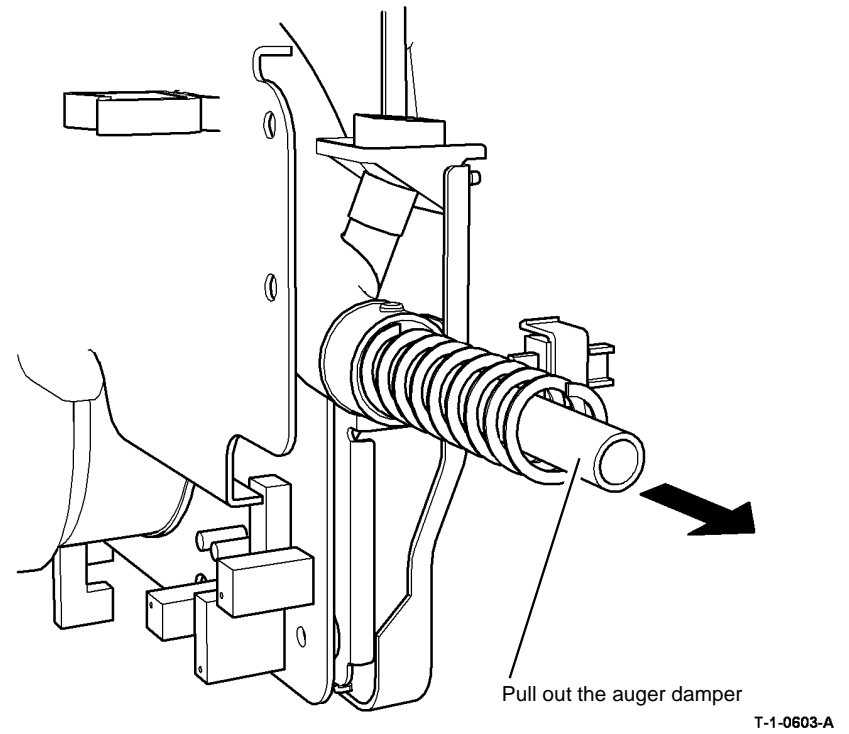
6. Remove the ozone filter and the duct, [PL 9.25 Item 2](#).
7. Remove the waste toner full sensor up to step 3, [REP 9.4](#).

8. Remove the shutter assembly and the support bracket, **Figure 3**.



**Figure 3 Remove shutter assembly**

9. Remove the auger damper, **Figure 4**.

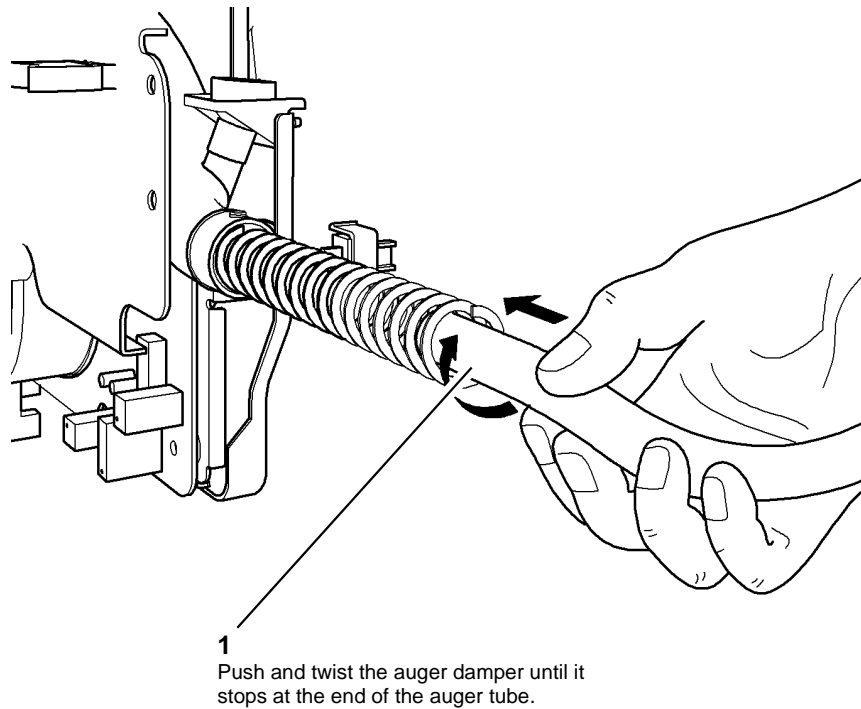


**Figure 4 Remove the auger damper**

## Replacement

1. Replacement is the reverse of the removal procedure.
2. Install the new auger damper, [Figure 5](#).

**NOTE:** The auger damper is longer than the auger spring.

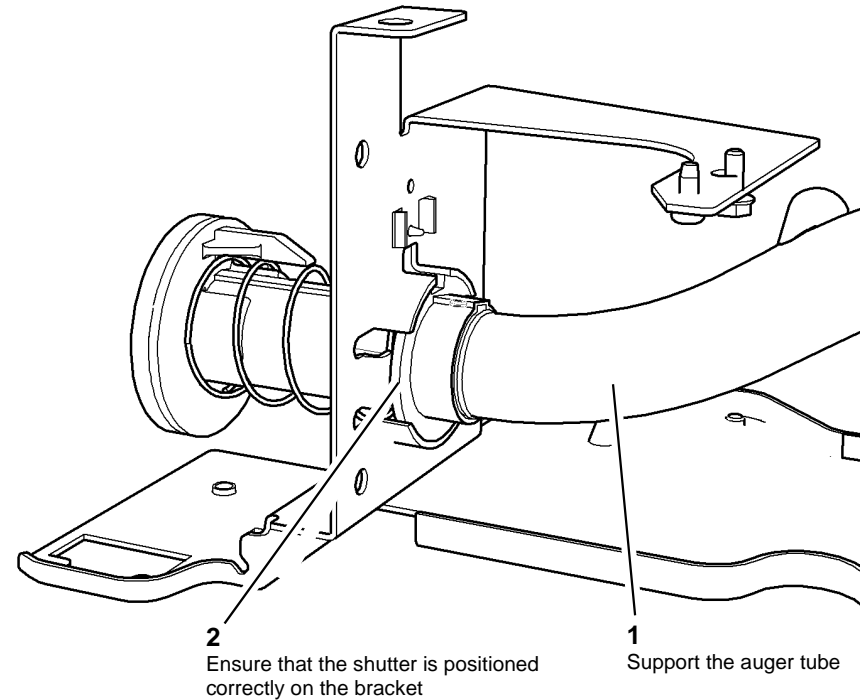


T-1-0604-A

**Figure 5 Installing the insert**

3. Ensure that the shutter assembly is positioned correctly on the support bracket.

4. Support the auger tube when locating the shutter assembly and bracket onto the auger tube, [Figure 6](#).



T-1-0605-A

**Figure 6 Shutter and bracket position**



## REP 10.1 Short Paper Path Assembly

Parts List on [PL 10.25](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** The following removal procedure depicts the W/O TAG 114 short paper path assembly. However, this procedure is also common to the W/TAG 114 short paper path assembly.

1. Remove the fuser assembly, (35-55 ppm) [PL 10.8 Item 1](#), (65-90 ppm) [PL 10.10 Item 1](#).
2. Remove the duplex transport, [REP 8.7](#).
3. Remove the xerographic module and place in a black bag, (35 ppm) [PL 9.22 Item 2](#), (40-90 ppm) [PL 9.20 Item 2](#).
4. Remove the transfer / detack corotron, (35 ppm) [PL 9.22 Item 8](#), (40-90 ppm) [PL 9.20 Item 3](#).
5. Remove the rear cover, [PL 8.10 Item 1](#).

6. Prepare the power and control module, [Figure 1](#).

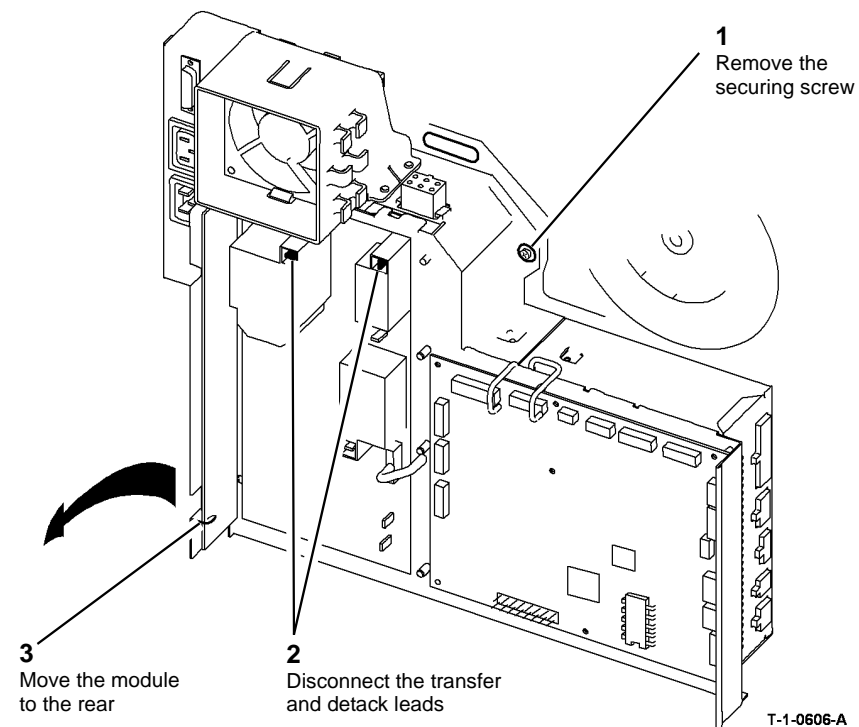
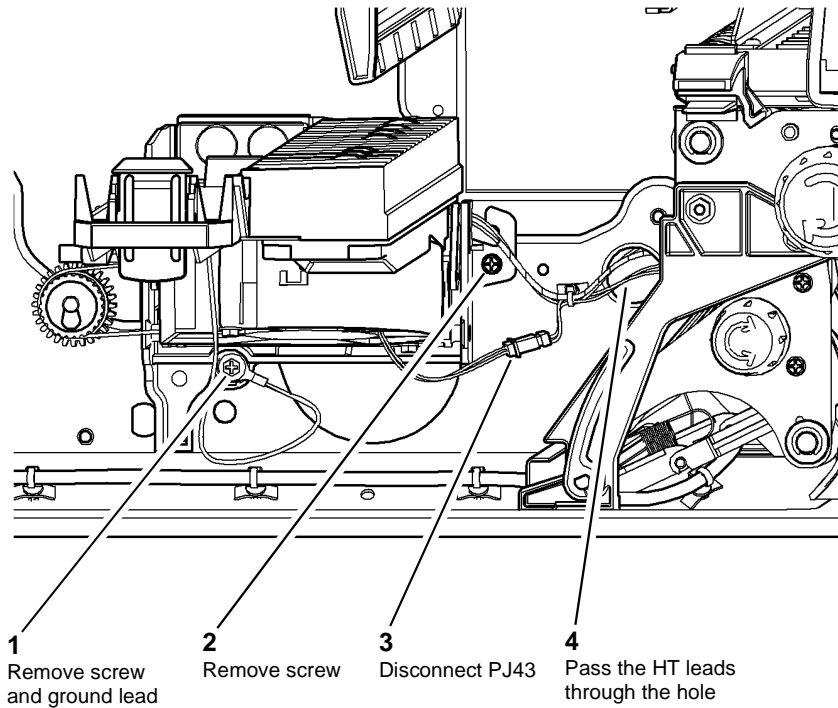


Figure 1 Prepare the power and control module

- Remove the short paper path assembly, [Figure 2](#).



- Remove screw and ground lead
- Remove screw
- Disconnect PJ43
- Pass the HT leads through the hole

T-1-0607-A

Figure 2 Remove short paper path assembly

## Replacement

**NOTE:** The following replacement procedure depicts the W/O TAG 114 short paper path assembly. However, this procedure is also common to the W/TAG 114 short paper path assembly.

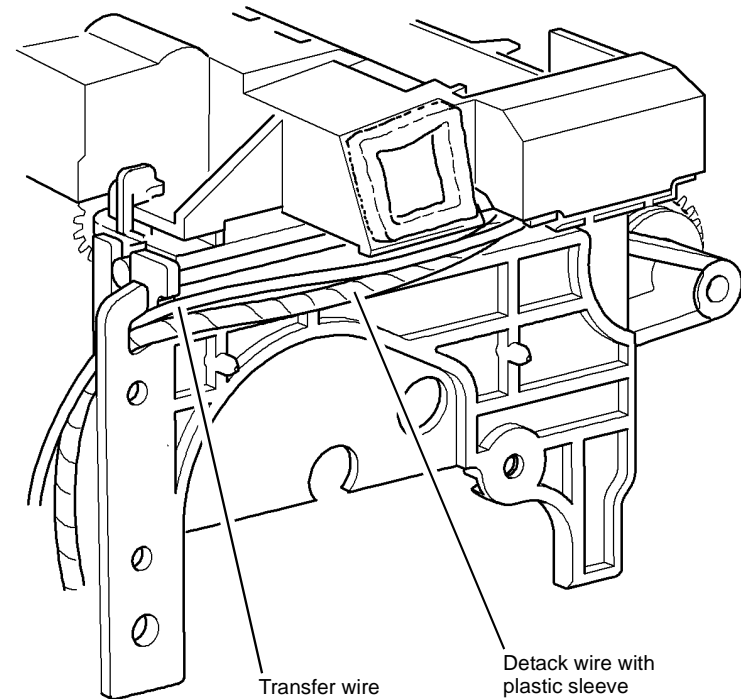
**NOTE:** The following replacement procedure must be performed in conjunction with the related service kit instruction.

- Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

**CAUTION**

To ensure the transport hinge is located correctly, First install the left hand screw, with the ground lead, then the right hand screw.

- Check that the detach wire with the plastic sleeve is routed correctly on the transport hinge, [Figure 3](#).



Transfer wire  
Detach wire with plastic sleeve

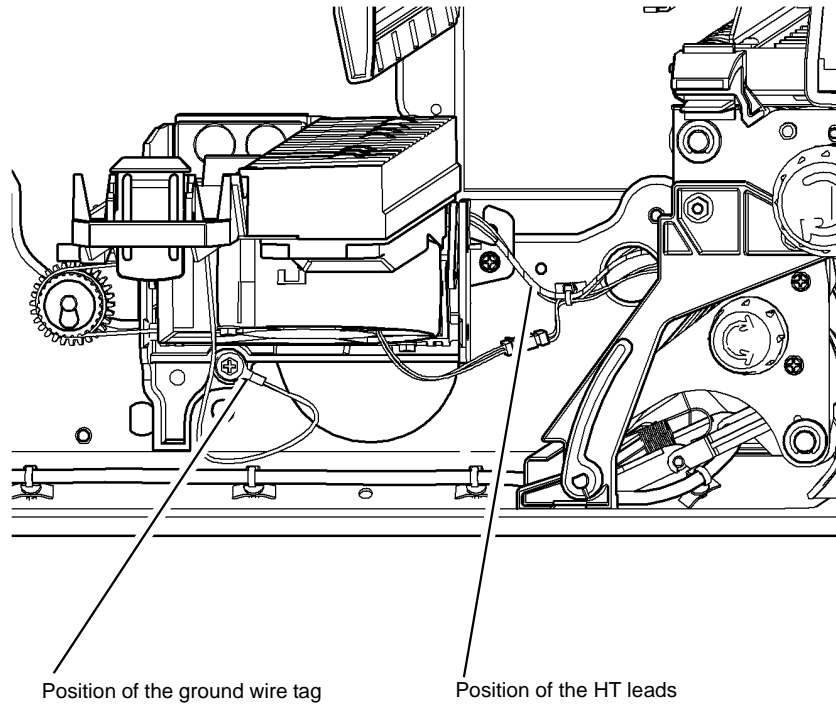
T-1-0608-A

Figure 3 Spiral wrap location



3. Position the ground wire terminal in the left hand screw location on the hinge bracket and position the HT leads, [Figure 4](#).
4. When locating the hinge bracket to the frame make sure that the hinge is pushed fully against the frame.
5. To ensure that the transport hinge is located correctly, first install the left hand screw, with the ground wire, then the right hand screw.

**NOTE:** Ensure that both ends of the ground lead are connected to the correct terminals.



T-1-0609-A

**Figure 4 Ground wire and spiral wrap**

6. After completing the replacement procedure, check that the short paper path assembly latches without excessive force.
7. Raise and lower the latch mechanism of the short paper path assembly, [PL 10.25 Item 1](#), to ensure that the transfer / detach corotron is parallel to the photoreceptor. If the movement of raising the short paper path assembly is not smooth, check the action of the corotron carrier [PL 10.25 Item 2](#).

## REP 10.2 Inverter Assembly

Parts List on [PL 10.11](#), [PL 10.20](#), [PL 10.21](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.



Take care during this procedure. Motors will become hot during normal operation.

1. Remove the fuser assembly, (35-55 ppm) [PL 10.8 Item 1](#), (65-90 ppm) [PL 10.10 Item 1](#).
2. Remove the duplex transport, [REP 8.7](#).
3. Remove the output device and the right hand cover, [PL 8.10 Item 9](#).
4. Remove the rear cover, [PL 8.10 Item 1](#).

5. (W/O TAG 046, W/O TAG 047 or W/O TAG 148). Remove the inverter support, Figure 1.
6. (W/TAG 046, W/TAG 047 or W/TAG 148). Remove the inverter decurler adjuster and retaining ring, Figure 2.

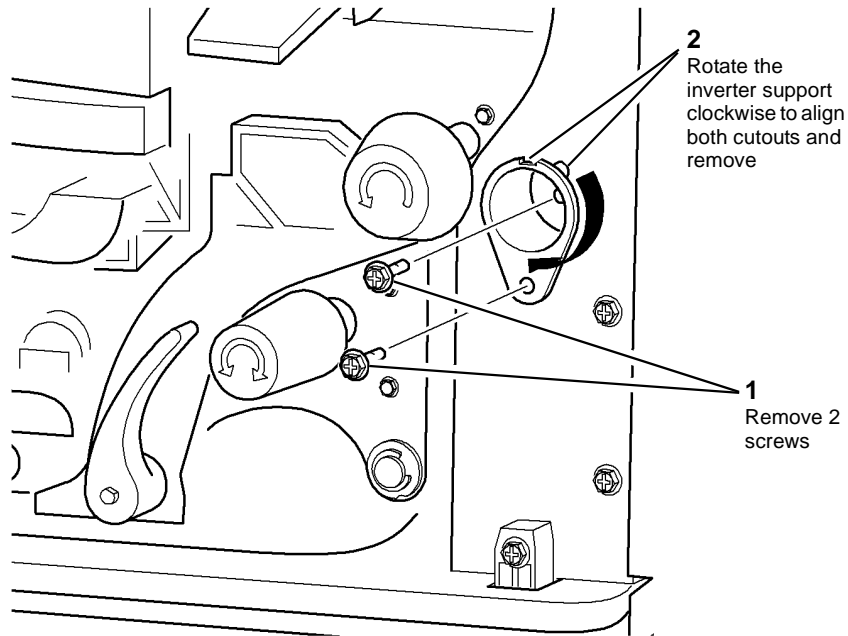


Figure 1 Inverter support

T-1-0610-A

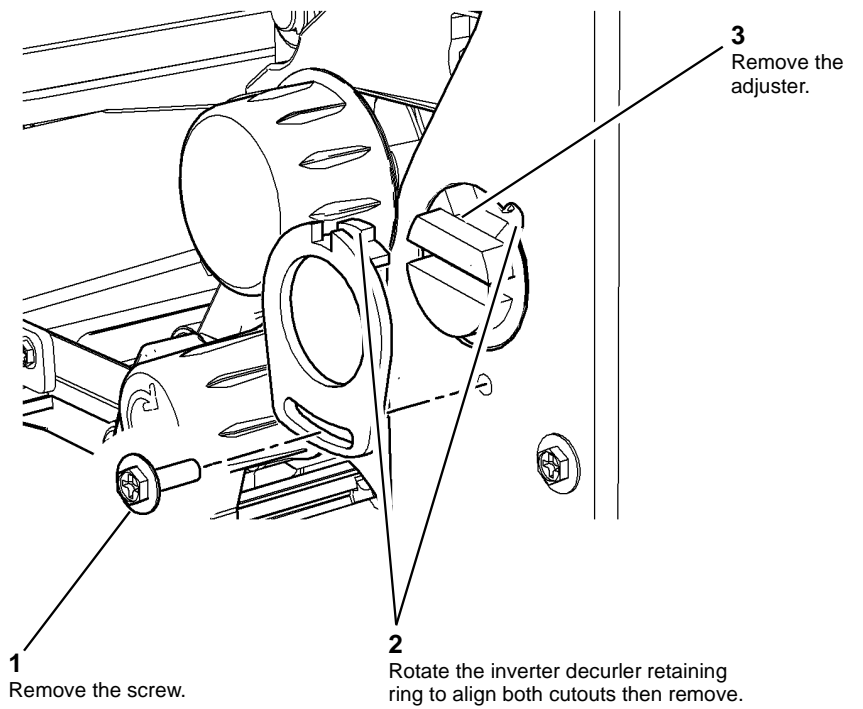


Figure 2 Adjuster and retaining ring

T-1-0611-A

7. Remove the tie bar. [Figure 3](#).

**NOTE:** On 65-90 ppm machines W/TAG 120, the thermistor connection PJ76 is not used. Refer to [Figure 3](#).

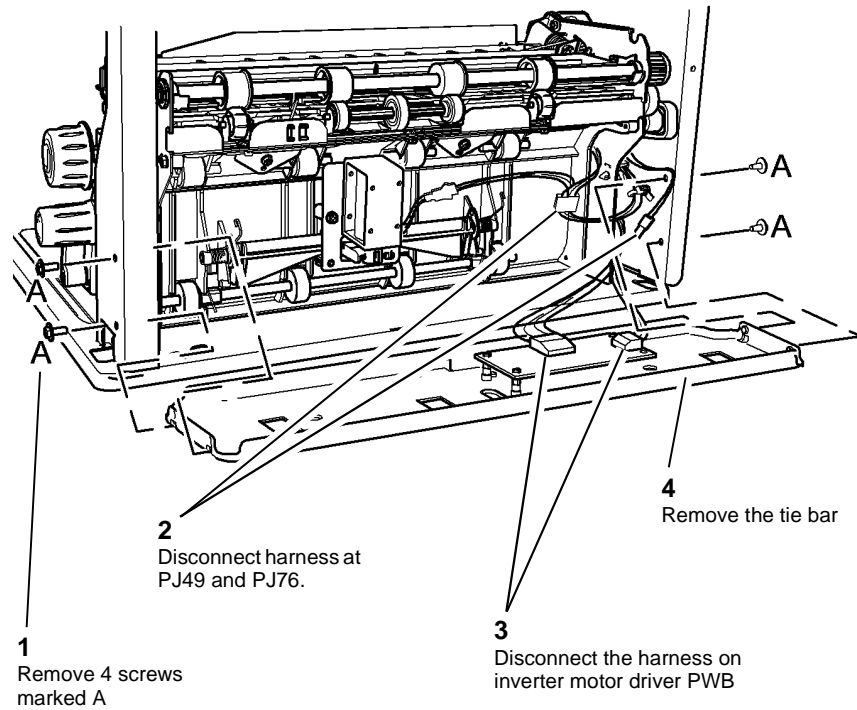


Figure 3 Tie bar

8. Lift the inverter assembly and move to the front, [Figure 4](#).

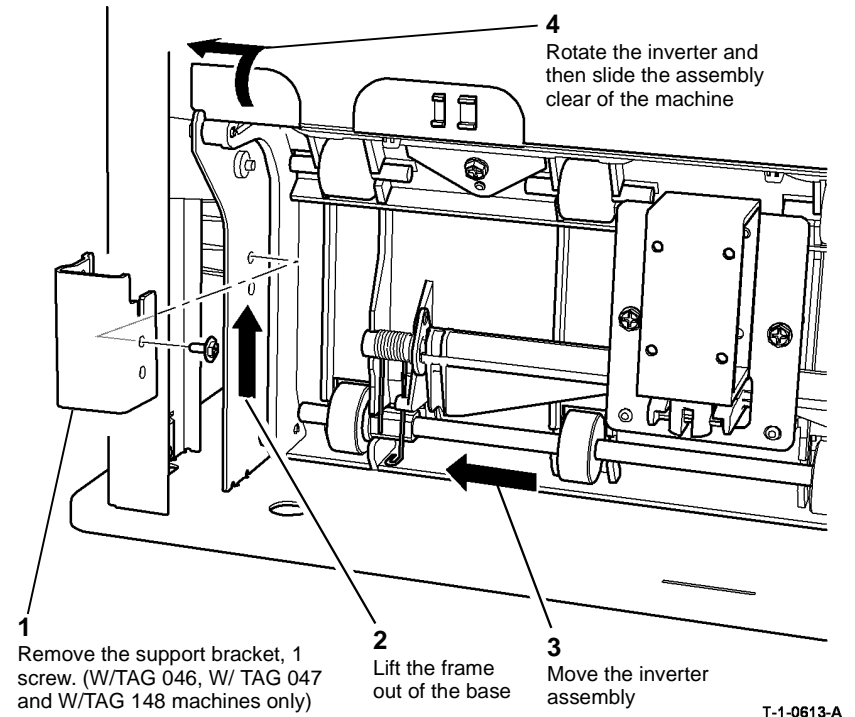
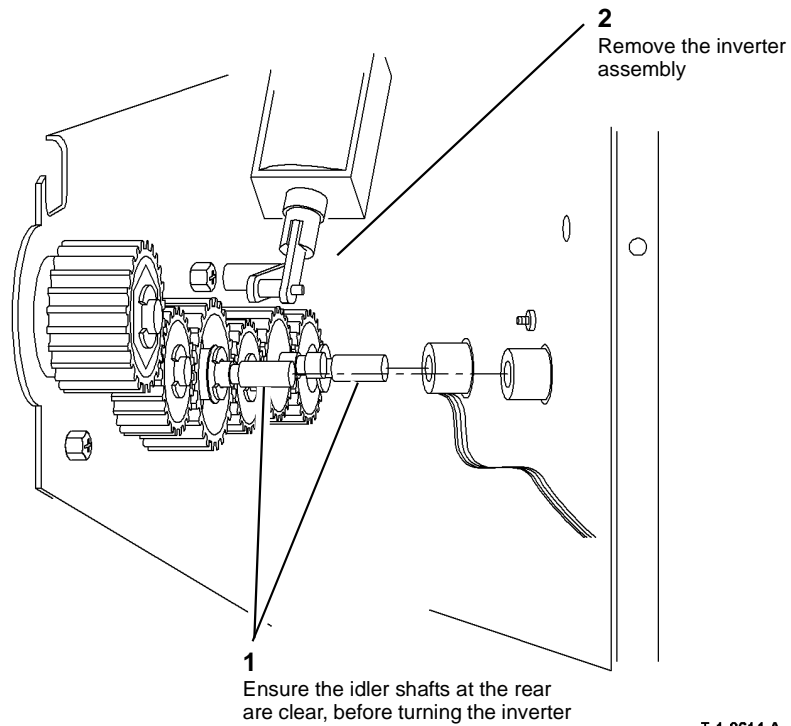


Figure 4 Move the inverter to the front

9. Remove the inverter assembly through the right hand side of the machine, [Figure 5](#).



**Figure 5 Remove inverter assembly**

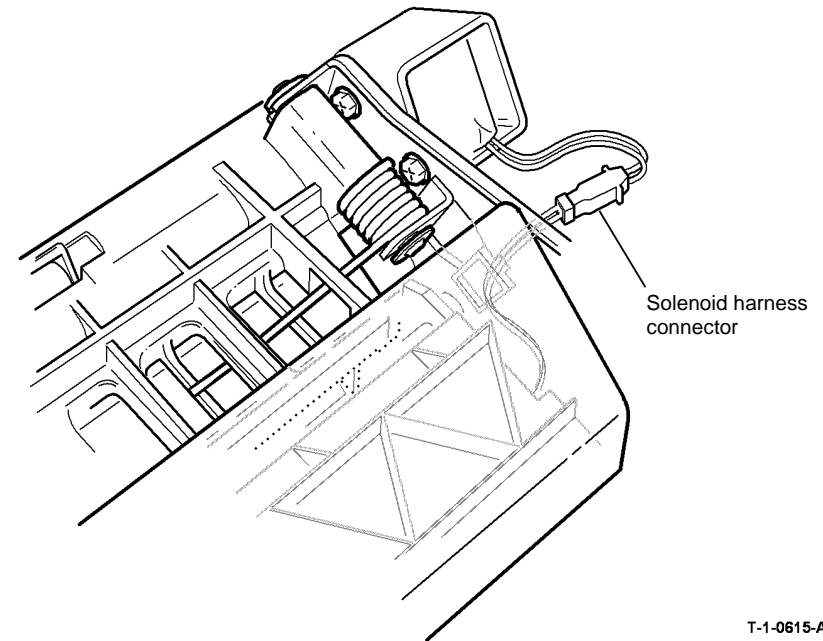
T-1-0614-A

## Replacement

**NOTE:** On 65-90 ppm machines W/TAG 120, the thermistor connection PJ76 is not used. Refer to [Figure 3](#).

Before installing the inverter assembly check the following:

1. The inverter motor harness is routed correctly. Check that the harness does not get trapped between the inverter frame and the base, [Figure 3](#).
2. The solenoid harness connector is located at the rear of the inverter frame, [Figure 6](#).



**Figure 6 Solenoid harness connector**

T-1-0615-A

3. The nip roll guide is correctly located in the cut-out at the front and rear of the inverter frame, [Figure 7](#).

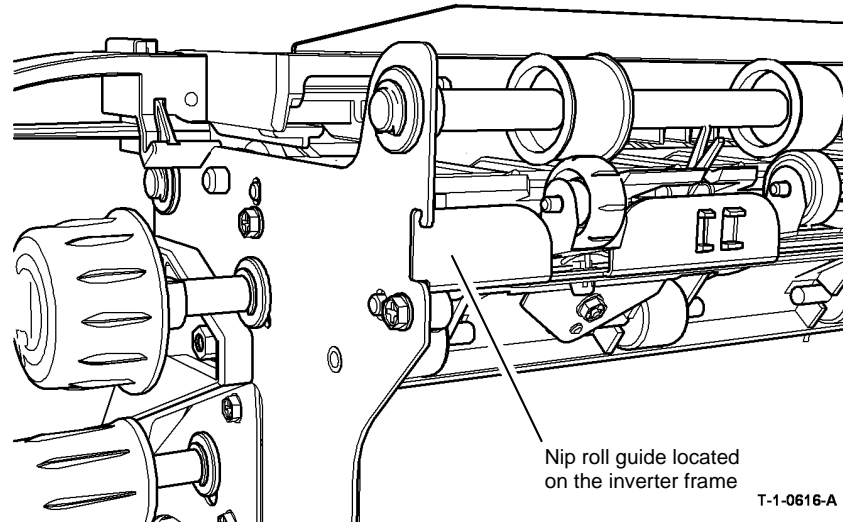


Figure 7 Nip roll guide

4. Make sure that the baffle guide, [PL 10.13 Item 3](#) and upper baffle, [PL 10.12 Item 14](#) are linked correctly. When latch 3d/4d is released, the two baffles must lift together.

5. ([W/TAG 046](#), [W/TAG 047](#) or [W/TAG 148](#)). Ensure the gear indexer is set to the neutral position, [Figure 8](#).

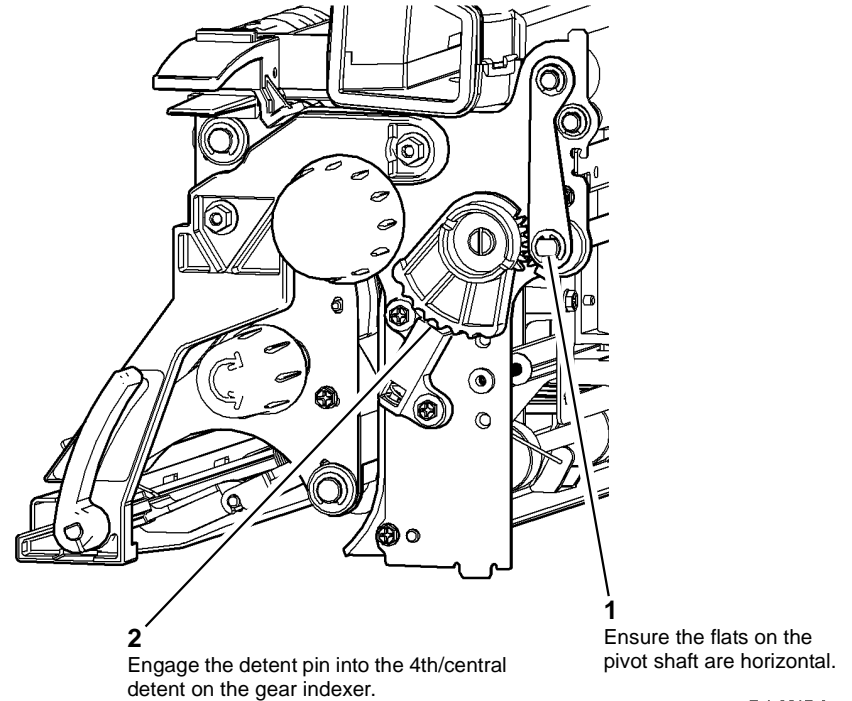


Figure 8 Initial setup of the gear indexer

6. Replacement of the inverter assembly is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
 

**NOTE:** When the idler shafts are located, [Figure 5](#). Rotate knob 3C clockwise to engage the drives coupling between the inverter and the drives plate. This will also allow the inverter to locate into the base of the machine, [Figure 4](#).
7. If a new inverter assembly is installed, reset the Post Fuser count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.
8. ([W/TAG 046](#), [W/TAG 047](#) or [W/TAG 148](#)). Perform [ADJ 10.1](#) Inverter Decurler Adjustment.

## REP 10.3 Inverter Motor

Parts List on [PL 10.11](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

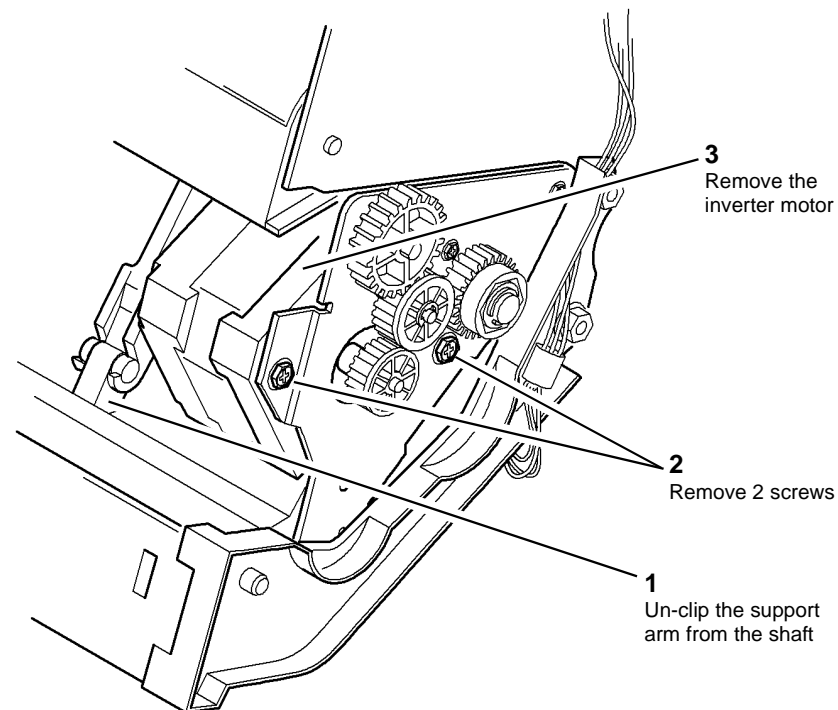


#### WARNING

Take care during this procedure. Motors will become hot during normal operation.

1. Remove the inverter assembly, [REP 10.2](#).

2. Remove the inverter motor, [Figure 1](#).



T-1-0618-A

Figure 1 Inverter motor

### Replacement

Replacement is the reverse of the removal procedure.

## REP 10.4 Inverter Path Solenoid

Parts List on [PL 10.11](#)

### Removal

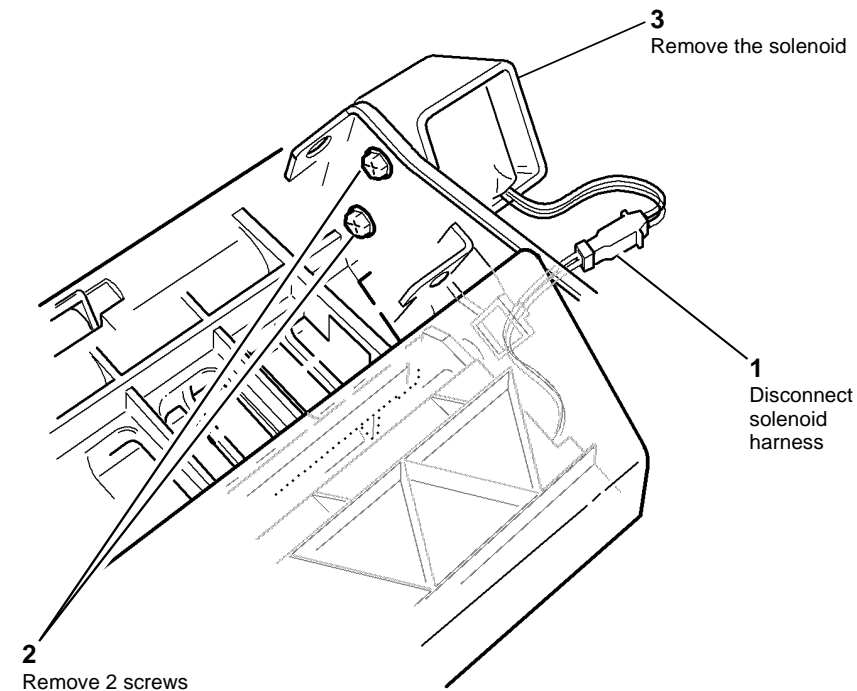


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inverter assembly, [REP 10.2](#).
2. Remove upper baffle assembly, [REP 10.7](#).
3. Remove the diverter solenoid, [Figure 1](#).



T-1-0619-A

Figure 1 Inverter path solenoid

### Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Check that the solenoid harness connector is located at the rear of the inverter frame as in [Figure 1](#).
3. Make sure that the link arm is connected to the solenoid armature. Manually operate the solenoid armature and check that the inverter gate operates correctly.

## REP 10.5 Inverter Nip Solenoid

Parts List on [PL 10.11](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inverter assembly, [REP 10.2](#).
2. Remove the inverter nip solenoid, [Figure 1](#).

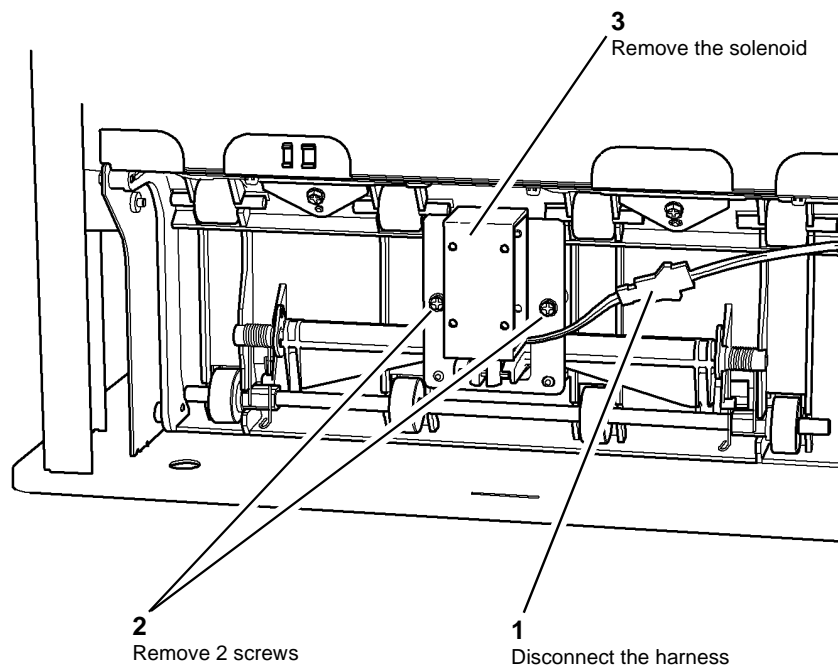


Figure 1 Inverter nip solenoid

### Replacement

Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 10.6 Nip Roll Guide

Parts List on [PL 10.11](#)

### Purpose

This procedure is used to repair the following:

- Single exit nip roll, [PL 10.11 Item 7](#).
- Double exit nip roll, [PL 10.11 Item 8](#).
- Nip roll guide, [PL 10.11 Item 10](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



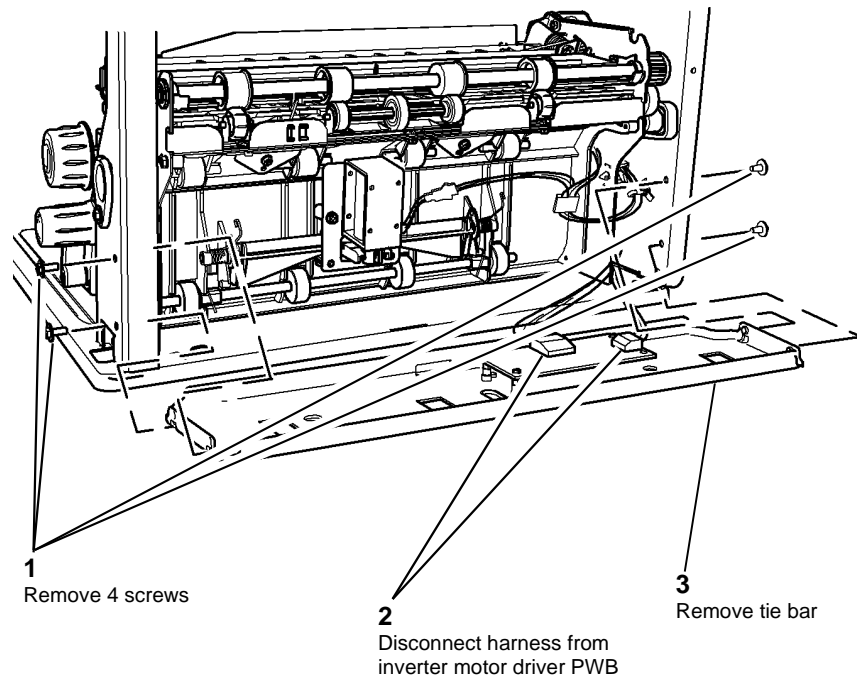
#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the output device and the right hand cover, [PL 8.10 Item 9](#).
2. Remove the rear cover, [PL 8.10 Item 1](#).



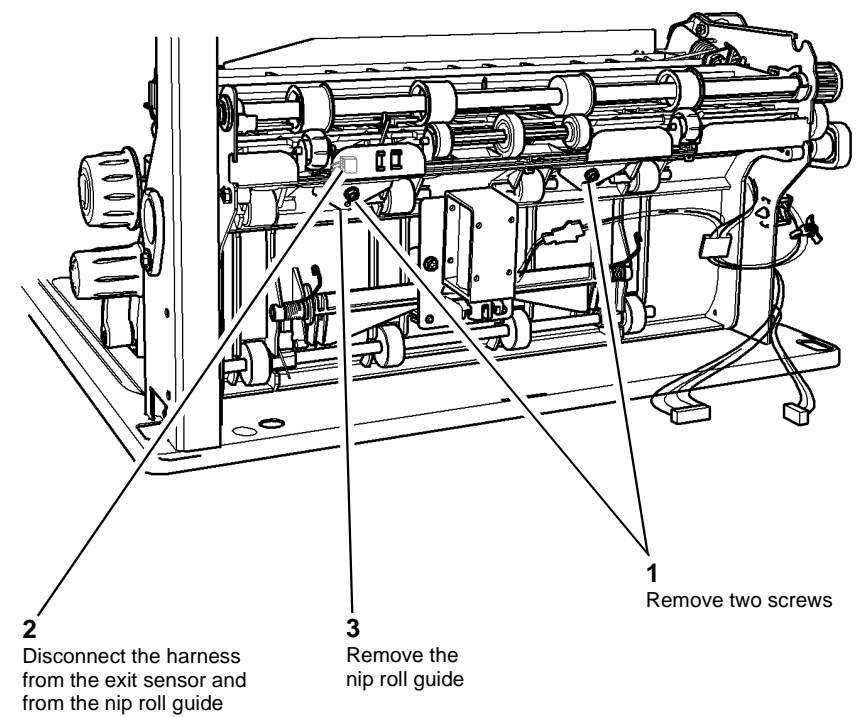
3. Remove the tie bar, [Figure 1](#).



T-1-0621-A

**Figure 1 Remove tie bar**

4. Remove the nip roll guide, [Figure 2](#).



T-1-0622-A

**Figure 2 Nip roll guide**

5. Remove the following components from the nip roll guide as required:
- IOT exit sensor.
  - Single exit nip roll.
  - Double exit nip roll.

## Replacement

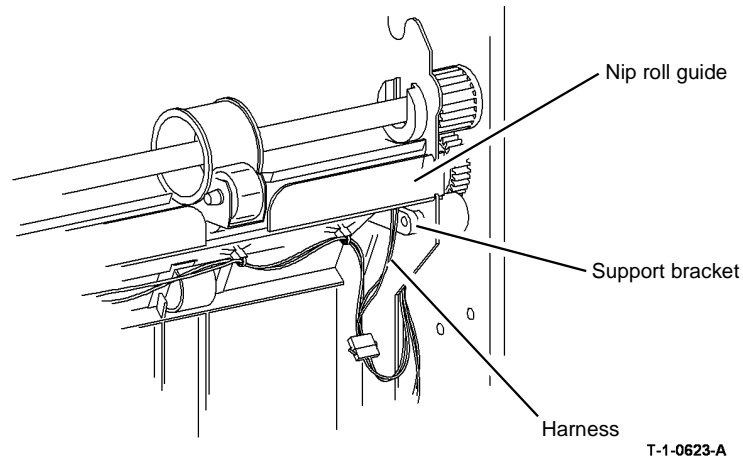
1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.



### CAUTION

*Check that the inverter path solenoid harness is not trapped between the nip roll guide and the support bracket, [Figure 3](#).*

2. Ensure that the ground connection is secured by the nip roll guide front fixing screw.



**Figure 3 Inverter path solenoid Harness**

## REP 10.7 Upper Baffle Assembly

Parts List on [PL 10.11](#)

### Removal



### WARNING

**Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.**



### WARNING

**Take care during this procedure. Sharp edges may be present that can cause injury.**

1. Remove the inverter assembly, [REP 10.2](#).

2. Remove the upper baffle assembly.
  - (35-55 ppm). Complete the procedure in [Figure 1](#).
  - (65-90 ppm). Remove the inverter sensor, [REP 10.20](#). Then complete the procedure in [Figure 1](#).

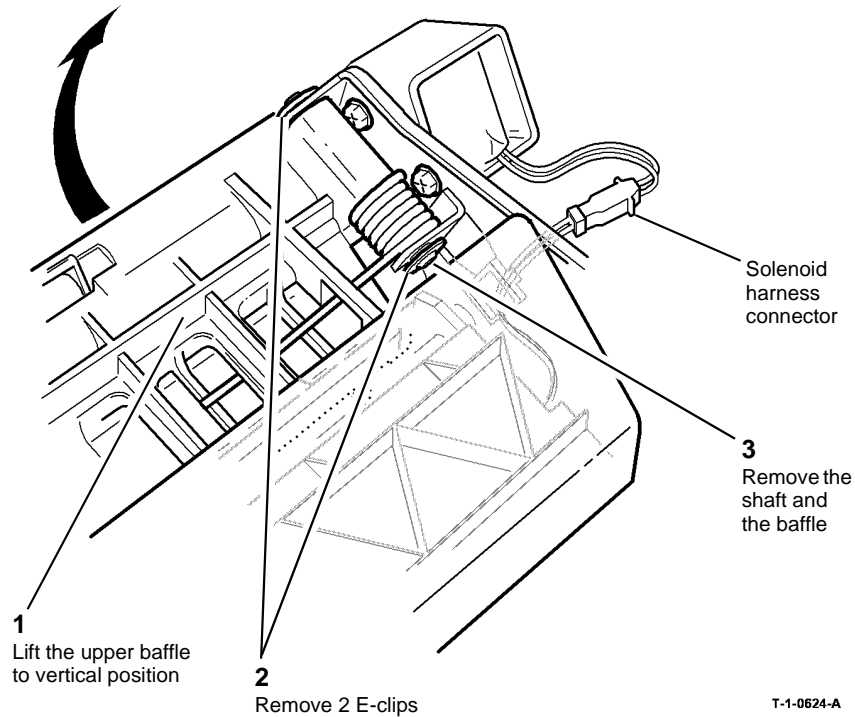


Figure 1 Upper baffle assembly

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Check that the solenoid harness connector is located at the rear of the inverter frame, refer to [Figure 1](#).
3. Make sure that the two upper baffles are linked correctly. When the latch 3d/4d is released, the two baffles lift together.

## REP 10.8 Nip Split Shaft Assembly

Parts List on [PL 10.11](#)

### Removal

**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the output device and the right hand cover, [PL 8.10 Item 9](#).
2. Remove the rear cover, [PL 8.10 Item 1](#).
3. Remove the tie bar, [Figure 1](#).

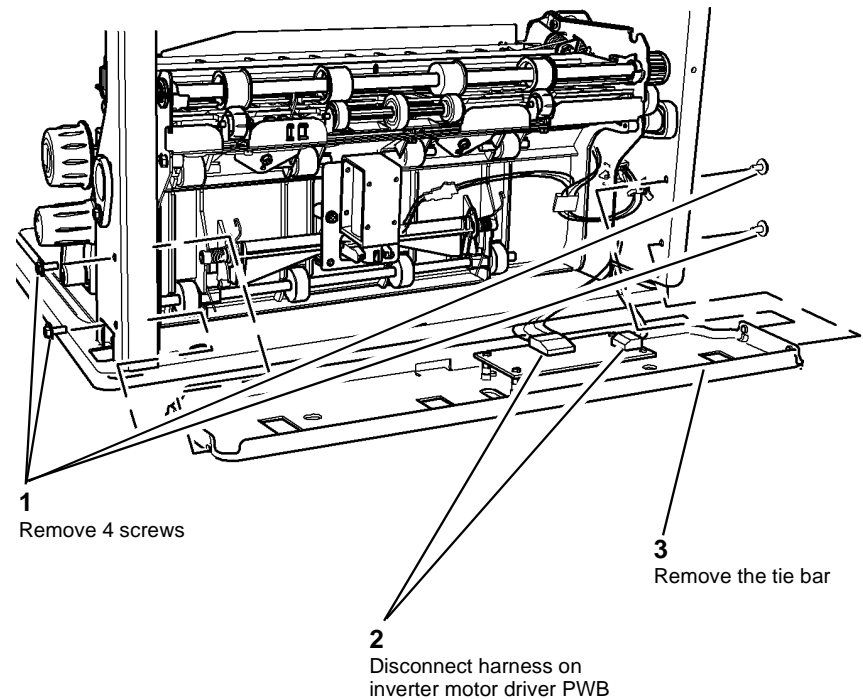
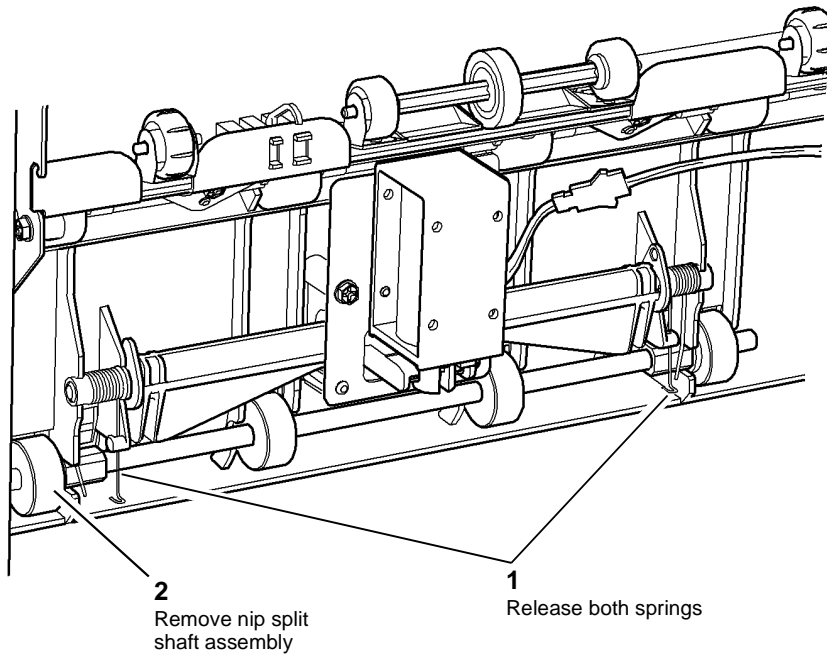


Figure 1 Tie bar

4. Remove the nip split shaft assembly, [Figure 2](#).

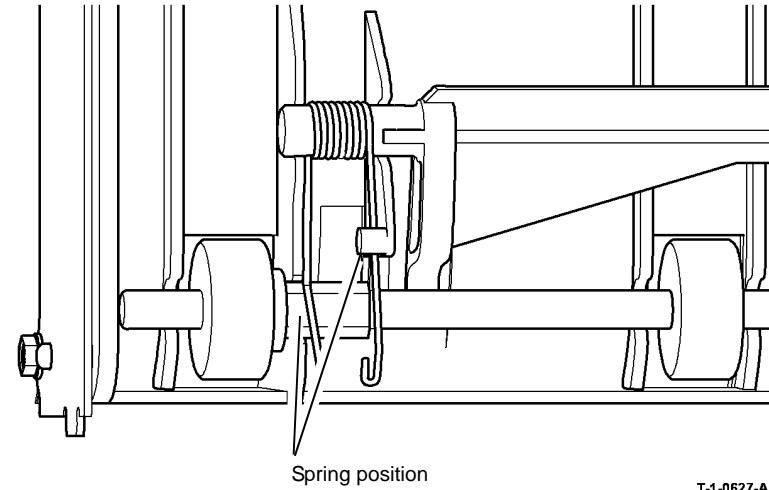


**Figure 2 Nip split shaft assembly**

T-1-0626-A

## Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Check that both springs are positioned correctly, [Figure 3](#).



**Figure 3 Location of the spring**

3. If a nip slit shaft assembly is installed, reset the nip split shaft count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 10.9 Shaft Actuator

Parts List on [PL 10.11](#)

### Removal



#### WARNING

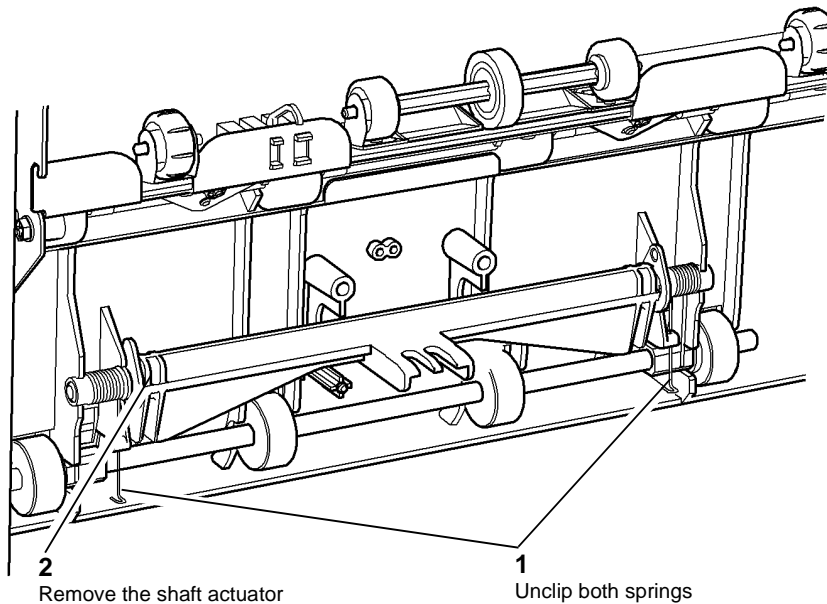
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inverter assembly, [REP 10.2](#).
2. Remove the inverter nip solenoid, [REP 10.5](#).
3. Remove the shaft actuator, [Figure 1](#).

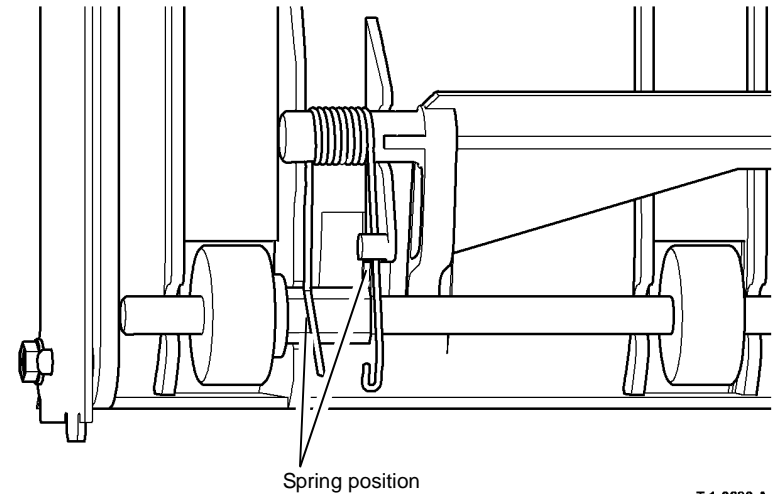


T-1-0628-A

Figure 1 Shaft actuator

### Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Check that both springs are positioned correctly, [Figure 2](#).



T-1-0629-A

Figure 2 Location of the spring

## REP 10.10 Fuser Latch

Parts List on (35-55 ppm) **PL 10.8**, (65-90 ppm) **PL 10.10**

### Removal



**WARNING**

Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, **REP 5.19**.
2. Remove the scanner, **REP 14.1**.
3. Refer to **REP 6.1** and move the ROS to the side, **Figure 1**.

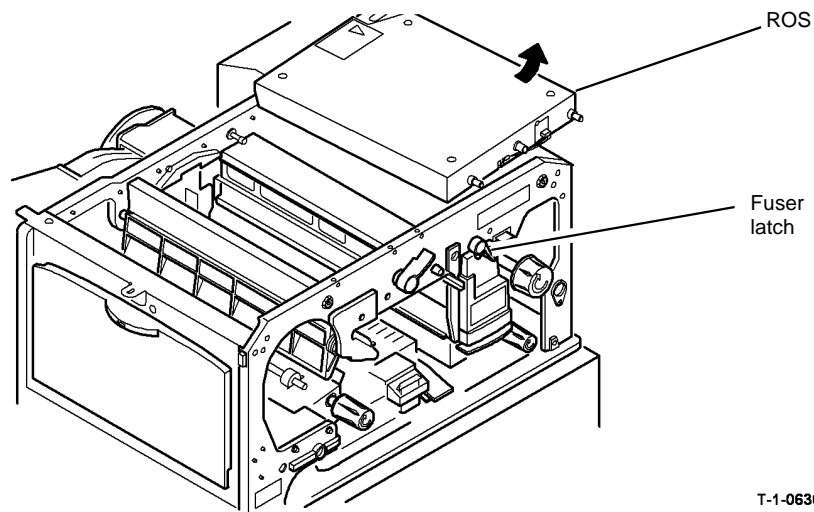


Figure 1 Move the ROS

T-1-0630-A



**WARNING**

Take care when removing the latch. The latch contains a compressed spring, which can cause injury when released.

4. Hold the fuser latch pin in position with a screw driver and remove the screw at the back of the latch to release the fuser latch, latch pin and spring, **Figure 2**.

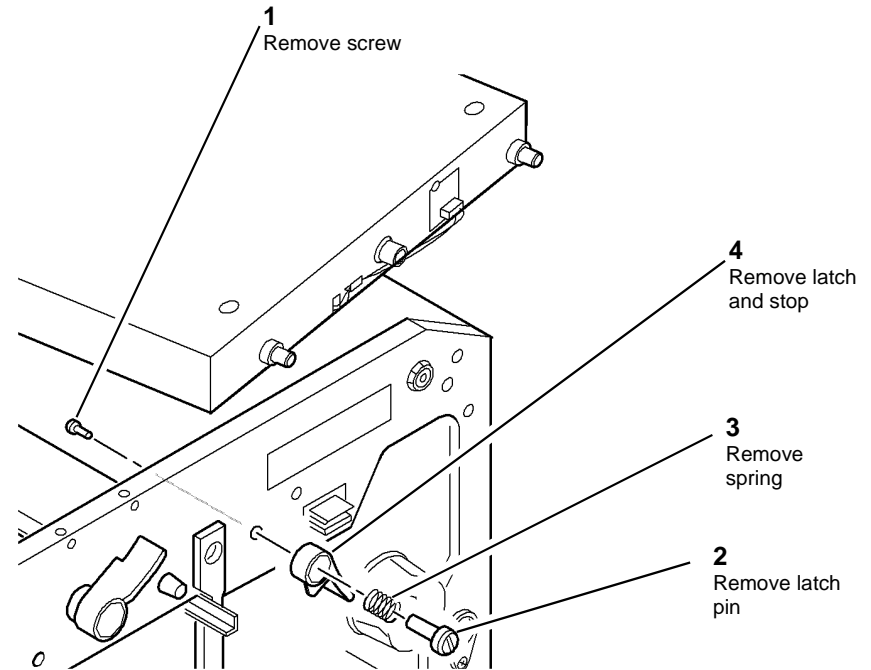
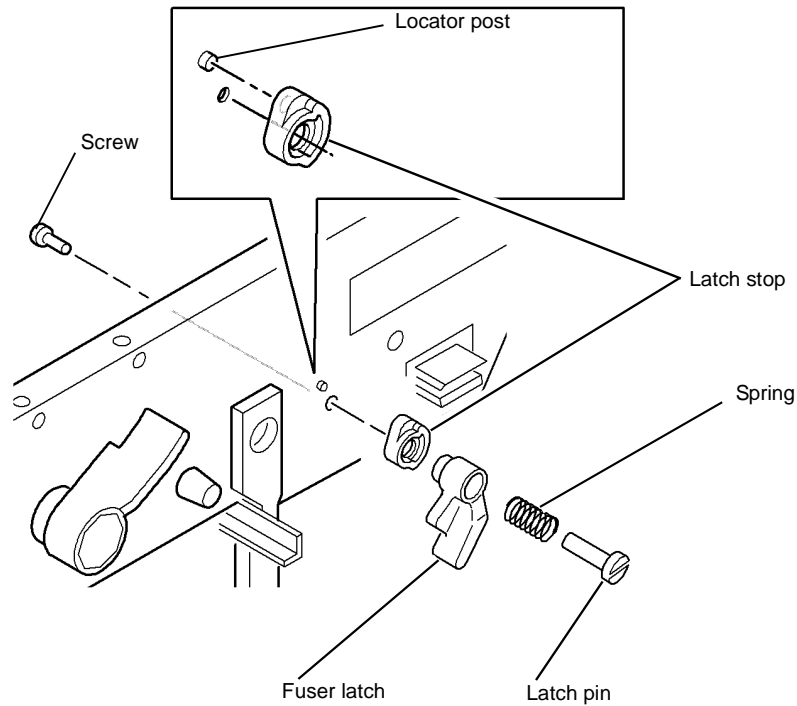


Figure 2 Remove the fuser latch

T-1-0631-A

## Replacement

1. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Ensure that the latch stop is seated over the locator post on the machine frame, [Figure 3](#).



T-1-0632-A

Figure 3 Locate the latch stop

## REP 10.11 Inverter Gate

### Parts List on [PL 10.12](#)

## Removal



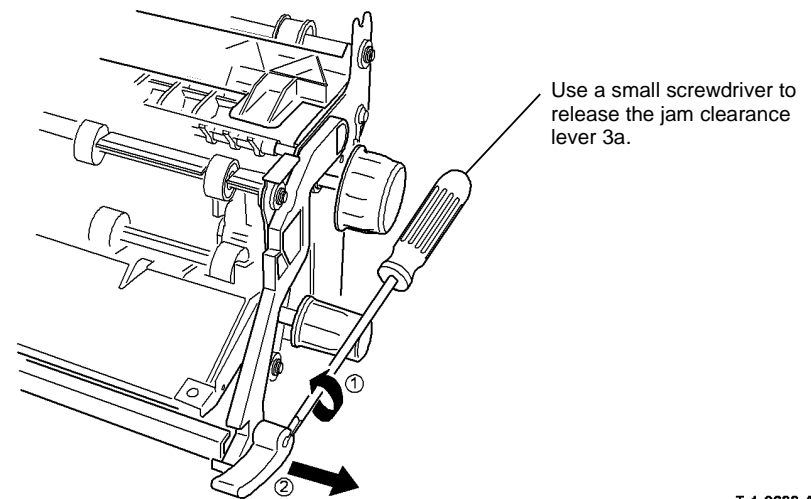
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inverter path solenoid, [REP 10.4](#).
2. Remove the jam clearance lever 3a, [Figure 1](#).

**NOTE:** To remove the inverter gate, remove two nuts, [Figure 2](#) and flex the bracket. If the repair is used with [REP 10.12](#), the jam clearance lever 3a, [Figure 1](#) and the inverter assembly bracket, [Figure 2](#), must be removed.



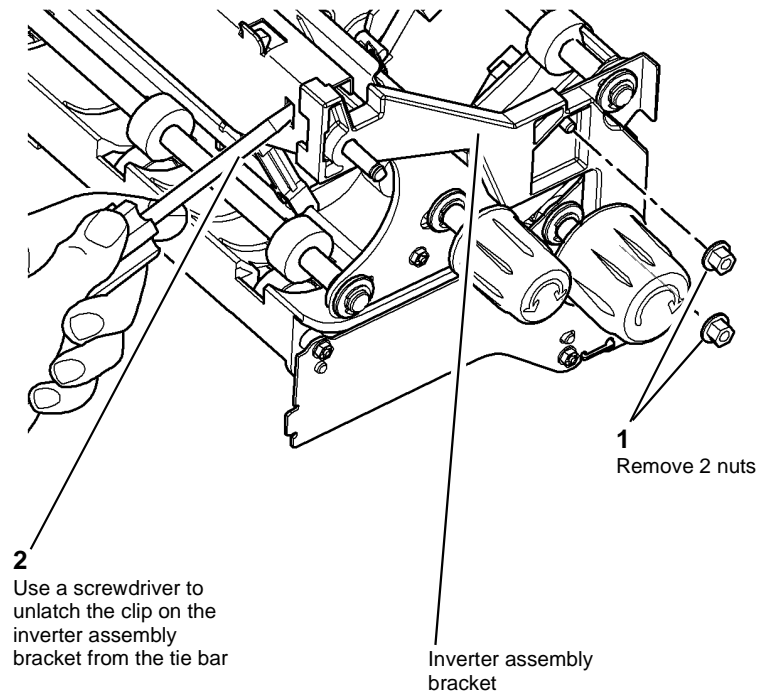
T-1-0633-A

Figure 1 Jam clearance lever 3a

**!**  
**CAUTION**

*Take care not break the inverter assembly bracket.*

- Carefully unlatch the inverter assembly bracket from the inverter assembly, [Figure 2](#).

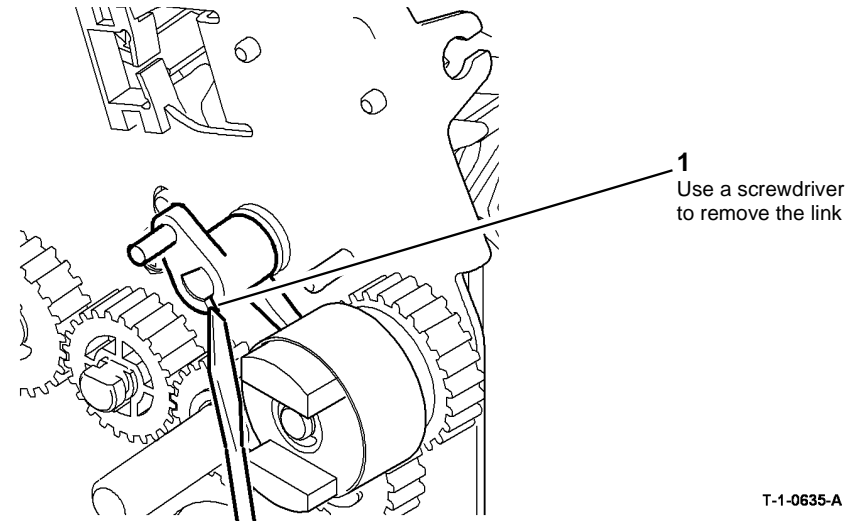


**Figure 2 Inverter assembly bracket**

T-1-0634-A

- Remove the inverter path solenoid link, [Figure 3](#).

**NOTE:** When the link arm has been removed, a new link arm must be installed, [PL 10.11 Item 1](#).



**Figure 3 Inverter path solenoid link**

T-1-0635-A



5. Remove the inverter gate, [Figure 4](#).

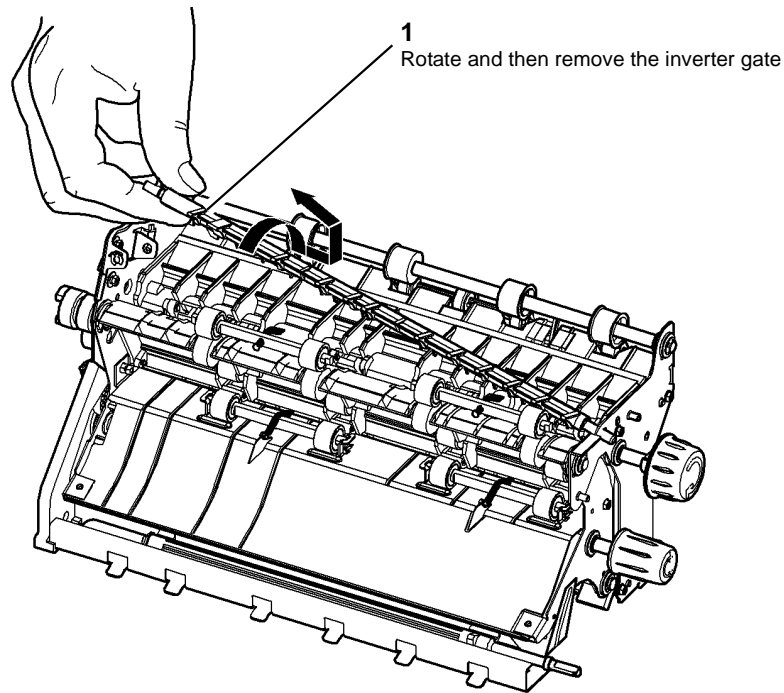


Figure 4 Inverter gate

T-1-0636-A

### Replacement

Re-install the remainder of the removed components. Replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

## REP 10.12 Tri-Roll Shaft Assembly

Parts List on [PL 10.12](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inverter gate, [REP 10.11](#).
2. Remove the tri-roll jam clearance knob 3c, [Figure 1](#).

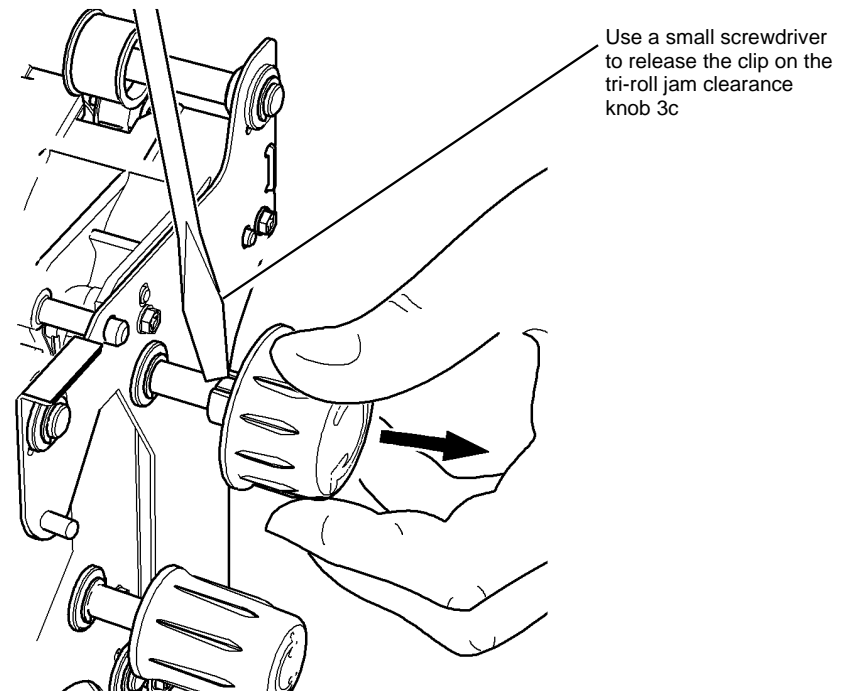
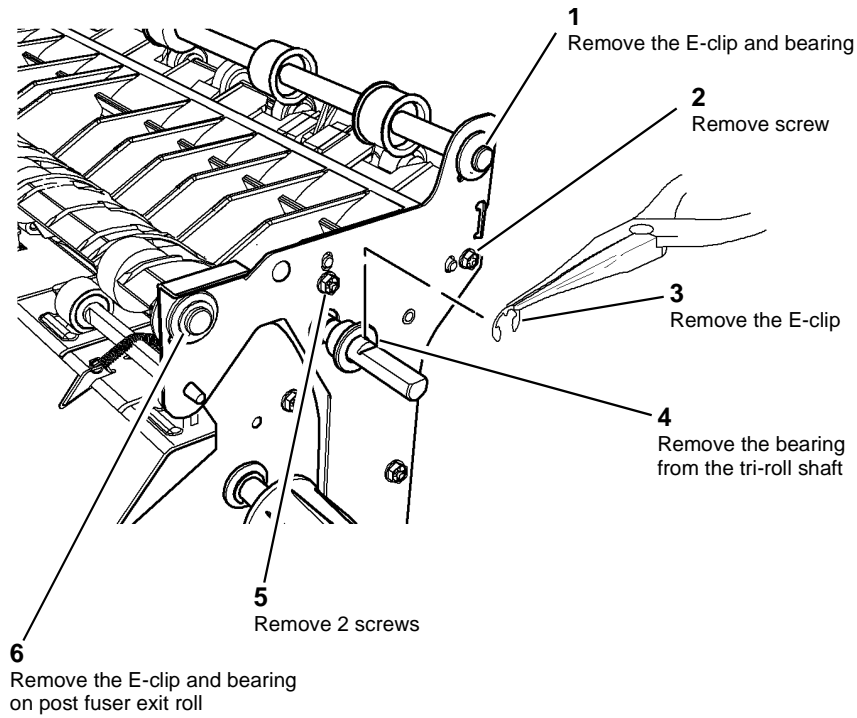


Figure 1 Tri-roll knob

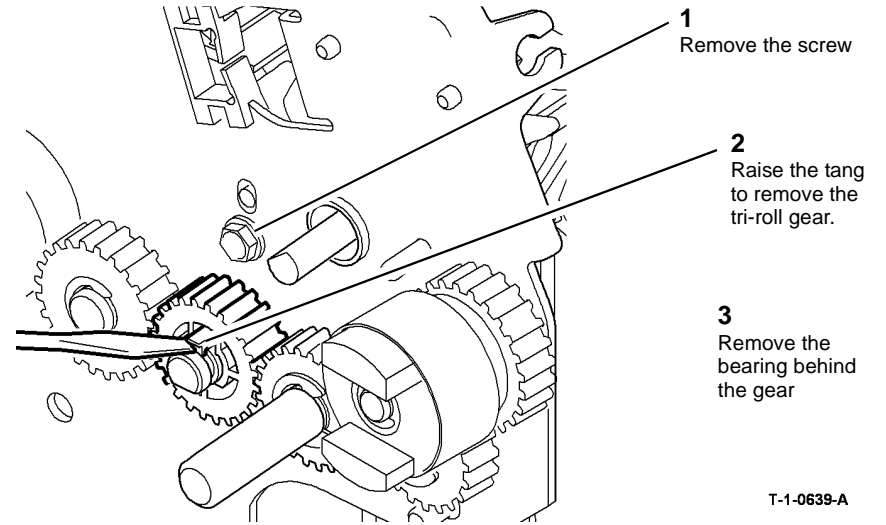
T-1-0637-A

- Remove the tri-roll, fuser exit and exit shaft bearings, **Figure 2**. Remove the duct (65-90 ppm) or the baffle guide (35-55 ppm), **PL 10.13**.



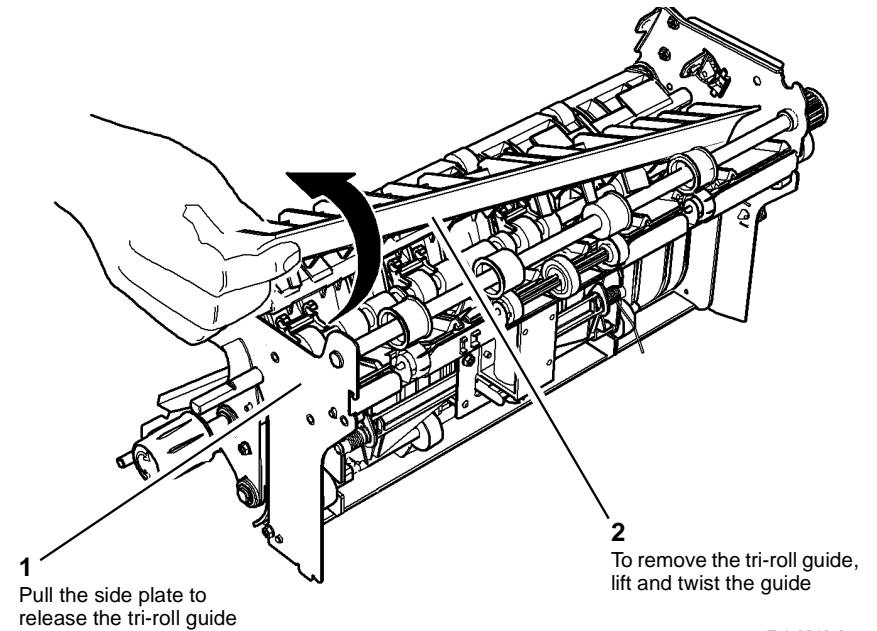
**Figure 2 Preparation**

- Remove the securing screw and tri-roll drive gear, **Figure 3**.



**Figure 3 Tri-roll drive gear**

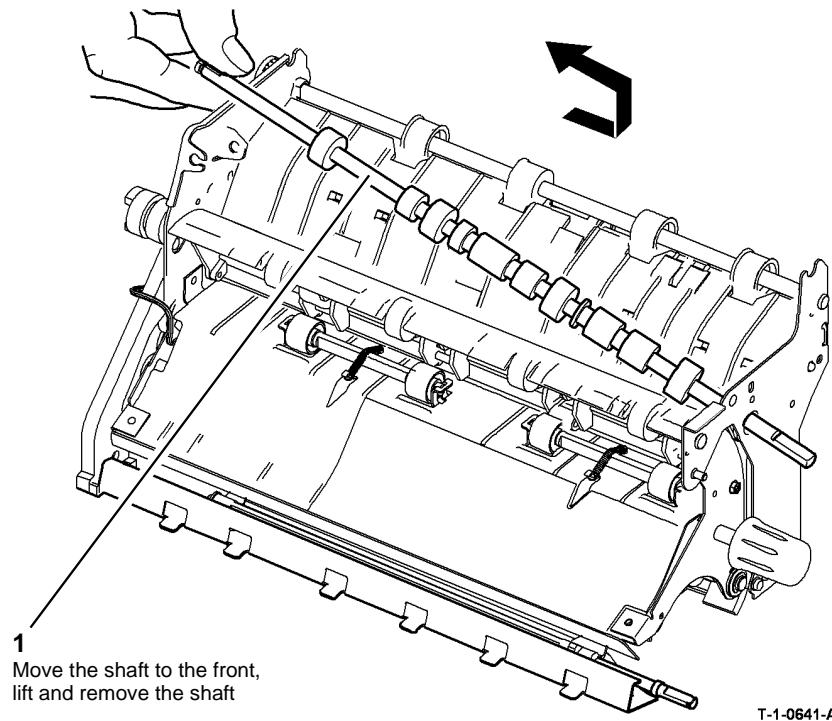
- Remove the tri-roll guide, **Figure 4**.



**Figure 4 Tri-roll guide removal**

6. Remove the tri-roll shaft, [Figure 5](#).

**NOTE:** Note the orientation of the tri-roll shaft.

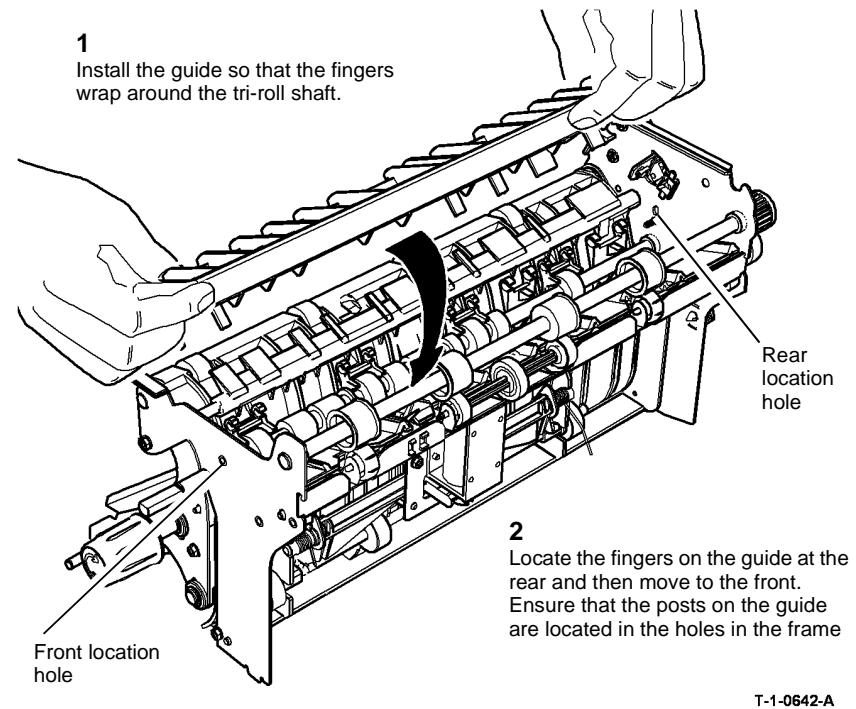


**Figure 5 Tri-roll shaft removal**

## Replacement

Refer to [GP 6](#) before refitting the screws.

1. Re-install the following components:
  - a. Tri-roll shaft, [Figure 5](#)
  - b. Tri-roll guide. The guide locates on the tri-roll shaft in front of the bearing. Locate the post on the tri-roll guide into the location holes in the front and rear frame. [Figure 6](#).



**Figure 6 Install tri-roll guide**

- c. Tri-roll gear and the securing screw., [Figure 3](#).  
Ensure that the post is located in the hole on the frame.
  - d. The tri-roll bearing and E-clip, [Figure 2](#).
  - e. The exit shaft bearing and E-clip
    - i. Locate the duct (65-90 ppm) or baffle guide (35-55 ppm) on the exit shaft, [PL 10.13](#).
    - ii. Install the bearing and E-clip on the exit shaft, [Figure 2](#).
    - iii. Ensure the nip roll guide is located correctly, [REP 10.2](#) and refer to [Figure 6](#).
  - f. Install bearing and E-clip on the post fuser exit roll, [Figure 2](#).
  - g. Complete the steps in [REP 10.12](#).
  - h. Install the inverter gate. Make sure that the inverter assembly support bracket is installed correctly. Refer to the replacement procedure in [REP 10.11](#).
2. If a new tri-roll shaft assembly is installed, reset the Post Fuser count to zero in the HFSI feature screen. Refer to [GP 17](#) High Frequency service Items.

## REP 10.13 Fuser Web Motor Assembly

Parts List on (35-55 ppm) [PL 4.17](#), (65-90 ppm) [PL 4.12](#)

### Removal

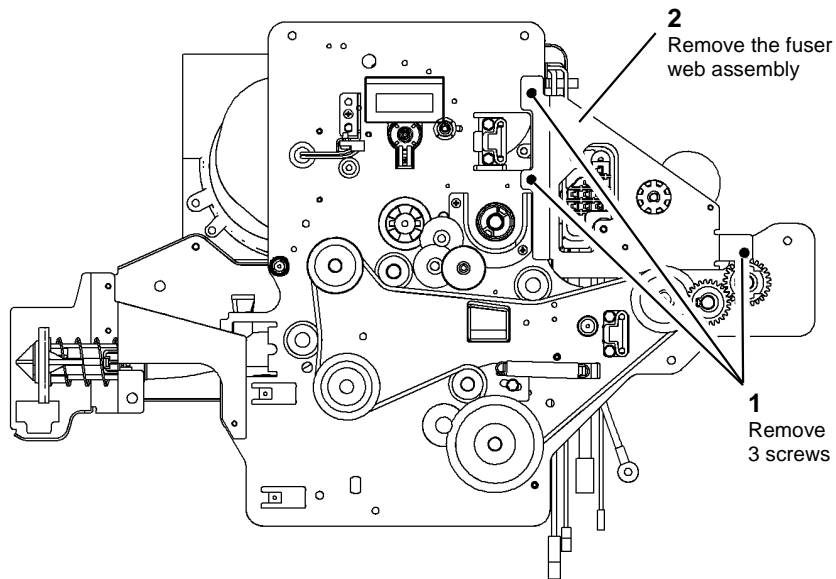
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

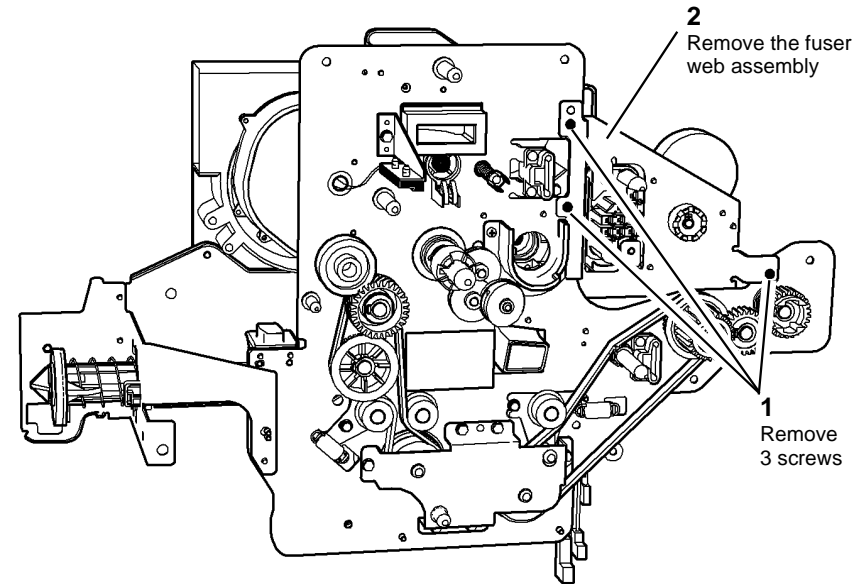
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the main drive module, (35-55 ppm) [REP 4.1](#), (65-90 ppm) [REP 4.5](#).
2. Disconnect PJ154 on the main drive PWB and remove the fuser web motor assembly, (35-55 ppm) [Figure 1](#), (65-90 ppm) [Figure 2](#).



T-1-0643-A

Figure 1 Drives module 35-55 ppm



T-1-0644-A

Figure 2 Drives module 65-90 ppm

- Remove the fuser connector assembly from the fuser web motor assembly, [Figure 3](#).

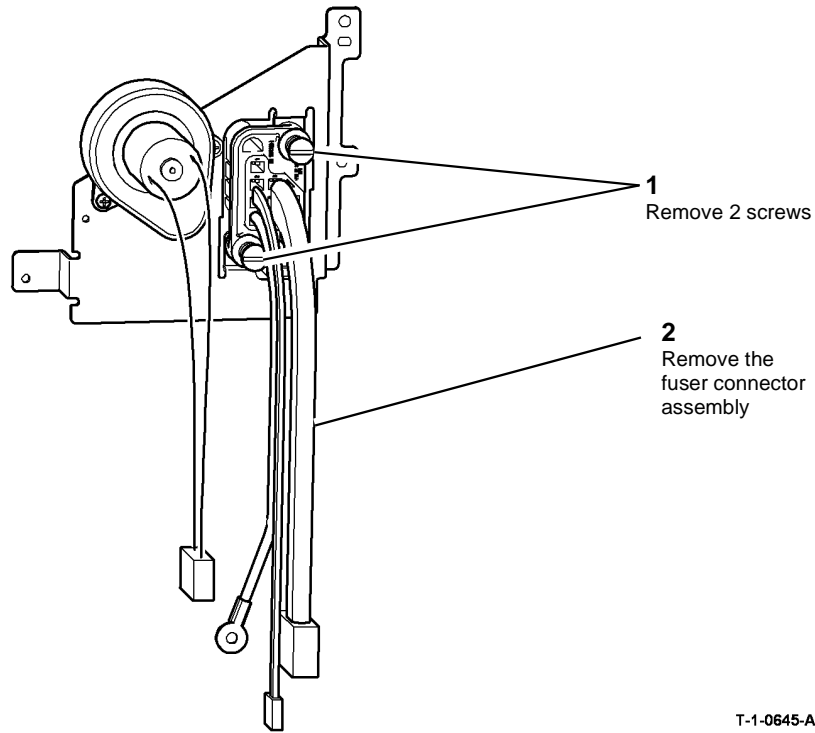


Figure 3 Fuser web motor assembly

T-1-0645-A

### Replacement

The replacement is the reverse of the removal procedure.

## REP 10.14 Exit Shaft Assembly

Parts List on [PL 10.13](#)

### Removal

**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the inverter assembly, [REP 10.2](#).
- Remove the exit shaft assembly, (35-55 ppm) [Figure 1](#), (65-90 ppm) [Figure 2](#).

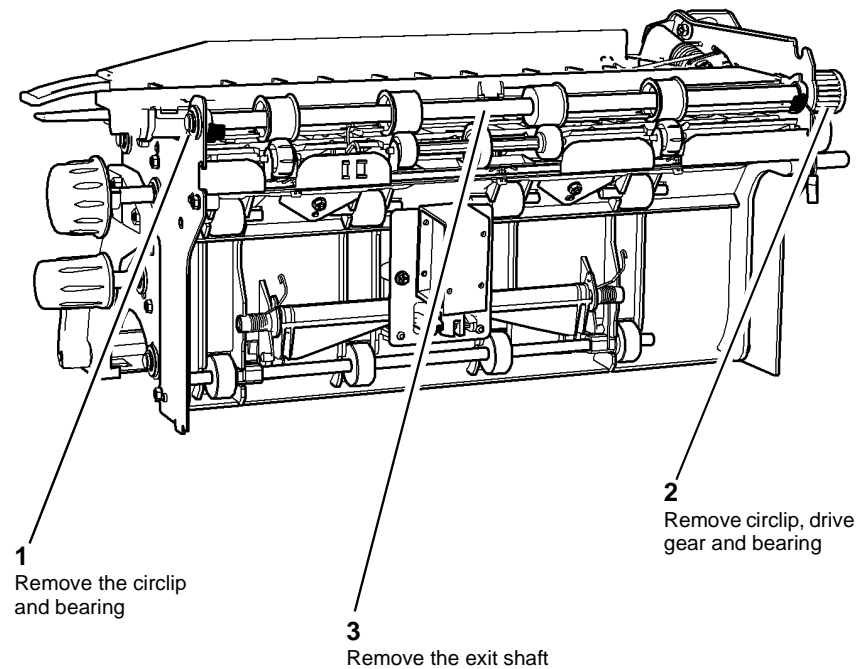


Figure 1 Exit shaft assembly 35-55 ppm

T-1-0646-A

## REP 10.15 Intermediate Drive Belt (W/O TAG 114)

Parts List on [PL 10.25](#)

### Removal

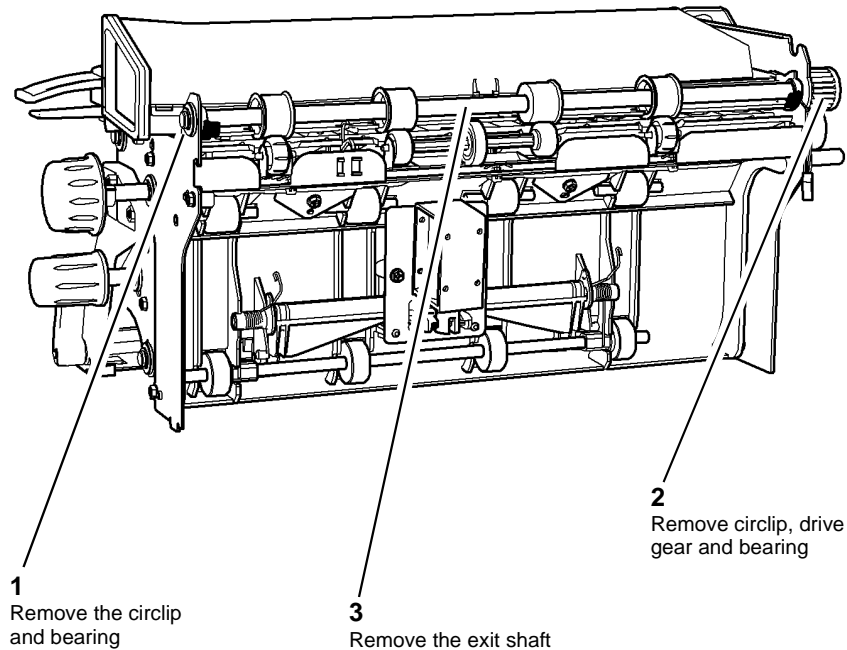


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the short paper path assembly, [REP 10.1](#).
2. Release the transfer / detack corotron harness from the supports, [Figure 1](#).

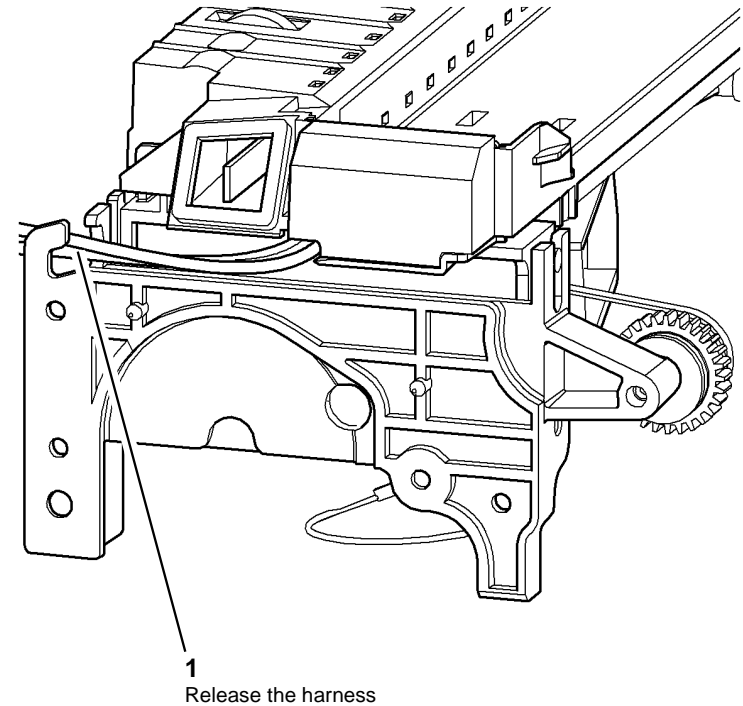


T-1-0647-A

Figure 2 Exit shaft assembly 65-90 ppm

### Replacement

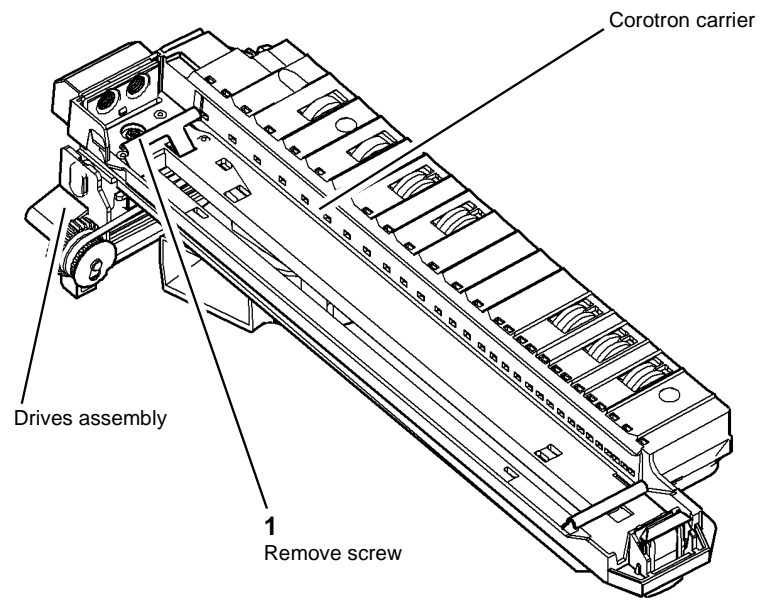
1. Replacement is the reverse of the removal procedure.
2. Ensure that the bearings locate into the baffle guide and that the baffle guide is linked with the upper baffle. Both baffles are lifted together when clearing a post fuser jam.



T-1-0648-A

Figure 1 Transfer / detack corotron harness

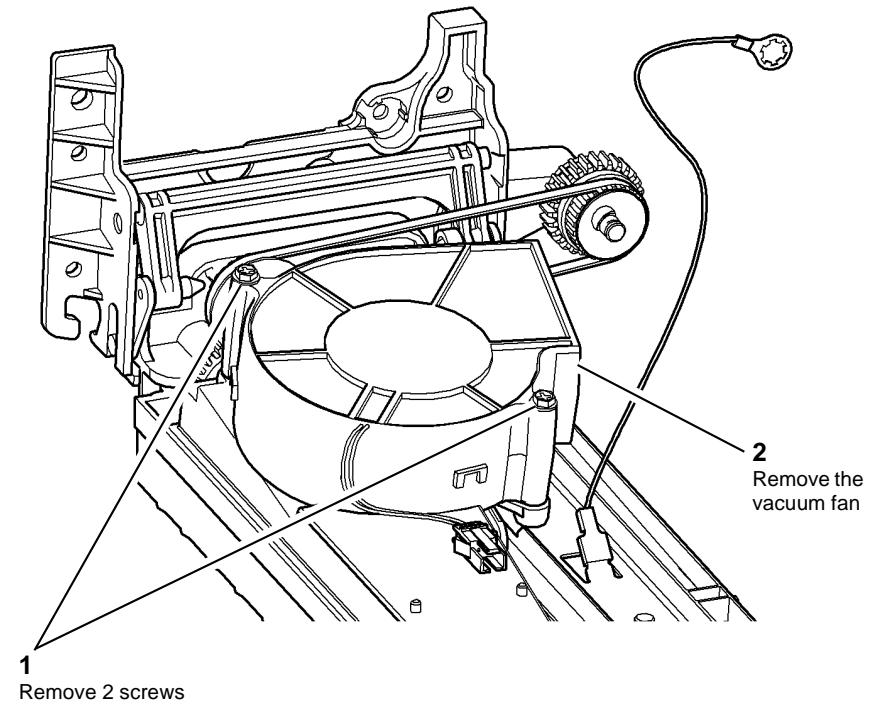
3. Remove the securing screw to release the drives assembly, [Figure 2](#).



**Figure 2 Short paper path assembly**

T-1-0649-A

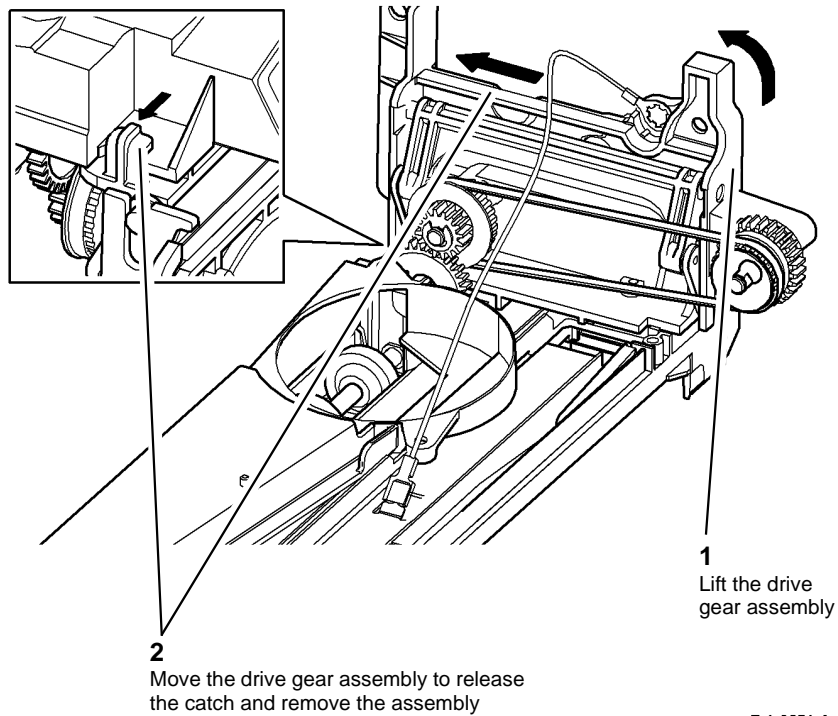
4. Remove the vacuum fan, [Figure 3](#).



**Figure 3 Remove vacuum fan**

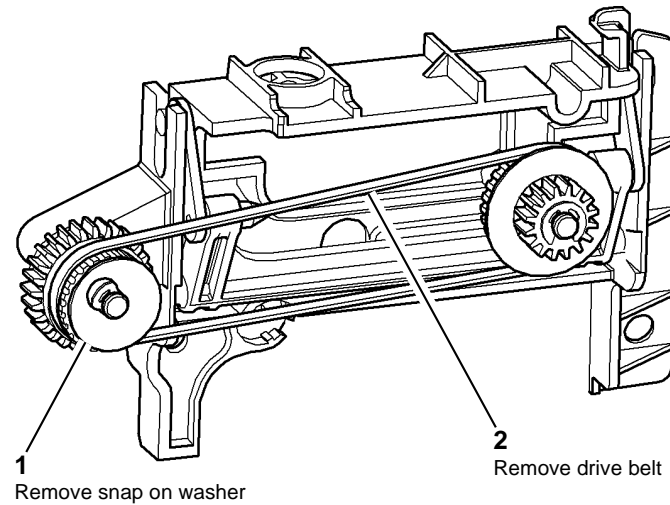
T-1-0650-A

5. Remove the intermediate drive assembly, [Figure 4](#).



**Figure 4 Remove the drive assembly**

6. Remove the intermediate drive belt, [Figure 5](#).



**Figure 5 Remove the drive belt**

### Replacement

1. Replacement is the reverse of the removal procedure.
2. Check that the transfer / detack HT leads are correctly positioned at the rear of the short paper path assembly, [Figure 1](#).



## REP 10.16 Fuser Exit Switch

Parts List on (35-55 ppm) [PL 10.8](#), (65-90 ppm) [PL 10.10](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

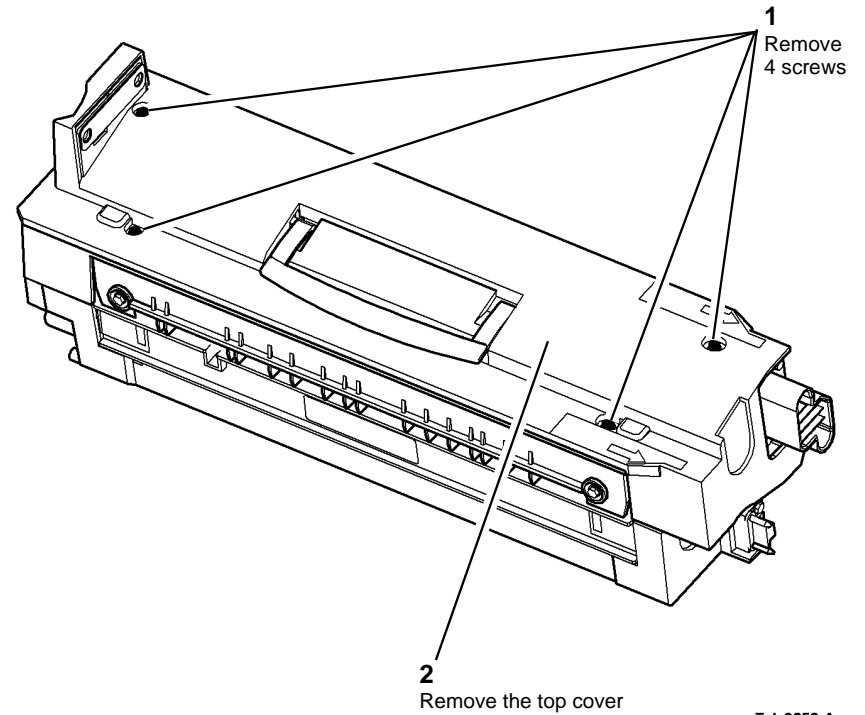


#### WARNING

Do not touch the fuser while it is hot.

1. Remove the fuser module, (35-55 ppm) [PL 10.8 Item 1](#), (65-90 ppm) [PL 10.10 Item 1](#).

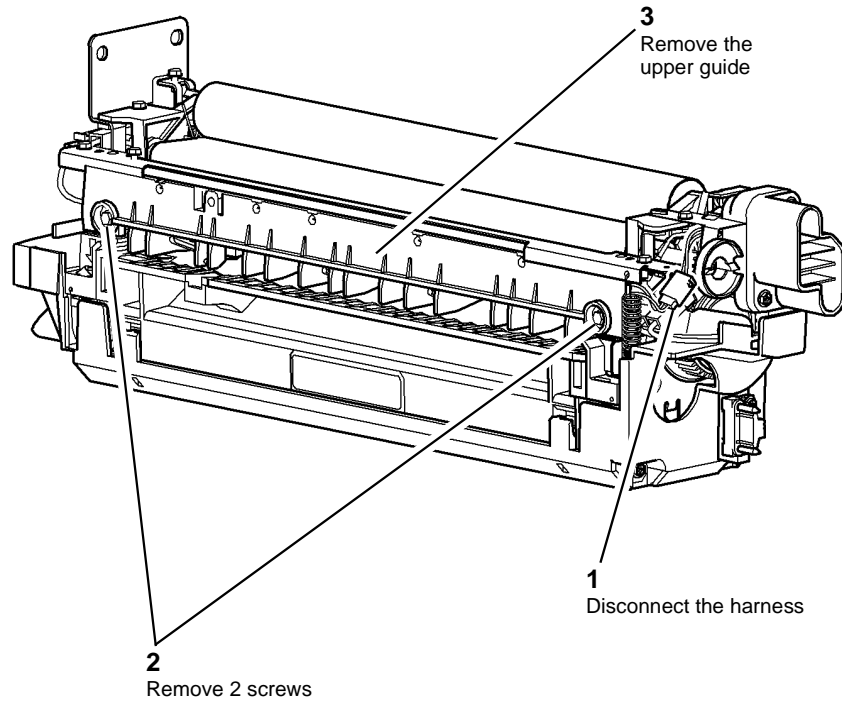
2. Remove the top cover from the fuser module, [Figure 1](#).



T-1-0653-A

Figure 1 Remove the top cover

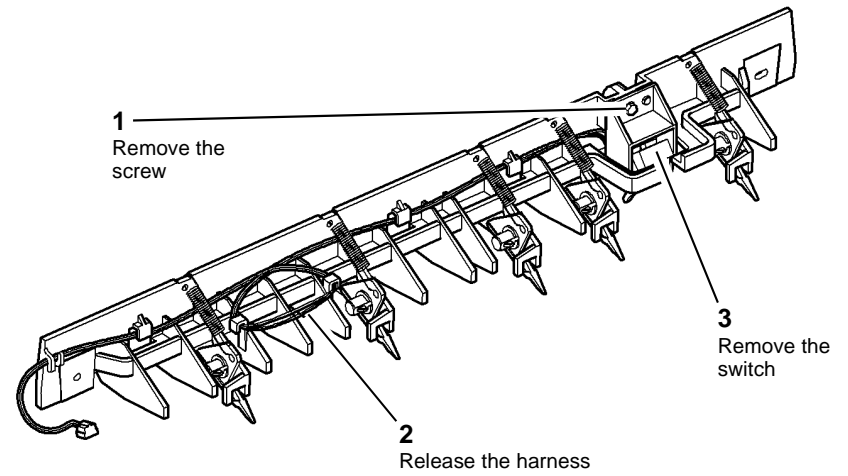
3. Remove the upper paper guide assembly, [Figure 2](#).



**Figure 2 Upper guide removal**

T-1-0654-A

4. Release the harness and remove the fuser exit switch, [Figure 3](#).



**Figure 3 Fuser exit switch removal**

T-1-0655-A

## Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. On 65-90 ppm machines, make sure that the harness and the connector are routed away from the spring, [Figure 4](#).

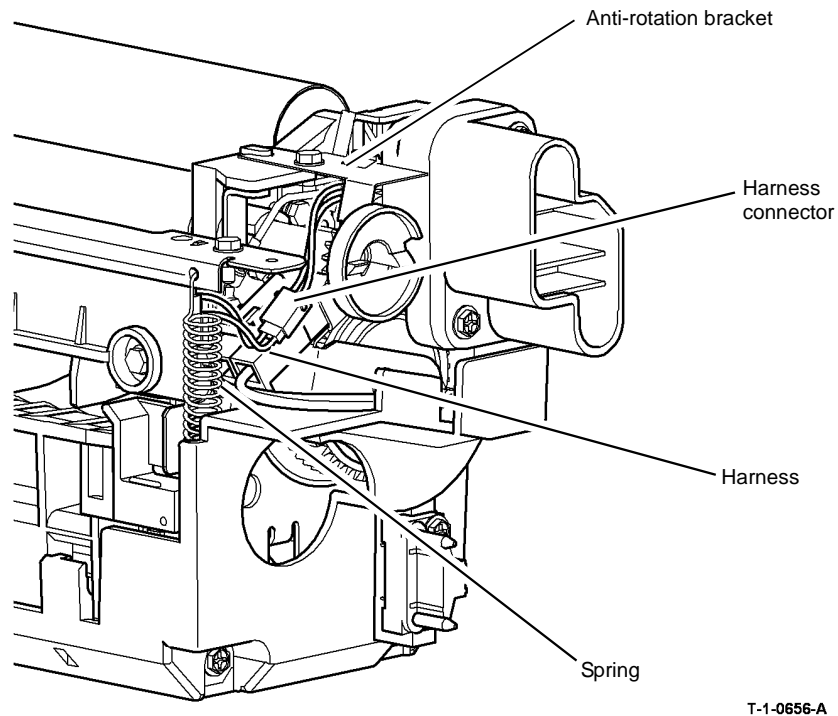


Figure 4 Harness location 65-90 ppm

3. On all machines. Check for 5mm clearance between the anti-rotation bracket and the heater lamp wires, [Figure 4](#). Inspect the heater lamp wires for damage. If the wires are damaged install a new fuser module.

## REP 10.17 IOT Exit Sensor

Parts List on [PL 10.11](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the output device.
2. Remove the right hand cover, [PL 8.10 Item 4](#).
3. Remove the tie bar, [Figure 1](#).

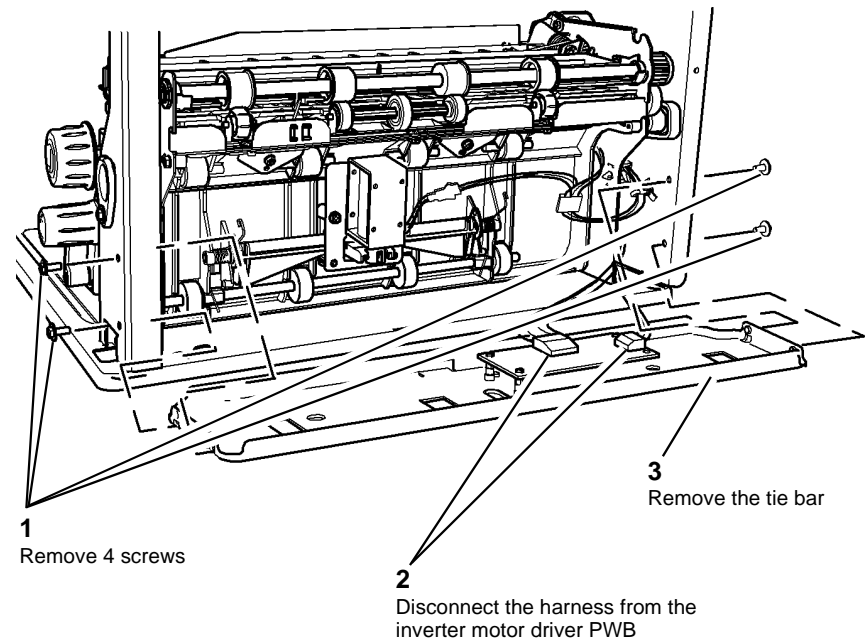
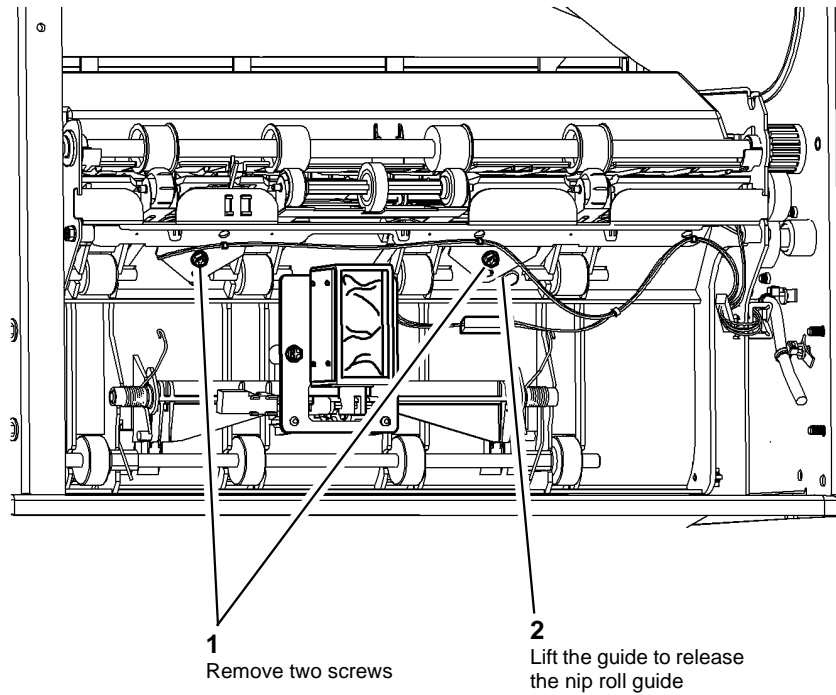


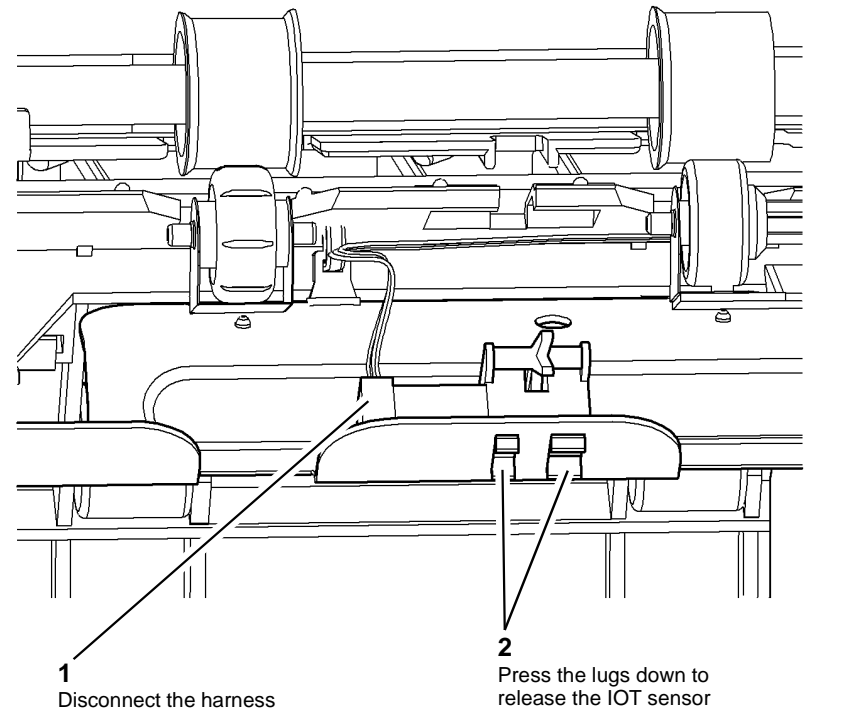
Figure 1 Remove the tie bar

4. Release the nip roll guide, [Figure 2](#).



**Figure 2 Release the nip roll guide**

5. Remove the IOT exit sensor, [Figure 3](#).



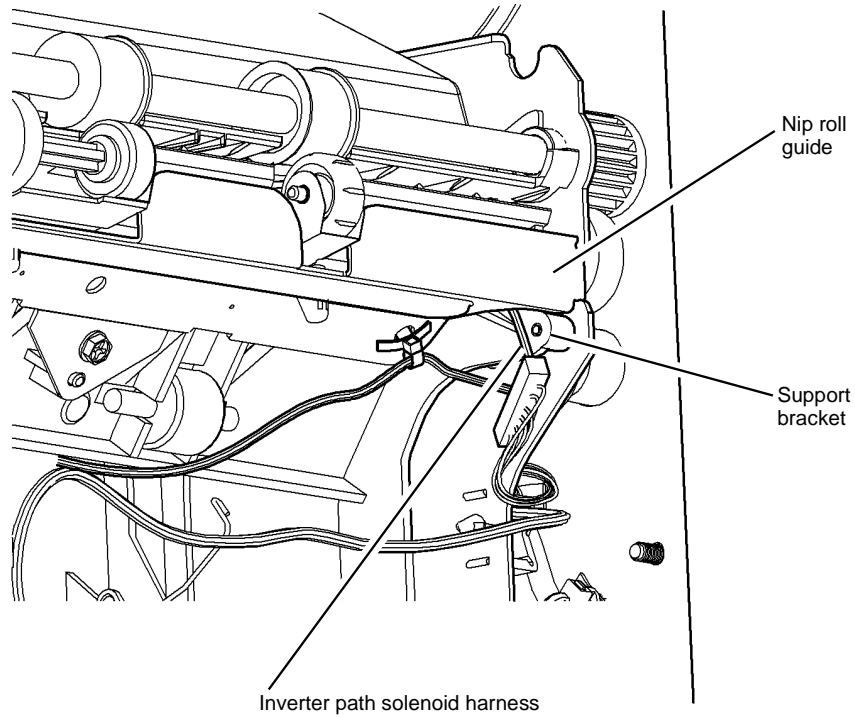
**Figure 3 Remove the IOT sensor**

## Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws to the output guide.



*Check that the inverter path solenoid harness is not caught between the nip roll guide and the support bracket, [Figure 4](#).*



**Figure 4 Inverter path solenoid harness**

## REP 10.18 Inverter Output Guide Assembly

Parts List on [PL 10.11](#)

### Removal

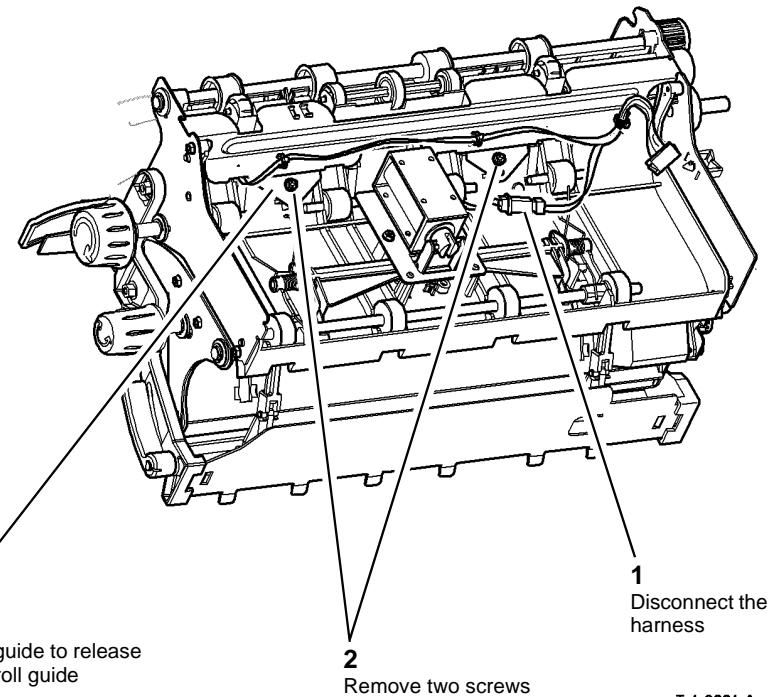


**Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.**



**Take care during this procedure. Sharp edges may be present that can cause injury.**

1. Remove the inverter assembly, [REP 10.2](#).
2. Release the nip roll guide, [Figure 1](#).



**Figure 1 Release nip roll guide**

3. Remove the output guide, [Figure 2](#).

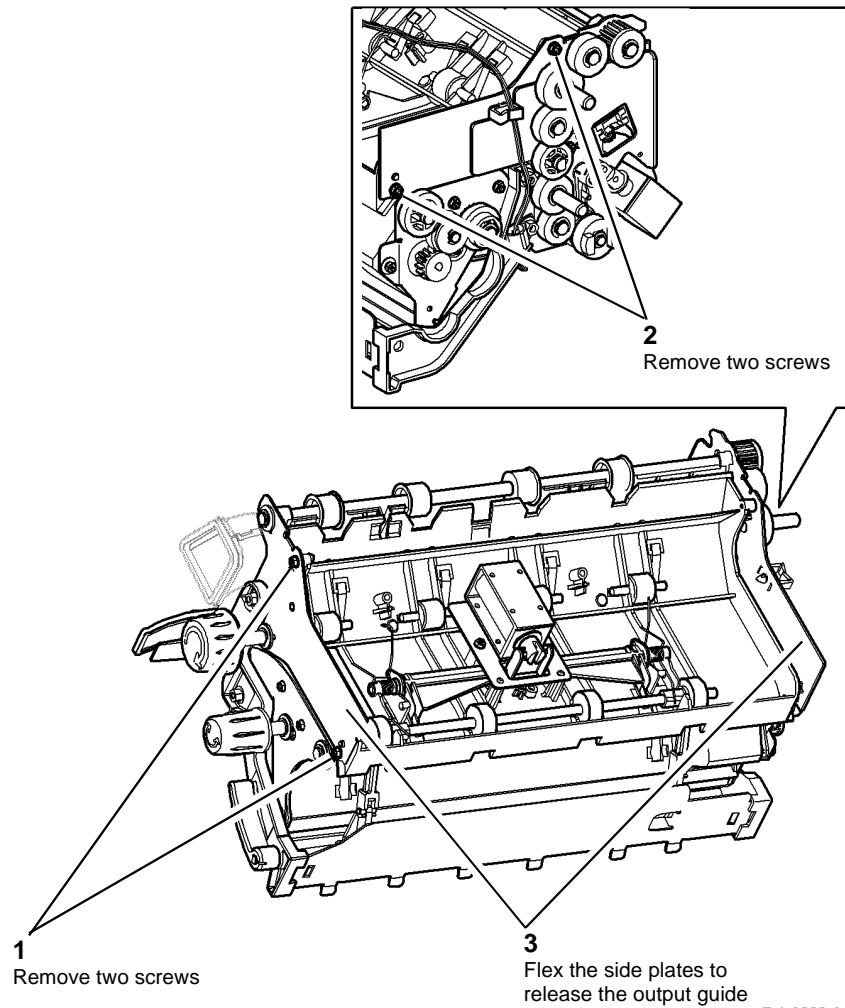


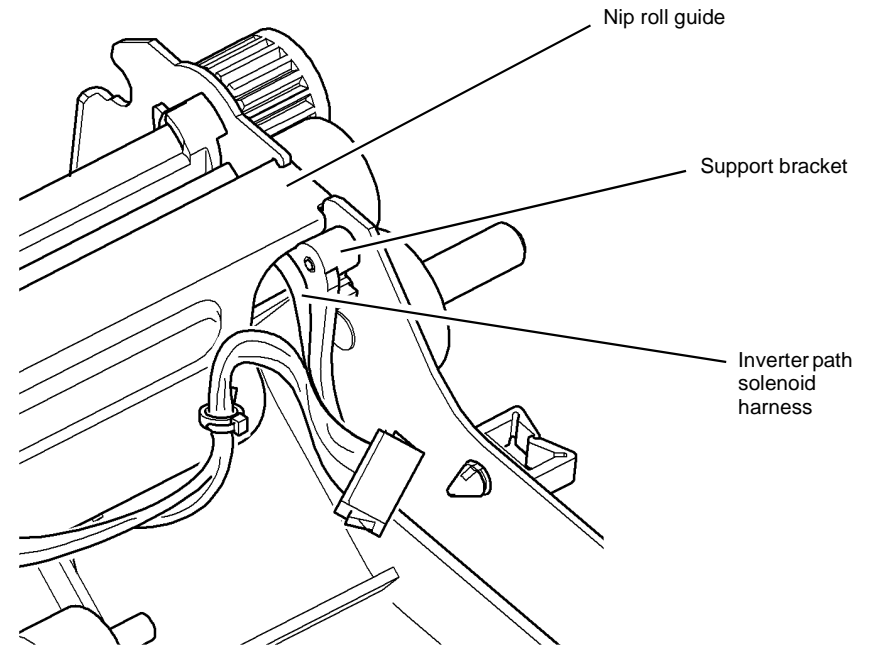
Figure 2 Remove the output guide

## Replacement

The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.

**CAUTION**

Check that the inverter path solenoid harness is not caught between the nip roll guide and the support bracket, [Figure 3](#).



T-1-0663-A

Figure 3 Inverter path solenoid harness

## REP 10.19 Tri-Roll Nip Split Solenoid

Parts List on [PL 10.14](#)

### Removal



#### WARNING

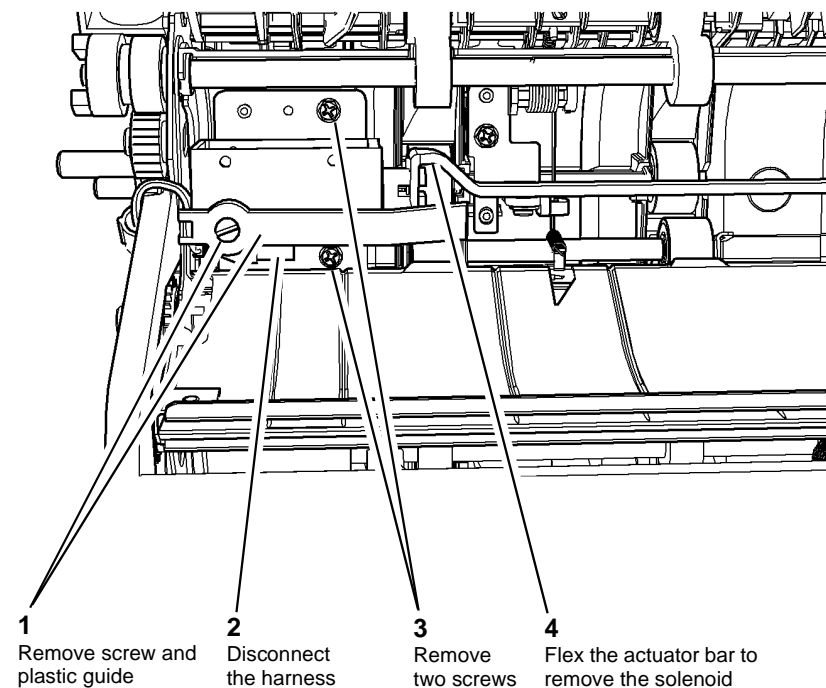
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inverter assembly, [REP 10.2](#).
2. Remove the tri-roll nip split solenoid, [Figure 1](#).



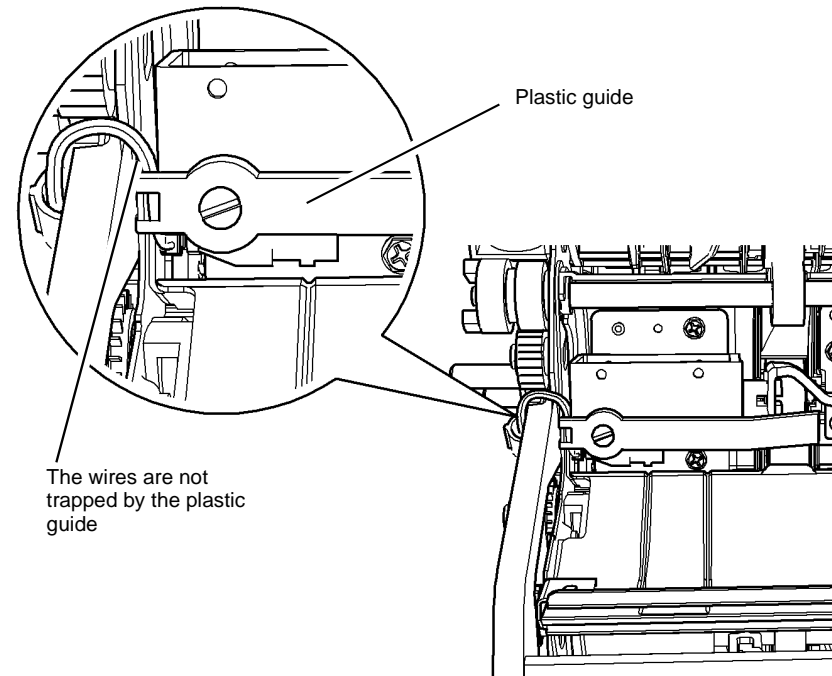
- 1 Remove screw and plastic guide
- 2 Disconnect the harness
- 3 Remove two screws
- 4 Flex the actuator bar to remove the solenoid

T-1-0664-A

Figure 1 Remove the solenoid

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Before the inverter is installed, manually operate the solenoid and check that the nip rolls operate correctly.
3. Check that the wires to the solenoid are free to move and not trapped by the plastic guide, [Figure 2](#).



T-1-0665-A

Figure 2 Route solenoid wires

## REP 10.20 Inverter Sensor

Parts List on [PL 10.12](#)

### Removal

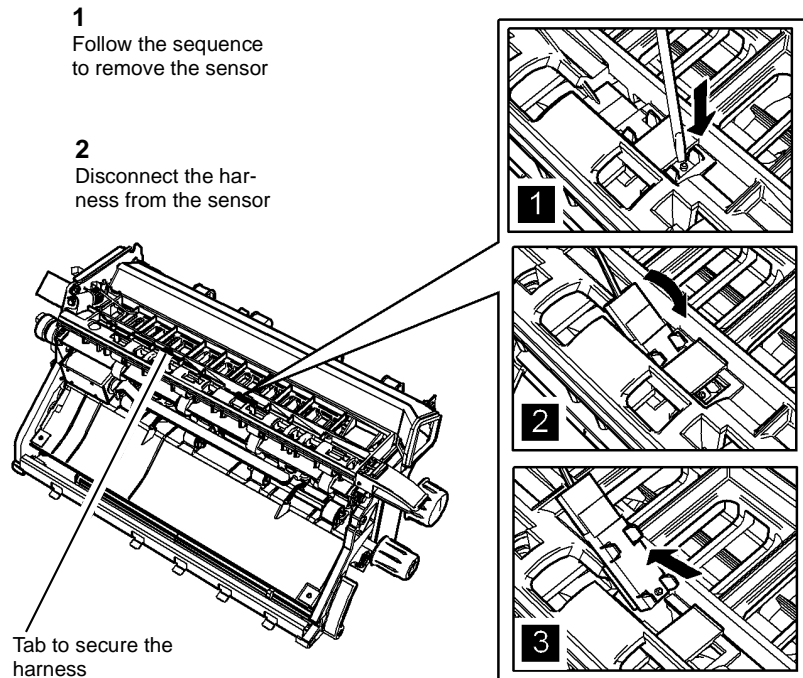


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inverter assembly, [REP 10.2](#).
2. Remove the inverter sensor, [Figure 1](#).



T-1-0666-A

Figure 1 Remove the inverter sensor

### Replacement

1. The replacement is the reverse of the removal procedure. Refer to [GP 6](#) before refitting the screws.
2. Route the harness under the tab on the upper baffle, [Figure 1](#).
3. Make sure that the upper baffle and the inverter assembly duct are linked correctly. When the latch 3d/4d is released, the two items lift together.



# REP 11.1-110 2K LCSS Covers

Parts List on [PL 11.2](#).

## Removal



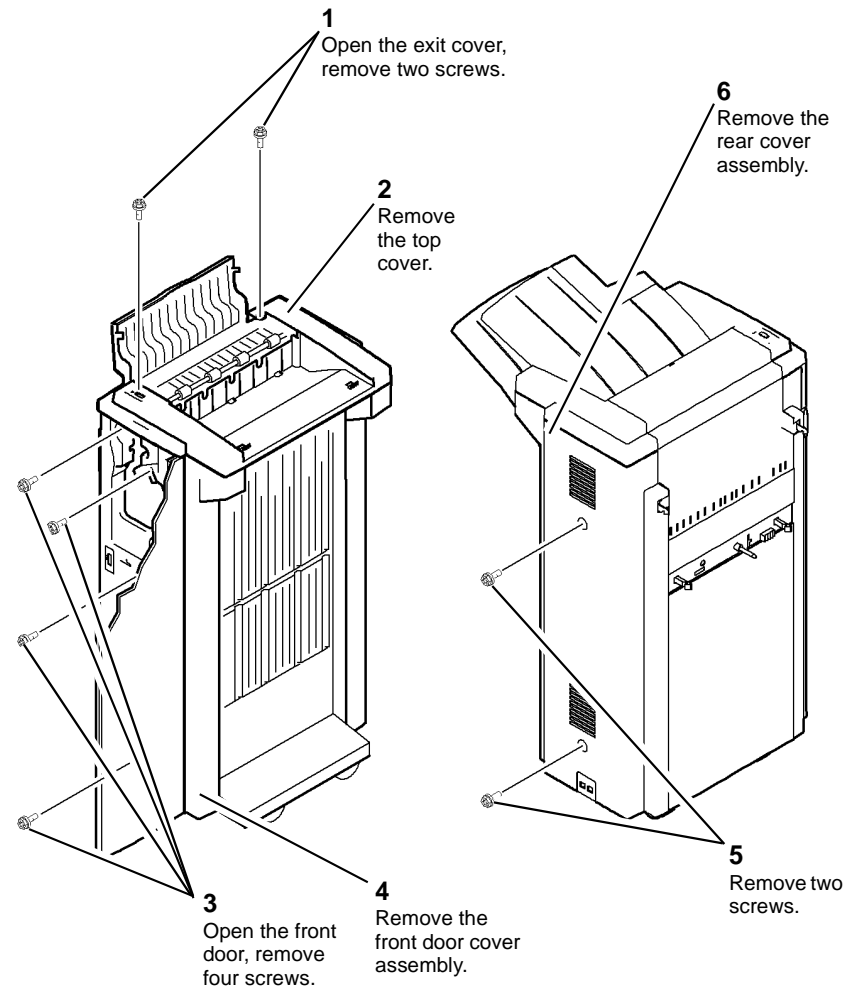
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the covers, [Figure 1](#).

**NOTE:** Removing the top cover first will allow easy removal of the front and rear covers.



T-1-0667-A

Figure 1 Removing the covers

## Replacement

Reverse the removal procedure to replace the covers.

## REP 11.2-110 Input Drive Belt and Paper Entry Transport Motor

Parts List on [PL 11.14](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 2K LCSS rear cover, [REP 11.1-110](#).
2. Remove the motor and drive belt, [Figure 1](#).

### Replacement

1. Place the belt around the pulleys.
2. Install the motor screws, but do not tighten.
3. Install the spring
4. Rotate the shaft by hand to ensure the belt runs smoothly over the pulleys and allow the spring to tension the belt, [ADJ 11.4-110](#).
5. Tighten the motor screws and re-connect the harness.
6. Install the 2K LCSS rear cover, [REP 11.1-110](#).

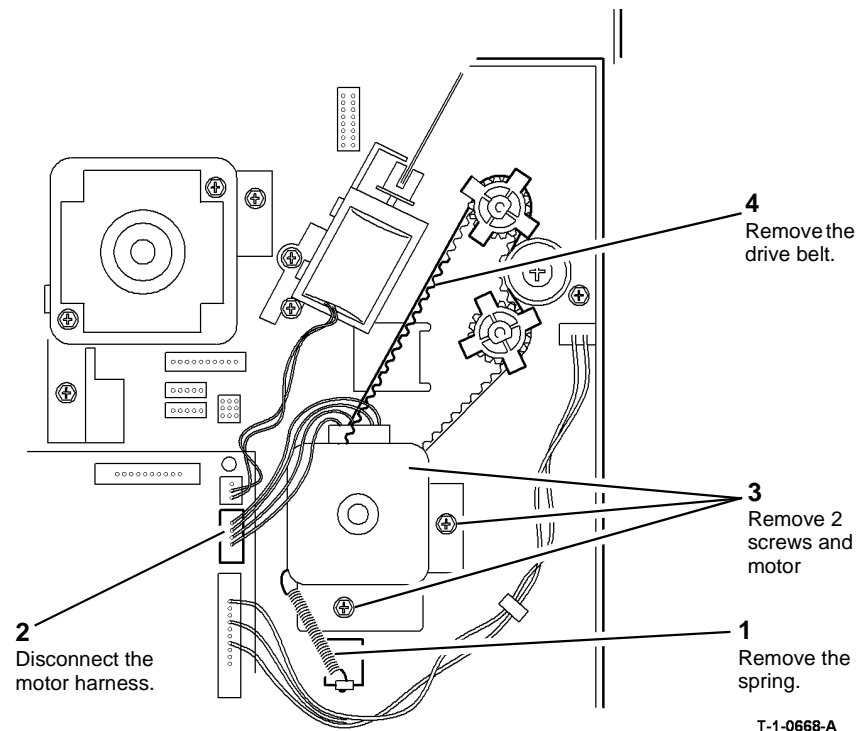


Figure 1 Removing the drive belt

## REP 11.3-110 Intermediate Paper Drive Belt

Parts List on [PL 11.22](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 2K LCSS rear cover [REP 11.1-110](#).
2. Remove the intermediate paper drive belt, [Figure 1](#).

### Replacement

1. Lubricate the belt tensioner, refer to [ADJ 4.1](#).
2. Install the belt over the pulleys, ensuring that the belt is on all five pulleys.

**NOTE:** Two of the pulleys are free to slide along the shaft. Ensure the belt is correctly located on these pulleys.

3. Install the 2K LCSS rear cover, [REP 11.1-110](#).

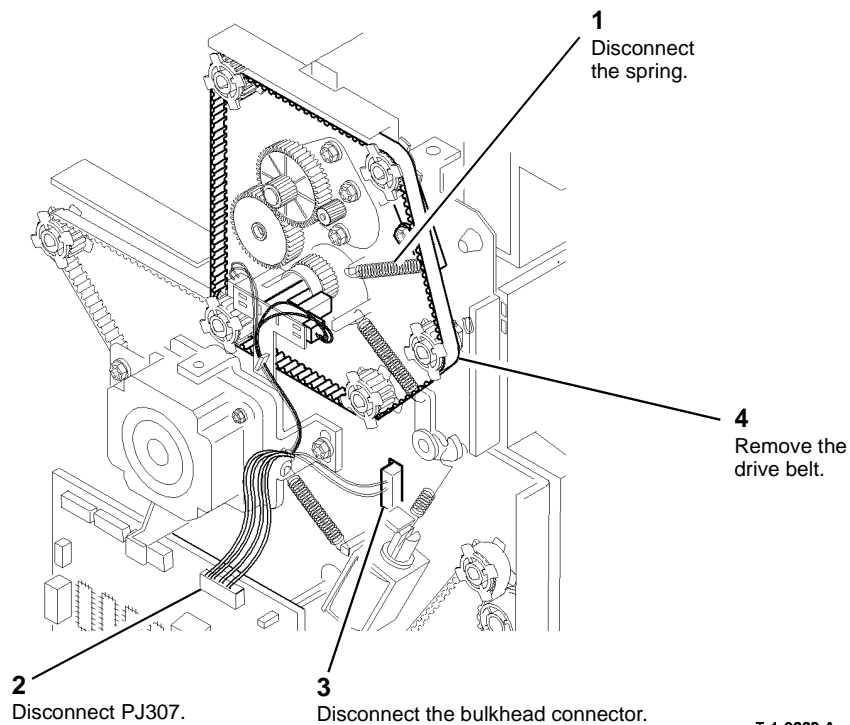


Figure 1 Removing the drive belt

## REP 11.4-110 Paper Output Drive Belt and Paper Transport Exit Motor

Parts List on [PL 11.22](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 2K LCSS rear cover, [REP 11.1-110](#).
2. Remove the intermediate drive belt, [REP 11.3-110](#).
3. Remove the output drive belt and motor, [Figure 1](#).

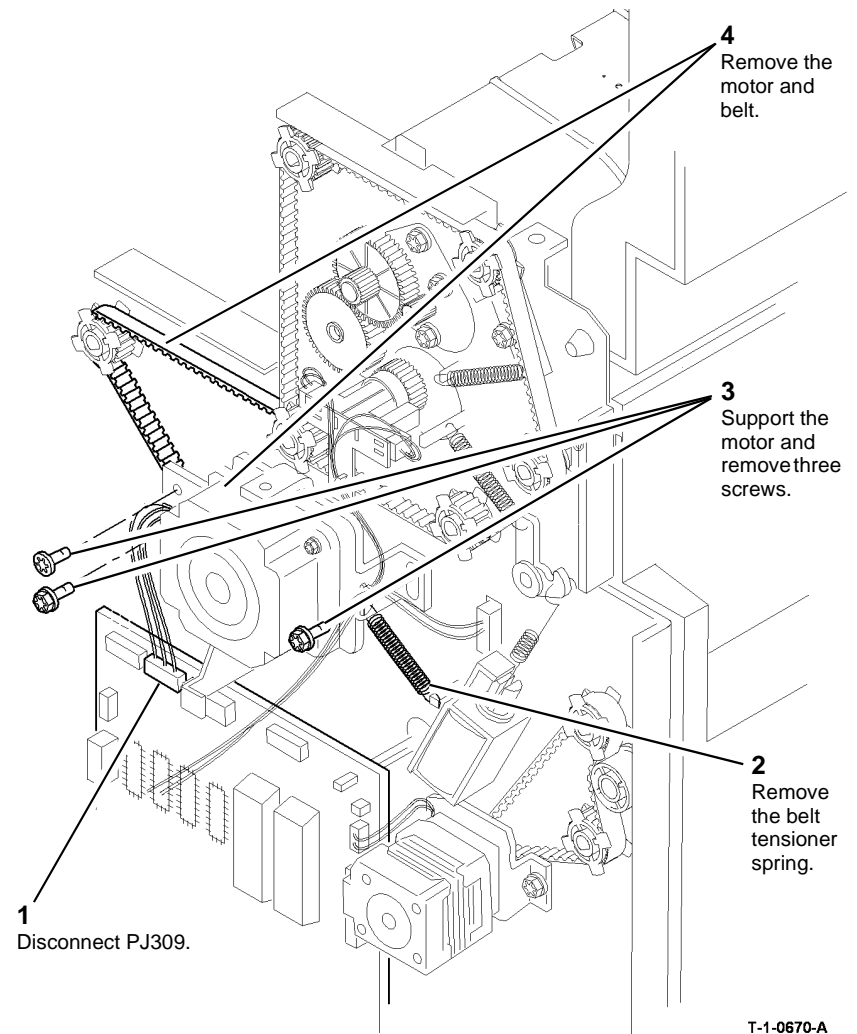


Figure 1 Removing the drive belt

### Replacement

1. Install the belt over the pulleys.
2. Install the motor pivot shouldered screw and fully tighten.
3. Install the two motor mounting bracket securing screws but do not tighten them.
4. Install the belt tensioner spring.
5. Rotate the belt by hand to allow the spring to tension the belt, [ADJ 11.4-110](#). Tighten the screws.
6. Install the intermediate drive belt, [REP 11.3-110](#).
7. Install the 2K LCSS rear cover, [REP 11.1-110](#).

## REP 11.5-110 Bin 1 Drive Belts

Parts List on [PL 11.10](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 2K LCSS front and rear covers, [REP 11.1-110](#).
2. Remove the bin 1 drive belt (rear) [Figure 1](#).

**NOTE:** Keep all of the components removed as a set. The set of rear frame components are different from the front frame set.

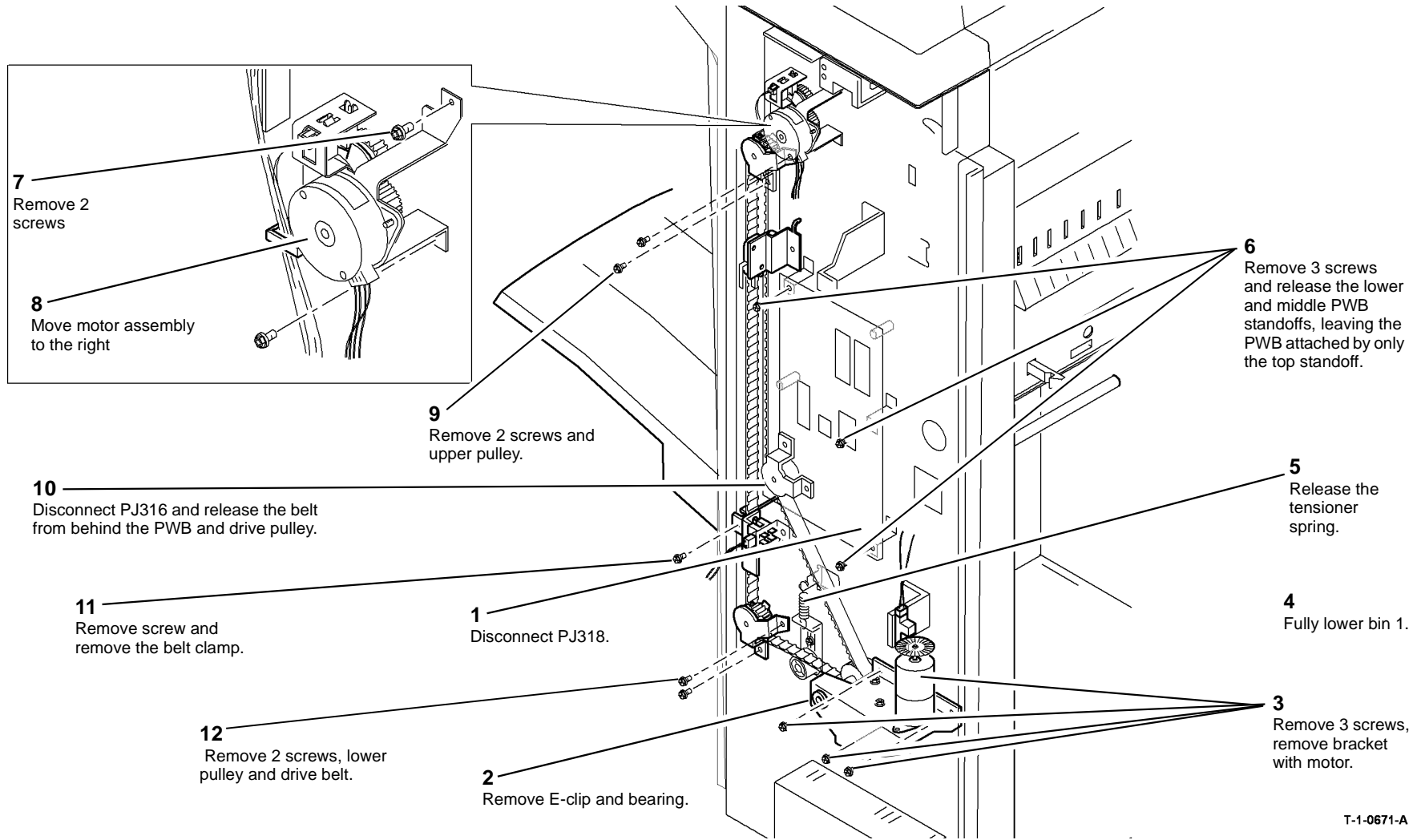
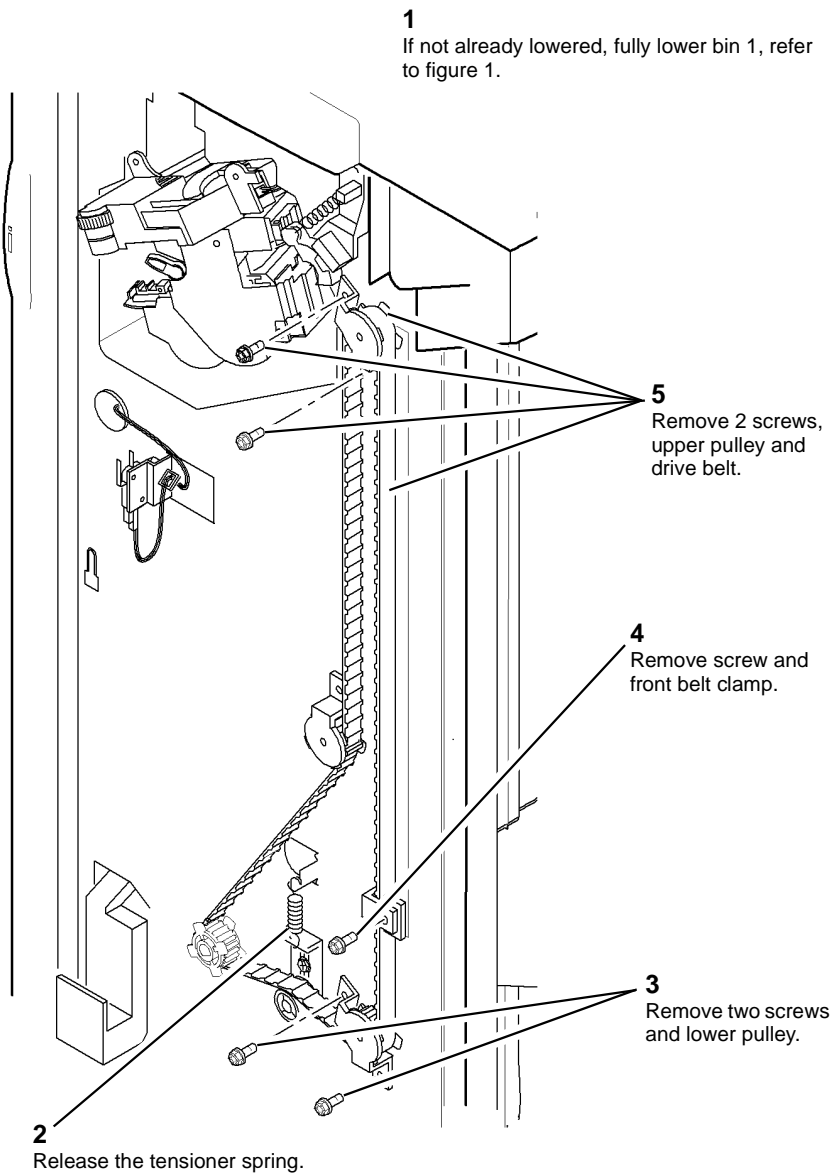


Figure 1 Bin 1 drive belt (rear)

3. Remove the bin 1 drive belt (front) [Figure 2](#).



T-1-0672-A

Figure 2 Bin 1 drive belt (front)

## Replacement

**NOTE:** Ensure the correct set of components are used for each side of the 2K LCSS.

1. Reverse the removal procedure to replace the bin 1 drive belts.

**NOTE:** The bin 1 level can critically affect the overall stack registration. Refer to [ADJ 11.1-110](#) if adjustment is necessary.

2. Install the front and rear covers [REP 11.1-110](#).

# REP 11.6-110 Tamper Assembly

Parts List on [PL 11.16](#).

## Removal

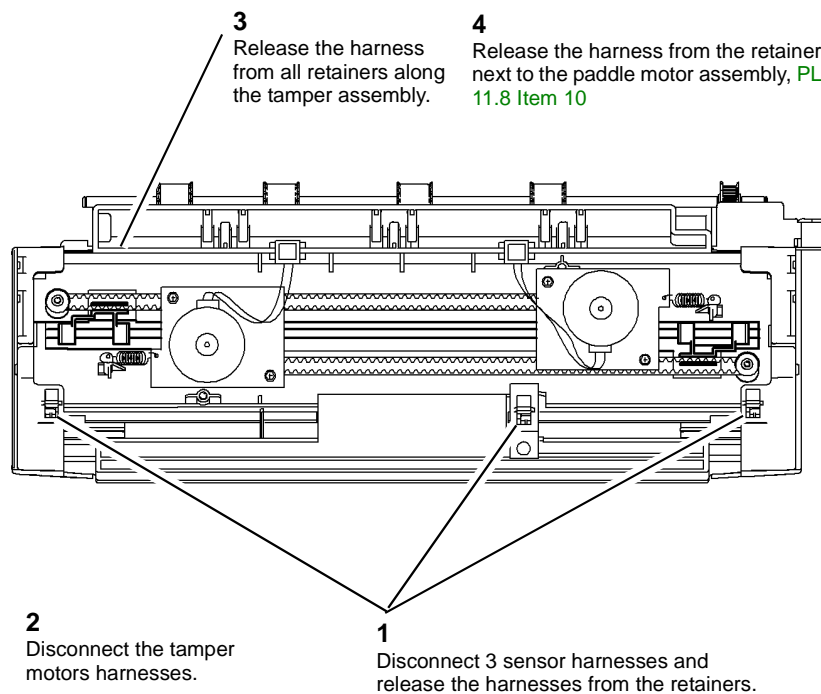
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

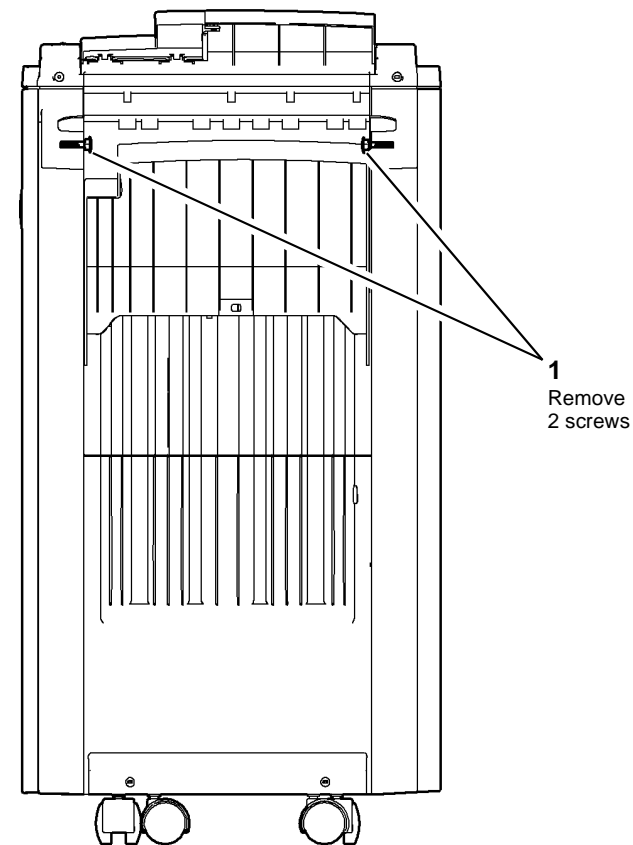
1. Remove the 2K LCSS covers [REP 11.1-110](#).
2. Prepare to remove the tamper assembly [Figure 1](#).



T-1-0673-A

**Figure 1 Preparing the tamper assembly**

3. Remove the tamper assembly, [Figure 2](#).



T-1-0674-A

**Figure 2 Removing the tamper assembly**

## Replacement

Reverse the removal procedure to replace the tamper assembly.

**NOTE:** Ensure that:

- The slots in the tamper assembly locate correctly in the 2K LCSS frame.
- The sensors are correctly located in the tamper assembly, they are easily mis-located when being re-connected to the harnesses.
- All connectors in the harness over the tamper assembly are securely connected.



## REP 11.7-110 Hole Punch Unit, Motor and Sensors

Parts List on [PL 11.6](#).

### Removal



#### WARNING

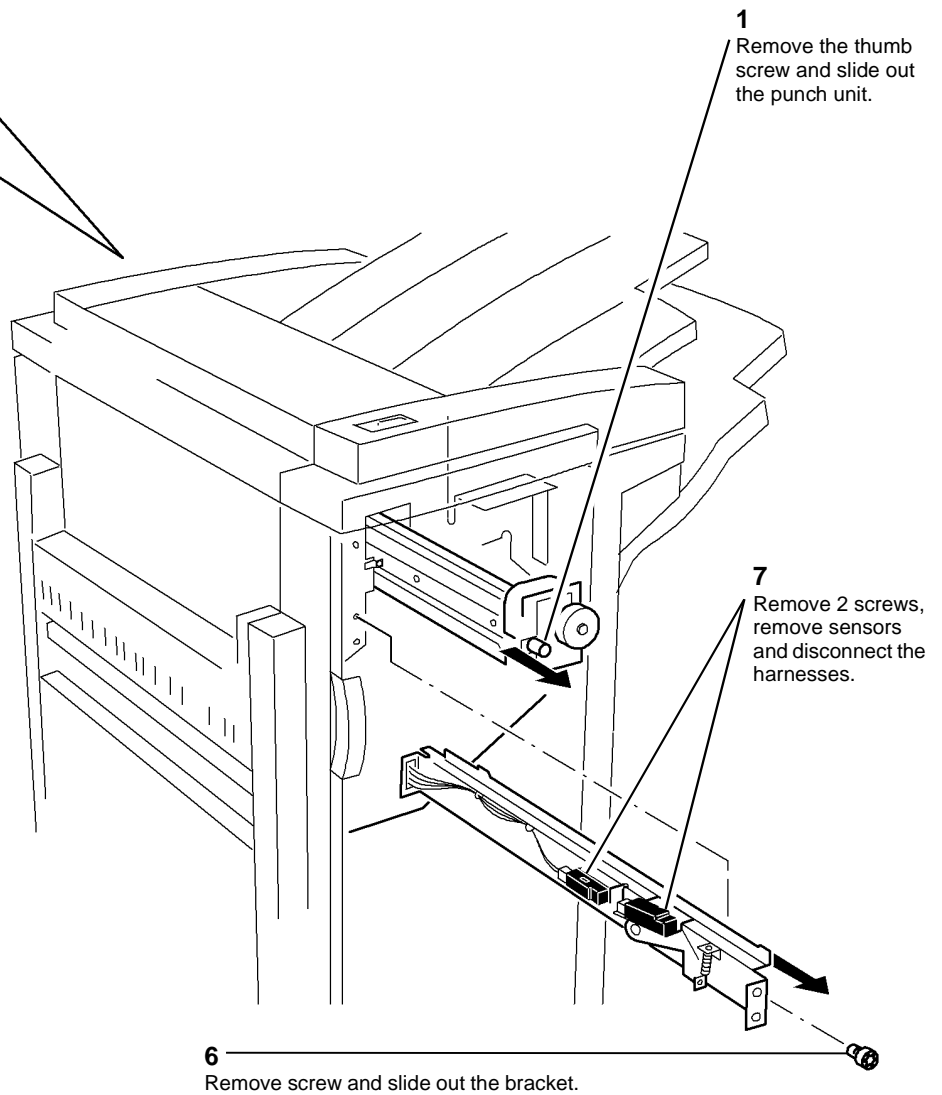
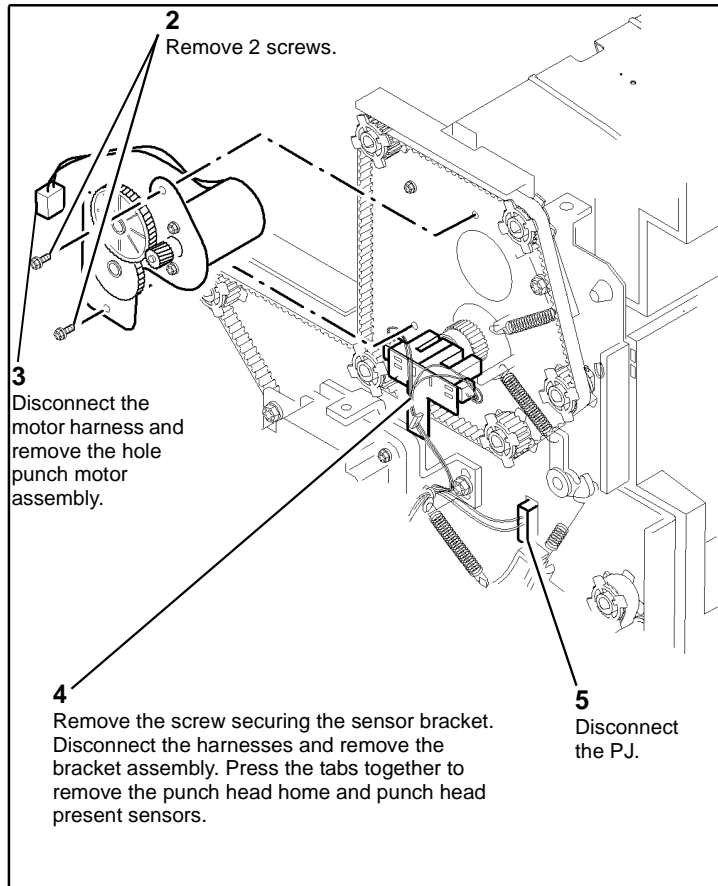
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 2K LCSS covers, [REP 11.1-110](#).
2. Remove and empty the chad bin, [PL 11.6 Item 4](#).
3. Remove the hole punch unit, motor assembly and sensors, [Figure 1](#).



T-1-0675-A

Figure 1 Hole punch unit, motor and sensors

## Replacement

1. Reverse the removal procedure to replace the hole punch unit, motor assembly and sensors.
2. If necessary, perform [ADJ 11.3-110](#) Hole Punch Position.

**NOTE:** When installing the hole punch motor assembly, ensure that the belt tensioner arm does not get trapped behind the motor assembly plate.

**NOTE:** Refer to [IQS 6 Copy / Print Defects](#) for hole punch performance specifications.

## REP 11.8-110 Stapler Traverse Assembly

Parts List on [PL 11.20](#).

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.



Take care not to topple the 2K LCSS. The 2K LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the 2K LCSS.

1. Un-dock the 2K LCSS, [REP 11.13-110](#).
2. Remove the rear cover and front door cover assembly, [REP 11.1-110](#).
3. Manually move the ejector, [PL 11.18 Item 1](#) fully to the right.

4. Disconnect the harness, [Figure 1](#).

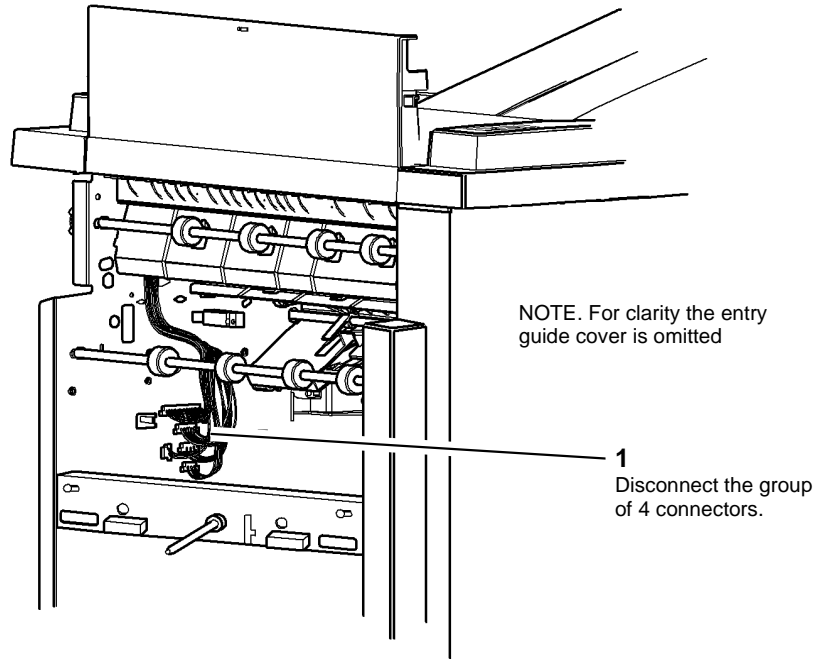


Figure 1 Harness disconnection

T-1-0676-A

**CAUTION**

*When removing and replacing the stapler traverse assembly, support the weight of the assembly underneath the stapler and take care not to damage wiring.*

5. Remove the stapler traverse assembly, [Figure 2](#).

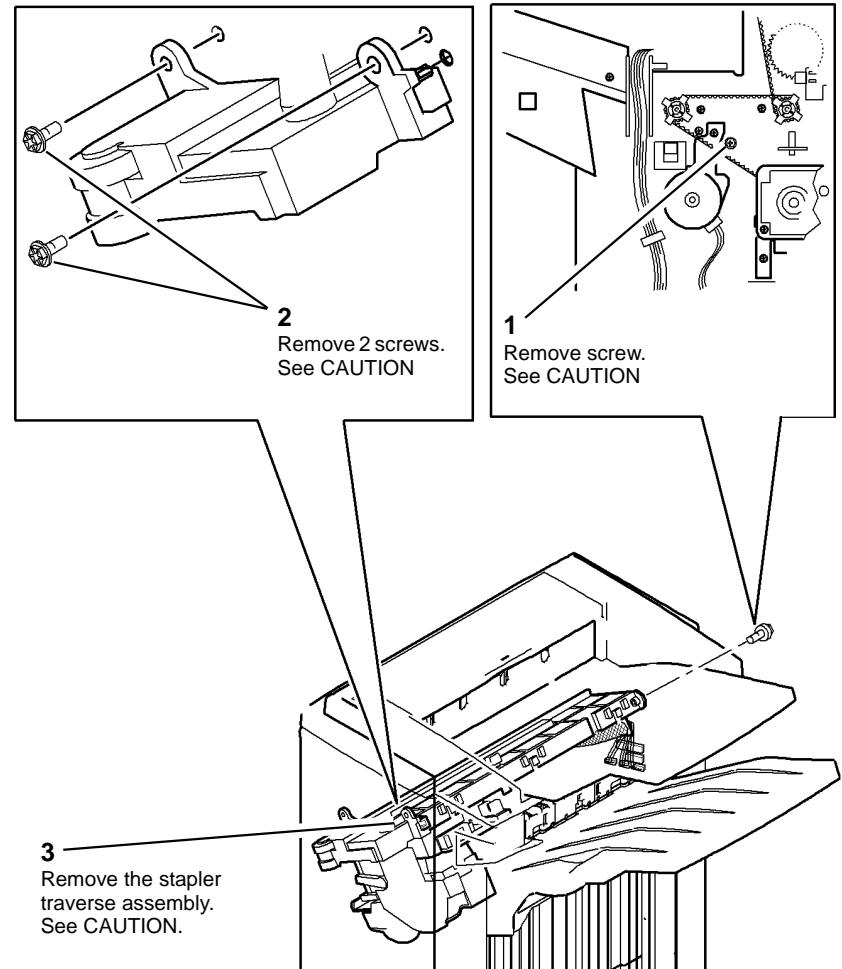


Figure 2 Removing the stapler traverse assembly

T-1-0677-B

**Replacement**

1. Ensure the stapling traverse assembly is engaged on the front and rear locating dowels.
2. Reverse the removal procedure to replace the stapling unit.

## REP 11.9-110 Staple Head Unit

Parts List on [PL 11.20](#).

### Removal



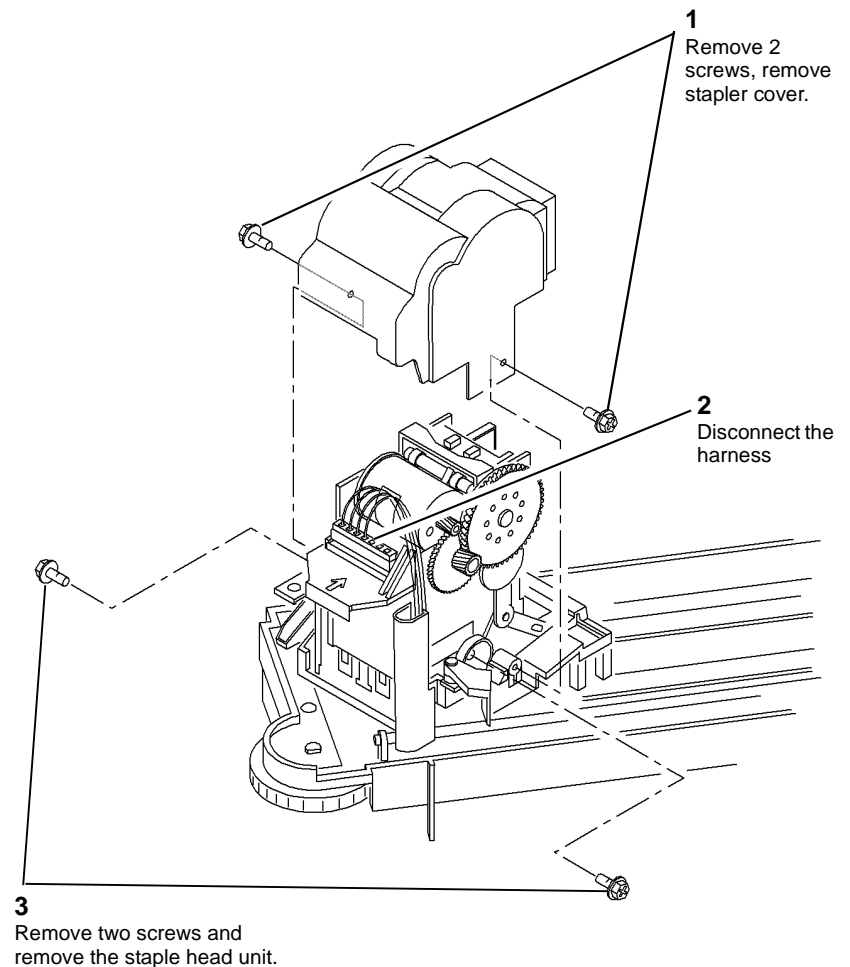
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the stapler traverse assembly, [REP 11.8-110](#).
2. Place the stapler traverse unit upside-down

3. Remove the staple head unit from the stapling unit [Figure 1](#).



T-1-0678-A

Figure 1 Removing the staple head unit

### Replacement

Reverse the removal procedure to replace the staple head unit.

## REP 11.10-110 Ejector Assembly Sensors

Parts List on [PL 11.18](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### WARNING

Take care not to topple the 2K LCSS. The 2K LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the 2K LCSS.

1. Disconnect the two harnesses between the 2K LCSS and the machine.
2. Un-dock the 2K LCSS, [REP 11.13-110](#) and move it away from the machine.
3. Ensure the stapling unit is at the home position.
4. If necessary, manually move the ejector to the left position.
5. Remove the ejector assembly, [Figure 1](#).

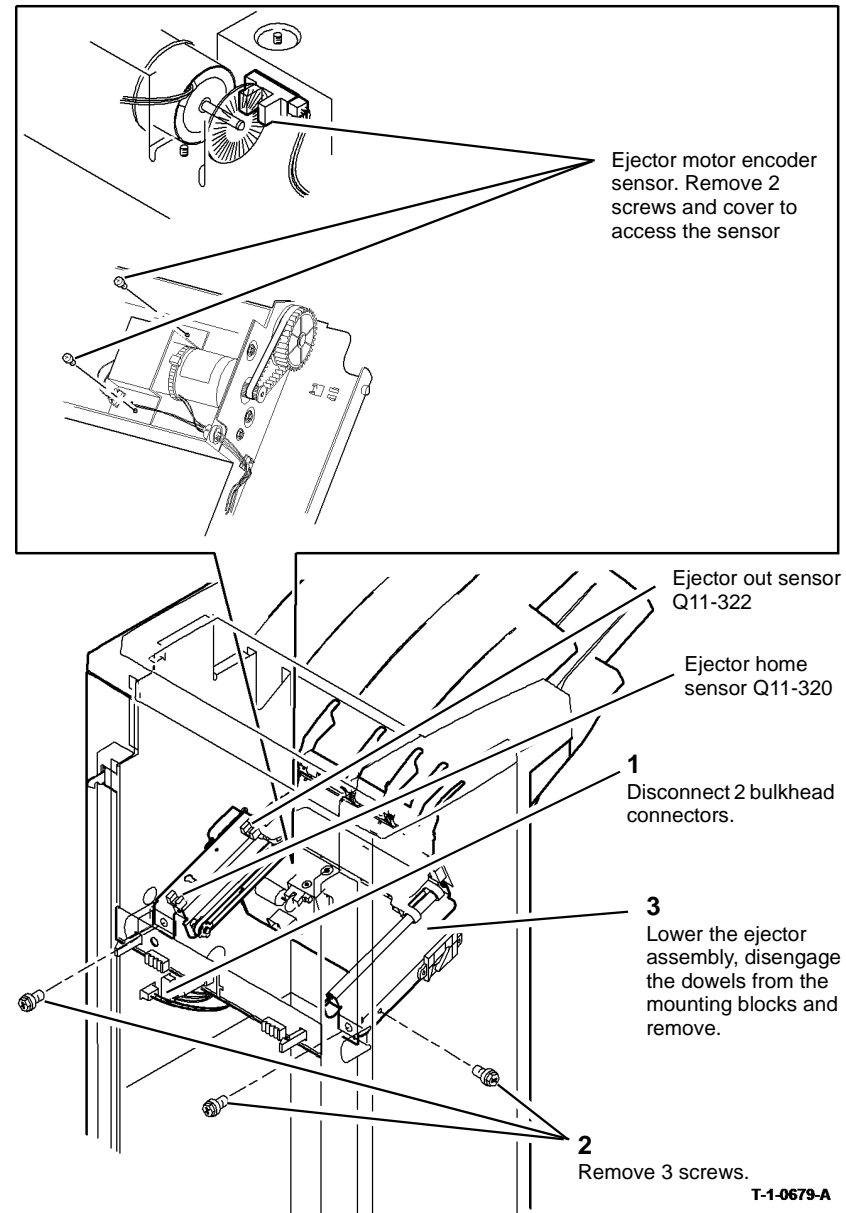


Figure 1 Removing the ejector assembly

6. Remove the appropriate sensor by releasing the sensor tabs and disconnecting the harness.

## Replacement



### CAUTION

*When installing the ejector assembly onto the 2K LCSS, ensure that the ejector fingers do not damage the wiring to the staple head unit.*

Reverse the removal procedure to replace the eject assembly or sensors.

## REP 11.11-110 Bin 1 Level Sensors

Parts List on [PL 11.12](#).

### Removal



### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the ejector assembly, [REP 11.10-110](#).

2. Remove the stacker level sensors [Figure 1](#).

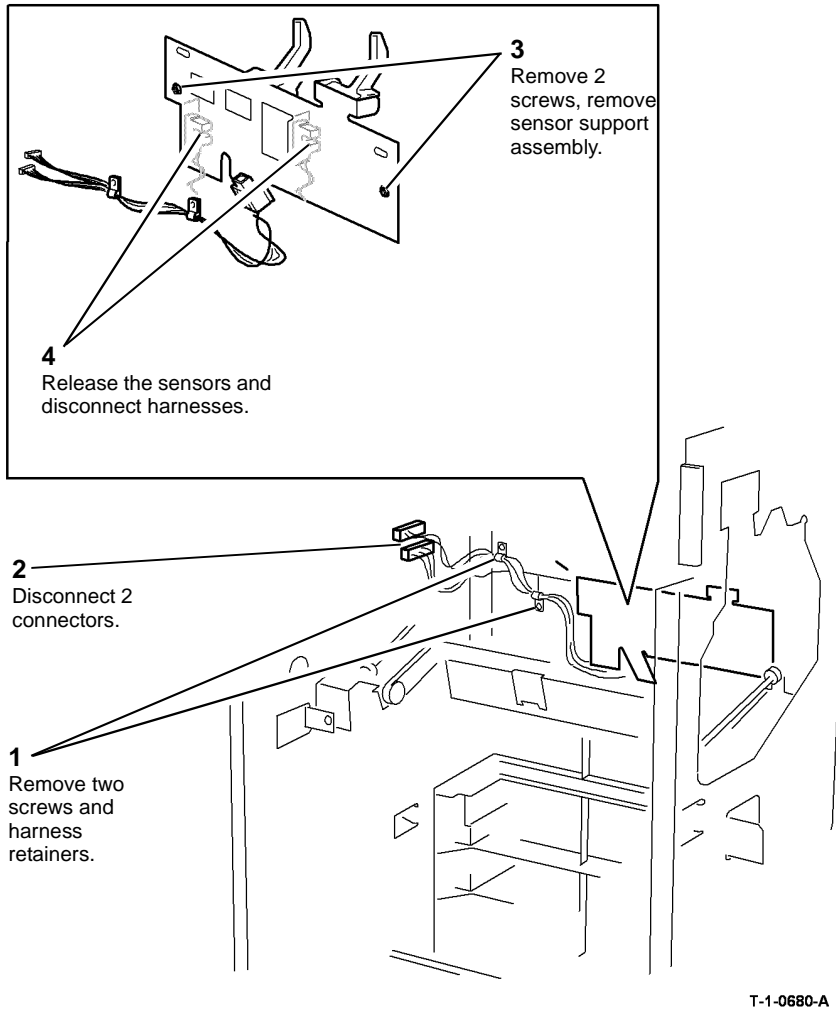


Figure 1 Removing the stacker level sensors

## Replacement

Reverse the removal procedures to replace the bin 1 level sensors.

## REP 11.12-110 Paddle Wheel Shaft Assembly

Parts List on [PL 11.8](#).

### Removal



**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



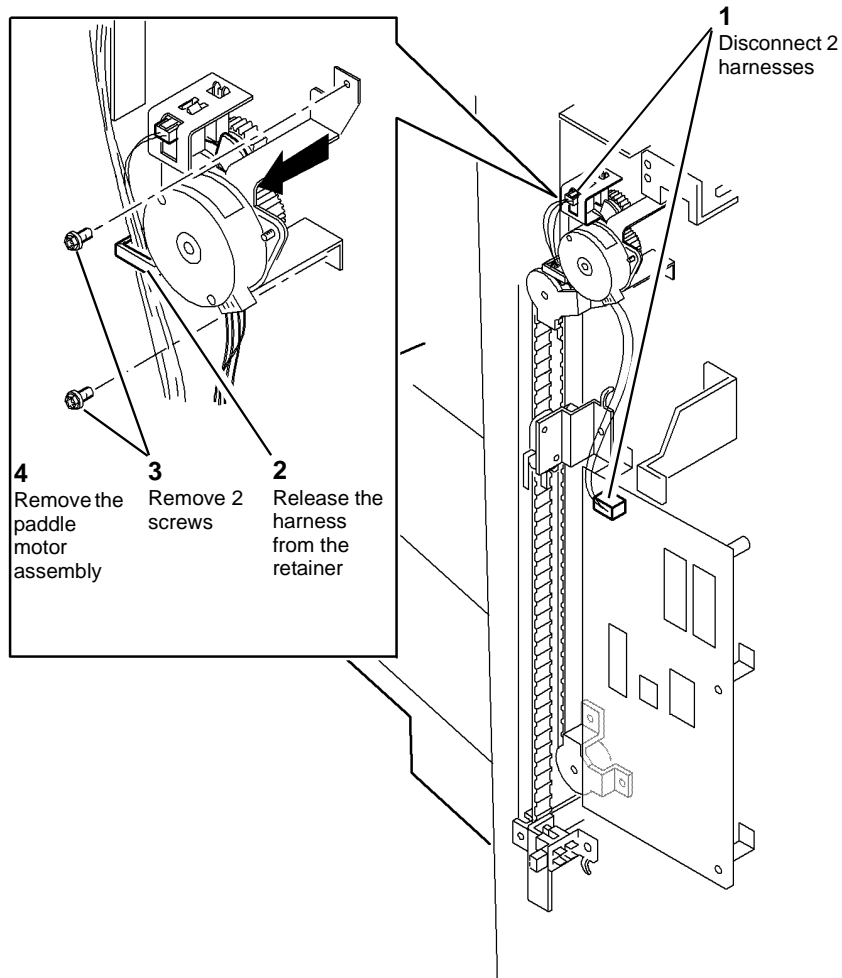
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the stapler traverse assembly, [REP 11.8-110](#).
2. Remove the tamper assembly, [REP 11.6-110](#).
3. Remove bin 1, [PL 11.2 Item 10](#).



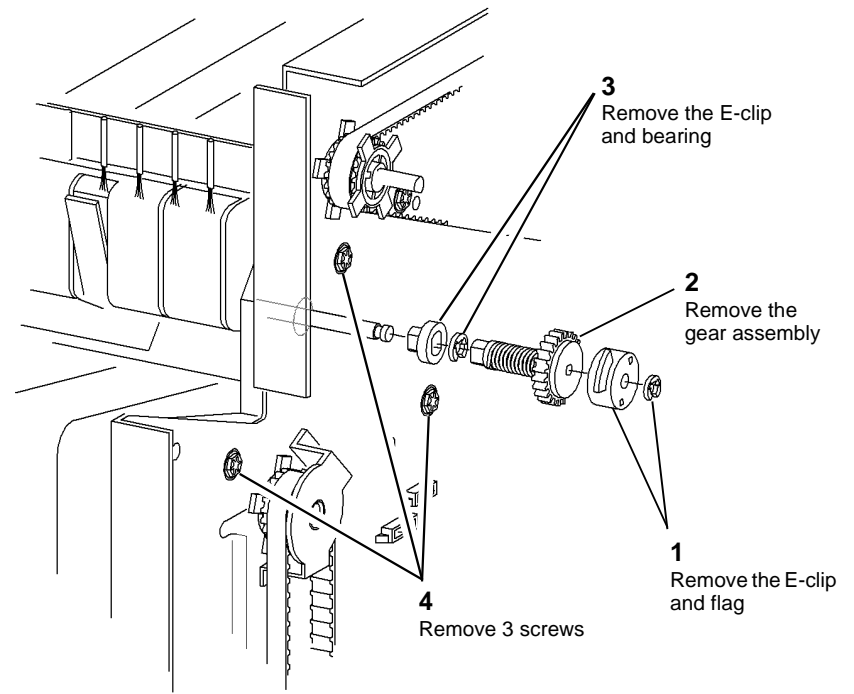
4. Remove the paddle motor assembly, **Figure 1**.



**Figure 1 Paddle motor assembly**

T-1-0681-A

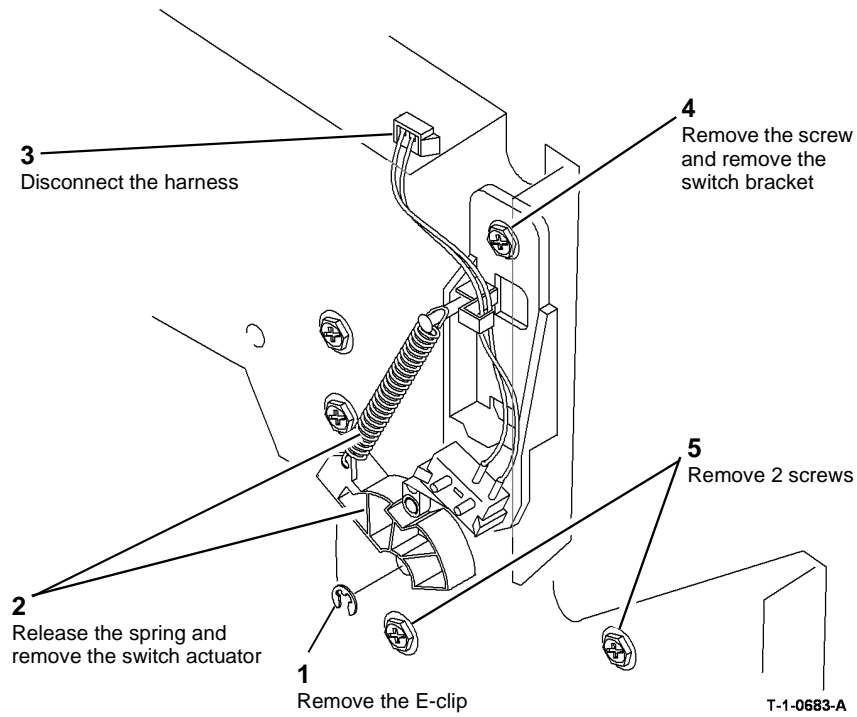
5. Prepare the rear components, **Figure 2**



**Figure 2 Rear preparation**

T-1-0682-A

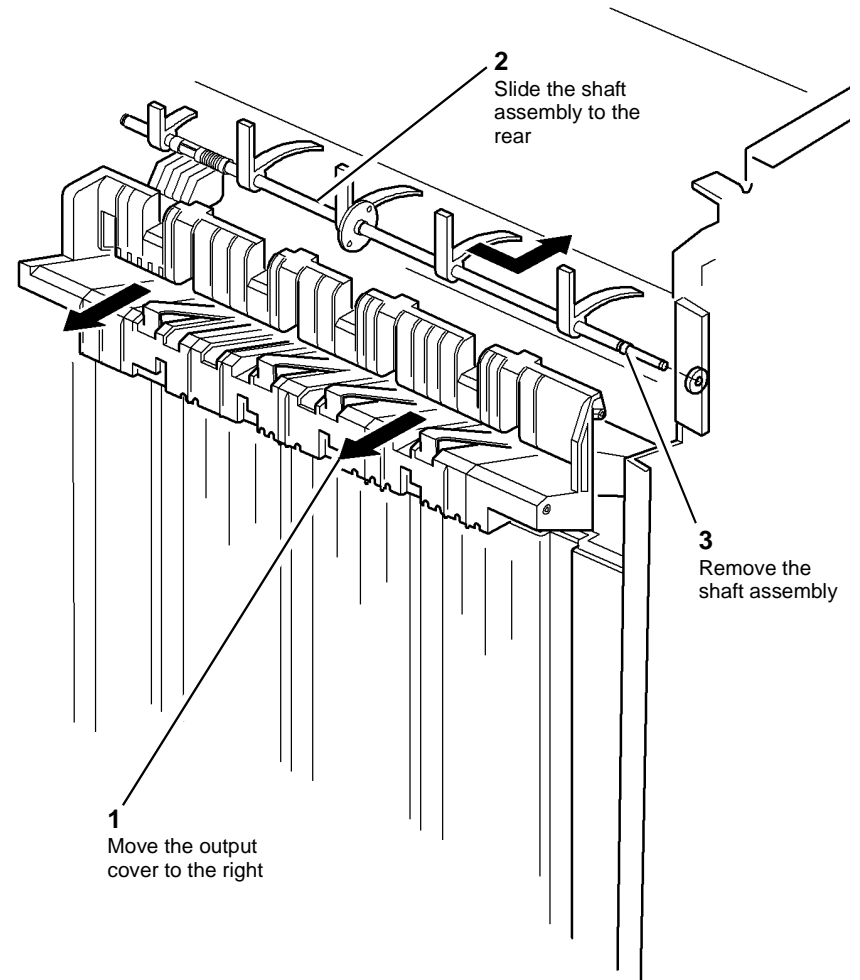
6. Prepare the front components, [Figure 3](#).



**Figure 3 Front preparation**

7. Ensure that the compiler ejector is in the home position (fully to the left).

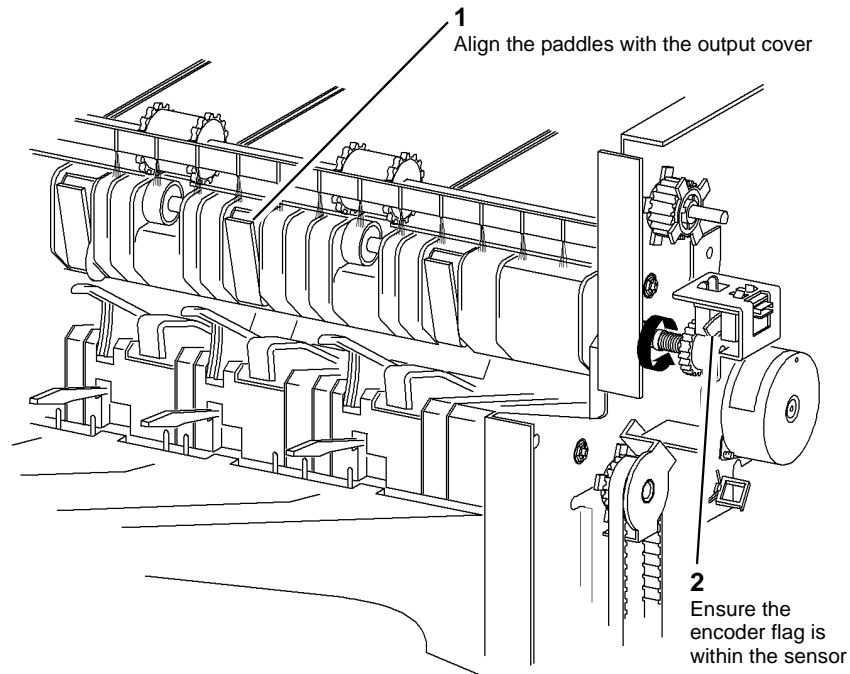
8. Remove the paddle wheel shaft assembly, [Figure 4](#)



**Figure 4 Paddle wheel shaft removal**

## Replacement

1. Install the paddle wheel shaft, ensure that the pin on the rear of the safety gate switch cam, [Figure 3](#), locates in the safety gate. Install the front E-clip.
2. Install the output cover, [Figure 4](#), ensuring that the safety gate is aligned with the slots in the output cover.
3. Install the rear bearing and E-clip.
4. Install the switch bracket, 1 screw, connect the harness, [Figure 3](#).
5. Install the gear assembly, ensuring that it locates onto the large "D" flat, [Figure 2](#).
6. Install the flag and E-clip, ensuring that the flag locates on the small "D" flat, [Figure 2](#).
7. Ensure the paddles and flag are correctly aligned [Figure 5](#). Install the motor assembly, [Figure 1](#).



T-1-0685-A

**Figure 5 Paddle alignment**

8. Test the operation of the paddle roll, enter [dC330](#), output code 11-025. When the code is cancelled the paddles must stop with both rubber blades inside of the output cover. If necessary, check that the gear assembly and flag are correctly located on the "D" flats.

## REP 11.13-110 2K LCSS Un-Docking

Parts List on [PL 11.4](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.



Take care not to topple the 2K LCSS. The 2K LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the 2K LCSS.

1. If necessary, disconnect the harnesses between the 2K LCSS and the machine.
2. Open the 2K LCSS front door.

3. Release the 2K LCSS link bracket assembly, [Figure 1](#).

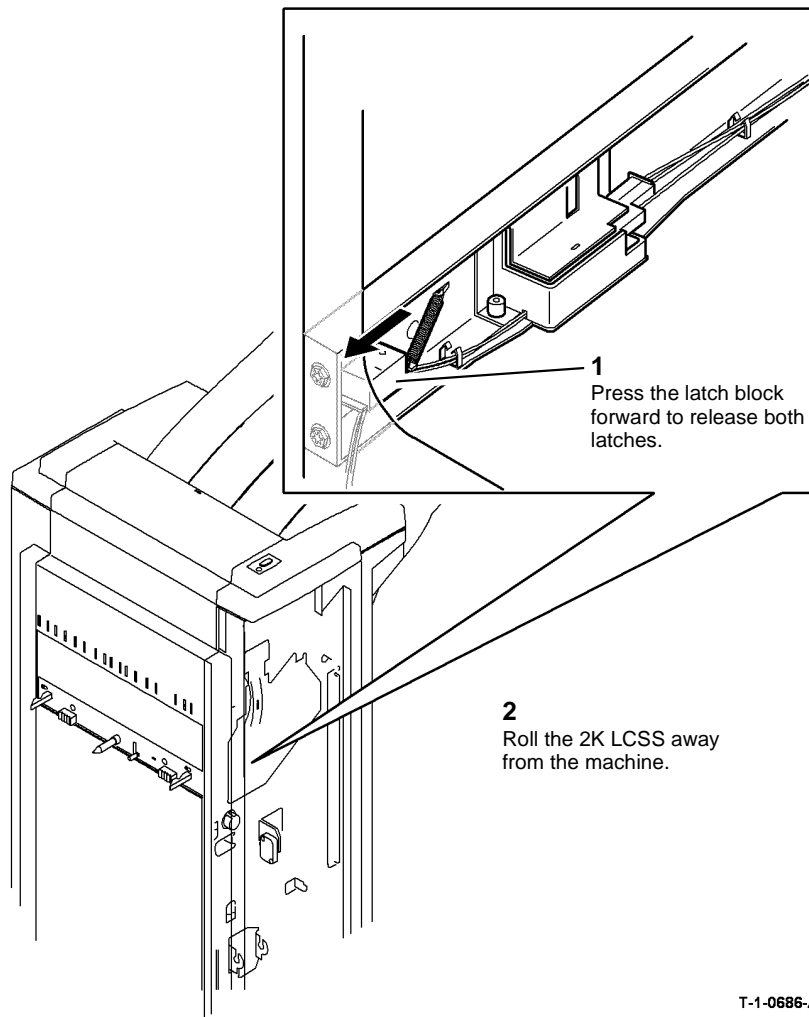


Figure 1 2K LCSS link bracket assembly

T-1-0686-A

## Replacement

Line up the 2K LCSS latches to the machine apertures then push the two units firmly together until they latch.

## REP 11.14-110 2K LCSS PWB

Parts List on [PL 11.26](#)

### Removal



**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 2K LCSS rear cover assembly, [REP 11.1-110](#).
2. Disconnect all harness connectors from the 2K LCSS PWB.
3. Remove the three screws and release the three standoffs securing the 2K LCSS PWB.

### Replacement

**NOTE:** Before replacing the 2K LCSS rear cover assembly, perform [11F-110](#) 2K LCSS PWB DIP Switch Settings RAP.

Reverse the removal procedure to replace the 2K LCSS PWB.

## REP 11.15-110 Entry Guide Cover

Parts List on [PL 11.24](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### WARNING

Take care not to topple the 2K LCSS. The 2K LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the 2K LCSS.

1. Remove the 2K LCSS front cover and 2K LCSS rear cover, [REP 11.1-110](#).
2. Un-dock the 2K LCSS, [REP 11.13-110](#).
3. Disconnect the harness to the entry sensor, [PL 11.24 Item 3](#), at the rear frame.

4. Remove the entry guide cover, [Figure 1](#)

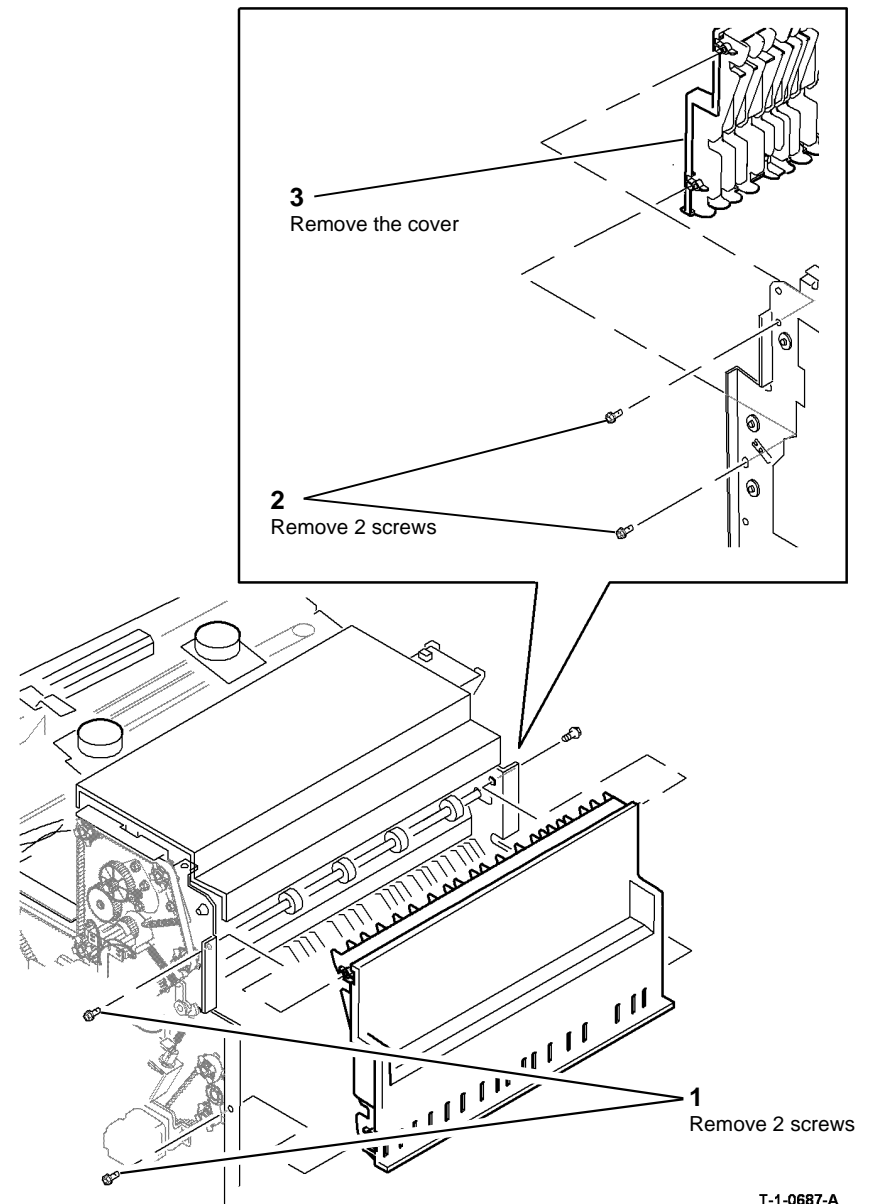


Figure 1 Entry guide cover removal

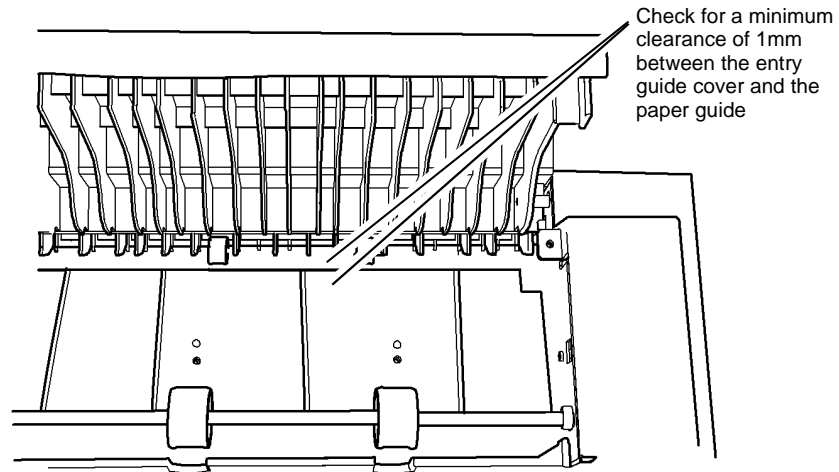
T-1-0687-A

## Replacement

Refer to [GP 6](#) before refitting the screws.

1. Bias the entry guide cover away from the paper guide when you tighten the screws.
2. The clearance between the entry guide cover and the paper guide must be a minimum of 1mm. Refer to [Figure 2](#).

**NOTE:** If the clearance is less than 1mm, then install a new entry guide cover.



T-1-0688-A

Figure 2 Entry guide cover clearance

3. Run copies through the output device, if possible use heavy weight paper or labels. Check for marks on the print and for damage to the paper. If there are no marks or damage then install the covers.

## REP 11.16-110 Docking Latch Assembly

Parts List on [PL 11.4](#).

### Removal



**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

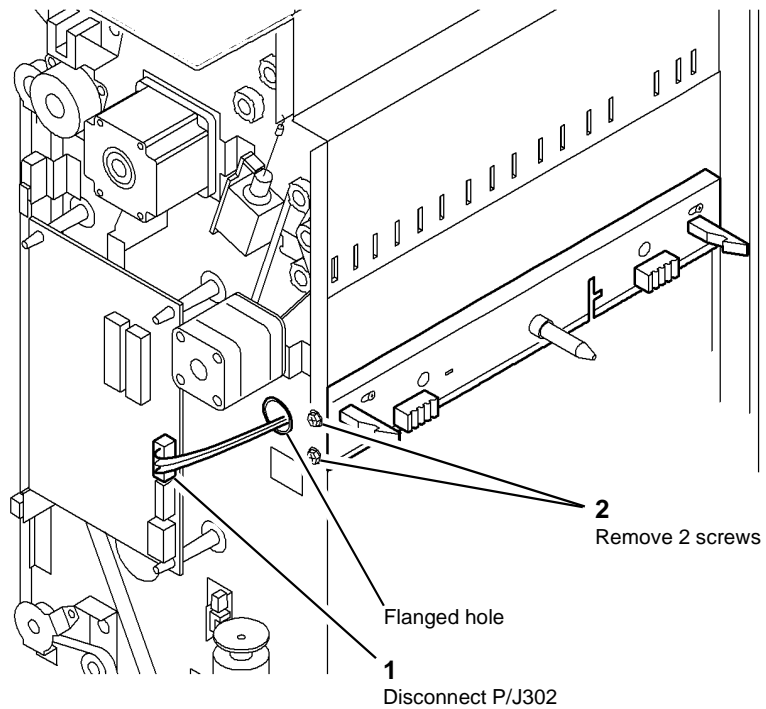


**WARNING**

Take care not to topple the 2K LCSS. The 2K LCSS is unstable when un-docked from the machine. Do not show the customer how to un-dock the 2K LCSS.

1. Remove the front and rear covers, [REP 11.1-110](#).
2. Un-dock the 2K LCSS, [REP 11.13-110](#).

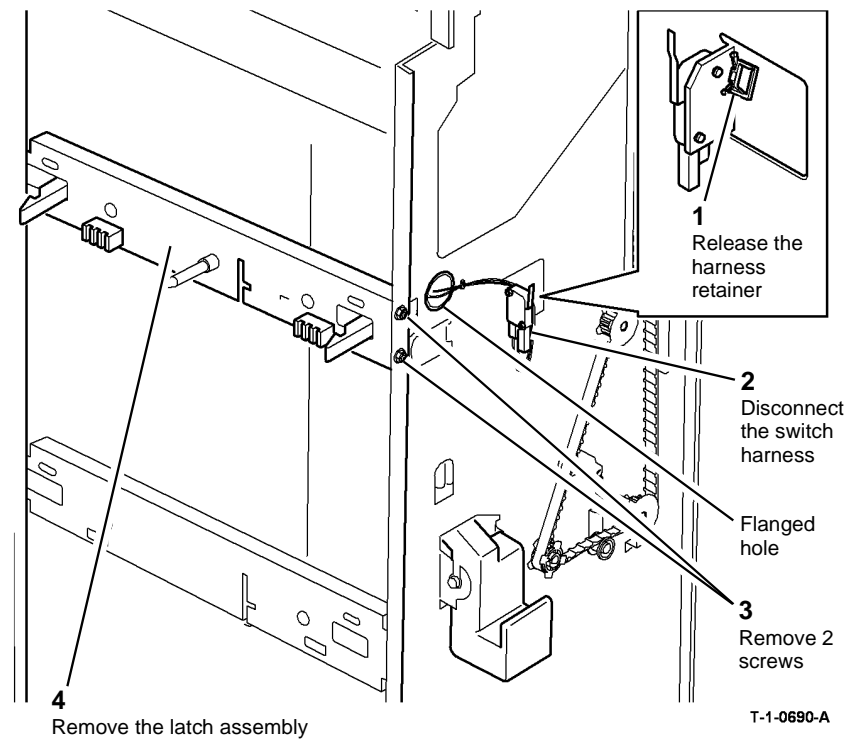
3. Prepare to remove the docking latch assembly, [Figure 1](#).



T-1-0689-A

**Figure 1** Prepare to remove the latch

4. Remove the docking latch assembly, [Figure 2](#).



T-1-0690-A

**Figure 2** Latch assembly removal

### Replacement

Reverse the removal procedure to replace the docking latch assembly.



**CAUTION**

*Ensure that the front and rear harness are routed through the flanged holes, refer to [Figure 1](#) and [Figure 2](#).*

## REP 11.17-110 Ejector Belt

Parts List on [PL 11.18](#).

### Removal



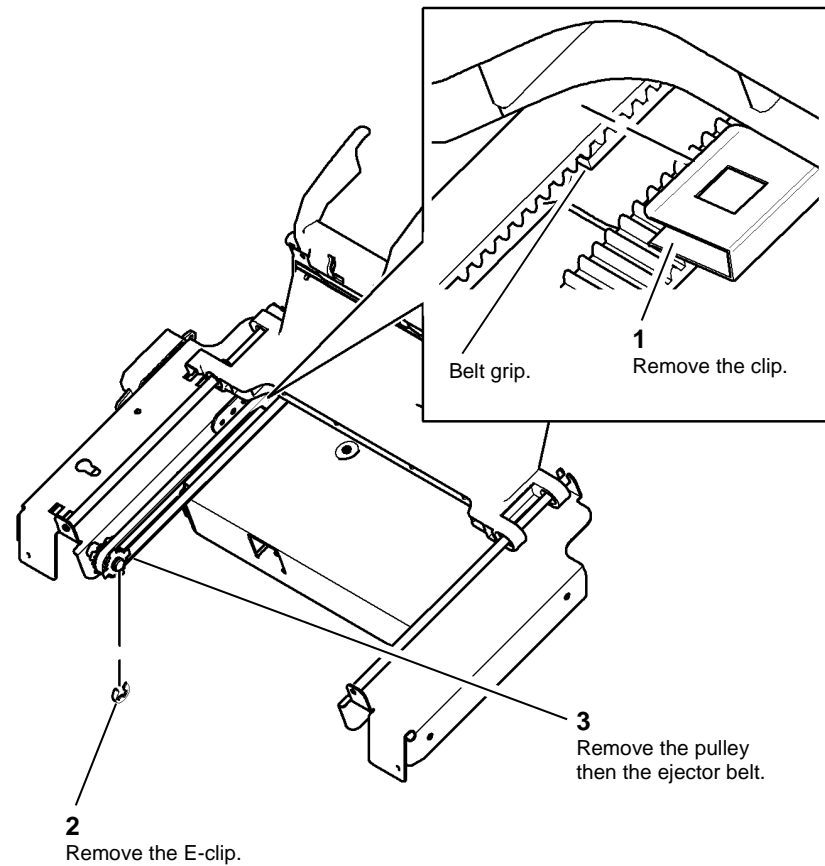
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the ejector assembly, refer to [REP 11.10-110](#).

2. Remove the ejector belt, [Figure 1](#).



T-1-0691-A

Figure 1 Remove the ejector belt

### Replacement

1. The replacement is the reverse of the removal procedure.
2. Ensure that the ejector belt is correctly engaged with the belt grip on the ejector assembly before the clip is reinstalled. Refer to [Figure 1](#).



# REP 11.1-120 1K LCSS Covers

Parts List on [PL 11.100](#).

## Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the covers, [Figure 1](#).

*NOTE: Removing the top cover first will allow easy removal of the front and rear covers.*

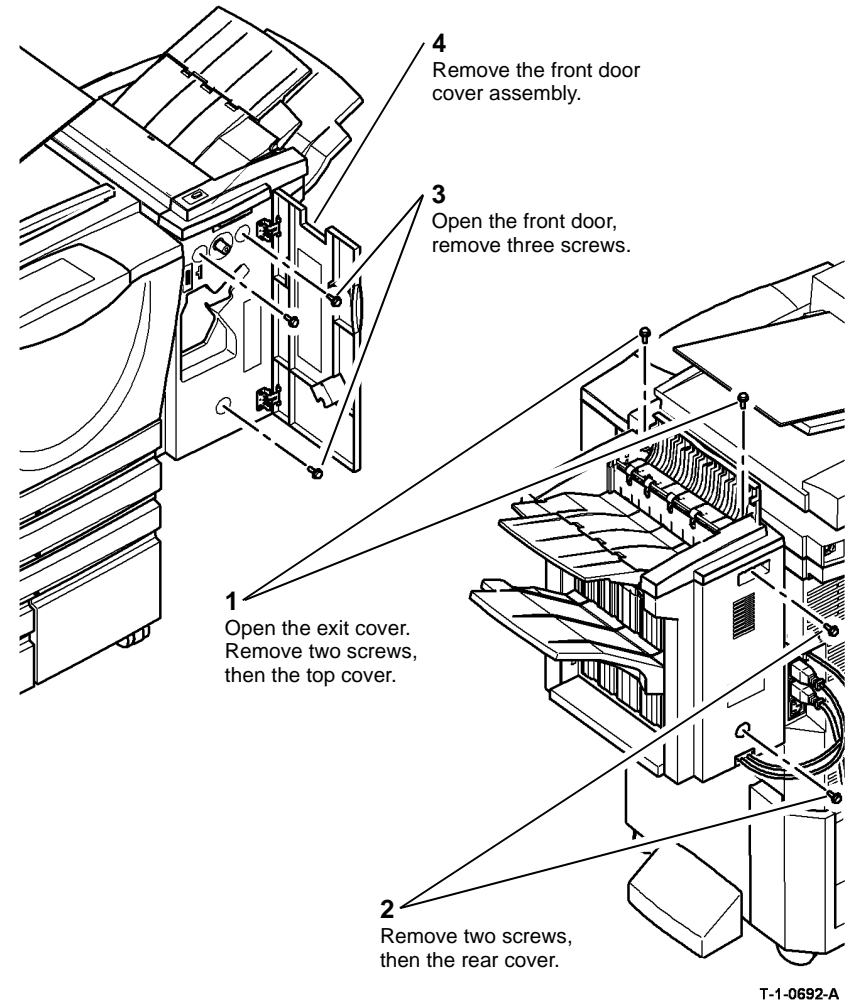


Figure 1 Removing the covers

## Replacement

Reverse the removal procedure to replace the covers.

## REP 11.2-120 Input Drive Belt and Transport Motor 1

Parts List on [PL 11.110](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS rear cover, [REP 11.1-120](#).
2. Remove transport motor 1 and the input drive belt, [Figure 1](#).

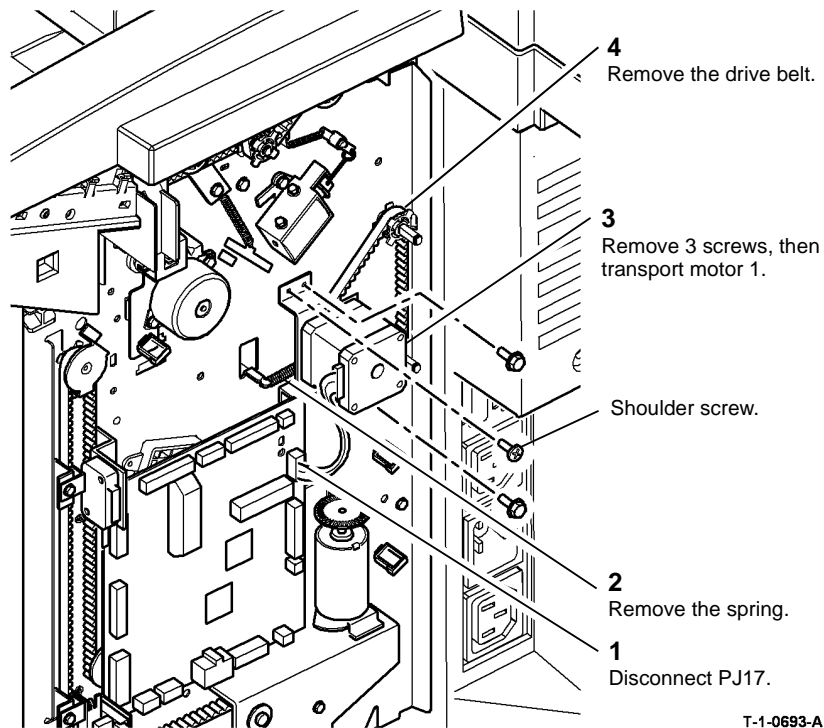


Figure 1 Removing the drive belt

### Replacement

1. Place the belt around the pulleys.

**NOTE:** Ensure that the shoulder screw is installed in the correct position. Refer to [Figure 1](#).

2. Install the motor screws, but do not tighten.
3. Install the spring.
4. Rotate the shaft by hand to ensure the belt runs smoothly over the pulleys and allow the spring to tension the belt, [ADJ 11.2-120](#).
5. Tighten the motor screws and re-connect the harness.
6. Install the 1K LCSS rear cover, [REP 11.1-120](#).

## REP 11.3-120 1K LCSS Stability Foot

Parts List on [PL 11.100](#).

### Removal



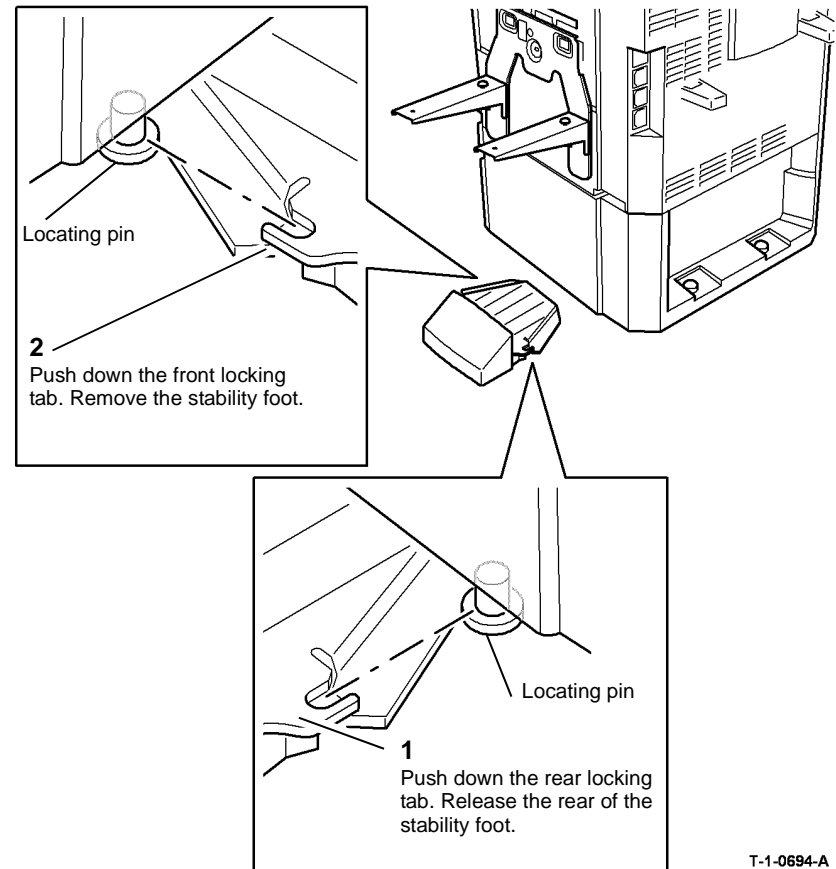
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS, [REP 11.11-120](#).

2. Remove the stability foot, [Figure 1](#).



T-1-0694-A

Figure 1 Removal

### Replacement

Align the slots in the stability foot with the locating pins under the machine. Firmly push the stability foot into position.

## REP 11.4-120 Paper Output Drive Belt and Transport Motor

2

Parts List on [PL 11.120](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS top cover and rear cover, [REP 11.1-120](#).
2. Remove the intermediate drive belt, [PL 11.118](#) Item 4.
3. Remove the paper output drive belt, [Figure 1](#).

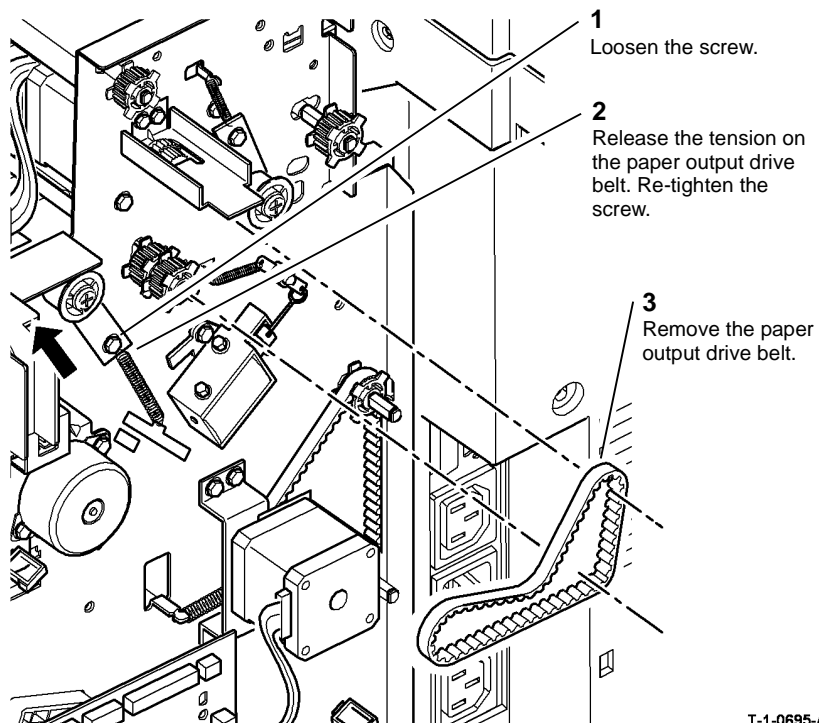


Figure 1 Removing the paper output drive belt

4. Remove transport motor 2, [Figure 2](#).

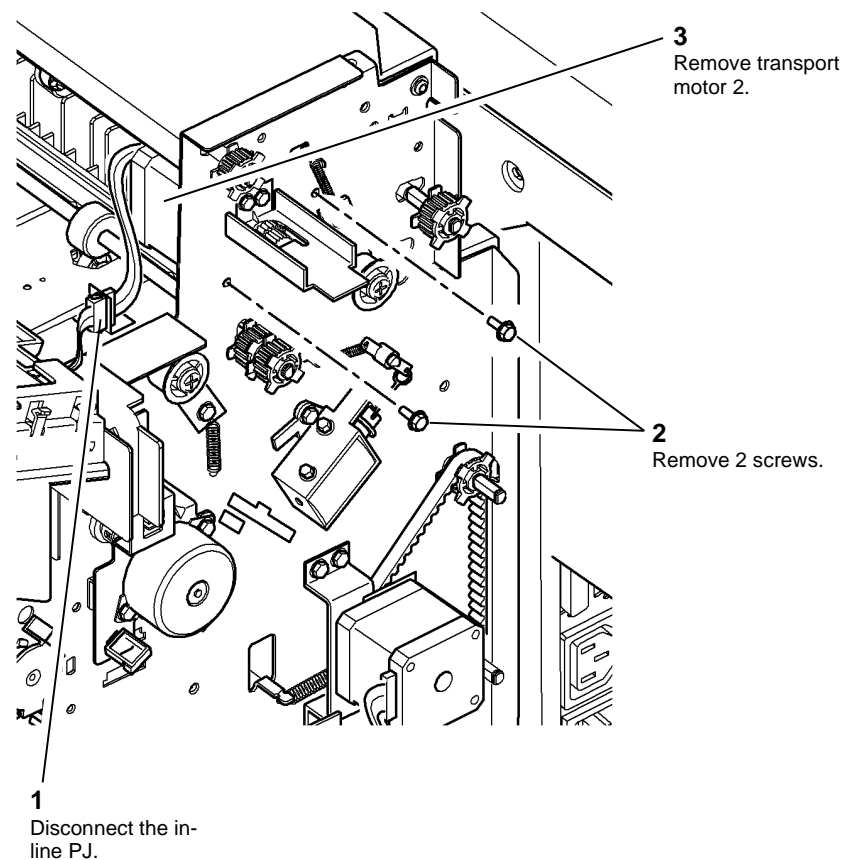


Figure 2 Removing transport motor 2

### Replacement

1. The replacement is the reverse of the removal procedure.
2. Manually rotate the paper output drive belt to allow the spring to tension the belt, [ADJ 11.2-120](#).

## REP 11.5-120 Bin 1 Drive Belts

Parts List on [PL 11.106](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



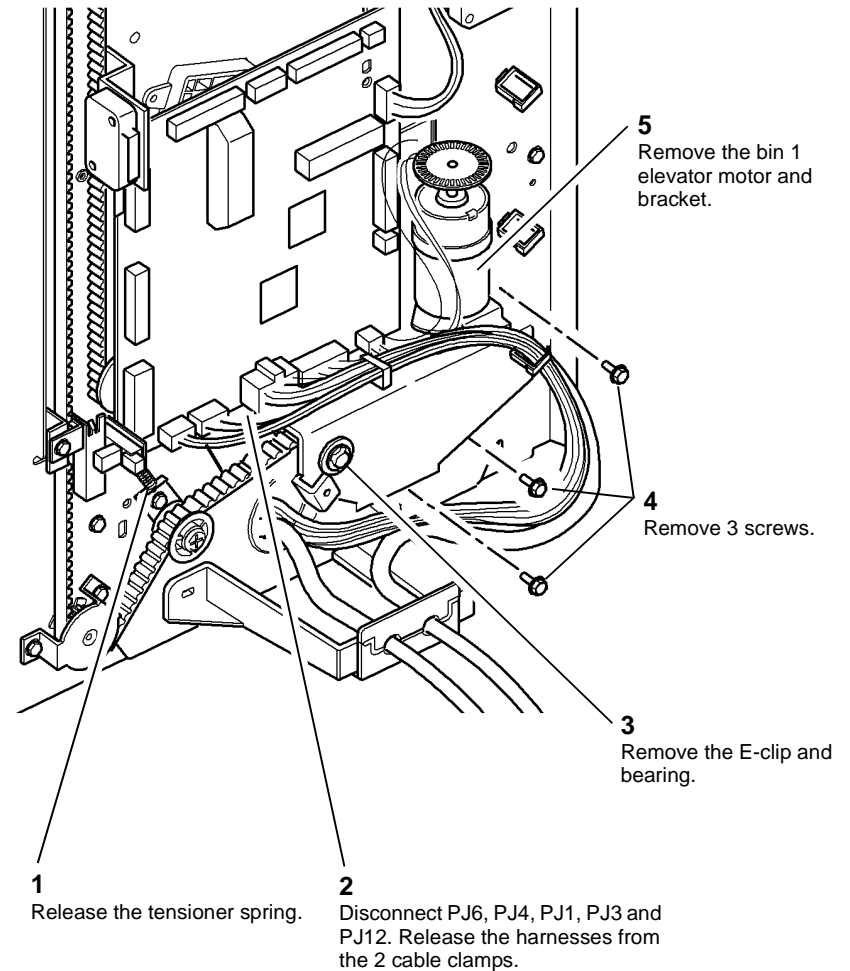
#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Enter [dC330](#), code 11-032, bin 1 elevator motor down. Fully lower bin 1.
2. Open the 1K LCSS front door, [PL 11.100 Item 4](#).
3. Switch off the machine.
4. Remove the 1K LCSS rear cover and front cover, [REP 11.1-120](#).

**NOTE:** Keep all of the components removed as a set. The set of rear frame components are different from the front frame set.

5. Prepare to remove the rear bin 1 drive belt, [Figure 1](#).



T-1-0697-A

Figure 1 Preparation

6. Remove the rear bin 1 drive belt, [Figure 2](#).

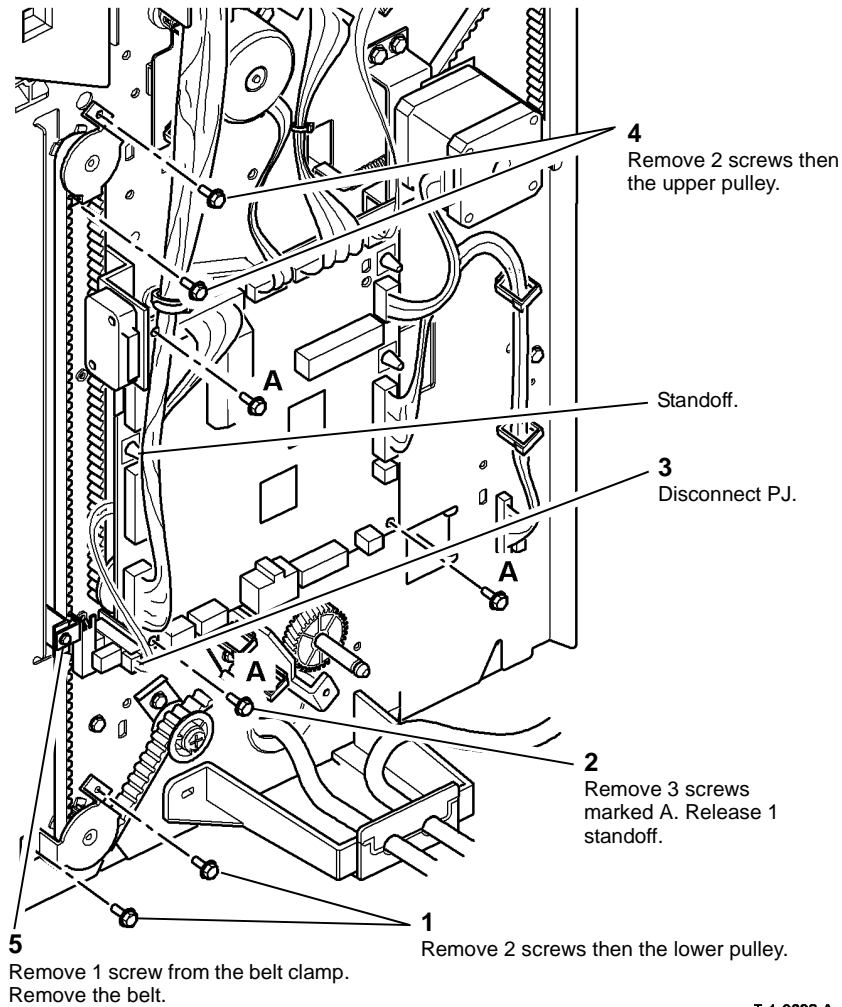


Figure 2 Bin 1 drive belt removal (rear)

7. Remove the bin 1 drive belt (front) [Figure 3](#).

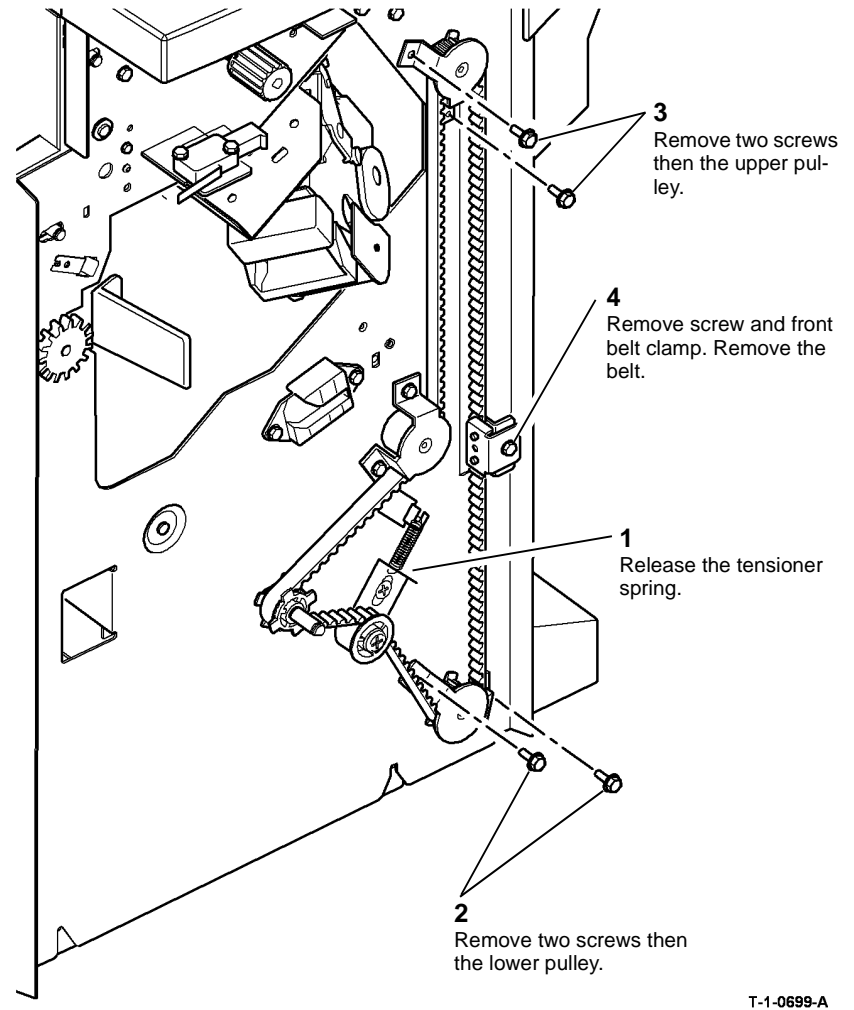


Figure 3 Bin 1 drive belt (front)

## Replacement

**NOTE:** Ensure the correct set of components are used for each side of the 1KLCSS.

1. Reverse the removal procedure to replace the bin 1 drive belts.

**NOTE:** Bin 1 level can critically affect the overall stack registration. Refer to [ADJ 11.1-120](#) if adjustment is necessary.

## REP 11.6-120 Tamper Assembly

Parts List on [PL 11.112](#).

### Removal



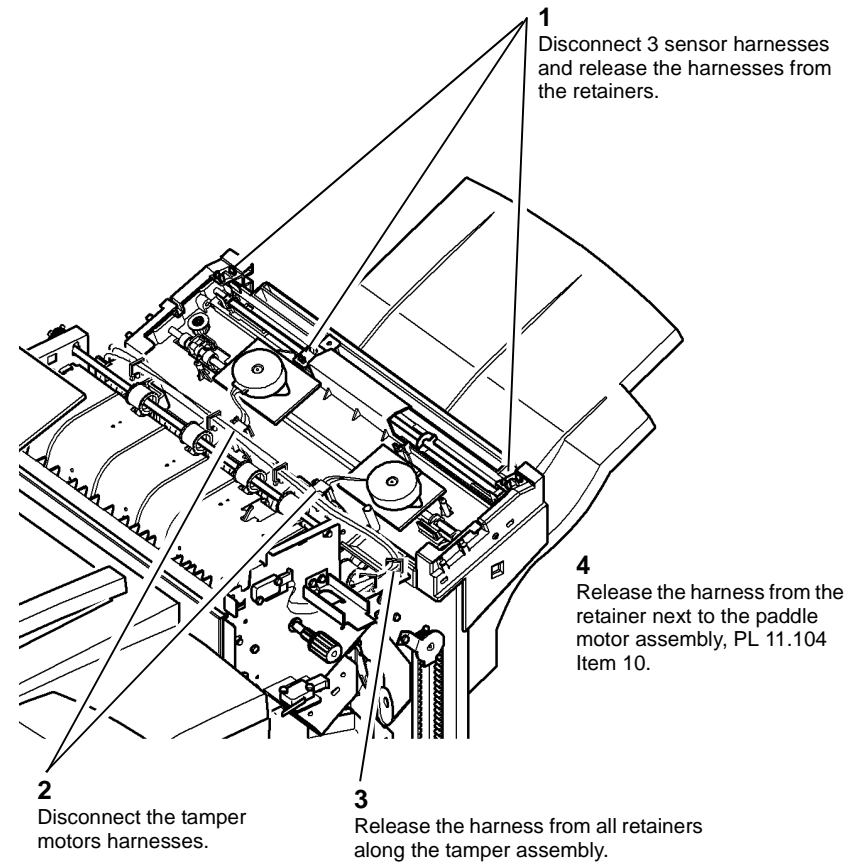
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS covers [REP 11.1-120](#).

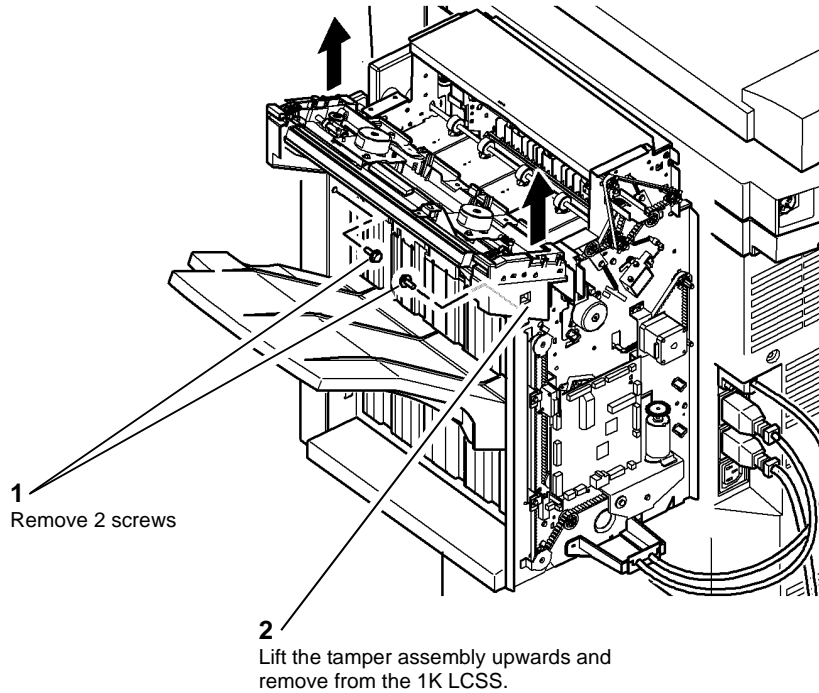
2. Prepare to remove the tamper assembly, [Figure 1](#).



T-1-0700-A

Figure 1 Preparing the tamper assembly

3. Figure 2, remove the tamper assembly.



1  
Remove 2 screws

2  
Lift the tamper assembly upwards and remove from the 1K LCSS.

T-1-0701-A

Figure 2 Removing the tamper assembly

### Replacement

Reverse the removal procedure to replace the tamper assembly.

#### NOTE: Ensure that:

- The slots in the tamper assembly locate correctly in the 1K LCSS frame.
- The sensors are correctly located in the tamper assembly, they are easily mis-located when being disconnected and re-connected to the harnesses.
- All connectors in the harness over the tamper assembly are securely connected.

## REP 11.7-120 Stapler Assembly and SH1 Paper Sensor

Parts List on [PL 11.116](#).

### Removal

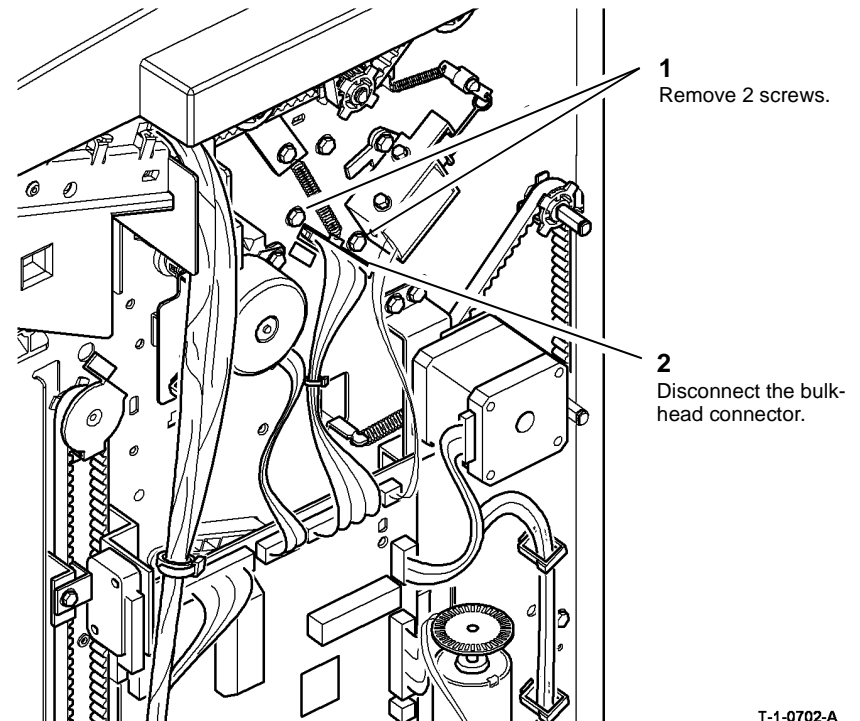


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS covers, [REP 11.1-120](#).
2. Manually move the ejector, [PL 11.114 Item 1](#) fully to the right (out position).
3. Prepare to remove the stapler head unit and mounting bracket, [Figure 1](#).



1  
Remove 2 screws.

2  
Disconnect the bulk-head connector.

T-1-0702-A

Figure 1 Preparation



**!**  
**CAUTION**

When removing and replacing the stapler assembly, support the weight of the assembly underneath the stapler and take care not to damage wiring.

4. Remove the stapler assembly, Figure 2.

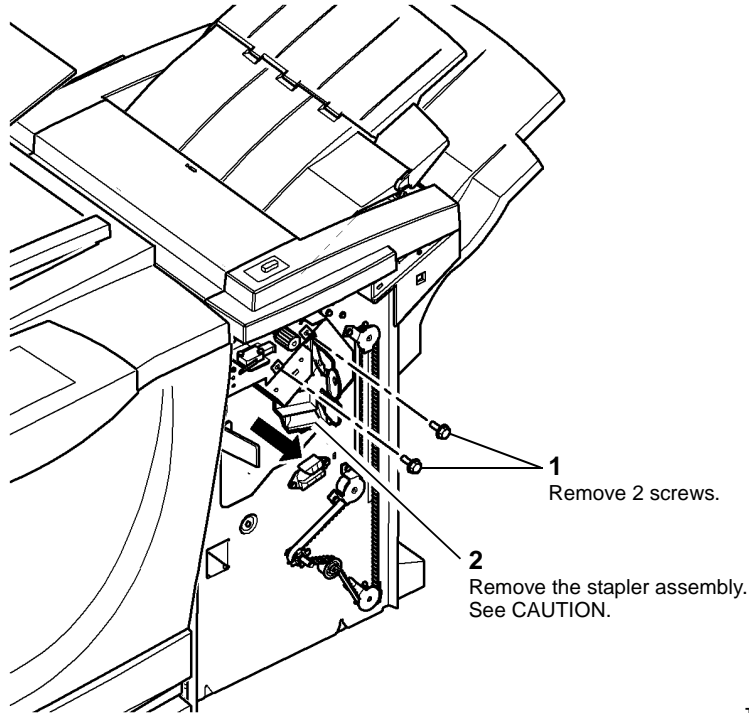


Figure 2 Removal

T-1-0703-A

**!**  
**CAUTION**

When removing the SH1 paper sensor, do not damage the actuator for the SH1 cartridge sensor, Figure 3.

5. Remove the SH1 paper sensor, Figure 3.

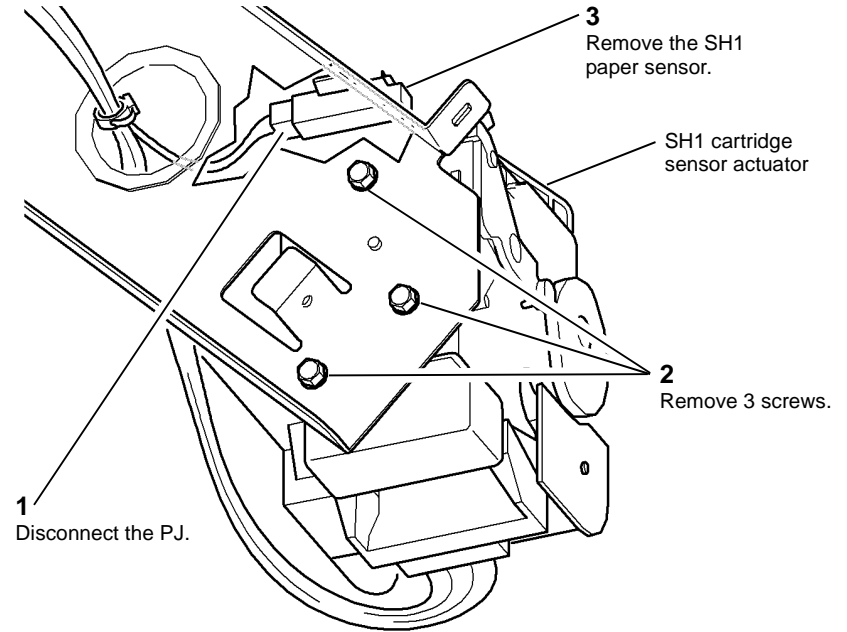


Figure 3 SH1 paper sensor removal

T-1-0704-A

### Replacement

Reverse the removal procedure to replace the staple head unit.

## REP 11.8-120 Ejector Assembly and Sensors

Parts List on [PL 11.114](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. If necessary, manually move the ejector to the right (out position).
2. Remove the docking latch, [REP 11.14-120](#).

**NOTE:** Do not disconnect the docking interlock switch.

3. Remove the ejector assembly, [Figure 1](#)

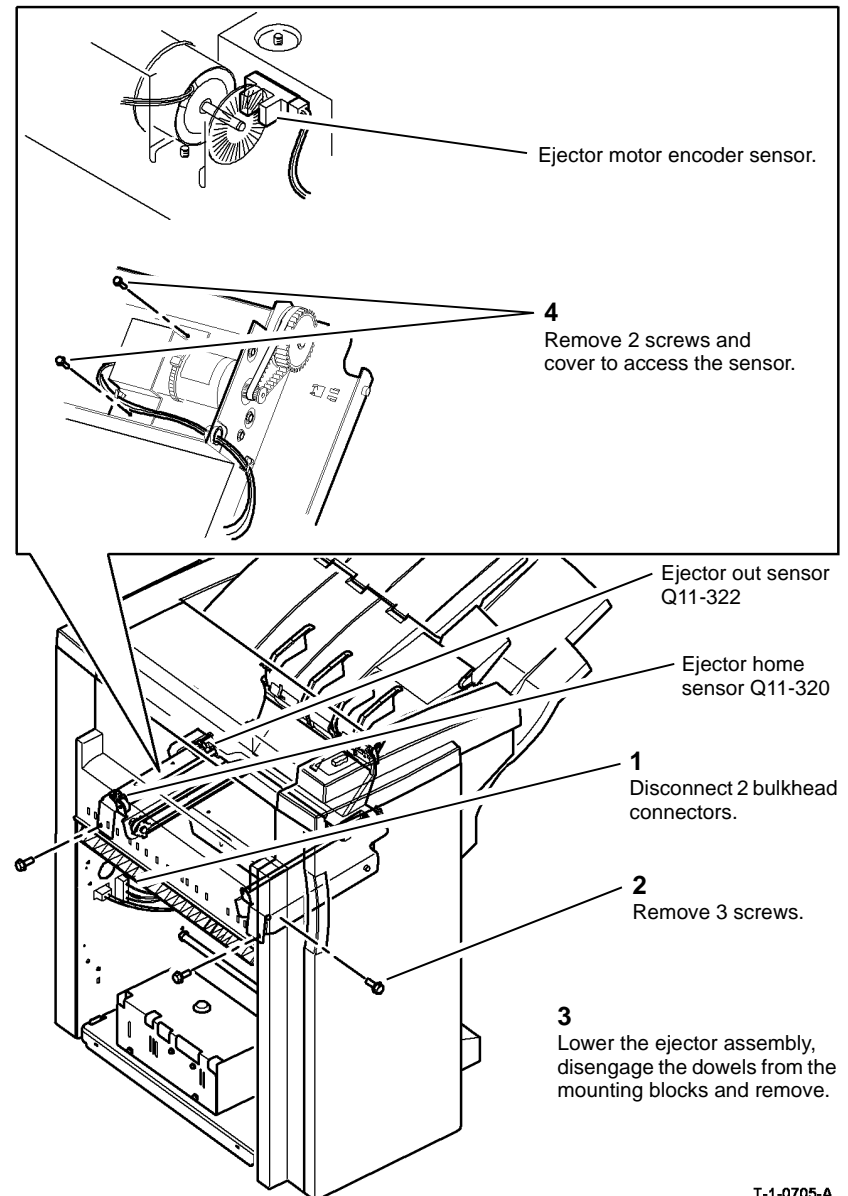


Figure 1 Removing the ejector assembly

4. Remove the appropriate sensor by releasing the sensor tabs and disconnecting the harness.

## Replacement



### CAUTION

When installing the ejector assembly onto the 1K LCSS, ensure that the ejector fingers do not damage the wiring to the staple head unit.

Reverse the removal procedure to replace the eject assembly or sensors.

## REP 11.9-120 Bin 1 Upper Level Sensor

Parts List on [PL 11.106](#).

### Removal



### WARNING

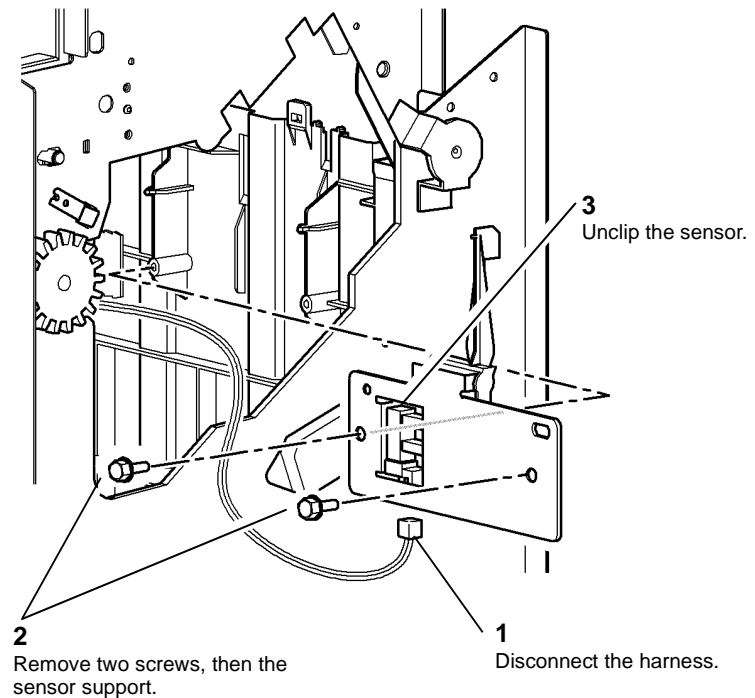
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the ejector assembly, [REP 11.8-120](#).
2. Remove the bin 1 upper level sensor, [Figure 1](#).



T-1-0706-A

Figure 1 Removing the stacker level sensors

### Replacement

Reverse the removal procedures to replace the bin 1 upper level sensor.

## REP 11.10-120 Paddle Wheel Shaft Assembly

Parts List on [PL 11.104](#).

### Removal



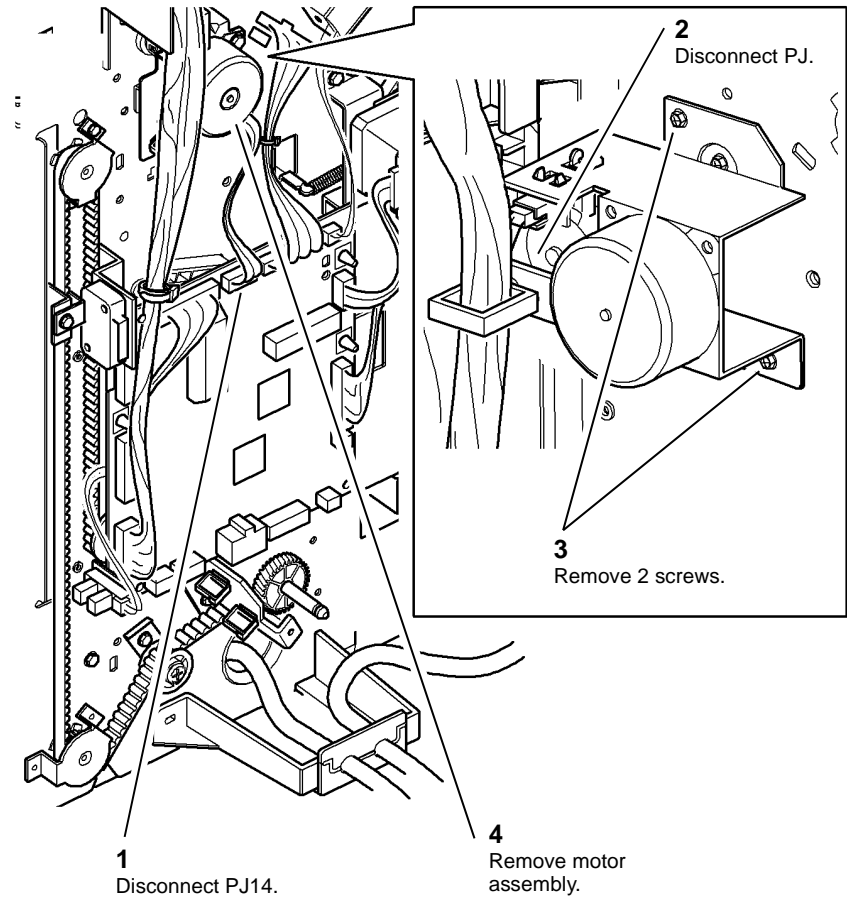
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tamper assembly, [REP 11.6-120](#).

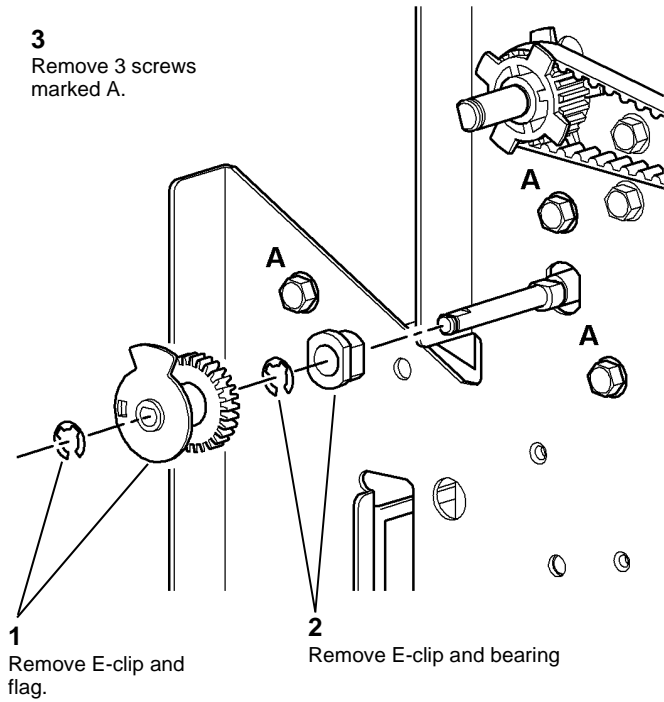
2. Remove the paddle motor assembly, [Figure 1](#).



T-1-0707-A

Figure 1 Paddle motor assembly

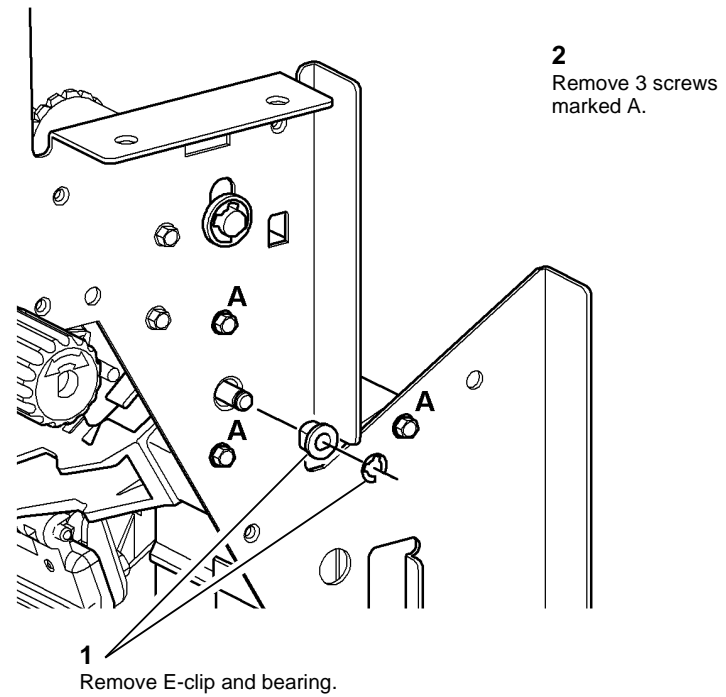
3. Prepare the rear components, [Figure 2](#).



**Figure 2 Rear preparation**

T-1-0708-A

4. Prepare the front components, [Figure 3](#).

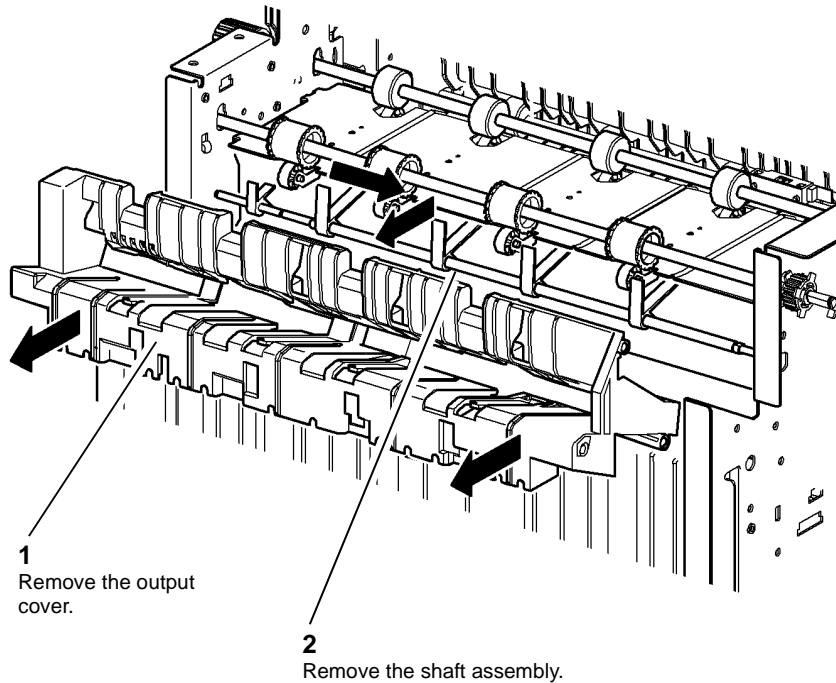


**Figure 3 Front preparation**

T-1-0709-A

5. Ensure that the compiler ejector is fully to the left (home position).

6. Remove the paddle wheel shaft assembly, [Figure 4](#).

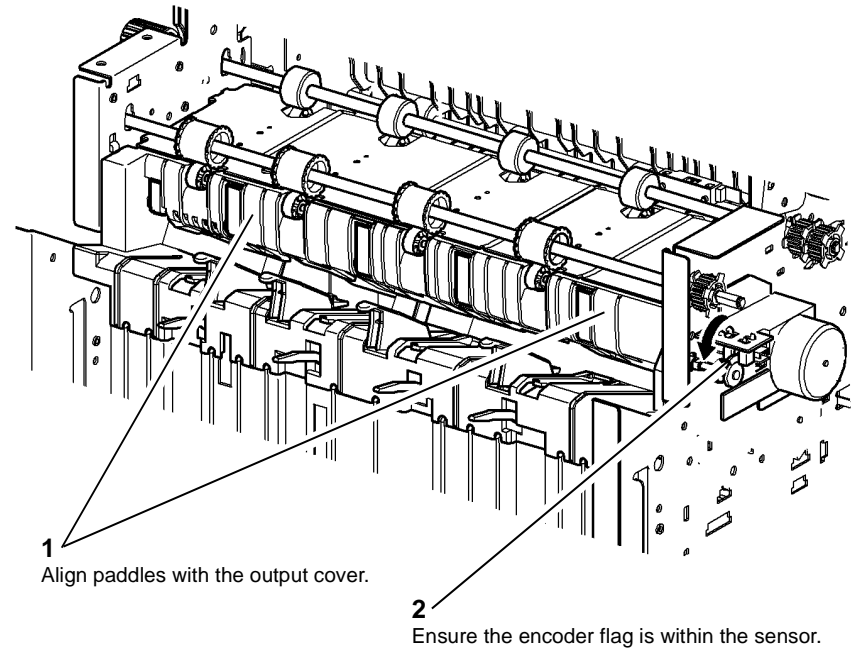


T-1-0710-A

**Figure 4 Paddle wheel shaft removal**

## Replacement

1. The replacement is the reverse of the removal procedure. Ensure the paddles and flag are correctly aligned, refer to [Figure 5](#).



T-1-0711-A

**Figure 5 Paddle alignment**

2. Test the operation of the paddle roll, enter [dC330](#), output code 11-025. When the code is cancelled the paddles must stop with both rubber blades inside of the output cover. If necessary, check that the gear assembly and flag are correctly located on the "D" flats.

## REP 11.11-120 1K LCSS Removal

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

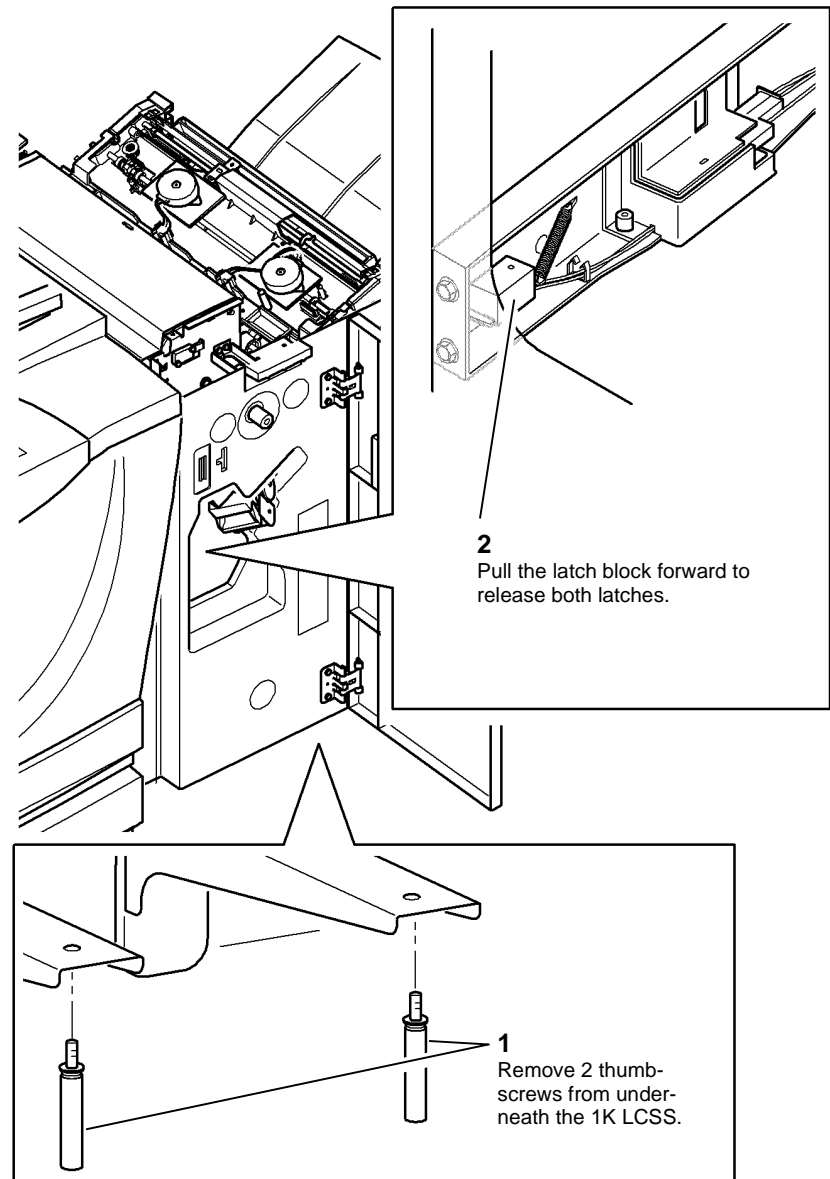


#### WARNING

Use safe handling procedures when removing the module, **GP 16**. The module is heavy.

**NOTE:** The 1K LCSS weight is 21Kg (46lb).

1. Disconnect the harnesses between the 1K LCSS and the machine.
2. Remove the 1K LCSS bin 1, **PL 11.100 Item 10**.
3. Remove the 1K LCSS top cover, refer to **REP 11.1-120**.
4. Open the 1K LCSS front door.
5. Prepare to remove the 1K LCSS, **Figure 1**.

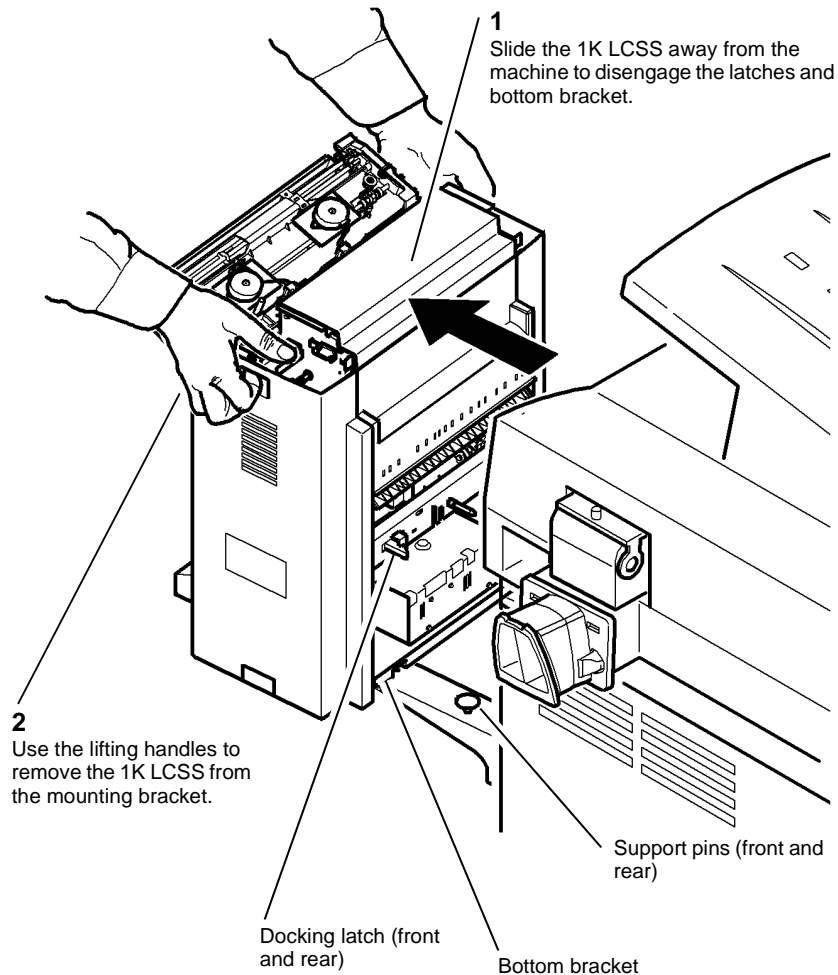


T-1-0712-A

Figure 1 1K LCSS link bracket assembly

6. Close the 1K LCSS front door.

7. Remove the 1K LCSS, [Figure 2](#).



T-1-0713-A

Figure 2 1K LCSS removal

### Replacement

1. The replacement is the reverse of the removal procedure.
2. Ensure that the bottom bracket on the 1K LCSS is located over the support pins. Line up the 1K LCSS latches to the machine apertures then push the two units firmly together until they latch.

## REP 11.12-120 1K LCSS PWB

Parts List on [PL 11.124](#).

### Removal



**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS rear cover, [REP 11.1-120](#).
2. Disconnect all harness connectors from the 1K LCSS PWB.
3. Remove the three screws and release the three standoffs securing the 1K LCSS PWB.

### Replacement

1. Reverse the removal procedure to replace the 1K LCSS PWB.
2. Before replacing the 1K LCSS rear cover, perform the [11F-120](#) 1K LCSS PWB DIP Switch Settings RAP.



## REP 11.13-120 Entry Guide Cover

Parts List on [PL 11.122](#).

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS, [REP 11.11-120](#).
2. Remove the 1K LCSS front cover and rear cover, [REP 11.1-120](#).
3. Remove the entry guide cover, [Figure 1](#).

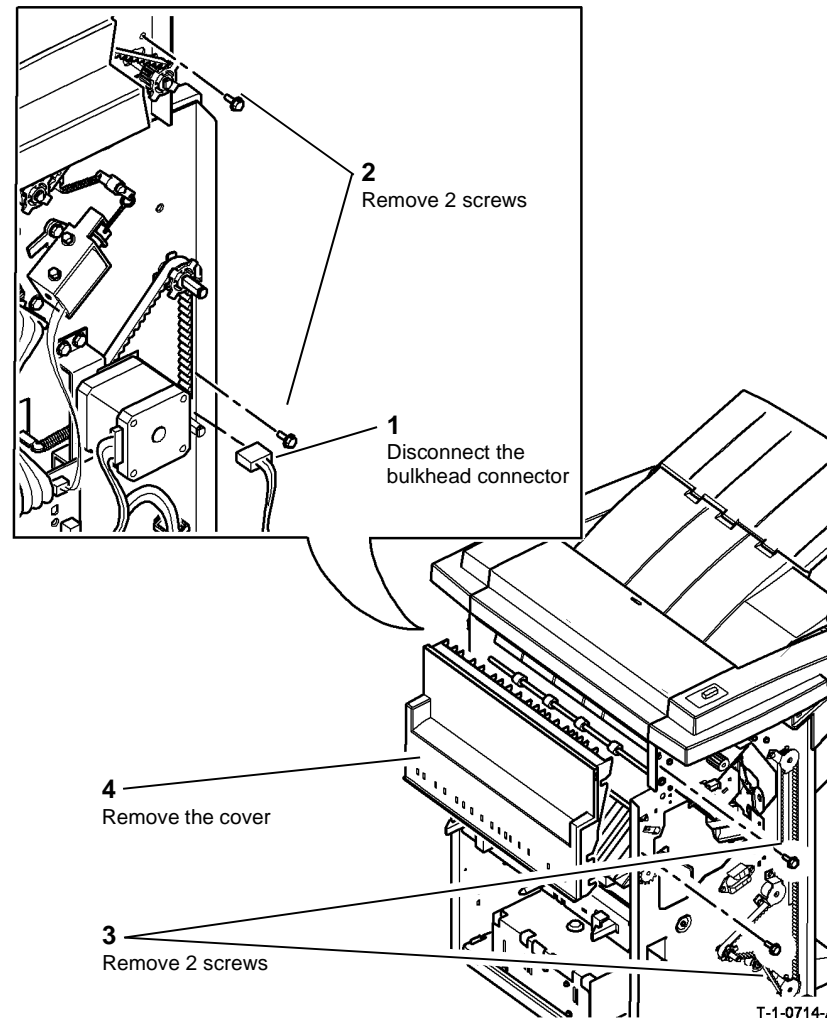


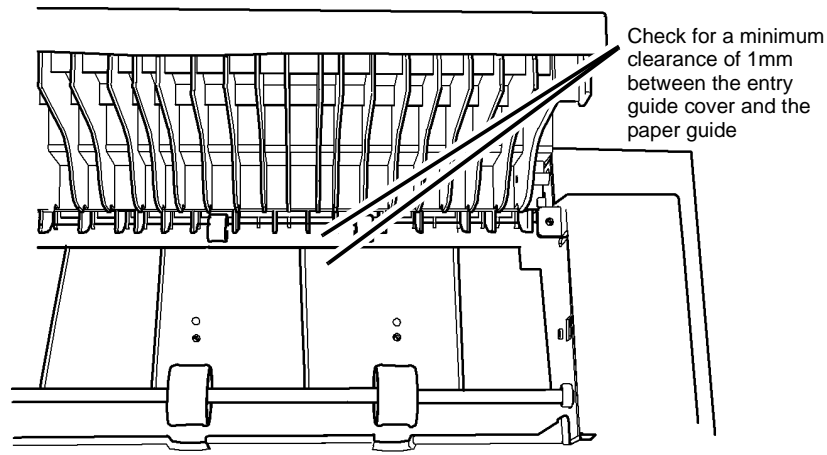
Figure 1 Entry guide cover removal

## Replacement

Refer to [GP 6](#) before refitting the screws.

1. Bias the entry guide cover away from the paper guide when you tighten the screws.
2. The clearance between the entry guide cover and the paper guide must be a minimum of 1mm. Refer to [Figure 2](#).

**NOTE:** If the clearance is less than 1mm, install a new entry guide cover.



T-1-0715-A

Figure 2 Entry guide cover clearance

3. Run copies through the output device, if possible use heavy weight paper or labels. Check for marks on the print and for damage to the paper. If there are no marks or damage then install the covers.

## REP 11.14-120 Docking Latch Assembly and Docking Interlock Switch

Parts List on [PL 11.102](#).

### Removal

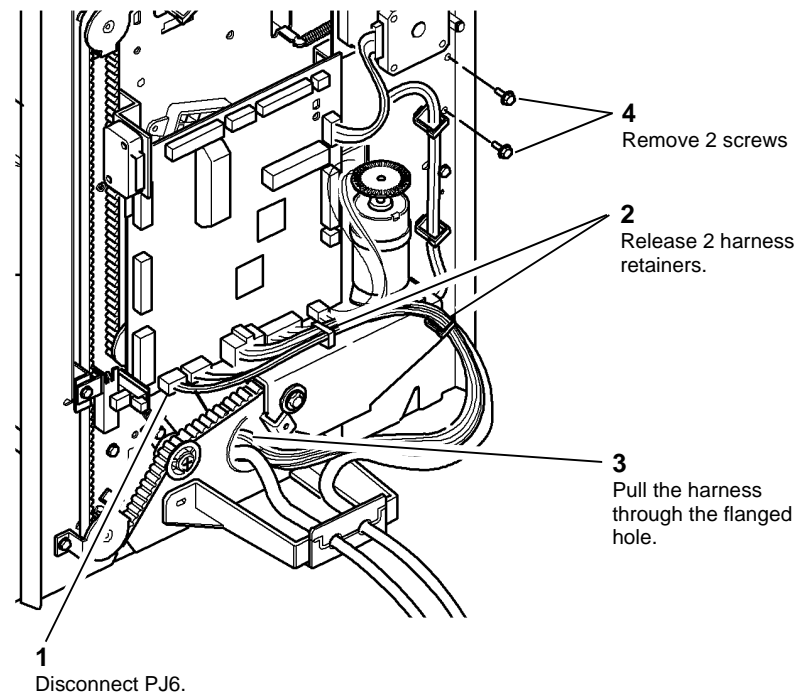


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the 1K LCSS, [REP 11.11-120](#).
2. Prepare to remove the docking latch assembly, [Figure 1](#).



T-1-0716-A

Figure 1 Preparation

3. Remove the docking latch assembly, [Figure 2](#).

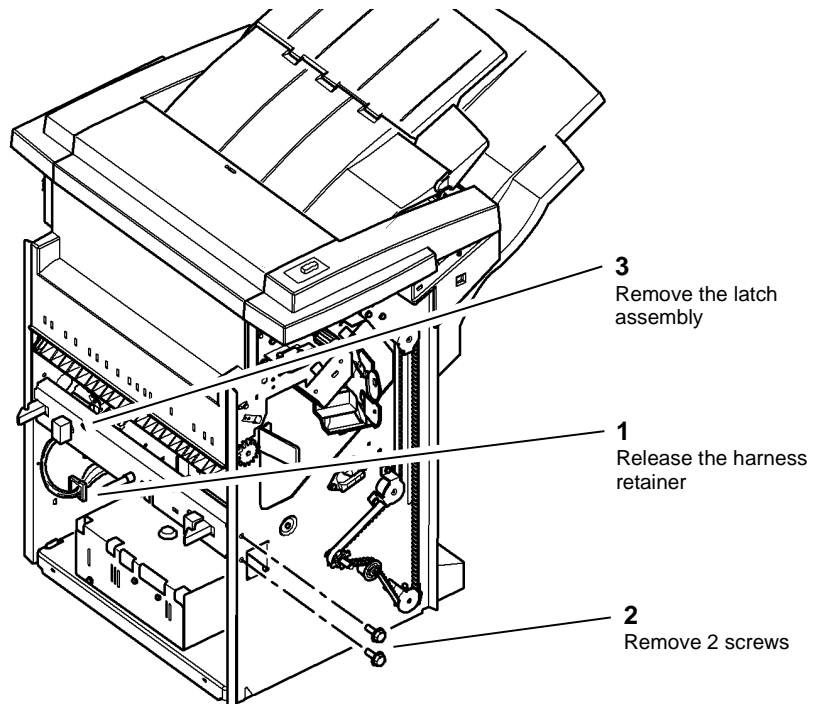


Figure 2 Latch assembly removal

T-1-0717-A

4. Remove the sensor cover, [PL 11.102 Item 1](#).
5. Release the docking interlock switch from the sensor cover.

### Replacement

Reverse the removal procedure to replace the docking latch assembly.



*Ensure that the harness is put through the flanged hole, refer to [Figure 1](#).*

## REP 11.15-120 Ejector Belt

Parts List on [PL 11.114](#).

### Removal



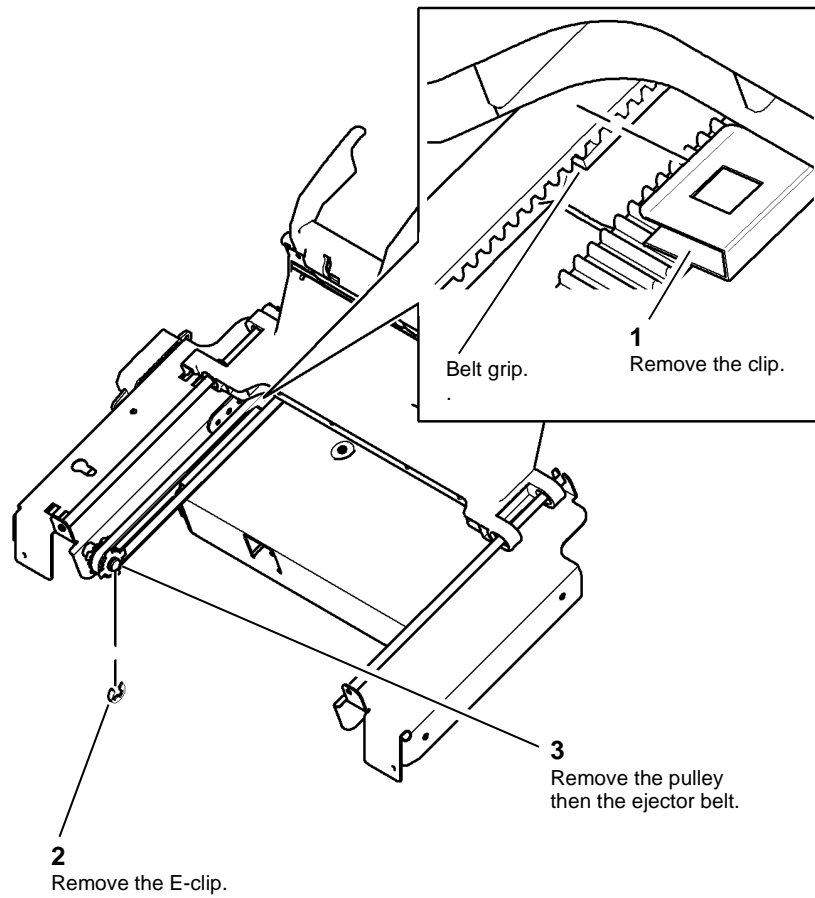
**WARNING**  
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**  
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the ejector assembly, refer to [REP 11.8-120](#).

2. Remove the ejector belt, [Figure 1](#).



T-1-0718-A

Figure 1 Remove the ejector belt

### Replacement

1. The replacement is the reverse of the removal procedure.
2. Ensure the ejector belt is correctly engaged with the belt grip on the ejector assembly before the clip is reinstalled. Refer to [Figure 1](#).

## REP 11.1-171 HVF Covers

Parts List on [PL 11.130](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

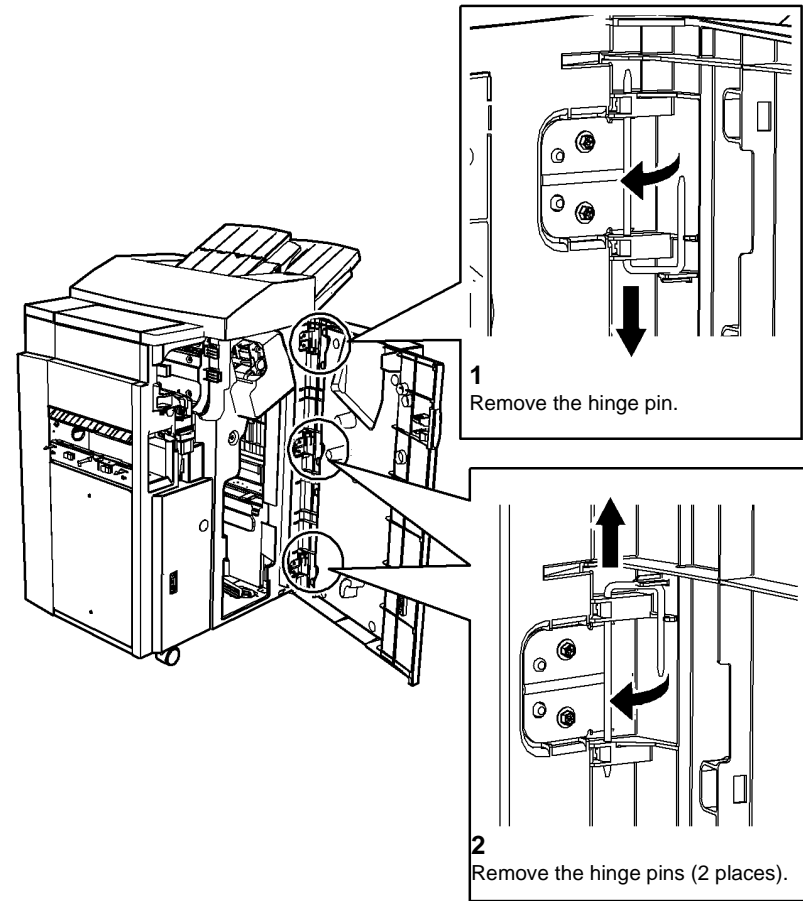
  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** All major HVF covers are dealt with in this procedure, only remove the covers listed for the procedure that you are performing.

Remove the HVF covers as follows:

1. Remove the front door, [Figure 1](#). If required, remove 5 screws to separate the door support from the front door.

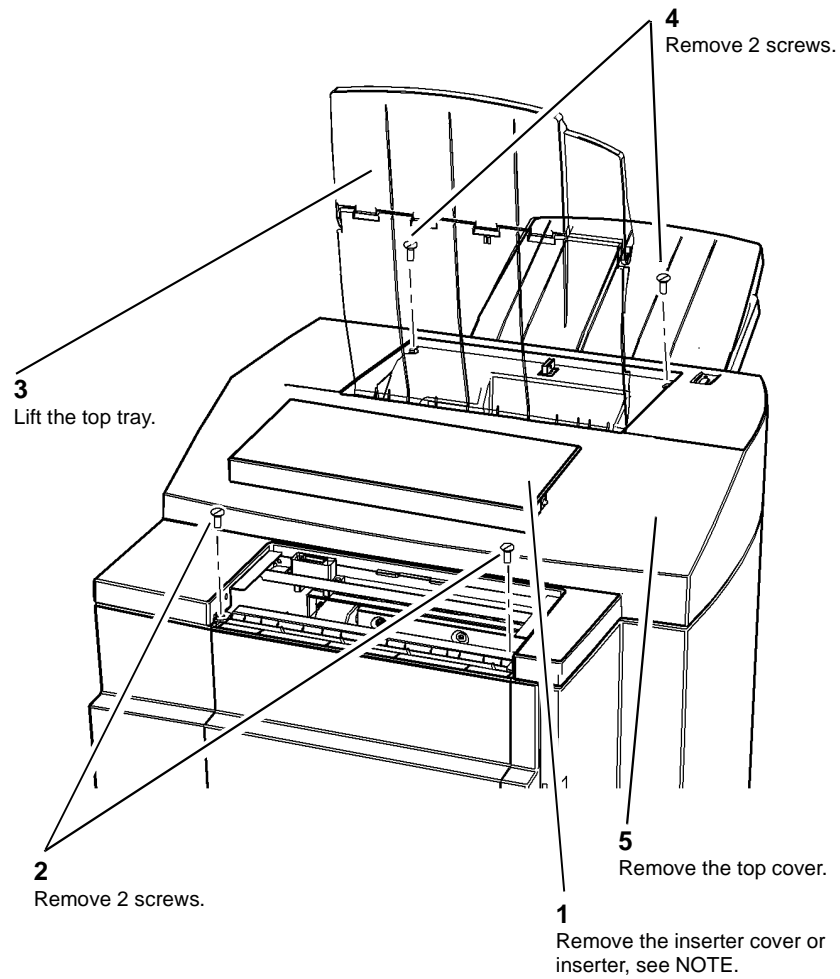


T-1-0719-A

Figure 1 Front door removal

2. Remove the top cover, [Figure 2](#).

**NOTE:** If an inserter is installed, remove the inserter, [REP 11.82-171](#).

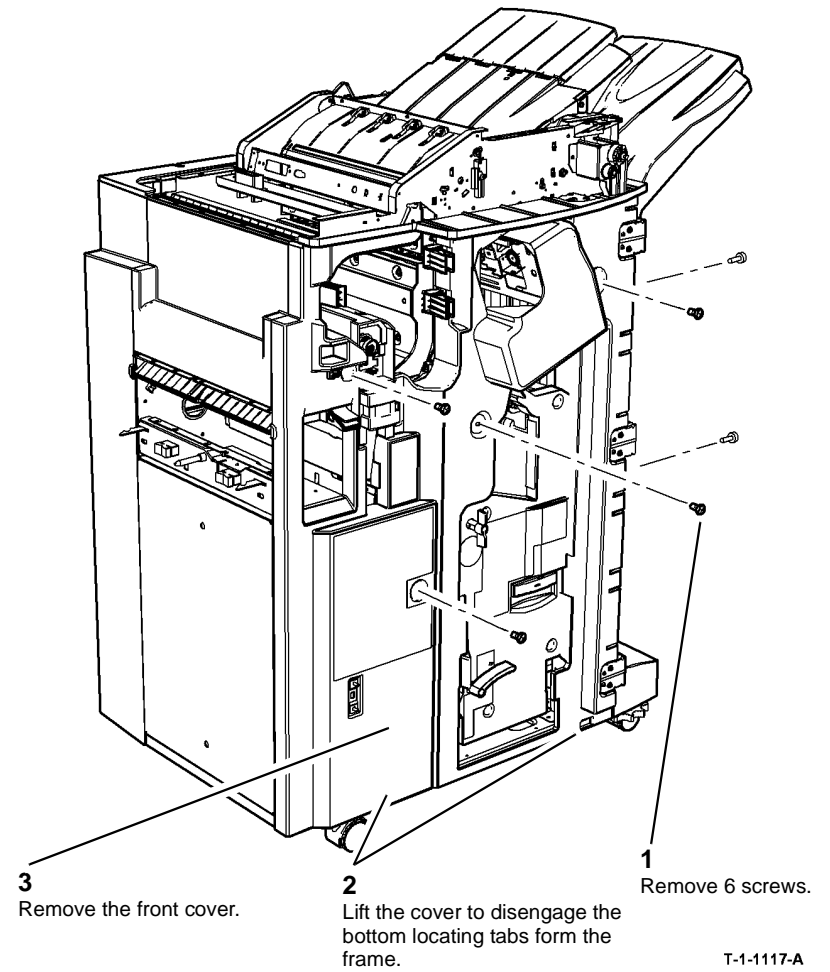


T-1-0720-A

Figure 2 Top cover removal

3. Remove the front cover, [Figure 3](#).

**NOTE:** The top cover must be removed before removing the front cover.

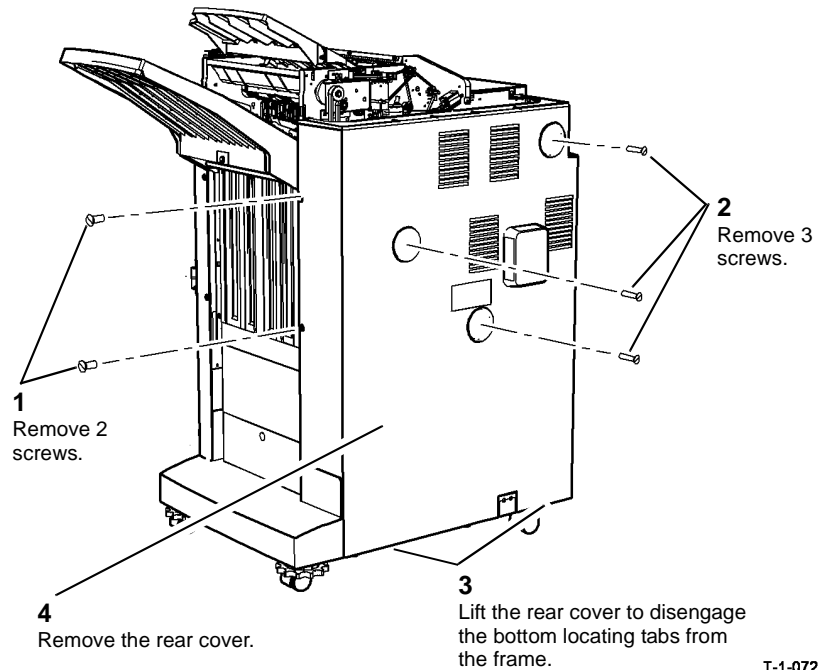


T-1-1117-A

Figure 3 Front cover removal

- Remove the rear cover, [Figure 4](#).

**NOTE:** The top cover must be removed before removing the rear cover.



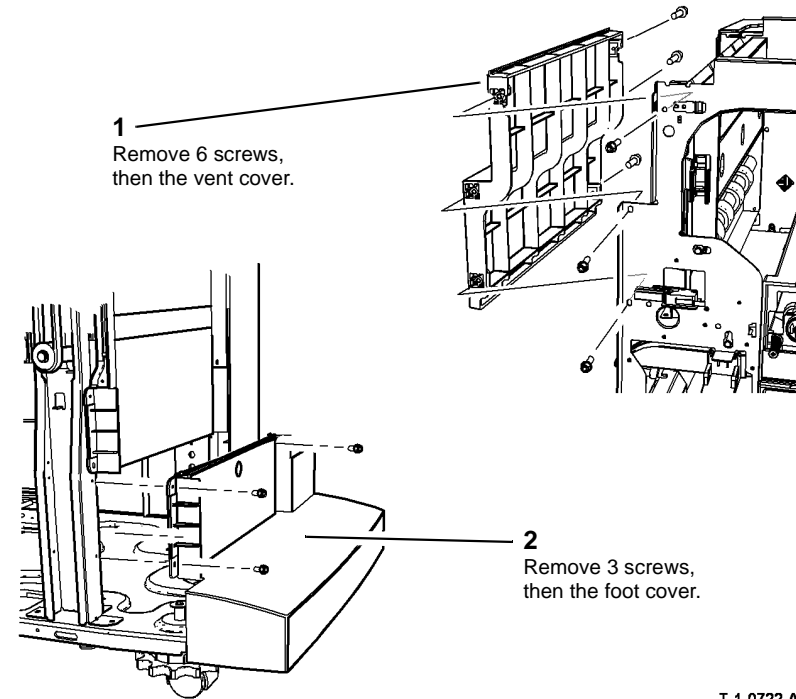
**Figure 4 Rear cover removal**

T-1-0721-A

- Remove the vent cover and foot cover, [Figure 5](#). To provide enough room to remove the vent cover, undock the HVF, [REP 11.13-171](#).

**NOTE:** The top front cover and rear cover must be removed before removing the vent cover and foot cover.

**NOTE:** The foot cover is not installed if a tri-folder is installed.



**Figure 5 Vent and foot covers removal**

T-1-0722-A

## Replacement

- Reverse the removal procedure to reinstall the HVF covers.
- Depending on the installed options and the covers removed, refit covers in the following sequence:
  - Vent cover.
  - Foot cover (if a tri-folder is not installed).
  - Rear cover.
  - Front cover
  - Top cover.
  - Inserter cover (if an inserter is not installed).
  - Front door.

## REP 11.2-171 HVF Stapler Assembly

Parts List on [PL 11.140](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Slide the HVF away from the IOT.
2. Remove the HVF front door, [REP 11.1-171](#).
3. Remove the HVF top cover, [REP 11.1-171](#).
4. Remove the HVF front cover, [REP 11.1-171](#).
5. Remove the rear cover, [REP 11.1-171](#).

6. [Figure 1](#). At the rear of the HVF, disconnect three connectors and remove one screw securing the grounding strap.

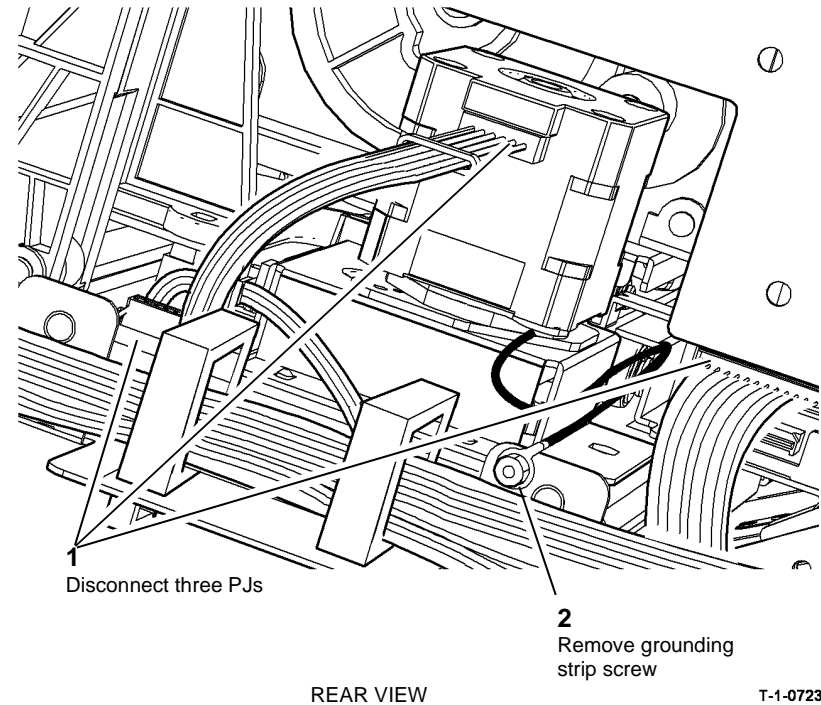
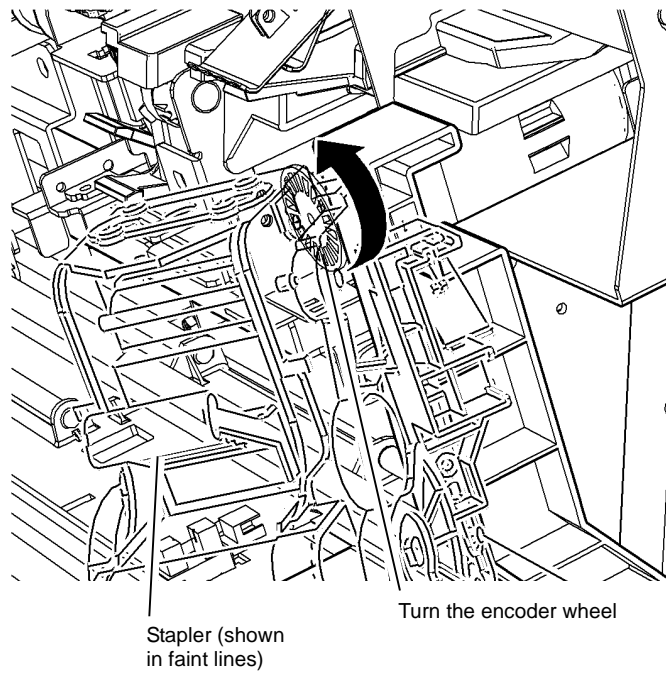


Figure 1 Disconnect PJs and remove screw



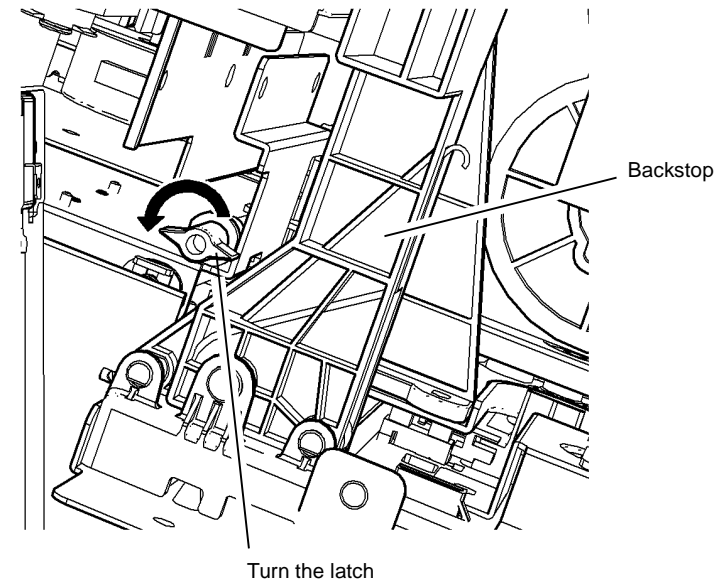
7. **Figure 2.** With the power cord disconnected, it is possible to reach behind the stapler and move the ejector unit to the out position, by turning the encoder of the ejector unit motor, MOT11-020 in the direction indicated.



**Figure 2 Move ejector to the out position**

T-1-0724-A

8. **Figure 3.** At the HVF rear, turn the back stop latch as indicated, to release the back stop. The back stop will move in the outboard direction.

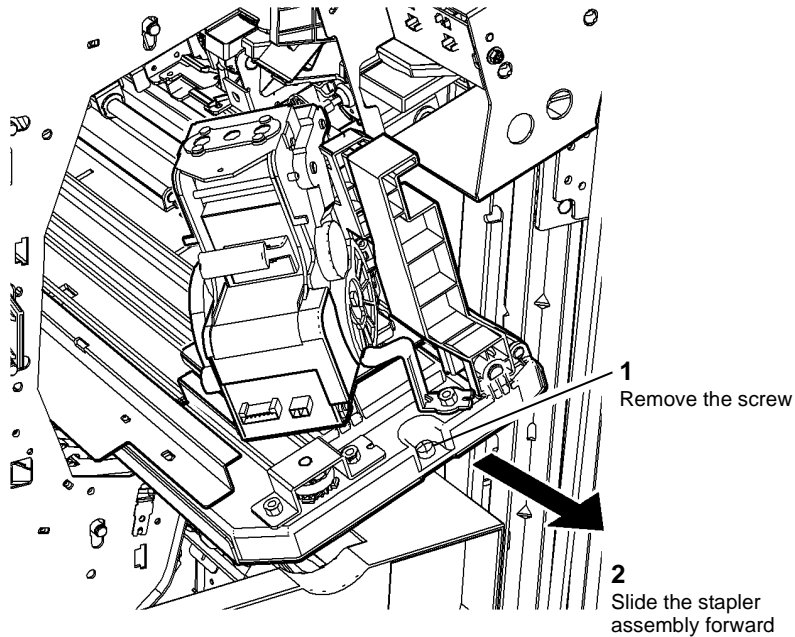


REAR VIEW

**Figure 3 Releasing the back stop**

T-1-0725-A

9. Remove the stapler assembly, [Figure 4](#).



T-1-0726-A

Figure 4 Removing the stapler assembly

## Replacement

**NOTE:** The ejector unit returns to the home position when the HVF is initialized.

1. Slide the stapler assembly into the tray, taking care not to trap the earth wire at the rear.
2. At the HVF rear, pull the back stop to the rear and hold it there while turning the back stop latch clockwise. Release the back stop, which should slide forward until stopped by the latch.
3. Reconnect all PJs and re-install the screws.

## REP 11.3-171 Top Tray

Parts List on [PL 11.130](#)

### Removal



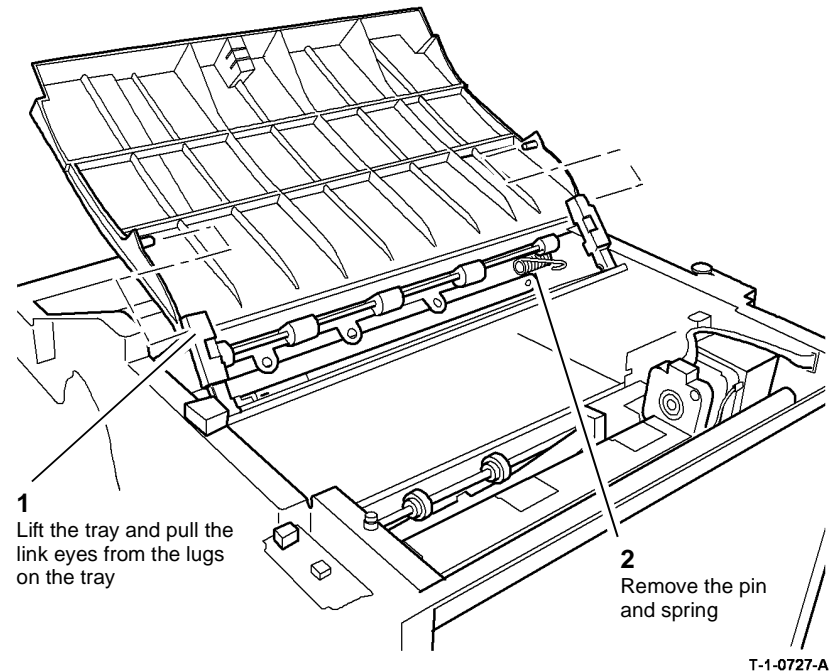
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

Remove the top tray as follows:

1. If fitted, undock the inserter, [REP 11.82-171](#).
2. Remove the top and rear covers [REP 11.1-171](#).
3. Disconnect the links from the tray, [Figure 1](#).

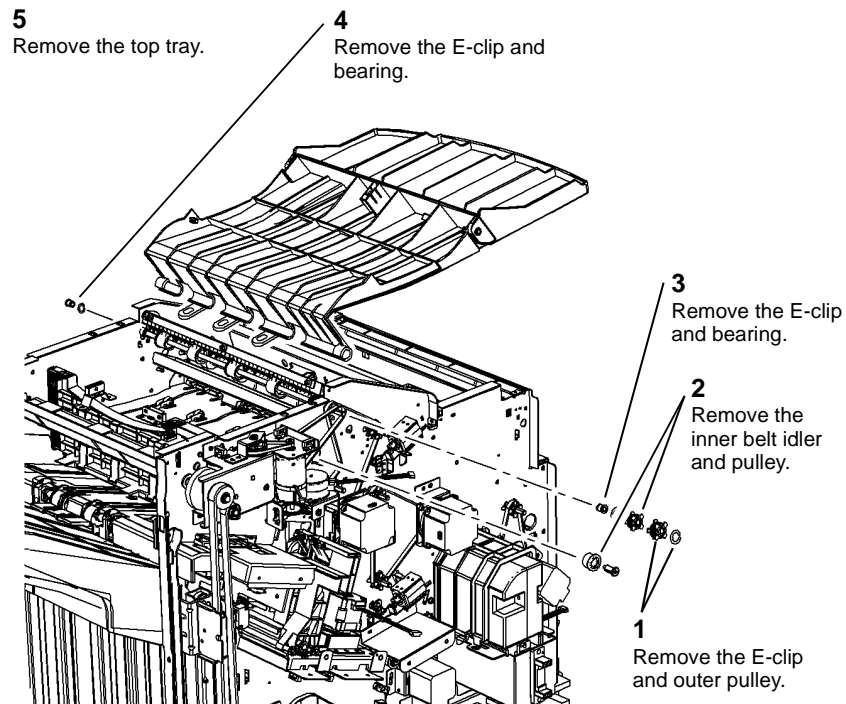


T-1-0727-A

Figure 1 Link disconnection

4. Remove the bias spring and pin, [Figure 1](#).
5. Remove the shaft front and rear circlips and bushes. Lift the top tray from the shaft, [Figure 2](#).

**NOTE:** Remove the idler pulley to avoid straining the drive belt when removing the shaft drive pulley.



T-1-0728-A

Figure 2 Shaft drive and support bushes

## Replacement

Reverse the removal procedure to reinstall the HVF top tray.

## REP 11.4-171 Bin 1 Removal

Parts List on [PL 11.135](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the E-clip and lift bin 1 to release bin 1 from the lift bar. [Figure 1](#)

## REP 11.5-171 Right Side-Cover Removal

Parts List on [PL 11.135](#)

### Removal

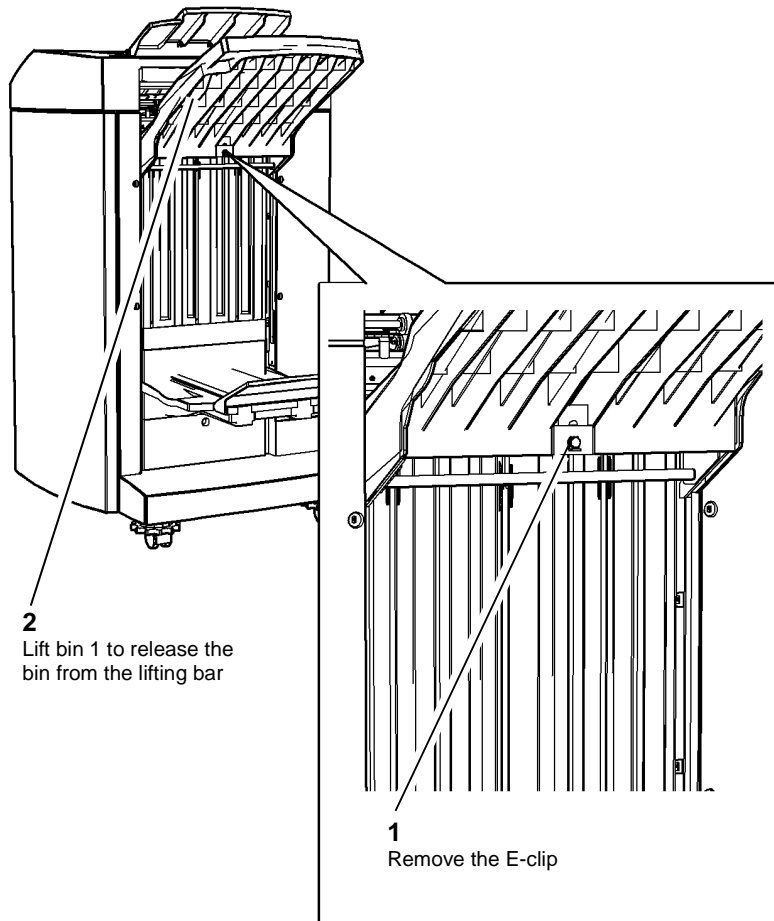


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. With the machine powered, use the PTU or control code 11-032 to lower Bin 1.
2. Remove bin 1, [REP 11.4-171](#), then remove the right side cover, [Figure 1](#).



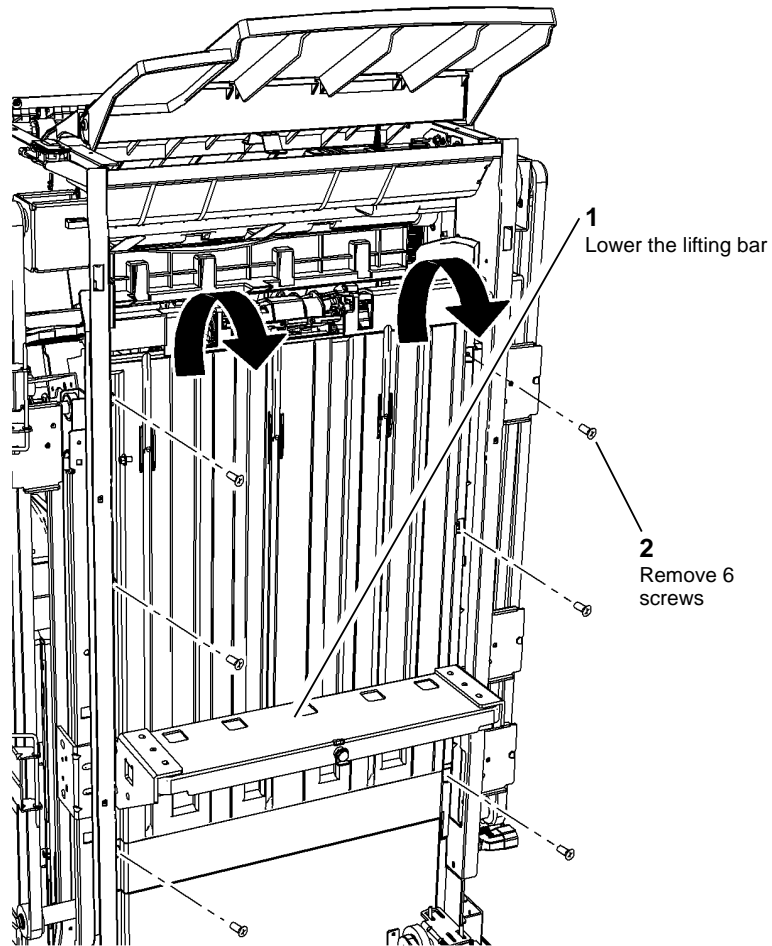
T-1-0729-A

Figure 1 Bin 1 removal

### Replacement

Reverse the removal procedures to reinstall bin 1.

3. Remove 6 screws then remove the right side-cover, [Figure 1](#).



T-1-0730-A

Figure 1 Right side cover

## Replacement

Reverse the removal procedures to reinstall the right side cover.

## REP 11.6-171 HVF Ejector Assembly Removal

Parts List on [PL 11.140](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

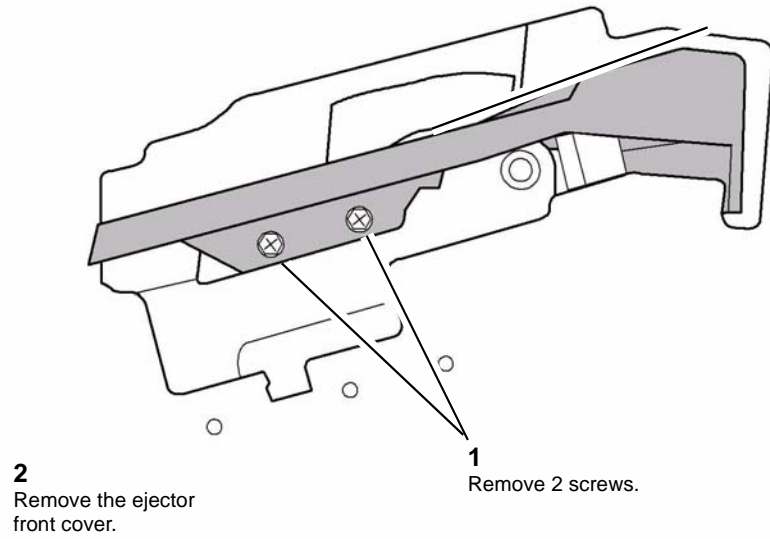


Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove bin 1, [REP 11.4-171](#).
2. Remove the right side-cover, [REP 11.5-171](#).
3. Remove the front door, top cover, front cover and rear cover, [REP 11.1-171](#).
4. Remove the front and rear pressing plate fingers, [REP 11.7-171](#).
5. Remove the front tamper motor assembly, [REP 11.11-171](#).
6. Remove the front tamper arm, [PL 11.153 Item 5](#).

7. Remove the ejector front cover, [Figure 1](#).

8. Prepare to remove the belt cover, [Figure 2](#).



FRONT VIEW

Figure 1 Ejector front cover

T-1-1266-A

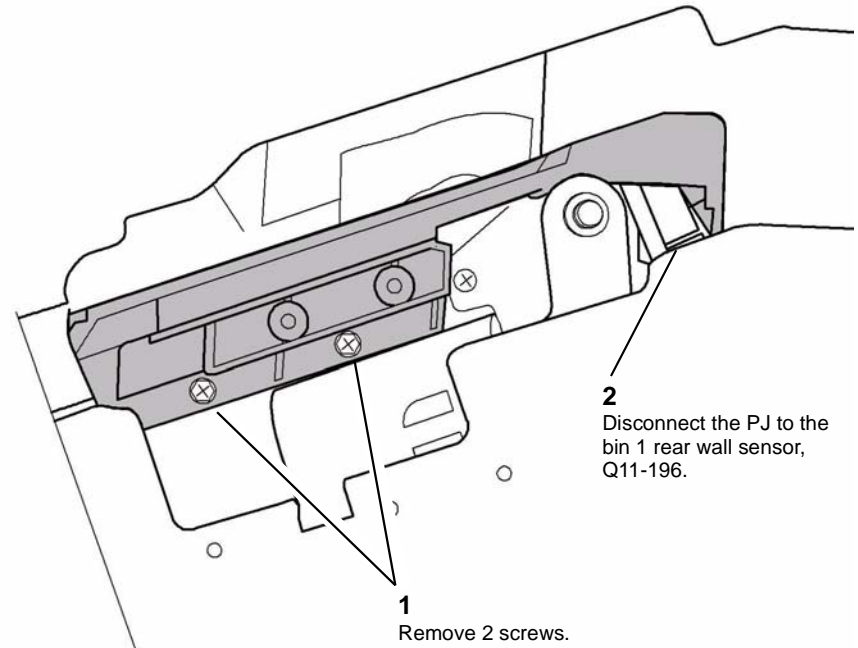
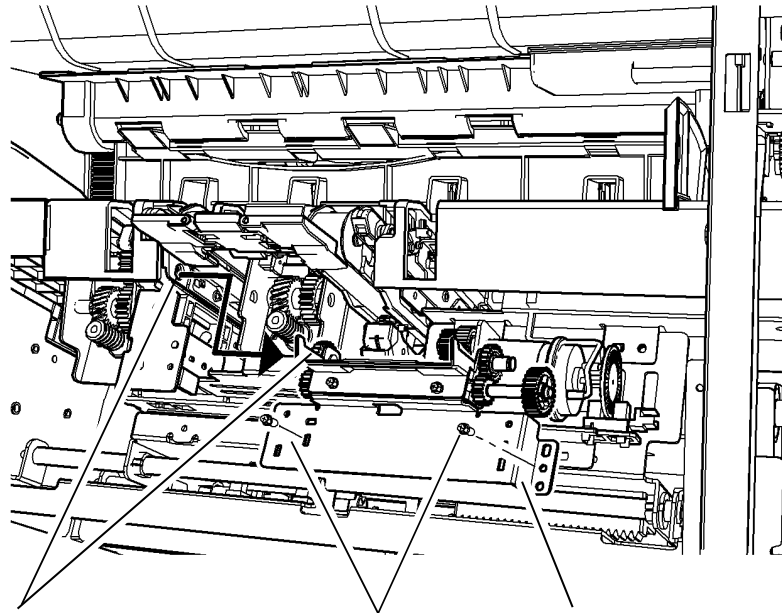


Figure 2 Belt cover

T-1-1267-A

9. Remove the belt cover and pressing plate bracket, [Figure 3](#).

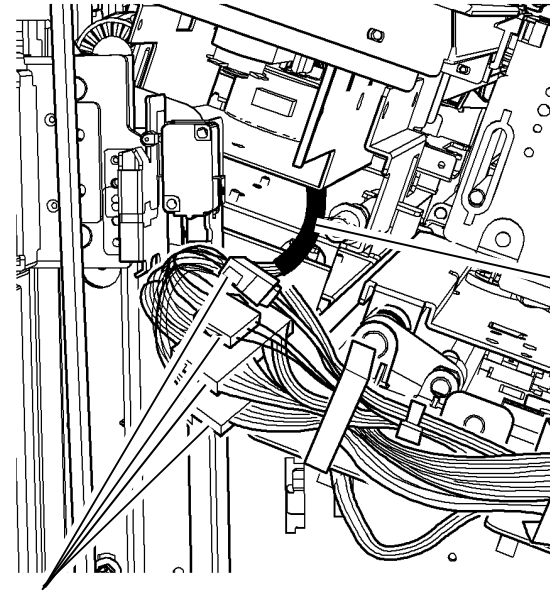


- 2** Flex the ejector cover from the shaft of the support finger drive gear.
- 1** Remove 2 screws.
- 3** Remove the pressing plate bracket.

T-1-0732-A

**Figure 3 Pressing plate bracket removal**

10. Prepare to remove the ejector module, [Figure 4](#).



- 1** Note the routing of the ejector assembly harness.

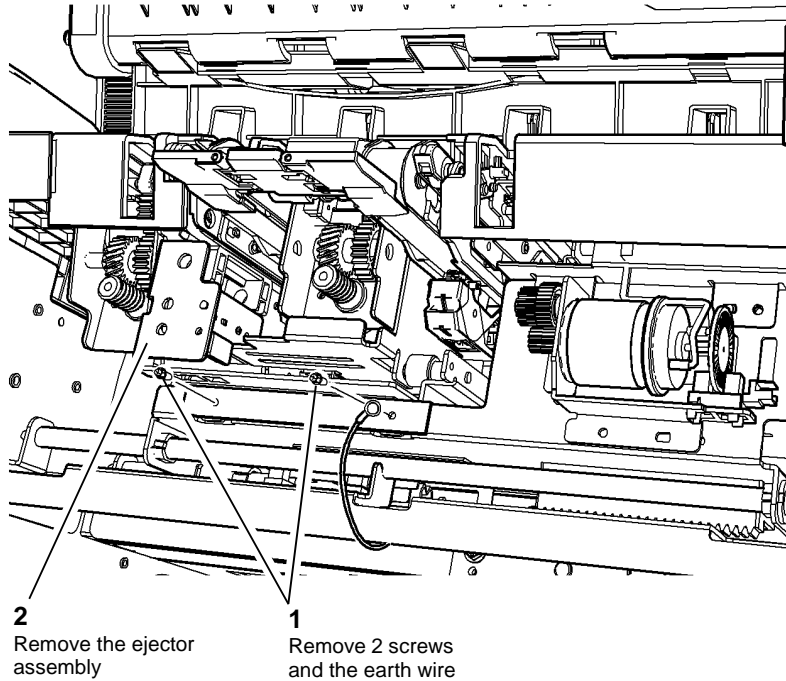
- 2** Disconnect the ejector assembly harness, 4 connectors.

**REAR VIEW**

T-1-0733-A

**Figure 4 Disconnect the harness**

- Remove the ejector assembly, [Figure 5](#).



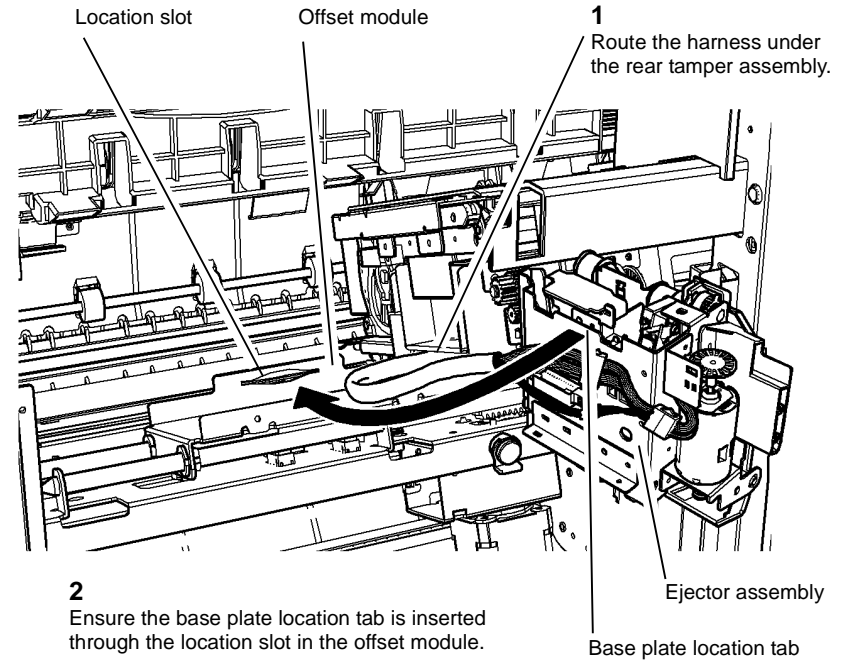
**Figure 5 Ejector assembly removal**

T-1-0734-A

## Replacement

**NOTE:** Set the front and rear support fingers so that their ends are aligned when extended. Refer to [REP 11.8-171](#).

- Prepare to reinstall the ejector assembly, [Figure 6](#).
- Reverse the removal procedures to reinstall the ejector assembly.



**Figure 6 Reinstall the ejector assembly**

T-1-0735-A

- When reinstalling the front tamper and the ejector front cover make sure that the correct screws are used and that the screws are not overtightened [GP 6](#).
- When refitting the pressing plate, the shaft of the front support finger drive gear must fit into the ejector assembly cover, refer to [Figure 3](#).



## REP 11.7-171 Pressing Plate Fingers

Parts List on [PL 11.140](#)

### Removal



#### WARNING

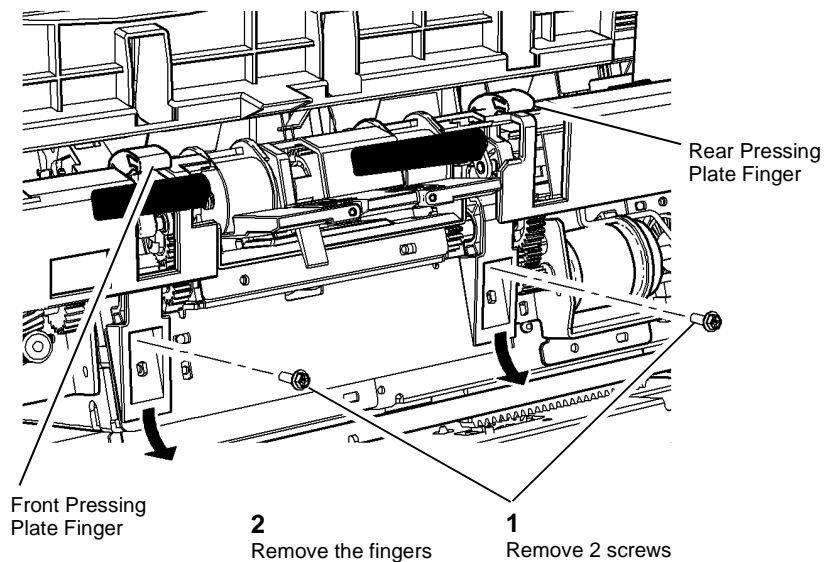
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the right side-cover [REP 11.5-171](#).
2. Remove the screws then lower the pressing plate fingers through the cover slots, [Figure 1](#).



T-1-0736-A

Figure 1 Pressing plate fingers

### Replacement

Reverse the removal procedures to replace the front and rear pressing plate fingers.

## REP 11.8-171 Front and Rear Support Fingers

Parts List on [PL 11.140](#)

### Removal



#### WARNING

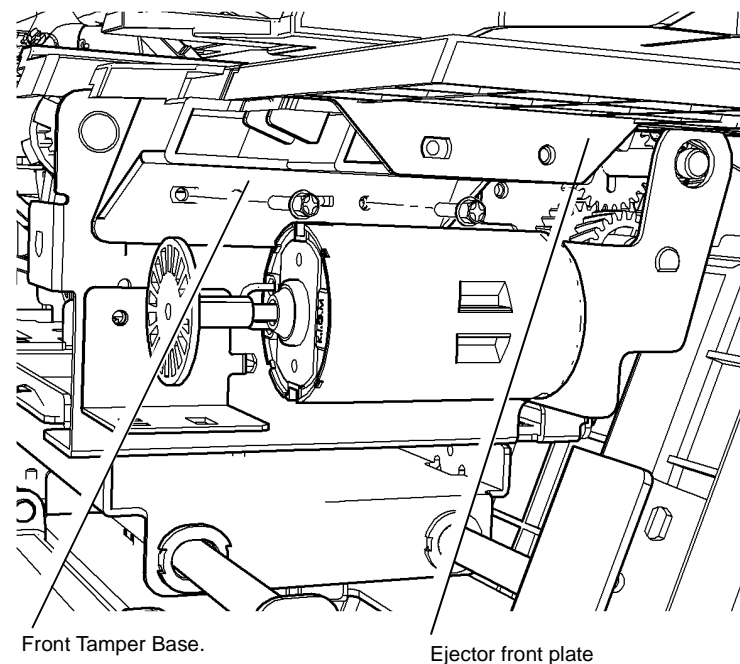
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

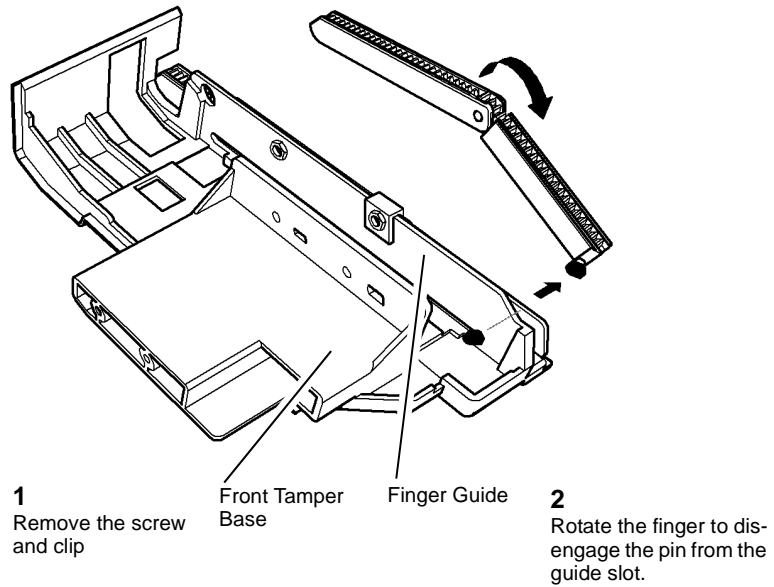
1. Remove the right side cover [REP 11.5-171](#).
2. Remove the ejector assembly [REP 11.6-171](#).
3. Remove the ejector front plate and support finger assembly, [Figure 1](#).



T-1-0737-A

Figure 1 Ejector front plate

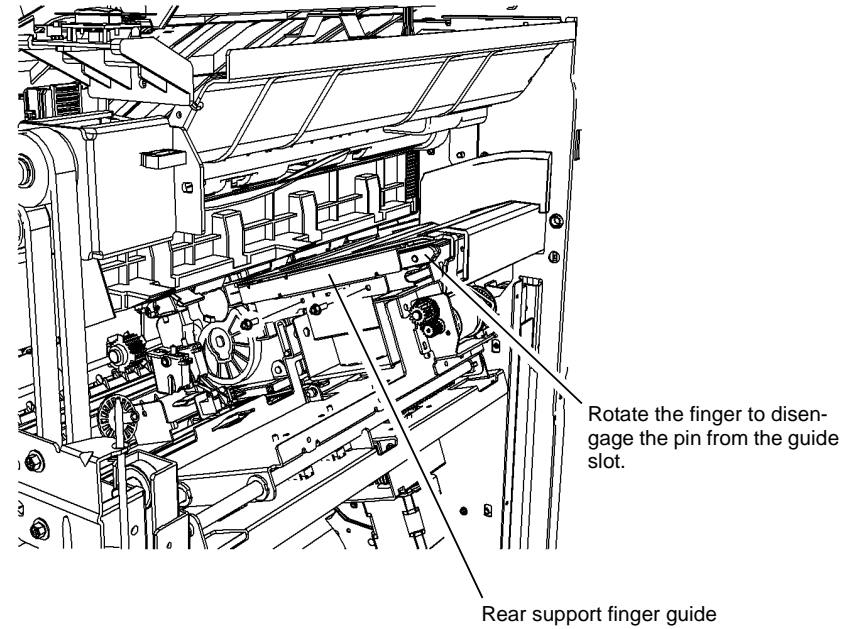
4. Remove the front tamper base and front support finger, **Figure 2**.



**Figure 2** Front support finger

T-1-0738-A

5. Remove the guide and the rear support finger, **Figure 3**.



**Figure 3** Rear support finger

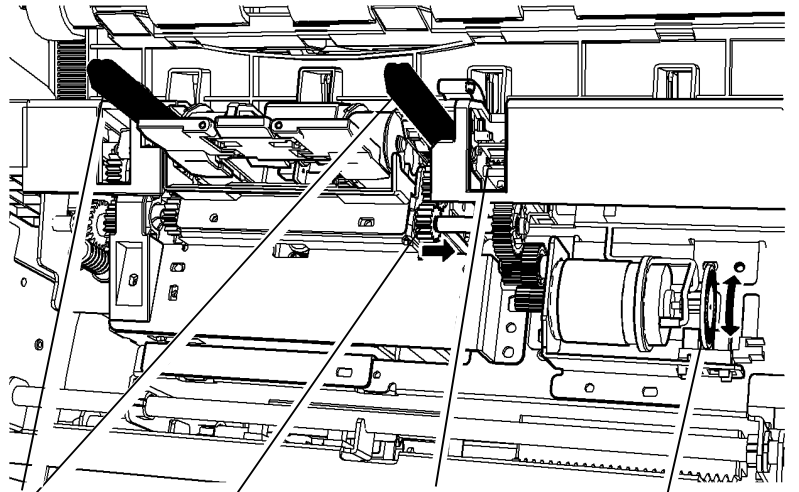
T-1-0739-A

## Replacement

- Reverse the removal procedure to replace the front or rear support fingers.

**NOTE:** Set the front and rear support fingers so that their ends are aligned when extended. Refer to [Figure 4](#).

- With the pressing plate installed, set the front and rear support finger alignment, [Figure 4](#). If the fingers are not aligned, the compiler output will be uneven and cause exit jams.



- 3 Rotate the encoder wheel until the finger ends align.
  - 2 Remove the clip and disengage the gear.
  - 1 Remove the rear pressing plate finger
- Encoder Wheel



- 4 Re-engage the gear and refit the circlip

- 5 Replace rear pressing plate finger

T-1-0740-A

Figure 4 Support finger end alignment

## REP 11.9-171 HVF Offset Motor Assembly

Parts List on [PL 11.140](#)

### Removal

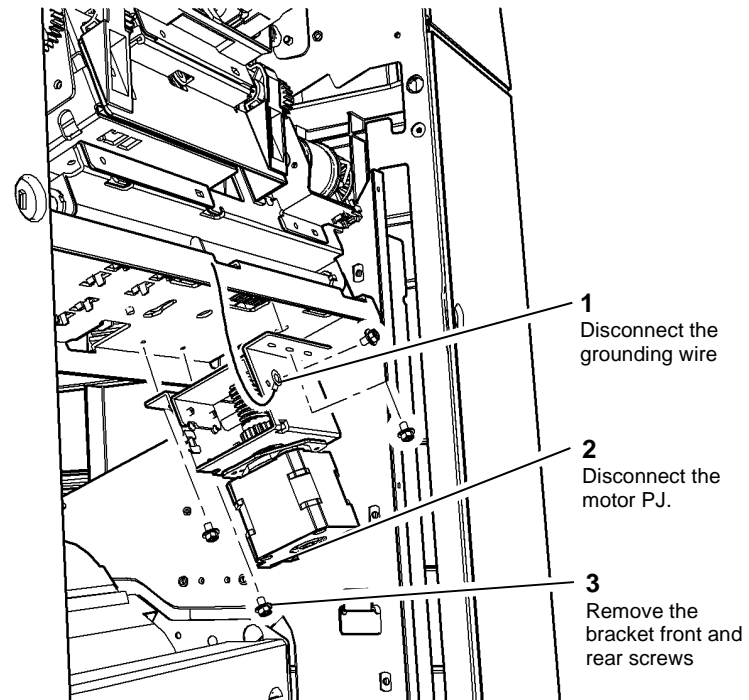


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the right side cover [REP 11.5-171](#).
- Remove the offset motor and gear assembly, [Figure 1](#).



T-1-0741-A

Figure 1 Offset motor and gears

### Replacement

Reverse the removal procedures to reinstall the offset motor assembly.

## REP 11.10-171 Stacker Idler Rolls

Parts List on [PL 11.145](#)

### Removal

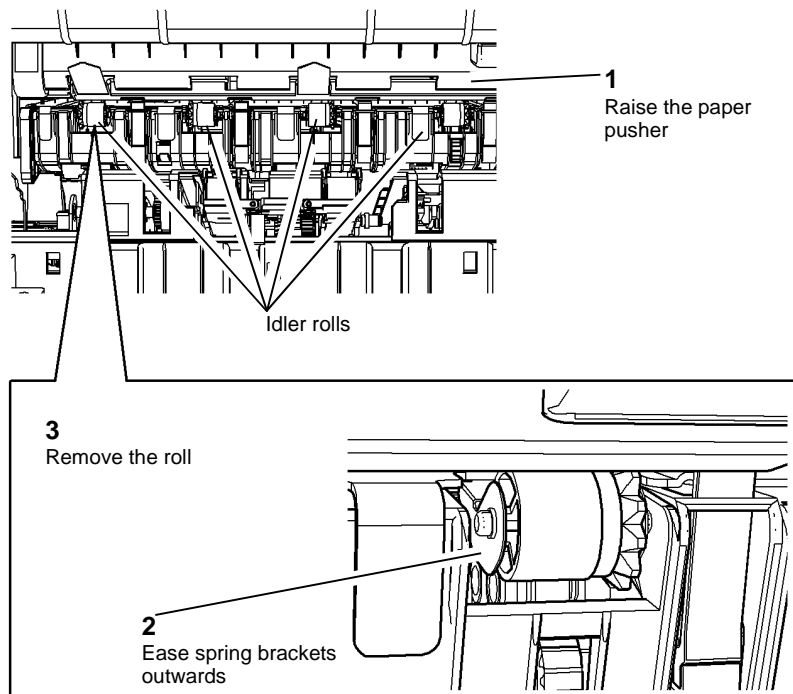
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Lift the top tray.
2. Refer to [Figure 1](#). Raise the paper pusher and remove the four stacker idler rolls.



T-1-0742-A

Figure 1 Paper pusher and idler rolls

### Replacement

1. Refer to [Figure 2](#). Ensure the sprung brackets are parallel and re-install the idler rolls in the sprung brackets.



T-1-0743-A

Figure 2 Correct sprung bracket position

2. Check that the rolls are held securely.

## REP 11.11-171 Front Tamper Motor Assembly

Parts List on [PL 11.140](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front door and front cover [REP 11.1-171](#).
2. Remove the front tamper motor assembly, [Figure 1](#).

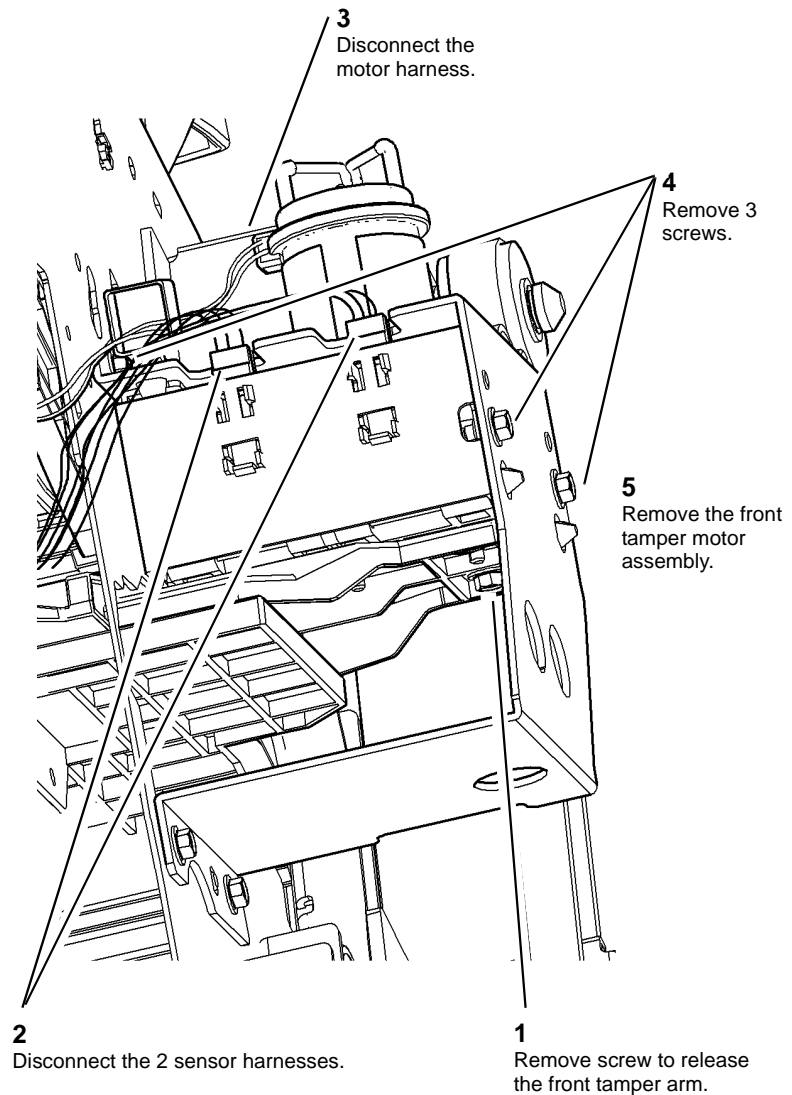


Figure 1 Front tamper motor assembly

### Replacement

Reverse the removal procedures to reinstall the front tamper drive assembly.

## REP 11.12-171 Bin 1 Elevator Motor Assembly

Parts List on [PL 11.135](#)

### Removal

  
**WARNING**

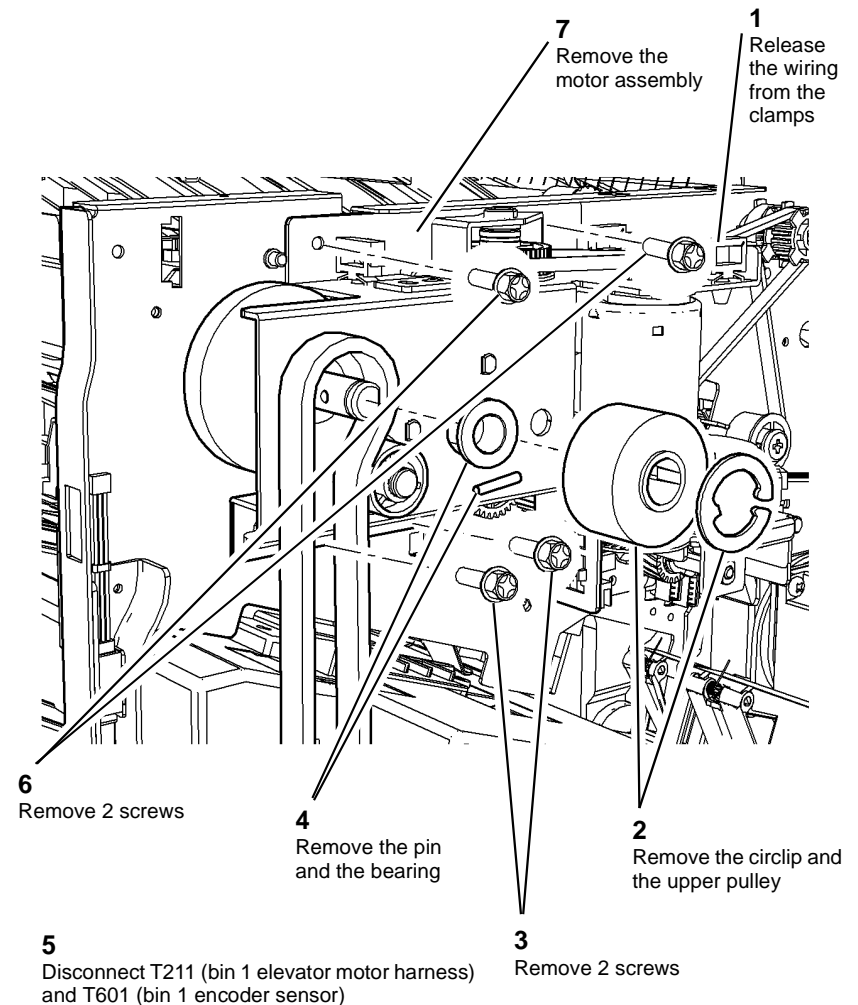
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front and rear covers, [REP 11.1-171](#).
2. Remove the rear drive belt lower pulley to relieve the belt tension.
3. Remove the bin 1 elevator motor assembly, [Figure 1](#).

**NOTE:** The pulley pin may fall when the pulley is removed.



T-1-0745-A

Figure 1 Bin 1 elevator motor assembly

### Replacement

1. Reverse the removal procedures to reinstall the stacker motor gearbox assembly.

**NOTE:** Check that the 'flats' on the shaft bearing align with the cut-outs in the bracket.

2. Check that the bin 1 lift bar is level before refitting the stacker belt lower pulley.

## REP 11.13-171 HVF and HVF BM Un-Docking

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### CAUTION

*Do not show the customer how to un-dock the HVF or HVF BM.*

1. Open the front door.
2. Release the docking latch and move the HVF or HVF BM to the right, away from the IOT, Figure 1.

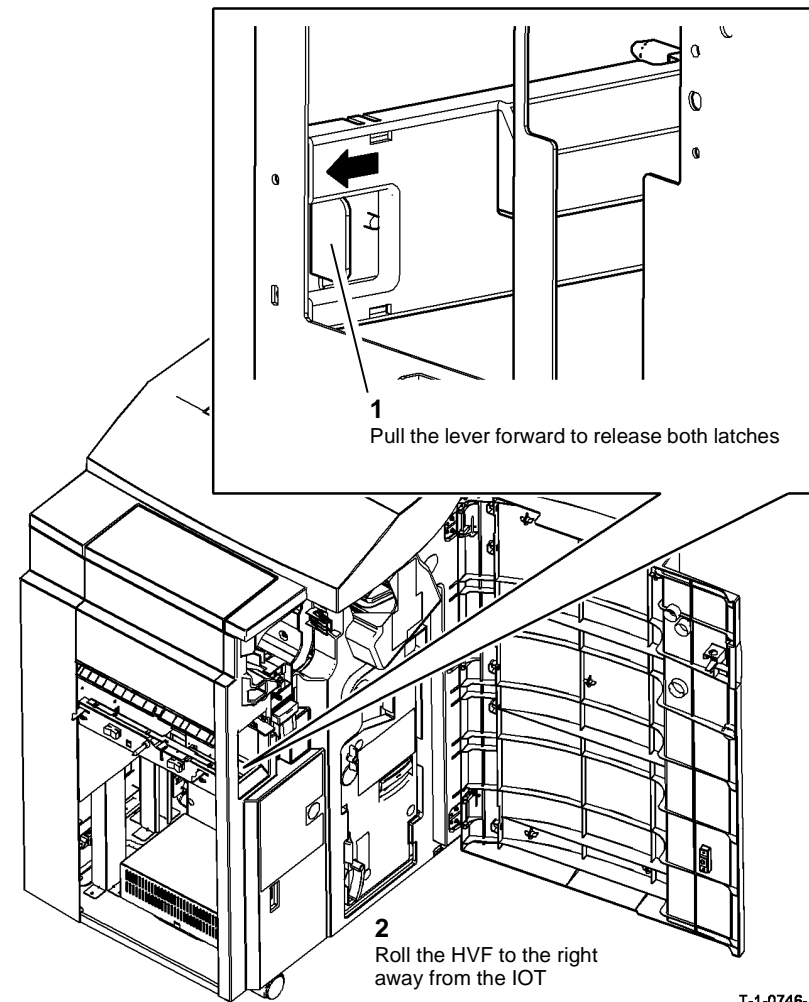


Figure 1 Docking latch location

T-1-0746-A

**NOTE:** Where fitted, the tri folder may remain docked to, and moved with, the HVF.

3. Disconnect the harnesses between the IOT and the HVF or HVF BM if necessary.

### Replacement



#### CAUTION

*Take care to align the HVF to the right side of the IOT before rolling the HVF into position. Misalignment will damage or break the interlock actuator.*

Reverse the removal procedure to dock the HVF or HVF BM.

# REP 11.14-171 HVF Top Jam Clearance Guide Assembly

Parts List on [PL 11.145](#)

## Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, top cover, front cover and rear cover, [REP 11.1-171](#).
2. Remove the outboard pivot screw, [Figure 1](#).

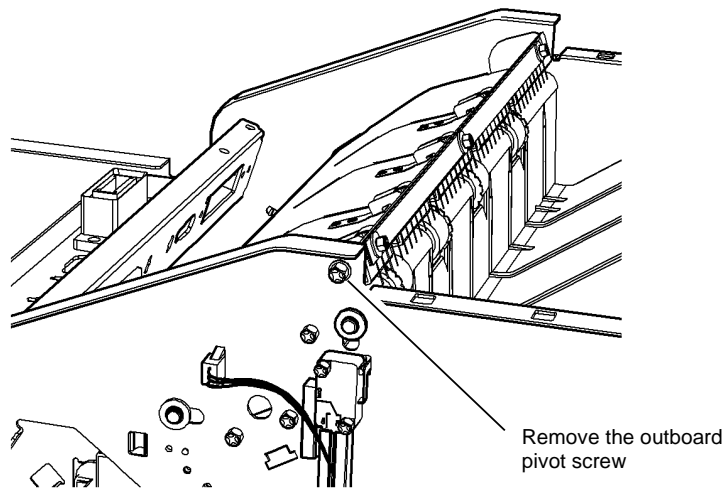
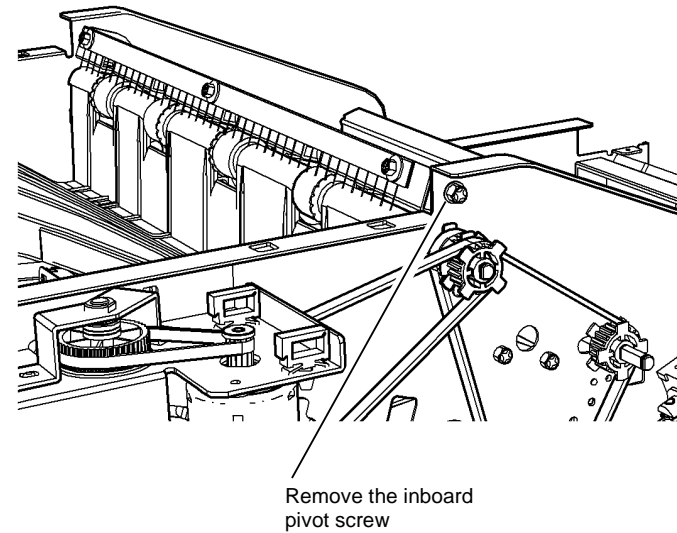


Figure 1 Outboard pivot screw

T-1-0747-A

3. Remove the inboard pivot screw, [Figure 2](#).



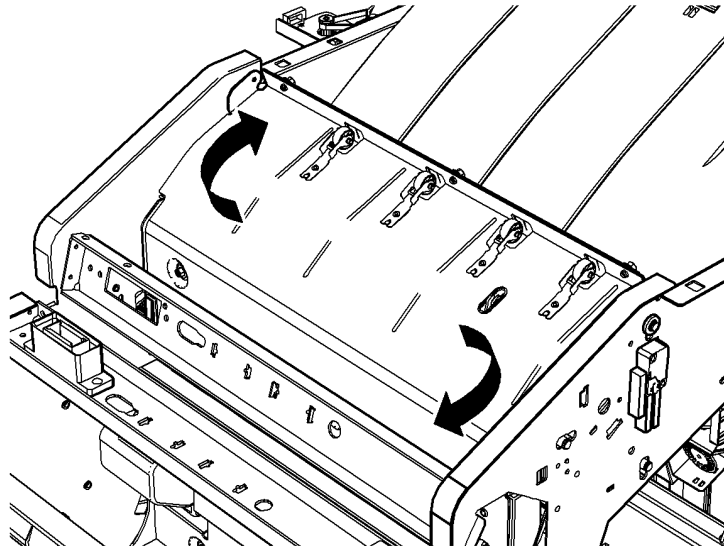
REAR VIEW

Figure 2 Inboard pivot screw

T-1-0748-A



4. Remove the jam clearance assembly, [Figure 3](#).



Twist the assembly  
and lift upwards

T-1-0749-A

Figure 3 Assembly removal

## Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.15-171 HVF Rear Tamper Assembly

Parts List on [PL 11.140](#)

### Removal



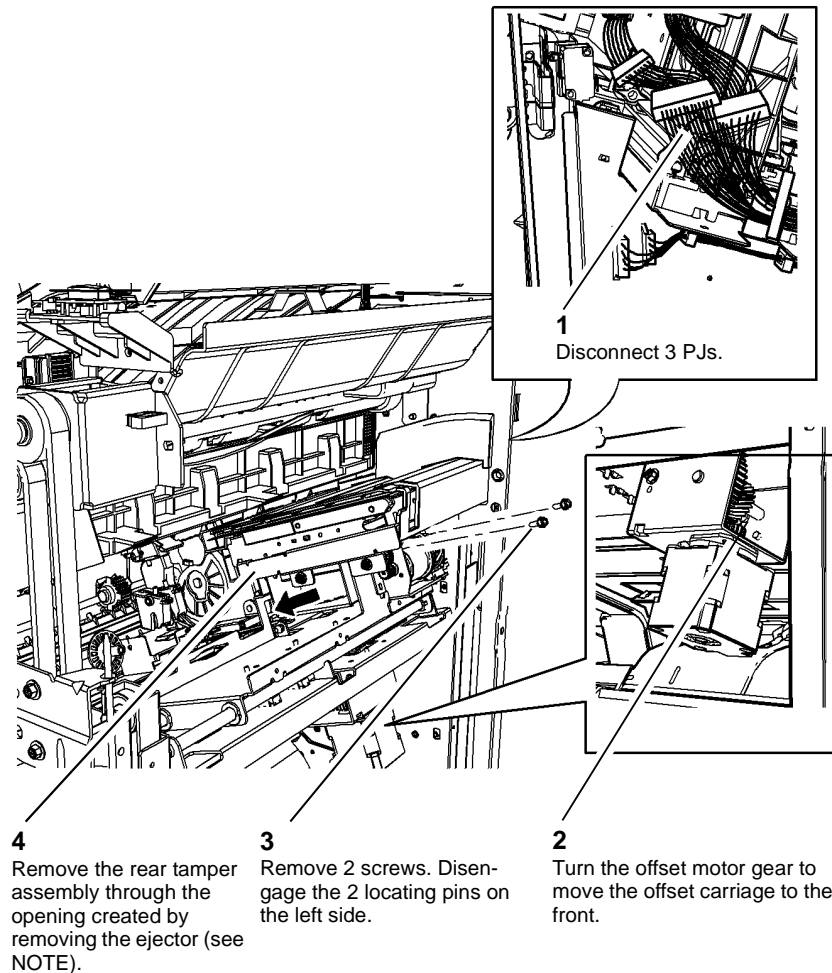
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover [REP 11.1-171](#).
2. Remove the right side cover [REP 11.5-171](#).
3. Remove the ejector assembly [REP 11.6-171](#).
4. Remove the support finger motor assembly, [PL 11.140 Item 9](#).

5. Remove the rear tamper assembly, [Figure 1](#).



T-1-0750-A

Figure 1 Rear tamper assembly

**NOTE:** To ease the removal of the rear tamper assembly, remove the cable clamps that secure the pressing and support encoder sensor harness to the rear tamper assembly. Also, turn the offset motor gear to move the offset carriage to the rear.

## Replacement



### CAUTION

*Check that the Ejector cable harnesses are routed below rear tamper assembly and do not obstruct any moving parts.*

1. Reverse the removal procedures to reinstall the rear tamper assembly.
2. Turn the offset drive gear to position the offset carriage so that the rear tamper assembly can be positioned on the locating pins.

## REP 11.16-171 BM Flapper

Parts List on [PL 11.161](#)

### Removal



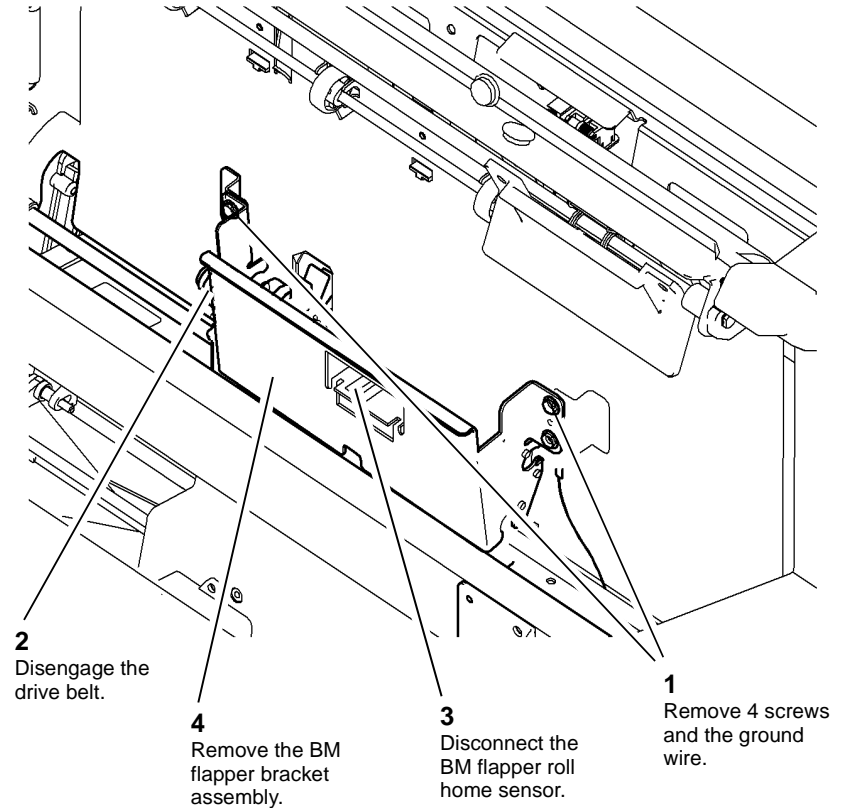
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.

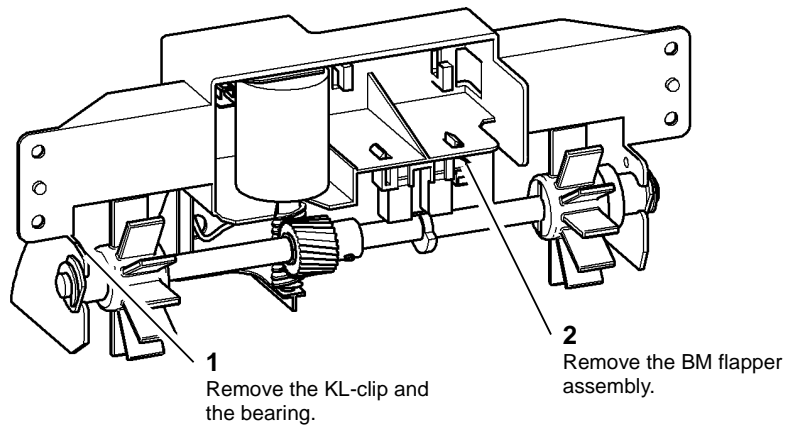
2. Remove the BM flapper bracket assembly, [Figure 1](#).



T-1-0751-A

Figure 1 Remove the BM flapper bracket

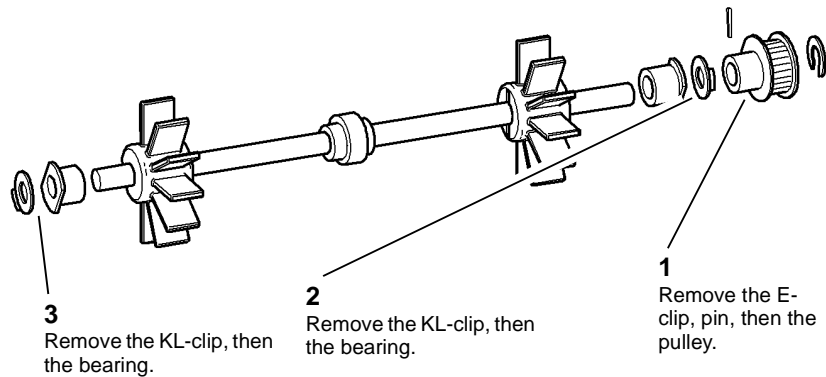
3. Remove the BM flapper assembly, [Figure 2](#).



T-1-0752-A

Figure 2 BM flapper assembly removal

4. Remove the BM flapper, [Figure 3](#).



T-1-0753-A

Figure 3 BM flapper removal

## Replacement

The replacement is the reverse of the removal procedure.

## REP 11.17-171 BM PWB

Parts List on [PL 11.166](#)

### Removal



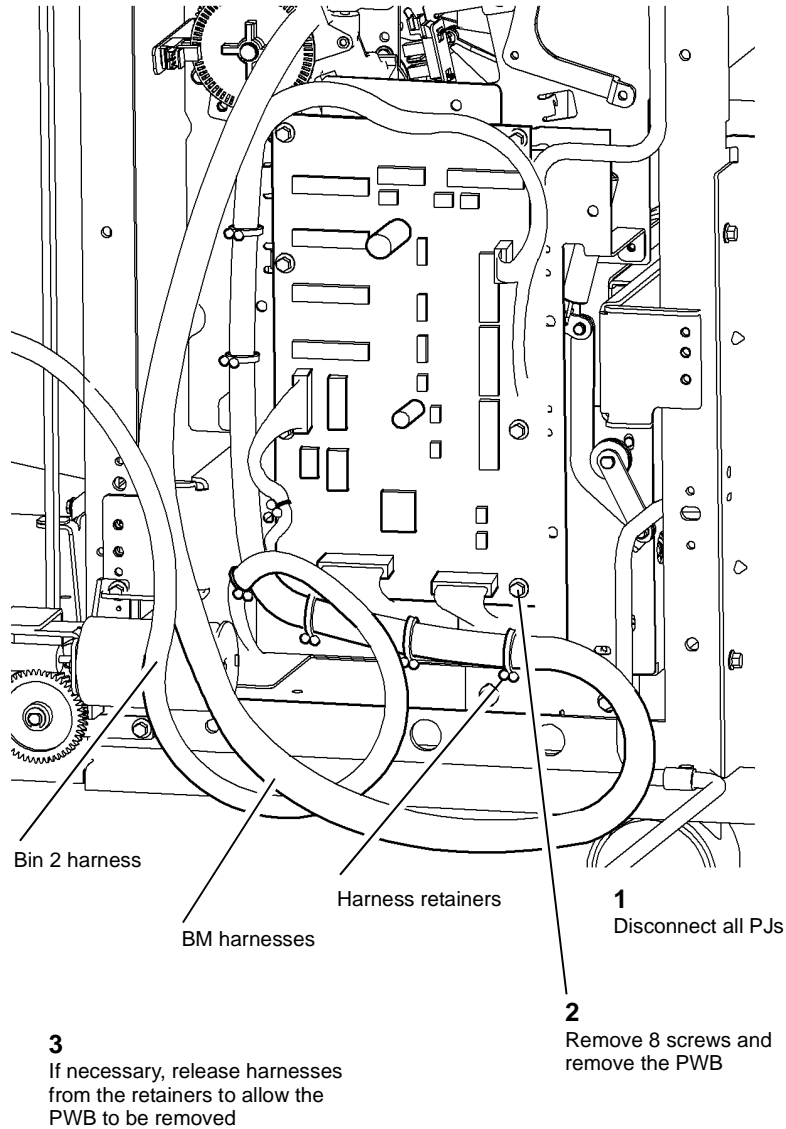
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, then the rear cover, [REP 11.1-171](#).

2. Remove the BM PWB, [Figure 1](#).



T-1-0754-A

Figure 1 PWB removal

## Replacement



*Figure 1, ensure the BM harness and bin 2 harness are correctly positioned in the retainers to prevent damaged when the BM is moved to the extremities of its travel.*

1. Reverse the removal procedures to replace the BM PWB.
2. The booklet maker PWB is supplied with a label with the customized NVM values for the new BM PWB. Enter the values into the machine [dC131](#) NVM Read / Write at Finisher / DFA Location 12.

Check and perform the adjustments that follow:

- [ADJ 11.5-171](#) Booklet Tamping
- [ADJ 11.6-171](#) Booklet Compiling Position.
- [ADJ 11.7-171](#) Booklet Crease Position
- [ADJ 11.8-171](#) Booklet Staple Position

## REP 11.18-171 BM Crease Blade Motor

### Parts List on [PL 11.165](#)

#### Purpose

This procedure is used to repair the following components:

- BM crease blade motor encoder sensor, [PL 11.165 Item 1](#).
- BM crease blade motor, [PL 11.165 Item 3](#).
- Motor encoder, [PL 11.165 Item 4](#).
- Bearing, [PL 11.165 Item 7](#).
- Crank, [PL 11.165 Item 8](#).

#### Removal



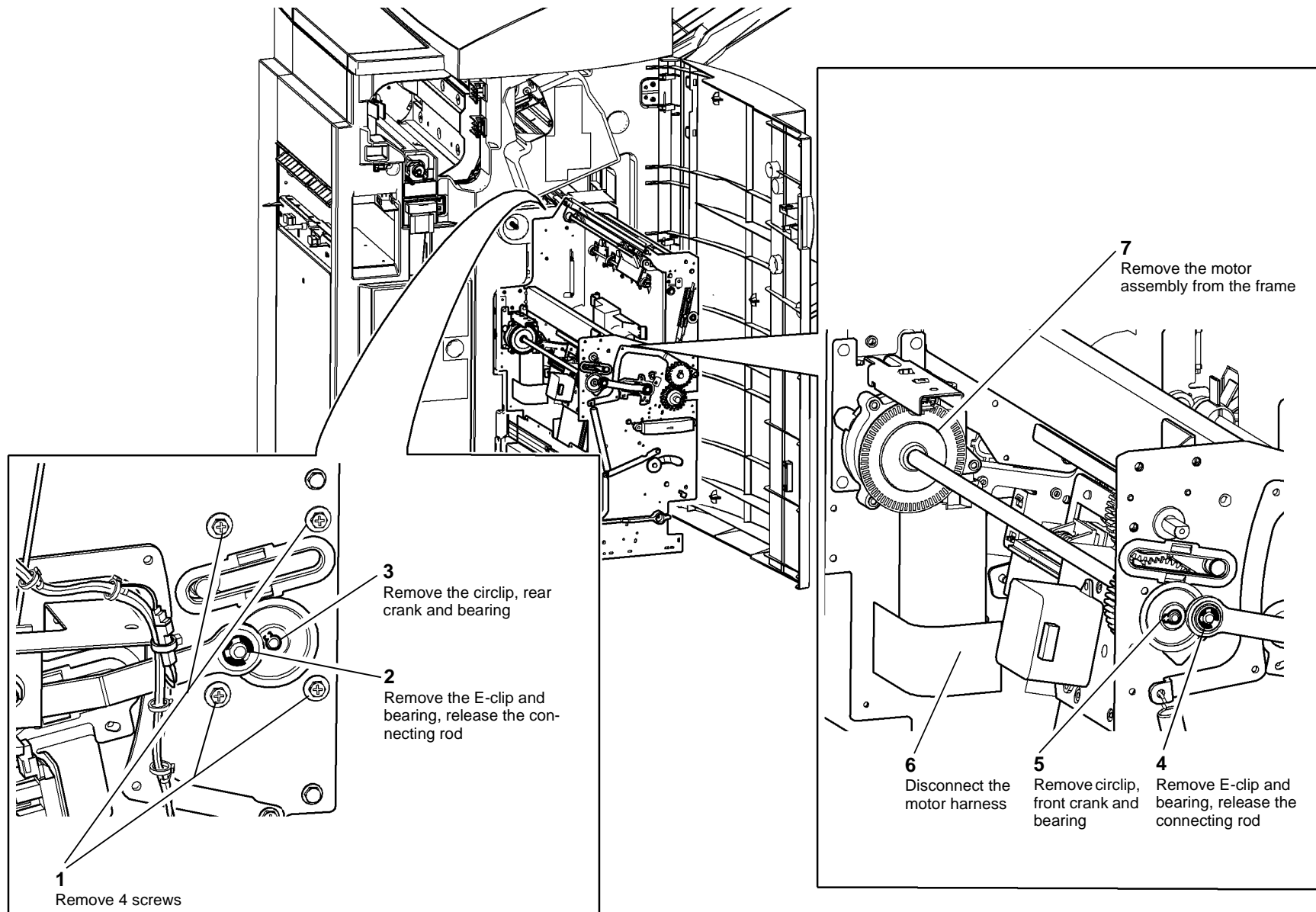
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.
2. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
3. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
4. Remove the BM front cover, [PL 11.161 Item 3](#).
5. Remove the left frame plate, [PL 11.162 Item 2](#).
6. Remove the motor cover, [PL 11.165 Item 11](#). It is easier to remove the screw using an open ended spanner, this means the removal of the BM PWB is not necessary.

7. Remove the BM crease blade motor assembly, [Figure 1](#).



T-1-0755-A

Figure 1 Removing the motor assembly

8. Remove the BM crease blade motor, [Figure 2](#).

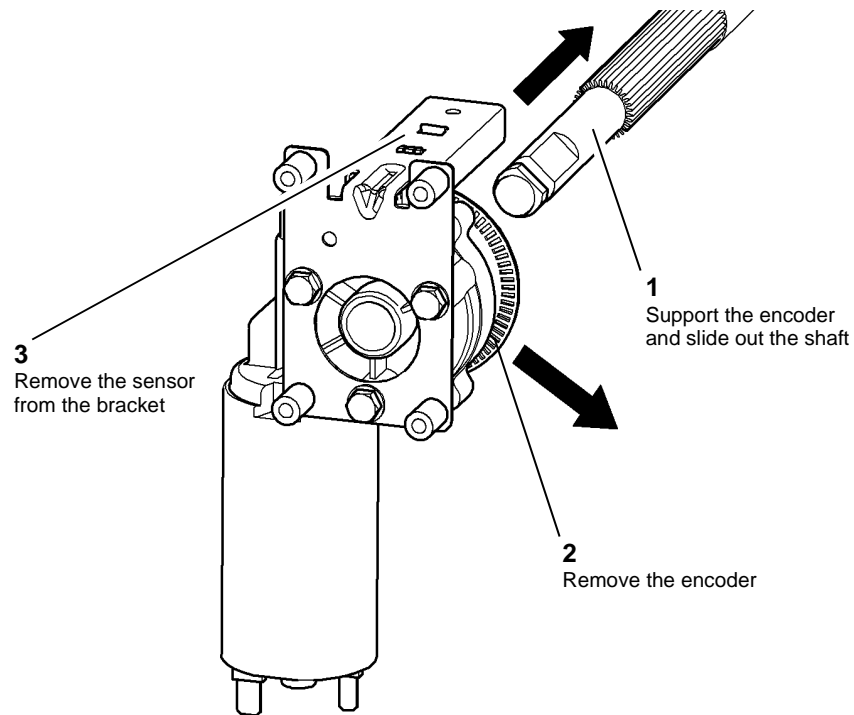


Figure 2 Removing the motor

T-1-0756-A

## Replacement

Reverse the removal procedure to replace the BM crease blade motor.

**NOTE:** Ensure that the mark on the crease blade knob aligns with the arrow on the front infill cover when the crease blade is fully withdrawn.

## REP 11.19-171 BM Crease Roll Motor

Parts List on [PL 11.166](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, then the rear cover, [REP 11.1-171](#).
2. Remove 4 screws securing the BM PWB mounting plate to the frame, allow the PWB and mounting plate to hang down, giving access to the BM crease roll motor.



3. Remove the motor assembly, [Figure 1](#).

**NOTE:** As necessary, cut any tie wraps securing the crease roll motor harness.

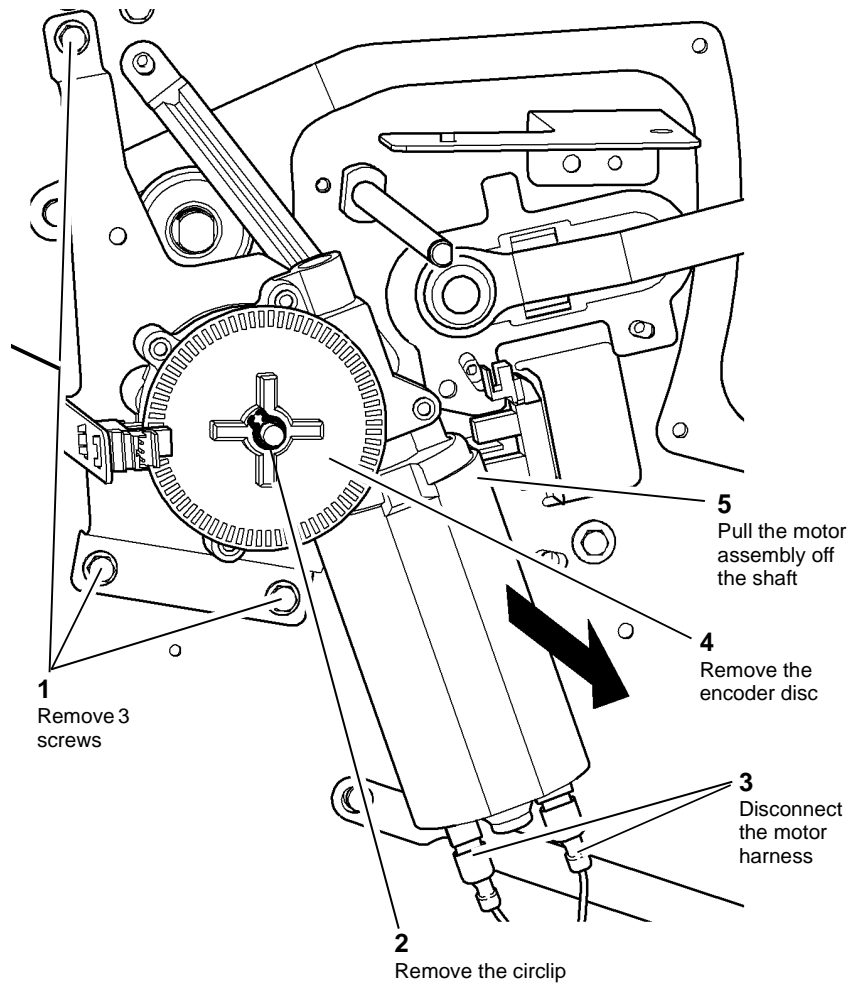


Figure 1 Motor assembly removal

## Replacement

Reverse the removal procedure to replace the BM crease roll motor.

## REP 11.20-171 BM Backstop Motor Assembly

### Parts List on [PL 11.163](#)

#### Purpose

This procedure is used to repair the following components:

- Ground wire, [PL 11.163 Item 1](#).
- Motor damper, [PL 11.163 Item 3](#).
- BM backstop motor, [PL 11.163 Item 4](#).
- BM backstop drive belt, [PL 11.163 Item 11](#).

#### Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.

T-1-0757-A

2. Remove the BM backstop motor, [Figure 1](#).

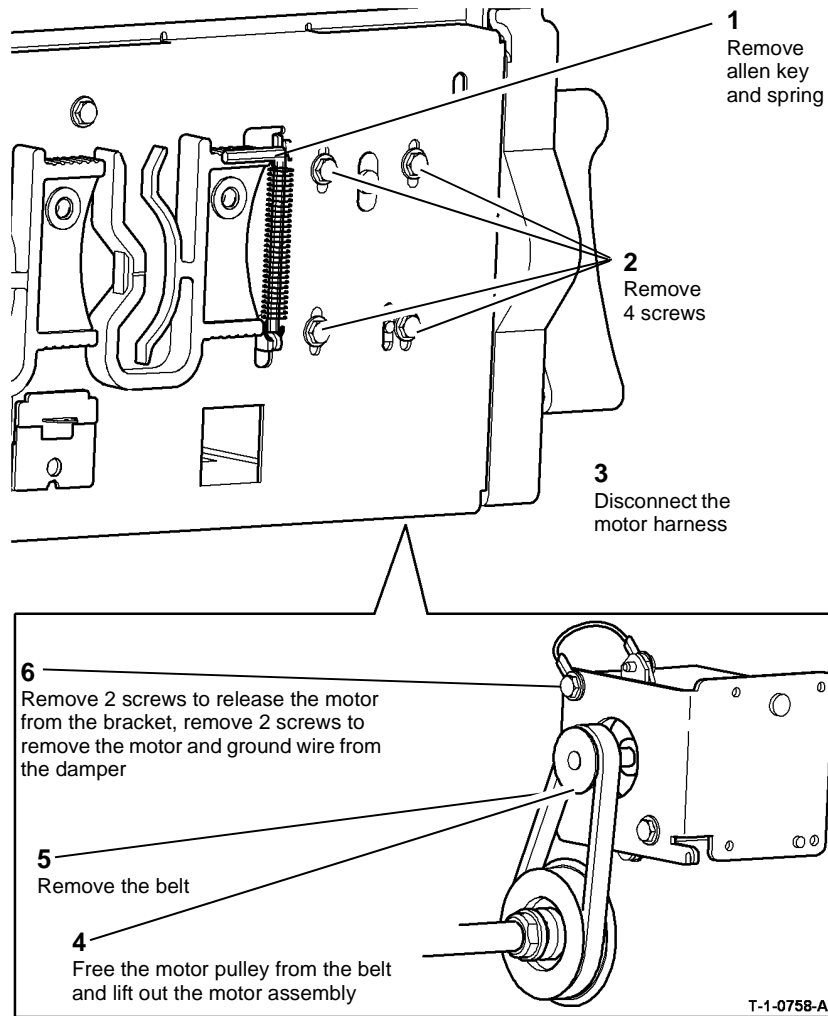


Figure 1 Motor removal

## Replacement

Reverse the removal procedure to replace the BM backstop motor.

**NOTE:** Allow the spring to tension the drive belt while the screws are still loose, then tighten the 4 screws.

## REP 11.21-171 BM Backstop Assembly

Parts List on [PL 11.164](#)

### Removal



**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the booklet maker, [REP 11.61-171](#).
2. Rotate the crease roll handle (6c), fully counter clockwise.
3. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
4. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
5. Remove the BM front cover, [PL 11.161 Item 3](#).

**CAUTION**

The BM harnesses and the backstop assembly harnesses are connected with a catch. Ensure the catch is released when disconnecting the solenoid harnesses.

6. Remove the two harness clamps, Figure 1.

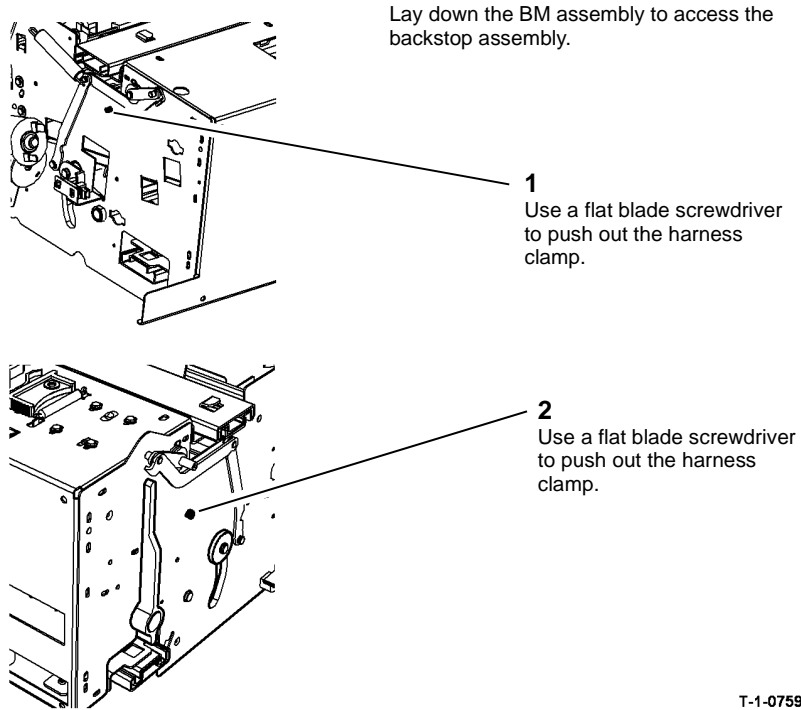
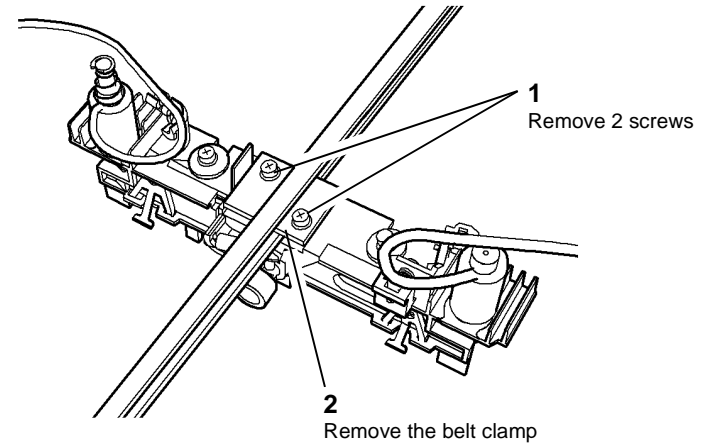


Figure 1 Remove the two harness clamps

T-1-0759-A

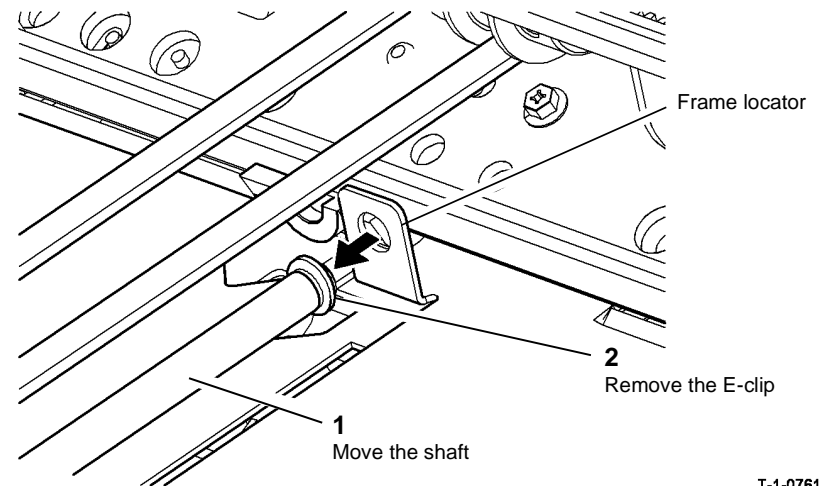
7. Remove the belt clamp, Figure 2.



T-1-0760-A

Figure 2 Belt clamp

8. Use the allen key, PL 11.163 Item 9 to remove the 2 screws and remove shaft support, PL 11.164 Item 10.
9. Prepare to remove the shaft from the frame, Figure 3.

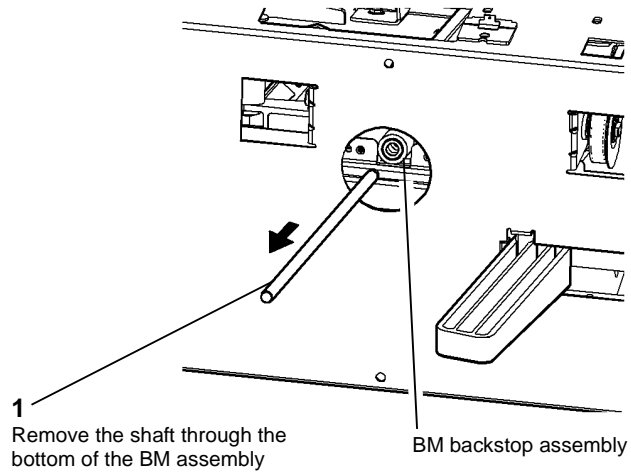


T-1-0761-A

Figure 3 Preparation

10. Move the backstop assembly to the bottom of the BM assembly.

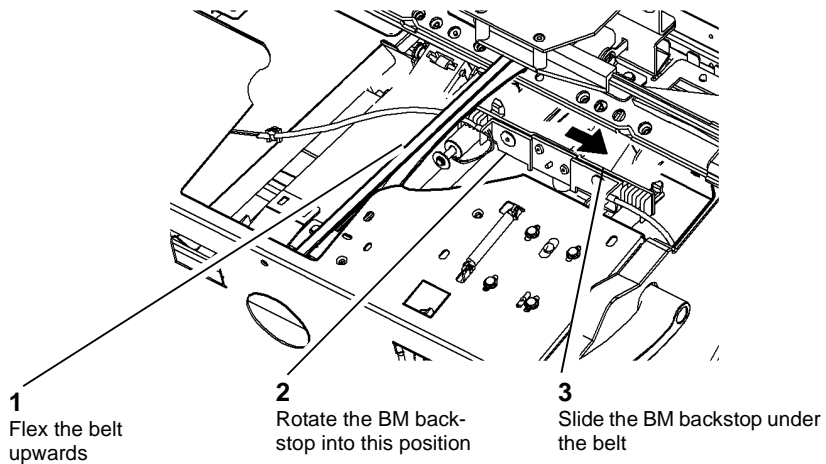
- Remove the shaft from the BM backstop assembly, [Figure 4](#).



**Figure 4 Remove the shaft**

T-1-0762-A

- Remove the BM backstop assembly, [Figure 5](#).

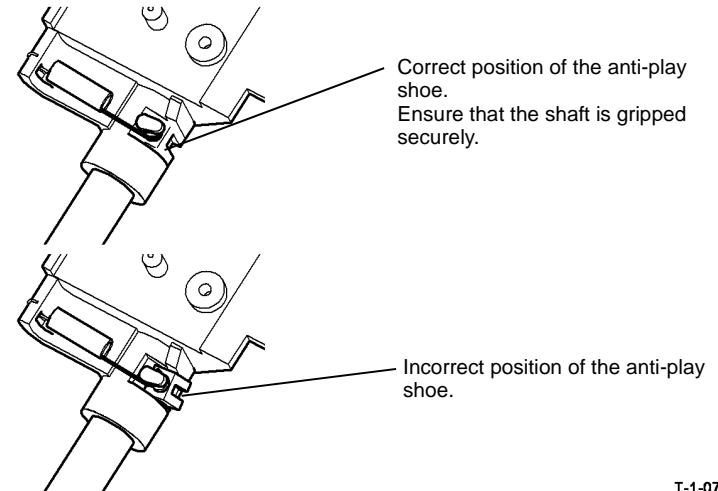


**Figure 5 Remove the backstop assembly**

T-1-0763-A

## Replacement

- Reverse the removal procedure to replace the backstop assembly.
- When installing the shaft ensure that the anti-play shoe has not moved out of position, [Figure 6](#).



**Figure 6 Location of the anti-play shoe**

T-1-0764-A

- Ensure that all of the cable ties are installed and that the harnesses are in the correct position.
- Check that all of the PJ connections on the BM PWB are connected.
- Return the allen key to the storage position inside the drive belt tensioner spring, [PL 11.163 Item 9](#).
- Go to [ADJ 11.9-171](#) and complete the adjustments.

## REP 11.22-171 BM Entry Roll

### Parts List on PL 11.161

#### Purpose

This procedure is used to repair the following components:

- BM entry roll pulley, PL 11.161 Item 14.
- BM entry roll, PL 11.161 Item 15.

#### Removal



#### WARNING

Switch off the electricity to the machine. Refer to GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.
2. Remove the crease blade knob (6d), PL 11.161 Item 4.
3. Remove the crease roll handle (6c), PL 11.161 Item 5.
4. Remove the BM front cover, PL 11.161 Item 3.

5. Remove the BM Entry Roll, Figure 1.

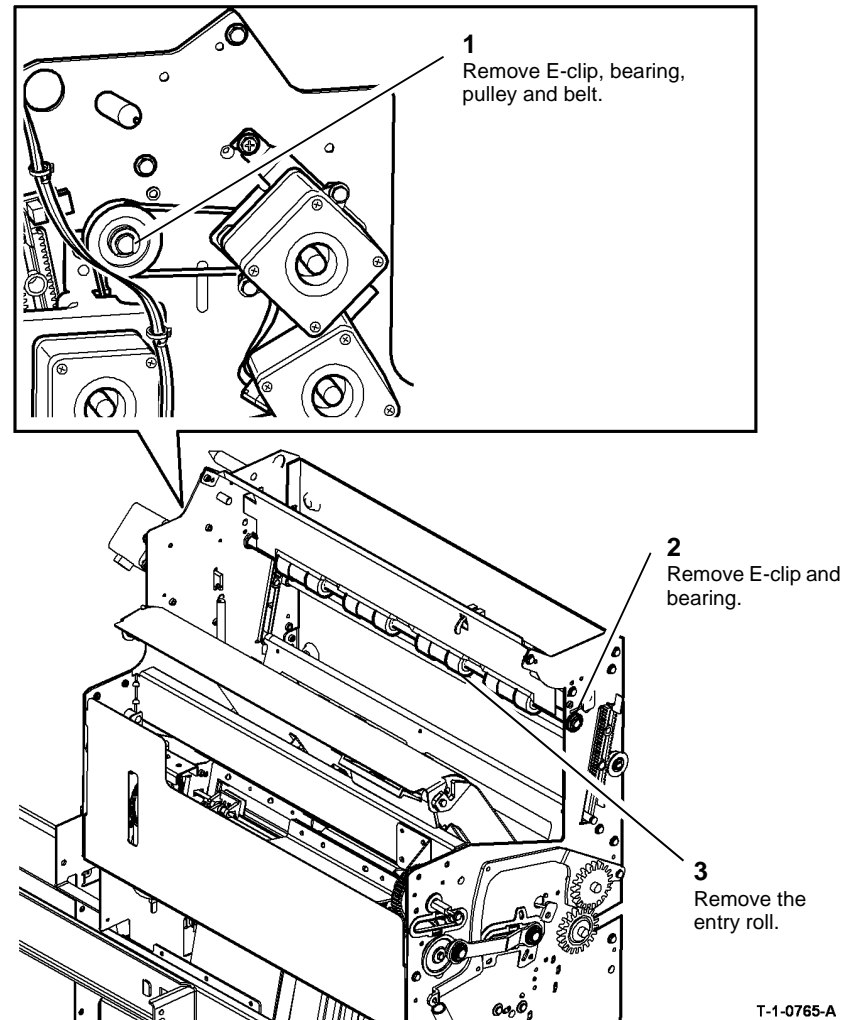


Figure 1 Roll removal

#### Replacement

Reverse the removal procedure to replace the BM entry roll.

**NOTE:** Tension the drive belt by loosening then tightening the screw, ADJ 11.10-171.

## REP 11.23-171 BM Entry Sensor

Parts List on [PL 11.161](#)

### Removal



#### WARNING

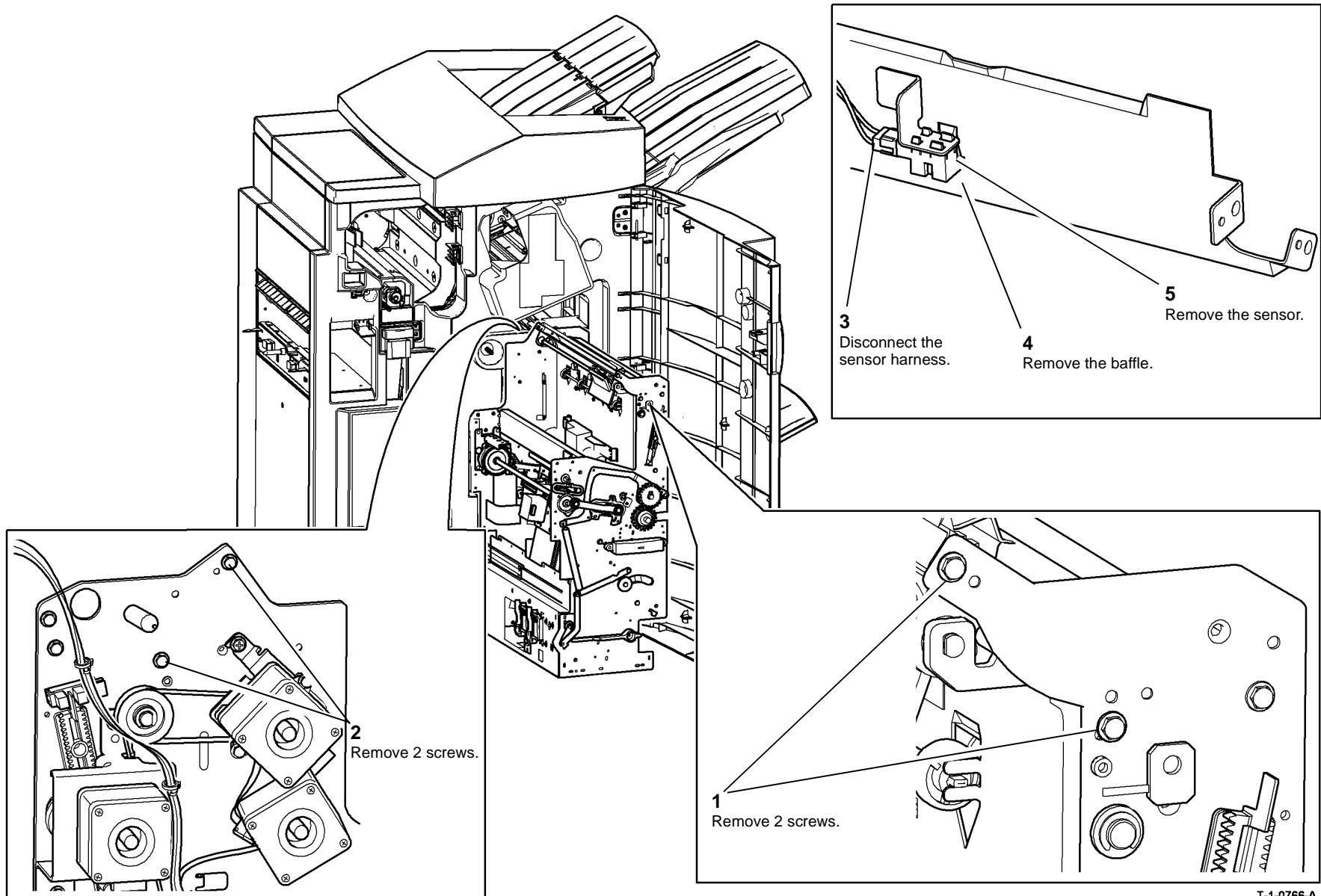
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.
2. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
3. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
4. Remove the BM front cover, [PL 11.161 Item 3](#).
5. Remove the BM entry sensor, [Figure 1](#).



T-1-0766-A

Figure 1 Sensor removal

## Replacement

Reverse the removal procedure to replace the BM entry sensor.

## REP 11.24-171 BM Crease Roll Gate Motor

Parts List on [PL 11.166](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, then the rear cover, [REP 11.1-171](#).
2. Fully pull out the BM module.
3. [Figure 1](#), remove the motor assembly

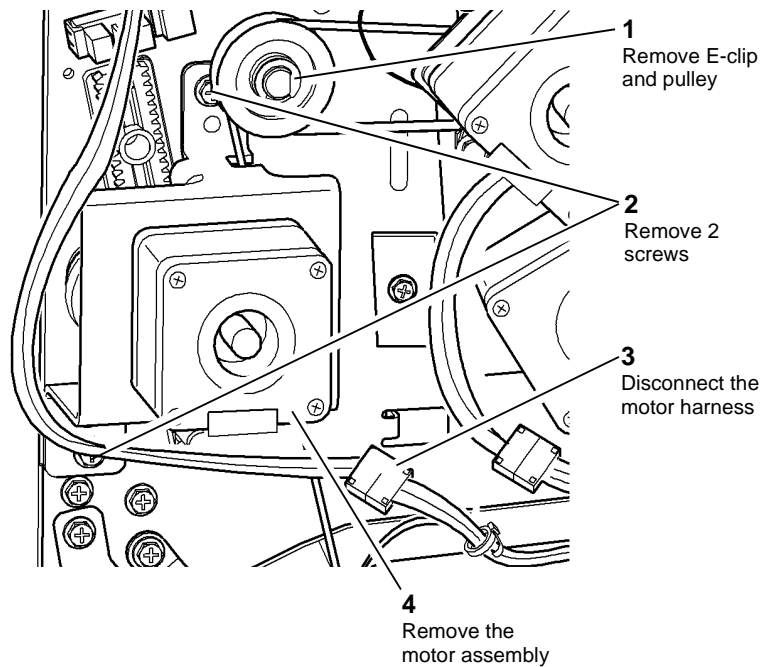


Figure 1 Motor assembly removal

4. Remove 3 nuts to release the motor from the bracket.

### Replacement

Reverse the removal procedure to replace the BM crease roll gate motor.

## REP 11.25-171 BM Compiler Motor and BM Flapper Motor

Parts List on [PL 11.166](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, then the rear cover, [REP 11.1-171](#).
2. Fully pull out the BM module.
3. [Figure 1](#), remove the motor assembly.

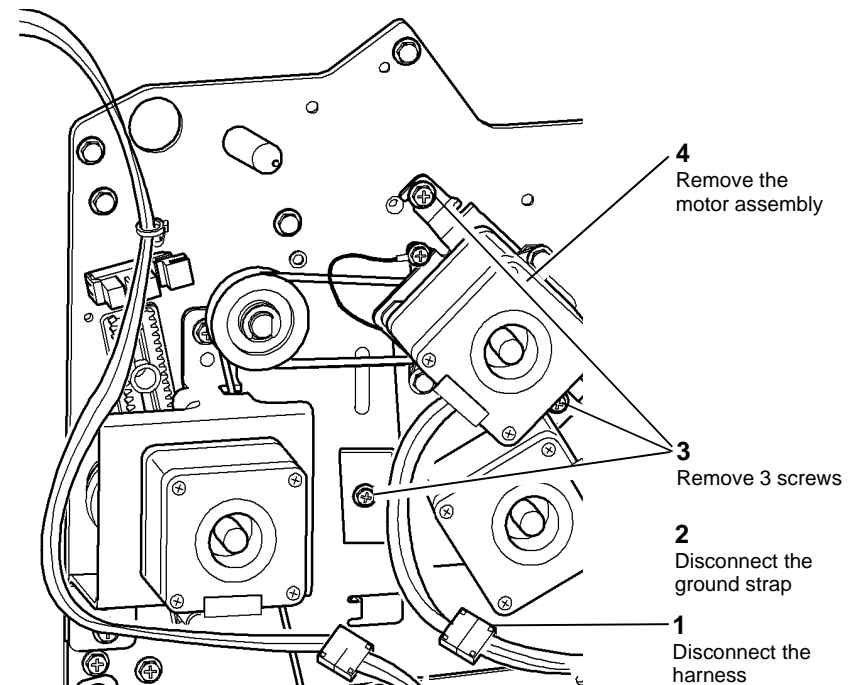


Figure 1 Motor assembly removal

4. Remove 2 screws to remove the relevant motor from the bracket.
5. Remove 2 screws to remove the motor from the damper.

### Replacement

Reverse the removal procedure to replace the BM compiler motor or BM flapper motor.



## REP 11.26-171 Back Stop Drive Assembly

Parts List on [PL 11.163](#), [PL 11.164](#)

### Purpose

This procedure is used to repair the following components:

- BM backstop link springs, [PL 11.163 Item 15](#).
- BM backstop link, [PL 11.163 Item 16](#).
- BM backstop drive shaft, [PL 11.164 Item 14](#).
- BM backstop belt, [PL 11.163 Item 7](#).
- BM back stop bearing, [PL 11.163 Item 11](#).
- BM back stop idler bracket, [PL 11.163 Item 12](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

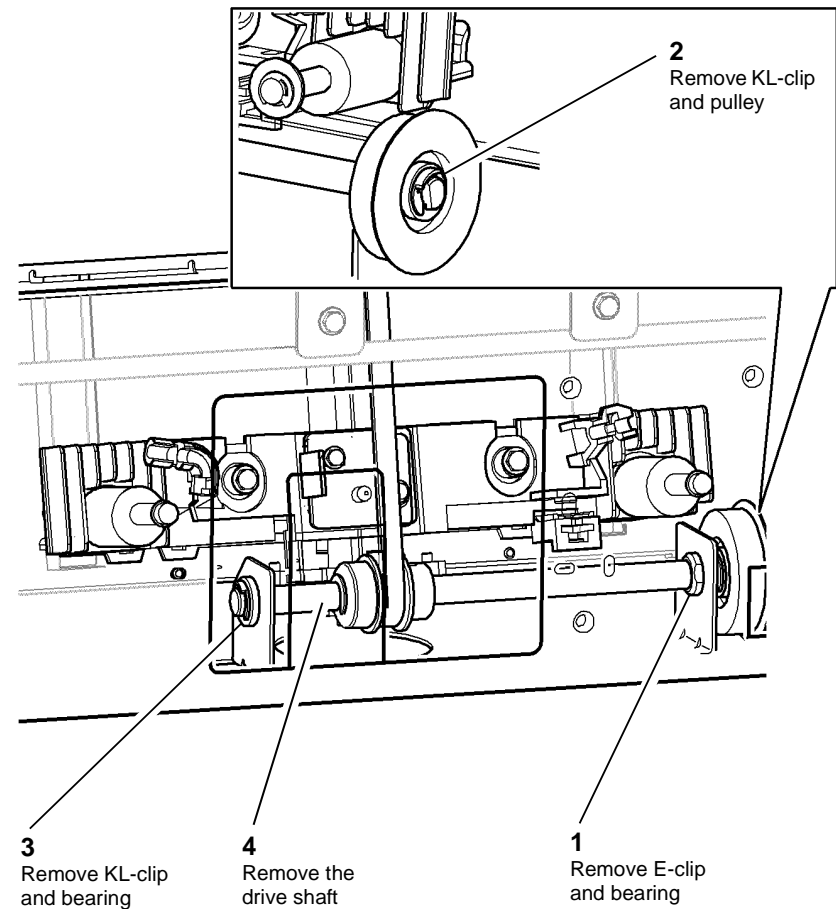


#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.
2. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
3. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
4. Remove the BM front cover, [PL 11.161 Item 3](#).
5. Remove the LH frame plate, [PL 11.162 Item 2](#).
6. Remove the BM tamper assembly, [REP 11.30-171](#).
7. Remove the backstop motor assembly, [REP 11.20-171](#).
8. Remove the backstop assembly, [REP 11.21-171](#).
9. Remove the crease blade assembly, [REP 11.36-171](#).

10. [Figure 1](#), remove the BM backstop drive shaft and bearings.



T-1-0769-A

Figure 1 Drive shaft removal

11. Figure 2, remove the backstop link.

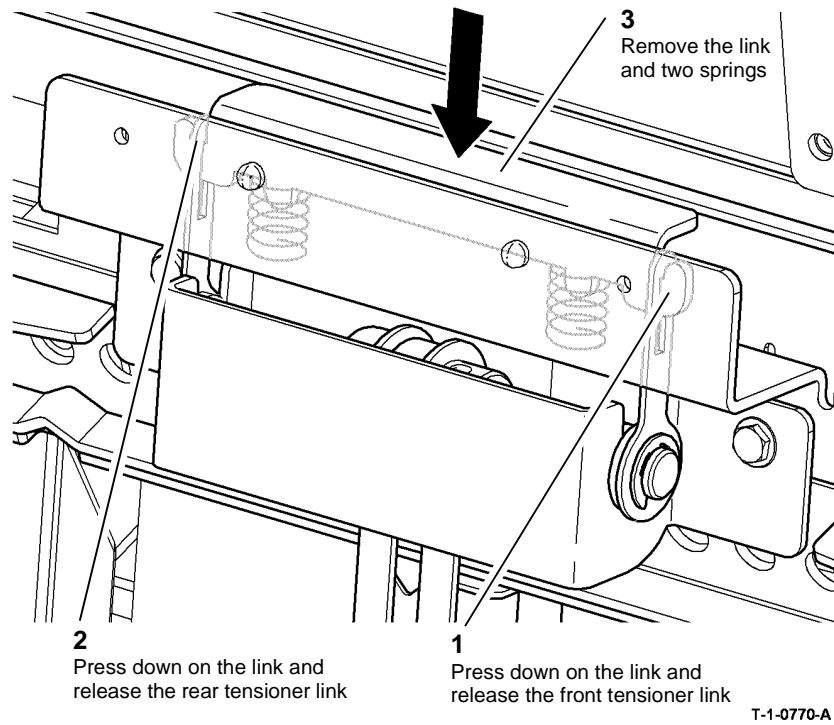


Figure 2 Backstop link removal

12. Figure 3, remove the BM backstop idler bracket assembly.

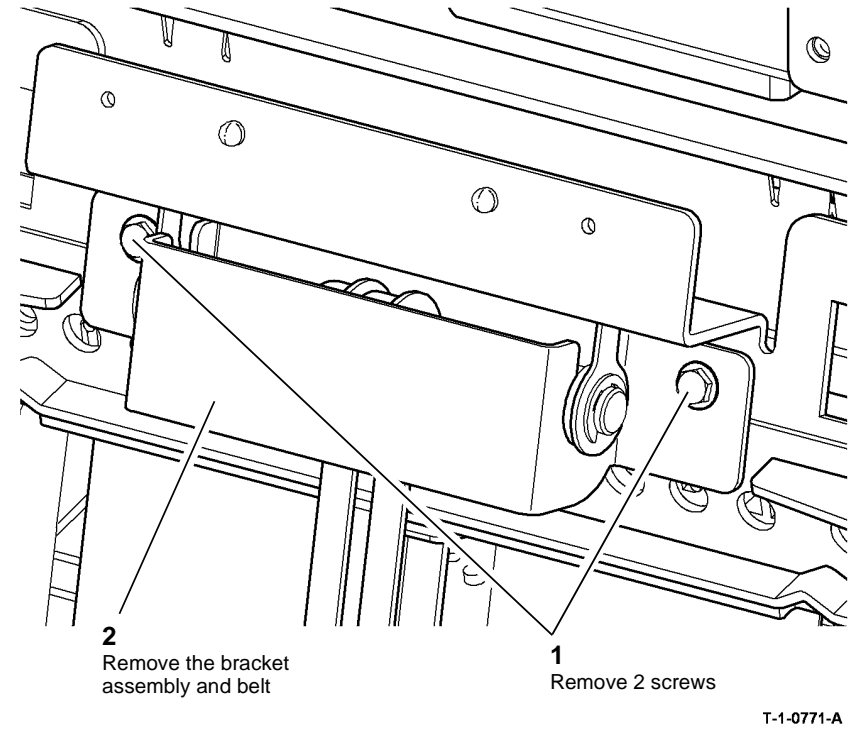


Figure 3 Idler bracket assembly removal

13. Figure 4, remove the BM backstop belt.

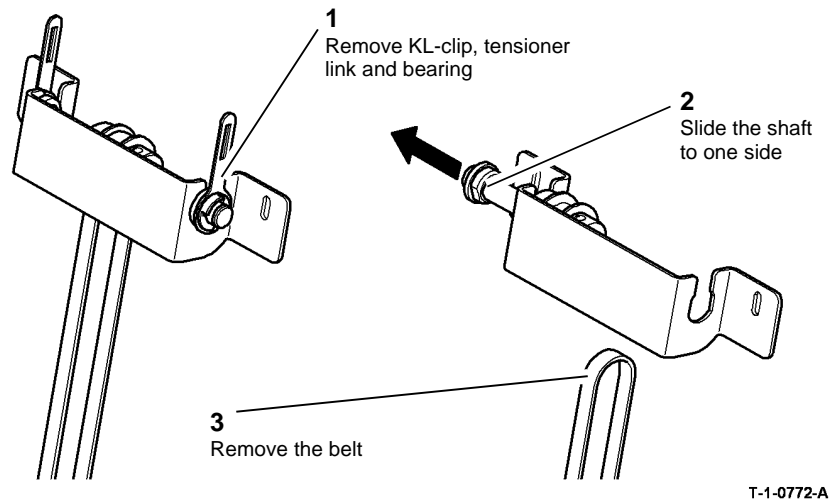


Figure 4 Backstop belt removal

### Replacement

1. Reverse the removal procedure to replace the removed components.
2. Allow the BM backstop belt to be tensioned correctly before the bracket assembly securing screws are tightened. Refer to Figure 3.

## REP 11.27-171 BM Staple Heads

Parts List on PL 11.168

### Removal



Switch off the electricity to the machine. Refer to GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Fully pull out the BM module.
2. Remove the relevant staple head cover, PL 11.168 Item 14.
3. Pull the stapler bracket handle, PL 11.168 Item 9. Open the staplers fully.

**NOTE:** If a 5.5 mm socket and short extension is not available or access to the staple head securing screws is difficult, remove the BM stapler bracket assembly, REP 11.28-171, then remove the relevant staple head.

4. Figure 1, remove the relevant staple head.

## REP 11.28-171 BM Stapler Bracket Assembly

### Parts List on [PL 11.168](#)

#### Purpose

This procedure is used to repair the following parts:

- Front follower, [PL 11.168 Item 1](#).
- Actuator, [PL 11.168 Item 2](#).
- Rear follower, [PL 11.168 Item 3](#).
- Spring, [PL 11.168 Item 4](#).
- BM paper present sensor Q11-190, [PL 11.168 Item 5](#).
- Latch slide, [PL 11.168 Item 6](#).
- Stapler bracket handle, [PL 11.168 Item 9](#).
- Stapler bracket assembly, [PL 11.168 Item 10](#).
- Torsion spring, [PL 11.168 Item 11](#).
- Bearing, [PL 11.168 Item 12](#).
- Spring, [PL 11.168 Item 13](#).
- BM stapler head carrier closed sensor Q11-421, [PL 11.168 Item 18](#).
- Lower shaft, [PL 11.168 Item 19](#).
- Upper shaft, [PL 11.168 Item 20](#).

#### Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, then the rear cover, [REP 11.1-171](#).
2. Remove 4 screws securing the BM PWB mounting plate to the frame, allow the PWB and mounting plate to hang down, giving access to the BM staple head carrier closed sensor.

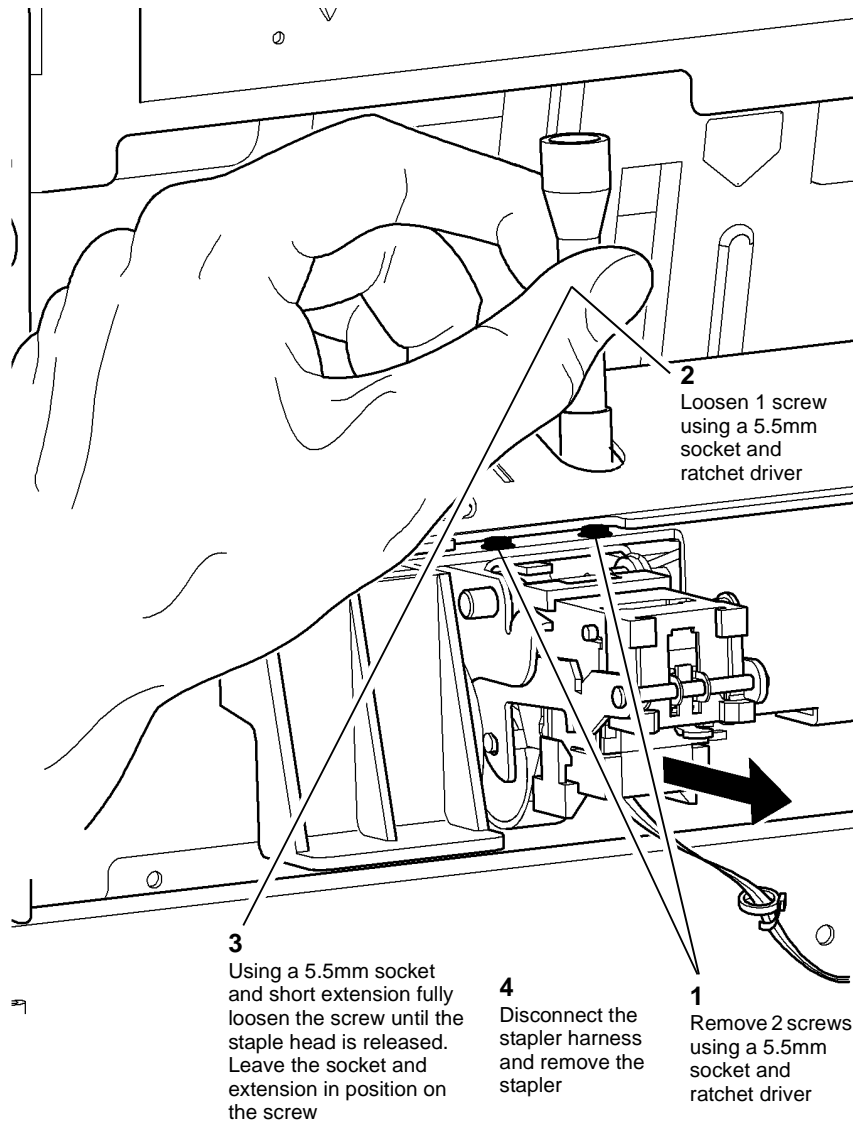
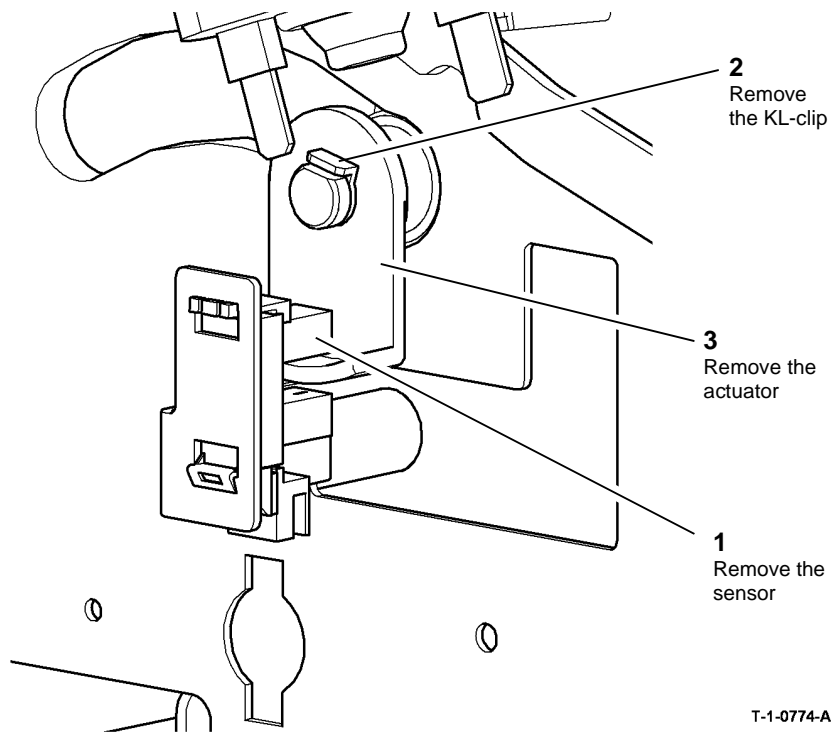


Figure 1 Staple head removal

#### Replacement

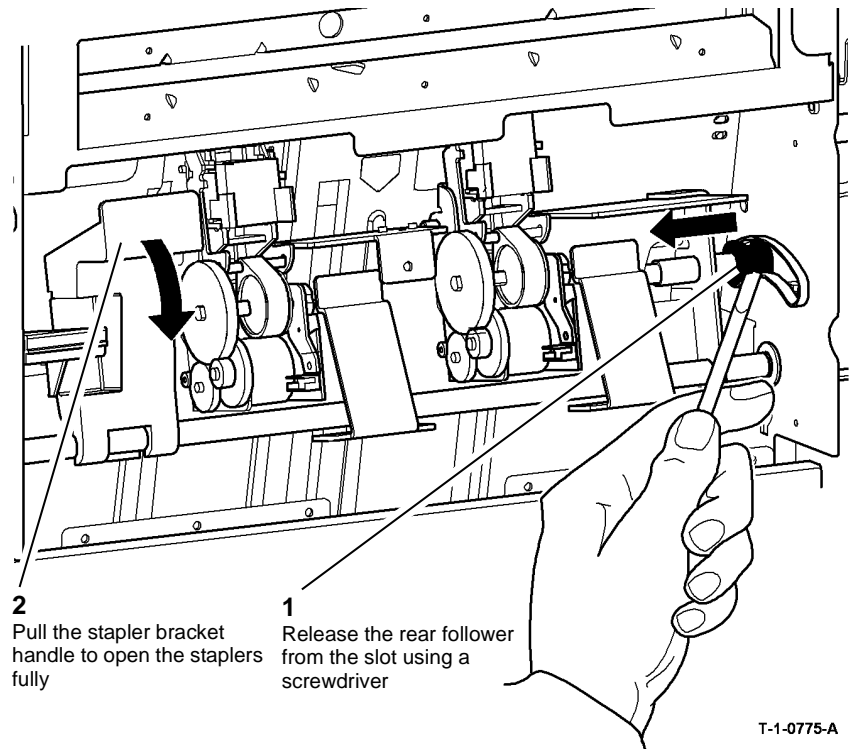
1. Reverse the removal procedure to replace the BM staple heads.
2. Perform [ADJ 11.3-171](#) Stapler Anvil Alignment.

3. **Figure 1**, remove the BM staple head carrier closed sensor actuator.



**Figure 1 Actuator removal**

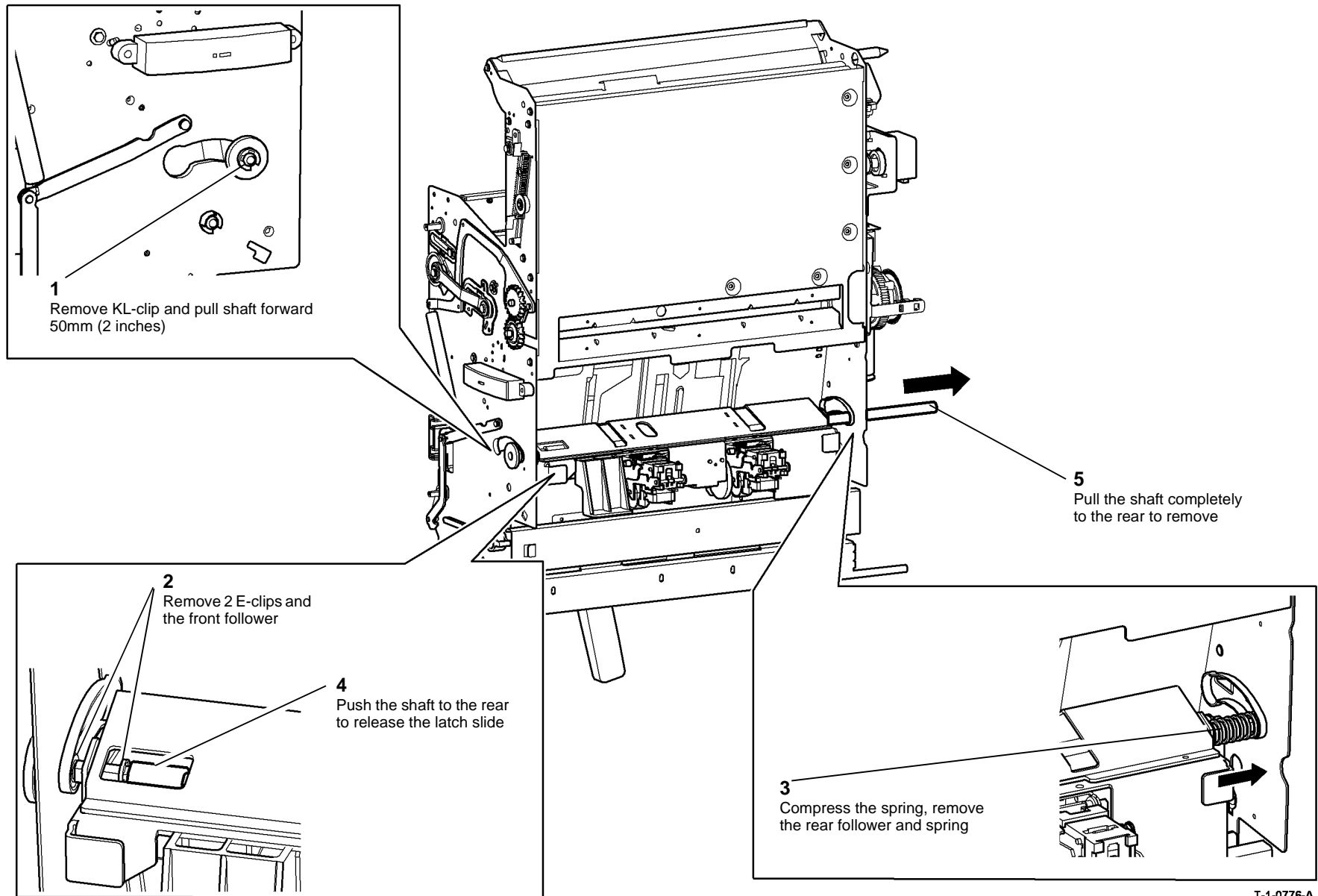
10. **Figure 2**, lower the stapler bracket.



**Figure 2 Lowering stapler bracket**

4. Temporarily attach the PWB mounting plate using only the top two screws.
5. Open the HVF BM front door and fully pull out the BM module.
6. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
7. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
8. Remove the BM front cover, [PL 11.161 Item 3](#).
9. Remove both staple head covers, [PL 11.168 Item 14](#).

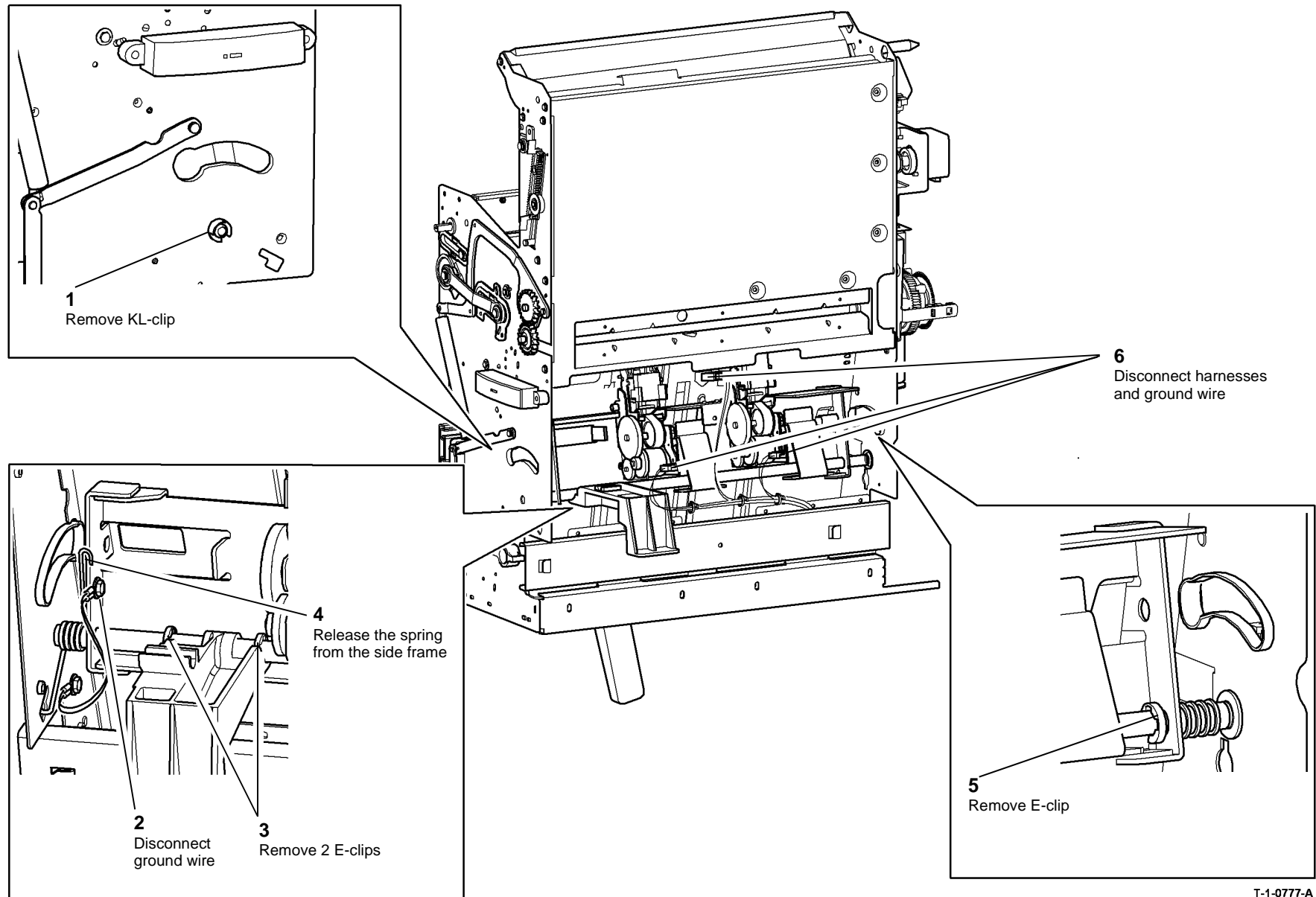
11. Figure 3, remove the latch shaft.



T-1-0776-A

Figure 3 Latch shaft removal

12. Figure 4, prepare to remove the BM stapler bracket assembly.



T-1-0777-A

Figure 4 Preparation

13. Figure 5, remove the BM stapler bracket assembly.

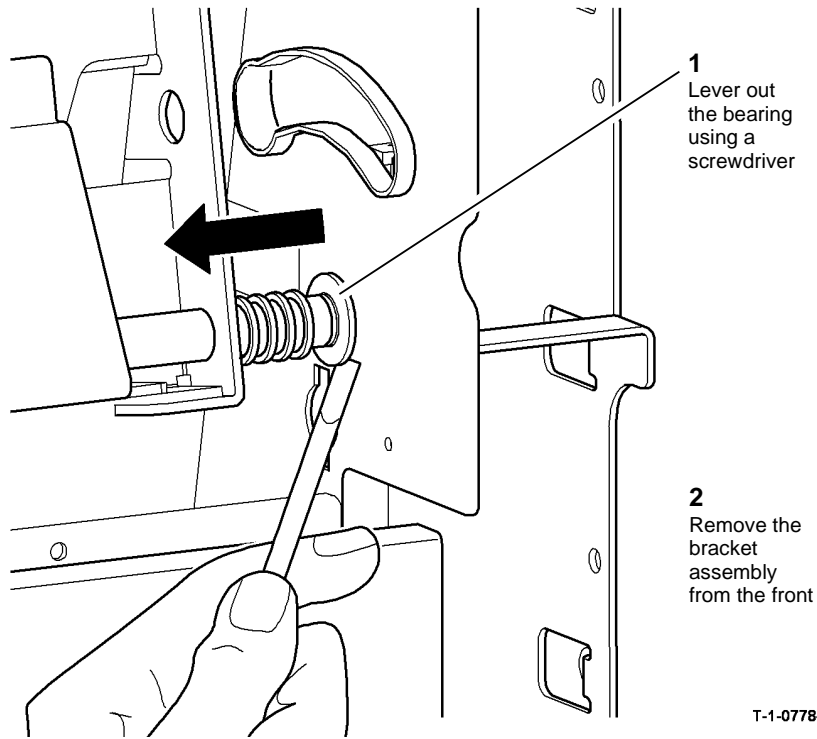


Figure 5 Assembly removal

## Replacement

Reverse the removal procedure to replace the BM stapler bracket assembly and components.

## REP 11.29-171 BM Conveyor Belts

Parts List on [PL 11.169](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



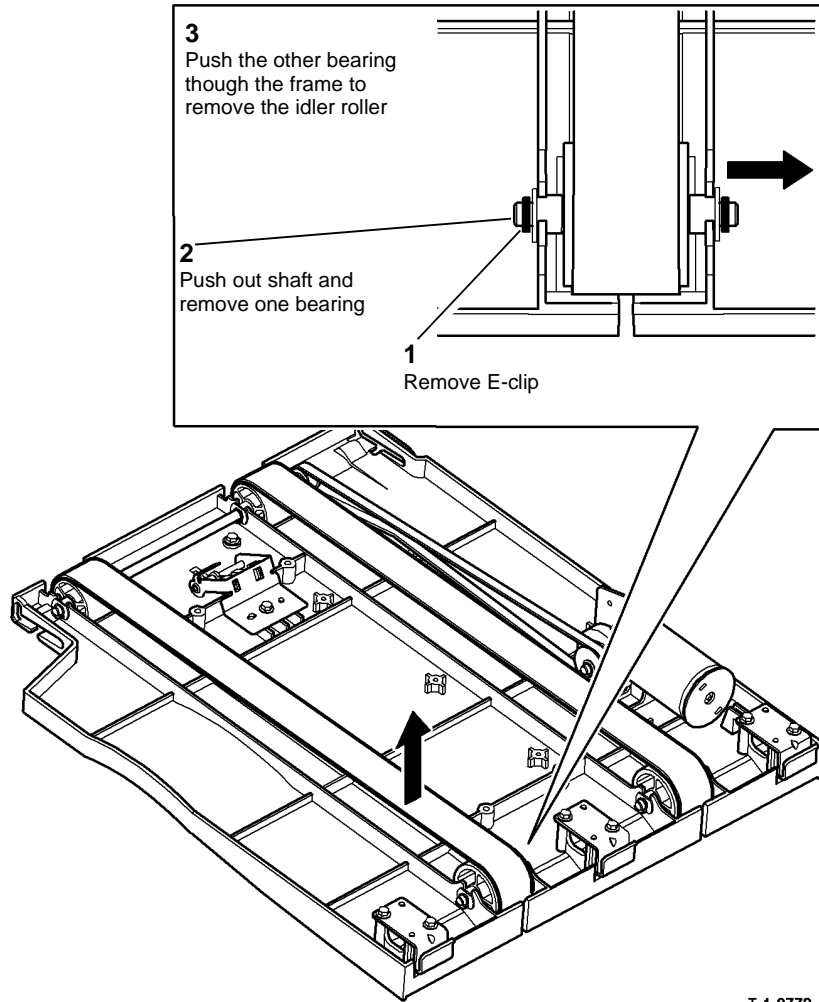
Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** The removal procedure illustrates how to remove the rear conveyor belt. The procedure for the front conveyor belt is similar.

1. Remove bin 2 by disconnecting the harness, removing the thumb screw then lifting the bin upwards to release.
2. Remove the BM bin 2 extension by aligning the pivot pins with the cutouts and snapping the extension out of engagement.
3. Turn over bin 2 and remove the base pan, 3 screws.
4. Remove the BM bin 2 connector from the base pan, 1 screw.

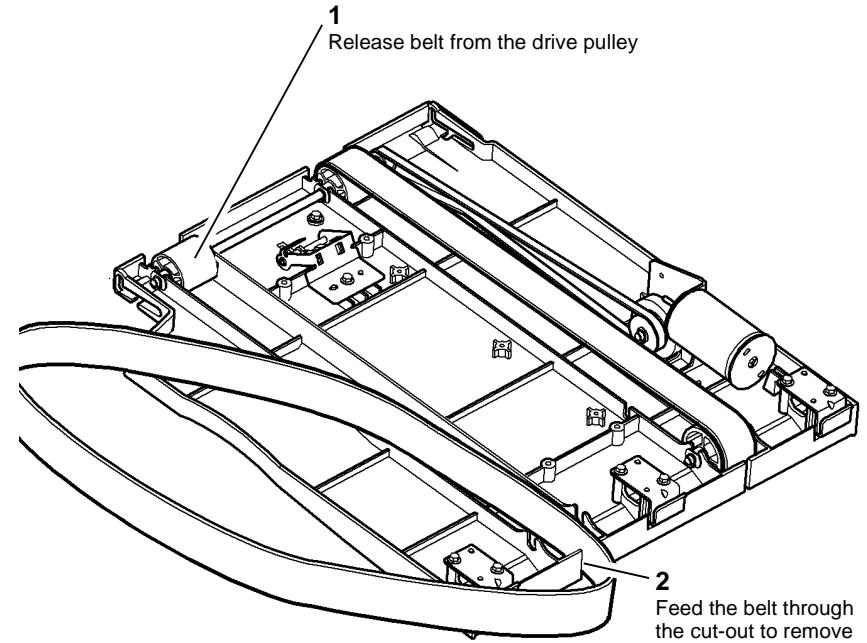


5. **Figure 1**, remove the idler roller.



**Figure 1** Idler roller removal

6. **Figure 2**, remove the BM conveyor belt.



**Figure 2** Belt removal

### Replacement

Reverse the removal procedure to replace the BM conveyor belts.

# REP 11.30-171 BM Tamper Assembly and Tamper 1 Motor

Parts List on [PL 11.162](#)

## Purpose

This procedure is used to repair the following components:

- BM tamper 1 motor, [PL 11.162 Item 3](#).
- BM rear tamper arm, [PL 11.162 Item 5](#).
- BM front tamper arm, [PL 11.162 Item 6](#).
- BM rear tamper rack, [PL 11.162 Item 7](#).
- BM front tamper rack, [PL 11.162 Item 8](#).
- BM rear tamper assembly, [PL 11.162 Item 9](#).
- BM front tamper assembly, [PL 11.162 Item 10](#).
- BM tamper gear, [PL 11.162 Item 11](#).
- BM tamper bracket, [PL 11.162 Item 12](#).
- BM tamper rack guide, [PL 11.162 Item 13](#).
- BM tamper guide plate, [PL 11.162 Item 15](#).
- BM rear tamper finger, [PL 11.162 Item 16](#).
- BM front tamper finger, [PL 11.162 Item 17](#).

## Removal



**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

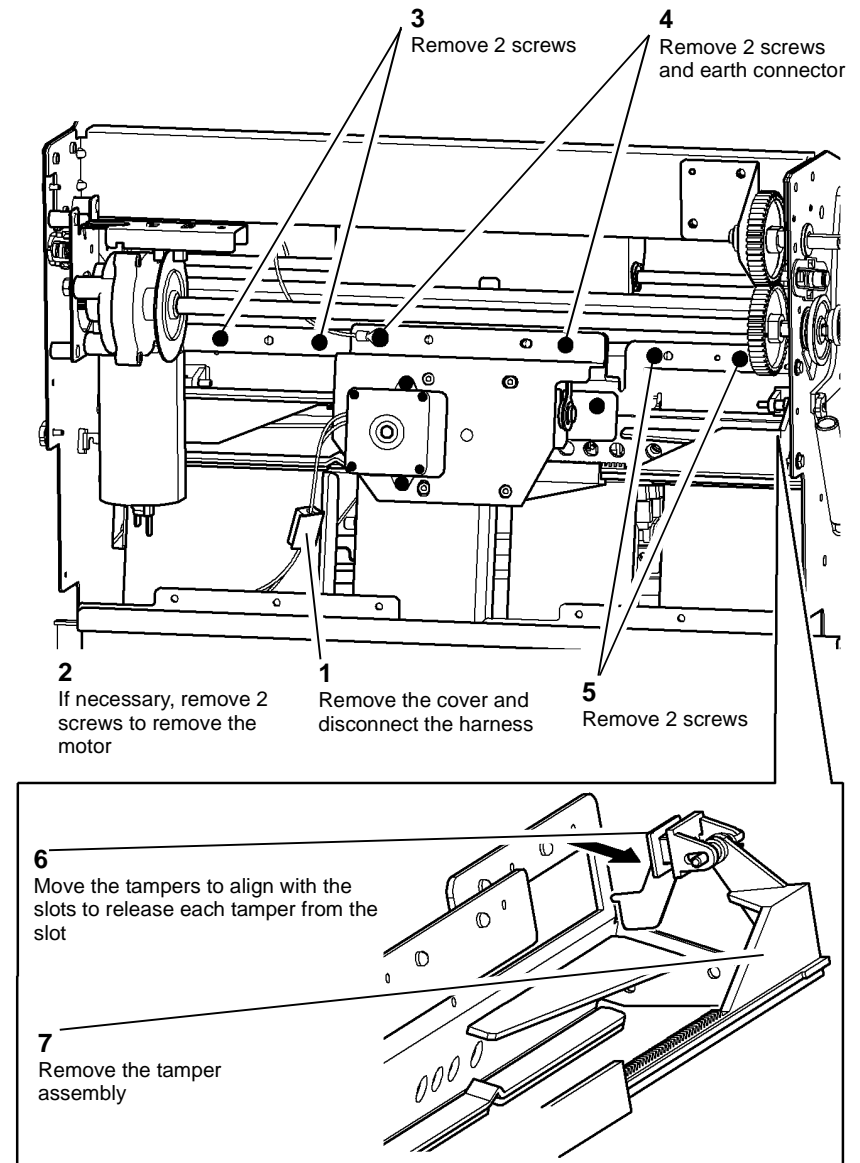


**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.
2. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
3. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
4. Remove the BM front cover, [PL 11.161 Item 3](#).
5. Remove the left frame plate, [PL 11.163 Item 17](#).

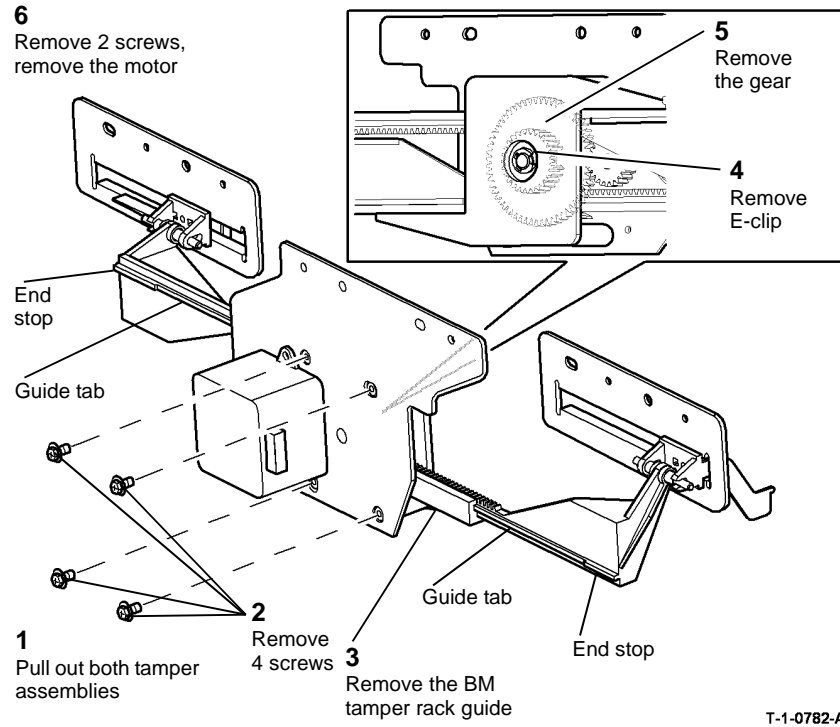
6. [Figure 1](#), remove the tamper assembly.



T-1-0781-A

Figure 1 Tamper assembly removal

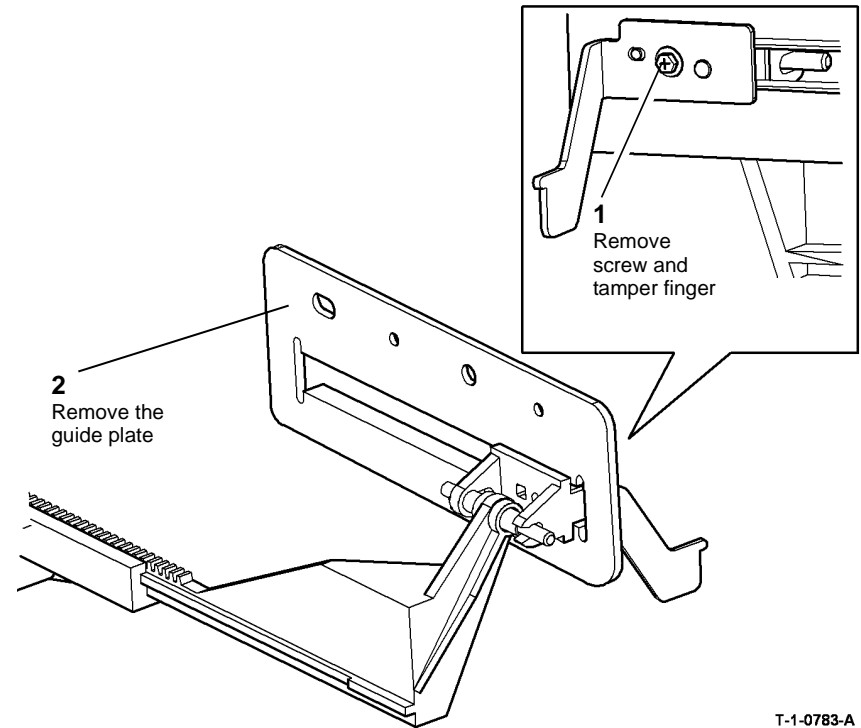
7. **Figure 2**, remove the front and rear tamper assemblies. Also remove the tamper gear and tamper motor.



**Figure 2 Dismantling the tamper assembly**

T-1-0782-A

8. **Figure 3**, remove the tamper guide plate from each of the tamper assemblies.



**Figure 3 Guide plate removal**

T-1-0783-A

### Replacement

1. If the tamper racks were removed from the BM tamper rack guide, perform the following:
  - a. Align the guide tabs on both tamper racks with the slots in the BM tamper rack guide. Refer to **Figure 2**.
  - b. Start both tamper racks into the BM tamper rack guide at the same time. Both tamper racks must engage with the BM tamper gear simultaneously. To check that the front and rear tampers are correctly aligned, perform the following:
    - Fully push in the tampers.
    - The distance between the end stop on each tamper and the ends of the BM tamper rack guide should be equal. Refer to **Figure 2**.
    - If the distances are different by more than 1mm (0.040 inches). Perform again step B.
2. Reverse the removal procedure to replace the BM tamper assembly and tamper 1 motor.
3. Perform **ADJ 11.5-171** Booklet Tamping.

# REP 11.31-171 HVF Buffer Guide Assembly

Parts List on [PL 11.153](#)

## Removal



### WARNING

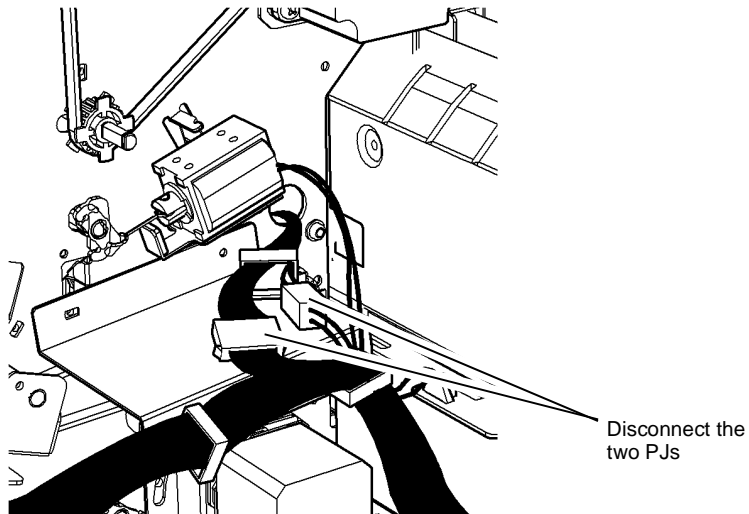
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, [REP 11.1-171](#).
2. Remove the HVF top cover, [REP 11.1-171](#).
3. Remove the HVF front cover, [REP 11.1-171](#).
4. Remove the HVF rear cover, [REP 11.1-171](#).
5. [Figure 1](#). At the rear of the finisher, disconnect the two PJs.

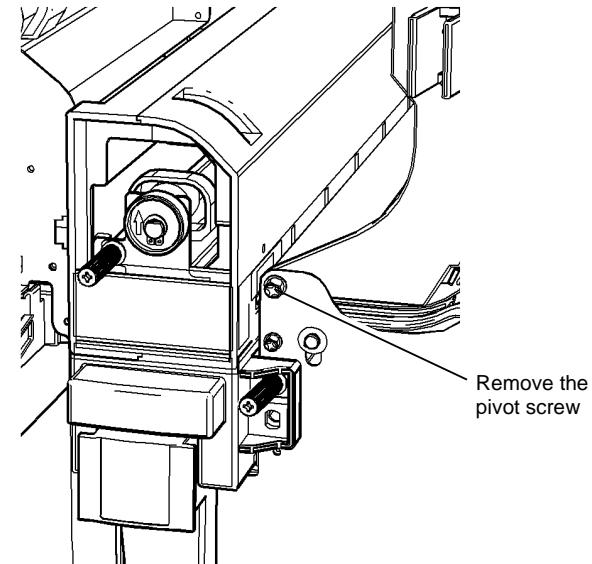


REAR VIEW

T-1-0784-A

Figure 1 Disconnecting PJs

6. [Figure 2](#). Remove the pivot screw.



T-1-0785-A

Figure 2 Pivot screw removal

7. Pass the PJs through the cut-out in the rear frame.
8. Withdraw the guide through the front opening.

### Replacement

Position the spigot at the guide rear in the hole in the rear frame. The rest of the replacement procedure is the reverse of the removal procedure.

## REP 11.32-171 HVF Input Jam Clearance Guide

Parts List on [PL 11.153](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, [REP 11.1-171](#).
2. Remove the HVF top cover, [REP 11.1-171](#).
3. Remove the HVF front cover, [REP 11.1-171](#).
4. [Figure 1](#). Remove the pivot screw at the front of the input guide.

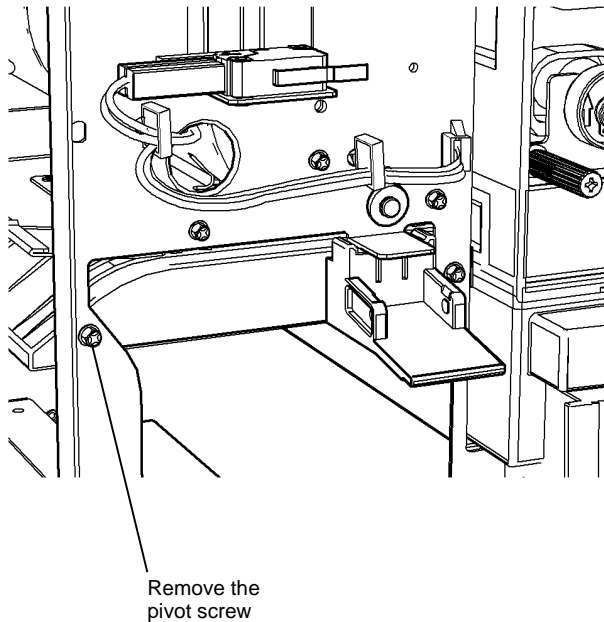


Figure 1 Pivot screw removal

5. Remove the guide through the front opening.

### Replacement

Position the spigot at the guide rear in the hole in the rear frame. The rest of the replacement procedure is the reverse of the removal procedure.

## REP 11.33-171 Buffer Pocket Jam Clearance Guide Assembly

Parts List on [PL 11.153](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

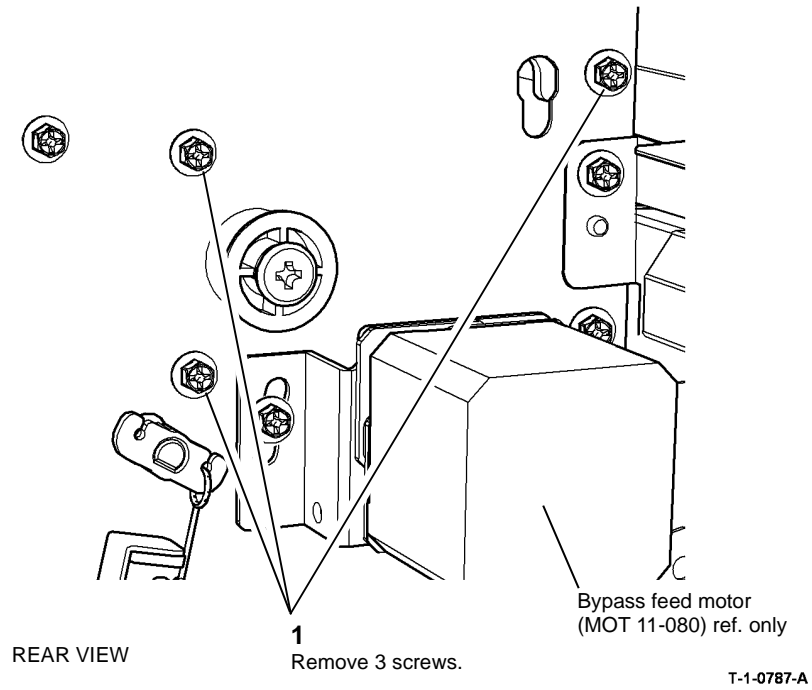


Take care during this procedure. Sharp edges may be present that can cause injury.

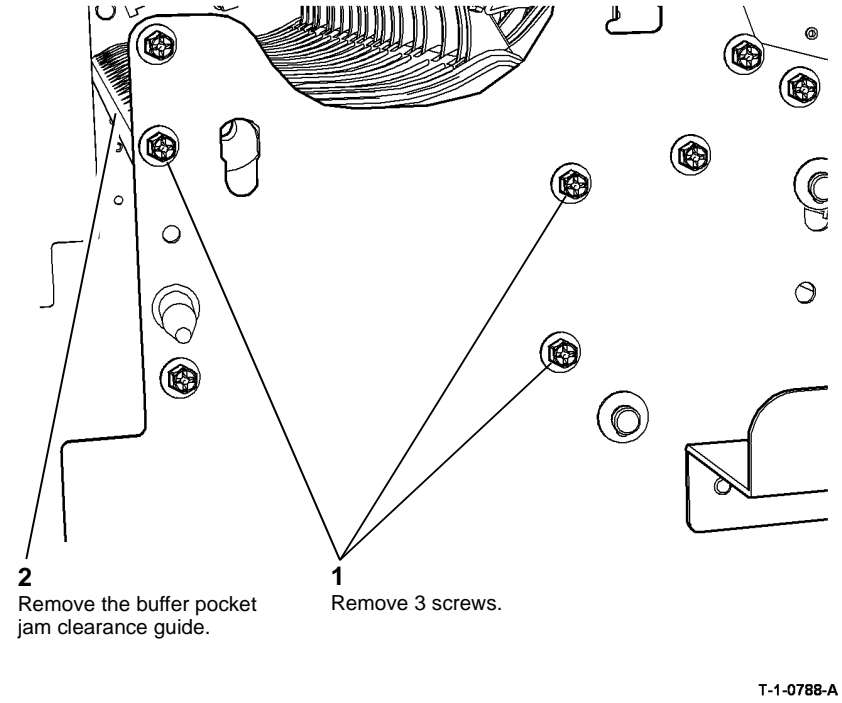
1. Remove the HVF front door, [REP 11.1-171](#).
2. Remove the HVF top cover, [REP 11.1-171](#).
3. Remove the HVF front cover, [REP 11.1-171](#).
4. Remove the HVF rear cover, [REP 11.1-171](#).
5. Remove the buffer pocket roll, [REP 11.42-171](#).

6. **Figure 1.** At the rear of the HVF, prepare to remove the buffer pocket jam clearance guide.

7. **Figure 2.** At the front of the HVF, remove the buffer pocket jam clearance guide.



**Figure 1 Rear screw removal**



**Figure 2 Guide removal**

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.34-171 Inserter Jam Clearance Guide Assembly

Parts List on [PL 11.153](#)

### Removal



#### WARNING

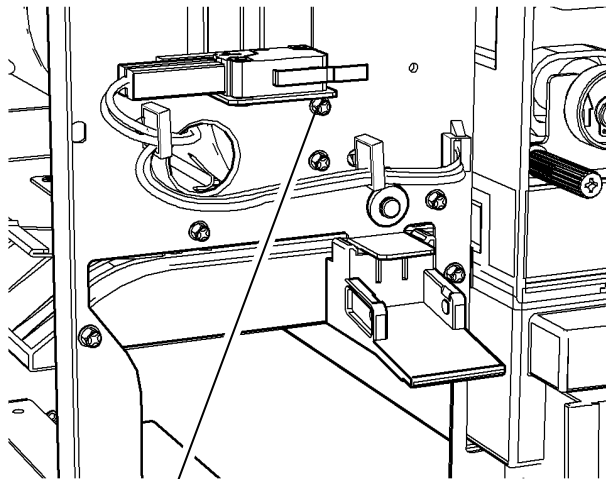
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, top cover and front cover, [REP 11.1-171](#).
2. [Figure 1](#). Remove the pivot screw from the front end of the inserter jam clearance guide.



Remove the pivot screw

Figure 1 Pivot screw removal

3. Remove the guide through the front opening.

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.35-171 Diverter Exit Gate

Parts List on [PL 11.153](#)

### Removal



#### WARNING

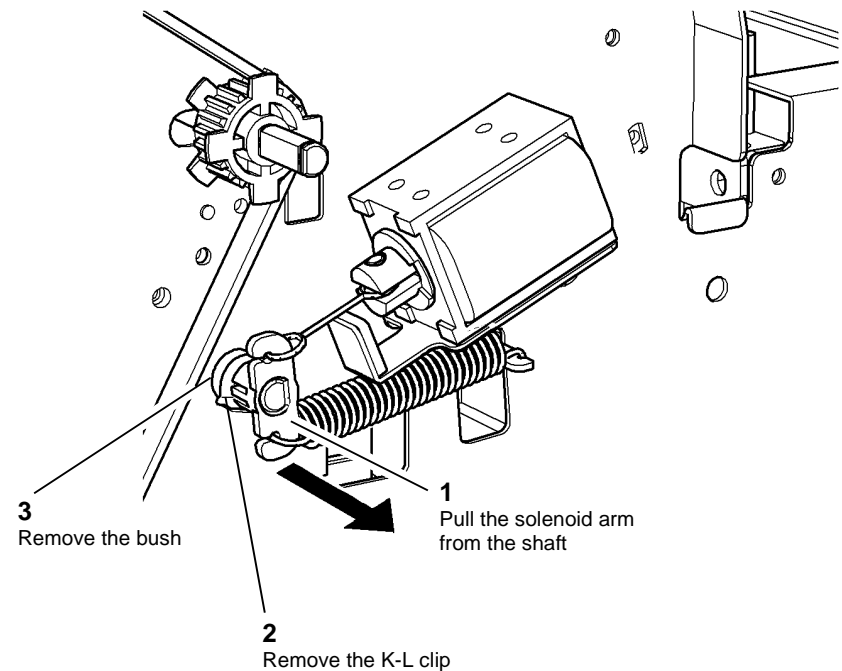
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, top cover, front cover and rear cover, [REP 11.1-171](#).
2. [Figure 1](#). At the rear of the HVF, remove the solenoid arm, the K-L clip and the bush from the diverter shaft.



3 Remove the bush

2 Remove the K-L clip

1 Pull the solenoid arm from the shaft

REAR VIEW

T-1-0790-A

Figure 1 Removal preparation

3. **Figure 2.** Remove the diverter exit gate.

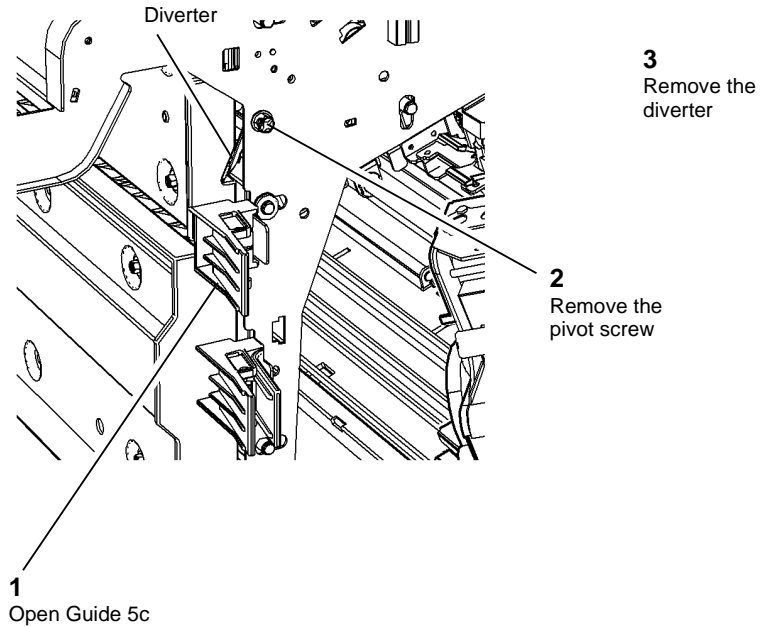


Figure 2 Diverter removal

T-1-0791-A

## Replacement

The replacement procedure is the reverse of the removal procedure.



### CAUTION

*After replacement, check the K-L clip is in the correct groove, and the bush cannot be pulled from the frame.*

## REP 11.36-171 Crease Blade Assembly

### Parts List on PL 11.165

#### Purpose

This procedure is used to repair the following components:

- Connecting rod, PL 11.165 Item 9.
- Crease blade assembly, PL 11.165 Item 13.
- Crease blade support guide, PL 11.165 Item 14.

#### Removal



### WARNING

**Switch off the electricity to the machine. Refer to GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.**



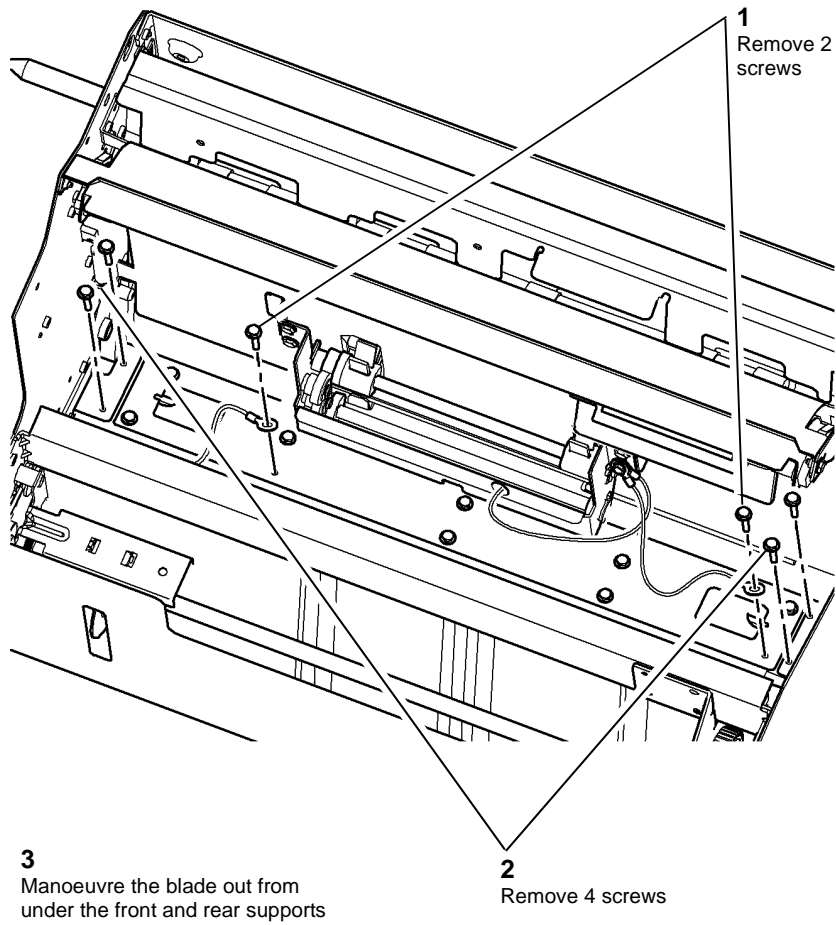
### WARNING

**Take care during this procedure. Sharp edges may be present that can cause injury.**

1. Open the HVF BM front door and fully pull out the BM module.
2. Remove the crease blade knob (6d), PL 11.161 Item 4.
3. Remove the crease roll handle (6c), PL 11.161 Item 5.
4. Remove the BM front cover, PL 11.161 Item 3.



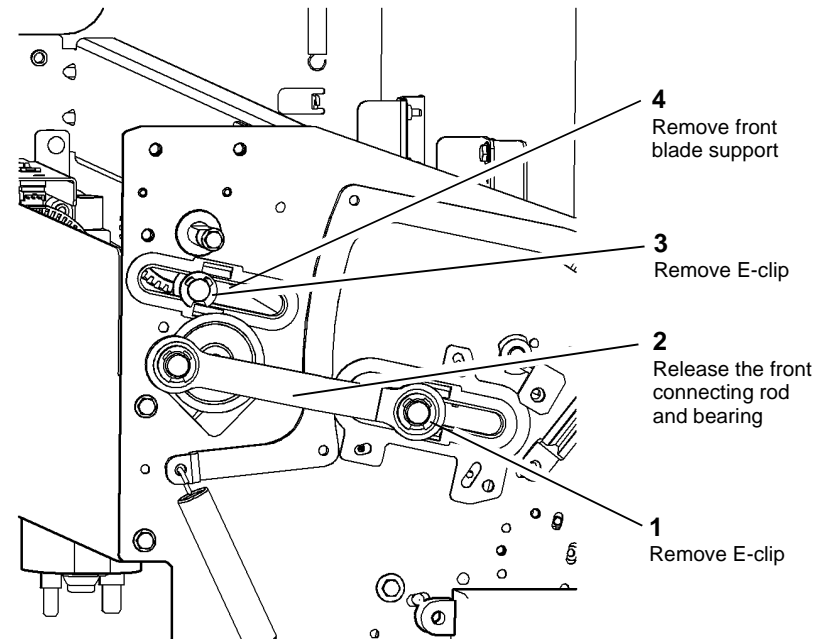
5. **Figure 1**, remove the crease blade.



**Figure 1 Crease blade removal**

T-1-0792-A

6. **Figure 2**, remove the front blade support.



**Figure 2 Front support removal**

T-1-0793-A

7. Figure 3, remove the rear blade support.

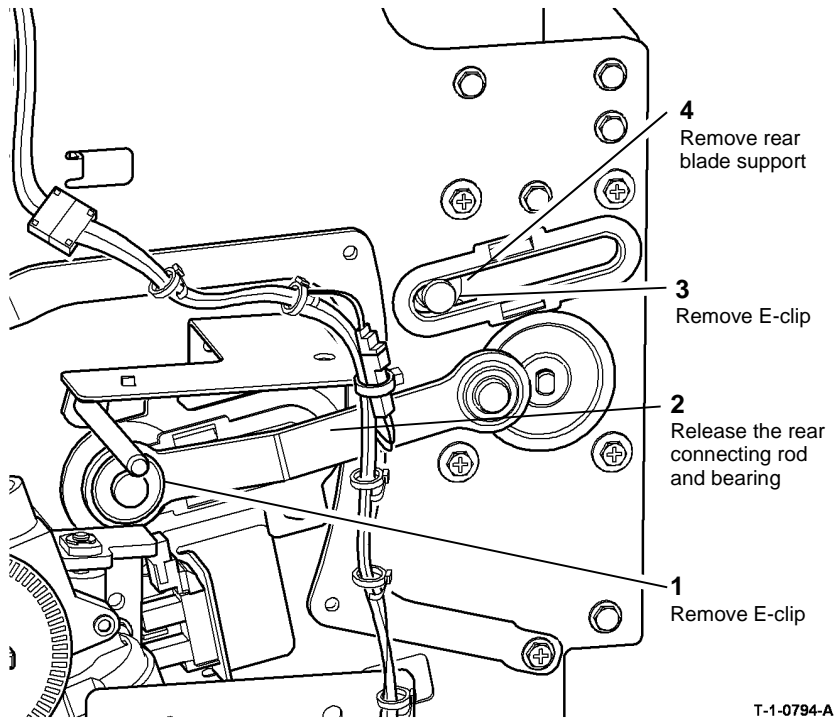


Figure 3 Rear support removal

T-1-0794-A

**!**  
**CAUTION**

*Do not loosen the three red screws that surround the lower support guides*

8. Figure 4, remove the support guides (4 places).

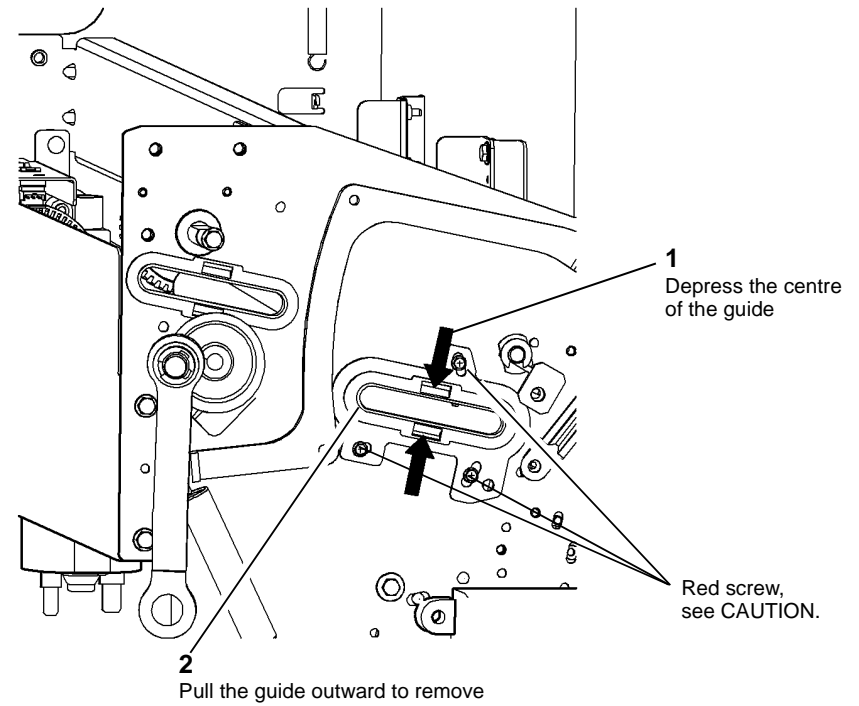


Figure 4 Support guide removal

T-1-0795-A

### Replacement

Reverse the removal procedure to replace the crease blade assembly.

# REP 11.37-171 Stacker Driving Shaft Bearings

Parts List on [PL 11.145](#)

## Removal



### WARNING

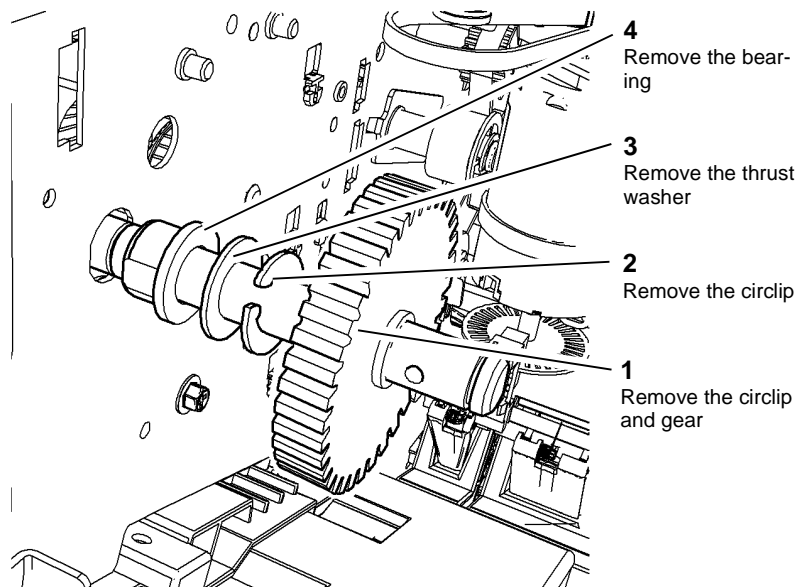
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front and rear covers [REP 11.1-171](#).
2. Remove the stacker motor and gear assembly [REP 11.12-171](#).
3. Remove the shaft rear bearing, [Figure 1](#).

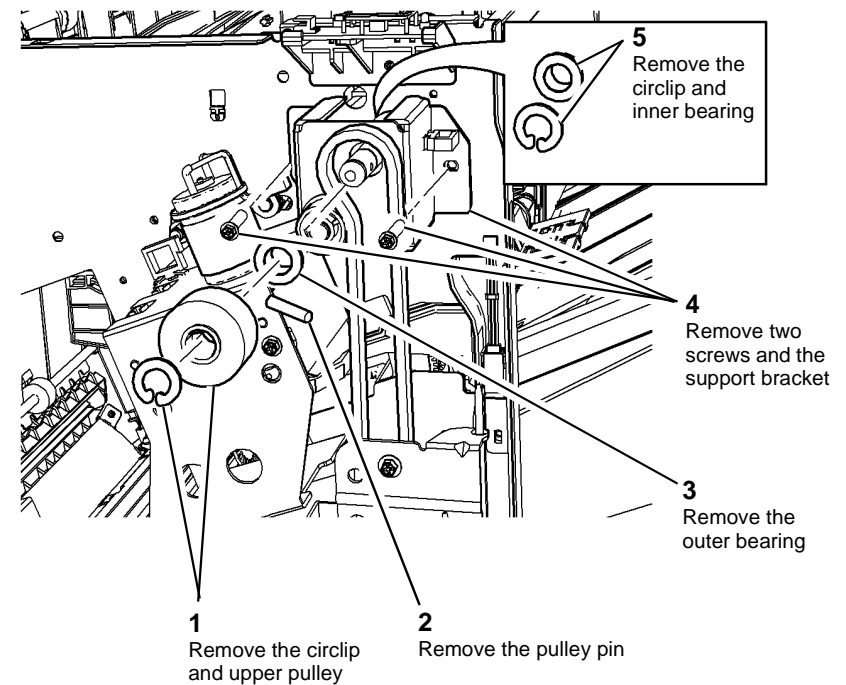


T-1-0796-A

Figure 1 Stacker shaft rear bearing

**NOTE:** The upper pulley pin may fall when the pulley is removed.

4. Remove the stacker shaft front bearings, [Figure 2](#).



T-1-0797-A

Figure 2 Stacker shaft front bearings

## Replacement

Reverse the removal procedures to reinstall the stacker driving shaft front and rear bearings.

**NOTE:** Make sure that the 'flats' on the bearing align with the cut-outs in the bracket or frame.

# REP 11.38-171 HVF Stacker Bin 1 Main Drive Belts

Parts List on [PL 11.135](#)

## Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

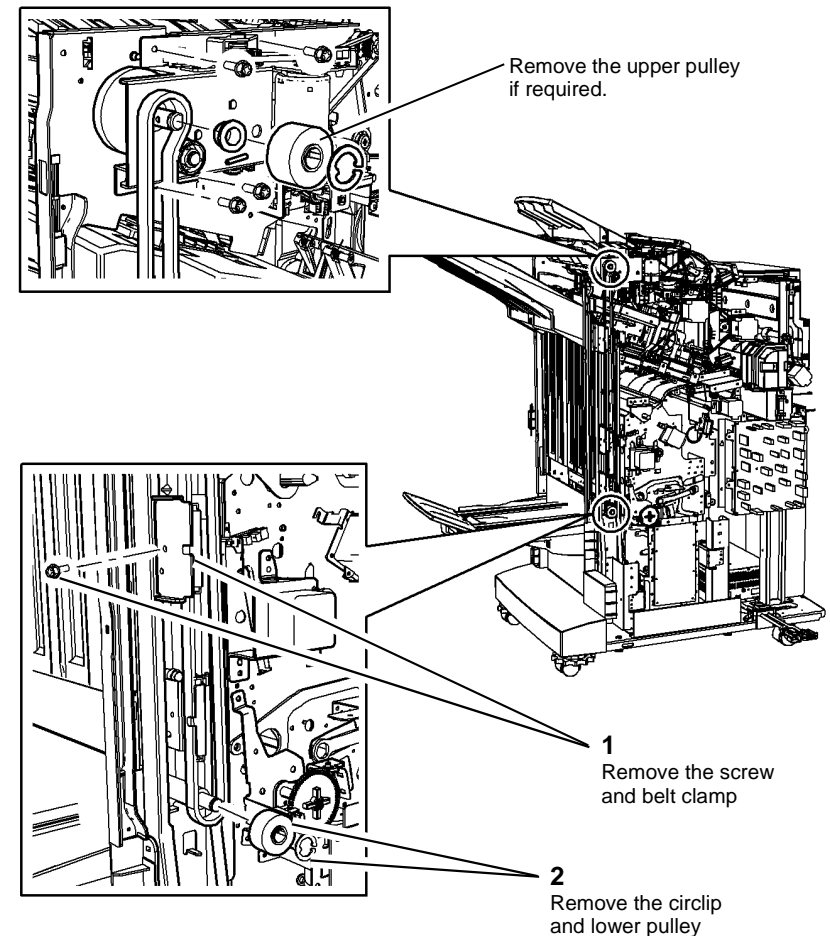
  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** The removal and replacement procedure for the front and rear stacker driving belts is the same. Support the Bin 1 lift bar if removing the front and rear belts at the same time

1. Remove the front or rear cover to access the front or rear driving belt, [REP 11.1-171](#).
2. Remove the stacker bin 1 tray, [REP 11.4-171](#).

3. Remove the driving belt from the upper pulley and idler, [Figure 1](#).



T-1-0798-A

Figure 1 Main drive belt removal

## Replacement

Reverse the removal procedures to reinstall the front and rear stacker driving belts.

**NOTE:** Check that the bin 1 lift bar is level before fitting the belt clamp.

# REP 11.39-171 HVF BM Diverter Gate

Parts List on [PL 11.153](#)

## Removal



### WARNING

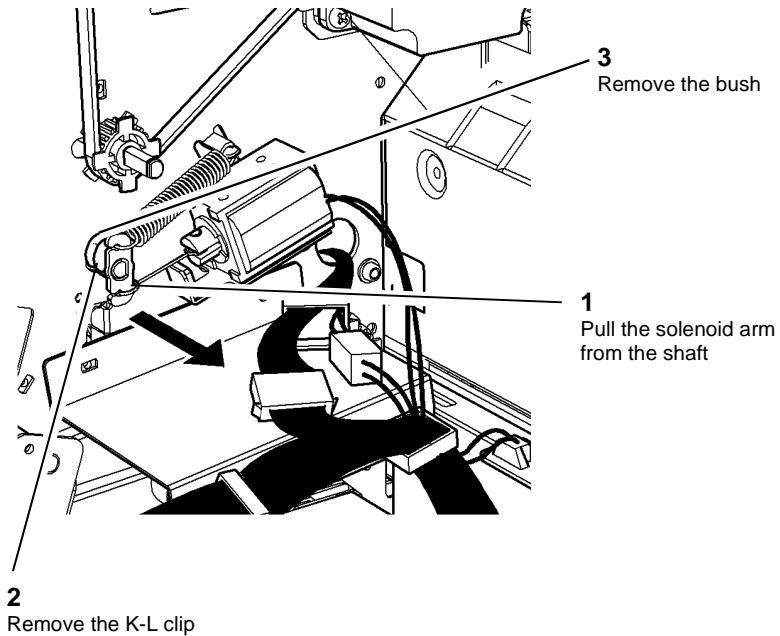
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, top cover, front cover and rear cover, [REP 11.1-171](#).
2. Remove the rear components, [Figure 1](#).

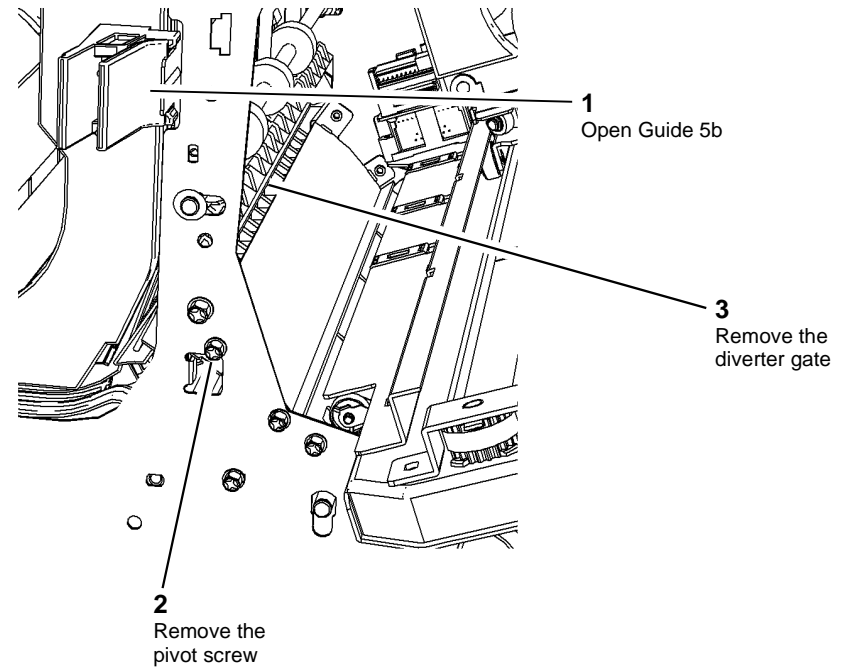


REAR VIEW

T-1-0799-A

Figure 1 Rear components removal

3. [Figure 2](#). Remove the BM diverter gate.



T-1-0800-A

Figure 2 Diverter removal

## Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.40-171 HVF Input Roll

Parts List on [PL 11.155](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, top cover, front cover and rear cover, [REP 11.1-171](#).
2. [Figure 1](#). Remove the black plastic cover.

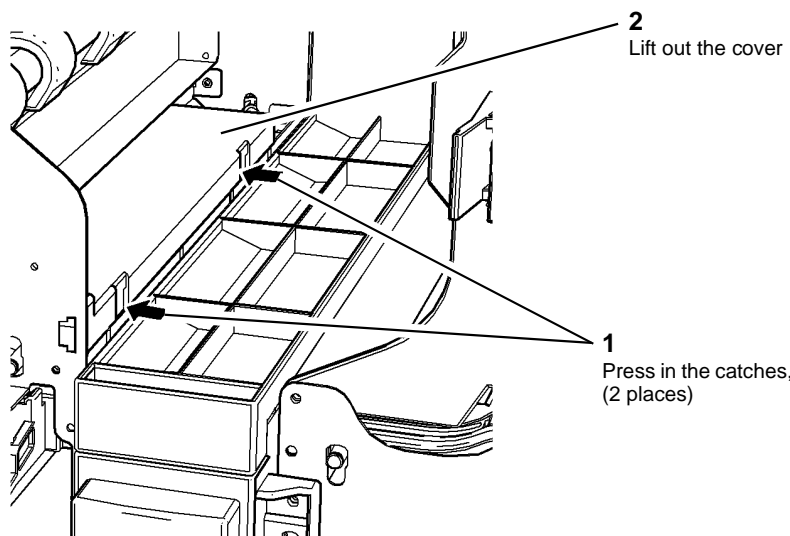


Figure 1 Cover removal

T-1-0801-A

3. [Figure 2](#). At the front of the HVF, remove the circlip and bush.

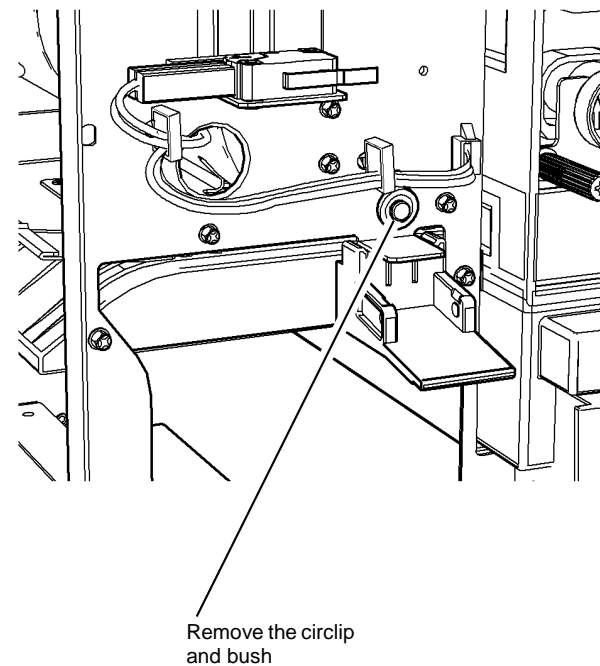
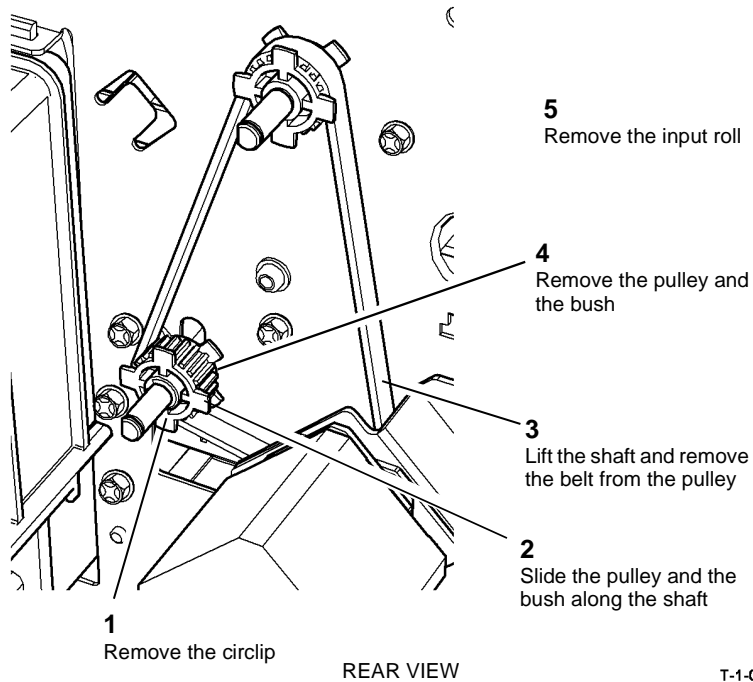


Figure 2 Circlip and bush removal

T-1-0802-A

4. **Figure 3.** At the rear of the HVF, remove the input roll.



**Figure 3** Input roll removal

T-1-0803-A

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.41-171 HVF Inserter Guide Roll

Parts List on **PL 11.155**

### Removal

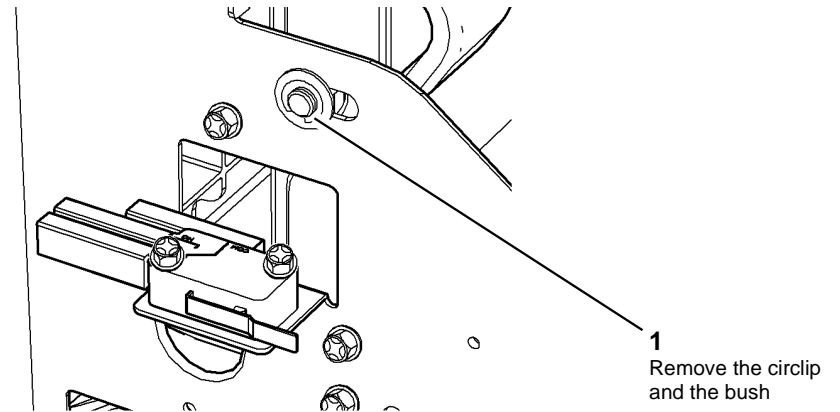


Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

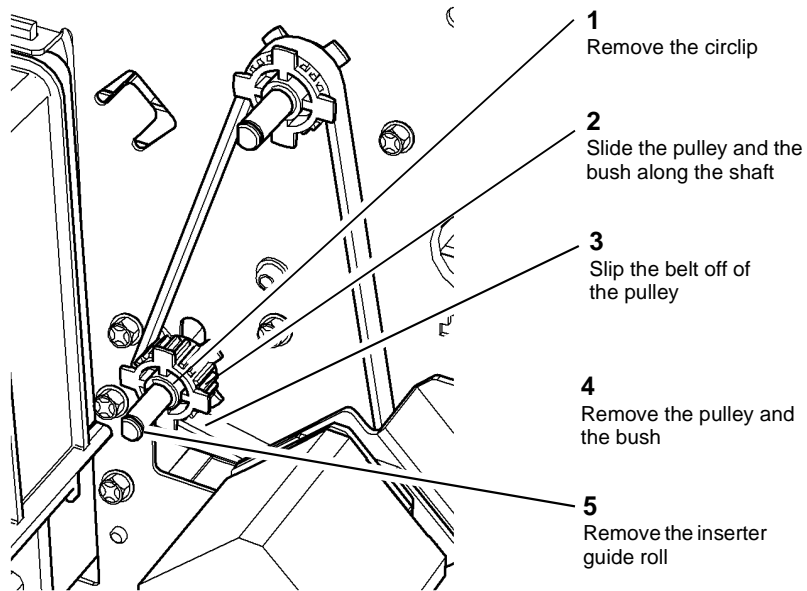
1. Remove the HVF front door, top cover, front cover and rear cover, **REP 11.1-171**.
2. Open guide 8a.
3. **Figure 1.** At the front of the HVF, remove the circlip and the bush.



T-1-0804-A

**Figure 1** Circlip and bush removal

4. **Figure 2.** At the rear of the HVF, remove the inserter guide roll.



REAR VIEW

T-1-0805-A

**Figure 2** Inserter guide roll removal

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.42-171 HVF Buffer Pocket Roll

Parts List on **PL 11.155**

### Removal

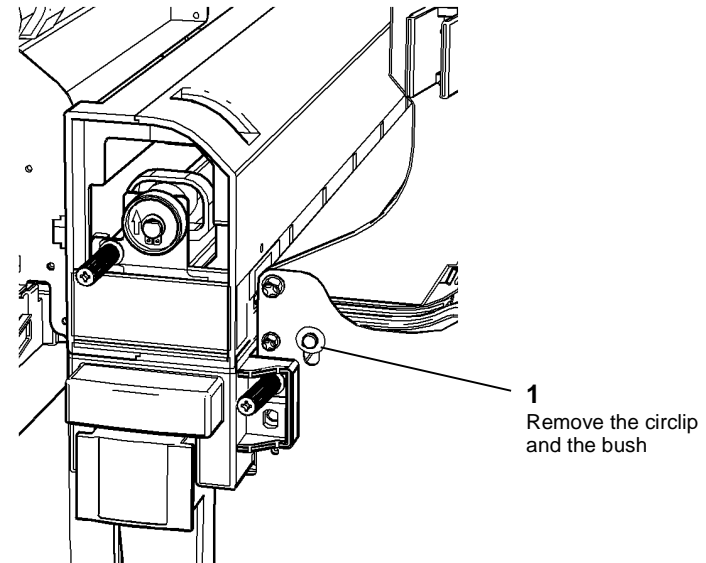


Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, top cover, front cover and rear cover, **REP 11.1-171**.
2. Remove the punch unit, or the punch unit guide, as appropriate.
3. **Figure 1.** At the front of the HVF, remove the circlip and bush.



1. Remove the circlip and the bush

T-1-0806-A

**Figure 1** Circlip and bush removal



- At the rear of the HVF, remove the buffer pocket roll. The bracket can be moved if necessary, to improve access, (two screws), [Figure 2](#).

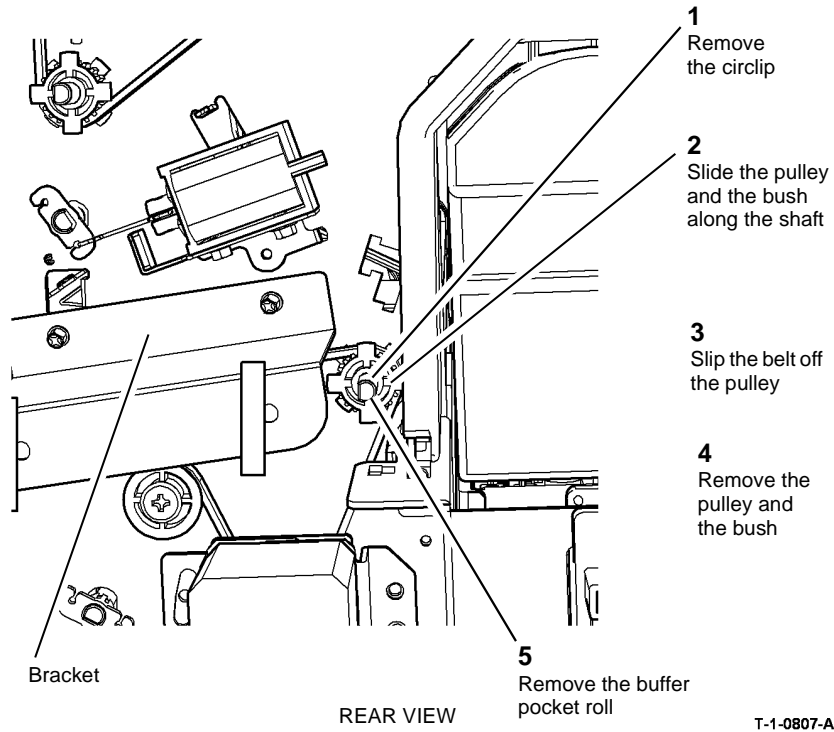


Figure 2 Buffer pocket roll removal

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.43-171 HVF Booklet Entrance Roll

Parts List on [PL 11.155](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the HVF front door, top cover front cover and rear cover, [REP 11.1-171](#).
- [Figure 1](#). Remove the circlip and bush at the outboard end of the roll.

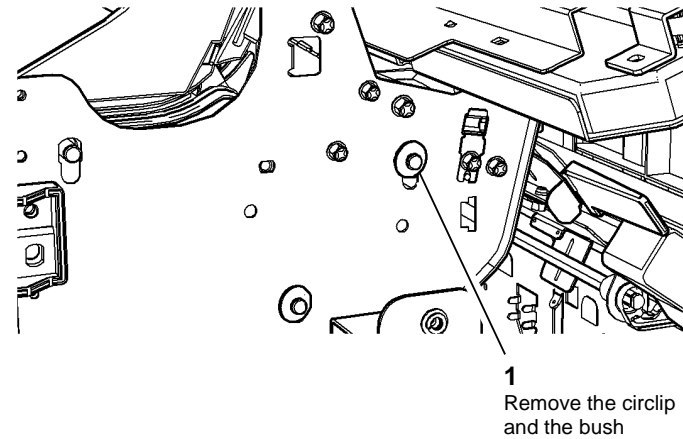
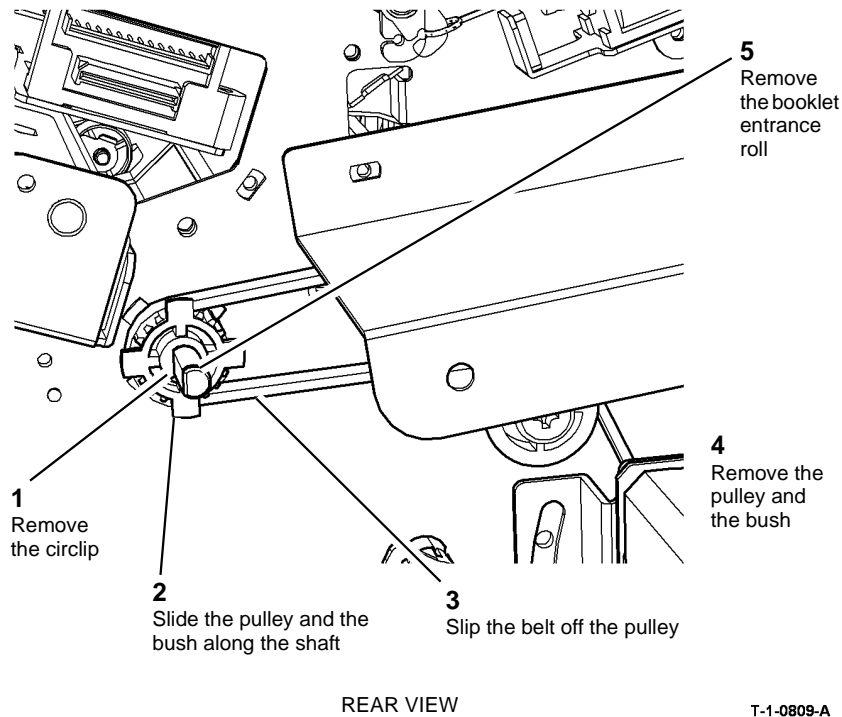


Figure 1 Circlip and bush removal

3. **Figure 2.** At the rear of the HVF, remove the booklet entrance roll.



**Figure 2 Booklet entrance roll removal**

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.44-171 HVF Buffer Lower Roll

Parts List on **PL 11.155**

### Removal

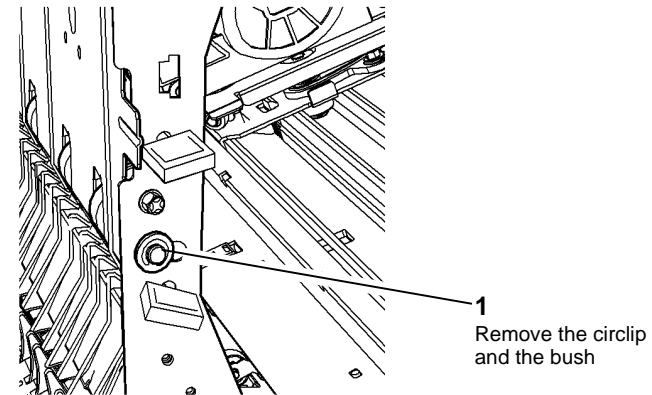


Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

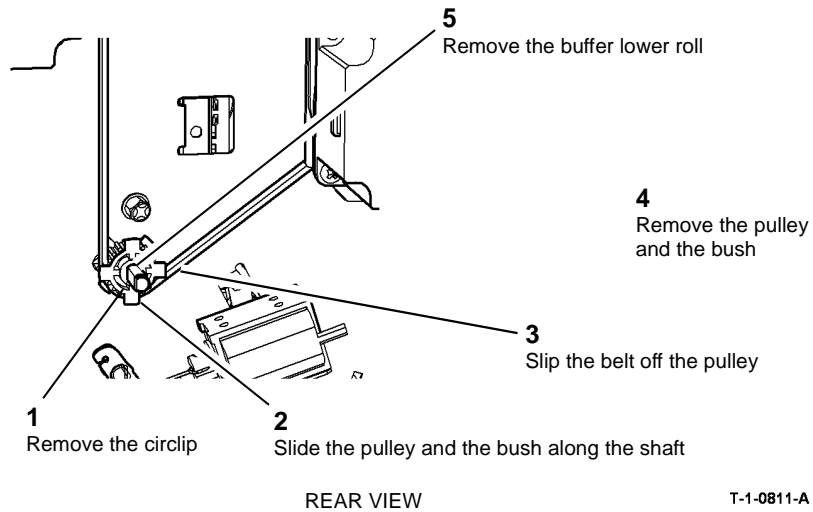
1. Remove the HVF front door, top cover, front cover and rear cover, **REP 11.1-171**.
2. Open jam clearance guide 5b.
3. **Figure 1.** Remove the circlip and the bush from the outboard end of the roll.



**Figure 1 Circlip and bush removal**

T-1-0810-A

4. **Figure 2.** At the rear of the HVF, remove the buffer lower roll.



**Figure 2 Buffer lower roll removal**

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.45-171 HVF Buffer Upper Roll

Parts List on **PL 11.155**

### Removal

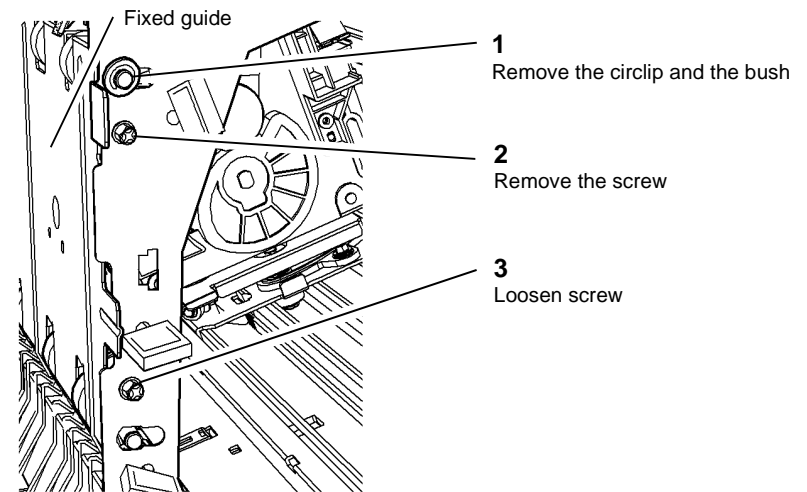


Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



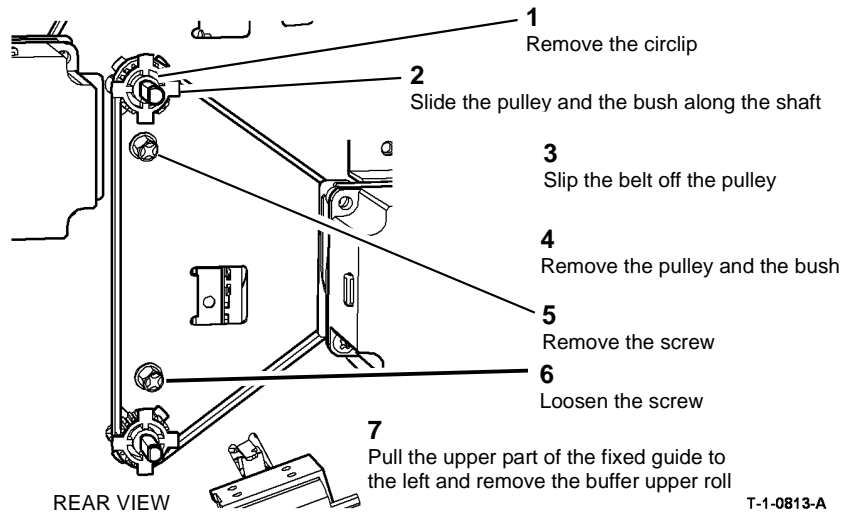
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front door, top cover, front cover and rear cover, **REP 11.1-171**.
2. **Figure 1.** Remove the circlip and the bush.



**Figure 1 Circlip and bush removal**

3. [Figure 2](#). Remove the buffer upper roll.



**Figure 2 Buffer upper roll removal**

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.46-171 HVF Stacker Exit Feed Roll

Parts List on [PL 11.155](#)

### Removal

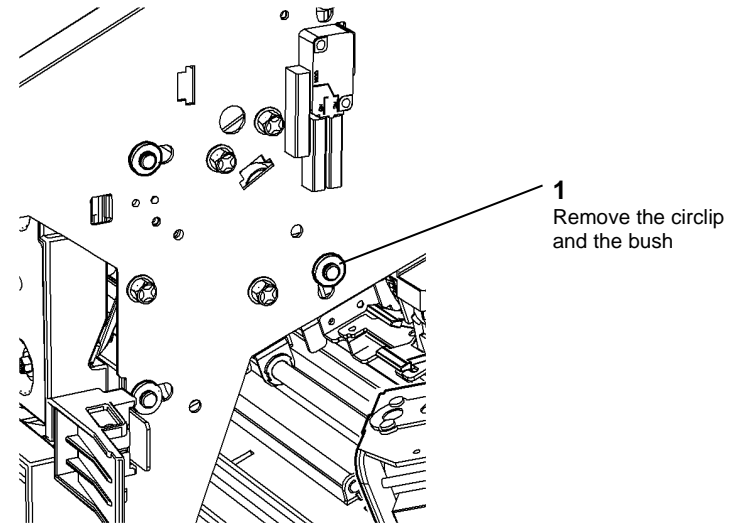


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

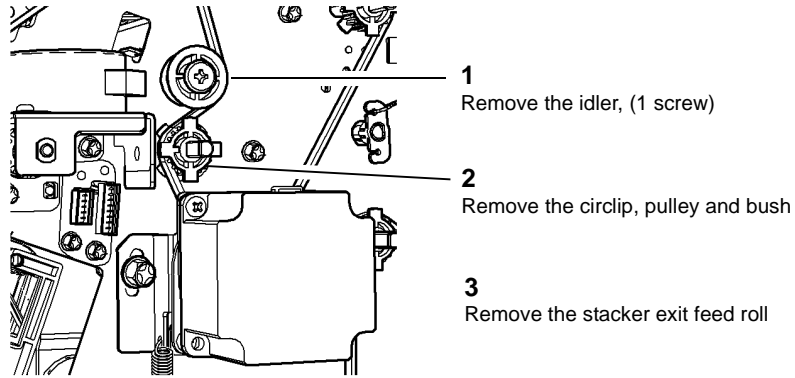
1. Remove the HVF front door, top cover, front cover and rear cover, [REP 11.1-171](#).
2. [Figure 1](#). Remove the circlip and bush



T-1-0814-A

**Figure 1 Circlip and bush removal**

3. [Figure 2](#). Remove the stacker exit feed roll.



REAR VIEW

T-1-0815-A

**Figure 2 Stacker exit feed roll removal**

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.47-171 HVF Top Exit Feed Roll

Parts List on [PL 11.155](#)

### Removal

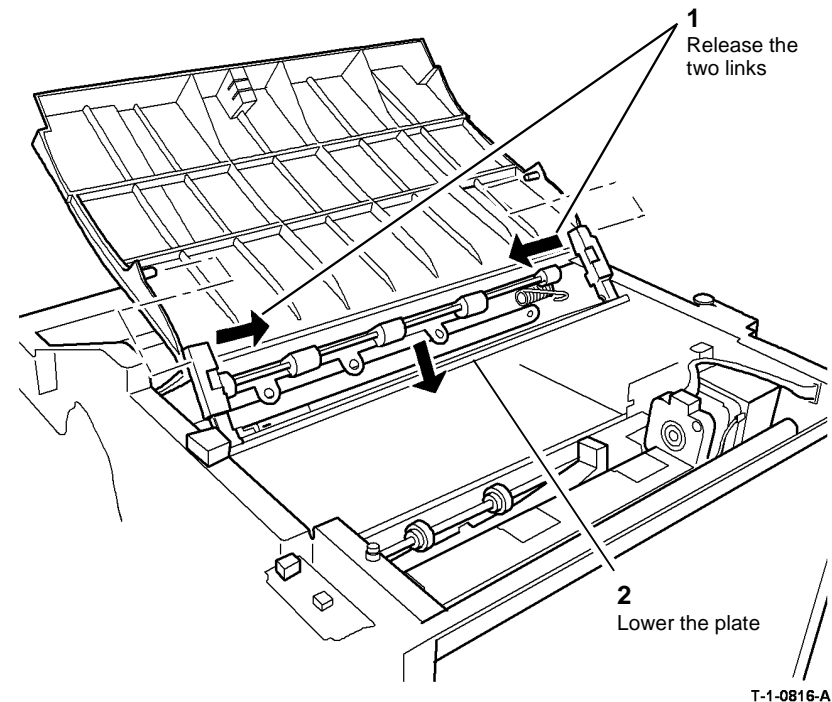


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

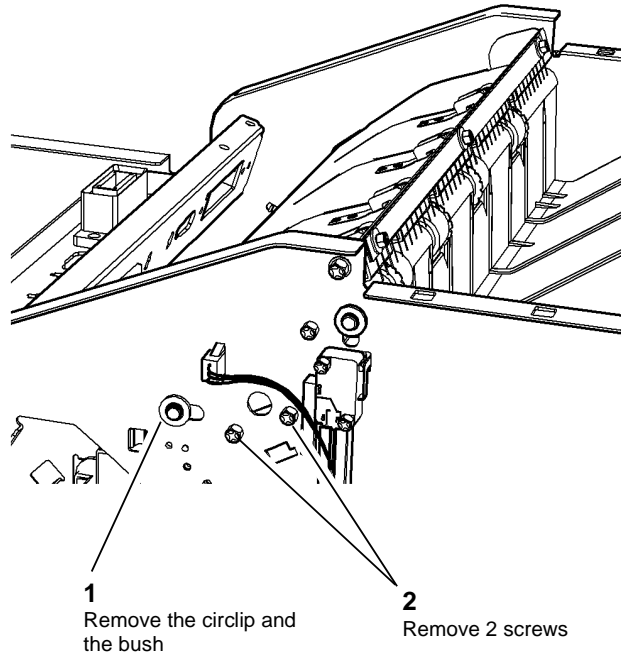
1. If fitted, undock the inserter, [REP 11.82-171](#).
2. Remove the HVF front door, top cover, front cover and rear cover, [REP 11.1-171](#).
3. [Figure 1](#). Raise the top tray and lower the plate beneath it.



T-1-0816-A

**Figure 1 Lowering the plate**

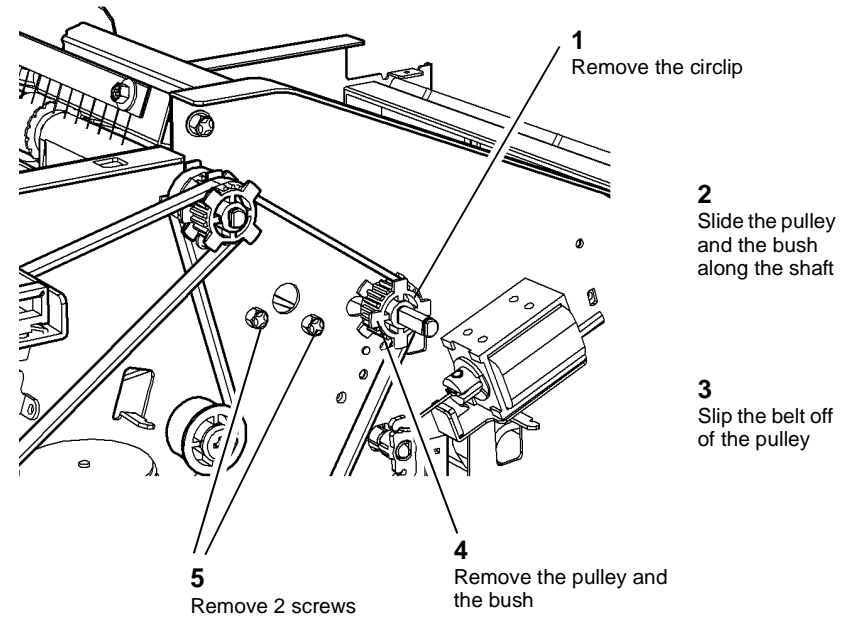
4. **Figure 2.** Remove the circlip and bush. Remove the front magnet bracket screws.



**Figure 2** Feed roll front fasteners

T-1-0817-A

5. **Figure 3.** At the rear of the HVF, Remove the circlip, bush, pulley and the rear screws from the magnet bracket.

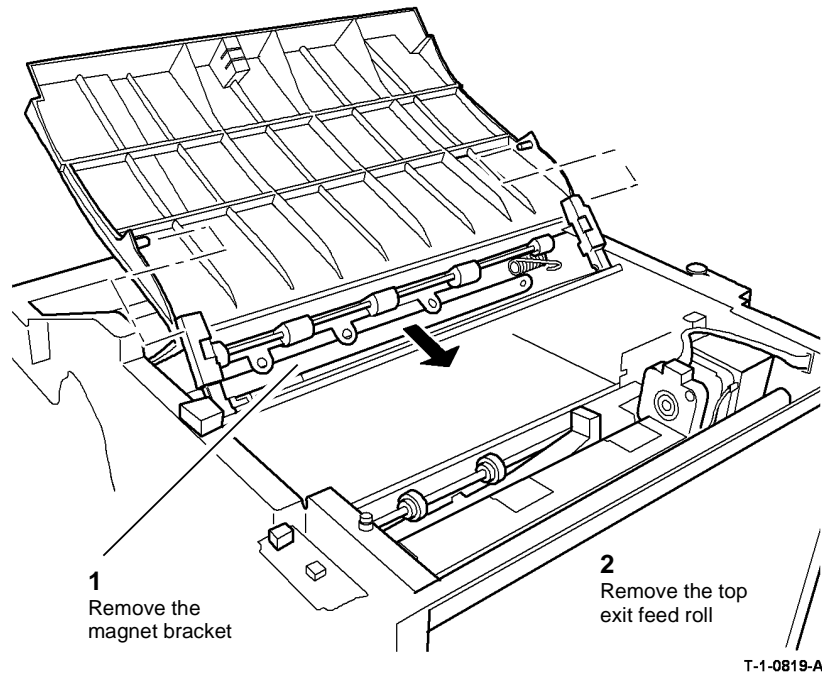


REAR VIEW

**Figure 3** Rear component removal

T-1-0818-A

6. **Figure 4.** Remove the top exit feed roll.



**Figure 4** Top exit feed roll removal

### Replacement

The replacement procedure is the reverse of the removal procedure.

## REP 11.48-171 Paddle Module Driving Motor Assembly

Parts List on **PL 11.150**

### Removal



**WARNING**

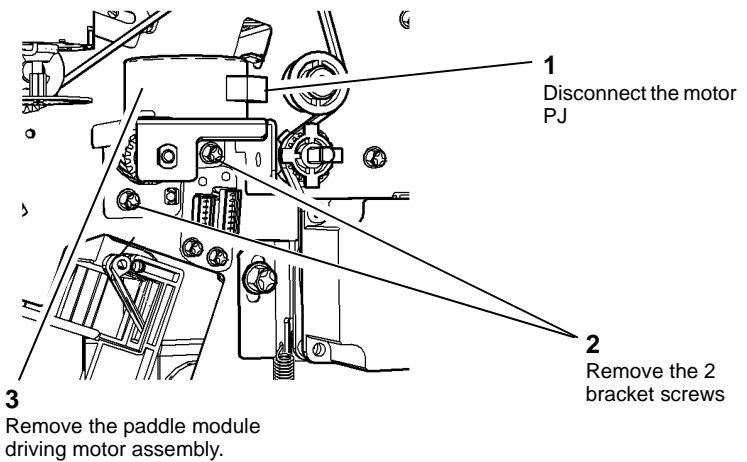
Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover **REP 11.1-171**.
2. Remove the paddle motor assembly, **Figure 1**.



**Figure 1** Motor assembly removal

### Replacement

Reverse the removal procedures to replace the compiler paddle module driving motor assembly.

# REP 11.49-171 Compiler Paddle Module

Parts List on [PL 11.145](#)

## Removal



### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front, rear and top covers [REP 11.1-171](#).
2. Remove the HVF stapler assembly, [REP 11.2-171](#).
3. Remove the paddle module driving motor assembly, [REP 11.48-171](#).

**NOTE:** The motor coupler should detach with the motor assembly. If the coupler fails to detach, remove the coupler from the paddle module assembly.

4. Remove the compiler paddle module, [Figure 1](#).

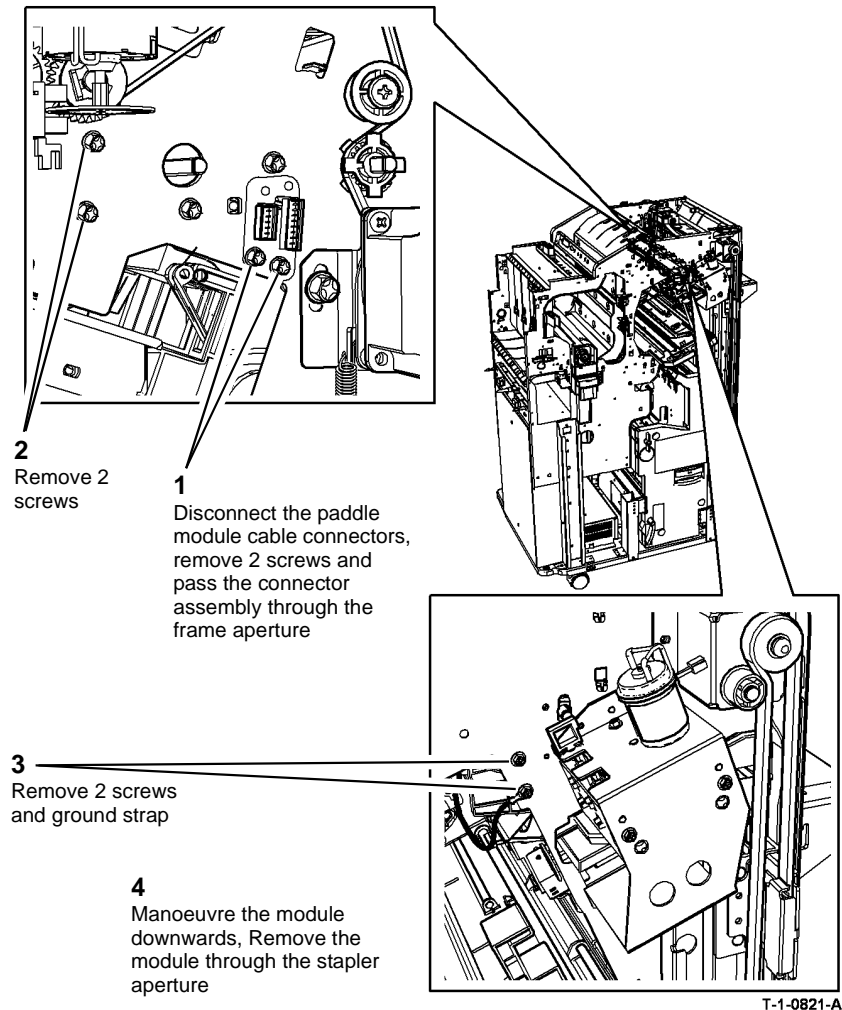


Figure 1 Paddle module attachment

## Replacement



### CAUTION

Do not damage or strain the paddle module ribbon cables or connectors

1. Reverse the removal procedures to replace the compiler paddle module.
2. Use the correct screws to secure the compiler paddle module; do not overtighten [GP 6](#).



## REP 11.50-171 BM Exit Sensor

Parts List on [PL 11.168](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the BM right hand cover, [REP 11.56-171](#).
2. Remove the upper static eliminator (3 screws), [PL 11.168 Item 18](#).
3. [Figure 1](#), remove the BM exit sensor.

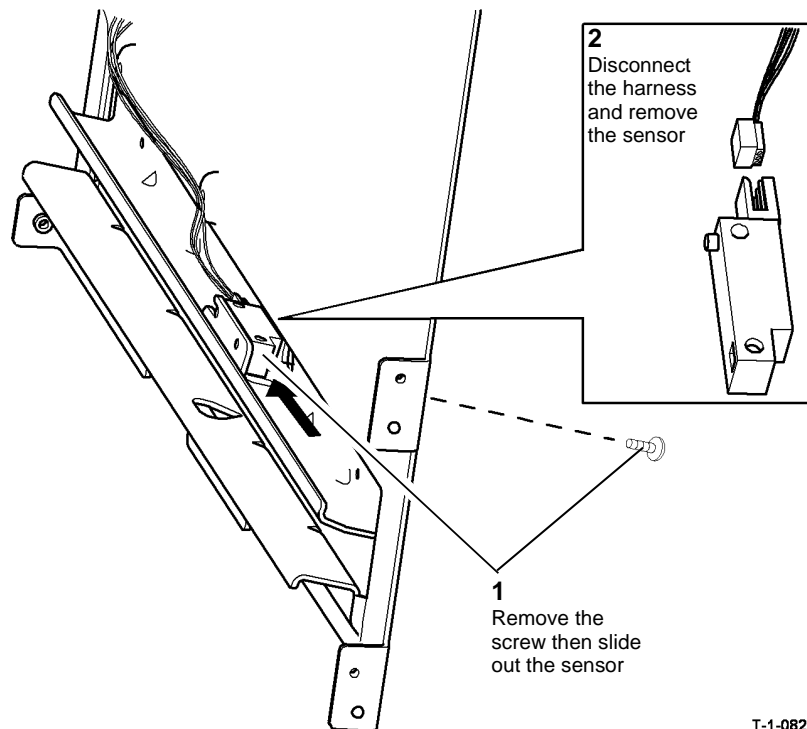


Figure 1 Sensor removal

T-1-0822-A

### Replacement

Reverse the removal procedure to replace the BM exit sensor.

## REP 11.51-171 Compiler Paper Pusher Motor Assembly

Parts List on [PL 11.145](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top and rear covers [REP 11.1-171](#).
2. Remove the paper pusher motor assembly, [Figure 1](#).

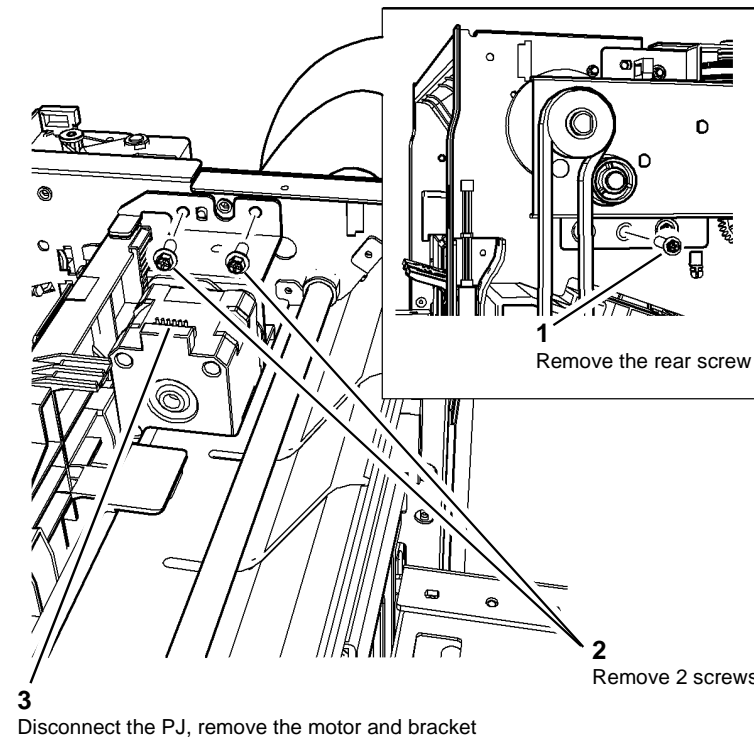


Figure 1 Paper pusher motor assembly

T-1-0823-A

### Replacement

Reverse the removal procedures to reinstall the compiler paper pusher motor assembly.

## REP 11.52-171 BM Crease Rolls, Gears, Clutch and Bearings

Parts List on [PL 11.167](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

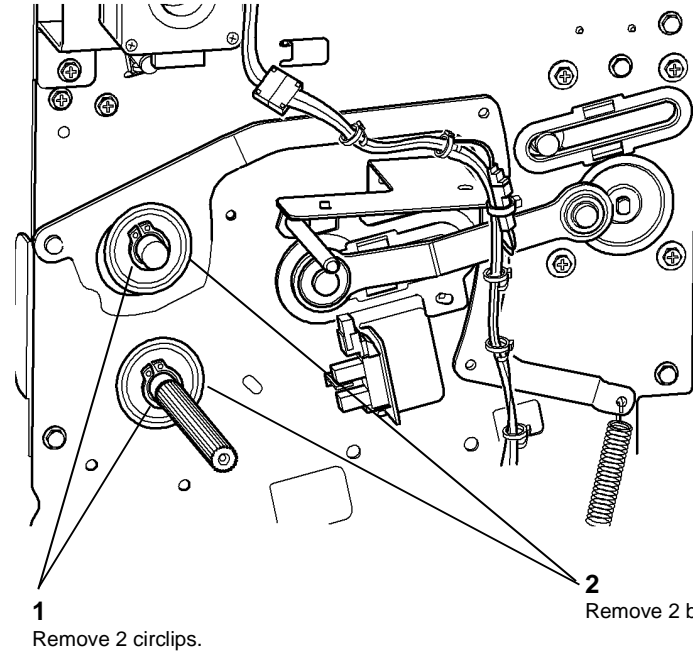


#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.
2. Release the crease roll nip pressure by fully rotating the crease roll handle (6c) counter-clockwise.
3. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
4. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
5. Remove the BM front cover, [PL 11.161 Item 3](#).
6. Remove the BM right hand cover, [REP 11.56-171](#).
7. Remove the BM crease roll motor, [REP 11.19-171](#), but do not disconnect the motor harness or remove the motor from the mounting plate.

8. [Figure 1](#), remove the rear bearings.



T-1-0824-A

Figure 1 Rear bearing removal

9. Temporarily attach the BM crease roll motor using only the top screw.
10. Temporarily attach the PWB mounting plate using only the top two screws.
11. Fully pull out the BM module.

12. Figure 2, prepare to remove the upper crease roll.

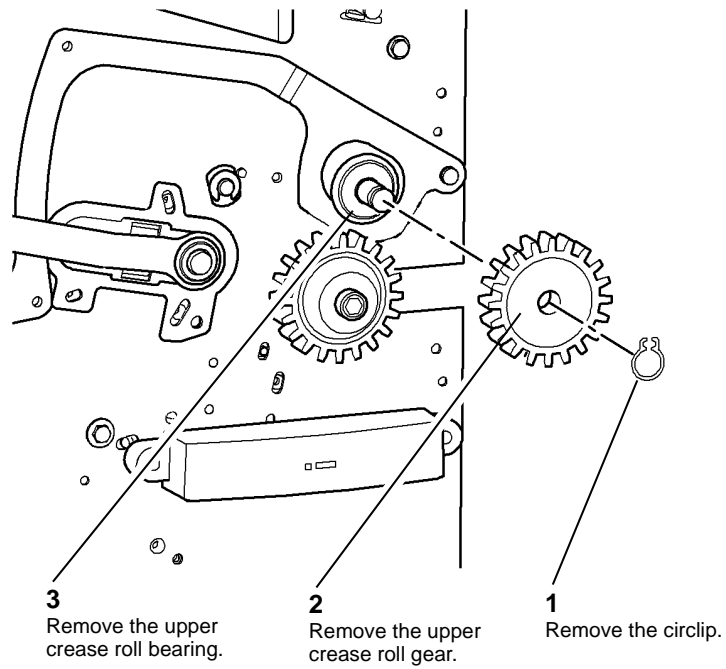


Figure 2 Preparation

T-1-0825-A

13. Figure 3, remove the upper crease roll.

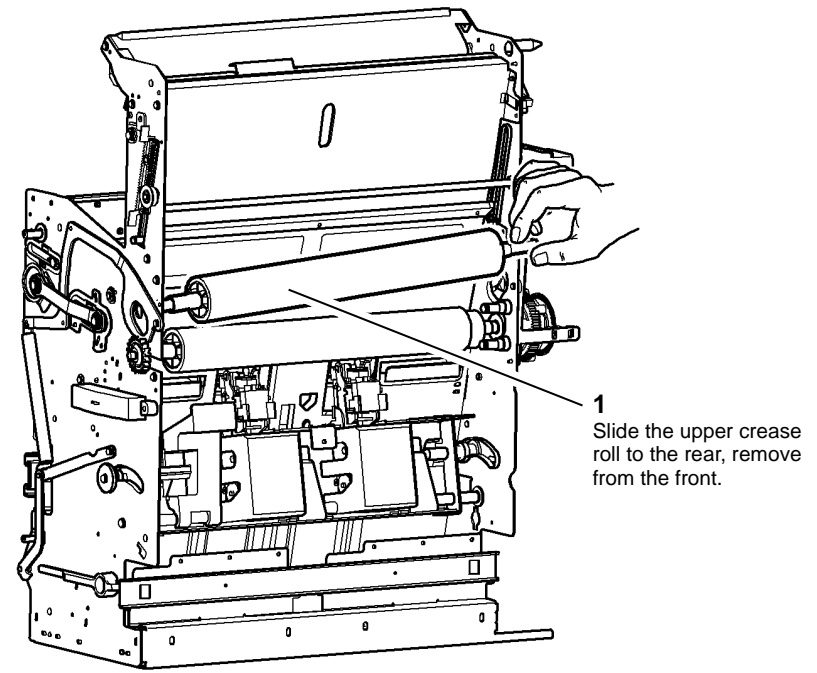
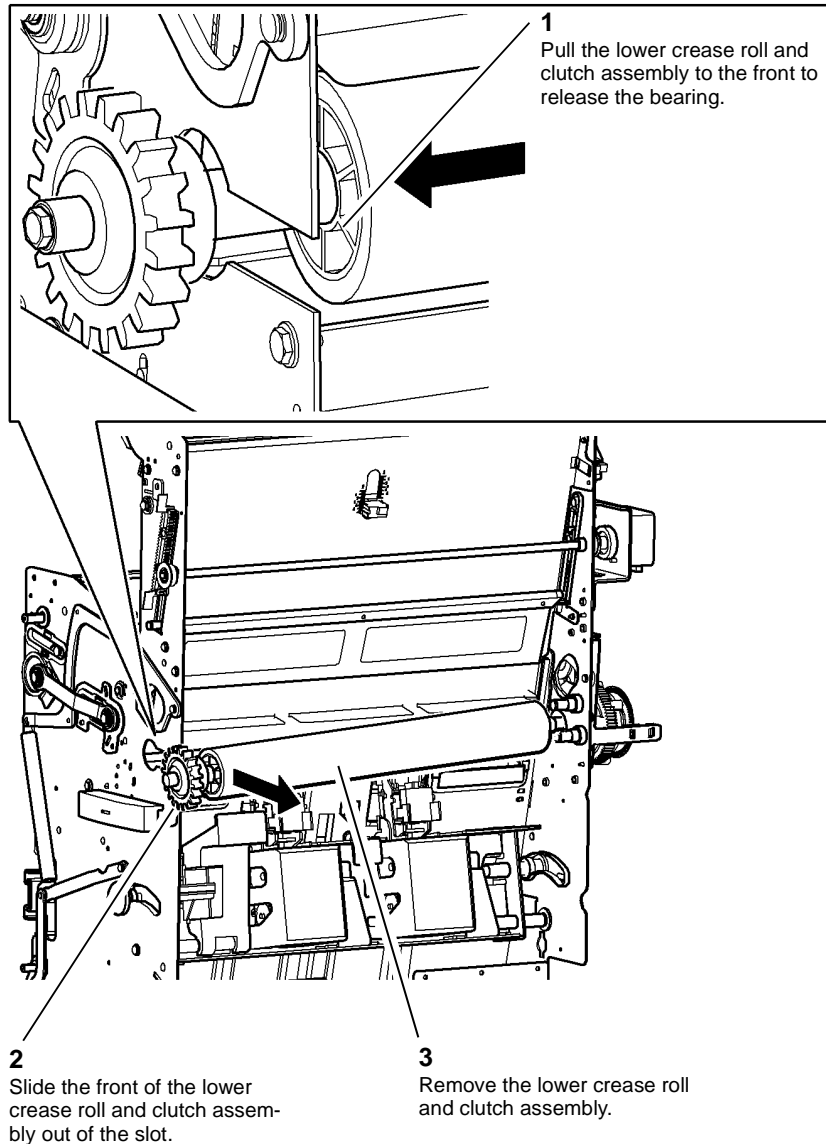


Figure 3 Upper crease roll removal

T-1-0826-A

14. **Figure 4**, remove the lower crease roll and clutch assembly.



T-1-0827-A

**Figure 4** Lower crease roll and clutch assembly

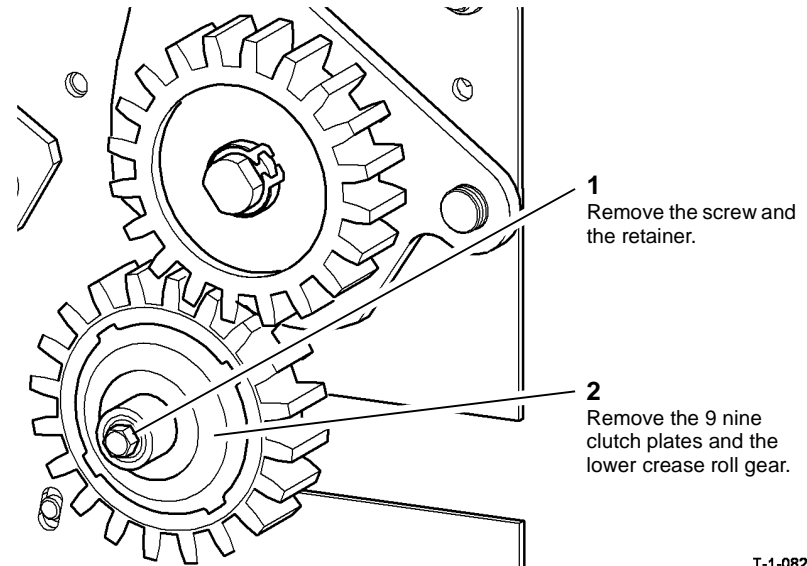
## Replacement



### CAUTION

*Do not remove the crease roll and clutch assembly if they are secure on the shaft.*

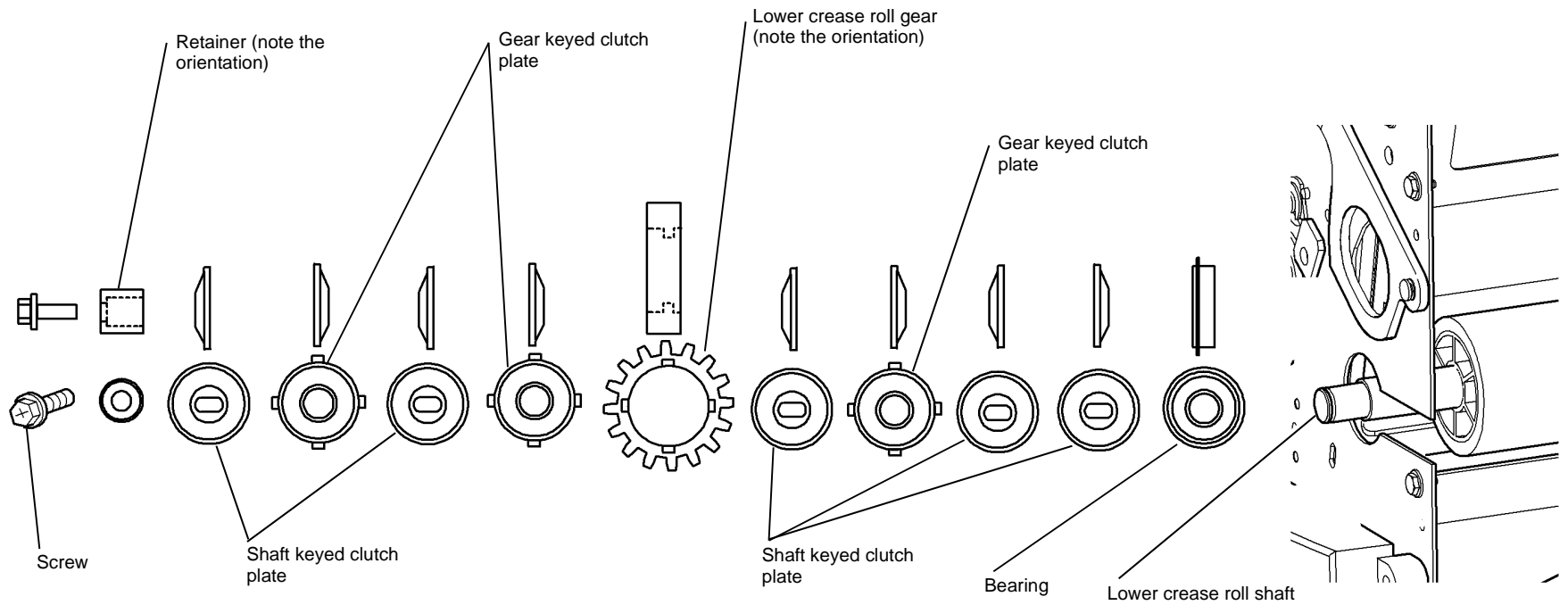
1. Install the lower crease roll and clutch assembly and bearings.
2. Check if the lower crease roll gear and clutch assembly are secure on the shaft. If the lower crease roll gear and clutch assembly wobble, perform the following:
  - a. **Figure 5**, remove the clutch.



T-1-0828-A

**Figure 5** Clutch removal

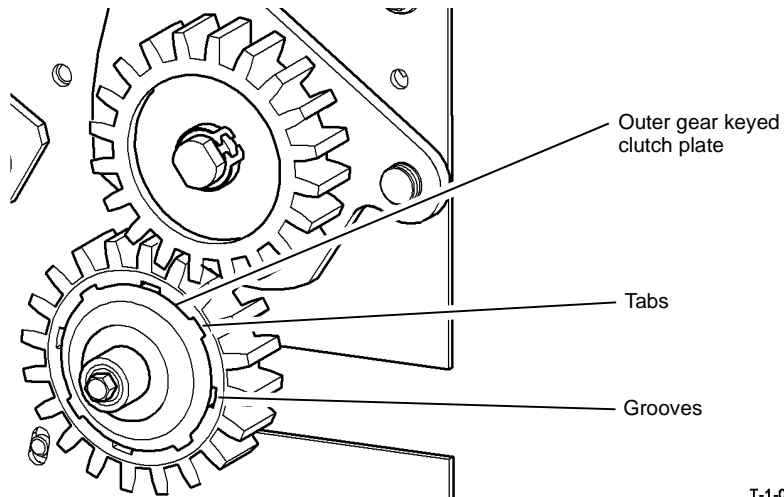
- b. **Figure 6**, carefully identify the lower crease roll gear and clutch assembly components. Reassemble the components on the lower crease roll shaft in sequence from 1 to 12. Ensure the following points are followed:
- Components are orientated correctly as shown in **Figure 6**.
  - The shallow grooves in the bore of the gear face towards the rear and mate with the teeth of the clutch plate.
  - The deep grooves in the bore of the gear face towards the front and mate with the teeth of the clutch plates subsequently installed on the shaft.
  - The spring retainer is installed over the end the shaft.



T-1-0829-A

**Figure 6 Clutch components**

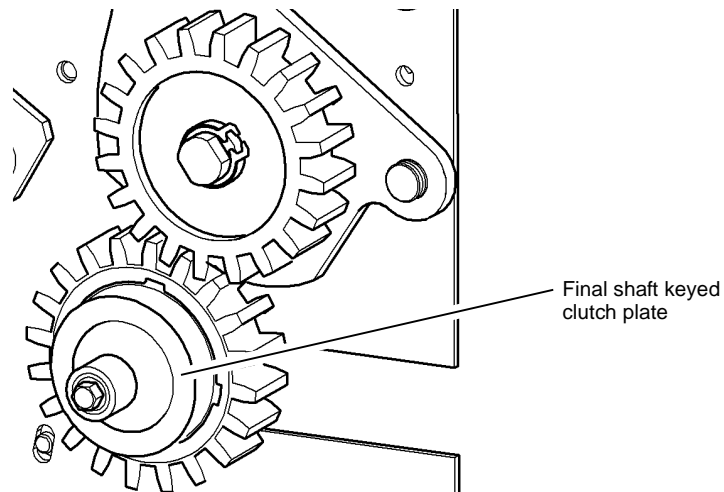
- c. **Figure 7**, Ensure that the tabs of the outer gear keyed clutch plate are not outside of the grooves in the gear.



**Figure 7** Outer gear keyed clutch plate

T-1-0830-A

- d. **Figure 8**, ensure that the final shaft keyed clutch plate does not come off of the shaft during installation.



**Figure 8** Outer gear keyed clutch plate

T-1-0831-A

- e. Tighten the screw on the front end of the shaft until it reaches a hard stop.  
 f. Check that the lower crease roll gear and clutch assembly is secure on the shaft. If necessary, repeat steps A to D.
3. Install the remainder of the removed components by reversing the removal procedure.

## REP 11.53-171 Compiler Paper Pusher

### Parts List on [PL 11.145](#)

#### Removal

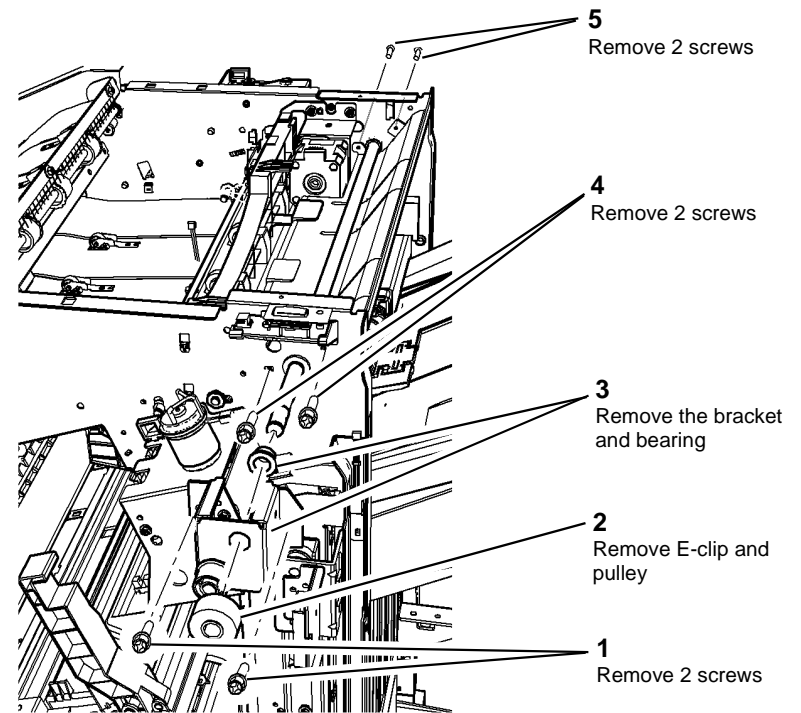


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front, rear and top covers [REP 11.1-171](#).
2. Remove the stacker motor gearbox, [REP 11.12-171](#).
3. Remove components, [Figure 1](#).



**Figure 1** Components removal

T-1-0832-A

4. Remove the pusher driving motor assembly, [REP 11.51-171](#).

5. Remove the pusher sensor assembly, [REP 11.54-171](#).
6. Remove the pusher module, [Figure 2](#). The mylar strips and dampers are attached to the pusher module.

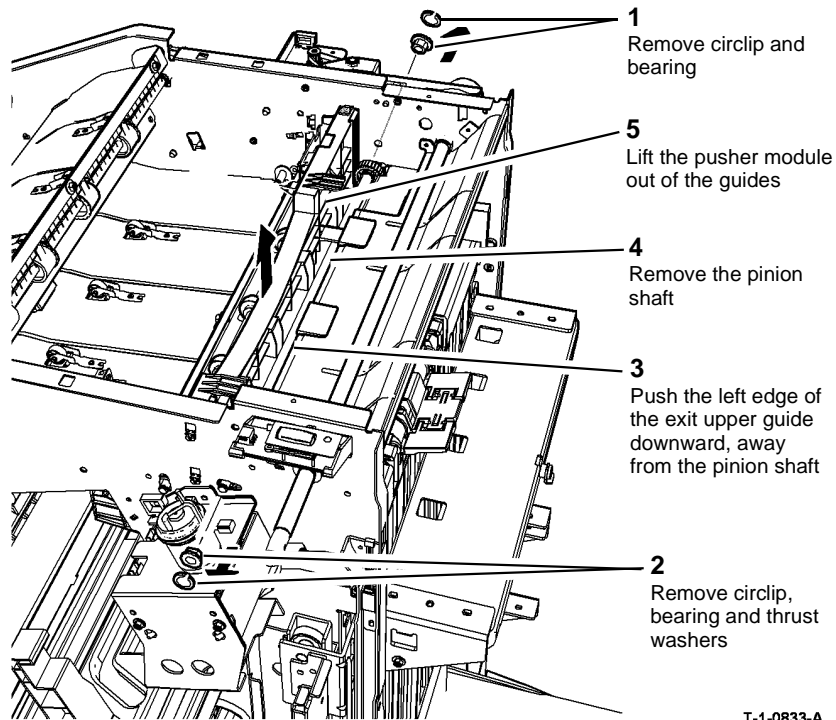


Figure 2 Pusher module removal

T-1-0833-A

### Replacement

Reverse the removal procedures to reinstall the compiler paper pusher.

## REP 11.54-171 Sensor Assembly

Parts List on [PL 11.145](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF top cover [REP 11.1-171](#).
2. Remove the sensor assembly, [Figure 1](#).

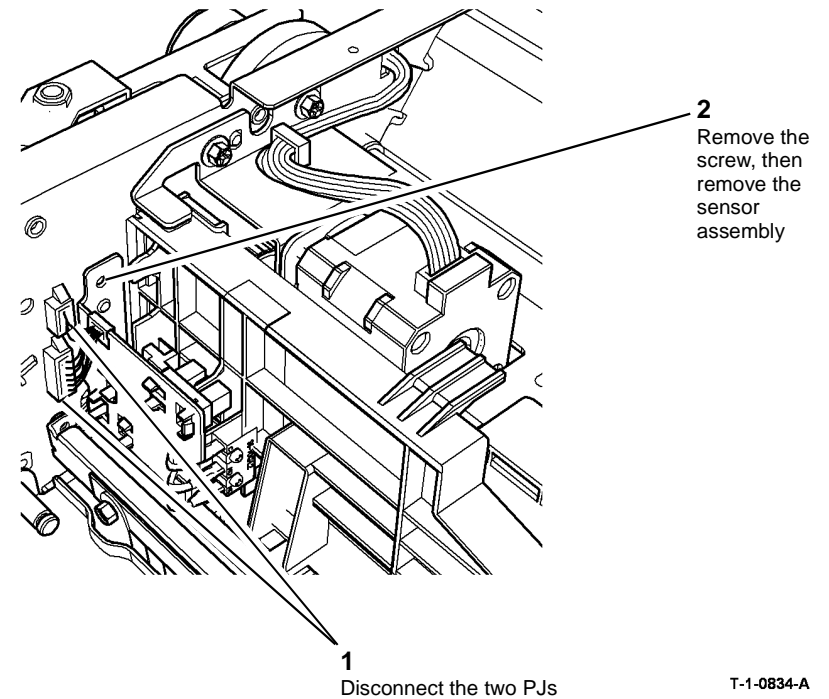


Figure 1 Sensor assembly

T-1-0834-A

### Replacement

Reverse the removal procedures to replace the sensor assembly.

# REP 11.55-171 HVF Power Supply Unit

Parts List on [PL 11.157](#)

## Removal

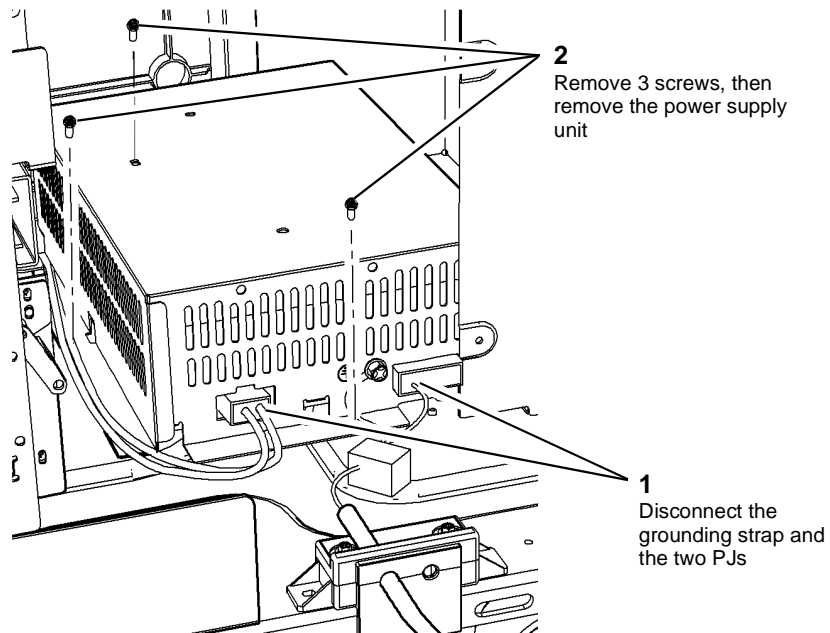


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front and rear covers [REP 11.1-171](#).
2. Remove the HVF power supply unit, [Figure 1](#).



T-1-0835-A

Figure 1 HVF PSU

## Replacement

Reverse the removal procedures to replace the HVF power supply unit.



## REP 11.56-171 BM Right Hand Cover

Parts List on [PL 11.168](#)

### Removal



#### **WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### **WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the top cover, then the rear cover, [REP 11.1-171](#).
2. Open the BM front door and fully pull out the BM module.
3. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
4. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
5. Remove the BM front cover, [PL 11.161 Item 3](#).
6. [Figure 1](#), Prepare to remove the BM right hand cover.

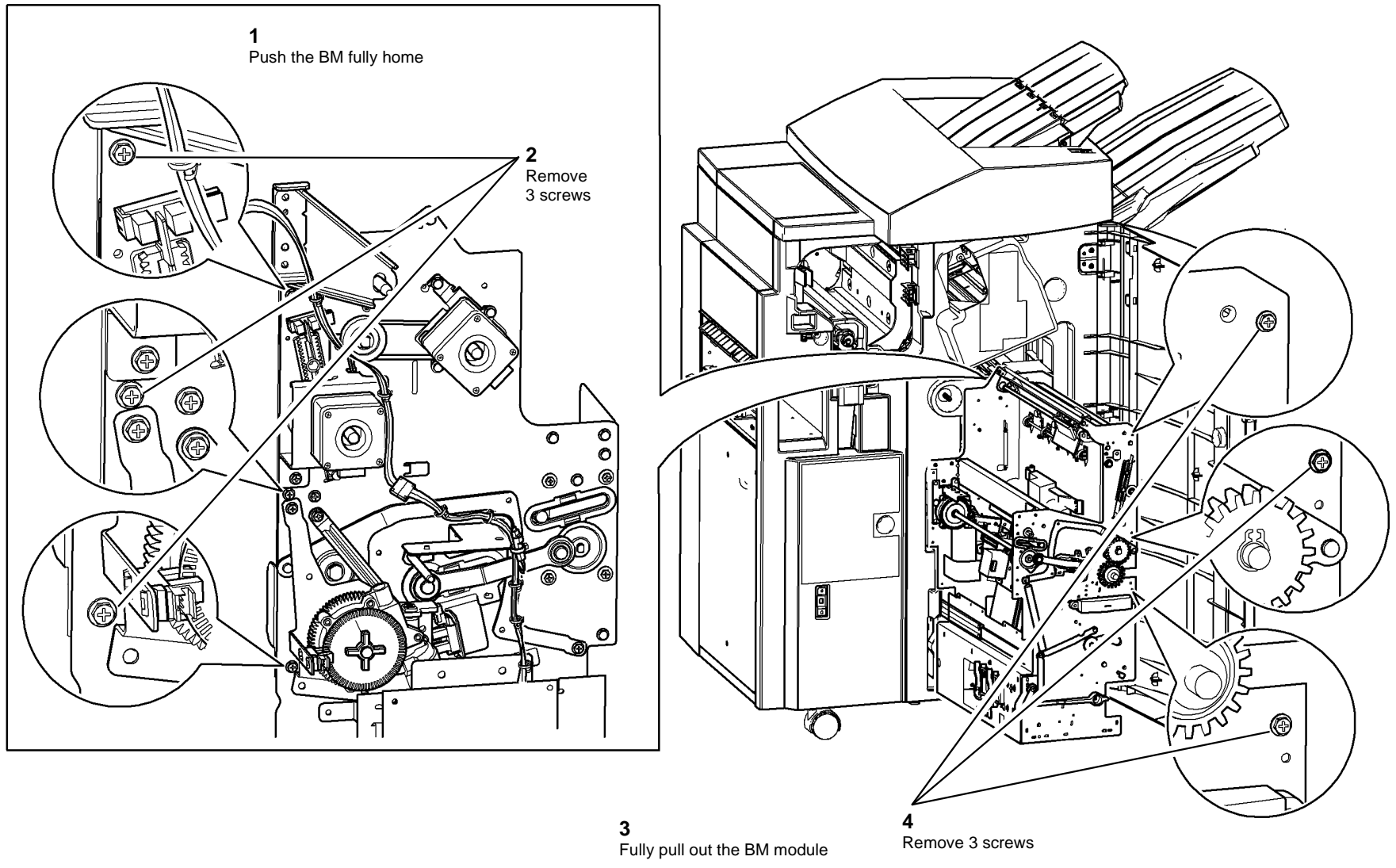
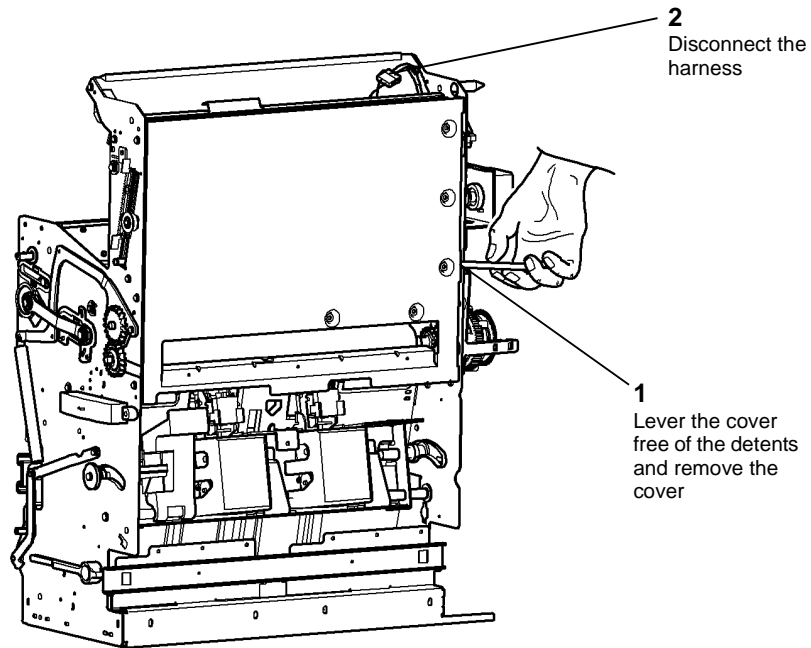


Figure 1 Preparation

T-1-0836-A

7. Figure 2, remove the BM right hand cover.



T-1-0837-A

Figure 2 Cover removal

### Replacement

Reverse the removal procedure to replace the BM right hand cover.

## REP 11.57-171 HVF Main PWB

Parts List on [PL 11.157](#)

### Removal

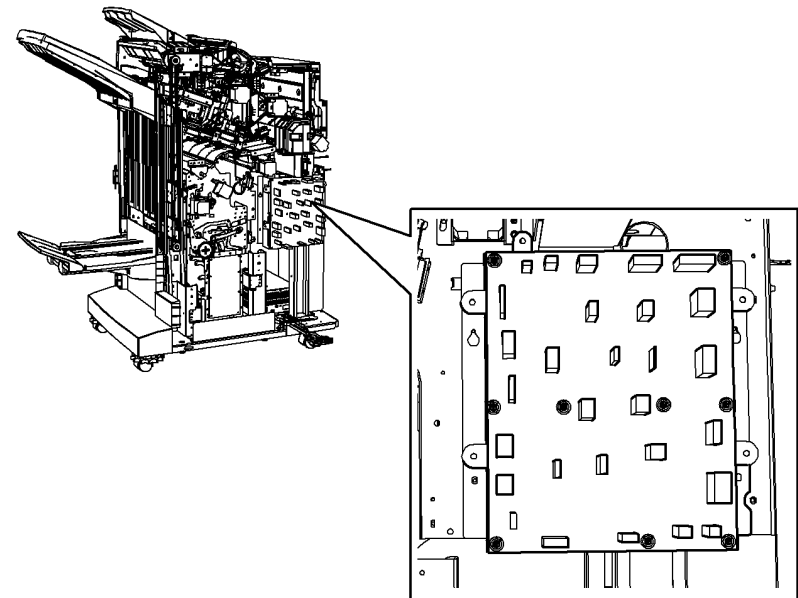
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover [REP 11.1-171](#).
2. Disconnect the PJs, remove 9 screws and remove the PWB assembly, [Figure 1](#).



T-1-0838-A

Figure 1 HVF main PWB

### Replacement

Reverse the removal procedures to replace the HVF main PWB.

# REP 11.58-171 BM Crease Nip Springs

Parts List on [PL 11.165](#)

## Removal



### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

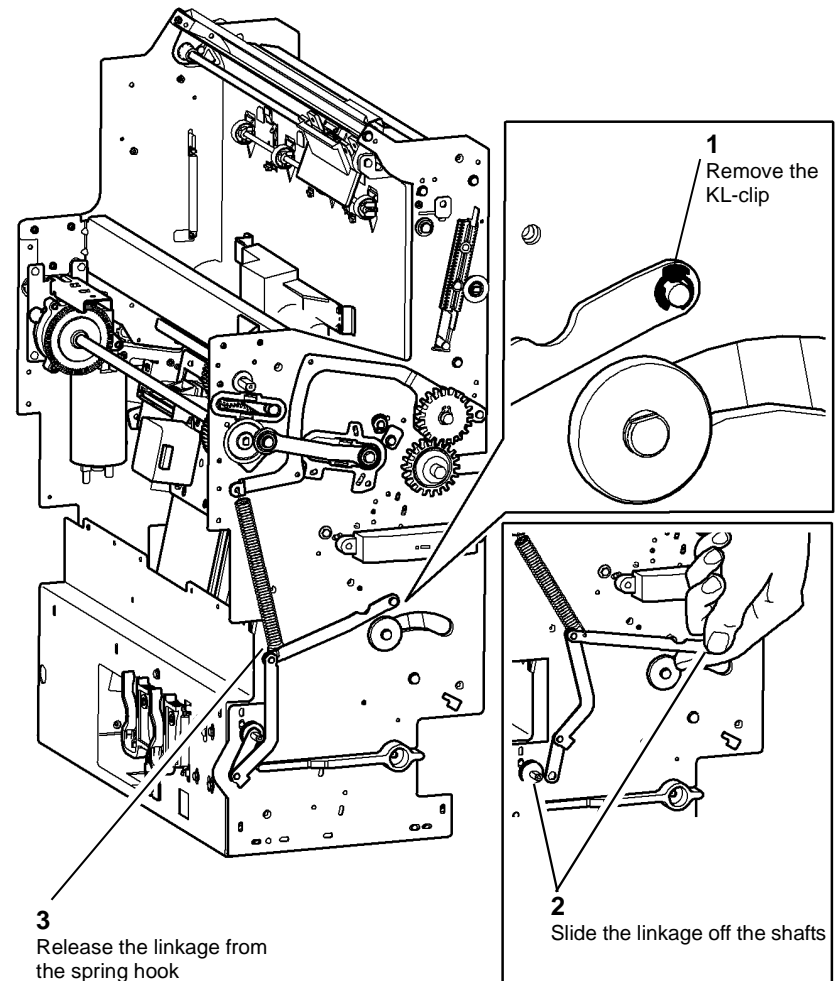


### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the BM front door and fully pull out the BM.
2. Rotate the crease roll handle (6c) fully counterclockwise.
3. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
4. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
5. Remove the BM front cover, [PL 11.161 Item 3](#).

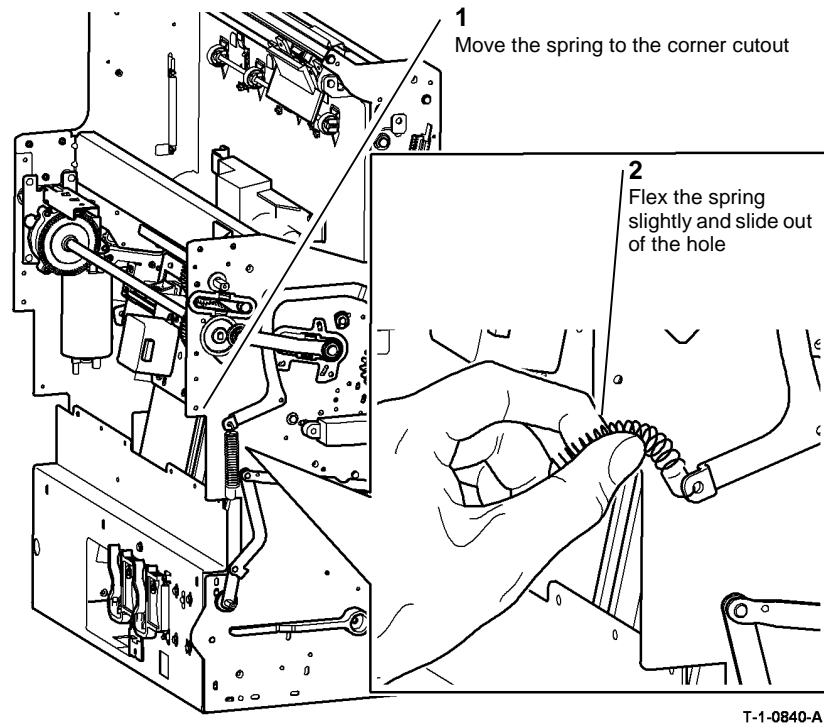
6. [Figure 1](#), remove the front lower linkage.



T-1-0839-A

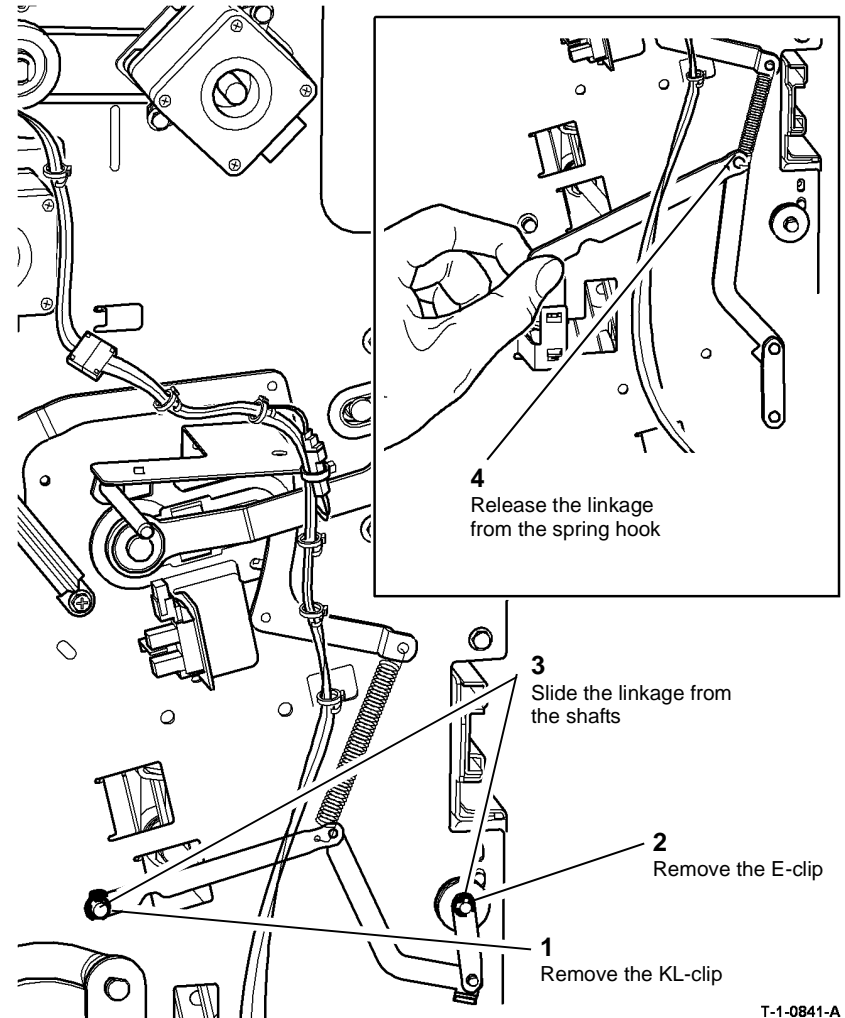
Figure 1 Front linkage removal

7. **Figure 2**, remove the front spring.



**Figure 2 Front spring removal**

8. Remove the top cover, then the rear cover, **REP 11.1-171**.
9. Fully push in the BM.
10. Remove 4 screws securing the BM PWB mounting plate to the frame, allow the PWB and mounting plate to hang down, giving access to the rear nip spring and linkage.
11. **Figure 3**, remove the rear lower linkage.



**Figure 3 Rear linkage removal**

12. Figure 4, remove the rear spring.

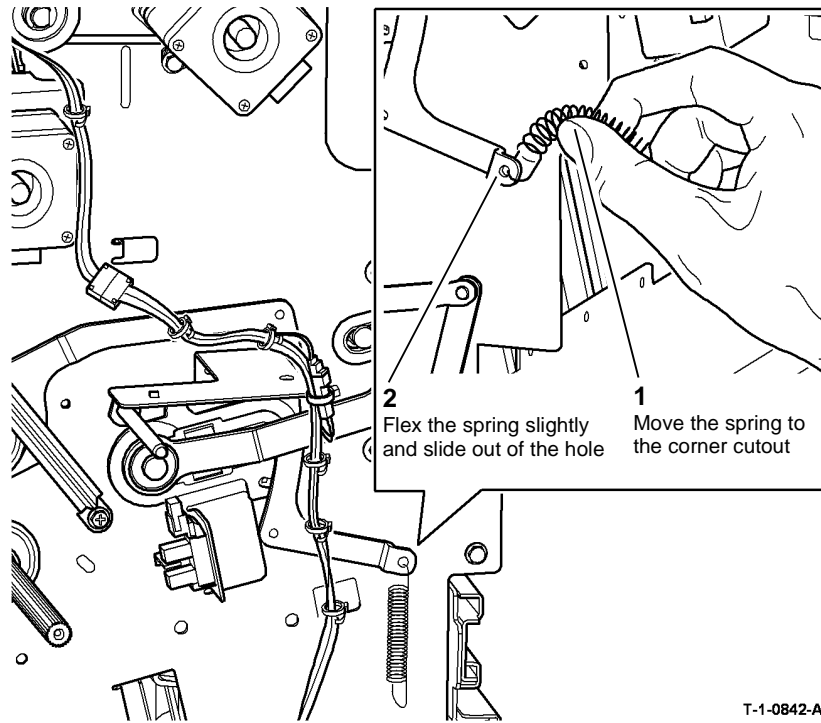


Figure 4 Rear spring removal

### Replacement

Reverse the removal procedure to replace the BM crease roll nip front spring.

## REP 11.59-171 Crease Roll Gate Assembly

Parts List on [PL 11.167](#)

### Purpose

This procedure is used to repair the following components:

- Crease roll gate rack gear, [PL 11.167 Item 8](#).
- Crease roll gate rack drive gear, [PL 11.167 Item 13](#).
- Crease roll gate rack, [PL 11.167 Item 14](#).
- Crease roll gate front guide, [PL 11.167 Item 15](#).
- Crease roll gate rear guide, [PL 11.167 Item 16](#).
- Crease roll gate, [PL 11.167 Item 19](#).

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



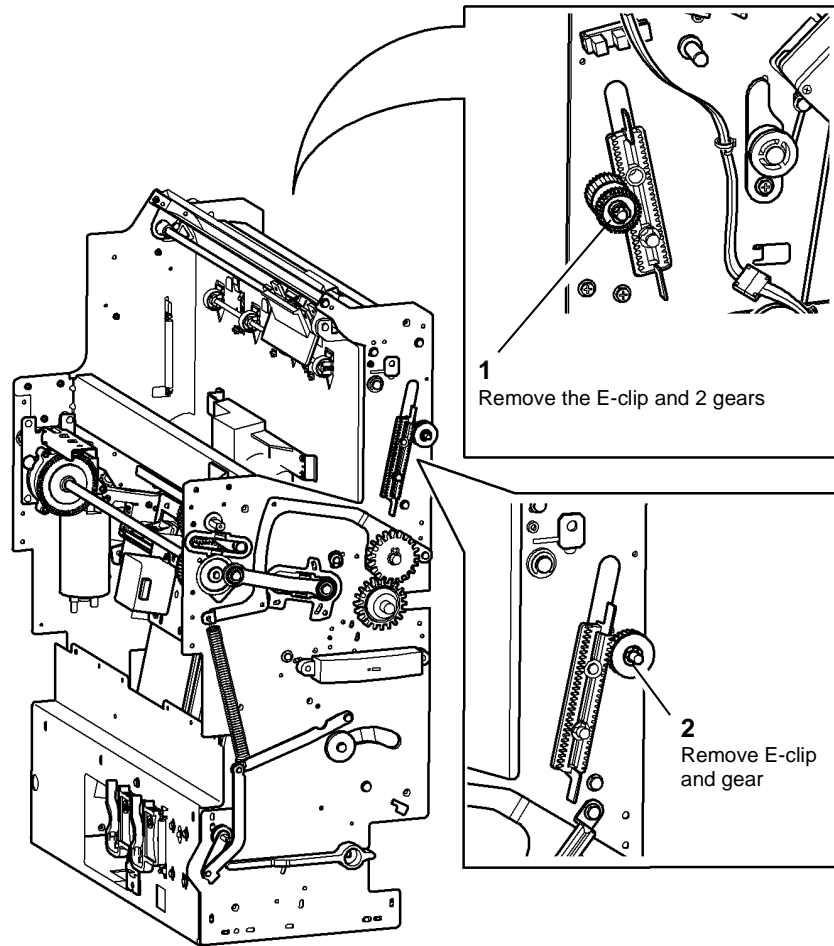
#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM.
2. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
3. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
4. Remove the BM front cover, [PL 11.161 Item 3](#).
5. Remove the BM right hand cover, [REP 11.56-171](#).
6. Remove the crease roll gate motor, [REP 11.24-171](#).

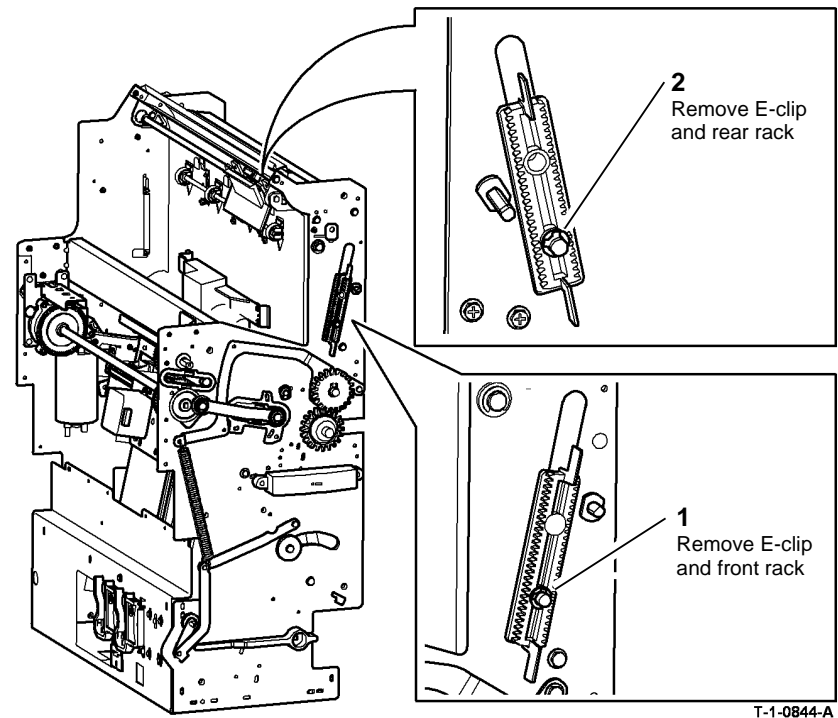
7. **Figure 1**, remove the crease roll gate rack drive gear and both crease roll gate rack gears.

8. **Figure 2**, remove the front and rear crease roll gate racks.



T-1-0843-A

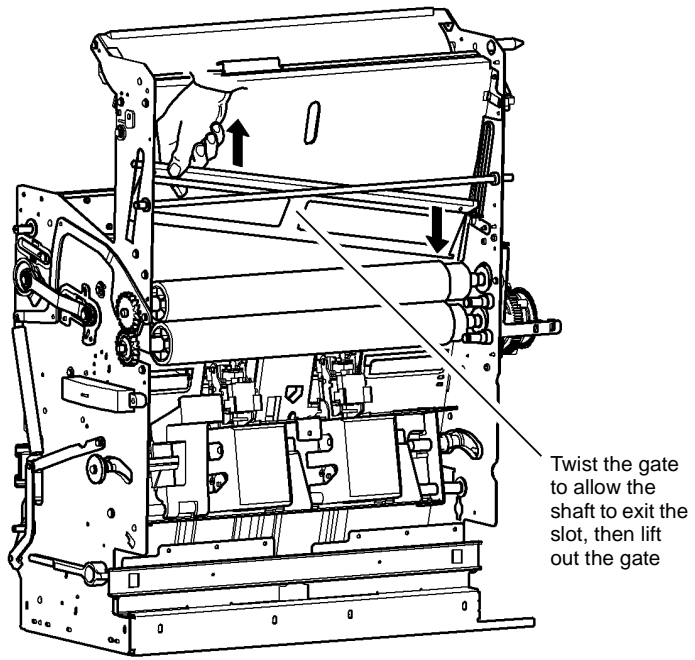
**Figure 1** Removing gears



T-1-0844-A

**Figure 2** Removing the racks

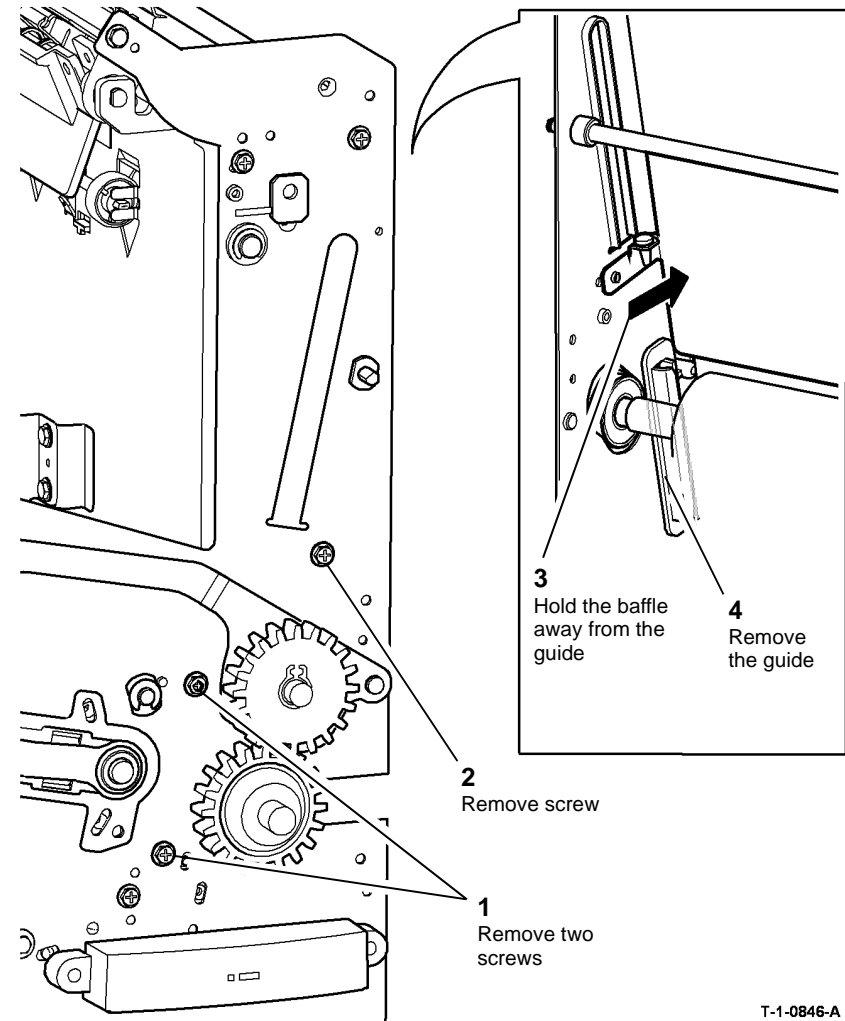
9. Figure 3, remove the crease roll gate.



T-1-0845-A

Figure 3 Gate removal

10. Figure 4, remove the grease roll gate front guide.



T-1-0846-A

Figure 4 Front guide removal



11. Figure 5, remove the grease roll gate rear guide.

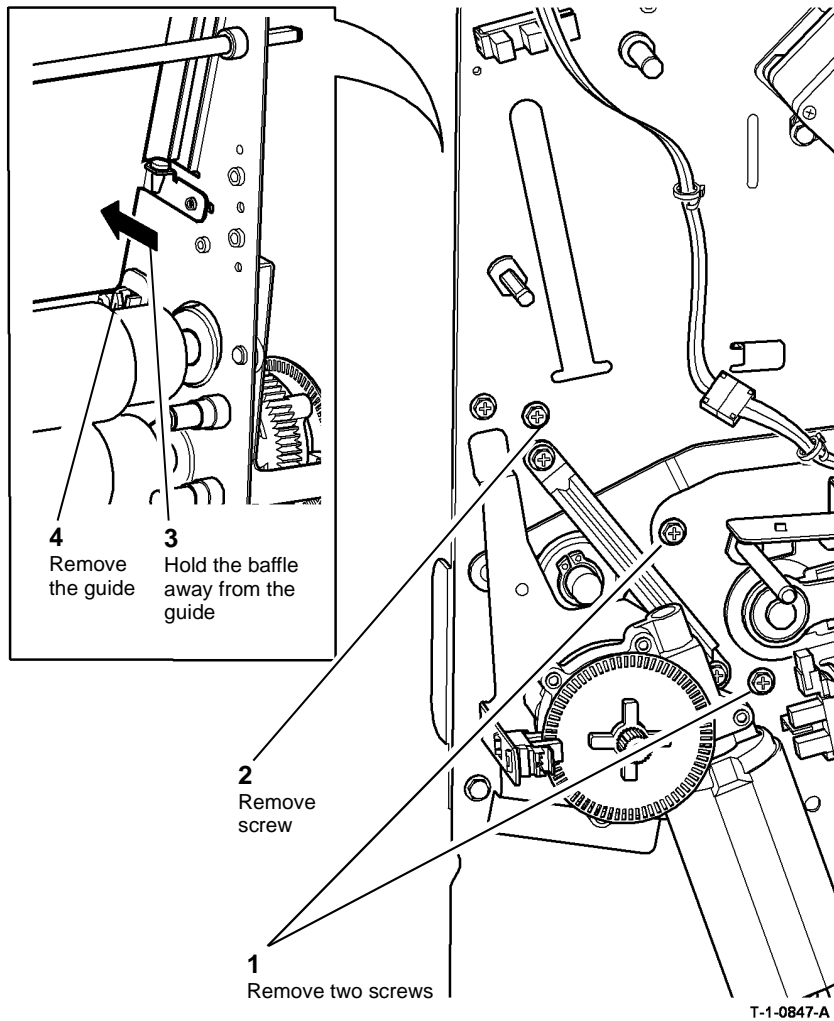


Figure 5 Rear guide removal

12. Loosen 3 screws to remove the crease roll gate shaft from the crease roll gate.

## Replacement

Reverse the removal procedure to replace the crease roll gate assembly.



### CAUTION

Ensure that the crease roll gate shaft is positioned centrally within the crease roll gate.

## REP 11.60-171 BM Paper Guide Assembly

### Parts List on PL 11.161

#### Purpose

This procedure is used to repair the following components:

- Paper guide, PL 11.161 Item 7.
- Nip spring, PL 11.161 Item 9.
- Nip roll, PL 11.161 Item 10.
- Nip shaft, PL 11.161 Item 11.

**NOTE:** If only new nip components are being installed, the BM paper guide assembly does not need to be removed.

#### Removal



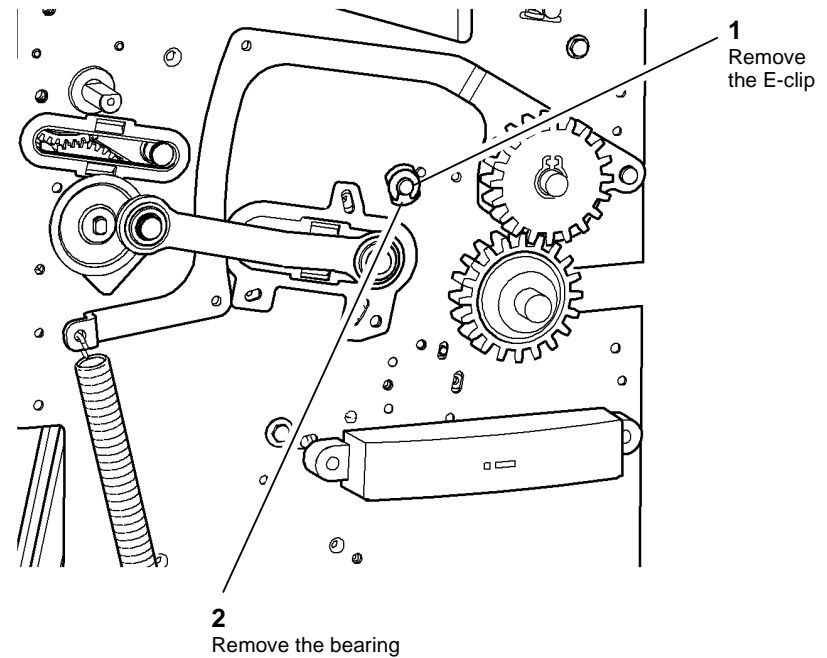
Switch off the electricity to the machine. Refer to GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the BM front door and fully pull out the BM.
2. Rotate the crease roll handle (6c) fully counterclockwise.
3. Remove the crease blade knob (6d), PL 11.161 Item 4.
4. Remove the crease roll handle (6c), PL 11.161 Item 4.
5. Remove the BM front cover, PL 11.161 Item 3.

6. Figure 1, remove the front bearing.



T-1-0848-A

Figure 1 Front bearing removal

7. Figure 2, remove the rear bearing.

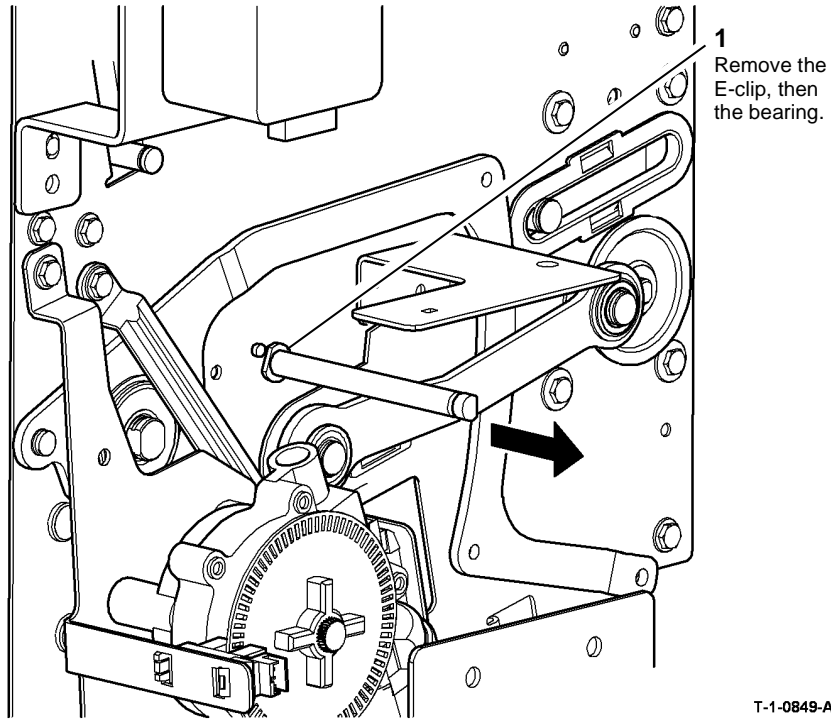


Figure 2 Rear bearing removal

8. Figure 3, remove the BM paper guide assembly.

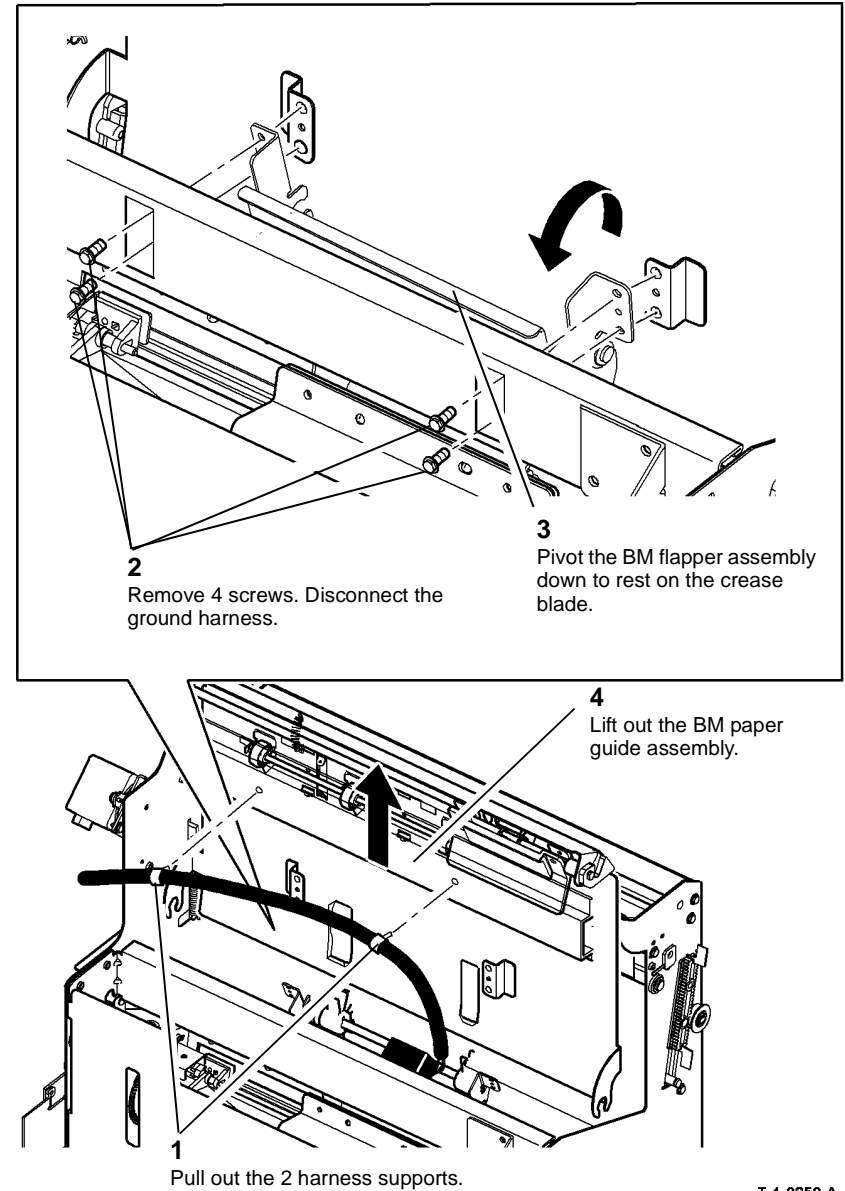
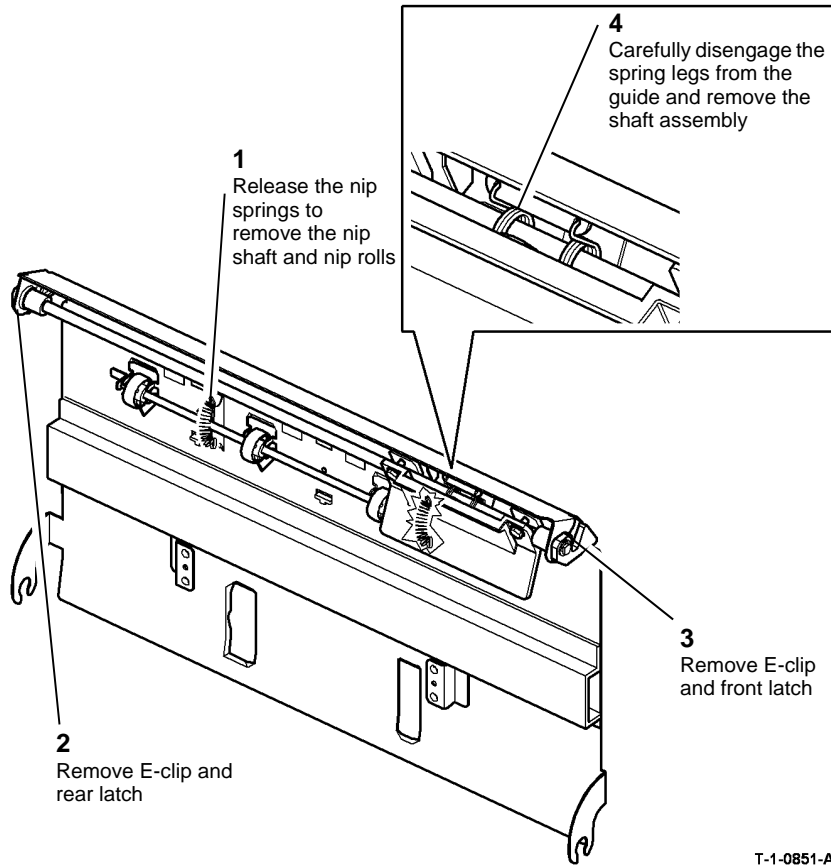


Figure 3 Paper guide assembly removal

9. **Figure 4**, remove the components from the BM paper guide assembly.



**Figure 4** Paper guide dismantling

## Replacement

Reverse the removal procedure to replace the BM paper guide assembly.

## REP 11.61-171 BM Module

Parts List on **PL 11.160**

### Removal

**WARNING**

**Mandatory safety warning. This procedure must be performed by two people. The module is heavy.**

**WARNING**

**Switch off the electricity to the machine. Refer to GP 14. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.**

**WARNING**

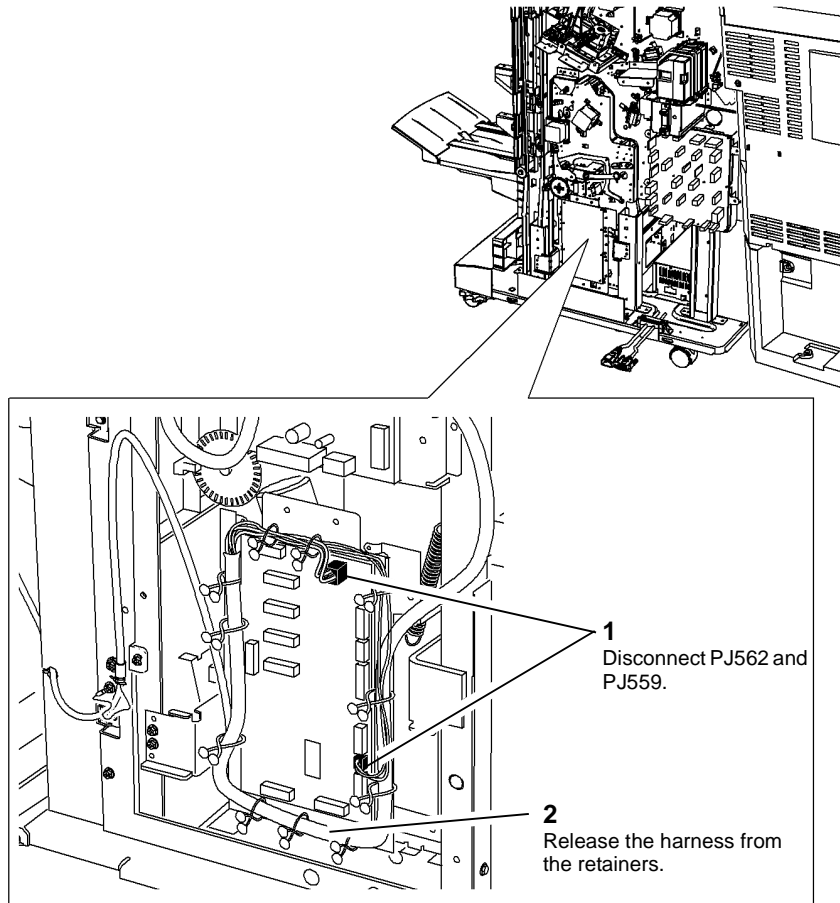
**Take care during this procedure. Sharp edges may be present that can cause injury.**

**WARNING**

**Do not undock the HVFBM from the machine. The machine maintains the stability of the HVFBM.**

1. Remove the top cover, then the rear cover, **REP 11.1-171**.

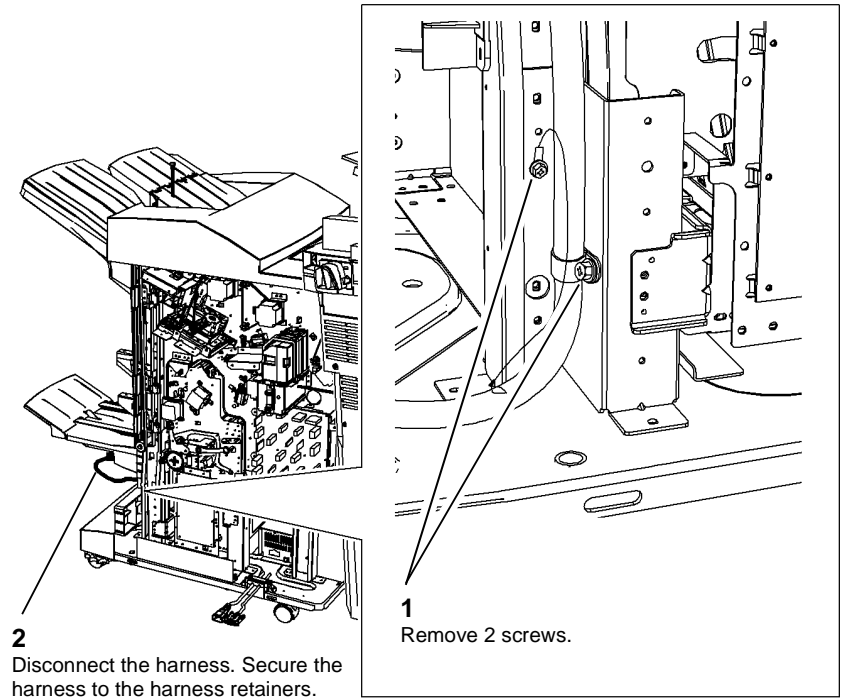
2. **Figure 1**, disconnect PJ562 and PJ559 from the BM PWB.



T-1-0852-A

**Figure 1 Disconnect the PJs**

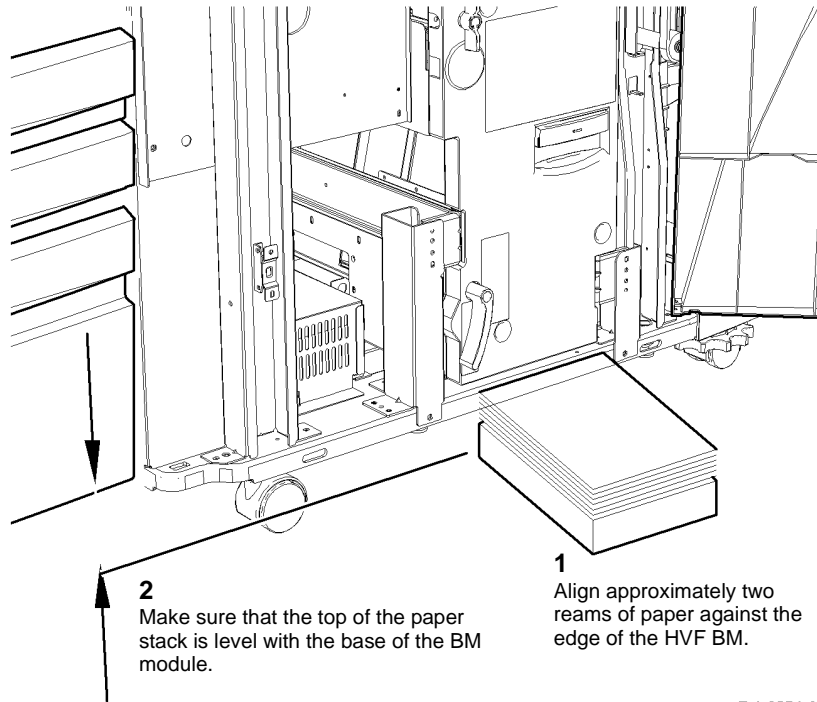
3. **Figure 2**, disconnect the harness from bin 2.



T-1-0853-A

**Figure 2 Disconnect the harness**

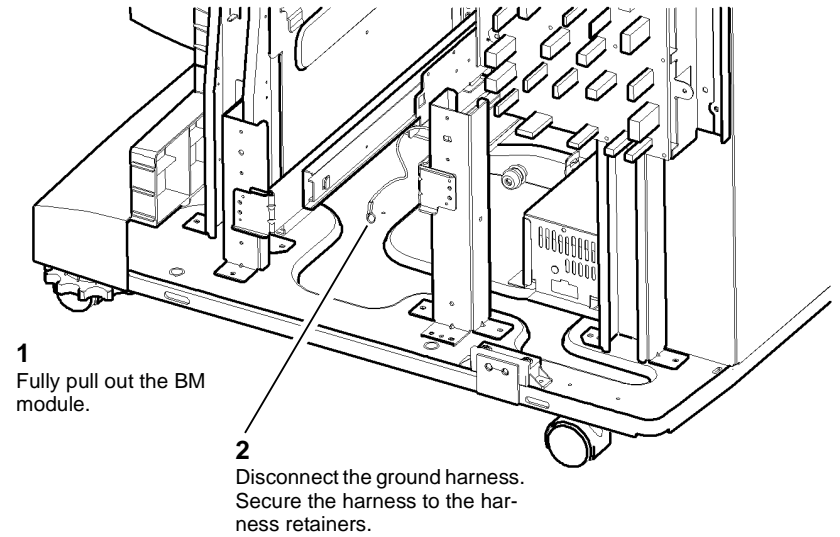
4. **Figure 3**, prepare to remove the BM module.



**Figure 3 Preparation**

T-1-0854-A

5. **Figure 4**, prepare to remove the BM module.



**Figure 4 Preparation**

T-1-0855-A

6. Figure 5, Release the latches.

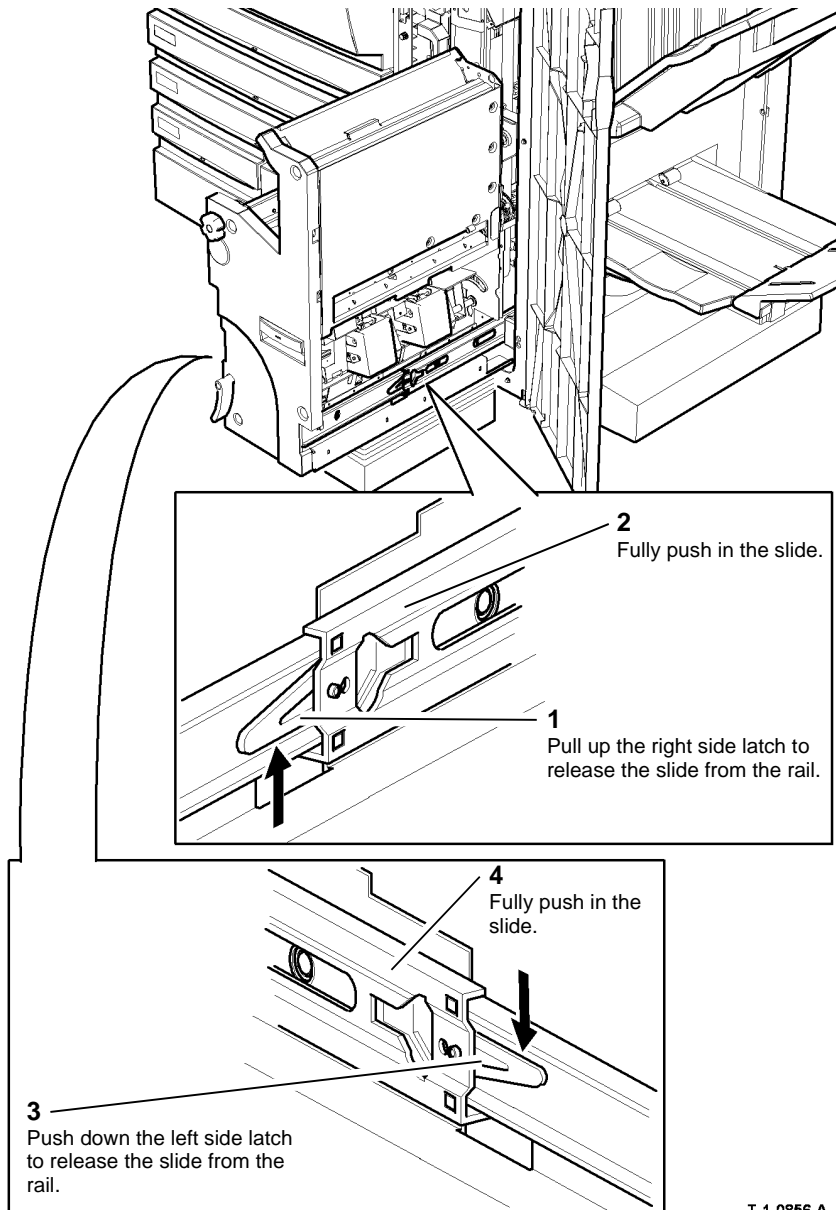


Figure 5 Releasing the slides

T-1-0856-A

**!**  
**WARNING**

Use safe handling procedures, GP 16 when removing this module. The module is heavy.

**!**  
**CAUTION**

Do not damage the BM front cover when the BM module is removed.

**NOTE:** The BM module weight is 27 Kg (59.5 lb.).

**NOTE:** The BM catch will spring to the rear when the BM module is removed. Refer to Figure 7.

7. Figure 6, remove the BM module.

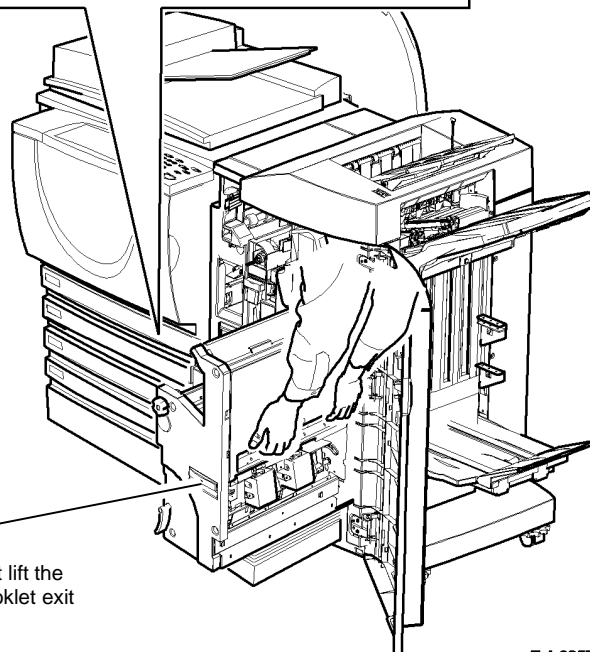
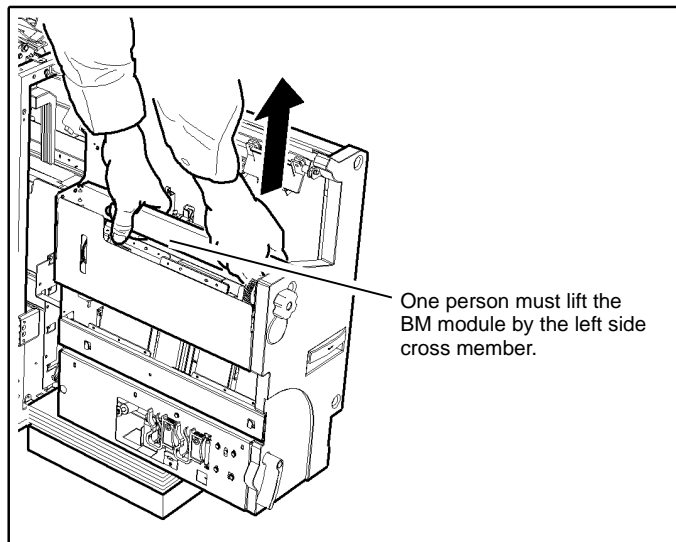
## Replacement



### CAUTION

*Do not damage the harnesses when the BM module is installed. Ensure that the rails are correctly aligned with the slides.*

1. Put the BM module on the paper stack in front of the HVF BM.
2. Route the bin 2 harness and the ground harness to the rear of the HVF BM.
3. If a new BM is to be installed, perform the following:
  - a. Unlatch the slides from the new BM module. Refer to [Figure 5](#).
  - b. Install the new BM module onto the existing rails in the HVF BM.
4. [Figure 7](#), prepare to install the BM module.



- 1 Carefully remove the BM module.

A second person must lift the BM module by the booklet exit slot.

T-1-0857-B

Figure 6 Remove the BM module



## REP 11.62-171 BM Slide Assembly

Parts List on [PL 11.160](#)

### Removal



#### WARNING

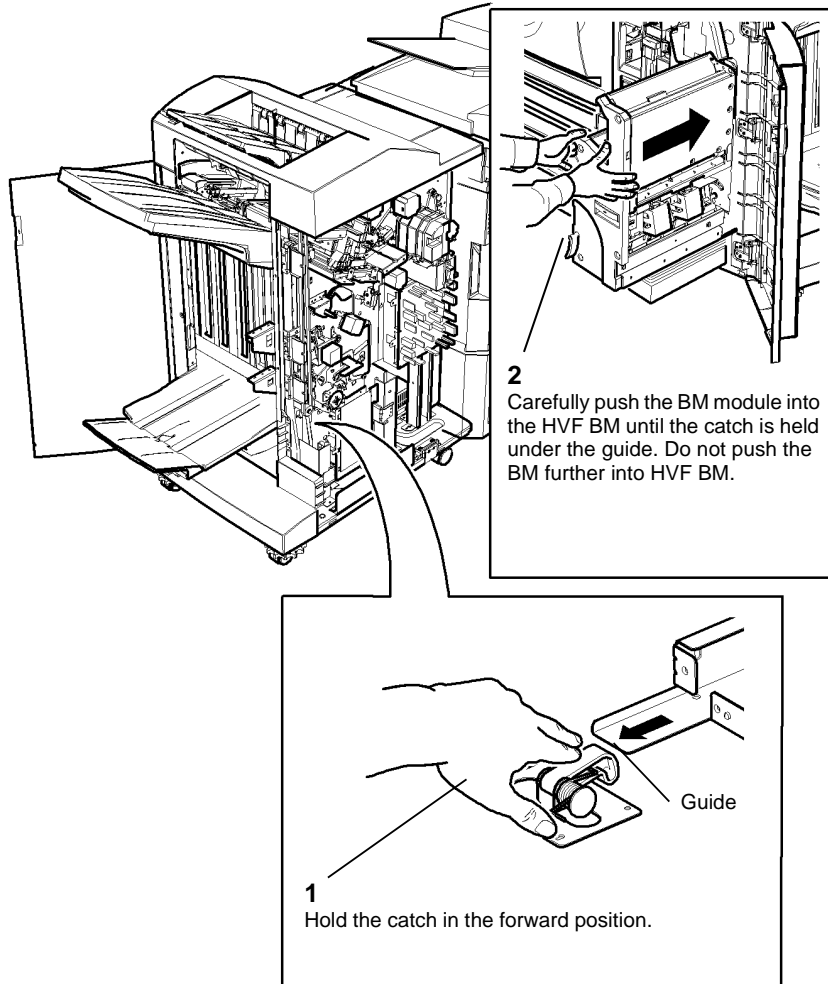
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the BM module, [REP 11.61-171](#).
2. Remove the BM front cover, [PL 11.161 Item 3](#).
3. [Figure 1](#), Remove the slide assembly from the HVF BM frame.



T-1-0858-A

Figure 7 Position of the catch

5. Reverse the removal procedure to replace the BM module.

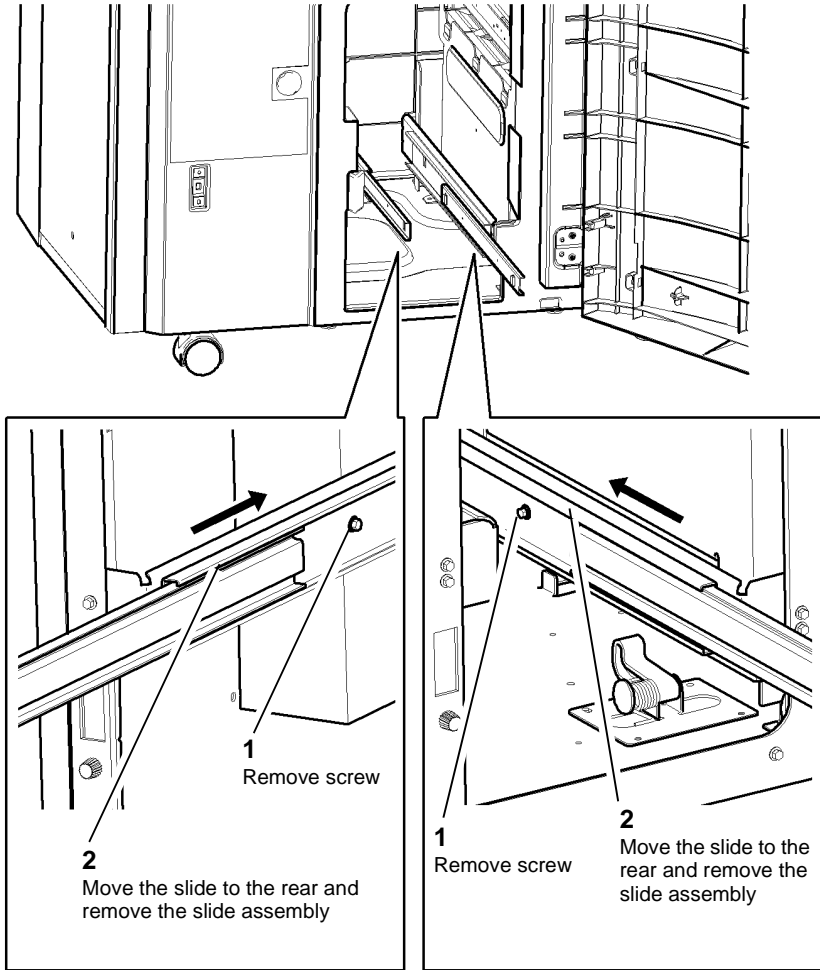


#### CAUTION

Ensure the BM harness and bin 2 harness are correctly positioned in the harness retainers so that harnesses are not damaged when the BM is moved to the extremities of its travel.

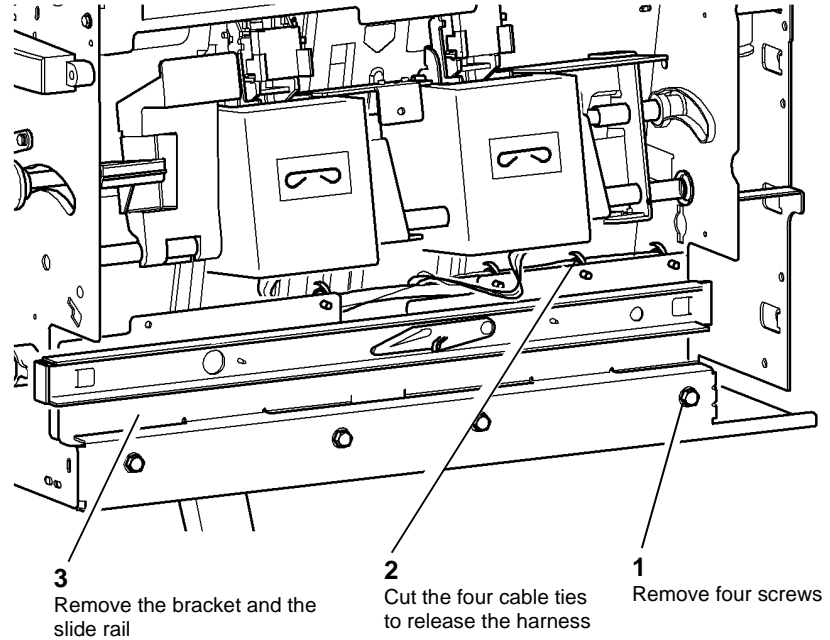
6. Perform the [11D-171](#) Booklet Quality RAP.

4. **Figure 2.** Remove the bracket and the slide rail from the right side of the BM module.



T-1-0859-A

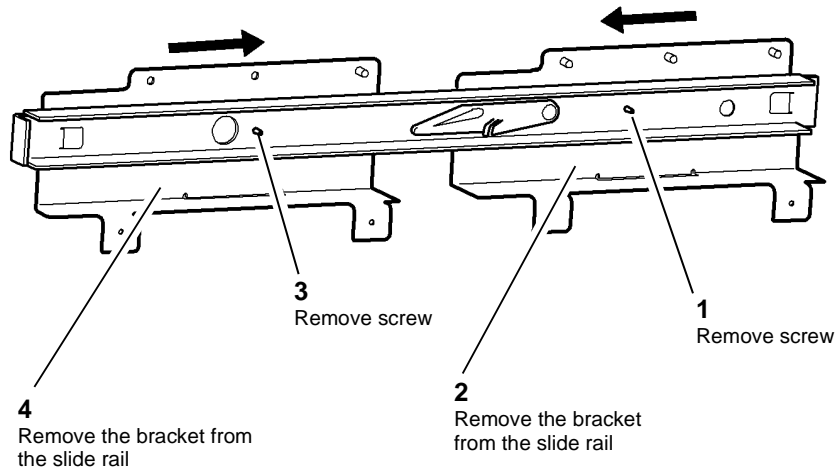
**Figure 1** Remove the slide assembly



T-1-0860-A

**Figure 2** Remove the bracket and the slide rail

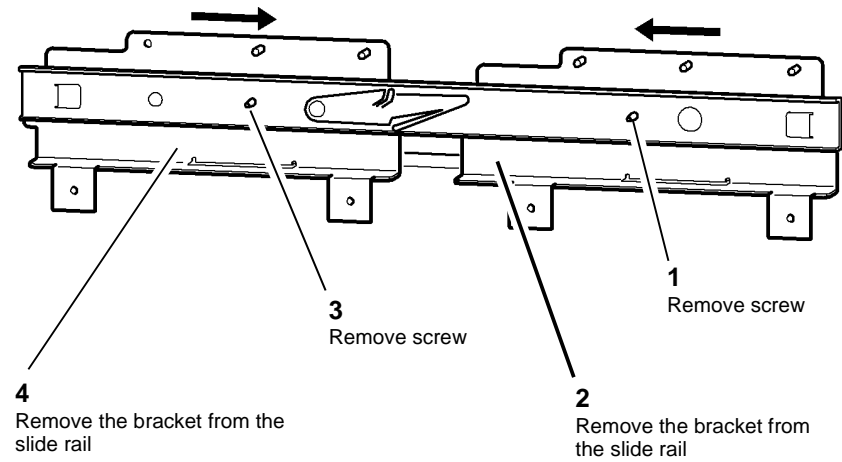
5. **Figure 3.** Remove the two brackets from the slide rail.



T-1-0861-A

**Figure 3 Remove the bracket from the slide rail**

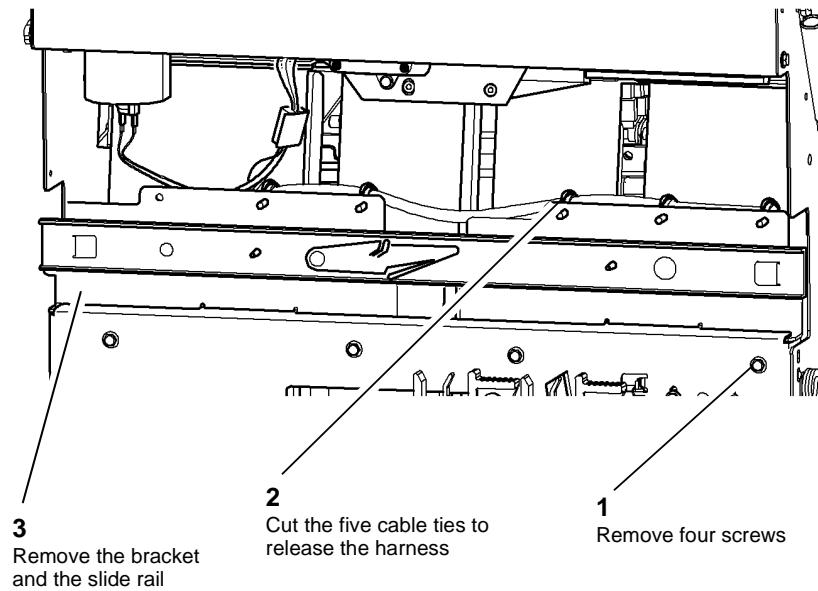
7. **Figure 5.** Remove the two brackets from the slide rail



T-1-0863-A

**Figure 5 Remove the bracket from the slide rail**

6. **Figure 4.** Remove the bracket and the slide rail from the left side of the BM module.



**Figure 4 Remove the bracket and slide rail**

## Replacement

1. Reverse the removal procedure to replace the slide assembly.
2. Ensure that all of the cable ties are installed and the harness are in the correct position.
3. Check that all of the PJ connections are connected.

## REP 11.63-171 Entry Feed Motor 1

Parts List on [PL 11.150](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover [REP 11.1-171](#).
2. Remove entry feed motor 1 and bracket assembly, [Figure 1](#).

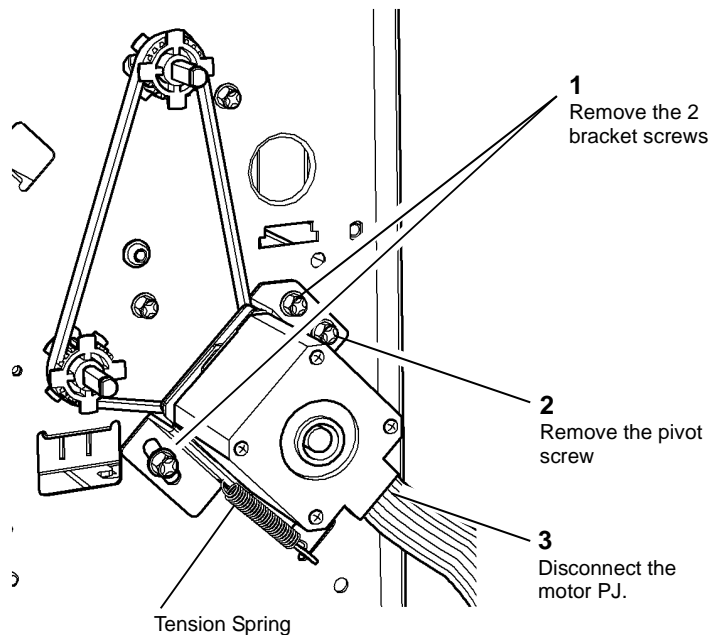


Figure 1 Entry feed motor and bracket

3. Remove 2 screws and the grounding wire to remove the motor and damper from the bracket.

### Replacement

1. Reverse the removal procedures to replace entry feed motor 1.
2. Set the belt tension [ADJ 11.10-171](#).

## REP 11.64-171 Bypass Feed Motor

Parts List on [PL 11.150](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover [REP 11.1-171](#).
2. Remove the bypass feed motor and bracket assembly, [Figure 1](#).

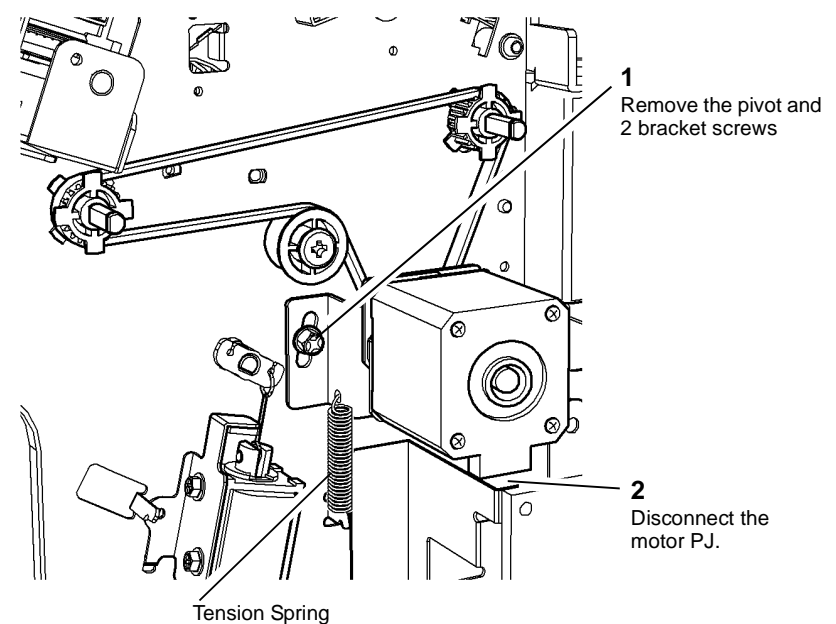


Figure 1 Bypass feed motor and bracket

3. Remove 2 screws and the grounding wire to remove the motor and damper from the bracket.

### Replacement

1. Reverse the removal procedures to replace the bypass feed motor.
2. Set the belt tension, [ADJ 11.10-171](#).

## REP 11.65-171 Buffer Feed Motor

Parts List on [PL 11.150](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover [REP 11.1-171](#).
2. Remove the buffer feed motor and bracket assembly, [Figure 1](#).

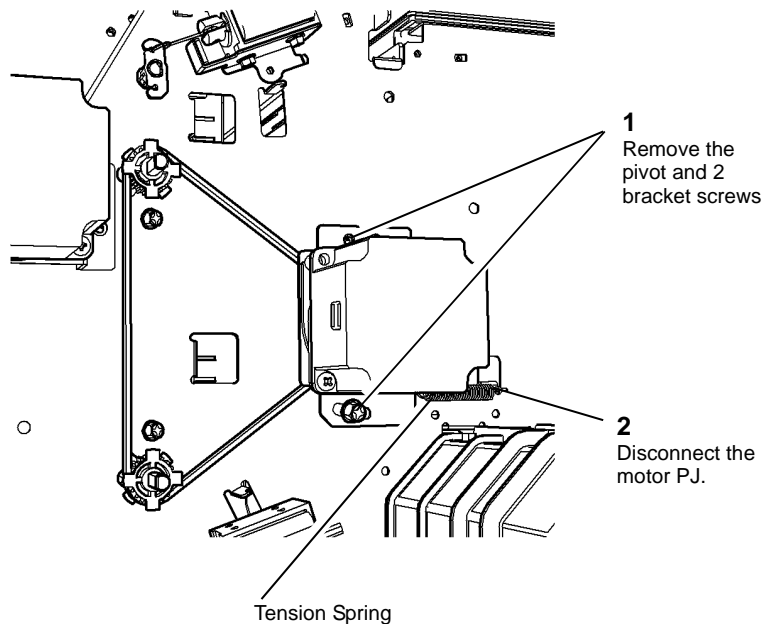


Figure 1 Buffer feed motor and bracket

3. Remove 2 screws and the grounding wire to remove the motor and damper from the bracket.

### Replacement

1. Reverse the removal procedures to replace the buffer feed motor.
2. Fit the pivot screw and set the belt tension, [ADJ 11.10-171](#). Do not tighten the motor bracket screws fully until the belt is tensioned by the spring.

## REP 11.66-171 Exit Feed Motor 2

Parts List on [PL 11.150](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the rear cover, [REP 11.1-171](#).
2. Remove exit feed motor 2 and bracket assembly, [Figure 1](#).

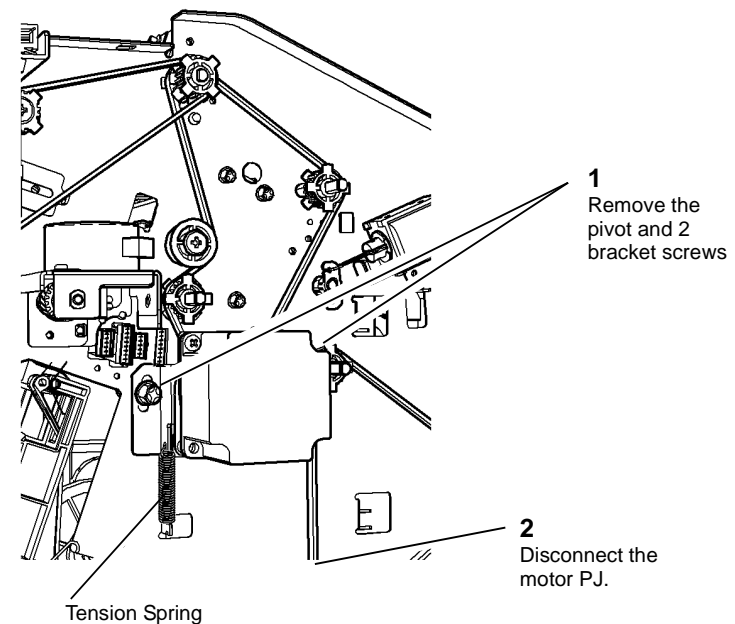


Figure 1 Exit feed motor and bracket

3. Remove 2 screws and the grounding wire to remove the motor and damper from the bracket.

### Replacement

1. Reverse the removal procedures to replace exit feed motor 2.
2. Fit the bracket pivot screw and set the belt tension, [ADJ 11.10-171](#).

# REP 11.67-171 Tri-Folder Covers

Parts List on [PL 11.190](#)

## Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front door then the front cover, [Figure 1](#).

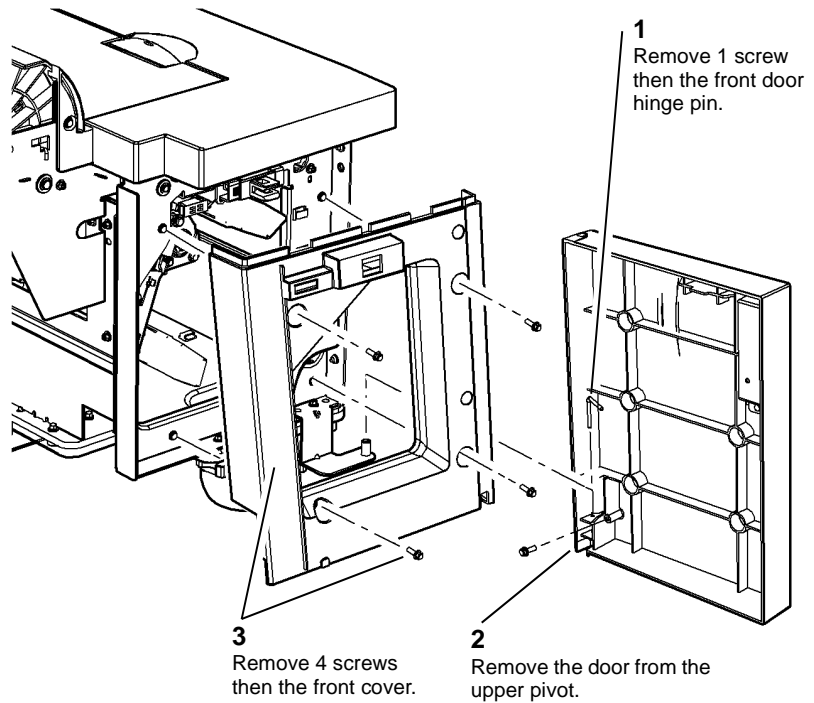


Figure 1 Tri-folder front door and cover

2. Remove the rear cover, the top cover and the right side cover as necessary, [Figure 2](#).

**NOTE:** Open the top cover and remove the rear cover to access to the top cover rear fasteners and the top cover interlock sensor connector.

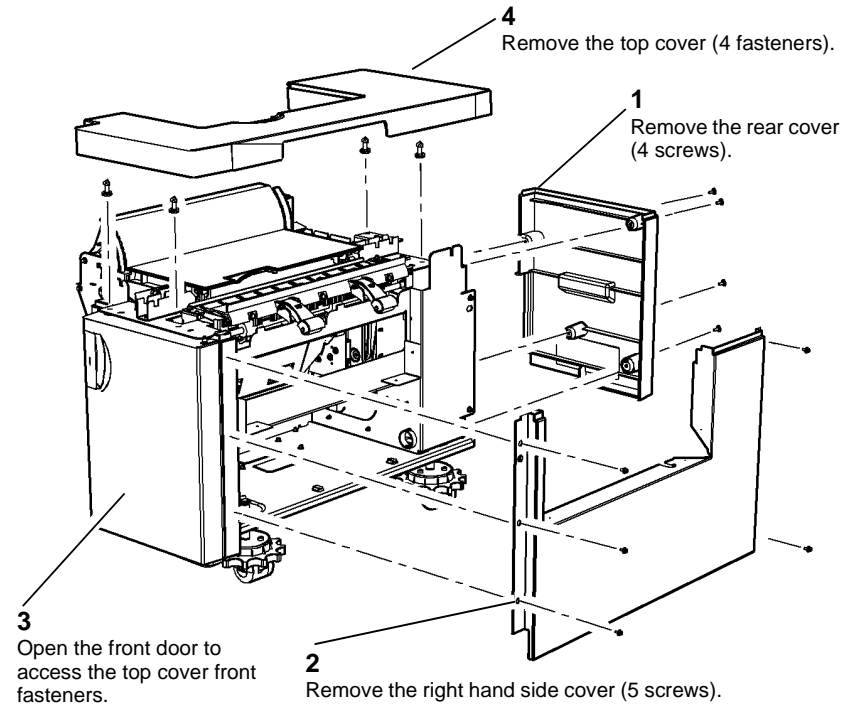


Figure 2 Top, rear and right side covers

## Replacement

Reverse the removal procedures to reinstall the tri-folder covers.

# REP 11.68-171 Tri-Folder Drive Assembly

Parts List on [PL 11.193](#)

## Removal



### WARNING

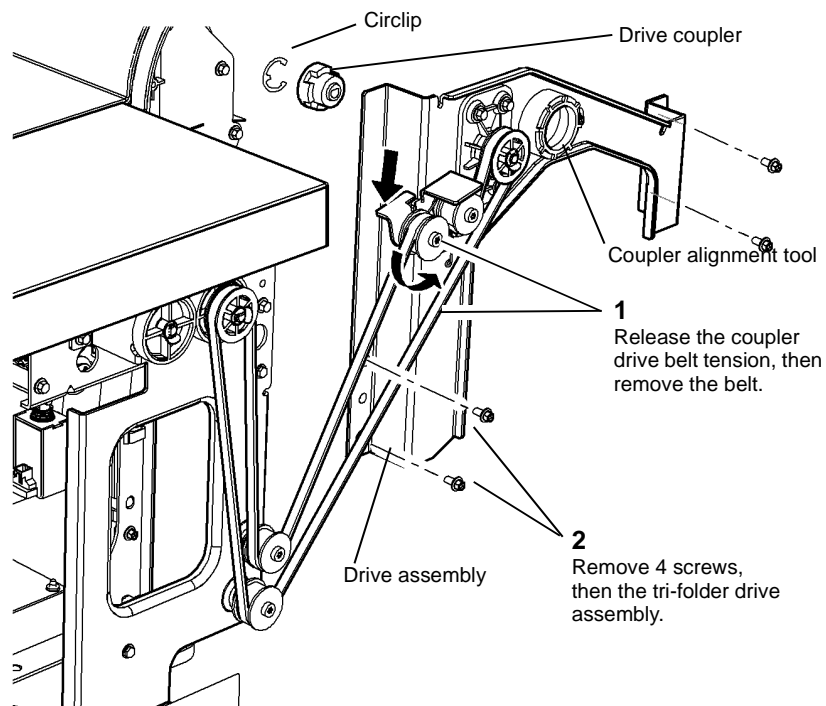
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF rear cover, [REP 11.1-171](#).
2. Remove the tri-folder rear cover [REP 11.67-171](#).
3. Remove the tri-folder drive assembly, [Figure 1](#).



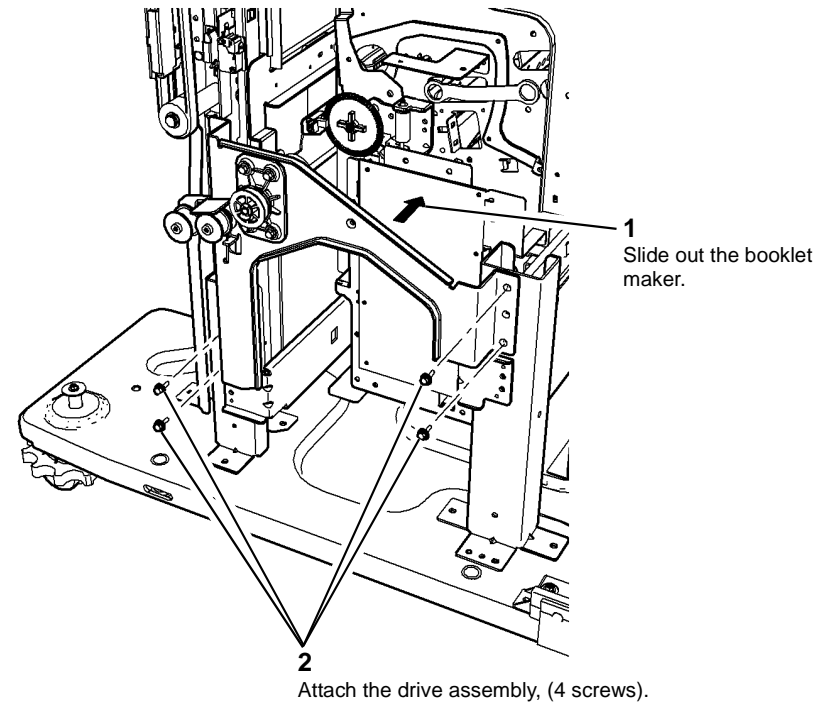
T-1-0870-A

Figure 1 Drive assembly

4. If necessary, remove the circlip then remove the drive coupler, refer to [Figure 1](#).

## Replacement

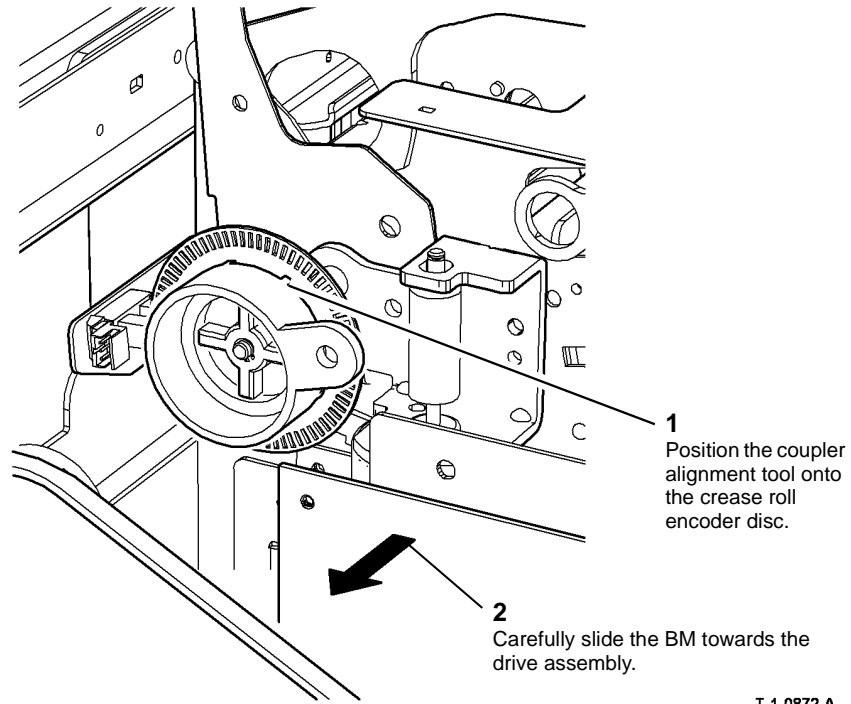
1. Detach the coupler alignment tool from the drive unit, refer to [Figure 1](#).
2. Install the drive assembly, [Figure 2](#).



T-1-0871-A

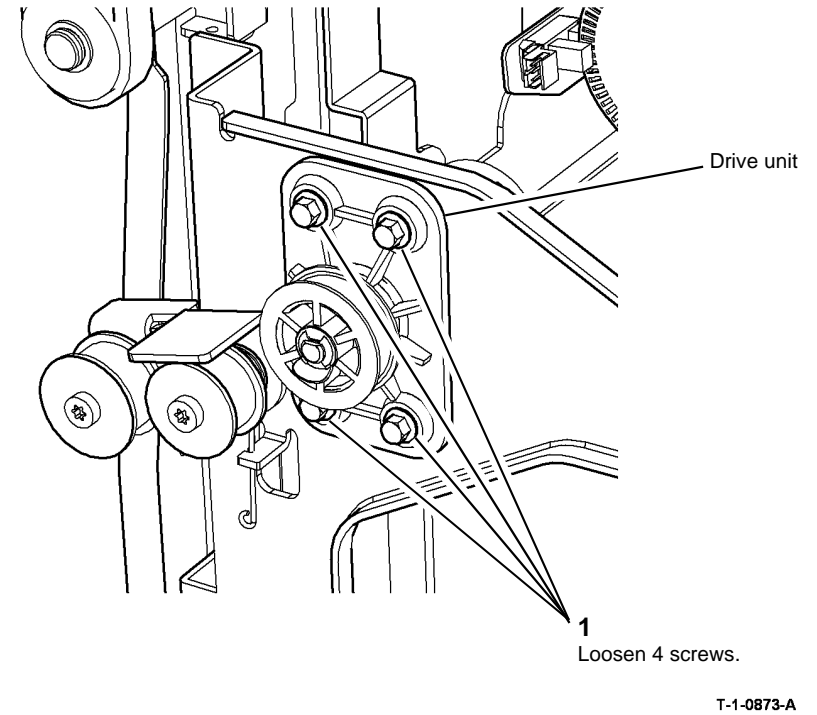
Figure 2 Attach the drive assembly

3. Centralise the coupler alignment tool onto the crease roll encoder disc, [PL 11.166 Item 13](#) and [Figure 3](#).
5. Slacken off the drive unit retaining screws, [Figure 4](#).



**Figure 3 Centralise the alignment tool**

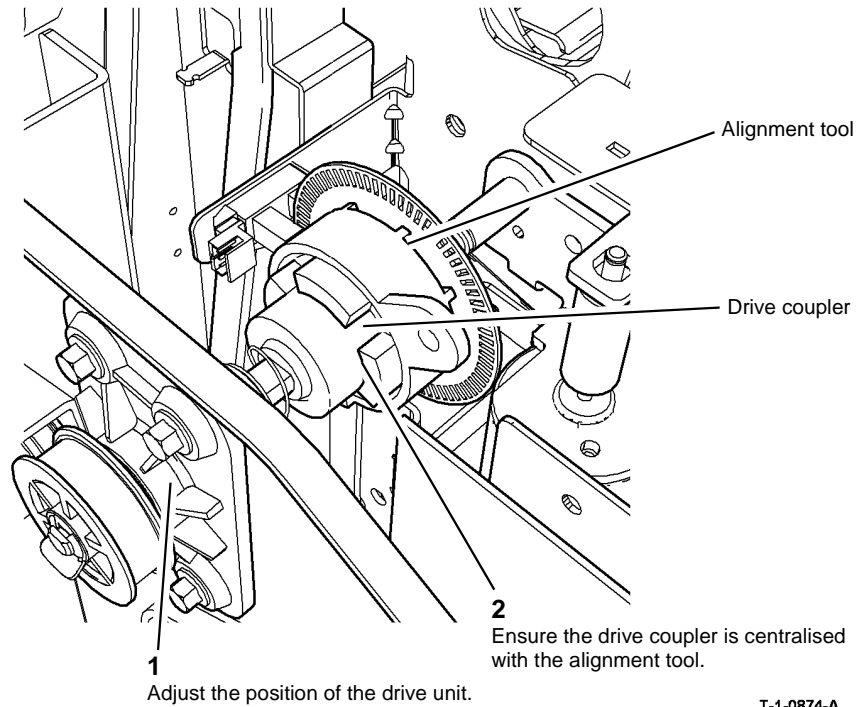
4. Prepare to centralise the drive coupler, refer to [Figure 1](#), with the HVF BM crease roll encoder disc, [Figure 3](#).



**Figure 4 Loosen the drive unit**



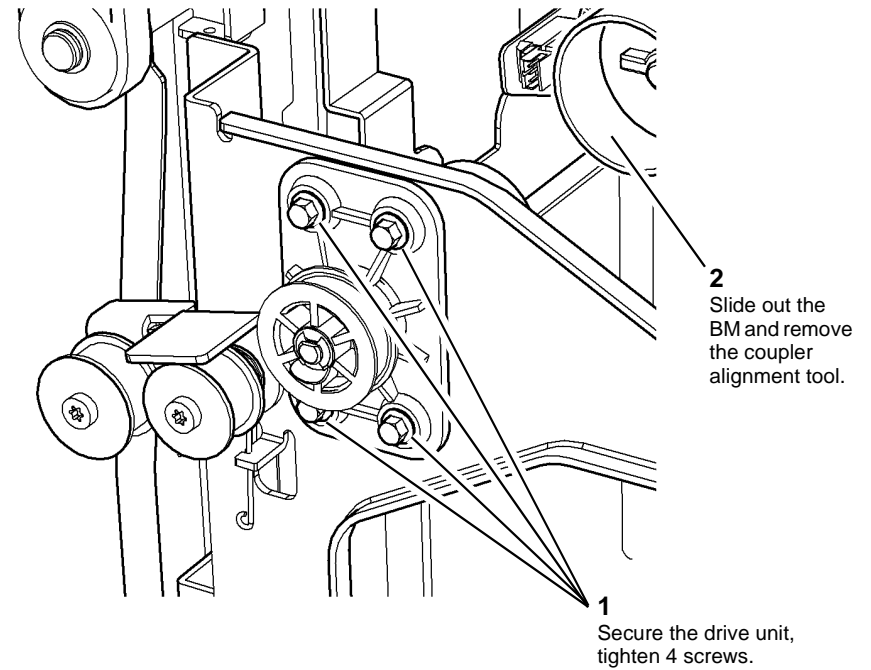
6. Centralise the coupler alignment tool with the drive unit coupler, **Figure 5**.



T-1-0874-A

**Figure 5 Centralise the drive coupler**

7. Secure the drive unit in the centralised position, **Figure 6**.



T-1-0875-A

**Figure 6 Secure the drive unit**

8. Attach the alignment tool onto the drive assembly for future use.
9. Carefully slide back the BM and engage the drive unit coupler.
10. Check that the harnesses do not obstruct the BM crease roll motor encoder disc.
11. Reverse the removal procedures to replace the tri-folder

## REP 11.69-171 Drive Coupling Assembly

Parts List on [PL 11.193](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

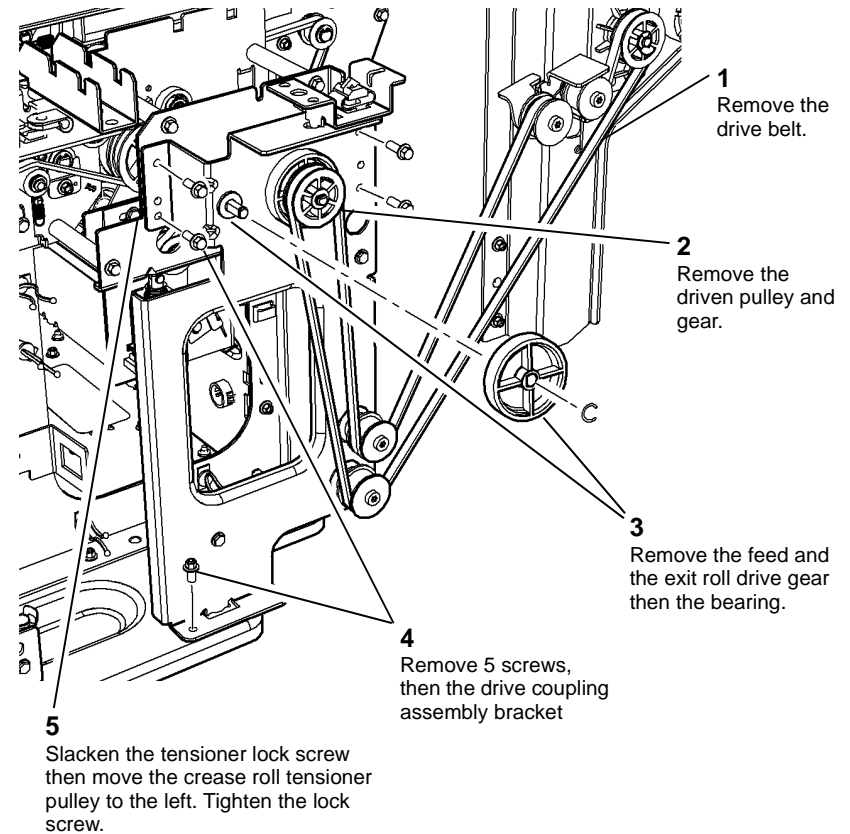


Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tri-folder rear cover, [REP 11.67-171](#).

**NOTE:** Access is improved if the top cover is removed also.

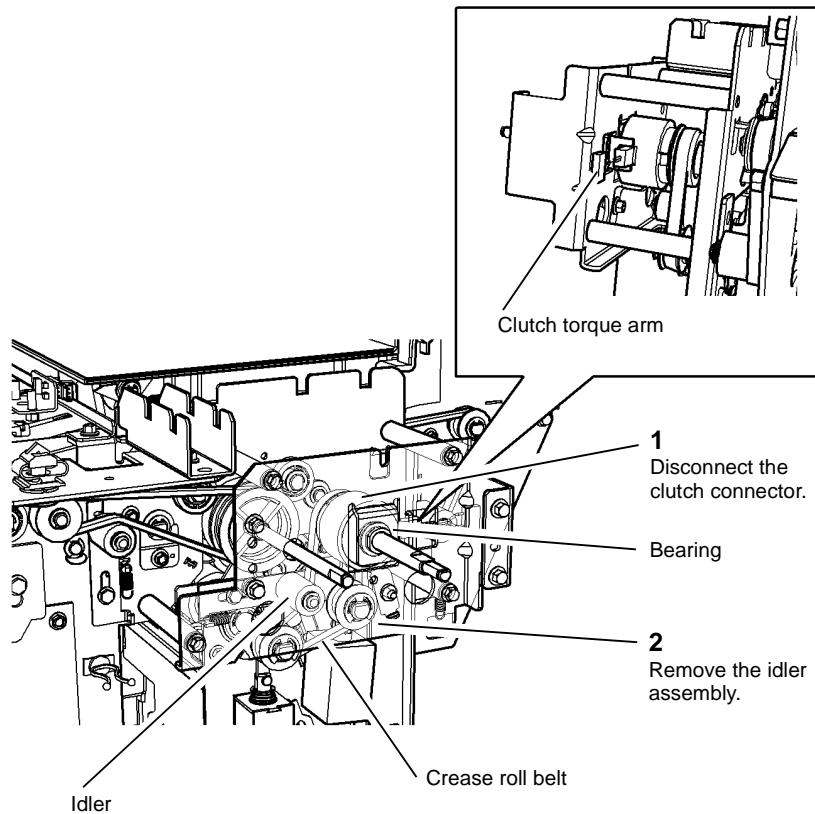
2. Remove the drive coupling assembly bracket, [Figure 1](#).



T-1-0876-A

Figure 1 Drive coupling assembly

- Remove the clutch and bearing from the idler bracket, [Figure 2](#).



T-1-0877-A

**Figure 2 Idler assembly and crease roll clutch**

### Replacement

- Reverse the removal procedures to reinstall the crease roll clutch and drive coupling assembly.
- Replace the idler assembly with the smooth side of the crease roll drive belt towards the idler, then fit the drive belt over the clutch gear. Refer to [Figure 2](#).
- Position the clutch torque arm in the slot in the idler bracket. Refer to [Figure 2](#).
- Perform [ADJ 11.10-171 Motor Drive Belt Tensioning](#).

## REP 11.70-171 Tri-Folder Feed Roller and Drive Belt

Parts List on [PL 11.193](#), [PL 11.197](#)

### Removal

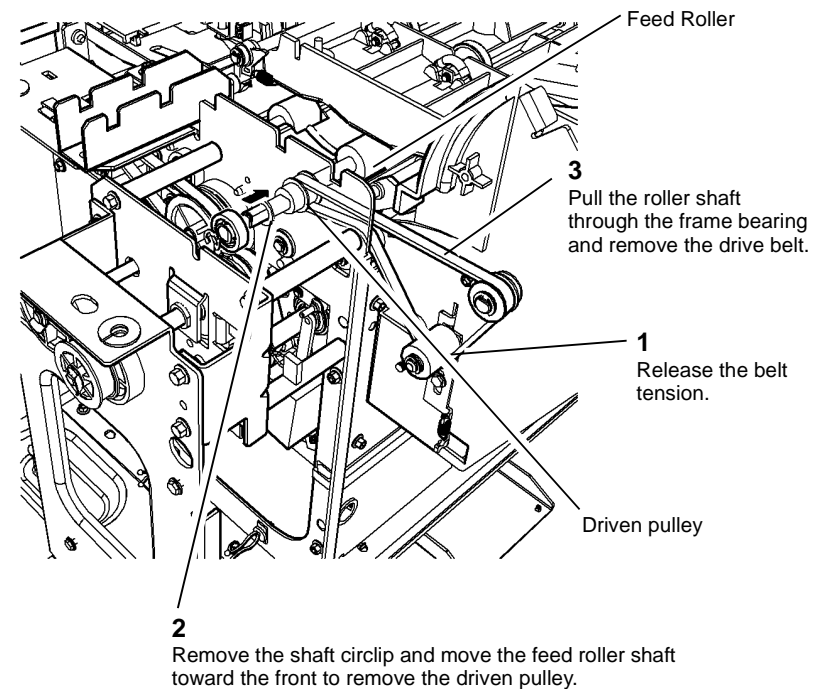
**! WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**! WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

- Undock the tri-folder from the HVF then move the unit to the right to access the left side of the frame, refer to [REP 11.73-171](#).
- Remove the drive belt, [Figure 1](#).



**Figure 1 Drive belt removal**

- If necessary, remove the feed roller shaft front circlip and bearing, then remove the feed roller assembly from the Tri Folder. Refer to [Figure 1](#).

### Replacement

- Reverse the removal procedures to replace the feed roller and drive belt.
- Before docking the tri-folder unit to the HVF, perform [ADJ 11.10-171 Motor Drive Belt Tensioning](#).

## REP 11.71-171 Tri-Folder Assist Gate Solenoid

Parts List on [PL 11.197](#)

### Removal

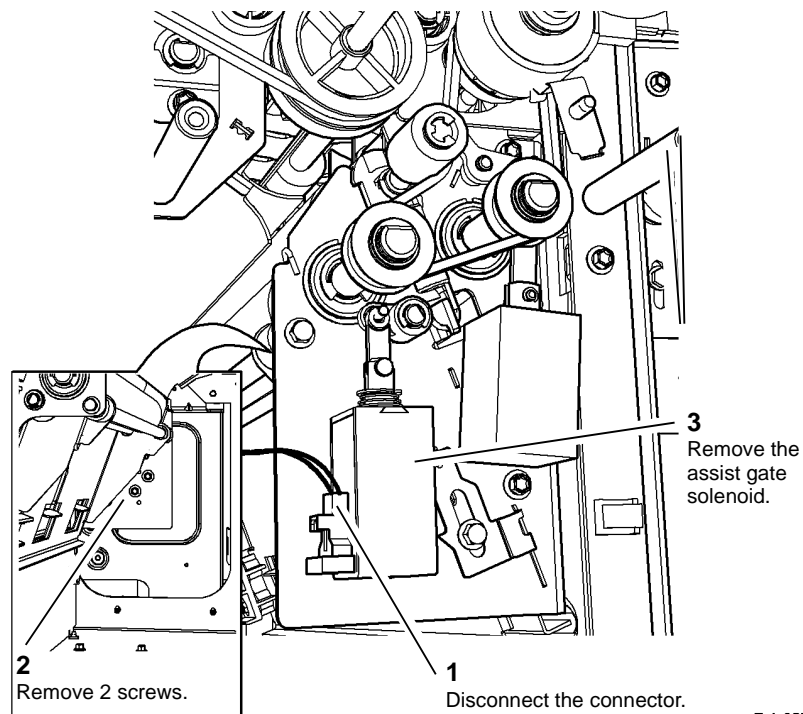
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the front door, or remove the bin 2 assembly. Remove the tri-folder rear cover, [REP 11.67-171](#).
2. Remove the assist gate solenoid, [Figure 1](#).



T-1-0879-A

Figure 1 Assist gate solenoid

### Replacement

Reverse the removal procedures to replace the assist gate solenoid.

## REP 11.72-171 Crease Roll Springs

Parts List on [PL 11.197](#)

### Removal

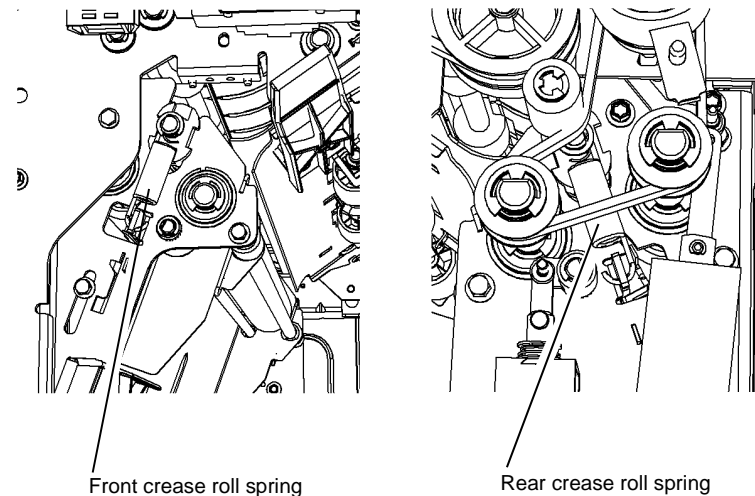
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front door, front cover and rear cover, [REP 11.67-171](#).
2. Remove the circlip then remove the front or rear spring, [Figure 1](#).



T-1-0880-A

Figure 1 Crease roll springs

### Replacement

Reverse the removal procedures to replace the front or rear crease roll spring.

## REP 11.73-171 Tri-Folder Top Door Cover and Idler Assemblies

Parts List on [PL 11.195](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

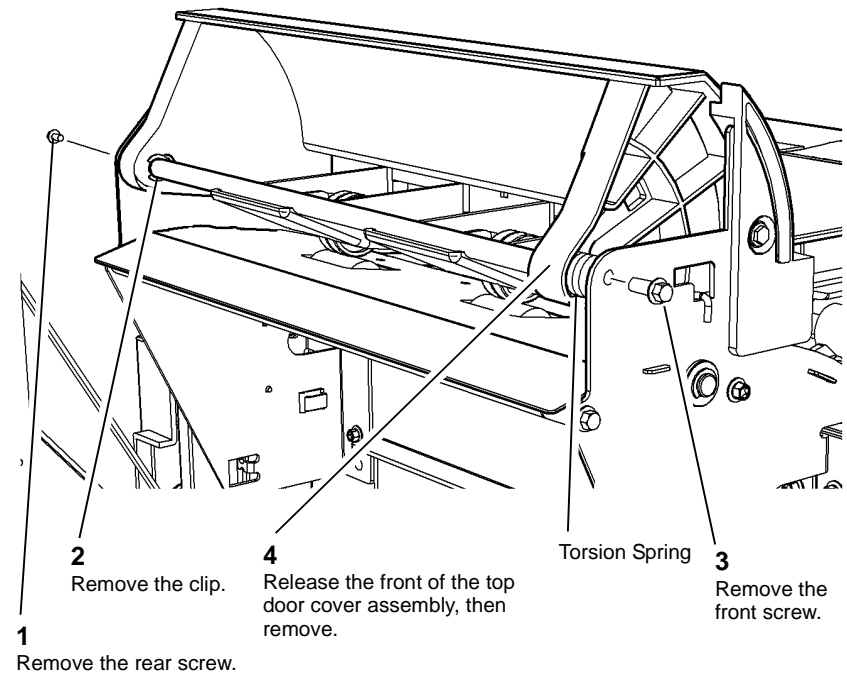
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Undock the tri-folder from the HVF, then move it to the right to gain access to the left side of the tri-folder frame, [REP 11.99-171](#).

**NOTE:** The wiring harnesses to the HVF do not need to be disconnected.

2. Remove the top door cover assembly, [Figure 1](#).

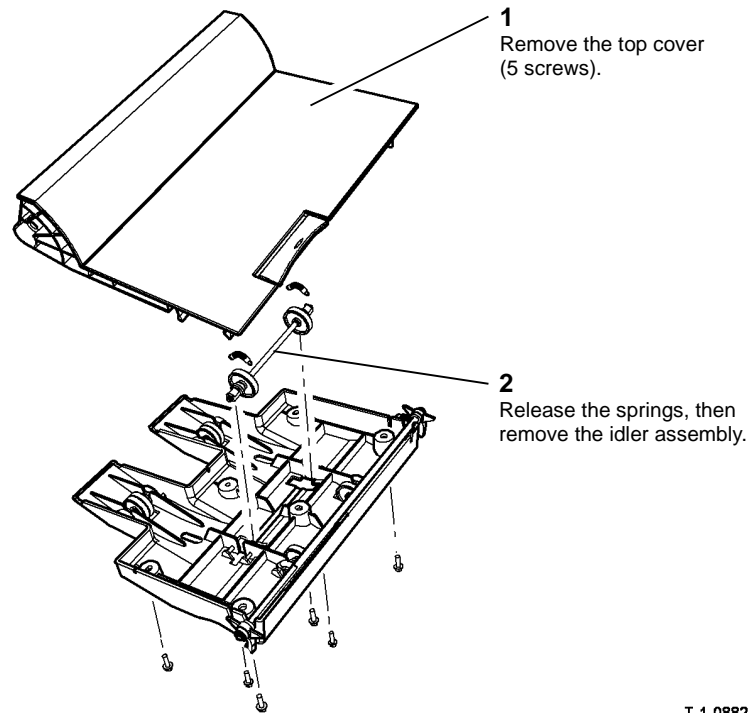
**NOTE:** Control the movement of the torsion spring.



T-1-0881-A

Figure 1 Top cover removal

3. Remove idler assemblies, [Figure 2](#).



T-1-0882-A

Figure 2 Idler assembly removal

### Replacement

1. Reverse the removal procedures to reinstall the idler assembly and top door cover assembly.
2. Make sure that the correct self-tapping screws are used to replace the cover base. Do not overtighten the screws, refer to [GP 6](#).
3. Replace, but do not tighten, the rear pivot shaft screw. Position the cover and torsion spring then fit the front of the pivot shaft in the frame. Replace then tighten both front and rear pivot shaft screws.
4. Check that the cable harnesses are not obstructed or touching moving parts when the tri-folder is docked to the HVF.

## REP 11.74-171 Tri-Folder Roller Assembly and Diverter Solenoid

Parts List on [PL 11.197](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Undock the tri-folder assembly from the HVF, [REP 11.73-171](#). Position and support the tri-folder so that it is safely accessible from the front, rear and left side.
2. Release the crease roll drive belt tension, [REP 11.69-171](#). Disconnect the harness from the diverter and assist gate solenoids.
3. Remove the tri-folder roller assembly, [Figure 1](#).

**NOTE:** If not supported, the roller assembly will fall inside the tri-folder frame.

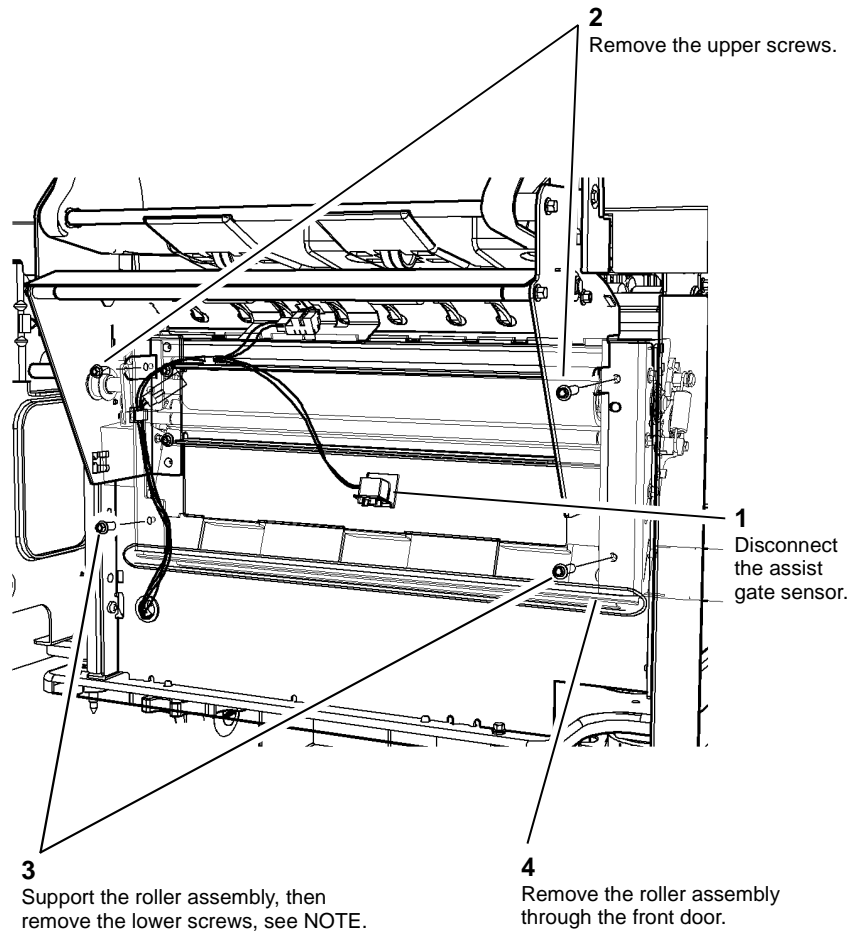
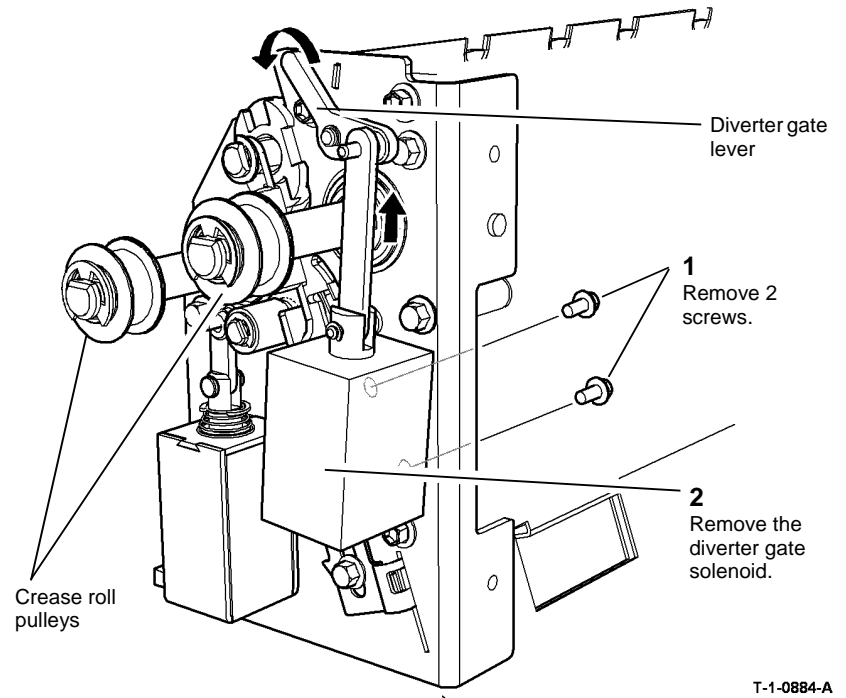


Figure 1 Roller assembly removal

T-1-0883-A

- Remove the diverter gate solenoid or crease roll pulleys as necessary, [Figure 2](#).



T-1-0884-A

Figure 2 Solenoid and pulleys removal

### Replacement

- Reverse the removal procedures to reinstall the pulleys, diverter gate solenoid and tri-folder roller assembly.
- Before replacing the roller assembly set the diverter operating lever to the forward position (solenoid armature extended) to engage with the right side of the diverter shaft lever. Refer to [Figure 2](#).
- Check that the diverter gate operates correctly before tensioning the crease roll drive belt.

## REP 11.75-171 Bin 1 Limit Switches

Parts List on [PL 11.135](#)

### Removal



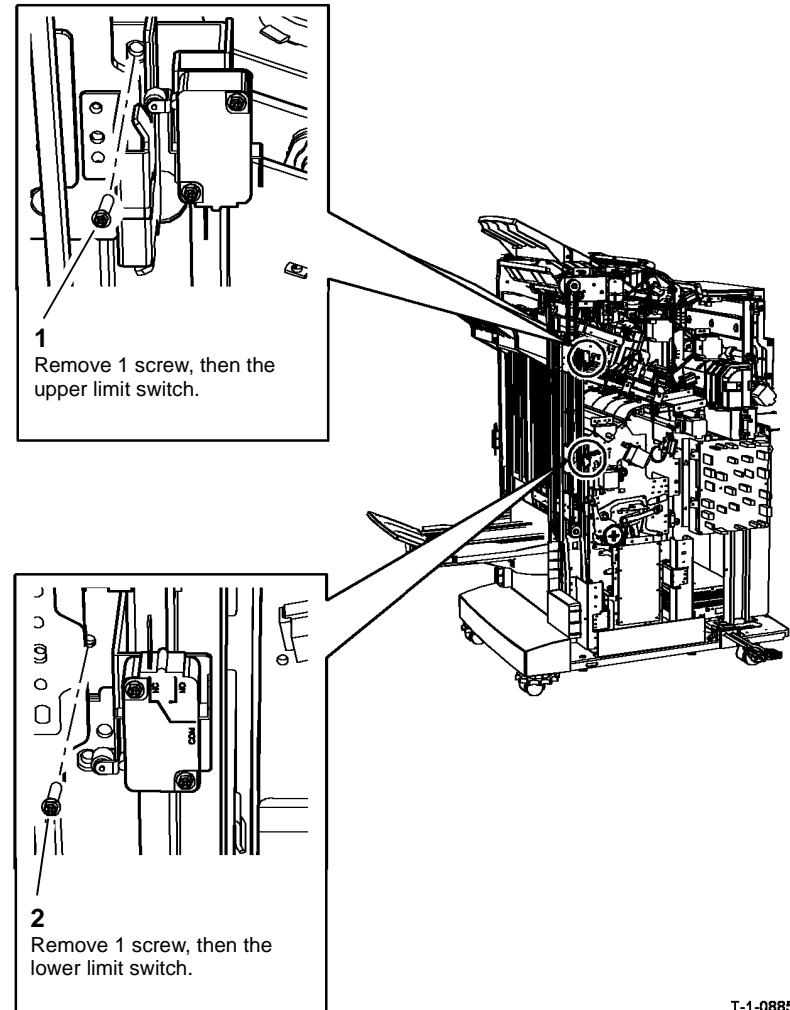
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF rear cover, [REP 11.1-171](#).

2. Remove the relevant limit switch, [Figure 1](#).



T-1-0885-A

Figure 1 Bin 1 limit switches

### Replacement

Reverse the removal procedures to replace the Bin 1 upper and lower limit switches.



## REP 11.76-171 Bin 1 Upper Level Sensor

Parts List on [PL 11.140](#)

### Removal

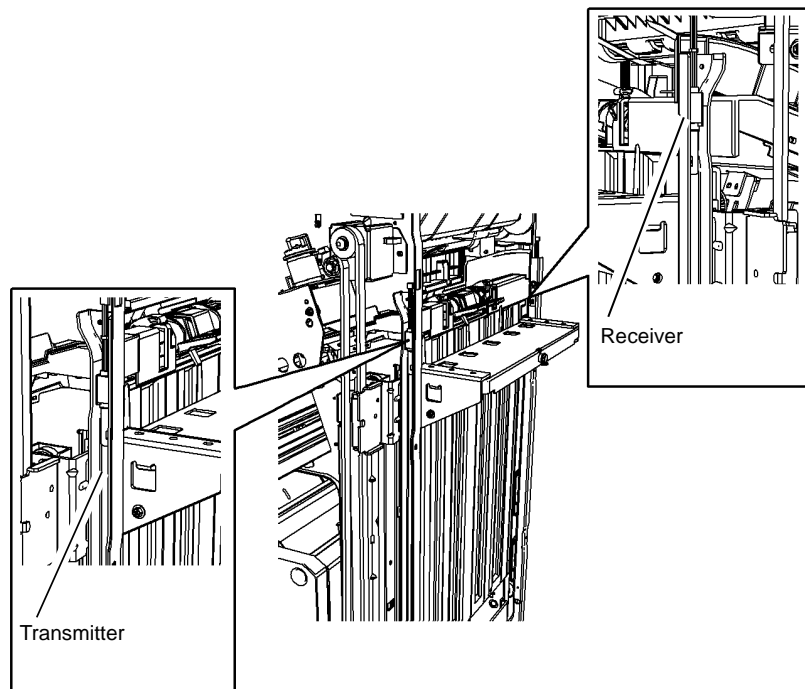
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF front and rear covers, [REP 11.1-171](#).
2. Disconnect the connector, then remove the transmitter or receiver as necessary, [Figure 1](#).



T-1-0886-A

Figure 1 Bin 1 upper level sensor removal

### Replacement

Reverse the removal procedures to replace the transmitter or receiver of the bin 1 upper level sensor.

## REP 11.77-171 Tri-Folder Door Interlock Switches and Sensor

Parts List on [PL 11.190](#), [PL 11.197](#)

### Removal

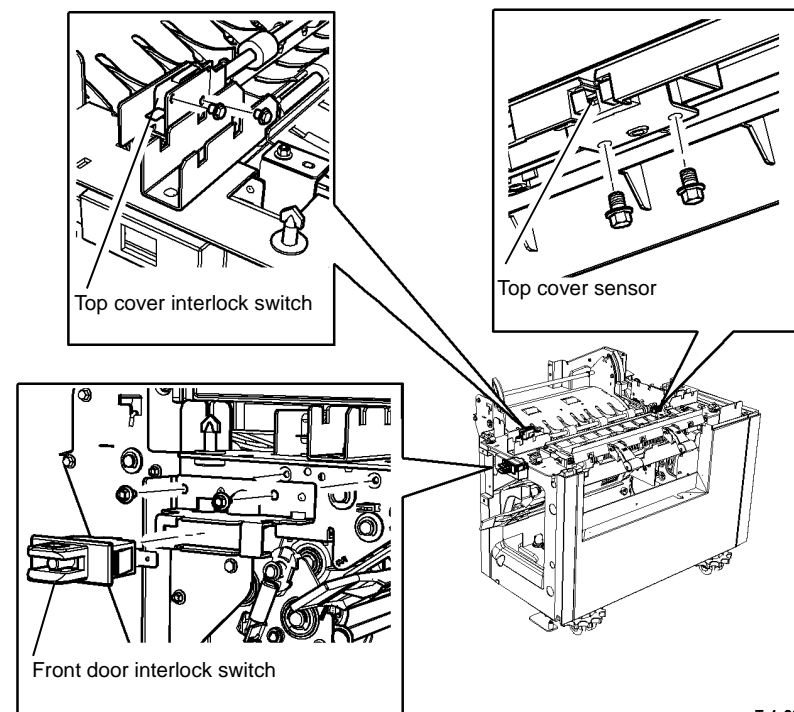
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tri-folder front and top covers, [REP 11.67-171](#).
2. Disconnect, then remove the relevant interlock switch or top cover sensor, [Figure 1](#).



T-1-0887-A

Figure 1 Switches and sensor removal

### Replacement

Reverse the removal procedures to replace the front door and top cover interlock switches and the top access cover sensor.

## REP 11.78-171 Tri-Folder Entry and Assist Gate Sensors

Parts List on [PL 11.197](#)

### Removal



#### WARNING

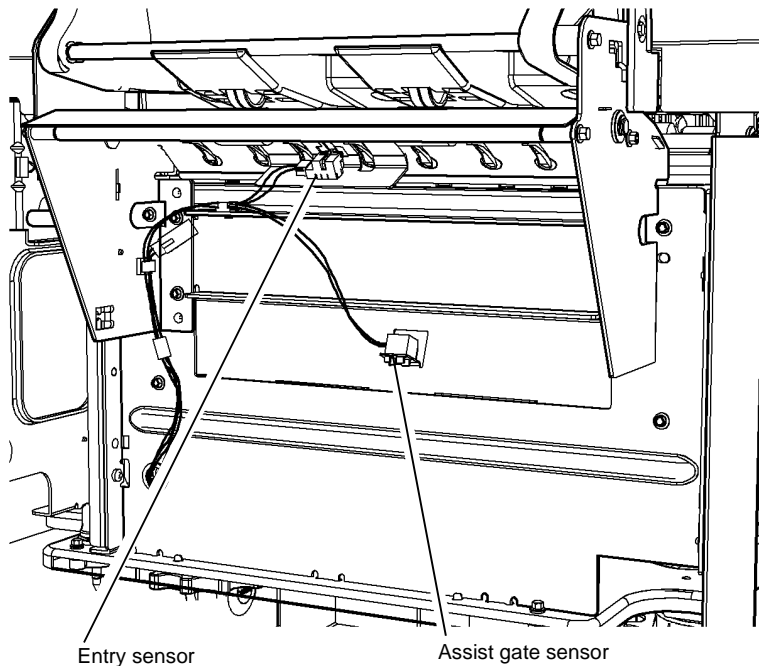
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Undock the tri-folder unit from the HVF, refer to [REP 11.73-171](#).
2. Disconnect, then remove the relevant sensor, [Figure 1](#).



LEFT SIDE VIEW

T-1-0888-A

Figure 1 Sensor removal

### Replacement

Reverse the removal procedures to replace the entry and assist gate sensors.

## REP 11.79-171 Tri Folder Exit Sensor

Parts List on [PL 11.197](#)

### Removal



#### WARNING

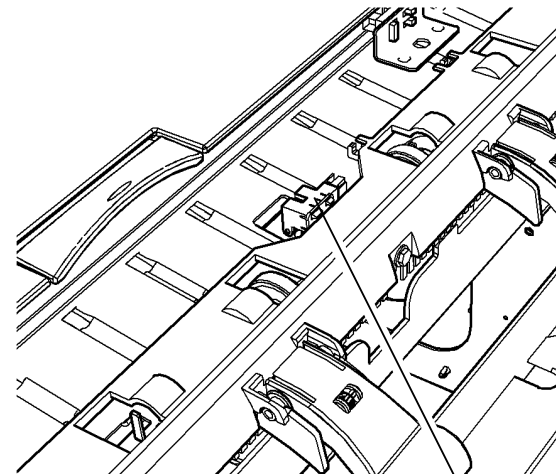
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tri-folder top cover, [REP 11.67-171](#).
2. Remove the exit sensor, [Figure 1](#).



1  
Disconnect, then remove  
the exit sensor.

T-1-0889-A

Figure 1 Exit sensor removal

### Replacement

Reverse the removal procedures to replace the exit sensor.

## REP 11.80-171 Tri-Folder Control PWB

Parts List on [PL 11.193](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tri-folder rear cover, [REP 11.67-171](#).
2. Disconnect the PJs, then remove the PWB, [Figure 1](#).

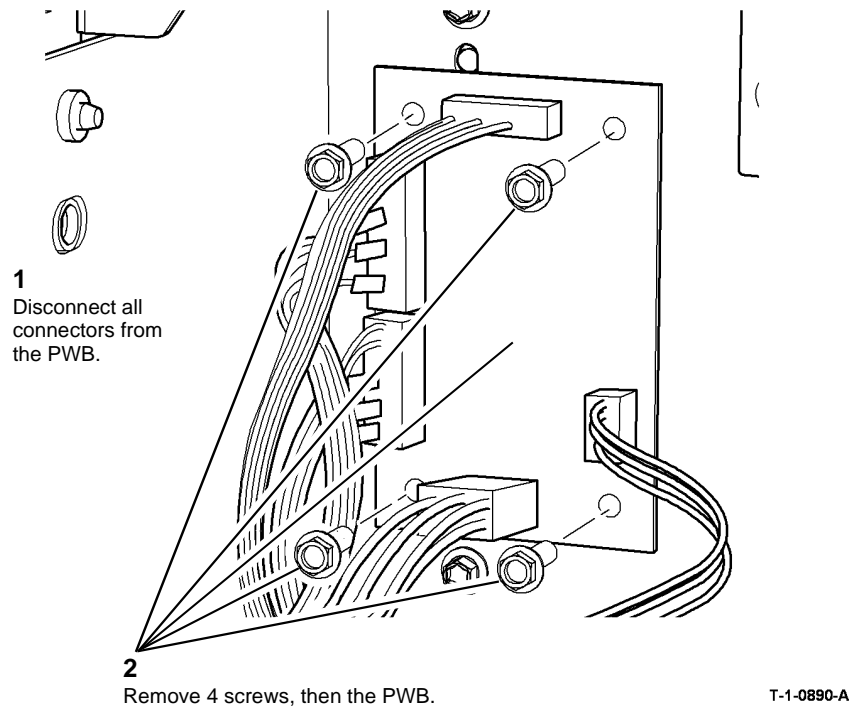


Figure 1 PWB removal

### Replacement

Reverse the removal procedures to replace the tri-folder control PWB.

## REP 11.81-171 Tri-Folder and Bin 2 Tray Harnesses

Parts List on [PL 11.193](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the tri-folder rear cover, [REP 11.67-171](#). If removing the tri folder harness, remove the HVF rear cover, [REP 11.1-171](#).

2. Disconnect, then remove the relevant harness, [Figure 1](#).

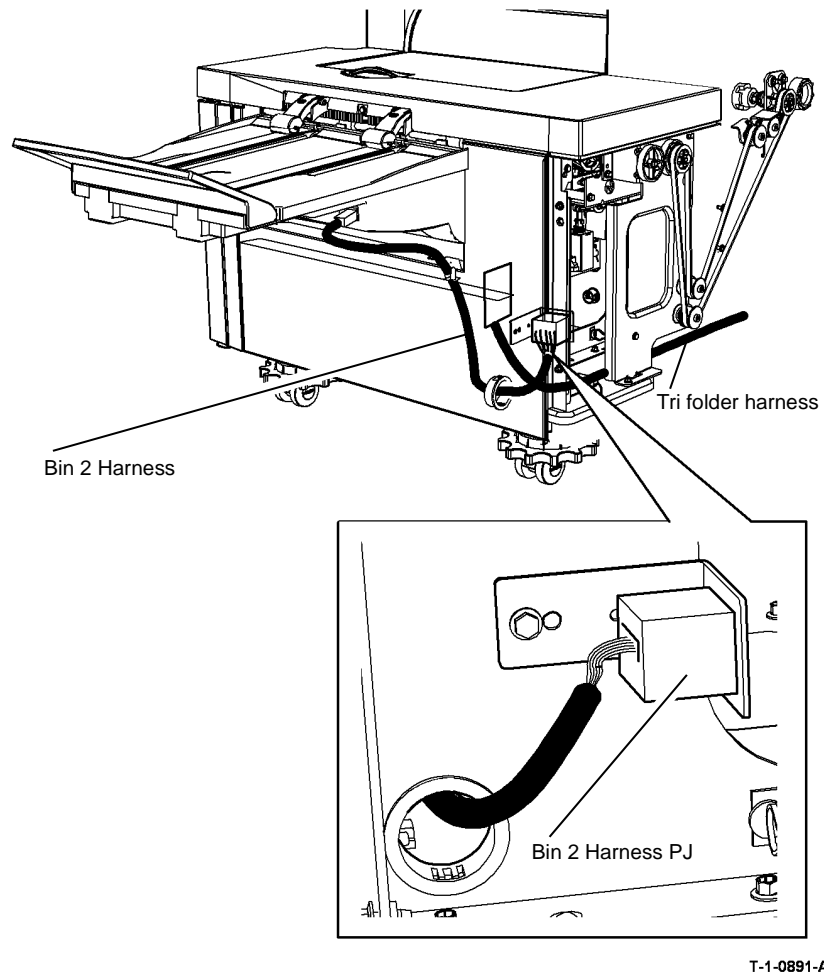


Figure 1 Harness removal

## Replacement

Reverse the removal procedures to replace the main and bin 2 tray harnesses.

## REP 11.82-171 Inserter Undocking

Parts List on [PL 11.175](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.



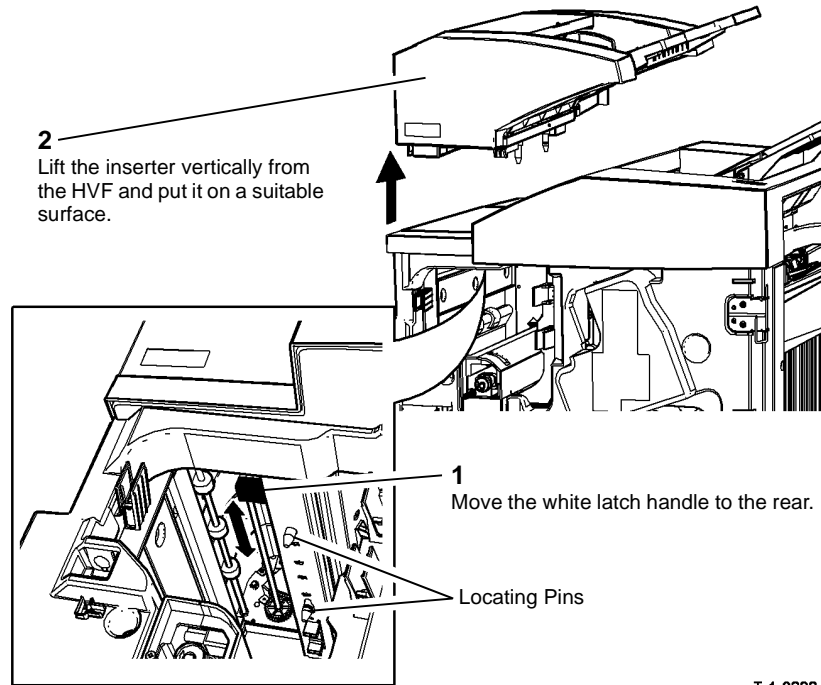
Place the inserter on a suitable surface. Do not damage the inserter locating pins.



Do not show the customer how to undock the inserter.

1. Open the HVF front door.

2. Undock the inserter, [Figure 1](#).



2  
Lift the inserter vertically from the HVF and put it on a suitable surface.

1  
Move the white latch handle to the rear.

Locating Pins

T-1-0892-A

Figure 1 Inserter undocking

### Replacement

1. Reverse the removal procedures to dock the inserter.
2. Lock the inserter onto the HVF by sliding the latch handle towards the front, [Figure 1](#).

## REP 11.83-171 Inserter Front and Rear Covers

Parts List on [PL 11.175](#)

### Removal

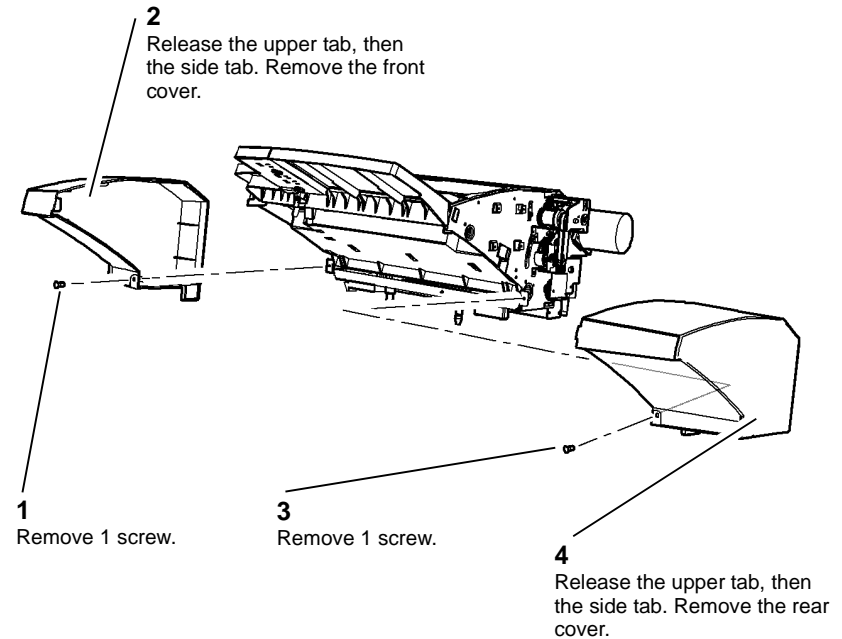
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Undock the inserter and put it on a suitable surface, [REP 11.82-171](#).
2. Remove the lower screw and release the upper tab. Move the cover to release the right side tab from the frame, [Figure 1](#).



1  
Remove 1 screw.

2  
Release the upper tab, then the side tab. Remove the front cover.

3  
Remove 1 screw.

4  
Release the upper tab, then the side tab. Remove the rear cover.

T-1-0893-A

Figure 1 Covers removal

### Replacement

Reverse the removal procedures to replace the inserter front and rear covers.

## REP 11.84-171 Inserter Motor

Parts List on [PL 11.181](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter rear cover, [REP 11.83-171](#).
2. Remove the inserter motor and bracket, [Figure 1](#).

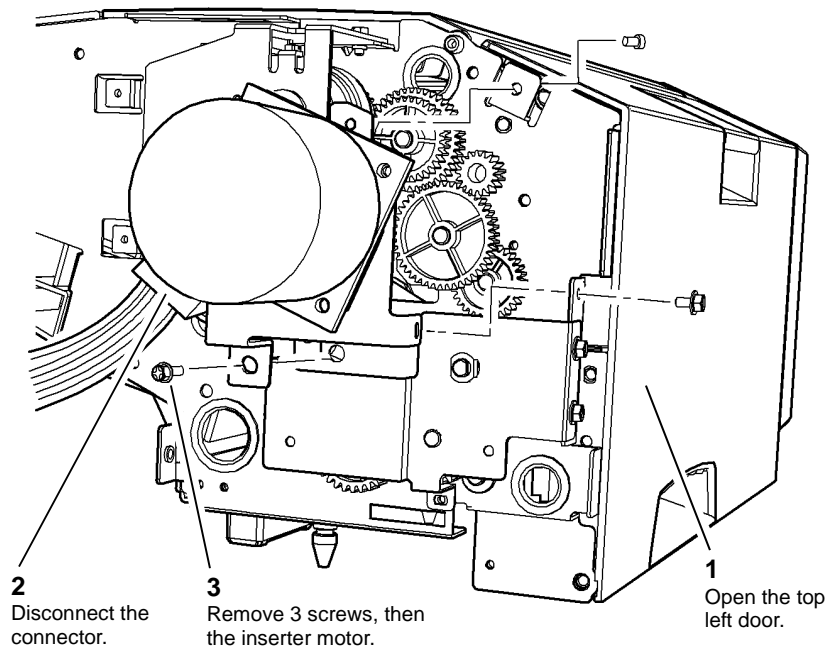


Figure 1 Inserter motor removal

T-1-0894-A

### Replacement

1. Reverse the removal procedures to replace the inserter motor.
2. Make sure that the correct screws are used to replace the inserter motor, [GP 6](#).

## REP 11.85-171 Inserter PWB

Parts List on [PL 11.179](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter rear cover, [REP 11.83-171](#).
2. Remove the inserter PWB, [Figure 1](#).

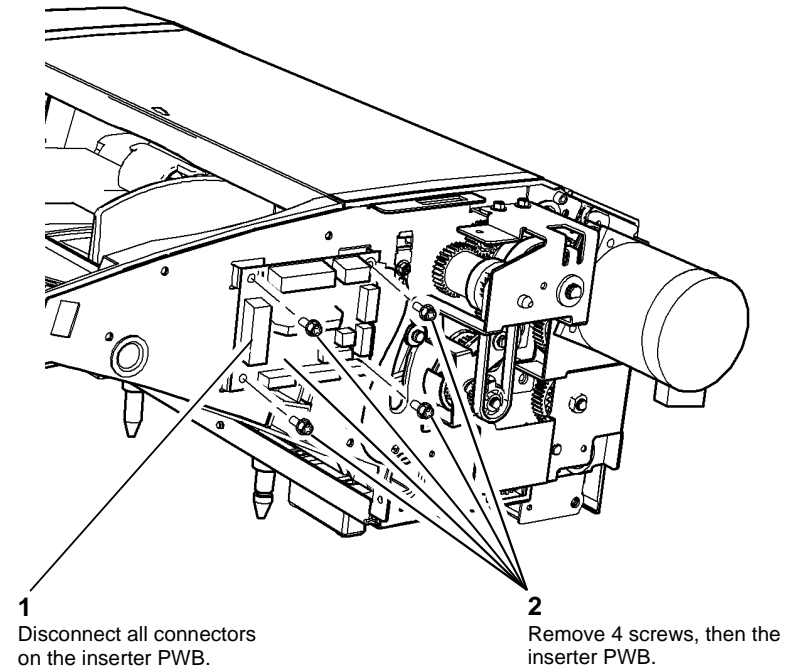


Figure 1 Inserter PWB

T-1-0895-A

### Replacement

Reverse the removal procedures to replace the inserter PWB.

## REP 11.86-171 Inserter Clutch

Parts List on [PL 11.179](#)

### Removal



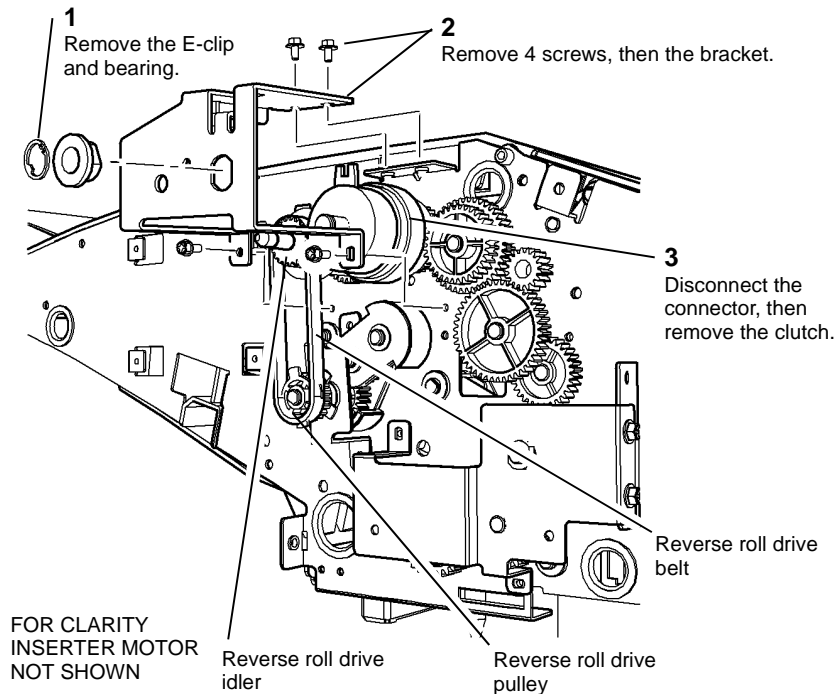
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter rear cover, [REP 11.83-171](#).
2. Remove the clutch, [Figure 1](#).

**NOTE:** The reverse roll drive idler and the drive belt are not attached to the clutch bracket or the inserter frame.



T-1-0896-A

Figure 1 Inserter clutch removal

### Replacement

1. Reverse the removal procedures to replace the inserter clutch.
2. When replacing the bracket, check that the clutch torque arm locates in the locating tab. Put the reverse roll drive belt over the drive idler and check that the reverse roll idler gear shaft locates properly into the frame.
3. When the bracket is secured, temporarily remove the circlip and the reverse roll drive pulley to replace the drive belt over the reverse roll drive pulley.

## REP 11.87-171 Inserter Top Cover Interlock Switch

Parts List on [PL 11.177](#)

### Removal



#### WARNING

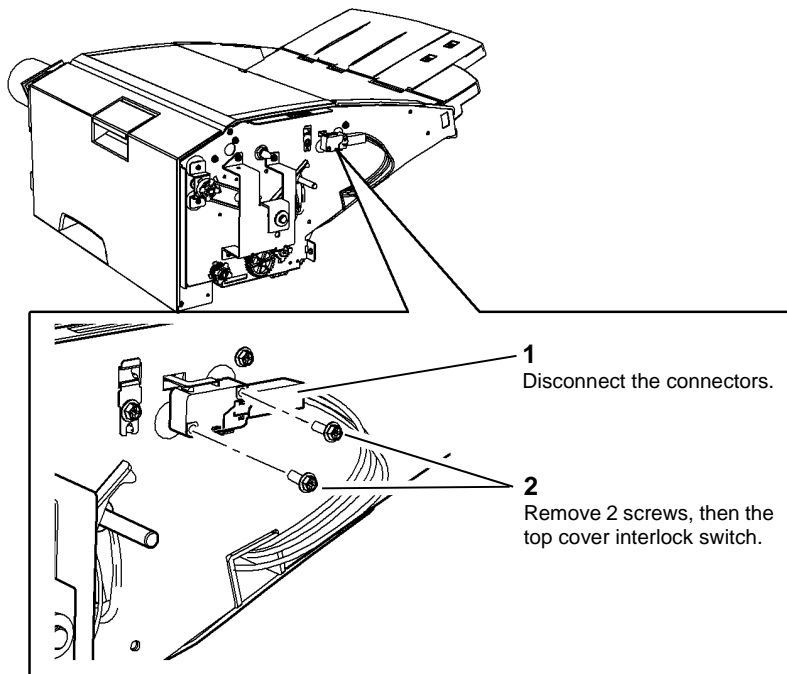
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter front cover, [REP 11.83-171](#).
2. Disconnect the PJs and remove the 2 screws securing the top cover interlock switch, [Figure 1](#).



T-1-0897-A

Figure 1 Switch removal

### Replacement

Reverse the removal procedures to replace the inserter top cover interlock switch.

## REP 11.88-171 Left Hand Door Interlock Switch

Parts List on [PL 11.175](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter front and rear covers, [REP 11.83-171](#).
2. Remove the inserter motor, [REP 11.84-171](#).
3. Remove the rear pivot screw and remove the top cover, [Figure 1](#).



## REP 11.89-171 Main Tray and Paper Length Sensors

Parts List on [PL 11.175](#)

### Removal



**WARNING**

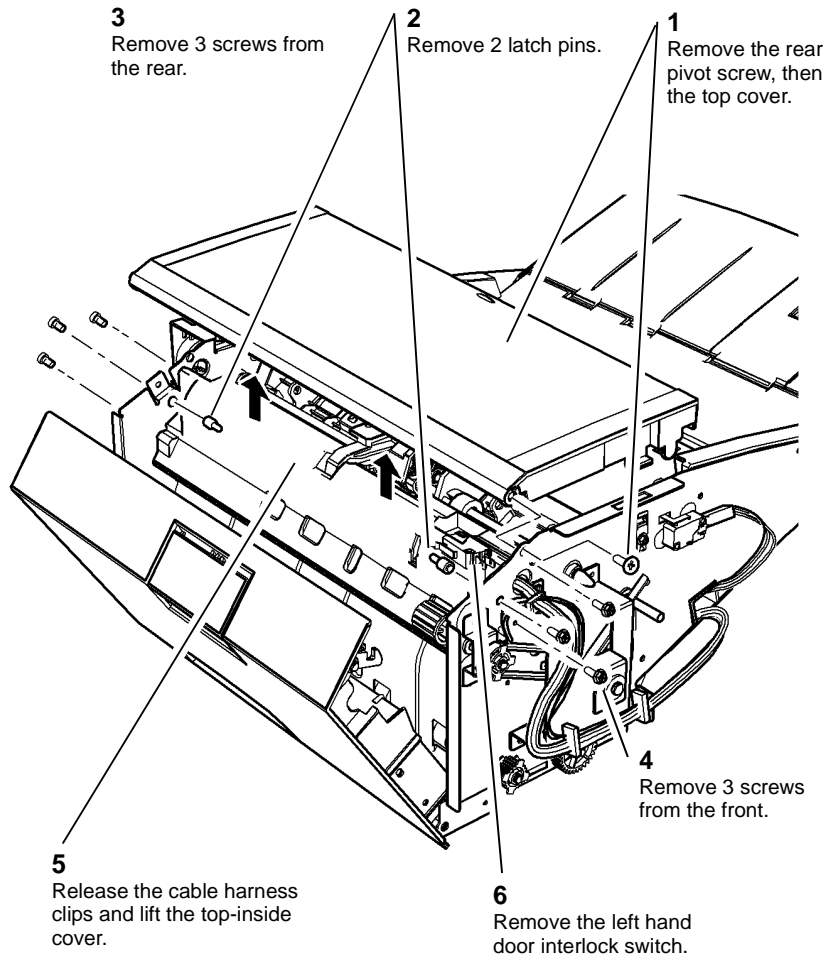
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the main tray or relevant sensor, [Figure 1](#)



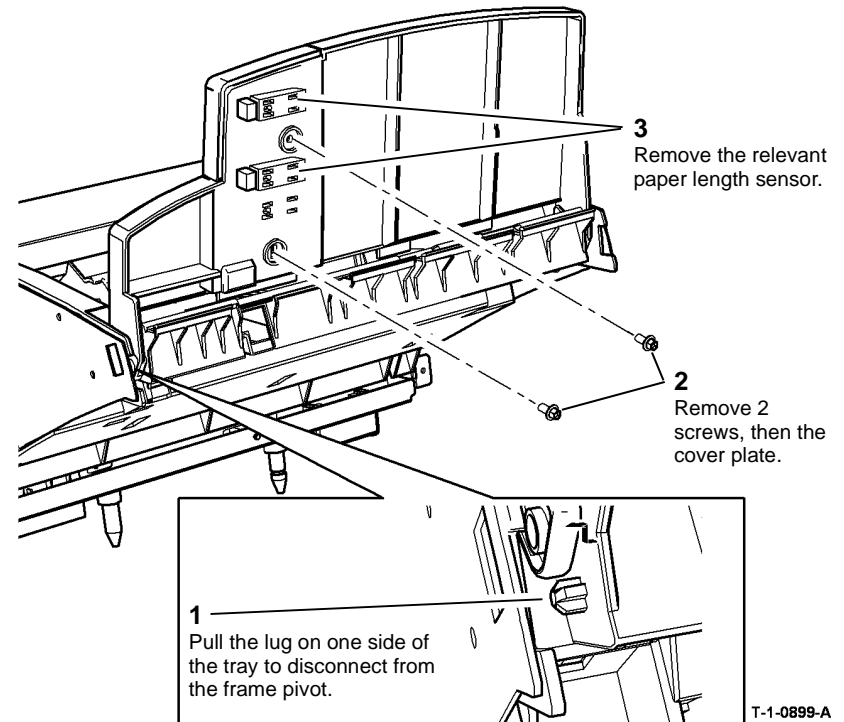
T-1-0898-A

**Figure 1 Switch removal**

4. Remove the door latch pins then remove 4 screws holding the top inside cover, [Figure 1](#).
5. Release the cable harness clips and lift the top-inside cover. Disconnect the PJs and remove the top left door interlock switch.

### Replacement

1. Reverse the removal procedures to replace the left hand cover interlock switch.
2. When reinstalling the inside top cover and the top cover make sure that the correct screws are used and that the screws are not overtightened [GP 6](#)



T-1-0899-A

**Figure 1 Main tray assembly removal**

### Replacement

Reverse the removal procedures to replace the inserter main tray and paper length sensors.

## REP 11.90-171 Bottom Tray and Paper Sensors

Parts List on [PL 11.175](#)

### Removal



#### WARNING

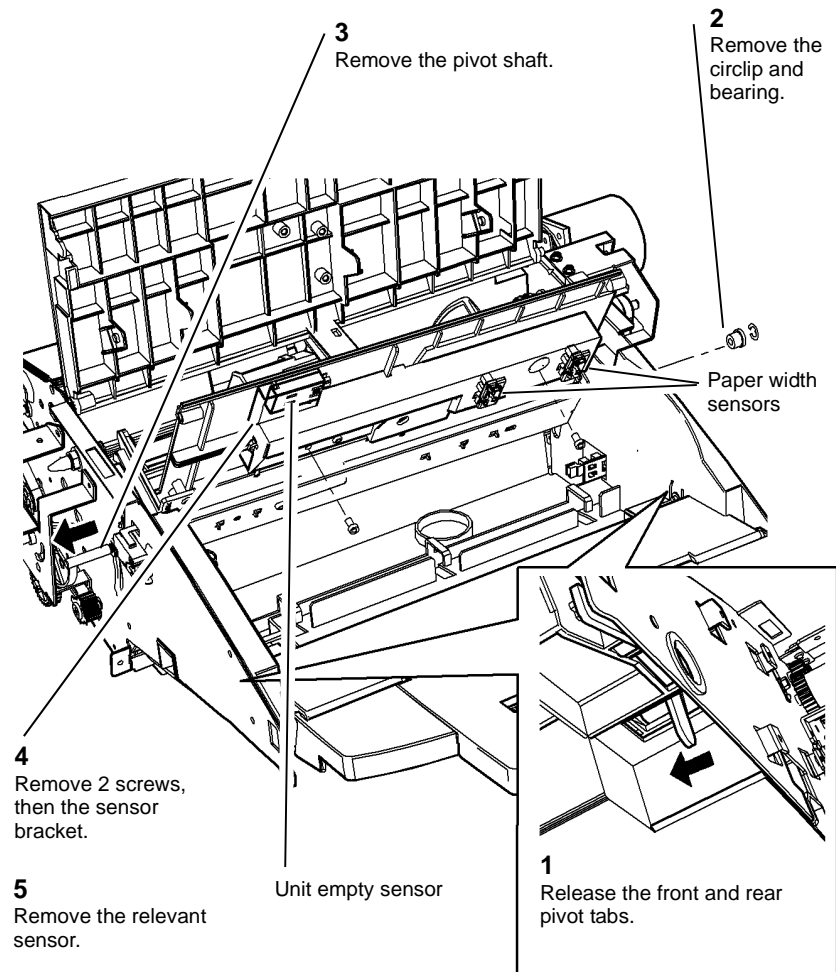
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Undock the inserter, [REP 11.82-171](#). Release the front and rear pivot tabs then lift the bottom tray. Control the movement of the bottom tray springs.
2. Remove the relevant sensor, [Figure 1](#).



T-1-0900-A

Figure 1 Bottom tray and sensors removal

### Replacement

1. Reverse the removal procedure to replace the bottom tray and paper sensors.
2. Check that the loading levers are at the same angle and that the tray pivot shaft passes below the front and rear loading levers. Check that the bottom tray is supported horizontally in the frame.
3. Make sure that the bottom tray springs are correctly aligned before engaging the front and rear pivot tabs.

## REP 11.91-171 Inserter Top Cover and IDG Pickup Sensor

Parts List on [PL 11.179](#)

### Removal

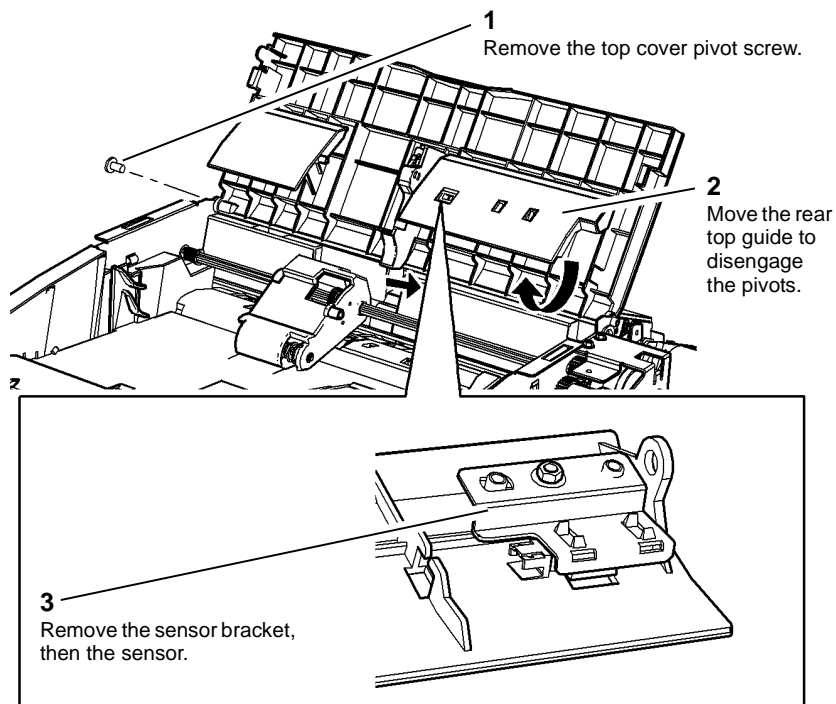
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter front cover, [REP 11.83-171](#).
2. Remove the top cover pivot screw. Move the rear top guide to disengage the pivots then remove the sensor bracket and disconnect the sensor PJ, [Figure 1](#).



T-1-0901-A

Figure 1 Top cover and sensor removal

### Replacement

Reverse the removal procedure to replace the IDG pickup sensor and top cover.

## REP 11.92-171 Inserter Top Left Door and Acceleration Sensor

Parts List on [PL 11.175](#)

### Removal

  
**WARNING**

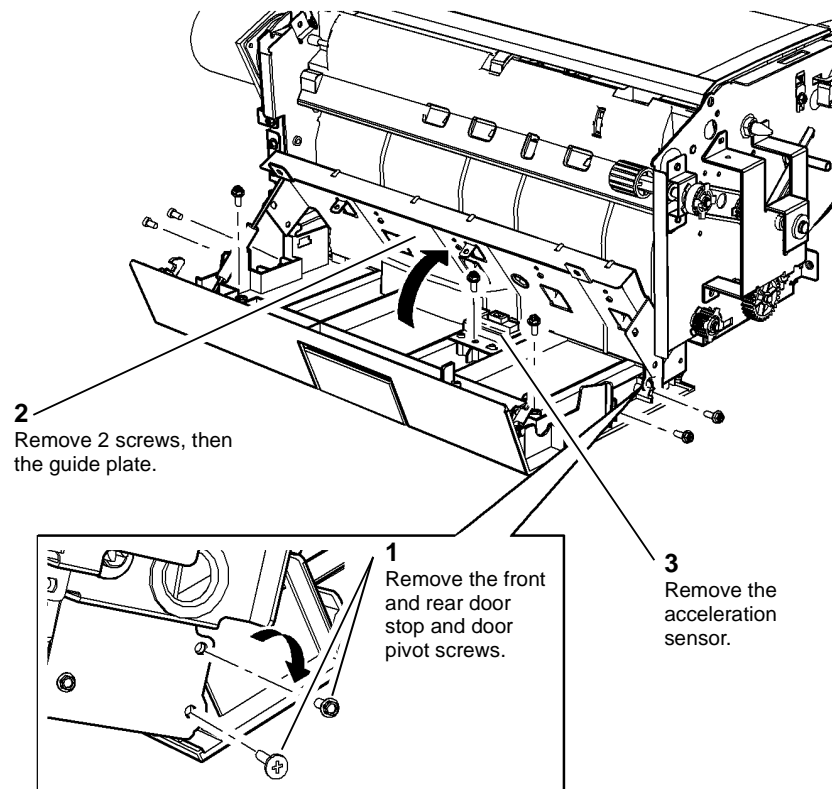
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the front and rear covers, [REP 11.83-171](#).

2. Remove the acceleration sensor, [Figure 1](#).



T-1-0902-A

Figure 1 Sensor removal

## Replacement

Reverse the removal procedure to replace the inserter top left door and the acceleration sensor.

## REP 11.93-171 LE and TE Sensors

Parts List on [PL 11.179](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter front and rear covers, [REP 11.83-171](#).
2. Remove the inserter motor, [REP 11.84-171](#).
3. Remove the pickup roll assembly, [REP 11.95-171](#).
4. Remove the top cover, [REP 11.91-171](#).
5. Remove the top inside cover, refer to [REP 11.88-171](#).

- Remove the relevant sensor, [Figure 1](#).

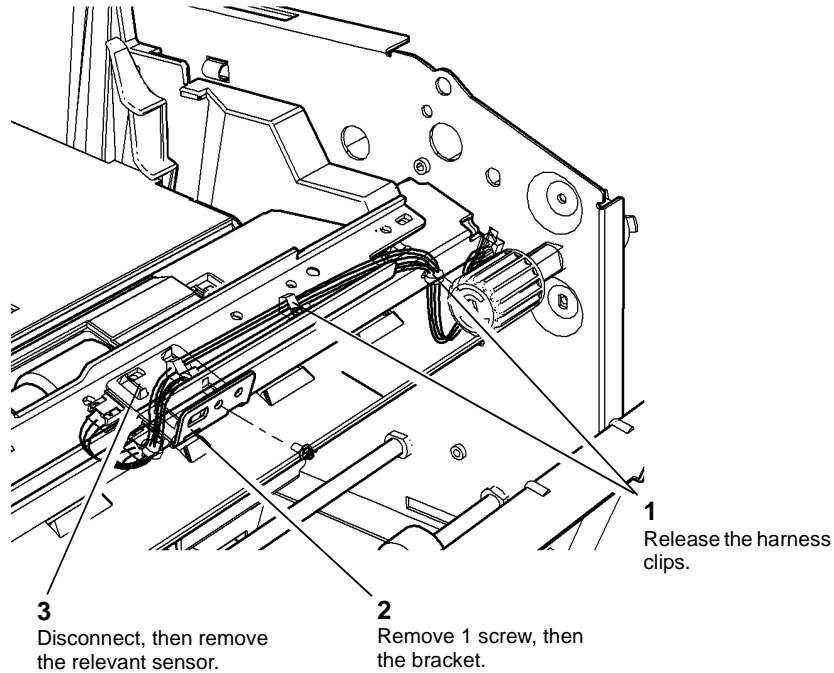


Figure 1 Sensor removal

T-1-0903-A

### Replacement

- Reverse the removal procedure to replace the LE and TE sensors.
- When replacing the top inside cover, and the top cover make sure that the correct screws are used and that the screws are not overtightened, [GP 6](#)

## REP 11.94-171 Inserter Bottom Plate Sensor

Parts List on [PL 11.175](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

- Undock the inserter, [REP 11.82-171](#).
- Release the front and rear pivot tabs, then lift the bottom tray. Control the movement of the bottom tray springs.
- Remove the sensor from the bracket, [Figure 1](#).

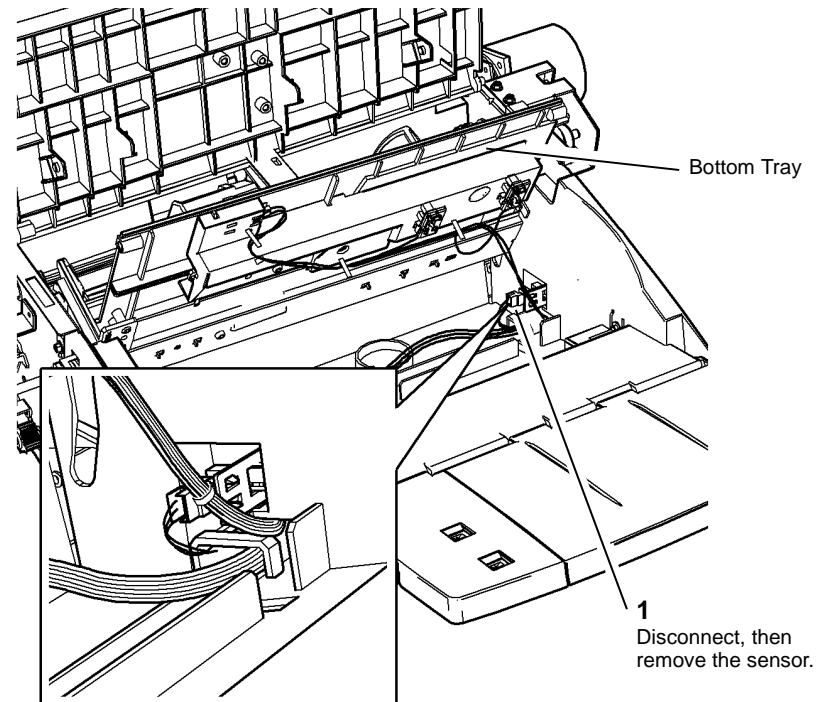


Figure 1 Sensor removal

T-1-0904-A

### Replacement

Reverse the removal procedure to replace the inserter bottom plate sensor.

## REP 11.95-171 Inserter Pickup Assembly and Reverse Feed Roller

Parts List on [PL 11.179](#)

### Removal



#### WARNING

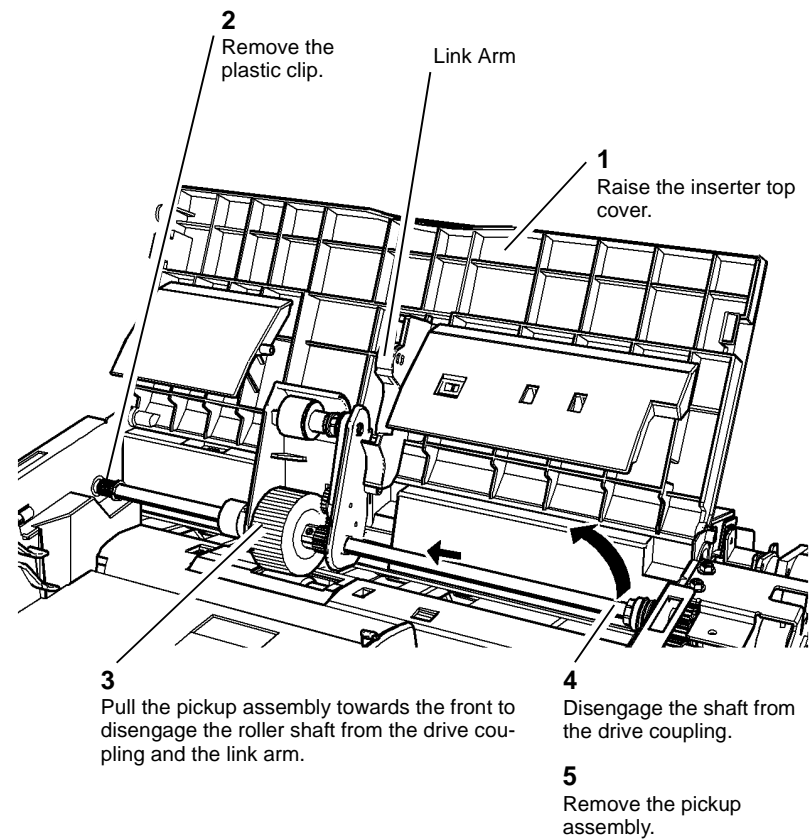
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the pickup assembly from the inserter, [Figure 1](#).



T-1-0905-A

Figure 1 Pickup roller assembly removal

- Remove the reverse roller shaft, [Figure 2](#).

For clarity the top cover is not shown.

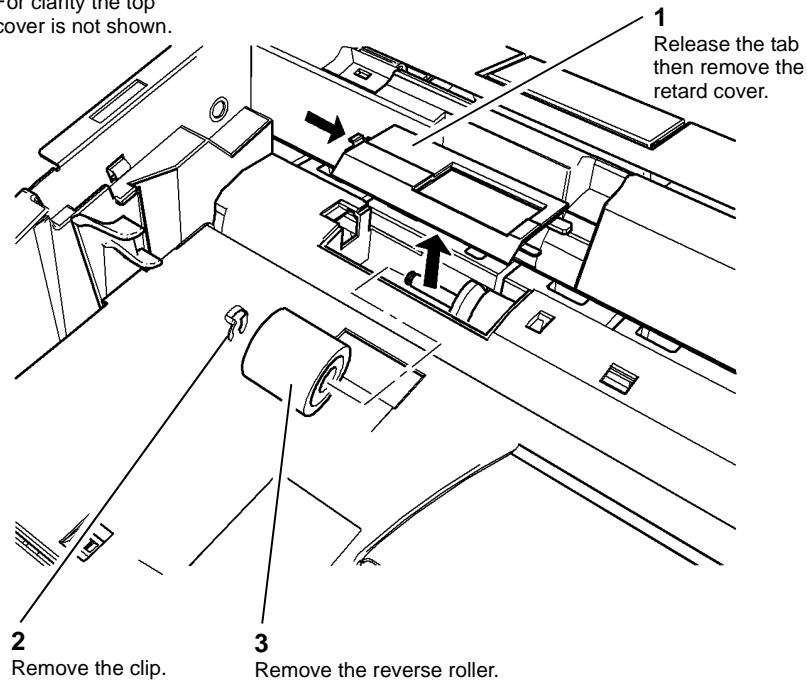


Figure 2 Reverse roller removal

T-1-0906-A

### Replacement

- Reverse the removal procedure to replace the reverse feed roller and the pickup assembly.
- After replacing the pickup assembly, close the inserter top cover fully to engage the link arm with the pickup roller.

## REP 11.96-171 HVF Fixed and Adjustable Casters

Parts List on [PL 11.130](#)

### Removal



Mandatory safety warning. This procedure must be performed by 2 people. The module is heavy.



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

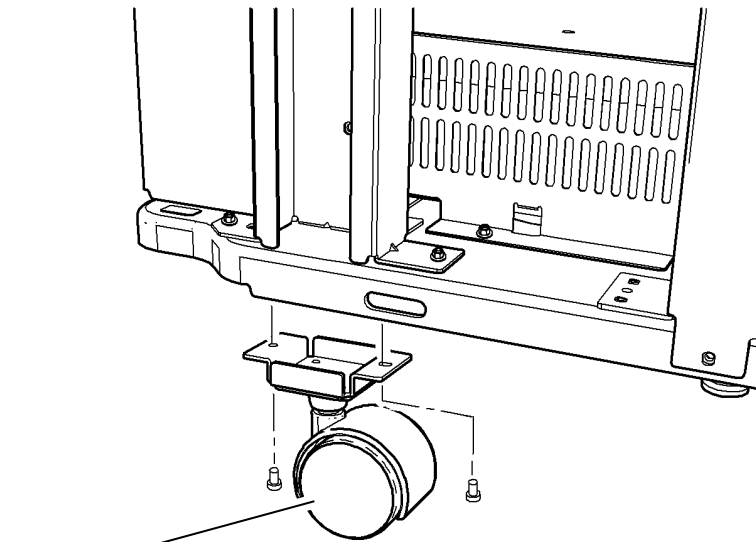


Do not remove more than one castor at a time unless the HVF frame is properly supported and stable.

**NOTE:** The HVF weight is 82kg (181lbs.), the HVF BM weight is 109kg (240lbs.).

- If installed, undock the tri-folder from the HVF, [REP 11.82-171](#).
- If installed, undock the inserter from the HVF, [REP 11.82-171](#).
- Undock the HVF, [REP 11.13-171](#).
- Remove the HVF front and rear covers, [REP 11.1-171](#).
- Lift and support the HVF frame securely at a position close to where the castor is to be removed, [GP 16](#). Support the frame approximately 4 inches (approximately 2 reams of paper) above the floor so that the castor is not supporting the unit.

6. Remove the fixed castor, [Figure 1](#).

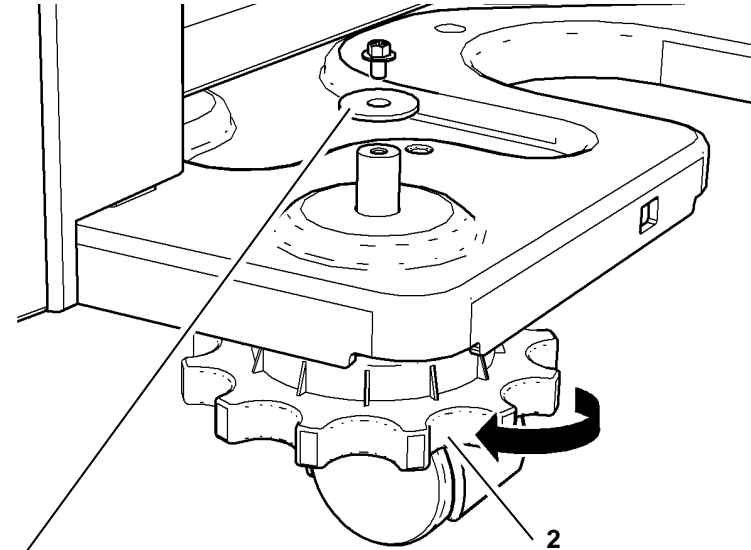


**1**  
Remove 2 screws, then  
the fixed castor.

T-1-0907-A

**Figure 1 Fixed castor removal**

7. Support the HVF frame. Remove the adjustable castor from the frame, [Figure 2](#).



**1**  
Remove the screw and  
stop plate.

**2**  
Rotate the castor adjustment  
wheel to unscrew the castor  
from the frame

T-1-0908-A

**Figure 2 Adjustable castor removal**

### Replacement

Reverse the removal procedure to replace the HVF fixed and adjustable casters.



## REP 11.97-171 Pause to Unload PWB

Parts List on [PL 11.157](#)

### Removal



#### WARNING

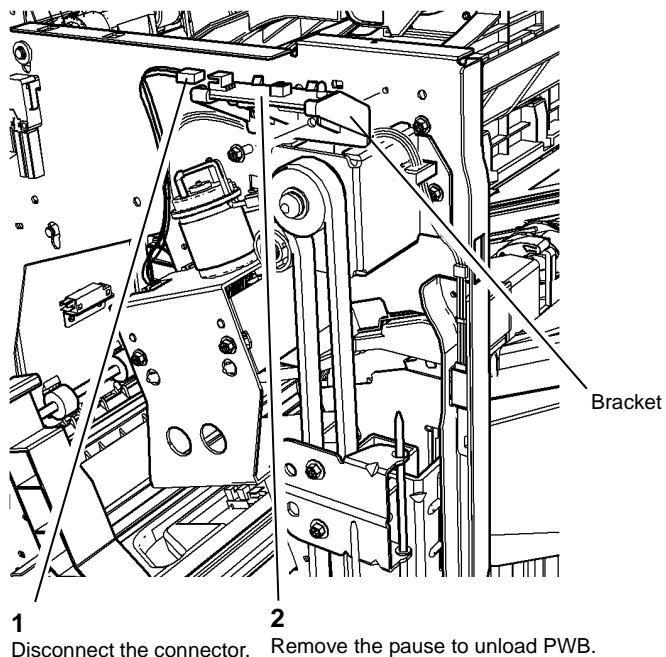
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF Front door, front cover and top cover, [REP 11.1-171](#).
2. Remove the pause to unload PWB and bracket, [Figure 1](#).



T-1-0909-A

Figure 1 PWB removal

### Replacement

Reverse the removal procedure to replace the pause to unload PWB.

## REP 11.98-171 Inserter Idle Roller Assembly

Parts List on [PL 11.179](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the inserter front and rear covers, [REP 11.83-171](#).
2. Remove the inserter motor, [REP 11.84-171](#).
3. Remove the inserter clutch, [REP 11.86-171](#).
4. Remove the top cover assembly, [REP 11.91-171](#).
5. Remove the inside top cover and top left door interlock switch, [REP 11.88-171](#).

6. Prepare to remove the idle roller assembly, [Figure 1](#).

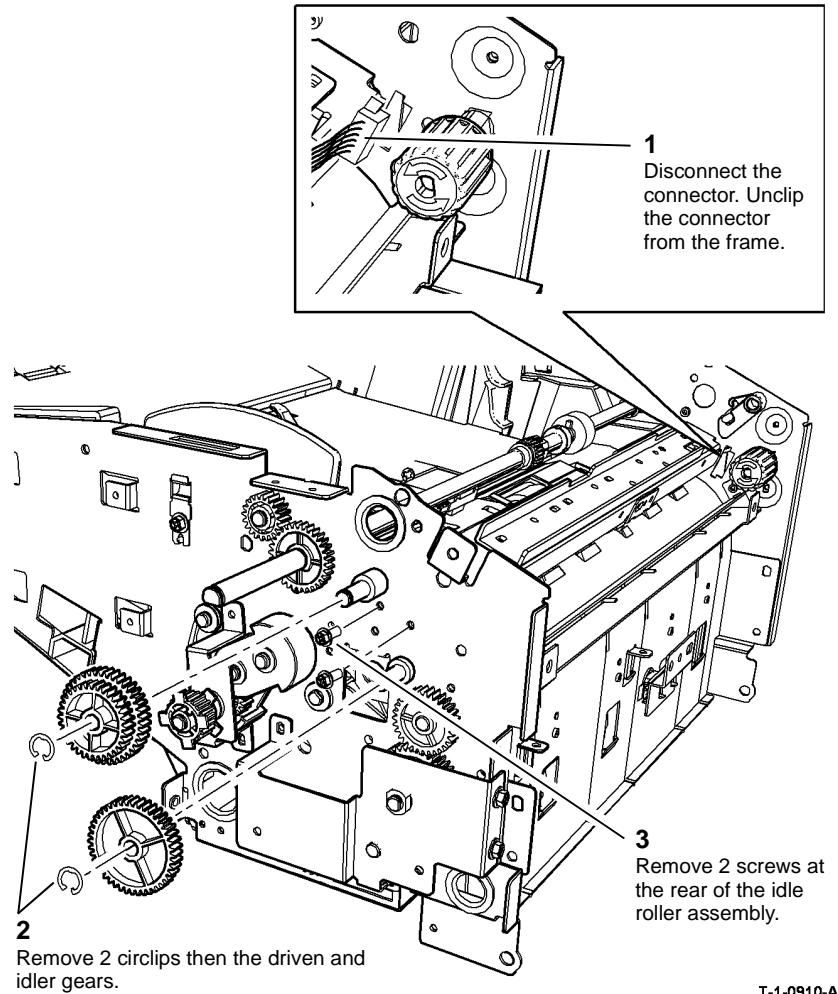


Figure 1 Preparation

7. Remove the idle roller assembly from the frame, [Figure 2](#).

**NOTE:** Check that the loading gear remains engaged with the loading shaft gear.

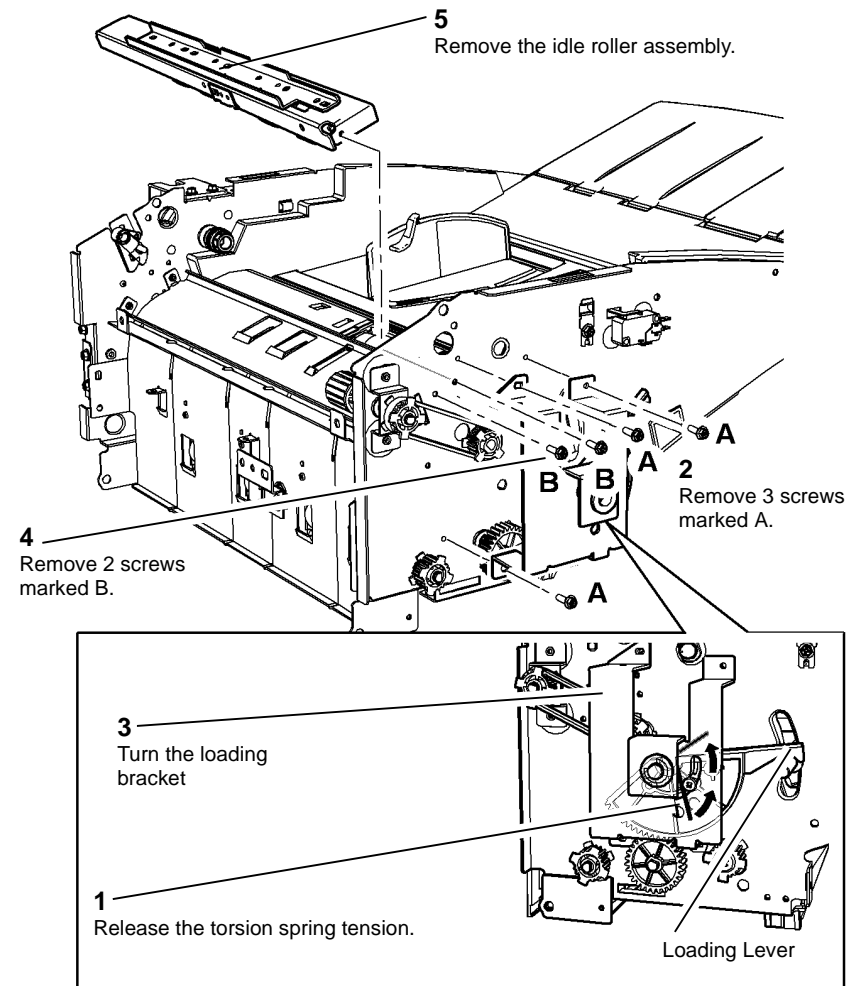


Figure 2 Idle roller assembly

### Replacement

1. Reverse the removal procedure to replace the Idle roller assembly.
2. Replace the loading bracket screws and check that the front loading lever is at the same angle as the rear loading lever, then tension the torsion spring. The loading tray will not operate correctly if it is not supported horizontally in the inserter frame.

## REP 11.99-171 Tri-Folder Removal

Parts List on [PL 11.190](#), [PL 11.193](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



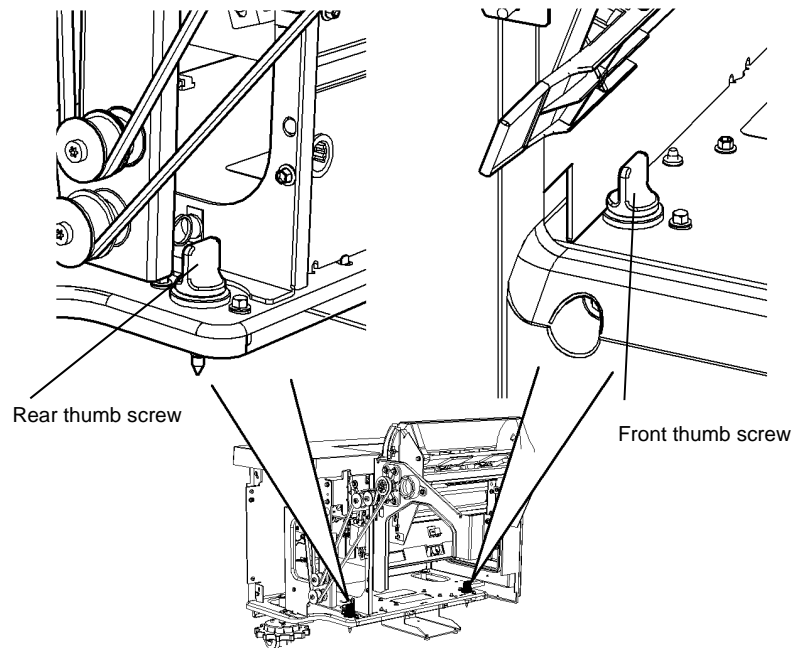
Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the HVF rear cover, [REP 11.1-171](#).
2. Remove the tri-folder rear cover, [REP 11.67-171](#).
3. Remove the coupler drive belt, [REP 11.68-171](#).
4. Open the tri-folder front door, then remove the front and rear thumb screws, [Figure 1](#).

5. Disconnect the HVF to tri-folder bin 2 tray harness from the tri-folder module, [REP 11.81-171](#).
6. Disconnect the tri-folder harness from PJ553 and PJ563 on the BM PWB, [PL 11.166 Item 10](#).
7. Undock the tri-folder from the HVF

### Replacement

Reverse the removal procedures to replace the tri-folder module.



T-1-0912-A

Figure 1 Thumb screw removal

## REP 11.100-171 Ejector Paddle Assembly (W/TAG V-007)

Parts List on [PL 11.140](#)

### Removal

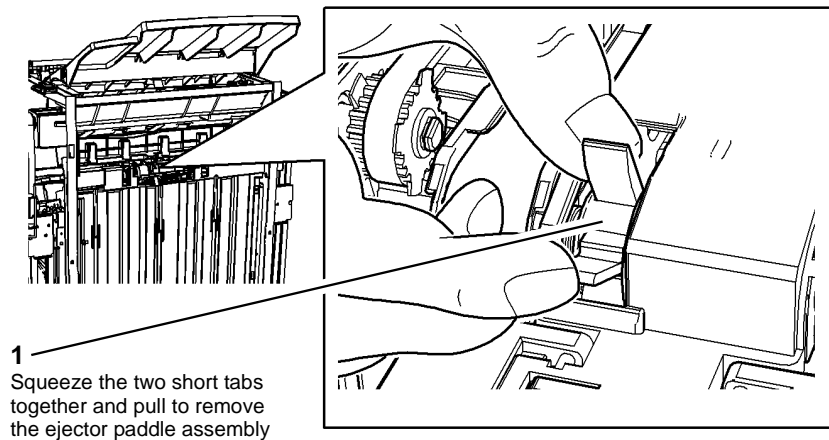


Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Rotate the ejector paddle assembly until the two short tabs are visible.
2. Remove the ejector paddle assembly, [Figure 1](#).



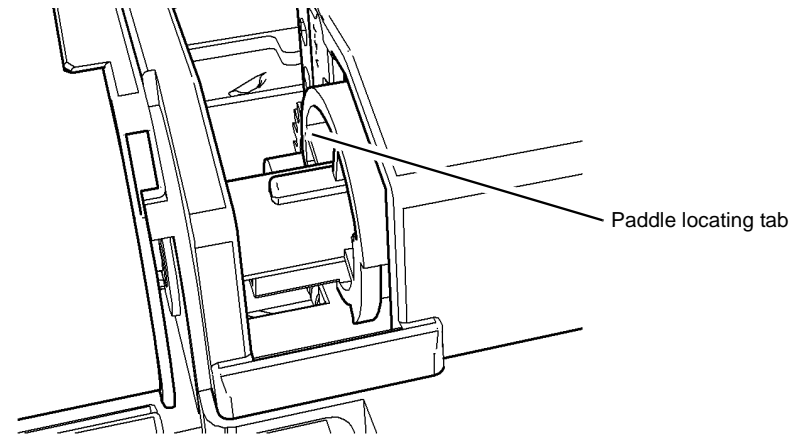
T-1-1109-A

Figure 1 Ejector paddle assembly

### Replacement

1. Rotate the paddle shaft to ensure that the locating tab is uppermost, [Figure 2](#).
2. Hold the paddle assembly by the two short tabs and clip onto the shaft.

**NOTE:** Ensure that the paddle assembly is correctly oriented to fit onto the plastic locating tab.



T-1-1110-A

Figure 2 Paddle locating tab

## REP 11.101-171 Paddle Wheel

Parts List on [PL 11.145](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

**NOTE:** This procedure shows the replacement of the paddle wheels with the paddle module assembly installed. If necessary, remove the paddle unit assembly before replacing the paddle wheels. Refer to [REP 11.49-171](#).

1. Rotate the paddle until the two rubber blades are visible.

  
**CAUTION**

To ensure that the correct home position of the paddle wheel shaft is maintained, install the new paddle wheels one at a time.

2. Remove one paddle wheel at a time from the shaft, [Figure 1](#).

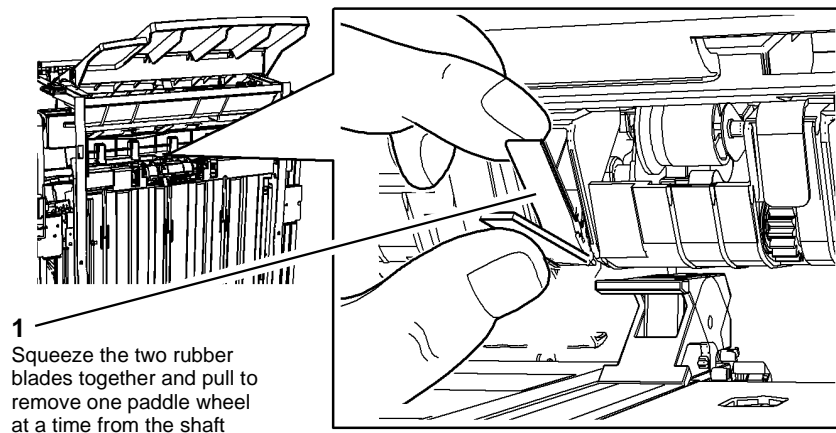


Figure 1 Paddle removal

### Replacement

1. Hold the paddle wheel by the two rubber blades and clip onto the shaft one at a time to ensure that all four new paddles are in the same orientation as the old four paddles.



## REP 12.1 OCT Fingers Install

Parts List on [PL 12.10](#)

### Installation



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Do not install the OCT fingers on 65 -90 ppm machines.

1. Remove the OCT, [PL 12.10 Item 1](#).
2. Remove the right hand cover, [PL 8.10 Item 4](#).
3. Remove lug 1 and lug 2 from the rear of the right hand cover, [Figure 1](#).

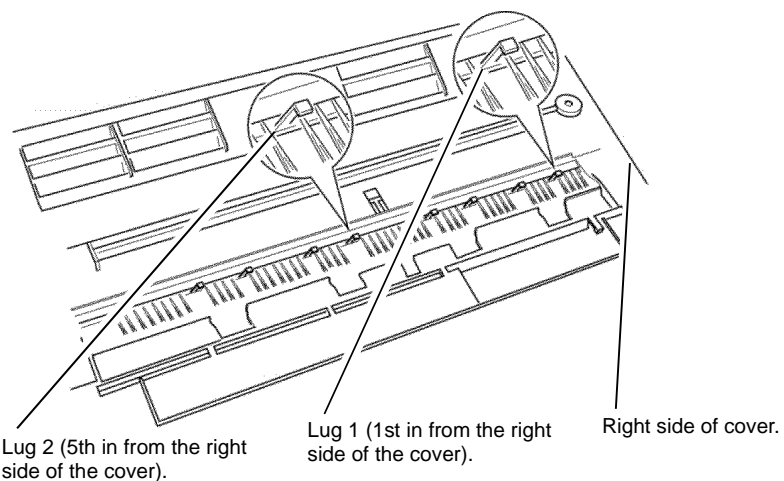


Figure 1 Lug removal

T-1-0913-A



#### CAUTION

Make sure that the OCT fingers are installed in the correct position. Each of the three fingers is marked.

4. Install three OCT fingers on to the exit shaft assembly, [Figure 2](#).

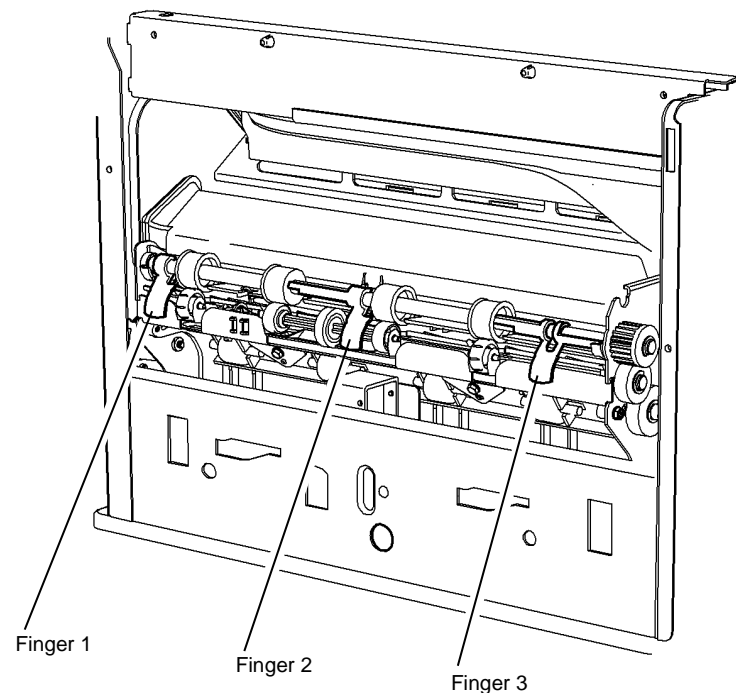


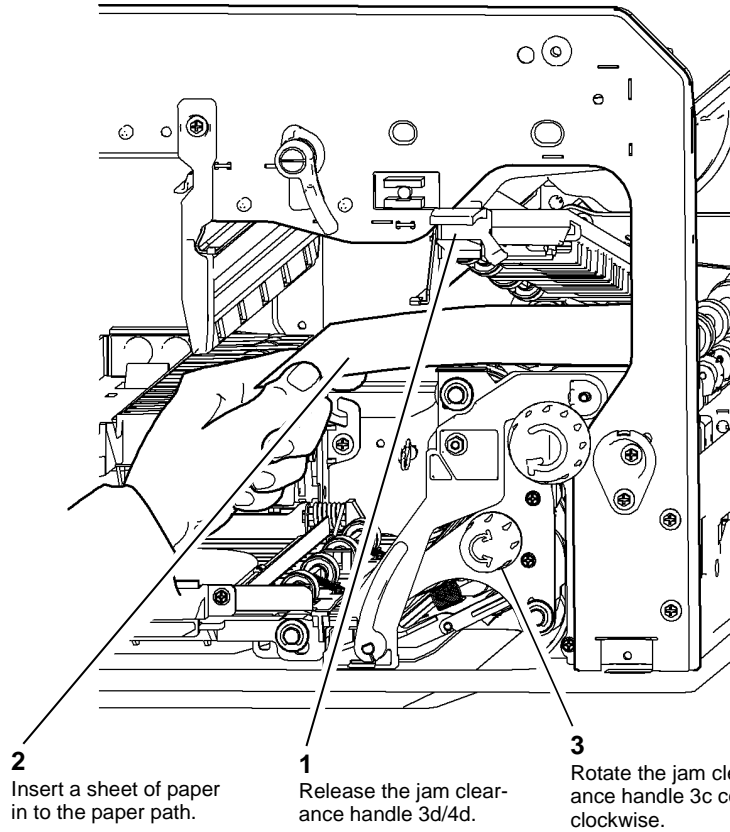
Figure 2 Finger install

T-1-0914-A

5. Remove the fuser module, (35-55 ppm) [PL 10.8 Item 1](#), (65-90ppm) [PL 10.10 Item 1](#).

6. Manually feed a sheet of A4 or 8.5 x 11 inch paper, long edge feed, through the paper path, [Figure 3](#).

**NOTE:** This is necessary to make sure that the OCT fingers are fully raised when the right hand cover is installed.



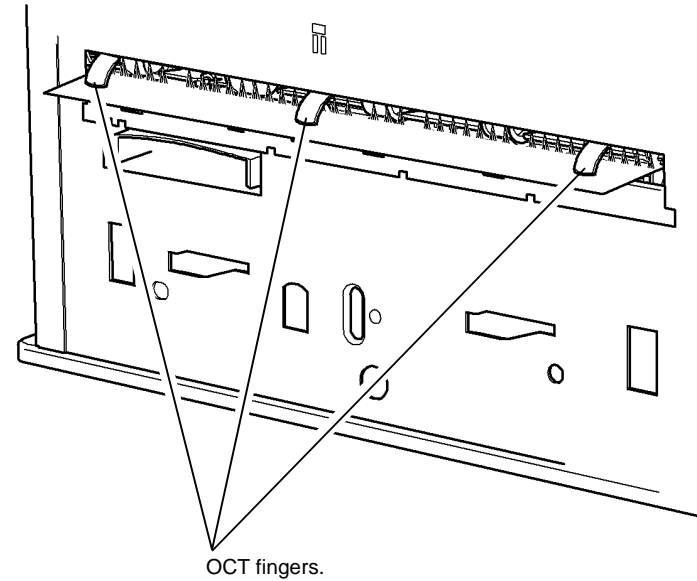
**Figure 3** Inserting paper

T-1-0915-A

**CAUTION**

When the right cover is installed, make sure that the OCT fingers extend through the hole in the right hand cover. Refer to [Figure 4](#).

7. Install the right hand cover, [Figure 4](#).



T-1-0916-A

**Figure 4** Finger check

8. Remove the piece of paper from the paper path. Make sure that the OCT fingers fall freely under their own weight.
9. Re-install the fuser and then the OCT.



## REP 14.1 Scanner

Parts List on [PL 14.20 \(W/O TAG 150\)](#), [PL 14.10 \(W/TAG 150\)](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the OCT, [PL 12.10 Item 1](#), or perform the following:
  - [REP 11.12-120 1K LCSS Removal](#).
  - [REP 11.13-110 2K LCSS Undocking](#).
  - [REP 11.13-171 HVF and HVF BM Undocking](#).
2. Lock the scan carriage, [Figure 1](#).
3. Remove the DADH, [REP 5.19](#).
4. Pull out the single board controller PWB module, [PL 3.24 Item 1](#).  
Perform the following:
  - a. Disconnect the following connectors from the power distribution PWB:
    - PJ136
    - PJ135
    - PJ133
    - PJ131
    - PJ132
  - b. Disconnect the following connectors from the single board controller PWB:
    - PJ101
    - PJ102
    - PJ103
    - PJ104
    - PJ105
    - PJ107
    - PJ109
    - PJ113
    - PJ114
    - PJ152 (connection on the rear of the module to DADH)
  - c. ([W/TAG 150](#)), disconnect PJ4 and PJ6 from the scanner daughter PWB, [PL 3.24 Item 20](#).
  - d. Remove the cable clamp, [PL 3.24 Item 10](#).
  - e. Release the harnesses from the single board controller PWB module.
  - f. Release the catch on the single board controller PWB module, then remove the single board controller PWB module.

5. Remove the rear cover, [PL 8.10 Item 1](#).
6. Remove the user interface, [REP 2.1](#).
7. Remove the left hand cover, [PL 8.10 Item 3](#).
8. Remove the right hand cover, [PL 8.10 Item 4](#).
9. Remove the xerographic module. Put the module in a black bag.

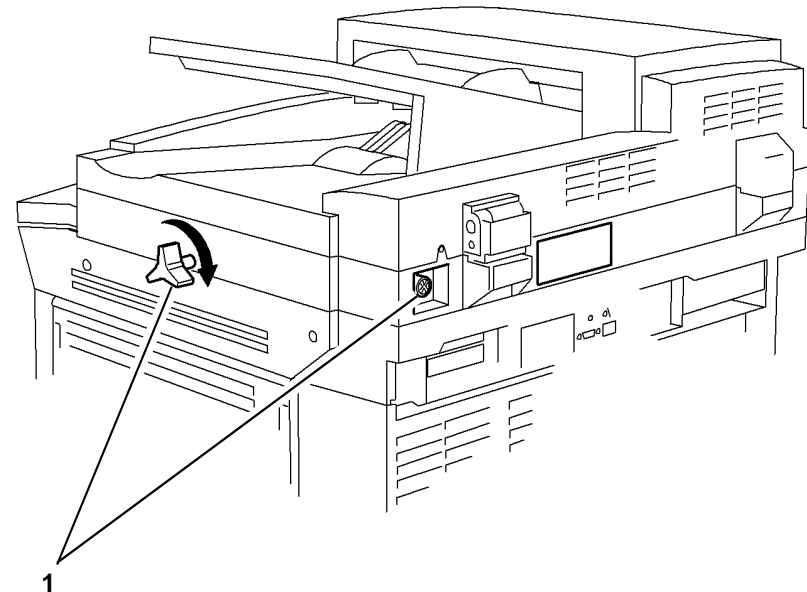


#### WARNING

Use safe handling procedures, [GP 16](#) when removing the module. The module is heavy.

**NOTE:** The scanner weight is 16.5 kg (36lb.).

10. [Figure 2](#). Stand at the rear of the machine and remove the scanner.



1

Remove the transport screw from the storage position. Use the transport screw to lock the scan carriage.

T-1-0917-A

Figure 1 Scan carriage locking

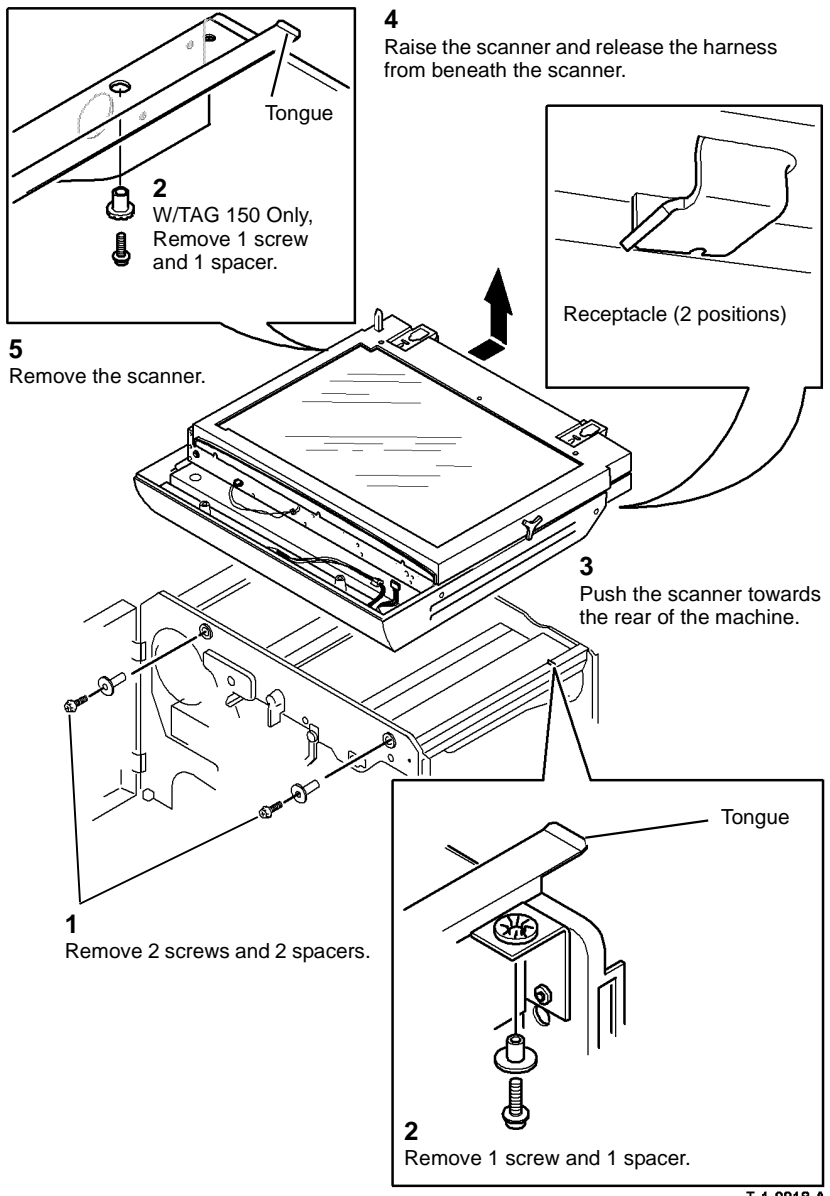


Figure 2 Scanner removal

### Replacement

1. The replacement procedure is the reverse of the removal procedure.
2. Ensure that the receptacle on the base of the scanner is correctly installed onto the tongue on the machine frame. Refer to [Figure 2](#).

## REP 14.2 Exposure Lamp Inverter and Fuse (W/O TAG 150)

Parts List on [PL 14.25](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the CVT glass and document glass, [REP 14.6](#).
2. Remove the exposure lamp inverter and fuse, [Figure 1](#).

### Replacement

1. Reverse the removal procedure to replace the exposure lamp inverter and fuse.
2. When re-connecting the ribbon cable into PJ463, the blue band printed on the cable must face to the left, when viewed as shown in [Figure 1](#).
3. [Figure 1](#), ensure the ribbon cable is folded correctly in the cable clamp. Engage two of the cable clamp clips in the carriage holes. Bend the clamp to engage the third clip.

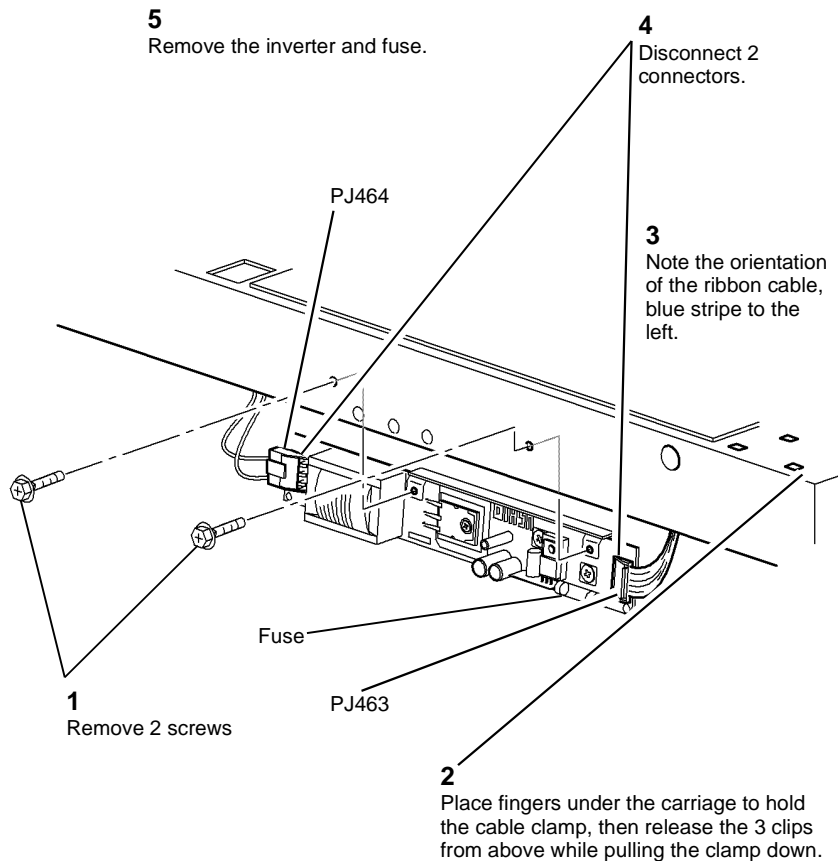


Figure 1 Inverter and fuse

## REP 14.3 Document Size Sensors (W/O TAG 150)

Parts List on [PL 14.25](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the CVT glass and document glass, [REP 14.6](#).
2. For document size sensor 2 only, remove the PWB cover (3 screws), [PL 14.25 Item 1](#).
3. Remove the document size sensor 1 and / or 2, [Figure 1](#).

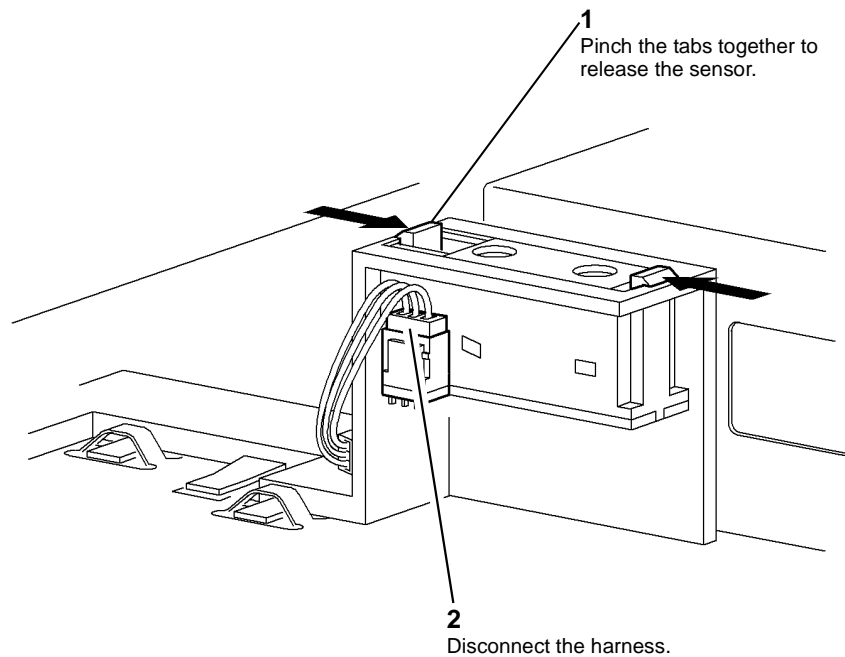


Figure 1 Document size sensor 1

**NOTE:** [Figure 1](#) shows document size sensor 1. The fastening for the document size sensor 2 is the same as for 1.

### Replacement

Reverse the removal procedure to replace the document size 1 and 2 sensors.

## REP 14.4 DADH Closed Switch

Parts List on [PL 14.25 \(W/O TAG 150\)](#), [PL 14.15 \(W/TAG 150\)](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, [REP 5.19](#).
2. Remove the user interface assembly, [REP 2.1](#).
3. Remove the scanner top cover, [PL 14.20 Item 3 \(W/O TAG 150\)](#), [PL 14.10 Item 3 \(W/TAG 150\)](#).
4. Remove the DADH closed switch, [Figure 1](#).

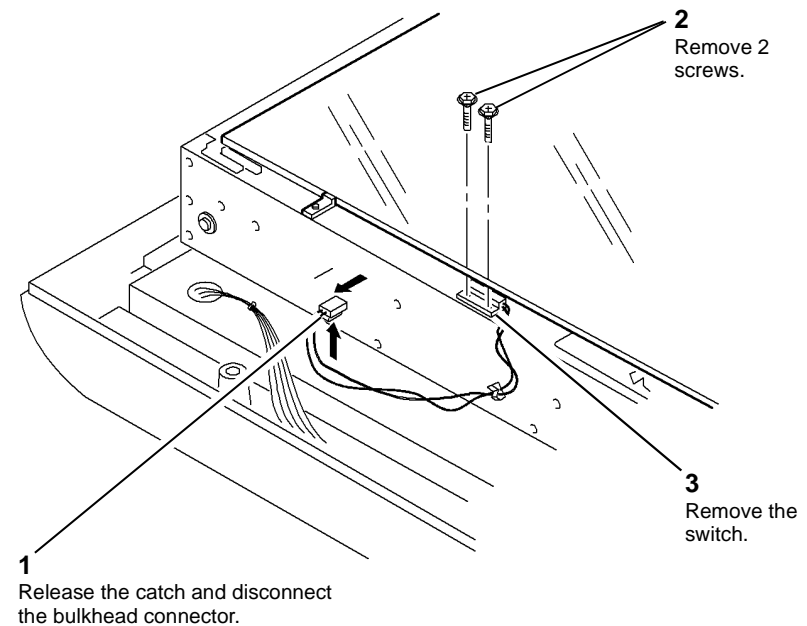


Figure 1 DADH closed switch

T-1-0921-A

### Replacement

Reverse the removal procedure to replace the DADH closed switch.

## REP 14.5 Scanner PWB (W/O TAG 150)

Parts List on [PL 14.25](#)

### Removal



#### WARNING

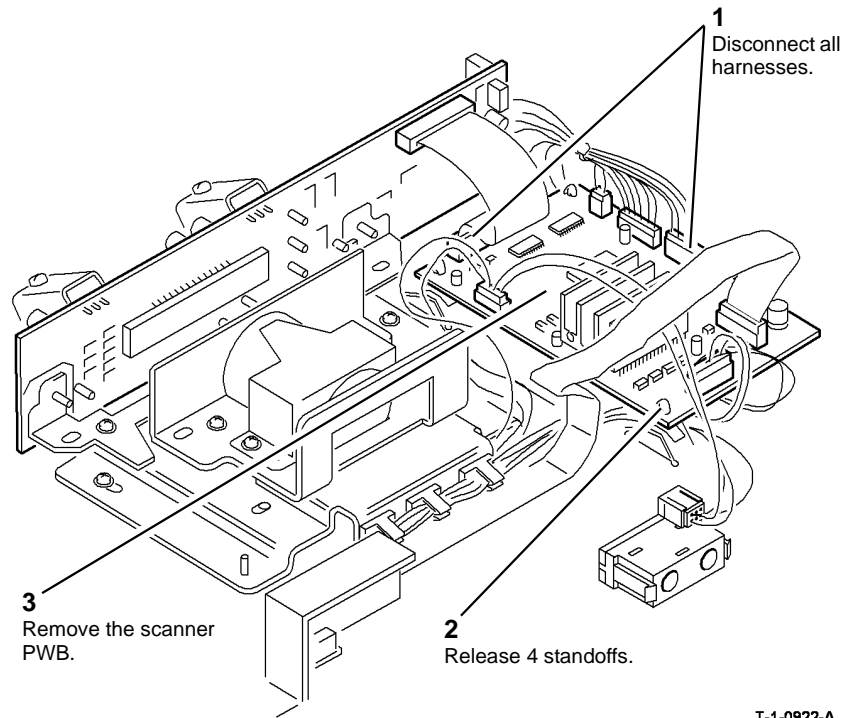
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the CVT glass and document glass, [REP 14.6](#).
2. Remove the scanner PWB cover, [PL 14.25 Item 1](#). Release the document size sensor from the cover, [REP 14.3](#).
3. Remove the scanner PWB, [Figure 1](#).



T-1-0922-A

Figure 1 Scanner PWB

### Replacement

1. Reverse the removal procedure to replace the scanner PWB.
2. When re-connecting the ribbon cable to PJ456 ensure that the blue band printed on the cable faces the front of the machine.

## REP 14.6 CVT Glass, Document Glass and CVT Ramp

Parts List on [PL 14.20 \(W/O TAG 150\)](#), [PL 14.10 \(W/TAG 150\)](#)

### Removal

  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, [REP 5.19](#).
2. Remove the user interface assembly, [REP 2.1](#).
3. Remove the scanner top cover, [REP 14.14](#).

  
**CAUTION**

Contamination in the optics cavity can cause image quality defects. Do not allow the optics cavity to become contaminated.

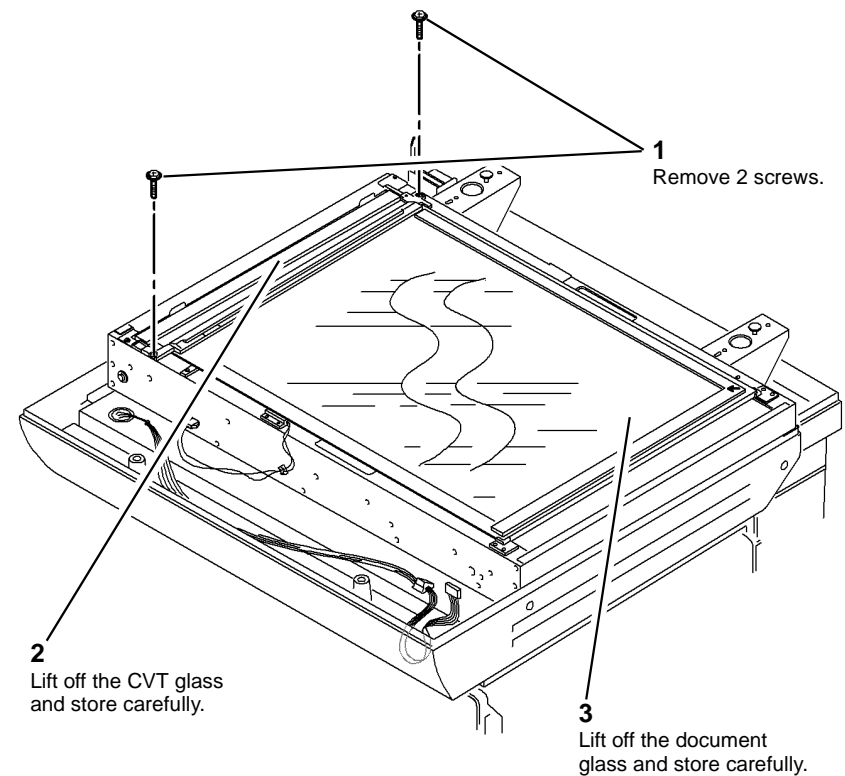
4. Remove the CVT glass and document glass, [Figure 1](#).

### Replacement

1. Clean the underside of the CVT glass and document glass, [ADJ 14.1](#).

**NOTE:** Ensure that the white stripes on both the CVT glass and the document glass, are at the front of the machine and on the underside of the glass.

2. Reverse the removal procedure to replace the CVT glass and document glass.
3. Clean the upper side of the CVT glass and document glass, [ADJ 14.1 \(W/O TAG 150\)](#), [ADJ 14.2 \(W/TAG 150\)](#).



T-1-0923-A

Figure 1 Document glass and CVT glass

## REP 14.7 Scan Carriage Home Sensor

Parts List on [PL 14.25 \(W/O TAG 150\)](#), [PL 14.15 \(W/TAG 150\)](#)

### Removal

**!**  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

**!**  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, [REP 5.19](#).
2. Remove the user interface assembly, [REP 2.1](#).
3. Remove the scanner top cover, [PL 14.20 Item 3 \(W/O TAG 150\)](#), [PL 14.10 Item 3 \(W/TAG 150\)](#).

**!**  
**CAUTION**

Do not remove the document glass. Do not loosen the two screws securing the setting plate, shown in [Figure 1](#).

4. Remove the scan carriage home sensor, [Figure 1](#).

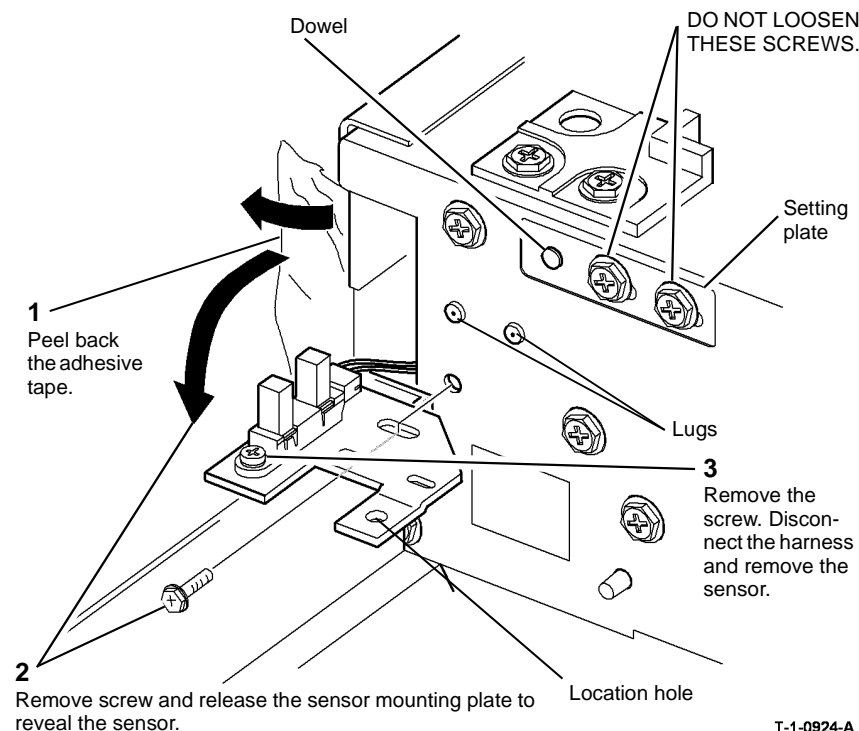


Figure 1 Scan carriage home sensor

### Replacement

1. Reverse the removal procedure to replace the scan carriage home sensor.
2. [Figure 1](#), when mounting the sensor, ensure that the location hole in the sensor mounting plate is located over the dowel of the setting plate.
3. When replacing the scan carriage home sensor, ensure that the lugs are located in the slot of the sensor mounting plate before tightening the screw.
4. Ensure that the adhesive tape is re-installed so that it entirely covers the aperture. If necessary install new adhesive tape.

## REP 14.8 Input Module Angle Sensor

Parts List on [PL 14.25 \(W/O TAG 150\)](#), [PL 14.15 \(W/TAG 150\)](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, [REP 5.19](#).
2. Remove the user interface assembly, [REP 2.1](#).
3. Remove the scanner top cover, [PL 14.20 Item 3 \(W/O TAG 150\)](#), [PL 14.10 Item 3 \(W/TAG 150\)](#).
4. Remove the input module angle sensor, [Figure 1](#).

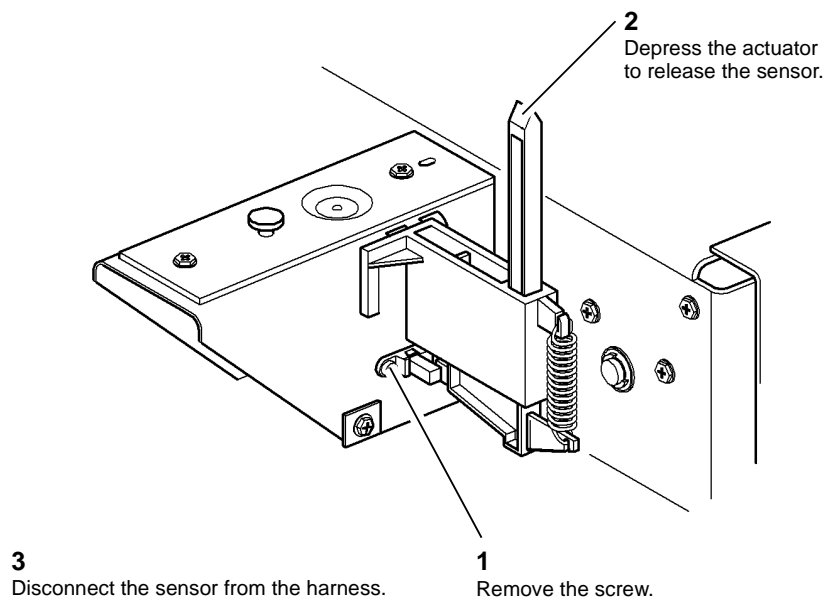


Figure 1 Input module angle sensor

### Replacement

1. Reverse the removal procedures to replace the input module angle sensor.
2. When replacing the input module angle sensor, ensure that the lugs on the sensor are located in the slot of the frame before tightening the screw.

## REP 14.9 Exposure Lamp

Parts List on [PL 14.25 \(W/O TAG 150\)](#), [PL 14.15 \(W/TAG 150\)](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the CVT glass and document glass, [REP 14.6](#).
2. Manually move the Scan carriage to align with the cut-outs in the frame.
3. Remove the exposure lamp with the end blocks, [Figure 1](#).

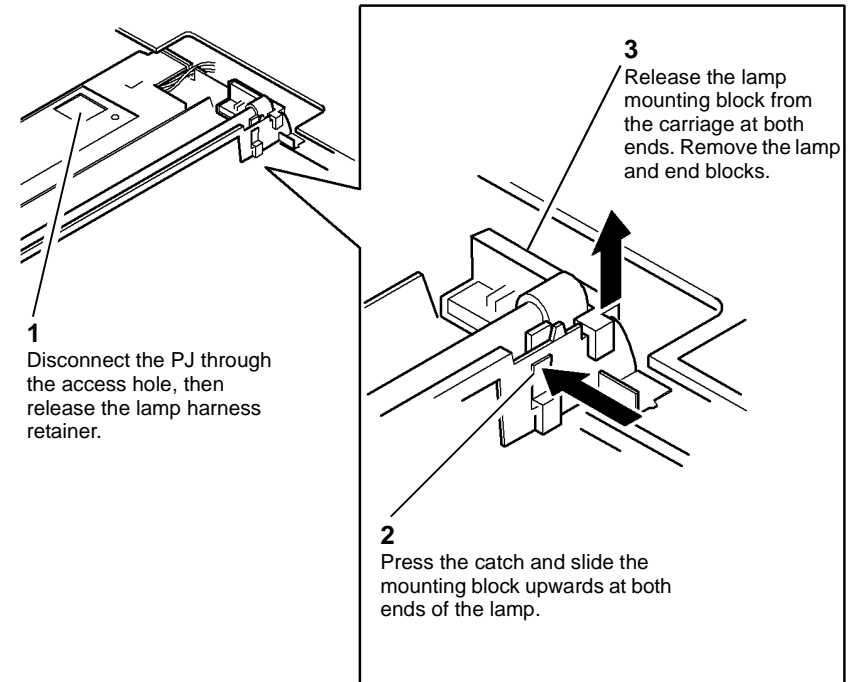


Figure 1 Releasing lamp fasteners

T-1-0926-A



- Remove the end blocks from the exposure lamp, [Figure 2](#).

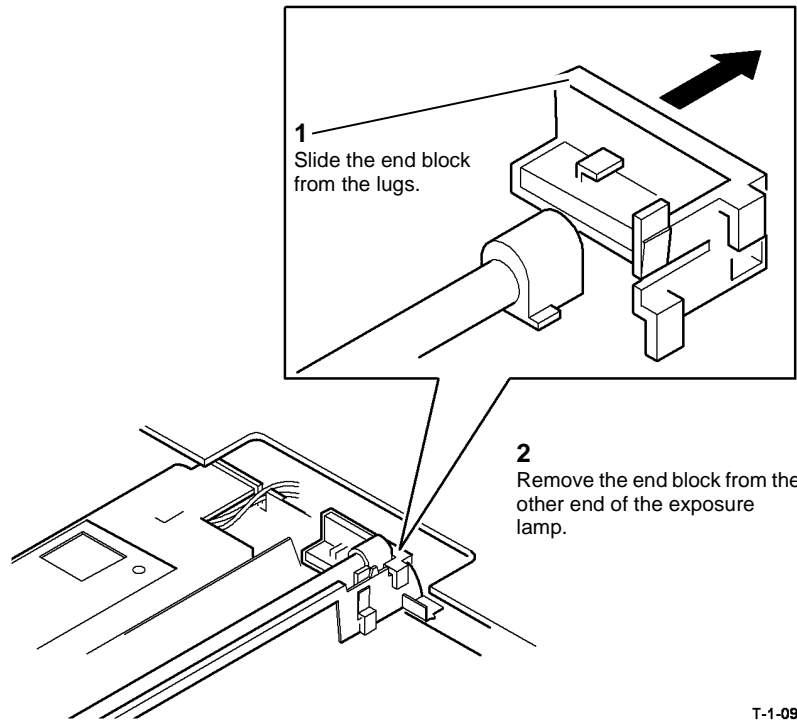


Figure 2 Removing end blocks

T-1-0927-A

### Replacement

Reverse the removal procedure to replace the exposure lamp.

## REP 14.10 Scan Idler Pulleys

Parts List on [PL 14.25 \(W/O TAG 150\)](#), [PL 14.15 \(W/TAG 150\)](#)

### Removal



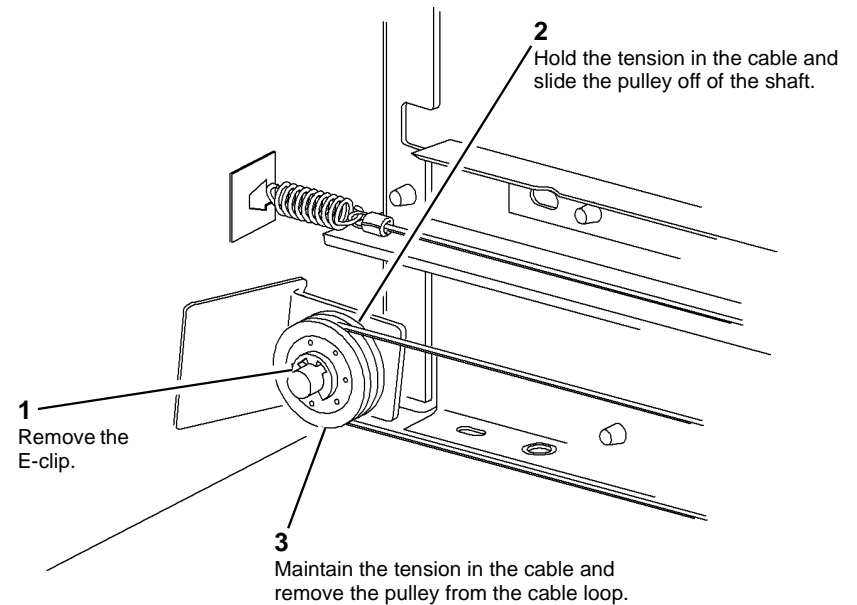
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

- Remove the CVT glass and document glass, [REP 14.6](#).
- Carefully move the scan carriage to the left side of the scanner module.
- Remove the scan idler pulleys, [Figure 1](#).

**NOTE:** [Figure 1](#) and [Figure 2](#) show the rear scan idler pulley. The procedure for the front scan idler pulley is similar.



T-1-0928-A

Figure 1 Scan idler pulley removal

## Replacement

1. Reverse the removal procedure to replace the scan idler pulleys.
2. Make sure the scan idler pulleys are installed correctly, [Figure 2](#).

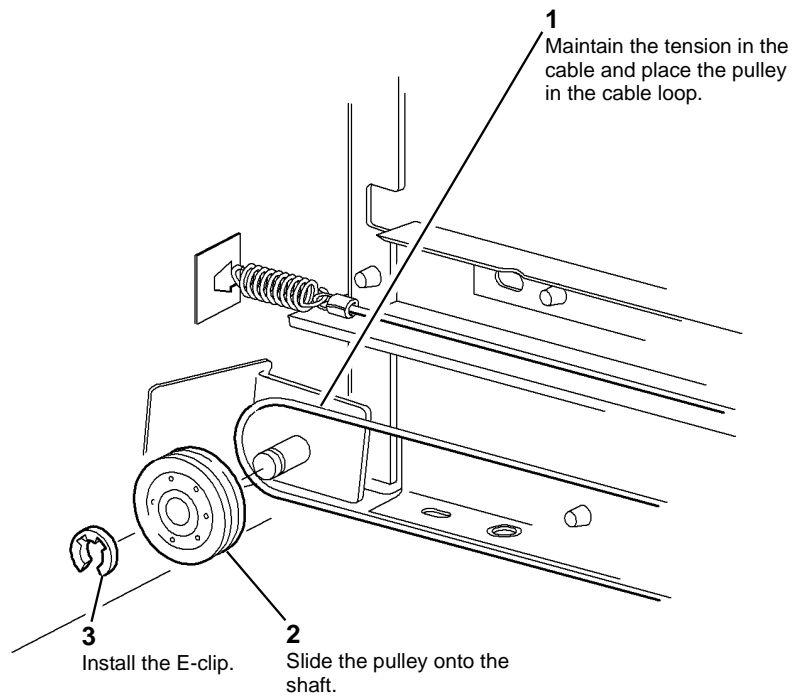


Figure 2 Scan idler pulley replacement

T-1-0929-A

## REP 14.11 Scan Motor (W/O TAG 150)

Parts List on [PL 14.25](#)

### Removal

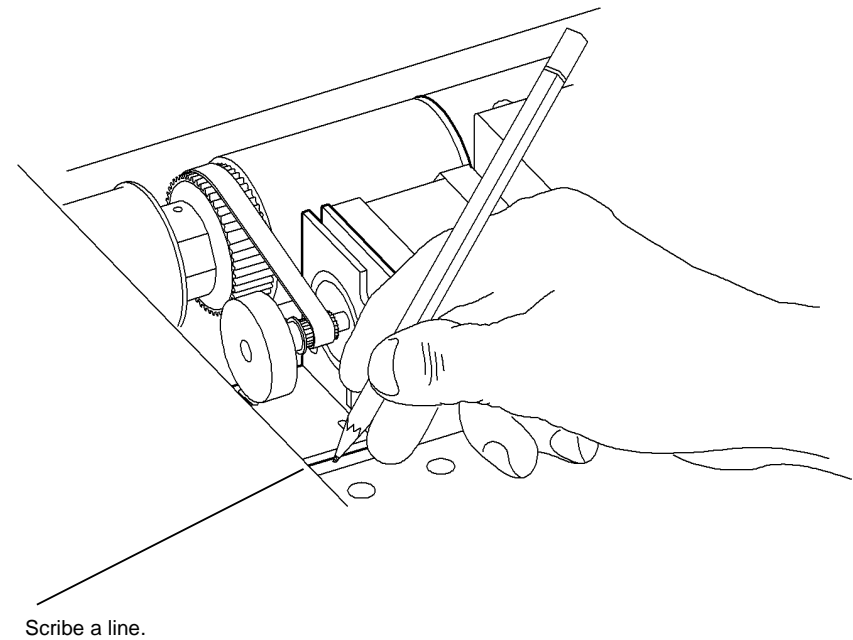
  
**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

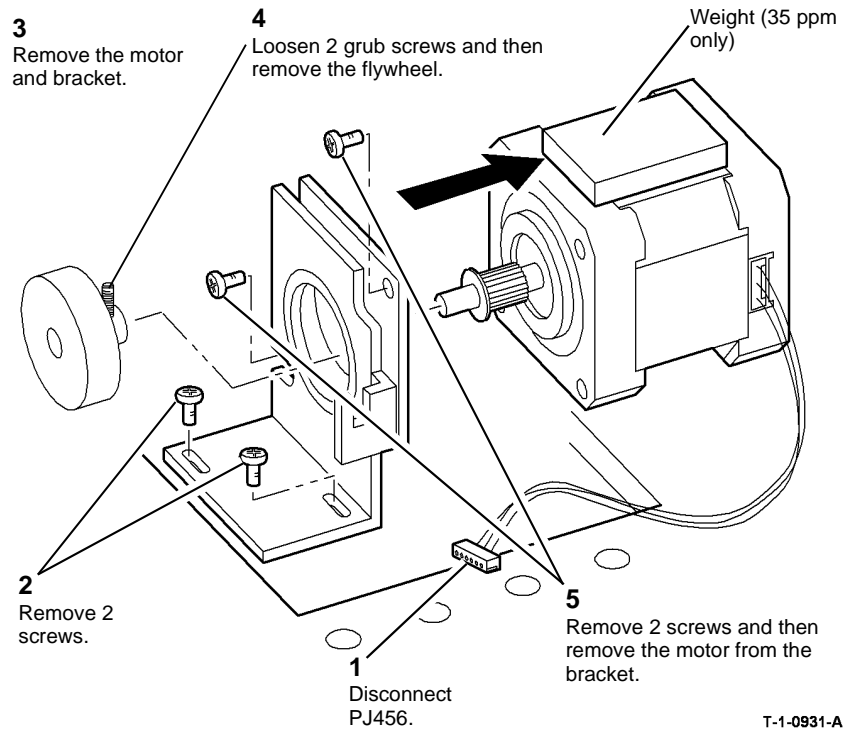
1. Remove the CVT glass and document glass, [REP 14.6](#).
2. Mark the position of the scan motor bracket, [Figure 1](#).



T-1-0930-A

Figure 1 Motor bracket position

- Remove the scan motor and then remove the weight (35 ppm only), [Figure 2](#).



**Figure 2 Motor removal**

## Replacement

- Re-assemble the motor onto the bracket and fully tighten the screws.
- Replace motor / bracket assembly into the optics cavity, engage the motor pulley with the drive belt and install the two screws, but do not tighten.
- Move the motor / bracket assembly to the right until the bracket aligns with the scribe line, [Figure 1](#), then fully tighten the screws.
- Re-install the flywheel and tighten the 2 screws.
- Re-install the CVT glass and document glass.
- Ensure that the weight (35 ppm only) is fitted onto the new motor.

## REP 14.12 Scan Cables

Parts List on [PL 14.25 \(W/O TAG 150\)](#), [PL 14.15 \(W/TAG 150\)](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

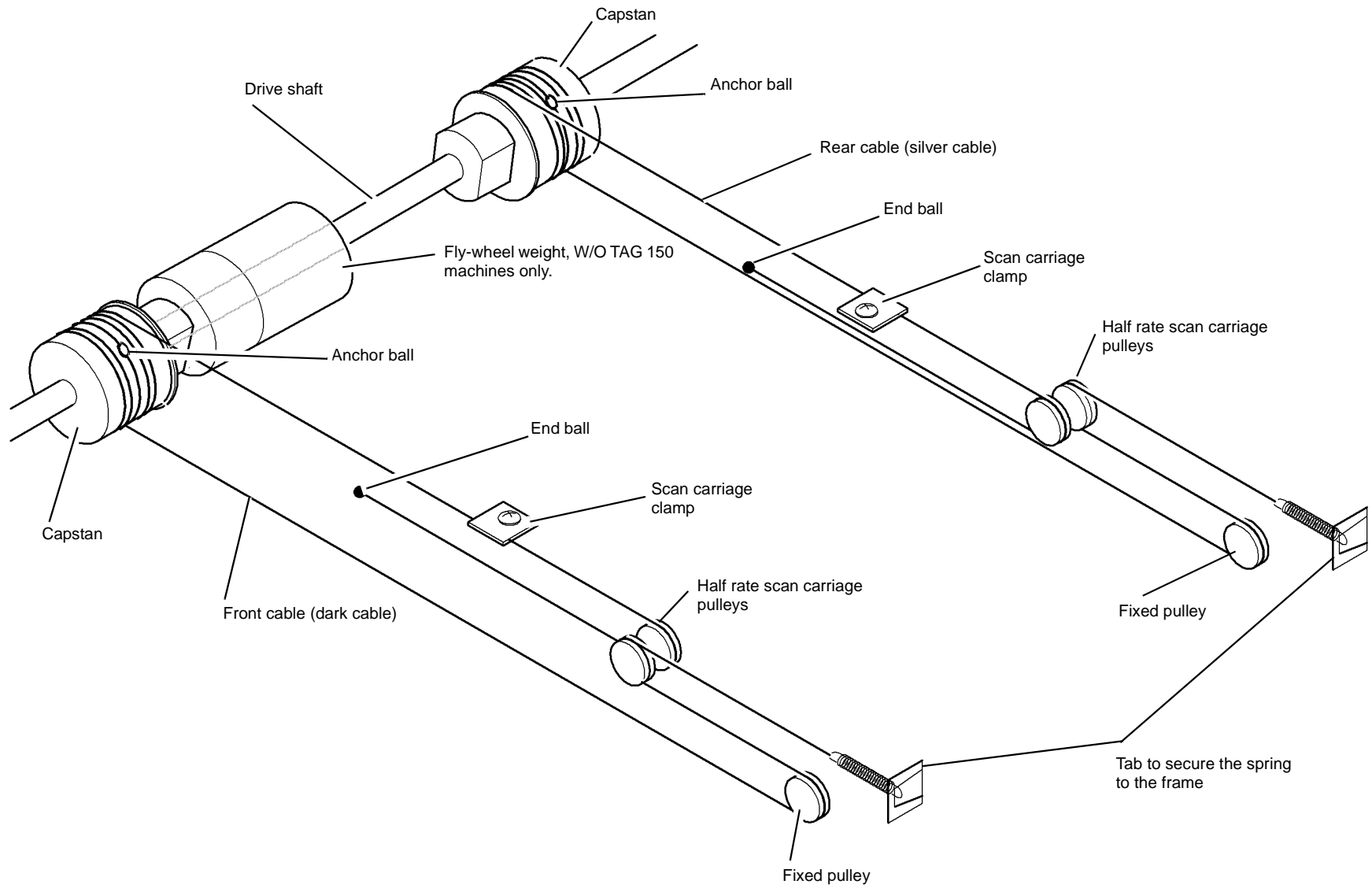


Take care during this procedure. Sharp edges may be present that can cause injury.



When moving the scan carriages, hold them by the metal parts only, to avoid damaging the lamp or mirrors.

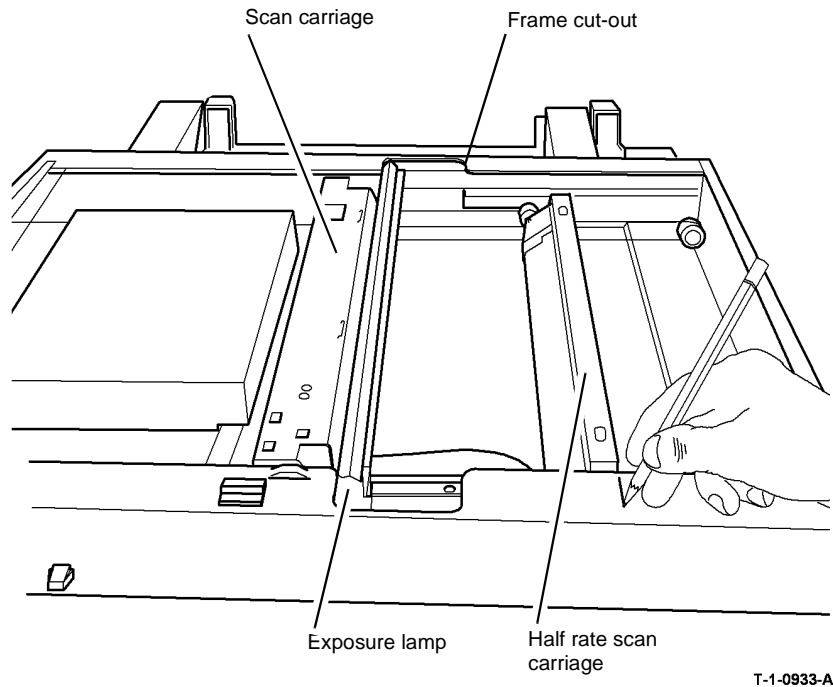
- Remove the DADH, [REP 5.19](#).
- Remove the CVT glass and document glass, [REP 14.6](#).
- [Figure 1](#) shows the arrangement of the scan cables. Refer to [Figure 1](#) when installing the cables.



T-1-0932-A

Figure 1 Scan cables arrangement

4. Move the scan carriage to the position shown in [Figure 2](#), with the exposure lamp at the left end of the frame cut-outs, then mark the position of the half rate scan carriage. The anchor balls should be in the position shown in [Figure 1](#).



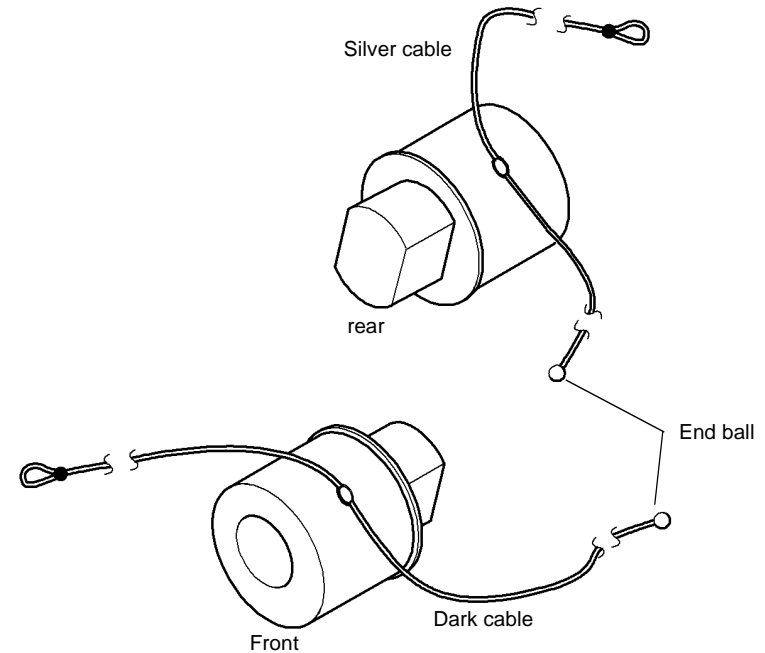
**Figure 2 Carriage start position**

5. (W/TAG 150) remove the document size sensor cover, refer to [REP 14.20](#).
6. Remove the cable clamps, with captive screws, from the scan carriage. Move the cables clear of the scan carriage, then lift the scan carriage out through the cut-outs in the frame. Rest the scan carriage out of the way of the cables. It is not necessary to disconnect the ribbon cable. Store the cable clamps for later use.
7. Unhook the tension spring from the rear cable. Remove the spring from the cable and store the spring for later use.
8. Remove the rear cable completely by unhooking the end ball from its retaining bracket and unwind the cable from the capstan.
9. Repeat steps 7 and 8 for the front cable.

## Replacement

**NOTE:** The replacement procedure is made easy by holding the windings on the capstan in place with tape at all times, until each cable is fully installed. Keep the cable tight to prevent it unwinding.

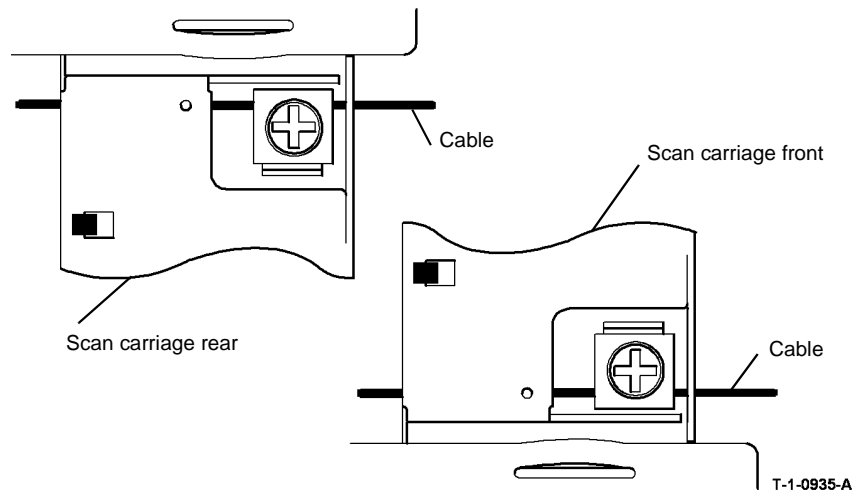
1. Prepare several short lengths of adhesive tape.
2. If necessary, rotate the capstan to bring the anchor ball recess to the top and slightly to the right. Check that the half rate scan carriage is in the start position, as in [Figure 2](#).
3. Place the rear cable in the position shown in [Figure 3](#). Hold in place on the capstan with adhesive tape.



**Figure 3 Winding start position**

4. Starting with the end-ball end of the cable, wind on three turns, stopping at each turn to hold the cable to the capstan with adhesive tape. If necessary, use a fresh length of adhesive each time to ensure the cable is held tightly.
5. Hold the capstans in position, then tape the top of the fly-wheel weight (W/O TAG 150) or the drive shaft (W/TAG 150) onto the top left of the scanner frame. This is to prevent the capstan turning while the cable end is placed in position.

6. Wrap the cable over the half rate scan carriage pulley, as shown in [Figure 1](#), and back to the end ball holding bracket. If the winding is correct, the end ball will fit tightly onto the bracket.
7. Wind the loop end of the cable round the capstan three times, as shown in [Figure 1](#), stopping at each turn to hold the cable to the capstan with adhesive tape. If necessary, use a fresh length of adhesive tape each time to ensure the cable is held tightly.
8. Wrap the cable round the fixed pulley as shown in [Figure 1](#), and back round the half rate scan pulley.
9. Attach the spring to the cable loop and hook the spring to its tab on the frame.
10. Ensure all the adhesive tape is removed from the scanner.
11. Repeat steps 2 to 10 for the front cable.
12. Fit the scan carriage through the slots in the frame and position the ribbon cable round the guide on the half rate scan carriage.
13. Slide both carriages fully to the right, and install the cable clamps so the cable are under the clamps as shown in [Figure 4](#).



**Figure 4 Cable clamps**

14. Hold the carriages fully to the right and tighten the clamps.
15. Move the carriages from one end to the other to ensure the windings are straight and even.
16. Reinstall the following: DADH, [REP 5.19](#). Reinstall the CVT glass and document glass, [REP 14.6](#).
  - (W/TAG 150) Document size sensor cover, [REP 14.20](#).
  - DADH, [REP 5.19](#)
  - CVT glass and document glass, [REP 14.6](#)

## REP 14.13 Scanner Drive Belt (W/O TAG 150)

### Parts List on [PL 14.25](#)

#### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



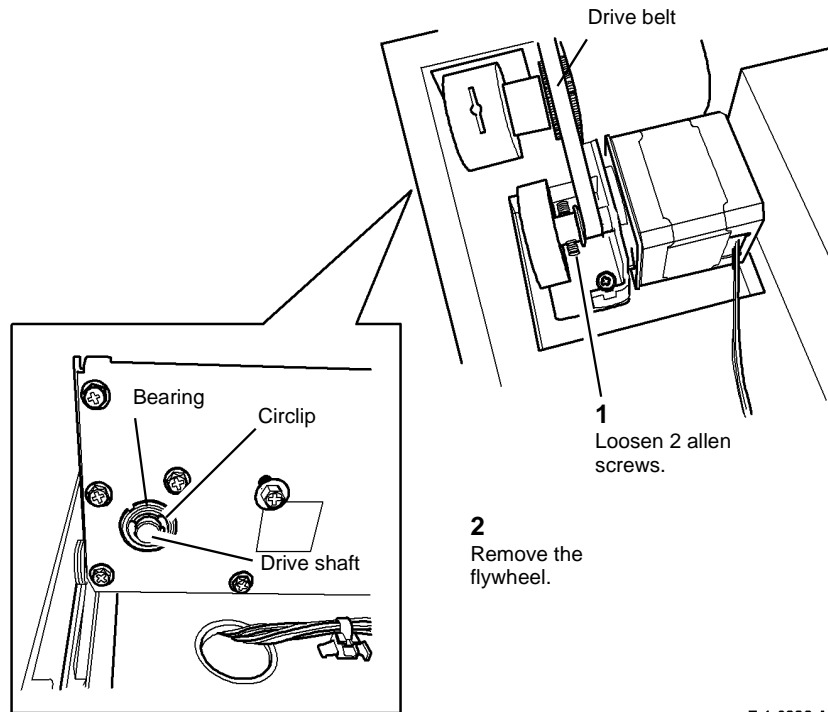
Take care during this procedure. Sharp edges may be present that can cause injury.



When moving the scan carriages, hold them by the metal parts only, to avoid damaging the lamp or mirrors.

1. Remove the front scan cable, [REP 14.12](#).

2. **Figure 1.** Remove the scanner motor flywheel.



**Figure 1** Flywheel removal and component location

3. Remove the circlip from the front end of the scanner drive shaft.
4. Push the drive shaft inboard and remove the bearing.
5. Remove the drive belt from the motor shaft.
6. Remove the drive belt from the drive shaft.

### Replacement

1. The replacement procedure is the reverse of the removal procedure.

## REP 14.14 Top Cover

Parts List on **PL 14.20 (W/O TAG 150)**, **PL 14.10 (W/TAG 150)**

### Removal

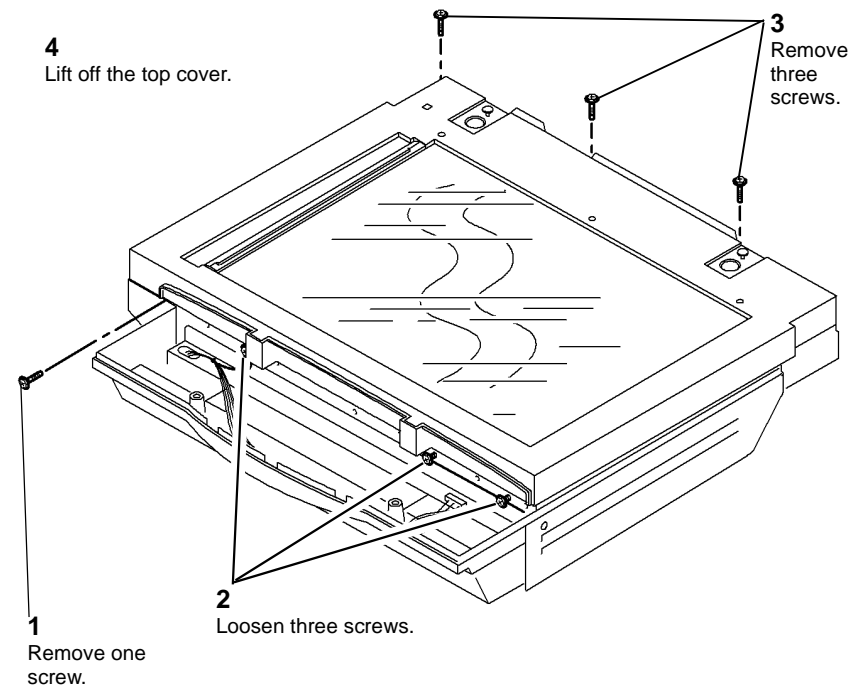


Switch off the electricity to the machine. Refer to **GP 14**. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the DADH, **REP 5.19**.
2. Remove the user interface assembly, **REP 2.1**. It is not necessary to disconnect the P.J.
3. **Figure 1**, remove the top cover.



**Figure 1** Top cover removal

### Replacement

1. The replacement procedure is the reverse of the removal procedure.
2. Perform **ADJ 14.1 (W/O TAG 150)**, **ADJ 14.2 (W/TAG 150)** Optics Cleaning.

## REP 14.15 Scan Motor (W/TAG 150)

Parts List on [PL 14.15](#)

### Removal



#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the CVT and document glass, [REP 14.6](#).
2. [Figure 1](#). Remove the scan motor.

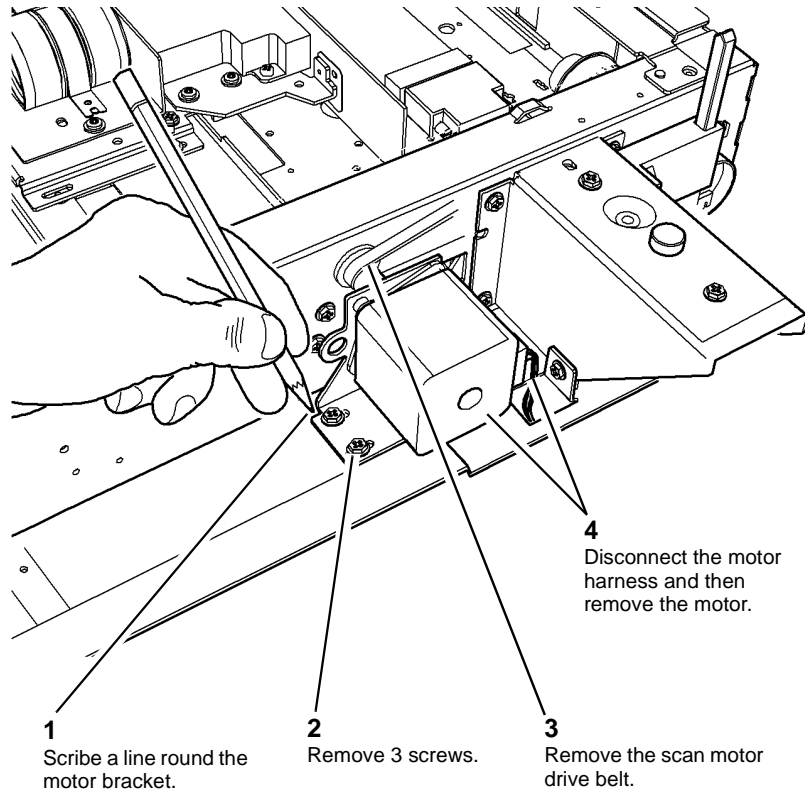


Figure 1 Scan motor

### Replacement

1. The replacement procedure is the reverse of the removal procedure.
2. Ensure the motor bracket is aligned with the scribe line on the base of the scanner, [Figure 1](#).

## REP 14.16 Scan Motor and Scan Carriage Drive Belts (W/TAG 150)


Parts List on [PL 14.15](#)

### Removal



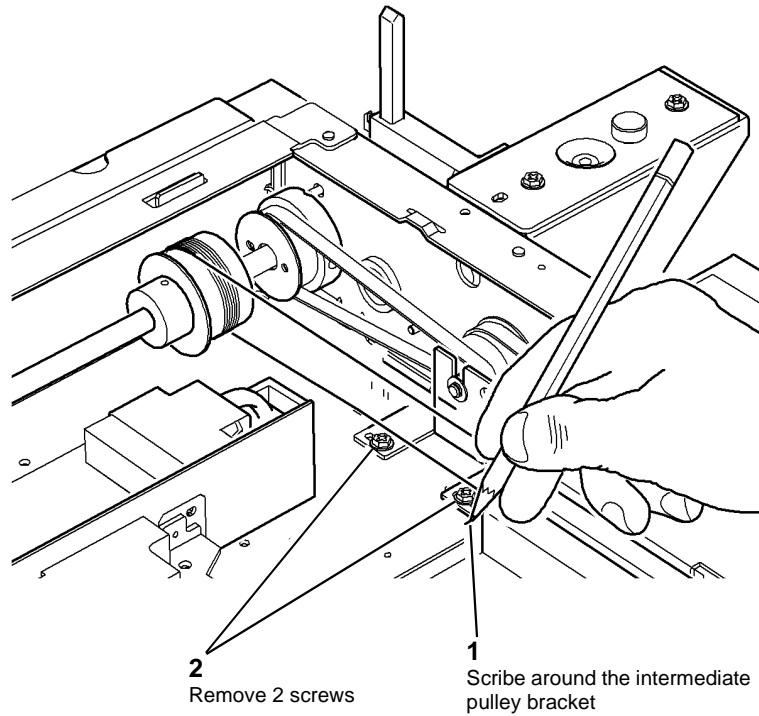
#### WARNING

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

- 
- #### WARNING
- Take care during this procedure. Sharp edges may be present that can cause injury.
1. Remove the CVT glass, document glass and CVT ramp, [REP 14.6](#).
  2. Remove five screws securing the PWB cover, [PL 14.15 Item 1](#).
  3. Lift the PWB cover and disconnect PJ923 on the scanner PWB, [PL 14.15 Item 4](#).
  4. Remove the scan motor, [REP 14.15](#).

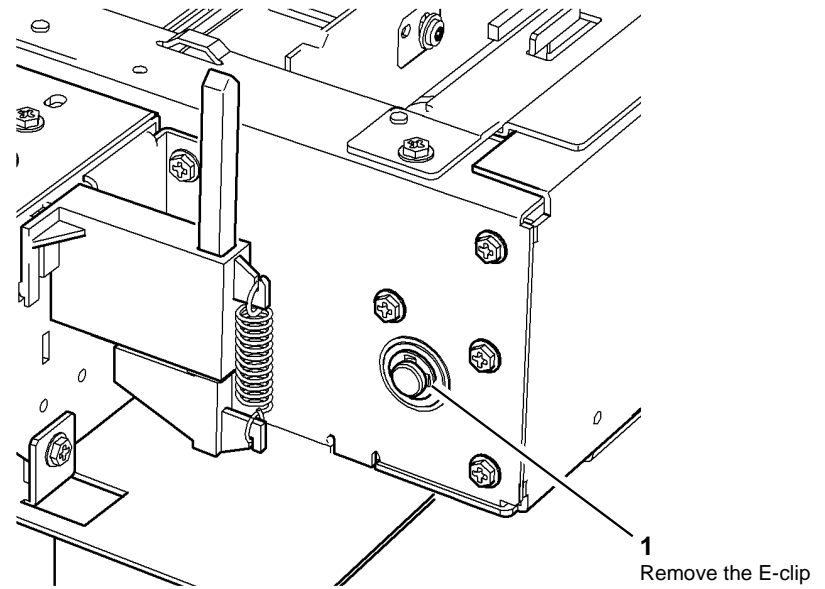


5. Prepare to remove the belts, [Figure 1](#).



**Figure 1 Preparation**

6. Release the scan carriage drive shaft, [Figure 2](#).



**Figure 2 Release the scan shaft**

7. Remove the drive belts, [Figure 3](#).

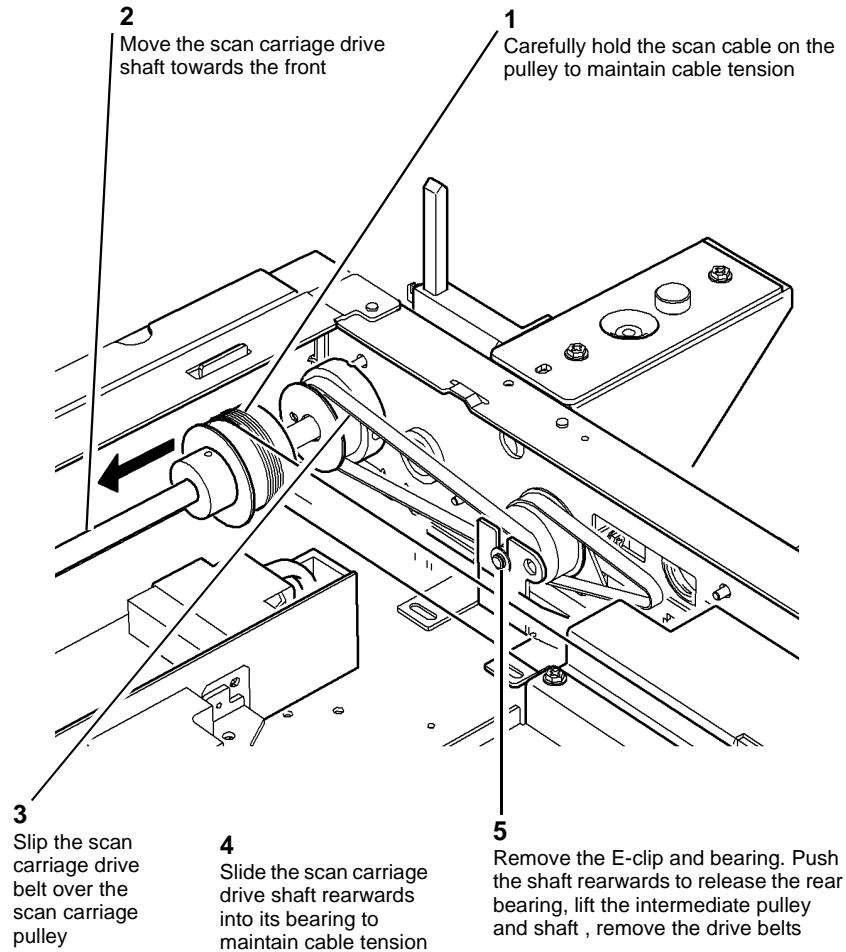


Figure 3 Remove scan belt

T-1-1096-A

## Replacement

The replacement procedure is the reverse of the removal procedure.



**CAUTION**

*Ensure that the intermediate pulley bracket and scan motor bracket are aligned with the scribed marks.*

## REP 14.17 Exposure Lamp Inverter (W/TAG 150)

Parts List on [PL 14.15](#)

### Removal



**WARNING**

Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the CVT glass, [REP 14.6](#).
2. Remove the CVT ramp and document glass, [REP 14.6](#).
3. Release the exposure lamp inverter PWB, [Figure 1](#).

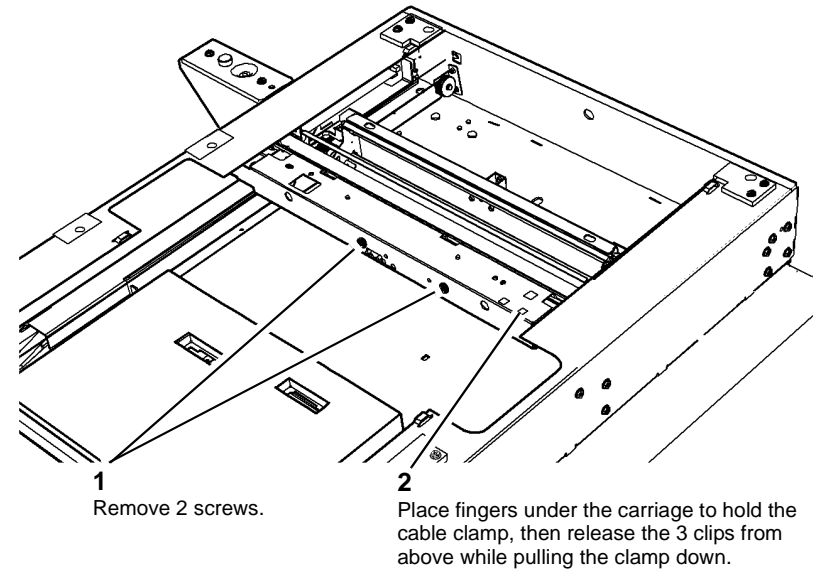
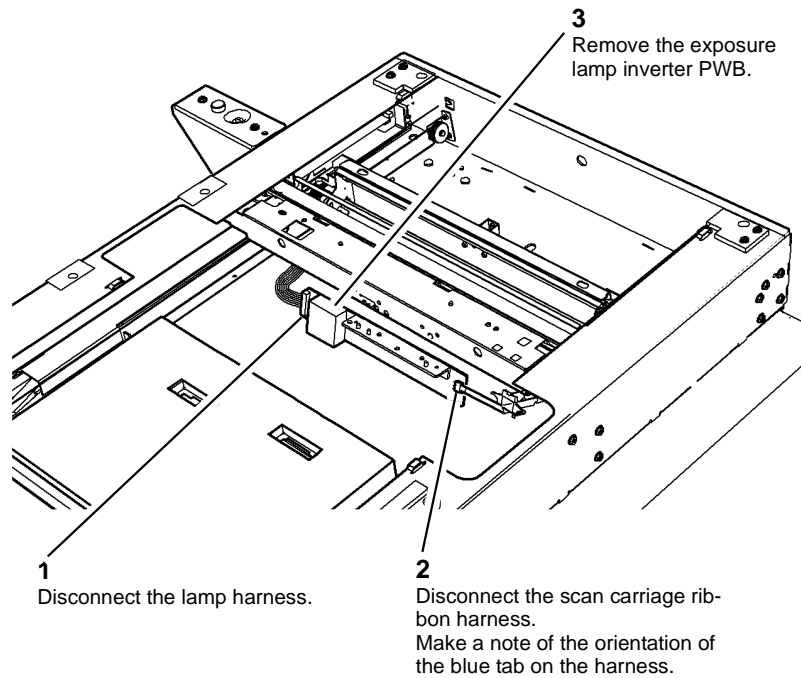


Figure 1 Release the inverter

T-1-1097-A

4. Remove the exposure lamp inverter, [Figure 2](#).

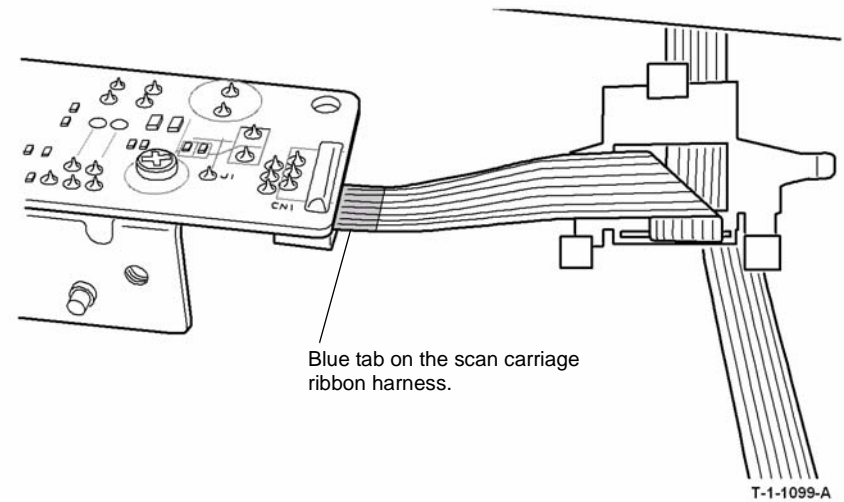


**Figure 2 Remove the inverter**

T-1-1098-A

## Replacement

1. Reverse the removal procedure to replace the exposure lamp inverter PWB.
2. When re-connecting the ribbon harness, the blue band printed on the cable must face as shown in [Figure 3](#).
3. Ensure the ribbon harness is folded correctly in the harness clamp, [Figure 3](#). Engage two of the harness clamp clips in the carriage holes. Bend the clamp to engage the third clip.



**Figure 3 Ribbon harness**

## REP 14.18 Scan Carriage Ribbon Harness (W/TAG 150)

Parts List on [PL 14.15](#)

### Removal



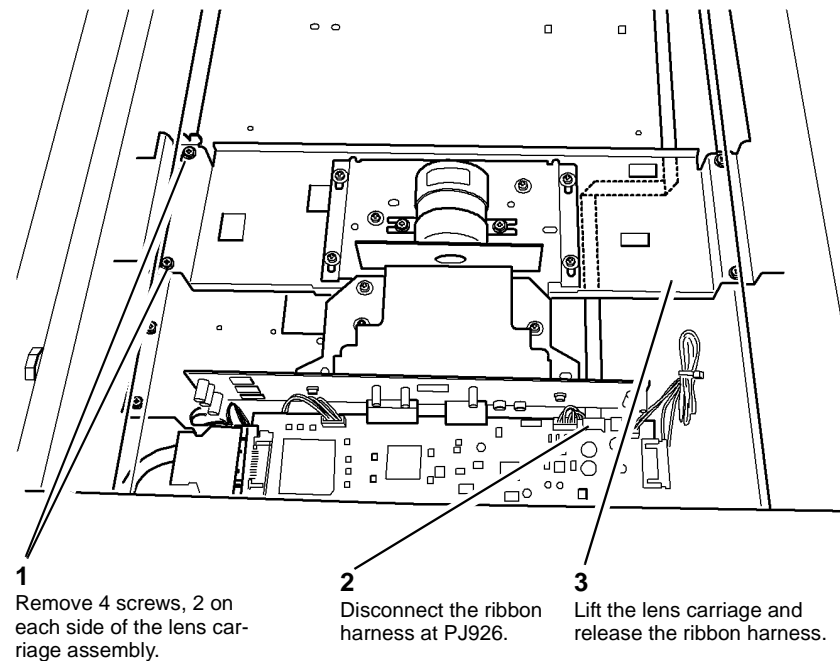
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the CVT glass, [REP 14.6](#).
2. Remove the CVT ramp and document glass assembly, [REP 14.6](#).
3. Remove five screws securing the scanner PWB cover.
4. Lift the PWB cover and disconnect PJ923 on the scanner PWB, [PL 14.15 Item 4](#).
5. Disconnect the ribbon harness from the exposure lamp inverter, [REP 14.17](#).
6. Release the ribbon harness from the half rate scan carriage.

7. Disconnect and remove the exposure lamp ribbon harness, [Figure 1](#).



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Figure 1 Release the ribbon harness

### Replacement

1. The replacement procedure is the reverse of the removal procedure.
2. Perform [ADJ 14.2](#) Optics Cleaning.

## REP 14.19 Scanner PWB (W/TAG 150)

Parts List on [PL 14.15](#)

### Removal



Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the CVT glass, [REP 14.6](#).
2. Remove the CVT ramp and document glass assembly, [REP 14.6](#).
3. Remove five screws securing the scanner PWB cover.
4. Lift the PWB cover and disconnect PJ923 on the scanner PWB, [PL 14.15 Item 4](#).
5. Disconnect all of the harness connectors from the scanner PWB, [PL 14.15](#).
6. Remove four screws securing the scanner PWB.
7. Remove the scanner PWB.

### Replacement

1. The replacement procedure is the reverse of the removal procedure.
2. Perform [ADJ 14.2](#) Optics Cleaning.

## REP 14.20 Document Size Sensor 1 and Document Size Sensor 2 (W/TAG 150)

Parts List on [PL 14.15](#)

### Removal



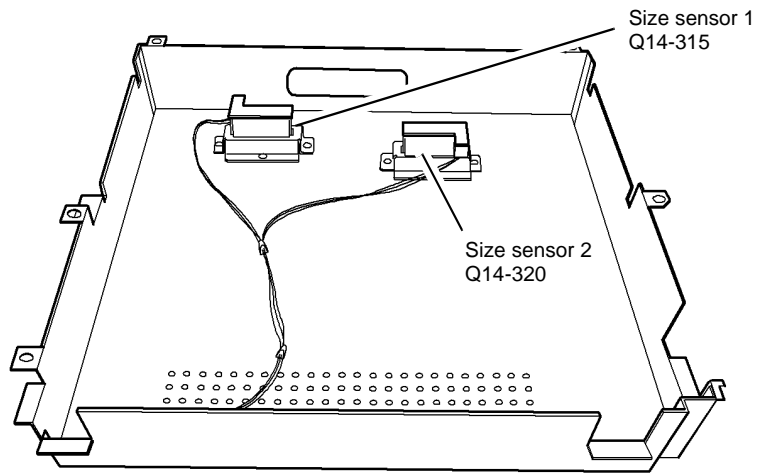
Switch off the electricity to the machine. Refer to [GP 14](#). Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. Remove the CVT glass, [REP 14.6](#).
2. Remove the CVT ramp and document glass assembly, [REP 14.6](#).
3. Remove four screws securing PWB cover.
4. Lift the PWB cover and disconnect PJ923 on the scanner PWB, [PL 14.15 Item 4](#).
5. Remove document size sensor 1 (Q14-315) or document size sensor 2 (Q14-320), [Figure 1](#).

**NOTE:** The removal of document size sensor 1 and document size sensor 2 is identical.



**2**  
Press the side of the sensor to  
release the sensor from the bracket.

**1**  
Disconnect the harness from  
the document size sensor.

T-1-1101-A

**Figure 1 Remove document size sensor**

### Replacement

1. The replacement procedure is the reverse of the removal procedure.
2. Perform [ADJ 14.2 Optics Cleaning](#).

## ADJ 3.1 Registration Setup

### Purpose

To measure and adjust image to paper registration. Go to [dC604](#) Registration Setup.

## ADJ 3.2 Magnification Adjustment

### Purpose

To adjust the machine magnification to 100%

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

**NOTE:** *There are no across process direction adjustments.*

1. Select 100% magnification.
2. Use the internal registration test pattern.
3. Make a copy from the document glass or through the DADH.
4. Measure the process direction dimension, [IQS 8](#) Magnification.
5. Enter [dC131](#), select either:
  - (W/O [TAG 150](#)) 05-009 DADH Mag (copy mode)
  - (W/[TAG 150](#)) 14-169 DADH Mag
  - 14-027 Scanner Mag Adj

**NOTE:** *An entry of less than the default value will increase the dimension B.*

6. Repeat the above steps until the dimension on the copy is the same as on the print.
7. If the across process dimension is not within the tolerances specified and the customer is dissatisfied, install a new scanner module, (W/O [TAG 150](#)) [PL 14.20](#) Item 1 or (W/[TAG 150](#)) [PL 14.10](#) Item 1.





## ADJ 4.1 Machine Lubrication

### Purpose

To correctly lubricate the machine to prevent noise and wear.

### Lubrication

Refer to [GP 18](#) Machine Lubrication for general guidance on the use of lubricants.



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

The following list gives the parts of the machine where lubrication is permitted. Go to the relevant procedure:

- [Tray 3 and 4 Transport Roll and Bearings.](#)
- [Tray 3 and 4 Elevator Drives Gear Coupling.](#)
- [Bypass Feed Roll Shaft.](#)
- [Tray 1 and 2 Support Slides.](#)
- [Tray 3 Takeaway Roll Assembly.](#)
- [Tray 3 Transport Roll Assembly.](#)
- [Registration Transport Gears.](#)
- [Developer Module Support Pins.](#)
- [1K LCSS Drive Belt Tensioners.](#)
- [1K LCSS Bin 1 Drive Belt Pulleys and Idler.](#)
- [2K LCSS Drive Belt Tensioners.](#)
- [2K LCSS Bin 1 Drive Belt Pulleys and Idler.](#)
- [1K and 2K LCSS Bin 1 Elevator Motor Worm and Gear.](#)
- [1K and 2K LCSS Tamper Assembly.](#)
- [HVF BM Support Pin.](#)

### Tray 3 and 4 Transport Roll and Bearings

Parts list on: [PL 8.30](#) (W/O [TAG 151](#)), [PL 8.32](#) (W/[TAG 151](#)).

1. Remove the tray 3 and 4 transport roll, [REP 8.31](#) (W/O [TAG 151](#)) or [REP 8.47](#) (W/[TAG 151](#)).
2. Apply plastislip grease, [PL 26.10 Item 8](#), to lubricate the ends of the transport roll, where the bearings locate.
3. Reinstall the tray 3 and 4 transport roll, [REP 8.31](#) (W/O [TAG 151](#)) or [REP 8.47](#) (W/[TAG 151](#)).

### Tray 3 and 4 Elevator Drives Gear Coupling

Parts list on: [PL 7.17](#) (W/O [TAG 151](#)), [PL 7.19](#) (W/[TAG 151](#)).

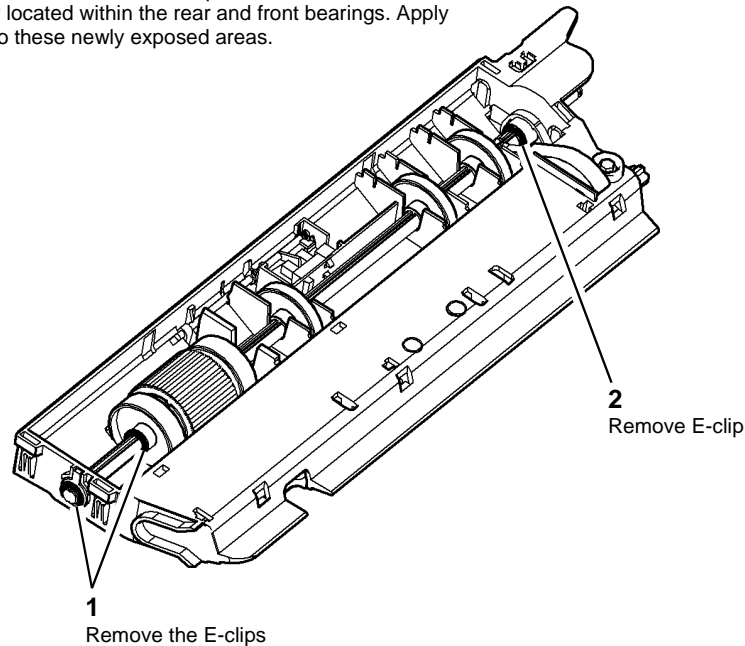
1. Pull out tray 3 and tray 4.
2. Apply plastislip grease, [PL 26.10 Item 8](#), to lubricate the coupling on the elevator motor and the coupling on the back of the tray.
3. Push home tray 3 and tray 4

### Bypass Feed Roll Shaft

1. Remove the bypass tray drive gear, [REP 8.20](#).
2. [Figure 1](#), plastislip grease, [PL 26.10 Item 8](#), to lubricate the shaft.

3

Slide the shaft to the rear to expose the areas of the shaft normally located within the rear and front bearings. Apply grease to these newly exposed areas.



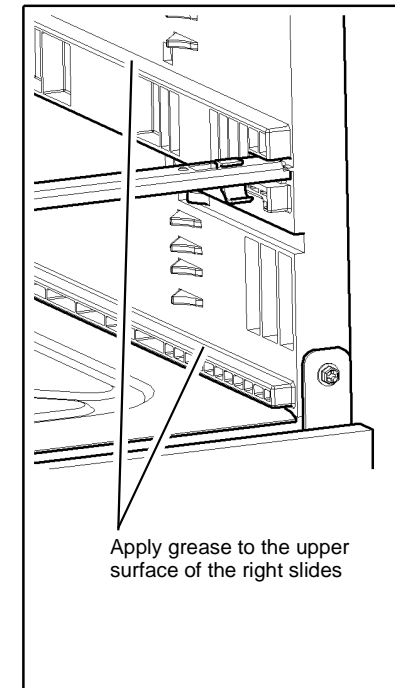
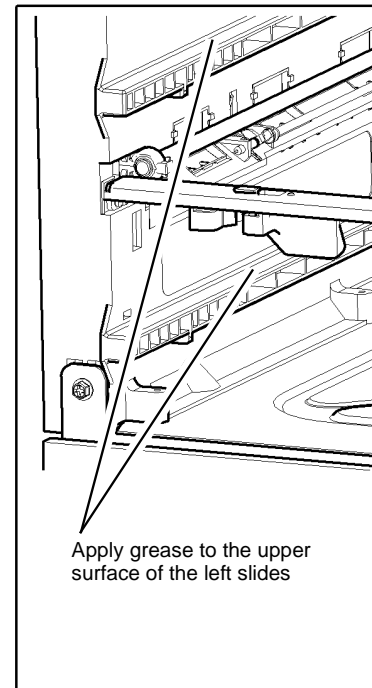
T-1-0952-A

Figure 1 Bypass feed shaft

3. Return the feed roll shaft to the original position and install the E-clips, [Figure 1](#).
4. Install the bypass tray drive gear and feed head, [REP 8.20](#).

### Tray 1 and 2 Support Slides

1. Remove tray 1 and 2, [REP 7.1](#).
2. [Figure 2](#), plastislip grease, [PL 26.10 Item 8](#), to lubricate the support slides.



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Figure 2 Tray 1 and 2 support slides

3. Lubricate the stack height mechanism actuator located at the rear left side of the tray and the paper width guides.
4. Re-install tray 1 and 2, [REP 7.1](#).

### Tray 3 Takeaway Roll Assembly

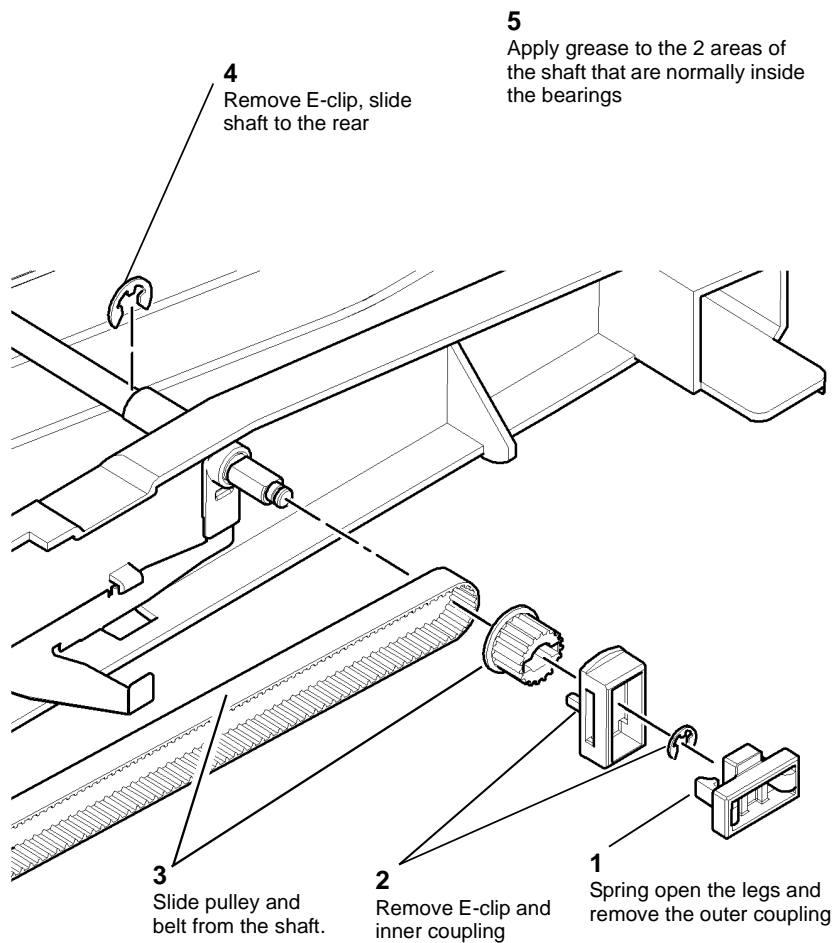
Parts list on: [PL 8.35 Item 2 \(W/O TAG 151\)](#), [PL 8.36 Item 2 \(W/TAG 151\)](#).

1. Remove the tray 3 takeaway roll assembly, [REP 8.29 \(W/O TAG 151\)](#) or [REP 8.46 \(W/TAG 151\)](#).
2. Use plastislip grease, [PL 26.10 Item 8](#), to lubricate the two areas of the shaft normally located within the bearings.
3. Re-install the tray 3 takeaway roll assembly. [REP 8.29 \(W/O TAG 151\)](#), [REP 8.46 \(W/TAG 151\)](#).

## Tray 3 Transport Roll Assembly

Parts list on: [PL 8.35 Item 11 \(W/O TAG 151\)](#).

1. Remove the tray 3 transport assembly, [REP 8.13](#).
2. [Figure 3](#), plastislip grease, [PL 26.10 Item 8](#), to lubricate the tray 3 transport roll assembly.



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**Figure 3 Transport roll removal**

3. Re-install the tray 3 transport roll assembly.
4. Re-install the tray 3 transport assembly, [REP 8.13](#).

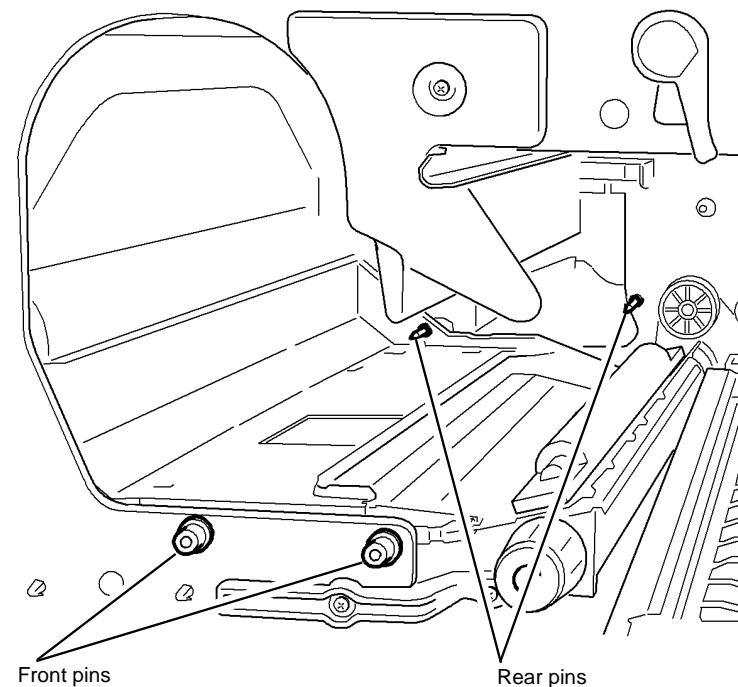
## Registration Transport Gears

Parts list on: [PL 8.15](#).

1. Remove the registration clutch, [REP 8.5](#).
2. Use plastislip grease, [PL 26.10 Item 8](#), to lubricate the following parts:
  - Registration clutch, [PL 8.15 Item 7](#). Lubricate the gear teeth only.
  - Gear (22T/28T), [PL 8.15 Item 17](#). Lubricate the gear teeth only.
  - Gear (23T), [PL 8.15 Item 18](#). Lubricate the gear teeth and the bore of the gear.
3. Re-install the removed components, [REP 8.5](#).

## Developer Module Support Pins

1. Remove the developer assembly, [REP 9.2](#).
2. [Figure 4](#), use plastislip grease, [PL 26.10 Item 8](#), to lubricate the developer assembly support pins at the front and rear.



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**Figure 4 Developer assembly support pins**

3. Re-install the developer assembly, [REP 9.2](#).

## 1K LCSS Drive Belt Tensioners

1. Remove the 1K LCSS top cover and rear cover, [REP 11.1-120](#).
2. Remove the relevant belt tensioner:
  - Bin 1 drive belt tensioner, [PL 11.106 Item 15](#).
  - Intermediate paper drive belt tensioner, [PL 11.118 Item 14](#).
  - Paper output drive belt, [PL 11.120 Item 8](#).
3. Remove the E-clip and pulley from the belt tensioner. Apply plastislip grease, [PL 26.10 Item 8](#) to the shaft and pulley bore. Re-assemble the pulley and E-clip on the belt tensioner.
4. **(Bin 1 drive belt tensioner only)** Clean off the old lubricant and any contamination from the belt tensioner and 1K LCSS frame using a micro fiber wiper, [PL 26.10 Item 13](#). Apply plastislip grease, [PL 26.10 Item 8](#), to the whole contact face of the belt tensioner.
5. Reinstall the belt tensioner.

## 1K LCSS Bin 1 Drive Belt Pulleys and Idler

1. Remove the 1K LCSS top cover and rear cover, [REP 11.1-120](#).
2. If necessary, remove the 1K LCSS PWB, [REP 11.12-120](#).
3. Remove the relevant pulley or idler:
  - Bin 1 drive belt idler, [PL 11.106 Item 17](#).
  - Bin 1 drive belt pulleys, [PL 11.106 Item 6](#).
4. Remove the E-clip and pulley or idler from the belt tensioner. Apply plastislip grease, [PL 26.10 Item 8](#) to the shaft and pulley or idler bore. Re-assemble the pulley or idler and E-clip on the belt tensioner.
5. Reinstall the belt tensioner.

## 2K LCSS Drive Belt Tensioners

1. Remove the 2K LCSS top cover and rear cover, [REP 11.1-110](#).
2. Remove the relevant belt tensioner:
  - Intermediate paper drive belt tensioner, [PL 11.22 Item 17](#).
  - Bin 1 drive belt tensioner, [PL 11.10 Item 13](#).
3. Remove the E-clip and pulley from the belt tensioner. Apply plastislip grease, [PL 26.10 Item 8](#) to the shaft and pulley bore. Re-assemble the pulley and E-clip on the belt tensioner.
4. Clean off the old lubricant and any contamination from the belt tensioner and 2K LCSS frame using a micro fiber wiper, [PL 26.10 Item 13](#). Apply plastislip grease, [PL 26.10 Item 8](#), to the whole contact face of the belt tensioner.
5. Reinstall the belt tensioner.

## 2K LCSS Bin 1 Drive Belt Pulleys and Idler

1. Remove the 2K LCSS top cover and rear cover, [REP 11.1-110](#).
2. If necessary, remove the 1K LCSS PWB, [REP 11.14-110](#).
3. Remove the relevant pulley or idler:
  - Bin 1 drive belt idler, [PL 11.10 Item 15](#).
  - Bin 1 drive belt pulleys, [PL 11.10 Item 6](#).
4. Remove the E-clip and pulley or idler from the belt tensioner. Apply plastislip grease, [PL 26.10 Item 8](#) to the shaft and pulley or idler bore. Re-assemble the pulley or idler and E-clip on the belt tensioner.
5. Reinstall the belt tensioner.

## 1K and 2K LCSS Bin 1 Elevator Motor Worm and Gear

1. Remove the 1K LCSS top cover and rear cover, [REP 11.1-120](#) or the 2K LCSS top cover and rear cover, [REP 11.1-110](#).
2. [Figure 5](#), use plastislip grease, [PL 26.10 Item 8](#), to lubricate the worm and gear.

**NOTE:** The lubrication procedure is the same for the 1K LCSS and the 2K LCSS. The 1K LCSS is shown in [Figure 5](#).

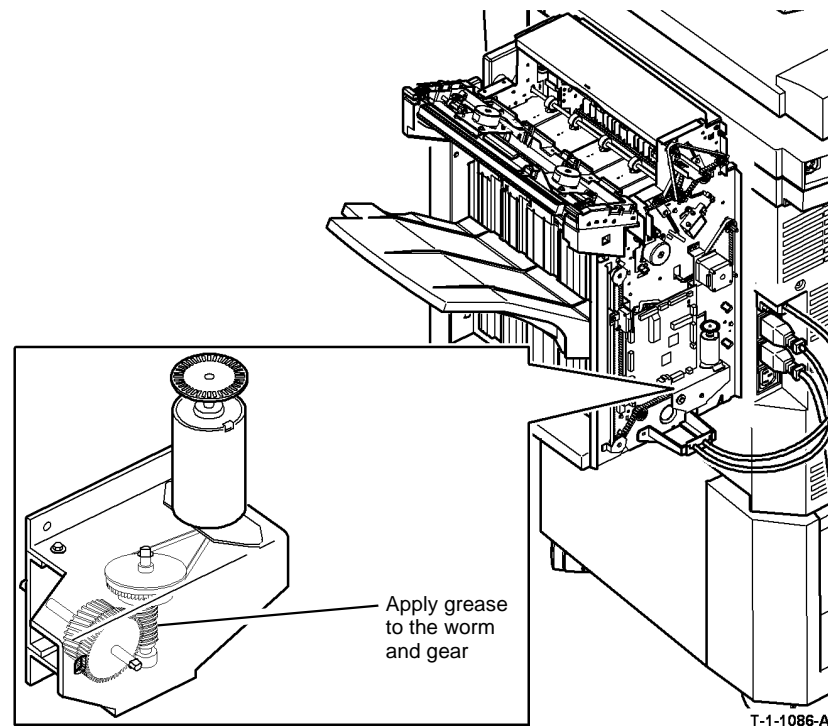
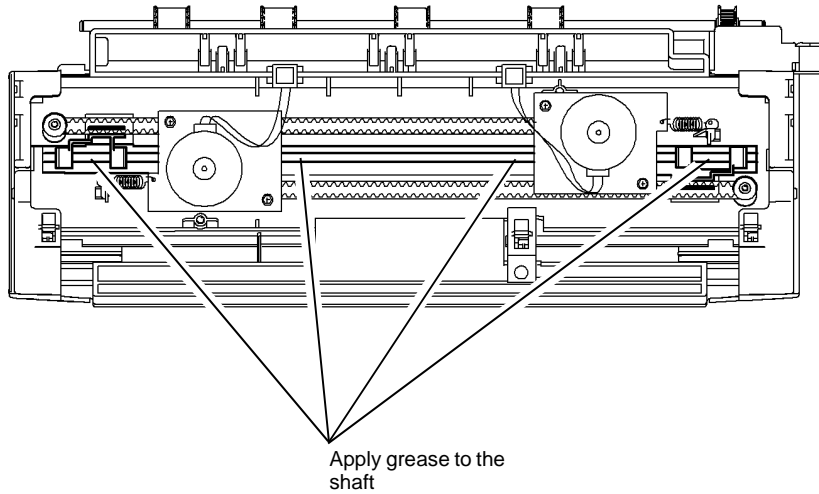


Figure 5 Lower vertical slides

## 1K and 2K LCSS Tamper Assembly

1. Remove the 1K LCSS top cover, REP 11.1-120 or the 2K LCSS top cover, REP 11.1-110.
2. Figure 6, use plastislip grease, PL 26.10 Item 8, to lubricate the tamper assembly.

**NOTE:** The lubrication procedure is the same for the 1K LCSS and the 2K LCSS.

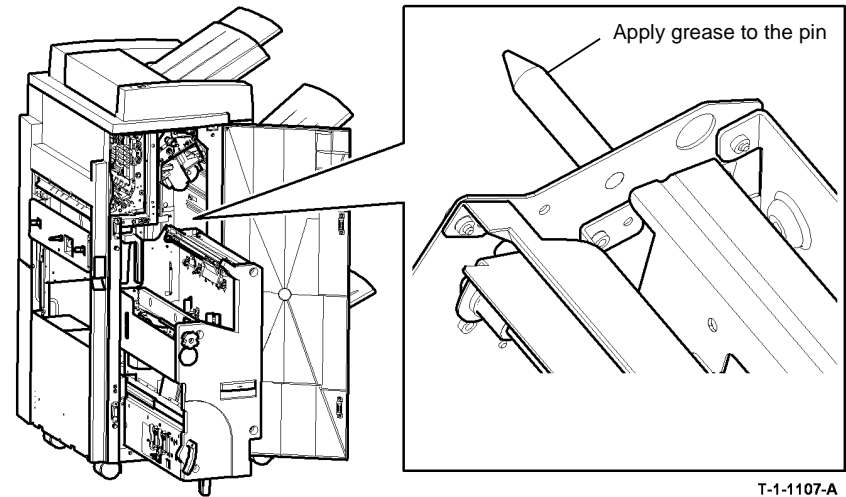


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Figure 6 Lower vertical slides

## HVF BM Support Pin

1. Open the BM front door.
2. Fully pull out the BM unit.
3. Figure 7, use plastislip grease, PL 26.10 Item 8, to lubricate the BM support pin.



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Figure 7 Support pin lubrication

4. Fully push in the BM unit and close the HVF BM front door.



## ADJ 5.1 DADH Drive Belt Adjustment

Parts List on [PL 5.25](#) and [PL 5.35](#)

### Purpose

To correctly set the tension of the feed motor and the CVT motor drive belts.

### Adjustment



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

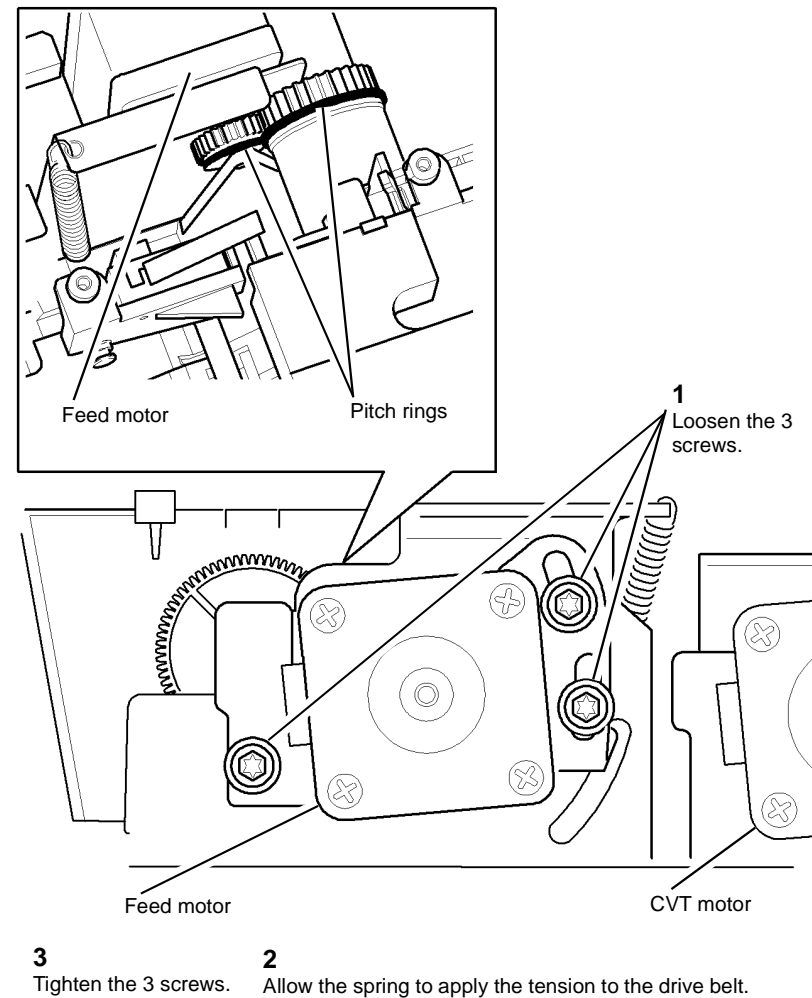


Before this adjustment is performed, make sure all components removed in the repair procedure are installed correctly.

**NOTE:** The same adjustment applies to the feed motor and the CVT motor. This procedure shows how to adjust the feed motor. The green spring applies tension to the feed motor drive belt. The silver spring applies tension to the CVT motor drive belt.

1. Remove the rear cover, [PL 5.10 Item 1](#).

2. Adjust the correct motor drive belt, [Figure 1](#). When the feed motor is adjusted, correctly engage the gears on the feed motor and the feed clutch. Check that the pitch rings just touch.



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Figure 1 Drive belt

## ADJ 5.2 DADH Height Adjustment

Parts List on [PL 5.10](#) and [PL 5.25](#)

### Purpose

To correctly set the distance between the scanner module and the DADH.

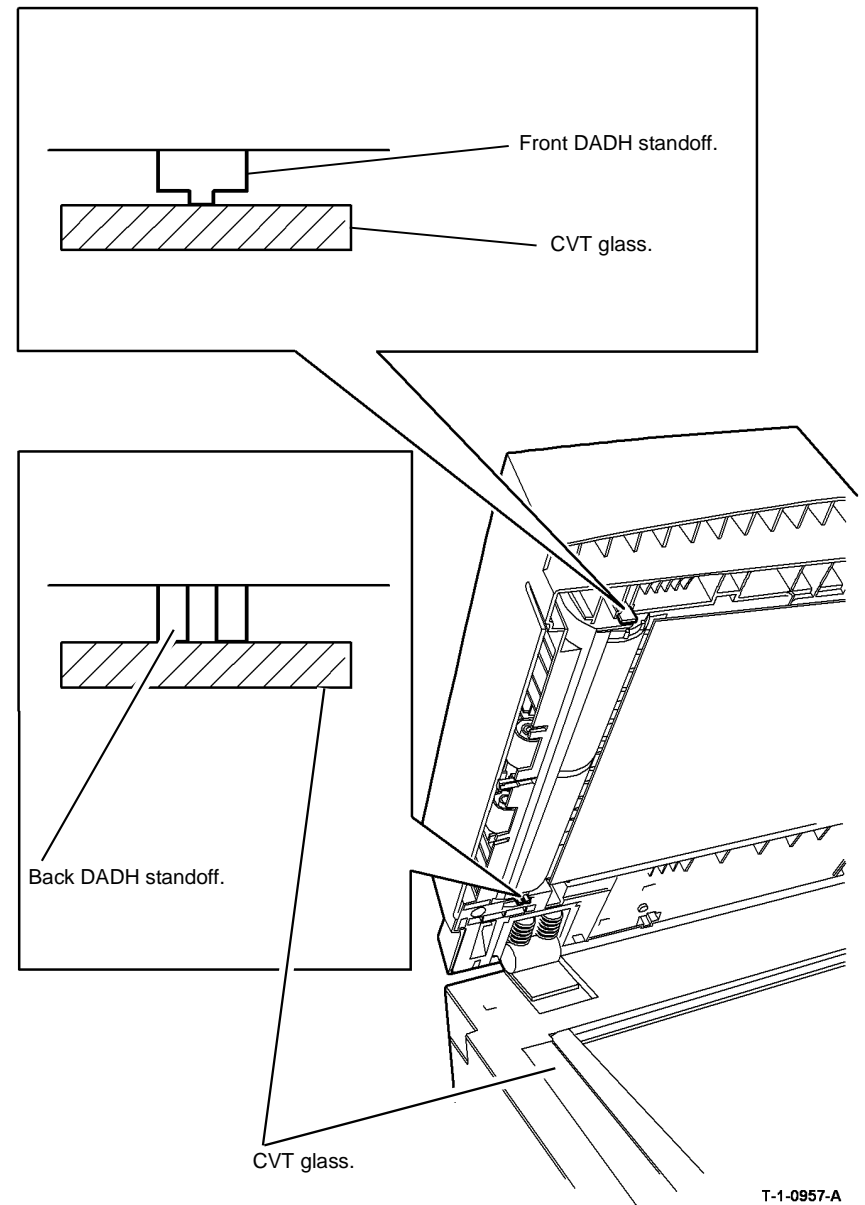
### Check



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** The DADH standoffs include the CVT roll bearings, [PL 5.25 Item 4](#) and [PL 5.25 Item 13](#).

1. Check the height of the DADH. The two standoffs touch the CVT glass when the DADH is closed, [Figure 1](#). Check that the DADH is parallel to the scanner module. Perform the steps that follow. Refer to [Figure 2](#):
  - a. Put a strip of paper on the CVT glass below the back DADH standoff.
  - b. Close the DADH.
  - c. Carefully pull the paper. Make sure that the paper was pressed between the CVT glass and back DADH standoff.
  - d. Repeat A to C for the front DADH standoff.
2. If the DADH height is incorrect, perform the [Adjustment](#).



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Figure 1 DADH standoffs



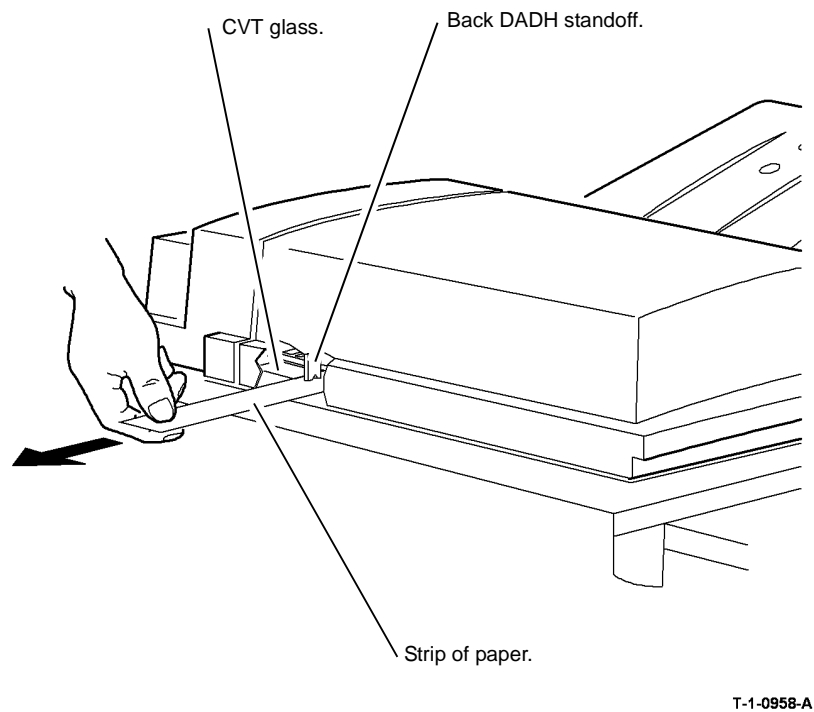


Figure 2 Clearance check

## Adjustment

**NOTE:** The factory setting of the counterbalances is approximately 3mm (0.125 inch), refer to [Figure 3](#). The same adjustment applies to the left counterbalance and right counterbalance. Adjust the two counterbalances.

1. If the height of the DADH is wrong, adjust the counterbalances, [Figure 3](#).

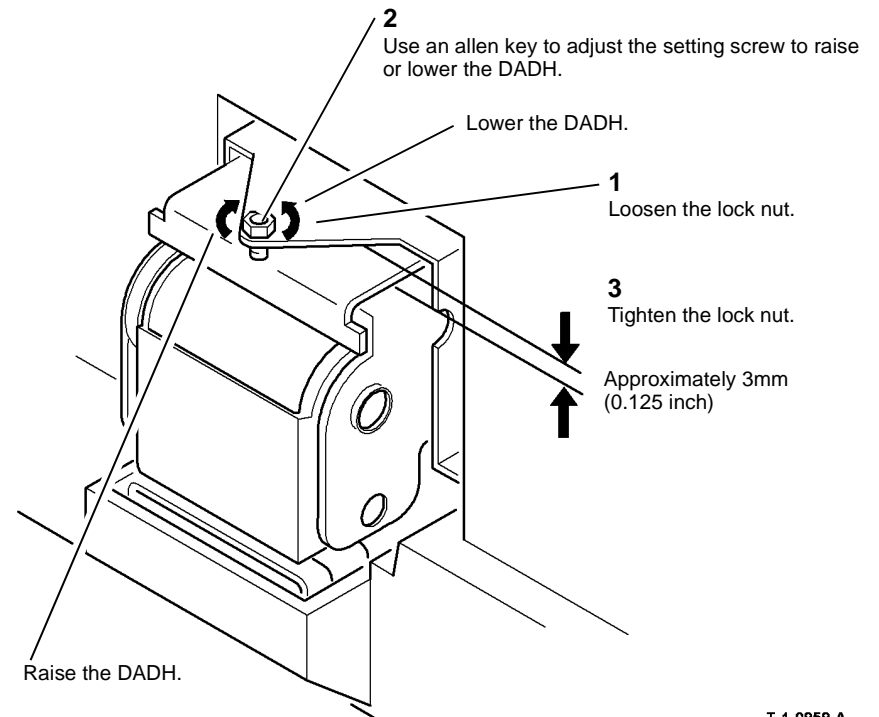


Figure 3 Counterbalances

2. If mis-registration is found after the DADH is set to the correct height, go to [ADJ 5.5](#) DADH Registration Adjustment.

## ADJ 5.3 DADH Skew Adjustment

### Parts List on PL 5.10

#### Purpose

To correct document feed skew induced by the DADH.

#### Preparation

Perform the following:

1. Clean the CVT glass. Refer to [ADJ 5.4 DADH cleaning procedure](#).
2. Check that the document width guides are adjusted correctly.
3. Make sure that the DADH is set to the correct height. Go to [ADJ 5.2 DADH Height Adjustment](#).
4. Check the document path for obstructions or foreign objects.
5. Perform the [Skew Check](#).

#### Skew Check

1. Use the DADH to make 5 copies. Check the skew, refer to [IQS 5 Skew](#).

**NOTE:** Skew is always measured on the lead edge, irrespective of paper orientation.

2. If necessary, perform the [Adjustment](#).

#### Adjustment

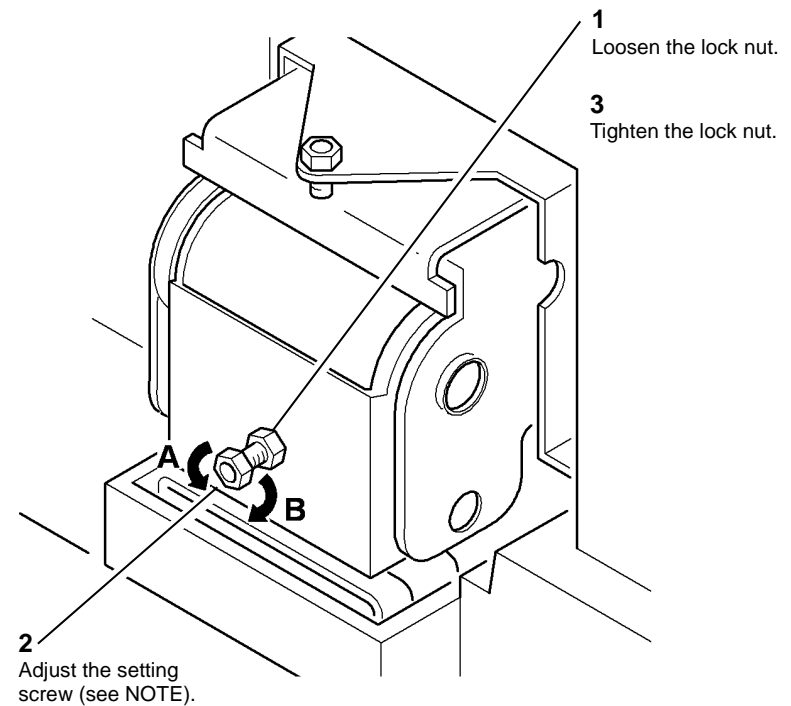


#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Raise the DADH.
2. Loosen both DADH thumbscrews, [PL 5.10 Item 12](#).

3. Adjust the setting screw on the right counterbalance to correct the skew, [Figure 1](#).



Q-1-6108-A

Figure 1 Skew adjustment

**NOTE:** Turn the setting screw in direction A to move the right side of the DADH to the front. Turn the setting screw in direction B to move the right side of the DADH to the rear.

4. Pull the DADH forward, then tighten the thumbscrews.
5. Perform again the [Skew Check](#).
6. When the DADH skew is good, check the DADH registration. Go to [ADJ 5.5 DADH registration Adjustment](#).

## ADJ 5.4 DADH Cleaning Procedure

### Parts List on PL 5.10

#### Purpose

This procedure describes how to clean the DADH. The wear of the feed rolls, paper dust and dirt in the environment can cause the copy quality defects.

The tools required:

- 5.5mm nut driver

The supplies required:

- Dry micro fiber wiper, PL 26.10 Item 13.
- Brush
- Cleaning fluid, PL 26.10 Item 2.
- Antistatic fluid, PL 26.10 Item 19.

#### Adjustment



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Use a brush to clean the document length sensors, PL 5.35 Item 8.
2. Open the DADH top cover.
3. Use a dry micro fiber wiper, or brush to clean the document path area, top and bottom. Remove all loose material.
4. Clean the CVT roll, PL 5.25 Item 5 with a micro fiber wiper and water.
5. Clean the CVT idlers and the takeaway idlers, PL 5.20 Item 3 with a micro fiber wiper and water.
6. Remove the DADH rear cover, rotate the takeaway rolls.
7. Clean the takeaway rolls, PL 5.35 Item 6 with a micro fiber wiper and water.



#### CAUTION

When the feed rolls are installed, make sure the lowest roll, (retard roll), is correctly positioned on the assembly as shown in Figure 1.

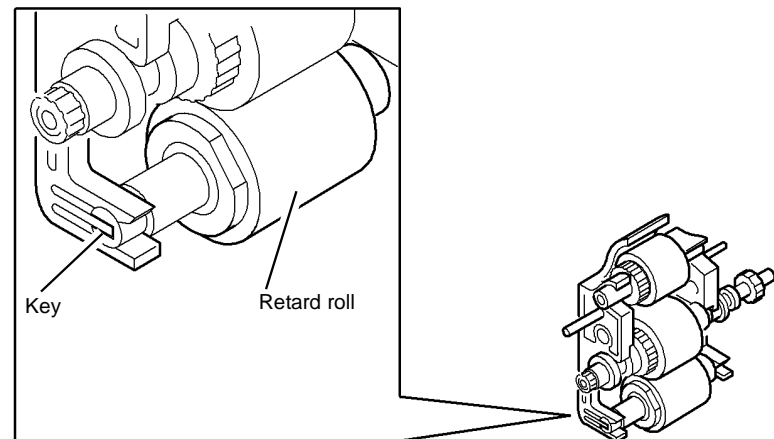
8. Remove the feed roll assembly, REP 5.14. Clean the 3 rolls and the pad, PL 5.35 Item 2 with a micro fiber wiper and water. Use a brush to clean the paper dust from the assembly and from the area around the assembly. Install the feed roll assembly.
9. Leave the top cover open and raise the DADH assembly.
10. Lower the baffle assembly, PL 5.30 Item 5. Clean the four CVT idler rolls with a micro fiber wiper and water.
11. Clean the exit roll idlers, PL 5.30 Item 8 and the takeaway roll, PL 5.35 Item 6 with a micro fiber wiper and water.
12. Clean the document pad with a micro fiber wiper and water.
13. Lower the DADH assembly. Install the DADH rear cover.



#### CAUTION

When the under side of the input tray is cleaned, do not damage the restack arm, PL 5.35 Item 3.

14. Clean the input tray and the exit area below the input tray with a micro fiber wiper and antistatic fluid.
15. Clean the CVT glass and the document glass. Refer to (W/O TAG 150) ADJ 14.1 Optics Cleaning Procedure or (W/TAG 150) ADJ 14.2 Optics Cleaning Procedure.



T-1-0960-A

Figure 1 Retard roll position

## ADJ 5.5 DADH Registration Adjustment

Parts List on [PL 5.10](#)

### Purpose

To measure and adjust the image to paper registration.

### Adjustment

Reset the DADH registration. Go to [dC604](#) Registration Setup Procedure.

## ADJ 5.6 DADH Document Pad

Parts List on [PL 5.10](#)

### Purpose

To correctly align the DADH document pad with the document glass.

### Adjustment



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** If a new document pad is installed, make sure that the protective paper is removed from the adhesive pads.

1. Raise the DADH. Put the document pad with the adhesive pads face-up on the document glass.
2. Align the document pad with the document registration guides as shown in [Figure 1](#).

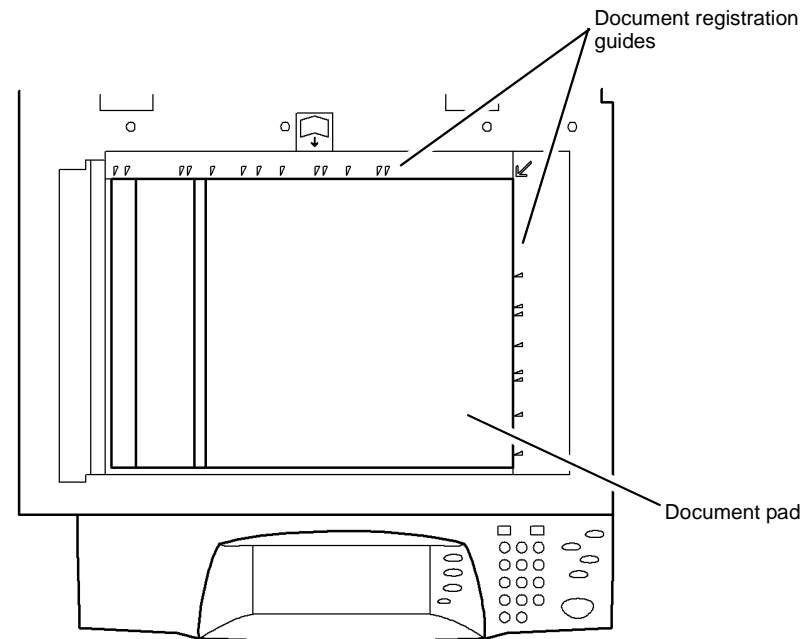


Figure 1 Document pad alignment

3. Carefully lower then raise the DADH. Make sure the document pad is attached correctly.

## ADJ 6.1 ROS Window Cleaning Procedure

### Purpose

To improve the image quality.

**NOTE:** Only perform this procedure if directed to it from an Image Quality RAP.

### Procedure

  
**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

  
**WARNING**

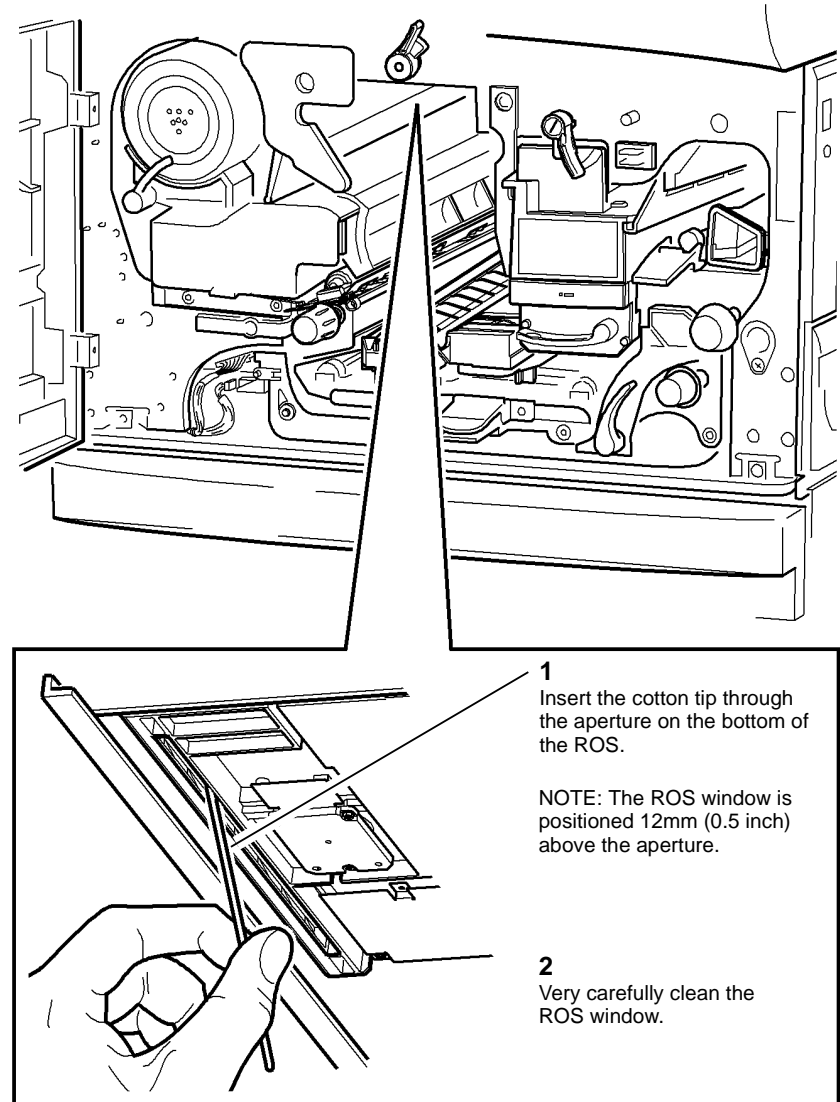
Do not break the glass. Broken glass can cause injury.

  
**CAUTION**

The ROS window is secured by 2 clips, 1 at the front and 1 at the rear. If too much pressure is applied when cleaning the ROS window, the glass will flex and may break.

1. Remove the xerographic module, (35 ppm) **PL 9.22 Item 2** or (40-90 ppm) **PL 9.20 Item 2**.

2. Using a clean, dry cotton tip, very carefully clean the underside of the ROS widow, **Figure 1**.



T-1-0963-A

Figure 1 ROS window cleaning

## ADJ 6.2 ROS Cleaning Procedure

### Purpose

To improve the image quality.

**NOTE:** Only perform this procedure if directed to from an Image Quality RAP.

### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to **GP 14**. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### WARNING

Take care during this procedure. Sharp edges may be present that can cause injury.



#### CAUTION

Ensure that E.S.D. procedures are observed during this procedure.



#### CAUTION

When rotating the polygon mirror, do not press down on the polygon mirror. Do not move any other components. The components are aligned during manufacture.



#### CAUTION

Contamination of the inside of the ROS can cause image quality defects. Ensure the inside of the ROS is clean before the top cover is replaced.

1. Remove the ROS, **REP 6.1**.
2. Remove the top cover from the ROS (5 torx head screws).



#### CAUTION

Do not attempt to clean the ROS laser diode.

3. Refer to **Figure 1**. Refer to **Cleaning Methods**. Inspect the inside of the ROS. As necessary, clean the inside of the ROS, the mirrors, the polygon mirror, the lens and the surface of all glass components

**NOTE:** Carefully rotate the polygon mirror for access to all sides.

4. Install the ROS top cover.
5. Install the ROS, **REP 6.1**.

### Cleaning Methods



#### WARNING

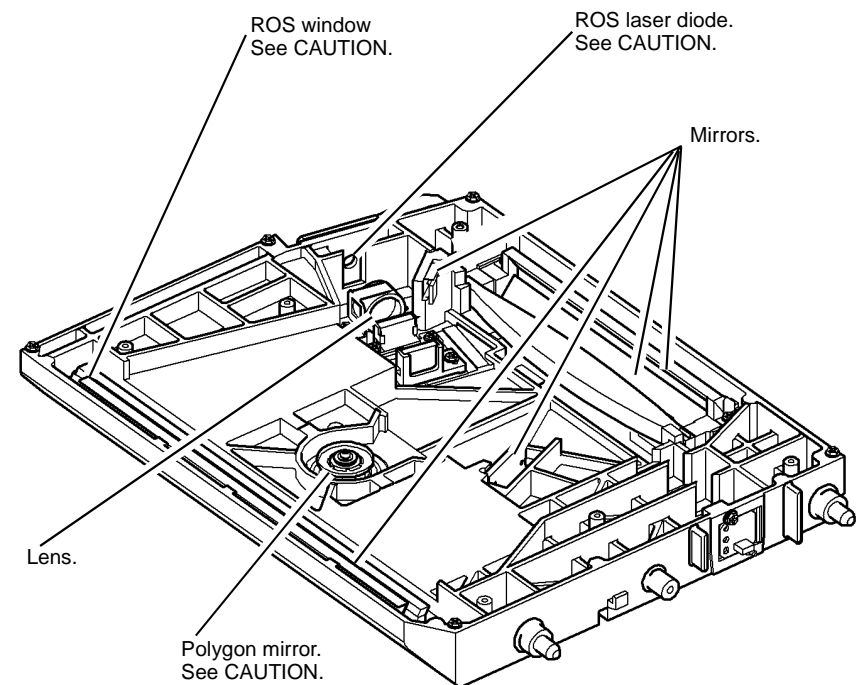
Do not break the glass. Broken glass can cause injury.



#### CAUTION

Do not use the toner vacuum cleaner near the ROS window. The glass is flexible and can break.

1. Use a toner vacuum cleaner to carefully clean metalwork inside of the ROS.
2. Use a clean, dry cotton tip to remove the contamination from glass components.
3. If the contamination remains, use a cotton tip dampened with film remover, **PL 26.10 Item 4**.
4. Start from the center of each component and carefully clean towards the outside edge.



T-1-0964-A

Figure 1 ROS component location

## ADJ 7.1 Tray 3 and Tray 4 Paper Tray Guide Setting (W/O TAG 151)

Parts List on [PL 7.17](#)

### Purpose

To adjust the paper tray guides in tray 3 and tray 4 for A4 or 8.5 x 11 inch paper.

### Adjustment



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Pull out the tray to be adjusted and remove the paper from the tray.
2. Push in the retaining clips and remove the paper tray guide, [PL 7.15 Item 20, Figure 1](#).

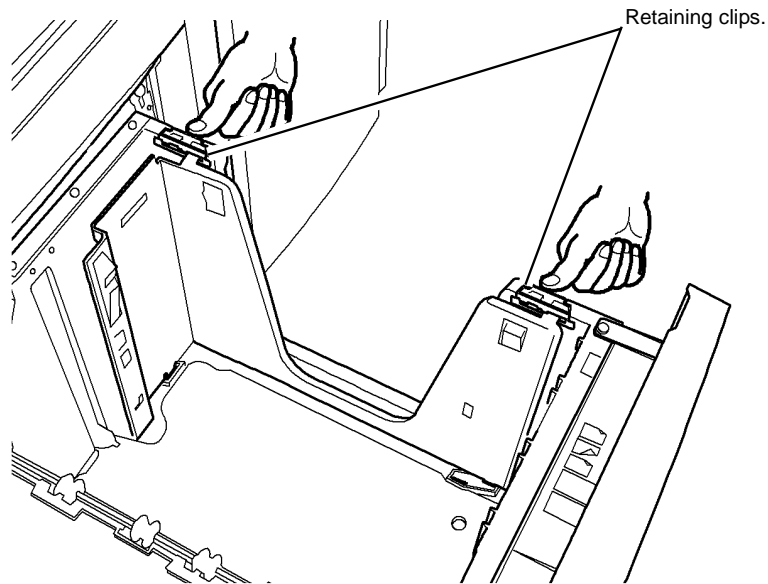


Figure 1 Remove the paper guide

T-1-0965-A

3. To reset the paper tray guide:
  - Refer to [Figure 2](#) to set the paper tray guide to A4 paper size and reposition the retaining clips.
  - Refer to [Figure 3](#) to set the paper tray guide to 8.5 x 11 inch paper size and reposition the retaining clips.

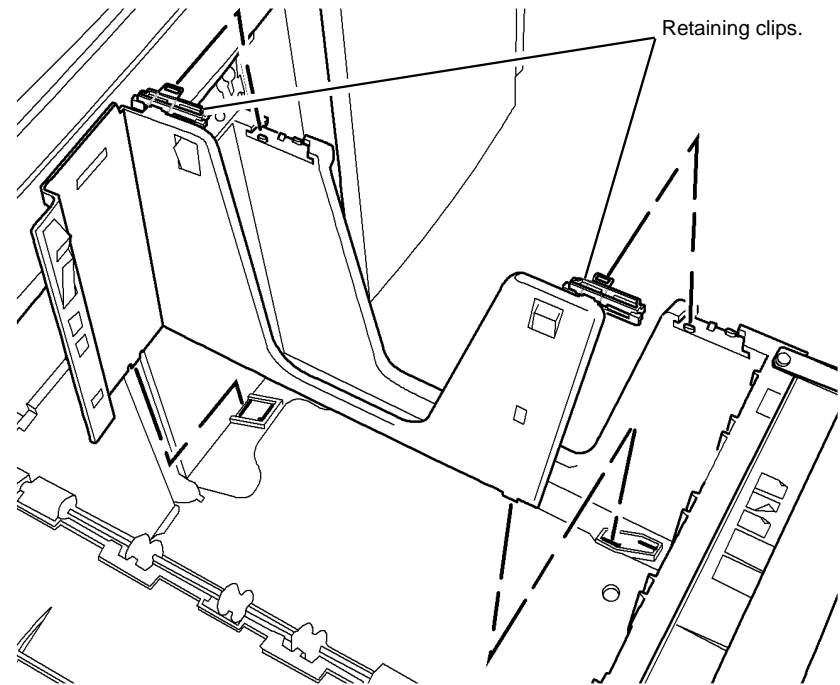


Figure 2 Set the paper guide to A4 size

T-1-0966-A

## ADJ 7.2 Tray 5 Paper Tray Guide Setting

Parts List on [PL 7.64](#)

### Purpose

To adjust the paper tray guides in tray 5 for A4 / A3 or 8.5 x 11 / 11 x 17 inch paper.

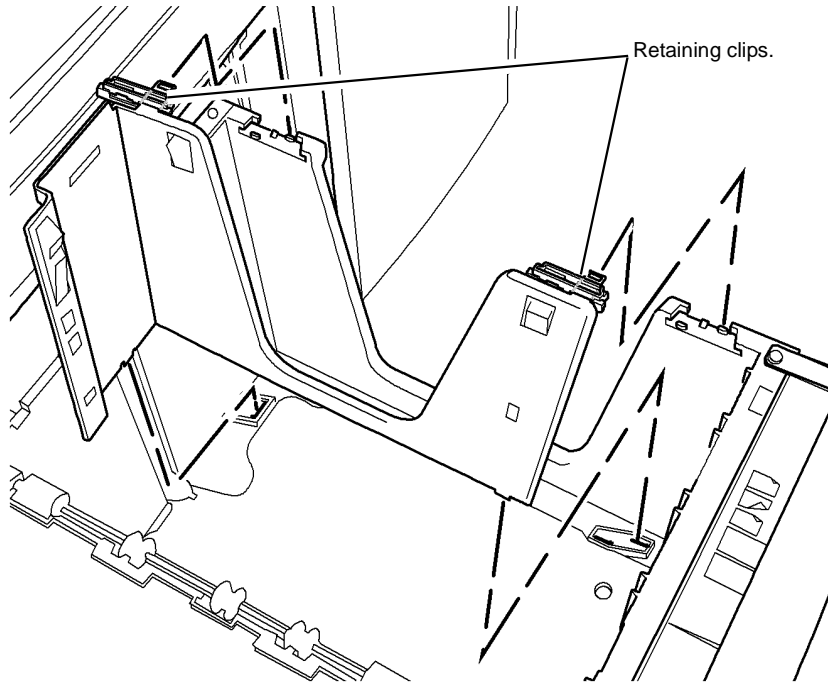
### Adjustment



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Open tray 5 door and allow the tray to lower and remove the paper stack.
2. Adjust the paper guide to the required paper size, [Figure 1](#).
  - To set the paper tray guide to A4 / A3 paper size, move the paper guide to the outer position.
  - To set the paper tray guide to 8.5 x 11 / 11 x 17 inch paper size, move the paper guide to the inner position.
3. Check the registration, refer to [dC604](#) Registration Setup Procedure.



T-1-0967-A

Figure 3 Set the paper tray guide to 8.5 x 11 size

4. To lock the paper tray guide in position, push the retaining clips in the reverse direction to that shown in [Figure 1](#).



## ADJ 7.3 Tray 5 Module to Machine Alignment

Parts List on [PL 7.64](#)

### Purpose

To correctly align the tray 5 module to achieve correct top edge registration and reliable transfer of paper from the tray 5 module to the machine.

### Adjustment

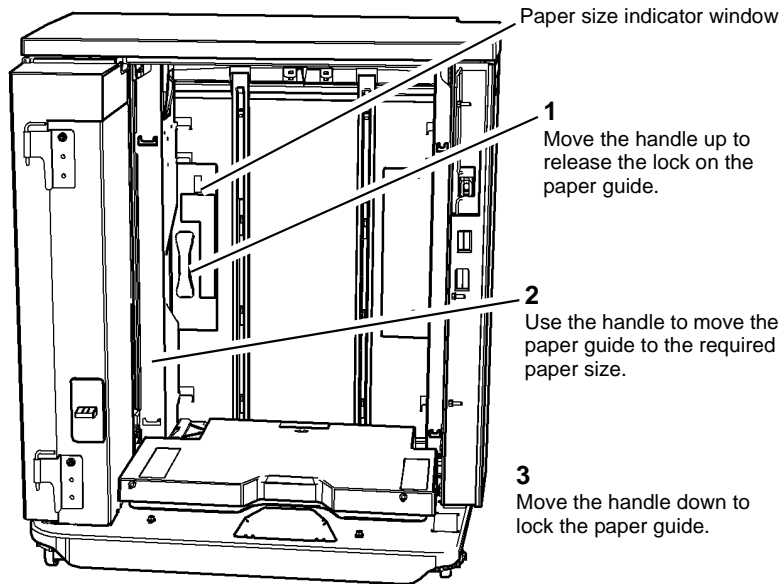


**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Machines **W/O TAG P-001**. The adjustment must be performed in the following order:

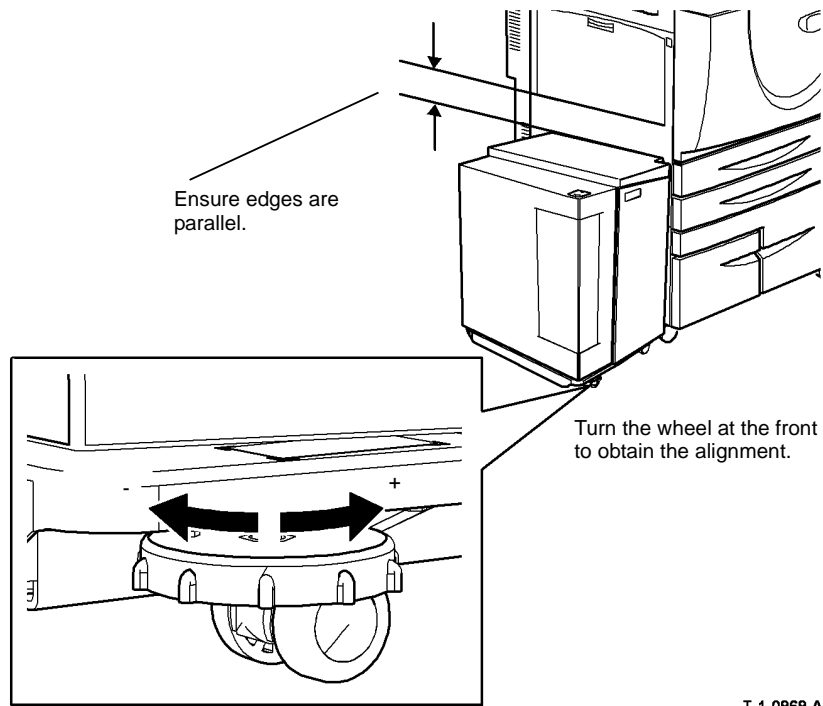
1. [Figure 1](#), turn the hand wheel above the front castor at the left of the tray 5 module to set tray 5 level with the left hand door. The measurement between the left hand door and tray 5 should be equal at the front and the rear. This is the nominal position for tray 5 and the image registration and hole punching should need little or no correction.



T-1-0968-A

Figure 1 Paper guide adjustment

**NOTE:** Before each adjustment or measurement, un-dock and re-dock the module to reset the tray 5 position.



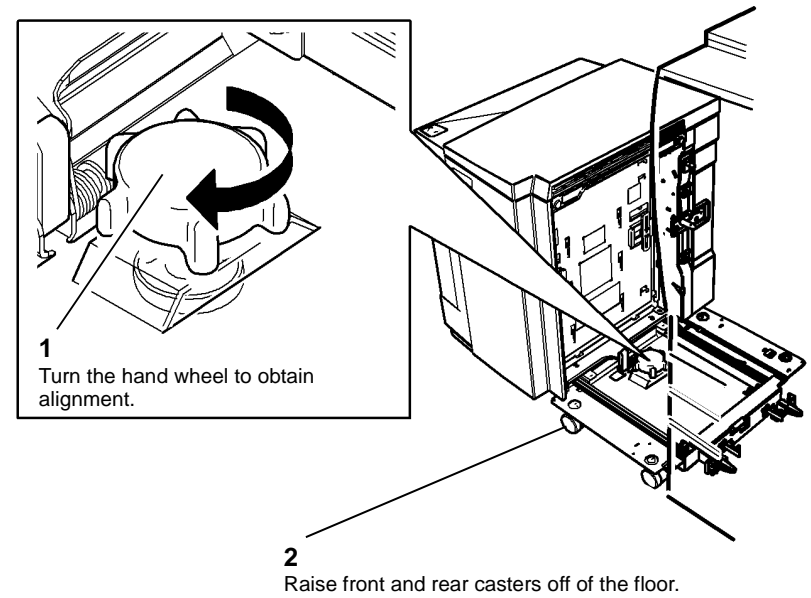
T-1-0969-A

**Figure 1** Tray 5 alignment W/O TAG P-001

2. Make prints to check for image registration and correct hole punching. If necessary, continue to step 3.
3. **Figure 1**, turn the wheel as necessary. The '+' direction moves the paper towards the front of the machine. The '-' direction moves the paper towards the rear of the machine.
4. Check the registration, refer to **dC604** Registration Setup Procedure.

**Machines W/TAG P-001.** The adjustment must be performed in the following order:

1. **Figure 2**, turn the hand wheel in the centre of the tray 5 module to raise the casters off the floor.



T-1-0970-A

**Figure 2** Tray 5 alignment W/TAG P-001

2. Check the registration, refer to **dC604** Registration Setup Procedure.

## ADJ 7.4 Tray 5 Module Tray Alignment

### Parts List on PL 7.64

#### Purpose

To align the tray 5 module paper tray with the paper trays in the IOT module. Use this adjustment when the top edge registration cannot be achieved using the NVM values in dC604 Registration Setup Procedure.

**NOTE:** Perform ADJ 7.3, Tray 5 Module to Machine Alignment, before starting this adjustment procedure. Use both ADJ 7.3 and this adjustment to achieve correct hole punch alignment.

Before performing this adjustment return the NVM values for tray 5 to the nominal values.

#### Adjustment

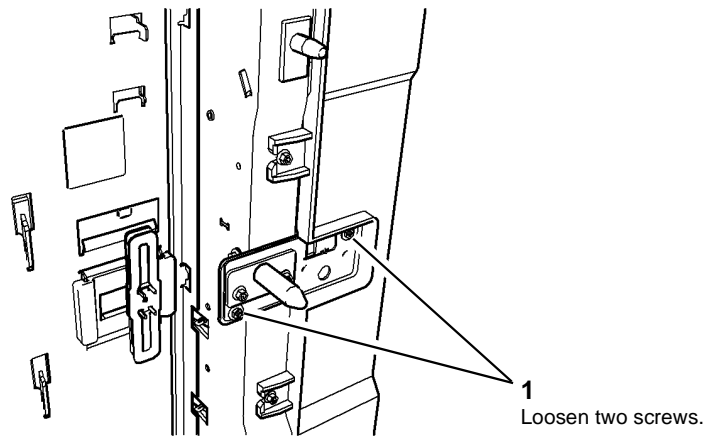


#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Make a sample print and determine which way and how far the tray needs to be moved. After the adjustment is made, take a sample print.

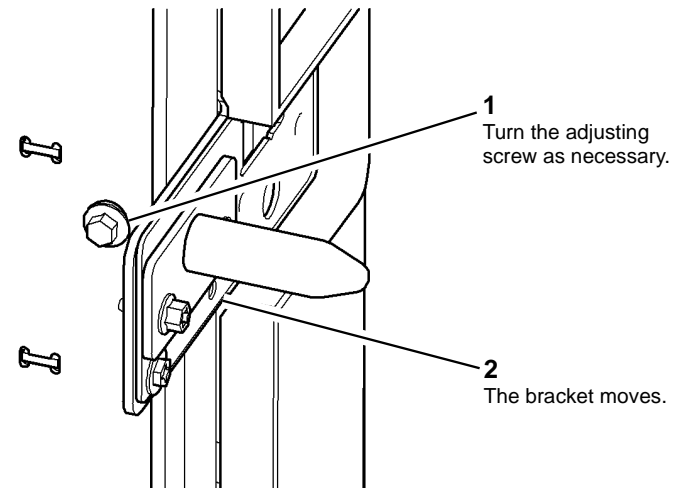
1. Loosen the two screws on the docking pin bracket, Figure 1.



T-1-0977-A

Figure 1 Docking pin bracket

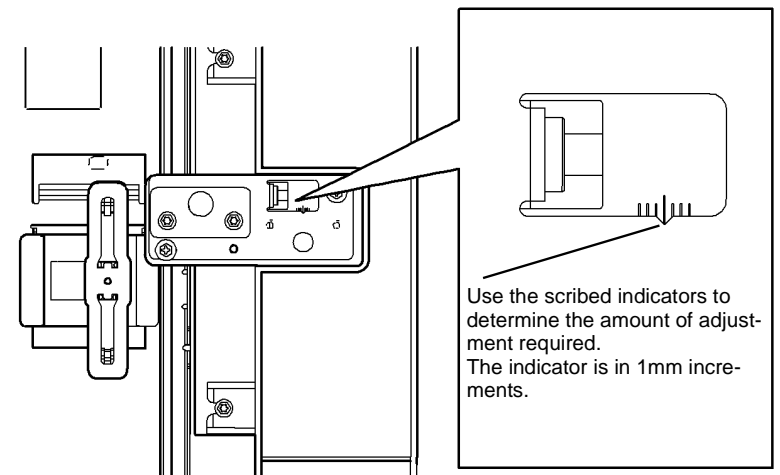
2. Turn the adjusting screw to move the docking pin bracket to the front or to the rear, Figure 2



T-1-0972-A

Figure 2 Adjusting screw

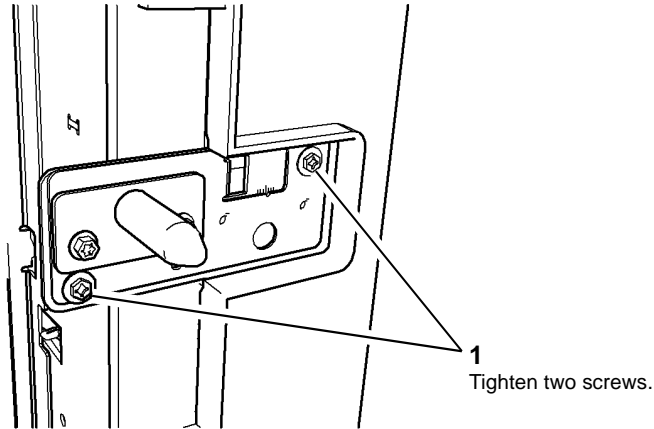
3. Use the scribed indicator to determine the amount of movement, Figure 3.



T-1-0973-A

Figure 3 Adjustment indicator

- Secure the docking pin bracket, [Figure 4](#).



**Figure 4** Secure the docking pin bracket

- Make sample prints and check the top edge registration.
- Enter [dC604](#) Registration Setup Procedure and set the top edge registration.
- If the top edge registration is still out of range, then repeat the adjustment.

T-1-0974-A

## ADJ 7.5 Tray 3 and Tray 4 Paper Tray Guide Setting (W/TAG 151)

Parts List on [PL 7.19](#).

### Purpose

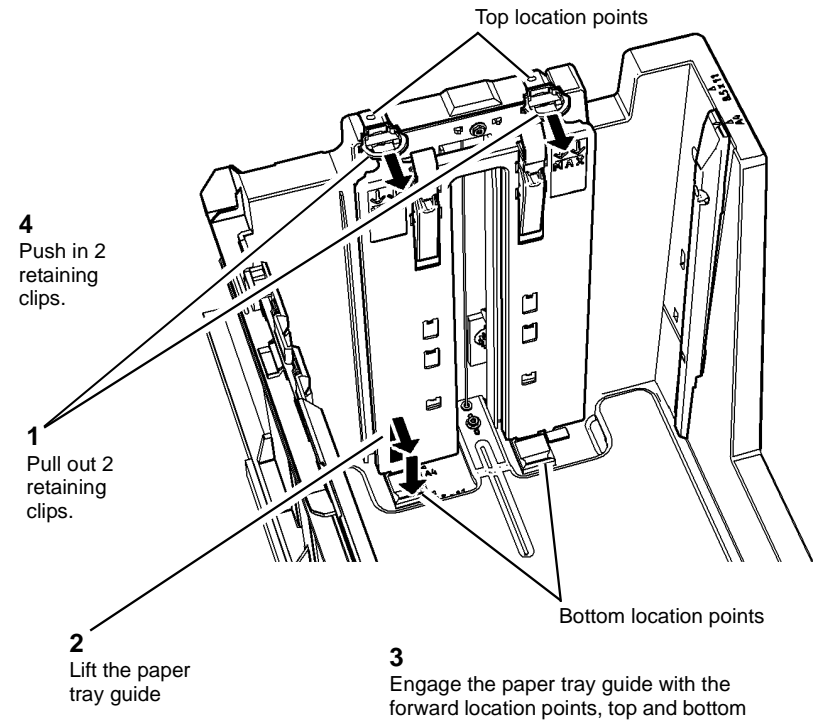
To adjust the paper tray guides in tray 3 and tray 4 for A4 or 8.5 x 11 inch paper.

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

- Pull out the tray to be adjusted and remove the paper from the tray.
- To reset the paper tray guides:
  - Refer to [Figure 1](#) and [Figure 2](#) to change the paper tray guides and paper guides from A4 paper size to 8.5x11 inch paper size.
  - Refer to [Figure 3](#) and [Figure 4](#) to change the paper tray guides and paper guides from 8.5x11 inch paper size to A4 paper size.



T-1-1191-A

**Figure 1** Paper tray guide re-position

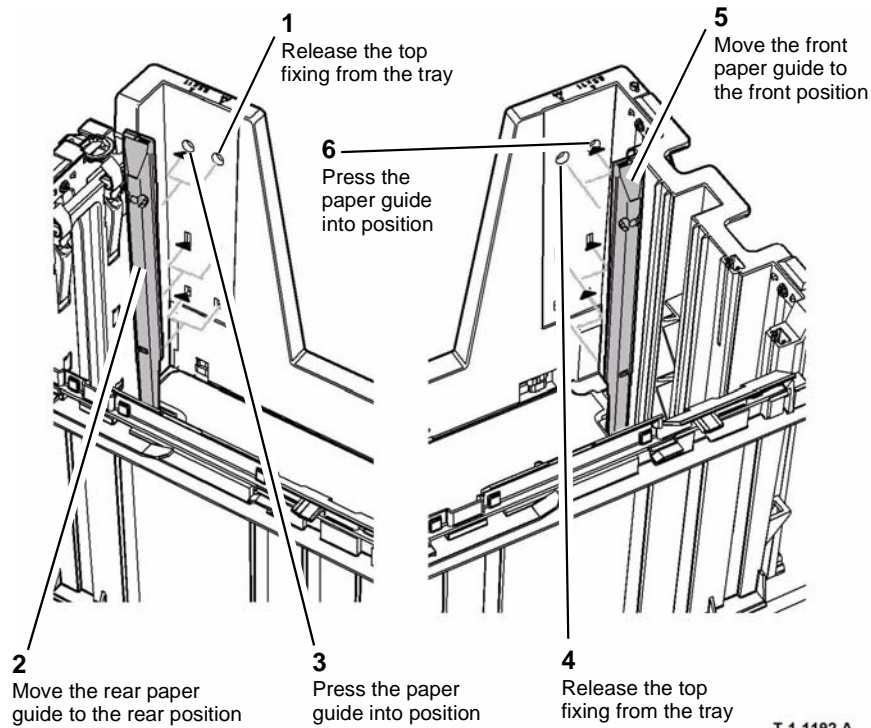


Figure 2 Paper guides re-position

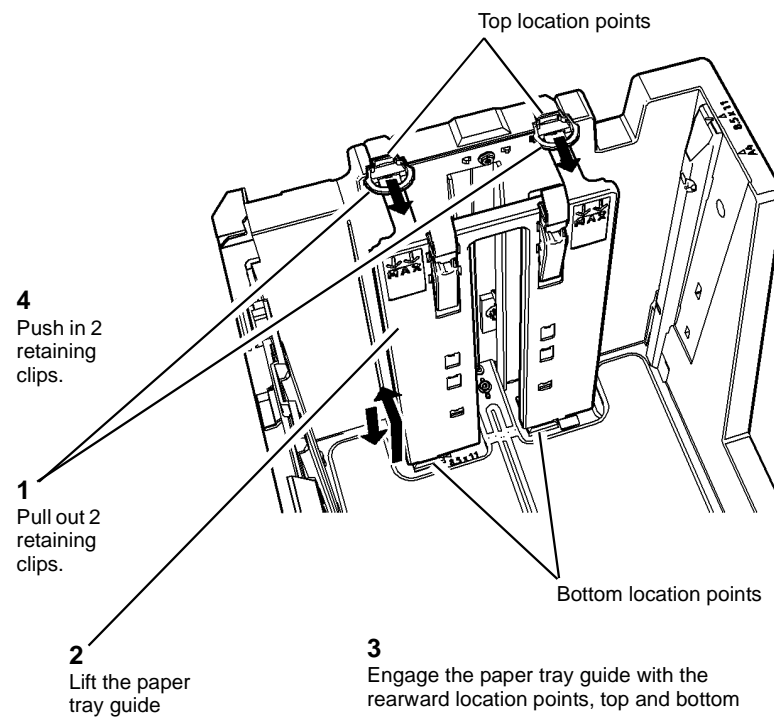


Figure 3 Paper tray guide re-position

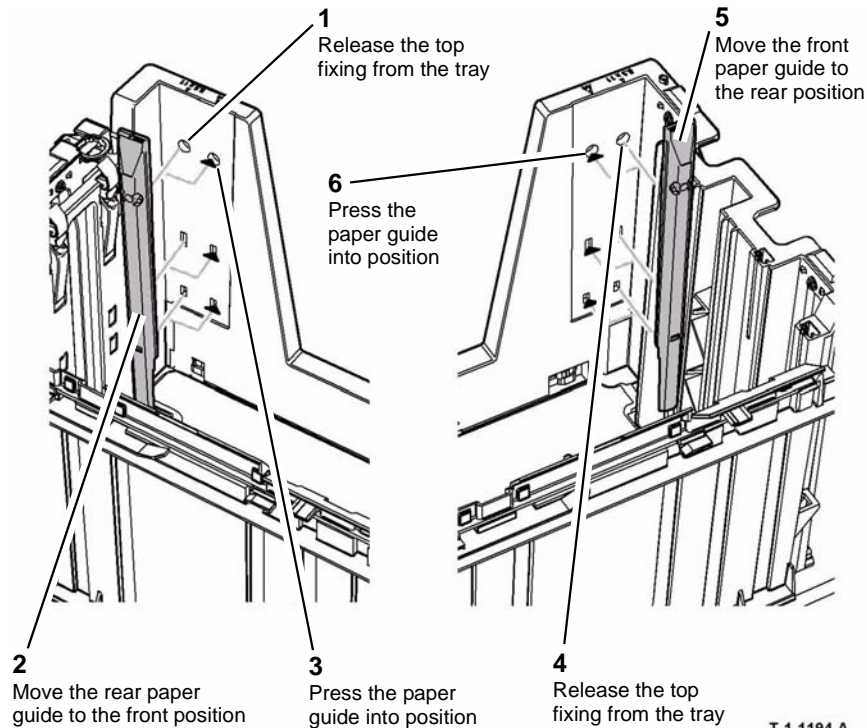


Figure 4 Paper guides re-position

## ADJ 7.6 Tray 5 Stack Height Sensor and Retard Shield

Parts List on [PL 8.45](#), [PL 26.11](#)

### Purpose

To enable the stack height sensor and retard shield to be set to their optimum positions on W/TAG P-050 and W/TAG P-051 tray 5 modules only. Thus extending the life of the feed, nudger and retard rolls.

**NOTE:** Manufacturing failed to strike the Mod/Tag plate on a quantity of tray 5 modules manufactured with the adjustable stack height sensor (W/TAG P-050) and retard shield (W/TAG P-051). These adjustable tray 5 modules can be identified by an externally visible retard shield, refer to [Figure 6](#).

**NOTE:** In the service engineering community tray 5 is also referred to as the PFP (Paper Feed Platform).

### Preparation



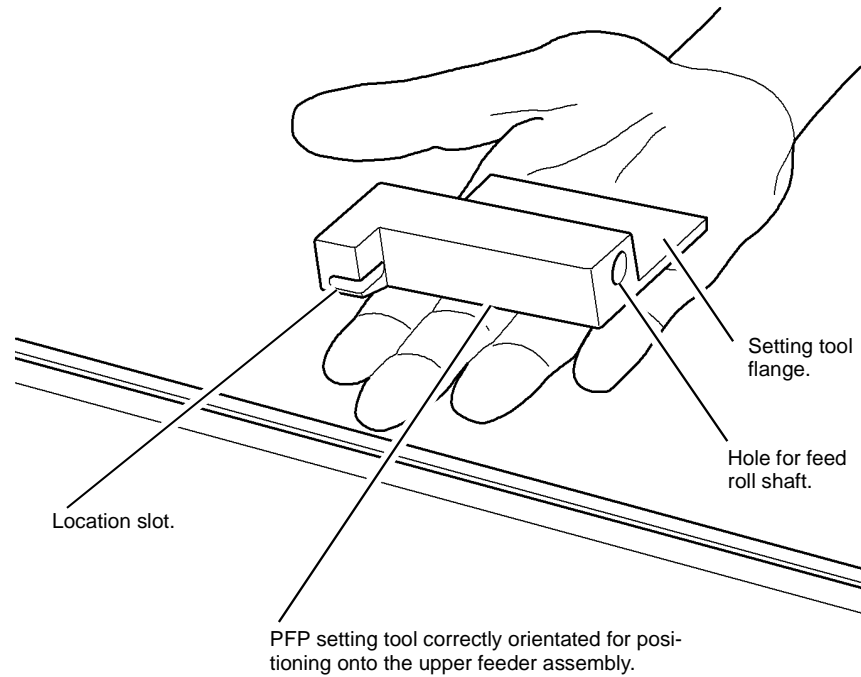
### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Special tool required - PFP setting tool, [PL 26.11 Item 6](#) and [Figure 1](#).

1. Remove the following components from the upper feed assembly drive shafts;
  - Feed roll, [REP 8.34](#).
    - Clutch, [PL 8.45 Item 13](#).
    - One way coupling, [PL 8.45 Item 4](#).
    - Bearing, [PL 8.45 Item 8](#).
    - Roller belt, [PL 8.45 Item 15](#).
  - Nudger roll, [REP 8.34](#).
    - One way gear, [PL 8.45 Item 3](#).
  - Retard roll, [REP 8.34](#).
    - Clutch coupling, [PL 8.47 Item 11](#).
    - Clutch, [PL 8.47 Item 7](#).
2. Remove 2 screws then the top cover, [PL 7.60 Item 10](#).

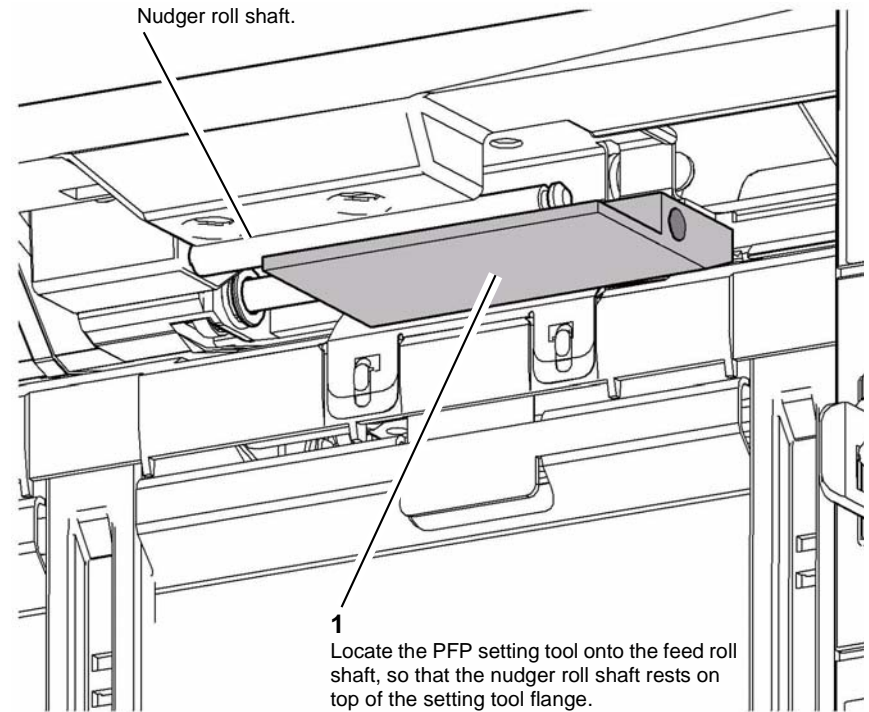
3. Prepare to locate the PFP setting tool onto the upper feed assembly, [Figure 1](#).



T-1-1269-A

**Figure 1 Tool orientation**

4. Install the PFP setting tool, [Figure 2](#).



T-1-1270-A

**Figure 2 Setting tool location**

5. Engage the tab in the setting tool location slot, [Figure 3](#).

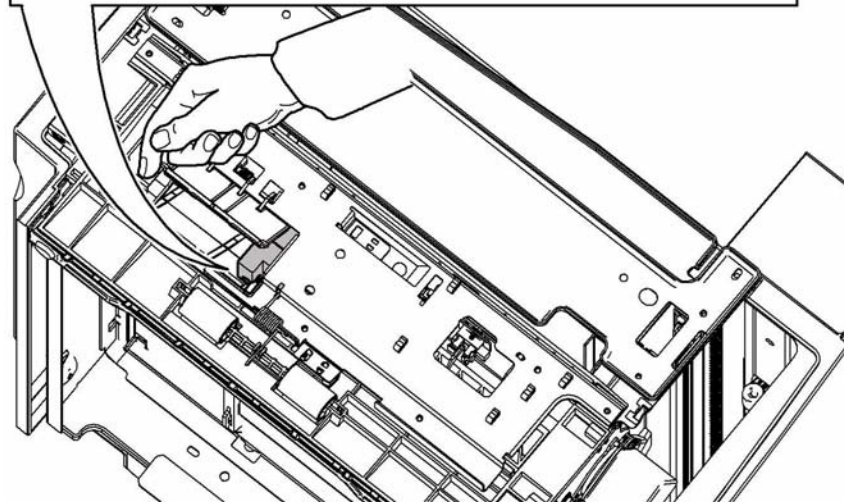
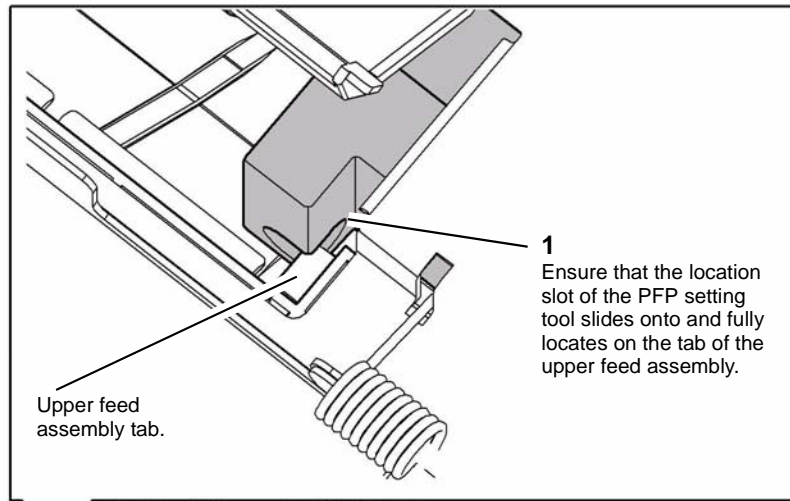


Figure 3 Tab location

T-1-1271-A

6. Check that the tool is correctly located, as shown in [Figure 4](#).

**NOTE:** In [Figure 4](#), the spring loaded access cover is shown in ghosted form for clarity.

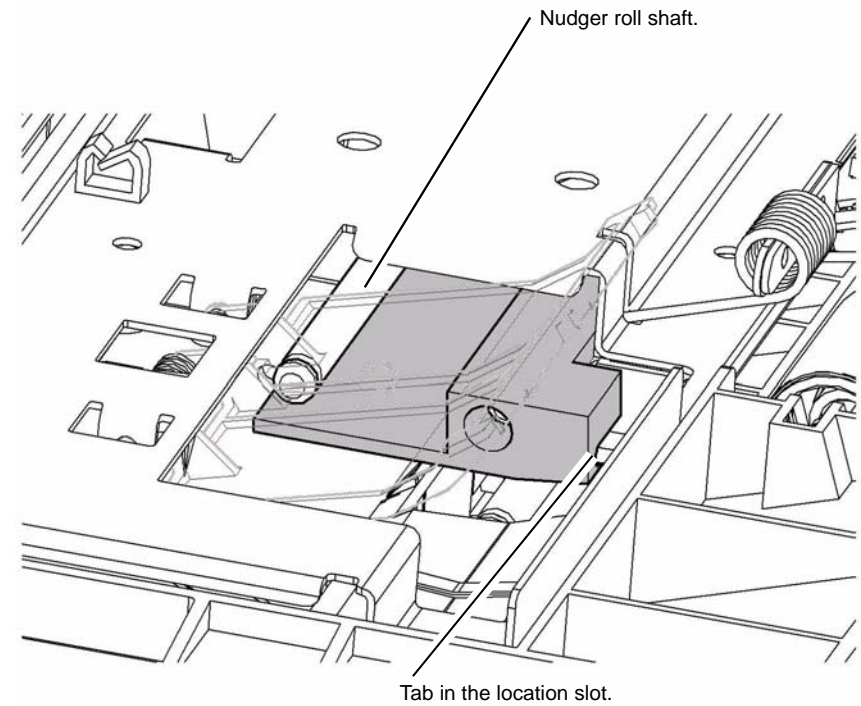


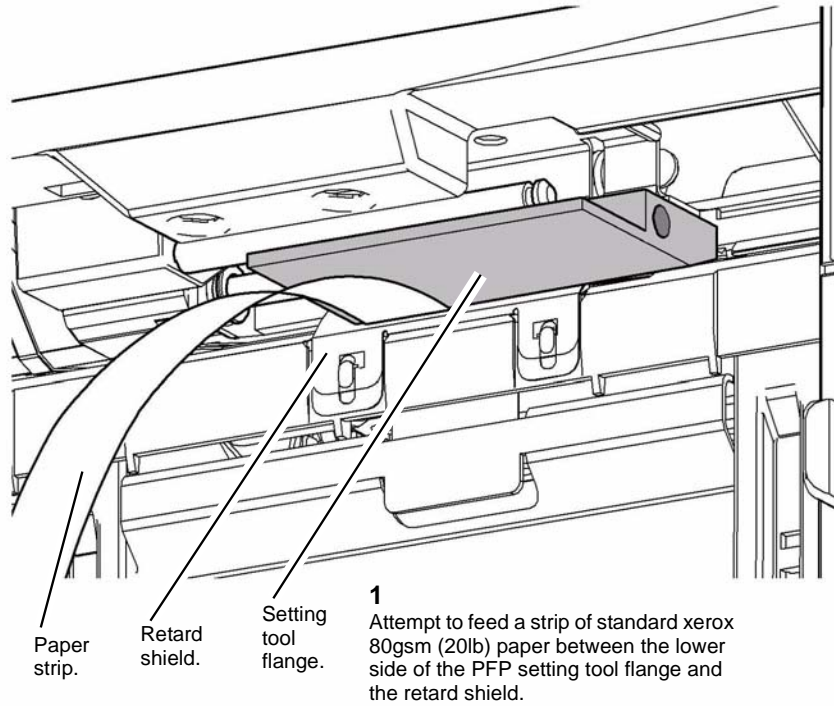
Figure 4 Correct tool location

T-1-1272-A



## Retard Shield Check and Adjustment

1. Check the position of the retard shield, [Figure 5](#).

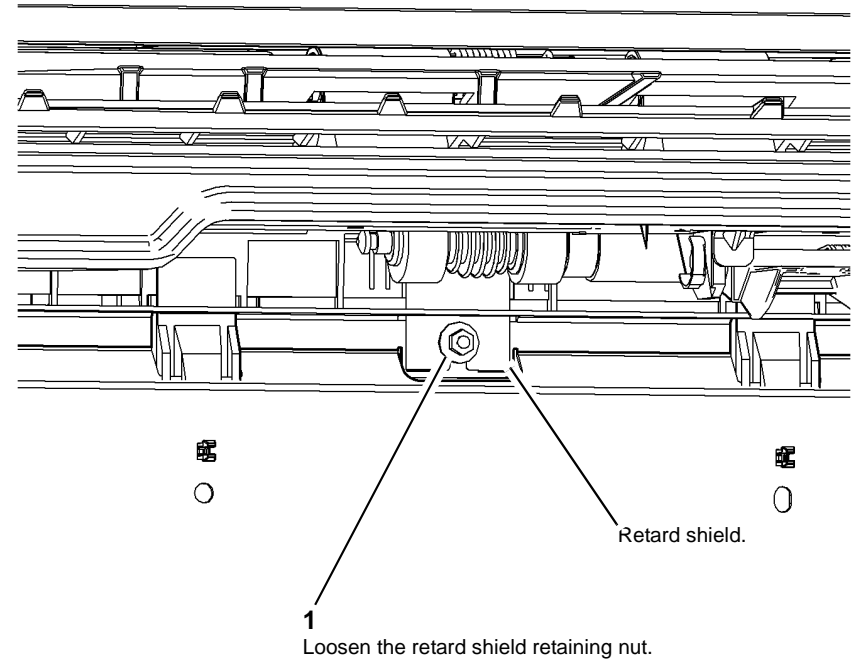


T-1-1273-A

Figure 5 Retard shield check

2. If the paper strip does not feed between the flange of the PFP setting tool and the retard shield then retard shield is positioned correctly, proceed to [Stack Height Sensor Check and Adjustment](#).  
If the paper strip does feed between the flange of the PFP setting tool and the retard shield then the retard shield requires adjustment, continue at step 3.

3. Prepare to adjust the position of the retard shield, [Figure 6](#).

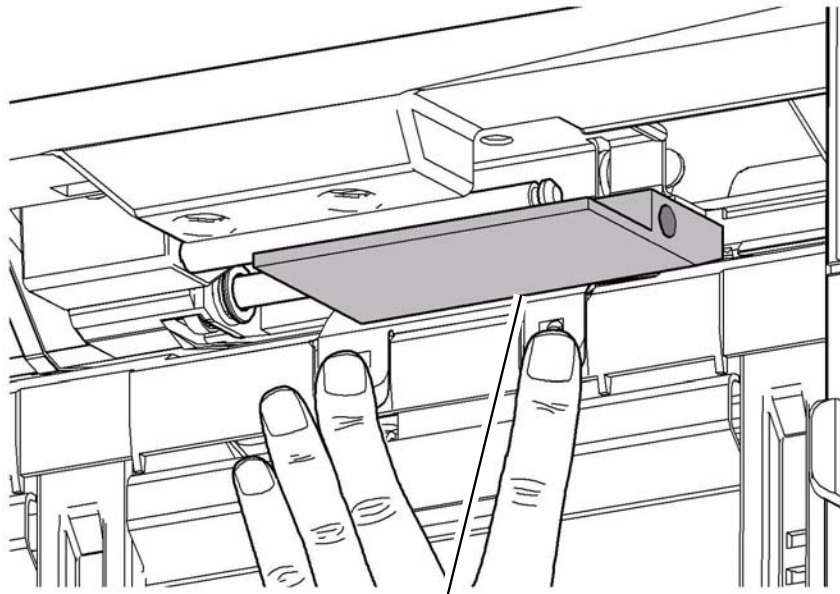


T-1-1274-A

Figure 6 Preparation

- Adjust the position of the retard shield, [Figure 7](#).

**NOTE:** Take care not to move the PFP setting tool as the retard shield is repositioned. Ensure the retard shield remains parallel to the upper feed assembly.



- Re-tighten the retaining nut, refer to [Figure 5](#).

- Raise the retard shield until it just butts against the underside of the PFP setting tool.

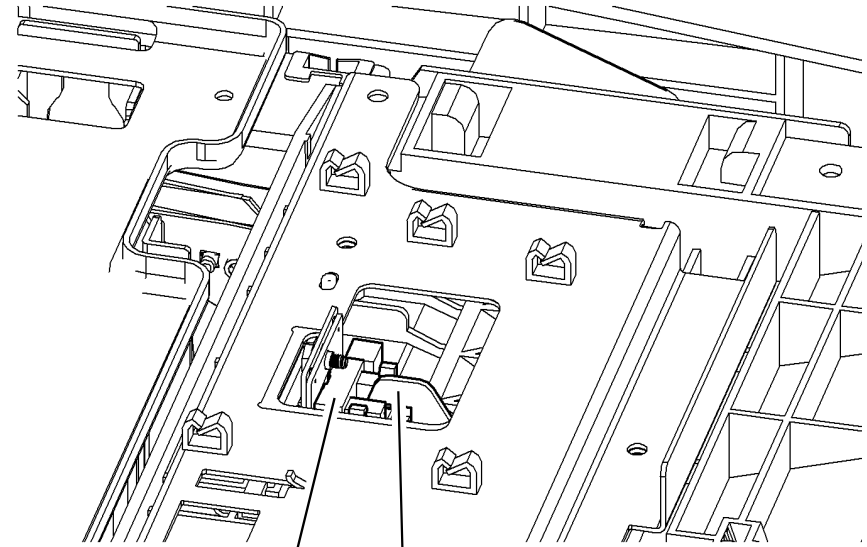
T-1-1275-A

**Figure 7 Retard shield adjustment**

- Re-check the position of the retard shield, [Figure 5](#). If necessary repeat the adjustment of the retard shield.

### Stack Height Sensor Check and Adjustment

- Ensure the machine is switched on with the PFP door open so that the paper tray travels to and remains at the lowest position.
- Enter **dC330** code 07-402 tray 5 stack height sensor. Press Start. The display should read low.
- Check the position of the stack height sensor, [Figure 8](#).



**NOTE:** The sensor flag is part of the upper feed assembly top cover.

Tray 5 stack height sensor.  
Sensor flag.

- Rest a finger lightly on the flag of the stack height sensor and check the display has changed from low to high.

T-1-1276-A

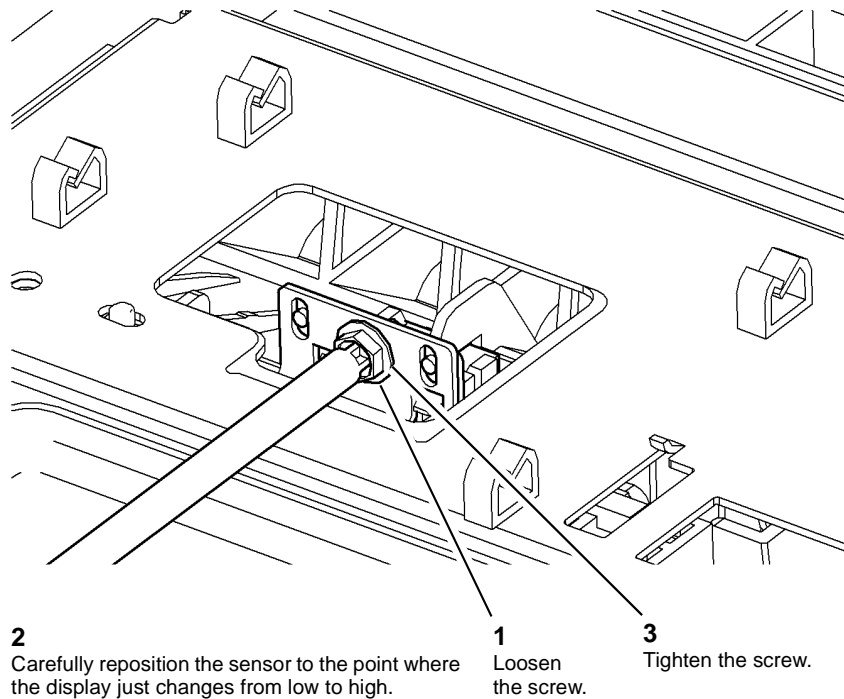
**Figure 8 Sensor check**

- If the display has changed from low to high the sensor is positioned correctly. Proceed to step 7.

**NOTE:** The change of state of the sensor may be accompanied by an audible buzzer.

If the display does not change from low to high the sensor will require adjustment, continue at step 5.

- Adjust the position of the stack height sensor, [Figure 9](#).



T-1-1277-A

**Figure 9 Sensor adjustment**

- Check the position of the stack height sensor, [Figure 7](#). If necessary repeat the adjustment of the stack height sensor.
- The adjustments are now complete, remove the PFP setting tool.
- Install all the removed PFP components, refer to [Preparation](#) steps 1 and 2. Replacement is the reverse of the removal procedure.
- Ensure Mod/Tag 050 and 051 are marked off on the tray 5 Mod/Tag plate.



## ADJ 8.1 Registration Setup

### Purpose

To measure and adjust the image to paper registration. Refer to [dC604](#) Registration Setup.

## ADJ 8.2 Simplex and Duplex Buckle Timing

### Purpose

To check and adjust the buckle timing on the simplex and duplex transport assemblies.

### Simplex Buckle Timing

#### Check

Go to [dC131](#), select location 08-152 (LeRegSnrToClutchOn). The value should be set in the region of 10 to 30 below the default value shown in [Table 1](#).

Table 1 Simplex

Machine speed	Default Value	Adjust to between
35 ppm	630	600 to 620
40 to 55 ppm	440	410 to 430
65 to 90 ppm	290	260 to 280

#### Adjustment

1. Adjust the simplex buckle timing NVM value in increments of 10 in accordance with [Table 1](#).
2. Print internal test pattern number 16, [dC606](#). Run 20 copies of test pattern number 16 in simplex mode and then check the copies for cockle deletions, [Figure 1](#).
3. If necessary repeat steps 1 and 2.
4. Record the new values in the machine log book.
5. Check the duplex buckle timing.

### Duplex Buckle Timing

#### Check

Go to [dC131](#), select location 08-148 (Le Dup Snr To Clh On). The value should be set in the region of 10 to 30 below the default value shown in [Table 2](#).

Table 2 Duplex

Machine speed	Default Value	Adjust to between
35 ppm	496	466 to 486
40 to 55 ppm	343	313 to 333
65 to 90 ppm	256	226 to 246

#### Adjustment

1. Adjust the duplex buckle timing NVM value in increments of 10 in accordance with [Table 2](#).
2. Print internal test pattern number 16, [dC606](#). Run 20 copies of test pattern number 16 in duplex mode and then check the copies for cockle deletions, [Figure 1](#).
3. If necessary repeat steps 1 and 2.
4. Record the new values in the machine log book.
5. Perform NVM Save and Restore, [GP 5](#).

## ADJ 8.3 Tray 3 and Tray 4 Retard Roll Pressure (W/Tag 151)

### Purpose

To adjust the nip pressure of the retard roll.

Reducing the nip pressure will make the retard action less aggressive and may improve mis-feeds.

Increasing the nip pressure will make the retard action more aggressive and may improve multi-feeds.

### Check

Remove the relevant feed head. Refer to [Figure 1](#), Check the position of the spring seat.

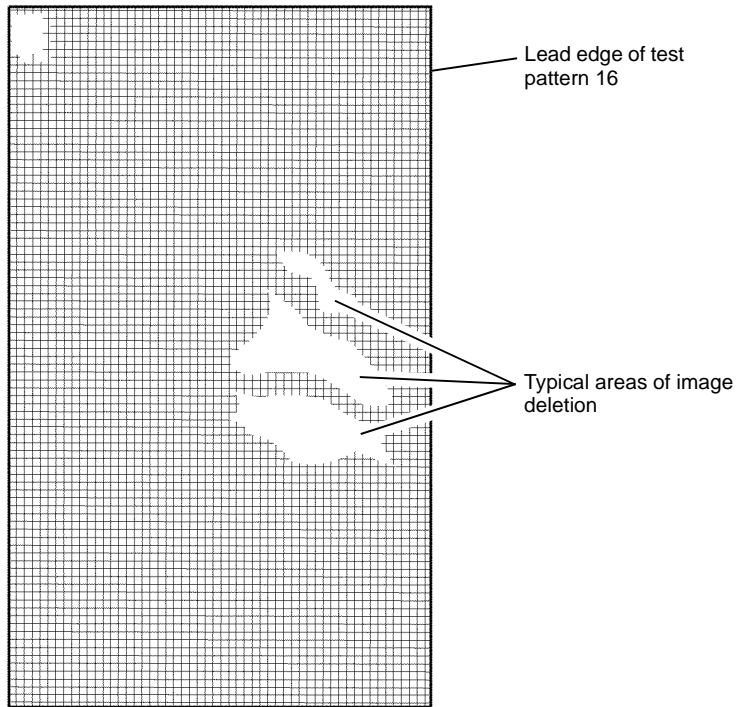
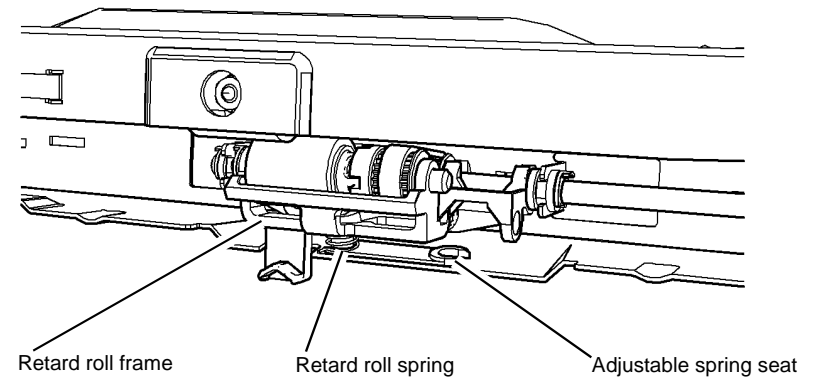


Figure 1 Cockle deletion

T-1-0975-A



T-1-1233-A

Figure 1 Spring seat position

### Adjustment

**NOTE:** The feeders have the spring seat set in the nominal (1mm) position during manufacture, [Figure 2](#).

1. [Figure 2](#), change the position of the spring seat to adjust the nip pressure of the retard roll:
  - Change the spring seat to the 2mm position to increase the retard roll pressure
  - Change the spring seat to the 0mm position to decrease the retard roll pressure

## ADJ 8.4 Tray 3 and Tray 4 Nudger Roll Pressure (W/Tag 151)

### Purpose

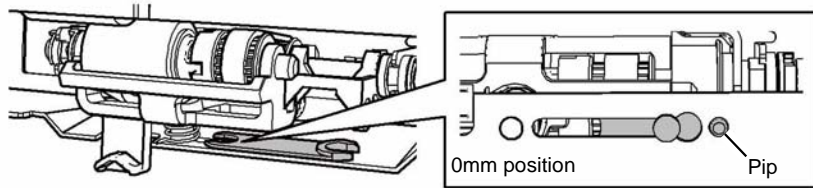
To adjust the downward pressure of the nudger roll.

Reducing the downward pressure will make the nudging action less aggressive and may reduce the tendency of some papers from feeding more than one sheet from the top of the stack.

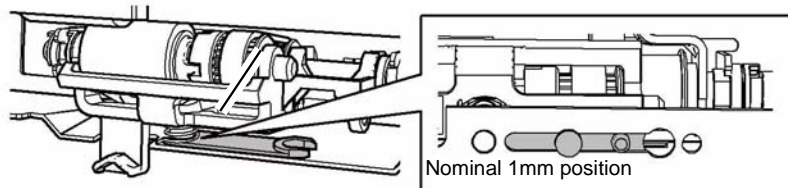
Increasing the downward pressure will make the nudging action more aggressive and may improve the feeding of glossy paper and thin paper.

### Check

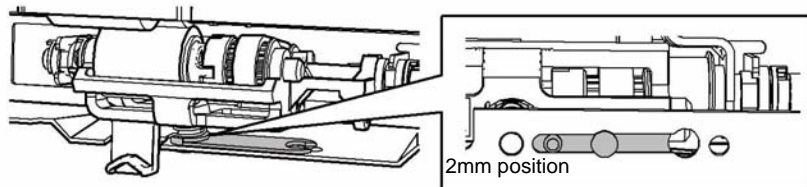
Remove the relevant feed head. Refer to [Figure 1](#), Check the number of weights.



To release the spring seat from this position, press down the pip and slide the spring seat away from the frame hole  
To locate the spring seat in this position, slide the spring seat along the slot until the pip drops into the frame hole



To release the spring seat from this position, lift up the base of the spring and slide the spring seat away from the spring position  
To locate the spring seat in this position, lift the base of the spring and slide the spring seat along the slot until the thin end is located under the spring



To release the spring seat from this position, lift up the base of the spring and slide the spring seat away from the spring position  
To locate the spring seat in this position, lift the base of the spring and slide the spring seat along the slot until the thick end is located under the spring

T-1-1234-A

Figure 2 Spring seat adjustment

2. Install the feed head and check the paper feeding performance.

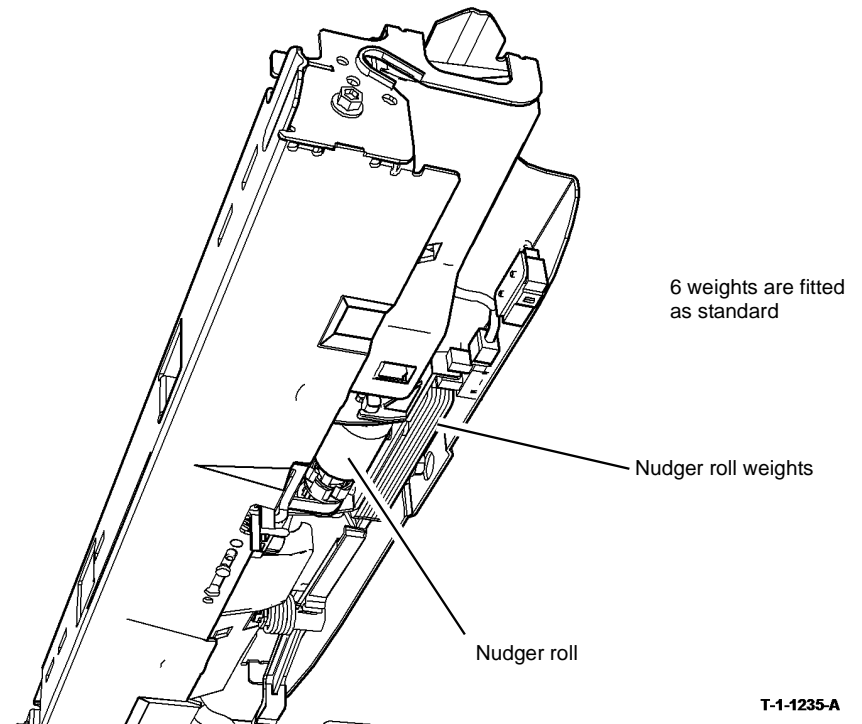
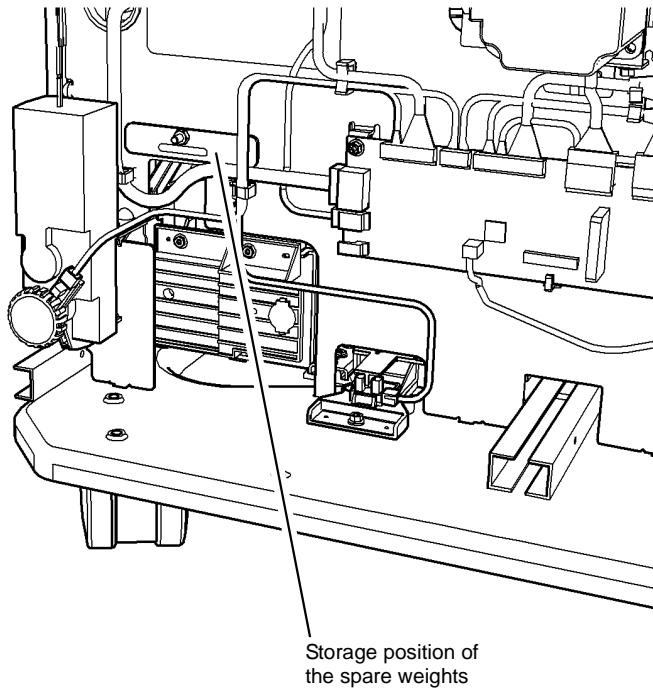


Figure 1 Weights position

T-1-1235-A

## Adjustment

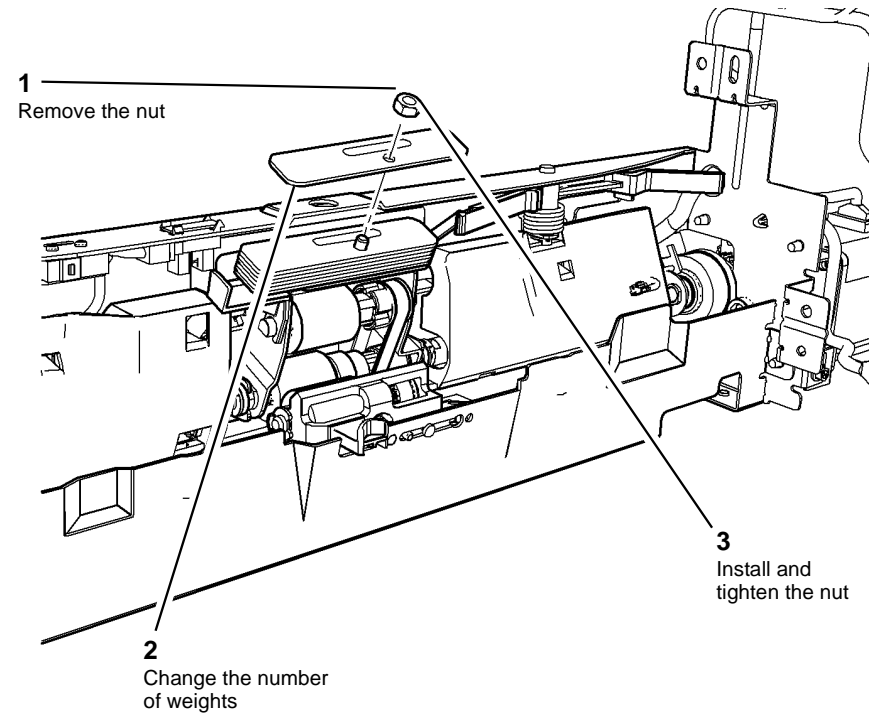
1. **Figure 2**, shows the location of the spare weights.



T-1-1236-A

**Figure 2** Weights location

2. **Figure 3**, change the number of weights to adjust the downward pressure of the nudger roll.



T-1-1237-A

**Figure 3** Spring seat adjustment

3. Install the feed head and check the paper feeding performance.



## ADJ 9.1 Corotron Cleaning

Parts List on (35 ppm) [PL 9.22](#), (40-90 ppm) [PL 9.20](#).

### Purpose

To clean the corotrons.

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. **(35 ppm)** Remove the transfer/detack corotron, [PL 9.22 Item 8](#), from the short paper path assembly, [PL 10.25 Item 1](#).
2. Use a soft small brush to remove any small particle that may be on the corotron wire.
3. Reinstall the transfer/detack corotron in the short paper path.
4. **(40-90 ppm)** These machines have a cleaning device for the transfer/detack corotron. Move the device back and forward to clean the transfer/detack wires. If the transfer/detack corotron is heavily contaminated then the corotron assembly can be removed and cleaned with a brush.
5. Raise and lower the latch mechanism of the short paper path assembly, [PL 10.25 Item 1](#), to ensure that the transfer/detack corotron is parallel to the photoreceptor. If the movement of raising the short paper path assembly is not smooth, check the action of the push rod, [PL 10.25 Item 13](#), [REP 10.1](#).

**NOTE:** Do not attempt to clean the corotron wires with any solvents or wipe clean using paper. If necessary install a new transfer/detack corotron, [PL 10.25 Item 11](#).

## ADJ 9.2 Image Quality Adjustment Routine

### Purpose

The Image Quality Adjustment (IQA) feature allows adjustment of the image quality by adjustment of the Grid Voltage and ROS Exposure levels. This is achieved by running an Image Quality Adjustment routine from within SAKO tools. This routine can be performed at any stage of the machine's operational life by the key operator.

### Adjustment

The adjustment routine consists of the steps that follow:

1. Load A4 (8.5x11 inch) white paper LEF in the Bypass Tray.
2. Turn off or reset to nominal all image enhance features.
3. Enter Customer Administration Tools, [GP 24](#).
4. Select the Troubleshooting tab.
5. Select Image Quality Adjustments.
6. Follow the prompts in the image quality adjustment window.
7. Example of the IQA test pattern is shown in [Figure 1](#).
8. When the test pattern image is scanned, the following sequence of events occur:
  - a. The average image density (grey level measured on a grey scale; 0 = black, 255 = white) of the shadow and highlight is measured to obtain two respective averages. If the average for either the highlight or shadow is out of range, the image cannot be used reliably and the routine is terminated with an appropriate message displayed on the GUI.
  - b. Once the validity of the test pattern has been confirmed the measured average grey levels of the shadow and highlights are compared against shadow and highlight Grey Level reference values contained in NVM, producing a shadow error and highlight error.
  - c. These errors are then used together with pre-stored IQA factors to determine a Grid Voltage Offset and a ROS exposure Offset.
  - d. Range checking and capping is then performed to limit any unexpected behavior.
  - e. The SIP sends these offsets to the IOT to be stored in IOT NVM.
  - f. The Grid Voltage and ROS exposure are then adjusted by applying the relevant offset to the nominal setting after any other adjustments are applied (e.g. calibration or Process Control adjustments etc.).
9. If a fault occurs on completion of the routine then refer to the relevant RAP.

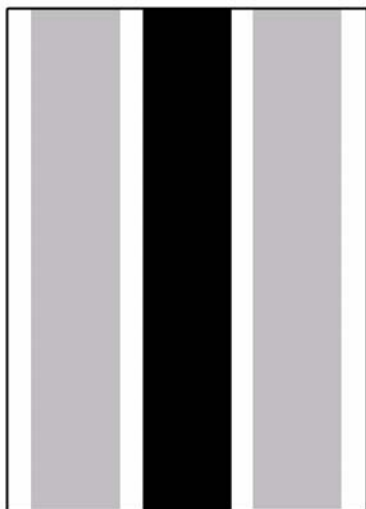


Figure 1 IQA test pattern

T-1-0976-A

## ADJ 9.3 Developer Magnetic Seal Brush Adjustment

### Purpose

To check and maintain an effective seal on the 65, 75 and 90 ppm machine developer module.

### Adjustment

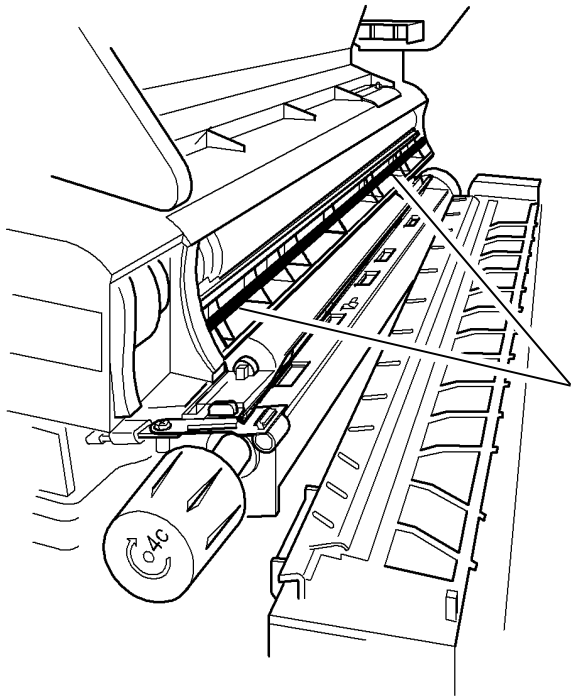


**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Remove the xerographic module, [PL 9.20 Item 2](#).
2. Use a flashlight to examine the condition of the seal, [Figure 1](#).
3. Check for the following:
  - The seal for damage.
  - The halo guide, transfer and detack corotron, [PL 9.20 Item 8](#), for contamination.

If either or both above are true, continue below.

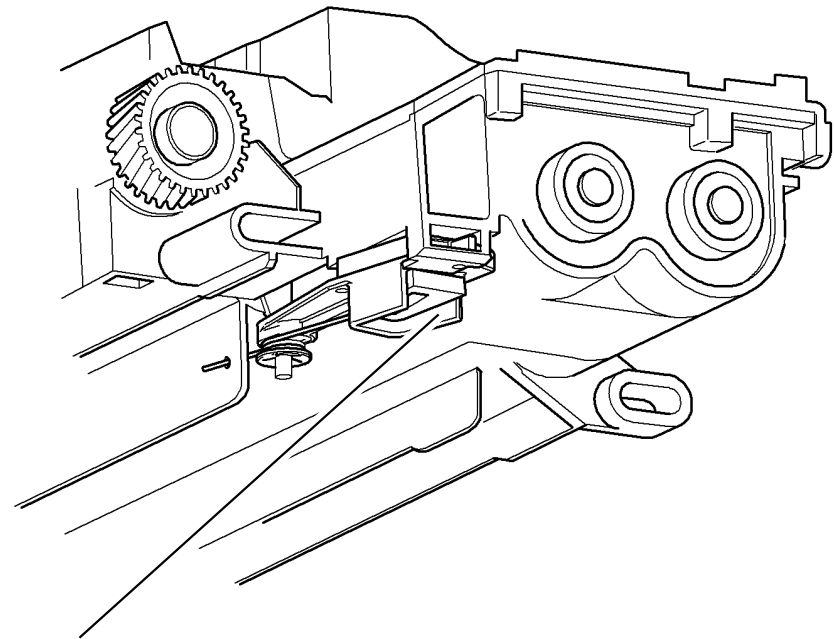
1. Remove the developer module, [PL 9.15 Item 2](#). Place the developer module, left side down, on a suitable surface.
2. Check the shutter assembly seal for damage, [Figure 2](#). If necessary install a new shutter assembly, [PL 9.15 Item 20](#).
3. Remove contamination from the following:
  - Above and below the developer roll area.
  - Registration guide and the halo guide.
  - The floor pan.
  - Transfer corotron, detack corotron and the duplex paper path.
4. Restore the magnetic seal brush. Go to [Magnetic Seal Loading](#).
5. Reinstall the developer module and the xerographic module.
6. Make 50 prints.
7. Remove the xerographic module.
8. Use a flashlight to check the halo guide, transfer corotron, detack corotron and the duplex paper path for contamination of toner and developer beads.
9. If there is contamination, repeat steps 1 through to 9.
10. If contamination persists, install a new developer module, [PL 9.15 Item 2](#).



Magnetic seal brush. To be effective this must have a uniform profile the full length of the magnet.

T-1-0977-A

**Figure 1 Magnetic seal brush**



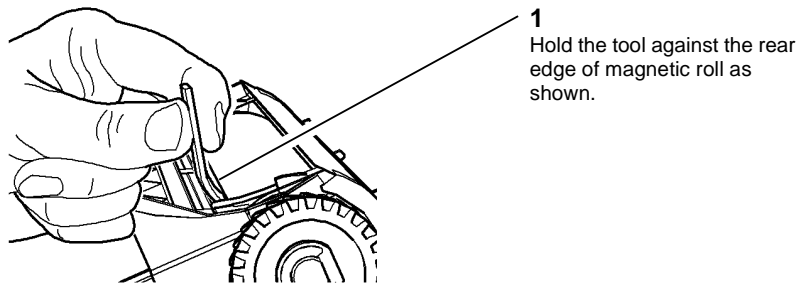
Check the seal for torn fabric, broken edges and delamination from the main fabric.

T-1-0978-A

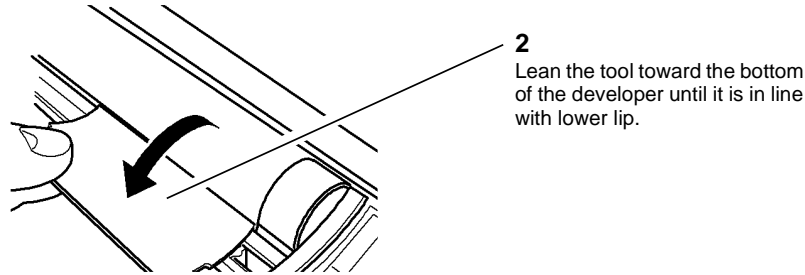
**Figure 2 Shutter assembly seal**

### **Magnetic Seal Loading**

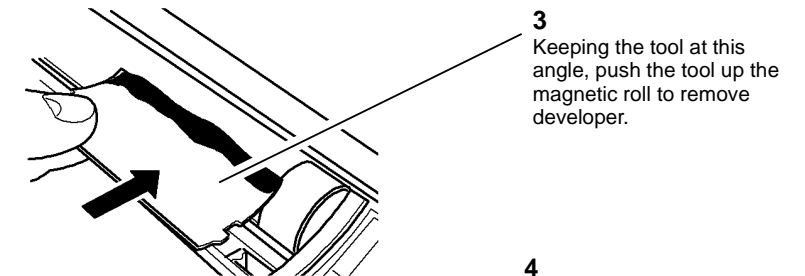
1. Use a brush to remove the residual magnetic seal brush.
2. Use the curved edge of the magnetic seal repair tool, [PL 26.10 Item 23](#), to remove developer from the rear of the magnetic roll, [Figure 3](#). The correct quantity of toner that should be removed from the magnetic roll is shown in [Figure 4](#).



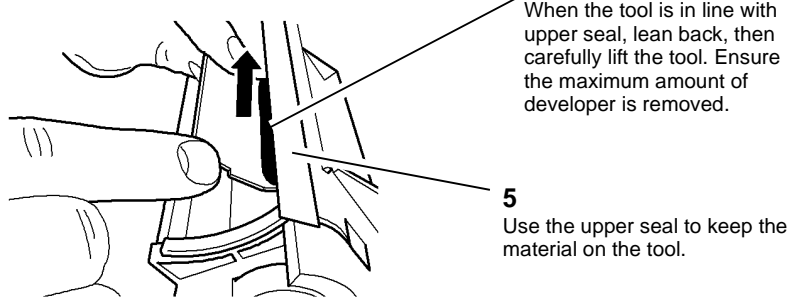
**1**  
Hold the tool against the rear edge of magnetic roll as shown.



**2**  
Lean the tool toward the bottom of the developer until it is in line with lower lip.



**3**  
Keeping the tool at this angle, push the tool up the magnetic roll to remove developer.

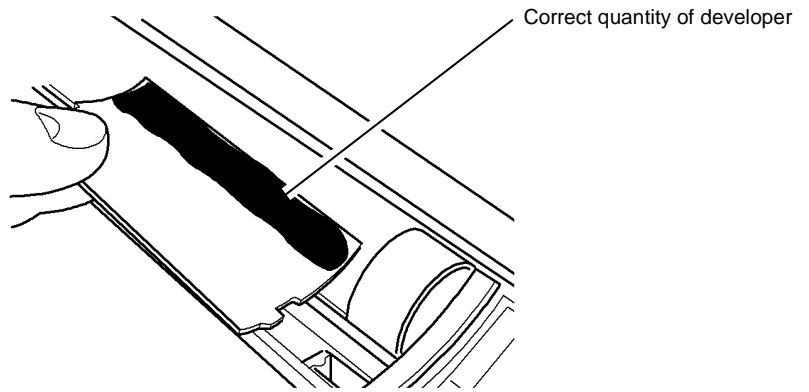


**4**  
When the tool is in line with upper seal, lean back, then carefully lift the tool. Ensure the maximum amount of developer is removed.

**5**  
Use the upper seal to keep the material on the tool.

**Figure 3 Developer removal**

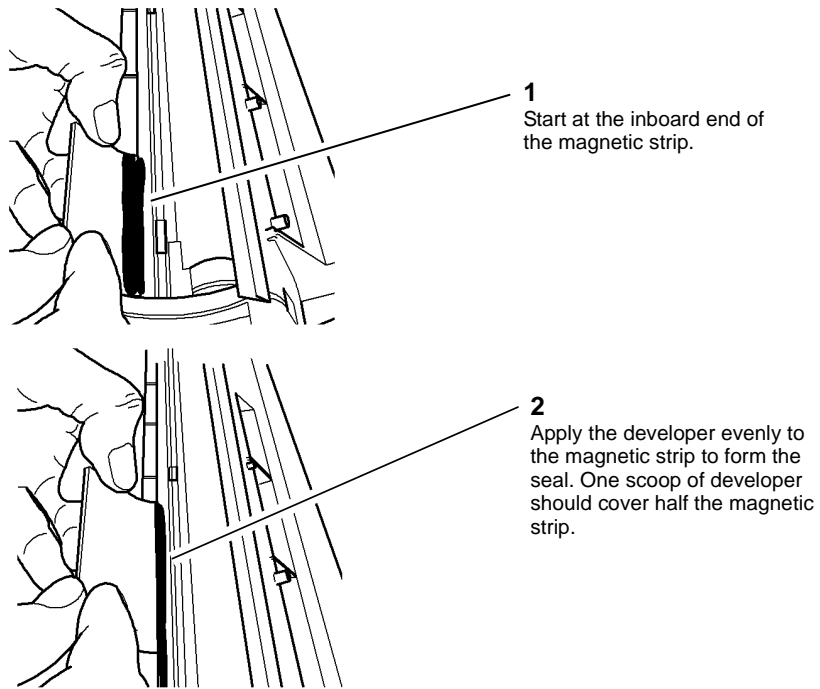
T-1-0979-A



**Figure 4 Developer quantity**

T-1-0980-A

3. Apply the developer evenly to the magnetic strip to form the seal. Gently shake the tool as developer is applied to aid distribution, [Figure 5](#).



**Figure 5 Applying developer**

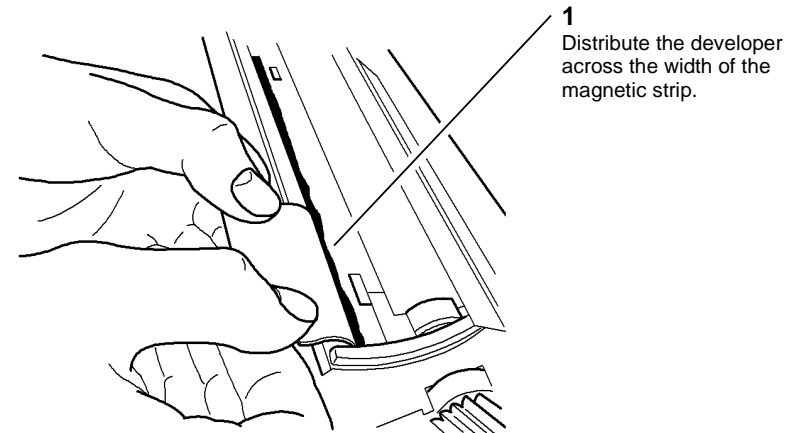
T-1-0981-A



**CAUTION**

*Ensure the developer is evenly distributed across the magnetic seal. Too much developer will cause beads on prints, too little will not form a good seal.*

4. Use a flat edge of the tool to distribute the developer across the width of the magnetic strip, [Figure 6](#).



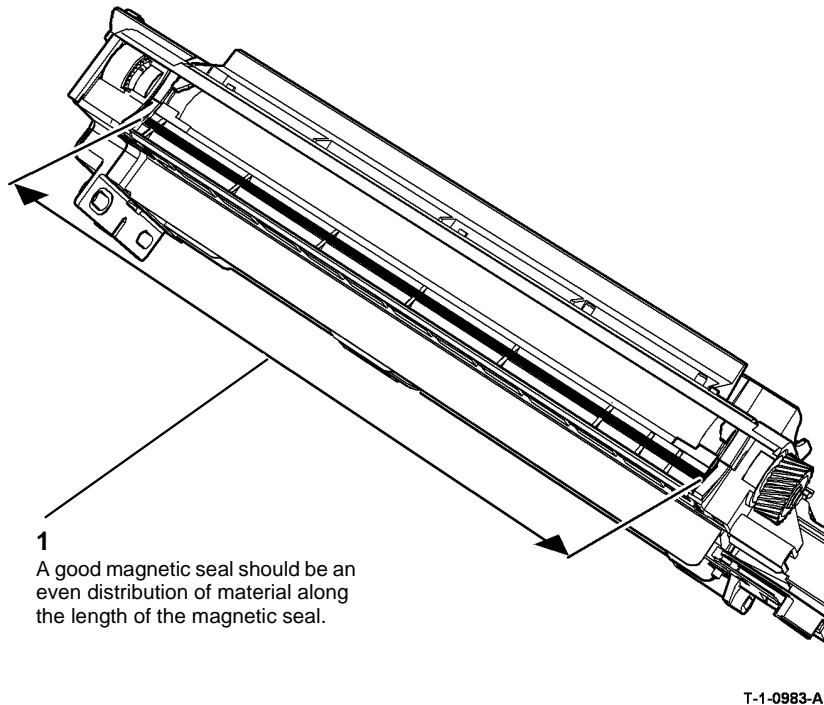
**Figure 6 Distributing developer**

T-1-0982-A

5. Repeat steps 2 to 4 for the front of the magnetic roll.

**NOTE:** *Two scoops of developer is the optimum amount to form a good seal. Do not use more than three scoops.*

6. An example of a good magnetic seal is shown in [Figure 7](#).



**Figure 7 A good magnetic seal**

## ADJ 9.4 Xerographics Cleaning

### Purpose

To clean the xerographics area.

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Remove the erase lamp assembly, [PL 9.20 Item 1](#). Use a dry micro fiber wiper, [PL 26.10 Item 13](#), to clean the erase lamp assembly. Ensure the electrical contacts at the rear of the erase lamp assembly and on the chassis are clean before re-installing the assembly.
2. Check that the transfer/detack corotron end block covers are properly seated and securely clipped onto the corotron end blocks. Check that the halo guide is properly seated and firmly attached to the transfer/detack corotron.
3. Clean the detack/transfer corotron assembly, [ADJ 9.1 Corotron Cleaning](#). Ensure the electrical contacts at the rear of the transfer / detack corotron assembly and on the chassis are clean before re-installing the assembly.
4. **(35 ppm)**. Clean the charge scorotron by carefully pulling out the cleaning rod on the front of the xerographic module as far as it will go and then pushing it fully home. Repeat nine times.
5. **(40-90 ppm)** Clean the charge scorotron. Perform the following:
  - a. Press the Log in/out (key symbol) button on the key pad or select Guest on the UI.
  - b. Enter User Name 'admin' (case sensitive). Select Next.
  - c. Enter the Password '1111' (default setting). Select Next.
  - d. Select the Xerographic Module Cleaning routine. Repeat the routine two times.

**NOTE:** The routine completes four cleaning cycles of the charge scorotron. If the charge scorotron cleaner fails to work, go to the [09-341, 09-342 Scorotron Cleaning Failure RAP](#).

6. Clean the waste toner bottle area, refer to the [OF11 Waste Toner Contamination RAP](#).
7. Check and clean the following areas for toner and developer bead contamination, [Figure 1](#).
  - The developer roll area, above the roll and in the recesses below the roll.
  - Developer beads hanging from the developer roll and the lower lip.
  - The halo guide, registration guide and the registration cover.
  - The duplex paper path.
8. **(65-90 ppm)** Perform [ADJ 9.3 Developer Magnetic Seal Brush Adjustment](#).
9. Refer to the checkouts in [IQ3 Xerographic RAP](#).

## ADJ 9.5 Optimize Dark and Light Grey Image

### Purpose

Use this adjustment if the dark greys are too dark and / or light greys are too light.

Use this adjustment in combination with the changes made in [IQ10 Image Quality Improvement RAP](#).

**NOTE:** This procedure will only make a slight improvement to the image quality.

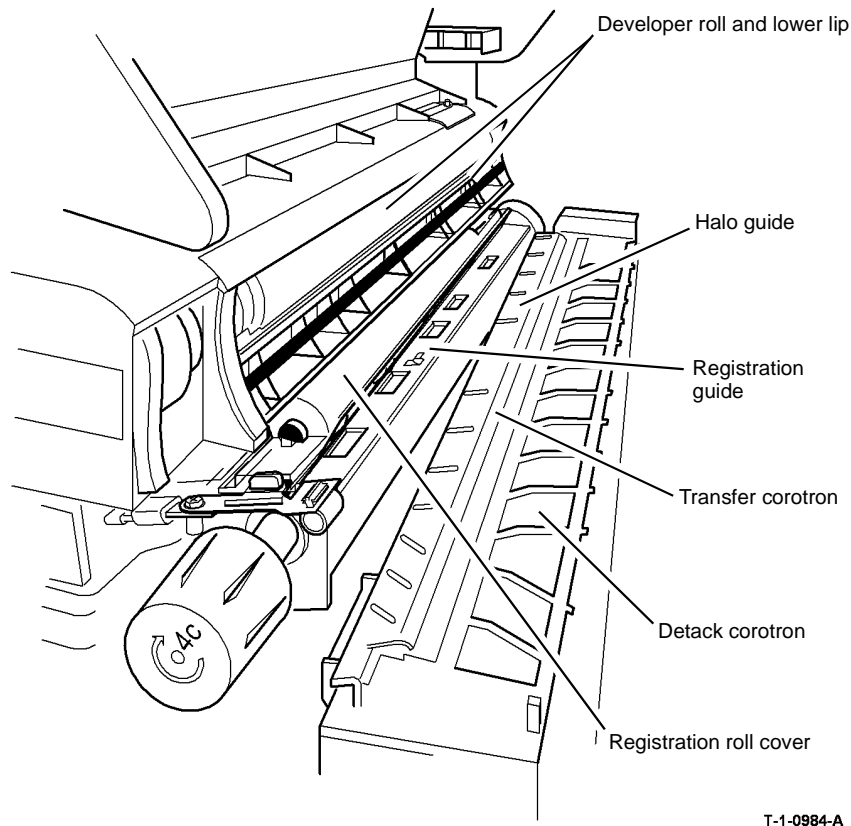
### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Perform [IQ3 Xerographics RAP](#) before starting this adjustment.
- Ensure that all the image quality settings on the UI are at default.
- Make a copy of the customer document that shows the defect and keep as a reference.
- Enter [dC606 Print Test Patterns](#) and print internal test pattern 15.
- Exit diagnostics, [GP 1](#).
- Place the test pattern 15 on the platen glass with the dark bands to the right and the light band to the left. Make a copy.
- Compare the copy with the test pattern 15, [Figure 1](#).
  - If the sections 5 - 7 look the same as each other then the machine has a problem with poor shadows / dark greys. Go to the [Poor Shadows Adjustment](#).
  - If section 1 looks white then the machine has a problem with poor highlights / light greys. Go to the [Poor Highlights Adjustment](#).
- **For 35 ppm machines only.** Some machines suffer from poor shadows and poor highlights. In such cases install the ROS filter and optimize poor shadows first. Installation of the ROS filter will improve dark grey performance at the expense of slight degradation of the light grey performance. Then perform the poor highlights adjustment which, will attempt to restore the highlights. If the highlights are unacceptable, then do not install the ROS filter.



T-1-0984-A

Figure 1 Component location

## Poor Shadows Adjustment

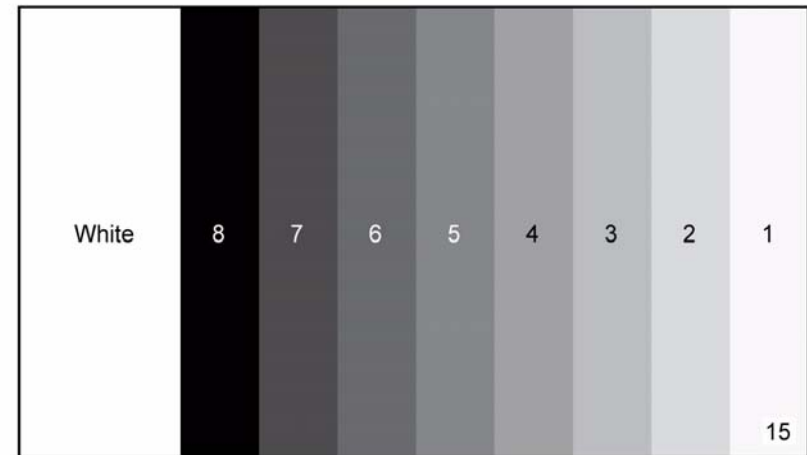
1. Enter **dC131** NVM Read / Write location 06-001 Light Level and reduce the value by 200.
  - **35 ppm machines.** Ensure that the value is between 3000 and 6000.
  - **40-55 ppm machines.** Ensure that the value is between 1500 and 3050.
  - **65-90 ppm machines.** Ensure that the value is between 1500 and 3200.
2. Enter **dC606** Print Test Patterns and print test pattern 15.
3. Exit diagnostics, **GP 1**.
4. Place the new printed test pattern 15 on the platen glass and make one copy.
5. If the copy has poor shadows, then go to the next step.  
If the copy has good shadows, then go to the **Poor Highlights Adjustment**.
6. Enter **dC131** NVM Read / Write at location 06-001 Light Level and reduce the value by 200. Reduce the value in increments of 200 until good shadow is achieved.
  - **35 ppm machines.** Do not reduce the value below 3000.
  - **40-55 ppm machines.** Do not reduce the value below 1500.
  - **65-90 ppm machines.** Do not reduce the value below 1500.
7. Enter **dC606** Print Test Patterns and print internal test pattern 15
8. Exit diagnostics, **GP 1**.
9. If the copy has poor highlights, then go to the **Poor Highlights Adjustment**.  
If the highlights are good, then go to the **Final Image Quality Check**.

## Poor Highlights Adjustment

1. Enter **dC131** NVM location 09-003 Charge Grid and reduce the value by 25.
  - **35 ppm machines.** Ensure that the value is between 370 and 470.
  - **40-55 ppm machines.** Ensure that the value is between 380 and 480.
  - **65-90 ppm machines.** Ensure that the value is between 370 and 470.
2. Enter **dC606** Print Test Patterns and print internal test pattern 15.
3. Exit diagnostics, **GP 1**.
4. Place the new printed test pattern 15 on the platen glass and make one copy.
5. If the copy has poor highlights, then go to the next step.  
If the highlights are good, then go to the **Final Image Quality Check**.
6. Enter **dC131** NVM. Location 09-003 Charge Grid and reduce the value by 25. Reduce the value in increments of 25 until good highlights is achieved.  
Do not reduce the value below 350.
7. Enter **dC606** Print Test Patterns and print internal test pattern 15.
8. Exit diagnostics, **GP 1**.
9. Place the new printed test pattern 15 on the platen glass and make one copy. The copy quality is optimized.

## Final Image Quality Check

1. Enter **dC606** Print Test Patterns and print internal test pattern 15.
2. Exit diagnostics, **GP 1**.
3. Place the new printed test pattern 15 on the platen glass and make one copy. The image quality is optimized.
4. Make a copy of the customer document and compare it with the initial copy. Check that the image quality has improved.
5. Run a variety of jobs to confirm that the changes made have not introduced other copy quality problems.
6. Record any NVM changes in the machine log book.
7. Perform NVM Save and Restore, **GP 5**.



T-1-0985-A

Figure 1 Test pattern 15



## ADJ 10.1 Inverter Decurler Adjustment

### Parts List on PL 10.20

#### Purpose

Use this adjustment to increase or decrease the output curl on prints from the IOT on machines W/TAG 046, W/TAG 047 or W/TAG 148.



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

#### Check

1. Enter dC131a NVM Read/Write, scroll to 10-028 and 10-029 and ensure that the temperature values are set to default.
2. Perform the procedures in IQ5 Print Damage RAP.
3. Check the machine is otherwise functioning correctly, refer to SCP 1 Initial Actions.  
If the machine is fitted with a 1K or 2K LCSS, make sure the software timing patch is enabled:
  - a. Press the **Machine Status** button.
  - b. Select the **Tools** tab. The Device Settings screen will display.
  - c. Select the **Option Enablement**.
  - d. Use the numerical keypad to enter the following code: **\*3386787231**.  
The asterisk must be entered before the number. Press **Enter**.
  - e. Switch off, then switch on the machine, GP 14.

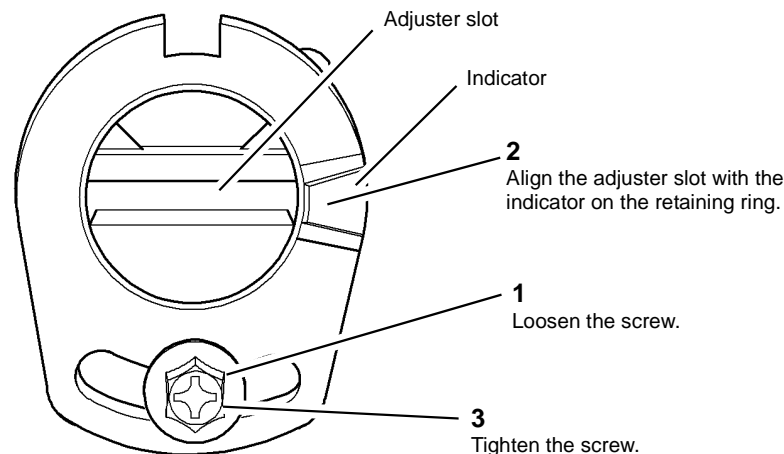
**NOTE:** To disable the timing patch, perform step 3 again but enter \*3386787230 at the step d.

#### Adjustment

1. Initial calibration of the inverter decurler:

**NOTE:** The initial calibration procedure should give acceptable results for 80gsm paper and most other print media. However, for non-Xerox paper, pre-printed paper and card it may be necessary to adjust the initial calibration, Figure 2 or reset the inverter decurler retaining ring, Figure 3.

Align the slot of the adjuster slot with the retaining ring, Figure 1.

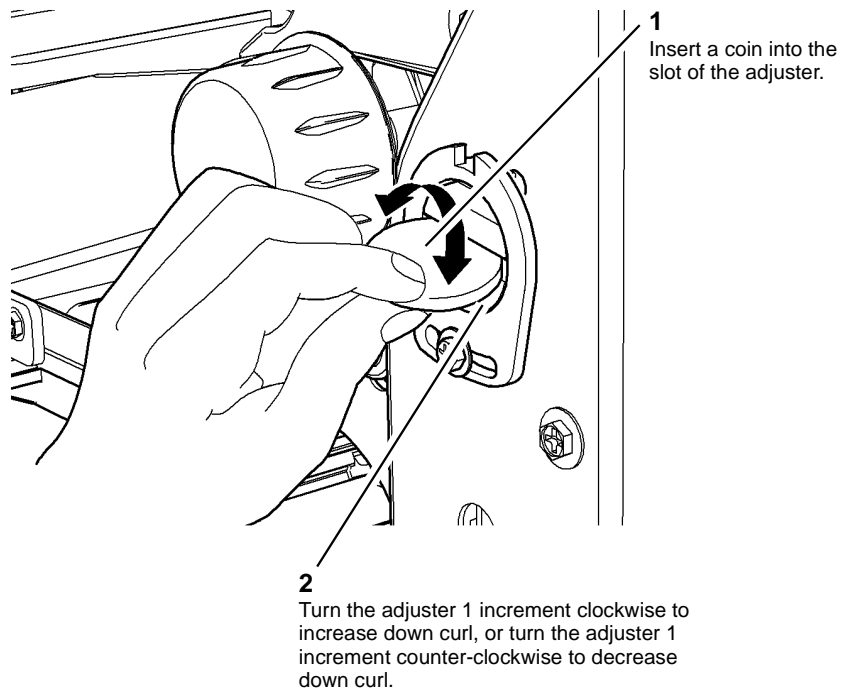


T-1-0986-A

Figure 1 Initial calibration

**NOTE:** After the adjuster slot is set central to the indicator on the retaining ring, it will only be possible to make adjustments of 1 increment in either the clockwise or counter clockwise directions.

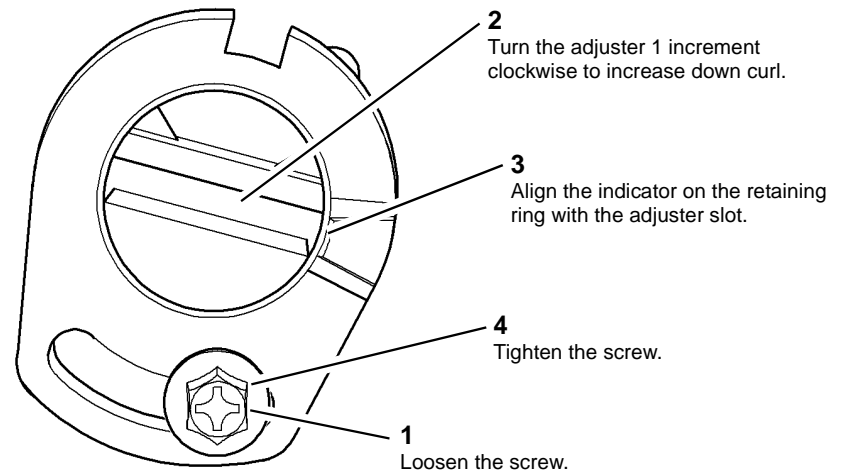
2. Adjust the initial calibration of the inverter decurler:
  - a. Adjust the initial calibration, Figure 2.
  - b. Run 20 duplex copies of the customers preferred print media or A4 / 8.5x11 inch paper.



**Figure 2 Adjust the initial calibration**

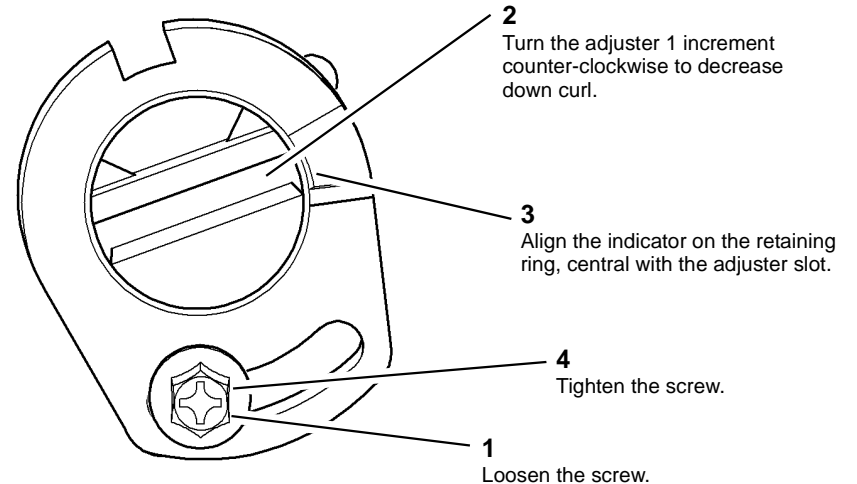
- c. Assess the copies for curl, refer to [IQ5](#). If output curl is evident then reset the inverter decurler retaining ring to allow for further adjustment, refer to [Figure 3](#) and [Figure 4](#).

T-1-0987-A



**Figure 3 Increase down curl**

- 3. Reset the inverter decurler retaining ring:  
After the retaining ring is reset adjustments of a further 2 increments are enabled, 1 in either direction.
  - a. Reset the position of the retaining ring. To increase the down curl on output copies, see [Figure 3](#). To decrease the down curl on output copies, see [Figure 4](#).



**Figure 4 Decrease down curl**

- b. Run 20 duplex copies of the customers preferred print media or A4 / 8.5x11 inch paper.
- c. Assess the copies for curl, refer to [IQ5](#).

## ADJ 11.1-110 2K LCSS Bin 1 Level

Parts List on [PL 11.10](#)

### Purpose

To ensure bin 1 is level, and achieve the best stacking performance.

### Adjustment



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the bin 1 motor, refer to [REP 11.5-110](#).
2. Move bin 1 to the lowest position.
3. Slacken the screw on each belt clamp and adjust the position they sit on the belts to level the tray. Lock the clamps.
4. Re-install the bin 1 motor, refer to [REP 11.5-110](#).
5. Switch on the machine, [GP 14](#).
6. Enter [dC330](#) code 11-033, Bin 1 Elevator Motor Cycle. Check that bin 1 cycles without giving any fault indications.

## ADJ 11.2-110 Machine to 2K LCSS Alignment

Parts List on [PL 11.2](#)

### Purpose

To correctly align the 2K LCSS to achieve reliable transfer of paper from the machine to the 2K LCSS.

### Adjustment



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. [Figure 1](#), turn both right hand wheels in the same direction to adjust the vertical alignment between the 2K LCSS and the machine viewed from the front or rear.

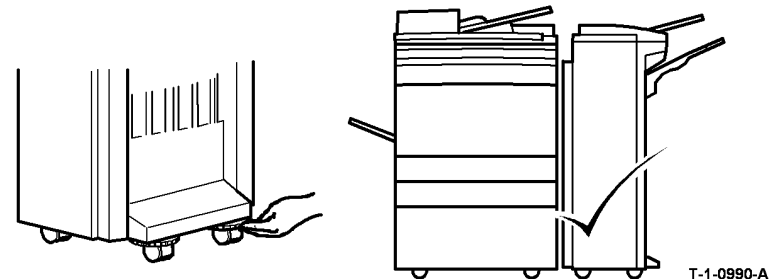


Figure 1 Machine to 2K LCSS alignment

## ADJ 11.3-110 Hole Punch Position

Parts List on [PL 11.6](#).

### Purpose

To optimize the position of the hole punch.

### Check

1. Ask the customer which trays are used to feed from for hole punching.
2. Load the indicated trays with A4 (8.5x11 inch) paper.
3. Make a set of five punched copies or prints from each of the indicated trays. Mark the top edge (towards the front of the machine) of each set to indicate the tray from which it was fed.
4. Evaluate the average hole positions in each set, referring to [Figure 1](#). The distances shown should be equal at the top and bottom of the sheet. If the distances are different by more than 1mm (0.040 inches), perform the adjustment.

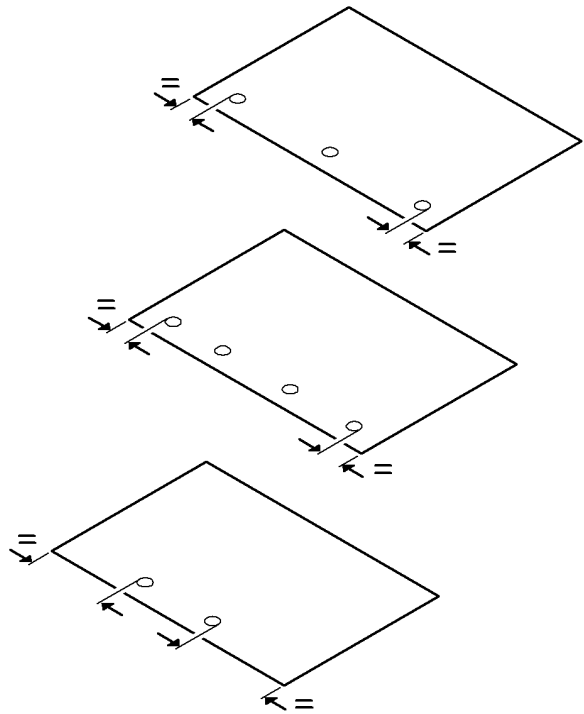


Figure 1 Hole positions

T-1-0991-A

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Remove the chad bin and unscrew the thumb screw retaining the hole punch assembly.
2. Pull out the hole punch assembly a short distance to access the spacer, if installed, refer to [Figure 2](#). The following settings can be made:

**NOTE:** If the spacer cannot be found, suitable washers up to a total thickness of 2mm (0.080 inches) may be used.

- With no spacer installed the holes are punched closest to the bottom of the sheet.
- With the spacer installed unfolded the holes are punched 1mm (0.040 inches) closer to the top of the sheet.
- With the spacer installed folded the holes are punched 2mm (0.080 inches) closer to the top of the sheet.

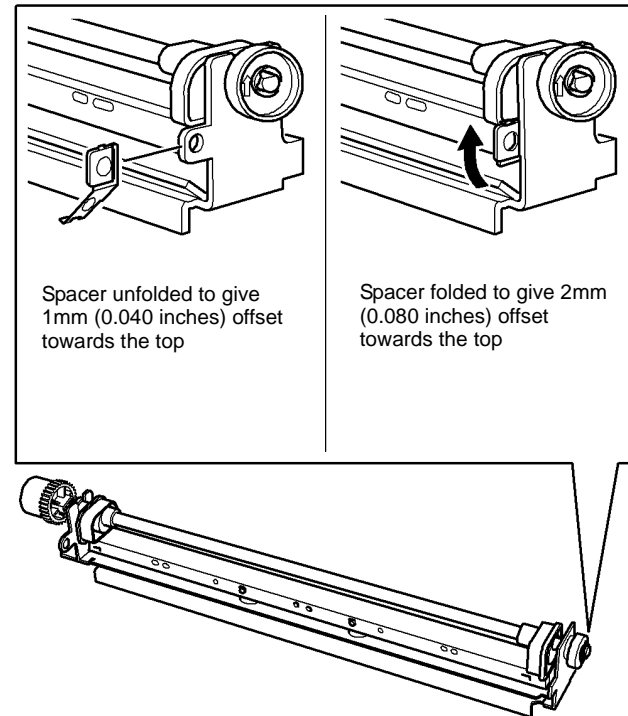


Figure 2 Hole punch spacer

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3. Evaluate the movement needed and re-position the hole punch assembly. If the spacer is removed, tape it next to the TAG label on the 2K LCSS frame for future use.
4. Make sets from each of the indicated trays once more and ensure that the hole alignment is now optimized, make further adjustment if necessary.
5. If necessary, re-load the paper trays as they were before the adjustment was performed.

## ADJ 11.4-110 Motor Drive Belt Tensioning

### Purpose

To set the tension of directly or indirectly driven belts that are tensioned by a spring attached to the motor.

### Check

1. The shafts and pulleys are installed and properly located.
2. The drive belt is undamaged and correctly routed.
3. The adjustable motor or tensioning pulley bracket is positioned with fastening screws not tightened fully.

*NOTE: For motors with pivoted brackets, the pivot screw must be fitted and tightened.*

4. The tensioning spring is fitted between the bracket and frame locating point.

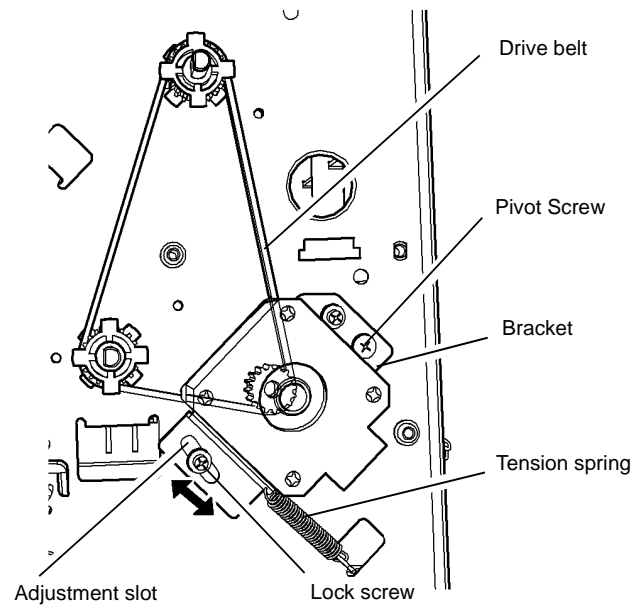
### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. **Figure 1** shows a typical arrangement. Press the belt midway between pulleys and check that the bracket moves in the direction of the spring pull; slacken the bracket screws if necessary.
2. Release the belt and allow the spring to pull the bracket and tension the drive belt then tighten the lock and bracket screws.

**NOTE:** Check the belt condition and routing if the tension spring is not extended or the locking screw is at the end of the bracket adjustment slot.



Typical spring tensioning arrangement

T-1-0993-A

**Figure 1 Drive belt tensioning**

## ADJ 11.1-120 1K LCSS Bin 1 Level

Parts List on [PL 11.106](#)

### Purpose

To ensure bin 1 is level, and achieve the best stacking performance.

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Remove the bin 1 elevator motor, refer to [REP 11.5-120](#).
2. Move bin 1 to the lowest position.
3. Slacken the screw on each belt clamp and adjust the position they sit on the belts to level the tray. Lock the clamps.
4. Re-install the bin 1 elevator motor, refer to [REP 11.5-120](#).
5. Switch on the machine, [GP 14](#).
6. Enter [dC330](#), code 11-033, Bin 1 Elevator Motor Cycle. Check that bin 1 cycles without giving any fault indications.

## ADJ 11.2-120 Motor Drive Belt Tensioning

### Purpose

To set the tension of directly or indirectly driven belts that are tensioned by a spring attached to the motor.

### Check

1. The shafts and pulleys are installed and properly located.
2. The drive belt is undamaged and correctly routed.
3. The adjustable motor or tensioning pulley bracket is positioned with fastening screws not tightened fully.

**NOTE:** For motors with pivoted brackets, the pivot screw must be fitted and tightened.

4. The tensioning spring is fitted between the bracket and frame locating point.

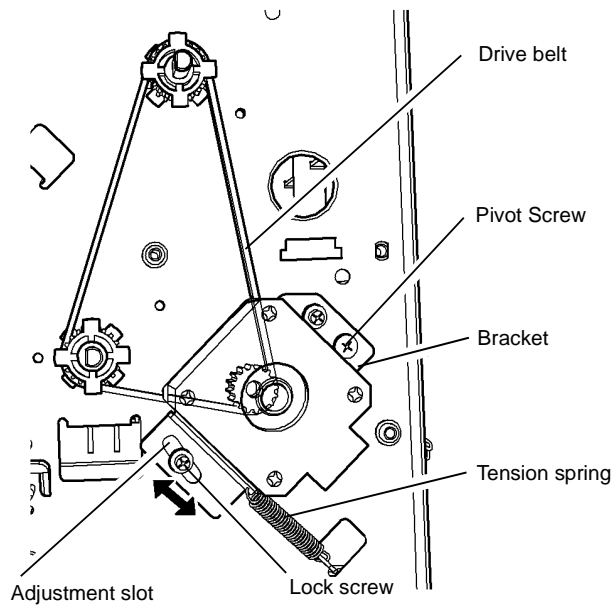
### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. [Figure 1](#) shows a typical arrangement. Press the belt midway between pulleys and check that the bracket moves in the direction of the spring pull; slacken the bracket screws if necessary.
2. Release the belt and allow the spring to pull the bracket and tension the drive belt then tighten the lock and bracket screws.

**NOTE:** Check the belt condition and routing if the tension spring is not extended or the locking screw is at the end of the bracket adjustment slot.



Typical spring tensioning arrangement

T-1-0994-A

**Figure 1 Drive belt tensioning**



## ADJ 11.1-171 Machine to HVF/HVF BM, HVF BM to Tri-folder Alignment

### Purpose

To correctly align the HVF or HVF BM, to achieve reliable transfer of paper from the machine to the output tray.

To correctly align the tri-folder, to achieve reliable transfer of paper from the HVF BM to the output tray.

### Check

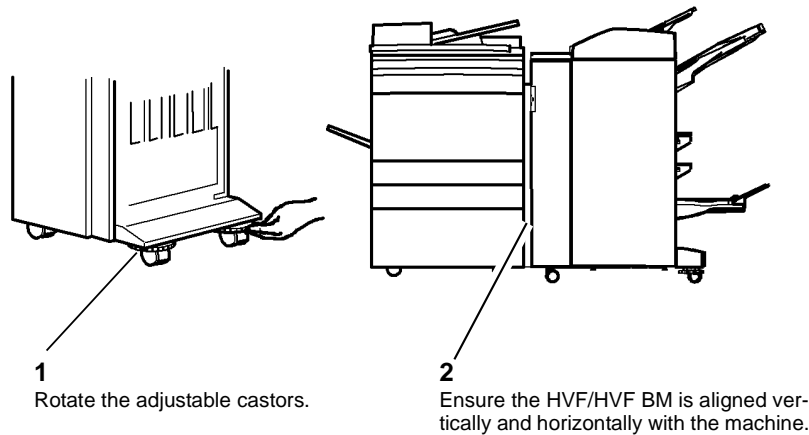
- Ensure the HVF/HVF BM is aligned both vertically and horizontally with the machine. If necessary perform the adjustment.
- Ensure the Tri-folder is aligned vertically and horizontally with the HVF/HVF BM. If necessary perform the adjustment.

### Adjustment



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

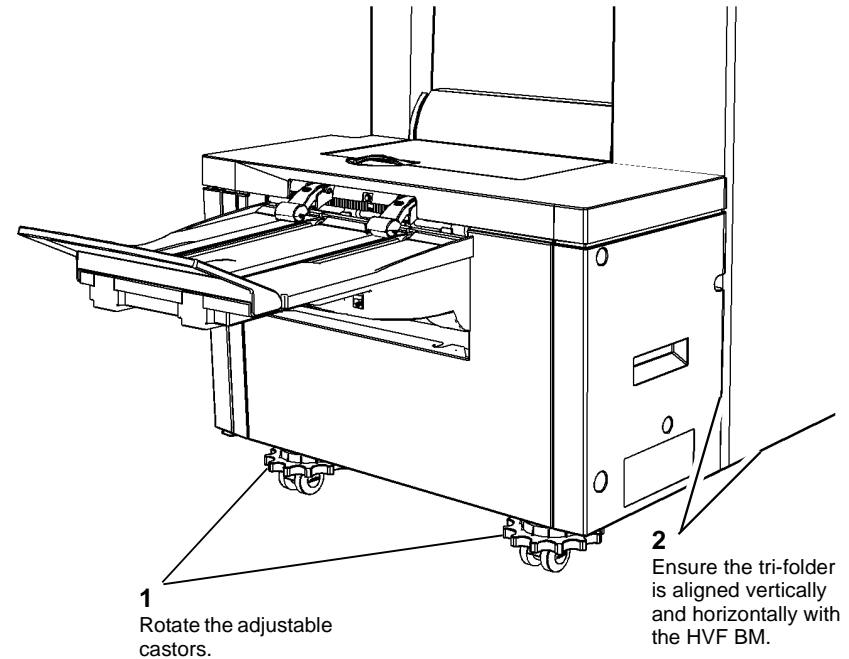
1. Figure 1, turn both adjustable castors in the same direction to adjust the vertical alignment between the HVF/HVF BM and the machine.



T-1-0995-A

Figure 1 Machine to HVF/HVF BM alignment

2. Figure 2, turn both adjustable castors in the same direction to adjust the vertical alignment between the tri-folder and the HVF/HVF BM.



T-1-0996-A

Figure 2 Tri-Folder to HVF BM alignment

## ADJ 11.2-171 Tri-Folder Paper Size Setting

### Purpose

To set the tri-folder to correctly fold 8.5 x 11 inch or A4 paper.

### Check

1. Ensure that the tri-folder is at the same height as the HVF, [ADJ 11.1-171](#).
2. Run a copy job 4 sheets and check that the folds are in the correct place.
3. The paper should be folded into three equal parts and the folds parallel to the edge of the paper. If necessary perform the adjustment.

### Adjustment



### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**NOTE:** [Figure 1](#) shows the tri-folder front and rear paper setting adjusters in the 8.5 x 11 inch (LTR) position.

1. Remove the front door, [PL 11.190](#), front cover [PL 11.190](#) and the rear cover [PL 11.190](#). Check that the front and rear paper setting adjusters are in position for the appropriate size of paper, [Figure 1](#).

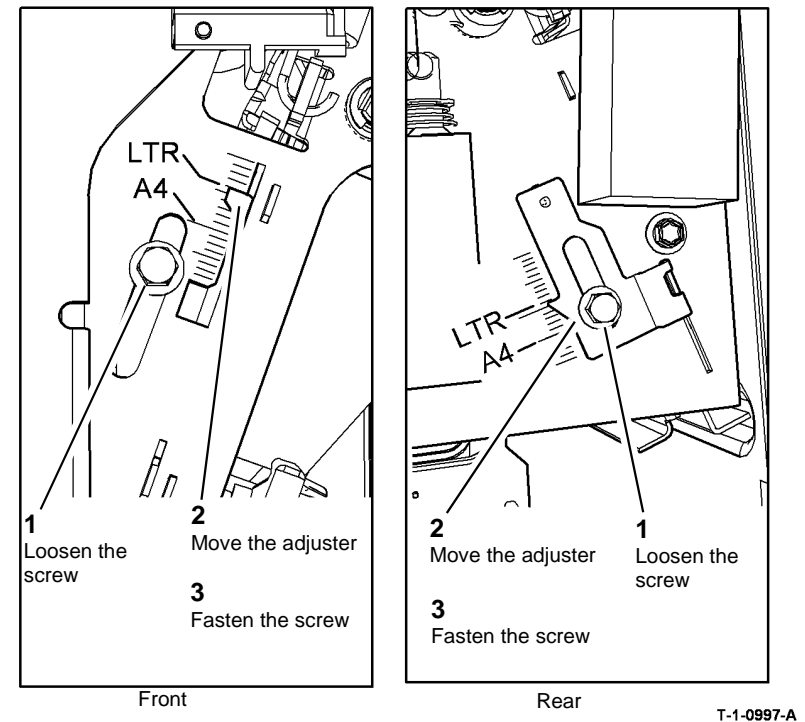


Figure 1 Tri-Folder paper setting

2. Set the front and rear paper setting adjusters to the A4 or 8.5 x 11 inch (LTR) position, [Figure 1](#).

**NOTE:** Do not over loosen the adjuster screws. The adjusters can detach from the backstop. Make sure the position of the backstop changes when the adjusters are moved.

3. Ensure the front door interlock switch is cheated, [PL 11.197 Item 2](#). Run a four sheet C fold and Z fold copy job. Check that the copies are folded into three approximately equal parts, with the folds parallel to the edge of the paper.
4. Check the C and Z folded copies meet the customer requirements. If necessary make fine adjustments to the position of the folds, [ADJ 11.12-171 Tri-Folder Fold Adjustment](#).

## ADJ 11.3-171 Stapler Anvil Alignment

Parts List on [PL 11.168](#)

### Purpose

To ensure the correct alignment of the stapler anvil to the stapler throat.

### Special Tools Required

Stapler alignment tool, supplied with the HVF BM, located on the left of the BM frame.

**NOTE:** This procedure illustrates the front stapler. The procedure for adjusting the rear stapler is identical.

### Adjustment



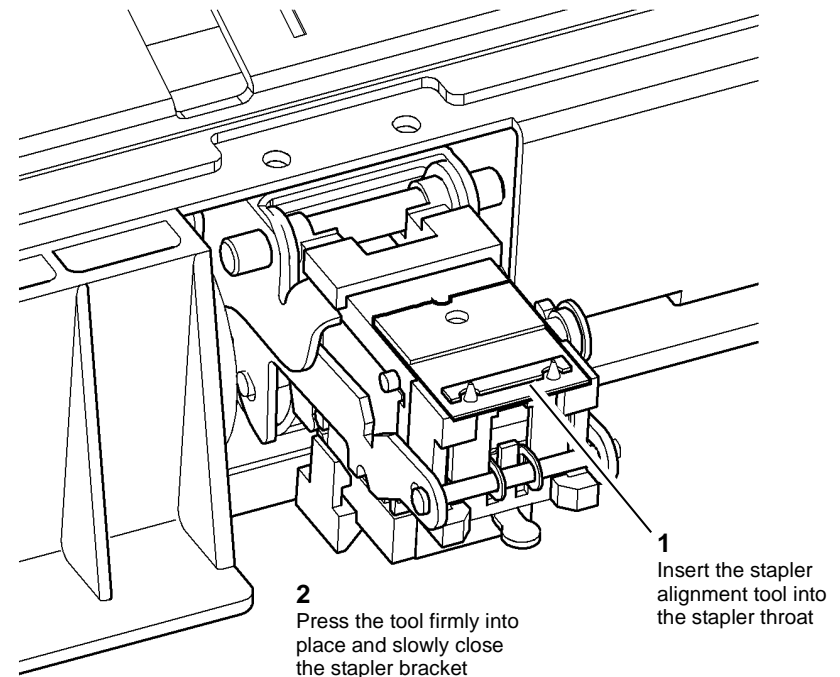
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



Take care during this procedure. Sharp edges may be present that can cause injury.

1. To improve the access to the two clamp screws for the anvil, remove the tamper assembly, [REP 11.30-171](#).
2. Fully pull out the BM module. Remove the stapler cover(s), one screw on each. Pull the stapler bracket handle and swing open the stapler bracket.

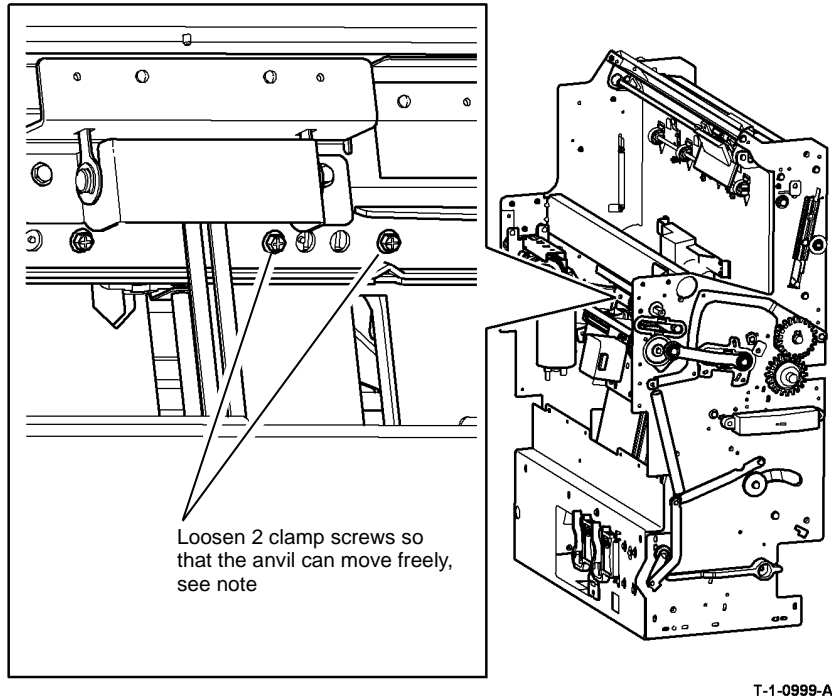
3. Insert the alignment tool, [Figure 1](#).



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Figure 1 Alignment tool insertion

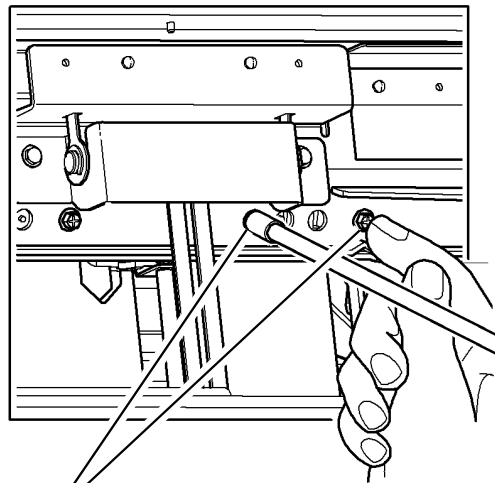
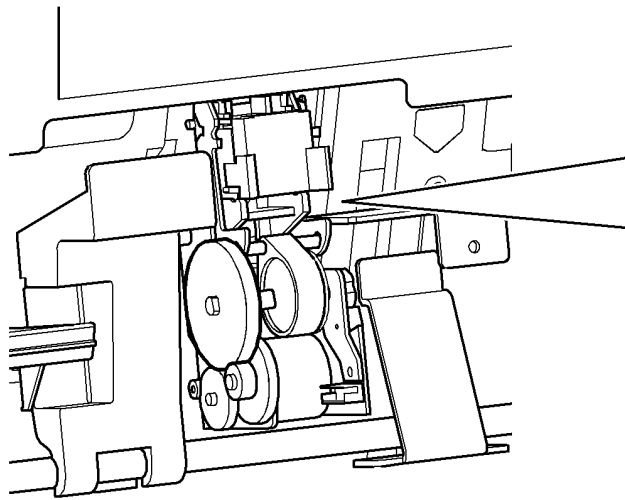
4. Loosen the anvil, [Figure 2](#).



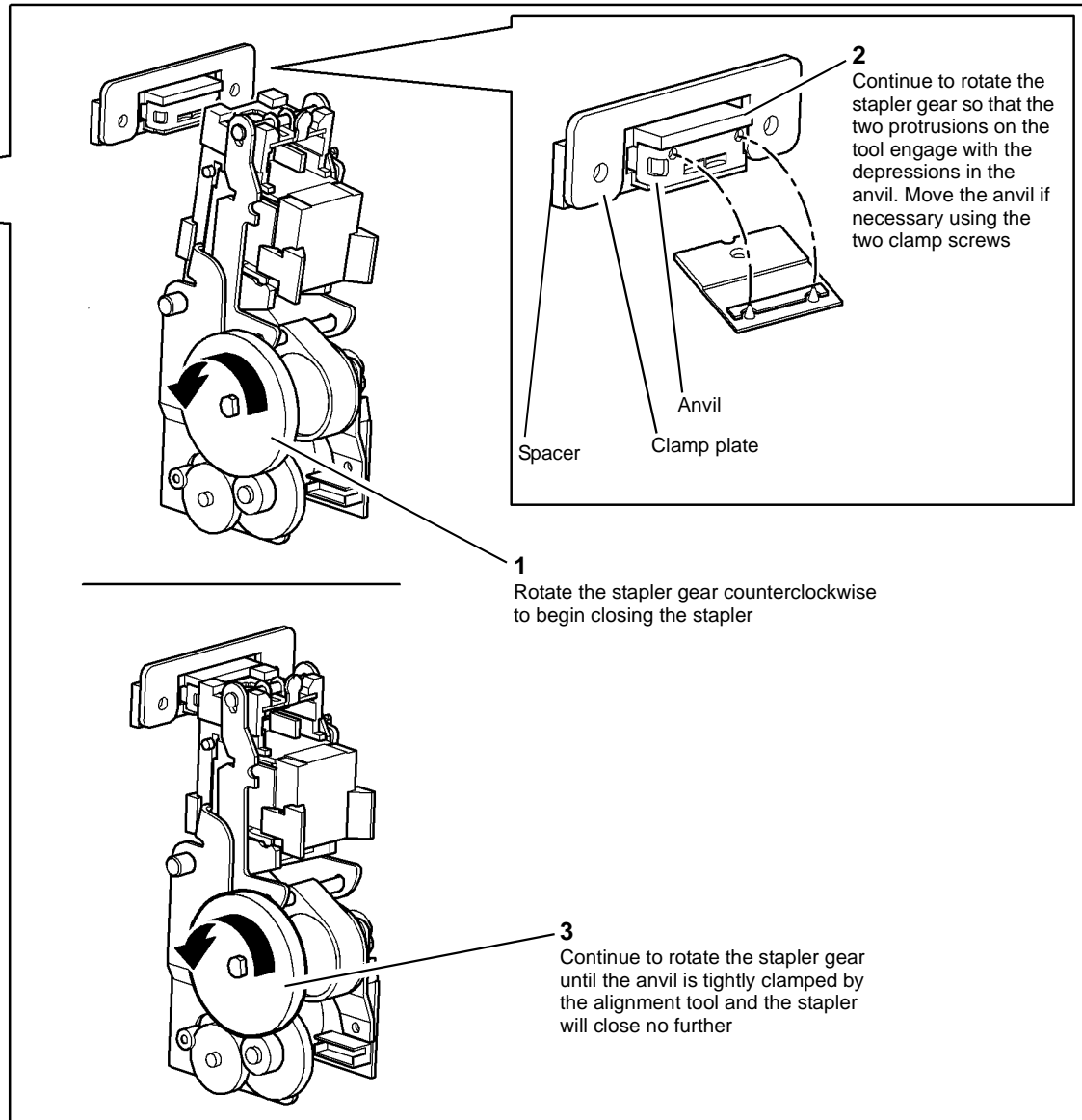
**Figure 2** Loosening the anvil

**NOTE:** Take great care not to drop the anvil, spacer or clamp plate, [Figure 3](#), as they can fall to the bottom of the BM module. If parts need to be retrieved from the bottom of the BM module it may be necessary to tilt the whole HVF BM to make the loose parts slide to the centre of the base, from where they can be easily removed.

5. Close the stapler, [Figure 3](#).



**4**  
Tighten the two screws alternately a little at a time, while holding the free screw with a finger. Ensure that the anvil does not move as the screws are tightened



**Figure 3 Closing the stapler**

6. Open the stapler fully by use of the stapler gear, **Figure 3**, then remove the alignment tool.
7. Perform the adjustment on the other stapler anvil if necessary.
8. Check the operation of the stapler by making a few stapled sets using 2 sheets of 80gsm (20 pound) paper. check the quality of the staple clinch.

## ADJ 11.4-171 Crease Blade Position

### Purpose

To correctly position the crease blade to ensure accurate booklet creasing.

### Special Tools Required

Crease blade setup tools (2), supplied with the HVF BM, located on the left of the frame.

### Adjustment



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

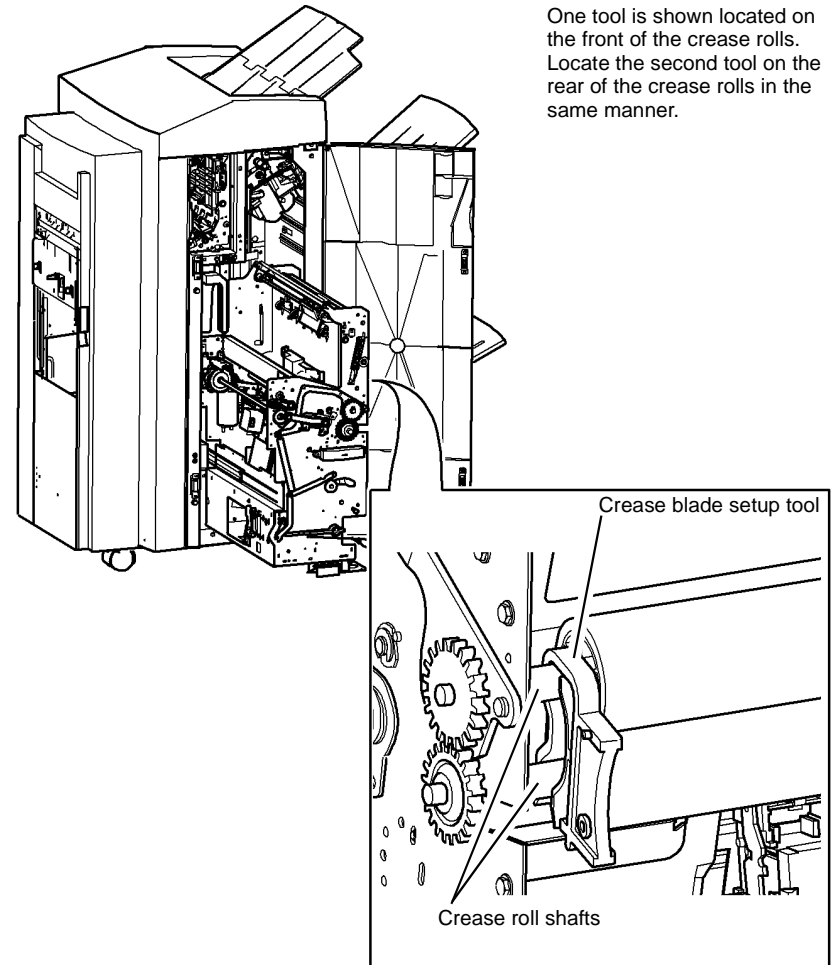


**WARNING**

Take care during this procedure. Sharp edges may be present that can cause injury.

1. Open the HVF BM front door and fully pull out the BM module.
2. Remove the crease blade knob (6d), [PL 11.161 Item 4](#).
3. Remove the crease roll handle (6c), [PL 11.161 Item 5](#).
4. Remove the BM front cover, [PL 11.161 Item 3](#).
5. Re-install the crease blade knob and crease roll handle.
6. Remove the BM right hand cover, [REP 11.56-171](#).
7. Rotate the crease roll handle fully counter clockwise to open the crease roll nip. Rotate the crease roll handle clockwise until the crease rolls are just touching.
8. Ensure the crease blade is fully retracted by positioning the crease blade knob with the arrow in the up position.

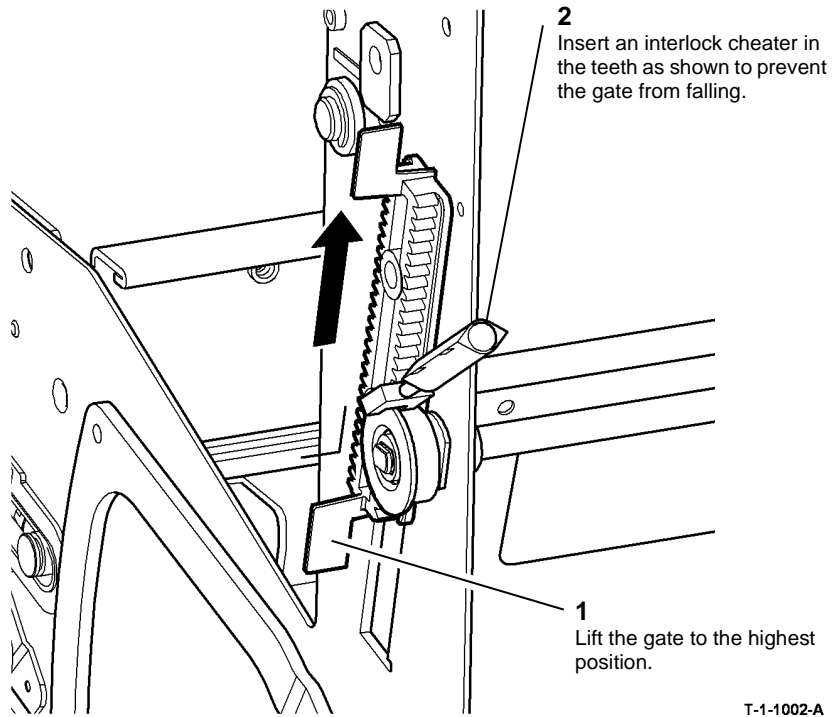
9. Position the crease blade setup tools on the crease roll shafts, [Figure 1](#).



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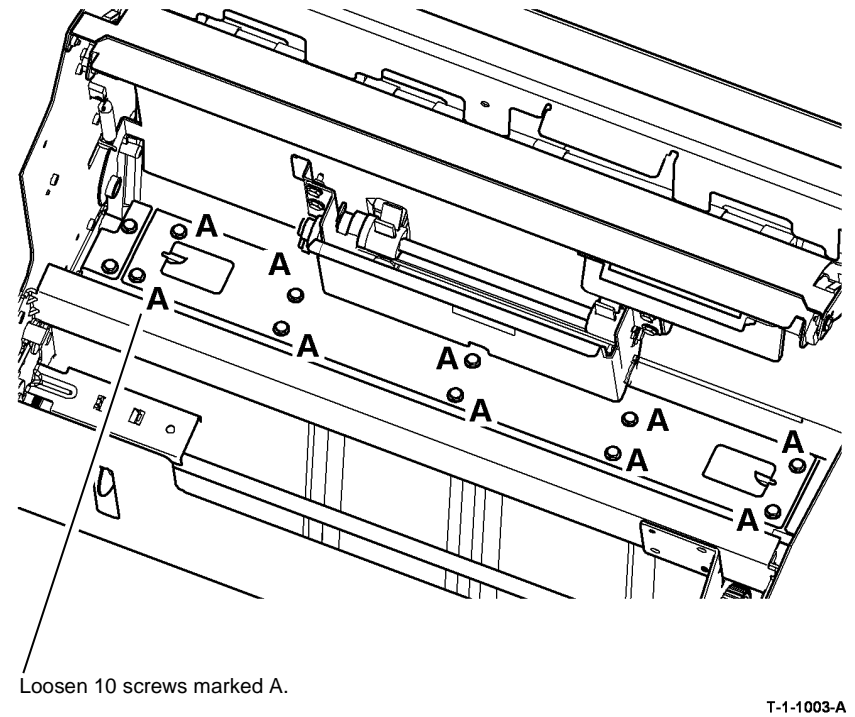
Figure 1 Setup tool positioning

10. Lock the crease gate in the open position, [Figure 2](#).



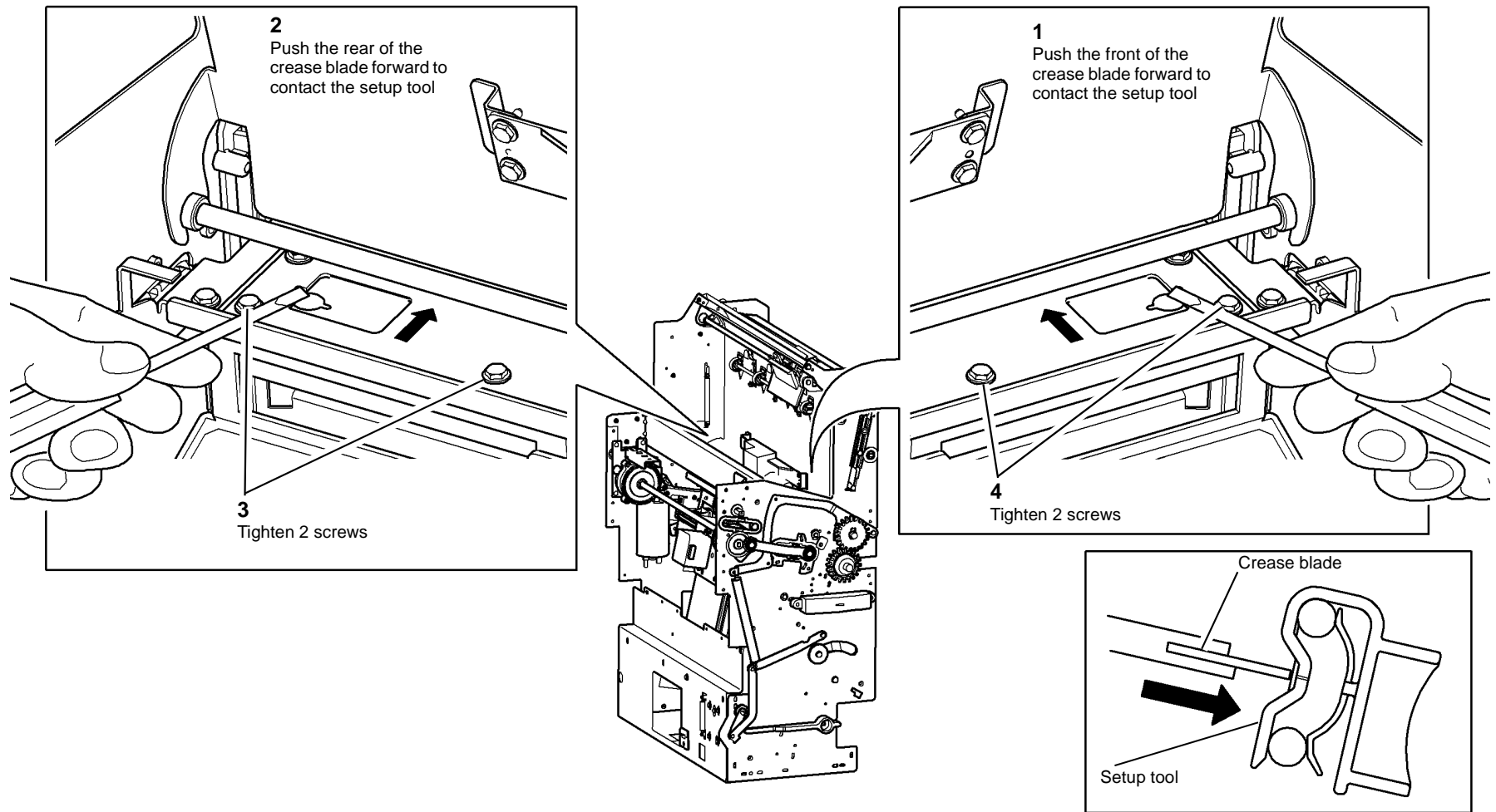
**Figure 2 Lock the crease gate**

11. Loosen the crease blade screws, [Figure 3](#).



**Figure 3 Blade loosening**

12. Fully insert the crease blade by positioning the crease blade knob (6d), [PL 11.161 Item 4](#), with the arrow in the down position.
13. Set the crease blade in the correct position, [Figure 4](#).



T-1-1004-A

**Figure 4 Blade positioning**

14. Fully retract the crease blade by positioning the crease blade knob (6d), [PL 11.161 Item 4](#), with the arrow in the up position.
15. Tighten the six remaining crease blade clamp screws, refer to [Figure 3](#).
16. Remove both crease blade setup tools and return them to the storage position.
17. Install all of the removed components and check the operation of the BM module.



# ADJ 11.5-171 Booklet Tamping

## Purpose

To set the tamper travel to give neat booklets without edge damage.

## Procedure

Go to the appropriate check and adjustment from the following options:

- If only A4 paper is available, go to [A4 Paper Procedure](#).
- If only 8.5 X 11 inch paper is available, go to [8.5 X 11 Inch Procedure](#).

## A4 Paper Procedure

### Check

1. Open the HVF BM front door and insert an interlock cheater into the front door interlock switch.
2. Fully pull out the BM module and release the jam clearance handle [PL 11.161 Item 8](#), fully open the paper guide, [PL 11.161 Item 7](#).
3. Do the following:
  - a. Enter [dC131](#).
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select [dC131](#) NVM Read/Write.
  - e. Select 12Finisher/DFA.
  - f. Select 12-006 BookMkrTampRdyOff-set.
  - g. Select Read/Write and reduce the original value by 8.
  - h. Select Save, select OK, select Close, select Exit.
4. Enter [dC330](#) code 11-065 BM Backstop Motor, select Start, allow the backstop to raise to the receive position (where it will pause), select Stop.
5. Enter [dC330](#) code 11-066 BM tamper 1 motor. Select Start to energize the tamper motor, allow the tampers to move into the tamped position (where they will pause), select Stop.
6. Insert a single sheet of A4 paper, short edge downward into the booklet maker compiling area, so that it rests on the backstop and is located between the two tampers
7. Bias the sheet towards the rear of the machine until the sheet touches the rear tamper, [Figure 1](#).
8. Observe the position of the sheet between the tampers, [Figure 1](#).
  - If the sheet cannot reach the backstop because the tampers are too close together, the NVM value will need to be decreased to move the tampers further apart, perform the adjustment.
  - If the front tamper is not within 0.5mm (0.02 inch) of the sheet edge without touching the sheet, the NVM value will need to be increased to move the tampers closer together, perform the adjustment.
  - If the tampers are in the correct position, within 0.5mm (0.02 inch) of the sheet edge without touching the sheet, do the following:
    - a. Enter [dC131](#).
    - b. Select Diagnostic Routines.
    - c. Select Copier Routines.
    - d. Select [dC131](#) NVM Read/Write.

- e. Select 12Finisher/DFA.
- f. Select 12-006 BookMkrTampRdyOff-set.
- g. Select Read/Write and increase the value by 8.
- h. Select Save, select OK, select Close, select Exit.

## Adjustment

1. Do the following:
  - a. Enter [dC131](#).
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select [dC131](#) NVM Read/Write.
  - e. Select 12Finisher/DFA.
  - f. Select 12-006 BookMkrTampRdyOff-set.
  - g. Select Read/Write and enter the new value to correct the error found during the check. Increasing the value lengthens the tamping stroke (tamps to a narrower dimension between the tampers. Decreasing the value shortens the tamping stroke (tamps to a wider dimension between the tampers). One step = 0.53mm.
  - h. Select Save, select OK, select Close, select Exit.
2. Repeat the check to ensure the tampers are set correctly.
3. When the tamper travel is correct, do the following:
  - a. Enter [dC131](#).
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select [dC131](#) NVM Read/Write.
  - e. Select 12Finisher/DFA.
  - f. Select 12-006 BookMkrTampRdyOff-set.
  - g. Select Read/Write and increase the value by 8.
  - h. Select Save, select OK, select Close, select Exit.
4. Switch the machine off then on, [GP 14](#).

## 8.5 X 11 Inch Procedure

### Check

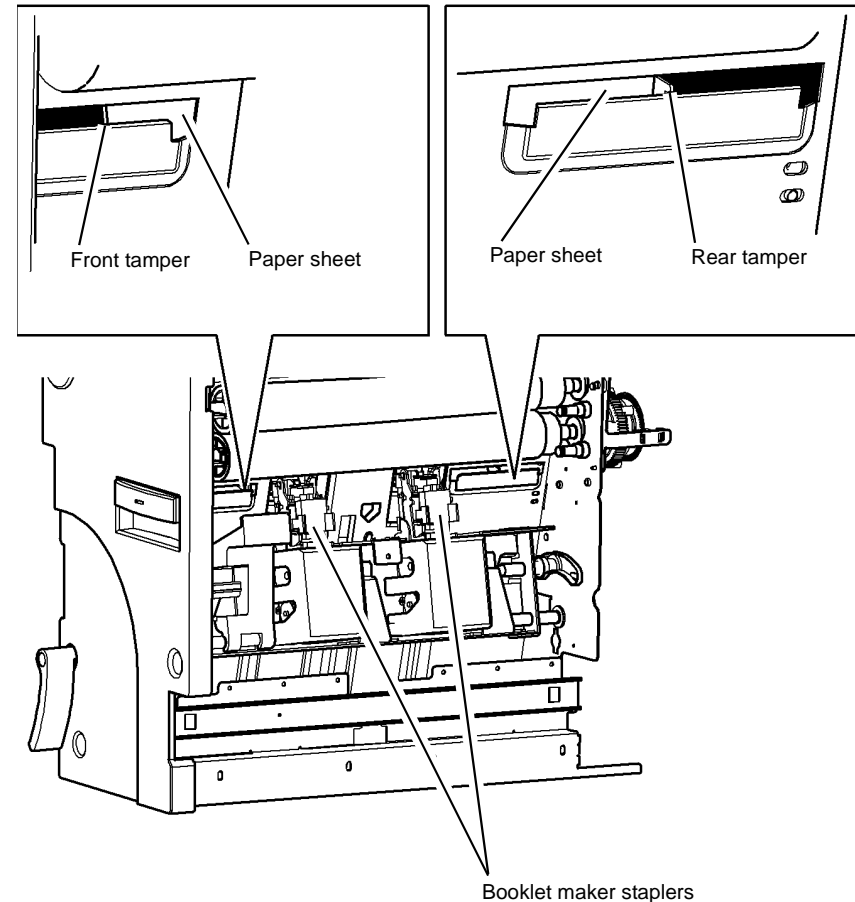
1. Open the HVF BM front door and insert an interlock cheater into the front door interlock switch.
2. Fully pull out the booklet maker and release the jam clearance handle [PL 11.161 Item 8](#), fully open the paper guide [PL 11.161 Item 7](#).
3. Do the following:
  - a. Enter [dC131](#).
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select [dC131](#) NVM Read/Write.
  - e. Select 12Finisher/DFA.
  - f. Select 12-006 BookMkrTampRdyOff-set.
  - g. Select Read/Write and reduce the original value by 19.
  - h. Select Save, select OK, select Close, select Exit.

4. Enter **dC330** code 11-065 BM Backstop Motor, select Start, allow the backstop to raise to the receive position (where it will pause), select Stop.
5. Enter **dC330** code 11-066 BM tamper 1 motor. Select Start to energize the tamper motor, allow the tampers to move into the tamped position (where they will pause), select Stop.
6. Insert a single sheet of 8.5 X 11 inch paper, short edge downward into the booklet maker compiling area, so that it rests on the backstop and is located between the two tampers
7. Bias the sheet towards the rear of the machine until the sheet touches the rear tamper, **Figure 1**.
8. Observe the position of the sheet between the tampers, **Figure 1**.
  - If the sheet cannot reach the backstop because the tampers are too close together, the NVM value will need to be decreased to move the tampers further apart, perform the adjustment.
  - If the front tamper is not within 0.5mm (0.02 inch) of the sheet edge without touching the sheet, the NVM value will need to be increased to move the tampers closer together, perform the adjustment.
  - If the tampers are in the correct position, within 0.5mm (0.02 inch) of the sheet edge without touching the sheet, do the following:
    - a. Enter **dC131**.
    - b. Select Diagnostic Routines.
    - c. Select Copier Routines.
    - d. Select **dC131** NVM Read/Write.
    - e. Select 12Finisher/DFA.
    - f. Select 12-006 BookMkrTampRdyOff-set.
    - g. Select Read/Write and increase the value by 19.
    - h. Select Save, select OK, select Close, select Exit.

### Adjustment

1. Do the following:
  - a. Enter **dC131**.
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select **dC131** NVM Read/Write.
  - e. Select 12Finisher/DFA.
  - f. Select 12-006 BookMkrTampRdyOff-set.
  - g. Select Read/Write and enter the new value to correct the error found during the check. Increasing the value lengthens the tamping stroke (tamps to a narrower dimension between the tampers. Decreasing the value shortens the tamping stroke (tamps to a wider dimension between the tampers). One step = 0.53mm.
  - h. Select Save, select OK, select Close, select Exit.
2. Repeat the check to ensure the tampers are set correctly.
3. When the tamper travel is correct, do the following:
  - a. Enter **dC131**.
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select **dC131** NVM Read/Write.
  - e. Select 12Finisher/DFA.

- f. Select 12-006 BookMkrTampRdyOff-set.
  - g. Select Read/Write and increase the value by 19.
  - h. Select Save, select OK, select Close, select Exit.
4. Switch the machine off then on, **GP 14**.



**Figure 1 Observing the tamper positions**

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## ADJ 11.6-171 Booklet Compiling Position

### Purpose

To set the compiling position to ensure correct compiling without damage. When the compiling position is correctly set, each sheet is fed behind the BM entry roll to rest against the right side of the compiler.

### Procedure

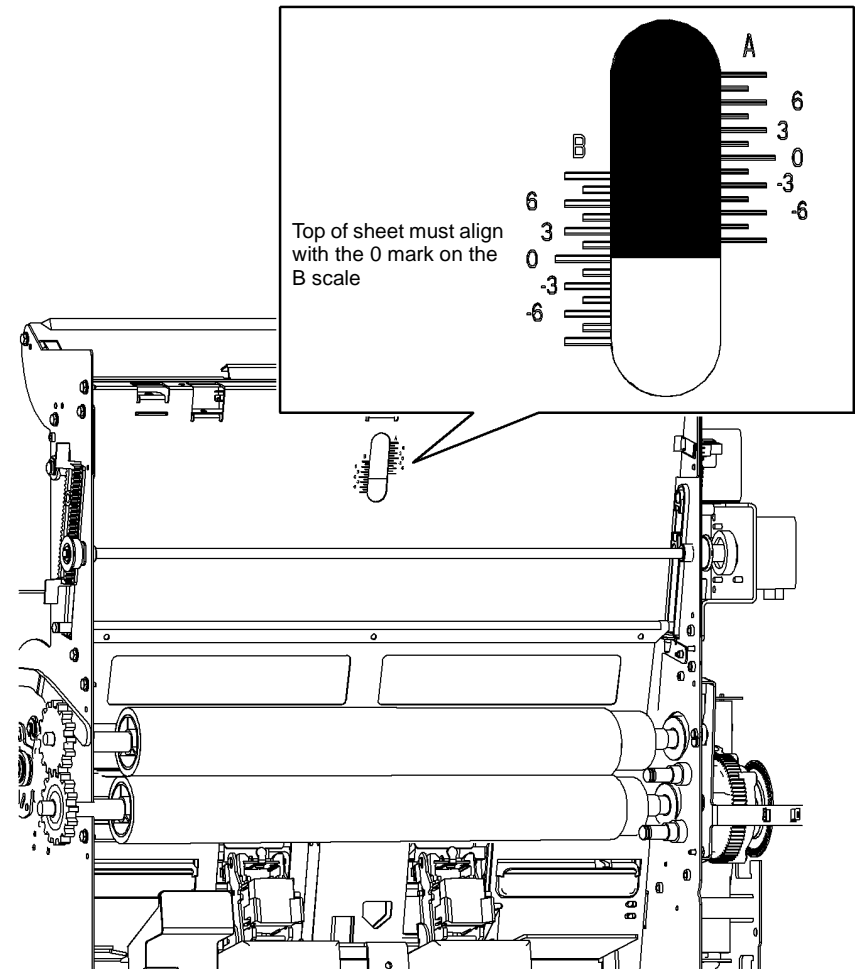
Go to the appropriate check and adjustment from the following options:

- If only A4 paper is available, go to [A4 Paper Procedure](#).
- If only 8.5 X 11 inch paper is available, go to [8.5 X 11 Inch Procedure](#).

### A4 Paper Procedure

#### Check

1. Open the HVF BM front door and insert an interlock cheater into the front door interlock switch.
2. Fully pull out the BM module and release the jam clearance handle [PL 11.161 Item 8](#), fully open the paper guide [PL 11.161 Item 7](#).
3. Enter [dC330](#) code 11-065 BM Backstop Motor, select Start, allow the backstop to raise to the receive position (where it will pause), select Stop.
4. Insert a single sheet of A4 paper short edge downward into the booklet maker compiling area, so that it rests on the backstop and is approximately central front to back. Tuck the top of the sheet behind the BM entry roll, [PL 11.161 Item 15](#).
5. If the BM right hand cover does not have a viewing hole, remove the BM right hand cover, [REP 11.56-171](#).
6. [Figure 1](#), check the alignment of the sheet against the scale.



T-1-1006-A

Figure 1 Top edge alignment

7. If the sheet is correctly aligned, exit diagnostics and re-install the BM right hand cover, if removed in step 5. If the sheet is not correctly aligned, perform the adjustment.

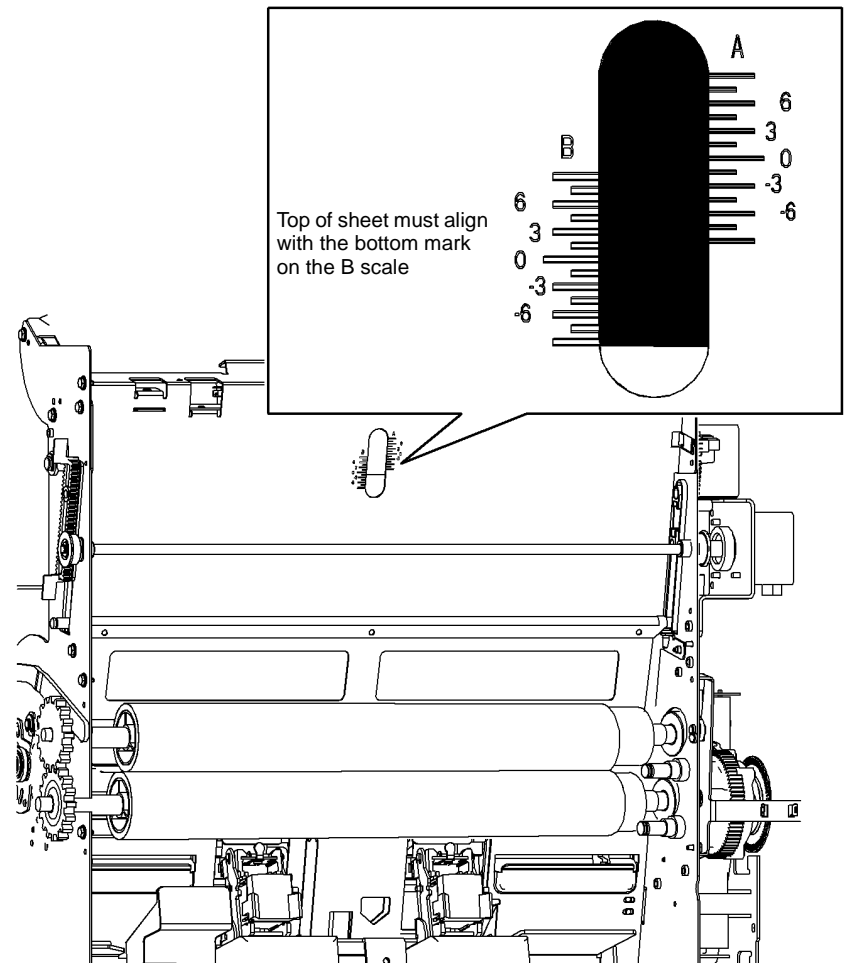
## Adjustment

- Do the following
  - Enter **dC131**.
  - Select Diagnostic Routines.
  - Select Copier Routines.
  - Select **dC131** NVM Read/Write.
  - Select 12Finisher/DFA.
  - Select 12-003 BookMkrCompileOff-set.
  - Select Read/Write and enter the new value to correct the error found during the check. Increasing the value will raise the sheet. Decreasing the value will lower the sheet. One step = 0.1137mm.
  - Select Save, select OK, select Close, select Exit.
- Repeat the Check to ensure the compiling position is correctly set.
- When the compiling position is correct, switch the machine off then on, **GP 14**.

## 8.5 X 11 Inch Procedure

### Check

- Open the HVF BM front door and insert an interlock cheater into the front door interlock switch.
- Fully pull out the BM module and release the jam clearance handle **PL 11.161 Item 8**, fully open the paper guide **PL 11.161 Item 7**.
- Do the following
  - Enter **dC131**.
  - Select Diagnostic Routines.
  - Select Copier Routines.
  - Select **dC131** NVM Read/Write.
  - Select 12Finisher/DFA.
  - Select 12-003 BookMkrCompileOff-set.
  - Select Read/Write and increase the original value by 80.
  - Select Save, select OK, select Close, select Exit.
- Enter **dC330** code 11-065 BM Backstop Motor, select Start, allow the backstop to raise to the receive position (where it will pause), select Stop.
- Insert a single sheet of 8.5 X 11 inch paper short edge downward into the booklet maker compiling area, so that it rests on the backstop and is approximately central front to back. Tuck the top of the sheet behind the BM entry roll, **PL 11.161 Item 15**.
- If the BM right hand cover does not have a viewing hole, remove the BM right hand cover, **REP 11.56-171**.
- Figure 2**, check the alignment of the sheet against the scale.



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**Figure 2** Top edge alignment

- If the sheet is correctly aligned, do the following:
  - Enter **dC131**.
  - Select Diagnostic Routines.
  - Select Copier Routines.
  - Select **dC131** NVM Read/Write.
  - Select 12Finisher/DFA.
  - Select 12-003 BookMkrCompileOff-set.

- g. Select Read/Write and decrease the value by 80, this will return the NVM value to the original setting.
  - h. Select Save, select OK, select Close, select Exit.
  - i. Re-install the BM right hand cover, if removed in step 5.
9. If the sheet is not correctly aligned, perform the adjustment.

### Adjustment

1. Do the following
  - a. Enter **dC131**.
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select **dC131** NVM Read/Write.
  - e. Select 12Finisher/DFA.
  - f. Select 12-003 BookMkrCompileOff-set.
  - g. Select Read/Write and enter the new value to correct the error found during the check. Increasing the value will raise the sheet. Decreasing the value will lower the sheet. One step = 0.1137mm.
  - h. Select Save, select OK, select Close, select Exit.
2. Repeat the Check to ensure the compiling position is correctly set.
3. Do the following:
  - a. Enter **dC131**.
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select **dC131** NVM Read/Write.
  - e. Select 12Finisher/DFA.
  - f. Select 12-003 BookMkrCompileOff-set.
  - g. Select Read/Write and decrease the value by 80.
  - h. Select Save, select OK, select Close, select Exit.
  - i. Re-install the BM right hand cover, if removed in step 5.
4. When the compiling position is correct, switch the machine off then on, **GP 14**.

## ADJ 11.7-171 Booklet Crease Position

### Purpose

To set the crease position of the booklet in relation to the left edge of the top sheet of the booklet.

### Check

1. Run a copy job of 3 stapled 4 sheet booklets.
2. Observe the position of the crease in relation to the open end of the booklet. The fold should be central, so that the open end of the booklet pages are equal from the fold. If necessary perform the adjustment.

### Adjustment

1. Perform the following:
  - a. Enter **dC131**.
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select 131 NVM Read/Write...
  - e. Select 12Finisher/DFA...
  - f. Select 12-005 BookMrkFoldOffset.
  - g. Select Read/Write.
  - h. Enter the new value to correct the error found during the check.

**NOTE:** Increasing the value increases the width of the top sheet of the booklet (moves the fold away from the left edge). Decreasing the value decreases the width of the top sheet of the booklet (moves the fold towards the left edge). One step = 0.1137mm.

- i. Select Save, then OK.
2. Select Save, then select OK.
3. When the crease position is correct, switch the machine off then on, **GP 14**.

## ADJ 11.8-171 Booklet Staple Position

### Purpose

To set the position of the staples so that they are positioned on the fold of the booklet.

### Check

1. Run a copy job of 3 stapled 4 sheet booklets.
2. Observe the position of the staple in relation to the fold of the booklet. The staple should be positioned in the middle of the fold. If necessary perform the adjustment.

### Adjustment

1. Perform the following:
  - a. Enter **dC131**.
  - b. Select Diagnostic Routines.
  - c. Select Copier Routines.
  - d. Select 131 NVM Read/Write...
  - e. Select 12Finisher/DFA...
  - f. Select 12-004 BookMrkStapleOffset.
  - g. Select Read/Write.
  - h. Enter the new value to correct the error found during the check.
  - i. Select Save, then OK.
  - j. Select 12-005 BookMrkFoldOffset.
  - k. Select Read/Write.
  - l. Change the value by the same amount as the 12-004 BookMrkStapleOffset value.

**NOTE:** Increasing both values moves the staple position toward the left edge of the top sheet. Decreasing both values moves the staple position away from the left edge of the top sheet. One step = 0.1137mm. Changing only the 12-004 BookMrkStaple-Offset value will move the staple position and fold position the same amount.

- m. Select Save, then OK.
2. Select Save, then select OK.
  3. Repeat the Check to ensure the staple position is correct.
  4. When the staple position is correct, switch the machine off then on, **GP 14**.

## ADJ 11.9-171 Booklet Maker Skew

### Purpose

To adjust the skew of the booklet crease.

Check and complete the following adjustments:

- **ADJ 11.6-171** Booklet compiling position.
- **ADJ 11.8-171** Booklet staple position.
- **ADJ 11.7-171** Booklet crease position.

### Check

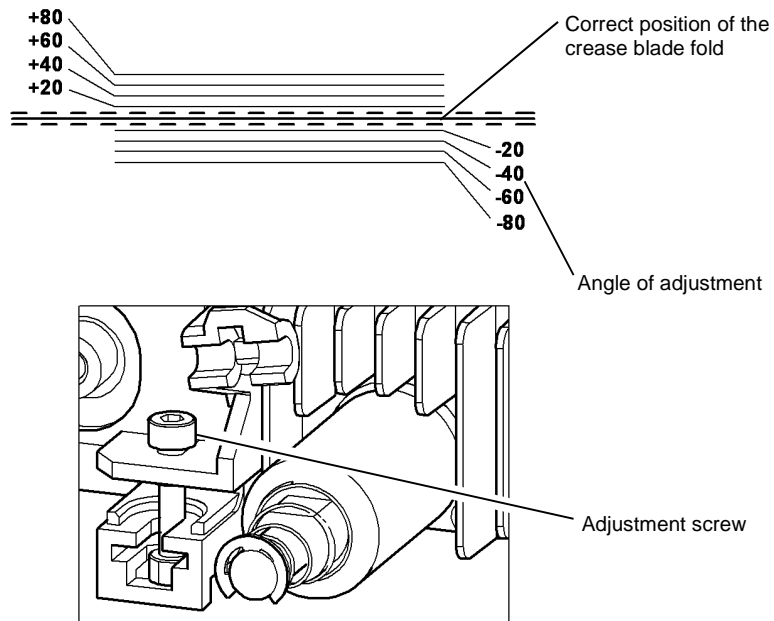
1. Run a copy job of 3 stapled 4 sheet booklets.
2. Observe the position of the crease in relation to the open end of the booklet. The fold should be central, so that the open end of the booklet pages are equal from the fold. If necessary perform the adjustment.

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Slide out the booklet maker and locate the adjustment screw on the booklet backstop, **Figure 1**.
2. Use a 2.5mm allen head driver and turn the adjustment screw as follows:
  - Turn the screw clockwise to rotate the crease clockwise relative to the centre line.
  - Turn the screw anti-clockwise to rotate the crease anti-clockwise relative to the centre line.
  - One half turn of the adjustment screw will change the crease angle approximately 3 to 4mm over the length of the crease.
3. Run a copy job of 3 stapled 4 sheet booklets to check that the crease is in the centre of the book. Repeat the adjustment if necessary.



T-1-1008-A

Figure 1 Booklet crease adjustment

## ADJ 11.10-171 Motor Drive Belt Tensioning

### Purpose

To set the tension of belts that are tensioned by a spring attached to a motor. See also [ADJ 11.11-171 Idler Drive Belt Tensioning](#).

### Check

1. The shafts and pulleys are installed and properly located.
2. The drive belt is undamaged and correctly routed.
3. The adjustable motor or tensioning pulley bracket is positioned with fastening screws not tightened fully.

**NOTE:** For motors with pivoted brackets, the pivot screw must be fitted and tightened.

4. The tensioning spring is fitted between the bracket and frame locating point.

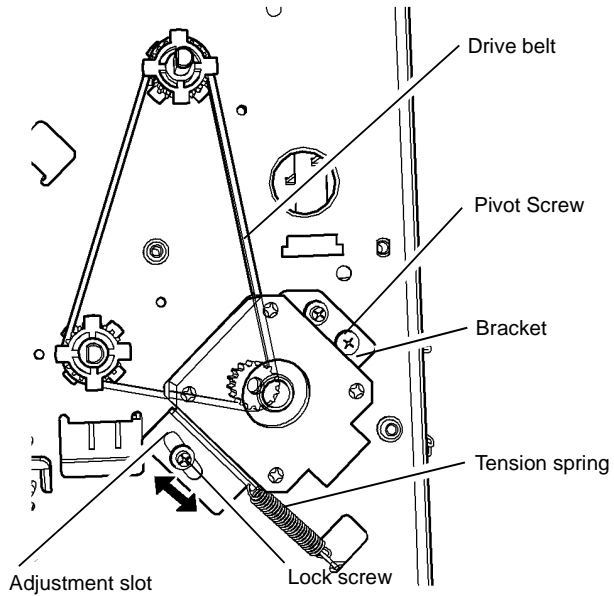
### Adjustment



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. [Figure 1](#) shows a typical arrangement. Press the belt midway between pulleys and check that the bracket moves in the direction of the spring pull; slacken the bracket screws if necessary.
2. Release the belt and allow the spring to pull the bracket and tension the drive belt then tighten the lock and bracket screws.

**NOTE:** Check the belt condition and routing if the tension spring is not extended or the locking screw is at the end of the bracket adjustment slot.



Typical spring tensioning arrangement

**Figure 1 Drive belt tensioning**

T-1-1009-A

## ADJ 11.11-171 Idler Drive Belt Tensioning

### Purpose

To set the tension of drive belts that are tensioned by a spring attached to an idler. See also [ADJ 11.10-171 Motor Drive Belt Tensioning](#).

### Check

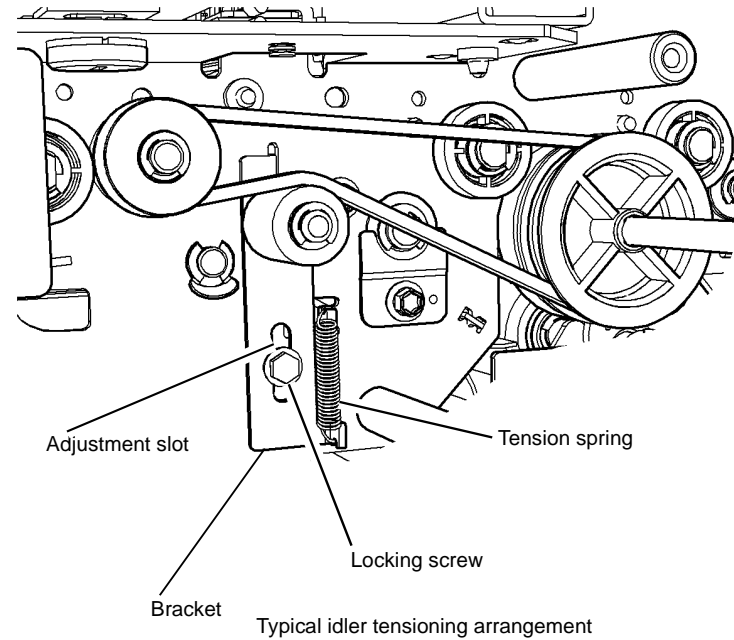
1. The shafts and pulleys are installed and properly located.
2. The drive belt is undamaged and correctly routed.
3. The tensioning spring is fitted between the idler bracket and frame locating point.

### Adjustment



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. [Figure 1](#) shows a typical arrangement. Loosen the adjustment screw and allow the spring to tension the belt.
2. Tighten the adjustment screw.
3. If no more adjustment is available, install new components as necessary.



Typical idler tensioning arrangement

**Figure 1 Drive belt tensioning**



## ADJ 11.12-171 Tri-Folder Fold Adjustment

### Purpose

To adjust C or Z folded copies in accordance with the customer requirements.

### Check

1. Ensure the tri-folder and the HVF BM are aligned correctly, [ADJ 11.1-171 Machine to HVF/HVF BM, HVF BM to Tri-Folder Alignment](#).
2. Ensure the tri-folder is set for the correct size of paper, [ADJ 11.2-171 Tri-Folder Paper Size Setting](#).
3. The NVM settings. Enter **dC131** then check that codes values for 12-009 (C folds), 12-010 (Z folds) and 12-011 (Tri-fold de-skew) are set in accordance with the values on the HVF/BM label, [Figure 1](#).
  - If necessary, enter **dC131** and change the NVM values for codes 12-009, 12-010 and 12-011 to match with the values on the HVF BM label.
4. Ensure the front door interlock switch is cheated, [PL 11.197 Item 2](#). Run a four sheet C fold and Z fold copy job. Check that the copies are folded into three approximately equal parts, with the folds parallel to the edge of the paper.
5. Check that the C and Z folded copies meet with the customer requirements. If necessary make fine adjustments to the length of folds A and/or B. [Figure 3](#).

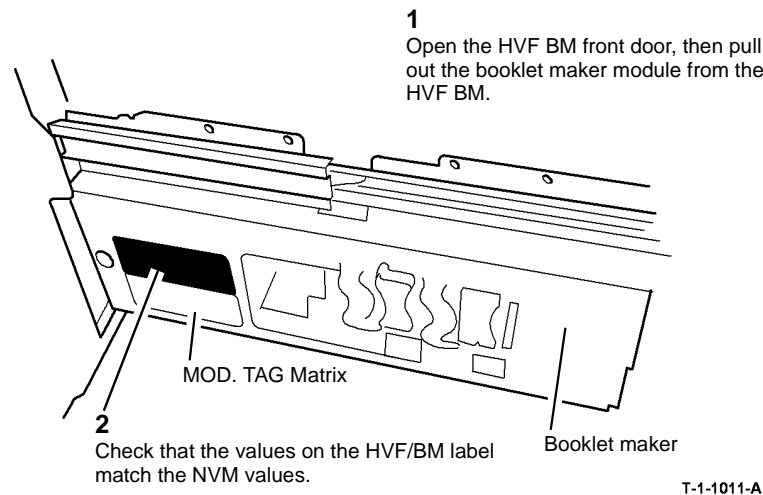


Figure 1 HVF/BM NVM value label location

### Adjustment



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Perform the adjustments that follow as necessary to meet with the customer C fold and Z fold requirements, [Figure 2](#).

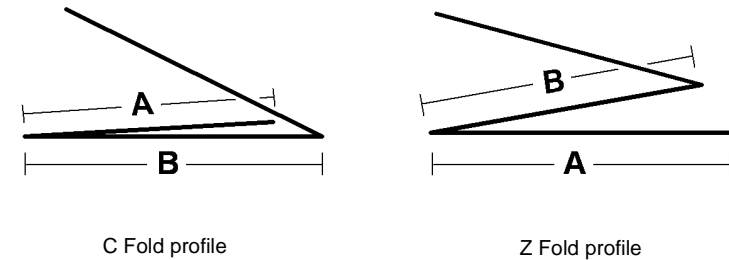


Figure 2 C folded and Z folded output copy profiles

**NOTE:** [Figure 3](#) shows the orientation of a C and Z folded copy on the tri-folder output tray, as viewed from the front of the machine.

### A Folds

[Figure 3](#). The folds marked A are created within the booklet maker module. The length of the A fold is determined by the NVM values in **dC131**. An increase to the NVM value by 30 will decrease the A fold by 1mm. A decrease to the NVM value by 30 will increase the A fold by 1mm.

- Use **dC131** code 12-009 to make adjustments to C folded copies.
- Use **dC131** code 12-010 to make adjustments to Z folded copies.

### B Folds

[Figure 3](#). The folds marked B are created within the tri-folder module. The length of the B fold is determined by the position of the paper setting adjusters. If necessary remove the front door, [PL 11.190](#), front cover [PL 11.190](#) and the rear cover [PL 11.190](#), then reposition the paper setting adjusters. [Figure 2](#). An adjustment of 1 graduation on the paper size adjuster scale will adjust the position of fold B by 1mm.

- Raise the paper setting adjusters to decrease fold B.
- Lower the paper setting adjusters to increase fold B.

## ADJ 11.13-171 HVF Performance Improvement (W/TAG V-006)

### Purpose

To improve the overall performance and reliability of the HVF finisher module.

### Adjustment

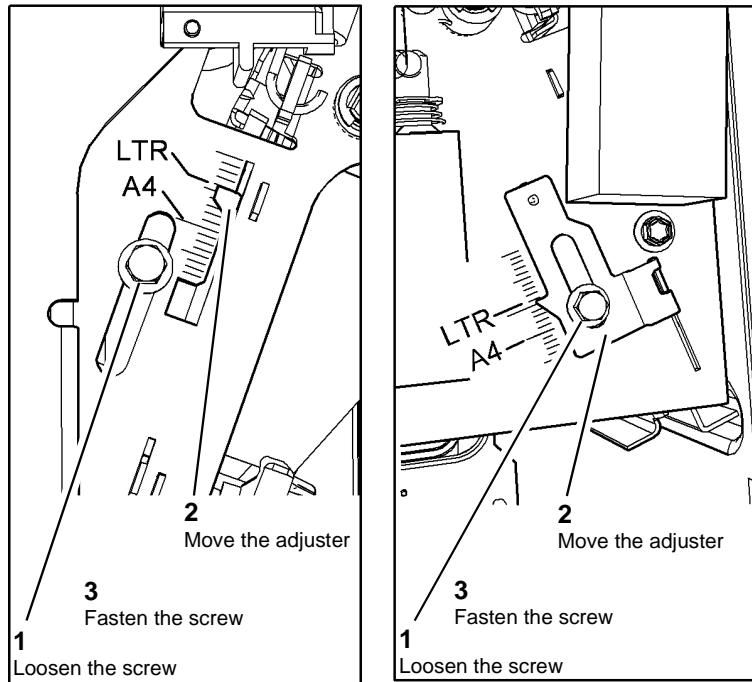


### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the following 10 remedial procedures in consecutive order to accomplish the HVF performance improvement adjustment W/TAG V-006.

1. Hole Punch Blanking Assembly Modification.
2. Hole Punch Blanking Assembly to HVF Frame Modification.
3. Check for Wear on the Upper Paddles.
4. Check the Front and Rear Tampers for Scoring.
5. Check the Spacing Between the Front and Rear Tampers.
6. Buffer Pocket Jam Clearance Guide Modification.
7. Check for Wear on the Lower Paddles.
8. Check the Position of the Ejector Assembly.
9. Chamfered Staple Cartridge Installation.
10. Customer Awareness Instruction on Bin 1 Obstructions.
11. BM Diverter Solenoid Position.



T-1-1013-A

Figure 3 Set the paper size adjusters

## Procedures

### Hole Punch Blanking Assembly Modification

The hole punch blanking assembly heats up as copies pass through. The increase in temperature causes the hole punch blanking assembly to bow. This bowing effect causes a reduction of the paper path gap through the assembly, resulting in paper jams and misfeeds.

1. Remove the hole punch blanking assembly, [PL 11.153 Item 4](#).
2. [Figure 1](#). Dismantle the hole punch blanking assembly.

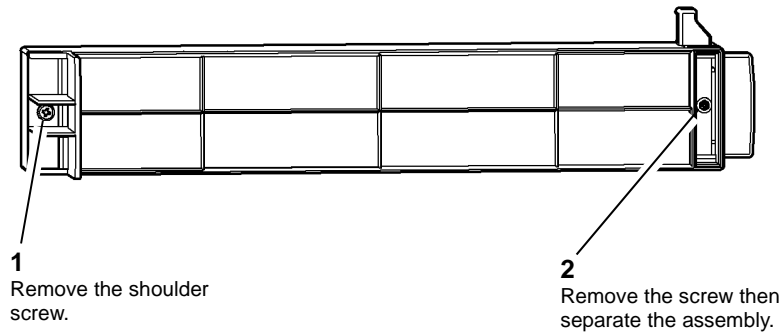


Figure 1 Hole punch blanking assembly

3. [Figure 2](#). Form a slot to allow translational movement (inboard to outboard) during expansion and contraction of the hole punch blanking assembly.

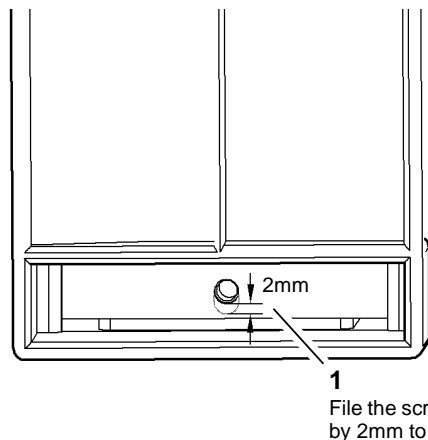


Figure 2 Hole punch blanking assembly

4. Reinstall the hole punch blanking assembly then proceed to [Hole Punch Blanking Assembly to HVF Frame Modification](#).

### Hole Punch Blanking Assembly to HVF Frame Modification

The right angled tab on the HVF Rear frame can obstruct the hole punch blanking assembly from reaching the home position. This causes the top section of the assembly to bend forward and reduce the paper path gap through the assembly, resulting in paper jams and misfeeds.

1. Remove then reinstall the hole punch blanking assembly, [PL 11.153 Item 4](#). Check if the assembly collides with the tab, refer to [Figure 3](#).

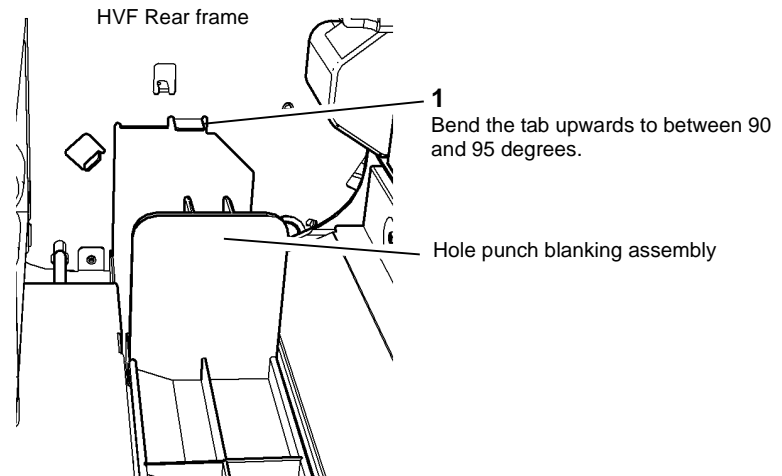


Figure 3 HVF rear frame

2. [Figure 3](#). If necessary bend the tab.
3. Reinstall the hole punch blanking assembly. Ensure the assembly is not obstructed by the tab.
4. Proceed to [Check for Wear on the Upper Paddles](#).

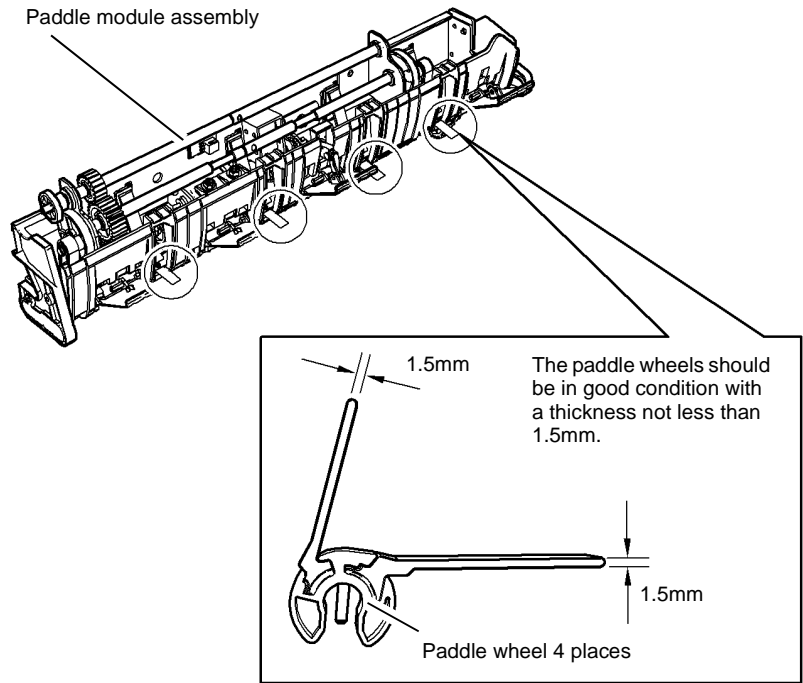
### Check for Wear on the Upper Paddles

Wear of the upper paddles will cause the failure of sheets 2 to 100 in the compile area to register against the back stops. This can lead to mis-registered or mis-stapled sheets in a set.

**NOTE:** Check the serial number of the machine, if the serial number is before either of the following, install a new set of four paddle wheels, [PL 11.145 Item 28](#) to maintain good reliability:

- HVF YFV005294 (manufacture date 17th March 2009)
- HVF/BM YFW02881 (manufacture date 19th November 2009)

1. [Figure 4](#). Check the paddle wheels of the paddle module assembly for wear.



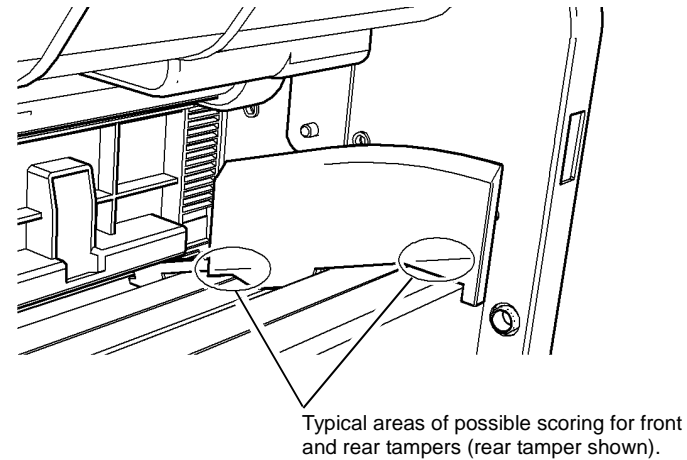
**Figure 4 Paddle module assembly**

2. Run 50 sets of 3 documents in A4 or 8.5 x 11 inch LEF simplex and stapled mode. Check for mis-registered or mis-stapled sets in the direction of paper feed on the 2nd and 3rd sheets of each set. If any sets are mis-registered or mis-stapled install new paddle wheels, refer to [REP 11.49-171](#) and [REP 11.101-171](#).
3. Proceed to [Check the Front and Rear Tampers for Scoring](#).

### Check the Front and Rear Tampers for Scoring

Deep scores in the front and rear tampers can cause the paper to catch and fail to register in the compiler area.

1. [Figure 5](#). Check the tampers for scoring. If scoring is evident install a new metal pin reinforced tamper set, [PL 11.140 Item 22](#).



**Figure 5 Rear tamper**

2. In extreme cases where abrasive paper is being used, scoring can still occur with the new metal pin reinforced tampers. This scoring can be seen especially on the rear tamper, underneath the left pin. If necessary, install a new metal pin reinforced tamper set, [PL 11.140 Item 22](#).
3. Proceed to [Check the Spacing Between the Front and Rear Tampers](#).

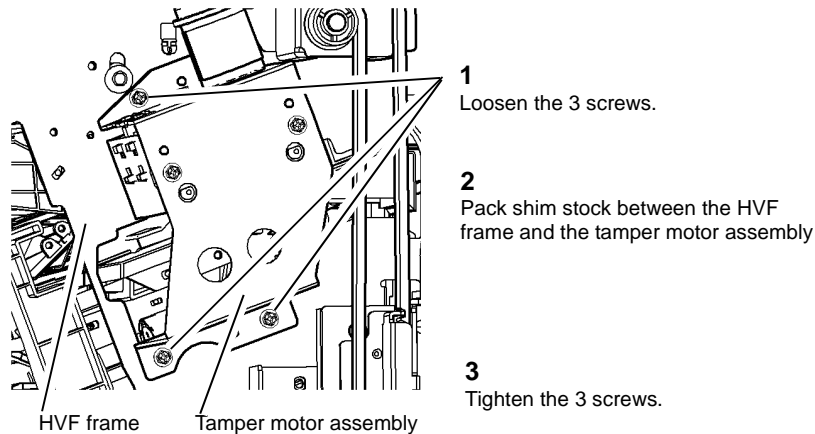
## Check the Spacing Between the Front and Rear Tampers



*The use of shim stock packing between the HVF frame and the front tamper motor assembly must not exceed a total thickness of 2mm. Exceeding the 2mm limit will impede the operation of the HVF front door.*

Incorrect spacing between the tampers can cause the paper to buckle between the tampers. This can cause mis-stacking, mis-stapling and/or upper and lower paper grooves in one or more of the tampers.

1. Run 50 sets of 3 documents in A4 or 8.5 x 11 inch LEF simplex and stapled mode.
2. Check during the upper paddle operation that the tampers come to a closed position with un-buckled paper in between.
3. Check for mis-compiling in the direction of feed. If mis-compiling is evident and greater than 1.2mm continue with steps 4 to 6. If there is no mis-compiling or mis-compiling less than 1.2mm proceed to [Buffer Pocket Jam Clearance Guide Modification](#).
4. [Figure 6](#). In small increments position the front tamper motor assembly up to 2mm away from the front frame with spacers made from shim stock (600T41512).



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**Figure 6 Tamper motor assembly**

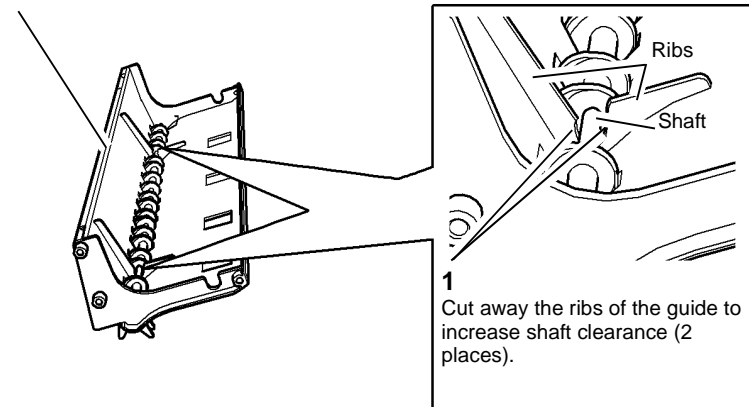
5. Re-run the test job (step 1) and check for improvements.
6. Repeat steps 4 and 5 as necessary, then proceed to [Buffer Pocket Jam Clearance Guide Modification](#).

## Buffer Pocket Jam Clearance Guide Modification

The spring loaded diverter gate shaft can bind to the buffer pocket jam clearance guide. As a result the diverter gate becomes slow in its movement causing 11-142-171 and 11-140-171 paper jam faults.

1. Remove the buffer pocket jam clearance guide, [REP 11.33-171](#).
2. [Figure 7](#). Cut away the guide.

Buffer pocket jam clearance guide



T-1-1020-A

**Figure 7 Buffer pocket jam clearance guide**

3. Replace the buffer pocket jam clearance guide, [REP 11.33-171](#).
4. Proceed to [Check for Wear on the Lower Paddles](#).

### Check for Wear on the Lower Paddles

Wear on the lower paddle on the ejector assembly will cause the top sheet of a stacked set to mis-stack, mis-staple or not staple.

1. [Figure 8](#). Check the lower paddle for wear.

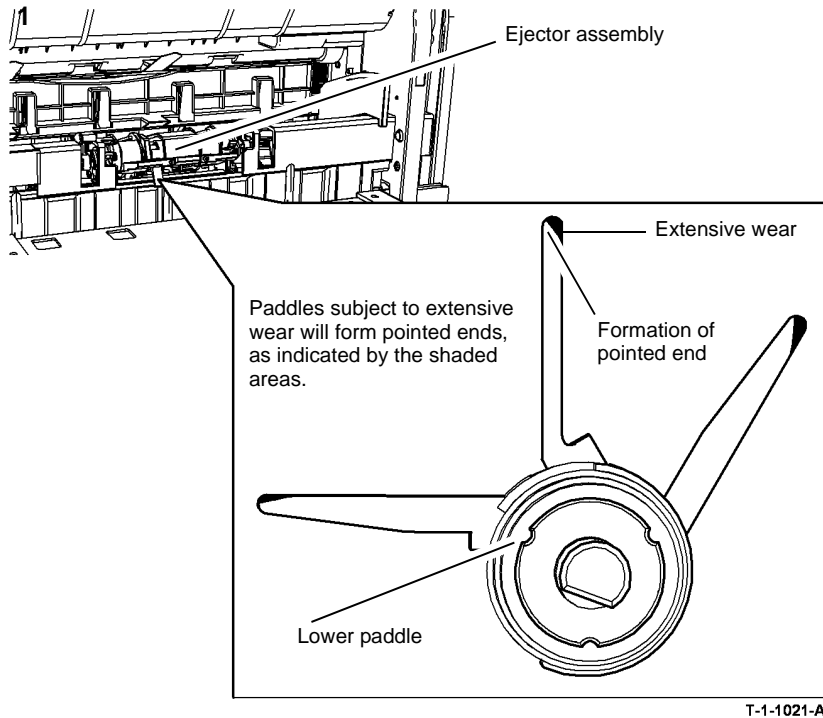


Figure 8 Lower paddle

T-1-1021-A

**NOTE:** On W/O Tag V-007 machines, the lower paddle is not a spared item.

2. Perform one of the following:
  - If wear on the lower paddle is evident on a W/O Tag V-007 machine, install a new W/Tag V-007 ejector assembly, [PL 11.14 Item 2](#).
  - If wear on the lower paddle is evident on a W/Tag V-007 machine, install a new ejector paddle assembly, [PL 11.140 Item 26](#).
3. Proceed to [Check the Position of the Ejector Assembly](#).

### Check the Position of the Ejector Assembly

If the ejector assembly has been removed after manufacturing it may have been replaced incorrectly. An incorrectly positioned ejector assembly will cause miss-compiling and premature wear of components.

1. [Figure 9](#). Check the ejector module is located correctly, refer to [REP 11.6-171](#).

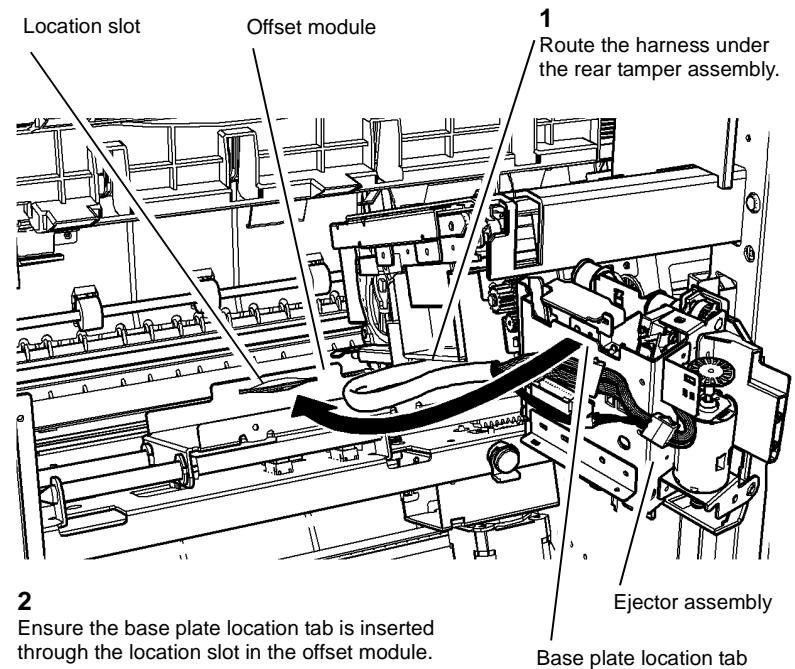


Figure 9 Ejector assembly

T-1-1022-A

2. Proceed to [Chamfered Staple Cartridge Installation](#).

### Chamfered Staple Cartridge Installation

The surface area of the 100 sheet staple cartridge can protrude slightly, where the corner of the output sets are positioned for stapling. This raised area can catch the first 5 sheets in a output set, then cause the set to mis-compile, mis-staple and/or create dog ears.

1. [Figure 10](#). Check the staple cartridge for a raised surface.

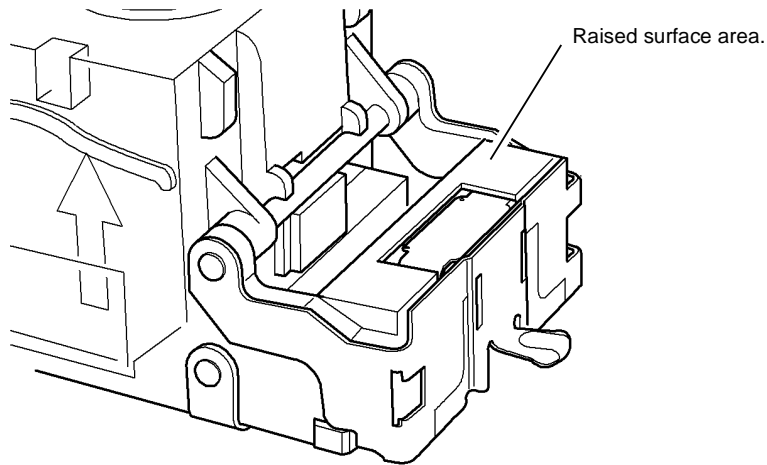
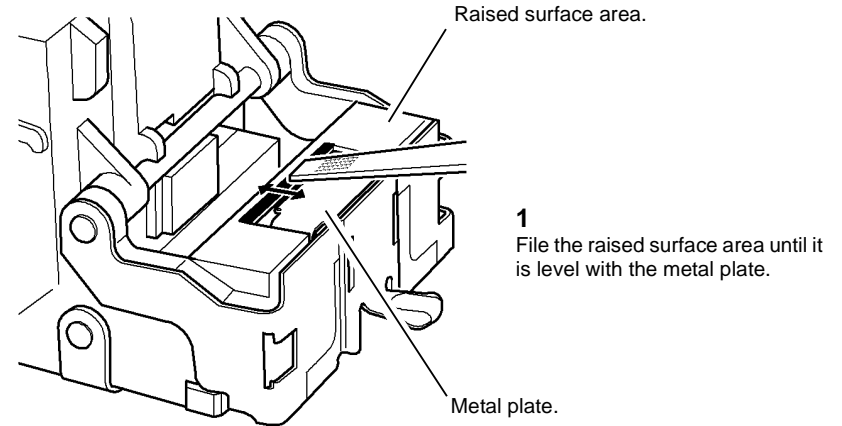


Figure 10 Staple cartridge

T-1-1023-A

2. Check if the customer ever runs more than 50 sheet staple sets.
3. In accordance with the customer requirements either;
  - Fit a 50 sheet capacity staple cartridge, which has a chamfered surface.
  - [Figure 11](#). Hand file a chamfer on a 100 sheet capacity staple cartridge.



1. File the raised surface area until it is level with the metal plate.

Figure 11 Staple cartridge

T-1-1024-A

4. Proceed to [Customer Awareness Instruction on Bin 1 Obstructions](#)

#### Customer Awareness Instruction on Bin 1 Obstructions

It is not always obvious to customers that bin 1 will lower almost to the base of the HVF finisher when the stacker tray is at full capacity. If bin 1 is obstructed as it descends the elevator motor will continue to try and drive bin 1 downwards. This type of incident can cause elevator motor (11-460-171) faults.

1. Advise the customer that items should never be placed in the area under bin 1, and that obstruction of bin 1 will cause premature elevator motor failure.
2. Mark off the HVF module modification tag number 006, refer to [Tags](#).

**NOTE:** Check the serial number of the machine, if the serial number is before either of the following, install a new stacker motor gearbox, [PL 11.135 Item 10](#) to maintain good reliability:

- HVF YFV005294 (manufacture date 17th March 2009)
- HVF/BM YFW02881 (manufacture date 19th November 2009)

#### BM Diverter Solenoid Position

The booklet maker diverter gate is susceptible to breakage if the diverter gate solenoid travel is not arrested by the stop washer pressing against the solenoid body, but by the diverter gate reaching the end of it's travel.

Perform [ADJ 11.14-171](#) BM Diverter Solenoid Position.

## ADJ 11.14-171 BM Diverter Solenoid Position

### Purpose

To correctly position the BM diverter solenoid. The booklet maker diverter gate is susceptible to breakage if the diverter gate solenoid travel is not arrested by the stop washer pressing against the solenoid body, but by the diverter gate reaching the end of its travel.

### Check

1. Remove the HVF rear cover, [REP 11.1-171](#).
2. Enter the **dC330** output code 11-074 to energize the BM diverter solenoid.
3. [Figure 1](#), check the position of the solenoid.

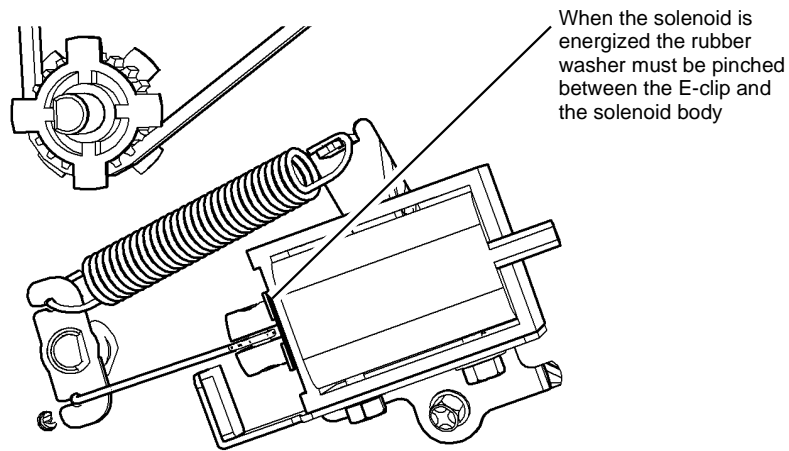


Figure 1 Solenoid position check

T-1-1140-A

4. If the condition stated in [Figure 1](#) is not met, perform the adjustment.

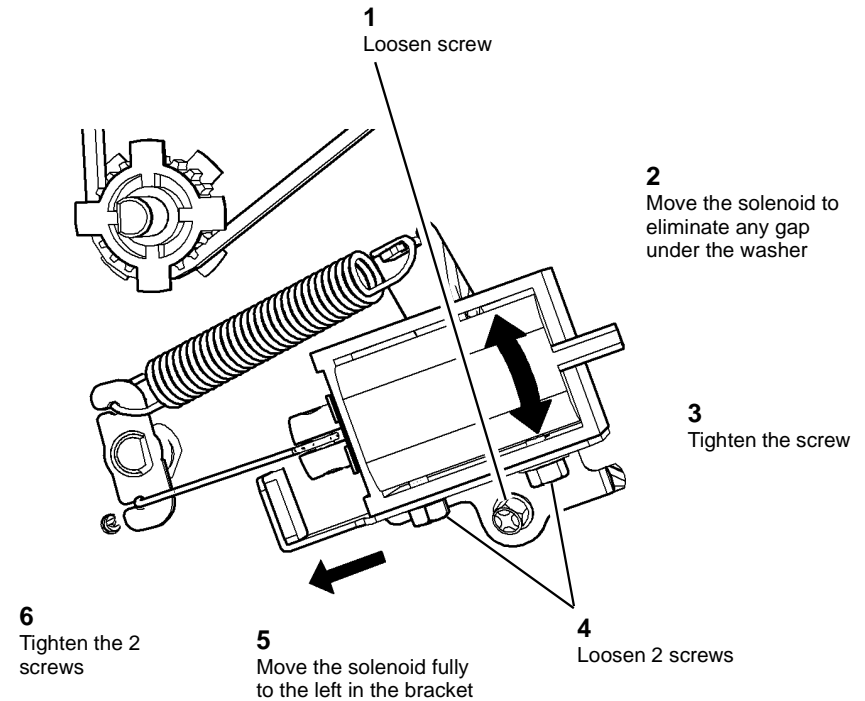
### Adjustment



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. [Figure 2](#), adjust the position of the solenoid.



T-1-1141-A

Figure 2 Solenoid position adjustment

2. If there is not enough movement in the solenoid mounting position to eliminate any gap under the washer, install a spacer washer/shim between the E-clip and rubber washer to eliminate the gap.
3. Enter the **dC330** output code 11-074 to energize the BM diverter solenoid to check that the rubber washer is now pinched between the E-clip and the solenoid body.
4. Make prints or copies to both the booklet maker and to bin 1 to ensure that the BM diverter is operating correctly.



## ADJ 14.1 Optics Cleaning Procedure (W/O TAG 150)

### Parts List on [PL 14.20](#)

#### Purpose

To clean the optics components of the scanner ensuring optimum image quality.

**NOTE:** This adjustment must only be performed if directed to from an Image Quality RAP, or if the optics cavity was opened to install a new component and contamination can be seen on the optics components.

#### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Observe ESD precautions during this procedure.

1. Remove the CVT glass and document glass, [REP 14.6](#).
2. Inspect the cleanliness of the optics mirrors, if necessary, clean them as follows:
  - a. Vacuum clean the area to remove all visible contamination, taking care not to touch the mirrors with the cleaning nozzle. It may be necessary to move the carriages to gain reasonable access, do this by hand rotation of the flywheel on the capstan shaft.
  - b. Wash your hands.
  - c. Carefully clean the mirrors using a dry micro fiber wiper, [PL 26.10 Item 13](#). It may be necessary to use a cleaning cloth dampened with film remover, [PL 26.10 Item 4](#) on stubborn contamination.
  - d. Polish the mirrors with a dry micro fiber wiper, [PL 26.10 Item 13](#).
  - e. Check that the mirror surfaces are now clean. Repeat the cleaning operation if necessary.
3. Inspect the cleanliness of the document glass and CVT glass, if necessary, clean them as follows:
  - a. Clean the under side of document glass and CVT glass using a micro fiber wiper, [PL 26.10 Item 13](#), dampened with film remover, [PL 26.10 Item 4](#).
  - b. Polish the under side of document glass and CVT glass with a dry micro fiber wiper.
  - c. Install the document glass and CVT glass, taking care not to smear the cleaned underside, [REP 14.6](#)

**NOTE:** . Ensure that the CVT glass is installed as far to the right as possible.

**NOTE:** . Ensure that the white stripes on both the CVT glass and the document glass, are at the front of the machine and on the underside of the glass.

  - d. Clean the upper side of document glass and CVT glass using a micro fiber wiper, [PL 26.10 Item 13](#), dampened with film remover, [PL 26.10 Item 4](#).
  - e. Polish the upper side of document glass and CVT glass using a dry micro fiber wiper, [PL 26.10 Item 13](#).
4. Re-install the remainder of the removed components.

## ADJ 14.2 Optics Cleaning Procedure (W/TAG 150)

### Parts List on [PL 14.10](#)

#### Purpose

To clean the optical components of the scanner ensuring optimum image quality.

**NOTE:** This adjustment must only be performed if directed to it from an Image Quality RAP, or if the optics cavity was opened to install a new component and contamination can be seen.

#### Procedure



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.



#### CAUTION

Observe ESD precautions during this procedure.

1. Remove the DADH, [REP 5.19](#).
2. Remove the CVT glass and document glass, [REP 14.6](#).
3. Inspect the cleanliness of the exposure lamp, lens and mirror and if necessary, clean them as follows:
  - a. Vacuum clean the area as necessary to remove all visible contamination, taking care not to touch the mirror, exposure lamp or lens with the cleaning nozzle. It may be necessary to move the carriage gently to the left. It is advisable to leave it in this position, but it can be returned to the home position by depressing slightly to allow the flag to enter the gap in the scan carriage home sensor.
  - b. Wash your hands.
  - c. Carefully clean the exposure lamp, the top of the full width array and the mirror with a micro fiber wiper, [PL 26.10 Item 13](#), dampened with antistatic fluid, [PL 26.10 Item 19](#).
  - d. Polish the lamp, array top and mirror with a dry micro fiber wiper, [PL 26.10 Item 13](#).
4. Examine the lenses of the document size sensors, [PL 14.15 Item 3](#), and clean if necessary with a micro fiber wiper, [PL 26.10 Item 13](#).
5. Inspect the document glass and CVT glass and if necessary, clean them as follows:
  - a. Clean the under side of document glass and CVT glass using a micro fiber wiper, [PL 26.10 Item 13](#), dampened with antistatic fluid, [PL 26.10 Item 19](#).
  - b. Polish the under side of document glass and CVT glass with a dry micro fiber wiper, [PL 26.10 Item 13](#).
  - c. Install the document glass and CVT glass, taking care not to smear the cleaned underside, [REP 14.6](#).

**NOTE:** . Ensure that the white AGC strip on both the CVT glass and the document glass, are at the front of the machine and on the underside of the glass.

  - d. Clean the upper side of document glass and CVT glass using a micro fiber wiper, dampened with film remover, [PL 26.10 Item 4](#).
  - e. Polish the upper side of document glass and CVT glass using a dry, micro fiber wiper.
6. Re-install the remainder of the removed components.



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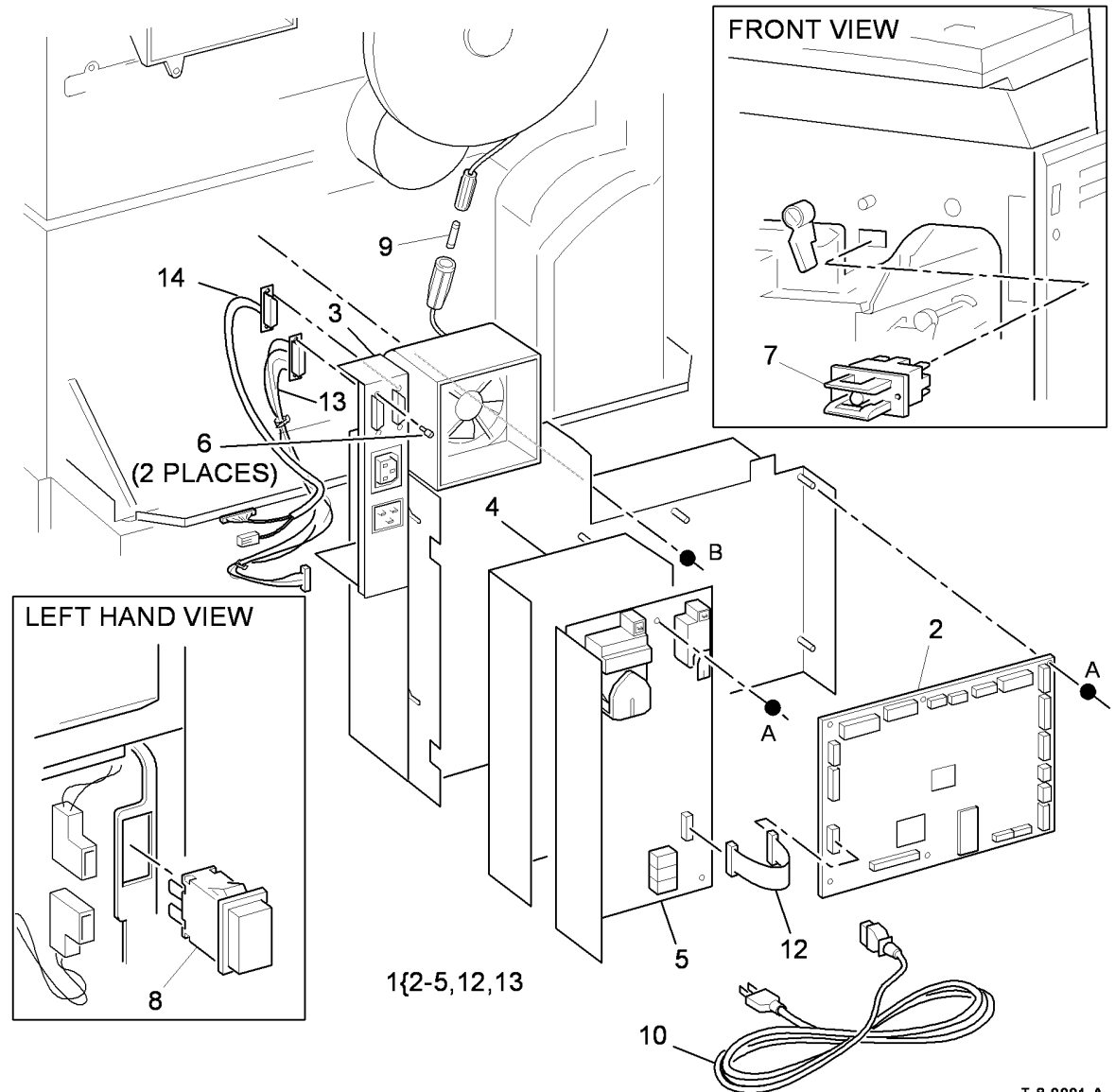
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## PL 1.10 Power and Control Assembly

Item	Part	Description
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-	-	Power and control assembly (XE) (Not Spared) (65-90ppm) (REP 1.1)
2	604K84470	IOT PWB (NOTE 2) (REP 3.1)
3	-	LVPS and base module (see below for variants) (REP 1.9)
-	105K35817	35-55 ppm
-	105K36412	65-90 ppm (XE)
-	105K36402	65-90 ppm (USSG/XCL)
4	-	Shield (Not Spared)
5	105K29563	HVPS (35 ppm) (REP 1.10)
-	105K29553	HVPS (40-90 ppm)
6	-	Locking screw (Not Spared)
7	110K14020	Door interlock switch (S01-300) (NOTE) (REP 1.8)
8	110K14030	On/Off switch
9	108E06730	In-line fuse (2.5A slow blow)
10	-	Main power cord (REF: PL 1.15 Item 1)
11	-	Not used
12	962K34760	IOT-HVPS harness (35 ppm)
-	962K27020	IOT - HVPS harness (40-90 ppm)
13	962K49460	IOT - Finisher Harness
14	962K63630	IOT internal tray 5 harness

**NOTE: 1.** For the left door interlock (S01-305), refer to PL 7.30 Item 3.

**NOTE: 2.** For additional information about the IOT PWB, refer to TAG 155 and TAG 156.



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## PL 1.15 Main Power Cables

Item	Part	Description
1	–	Main power cord (see below for variants)
–	152S06414	United Kingdom (35-55ppm)
–	152S06407	United Kingdom (65-90 ppm)
–	152S06410	Europe (35-55 ppm)
–	152S06413	Europe (Alternate) (35-55 ppm)
–	152S06406	Europe (65-90 ppm)
–	152S06400	USSG/XCL (35-55 ppm)
–	152S06401	USSG/XCL (65-90 ppm)
–	152S06415	Denmark (35-55 ppm)
–	152S06404	Denmark (65-90 ppm)
–	152S06416	Switzerland (35-55 ppm)
–	152S06420	Switzerland (65-90 ppm)
–	152S06402	Argentina (35-55 ppm)
–	152S06403	Argentina (65-90 ppm)
–	152S06405	South Africa (65-90 ppm)
2	117E36280	20A power cord

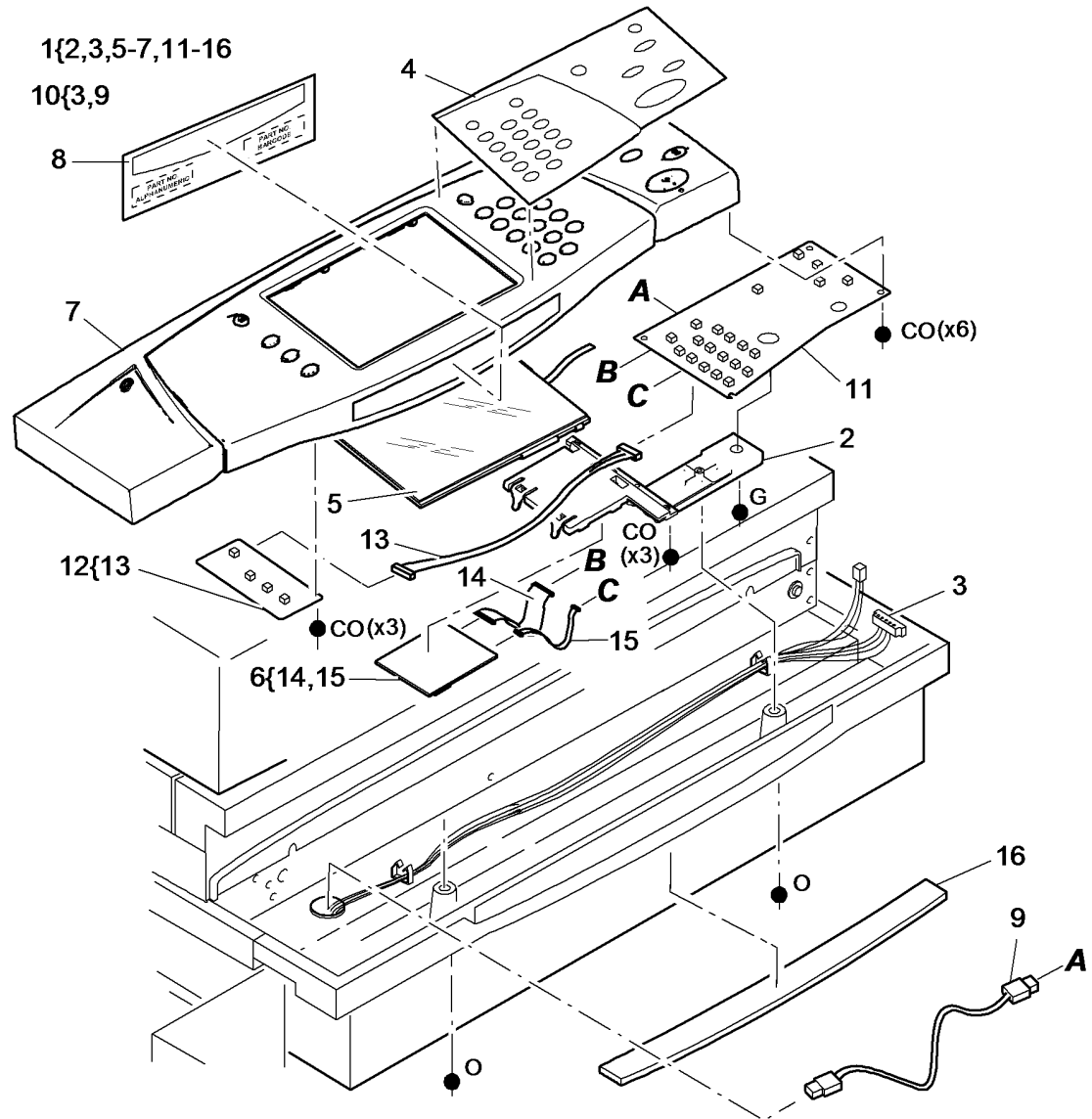
**NOTE:** This power cord can also be ordered as part of PL 31.14 Item 13.

**NO EXPLODED  
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## PL 2.10 User Interface

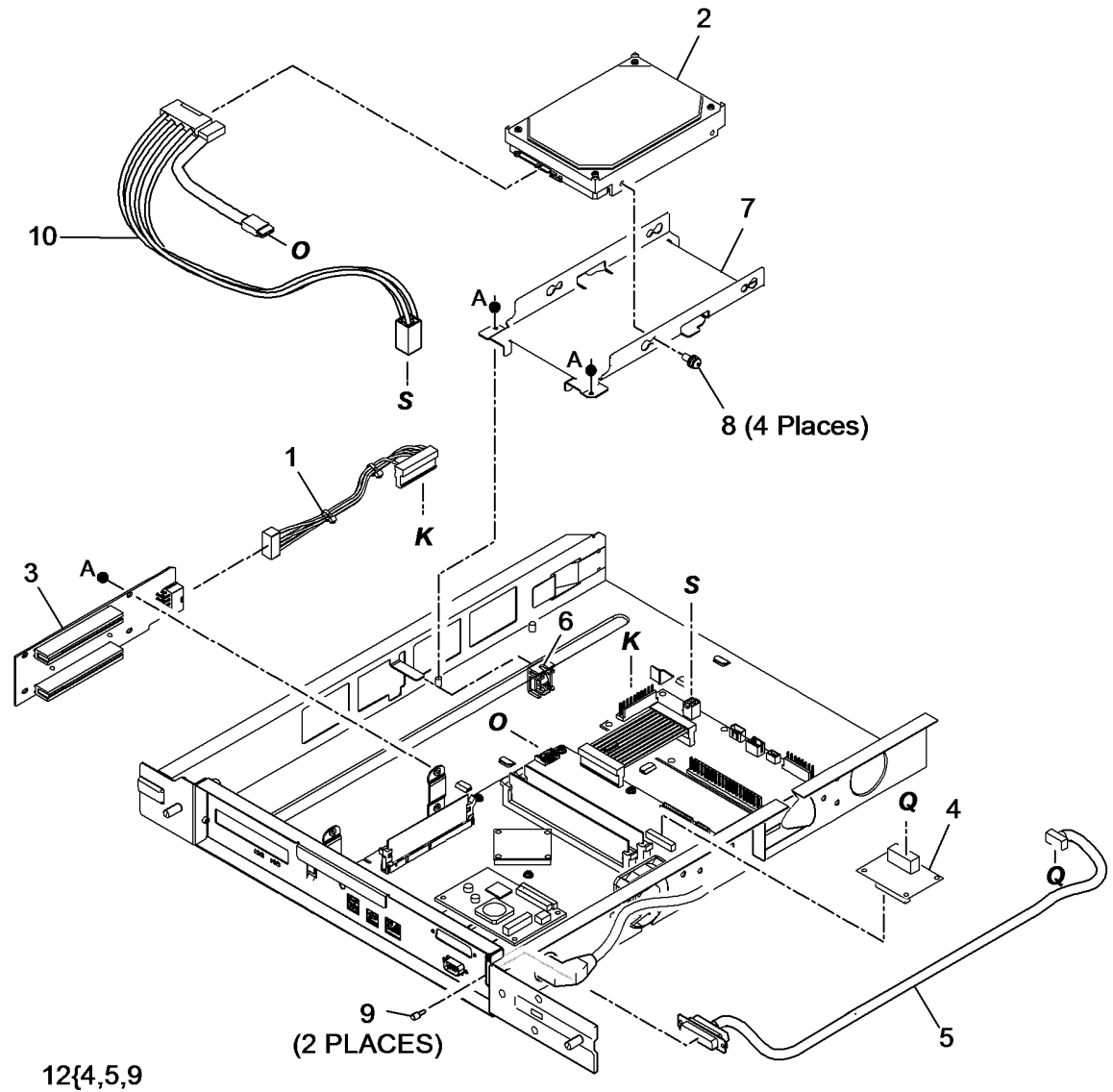
Item	Part	Description
1.	-	User interface assembly (USSG/XCL) (Not Spared) (USSG/XCL) (35-55 ppm) (REP 2.1)
-	-	User interface assembly (XE) (Not Spared) (35-55 ppm) (REP 2.1)
-	-	User interface assembly (USSG/XCL) (Not Spared) (65-90 ppm) (REP 2.1)
-	-	User interface assembly (XE) (Not Spared) (65-90 ppm) (REP 2.1)
2.	868E60561	UI screen clamp
3.	-	UI Harness (P/O PL 2.10 Item 10) (PJ81, PJ130) (W/TAG 150)
-	-	UI Harness (W/O TAG 150)
4.	604K67750	Overlay label kit (French/Canadian) (35-55ppm)
-	604K67760	Overlay label kit (French/Canadian) (65-90ppm)
5.	123K08651	UI touch screen (REP 2.4)
6.	960K59860	UI touch screen PWB (REP 2.2)
7.	848K48822	User interface housing (USSG/XCL) (35-55 ppm)
-	848K48812	User interface housing (XE) (35-55 ppm)
-	848K48842	User interface housing (USSG/XCL) (65-90 ppm)
-	848K48832	User interface housing (XE) (65-90 ppm)
8.	-	Name plate label (see below for variants)
-	897E70180	35 ppm
-	897E70170	40 ppm
-	897E70160	45 ppm
-	897E70150	55 ppm
-	897E70140	65 ppm
-	897E70130	75 ppm
-	897E70120	90 ppm
9.	-	UI Internal USB cable (P/O PL 2.10 Item 10)
10.	962K82370	UI/USB harness pack
11.	960K59842	UI Control PWB (REP 2.3)
12.	960K59850	UI Status PWB
13.	-	Control to status PWB harness (P/O PL 2.10 Item 12) (PJ909)
14.	-	UI touch screen ribbon cable (40 way) (P/O PL 2.10 Item 6) (PJ944, PJ907)
15.	-	UI touch screen ribbon cable (12 way) (P/O PL 2.10 Item 6) (PJ942, PJ906)
16.	-	Safety cover (Not Spared) (MEXICO)



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## PL 3.22 Single Board Controller PWB Module (1 of 2)

Item	Part	Description
1	952K00790	Riser PWB/Power distribution harness
2	-	Hard disk drive (SATA) (P/O PL 31.13 Item 23) (REP 3.2)
3	960K72210	Riser PWB (REP 3.4)
4	960K27451	Foreign device interface PWB
5	962K82620	Foreign device interface harness
6	019E67610	Fax mounting bracket
7	-	HDD mounting bracket (P/O PL 31.13 Item 23)
8	-	HDD thumb screw (Not Spared)
9	813W25205	Locking screw
10	952K39410	HDD power/data harness
11	-	Not used
12	-	Foreign device interface kit (REF: PL 31.14 Item 2)

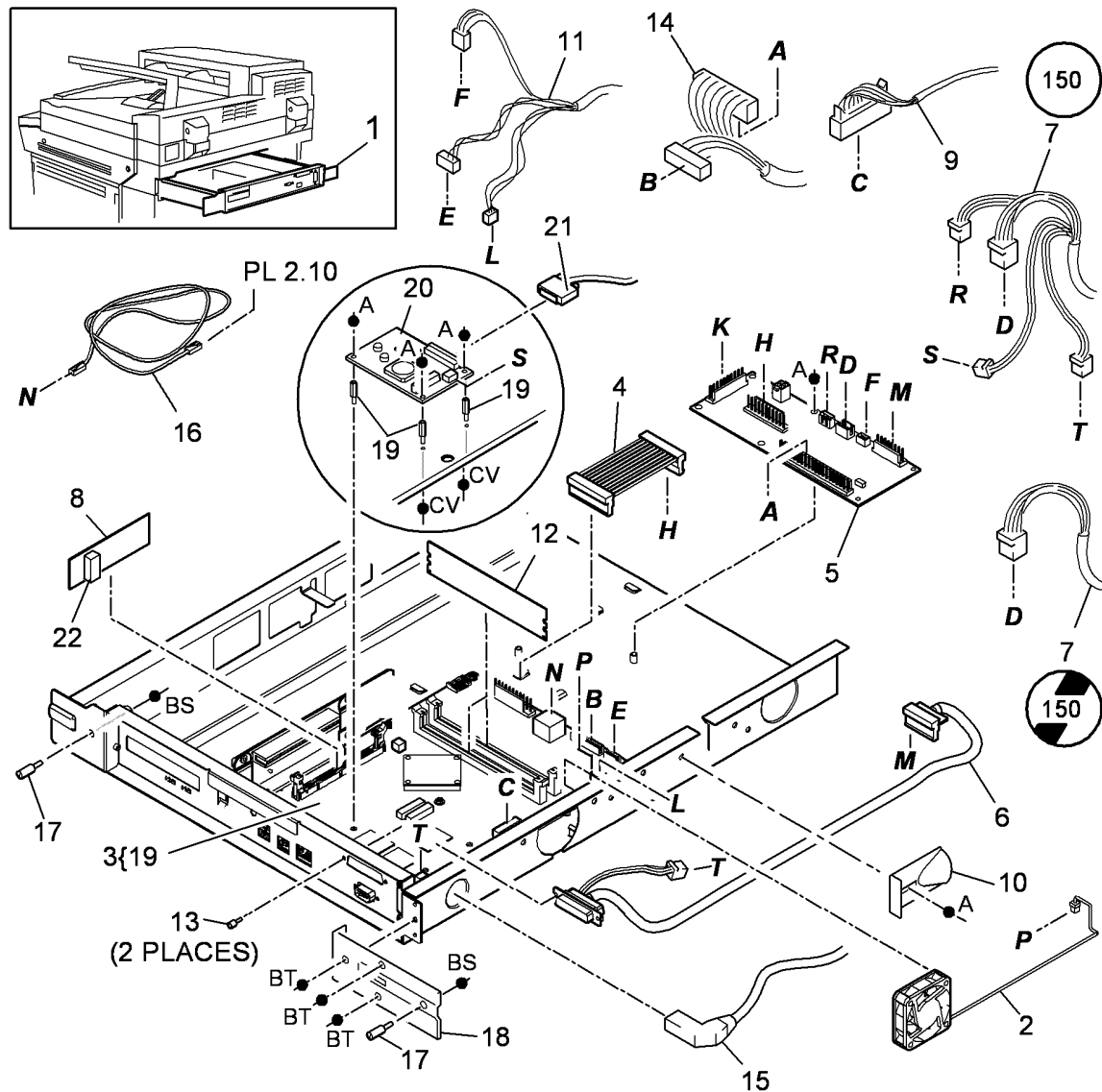


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# PL 3.24 Single Board Controller PWB Module (2 of 2)

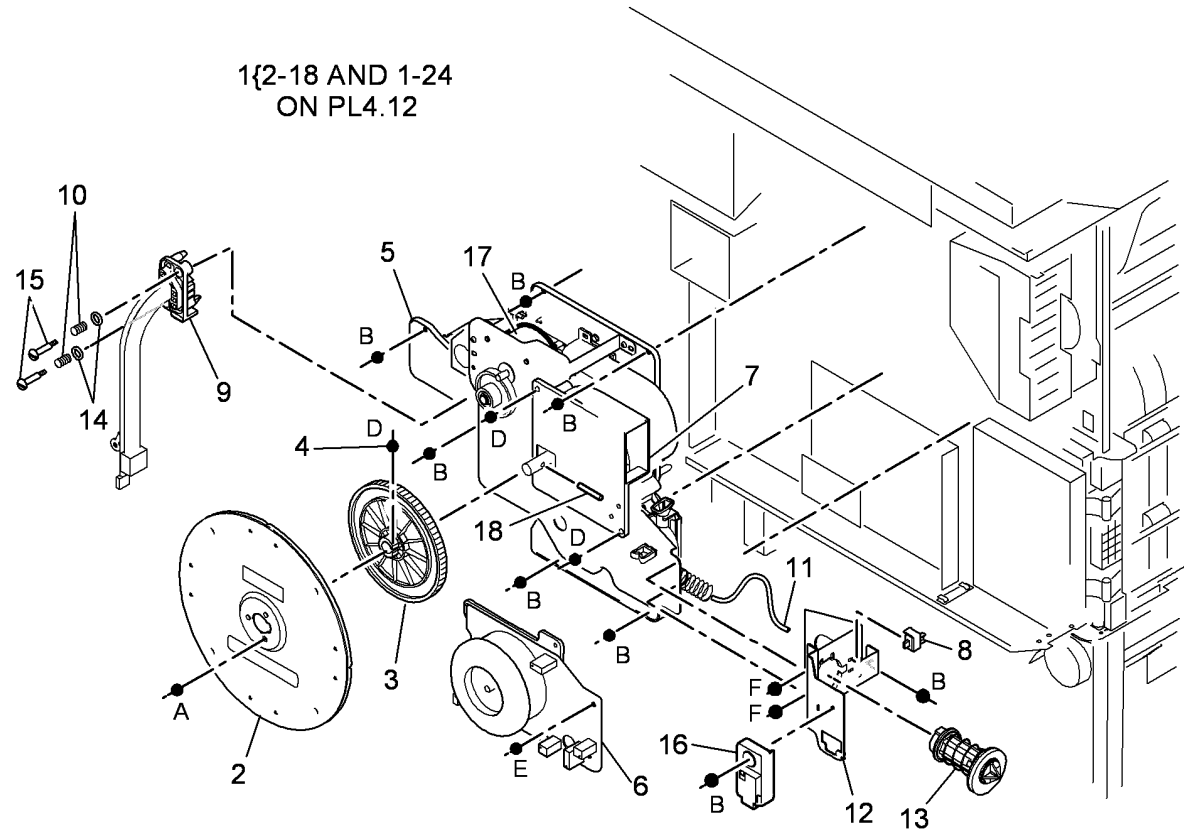
Item	Part	Description
1	-	Single board controller PWB module (Not Spared)
2	127K56210	Cooling fan
3	960K59806	Single board controller PWB (35-55 ppm) (W/TAG 150) (REP 3.4)
-	960K71893	Single board controller PWB (Mono) (35-55 ppm) (W/O TAG 150)
-	960K59816	Single board controller PWB (65-90 ppm) (W/TAG 150) (REP 3.4)
4	952K26710	Single board controller PWB / Power distribution harness
5	960K59830	Power distribution PWB
6	962K33461	DADH/power distribution PWB harness
7	-	Single board controller module/ scanner driver PWB/CCD PWB harness (REF: PL 14.25 Item 13) (W/O TAG 150)
-	-	Single board controller PWB/DADH comms/scanner power harness (REF: PL 14.15 Item 5) (W/TAG 150)
8	960K65035	Software module (REP 3.3)
9	-	Single board controller/CCD PWB harness (REF: PL 14.25 Item 5)
10	-	Cable clamp (Not Spared)
11	-	Single board controller module/user interface harness (Not Spared)
12	960K52410	Memory module (1Gb)
13	813W25205	Locking screw
14	962K49410	Single board controller module/ LVPS/IOT PWB harness (PJ131-PJ25 & PJ105-PJ1)
15	962K76580	ROS data cable (PJ113-PJ122)
16	-	UI video cable (Not Spared)
17	-	Thumbscrew (Not Spared)
18	-	Extension bracket (Not Spared)
19	014E68681	Spacer
20	960K59821	Scanner daughter PWB (W/TAG 150)
21	-	Scanner daughter PWB/scanner PWB video PWB harness (REF: PL 14.15 Item 13) (PJ6)
22	105K36240	Battery



## PL 4.10 Main Drive Module (65-90 ppm) (1 of 2)

Item	Part	Description
1	007K14324	Main drive module (REP 4.5)
2	-	Flywheel (P/O PL 4.10 Item 1)
3	807E09920	Photoreceptor drive gear (REP 4.4)
4	-	Dowel pin (P/O PL 4.10 Item 1)
5	-	Main drive (P/O PL 4.10 Item 1)
6	-	Main drive motor and PWB assembly (P/O PL 4.10 Item 1) (NOTE) (REP 4.6)
7	-	Ozone fan (REF: PL 9.25 Item 1)
8	130E10530	Waste toner door switch (S09-380)
9	114E18630	Fuser connector assembly
10	-	Spring (P/O PL 4.10 Item 1)
11	604K24650	Auger damper kit (REP 9.10)
12	-	Mounting bracket (P/O PL 4.10 Item 1)
13	055K36090	Shutter assembly (REP 9.10)
14	-	Washer (P/O PL 4.10 Item 1)
15	-	Screw (P/O PL 4.10 Item 1)
16	-	Waste toner full sensor (REF: PL 9.10 Item 2)
17	-	Photoreceptor drive motor (09-010) (P/O PL 4.10 Item 1)
18	-	Dowel pin (P/O PL 4.10 Item 1)

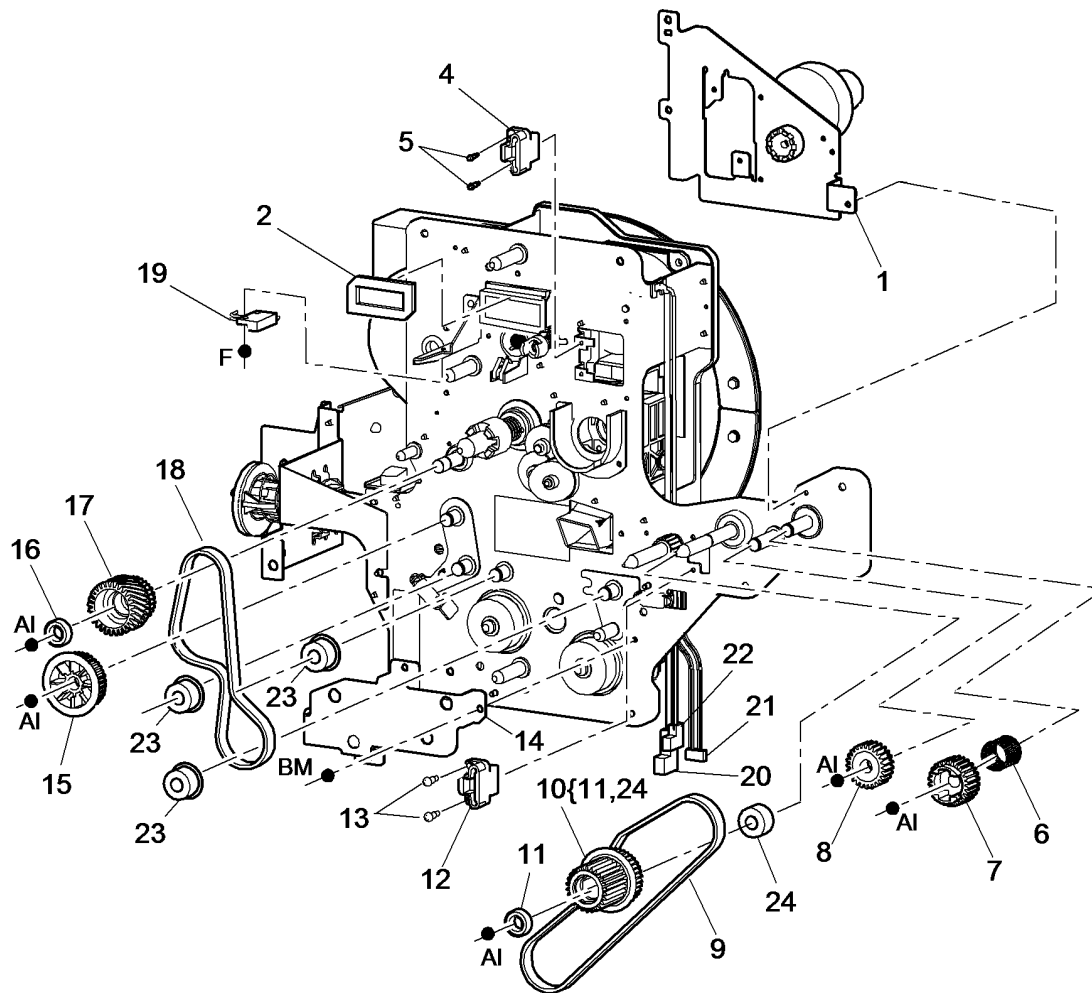
**NOTE:** The main drive motor is an integral part of the main drive PWB.



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## PL 4.12 Main Drive Module (65-90 ppm) (2 of 2)

Item	Part	Description
1	127K55430	Fuser web motor assembly (MOT10-010)
2	-	Ozone seal (P/O PL 31.10 Item 6)
3	-	Not used
4	-	Xerographic CRUM connector (P/O PL 4.10 Item 1)
5	-	Xerographic CRUM connector screw (P/O PL 4.10 Item 1)
6	-	Spring (P/O PL 4.10 Item 1)
7	807E09930	Output paper path drive gear (REP 4.7)
8	807E09940	Intermediate drive gear (REP 4.7)
9	023E25040	Main drive belt 2 (REP 4.7)
10	807E06462	Fuser drive gear/pulley assembly (REP 4.7)
11	-	Bearing (P/O PL 4.12 Item 10)
12	114E18810	Fuser CRUM connector
13	-	Screw (P/O PL 4.10 Item 1)
14	-	Support plate (P/O PL 4.10 Item 1)
15	807E05670	Registration transport drive pulley (REP 4.7)
16	-	Bearing (P/O PL 4.12 Item 17)
17	-	Developer drive gear/pulley assembly (P/O PL 9.15 Item 23) (REP 4.7)
18	023E25050	Main drive belt 1 (REP 4.7)
19	-	Scorotron cleaner home sensor (Q09-070) (P/O PL 4.10 Item 1)
20	-	Charge scorotron harness (P/O PL 4.10 Item 1)
21	-	Charge scorotron grid harness (P/O PL 4.10 Item 1)
22	-	Auto cleaner harness (P/O PL 4.10 Item 1)
23	-	Idler (P/O PL 4.10 Item 1)
24	-	Bearing (P/O PL 4.12 Item 10)

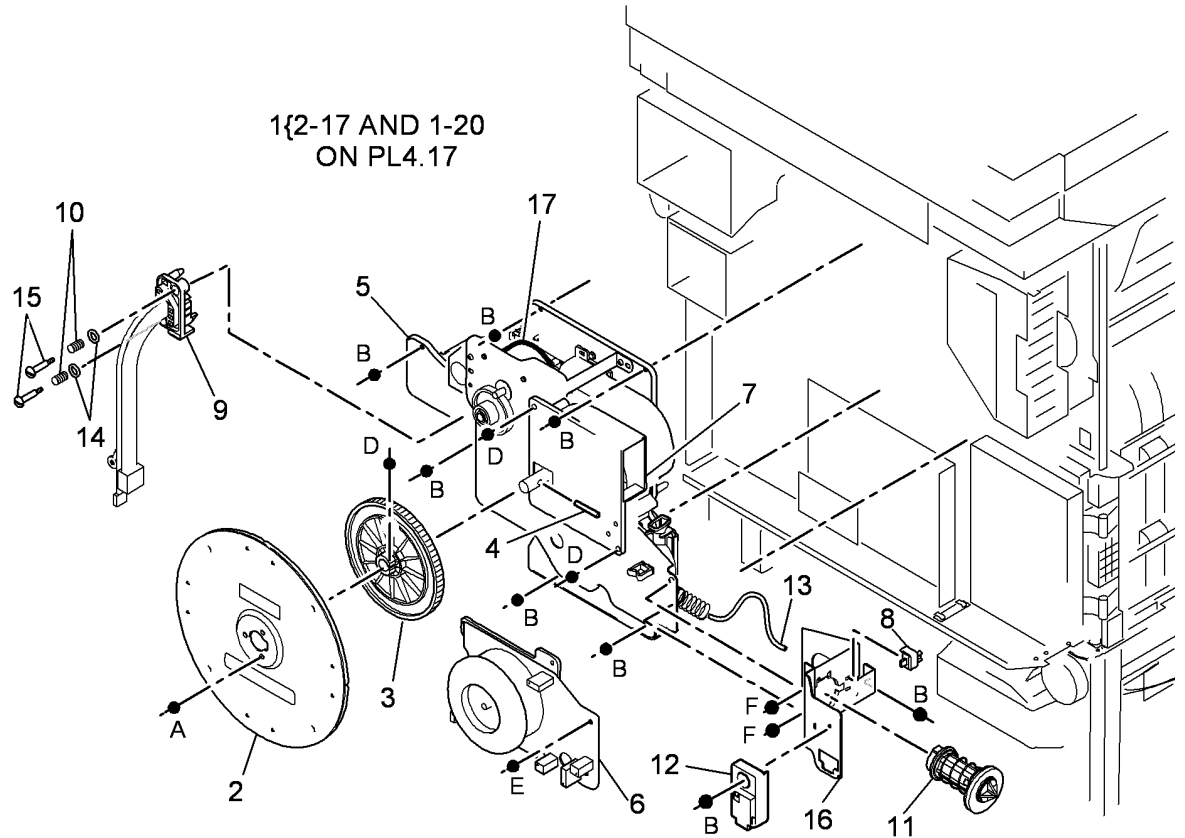


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## PL 4.15 Main Drive Module (35-55 ppm) (1 of 2)

Item	Part	Description
1	007K14316	Main drive module (35 ppm) (REP 4.1)
-	007K14337	Main drive module (40-55 ppm) (REP 4.1)
2	-	Flywheel (P/O PL 4.15 Item 1)
3	807E06600	Photoreceptor drive gear (REP 4.4)
4	-	Dowel pin (P/O PL 4.15 Item 1)
5	-	Main drive (P/O PL 4.15 Item 1)
6	127K55411	Main drive motor and PWB assembly (35 ppm) (NOTE) (REP 4.2)
-	127K55421	Main drive motor and PWB assembly (40-55 ppm) (NOTE) (REP 4.2)
7	-	Ozone fan (REF: PL 9.25 Item 1)
8	130E10530	Waste toner door switch (S09-380)
9	114E18630	Fuser connector assembly
10	-	Spring (P/O PL 4.15 Item 1)
11	055K36090	Shutter assembly (REP 9.10)
12	-	Waste toner full sensor (P/O PL 9.10 Item 2)
13	604K24650	Auger damper kit (REP 9.10)
14	-	Washer (P/O PL 4.15 Item 1)
15	-	Screw (P/O PL 4.15 Item 1)
16	-	Mounting bracket (P/O PL 4.15 Item 1)
17	-	Photoreceptor drive motor (MOT09-010) (P/O PL 4.15 Item 1)

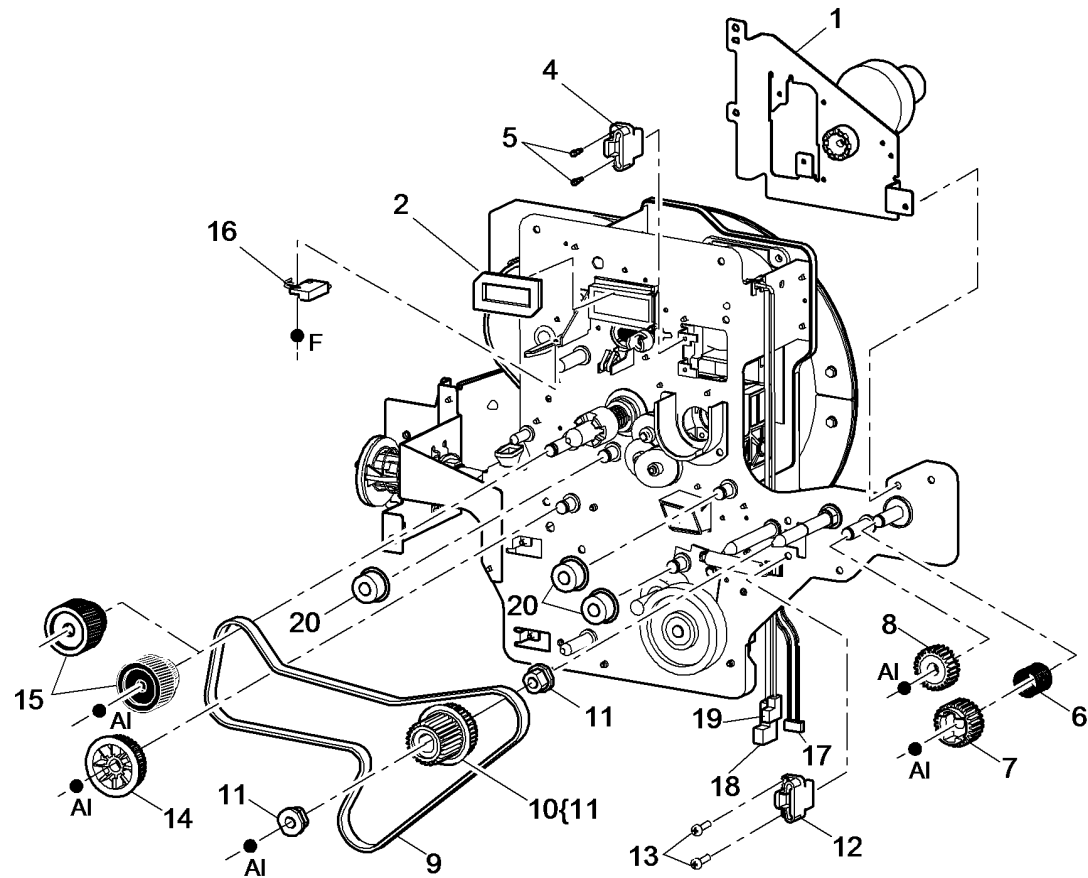
**NOTE:** The main drive motor is an integral part of the main drive PWB.



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## PL 4.17 Main Drive Module (35-55 ppm) (2 of 2)

Item	Part	Description
1	127K55430	Fuser web motor assembly (MOT10-010)
2	-	Ozone seal (P/O PL 31.10 Item 6)
3	-	Not used
4	-	Xerographic CRUM connector (P/O PL 4.15 Item 1)
5	-	Xerographic CRUM connector screw (P/O PL 4.15 Item 1)
6	-	Spring (P/O PL 4.15 Item 1)
7	807E09930	Output paper path drive gear (REP 4.3)
8	807E09940	Intermediate drive gear (REP 4.3)
9	023E30740	Main drive belt (REP 4.3)
10	007K13202	Fuser drive gear (REP 4.3)
11	-	Bearing (P/O PL 4.17 Item 10)
12	114E18810	Fuser CRUM connector
13	-	Screw (P/O PL 4.15 Item 1)
14	807E05670	Registration transport drive pulley (REP 4.3)
15	007K21830	Developer drive gear (White) (55 ppm) (REP 4.3)
-	807E05680	Developer drive gear (Black) (35 ppm)
16	-	Scorotron cleaner home sensor (Q09-070) (P/O PL 4.15 Item 1)
17	-	Auto cleaner harness (P/O PL 4.15 Item 1)
18	-	Charge scorotron harness (P/O PL 4.15 Item 1)
19	-	Charge scorotron grid harness (P/O PL 4.15 Item 1)
20	-	Idler (P/O PL 4.15 Item 1)



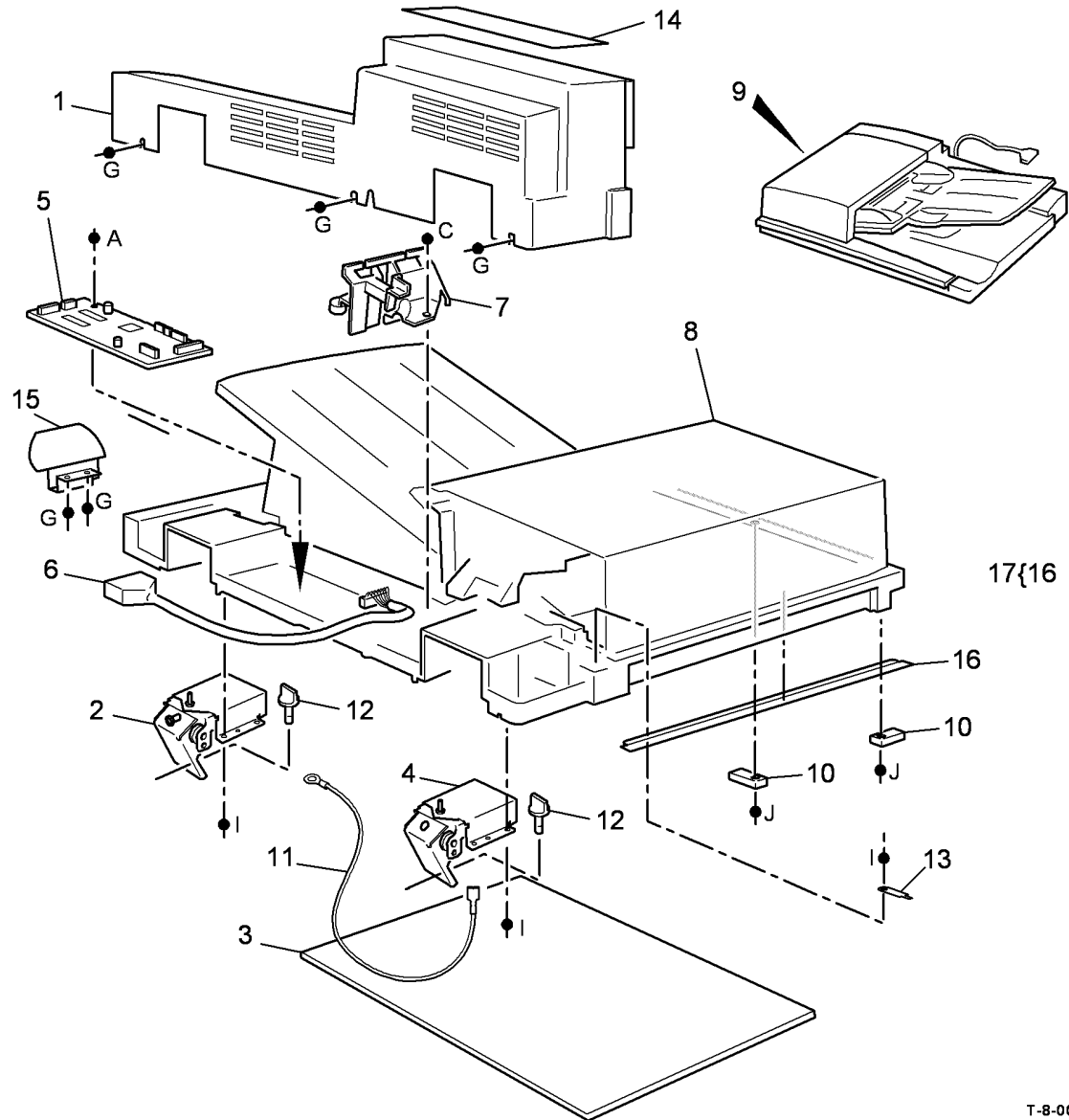
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# PL 5.10 DADH (Complete), Covers, DADH PWB

Item	Part	Description
1	-	Rear cover (P/O PL 5.10 Item 9)
2	036K01701	Right counterbalance (REP 5.12, ADJ 5.2, ADJ 5.5)
3	-	Document pad (Not Spared) (ADJ 5.6)
4	036K01630	Left counterbalance (REP 5.12, ADJ 5.2, ADJ 5.5)
5	960K34852	DADH PWB (35 ppm)
-	960K51763	DADH PWB (40-90 ppm) (W/TAG D-002)
6	962K62932	Communication/power cable
7	-	Harness support (P/O PL 5.10 Item 9)
8	-	Top cover (REF: PL 5.20 Item 15)
9	084K42640	DADH (35 ppm) (REP 5.19, ADJ 5.2, ADJ 5.5)
-	084K36766	DADH (40-90 ppm) (REP 5.19, ADJ 5.2, ADJ 5.5)
10	-	DADH Closed switch magnet (Not Spared) (NOTE 1)
11	-	DADH ground harness (P/O PL 5.10 Item 9)
12	803E13680	Thumbscrew (40-90 ppm)
-	003K20000	Thumbscrew (35 ppm)
13	-	Bracket (P/O PL 5.10 Item 9)
14	-	CVT Cleaning label (Not Spared)
15	-	End stop (Not Spared)
16	-	Mylar guide (P/O PL 5.10 Item 17)
17	-	Mylar guide kit (REF: PL 31.14 Item 9)

**NOTE:** 1. For the DADH closed switch (Q05-300), refer to PL 14.15 - W/TAG 150 or PL 14.25 - W/O TAG 150.

**NOTE:** 2. To clean the DADH, refer to ADJ 5.4.



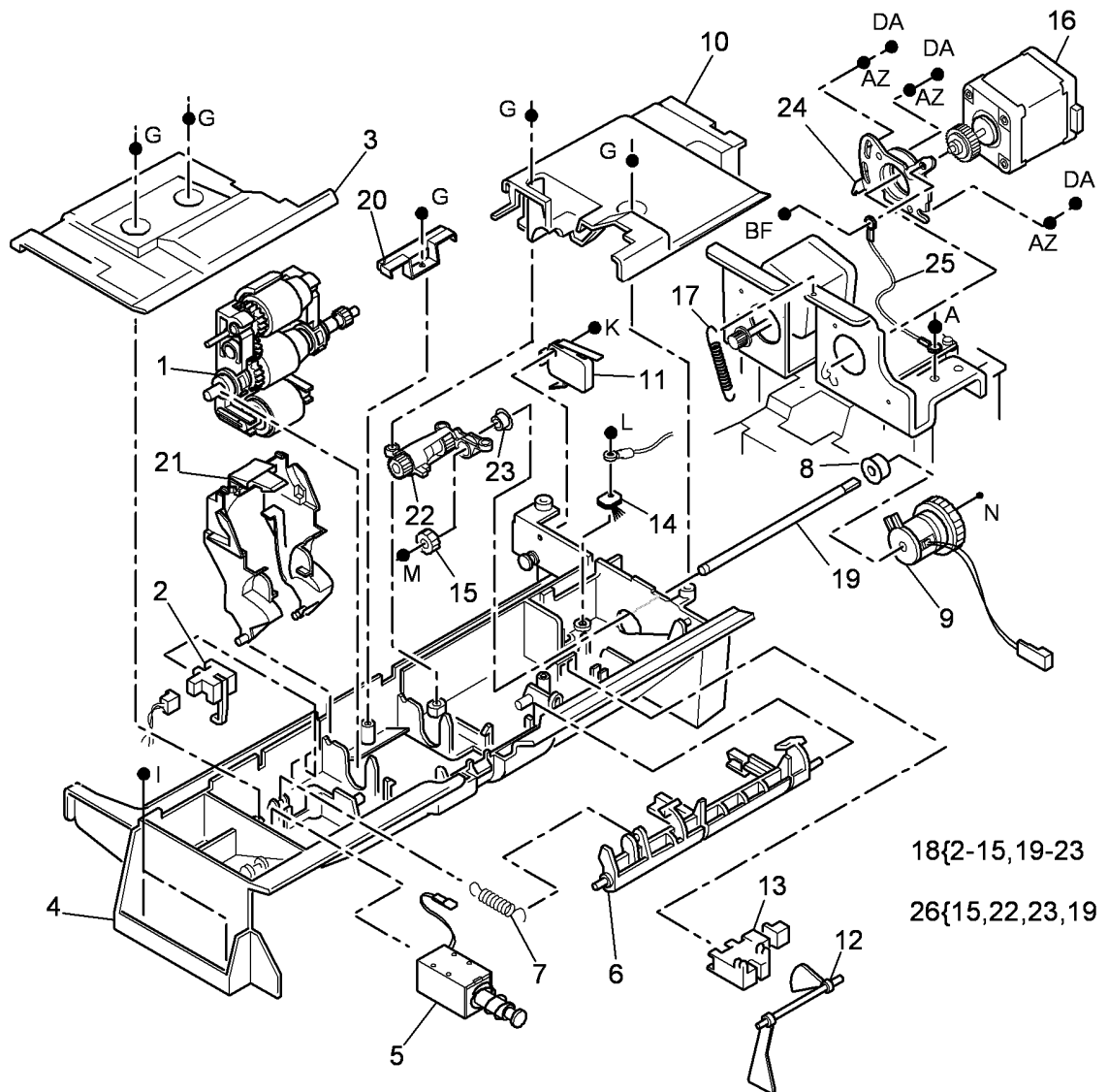
T-8-0011-A

## PL 5.15 Feed Assembly (35 ppm)

Item	Part	Description
1	113R00717	Feed roll assembly (See NOTE 1) (REP 5.14)
2	130K73950	Feed sensor (Q05-330)
3	-	Front cover (P/O PL 5.15 Item 18)
4	-	Feed housing (P/O PL 5.15 Item 18)
5	121K44530	Feed solenoid (SOL05-010)
6	-	Feed yoke (P/O PL 5.15 Item 18)
7	-	Spring (P/O PL 5.15 Item 18)
8	-	Bearing (P/O PL 5.15 Item 18)
9	005K12600	Feed clutch (CL05-025)
10	-	Rear cover (P/O PL 5.15 Item 18)
11	110E13480	Top cover interlock switch (S05-305)
12	-	Document present sensor actuator (Not Spared)
13	130K73890	Document present sensor (Q05-310)
14	125E00430	Static eliminator
15	-	Gear (P/O PL 5.15 Item 26)
16	127K53770	Feed motor (MOT05-020) (See NOTE 2) (ADJ 5.1)
17	-	Feed motor tension spring (red) (P/O PL 5.10 Item 9)
18	059K58961	Feed assembly (complete) (REP 5.3)
19	-	Shaft (P/O PL 5.15 Item 26)
20	-	Bracket (P/O PL 5.15 Item 18)
21	-	Feed roll assembly cover (Not Spared)
22	-	Intermediate feed bearing (P/O PL 5.15 Item 26)
23	-	Bearing (P/O PL 5.15 Item 26)
24	004E22560	Feed motor bracket
25	-	Ground harness (P/O PL 5.15 Item 18)
26	604K42680	DADH feed bearing kit (Complete)

**NOTE: 1.** HFSI. To reset the HFSI count, refer to GP 17.

**NOTE: 2.** For the feed motor drive belt, refer to PL 5.35 Item 5.



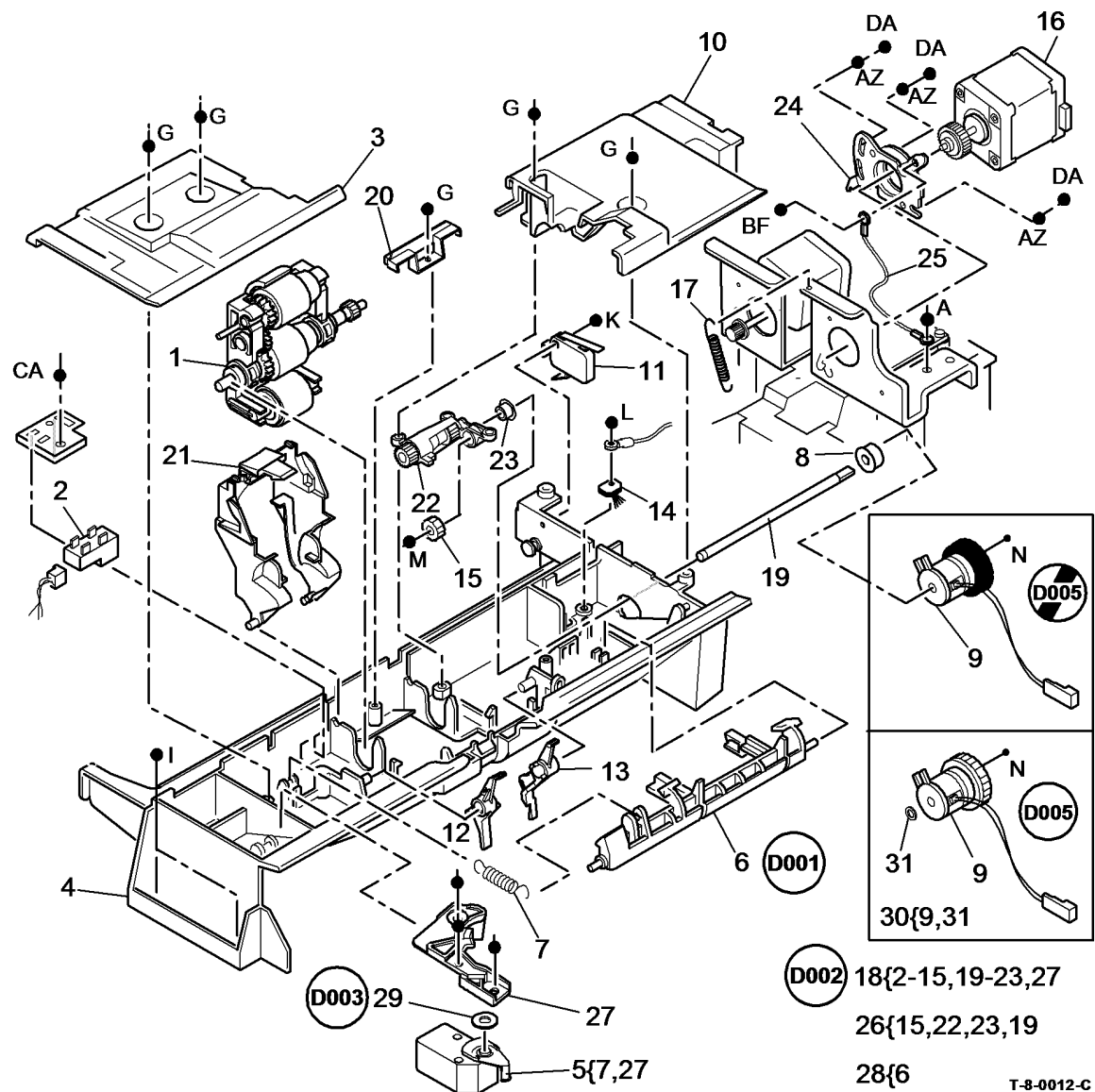
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T-8-0137-A

# PL 5.17 Feed Assembly (40-90 ppm)

Item	Part	Description
1	113R00718	Feed roll assembly (See NOTE 1) (REP 5.14)
2	130E11200	Feed sensor (Q05-330)
3	-	Front cover (P/O PL 5.17 Item 18)
4	-	Feed housing (P/O PL 5.17 Item 18)
5	127K75140	Nudger motor (MOT05-010)
6	-	Feed yoke (P/O PL 5.17 Item 28)
7	-	Spring (P/O PL 5.17 Item 5)
8	-	Bearing (P/O PL 5.17 Item 18)
9	005K12600	Feed clutch (CL05-025) (W/O TAG D-005)
-	-	Feed clutch (P/O PL 5.17 Item 30) (W/TAG D-005)
10	-	Rear cover (P/O PL 5.17 Item 18)
11	110E13480	Top cover interlock switch (S05-305)
12	-	Front feed gate (P/O PL 5.17 Item 18)
13	-	Rear feed gate (P/O PL 5.17 Item 18)
14	125E00430	Static eliminator
15	-	Gear (P/O PL 5.17 Item 26)
16	127K53770	Feed motor (MOT05-020) (See NOTE 2) (ADJ 5.1)
17	-	Feed motor tension spring (red) (P/O PL 5.10 Item 9)
18	059K58412	Feed assembly (complete) (W/O TAG D-002) (REP 5.3)
-	-	Feed assembly (complete) (REF: PL 31.11 Item 8) (W/TAG D-002, TAG D-006) (REP 5.3)
19	-	Shaft (P/O PL 5.17 Item 26)
20	-	Bracket (P/O PL 5.17 Item 18)
21	802E87730	Feed roll assembly cover
22	-	Intermediate feed bearing (P/O PL 5.17 Item 26)
23	-	Bearing (P/O PL 5.17 Item 26)
24	004E22560	Feed motor bracket
25	-	Ground harness (P/O PL 5.17 Item 18)
26	604K42680	DADH feed bearing kit (Complete)
27	-	Nudger motor bracket (P/O PL 5.17 Item 5)
28	604K54340	Lever arm CRU spares kit
29	-	Shim kit (Not Spared) (W/TAG D-003)
30	604K61440	Feed clutch and spacer kit (W/TAG D-005)
31	-	Spacer (P/O PL 5.17 Item 30)



**NOTE: 1.** HFSI. To reset the HFSI count, refer to GP 17.

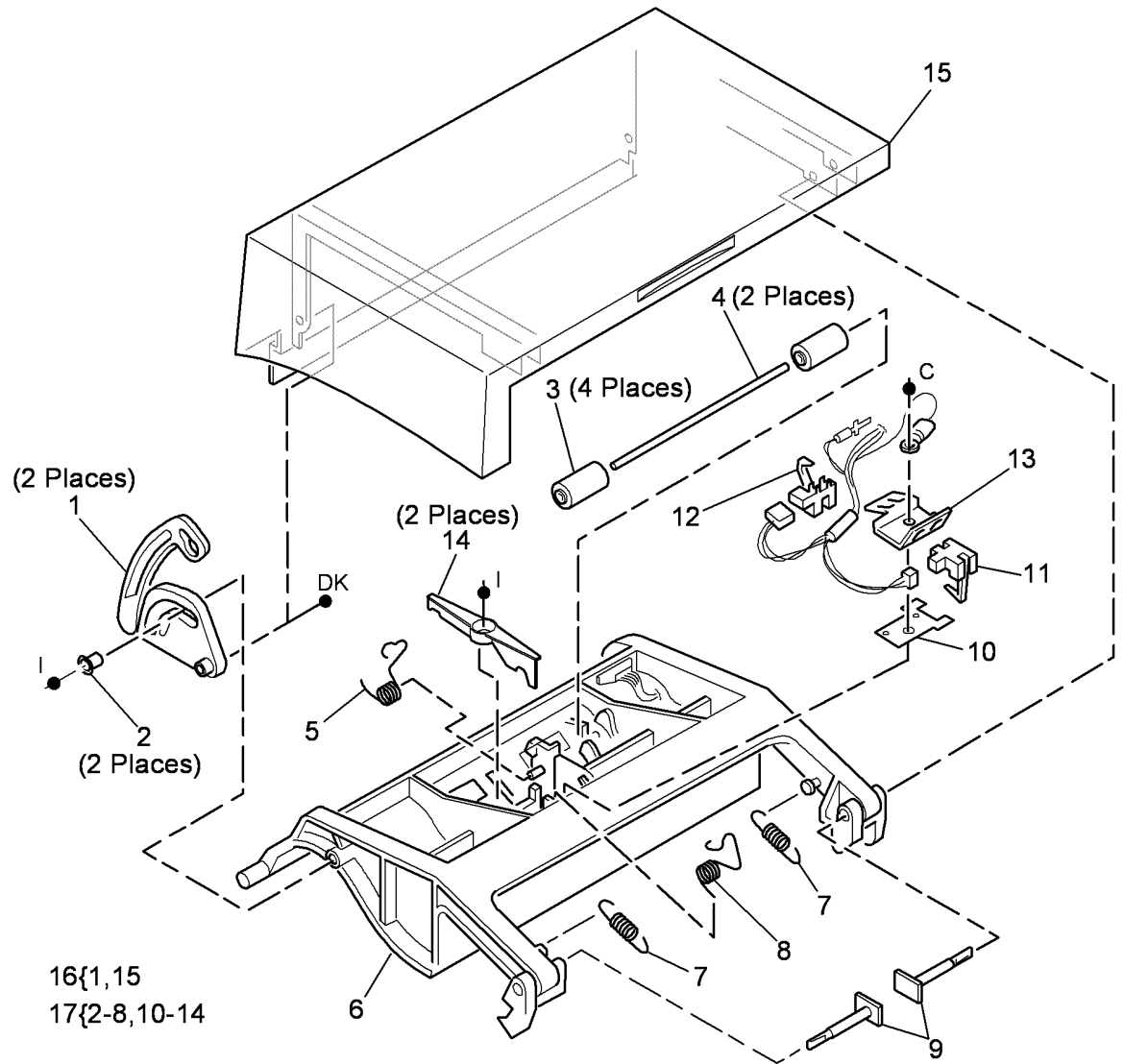
**NOTE: 2.** For the feed motor drive belt, refer to PL 5.35 Item 5.



## PL 5.20 Top Cover Assembly

Item	Part	Description
1	–	Hinge (P/O PL 5.20 Item 16)
2	–	Bushing (P/O PL 5.20 Item 16)
3	022E25061	CVT/Takeaway idler
4	806E19680	Shaft
5	–	Torsion spring (green) (P/O PL 5.20 Item 17)
6	038E22914	Base
7	–	Spring (P/O PL 5.20 Item 17)
8	–	Torsion spring (silver) (P/O PL 5.20 Item 17)
9	029E37810	Latch pin
10	–	Spring plate (P/O PL 5.20 Item 17)
11	130K73960	Takeaway sensor (Q05-335) (REP 5.8)
12	130K73970	CVT Sensor (Q05-350) (REP 5.8)
13	–	Sensor support (P/O PL 5.20 Item 17)
14	–	Shaft securing bracket (P/O PL 5.20 Item 17)
15	802K62453	Top cover
16	055K37584	Top cover assembly (REP 5.1)
17	055K37570	Top access cover assembly (35-55 ppm) (REP 5.2)
–	055K36650	Top access cover assembly (60-90 ppm) (REP 5.2)

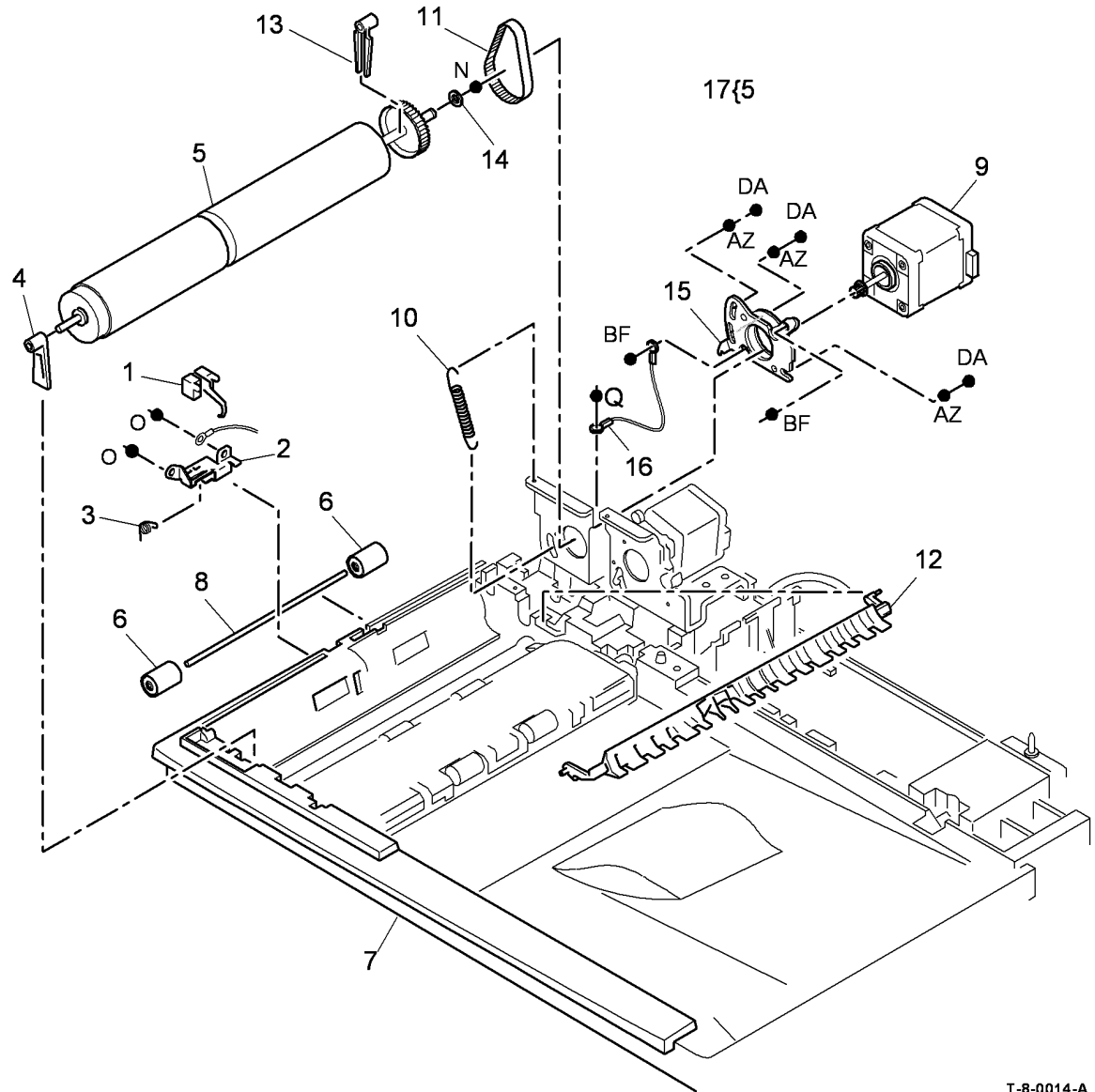
**NOTE:** For the top cover interlock switch (S05-305), refer to PL 5.17 Item 11.



T-8-0013-A

# PL 5.25 CVT

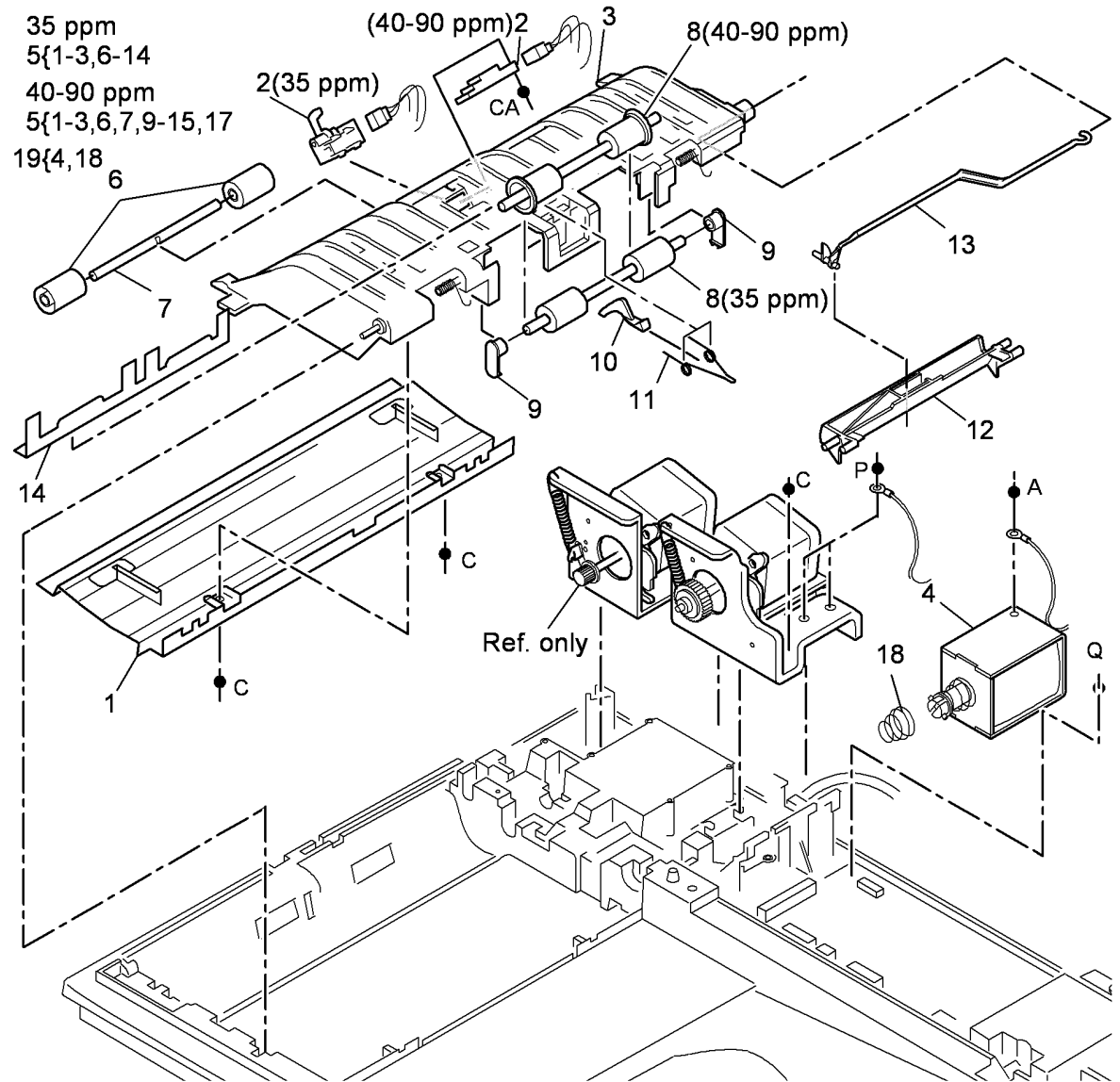
Item	Part	Description
1	130K73980	Registration sensor (Q05-340) (REP 5.10)
2	-	Sensor support (P/O PL 5.10 Item 9)
3	-	Torsion spring (P/O PL 5.10 Item 9)
4	013E21103	Front CVT roll bearing
5	-	CVT Roll (P/O PL 5.25 Item 17) (REP 5.15)
6	022E25061	Pre-scan idler
7	-	Base (P/O PL 5.10 Item 9)
8	-	Shaft (Not Spared)
9	127K53780	CVT Motor (MOT05-030) (ADJ 5.1)
10	-	CVT Motor tension spring (silver) (P/O PL 5.10 Item 9)
11	023E25420	CVT Motor drive belt (REP 5.15, ADJ 5.1)
12	050E14972	Duplex gate (REP 5.15)
13	013E21094	Rear CVT roll bearing
14	-	Spacer (white) (P/O PL 5.10 Item 9)
15	004E22560	CVT Motor bracket
16	-	Ground harness (Not Spared)
17	604K55240	CVT roll kit (white) (W/TAG D-004)
-	604K48370	CVT roll kit (grey) (W/O TAG D-004)



T-8-0014-A

## PL 5.30 Baffle Assembly

Item	Part	Description
1	-	Lower cover (P/O PL 5.30 Item 5)
2	130K73990	Exit sensor (Q05-345) (35 ppm) (REP 5.11)
-	130E19340	Exit sensor (Q05-345) (40-90 ppm) (REP 5.11)
3	038E34361	Baffle assembly
4	121E20060	Duplex solenoid (SOL05-050) (REP 5.7)
5	055K36641	Baffle assembly (complete) (REP 5.5)
6	022E25061	Post scan idlers
7	806E19680	Shaft
8	059K50770	Exit roll idlers (35 ppm) (REP 5.18)
-	059K43910	Exit roll idlers (REP 5.18)
9	-	Bearing (P/O PL 5.30 Item 5)
10	-	Document finger (P/O PL 5.30 Item 5)
11	-	Torsion spring (P/O PL 5.30 Item 5)
12	-	Lift bar (P/O PL 5.30 Item 5)
13	-	Link arm (P/O PL 5.30 Item 5)
14	604K48160	Mylar guide strip (REP 5.20)
15	-	Not used
16	-	Not used
17	-	Not used
18	-	Spring (P/O PL 5.30 Item 19)
19	-	Duplex solenoid assembly

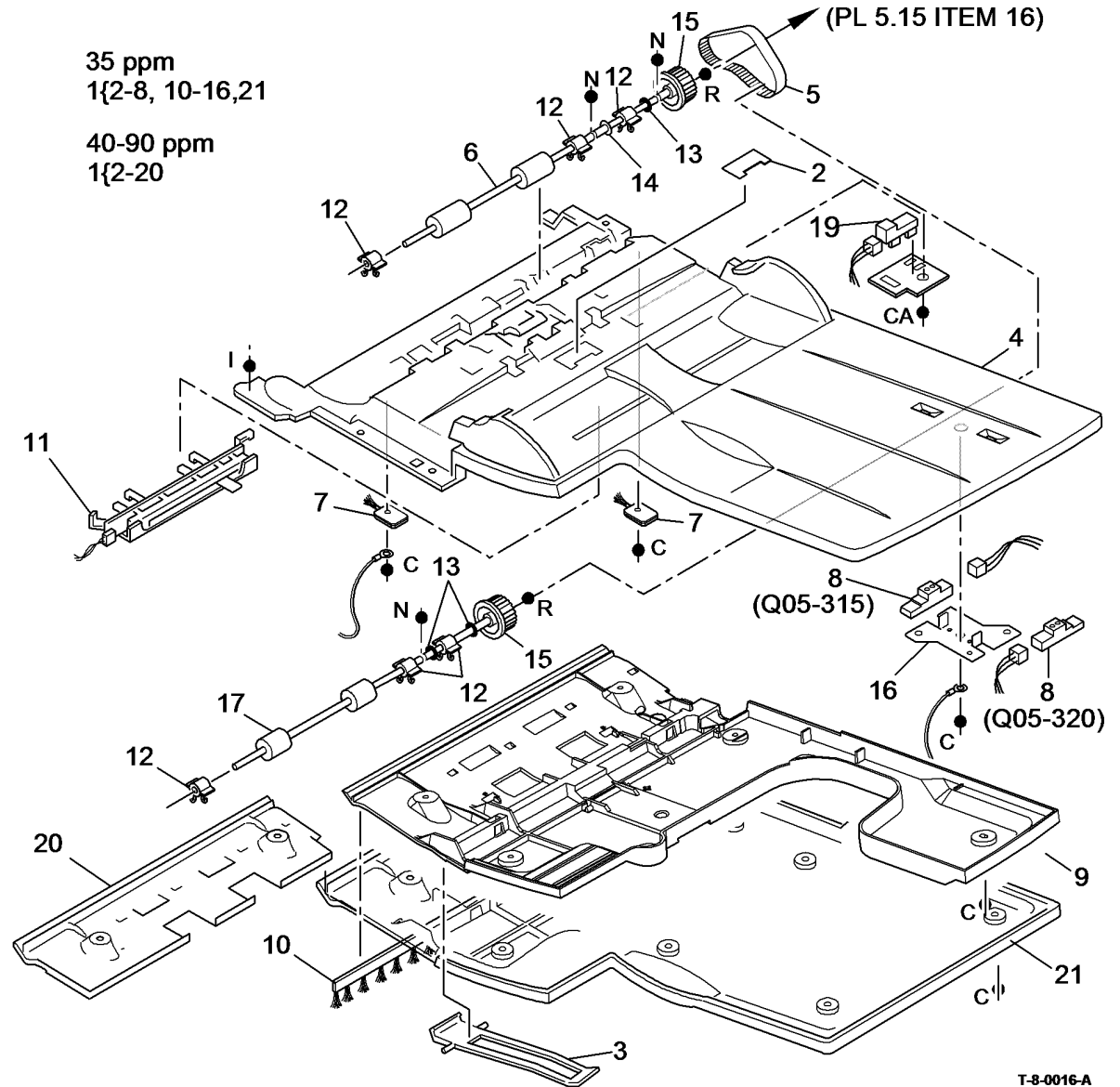


## PL 5.35 Input Tray Assembly

Item	Part	Description
1	-	Input tray assembly (complete) (REP 5.14)
2	004K00971	Pad
3	031E11310	Restack arm
4	050E22922	Input tray
5	423W00949	Feed motor drive belt (ADJ 5.1)
6	059K84630	Takeaway roll assembly (REP 5.6)
7	125E00430	Static eliminator (small) (REP 5.17)
8	130E19340	DADH Length sensor 1 (Q05-315)/ DADH Length sensor 2 (Q05-320) (See NOTE) (W/TAG D-007) (REP 5.9)
9	-	Lower cover (right) (P/O PL 5.35 Item 18) (40-90 ppm)
10	115K02540	Static eliminator (large)
-	115K02160	Static eliminator (large)(low humidity conditions) (NOTE 2)
11	103K01511	Document width sensor (Q05-325) (REP 5.16)
12	-	Bearing (P/O PL 5.35 Item 1)
13	014E61020	Spacer (black)
14	-	Spacer (white) (P/O PL 5.35 Item 1)
15	-	Pulley (P/O PL 5.35 Item 1)
16	-	Sensor bracket (P/O PL 5.35 Item 1)
17	059K43920	Exit roll assembly (REP 5.13)
18	-	Not used
19	130E11200	Document present sensor (Q05- 310) (40-90 ppm)
20	-	Lower cover (Left) (P/O PL 5.35 Item 1) (40-90 ppm)
21	-	Lower cover (P/O PL 5.35 Item 1) (35 ppm)

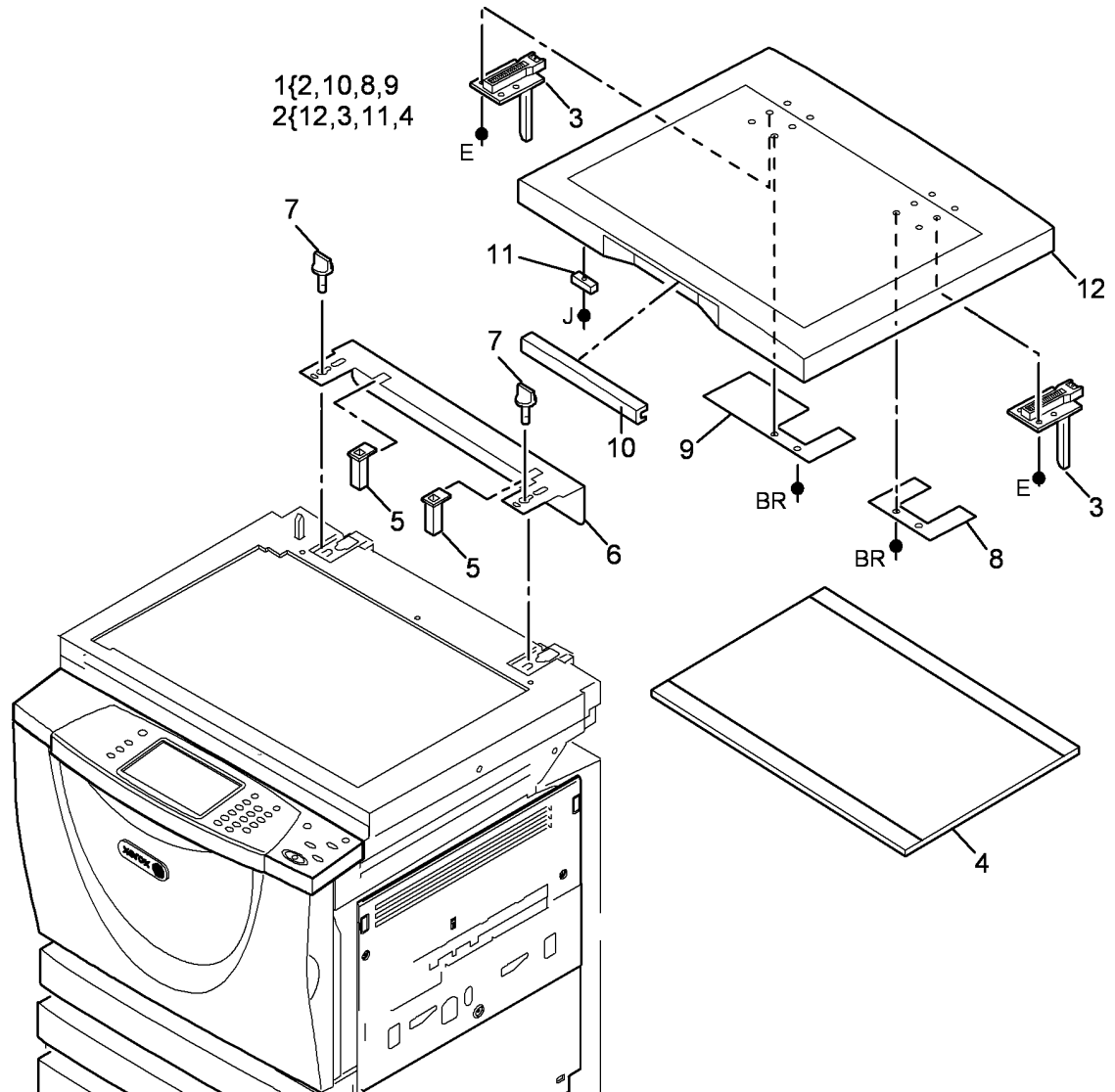
**NOTE: 1.** This part is also spared as part of a kit PL 31.13 Item 3 containing 2 sensors.

**NOTE: 2.** Use this part to eliminate stacking problems in low humidity conditions.



## PL 5.40 Document Cover

Item	Part	Description
1	848K06210	Document cover assembly
2	-	Document cover (P/O PL 5.40 Item 1)
3	-	Counter balance (P/O PL 5.40 Item 2)
4	-	Document pad (Not Spared)
5	-	Counterbalance support (Not Spared)
6	-	Document cover bracket (Not Spared)
7	803E13680	Thumbscrew
8	-	LH Adaptor plate (P/O PL 5.40 Item 1)
9	-	RH Adaptor plate (P/O PL 5.40 Item 1)
10	-	Platen cover handle (P/O PL 5.40 Item 1)
11	-	Magnetic interlock (P/O PL 5.40 Item 2)
12	-	Cover platen (P/O PL 5.40 Item 2)

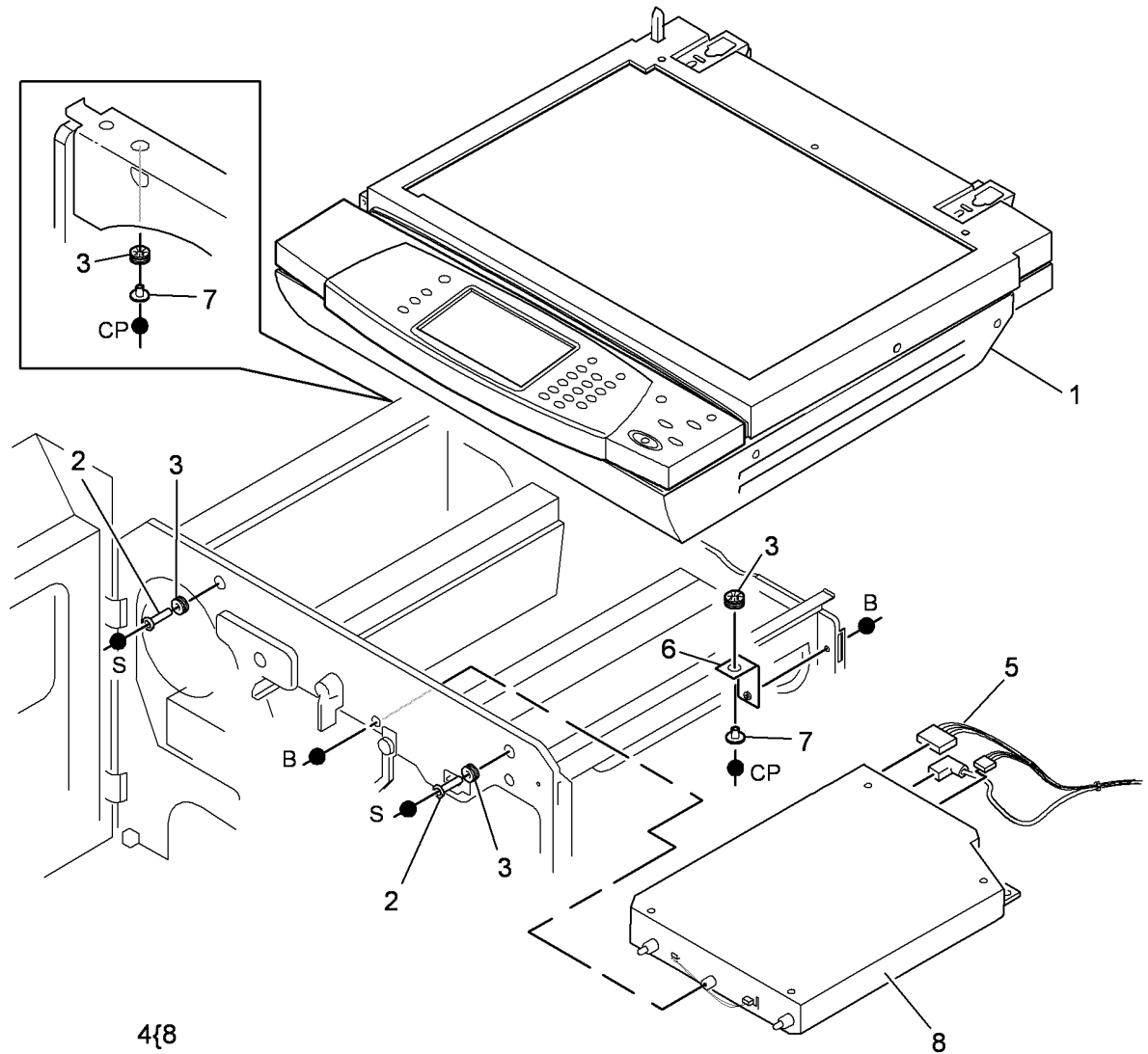


T-8-0017-A

# PL 6.10 ROS

Item	Part	Description
1	-	Scanner (W/TAG 150)(REF: PL 14.10 Item 1),(W/O TAG 150)(REF: PL 14.20 Item 1)
2	-	Spacer (Not Spared)
3	-	Grommet (Not Spared)
4	-	ROS spares kit (REF: PL 31.11 Item 12) (35 ppm) (NOTE)
-	-	ROS spares kit (REF: PL 31.11 Item 12) (40-55 ppm) (NOTE)
-	-	ROS spares kit (REF: PL 31.11 Item 12) (65-90 ppm) (NOTE)
5	962K12184	ROS Power distribution (PJ120-PJ18)/Communication (PJ121-PJ2 & PJ122-PJ109) harness (35-55 ppm)
-	-	ROS Power distribution (PJ120-PJ18)/communication (PJ121-PJ2 & PJ122-PJ228) harness (Not Spared) (65-90 ppm)
6	-	Scanner frame securing bracket (Not Spared)
7	-	Spacer (Not Spared)
8	-	ROS (P/O PL 6.10 Item 4)

**NOTE:** The replacement part may differ in appearance to the part that is being replaced, this is due to a design change.

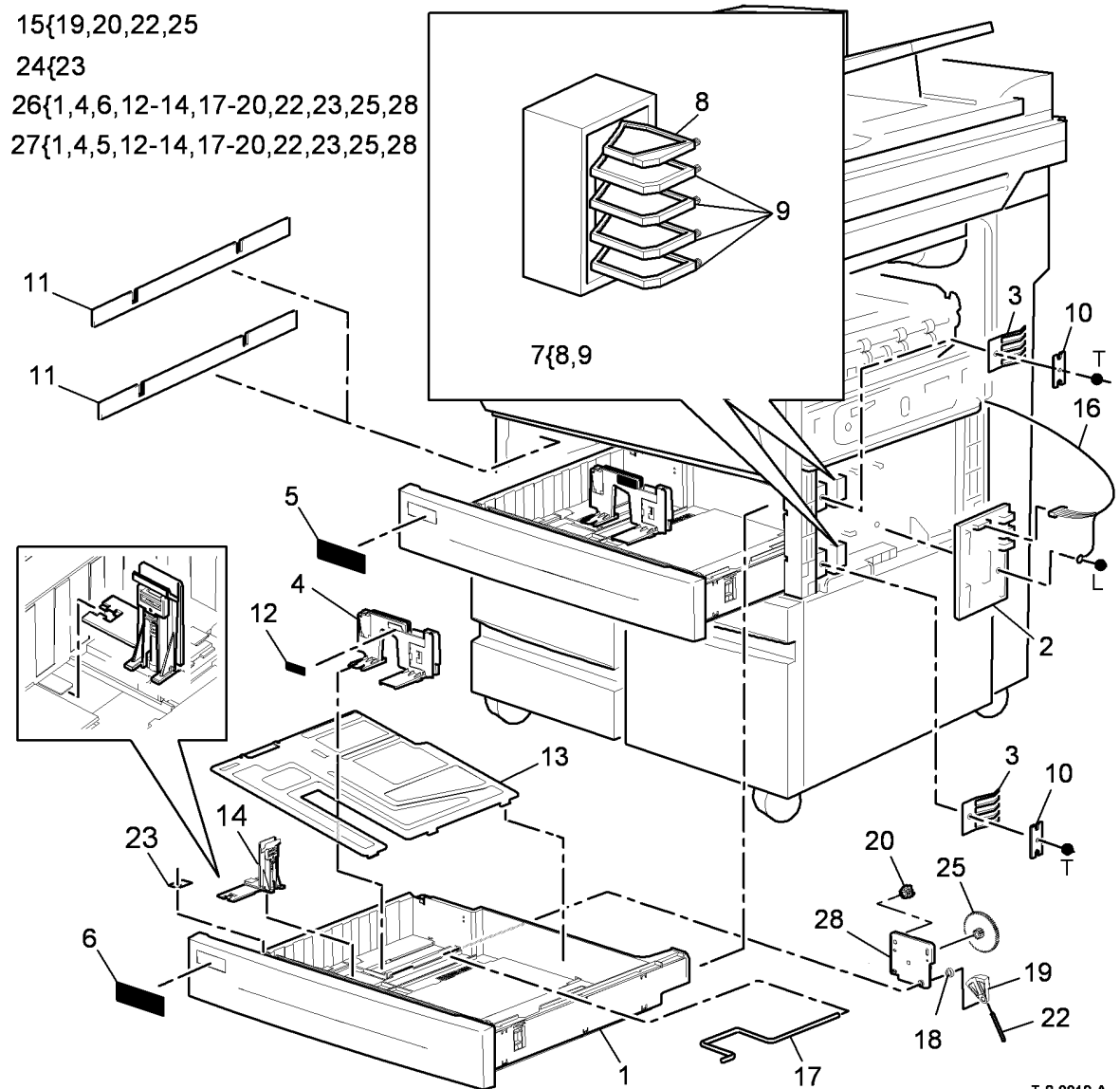


T-8-0018-A

## PL 7.10 Tray 1 and 2 Assembly

Item	Part	Description
1	-	Tray housing (P/O PL 7.10 Item 26, PL 7.10 Item 27) (W/TAG 001)
2	960K42122	Tray 1 and 2 control PWB
3	809E84170	Leaf spring (REP 7.12)
4	059K59261	Paper guide latch assembly (REP 7.6)
5	-	Label tray 1 (P/O PL 7.10 Item 26)
6	-	Label tray 2 (P/O PL 7.10 Item 27)
7	059K59230	Cam assembly (REP 7.12)
8	-	Tray home cam (P/O PL 7.10 Item 7)
9	-	Paper size cam (P/O PL 7.10 Item 7)
10	-	Retaining plate (Not Spared)
11	-	Paper guide (P/O PL 8.26 Item 1)
12	-	MAX Fill label (P/O PL 7.10 Item 4)
13	-	Tray 1 and 2 paper lift plate (P/O PL 7.10 Item 26, PL 7.10 Item 27)
14	059K59270	Paper stop assembly
15	059K59221	Lift gear kit (REP 7.20)
16	-	IOT-PFM Harness (PJ7-PJ382) (Not Spared) (REP 7.13)
17	-	Paper tray 1 & 2 lift arm (P/O PL 7.10 Item 26, PL 7.10 Item 27)
18	-	Bearing (P/O PL 7.10 Item 26, PL 7.10 Item 27)
19	-	Quadrant gear (60T) (P/O PL 7.10 Item 15)
20	-	Gear (13T) (P/O PL 7.10 Item 15)
21	-	Not used
22	-	Lift arm pin (P/O PL 7.10 Item 15)
23	-	Paper tray lip (P/O PL 7.10 Item 24)
24	604K48700	Paper tray lip kit (W/TAG 002)
25	-	Gear (60T) (P/O PL 7.10 Item 15)
26	050K68570	Tray 1 assembly (See NOTE) (W/TAG 001) (REP 7.1)
27	050K68580	Tray 2 assembly (See NOTE) (W/TAG 001) (REP 7.1)
28	-	Lift arm bracket (P/O PL 7.10 Item 26, PL 7.10 Item 27)

**NOTE:** 1. For the envelope tray feeding kit please refer to PL 31.13 Item 18.



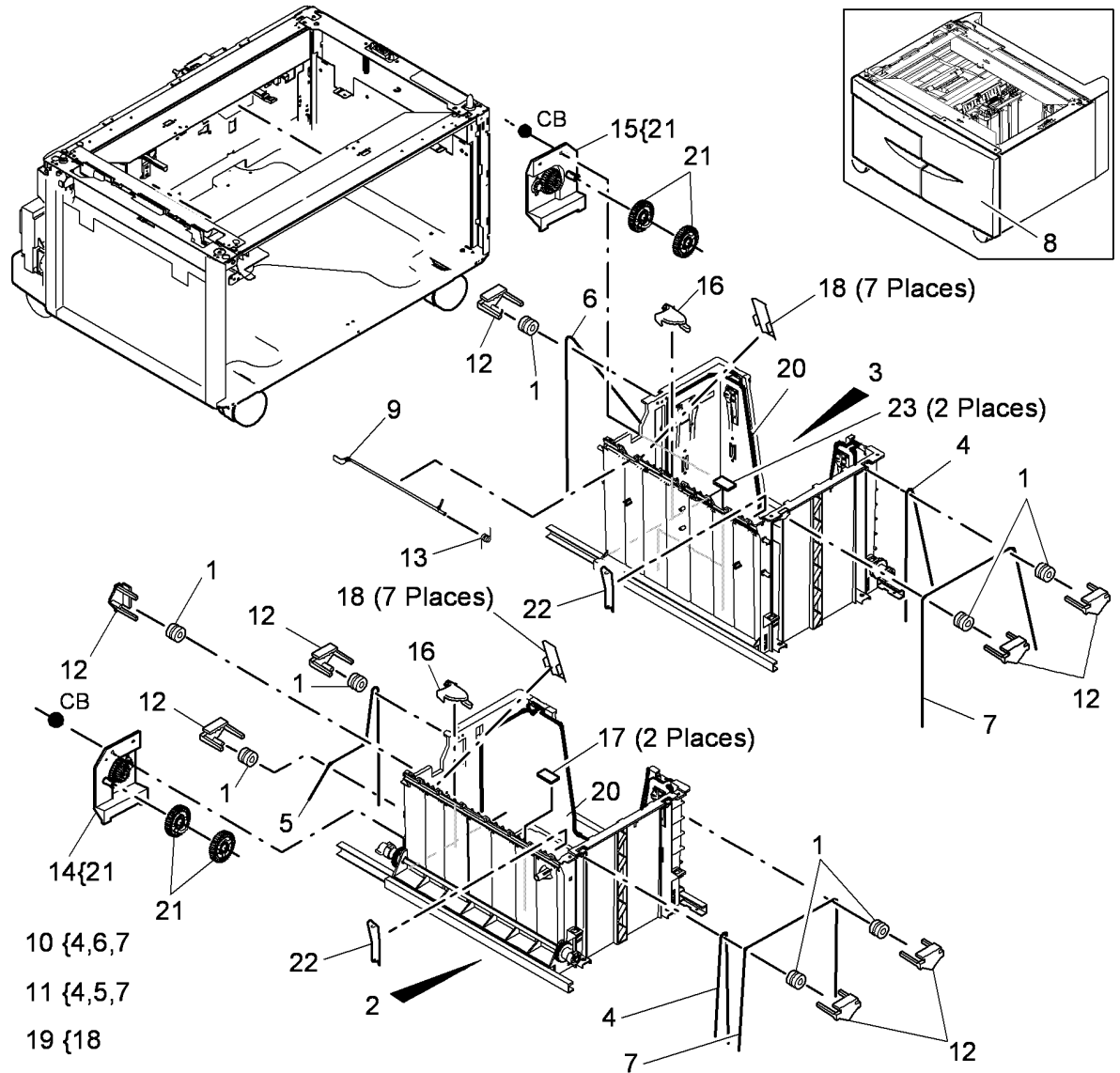
T-8-0019-A

# PL 7.15 HCF Tray 3 and 4 Assembly (W/O TAG 151) (1 of 2)

Item	Part	Description
1	022E27180	Tray hoist pulley
2	050K59433	Tray 4 assembly (NOTE 1) (REP 7.2)
3	050K59422	Tray 3 assembly (NOTE 1) (REP 7.2)
4	-	Front short elevator cable (P/O PL 7.15 Item 10, PL 7.15 Item 11)
5	-	Rear elevator cable (tray 4) (P/O PL 7.15 Item 11)
6	-	Rear elevator cable (tray 3) (P/O PL 7.15 Item 10)
7	-	Front long elevator cable (P/O PL 7.15 Item 10, PL 7.15 Item 11)
8	-	HCF (complete) (Not Spared)
9	130K67521	Tray 3 feed sensor actuator (REP 8.14)
10	012K05690	Tray 3 elevator cable assembly (REP 7.4)
11	012K05701	Tray 4 elevator cable assembly (REP 7.4)
12	849E21140	Pulley carrier
13	-	Tray 3 feed sensor actuator spring (P/O PL 7.15 Item 9)
14	004K07330	Tray 4 elevate damper assembly (REP 7.11)
15	004K07320	Tray 3 elevate damper assembly (REP 7.11)
16	038E30370	Tray lift guide
17	019E73940	Retard pad (cork)
18	-	Separation strip (7 off) (P/O PL 7.15 Item 19)
19	801K20310	Separation strip kit
20	-	Paper tray guide (P/O PL 7.15 Item 2, 3) (ADJ 7.1)
21	807E22950	Gear (REP 7.11)
22	801E11400	Corner separation strip
23	019E75120	Retard pad (Metamoll)

**NOTE:** 1. Refer to ADJ 7.1 to set the tray 3 and tray 4 paper guides.

**NOTE:** 2. To repair or prevent paper cut damage to the front edge of the tray assembly, use the rib protector kit PL 31.11 Item 5.

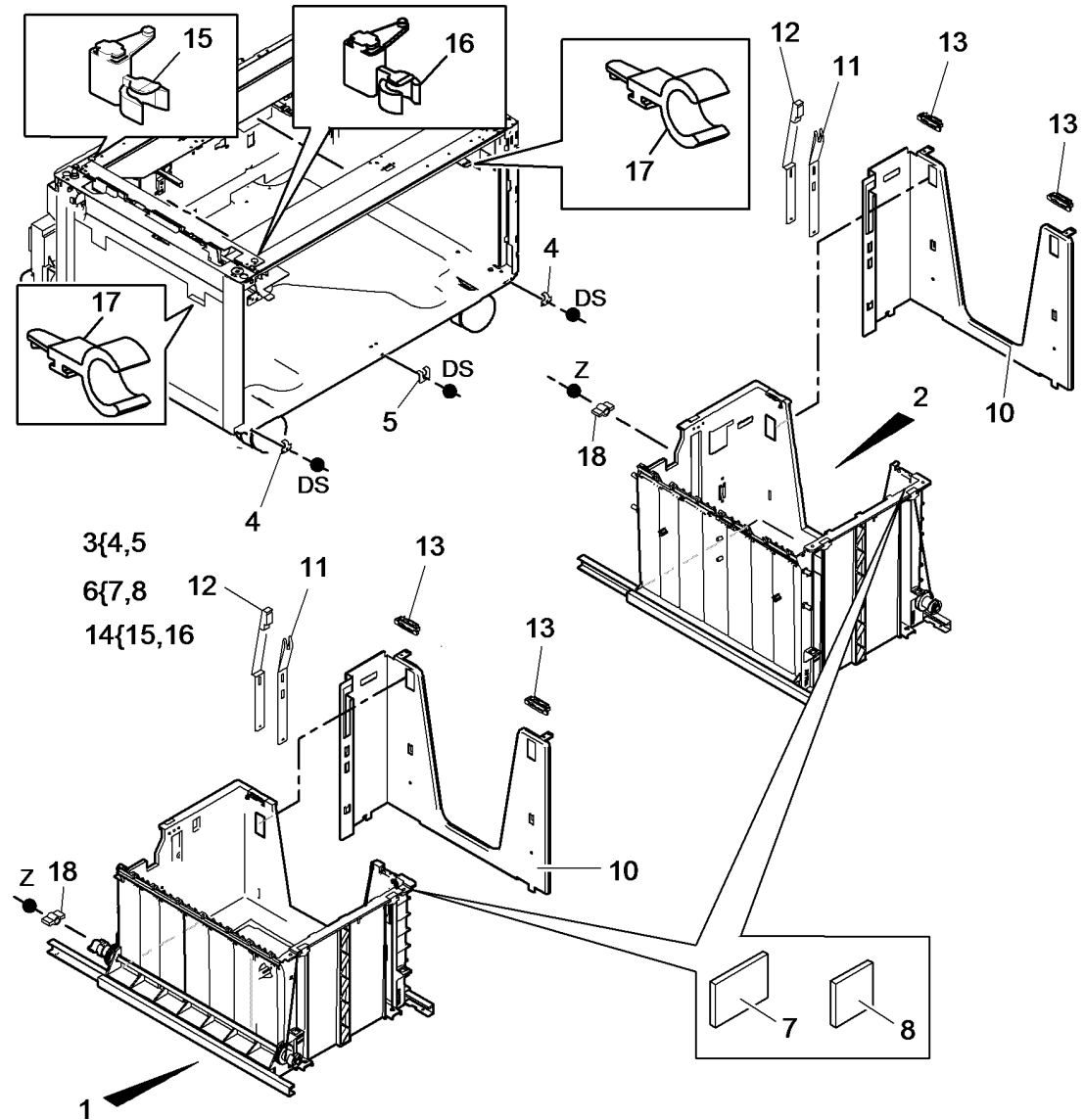


T-8-0020-A



# PL 7.17 HCF Tray 3 and 4 Assembly (W/O TAG 151) (2 of 2)

Item	Part	Description
1	-	Tray 4 assembly (REF: PL 7.15 Item 2)
2	-	Tray 3 assembly (REF: PL 7.15 Item 3)
3	049K00300	Tray 3 and 4 clamp kit
4	-	Side clamp (2 off) (P/O PL 7.17 Item 3)
5	-	Center clamp (P/O PL 7.17 Item 3)
6	604K18182	Tray 3 & 4 mylar retainer clip kit
7	-	Retainer clip (Wide) (6 off) (P/O PL 7.17 Item 6)
8	-	Retainer clip (Narrow) (2 off) (P/O PL 7.17 Item 6)
9	-	Not used
10	-	Paper tray guide (Not Spared) (ADJ 7.1)
11	-	Flexure spring (Not Spared)
12	009K02380	Top edge flexure spring
13	-	Retaining clips (Not Spared)
14	019K06030	HCF Tray alignment clip kit
15	-	Front clip (P/O PL 7.17 Item 14)
16	-	Rear clip (P/O PL 7.17 Item 14)
17	-	Alignment locking clip (P/O PL 31.12 Item 1)
18	807E47310	Elevator drives gear coupling (REP 7.4)



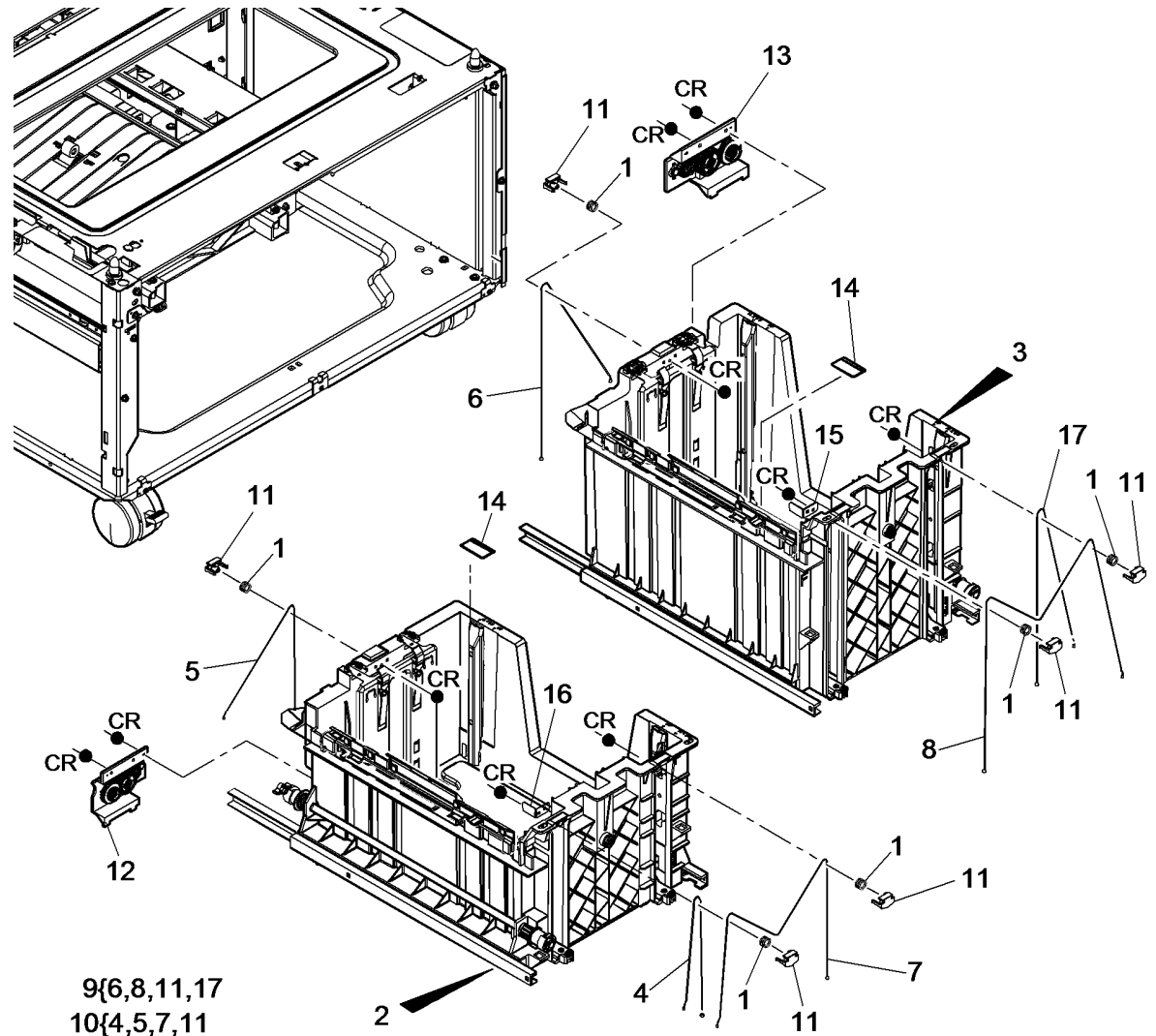
T-8-0021-B

## PL 7.18 HCF Tray 3 and 4 Assembly (W/TAG 151) (1 of 2)

Item	Part	Description
1	-	Tray hoist pulley (Not Spared)
2	050K77170	Tray 4 assembly (REP 7.22)
3	050K77160	Tray 3 assembly (REP 7.22)
4	-	Front short elevator cable (tray 4) (P/O PL 7.18 Item 10) (REP 7.24)
5	-	Rear elevator cable (tray 4) (P/O PL 7.18 Item 10) (REP 7.24)
6	-	Rear elevator cable (tray 3) (P/O PL 7.18 Item 9) (REP 7.24)
7	-	Front long elevator cable (tray 4) (P/O PL 7.18 Item 10) (REP 7.24)
8	-	Front long elevator cable (tray 3) (P/O PL 7.18 Item 9) (REP 7.24)
9	604K84081	Tray 3 elevator cable kit (REP 7.24)
10	604K84091	Tray 4 elevator cable kit (REP 7.24)
11	-	Pulley carrier (P/O PL 7.18 Item 9, PL 7.18 Item 10)
12	004K07860	Tray 4 elevate damper assembly (REP 7.28)
13	004K07870	Tray 3 elevate damper assembly (REP 7.28)
14	-	Retard pad (Not Spared)
15	868E87140	Tray 3 skew bracket (NOTE 1) (W/ TAG 153)
16	868E87150	Tray 4 skew bracket (NOTE 1) (W/ TAG 153)
17	-	Front short elevator cable (tray 3) (P/O PL 7.18 Item 9) (REP 7.24)

**NOTE:** 1. This part is also supplied as part of PL 31.14 Item 16 and PL 31.12 Item 20. .

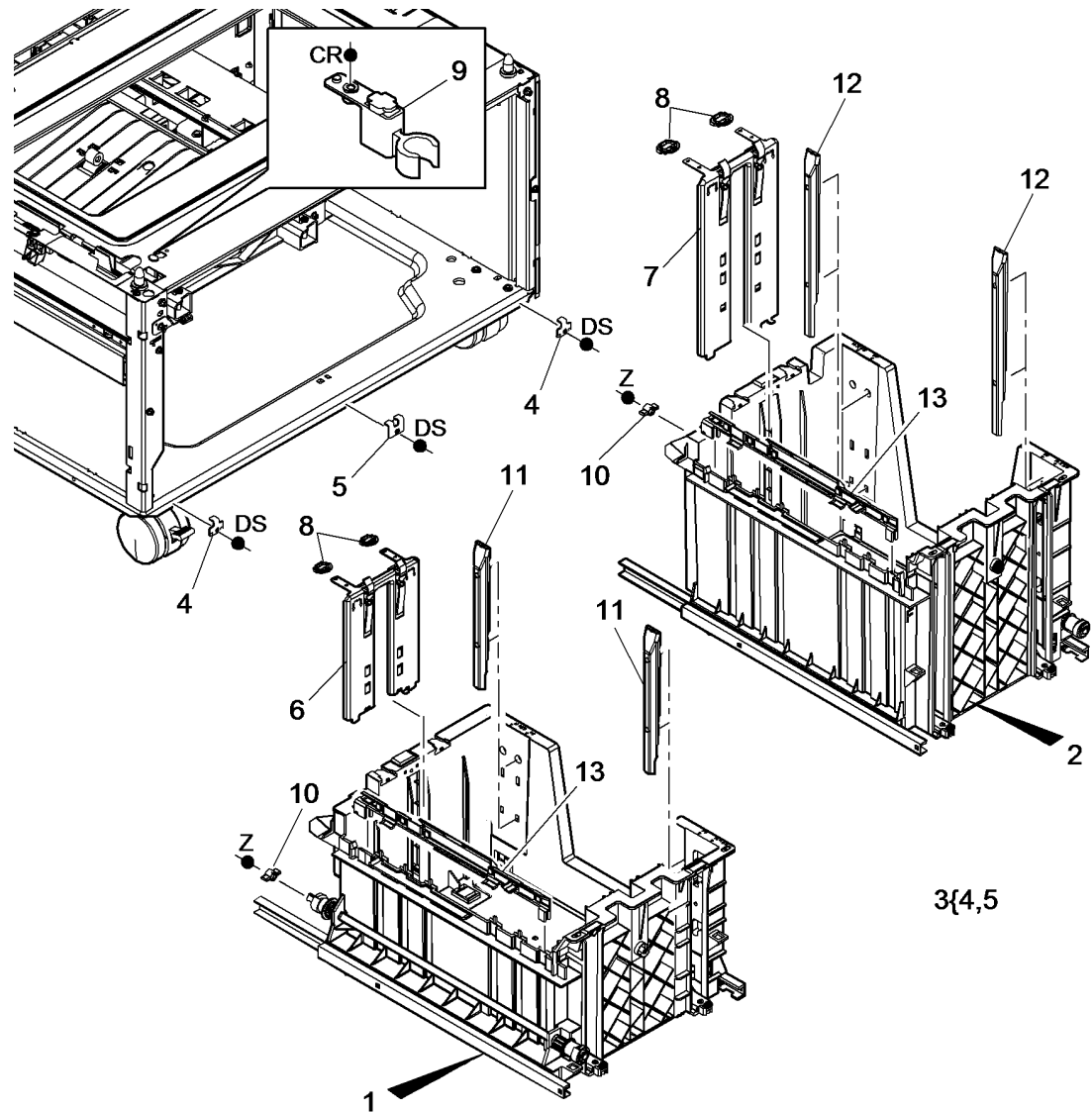
**NOTE:** 2. To repair or prevent paper cut damage to the front edge of the tray assembly, use the rib protector kit PL 31.11 Item 5.



T-8-0138-C

# PL 7.19 HCF Tray 3 and 4 Assembly (W/TAG 151) (2 of 2)

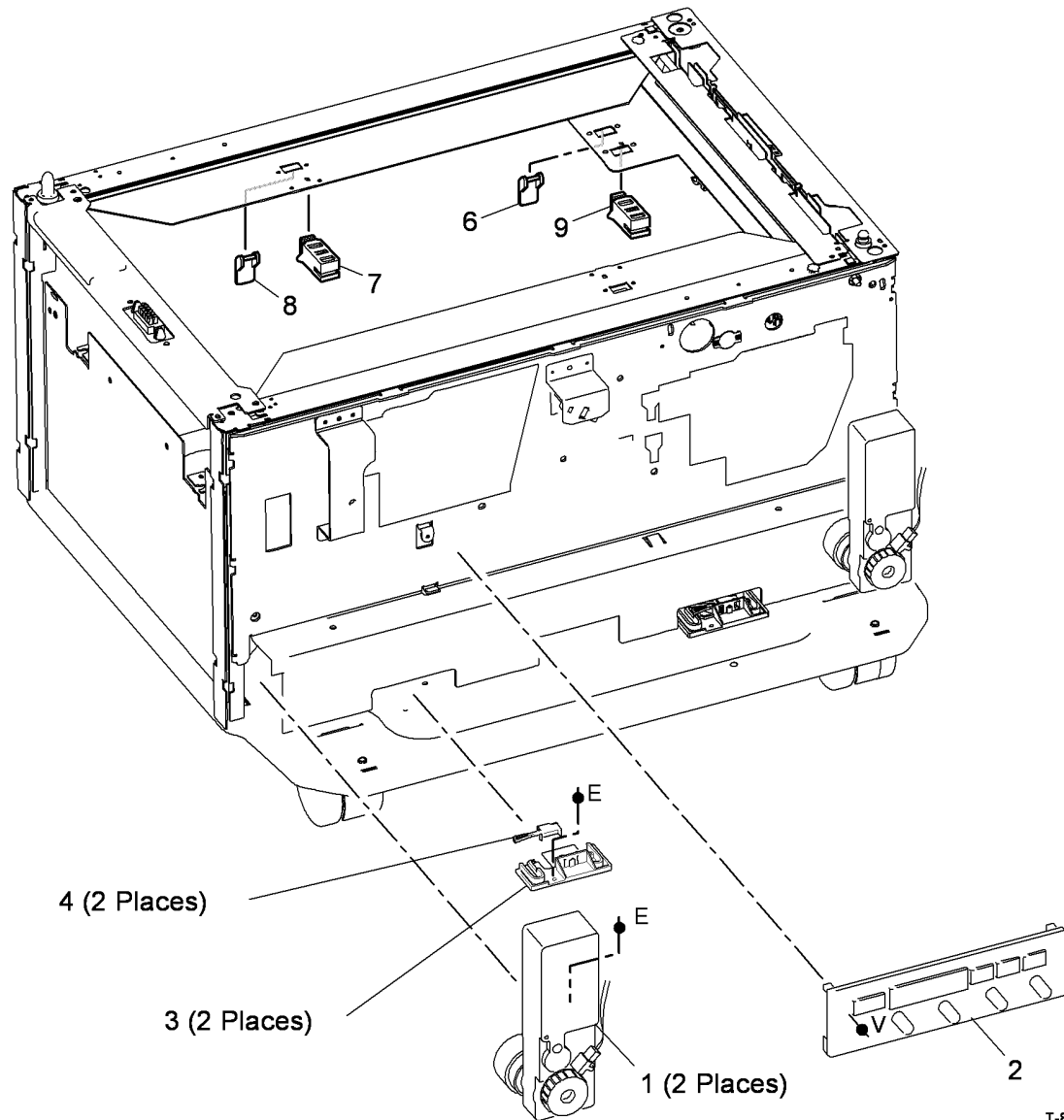
Item	Part	Description
1	-	Tray 4 assembly (REF: PL 7.18 Item 2)
2	-	Tray 3 assembly (REF: PL 7.18 Item 3)
3	604K83671	Tray 3 and 4 clamp kit
4	-	Side clamp (2 off) (P/O PL 7.19 Item 3)
5	-	Centre clamp (P/O PL 7.19 Item 3)
6	-	Tray 4 paper tray guide (P/O PL 7.18 Item 2)
7	-	Tray 3 paper tray guide (P/O PL 7.18 Item 3)
8	019E74532	Retaining clips
9	819E20420	Front clip
10	807E47310	Elevator drives gear coupling (REP 7.4)
11	-	Tray 4 paper guide (P/O PL 7.18 Item 2)
12	-	Tray 3 paper guide (P/O PL 7.18 Item 3)
13	815E92301	Separation strip



T-8-0139-A

# PL 7.20 Elevator Motor and Control PWB (W/O TAG 151)

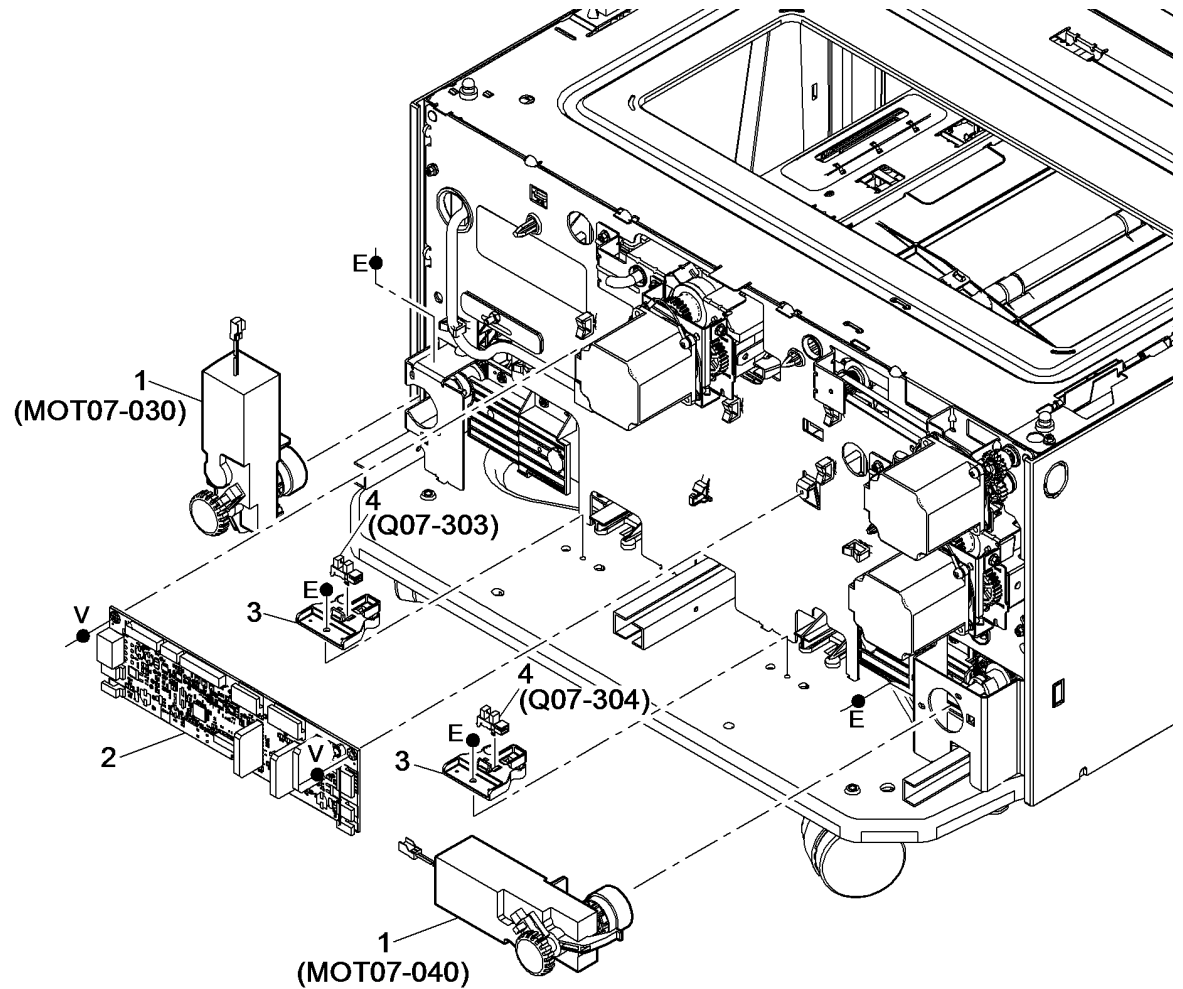
Item	Part	Description
1	127K78350	Tray 3 elevator motor (MOT07-030), Tray 4 elevator motor (MOT07-040) (REP 7.3)
2	960K41522	HCF control PWB (REP 7.10)
3	019E63410	Switch holder
4	130E10570	Tray 3 home switch (S07-303), Tray 4 home switch (S07-304) (REP 7.9)
5	—	Not used
6	120E25810	Tray 4 stack limiter (REP 7.8)
7	868E11660	Tray 3 stack limiter bracket
8	120E25800	Tray 3 stack limiter (REP 7.8)
9	868E11670	Tray 4 stack limiter bracket



## PL 7.21 Elevator Motor and Control PWB (W/TAG 151)

Item	Part	Description
1	127K78350	Tray 3 elevator motor (MOT07-030)/ Tray 4 elevator motor (MOT07-040) (REP 7.23)
2	960K84461	HCF control PWB (REP 7.27)
-	604K95330	HCF control PWB (NOTE) (W/TAG 158) (REP 7.27)
3	019E87841	Sensor holder (REP 7.26)
4	-	Tray 3 home sensor (Q07-303)/ Tray 4 home sensor (Q07-304) (P/O PL 31.13 Item 21) (REP 7.26)

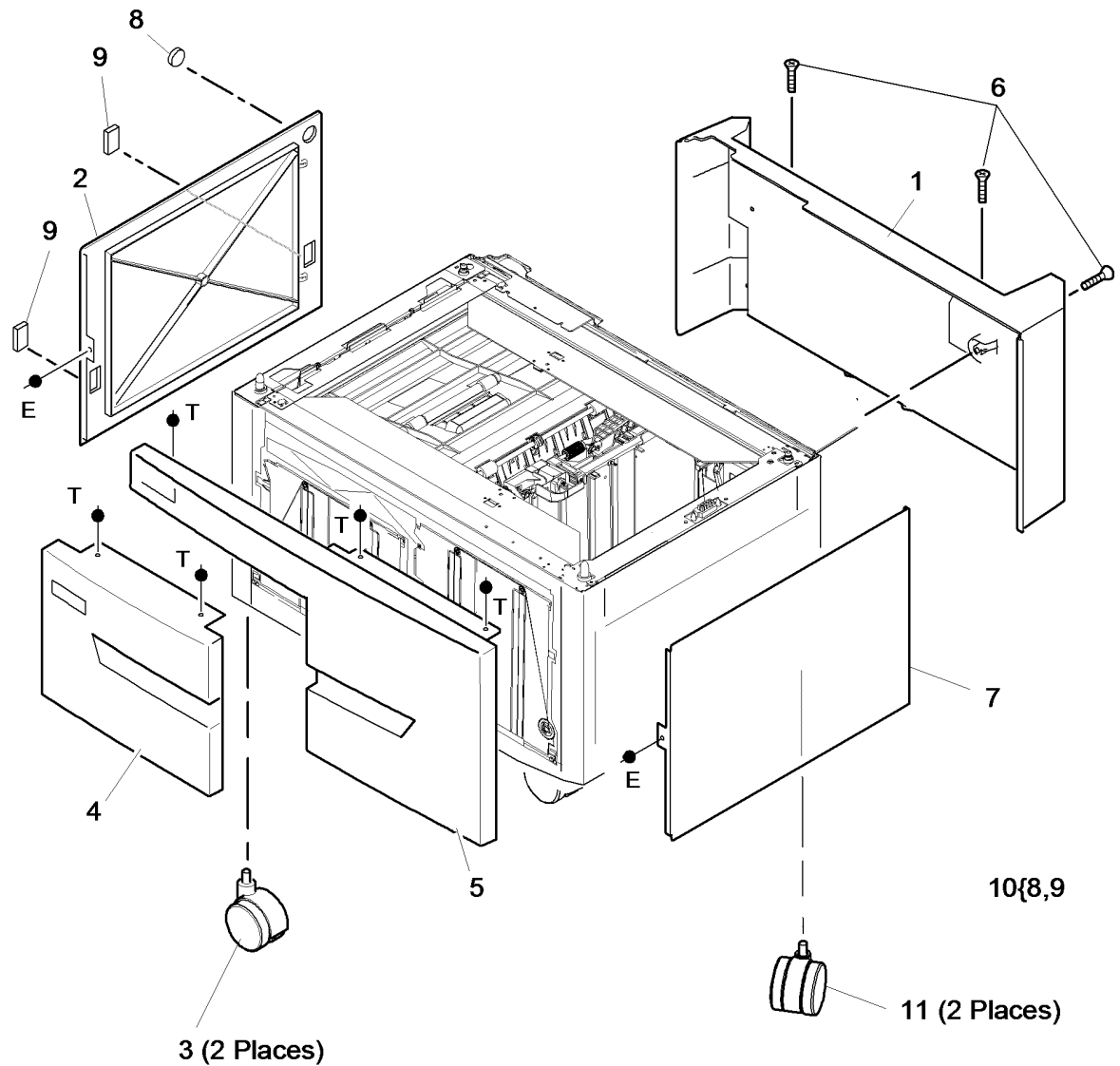
**NOTE:** Install only when noise reduction is required due to noisy tray 3 and 4 feed motors and HCF motor.



T-8-0140-A

# PL 7.25 HCF Covers (W/O TAG 151)

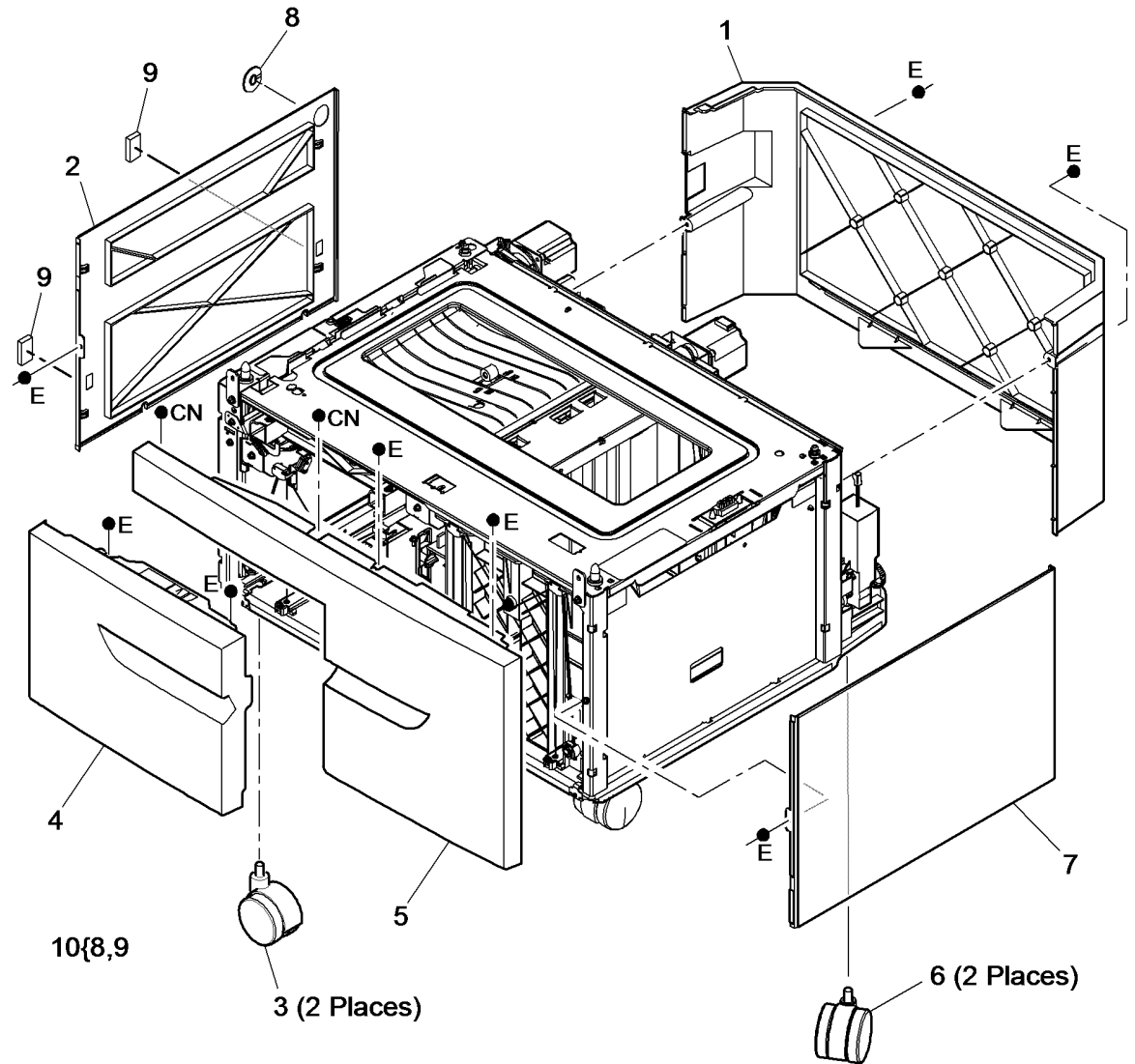
Item	Part	Description
1	802K48781	Rear cover
2	848K12270	Left cover
3	859K03060	Castor (locking)
4	848E17500	Tray 4 front cover
5	848E17490	Tray 3 front cover
6	826E20970	Screw (M6 x 30)
7	822E26820	Right cover
8	-	Cover infill 1 (P/O PL 7.25 Item 10)
9	-	Cover infill 2 (P/O PL 7.25 Item 10)
10	848E17510	Cover infill kit
11	-	Castor (Not Spared)



T-8-0023-B

## PL 7.26 HCF Covers (W/TAG 151)

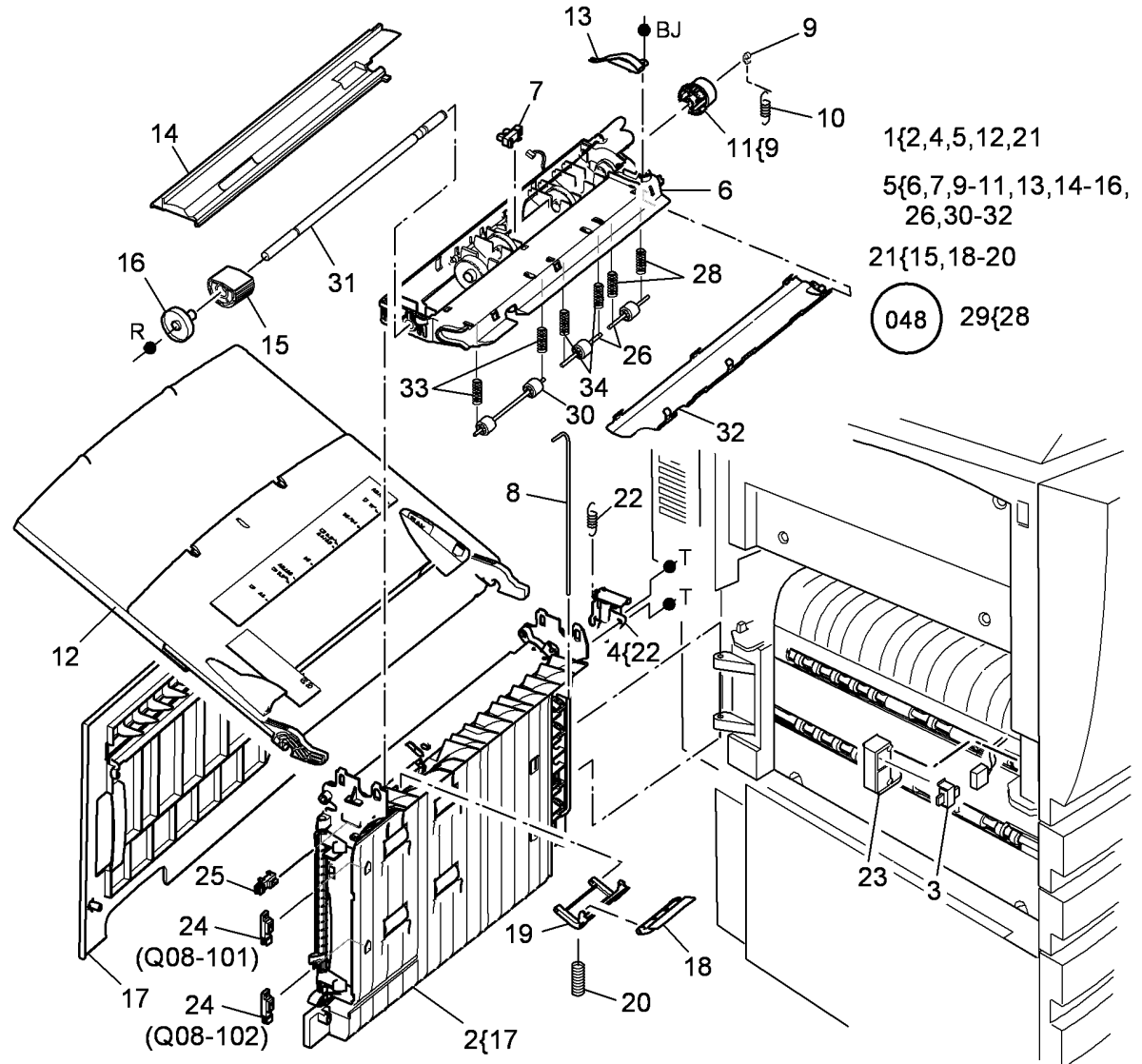
Item	Part	Description
1	848E63675	Rear cover
2	822E26830	Left cover
3	859K03060	Castor (locking)
4	604K83651	Tray 4 front cover
5	604K83660	Tray 3 front cover
6	-	Castor (Not Spared)
7	822E26820	Right cover
8	-	Cover infill 1 (P/O PL 7.26 Item 10)
9	-	Cover infill 2 (P/O PL 7.26 Item 10)
10	848E17510	Cover infill kit



T-8-0144-A

# PL 7.30 Bypass Tray and Left Door Assembly

Item	Part	Description
1.	050K67883	Bypass tray and left door assembly (35-55 ppm) (REP 7.5)
-	050K67893	Bypass tray and left hand door assembly (65-90 ppm) (REP 7.5)
2.	-	Left hand door (P/O PL 7.30 Item 1, PL 7.30 Item 27)
3.	110E19990	Left hand door interlock (S01-305)
4.	121E25680	Feed solenoid (SOL08-050) (REP 8.9)
5.	-	Feed head assembly (P/O PL 7.30 Item 1, PL 7.30 Item 27) (REP 8.19)
6.	-	Feed head (P/O PL 7.30 Item 5)
7.	130E20360	Bypass tray empty sensor (Q07-335) (REP 8.23)
8.	-	Hinge pin (Not Spared)
9.	-	Spring retainer (P/O PL 7.30 Item 11)
10.	809E57640	Spring drive gear
11.	807E05311	Drive gear assembly (REP 8.20)
12.	-	Bypass tray (P/O PL 7.30 Item 1)
13.	-	Ground spring (P/O PL 7.30 Item 5)
14.	-	Feed head top cover (P/O PL 7.30 Item 5)
15.	-	Feed roll (P/O PL 7.30 Item 21) (REP 8.21)
16.	-	Nip roll (P/O PL 7.30 Item 5)
17.	-	Left hand door cover (P/O PL 7.30 Item 2)
18.	-	Retard pad bracket (P/O PL 7.30 Item 21)
19.	-	Retard pad assembly (P/O PL 7.30 Item 21)
20.	-	Retard pad spring (P/O PL 7.30 Item 21)
21.	059K39862	Feed roll and retard pad assembly (See NOTE 2) (REP 8.22)
22.	-	Solenoid spring (P/O PL 7.30 Item 4)
23.	003E78141	Interlock cover
24.	130E12770	Tray 1 feed sensor (Q08-101), Tray 2 feed sensor (Q08-102) (65-90 ppm) (130E12130) (REP 8.24)
25.	130E11610	Wait Sensor (Q08-100, Q08-110) (65-90 ppm) (See NOTE 1) (REP 8.17)
26.	-	Nip roll (Not Spared)
27.	-	Not used
28.	-	Pre-reg nip roll spring (P/O PL 7.30 Item 29)
29.	604K55500	Skew bypass tray spares kit (x2 spring) (W/TAG 048)
30.	-	Nip roller (Not Spared)
31.	-	Shaft (Not Spared)
32.	-	Lower cover (Not Spared)
33.	-	Front pre-nip roll spring (Not Spared)
34.	-	Middle pre-nip roll spring (Not Spared)



1{2,4,5,12,21  
5{6,7,9-11,13,14-16,  
26,30-32  
21{15,18-20  
048 29{28

T-8-0024-A

**NOTE:** . 1.Refer to PL 8.15 Item 3 for the 35-55 ppm wait sensor.

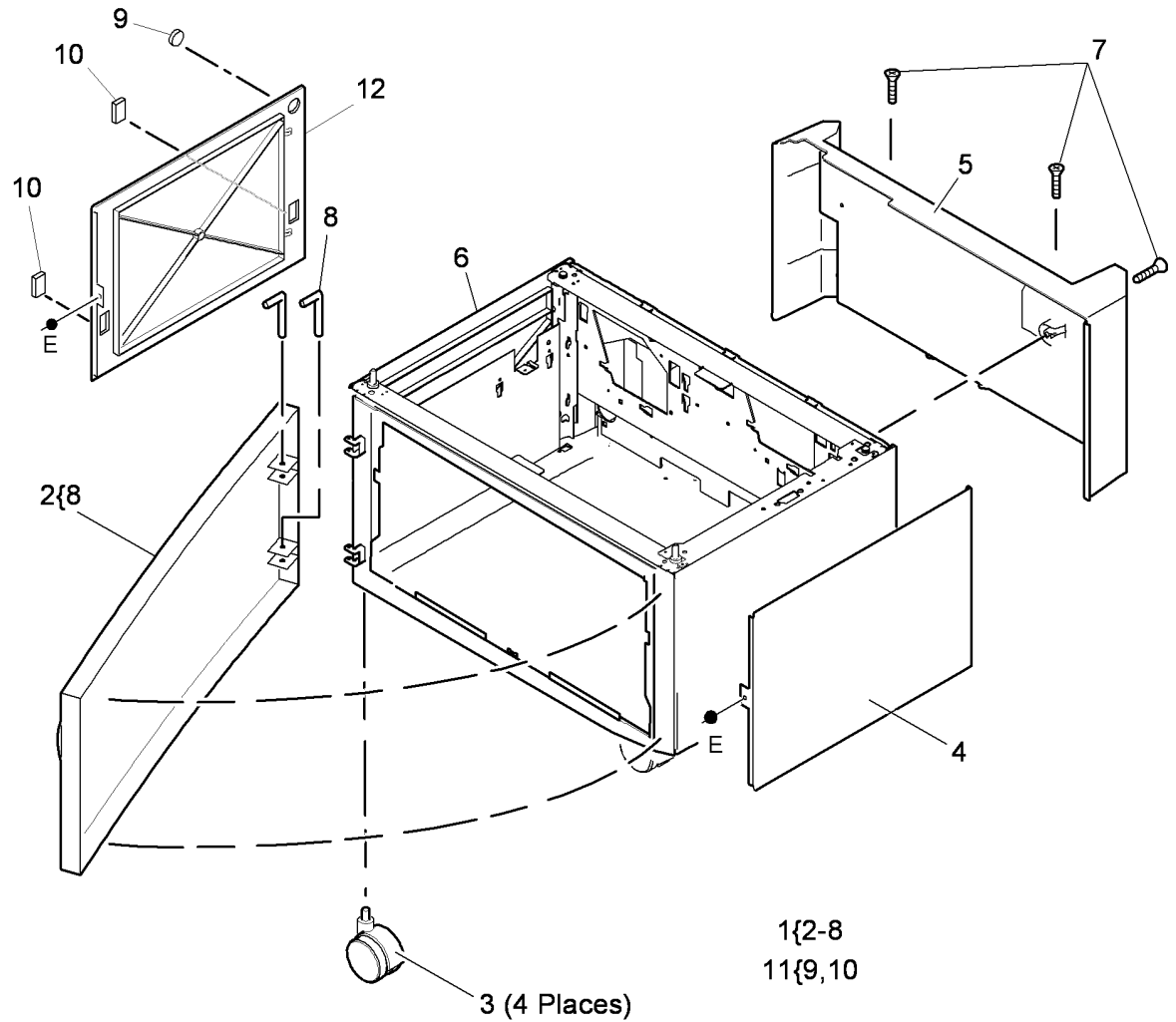
**NOTE:** . 2.HFSI. To reset the HFSI count, refer to GP 17.



## PL 7.40 Stand Assembly

Item	Part	Description
1	–	Stand unit (complete) (Not Spared)
2	802K48582	Front door (NOTE)
3	859K03060	Castor (locking)
4	822E26820	Right cover
5	802K48781	Rear cover
6	–	Stand base (Not Spared)
7	826E20970	Screw (M6x30)
8	–	Door hinge pin (P/O PL 7.40 Item 2)
9	–	Cover infill 1 (P/O PL 7.40 Item 11)
10	–	Cover infill 2 (P/O PL 7.40 Item 11)
11	848E17510	Cover infill kit
12	848K12270	Left cover

**NOTE:** Hinge pins (PL 7.40 Item 8) are supplied with the front door.

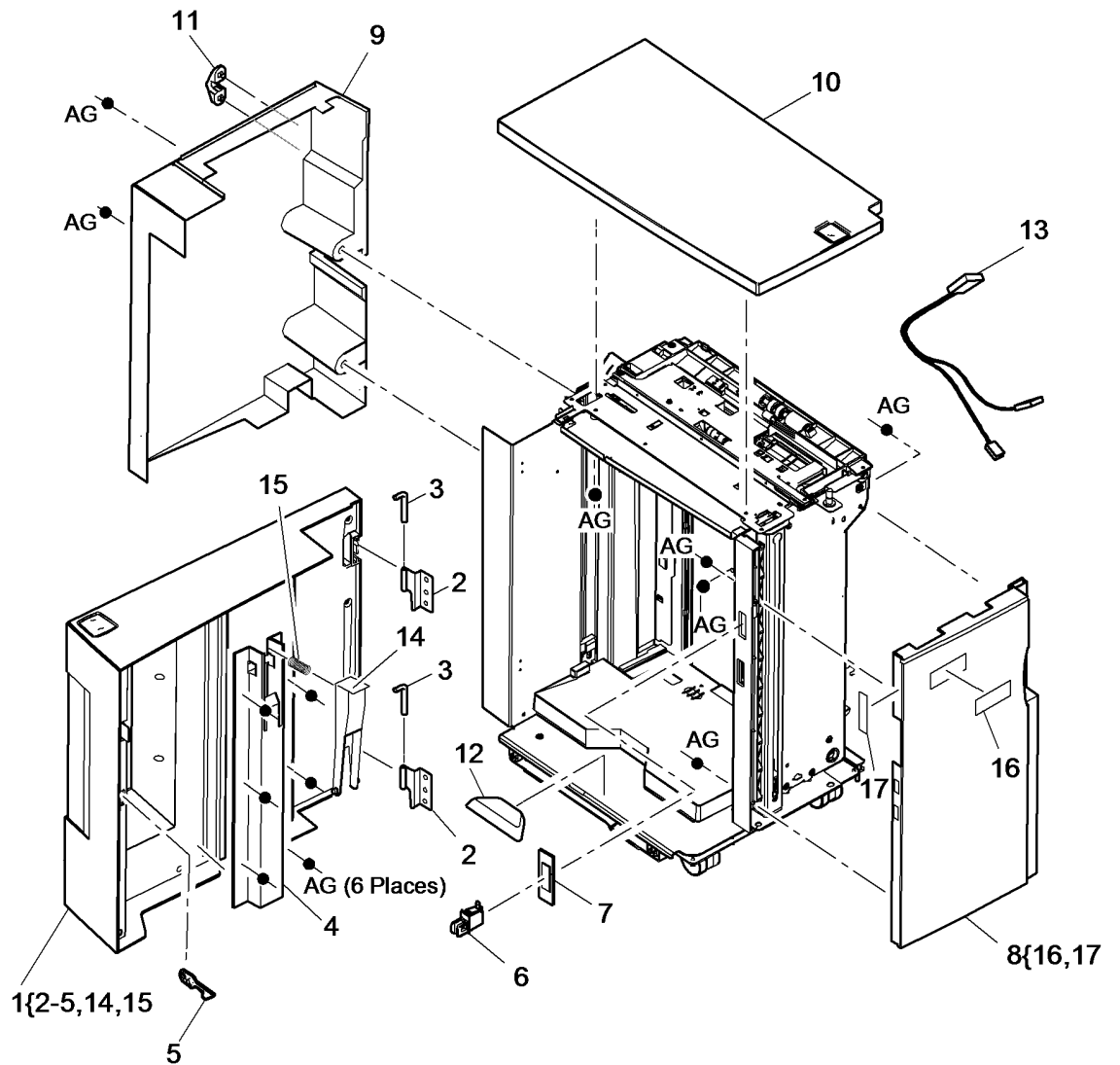


T-8-0025-A

## PL 7.60 Tray 5 Covers

Item	Part	Description
1	802K93561	Front door assembly
2	-	Front door hinge (P/O PL 7.60 Item 1)
3	-	Front door hinge pin (P/O PL 7.60 Item 1)
4	-	Trail edge guide assembly (P/O PL 7.60 Item 1)
5	-	Front door latch (P/O PL 7.60 Item 1)
6	110E20570	Front door interlock switch (S07-306)
-	110E07300	Front door interlock switch (See Note)
7	-	Interlock switch plate (Not Spared)
8	848K19110	Front cover
9	802E82351	Rear cover
10	802E82363	Top cover
11	-	Cable clamp (P/O PL 7.60 Item 9)
12	848E05863	Base knuckle cover
13	-	Front door interlock harness (Not Spared)
14	-	Tamper guide lever (P/O PL 7.60 Item 1)
15	-	Tamper lever compression spring (P/O PL 7.60 Item 1)
16	-	Label (Tray 5) (P/O PL 7.60 Item 8)
17	-	Label (Max) (P/O PL 7.60 Item 8)

**NOTE:** For use with all Tray 5 SEF option kits

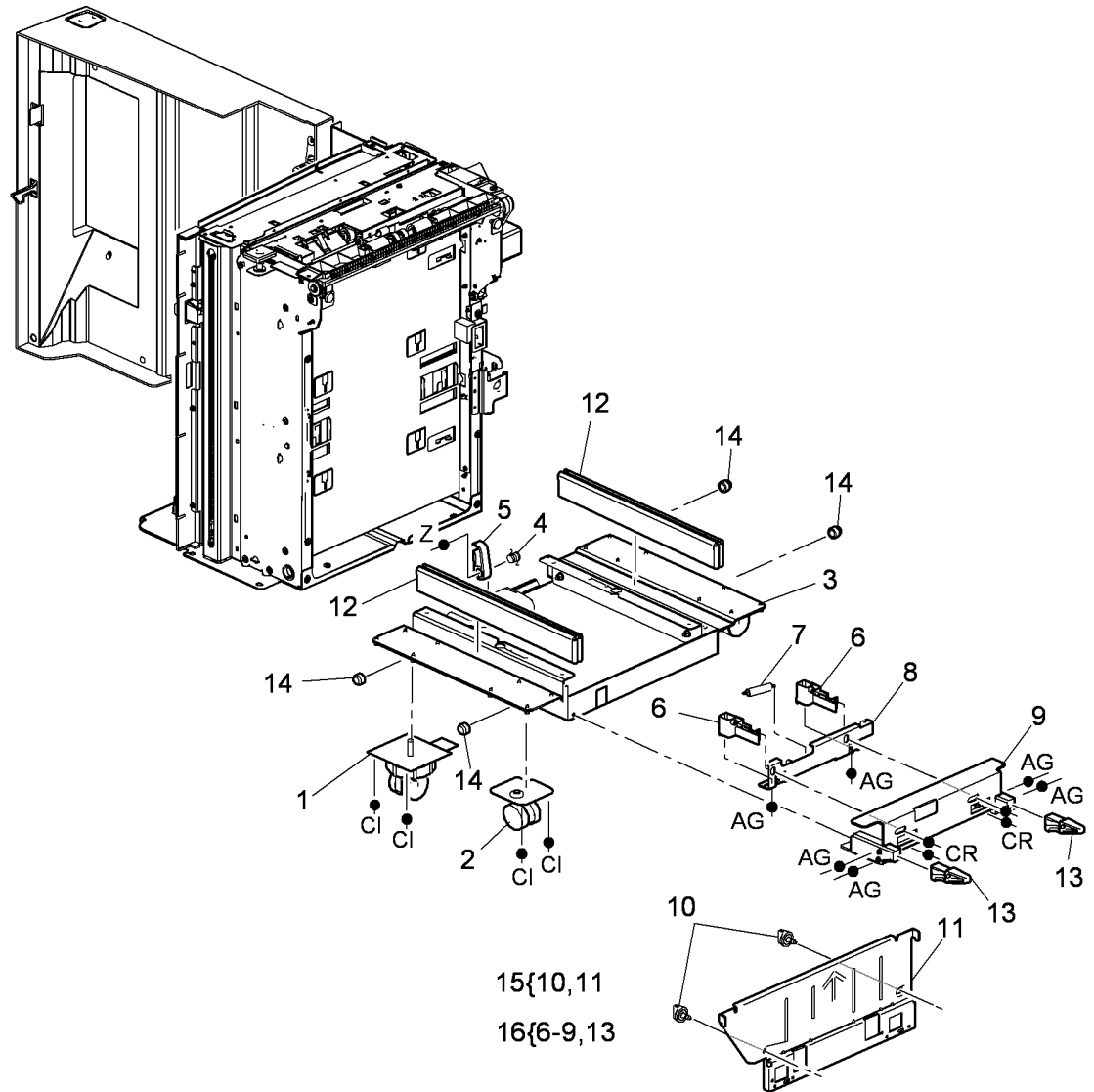


T-8-0026-B

## PL 7.62 Tray 5 Base

Item	Part	Description
1	-	Adjustable castor (P/O PL 31.14 Item 18)
2	-	Castor (Not Spared)
3	-	Platform assembly (Not Spared)
4	009E74211	Spring bias
5	003E76870	Latch bias
6	003E78020	Docking latch
7	-	Docking latch spring (P/O PL 7.62 Item 16)
8	-	Docking latch bracket (P/O PL 7.62 Item 16)
9	-	Docking latch main bracket (P/O PL 7.62 Item 16)
10	803E13680	Docking latch thumb screw (See NOTE)
11	068K54920	Docking plate (See NOTE)
12	-	Slide assembly (Not Spared)
13	-	Docking guides (P/O PL 7.62 Item 16)
14	-	Slide assembly locking nut (Not Spared)
15	-	Docking plate assembly (P/O PL 31.11 Item 11)
16	003K20681	Latch assembly

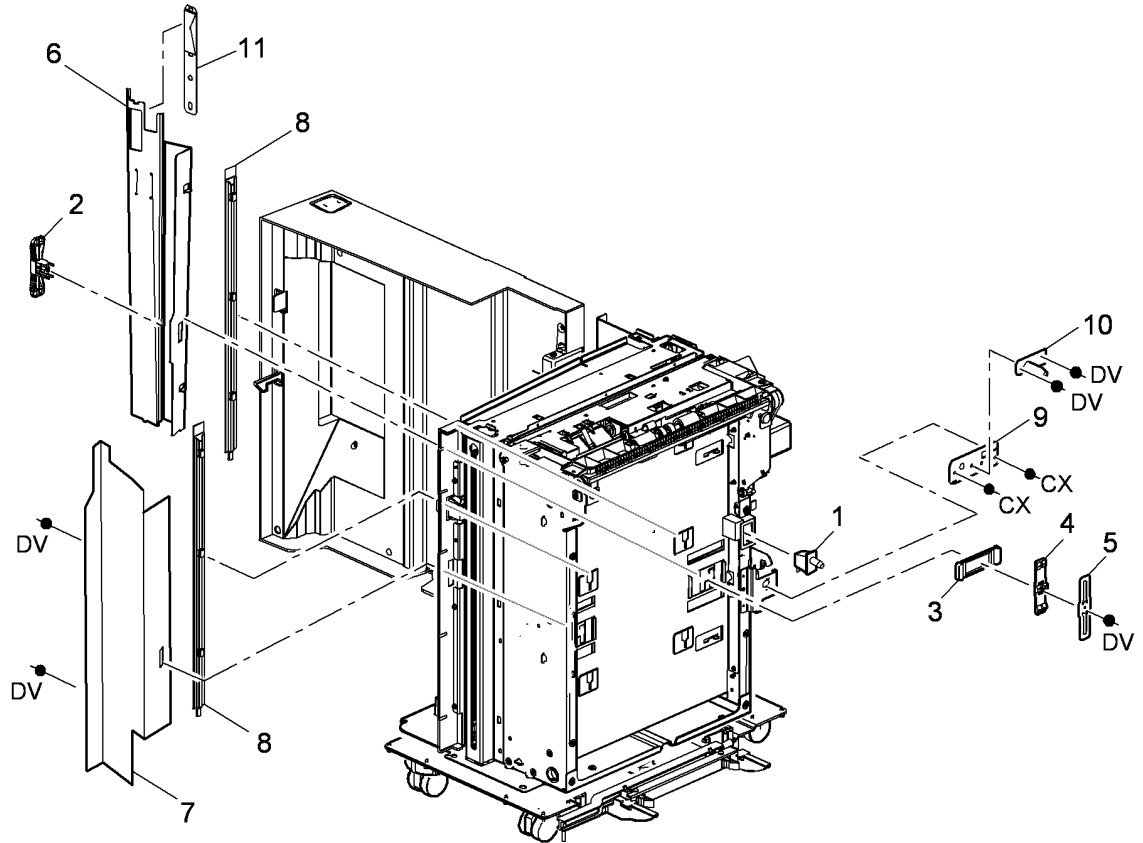
**NOTE:** This part is can also be ordered as part of a kit PL 31.11 Item 11.



T-8-0027-A

## PL 7.64 Tray 5 Guides

Item	Part	Description
1	110E07300	Docking interlock switch (S07-372)
2	-	Handle latch (Not Spared)
3	-	Latch spacer (Not Spared)
4	-	Slide latch (Not Spared)
5	-	Spring leaf (Not Spared)
6	-	Rear guide (P/O PL 7.64 Item 12)
7	-	Front guide assembly (Not Spared)
8	038E34402	Guide strip
9	-	Adjustment plate (P/O PL 7.64 Item 13)
10	-	Docking pin (P/O PL 7.64 Item 13)
11	-	Rear guide assembly spring (P/O PL 7.64 Item 12)
12	038K16403	Rear guide assembly
13	029K04680	Docking pin assembly



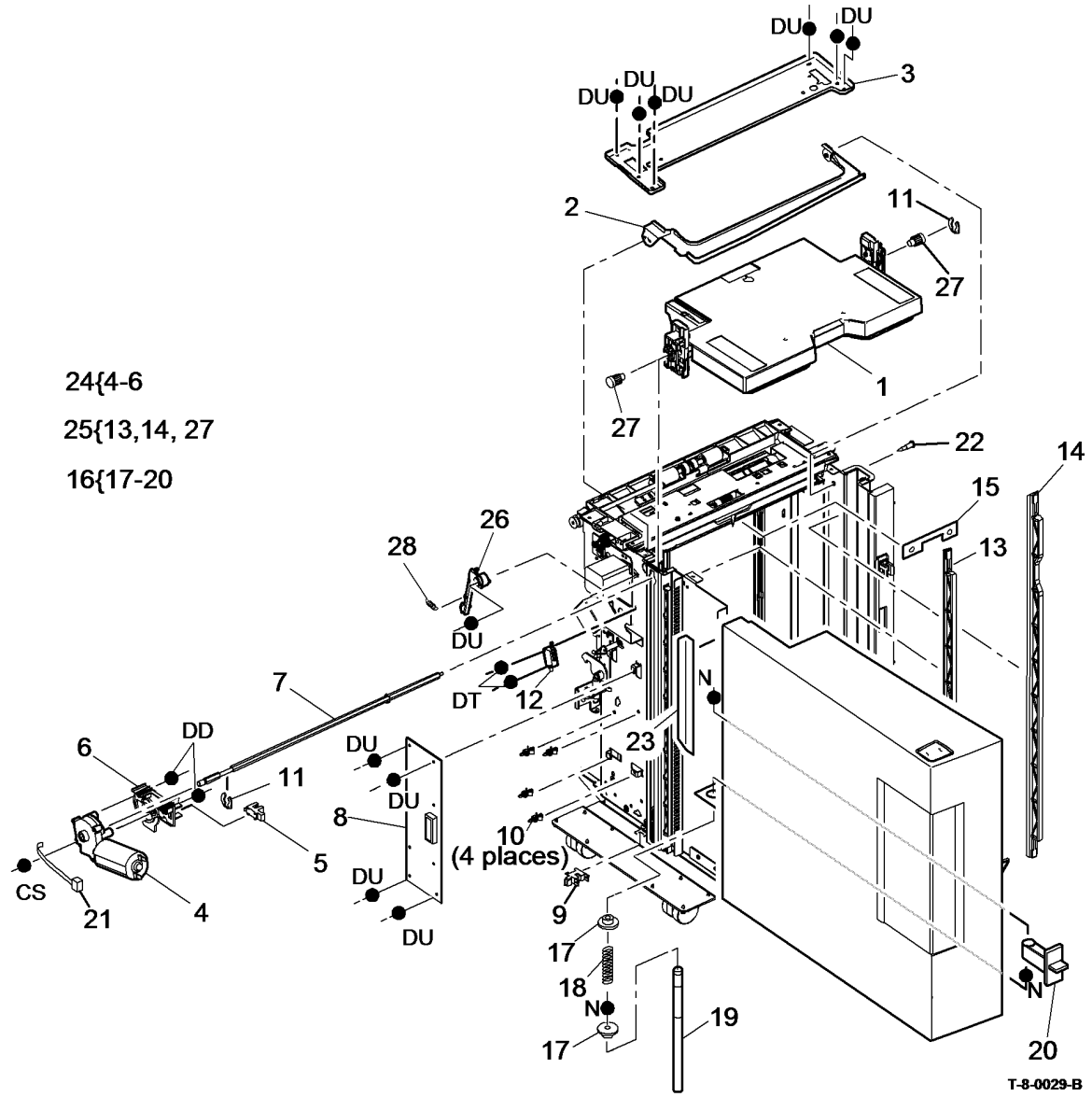
12{6,11

13{9,10

T-8-0028-A

# PL 7.68 Tray 5 Lift assembly (1 of 2)

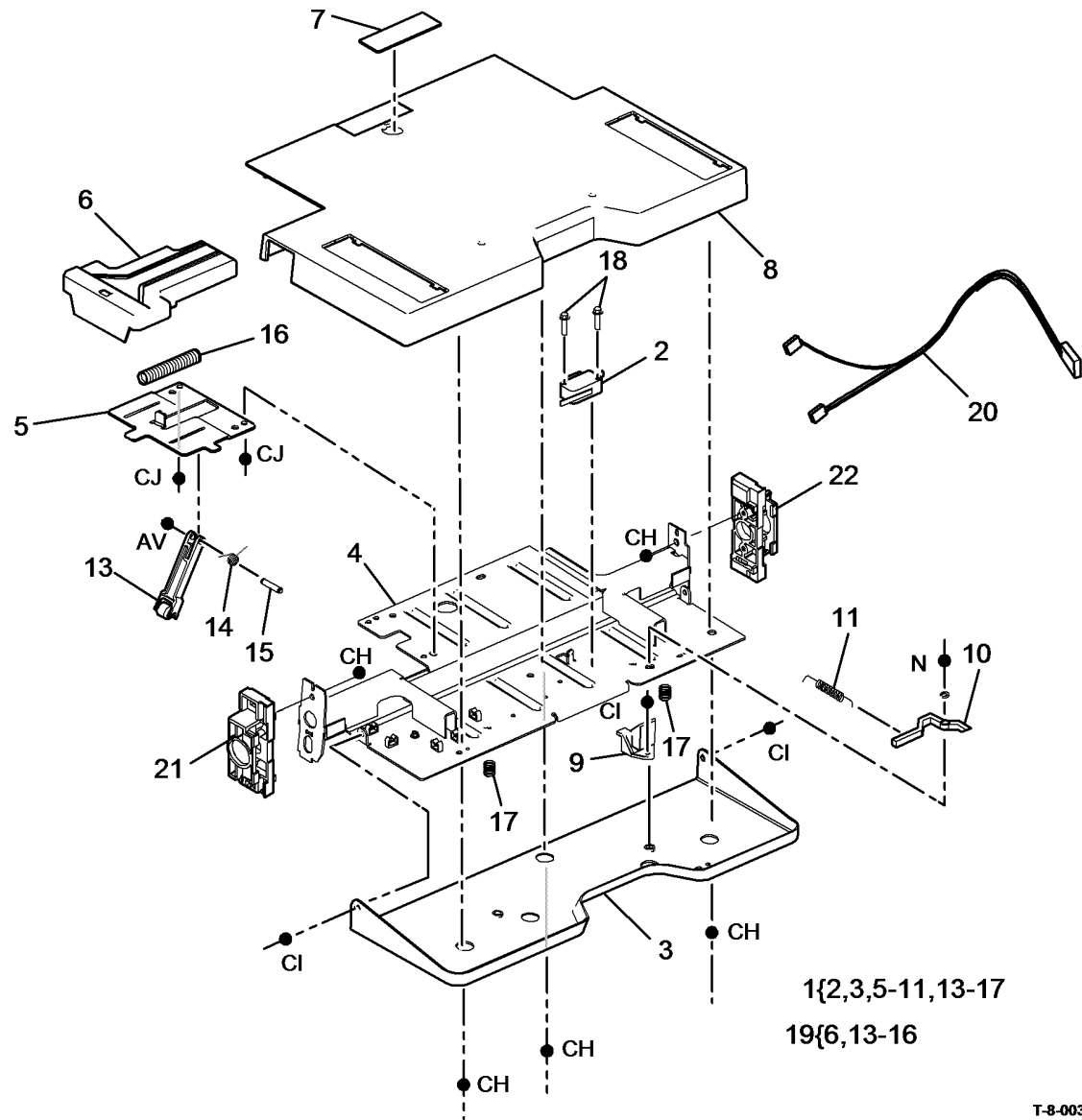
Item	Part	Description
1	-	Tray assembly (complete) (REF: PL 7.70 Item 1)
2	-	Crash bar (Not Spared)
3	-	Frame top brace (Not Spared)
4	-	Elevator motor (MOT07-373) (P/O PL 7.68 Item 24) (REP 7.16)
5	130K74380	Elevator motor encoder sensor (Q07-406) (REP 7.16)
6	-	Elevator motor bracket (P/O PL 7.68 Item 24)
7	-	Elevator motor shaft (Not Spared)
8	960K35024	Control PWB
9	130K75511	Stack down sensor (Q07-405) (REP 7.15)
10	-	Standoff (Not Spared)
11	-	Tray level drive gear clip (Not Spared)
12	110E06961	Upper limit switch (S07-412) (REP 7.17)
13	-	Rear elevator rack (P/O PL 7.68 Item 25) (REP 7.21)
14	-	Front elevator rack (P/O PL 7.68 Item 25) (REP 7.21)
15	-	Retard roller shield (P/O PL 8.47 Item 1)
16	003K20950	Shipping handle assembly
17	-	Shipping pin bearing (P/O PL 7.68 Item 16)
18	-	Shipping pin spring (P/O PL 7.68 Item 16)
19	-	Shipping pin (P/O PL 7.68 Item 16)
20	-	Shipping pin handle (P/O PL 7.68 Item 16)
21	-	Cable tie (Not Spared)
22	-	Clinch stud (Not Spared)
23	-	Cable holder (Not Spared)
24	127K56330	Elevator motor assembly (REP 7.16)
25	007K19660	Elevator rack assembly (REP 7.21)
26	-	Upper limit switch actuator (Not Spared)
27	-	Tray level drive gear (P/O PL 7.68 Item 25) (REP 7.21)
28	-	Actuator spring (Not Spared)



24{4-6  
25{13,14, 27  
16{17-20

## PL 7.70 Tray 5 Lift assembly (2 of 2)

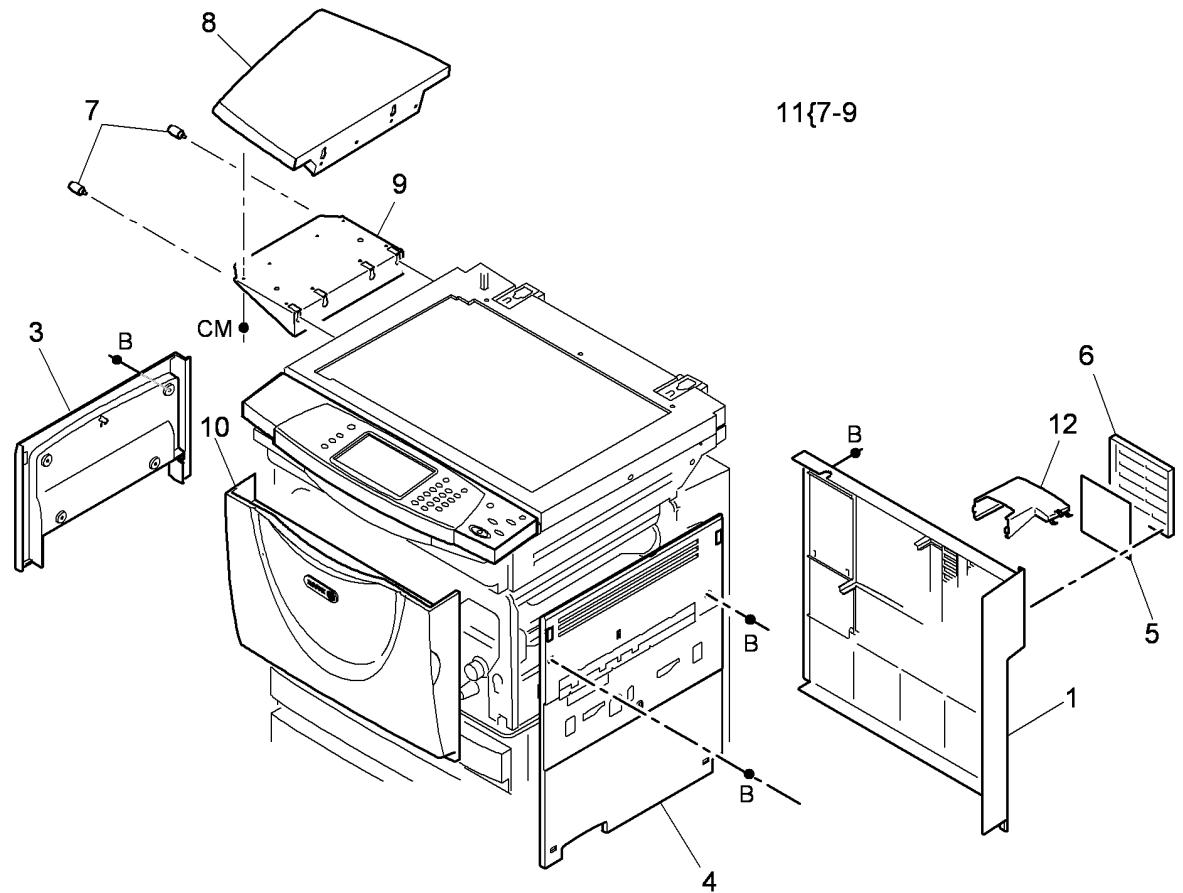
Item	Part	Description
1	-	Tray lift assembly (Not Spared)
2	110E06961	Tray down limit switch (S07-415) (Not Spared) (REP 7.18)
3	025E06871	Lower safety bar
4	-	Lift plate (Not Spared)
5	-	Fixing plate (Not Spared)
6	-	Infill plate (P/O PL 7.70 Item 19)
7	019K13470	Cork pad
8	-	Tray lift top cover (Not Spared)
9	-	Lift plate crash bar actuator 2 (Not Spared)
10	-	Lift plate crash bar actuator 1 (Not Spared)
11	-	Crash bar actuator spring (Not Spared)
12	-	Not Used
13	-	Infill actuator arm (P/O PL 7.70 Item 19)
14	-	Infill actuator arm spring (P/O PL 7.70 Item 19)
15	-	Infill actuator arm pin (P/O PL 7.70 Item 19)
16	-	Infill plate spring (P/O PL 7.70 Item 19)
17	-	Lower safety spring (Not Spared)
18	612W25655	Tray down limit switch screw
19	815K11380	Infill plate assembly
20	962K50461	Tray 5 elevator harness
21	032E29800	Rear elevator tray guide (REP 7.29)
22	032E29790	Front elevator tray guide (REP 7.29)



## PL 8.10 Main Covers

Item	Part	Description
1	802E93222	Rear cover
2	-	Not used
3	802E93211	Left hand cover
4	802E93202	Right hand cover (W/O TAG 046, TAG 047, TAG 148)
-	848E46340	Right hand cover (P/O PL 10.20 Item 1) (W/TAG 046, TAG 047)
-	-	Right hand cover (P/O PL 10.21 Item 1) (WARNING) (W/TAG 148)
5	-	Filter (Not Spared)
6	-	Filter cover (Not Spared)
7	826E49310	Thumbscrew
8	-	Work shelf (P/O PL 8.10 Item 11)
9	-	Work shelf bracket (P/O PL 8.10 Item 11)
10	848K48881	Front door assembly (35-55 ppm)
-	848K48893	Front door assembly (REF: PL 8.11 Item 10) (65-90 ppm)
11	-	Work shelf assembly kit
12	014E67571	Stand off cable holder (NOTE)

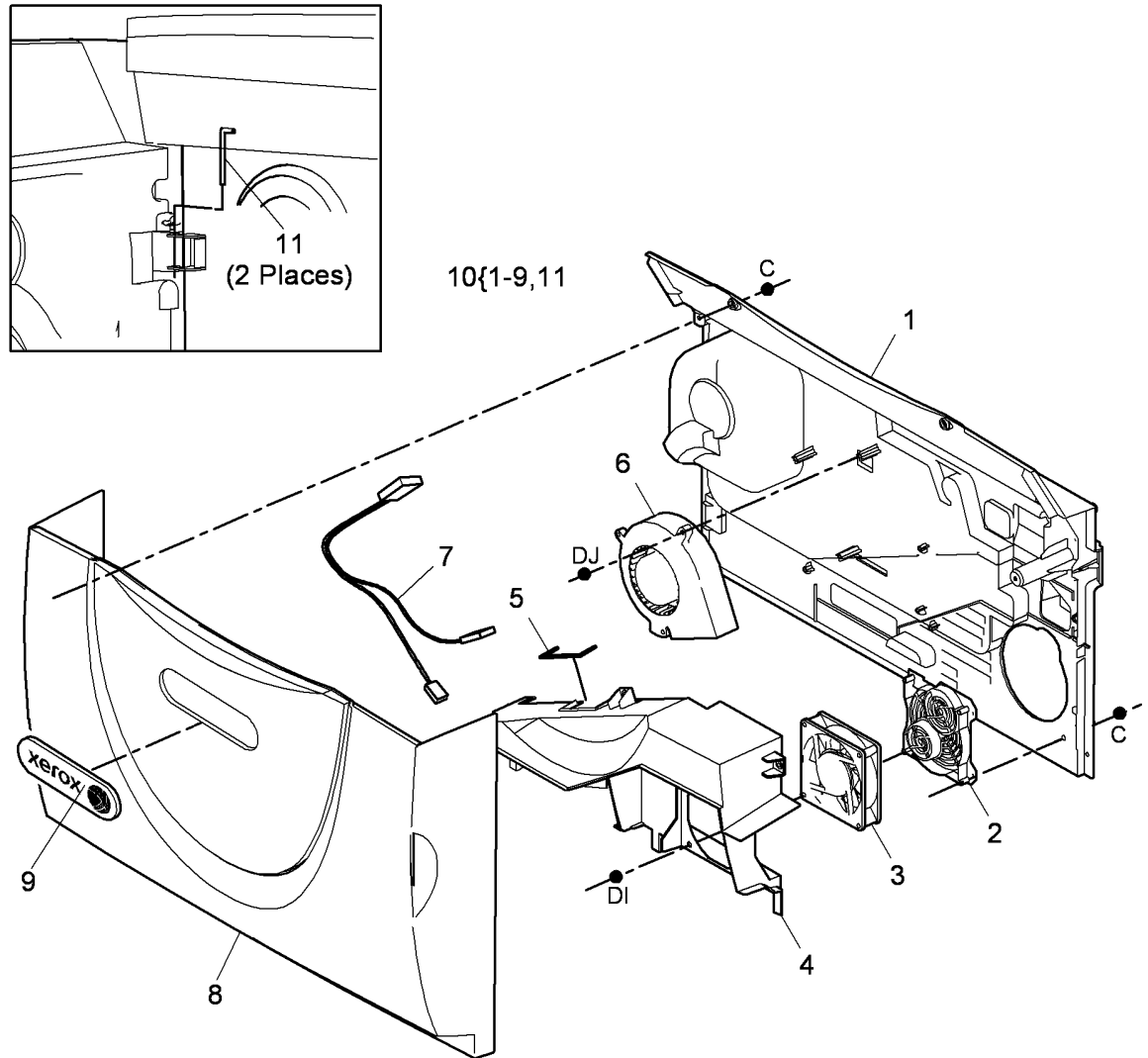
**NOTE:** This part can also be ordered as part of PL 31.14 Item 13



T-8-0031-A

## PL 8.11 Front Door Assembly (65-90 ppm) (2 of 3)

Item	Part	Description
1	-	Internal cover (P/O PL 8.11 Item 10)
2	-	Grill (P/O PL 8.11 Item 10)
3	-	Paper path cooling fan 1 (P/O PL 8.11 Item 10)
4	-	Cooling duct (P/O PL 8.11 Item 10)
5	-	Foam seal (P/O PL 8.11 Item 10)
6	-	Paper path cooling fan 2 (P/O PL 8.11 Item 10)
7	-	Harness (P/O PL 8.11 Item 10)
8	-	Front door (P/O PL 8.11 Item 10)
9	-	Logo badge (P/O PL 8.11 Item 10)
10	848K48893	Front door assembly
11	-	Door hinge pin (P/O PL 8.11 Item 10)

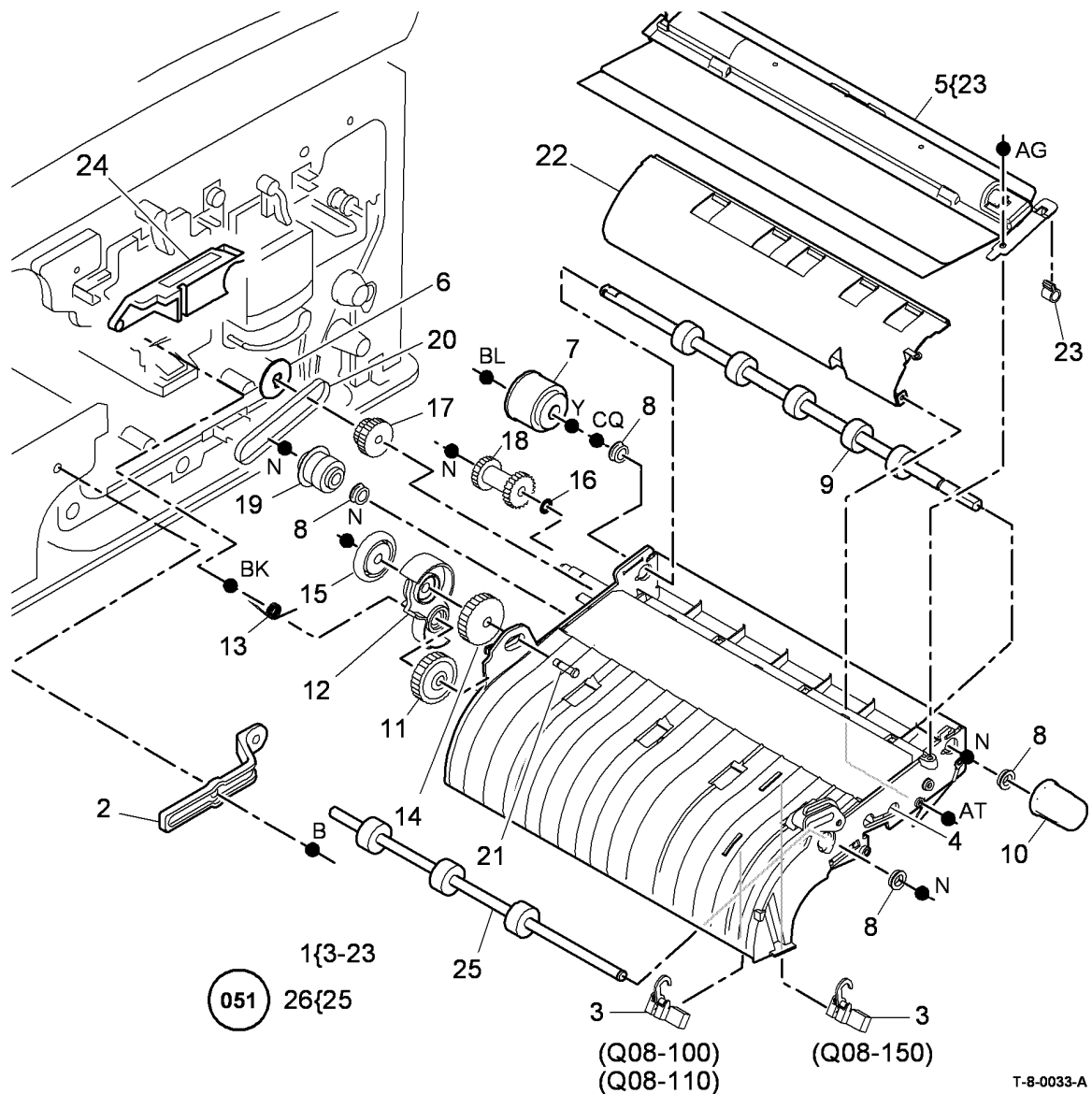


T-8-0032-A



## PL 8.15 Registration Transport (35-55 ppm)

Item	Part	Description
1	059K60041	Registration transport assembly (REP 8.4, ADJ 8.1)
2	-	Retainer bracket (Not Spared)
3	130E11430	Wait sensor (Q08-100), Registration sensor (Q08-150) (NOTE 2) (REP 8.6)
4	-	Registration transport guide (P/O PL 8.15 Item 1)
5	059K52341	Registration nip assembly
6	028E16630	Snap on washer (M6)
7	-	Registration clutch (CL08-070) (P/O PL 31.12 Item 13) (REP 8.5, ADJ 8.1, ADJ 4.1)
8	013E36980	Bearing
9	806E18030	Drive roll assembly (REP 8.26)
10	-	Jam clearance knob (P/O PL 8.15 Item 1)
11	-	Gear (26T) (P/O PL 8.15 Item 1)
12	-	Spring arm (P/O PL 8.15 Item 1)
13	-	Torsion spring (P/O PL 8.15 Item 1)
14	-	Gear (28T) (P/O PL 8.15 Item 1)
15	-	Ring pitch (P/O PL 8.15 Item 1)
16	-	Black nylon washer (P/O PL 8.15 Item 1)
17	-	Gear (22G/28T) (P/O PL 8.15 Item 1) (ADJ 4.1)
18	-	Gear (23T) (P/O PL 8.15 Item 1) (ADJ 4.1)
19	-	Gear (22G/20T) (P/O PL 8.15 Item 1)
20	-	Drive belt (P/O PL 8.15 Item 1) (REP 8.27)
21	-	Spring arm pin (P/O PL 8.15 Item 1)
22	-	Lower bias guide (P/O PL 8.15 Item 1)
23	835E05350	Bias contact (NOTE 1)
24	-	Clutch cover (P/O PL 31.12 Item 13)
25	-	Drive shaft (P/O PL 8.15 Item 26)
26	604K55571	Drive roll repair kit (W/TAG 051)



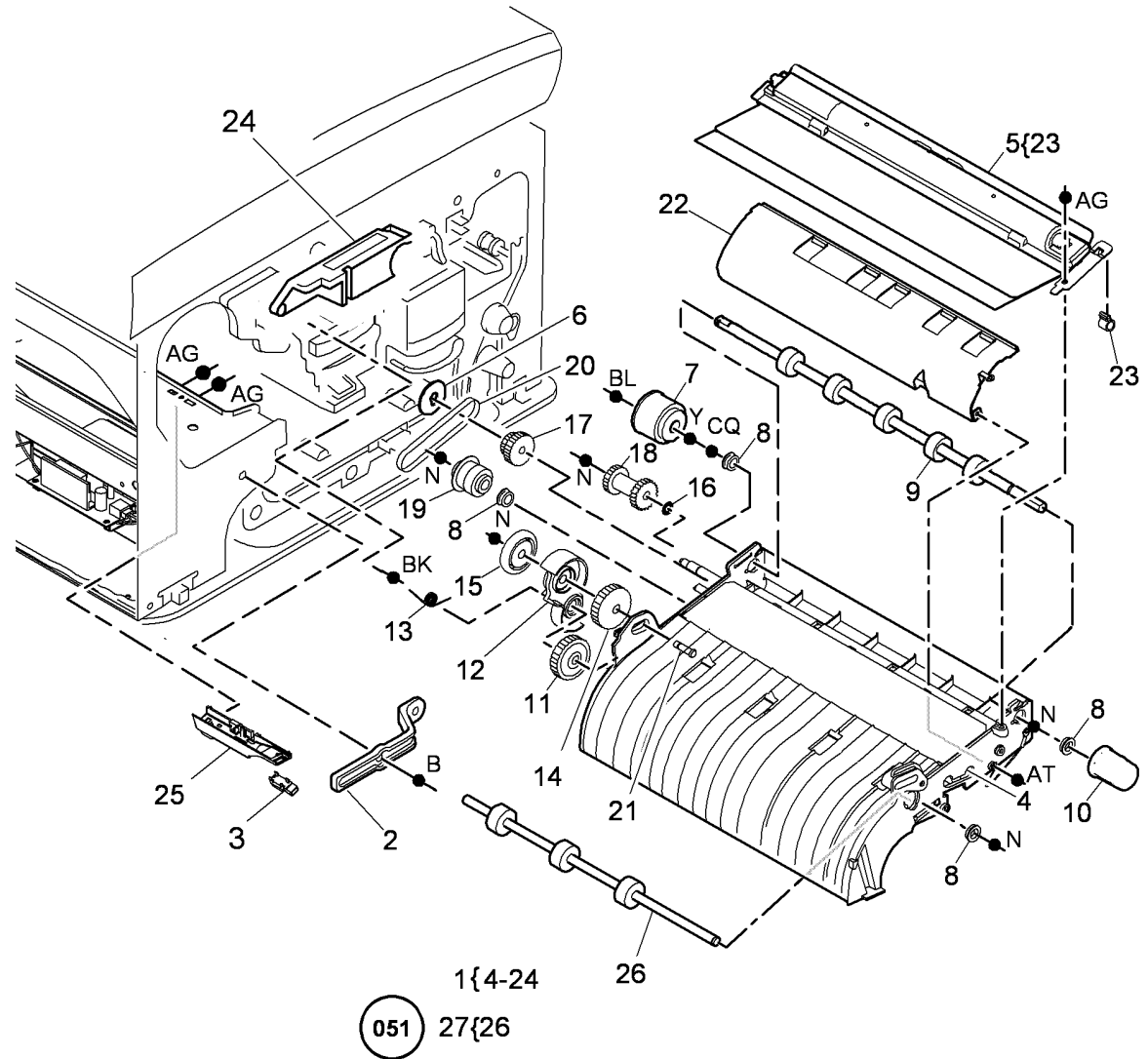
**NOTE:** 1. This is a HFSI. Refer to GP 17 and reset the bias foam count to zero in the feature screen.

**NOTE:** 2. Sensor reference Q08-110 may also be seen when the tray 5 is present.

T-8-0033-A

# PL 8.17 Registration Transport (65-90 ppm)

Item	Part	Description
1	059K60051	Registration transport assembly (REP 8.4, ADJ 8.1)
2	-	Retainer bracket (Not Spared)
3	130E11610	Registration sensor (Q08-150) (REP 8.15)
4	-	Registration transport guide (P/O PL 8.17 Item 1)
5	059K52341	Registration nip assembly
6	028E16630	Snap on washer (M6)
7	-	Registration clutch (CL08-070) (P/O PL 31.12 Item 13) (REP 8.5, ADJ 8.1, ADJ 4.1)
8	013E36980	Bearing
9	806E18030	Drive roll assembly (REP 8.26)
10	-	Jam clearance knob (P/O PL 8.17 Item 1)
11	-	Gear (26T) (P/O PL 8.17 Item 1)
12	-	Spring arm (P/O PL 8.17 Item 1)
13	-	Torsion spring (P/O PL 8.17 Item 1)
14	-	Gear (28T) (P/O PL 8.17 Item 1)
15	-	Ring pitch (P/O PL 8.17 Item 1)
16	-	Black nylon washer (P/O PL 8.17 Item 1)
17	-	Gear (22G/28T) (P/O PL 8.17 Item 1) (ADJ 4.1)
18	-	Gear (23T) (P/O PL 8.17 Item 1) (ADJ 4.1)
19	-	Gear (22G/20T) (P/O PL 8.17 Item 1)
20	-	Drive belt (P/O PL 8.17 Item 1) (REP 8.27)
21	-	Spring arm pin (P/O PL 8.17 Item 1)
22	-	Lower bias guide (P/O PL 8.17 Item 1)
23	835E05350	Bias contact (NOTE)
24	-	Clutch cover (P/O PL 31.12 Item 13)
25	-	Registration sensor bracket (Not Spared)
26	-	Drive shaft (P/O PL 8.17 Item 27)
27	604K55571	Drive roll repair kit (W/TAG 051)



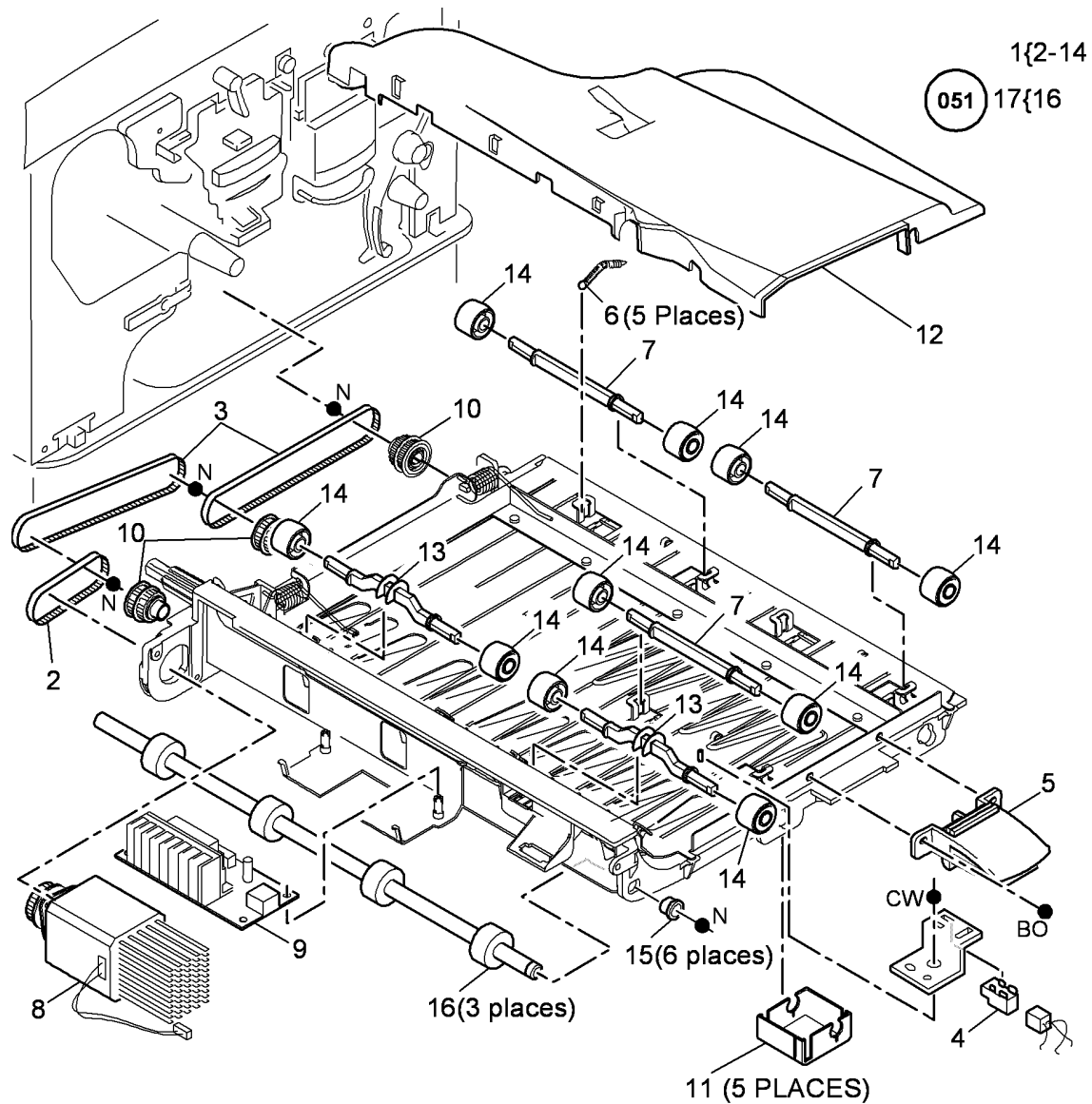
**NOTE:** This is a HFSI. Refer to GP 17 and reset the bias foam count to zero in the feature screen.

T-8-0034-A

## PL 8.20 Duplex Transport (65-90 ppm)

Item	Part	Description
1	059K64151	Duplex transport (REP 8.7)
2	-	Drive belt (76T) (P/O PL 8.20 Item 1) (REP 8.8)
3	-	Drive belt (285T) (P/O PL 8.20 Item 1) (REP 8.8)
4	130E11610	Duplex sensor (Q08-160) (See NOTE) (REP 8.32)
5	003K20760	Jam clearance latch
6	-	Spring (P/O PL 8.20 Item 1)
7	-	Nip roll shaft (P/O PL 8.20 Item 1)
8	127K62340	Duplex motor (MOT08-060) (REP 8.8)
9	960K32880	Duplex motor driver PWB (REP 8.8)
10	-	Drive pulley (P/O PL 8.20 Item 1)
11	-	Lower cover (P/O PL 8.20 Item 1)
12	-	Duplex duct (P/O PL 8.20 Item 1)
13	-	Duplex nip roll shaft (P/O PL 8.20 Item 1)
14	059K49400	Nip roll assembly
15	-	Bearing (P/O PL 8.20 Item 1)
16	-	Duplex drive roll shaft (P/O PL 8.20 Item 17) (W/O TAG 051)
-	-	Duplex drive roll shaft (P/O PL 8.20 Item 17) (W/TAG 051)
17	604K55571	Drive roll repair kit (W/TAG 051)

**NOTE:** HFSI. To reset the HFSI count, refer to GP 17.

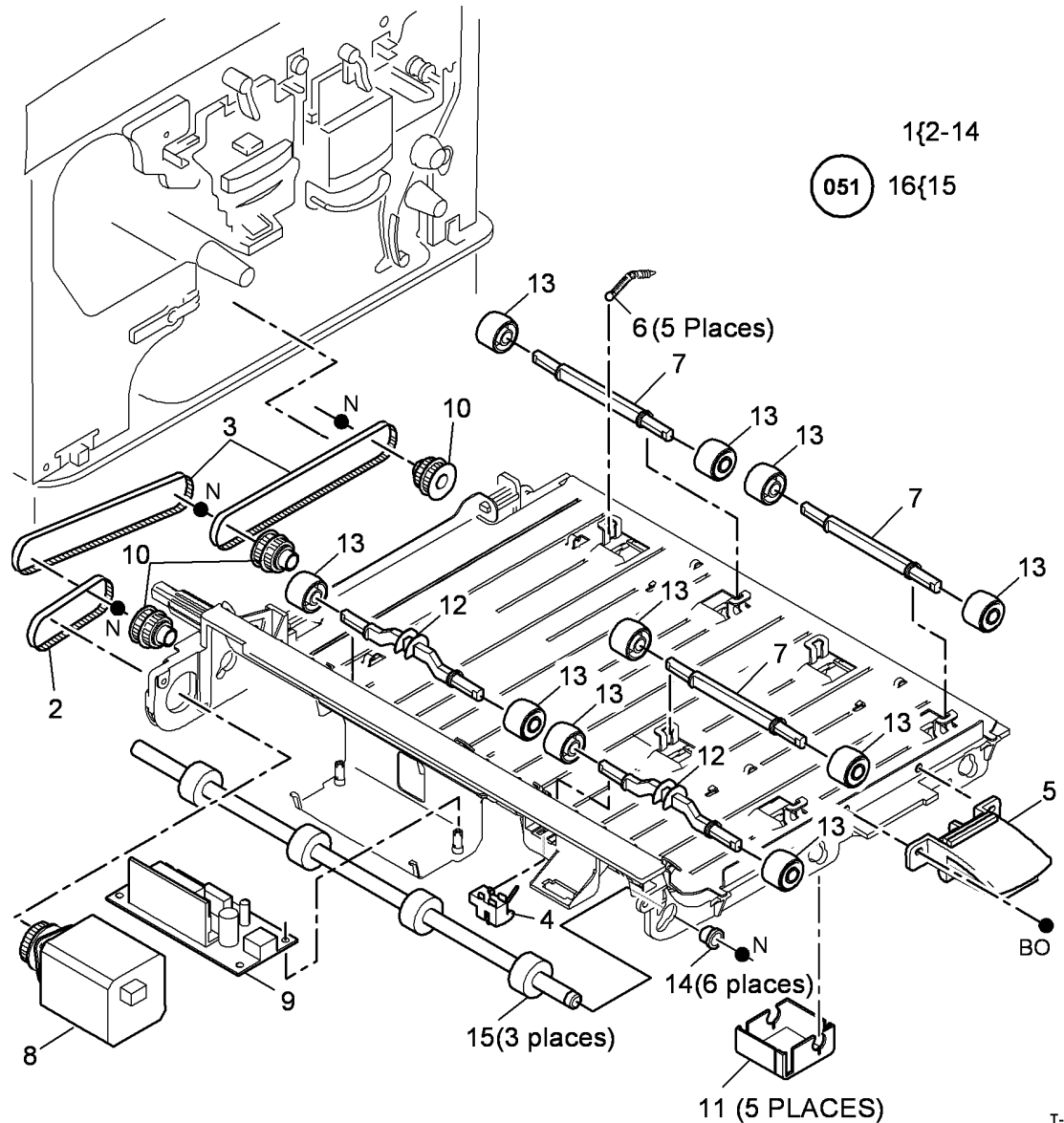


T-8-0035-A

## PL 8.22 Duplex Transport (35-55 ppm)

Item	Part	Description
1	059K59433	Duplex transport (REP 8.7)
2	-	Drive belt (76T) (P/O PL 8.22 Item 1) (REP 8.8)
3	-	Drive belt (285T) (P/O PL 8.22 Item 1) (REP 8.8)
4	130E12070	Duplex sensor (Q08-160) (NOTE) (REP 8.32)
5	003K20760	Jam clearance latch
6	-	Spring (P/O PL 8.22 Item 1)
7	-	Nip roll shaft (P/O PL 8.22 Item 1)
8	127K53190	Duplex motor (MOT08-060) (REP 8.8)
9	960K52720	Duplex motor driver PWB (REP 8.8)
10	-	Drive pulley (P/O PL 8.22 Item 1)
11	-	Lower cover (P/O PL 8.22 Item 1)
12	-	Duplex nip roll shaft (P/O PL 8.22 Item 1)
13	059K49400	Nip roll assembly
14	-	Bearing (P/O PL 8.22 Item 1)
15	-	Duplex drive roll shaft (P/O PL 8.22 Item 16) (W/O TAG 051)
16	604K55571	Drive roll repair kit (W/TAG 051)

**NOTE:** HFSI. To reset the HFSI count, refer to GP 17.

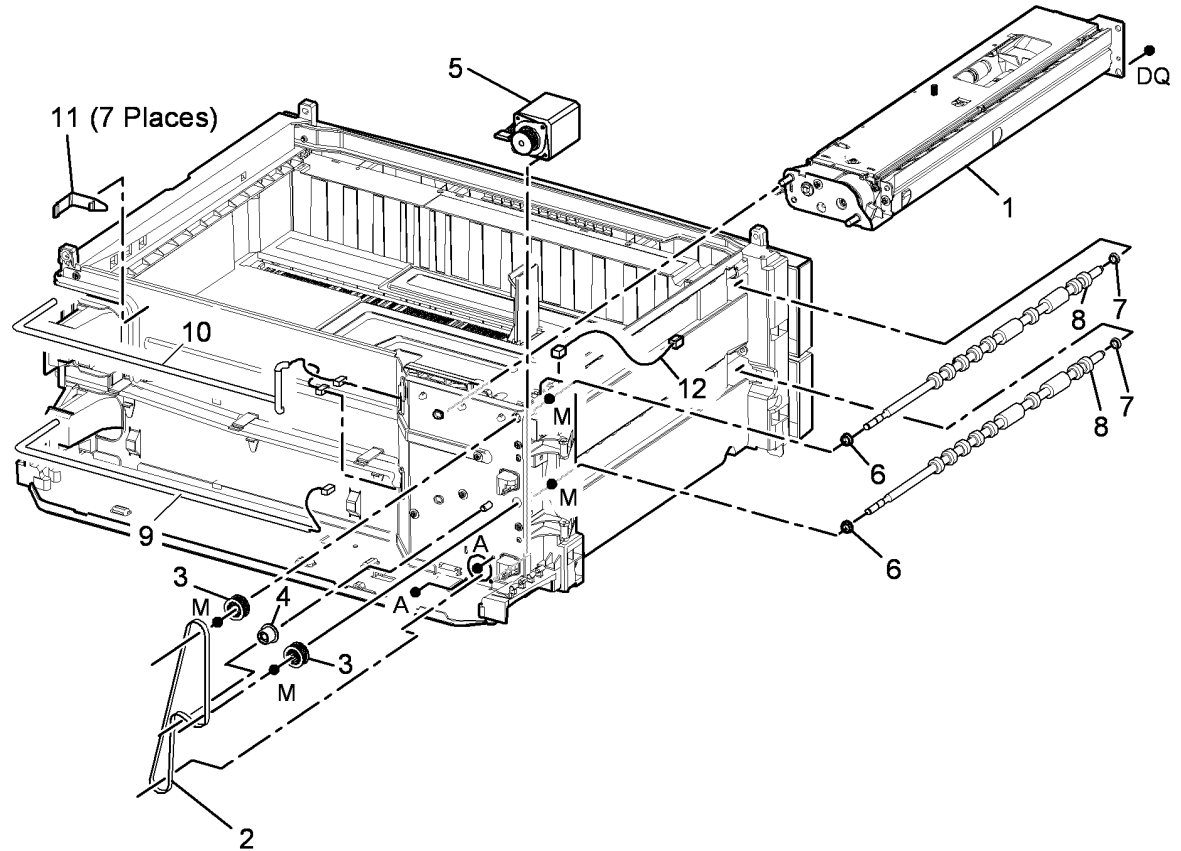


T-8-0036-A

## PL 8.25 Tray 1 and 2 Paper Feed Assembly (1 of 2)

Item	Part	Description
1	–	Tray 1 or 2 paper feed assembly (P/O PL 8.26 Item 1)
2	023E31270	Transport drive belt (REP 8.12)
3	020E54150	Pulley
4	020E48680	Pulley idler
5	127K61842	Transport roll drives motor (MOT08-025)
6	013E37480	Rear transport roll bearing (REP 8.16)
7	013E37490	Front transport roll bearing (REP 8.16)
8	059K70070	Transport roll (NOTE)
9	962K64030	Power harness
10	962K64020	Signal harness
11	120E36130	Cable holder
12	962K64040	Connection harness

**NOTE:** HFSI. To reset the HFSI count, refer to GP 17.

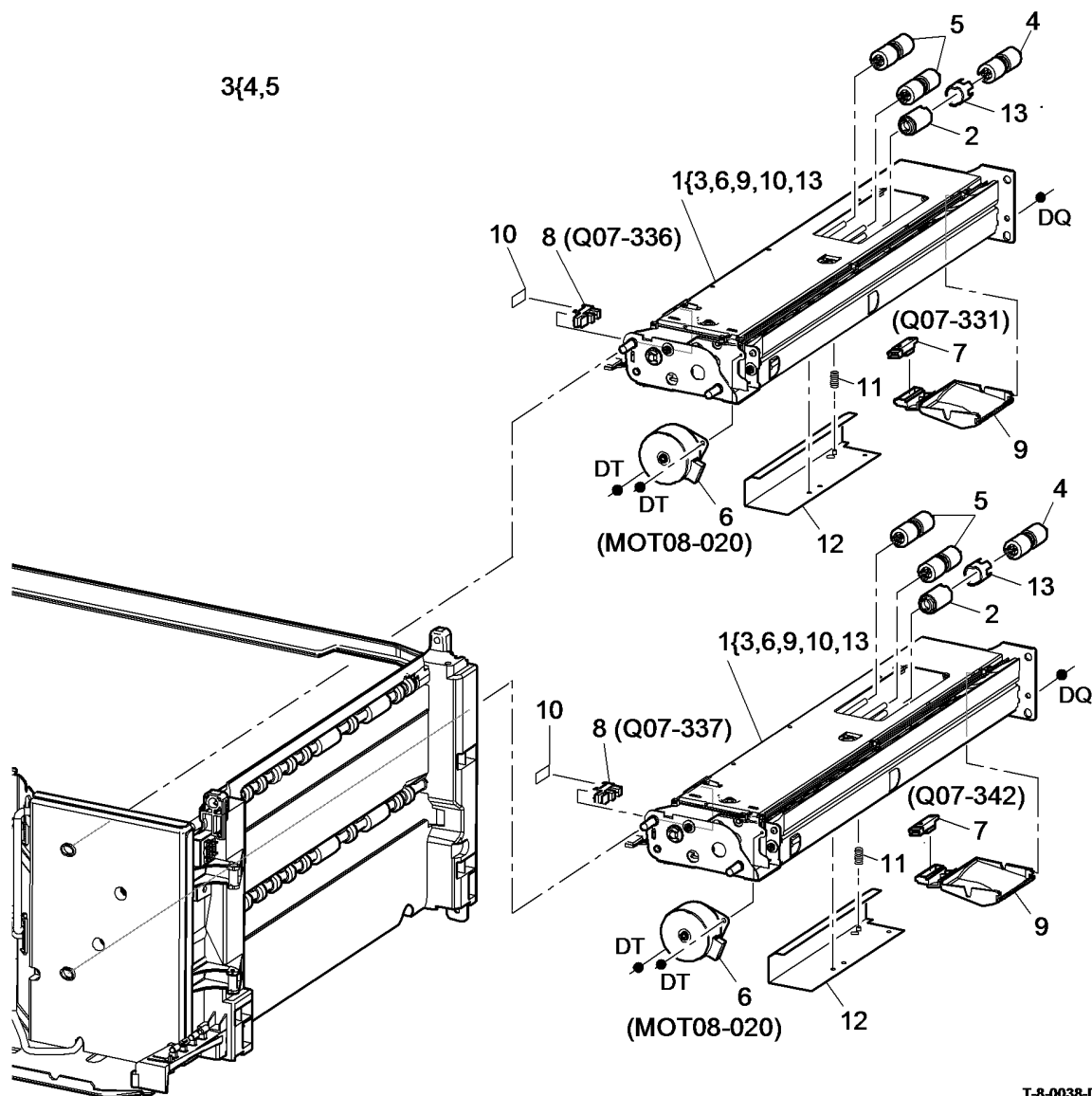


T-8-0037-A

## PL 8.26 Tray 1 and 2 Paper Feed Assembly (2 of 2)

Item	Part	Description
1	604K61761	Tray 1 or 2 paper feed assembly (REP 8.1)
2	005K12242	Friction clutch (REP 8.39)
3	059K69800	Roll assembly (3 rolls) (See NOTE) (REP 8.35)
4	-	Retard roll (P/O PL 8.26 Item 3)
5	-	Feed Nudger roll assembly (P/O PL 8.26 Item 3)
6	127K61850	Feed/elevator motor (MOT08-010, MOT08-020)
7	130E12770	Tray empty sensor (Q07-331, Q07-342)
8	130E12790	Tray 1 stack height sensor (Q07-336)/ Tray 2 stack height sensor (Q07-337)
9	-	Guide (P/O PL 8.26 Item 1)
10	014E67650	Shim sensor
11	809E84180	Retard roll gate spring
12	-	Retard roll gate (P/O PL 8.26 Item 1)
13	-	Clutch coupling (P/O PL 8.26 Item 1) (REP 8.39)

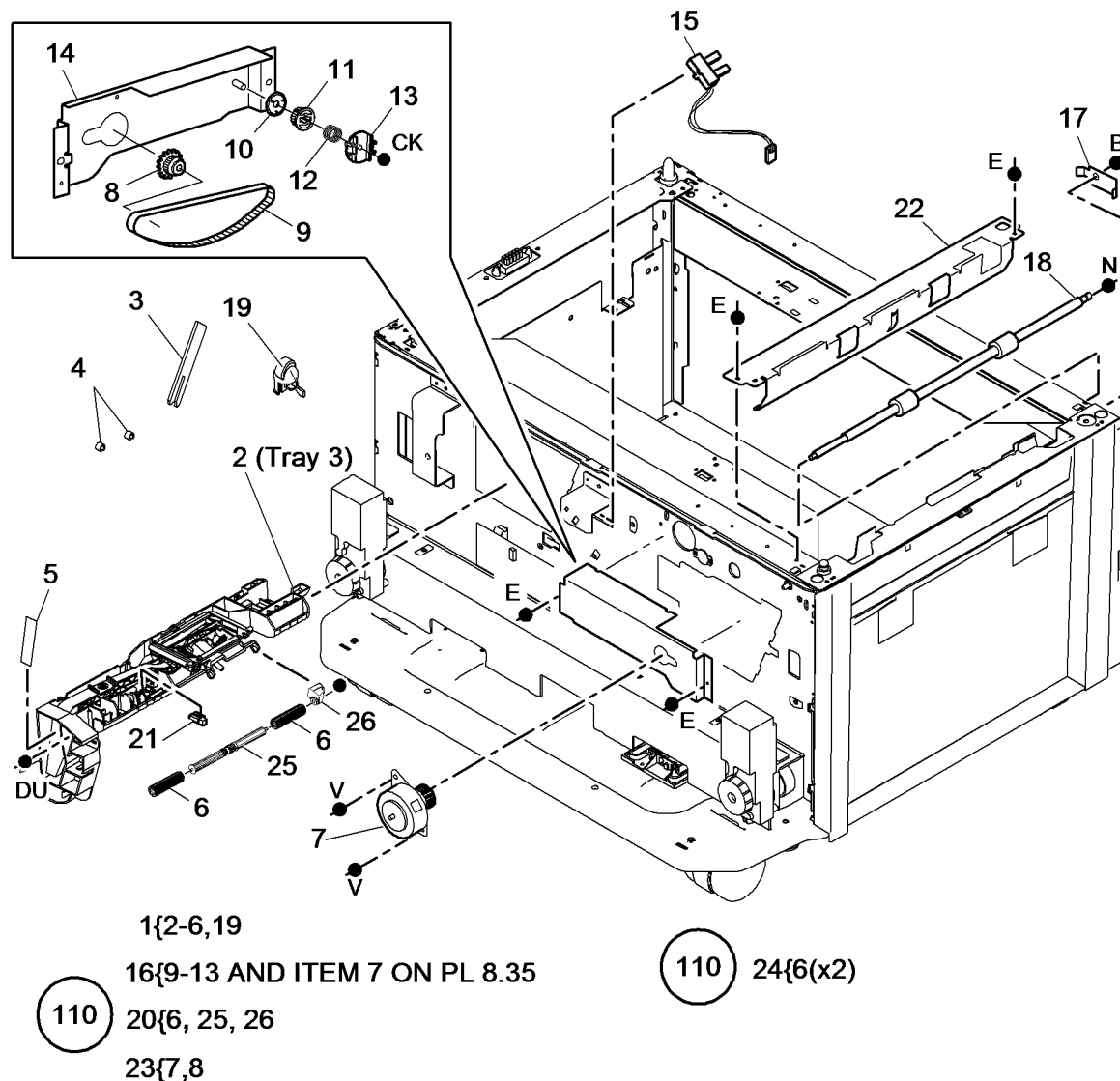
**NOTE:** HFSI. To reset the HFSI count, refer to GP 17.



T-8-0038-D

# PL 8.30 Tray 3 Paper Feed Assembly (W/ O TAG 151)

Item	Part	Description
1.	604K53950	Tray 3 and 4 paper feed assembly kit (REP 8.2, REP 8.3)
2.	-	Tray 3 paper feeder (P/O PL 8.30 Item 1) (See NOTE 2)
3.	-	Spacer tool (P/O PL 8.30 Item 1)
4.	-	Feeder spacer (Tray 3 only) (P/O PL 8.30 Item 1)
5.	-	Tray 3 feeder label (P/O PL 8.30 Item 1)
6.	059K43730	Feed roll assembly (W/O TAG 110)
-	-	Feed roll assembly (P/O PL 8.30 Item 24) (W/TAG 110)
7.	127K42880	Tray 3 and 4 transport motor (MOT08-045) (P/O PL 8.30 Item 23) (REP 8.10)
-	127K53380	Tray 3 and 4 transport motor (MOT08-045) (Alternative) (REP 8.10)
8.	807E06210	Tray 3 and 4 transport drive gear (Non-conductive) (35-55 ppm)
-	-	Tray 3 and 4 transport drive gear (Conductive) (P/O PL 8.30 Item 23) (65-90 ppm) (REP 8.11)
9.	-	Transport drive belt (P/O PL 8.30 Item 16)
10.	-	Flange (P/O PL 8.30 Item 16)
11.	-	Pulley (P/O PL 8.30 Item 16)
12.	-	Spring (P/O PL 8.30 Item 16)
13.	-	Drive coupling (P/O PL 8.30 Item 16)
14.	-	Tray 3 and 4 transport motor bracket (Not Spared)
15.	130E12510	Tray 3 feed sensor (Q08-103) (See NOTE 1) (REP 8.28)
16.	005E21801	Drive coupling assembly
17.	809E94510	Ground plate (35-55 ppm)
18.	059K58620	Tray 3 and 4 transport roll (35-55 ppm) (NOTE 2) (REP 8.31, ADJ 4.1)
-	059K50120	Tray 3 and 4 transport roll (65-90 ppm) (REP 8.31, ADJ 4.1)
19.	018K01390	Tray 3 stack height sensor actuator (See NOTE 3)
20.	604K48620	Tray 3 and 4 multifeed roll fix kit (rough feed rolls) (W/TAG 110)
21.	130E20360	Stack height sensor (REP 7.7)
22.	-	Paper guide (Not Spared)
23.	127K56490	Tray 3 and 4 transport motor and drive gear kit (Conductive) (65-90 ppm) (REP 8.11)
24.	604K95360	Tray 3 and 4 multifeed rolls spare kit (rough tread rolls) (W/TAG 110)
25.	-	Feed roll shaft assembly (P/O PL 8.30 Item 20)
26.	-	Paper stack deflector (P/O PL 8.30 Item 20)



**NOTE:** . 1. For the tray 3 feed sensor actuator, refer to PL 7.15 Item 9.

**NOTE:** . 2. HFSI. To reset the HFSI count, refer to GP 17.

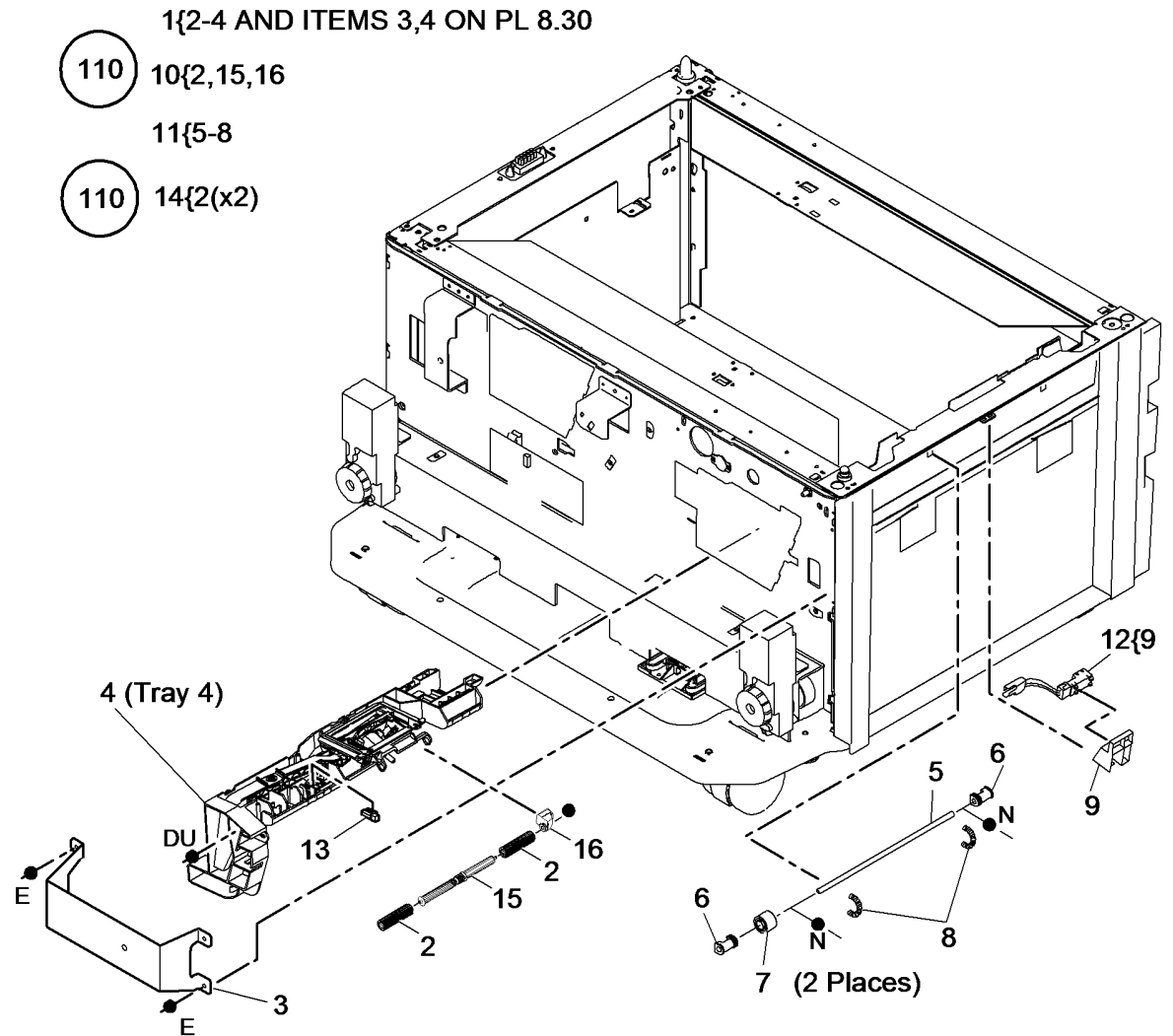
**NOTE:** . 3. Also supplied as part of a kit PL 8.30 Item 1.

T-8-0039-B

# PL 8.31 Tray 4 Paper Feed Assembly (W/O TAG 151)

Item	Part	Description
1	604K53950	Tray 3 and 4 paper feed assembly kit (REP 8.2, REP 8.3)
2	059K43730	Feed roll assembly (NOTE) (W/O TAG 110)
-	-	Feed roll assembly (P/O PL 8.31 Item 14) (W/TAG 110)
3	-	Mounting bracket (Not Spared)
4	-	Tray 3 and 4 paper feeder (P/O PL 8.31 Item 1)
5	-	Shaft (P/O PL 8.31 Item 11)
6	-	Bearing (P/O PL 8.31 Item 11)
7	-	Idler roll (P/O PL 8.31 Item 11)
8	-	Spring (P/O PL 8.31 Item 11)
9	-	Tray 4 feed sensor bracket (P/O PL 8.31 Item 12)
10	604K48620	Tray 3 and 4 multifeed roll fix kit (rough tread rolls) (W/TAG 110)
11	006K29490	Idler shaft assembly
12	130K75380	Tray 4 feed sensor assembly (Q08-104)
13	130E20360	Stack height sensor
14	604K95360	Tray 3 and 4 multifeed rolls spare kit (rough tread rolls) (W/TAG 110)
15	-	Feed roll shaft assembly (P/O PL 8.31 Item 10)
16	-	Paper stack deflector (P/O PL 8.31 Item 10)

**NOTE:** HFSI. To reset the HFSI count, refer to GP 17.



1{2-4 AND ITEMS 3,4 ON PL 8.30

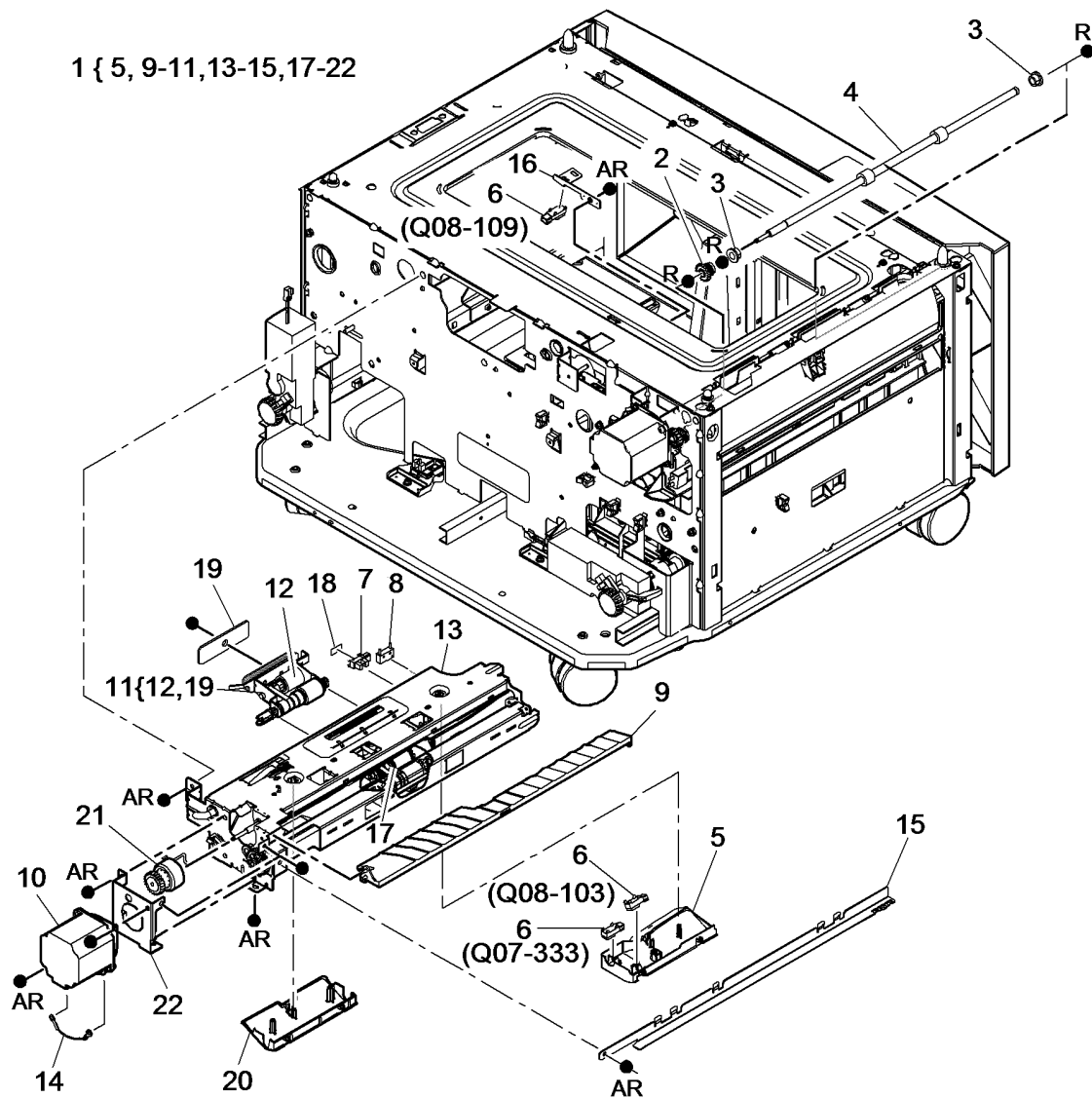
- 110 10{2,15,16
- 11{5-8
- 110 14{2(x2)}

T-8-0040-B



# PL 8.32 Tray 3 Paper Feed Assembly (W/TAG 151)

Item	Part	Description
1	-	Tray 3 paper feed assembly (P/O PL 31.12 Item 20) (REP 8.40)
2	007K20321	Gear (NOTE 2) (REP 8.47)
3	-	Bearing (P/O PL 31.12 Item 19)
4	-	Tray 3 and 4 transport roll (P/O PL 31.12 Item 19) (See NOTE) (REP 8.47)
5	-	Sensor mounting (P/O PL 8.32 Item 1) (REP 8.49, REP 8.50)
6	130E11610	Tray 3 empty sensor (Q07-333)(REP 8.49)/Tray 3 feed sensor (Q08-103)(REP 8.50)/Tray 3 exit sensor (Q08-109) (REP 8.45) (NOTE 3)
7	-	Tray 3 stack height sensor (Q07-383) (P/O PL 31.13 Item 21) (REP 8.48)
8	110E21540	Tray 3 over elevate switch
9	-	Tray 3 paper guide (P/O PL 8.32 Item 1) (REP 8.55)
10	-	Tray 3 feed motor (MOT08-030) (P/O PL 8.32 Item 1)
11	-	Feed roll assembly (P/O PL 31.13 Item 14) (See NOTE) (REP 8.54)
12	-	Nudger roll (P/O PL 8.32 Item 11) (REP 8.54, ADJ 8.4)
13	-	Feed frame assembly (P/O PL 8.32 Item 1) (REP 8.40)
14	-	Earth cable (P/O PL 8.32 Item 1)
15	-	Support bracket (P/O PL 8.32 Item 1) (REP 8.40)
16	-	Tray 3 exit sensor bracket (P/O PL 31.14 Item 17) (REP 8.45)
17	-	Retard roll (P/O PL 31.13 Item 14) (W/ TAG 151) (REP 8.54, ADJ 8.3)
18	-	Shim (P/O PL 31.13 Item 21)
19	-	Nudger roll weight (P/O PL 8.32 Item 11)
20	-	Gull wing cover (P/O PL 31.14 Item 18)
21	121E27552	Feed clutch
22	-	Bracket (P/O PL 8.32 Item 1)



**NOTE:** 1. HFSI. To reset the HFSI count, refer to GP 17.

**NOTE:** 2. Also supplied as part of the transport motor and drives kit, PL 8.36 Item 16.

**NOTE:** 3. Also supplied as part of Tray 3 sensor spares kit PL 31.14 Item 17.

T-8-0141-C

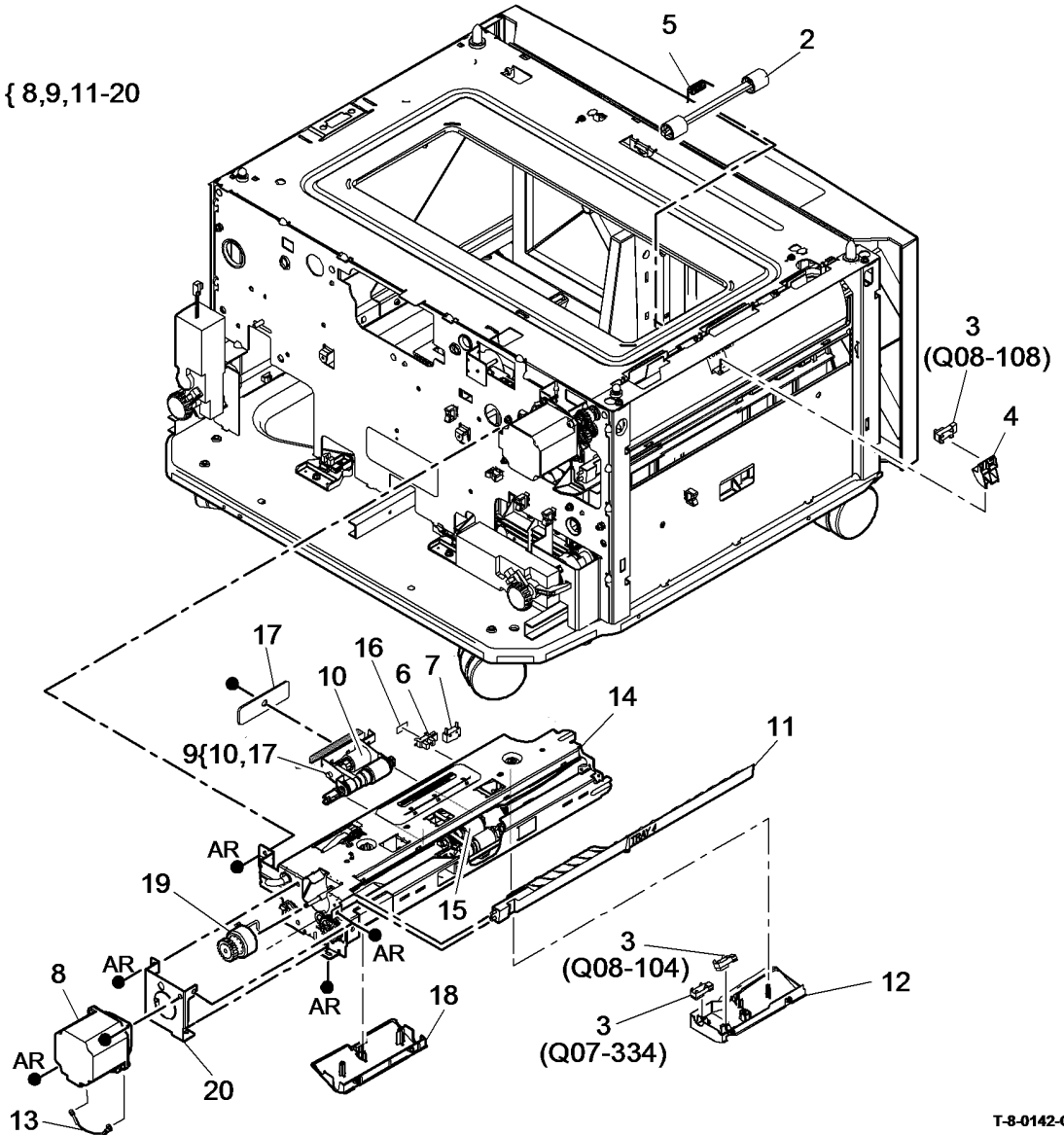
## PL 8.33 Tray 4 Paper Feed Assembly (W/TAG 151)

Item	Part	Description
1	-	Tray 4 paper feed assembly (P/O PL 31.12 Item 20) (REP 8.41)
2	059K85140	Idler roll assembly (metal shaft) (REP 8.47)
-	-	Idler roll assembly (plastic shaft) (Not Spared) (REP 8.47)
3	130E11610	Tray 4 empty sensor (Q07-334)(REP 8.52) / Tray 4 feed sensor (Q08-104)(REP 8.53) / HCF exit sensor (Q08-108) (NOTE 2)
4	-	HCF exit sensor bracket (P/O PL 31.12 Item 6)
5	-	Spring (Not Spared)
6	-	Tray 4 stack height sensor (Q07-384) (P/O PL 31.13 Item 21) (REP 8.51)
7	110E21540	Tray 4 over elevate switch
8	-	Tray 4 feed motor (Q08-040) (P/O PL 8.33 Item 1)
9	-	Feed roll assembly (P/O PL 31.13 Item 14) (See NOTE) (REP 8.54)
10	-	Nudger roll (P/O PL 8.33 Item 9) (REP 8.54, ADJ 8.4)
11	-	Tray 4 paper guide (P/O PL 8.33 Item 1) (REP 8.56)
12	-	Sensor mounting (P/O PL 8.33 Item 1) (REP 8.53)
13	-	Earth cable (P/O PL 8.33 Item 1)
14	-	Feed frame assembly (P/O PL 8.33 Item 1) (REP 8.40)
15	-	Retard roll (P/O PL 31.13 Item 14) (REP 8.54, ADJ 8.3)
16	-	Shim (P/O PL 31.13 Item 21)
17	-	Nudger roll weight (P/O PL 8.33 Item 9)
18	-	Gull wing cover (P/O PL 31.14 Item 18)
19	121E27552	Feed clutch
20	-	Bracket (P/O PL 8.33 Item 1)

**NOTE:** 1. HFSI. To reset the HFSI count, refer to GP 17.

**NOTE:** 2. The HCF exit sensor is also part of PL 31.12 Item 6.

1 { 8,9,11-20

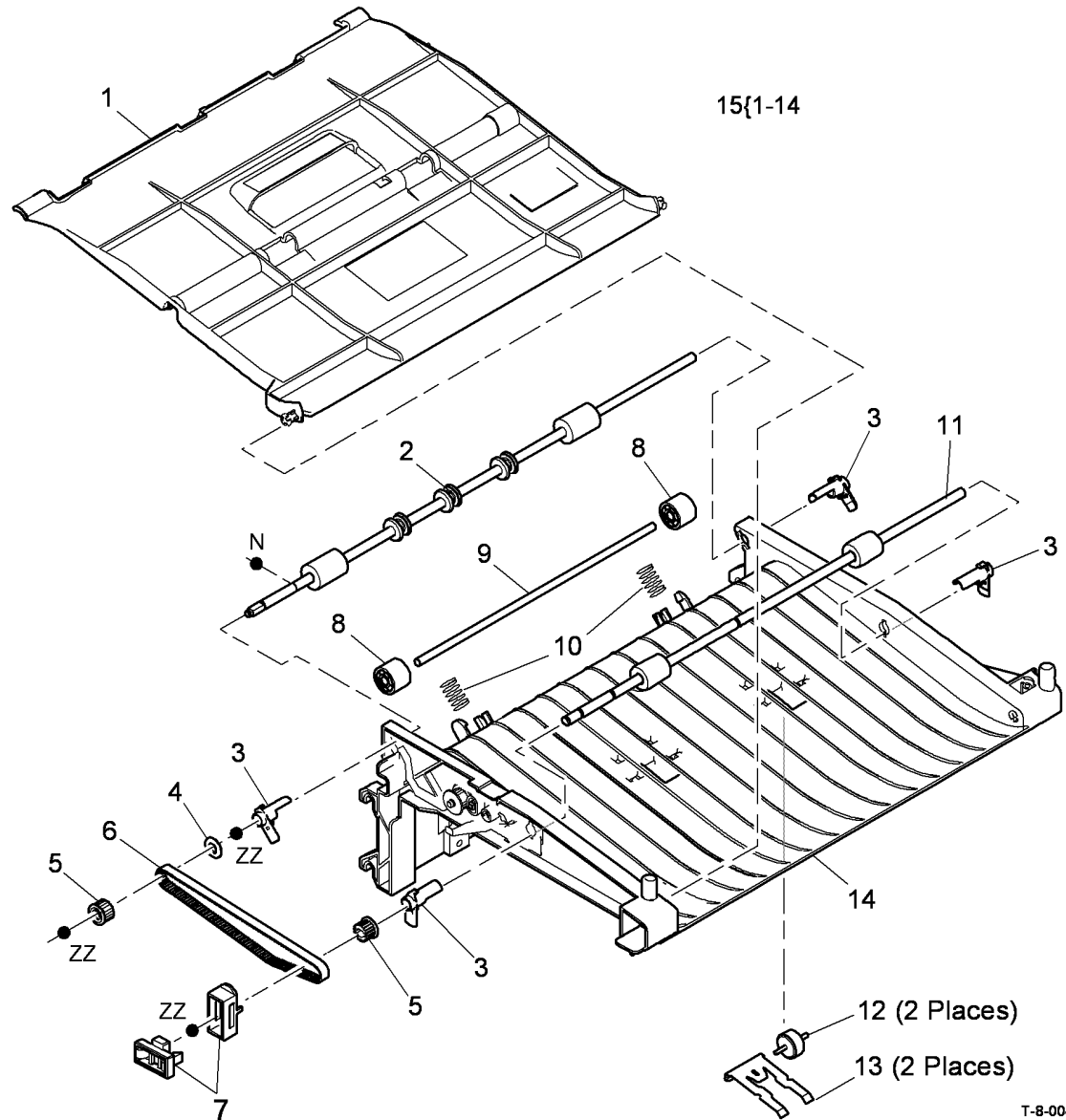


T-8-0142-C

# PL 8.35 Tray 3 Transport Assembly (W/ O TAG 151)

Item	Part	Description
1	848K42530	Jam clearance door
2	059K30402	Takeaway roll assembly (35-55 ppm) (REP 8.29, ADJ 4.1)
-	059K50101	Takeaway roll assembly (65-90 ppm) (REP 8.29, ADJ 4.1)
3	022E26620	Transport roll bearing
4	-	Flange (P/O PL 8.35 Item 15)
5	-	Pulley (P/O PL 8.35 Item 15)
6	023E24440	Drive belt
7	-	Drive coupling (P/O PL 8.30 Item 16)
8	022E26630	Transport roll (REP 8.30)
9	-	Shaft (Not Spared)
10	-	Spring (P/O PL 8.35 Item 15) (REP 8.30)
11	059K50110	Transport roll assembly (REP 8.30, ADJ 4.1)
12	022E26640	Idler roll
13	-	Spring plate (P/O PL 8.35 Item 15)
14	-	Base (P/O PL 8.35 Item 15)
15	059K43830	Tray 3 transport assembly (REP 8.13)

**NOTE:** Refer to REP 8.13 for the tray 3 transport assembly.



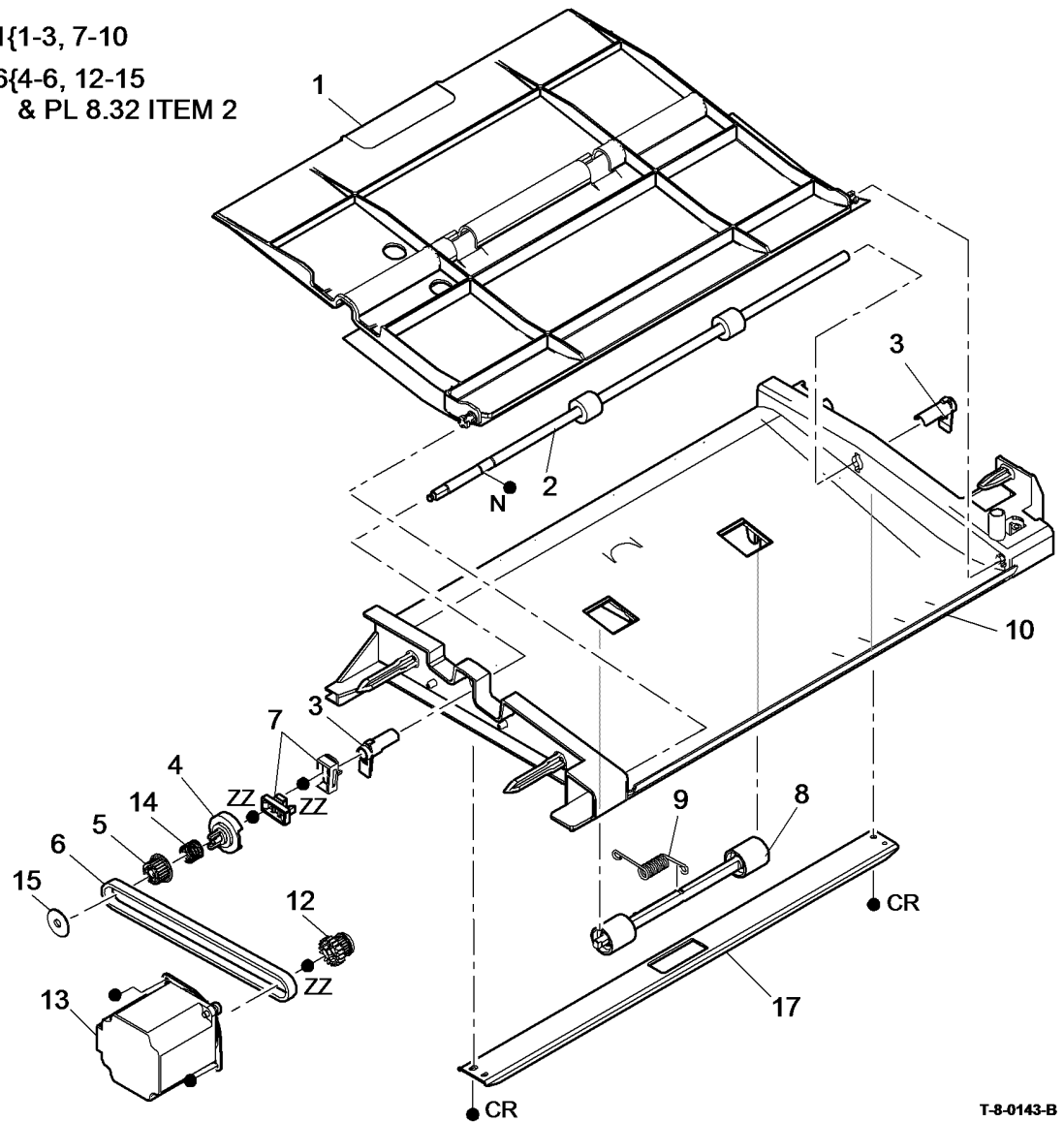
T-8-0041-A

# PL 8.36 Tray 3 Transport Assembly (W/TAG 151)

Item	Part	Description
1	-	Jam clearance door (P/O PL 8.36 Item 11)
2	-	Takeaway roll assembly (P/O PL 31.12 Item 16) (REP 8.46)
3	-	Takeaway roll bearing (P/O PL 31.12 Item 16) (REP 8.46)
4	-	Clutch drive (P/O PL 8.36 Item 16) (REP 8.57)
5	-	Pulley (P/O PL 8.36 Item 16) (REP 8.57)
6	-	Drive belt (P/O PL 8.36 Item 16) (REP 8.57)
7	-	Drive coupling (P/O PL 31.12 Item 16) (REP 8.46)
8	859K04280	Idler roll assembly (metal shaft) (REP 8.46)
-	-	Idler roll assembly (plastic shaft) (Not Spared) (REP 8.46)
9	-	Spring (P/O PL 8.36 Item 11)
10	-	Base (P/O PL 8.36 Item 11)
11	038K24380	Tray 3 transport assembly (REP 8.44)
12	-	Transport gear pulley (P/O PL 8.36 Item 16) (NOTE) (REP 8.43)
13	-	HCF transport motor (MOT08-045) (P/O PL 8.36 Item 16) (REP 8.42)
14	-	Spring (P/O PL 8.36 Item 16) (REP 8.57)
15	-	Pulley flange (P/O PL 8.36 Item 16) (REP 8.57)
16	604K97740	Transport motor and drives kit
17	-	Tray 3 transport brace (Not Spared)

**NOTE:** Also part of PL 31.14 Item 19.

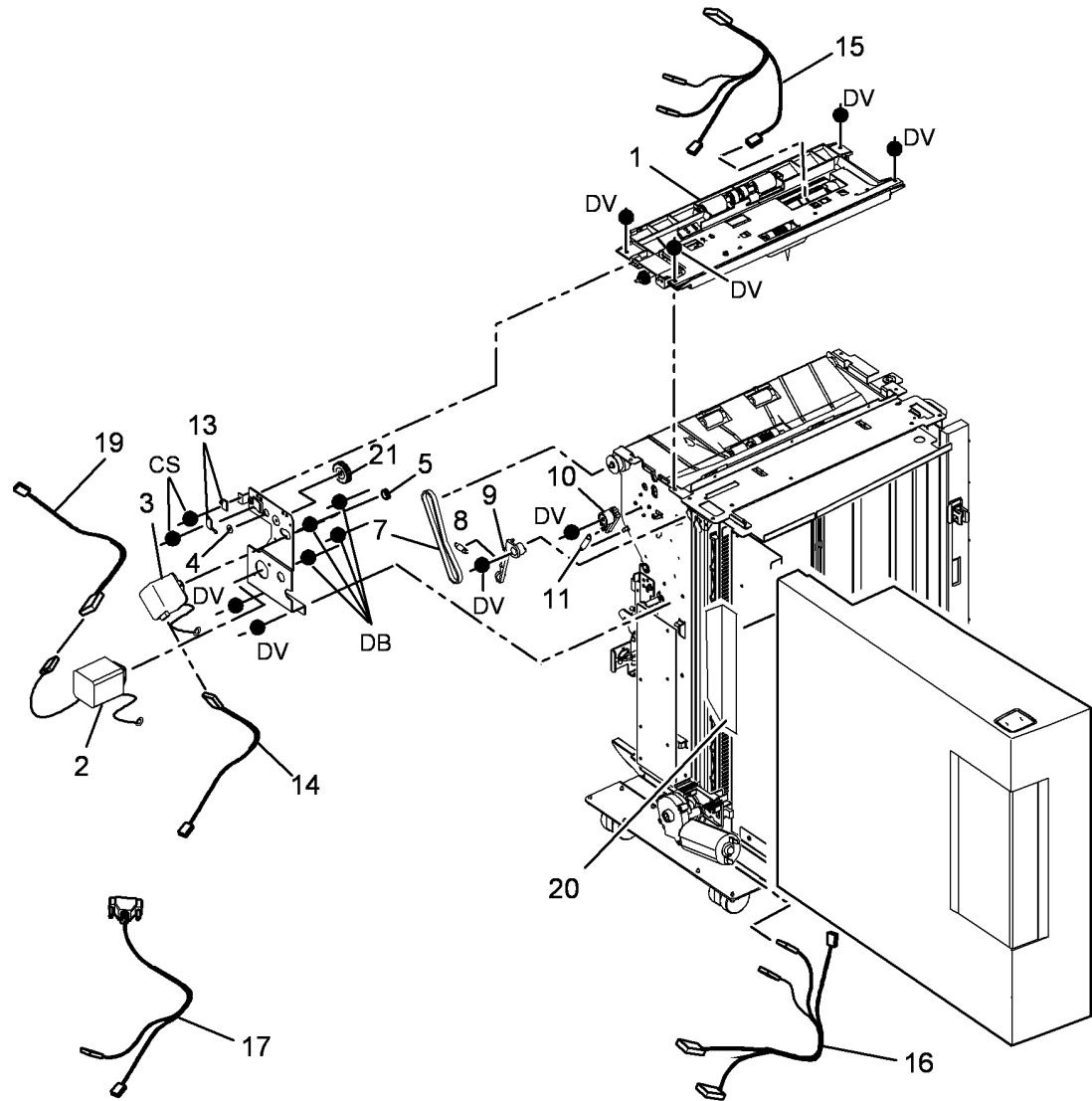
11{1-3, 7-10  
16{4-6, 12-15  
& PL 8.32 ITEM 2



T-8-0143-B

## PL 8.40 Tray 5 Feed Assembly (1 of 3)

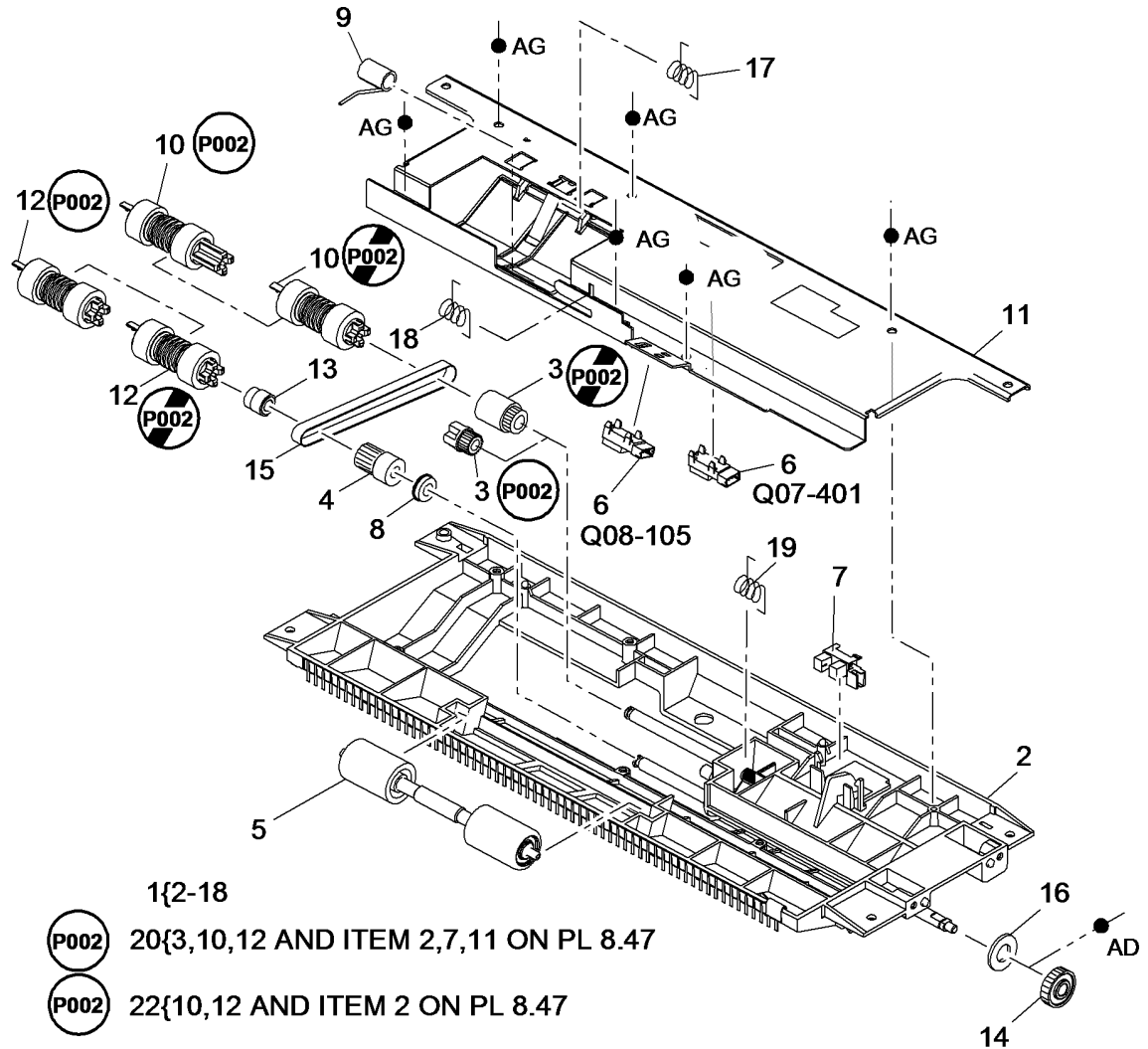
Item	Part	Description
1	-	Upper feeder assembly (REF: PL 8.45 Item 1) (REP 8.38)
2	127K56453	Tray 5 transport motor (MOT08-046) (REP 8.37)
3	127K61980	Feed motor (MOT08-117) (REP 8.36)
4	-	Bearing (Not Spared)
5	-	Gear (P/O PL 8.40 Item 3)
6	-	Not used
7	423W09050	Drive belt (REP 8.33)
8	-	Upper limit actuator spring (Not Spared)
9	-	Upper limit actuator (Not Spared)
10	-	Belt tensioner (Not Spared)
11	-	Belt tensioner spring (Not Spared)
12	-	Not used
13	125E00430	ESD brush
14	-	Transport motor harness (Not Spared)
15	-	Tray 5 upper feeder assembly harness (Not Spared)
16	962K50475	Elevator motor harness
17	962K63351	IOT to tray 5 harness
18	-	Not used
19	-	Feed/elevator motor harness (Not Spared)
20	-	Elevator harness shield (Not Spared)
21	007K14401	Gear 30T bearing



T-8-0042-A

## PL 8.45 Tray 5 Feed Assembly (2 of 3)

Item	Part	Description
1	059K69991	Upper feed assembly (REP 8.38)
2	-	Upper feed assembly base (P/O PL 8.45 Item 1)
3	-	One way gear (P/O PL 8.45 Item 20) (W/TAG P-002)
-	-	One way gear (Not Spared) (W/O TAG P-002)
4	-	One way coupling (P/O PL 8.45 Item 20)
5	-	Take away idler roller (P/O PL 31.13 Item 4)
6	130E11610	Tray 5 empty (Q07-401) /feed sensor (Q08-105) (REP 7.13, REP 8.25)
7	130E20360	Stack height sensor (Q07-402) (REP 7.14)
8	-	Bearing (P/O PL 8.45 Item 1)
9	-	Torsion spring (P/O PL 8.45 Item 1)
10	-	Nudger roll (P/O PL 8.45 Item 20, 22) (W/TAG P-002)
-	-	Nudger roll (Not Spared) (W/O TAG P-002)
11	-	Upper feed assembly top cover (P/O PL 8.45 Item 1)
12	-	Feed roll (P/O PL 8.45 Item 20, PL 8.45 Item 22) (W/TAG P-002)
-	-	Feed roll (Not Spared) (W/O TAG P-002)
13	-	Clutch (P/O PL 8.45 Item 20)
14	-	Gear (38T) (P/O PL 8.45 Item 1)
15	-	Roller belt (P/O PL 8.45 Item 1)
16	-	Washer (P/O PL 8.45 Item 1)
17	-	Torsion chute spring (P/O PL 8.45 Item 1)
18	-	Housing spring (P/O PL 8.45 Item 1)
19	-	Torsion nudger spring (P/O PL 8.45 Item 1)
20	604K84480	Feed roll retrofit kit (See NOTES 1 & 3) (W/TAG P-002)
21	-	Not used
22	604K55480	Feed roll kit (Pack of 3) (See NOTES 2 & 3) (W/TAG P-002)



**NOTE:** 1. Install kit to improve performance and reduce mis-feed faults.

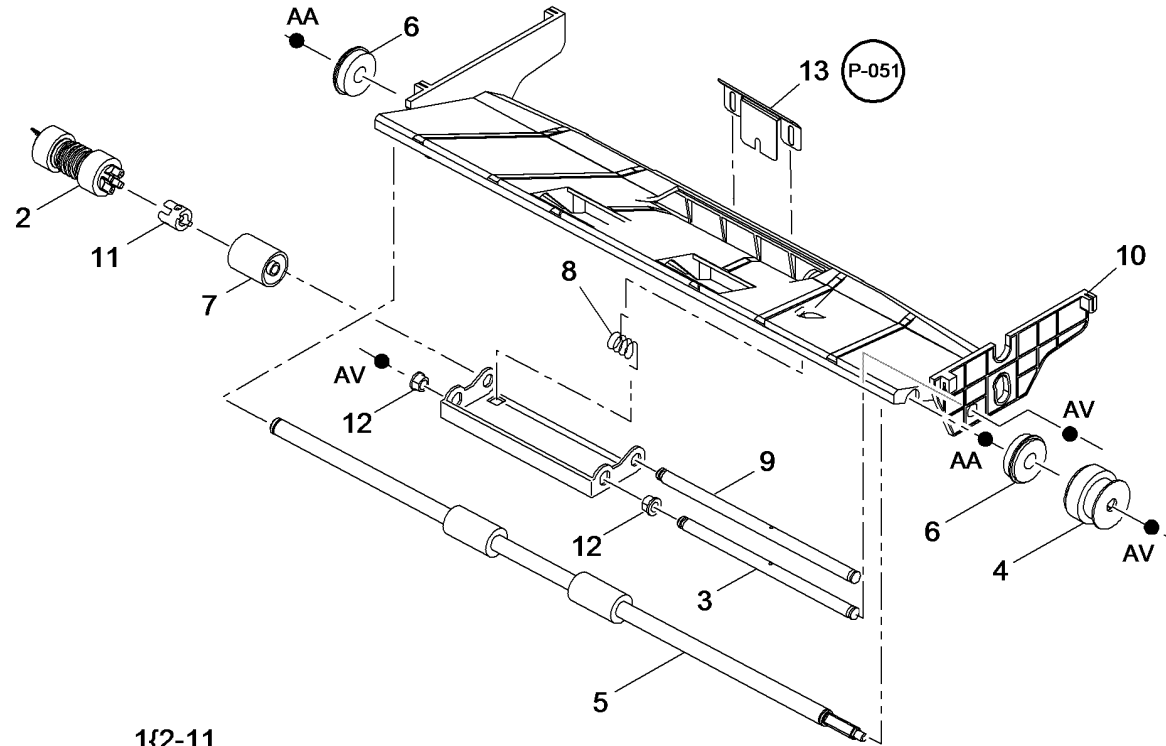
**NOTE:** 2. Replaces the rolls installed with the feed roll retrofit kit, PL 8.45 Item 20.

**NOTE:** 3. HFSI. To reset the HFSI count, refer to GP 17.

T-8-0043-B

## PL 8.47 Tray 5 Feed Assembly (3 of 3)

Item	Part	Description
1	059K84700	Lower feed assembly (REP 8.38)
2	-	Retard roll (P/O PL 8.45 Item 20) (W/TAG P-002)
-	-	Retard roll (Not Spared) (W/O TAG P-002)
3	-	Actuator pivot shaft (P/O PL 8.47 Item 1)
4	-	One way pulley clutch (P/O PL 8.47 Item 1)
5	-	Take away roller (P/O PL 31.13 Item 4) (REP 8.38)
6	-	Bearing (P/O PL 8.47 Item 1)
7	-	Clutch (P/O PL 8.45 Item 20) (W/ TAG P-002)
-	005E29040	Clutch (W/O TAG P-002)
8	-	Torsion retard spring (P/O PL 8.47 Item 1)
9	-	Retard roller shaft (P/O PL 8.47 Item 1)
10	-	Lower feed assembly base (P/O PL 8.47 Item 1)
11	-	Clutch coupling (P/O PL 8.45 Item 20) (W/TAG P-002)
-	-	Clutch coupling (Not Spared) (W/O TAG P-002)
12	-	Actuator pivot shaft bearing (P/O PL 8.47 Item 1)
13	815E56671	Retard shield (ADJ 7.6)

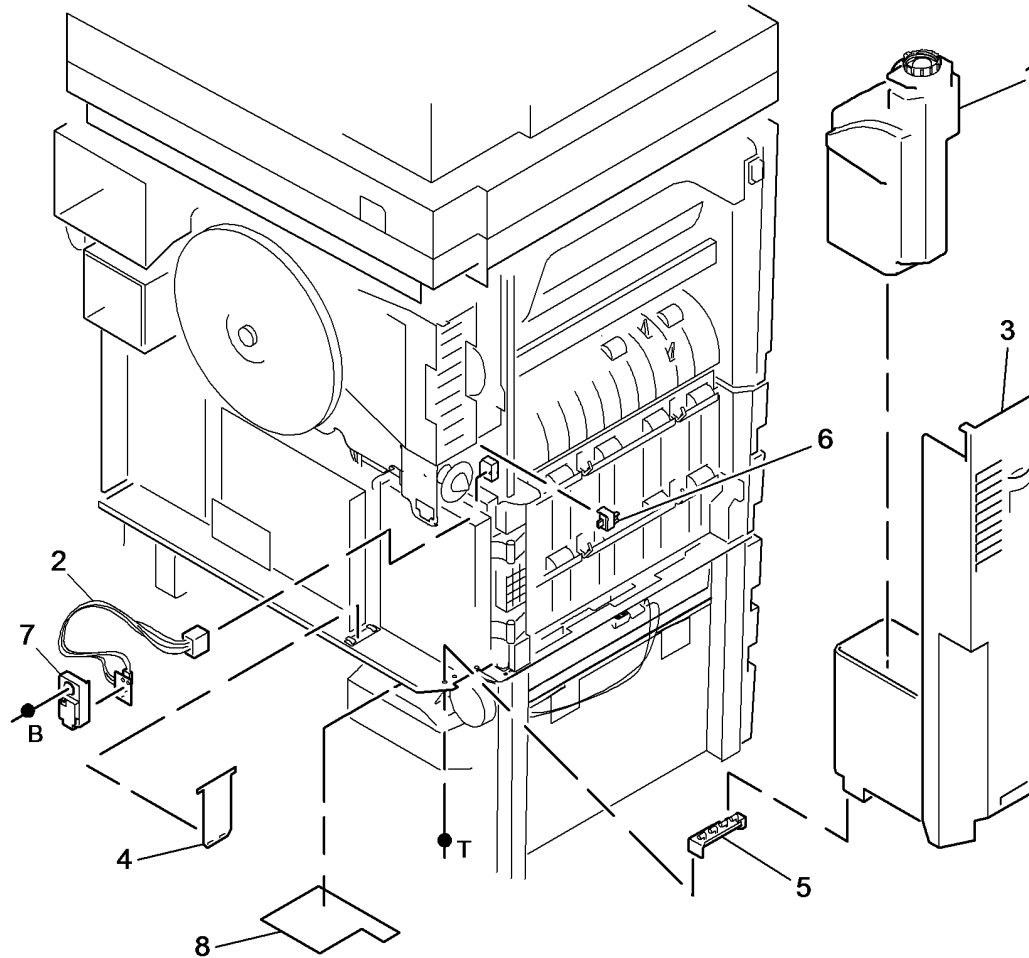


T-8-0044-C

## PL 9.10 Waste Toner Bottle Assembly

Item	Part	Description
1	008R12896	Waste toner bottle
2	130K74702	Waste toner full sensor (Q09-350) (REP 9.4)
3	802E93283	Waste toner door (REP 9.1)
4	003E77450	Strap (NOTE)
5	803E03180	Hinge block
6	-	Waste toner door switch (S09-380) (REF: PL 4.10 Item 8, PL 4.15 Item 8)
7	-	Sensor cover (Not Spared)
8	848E96690	Toner cover

**NOTE:** Refer to REP 9.1 for the waste toner bottle assembly.

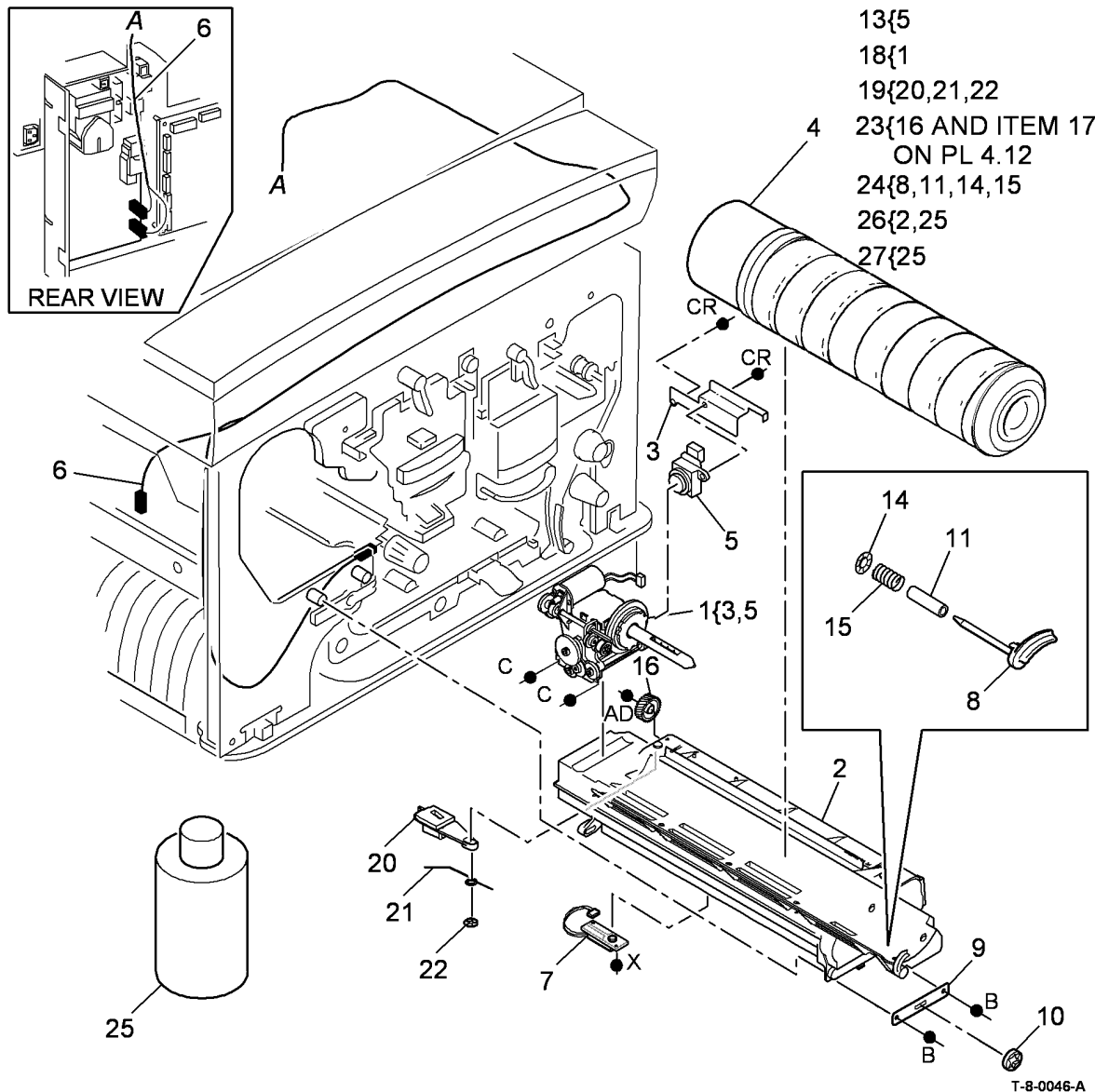


T-8-0045-A



# PL 9.15 Developer Assembly (65-90 ppm)

Item	Part	Description
1.	-	Toner dispense module (P/O PL 9.15 Item 18) (REP 9.5)
2.	-	Developer module (P/O PL 9.15 Item 26) (REP 9.2)
3.	-	Retaining bracket (P/O PL 9.15 Item 1)
4.	-	Toner cartridge (P/O PL 26.11 Item 2) (See NOTE 1)
5.	-	Low toner sensor (Q09-310) (P/O PL 9.15 Item 13)
6.	962K25641	Registration/Developer bias harness
7.	-	Toner concentration sensor (Q09-360) (P/O PL 9.15 Item 2)
8.	-	Toner cartridge latch (P/O PL 9.15 Item 24)
9.	-	Retaining plate (P/O PL 9.15 Item 2)
10.	-	Speed nut (P/O PL 9.15 Item 2)
11.	-	Sleeve (P/O PL 9.15 Item 24)
12.	-	Not used
13.	604K16890	Out of toner sensor kit
14.	-	Push on fastener (P/O PL 9.15 Item 24)
15.	-	Spring (P/O PL 9.15 Item 24)
16.	-	Main drive gear (P/O PL 9.15 Item 23) (See NOTE 2)
17.	-	Not used
18.	-	Toner dispense module kit (REF: PL 31.12 Item 21)
19.	604K24570	Trickle outlet shutter kit
20.	-	Shutter assembly (P/O PL 9.15 Item 19)
21.	-	Shutter spring (P/O PL 9.15 Item 19)
22.	-	Push on fastener (P/O PL 9.15 Item 19)
23.	604K24930	Developer/Drives interface kit (See NOTES 2 & 3)
24.	604K18510	Developer latch repair kit
25.	-	Developer material (P/O PL 9.15 Item 26, PL 9.15 Item 27)
26.	604K41371	Developer spares kit (includes developer)
27.	604K35340	Developer charge kit



**NOTE: 1.** A waste toner bottle, PL 9.10 Item 1 is supplied with the toner cartridges.

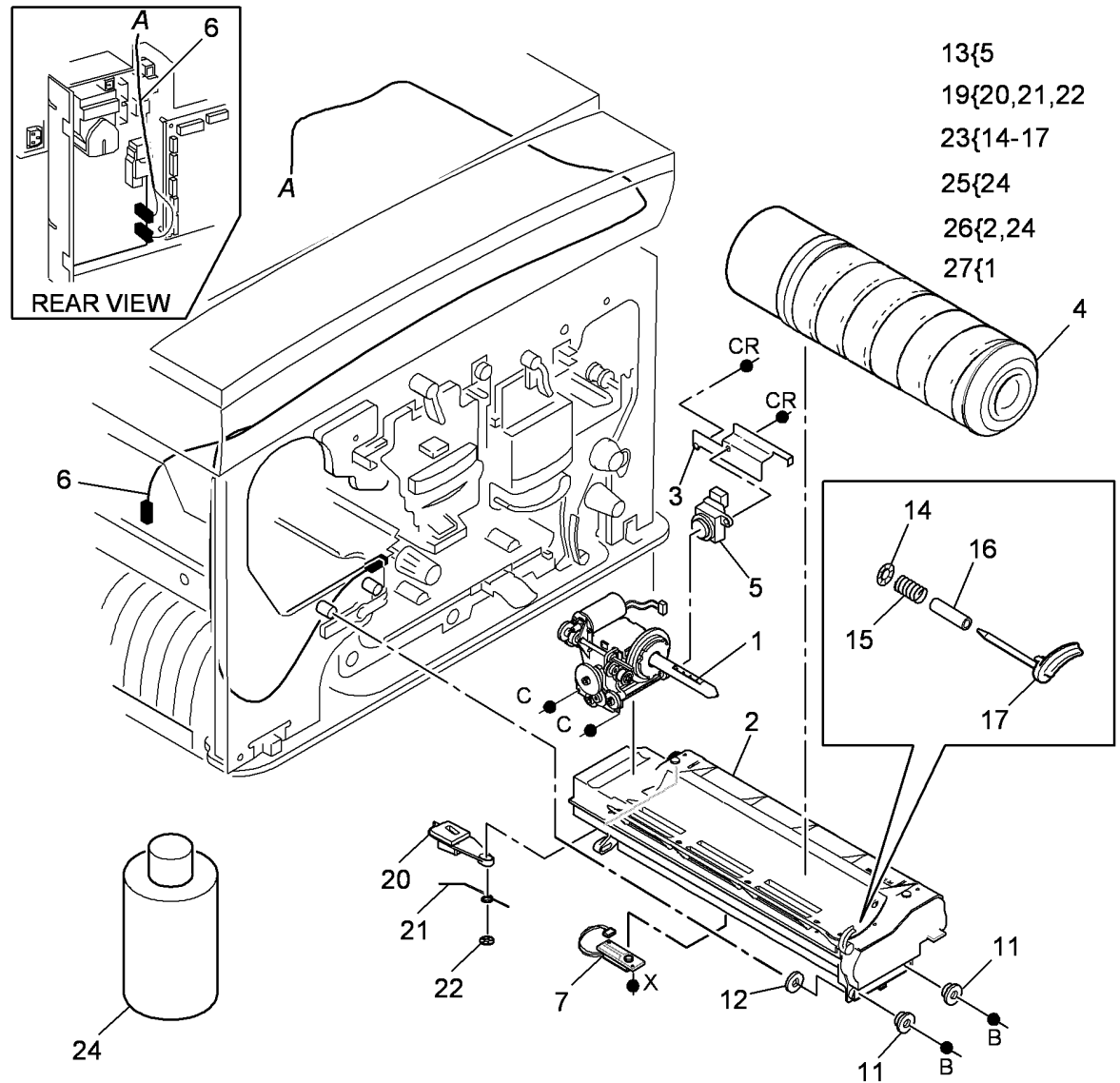
**NOTE: 2.** The main drive gear PL 9.15 Item 16 and developer drive gear/pulley PL 4.12 Item 17, must always be replaced as a pair.

**NOTE: 3.** HFSI. To reset the HFSI count, refer to GP 17.

T-8-0046-A

# PL 9.17 Developer Assembly (35-55 ppm)

Item	Part	Description
1	-	Toner dispense module (P/O PL 9.17 Item 27) (REP 9.5)
2	-	Developer module (P/O PL 9.17 Item 26) (See NOTE 1) (REP 9.2)
3	-	Retaining bracket (Not Spared)
4	-	Toner cartridge (P/O PL 26.11 Item 3) (See NOTE 2)
5	-	Low toner sensor (Q09-310) (P/O PL 9.17 Item 13)
6	-	Registration/Developer bias harness (Not Spared)
7	-	Toner concentration sensor (Q09-360) (P/O PL 9.17 Item 2)
8	-	Not used
9	-	Not used
10	-	Not used
11	-	Stepped washer (Not Spared)
12	-	Washer (Not Spared)
13	604K16890	Out of toner sensor kit
14	-	Push on fastener (P/O PL 9.17 Item 23)
15	-	Spring (P/O PL 9.17 Item 23)
16	-	Sleeve (P/O PL 9.17 Item 23)
17	-	Toner cartridge latch (P/O PL 9.17 Item 23)
18	-	Not used
19	604K24570	Trickle outlet shutter kit
20	-	Shutter assembly (P/O PL 9.17 Item 19)
21	-	Shutter spring (P/O PL 9.17 Item 19)
22	-	Push on fastener (P/O PL 9.17 Item 19)
23	604K30560	Developer latch repair kit
24	-	Developer material (P/O PL 9.17 Item 25, PL 9.17 Item 26)
25	604K35340	Developer charge kit
26	604K41360	Developer spares kit (includes developer)
27	604K41610	Toner dispense module kit



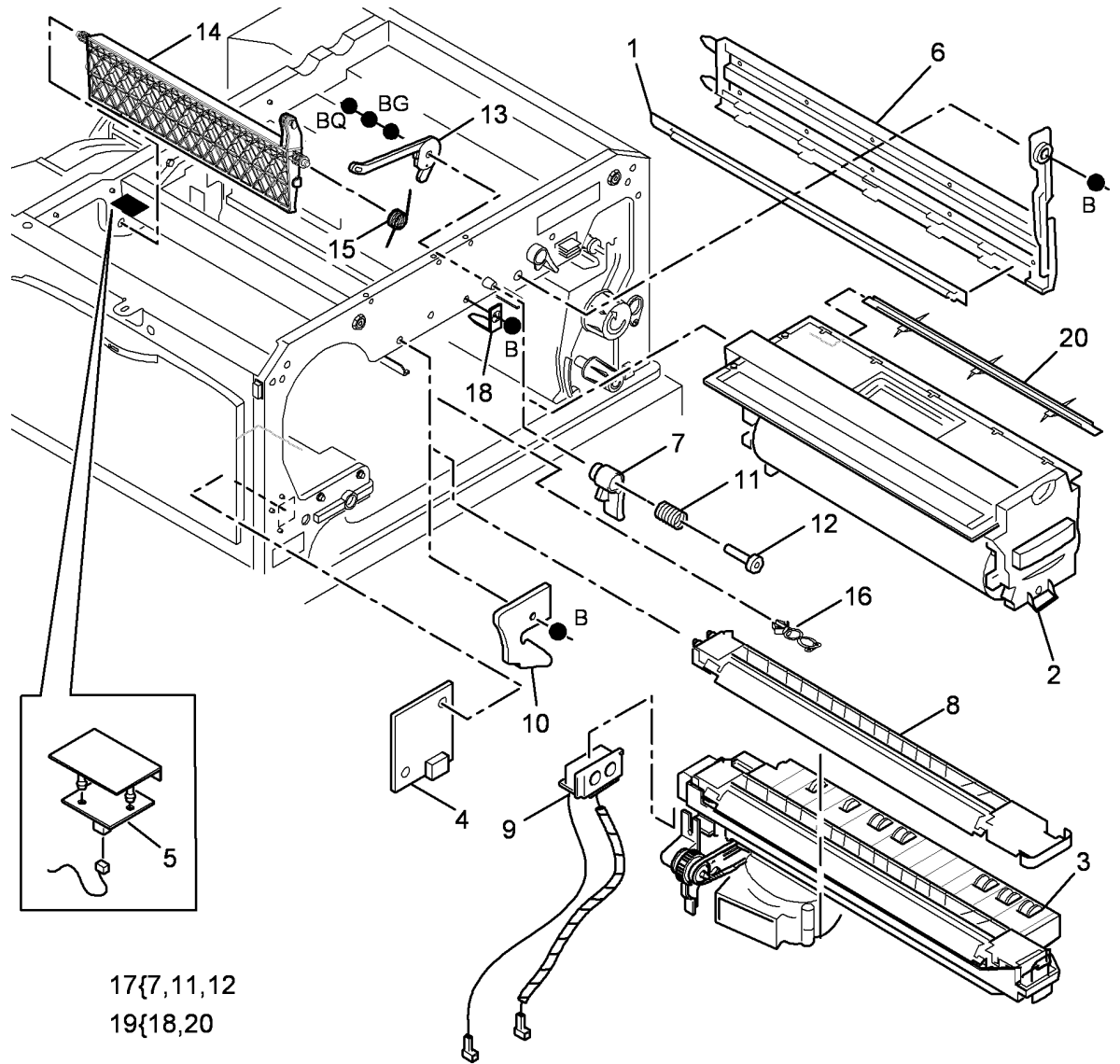
**NOTE: 1.** To remove and replenish the developer material, refer to the developer charge kit, PL 9.17 Item 25.

**NOTE: 2.** A waste toner bottle, PL 9.10 Item 1 is supplied with the toner cartridges.

T-8-0047-A

# PL 9.20 Xerographic Module and Short Paper Path Assembly (40-90 ppm)

Item	Part	Description
1	122K02660	Erase lamp (REP 9.9)
2	-	Xerographic module (see below for variants, see also NOTE 1, NOTE 2 and NOTE 3)
-	113R00672	Metered (USSG/XCL/XE)
-	113R00673	Sold (XE)
-	113R00674	Sold (USSG/XCL)
3	-	Short paper path assembly (REF: PL 10.25 Item 1) (NOTE 1)
4	130E10510	Relative humidity sensor (Q09-365)/Ambient temperature sensor (Q09-375)
5	960K40570	Developer temperature sensor (Q09-370)
6	055E54960	Erase lamp support
7	-	Xerographic module latch (P/O PL 9.20 Item 17) (REP 9.6)
8	504K12320	Transfer/Detack corotron (NOTE 1) (ADJ 9.1)
9	113K03330	Transfer/Detack harness
10	802E87941	Pivot plate
11	-	Latch spring (P/O PL 9.20 Item 17)
12	-	Latch pin (P/O PL 9.20 Item 17)
13	-	Latch plate (Not Spared)
14	031E11102	Developer paddle (REP 9.7)
15	809E69220	Spring
16	-	Curly clip (Not Spared)
17	604K41120	Developer latch pin kit (REP 9.6)
18	-	Bracket stabiliser (P/O PL 9.20 Item 19)
19	604K53940	XRU skids kit
20	-	Stripper finger assembly (P/O PL 9.20 Item 19)



**NOTE: 1.** A transfer/detack corotron PL 9.20 Item 8 is supplied with the xerographic module.

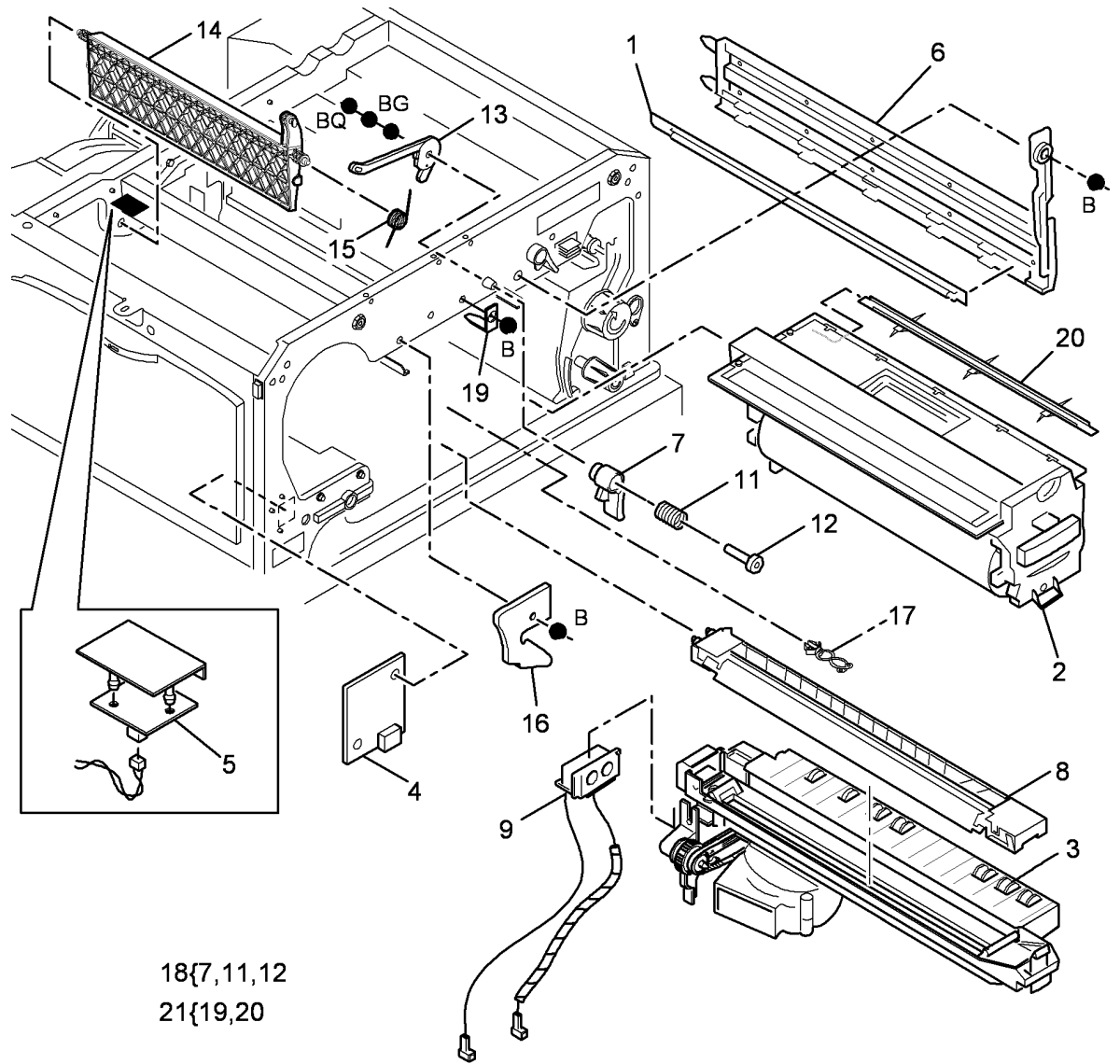
**NOTE: 2.** For the charge scorotron and the charge scorotron grid harnesses, refer to PL 4.17 or PL 4.12.

17{7,11,12  
19{18,20

T-8-0048-A

## PL 9.22 Xerographic Module and Short Paper Path Assembly (35 ppm)

Item	Part	Description
1	122K02650	Erase Lamp (REP 9.9)
2	-	Xerographic module (see below for variants) (NOTE 3)
-	113R00608	Metered (USSG/XCL/XE)
-	113R00607	Sold (XE)
-	113R00610	Sold (USSG/XCL)
3	-	Short paper path assembly (REF: PL 10.25 Item 1)
4	130E10510	Relative humidity sensor (Q09-365)/Ambient temperature sensor (Q09-375)
5	960K40570	Temperature sensor (Q09-370)
6	055E54960	Erase lamp support
7	-	Xerographic module latch (P/O PL 9.22 Item 18) (REP 9.6)
8	504K12310	Transfer/Detack corotron (NOTE 1) (ADJ 9.1)
9	113K03330	Transfer/Detack harness (REP 9.8)
10	-	Not used
11	-	Latch spring (P/O PL 9.22 Item 18)
12	-	Latch pin (P/O PL 9.22 Item 18)
13	-	Latch plate (Not Spared)
14	031E11102	Developer paddle (REP 9.7)
15	809E69220	Spring
16	802E87941	Pivot plate
17	-	Curly clip (Not Spared)
18	604K41120	Developer latch pin kit
19	-	Bracket stabiliser (P/O PL 9.22 Item 21)
20	-	Stripper finger assembly (P/O PL 9.22 Item 21)
21	604K53940	XRU skids kit



**NOTE: 1.** A transfer/detack corotron PL 9.22 Item 8 is supplied with the xerographic module

**NOTE: 2.** For the charge scorotron and charge scorotron grid harnesses, refer to PL 4.17.

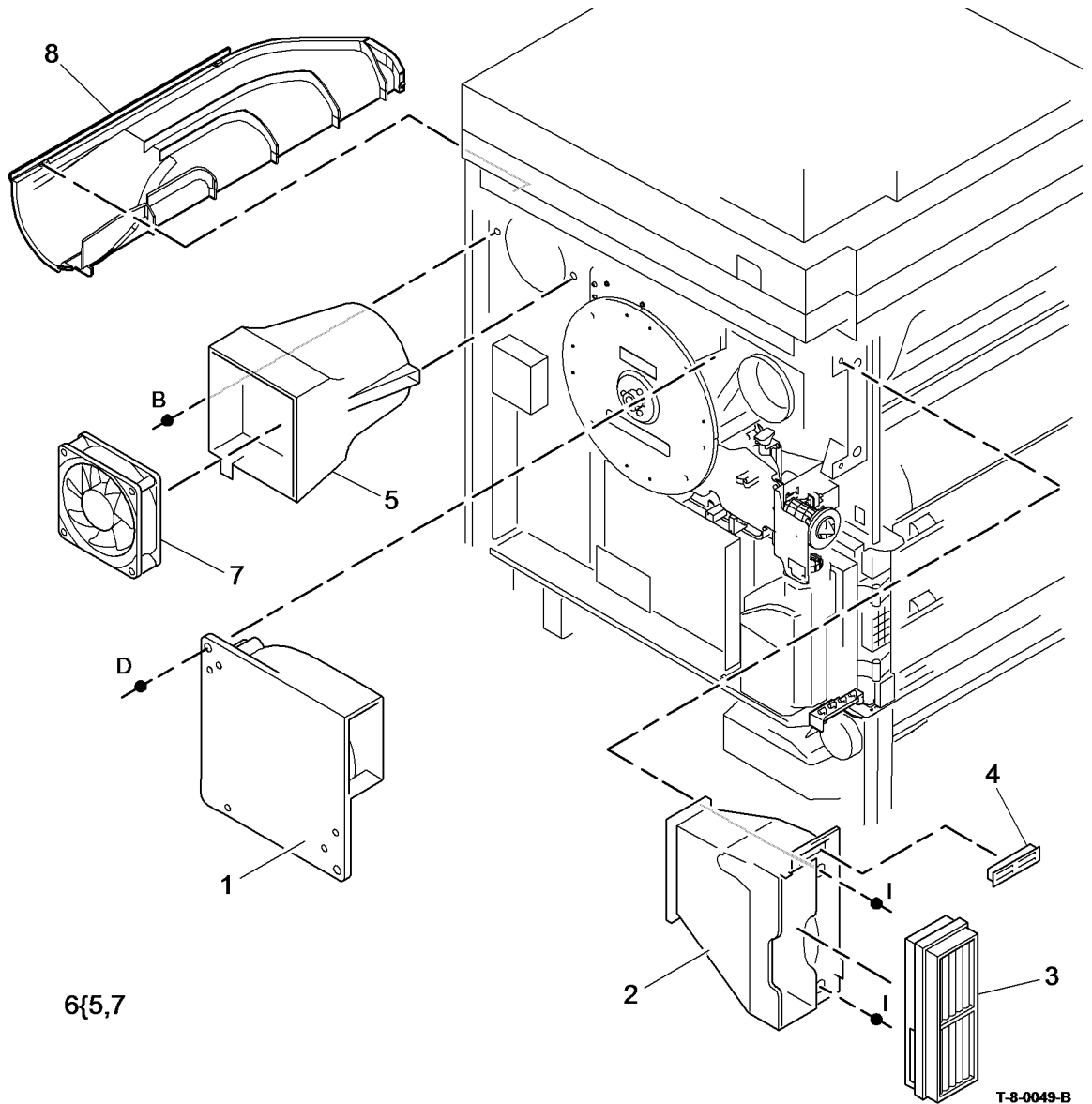
**NOTE: 3.** If a new Xerographic module has been installed, perform ADJ 9.2.

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21{19,20

T-8-0135-A

# PL 9.25 Ozone Fan and Photoreceptor Fan

Item	Part	Description
1	127K42790	Ozone fan (REP 9.3)
2	054E33051	Ozone duct
3	053K04960	Ozone filter
4	-	Magnet (P/O PL 9.25 Item 2)
5	-	Photoreceptor duct (P/O PL 9.25 Item 6)
6	127K53200	Photoreceptor fan assembly
7	-	Fan (P/O PL 9.25 Item 6)
8	054E33001	Lower duct

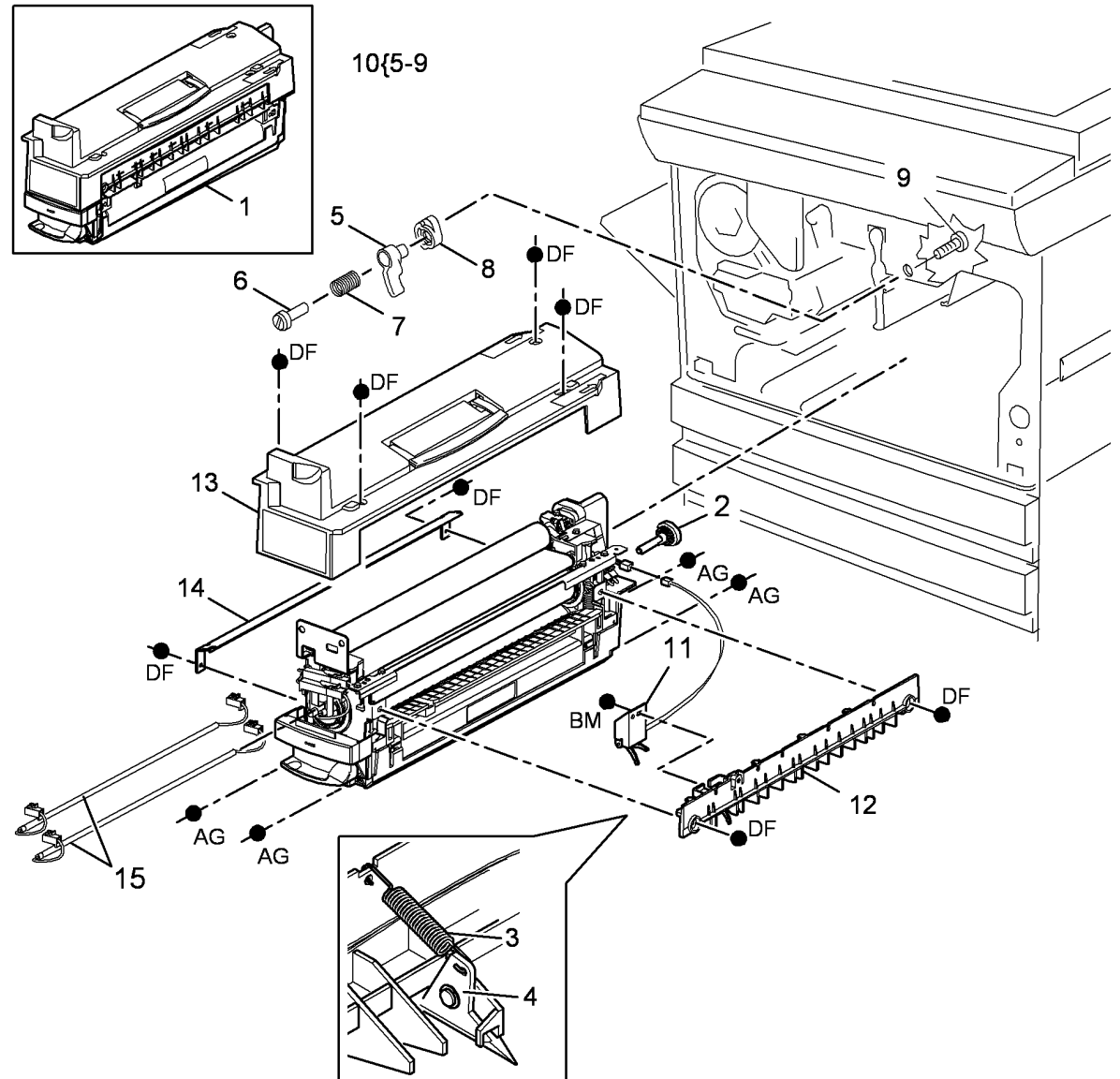


# PL 10.8 Fuser Module Assembly (35-55 ppm)

Item	Part	Description
1	109R00751	Fuser module (XE) (NOTE 1)
-	109R00752	Fuser module (USSG/XCL) (NOTE 1)
2	-	Web drive dog (Not Spared)
3	-	Spring (P/O PL 10.8 Item 1)
4	604K48340	Fuser stripper finger kit
5	-	Fuser latch (P/O PL 10.8 Item 10) (REP 10.10)
6	-	Fuser latch pin (P/O PL 10.8 Item 10)
7	-	Spring (P/O PL 10.8 Item 10)
8	-	Latch stop (P/O PL 10.8 Item 10)
9	-	Screw (P/O PL 10.10 Item 10)
10	604K35371	Fuser latch pin kit
11	110E20190	Fuser exit switch (S10-100) (REP 10.16)
12	-	Fuser upper exit guide (P/O PL 10.8 Item 1)
13	-	Fuser top cover (P/O PL 10.8 Item 1)
14	-	Lower input guide (Not Spared)
15	-	Lamp (P/O PL 10.8 Item 1)

**NOTE:** 1. An ozone filter, PL 9.25 Item 3, is supplied with the fuser module.

**NOTE:** 2. For the fuser web motor, fuser connector assembly and fuser CRUM connector, refer to PL 4.15.



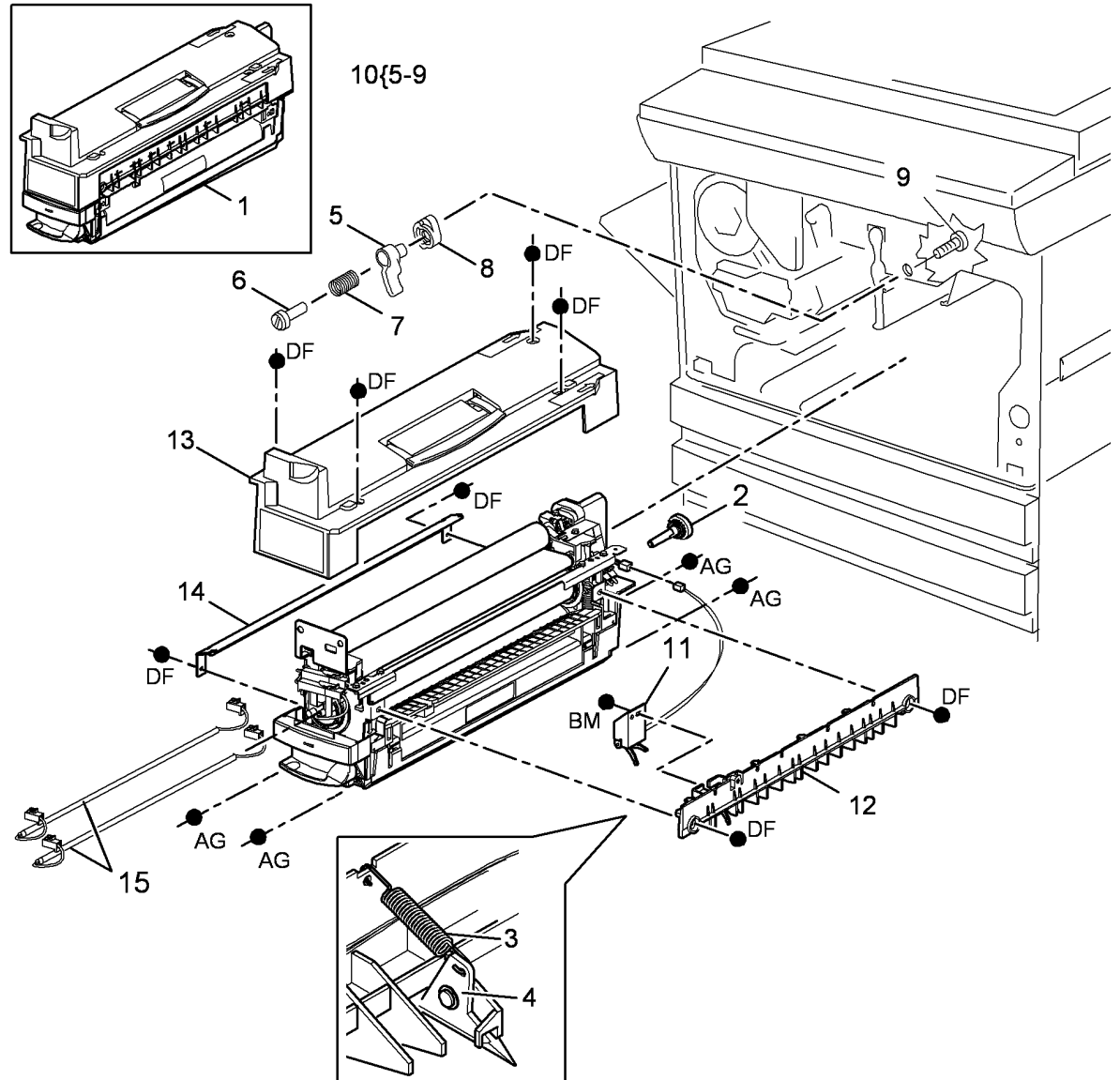
T-8-0050-A

## PL 10.10 Fuser Module Assembly (65-90 ppm)

Item	Part	Description
1	109R00772	Fuser module (XE) (NOTE 1)
-	109R00773	Fuser module (USSG/XCL) (NOTE 1)
2	-	Web drive dog (Not Spared)
3	-	Spring (P/O PL 10.10 Item 1)
4	604K48340	Fuser stripper finger kit
5	-	Fuser latch (P/O PL 10.10 Item 10) (REP 10.10)
6	-	Fuser latch pin (P/O PL 10.10 Item 10)
7	-	Spring (P/O PL 10.10 Item 10)
8	-	Latch stop (P/O PL 10.10 Item 10)
9	-	Screw (P/O PL 10.10 Item 10)
10	604K35371	Fuser latch pin kit
11	110K20910	Fuser exit switch (S10-100) (REP 10.16)
12	-	Fuser upper exit guide (P/O PL 10.10 Item 1)
13	-	Fuser top cover (P/O PL 10.10 Item 1)
14	-	Lower input guide (Not Spared)
15	-	Lamp (P/O PL 10.10 Item 1)

**NOTE:** 1. An ozone filter, PL 9.25 Item 3 is supplied with the fuser module.

**NOTE:** 2. For the fuser web motor, fuser connector assembly and fuser CRUM connector, refer to PL 4.10.



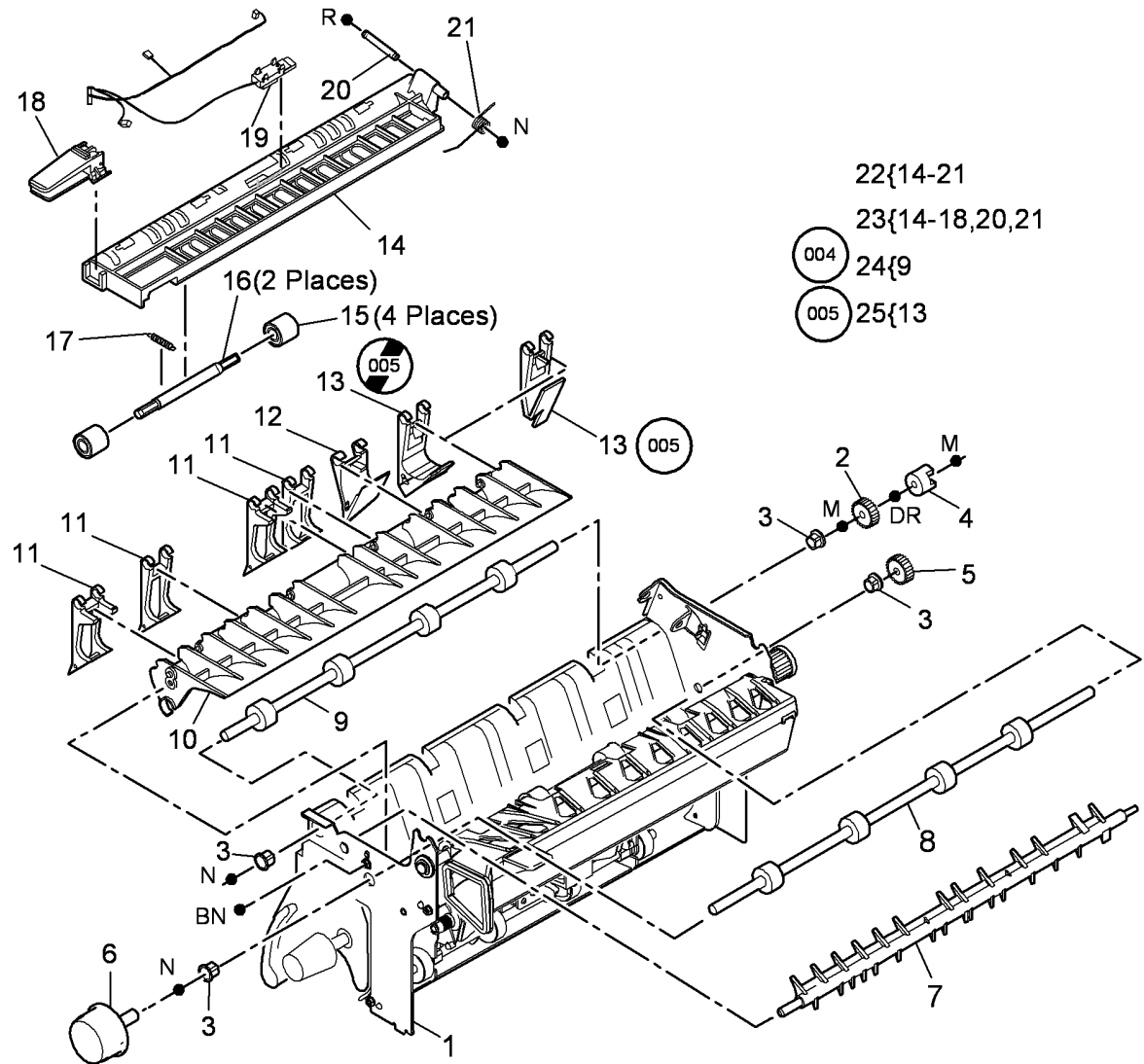
T-8-0051-A





## PL 10.12 Inverter Assembly (2 of 4)

Item	Part	Description
1.	-	Inverter output assembly (P/O PL 10.11 Item 23)
2.	-	Post fuser gear (20T) (REF: PL 10.15 Item 7)
3.	013E36980	Bearing
4.	007K19670	Dog drive assembly (REF: PL 10.15 Item 6)
5.	-	Idler gear (20T) (REF: PL 10.15 Item 4)
6.	-	Tri-roll knob (REF: PL 10.15 Item 12)
7.	-	Inverter gate (Not Spared) (REP 10.11)
8.	-	Tri-roll shaft assembly (Not Spared) (REP 10.12)
9.	006K29971	Post fuser exit roller (See NOTE 2) (W/O TAG 004)
-	-	Post fuser exit roller (P/O PL 10.12 Item 24) (W/TAG 004)
10.	-	Tri-roll guide (P/O PL 10.11 Item 23)
11.	-	Front gravity finger (P/O PL 10.11 Item 23)
12.	-	Gravity gate finger (P/O PL 10.11 Item 23)
13.	-	Rear gravity gate finger (P/O PL 10.11 Item 23) (W/O TAG 005)
-	-	Rear gravity gate finger (P/O PL 10.12 Item 25) (W/TAG 005)
14.	-	Upper baffle (P/O PL 10.12 Item 22, PL 10.12 Item 23)
15.	-	Idler roll (P/O PL 10.12 Item 22, PL 10.12 Item 23)
16.	-	Idler roll shaft (P/O PL 10.12 Item 22, PL 10.12 Item 23)
17.	-	Spring (P/O PL 10.12 Item 22, PL 10.12 Item 23)
18.	-	Post fuser jam clearance latch (REF: PL 10.15 Item 11)
19.	-	Inverter sensor (P/O PL 10.12 Item 22) (65-90 ppm) (NOTE)
20.	-	Hinge pin (P/O PL 10.12 Item 22, PL 10.12 Item 23)
21.	-	Torsion spring (P/O PL 10.12 Item 22, PL 10.12 Item 23)
22.	038K17843	Upper baffle assembly (65-90 ppm) (REP 10.7)
23.	-	Upper baffle assembly (35-55 ppm) (REF: PL 10.12 Item 22) (See NOTE 1) (REP 10.7)
24.	604K54010	Inverter transparency feed kit (W/TAG 004)
25.	604K54630	Rear gravity gate finger kit (W/TAG 005)



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005 25{13

T-8-0053-A

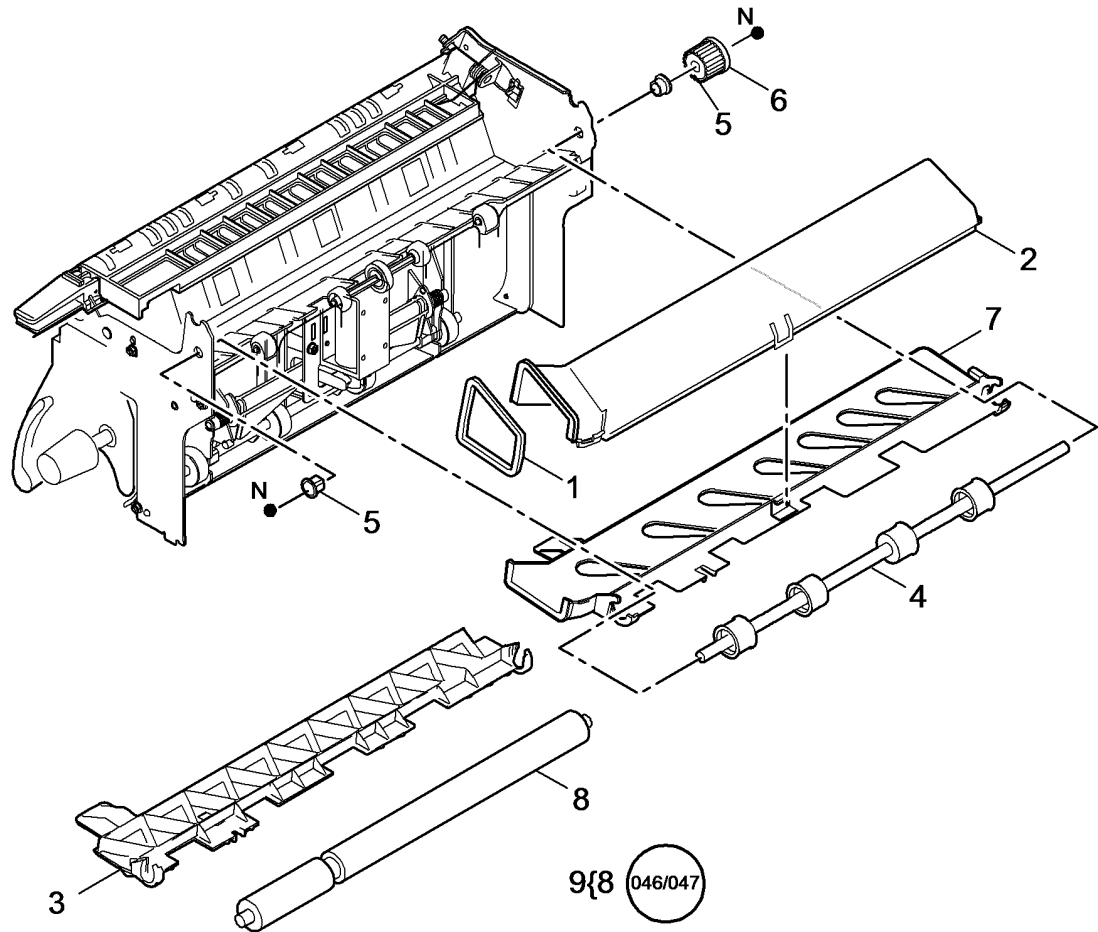
**NOTE:** 1. For 35-55 ppm speed machines do not have the inverter sensor.

**NOTE:** 2. HFSI. To reset the HFSI count, refer to GP 17.

## PL 10.13 Inverter Assembly (3 of 4)

Item	Part	Description
1	-	Inverter assembly duct seal (P/O PL 10.11 Item 23)
2	-	Inverter assembly duct (P/O PL 10.11 Item 23)
3	-	Baffle guide (35-55 ppm) (P/O PL 10.11 Item 23)
4	806E41911	Exit shaft assembly (W/O TAG 046, TAG 047) (REP 10.14)
-	-	Exit shaft assembly (W/TAG 046, TAG 047) (REP 10.14)
5	013E36980	Bearing
6	-	Exit gear (REF: PL 10.15 Item 1)
7	-	Baffle guide (65-90 ppm) (P/O PL 10.11 Item 23)
8	-	Decurler roll (P/O PL 10.13 Item 9) (NOTE) (W/TAG 046, TAG 047)
9	604K55120	Decurler soft roll repair kit (NOTE) (W/TAG 046, TAG 047)

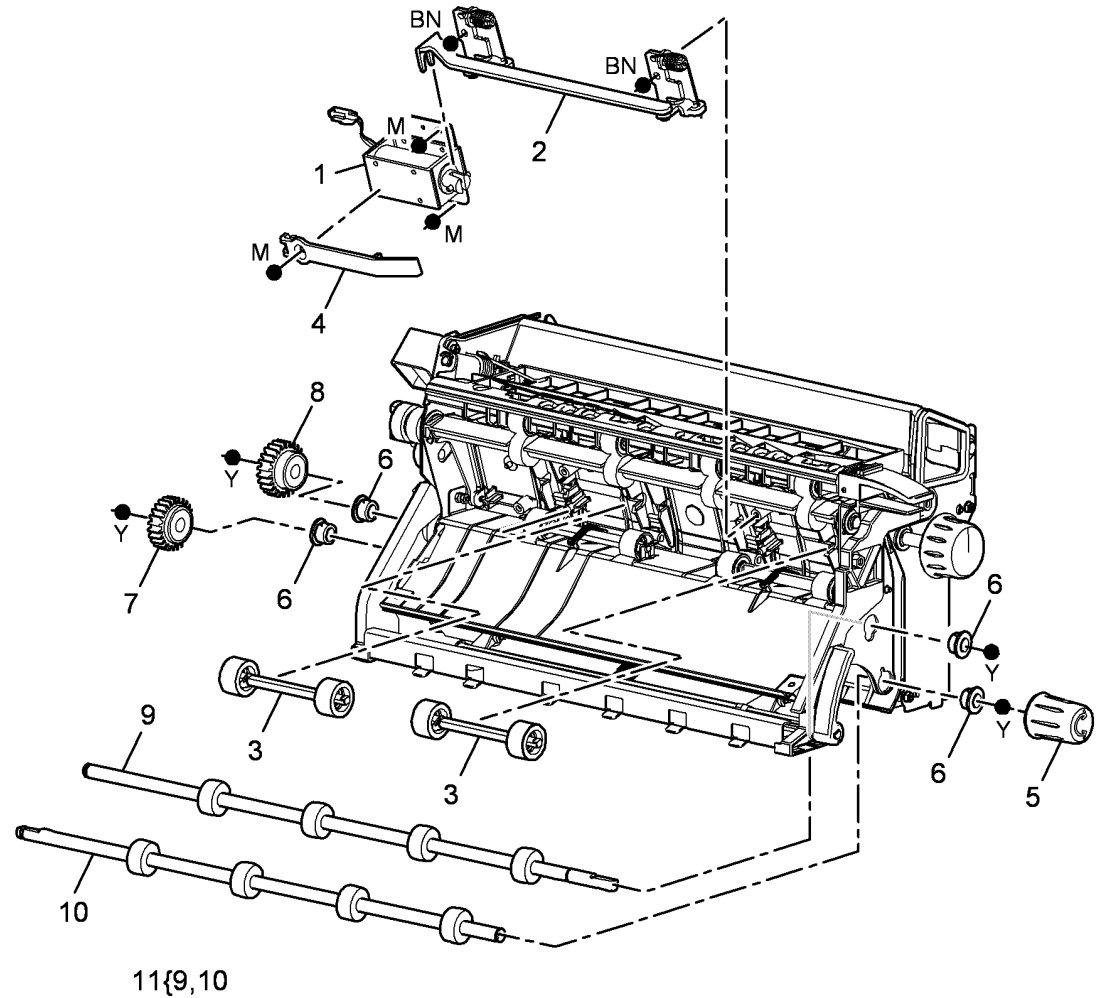
**NOTE:** The decurler roll is only to be installed on W/TAG 046, TAG 047 machines.



T-8-0054-A

## PL 10.14 Inverter Assembly (4 of 4)

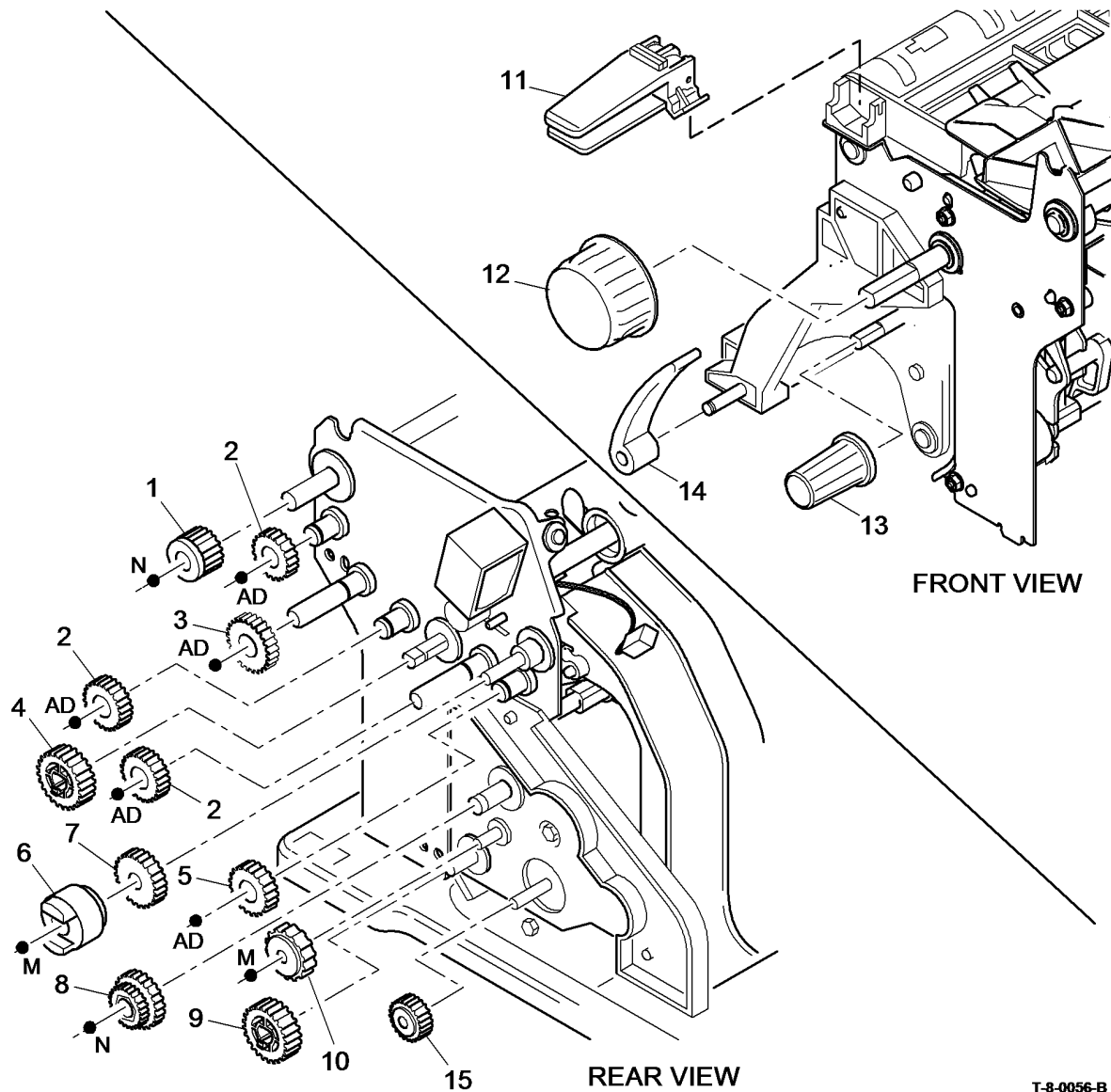
Item	Part	Description
1	121K44380	Tri roll nip split solenoid (SOL 10-055) (65-90 ppm)
2	-	Actuator assembly (Not Spared) (65-90 ppm)
3	-	Nip roller (Not Spared)
4	-	Solenoid ramp (Not Spared) (65-90 ppm)
5	-	Jam clearance knob (REF: PL 10.15 Item 13)
6	-	Bearing (Not Spared)
7	-	Gear (24T) (REF: PL 10.15 Item 9)
8	-	Gear assembly (REF: PL 10.15 Item 8)
9	-	Upper inverter drive shaft (P/O PL 10.14 Item 11) (W/O TAG 051)
10	-	Lower inverter drive shaft (P/O PL 10.14 Item 11) (W/O TAG 051)
11	604K55571	Drive roll repair kit (W/TAG 051)



T-8-0055-A

## PL 10.15 Inverter Drive Gears and Jam Clearance Knobs

Item	Part	Description
1	007K13890	Exit gear (20T)
2	807E15800	Idler gear (21T)
3	807E15810	Idler gear (25T)
4	807E15790	Idler gear (20T)
5	807E15780	Idler gear (19T)
6	007K19670	Dog drive assembly
7	807E15770	Post fuser gear (20T)
8	807E15820	Gear assembly
9	807E15850	Gear (24T)
10	807E15840	Gear (21T)
11	003K20990	Post fuser jam clearance latch
12	003E77261	Tri-roll knob
13	003E77271	Jam clearance knob
14	003E77251	Latch cam handle
15	-	Inverter motor gear (35-55 ppm) (REF: PL 10.11 Item 11)
-	-	Inverter motor gear (65-90 ppm) (REF: PL 10.11 Item 11)



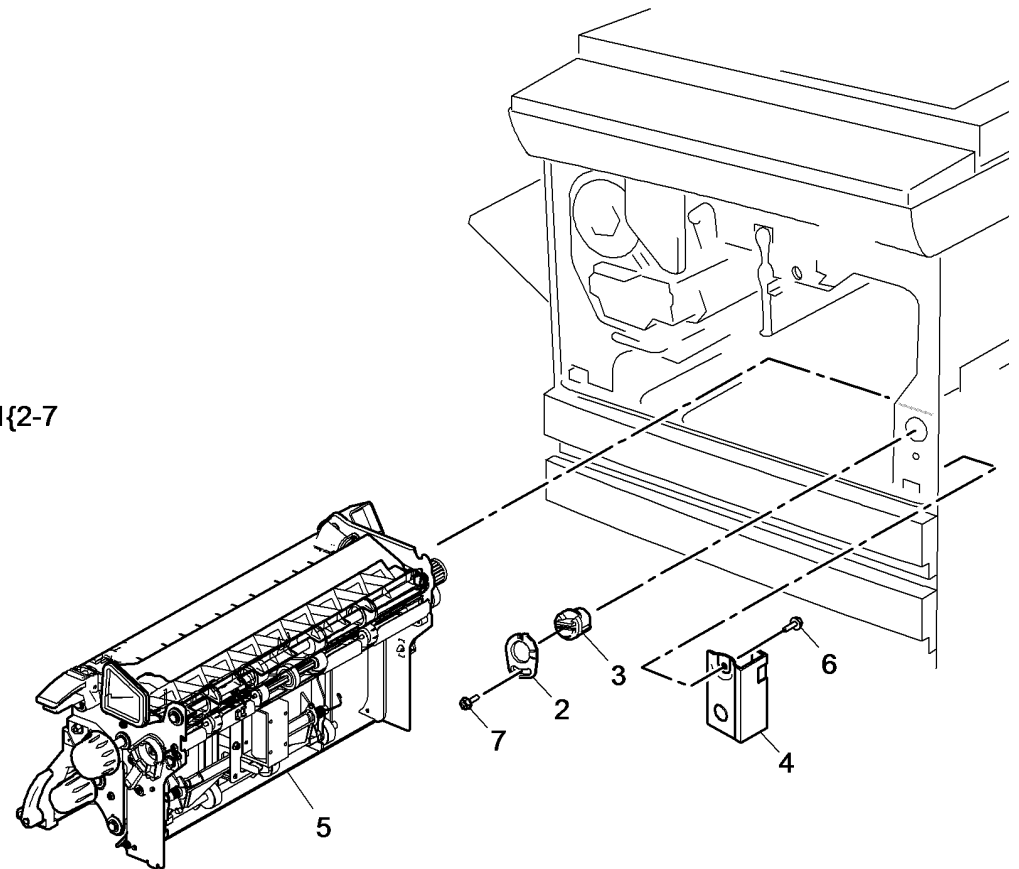
T-8-0056-B

## PL 10.20 Inverter Decurler Assembly W/TAG 046/047

Item	Part	Description
1	-	Inverter decurler kit (REF: PL 31.14 Item 1) (65-90 ppm) (W/TAG 047) (REP 10.2)
-	604K53914	Inverter decurler kit (35-55 ppm) (W/TAG 046) (REP 10.2)
2	-	Retaining ring (P/O PL 10.20 Item 1)
3	-	Adjuster (P/O PL 10.20 Item 1)
4	-	Support bracket (P/O PL 10.20 Item 1)
5	604K60872	Inverter decurler assembly (35-55ppm)
-	604K60802	Inverter decurler assembly (65-90 ppm)
6	-	Screw (M4x8) (P/O PL 10.20 Item 1)
7	-	Shoulder screw (M4x12) (P/O PL 10.20 Item 1)

**NOTE:** The inverter decurler soft roll repair kit is shown on PL 10.13 Item 9.

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T-8-0057-A

# PL 10.21 OCT Inverter Decurler Assembly W/TAG 148

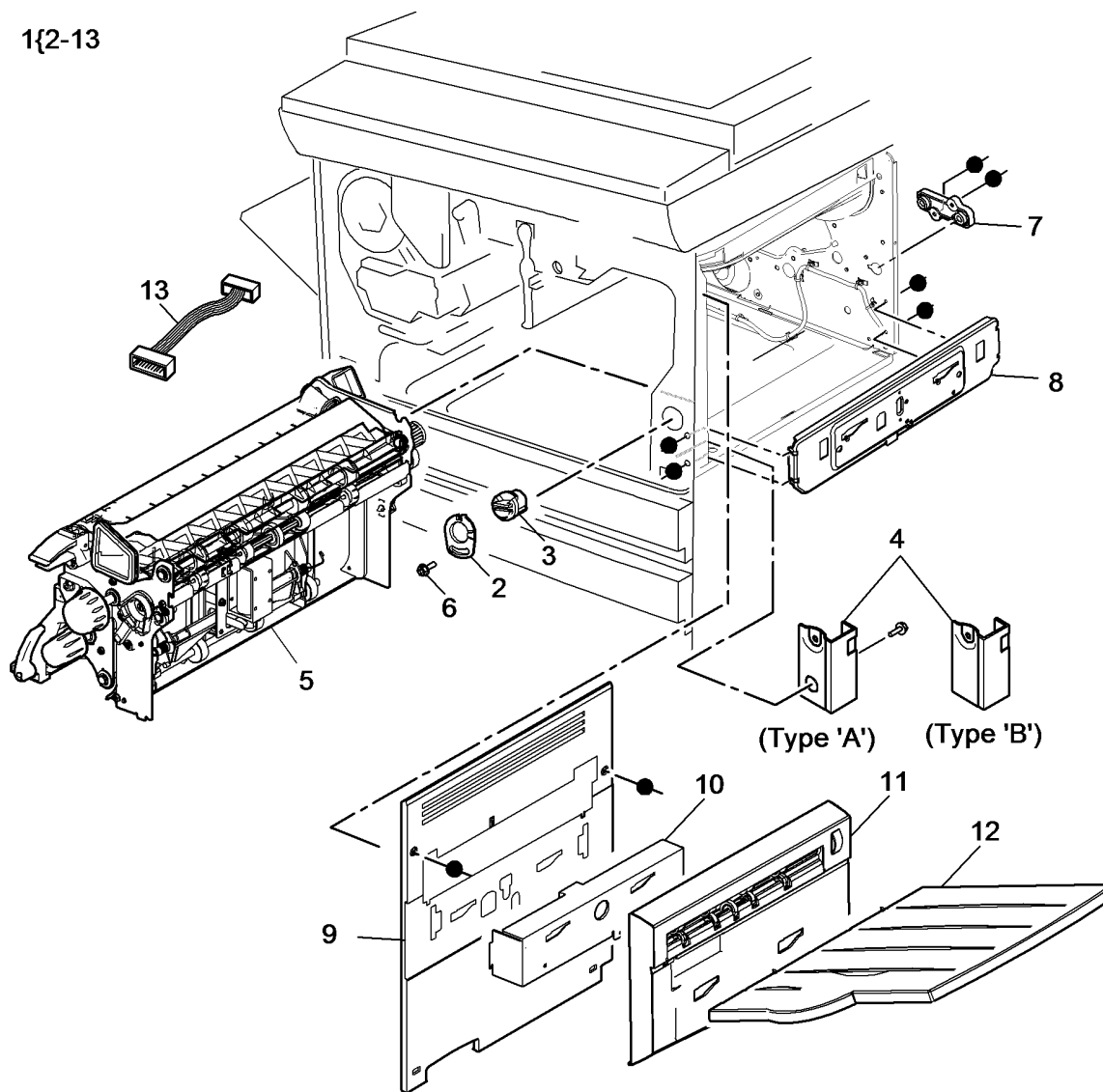
Item	Part	Description
1	604K73492	OCT inverter decurler kit (W/TAG 148) (REP 10.2)
2	-	Retaining ring (P/O PL 10.21 Item 1)
3	-	Adjuster (P/O PL 10.21 Item 1)
4	-	Support bracket (P/O PL 10.21 Item 1)
5	-	Inverter decurler assembly (P/O PL 10.21 Item 1)
6	-	Shoulder screw (M4x12) (P/O PL 10.21 Item 1)
7	-	Rear inverter bush (P/O PL 10.21 Item 1)
8	-	Tie bar (P/O PL 10.21 Item 1)
9	-	Right hand cover (P/O item 1) (WARNING)
10	-	Mounting bracket (P/O PL 10.21 Item 1)
11	-	OCT transport assembly (P/O PL 10.21 Item 1)
12	-	OCT tray (P/O PL 10.21 Item 1)
13	962K96240	Inverter jumper harness



## WARNING

Do not use the W/TAG 148 right hand cover with an output device other than the OCT Transport assembly. The right cover will expose moving parts if not used correctly. Moving parts can cause injury

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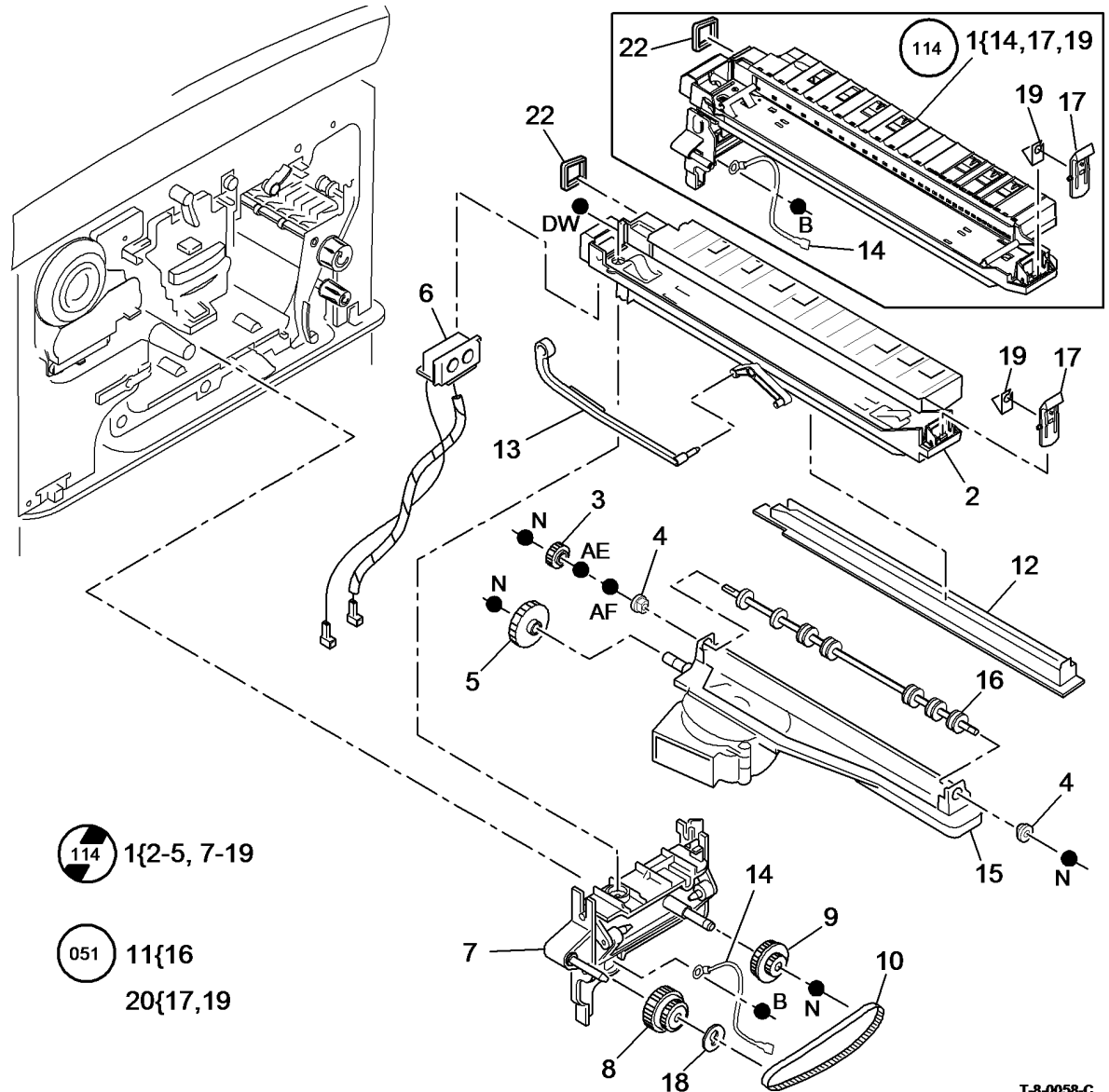


T-8-0145-B

## PL 10.25 Short Paper Path Assembly

Item	Part	Description
1	-	Short paper path assembly (without fan) (P/O PL 31.11 Item 4) (W/TAG 114) (REP 10.1)
-	-	Short paper path assembly (with fan) (P/O PL 31.11 Item 4) (W/O TAG 114) (REP 10.1)
2	-	Corotron carrier (P/O PL 10.25 Item 1)
3	-	Gear (P/O PL 10.25 Item 1) (16T)
4	-	Bearing (P/O PL 10.25 Item 1)
5	-	Gear (P/O PL 10.25 Item 1) (32T)
6	-	Transfer/Detack harness (REF: PL 9.20 Item 9)
7	-	Intermediate drive assembly (P/O PL 10.25 Item 1)
8	807E15940	Gear/Pulley (28T/25G)
9	-	Gear/Pulley (P/O PL 10.25 Item 1) (16T/30G)
10	-	Intermediate drive belt (P/O PL 10.25 Item 1) (REP 10.15)
11	604K55571	Drive roll repair kit (W/TAG 051)
12	-	Ozone duct (P/O PL 10.25 Item 1)
13	-	Push rod (P/O PL 10.25 Item 1)
14	-	Ground harness (P/O PL 10.25 Item 1)
15	-	Base (P/O PL 10.25 Item 1)
16	-	Roll assembly (P/O PL 10.25 Item 1)
17	-	Corotron carrier latch (P/O PL 10.25 Item 20)
18	028E16630	Snap on washer (M6)
19	-	Spring clip (P/O PL 10.25 Item 20)
20	604K41110	4B latch kit
21	-	Not Used
22	-	Carrier seal (P/O PL 31.10 Item 6)

**NOTE:** 1. For the registration and halo bias contact, refer to PL 8.15 Item 23.

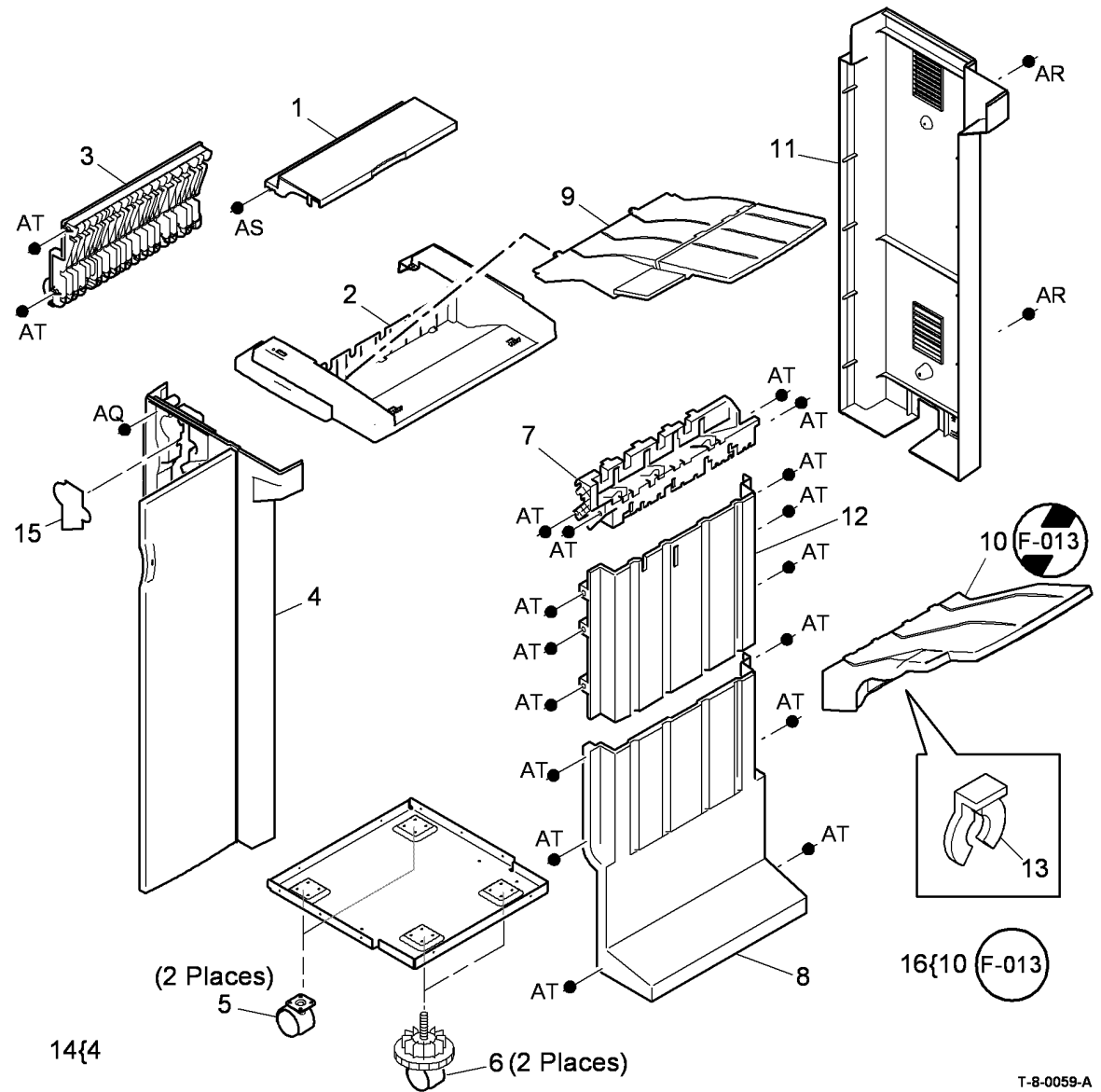


T-8-0058-C

## PL 11.2 2K LCSS Covers

Item	Part	Description
1	802K48330	Exit cover (W/O TAG F-012)
2	848K06190	Top cover (W/O TAG F-012) (REP 11.1-110)
3	-	Entry guide cover (REF: PL 11.24 Item 5) (REP 11.15-110)
4	-	Front door cover assembly (P/O PL 11.2 Item 14) (W/O TAG F-012) (REP 11.1-110)
5	017K03750	Fixed castor
6	017K04520	Adjustable castor
7	-	Output cover (Not Spared)
8	802K48320	Lower right hand cover
9	050K67380	Bin 0 (W/O TAG F-012)
10	050K68490	Bin 1 (W/O TAG F-012, TAG F-013) (ADJ 11.1-110)
11	848K06180	Rear cover assembly (W/O TAG F-012) (REP 11.1-110)
12	-	Upper right hand cover (Not Spared)
13	019K13380	Bin 1 alignment clip
14	-	2K LCSS front door cover assembly kit (REF: PL 31.12 Item 10) (W/O TAG F-012)
15	-	Hole punch assembly cover (Not Spared)
16	604K48150	Bin 1 tray kit (improved stacking) (W/TAG F-013)

**NOTE:** Refer to ADJ 11.2-110 to align the 2K LCSS to the machine.

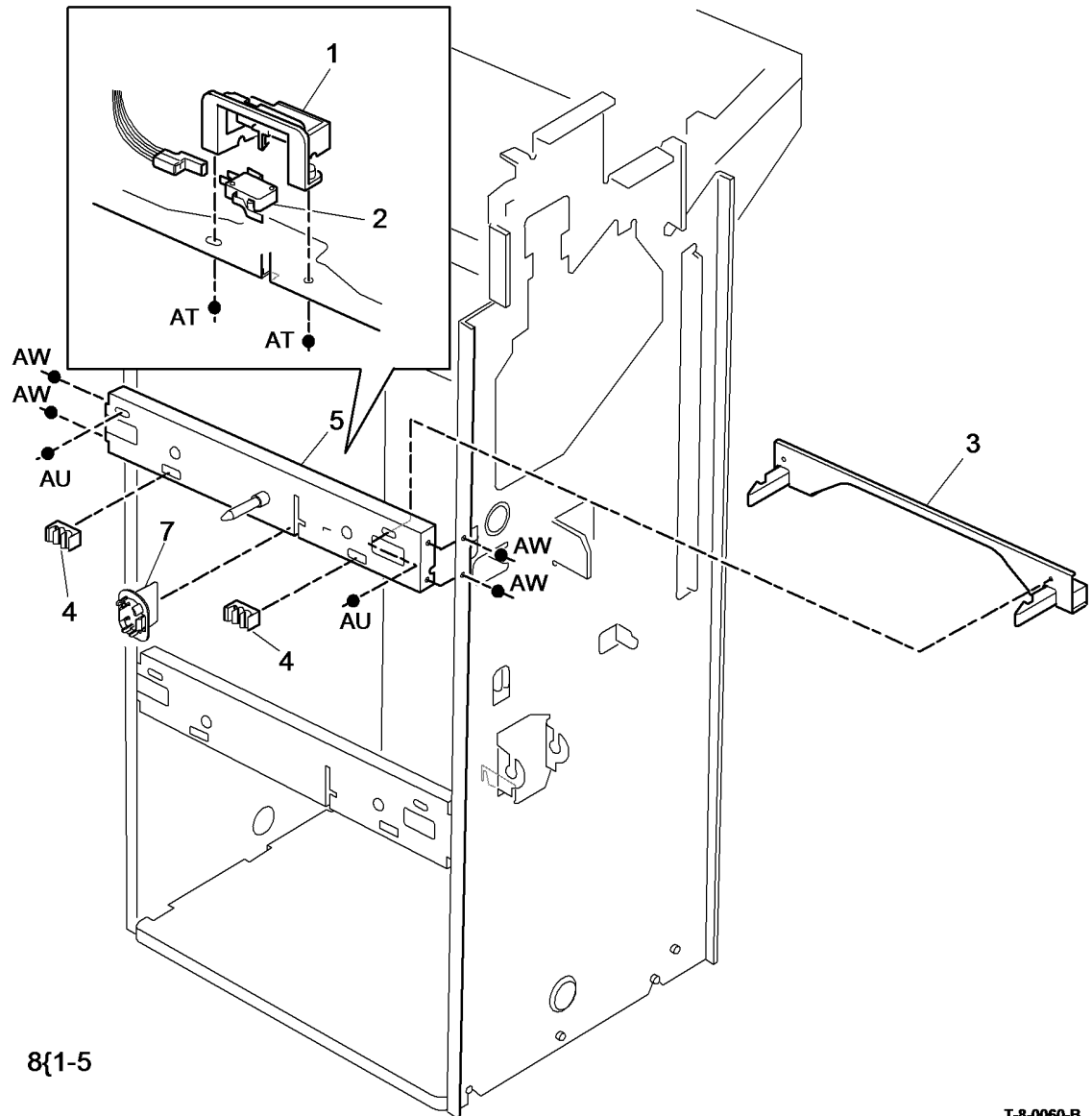


T-8-0059-A



## PL 11.4 2K LCSS Docking Latch

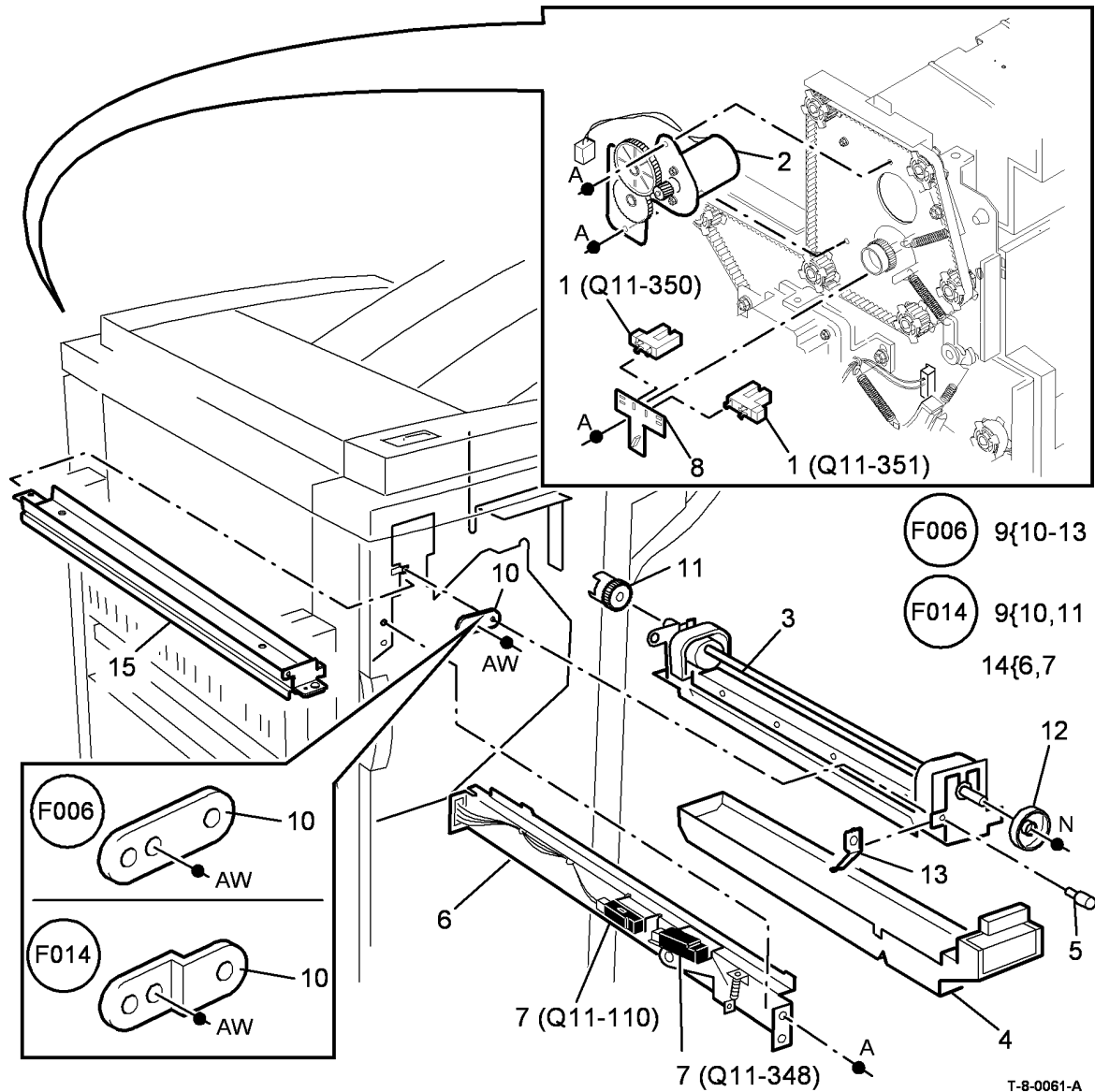
Item	Part	Description
1	–	Sensor cover (Not Spared)
2	110K13980	Docking interlock switch (S11-300)
3	003K20401	Link bracket assembly
4	–	Stopper (Not Spared)
5	–	Docking latch (P/O PL 11.4 Item 8)
6	–	Not used
7	120K02590	Docking actuator
8	003K20410	Docking latch assembly (REP 11.16-110)



T-8-0060-B

# PL 11.6 2K LCSS Hole Punch Unit

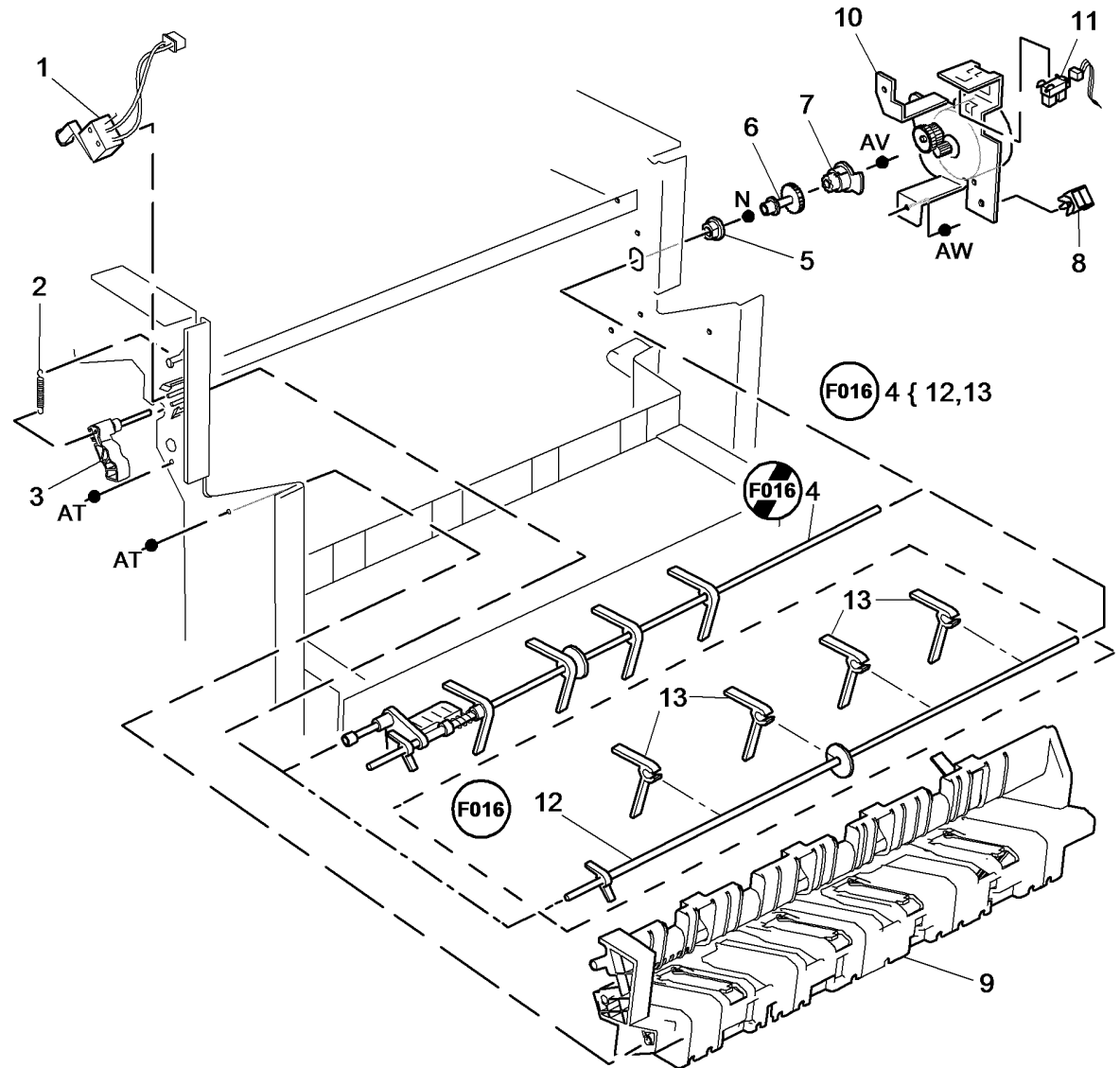
Item	Part	Description
1	130E10360	Punch Head Home Sensor (Q11-350), Punch Head Present Sensor (Q11-351) (REP 11.7-110)
2	127K55900	Hole Punch Motor Assembly (MOT11-042) (REP 11.7-110)
3	-	Hole punch unit (see below for variants) (REP 11.7-110, ADJ 11.3-110)
-	180K00280	2 Hole (XE)
-	180K00320	2 Hole Legal
-	180K00200	3 Hole (USSG/XCL)
-	180K00310	4 Hole (Sweden)
-	180K00300	4 Hole (XE)
4	093E03820	Chad Bin
5	-	Thumb Screw (Not Spared)
6	-	Bracket (P/O PL 11.6 Item 14)
7	130E10380	Punch Sensor (Q11-110), Chad Bin Full Sensor (Q11-348) (REP 11.7-110)
8	-	Sensor Bracket (Not Spared)
9	-	LCSS Hole Punch Repair Kit (REF: PL 31.14 Item 7) (W/TAG F-006) (ADJ 11.3-110)
-	604K53830	LCSS Hole Punch Repair Kit (W/TAG F-014) (ADJ 11.3-110)
10	-	Bracket (P/O PL 11.6 Item 9) (W/TAG F-014)
-	-	Bracket (P/O PL 11.6 Item 9) (W/TAG F-006)
11	-	Punch Drive Gear (P/O PL 11.6 Item 9) (W/TAG F-006)
-	-	Punch Drive Gear (P/O PL 11.6 Item 9) (W/TAG F-014)
12	-	Punch Cam (P/O PL 11.6 Item 3) (W/O TAG F-014)
-	-	Punch Cam (P/O PL 11.6 Item 9) (W/TAG F-006)
13	-	Punch Spacer (P/O PL 11.6 Item 9) (W/TAG F-006)
14	-	Punch Sensor Assembly (Not Spared) (W/O TAG F-008)
-	-	Punch Sensor Assembly (Not Spared) (W/TAG F-008)
15	014K10610	Hole punch assembly cover



## PL 11.8 2K LCSS Paddle Wheel/Safety Gate

Item	Part	Description
1	110K14000	SU1 Safety gate switch (S11-365)
2	-	Spring (Not Spared)
3	-	Switch actuator (Not Spared)
4	-	Paddle wheel shaft assembly (Not Spared) (W/O TAG F-016) (REP 11.12-110)
-	-	Paddle wheel shaft assembly (REF: PL 31.14 Item 20) (W/TAG F-016)
5	013E25790	Bearing
6	-	Gear (Not Spared)
7	-	Flag (Not Spared)
8	-	Cable clamp (Not Spared)
9	-	Output cover (REF: PL 11.2 Item 7)
10	127K55881	Paddle motor assembly (MOT11-024)
11	130E10360	Paddle roll position sensor (Q11-326)
12	-	Shaft (P/O PL 11.8 Item 4) (W/TAG F-016)
13	-	Paddle (P/O PL 11.8 Item 4) (NOTE) (W/TAG F-016)

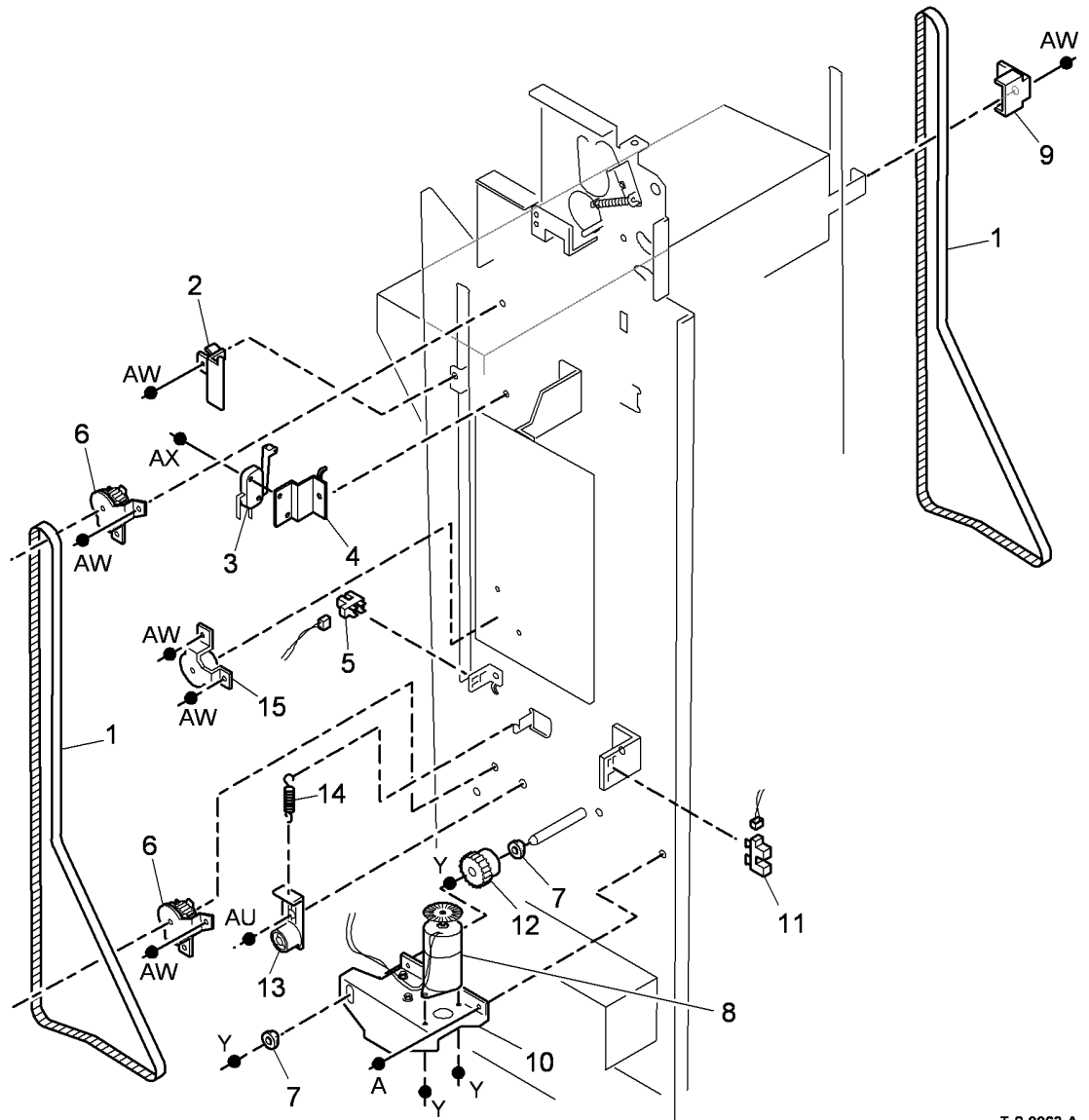
**NOTE:** Paddles are also supplied (4 off) as a kit PL 31.12 Item 11.



T-8-0062-C

# PL 11.10 2K LCSS Bin 1 Control Components (1 of 2)

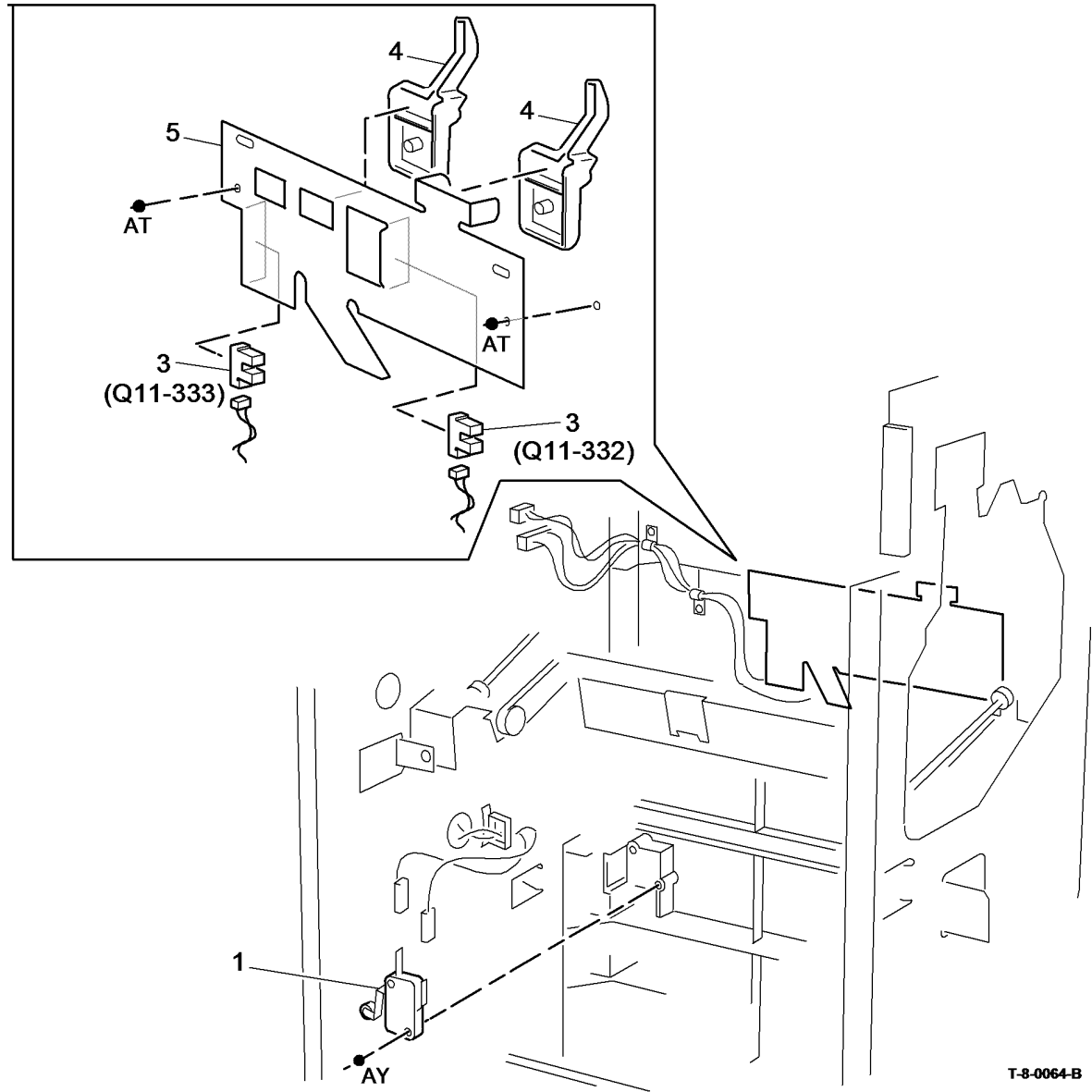
Item	Part	Description
1	023E24320	Bin 1 drive belt (REP 11.5-110)
2	-	Rear belt clamp (Not Spared) (ADJ 11.1-110)
3	110E20180	Upper limit switch (S11-334)
-	110K13990	Upper limit switch (alternate) (S11-334)
4	-	Sensor bracket (Not Spared)
5	130E10360	Bin 1 90% full sensor (Q11-331)
6	-	Pulley (Not Spared)
7	013E25810	Bearing
8	127K55891	Bin 1 elevator motor (MOT11-030)
9	-	Front belt clamp (Not Spared) (ADJ 11.1-110)
10	-	Motor bracket (Not Spared)
11	130E20380	Motor encoder sensor (Q11-336)
12	-	Pulley assembly (Not Spared)
13	-	Belt tensioner (Not Spared)
14	-	Spring (Not Spared)
15	-	Idler (Not Spared)



T-8-0063-A

## PL 11.12 2K LCSS Bin 1 Control Components (2 of 2)

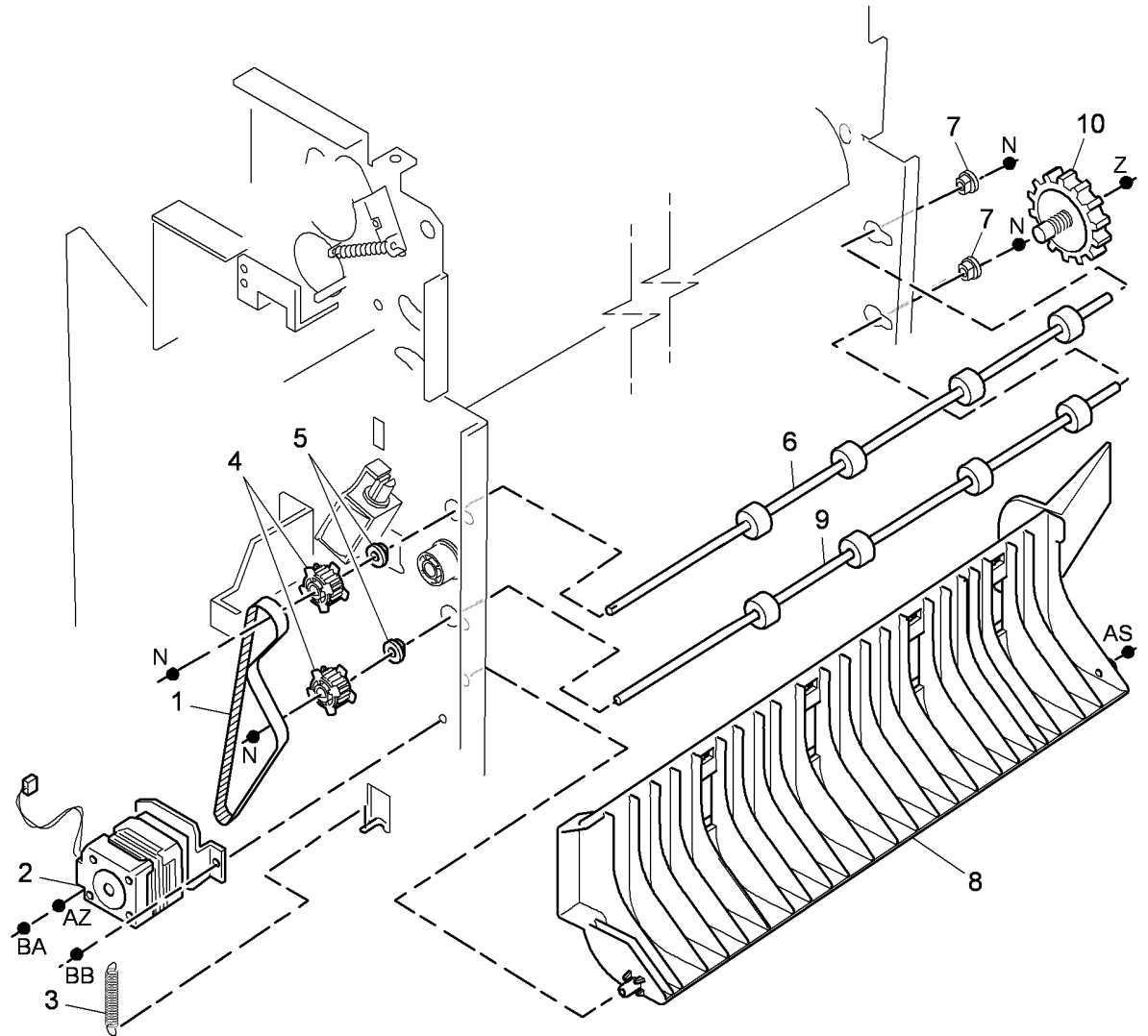
Item	Part	Description
1	110K13990	Bin 1 lower limit switch (S11-335)
2	-	Not used
3	130E10360	Bin 1 Upper level sensor (Q11-332), Bin 1 Lower level sensor (Q11-333) (REP 11.11-110)
4	-	Actuator (Not Spared)
5	-	Sensor support assembly (Not Spared)



T-8-0064-B

# PL 11.14 2K LCSS Paper Entry Transport

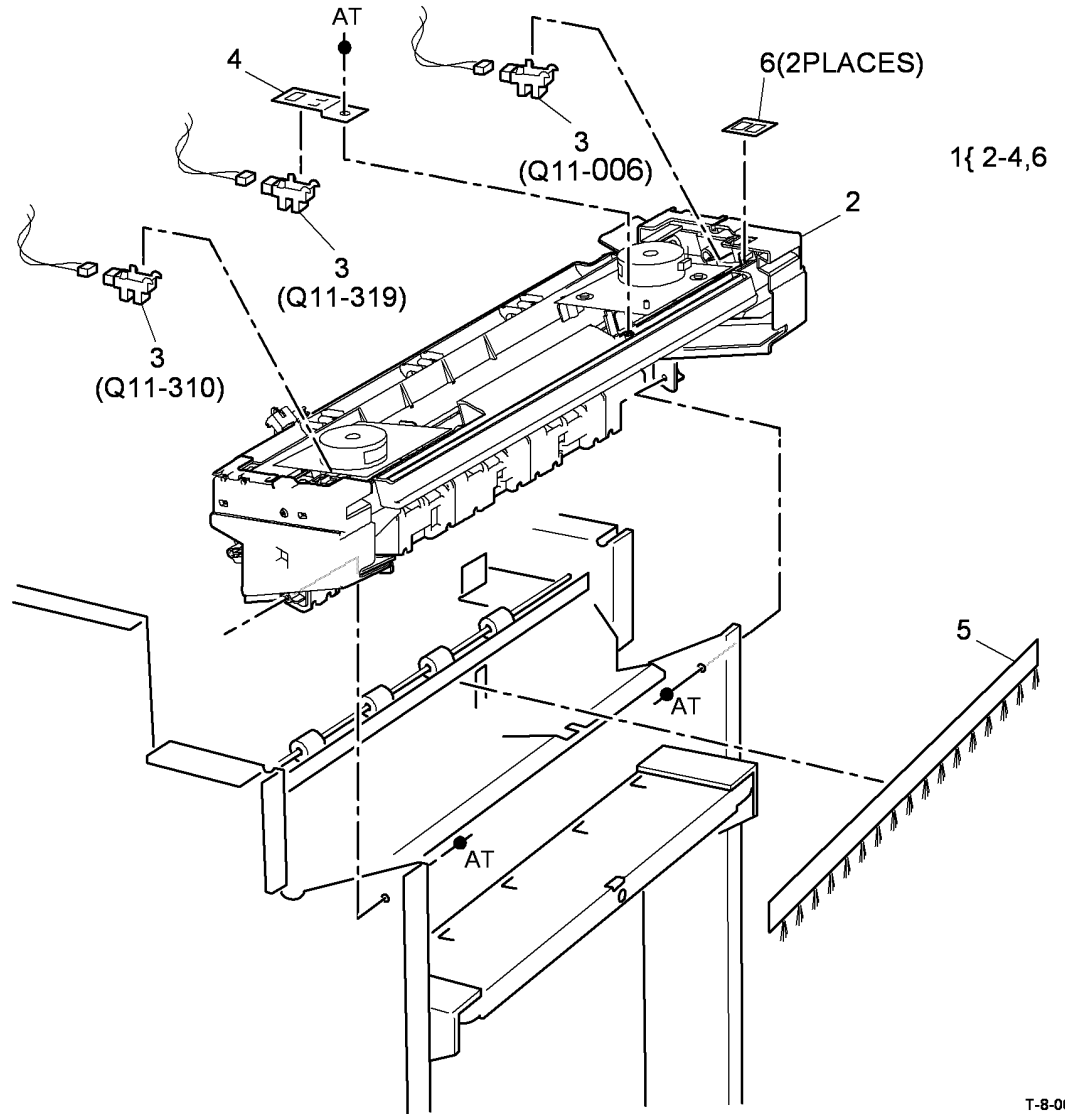
Item	Part	Description
1	023E24340	Input drive belt (REP 11.2-110)
2	127K55860	Transport motor 1 (MOT11-000) (REP 11.2-110)
3	-	Spring (Not Spared)
4	-	Pulley (Not Spared)
5	013E25790	Nylon bearing
6	006K27980	Feed roll shaft (short)
7	013E25800	Bearing
8	-	Jam clearance guide (P/O PL 11.24 Item 1)
9	006K31670	Feed roll shaft (long)
10	-	Thumb wheel (Not Spared)



T-8-0065-A

## PL 11.16 2K LCSS Tamper Assembly

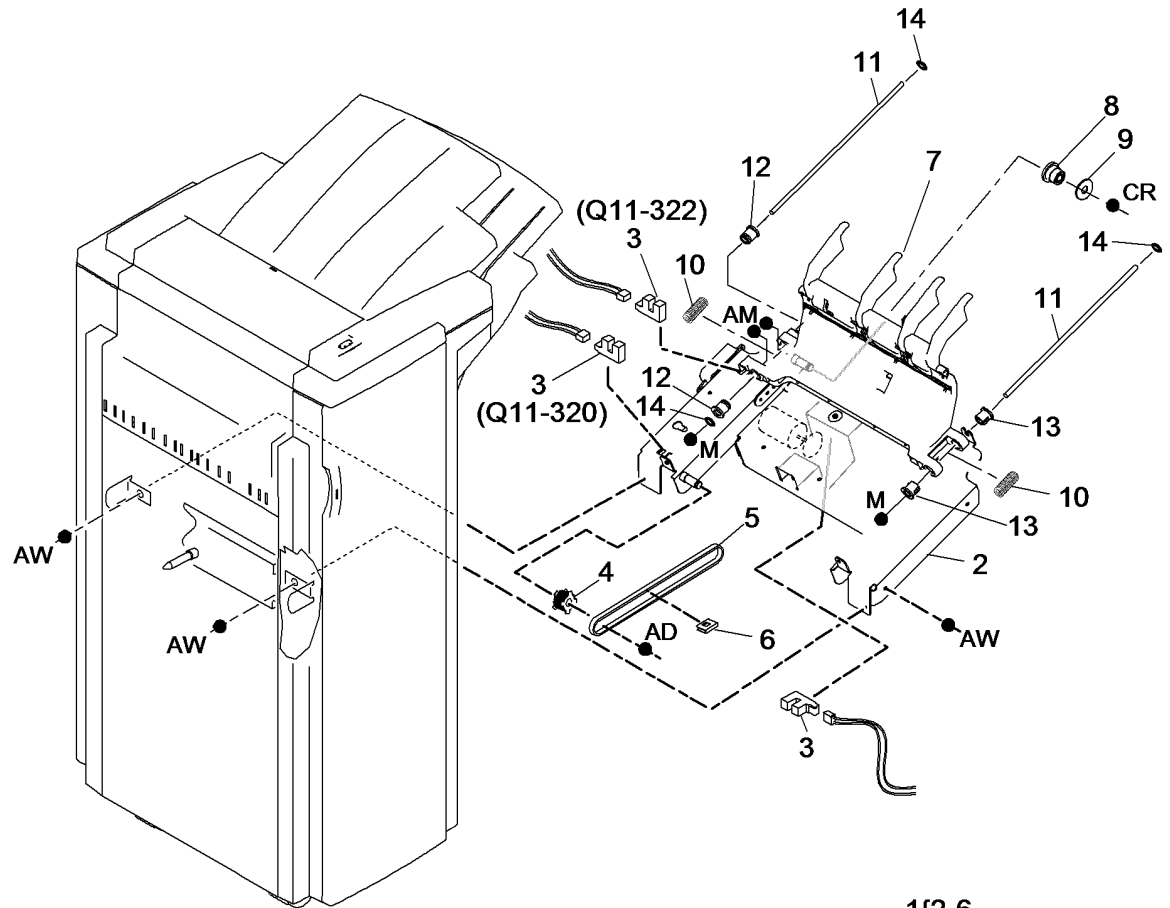
Item	Part	Description
1	068K54281	Tamper assembly (REP 11.6-110)
2	-	Tamper unit (P/O PL 11.16 Item 1)
3	130E10360	Front tamper home sensor (Q11-310), Rear tamper home sensor (Q11-006), Rear tamper home away sensor (Q11-319)
4	-	Sensor bracket (P/O PL 11.16 Item 1)
5	-	Static eliminator (stacker) (REF: PL 11.23 Item 7)
6	-	Sensor retainer (P/O PL 11.16 Item 1)



T-8-0066-A

# PL 11.18 2K LCSS Ejector Assembly

Item	Part	Description
1	054K43582	Ejector assembly (REP 11.10-110)
2	-	Ejector base (P/O PL 11.18 Item 1)
3	130E10360	Ejector home sensor (Q11-320), Ejector out sensor (Q11-322), Ejector motor encoder sensor (REP 11.10-110)
4	-	Pulley (Not Spared)
5	023E24330	Ejector belt (REP 11.17-110)
6	-	Clip (P/O PL 11.18 Item 1)
7	019K13390	Support finger set (Qty. 4)
8	020K21490	Pulley drive gear
9	-	Washer (Not Spared)
10	-	Spring (P/O PL 11.18 Item 1)
11	-	Shaft (P/O PL 11.18 Item 1)
12	-	Slide ejector bearing (P/O PL 11.18 Item 15)
13	-	Wide slide ejector bearing (P/O PL 11.18 Item 15)
14	-	Cushion washer (P/O PL 11.18 Item 15)
15	604K67690	LCSS bearing assembly kit



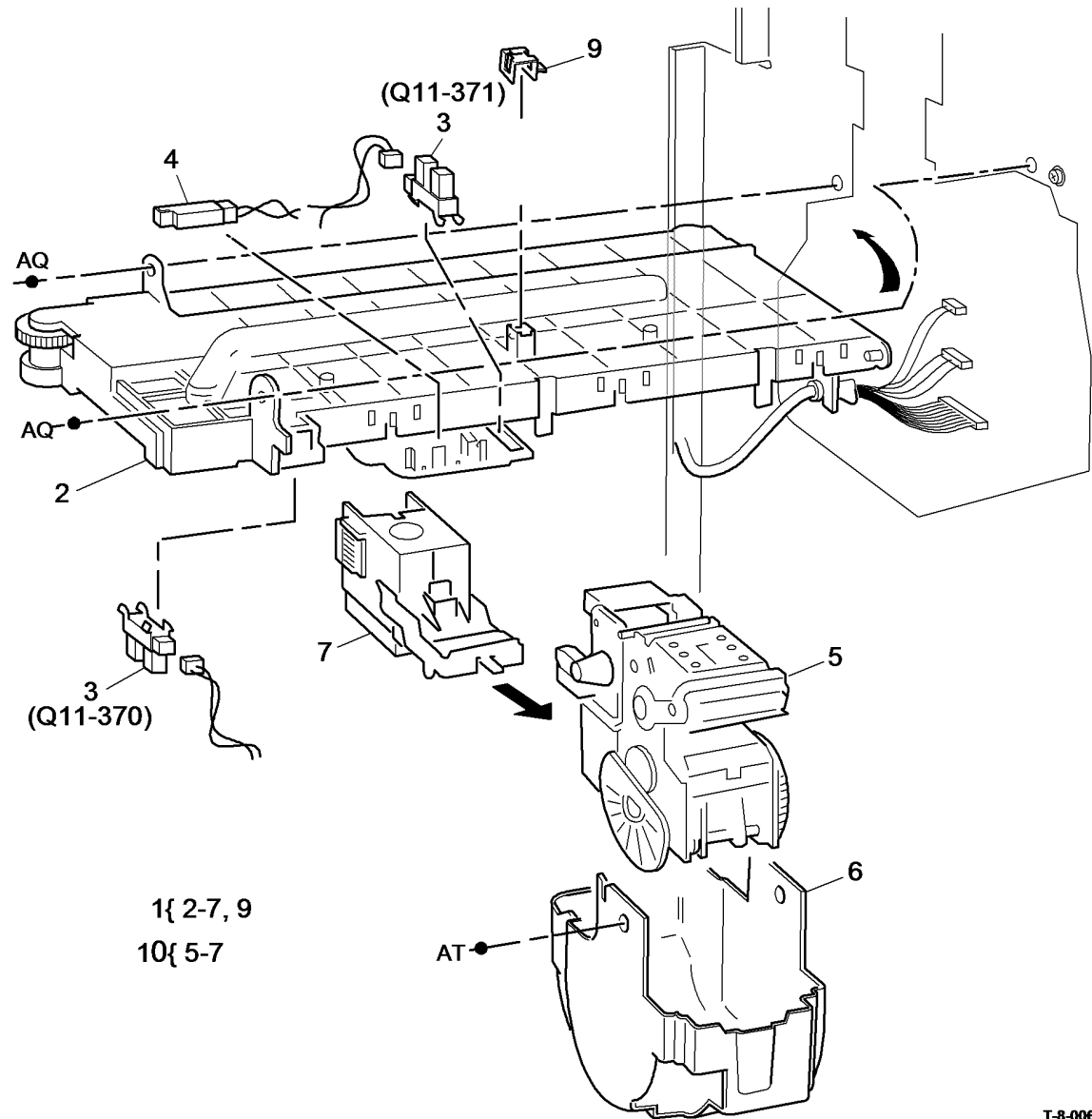
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T-8-0067-B



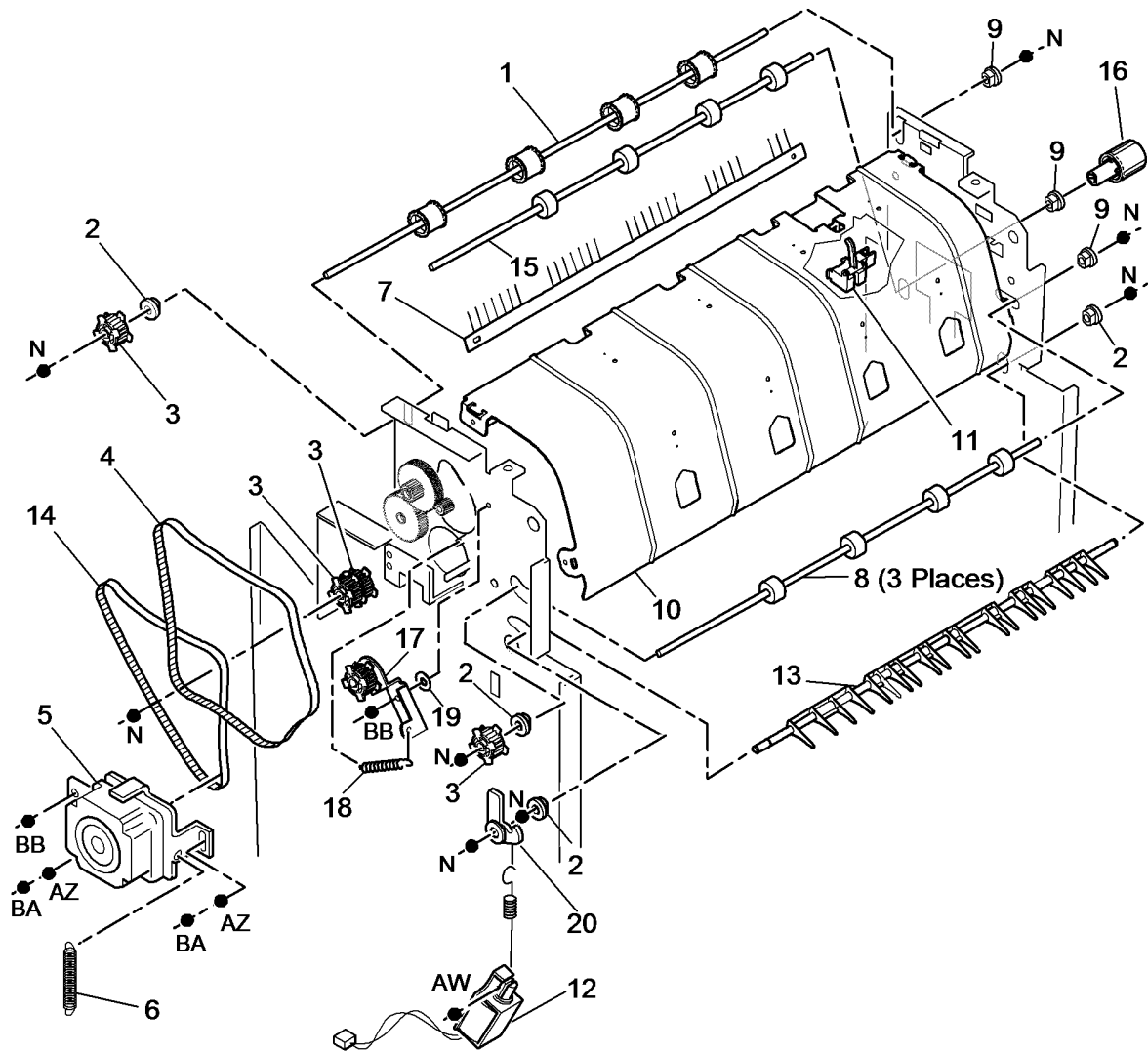
# PL 11.20 2K LCSS Staple Head Unit/ Traverse Assembly

Item	Part	Description
1	604K41341	Stapler traverse assembly kit (REF: PL 31.12 Item 9) (REP 11.8-110)
2	-	Head traverse unit (P/O PL 11.20 Item 1)
3	130E10360	SU1 Home sensor (Q11-370), SU1 Front index sensor (Q11-371)
4	130E10380	SH1 Paper sensor (Q11-361)
5	029K04520	Staple head unit (REP 11.9-110)
6	-	Stapler cover (P/O PL 11.20 Item 1)
7	-	Staple cartridge (REF: PL 26.10 Item 11)
8	-	Not used
9	-	Sensor cover (P/O PL 11.20 Item 1)
10	-	Staple head assembly (P/O PL 11.20 Item 1)



# PL 11.22 2K LCSS Bin 0 Entry

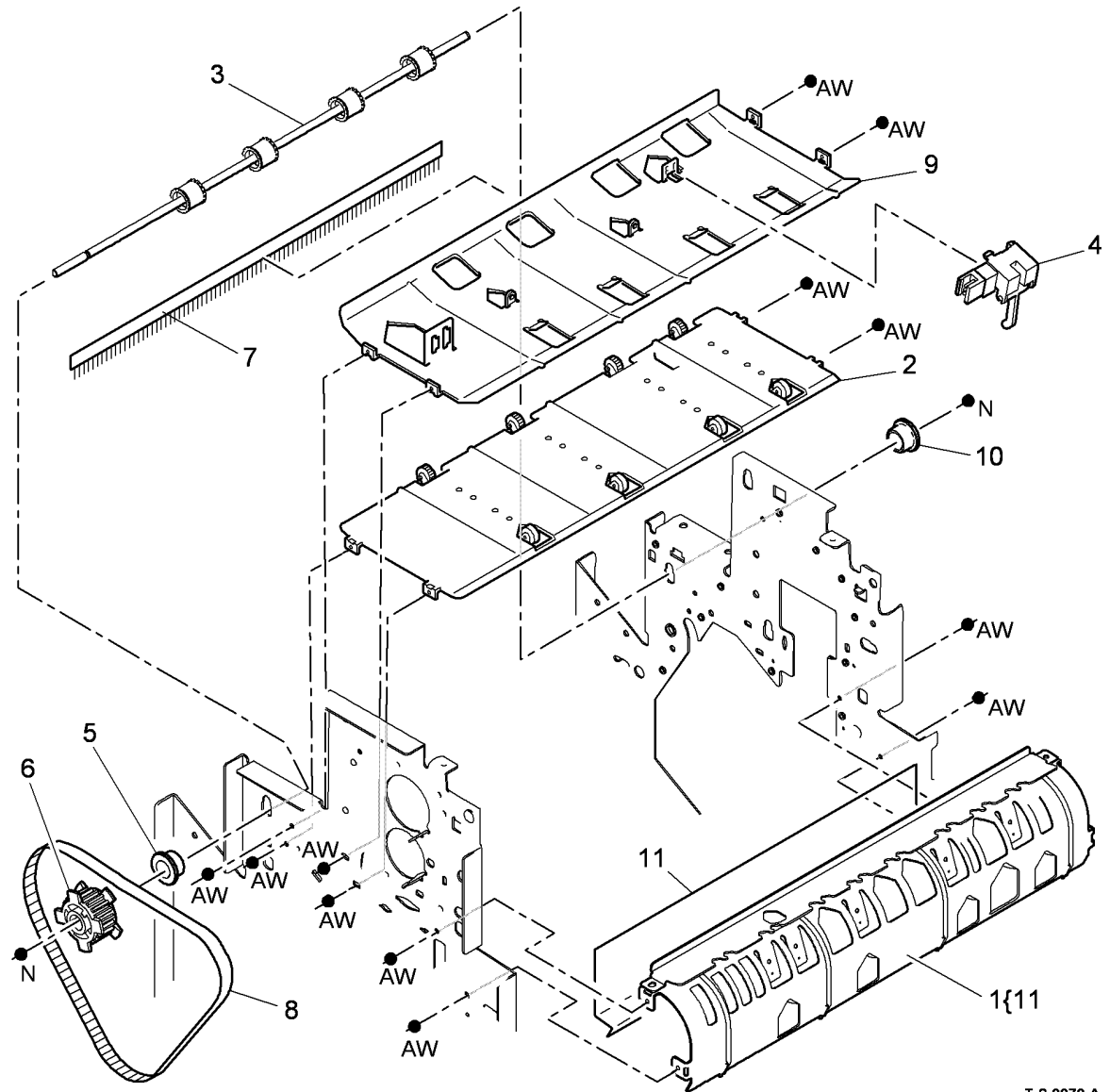
Item	Part	Description
1	006K27960	Ejector drive shaft
2	013E25790	Nylon bearing
3	-	Pulley (Not Spared)
4	023E24330	Intermediate paper drive belt (REP 11.3-110)
5	127K55870	Transport motor 2 (MOT11-001) (REP 11.4-110)
6	-	Spring (Not Spared)
7	115E12830	Static eliminator
8	006K27980	Feed roll shaft (short)
9	013E25800	Bearing
10	032K04580	Paper guide
11	130E11440	Top exit sensor (Q11-130)
12	121K45010	Diverter solenoid (SOL11-002)
13	-	Shaft diverter assembly (P/O PL 31.13 Item 6) (W/TAG F-017)
14	023E24340	Paper output drive belt (REP 11.4-110)
15	006K27970	Drive shaft assembly
16	003K17531	Jam clearance knob
17	-	Belt tensioner (Not Spared)
18	-	Spring (Not Spared)
19	-	Washer (Not Spared)
20	-	Actuator (Not Spared)



T-8-0069-A

## PL 11.23 2K LCSS Bin 1 Entry

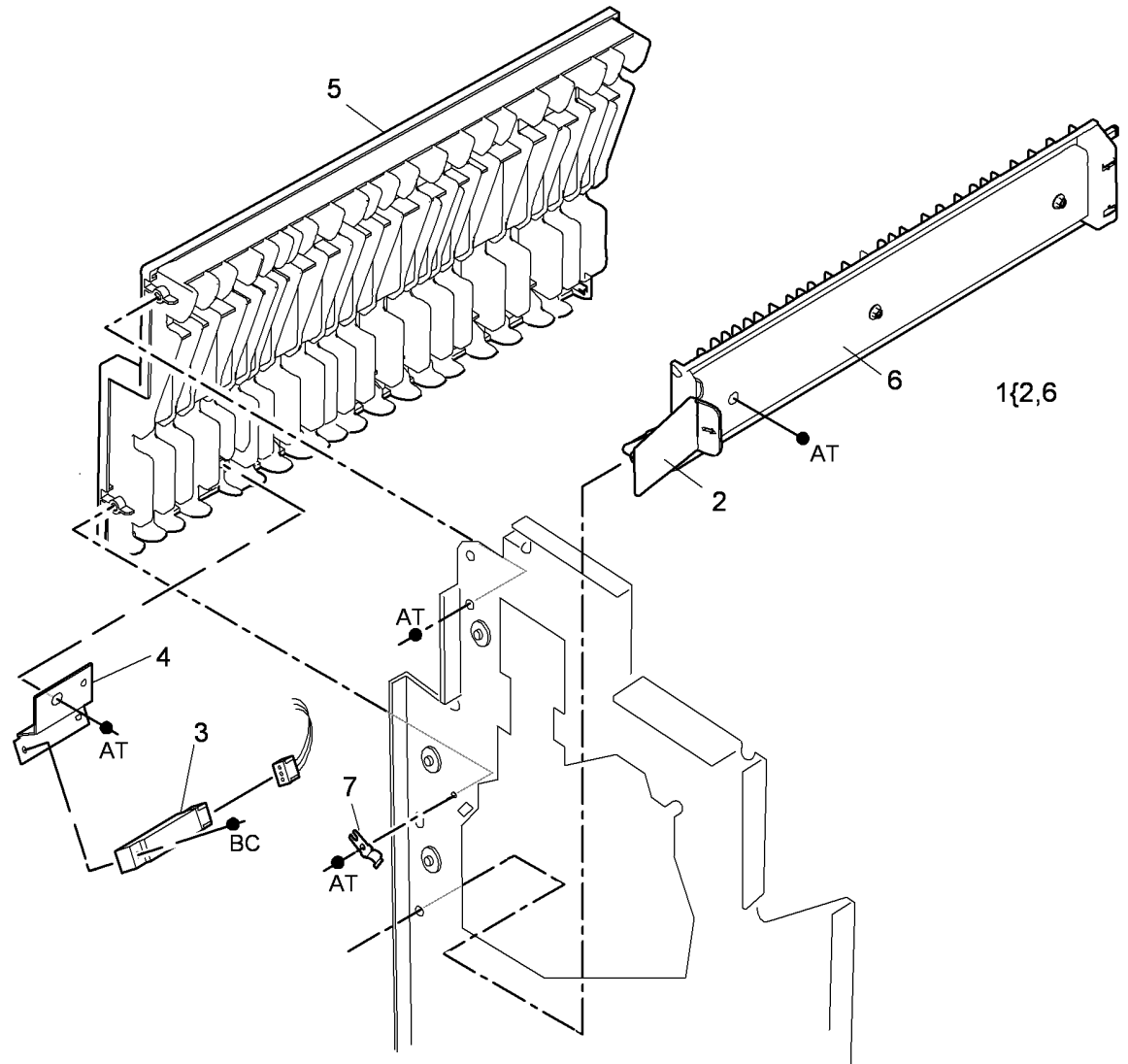
Item	Part	Description
1	032K04610	Left hand paper guide
2	032K04590	Lower right hand paper guide
3	006K27960	Ejector drive shaft (REF: PL 11.22 Item 1)
4	130E11440	2nd to top exit sensor (Q11-140)
5	013E25790	Nylon bearing
6	-	Pulley (Not Spared)
7	115E11810	Static eliminator (stacker)
8	-	Paper output drive belt (REF: PL 11.22 Item 14)
9	-	Upper right hand paper guide (Not Spared)
10	013E25800	Bearing
11	-	Mylar safety cover (P/O PL 11.23 Item 1)



T-8-0070-A

## PL 11.24 2K LCSS Entry Guide Cover/ Jam Clearance Guide

Item	Part	Description
1	032K04601	Paper entry guide assembly
2	-	Jam clearance handle (P/O PL 11.24 Item 1)
3	130E10380	Entry sensor (Q11-100)
4	-	Sensor bracket (Not Spared)
5	848K06161	Entry guide cover (REP 11.15-110)
6	-	Jam clearance guide (P/O PL 11.24 Item 1)
7	809E78390	Latch



T-8-0071-A

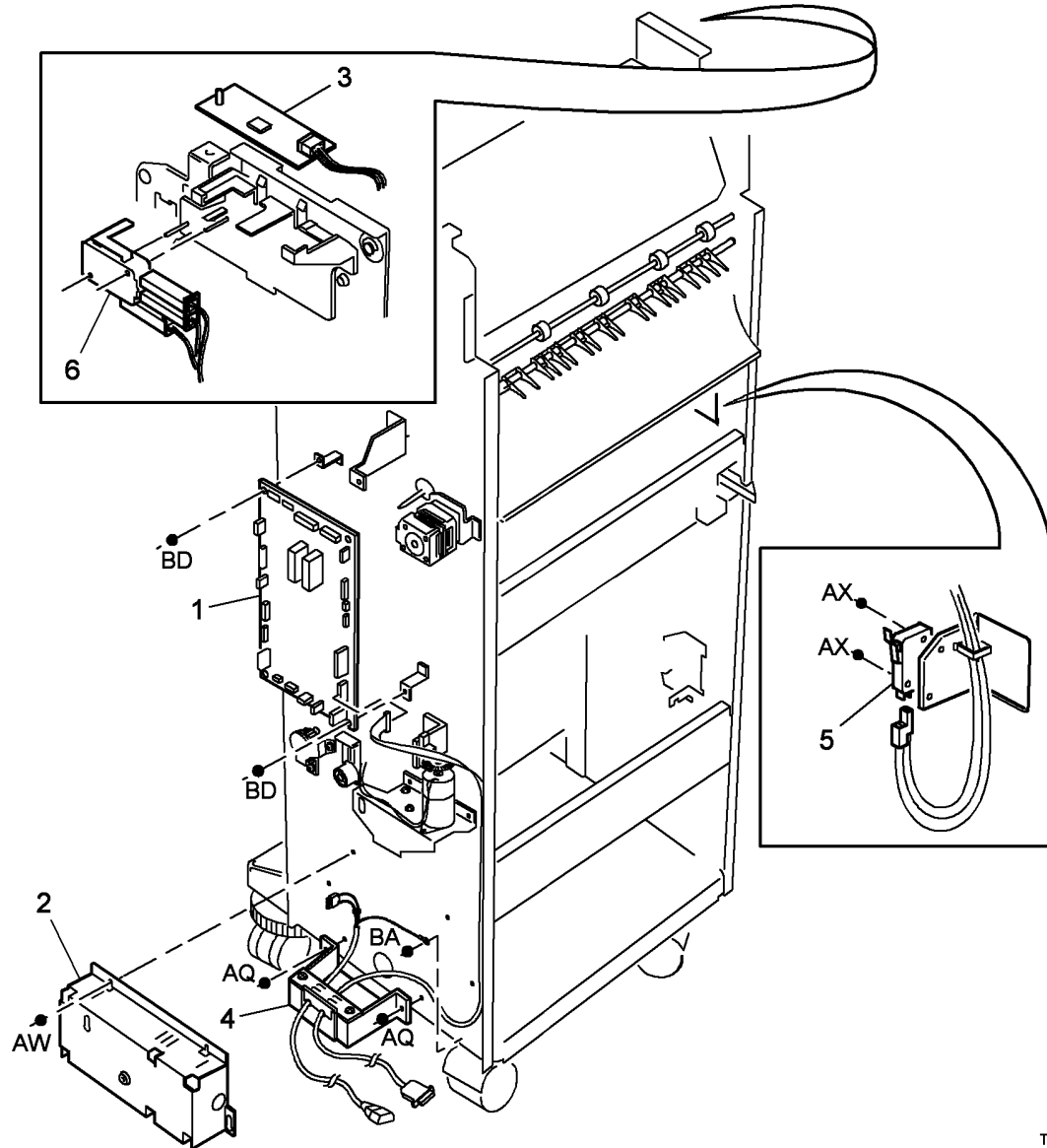
## PL 11.26 2K LCSS Electrical

Item	Part	Description
1	960K34502	2K LCSS PWB (CAUTION) (REP 11.14-110)
2	105K35842	Power supply module
3	960K34490	Offline staple PWB (S11-373)
4	962K56952	Cord bracket assembly
5	110K13980	Front door interlock switch (S11-303)
6	110K13970	Top cover interlock switch (S11-302)



### CAUTION

Do not install a new 2K LCSS PWB until the cause of the damage to the old 2K LCSS PWB has been determined. Go to the 11G-110 2K LCSS PWB Damage RAP.

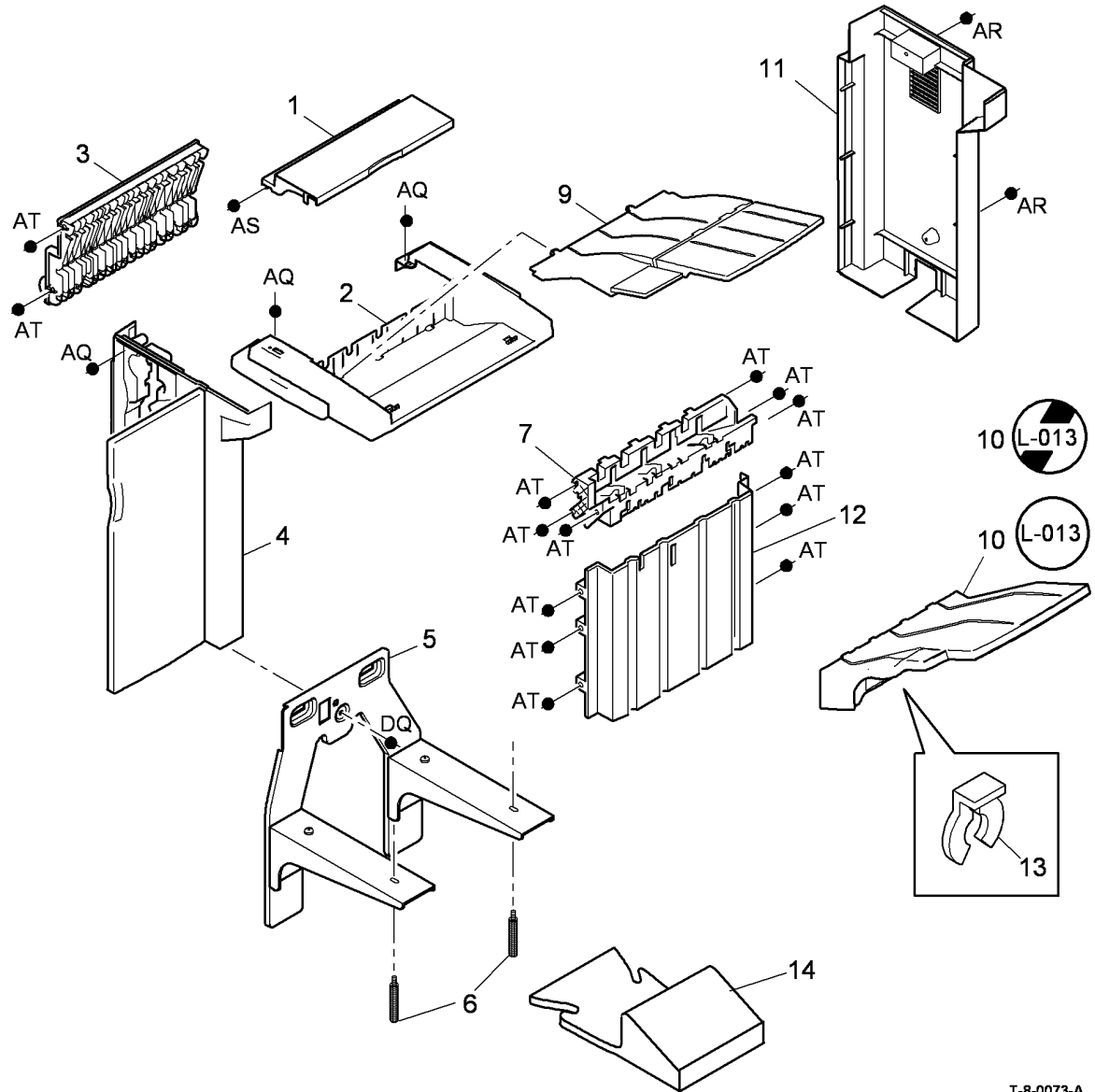


T-8-0072-A

# PL 11.100 1K LCSS Covers

Item	Part	Description
1	802K48330	Exit cover
2	848K06150	Top cover (REP 11.1-120)
3	-	Entry guide cover (REF: PL 11.122 Item 5)
4	848K06130	Front door cover assembly (REP 11.1-120)
5	-	1K LCSS mounting bracket repair kit (Not Spared)
6	-	Thumbscrew (Not Spared)
7	-	Output cover (Not Spared)
8	-	Not used
9	050K67380	Bin 0
10	050K68490	Bin 1 (W/O TAG L-013) (ADJ 11.1-120)
-	604K48150	Bin 1 tray kit (improved stacking) (W/TAG L-013)
11	848K06140	Rear cover (REP 11.1-120)
12	-	Right hand cover (Not Spared)
13	019K13380	Bin 1 alignment clip
14	017E11260	Stability foot (REP 11.3-120)

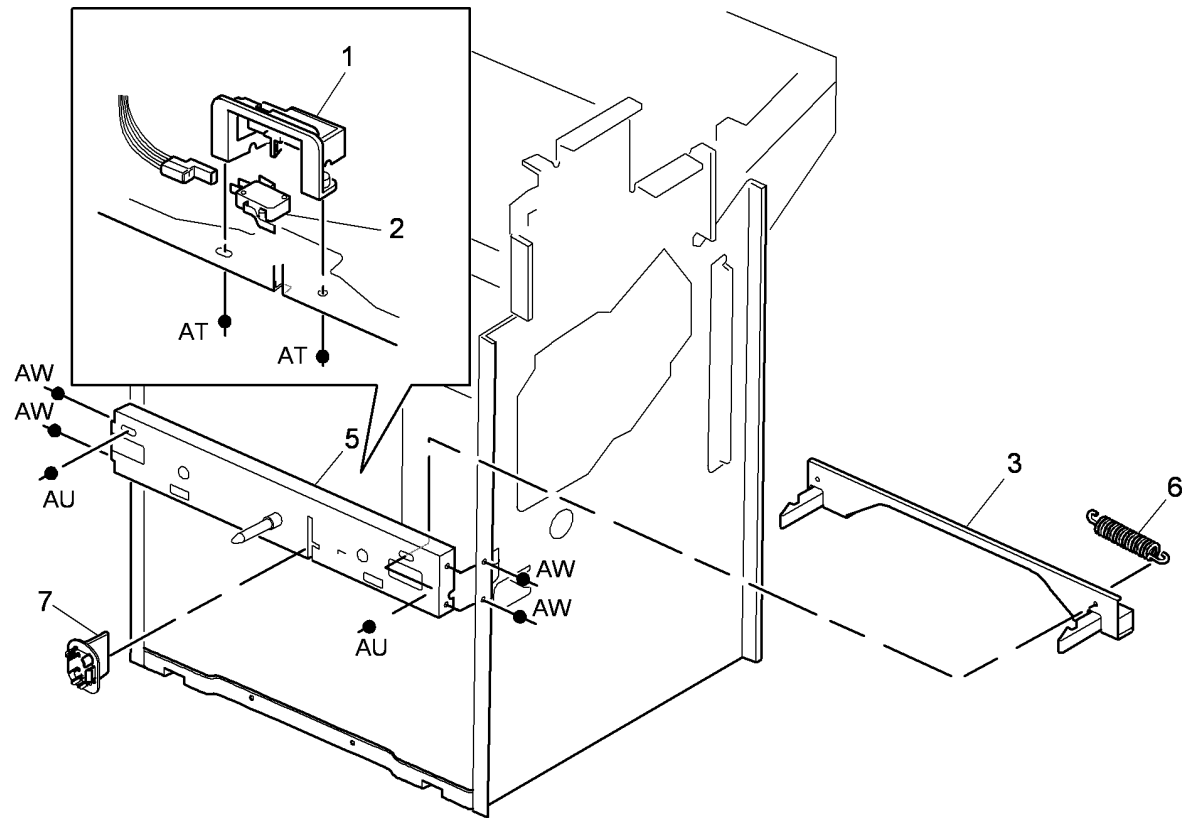
**NOTE:** W/TAG L-013 improves stacking on machines running large stacks of 8.5" x 11" or A4 LEF.



T-8-0073-A

## PL 11.102 1K LCSS Docking Latch

Item	Part	Description
1	-	Sensor cover (P/O PL 11.102 Item 8)
2	110K13980	Docking interlock switch (S11-300) (REP 11.14-120)
3	003K20401	Link bracket assembly (REP 11.14-120)
4	-	Not used
5	-	Docking latch (P/O PL 11.102 Item 8) (REP 11.14-120)
6	-	Spring (P/O PL 11.102 Item 8)
7	120K02590	Docking actuator
8	003K20391	Docking latch assembly (REP 11.14-120)



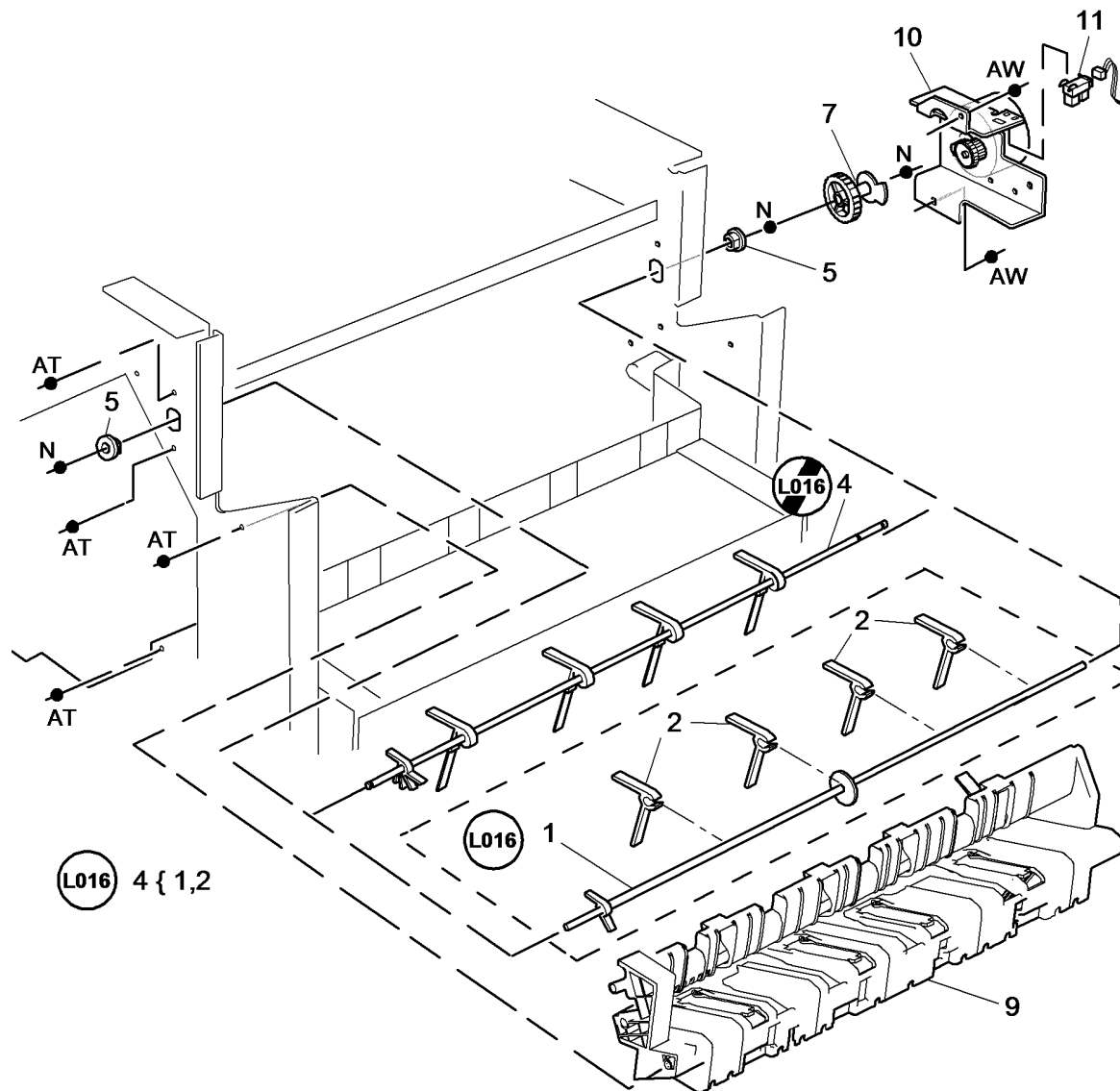
8{1-6

T-8-0074-A

# PL 11.104 1K LCSS Paddle Wheel/ Safety Gate

Item	Part	Description
1	-	Shaft (P/O PL 11.104 Item 4) (W/ TAG L-016)
2	-	Paddle wheel (P/O PL 31.12 Item 11) (NOTE) (W/TAG L-016)
3	-	Not used
4	-	Paddle wheel shaft assembly (Not Spared) (W/O TAG L-016) (REP 11.10-120)
-	006K34580	Paddle wheel shaft assembly (W/ TAG L-016)
5	013E25790	Bearing
6	-	Not used
7	-	Flag/Gear (Not Spared)
8	-	Not used
9	-	Output cover (REF: PL 11.100 Item 7)
10	127K55840	Paddle motor assembly (MOT11- 024)
11	130E10360	Paddle roll position sensor (Q11- 326)

**NOTE:** Paddles are also supplied (4 off) as a kit PL 31.12 Item 11.

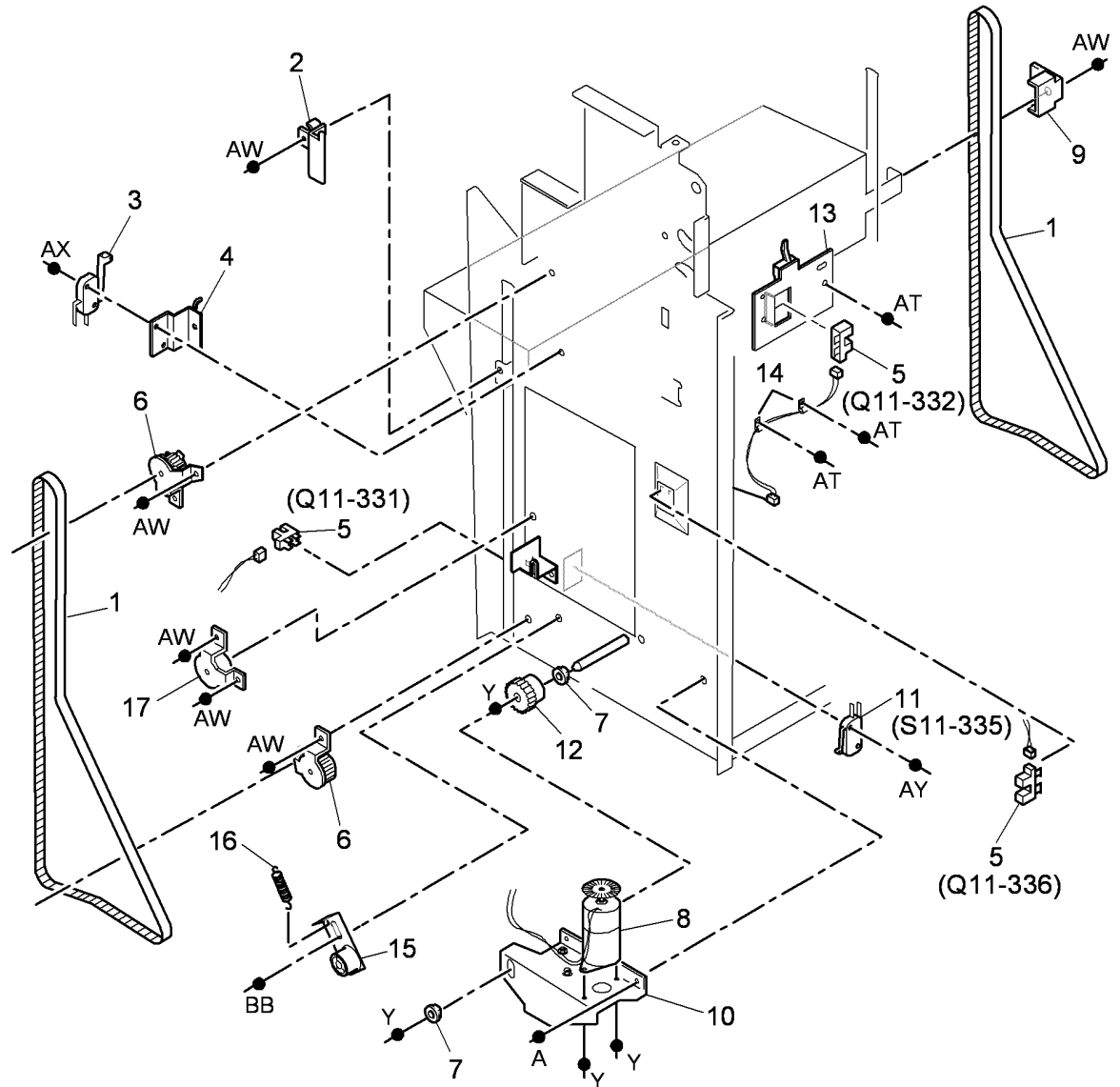


T-8-0075-B



# PL 11.106 1K LCSS Bin 1 Control Components

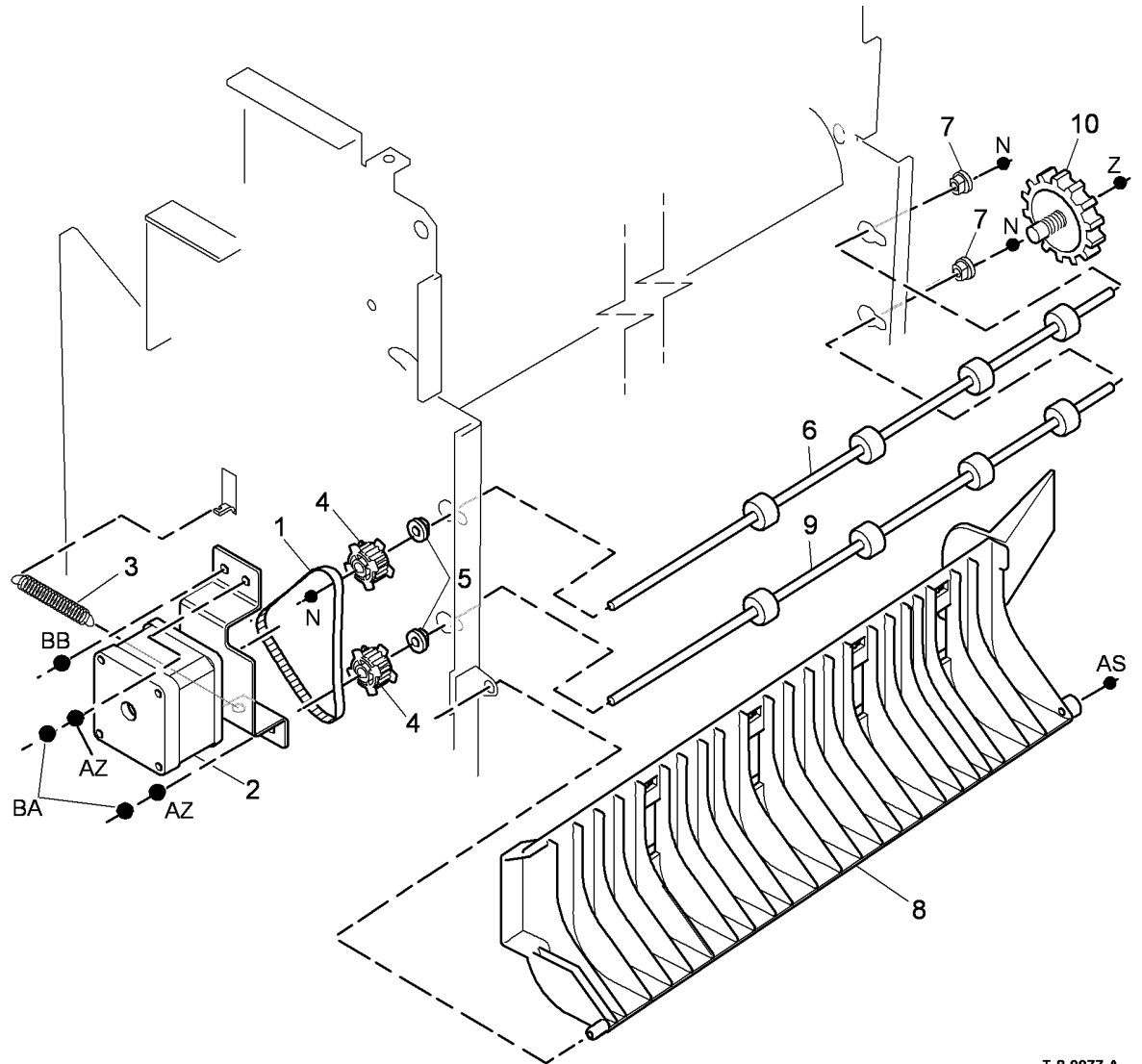
Item	Part	Description
1	023E30710	Bin 1 drive belt (REP 11.5-120)
2	-	Rear belt clamp (Not Spared) (ADJ 11.1-120)
3	110E20180	Bin 1 upper limit switch (S11-334)
4	-	Sensor bracket (Not Spared)
5	130E10360	Bin 1 90% full sensor (Q11-331), Bin 1 upper level sensor (Q11-332) (REP 11.9-120), Motor encoder sensor (Q11-336)
6	-	Pulley (Not Spared)
7	013E25810	Bearing
8	127K55891	Bin 1 elevator motor (MOT11-030)
9	-	Front belt clamp (Not Spared) (ADJ 11.1-120)
10	-	Motor bracket (Not Spared)
11	110K13990	Bin 1 lower limit switch (S11-335)
12	-	Pulley assembly (Not Spared)
13	-	Sensor support (Not Spared)
14	-	P-clamp (Not Spared)
15	-	Belt tensioner (Not Spared)
16	-	Spring (Not Spared)
17	-	Idler (Not Spared)



T-8-0076-A

# PL 11.110 1K LCSS Paper Entry Transport

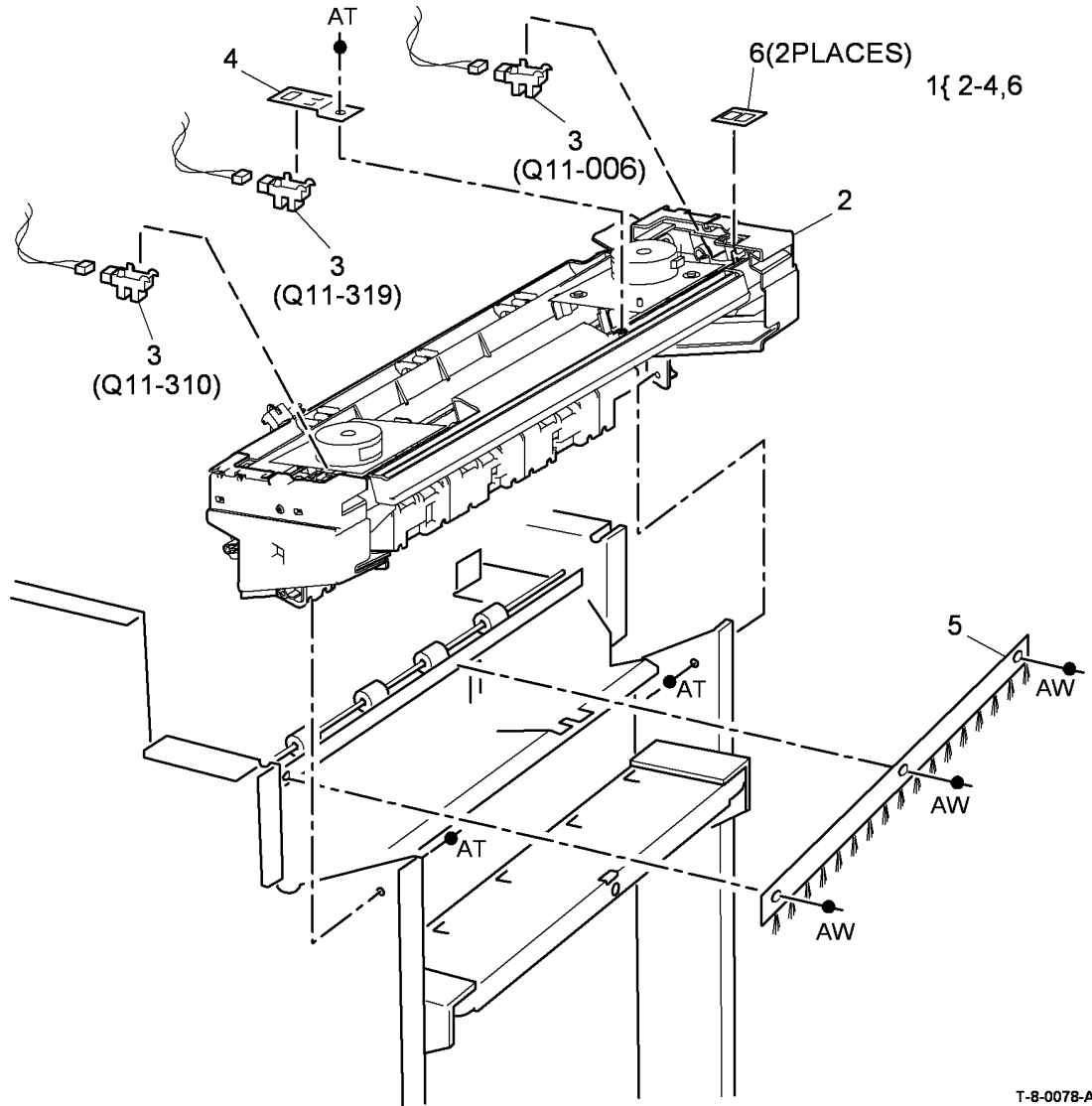
Item	Part	Description
1	023E30690	Input drive belt (REP 11.2-120)
2	127K55820	Transport motor 1 (MOT11-000) (REP 11.2-120)
3	-	Spring (Not Spared)
4	-	Pulley (Not Spared)
5	013E25790	Nylon bearing
6	006K27980	Feed roll shaft (short)
7	013E25800	Bearing
8	-	Jam clearance guide (REF: PL 11.122 Item 1)
9	006K31670	Feed roll shaft (long)
10	-	Thumb wheel (Not Spared)



T-8-0077-A

# PL 11.112 1K LCSS Tamper Assembly

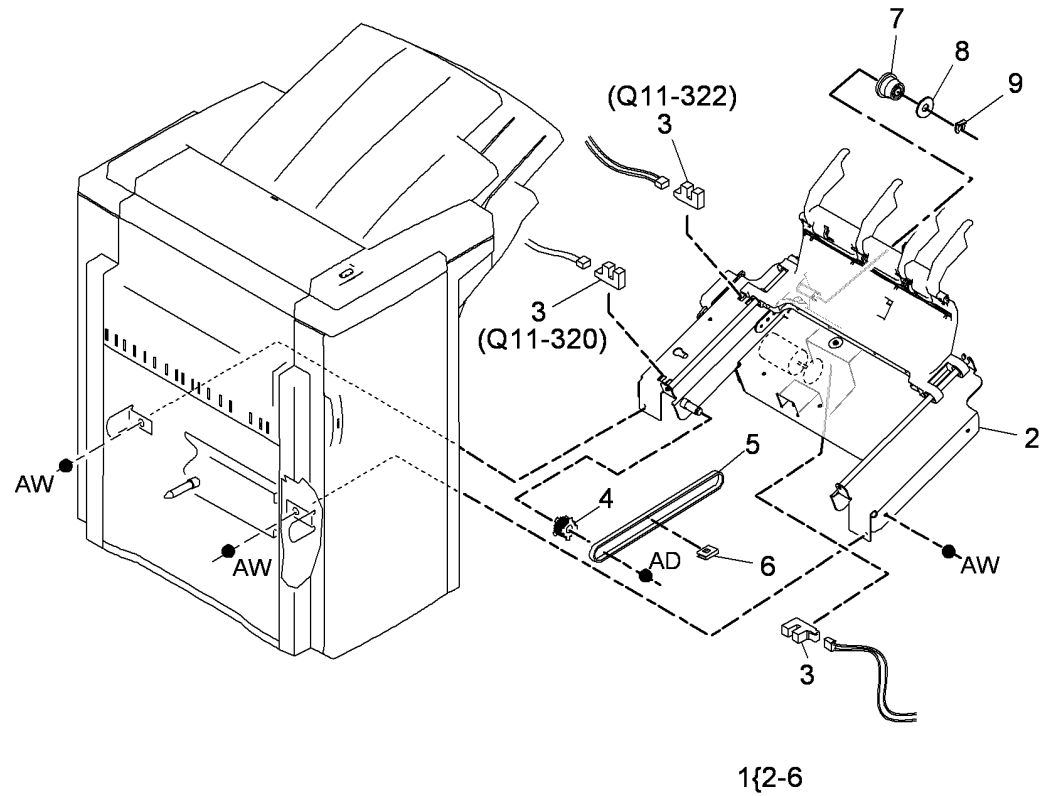
Item	Part	Description
1	068K54281	Tamper assembly (REP 11.6-120)
2	-	Tamper unit (P/O PL 11.112 Item 1)
3	130E20380	Front tamper home sensor (Q11-310), Rear tamper home sensor (Q11-006), Rear tamper home away sensor (Q11-319)
4	-	Sensor bracket (P/O PL 11.112 Item 1)
5	-	Static eliminator (stacker) (REF: PL 11.120 Item 7)
6	-	Sensor retainer (P/O PL 11.112 Item 1)



T-8-0078-A

# PL 11.114 1K LCSS Ejector Assembly

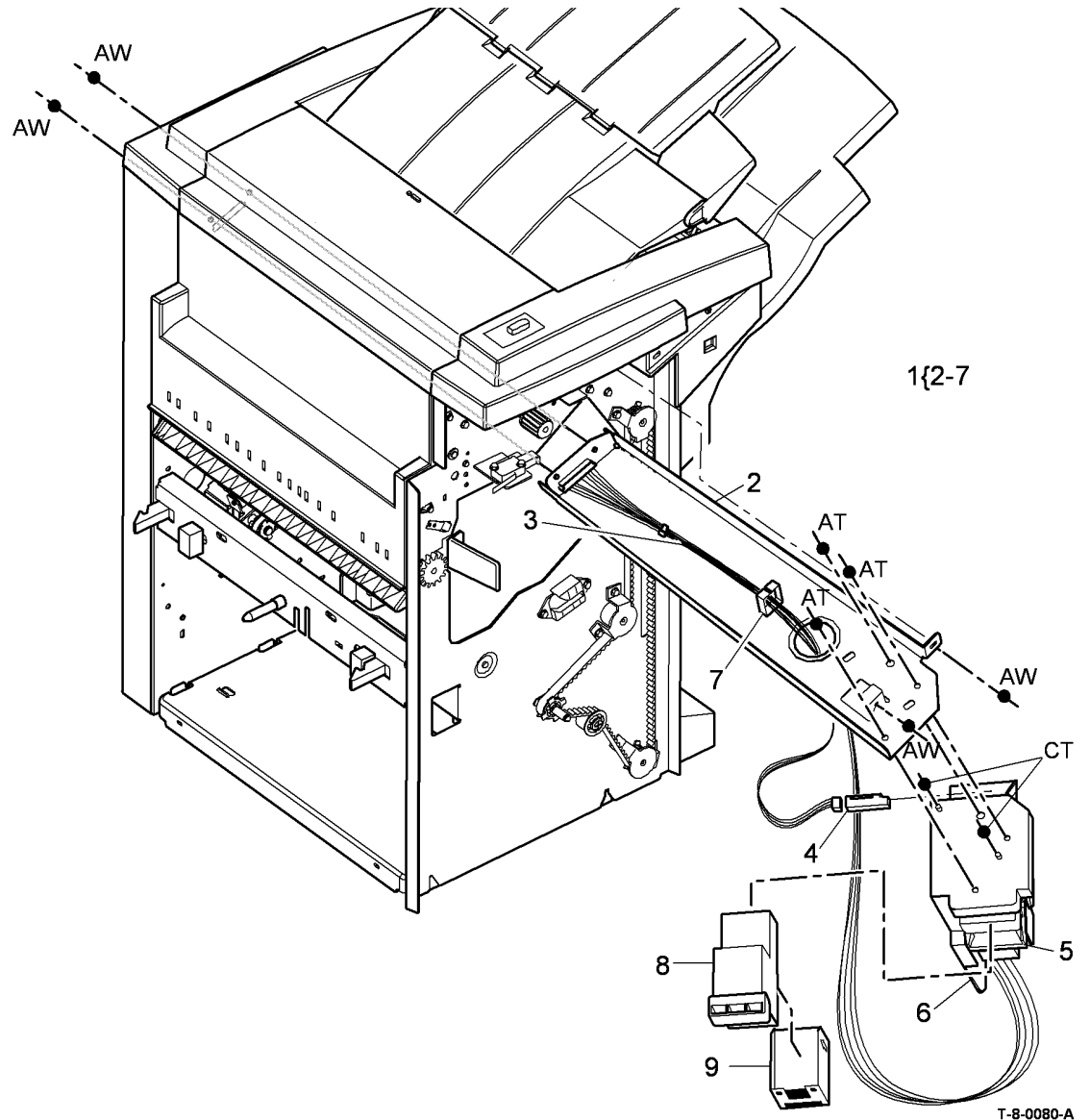
Item	Part	Description
1	054K43582	Ejector assembly (REP 11.8-120)
2	-	Ejector base (P/O PL 11.114 Item 1)
3	130E20380	Ejector home sensor (Q11-320), Ejector out sensor (Q11-322), Ejector motor encoder sensor (REP 11.8-120)
4	-	Pulley (Not Spared)
5	023E24330	Ejector belt (REP 11.15-120)
6	-	Clip (P/O PL 11.114 Item 1)
7	020K21490	Pulley drive gear
8	-	Washer (Not Spared)
9	-	KL-Clip (Not Spared)



T-8-0079-A

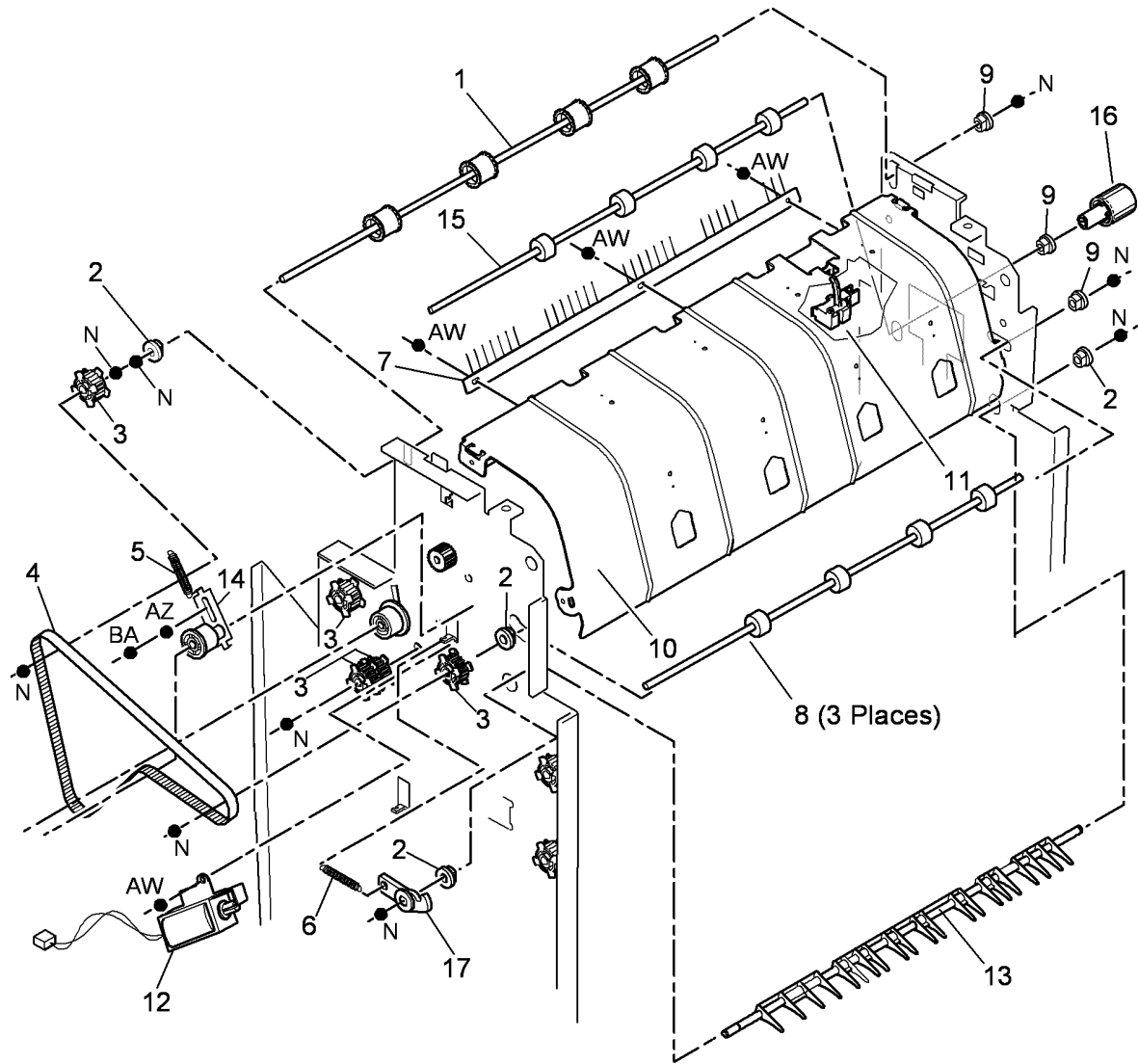
# PL 11.116 1K LCSS Staple Head Assembly

Item	Part	Description
1	014K10100	Stapler assembly
2	-	Mounting bracket (P/O PL 11.116 Item 1)
3	-	Stapler harness (P/O PL 11.116 Item 1)
4	130E10380	SH1 Paper sensor (Q11-361) (REP 11.7-120)
5	-	Staple head unit (P/O PL 11.116 Item 1)
6	-	Stapler cover (P/O PL 11.116 Item 1)
7	-	Cable clamp (P/O PL 11.116 Item 1)
8	-	Staple cartridge (REF: PL 26.10 Item 26)
9	-	Staple refills (Not Spared)



# PL 11.118 1K LCSS Bin 0 Entry

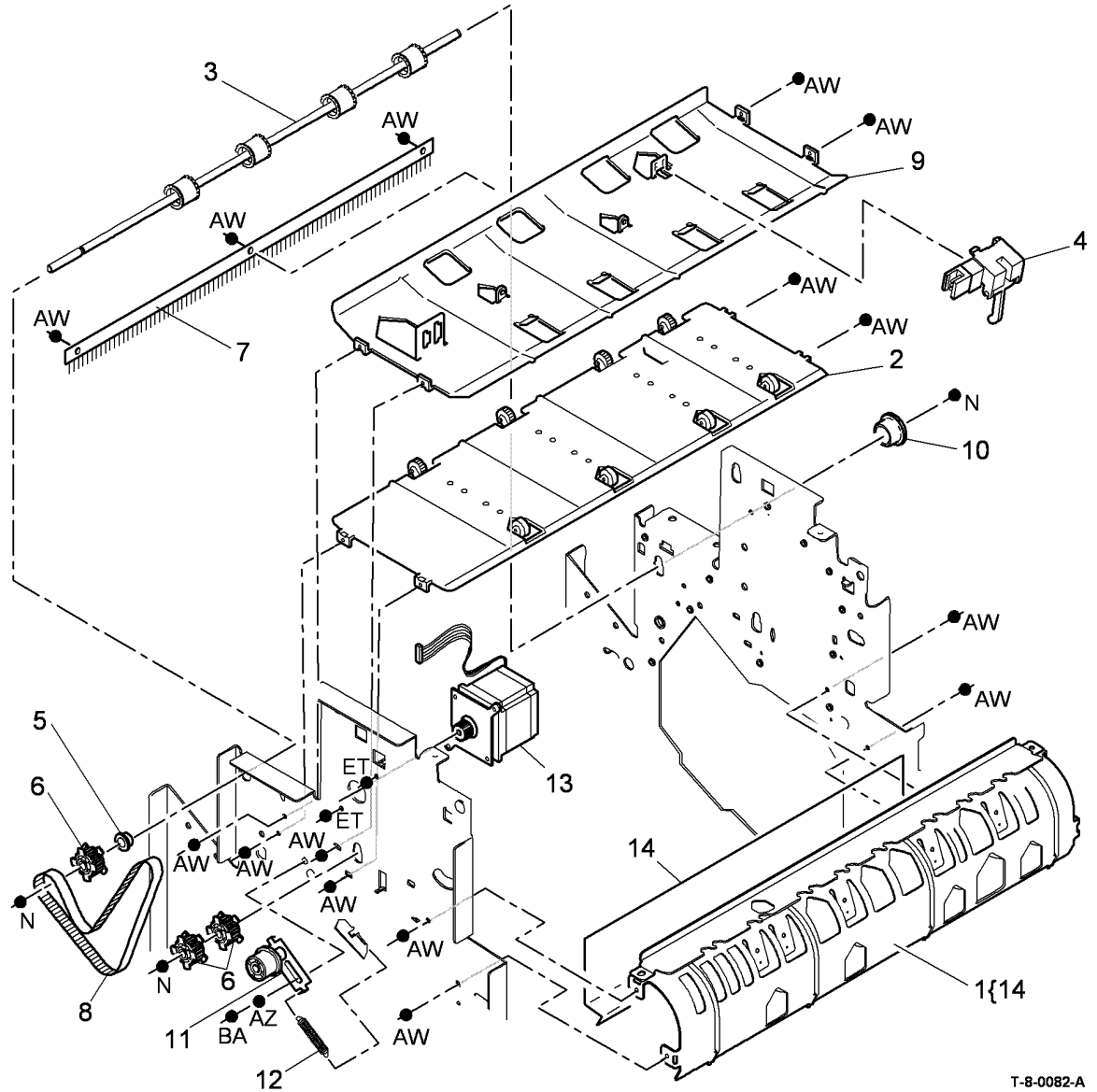
Item	Part	Description
1	006K27960	Ejector drive shaft
2	013E25790	Nylon bearing
3	-	Pulley (Not Spared)
4	023E30700	Intermediate paper drive belt
5	-	Spring (Not Spared)
6	-	Spring (Not Spared)
7	115E12830	Static eliminator
8	006K27980	Feed roll shaft (short)
9	013E25800	Bearing
10	032K04550	Paper guide
11	130E11440	Top exit sensor (Q11-130)
12	121K45290	Diverter solenoid (SOL11-002)
13	-	Shaft diverter assembly (P/O PL 31.13 Item 6) (W/TAG L-003)
14	-	Belt tensioner (Not Spared)
15	006K27970	Drive shaft assembly
16	003K17531	Jam clearance knob
17	-	Actuator (Not Spared)



T-8-0081-A

# PL 11.120 1K LCSS Bin 1 Entry

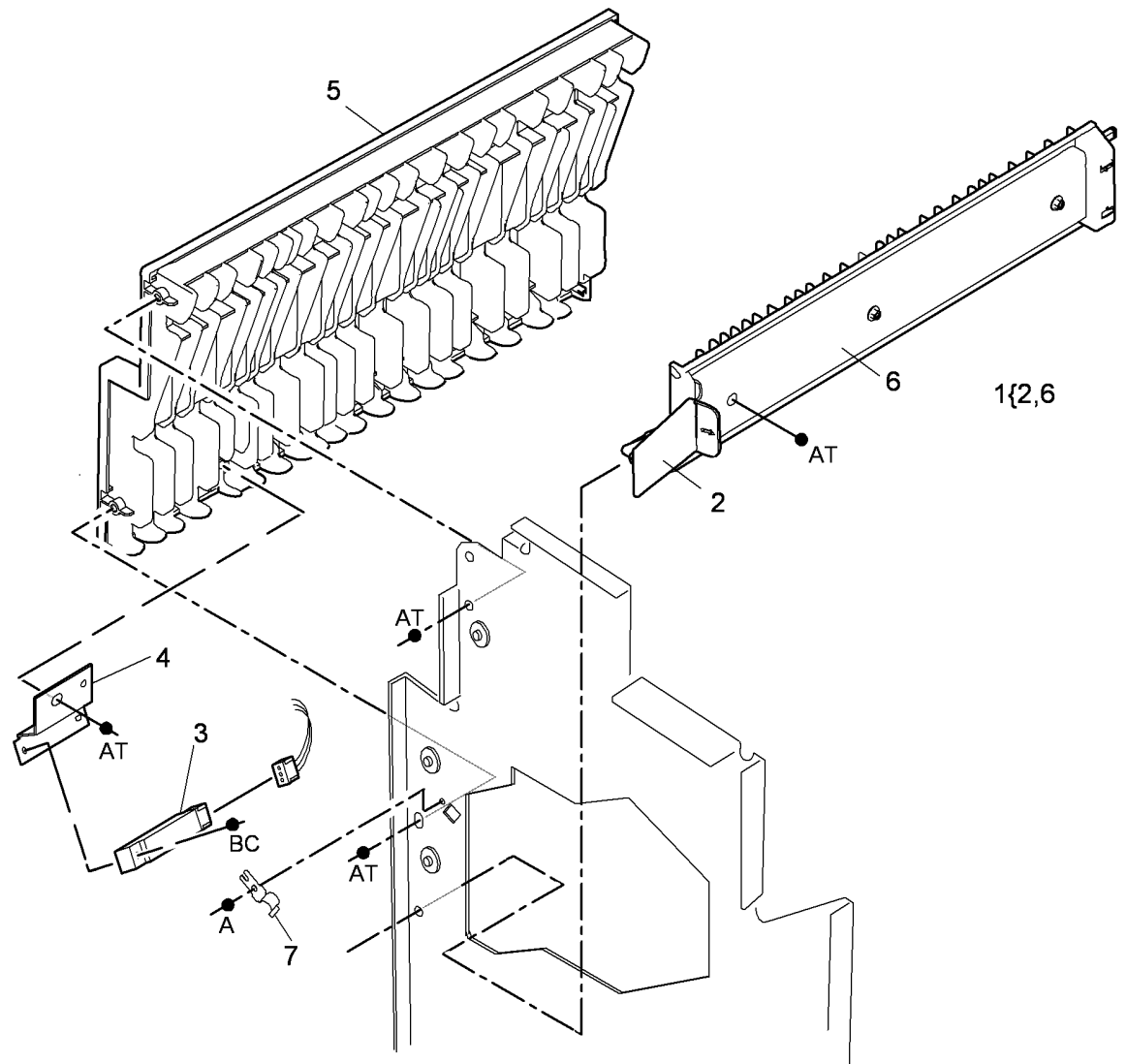
Item	Part	Description
1	032K04570	Left hand paper guide
2	032K04560	Lower right hand paper guide
3	006K27960	Ejector drive shaft (REF: PL 11.118 Item 1)
4	130E11440	2nd to top exit sensor (Q11-140)
5	013E25790	Nylon bearing
6	-	Pulley (Not Spared)
7	115E11810	Static eliminator (stacker)
8	023E24340	Paper output drive belt (REP 11.4-120)
9	-	Upper right hand paper guide (Not Spared)
10	013E25800	Bearing
11	-	Belt tensioner (Not Spared)
12	-	Spring (Not Spared)
13	127K55830	Transport motor 2 (MOT 11-001) (REP 11.4-120)
14	-	Mylar safety cover (P/O PL 11.120 Item 1)



T-8-0082-A

# PL 11.122 1K LCSS Entry Guide Cover/Jam Clearance Guide

Item	Part	Description
1	032K04601	Paper entry guide assembly
2	-	Jam clearance handle (P/O PL 11.122 Item 1)
3	130E10380	Entry sensor (Q11-100)
4	-	Sensor bracket (Not Spared)
5	848K06161	Entry guide cover (REP 11.13-120)
6	-	Jam clearance guide (P/O PL 11.122 Item 1)
7	809E78390	Latch



T-8-0083-A



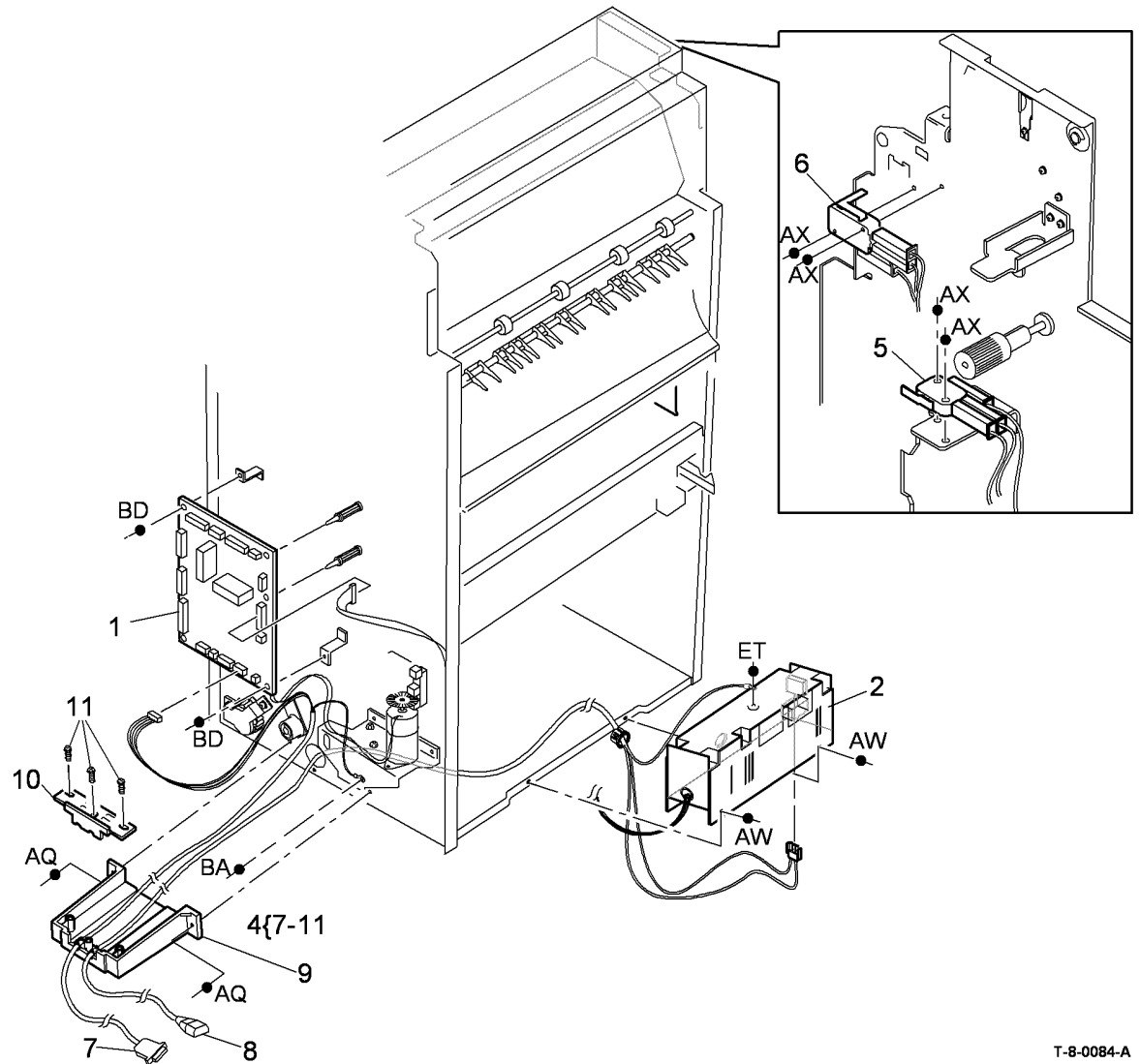
## PL 11.124 1K LCSS Electrical

Item	Part	Description
1	960K21261	1K LCSS PWB (CAUTION) (W/TAG L-001) (REP 11.12-120)
2	105K28272	Power supply module
3	—	Not used
4	962K56942	Cord bracket assembly
5	110K13980	Front door interlock switch (S11-303)
6	110K13970	Top cover interlock switch (S11-302)
7	—	1K LCSS communication harness (P/O PL 11.124 Item 4)
8	—	Power cord (P/O PL 11.124 Item 4)
9	—	Lower bracket (P/O PL 11.124 Item 4)
10	—	Upper bracket (P/O PL 11.124 Item 4)
11	—	Screw (P/O PL 11.124 Item 4)



### CAUTION

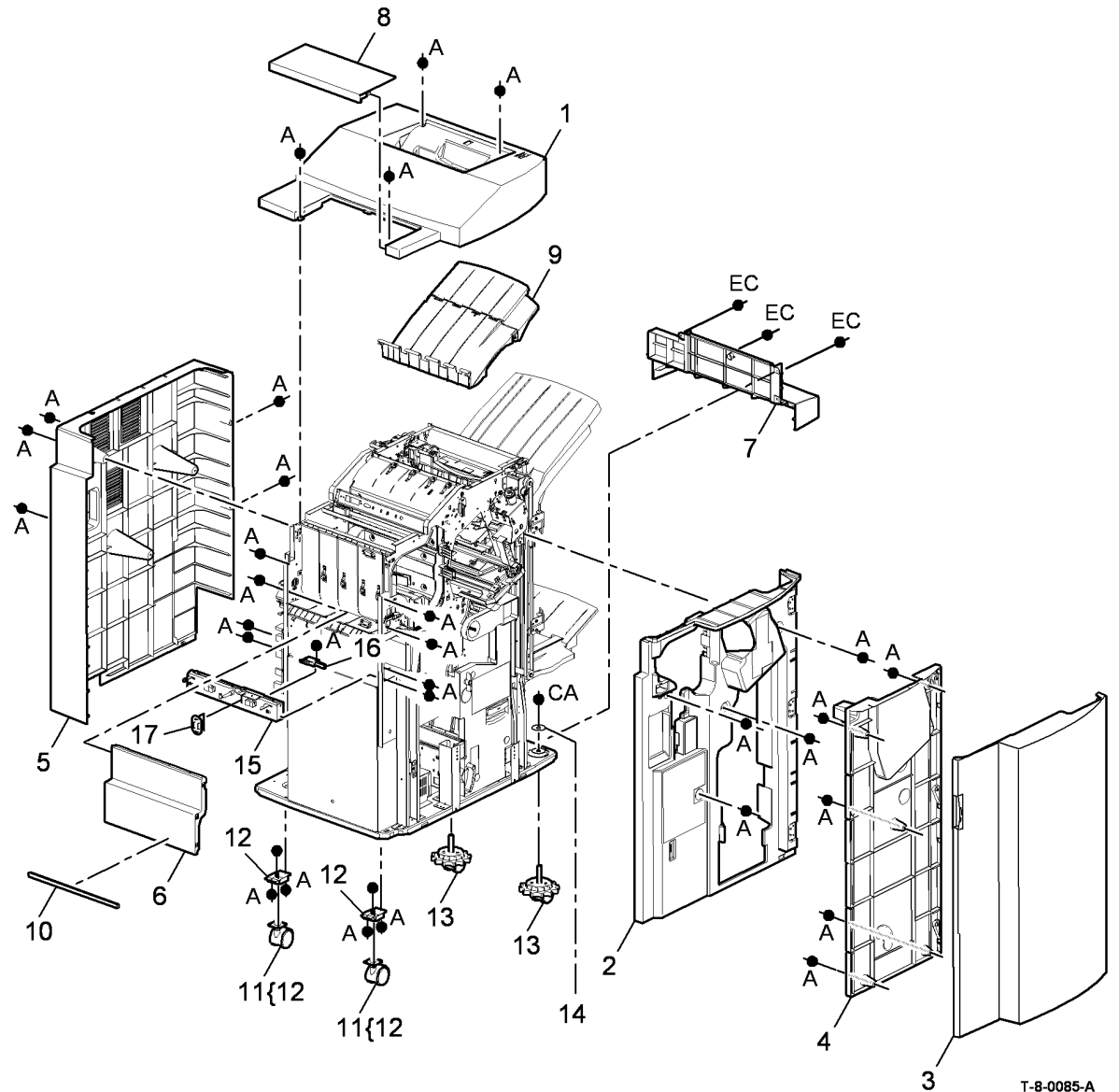
*Do not install a new 1K LCSS PWB until the cause of the damage to the old LCSS PWB has been determined. Go to the 11G-120 LCSS PWB Damage RAP.*



T-8-0084-A

# PL 11.130 HVF Covers and Docking

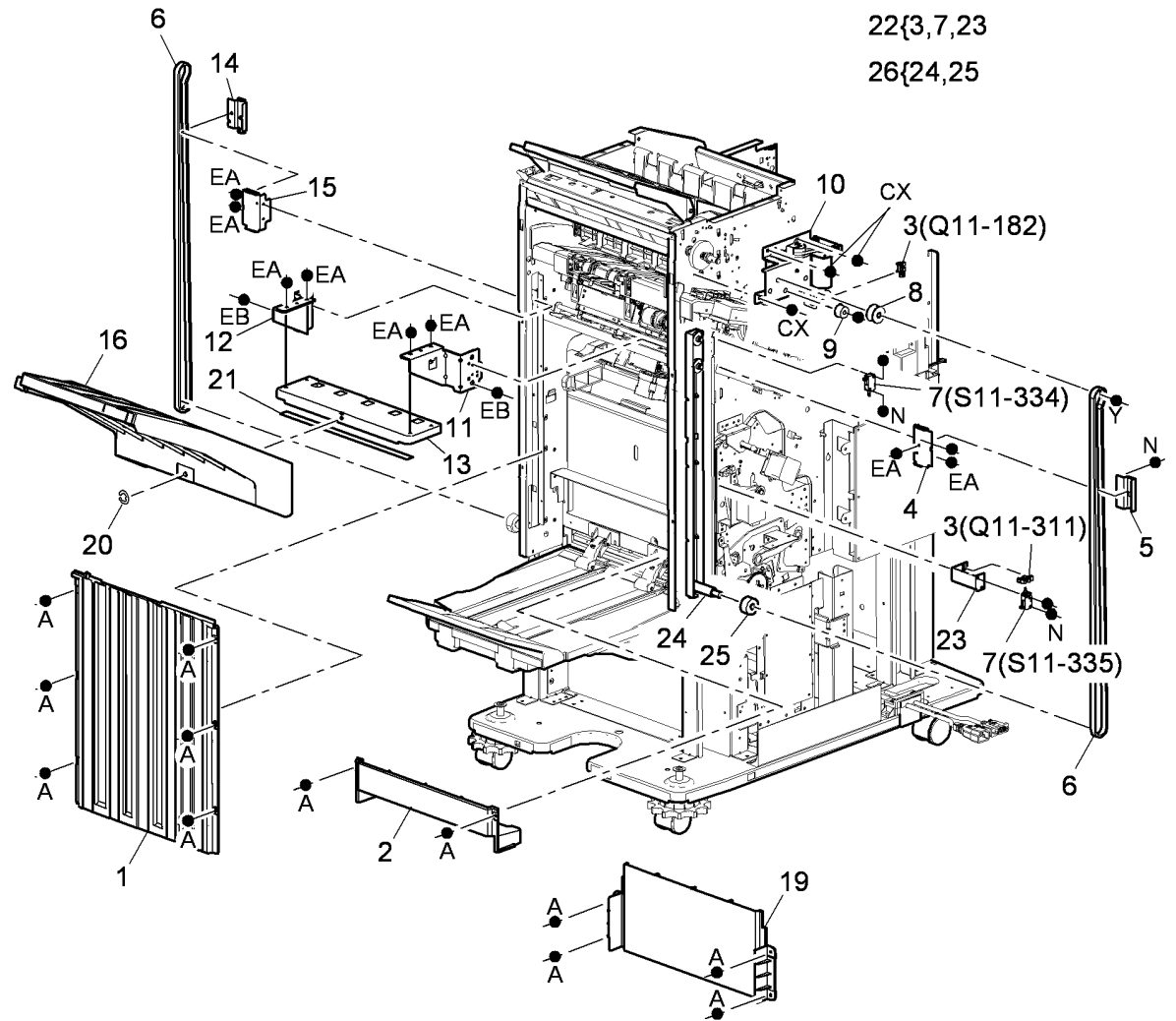
Item	Part	Description
1	848K12490	Top cover (REP 11.1-171)
2	848K12501	Front cover (REP 11.1-171)
3	848E17790	Front door (REP 11.1-171)
4	848K12510	Door support (REP 11.1-171)
5	848K12520	Rear cover (REP 11.1-171)
6	848K12530	Vent cover (REP 11.1-171)
7	848E17800	Foot cover (REP 11.1-171)
8	848E17810	Inserter removable cover (REP 11.1-171)
9	848K12540	Top tray (REP 11.3-171)
10	-	Seal (Not Spared)
11	017K04830	Fixed castor assembly (REP 11.96-171)
12	-	Fixed castor bracket (P/O PL 11.130 Item 11)
13	017K04630	Adjustable castor (REP 11.96-171)
14	-	Adjustable castor washer (P/O PL 11.130 Item 13)
15	017K04641	Mounting bracket assembly
16	110K13970	Docking interlock switch (S11-300)
17	120K02590	Docking actuator



T-8-0085-A

# PL 11.135 HVF Stacker

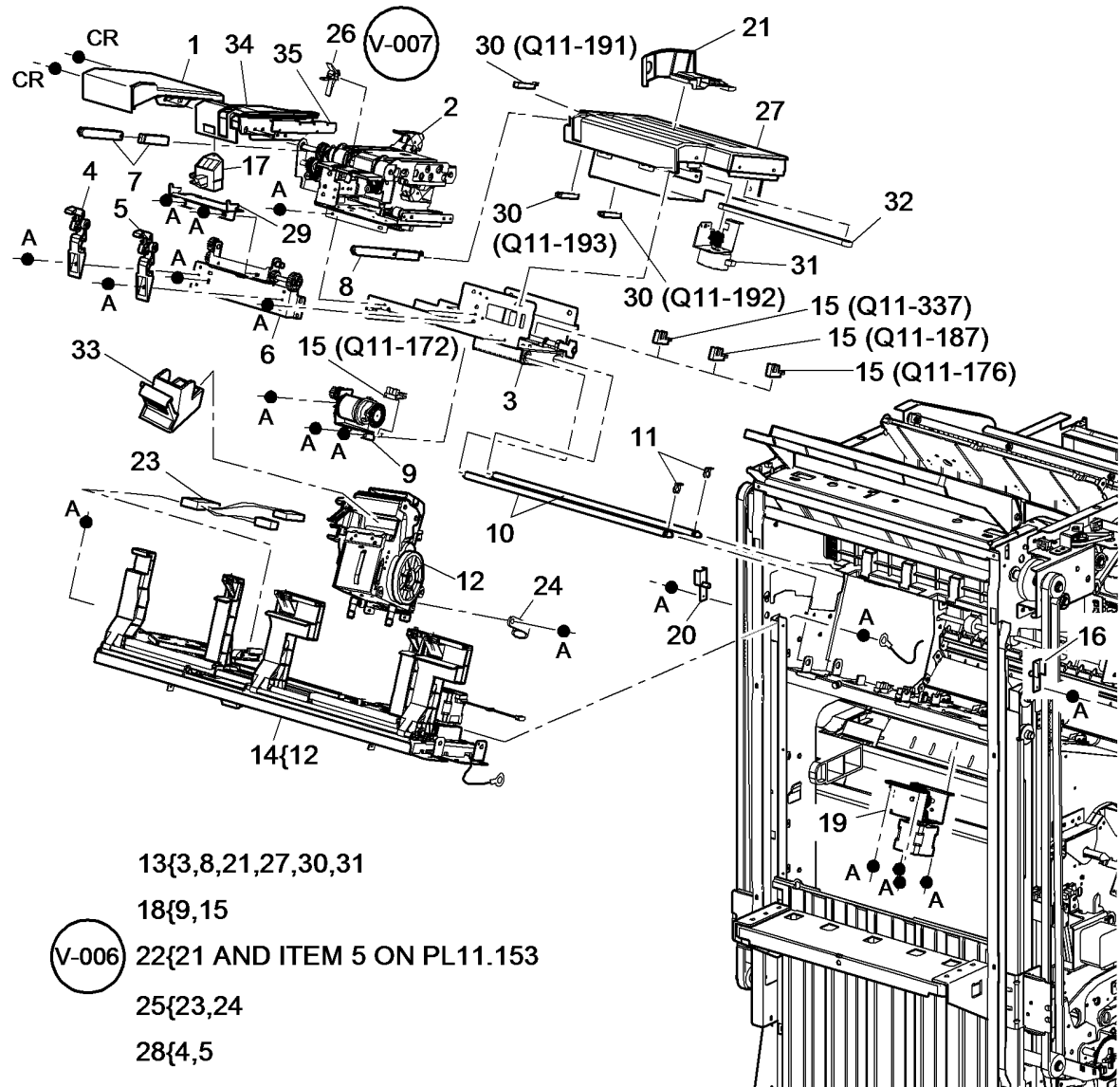
Item	Part	Description
1	848E17820	Upper right side cover (REP 11.5-171)
2	848E17840	Lower right side cover
3	130E12830	Bin 1 90% full sensor (Q11-311)/Bin 1 encoder sensor (Q11-182)
4	-	Rear main belt clamp (1 of 2) (Not Spared)
5	-	Rear main belt clamp (2 of 2) (Not Spared)
6	023E31220	Bin 1 main drive belt (REP 11.38-171)
7	110K20890	Bin 1 upper limit switch (REP 11.75-171) (S11-334)/Bin 1 lower limit switch (REP 11.75-171) (S11-335)
8	-	Main belt pulley (Not Spared)
9	-	Main belt tensioner (Not Spared)
10	127K56592	Bin 1 elevator motor assembly (REP 11.12-171)
11	-	Bin 1 rear lift bar bracket (Not Spared)
12	-	Bin 1 front lift bar bracket (Not Spared)
13	-	Bin 1 lift bar (Not Spared)
14	-	Front main belt clamp (2 of 2) (Not Spared)
15	-	Front main belt clamp (1 of 2) (Not Spared)
16	050E23670	Bin 1 (REP 11.4-171)
17	-	Not used
18	-	Not used
19	848E17830	Middle right side cover
20	019K13380	Bin 1 retaining clip (REP 11.4-171)
21	-	Bin 1 lift bar brace (Not Spared)
22	110K20880	Stacker full sensor and lower limit switch assembly (REP 11.75-171)
23	-	Sensor/switch bracket (Not Spared)
24	-	Stacker tray guide (P/O PL 11.135 Item 26)
25	-	Stacker tray guide pulley (P/O PL 11.135 Item 26)
26	110K21060	Stacker tray guide assembly



T-8-0086-A

# PL 11.140 HVF Ejector, Pressing and Support (1 of 2)

Item	Part	Description
1.	-	Ejector front cover (Not Spared)
2.	059K59494	Ejector assembly (REP 11.6-171)
3.	-	Offset module (Not Spared) (REP 11.9-171)
4.	-	Front pressing plate finger (P/O PL 11.140 Item 28) (REP 11.7-171)
5.	-	Rear pressing plate finger (P/O PL 11.140 Item 28) (REP 11.7-171)
6.	049K23160	Pressing plate bracket
7.	003K20652	Front support finger (REP 11.8-171)
8.	003K20662	Rear support finger (REP 11.8-171)
9.	-	Support finger motor assembly (P/O PL 11.140 Item 18)
10.	-	Offset rod (Not Spared)
11.	019K13380	Offset rod KL clip
12.	-	Stapler module (P/O PL 11.140 Item 14) (REP 11.2-171)
13.	032K09651	Rear tamper assembly (REP 11.15-171)
14.	029K04631	Staple assembly (REP 11.2-171)
15.	130E12830	Pressing and support encoder sensor (Q11-172), Bin 1 offset sensor (Q11-337), Offset index sensor (Q11-187), Offset away sensor (Q11-176)
16.	130K75470	Bin 1 upper level sensor (receiver) (Q11-332) (REP 11.76-171)
17.	130K75900	Bin 1 rear wall sensor (Q11-196)
18.	127K56551	Motor encoder assembly
19.	127K56580	Bin 1 offset motor (MOT11-034) (REP 11.9-171)
20.	130K75480	Bin 1 upper level sensor (transmitter) (Q11-332) (REP 11.76-171)
21.	032E35301	Rear tamper arm (W/O TAG V-006)
-	-	Rear tamper arm (reinforced) (P/O PL 11.140 Item 13) (W/TAG V-006)
22.	032E35311	Tamper arm set (W/TAG V-006)
23.	-	Stapler harness (P/O PL 11.140 Item 25)
24.	-	P-clip (P/O PL 11.140 Item 25)
25.	962K82410	Stapler harness and p-clip assembly
26.	033K04850	Ejector paddle assembly (W/TAG V-007) (REP 11.100-171)
27.	-	Rear tamper (P/O PL 11.140 Item 13)
28.	003K21101	Pressing plate kit
29.	-	Ejector assembly safety cover (P/O PL 31.11 Item 15)
30.	-	Pressing and support sensor A (Q11-192), B (Q11-191), C (Q11-193) (P/O PL 11.140 Item 13)
31.	-	Rear tamper motor (P/O PL 11.140 Item 13)
32.	-	Rear tamper drive belt (P/O PL 11.140 Item 13)
33.	-	Staple cartridge (REF: PL 26.10 Item 22)
34.	822E18820	Ejector belt cover (REP 11.6-171)
35.	-	Front support finger guide (Not Spared)

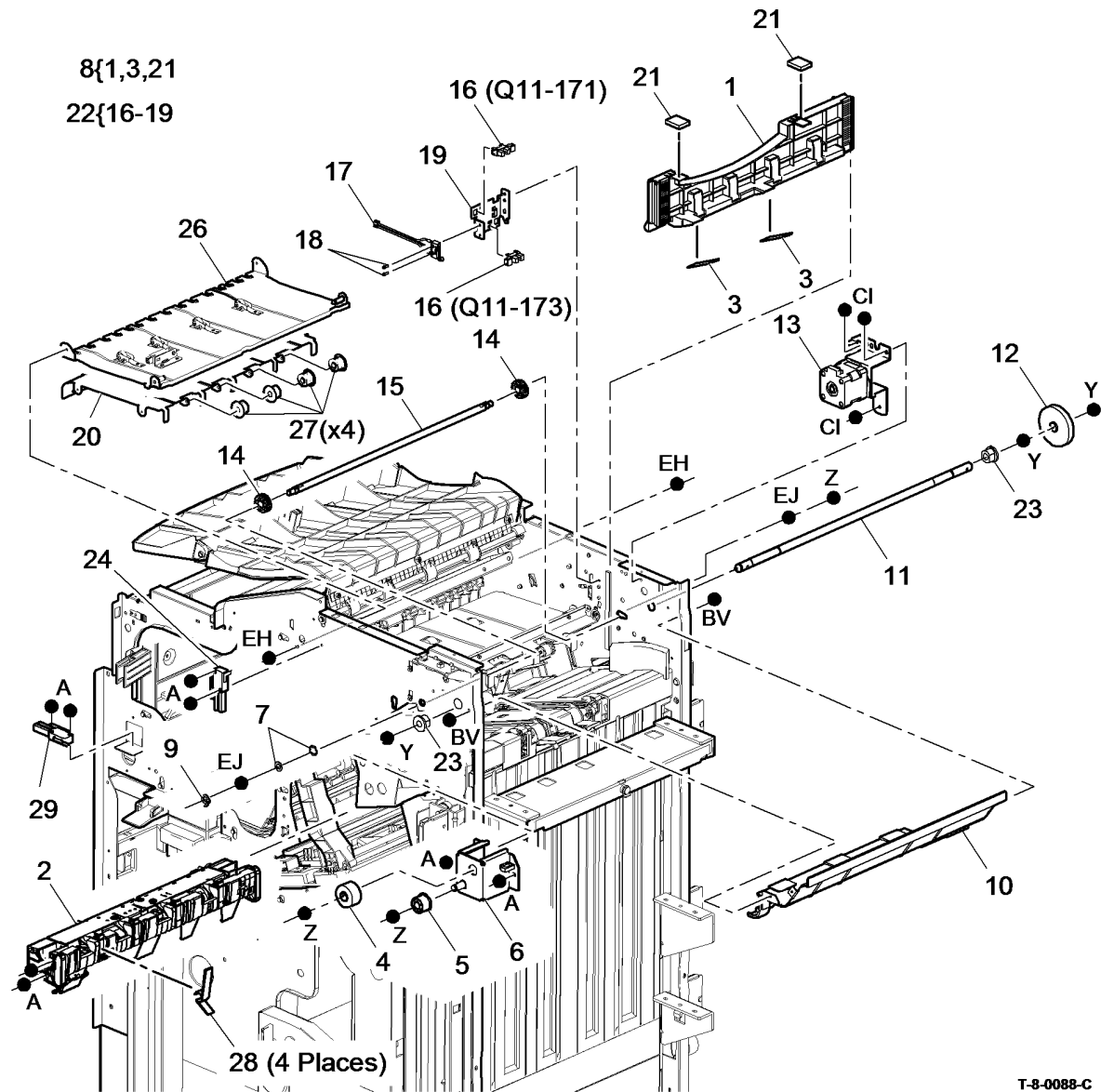


- 13{3,8,21,27,30,31
- 18{9,15
- V-006 22{21 AND ITEM 5 ON PL11.153
- 25{23,24
- 28{4,5

T-8-0087-E

# PL 11.145 HVF Ejector, Pressing and Support (2 of 2)

Item	Part	Description
1	-	Paper pusher (P/O PL 11.145 Item 8)
2	033K04414	Paddle module assembly (REP 11.49-171)
3	-	Pusher mylar (P/O PL 11.145 Item 8)
4	-	Timing belt pulley (Not Spared)
5	-	Timing belt tensioner (Not Spared)
6	-	Front stacker pulley bracket (Not Spared)
7	-	Thrust washer (Not Spared)
8	050K67801	Paper pusher assembly (REP 11.53-171)
9	-	Pinion gear E-clip (Not Spared)
10	-	Compile exit upper guide (Not Spared)
11	-	Stacker main drive gear shaft (Not Spared)
12	-	Stacker main drive gear (Not Spared)
13	674K03550	Paper pusher motor assembly (MOT11-083) (REP 11.51-171)
14	-	Pinion gear (Not Spared)
15	-	Pinion gear shaft (Not Spared)
16	130E12830	Paper pusher upper sensor (Q11-171)/Paper pusher lower sensor (Q11-173) (REP 11.54-171)
17	-	Stapler gate safety switch (S11-365) (P/O PL 11.145 Item 22)
18	-	Sensor screw (P/O PL 11.145 Item 22)
19	-	Sensor assembly bracket (P/O PL 11.145 Item 22)
20	-	Lower exit guide (Not Spared)
21	-	Pusher dampers (P/O PL 11.145 Item 8)
22	674K03541	Sensor assembly (REP 11.54-171)
23	013E37150	Stacker shaft bearing (plastic) (REP 11.37-171)
24	110K13970	Top cover interlock switch (S11-302)
25	-	Not used
26	-	Top jam clearance guide assembly (Not Spared)
27	006K33400	Stacker idler roll (x4) (NOTE 2) (REP 11.10-171)
28	033K04581	Paddle wheel (NOTE 1) (REP 11.101-171)
29	110K13980	Front door interlock switch (S11-303)



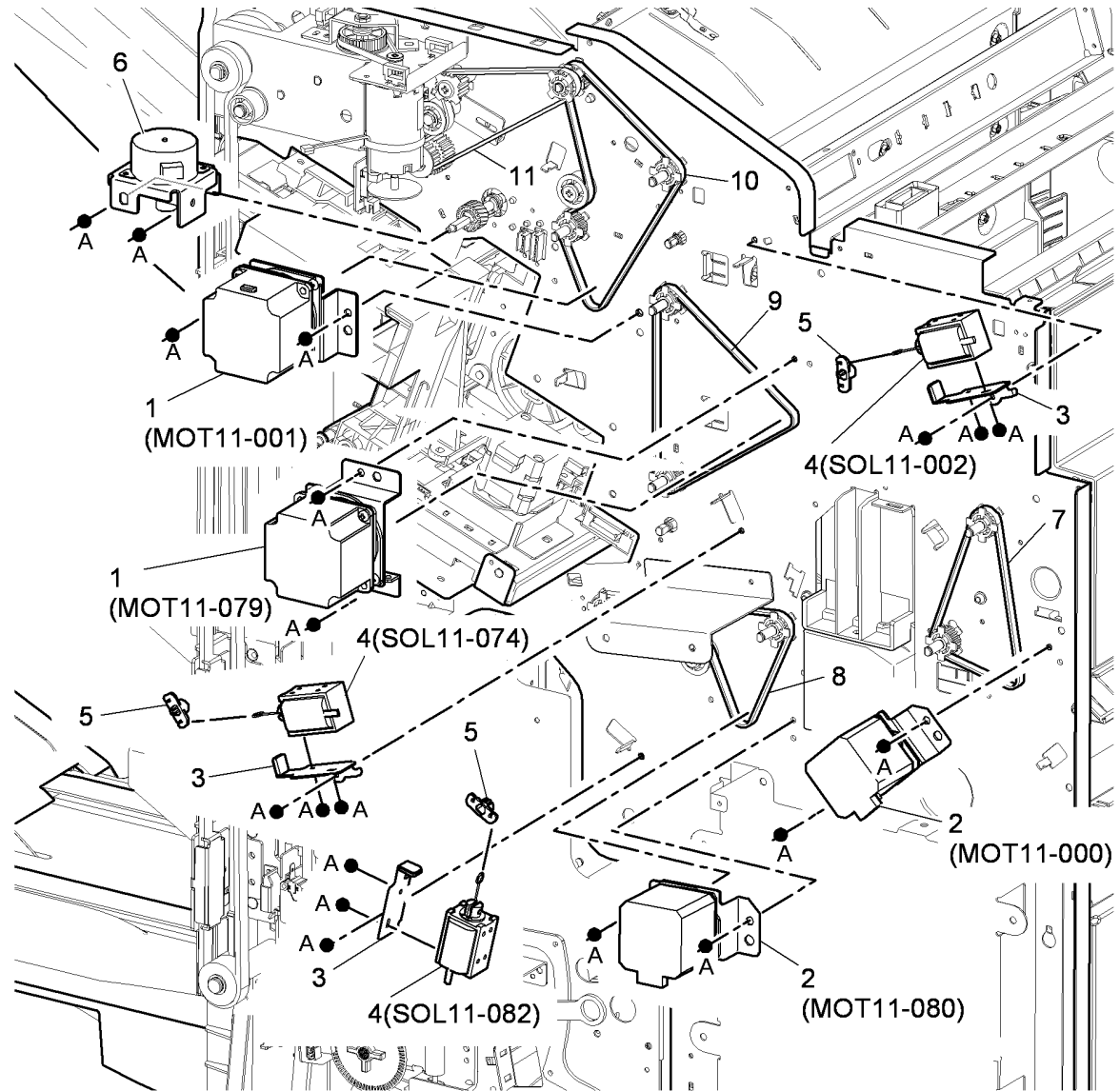
T-8-0088-C

**NOTE:** 1. HFSI. To reset the HFSI count, refer to GP 17.

**NOTE:** 2. Supplied as a set of 4 rolls.

# PL 11.150 HVF Main Drives

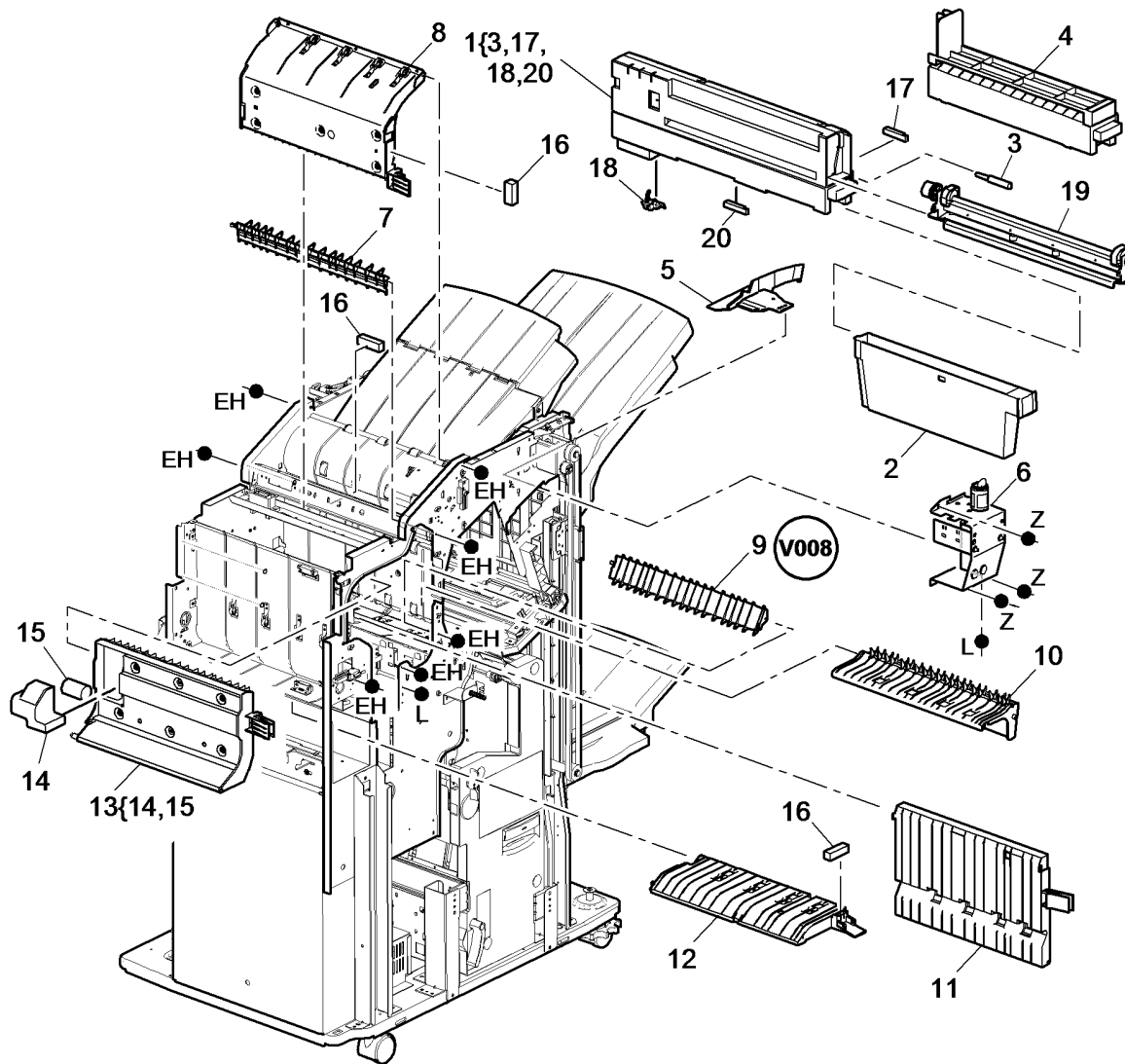
Item	Part	Description
1	127K56570	Buffer feed motor (MOT11-079) (REP 11.65-171)/Exit feed motor 2 (MOT11-001) (REP 11.66-171)
2	127K56560	Entry feed motor 1 (MOT11-000) (REP 11.63-171)/Bypass feed motor (MOT11-080) (REP 11.64-171)
3	-	Solenoid bracket (P/O PL 11.150 Item 4)
4	121K45290	BM diverter solenoid (SOL11-074) (ADJ 11.14-171)/Exit diverter solenoid (SOL11-002)/Buffer clamp solenoid (SOL11-082)
5	-	Solenoid connector (Not Spared)
6	127K56610	Paddle module driving motor assembly (REP 11.48-171)
7	-	Entry feed motor 1 belt (Not Spared)
8	-	Bypass feed motor belt (Not Spared)
9	-	Buffer feed motor belt (Not Spared)
10	-	Exit feed motor 2 belt (A) (Not Spared)
11	-	Exit feed motor 2 belt (B) (Not Spared)



T-8-0089-A

# PL 11.153 HVF Feed Assembly and Punch (1 of 3)

Item	Part	Description
1	604K54741	HVF hole punch carrier assembly (XE)
-	-	HVF 3 hole punch assembly (Not Spared) (USSG/XCL)
2	604K83750	HVF chad bin
3	-	Hole punch thumb screw (P/O PL 11.153 Item 1)
4	059K59551	Hole punch blanking assembly
5	868E05770	Front tamper arm (W/O TAG V-006)
-	-	Front tamper arm (reinforced) (P/O PL 11.140 Item 22) (W/TAG V-006)
6	127K56601	Front tamper motor assembly (REP 11.11-171)
7	038E40870	Diverter exit gate
8	059K59560	Upper exit guide (5c)
9	-	BM diverter gate (P/O PL 31.14 Item 11) (W/TAG V-008) (REP 11.39-171)
10	059K59531	Buffer pocket jam clearance guide
11	059K59540	Inserter jam clearance guide assembly (8a)
12	059K59521	Input jam clearance guide (5a)
13	059K59512	Buffer guide assembly (5b) (REP 11.31-171)
14	-	Nip split motor cover (P/O PL 11.153 Item 13)
15	-	Nip split motor (MOT11-081) (P/O PL 11.153 Item 13)
16	121K45300	Magnet
17	130E12810	Paper edge sensor (NOTE)
18	130E12840	Chad bin present sensor (Q11-112)
19	-	Hole punch unit (see below for variants)
-	180K00280	2 Hole (XE)
-	180K00320	2 Hole Legal
-	180K00200	3 Hole (USSG/XCL)
-	180K00300	4 Hole (XE)
-	180K00310	4 Hole (Sweden)
20	130E10380	Chad bin level sensor (Q11-348)

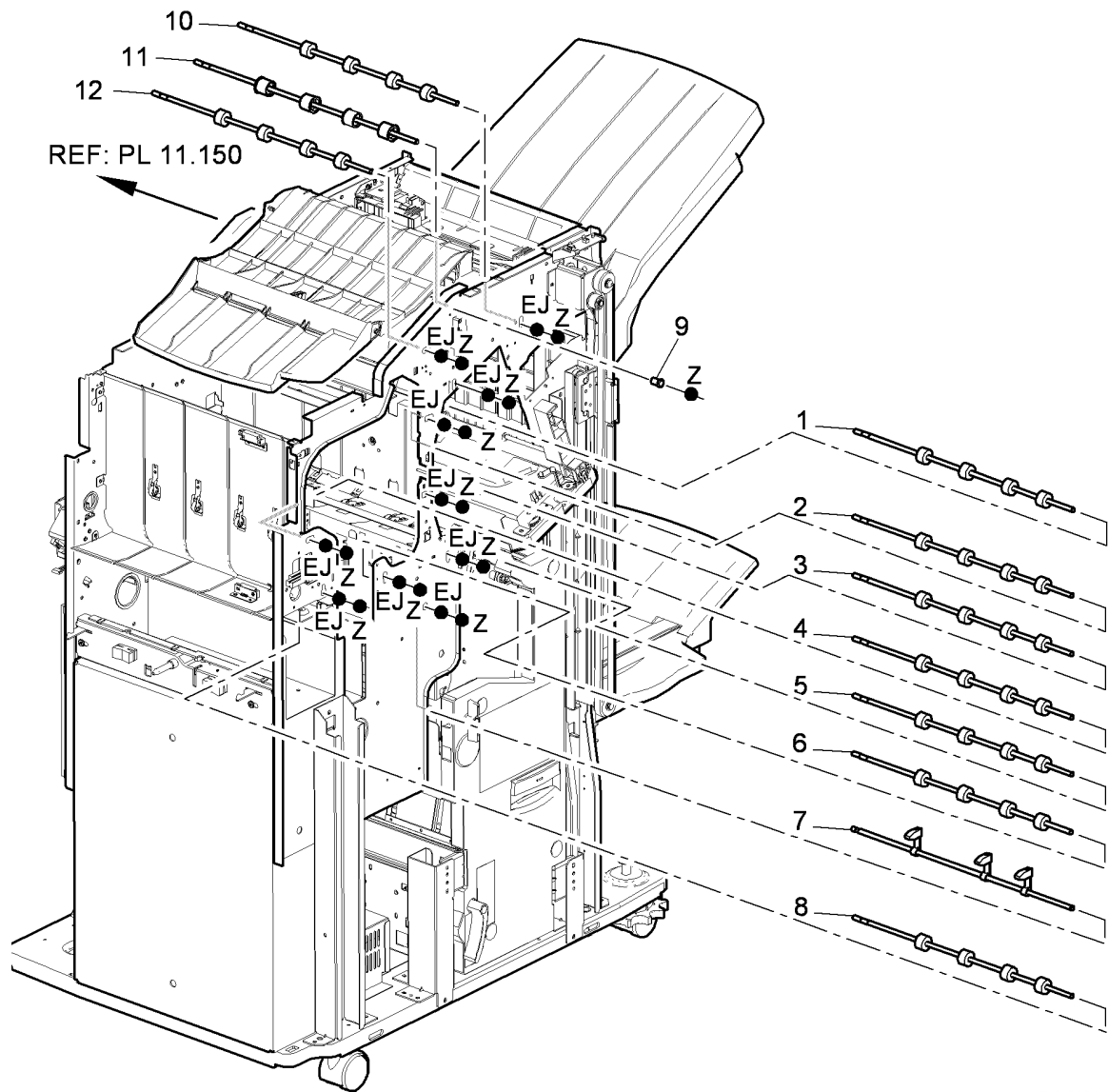


**NOTE:** There is no component control code for the paper edge sensor

T-8-0090-D

# PL 11.155 HVF Feed Assembly and Punch (2 of 3)

Item	Part	Description
1	006K32700	Stacker exit feed roll (REP 11.46-171)
2	-	Buffer upper roll (REF: PL 11.155 Item 1) (REP 11.45-171)
3	-	Buffer lower roll (REF: PL 11.155 Item 1) (REP 11.44-171)
4	-	Inserter guide roll (REF: PL 11.155 Item 1) (REP 11.41-171)
5	-	Booklet entrance roll (REF: PL 11.155 Item 1) (REP 11.43-171)
6	-	Buffer pocket roll (REF: PL 11.155 Item 1) (REP 11.42-171)
7	019K13660	Buffer clamp
8	-	Input roll (REF: PL 11.155 Item 1) (REP 11.40-171)
9	-	Bearing (Not Spared)
10	006K32690	Stacker exit roll
11	-	Top exit roll (Not Spared)
12	-	Top exit feed roll (REF: PL 11.155 Item 1) (REP 11.47-171)



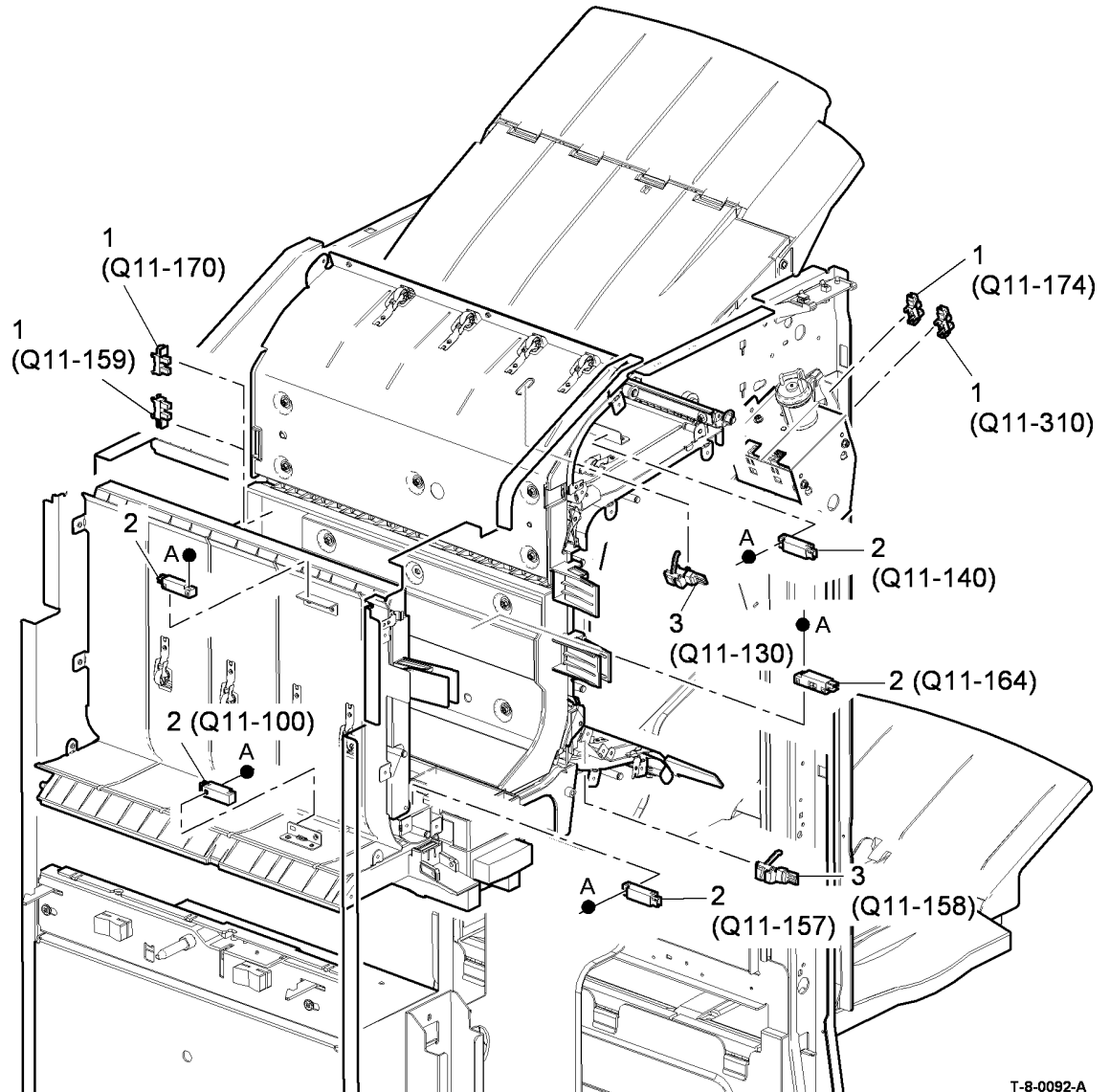
T-8-0091-A



## PL 11.156 HVF Feed Assembly and Punch (3 of 3)

Item	Part	Description
1	130E12830	Tamper front home sensor (Q11-310)/Front tamper tray away sensor (Q11-174)/Nip split sensor (Q11-170)/Nip home sensor (Q11-159)
2	130E12810	Entry sensor (Q11-100)/2nd to top exit sensor (Q11-140)/Buffer position sensor (Q11-157)/Buffer path sensor (Q11-164)/Inserter sensor (NOTE)
3	130E12840	Top exit sensor (Q11-130)/Booklet exit sensor (Q11-158)

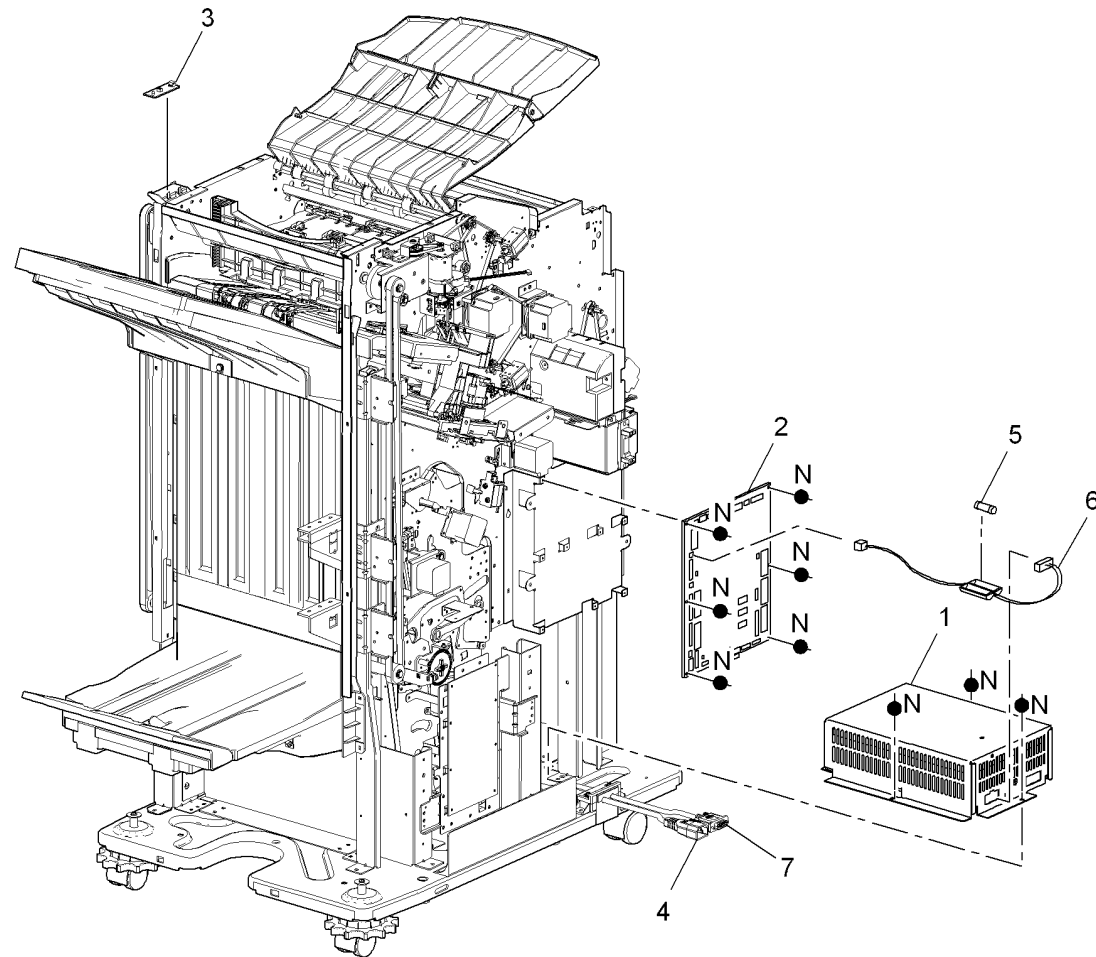
**NOTE:** There is no component code number for the Inserter sensor



T-8-0092-A

## PL 11.157 HVF Power and Control

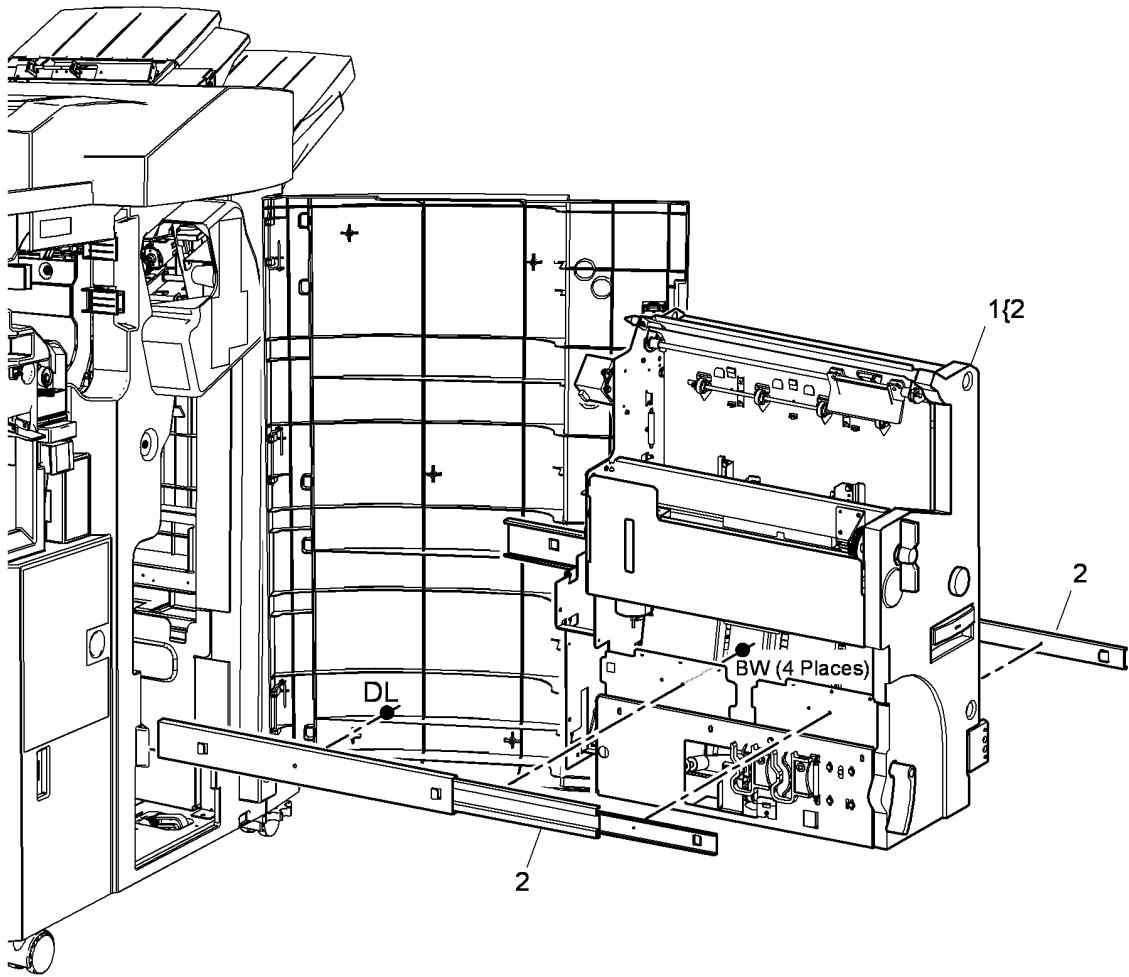
Item	Part	Description
1	105K30211	HVF power supply unit (REP 11.55-171)
2	960K41772	HVF control PWB (REP 11.57-171)
3	960K41780	Pause to unload PWB (REP 11.97-171)
4	105K36840	Power cord
5	–	Inline fuse (10A slo-blow) (Not Spared)
6	–	Harness (Not Spared)
7	952K00411	Power communications cable



T-8-0093-A

# PL 11.160 HVF BM Module (Complete)

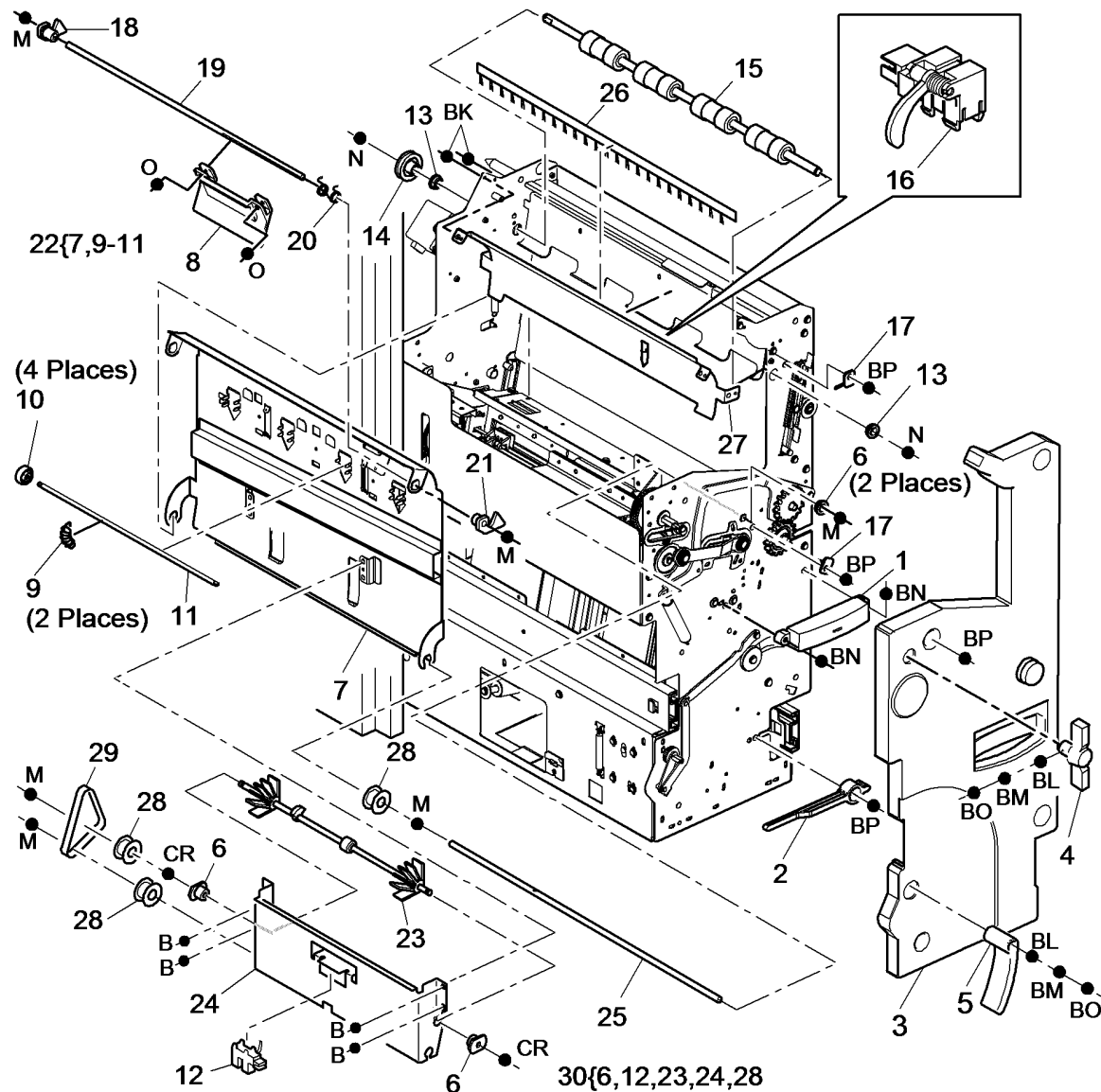
Item	Part	Description
1	801K27251	BM Module (REP 11.61-171)
2	010K04360	Slide assembly (REP 11.62-171)



T-8-0094-A

# PL 11.161 HVF BM Entry and Front Cover

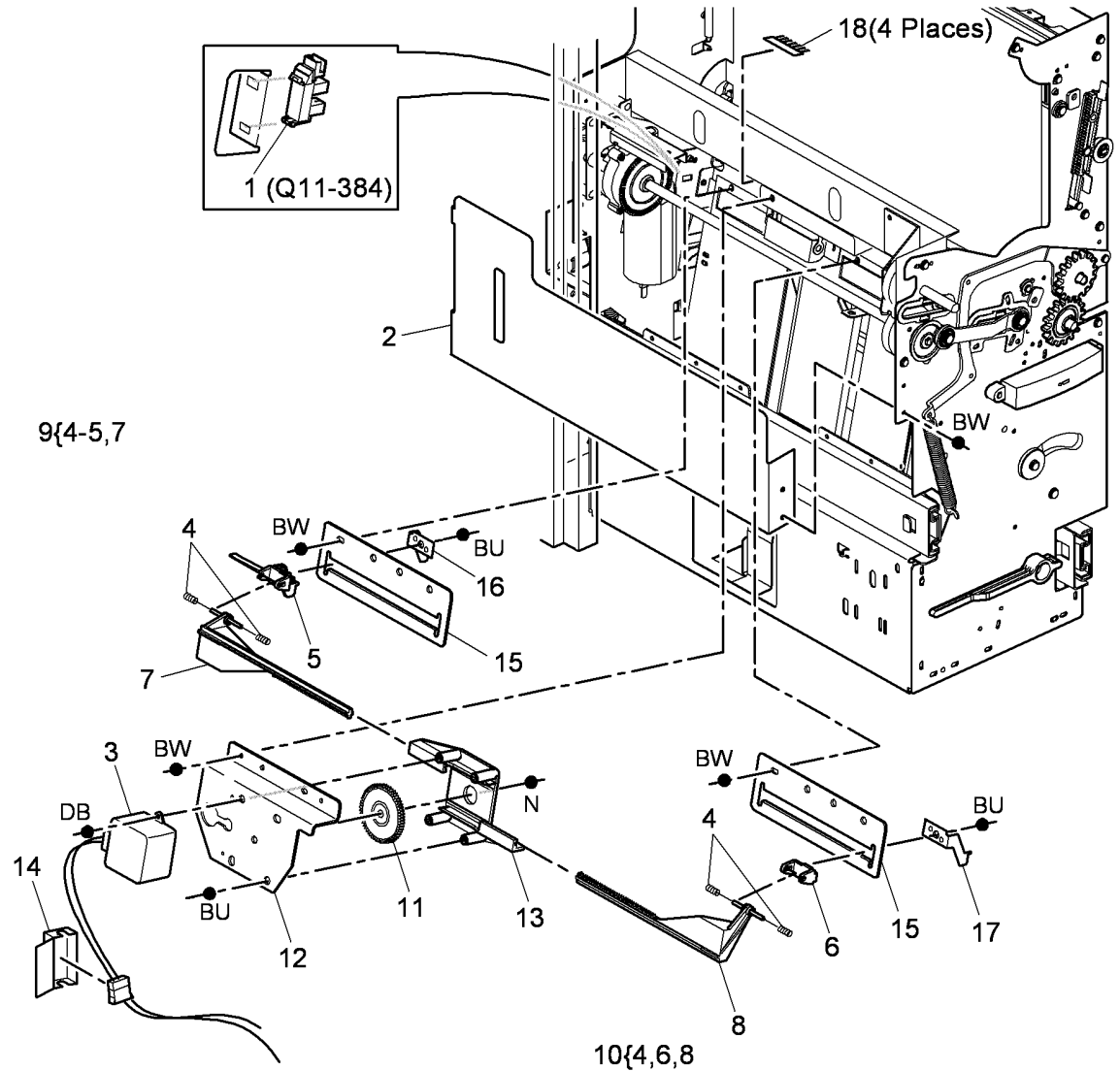
Item	Part	Description
1	003E69092	Drawer handle
2	809E46511	Crease roll leaf spring
3	802E66650	BM Front cover
4	003E69022	Crease blade knob (6d)
5	003E66010	Crease roll handle (6c)
6	013E12610	Nylon bearing
7	-	Paper guide (P/O PL 11.161 Item 22) (REP 11.60-171)
8	-	Jam clearance handle (Not Spared) (REP 11.60-171)
9	-	Nip spring (Not Spared) (REP 11.60-171)
10	022E30620	Nip roll (REP 11.60-171)
11	-	Nip shaft (P/O PL 11.161 Item 22) (REP 11.60-171)
12	130K74072	Flapper home sensor (Q11-391) (P/O PL 11.161 Item 30) (REP 11.16-171)
13	-	Bearing (Not Spared)
14	020E39990	BM Entry roll pulley (REP 11.22-171)
15	006K28660	BM Entry roll (REP 11.22-171)
16	130K74110	BM Entry sensor (Q11-160) (REP 11.23-171)
17	125E00430	Static eliminator
18	-	Rear latch (Not Spared)
19	-	Shaft (Not Spared)
20	809E46411	Latch spring
21	-	Front latch (Not Spared)
22	-	Entrance baffle assembly (Not Spared) (REP 11.60-171)
23	-	BM Flapper (P/O PL 11.161 Item 30) (REP 11.16-171)
24	-	BM flapper bracket (P/O PL 11.161 Item 30)
25	-	BM Compiler shaft (Not Spared)
26	125K03831	Static eliminator
27	-	Top baffle (Not Spared)
28	-	Pulley (P/O PL 11.161 Item 30)
29	-	BM flapper drive belt (Not Spared)
30	-	BM Flapper assembly (Not Spared)



T-8-0095-B

# PL 11.162 HVF BM Tamper Assembly

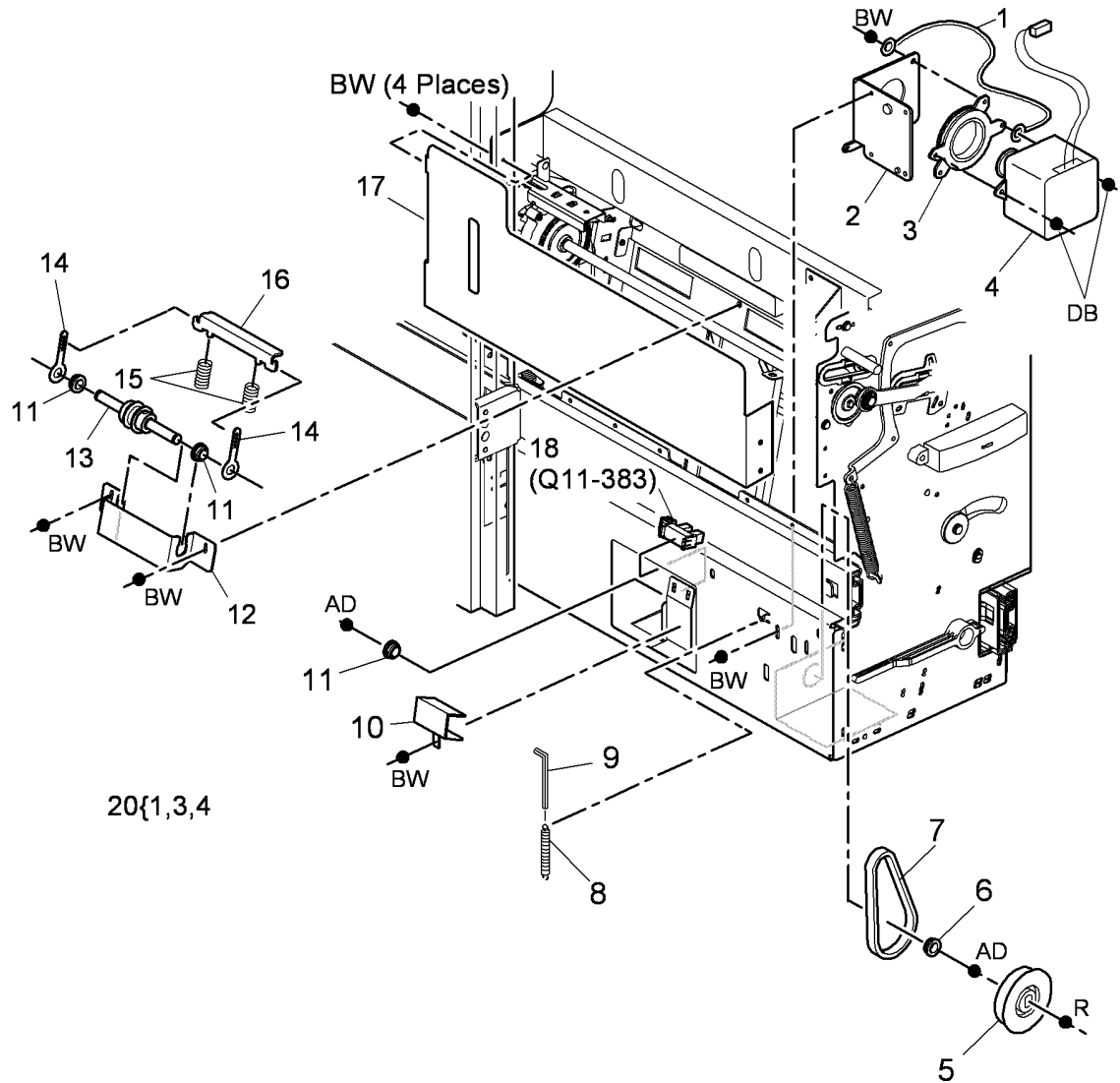
Item	Part	Description
1	107E22600	BM Tamper 1 home sensor (Q11-384)
2	-	LH Frame plate (Not Spared)
3	127K47660	BM Tamper 1 motor (MOT 11-066) (REP 11.30-171)
4	-	BM Tamper spring (P/O PL 11.162 Item 10)
5	-	BM Rear tamper arm (P/O PL 11.162 Item 9) (REP 11.30-171)
6	-	BM Front tamper arm (P/O PL 11.162 Item 10) (REP 11.30-171)
7	-	BM Rear tamper rack (P/O PL 11.162 Item 9) (REP 11.30-171)
8	-	BM Front tamper rack (P/O PL 11.162 Item 10) (REP 11.30-171)
9	007K13190	BM Rear tamper assembly (REP 11.30-171)
10	007K13180	BM Front tamper assembly (REP 11.30-171)
11	807E15450	BM Tamper gear (REP 11.30-171)
12	-	BM Tamper bracket (Not Spared) (REP 11.30-171)
13	-	BM Tamper rack guide (Not Spared) (REP 11.30-171)
14	802E59410	BM Connector cover
15	-	BM Tamper guide plate (Not Spared) (REP 11.30-171)
16	-	BM Rear tamper finger (Not Spared) (REP 11.30-171)
17	-	BM Front tamper finger (Not Spared) (REP 11.30-171)
18	125K03593	BM Static eliminator



T-8-0096-A

# PL 11.163 HVF BM Back Stop Motor

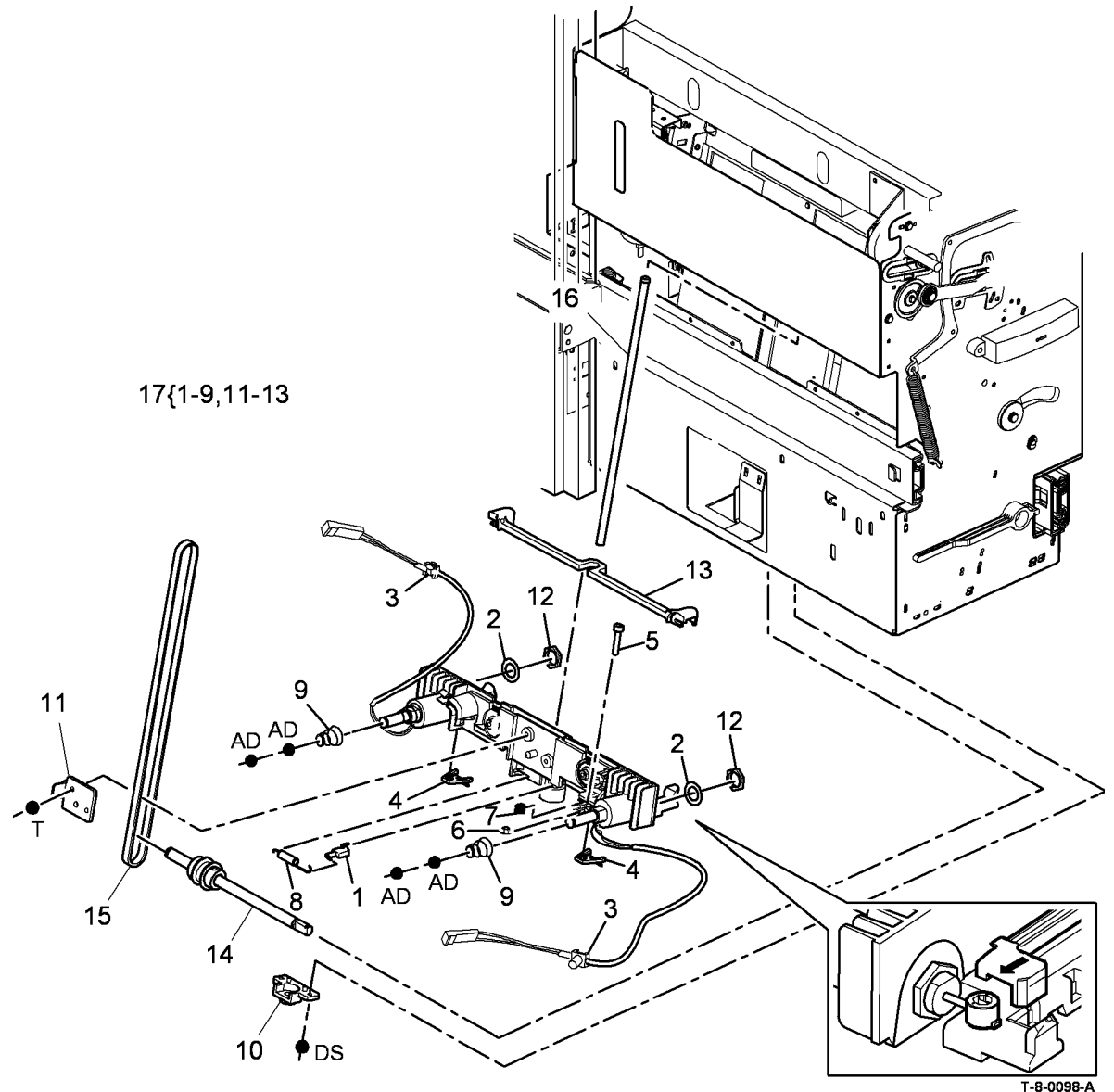
Item	Part	Description
1	-	Ground wire (P/O PL 11.163 Item 20)
2	-	Motor bracket (Not Spared)
3	-	Motor damper (P/O PL 11.163 Item 20) (REP 11.20-171)
4	-	BM back stop motor (MOT11-065) (P/O PL 11.163 Item 20) (REP 11.20-171)
5	-	Pulley (Not Spared)
6	-	BM back stop bearing (Not Spared) (REP 11.26-171)
7	023E23300	BM back stop drive belt (REP 11.20-171)
8	809E78370	BM back stop tensioner spring (REP 11.20-171)
9	-	Allen key (3mm) (Not Spared)
10	802E59180	Sensor cover
11	-	BM back stop bearing (Not Spared) (REP 11.26-171)
12	-	BM back stop idler bracket (Not Spared) (REP 11.26-171)
13	-	BM back stop idler shaft (Not Spared)
14	-	BM back stop tensioner link (Not Spared)
15	809E25100	BM back stop link spring (REP 11.26-171)
16	012E20870	BM back stop link (REP 11.26-171)
17	-	LH frame plate (Not Spared)
18	107E22600	BM back stop guide home sensor (Q11-383)
19	-	Not used
20	127K54710	BM back stop motor assembly (REP 11.20-171)



T-8-0097-A

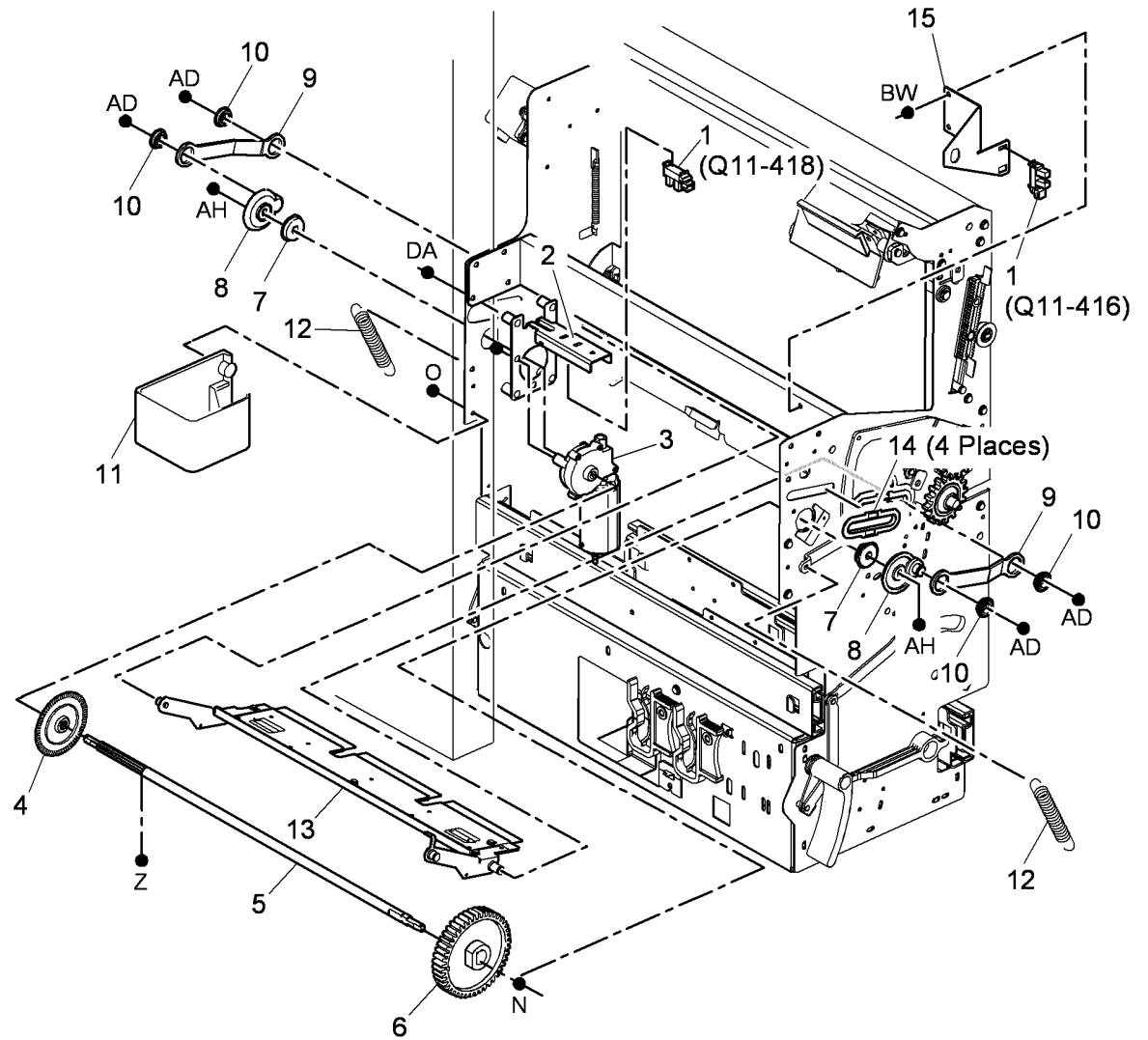
# PL 11.164 HVF BM Back Stop assembly

Item	Part	Description
1	019E74451	Anti-play shoe
2	-	BM back stop lock washer (P/O PL 11.164 Item 17)
3	-	Cable fastener (P/O PL 11.164 Item 17)
4	031E11300	Anti-rattle arm
5	-	Screw (P/O PL 11.164 Item 17)
6	-	Flanged hex nut (P/O PL 11.164 Item 17)
7	-	Back stop adjust spring (P/O PL 11.164 Item 17)
8	809E71970	Anti-play spring
9	-	Solenoid spring (P/O PL 11.164 Item 17)
10	-	Shaft support (Not Spared)
11	-	Belt clamp (P/O PL 11.164 Item 17)
12	-	BM back stop solenoid nut (P/O PL 11.164 Item 17)
13	-	Pivoting clamp (P/O PL 11.164 Item 17)
14	006K30790	BM back stop drive shaft (REP 11.26-171)
15	023E23140	BM back stop belt (REP 11.26-171)
16	-	BM back stop shaft (Not Spared)
17	019K13550	BM back stop assembly (REP 11.21-171)



# PL 11.165 HVF BM Crease Blade Motor

Item	Part	Description
1	107E22600	BM Crease blade motor encoder sensor (Q11-418), BM Crease blade home sensor (Q11-416) (Not Spared) (REP 11.18-171)
2	-	Motor bracket (P/O PL 11.165 Item 3)
3	127K54690	BM Crease blade motor assembly (MOT11-061) (REP 11.18-171)
4	014E47460	Motor encoder (REP 11.18-171)
5	-	Drive shaft (Not Spared)
6	007E69830	Drive gear
7	413W30654	Bearing (REP 11.18-171)
8	008E08220	Crank (REP 11.18-171)
9	012E20860	Connecting rod (REP 11.36-171)
10	-	Bearing (Not Spared)
11	802E59171	Motor cover
12	809E42861	Crease nip spring (REP 11.58-171)
13	815K11660	Crease blade assembly (REP 11.36-171)
14	032E19330	Crease blade support guide (REP 11.36-171)
15	-	Crease blade home sensor bracket (Not Spared)

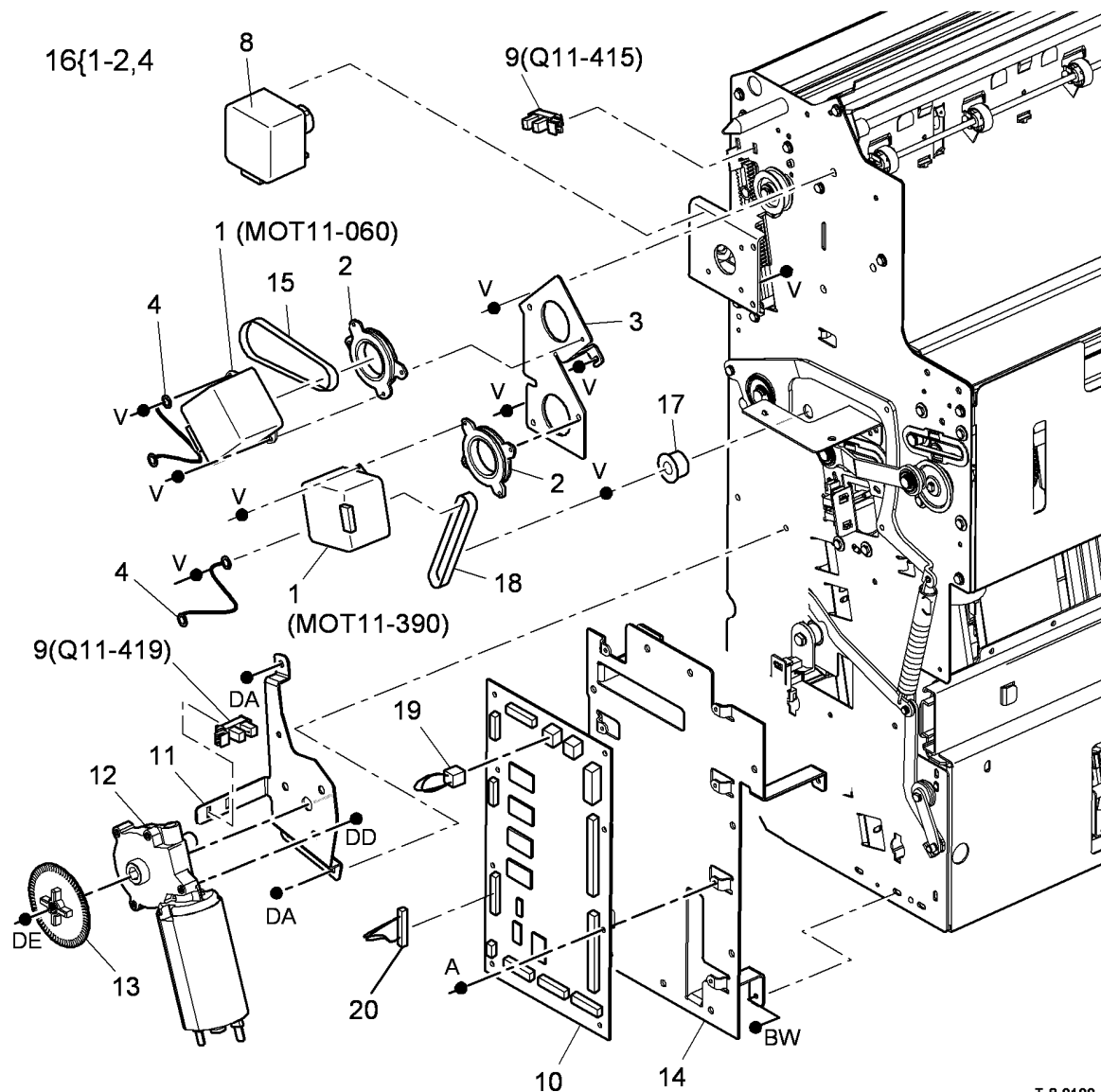


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# PL 11.166 HVF BM Crease Rolls Motor and PWB

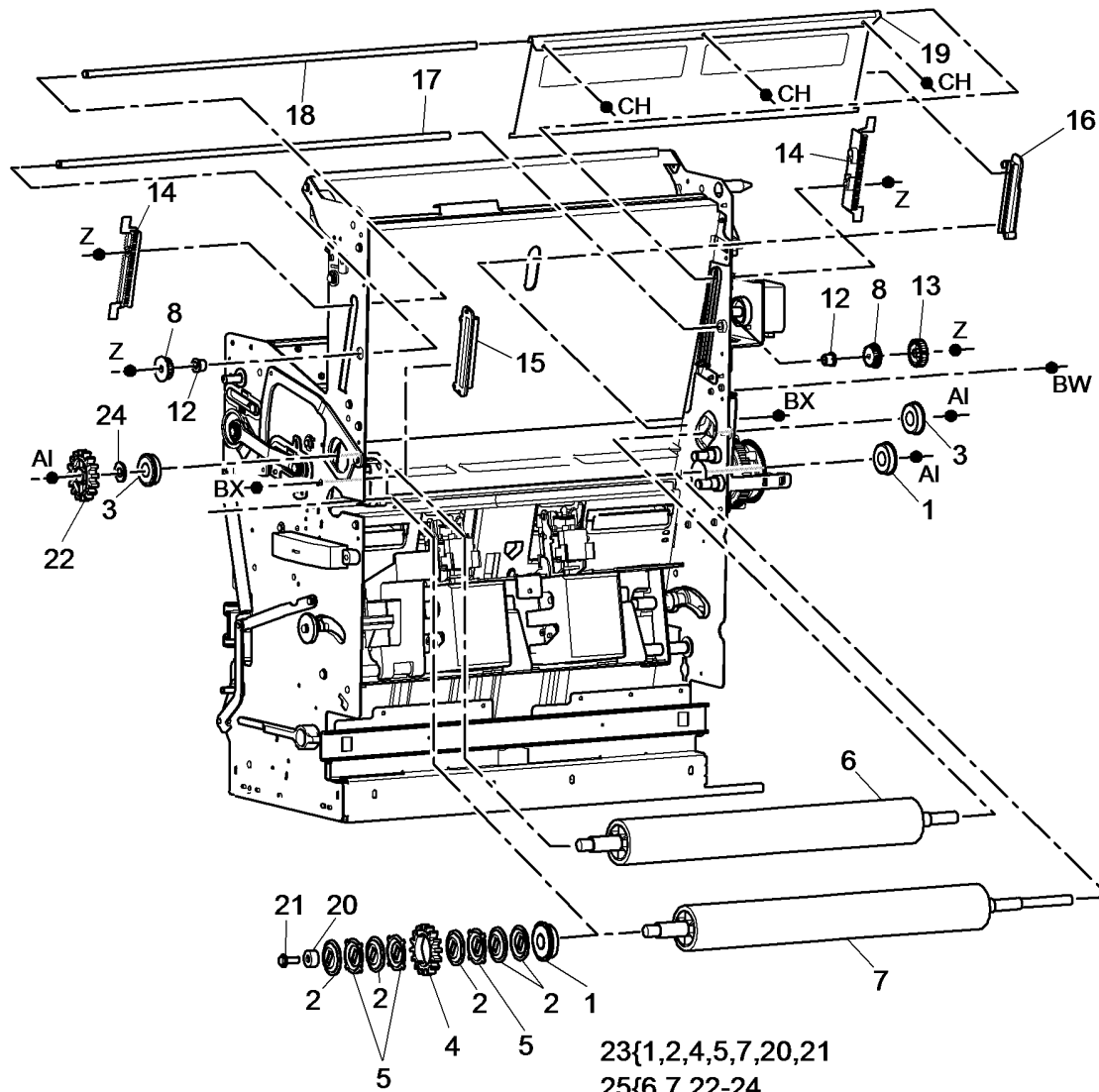
Item	Part	Description
1	127K43751	BM Compiler motor (MOT11-060)/ BM flapper motor (MOT11-390) (REP 11.25-171)
2	-	Damper bracket (P/O PL 11.166 Item 16) (REP 11.25-171)
3	-	Motor bracket (Not Spared)
4	-	Ground wire (P/O PL 11.166 Item 16)
5	-	Not used
6	-	Not used
7	-	Not used
8	127K53620	Crease roll gate motor (MOT11- 401) (REP 11.24-171)
9	107E22600	BM Crease roll gate home sensor (Q11-415), BM Crease roll motor encoder sensor (Q11-419)
10	960K42390	BM PWB (REP 11.17-171)
11	-	Motor bracket (P/O PL 11.166 Item 12)
12	127K54680	BM crease roll motor assembly (MOT11-062) (REP 11.19-171)
13	014E47460	BM Crease roll motor encoder Support bracket (Not Spared)
14	023E25430	Belt
15	127K55520	BM Compiler motor assembly (REP 11.25-171)
16	-	BM flapper motor pulley (Not Spared)
17	-	BM flapper motor drive belt (Not Spared)
18	-	Tri-folder interlock cheat (PJ553) (Not Spared)
19	-	Tri-folder logic cheat (PJ563) (Not Spared)
20	-	



T-8-0100-A

# PL 11.167 HVF BM Crease Rolls and Support Leg

Item	Part	Description
1	-	Lower crease roll bearing (P/O PL 11.167 Item 23)
2	-	Shaft keyed clutch plate (P/O PL 11.167 Item 23)
3	413W31054	Crease roll bearing (REP 11.52-171)
4	-	Lower crease roll gear (P/O PL 11.167 Item 23)
5	-	Gear keyed clutch plate (P/O PL 11.167 Item 23) (REP 11.52-171)
6	006K29391	Upper crease roll (REP 11.52-171)
7	-	Lower crease roll (P/O PL 11.167 Item 25) (REP 11.52-171)
8	007E69081	Crease roll gate rack gear (REP 11.59-171)
9	-	Not used
10	-	Not used
11	-	Not used
12	-	Bearing (Not Spared)
13	007E69070	Crease roll gate rack drive gear (REP 11.59-171)
14	007E68951	Crease roll gate rack (REP 11.59-171)
15	020E38701	Crease roll gate front guide (REP 11.59-171)
16	020E38081	Crease roll gate rear guide (REP 11.59-171)
17	-	Crease roll drive shaft (Not Spared)
18	-	Crease roll gate shaft (Not Spared)
19	050E23160	Crease roll gate (REP 11.59-171)
20	-	Retainer (P/O PL 11.167 Item 23)
21	-	Screw (P/O PL 11.167 Item 23)
22	807E06040	Upper crease roll gear
23	-	Lower crease roll and clutch assembly (P/O PL 11.167 Item 25)
24	-	Wavy washer (P/O PL 11.167 Item 25)
25	604K42120	Crease roll repair kit

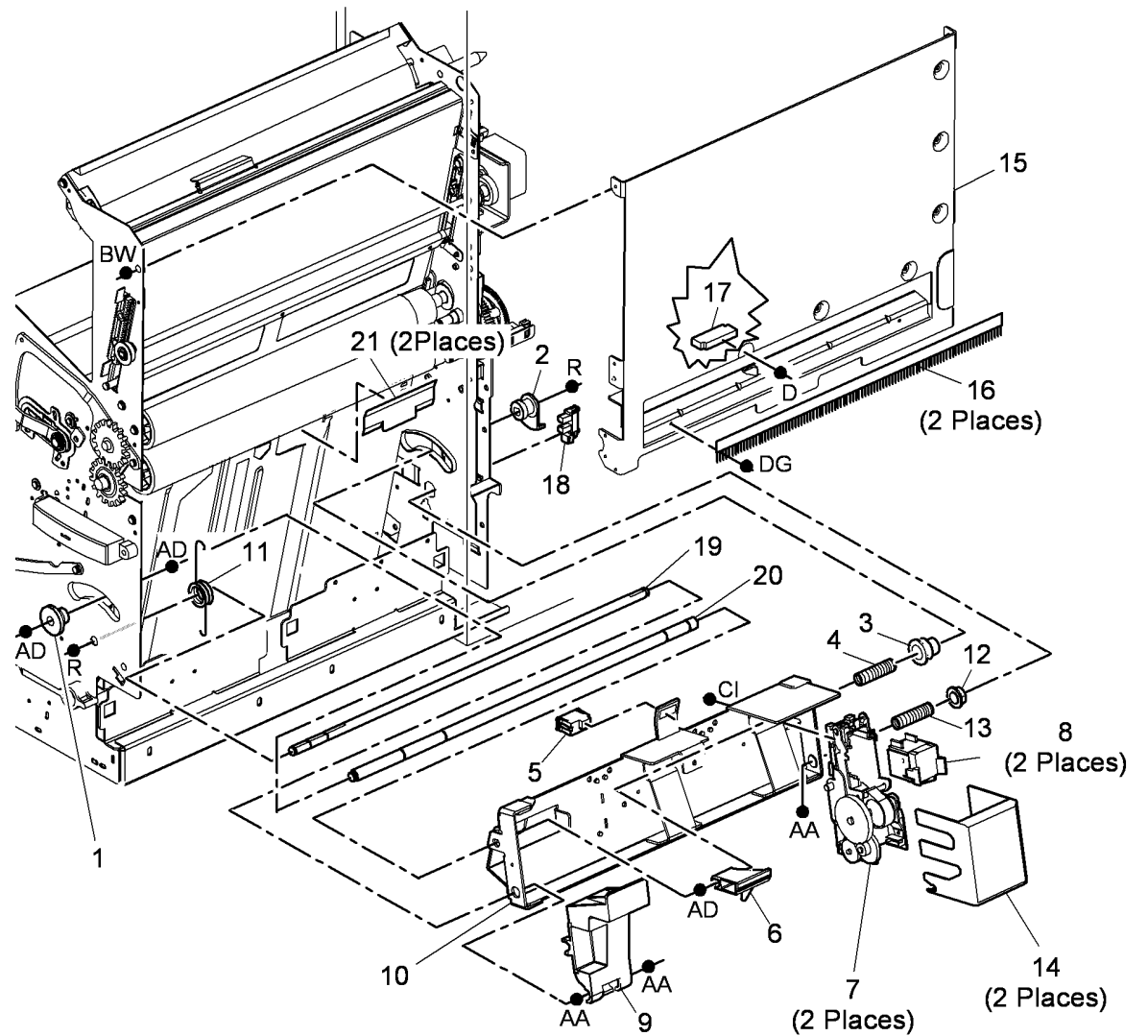


23{1,2,4,5,7,20,21}  
 25{6,7,22-24}  
 AND ITEM 3 ON PL 11.161

T-8-0101-A

# PL 11.168 HVF BM Stapler Assemblies

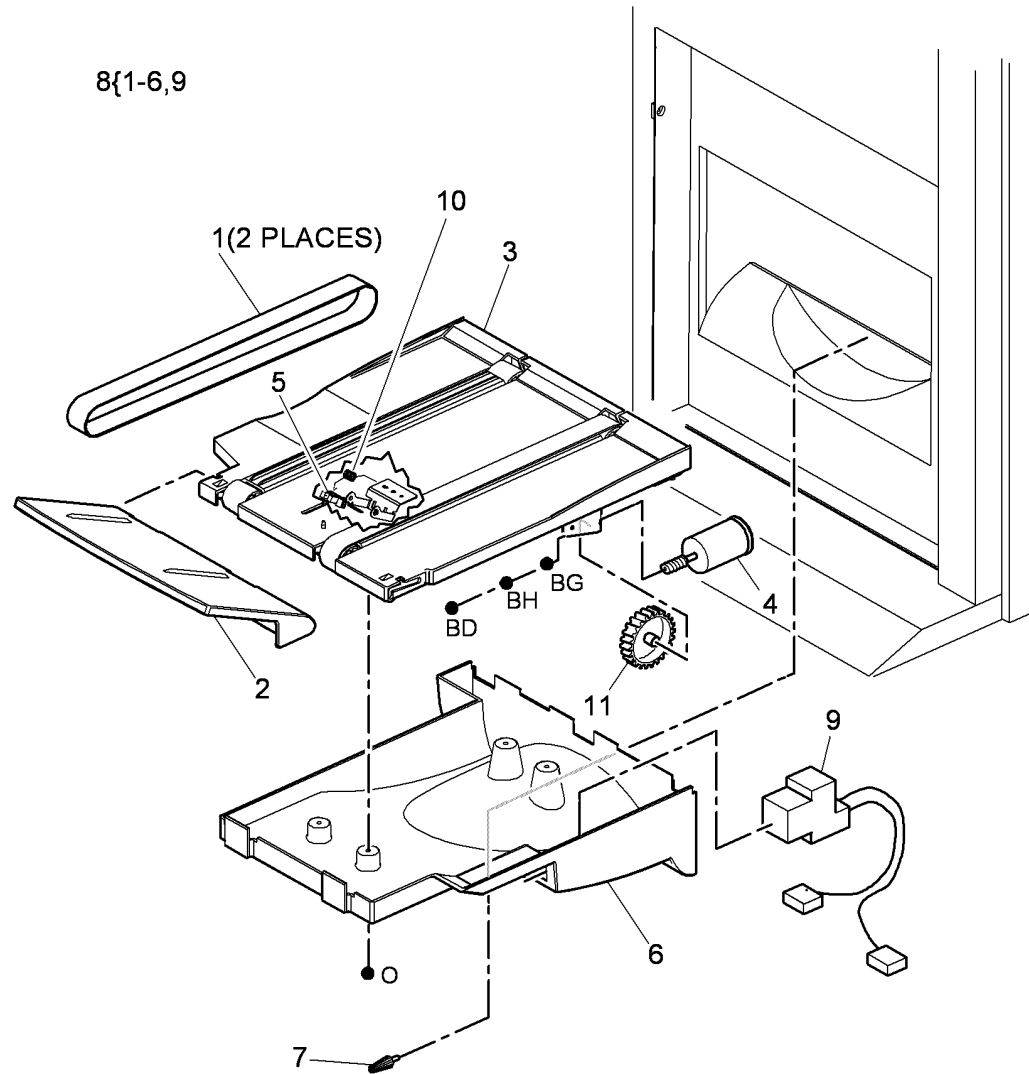
Item	Part	Description
1	020E38513	Front follower
2	016E17732	Actuator
3	-	Rear follower (Not Spared)
4	809E44010	Spring
5	130K74090	BM paper present sensor (Q11-190)
6	008E06850	Latch slide
7	029K03232	BM Staple head assembly (REP 11.27-171, ADJ 4.1)
8	050K21270	Staple cartridge
9	-	Staple bracket handle (Not Spared) (REP 11.28-171)
10	-	Stapler bracket assembly (Not Spared) (REP 11.28-171)
11	809E48830	Torsion spring (REP 11.28-171)
12	-	Bearing (Not Spared) (REP 11.28-171)
13	-	Spring (Not Spared) (REP 11.28-171)
14	802E42770	Staple head cover
15	-	BM Right hand cover (Not Spared) (REP 11.56-171)
16	125K03831	Static eliminator
17	130E11640	BM exit sensor (Q11-409) (REP 11.50-171)
18	107E22600	BM Stapler head carrier closed sensor (Q11-421) (Not Spared) (REP 11.28-171)
19	-	Lower shaft (Not Spared) (REP 11.28-171)
20	-	Upper shaft (Not Spared) (REP 11.28-171)
21	055E51870	Mylar guide



T-8-0102-A

## PL 11.169 HVF BM Bin 2

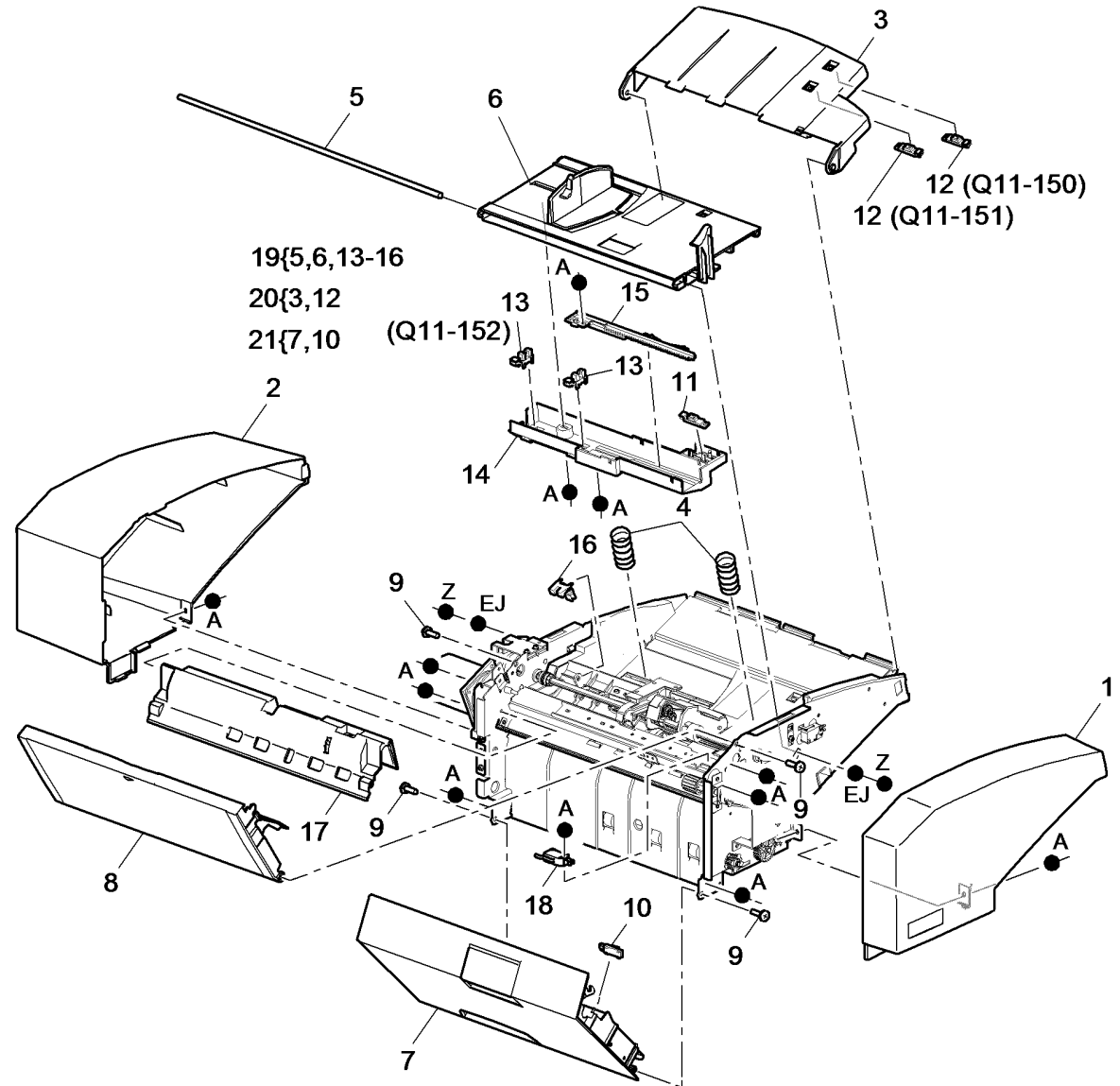
Item	Part	Description
1	023E18612	Conveyor belt (REP 11.29-171)
2	050E21971	HVF BM Bin 2 extension
3	-	HVF BM Bin 2 upper cover (P/O PL 11.169 Item 8)
4	127K53630	BM Conveyor belt drive motor (MOT11-402)
5	019E61171	HVF BM Bin 2 90% full sensor (Q11-389)
6	-	HVF BM Bin 2 lower cover (P/O PL 11.169 Item 8)
7	-	Thumbscrew (Not Spared)
8	-	HVF BM Bin 2 assembly (Not Spared)
9	-	HVF BM Bin 2 connector (Not Spared)
10	809E47341	HVF Bin 2 actuator spring
11	007E69000	Gear (50T)/pulley (24T)



T-8-0103-A

## PL 11.175 Inserter Covers

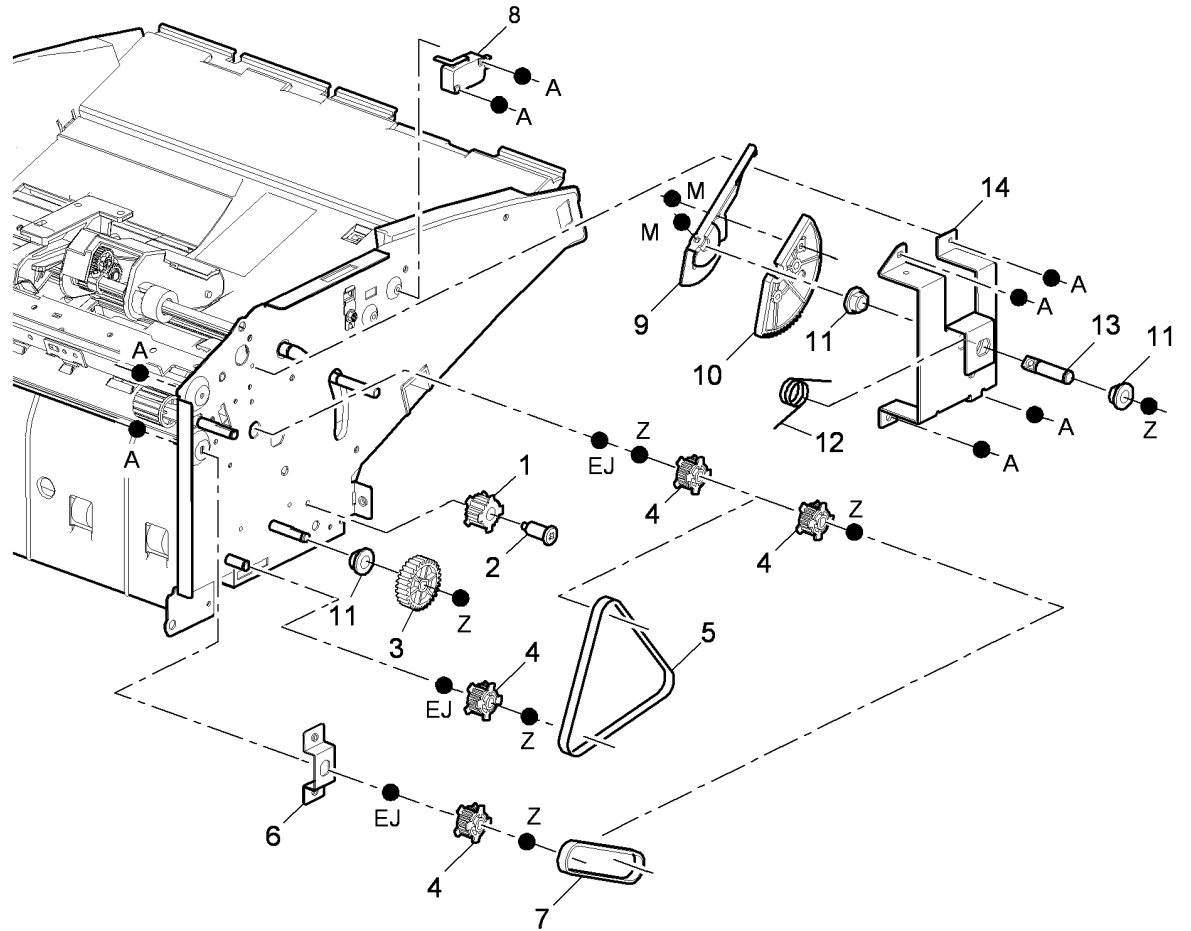
Item	Part	Description
1	-	Front cover (Not Spared) (REP 11.83-171)
2	-	Rear cover (Not Spared) (REP 11.83-171)
3	-	Sensor tray (P/O PL 11.175 Item 20) (REP 11.89-171)
4	-	Bottom tray spring (Not Spared)
5	-	Bottom tray shaft (P/O PL 11.175 Item 19)
6	-	Bottom tray (P/O PL 11.175 Item 19) (REP 11.90-171)
7	-	Top left door (P/O PL 11.175 Item 21) (REP 11.92-171)
8	-	Top cover door (P/O PL 11.179 Item 20)
9	-	Pivot pin (Not Spared)
10	-	Acceleration sensor (P/O PL 11.175 Item 21) (REP 11.92-171)
11	-	Unit empty sensor (Q11-153) (Not Spared) (REP 11.90-171)
12	-	Sheet size detector 1 (Q11-150)/ Sheet size detector 2 (Q11-151) (P/O PL 11.175 Item 20) (REP 11.89-171)
13	-	Inserter paper width sensor 1 (Q11-152) (P/O PL 11.175 Item 19) (REP 11.90-171)
-	-	Inserter paper width sensor 2 (P/O PL 11.175 Item 19) (NOTE) (REP 11.90-171)
14	-	Bottom tray bracket (P/O PL 11.175 Item 19)
15	-	Bottom tray rack (P/O PL 11.175 Item 19)
16	-	Bottom plate sensor (Q11-156) (P/O PL 11.175 Item 19) (REP 11.94-171)
17	-	Top cover (Not Spared)
18	-	Left hand door interlock switch (S11-431) (Not Spared) (REP 11.88-171)
19	050K68100	Bottom tray assembly (REP 11.90-171, REP 11.95-171)
20	848K19170	Sensor tray assembly (REP 11.89-171)
21	848K19180	Top left door assembly (REP 11.92-171)



**NOTE:** Inserter paper width sensor 2 has no component control code.

## PL 11.177 Inserter Main Drives (1 of 3)

Item	Part	Description
1	-	Idler (Not Spared)
2	-	Idler pin (Not Spared)
3	-	Gear (Not Spared)
4	-	Pulley (Not Spared)
5	-	Belt (Not Spared)
6	-	Bracket (Not Spared)
7	-	Jam drive belt (Not Spared)
8	-	Top cover interlock switch (S11-306) (Not Spared) (REP 11.87-171)
9	-	Loading lever (Not Spared)
10	-	Loading gear (Not Spared)
11	-	Bearing (Not Spared)
12	-	Torsion spring (Not Spared)
13	-	Loading shaft (Not Spared)
14	-	Front loading bracket (Not Spared)

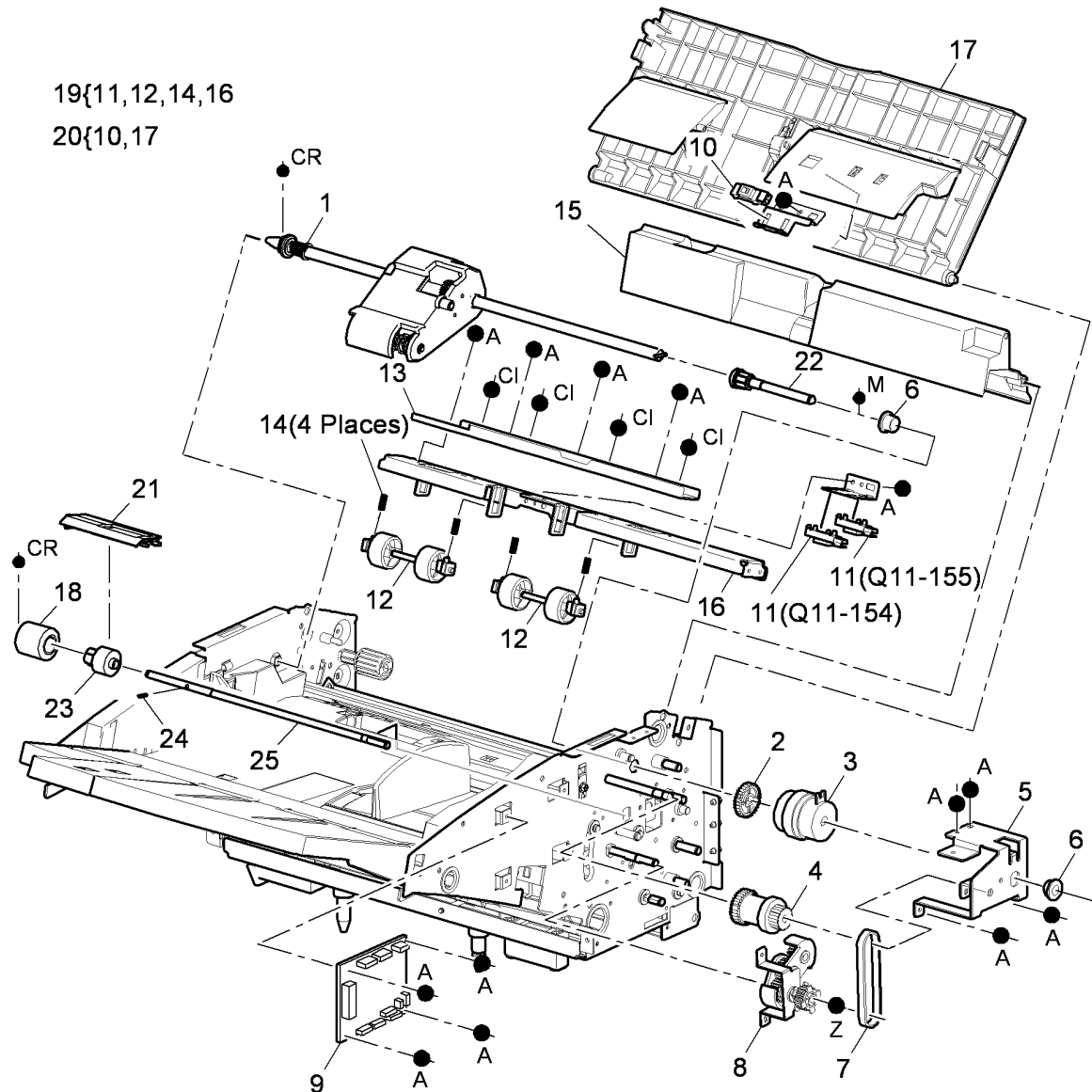


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## PL 11.179 Inserter Main Drives (2 of 3)

Item	Part	Description
1	050K68080	Pickup assembly (See NOTE) (REP 11.95-171)
2	-	Pickup gear (Not Spared)
3	005K12890	Inserter clutch (REP 11.86-171)
4	-	Reverse roller drive idler (Not Spared)
5	-	Pickup assembly bracket (Not Spared)
6	-	Bearing (Not Spared)
7	-	Reverse roller drive belt (Not Spared)
8	-	Reverse roller drive (Not Spared)
9	960K46170	Inserter PWB (REP 11.85-171)
10	-	IDG pickup sensor (P/O PL 11.179 Item 20) (REP 11.91-171)
11	-	TE sensor (Q11-155) (REP 11.93- 171)/LE sensor (Q11-154) (REP 11.93-171) (P/O PL 11.179 Item 19)
12	-	Idle roller assembly (P/O PL 11.179 Item 19) (REP 11.98-171)
13	-	Idler roller bracket (Not Spared)
14	-	Idler roller spring (P/O PL 11.179 Item 19)
15	-	Top inside cover (Not Spared)
16	-	Idler roller cover (P/O PL 11.179 Item 19)
17	-	Top cover door (P/O PL 11.179 Item 20) (REP 11.91-171)
18	050K68090	Reverse feed roller (REP 11.95- 171)
19	006K32470	Idler roller assembly (REP 11.93- 171)
20	848K19160	Top cover door assembly (REP 11.91-171)
21	848K37330	Retard cover
22	-	Drive coupling (Not Spared)
23	-	Reverse feed roll core (Not Spared)
24	-	Pin (Not Spared)
25	-	Shaft (Not Spared)

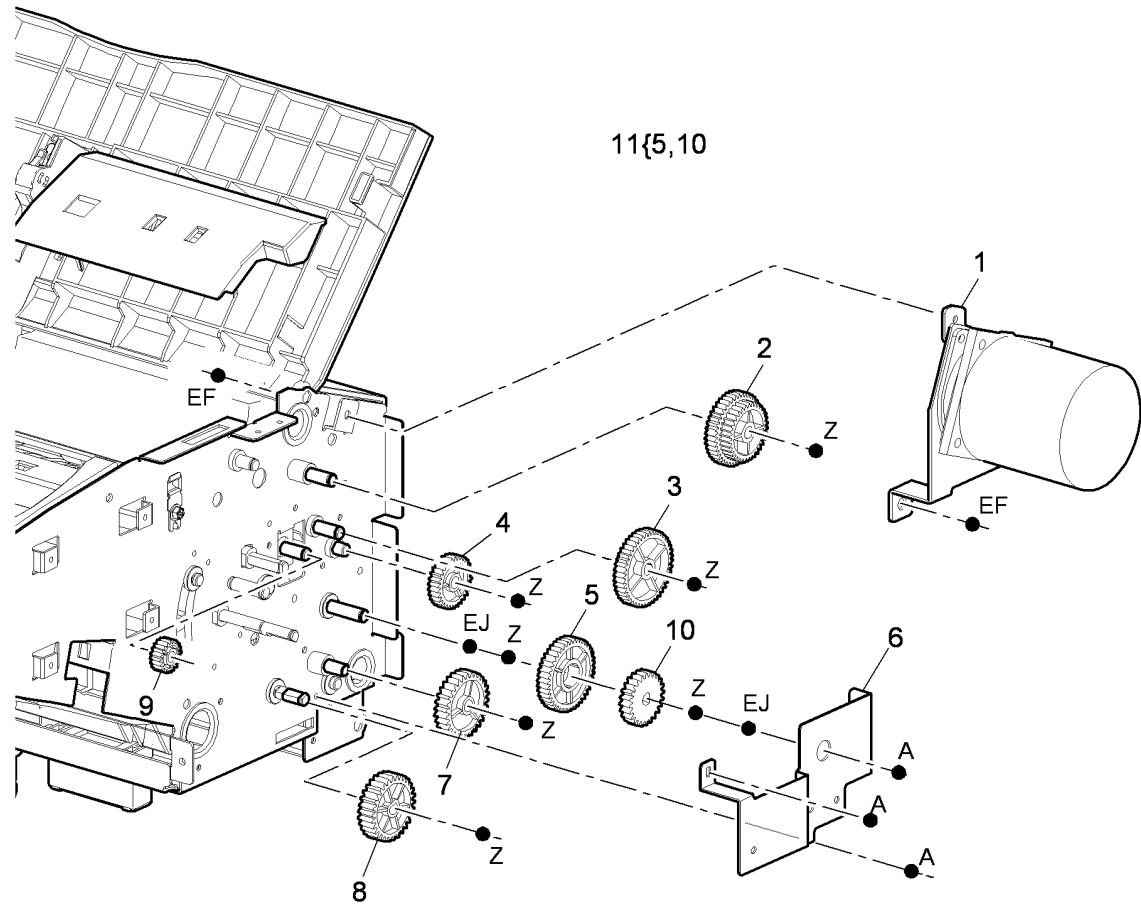
**NOTE:** HFSI. To reset the HFSI count, refer to GP 17.



T-8-0106-A

## PL 11.181 Inserter Main Drives (3 of 3)

Item	Part	Description
1	127K61990	Inserter motor (MOT11-078) (REP 11.84-171)
2	-	Idler (Not Spared)
3	-	Driver gear (Not Spared)
4	-	Idler (Not Spared)
5	-	Tray down gear (Not Spared)
6	-	Gear cover bracket (Not Spared)
7	-	Idler (Not Spared)
8	-	Bottom shaft drive (Not Spared)
9	-	Feed roller drive gear (Not Spared)
10	-	Tray down clutch (Not Spared)
11	-	Tray down clutch assembly (Not Spared)



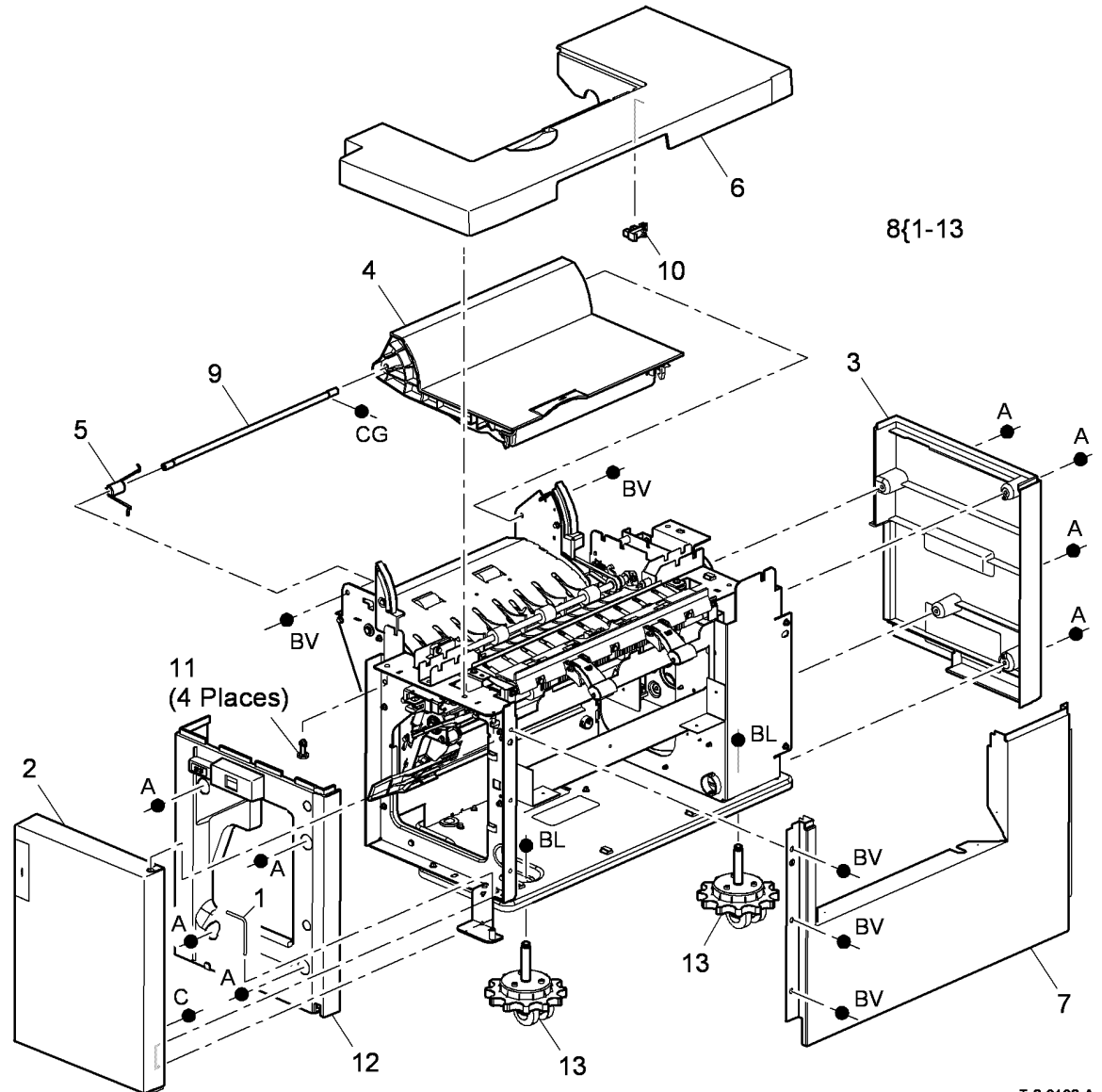
T-8-0107-A



## PL 11.190 Tri-Folder Covers

Item	Part	Description
1	–	Door pin (Not Spared)
2	802K94010	Front door (REP 11.67-171)
3	848K11740	Rear cover (REP 11.67-171)
4	–	Top cover door assembly (REF: PL 11.195 Item 10) (REP 11.73-171)
5	–	Top cover door assembly spring (P/O PL 11.190 Item 8)
6	802E93931	Top cover (REP 11.67-171)
7	848E17430	Right hand side cover (REP 11.67-171)
8	–	Tri-Folder (complete) (Not Spared)
9	–	Top cover door assembly shaft (P/O PL 11.190 Item 8)
10	107E26490	Top cover interlock sensor (Q11-394) (REP 11.77-171)
11	–	Top cover locking stud (Not Spared)
12	802E99581	Front cover
13	017K04190	Castor

**NOTE:** For detail of bin 2, refer to PL 11.169.

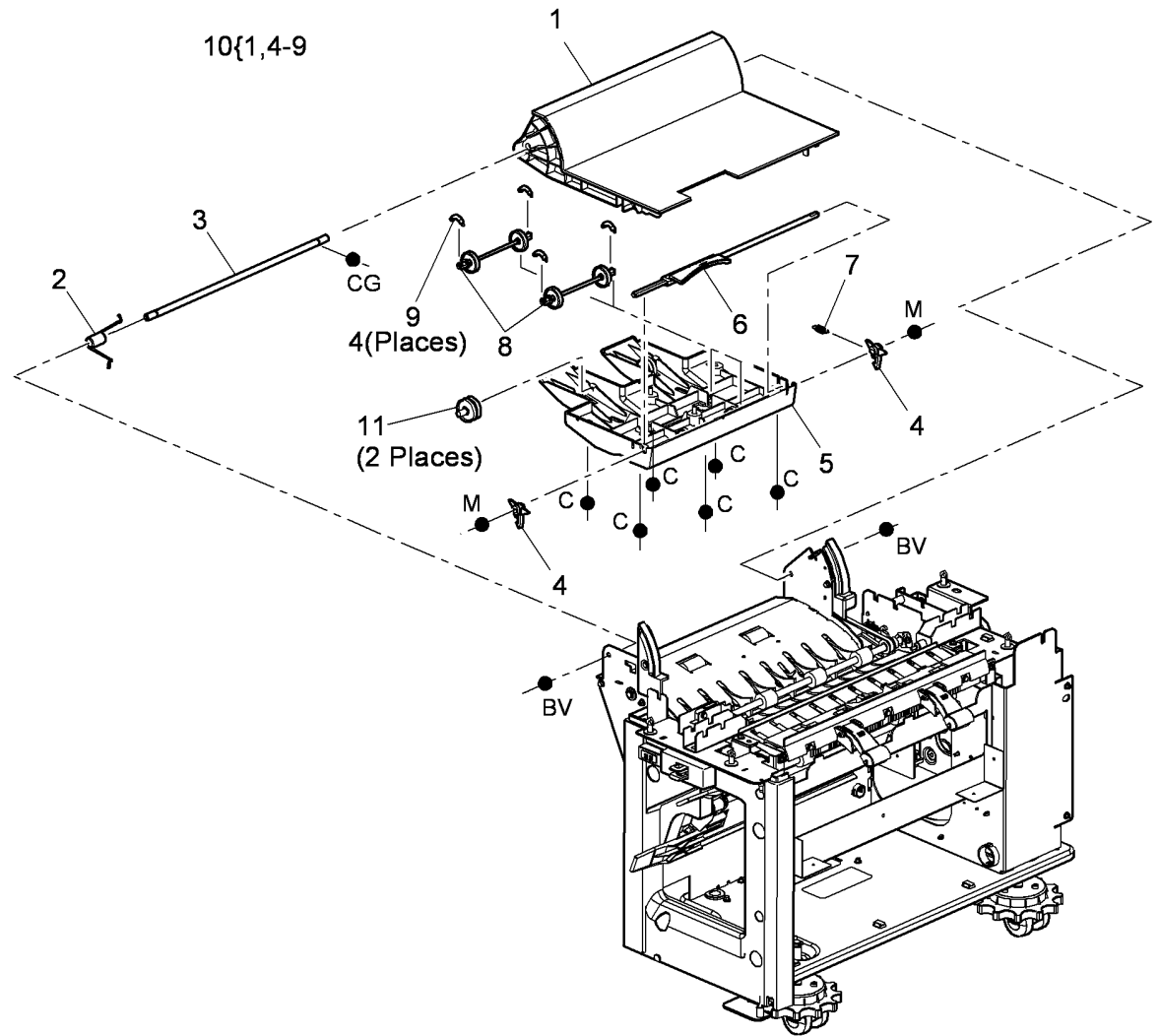


T-8-0108-A



# PL 11.195 Tri-Folder Top Door Cover Assembly

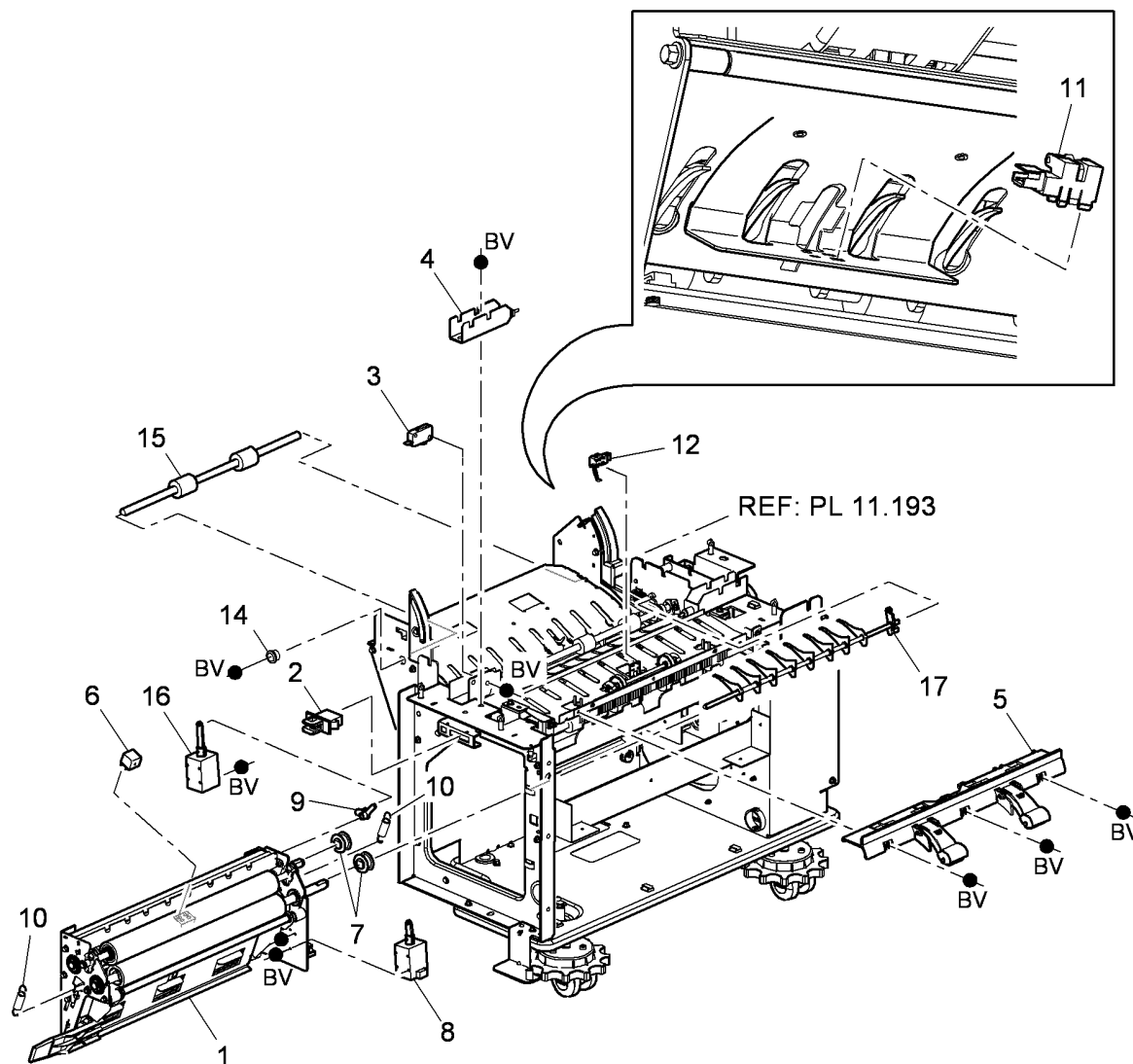
Item	Part	Description
1	-	Top access cover (P/O PL 11.195 Item 10)
2	-	Top cover door assembly spring (Not Spared)
3	-	Top cover door assembly shaft (Not Spared)
4	-	Latch hook (P/O PL 11.195 Item 10)
5	-	Top door cover assembly base (P/O PL 11.195 Item 10)
6	-	Latch handle (P/O PL 11.195 Item 10)
7	-	Latch spring (P/O PL 11.195 Item 10)
8	059K58690	Idler assembly (REP 11.73-171)
9	-	Idler spring (P/O PL 11.195 Item 10)
10	848K11680	Top cover door assembly (REP 11.73-171)
11	-	Idler assembly (Not Spared)



T-8-0110-A

# PL 11.197 Tri-Folder Main Drives Assembly

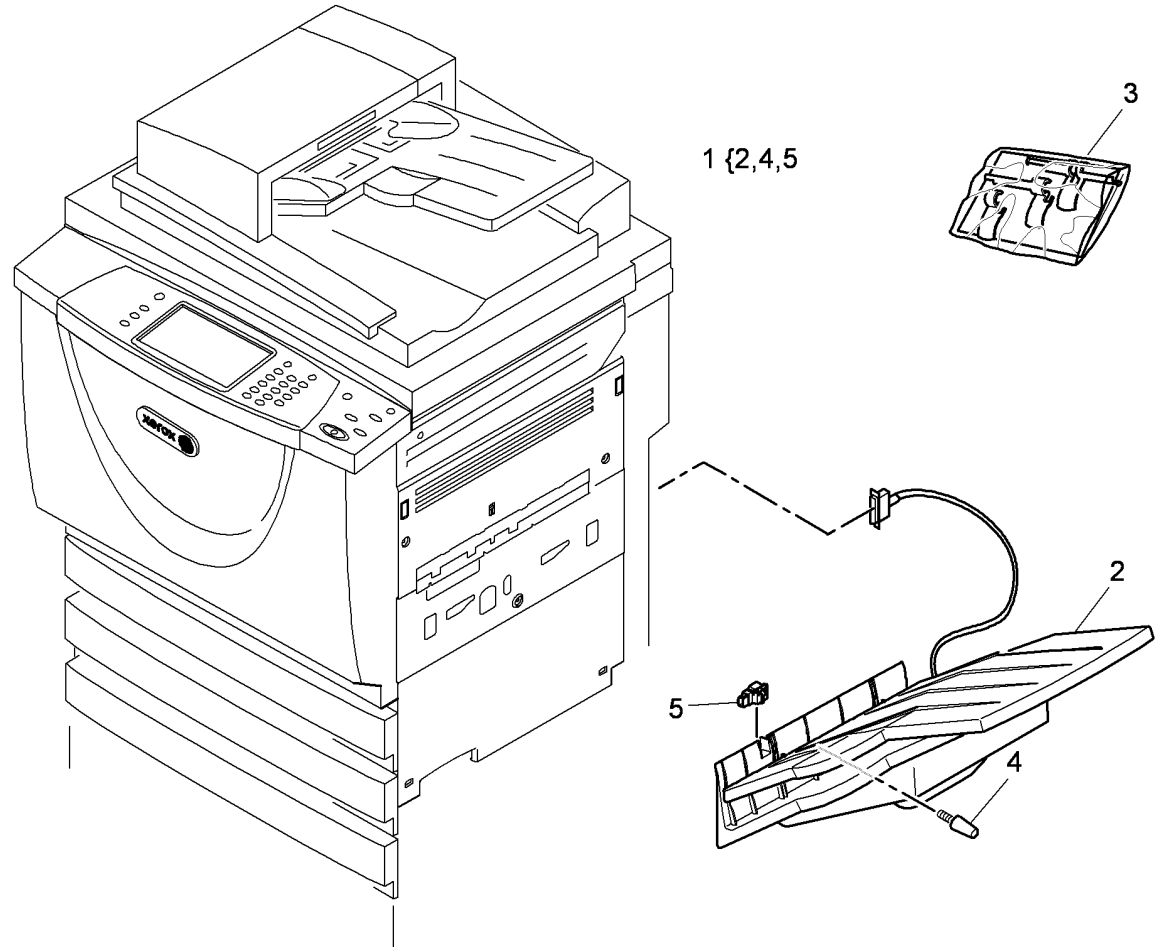
Item	Part	Description
1	-	Roller assembly (Not Spared) (REP 11.74-171)
2	110E19840	Front door interlock switch (S11-393) (REP 11.77-171)
3	110E19831	Top cover interlock switch (REP 11.77-171)
4	-	Top access cover docking catch (Not Spared)
5	-	Pressing and stacking assembly (Not Spared)
6	130E11861	Assist gate sensor (Q11-184) (REP 11.78-171)
7	020E38480	Crease roll pulley (REP 11.74-171)
8	121K44660	Assist gate solenoid (SOL11-086) (REP 11.71-171)
9	011E13832	Centerfold entry gate lever (REP 11.74-171)
10	809E44040	Crease roll spring (REP 11.72-171)
11	130K74920	Entry sensor (Q11-183) (REP 11.78-171)
12	130K74051	Exit sensor (Q11-086) (REP 11.79-171)
13	-	Not used
14	-	Feed roller bearing (Not Spared)
15	-	Feed roller (Not Spared) (REP 11.70-171)
16	121K44650	Diverter solenoid (SOL11-085) (REP 11.74-171)
17	050E23180	Diverter gate



T-8-0111-A

# PL 12.10 OCT

Item	Part	Description
1	604K41660	OCT (complete)
2	-	Tray (P/O PL 12.10 Item 1)
3	675K26824	OCT finger kit (REP 12.1)
4	-	Thumbscrew (P/O PL 12.10 Item 1)
5	130E81311	OCT 90% full sensor (Q12-300)

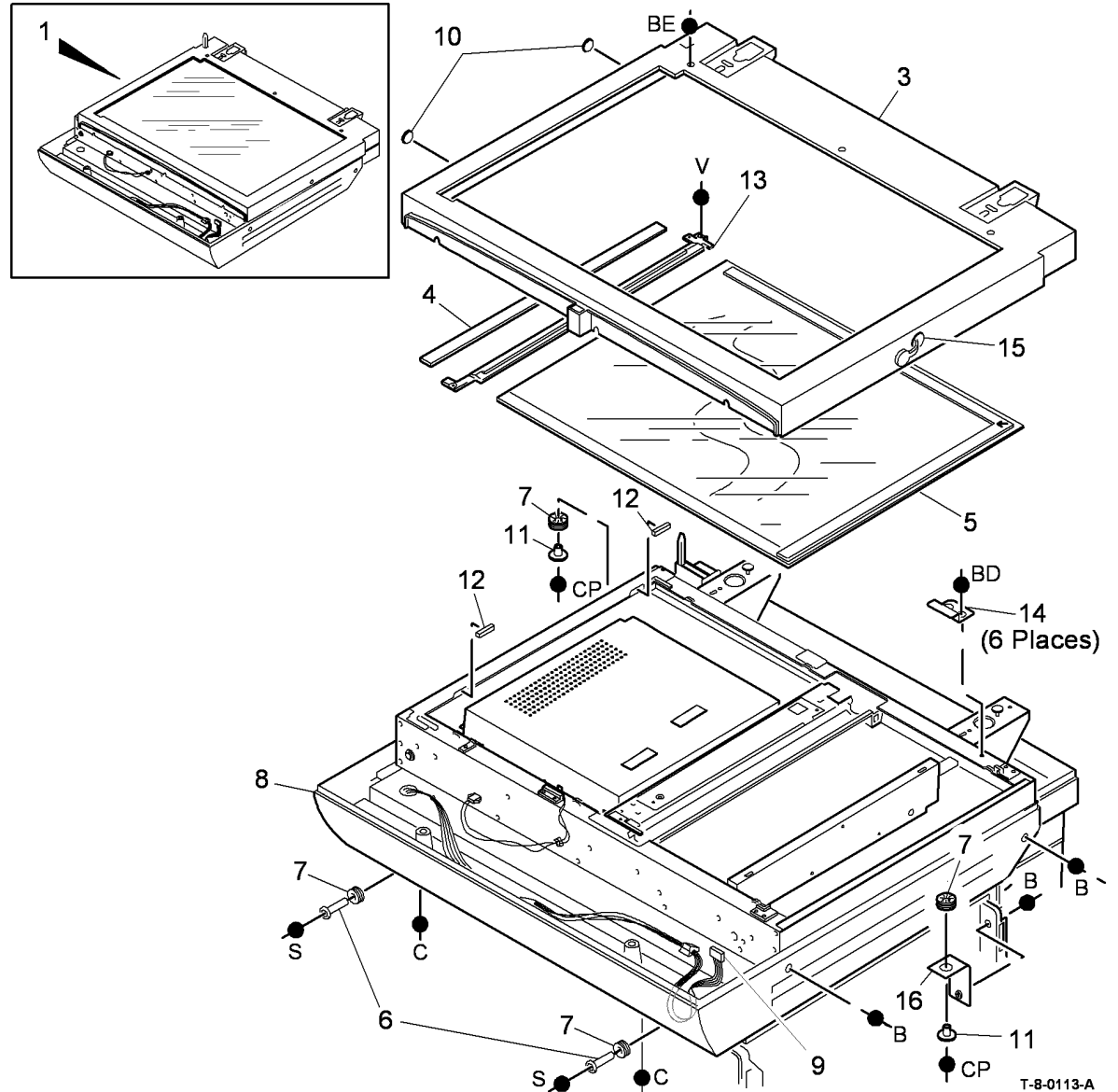


T-8-0112-A

# PL 14.10 Scanner Module, CVT/ Document Glass (W/TAG 150)

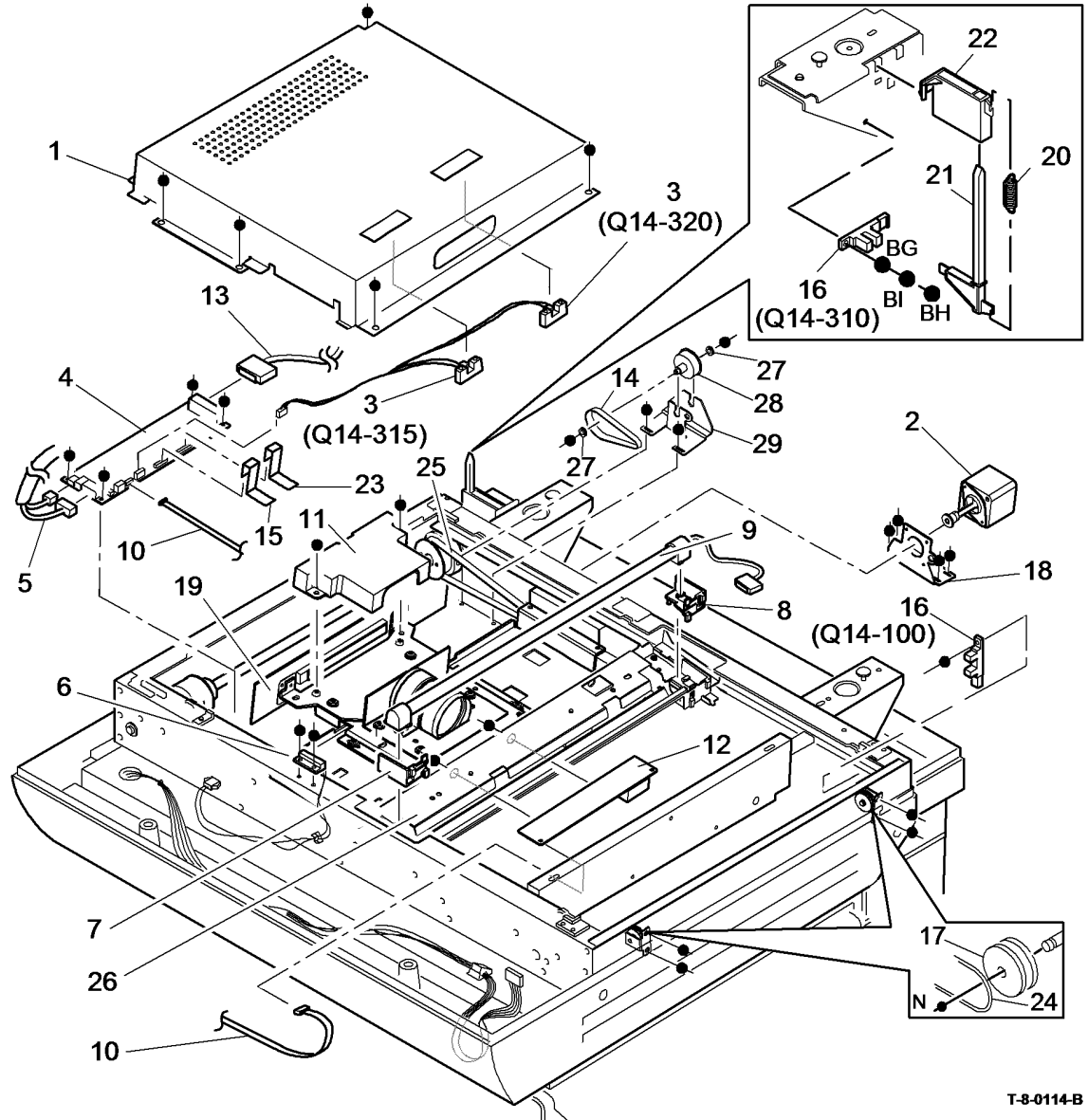
Item	Part	Description
1	062K28520	Scanner
2	-	Not used
3	-	Top cover (REP 14.14)
4	090E02590	CVT Glass (NOTE) (REP 14.6)
5	090K02451	Document glass assembly (NOTE) (REP 14.6)
6	-	Spacer (Not Spared) (REP 14.1)
7	-	Grommet (Not Spared)
8	848E57531	Base cover (REP 14.1)
9	-	Single board controller PWB module/UI harness (PJ103 & PJ104 & PJ130-PJ133 & PJ80)
10	016E18310	Top cover plug
11	-	Spacer (Not Spared)
12	032E20580	Rubber stop
13	032K04061	CVT Ramp assembly (REP 14.6)
14	-	Document glass securing bracket (P/O PL 14.10 Item 1)
15	-	Transit screw hole plug (P/O PL 14.10 Item 3)
16	-	Scanner frame securing bracket (Not Spared)

**NOTE:** Refer to ADJ 14.2 for the optics cleaning procedure.



# PL 14.15 Electrical Components (W/TAG 150)

Item	Part	Description
1.	-	PWB Cover (Not Spared)
2.	127K68200	Scan motor (REP 14.15)
3.	130E12310	Document size sensor 1 (Q14-315), Document size sensor 2 (Q14-320) (REP 14.20)
4.	960K59881	Scanner PWB (REP 14.19)
5.	962K89030	Single board controller PWB/DADH comms/scanner power harness (PJ920, PJ921)
6.	130E12300	DADH Closed switch (Q05-300) (REP 14.4)
7.	-	Front end block (Not Spared) (REP 14.9)
8.	-	Rear end block (Not Spared) (REP 14.9)
9.	-	Exposure lamp (P/O PL 14.15 Item 26) (REP 14.9)
10.	962K88980	Scan carriage ribbon harness (REP 14.18)
11.	-	CCD cover (Not Spared) (USSG)
12.	960K59870	Exposure lamp inverter PWB (REP 14.17)
13.	962K89020	Scanner daughter PWB/scanner PWB video PWB harness (PJ922)
14.	-	Scanner motor drive belt (P/O PL 31.12 Item 15) (REP 14.16)
15.	-	CCD PWB/Scanner PWB ribbon cable 1 (PJ931) (P/O PL 14.10 Item 1)
16.	130K75130	Scan carriage home sensor (Q14-100) (REP 14.7)/Input module angle sensor(Q14-310)(REP 14.8) (Q14-310)
17.	020K12510	Scan idler pulley (REP 14.10)
18.	030K79640	Scan motor bracket (REP 14.15)
19.	-	CCD PWB
20.	-	Actuator spring (Not Spared)
21.	110K14010	Input module angle sensor actuator (REP 14.8)
22.	-	Actuator support (Not Spared)
23.	-	CCD PWB/Scanner PWB ribbon cable 2 (PJ932) (P/O PL 14.10 Item 1)
24.	-	Scan cable (Not Spared) (REP 14.12)
25.	-	Scan carriage drive belt (P/O PL 31.12 Item 15) (REP 14.16)
26.	604K84690	LED scan carriage assembly (W/TAG 157)
-	-	Scan carriage assembly (Not Spared) (W/O TAG 157)
27.	013E43880	Bearing (REP 14.16)
28.	-	Intermediate pulley (REP 14.16)
29.	-	Intermediate pulley bracket (REP 14.16)



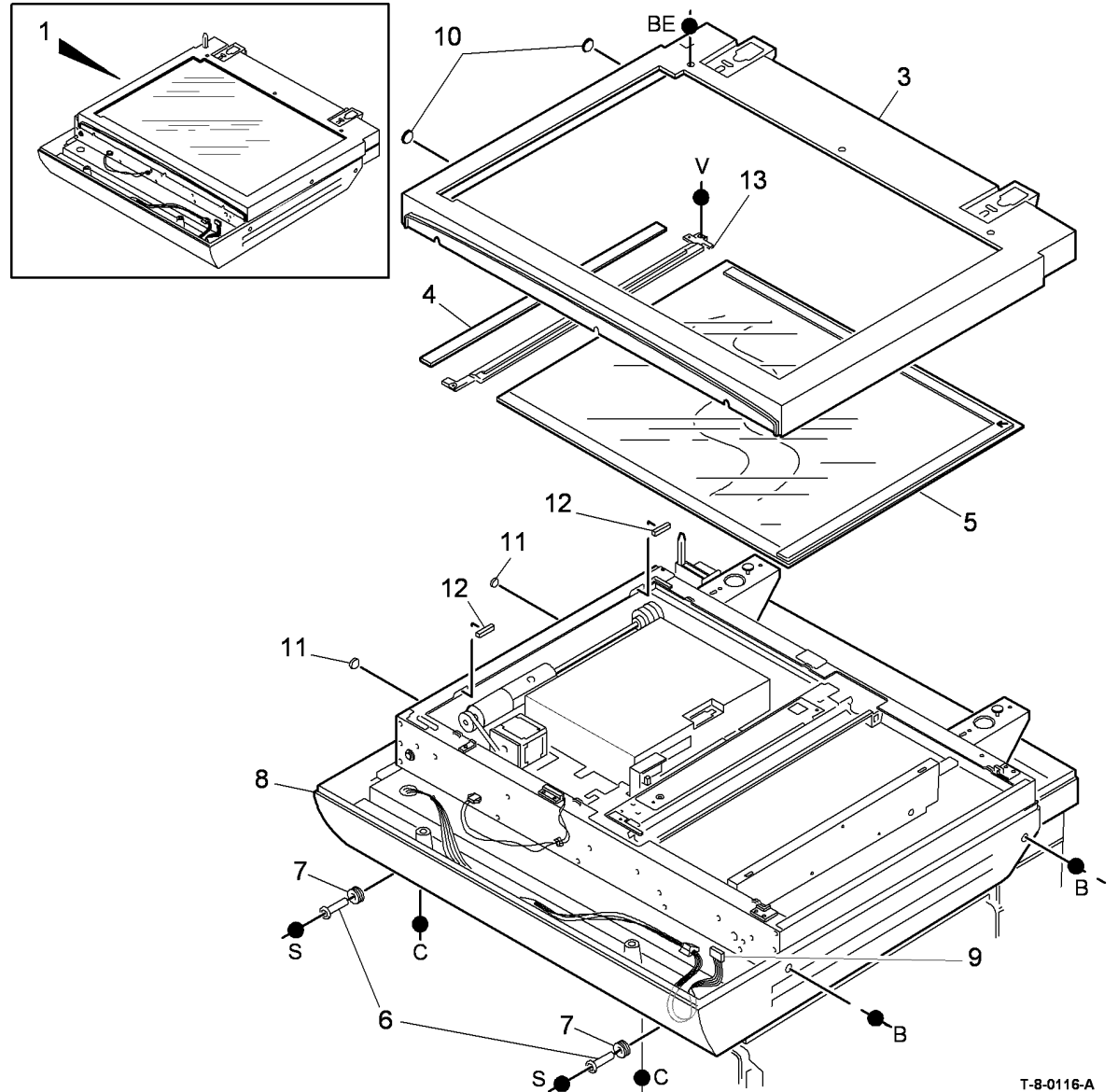
T-8-0114-B

**NOTE:** . Refer to ADJ 14.2 for the optics cleaning procedure.

# PL 14.20 Scanner Module, CVT/ Document Glass (W/O TAG 150)

Item	Part	Description
1	604K73130	Scanner (REP 14.1)
2	-	Not used
3	802K62500	Top cover (REP 14.14)
4	090E02500	CVT glass (28mm wide) (NOTE) (REP 14.6)
-	090E02590	CVT glass (31mm wide) (NOTE) (REP 14.6)
5	090K02451	Document glass (NOTE) (REP 14.6)
6	-	Spacer (Not Spared) (REP 14.1)
7	-	Grommet (Not Spared)
8	802E93182	Base cover (REP 14.1)
9	-	Single board controller PWB module/UI harness (PJ130-PJ133 & PJ104) (Not Spared)
10	016E18310	Top cover plug
11	-	Base cover plug (Not Spared)
12	032E20580	Rubber stop
13	032K04061	CVT Ramp assembly (REP 14.6)

**NOTE:** Refer to ADJ 14.1 for the optics cleaning procedure.

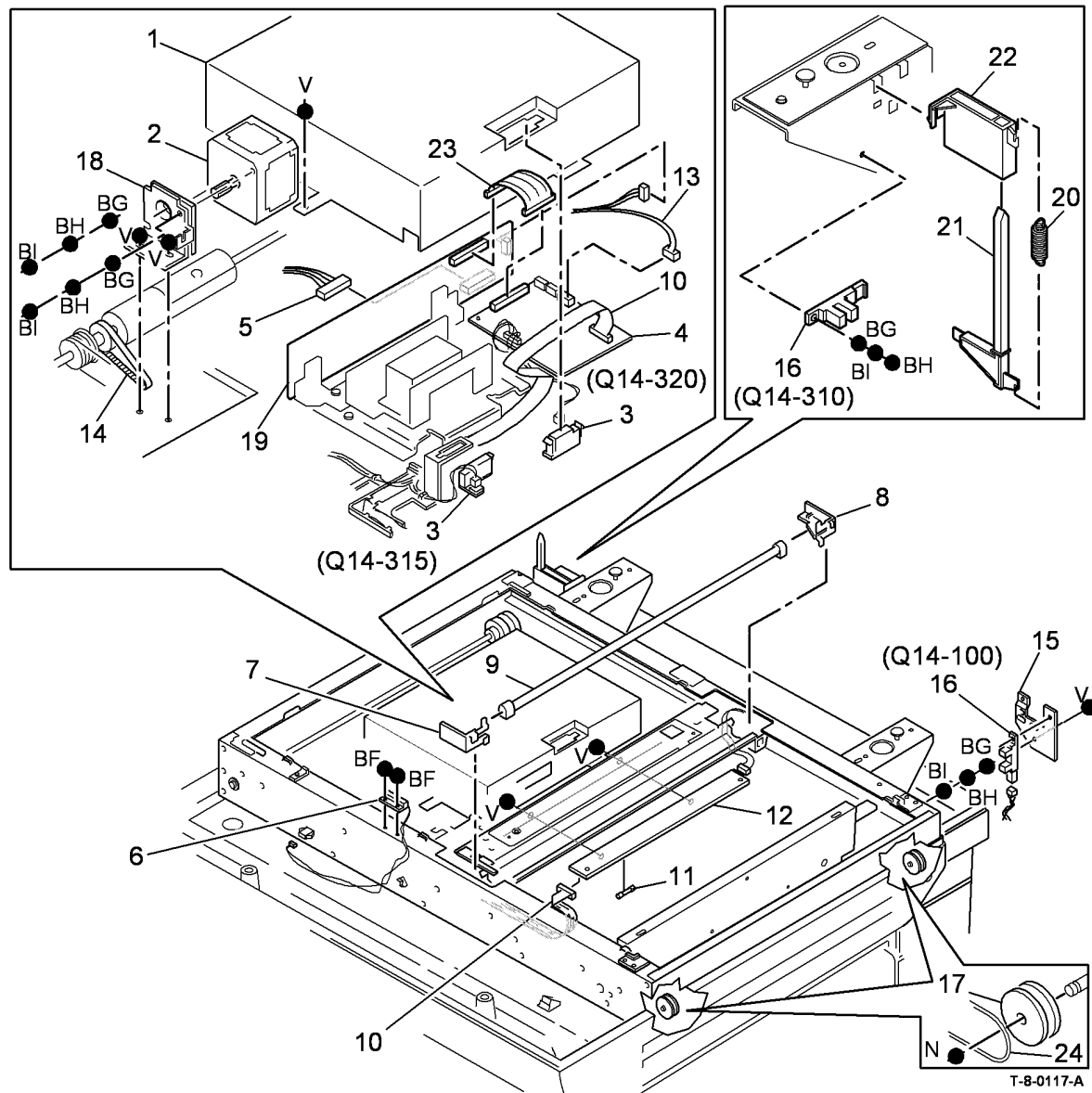




# PL 14.25 Electrical Components (W/O TAG 150)

Item	Part	Description
1	–	PWB Cover (Not Spared)
2	127K55800	Scan motor (REP 14.11)
3	130E12310	Document size sensor 1 (Q14-315), Document size sensor 2 (Q14-320) (REP 14.3)
4	960K65810	Scanner PWB (REP 14.5)
5	962K12190	Single board controller module/ CCD PWB PJ125-PJ110 harness
6	130E12300	DADH Closed switch (Q05-300) (REP 14.4)
7	030K79630	Front end block (REP 14.9)
8	030K79620	Rear end block (REP 14.9)
9	122K02290	Exposure lamp (REP 14.9)
10	962K12210	Lamp ribbon harness
11	960K34340	Fuse (USSG) (REP 14.2)
12	960K34320	Exposure lamp inverter PWB (REP 14.2)
13	152S06184	Single board controller module/ scanner driver PWB/CCD PWB (PJ455 & PJ450-PJ135) harness
14	023E25140	Scanner drive belt (P/O PL 14.20 Item 1) (REP 14.13)
15	–	Sensor bracket (Not Spared)
16	130K75130	Scan carriage home sensor (Q14-100) (REP 14.7)/Input module angle sensor (Q14-310) (REP 14.8)
17	020K12510	Scan idler pulley (REP 14.10)
18	030K79640	Scan motor bracket (REP 14.11)
19	–	CCD PWB (P/O PL 14.20 Item 1)
20	–	Actuator spring (Not Spared)
21	110K14010	Input module angle sensor actuator (REP 14.8)
22	–	Actuator support (Not Spared)
23	–	CCD PWB/Scanner PWB harness (P/O PL 14.20 Item 1)
24	–	Scan cable (Not Spared) (REP 14.12)

**NOTE:** Refer to ADJ 14.1 for the optics cleaning procedure.



T-8-0117-A

## PL 17.00 Secure Access Additions

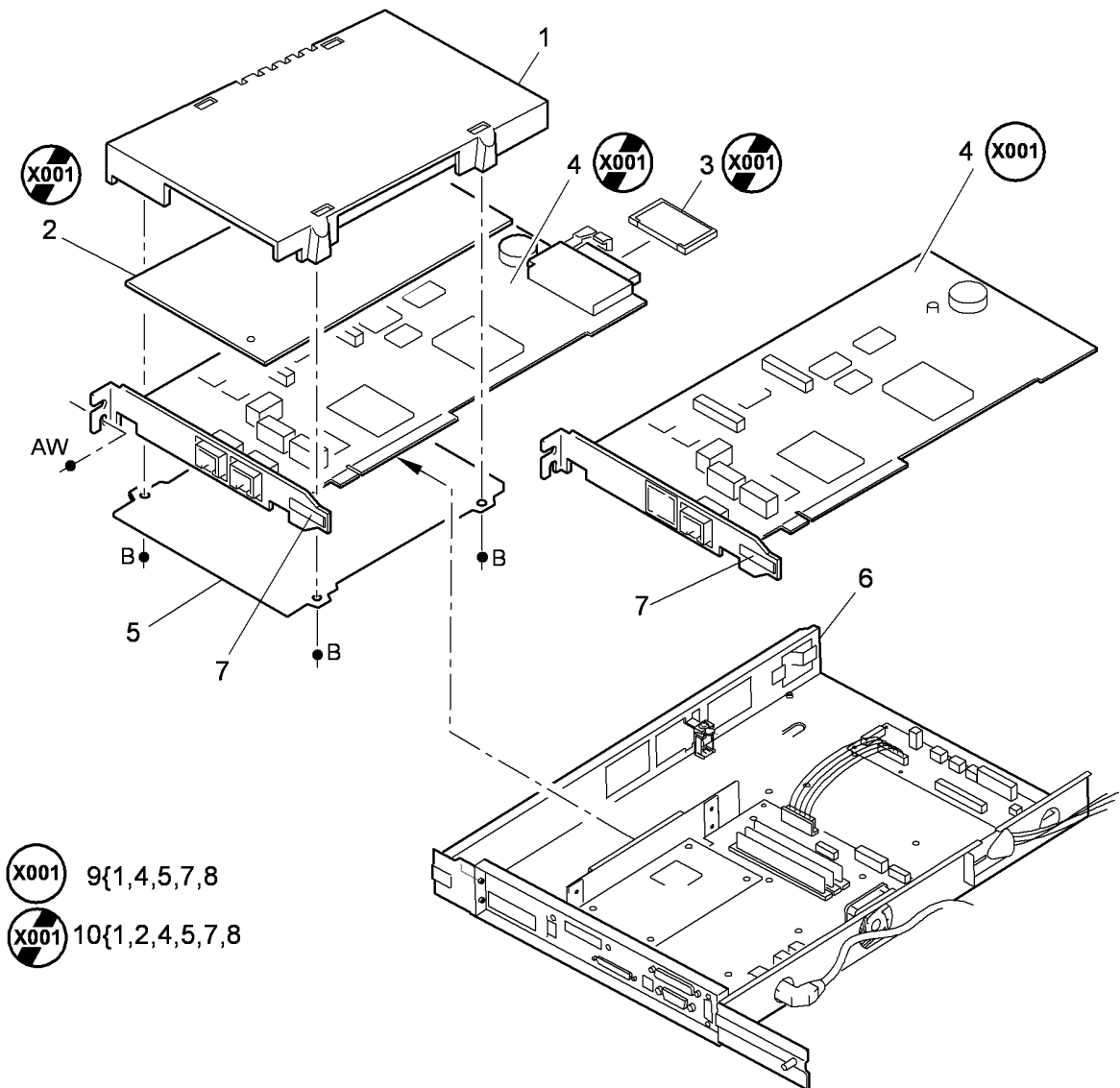
Item	Part	Description
1	101E28760	Secure access controller
2	105E24030	Xerox secure access power supply
3	146E02180	Xerox secure access card reader (HID)
4	–	Xerox secure access card reader (MAGSTRIPE) (Not Spared)
5	146E02190	Xerox secure access card reader (MIFARE)
6	146E02200	Xerox secure access card reader (LEGIC)
7	–	Xerox secure access power cord (NA) (Not Spared)
8	–	Xerox secure access power cord (EU) (Not Spared)
9	–	Xerox secure access power cord (UK) (Not Spared)

**NO EXPLODED  
VIEW PROVIDED**

T-8-0118-A

## PL 20.10 Fax PWBs

Item	Part	Description
1	802E60122	Safety cover
2	-	Extended fax PWB (see below for variants)
-	-	(R6/R7) (2 Line)(W/O TAG X-001)
-	-	(R8) (2 Line) (W/O TAG X-001)
-	-	(R8) (2 Line) South Africa only
-	960K52340	(R9) (2 Line) (W/O TAG X-001)
3	537E67440	Compact flash memory (512Mb) (W/O TAG X-001)
4	-	Embedded fax PWB (see below for variants)
-	-	(R7) (1 Line) (W/O TAG X-001)
-	-	(REP 3.2)
-	-	(R8) (1 Line) (W/O TAG X-001)
-	-	(REP 3.2)
-	960K52330	(R9) (1 Line) (W/O TAG X-001)
-	-	(REP 3.2)
-	-	(R8) (1 Line) South Africa only ((W/O TAG X-001) (REP 3.2)
-	960K58801	Embedded fax PWB (1 Line) (W/TAG X-001)
5	802E65251	Lower cover
6	-	Single board controller PWB module (REF: PL 3.24 Item 1)
7	-	Grounding strip (P/O PL 20.10 Item 4)
8	-	Telephone cable (not shown on illustration, see below for variants) (P/O PL 20.10 Item 9, PL 20.10 Item 10)
-	-	United Kingdom (USSG/XCL)
-	-	Germany
-	-	Italy
-	-	Belgium
-	-	Austria
-	-	France
-	-	Finland
-	-	Denmark
-	-	Netherlands
-	-	Norway
-	-	Portugal/Spain
-	-	Sweden
-	-	Switzerland
9	-	Line 1 fax kit (REF: PL 31.35 Item 1) (W/TAG X-001)
10	-	Line 2 fax kit (REF: PL 31.40 Item 1) (W/O TAG X-001)



**X001** 9{1,4,5,7,8}

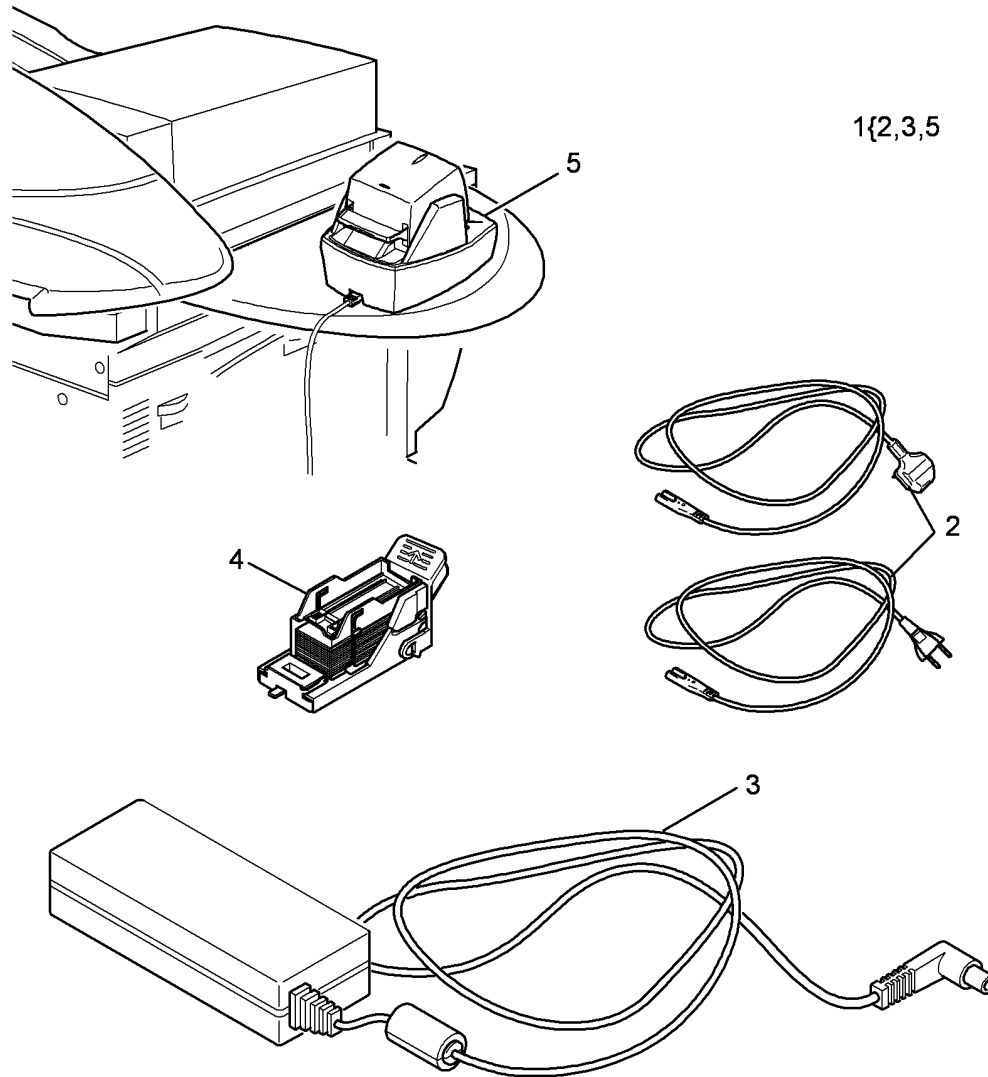
**X001** 10{1,2,4,5,7,8}

T-8-0119-A

## PL 25.10 Convenience Stapler

Item	Part	Description
1	-	Convenience stapler kit (REF: PL 31.11 Item 2) (NOTE)
2	-	Power cord (P/O PL 25.10 Item 1)
3	-	PSU (P/O PL 25.10 Item 1)
4	-	Staple cartridge (1 cartridge 5000 staples) (REF: PL 26.11 Item 1)
-	-	Staple cartridge refill (3 cartridges, 3 x 5000 staples) (REF: PL 26.11 Item 4)
5	-	Convenience stapler (P/O PL 25.10 Item 1) (XE)
-	-	Convenience stapler (USSG/XCL) (P/O PL 25.10 Item 1)

**NOTE:** The convenience stapler has no serviceable parts.



T-8-0120-A

## PL 26.10 Consumables and Tools (1 of 2)

Item	Part	Description
1	–	9 Way gender changer/Null modem adapter (Not Spared)
2	043P00048	Formula A cleaning fluid (WARNING)
3	600T02133	Line test tool
4	043P00045	Film remover (WARNING)
5	–	USB Cable (Not Spared)
6	–	Ethernet crossover cable (Not Spared)
7	600T02261	Finisher bypass connector
8	043E00550	Plastislip grease
9	043P00081	Lens and mirrors cleaner
10	099P03037	Disposable gloves (general protection) (Qty. 100) (WARNING)
11	108R00493	Staple cartridge (3 x 5000) (2K LCSS)
12	–	Serial cable (Not Spared)
13	035E56460	Wiper
14	082E02000	Test pattern (A3/11x17)
15	082E02010	Test pattern (A4)
16	082E02020	Test pattern (8.5x11)
17	082E08230	Test pattern (solid area density scale)
18	082P00448	Test pattern (visual scale)
19	008R90273	Antistatic fluid
20	070P00043	Molub grease 777
21	146E02700	USB Reader (HITAG)
22	008R12912	Staple cartridge (HVF) (1 x 5000)
23	600T91952	Mag seal repair tool
24	–	Not used
25	–	Compiler carriage support
26	108R00682	1K LCSS staple cartridge
27	–	1K LCSS staple refill (pack of 40)

**NO EXPLODED  
VIEW PROVIDED**



### **WARNING**

**Wear protective gloves, PL 26.10 Item 10 when using solvents and cleaning agents**

T-8-0121-A

## PL 26.11 Consumables and Tools (2 of 2)

Item	Part	Description
1	008R12964	Convenience stapler cartridge (1 cartridge 5000 staples)
2	006R01146	Black toner (Includes waste toner bottle) (REF: PL 9.15 Item 4) (65-90 ppm) (Pack of 2)
3	006R01046	Toner cartridge (2) pack (REF: PL 9.17 Item 4) (35-55 ppm)
4	008R12941	Convenience stapler cartridge refill (staples only - 3 x 5000 staples)
5	-	Handset tool (Not Spared)
6	600T02329	PFP stack height sensor & retard shield setting tool
7	600T02331	LVPS test box
8	070P00072	Molykote silicone dry lubricant
9	070E00460	Moovit oil

**NO EXPLODED  
VIEW PROVIDED**

T-8-0122-A

## PL 28.10 Covers

Item	Part	Description
1	–	DADH covers (REF: PL 5.10)
2	–	HCF covers (REF: PL 7.25) (W/O TAG 151)
–	–	HCF covers (REF: PL 7.26) (W/ TAG 151)
3	–	Main covers (REF: PL 8.10)
4	–	2K LCSS covers (REF: PL 11.2)
5	–	Not used
6	–	Not used
7	–	Scanner covers (W/TAG 150) (REF: PL 14.10)
8	–	1K LCSS covers (REF: PL 11.100)
9	–	Stand covers (REF: PL 7.40)
10	–	Scanner covers (W/O TAG 150) (REF: PL 14.20)
11	–	HVF covers (REF: PL 11.130)
12	–	Not used
13	–	Tray 5 covers (REF: PL 7.60)
14	–	Inserters covers (REF: PL 11.175)
15	–	Tri-folder covers (REF: PL 11.190)

**NO EXPLODED  
VIEW PROVIDED**

T-8-0123-A

## PL 31.10 Maintenance/Installation/ Removal Kits (1 of 5)

Item	Part	Description
1	097S04292	Copier to MFP conversion kit
2	–	Foreign interface kit
3	–	Vend adaptor kit (Not Spared)
4	–	Fax adapter kit (see below for variants)
–	604K67590	UK, Ireland, Spain, Portugal, Greece
–	604K67600	France, Netherlands, Belgium
–	604K67610	Germany, Austria, Italy, Switzerland
–	604K67620	Sweden, Norway, Finland, Denmark
5	–	Hole punch kit (see below for variants)
–	498K10260	2 hole punch kit (LCSS)(XE)
–	498K12090	2 hole punch kit (legal)(LCSS) (XE)
–	498K10270	3 hole punch kit LCSS (USSG/XCL)
–	498K10310	4 hole punch kit (Sweden)(LCSS) (XE)
–	498K10280	4 hole punch kit (LCSS) (XE)
–	498K11411	3 hole punch kit (HVF) (XE)
–	498K17900	4 hole punch kit (HVF) (XE)
–	498K17940	4 hole punch kit (HVF) (Sweden)
–	498K11400	2 hole punch kit (HVF) (XE)
6	604K67700	Seal replacement kit
7	–	Finishing devices (see below for variants)
–	–	1K LCSS (no hole punch) (P/O PL 11.100) (32-45 ppm)
–	–	2K LCSS (no hole punch) (REF: PL 11.2)
8	–	Tray 5 (P/O PL 7.60)
9	498K12130	Tray 5 paper feed kit (A3 SEF option)
10	498K12140	Tray 5 paper feed kit (A4 SEF option)
11	604K48370	CVT roll kit (grey) (REF: PL 5.25 Item 17)
12	604K54340	Lever arm CRU spares kit (REF: PL 5.17 Item 28) (W/TAG D-001)

**NOTE:** 497/8K part numbers should not be ordered by the CSE. 497/8K part numbers are customer install kits and are for reference only.

**NO EXPLODED  
VIEW PROVIDED**

T-8-0124-A



## PL 31.11 Maintenance/Installation/ Removal Kits (2 of 5)

Item	Part	Description
1	497K05240	Colour scanning enablement kit
2	498K08260	Convenience stapler kit (XE)
–	498K08250	Convenience stapler (USSG/XCL)
3	498K16091	Xerox copier assistant (XE)
–	498K13736	Xerox copier assistant (USSG/XCL)
4	604K73360	Short paper path kit (W/O fan) (W/ TAG 114)
–	604K73040	Short paper path kit with fan (W/O TAG 114)
5	604K92120	Rib protector kit
6	497K05760	Server Fax kit
7	497K05720	Network accounting
8	604K67570	Feedhead assembly kit (W/TAG D- 006)
9	–	Searchable file formats kit
10	497K13850	Paper tray security kit
11	049K00280	Tray 6 install kit
12	607K00010	Ros spares kit (35 ppm) (REF: PL 6.10 Item 4)
–	604K97840	ROS spares kit (REF: PL 6.10 Item 4) (40-55 ppm)
–	604K97880	ROS spares kit (REF: PL 6.10 Item 4) (65-90 ppm)
13	–	Image module spares kit (Not Spared)
14	604K73160	Inverter spares kit (32-55 ppm)
–	–	Inverter spares kit (65-87 ppm)
15	604K73230	HVF ejector assembly safety cover kit
16	604K48620	Tray 3 and 4 multifeed roll fix kit (rough tread rolls) (REF: PL 8.30 Item 20, PL 8.31 Item 10) (W/TAG 110)
17	604K48700	Paper tray lip kit (REF: PL 7.10 Item 24)
18	604K48150	Bin 1 tray kit (improved stacking) (REF: PL 11.2 Item 16, PL 11.100 Item 10) (W/TAG L-013)
19	130K75140	LCSS stapler edge registration kit

**NOTE:** 497/8K part numbers should not be ordered by the CSE. 497/8K part numbers are customer install kits and are for reference only.

**NO EXPLODED  
VIEW PROVIDED**

T-8-0125-A

## PL 31.12 Maintenance/Installation/ Removal Kits (3 of 5)

Item	Part	Description
1.	604K22250	Tray 4 adjustment kit
2.	604K18510	Developer latch repair kit (65-90 ppm) (REF: PL 9.15 Item 24)
–	604K30560	Developer latch repair kit (35-55 ppm) (REF: PL 9.17 Item 23)
3.	604K24570	Trickle outlet shutter kit (REF: PL 9.15 Item 19, PL 9.17 Item 19)
4.	604K24620	Tray 4 multi feed kit (REF: PL 7.15 Item 23)
5.	604K24650	Auger damper kit (REF: PL 4.10 Item 11, PL 4.15 Item 13)
6.	607K03190	HCF exit sensor and bracket kit
7.	604K41110	4B latch kit (REF: PL 10.25 Item 20)
8.	604K41120	Developer latch pin kit (REF: PL 9.20 Item 17, PL 9.22 Item 18)
9.	604K41341	Stapler traverse assembly kit (REF: PL 11.20 Item 1)
10.	604K41411	2K LCSS front door cover assembly kit
11.	604K73050	LCSS paddle spares kit (W/TAG F- 016)
12.	604K42020	BM back stop repair kit (REF: PL 11.164 Item 17)
13.	604K67240	Registration clutch kit (REF: PL 8.15 Item 7, PL 8.17 Item 7)
14.	604K42120	Crease roll repair kit (REF: PL 11.167 Item 25)
15.	604K73470	CCDS replacement drive belt kit (REF: PL 14.15 Item 14)
16.	604K96681	Tray 3 transport shaft kit
17.	604K42680	DADH feed bearing kit (REF: PL 5.15 Item 26)
18.	604K35340	Developer charge kit (REF: PL 9.17 Item 25)
19.	604K83690	Exit shaft kit
20.	604K96691	Feedhead assembly spares kit
21.	604K41610	Toner dispense module kit (35-55 ppm) (REF: PL 9.17 Item 1)
–	604K54040	Toner dispense module kit (65-90 ppm) (REF: PL 9.15 Item 18)
22.	604K41360	Developer spares kit (includes developer and developer module)(35- 55 ppm) (REF: PL 9.17 Item 26)
23.	604K41371	Developer spares kit (includes developer and developer module)(65- 90 ppm) (REF: PL 9.15 Item 26)
24.	604K54630	Rear gravity gate mylar kit (REF: PL 10.11 Item 16) (W/TAG 005)
25.	604K54010	Inverter transparency feed kit (REF: PL 10.12 Item 24) (W/TAG 004)

**NO EXPLODED  
VIEW PROVIDED**

T-8-0126-A

**NOTE:** . 497/8K part numbers should not be ordered by the CSE. 497/8K part numbers are customer install kits and are for reference only.

## PL 31.13 Maintenance/Installation/ Removal Kits (4 of 5)

Item	Part	Description
1.	019K06030	HCF Tray alignment clip kit (REF: PL 7.17 Item 14)
2.	604K35371	Fuser latch pin kit (REF: PL 10.8 Item 10, PL 10.10 Item 10)
3.	604K62080	DADH sensor replacement kit
4.	604K84840	Take away feed /idler roll kit
5.	497K06410	1GB memory kit
6.	604K83560	LCSS Diverter gate assembly spares kit
7.	–	Work shelf assembly kit (REF: PL 8.10 Item 11)
8.	604K16890	Out of toner sensor kit (REF: PL 9.15 Item 13, PL 9.17 Item 13)
9.	604K18182	Tray 3 & 4 mylar retainer clip kit (REF: PL 7.17 Item 6)
10.	604K53830	Hole punch field repair kit (REF: PL 11.6 Item 9) (W/TAG F-014)
11.	–	Punch sensor assembly kit (REF: PL 11.6 Item 14)
12.	604K24930	Developer/Drives interface kit (REF: PL 9.15 Item 23)
13.	801K20310	Separation strip kit (REF: PL 7.15 Item 19)
14.	604K83641	Feed/Nudger/Retard roll spares kit (W/TAG 151)
15.	604K53950	Tray 3 and 4 paper feed assembly kit (REF: PL 8.30 Item 1, PL 8.31 Item 1)
16.	–	1K LCSS mounting bracket repair kit (REF: PL 11.100 Item 5)
17.	848E17510	Cover infill kit (REF: PL 7.25 Item 10, PL 7.40 Item 11)
18.	604K54760	Envelope tray feeding kit (REF: PL 7.10)
19.	675K26824	OCT fingers kit (REF: PL 12.10 Item 3)
20.	675K53640	Tri-Folder install kit (REF: PL 11.193 Item 14)
21.	604K84020	Stack height sensor and shim kit
22.	604K48340	Fuser stripper finger kit (REF: PL 10.8 Item 4, PL 10.10 Item 4)
23.	604K84291	Hard disk drive spares kit
24.	–	Feed roll kit (Pack of 3) (REF: PL 8.45 Item 21)
25.	604K53940	XRU skids kit (REF: PL 9.20 Item 19)
26.	–	Replacement HDD kit (Not Spared)

**NO EXPLODED  
VIEW PROVIDED**

T-8-0127-A

**NOTE:** . 497/8K part numbers should not be ordered by the CSE. 497/8K part numbers are customer install kits and are for reference only.

## PL 31.14 Maintenance/Installation/ Removal Kits (5 of 5)

Item	Part	Description
1	604K53914	Inverter decurler kit (35-55 ppm) (REF: PL 10.20 Item 1) (W/TAG 046)
–	604K55013	Inverter decurler kit (65-90 ppm) (REF: PL 10.20 Item 1) (W/TAG 047)
2	498K17550	Foreign device interface kit
3	604K55120	Decurler soft roll repair kit (REF: PL 10.13 Item 9)
4	604K55050	Paper feed module frame repair kit (REF: PL 7.10) (W/TAG 101)
5	604K55500	Skew bypass tray spares kit (x2 spring) (REF: PL 7.30 Item 29) (W/ TAG 048)
6	–	Shim kit (REF: PL 5.17 Item 29) (W/ TAG D-003)
7	–	LCSS Hole Punch Repair Kit (REF: PL 11.6 Item 9)
8	604K55571	Drive roll repair kit (Pre-reg PL 8.15 Item 26, PL 8.17 Item 27) (Duplex PL 8.20 Item 17, PL 8.22 Item 16) (Inverter PL 10.14 Item 11) (SPP PL 10.25 Item 11) (W/TAG 051)
9	604K60701	DADH mylar guide kit (REF: PL 5.10 Item 17)
10	498K17546	CAC enablement kit (USSG/XCL)
11	604K73370	BM Diverter kit (XE)
12	146E02210	Magstripe USB reader
13	–	20A adaptor kit (605K17470)
14	–	Install kit (USSG/XCL) (35-55 ppm)
–	–	Install kit (USSG/XCL) (65-90 ppm)
–	–	Install kit (XE) (35-55 ppm)
–	–	Install kit (XE) (65-90 ppm)
15	604K55100	HCF Heater kit
16	604K84190	FAR HCF bowl curl kit
17	604K96670	Tray 3 sensor spares kit
18	604K94310	Tray 5 adjustable castor kit
19	604K95440	Idle gear shaft spare kit
20	604K73070	Paddle wheel shaft assembly kit (W/O TAG F-016)

**NOTE:** 497/8K part numbers should not be ordered by the CSE. 497/8K part numbers are customer install kits and are for reference only.

**NO EXPLODED  
VIEW PROVIDED**

T-8-0128-B

## PL 31.35 Line 1 Fax Kits

Item	Part	Description
1	–	Line 1 Fax Kits (see below for variants)
–	497K06330	United Kingdom, Spain, Greece, Ireland, Portugal
–	497K06340	Austria, Germany, Switzerland, Italy
–	497K06350	Netherlands, Belgium, France
–	497K06360	Sweden, Norway, Finland, Denmark
–	–	South Africa (Not Spared)
–	497K05671	USSG/XCL
–	497K05661	XE
–	497K11270	Brazil (USSG/XCL)

**NOTE:** 497/8K part numbers should not be ordered by the CSE. 497/8K part numbers are customer install kits and are for reference only.

**NO EXPLODED  
VIEW PROVIDED**

T-8-0133-A

## PL 31.40 Line 2 Fax Kits

Item	Part	Description
1	–	Line 2 Fax Kits (see below for variants)
–	497K06370	United Kingdom, Spain, Greece, Ireland, Portugal
–	497K06380	Austria, Germany, Switzerland, Italy
–	497K06390	Netherlands, Belgium, France
–	497K06400	Sweden, Norway, Finland, Denmark
–	497K07280	South Africa
–	497K05691	USSG/XCL
–	497K05681	XE

**NOTE:** 497/8K part numbers should not be ordered by the CSE. 497/8K part numbers are customer install kits and are for reference only.

**NO EXPLODED  
VIEW PROVIDED**

T-8-0134-A

## Common Hardware

Item	Part	Description			
A	826E33270	Screw M3x6 Taptite (Zinc finish)	AX	–	Screw M3x14 Machine
B	–	Screw M4x8 Taptite	AY	–	Screw M3x18 Self Tapping
C	153W42353	Screw M4x12 Self Tapping	AZ	–	Washer M4
D	–	Screw M3.9.5 Taptite	BA	–	Screw M4x16 Machine
E	–	Screw M3x8 Taptite	BB	–	Screw M4x5 Machine
F	–	Screw M3x7.5 Taptite	BC	–	Screw M3x10 Machine
G	–	Screw M4x12 Self Tapping	BD	–	Screw M3x6 Machine
H	–	Screw M3x4.5 Machine	BE	–	Screw M4x7.5 Machine
I	153W72553	Screw M4x16 Self Tapping	BF	–	Screw M3x5.5 Machine
J	–	Screw M3x14 Self Tapping (Countersunk)	BG	–	Washer M3
K	153W41553	Screw M3x16 Self Tapping	BH	–	Spring Washer M3
L	153W42253	Screw M4x10 Self Tapping	BI	–	Screw M3x6 Machine
M	354W20852	E-Clip M4	BJ	–	Screw M3x22 Self Tapping
N	354W20952	E-Clip M5	BK	–	Retaining Ring (Skiffy) M7
O	153W62353	Screw M4x12 Self Tapping	BL	354W00655	Circlip M10
P	153W72353	Screw M4x12 Taptite	BM	–	Screw M3x8 Machine
Q	–	Screw M4x11 Self Tapping	BN	–	Screw M4x8 Self Tapping
R	–	KL Clip M6	BO	158W27655	Screw M3x6 Taptite
S	–	Screw M4x30 Taptite	BP	–	Screw M3x4 Machine (Countersunk)
T	–	Screw M3x10 Self Tapping	BQ	–	Screw M3x16 Machine
U	–	Screw M3x10 Taptite	BR	–	Screw M3x9.5 Self Tapping
V	–	Screw M3x6 Taptite	BS	251W16355	Washer M4
W	–	Screw M3x16 Self Tapping	BT	158W35855	Screw M4x8 Self Tapping
X	–	Screw M3x6 Self Tapping	BU	153W17855	Screw M3x5.5 Self Tapping
Y	–	E-Clip M8	BV	–	Screw M4x7 Taptite
Z	354W26251	E-Clip M4	BW	158W27660	Screw M3x6 Self Tapping
AA	354W29251	E-Clip M7	BX	–	Screw M3x8 Self Tapping
AB	–	Screw M3x25 Self Tapping	BY	158W40459	Screw M4x8 Self Tapping
AC	112W25155	Screw M3x4 Taptite	BZ	–	Screw M4x16 Taptite
AD	354W21052	E-Clip M6	CA	153W71153	Screw M3x8 Self Tapping
AE	251W10655	Washer M8	CB	–	Screw M4x10 Self Tapping
AF	265W00650	Spring Washer M6	CC	158W20459	Screw M4x8 Self Tapping
AG	–	Screw M3.5x10 Self Tapping	CD	153W71253	Screw M3x10 Self Tapping
AH	–	Circlip M5	CE	–	Screw M3x12 Self Tapping
AI	–	Circlip M8	CF	158W35860	Screw M4x5 Taptite
AJ	259W30351	Star Washer M4	CG	–	Circlip M6
AK	–	Screw M4x9.5 Machine	CH	–	Screw M3x10 Machine
AL	–	Screw M5x18 Self Tapping	CI	113W35557	Screw M4x5 Machine
AM	–	Star Washer M3.5	CJ	–	Screw M3x11 Self Tapping
AN	–	Screw M3.5x5.5 Machine	CK	354W20652	E-clip M2.5
AO	–	Screw M3.5x6 Machine	CL	251W10556	Washer M5
AP	–	Screw M5x11 Taptite	CM	–	Screw M4x9 Self Tapping
AQ	–	Screw M3x8 Taptite	CN	–	Screw M3x14 Self Tapping
AR	–	Screw M4x8 Machine	CO	–	Screw M3x8 Self Tapping
AS	–	Screw M4x10 Self Tapping	CP	–	Screw M4x15 Taptite
AT	–	Screw M4x10 Self Tapping	CQ	–	Spring Washer M8
AU	–	Screw M3x5 Machine	CR	–	Screw M3x8 Self Tapping
AV	–	E-Clip M3.5	CS	–	Screw M4x8 Machine
AW	–	Screw M3x5.5 Taptite	CT	–	Screw M3x5.5 Machine
			CU	–	Screw M3x9 Self Tapping
			CV	–	Nut M3
			CW	–	Nut M3

CX	–	Screw M4x6 Machine
CY	–	Screw M4x11.5 Taptite
CZ	–	Screw M3x7.5 Taptite
DA	–	Screw M4x7 Self Tapping
DB	–	Screw M3x6 Self Tapping
DC	–	Screw M3x12 Self Tapping
DD	–	Screw M5x12 Self Tapping
DE	–	Circlip M7
DF	–	Screw M3x6 Machine
DG	–	Screw M3x7.5 Self Tapping
DH	–	Screw M4x7 Self Tapping
DI	–	Screw M4x34 Self Tapping
DJ	–	Screw M4x16 Self Tapping
DK	–	Screw M4x7 Self Tapping
DL	–	Screw M4x6 Taptite
DM	–	M3 Star Washer
DN	–	Screw M4x6 Machine
DO	–	Screw M3x6 Self Tapping
DP	–	M3 Nut (Washer Head)
DQ	–	Screw M4x11 Machine
DR	–	Washer M8 (Nylatron)
DS	–	Screw M3 x 8
DT	–	Screw M3x17 Taptite
DU	–	Screw M2.5x8 Taptite
DV	–	Screw M3.5x10 Torx
DW	–	Screw M3.5x10 Taptite
EA	–	Screw M4x6 Machine
EB	–	Screw M4x10 Machine
EC	–	Screw M4x8 Machine
EF	–	Screw M5x6 machine
EH	–	Pivot pin M4X10 Hex Head
EI	013E25790	Nylon bearing
EJ	013E25800	6mm x 10mm x 13mm bush (bronze)
ET	–	M4 x 5.5 Screw/Machine/Pozi/Wash Hd Brass
EU	658W28660	M3x16 Screw/Machine/Pozi/Pan Hd
EV	–	KL Clip M4
ZZ	354W21251	E-clip M3



# 6 General Procedures/Information

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# GP 1 Diagnostics Entry, Facilities and Exit

## Purpose

This procedure describes the following items:

- [How to Enter Diagnostics.](#)
- [Diagnostic Menu.](#)
- [How to Exit From Diagnostics.](#)
- [How to Enter the Service Copy Mode.](#)

**NOTE:** When the diagnostic mode is entered, all existing copy jobs are cancelled and an 'Offline' screen message is displayed. When exiting the diagnostics mode an 'Online' screen message is displayed.

To increase diagnostics security, refer to [GP 9](#).

## Procedure

### How to Enter Diagnostics

1. Switch on the machine, [GP 14](#).
2. When the machine is ready, press and hold the # key, then the Log In/Out key.
3. Enter the PIN 1934. Touch the Enter button on the UI.

**NOTE:** Press the C Key to clear an incorrect entry. Three incorrect entries cause the entry screen to lock for three minutes.

4. If secure diagnostics is enabled, a second PIN is required to enter Diagnostic Routines. Refer to [GP 9](#).
5. Select the correct tab from the Diagnostic screen, refer to [Table 1](#).

### Diagnostic Menu

The Diagnostic Routines screen gives access to the diagnostic menu, refer to [Table 1](#). The diagnostic routines available are given below:

Copier routines:

- [dC131](#) NVM Read/Write
- [dC132](#) NVM Initialization - Copier.
- [dC305](#) UI Test.
- [dC330](#) Component Control.
- [dC604](#) Registration Setup.
- [dC640](#) Video Path Diagnostics.
- [dC905](#) TC Sensor Calibration.

Network routines:

- [dC132](#) NVM Initialization - Network
- [dC312](#) Echo Test.
- [dC314](#) Network Connectivity Tests.

Other routines:

- [dC001](#) Reset Auditron Master Pin
- [dC104](#) Modal Usage Counters.
- [dC111](#) Tag Matrix.
- [dC606](#) Internal Print Test Patterns.

Fax routines:

- [dC109](#) Protocol Report.
- [dC131](#) NVM Read / Write.
- [dC132](#) NVM Initialization.
- [dC330](#) Component Control.

### How to Exit From Diagnostics

1. Touch the Exit button to exit from the dC procedures.
2. Touch the Call Closeout button to exit diagnostics.
3. When the Call Closeout window is displayed, the following options are available:
  - Reset All Counters. The default is No. If the Yes button is touched, the following counters are reset:
    - Faults.
    - Last 40 faults.
    - Total Images made after the last service call.
  - Reboot copier. The default is Yes. The single board controller PWB, IOT, scanner, GUI, DADH, tray 1 and 2 assembly, HCF and Finisher are rebooted. Touch the No button if machine reboot is not needed.

**NOTE:** If the machine is not rebooted, the exit time from diagnostics is decreased.

4. Touch the Closeout button to complete the exit procedure.

### How to Enter the Service Copy Mode

The Service Copy Mode allows the engineer to make copies when the Auditron, Foreign Interface or Job Based Accounting are enabled.

1. Press and hold the # button, then the Log In/Out key.
2. Enter the Service Copy Mode, PIN 4391.
3. Select the Enter button on the UI.
4. To exit, press and hold the # button, then the Log In/Out key.

Table 1 Diagnostic screen menu

1st Level	2nd Level	3rd Level	4th Level	5th Level
Service Info GP 3	Software Versions	-	-	<b>NOTE:</b> Only the categories for the installed options are displayed.
-	Usage Counters	Display Current Usage Counters	-	-
-	Machine Serial No.:	-	-	-
-	Images Since Last Call:	-	-	-
-	Network IP Address:	Full Network IP Address value:	-	-
Fault History GP 2	Fault Log	Erase History	-	-
-	Fault Counters	Fault Chain	01 Standby Power	-
-	-	-	02 Mode Selection UI	-
-	-	-	03 Machine Run Control	-
-	-	-	04 Start Print Power	-
-	-	-	05 Document Transport	-
-	-	-	06 ROS	-
-	-	-	07 Paper Supply	-
-	-	-	08 Paper Feed and Transports	-
-	-	-	09 Xerographics	-
-	-	-	10 Copy Transports	-
-	-	-	11 Sorter/Mailbox	-
-	-	-	12 Finisher/DFA	-
-	-	-	13 Transition Module	-
-	-	-	14 RIS	-
-	-	-	15 IPS1	-
-	-	-	16 Network Controller	-
-	-	-	17 Disk Operation	-
-	-	-	18 Connectivity	-
-	-	-	19 Video Image Manipulation	-
-	-	-	20 Fax	-
-	-	-	21 RDT	-
-	-	-	22 Main Controller Module	-
Diagnostic Routines	Copier Routines	dC131 NVM Read/Write	01 Standby Power	-
-	-	-	02 Mode Selection UI	-
-	-	-	03 Machine Run Control	-
-	-	<b>NOTE:</b> Refer to GP 4 Machine Software.	05 Document Transport	-
-	-	-	06 ROS	-
-	-	-	07 Paper Supply	-
-	-	-	08 Paper Feed/Trans	-
-	-	-	09 Xerographics	-
-	-	-	10 Copy Trans/Fusing	-
-	-	-	12 Finisher/DFA	-
-	-	-	14 RIS	-
-	-	-	15 Image Process Sys	-
-	-	-	17 Disk Operation	-
-	-	-	19 Video Image Manip	-
-	-	dC132 NVM Initialization - Copier...	All Copier NVM	-

Table 1 Diagnostic screen menu

1st Level	2nd Level	3rd Level	4th Level	5th Level
-	-	<b>NOTE:</b> Refer to <i>GP 4 Machine Software</i> .	Machine Variable NVM	-
-	-	-	SA/KO Dust Off	-
-	-	-	System Counters Dust Off	-
-	-	dC305 UI Test...	User Interface Button Test	-
-	-	-	Audio Tone Test	-
-	-	-	LED Indicator Test	-
-	-	-	Touch Area Test	-
-	-	-	Display Pixel Test	-
-	-	-	Video Memory Test	-
-	-	-	Communications Self Test	-
-	-	-	Reset User Interface	-
-	-	-	Application Checksum Verification	-
-	-	dC330 Component Control...	-	-
-	-	dC604 Registration Setup...	IOT Registration Side 1	-
-	-	-	IOT Registration Side 2	-
-	-	-	Scanner Registration	-
-	-	-	Document Handler Registration	-
-	-	dC640 Video Path Diagnostics...	Scanner Video Test	-
-	-	-	Network Controller/SIP Test	-
-	-	dC905 TC Sensor Calibration...	Start / Stop	-
-	Network Routines	dC132 NVM Initialization - Network	All Network NVM	-
-	-	-	Variable NVM	-
-	-	-	Configuration NVM	-
-	-	dC312 Echo Test	TCP/IP	Internal. - Tests internal IP stack and hosts file.
-	-	-	-	Network. - Tests the Network to find other IP hosts.
-	-	-	Novell	Internal. - Tests the internal Novell stack and driver.
-	-	-	-	Network. - Tests the Network to find the other IPX devices.
-	-	-	NetBIOS/NetBEUI	Network. - Tests the Network to find the other NetBIOS devices.
-	-	-	AppleTalk	Network. - Tests the Network to find the other AppleTalk devices.
-	-	-	Internal TCP/IP	-
-	-	dC314 Network Connectivity Test...	TCP/IP	-
-	-	-	Novell or IPX	-
-	-	-	NetBIOS/NetBEUI	-
-	-	-	AppleTalk	-
-	-	dC001 Reset Auditron Master Pin	-	-
-	Other Routines	dC104 Modal Usage	-	-
-	-	dC111 Tag Matrix...	-	-
-	-	dC606 Print Test Patterns...	-	-
-	Fax Routines	dC109 Protocol Report	-	-
-	-	dC131 NVM Read/Write	-	-
-	-	dC132 NVM Initialization	-	-
-	-	dC330 Component Control	-	-

## GP 2 Fault Codes and History Files

### Purpose

To explain the fault code structure and describe fault history contents.

### Description

- To access some history files from the UI, refer to [Machine Status Button Fault History](#).
- To view all the machine fault history, clear the last 40 faults, or reset each of the fault counters, refer to [Diagnostics Fault History](#).
- For information on fault codes, refer to [Function, Fault, Component and Status Codes](#).
- For information on status codes, refer to [OF4 Status Codes and Messages RAP](#).

### Procedure

- Enter diagnostics, [GP 1](#).
- Select 'Fault History'.
- Select 'Fault Log' or 'Fault Counters' button as appropriate and follow the on screen instructions.

### Function, Fault, Component and Status Codes

Refer to:

- [Table 1](#) Function and fault code prefixes. Also known as the chain code.
- [Table 2](#) Fault and control code suffixes. Also known as the link code.
- [Table 3](#) Finisher fault code and status code suffixes. Also known as the extension code.

For example. Displayed code 07-345 - Tray 1 Out of Service:

- 07 - The fault is located in the function chain 'Paper supply', [Table 1](#).
- 345 - Because this starts with 3, it is a 'Controls' code, [Table 2](#). The 4 and the 5 are sequence numbers and have no other significance.

**NOTE:** Where possible, the component related fault codes are the same as the component control codes.

**Table 1 Function and fault code prefixes**

Chain Code	Function
01	Standby power
02	User interface mode selection
03	Machine run control
04	Start print power
05	Document transport
06	Raster output scanner (ROS)
07	Paper supply
08	Paper feed and transports
09	Xerographic
10	Fusing
11	Finisher
12	Offsetting catch tray

**Table 1 Function and fault code prefixes**

Chain Code	Function
14	Raster input scanner (RIS)
15	Image Processing System (IPS1)
16	Network controller
19	Video image manipulation
20	Facsimile (FAX)
22	Main controller module

-

**Table 2 Fault and control code suffixes**

Link Code	Description
000 to 099	Output
100 to 199	Jams
200 to 299	System timing
300 to 399	Controls
400 to 499	Spare or overflow
500 to 599	Status codes
600 to 699	Xerographic copy/print quality
700 to 799	Non-declared defects
800 to 899	Optional use
900 to 999	Operator messages

**Table 3 Finisher fault code and status code extensions**

Suffix No.	Finisher Identifier
65	OCT
110	2K LCSS
120	1K LCSS
171	HVF
172	HVF BM
173	HVF BM + tri-fold
174	HVF BM + inserter
175	HVF BM + tri-fold
176	HVF BM + tri-fold + inserter

**NOTE:** The finisher status code extensions are not normally visible. Throughout this manual, the code extension 171 is used for all HVF variants.

## Machine Status Button Fault History

The most recent fault and status codes can be displayed on the UI by pressing the 'Machine Status' button. Touch the 'Faults' tab on the UI, then touch, as appropriate:

- All Faults.
- Active Messages - status codes and a status message.
- Event Log.

## Diagnostics Fault History

### Description

The diagnostics Fault History window contains two options:

1. Last 40 faults - Displays the last 40 faults in time or code order. Displays a selected fault in detail. Permits deletion of the entire history file.
2. Fault Counters - Displays the title buttons for the faults separated into chains. Selection of a chain will display the fault detail.

**NOTE:** *Categories that do not exist on the machine will not be displayed.*

When a paper jams fault chain is selected and the OK button is touched, the details will be shown for the selected chain. A 'Rate' button is displayed. Touch the 'Rate' button to show the jam rate per million sheets fed (fault counter x 1 000 000 divided by sheets fed).

## GP 3 Service Information

### Purpose

To provide machine hardware and software information.

### Service Information From The Diagnostic Screen

Enter Diagnostics, [GP 1](#), select the Service Information tab. This gives the following options:

- Machine Serial Number. See [Machine Serial Number](#)
- Images Since Last Call
- Network IP Address
- HFSI
- Software Versions
  - System Set
  - Software Upgrade
  - SIP Application
  - SIP IPS
  - SIP IPP
  - UBOOT
  - Operating System
  - Network Controller
  - GUI Application
  - DUI H8
  - Document Handler Application
  - Embedded Fax
  - Embedded Fax Boot Code
  - Finisher Application
  - Image Output Terminal Bootstrap
  - Image Output Terminal Bootloader
  - Image Output Terminal Application
  - Scanner Application
  - Trays 3 and 4
  - PFM
  - Booklet Maker Application
  - Booklet Maker Bootcode
- Usage Counters

## Service Information From The UI Machine Information Tab

Press the machine status key to the left of the UI to display the machine information tab. This gives the following options:

- General Information
  - Customer Support
  - Supplies Number
  - Machine Serial Number. Refer to [Machine Serial Number](#).
  - System Software Version
  - Fax Line ID's
  - Total Impressions
- Paper Tray Status
- Information Pages
- Print Reports (will be greyed out on a copier only machine)
- Machine Hardware Options
  - Paper Supply
  - Finisher
  - Pre-collation RAM
  - Image Disk
  - Fax
  - Fax N V Memory
  - Foreign Interface Device
  - Network Controller (will not be present on a copier only machine)
  - Network Controller RAM
  - USB Printer Port
  - Image Processing Card (Not Present)
  - Tray 6 (Inserter)
  - Staple Capacity
- Machine Software Versions
  - Scanner and Image Processor
  - Image Output Terminal
  - User Interface
  - Network Controller
  - Document Feeder
  - Tray 5
  - Fax
  - Finisher

## Machine Serial Number

The machine serial number is also on the machine TAG label. The serial number for the US markets is in the format:

XXX ##### #. Where XXX is the product code (see [Product Code](#)). ##### is the serial number. # is the model code.

The serial number for the XE markets is in the format: MMM#####C. MMM is the manufacturing location code, ##### is the serial number and C is the check digit, for example 2327020103.

### Product Code

#### Primary Build Machines

Primary build machines are supplied as WorkCentres. Configuration changes to faster speeds and output modules are carried out as secondary build upgrades.

#### Malaysia built machines:

- XEE: 35 ppm, DADH, Stand, Mono Scanner, (60Hz).
- XEF: 35 ppm, DADH, HCF, Color Scanner, (60Hz).
- XEG: 35 ppm, DADH, HCF, Mono Scanner, (60Hz).
- XEH: 55 ppm, DADH, HCF, Color Scanner, (60Hz).
- XEK: 55 ppm, DADH, HCF, Mono Scanner, (60Hz).
- XEL: 65 ppm, DADH, HCF, Color Scanner, (60Hz).
- XGB: 35 ppm, Platen, Stand, Mono Scanner, (60Hz).
- XGD: 55 ppm, DADH, Stand, Mono Scanner, (60Hz).
- XDX: 35 ppm, DADH, Stand, Mono Scanner, (50Hz).
- XDY: 35 ppm, DADH, HCF, Mono Scanner, (50Hz).
- XEA: 35 ppm, DADH, HCF, Color Scanner, (50Hz).
- XEB: 45 ppm, DADH, HCF, Mono Scanner, (50Hz).
- XEC: 45 ppm, DADH, HCF, Color Scanner, (50Hz).
- XED: 65 ppm, DADH, HCF, Mono/Color Scanner, (50Hz).
- XGA: 35 ppm, Platen, Stand, Mono Scanner, (50Hz).
- XGC: 45 ppm, DADH, Stand, Mono Scanner, (50Hz).

#### Singapore built machines:

- XEEN: 35 ppm, DADH, Stand, Mono Scanner, (60Hz).
- XEFN: 35 ppm, DADH, HCF, Color Scanner, (60Hz).
- XEGN: 35 ppm, DADH, HCF, Mono Scanner, (60Hz).
- XEHN: 55 ppm, DADH, HCF, Color Scanner, (60Hz).
- XEKN: 55 ppm, DADH, HCF, Mono Scanner, (60Hz).
- XELN: 65 ppm, DADH, HCF, Mono/Color Scanner, (60Hz).
- XGDN: 55 ppm, DADH, Stand, Mono Scanner, (60Hz).

#### Secondary Build Upgrades

- HLX: 2K LCSS
- HLB: 1K LCSS
- YFV: HVF
- YFW: HVF BM
- YFY: Inserter
- YGD: Tri-folder
- BVU: Tray 5



## GP 4 Machine Software

### Purpose

To provide machine software information and explain the software loading procedures.

### Description

Software sets are compilations of the various software modules and together with a SCD (software compatibility database) are bundled into a DLM file.

Refer to the following items for additional information about machine software:

- [Modules](#)
- [Software Compatibility Database \(SCD\)](#)
- [Common Upgrade Behavior](#)
- [Software Loading Procedures](#)
- [Normal Software Loading Procedure](#)
- [AltBoot Software Loading Procedure](#)
- [Forced AltBoot Software Loading Procedure](#)

### Modules

A software module is defined as a programmable piece of software existing as a file in its own right. Software modules reside on hardware modules.

The following hardware modules contain firmware and cannot have software upgrades loaded:

- Scanner (W/O TAG 150).
- Paper feed module.
- High capacity feeder.

**NOTE:** The software for the scanner (W/O TAG 150), paper feed module or high capacity feeder can only be upgraded by installing a newer version of the relevant PWB on each hardware module.

### Software Compatibility Database (SCD)

The SCD is used to describe the machine system software.

The SCD comprises of the system software version in the format WorkCentre\_5735-5790\_system-sw#(PPP).(MMM).(YYY).(DDD)(RR)#.dlm and a list of software versions for the different modules.

The description of the system software file name is:

- PPP - is the platform identifier.
- MMM - is the machine identifier.
- YYY - is the year of release.
- DDD - is the day, in the year, of release.
- RR - is the daily revision number.

**NOTE:** The system software version is displayed on the UI under Machine Details and on the Service Info screen in service mode.

The primary function of an SCD is to ensure that all software on the machine is compatible.

### Common Upgrade Behavior

A software upgrade is requested if a new hardware module is installed which has an earlier or later software version.

When an upgrade has been initiated the machine will reboot with all modules in upgrade mode. Progress and errors are displayed on the UI touch screen. When the upgrade is complete, the machine will reboot.

When a machine is switched on, the single board controller PWB module compares its SCD with the software in the hardware modules. If necessary, a software upgrade or downgrade is instigated by the single board controller PWB module.

**NOTE:** If a component is installed that has a later version of software than the software set on the single board controller PWB module, at machine startup the software on the new component is downgraded.

The SCD is updated on successful completion of the upgrade.

### Software Loading Procedures

Loading of machine software can be initiated either;

- locally from a PWS or USB Flash Drive
- remotely via a network connection

There are various methods of loading the machine software for the WC5790F machines. Refer to [Table 1](#) to select the appropriate procedure.

**NOTE:** The [Software Loading From a USB Flash Drive](#) procedure can only be used to upgrade machine software to a higher version. The procedure will fail if an attempt is made to install machine software of the same version to that currently loaded on a WC5790F machine. If it is necessary to reload machine software of the same version via a USB Flash Drive the [AltBoot Software Loading Procedure](#) must be used.

Table 1 Software loading procedures

Software upgrading procedure type	Suitable for MFD configured machines	Suitable for copier only configured machines	Software upgrade application
<a href="#">Software Loading Via the Customers Network</a>	Yes	No	Use on a good working machine.
<a href="#">Software Loading From the PWS</a>	Yes	No	Use on a good working machine.
<a href="#">Software Loading From a USB Flash Drive</a>	Yes	No	Use to only upgrade software on a good working machine. See above Note.
<a href="#">PWS Altboot Procedure</a>	Yes	No	Use as directed on a faulty machine.

**Table 1 Software loading procedures**

Software upgrading procedure type	Suitable for MFD configured machines	Suitable for copier only configured machines	Software upgrade application
USB AltBoot Procedure	Yes	No	Use as directed on a faulty machine.
USB Forced AltBoot Procedure	Yes	Yes	Use as directed on a faulty machine.
PWS Forced Altboot Procedure	Yes	Yes	Use as directed on a faulty machine.

## Normal Software Loading Procedure

Use this procedure to load software onto a good, working machine.

**NOTE:** Copier only machines can not be upgraded using this procedure. Use the *Forced Alt-Boot Software Loading Procedure* to upgrade copier only machines. To identify a copier only machine, refer to *GP 30 Copier Only Machine Identification*.

### Initial Requirements

- Before software is loaded, ensure that the machine is in a fully operational condition. Any active faults or jams must be resolved before loading software.

**NOTE:** The procedure will take approximately 15 minutes.

- If the software loading procedure fails, go to *OF5 Boot Up Failure RAP*.

### Procedure

There are three methods to load software, go to the relevant procedure:

- [Software Loading Via the Customers Network](#).
- [Software Loading From the PWS](#).
- [Software Loading From a USB Flash Drive](#)

### Software Loading Via the Customers Network

The software is loaded via the customers network. As the software loading instructions are subject to change, a read me file is available at the same location as the software. Refer to the read me file for the software loading procedure.

The progress of the software loading procedure is displayed on the UI. For more information, refer to [Software Loading Progress](#).

If the machine does not go into the software loading procedure, check the following:

- The relevant cabling to the machine.
- The functionality of the PC being used to perform the procedure.

### Software Loading From the PWS

Perform the following:

- Print a configuration report.
- Set the proxy server setting on the PWS. Perform the following:
  - Open Start / Control Panel / Network Connections/Local Area Connections.
  - Open Local Area Connection.

- In the General tab, highlight the Internet Protocol (TCP / IP) icon.
- Click on the Properties button.
- Select Use the following IP address.

**NOTE:** Before changing the proxy server settings, record the original IP address and Subnet mask. The original settings are reset at the end of this procedure.

- Refer to the configuration report for IP address of the machine. Set the IP address of the PWS one number higher than the machine. For example, if the IP address of the machine is 192.168.196.112, set the IP address of the PWS to 192.168.196.113.
- Refer to the configuration report for Subnet mask of the machine. Set the Subnet mask of the PWS to the same as the Subnet mask of the machine.

**NOTE:** A default gateway setting is not required.

- Click on OK to close the properties dialog box.
  - Click on Close to close the Local Area Connection Properties dialog box.
  - If any settings have been changed, reboot the PWS.
- Switch on the machine, *GP 14*.
  - Disconnect the ethernet cable from the machine.
  - Connect the ethernet crossover cable, *PL 26.10 Item 6* between the machine and the PWS.
- NOTE:** The machine has a network 802.1x Authentication option. If this option is enabled the PWS will not connect to the machine. To make a successful connection, press the Machine Status button, select Tools / Network Settings / 802.1X / Disable.
- If the web browser on the PWS is set to use a proxy server, it will not connect to the machines web page. Perform the following:
    - Open the web browser on the PWS.
    - Select Tools, then select Internet Options.
    - Select the Connections tab.
    - Click on the LAN settings button. The LAN settings dialog box will now be displayed.
    - The 'Use a proxy server for your LAN' box should not be checked.
  - Open the web browser. Enter the machines IP address in the web browsers Address field, then press the enter key. The machines web page will open.
- NOTE:** Refer to the configuration report for the machines IP address.
- In the machines web page, click on the Properties tab.
  - Login as the administrator, i.e. Login: Admin. Password: 1111 (default).
  - Open the General Setup folder, then the Machine Software folder.
  - Select Manual Upgrade.
- NOTE:** If necessary, enable manual software upgrades.
- Click the browse button in the middle of the screen.
  - Browse to the correct location of the DLM file, then click open.
  - Click on the Install Software button.
  - The DLM is displayed in the machines print queue. The upgrade begins in approximately 10 minutes. The progress of the software loading procedure will be displayed on the UI. For more information, refer to [Software Loading Progress](#).

16. When the upgrade has completed, the machine will reboot automatically.

**NOTE:** When the machine reboots, the connection to the machines web page is lost.

17. After the machine has rebooted, a configuration report will be printed. Check the software version against the software version in the machine details screen on the user interface.
18. Compare the configuration reports. Ensure that the configuration report generated after the upgrade shows the same machine configuration as before the upgrade.
19. If the proxy server setting on the PWS was changed, return the setting to the original value.
20. Connect the customers network cable to the machine. Switch off the machine, then switch on the machine, GP 14.

#### Software Loading From a USB Flash Drive

**NOTE:** The *Software Loading From a USB Flash Drive* procedure can only be used to upgrade machine software to a higher version. The procedure will fail if an attempt is made to install machine software of the same version to that currently loaded on a WC5790F machine. If it is necessary to reload machine software of the same version via a USB Flash Drive the *AltBoot Software Loading Procedure* must be used.

Perform the following:

1. Create a top level folder on the USB flash drive named upgrade (this is not case sensitive).
2. Copy the WorkCentre\_5735-5790\_system-sw#ppp.mmm.yyy.ddrrr#.dlm file from the system software CD into the upgrade folder of the USB flash drive.

**NOTE:** Make sure there is only one file in the upgrade folder.

**NOTE:** Ensure the Windows "safely remove hardware device" process is followed, before removing the USB drive.

3. If possible, complete or delete all pending print jobs. If the prints jobs cannot be deleted, warn the customer that all pending jobs will be lost.
4. Check the Release Notes and the current software already loaded on the machine. Ensure that the upgrade can be applied.
5. Connect the USB flash drive into any of the USB ports.

**NOTE:** It is not necessary to switch off the machine to perform a software upgrade.

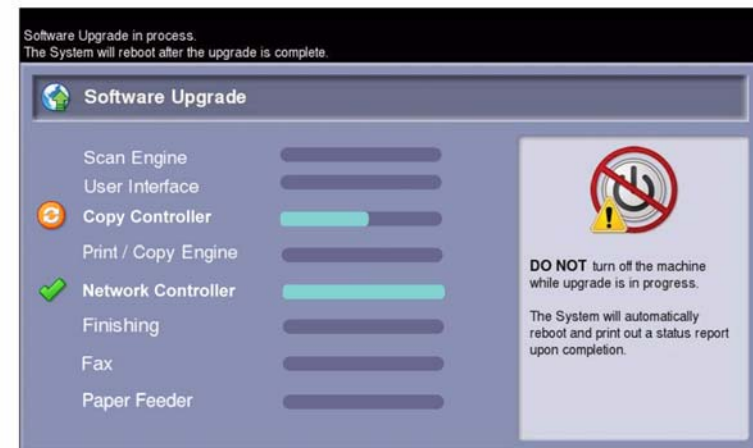
Occasionally the USB flash drive will be incompatible with the machine. Replace the USB flash drive with a Xerox approved model. Restart the process.

6. The upgrade start screen is displayed, Figure 9.
7. The upgrade will begin and the progress screen will open, Figure 10.
8. The system upgrade process should complete after approximately 5 minutes and the machine will come to a ready state.
9. If the system upgrade process fails, perform an Altboot. Refer to *AltBoot Software Loading Procedure*.
10. The machine will reboot several times before returning to a ready state. The machine may also display the upgrade progress screen, Figure 10. If the power on failure screen is displayed, switch off, then switch on the machine, GP 14.
11. After the software has upgraded, a software upgrade report will be printed.

#### Software Loading Progress

During the software loading procedure, a progress screen is displayed on the UI, Figure 1. The display has the following features:

- A progress bar is assigned to each of the hardware modules.
- For the upgrade of each hardware module to be successful, the progress bar must reach 100% for each module being upgraded. During upgrading, the symbol to the left of the progress bar indicates one of the following conditions:
  - Orange circle with white arrows, an upgrade is in progress.
  - Green tick, an upgrade has completed.
  - Red circle with white cross, a module has failed to be upgraded.
- The upgrade is completed when all the progress bars are 100%.



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Figure 1 Software upgrade in progress

## AltBoot Software Loading Procedure

Use this procedure to load software onto a faulty machine. Only use this procedure if directed.



*The AltBoot software loading procedure erases the customer Optional Services (Network Scanning; E-Mail; Internet Fax; Network Accounting; Server Fax; Hard Disk Overwrite; Xerox Standard Accounting (XSA)). Check with the customer, that they have the necessary codes to enable their Optional Services and they can restore any configuration information for the installed options.*

**NOTE:** Copier only machines can not be upgraded using this procedure. Use the [Forced Alt-Boot Software Loading Procedure](#) to upgrade copier only machines. To identify a copier only machine, refer to [GP 30 Copier Only Machine Identification](#).

**NOTE:** To restore the XSA data, use the customers XSA data backup (clone) file on the customers PC. Refer to the Customer Administrators Guide CD.

There are two methods of performing an Altboot. Go to the relevant procedure:

- [USB AltBoot Procedure](#)
- [PWS Altboot Procedure](#)

### USB AltBoot Procedure

Hardware requirements:

- USB Flash drive.

Software requirements:

- The DLM file to be loaded.

Perform the following:

1. Create a top level folder on the USB Flash drive named "AltBoot".
2. Copy the WorkCentre\_5735-5790\_system-sw#ppp.mmm.yyy.ddrrr#.dml file from the system software CD into the AltBoot folder of the USB flash drive.

**NOTE:** If there is more than 1 version of a DLM file in the AltBoot folder on the USB flash drive the machine will always access the latest version.

3. If possible, perform a NVM save, refer to [GP 5](#).
4. Switch off the machine [GP 14](#).
5. Plug the USB Flash drive into either of the 2 USB ports in the rear of the single board controller PWB module.
6. Switch on the machine [GP 14](#). The Software Upgrade start screen will display on the UI, [Figure 9](#).

**NOTE:** If the Upgrade Failed screen, [Figure 12](#) displays at this time, it is an indication of hard disk failure. Refer to the [03C Hard Disk Failure RAP](#).

7. After approximately 1 minute the upgrade will begin and the progress screen will open, [Figure 10](#).

**NOTE:** If the upgrade process screen is not displayed after 2 minutes, restart the process.

8. The AltBoot process should complete after approximately 5 minutes and the AltBoot complete screen will open, [Figure 10](#). Follow the on screen instructions.
9. If the AltBoot process fails, the AltBoot failed screen will open, [Figure 11](#). Follow the on screen instructions. Restart the procedure and refer to [Troubleshooting](#) as necessary.
10. The UI displays the Data Encryption/Decryption in progress screen, [Figure 13](#).

**NOTE:** Do not switch off the machine until directed to on the UI. During the reboot, the hard disk drive is encrypted. Switching off the machine can cause only partial encryption of the hard disks partitions. The AltBoot process may need to be re-run if power is removed at this step.

11. The machine will reboot several times before returning to a ready state. If a power on failure screen appears, switch off, then switch on the machine, [GP 14](#).
12. Check that the software set has been installed. Refer to the printed software upgrade report or by pressing the machine status button.
13. Perform a NVM restore, refer to [GP 5](#).
14. Switch off, then switch on the machine, [GP 14](#).

### PWS Altboot Procedure

Hardware requirements:

- Serial cable, [PL 26.10 Item 12](#).
- 9 way gender changer, [PL 26.10 Item 1](#).
- Ethernet crossover cable, [PL 26.10 Item 6](#).

Software requirements:

- gawain.ulmage - Linux kernel file.
- gawain\_ramdisk.uboot - Linux root file system file.
- The DLM file to be loaded.

Perform the following:

**NOTE:** For additional information or if the Altboot fails, refer to the help file supplied with the PWS Altboot tool.

1. Print a configuration report.
2. If possible, perform a NVM save, refer to [GP 5](#).
3. Switch off the machine, [GP 14](#).
4. Disable the wireless network on the PWS.
5. Set the proxy server setting on the PWS. Perform the following:
  - a. Open Start / Control Panel / Network Connections/Local Area Connections.
  - b. Open Local Area Connection.
  - c. In the General tab, highlight the Internet Protocol (TCP / IP) icon.
  - d. Click on the Properties button.
  - e. Select Use the following IP address.

**NOTE:** Before changing the proxy server settings, record the original IP address and Subnet mask. The original settings are reset at the end of this procedure.

- f. Set the IP address of the PWS to 192.168.0.2.
- g. Set the Subnet mask of the PWS to 255.255.255.0.

**NOTE:** A default gateway setting is not required.

- h. Click on OK to close the properties dialog box.
  - i. Click on Close to close the Local Area Connection Properties dialog box.
  - j. If any settings have been changed, reboot the PWS.
6. Disconnect the ethernet cable from the machine.
  7. Connect the crossover ethernet cable from the PWS network port to the machine network port.
  8. Connect the null modem serial cable from the PWS serial port to the machine serial port.
  9. Start the PWS AltBoot tool.
  10. Browse to and highlight the folder that contains the upgrade files, [Figure 2](#). Select OK.

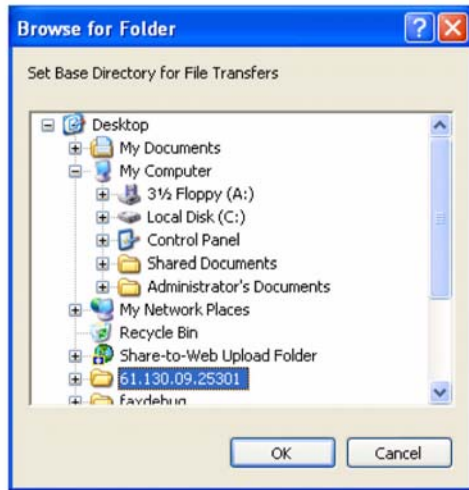
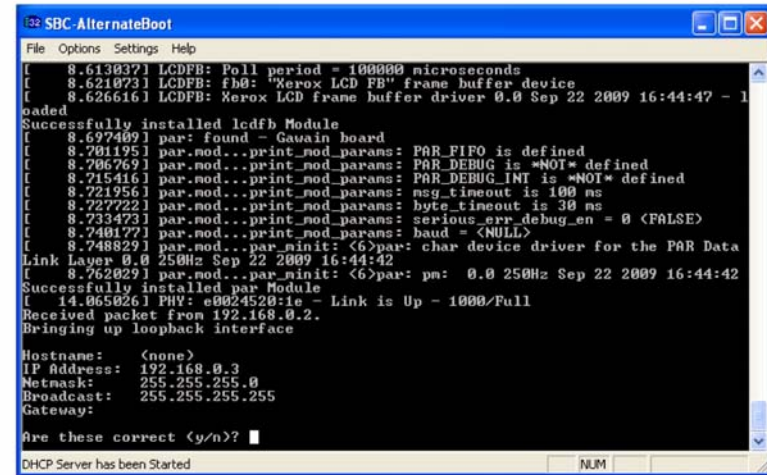


Figure 2 Browse for folder

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11. Switch on the machine, [GP 14](#). After approximately 10 seconds, the transfer of the ulm- age and uboot files will begin.

12. After file transfer, the settings menu is displayed in the terminal window, [Figure 3](#).



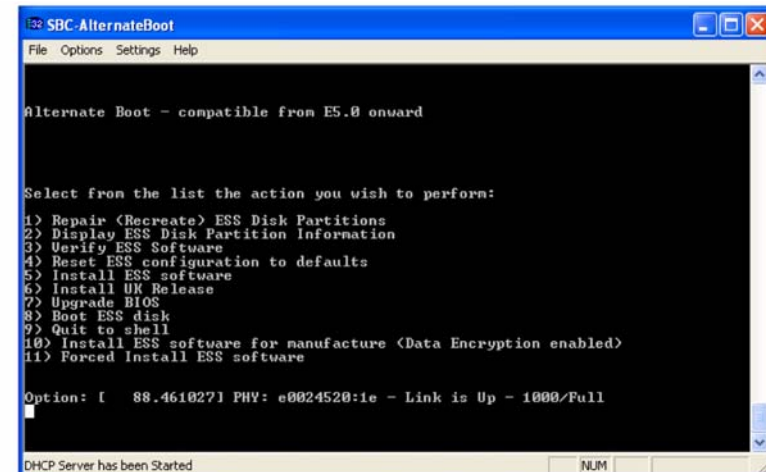
T-1-1121-A

Figure 3 Settings menu

**NOTE:** Check that the 'Received packet' line is displayed and that the IP address is set one digit away from the packet was received from address.

Press 'y' at the prompt and continue. If the valid netmask is not set, press 'n' and change it to the value shown in [Figure 3](#).

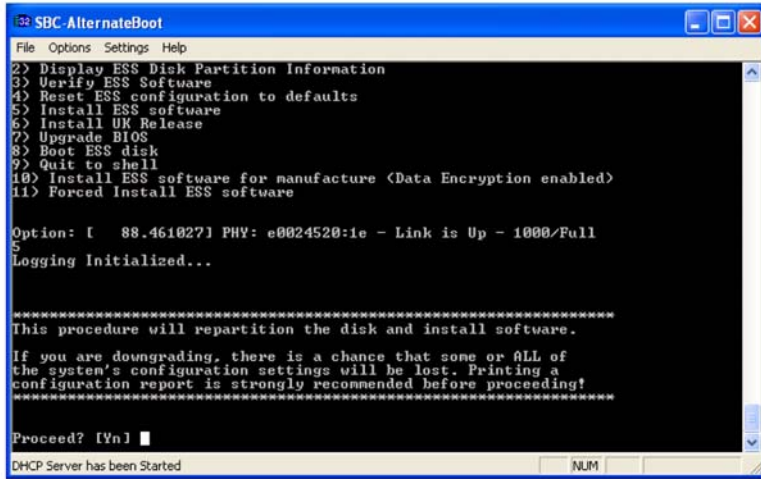
13. From the next menu, [Figure 4](#), select action 5, Install ESS software.



T-1-1122-A

Figure 4 Action menu

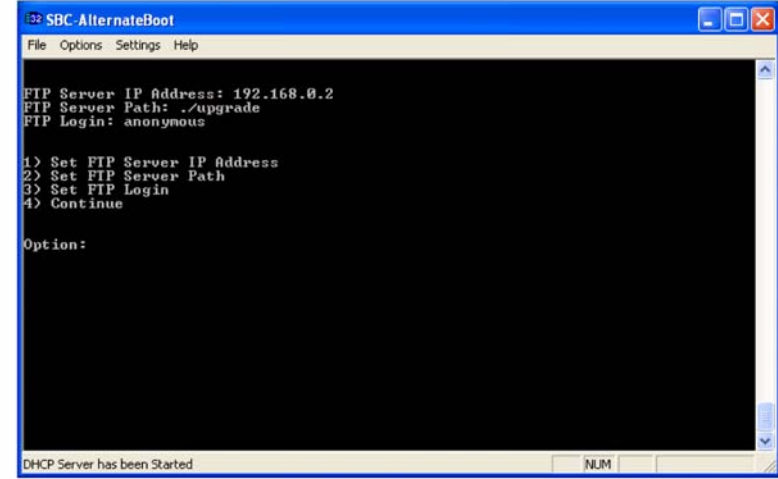
14. At the proceed prompt, Figure 5, select 'Y'.



T-1-1123-A

Figure 5 Install confirmation window

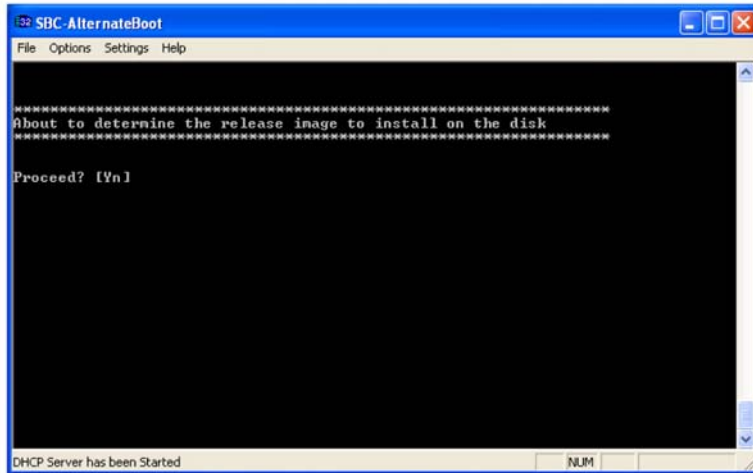
16. From the next menu, Figure 7, select option 4, Continue.



T-1-1125-A

Figure 7 Option menu

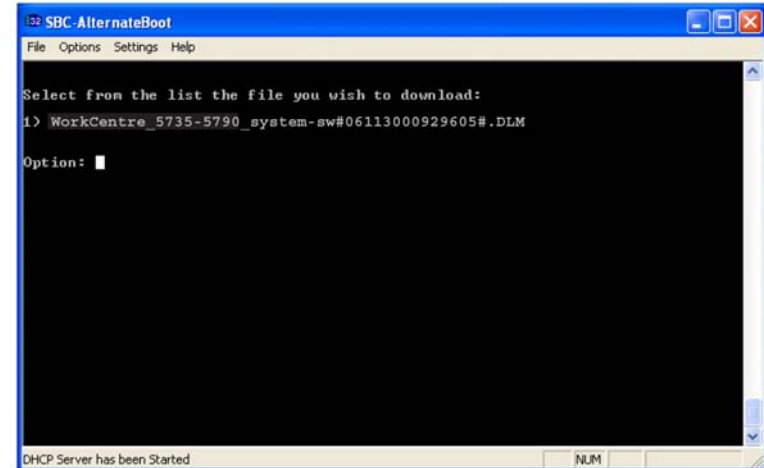
15. At the second proceed prompt, Figure 6, select 'Y'.



T-1-1124-A

Figure 6 Release image install window

17. From the next menu, Figure 8, select the correct DLM file to download to the machine. A transfer progress window will then open.



T-1-1126-A

Figure 8 DLM list

18. After the DLM file has been downloaded to the machine, the Software Upgrade start screen will display on the UI, [Figure 9](#).

**NOTE:** If the Upgrade Failed screen, [Figure 12](#) displays at this time, it is an indication of hard disk failure. Refer to the [03C Hard Disk Failure RAP](#).

19. After approximately 1 minute the upgrade will begin and the progress screen will open, [Figure 10](#).

**NOTE:** If the upgrade process screen is not displayed after 2 minutes, restart the process.

20. The AltBoot process should complete after approximately 5 minutes and the AltBoot complete screen will open, [Figure 11](#). Ignore the instruction to remove the USB flash drive, only press 0 to continue.

21. If the AltBoot process fails, the AltBoot failed screen will open, [Figure 12](#). Follow the on screen instructions. Restart the procedure and refer to [Troubleshooting](#) as necessary.

22. The UI displays the Data Encryption/Decryption in progress screen, [Figure 13](#).

**NOTE:** Do not switch off the machine until directed to on the UI. During the reboot, the hard disk drive is encrypted. Switching off the machine can cause only partial encryption of the hard disks partitions. The AltBoot process may need to be re-run if power is removed at this step.

23. The machine will reboot several times before returning to a ready state. If a power on failure screen appears, switch off, then switch on the machine, [GP 14](#).

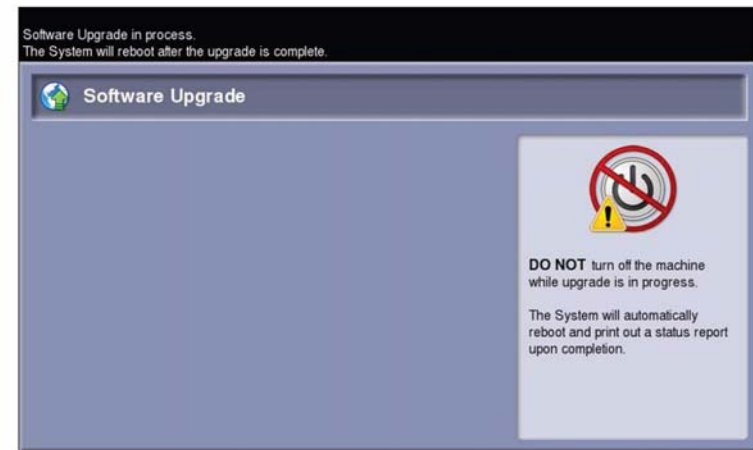
24. Disconnect the null modem serial cable from the PWS serial port and the machine.

25. Disconnect the special crossover ethernet cable from the PWS network and the machine.

26. Connect the ethernet cable to the machine.

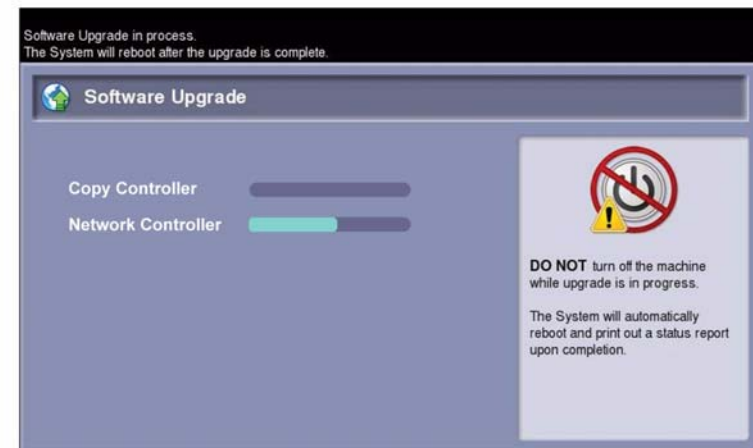
27. Check that the software set has been installed. Refer to the printed software upgrade report or by pressing the machine status button.

28. If the NVM was saved at the beginning of this procedure, perform a NVM restore, refer to [GP 5](#).



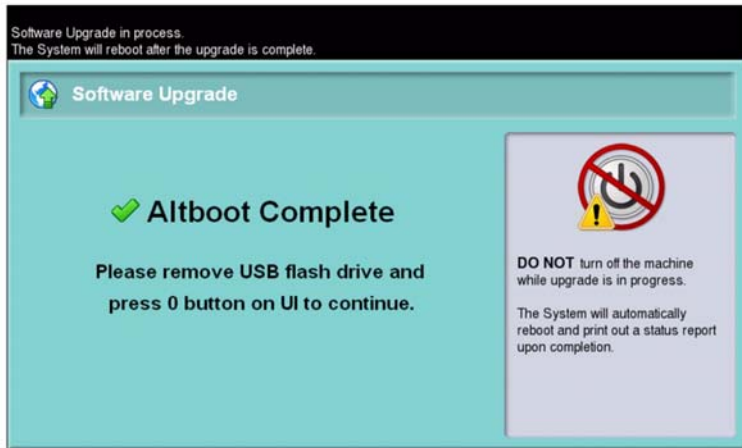
T-1-1111-A

Figure 9 Software upgrade



T-1-1112-A

Figure 10 Start of upgrade



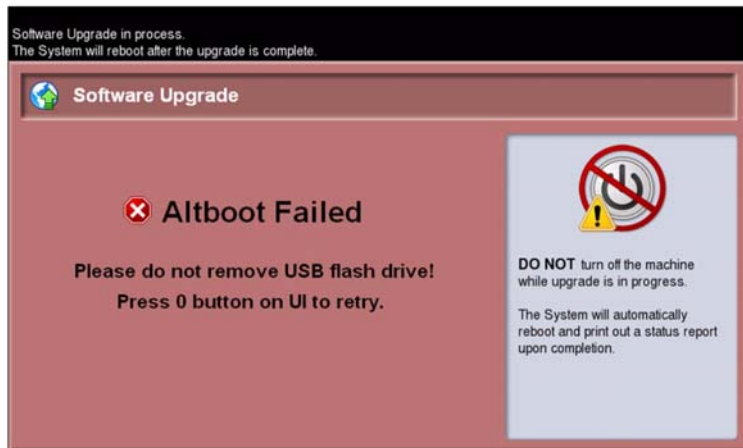
T-1-1113-A

Figure 11 Altboot complete



T-1-1115-A

Figure 13 Encryption progress



T-1-1114-A

Figure 12 Upgrade failed

### Troubleshooting

Listed below are possible problems that may stop AltBoot software loading:

Possible causes and solutions are:

- Incompatible USB flash drive. Use a Xerox approved model of USB flash drive.
- Corrupt .dlm file. Replace the .dlm file.
- Incorrect spelling of the AltBoot directory on USB flash drive.
- Bad data connection to a HDD. Re-seat the HDD data cable, [PL 3.22 Item 11](#).
- Hard disk drive corruption or failure.
- USB port damage. Use a different USB port.
- UI failure. Refer to [OF2 Touch Screen Failure RAP](#).
- Single board controller PWB failure, [PL 3.24 Item 3](#).
- Check the +5V supply to the USB ports at PJ106 pin 6 on the single board controller PWB. Refer to [WD 3](#).

### Software Loading Progress

During the software loading procedure, a progress screen is displayed on the UI, [Figure 1](#). The display has the following features:

- A progress bar is assigned to each of the hardware modules.
- For the upgrade of each hardware module to be successful, the progress bar must reach 100% for each module being upgraded. During upgrading, the symbol to the left of the progress bar indicates one of the following conditions:
  - Orange circle with white arrows, an upgrade is in progress.
  - Green tick, an upgrade has completed.
  - Red circle with white cross, a module has failed to be upgraded.
- The upgrade is completed when all the progress bars are 100%.



## Forced AltBoot Software Loading Procedure

Use this procedure to load software onto a faulty machine. Only use this procedure if directed.



### CAUTION

The Forced AltBoot software loading procedure erases the customer Optional Services (Network Scanning; E-Mail; Internet Fax; Network Accounting; Server Fax; Hard Disk Overwrite; Xerox Standard Accounting (XSA). Check with the customer, that they have the necessary codes to enable their Optional Services and they can restore any configuration information for the installed options.

**NOTE:** To restore the XSA data, use the customers XSA data backup (clone) file on the customers PC. Refer to the Customer Administrators Guide CD.

There are two methods of performing a Forced Altboot. Go to the relevant procedure:

- USB Forced AltBoot Procedure
- PWS Forced Altboot Procedure

### USB Forced AltBoot Procedure

Hardware requirements:

- USB Flash drive.

Software requirements:

- The FORCED\_UPGRADE file.
- The DLM file to be loaded.

Perform the following:

1. Create a folder named AltBoot on a USB Flash drive (not case sensitive).
2. Locate the FORCED\_UPGRADE file (file size = 0 KB) in GSN library 11297.
3. Unzip then copy the FORCED\_UPGRADE file into the AltBoot folder on the USB Flash drive.
4. Copy the DLM file into the AltBoot folder on the USB Flash drive.
5. If possible, perform a NVM save, refer to GP 5.
6. Switch off the machine, GP 14.
7. Plug the USB Flash drive into either of the 2 USB ports in the rear of the single board controller PWB module.
8. Switch on the machine, GP 14.
9. Follow the instructions on user interface touch screen until the software loading is complete.
10. Check that the software set has been installed. Refer to the printed software upgrade report or by pressing the machine status button.
11. If the NVM was saved at the beginning of this procedure, perform a NVM restore, refer to GP 5.
12. If the Forced AltBoot process fails, restart the procedure and refer to Troubleshooting if necessary.

### PWS Forced Altboot Procedure

Hardware requirements:

- Serial cable, PL 26.10 Item 12.
- 9 way gender changer, PL 26.10 Item 1.
- Ethernet crossover cable, PL 26.10 Item 6.

Software requirements:

- gawain.ulimage - Linux kernel file.
- gawain\_ramdisk.uboot - Linux root file system file.
- The DLM file to be loaded.

Perform the following:

**NOTE:** For additional information or if the Forced Altboot fails, refer to the help file supplied with the PWS Altboot tool.

1. Print a configuration report.
2. If possible, perform a NVM save, refer to GP 5.
3. Switch off the machine, GP 14.
4. Disable the wireless network on the PWS.
5. Set the proxy server setting on the PWS. Perform the following:
  - a. Open Start / Control Panel / Network Connections/Local Area Connections.
  - b. Open Local Area Connection.
  - c. In the General tab, highlight the Internet Protocol (TCP / IP) icon.
  - d. Click on the Properties button.
  - e. Select Use the following IP address.

**NOTE:** . Before changing the proxy server settings, record the original IP address and Subnet mask. The original settings are reset at the end of this procedure.

- f. Set the IP address of the PWS to 192.168.0.2.
  - g. Set the Subnet mask of the PWS to 255.255.255.0.
- NOTE:** . A default gateway setting is not required.
- h. Click on OK to close the properties dialog box.
  - i. Click on Close to close the Local Area Connection Properties dialog box.
  - j. If any settings have been changed, reboot the PWS.
6. Disconnect the ethernet cable from the machine.
  7. Connect the crossover ethernet cable from the PWS network port to the machine network port.
  8. Connect the null modem serial cable from the PWS serial port to the machine serial port.
  9. Start the PWS AltBoot tool.
  10. Browse to and highlight the folder that contains the upgrade files, Figure 14. Select OK.

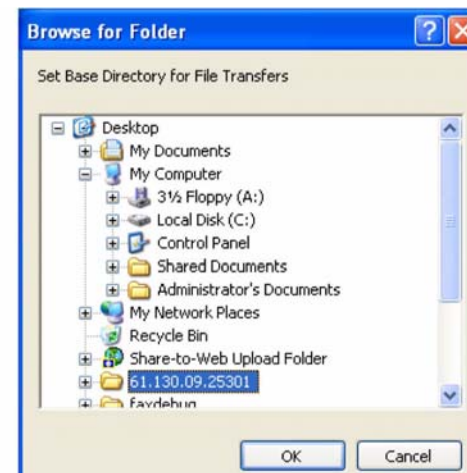


Figure 14 Browse for folder

11. Switch on the machine, GP 14. After approximately 10 seconds, the transfer of the ulm-  
age and uboot files will begin.
12. After file transfer, the settings menu is displayed in the terminal window, Figure 15.
14. At the proceed prompt, Figure 17, select 'Y'.

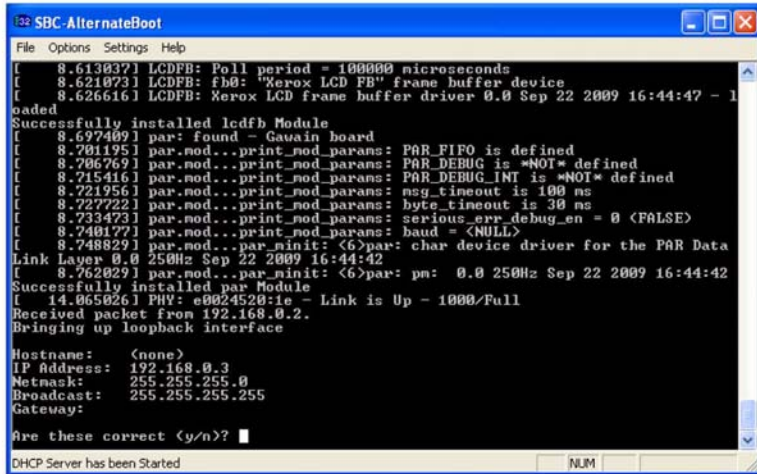


Figure 15 Settings menu

**NOTE:** Check that the 'Received packet' line is displayed and that the IP address is set one digit away from the packet was received from address.

Press 'y' at the prompt and continue. If the valid netmask is not set, press 'n' and change it to the value shown in Figure 15.

13. From the next menu, Figure 16, select action 11, Forced Install ESS software.

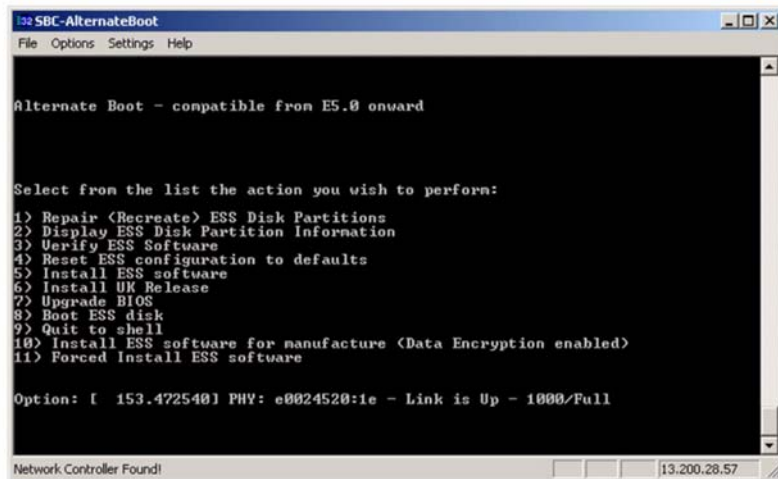


Figure 16 Action menu

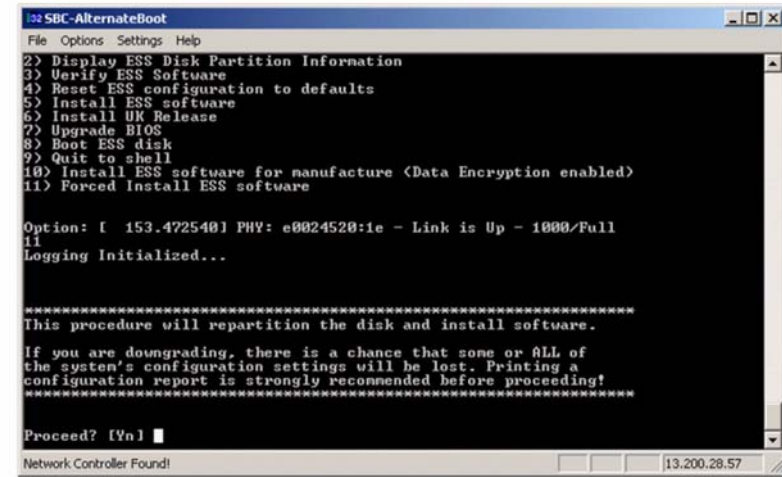


Figure 17 Install confirmation window

15. At the second proceed prompt, Figure 18, select 'Y'.

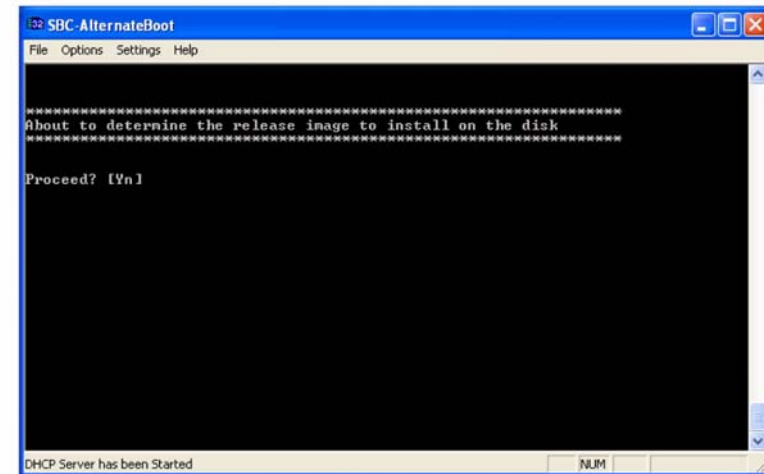
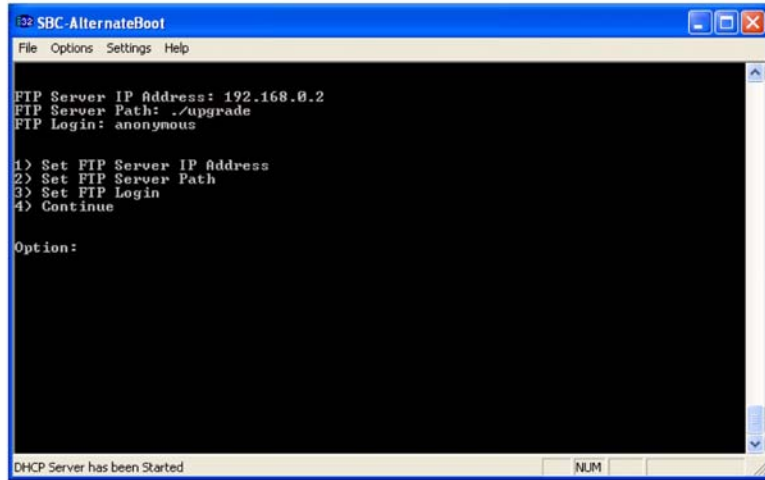


Figure 18 Release image install window

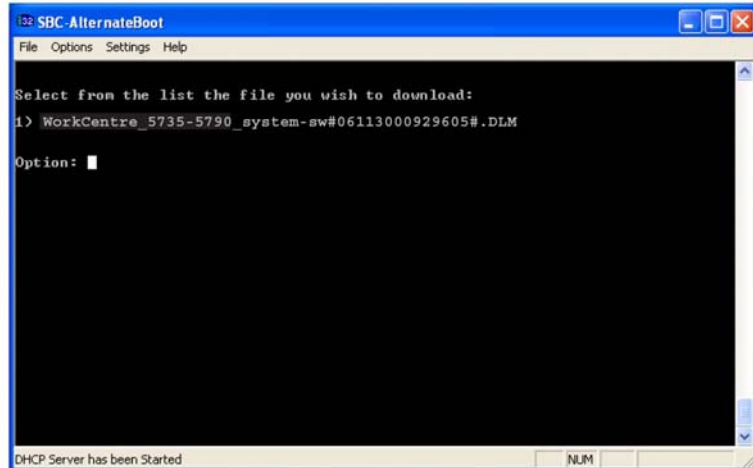
16. From the next menu, [Figure 19](#), select option 4, Continue.



T-1-1249-A

Figure 19 Option menu

17. From the next menu, [Figure 20](#), select the correct DLM file to download to the machine. A transfer progress window will then open.



T-1-1250-A

Figure 20 DLM list

18. After the DLM file has been downloaded to the machine, the Software Upgrade start screen will display on the UI, [Figure 21](#).

**NOTE:** If the Upgrade Failed screen, [Figure 24](#) displays at this time, it is an indication of hard disk failure. Refer to the [03C Hard Disk Failure RAP](#).

19. After approximately 1 minute the upgrade will begin and the progress screen will open, [Figure 22](#).

**NOTE:** If the upgrade process screen is not displayed after 2 minutes, restart the process.

20. The Forced AltBoot process should complete after approximately 25 minutes and the Alt-Boot complete screen will open, [Figure 23](#). Ignore the instruction to remove the USB flash drive, only press 0 to continue.

21. If the Forced AltBoot process fails, the AltBoot failed screen will open, [Figure 24](#). Follow the on screen instructions. Restart the procedure and refer to [Troubleshooting](#) as necessary.

22. The UI displays the Data Encryption/Decryption in progress screen, [Figure 25](#).

**NOTE:** Do not switch off the machine until directed to on the UI. During the reboot, the hard disk drive is encrypted. Switching off the machine can cause only partial encryption of the hard disks partitions. The Forced AltBoot process may need to be re-run if power is removed at this step.

23. The machine will reboot several times before returning to a ready state. If a power on failure screen appears, switch off, then switch on the machine, [GP 14](#).

24. Disconnect the null modem serial cable from the PWS serial port and the machine.

25. Disconnect the special crossover ethernet cable from the PWS network and the machine.

26. Connect the ethernet cable to the machine.

27. Check that the software set has been installed. Refer to the printed software upgrade report or by pressing the machine status button.

28. If the NVM was saved at the beginning of this procedure, perform a NVM restore, refer to [GP 5](#).

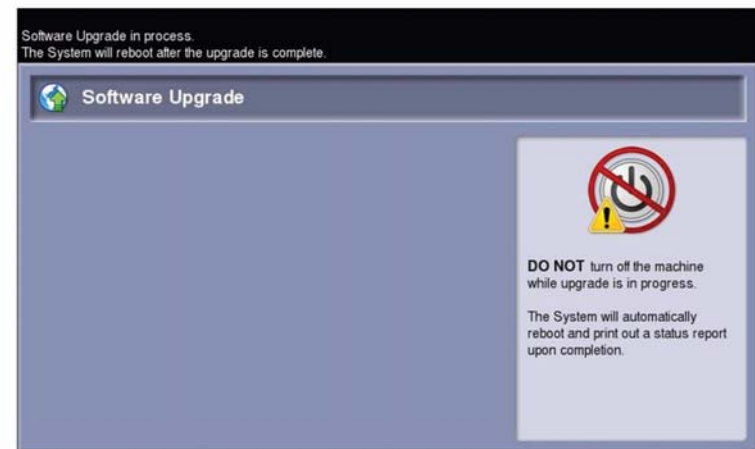
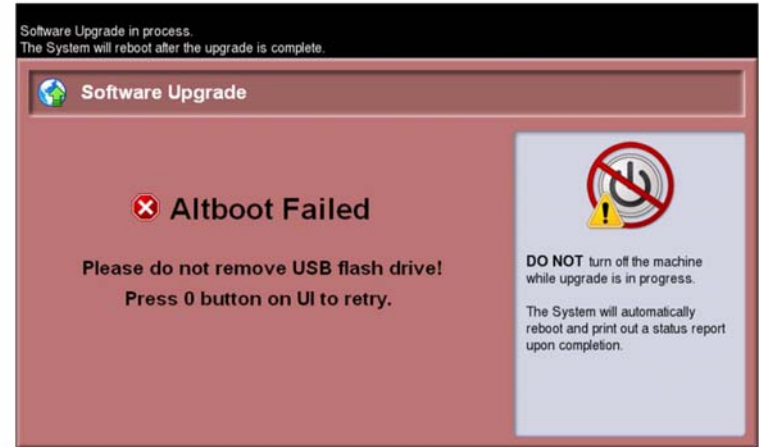


Figure 21 Software upgrade



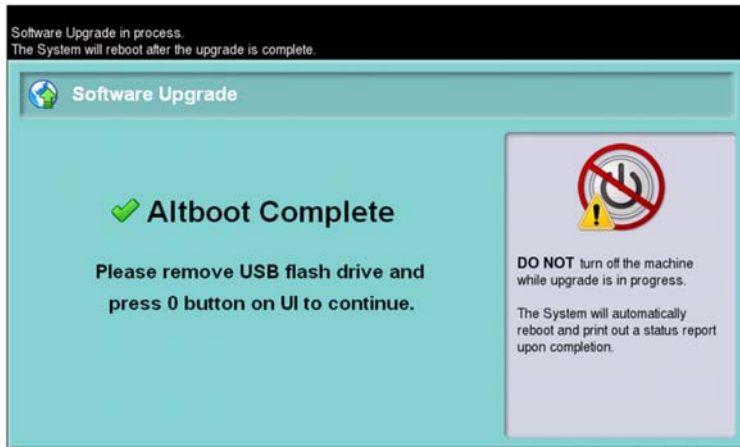
T-1-1252-A

Figure 22 Start of upgrade



T-1-1254-A

Figure 24 Upgrade failed



T-1-1253-A

Figure 23 Altboot complete



T-1-1255-A

Figure 25 Encryption progress

## GP 5 Portable Work Station and Tools

### Purpose

To describe the PWS diagnostic tools for machines.

### Description

**NOTE:** Before using these diagnostic tools ensure that the **USB printing** option is set to Xerox Copier Assistant/PWS Service Tool. Refer to [GP 28 USB Connection Mode](#).

The PWS Diagnostic Tools are:

- [SBC Altboot Tool](#)
- [Counter Retrieval](#)
- [Network Configuration](#)
- [Network Controller Logging](#)
- [NVM Save and Restore](#)

### SBC Altboot Tool

Use this tool to perform a Altboot software load when the USB flash drive method can not be used.

### Counter Retrieval

Use this tool to save the billing counters information to file. The file includes details of registered fault codes, plus a list of the last 40 fault codes.

### Network Configuration

Network Configuration is used to manage network systems. This tool displays the state of the network settings

### Network Controller Logging

Network Controller Logging is used to enable or disable network controller logging and also retrieve log files for off-line viewing. The following logging files are stored on the network controller and can be accessed, and with one exception displayed on the PWS:

- Network controller Process / State Logs - a record of state changes.
- Network controller Debug Logs / Core Files - a compressed file containing all the log files, cannot be displayed on PWS. It is saved on the PWS as a \*.log file for analysis.
- Event Log - a record of unscheduled events.
- Shutdown Log - a record of faults serious enough for the network controller to stop working (if the fault allows the fault to be logged).
- Error / Warning Log - a record of anomalies that are not serious enough to cause the system to reset.
- Completed Job Log - a record of the completed jobs.

There is a Status and Results window, and log files can be saved to a \*.log text file on the PWS.

### Enable/Disable Log Files

The network controller process/state log files are permanently enabled. The following logs can be enabled or disabled, as a group, using the PWS:



#### CAUTION

*Enabling these logs will degrade machine performance.*

- NC Debug Logs.
- Event Log.
- Shutdown Log.
- Error / Warning Log.
- Completed Job Log.

**NOTE:** It is not necessary to keep the PWS connected if selectable logging is enabled.

### NVM Save and Restore

NVM Save and Restore is used to save NVM settings to the PWS, then restore them to the machine. Previous NVM values can be restored after loading a software set using AltBoot, or if the machines NVM settings are changed.

**NOTE:** If the machines NVM has become corrupt, the most recent Golden NVB Restore file will be required. The file is available from Office Black & White and ColorQube GSN library, number 10231.

**NOTE:** From PWS Tools version 130.00.0006 onwards. The NVM Save and Restore tool has the option to perform the [dC132](#) NVM Initialization, All Copier NVM routine.



#### CAUTION

*When the machine software is upgraded using AltBoot, customer NVM settings are not automatically saved. The customer NVM settings must be saved, then restored using NVM Save and Restore.*

#### Procedure

1. Important - Connect the USB cable between the PWS and the machine before opening the NVM tool.
2. Ensure that the PWS is connected to a mains AC power supply.
3. Open the NVM Save and Restore application on the PWS. Follow the instructions.

If the PWS suffers a power failure or crash during the procedure, the machine should recover. If the machine has not recovered after 5 minutes, perform the following:

1. Switch on the PWS. Open the NVM Save and Restore application on the PWS.
2. Select the Exit button in the NVM Save and Restore window.
3. Restart the NVM Save and Restore procedure.
4. Set the USB connection mode to Walk Up USB Printing, refer to [GP 28](#).

## GP 6 Screw Usage

### Purpose

To prevent damage to parts that may be damaged by screws not being installed correctly.

### Procedure

#### Replacing Existing Screws

Always use the correct driver for the type of screw head. Use a nut driver if possible; this gives a better grip than a slotted or cross-head driver.

Take care not to install self-tapping screws into machine-screw holes, or machine-screws into self-tapper holes.

When replacing self-tapping screws into plastic components, turn the screw counterclockwise to engage the original thread, then turn the screw clockwise. Do not overtighten. If a new thread is cut, the plastic component will lose the ability to hold the screw as firmly, and eventually not at all. This also applies, to a lesser degree, to metal components.

**NOTE:** Reverse the direction of turn for left-hand threads.

Use the same method for machine thread screws and nuts to avoid cross threading.

#### Inserting a Screw into an Un-threaded Hole

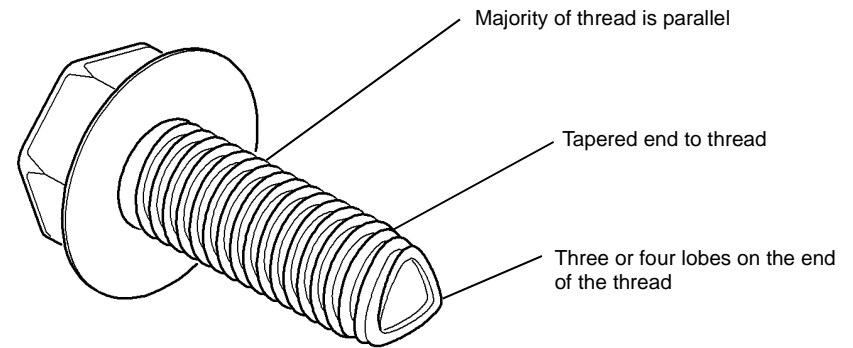
Some new components are supplied with fastening holes that do not have the screw thread pre-cut. It is the insertion of the first screw into the hole that forms the thread.



**CAUTION**

*Use the following procedure to avoid broken screws and damaged holes:*

1. Ensure that the screw is a thread forming screw, refer to [Figure 1](#).



T-1-1030-A

**Figure 1 Thread forming screw**

If the screw that is used to fasten the component does not appear to be a thread forming screw, temporarily use a thread forming screw from another location on the machine.

2. Do not assemble the new part into the machine yet, form the screw threads first.
3. Use the correct screw driver or nut driver to ensure a good grip on the head of the screw.
4. Using a moderate axial force, insert the screw to form the thread in the hole, then remove the screw.
5. Repeat step 4 as necessary until all fastening holes in the new component are threaded
6. Assemble the component on the machine.

## GP 7 Miscellaneous Checks

### Purpose

To indicate which types of problems to look for when checking or inspecting parts of the machine.

### Procedure

1. Assess the fault. Is the part broken, too loose, too tight. Check if it needs cleaning or lubricating.
2. Check the following items as appropriate:

#### Actuators

- Free movement.
- Damage
- Contamination.

#### Bearings

- Wear.
- Damage.
- Contamination.

#### Drive Belts

- Wear.
- Damaged teeth.
- Correct tension.
- Contamination of tension rollers and support shafts.

#### Gears

- Contamination.
- Chips or cracks.
- Wear.
- Misalignment.

#### Gravity Fingers and Stripper Fingers

- Free movement.
- Missing fingers.
- Damage.
- Contamination on the fingers, rollers or on the pivot shaft.

#### Harnesses and Wiring

- Continuity.
- Short-circuits caused by physical damage or contamination of conductors, terminals or connectors.
- Overheated insulation.
- Damaged insulation near moving parts and sharp edges.
- Pin and receptacle damage on connectors.

#### Rollers

- Flats.
- Tears.
- Contamination.
- Secure E-clips and other retainers.

#### Shafts

- Contamination.
- Misalignment.
- Rotates without binding.

## GP 8 Special Tools and Consumables

### Description

Refer to the following:



**Wear protective gloves when using solvents and cleaning agents, PL 26.10 Item 10.**

- Antistatic fluid, [PL 26.10 Item 19](#).
  - Cleaning agent.
- Disposable gloves, [PL 26.10 Item 10](#).
  - General protection.
- Ethernet crossover cable, [PL 26.10 Item 6](#).
  - PWS to machine.
- Film remover, [PL 26.10 Item 4](#).
  - Cleaning agent.
- Finisher bypass harness, [PL 26.10 Item 7](#).
  - Electrical cheat for PJ151.
- Formula A cleaning fluid, [PL 26.10 Item 2](#).
  - General cleaning.
- Lens and mirror cleaner, [PL 26.10 Item 9](#).
  - Optics cleaning.
- Micro fiber wiper, [PL 26.10 Item 13](#).
  - General cleaning.
- 9 way gender changer/null modem adapter [PL 26.10 Item 1](#).
  - PWS to machine.
- Plastislip grease, [PL 26.10 Item 8](#).
  - Lubrication for plastic gears and components.
- Serial cable, [PL 26.10 Item 12](#).
  - PWS to machine.
- Staple cartridge, [PL 26.10 Item 11](#).
- Test pattern, A3/11X17, [PL 26.10 Item 14](#).
  - IQS 1 Solid Area Density and IQS 2 Background.
- Test pattern, A4, [PL 26.10 Item 15](#).
  - IQS 1 Solid Area Density and IQS 2 Background.
- Test pattern, 8.5 X 11, [PL 26.10 Item 16](#).
  - IQS 1 Solid Area Density and IQS 2 Background.
- Test pattern, solid area density scale, [PL 26.10 Item 17](#).
  - IQS 1 Solid Area density.
- Test pattern, visual scale, [PL 26.10 Item 18](#).
  - IQS 2 Background.
- USB cable, [PL 26.10 Item 5](#).
  - PWS (portable work station) to single board controller PWB.
- Xerox approved USB pen drive.

## GP 9 Secure Diagnostic

### Purpose

The purpose is to provide increased security to Diagnostics pathways.

Use this procedure when the diagnostics entry code 1934 has been compromised or added security has been requested by the customer.

### How to Enable Secure Diagnostics

1. Enter diagnostics, [GP 1](#).
2. Select Diagnostics Routines.
3. Select Copier Routines.
4. Select 131 NVM Read / Write.
5. Select 03 Machine Run Control.
6. Select Location 03-900 Restrict Diag Pin.

**NOTE:** The default PIN is 1962. The PIN must be between 1000 and 99999999.

To change the secure diagnostics PIN:

- a. Select Read / Write.
- b. Enter a new PIN using the key pad.

**NOTE:** The secure diagnostic PIN has to be a number that has been agreed by the team or district (e.g. team telephone number or the last 5 digits of the machine serial number).

- c. Press Save.
- d. In the options window, press OK.
- e. Check that the new secure diagnostics PIN is displayed in the 03-900 Value volume.
- f. To return the secure diagnostics entry PIN to default, press the Reset and Save.
7. Select 131 NVM Read / Write.
8. Select 08 Paper feed / Transport.
9. Select Location 08-900 Enable Diag Access.
  - a. Select Read / Write.
  - b. Use the key pad to change value from 0 to 1 to enable then press Save.
  - c. To reset the value to 0, press Reset and Save.
10. Exit diagnostic and complete the Call Closeout procedure.

**NOTE:** If the PIN has been forgotten, contact your technical specialist.



## GP 10 How to Check a Motor

This procedure describes how to check the following motors:

- Two Wire DC Motors.
- Four Wire Stepper Motor
- Six Wire Stepper Motor.

### Initial Actions



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**

1. Check that the motor is free to rotate.
2. Check that all the motors mechanisms are clean, free to move and lubricated correctly.
3. Enter the component control code for the motor, refer to dC330. Run the motor for 30 seconds, if the motor shows signs of or can be heard to slow down, then the motor is defective. Replace the motor.
4. Perform the appropriate procedure:
  - Two Wire DC Motors.
  - Four Wire Stepper Motor.
  - Six Wire Stepper Motor.

**NOTE:** The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the circuit diagram in the RAP for the correct information.

**NOTE:** For the motors supplied through the IOT PWB, refer to the OF7 IOT Diagnostics RAP.

### Two Wire DC Motors

**NOTE:** In cases where the motor may be driven forward or backward, the same two feed wires are used, but the voltages on them are reversed, to reverse the motor direction. Such motors may have two component control codes, for forward and reverse. A typical application is a tray lift motor with a tray-up and a tray-down direction.

- Go to **Flag 2**. Disconnect PJB. Check that +24V is measured when the component control code for the motor is entered.
- Go to **Flag 1**. Disconnect PJA. Check for +24V on the LVPS.
- Go to **Flag 3**. Disconnect PJC. Check that the signal changes on the IOT PWB when the component control code for the motor is entered.
- Check the wiring and the connectors for the motor circuit.

References:

- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.
- REP 1.2 Wiring Harness Repairs.

### Four Wire Stepper Motor

**NOTE:** A stepper motor with an internal open circuit may appear to be fully functional under dC330 component control. However, under normal operation it will run with intermittent failure. Use the standard digital meter to check that the resistance of the stepper motor coils are similar.

**NOTE:** In some service manuals, the phase winding wires, A, /A, B and /B may be marked: A+, A-, B+ and B-, or as: phase A+, phase A-, phase B+ and phase B-.

- Go to **Flag 6**. Disconnect PJH. Check the motor on pulses on the harness when the component control code for the motor is entered.
- Go to **Flag 6**. Disconnect PJJ. Check the motor on pulses on the harness when the component control code for the motor is entered.
- Check the wiring and the connectors for the motor circuit.

References:

- 01G +24V Distribution RAP.
- 01B 0V Distribution RAP.
- REP 1.2 Wiring Harness Repairs.

### Six Wire Stepper Motor

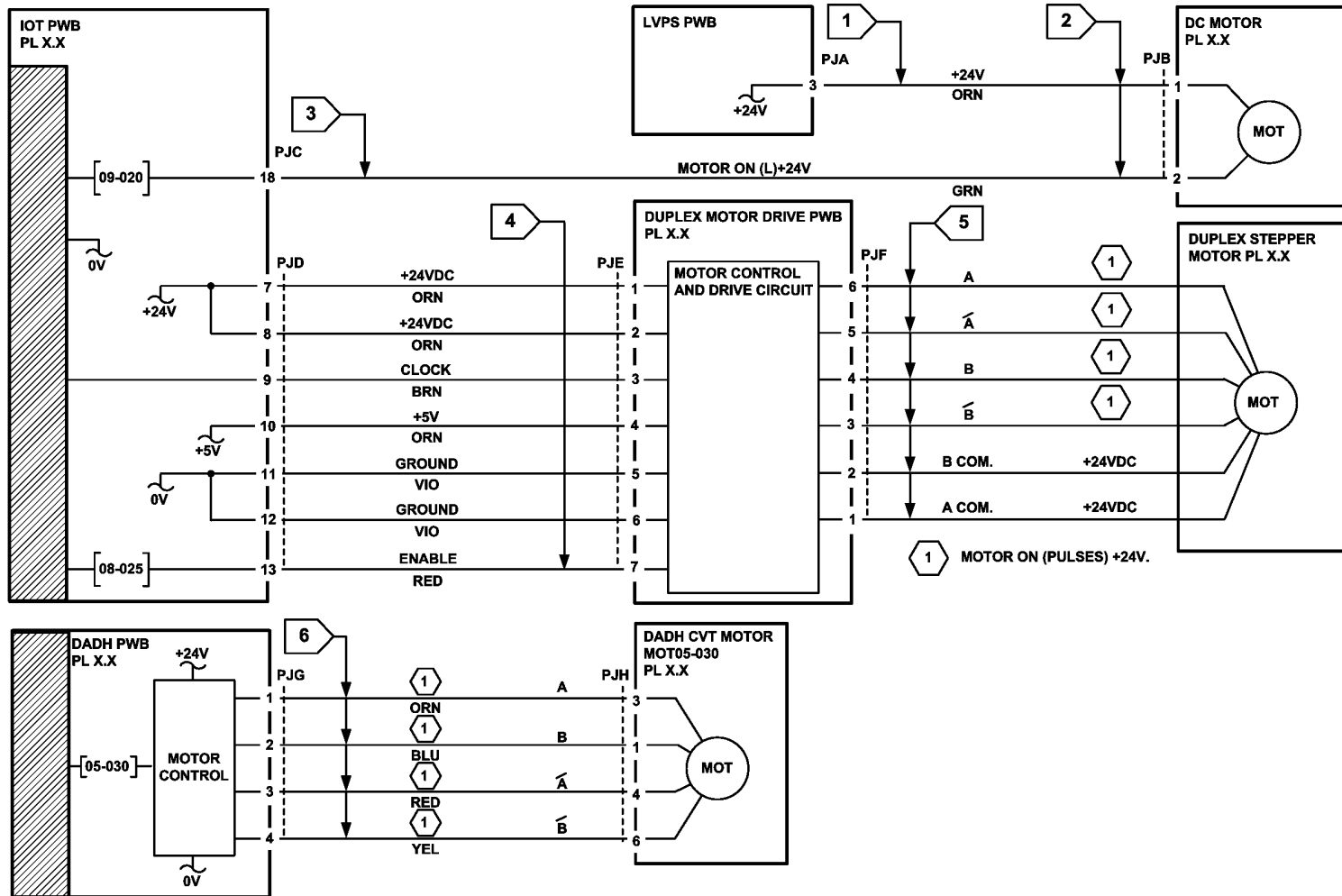
**NOTE:** A stepper motor with an internal open circuit may appear to be fully functional under dC330 component control. However, under normal operation it will run with intermittent failure. Use the standard digital meter to check that the resistance of the stepper motor coils are similar.

**NOTE:** In some service manuals, the phase winding wires, A, /A, B and /B may be marked: A+, A-, B+ and B-, or as: phase A+, phase A-, phase B+ and phase B-.

- Go to **Flag 5**. Disconnect PJF. Check the +24V supply and the motor on pulses when the component control code for the motor is entered.
- Go to **Flag 4**. Disconnect PJD. Check the +24V, +5V and 0V supplies.
- Go to **Flag 4**. Check the clock pulses.
- Go to **Flag 4**. Check that the signal on PJD pin 13 changes when the component control code for the motor is entered.
- Check the wiring and the connectors for the motor circuit.

References:

- 01G +24V Distribution RAP.
- 01E +5V distribution RAP.
- 01B 0V Distribution RAP.
- REP 1.2 Wiring Harness Repairs.



TT-1-0264-A

Figure 1 Circuit diagram

# GP 11 How to Check a Sensor

## Description

Use this procedure to check the operation of all types of sensor.

**NOTE:** The upper circuit diagram, in [Figure 1](#) shows a flag sensor. Some sensors have a resistor within the sensor, other sensors require a resistor on the PWB, such as R1 in [Figure 1](#). The resistor limits the current through the LED. This decreases the voltage on the sensor LED to 1.2V, typically.

**NOTE:** The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the circuit diagram in the RAP for the correct information.

## Initial Actions



Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Make sure that the sensor is installed correctly.
2. Clean the sensor and the area around the sensor.
3. If a flag actuator is installed, check that it has free movement.
4. Check that the paper path is clear.
5. If the sensor activates by a surface that reflects, check that the surface is clean. Also make sure that there is not an obstruction between the sensor and the surface.
6. If the sensor actuates by an encoder disc, ensure the holes or gaps in the disc are aligned correctly with the sensor.

## Sensor Action

In the upper sensor, in [Figure 1](#), when light from the LED is allowed to fall on the photo-sensitive transistor, the sensing line, PJA, pin2, is low. When light from the LED is blocked by the flag, the sensing line is high.

In the lower sensor in [Figure 1](#), when light from the LED is reflected by the paper onto the photo-sensitive transistor, the sensing line, PJE, pin 2 is low. When no paper is present, no light falls on the transistor and the sensing line is high.

## Quick Sensor Check

Enter the component control code for the sensor, refer to [dC330](#). Activate the sensor. If the display changes, the sensor operates correctly. If the display does not change, perform the procedure.

## Procedure

For the upper sensor in [Figure 1](#):

- Go to [Flag 1](#). Disconnect PJA. Check for +3.3V and 0V at PJA on the harness.
- Go to [Flag 2](#). Disconnect PJC. Check the wiring and the connectors for the sensor circuit.
- Go to [Flag 2](#). Check for +3.3V and 0V at PJC on the IOT PWB.
- If necessary, install new components or repair the wiring.

References:

- [01B](#) 0V Distribution RAP.
- [01D](#) +3.3V Distribution RAP.
- [REP 1.2](#) Wiring Harness Repairs.

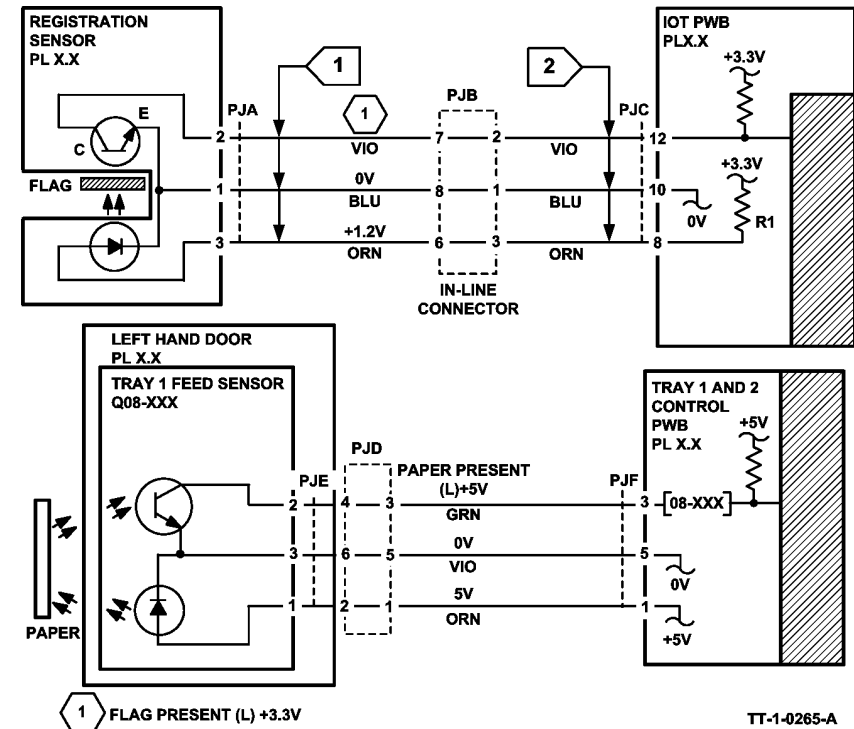


Figure 1 Circuit diagram

## GP 12 How to Check a Solenoid or Clutch

### Description

Use this procedure to check a clutch or solenoid.

### Initial Actions



**WARNING**

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 14. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. For a clutch, check that the mechanical components are clean, free to move and lubricated correctly
2. For a solenoid, check that the armature and associated mechanical components are free to move.

### Procedure

**NOTE:** The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the circuit diagram in the RAP for the correct information.

**NOTE:** When a solenoid is energized in diagnostics, armature movement is seen. When a clutch is energized in diagnostics, the sound of the clutch action is heard. If possible, energize the motor connected to the clutch to confirm when the clutch is energized.

- Go to **Flag 1**. Check that the signal changes on the IOT PWB when the component control code for the clutch or solenoid is entered.
- Go to **Flag 2**. Disconnect PJC. Check that +24V is measured when the component control code for the clutch or solenoid is entered.
- Go to **Flag 3**. Disconnect PJD. Check for +24V on the LVPS.
- Check the wiring and the connectors for the clutch or solenoid circuit.

References:

- **01B** 0V Distribution RAP.
- **01G** +24V Distribution RAP.
- **REP 1.2** Wiring Harness Repairs.

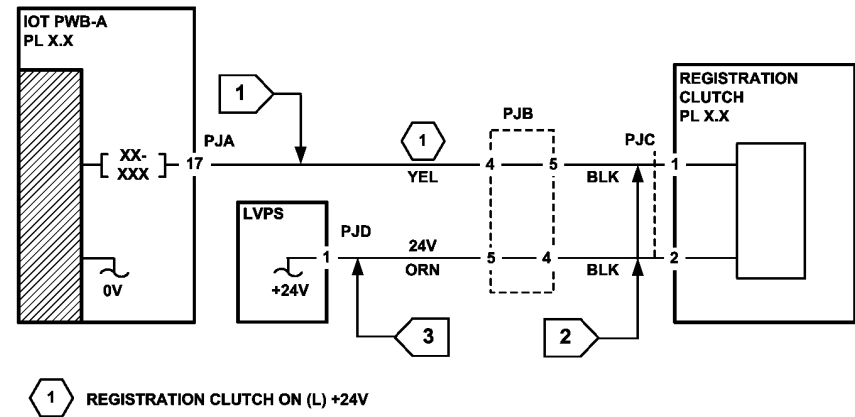


Figure 1 Circuit diagram

TT-1-0266-A

## GP 13 How to Check a Switch

### Description

Use this procedure to check the operation of a switch.

**NOTE:** The circuit in [Figure 1](#) shows an interlock switch activated by the closing of a door.

### Initial Actions



#### WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Manually check that the switch operates. Ensure that the magnet or other actuator has enough mechanical movement to operate the switch.

**NOTE:** The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the circuit diagram in the RAP for the correct information.

### Procedure

- Go to [Flag 1](#). Disconnect PJA. Check the electrical operation of the switch.
- Go to [Flag 1](#). Disconnect PJB. Check for +5V and 0V on the IOT PWB.
- Go to [Flag 1](#). Check the wiring and the connectors for the switch circuit.

References:

- [01B](#) 0V Distribution RAP.
- [01E](#) +5V Distribution RAP.
- [REP 1.2](#) Wiring Harness Repairs.

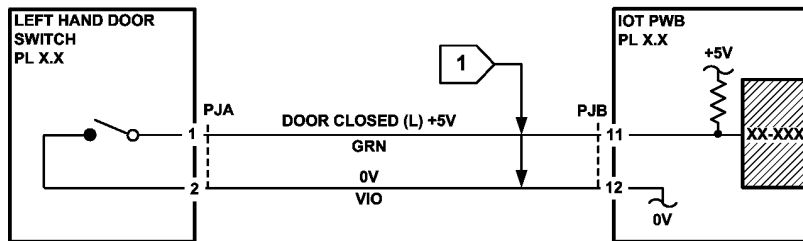


Figure 1 Circuit diagram

## GP 14 How to Switch Off the Machine or Switch On the Machine

### Purpose

To show how to switch off or switch on the machine, without the loss of customer data or damage to the system hardware.



#### WARNING

Do not use the on/off switch as a safety disconnect device. The on/off switch is not a disconnect device. Disconnect the power cord from the supply to isolate the equipment.

Refer to:

- [Switch Off Procedure](#)
- [Switch Off Failure Procedure](#)
- [Quick Restart](#)
- [Switch On Procedure](#)
- [Power Saver Mode](#)

### Switch Off Procedure



#### CAUTION

Do not disconnect the power lead or interrupt the electricity supply before the power down is complete unless advised. The data and software can become damaged.

1. Press the on/off switch. The Power Down Options window will display.

**NOTE:** The Power Down Confirmation window replaces the Power Down Options window when the following operations are performed:

- a. The machine is in the diagnostics mode.
- b. During CRU replacement.
- c. The machine is in the Install Wizard or Setup Modes.
- d. A module is not communicating.
- e. The Power Saver mode is disabled.
- f. A software upgrade is performed.
- g. The network controller initializes.

2. Touch the Power Down button on the UI.
3. When the Power Off Confirmation window is displayed, touch the Confirm button.

**NOTE:** If a controlled power off is confirmed, the on / off switch is disabled until the sequence is completed.

If there is a fault that prevents power down, the UI requests that the power lead is removed and replaced after one minute.

4. When the machine has switched off, remove the power lead from the outlet.
5. If the machine does not switch off, go to [Switch Off Failure Procedure](#).

## General

1. When power down is selected and confirmed, power down starts after a maximum of 45 seconds with the following exceptions:
  - a. If the system and the UI cannot communicate, then power down begins after 3 seconds.
  - b. If possible, the system finishes all jobs.
  - c. The delays occur if the machine cancels:
    - i. A print job or copy job.
    - ii. An exposure lamp calibration.
    - iii. An image quality adjustment.
    - iv. Diagnostic mode communications.
  - d. If a module does not respond and the power down is possible, the power down completes after a maximum of 2 minutes.
2. The machine stops processing all jobs that remain in the queue.
3. A warning message displays on the UI.

## Switch Off Failure Procedure

1. If the machine fails to power down, disconnect the power lead.
2. If necessary, reconnect the power lead after two minutes.
3. If the machine does not power down again, perform the [03-374](#) Power Off Failure RAP.

## Quick Restart

The quick restart causes the system to reset the software of the single board controller PWB, the IOT PWB and the GUI.

1. Press the on/off switch. The Power Down Options window is displayed.

**NOTE:** The Power Down Confirmation window replaces the Power Down Options window when the following operations are performed:

- a. The machine is in the diagnostics mode.
  - b. During CRU replacement.
  - c. The machine is in the Install Wizard or Setup Modes.
  - d. A module is not communicating.
  - e. The Power Saver mode is disabled.
  - f. A software upgrade is performed.
  - g. The network controller initializes.
2. Touch the Quick Restart button on the UI.
  3. When the Quick Restart Confirmation window is displayed, touch the Confirm button.
  4. The Quick Restart window is displayed with the following message: 'Quick Restart is underway and will take approximately 1 minute'.

## Switch On Procedure

1. After a machine has been switched off, wait a minimum of two minutes before the machine is switched on.
2. After a service call, ensure that all service tools are removed from the machine.
3. Connect the power lead from the power supply outlet to the machine.
4. Press the on/off switch.
5. If the machine does not initialize, go to the appropriate RAP as follows:

- If the machine switches on, but the UI is blank, go to the [OF2](#) UI Touch Screen Failure RAP.
- If the machine does not respond, go to the [OF5](#) Dead Machine RAP.
- If the machine switches on, but does not respond, go to the [OF5](#) Boot Up Failure RAP.

## General

1. When the power lead is connected, the LVPS +3.3VSB supply is energized. The LVPS +3.3VSB supply provides +3.3VSB to the on/off switch and the IOT PWB.
2. When the on/off switch is pressed, the LVPS is energized. The +3.3V, +5V, +12V, +24V and AC voltage for the auxiliary output sockets and fuser module is distributed.
3. Each module manages its power-on self-test (POST) and power-up sequence.

**NOTE:** Refer to [GP 22](#) Electrical Power requirements for further information.

## Power Saver Mode

The Power Saver mode is selected from the Power Down window. The Power Saver mode is delayed until the machine is not active for 30 seconds.

**NOTE:** If the power saver feature is disabled, the option is not displayed. Refer to [GP 22](#) Electrical Power Requirements for further information.

## GP 15 How to Set the Machine Configuration

### Description

Use this procedure when a new IOT PWB has been installed or the message 'Machine Speed Configuration Error' occurs.

### Procedure

Perform the following:

1. Enter **dC131** NVM location 03-005 System Install Phase. Set the value to 2.
2. Exit diagnostics, then reboot the machine.
3. Re-run the install wizard. When requested, input the relevant activation code.

**NOTE:** The activation code can be found on a label on the rear of the machine. A copier only machine will have DC 57XX in the top right corner of the label, a multi-function machine will have MF 57XX.

4. Complete the final actions, **SCP 6**.

## GP 16 How to Safely Lift or Move Heavy Modules

### Purpose

Use this procedure when lifting or moving heavy modules.

### Procedure

When removing heavy modules from the machine, the following instructions must be observed:

1. Ensure that a suitable stable surface to support the module after removal is located in close proximity to the machine.

**NOTE:** Other parts of the machine are not a suitable stable surface.

2. Ensure that the height of the support surface is between 750mm and 1000mm (30 inches and 39 inches).
3. Ensure that there are no hazards or obstacles between the machine and the support surface.
4. If instructed to remove the module toward the rear of the machine and only one person is available, the module must be removed while standing at the rear of the machine. If two people are available, the module may be removed while standing at the front of the machine.
5. Two people are required if the module is to be lifted on to the floor or lifted from the floor.

## GP 17 High Frequency Service Items

### Purpose

To provide the service engineer with a method to view the service history of the high frequency service items (HFSI). The service engineer can reset the counters and change the setting of the maximum life and threshold value of each HFSI item.

### Procedure

Enter diagnostics [GP 1](#). Select the Service Info window and touch the HFSI feature to select the HFSI table.

The five columns in the HFSI table on the display are:

- The Item column, shows the HFSI item to be tracked.
- The Status column, indicates the status of an item relative to its threshold setting. Values are "Off" (not tracked), "OK" or "Check".
- The Unit column, shows the events that are being used to track the item.
- The Actual column, shows the actual count value against the HFSI item.
- The Max. Life column, shows the maximum life count value of the HFSI item.

The Actual and Maximum Life count value have a numeric range of 0 to 9999999 for all HFSI items.

The first item in the HFSI table will be the item that requires attention (if needed) then the item will be displayed as "Check". If the item has not yet reached threshold the "OK" is displayed.

To change the maximum life or threshold value of each HFSI item, perform the following:

1. Select and highlight the HFSI item to change.
2. Touch the Edit button.
3. Enter the new value using the numeric keypad. The new value will overwrite the existing value in the table. Touch the Save button to enter the new maximum life or threshold value into the file. If the entered value is incorrect, press the Undo button. This stops the process and the old value is retained.

A threshold value of zero indicates that there is no threshold value assigned to the item and the status will be "Off" (not tracked).

The maximum life setting and the threshold settings are independent of each other. The threshold value can exceed the maximum life value.

To reset the HFSI item Actual count value to zero, perform the following:

1. Select and highlight the HFSI item to reset.
2. Touch the Reset button,
3. Touch the OK button to reset the count value to zero.

For details of high frequency service items, refer to [SCP 5](#) Subsystem Maintenance.

## GP 18 Machine Lubrication

### Purpose

To give information on the use of lubricants.

### Procedure



**Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to [GP 14](#). Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.**



*Only use lubricants as directed. Incorrect use of lubricants could seriously affect the performance of the machine.*

Take the following precautions when performing machine lubrication:

- Wear disposable gloves, [PL 26.10 Item 10](#).
- Only use lubricants that are specified in the Parts List.
- Only lubricate parts of the machine as directed in the relevant RAPs, Repairs and Adjustments etc.
- Apply only the smallest amount of lubricant, sufficient to lubricate the parts. To prevent contamination, remove any surplus lubricant before the machine is run.
- Take great care not to contaminate other parts of the machine with the lubricant.



## Specific Lubrication for the Registration Transport Nip Assembly

1. Remove the registration transport assembly, [REP 8.4](#).
2. [Figure 1](#), remove the nip assembly.

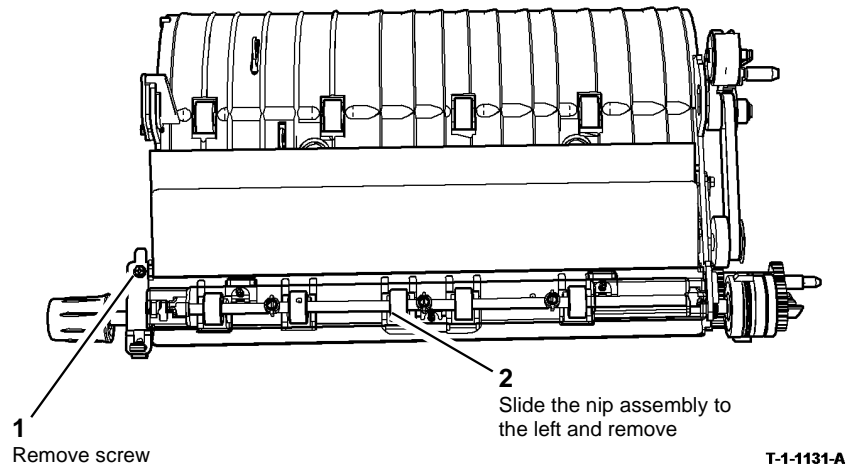
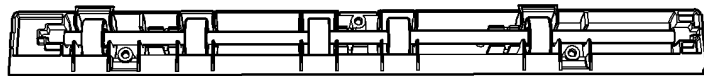


Figure 1 Nip assembly removal

3. Turn over the nip assembly and remove two screws to release the transparent nip roll housing, [Figure 2](#).



T-1-1132-A

Figure 2 Transparent nip roll housing

  
**CAUTION**

*Only use plastislip grease. The use of any other type of grease may dissolve the plastic.*

4. Use plastislip grease, [PL 26.10 Item 8](#) to lubricate the nip roll shaft contact areas of the housing, [Figure 3](#).

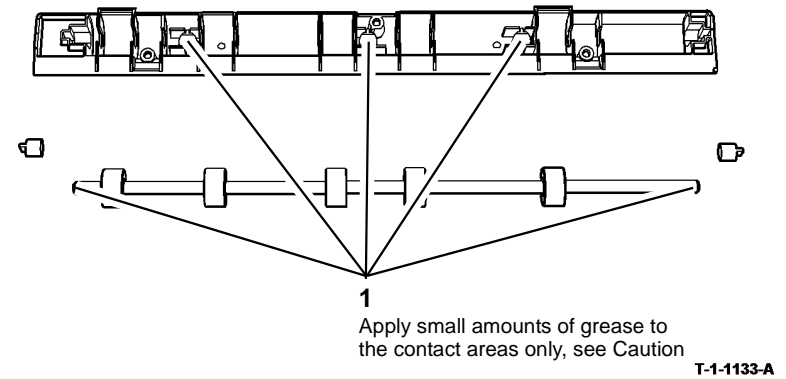


Figure 3 Lubricant application

5. Reassemble the parts and install the registration transport assembly, [REP 8.4](#).

## GP 19 Network Clone Procedure

### Purpose

To save and restore the customers unique network controller configuration setting.

The clone file must be taken at the first service call and whenever the system software is changed.

### Procedure

#### Setting Up the PWS

Perform the following:

1. Print a copy of the latest configuration report.
2. Set the proxy server setting on the PWS. Perform the following:
  - a. Open Start / Control Panel / Network Connections / Network Connections / Local Area Connections.
  - b. Double click the Internet Protocol (TCP / IP) icon, or open Properties when selected
  - c. Select Use the following IP address.

**NOTE:** Before changing the proxy server settings, record the original IP address and Subnet mask. The original settings are reset at the end of this procedure.

- d. Refer to the configuration report for IP address of the machine. Set the IP address of the PWS one number higher than that of the machine. For example, if the IP address of the machine is 192.168.196.112, set the IP address of the PWS to 192.168.196.113.
  - e. Refer to the configuration report for Subnet mask of the machine. Set the Subnet mask of the PWS to the same as the Subnet mask of the machine.
- NOTE:** A default gateway setting is not required.
- f. Click on OK to close the properties dialog box.
  - g. Click on OK to close the Local Area Connection Properties dialog box.
  - h. If any settings have been changed, it will be necessary to reboot the PWS.

3. Switch off the machine, [GP 14](#).
4. Disconnect the ethernet cable from the machine.
5. Connect the ethernet crossover cable, [PL 26.10 Item 6](#) between the machine and the PWS.
6. Switch on the machine, [GP 14](#).

#### How to Save a Clone File

1. Open the web browser. Enter the machines IP address in the web browser Address field, then press the enter key. The machine web page will open.

**NOTE:** Refer to the configuration report for the machines IP address.

2. Select Index
3. Select Cloning
4. Ensure that all the boxes are ticked
5. Select Clone
6. Enter User name and Password
7. Press OK and follow the on screen cloning instructions.

8. On the Cloning DLM, right click, select Save Target As.
9. Select File Name - Enter.DLM
10. Save to the PWS.

#### How to Install a Clone File

1. Open the web browser. Enter the machine IP address in the web browser address field. Then press the Enter key. The machine web page will open.

**NOTE:** Refer to the configuration report for the machine IP address.

2. Select: Index.
3. Select Cloning.
4. At install clone file, scroll down and select the Browse and select the floppy drive.
5. Select the clone file, open the file and press install.

**NOTE:** There is no indication or message to say that the install has been completed.

# GP 20 Paper and Media Size Specifications

## Purpose

To list the paper and media size specifications.

## Specifications

The baseline papers used in this specification, are defined as:

- Xerox 4200 (20lb / 75 gsm) 8.5 x 11 inch paper.
- Xerox Premier TCF 80 gsm A4 paper.

The machine design and performance is optimized for these papers.

**NOTE:** Check that the paper tray settings match the paper size in the tray.

Refer to the following:

- [Table 1](#) Performance indication. Use this table to determine the meaning of the alpha numeric codes in [Table 2](#) and [Table 3](#).
- [Table 2](#) European papers.
- [Table 3](#) American papers.
- [Table 4](#) U.S. paper weight conversion. Use this table to determine approximate equivalent points in weight specifications other than for U.S. bond weight.
- [Table 5](#) Input / output paper sizes. The table defines the paper sizes that are recognized by the DADH, document glass and the paper trays when using an OCT output device.
- [Table 6](#) 1K LCSS output paper sizes. The table defines the paper sizes that can be delivered to the output trays of a 1K LCSS.

- [Table 7](#) 2K LCSS output paper sizes. The table defines the paper sizes that can be delivered to the output trays of a 2K LCSS.
- [Table 8](#) HVF output paper sizes. The table defines the paper sizes that can be delivered to the output bins of the HVF.
- [Table 9](#) Output stock performance. The table shows the media (stock) performance constraints for the output. Performance will not be guaranteed for media not listed in the table. Media that is smaller than 139 mm (5.5 inches) in either the process or cross process direction cannot be duplexed.
- [Table 10](#) Input document material definitions.
- [Table 11](#) Input document quality definitions.
- [Envelope Specifications](#)

**Table 1 Performance indication**

Code	Description
3	Excellent performance
2	Good performance (Good image quality, some jams and poor stacking)
1	Degraded performance (Image quality defects, increased jams or bad stacking)
X	Not recommended (outside specification)
N	Size unrecognized and not acceptable
U	Size unrecognized but acceptable
Y	Size recognized and accepted

**Table 2 European papers**

Paper Size	Paper Weight gsm	Feed Direction	Paper Type	Tray 1/2	Tray 3/4	Bypass	Duplex	Tray 5	Defects
A4	60	LEF	Plain paper	2	2	2	2	2	Duplex show through
A4	60	SEF	Plain paper	2	X	2	2	X	Duplex show through
A4	61 - 120	LEF	Plain paper	3	3	3	3	3	None
A4	61 - 120	SEF	Plain paper	3	X	3	3	X	None
A4	121 - 200	LEF	Plain paper	2	2	2	2	2	None
A4	121 - 200	SEF	Plain paper	2	X	2	2	X	None
A4	201 - 216	LEF / SEF	Plain paper	X	X	2	X	X	None
A4	-	LEF / SEF	Labels (see NOTE 2)	X	X	2	X	X	None
A4	-	LEF / SEF	Plain transparency	X	X	2	X	X	None
A4	-	LEF	White strip transparency	X	X	2	X	X	None
A4	-	SEF	White strip transparency	X	X	X	X	X	Out of specification
A4	-	LEF	Paper backed transparency	X	X	2	X	X	None
A4	-	SEF	Paper backed transparency	X	X	X	X	X	Out of specification
Oversize A4	-	LEF	Tabs	2	X	2	X	X	Productivity reduction
Oversize A4	-	LEF	Covers	2	X	2	X	X	Productivity reduction
A3	60	SEF	Plain paper	2	X	2	1	X	Curl
A3	61 - 120	SEF	Plain paper	3	X	3	3	X	None

**Table 2 European papers**

Paper Size	Paper Weight gsm	Feed Direction	Paper Type	Tray 1/2	Tray 3/4	Bypass	Duplex	Tray 5	Defects
A3	120 - 161	SEF	Plain paper	2	X	2	2	X	None
A3	161 - 200	SEF	Plain paper	2	X	2	1	X	Mis-registration and skew
A5	60	LEF	Plain paper	2	X	2	1	X	Curl
A5	60	SEF	Plain paper	X	X	2	1	X	Curl
A5	61 - 120	LEF	Plain paper	3	X	3	3	X	None
A5	61 - 120	SEF	Plain paper	X	X	3	3	X	None
A5	121 - 200	LEF	Plain paper	2	X	2	2	X	None
A5	121 - 200	SEF	Plain paper	X	X	2	1	X	Mis-registration and skew
A6	60	LEF	Plain paper	X	X	X	X	X	Out of specification.
A6	60	SEF	Plain paper	X	X	2	X	X	Out of specification.
A6	61 - 120	LEF	Plain paper	X	X	X	X	X	Out of specification.
A6	61 - 120	SEF	Plain paper	X	X	3	X	X	Out of specification.
A6	121 - 200	LEF	Plain paper	X	X	X	X	X	Out of specification.
A6	121 - 200	SEF	Plain paper	X	X	1	X	X	Out of specification.
A4	60	LEF / SEF	Nekosa	1	1	1	1	1	Jams
8.5 x 12.4 inch	All	SEF	Spanish Folio	2	X	2	2	X	Not tested
A4	200	LEF / SEF	Premier TCF	2	2	2	2	2	Poor fusing on 35-65 ppm machines.
All	All	LEF / SEF	Envelopes (see NOTE 1)	2	X	2	X	X	Wrinkle
All	100	LEF / SEF	Conqueror finely ridged laid	2	2	2	2	2	Poor fusing on 35-65 ppm machines.
All	80	LEF / SEF	Recycled	1	1	1	1	1	Excessive curl
Any	Any	LEF / SEF	Jobs with covers	1	X	1	1	X	Rear cover of stapled sets of more than 35 sheets plus 2 covers, may be mis-registered in the 1K LCSS and 2K LCSS.
All	200	LEF / SEF	Colortech (coated paper)	2	2	2	2	2	Stapling more than 10 sheets not recommended
A4	200	LEF / SEF	Beaverboard	2	2	2	2	2	Poor fusing on 35-65 ppm machines.

**NOTE:** 1. Optional envelope tray kit is required to feed envelopes from tray 2.

**NOTE:** 2. Enablement code required to feed labels from tray 1 or 2.

**Table 3 American papers**

Paper Size inches	Paper Weight US bond lb.	Feed Direction	Paper Type	Tray 1/2	Tray 3/4	Bypass	Duplex	Tray 5	Defects
8.5 x 11	16	LEF	Plain paper	2	2	2	2	2	Duplex show through
8.5 x 11	16	SEF	Plain paper	2	X	2	2	X	Duplex show through
8.5 x 11	20 - 32	LEF	Plain paper	3	3	3	3	3	None
8.5 x 11	20 - 32	SEF	Plain paper	3	X	3	3	X	None
8.5 x 11	34 - 53	LEF	Plain paper	2	2	2	2	2	None
8.5 x 11	34 - 53	SEF	Plain paper	2	X	2	2	X	None
8.5 x 11	57	LEF / SEF	Plain paper	X	X	2	X	X	None
8.5 x 11	-	LEF / SEF	Labels (see NOTE 2)	2	X	2	X	X	None
8.5 x 11	-	LEF / SEF	Plain transparency	X	X	2	X	X	None

**Table 3 American papers**

Paper Size inches	Paper Weight US bond lb.	Feed Direction	Paper Type	Tray 1/2	Tray 3/4	Bypass	Duplex	Tray 5	Defects
8.5 x 11	-	LEF	White strip transparency	X	X	2	X	X	None
8.5 x 11	-	SEF	White strip transparency	X	X	X	X	X	Out of specification
8.5 x 11	-	LEF	Paper backed transparency	X	X	2	X	X	None
8.5 x 11	-	SEF	Paper backed transparency	X	X	X	X	X	Out of specification
Oversize 8.5 x 11	-	LEF	Tabs	2	X	2	X	X	Productivity reduction
Oversize 8.5 x 11	-	LEF	Covers	2	X	2	X	X	Productivity reduction
11 x 17	16	SEF	Plain paper	2	X	2	1	X	Curl
11 x 17	20 - 32	SEF	Plain paper	3	X	3	3	X	None
11 x 17	34 - 53	SEF	Plain paper	2	X	2	1	X	Mis-registration and skew
8.5 x 14	16	SEF	Plain paper	2	X	2	1	X	Curl
8.5 x 14	20 - 32	SEF	Plain paper	3	X	3	3	X	None
8.5 x 14	34 - 53	SEF	Plain paper	2	X	2	1	X	Mis-registration and skew
8.5 x 5.5	16	LEF	Plain paper	2	X	2	1	X	Not tested
8.5 x 5.5	16	SEF	Plain paper	X	X	2	1	X	Not tested
8.5 x 5.5	20 - 32	LEF	Plain paper	3	X	3	3	X	Not tested
8.5 x 5.5	20 - 32	SEF	Plain paper	X	X	3	3	X	Not tested
8.5 x 5.5	34 - 53	LEF	Plain paper	2	X	2	2	X	Not tested
8.5 x 5.5	34 - 53	SEF	Plain paper	X	X	2	1	X	Not tested
5.5 x 4.25	16	LEF	Plain paper	X	X	X	X	X	Out of specification.
5.5 x 4.25	16	SEF	Plain paper	X	X	2	X	X	Out of specification.
5.5 x 4.25	20 - 32	LEF	Plain paper	X	X	X	X	X	Out of specification.
5.5 x 4.25	20 - 32	SEF	Plain paper	X	X	3	X	X	Out of specification.
5.5 x 4.25	34 - 53	LEF	Plain paper	X	X	X	X	X	Out of specification.
5.5 x 4.25	34 - 53	SEF	Plain paper	X	X	1	X	X	Out of specification.
All	All	LEF / SEF	Envelopes (see NOTE 1)	2	X	2	X	X	Wrinkle
11 x 17	32	SEF	Domtar (10% recycled)	1	X	1	1	X	Bad stacking due to curl
8.5 x 11	110	LEF / SEF	Bristol Vellum	2	2	2	2	2	Poor fusing on 35-65 ppm machines.
Any	Any	LEF / SEF	Jobs with covers	1	1	1	1	1	Rear cover of stapled sets of more than 35 sheets plus 2 covers, may be mis-registered in the LCSS

**NOTE:** 1. Optional envelope tray kit is required to feed envelopes from tray 2.

**NOTE:** 2. Enablement code required to feed labels from tray 1 or 2.

**Table 4 U.S. paper weight conversion**

US post card thickness (mm) (see NOTE)	US bond weight (lb.)	US text / book weight (lb.)	US cover weight (lb.)	US Bristol weight (lb.)	US index weight (lb.)	US tag weight (lb.)	Metric weight (gsm)
-	16	41	22	27	33	37	60
-	17	43	24	29	35	39	64

Table 4 U.S. paper weight conversion

US post card thickness (mm) (see NOTE)	US bond weight (lb.)	US text / book weight (lb.)	US cover weight (lb.)	US Bristol weight (lb.)	US index weight (lb.)	US tag weight (lb.)	Metric weight (gsm)
-	20	50	28	34	42	46	75
-	21	54	30	36	44	49	80
-	22	56	31	38	46	51	83
-	24	60	33	41	50	55	90
-	27	68	37	45	55	61	100
-	28	70	39	49	58	65	105
-	32	80	44	55	67	74	120
-	34	86	47	58	71	79	128
-	36	90	50	62	75	83	135
0.18	39	100	55	67	82	91	148
0.19	42	107	58	72	87	97	158
0.20	43	110	60	74	90	100	163
0.23	47	119	65	80	97	108	176
0.25	51	128	70	86	105	117	190
0.26	53	134	74	90	110	122	199
0.27	54	137	75	93	113	125	203
0.29	58	146	80	98	120	133	216
0.32	65	165	90	111	135	150	244
0.33	66	169	92	114	138	154	250
0.34	67	171	94	115	140	155	253
0.35	70	178	98	120	146	162	264
0.36	72	183	100	123	150	166	271

NOTE: U.S. Post Card measurements are approximate. Use for reference only.

Table 5 Input / output Paper sizes

Paper size			Orientation	Paper tray size sensing				DADH size sensing			Document glass size sensing			Output device	Notes
Common Name	Inch (W x L) +/-1/32 inch	mm (W x L) +/-1 mm	LEF / SEF	Tray 1 and 2	Bypass tray	Tray 3 and 4	Tray 5	NASG	Eur / Asia	Latin	NASG	Eur / Asia	Latin	OCT	-
Letter	8.5 x 11	216 x 279	SEF	Y	Y	N	Y*	Y	Y	Y	Y	Y	Y	Y	*Fixed size dependant on purchased option
Letter	8.5 x 11	216 x 279	LEF	Y	Y	Y*	Y*	Y	Y	Y	Y	Y	Y	Y	*Fixed size dependant on purchased option
Ledger	11 x 17	279 x 432	SEF	Y	Y	N	Y*	Y	Y	Y	Y	Y	Y	Y	*Fixed size dependant on purchased option
Invoice (statement)	8.5 x 5.5	216 x 138	SEF	N	Y	N	N	Y*	Y*	Y*	Y	Y	Y	Y	*ISO A5 or 8.5 x 5.5 depends on NVM 2 setting

Table 5 Input / output Paper sizes

Paper size			Orientation	Paper tray size sensing				DADH size sensing			Document glass size sensing			Output device	Notes
Common Name	Inch (W x L) +/-1/32 inch	mm (W x L) +/-1 mm	LEF / SEF	Tray 1 and 2	Bypass tray	Tray 3 and 4	Tray 5	NASG	Eur / Asia	Latin	NASG	Eur / Asia	Latin	OCT	-
Invoice (statement)	8.5 x 5.5	216 x 138	LEF	Y	Y	N	N	Y*	Y*	Y*	Y	Y	Y	Y	*ISO A5 or 8.5 x 5.5 depends on NVM 2 setting
Postcard	4.25 x 5.5	108 x 139	SEF	N	Y	N	N	N	N	N	Y	U	U	Y	-
Postcard	4.25 x 5.5	108 x 139	LEF	N	N	N	N	N	N	N	U	U	U	N	Cannot be fed in IOT
Legal	8.5 x 14	216 x 356	SEF	Y	Y	N	Y*	Y	Y	Y	Y	U	U	Y	*Fixed size dependant on purchased option
ISO A4	8.26 x 11.69	210 x 297	SEF	Y	Y	N	Y**	Y*	Y*	Y*	Y	Y	Y	Y	*ISO A4 or 8.5 x 13 depends on NVM 1 setting ** Fixed size dependant on purchased option
ISO A4	8.26 x 11.69	210 x 297	LEF	Y	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y	*Fixed size dependant on purchased option
ISO A3	11.69 x 16.54	297 x 420	SEF	Y	Y	N	Y*	Y	Y	Y	Y	Y	Y	Y	*Fixed size dependant on purchased option
ISO A5	5.83 x 8.27	148 x 210	SEF	N	Y	N	N	Y*	Y*	Y*	U	Y	U	Y	*ISO A5 or 8.5 x 5.5 depends on NVM 2 setting
ISO A5	5.83 x 8.27	148 x 210	LEF	Y	Y	N	N	Y*	Y*	Y*	U	Y	U	Y	*ISO A5 or 8.5 x 5.5 depends on NVM 2 setting
ISO A6	4.13 x 5.83	105 x 148	SEF	N	Y	N	N	N	N	N	U	Y	Y	Y	-
ISO A6	4.13 x 5.83	105 x 148	LEF	N	N	N	N	N	N	N	U	U	U	N	-
Foolscap or Euroletter	8.5 x 13	216 x 330	SEF	Y	Y	N	N	Y*	Y*	Y*	U	Y	Y	Y	*ISO A4 or 8.5 x 13 depends on NVM 1 setting
JIS B5	7.17 x 10.12	182 x 257	SEF	U	Y	N	N	Y	Y	Y	Y	Y	Y	Y	-
JIS B5	7.17 x 10.12	182 x 257	LEF	U	Y	N	N	Y	Y	Y	Y	Y	Y	Y	-
JIS B4	10.12 x 14.33	257 x 364	SEF	U	Y	N	N	U*	U*	U*	Y	Y	Y	Y	* Detected as ISO B4
JIS B6	5.08 x 7.17	128 x 182	SEF	N	Y	N	N	N	N	N	Y	Y	Y	Y	-
JIS B6	5.08 x 7.17	128 x 182	LEF	N	N	N	N	U*	U*	U*	U	U	U	Y	* Detected as ISO B5
ISO B5	6.93 x 9.84	176 x 250	SEF	N	U	N	N	Y	Y	Y	U	U	U	Y	-
ISO B5	6.93 x 9.84	176 x 250	LEF	U	U	N	N	Y	Y	Y	U	U	U	Y	-
ISO B4	9.84 x 13.9	250 x 353	SEF	U	U	N	N	Y	Y	Y	Y	Y	Y	Y	-
SB4	9.9 x 14.09	252 x 358	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B4
Postcard-Lakes	4.5 x 6	114 x 152	SEF	N	U	N	N	N	N	N	U	U	U	Y	-
Postcard-Lakes	4.5 x 6	114 x 152	LEF	N	N	N	N	U*	U*	U*	U	U	U	N	* Detected as ISO A5 or 8.5 x 5.5 depending on NVM 2 setting
Postcard	5 x 7	127 x 178	SEF	N	U	N	N	N	N	N	U	U	U	Y	-
Postcard	5 x 7	127 x 178	LEF	N	N	N	N	U*	U*	U*	U	U	U	N	* Detected as ISO A5 or 8.5 x 5.5 depending on NVM 2 setting

Table 5 Input / output Paper sizes

Paper size			Orientation	Paper tray size sensing				DADH size sensing			Document glass size sensing			Output device	Notes
Common Name	Inch (W x L) +/-1/32 inch	mm (W x L) +/-1 mm	LEF / SEF	Tray 1 and 2	Bypass tray	Tray 3 and 4	Tray 5	NASG	Eur / Asia	Latin	NASG	Eur / Asia	Latin	OCT	-
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	SEF	N	U	N	N	U*	U*	U*	U	U	U	Y	* Detected as ISO A5 or 8.5 x 5.5 depending on NVM 2 setting
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A5 or 8.5 x 5.5 depending on NVM 2 setting
6 x 9 inch	6 x 9	152 x 229	SEF	N	U	N	N	U*	U*	U*	U	U	U	U	*Detected as ISO A5 or 8.5 x 5.5 depending on NVM 2 setting
6 x 9 inch	6 x 9	152 x 229	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A5 or 8.5 x 5.5 depending on NVM 2 setting
Royal Octavo	6 x 9.5	152 x 241	SEF	N	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A5 or 8.5 x 5.5 depends on NVM 2 setting
Royal Octavo	6 x 9.5	152 x 241	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B5
Foolscap Quarto	6.5 x 8.25	165 x 206	SEF	N	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B5
Foolscap Quarto	6.5 x 8.25	165 x 206	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
Crown Quarto	7.25 x 9.5	184 x 241	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B5
Crown Quarto	7.25 x 9.5	184 x 241	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B5
Executive	7.25 x 10.5	184 x 267	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
Executive	7.25 x 10.5	184 x 267	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
16K Taiwan	7.64 x 10.51	194 x 267	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
16K Taiwan	7.64 x 10.51	194 x 267	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
Quarto	8 x 10	203 x 254	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
Quarto	8 x 10	203 x 254	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8 x 10.5	203 x 267	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8 x 10.5	203 x 267	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
8 x 13 inch foolscap	8 x 13	203 x 330	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8.26 x 10	210 x 254	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8.26 x 10	210 x 254	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8.26 x 10.63	210 x 270	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8.26 x 10.63	210 x 270	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8.26 x 13	210 x 330	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting
Foolscap Folio	8.25 x 13.06	209 x 333	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting



Table 5 Input / output Paper sizes

Paper size			Orientation	Paper tray size sensing				DADH size sensing			Document glass size sensing			Output device	Notes
Common Name	Inch (W x L) +/-1/32 inch	mm (W x L) +/-1 mm	LEF / SEF	Tray 1 and 2	Bypass tray	Tray 3 and 4	Tray 5	NASG	Eur / Asia	Latin	NASG	Eur / Asia	Latin	OCT	-
Demi Quarto	8.46 x 10.7	215 x 273	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
Demi Quarto	8.46 x 10.7	215 x 273	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as 8.5 x 11
-	8.46 x 10.83	215 x 275	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting
-	8.46 x 10.83	215 x 275	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting
Folio (Spain)	8.46 x 12.4	215 x 315	SEF	Y#	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting. #Detected as 8.5 x 13
-	8.66 x 13	220 x 330	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting.
-	8.75 x 11.69	223 x 297	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting.
-	8.75 x 11.69	223 x 297	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting.
Arch A	9 x 12	229 x 305	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO A4 or 8.5 x 13 depends on NVM 1 setting.
SB4	9.92 x 14.09	252 x 258	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B4
SB4	9.92 x 14.09	252 x 258	LEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B4
Accounting	10 x 14	254 x 356	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B4
-	10 x 15	254 x 381	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B4
8K Taiwan	10.51 x 15.28	267 x 388	SEF	U	U	N	N	U*	U*	U*	U	U	U	Y	*Detected as ISO B4

Table 6 1K LCSS output paper sizes

Paper Size			Orientation	Output	Staple position	Output
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Corner	Top Tray
Letter	8.5 x 11	216 x 279	SEF	Y	Y	Y
Letter	8.5 x 11	216 x 279	LEF	Y	Y	Y
Ledger	11 x 17	279 x 432	SEF	Y	Y	Y
Invoice (statement)	8.5 x 5.5	216 x 140	SEF	Y	Y	Y
Invoice (statement)	8.5 x 5.5	216 x 140	LEF	Y	Y	Y
Postcard	4.25 x 5.5	108 x 140	SEF	N	N	Y
Postcard	4.25 x 5.5	108 x 140	LEF	N	N	N
Legal	8.5 x 14	216 x 356	SEF	Y	Y	Y
ISO A4	8.26 x 11.69	210 x 297	SEF	Y	Y	Y
ISO A4	8.26 x 11.69	210 x 297	LEF	Y	Y	Y
ISO A3	11.69 x 16.54	297 x 420	SEF	Y	Y	Y

Table 6 1K LCSS output paper sizes

Paper Size			Orientation	Output	Staple position	Output
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Corner	Top Tray
ISO A5	5.83 x 8.27	148 x 210	SEF	Y	Y	Y
ISO A5	5.83 x 8.27	148 x 210	LEF	Y	Y	Y
ISO A6	4.13 x 5.83	105 x 148	SEF	N	N	Y
ISO A6	4.13 x 5.83	105 x 148	LEF	N	N	N
Foolscap or Euroletter	8.5 x 13	216 x 330	SEF	Y	Y	Y
JIS B5	7.17 x 10.12	182 x 257	SEF	Y	Y	Y
JIS B5	7.17 x 10.12	182 x 257	LEF	Y	Y	Y
JIS B4	10.12 x 14.33	257 x 364	SEF	Y	Y	Y
JIS B6	5.08 x 7.17	128 x 182	SEF	N	N	Y
JIS B6	5.08 x 7.17	128 x 182	LEF	N	N	N
ISO B5	6.93 x 9.84	176 x 250	SEF	Y	Y	Y
ISO B5	6.93 x 9.84	176 x 250	LEF	Y	Y	Y
ISO B4	9.84 x 13.9	250 x 353	SEF	Y	Y	Y
SB4	9.92 x 14.09	252 x 358	SEF	Y	Y	Y
ISO A4 Cover or Tab	8.78 x 11.69	297 x 223	SEF	Y	Y	Y
ISO A4 Cover or Tab	8.78 x 11.69	297 x 223	LEF	Y	Y	Y
Letter Cover or Tab	9 x 11	229 x 279	SEF	Y	Y	Y
Letter Cover or Tab	9 x 11	229 x 279	LEF	Y	Y	Y
Postcard-Lakes	4.5 x 6	114 x 152	SEF	N	N	Y
Postcard-Lakes	4.5 x 6	114 x 152	LEF	N	N	N
Postcard	5 x 7	127 x 178	SEF	N	N	Y
Postcard	5 x 7	127 x 178	LEF	N	N	N
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	SEF	Y	Y	Y
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	LEF	Y	Y	Y
6 x 9 inch	6 x 9	152 x 229	SEF	Y	Y	Y
6 x 9 inch	6 x 9	152 x 229	LEF	Y	Y	Y
Royal Octavo	6 x 9.5	152 x 241	SEF	Y	Y	Y
Royal Octavo	6 x 9.5	152 x 241	LEF	Y	Y	Y
Foolscap Quarto	6.5 x 8.25	165 x 206	SEF	Y	Y	Y
Foolscap Quarto	6.5 x 8.25	165 x 206	LEF	Y	Y	Y
Crown Quarto	7.25 x 9.5	184 x 241	SEF	Y	Y	Y
Crown Quarto	7.25 x 9.5	184 x 241	LEF	Y	Y	Y
Executive	7.25 x 10.5	184 x 267	SEF	Y	Y	Y
Executive	7.25 x 10.5	184 x 267	LEF	Y	Y	Y
16K Taiwan	7.64 x 10.51	194 x 267	SEF	Y	Y	Y
16K Taiwan	7.64 x 10.51	194 x 267	LEF	Y	Y	Y
Quarto	8 x 10	203 x 254	SEF	Y	Y	Y
Quarto	8 x 10	203 x 254	LEF	Y	Y	Y
-	8 x 10.5	203 x 267	SEF	Y	Y	Y

Table 6 1K LCSS output paper sizes

Paper Size			Orientation	Output	Staple position		Output
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Corner		Top Tray
-	8 x 10.5	203 x 267	LEF	Y	Y		Y
-	8 x 13	203 x 330	SEF	Y	Y		Y
-	8.26 x 10	210 x 254	SEF	Y	Y		Y
-	8.26 x 10	210 x 254	LEF	Y	Y		Y
-	8.26 x 10.63	210 x 270	SEF	Y	Y		Y
-	8.26 x 10.63	210 x 270	LEF	Y	Y		Y
Foolsap Folio	8.25 x 13.06	209 x 333	SEF	Y	Y		Y
	8.26 x 13	210 x 330	SEF	Y	Y		Y
Demi Quarto	8.46 x 10.7	215 x 273	SEF	Y	Y		Y
Demi Quarto	8.46 x 10.7	215 x 273	LEF	Y	Y		Y
-	8.46 x 10.83	215 x 275	SEF	Y	Y		Y
-	8.46 x 10.83	215 x 275	LEF	Y	Y		Y
Folio (Spain)	8.46 x 12.4	215 x 315	SEF	Y	Y		Y
-	8.66 x 13	220 x 330	SEF	Y	Y		Y
-	8.75 x 11.69	223 x 297	SEF	Y	Y		Y
-	8.75 x 11.69	223 x 297	LEF	Y	Y		Y
Arch A	9 x 12	229 x 305	SEF	Y	Y		Y
SB4	9.92 x 14.09	252 x 358	SEF	Y	Y		Y
Accounting	10 x 14	254 x 356	SEF	Y	Y		Y
-	10 x 15	254 x 381	SEF	Y	Y		Y
8K Taiwan	10.51 x 15.28	267 x 388	SEF	Y	Y		Y

Table 7 2K LCSS output paper sizes

Paper Size			Orientation	Output	Staple position			Option	Output
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Front	Rear	Dual	Hole punch (all types)	Top Tray
Letter	8.5 x 11	216 x 279	SEF	Y	Y	Y	N	Y	Y
Letter	8.5 x 11	216 x 279	LEF	Y	Y	N	Y	Y	Y
Ledger	11 x 17	279 x 432	SEF	Y	Y	N	Y	Y	Y
Invoice (statement)	8.5 x 5.5	216 x 140	SEF	Y	Y	N	N	N	Y
Invoice (statement)	8.5 x 5.5	216 x 140	LEF	Y	Y	Y	N	Y	Y
Postcard	4.25 x 5.5	108 x 140	SEF	N	N	N	N	N	Y
Postcard	4.25 x 5.5	108 x 140	LEF	N	N	N	N	N	N
Legal	8.5 x 14	216 x 356	SEF	Y	Y	Y	N	Y	Y
ISO A4	8.26 x 11.69	210 x 297	SEF	Y	Y	Y	N	N	Y
ISO A4	8.26 x 11.69	210 x 297	LEF	Y	Y	N	Y	Y	Y
ISO A3	11.69 x 16.54	297 x 420	SEF	Y	Y	N	Y	Y	Y
ISO A5	5.83 x 8.27	148 x 210	SEF	Y	Y	N	N	N	Y

Table 7 2K LCSS output paper sizes

Paper Size			Orientation	Output	Staple position			Option	Output
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Front	Rear	Dual	Hole punch (all types)	Top Tray
ISO A5	5.83 x 8.27	148 x 210	LEF	Y	Y	N	N	N	Y
ISO A6	4.13 x 5.83	105 x 148	SEF	N	N	N	N	N	Y
ISO A6	4.13 x 5.83	105 x 148	LEF	N	N	N	N	N	N
Foolscap or Euroletter	8.5 x 13	216 x 330	SEF	Y	Y	Y	N	Y	Y
JIS B5	7.17 x 10.12	182 x 257	SEF	Y	Y	N	N	N	Y
JIS B5	7.17 x 10.12	182 x 257	LEF	Y	Y	N	N	N	Y
JIS B4	10.12 x 14.33	257 x 364	SEF	Y	Y	N	N	N	Y
JIS B6	5.08 x 7.17	128 x 182	SEF	N	N	N	N	N	Y
JIS B6	5.08 x 7.17	128 x 182	LEF	N	N	N	N	N	N
ISO B5	6.93 x 9.84	176 x 250	SEF	Y	Y	N	N	N	Y
ISO B5	6.93 x 9.84	176 x 250	LEF	Y	Y	N	N	N	Y
ISO B4	9.84 x 13.9	250 x 353	SEF	Y	Y	N	N	N	Y
SB4	9.92 x 14.09	252 x 358	SEF	Y	Y	N	N	N	Y
ISO A4 Cover or Tab	8.78 x 11.69	297 x 223	SEF	Y	Y	N	N	N	Y
ISO A4 Cover or Tab	8.78 x 11.69	297 x 223	LEF	Y	Y	N	N	N	Y
Letter Cover or Tab	9 x 11	229 x 279	SEF	Y	Y	N	N	N	Y
Letter Cover or Tab	9 x 11	229 x 279	LEF	Y	Y	N	N	N	Y
Postcard-Lakes	4.5 x 6	114 x 152	SEF	N	N	N	N	N	Y
Postcard-Lakes	4.5 x 6	114 x 152	LEF	N	N	N	N	N	N
Postcard	5 x 7	127 x 178	SEF	N	N	N	N	N	Y
Postcard	5 x 7	127 x 178	LEF	N	N	N	N	N	N
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	SEF	Y	Y	N	N	N	Y
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	LEF	Y	Y	Y	N	N	Y
6 x 9 inch	6 x 9	152 x 229	SEF	Y	Y	N	N	N	Y
6 x 9 inch	6 x 9	152 x 229	LEF	Y	Y	N	N	N	Y
Royal Octavo	6 x 9.5	152 x 241	SEF	Y	Y	N	N	N	Y
Royal Octavo	6 x 9.5	152 x 241	LEF	Y	Y	N	N	N	Y
Foolscap Quarto	6.5 x 8.25	165 x 206	SEF	Y	Y	N	N	N	Y
Foolscap Quarto	6.5 x 8.25	165 x 206	LEF	Y	Y	Y	N	N	Y
Crown Quarto	7.25 x 9.5	184 x 241	SEF	Y	Y	N	N	N	Y
Crown Quarto	7.25 x 9.5	184 x 241	LEF	Y	Y	N	N	N	Y
Executive	7.25 x 10.5	184 x 267	SEF	Y	Y	N	N	N	Y
Executive	7.25 x 10.5	184 x 267	LEF	Y	Y	N	N	N	Y
16K Taiwan	7.64 x 10.51	194 x 267	SEF	Y	Y	N	N	N	Y
16K Taiwan	7.64 x 10.51	194 x 267	LEF	Y	Y	N	N	N	Y
Quarto	8 x 10	203 x 254	SEF	Y	Y	Y	N	N	Y
Quarto	8 x 10	203 x 254	LEF	Y	Y	N	N	N	Y
-	8 x 10.5	203 x 267	SEF	Y	Y	Y	N	N	Y
-	8 x 10.5	203 x 267	LEF	Y	Y	N	N	N	Y

Table 7 2K LCSS output paper sizes

Paper Size			Orientation	Output	Staple position			Option	Output
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Front	Rear	Dual	Hole punch (all types)	Top Tray
-	8 x 13	203 x 330	SEF	Y	Y	Y	N	N	Y
-	8.26 x 10	210 x 254	SEF	Y	Y	Y	N	N	Y
-	8.26 x 10	210 x 254	LEF	Y	Y	N	N	N	Y
-	8.26 x 10.63	210 x 270	SEF	Y	Y	Y	N	N	Y
-	8.26 x 10.63	210 x 270	LEF	Y	Y	N	N	N	Y
Foolscap Folio	8.25 x 13.06	209 x 333	SEF	Y	Y	Y	N	N	Y
-	8.26 x 13	210 x 330	SEF	Y	Y	Y	N	N	Y
Demi Quarto	8.46 x 10.7	215 x 273	SEF	Y	Y	Y	N	N	Y
Demi Quarto	8.46 x 10.7	215 x 273	LEF	Y	Y	N	N	N	Y
-	8.46 x 10.83	215 x 275	SEF	Y	Y	Y	N	N	Y
-	8.46 x 10.83	215 x 275	LEF	Y	Y	N	N	N	Y
Folio (Spain)	8.46 x 12.4	215 x 315	SEF	Y	Y	Y	N	N	Y
-	8.66 x 13	220 x 330	SEF	Y	Y	Y	N	N	Y
-	8.75 x 11.69	223 x 297	SEF	Y	Y	N	N	N	Y
-	8.75 x 11.69	223 x 297	LEF	Y	Y	N	Y	Y	Y
Arch A	9 x 12	229 x 305	SEF	Y	Y	N	N	N	Y
SB4	9.92 x 14.09	252 x 358	SEF	Y	Y	N	N	N	Y
Accounting	10 x 14	254 x 356	SEF	Y	Y	N	N	N	Y
-	10 x 15	254 x 381	SEF	Y	Y	N	N	N	Y
8K Taiwan	10.51 x 15.28	267 x 388	SEF	Y	Y	N	N	N	Y

Table 8 HVF output paper sizes

Paper Size			Orientation	Output	Staple position				Option	Output	
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Front	Rear	Dual	Multiple	Hole punch (all types)	Top Tray	Booklet maker
Letter	8.5 x 11	216 x 279	SEF	Y	Y	Y	Y	Y	Y	Y	Y
Letter	8.5 x 11	216 x 279	LEF	Y	Y	Y	Y	Y	Y	Y	N
Ledger	11 x 17	279 x 432	SEF	Y	Y	Y	Y	Y	Y	Y	Y
Invoice (statement)	8.5 x 5.5	216 x 140	SEF	Y	N	N	N	N	N	Y	N
Invoice (statement)	8.5 x 5.5	216 x 140	LEF	Y	Y	Y	Y	Y	Y	Y	N
Postcard	4.25 x 5.5	108 x 140	SEF	N	N	N	N	N	N	Y	N
Postcard	4.25 x 5.5	108 x 140	LEF	N	N	N	N	N	N	N	N
Legal	8.5 x 14	216 x 356	SEF	Y	Y	Y	Y	Y	Y	Y	Y
ISO A4	8.26 x 11.69	210 x 297	SEF	Y	Y	Y	Y	Y	N	Y	Y
ISO A4	8.26 x 11.69	210 x 297	LEF	Y	Y	Y	Y	Y	Y	Y	N
ISO A3	11.69 x 16.54	297 x 420	SEF	Y	Y	Y	Y	Y	Y	Y	Y
ISO A5	5.83 x 8.27	148 x 210	SEF	Y	N	N	N	N	N	Y	N

Table 8 HVF output paper sizes

Paper Size			Orientation	Output	Staple position				Option	Output	
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Front	Rear	Dual	Multiple	Hole punch (all types)	Top Tray	Booklet maker
ISO A5	5.83 x 8.27	148 x 210	LEF	Y	Y	Y	Y	Y	N	Y	N
ISO A6	4.13 x 5.83	105 x 148	SEF	N	N	N	N	N	N	Y	N
ISO A6	4.13 x 5.83	105 x 148	LEF	N	N	N	N	N	N	N	N
Foolscap or Euroletter	8.5 x 13	216 x 330	SEF	Y	Y	Y	Y	Y	Y	Y	Y
JIS B5	7.17 x 10.12	182 x 257	SEF	Y	Y	Y	Y	Y	N	Y	N
JIS B5	7.17 x 10.12	182 x 257	LEF	Y	Y	Y	Y	Y	N	Y	N
JIS B4	10.12 x 14.33	257 x 364	SEF	Y	Y	Y	Y	Y	N	Y	N
JIS B6	5.08 x 7.17	128 x 182	SEF	N	N	N	N	N	N	Y	N
JIS B6	5.08 x 7.17	128 x 182	LEF	N	N	N	N	N	N	N	N
ISO B5	6.93 x 9.84	176 x 250	SEF	Y	Y	N	N	N	N	Y	N
ISO B5	6.93 x 9.84	176 x 250	LEF	Y	Y	Y	Y	Y	N	Y	N
ISO B4	9.84 x 13.9	250 x 353	SEF	Y	Y	Y	Y	Y	N	Y	N
ISO A4 Cover	8.78 x 11.69	297 x 223	SEF	Y	Y	Y	Y	Y	N	Y	N
ISO A4 Cover	8.78 x 11.69	297 x 223	LEF	Y	Y	Y	Y	Y	N	Y	N
ISO A4 Tab Stock	-	-	LEF	Y	Y	Y	Y	Y	Y	Y	N
Letter Cover	9 x 11	229 x 279	SEF	Y	Y	Y	Y	Y	N	Y	N
Letter Cover	9 x 11	229 x 279	LEF	Y	Y	Y	Y	Y	N	Y	N
8.5 x 11 inch Tab Stock	-	-	LEF	Y	Y	Y	Y	Y	Y	Y	N
Postcard-Lakes	4.5 x 6	114 x 152	SEF	Y	N	N	N	N	N	Y	N
Postcard-Lakes	4.5 x 6	114 x 152	LEF	N	N	N	N	N	N	N	N
Postcard	5 x 7	127 x 178	SEF	Y	N	N	N	N	N	Y	N
Postcard	5 x 7	127 x 178	LEF	N	N	N	N	N	N	N	N
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	SEF	Y	N	N	N	N	N	Y	N
Oufuku-Hagaki Postcard	5.83 x 7.87	148 x 200	LEF	Y	Y	Y	Y	Y	N	Y	N
6 x 9 inch	6 x 9	152 x 229	SEF	Y	N	N	N	N	N	Y	N
6 x 9 inch	6 x 9	152 x 229	LEF	Y	Y	Y	Y	Y	N	Y	N
Royal Octavo	6 x 9.5	152 x 241	SEF	Y	N	N	N	N	N	Y	N
Royal Octavo	6 x 9.5	152 x 241	LEF	Y	Y	Y	Y	Y	N	Y	N
Foolscap Quarto	6.5 x 8.25	165 x 206	SEF	Y	N	N	N	N	N	Y	N
Foolscap Quarto	6.5 x 8.25	165 x 206	LEF	Y	Y	Y	Y	Y	N	Y	N
Crown Quarto	7.25 x 9.5	184 x 241	SEF	Y	Y	Y	Y	Y	N	Y	N
Crown Quarto	7.25 x 9.5	184 x 241	LEF	Y	Y	Y	Y	Y	N	Y	N
Executive	7.25 x 10.5	184 x 267	SEF	Y	Y	Y	Y	Y	N	Y	N
Executive	7.25 x 10.5	184 x 267	LEF	Y	Y	Y	Y	Y	N	Y	N
16K Taiwan	7.64 x 10.51	194 x 267	SEF	Y	Y	Y	Y	Y	N	Y	N
16K Taiwan	7.64 x 10.51	194 x 267	LEF	Y	Y	Y	Y	Y	N	Y	N
Quarto	8 x 10	203 x 254	SEF	Y	Y	Y	Y	Y	N	Y	N
Quarto	8 x 10	203 x 254	LEF	Y	Y	Y	Y	Y	N	Y	N

Table 8 HVF output paper sizes

Paper Size			Orientation	Output	Staple position				Option	Output	
Common Name	Inch (W x L)	mm (W x L)	LEF / SEF	Stack	Front	Rear	Dual	Multiple	Hole punch (all types)	Top Tray	Booklet maker
-	8 x 10.5	203 x 267	SEF	Y	Y	Y	Y	Y	N	Y	N
-	8 x 10.5	203 x 267	LEF	Y	Y	Y	Y	Y	N	Y	N
-	8 x 13	203 x 330	SEF	Y	Y	Y	Y	N	N	Y	N
-	8.26 x 10	210 x 254	SEF	Y	Y	Y	Y	Y	N	Y	N
-	8.26 x 10	210 x 254	LEF	Y	Y	Y	Y	Y	N	Y	N
-	8.26 x 10.63	210 x 270	SEF	Y	Y	Y	Y	Y	N	Y	N
-	8.26 x 10.63	210 x 270	LEF	Y	Y	Y	Y	Y	N	Y	N
Foolscap Folio	8.25 x 13.06	209 x 333	SEF	Y	Y	Y	Y	Y	N	Y	N
-	8.26 x 13	210 x 330	SEF	Y	Y	Y	Y	Y	N	Y	N
Demi Quarto	8.46 x 10.7	215 x 273	SEF	Y	Y	Y	Y	N	N	Y	N
Demi Quarto	8.46 x 10.7	215 x 273	LEF	Y	Y	Y	Y	Y	N	Y	N
-	8.46 x 10.83	215 x 275	SEF	Y	Y	Y	Y	Y	N	Y	N
-	8.46 x 10.83	215 x 275	LEF	Y	Y	Y	Y	Y	N	Y	N
-	8.66 x 13	220 x 330	SEF	Y	Y	Y	Y	Y	N	Y	N
Arch A	9 x 12	229 x 305	SEF	Y	Y	Y	Y	Y	N	Y	N
SB4	9.92 x 14.09	252 x 358	SEF	Y	Y	Y	Y	Y	N	Y	N
SB4	9.92 x 14.09	252 x 358	LEF	N	N	N	N	N	N	N	N
Accounting	10 x 14	254 x 356	SEF	Y	Y	Y	Y	Y	N	Y	N
-	10 x 15	254 x 381	SEF	Y	Y	Y	Y	Y	N	Y	N
8K Taiwan	10.51 x 15.28	267 x 388	SEF	Y	Y	Y	Y	Y	N	Y	N
Custom size, cross process direction (minimum)	4.13	105	-	N	N	N	N	N	N	Y	N
Custom size, process direction (minimum)	5.5	138	-	N	N	N	N	N	N	Y	N
Custom size, cross process direction (maximum)	11.69	297	-	N	N	N	N	N	N	Y	N
Custom size, process direction (maximum)	17.01	432	-	N	N	N	N	N	N	Y	N

Table 9 Output stock performance

Stock Type	Trays 1 and 2	Bypass	Trays 3 and 4	Tray 5	Duple x	Offset	Stack	Staple	Hole punch	Booklet Maker	Tri-folder	Inserter	Notes
Bond/standard 70 gsm to 90 gsm (16lbs to 24lbs)	Y	Y	Y	Y	Y	Y	Y(1)	Y(2)	Y	Y	Y	Y	(1) Possible performance degradation if small documents and stacked on large. (2) For stapled sets, staple build up may affect stack quality.
Index	Y	Y	Y	Y	Y	Y	Y(1)	Y(2)	Y	Y	Y	Y	
Recycled	Y	Y	Y	Y	Y	Y	Y(1)	Y(2)	Y	Y	Y	Y	

**Table 9 Output stock performance**

Stock Type	Trays 1 and 2	Bypass	Trays 3 and 4	Tray 5	Duple x	Offset	Stack	Staple	Hole punch	Booklet Maker	Tri-folder	Inserter	Notes
Transparency (non paper backed)	N	Y	N	N	N	Y(1)(2)	Y(1)	N	N	N	N	N	(1) An increase in set scatter or set to set registration may occur with greater than 20 sheets. (2) LCSS only.
Transparency (paper backed) (3)	N	Y	N	N	N	Y(1)(2)	Y(1)	N	N	N	N	N	Must be fed with sealed edge leading. Must not be inverted. (1) An increase in set scatter or set to set registration may occur with greater than 20 sheets. (2) LCSS only. (3) Must be fed into the output device sealed edge first.
Labels (1)	N (3)	Y	N	N	N	N	N	Y(2)	N	N	N	N	(1) Must not be inverted. (2) LCSS = Top tray only. (3) Except for hospital labels.
Card stock, 120 gsm to 200 gsm	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y(2)	N	Y	(1) Pro-rata reduction in capacity with weight of stock. (2) One cover may be included within the quoted sheet capacity consistent with paper weight of the body of the booklet.
Card stock, 216 gsm	N	Y	N	N	Y	N	Y	Y	Y	Y(2)	N	Y	
Tabs (1)	Y	Y	N	N	N	N	Y	Y	Y	N	N	N	(1) Tabs must be on trail edge when fed from trays and bypass, but lead edge when arriving at the output. Therefore tab stock will be inverted before output. Hole punch registration performance may be degraded.
Punched	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	Y	-
Envelopes (1)	Y(2)	Y	N	N	N	N	N	Y(3)	N	N	N	N	(1) Must not be inverted. (2) ID #10 envelopes can be fed from tray 2 if the optional envelope kit is installed. (3) LCSS = Top tray only.
Carbonless paper	N	N	N	N	N	N	N	N	N	N	N	N	

**Table 10 Input document material definitions**

Category	Material	Image Type
Group I. Common usage input.	80 gsm (20lb.) to 120gsm (32lb.) or equivalent weight range (rag bond offset and ledger paper). This group includes 4040 paper.	Impact typewriter, offset image, Xerographic image, gravure image, Letterpress image, pencil 2H or harder, ballpoint pen, ink pen.
Group II. Heavy weight common usage input.	121gsm (32.1lb.) to 200gsm (110lb.) index or equivalent weight range (rag bond and ledger paper).	Impact typewriter, offset image, Xerographic image, gravure image, Letterpress image, pencil 2H or harder, ballpoint pen, ink pen.
Group III. Light weight common usage input.	60gsm (16lb) to 79gsm (19.9lb.) bond or equivalent weight range (rag bond, offset, mimo/duplicator, and NCR paper).	Impact typewriter, offset image, Xerographic image, gravure image, Letterpress image, pencil 2H or harder, ballpoint pen, ink pen.
Group IV. Common surface finished paper.	60gsm (16lb) to 200gsm (110lb.) index or equivalent (Bristol text, magazine, cover, vellum, safety paper)	Impact typewriter, offset image, Xerographic image, gravure image, Letterpress image, pencil 2H or harder, ballpoint pen, ink pen.



**Table 10 Input document material definitions**

Category	Material	Image Type
Group V. Uncommon and other input.	80 gsm (20lb.) to 200gsm (110lb.) or equivalent weight: plastic laminated paper: metallic cover stock: tag stock: plastic transparencies: Telecopier paper: label stock: silver photographic paper: Electrofax paper (ZnO) race-erase: paste ups with loose edges type 1, 2 and 3: XE approved punched or perforated stock: Continuous computer forms.	Impact typewriter, offset image, Xerographic image, gravure image, Letterpress image, pencil 2H or harder, ballpoint pen, ink pen. Liquid developed electrostatic image.
Group VI. Light weight input.	49gsm (13lb.) to 59gsm 15.9lb.) bond or equivalent weight range (rag bond, ledger mimeo or GSE papers).	Impact typewriter, offset image, Xerographic image, gravure image, Letterpress image, pencil 2H or harder, ballpoint pen, ink pen.
Group VII.	34gsm (9lb) to 48gsm (12.9lb) bond or equivalent weight range (rag bond, ledger mimeo or GSE papers).	Impact typewriter, offset image, Xerographic image, gravure image, Letterpress image, pencil 2H or harder, ballpoint pen, ink pen.

**Table 11 Input document quality definitions**

Defect	Acceptable	Marginal	Unacceptable	Notes
Holes.	Maximum of three cleanly punched holes up to 6mm. (0.25 inch) diameter.	Four to nine cleanly punched holes.	Rough or torn holes.	-
Staples.	Cleanly removed staples.	Poorly removed staples resulting in dog-ears*.	Staples not removed.	
Edge defects.	None.	Any cut or tear near a corner less than 3mm. (0.125 inch) in length.	Any cut or tear not at a corner or greater than 3 mm. (0.125 inch) in length,	-
Folds* (in the feed direction).	Two letter folds less than 1.5 mm. (0.062 inch) high.	Two letter folds less than 3mm. (0.125 inch) high.	Any fold greater than 3mm. (0.125 inch) high.	* Folds must be flattened to within 6mm (0.25 inch) height before placing in the input device.
Folds* (across the feed direction)	None.	One fold not to exceed 3mm. (0.125 inch) high.	Any fold greater than 3mm. (0.125 inch) high.	* Folds must be flattened to within 6mm (0.25 inch) height before placing in the input device.
Curl (measured from a flat surface).	None.	In-ream or inherent curl up to 13mm. (0.5 inch) maximum.	Curl greater than 13mm.	
Wrinkle.	None.	Multiple moderate wrinkles, up to 38mm. (1.5 inch) long in any direction, 3mm. (0.125 inch) in height.	Severe wrinkles greater than 38mm. (1.5 inch) long in any direction, greater than 3mm. (0.125 inch) in height	-
Foreign material on the surface.	None.	Hole reinforcement, correction fluid or dry glue no greater than 13 square millimeters. (0.02 square inch) per correction.	Correction tape major paste-up or correction fluid greater than 13 square millimeters. (0.02 square inch) per correction.	-
Bent corners ("dog-ears")*	No bent corners	One bent corner up to 75mm. (3 inch) diagonal length	One or more bent corner exceeding 75mm. (3 inch) diagonal length.	* Dog ears must be flattened to within 6mm (0.25 inch) height before placing in the input device.
Computer fan fold sheets	-	Perforated tractor feed edges cleanly removed.	Perforated tractor feed edges not removed.	-

## Envelope Specifications

### Tray 2 (With Optional Kit)

Refer to [Table 12](#) and [Table 13](#) for the envelope sizes that can be fed from tray 2 if the optional envelope kit is installed.

**Table 12 European envelope sizes**

ID	Size	Flap minimum length	Flap maximum length	Feed orientation
DL	110 x 220mm (4.33 x 8.66 inch)	25mm (1.0 inch)	55mm (2.1 inch)	LEF, open trailing flap
C5	162 x 229mm (6.38 x 9.02 inch)	-	55mm (2.1 inch)	LEF, open non-leading flap

**Table 13 American envelope sizes**

ID	Size	Flap minimum length	Flap maximum length	Feed orientation
7 3/4 (Monarch)	98 x 190mm (3.87 x 7.5 inch)	36mm (1.4 inch)	55mm (2.1 inch)	LEF, open trailing flap
10	105 x 241mm (4.12 x 9.5 inch)	29mm (1.1 inch)	55mm (2.1 inch)	LEF, open trailing flap

### Bypass Tray

Refer to [Table 14](#) and [Table 15](#) for the envelope sizes that can be fed from the bypass tray.

**Table 14 European envelope sizes**

ID	Size	Flap minimum length	Flap maximum length	Feed orientation
DL	110 x 220mm (4.33 x 8.66 inch)	25mm (1.0 inch)	55mm (2.1 inch)	LEF, open trailing flap
C5	162 x 229mm (6.38 x 9.02 inch)	-	55mm (2.1 inch)	LEF, open non-leading flap

**Table 15 American envelope sizes**

ID	Size	Flap minimum length	Flap maximum length	Feed orientation
7 3/4 (Monarch)	98 x 190mm (3.87 x 7.5 inch)	36mm (1.4 inch)	55mm (2.1 inch)	LEF, open trailing flap
9	98 x 225mm (3.87 x 8.87 inch)	36mm (1.4 inch)	55mm (2.1 inch)	LEF, open trailing flap
10	105 x 241mm (4.12 x 9.5 inch)	29mm (1.1 inch)	55mm (2.1 inch)	LEF, open trailing flap

**NOTE:** All sizes quoted are with the flap closed. Except for C5 envelopes, only envelopes with flaps on the long edge are acceptable. Envelopes must not be inverted. Some wrinkle is expected on the back of envelopes.

#### Acceptable flap types:

- Diamond/Banker
- Pocket
- Wallet

#### Weight:

- Lightweight
- Medium weight

#### Acceptable sealing:

- Gummed
- Press and seal

#### Exclusions:

- No windows
- No board backed
- No gusset type
- No padded
- No peel and seal

## GP 21 Installation Space Requirements

### Purpose

To outline the general space requirements to enable safe use and adequate access for service.



**WARNING**

Do not work in a confined space. 1 m (39 inches) space is needed for safe working.



**WARNING**

USA and Canada. Do not install this machine in a hallway or exit route that does not have 1.12 m (44 inches) of space additional to the normal space requirements in front of the machine. To conform with fire regulations this additional 1.12 m (44 inches) of space is needed in front of the machine in hallway and exit routes.

### Machine Height

#### 35-55 ppm

- Machine height with the platen lowered = 1010mm (40 inches)
- Machine height with the platen raised = 1400mm (55 inches)
- Machine height with the DADH lowered = 1140mm (44.7 inches)
- Machine height with the DADH raised = 1450mm (57 inches)

#### 65-90 ppm

- Machine height with the DADH lowered = 1147mm (45.2 inches)
- Machine height with the DADH raised = 1457mm (57.3 inches)

### Machine Weight

#### 35-55 ppm

- Basic machine weight = 98.75kg (217.7lbs.) (W/O TAG 151).
- Basic machine weight = 100.05kg (220.6.) (W/TAG 151).
- Basic machine with DADH weight = 118kg (260.1lbs.) (W/O TAG 151).
- Basic machine with DADH weight = 119.3kg (263lbs.) (W/TAG 151).
- Fully configured machine weight = 122kg (269lbs.) excluding media shelf (W/O TAG 151).
- Fully configured machine weight = 123.3kg (271.8lbs.) excluding media shelf. (W/TAG 151).

**NOTE:** Machine weight does not include the weight of the finisher or tray 5.

#### 65-90 ppm

- Basic machine weight = 123.15kg (271.5lbs.) (W/O TAG 151).
- Basic machine weight = 124.45kg (274.4lbs.) (W/TAG 151).
- Fully configured machine weight = 125.5 kg (276.7lbs.) excluding media shelf. (W/O TAG 151).
- Fully configured machine weight = 126.8 kg (279.5lbs.) excluding media shelf. (W/TAG 151).

**NOTE:** Machine weight does not include the weight of the finisher or tray 5.

#### Optional Tray

- Tray 5 = 30 kg (66lbs.)

#### Finishers

- OCT = 2 kg (4.5lbs.)
- 1K LCSS = 25 kg (55lbs.)
- 2K LCSS = 30 kg (66.5lbs.)
- HVF = 82 kg (181lbs.)
- HVF BM = 109 kg (240lbs.)
- HVF BM with PPI = 116.2 kg (256lbs.)
- HVF BM with PPI and Tri-folder = 136.5 kg (301lbs.)

### Machine Dimensions and Installation Space Requirements

Table 1 shows the dimensions of the WC5790F machines and the installation space required for safe operation.

**NOTE:** The installation dimensions in Table 1 allow for a 1 metre (39.4 inches) minimum safety work space around the machine. To acquire this minimum safety work space it may be necessary to move the machine within the area specified.

A gap of 100 mm is required at the rear of the IOT for airflow to the fans. This is also sufficient for the DADH when raised.

Figure 1 represents a plan view of a machine installation and is to be read in conjunction with Table 1. The dimensions A and B outline a footprint of the machine within the boundary of safe operation, dimensions C and D. The dimension E indicates the area required for airflow / work space at the rear of the machine.

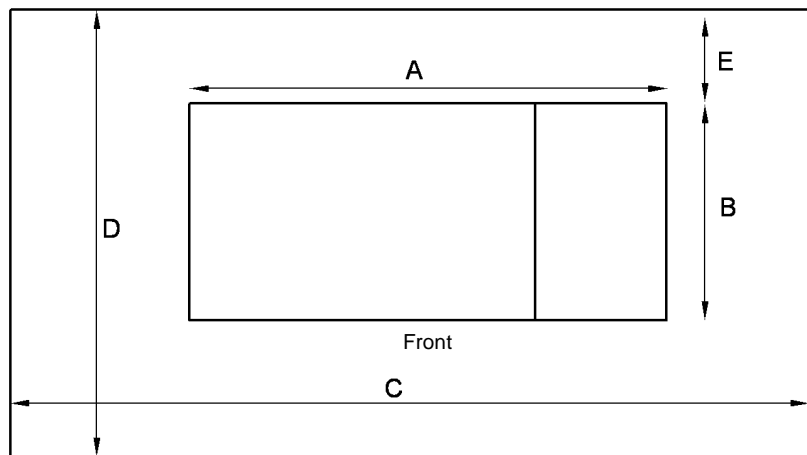
Table 1 Dimensions and space requirements

Configuration	Machine width (A) mm / inches	Machine depth (B) mm / inches	Install width required (C) mm / inches		Install depth required (D) mm / inches		Install airflow / service work space (E) mm / inches	
			Moveable	Fixed	Moveable	Fixed	Moveable	Fixed
WC5735-WC5755 with OCT and media shelf	1240 / 48.8	675 / 26.6	2240 / 88.2	3240 / 127.6	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with OCT and tray 5	1344 / 53	675 / 26.6	2344 / 92.3	3244 / 131.7	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with 1K LCSS and media shelf	1499 / 59	675 / 26.6	2499 / 98.4	3499 / 137.8	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with 1K LCSS and tray 5	1603 / 63	675 / 26.6	2603 / 102.5	3603 / 142	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4

Table 1 Dimensions and space requirements

Configuration	Machine width (A) mm / inches	Machine depth (B) mm / inches	Install width required (C) mm / inches		Install depth required (D) mm / inches		Install airflow / service work space (E) mm / inches	
			Moveable	Fixed	Moveable	Fixed	Moveable	Fixed
WC5735-WC5755 with 2K LCSS and media shelf	1499 / 59	675 / 26.6	2499 / 98.4	3499 / 137.8	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with 2K LCSS and tray 5	1603 / 63	675 / 26.6	2603 / 102.5	3603 / 142	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with HVF and media shelf	1935 / 76.2	675 / 26.6	2935 / 115.6	3935 / 154.9	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with HVF and tray 5	2039 / 76.2	675 / 26.6	3039 / 119.6	4039 / 150	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with HVF BM and media shelf	1955 / 77	675 / 26.6	2955 / 116.3	3955 / 155.7	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with HVF BM and tray 5	2059 / 81.1	675 / 26.6	3059 / 120.4	4059 / 159.8	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with HVF BM and tri-fold	2315 / 91.1	675 / 26.6	3315 / 130.5	4315 / 169.9	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5735-WC5755 with HVF BM, tri-fold and tray 5	2419 / 95.2	675 / 26.6	3419 / 134.6	4419 / 174	1675 / 66	2675 / 105.3	100 / 4	1000 / 39.4
WC5765 with OCT and media shelf	1297 / 51	725 / 28.5	2297 / 90.4	3297 / 129.8	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765 with OCT and tray 5	1344 / 53	725 / 28.5	2344 / 92.3	3344 / 131.7	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with 1K LCSS and media shelf	1556 / 61.3	725 / 28.5	2556 / 100.6	3556 / 140	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with 1K LCSS and tray 5	1603 / 63	725 / 28.5	2603 / 102.5	3603 / 140	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with 2K LCSS and media shelf	1556 / 61.3	725 / 28.5	2556 / 100.6	3556 / 140	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with 2K LCSS and tray 5	1603 / 63	725 / 28.5	2603 / 102.5	3603 / 140	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with HVF and media shelf	1992 / 78.4	725 / 28.5	2992 / 117.8	3992 / 157.2	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with HVF and tray 5	2039 / 80.3	725 / 28.5	3039 / 119.6	4039 / 159	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with HVF BM and media shelf	2012 / 79.2	725 / 28.5	3012 / 118.6	4012 / 158	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with HVF BM and tray 5	2059 / 81.1	725 / 28.5	3059 / 120.4	4059 / 159.8	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with HVF BM, tri-fold and media shelf	2372 / 93.4	725 / 28.5	3372 / 132.8	4372 / 172.1	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4
WC5765-WC5790 with HVF and tray 5	2419 / 95.2	725 / 28.5	3419 / 134.6	4419 / 174	1725 / 68	2725 / 107.3	100 / 4	1000 / 39.4

Figure 1 Installation plan



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## GP 22 Electrical Power Requirements

### Power Requirements

Refer to [Table 1](#) and [Table 3](#).

**Table 1 Electrical power requirements**

Nominal Voltage	Average current		Comments
	35-55 ppm	65-90 ppm	
110VAC (60Hz) Plus 6% minus 10%	Less than or equal to 13.2A RMS.	Less than or equal to 17.6A RMS.	Specific XLA markets only.
127VAC (60Hz) Plus 6% minus 10%	Less than or equal to 13.2A RMS.	Less than or equal to 17.6A RMS.	Mandatory for Saudi Arabia only.
127VAC (60Hz) Plus 6% minus 10%	Less than or equal to 13.2A RMS.	Less than or equal to 17.6A RMS.	To operate at 127VAC +10% for long periods. Mandatory for Mexico only.
120VAC (60Hz) Plus 6% minus 10%	Less than or equal to 13.2A RMS.	Less than or equal to 17.6A RMS.	Run mode, USA and Canada.
120VAC (60Hz) Plus 6% minus 10%	Less than or equal to 13.2A RMS.	Less than or equal to 17.6A RMS.	Warm up, All 60Hz markets including USA and Canada.
220VAC (50Hz) Plus 6% minus 10%	Less than or equal to 10A RMS.	Less than or equal to 10A RMS.	Europe and other 50Hz markets.
230VAC (50Hz) Plus 6% minus 10%	Less than or equal to 10A RMS.	Less than or equal to 10A RMS.	Europe and other 50Hz markets.
240VAC (50Hz) Plus 6% minus 10%	Less than or equal to 10A RMS.	Less than or equal to 10A RMS.	Europe and other 50Hz markets.

### Power Save Modes

There are two power save modes which are entered after pre-set timers have expired, low power mode and sleep mode. Both of these power modes are initially set to factory default time values but are customer adjustable. Entry to both modes can be set by the customer to be either 'job activated' or 'intelligent ready'. The machine will automatically enter low power, then sleep mode after a period of inactivity exceeds a timer value, refer to [Table 2](#). If 'intelligent ready' is set, the default value for the timer is preset but is adjusted by the machine based on customer usage.

**Table 3 Power consumption in all modes**

Configuration	Run mode (Watt)	Standby (Watt)	Low power (Watt)	Sleep (Watt)	Plug-in/off mode (Watt)	EPA Typical Energy Consumption Value (Kwh/week)
35 ppm	1050	290	Less than 125	Less than 15	Less than or equal to 0.9	7.0
40 ppm	1050	290	Less than 125	Less than 15	Less than or equal to 0.9	9.6
45 ppm	1150	290	Less than 125	Less than 15	Less than or equal to 0.9	10.7
55 ppm	1250	290	Less than 125	Less than 15	Less than or equal to 0.9	12.5
65 ppm	1550	310	Less than 160	Less than 15	Less than or equal to 0.9	13.7
75 ppm	1600	310	Less than 160	Less than 15	Less than or equal to 0.9	15.8
90 ppm	1650	310	Less than 160	Less than 15	Less than or equal to 0.9	16.8
Additional power for 1K LCSS	70	10	0	0	0	N/A

### Low Power Mode

Low power mode is automatically entered after a period of inactivity (determined by timer setting) whilst in standby/ready mode. Timer setting range is from 1 to 120 minutes, refer to [Table 2](#) for the default settings. Single board controller disk off, IOT +24V disabled, ROS motor off, fuser to low power. The mode of power is returned to standby following a user request, a key pressed on the user interface, offline staple button, power switch, document in the DADH, DADH opened, incoming FAX or print job. Entry into low power mode is controlled by

### Sleep Mode

Sleep mode is automatically entered after a period of inactivity (determined by timer setting) whilst in Low Power Mode. Timer setting range is from 10 to 120 minutes, refer to [Table 2](#) for the default settings. The mode of power is returned to standby following a user request, a key press on the user interface, power switch, incoming FAX or print job.

**Table 2 Default settings**

Speed	Standby to low power mode (mins.)	Low power mode to sleep mode (mins.)
35 ppm	1	5
40 ppm	2	45
45 ppm	5	45
55 ppm	8	45
65 ppm	8	45
75 ppm	15	45
90 ppm	15	45

### Power consumption

Refer to [Table 3](#) for power the consumption of all modes:

**Table 3 Power consumption in all modes**

<b>Configuration</b>	<b>Run mode (Watt)</b>	<b>Standby (Watt)</b>	<b>Low power (Watt)</b>	<b>Sleep (Watt)</b>	<b>Plug-in/off mode (Watt)</b>	<b>EPA Typical Energy Consumption Value (Kwh/week)</b>
Additional power for 2K LCSS (35-55 ppm)	80	10	0	0	0	N/A
Additional power for 2K LCSS (65-90 ppm)	90	10	0	0	0	N/A
Additional power for HVF (55 ppm)	160	30	0	0	0	N/A
Additional power for HVF (65-90 ppm)	190	30	0	0	0	N/A
Additional power for HVF BM (55 ppm)	160	30	0	0	0	N/A
Additional power for HVF BM (65-90 ppm)	190	30	0	0	0	N/A

## GP 23 Environmental Data

### Operating

- Temperature range: 10 to 32 degrees C (50 to 90 degrees F)
- Humidity: 15% to 85% RH.
- Noise:

**NOTE:** Blue Angel criteria measured in accordance with ISO 7779

- Table 1 contains the maximum value in decibels of noise that can be generated by the basic machine.
- Table 2 contains the maximum value in decibels of noise that can be generated by the machine in other configurations.

**Table 1 Maximum noise limits, basic machine**

PPM	Standby (dBA)	Run continuous (dBA)	Run impulse (dBA)
35	35	54	57
40	35	55	58
45	35	56	59
55	35	56	61
65	35	57	62
75	35	57	62
90	35	58	63

**Table 2 Maximum noise limits, all configurations**

PPM	Standby (dBA)	Run continuous (dBA)	Run impulse (dBA)
35	35	58	61
40	35	58	62
45	35	59	63
55	35	59	63
65	35	59	63
75	35	60	63
90	35	61	64

- Altitude: 0 to 1829 metres (0 to 6000 feet)

### Storage

- Temperature and humidity range:
  - 55 degrees C (131 degrees F) 85% RH max.
  - -25 degrees C (-13 degrees F) 15% RH max.
- Altitude: 0 to 3048 metres (0 to 10000 feet).

## GP 24 Customer Administration Tools

### Purpose

To gain access to customer administration tools.

### How to Enter Customer Administrator Tools

Perform the following:

1. Switch on the machine, GP 14.
2. When the machine is ready, press the Log in/out (key symbol) button on the key pad or select Guest on the UI.
3. Enter User Name 'admin' (case sensitive). Select Next.
4. Enter the Password '1111' (default setting). Select Next. If the password is not 1111, perform dC001 Reset Auditron Master PIN to reset the password to default. Inform the customer that the password has been changed.
5. Select Tools Pathway.

**NOTE:** After entering customer administration tools, all existing copy jobs are cancelled. The network controller will stop accepting jobs and a 'Offline' screen message is displayed. When exiting Customer Administration Tools, an 'Online' screen message is displayed.

The customer administration Tools contains the Device Setting, Network Setting and the Trouble Shooting features. The features are listed below.

- System Settings
- Feature Defaults
- Consumables Management
- Screen Defaults
- Connectivity and Network Setup
- Customer Support and Supplies Numbers
- Access and Accounting
- Online/Offline
- Optional Services
- Machine Tests
- Customer Software Upgrade
- Power Saver Administration
- Copy Activity Report
- Software Reset

### Call Closeout

Perform the following:

1. Select admin on the UI button to exit Customer Administration Tools.
2. Select Logout.

## GP 25 First Copy / Print Out Time and Power On / Off Time

The first copy out time (FCOT) is the duration from the start copy request to the delivery of the first copy in the OCT. Values in Table 1 are based on a standard job where the original is copied at 100% from the document glass or DADH onto A4 LEF paper fed from the bypass tray.

The first print out time (FPOT) is the duration from the print job request to the delivery of the print in the OCT. FPOT values in Table 1 are based on a 1 byte ASCII text file sent using TCP/IP and LPR, from a Pentium II 128Mb NT 4.0 PC with 100Mb Ethernet.

**Table 1 Machine timing**

Description	Response time							Notes
	35 ppm	40 ppm	45 ppm	55 ppm	65 ppm	75 ppm	90 ppm	
FCOT from the document glass	4.6 seconds	4.6 seconds	3.4 seconds	3.4 seconds	2.7 seconds	2.7 seconds	2.7 seconds	A4 sheet, bypass tray to OCT no invert.
FCOT from the DADH	9.3 seconds	9.3 seconds	7.3 seconds	7.3 seconds	5.9 seconds	5.9 seconds	5.9 seconds	A4 sheet, bypass tray to OCT no invert.
FPOT	9.2 seconds	9.2 seconds	7.0 seconds	7.0 seconds	5.5 seconds	5.5 seconds	5.5 seconds	A4 sheet, bypass tray to OCT no invert.
Recovery from low power mode.	Less than or equal to 9 seconds.	Less than or equal to 9 seconds.	Less than or equal to 9 seconds.	Less than or equal to 9 seconds.	Less than or equal to 9 seconds.	Less than or equal to 9 seconds.	Less than or equal to 9 seconds.	From low power mode to ready to copy, print or fax.
Recovery from sleep mode.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	From sleep mode to ready to print or copy.
Power on time to ready to copy.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Ready to copy is indicated by the message "Ready to Scan" being displayed on the user interface.
Power on time to ready to print.	Less than or equal to 2 minutes and 10 seconds.	Less than or equal to 2 minutes and 10 seconds.	Less than or equal to 2 minutes and 10 seconds.	Less than or equal to 2 minutes and 10 seconds.	Less than or equal to 2 minutes and 10 seconds.	Less than or equal to 2 minutes and 10 seconds.	Less than or equal to 2 minutes and 10 seconds.	Print is indicated by the message "Machine On Line" being displayed on the user interface.
Power on time to ready to fax.	Less than 28 seconds.	Less than 28 seconds.	Less than 28 seconds.	Less than 28 seconds.	Less than 28 seconds.	Less than 28 seconds.	Less than 28 seconds.	Fax ready is indicated by the presence of the Fax icon being displayed on the user interface.
Power off time, multi functional machine.	Less than or equal to 35 seconds.	Less than or equal to 35 seconds.	Less than or equal to 35 seconds.	Less than or equal to 35 seconds.	Less than or equal to 35 seconds.	Less than or equal to 35 seconds.	Less than or equal to 35 seconds.	-
Quick restart time.	Less than or equal to 40 seconds.	Less than or equal to 40 seconds.	Less than or equal to 40 seconds.	Less than or equal to 40 seconds.	Less than or equal to 40 seconds.	Less than or equal to 40 seconds.	Less than or equal to 40 seconds.	From re-start option confirmed, to ready to print or copy.
Fax recovery from sleep mode time.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	Less than or equal to 28 seconds.	From activity detected on the Fax line to start of paper feed.



## GP 26 Restriction of Hazardous Substances (RoHS)

### Purpose

To give information on the RoHS Directive.

The RoHS Directive restricts the use of certain hazardous substances in electrical and electronic equipment. It applies to equipment placed in the European Union (EU) market. The directive takes effect from 1st July 2006.

**NOTE:** Currently these restrictions are only for the European Union (EU) market and some associated countries. For more information go to [www.Xerox.com](http://www.Xerox.com). However Xerox has mandated that all WC5790F machines must be maintained as RoHS compliant.

The hazardous substances are:

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent Chromium (Cr 6+, Cr [VI])
- Polybrominated Diphenyl Ethers (PBDE's)
- Polybrominated Biphenyls (PBB's)

### Identification of a RoHS Compliant Machine

Xerox will maintain a central list of RoHS compliant machines.

All WC5790F machines are RoHS compliant at time of manufacture.

### Procedure



*Failure to comply with RoHS guidelines can result in*

- *Product recalls*
- *Fines or penalties*
- *Imprisonment*

Use only spares that are listed in the WC5790F Spare Parts List. Do not use spare parts from other similar machines, even if the parts look identical. All WC5790F machines are RoHS compliant at time of manufacture and must be maintained as RoHS compliant.

## GP 27 Fuser/Xerographic Module End of Life Extension

### Purpose

To allow the customer a further 5000 prints while a new module is ordered and delivered.

**NOTE:** Ensure that the customer has ordered a replacement module. This is a one-time only procedure and at the next 'Replace now' screen, the CRU must be replaced.

**NOTE:** This procedure works only when the CRU is at the End Of Life stage. It will not work if the CRU is exchanged for another CRU. It is not possible to extend the life of a CRU from a different machine.

### Procedure

Perform the following procedure when one of the following two messages is displayed:

- "Replace the fuser module now, no prints can be made until module replacement."
  - "Replace the xerographic module now, no prints can be made until module replacement."
1. Press the **Machine Status** button.
  2. Select the **Tools** tab. The Device Settings screen will display.
  3. Select the **Option Enablement**.
  4. For the fuser module, use the numerical keypad to enter the following code:  
**\*33886724691**.  
The asterisk must be entered before the number. Press **Enter**.
  5. For the xerographic module, use the numerical keypad to enter the following code:  
**\*33886714351**  
The asterisk must be entered before the number. Press **Enter**.
  6. Switch off, then switch on the machine, **GP 14**.

## GP 28 USB Connection Mode

### Purpose

To set the USB connection mode.

**NOTE:** In order to use the CAT/PWS tools the USB print option must be set to Xerox Copier Assistant/PWS Service Tool.

### Procedure

Perform the following:

1. Enter Customer Administration Tools, [GP 24](#).
2. Press the **Machine Status** button.
3. Select **Tools**.
4. Select **Network Settings**.
5. Select **USB Printer Port**.
6. Select **Xerox Copier Assistant/PWS Service Tool**.
7. Select **Save**.
8. Exit Customer Administration Tools, [GP 24](#).

## GP 29 Embedded Customer Documentation

### Purpose

To explain how to print the embedded customer documentation.

### Procedure

Perform the following:

1. Press the **Machine Status** button.
2. Select **Information Pages**.
3. Select the relevant information page, then select **Print**.

## GP 30 Copier Only Machine Identification

### Purpose

To explain how to identify a copier only configured machine.

### Procedure

Enter dC131 NVM location 03-016 SIP Machine Type and 08-004 Machine Type. If the values are set to 2, the machine is configured as a copier only.

**NOTE:** These values are protected, they can only be reset by running the install wizard. Refer to [GP 15 How to Set the Machine Configuration](#).

**NOTE:** Copier only machines are only purchasable within the United States of America. Disabling of the network features is applied when the activation code is entered during the installation of the machine.

Observe the activation code label on the rear of the machine. A copier only machine will have DC 57XX in the top right corner of the label. A multi-function machine will have MF 57XX.

There are no hardware differences between a copier and multi function device.

Be aware of the following:

- Other than checking the above NVM values and activation code label, there are no other methods for identifying a copier only machine.
- Copier only machines:
  - Will display the network controller booting up message when the machine is switched on.
  - Will display a status message if a network controller fault is detected.
  - Have some network controller maintenance features still present, for example, on demand image overwrite.
  - Can not have software upgraded via DLM from either the network or USB flash drive.
  - Can only have software upgrades made via the Forced AltBoot Software Loading Procedure. Refer to [GP 4 Machine Software](#).

**NOTE:** Copier only configured machines loaded with pre SMP 1 software do not perform a power on software upgrade.

- Must have the Forced Altboot Software loading Procedure performed every time a PWB is changed, unless software level SMP 1 or higher is loaded onto the copier.

## GP 31 How to Set the Date and Time

### Purpose

To set the machines date and time.

### Procedure

Perform the following:

1. Enter Customer Administration Tools, [GP 24](#).
2. Press the Machine Status button.
3. Select the Tools tab.
4. Select Device Settings.
5. Select the General folder.
6. Select Date & Time.
7. Set the correct date and time, then select Save.
8. Log out of Customer Administration Tools.

## GP 32 How to Enable HTTP

### Purpose

To enable the hyper text transfer protocol (HTTP) networking protocol.

### Procedure

Perform the following:

1. Enter Customer Administration Tools, [GP 24](#).
2. Press the Machine Status button.
3. Select the Tools tab.
4. Select Network Settings.
5. Select Network Setup.
6. Select TCP/IP.
7. Select HTTP/IPP Enablement.
8. Select Enabled.
9. Select Save.
10. Select Close.
11. Log out of Customer Administration Tools.

## GP 33 How to Configure the PWS to Ping a Device

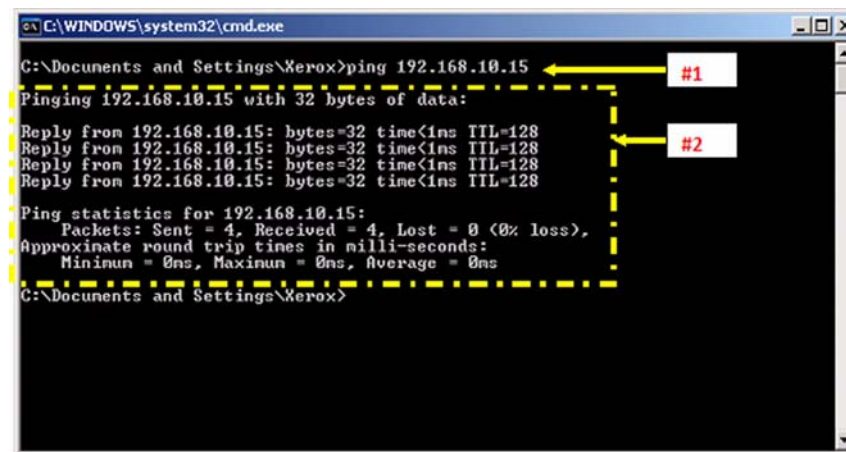
### Purpose

To configure the PWS to ping a device on a network.

### Procedure

Perform the following:

1. Set the IP address of the PWS one digit higher or lower than the device to be pinged. For example, if the IP address of the device is 192.168.10.15, set the PWS to 192.168.10.14 or 192.168.10.16. To set the IP address of the PWS, refer to [GP 34](#).
2. Set the subnet mask of the PWS the same as the device to be pinged.
3. On the PWS, Select Start, then Run.
4. In the Run dialog box, type cmd.
5. Select OK. A command window will open.
6. In the command window, type ping and the address of the device. Refer to number 1 in [Figure 1](#).
7. If the ping command is successful, a reply from the device will be received. Refer to number 2 in [Figure 1](#).



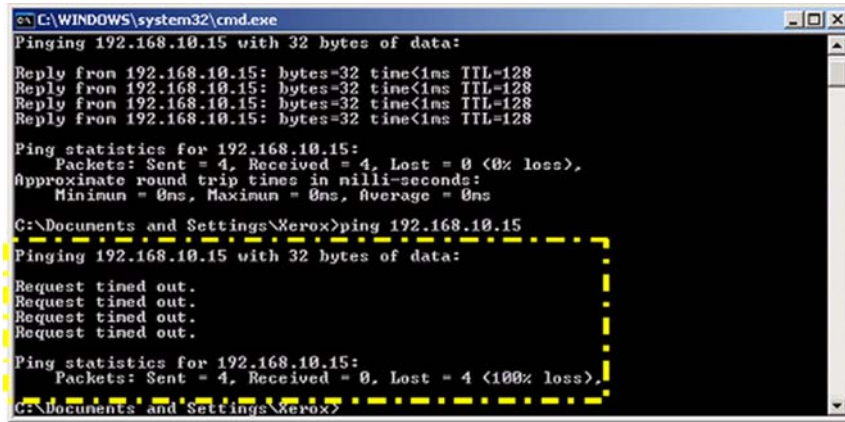
```
C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Xerox>ping 192.168.10.15
Pinging 192.168.10.15 with 32 bytes of data:
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\Documents and Settings\Xerox>
```

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Figure 1 Successful ping command

8. If the ping command is unsuccessful, a timed out message will be received, [Figure 2](#).



```
C:\WINDOWS\system32\cmd.exe
Pinging 192.168.10.15 with 32 bytes of data:
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128
Reply from 192.168.10.15: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.10.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\Documents and Settings\Xerox>ping 192.168.10.15
Pinging 192.168.10.15 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.10.15:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\Documents and Settings\Xerox>
```

T-1-1143-A

Figure 2 Unsuccessful ping command

## GP 34 How to Set the IP Address of the PWS

### Purpose

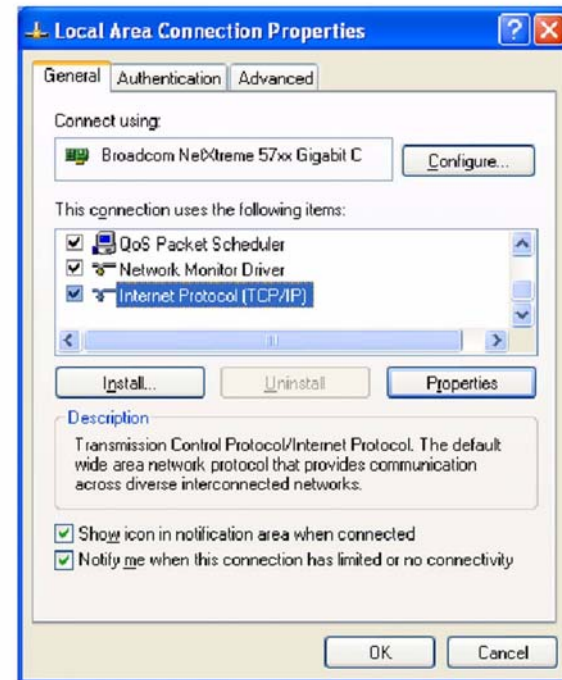
To set the IP address of the PWS.

### Procedure

**NOTE:** This procedure applies to the Windows XP operating system.

Perform the following:

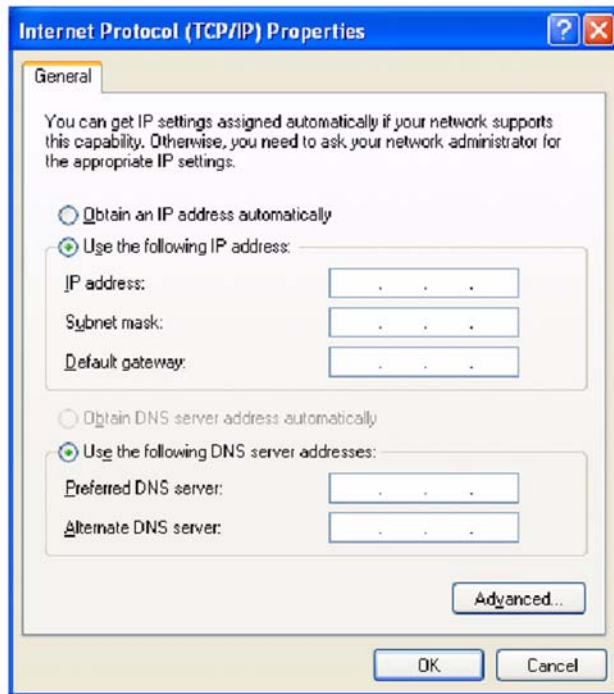
1. On the PWS, right click on the My Network Places desktop icon or select Start, then My Network Places. Select Properties from the menu. The Network and Dial-up Connections window will open.
2. Right click on Local Area Connection icon, then select Properties. The Local Area Connection Properties window will open.
3. Highlight Internet Protocol (TCP/IP), then select Properties, refer to [Figure 1](#). The Internet Protocol (TCP/IP) Properties window will open.



T-1-1144-A

Figure 1 Properties window

4. Select Use the following IP address. Enter the IP address and Subnet mask, [Figure 2](#).



T-1-1145-A

**Figure 2 Properties window**

5. Select OK to close the Internet Protocol (TCP/IP) Properties window.
6. Select OK to close the Local Area Connection Properties window.

## GP 35 How to Change Ethernet Speed

### Purpose

To change the machines ethernet speed.

### Procedure

Perform the following:

1. Enter Customer Administration Tools, [GP 24](#).
2. Press the Machine Status button.
3. Select the Tools tab.
4. Select Network Settings.
5. Select Ethernet Physical Media.
6. Select the speed, then Save.
7. Log out of Customer Administration Tools.

## GP 36 How to Disable the Firewall of the PWS

### Purpose

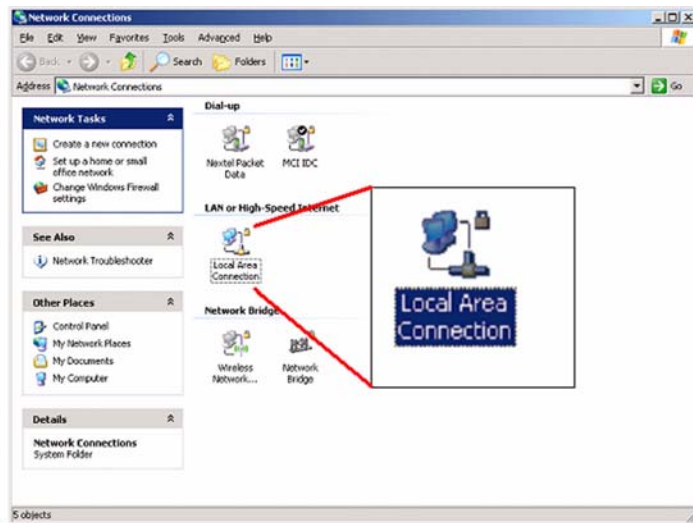
To disable the firewall of the PWS.

### Procedure

**NOTE:** This procedure applies to the Windows XP operating system.

Perform the following:

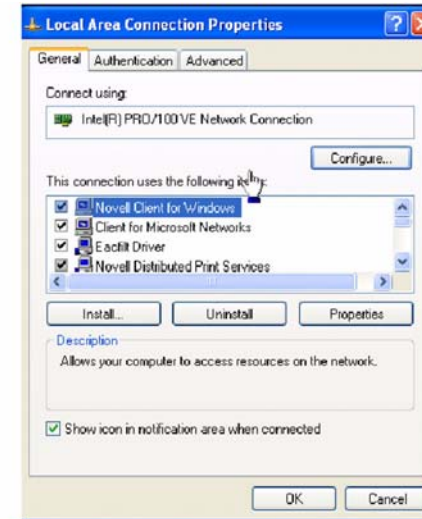
1. On the PWS, right click on the My Network Places desktop icon or select Start, then My Network Places. Select Properties from the menu. The Network and Dial-up Connections window will open.
2. Check if the firewall is enabled or disabled. If the Local Area Connection icon has a padlock symbol, the firewall is enabled, [Figure 1](#). If the firewall is enabled, continue with this procedure.



T-1-1146-A

Figure 1 Padlock symbol

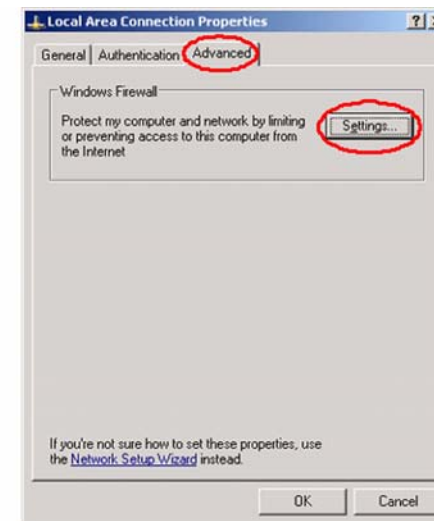
3. Right click on Local Area Connection icon, then select Properties. The Local Area Connection Properties window will open, [Figure 2](#).



T-1-1147-A

Figure 2 Properties window

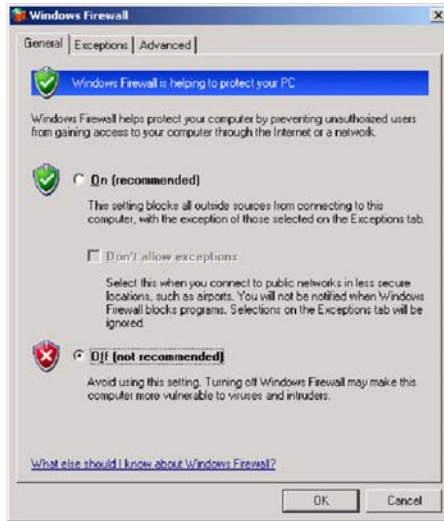
4. Select the Advanced tab, then the Settings button, [Figure 3](#). If available, uncheck Protect my computer and network by limiting or preventing access to the computer from the Internet. Select OK. The Windows Firewall window will open.



T-1-1148-A

Figure 3 Settings button

5. Select the Off (not recommended) radio button to disable the windows firewall, [Figure 4](#).



**Figure 4 Settings button**

T-1-1149-A

6. Close all open windows.
7. Disable any other Firewall software or utilities that may be running.



## GP 40 Glossary of Terms, Acronyms and Abbreviations

Where possible unit designations as appear in ISO 1000 (International Organization for Standardization) and Xerox Standard MN2-905 have been used. All measurement appear in ISO units followed by any conversion in brackets e.g.; 22.5mm (0.885 inches)

Refer to [Table 1](#).

**Table 1 Abbreviations**

Term	Description
AAA	Authentication, Authorisation and Accounting
ABS	Automatic Background Suppression.
ACK	Acknowledge
ADF	Automatic Document Feeder
ADU	Automatic Duplexing Unit
AGC	Automatic Gain Control
AHA	Advanced Hardware Architecture
AMCV	Average Monthly Copy Volume
AMF	Advanced Multi Function device
AMPV	Average Monthly Print Volume
AMR	Automatic Meter Read
AMS	Automatic Magnification Selection
ANSI	American National Standards Institute
API	Application Programming Interface
APS	Auto Paper Selection
ARP	Address Resolution Protocol. Converts an IP address to a MAC address. See RARP.
ASIC	Application Specific Integrated Circuit
ASP	Authorized Service Provider
ASTM	American Standard Test Method
ATPD	Across The Process Direction
AZAP	Any Zone Any Paper
B	Bels (applies to sound power level units)
B (A)	Bels (A weighted) (applies to sound power level units)
B (A) I	Bels (A weighted) Impulse response (applies to sound power level units)
BABT	British Approvals Board for Tele-Communication
BAM	Bundes Anstalt fur Materialprufung
BEUI	BIOS Extended User Interface
Bluetooth	Wireless local area network
BM	Booklet Maker
BMF	Basic Multi Function device
BootP	Boot Protocol. AN IP protocol for automatically assigning IP addresses.
BPS	Bits Per Second
BS	Behavior Specification

**Table 1 Abbreviations**

Term	Description
BT	Busy Tone
C	Celsius
CAT	Customer Admin Tool
CB	Certification Bodies
CC	Copy Centre
CCA	Cenelec Certification Agreement
CCA	Customer Call Assistance
CCD	Charged Coupled Device
CCITT	Comite Consultatif International Telegraphique et Telephonique
CCR	Change Control Request
CD	Copy Darker. A copy density setting
CD-ROM	Compact Disk - Read Only Memory
CDDU	Controller and Drivers Delivery Unit
CDDUW	Controller and Drivers Delivery Unit - West Coast
CDS	Charge - deficient spot. A photo conductor defect that as a very small black spot (image quality parameter).
CED	Called Station Identification
CEH&S	Corporate Environmental Health and Safety
CentreWare	CentreWare internet services is the embedded HTTP server application that is available on network enabled machines. It enables access to printing, faxing and scanning over the internet.
CFR	Confirmation To Receive
CISPR	Comite International Special des Perturbations
CID	Command Identification
CIG	Calling Subscriber Identification
CIS	Contact Image Sensor
CL	Copy Lighter. A copy density setting
Click Charge	Charge by copy/print rate
COD	Customer Operating Division
CPHI	Calls Per Hundred Installs
CPM	Copies per minute
CPSR	Capture / Print, Save and Reprint
CQ	Copy Quality
CR	Change Request
CRU	Customer Replaceable Unit
CRUM	Customer Replaceable Unit Monitor
CSE	Customer Service Engineer
CSF	Call Service Fault
CSMS	Customer Satisfaction Management System

**Table 1 Abbreviations**

Term	Description
Customer Drivers	Customer drivers are specially developed generally made with a driver toolkit. These drivers can provide a full set of features for Xerox printers. In the past, customer drivers have been provided for all major operating systems. A customer print driver is costly to develop, and does not use standard operating system components. For this reason, PPD / GPD solutions will be used in future whenever possible.
CTC	Continue To Correct
CTF	Contrast Transfer Function
CTR	Response For Continue To Correct
CTS	Clear To Send
CVT	Constant Velocity Transport
CW	CentreWare
CWW	CentreWare Web
DADF	Duplex Automatic Document Feeder (feeds documents to a different stack)
DADH	Duplex Automatic Document Handler (feeds documents to bottom of existing feed stack)
DB	Database
dB	Decibel (applies to sound pressure level units)
dB(A)	Decibels (A weighted) (applies to sound pressure level units)
dB(A)I	Decibels (A weighted) Impulse response (applies to sound pressure level units)
dC	Diagnostic code
DC	Digital Copier
DC	Device Controller, generic term for any module that acts as a image handling device e.g., SIP. Digital Copier
DC	Direct Current
DC + Fax	Digital Copier with embedded Fax card
DCN	Disconnect
DCS	Digital Command Signal
DDF	Device Description File
DHCP	Dynamic Host Config Protocol (similar to BootP)
DIMM	Dual In Line Memory Module
DIN	Deutsches Institute fur Normung
DLM	Dynamically Loadable Module
DMO-E	Developing Markets Operations East (was part of RX)
DMO-W	Developing Markets Operations West (was part of ACO)
DOS	Disk Operating Systems
DPHM	Defects Per Hundred Machines
DIS	Digital Identification Signal
DMA	Direct Memory Access
DMO	Developing Markets Operations

**Table 1 Abbreviations**

Term	Description
DOF	Direction Of Feed, paper width sensors
DPI	Dots per inch
DRAM	Dynamic Random Access Memory
DRS	Drum to Roll Spacing
DSR	Data Set Ready
DST	Daylight Saving Time
DT	Dial Tone
DTC	Digital Transmit Command
DTMF	Dual Tone Multiple Frequency
DU	Density Units
DUI	Display User Interface
Dust Off	Routine to return machine to pre-install state
EAA	Electron Auditron Administrator
EBS	Electronic Billing Service
EC	European Community
ECE	External Customer Engagement
ECM	Error Correction Mode. Electronic Counter Measure
EEC	European Economic Community
EET	Edge Enhancement Technology
EHS	Environmental Health and Safety
ELOG	Electronic Log
EMC	Electromagnetic Compatibility
Embedded Fax	A fax system included in a system device
EME	Electromagnetic Emission
EN	European Norm
EOL	End Of Line
EOM	End Of Message
EOP	End Of Procedure
EOR	End Of Retransmission
EPA	Environmental Protection Agency
EPC	Electronic Page Collation (memory dedicated to temporary retention of images captured from the scanner and network controller)
EPROM	Erasable / Programmable Read Only Memory
EP-SV	Electronic Partnership Supervisor (kit)
ERR	End Retransmission Response
ERU	Engineer Replaceable Unit
ESD	Electrostatic Discharge
ESG	European Solutions Group
ESS	Electronic Sub-System. For this machine use NC
ETP	Electronic Test Pattern
EU	European Union

**Table 1 Abbreviations**

Term	Description
EUR	Europe
FAX	Facsimile
FAR	Fully Active Retard feeder
FCC	Federal Communications Commission
FCD	Facsimile Coded Data
FCS	Facsimile Checking Sequence
FCOT	First Copy Out Time
FD	Functional Description
FER	Feature Enhancement Request
FID	Foreign Interface Device
FIF	Facsimile Information Field
FIFO	First In First Out
FireWire	IEEE 1349. High speed serial communications system, comprising hardware plus protocol. Operates at 100, 200 or 400Mbps/s, with 800Mbps/s under development. See USB and RS-232
firmware	Software in a ROM
FLASH	On board erasable and re-programmable non volatile memory
FOIP	FAX Over Internet Protocol
FPGA	Field Programmable Gate Array
FPOT	First Print Out Time
FRU	Fuser Replacement Unit
FSK	Frequency Shift Keying
FSMA	Field Service Maintenance Agreement
FTP	File Transfer Protocol
FTT	Failure To Train
FX	Fuji Xerox
G3	Group 3
GC	Group Command
GDI	Graphical Display Interface
GI	Group Identification
GLCD	Graphic Liquid Crystal Display
GND	Ground
GPD Minidrivers	A Generic Printer Description file has a function similar to PPD files. This format was developed by Microsoft to provide a simple method to develop drivers for non-postScript printers. Standard GPD minidrivers share the same lamentations as the PPD minidrivers, but they too can be enhanced using plug-ins. GPD Minidrivers are a new technology introduced for Windows 2000 and they will also be supported Windows NT 4. In Windows 95/98, a similar, but less powerful 'unidriver' format was used.
GS	German safety
GSM	Grams per square metre

**Table 1 Abbreviations**

Term	Description
GUI	Graphics User Interface
GWA	Green World Alliance
HC	High Capacity
HCF	High Capacity Feeder
HDD	Hard Disk Drive
HDLC	High Level Data Link Control
HFLEN	High - Frequency (random) Line - Edge Noise. image quality metric.
HFSI	High Frequency Service Intervals
HLD	High Level Design. A document that defines the software high level design.
HTTP	Hyper Text Transfer Protocol
HUI	Hybrid User Interface
HVF	High Volume Finisher
HVF / BM	High Volume Finisher Booklet Maker
HVPS	High Voltage Power Supply
Hz	Hertz
IB or I/B	InBoard
I2C-bus	Inter Integrated Circuit bus. This provides a simple bidirectional 2-wire bus for efficient inter-IC control. All I2C-bus compatible devices incorporate an interface which allows them to communicate directly with each other via the I2C-bus.
ICAT	Internal Customer Acceptance Test
ICE	Internal Customer Engagement
ID	Identification
IEC	International Electrotechnical Commission
IDG	Inter document gap
IEE	Institute of Electrical Engineers
IEEE 1284	Parallel port communication
IETF	Internal Engineering Task Force
IFAX	Internet Fax
IIT	Image Input Terminal
IM	Interim Maintenance
Intlk	Interlock
IOT	Image Output Terminal
IOTC	Image Output Terminal Controller (IOT PWB, LVPS and HVPS). Sometimes referred to as the Power and Control Assembly.
IP	Internet Protocol
IPA	Image Processing Accelerator. Used by the machine scanning services to convert scanned images to a standard format e.g. for scan to file / scan to E-mail for network transmission.
IPM	Incremental Preventative Maintenance
IPM	Images per minute

**Table 1 Abbreviations**

Term	Description
IPP	Internet Printing Protocol
IPS	Image Processing Service
IPS1	Image Processing System
IPX	Internetwork Protocol eXchange
IQ	Image Quality
IR	Infrared
ISDN	Integrated Services Digital Network / International Standard Data Network
ISIL	Inter and Side Image Lamp
ISO	International Standards Organization
ITP	Internal Test Pattern
ITTCC	International Telegraph and Telephone Consultative Committee
ITU -T	International Telecommunications Union - Telecommunication
JBA	Job Based Accounting (Network Accounting)
JBIG	Joint Bi-Level Image Experts Group file interchange format
jitter	A line of missing or corrupted information in the fast scan direction.
JPEG	Joint Photographic Experts Group file interchange format
kg	kilogram
kHz	kilohertz
Kill All	Routine to return all NVM, including protected NVM, to a virgin state. Factory use only
KO	Key Operator
LAA	Local Area Addressing
LAN	Local Area Network
LCD	Liquid Crystal Display
LCDM	Liquid Crystal Display Module
LCS	Line Conditioning Signal
LCSS	Low Capacity Stapler Stacker
LDAP	Lightweight Directory Access Protocol (allows sharing of corporate phone book information)
LE	Lead edge
LED	Light Emitting Diode
LEF	Long Edge Feed
LEISUS	Low End Interface Unsolicited Status-B
LG	Legal
LOA	Load Object Attributes
lpi	Lines per inch
LSI	Large Scale Integration
LT	Letter
LVPS	Low Voltage Power Supply
Lwr	Lower

**Table 1 Abbreviations**

Term	Description
LUI	Local user Interface
m	metre
MAC Address	Media Access Code. This is the basic, unique identifier of a networked device. An incoming message is analysed and an address in another form, such as an IP address, is resolved by a lookup table to a MAC address. The message is then directed to, and accepted by the equipment thus identified. It is the burnt-in, hardware address of a NIC.
MB	Megabyte (one MB = 1,048,576 bytes = 1024 kilobytes). Mail Box
Mb	Mega bit (one million bits)
MCF	Message Confirmation
Mem-Mem	Memory to Memory
MF	Multifunction
MFLEN	Mid - Frequency (random) Lines - Edge Noise
MH	Modified Huffman
MIB	Machine Information Block. SNMP database element
MJ	Modular Jack
mm	millimetre
MMC	Microsoft Management Console
MMR	Modified Modified Read compression
MN	Multi - National
Modem	MOdulator/DEModulator. Hardware unit that converts the 'one' and 'zero' binary values from the computer to two frequencies for transmission over the public telephone network (modulation). It also converts the two frequencies received from the telephone network to the binary values for the computer (demodulation).
Moire	Image quality defect caused by interference between patterned originals and the digital imaging process. Moire patterns are repetitive and visible as bands, plaids or other texture.
MPS	Multi-Page Signal
MR	Modified Read compression
MRC	Modified Read Compression
MSG	Management Steering Group
ms	millisecond
MSI	Multi-Sheet Inserter
MSO	Mixed Size Originals
MX	Modi Xerox
N	Newton
NA	North America
NASG-N	North American Solutions Group (equivalent to XCI)
NASG-S	North American Solutions Group (equivalent to USCO)
nC	nano Coulomb
NC	Network Controller (equivalent to ESS).

**Table 1 Abbreviations**

Term	Description
NC	Normal Contrast. Copy contrast setting
NCP	Network Core Protocol
NCR	No Copying Required
NCU	Network Control Unit
NDS	NetWare Domain Services or Novell Directory Services
NDS Context	NetWare Domain Services Context
NDS Tree	NetWare Domain Services Tree
NetBEUI	NetBIOS Extended User Interface. A network device driver or transport protocol that is the transport driver supplied with LAN Manager. It can bind with as many as eight media access control drivers.
NetBIOS	Network Basic Input / Output System. Software developed by IBM that provides the interface between the PC operating system, the I?O bus, and the network. Since its design, NetBIOS has become a de facto standard.
NGI	Next Generation Infrastructure (new files and mail servers)
NIC	Network Interface Card. Converts the data to a form suitable for transmission and reception. Uses ARP and RARP.
Nm	Newton metre
NOHAD	Noise, Ozone, Heat, Airflow and Dust
NP	Printer configuration
NS	Normal Sharpness. Copy sharpness setting
NSC	Non-Standard Facilities Command
NSF	Non-Standard Facilities
NSS	Non-Standard Set-Up
NSSD	Network. The SESS and CentreWare development team based in Rochester NY. This group is now named CDDU.
NVM	Non-Volatile Memory
OA	Open Architecture
OB or O/B	Out Board
OCT	Offsetting Catch Tray
OEM	Original Equipment Manufacturer
OGM	On Going Maintenance
OOP	Out Of Paper
OpCo	Operating Company
OSA	Online support Assistant
OSCG	Office Systems Component Group
P/R	Photoreceptor
PABX	Private Automatic Branch Exchange
PC	Personal Computer
PC Fax	Personal Computer Fax
PCI	Peripheral Component Interface
PCI	Personal Computer Interface

**Table 1 Abbreviations**

Term	Description
PCL	Printer Control Language
PCMCIA	Personal Computer Memory Card International Association
PD	Process Direction
PDF	Adobe Acrobat Portable Document Format
PDL	Page Description Language
PDT	Product Delivery Team
Pels	Picture Data (Pixel)
PFM	Paper Feed Module
PFPP	Paper Feed Platform
PHI	per Hundred Installs
PIN	Procedural Interrupt Negative
PIN	Personal Identification Number
ping	Packet InterNet Groper. Tool to test connections between nodes by sending and returning test data.
PIP	Procedural Interrupt Positive
PJL	Printed Job Language. Hewlett Packard page description language.
PMC	Programme Management Committee
POPO	Power Off Power On
POO or P of O	Principles of Operation
POST	Power On Self Test
PPC	Power PC. A EPROM manufacturer
PPD	Postscript Printer Description. A PPD file is a simple formatted text file that contains a description of the printers features and the corresponding PostScript 'code' needed to activate each feature. Apple LaserWrite drivers and application programs such as Adobe PageMaker can use PPD files. With a OOD file, many of the printing features of a network printer can be made available to users. However advanced features such as LAN Fax, Accounting and Exception Page Programming cannot be provided.
PPD Minidivers	PPD minidivers are available in Windows operating systems (from Windows 95 onwards). With these, a Xerox - supplied PPD file is used in conjunction with an operating system supplied driver to create a Post-Script driver tailored for a specific device. In windows 95/98, a driver provided by this method has lamentations and not all devices features can be made available to the user. With Windows NT 4 and Windows 2000, it is possible to make more features available by using a user interface rendering plug - in. In this document, if the driver is to be provided with If no plug-ins are provided, then it is called a standard minidriver.
PPHI	Problems Per Hundred Installs
PPI	Post Process Inserter
PPM	Prints per minute / Parts Per Million
PPR	Partial page Request
pps	Partial Page Signal / pulses per second

**Table 1 Abbreviations**

Term	Description
PPS	Product Performance Specification
PR	Photo-Receptor
PRI-EOM	Procedure Interrupt-EOM
PRI-EOP	Procedure Interrupt-EOP
PRI-MPS	Procedure Interrupt-MPS
PSM1	Power Save Mode 1 (low power mode)
PSM 3	Power Save Mode 3 (sleep mode)
PS	Post Script
PSTN	Private Switched Telephone Network
PSW	Portable Service Workstation
PTT	Post, Telephone, Telegraph (national public utilities)
PVC	Poly Vinyl Chloride
PVT	Product Verification Test
PWB	Printed Wiring Board
PWB A	Printed Wiring Board Assembly
PWS	Portable Work Station
QIT	Quality Improvement Team
RAM	Random Access Memory
RARP	Reverse Address Resolution. Reverse of ARP. Converts a MAC address to an IP address. The document centre resolves its address using RARP. See also MAC, NIC and ARP.
RBT	Ring Back Tone
RCA	Remote Customer Assistance
RDT	Remote Data Transfer
R/E	Reduction / Enlargement
REN	Ringer Equivalence Number
RFC	Request for comment. An IETF standard reference.
RPC	Remote Procedure Call
RH	Relative humidity
RIC	Remote Interactive Communications
RIS	Raster Input Scanner
Riser PWB	A card that increases the number of PCI slots.
RJ 45	Phone type network connector
RM	Requirements Management
RMS	Root Mean Square (AC effective voltage)
RNR	Receive Not Ready
RO	Regional Operations
ROM	Read Only Memory
ROS	Raster Output Scanner
RR	Receive Ready
RRB	Requirements Review Board

**Table 1 Abbreviations**

Term	Description
RS-232, RS-423, RS-422, RS-485	Series of standards for serial communication of data by wire. RS-232 operates at 20kbits/s, RS-423 operates at 100kbits/s, RS-422 and RS-485 operate at 10Mbits/s. See FireWire and USB.
RTN	Retrain Negative
RTP	Retrain Positive
RTS	Request To Send
Rx	Receive
S2E	Scan-to-E-mail
S2F	Scan-to-File
S2X	Scan-to-Export
SA	Systems Administration
SAD	Solid Area Density
SAKO	Systems Administration Key Operator
SAP	Service Advertising Protocol. a network device will broadcast its capabilities onto the network at a defined intervals.
SAF	Safety
SAP	Service Advertising Protocol
SAR	Semi-Active Retard feeder
SBC	Single board controller
SCD	Software Compatibility Database
SCM	Software Configuration Management
SCN	Specification Change Notice
SCR	Software Change Request
SCSI	Small computer Systems Interface
SCT	Simple Catch Tray
S/D	Shut Down
SDK	Software Development Kit
SDP	Software Development Plan
SDR	Shut Down Rate
SDRAM	Static Dynamic Remote Access Memory
Server Fax	A fax system that uses a remote Fax server. Faxes transmit as a Scan to File job sent to the server. Fax receive as print jobs submitted to the Connection Device.
SEF	Short Edge Feed
SESS	Strategic Electronic Sub-System
SIM	Scanner Input Module
Single board controller PWB	Copy, print and UI controllers all on one PWBA within the image processing module.
SIP	Scanning and Image Processing
SIR	Standard Image Reduction
Sixth Sense	A single device and group management tool
SLP	Service Location Protocol (finds servers)

**Table 1 Abbreviations**

Term	Description
SM	Scheduled Maintenance
SMART	Systematic Material Acquisition Release Technique
SMB	Server Message Block. Microsoft Server / Client Communications protocol
SMP1	Service Maintenance Pack 1 (contains a software package)
SPAR	Software Problem Action Request
SNMP	Simple Network Management Protocol
Snr	Sensor
SOD	System Operating Description
SPL	Sound Pressure Level
SPP	Short Paper Path
spi	Spots per inch
SPID	Service Profile Identification
SQA	Software Quality Assurance
SR	Service Representative
SRAM	Static Random Access Memory
SRC	Software Requirements
SS or S/S	Sub System
ST	System Terminal Device. Multi-functional device as defined by Energy Star (includes DC / NC and DC / NC / Fax)
STP	Standard Test Pattern
STS	Side To Side, paper width sensors
SW	Switch
SW or S/W	Software
SWL	Sound Power Level
system kernel	Minimal operating system
T & M	Time and Materials
TAR	Take away Roll
TBC	To Be Confirmed
TBD	To Be Defined
TCP / IP	Transmission Control Protocol / Internet Protocol
TE	Trail Edge
Template	A collection of Scan to File attributes that can be conveniently re-used.
TC	Toner Concentration
TCF	Training Check Field
TDT	Transfer Detack
TEC	Typical Electricity Consumption
TEI	Terminal Endpoint Identifier
TIFF	Tagged Image File Format
TIFF FX	TIFF Fax eXtended
TIFFX	Tagged Image File Format - for internet FAX

**Table 1 Abbreviations**

Term	Description
TP	Test Point
TOS	Teflon over Silicon
TPM	Technical Programme Manager
Transmissive LCD	Liquid Crystal Display lit from the back
TRC	Toner Reproduction Curve
Tri-Folder	Output device that creates C and Z folds
TRN	Train
TSH	Technical Service Hours
TSI	Transmit Subscriber Identification
TTY	Teletype Terminal
TUI	Textual User Interface
Tx	Transmit
UGD	An upgrade file, i.e. filename.ugd
UART	Universal Asynchronous Receiver Transmitter
UDP	User Datagram Protocol
UI	User Interface (display screen)
UK	United Kingdom
UM	Unscheduled Maintenance
UMR	Unscheduled Maintenance Rate
URL	Universal Resource Locator
USB	Universal Serial Bus. High speed successor to parallel port for local device communications. Operates at 12Mbits/s. See FireWire and RS-232.
USCO	United States Customer Operations
UTP	Un-shielded Twisted Pair
V.17 / V.29 / V.34	Modem standards
VALO	Value Added Logistic Organization
VAR	Value Added Reseller
VDE	Verband Deutscher Elektrotechniker
VGA	Video Graphics Array
VOIP	Voice Over Internet Protocol
WC	WorkCentre
WC + PS	WorkCentre + PostScript print drivers
WCP	WorkCentre Pro
WEB UI	CentreWare Internet Services
WINS	Window Internet Name Service
XAP	Xerox Asia Pacific
XCL	Xerox Canada Limited
XCMI	Xerox Common Management Interface
XCRU	Xerographic CRU (also known as XRU)
XE	Xerox Europe

**Table 1 Abbreviations**

<b>Term</b>	<b>Description</b>
XI	Xerox Initiated
XL	Xerox Limited
XLA	Xerox Latin America
XOG	Xerox Office Group
XRU	Xerographic Replacement Unit
XSA	Xerox Standard Accounting
XUL	Xerox Unique Login enables use of the xerox corporate directory



## dC001 Reset Auditron Master PIN

### Purpose

To reset the customer administration password to the default, (1111).

### Procedure

1. Enter diagnostics, [GP 1](#).
2. Select Diagnostic Routines, select Other Routines, select 001 Reset Auditron Master PIN.
3. Select Reset Auditron Master PIN.
4. Select confirm or cancel.

## dC104 Modal Usage Counters

### Purpose

To list counters that provide information about features of the machine that have been used by the customer.

### Procedure

1. Enter diagnostics, [GP 1](#).
2. Select Diagnostic Routines, select Other Routines, select 104 Modal Usage Counters. The modal usage counters screen displays, showing the list of counters and the amount of use.

# dC109 Embedded Fax Protocol Report

## Purpose

This procedure allows the CSE to print out the Protocol reports for both line 1 and line 2 if configured. The protocol report contains the protocol information about the last fax transmission whether it was a send or receive job. The protocol report contains the following:

- Date and time
- The last local ID and name of the transaction for line 1 or line 2.
- A firmware version listing for FPGA, application, boot code and hardware.
- The Job details with the job, line, Fax number, start time and duration. The results column will show the speed of the communications to the remote machine and the connection status. The EQM column will show the EQM value to determine the line quality.
- The communication summary with the time and a local and remote column. The local and remote columns will display abbreviations refer to [Table 1](#).

## Procedure

1. Enter diagnostics, [GP 1](#).
2. Select Diagnostic Routines.
3. Select Fax dC Routines, select 109 Protocol Report.
4. Select Protocol Report Line 1 or Protocol Report Line 2 if configured for 2 lines, then select, Print Report.
5. The Print Report button greys out until the job has been submitted. The Fax card builds the protocol report job and places the job in the Fax NVM. This is the equivalent of an active Fax job in the Fax card queue. The job does not print, it remains in the queue until the Fax card exits diagnostics.
6. Exit Diagnostics, [GP 1](#).
7. The protocol report prints out.

## Analyse the Protocol Report.

For an example of a send and a receive Fax protocol report, refer to [Figure 1](#) or [Figure 2](#).

### In Job Details:

- The results column also shows the line speed (i.e. 1440 bps).  
The EQM column indicates the line quality (i.e. if the value is greater than 5xxx, then the line quality is poor).

### In Communications summary:

- The time column records the time at which each event occurs, from the start of the communication.
- The local and remote column shows the G3 protocol command or response with a direction arrow. Refer to [Table 1](#) for the description of the abbreviations.
- The FCF column providing a Hex value of the data information contained in the G3 facsimile checking field.
- the FIF column providing a Hex value of the data information contained in the G3 facsimile information field.

Identify the fault and refer to the appropriate RAP:

- If the Protocol Report is blank, go to [RAP 20A](#) Fax Entry.

- If the Protocol Report gives errors that show that the Fax is not able send a Fax, go to [RAP 20B](#) Unable To Send A Fax.
- If the Protocol Report gives errors that show that it is unable to receive a Fax, go to [RAP 20D](#) Unable To Receive A Fax.
- If the EQM column in the Job details, gives a code of greater than 5xxx, go to [RAP 20D](#) Unable To Receive A Fax.

Protocol Report									
Date/Time	05/08/2003	13:31:52	Transmit Header Text	Xerox Document Centre XXXXX					
Local ID 1	12345		Local Name 1	The Fax Company					
Local ID 2			Local Name 2						
<b>Firmware Version:</b>									
FPGA Version	Application Version	Bootcode Version	Hardware Version						
05.00.013	00.18.010	00.04.028	05.00.013						
<b>Job Details:</b>									
Job	Line	Dialled Fax Number	Remote Station	Start Time	Duration	Pages	Mode	Results	EQM
1	1	01234567890		12:01:23	25:12:02	00:00:24	1	EC	CP14400 0X0000
Abbreviations:									
HS: Host Send	PL: Polled Local	CP: Completed	TS: Terminated by System						
HS: Host Receive	PR: Polled Remote	FA: Fail	RP: Report						
WS: Waiting Send	MS: Mailbox Save	TU: Terminated by User	EC: Error Correct						
			G3: Group 3						
			MP: Mailbox Print						
<b>Comms Summary:</b>									
Timer	Local	Remote	FCF	FIF					
0m 0s 0mS		<-ANSam	90						
0m 4s 306mS		<-CSI	04	000096F803057BA8BF1FF7830D1701112080E0E080A010D000EA0401A1A60					
0m 5s 106mS		<-DIS	02	373533333333337303731302020202020202020					
0m 5s 497mS	TSI->		01	00775F2301F8					
0m 7s 45mS	DCS->		42	373636332020202020202020202020202020					
0m 7s 46mS	TRN->		41	00450F210110					
0m 11s 325mS	TCF->		FB						
0m 12s 587mS		<-CFR	21						
0m 13s 719mS	FCD->		60	3840					
0m 31s 218mS	RCP->		61						
0m 33s 142mS	PPS.EOP->		7074	000074					
0m 34s 965mS		<-MCF	31						
0m 36s 117mS	DCN->		5F						

T-1-1033-A

Figure 1 Send Fax protocol report



## dC111 Tag Matrix

### Purpose

This NVM store provides the CSE with a means to enter, store, delete and retrieve Tag Numbers that show which hardware and software upgrades are incorporated in the machine.

### Description

**NOTE:** This store is not deleted during a “dustoff” procedure, [dC132](#) NVM initialisation.

Tags are issued with a module identifying prefix and number as follows:

- Processor module to 001 to 250.
- DADH module to D001 to D050.
- Finisher module to F001 to F050.

The tag numbers are stored in areas defined by module and are entered into the Tag Matrix dC 111 without the prefix.

Refer to the procedure [Tags](#). This contains a list of Tag numbers together with an description of each of the modifications.

### Procedure

1. Enter diagnostics, [GP 1](#).
2. Select Diagnostic Routines, select Other Routines, select [dC111](#) Tag Matrix.
3. Select the appropriate module button, and follow the on screen instructions.

## dC131 NVM Read/Write

### Purpose

To review and modify values within the machine configuration and control parameters stored in NVM.

**NOTE:** This does not include customer administration or accounting data, these are accessible from the billing and auditron facilities, refer to the User Guide.

### Description

Each NVM item is identified using a chain and location code in the form XX-XXX, where XX- is the chain prefix, and -XXX is an identifier in the range 001 to 999. For example 09-245. Refer to [GP 2](#) Fault Codes and History Files.

### Procedure

1. Save the NVM, [GP 5](#).
2. Enter diagnostics, [GP 1](#).
3. Select Diagnostic Routines.
4. Select required dC routine category:
  - Copier Routines.
  - Fax Routines.
5. For copier routines, select the appropriate button for the NVM chain to be viewed.
6. Use the scroll buttons to view the other NVM locations of the chain.
  - Use the keyboard to type the three digit identifier code into the Find: field and then touch the Find: button. This puts the found NVM value at the top of the list.

**NOTE:** Press the keypad C button to reset the Find: button to 000.

7. Touch the selected NVM in the list, and touch the Read/Write button.
  - The Read/Write window will open for editable NVM, and the Read Only window will open for Read Only (protected) NVM.
8. Refer to the tables that follow for NVM chain locations and parameters:
  - NVM Tables Chains 1 to 10 [dC131a](#).
  - NVM Tables Chains 12 to 19 [dC131b](#).

**NOTE:** Refer to the [Fax NVM Document](#) for the fax (chain 20) NVM values.

9. When the values of an editable NVM have been changed, switch off the machine, then switch on the machine, [GP 14](#), to check and evaluate the changes made to the NVM.

**NOTE:** If the NVM default characters exceed 10 characters only the first eight characters are displayed in the list. The full string is displayed in the Read/Write window.

**NOTE:** Selecting Reset will cause the selected NVM location to be reset to its default value. Selecting Cancel closes the window and cancels any changes made in the now closed window.

**NOTE:** The CSE cannot read or modify any NVM that contains customer administrative or accounting data.

**NOTE:** The Read Only (protected) NVM can only be changed using a password obtained from Xerox. Protected NVM cannot be reset from [dC132](#) NVM initialisation.

## dC131a NVM Tables Chain 1 to 10

### General

1. Refer to the following for NVM parameters chain 1 to 10:

- NVM chain 1 [Table 1](#)
- NVM chain 2 [Table 2](#)
- NVM chain 3 [Table 3](#)
- NVM chain 5 [Table 4](#)
- NVM chain 6 [Table 5](#)
- NVM chain 7 [Table 6](#)
- NVM chain 8 [Table 7](#)
- NVM chain 9 [Table 8](#)
- NVM chain 10 [Table 9](#)

**Table 1 NVM chain 1**

Location	NVM Name	NVM Description	Value	Default
01-001	Power Save Enable	Defines whether power save is enabled.	0=disabled 1=enabled	1

**Table 2 NVM chain 2**

Location	NVM Name	NVM Description	Value	Default
02-001	Printer Language	-	0	0

**Table 3 NVM chain 3**

Location	NVM Name	NVM Description	Value	Default
03-001	Foreign Interface	Determines whether foreign interface is configured.	0=disabled 1=enabled	0
03-003	Market Region	Defines market region. Password protected.	0=USCO, 1=XCL, 2=FX, 3=FXAPO, 4=ACO, 5=XE	0
03-004	System Config	Defines type of system.	0=Digital Copier, 1=Multi-Functional Device, 2=Printer, 3=Scan Server, 4=OEM Scanner, 5=OEMPrinter, 6=OEM MultiFunction, 7=Atlanta Only	0
03-005	System Install Phase	Defines system's current installation phase.	0=manfg, 1=FIC, 2=Customer Install, 3=Customer Setup, 4=Install Complete	0
03-006	Auto Configuration	Determines if the system runs through auto configuration, detect at power on.	0=disabled 1=enabled	1

**Table 3 NVM chain 3**

Location	NVM Name	NVM Description	Value	Default
03-007	Value Added Reseller	Defines installation's value added reseller. Password protected.	0 to 255	255
03-008	Product Identifier	Sets the product identifier. This is used to identify the printer type over the network (through the sysObjectID Object). Password protected.  <b>NOTE:</b> For machine identification, refer to <a href="#">SCP 7 Machine Features</a> .	151 = 35 ppm 152 = 40 ppm 153 = 45 ppm 154 = 55 ppm 155 = 65 ppm 156 = 75 ppm 157 = 90 ppm	73
03-009	Install Client	Defines current client of system installation.	0 to 255	0
03-010	SVC Copy Mode PIN	Service copy mode entry code. Normally the reverse of the diagnostic entry code.	1000 to 999999999	4391
03-011	Auto Hold Enable	Hold job queue if resources unavailable.	0=disable 1=enable	1
03-012	Prod config (speed)	Defines product configuration (processing speed). 08-001 must be set to the same speed.	35=35ppm 40=40ppm 45=45ppm 55=55ppm 65=65ppm 75=75ppm 85=90ppm	33
03-013	Doc Handler Config	Defines if the DADH or document cover is present, Auto select.	0=DADH 1=Document cover	1
03-014	Inverter Switch	Determines if sheets delivered face up (non inverted) or face down (inverted).	0=face up 1=face down	1
03-015	SIP Machine Model	Machine Configuration Setting. Password protected.	Range 0 to 8 (WC5790F = 7)	0
03-016	SIP Machine Type	Machine Type Setting. Password protected.	0=Unknown 1=Universal 2=DC 3=MF 4=Spare	0
03-017	SIP CommsPort-Accs	Image Processing serial communication port access - either disabled or enabled.	0=Disabled 1=Enabled	1

Table 3 NVM chain 3

Location	NVM Name	NVM Description	Value	Default
03-018	DC Install Phase	Define platform current phase.	0=Incomplete 1=Incomplete 2=Incomplete 3=Install Wizard 4=Complete	0
03-019	SIP Serial Port Mode	SIP serial port mode.	0=Debug mode 1=Modem Mode	0
03-020	ADV Threshold	Determines the threshold for when the daily count is added to the Average daily volume.	1 to 100	1
03-021	SIP USBPort Access	SIP USB communication port access disabled or enabled.	0 = Disable 1 = Enabled	1
03-022	Full Odio Timeout	Defines system manager full ODIO timeout.	Range 0 to 255	60 mins
03-023	Stndrd Odio Timeout	Defines system manager standard ODIO timeout.	Range 0 to 255	20 mins
03-024	SIP Machine Quay	Machine configuration setting machine key.	Range 0 to 255 (Set in manufacturing)	49
03-025	PowerManagementMode	Power management mode	0= intelligent ready 1= job activated 2= scheduled	0
03-029	FastResStatus	Fast Resume status	0=Disabled 1=Enabled	0
03-400	IQA Highlight Ref	Image quality adjustment highlight reference.	Range 0 to 255 (Grey scale units 0 = Black, 255 = White)	136
03-401	IQA Shadow Ref	Image quality adjustment shadow reference.	Range 0 to 255 (Grey scale units 0 = Black, 255 = White)	13
03-402	IQA K1 Constant	Image quality adjustment. K1 constant.	Range 0 to 3000	35-55 ppm =2500, 65-90 ppm =500
03-403	IQA K2 Constant	Image quality adjustment. K2 constant.	Range 0 to 6000	35-55 ppm =1500, 65-90 ppm =5500
03-404	IQA K3 Constant	Image quality adjustment. K3 constant.	Range 0 to 200	0

Table 3 NVM chain 3

Location	NVM Name	NVM Description	Value	Default
03-405	IQA K4 Constant	Image quality adjustment. K4 constant.	Range 0 to 5000	35-55 ppm = 0, 65-90 ppm = 3000
03-406	IQA K5 Constant	Image quality adjustment. K5 constant.	Range 0 to 500000	35-55 ppm = 135000, 65-90 ppm = 91000
03-407	IQA K6 Constant	Image quality adjustment. K6 constant.	Range 0 to 3000	0
03-408	IQA White Max SD	Image quality adjustment maximum standard deviation limit for white background.	Range 0 to 25	15
03-409	IQA Max Av Grey Lvl	Image quality adjustment maximum average grey level.	Range 0 to 255 (Grey scale units 0 = Black, 255 = White)	0
03-410	IQA Min Av Grey Lvl	Image quality adjustment minimum average grey level.	0 to 255	230
03-411	IQA Highlight C Ref	IQA HighLight Reference	Range 0 to 255 (Grey scale units 0 = Black, 255 = White)	138
03-412	IQA Shadow C Ref	IQA Shadow Reference	Range 0 to 255 (Grey scale units 0 = Black, 255 = White)	16
03-413	ABSMInBinLimit	Maximum background suppression value	0 to 255	64
03-414	ABSMaXStdDev	Minimum background suppression value	0 to 6550	10
03-415	ABSMInBinSum	Background suppression value sum	0 to 65535	16384
03-420	AutoModeTRC-Slope	TRC Slope in auto mode (Toner reproduction curve)	10 to 80	20
03-421	AutoModeTR-COffset	TRC offset in auto mode	0 to 500	400
03-422	SpecialMode-TRCSlope	TRC slope in special mode	10 to 80	20
03-423	SpecialModeTR-COffset	TRC offset in special mode	0 to 500	400
03-424	PhotoModeTRC-Slope	TRC slope in photo mode	10 to 80	20

**Table 3 NVM chain 3**

Location	NVM Name	NVM Description	Value	Default
03-425	PhotoModeTR-COffset	TRC offset in photo mode	0 to 500	400
03-426	CustomMediaEnable	Custom display names for custom media types - feature enablement	0 = Disable 1 = Enabled	0
03-427	CustomMediaListInit	Custom display names - Custom media type List Initialized flag	0 = Disable 1 = Enabled	0
03-900	Restrict Diag. Pin	Retains the restricted diagnostics pin. Use with 08-900	1000 to 99999999	1962

**Table 4 NVM chain 5**

Location	NVM Name	NVM Description	Value	Default
05-001	DADH Feed Head Count	Number of feeds.	0 to 300000	0
05-002	CRU Days	Number of days.	0 to 65535	0
05-007	Detect Paper Size 1	DADH sensor to detect sizes for market regions.	0=A4, 1=8.5x13, 2=Auto market region set	2
05-008	Detect Paper Size 2	DADH sensor to detect sizes for market regions.	0=A5; 1=8.5x5.5, 2=auto market region set	2
05-009	DADH Mag (copy mode)	Half speed adj for >100% copy.	0 to 200 minus 10% to plus 10%	35-55 ppm =100, 65-90 ppm =94
05-012	DADH Duplex Motor Speed	Adjustment of duplex motor speed.	0=normal 1=quiet mode (reduced speed)	0

**Table 5 NVM chain 6**

Location	NVM Name	NVM Description	Value	Default
06-001	Laser Light Level	ROS light level 600 dpi and 1200 dpi. 09-319 must be set to the same value as 06-001.	1500 to 6000	35ppm =3471, 40-55 ppm =2250, 65-90 ppm =2400
06-003	Ros Motor Time-out	Time after which ROS motor fault will be called.	100 to 20000ms	5000

**Table 5 NVM chain 6**

Location	NVM Name	NVM Description	Value	Default
06-005	Extended Rng Ros Enable	Indicates which type of ROS is fitted (35 ppm only).	0 = 3 to 6 Erg/cm2 range ROS 1 = 1.5 to 6 Erg/cm2 Extended range ROS	1

**Table 6 NVM chain 7**

Location	NVM Name	NVM Description	Value	Default
07-001	Feeder Module Type	Defines feeder module type 67=2 internal trays + bypass 68=2 internal trays + bypass + HCF 177=2 internal trays + bypass + tray 5 180=2 internal trays + bypass + HCF + tray 5	67 to 180	67
07-002	LE Late T5 Feed Snr	Steps allowed before a sheet is declared a misfed. LE late to tray 5 feed sensor.	0 to 800	500
07-003	LE Late Wait Point T5	Number of transport motor steps allowed between the LE at TAR nips to hand over before a jam is declared.	0 to 2000	35-55 ppm =1052, 65-90 ppm =724
07-004	Wait Point Steps T5	Number of transport motor steps from the time the LE is at pre hand over to hand over point.	0 to 500	35-55 ppm=115, 65-90 ppm =223
07-005	T1 Stock Level	Number of steps tray 1 has been lifted since it was last closed.	0 to 700	0
07-006	T2 Stock Level	Number of steps tray 2 has been lifted since it was last closed.	0 to 700	0
07-007	T1 Stack Height Adjust	Number of steps tray 1 has to be lifted above the stack height sensor for optimum feed position.	0 to 40	7
07-008	T2 Stack Height Adjust	Number of steps tray 2 has to be lifted above the stack height sensor for optimum feed position.	0 to 40	7
07-009	LE Late T1 Feed Snr	Maximum number of steps from tray 1 feed motor to LE at tray 1 feed sensor.	0 to 500	200

Table 6 NVM chain 7

Location	NVM Name	NVM Description	Value	Default
07-010	LE Late T2 Feed Snr	Maximum number of steps from tray 2 feed motor to LE at tray 2 feed sensor.	0 to 500	200
07-011	T1 Buckle Size	Number of steps from LE at tray 1 feed sensor to start of transport motor.	0 to 200	13
07-012	T2 Buckle Size	Number of steps from LE at tray 2 feed sensor to start of tray 1 and 2 transport motor.	0 to 200	13
07-013	LE Late T1 From T2	Maximum number of steps from tray 2 TAR nips to LE at tray 1 feed sensor.	0 to 1200	940
07-014	LE Late Wait Point T1-T2	Maximum number of steps from tray 1 TAR nips to LE at wait sensor.	0 to 1400	1000
07-015	Wait Point Steps T1-T4	Number of steps from LE at wait sensor to tray 1 and 2 transport motor stop.	0 to 600	35-55 ppm =240, 65-90 ppm =434
07-016	Release Steps T1-T4	Number of steps the tray 1 and 2 transport motor should run after the release sheet command.	0 to 2000	440
07-017	LE Late T2 From T3-T4	Time for the LE of an HCF sheet to reach the tray 2 feed sensor.	0 to 2000	35-55 ppm = 1400, 65-90 ppm = 1950
07-018	Release Steps T5	Distance from wait point to transport motor releasing sheet.	0 to 1000	116
07-019	T3 Stack Height Adjust	Number of steps tray 3 has to be lifted above the stack height sensor for optimum feed position.	0 to 100	50
07-020	T4 Stack Height Adjust	Number of steps tray 4 has to be lifted above the stack height sensor for optimum feed position.	0 to 100	50
07-021	LE Late T3 Feed Snr	Maximum number of steps from tray 3 feed motor to LE at tray 3 feed sensor.	0 to 700	350
07-022	LE Late T4 Feed Snr	Maximum number of steps from tray 4 feed motor to LE at tray 4 feed sensor.	0 to 800	400
07-023	T3 Buckle Size	Size of de-skew buckle.	0 to 15	3
07-024	T4 Buckle Size	Size of de-skew buckle.	0 to 15	10

Table 6 NVM chain 7

Location	NVM Name	NVM Description	Value	Default
07-025	Release Steps T3-T4	Number of steps the HCF transport motor should run after the release sheet command.	0 to 15	5
07-026	LE Late T4 From T3	Maximum number of steps from tray 3 TAR nips to LE at tray 4 feed sensor.	0 to 2000	1000
07-027	Wait Point Steps T3-T4	Number of steps from tray 4 feed sensor to stop position.	30 to 100	35-55 ppm =40, 65-90 ppm = 53
07-028	PreRelease Distance T1	Number of steps for pre-sheet separation.	100 to 150	130
07-029	Tray Media Combi Switch	Tray media size sensing switch to alternate between old and new switch combinations.	0=Old combination 1=New combination	1
07-032	FeedCL4AcqDelayTime	HCF (W/TAG 151) Delay before feed clutch is enabled to acquire a sheet	0 to 6000ms	35 ppm = 400, 40-45 ppm =250, 55 ppm = 50, 65 ppm = 100, 75 ppm = 60, 90 ppm = 0
07-033	HCFWaitPoint4Steps	HCF (W/TAG 151) Number of HCF tray 4 motor steps from HCF exit sensor to the HCF wait point	0 to 2000	35 ppm = 180, 40-55 ppm =140, 65-75 ppm = 200, 90 ppm = 230
07-034	T4ExSenClutchOffSteps	HCF (W/TAG 151) Number of steps of the tray 4 feed motor from the LE at HCF exit sensor to tray 4 feed clutch de-energised	0 to 1000	342
07-035	T4RampSteps	HCF (W/TAG 151) Number of steps in the tray 4 feed motor ramp from/to 525mm/sec. Used to correct clutch de-energise time.	0 to 500	54
07-036	T4WaitPtRelDelTime	HCF (W/TAG 151) Minimum delay time from PFM release sheet (sheet ahead) to sheet being released from HCF wait point.	0 to 500ms	35-45 ppm = 250, 55 ppm =150, 65-75 ppm = 110, 90 ppm = 80



Table 6 NVM chain 7

Location	NVM Name	NVM Description	Value	Default
07-037	T3FeSenClutchOffSteps	HCF (W/TAG 151) Number of steps from the LE at feed sensor to the clutch de-energise - TE at nudger A4 LEF.	0 to 2000	35-55 ppm = 260, 65-75 ppm = 215, 90 ppm = 192
07-038	HCFNVM7	Reserved for future use	-	-
07-039	HCFNVM8	Reserved for future use	-	-
07-040	HCFWaitPoint3Steps	HCF (W/TAG 151) Number of steps from HCF exit sensor to the HCF wait point.	0 to 2000	35-75 ppm = 180, 90 ppm = 220
07-041	T3WaitPtRelDelTime	HCF (W/TAG 151) Minimum delay time from PFM sheet release (sheet ahead) to sheet being released from HCF wait point	0 to 500ms	35 ppm = 250, 40-55 ppm = 150, 65-90 ppm = 80
07-042	FeedMotorOffsteps	HCF (W/TAG 151) Number of steps after the last feed request between clutch de-energise and feed motor stop.	0 to 1000	100
07-043	Sens2HiSpeedCompSteps	HCF (W/TAG 151) Number of steps that the HCF transport motor stays at delivery speed after the LE has arrived the T2 feed sensor.	0 to 200	0
07-044	DelayTAR4SnrClrSteps	HCF (W/TAG 151) Step delay from TE at HCF exit sensor to allow the TE to clear tray 4 nip before the feed motor can change speeds.	0 to 500	23
07-045	HCFNVM14	Reserved for future use.	-	-
07-046	HCFNVM15	Reserved for future use.	-	-
07-047	HCFNVM16	Reserved for future use.	-	-
07-048	HCFNVM17	Reserved for future use.	-	-
07-049	HCFNVM18	Reserved for future use.	-	-
07-050	HCFNVM19	Reserved for future use.	-	-
07-051	HCFNVM20	Reserved for future use.	-	-
07-052	HCFNVM21	Reserved for future use.	-	-
07-053	HCFNVM22	Reserved for future use.	-	-
07-054	HCFNVM23	Reserved for future use.	-	-
07-055	HCFNVM24	Reserved for future use.	-	-
07-056	HCFNVM25	Reserved for future use.	-	-
07-057	FeedMotorVelocity	HCF (W/TAG 151) Nominal feed motor velocity	200 to 1000mm/s	525

Table 6 NVM chain 7

Location	NVM Name	NVM Description	Value	Default
07-058	HCFMotorNom-Speed	HCF (W/TAG 151) Nominal HCF transport motor velocity	100 to 1000mm/s	525
07-059	HCFMatchPFMSpeed	HCF (W/TAG 151) Speed that HCF transport motor will use to match the required PFM process speed	100 to 1000mm/s	35 ppm = 185, 40-55 ppm = 265, 65-90 ppm = 373
07-060	HCFMatchPFMHiSpeed	HCF (W/TAG 151) Speed that HCF transport motor will use to match the required PFM Hi speed	100 to 1000mm/s	35 ppm = 185, 40-55 ppm = 265, 65-90 ppm = 685
07-061	HCFHiSpeed	HCF (W/TAG 151) HCF motor high speed to enable catch up and productivity.	200 to 1000mm/s	35-55 ppm = 525, 65-75 ppm = 700, 90 ppm = 844
07-062	HCFNVM31	Reserved for future use.	-	-
07-063	HCFNVM32	Reserved for future use.	-	-
07-064	HCFNVM33	Reserved for future use.	-	-
07-065	HCFNVM34	Reserved for future use.	-	-
07-066	HCFNVM35	Reserved for future use.	-	-
07-067	T3FeedWPSteps	HCF (W/TAG 151) Number of steps past the tray 3 exit sensor to start ramping down the feed motor.	0 to 1000	0
07-068	Feed3AcqDelTime	HCF (W/TAG 151) Tray 3 delay to start sheet acquire from the tray.	0 to 2000ms	35 ppm = 600, 40-45 ppm = 350, 55 ppm = 250, 65 ppm = 100, 90 ppm = 0
07-069	T3SheetReadyTime	HCF (W/TAG 151) Delay before sheet is ready to be sent from tray 3.	0 to 2000ms	140
07-070	T3DelayToHiSpeedStep	HCF (W/TAG 151) Number of feed steps from tray 3 TAR to the feed motor going to high speed.	0 to 2000	260
07-071	LElateToFeed3Time	HCF (W/TAG 151) Maximum time the tray 3 clutch is energised to LE at tray 3 feed sensor.	0 to 3000ms	500
07-072	LElateToTAR3Time	HCF (W/TAG 151) Maximum time the tray 3 clutch is energised to LE at tray 3 exit sensor.	0 to 6000ms	1000

**Table 6 NVM chain 7**

Location	NVM Name	NVM Description	Value	Default
07-073	T3LElateToTAR4Time	HCF (W/TAG 151) Maximum time from tray 3 feed motor start, when the sheet is at the horizontal wait point to the LE at the HCF exit sensor.	0 to 6000ms	35 ppm =600, 40-55 ppm =550, 65-90 ppm = 500
07-074	LElateToFeed4Time	HCF (W/TAG 151) Maximum time the tray 4 feed clutch is energised to LE at tray 4 feed sensor.	0 to 3000ms	500
07-075	LElateToTAR4Time	HCF (W/TAG 151) Maximum time the tray 4 feed clutch is energised to LE at HCF exit sensor,	0 to 6000ms	600
07-076	HCFNVM45	Reserved for future use.	-	-
07-077	Tray4SheetReadyDelay	HCF (W/TAG 151) Delay before sheet ready is sent tray 4 only.	0 to 5000ms	20
07-078	T4PreAcquireTime	HCF (W/TAG 151) Pre-acquire time for tray 4 (90 ppm only). Timed from LE at tray 2 feed sensor to start the acquisition of the next sheet	0 to 5000	35-75 ppm = 0, 90 ppm = 100
07-079	HCF(FAR) PurgeEnable	HCF(W/TAG 151) Purge enable - move sheets to the left hand door for easier clearance.	0 = Disable 1 = Enabled	1
07-080	HCF(FAR) Feed Retry	HCF (W/TAG 151) Number of feed retry attempts.	0 to 10	5
07-081	FeedMotorOnDelay	HCF (W/TAG 151) Time from clutch energise to starting the feed motor.	0 to 100000ms	10
07-082	FeedMotorSlow-Speed	HCF (W/TAG 151) Speed that the feed motor runs when the clutch is disabled (retard roll geared to run half this speed).	0 to 100000mm/s	100
07-083	HCFNVM52	Reserved for future use.	-	-
07-084	HCFNVM53	Reserved for future use.	-	-
07-085	HCFNVM54	Reserved for future use.	-	-
07-086	HCFNVM55	Reserved for future use.	-	-
07-087	HCFNVM56	Reserved for future use.	-	-
07-088	HCFNVM57	Reserved for future use.	-	-
07-089	HCFNVM58	Reserved for future use.	-	-
07-090	HCFNVM59	Reserved for future use.	-	-
07-091	HCFNVM60	Reserved for future use.	-	-

**Table 7 NVM chain 8**

Location	NVM Name	NVM Description	Value	Default
08-001	Print Rate	Number of prints per minute (Controls the IOT print rate). 03-012 must be set to the same speed.	0 = 35 ppm 9 = 40 ppm 1 = 45 ppm 2 = 55 ppm 3 = 65 ppm 4 = 75 ppm 6 = 90 ppm	7
08-002	Process speed	Speed at which sheets move through machine.	160 to 500	35 ppm=179, 40-55 ppm =257, 65-90 ppm=362
08-003	Machine Model	Machine configuration setting.	0 to 8	0
08-004	Machine Type	Machine type setting.	0=Unknown 1=Universal 2=DC 3=MF 4=Spare	0
08-005	Machine Quay	Machine configuration setting Machine Key.	0 to 255	49
08-045	Short Cycle Out Time	IOT inactivity shutdown timer (except ROS motor).	0 to 15 seconds	0
08-046	Long Cycle Out Time	Inactivity cycle out timer.	0 to 180 seconds	35-45 ppm=0 55-90 ppm =60
08-047	Abnormal Cycle Out Time	Abnormal cycle out time.	0 to 15 seconds	35-45 ppm=0 55-90 ppm =10
08-048	Top Edge Reg Tray 1 Simp	Tray 1 top edge registration simplex.	7300 to 7700	7510
08-049	Top Edge Reg Tray 2 Simp	Tray 2 top edge registration simplex.	7300 to 7700	7510
08-050	Top Edge Reg Tray 3 Simp	Tray 3 top edge registration simplex.	7300 to 7700	7522
08-051	Top Edge Reg Tray 4 Simp	Tray 4 top edge registration simplex.	7300 to 7700	7504
08-052	Top Edge Reg MSI Simp	Bypass tray top edge registration simplex.	7300 to 7700	7522
08-059	Top Edge Reg Tray 1 Dup	Tray 1 top edge registration duplex.	7300 to 7700	7510
08-060	Top Edge Reg Tray 2 Dup	Tray 2 top edge registration duplex.	7300 to 7700	7521
08-061	Top Edge Reg Tray 3 Dup	Tray 3 top edge registration duplex.	7300 to 7700	7533
08-062	Top Edge Reg Tray 4 Dup	Tray 4 top edge registration duplex.	7300 to 7700	7510

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-063	Top Edge Reg MSI Dup	Bypass tray top edge registration duplex.	7300 to 7700	7522
08-074	IOT LE Reg Simp	IOT lead edge registration simplex.	0 to 255	141
08-075	IOT LE Reg Dup	IOT Lead Edge Reg Dup.	0 to 255	129
08-107	Inv Mot Fwd To Rev D1	IOT paper path timing, restart sheet into duplex for mode 1.	0 to 2500	35 ppm=1353, 40-55 ppm =927, 65-75 ppm =669, 90 ppm=697
08-108	Inv Mot Fwd To Rev D2	IOT paper path timing, restart sheet into duplex for mode 2.	100 to 4000	35 ppm=3055, 40-55 ppm =2130, 65-75ppm =1579, 90 ppm=1185
08-109	Inv Mot Fwd To Rev D3	IOT paper path timing, restart sheet into duplex for mode 3.	100 to 5000	35 ppm=3771, 40-55 ppm =2631, 65-75ppm =2062, 90 ppm=1725
08-127	Res Sht To Le Dup Lt Jam 3	Restart sheet to duplex jam window to indicate LE of sheet is late in mode 3.	200 to 2556	35 ppm =2400, 40-55 ppm =1670, 65-90 ppm =900
08-128	Res Sht To Le Dup Lt Jam 4	Restart sheet to duplex jam window to indicate LE of sheet is late in mode 4.	200 to 3000	35 ppm =2010, 40-55 ppm =1340, 65-90 ppm =900
08-148	Le Dup Snr To Clh On Act	Duplex buckle timer mode 1.	0 to 700	35 ppm =496, 40-55 ppm =343, 65-75 ppm =244, 90 ppm = 256
08-149	PSync To Reg Clut On Dup	Duplex registration mode 1.	100 to 380	35 ppm =314, 40-55 ppm =219, 65-90 ppm =154

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-152	Le Reg Snr To Clutch On	Simplex buckle.	100 to 900	35 ppm =630, 40-55 ppm =440, 65-90 ppm =290
08-153	Sync To Reg Clut On Simp	Simplex registration.	100 to 360	35 ppm =314, 40-55 ppm =219, 65-90 ppm =154
08-154	Te Reg Snr To Clutch Off	Ensures sheet clear of reg nips before turning clutch off. (See 08-619 for 90 ppm)	100 to 1200	35 ppm =860, 40-55 ppm =610, 65-75 ppm =288
08-155	Te Reg Snr To Cltch Of Evl	Ensures sheet clear of reg nips before turning clutch off, when media type is envelopes.	100 to 1500	35 ppm =1194, 40-55 ppm =843, 65-90 ppm =475
08-159	Te Dup Snr To Clutch Off	Time after paper reaches sensor to switch clutch off.	100 to 1100	35 ppm =860, 40-55 ppm =610, 65-90 ppm =600
08-160	Pitch Sync To Dup Mot On	Time to switch duplex motor on.	10 to 60	30
08-162	Rel Sht Msi To Le Reg Jam	Release sheet to reg to MSI jam window to indicate LE of sheet is late.	200 to 1200	35 ppm =630, 40-55 ppm =440, 65-90 ppm =350
08-169	Simp Buckle Transp'y	Simplex buckle for transparency stock.	100 to 900	35 ppm =630, 40-55 ppm =440, 65-90 ppm =290
08-170	Simp Buckle Enlopes	Simplex buckle for envelopes.	100 to 900	35 ppm =630, 40-55 ppm =440, 65-90 ppm =290
08-171	Simp Buckle Labels	Simplex buckle for labels.	100 to 900	35 ppm =600, 40-55 ppm =420, 65-90 ppm =290

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-172	Simp Buckle Card-stock	Simplex buckle for card stock.	100 to 900	35 ppm =630, 40-55 ppm =440, 65-90 ppm =290
08-177	Le Reg Snr To Clutch Off	LE at reg sensor to clutch off. (See 08-618 for 90 ppm)	0 to 1000	35 ppm =530, 40-55 ppm =350, 65-75 ppm =235
08-178	Le Dup Snr To Clutch Off	LE at dup sensor to clutch off.	0 to 1000	35 ppm =380, 40-55 ppm =240, 65-90 ppm =205
08-179	Le Dup Snr To Cl On Nom	LE at dup sensor to clutch on.	0 to 1000	35 ppm =496, 40-55 ppm =343, 65-75 ppm =244, 90 ppm =256
08-180	Simp Buckle Rough Stock	Simplex buckle for rough stock.	100 to 900	35 ppm =630, 40-55 ppm =440, 65-90 ppm =290
08-183	Tab Length	Tab time.	0 to 1000	35 ppm =70, 40-55 ppm =50, 65-90 ppm =40
08-190	Inv Mot Fwd To Rev D4	IOT paper path timing. Restart sheet into duplex for mode 4.	100 to 4000	35 ppm =3055, 40-55 ppm =2130, 65-75 ppm =1478, 90 ppm =1185
08-191	Simp Buckle MSI std	Simplex buckle for MSI specific standard stock.	100 to 800ms	35 ppm =630, 40-55 ppm =440, 65-90 ppm =290

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-200	Pitch Tick Simp Mode 1	IOT paper path timing pitch tick setting - Simplex mode 1.	400 to 3500	35 ppm =1460 40 ppm =1330 45 ppm =1220 55 ppm =1090 65 ppm =920 75 ppm =800 90 ppm =690
08-201	Pitch Tick Simp Mode 2	IOT paper path timing pitch tick setting - Simplex mode 2.	1000 to 3500	35 ppm =2390, 40-55 ppm =1670, 65-75 ppm =1220, 90 ppm =110
08-202	Pitch Tick Simp Mode 3	IOT paper path timing pitch tick setting - Simplex mode 3.	1000 to 3500	35 ppm =2760, 40-55 ppm =1930, 65-75 ppm =1430, 90 ppm =1290
08-203	Pitch Tick Simp Mode 4	IOT paper path timing pitch tick setting - Simplex mode 4.	1000 to 4000	35 ppm =3540, 40-55 ppm =2500, 65-75 ppm =1880, 90 ppm =1640
08-204	Pitch Tick Simp Mode 5	IOT paper path timing pitch tick setting - Simplex mode 5.	600 to 3500	35 ppm =2600, 40-55 ppm =1800, 65-75 ppm =1300, 90 ppm =1280
08-205	Pitch Tick Simp Mode 6	IOT paper path timing pitch tick setting - Simplex mode 6.	1000 to 3500	35 ppm =2760, 40-55 ppm =1700, 65-90 ppm =1210
08-206	Pitch Tick Dup Mode 1	IOT paper path timing pitch tick setting - Duplex mode 1.	600 to 3500	35 ppm =1560, 40-55 ppm =1090, 65-75 ppm =800, 90 ppm =690

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-207	Pitch Tick Dup Mode 2	IOT paper path timing pitch tick setting - Duplex mode 2.	1000 to 3500	35 ppm =2390, 40-55 ppm =1670, 65-75 ppm =1220, 90 ppm =1110
08-208	Pitch Tick Dup Mode 3	IOT paper path timing pitch tick setting - Duplex mode 3.	1000 to 3500	35 ppm =2760, 40-55 ppm =1930, 65-75 ppm =1430, 90 ppm =1290
08-209	Pitch Tick Dup Mode 4	IOT paper path timing pitch tick setting - Duplex mode 4.	1000 to 3500	35 ppm =2390, 40-55 ppm =1670, 65-75 ppm =1220, 90 ppm =1110
08-210	Pitch Tick Dup Mode 5	IOT paper path timing pitch tick setting - Duplex mode 5. Transparency pitch mode 1 simplex.	600 to 3500	35 ppm =1560, 40-55 ppm =1090, 65-75 ppm =800, 90 ppm =690
08-211	Pitch Tick Dup Mode 6	IOT paper path timing pitch tick setting - Duplex mode 6.	1000 to 3500	35 ppm =1560, 40-90 ppm =1090
08-212	Restart Dup M5 Txpar	IOT transparency timing restart sheets into duplex for mode 5. Transparency pitch mode 1 simplex.	0 to 2500ms	35 ppm =1331, 40-55 ppm =927, 65-75 ppm =985, 90 ppm =697
08-213	Restart Dup M6 Envelope	IOT envelopes timing restart sheets into duplex for mode 6. Envelope pitch mode 1.	0 to 2500ms	35 ppm =1331, 40-55 ppm =927, 65-75 ppm =985, 90 ppm =697
08-214	Nip Open Inv Mot Rev M1	Time for nip to open after inverter motor starts to reverse (duplex for mode 1).	10 to 1000ms	35 ppm =570, 40-55 ppm =400, 65-90 ppm =240

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-215	Nip Open Inv Mot Rev M2	Time for nip to open after inverter motor starts to reverse (duplex for mode 2).	10 to 1600ms	35 ppm =1300, 40-55 ppm =900, 65-90 ppm =240
08-216	Nip Open Inv Mot Rev M3	Time for nip to open after inverter motor starts to reverse (duplex for mode 3).	10 to 2000ms	35 ppm =1300, 40-55 ppm =900, 65-90 ppm =640
08-217	Nip Open Inv Mot Rev M4	Time for nip to open after inverter motor starts to reverse (duplex for mode 4). SEF Heavyweight invert only pitch.	10 to 1600ms	35 ppm =1300, 40-55 ppm =900, 65-90 ppm =640
08-218	Nip Open Inv Mot Rev M5	Time for nip to open after inverter motor starts to reverse (duplex for mode 5) transparencies. Transparency pitch mode 1 simplex.	10 to 1000ms	35 ppm =570, 40-55 ppm =400, 65-90 ppm =240
08-219	Nip Open Inv Mot Rev M6	Time for nip to open after inverter motor starts to reverse (duplex for mode 6). Envelopes pitch simplex only.	10 to 1000ms	35 ppm =570, 40-55 ppm =400, 65-90 ppm =240
08-220	Inv Mot Rev Dup Mot M1	NVM inverter motor reverse to duplex motor speed up for mode 1.	0 to 200ms	35 ppm =0, 40-55 ppm =0, 65-90 ppm =0
08-221	Inv Mot Rev Dup Mot M2	NVM inverter motor reverse to duplex motor speed up for mode 2.	0 to 2000ms	35 ppm =1180, 40-55 ppm =820, 65-90 ppm =550
08-222	Inv Mot Rev Dup Mot M3	NVM inverter motor reverse to duplex motor speed up for mode 3.	0 to 2000ms	35 ppm =1760, 40-55 ppm =1230, 65-90 ppm =550
08-223	Inv Mot Rev Dup Mot M4	NVM inverter motor reverse to duplex motor speed up for mode 4. SEF Heavyweight invert only pitch mode 2.	0 to 2000ms	35 ppm =1180, 40-55 ppm =820, 65-90 ppm =550
08-224	Inv Mot Rev Dup Mot M5	NVM inverter motor reverse to duplex motor speed up for mode 5 transparencies pitch mode 1 simplex.	0 to 200ms	35 ppm =0, 40-55 ppm =0, 65-90 ppm =0

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-225	Inv Mot Rev Dup Mot M6	NVM inverter motor reverse to duplex motor speed up for mode 6. Envelope pitch simplex.	0 to 200ms	35 ppm =0, 40-55 ppm =0, 65-90 ppm =0
08-226	Rst Dup Jam Window M1	Restart sheet to duplex jam window to indicate LE of the sheet is late in mode 1.	200 to 1500ms	35 ppm =1050, 40-55 ppm =690, 65-90 ppm =500
08-227	Rst Dup Jam Window M2	Restart sheet to duplex jam window to indicate LE of the sheet is late in mode 2.	200 to 3000ms	35 ppm =2010, 40-55 ppm =1340, 65-90 ppm =900
08-228	Rst Dup Jam Window M5	Restart sheet to duplex jam window to indicate LE of the sheet is late in mode 5. Transparencies pitch mode 1 simplex.	200 to 3000ms	35 ppm =1050, 40-55 ppm =690, 65-90 ppm =500
08-229	Rst Dup Jam Window M6	Restart sheet to duplex jam window to indicate LE of the sheet is late - Envelope pitch simplex only.	200 to 1500ms	35 ppm =1050, 40-55 ppm =690, 65-90 ppm =500
08-230	Inv Mot Slow Down M1	Inverter motor slow down for mode 1. Delay from invert motor start ramp down from high speed to restart in opposite direction.	0 to 1000ms	35 ppm =100, 40-55 ppm =100, 65-90 ppm =100
08-231	Inv Mot Slow Down M2	Inverter motor slow down for mode 2. Delay from invert motor start ramp down from high speed to restart in opposite direction.	0 to 1000ms	35 ppm =100, 40-55 ppm =100, 65-90 ppm =100
08-232	Inv Mot Slow Down M3	Inverter motor slow down for mode 3. Delay from invert motor start ramp down from high speed to restart in opposite direction.	0 to 1000ms	35 ppm =100, 40-55 ppm =100, 65-90 ppm =100
08-233	Inv Mot Slow Down M4	Inverter motor slow down for mode 4. SEF heavyweight invert only pitch mode 2.	0 to 1000ms	35 ppm =100, 40-55 ppm =100, 65-90 ppm =100

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-234	Inv Mot Slow Down M5	Inverter motor slow down for mode 5. Transparencies pitch mode 1 simplex.	0 to 1000ms	35 ppm =100, 40-55 ppm =100, 65-90 ppm =100
08-235	Inv Mot Slow Down M6	Inverter motor slow down for envelopes mode 6 - envelopes pitch simplex.	0 to 1000ms	35 ppm =100, 40-55 ppm =100, 65-90 ppm =100
08-236	Lead Edge Threshold	NVM Lead edge threshold.	1	35 ppm =1, 40-55 ppm =1, 65-90 ppm =1
08-237	Trail Edge Threshold	NVM Trail edge threshold.	0 to 4	35-55 ppm =4, 65-90 ppm =1
08-238	Inv Mot on Fwd	Inverter motor on forward. Use on 65-90 ppm only for A6 media.	0 to 1000ms	35 ppm =860, 40-55 ppm =600, 65-90 ppm =430
08-239	Eng Nip To Mov Sheet	Engages nips to move sheet into inverter path.	0 to 400ms	35 ppm =230, 40-55 ppm =130, 65-90 ppm =10
08-240	Inv Mot On Rev Open	Inverter motor on reverse until open.	100 to 340ms	35 ppm =230, 40-55 ppm =180, 65-90 ppm =140
08-241	Inv Mot FwdStop Rev	Time for inverter motor to go forward, then stop, then to reverse.	36 to 80ms	35-55 ppm =50, 65-90 ppm =66
08-242	Le Fsri Inv Mot On dup	Time to turn on inverter motor after LE leaves fuser (duplex).	0 to 1000ms	35 ppm =860, 40-55 ppm =600, 65-90 ppm =0
08-243	Le Nip Closed Dup	Time between trail edge and nip closed (duplex).	0 to 400ms	35 ppm =230, 40-55 ppm =130, 65-90 ppm =0
08-244	Exit Sen To Offset Mot On	Time from exit sensor to offset tray motor on.	0 to 3000ms	35 ppm =0, 40-55 ppm =0, 65-90 ppm =0

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-245	Post Fsr To Top Tray Mot	Timing from post fuser to top tray motor (forward).	100 to 2000ms	35 ppm =1520, 40-55 ppm =1060, 65-90 ppm =750
08-246	Top Tray Mot To Post Fsr	Timing from top tray motor to post fuser.	100 to 3000ms	35 ppm =1880, 40-55 ppm =1360, 65-90 ppm =750
08-247	PFM Jam Window	Release sheet registration PFM jam window to indicate LE of sheet is late.	100 to 800ms	35 ppm =400, 40-55 ppm =280, 65-90 ppm =250
08-248	Clutch On Post Fsr Jam	Clutch on to post fuser jam window to indicate LE of sheet is late.	600 to 1850ms	35 ppm =1410, 40-55 ppm =980, 65-90 ppm =700
08-249	LE Post Fsr Exit Jam Win	Lead edge post fuser to exit jam window to indicate lead edge of sheet is late.	360 to 1100ms	35 ppm =920, 40-55 ppm =680, 65-90 ppm =490
08-250	TE Post Fsr Exit Jam Win	Trail edge post fuser to exit jam window to indicate trail edge of sheet is late.	500 to 1700ms	35 ppm =1490, 40-55 ppm =1060, 65-90 ppm =760
08-251	LE Post Fsr Exit Late Win	Lead edge post fuser to top exit jam windows to indicate lead edge of sheet is late.	1000 to 3300ms	35 ppm =3000, 40-55 ppm =2000, 65-90 ppm =1420
08-252	LE Post Fsr TE Late Win	Lead edge post fuser to trail edge post fuser jam window to indicate trail edge of sheet is late.	0 to 500ms	35 ppm =270, 40-55 ppm =170, 65-90 ppm =130
08-253	Le lot Exit lot Exit Late	Lead edge IOT exit to trail edge IOT exit jam window to indicate lead / trail late.	90 to 350ms	35 ppm =220, 40-55 ppm =170, 65-90 ppm =130

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-254	Le Top Exit TE Top Exit Win	Lead edge top exit to trail edge top exit jam window to indicate lead edge / trail edge late.	90 to 350ms	35 ppm =220, 40-55 ppm =170, 65-90 ppm =130
08-255	LE late To Reg Clutch On	Lead edge late to registration after registration clutch on.	0 to 1000ms	35 ppm =350, 40-55 ppm =250, 65-90 ppm =150
08-256	Reg Clutch On To TE Late	Registration clutch on to trail edge late to duplex sensor.	0 to 1000ms	35 ppm =350, 40-55 ppm =190, 65-90 ppm =350
08-258	Tim After Sen Ramp Dwn M1	Nominal time after hitting sensor that speed ramps down for mode 1.	0 to 200ms	35-55 ppm =20, 65-90 ppm =130
08-259	Slow Down Correct	Temperature value to correct slowdown. Ramp down time from high to process speed, used in error correction algorithm mode 1	0 to 1000ms	35 ppm =36, 40-55 ppm =17, 65-90 ppm =27
08-260	Main Mot Run Up	Main motor run up time.	0 to 4000ms	35 ppm =450, 40-90 ppm =400
08-261	PR Mot Run Up	Photoreceptor motor run up time.	0 to 4000ms	35 ppm =400, 40-90 ppm =500
08-262	LE Sen To MSI Rel	Time from release to lead edge at registration sensor	0 to 2000ms	35 ppm =505, 40-55 ppm =364, 65-90 ppm =260
08-263	LE Sen To PFM Rel	Time from PFM release to lead edge at registration sensor.	0 to 2000ms	35 ppm =177, 40-55 ppm =122, 65-90 ppm =61
08-264	TE Reg Fsr Exit	Trail edge detection at registration, fuser + exit sensor = paper size - NVM from LE.	0 to 1000ms	35 ppm =60, 40-55 ppm =40, 65-90 ppm =70

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-265	TE Duplex	Trail edge detection duplex sensor = paper size - NVM from LE duplex sensor.	0 to 1000ms	35 ppm =270, 40-55 ppm =200, 65-90 ppm =100
08-266	Pitch Win Rel Del	Pitch window release delay.	0 to 1000ms	35 ppm =440, 40-55 ppm =320, 65-90 ppm =227
08-267	Fin Finish Tim	Finisher finish time.	0 to 0	35 ppm =0, 40-55 ppm =0, 65-90 ppm =0
08-268	Fin Prep Tim	Finisher preparation time.	0 to 0ms	35 ppm =0, 40-55 ppm =0, 65-90 ppm =0
08-269	MSI Stray Sheet	Jam timer for stray sheets from the bypass tray (MSI).	0 to 1000ms	35 ppm =0, 40-55 ppm =0, 65-90 ppm =0
08-270	MSI Feed To PFM Feed	Delay from the bypass tray (MSI) feed to paper feed module (PFM) feed to avoid jam.	0 to 1000ms	35 ppm =370, 40-55 ppm =250, 65-90 ppm =172
08-271	Inv Mot Rev To Stop Dup1	Inverter motor reverse to inverter motor stop duplex 1.	0 to 1000ms	35 ppm =628, 40-55 ppm =343, 65-90 ppm =500
08-272	Inv Mot Rev To Stop Dup 2	Inverter motor reverse to inverter motor stop duplex 2.	0 to 1000ms	35-55 ppm =188, 65-75 ppm =219, 65-90 ppm =179
08-273	Inv Mot Rev To Stop Dup 3	Inverter motor reverse to inverter motor stop duplex 3.	0 to 1000ms	35 ppm =410, 40-55 ppm =414, 65-90 ppm =365
08-274	Inv Mot Rev To Stop Dup 4	Inverter motor reverse to inverter motor stop duplex 4.	10 to 2000ms	35-55 ppm =188, 65-75 ppm =219, 90 ppm =179

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-275	Inv Mot Rev To Stop Dup 5	Inverter motor reverse to inverter motor stop duplex 5 (transparencies).	0 to 1000ms	35 ppm=628, 40-55 ppm =343, 65-90 ppm =500
08-276	Inv Mot Rev To Stop Dup 6	Inverter motor reverse to inverter motor stop duplex 6 (envelopes).	0 to 1000ms	35 ppm=628, 40-55 ppm =343, 65-90 ppm =500
08-277	Add To MSUI Pitch Period	Addition to normal bypass (MSI) pitch period.	0 to 1000ms	35-55 ppm=0 65 ppm=170 75 ppm=290 90 ppm=400
08-278	Split Nip Control S1	Split nip control for 1st sheet.	0 to 350ms	210
08-279	Tim To Del Simp	IOT time to deliver simplex.	0 to 5000ms	35 ppm=2814, 40-55 ppm =1961, 65-90 ppm =1429
08-280	Tim To Del Invet	IOT time to deliver: inter (simplex + paper length).	0 to 5000ms	35 ppm=3218, 40-55 ppm =2247, 65-90 ppm =1710
08-281	Tim To Del Simp3	IOT time to deliver duplex (simplex + 3 pitches).	0 to 5000ms	35 ppm=2814 40-55 ppm =1961, 65-75 ppm =1429, 90 ppm=1432
08-282	Fsr 3min Warning Temp	Temperature threshold level.	10 to 50 deg. C	40
08-283	Fsr 2min Warning Temp	Temperature threshold level.	40 to 100 deg. C	60
08-284	Fsr 1min Warning Temp	Temperature threshold level.	60 to 120 deg. C	90
08-286	Fsr Delta	Temperature difference between the 2 thermistors.	0 to 0 deg. C	45
08-287	Fsr TolrunA	Temperature tolerance either side of run target temperature. Thermistor A.	0 to 0 deg. C	20
08-288	Fsr Tolsave	Temperature tolerance either side of power save target temperature.	0 to 0 deg. C	35-45 ppm=0 55-90 ppm=15



Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-289	Fsr Step	Temperature difference between 2 consecutive readings.	0 to 0 deg. C	3
08-290	Fsr TolrunB	Temperature tolerance either side of run target temperature. Thermistor B.	0 to 0 deg. C	35-45 ppm=0 55-90 ppm=40
08-291	Fsr Max1	Temperature at which software calls an over temperature fault.	0 to 0 deg. C	230
08-292	Fsr Max2	Temperature at which the electronics shutdown the fuser.	0 to 0 deg. C	245
08-293	Fsr Tolstandby	Temperature tolerance either side of standby target temperature.	0 to 0 deg. C	35 ppm=26 40-55 ppm=20 65-90 ppm =15
08-294	Fsr Apply Power Time	Fuser apply power time.	100 to 20000ms	200
08-295	Fsr Bias To Run Time	Fuser bias to marking mode time.	0 to 0 deg. C	0
08-296	Trange Cooling	Temperature offset above T save at which control and fault detection is enabled.	0 to 0 deg. C	10
08-297	Inv Mot On Fwd	Time from LE at inverter sensor to inverter motor on forward.	200 to 20000ms	35 ppm=860 40-55 ppm =600, 65-90 ppm =330
08-298	LE Inv Snr Mot On Frwd Dup	Time to turn on inverter motor on after LE leaves fuser (duplex).	300 to 1000ms	35 ppm=860 40-55 ppm =600, 65-90 ppm =330
08-299	TEF sr Exit Jam Win Siz2	TE post fuser to exit jam window.	400 to 1700ms	35 ppm=1490 40-55 ppm =1060, 65-75 ppm =640
08-300	TE Inv Snr To Inv Path Sol	Actuates inverter path solenoid to divert duplex sheet to output from TE of previous sheet at inverter sensor.	0 to 100 steps	35-55 ppm=30 65-90 ppm =40
08-301	TE Snr To Inv Sol On Exit	Actuates inverter path solenoid to divert duplex sheet to output from TE of previous sheet when registration clutch turns on.	500 to 800 steps	35-55 ppm =628, 65-90 ppm =620

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-302	TE Inv Snr To Inv Sol Off	Disables inverter path solenoid to divert sheet into invert path after TE at inverter sensor.	0 to 100 steps	35-45 ppm=0 55-90 ppm=40
08-303	TE Inv Snr To Mot Of Smp S2	Inverter motor off stop position (simplex).	0 to 400 steps	35-55 ppm=40 65-90 ppm =58
08-304	TE Inv Snr To Mot Of Dup S2	Time to turn off inverter motor after TE leaves inverter sensor (duplex).	0 to 400ms	35-55 ppm=97 65-90 ppm =90
08-305	TE Pst Fsr Exit Jam Win S2	Number of steps from TE post fuser to exit jam window.	400 to 1700	35-55 ppm =640, 65-75 ppm =760
08-306	LE Lt Inv Frm LE Pst Fsr	Number of steps from LE at post fuser to LE at inverter sensor.	0 to 300	35-55 ppm =130, 65-90 ppm =170
08-307	Tri Rol Open Frm Fsr Snr	Number of steps before the tri roll split nip opens after TE at fuser exit switch.	0 to 200	0
08-308	Tri Rol Close Frm Inv Off	Number of steps before the tri roll split nip closes after inverter motor off (forward).	0 to 200	35-55 ppm =0 65-90 ppm =30
08-309	Tim To Del Invert	IOT time to deliver.	800 to 2000 steps	35-55 ppm =1678, 65-90 ppm =1553
08-310	TE Late Frm Inv Sensor	Jam window for TE late from inverter sensor.	0 to 300 steps	35 ppm=168 40-55 ppm =117, 65-90 ppm =83
08-311	Top Edge Reg T5 Dup	Tray 5 top edge registration duplex.	7300 to 7700	7510
08-312	T5 Feed Head Count	Tray 5 nudger roll, feed roll and retard roll feed count.	0 to 1500000	0
08-313	Tray 5 Configuration	0 = Tray 5 Standard: A4 LEF, 8.5x11 LEF 1 = Tray 5 Kit A: A3 SEF, 11x17 SEF 2 = Tray 5 Kit B: A4 SEF, 8.5x11 SEF, 8.5x14 SEF	0 to 2	0
08-314	PFP Top Edge Reg Simp	Tray 5 top edge registration simplex.	7300 to 7700	7510
08-315	PFM Wait Point Adj	Paper feed module wait point adjustment.	0 to 20ms	35-55 ppm=8 65-90 ppm =9

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-316	PFM Release Adj	Paper feed module release adjustment.	0 to 20	35-55 ppm=8 65-90 ppm =15
08-317	LCSS Fin Ready Delay	LCSS finisher ready delay.	0 to 5000ms	200
08-319	HVF Fin Ready Delay	HVF finisher ready delay.	0 to 5000ms	0
08-320	Pitch Tick Simp Mode 7	IOT paper path timing pitch tick setting - simplex mode 7.	700 to 3500ms	35 ppm=1630 40-55 ppm =2180, 65 ppm=920, 75-90 ppm =800
08-321	Pitch Tick Dup Mode 7	IOT paper path timing pitch tick setting - duplex mode 7.	600 to 3500ms	35 ppm=1560 40-55 ppm =2180, 65 ppm=920, 75-90 ppm =800
08-322	Pitch Simp Mode 1 Alt	IOT paper path timing pitch tick setting - simplex mode 1.	400 to 3500ms	35 ppm=1560 40 ppm=1450 45 ppm=1220 55 ppm=1090 65 ppm=920 75 ppm=800 90 ppm=690
08-323	Pitch Simp Mode 2 Alt	IOT paper path timing pitch tick setting -simplex mode 2.	1000 to 3500ms	35 ppm=2390 40-55 ppm =1670, 65-90 ppm =1190
08-324	Pitch Simp Mode 3 Alt	IOT paper path timing pitch tick setting -simplex mode 3.	1000 to 3500ms	35 ppm=2760 40-55 ppm =1930, 65-90 ppm =1380
08-325	Pitch Simp Mode 4 Alt	IOT paper path timing pitch tick setting -simplex mode 4 - SEF heavyweight invert pitch.	1000 to 4000ms	35 ppm=3540 40-55 ppm =2500, 65-90 ppm =1640
08-326	Pitch Simp Mode 5 Alt	IOT paper path timing pitch tick setting -simplex mode 5 - transparency - pitch mode 1 simplex.	600 to 3500ms	35 ppm=2600 40-55 ppm =1800, 65-75 ppm =1040 90 ppm=1280

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-327	Pitch Simp Mode 6 Alt	IOT paper path timing pitch tick setting -simplex mode 6 - transparency - pitch mode 1 simplex.	1000 to 3500ms	35 ppm=2760 40-55 ppm =1700, 65-90 ppm =1210
08-328	Pitch Simp Mode 7 Alt	IOT paper path timing pitch tick setting -simplex mode 7.	700 to 3500	35 ppm=1560, 40-55 ppm =2180, 65-90 ppm =800
08-582	Fsr 3 min. Warning T(2)	Temperature threshold level.	10 to 50 deg C	40
08-583	Fsr 2 min. Warning T(2)	Temperature threshold level.	40 to 100 deg C	60
08-584	Fsr 1 min. Warning T(2)	Temperature threshold level.	60 to 120 deg C	90
08-586	Fsr Delta(2)	Temperature difference between the 2 thermistors.	0 to 0 deg C	45
08-587	Fsr Tol run A(2)	Temperature tolerance either side of run target on thermistor A.	0 to 0 deg C	35 ppm=40 40-90 ppm =20
08-588	Fsr Tol save(2)	Temperature tolerance either side of power save target.	0 to 0 deg C	35-45 ppm=0 55-90 ppm=15
08-589	Fsr Step(2)	Temperature difference between 2 consecutive readings.	0 to 0 deg C	3
08-590	Fsr Tol run B(2)	Temperature tolerance either side of run target on thermistor B.	0 to 0 deg C	35-45 ppm=0 55-90 ppm=40
08-591	Fsr Max 1(2)	Temperature at which the machine calls an over temperature fault.	0 to 0 deg C	230
08-592	Fsr Max 2(2)	Temperature at which the machine shutdowns the fuser.	0 to 0 deg C	245
08-593	Fsr Tol Standby (2)	Temperature tolerance either side of standby target temperature.	0 to 0 deg C	35 ppm=26 40-55 ppm =20 65-90 ppm =15
08-594	Fsr Apply Power Time (2)	Fuser apply power time.	100 to 20000ms	200
08-596	T Range Cooling(2)	Temperature offset above Tsave at which control and fault detection is enabled.	0 to 0 deg C	10

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-597	TE Reg Clutch Off Transp	Time to ensure the sheet is clear of the registration nips before switching clutch off.	100 to 1200ms	35 ppm=860 40-55 ppm =610, 65-90 ppm =700
08-600	VT Fan On In Duplex	Enable/disable vacuum transport fan continuously on during duplex printing.	0=Disabled 1=Enabled	0
08-601	Inv Mt Fwd To Inv Mt Rev M7	Restart sheet into duplex (mode 7), sheets >185mm size 2.	0 to 2500ms	35 ppm=1353 40-55 ppm =927, 65-75 ppm =985, 90 ppm=697
08-602	Inv Mt Fwd To Inv Mt Rev S1	Restart sheet into duplex (mode 1), sheets <185mm size 1.	0 to 2500ms	35 ppm=478 40-55 ppm =927, 65-75 ppm =808, 90 ppm=492
08-603	LE Dup Snr To Clutch On M2	Duplex buckle timer mode 1.	0 to 700ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =425, 90 ppm=431
08-604	LE Dup Snr To Clutch On M3	Duplex buckle timer mode 1.	0 to 700ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =425, 90 ppm=431
08-605	LE Dup Snr To Clutch On M4	Duplex buckle timer mode 1.	0 to 700ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =425, 90 ppm=431
08-606	LE Dup Snr To Clutch On M5	Duplex buckle timer mode 1.	0 to 700ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =244, 90 ppm=256

Table 7 NVM chain 8

Location	NVM Name	NVM Description	Value	Default
08-607	LE Dup Snr To Clutch On M6	Duplex buckle timer mode 1.	0 to 700ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =244, 90 ppm=256
08-608	LE Dup Snr To Clutch On M7	Duplex buckle timer mode 1.	0 to 700ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =244, 90 ppm=256
08-609	LE Dup Snr To Cit On Nom M2	LE at duplex sensor to clutch on.	0 to 1000ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =425, 90 ppm=431
08-610	LE Dup Snr To Cit On Nom M3	LE at duplex sensor to clutch on.	0 to 1000ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =425, 90 ppm=431
08-611	LE Dup Snr To Cit On Nom M4	LE at duplex sensor to clutch on.	0 to 1000ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =425, 90 ppm=431
08-612	LE Dup Snr To Cit On Nom M5	LE at duplex sensor to clutch on.	0 to 1000ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =244, 90 ppm=256
08-613	LE Dup Snr To Cit On Nom M6	LE at duplex sensor to clutch on	0 to 1000ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =244, 90 ppm=256

**Table 7 NVM chain 8**

Location	NVM Name	NVM Description	Value	Default
08-614	LE Dup Snr To Clt On Nom M7	LE at duplex sensor to clutch on	0 to 1000ms	35 ppm=496 40-55 ppm =343, 65-75 ppm =244, 90 ppm=256
08-615	HVF RFNS Time delay	removes a variable time in ms from HVF RFNS	0 to 40ms	35-45 ppm= 0 55-90 ppm= 40
08-616	FsrTolrunC	Temp tolerance either side of run target temp-Thermistor C.		35-45 ppm=0 55 ppm=30 65-90 ppm=0
08-617	FsrTolrunC(2)	Temp tolerance either side of run target temp-Thermistor C.		35-45 ppm=0 55 ppm=30 65-90 ppm=0
08-618	LeRegSnrTo-ClutchOffH	This NVM is for 90ppm only. LE Reg Snr To Clutch Off	0 to 50	90 ppm=10
08-619	TeRegSnrTo-ClutchOffH	This NVM is for 90ppm only. TE Reg Snr To Clutch Off	0 to 200	90 ppm=112
08-900	Enable Diag. Access	Use to enable or disable restricted diagnostics access. Use with 03-900	0 = disabled 1 = enable	0

**Table 8 NVM chain 9**

Location	NVM Name	NVM Description	Value	Default
09-001	TC Lockout Low	CSF NVM lockout for TC process control failure (low).	0=clear 1=lock-out	0
09-002	Charge Scorotron	Charge scorotron (wire). Absolute value in NVM, real value is negative.	500 to 3000 microampere	35 ppm=800 40-90 ppm =2050
09-003	Charge Grid	Charge scorotron (grid). Absolute value in NVM, real value is negative.	150 to 700 V	35 ppm=420 40-55 ppm =430, 65-90 ppm =420
09-004	Chute Bias LE	Chute bias print level. Unsigned no. in NVM table (displayed on GUI) to be converted to signed no. over range of -500 to +900 (Volts) by subtraction of 500 from table value.	0 to 1400 V	35 ppm=650 40-55 ppm =735, 65-90 ppm =890

**Table 8 NVM chain 9**

Location	NVM Name	NVM Description	Value	Default
09-005	Chute Bias Mid	Chute bias inter document level. Refer to 09-004.	0 to 1400 V	35 ppm=650 40-55 ppm =735, 65-90 ppm =890
09-006	Chute Bias TE	Chute bias trail edge level. Refer to 09-004.	0 to 1400 V	35 ppm=650 40-55 ppm =735, 65-90 ppm =890
09-007	Transfer LE Side 1	Side 1 transfer corotron LE.	150 to 1000 microampere	35 ppm=210 40-55 ppm =300, 65-90 ppm =350
09-008	Transfer Mid Side 1	Side 1 transfer corotron intra-document.	150 to 1000 microampere	35 ppm=210 40-55 ppm =300, 65-90 ppm =350
09-009	Transfer TE Side 1	Side 1 transfer corotron TE.	150 to 1000 microampere	35 ppm=210 40-55 ppm =300, 65-90 ppm =350
09-010	Transfer LE Side 2	Side 2 transfer corotron LE.	150 to 1000 microampere	35 ppm=210 40-55 ppm =300, 65-90 ppm =350
09-011	Transfer Mid Side 2	Side 2 transfer corotron intra-document.	150 to 1000 microampere	35 ppm=210 40-55 ppm =300, 65-90 ppm =350
09-012	Transfer TE Side 2	Side 2 transfer corotron TE.	150 to 1000 microampere	35 ppm=210 40-55 ppm =300, 65-90 ppm =350
09-013	Detack AC Side 1	Side 1 detack corotron voltage.	3000 to 5000 V	4200
09-014	Detack AC Side 2	Side 2 detack corotron voltage.	3000 to 5000 V	4200

**Table 8 NVM chain 9**

Location	NVM Name	NVM Description	Value	Default
09-015	Detack LE Side 1	Side 1 detack corotron LE. Unsigned no. in NVM table (and displayed on GUI) to be converted to signed no. over range of +20 to -200 microampere by subtraction of 200 from value in table.	0 to 220 microampere	35 ppm=150 40-90 ppm =130
09-016	Detack Mid Side 1	Side 1 detack corotron intradocument. Unsigned no. in NVM table (and displayed on GUI) to be converted to signed no. over range of +20 to -200 microampere by subtraction of 200 from value in table.	0 to 220 microampere	35 ppm=165 40-90 ppm =160
09-017	Detack TE Side 1	Side 1 detack corotron TE. Unsigned no. in NVM table (and displayed on GUI) to be converted to signed no. over range of +20 to -200 microampere by subtraction of 200 from value in table.	0 to 220 microampere	199
09-018	Detack LE Side 2	Side 2 Detack Corotron LE. Unsigned no. in NVM table (and displayed on GUI) to be converted to signed no. over range of +20 to -200 microampere by subtraction of 200 from value in table.	0 to 220 microampere	35 ppm=150 40-90 ppm =130
09-019	Detack Mid Side 2	Side 2 detack corotron intradocument. Unsigned no. in NVM table (and displayed on GUI) to be converted to signed no. over range of +20 to -200 microampere by subtraction of 200 from value in table.	0 to 220 microampere	35 ppm=165 40-90 ppm =160
09-020	Detack TE Side 2	Side 2 detack corotron TE. Unsigned no. in NVM table (and displayed on GUI) to be converted to signed no. over microampere range of +20 to -200 microampere by subtraction of 200 from value in table.	0 to 220 microampere	199

**Table 8 NVM chain 9**

Location	NVM Name	NVM Description	Value	Default
09-021	Dev Bias Print Level	Developer bias print level. Absolute value in NVM real value is negative.	100 to 600 V	35 ppm=350 40-90 ppm =345
09-022	Dev Age Table	Developer age table.	0 or 1	0
09-023	T MMONCI	Main motor on cycle In.	0 to 1000 ms	35 ppm=770 40-55 ppm =540, 65-90 ppm =380
09-024	T CSONCI	Charge scorotron on cycle In.	0 to 1000 ms	35 ppm=430 40-55 ppm =300, 65-90 ppm =210
09-026	T PCELONCI	Pre clean erase lamp on cycle In.	0 to 1000 ms	35 ppm=430 40-55 ppm =300, 65-90 ppm =210
09-027	T DBONCI	Developer bias on cycle In.	0 to 1000 ms	35 ppm=270 40-55 ppm =170, 65-90 ppm =100
09-029	T PCELONCI_alt	Pre clean erase lamp on cycle in alternative.	0 to 1000 ms	0
09-031	T TCONRUN	Transfer corotron on run.	0 to 1000 ms	35 ppm=500 40-55 ppm =360, 65-90 ppm =220
09-032	T DCONRUN	Detack corotron on run.	0 to 1000 ms	35 ppm=530 40-55 ppm =360, 65-90 ppm =260
09-033	T CBONRUN	Chute bias on run.	0 to 1000 ms	35 ppm=540 40-55 ppm =380, 65-90 ppm =270
09-036	T CBOFFRUN	Chute bias off run.	0 to 100 ms	35 ppm=60 40-55 ppm =40 65-90 ppm =30

Table 8 NVM chain 9

Location	NVM Name	NVM Description	Value	Default
09-037	T TCOFFRUN	Detack corotron off run.	0 to 100 ms	35 ppm=60 40-55 ppm =40 65-90 ppm =50
09-039	T DCOFFRUN	Detack corotron off run.	0 to 500 ms	35 ppm=150 40-55 ppm =110, 65-90 ppm =80
09-040	T TCLERUN	Transfer corotron lead edge switch.	0 to 500 ms	35 ppm=140 40-55 ppm =100, 65-90 ppm =70
09-041	T TCT ERUN	Transfer corotron trail edge switch.	0 to 500 ms	35 ppm=90 40-55 ppm =60 65-90 ppm =40
09-042	T DCLERUN	Detack corotron lead edge switch.	0 to 500 ms	35 ppm=140 40-55 ppm =100, 65-90 ppm =70
09-043	T DCTERUN	Detack corotron trail edge switch.	0 to 500 ms	35 ppm=130 40-55 ppm =90 65-90 ppm =60
09-044	T CBLERUN	Chute bias lead edge switch.	0 to 500 ms	35 ppm=140 40-55 ppm =100, 65-90 ppm =70
09-045	T CBTERUN	Chute bias trail edge switch.	0 to 500 ms	35 ppm=140 40-55 ppm =100, 65-90 ppm =70
09-048	T DBOFCO	Developer bias off cycle out.	0 to 500 ms	35 ppm=350 40-55 ppm =240, 65-90 ppm =160
09-049	T MMOFCO	Main motor off cycle out.	0 to 500 ms	35 ppm=390 40-55 ppm =270, 65-90 ppm =190
09-050	T PCELOFCO	PR erase lamp off cycle out.	0 to 1500 ms	35 ppm=1100 40-55 ppm =770, 65-90 ppm =550

Table 8 NVM chain 9

Location	NVM Name	NVM Description	Value	Default
09-051	T PRMOFCO	Photoreceptor motor off cycle out.	0 to 1500 ms	35 ppm=1130 40-55 ppm =790, 65-90 ppm =560
09-052	T MMOFCO-alt	Main motor off cycle out alternative.	0 to 1500 ms	35 ppm=1120 40-55 ppm =780, 65-90 ppm =550
09-053	T DBOFCO-alt	Developer bias off cycle out alternative.	0 to 1500 ms	35 ppm=1130 40-55 ppm =790, 65-90 ppm =560
09-054	XeroCycleInMode	Xerographic cycle in mode.	0=normal 1=alternative	0
09-056	XeroTransCoro-RunMode	Xerographic transfer corotron run mode.	0=normal 1=alternative	35-45 ppm=0 55 ppm=1 65-90 ppm =0
09-057	XeroDetackCoro-Run	Xerographic detack corotron run mode.	0=normal 1=alternative	1
09-058	XeroChuteBias-RunMode	Xerographic chute bias run mode.	0=normal 1=alternative	1
09-059	T DBOFCOFS	Developer bias off cycle out fast shutdown.	0 to 1000 ms	35 ppm=420 40-55 ppm =310, 65-90 ppm =220
09-060	XeroCycleOut-Mode	Xerographic cycle out mode.	0=normal 1=alternative	0
09-061	Detack ID Side 1	Detack corotron inter document level, side 1.	0 to 220 micro-ampere	200
09-062	Detack ID Side 2	Detack corotron inter document level, side 1.	0 to 220 micro-ampere	200
09-063	XRU Total Count	Backup of CRU data: XRU total count.	0 Read only	0
09-064	FRU Total Count	Backup of CRU data: FRU total count.	0 Read only	0
09-065	XRU PR Cycle Count	Backup of CRU data: XRU P/R cycle count.	0 Read only	0
09-066	FRU Web Usage Count	Backup of CRU data: FRU web usage count.	0 Read only	0
09-068	TC Setpoint	Sets target TC for developer process controls.	0	0

Table 8 NVM chain 9

Location	NVM Name	NVM Description	Value	Default
09-069	TCSensorCtrtVoltage	Sets TC sensor control voltage to adjust sensitivity.	400 to 1200 (mVx10)	800
09-070	TCSetupCompleted	TC setup completed.	0 or 1	0
09-073	Last Pixel Count	Cumulative Pixel Count over the last TC control block (20 prints).	0 Read only	0
09-083	ReplenCart-MotRun	Maximum continuous run period.	15 to 40 ms	30
09-087	Rep Cartridge Empty	Toner (replenisher) cartridge empty status.	0 or 1	0
09-090	Waste Full Threshold	Waste Full Print Count at which 'Bottle Full' status is confirmed.	1 to 1000 prints	35-45 ppm=0 55-90 ppm =100
09-093	Waste Shutdown Limit	Maximum number of prints allowed post waste full before shutdown.	0 to 10000 prints	35-45 ppm=0 55-90 ppm =1000
09-096	Developer Temp	Actual developer temp as measured by sensor.	Degrees C.	0
09-097	Humidity% RH	Actual machine humidity as measured by sensor.	%RH	0
09-098	Altitude	Altitude adjustment in metres.	0 = zero to 749m 1 = 750 to 1499m 2 = 1500 to 2249m 3 = 2250 to 2999m 4 = 3000+m	0
09-100	Main Motor Delay Flag	Enables or disables a delay to the main motor and photoreceptor motor run up times by adding 1150 to both of the read NVM values for IOT NVM.	0=disabled 1=enabled	0
09-101	Ambient Temp	Actual ambient temp as measured by sensor.	Degrees C	0
09-110	Replenisher capacity	Replenisher capacity.	1050 to 1787 grams	35-55 ppm =1353, 65-90 ppm =1750
09-111	Repl. Delivery Rate	Replenisher delivery rate.	15 to 60 decigrams/min	35-55 ppm =460, 65-90 ppm =550

Table 8 NVM chain 9

Location	NVM Name	NVM Description	Value	Default
09-112	Cumulative Disp Time	Total dispense time.	0 to 78000000ms	0
09-114	Rep Lev Snr Fault	Flag to indicate replenisher sensor failure.	0	0
09-115	TC Sensor Fault	TC sensor fault.	0	0
09-116	Paper path fans mode	Paper path cooling mode.	0=disabled 1=enabled	35-55 ppm=0 65-90 ppm =1
09-117	Scorotron On Ramp Up	Charge scorotron ON cycle in ramp up.	0 to 1000ms	100
09-118	Dev bias On Ramp Up	Developer bias ON cycle in ramp up.	0 to 1000ms	160
09-119	GridV Off Ramp Dwn	Charge scorotron grid voltage OFF cycle out ramp down.	0 to 1000ms	35 ppm=80 40-90 ppm =120
09-120	Ozone max life	Stores the maximum prints to make with the current ozone filter.	0 to 4294967295	350k
09-121	Man Cleaning Interval	Charge Scorotron Manual Cleaning Interval. Frequency in K sheets for when a manual scorotron cleaning request is displayed.	2 to 50	25k
09-122	Auto Cleaning Interval	Charge Scorotron Auto Cleaning Interval. Frequency in K sheets for when a manual scorotron cleaning request is displayed.	2 to 50	20k
09-123	Num Images Delivered	Number of images delivered.	0 to 4294967295	0
09-124	InactivityLimit	The set limit of machine inactivity in minutes	120 to 4320	300
09-125	Dev Bias Off Ramp Dwn	Developer bias OFF cycle out ramp down.	0 to 1000ms	160
09-126	Dev Bias Off Ramp Dwn Alt	Developer bias OFF cycle out ramp down alternative.	0 to 1000ms	35-55 ppm=0 65-90 ppm =100
09-127	Dev Bias Off FS Ramp Dwn Alt	Developer bias OFF fast shutdown cycle out ramp down.	0 to 1000ms	35-55 ppm=0 65-90 ppm =100
09-128	PC From Flash Or Ram	For development only. Alters process control factors source from either flash or NVM.	0 to 1	0

Table 8 NVM chain 9

Location	NVM Name	NVM Description	Value	Default
09-129	Disp Mot Min Run	Dispense motor minimum run time for toner dispense.	100 to 1000ms	200
09-130	Disp Mot Ramp Up	Dispense motor ramp up time.	10 to 20000ms	30
09-131	Disp Mot Run On	Dispense motor run on time.	10 to 20000ms	320
09-132	Nh Vac Fan Off To Off Tme	Nohad vacuum fan on time.	0 to 100ms	35 ppm=61 40-90 ppm =43
09-133	Nh Vac Fan Off To On Tme	Nohad vacuum fan off time.	0 to 100ms	35 ppm=42 40-90 ppm =29
09-134	Rep Del Rate Adj Factor	Replenisher delivery rate adjustment factor.	95 to 115%	100
09-135	TggAdaptiveEnable	Enables and disables the replenisher delivery rate adjustment feature	0=disabled 1=enabled	1
09-267	Humidity Sensor Fault	Humidity sensor fault.	0	0
09-268	Dev Temp Sensor Fault	Developer temperature sensor fault.	0	0
09-269	AmbTempSensor-Fault	Ambient temperature sensor fault.	0	0
09-271	Developer age	Developer material age.	0 to 2147483647 pages	0
09-273	OCT Full Filter Page Count	OCT 90% full filter.	0 to 50 pages	30
09-274	Chute Bias inter doc	Chute bias inter document level. Unsigned no. in NVM table (displayed on GUI) to be converted to signed no. over range of -500 to +900 (Volts) by subtraction of 500 from table value.	0 to 1400V	0
09-275	TC Setup Target Voltage	Toner concentration setup target voltage.	0 to 500 (mVx10)	35-45 ppm=0 55-90 ppm =185
09-276	TC lockout high	CSF NVM lockout for TC process control. Failure = high.	0	0
09-277	Int Man Clean Enable	Interim manual charge scorotron cleaning enablement flag.	0=disabled 1=enabled	35 ppm=0 40-90 ppm =1
09-278	Auto Clean Enable	Auto charge scorotron cleaning enablement flag.	0=disabled 1=enabled	35 ppm=0 40-90 ppm =1

Table 8 NVM chain 9

Location	NVM Name	NVM Description	Value	Default
09-279	Charg Clean Cout Enable	Charge cleaner count enable.	0=disabled 1=enabled	0
09-280	Inactivity Limit IOT	Machine inactivity limit held on the IOT PWB.	120 to 4320 minutes	300
09-281	TDT AutoClean Enable	Transfer/Detack auto clean enable flag.	0=disabled 1=enabled	1
09-282	Dev Age Time Based	Developer age - time based.	0 to 2147483647 seconds	0
09-312	Grid Voltage Offset	Used to display the grid voltage offset value held in the XRU CRUM.	0 to 50 = 0 to +50V 129 to 178 = -1 to -50V	0
09-313	Grid Volt Adj Nom	Used to display the grid voltage adjusted nominal.	110 to 740	35 ppm=420 40-55 ppm =430 65-90 ppm =420
09-314	Grid Volt Adj Enable	Used to enable grid voltage nominal adjustment.	0=disabled 1=enabled	1
09-315	Grid Curr Scaler	Used to display the grid current scaler value held in the XRU CRUM.	0	0
09-316	Grid Curr Adj Nom	Used to display the grid current adjusted nominal.	250 to 4500mA	35 ppm=800 40-95 ppm =2050
09-317	Grid Curr Adj Enable	Used to enable grid current nominal adjustment.	0=disabled 1=enabled	1
09-318	ROS Laser Scaler	Used to display the ROS laser light level scaler value held in the XRU CRUM.	0	0
09-319	ROS Laser Adj Nom	Used to display the ROS laser light level adjusted nominal. 06-001 must be set to the same value as 09-319.	750 to 9000	35 ppm=3471 40-55 ppm =2250, 65-75 ppm =2400
09-320	ROS Laser Adj Enable	Used to enable ROS laser light level nominal adjustment.	0=disabled 1=enabled	1
09-321	IQA Grid V Offset	IQA Grid V Offset level. Unsigned no. in NVM table (displayed on GUI) to be converted to signed no. over range of -40 to +40 (Volts) by subtraction of 40 from table value.	0 to 80	40



**Table 8 NVM chain 9**

Location	NVM Name	NVM Description	Value	Default
09-322	IQA ROS Level Offset	IQA ROS Level Offset level. Unsigned no. in NVM table (displayed on GUI) to be converted to signed no. over range of -1500 to +1500 (mErg/cm2) by subtraction of 1500 from table value.	0 to 3000	1500
09-331	Upper Relaxation	Upper relaxation capping limit when aggressive dispense mode active.	100 to 600%	400
09-332	Prop B Factor	Additional factor applied to the proportional term when aggressive dispense mode active.	100 to 1000%	100
09-400	XRU Blade A	Coefficient A.	0 to 10000ug/s	35 ppm=200 40-55 ppm =350, 65-90 ppm =500
09-401	XRU Blade B	Coefficient B.	0 to 1000ug per 10 <sup>5</sup> pixels	16
09-402	XRU Blade Mco	Blade maintenance level at cycle out.	0 to 3000mg	0
09-403	XRU Blade CICO bands	Prediction of blade maintenance provided by cycle in and cycle out bands.	0 to 100mg	35 ppm=8 40-55 ppm =9 65-90 ppm =11
09-404	XRU Blade Level(1)	XRU Blade maintenance threshold level 1.	2 to 3000mg	10
09-405	XRU Blade Level(2)	XRU Blade maintenance threshold level 2.	1 to 3000mg	30
09-406	XRU Blade Count(1)	XRU Blade maintenance event type 1 counter.	0 to 3000	0
09-407	XRU Blade Count(2)	XRU Blade maintenance event type 2 counter.	0 to 3000	0
09-408	XRU Blade C	Coefficient C.	0 to 10000ug per 10 <sup>5</sup> pixels	805
09-409	XRU Blade Enable	XRU Blade maintenance enable/disable.	0=disable (XT) 1=enable (EA)	0 for XT, 1 for EA
09-410	XRU Blade ML(max)	XRU Blade maintenance level maximum level.	0 to 300ug	42

**Table 9 NVM chain 10**

Location	NVM Name	NVM Description	Value	Default
10-028	Standby Temp	Target temperature during standby mode.	10 to 218 degrees C	35 ppm=190 40-55 ppm =195, 65-90 ppm =208
10-029	Run Temp	Target temperature during run mode.	100 to 213 degrees C	35 ppm=185 40-55 ppm =195, 65-90 ppm =203
10-030	Low Power Temp	Target temp during Power save mode. The low power simmer temperature is determined by the Power Save mode set in Tools.	50 to 150 degrees C	35 ppm=85 40-55 ppm =95, 65-90 ppm =135
10-042	101-120 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-043	121-140 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-044	141-160 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10

**Table 9 NVM chain 10**

Location	NVM Name	NVM Description	Value	Default
10-045	161-180 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-046	181-200 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-047	201-220 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-048	221-240 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10

**Table 9 NVM chain 10**

Location	NVM Name	NVM Description	Value	Default
10-049	241-260 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-050	261-280 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-051	281-300 mm offset	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-053	80 gms Offset	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 30	10
10-058	Transparency Offset	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 30	35-55 ppm =10, 65-90 ppm=0

Table 9 NVM chain 10

Location	NVM Name	NVM Description	Value	Default
10-059	Card stock offset	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 25	15
10-060	Envelopes Offset	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 30	15
10-061	Labels Offset	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 30	15
10-063	Total Fsr Web Count	Total fuser web count.	Cycles	0
10-064	Transparency delay	Media type time delay for fuser roll temperature.	0 to 8 seconds	0
10-065	Cardstock delay	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-066	Envelopes delay	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-067	Labels delay	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-068	Tab stock delay	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-069	Cold Start Offset	Fuser cold start offset profile.	0 to 3	35-55 ppm=0 65-90 ppm =2
10-070	Cold Roll Offset	Fuser cold roll offset profile.	0 to 11	35 ppm=1 40-55 ppm =6 65-90 ppm =8

Table 9 NVM chain 10

Location	NVM Name	NVM Description	Value	Default
10-071	Rough Stock Offset	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius.	0 to 25	15
10-072	Rough Stock Delay	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-074	Rough Stk FRU Enable	Rough Stock Fuser (TOS)	Disable = 0 Enable = 1	0
10-075	Type 256 FRU Enable	Type 256 Fuser	Disable = 0 Enable = 1	1
10-102	Te PFs Toinv Mot Off Dup	Inverter motor off stop position (simplex).	0 to 800 ms	35 ppm=530 40-55 ppm =360, 65-90 ppm =0
10-122	Te PFs To Inv Mot Off Dup	Time to turn off inverter motor after TE leaves fuser (duplex).	0 to 1200ms	35 ppm=740 40-55 ppm =510, 65-90 ppm =0
10-123	Fsr Range	Temperature range below standby in which start print can begin.	10 to 30 deg C	35 ppm=30 40-55 ppm =10 65-90 ppm =28
10-124	Te Inv Snr To Mot Of SmpS1	Inverter motor off stop position (simplex).	0 to 800 ms	35 ppm=530 40-55 ppm =360, 65-90 ppm =200
10-125	Te Inv Snr Inv Of Dup Siz 1	Time to turn off inverter motor after TE leaves inverter sensor for sheets <185mm and >216mm.	200 to 1200ms	35 ppm=740 40-55 ppm =510, 65-90 ppm =295
10-126	Web Advance Group	Web advance group banding select.	1 = group 1 2 = group 2 3 = group 3	2
10-328	Standby Temp (2)	Target temperature during standby mode.	10 to 230 deg C	35 ppm=190 40-55 ppm =195, 65-90 ppm =208

Table 9 NVM chain 10

Location	NVM Name	NVM Description	Value	Default
10-329	Run Temp (2)	Target temperature during run mode.	100 to 230 deg C	35 ppm=185 40-55 ppm =195, 65-90 ppm =203
10-330	Low Power Temp (2)	Target temperature during power save mode. The low power simmer temperature is determined by the Power Save mode set in Tools.	50 to 150 deg C	35 ppm=85 40-55 ppm =95, 65-90 ppm =135
10-342	101-120mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-343	121-140mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-344	141-160mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10

Table 9 NVM chain 10

Location	NVM Name	NVM Description	Value	Default
10-345	161-180mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-346	181-200mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-347	201-220mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-348	221-240mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10

Table 9 NVM chain 10

Location	NVM Name	NVM Description	Value	Default
10-349	241-260mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-350	261-280mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-351	281-300mm Offset (2)	Offset temperature required on thermistor B for paper width. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius	0 to 20	10
10-353	80gms Offset (2)	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius.	0 to 20	10
10-358	Transp_cy Offset (2)	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius.	0 to 30	35-55 ppm =10, 65-90 ppm = 0

Table 9 NVM chain 10

Location	NVM Name	NVM Description	Value	Default
10-359	Card Stock Offset (2)	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius.	0 to 25	15
10-360	Envelopes Offset (2)	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius.	0 to 30	15
10-361	Labels Offset (2)	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius.	0 to 30	35-55 ppm =15, 65-90 ppm =10
10-364	Transp_cy Delay (2)	Media type time delay for fuser roll temperature.	0 to 8 seconds	0
10-365	CardStock Delay (2)	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-366	Envelopes Delay (2)	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-367	Labels Delay (2)	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-368	Tab Stock Delay (2)	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-370	Cold Roll offset (2)	Fuser cold roll offset profile.	0 to 11	35 ppm=1 40-55 ppm =6 65-90 ppm =8

Table 9 NVM chain 10

Location	NVM Name	NVM Description	Value	Default
10-371	Rough Stock Offset (2)	Media type offset for fuser roll temperature. Unsigned number in NVM table (displayed on GUI) to be converted to signed number. by subtraction of 10 from table value. i.e. 8 displayed in NVM is equivalent to -2 degrees Celsius.	0 to 30	15
10-372	Rough Stock Delay (2)	Media type time delay for fuser roll temperature.	0 to 8 seconds	4
10-423	Fsr Range (2)	Temperature range below standby in which start print can begin.	10 to 30 deg C	35 ppm = 30 40-55 ppm = 10 65-90 ppm = 28
10-426	Web Advance Group (2)	Web advance group banding select.	1=group 1 2=group 2 3=group 3	2

## dC131b NVM Tables Chain 12 to 19

### General

1. Refer to the tables that follow for NVM parameters chain 12 to 28:

- NVM chain 12 [Table 1](#)
- NVM chain 14 [Table 2](#)
- NVM chain 15 [Table 3](#)
- NVM chain 17 [Table 4](#)
- NVM chain 19 [Table 5](#)

Table 1 NVM chain 12

Location	NVM Name	NVM Description	Value	Default
12-001	Finisher Module Type	Defines finisher module types	65=OCT 110=LCSS2K 120=LCSS1K 176=HVFBM 100=No Finisher	100
12-002	OCTFullFilter	OCT 90% full filter	0 to 5000 ms	35 ppm=4000 40-90 ppm =2500
12-003	BookMkrCompile-Offset	Used to adjust the compiler position of the booklet maker back stop.	0 to 200 0.1137mm/step	100
12-004	BookMkrStapleOffset	Used to align the staple to the fold.	0 to 200 0.1137mm/step	100
12-005	BookMkrFold Offset	Used to centre the fold and the staple relative to the lead edge.	0 to 200 0.1137mm/step	100
12-006	BookMkrTampRdy-Offset	Used to adjust the booklet maker tamping ready position.	0 to 200 0.265mm/step	100
12-009	BookMkrTriFoldC-Fold	Used to position upper tri-fold. Moves fold relative to lead edge on C Fold.	60 to 140 0.1137mm/step	100
12-010	BookMkrTriFoldZ-Fold	Used to position lower tri-fold. Moves fold relative to lead edge on Z Fold.	60 to 140 0.1137mm/step	100
12-011	BookMkrTriFold-Deskew	Used to adjust the amount of de-skew for the 2nd fold in a tri-fold by varying the amount of buckle length in registration for the paper entering TF.	90 to 110	100

**Table 1 NVM chain 12**

Location	NVM Name	NVM Description	Value	Default
12-012	BookMkrStapleOffsetM	Used to control the staple offset position for 8.5x11 and 8.5x14 paper. HVF BM only.	0 to 200 0.1137mm/step	100
12-013	BookMkrStapleOffsetL	Used to control the staple offset position for 11x17 and A3 paper. HVF BM only.	0 to 200 0.1137mm/step	100
12-050	FinisherSoftCyc-Time	Time out for soft cycling of finisher to time seconds	0 to 60 seconds	35 ppm=40 45=35, 55-90 ppm=30

**Table 2 NVM chain 14**

Location	NVM Name	NVM Description	Value	Default
14-001	DADH Centre Reg	DADH CVT centre registration	3513 to 3770 pixels	35-55 ppm =3563, 65-90 ppm =3720
14-002	DADH LE Reg	DADH lead edge registration	0 to 150 scan lines	70
14-003	Platen Top Edge Reg	Platen top edge registration	7056 to 7313 pixels	35-55 ppm =7106, 65-90 ppm =7263
14-004	Platen Lead Edge Reg	Platen lead edge registration	0 to 150 scan lines	70
14-012	Scanner CVT position	Adjusts position of scan carriage at the CVT position	4868 to 4898 0.1mm increments	35-55 ppm =4988, 65-90 ppm =4878
14-013	Scanner Doc Size Pos	Adjusts position of scan carriage at the document size position	0 to 5000 0.1mm increments	35-55 ppm =700, 65-90 ppm =500
14-014	Scanner LE Hotline	Scanner lead edge active hot line	200 to 500 0.1mm increments	35-55 ppm =350, 65-90 ppm =230
14-025	Scan CCD Gain Setpt	To adjust pixel gain set point during scanner CCD calibration	150 to 255 increments of 1 bit	35-55 ppm =212, 65-90 ppm =214
14-026	Scan CCD Offset Pnt	To adjust offset point during scanner CCD calibration	0 to 20 Increments of 1 bit	0

**Table 2 NVM chain 14**

Location	NVM Name	NVM Description	Value	Default
14-027	Scanner Mag Adj	Adjust platen scan speed in slow scan direction to compensate for magnification errors	50 to 150	100
14-028	Green Gain Set point Nvm	Green scan calibration setting.	150 to255	200
14-029	Red Gain Set point Nvm	Red scan calibration setting.	150 to255	195
14-030	Blue Gain Set point Nvm	Blue scan calibration setting.	150 to255	203
14-031	Red Sako Adjust Nvm	Red color balance adjustment setting.	0 to 200	100
14-032	Green Sako Adjust Nvm	Green color balance adjustment setting.	0 to 200	100
14-033	Blue Sako Adjust Nvm	Blue color balance adjustment setting.	0 to 200	100
14-034	Light Sako Adjust Nvm	Lighten/Darken balance adjustment setting.	0 to 200	100
14-129	Scanner type	Used to set the type of scanner.	1= FWA; 2= CCDS, 3=Low Speed Northwood PF2, 4=High Speed Northwood PF2, 5=CCDS2	1
14-169	DADH Mag	Adjusts the DADH magnification.	2 to 200 (0.1% increments)	100

**Table 3 NVM chain 15**

Location	NVM Name	NVM Description	Value	Default
15-005	ScannerFSResolution	To provide configuration support for scanners with Fast Scan resolutions of 400 dpi and 600 dpi.	400 or 600	600
15-006	Scanner Direction	To provide configuration support for scanners with different Fast Scan direction.	0=reverse 1=forward	1
15-007	CVT scanning image gain adjustment	Percentage increase with respect to document glass scanning gain.	0 to 20%	10

**Table 4 NVM chain 17 (image disk drive not used)**

Location	NVM Name	NVM Description	Value	Default
17-001	Disk Mode	Disk present.	1=enabled 0=disabled	0
17-002	Disk spin up delay	Time before image disk receives power	0 to 30 seconds	10

**Table 5 NVM chain 19**

Location	NVM Name	NVM Description	Value	Default
19-012	Comp EPC Dup Img No	Number of images inputted before a compiled duplex print job is released for marking	Range 1 to 50	4

**Table 5 NVM chain 19**

Location	NVM Name	NVM Description	Value	Default
19-001	Megs of Memory	Amount of memory installed	0 to 65535M	16
19-002	Resource% Reported	Resource percentage reported	0 to 99%	10
19-003	Use Partial Blocks	Used partial blocks	0 or 1	1
19-004	Mark mode EPC full	Marking mode when EPC full	0 or 3	0
19-005	Memory on Target	Memory on target	0 to 65535	32
19-006	Image Alloc Ratio	Nominal compression ratio	1 to 50%	30
19-007	Print Img Limit	Maximum number of network controller images that can be in EPC at any given time	35 to 5000	3501
19-008	EPC Setting	Governs the setting of the EPC low and intermediate thresholds.	1 = Optimized for smaller sheets, A4/8.5x11inch. EPC less than 256Mb. 2 = Intermediate setting, optimized for medium size sheet 3 = Optimized for large sheet, A3/11x17 inch. EPC greater than 256Mb	1
19-009	Ncomp EPC Simp Img No	Number of images inputted before a non-compiled simplex print job is released for marking	Range 1 to 50	2
19-010	Ncomp EPC Dup Img No	Number of images inputted before a non-compiled duplex print job is released for marking	Range 1 to 50	4
19-011	Comp EPC Simp Img No	Number of images inputted before a compiled simplex print job is released for marking	Range 1 to 50	2



## dC132 NVM Initialization

There are 4 items under this heading:

- [Copier NVM Initialization](#)
- [Network Controller NVM initialization](#)
- [Embedded Fax NVM initialization](#)
- [NVM to Install Condition](#)

**NOTE:** *Certain NVM settings are password protected.*

### Copier NVM Initialization

#### Purpose

The NVM initialization routine provides the means for the CSE to reset specific machine variable NVM or all machine variable NVM non-volatile memory (with the exception of Protected NVM for which a password is required) to their default values.

#### Description

If the machine configuration changes through the addition of an input or output device, an initialization of the NVM for that device must be performed to make sure that all configuration values are correct for that device.

**NOTE:** *initialization does not affect the billing counter, accounting, fault counter, diagnostic data, or auditron services. These, with the exception of billing counters, can be reset if the machine is restored to the install state using the [NVM to Install Condition](#) procedure.*

**NOTE:** *The auditron (billing counters) is initialized using the auditron setup routine, refer to the [User Guide](#).*

**NOTE:** *From PWS Tools version 130.00.0006 onwards. The NVM Save and Restore tool has the option to perform the [dC132 NVM Initialization](#), All Copier NVM routine.*

The market region configuration attribute must have been preset at the factory or at first install to ensure that the NVM default values are regionally correct. Some post install configuration can be performed using the configuration tool, refer to [dC131 NVM Read / Write](#).

#### Procedure

1. Save the NVM, [GP 5](#).
2. Enter diagnostics, [GP 1](#).
3. Select Diagnostic Routines.
4. Select Copier Routines, 132 NVM initialization-Copier.
5. Touch the appropriate button to select the NVM to be initialized and follow the on screen instructions. Refer to [Table 1](#), for the functions that are reset to default.
  - All Copier NVM.
  - Machine Variable NVM, (i.e. paper path, platen and DADH registration).
  - SA / KO Dust Off.
  - System Counters Dust Off

**NOTE:** *The NVM window will gray out while the initialization is in progress.*

6. Switch off the machine, then switch on the machine, [GP 14](#).

7. Enter [dC131](#) location 09-069 TCSensorCtrlVoltage. Set the value to the value recorded on the NVM sheet stored in the wallet on the rear cover.

### Network Controller NVM initialization

#### Purpose

To return to default network settings, configuration and flags.

#### Description

There are three routines:

- All Network NVM - This initialization will default all network and configuration settings to a pre-installation state.
- Variable NVM - The items that will be initialized are related to crash recovery, software upgrade settings, alternate boot and any other items needing to be set to default values that are not included in the network controller configuration initialization routine.
- Configuration NVM - This initialization will clear all fault and system usage counters, network controller variable, configuration NVM and reset the network controller error log.

#### Procedure

1. Save the NVM, [GP 5](#).
2. Enter diagnostics, [GP 1](#).
3. Select Diagnostic Routines.
4. Select Network Routines, 132 NVM initialization-Network.
5. Touch the appropriate button to select the NVM to be initialized and follow the on screen instructions.
6. Switch off the machine, then switch on the machine, [GP 14](#).

### Embedded Fax NVM initialization

#### Purpose

To return to default the fax NVM settings. Refer to the [Fax NVM Document](#), tables 1, 2, 3 and 4.

#### Procedure

1. Save the NVM, [GP 5](#).
2. Enter diagnostics, [GP 1](#).
3. Select Diagnostic Routines.
4. Select Fax dC Routines, 132 NVM initialization
5. Touch the appropriate button to select the NVM to be initialized and follow the screen instructions. Refer to [Table 2](#), for the functions that are reset to default.
  - Reformat
  - All Fax Directories
  - Fax Job NVM
  - Fax Configuration NVM
  - Fax SA / KO Settings NVM
6. Switch off the machine, then switch on the machine, [GP 14](#).

### NVM to Install Condition

The [Dust Off](#) routines are available to return the machine to a pre-installed state, refer to [Table 1](#).

## Dust Off

The NVM Dust Off routine will:

- Clear all non-billing counters.
- Default all SA / KO NVM including default PINs.
- Clear fault history.
- Set the install NVM (install Byte) to default to enable an install procedure at the next power-on, while retaining all existing configuration NVM e.g. paper path registration, xerographic parameters and market configuration values.

**NOTE:** The auditron is initialized using the auditron setup routine, refer to User Guide.

- Not alter any protected NVM.

The routine is accessed and performed as follows:

1. Save the NVM, [GP 5](#).
2. Enter diagnostics, [GP 1](#).
3. Select Diagnostic Routines, then Copier Routines, then 132 NVM initialization-Copier, then System Counters Dust Off.
4. Follow the on-screen instructions.
5. Switch off the machine, then switch on the machine, [GP 14](#).

**Table 1 Copier NVM**

Initialization Function	All Copier NVM	Machine Variable NVM	SA / KO Dust Off	System counters Dust Off
NVM ALL				
IOT (with Flag type: = Reset All				
Billing Counter	N			
System Usage Counter	Y			Y
Fault Counter	Y			Y
Diagnostic Counter	Y			Y
SA / KO Setting	Y		Y	
Fault Log	Y			
Configuration	Y			
Diagnostic	Y			
Debug	Y			
NVM Machine Variable	Y	Y		
IOT with Flag type: = Reset Nominal				
Machine Variable Zero	Y	Y		
Machine Variable Registration	Y	Y		
Machine Variable Paper Path	Y	Y		
Machine Variable DADH	Y	Y		
Machine Variable Platen	Y	Y		
Auditron	Y		Y	
Crash Recovery	Y			

**Table 1 Copier NVM**

Initialization Function	All Copier NVM	Machine Variable NVM	SA / KO Dust Off	System counters Dust Off
Completed Job Log	Y			
Controller Access Machine Speed, Market Region	N			
JBA Database	Y		Y	
JBA Configuration	Y		Y	
HFSI Counter	N	N	N	N

**Table 2 Embedded Fax NVM**

Fax file type Category	Reformat Reset All	Reset Directories	Reset Jobs	Reset Configuration	Reset Variables
Dial Directories	Y	Y			
Group Directories	Y	Y			
Junk Directories	Y	Y			
Logo Directories	Y	Y			
Mailbox Directories	Y	Y			
Poll Directories	Y	Y			
Jobs Sets	Y		Y		
Jobs	Y		Y		
Image	Y		Y		
Bitmaps	Y		Y		
Job ID	Y		Y		
Mailboxes	Y		Y		
Alarm	Y		Y		
Fax Protocol Trace	Y		Y		
Protocol Records	Y		Y		
Container Versions	Y		N		
Fax NVM Category = NVM Configuration	Y	Y		Y	
Fax NVM Category = NVM SA / KO Settings	Y	Y			Y

## dC305 UI Test

### Purpose

To initiate component testing of the local UI. This function also provides a means to test the UI memory and to restart the local UI.

### Description

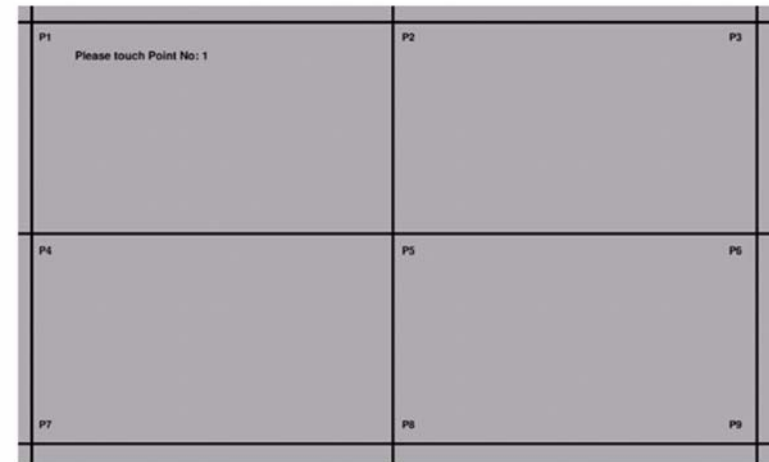
The tests that can be performed are:

1. User Interface Button Test - tests the keys on the user interface.
2. Audio Tone Test - produces audible tones at the user interface.
3. LED Indicator Test - energizes all LEDs on the user interface.
4. Touch Area Test - enables the tester to test all areas on the touch panel.
5. Display Pixel Test - tests the individual pixels on the user interface.
6. Video Memory Test - tests that the SRAM used by the video controller on the local user interface is functioning properly.
7. Communications Self Test - tests communications with the single board controller PWB.
8. Reset User Interface - used to restart/reboot the UI, will cause the POST to start.
9. Application Checksum Verification - permits access to a procedure that displays and verifies the checksum and can display any errors found.
10. Calibration Mode - enables the user to calibrate the user interface touch screen.

### Procedure

1. Enter diagnostics, [GP 1](#).
2. Select, Diagnostics Routines, Copier Routines, dC305 UI Tests.
3. Touch the appropriate test button.
4. Touch Start Test and follow the on-screen instructions.

**NOTE:** The calibration mode window will be displayed together with a dynamic text string, after the Calibration Mode button is touched, [Figure 1](#). Follow the dynamic text instructions, then touch each numbered grid intersection point as directed. After the 9th grid intersection point has been touched the machine will automatically reboot.



T-1-1244-A

Figure 1 Calibration mode window

## dC312 Network Echo Tests

### Purpose

To enable verification of the machines connectivity to an attached network. Performing a test will give the result, pass or fail, eliminating the possibility of the machines hardware being at fault during a diagnostic session. In addition it will test the machines network drivers.

### Description

The dC312 Echo Test is available through two pathways:

1. Diagnostics pathway, dC312 (available to the CSE).
2. Tools pathway (for use by the System Administrator and the Key Operator).

**NOTE:** *The Tools window does not have a test for Internal TCP / IP.*

The tests that can be performed are:

- TCP/IP.
- Novell or IPX.
- NetBIOS / NetBEUI.
- AppleTalk.
- Internal TCP / IP - Will initiate a 'ping' to the IP device name 'local host'. This test is performed to make sure that the IP stack is up and the host's file is intact.

### Procedure

1. Enter diagnostics, [GP 1](#).
2. Select, Network Routines, dC312 Echo Test.
3. Touch the appropriate test button.

**NOTE:** *The feature button is grayed out and disabled for unavailable protocols.*

4. Touch Start Test and follow the on-screen instructions.

## dC314 Network Connectivity Tests

### Purpose

To assist the SA and CSE to isolate the cause of printing, feature network scanning, or network fax problems. The test will interrogate each device on the network so that they respond with their identity and other information. The data files will be stored on the machine (files deleted at next boot) and can be retrieved. Refer to [GP 5](#) Portable Workstation and Tools.

### Description

The network interface tests that can be performed are:

1. TCP/IP
  - Network controller interface where host discovered (Enet).
  - Device name.
  - Device subnet mask.
  - Device IP address.
  - Device media access control (MAC) address.
  - Gateway IP address.
2. Novell or IPX
  - Frame type (local network devices only).
  - Server name.
  - Print queue name.
  - Server internal network number.
  - Server node (media access control) address.
  - Server NOS version number.
  - Hop count to device (local net), extended test.
  - Is the printer attached to file server status.
  - Is the printer attached to print queue status.
  - NDPS enabled
3. NetBIOS/NetBEUI
  - No data need be collected as the network controller has a dynamic internal name table stored in RAM.
4. AppleTalk
  - ESS port id.
  - Device type (router, print server, file server, workstation etc.).
  - NBP registered device name, such as:
    - Appleshare file server name or;
    - Novell PAP server name or;
    - PAP printer registered name.
  - Device NBP protocol address.
  - Device media access control (MAC) address.
  - Network number.
  - Zone name.
  - Sub zone names.
  - Device OS version number.

- Hop count to device.

## Procedure

1. Enter diagnostics, [GP 1](#).
2. Select, Network Routines, dC314 Network Connectivity Test.
3. Touch the appropriate test button.

**NOTE:** The feature button is grayed out and disabled for unavailable protocols.

4. Touch Start Test and follow the on-screen instructions.

## dC330 Component Control

### Purpose

To show the status of input components e.g. sensors, and to energize and exercise output components e.g. motors, solenoids.

### Description

Output and input component codes are entered into the Component Control Table on the UI, and then energized individually or in permitted groups. The codes in the tables are grouped in function chain ([GP 2](#)) order.

Go to the appropriate procedure:

- [Input Components](#)
- [Output Components](#)

### Input Components

When the appropriate code is entered the status of the component will be shown on the UI.

**NOTE:** The logic level shown on the circuit diagrams with the signal name will be the actual signal as measured with a service meter. This will not necessarily be the same as the logic state shown on the UI, especially where the output is inverted. When testing components using these control codes, look for a change in state, not for a high or low.

The displayed status of the input component can be changed by causing the component status to change, e.g. operating a sensor with a sheet of paper. When a sensor is operated a beep will sound.

Go to the appropriate table:

- [Table 1](#) Input codes 01
- [Table 2](#) Input Codes 05
- [Table 3](#) Input Codes 06
- [Table 4](#) Input Codes 07
- [Table 5](#) Input Codes 08
- [Table 6](#) Input Codes 09
- [Table 7](#) Input Codes 10
- [Table 8](#) Input Codes 11
- [Table 9](#) Input Codes 12
- [Table 10](#) Input Codes 14

## Output Components

When the appropriate code is entered, the component will energize for a set time and then stop to protect the components. The default time-out for most components is set at 90 s, but can be as short as 5 s. Some components require that other components are energized at the same time and it is possible to enter and energize up to six component control codes (not fax), but only in permitted groups. If illegal combination of codes are entered the illegal codes will not energize.

Go to the appropriate table:

- [Table 11](#) Output Codes 04
- [Table 12](#) Output Codes 05
- [Table 13](#) Output Codes 06
- [Table 14](#) Output Codes 07
- [Table 15](#) Output Codes 08
- [Table 16](#) Output Codes 09
- [Table 17](#) Output Codes 10
- [Table 18](#) Output Codes 11
- [Table 19](#) Output Codes 12
- [Table 20](#) Output Codes 14
- [Table 21](#) Output Codes 20

## Procedure



### CAUTION

*Do not press Exit before stopping any energized components. The UI may lock up and grey out. If this occurs, switch off the machine, [GP 14](#) and remove the power cord. Reconnect the power cord and switch on the machine [GP 14](#).*

1. Enter Diagnostics, [GP 1](#).
2. Select Diagnostics Routines.
3. Select required dC routine category:
  - Copier Routines, 330 Component Control.
  - Fax dC Routines, 330 Component Control.
4. Select and input the required codes as follows:

**NOTE:** After a fault condition it may be necessary to switch off the machine and switch on the machine ([GP 14](#)) for the codes to operate.

**NOTE:** To clear an incorrectly entered code and reset the Add Component button to 00.000, press the hard key C.

- a. From the component control [Input Components](#) tables and the [Output Components](#) tables, select and enter the appropriate code into the Add Component button, and touch the button. This will add the component to the top of the Component Name table list, and when the list is full; the addition of more components will cause components to be deleted from the bottom of the list.

**NOTE:** Fax component control codes can only be energized one at a time.

- b. If a control code is not known, it can be selected from the list displayed when the Find Component button is touched, as follows:

**NOTE:** The 'Find Component' button is not available if components are energized.

- i. Enter the chain number into the Chain: button. Touch the Chain button to display the control codes for that chain.
  - ii. Use the scroll buttons to locate the required code, touch the Component Name button to highlight it and touch Select.
  - iii. Repeat as required to add components to the Component Name table.
  - iv. Touch Save to save the selections to the Component Name table list and return to the Component Control window.
5. To energize a component or group of components:
    - a. Touch the control code to highlight it.
    - b. Touch Start.
    - c. The status of the component is shown in the Status column i.e.:
      - i. On
      - ii. Off
      - iii. High
      - iv. Low
      - v. A numeric value with up to four digits e.g. 0020.
  6. Touching a component in the component table and then touching Stop, stops that component. To stop all components touch Stop All.
  7. Touching Exit closes the Component Control window.
  8. To exit diagnostics mode, [GP 1](#), select the Call Close Out button.

## Input Codes

**Table 1 Input codes 01**

Code	Displayed Name	Description	General
01-300	Front Door Interlock	Front door interlock switch (S01-300)	High = door closed, low = door open
01-305	Left Door Interlock	Left hand door interlock (S01-305)	High = door closed, low = door open

**Table 2 Input codes 05**

Code	Displayed Name	Description	General
05-300	Document handler closed switch	DADH closed switch (S05-300)	High = DADH lowered, low = DADH raised
05-305	Document handler cover interlock	Top cover interlock switch (S05-305).	High = cover closed, low = cover open
05-310	Document handler doc present sensor	Document present sensor (Q05-310).	High = document present, low = no document
05-315	Document handler length sensor 1	DADH length sensor 1 (Q05-315).	High = document present, low = no document
05-320	Document handler length sensor 2	DADH length sensor 2 (Q05-320).	High = document present, low = no document
05-325	Document handler width sensor	Document width sensor (Q05-325).	Analogue output.
05-330	Document handler feed sensor	Feed sensor (Q05-330).	High = document present, low = no document
05-335	Document handler takeaway sensor	Takeaway sensor (Q05-335).	High = document present, low = no document
05-340	Document handler reg sensor	Registration sensor (Q05-340).	High = document present, low = no document
05-345	Document handler exit sensor	Exit sensor Q05-345).	High = document present, low = no document
05-350	Document handler CVT sensor	CVT sensor (Q05-350).	High = document present, low = no document

**Table 3 Input codes 06**

Code	Displayed Name	Description	General
06-320	ROS Motor Ready Snr	Detects when ROS motor is at required speed.	High = motor ready. Toggle ROS motor (06-020) on and off to check sensor.
06-340	ROS Ready	Indicates that the ROS laser has reached it's operating level and the ROS motor is up to required speed.	High = ready. Toggle ROS motor (06-020) on and off to check sensor. The ROS laser level will only be set once the ROS motor has reached the required speed.

**Table 4 Input codes 07**

Code	Displayed Name	Description	General
07-301	T1 Home Switch	Tray 1 home switch (S07-301)	High = tray home, low = tray not home
07-302	T2 Home Switch	Tray 2 home switch (S07-302)	High = tray home, low = tray not home
07-303	T3 Home Switch	Tray 3 home switch (S07-303) (W/O TAG 151)	High = tray home. low = tray not home
07-303	T3 Home Sensor	Tray 3 home sensor (Q07-303) (W/TAG 151)	High = tray home. low = tray not home
07-304	T4 Home Switch	Tray 4 home switch (S07-304) (W/O TAG 151)	High = tray home, low = tray not home
07-304	T4 Home Sensor	Tray 4 home sensor (Q07-304) (W/TAG 151)	High = tray home, low = tray not home
07-306	T5 Door Switch	Tray 5 Door switch (S07-306)	High = door closed, low = door open
07-311	T1 Size Switch 1	Size switch 1 (S07-311)	High = made
07-312	T1 Size Switch 2	Size switch 2 (S07-312)	High = made
07-313	T1 Size Switch 3	Size switch 3 (S07-313)	High = made
07-314	T1 Size Switch 4	Size switch 4 (S07-314)	High = made
07-321	T2 Size Switch 1	Size switch 1 (S07-321)	High = made
07-322	T2 Size Switch 2	Size switch 2 (S07-322)	High = made
07-323	T2 Size Switch 3	auto size sensing (optional).	High = made
07-324	T2 Size Switch 4	auto size sensing (optional).	High = made
07-331	T1 Empty Sensor	Tray 1 empty sensor (Q07-331)	High = tray empty, low = paper in tray
07-332	T2 Empty Sensor	Tray 2 empty sensor (Q07-332)	High = tray empty, low = paper in tray
07-333	T3 Empty Sensor	Tray 3 empty sensor (Q07-333)	High = tray empty, low = paper in tray
07-334	T4 Empty Sensor	Tray 4 empty sensor (Q07-334)	High = tray empty, low = paper in tray
07-335	Bypass Empty Sensor	Bypass empty sensor (Q07-335)	High = tray empty, low = paper in tray
07-336	T1 stack height Sensor	Tray 1 stack height sensor (Q07-336)	High = top of stack sensed, low = top of stack not sensed
07-337	T2 stack height Sensor	Tray 2 stack height sensor (Q07-337)	High = top of stack sensed, low = top of stack not sensed
07-338	T3 Level Encoder	Detects tray 3 paper level encoder status (Q07-338)	High = top of stack sensed, low = top of stack not sensed
07-339	T4 Level Encoder	Detects tray 4 paper level encoder status (Q07-339)	High = top of stack sensed, low = top of stack not sensed

**Table 4 Input codes 07**

Code	Displayed Name	Description	General
07-341	T1 paper low switch	Detects if the stack height of tray 1 is more than 25% (S07-341)	High = more than 25% full, Low = less than 25% full
07-342	T2 paper low switch	Detects if the stack height of tray 2 is more than 25% (S07-342)	High = more than 25% full, Low = less than 25% full
07-350	Bypass Width Sensor	Bypass width sensor (Q07-335)	Display indicates width setting 100 to 300 mm (3.93 to 11.81 inch)
07-372	T5 Docking Switch	Detects that tray 5 is in the docked position (S07-372)	High = Tray 5 docked
07-383	T3 Stack Height Sensor	Tray 3 stack height sensor (Q07-383)	High = top of stack sensed, low = top of stack not sensed
07-384	T4 Stack Height Sensor	Tray 4 stack height sensor (Q07-384)	High = top of stack sensed, low = top of stack not sensed
07-385	T3 hall Sensor	Tray 3 hall sensor (Q07-385) The sensor is located on a small PCB and detects magnetic field changes as the feed motor rotates.	High = Made. Only run when T3 door is open
07-386	T4 hall Sensor	Tray 4 hall sensor (Q07-386) The sensor is located on a small PCB and detects magnetic field changes as the feed motor rotates.	High = Made. Only run when T4 door is open
07-387	HCF 24V Monitor	Indicates the state of 24V input monitor	High = 24V present
07-401	T5 Tray Empty Sensor	Detects the presents of paper on tray 5 (Q07-401)	High = paper present, Low = no paper
07-402	T5 Stack Height Sensor	Tray 5 stack height sensor (Q07-402)	High = top of stack sensed, Low = top of stack not sensed
07-403	T5 24V Monitor	Indicates the state of 24V input monitor	High = 24V present
07-405	T5 Stack Down Sensor	Tray 5 stack down sensor (Q07-405), detects when the tray is in the fully lowered position	High = tray is fully down
07-406	T5 EI Motor Encoder Sensor	Encoder sensor (Q07-406), detects state of motor encoder sensor bit	High = detected, low = not detected

**Table 5 Input codes 08**

Code	Displayed Name	Description	General
08-100	Wait Sensor	Wait sensor (Q08-100), detects when lead edge of paper at wait point.	High = paper present, low = no paper

**Table 5 Input codes 08**

Code	Displayed Name	Description	General
08-101	T1 Feed Sensor	Detects when lead edge of paper is at tray 1 feed sensor, (Q08-101)	High = paper present, low = no paper
08-102	T2 Feed Sensor	Detects when lead edge of paper is at tray 2 feed sensor, (Q08-102)	High = paper present, low= no paper
08-103	T3 Feed Sensor	Detects when lead edge of paper is at tray 3 feed sensor, (Q08-103)	High = paper present, low = no paper
08-104	T4 Feed Sensor	Detects when lead edge of paper is at tray 4 feed sensor, (Q08-104)	High = paper present, low = no paper
08-105	T5 Feed Sensor	Detects when the lead edge of the paper is at tray 5 feed sensor (Q08-105)	High = paper present, Low = no paper
08-108	HCF Exit Sensor	Detects a sheet being fed from the HCF	High = paper present, Low = no paper
08-109	Tray 3 Exit Sensor	Detects a sheet being fed through the tray 3 horizontal transport	High = paper present, Low = no paper
08-110	T5 wait Point Sensor	Wait sensor (Q08-110), detects when lead edge of paper at wait point. (same sensor as for 08-100)	High = paper present, low = no paper
08-111	T5 Release Sheet Hotline	Displays the state of the release sheet hotline	High = hotline active, low = not active
08-150	Registration Sensor	Detects when paper is at the registration sensor (Q08-150)	High = paper present, low = no paper
08-160	Duplex Sensor	Detects when paper is at the duplex sensor (Q08-160)	High = paper present, low = no paper

**Table 6 Input codes 09**

Code	Displayed Name	Description	General
09-060	HVPS Fault	Detects a fault in the HVPS	High = fault, low = good
09-070	Scorotron cleaner head home sensor	Detects the scorotron cleaning head in the home position	High = head not home, low = head in home position
09-073	Transfer / Detack Home Sensor	Transfer / detack cleaner head home sensor.	High = head not home, Low = head in home position Stack with transfer / detack corotron cleaner motor stall sensor, motor forward and motor reverse



**Table 6 Input codes 09**

Code	Displayed Name	Description	General
09-074	Transfer / Detack Stall Sensor	Transfer / detack cleaner head stall sensor. The stall sensor is a electrical device within the motor control on the IOT PWB.	High = actuated, Low = not actuated Stack with transfer / detack corotron cleaner motor stall sensor, motor forward and motor reverse
09-310	Low Toner Sensor	Low toner sensor (Q09-310)	High = toner in sump, low = toner depleted
09-350	Waste Toner Full Sensor	Waste toner full sensor(Q09-350) detects when waste toner reaches a certain level in the container.	High = container full, low = container not full
09-360	Toner Concentration Sensor	Toner concentration sensor (Q09-360)	Displays toner concentration level in%
09-365	Humidity Sensor	Relative humidity sensor (Q09-365)	Displays RH%
09-370	Dev. Temp. Sensor	Developer temperature sensor (Q09-370)	Displays temperature in degrees C
09-375	Ambient Temp. Sensor	Ambient temperature sensor (Q09-375)	Displays temperature in degrees C
09-380	Waste Toner Door Sw	Waste toner door switch (S09-380) detects if the waste bottle is missing or the door is open during run	High = bottle present/door closed, low = bottle missing/door open

**Table 7 Input codes 10**

Code	Displayed Name	Description	General
10-100	Fuser Exit Switch	Fuser exit switch (S10-100), detects when paper exits the fuser	High = paper present, low = no paper
10-105	Invert Sensor	Inverter sensor (Q10-105), detects when paper enters the inverter	High = paper present, low = no paper
10-120	IOT Exit Sensor	IOT exit sensor (Q10-120), detects when paper exits the IOT	High = paper present, low = no paper
10-300	Fuser Module Temp Sensor A	Displays current thermistor values. Converts input resistance of thermistors and shows A-D conversion.	0-255 degrees C.
10-310	Fuser Module Temp Sensor B	Displays current thermistor values. Converts input resistance of thermistors and shows A-D conversion.	0-255 degrees C.
10-315	Fuser Module Temp Fault Snr	Detects fault in fuser thermistor.	High = fault low = good

**Table 8 Input codes 11**

Code	Displayed Name	Description	General
11-044	Punch Unit Home Sensor	HVF punch unit home sensor (Q11-044)	High = home, low = unit not home

**Table 8 Input codes 11**

Code	Displayed Name	Description	General
11-100	Entry Sensor	LCSS and HVF entry sensor (Q11-100)	High = paper present, low = no paper
11-110	Punch Sensor	LCSS and HVF punch position sensor (Q11-110)	High = paper present, low = no paper
11-112	Chad Bin Set Sensor	HVF chad bin set sensor (Q11-112) detects when the chad bin installed	High = chad bin installed
11-130	Top Exit Sensor	LCSS and HVF top exit sensor (Q11-130)	High = paper present, low = no paper
11-140	2nd to Top Exit Snr	LCSS and HVF 2nd to top exit sensor (Q11-140) detects paper exiting to the bin (bin 1)	High = paper present low = no paper
11-150	Inserter Sheet Size Detector 1	HVF inserter sheet size detector 1 (Q11-150) detects the DOF (Direction Of Feed) sheet size in inserter tray	High = sheet size detected
11-151	Inserter Sheet Size Detector 2	HVF inserter sheet size detector 2 (Q11-151) detects the DOF (Direction Of Feed) sheet size in inserter tray	High = sheet size detected
11-152	Inserter STS Sheet Size Detector	HVF inserter STS (Side To Side) sheet size detector (Q11-152) detects STS (Side To Side) sheet size in inserter tray	High = sheet size detected
11-153	Inserter Unit Empty Sensor	HVF inserter unit empty sensor (Q11-153) detects paper present inserter tray	High = paper present, low = no paper
11-154	Inserter LE Sensor	HVF inserter LE sensor (Q11-154) detects the LE of the paper	High = LE detected, low = LE not detected
11-155	Inserter TE Sensor	HVF inserter TE sensor (Q11-155) detects the TE of the paper	High = TE detected, low = TE not detected
11-156	Inserter Bottom Plate Sensor	HVF inserter bottom plate sensor (Q11-156) detects the bottom plate in home position	High = home position, low = not home
11-157	Buffer Position Sensor	HVF Buffer position sensor (Q11-157) detects paper	High = paper present, low = no paper
11-158	HVF Booklet Exit Sensor	HVF booklet exit sensor (Q11-158) detects paper exiting the finisher to enter into booklet maker	High = paper present, low = no paper
11-159	Nip Home Sensor	HVF nip home sensor (Q11-159) detects the position of the buffer movement tray in descending	High = Nip home
11-160	BM Entry Sensor	HVF BM entry sensor (Q11-160) detects paper entry to the booklet maker	High = paper present, low = no paper

Table 8 Input codes 11

Code	Displayed Name	Description	General
11-164	Buffer Path Sensor	HVF buffer path sensor (Q11-164) detects paper	High = paper present, low = no paper
11-170	Nip Split Sensor	HVF nip split sensor (Q11-170) detects the position of the buffer movement tray in ascending	High = Nip split home
11-171	Paper Pusher Upper Sensor	HVF paper pusher upper sensor (Q11-171) detects if the pusher is in the upper position	High = upper position
11-172	Pressing and Support Encoder Sensor	HVF pressing and support encoder sensor (Q11-172) detects the timing for pressing and support motor	High = made, low = not detected
11-173	Paper Pusher Lower Sensor	HVF paper pusher lower sensor (Q11-173) detects if paper pusher is in lower position	High = made, low = not detected
11-174	Front Tamper Tray Away Sensor	HVF front tamper tray away sensor (Q11-174) detects the front tamper is in away position	High = made, low = not detected
11-175	Stapler Unit Mid Home Sensor	HVF stapler unit mid home sensor (Q11-175) detects if stapler unit is in mid home position	High = made, low = not detected
11-176	Offset Unit Away Sensor	HVF offset unit away sensor (Q11-176) detects if offset unit is in away position	High = made, low = not detected
11-177	Ejector Module Motor Encoder Sensor	HVF ejector module motor encoder sensor (Q11-177) detects the timing for ejector module motor	High = made, low = not detected
11-178	Ejector Plate Motor Encoder Sensor	HVF ejector plate motor encoder sensor (Q11-178) detects the timing for ejector plate motor	High = made, low = not detected
11-179	Ejector Plate Home Sensor	HVF ejector plate home sensor (Q11-179) detects if ejector plate is in home position	High = made, low = not detected
11-180	Ejector Unit Lower Paddle Home Sensor	HVF ejector unit lower paddle home sensor (Q11-180) detects if eject unit lower paddle is in home position	High = made, low = not detected
11-182	Stacker Unit Encoder Sensor	HVF stacker unit encoder sensor (Q11-182) detects the timing for stacker unit motor	High = made, low = not detected
11-183	Tri Folder Entry Sensor	HVF tri folder entry sensor (Q11-183) detects the booklet and tri folder entry. Trigger point for CL80	High = made, low = not detected
11-184	Tri Folder Assist Sensor	HVF tri folder assist sensor (Q11-184) detects trigger point for L81	High = made, low = not detected

Table 8 Input codes 11

Code	Displayed Name	Description	General
11-185	Tri Folder Exit Sensor	HVF tri folder exit sensor (Q11-185) detects booklet and tri folder exit to tray	High = made, low = not detected
11-187	Offset Unit Index Sensor	HVF offset unit index sensor (Q11-187) detects if offset unit is in index position	High = made, low = not detected
11-190	BM Paper Present Sensor	HVF BM paper present sensor (Q11-190) detects when paper is present in the booklet maker compiling area	High = paper present, low = no paper
11-191	Pressing and Support Init Snr	HVF pressing and support initial sensor (Q11-191) detects the initial position sensor	High = made, low = not detected
11-192	Pressing and Support Home Snr	HVF pressing and support home sensor (Q11-192) detects the home position sensor	High = made, low = not detected
11-193	Pressing and Support Out Snr	HVF pressing and support out sensor (Q11-193) detects the out position sensor	High = made, low = not detected
11-194	Paddle Unit Upper Sensor	HVF paddle unit upper sensor (Q11-194) detects the paddle unit position	High = made, low = not detected
11-195	Paddle Unit Lower Sensor	HVF paddle unit lower sensor (Q11-195) detects paddle unit lower position	High = made, low = not detected
11-196	Bin 1 Rear Wall Sensor	HVF Bin1 paper stack sensor, Q11-196 operates together with Q11-322.	Low = paper stack detected, High = not detected
11-300	Docking Interlock	LCSS and HVF docking interlock switch (S11-300)	High = docked, low = un-docked
11-302	Top Cover Intlk	LCSS and HVF top cover interlock switch (S11-302), detects if top cover is open.	High = closed, low = open
11-303	Front Door Intlk	LCSS and HVF front door interlock switch (S11-303), detects if front door is open.	High = closed, low = open
11-306	Insertor Top Cover Intlk	HVF insertor top cover interlock sensor (Q11-306) detects if insertor tray top cover is closed	High = made, low = not detected
11-310	Tamp Front Home Snr	LCSS and HVF front tamper home sensor (Q11-310) Detect if front tamper is home	High = home, low = not home
11-311	Tamp Rear Home Snr	LCSS and HVF rear tamper home sensor (Q11-311), detects if rear tamper is home	high = home, low - not home

**Table 8 Input codes 11**

Code	Displayed Name	Description	General
11-319	Tamp Rear Away Snr	LCSS and HVF rear tamper away home sensor (Q11-319), detects if the rear tamper is at the away home position	High = away home, low = not away home
11-320	Ejector Home Sensor	HVF ejector home sensor (Q11-320) detects the home (closed) position of the ejector housing. LCSS ejector home sensor (Q11-320) detects the home position of the ejector assembly	High = home, low = not home
11-322	Ejector Out Sensor	LCSS and HVF Ejector out sensor (Q11-322) detects the out position of the ejector assembly	High = out, low = not out
11-326	Paddle Roll Home Snr	LCSS paddle roll position sensor, HVF BM paddle roll home sensor (Q11-326) detects the home position of the paddle roll	High = home, low = not home
11-331	Bin 1 90% Full Sensor	LCSS and HVF bin 1 90% full sensor (Q11-331) detects when bin 1 is 90% or more full	High = 90% or more full, low = less than 90% full
11-332	Bin 1 Upper Level Snr	LCSS bin 1 upper level sensor and HVF bin 1 upper level sensor (Q11-332) detects the top of the paper stack in bin 1	High = stack sensed, low = stack not sensed
11-333	Bin 1 Lower Level Snr	LCSS bin 1 lower level sensor (Q11-333) detects the top of the paper stack in bin 1	High = stack sensed, low = stack not sensed
11-334	Bin 1 Upper Limit SW	LCSS and HVF bin 1 upper limit switch (S11-334) detects the upper limit of bin 1 movement	High = bin detected, low = bin not detected
11-335	Bin 1 Lower Limit SW	LCSS and HVF bin 1 upper limit switch (S11-335) detects the lower limit of bin 1 movement	High = bin detected, low = bin not detected
11-336	Bin 1 Mot Encoder Snr	LCSS bin 1 motor encoder sensor (Q11-336) generates motor speed pulses	High = bar in encoder wheel, low = gap in encoder wheel
11-337	Bin1 Offset Sensor	HVF bin 1 offset sensor (Q11-337) detects the offset and home position of bin 1	High = tray moving from home to offset, low = tray moving from offset to home
11-348	Chad Bin Lvl Sensor	LCSS and HVF chad bin full sensor (Q11-348) detects when the weight of the chad reaches a pre-set value	High = bin full, low = bin not full
11-350	Punch Head Home Snr	LCSS and HVF punch head home sensor (Q11-350) detects the home position of the punch head	High = punch home, low = punch not home

**Table 8 Input codes 11**

Code	Displayed Name	Description	General
11-351	Punch Hd Present Snr	LCSS punch head present sensor (Q11-351) detects if a hole punch is installed	High = punch installed, low = punch not installed
11-360	SH 1 Home Sensor	LCSS and HVF staple head 1 home sensor (Q11-360) detects when the staple head is fully open (home position)	High = home, low = not home
11-361	SH 1 Paper Sensor	LCSS and HVF staple head 1 paper present sensor (Q11-361) detects when paper is within the jaws of the stapler	High = paper present, low = no paper
11-362	SH 1 Low Staples Snr	LCSS staple head 1 low staples sensor (Q11-362) detects when staple cartridge is almost empty	High = almost empty, low = plentiful staples
11-363	SH 1 Cartridge Sensor	LCSS staple head 1 cartridge present sensor (Q11-363) detects when a staple cartridge is installed	High = cartridge installed, low = cartridge not installed
11-364	SH 1 Priming Sensor	LCSS staple head 1 priming sensor (Q11-364) detects when the front two staples have been pre-formed (primed)	High = primed, low = not primed
11-365	SU 1 Safety Gate Switch	LCSS stapling unit 1 safety gate switch (S11-365)	High = safety gate closed
11-367	SU 1 Edge Reg Sensor	LCSS staple unit 1 edge registration sensor (Q11-367) detects the edge of the paper is correctly registered	High = paper present, low = no paper
11-370	SU 1 Home Sensor	LCSS staple unit 1 home sensor (Q11-370) detects when the staple head is at the corner staple position	High = stapler home, low = stapler not home
11-371	SU 1 Front Index Snr	LCSS staple unit 1 front index sensor (Q11-371) detects the index position of the stapling head	High = at stapling position, low = not at stapling position
11-373	Offline Staple SW	LCSS offline staple switch (S11-373) detects the operator command for offline stapling	High = switch pressed, low = switch not pressed
11-374	Offline Staple LED	LCSS offline staple LED, detects paper to be stapled	High = paper present, low = not detected
11-383	BM Guide Home Snr	HVF backstop guide home sensor (Q11-383) detects when the backstop is in the home position	High = home, low = not home
11-384	BM Tamper1 Home Snr	HVF tamper 1 home sensor (Q11-384) detects when the BM tampers are in the home position	High = home, low = not home

**Table 8 Input codes 11**

Code	Displayed Name	Description	General
11-389	BM Bin2 90% Full Snr	HVF bin 2 90% full sensor (Q11-389) detects when bin 2 is 90% or more full	High = 90% or more full, low = less than 90% full
11-391	BM Flapper Sector Roll Home Sensor	HVF booklet maker flapper sector roll home sensor (Q11-391)	High = home
11-392	PTU Switch	HVF PTU switch (S11-392) detects if pause to unload button is pressed	High = made, low = not detected
11-393	TriFold Front Dr Interlock	HVF tri fold door interlock (S11-393) detects if the tri fold door is closed	High = closed, low = door open
11-394	TriFold Top Cover Interlock	HVF tri fold top cover interlock (S11-394) detects if the tri fold top cover is closed	High = closed, low = cover open
11-409	BM Exit Sensor	HVF BM exit sensor (Q11-409) detects booklets exiting the booklet maker	High = detected, low = not detected
11-411	BM SH1 Home Snr	HVF BM staple head 1 home sensor (Q11-411) detects when the staple head is fully open (home position)	High = home, low = not home
11-412	BM SH1 Staples Low	HVF BM staple head 1 staples low sensor (Q11-412) detects when staple cartridge is almost empty	High = almost empty, low = plentiful staples
11-413	BM SH2 Home Snr	HVF BM staple head 2 home sensor (Q11-413) detects when the staple head is fully open (home position)	High = home, low = not home
11--414	BMSH2 Staples Low	HVF BM staple head 2 staples low sensor (Q11-412) detects when staple cartridge is almost empty	High = almost empty, low = plentiful staples
11-415	BM Crease Gate Home	HVF BM crease roll gate home sensor (Q11-415) detects when the gate is fully raised	High = gate raised, low = gate not raised
11-416	BM Crease Blade Home	HVF BM crease blade home sensor (Q11-416) detects when the crease blade is fully retracted	High = home, low = not home
11-418	BM Blade Mot Encoder	HVF BM crease blade motor encoder sensor (Q11-418) generates motor speed pulses	High = bar in encoder wheel, low = gap in encoder wheel
11-419	BM Crease Mot Encode	HVF BM crease roll motor encoder sensor (Q11-419) generates motor speed pulses	High = bar in encoder wheel, low = gap in encoder wheel
11-421	BM SH Carrier Closed	HVF BM staple head carrier closed sensor (Q11-421) detects when the carrier is in the closed position	High = closed, low = not closed

**Table 8 Input codes 11**

Code	Displayed Name	Description	General
11-431	Inserter Left Hand Door Interlock	HVF Insert left hand door interlock (Q11-431) detects the state of the inserter door interlock	High = closed, low = open

**Table 9 Input codes 12**

Code	Displayed Name	Description	General
12-300	OCT Level Sensor	OCT 90% full sensor (Q12-300) detects when tray is 90% or more full.	High = 90% or more full, low = less than 90% full
12-301	OCT Index Sensor	OCT index sensor (Q12-301) detects the offset and home position of bin 1	High = tray moving from home to offset, low = tray moving from offset to home

**Table 10 Input codes 14**

Code	Displayed Name	Description	General
14-100	Carriage Home Sensor	Scan carriage home sensor (Q14-100) detects the home position of the scan carriage	High - Home, low = not home
14-310	DADH Angle Sensor	Input module angle sensor (Q14-310) detects the input module at 30% angle for size sensing.	High = input module lowered, low input module raised
14-315	Doc Size Sensor 1	Document size sensor 1 (Q14-310)	High = document not sensed, low = document sensed
14-320	Doc Size Sensor 2	Document size sensor 2 (Q14-314)	High = document not sensed, low = document sensed

**Output Codes**

**Table 11 Output codes 04**

Code	Displayed Name	Description	General
04-010	Main motor	Drives the pre-registration, registration, developer, fuser and paper output modules.	On/Off. 60 seconds timeout

**Table 12 Output codes 05**

Code	Displayed Name	Description	General
05-010	Document handler feed solenoid	DADH feed solenoid (SOL05-010)	On/off. 30 seconds timeout

**Table 12 Output codes 05**

Code	Displayed Name	Description	General
05-020	Document handler feed motor	DADH feed motor (MOT05-020)	On/off. 90 seconds time out
05-025	DADH feed clutch	DADH feed clutch (CL05-025)	On/off. Normally linked with feed motor. 30 seconds time-out
05-030	Document handler CVT motor	DADH CVT motor (MOT05-030)	On/off. 90 seconds timeout
05-050	Document handler duplex solenoid	DADH duplex solenoid (SOL05-050)	On/off. 30 seconds timeout

**Table 13 Output codes 06**

Code	Displayed Name	Description	General
06-020	ROS Motor Run	Drives ROS motor at run mode speed.	On/off. 90 seconds timeout
06-025	ROS Motor Standby	Drive ROS motor at standby mode speed.	On/off. 90 seconds timeout

**Table 14 Output codes 07**

Code	Displayed Name	Description	General
07-010	T1 Elevate Motor	Energizes the tray 1 elevator motor (MOT07-010) up.	On/off. Linked to tray 1 home sensor. Only energize with tray out. 5 seconds timeout
07-020	T2 Elevate Motor	Energizes the tray 2 elevator motor (MOT07-020) up.	On/off. Linked to tray 2 home sensor. Only energize with tray out. 5 seconds timeout
07-030	T3 Elevate Motor	Energizes the tray 3 elevator motor (MOT07-030) up.	On/off. Linked to tray 3 home sensor. Only energize with tray out. 10 seconds timeout
07-040	T4 Elevate Motor	Energizes the tray 4 elevate motor (MOT07-040) up.	On/off. Linked to tray 4 home sensor. Only energizes with tray out. 10 seconds timeout
07-373	Raise T5 Elevate Motor	Energizes the tray 5 elevate motor (MOT07-373) to move the tray up.	On/off. Only runs while tray transport limits are not reached. 10 seconds time-out
07-374	Lower T5 Elevate Motor	Energizes the tray 5 elevate motor (MOT07-373) to move the tray down.	On/off. Only runs while tray transport limits are not reached. 10 seconds time-out

**Table 15 Output codes 08**

Code	Displayed Name	Description	General
08-010	T1 Feed Motor	Energizes the tray 1 feed motor (MOT 08-010).	On/off. Linked to tray 1 home sensor. Paper tray must be open when motor energized. 90 seconds time-out
08-020	T2 Feed Motor	Energizes the tray 2 feed motor. (MOT08-020)	On/off. Linked to tray 2 home sensor. Paper tray must be open when motor energized. 90 seconds time-out
08-025	T1+2 Transport Motor	Energizes the tray 1 and 2 transport motor (MOT08-025)	On/off. 90 seconds timeout
08-030	T3 Feed Motor	Energizes the tray 3 feed motor (MOT08-030)	On/off. Linked to tray 3 home sensor. Paper tray must be open when motor energized. 90 seconds time-out
08-033	T3 Feed Clutch	Energizes/de-energizes the tray 3 feed clutch (W/TAG 151)	On/off. Linked to tray 3 home sensor. Paper tray 3 must be open when the solenoid isenergized
08-040	T4 Feed Motor	Energizes the tray 4 feed motor (MOT08-040)	On/off. Linked to tray 4 home sensor. Paper tray must be open when motor energized. 90 seconds time-out
08-043	T4 Feed Clutch	Energizes/de-energizes the tray 4 feed clutch (W/TAG 151)	On/off. Linked to tray 4 home sensor. Paper tray 4 must be open when the solenoid isenergized
08-045	T3+4 Transport Motor	Energizes the tray 3 and 4 transport motor (MOT08-045)	On/off. 90 seconds timeout
08-045	HCF Transport Motor	Energizes the HCF transport motor (MOT08-045) (W/TAG 151)	On/off. 90 seconds timeout
08-046	T5 Transport Motor	Energizes the tray 5 transport motor (MOT08-046)	On/off. 60 seconds timeout
08-050	Bypass Feed Solenoid	Energizes the bypass feed solenoid (SOL08-050)	On/off. 5 seconds timeout
08-060	Duplex Motor Slow	Energizes the duplex motor at simplex speed.	On/off. 90 seconds timeout
08-062	Duplex Motor Fast	Energizes the duplex motor at duplex speed.	On/off. 90 seconds timeout
08-070	Registration Clutch	Energizes the registration clutch (CL08-070)	On/off. 5 seconds timeout

**Table 15 Output codes 08**

Code	Displayed Name	Description	General
08-117	T5 Feed Motor	Energizes the stepper motor to drive tray 5 nuder and feed rolls. (MOT08-117)	On/off. Paper tray must be down when motor energized. 60 seconds timeout

**Table 16 Output codes 09**

Code	Displayed Name	Description	General
09-010	P/R Motor	Energizes the photoreceptor drive motor (MOT09-010)	On/off. 60 seconds timeout
09-022	P/R Erase Lamp	Energizes the photoreceptor erase lamp.	On/off. 90 seconds timeout
09-030	Ozone Fan	Energizes the ozone fan.	On/off. 90 seconds timeout
09-035	P/R Cooling Fan	Energizes the photoreceptor fan	Full speed/half speed. 90 seconds timeout
09-036	Duplex cooling fans enable	Energizes the duplex path cooling fans	On/off. 90 seconds timeout. When enabled the fans will switch on simultaneously
09-040	Dispense Motor	Energizes the toner dispense motor (MOT09-040)	On/off. 5 seconds timeout
09-045	Cartridge Motor	Energizes the toner cartridge motor (MOT09-045)	On/off. 5 seconds timeout
09-061	Charge Scorotron	Energizes the scorotron wire at nominal drive levels with drives off.	On/off. 3 seconds timeout. Linked with Charge grid 09-062. Normally stacked with HVPS fault
09-062	Charge Grid	Energizes the grid at nominal drive level with drives off.	On/off. 3 seconds timeout. Linked with charge scorotron 09-061
09-063	Transfer Corotron	Energizes the transfer corotron wire on at nominal drive level with drives off.	On/off. 3 seconds timeout. Normally stacked with HVPS fault
09-064	Detack Corotron	Energizes the detack wire on. AC voltage and DC current offset at nominal drive levels with drives off.	On/off. 3 seconds timeout. Normally stacked with HVPS fault
09-065	Chute Bias	Energizes the bias voltage on at nominal drive level.	On/off. 90 seconds timeout. Normally stacked with HVPS fault
09-066	Dev Bias	Energizes the developer bias voltage on at nominal drive level with drives off.	On/off. 3 seconds timeout. Stack with HVPS fault
09-071	Scorotron Cleaner Motor: Forward	Energizes the scorotron cleaning motor (MOT09-070) in the forward direction	On/Off. 13 seconds timeout. Stack with scorotron cleaner home sensor

**Table 16 Output codes 09**

Code	Displayed Name	Description	General
09-072	Scorotron Cleaner Motor: Reverse	Energizes the scorotron cleaning motor (MOT09-070) in the reverse direction	On/off. 13 seconds timeout. Stack with scorotron cleaner home sensor
09-075	Transfer / Detack Motor: Forward	When set to ON the transfer / detack corotron cleaner motor is turned on and run in the forward direction. Moves cleaner to the rear.	On/off. 13 seconds timeout. Stack with transfer / detack corotron cleaner motor stall sensor and motor reverse
09-076	Transfer / Detack Motor: Reverse	When set to ON the transfer / detack corotron cleaner motor is turned on and run in the reverse direction. Moves cleaner to the front.	On/off. 13 seconds timeout. Stack with transfer / detack corotron cleaner motor stall sensor and motor reverse

**Table 17 Output codes 10**

Code	Displayed Name	Description	General
10-010	Fuser Module Web Motor	Energizes the fuser web motor (MOT10-010)	On/off. 90 seconds timeout
10-030	Invert Mot Fwd Slow	Energizes the inverter motor (MOT10-030) forward at process speed.	On/off. 90 seconds timeout
10-035	Invert Mot Rev Slow	Energizes the inverter motor (MOT10-030) in reverse at process speed.	On/off. 90 seconds timeout
10-040	Invert Mot Rev Dup	Energizes the inverter motor (MOT10-030) in reverse at duplex speed.	On/off. 90 seconds timeout
10-045	Inverter Path Sol	Energizes the invert path solenoid (SOL10-045). When de-energized sheets are fed to the inverter	On/off. 5 seconds timeout
10-050	Inverter Nip Sol	Energizes the inverter nip solenoid (SOL10-050). When de-energized the nip is open	On/off. 5 seconds timeout
10-055	Tri Roll Split Nip Solenoid	Energizes the tri roll split nip solenoid (SOL10-055). When de-energized the nip is open	On/off. 5 seconds timeout
10-065	Vac Transport Fan	Energizes the vacuum transport fan in the short paper path assembly	On/off. 90 seconds timeout

**Table 18 Output codes 11**

Code	Displayed Name	Description	General
11-000	Transport Motor 1	Energizes the LCSS transport Motor 1, HVF transport motor 1A and Transport motor 1B (MOT11-000)	On/off. 90 seconds timeout

**Table 18 Output codes 11**

Code	Displayed Name	Description	General
11-001	Transport Motor 2	Energizes the LCSS and HVF transport motor 2 (MOT11-001)	On/off. 90 seconds timeout
11-002	Diverter Solenoid	Energizes the LCSS, HVF diverter gate solenoid, HVF BM upper diverter solenoid (SOL11-002)	On/off. 5 seconds timeout
11-003	Tamp Mot Front Home	Energizes the LCSS and HVF front tamper motor (MOT11-003) to the home position.	On/off. 5 seconds timeout
11-004	Tamp Mot Rear Home	Energizes the LCSS and HVF rear tamper motor (MOT11-004) to home position	On/off. 5 seconds timeout
11-005	Tamp Mot Front Move	Energizes the LCSS and HVF front tamper motor (MOT11-003) move inbound.	On/off. 5 seconds timeout
11-006	Tamp Mot Rear Move	Energizes the LCSS and HVF rear tamper motor (MOT11-004) move inbound.	On/off. 5 seconds timeout
11-007	Tampers to A4LEF	Moves the LCSS tampers to A4LEF position.	On/off. 5 seconds timeout
11-008	Tampers to 8.5x11LEF	Move the LCSS tampers to 8.5"x11" LEF position.	On/off. 5 seconds timeout
11-009	Tamper Motor Cycle	Cycles the LCSS tampers in and out until time-out or stop.	On/off. 90 seconds timeout
11-010	CC Eject Roll Motor	Energizes the HVF compiler carriage eject roll motor (MOT11-010)	On/off. 90 seconds timeout
11-020	Ejector Motor Home	Energizes the LCSS, ejector motor (MOT11-020) to the home position	On/off. 5 seconds timeout
11-021	Ejector Motor Move	Energizes the LCSS, ejector motor (MOT11-020) to the out position	On/off. 5 seconds timeout
11-023	Ejector Motor Cycle	Energizes the LCSS ejector motor (MOT11-020), and the HVF BM ejector motor (MOT11-023) cycle routines, until timeout or stop.	On/off. 90 seconds timeout
11-024	Paddle Roll Motor Home	Energizes the LCSS paddle roll motor (MOT11-024) to the home position	On/off. 15 seconds timeout
11-025	Paddle Roll Motor Run	Energizes the LCSS and HVF paddle roll motor (MOT11-025) until timeout or stop	On/off. 15 seconds timeout
11-026	Paddle Roll Mot Rev	Energizes the LCSS paddle roll motor (MOT11-024) in reverse to actuate safety gate.	On/off. 15 seconds timeout
11-027	Paddle Unit Motor	Energizes the HVF paddle unit motor (MOT11-027) to lift / lower paddle unit	On/off. 90seconds timeout
11-030	Bin 1 Elev. Mot Home	Energizes the LCSS and HVF bin 1 elevate motor (MOT11-030) to the home position.	On/off. 15 seconds timeout
11-031	Bin 1 Elev. Mot Up	Energizes the LCSS and HVF bin 1 elevate motor (MOT11-030) by increments up	On/off. 15 seconds timeout

**Table 18 Output codes 11**

Code	Displayed Name	Description	General
11-032	Bin 1 Elev. Mot Down	Energizes the LCSS and HVF bin 1 elevate motor (MOT11-030) by increments down	On/off. 15 seconds timeout
11-033	Bin1 Elev. Mot Cycle	Energizes the LCSS and HVF bin 1 elevate motor (MOT11-033) to cycle bins up/down until time-out or stop.	On/off. 90 seconds timeout.
11-034	Bin 1 Offset Motor	Energizes the HVF bin 1 offset motor (MOT11-034)	On/off. 15 seconds timeout
11-042	Punch Head Move Home	Energizes the LCSS hole punch motor (MOT11-042) to the home position	On/off. 15 seconds timeout
11-043	Punch Head Run	Energizes the LCSS and HVF hole punch motor (MOT11-043) continuously	On/off. 15 seconds timeout
11-045	Punch Unit Motor Forward	Energizes HVF punch unit motor (MOT11-045) moves punch unit forward	On/off.
11-046	Punch Unit Motor Reverse	Energizes HVF punch unit motor (MOT11-045) moves punch unit in reverse	On/off.
11-050	Staple Head 1 Motor	Energizes the LCSS and HVF staple head 1 motor (MOT11-050)	On/off. 15 seconds timeout
11-051	SH 1 Motor Rev. Home	Energizes the LCSS staple head 1 motor (MOT11-050) in reverse to the home position	On/off. 15 seconds timeout
11-053	SU 1 Motor Forward	Energizes the LCSS and HVF stapling unit traverse motor (MOT11-053) increment forward.	On/off. 15 seconds timeout
11-054	SU 1 Motor Reverse	Energizes the LCSS and HVF stapling unit traverse motor (MOT11-053) increment reverse.	On/off. 15 seconds timeout
11-055	SU1 Index Mot Cycle	Energizes the LCSS and HVF stapling unit traverse motor (MOT11-053) cycle routine	On/off. 15 seconds timeout
11-060	BM Compiler Motor	Energizes the HVF BM paper path transport motor (MOT11-060)	On/off. 90 seconds timeout
11-061	BM Blade Motor	Energizes the HVF BM crease blade motor (MOT11-061) cycle	On/off. 90 seconds timeout
11-062	BM Crease Motor	Energizes the HVF BM crease roll motor (MOT11-062)	On/off. 6 seconds timeout
11-063	BM Staple Head 1 Motor	Energizes the HVF BM staple head 1 motor (MOT11-063)	On/off. 5 seconds timeout
11-065	BM Back Stop Motor	Energizes the HVF BM backstop motor (MOT11-065) moves to receive, then staple, then crease positions	On/off. 90 seconds timeout
11-066	BM Tamper 1 Motor	Energizes the HVF BM tamper 1 motor (MOT11-066)	On/off. 90 seconds timeout
11-074	BM Diverter Solenoid	Energizes the HVF BM lower diverter gate solenoid (SOL11-074)	On/off. 5 seconds timeout

**Table 18 Output codes 11**

Code	Displayed Name	Description	General
11-076	BM Stack Hold Sol	Energizes the HVF BM stack hold solenoids (SOL11-076) part of back stop assembly	On/off. 5 seconds timeout
11-077	Inserter Electric Clutch	Energizes the HVF inserter electric clutch (CL11-077) to drive the pickup roll	On/off.
11-078	Inserter Unit Motor	Energizes the HVF inserter unit motor (MOT11-078) to drive the inserter rolls	On/off.
11-079	Buffer Motor	Energizes the HVF Buffer motor (MOT11-079) to drive the buffer rolls	On/off. 90 seconds timeout
11-080	Feed Motor	Energizes the HVF feed motor (MOT11-080) to drive the feed rolls	On/off. 90 seconds timeout
11-081	Nip Split Motor	Energizes the HVF nip split motor (MOT11-081) to activate the buffer movement tray	On/off. 90 seconds timeout
11-082	Clamp solenoid	Energizes the HVF clamp solenoid (SOL11-082) to keep first sheet of paper in the buffer pocket at buffer mode	On/off. 90 seconds timeout
11-083	Paper Pusher Motor	Energizes the HVF paper pusher motor (MOT11-083) to drive the paper pusher	On/off. 90 seconds timeout
11-084	Curl Suppressor Solenoid	Energizes the HVF curl suppressor solenoid (SOL11-084) to activate the pressing device	On/off. 90 seconds timeout
11-085	Tri Folder Diverter Solenoid	Energizes the HVF tri folder diverter solenoid (SOL11-085) to activate the tri folder diverter gate to divert paper to tri fold path	On/off. 5 seconds timeout
11-086	Tri Folder Assist Gate Solenoid	Energizes the HVF tri folder assist gate solenoid (SOL11-086) to activate the tri folder assist gate to assist C fold into second nip	On/off. 5 seconds timeout
11-087	Clutch Drive	Energizes the HVF clutch drive (CL11-087) to drive tri folding rolls	On/off. 5 seconds timeout
11-088	Cycle Ejector Motor	Energizes the HVF ejector roll motor (MOT11-088) cycle routine.	On/off. 90 seconds timeout
11-374	Offline Staple LED	Energizes the LCSS offline staple LED	On/off. 90 seconds timeout
11-390	BM Flapper Sector Roll Motor	Energizes the HVF Booklet maker flapper sector roll motor (MOT11-390)	On/off. 90 seconds timeout
11-400	BM Flapper Clutch Sol	Energizes the HVF BM flapper clutch solenoid (SOL11-400)	On/off. 5 seconds timeout
11-401	BM Crease Roll Motor	Energizes the HVF crease roll gate motor (MOT11-401) cycle routine	On/off. 15 seconds timeout
11-402	BM Mt Conveyor Drive	Energizes the HVF BM conveyor belt drive motor	On/off. 90 seconds timeout
11-403	BM Staple Hd 2 Motor	Energizes the HVF staple head 2 motor (MOT11-403)	On/off. 5 seconds timeout

**Table 18 Output codes 11**

Code	Displayed Name	Description	General
11-404	BM Crease Gate Open	Energizes the HVF crease roll gate motor (MOT11-401) to the open position	On/off. 90 seconds timeout
11-430	Kicker Solenoid	Energizes the HVF kicker solenoid (SOL11-430)	On/off. 5 seconds timeout

**Table 19 Output codes 12**

Code	Displayed Name	Description	General
12-005	OCT Motor	Energizes the OCT motor	On/off. 2 seconds timeout

**Table 20 Output codes 14**

Code	Displayed Name	Description	General
14-005	Exposure Lamp	Energizes the exposure lamp	On/off. 90 seconds timeout

**Table 21 Output codes 20**

Code	Displayed Name	Description	General
20-002	Diag. LED 30 Red	Switches diagnostic LED 30 red	On/off
20-003	Diag. LED 30 green	Switches diagnostic LED 30 green	On/off
20-010	Sngl Tone 0Hz Ln1	Emits single tone 0Hz on line 1	On/off
20-011	Sngl Tone 400Hz Ln1	Emits single tone 400Hz on line 1	On/off
20-012	Sngl Tone 1100Hz Ln1	Emits single tone 1100Hz on line 1	On/off
20-013	Sngl Tone 1300Hz Ln1	Emits single tone 1300Hz on line 1	On/off
20-014	Sngl Tone 1650Hz Ln1	Emits single tone 1650Hz on line 1	On/off
20-015	Sngl Tone 1850Hz Ln1	Emits single tone 1850Hz on line 1	On/off
20-016	Sngl Tone 2100Hz Ln1	Emits single tone 2100Hz on line 1	On/off
20-017	ANSAM Ln1		On/off
20-018	CI Ln1		On/off
20-020	DTMF # Line1	Emits DTMF # on line 1	On/off
20-021	DTMF * Line1	Emits DTMF * on line 1	On/off
20-022	DTMF 0 Line1	Emits DTMF 0 on line 1	On/off
20-023	DTMF 1 Line1	Emits DTMF 1 on line 1	On/off
20-024	DTMF 2 Line1	Emits DTMF 2 on line 1	On/off
20-025	DTMF 3 Line1	Emits DTMF 3 on line 1	On/off
20-026	DTMF 4 Line1	Emits DTMF 4 on line 1	On/off
20-027	DTMF 5 Line1	Emits DTMF 5 on line 1	On/off
20-028	DTMF 6 Line1	Emits DTMF 6 on line 1	On/off
20-029	DTMF 7 Line1	Emits DTMF 7 on line 1	On/off
20-030	DTMF 8 Line1	Emits DTMF 8 on line 1	On/off
20-031	DTMF 9 Line1	Emits DTMF 9 on line 1	On/off
20-032	DTMF A Line1	Emits DTMF A on line 1	On/off
20-033	DTMF B Line1	Emits DTMF B on line 1	On/off



Table 21 Output codes 20

Code	Displayed Name	Description	General
20-034	DTMF C Line1	Emits DTMF C on line 1	On/off
20-035	DTMF D Line1	Emits DTMF D on line 1	On/off
20-040	V.21 300 bps Line1	Emits V.21 300 bps on line 1	On/off
20-041	V.27ter 2400 bps Line1	Emits V.27ter 2400 bps on line 1	On/off
20-042	V.27ter 4800 bps Line1	Emits V.27ter 4800 bps on line 1	On/off
20-043	V.29 7200 bps Line1	Emits V.29 7200 bps on line 1	On/off
20-044	V.29 9600 bps Line1	Emits V.29 9600 bps on line 1	On/off
20-045	V.17 7200 bps Line1	Emits V.17 7200 bps on line 1	On/off
20-046	V.17 9600 bps Line1	Emits V.17 9600 bps on line 1	On/off
20-047	V.17 12000 bps Line1	Emits V.17 12000 bps on line 1	On/off
20-048	V.17 14400 bps Line1	Emits V.17 14400 bps on line 1	On/off
20-049	V.34 2400 bps Line1	Emits V.34 2400 bps on line 1	On/off
20-050	V.34 4800 bps Line1	Emits V.34 4800 bps on line 1	On/off
20-051	V.34 7200 bps Line1	Emits V.34 7200 bps on line 1	On/off
20-052	V.34 9600 bps Line1	Emits V.34 9600 bps on line 1	On/off
20-053	V.34 12000 bps Line1	Emits V.34 12000 bps on line 1	On/off
20-054	V.34 14400 bps Line1	Emits V.34 14400 bps on line 1	On/off
20-055	V.34 16800 bps Line1	Emits V.34 16800 bps on line 1	On/off
20-056	V.34 19200 bps Line1	Emits V.34 19200 bps on line 1	On/off
20-057	V.34 21600 bps Line1	Emits V.34 21600 bps on line 1	On/off
20-058	V.34 24000 bps Line1	Emits V.34 24000 bps on line 1	On/off
20-059	V.34 26400 bps Line1	Emits V.34 26400 bps on line 1	On/off
20-060	V.34 28800 bps Line1	Emits V.34 28800 bps on line 1	On/off
20-061	V.34 31200 bps Line1	Emits V.34 31200 bps on line 1	On/off
20-062	V.34 33600 bps Line1	Emits V.34 33600 bps on line 1	On/off
20-070	ISDN mode Loopback	Applies a loop back of both B channels to the network	On/off
20-071	ISDN tst mode info 1	Provides INFO 1 signals on both B channels	On/off
20-072	ISDN tst mode info 0	Provides INFO 0 signals on both B channels	On/off
20-073	ISDN PH-ACT-REQ	Able to initiate activation procedures (PH-ACTIVATE REQUEST) primitive	On/off
20-074	ISDN LED 10/18 Red	Switches ISDN LED 10/18 red	On/off
20-075	ISDN LED 10/18 Grn	Switches ISDN LED 10/18 green	On/off
20-076	ISDN line relay	Switches SDN line relay	On/off
20-080	Sngl Tone 0Hz Ln2	Emits single tone 0Hz on line 2	On/off
20-081	Sngl Tone 400Hz Ln2	Emits single tone 400Hz on line 2	On/off
20-082	Sngl Tone 1100Hz Ln2	Emits single tone 1100Hz on line 2	On/off
20-083	Sngl Tone 1300Hz Ln2	Emits single tone 1300Hz on line 2	On/off
20-084	Sngl Tone 1650Hz Ln2	Emits single tone 1650Hz on line 2	On/off
20-085	Sngl Tone 1850Hz Ln2	Emits single tone 1850Hz on line 2	On/off
20-086	Sngl Tone 2100Hz Ln2	Emits single tone 2100Hz on line 2	On/off

Table 21 Output codes 20

Code	Displayed Name	Description	General
20-087	ANSAM Ln2	-	On/off
20-088	CI Ln2	-	On/off
20-090	DTMF # Line2	Emits DTMF # on line 2	On/off
20-091	DTMF * Line2	Emits DTMF * on line 2	On/off
20-092	DTMF 0 Line2	Emits DTMF 0 on line 2	On/off
20-093	DTMF 1 Line2	Emits DTMF 1 on line 2	On/off
20-094	DTMF 2 Line2	Emits DTMF 2 on line 2	On/off
20-095	DTMF 3 Line2	Emits DTMF 3 on line 2	On/off
20-096	DTMF 4 Line2	Emits DTMF 4 on line 2	On/off
20-097	DTMF 5 Line2	Emits DTMF 5 on line 2	On/off
20-098	DTMF 6 Line2	Emits DTMF 6 on line 2	On/off
20-099	DTMF 7 Line2	Emits DTMF 7 on line 2	On/off
20-100	DTMF 8 Line2	Emits DTMF 8 on line 2	On/off
20-101	DTMF 9 Line2	Emits DTMF 9 on line 2	On/off
20-102	DTMF A Line2	Emits DTMF A on line 2	On/off
20-103	DTMF B Line2	Emits DTMF B on line 2	On/off
20-104	DTMF C Line2	Emits DTMF C on line 2	On/off
20-105	DTMF D Line2	Emits DTMF D on line 2	On/off
20-110	V.21 300 bps Line2	Emits V.21 300 bps on line 2	On/off
20-111	V.27ter 2400 bps Line2	Emits V.27ter 2400 bps on line 2	On/off
20-112	V.27ter 4800 bps Line2	Emits V.27ter 4800 bps on line 2	On/off
20-113	V.29 7200 bps Line2	Emits V.29 7200 bps on line 2	On/off
20-114	V.29 9600 bps Line2	Emits V.29 9600 bps on line 2	On/off
20-115	V.17 7200 bps Line2	Emits V.17 7200 bps on line 2	On/off
20-116	V.17 9600 bps Line2	Emits V.17 9600 bps on line 2	On/off
20-117	V.17 12000 bps Line2	Emits V.17 12000 bps on line 2	On/off
20-118	V.17 14400 bps Line2	Emits V.17 14400 bps on line 2	On/off
20-119	V.34 2400 bps Line2	Emits V.34 2400 bps on line 2	On/off
20-120	V.34 4800 bps Line2	Emits V.34 4800 bps on line 2	On/off
20-121	V.34 7200 bps Line2	Emits V.34 7200 bps on line 2	On/off
20-122	V.34 9600 bps Line2	Emits V.34 9600 bps on line 2	On/off
20-123	V.34 12000 bps Line2	Emits V.34 12000 bps on line 2	On/off
20-124	V.34 14400 bps Line2	Emits V.34 14400 bps on line 2	On/off
20-125	V.34 16800 bps Line2	Emits V.34 16800 bps on line 2	On/off
20-126	V.34 19200 bps Line2	Emits V.34 19200 bps on line 2	On/off
20-127	V.34 21600 bps Line2	Emits V.34 21600 bps on line 2	On/off
20-128	V.34 24000 bps Line2	Emits V.34 24000 bps on line 2	On/off
20-129	V.34 26400 bps Line2	Emits V.34 26400 bps on line 2	On/off
20-130	V.34 28800 bps Line2	Emits V.34 28800 bps on line 2	On/off
20-131	V.34 31200 bps Line2	Emits V.34 31200 bps on line 2	On/off
20-132	V.34 33600 bps Line2	Emits V.34 33600 bps on line 2	On/off

# dC604 Registration Setup Procedure

## Description

The registration setup routine allows the measurement and adjustment of image to paper registration for the image output terminal.

**NOTE:** *ADJ 8.1 Registration Setup contains only a reference to this diagnostic procedure.*

## Purpose

To measure and adjust image to paper registration using the four routines:

1. Image Output Terminal Registration side 1 - simplex lead and top edge registration adjustment.
2. Image Output Terminal Registration Side 2 (duplex) - duplex lead and top edge registration adjustment.
3. Scanner Registration - document glass lead and top edge registration adjustment.
4. DADH Registration - constant velocity transport (CVT) lead edge and centre registration adjustment.

**NOTE:** *During the scanner and the DADH registration procedures a border erase is applied to the copied test patterns. Since the test pattern has been designed for both markets regions, the size of the edge deletion will depend on the paper size:*

- *For A4 LEF paper, all edges have a 10mm deletion, but the bottom edge (Zone C on Figure 1) will measure 28mm from the edge of the paper.*
- *For 8.5 x 11 LEF paper, all edges have a 10mm deletion, but the trail edge (Zone B on Figure 1) will measure 16mm from the edge of the paper.*

## Initial Action

- Ensure that 8.5 x 11 or A4 LEF paper is loaded in tray 1.
- Ensure that the ROS is secured and positioned correctly. Check that the ROS securing screw at the front of the machine is present and secure, refer to [REP 6.1](#).

## Procedure

**NOTE:** *Always perform the IOT Registration Side 1 adjustments before performing any other registration adjustment, as the IOT Registration Side 1 adjustment affects the others.*

1. Enter diagnostics, [GP 1](#).
2. Select, Diagnostics Routines, then select Copier Routines, then select [dC604](#) Registration Setup Routine.
3. Select Image Output Terminal Registration Side 1, then select All Trays, then select Print Test Samples and follow the UI screen prompts.

**NOTE:** *Do not select individual trays unless directed by the documentation.*

- a. Compare the zones A and D on the test samples, with those in [Figure 2](#).
  - b. Adjust the registration, enter the number on the scale at the edge of the paper.  
For example. If the top edge of the paper aligns with the 20mm mark on zone A (20 mm indicates correct IOT registration, [Figure 2](#)) then enter 20mm. If the top edge aligned with the 15mm mark then enter 15mm.
4. Select Image Output Terminal Registration Side 2, then select All Trays, then select Print Test Samples and follow the UI screen prompts.

5. Select Scanner Registration and follow the UI screen prompts.
  - a. The first three copies out will be the IOT test samples, one of which will be used as an original to make the scanner test samples.

**NOTE:** *To obtain the correct scanner registration. Check that the registration on the IOT test samples is correct, [Figure 2](#). If not correct then return to step 3.*

- b. Place one of the IOT test sample on the platen glass.
- c. Compare the zones A and D on the scanner test samples, with those in [Figure 3](#).
- d. Adjust the registration, enter the number at the point where the scale is deleted.  
For example. If the top of the zone A scale is deleted at the 10mm mark (10mm indicates the correct scanner registration, [Figure 3](#)) then enter 10. If the top of the zone A scale is deleted at the 5mm mark then enter 5.

6. Select Document Handler Registration and follow the UI screen prompts.
  - a. The first three copies out will be IOT test samples which will be used as originals to make the DADH test samples.

**NOTE:** *To obtain the correct DADH registration. Check that the registration on IOT test samples is correct, [Figure 2](#). If not correct then return to step 3.*

- b. Place the IOT test samples in the DADH.
- c. Compare the zones A and D on the DADH test samples, with those in [Figure 3](#).
- d. Adjust the registration, enter the number at the point where the scale is deleted.  
For example. If the top of the zone A scale is deleted at the 10mm mark (10mm indicates correct DADH registration, [Figure 3](#)) then enter 10mm. If the top of the zone A scale is deleted at the 5mm mark then enter 5mm.  
Place the IOT test samples in the DADH to enable the Save option.

7. If the correct registration can not be obtained because the registration scales are out of range or off the page. Enter [dC132](#) NVM Initialization, select Machine Variable NVM and initialize. This will reset all of the registration values to default, return to step 3, complete all four routines.

8. Take samples from each tray using the individual tray select button and check the lead edge and top edge registration is within specification, [Figure 2](#). If the top edge registration is not correct on individual trays then go to step 9.

9. The individual trays can be adjusted to compensate for any mechanical variation between the trays, which may cause an error in the top edge registration.

The individual tray top edge has an adjustment range of +/-10mm with increments of 0.5mm. When saved, the adjustment will update the NVM offset value for the specific tray.

To adjust the top edge registration on individual trays perform the following:

- a. Enter diagnostics [GP 1](#). Select, Diagnostics Routines / Copier Routines / dC 604 Registration Setup
- b. Select Image Output Terminal Registration Side 1 / **select the individual tray** / Print Test Samples.

**NOTE:** *If the top edge of the paper aligns above the 20mm mark on zone A i.e. at 22mm. Then select +2mm to align the top edge of the paper with the 20mm mark on zone A. If the top edge of the paper aligns with the 15mm mark on zone A. Then select -5mm to align the top edge of the paper with the 20mm mark on zone A.*

Make the adjustments, then press Print Test Samples. When the top edge of the paper aligns with the 20mm mark on zone A, the registration is correct, [Figure 2](#).

- Press Save and repeat the procedure as necessary for the other trays.
- c. Select Image Output Terminal Registration Side 2 and repeat the above procedure as necessary.
  - d. If Tray 5 is still out of specification, go to [ADJ 7.3](#) and then [ADJ 7.4](#). After checking these adjustments, repeat the procedure in step 9.
10. Make copies of the test pattern 82E2010 or 82E2020 from the DADH and document glass to check for skew. Refer to [IQS 5 Skew](#). Use internal test prints 16 or 17 to check printer skew. Refer to [IQS 5 Skew](#).

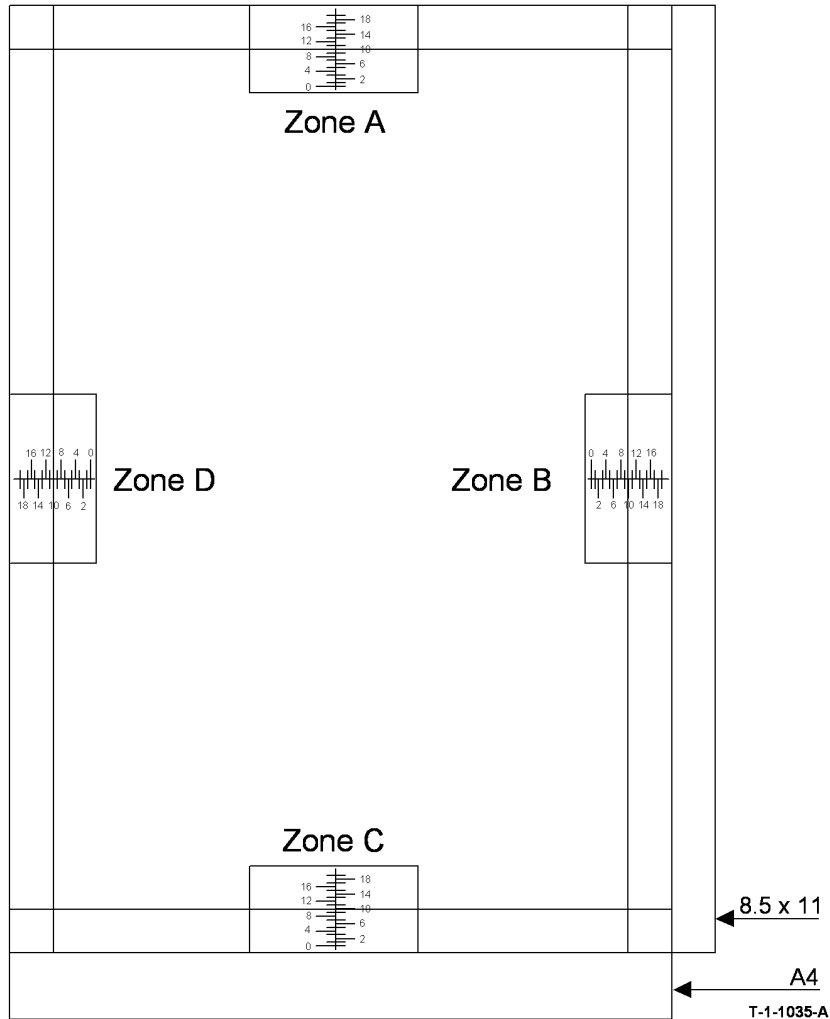


Figure 1 Registration test pattern

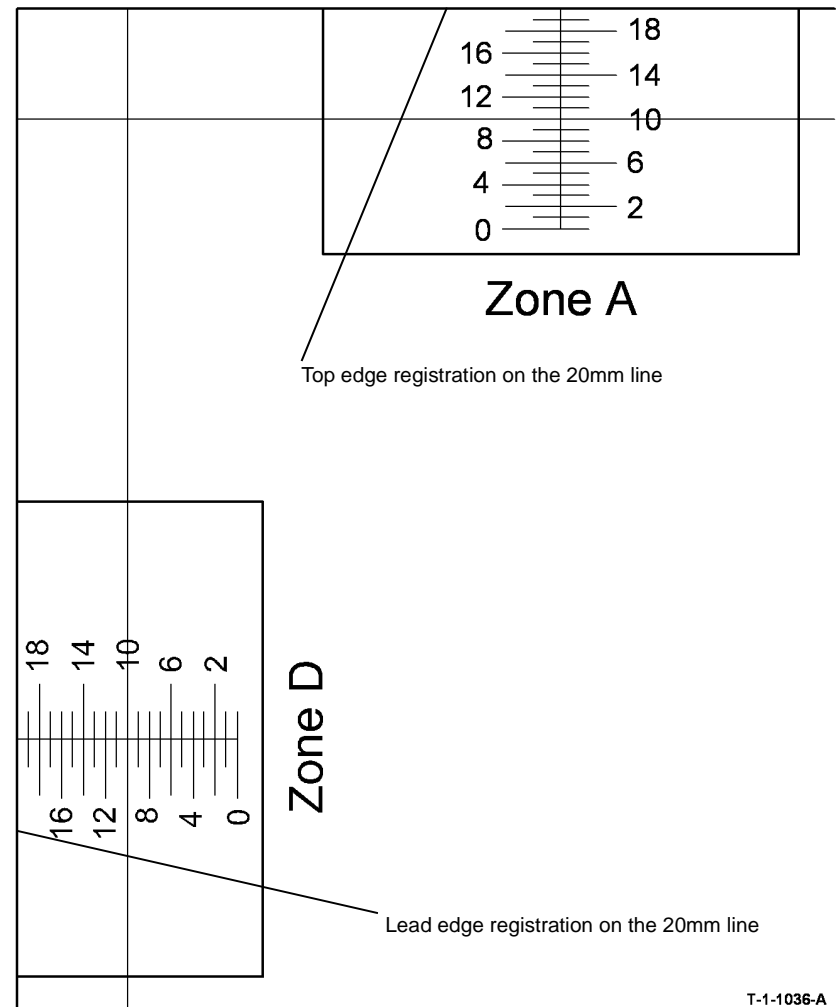


Figure 2 IOT registration

## dC606 Internal Print Test Patterns

### Purpose

To print internal test patterns for image quality analysis.

### Procedure

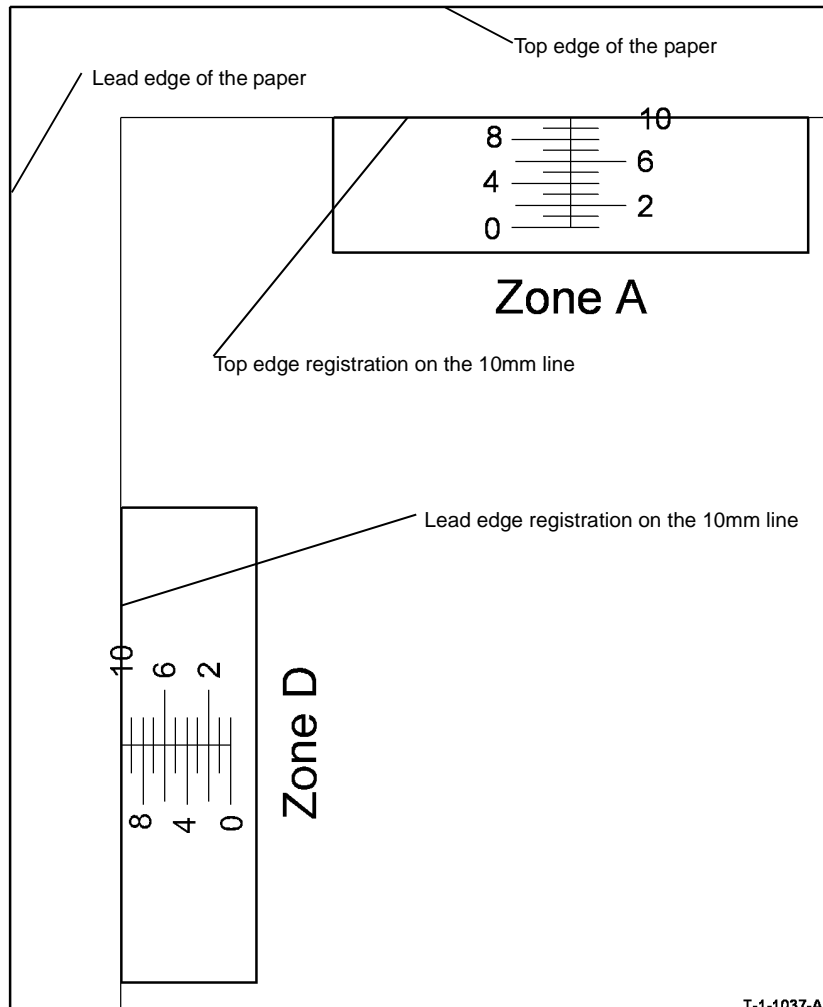
**NOTE:** Refer to *IQ1* for information on the test patterns.

1. Enter diagnostics, **GP 1**.
2. Enter diagnostics Routines.
3. Enter Other Routines.
4. Enter dC606 Print Test Patterns.
5. Select Image Quality Test Patterns 1 - 19.
6. Select the Features, 1 or 2 sided and paper size.

**NOTE:** Two sided test patterns are always backed with test pattern 16, quadrille.

7. Select the Format, Label on or off and Border on or off.
8. Select Saved.
9. Touch the Start Test.
10. Press Exit to return to the main diagnostic menu; select another feature or exit diagnostics.

**NOTE:** The system administrator and key operator cannot generate print test patterns 4, 6, 7 or 8.



T-1-1037-A

Figure 3 Scanner and DADH registration

## dC640 Video Path Diagnostics

This procedure is not applicable to the WorkCenter 5790F. Do not use.

## dC905 TC Sensor Calibration

### Purpose

To calibrate and setup the toner concentration sensor. This routine is run at manufacture and after installing a new developer module, (35-55 ppm) [PL 9.17 Item 2](#) or (65-90 ppm) [PL 9.15 Item 2](#).

### Description

The TC sensor, located in the bottom of the developer housing, is used in the process control loop to help maintain the concentration of toner in the developer tank at the optimal level.

The TC sensor needs to be calibrated by adjusting the sensor output to the required target value for a new developer toner concentration. The sensor output voltage can be adjusted to the correct level by varying the control voltage applied to the sensor.

The output of the sensor depends on the:

- Magnetic properties of the developer material (this is a fixed value).
- Applied control voltage.
- Developer temperature.
- Humidity.

### Procedure

1. Enter diagnostics, [GP 1](#).
2. Select Diagnostics Routines, Copier Routines, dC905 TC Sensor Calibration.
3. Touch the Start button to start the routine, and follow the on screen instructions.
  - Message displayed "Only run this routine when a new developer package has been installed"
  - Message displayed "Make sure you have cammed on the developer before starting this routine."
  - The components listed will energize:
    - Photoreceptor drive motor.
    - Photoreceptor erase lamp.
    - Charge scorotron and charge grid.
    - Developer bias voltage.
    - Main drive motor (to rotate the developer).
4. If the setup fails, a 'TC Sensor Setup Routine Failed' message appears, go to [09-360](#), [09-361](#), [09-362](#), [09-363](#) TC Sensor Failure RAP.



## Tags

### Purpose

To provide a list of all the tag numbers used together with a description of each of the machine modifications.

### Description

Each modification to the system is assigned a unique tag number. This section of the service documentation contains a listing and brief description of all change tags. It also references the diagnostic routine, [dC111 Tag Matrix](#), used to access, enter, store and retrieve hardware and software upgrade information contained in the machine's NVM.

Change tags listed in this section are listed by machine module. The module to which the tag relates is identified by the tag prefix letter, for example; Tag F048 applies to the 2K LCSS module. The module prefixes are:

- Processor Tags - 001 to 250 (no prefix).
- DADH Tags - D001 to D050.
- 1K LCSS Tags - L001 to L050.
- 2K LCSS Tags - F001 to F050.
- HVF Tags - V001 to V050.
- Tray 6 Inserter Tags - P001 to P050.
- Tray 5 Tags - I001 to I050.
- Fax Tags - X001 to X050.

### Tag Information

Information that may be included with each tag item is as follows:

- Tag - gives the control number for the tag.
- Class - gives the classification codes as listed in [Table 1](#).
- Use - indicates the multinational operating markets affected by the modification.
- Manufacturing Serial Number - gives the serial number of the factory built machines with the modification installed.
- Purpose - gives a brief description of the modification.
- Name - gives the name of the part or modification.
- Kit Number - gives the part number of the kit or part required to install the modification.
- Reference or Parts List On - indicates the parts list where the kit or modification part can be found.

### Mod / Tag Plate Location

The processor module. Open the front door and the Mod / Tag plate is located on the left side of the main machine frame.

The DADH module. Lift up the DADH and the Mod / Tag plate is located on the rear of the DADH.

The 1K LCSS module. Un-dock the 1K LCSS and the Mod / Tag plate is located on the docking plate.

The 2K LCSS module. Un-dock the 2K LCSS and the Mod / Tag plate is located in the base pan of the 2K LCSS.

The HVF module. Un-dock the HVF and the Mod / Tag plate is located on the metal panel under the docking latch.

The tray 5 module. Undock the tray 5 module. The Mod/Tag plate is located on the right side metal panel.

On the Tray 6 inserter the Mod / Tag plate is located on the under side of the unit.

Embedded Fax. The Mod / Tag plate is located on the safety cover, [PL 20.10 Item 1](#).

### Classification Codes

The Class or Classification code can be explained as follows:

**Table 1 Classification codes**

NASG code	XE code	Description
-	1	Safety: Install this tag immediately.
M	2	Mandatory: Install this tag at the next opportunity.
R	3	Repair: Install this tag as a repair, at the failure of a component.
O	4	Optional: Install as a customer option or a field engineering decision.
S	4	Situational: Install as the situation demands.
N	5	Manufacturing: Cannot be installed in the field.
	6	Refurbishing only.

## Processor Tags

### **TAG: 001**

**CLASS:** 4

**NAME:** Modified Paper Tray

**PURPOSE:** A modification to tray 1 or tray 2 to enable Tag 002 to be installed.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 7.10 Item 1](#)

### **TAG: 002**

**CLASS:** 4

**NAME:** Tray 1 and Tray 2 lip Kit

**PURPOSE:** This kit is to be installed if excessive paper curl occurs in tray 1 or tray 2 W/TAG 001. The lip is installed on the front edge of the paper tray to constrain the curl on the paper. The excessive curl on the paper can cause the paper to skew and result in paper jams.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 7.10 Item 24](#)

### **TAG: 004**

**CLASS:** 3

**NAME:** Inverter transparency feed Kit (35-55 ppm only)

**PURPOSE:** This kit is to install an alternative post fuser exit roller. Designed to eliminate transparencies from sticking and causing jams on exit from the fuser. Related faults codes are 10.121 and 10.107.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 10.12 Item 24](#)

### **TAG: 005**

**CLASS:** 3

**NAME:** Rear gravity gate finger Kit

**PURPOSE:** This kit is to eliminate paper catching in the gap between the tri roll guide and the rear gravity gate finger.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 10.12 Item 25](#)

### **TAG: 046**

**CLASS:** 4

**NAME:** Inverter decurler kit (35-55 ppm)

**PURPOSE:** To eliminate substandard stacking on all output devices excluding the OCT, caused by the output curl on prints from the IOT.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 10.20](#)

### **TAG: 047**

**CLASS:** 4

**NAME:** Inverter decurler kit (65-90 ppm)

**PURPOSE:** To eliminate substandard stacking on all output devices excluding the OCT, caused by the output curl on prints from the IOT.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 10.20](#)

### **TAG: 048**

**CLASS:** 4

**NAME:** Skew bypass tray spares kit

**PURPOSE:** Roller spring kit to reduce Skew when copying or printing from the bypass tray.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 7.30](#)



**TAG:** 051  
**CLASS:** 4  
**NAME:** Drive roll repair kit  
**PURPOSE:** Replacement non-perishable shafts and roll assembly. For use in specific environmental condition at hospitals and petrochemical sites.  
**KIT NUMBER:**  
**PARTS LIST ON:** PL 8.15, PL 8.17, PL 8.20, PL 8.22, PL 10.14, PL 10.25

**TAG:** 101  
**CLASS:** 2  
**NAME:** Paper feed module frame repair kit  
**PURPOSE:** To repair damaged bosses supporting the tray paper size leaf springs. To strengthen undamaged bosses to prevent future damage.  
**KIT NUMBER:**  
**PARTS LIST ON:** PL 7.10

**TAG:** 103  
**CLASS:** S  
**NAME:** Toner reorder notification set to 1 day  
**PURPOSE:** (USSG Only) To modify the toner cartridge reorder notification to stop customers replacing toner cartridges prematurely. For additional information, refer to Service Bulletin T7814-10-28.  
**KIT NUMBER:** -  
**PARTS LIST ON:** PL 9.15 and PL 9.17

**TAG:** 110  
**CLASS:** 4  
**NAME:** Tray 3 and 4 multifeed roll fix kit (rough tread rolls)  
**PURPOSE:** To improve paper feeding reliability.  
**KIT NUMBER:**  
**PARTS LIST ON:** PL 8.30, PL 8.31

**TAG:** 111  
**CLASS:** 4  
**NAME:** HCF Heater kit  
**PURPOSE:** To prevent paper curl in trays 3 and 4 in high humidity environments.  
**KIT NUMBER:** Kit part number not available for this issue of the service manual.  
**PARTS LIST ON:** PL 31.14

**TAG:** 114  
**CLASS:** 3  
**NAME:** De-populated short paper path  
**PURPOSE:** Introduction of a common short paper path assembly with improved motion quality, reliability and service life. The new assembly has an improved hinge and higher deck height that reduce 10-120 faults. The assembly also has fewer moving parts e.g. there is no longer a vacuum transport fan or a transport roller assembly.  
**KIT NUMBER:**  
**PARTS LIST ON:** PL 10.25

**TAG:** 120  
**CLASS:** 3  
**NAME:** Thermistor removal  
**PURPOSE:** Removal of inverter thermistor on 65-90 ppm machines.  
**KIT NUMBER:**  
**PARTS LIST ON:** PL 10.11

**TAG:** 148  
**CLASS:** 4  
**NAME:** OCT Inverter Decurler  
**PURPOSE:** To eliminate substandard stacking the OCT, caused by the output curl on prints from the IOT.  
**KIT NUMBER:**  
**PARTS LIST ON:** PL 10.21

**TAG: 150**  
**CLASS:** 4  
**NAME:** Color scanner  
**PURPOSE:** Identification of the color scanner configured machines.  
**KIT NUMBER:**  
**PARTS LIST ON:** PL 14.10, PL 14.15

**TAG: 151**  
**CLASS:** 5  
**NAME:** Introduction of the FAR feeder HCF  
**PURPOSE:** To improve the feeding performance of the HCF. This TAG requires SMP1 or later software.  
**KIT NUMBER:** -  
**PARTS LIST ON:** PL 7.18, PL 7.19, PL 7.21, PL 7.26, PL 8.32, PL 8.33 and PL 8.36

**TAG: 152**  
**CLASS:** 3  
**NAME:** 2.5 inch SATA hard disk drive kit  
**PURPOSE:** Replacement SATA hard disk. Can be used as an alternative replacement part to a 3.5 inch SATA hard disk drive.  
**KIT NUMBER:** 604K84290  
**PARTS LIST ON:** PL 3.22

**TAG: 153**  
**CLASS:** 4  
**NAME:** Introduction of a new tray 3 paper feed assembly  
**PURPOSE:** Applicable to W/TAG 151 machines only. To prevent jams or skew caused by bowl curl.  
**KIT NUMBER:** 604K83711  
**PARTS LIST ON:** PL 8.32

**TAG: 154**  
**CLASS:** 4  
**NAME:** Introduction of a new tray 4 paper feed assembly  
**PURPOSE:** Applicable to W/TAG 151 machines only. To prevent jams or skew caused by bowl curl.  
**KIT NUMBER:** 604K83711  
**PARTS LIST ON:** PL 8.33

**TAG: 155**  
**CLASS:** 3  
**NAME:** Introduction of a new IOT PWB  
**PURPOSE:** A new IOT PWB has been introduced to prevent a shortage of IOT PWBs. A new version of software has been released that is compatible with the new IOT PWB. For additional information, refer to Service Bulletin T7774.  
**KIT NUMBER:** 604K84470  
**PARTS LIST ON:** PL 1.10

**TAG: 156**  
**CLASS:** 4  
**NAME:**  
**PURPOSE:** Applicable to W/TAG 155 machines only. To eliminate interference problems with the communication architecture caused by an un-terminated debug port on the IOT PWB. For additional information, refer to Service Bulletin T7897-03-14.  
**KIT NUMBER:** -  
**PARTS LIST ON:** PL 1.10

**TAG: 157**  
**CLASS:** 3  
**NAME:** CCDS carriage assembly kit  
**PURPOSE:** To replace an exposure lamp carriage assembly with an LED lamp carriage assembly on W/TAG 150 machines.  
**KIT NUMBER:** 604K84690  
**PARTS LIST ON:** PL 14.15

**TAG:** 158

**CLASS:** 4

**NAME:** Introduction of quiet HCF FAR feeder motors

**PURPOSE:** Applicable to machines W/TAG 151 only. Modified HCF control PWB and firmware to reduce the noise level of the tray 3 and 4 feed motors and the HCF transport motor.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 7.21](#)

## DADH Tags

**TAG:** D-001

**CLASS:** 3

**NAME:** Feed yoke kit

**PURPOSE:** Applicable to machines with a TAG D002 DADH only. To improve actuation of the DADH feed gates.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 5.17 Item 6](#)

**TAG:** D-002

**CLASS:** 5

**NAME:** Introduction of the Quiet 100 sheet DADH

**PURPOSE:** Features a motorised nudger in place of the feed solenoid to give a quieter working performance.  
New DADH PWB introduced with driver circuitry to support the motorised nudger.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 5.10](#) and [PL 5.17](#)

**TAG:** D-003

**CLASS:** 3

**NAME:** Shim washer added to the quiet 100 sheet DADH motorised nudger

**PURPOSE:** Applicable to machines with a TAG D002 DADH only. Nylon shim washer added to the motorised nudger to improve nudger cam reliability.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 5.17 Item 5](#)

**TAG: D-004**

CLASS: 4

NAME: White CVT roll Kit

PURPOSE: To eliminate grey circles appearing on prints when copying hole punched originals.

KIT NUMBER:

PARTS LIST ON: [PL 5.25](#)**TAG: D-005**

CLASS: 3

NAME: Feed clutch and spacer kit

PURPOSE: Design improvement on the original clutch.

KIT NUMBER:

PARTS LIST ON: [PL 5.17](#)**TAG: D-006**

CLASS: 3

NAME: Redesign of the cam arm on the nudger motor, within the feed assembly (complete)

PURPOSE: A more robust component design. Also requires a clearance bulge in the motor cover and a cut away in the top cover.

KIT NUMBER:

PARTS LIST ON: [PL 31.11 Item 8](#)**TAG: D-007**

CLASS: 3

NAME: DADH Length sensors 1 and 2

PURPOSE: Less sensitive to overhead light sensors

KIT NUMBER:

PARTS LIST ON: [PL 5.35 Item 8](#)**2K LCSS Tags****TAG: F-001**

CLASS: 5

NAME: New LCSS graphic labels

PURPOSE: New jam clearance instructions

KIT NUMBER: None

PARTS LIST ON: None

**TAG: F-002**

CLASS: 5

NAME: LCSS tamper arms and exit sensor timing

PURPOSE: To improve stacking performance

KIT NUMBER:

PARTS LIST ON: [PL 11.16](#)**TAG: F-003**

CLASS: 5

NAME: LCSS entry guide cover change

PURPOSE: Improve performance

KIT NUMBER:

PARTS LIST ON: [PL 11.24 Item 5](#)**TAG: F-004**

CLASS: 5

NAME: LCSS noise reduction kit

PURPOSE: Reduction of operational noises

KIT NUMBER:

PARTS LIST ON:

**TAG: F-005****CLASS:** 5**NAME:** LCSS elevator motor encoder sensor.**PURPOSE:** A new sensor with an improved response time.**KIT NUMBER:****PARTS LIST ON:** [PL 11.10 Item 11](#)**TAG: F-006****CLASS:** 4**NAME:** LCSS hole punch field repair kit.**PURPOSE:** To implement an adjustment for the LCSS hole punch, for machines with TAG F014 installed, in order to return the LCSS to manufactured specification. All WC5790F machines with an LCSS hole punch are manufactured with TAG F006.**KIT NUMBER:****PARTS LIST ON:** [PL 11.6](#)**TAG: F-007****CLASS:** 5**NAME:** LCSS rear frame cutout modified.**PURPOSE:** Change to the cutout in the rear frame to accommodate all configurations of hole punches**KIT NUMBER:** -**PARTS LIST ON:** -**TAG: F-008****CLASS:** 4**NAME:** LCSS legal 2 hole enable kit.**PURPOSE:** For use on machines with TAG F007 installed. TAG F008 moves the position of the punch sensor Q11-110. All types of hole punch (2 hole, 3 hole, 4 hole, Swedish and Legal SEF) are compatible with TAG F008.**KIT NUMBER:****PARTS LIST ON:** [PL 31.10 Item 6](#), [PL 11.6](#)**TAG: F-009****CLASS:** 4**NAME:** Sharp edges removed from area 5 (safety)**PURPOSE:** To make safe the customer interaction area around the hole punch.**KIT NUMBER:** -**PARTS LIST ON:** -**TAG: F-010****CLASS:** 4**NAME:** 20 ohm tamper motor**PURPOSE:** To eliminate the tamper motor from stalling.**KIT NUMBER:** -**PARTS LIST ON:** [PL 11.16](#)**TAG: F-011****CLASS:** 4**NAME:** Re-routed harness**PURPOSE:** To improve the routing of the staple harness by using a longer harness.**KIT NUMBER:** -**PARTS LIST ON:** -

**TAG: F-012**

CLASS: 4

NAME: 8th generation covers

PURPOSE: To update the look of the 2K LCSS.

KIT NUMBER: -

PARTS LIST ON: [PL 11.2](#)**TAG: F-016**

CLASS: 3

NAME: LCSS Paddle assembly

PURPOSE: New paddle wheel shaft assembly featuring increased grip paddles that are now a clip in fitting.

KIT NUMBER: -

PARTS LIST ON: [PL 11.8 Item 4](#)**TAG: F-013**

CLASS: 4

NAME: LCSS bin 1 kit

PURPOSE: Modified angle to the output tray to reduce problem with paper curl.

KIT NUMBER: -

PARTS LIST ON: [PL 11.2 Item 16](#)**TAG: F-017**

CLASS: 3

NAME: Shaft Diverter Assembly Spares Kit

PURPOSE: Cost saving replacement shaft diverter assembly with 3 KL-clip fixings

KIT NUMBER: -

PARTS LIST ON: [PL 31.13 Item 6](#)**TAG: F-014**

CLASS: 4

NAME: 2K LCSS Hole punch field repair kit

PURPOSE: To implement an adjustment for the LCSS hole punch in the outboard direction.

KIT NUMBER: -

PARTS LIST ON: [PL 11.6](#)**TAG: F-015**

CLASS: 2

NAME: 2K LCSS Control PWB kit

PURPOSE: To enable the erase part of the software load.

KIT NUMBER: -

PARTS LIST ON: [PL 11.26 Item 1](#)

## 1K LCSS Tags

**TAG: L-001**

**CLASS:** 3

**NAME:** LCSS PWB

**PURPOSE:** Introduction of a 4 layer PWB with EDS and IOT to LCSS communication fixes.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 11.124](#)

**TAG: L-012**

**CLASS:** 4

**NAME:** 8th generation covers

**PURPOSE:** To update the look of the 1K LCSS.

**KIT NUMBER:** -

**PARTS LIST ON:** [PL 11.100](#)

**TAG: L-003**

**CLASS:** 4

**NAME:** Shaft Diverter Assembly Spares Kit

**PURPOSE:** Cost saving replacement shaft diverter assembly with 3 KL-clip fixings

**KIT NUMBER:**

**PARTS LIST ON:** [PL 31.13 Item 6](#)

**TAG: L-013**

**CLASS:** 4

**NAME:** LCSS bin 1 kit

**PURPOSE:** Modified angle to the output tray to reduce problem with paper curl.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 11.100](#)

**TAG: L-016**

**CLASS:** 3

**NAME:** LCSS Paddle assembly

**PURPOSE:** New paddle wheel shaft assembly featuring increased grip paddles that are now a clip in fitting.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 11.104](#)

## HVF Tags

**TAG:** V-001

**CLASS:** 2

**NAME:** Modification to the inserter connector

**PURPOSE:** Pin 3 (ground 24V) and pin 4 (24V) on the bulk head connector on the HVF for the inserter unit are to close together and could be shorted. On the HVF PWB, PJ703 pins 2 and 3 are repositioned. On the Inserter PWB, PJ5 pins 2 and 3 are repositioned. This changes the position of the ground 24V.

**KIT NUMBER:**

**PARTS LIST ON:** -

**TAG:** V-002

**CLASS:** 5

**NAME:** Lower paddle switch

**PURPOSE:** Mod TAG002 may have been struck in manufacturing, but is not a valid mod tag.

**KIT NUMBER:**

**PARTS LIST ON:** -

**TAG:** V-003

**CLASS:** 5

**NAME:** Guide hinge pin

**PURPOSE:** Mod TAG003 may have been struck in manufacturing, but is not a valid mod tag.

**KIT NUMBER:**

**PARTS LIST ON:** -

**TAG:** V-004

**CLASS:** 5

**NAME:** Paper base middle bearing

**PURPOSE:** Mod TAG 004 may have been struck in manufacturing, but is not a valid mod tag.

**KIT NUMBER:**

**PARTS LIST ON:** -

**TAG:** V-005

**CLASS:** 5

**NAME:** Three blade lower paddle.

**PURPOSE:** To improve the contact force on documents in the ejector assembly.

**KIT NUMBER:**

**PARTS LIST ON:** -

**TAG:** V-006

**CLASS:** 4

**NAME:** HVF Performance improvement

**PURPOSE:** Modifications to HVF sub-assemblies for improving overall performance and reliability of the finisher module, refer to [ADJ 11.13-171](#)

**KIT NUMBER:**

**PARTS LIST ON:** -

**TAG:** V-007

**CLASS:** 5

**NAME:** Ejector with removable paddle assembly

**PURPOSE:** Allows replacement of ejector paddle assembly without needing to replace entire ejector.

**KIT NUMBER:**

**PARTS LIST ON:** [PL 11.140](#)



**TAG: V-008**

**CLASS:** 3

**NAME:** BM Diverter gate

**PURPOSE:** This tag introduced a more robust design of diverter gate.

**KIT NUMBER:**

**PARTS LIST ON:** PL 11.153

## Tray 6 Inserter Tags

**TAG: I-001**

**CLASS:** 5

**NAME:** Safety hazard with the inserter connector

**PURPOSE:** Pin 3 (ground 24V) and pin 4 (24V) on the bulk head connector on the HVF for the inserter unit are to close together and could be shorted. On the HVF PWB, PJ703 pins 2 and 3 are repositioned. On the Inserter PWB, PJ5 pins 2 and 3 are repositioned. This changes the position of the ground 24V.

**KIT NUMBER:**

**PARTS LIST ON:** -

## Tray 5 Tags

### **TAG: P-001**

**CLASS:** 5

**NAME:** Central adjusting foot

**PURPOSE:** To facilitate top edge registration set-up.

**KIT NUMBER:** -

**PARTS LIST ON:** -

### **TAG: P-051**

**CLASS:** 3

**NAME:** Retard shield adjustment

**PURPOSE:** Introduction of an adjustable retard shield and PFP setting tool in order to reduce missfeeds, multifeeds and prolong the life of the feed, nudger and retard rolls.

**KIT NUMBER:** -

**PARTS LIST ON:** [PL 26.11](#)

### **TAG: P-002**

**CLASS:** 3

**NAME:** Feed roll retrofit kit

**PURPOSE:** Spares kit

**KIT NUMBER:** -

**PARTS LIST ON:** [PL 8.45](#)

### **TAG: P-011**

**CLASS:** 4

**NAME:** Adjustable castor

**PURPOSE:** Adjustable castor for uneven floors. Supersedes TAG P-001.

**KIT NUMBER:** -

**PARTS LIST ON:** -

### **TAG: P-050**

**CLASS:** 3

**NAME:** Stack height sensor adjustment

**PURPOSE:** Introduction of an adjustable stack height sensor and PFP setting tool in order to reduce misfeeds, multifeeds and prolong the life of the feed, nudger and retard rolls.

**KIT NUMBER:** -

**PARTS LIST ON:** [PL 26.11](#)

## Fax Tags

**TAG:** X-001

**CLASS:** 4

**NAME:** L1 fax

**PURPOSE:** Introduces a new single line fax.

**KIT NUMBER:** -

**PARTS LIST ON:** [PL 20.10](#)



### Plug Jack Locations

PJ Locations..... 7-3

### Wiring Diagrams

Wiring Diagrams..... 7-31



## PJ Locations

### PJ Location Tables

To locate a PJ, go to the appropriate table.

- PJ1 to PJ49, [Table 1](#).
- PJ50 to PJ99, [Table 2](#).
- PJ100 to PJ149, [Table 3](#).
- PJ150 to PJ199, [Table 4](#).
- PJ200 to PJ249, [Table 5](#).
- PJ250 to PJ280, [Table 6](#).
- PJ300 to PJ349, [Table 7](#).
- PJ350 to PJ399, [Table 8](#).
- PJ400 to PJ449, [Table 9](#).
- PJ450 to PJ499, [Table 10](#).
- PJ500 to PJ599, [Table 11](#).

### Location Figures for PWB Connectors and In-line Connectors

**NOTE:** Part list references are given with each figure.

1. BM PWB, [Figure 13](#).
2. DADH PWB, [Figure 8](#).
3. CCD PWB (W/O TAG 150), [Figure 25](#).
4. Duplex motor driver PWB, [Figure 22](#).
5. Embedded Fax PWB, [Figure 21](#).
6. Exposure lamp inverter, [Figure 12](#).
7. Foreign interface PWB, [Figure 39](#).
8. Fuser module, [Figure 28](#).
9. HCF Control PWB, [Figure 3](#).
10. HVF Control PWB, [Figure 31](#).
11. HVPS, [Figure 24](#).
12. IOT PWB, [Figure 1](#).
13. In-line connectors PJ40 and PJ44, [Figure 16](#).
14. In-line connector PJ49, [Figure 15](#).
15. In-line connector PJ63, [Figure 14](#).
16. In-line connector PJ75, [Figure 19](#).
17. In-line connector PJ93, [Figure 17](#).
18. In-line connector PJ152, [Figure 18](#).
19. Inserter PWB, [Figure 37](#).
20. Inverter motor driver PWB, [Figure 23](#).
21. 1K LCSS PWB, [Figure 26](#).
22. 2K LCSS PWB, [Figure 7](#).
23. LVPS and Base Module [Figure 6](#).
24. Main Drive PWB, [Figure 4](#).

25. In-line connectors PJ36 and PJ636, [Figure 34](#).
26. In-line connectors PJ82 and PJ299, [Figure 35](#).
27. In-line connectors PJ279 and PJ280, [Figure 33](#).
28. In-line connector PJ530, [Figure 32](#).
29. Power and control module, [Figure 5](#).
30. Power distribution PWB, [Figure 9](#).
31. Riser PWB, [Figure 10](#).
32. ROS, [Figure 27](#).
33. Scanner PWB, [Figure 11](#).
34. Scanner daughter PWB (W/TAG 150), [Figure 40](#).
35. Single board controller PWB, [Figure 38](#).
36. Tray 1 and 2 control PWB, [Figure 2](#).
37. Tray 5 control PWB, [Figure 30](#).
38. Tri Folder Control PWB, [Figure 36](#).
39. UI Control PWB, [Figure 20](#).
40. UI LCD PWB, [Figure 41](#).
41. Xerographic module, [Figure 29](#).

**Table 1 PJ1 to PJ49**

PJ number	PJ location figure	PJ location	Wiring diagram
1	<a href="#">Figure 1</a>	IOT PWB	<a href="#">WD 6</a>
1	<a href="#">Figure 26</a>	1K LCSS PWB	<a href="#">WD 30</a>
1	<a href="#">Figure 31</a>	HVF control PWB	<a href="#">WD 33</a>
1	<a href="#">Figure 37</a>	Inserter PWB	<a href="#">WD 43</a>
1	<a href="#">Figure 40</a>	Scanner daughter PWB (W/TAG 150)	-
1	<a href="#">Figure 3</a>	HCF control PWB (W/TAG 151)	<a href="#">WD 46</a>
2	<a href="#">Figure 1</a>	IOT PWB	<a href="#">WD 6</a>
2	<a href="#">Figure 26</a>	1K LCSS PWB	<a href="#">WD 30</a>
2	<a href="#">Figure 37</a>	Inserter PWB	<a href="#">WD 43</a>
2	<a href="#">Figure 3</a>	HCF control PWB (W/TAG 151)	<a href="#">WD 46</a>
3	<a href="#">Figure 1</a>	IOT PWB	<a href="#">WD 6</a>
3	<a href="#">Figure 26</a>	1K LCSS PWB	<a href="#">WD 30</a>
3	<a href="#">Figure 37</a>	Inserter PWB	<a href="#">WD 43</a>
3	<a href="#">Figure 3</a>	HCF control PWB (W/TAG 151)	<a href="#">WD 46</a>
4	<a href="#">Figure 1</a>	IOT PWB	<a href="#">WD 7, WD 8, WD 9</a>
4	<a href="#">Figure 26</a>	1K LCSS PWB	<a href="#">WD 30</a>
4	<a href="#">Figure 37</a>	Inserter PWB	<a href="#">WD 43</a>
4	<a href="#">Figure 40</a>	Scanner daughter PWB (W/TAG 150)	<a href="#">WD 19</a>
4	<a href="#">Figure 3</a>	HCF control PWB (W/TAG 151)	<a href="#">WD 46</a>

Table 1 PJ1 to PJ49

PJ number	PJ location figure	PJ location	Wiring diagram
5	Figure 1	IOT PWB	WD 7, WD 8, WD 9
5	Figure 26	1K LCSS PWB	WD 30
5	Figure 37	Insertor PWB	WD 43
5	Figure 3	HCF control PWB (W/TAG 151)	WD 46
6	Figure 1	IOT PWB	WD 10
6	Figure 26	1K LCSS PWB	WD 30
6	Figure 37	Insertor PWB	WD 43
6	Figure 40	Scanner daughter PWB (W/TAG 150)	WD 19
6	Figure 3	HCF control PWB (W/TAG 151)	WD 46
7	Figure 1	IOT PWB	WD 10
7	Figure 3	HCF Control PWB (W/TAG 151)	WD 20
7	Figure 26	1K LCSS PWB	WD 31
7	Figure 37	Insertor PWB	WD 43
8	Figure 1	IOT PWB	WD 6
8	Figure 26	1K LCSS PWB	WD 31
8	Figure 37	Insertor PWB	WD 43
9	Figure 1	IOT PWB	WD 10
9	Figure 26	1K LCSS PWB	WD 31
9	Figure 37	Insertor PWB	WD 43
10	Figure 1	IOT PWB	WD 10
10	Figure 37	Insertor PWB	WD 44
10	Figure 3	HCF control PWB (W/TAG 151)	WD 47
11	Figure 1	IOT PWB	WD 3
11	Figure 37	Insertor PWB	WD 44
12	Figure 26	1K LCSS PWB	WD 31
12	Figure 1	IOT PWB	WD 23
12	Figure 37	Insertor PWB	WD 44
12	Figure 3	HCF control PWB (W/TAG 151)	WD 47
13	Figure 26	1K LCSS PWB	WD 31
13	Figure 3	HCF control PWB (W/TAG 151)	WD 47
14	Figure 1	IOT PWB	WD 11
14	Figure 26	1K LCSS PWB	WD 32
14	Figure 3	HCF control PWB (W/TAG 151)	WD 47
15	Figure 26	1K LCSS PWB	WD 32
16	Figure 5 / Figure 6	Power and control assembly / LVPS	WD 1
16	Figure 26	1K LCSS PWB	WD 32
16	Figure 1	IOT PWB	WD 9
16	Figure 39	Foreign interface PWB	WD 12
17	Figure 5 / Figure 6	Power and control assembly / LVPS	WD 1

Table 1 PJ1 to PJ49

PJ number	PJ location figure	PJ location	Wiring diagram
17	Figure 26	1K LCSS PWB	WD 32
18	Figure 5 / Figure 6	Power and control assembly / LVPS	WD 1
19	Figure 5 / Figure 6	Power and control assembly / LVPS	WD 1
19	Figure 3	HCF control PWB (W/TAG 151)	WD 46
21	Figure 5	Power and control assembly bulkhead	WD 1
22	Figure 5	Power and control assembly bulkhead	WD 1
23	Figure 5	Power and control assembly bulkhead	WD 1
24	Figure 5	Power and control assembly	WD 2
25	Figure 5 / Figure 6	Power and control assembly / LVPS	WD 2
26	Figure 1	IOT PWB	WD 3
27	Figure 1	IOT PWB	WD 3
30	-	IOT exit sensor	WD 7
31	-	Wait sensor	WD 7
32	-	Duplex sensor	WD 7
33	Figure 1	IOT PWB	WD 11
34	-	Registration sensor	WD 7
35	Figure 1	IOT PWB	WD 11
36	-	Bypass feed solenoid	WD 10
37	-	Registration clutch	WD 7
38	-	Inverter nip solenoid	WD 7
39	-	Inverter path solenoid	WD 7
40	Figure 16	In-line connector on duplex transport	WD 7
41	-	Erase lamp	WD 7
42	-	Photoreceptor fan	WD 1
43	-	In-line connector Vacuum transport fan Transfer / detach cleaner motor Transfer / detach home sensor	WD 7
44	Figure 16	In-line connector on registration transport	WD 7
45	Figure 23	Inverter motor driver PWB	WD 7
46	-	Ambient temperature / humidity sensor	WD 10
47	-	Developer temperature sensor	WD 10
48	-	Waste bottle full sensor	WD 10
49	Figure 15	In-line connector Inverter entry sensor (65-90 ppm) IOT exit sensor Inverter path solenoid Inverter nip solenoid	WD 7



**Table 2 PJ50 to PJ99**

PJ number	PJ location figure	PJ location	Wiring diagram
50	Figure 22	Duplex motor	WD 7
55	Figure 23	Inverter motor driver PWB	WD 7
55	Figure 24	HVPS	WD 11
56	-	Left hand door interlock	WD 10
57	-	Waste toner door switch	WD 10
58	-	Bypass width sensor	WD 10
59	-	Bypass empty sensor	WD 10
61	Figure 1	IOT PWB	WD 9
63	Figure 14	In-line connector beside tray 1 and 2 control PWB	WD 20
64	Figure 1	IOT PWB	WD 11
65	Figure 1	IOT PWB	WD 8, WD 9
67	-	Bulkhead connector (yellow) tray 2	WD 21
68	-	Bulkhead connector (black) tray 1	WD 20
69	-	Tray 1 paper feed assembly	WD 20
70	-	Tray 1 paper feed assembly	WD 20
71	-	Tray 1 feed head assembly	WD 20
72	-	Tray 2 paper feed assembly	WD 21
73	-	Tray 2 paper feed assembly	WD 21
74	-	Tray 2 feed head assembly	WD 21
75	Figure 19	In-line connector on toner dispense module	WD 10
76	Figure 15	In-line connector to thermistor to operate front door fans. Also for tri-roll nip split solenoid (65 - 90 ppm)	WD 11
81	Figure 20	UI control PWB	WD 12
91	Figure 22	Duplex motor driver PWB	WD 7
93	Figure 17	In-line connector on developer module	WD 10
95	-	Toner dispense motor	WD 10
96	-	Toner cartridge drive motor	WD 10
97	-	Low toner sensor	WD 10

**Table 3 PJ100 to PJ149**

PJ number	PJ location figure	PJ location	Wiring diagram
100	Figure 28	Fuser drawer connector	WD 2, WD 11
100	Figure 39	Foreign interface PWB	WD 12
101	Figure 10	Riser PWB	WD 12
101	Figure 31	HVF Control PWB	WD 33

**Table 3 PJ100 to PJ149**

PJ number	PJ location figure	PJ location	Wiring diagram
101	Figure 38	Single Board Controller PWB	WD 12
102	Figure 31	HVF Control PWB	WD 34
102	Figure 38	Single Board Controller PWB	WD 12
103	Figure 31	HVF Control PWB	WD 33
103	Figure 38	Single Board Controller PWB	WD 12
104	Figure 31	HVF Control PWB	WD 33
104	Figure 38	Single Board Controller PWB	WD 12
105	Figure 38	Single Board Controller PWB	WD 6
106	Figure 38	Single Board Controller PWB	WD 3
107	Figure 38	Single Board Controller PWB	WD 12
109	Figure 38	Single Board Controller PWB	-
111	Figure 31	HVF Control PWB	WD 34
111	Figure 38	Single Board Controller PWB	WD 12
112	Figure 31	HVF Control PWB	WD 34
113	Figure 31	HVF Control PWB	WD 34
113	Figure 38	Single Board Controller PWB	WD 12
114	Figure 38	Single Board Controller PWB	-
115	Figure 38	Single Board Controller PWB	WD 2
120	Figure 27	ROS	WD1
121	Figure 27	ROS	WD 6
121	Figure 31	HVF Control PWB	WD 34
122	Figure 27	ROS	WD 6
124	-	In-line to foreign interface device	WD 12
125	Figure 25	CCD PWB (W/O TAG 150)	WD 12
130	Figure 20	UI control PWB	WD 12
131	Figure 9	Power distribution PWB	WD 2
131	Figure 31	HVF Control PWB	WD 34
132	Figure 31	HVF Control PWB	WD 34
132	Figure 9	Power distribution PWB	WD 3
133	Figure 9	Power distribution PWB	WD 3
133	Figure 31	HVF Control PWB	WD 34
135	Figure 9	Power distribution PWB	WD 3
136	Figure 9	Power distribution PWB	WD 3
137	Figure 9	Power distribution PWB	WD 3
137	Figure 9	Power distribution PWB	WD 3
138	Figure 9	Power distribution PWB	WD 3
139	Figure 9	Power distribution PWB	WD 4
141	Figure 28	Fuser CRUM connector	WD 6
142	Figure 4	Main drive PWB	WD 6
144	Figure 29	Xerographic module CRUM connector	WD 6
146	Figure 4	Main drive PWB	WD 6

**Table 3 PJ100 to PJ149**

PJ number	PJ location figure	PJ location	Wiring diagram
147	Figure 4	Main drive PWB	WD 6
148	Figure 4	Main drive PWB	WD 6
149	Figure 4	Main drive PWB	WD 6

**Table 4 PJ150 to PJ199**

PJ number	PJ location figure	PJ location	Wiring diagram
151	Figure 4	Main drive PWB	WD 6
151	Figure 5	Power and control module	WD 3
151	Figure 5	1K LCSS communication harness	WD 3
151	Figure 5	2K LCSS communication harness	WD 3
152	Figure 18	In-line connector, single board controller module rear	WD 13
152	Figure 38	Single Board Controller PWB	WD 12
153	-	Ozone fan	WD 6
154	Figure 4	Main drive PWB	WD 6
156	Figure 10	Riser PWB	WD 12
157	Figure 10	Riser PWB	-
157	Figure 21	Embedded Fax PWB	WD 12
181	Figure 8	DADH PWB	WD 13
183	Figure 8	DADH PWB	WD 13
184	Figure 8	DADH PWB	WD 13
186	Figure 8	DADH PWB	WD 13
187	Figure 8	DADH PWB	WD 13
189	Figure 8	DADH PWB	WD 13
190	Figure 8	DADH PWB	WD 13
191	-	In-line connector	WD 13
192	-	DADH registration sensor	WD 13
193	-	DADH width sensor	WD 13
194	-	DADH length sensor 2	WD 13
195	-	DADH length sensor 1	WD 13
196	-	DADH exit sensor	WD 13
197	-	DADH take away sensor	WD 13
198	-	DADH CVT sensor	WD 13
199	-	Document present sensor	WD 13

**Table 5 PJ200 to JP249**

PJ number	PJ location figure	PJ location	Wiring diagram
200	-	DADH feed sensor	WD 13
201	-	DADH Nudger motor	WD 13
201	Figure 31	HVF Control PWB	WD 35
201	Figure 38	Single Board Controller PWB	WD 12
202	-	DADH feed clutch	WD 13
202	Figure 31	HVF Control PWB	WD 35
202	Figure 38	Single Board Controller PWB	-
203	-	DADH CVT motor	WD 13
203	Figure 38	Single Board Controller PWB	-
204	-	DADH feed motor	WD 13
204	Figure 38	Single Board Controller PWB	-
205	-	In-line connector	WD 13
205	Figure 40	Scanner daughter PWB (W/TAG 150)	WD 12
205	Figure 38	Single Board Controller PWB	WD 12
206	Figure 40	Scanner daughter PWB (W/TAG 150)	WD 12
206	Figure 38	Single Board Controller PWB	WD 12
211	Figure 38	Single Board Controller PWB	WD 4
221	Figure 38	Single Board Controller PWB	-

**Table 6 PJ250 to PJ280**

PJ number	PJ location figure	PJ location	Wiring diagram
270	Figure 2	Tray 1 and 2 control PWB	WD 1
271	Figure 2	Tray 1 and 2 control PWB	WD 10
272	Figure 2	Tray 1 and 2 control PWB	WD 20
273	Figure 2	Tray 1 and 2 control PWB	WD 21
274	Figure 2	Tray 1 and 2 control PWB	WD 20
275	Figure 2	Tray 1 and 2 control PWB	WD 21
276	Figure 2	Tray 1 and 2 control PWB	WD 20, WD 21
279	Figure 33	Behind tray 1 on bulkhead	WD 20
280	Figure 34	Behind tray 2 on bulkhead	WD 21

**Table 7 PJ300 to PJ349**

PJ number	PJ location figure	PJ location	Wiring diagram
300	Figure 7	2K LCSS PWB	WD 25
301	Figure 7	2K LCSS PWB	WD 25

**Table 7 PJ300 to PJ349**

PJ number	PJ location figure	PJ location	Wiring diagram
301	Figure 31	HVF Control PWB	WD 35
302	Figure 7	2K LCSS PWB	WD 25
302	Figure 31	HVF Control PWB	WD 36
303	Figure 7	2K LCSS PWB	WD 25
303	Figure 31	HVF Control PWB	WD 36
304	Figure 7	2K LCSS PWB	WD 25
304	Figure 31	HVF Control PWB	WD 36
305	Figure 7	2K LCSS PWB	WD 25
306	Figure 7	2K LCSS PWB	WD 26
307	Figure 7	2K LCSS PWB	WD 26
308	Figure 7	2K LCSS PWB	WD 26
309	Figure 7	2K LCSS PWB	WD 27
310	Figure 7	2K LCSS PWB	WD 27
311	Figure 7	2K LCSS PWB	WD 27
312	Figure 7	2K LCSS PWB	WD 27
313	Figure 7	2K LCSS PWB	WD 28
314	Figure 7	2K LCSS PWB	WD 28
315	Figure 7	2K LCSS PWB	WD 28
316	Figure 7	2K LCSS PWB	WD 28
317	Figure 7	2K LCSS PWB	WD 28
318	Figure 7	2K LCSS PWB	WD 28

**Table 8 PJ350 to PJ399**

PJ number	PJ location figure	PJ location	Wiring diagram
350	-	Offline staple PWB	WD 27
390	Figure 3	HCF control PWB	WD 22
391	Figure 3	HCF control PWB	WD 22
392	Figure 3	HCF control PWB	WD 22
393	Figure 3	HCF control PWB	WD 22
394	Figure 3	HCF control PWB	WD 20
395	Figure 3	HCF control PWB	WD 22
396	Figure 3	HCF control PWB	WD 22
397	Figure 3	HCF control PWB	WD 22
398	Figure 3	HCF control PWB	WD 22
399	Figure 3	HCF control PWB	WD 22

**Table 9 PJ400 to PJ449**

PJ number	PJ location figure	PJ location	Wiring diagram
401	Figure 31	HVF Control PWB	WD 36
402	Figure 31	HVF Control PWB	WD 36
403	Figure 31	HVF Control PWB	WD 36

**Table 10 PJ450 to PJ499**

PJ number	PJ location figure	PJ location	Wiring diagram
451	Figure 25	CCD PWB	WD 31
451	Figure 11	Scanner PWB (W/O TAG 150)	WD 15
452	Figure 11	Scanner PWB (W/O TAG 150)	WD 15
453	Figure 11	Scanner PWB (W/O TAG 150)	WD 14
454	Figure 11	Scanner PWB (W/O TAG 150)	WD 14
456	Figure 11	Scanner PWB (W/O TAG 150)	WD 14
457	Figure 11	Scanner PWB (W/O TAG 150)	WD 14
458	Figure 11	Scanner PWB (W/O TAG 150)	WD 30
459	-	Input module angle sensor (W/O TAG 150)	WD 14
460	-	Scan carriage home sensor (W/O TAG 150)	WD 14
461	-	Document size sensor 1 (W/O TAG 150)	WD 14
462	-	Document size sensor 2 (W/O TAG 150)	WD 14
463	Figure 12	Exposure lamp inverter	WD 30
464	Figure 12	Exposure lamp inverter	WD 30
465	-	In-line connector	WD 14
466	Figure 25	CCD PWB	WD 31
495	-	OCT module PWB	WD 29

**Table 11 PJ500 to PJ999**

Connection	PJ location figure	PJ location	Wiring diagram
501	Figure 5	Power and control module	WD 23
501	Figure 31	HVF Control PWB	WD 37
502	Figure 31	Tray 5 control PWB	WD 23
502	Figure 31	HVF Control PWB	WD 37
503	Figure 31	Tray 5 control PWB	WD 23
503	Figure 31	HVF Control PWB	WD 37

**Table 11 PJ500 to PJ999**

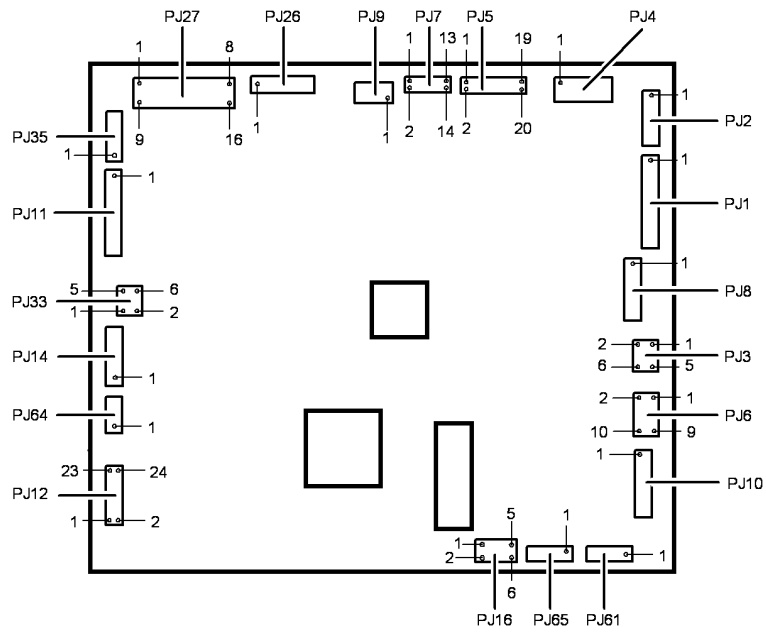
Connection	PJ location figure	PJ location	Wiring diagram
504	Figure 31	Tray 5 control PWB	WD 23
505	Figure 31	Tray 5 control PWB	WD 23
506	Figure 31	Tray 5 control PWB	WD 24
507	Figure 31	Tray 5 control PWB	WD 24
508	Figure 31	Tray 5 control PWB (not used)	-
509	Figure 31	Tray 5 control PWB (not used)	-
510	Figure 31	Tray 5 control PWB (not used)	-
511	Figure 31	Tray 5 control PWB	WD 24
512	Figure 31	Tray 5 control PWB	WD 23
514	Figure 31	Tray 5 control PWB (not used)	-
515	Figure 32	In-line connector in the tray 5 harness - power and control module	WD 23
530	-	In-line connector	WD 11
530	Figure 33	In-line connector above tray 5 elevator motor	WD 23
531	-	Paper path cooling fan 1	WD 11
532	-	Paper path cooling fan 2	WD 11
537	-	Tray 1 feed sensor	WD 12
539	-	Tray 1 and 2 transport motor	WD 13
540	-	Tray 1 feed motor	WD 12
541	-	Tray 1 stack height sensor	WD 12
542	-	Tray 1 empty sensor	WD 12
545	-	Tray 2 feed motor	WD 13
546	-	Tray 2 stack height sensor	WD 13
547	-	Tray 2 empty sensor	WD 13
552	-	Tray 2 feed sensor	WD 13
539	-	Tray 1 and 2 transport motor	WD 13
551	Figure 13	BM PWB	WD 40
552	Figure 13	BM PWB	WD 40
553	Figure 13	BM PWB	WD 40
554	Figure 13	BM PWB	WD 40
555	Figure 13	BM PWB	WD 41
556	Figure 13	BM PWB	WD 41
557	Figure 13	BM PWB	WD 41
559	Figure 13	BM PWB	WD 34, WD 41
559	Figure 5	Beside IOT PWB at lower right corner	WD 9
560	Figure 13	BM PWB	WD 41
561	Figure 13	BM PWB (not used)	
562	Figure 13	BM PWB (only used with HVF)	WD 34, WD 41
563	Figure 13	BM PWB (only used with HVF)	WD 41, WD 42
601	Figure 36	Tri folder control PWB	WD 42

**Table 11 PJ500 to PJ999**

Connection	PJ location figure	PJ location	Wiring diagram
601	Figure 31	HVF Control PWB	WD 37
601	Figure 36	Tri Folder control PWB	WD 42
602	Figure 36	Tri Folder control PWB	WD 42
602	Figure 31	HVF Control PWB	WD 37
603	Figure 36	Tri folder control PWB	WD 42
604	Figure 35	Tri folder control PWB	WD 42
605	Figure 36	Tri folder control PWB	WD 42
636	Figure 34	Near upper hinge in left hand door	WD 9, WD 20, WD13
701	Figure 31	HVF Control PWB	WD 37, WD 38
702	Figure 31	HVF Control PWB	WD 38
703	Figure 31	HVF Control PWB	WD 38
703	Figure 31	HVF Control PWB	WD 38
703	Figure 31	HVF Control PWB	WD 38
801	Figure 31	HVF Control PWB	WD 38
802	Figure 31	HVF Control PWB	WD 38
901	Figure 31	HVF Control PWB	WD 39
902	Figure 31	HVF Control PWB	WD 39
905	Figure 20	UI control PWB	WD 12
906	Figure 20	UI control PWB	WD 45
907	Figure 20	UI control PWB	WD 45
908	Figure 20	UI control PWB	WD 45
909	Figure 20	UI control PWB	WD 45
920	Figure 11	Scanner PWB (W/TAG 150)	WD 16
921	Figure 11	Scanner PWB (W/TAG 150)	WD 16
922	Figure 11	Scanner PWB (W/TAG 150)	WD 16
923	Figure 11	Scanner PWB (W/TAG 150)	WD 17
924	Figure 11	Scanner PWB (W/TAG 150)	WD 17
926	Figure 11	Scanner PWB (W/TAG 150)	WD 17
927	Figure 11	Scanner PWB (W/TAG 150)	WD 17
929	Figure 11	Scanner PWB (W/TAG 150)	WD 17
930	Figure 11	Scanner PWB (W/TAG 150)	WD 18
931	Figure 11	Scanner PWB (W/TAG 150)	WD 18
932	Figure 11	Scanner PWB (W/TAG 150)	WD 18
942	Figure 41	UI LCD PWB	WD 45
943	Figure 41	UI LCD PWB	WD 45
944	Figure 41	UI LCD PWB	WD 45
945	Figure 41	UI LCD PWB	WD 45
998	Figure 2	Tray 1 and 2 control PWB	-
998	-	Hard Disk	WD 4
999	-	Hard Disk	WD 4

### IOT PWB

Location: [PL 1.10 Item 2](#)

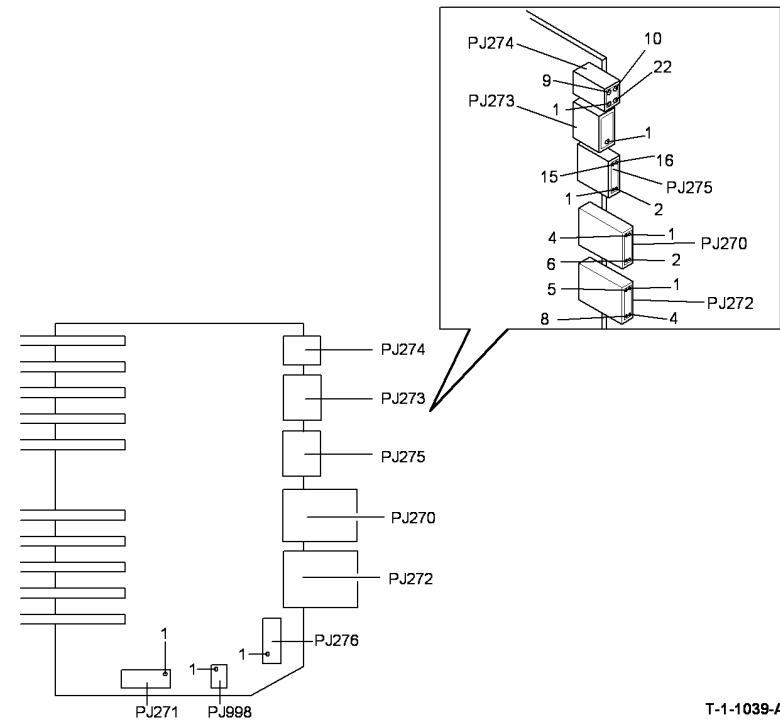


T-1-1038-A

Figure 1 IOT PWB

### Tray 1 and 2 Control PWB

Location: [PL 7.10 Item 2](#)

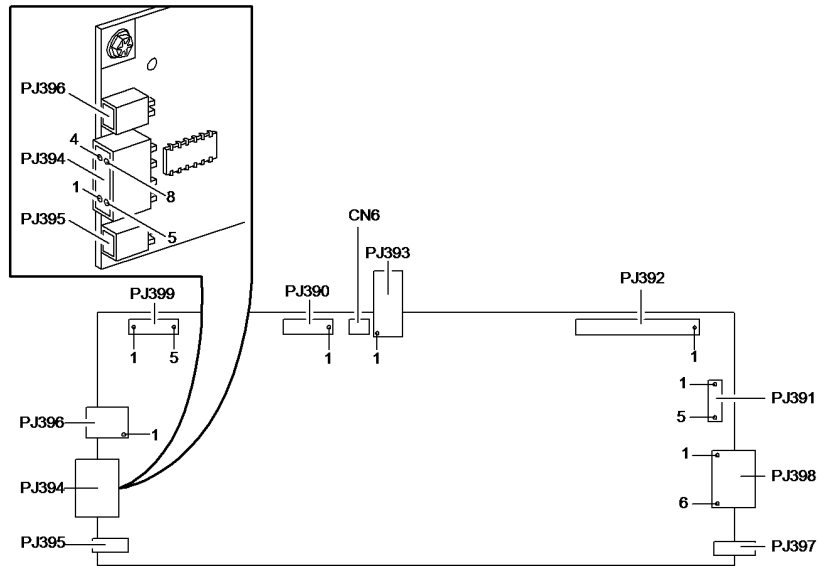


T-1-1039-A

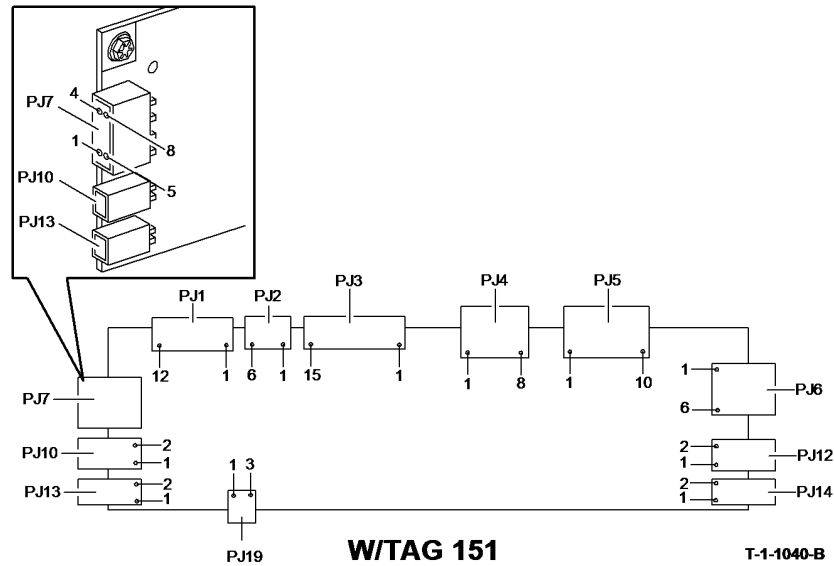
Figure 2 Tray 1 and 2 control PWB

**HCF Control PWB**

Location: (W/O TAG 151) PL 7.20 Item 2, (W/TAG 151) PL 7.21 Item 2



**W/O TAG 151**



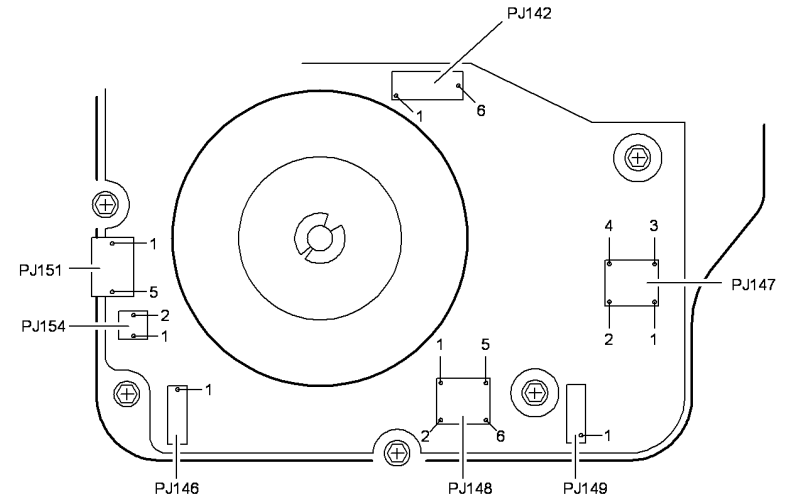
**W/TAG 151**

T-1-1040-B

**Figure 3 HCF control PWB**

**Main Drive Module**

Location: (35-55 ppm) PL 4.15 Item 1, (65-90 ppm) PL 4.10 Item 1

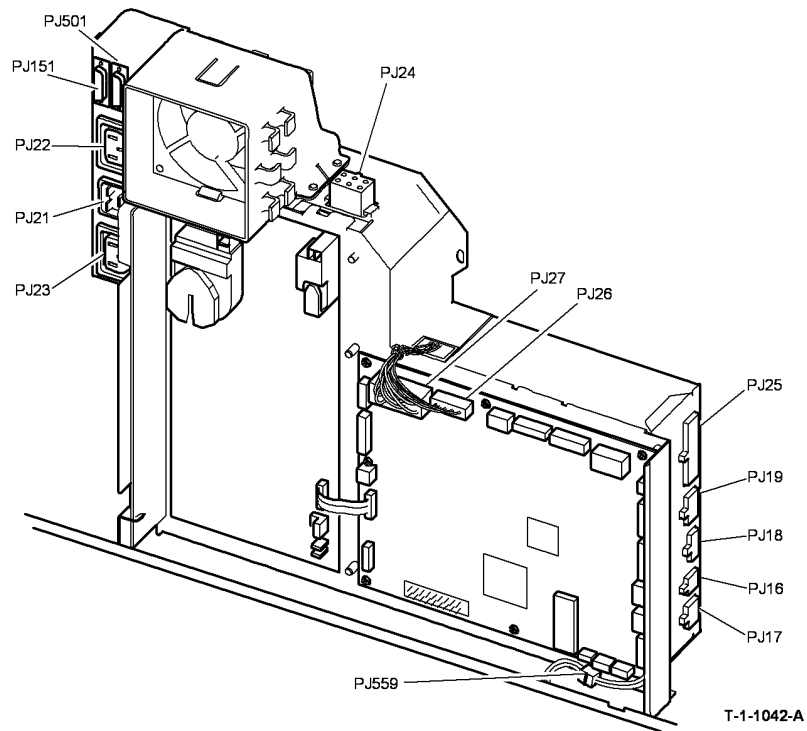


T-1-1041-A

**Figure 4 Main drive module**

**Power and Control Assembly**

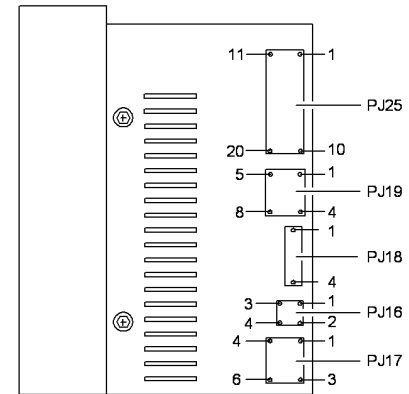
Location: PL 1.10 Item 1



**Figure 5 Power and control Assembly**

**LVPS and Base Module**

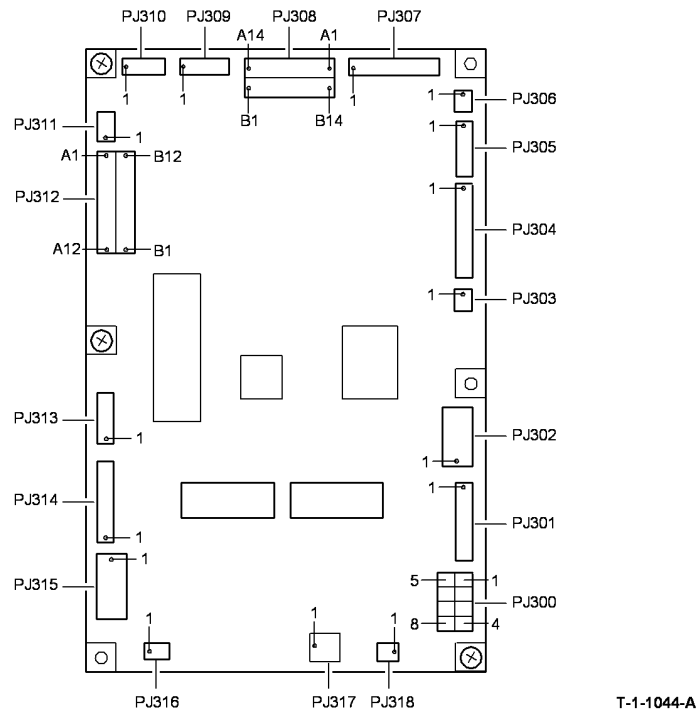
Location: PL 1.10 Item 3



**Figure 6 LVPS and base module**

**2K LCSS PWB**

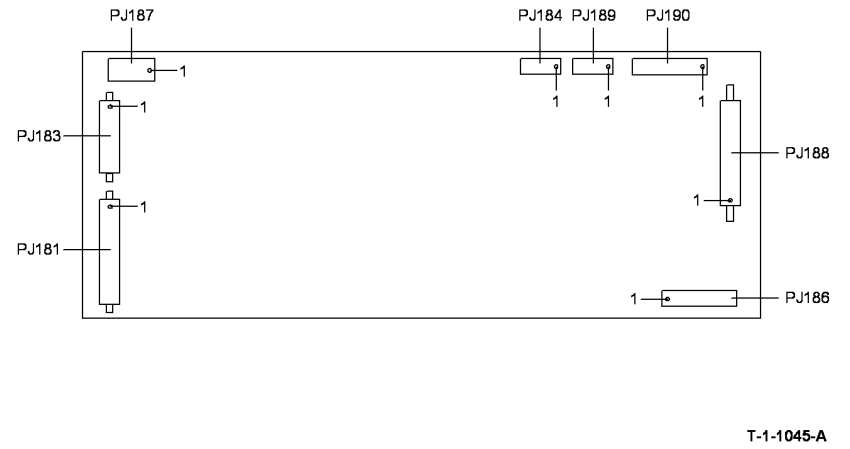
Location: [PL 11.26 Item 1](#)



**Figure 7 2K LCSS PWB**

**DADH PWB**

Location: [PL 5.10 Item 5](#)

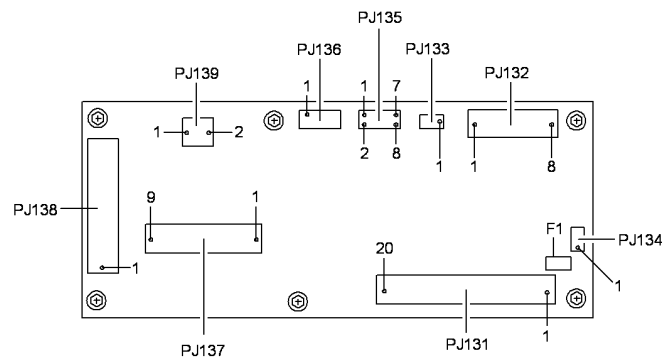


**Figure 8 DADH PWB**



### Power Distribution PWB

Location: PL 3.24 Item 5



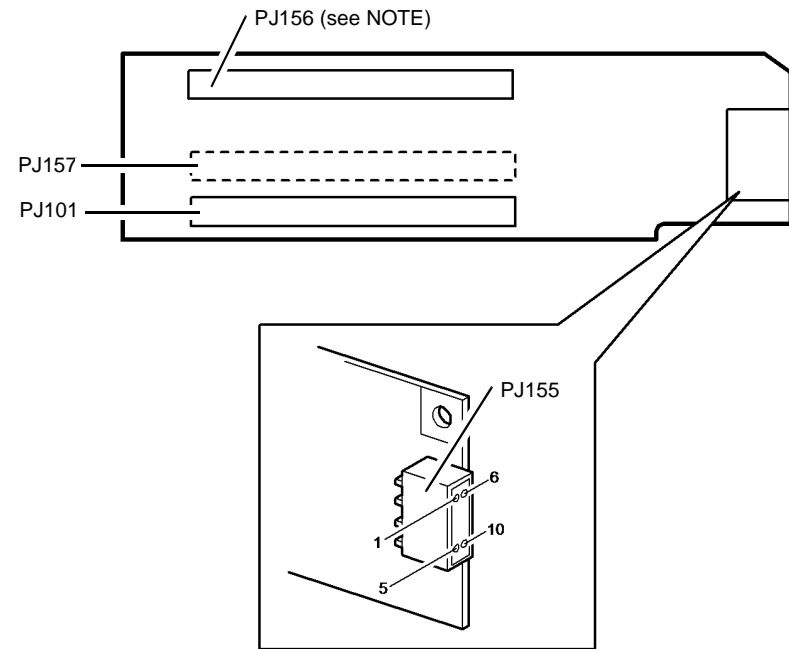
T-1-1092-A

Figure 9 Power distribution PWB

### Riser PWB

Location: PL 3.22 Item 3

**NOTE:** Later riser PWBs do not have PJ156.

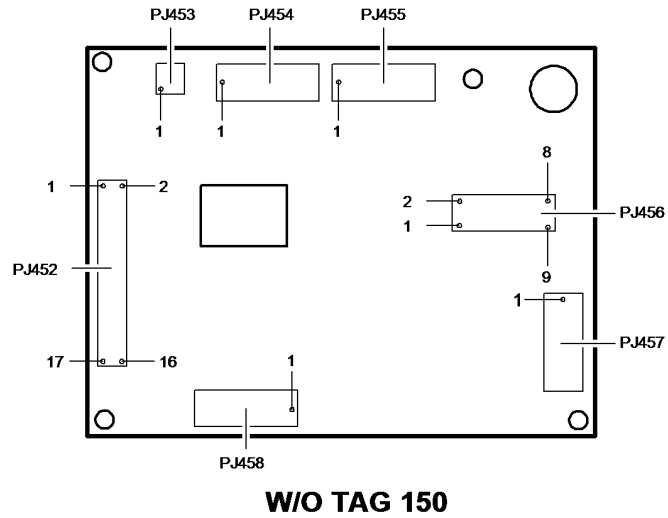


T-1-1048-B

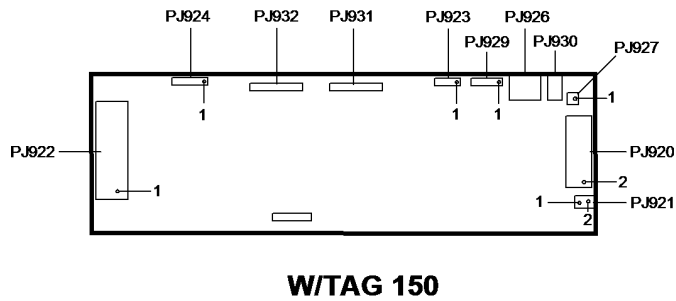
Figure 10 Riser PWB

### Scanner PWB

Location: (W/O TAG 150) PL 14.25 Item 4, (W/TAG 150) PL 3.22 Item 4



**W/O TAG 150**



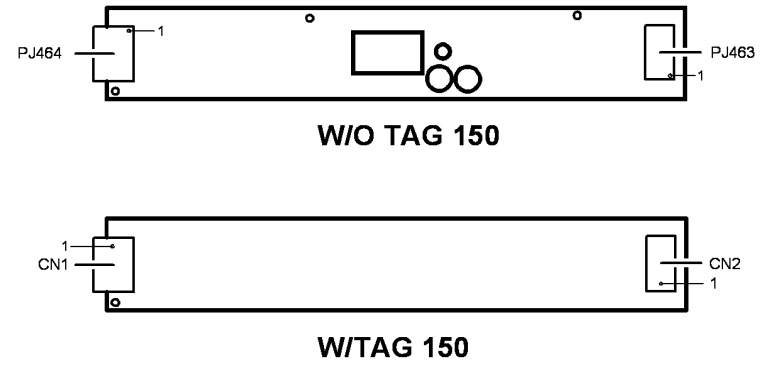
**W/TAG 150**

T-1-1049-B

Figure 11 Scanner PWB

### Exposure Lamp Inverter

Location: (W/O TAG 150) PL 14.25 Item 12, (W/TAG 150) PL 14.15 Item 12

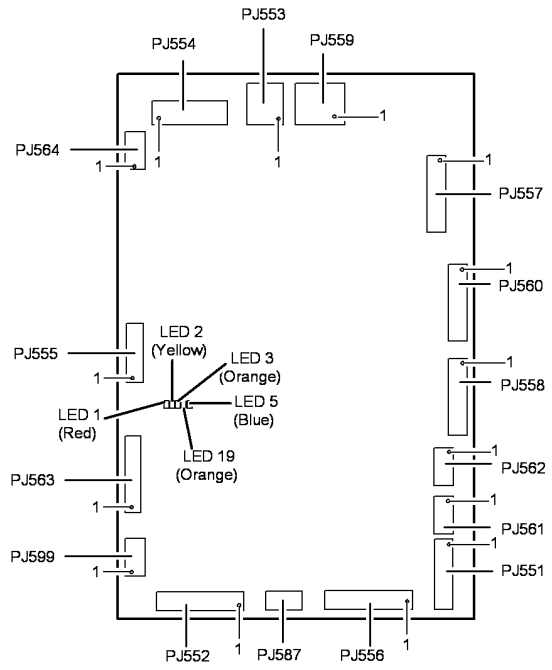


T-1-1050-A

Figure 12 Exposure lamp inverter

**BM PWB**

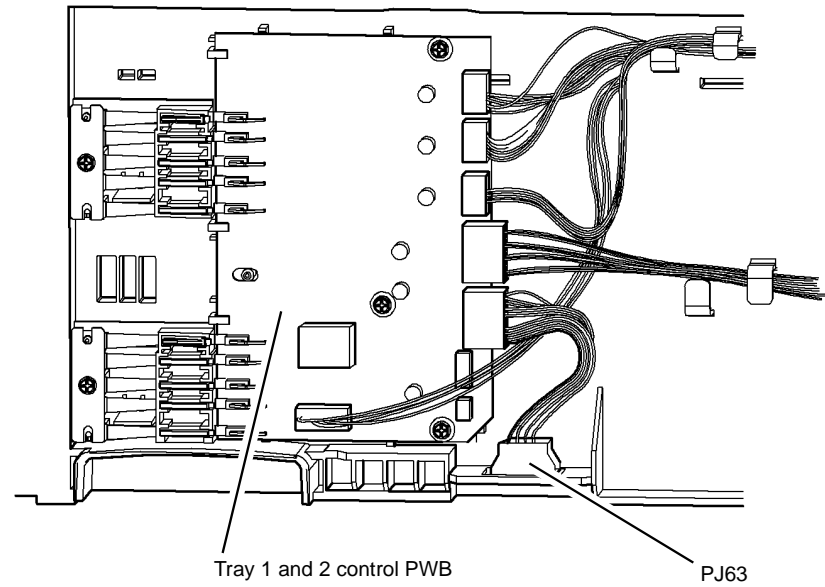
Location: [PL 11.166 Item 10](#)



**Figure 13 BM PWB**

**In-line Connector PJ63**

Location: [PL 7.10](#)



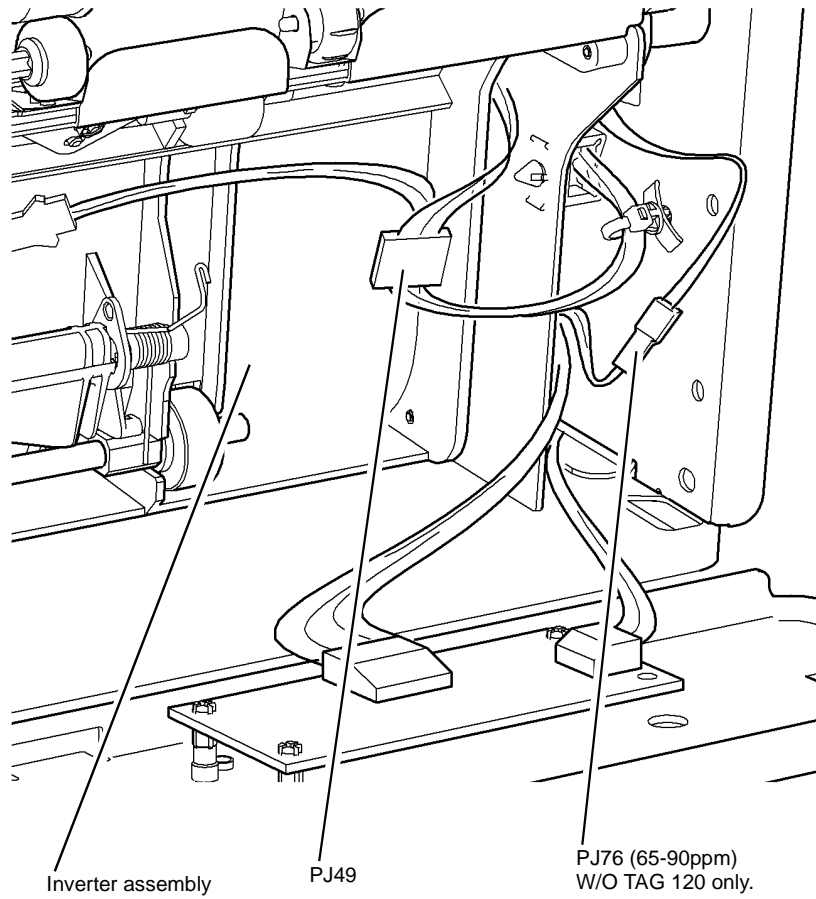
T-1-1052-A

T-1-1055-A

**Figure 14 PJ63**

**In-line Connector PJ49 and PJ76**

Location: [PL 10.11](#)

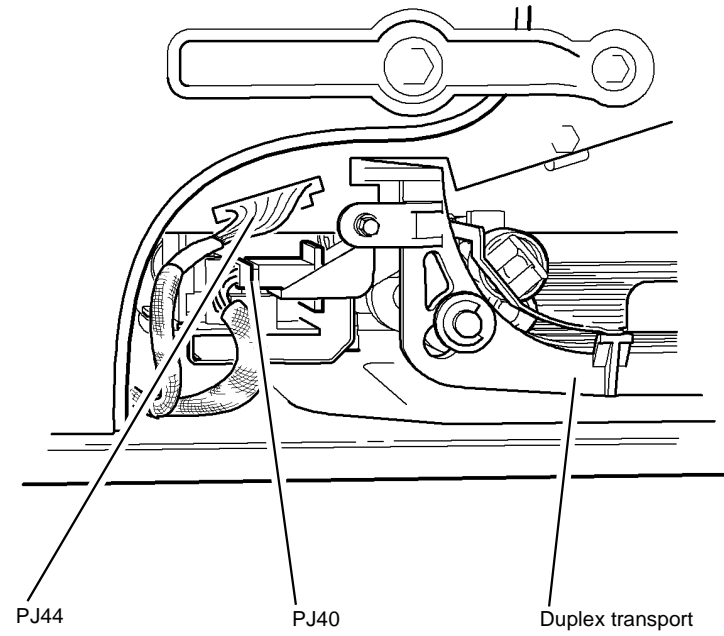


**Figure 15 PJ49 and PJ76**

T-1-1056-A

**In-line Connectors PJ40 and PJ44**

Location: [PL 8.20](#)

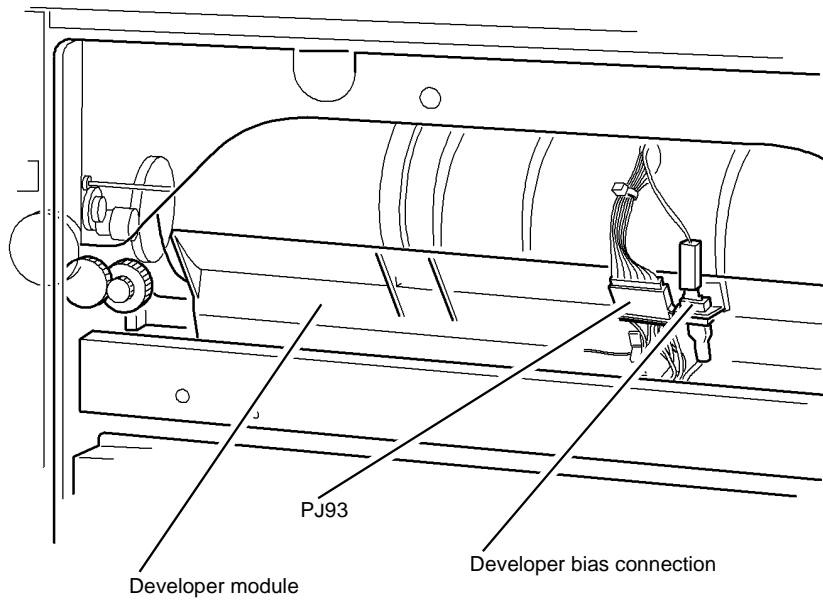


T-1-1057-A

**Figure 16 PJ40 and PJ44**

**In-line Connector PJ93**

Location: [PL 9.15](#)

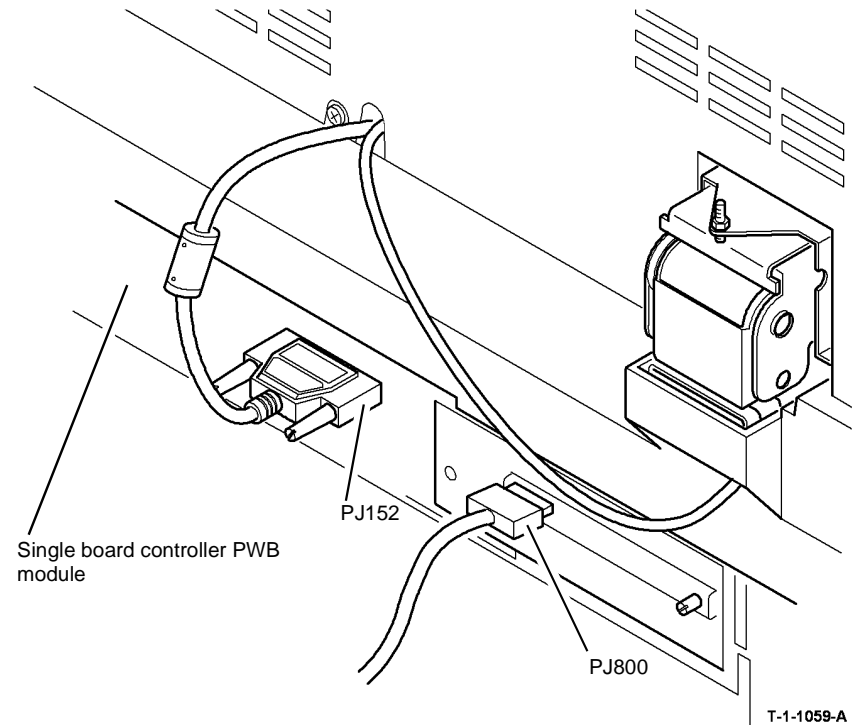


T-1-1058-A

**Figure 17 PJ93**

**In-line Connectors PJ152 and PJ800**

Location: [PL 3.24](#)

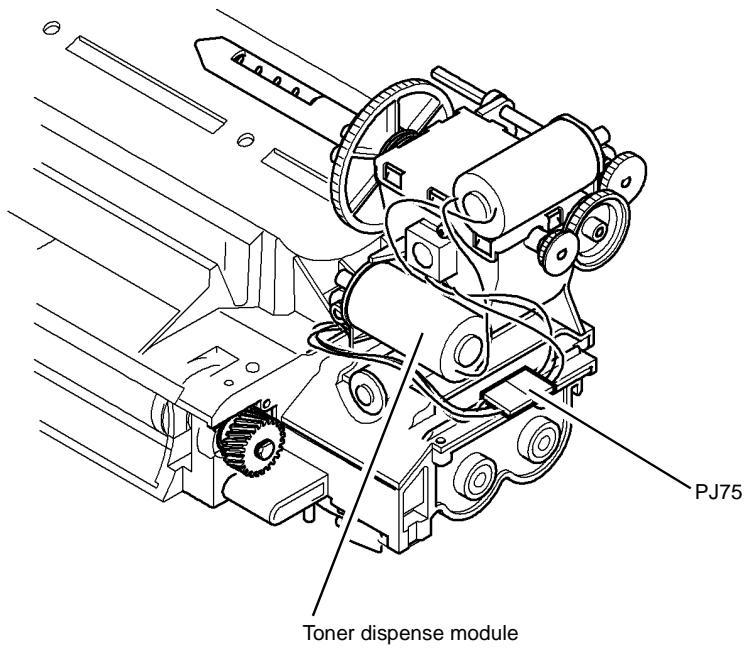


T-1-1059-A

**Figure 18 PJ152 and PJ800**

**In-line Connector PJ75**

Location: [PL 9.15](#)

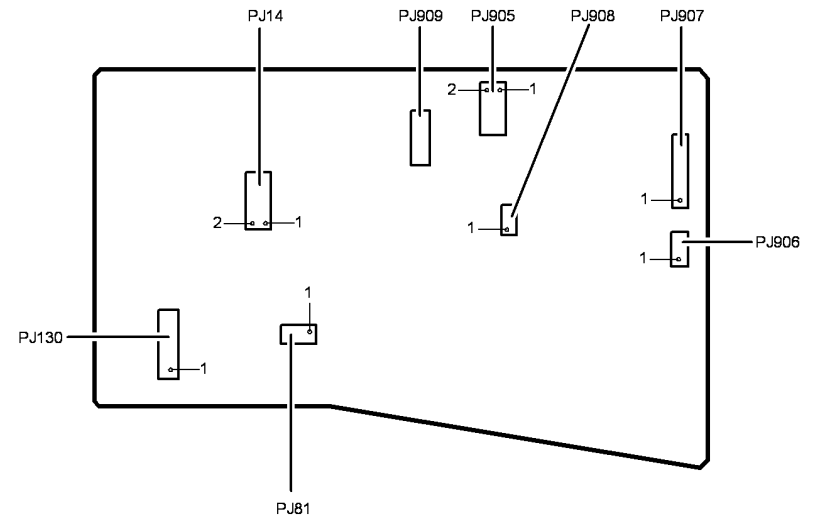


**Figure 19 PJ75**

T-1-1060-A

**UI Control PWB**

Location: [PL 2.10](#)

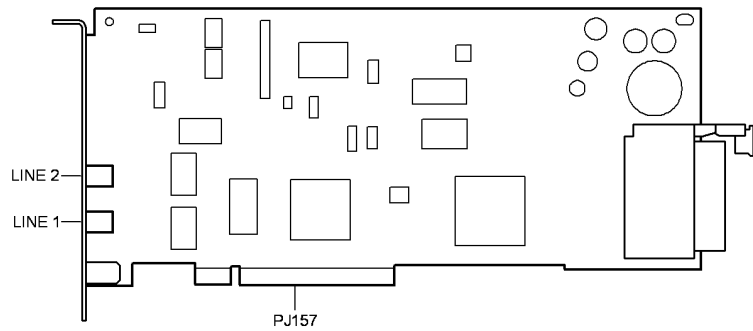


**Figure 20 UI control PWB**

T-1-1061-A

**Embedded Fax PWB**

Location: PL 20.10 Item 4

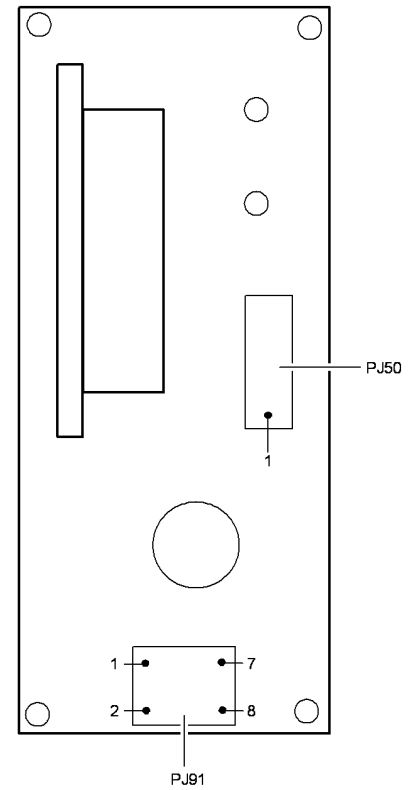


T-1-1063-A

**Figure 21 Embedded Fax PWB**

**Duplex Motor Driver PWB**

Location: PL 8.20 Item 9

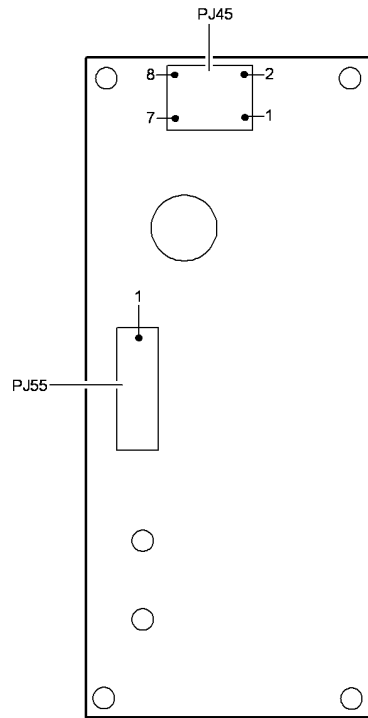


T-1-1065-A

**Figure 22 Duplex motor driver PWB**

**Inverter Motor Driver PWB**

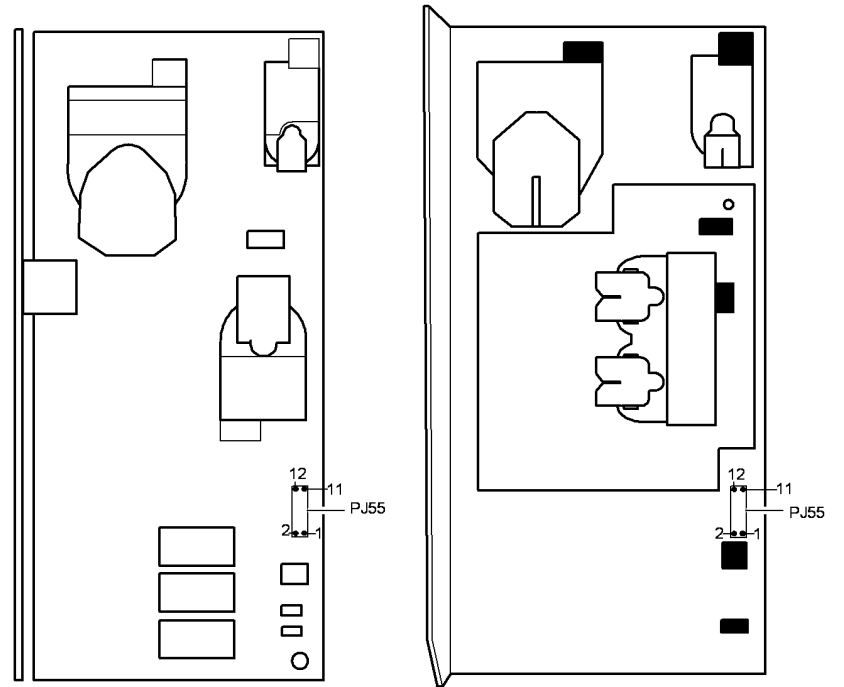
Location: PL 10.11 Item 22



**Figure 23 Inverter motor driver PWB**

**HVPS**

Location: PL 1.10 Item 5



T-1-1066-A

**35-40 ppm**

**45-90 ppm**

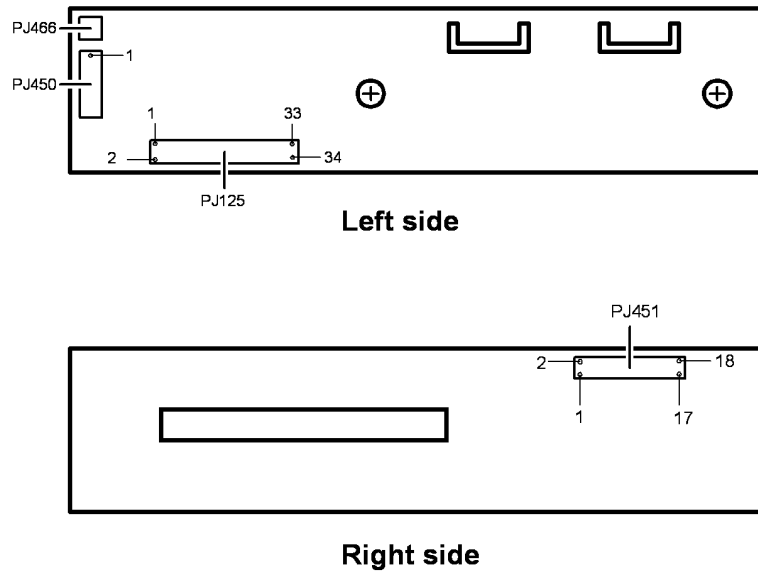
T-1-1067-A

**Figure 24 HVPS**



**CCD PWB (W/O TAG 150)**

Location: [PL 14.25 Item 19](#)

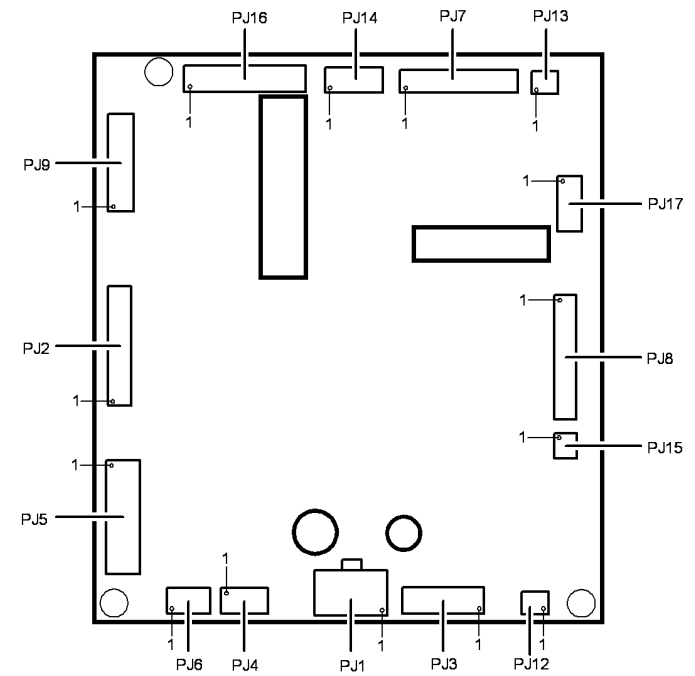


T-1-1068-A

**Figure 25 CCD PWB (W/O TAG 150)**

**1K LCSS PWB**

Location; [PL 11.124 Item 1](#)



T-1-1069-A

**Figure 26 1K LCSS PWB**

## ROS

Location: [PL 6.10 Item 4](#)

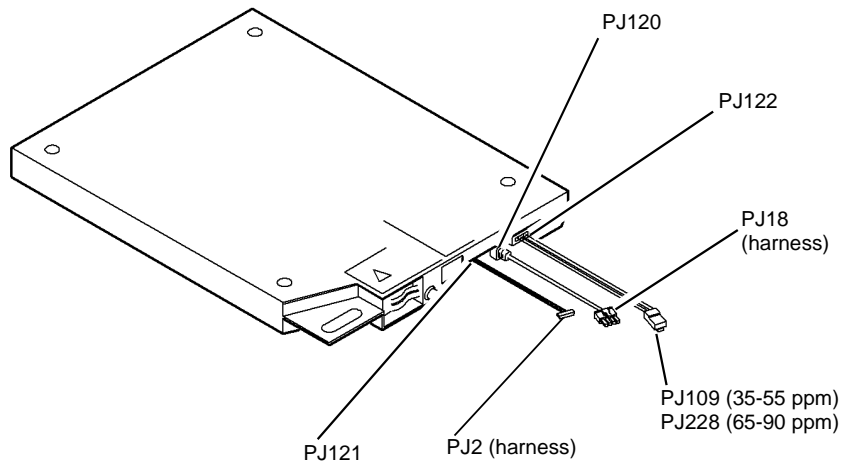


Figure 27 ROS

T-1-1070-A

## Fuser Module

Location: (35-55 ppm) [PL 10.8 Item 1](#), (65-90 ppm) [PL 10.10 Item 1](#)

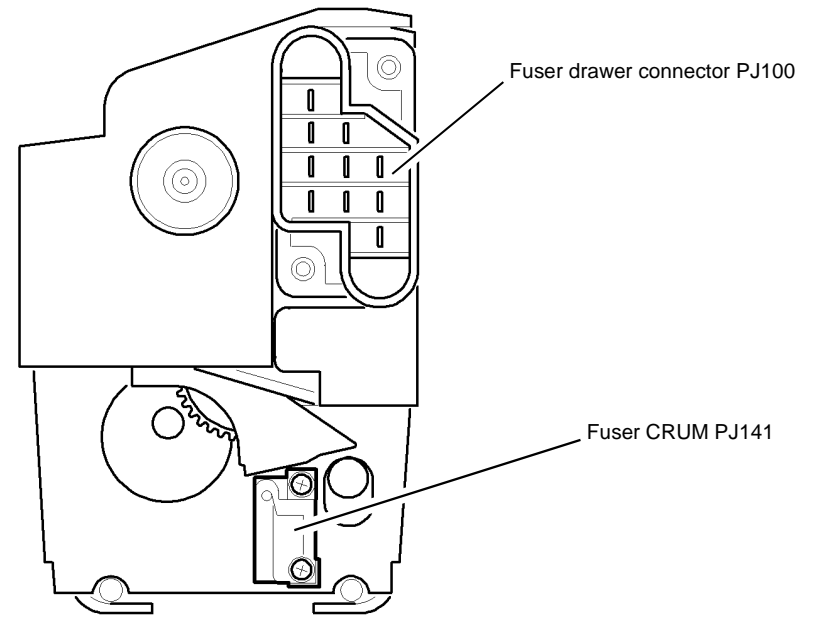
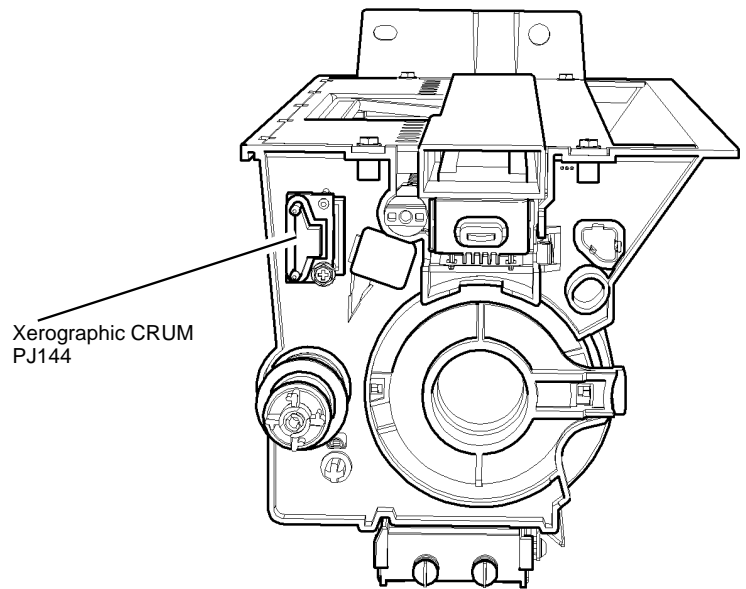


Figure 28 Fuser module

T-1-1071-A

**Xerographic Module**

Location: PL 9.20 Item 2

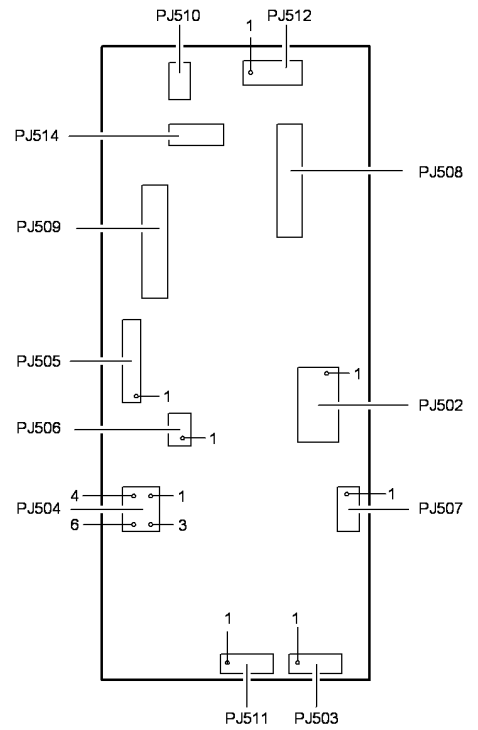


T-1-1072-A

**Figure 29 Xerographic module**

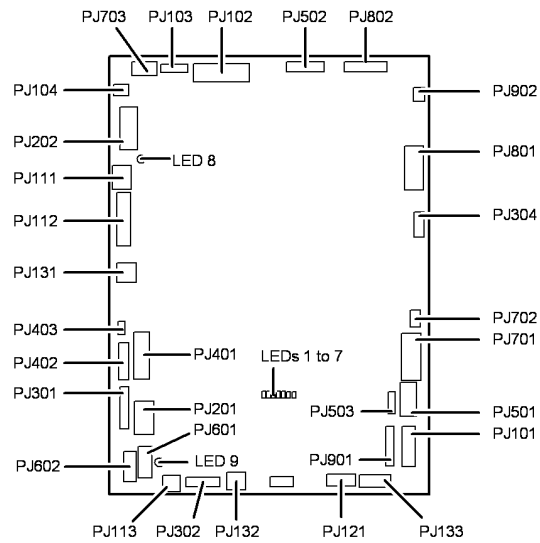
**Tray 5 Control PWB**

Location: PL 7.68 Item 8



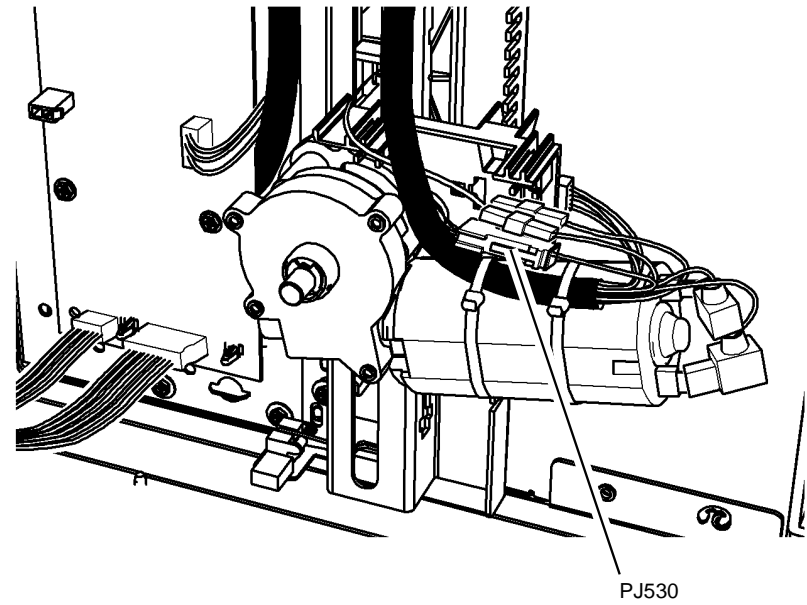
T-1-1073-A

**Figure 30 Tray 5 Control PWB**



T-1-1074-A

**Figure 31 HVF Control PWB**

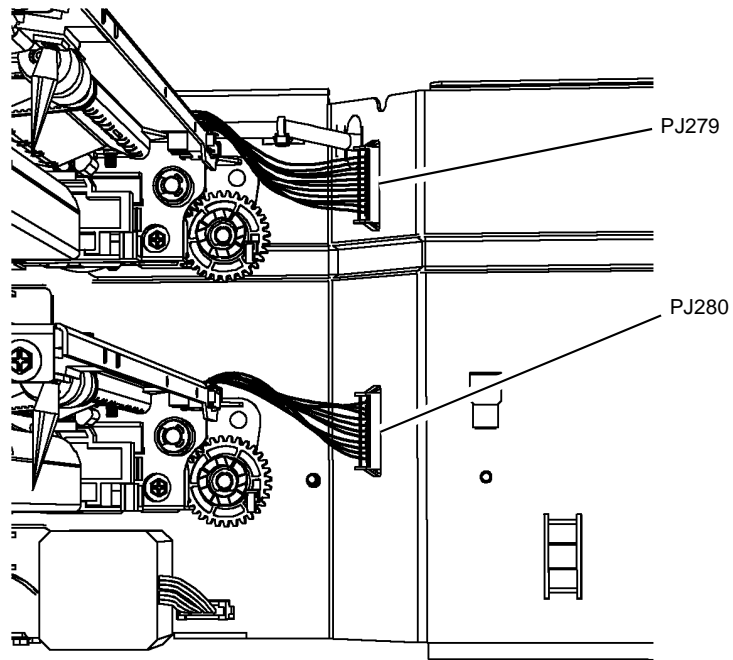


T-1-1075-A

**Figure 32 PJ530**

**In-line connectors PJ279 and PJ280**

Location: [PL 8.25 Item 9](#)

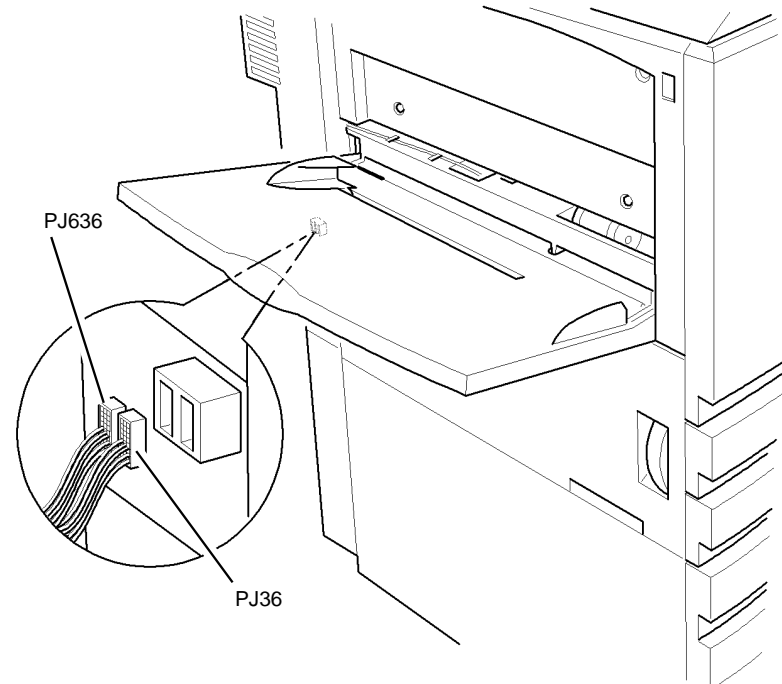


T-1-1076-A

**Figure 33 PJ279 and PJ280**

**In-line connectors PJ36 and PJ636**

Location: [PL 7.30](#)

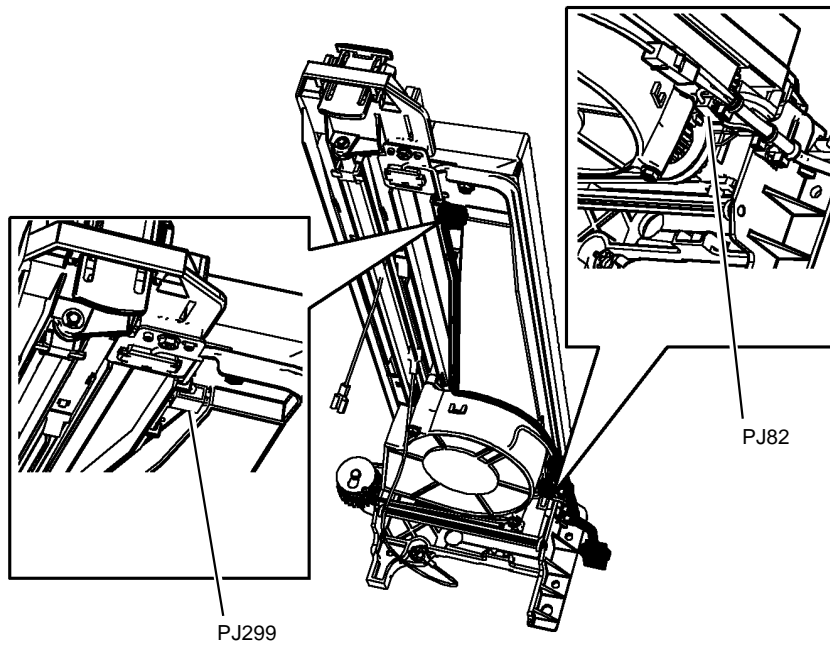


T-1-1077-A

**Figure 34 PJ36 and PJ636**

**In-line connectors PJ82 and PJ299 (W/O TAG 114)**

Location: (45-90 ppm) **PL 9.20**

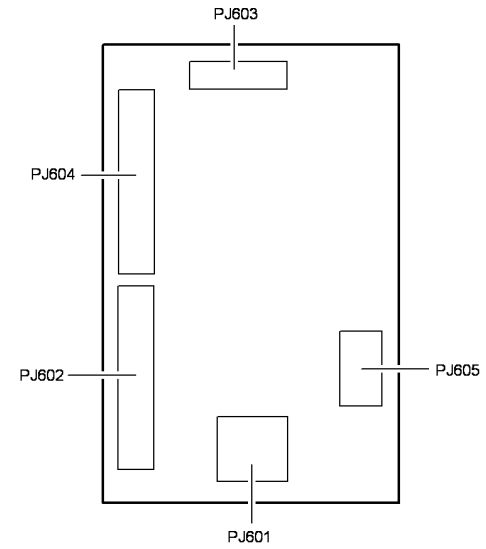


T-1-1078-A

**Figure 35 PJ82 and PJ299**

**Tri Folder Control PWB**

Location: **PL 11.193 Item 16**

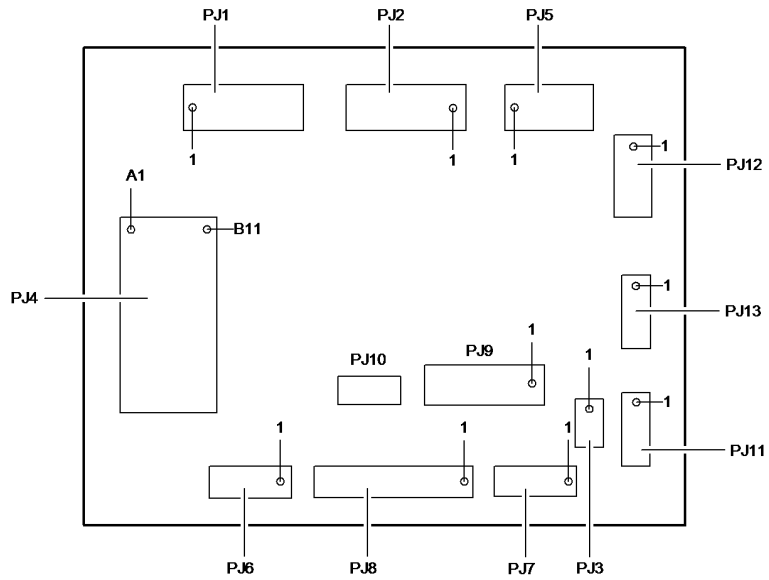


T-1-1079-A

**Figure 36 Tri Folder Control PWB**

### Inserter PWB

Location: PL 11.179 Item 9

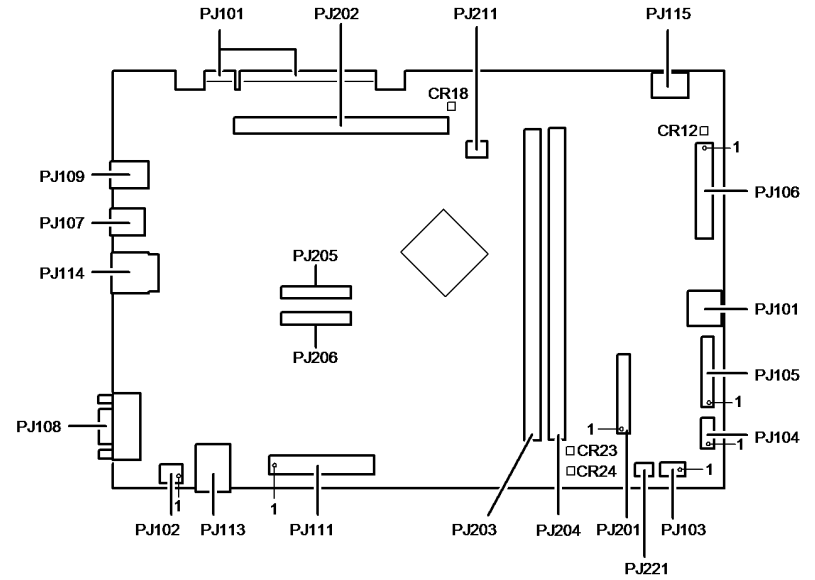


T-1-1080-A

Figure 37 Inserter PWB

### Single Board Controller PWB

Location: PL 3.24 Item 3

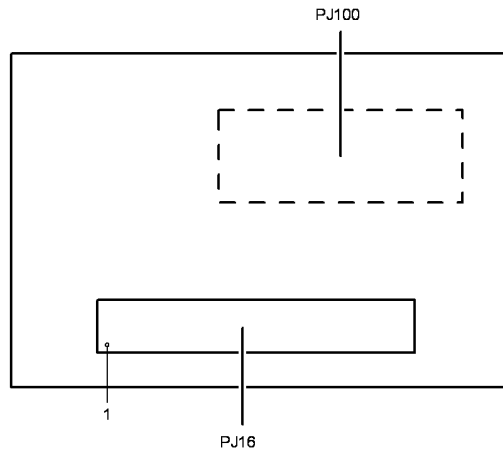


T-1-1091-B

Figure 38 Single Board Controller PWB

**Foreign Interface PWB**

Location: [PL 3.22 Item 4](#)

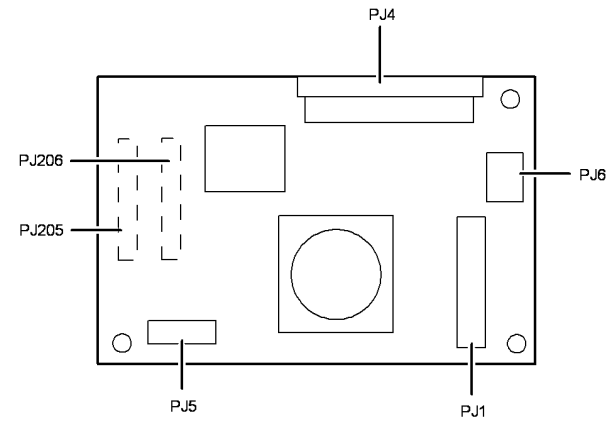


**Figure 39 Foreign Interface PWB**

T-1-1082-A

**Scanner Daughter PWB (W/TAG 150)**

Location: [PL 3.24](#)



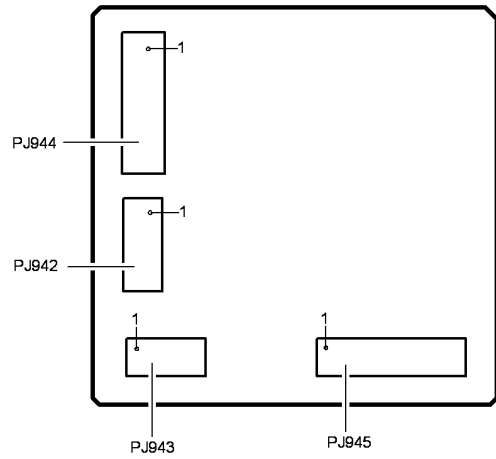
**Figure 40 Scanner Daughter PWB (W/TAG 150)**

T-1-1089-A



**UI LCD PWB**

Location: PL 2.10



T-1-1108-A

**Figure 41 UI LCD PWB**



# Wiring Diagrams

## Purpose

Wiring diagrams are an aid to trace wiring faults. Wiring Diagrams are used to complement the circuit diagram in the relevant RAP.

## Introduction

The main PWB connections are in the following wiring diagrams:

- 1K LCSS PWB, [Wiring Diagram 30](#).
- 1K LCSS PWB, [Wiring Diagram 31](#).
- 1K LCSS PWB, [Wiring Diagram 32](#).
- 2K LCSS PWB, [Wiring Diagram 25](#).
- 2K LCSS PWB, [Wiring Diagram 26](#).
- 2K LCSS PWB, [Wiring Diagram 27](#).
- 2K LCSS PWB, [Wiring Diagram 28](#).
- DADH PWB, [Wiring Diagram 13](#).
- Hard disk drive single board controller, [Wiring Diagram 4](#).
- HCF PWB (W/O Tag 151), [Wiring Diagram 22](#).
- HCF PWB (W/Tag 151), [Wiring Diagram 46](#).
- HCF PWB (W/Tag 151), [Wiring Diagram 47](#).
- HVF PWB, [Wiring Diagram 33](#).
- HVF PWB, [Wiring Diagram 34](#).
- HVF PWB, [Wiring Diagram 35](#).
- HVF PWB, [Wiring Diagram 36](#).
- HVF PWB, [Wiring Diagram 37](#).
- HVF PWB, [Wiring Diagram 38](#).
- HVF PWB, [Wiring Diagram 39](#).
- HVF BM PWB, [Wiring Diagram 40](#).
- HVF BM PWB, [Wiring Diagram 41](#).
- Input power, [Wiring Diagram 1](#).
- Insert PWB, [Wiring Diagram 43](#).
- Insert PWB, [Wiring Diagram 44](#).
- IOT PWB, single board controller PWB and drives module, [Wiring Diagram 6](#).
- IOT PWB and paper path module (35 ppm), [Wiring Diagram 7](#).
- IOT PWB and paper path module (40-55 ppm), [Wiring Diagram 8](#).
- IOT PWB and paper path module (65-90 ppm), [Wiring Diagram 9](#).
- IOT PWB, HVPS, paper path module and developer module, [Wiring Diagram 10](#).
- IOT PWB, HVPS, [Wiring Diagram 11](#).
- LVPS and IOT PWB, [Wiring Diagram 5](#).
- LVPS and power distribution, [Wiring Diagram 2](#).
- OCT, [Wiring Diagram 29](#).
- Power distribution, [Wiring Diagram 3](#).
- Scanner PWB (W/O TAG 150) (1 of 2), [Wiring Diagram 14](#).
- Scanner PWB (W/O TAG 150) (2 of 2), [Wiring Diagram 15](#).

- Scanner PWB (W/TAG 150) (1 of 3) [Wiring Diagram 16](#).
- Scanner PWB (W/TAG 150) (2 of 3) [Wiring Diagram 17](#).
- Scanner PWB (W/TAG 150) (3 of 3) [Wiring Diagram 18](#).
- Scanner daughter PWB (W/TAG 150) [Wiring Diagram 19](#).
- Single board controller PWB, [Wiring Diagram 12](#).
- Tray 1 and tray 2 control PWB, [Wiring Diagram 20](#).
- Tray 1 and tray 2 control PWB, [Wiring Diagram 21](#).
- Tray 5 PWB, [Wiring Diagram 23](#).
- Tray 5 PWB, [Wiring Diagram 24](#).
- Tri-Folder PWB, [Wiring Diagram 42](#).
- UI control PWB, [Wiring Diagram 45](#).

The diagrams have the following features:

- The connections on the PWBs are in PJ numerical sequence where possible.
- The complete component to PWB wiring is shown. All interconnecting connectors are shown, in part or in whole. Connectors shown in part have reference to other wiring diagrams as necessary.
- Where necessary, components have references to show additional connections to them.
- Straight through tracks on the PWBs are shown.

## How to use Wiring Diagrams

**NOTE:** All Adjustments, Repairs and Part List references are shown in the relevant RAP.

Wiring Diagrams are used in conjunction with the circuit diagrams and their supporting RAPs. The steps that follow should be used:

1. From the circuit diagram in the RAP, note the name of the PWB.
2. Note the component and its harness connection on the PWB.
3. Go to the relevant Wiring Diagram.
4. Locate the connector on the PWB.
5. Assess the dependency of other components in the same harness connected to the PWB.
6. Isolate and repair the wiring fault.

# Wiring Diagram 1

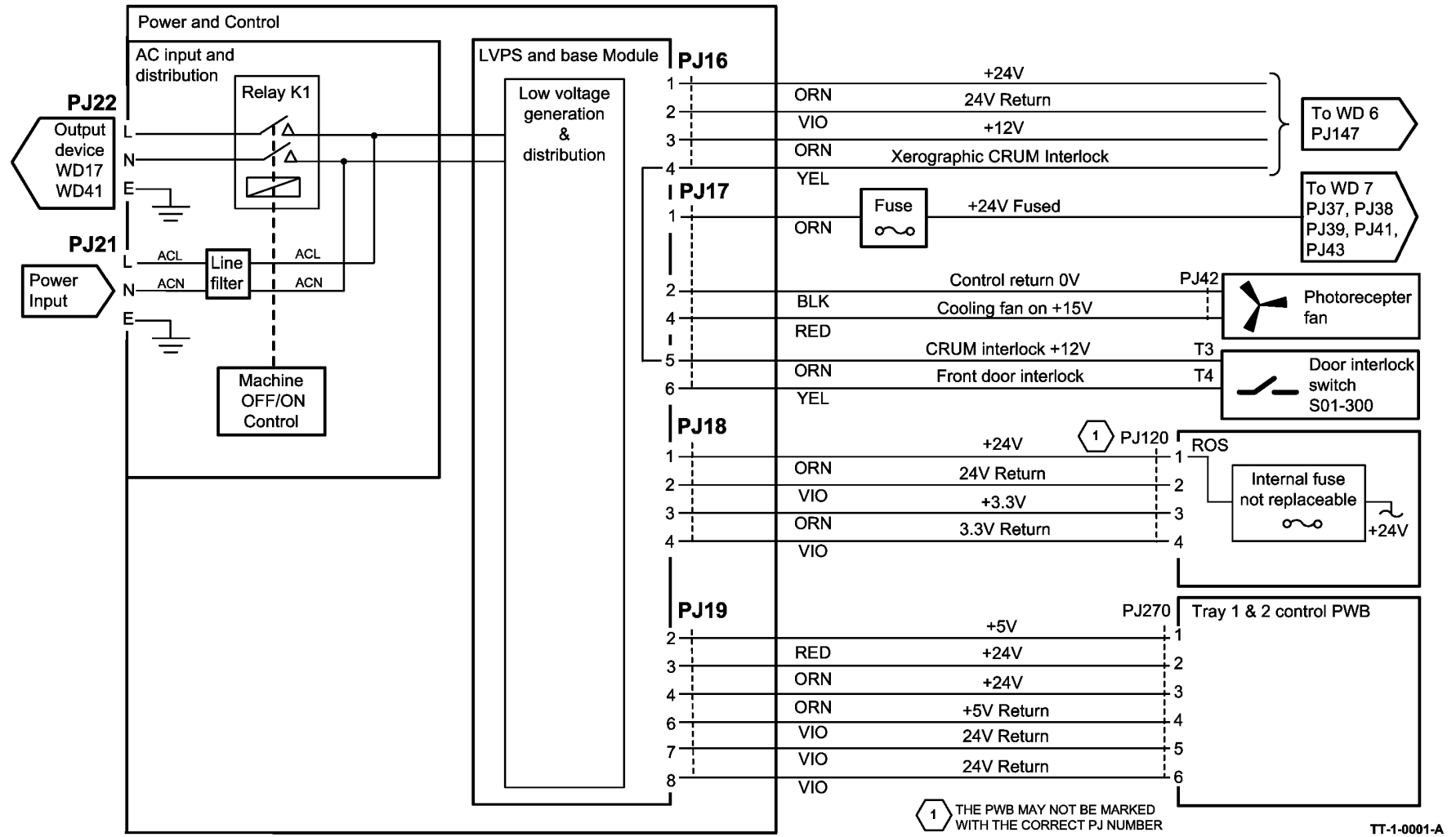
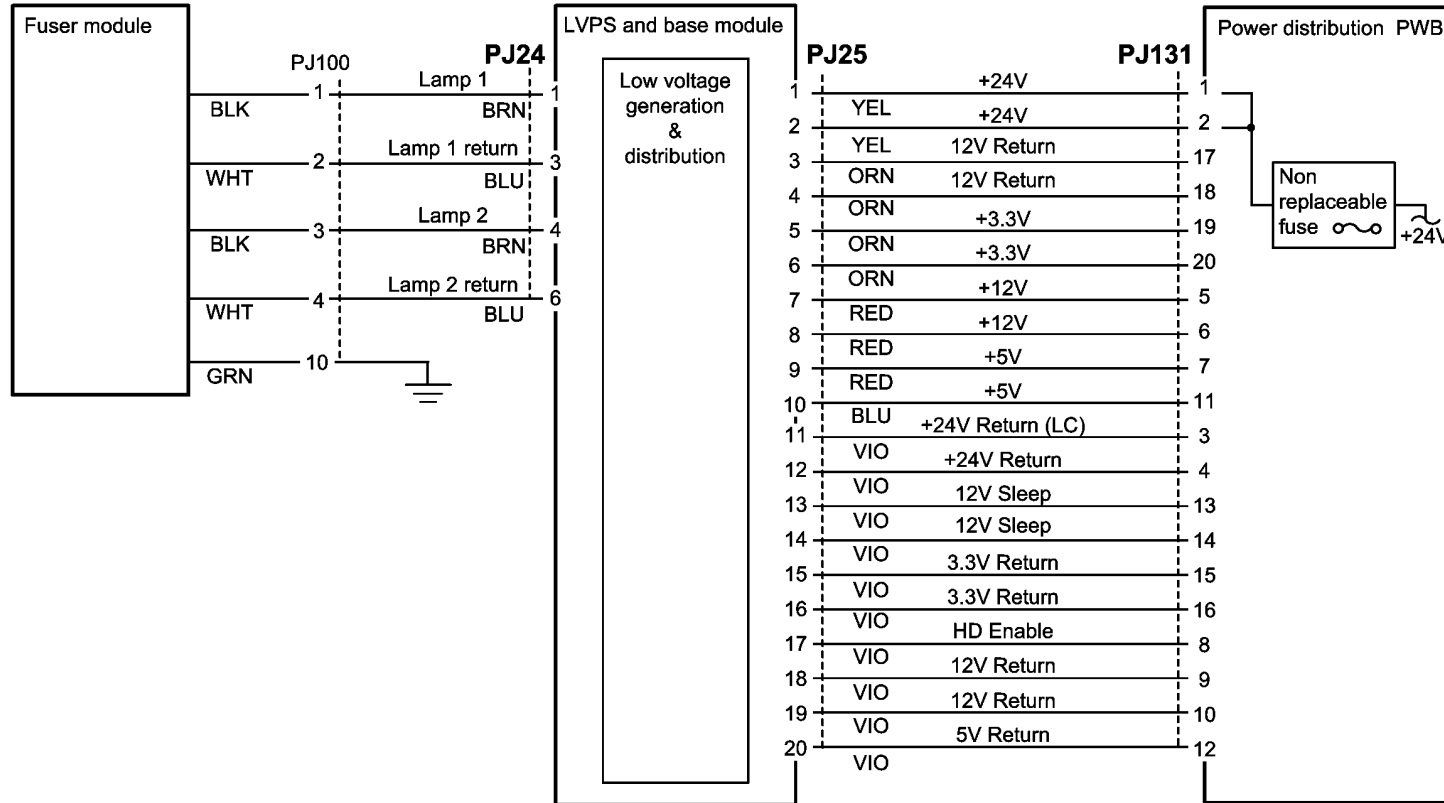


Figure 1 Wiring Diagram 1

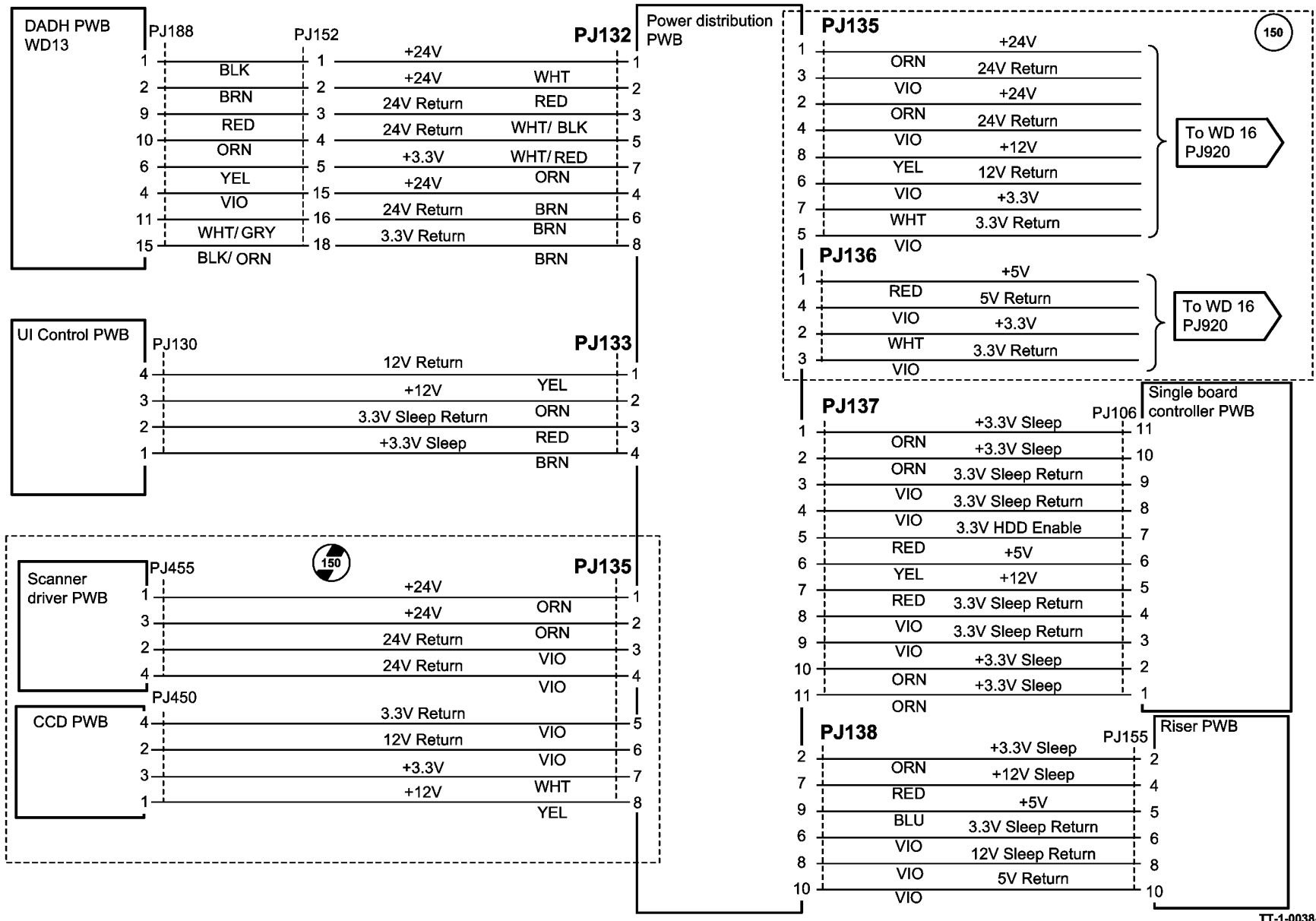
# Wiring Diagram 2



TT-1-0036-A

Figure 2 Wiring Diagram 2

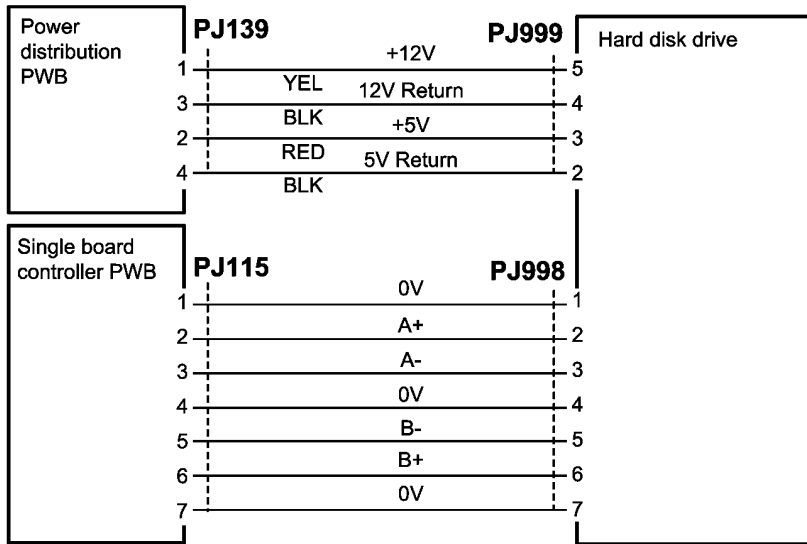
### Wiring Diagram 3



TT-1-0038-A

Figure 3 Wiring Diagram 3

## Wiring Diagram 4



TT-1-0043-A

Figure 4 Wiring Diagram 4

# Wiring Diagram 5

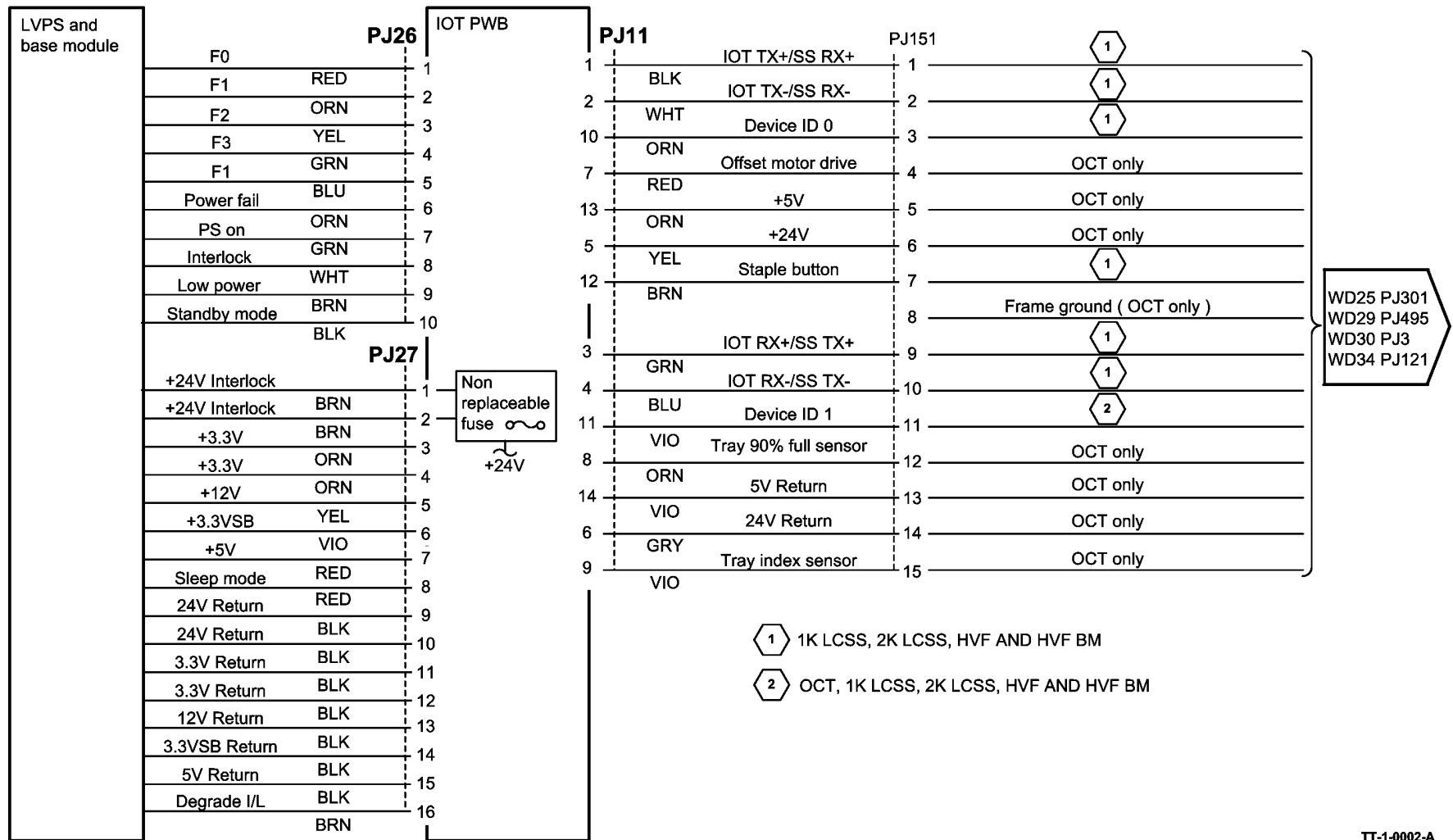
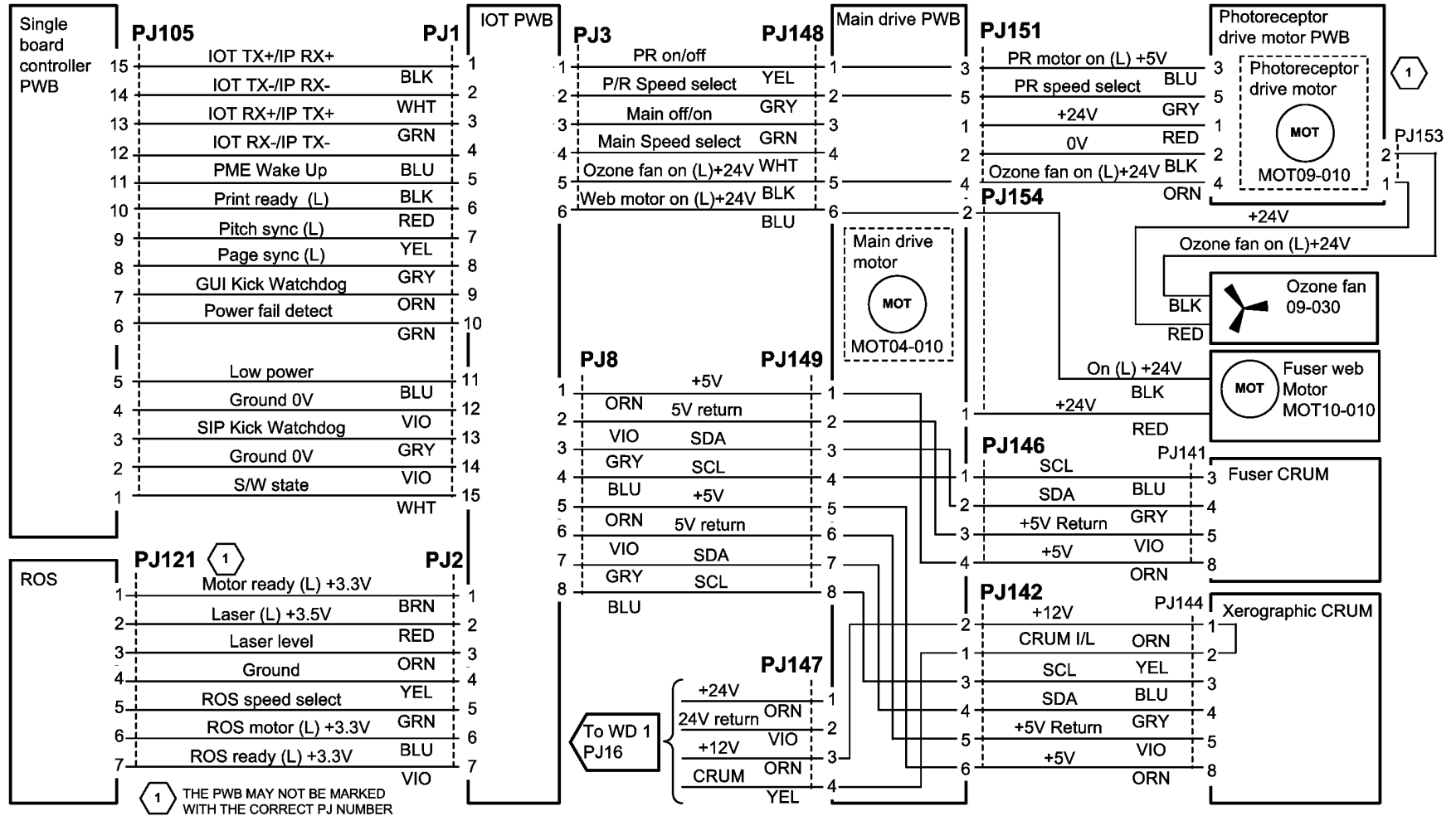


Figure 5 Wiring Diagram 5

TT-1-0002-A



# Wiring Diagram 6



TT-1-0003-A

Figure 6 Wiring Diagram 6

# Wiring Diagram 7 (35 ppm Only)

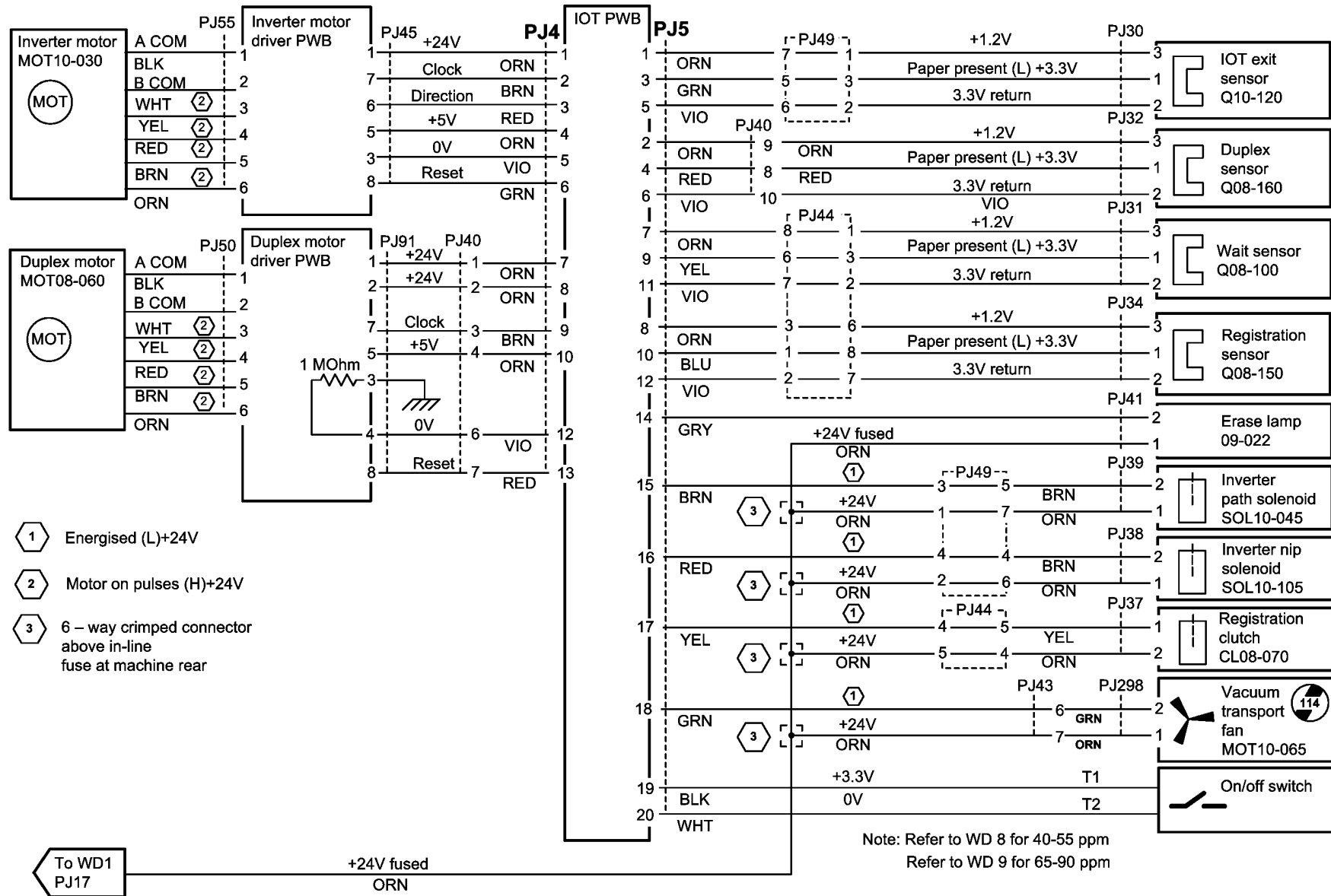
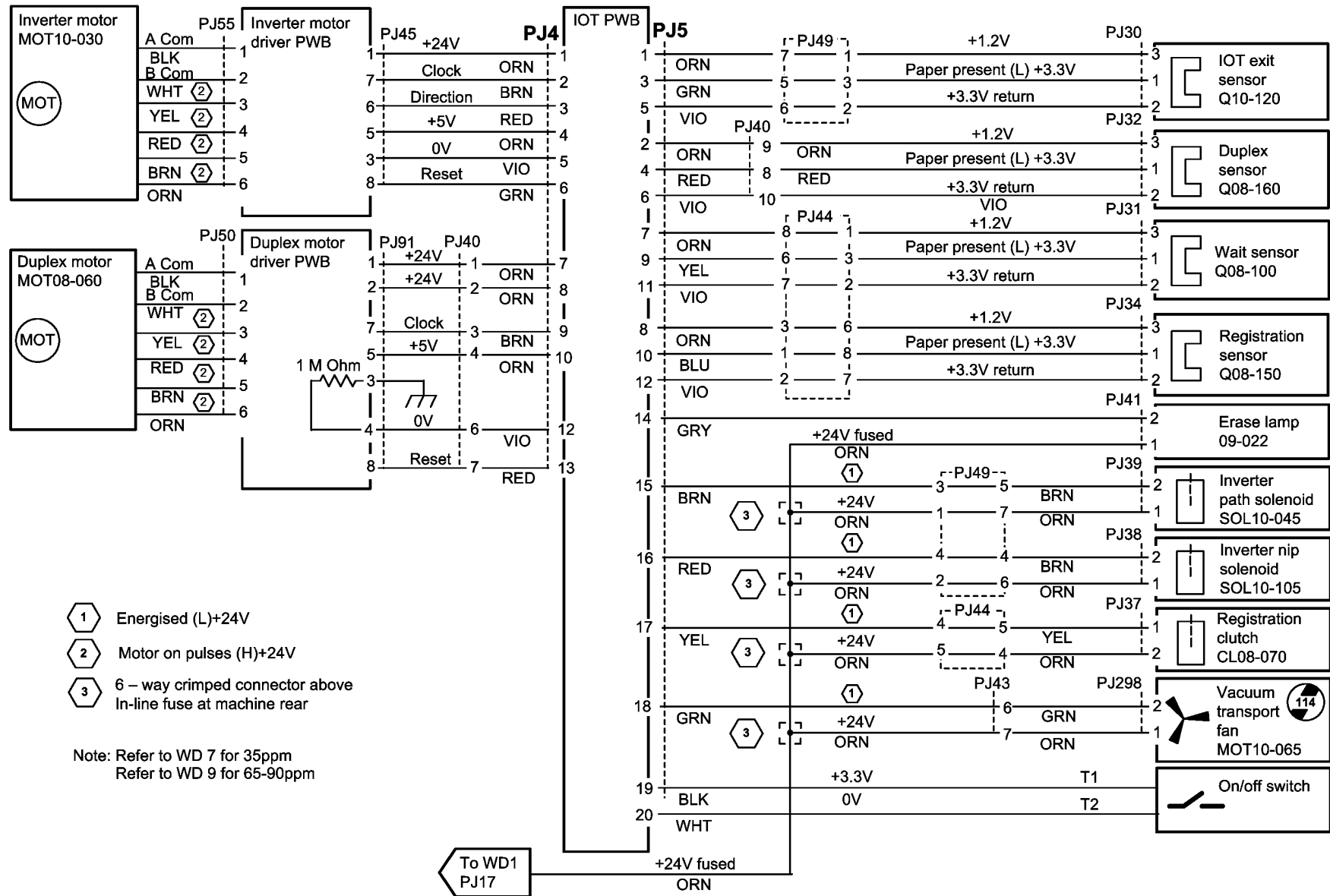


Figure 7 Wiring Diagram 7

TT-1-0275-B

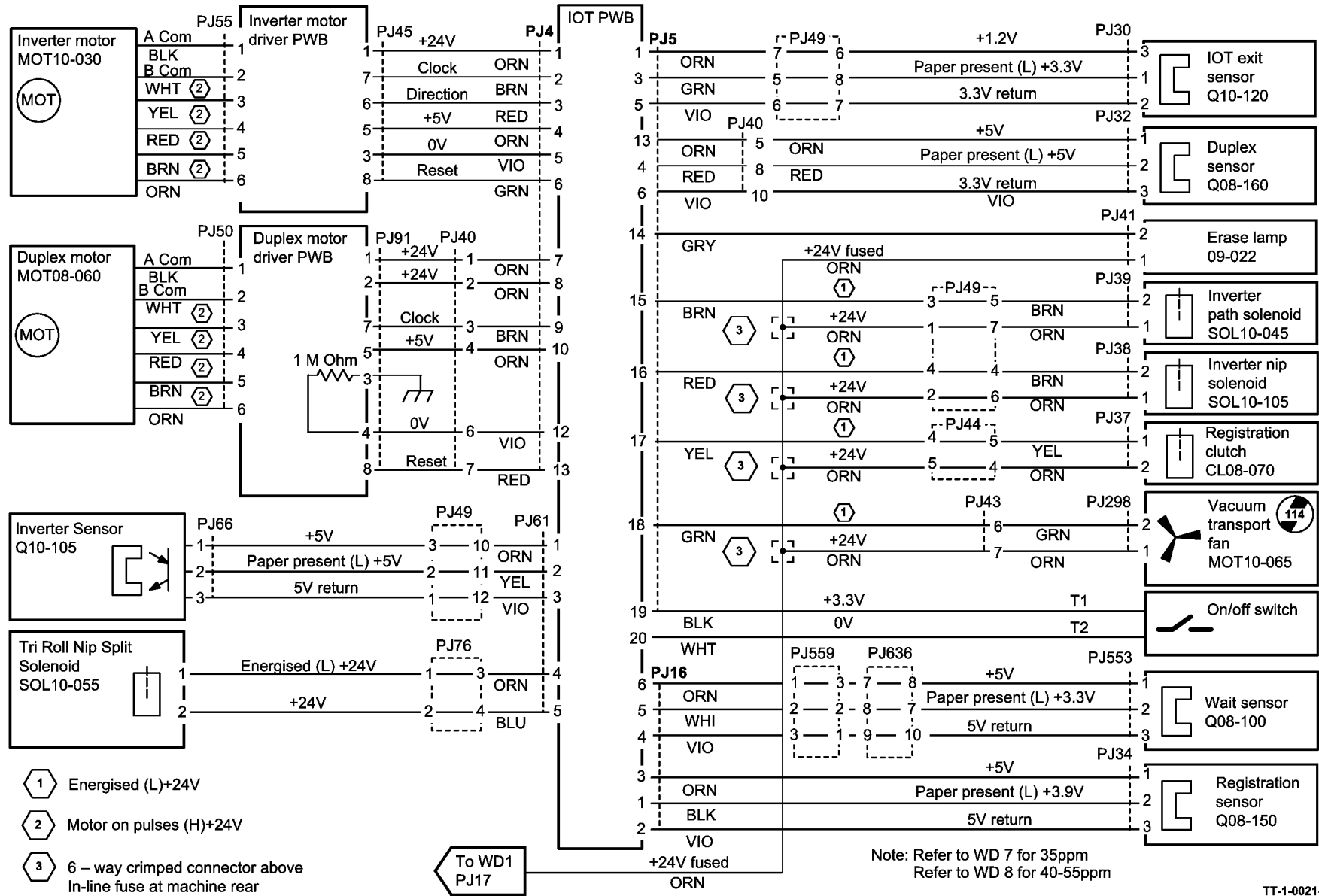
# Wiring Diagram 8 (40-55 ppm Only)



TT-1-0020-D

Figure 8 Wiring Diagram 8

# Wiring Diagram 9 (65-90 ppm Only)



TT-1-0021-D

# Wiring Diagram 10

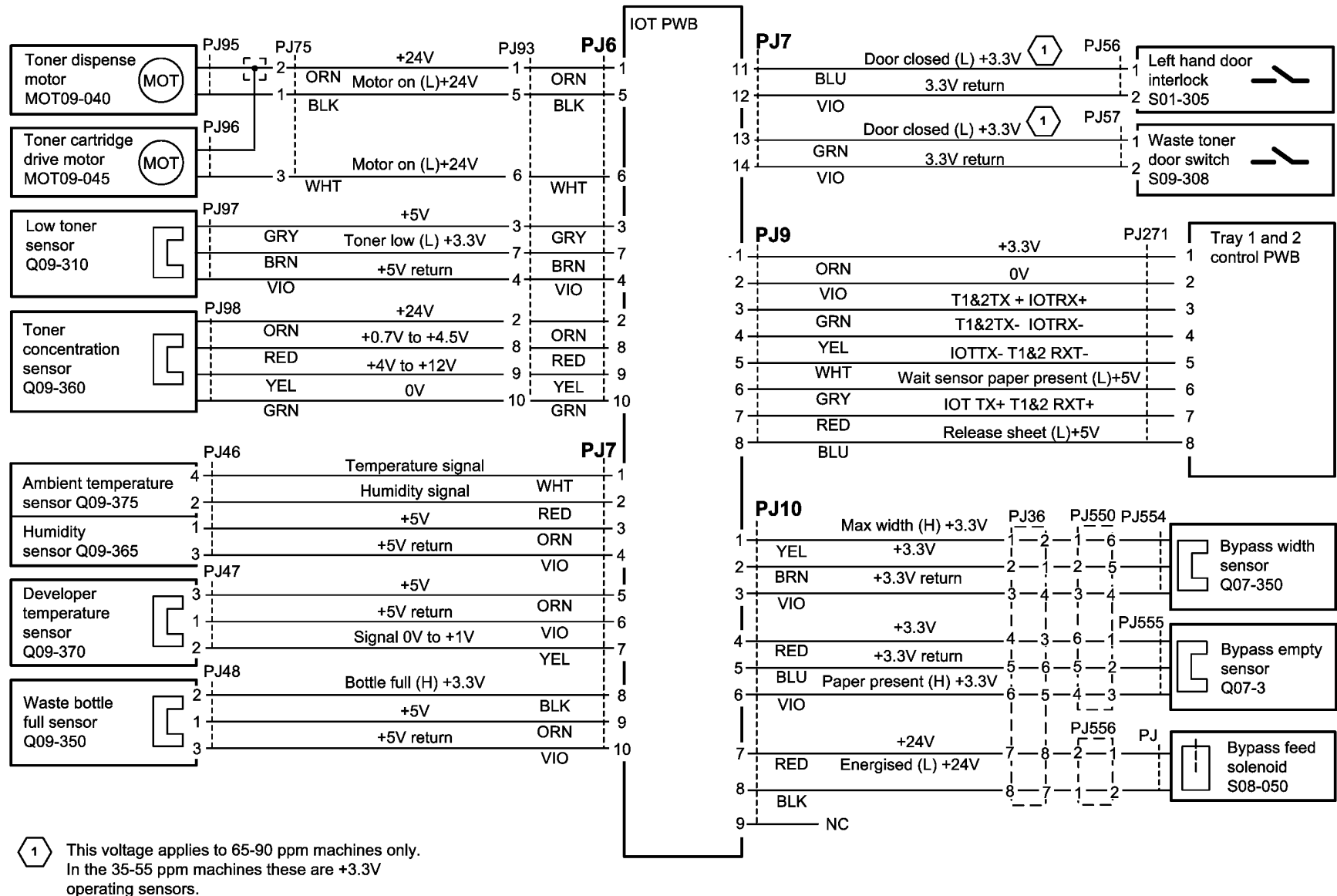
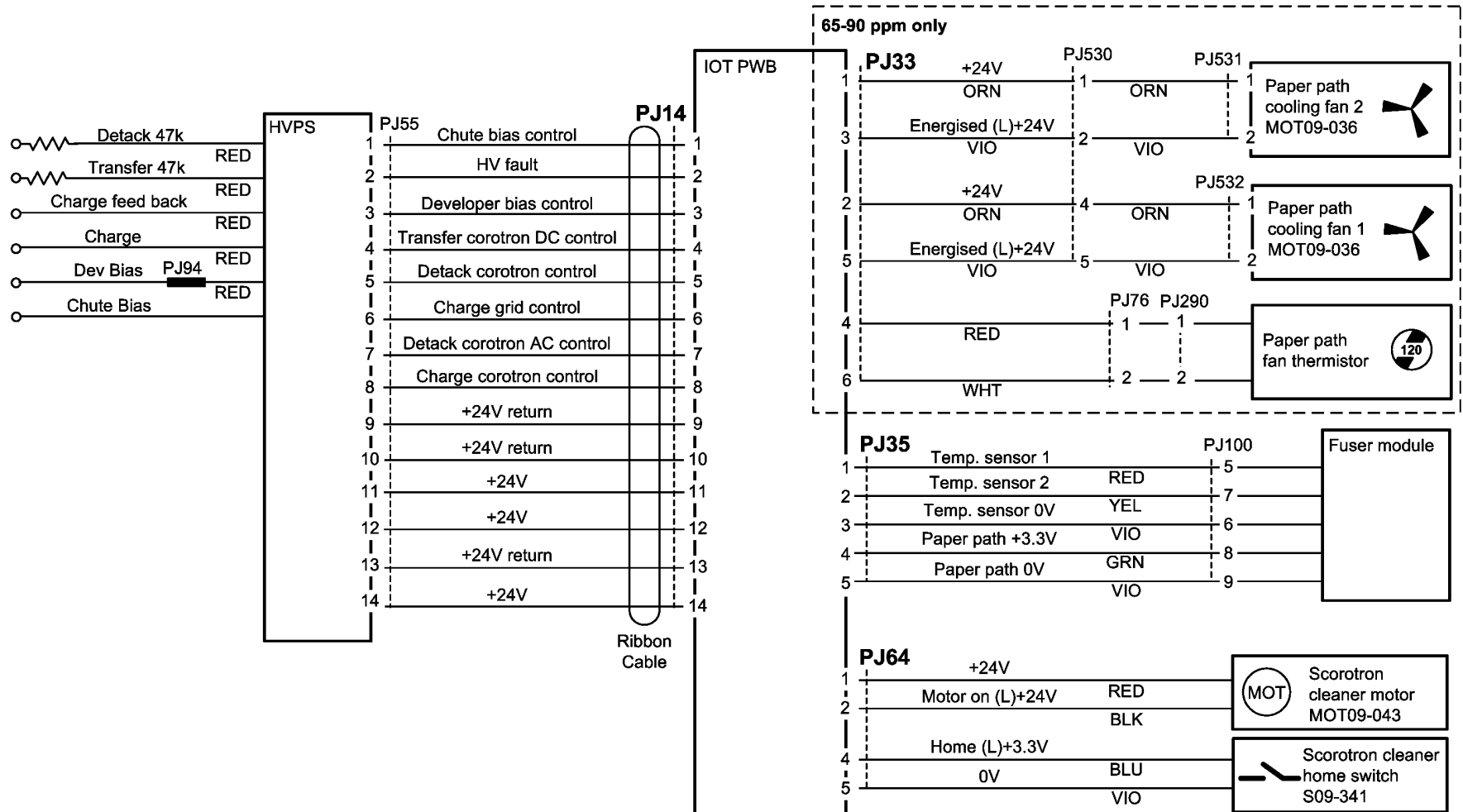


Figure 10 Wiring Diagram 10

TT-1-0004-A

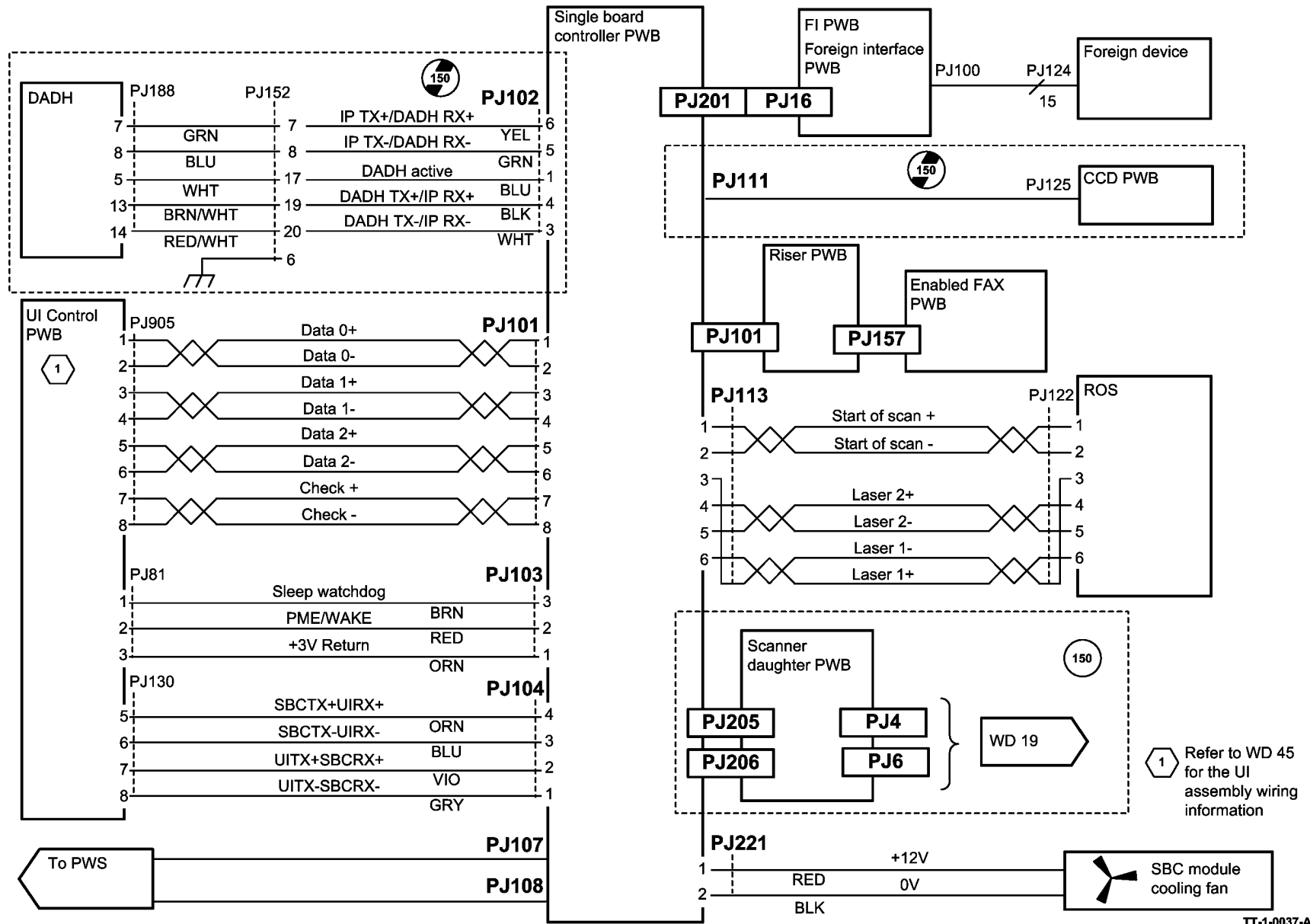
# Wiring Diagram 11



TT-1-0005-B

Figure 11 Wiring Diagram 11

# Wiring Diagram 12



TT-1-0037-A

Figure 12 Wiring Diagram 12

# Wiring Diagram 13

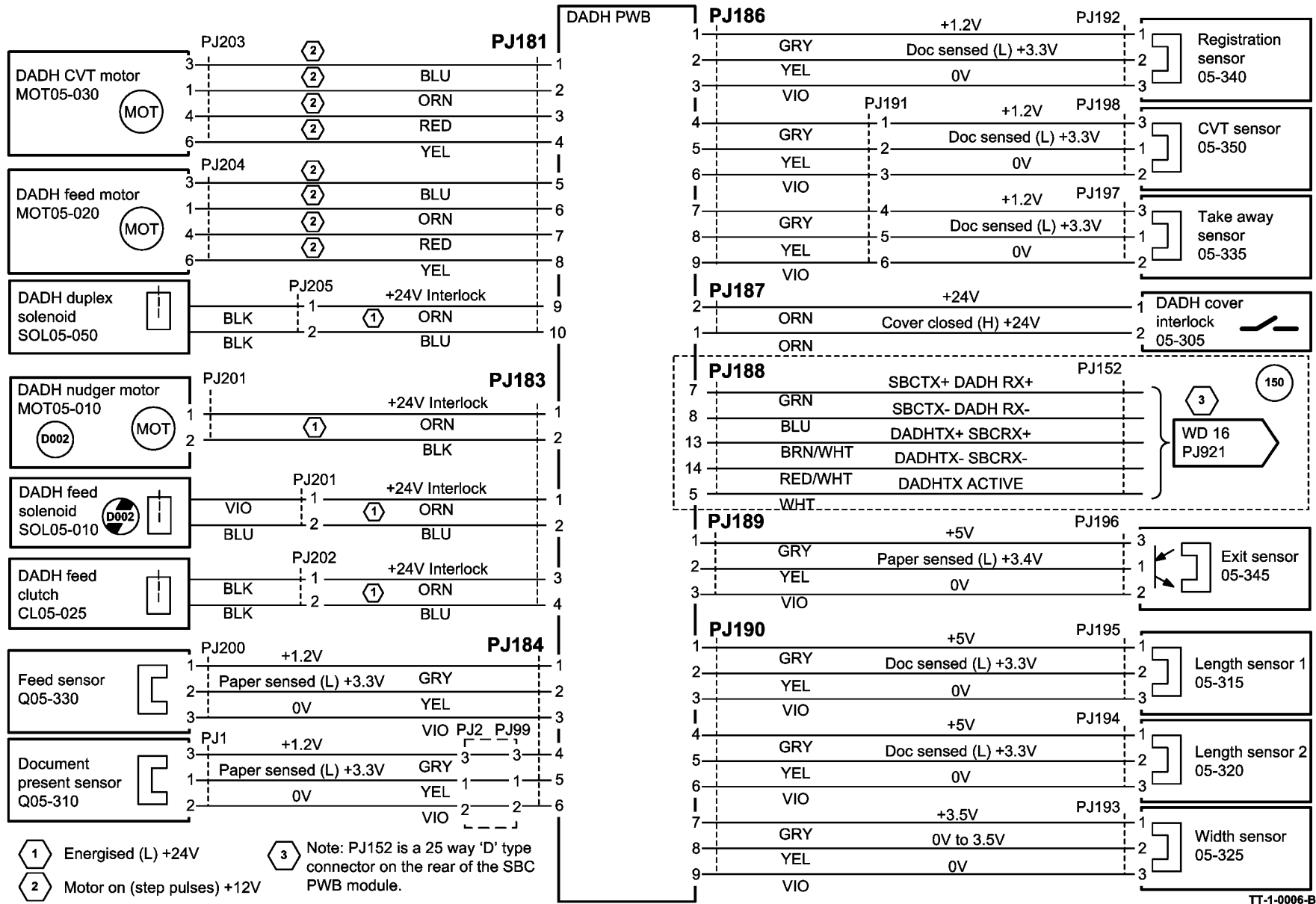
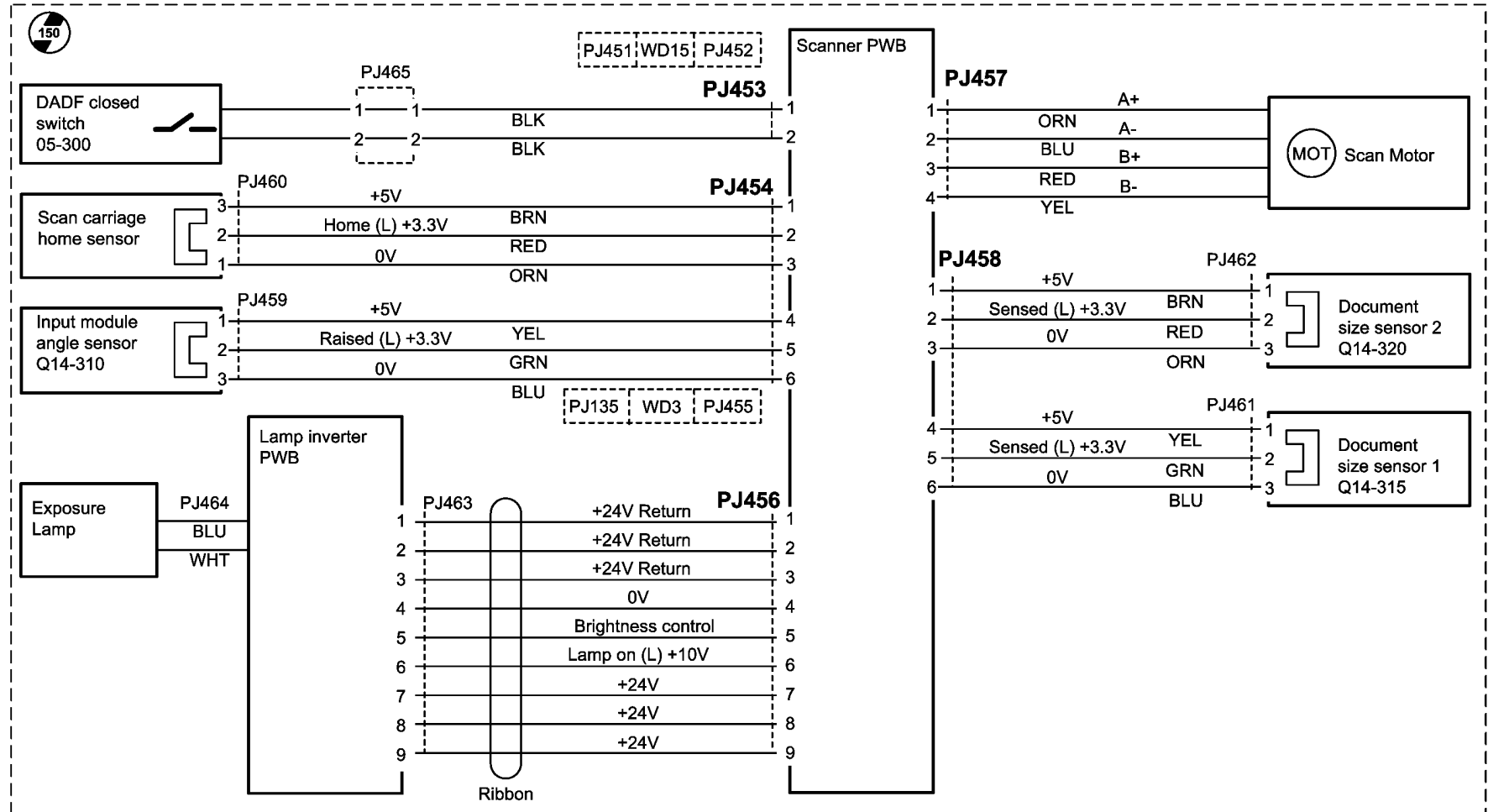


Figure 13 Wiring Diagram 13



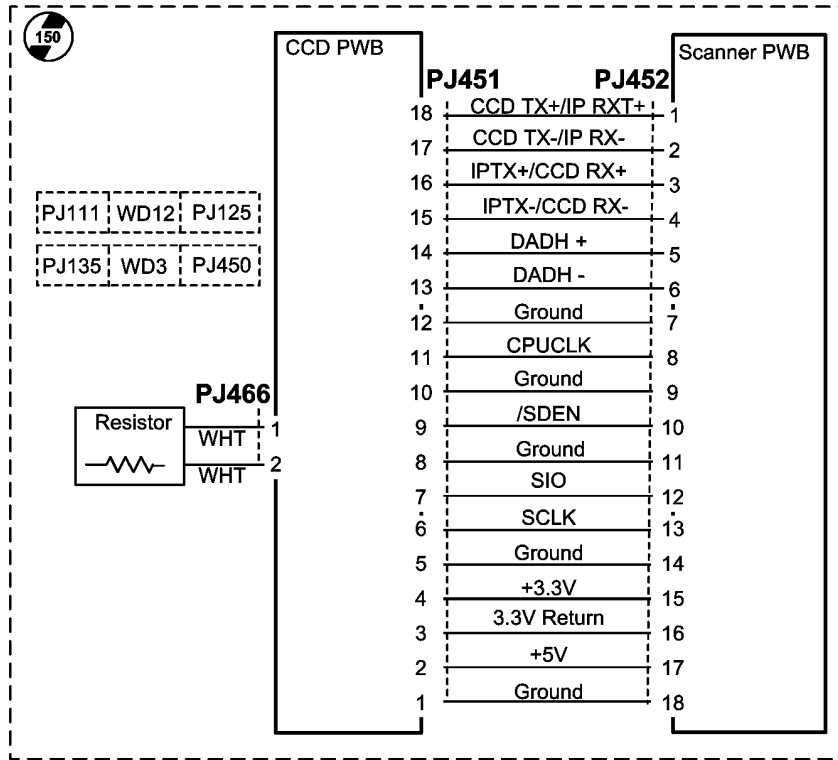
# Wiring Diagram 14 (W/O TAG 150)



TT-1-0015-A

Figure 14 Wiring Diagram 14

# Wiring Diagram 15 (W/O TAG 150)



TT-1-0016-A

Figure 15 Wiring Diagram 15

# Wiring Diagram 16 (W/TAG 150)

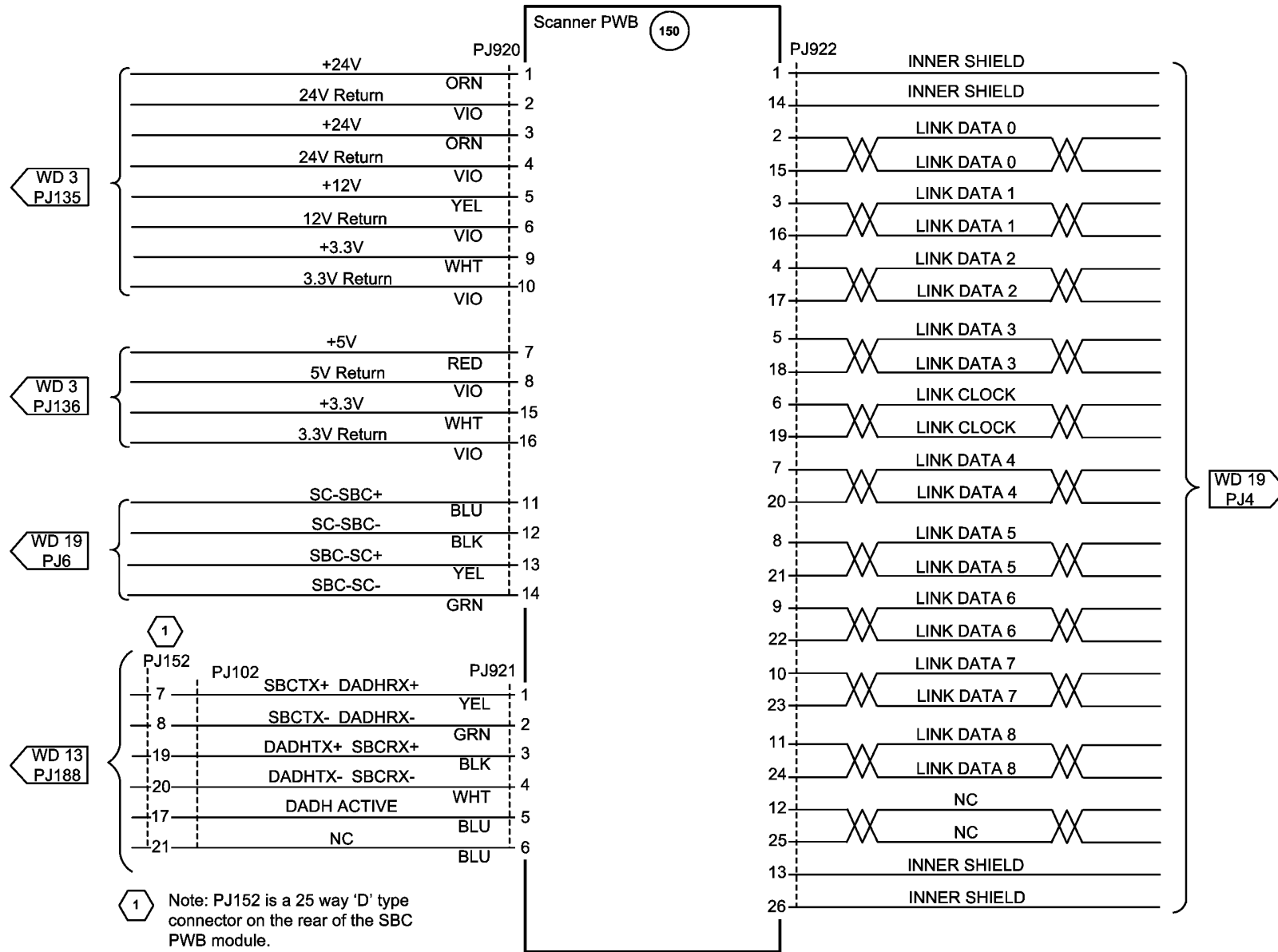
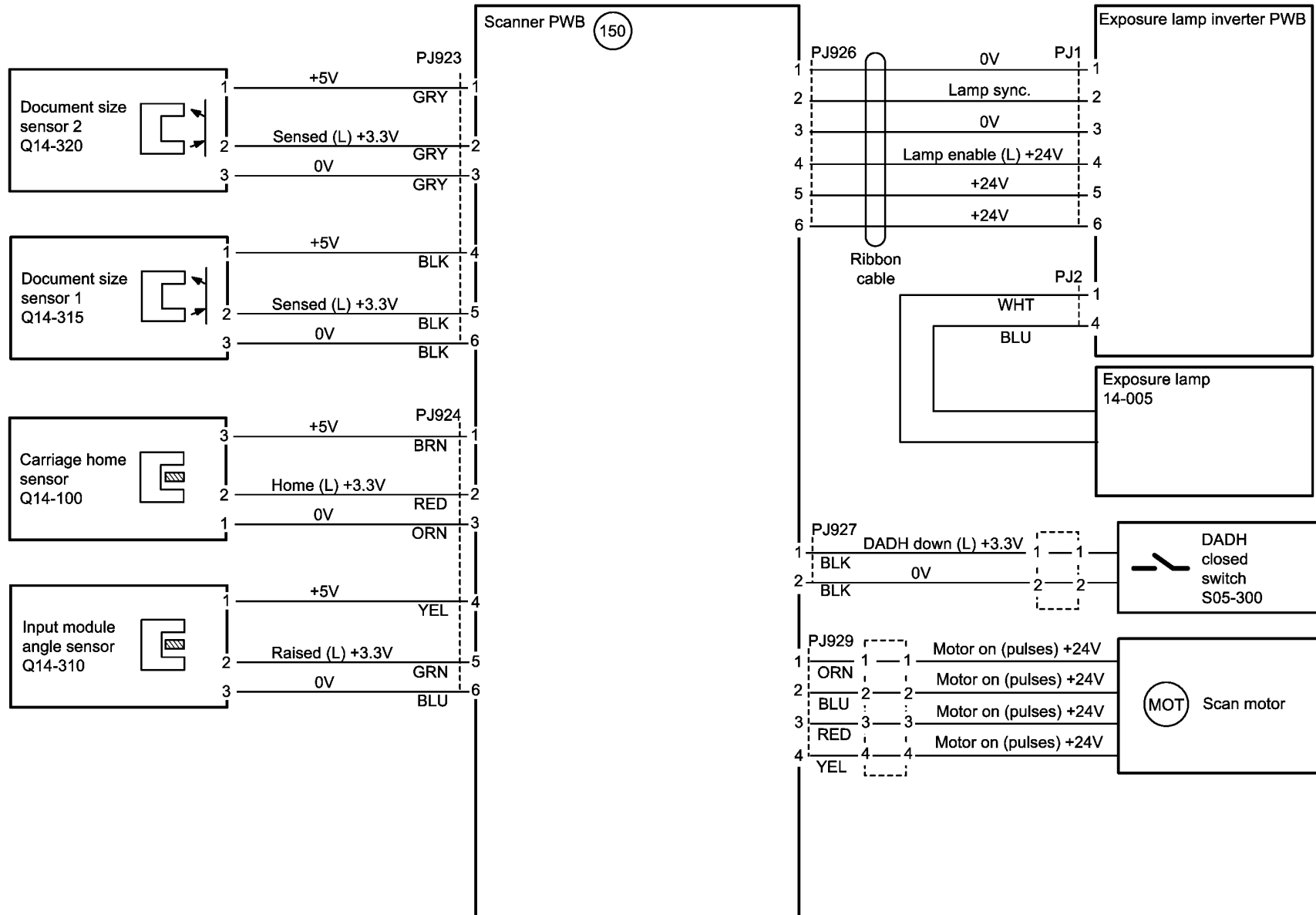


Figure 16 Wiring Diagram 16

TT-1-0039-A

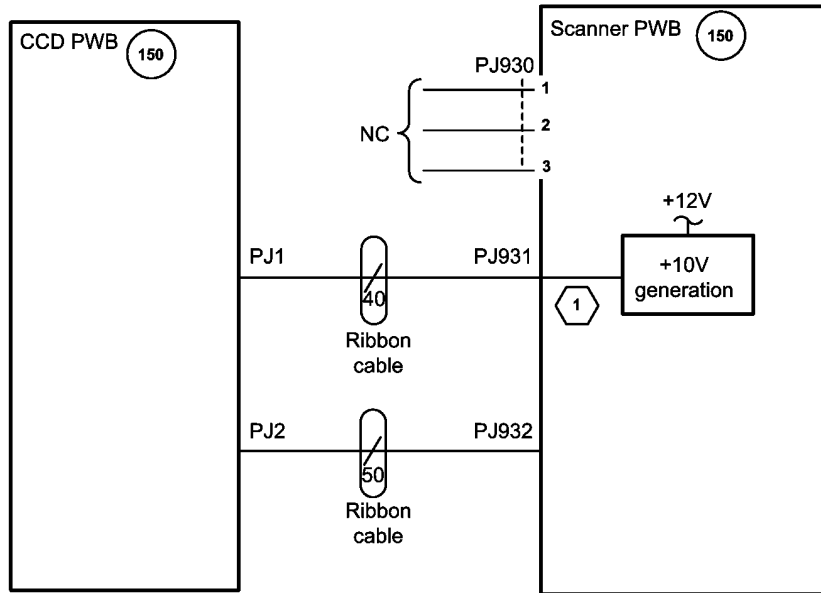
# Wiring Diagram 17 (W/TAG 150)



TT-1-0040-A

Figure 17 Wiring Diagram 17

# Wiring Diagram 18 (W/TAG 150)

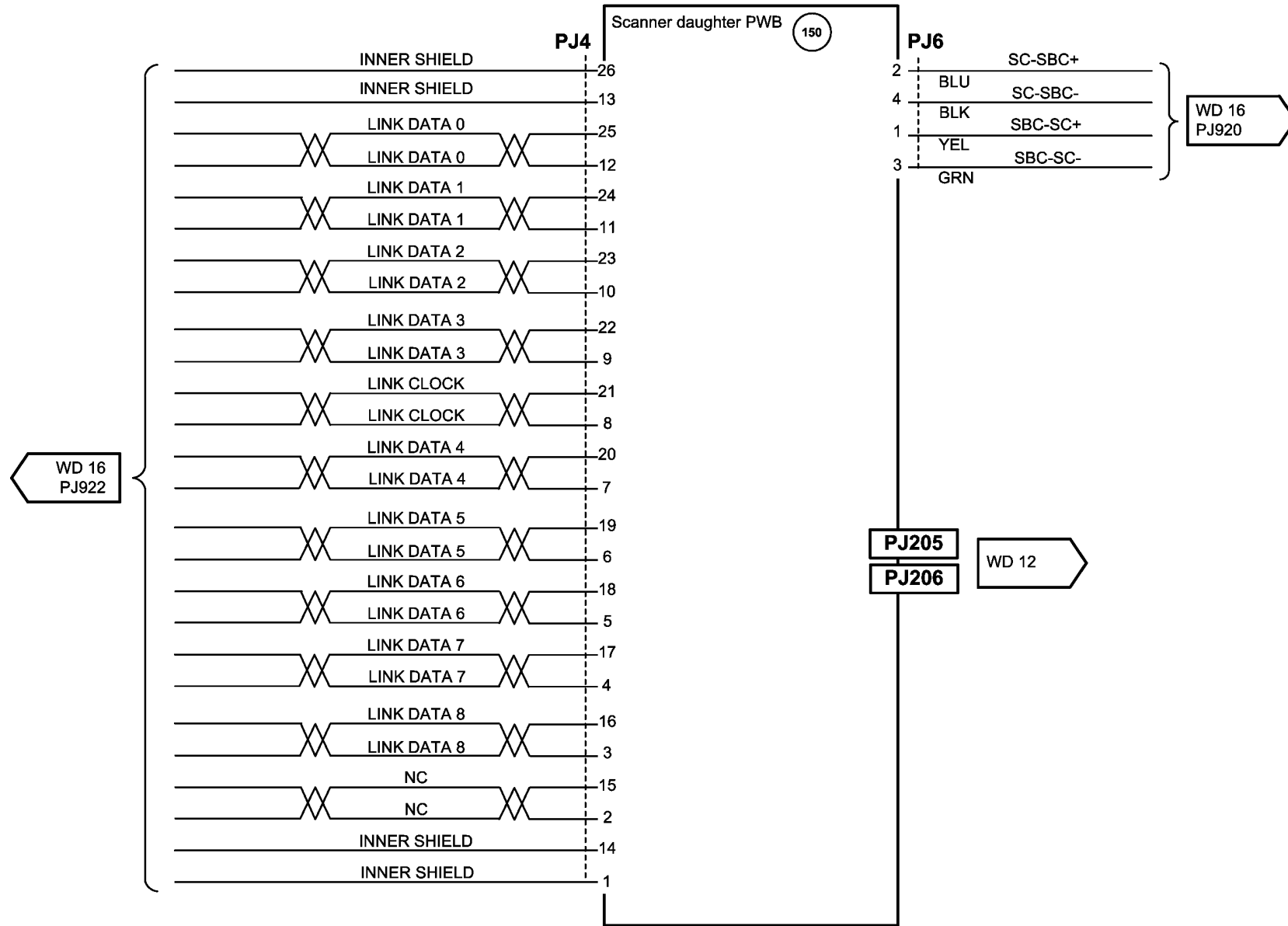


1 PJ931 pin 2 and pin 4 +10V

TT-1-0041-A

Figure 18 Wiring Diagram 18

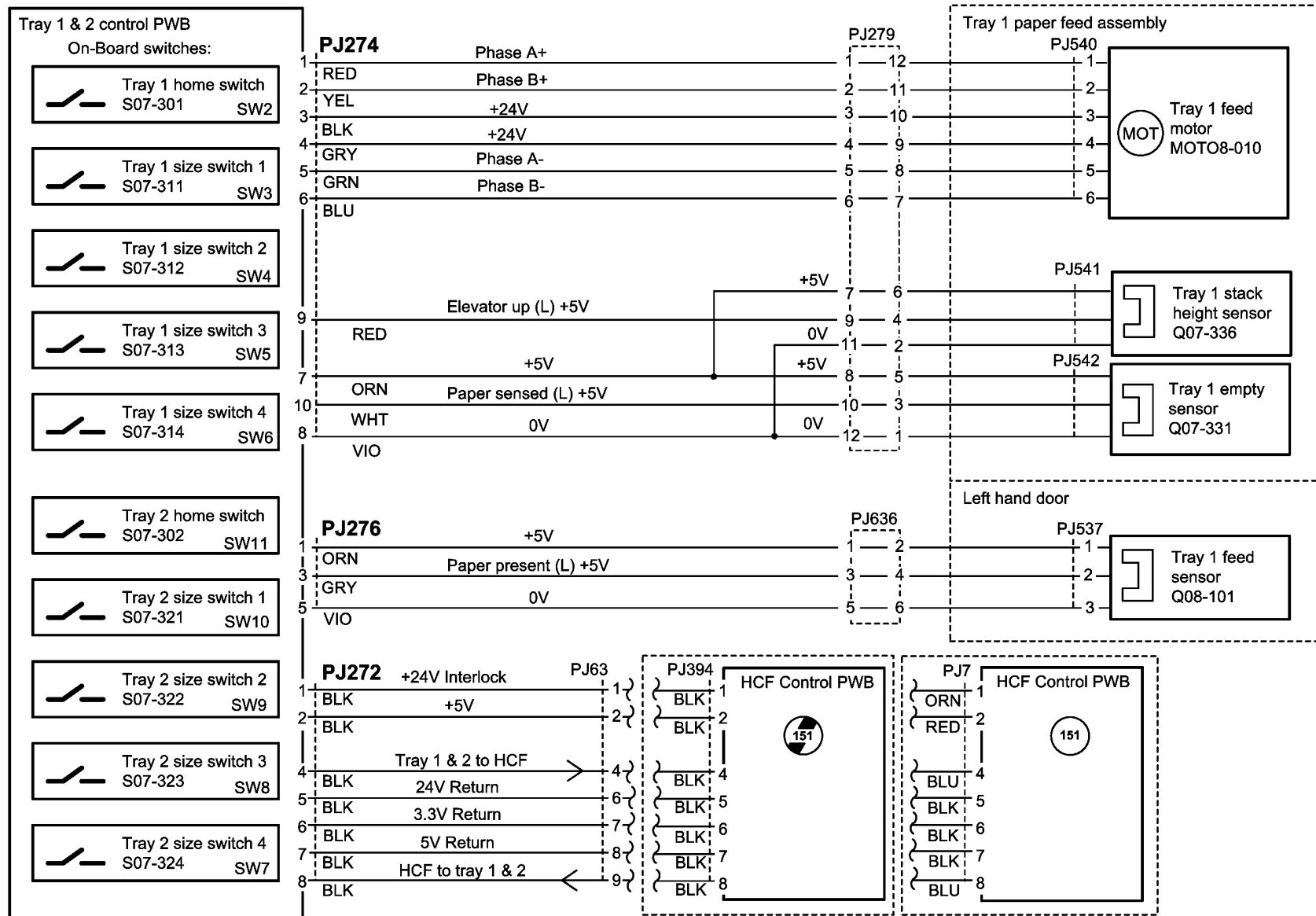
# Wiring Diagram 19 (W/TAG 150)



TT-1-0042-A

Figure 19 Wiring Diagram 19

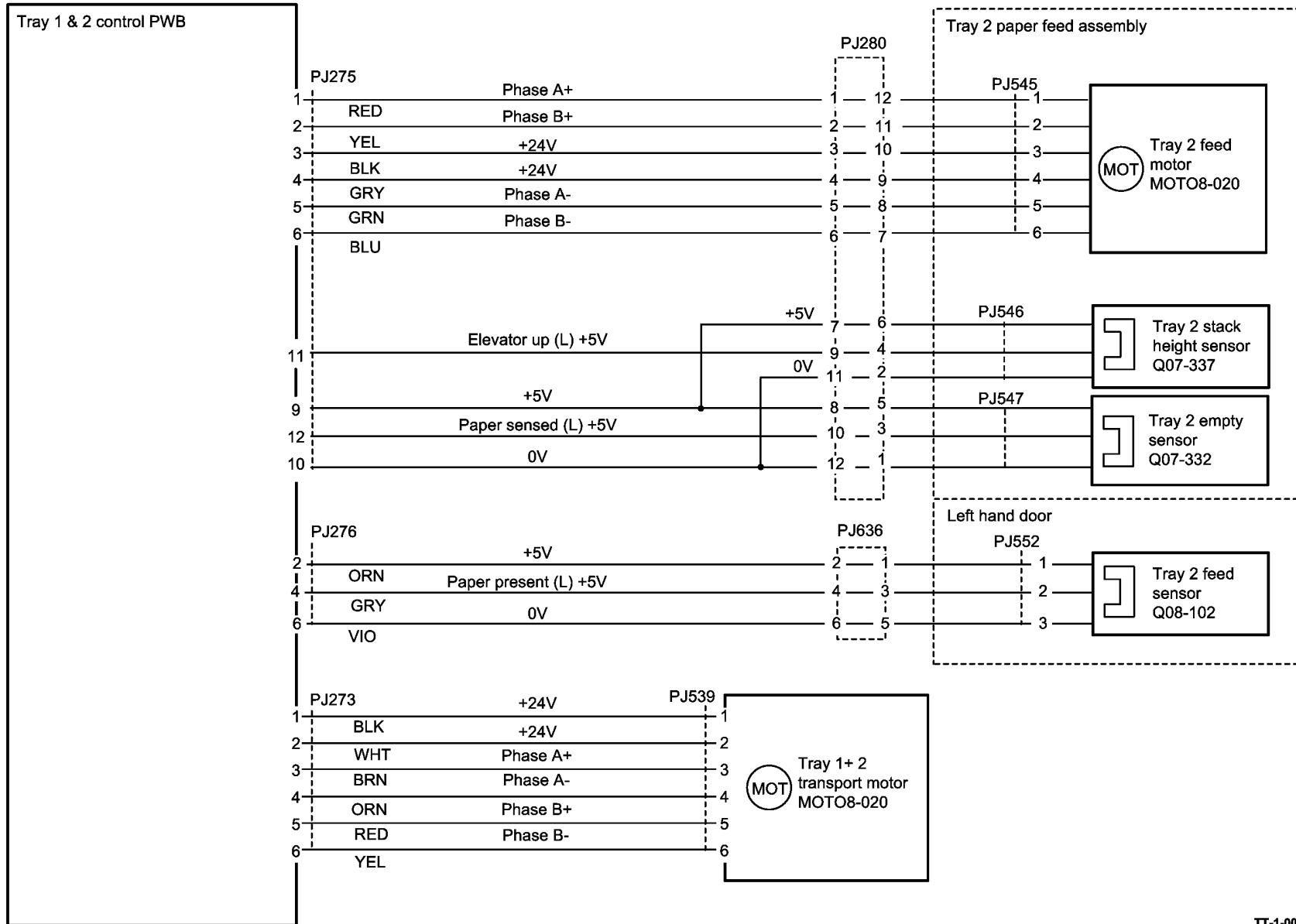
# Wiring Diagram 20



TT-1-0007-B

Figure 20 Wiring Diagram 20

# Wiring Diagram 21

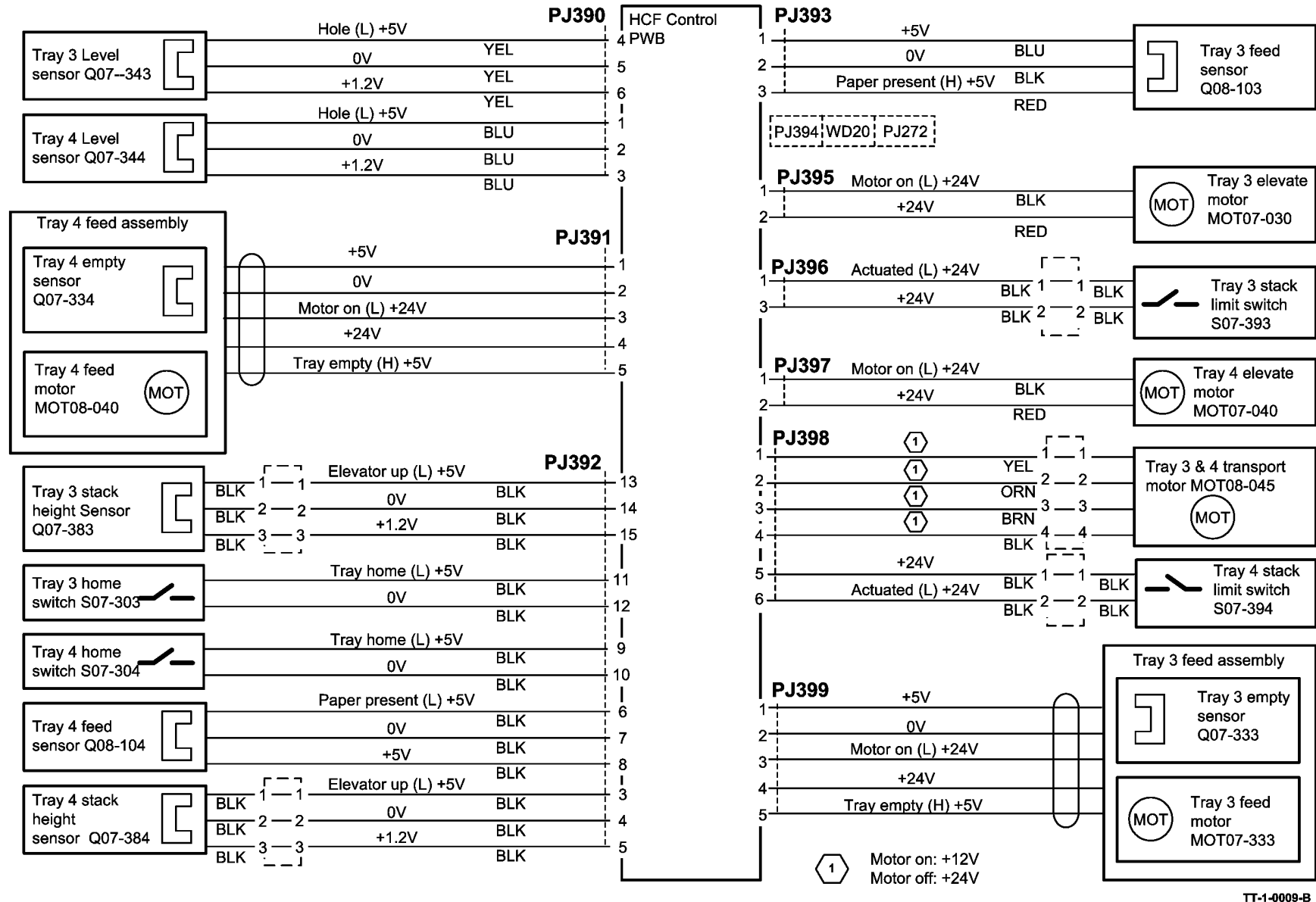


TT-1-0008-A

Figure 21 Wiring Diagram 21



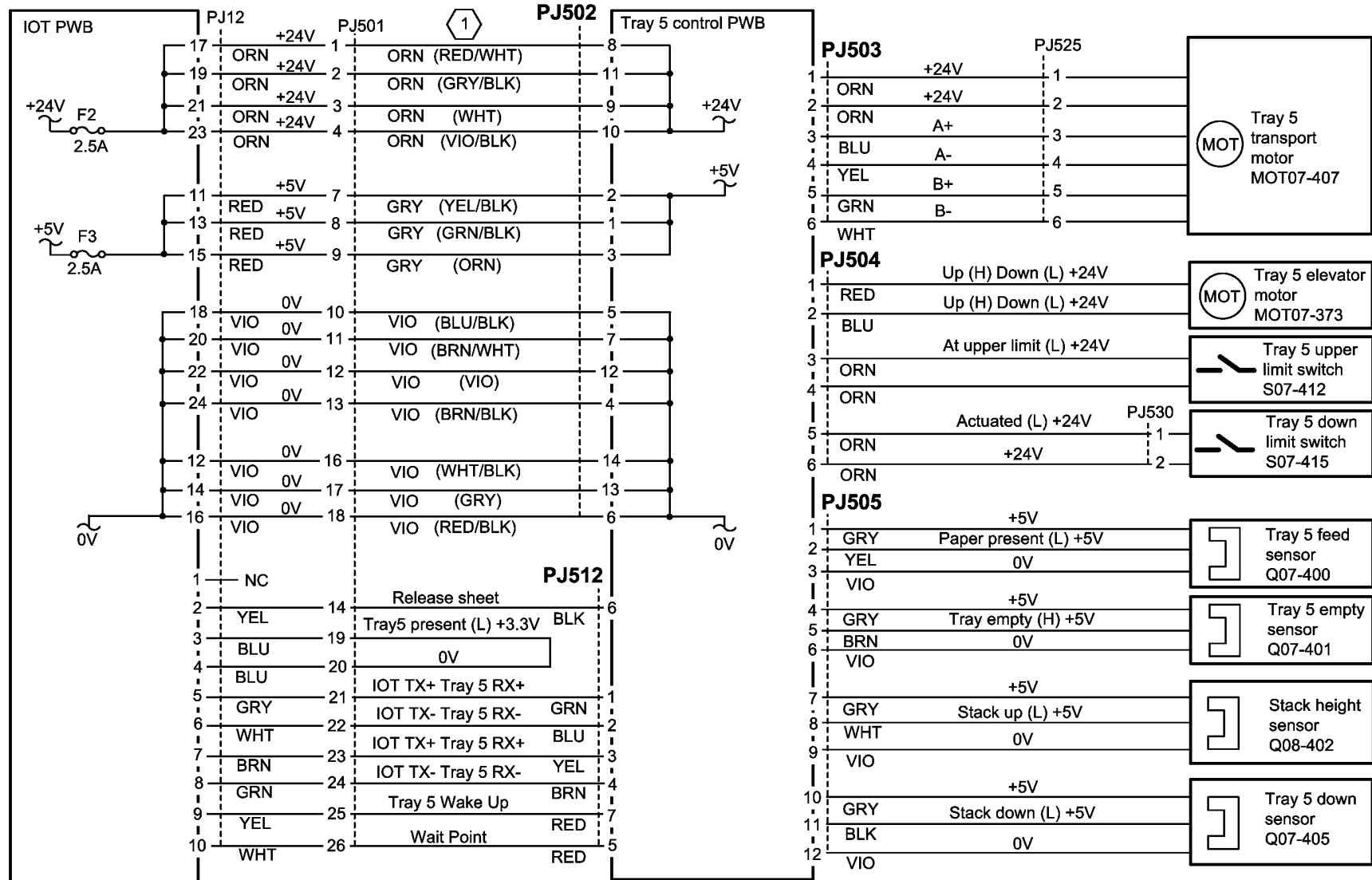
# Wiring Diagram 22 (W/O Tag 151)



TT-1-0009-B

Figure 22 Wiring Diagram 22 (W/O Tag 151)

# Wiring Diagram 23

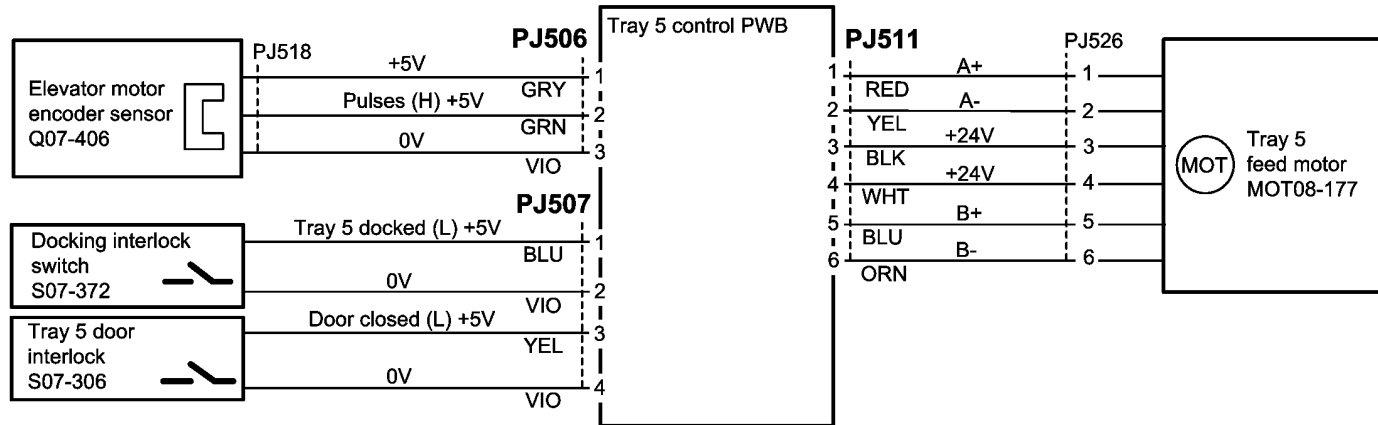


1 Some machines have the wire colours shown in brackets.

Figure 23 Wiring Diagram 23

TT-1-0022-A

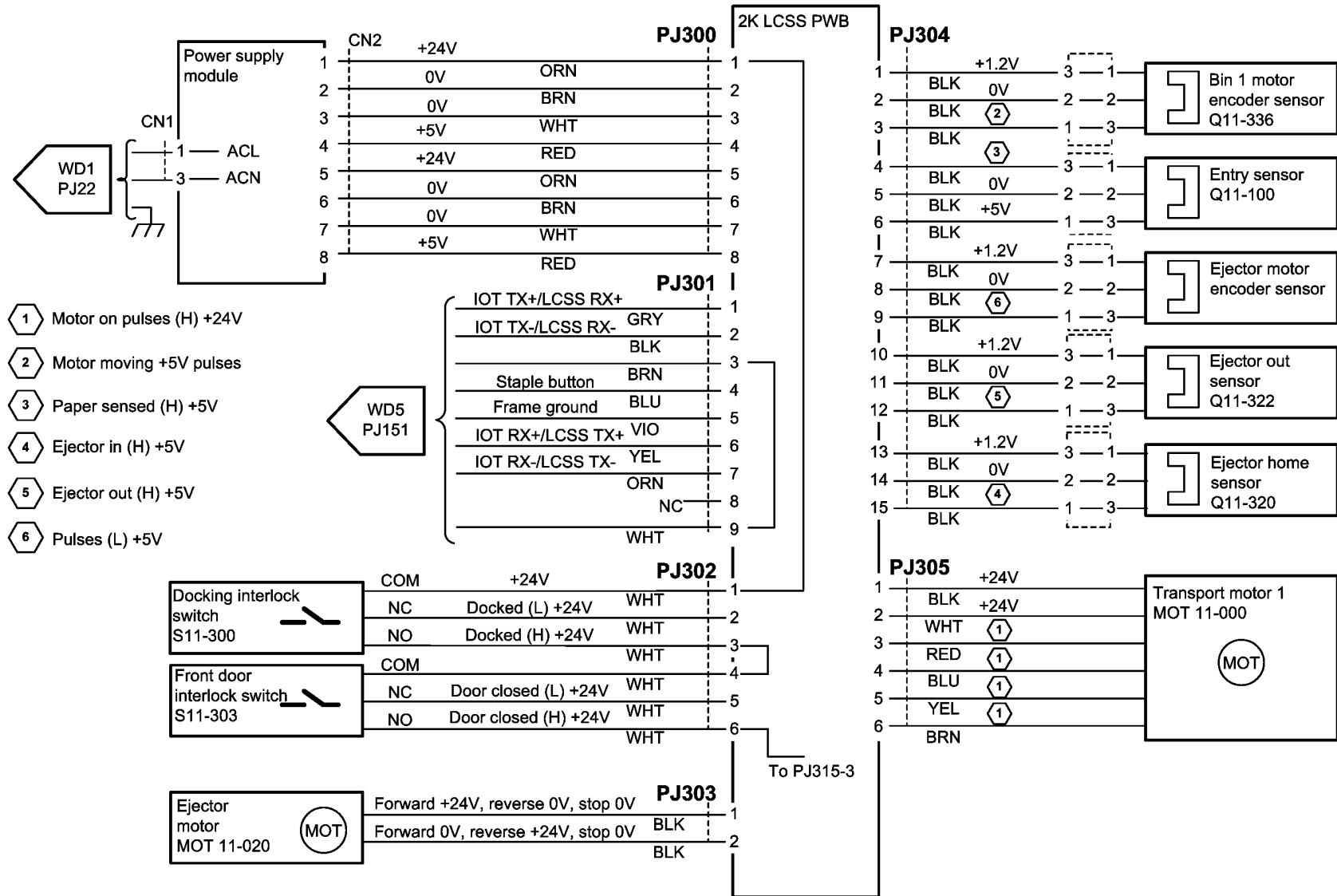
# Wiring Diagram 24



TT-1-0023-A

Figure 24 Wiring Diagram 24

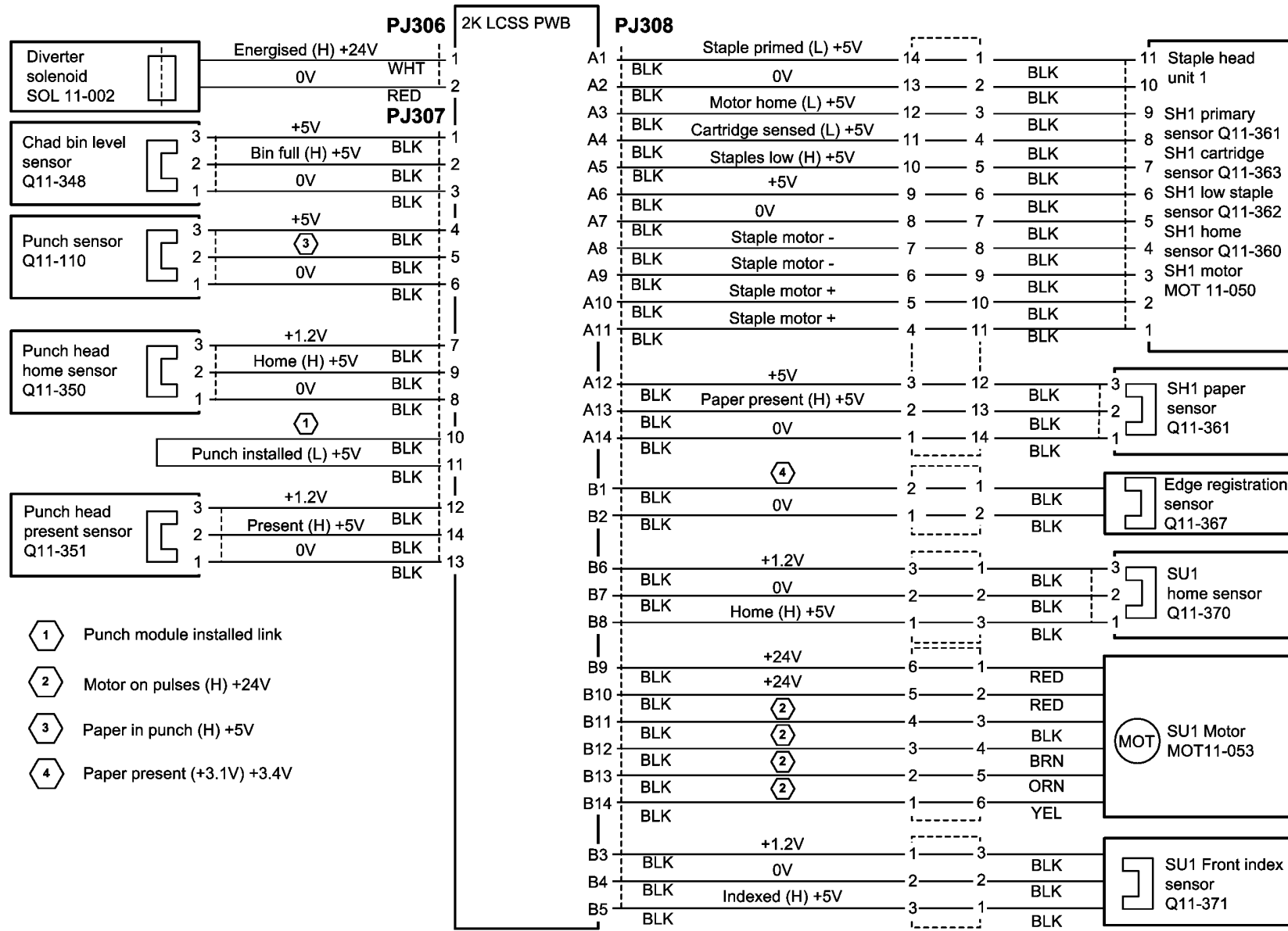
# Wiring Diagram 25



TT-1-0010-A

Figure 25 Wiring Diagram 25

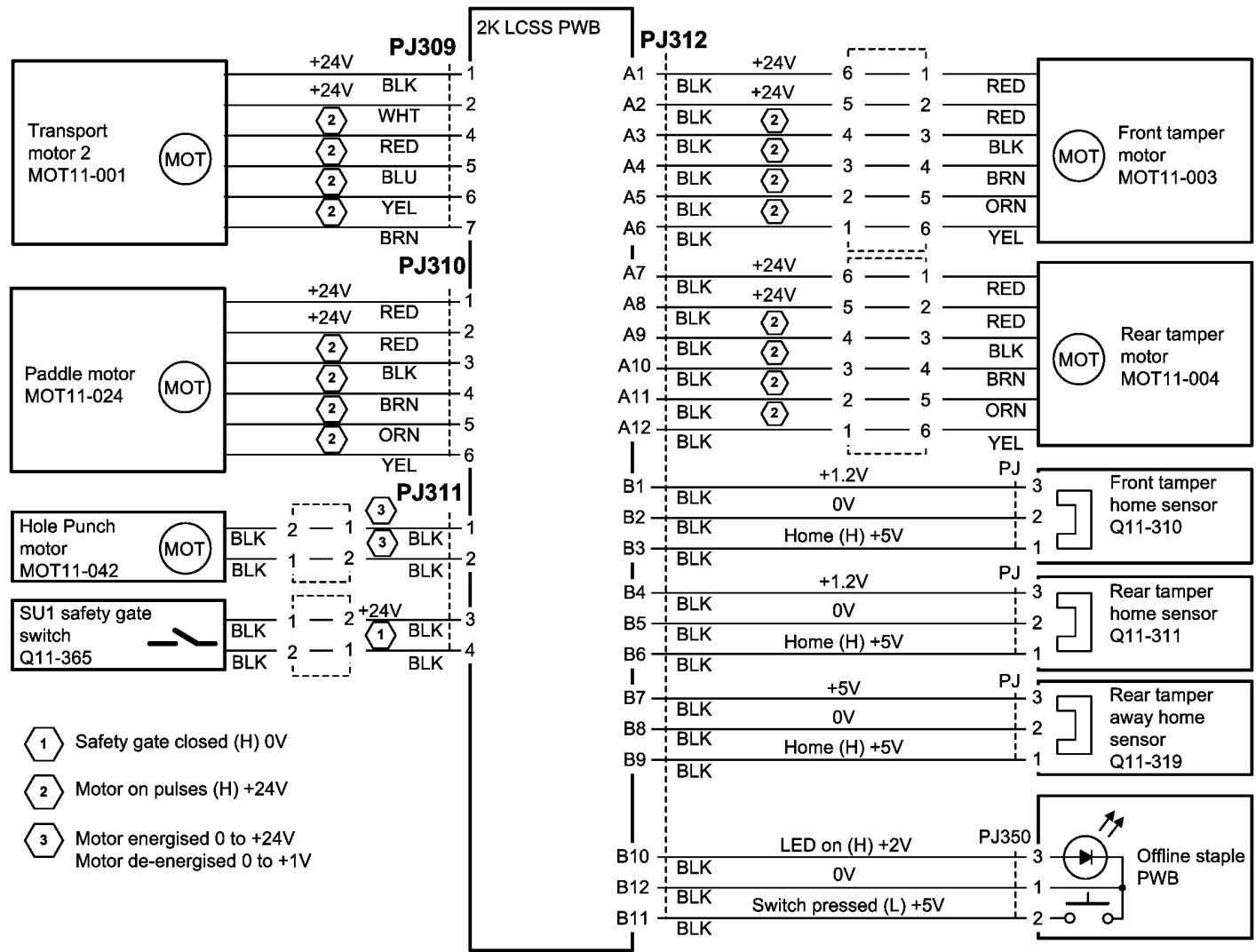
# Wiring Diagram 26



TT-1-0011-A

Figure 26 Wiring Diagram 26

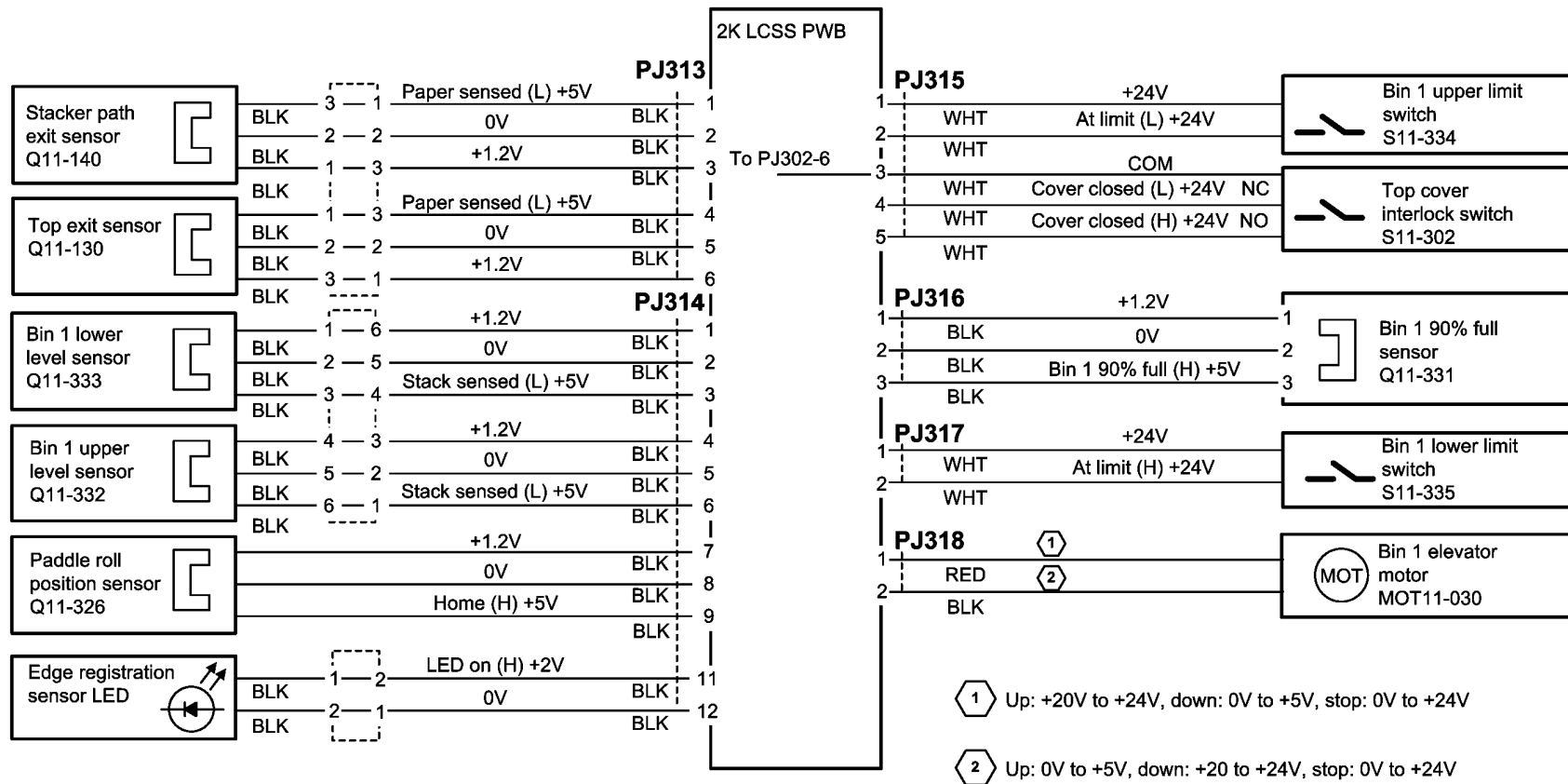
# Wiring Diagram 27



TT-1-0012-A

Figure 27 Wiring Diagram 27

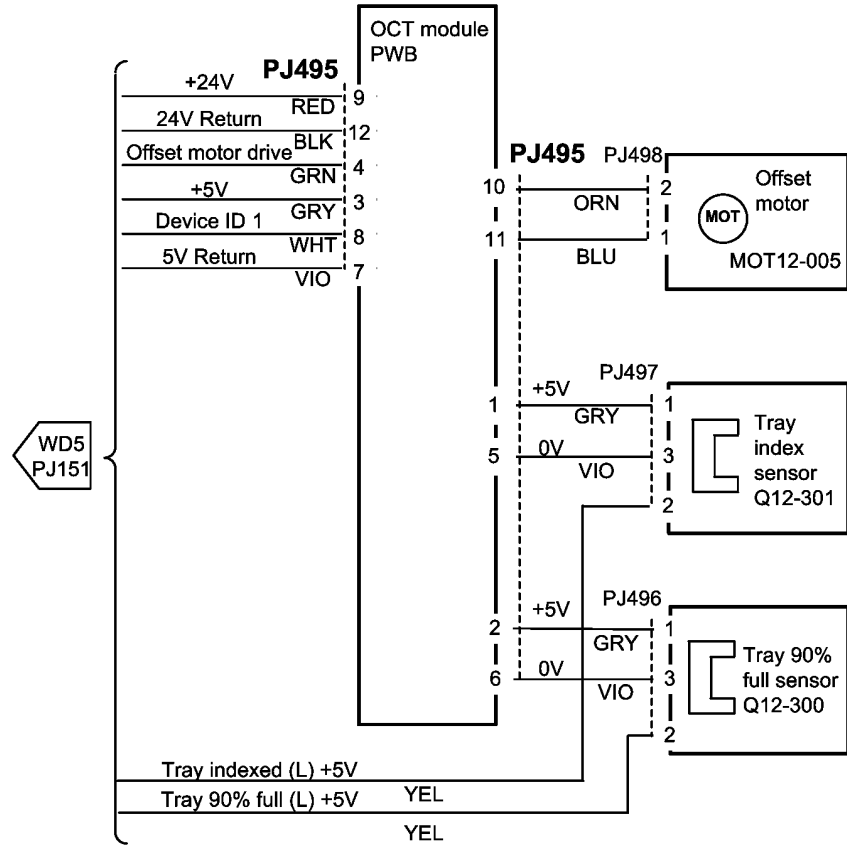
# Wiring Diagram 28



TT-1-0013-A

Figure 28 Wiring Diagram 28

# Wiring Diagram 29

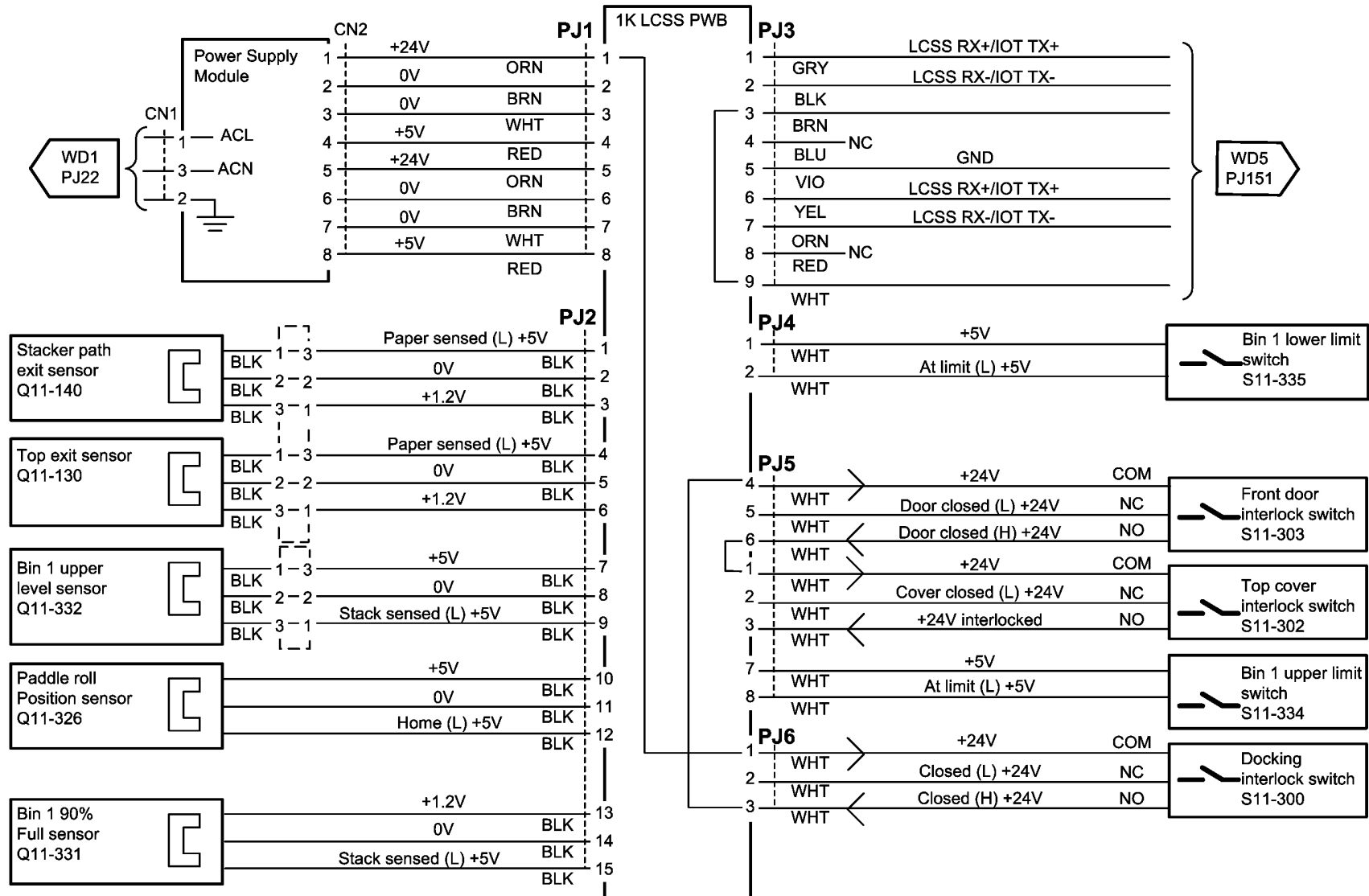


TT-1-0014-A

Figure 29 Wiring diagram 29



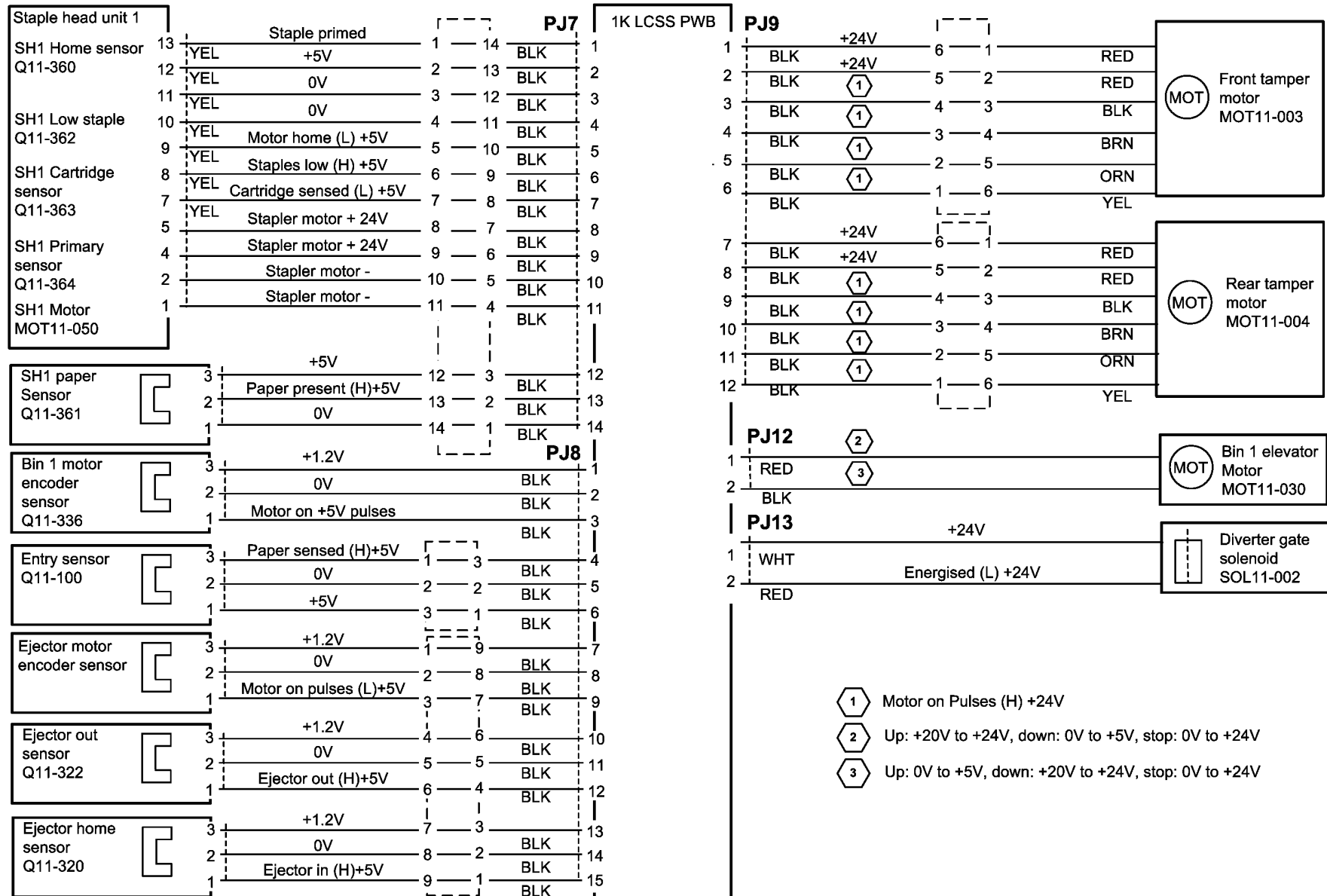
# Wiring Diagram 30



TT-1-0017-A

Figure 30 Wiring Diagram 30

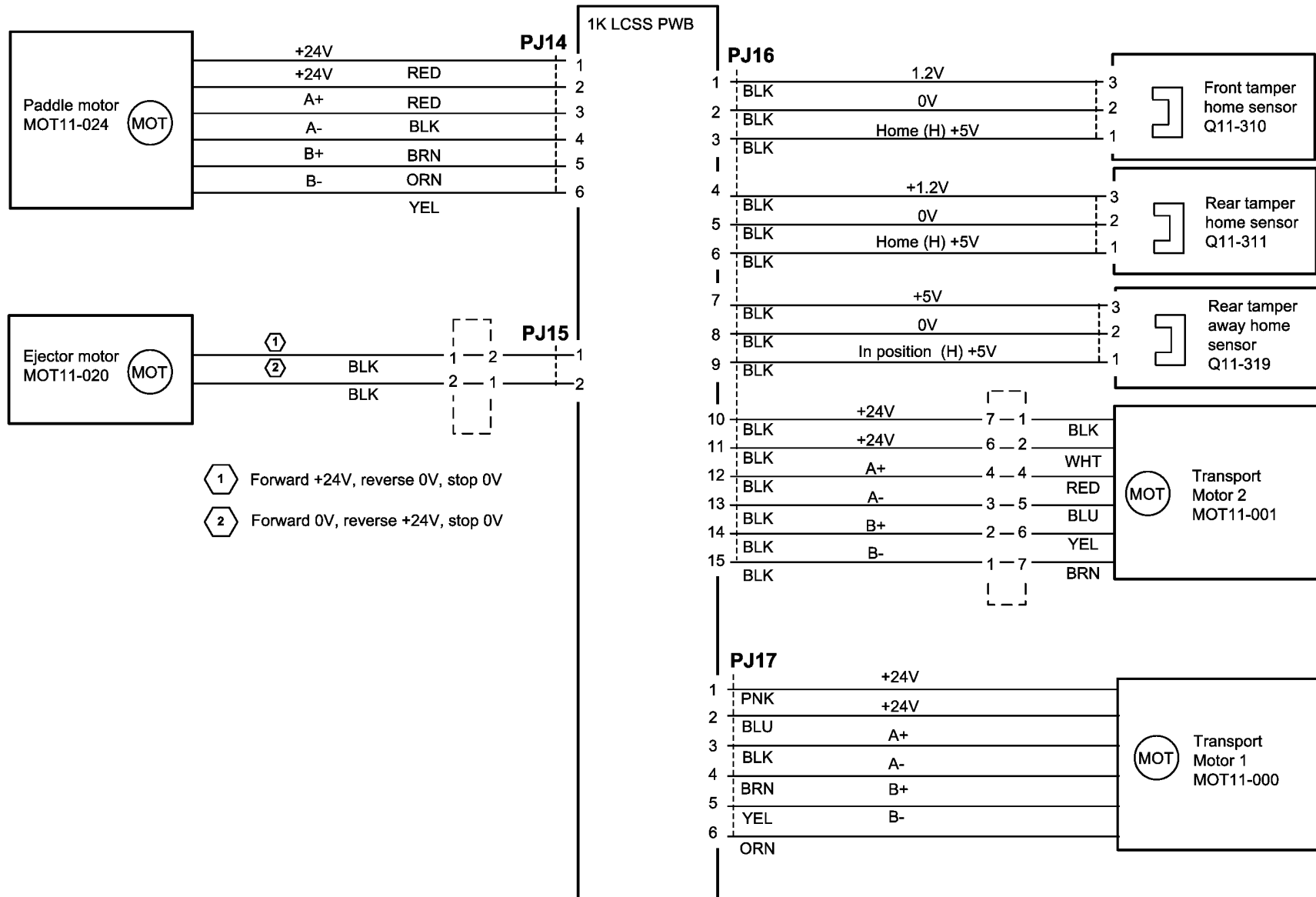
# Wiring Diagram 31



TT-1-0018-A

Figure 31 Wiring Diagram 31

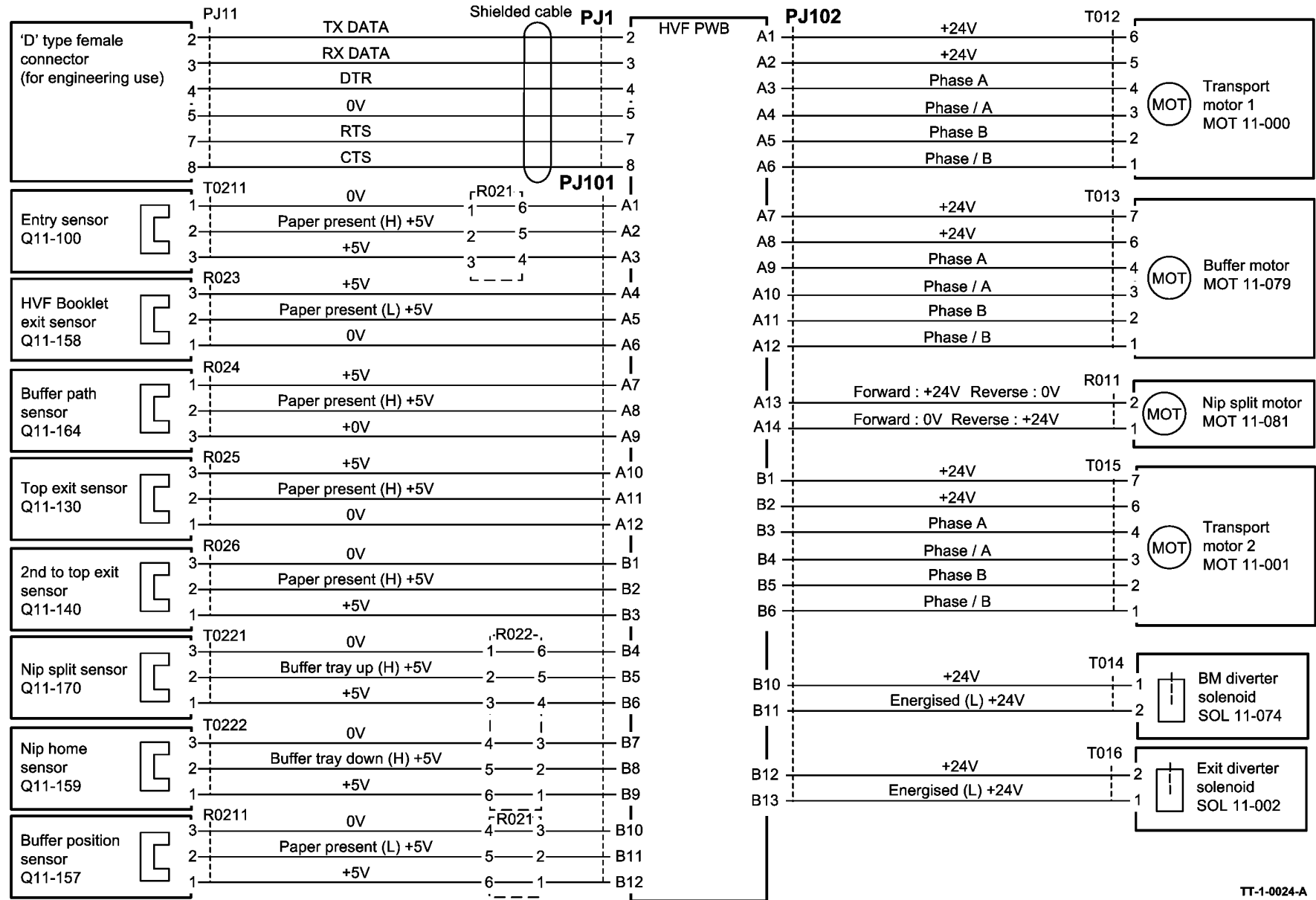
# Wiring Diagram 32



TT-1-0019-A

Figure 32 Wiring Diagram 32

# Wiring Diagram 33



TT-1-0024-A

Figure 33 Wiring Diagram 33

# Wiring Diagram 34

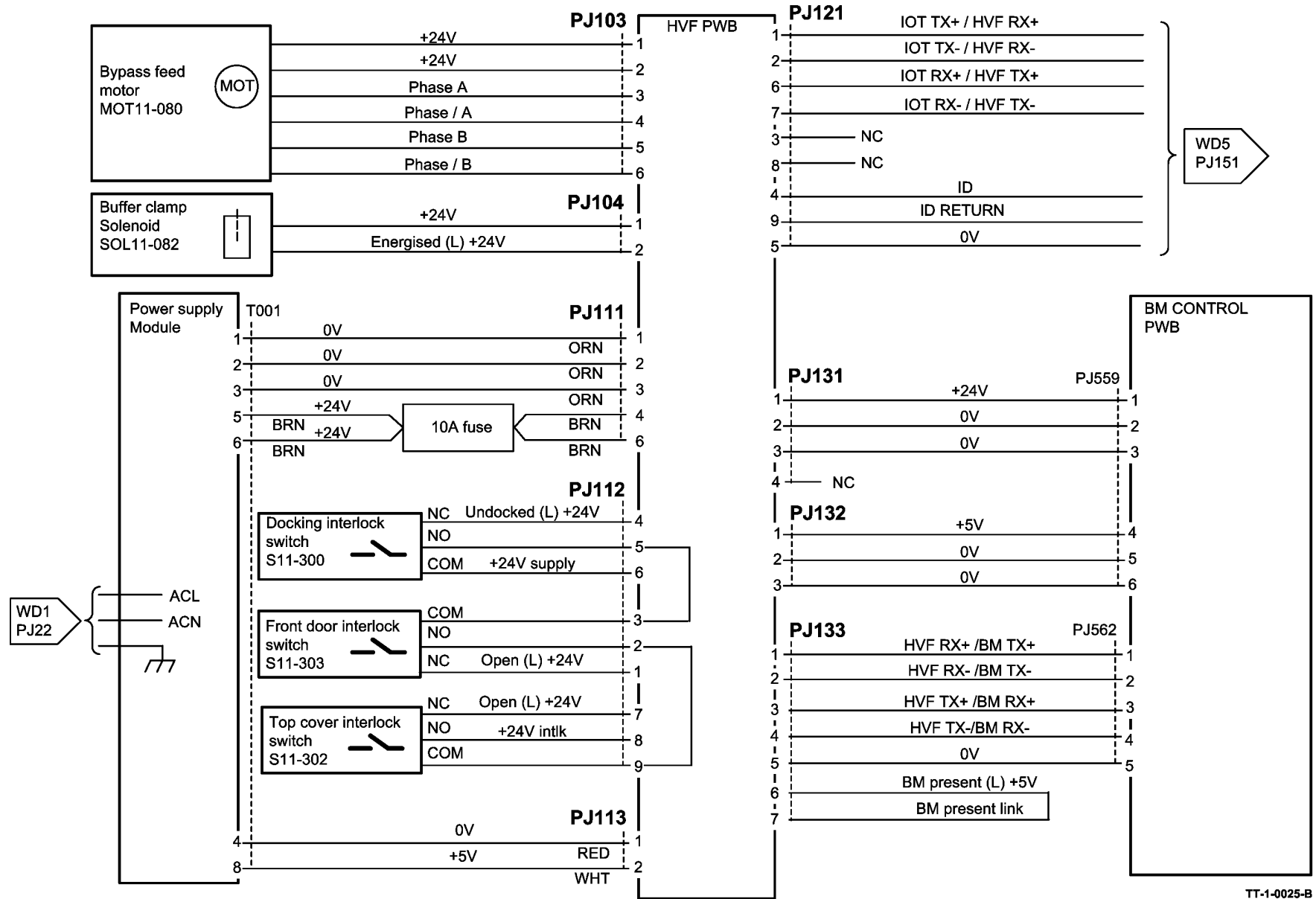
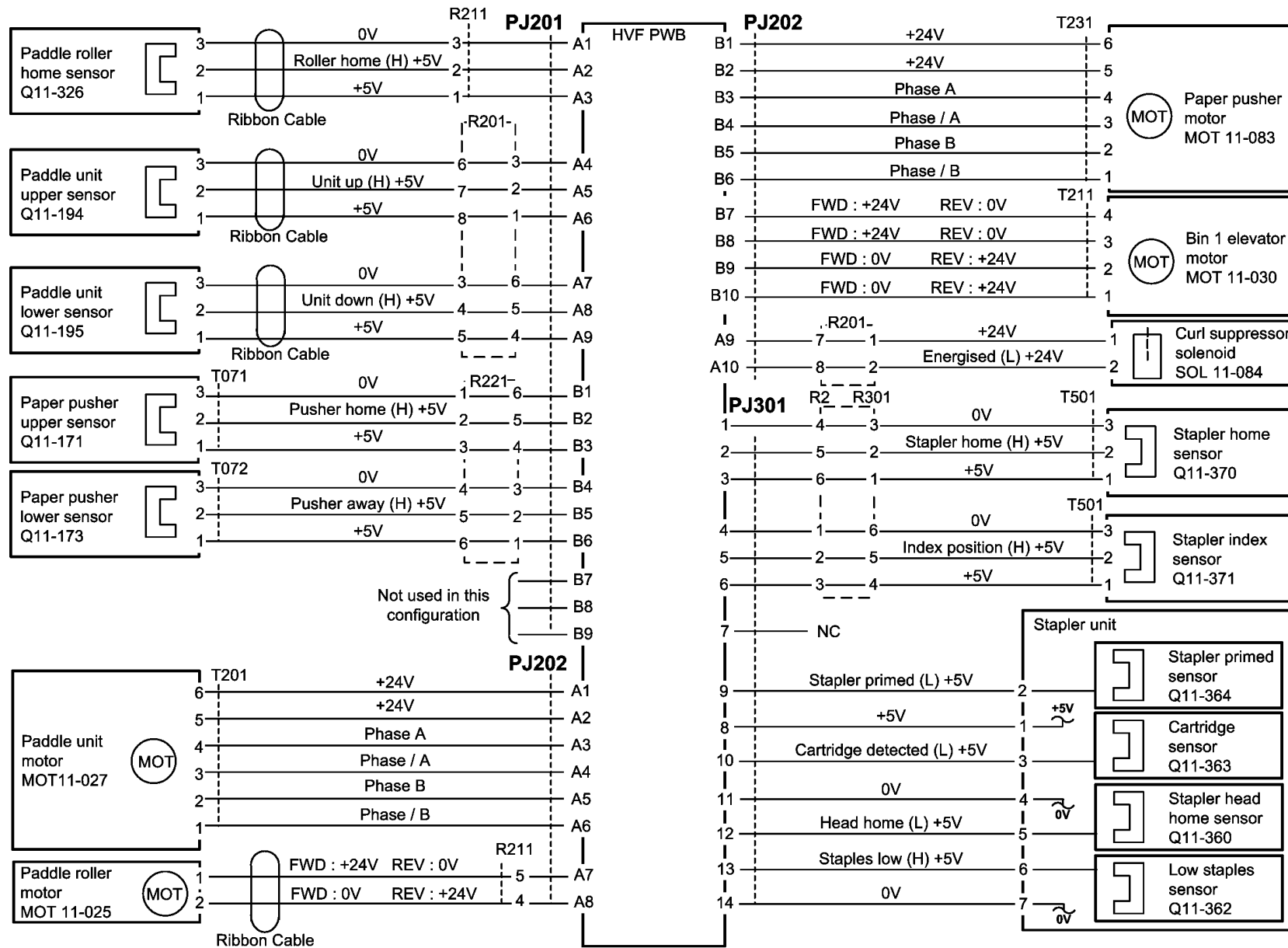


Figure 34 Wiring Diagram 34

TT-1-0025-B

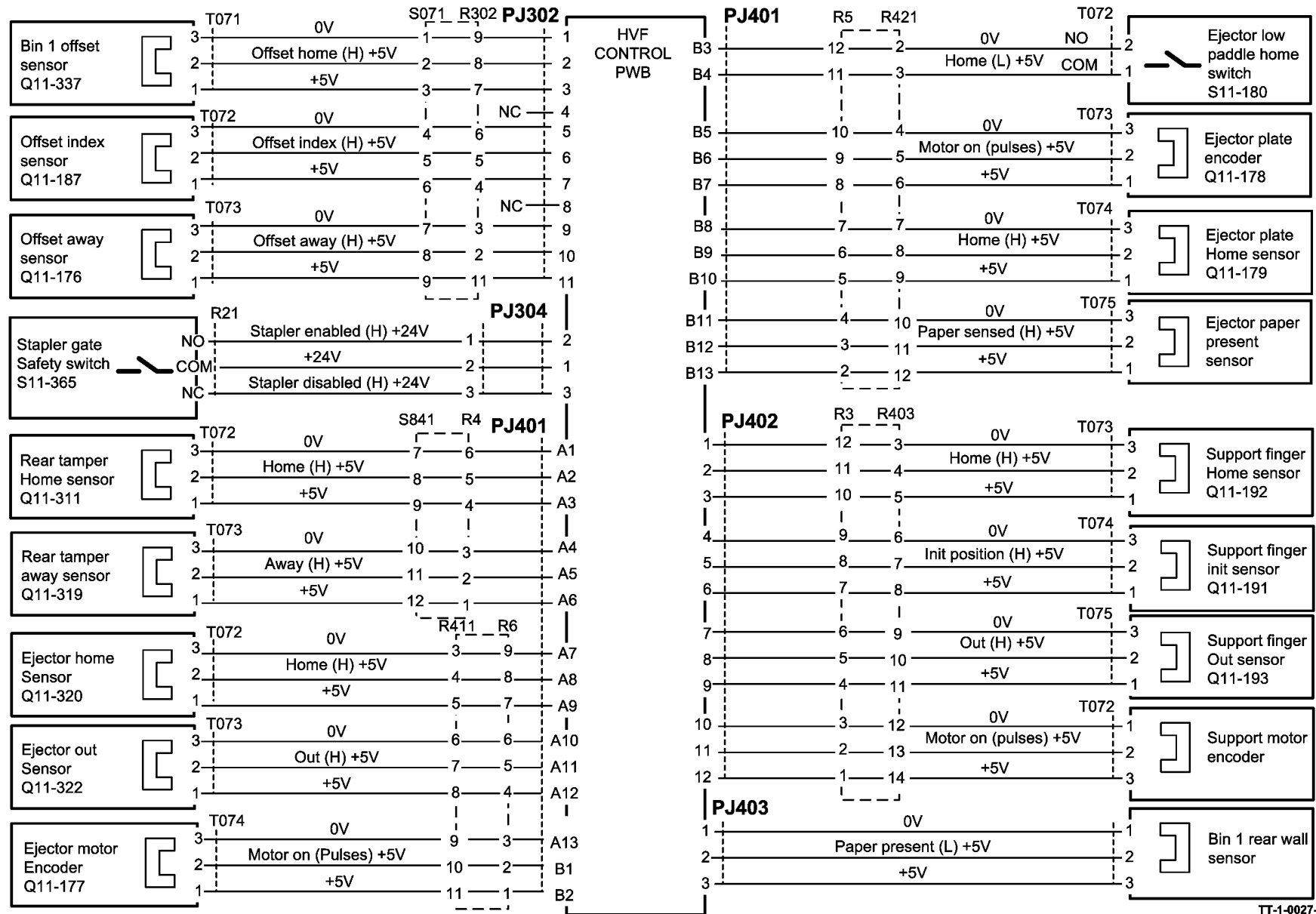
# Wiring Diagram 35



TT-1-0026-B

Figure 35 Wiring Diagram 35

# Wiring Diagram 36



TT-1-0027-A

Figure 36 Wiring Diagram 36

# Wiring Diagram 37

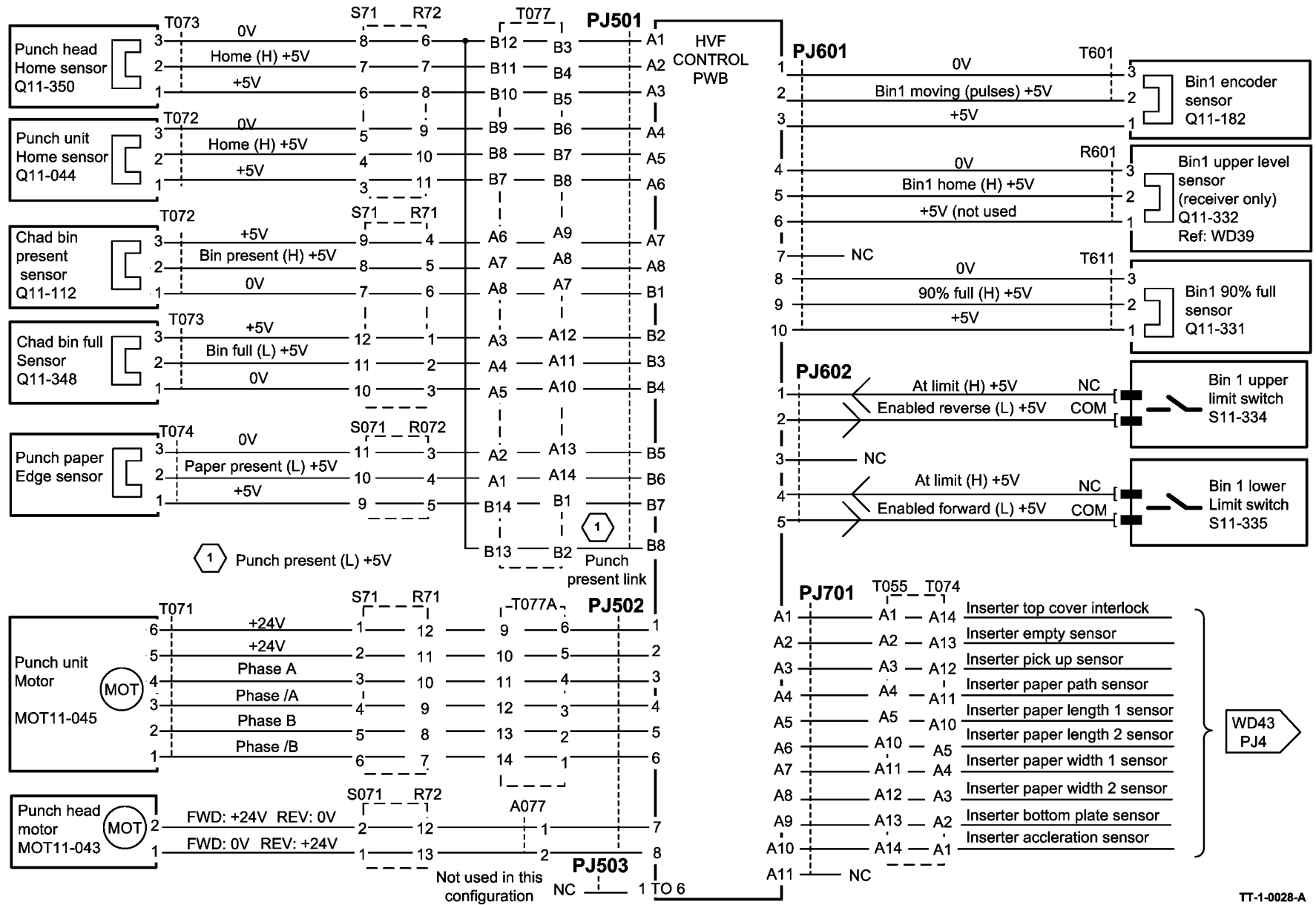


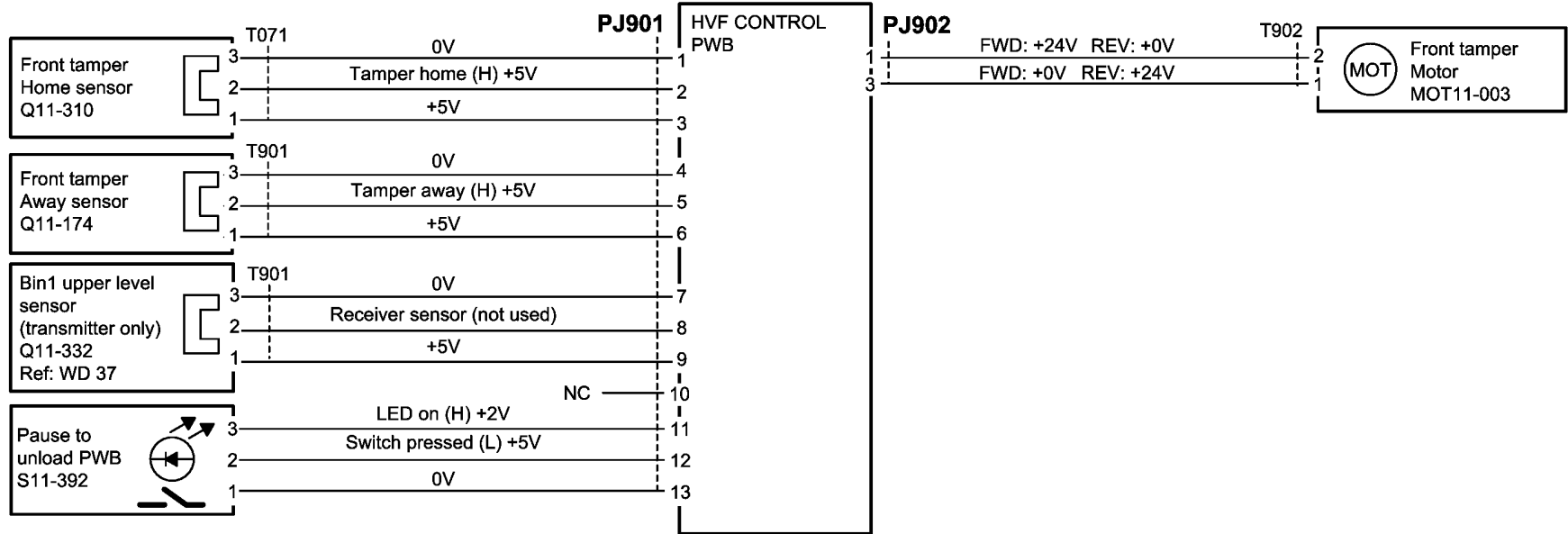
Figure 37 Wiring Diagram 37

TT-1-0028-A





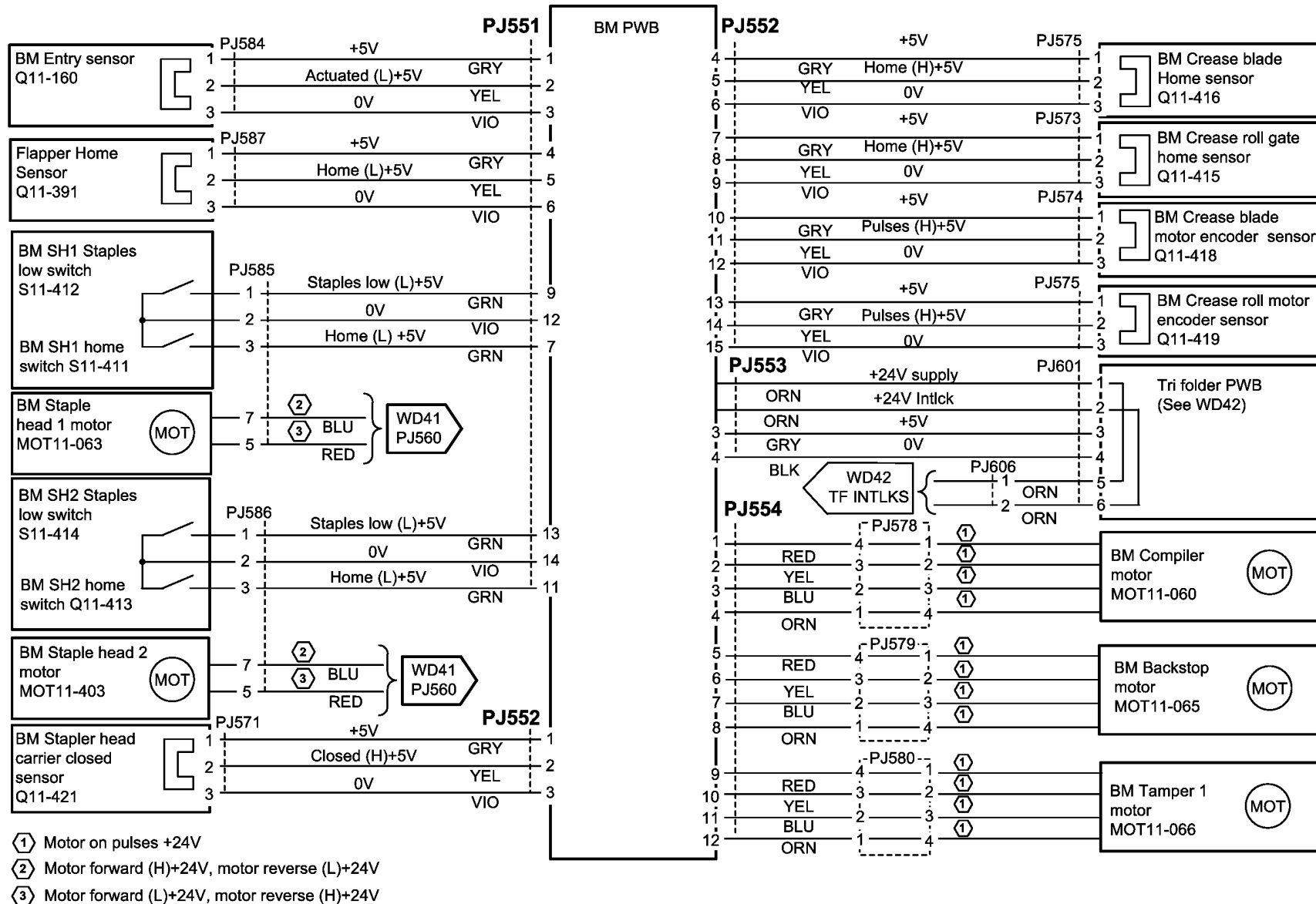
# Wiring Diagram 39



TT-1-0035-A

Figure 39 Wiring Diagram 39

# Wiring Diagram 40



TT-1-0030-A

Figure 40 Wiring Diagram 40

# Wiring Diagram 41

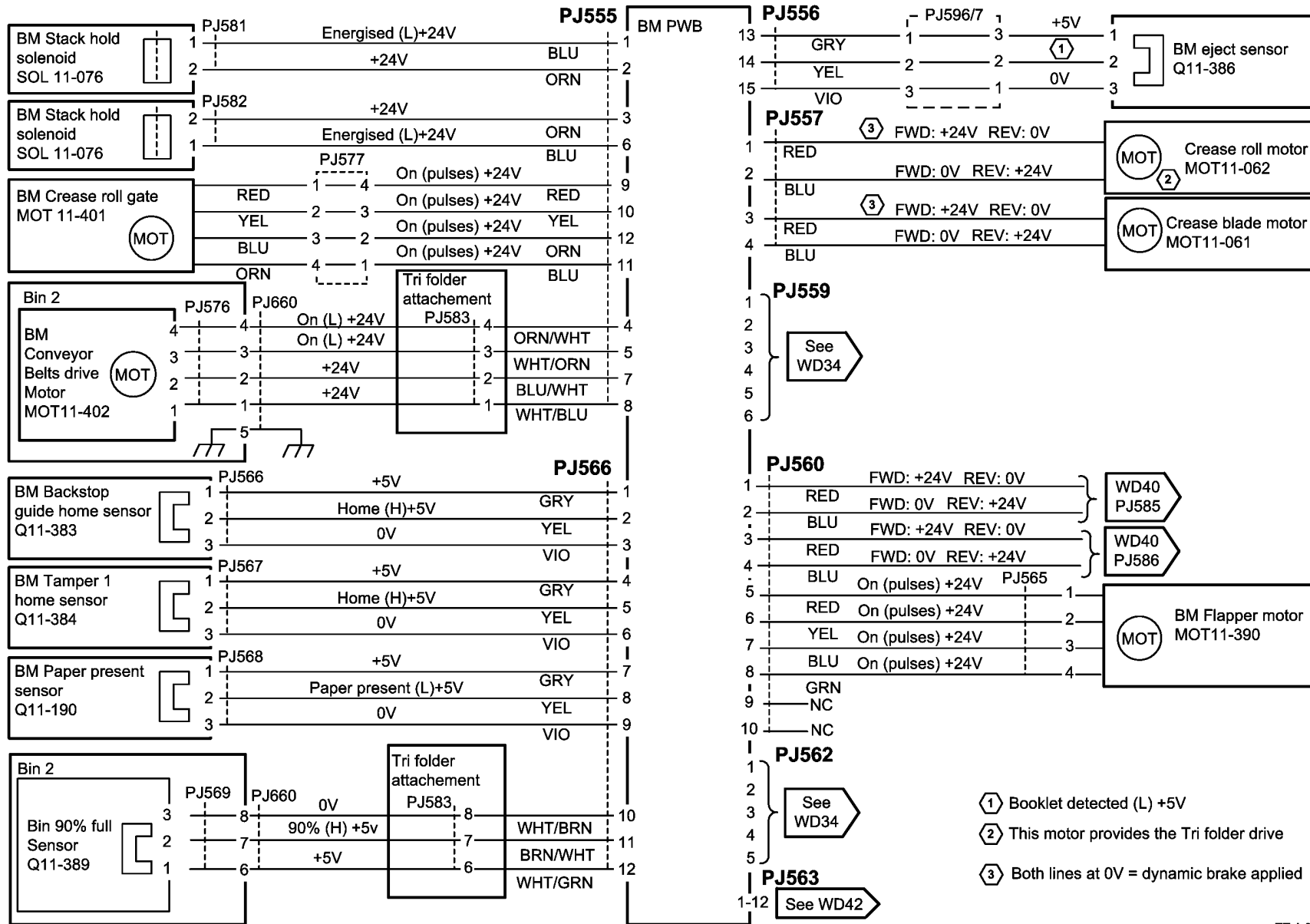
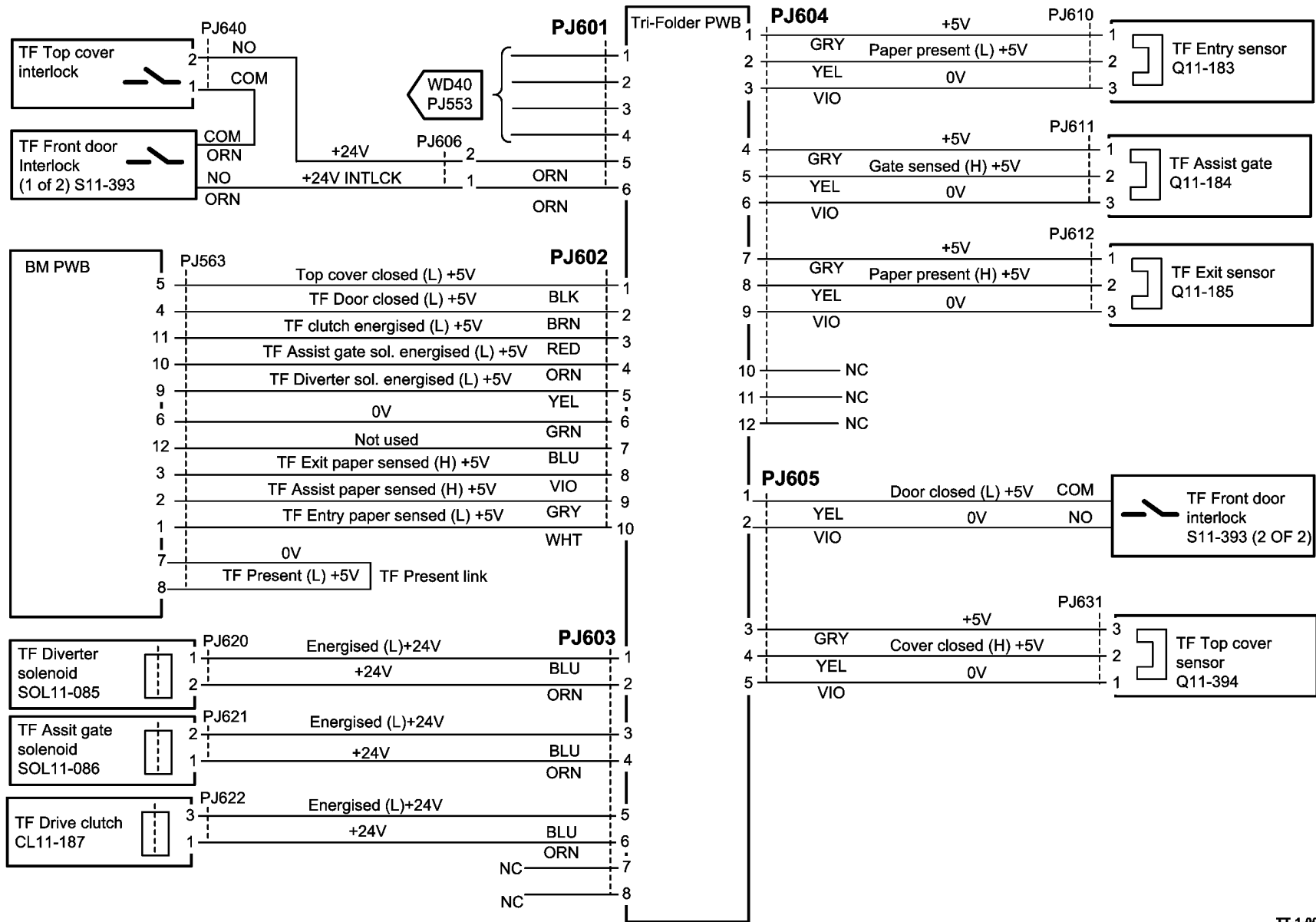


Figure 41 Wiring Diagram 41

TT-1-0031-A

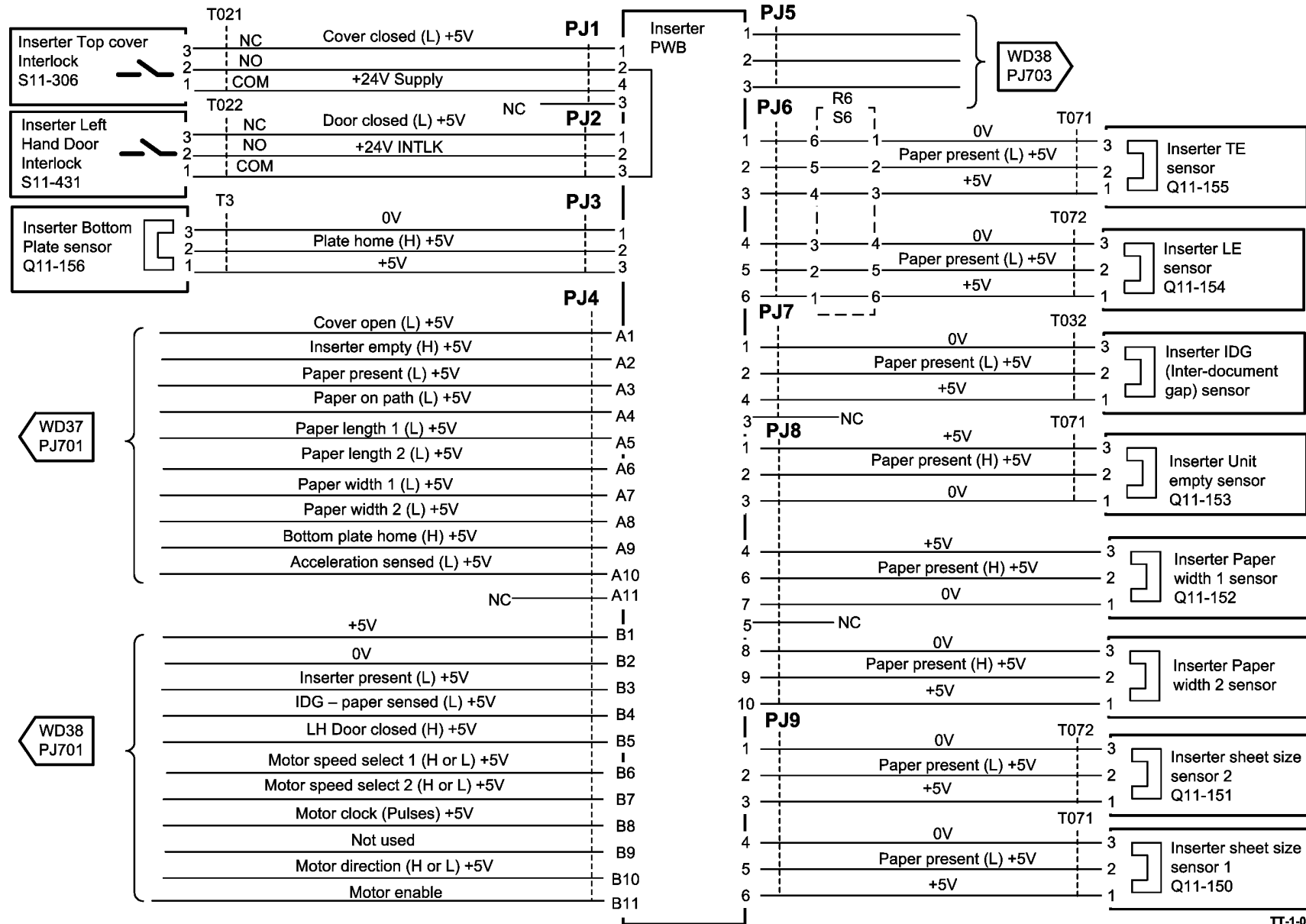
# Wiring Diagram 42



TT-1-0032-A

Figure 42 Wiring Diagram 42

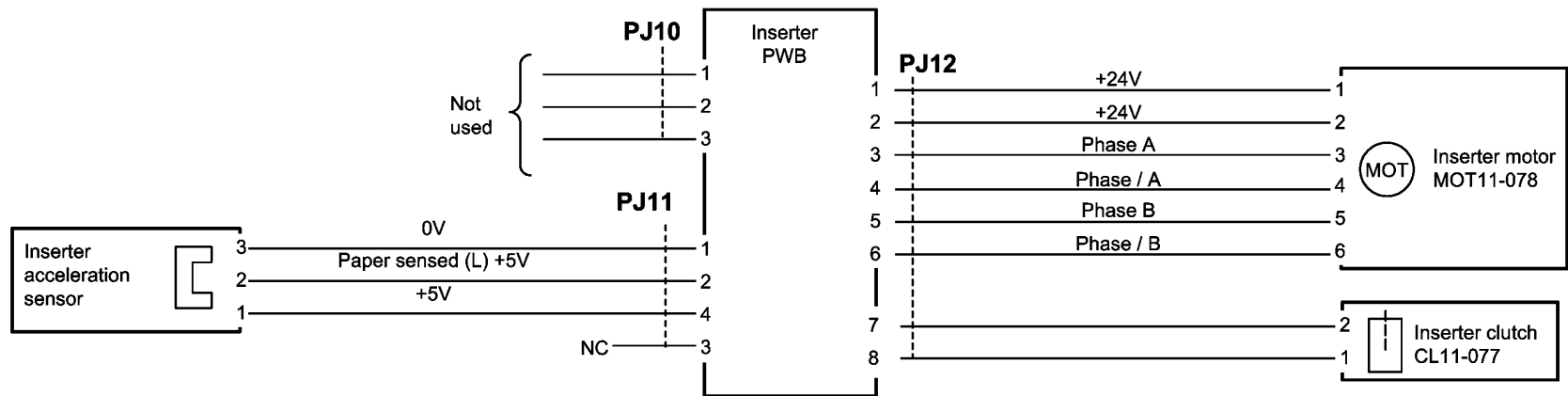
# Wiring Diagram 43



TT-1-0033-A

Figure 43 Wiring Diagram 43

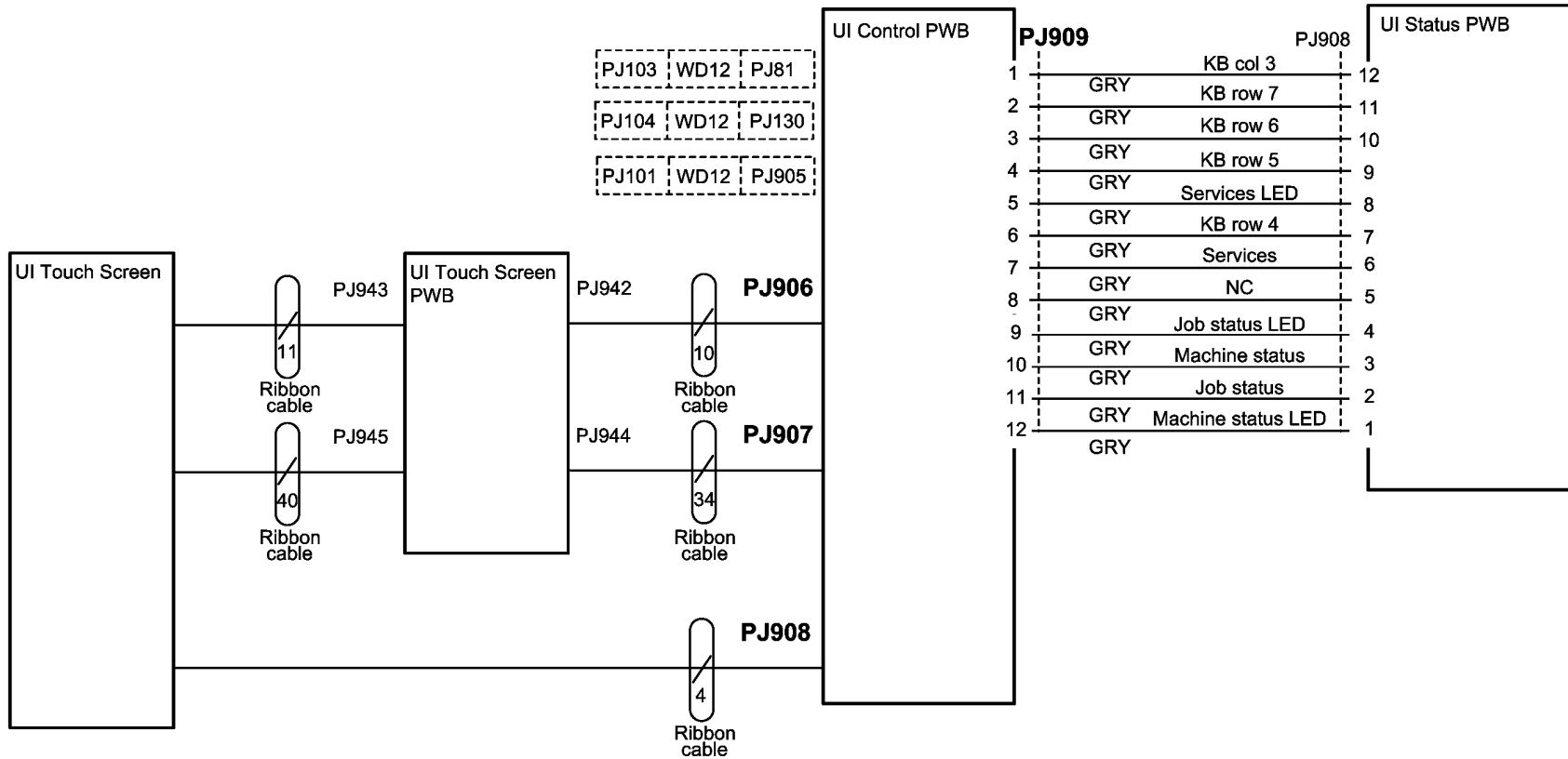
# Wiring Diagram 44



TT-1-0034-A

Figure 44 Wiring Diagram 44

# Wiring Diagram 45

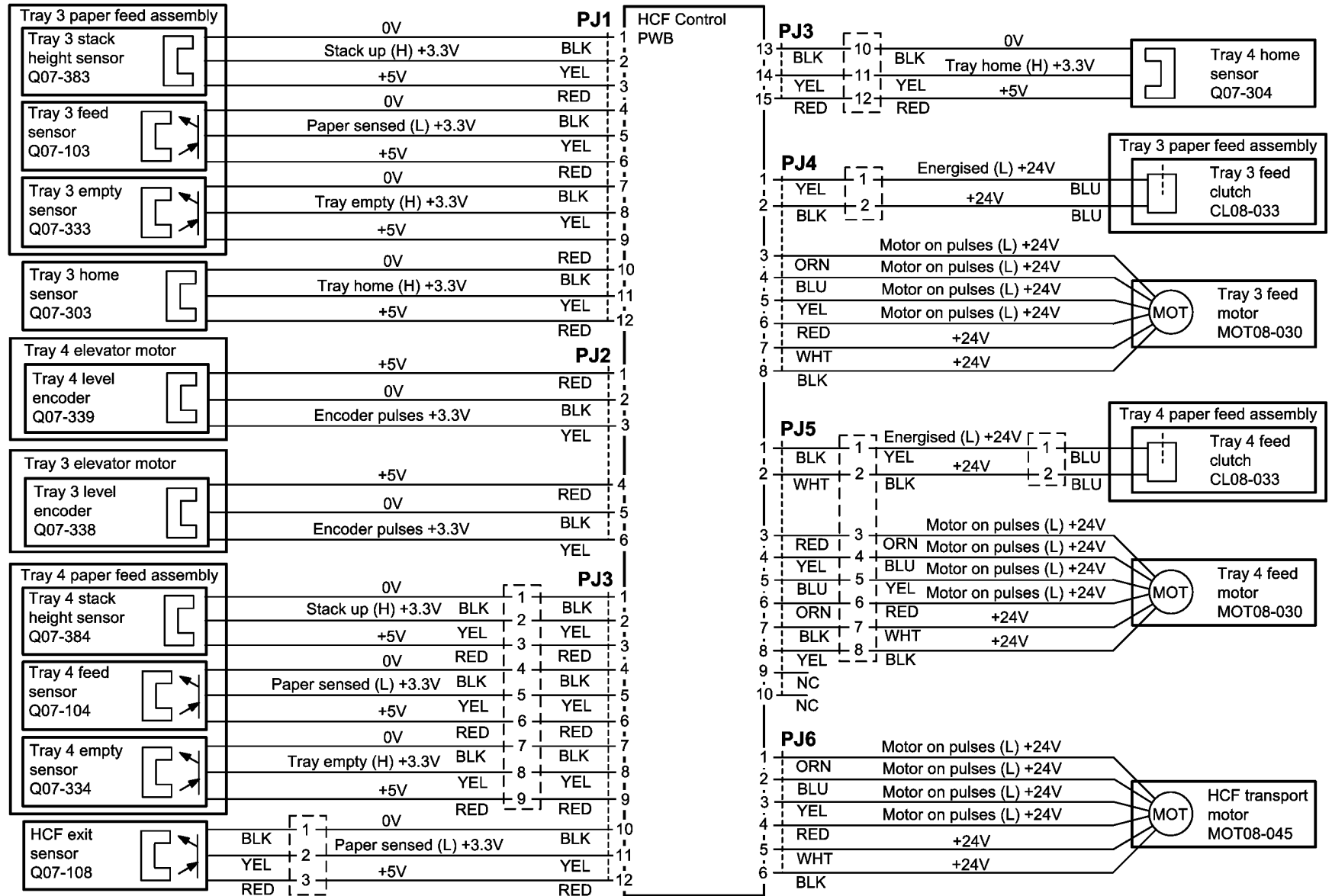


TT-1-0280-A

Figure 45 Wiring Diagram 45



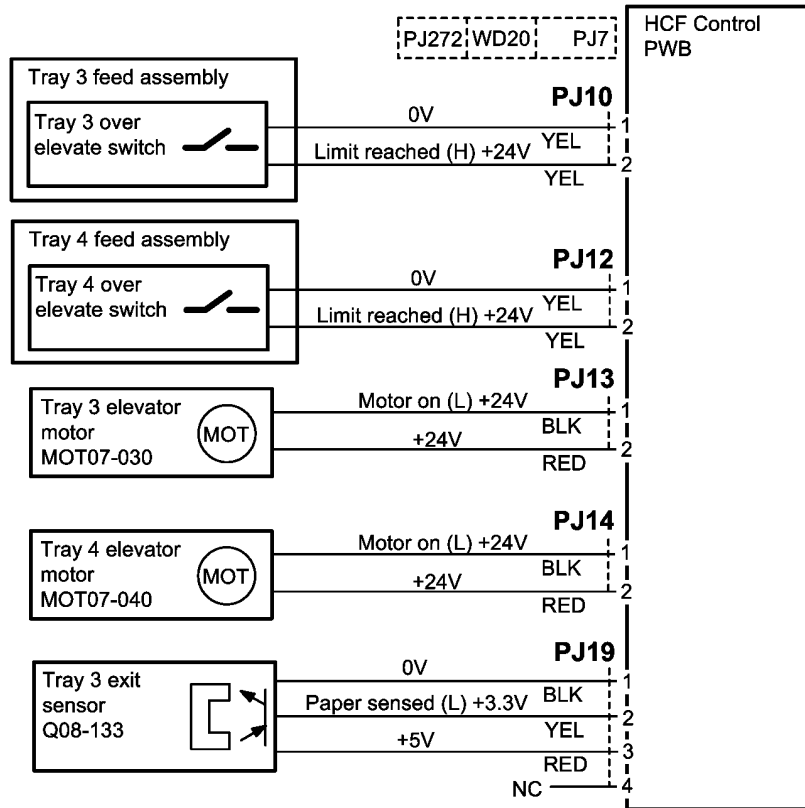
# Wiring Diagram 46 (W/Tag 151)



TT-1-0282-A

Figure 46 Wiring Diagram 46 (W/Tag 151)

# Wiring Diagram 47 (W/Tag 151)



TT-1-0283-B

Figure 47 Wiring Diagram 47 (W/Tag 151)

ACC 1 Foreign Device Checkout ..... 8-3



## ACC 1 Foreign Device Checkout Procedure

- Go to the [03-412](#) Foreign Device PWB Fault RAP.



**CONFIDENTIAL**  
(When filled in)



## EHS 700 - Health & Safety Incident Report Form for Incidents Involving a Xerox Product

For incidents in Canada: PIPEDA consent given	<input type="checkbox"/> YES <input type="checkbox"/> NO	EH&S Office Use ONLY EH&S Incident Reference Number:
PIPEDA is the Canadian "Personal Information Protection and Electronic Documents Act."		
For incidents in the EU: Safe Harbour Complaint	<input type="checkbox"/> YES <input type="checkbox"/> NO	

\*Date Of Incident (mm / dd / yyyy):

### Product Description

\*Model No. or Product Name:

Product Serial Number:

Serial Number(s) of Accessory (ies):

Installation Date:

Total Copy Meter:

Date of last service maintenance:

List damaged and affected part(s) of the machine by description and part number:

\*Description

Part Number

\*Location of product and affected part(s):

### Customer Identification

\*Customer Name:

\*Name of Customer Contact Person:

\*Address:

E-mail:

\*Telephone:

Fax:

### Customer Service Engineer Identification

\*Name (required for Xerox serviced equipment):

Employee:

E-mail:

Location:

\*Phone (required for Xerox serviced equipment):

### Individual Providing Notification

\*Name:

\*Title:

\*Telephone Number:

\*Organization:

E-Mail:

Mailing Address:

\*Date Report Submitted:

\* Required information is preceded by asterisk, **title shown in red**, with a tan wash background



**Details of Incident**

**\*Description Of Incident:** (Check all that apply)

Smoke

**Describe quantity and duration of smoke:**

Fire with open flames seen

Electric shock to operator or service representative

Physical injury/illness to operator or service representative

**Describe:**

Other, describe:

**MANDATORY DESCRIPTION** (above): Provide a detailed description of all valid factors that may have contributed to the incident. Hardware involved in the incident should be preserved and retained for further investigation should investigation be deemed necessary by EH&S.

LIST INCIDENT DESCRIPTIONS AND SUPPORT DIAGRAMS/DATA INCLUDED OR ATTACHED:

**\*Any damage to customer property?** No  Yes  Describe:

**\*Did external emergency response provider(s) such as a fire department, ambulance, etc. respond?**

No  Yes  Identify: (i.e., source, names of individuals)

**Apparent cause of incident (identify part that is suspected to be responsible for the incident)**

**\*Preliminary actions taken to mitigate incident:**

**Instructions:** E-mail or fax both pages of this completed form to EH&S:

**e-mail:** usa.product.incident@xerox.com or fax 585-422-8217 [ Intelnet 8\*222-8217 ]

\* Required information is preceded by asterisk, **title shown in red** with a tan wash background





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	Please submit a marked-up photocopy of the relevant pages		

### CUSTOMER SATISFACTION QUESTION SET

QUESTION	NOT APPLICABLE	VERY SATISFIED	SATISFIED	NEITHER SATISFIED NOR DISSATISFIED	DISSATISFIED	VERY DISSATISFIED
DO YOU FIND THE MANUAL IS TECHNICALLY ACCURATE?						
DO YOU FIND THE FORMAT OF THE MANUAL EASY TO USE?						
WHAT IS YOUR OVERALL SATISFACTION LEVEL WITH THE MANUAL						
<b>FOR OFFICE USE ONLY</b>						
<b>RECEIVED DATE:</b>						
<b>PCS. NUMBER:</b>						
<b>MANAGER:</b>	Digital, Creative and Language Services Xerox CMS Bessemer Road Welwyn Garden City Hertfordshire, AL7 1BU UK					
<b>DUE DATE:</b>	Attention: Gavin Roberts					

