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Xerox® VersaLink® C400 Color Printer & C405 Color Multifunction Printer Service Manual

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About This Manual

This manual is the primary document used for diagnosing, repairing, maintaining, and troubleshooting the Xerox® VersaLink® C400 Color Printer and Xerox® VersaLink® C405 Color Multifunction Printer. The Service Manual is the controlling publication for a service call. To ensure product understanding, complete the Xerox Service Training Program for these devices.

Organization

Section titles and the information contained in each is presented in the following paragraphs:

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 subassembly.

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 device.

Section 5 Parts List

This section contains the 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.

Section 7 Wiring Data

This section contains the wiring diagrams.

Section 8 Principles of Operation

This section contains details of printer operation and component locations.

Component Names

Names of parts that appear in the disassembly procedures may not be exactly the same as the names that appear on the part or listed in the parts lists. For example; a part called the registration chute assembly may appear on the parts list as Assembly, Chute REGI.

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 Device Variants

The variant devices VersaLink® C400 Color Printer and VersaLink® C405 Color Multifunction Printer will be identified in this document by the model identifier C400 or C405 respectively.

When a procedure, parts list description or other reference is unique between the devices, the appropriate model designator, C400 or C405 will be used. Any artwork will also be specific.

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

Warnings, Cautions and Notes

WARNING

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.

CAUTION

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 appears to highlight a procedure, practice, condition or statement.*

Service Acronyms

While using this service documentation, you may encounter acronyms that are unfamiliar.

To find definitions for Xerox acronyms, go to the following page in your web browser, then enter the acronym and click Search:

https://open.xerox.com/Services/acronym

Change History

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

BUS Update June 2017

The following procedures are updated:

- 003-318, 003-319 IIT Software Fail RAP
- 003-320 to 003-343 IISS-ESS Communication Fail RAP
- 003-344 Hotline Fail RAP
- 003-345, 003-346 X PIO Mismatch RAP
- 003-963, 965, 966 APS RAP
- 010-105, 010-106 Exit Sensor Jam RAP
- 016-210, 506, 777, 780, 798 HDD Error RAP
- 016-312, 313, 314, 320 SW Option Fail (Hybrid WaterMark) RAP
- 016-322 JBA Account Full RAP
- 016-323 B-Formatter Fatal Error RAP
- 016-357 Controller EP Communication Fail RAP
- 016-513 SMTP Server Reception Error RAP
- 016-524, 016-525 LDAP SSL Error 114 and 115 RAP
- 016-533 Kerberos Attestation Protocol Error 37 RAP
- 016-535 Remote Download File Access Error RAP
- 016-574 FTP Host Name Solution Error RAP
- 016-579 FTP Scanning Picture Preservation Place Error RAP
- 016-580 FTP File Name Acquisition Failure RAP
- 016-581 FTP File Name Suffix Limit RAP
- 016-583, 016-584 FTP Folder Creation Failure RAP
- 016-586 FTP Lock Folder Delete Failure RAP
- 016-611 EMMC Card Connection Fail RAP
- 016-748, 774, 775, 778, 981 HD Full RAP
- 016-757 Auditron Invalid User RAP
- 016-758 Auditron Disabled Function RAP
- 016-759 Auditron Limit Reached RAP
- 016-767 Invalid Email Address RAP
- 016-768 Invalid Sender Address RAP
- 016-770 Direct Fax Function Canceled RAP
- 016-776 Image Conversion Error RAP
- 016-781 Server Connect Error RAP
- 016A Scan to Network Error Entry RAP
- 017-714 SMTP Over SSL Fail RAP
- 017-787 Google Cloud Print Data Error RAP
- 018-406 Setting Status of IP Address (IPv4) RAP
- 018-407 Setting Status of IP Address (IPv6) RAP
- 018-427 Duplicate IP Address Range WiFi and WiFi Direct RAP
- 018-502 SMB Login Failure RAP
- 018-505 SMB-DOS Protocol Error RAP
- 018-543 Shared Name Error in SMB Server RAP
- 018-547 SMB Scan Users Restriction RAP
- 018-587 File Duplication Fail RAP
- 018-588 Scan Filing Policy Invalid RAP
- 018-589 NEXTNAME File Error RAP
- 018-590 Same Name Exists RAP
- 018-592, 018-593 Lock Folder Fail RAP
- 021-528, 021-529 Communication Settings RAP
- 024-322, 024-323 SEEPROM Refurbish RAP
- 024-340 to 024-360 IOT-ESS Communication Fail 1 RAP
- 024-362, 024-363 Page Sync Illegal Start or Stop RAP
- 024-367 Decompress Other Fail RAP
- 024-368 PCI Error RAP
- 024-367 Decompress Other Fail RAP
- 024-370 Marker Code Detection Fail RAP
- 024-371 to 024-373, 024-375 MCU-ESS Communication Fail 2 RAP
- 033-328, 329, 340 Failed to Initialize Fax Log RAP
- 041-340, 041-363 MCU NVM (EEPROM) Data Fail RAP
- 042-325 Motor Failure RAP
- 042-335, 042-398 Main Fan Failure RAP
- 043-342 Sub Motor Failure RAP
- 075-100 MSI Misfeed Jam RAP
- 075-911 MSI Tray Out of Position RAP
- 077-300 Front Cover Interlock Open RAP
- 077-302 Waste Door Interlock Open RAP
- 077-323 PH Motor Failure RAP
- 091-300 Rear Cover Interlock Open RAP
- 091-400, 405, 911 Waste Toner Bottle Near Full RAP
- 093-320 Developer Motor Fail RAP
- 102-311 to 102-319 USB Dongle Errors RAP
- 102-356 EWS Soft Fail RAP
- 116-212, 116-220 ESS Error RAP
- 116-312, 116-313 HDD Encrypt Key Fail RAP
- 116-321, 322, 323, 328, 329, 338 Software Error RAP
- 116-324 Exception Fail RAP
- 116-334 ESS NVRAM Data Compare Fail
- 116-343, 346, 357, 359 Main PWB Error RAP
- 116-348, 349, 358, 360, 374 Redirecter Fail RAP
- 116-355, 363, 367, 370, 373, 376 Fatal Error RAP
- 116-364, 365, 366, 368, 371, 372, 375, 377 Timer Fail RAP
- 116-384, 385, 387, 389 DCS/IDC Software Fail RAP

- 117-310 WSD Scan S/W Fail RAP
- 117-319 EMMC Card Program or Font Data Access RAP
- 117-320 to 117-324, 327, 329, 338 EMMC Card Fail RAP
- 117-333 Uninitialized Used Memory Card RAP
- 117-339 NVM Backup is Not Carried Out Fail RAP
- 117-342 Storage device incorrect-exchanged Fault RAP
- 117-343 Log Sending Parameter Fail RAP
- 117-345 SSMM Batch Setting Duration Fail RAP
- 117-347, 349, 350 Service Fail RAP
- 117-364 Key Fail RAP
- 118-310, 118-311 Internal Fail RAP
- 124-310, 311, 314, 316, 318, 322, 324, 344, 380 DC132 Error
- 124-312, 124-357 DC132 Error 12 RAP
- 124-313, 124-356 DC132 Error 10 RAP
- 124-315, 317, 355 Data Mismatch DC132 Error 02, 04 and 14 RAP
- 124-319 DC132 Error 08 RAP
- 124-323 DC132 06 RAP
- 124-325 Billing Restoration Fail RAP
- 124-342 CRUM Market Fail SYS 1 RAP
- 124-343 CRUM Market Fail SYS 2 RAP
- 124-352 CRUM OEM Fail SYS 1 RAP
- 124-353 CRUM OEM Fail SYS 2 RAP
- 124-362 CRUM Validation Fail SYS 1 RAP
- 124-363 CRUM Validation Fail SYS 2 RAP
- 124-372, 373, 374 IOT Soft Fail RAP
- 127-310 to 127-315, 342 ESS Error RAP
- 127-337 Job Template HDD Write Error RAP
- Chain 132 added to RAPs
- 132-310, 132-311 UI Software Failure RAP
- OF 3 Exit Tray Full RAP
- OF 4 550 Option No Paper Sensor RAP
- OF 6 Power On Self Test (POST)
- OF 7 Registration Sensor RAP
- OF 8 Tray 1 Feed Clutch RAP
- OF 9 Registration Clutch RAP
- OF 10 550 Option Main Feed Assembly Path Sensor RAP
- OF 11 550 Option Feed Clutch Assembly RAP
- OF 12 550 Option Registration Clutch Assembly RAP
- OF 13 550 Option Drive Assembly RAP
- OF 14 MSI Tray Feed Solenoid RAP
- OF 15 Exit Sensor RAP
- OF 16 Exit Drive Assembly Clutch 1 RAP
- OF 17 Exit Drive Assembly Clutch 2 RAP
- OF 21 Special Boot Modes RAP
- REP 18.14 Hard Disk Drive
- dC118 Jam Counter
- dC120 Fault Counter
- dC122 Fault History
- dC125 Active Faults
- dC131 NVM Read/Write
- dC135 HFSI Counter
- dC140 Analog Component Monitoring
- dC301 Initialize NVM
- dC305 UI Diagnostics
- dC330 Component Control
- dC355 Hard Disk Diagnostics
- dC500 Blank Page Threshold Value
- dC612 Test Print Pattern
- dC676 Adjust ROS Exposure
- dC924 TRC Adjust
- dC939 Procon On/Off Print
- dC945 IIT Calibration
- dC1010 Signals Sending Test
- dC1011 Relay On/Off Test
- GP 1 Diagnostics Entry
- GP 2 Fault Codes and History Files
- GP 9 Device Software
- GP 16 Special Boot Modes
- GP 25 Ethernet Crossover Cable Setup
- GP 30 IP (ESS) Specifications
- GP 40
- Change Tags
- Processor Tags
- TAG: 027

Service Safety Summary

General Guidelines

For qualified service personnel only: Refer also to the preceding Electrical Safety.

Avoid servicing alone: Do not perform internal service or adjustment of this product unless another person capable of rendering first aid or resuscitation is present.

Use care when servicing with power applied: Dangerous voltages may exist at several points in this product. To avoid personal injury, do not touch exposed connections and components while power is on. Disconnect power before removing the power supply shield or replacing components.

Do not wear jewelry: Remove jewelry prior to servicing. Rings, necklaces and other metallic objects could come into contact with dangerous voltages and currents.

Electrical Safety

- Use the Power Cord supplied with the printer.
- Plug the Power Cord directly into a correctly grounded electrical outlet.
- Do not use a ground adapter plug to connect the printer to an electrical outlet that does not have a ground connection terminal.
- Do not use an extension cord or power strip.
- Do not place the system in an area where people might step on the power cord.
- Do not place objects on the power cord.
- Do not block ventilation openings. These openings prevent printer overheating.
- Do not drop paper clips or staples into the printer.

Operational Safety

The printer and supplies were designed and tested to meet strict safety requirements. These include safety agency examination, approval, and compliance with established environmental standards.

Pay attention to these safety guidelines to ensure the continued, safe operation of the printer.

- Use the supplies specifically designed for your system. The use of unsuitable materials may cause poor performance and a possible safety hazard.
- Follow all warnings and instructions marked on, or supplied with, the system, options and supplies.

NOTE: *The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.*

Maintenance Safety

- Do not attempt maintenance not specifically described in the printer documentation.
- Do not use aerosol cleaners. The use of supplies that are not approved may cause poor performance and could create a hazardous condition.
- Do not burn any consumable or routine maintenance items. For information on Xerox supplies recycling programs, go to www.xerox.com/gwa.

Safety Labels

Read and obey all posted caution, warning, and danger labels. Throughout the printer, these safety labels are displayed on potentially dangerous components. As you service the printer, check to make certain that all safety labels remain in place.

- Caution: An unapparent hazard exists that may cause personal injury or damage to the equipment. For example, a panel may cover the hazardous area.
- Warning: An unapparent hazard exists that may cause serious personal injury.
- Danger: An unapparent hazard exists that may cause serious personal injury or death.

Safety Interlocks

The C400 and C405 are provided with the following interlock safety devices, Figure 1.

- Front cover interlock sensor, PL 18.2 Item 28.
- Rear interlock switch, PL 14.1 Item 3.

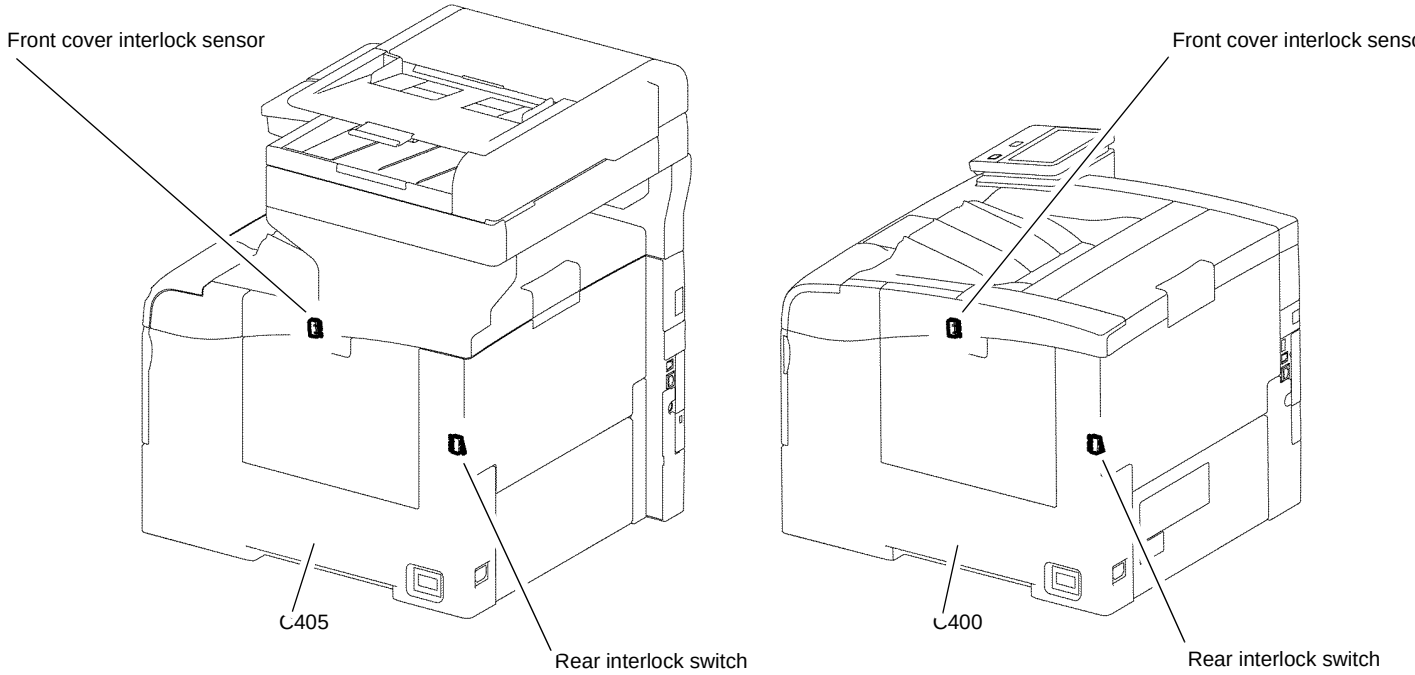
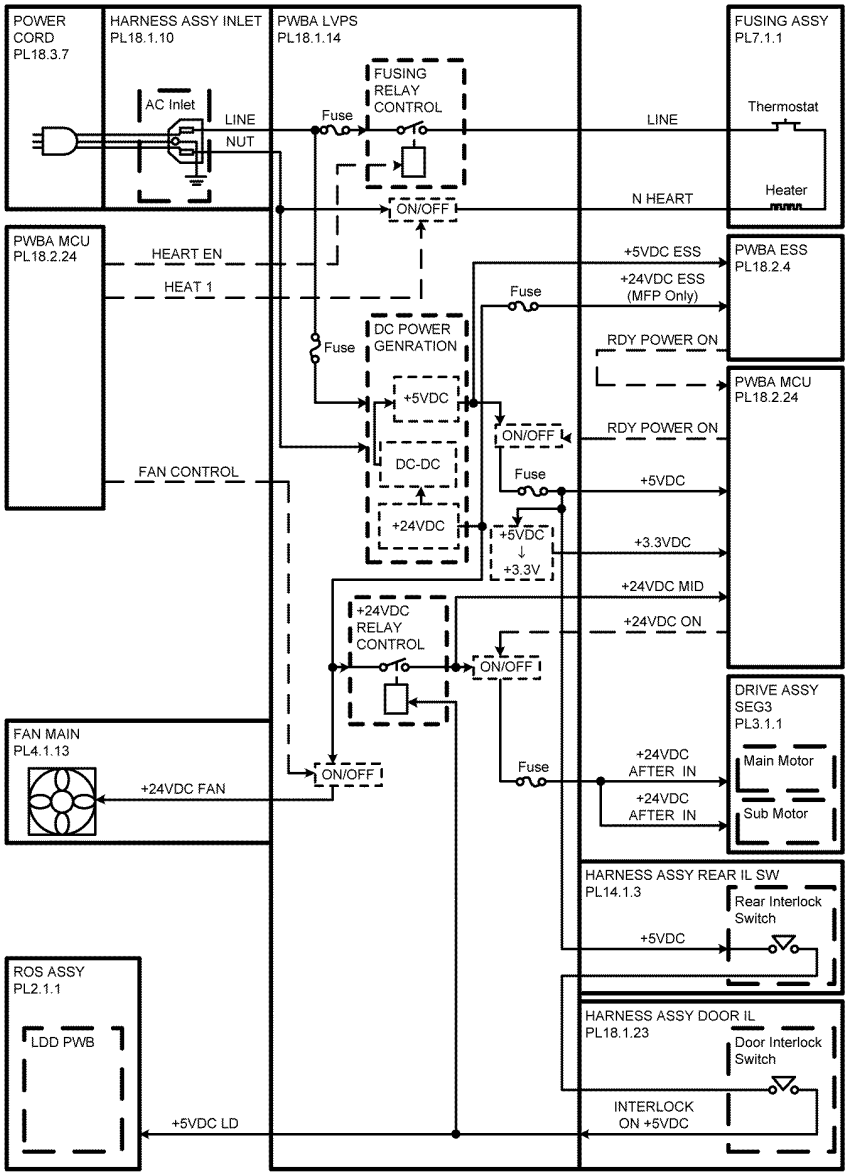


Figure 1 Interlock switches

Safety System

- At the close of a service call ensure all covers are in place and all interlock switches are functioning correctly. If you bypass an interlock switch, use extreme caution when working on or around the printer. Figure 2 shows the safety interlock circuitry.



TZ-1-0001-A

Figure 2 Safety system

Symbols Used On The Product

The following precautionary symbols may appear on the device.

Figure 1 indicates Danger High Voltage.

Figure 1 High voltage symbol

Figure 2 is the Protective Ground (Earth) symbol.

Figure 2 Protective ground (earth) symbol

Figure 3 is the symbol indicating a hot surface. Use caution to avoid personal injury.

Figure 3 Hot surface symbol

Figure 4 is the symbol indicating that the surface is hot while the printer is running. After turning off the power, wait 30 minutes.

Figure 4 Wait 30 minutes symbol

Figure 5 is the symbol indicating where avoid pinching fingers in the printer. Use caution to avoid personal injury.

Figure 5 Pinch injury symbol

Figure 6 is the symbol to use caution (or draws attention to a particular component). Refer to the manual for information.

Figure 6 Use caution symbol

Figure 7 is the symbol indicating that the item is sensitive and should not be touched.

Figure 7 Do not touch symbol

Figure 8 is the symbol indicating the item is sensitive to sunlight, and exposure to it will reduce its life span.

Figure 8 No sunlight symbol

Figure 9 is the symbol indicating the item is sensitive to any light, and exposure to it will reduce its life span.

Figure 9 No light symbol

Figure 10 is the symbol indicating there is possible danger of laser radiation.

Figure 10 Laser radiation warning symbol

Voltage Measurement and Specifications

Table 1 shows the voltages present in the C400 and C405. Measurements of DC voltage must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure. All measurements of AC voltage should be made with respect to the adjacent return or ACN wire.

Table 1 Voltage Measurement and Specifications

Voltage	Specification
Input Power 220V	198VAC TO 264VAC
Input Power 110V	90VAC TO 140VAC
+5VDC	+4.75 VDC TO +5.25 VDC
+24VDC	+23.37 VDC TO +27.06 VDC

Logic Voltage Levels

Table 2 show the logic levels present in the C400 and C405. Measurements of logic levels must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure.

Table 2 Logic Levels

Voltage	H/L Specification
+5VDC	H = +3.00V or greater L = below 0.8V
+3.3V	H = +2V or greater L =below 0.8V

DC Voltage Measurement in RAPs

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

There is +5VDC from P/J7 to P/J68.

In this example, the red meter lead would be placed on P/J7 and the black lead on P/J68.

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

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 device 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 & 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 the method that follows:
   - Email Xerox EH&S at: 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 Library.
- In the hardcopy, located at the end of the manual.

Regulatory Specifications

Xerox has tested this product to electromagnetic emission and immunity standards. These standards are designed to mitigate interference caused or received by this product in a typical office environment.

United States (FCC Regulations)

The C400 and C405 have been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with these instructions, it may cause harmful interference to radio communications. Operation of Class A equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. There is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment Off and On, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiver.
- Increase the separation between the equipment and receiver.
- Connect the equipment to a different electrical circuit.
- Consult the dealer or an experienced radio/television technician for help.

Any modifications not expressly approved by Xerox could void the user's authority to operate the equipment. To ensure compliance with Part 15 of the FCC rules, use shielded interface cables.

Canada (Regulations)

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

European Union

Table 1 CE Mark

Figure 1 CE Symbol

The CE mark (Figure 1) applied to this product symbolizes Xerox's declaration of conformity with the following applicable Directives of the European Union as of the dates indicated:

February 26, 2014: Low Voltage Directive 2014/35/EU

February 26, 2014: Electromagnetic Compatibility Directive 2014/30/EU

March 9, 1999: Radio & Telecommunications Terminal Equipment Directive 1999/5/EC

This product, if used correctly in accordance with the user's instructions, is neither dangerous for the consumer nor for the environment.

To ensure compliance with European Union regulations, use shielded interface cables.

A signed copy of the Declaration of Conformity for this product can be obtained from Xerox.

Translation of Warnings

WARNING

Switch off the electricity to the machine. Disconnect the power 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. 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. 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. 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. 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

Perform the steps in the following procedure carefully. Failure to follow this procedure carefully could result in electrical shock and personal injury.

DANGER: Faire très attention en effectuant les étapes de la procédure suivante. Si cette procédure n'est pas strictement respectée, il y a des risques d'électrocution et d'autres blessures.

AVVERTENZA: Si prega eseguire attentamente la seguente procedura. Omettere di eseguire attentamente la procedura indicata può provocare forti scosse e gravi ferite.

VORSICHT: Befolgen Sie die Schritte der folgenden Anleitung genau. Die Nichtbefolgung dieser Anweisungen kann elektrischen Schlag oder andere Körperverletzungen zur Folge haben.

AVISO: Lleve a cabo los pasos del procedimiento siguiente con mucho cuidado. No seguir este procedimiento cuidadosamente puede ocasionar una descarga eléctrica y lesiones personales

WARNING

Use extreme care when working in the following area. Some of the components are electrically energized and could cause electrical shock and personal injury if touched.

DANGER: Faire très attention en travaillant dans la zone suivante. Certains éléments portent une charge électrique et présentent un risque d'électrocution et de graves blessures s'ils sont touchés.

AVVERTENZA: Maneggiare la seguente area con la massima precauzione. Alcuni componenti sono carici di corrente elettrica e se toccati possono provocare scosse elettriche e lesioni.

VORSICHT: Bei Arbeiten in folgenden Bereichen besondere Vorsicht walten lassen. Einige der Komponenten sind elektrisch aufgeladen und können bei Berührung einen Stromschlag und körperliche Verletzung verursachen

AVISO: Tenga mucho cuidado al trabajar en el área siguiente. Algunos de los componentes están cargados eléctricamente y podrían producir descargas y lesiones, si se tocan

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

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 20. The module is heavy.

DANGER: Conformez-vous aux procédures de manipulation de sécurité pour le retrait du module. Reportez-vous à GP 20. Le module est lourd.

AVVERTENZA: Utilizzare procedure di gestione sicure durante la rimozione del modulo. Vedere GP 20. Il modulo è pesante.

VORSICHT: Verwenden Sie sichere Vorgehensweisen zum Entfernen des Moduls. Siehe auch GP 20. Das Modul ist sehr schwer.

AVISO: Utilice los procedimientos de seguridad cuando elimine el módulo. Consulte el GP 20. El módulo es pesado.

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

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

Use only Xerox materials and components. This product is safety certified using Xerox materials and components. The use of non Xerox materials and components may invalidate the safety certificate.

DANGER : N'utilisez que des matières premières et des composants Xerox. La sécurité du produit est assurée dans le cadre de son utilisation avec des matières premières et des composants Xerox. L'utilisation de matières premières et de composants autres que ceux de Xerox risque d'invalider le certificat de sécurité.

AVVERTENZA: Utilizzare solo materiali e componenti Xerox per avvalersi della certificazione di protezione. L'utilizzo di materiali e componenti non Xerox può rendere nulla la certificazione di protezione.

VORSICHT: Verwenden Sie nur Materialien und Komponenten von Xerox. Dieses Produkt besitzt die Sicherheitszertifizierung bei Verwendung von Xerox-Materialien und -Komponenten. Die Verwendung von Materialien und Komponenten anderer Hersteller setzt möglicherweise das Sicherheitszertifikat außer Kraft.

AVISO: Utilice solo los materiales y componentes Xerox. Este producto dispone de un certificado de seguridad si se utilizan los materiales y componentes Xerox. Este certificado de seguridad no será válido si se utilizan materiales y componentes que no sean de Xerox.

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

Do not handle the fuser components until they have cooled. Some fuser components operate at hot temperatures and can produce serious personal injury if touched.

DANGER: Ne pas manipuler les éléments du four avant de les laisser refroidir. Certains éléments du four fonctionnent à des températures très élevées et peuvent causer de graves blessures s'ils sont touchés.

AVVERTENZA: Non maneggiare i componenti del fusore finché non sono raffreddati. Alcuni di questi componenti funzionano ad alte temperature e possono provocare gravi ferite se vengono toccati.

VORSICHT: Die Fixieranlage sollte erst gehandhabt werden, wenn diese genügend abgekühlt ist. Einige Teile der Fixieranlage erzeugen übermäßige Hitze und führen bei der Berührung zu schweren Verbrennungen.

AVISO: No manipule los componentes del fusor antes de que se enfríen. Algunos de los componentes del fusor funcionan a altas temperaturas y pueden ocasionar daños personales graves si se los toca.

WARNING

Do not attempt to remove or lift the following component with less than 2 people. The component is very heavy and requires at least 2 people to lift or remove it. Any attempt to remove or lift the component with less than 2 people could result in serious personal injury.

DANGER: Ne pas tenter d'enlever ou soulever l'élément suivant tout seul. Cet élément est très lourd; au moins 2 personnes doivent être présentes pour le soulèvement ou la dépose. Toute tentative d'enlever ou soulever cet élément sans la collaboration d'au moins 2 personnes peut causer de graves blessures.

AVVERTENZA: Non tentare di togliere o sollevare il componente seguente con meno di 2 persone. Il componente è molto pesante e richiede almeno 2 persone per sollevarlo o rimuoverlo. Tentare di rimuovere o sollevare questo componente con meno di 2 persone può provocare gravi ferite.

VORSICHT: Versuchen Sie keinesfalls, die folgende Komponente mit weniger als 2 Personen zu entfernen oder zu heben. Die Komponente ist sehr schwer, daher werden mindestens 2 Personen benötigt, um sie zu heben oder zu entfernen. Der Versuch, die Komponente mit weniger als 2 Personen zu entfernen oder zu heben, kann schwere Körperverletzung zur Folge haben.

AVISO: No intente levantar o retirar el componente siguiente usando menos de 2 personas. El componente es muy pesado, y se necesitan por lo menos 2 personas para levantarlo o retirarlo. Intentar retirar o levantar el componente usando menos de 2 personas puede resultar en lesionales personales serias.

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

Keep toner away from the skin, eyes and mouth. If toner gets onto the skin, or into the eyes, immediately wash the toner off. If toner is inhaled or swallowed, immediately consult a doctor.

DANGER: Maintenez le toner éloigné de la peau, des yeux et de la bouche. Si du toner entre en contact avec la peau ou pénètre dans les yeux, lavez immédiatement. Si du toner est inhalé ou avalé, faites immédiatement appel à un docteur.

AVVERTENZA: Evitare il contatto del toner con la pelle, gli occhi e la bocca. In caso di contatto del toner con la pelle o con gli occhi, sciacquarlo immediatamente. Se il toner viene inalato o ingoiato, consultare immediatamente un medico.

VORSICHT: Halten Sie den Toner von der Haut, den Augen und dem Mund fern. Wenn Sie Toner auf die Haut oder in die Augen bekommen, waschen Sie ihn sofort ab. Wenn Toner eingeatmet oder verschluckt wird, wenden Sie sich bitte sofort an einen Arzt.

AVISO: No acerque el tóner a la piel, ojos ni boca. Si el tóner entra en contacto con la piel o los ojos, lávelo immediatamente. Si inhala o se traga el tóner, consulte immediatamente con un médico.

VersaLink® C400 and C405 Overview

VersaLink® C400

The VersaLink® C400 Color Printer conjoins a 35 ppm color laser print engine with a standard 550 sheet paper tray and multi sheet inserter. The C400 is configured with a 5 inch touch panel user interface. C400 options add memory, media capacity and wireless connectivity. The following subsections identify parts from the front, side, rear, and internal views.

VersaLink® C405

The VersaLink® C405 Color Multifunction Printer conjoins a 35 ppm color laser print engine with a standard 550 sheet paper tray, multi sheet inserter, color scanner and a single pass Duplex Automatic Document Feeder (DADF), Tray. C405 options add memory, media capacity and wireless connectivity. The following subsections identify parts from the front, side, rear, and internal views.

Technical Support Information

The Xerox Service Manual is the primary document used for repairing, maintaining, and troubleshooting the printer. To ensure complete understanding of this product, participation in Xerox Service Training is strongly recommended. To service this product, certification for this product is required.

For updates to the Service Manual, Service Bulletins, knowledge base, etc., go to:

- Xerox Global Service Net - https://www.xrxgsn.com/secure/main.p

For further technical support, contact your assigned Xerox Technical Support for this product.

Standard Orientation

Figure 1 and Figure 2 shows the standard orientation for the C400 and C405 respectively. Directional descriptions used in the procedures are defined as follows:

- Front: Direction toward you when facing the front of the printer.
- Rear: Direction opposite to the front when facing the front of the printer.
- Left: Left-hand direction when facing the front of the printer.
- Right: Right-hand direction when facing the front of the printer.

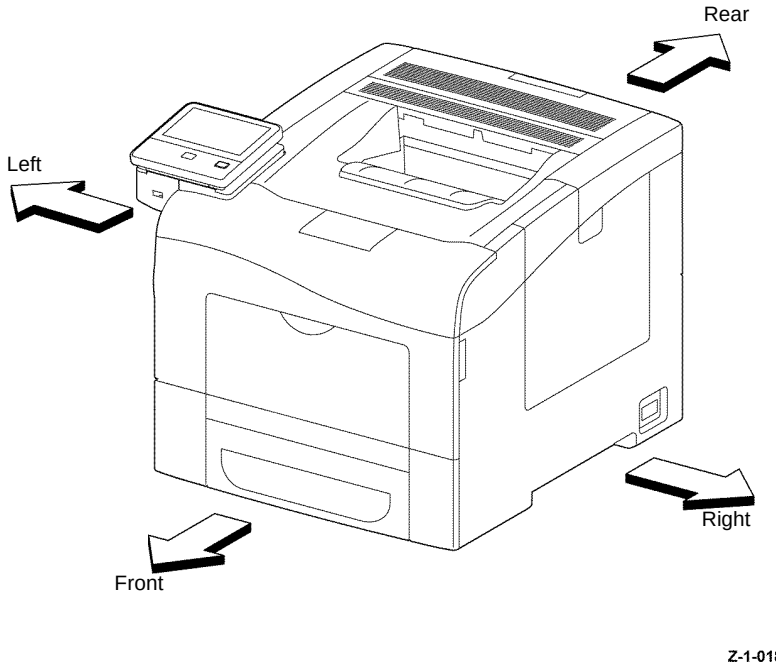


Figure 1 C400 Standard orientation

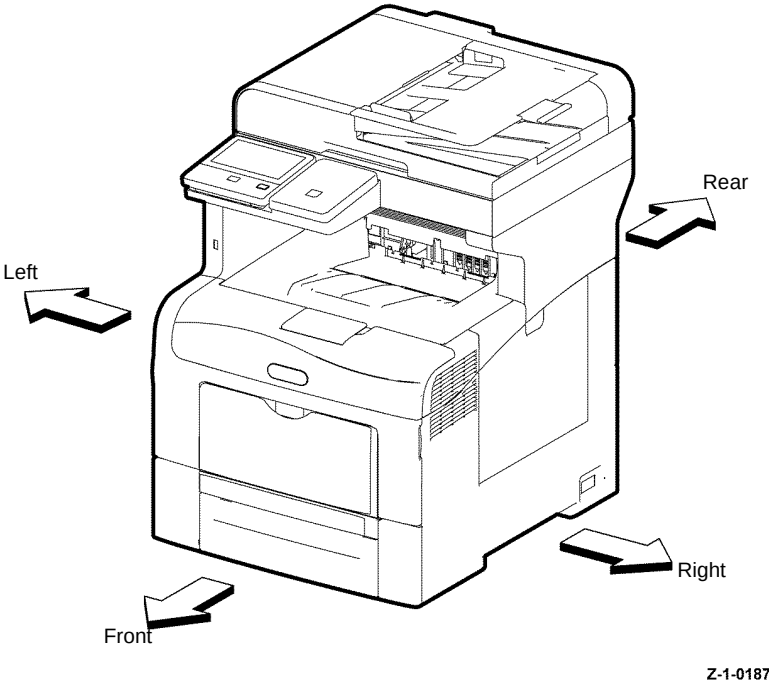


Figure 2 C405 Standard orientation

Consumables and Maintenance

Consumables consist of C, M, Y, and K toner cartridges, C, M, Y, and K imaging units, and the waste cartridge as shown in Figure 1.

Each toner cartridge (except starter cartridges) has a CRUM (Customer Replaceable Unit Monitor) to record regional and toner usage information. The CRUM maintains a count of the amount of toner consumed. When the count reaches set values, warning and error messages appear to notify the user when near and end of life status is reached.

Like the toner cartridges, each imaging unit has a CRUM to maintain a page count. When the count reaches a set value, warning and error messages appear to notify the user that the Imaging Unit has reached near or end of life status.

The life ratings for the C400 and C405 consumables are shown in Table 1. All values are correct at the time of product release. For the most current values, go to www.xerox.com.

Table 1 Consumable life expectancy

Consumable		Capacity
CMYK Standard Capacity Toner Cartridges		2,500 color 2,500 Black
CMYK High Capacity Toner Cartridges	sold cartridges	4,800 color 5,000 black
	metered cartridges	8,000 color 10,500 black
CMYK Extra High Capacity Toner Cartridges	sold cartridges	8,000 color 10,500 black
CMYK CRU xerographic development assembly		60,000
Waste Cartridge		30,000

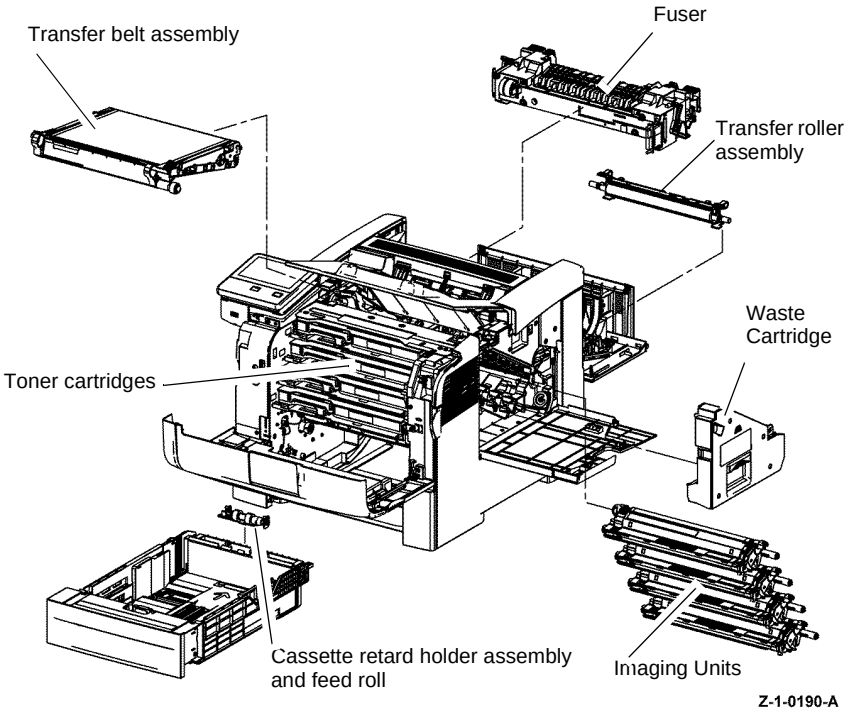


Figure 1 C400 Maintenance items

Routine Maintenance Items

The following list shows the life rating for routine maintenance items, which appear in Figure 1 (C400) and Figure 2 (C405) with the consumables:

- Fuser (110V / 220V): 100 KPV or 5 years
- Transfer belt assembly 100 KPV
- Transfer roller unit 100 KPV
- Cassette retard holder assembly and feed roll 100 KPV
- DADF feed roller and separator cover assembly: 100 KPV

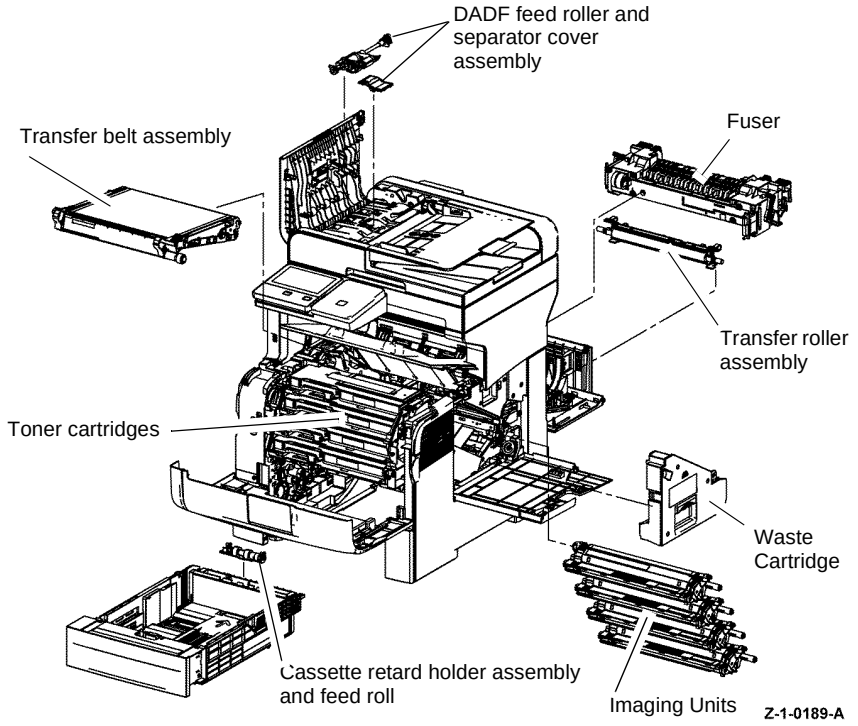


Figure 2 C405 Maintenance items

Product Codes, Configuration and Serial Number Range

The alphanumeric product codes and configuration numbers are listed in Table 1. The alpha suffixes for these codes and configuration numbers are described in Table 2. Serial number ranges for each product are listed in Table 3 for 110V devices and Table 4 for 220V devices.

Table 1 Product codes

Configuration Number	Product Description	Product Code
C405_N	110V Sold; Print/Copy/Scan/Fax, Letter/Legal, USB/Ethernet, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, 50-Sheet DADF, Solutions & Cloud Enabled.	4HX
C405_DN	110V Sold; Print/Copy/Scan/Fax, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, 50-Sheet DADF (Single-pass duplex), Solutions & Cloud Enabled.	4HX
C405_DNM	110V Metered; Print/Copy/Scan/Fax, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, 50-Sheet DADF (Single-pass duplex), Solutions & Cloud Enabled.	4HX
C405_YDN	110V Metered; Print/Copy/Scan/Fax, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, 50-Sheet DADF (Single-pass duplex), Solutions & Cloud Enabled.	4HX
C405V_N	220V Sold Print/Copy/Scan/Fax, Letter/Legal, USB/Ethernet, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, 50-Sheet DADF (Single-pass duplex), Solutions & Cloud Enabled.	5HX
C405V_DN	220V Sold Print/Copy/Scan/Fax, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, 50-Sheet DADF (Single-pass duplex), Solutions & Cloud Enabled.	5HX
C405V_DNM	220V Metered Print/Copy/Scan/Fax, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, 50-Sheet DADF (Single-pass duplex), Solutions & Cloud Enabled.	5HX
C400_N	110V Sold; Color Printer, Letter/Legal, USB/Ethernet, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, Solutions & Cloud Enabled.	7HB
C400_DN	110V Sold; Color Printer, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray,duplex, Solutions & Cloud Enabled.	7HB
C400_DNM	110V Metered Color Printer, Letter/Legal, USB/Ethernet, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, duplex, Solutions & Cloud Enabled.	7HB
C400_YDN	110V Sold; Color Printer, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray,duplex, Solutions & Cloud Enabled.	7HB
C400V_N	220V Sold; Color Printer, Letter/Legal, USB/Ethernet, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, Solutions & Cloud Enabled.	3HX
C400V_DN	220V Sold; Color Printer, Letter/Legal, USB/Ethernet, 2-Sided Print, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, duplex, Solutions & Cloud Enabled.	3HX

Table 1 Product codes

Configuration Number	Product Description	Product Code
C400V_DNM	220V Metered Color Printer, Letter/Legal, USB/Ethernet, 550-Sheet Tray, 150-Sheet Multi-Purpose Tray, duplex, Solutions & Cloud Enabled.	3HX

Table 2 Suffix descriptions

Product Suffix	Description
N	Networked (if only N, 1-Sided Printing Only)
D	Automatic 2-Sided Printing
M	Metered
V	220V
A	Argentina (Power Cord)
C	Chile (Power Cord)
P	Peru (Power Cord)
AR	Argentina (Direct Ship)
Y	GSA/TAA

Table 3 110V Serial numbers

Product	Serial Number Range
C405_N	528601 to 535500
C405_DN	535601 to 568100
C405_DNM	568201 to 583500
C405_YDN	583501 to 588500
C400_N	448601 to 455500
C400_DN	455601 to 467500
C400_DNM	467601 to 473500
C400_YDN	473501 to 480500

Table 4 220V Serial numbers

Product	Serial Number Range
C400V_N	480601 to 485300
C400V_DN	485401 to 496100
C400V_DNM	496201 to 528500
C405V_N	588601 to 596500
C405V_DN	596601 to 604500
C405V_DNM	604601 to 662500

1 Service Call Procedures

SCP 1 Initial Actions 1-3
SCP 2 Call Actions 1-3
SCP 3 Fault Analysis 1-4
SCP 4 Subsystem Maintenance 1-5
SCP 5 Final Actions 1-6
SCP 6 Configurations and Options 1-6

SCP 1 Initial Actions

Service Call Procedures are used at the beginning of a service call. Use Initial Actions to collect information about the machine performance.

Also refer to SCP 6 Configurations and Options.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity GP 4. Electricity can cause death or injury. Moving parts can cause injury.

WARNING

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

NOTE: *Ignore references to options not installed on the printer.*

1. Take note of problems, error messages or error codes. If necessary, refer to GP 2 Fault Codes and History Files.
2. Switch off, then switch on the machine, GP 4.
3. Ask the operator to describe or demonstrate the problem.
4. If the problem is the result of an incorrect action by the operator, refer the operator to the user documentation.
5. Check the steps that follow:
   a. The power lead is connected to the wall outlet and to the machine.
   b. Documents are not loaded in the DADF or on the document glass.
   c. The paper is loaded correctly.
   d. All paper trays are closed.
   e. All doors are closed.
   f. If telephone line cables are installed, ensure that the cable is connected between the line socket and the wall jack.
   g. If a telephone line cable is installed, ensure that the customer telephone line is functioning.
6. Check the machine service log book for previous actions that are related to this call.
7. Go to SCP 2 Call Actions.

SCP 2 Call Actions

Use Call Actions to perform any general actions before starting to diagnose the fault.

Procedure

1. If this is the first service call to this machine, if possible, perform the actions that follow:
   a. 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.
   b. Check that all the machine settings are entered correctly.
   c. Mark off the hardware options, software options or Tags installed on the Tag matrix cards.
   d. Enter the machine information and the customer information in the service log book.
2. Review the copy, print and fax samples.
3. Ensure the user access settings are correct. If necessary refer to the user documentation.
4. If necessary, perform Network Clone Procedure GP 14.

   NOTE: *The clone file must be taken whenever the customer changes the network controller setting or after the system software is changed.*
5. Before switching off the machine or clearing the memory, check for a customer job in the memory.
6. Check and record the total impressions usage counter. If the usage counters are reset during the call, refer to dC132 Machine ID and Billing Data.
7. Go to SCP 3 Fault Analysis.

SCP 3 Fault Analysis

Fault Analysis is used to identify a fault.

Procedure

When diagnosing or repairing a fault in a particular subsystem, exercise the device in all modes until the fault is determined. In the instance of finding more than one fault or failure, correct one fault before going to the next fault. If no fault is found, go to SCP 4 Subsystem Maintenance.

Fault Codes

If a fault code is displayed, go to the relevant RAP. Also refer to Unresolved Faults.

Image Quality Defects

If the image quality is defective, go to the IQ1 Image Quality Entry RAP.

Unresolved Faults

If a fault cannot be resolved using the appropriate RAP, and only if instructed by 2nd level support, obtain a device log. Refer to GP 15 Obtaining Audit and Device Logs. Escalate the problem to 2nd level support.

For unresolved faults that occur during start up of the device, refer to OF 6 Power On Self Test.

Additional Information

If necessary, refer to the following general procedures and information:

- GP 1 Service Diagnostics Entry and Exit
- GP 2 Fault Codes and History Logs
- GP 3 Administrator Log In
- GP 4 How to Switch Off or Switch On the Printer
- GP 5 Miscellaneous Checks
- GP 6 Electrostatic Discharge Prevention
- GP 7 Device Specifications
- GP 8 General Disassembly Precautions
- GP 9 Device Software
- GP 10 How to Check a Motor
- GP 11 How to Check a Sensor
- GP 12 How to Check a Solenoid or Clutch
- GP 13 How to Check a Switch
- GP 14 Cloning Network Configurations
- GP 15 Obtaining Audit and Device Logs
- GP 17 External FAX Line Test
- GP 18 Printing Reports
- GP 19 Intermittent or Noise Problem
- GP 20 The module is heavy
- GP 21 Device Lubrication
- GP 22 Installation Space Requirements
- GP 23 First Print Output Time
- GP 24 Restriction of Hazardous Substances (RoHS)
- GP 25 Ethernet Crossover Cable Setup
- GP 26 Media Specifications
- GP 27 Environmental Data
- GP 28 Toner CRUM Conversion
- GP 29 How to Check a Dispenser Motor
- GP 30 ESS PWBA Specifications
- GP 31 IIT Specifications
- GP 32 Fax Specifications
- GP 33 Interior and Exterior Cleaning
- GP 34 How to Set the Date and Time
- GP 35 Device Information
- GP 40 Glossary of Terms, Acronyms and Abbreviations

SCP 4 Subsystem Maintenance

Subsystem Maintenance contains information regarding the component life of the device.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Clean the feed rollers on every call.
2. Use the control panel to check maintenance item counters.
3. Compare the counter values to those listed in Table 1.
4. Advise the customer of any routine maintenance items that are approaching or over the service limit.

Inspection

Rollers

Replace rollers when you see any of the following defects:

- Flat spots
- Out of roundness
- Cracked rubber
- Loss of traction (tackiness) causing pick or feed failures

Gears

Replace gears that show any signs of wear or damage. Look for these problems:

- Thinned gear teeth
- Bent or missing gear teeth; check especially where a metal gear drives a plastic gear.
- Fractured or cracked gears (oil or incorrect grease on a plastic gear can cause the gear to crack).

Lubrication

CAUTION

Plastic parts deteriorate when unspecified lubricants or chemicals are used. To avoid damage, use only approved lubricant.

The printer is lubricated during assembly at the factory and does not require periodic lubrication. Some parts require lubrication following replacement. These parts are identified in the replacement procedures. When lubricating during replacement, use approved grease.

Component Life

The design life of the major components are shown in Table 1. Environmental conditions and actual use will vary these factors. The component life shown in Table 1 is for reference only.

Table 1 Component life expectancies

Item	Description	Print Life
1.	Pick and Nudger Rollers	100,000 pages
2.	Separator Roller	100,000 pages
3.	Transfer Roller	100,000 images
4.	Fuser	100,000 images
5.	Feed Roller	100,000 pages

HFSI

The High Frequency Service Items are shown in Table 2.

Table 2 High Frequency service items

Item	Description	Recommended Life	Reference
CRU xerographic development assembly	The total sides of copies and prints after the last HFSI reset.	60k impressions	PL 8.1
MSI tray feed roller	Sheets fed from tray 1 after last HFSI reset.	100k feeds	PL 13.2 Item 10
Tray 1 feed roller assembly	Sheets fed from tray 1 after last HFSI reset.	100k feeds	PL 9.1 Item 4
Optional tray feed roller	Sheets fed from tray 2 after last HFSI reset.	100k feeds	PL 10.2 Item 3
Maintenance Kit, includes Transfer belt assembly, Cassette retard holder assembly and Transfer roller assembly	Total prints after the last HFSI reset.	100k impressions	PL 6.1 Item 1, PL 9.1 Item 3, PL 14.1 Item 2

SCP 5 Final Actions

Final Actions are used to evaluate the total operation of the system and to identify the actions required to complete the service call.

Procedure

Perform the steps that follow. If a fault is identified, go to SCP 3 Fault Analysis:

1. If necessary, re-connect the machine to the customer's network.
2. Perform the relevant maintenance procedures. Refer to SCP 3 Subsystem Maintenance.
3. Ensure that the machine has the latest available software loaded.
4. Operate the machine in all modes. Make the copies and prints from all trays. Use the DADF and the document glass.
5. Make copies and/or prints from all trays. Check the print quality. For image quality defects, perform the IQ1 Image Quality Entry RAP.
6. Make a proof copy or print of a customer document.
7. If some of the customer's selections were changed, return the selections to the customer settings.
8. Mark off the hardware options, software options or Tags installed on the Tag matrix cards.
9. 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.
10. To clear all fault counters, refer to dC125.
11. Log the usage counters. If the usage counters are reset during the call, refer to dC132 Machine ID and Billing Data.
12. If necessary, provide the customer with training.
13. Remove and destroy all copies of test patterns.
14. Ensure the machine and service area are clean.

SCP 6 Configurations and Options

Configurations and Options

Refer to Table 1 for basic configurations and options. This service manual covers all configurations. Within this manual ignore any references to options that are not installed.

Table 1 C400 and C405 configurations

Features	Category
Processor Speed	1.05 GHz - Dual Core
Memory	2 GB
Print Speed	Mono 36 ppm, Color: 36 ppm
PS3 Fonts (136)	Standard
PCL6 Fonts (80 Scalable, 9 Bitmap)	Standard
USB 3.0	Standard
Ethernet Interface	10/100/1000 Base-TX
Automatic Document Feeder	Standard (C405 only)
MSI (150 sheet)	Standard
Tray 1 (550 sheet)	Standard
Tray 2 (550 sheet)	Optional
Duplex	Standard
Hard Disk Drive	Optional 320 GB
FAX	Standard
Wireless LAN	Optional
Printer Resolution	600 x 600 dpi

2 Status Indicator RAPs

Chain 002

002-500 UI Error RAP 2-11

Chain 003

003-311 IIT CDI I/F Mismatch RAP 2-13
003-318, 003-319 IIT Software Fail RAP 2-13
003-320 to 003-343 IISS-ESS Communication Fail RAP 2-14
003-344 Hotline Fail RAP 2-15
003-345, 003-346 X PIO Mismatch RAP 2-15
003-700 Returned Documents Error RAP 2-16
003-701 Duplication Prevention Code RAP 2-16
003-702 Different Magnification RAP 2-17
003-703, 003-704 Color Correction RAP 2-17
003-705 Energy Saving Paper Size Mismatch RAP 2-18
003-750 Insufficient Documents Duplex Book RAP 2-18
003-751 Capacity RAP 2-19
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002-500 UI Error RAP

002-500 UI detection error during startup of a CUI scan job.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the UI assembly, PL 1.1A Item 4 C400 or PL 1.1B Item 4 C405 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure that all surface mounted modules on the ESS PWBA are securely connected.
3. Refer to WD 9 C405 or WD 10 C400 and PJ Locations. Check the wiring between the ESS PWBA and the UI assembly.
4. Reload the software, GP 9.
5. If the fault persists install new components as necessary:
   - UI assembly, PL 1.1A Item 4 C400 or PL 1.1B Item 4 C405.
   - ESS PWBA, PL 18.2 Item 4.

003-311 IIT CDI I/F Mismatch RAP

003-311 During controller initialization, the IIT CDI I/F has insufficient information from the IIT.

Procedure

Reload the software, GP 9.

003-318, 003-319 IIT Software Fail RAP

003-318 IIT software is corrupt.

003-319 Video driver detection fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform the OF 21 Special Boot Modes RAP.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected, refer to WD 9 and WD 10. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

003-320 to 003-343 IISS-ESS Communication Fail RAP

003-320 IISS sending error detected by the controller. An abnormal parameter is set as the argument for the send function.

003-321 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-322 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-323 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-324 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-325 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-326 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-327 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-328 IISS sending error detected by the controller. After commands were sent twice from the controller, the controller could not receive acknowledgment from the IISS.

003-329 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-330 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-331 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-332 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-333 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-334 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-335 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-336 IISS receiving error detected by the controller. The NAK that notifies of the occurrence of a transmission failure is received.

003-337 There was no response to the power on command sent to the IISS after restoring from power saver mode.

003-338 Incorrect argument error for sending.

003-339 Transmission establishing error for sending.

003-340 Synchronous send error.

003-341 Transmission error for sending.

003-342 Incorrect argument error for receiving.

003-343 Synchronous receive error.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform the OF 21 Special Boot Modes RAP.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected, refer to WD 9 and WD 10. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

003-344 Hotline Fail RAP

003-344 Hotline failure during power on.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform the OF 21 Special Boot Modes RAP.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected, refer to WD 9 and WD 10. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

003-345, 003-346 X PIO Mismatch RAP

003-345 When a job fail was received from the IISS, an error of the X hot line was detected.

003-346 When IIT image delivered was received from the IISS, an error of the X hot line was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform the OF 21 Special Boot Modes RAP.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected, refer to WD 9 and WD 10. Enure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

003-700 Returned Documents Error RAP

003-700 When the originals are ejected, the number of ejected originals is more than the number that were fed.

Procedure

Reload the originals, then re-run the job.

003-701 Duplication Prevention Code RAP

003-701 A copy restriction code is detected in the document data.

Procedure

Perform the steps that follow:

1. Advise the customer not to attempt to copy documents that are restricted.
2. If the fault persists, reload the software, GP 9.

003-702 Different Magnification RAP

003-702 Different magnification settings, for side 1 and side 2 of a document.

Procedure

Perform the steps that follow:

1. Advise the customer to change the magnification settings so that the same magnification applies to side 1 and 2.
2. If the fault persists, reload the software, GP 9.

003-703, 003-704 Color Correction RAP

003-703 Color correction patch position error during 2 sided simultaneous scan.

003-704 Color correction color difference error during 2 sided simultaneous scan.

Procedure

Perform the steps that follow:

1. Advise the customer to load the 2 sided simultaneous scan correction chart correctly.
2. If the fault persists, reload the software, GP 9.

003-705 Energy Saving Paper Size Mismatch RAP

003-705 A paper size mismatch error was detected when exiting energy saver mode.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the job, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-750 Insufficient Documents Duplex Book RAP

003-750 The number of documents is insufficient for duplex book print.

Procedure

Perform the steps that follow:

1. Advise the customer to change the parameters, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-751 Capacity RAP

003-751 According to the document area settings and the scan area, processing image data with a size smaller than the one that can be processed was detected.

Procedure

Perform the steps that follow:

1. Advise the customer to increase the resolution or enlarge the scan area (width x length), then retry the job.
2. If the fault persists, reload the software, GP 9.

003-752, 932, 935 600dpi Cannot be Scanned RAP

003-752 600dpi is unavailable for DADF mixed 2-sided mode scan.

003-932 600dpi is not available for scanning an A3 document.

003-935 600dpi is not available for scanning the next A3 document.

Procedure

Perform the steps that follow:

1. Advise the customer to perform scanning below 400 dpi resolution.
2. If the fault persists, reload the software, GP 9.

003-753, 930, 933 300dpi Cannot be Scanned RAP

003-753 300/400/600dpi unavailable for DADF mixed 2-sided mode scan.

003-930 300dpi is not available for scanning an A3 document.

003-933 300dpi is not available for scanning the next A3 document.

Procedure

Perform the steps that follow:

1. Advise the customer to perform scanning below 300 dpi resolution or perform scanning in other than mixed mode.
2. If the fault persists, reload the software, GP 9.

003-754 to 003-756 S2X Error RAP

003-754 A recoverable error was detected.

003-755 Command error returned from the ESS PWBA.

003-756 All scanned documents were detected as blank.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the job, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-757, 931, 934 400dpi Cannot be Scanned RAP

003-757 400/600dpi unavailable for DADF mixed 2-sided mode scan.

003-931 400dpi is not available for scanning an A3 document.

003-934 600dpi is not available for scanning an A3 document.

Procedure

Perform the steps that follow:

1. Advise the customer to perform scanning at 300 dpi or lower resolution or perform scanning in other than mixed mode.
2. If the fault persists, reload the software, GP 9.

003-760, 003-761 Scan Settings Error RAP

003-760 The job properties are incorrect.

003-761 Tray selection error.

Procedure

Perform the steps that follow:

1. Advise the customer to correct the job properties such as tray number or paper size, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-764 Insufficient Documents RAP

003-764 Insufficient documents for image overlay.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the job, as only 1 page can be stored.
2. If the fault persists, reload the software, GP 9.

003-780 Scan Image Compression Error RAP

003-780 Fax scan compression error.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the job then to change the scan resolution parameter and then retry the job.
2. If the fault persists, reload the software, GP 9.

003-795 AMS Limit Error RAP

003-795 AMS (auto reduce/enlarge) limit error.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the job then to change the job properties, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-940 Insufficient Memory RAP

003-940 Insufficient DAM memory detected.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the job then to clear the B/W setting for color mode or the side 2 cover image setting, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-941 Insufficient Page Memory RAP

003-941 There is not enough page memory to store the image.

Procedure

Perform the steps that follow:

1. Advise the customer to change the job parameters, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-942, 956 Document Size Auto Detect RAP

003-942 The document size cannot be automatically detected.

003-956 Undefined document size was detected when platen is selected and only APS requires document size selection.

Procedure

Perform the steps that follow:

1. Advise the customer to input an appropriate value for the document size, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-944 Repeat Image Count Fail RAP

003-944 Incorrect image repeat count (even one image cannot be pasted).

Procedure

Perform the steps that follow:

1. Advise the customer to change the image repeat count parameter, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-946 Image Rotation (Copy APS) RAP

003-946 Part of the image will be lost if the image is not rotated. However, a paper size that does not support rotation was selected.

Procedure

Perform the steps that follow:

1. Advise the customer to manually select an appropriate paper tray, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-947, 948, 955 Document Error RAP

003-947 An additional number of documents are required.

003-948 Returned document size mismatch.

003-955 When loading a document with mixed size originals prohibited, a document of different size/orientation from the initial document was detected.

Procedure

Perform the steps that follow:

1. Advise the customer to reload the correct number and size of documents, and to correctly program the job on the UI. Retry the job.
2. If the fault persists, reload the software, GP 9.

003-952 Document Color Mismatch RAP

003-952 Returned document color mismatch (different color detected before/after return).

Procedure

Perform the steps that follow:

1. Advise the customer to correct the job settings, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-963, 965, 966 APS RAP

003-963 No APS compatible tray to set the relevant size.

003-965 There was no paper in the tray that can be selected for APS.

003-966 There is no APS tray that is set to a specific size selected.

Procedure

Perform the steps that follow:

1. Advise the customer to select a tray that has the correct size of paper, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-970, 003-976 Fax Line Memory RAP

003-970 The number of slow-scan lines has exceeded the upper limit due to Fax parallel composition, long- document enlargement, etc.

003-976 Number of lines in the slow scan direction exceeded during Fax N-up.

Procedure

Perform the steps that follow:

1. Advise the customer to press the continue button to store as much data as the memory capacity, then continue scanning the next document. Otherwise, cancel the job.
2. Switch off, then switch on the machine, GP 4.
3. If the fault persists, reload the software, GP 9.

003-971 Copy Prevention Code RAP

003-971 Prevention code detected with on right to cancel.

Procedure

Touch the cancel or continue button, no service action necessary.

003-972 Maximum Stored Page RAP

003-972 When scanning a document, the number of pages that has accumulated in the machine has exceeded the value of maximum stored number of copy sheets set in system data.

Procedure

Perform the steps that follow:

1. Advise the customer to set the number of pages of the document to be within the maximum number of pages that can be stored.
2. If the fault persists, reload the software, GP 9.

003-973 Image Rotation RAP

003-973 The document and the image are different in orientation (except when poster is specified). When rotation is not available even though the orientation of the document and the image are different and part of the image will be lost if it is not rotated.

Procedure

Perform the steps that follow:

1. Advise the customer to verify the image loss and use a larger paper size if available. Or use reduction to make a smaller document, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-974 Next Original Specification RAP

003-974 Next document specified. Scanning has been completed for all loaded documents.

Procedure

Perform the steps that follow:

1. Ask the customer to verify that scanning is complete or if other documents should be loaded.
2. If the fault persists, reload the software, GP 9.

003-977 Document Mismatch (Multi Scan) RAP

003-977 Document size mismatch (document exchange during multi scan).

Procedure

Perform the steps that follow:

1. Ask the customer to load a correct size document, then retry the job.
2. If the fault persists, reload the software, GP 9.

003-978 Color Document Mismatch (Multi Scan) RAP

003-978 Document color mismatch (document replacement during multi scan).

Procedure

Perform the steps that follow:

1. Advise the customer to reload the correct size paper, then retry the job.
2. If the fault persists, reload the software, GP 9.

005-210, 005-275 DADF Download RAM Fail RAP

005-210 There was an error in DADF download, the ROM is corrupted.

005-275 RAM failure on the DADF PWBA was detected at power on.

Initial Actions

- Switch off, then switch on the machine, GP 4.
- Reload the software, GP 9.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to WD 17 and PJ Locations. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the DADF assembly, PL 50.1 Item 1, (P/J1371 and P/J1377). **The connections are good.**

Y N

securely attach the connections.

Install a new DADF assembly, PL 50.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

005-500 Write to DADF-ROM Error RAP

005-500 An error has occurred during the process of writing data to the DADF-ROM.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Reload the software, GP 9.
2. Install a new DADF assembly, PL 50.1 Item 1.

005-940 DADF No Original Fail

005-940 A document was pulled out during document feed.

Initial Actions

- Remove all documents from the DADF.
- Check that the DADF feed roll kit is installed correctly, PL 50.1 Item 99.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Clean the DADF document sensor and the area surrounding the DADF feed roll kit. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Clean or install a new DADF feed roll kit, PL 50.1 Item 99. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install new components as necessary:

- DADF feed roll kit, PL 50.1 Item 99.
- DADF assembly, PL 50.1 Item 1.
- ESS PWBA, PL 18.2 Item 4.

005-941 Not Enough Documents RAP

005-941 Some originals were missing after all originals were returned.

Procedure

1. Follow the instructions on the UI to reload the documents.
2. Cancel and the restart the job.

010-105, 010-106 Exit Sensor Jam RAP

010-105 The exit sensor was not actuated within a specified time.

010-106 The exit sensor was not de actuated within a specified time.

Initial Actions

- Check the media condition, GP 26.
- Check for obstructions in the paper path

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

Check the rear cover is undamaged and fully closed. **The rear cover is undamaged.**

Y N

Install a new rear cover assembly, PL 19.2A Item 10 C400 or PL 19.2B Item 15 C405.

Check the fuser assembly, PL 7.1 Item 1 is correctly installed. Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Enter dC330 code 071-104 exit sensor, PL 17.1 Item 11. Actuate the exit sensor. **The sensor operation fails.**

Y N

The sensor appears to operate normally. Clean the sensor. Check the stack full sensor actuator for proper operation, PL 17.1 Item 10. Check for intermittent connections, shorted or open wires. If the fault continues, install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 15 and PJ Locations and GP 11. Check the connection between the exit sensor, PL 17.1 Item 11 and MCU PWBA, PL 18.2 Item 24 (P/J155, P/J151, and P/J15). **The connections are good.**

Y N

Attach the connectors securely.

Refer to WD 15 and PJ Locations. Check the continuity of the wires in the harness connecting the exit sensor, PL 17.1 Item 11 and the relay connector (P/J155 and P/J151). **The continuity is good.**

Y N

Install a new exit sensor harness assembly, PL 17.1 Item 18.

A

A

Refer to WD 15 and PJ Locations. Check the continuity of the wires in the harness connecting the relay connector and the MCU PWBA, PL 18.2 Item 24 (P/J151 and P/J15). **The continuity is good.**

Y N

Install a new sensor harness assembly, PL 17.1 Item 23.

Refer to WD 15 and PJ Locations. Check if the voltage between the MCU PWBA ground and P/J15 pin 1 is approximately +5VDC. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power.

Install a new exit sensor, PL 17.1 Item 11. If the fault persists check the exit roller assembly, PL 17.1 Item 14, refer to the 077-123 Feeder Regi Sensor On Duplex Jam RAP.

010-319 to 10-355 Fuser Thermal Error RAP

010-319 The input voltage is out of range (too high or too low).

10-328 Warming up - timeout

010-329 First time use fuse did not blow

010-331 Fuser over temperature detected

010-332 NC senor disconnection detected

010-333 NC sensor detected over temperature

010-334 NC sensor detected abnormal temperature

010-335 NC sensor compensation output AD value is out of specification

010-338 Main or sub lamp is switched on over the NVM setting time

010-339 NC sensor detected a temperature under specification

010-340 Thermistor disconnection detected

010-344 Fuser heat roll standby temperature is low

010-345 Fuser relay disconnected

010-346 Temperature detection of the NC or STS sensor did not change after the main lamp was switch on for over 15 seconds

010-355 Cool down mode continued for more than 10 seconds

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

NOTE:

- *These errors are often intermittent. Check Fault History for any of the listed fault codes showing multiple occurrences. Install a new fuser even if a power cycle clears the error.*
- *A fuser used only for troubleshooting purposes will blow the first-time-use fuse at power-on. Though the fuser is still new, it can no longer reset an end-of-life message when installed a second time.*

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the fuser and drawer connector for proper installation without bent pins, or foreign objects. **The installation is good.**

Y N

Correct installation problems, then perform SCP 5 Final Actions.

Refer to WD 5 and PJ Locations. Check the wiring between the fuser assembly, PL 7.1 Item 1 , P/J281 and the MCU PWBA, PL 18.2 Item 24 (P/J28). **The connections are good.**

Y N

Attach the connections securely.

Refer to WD 5 and PJ Locations. Check the wiring between the fuser assembly, PL 7.1 Item 1 , P/J281 and the LVPS PWBA, PL 18.1 Item 14 (P/J47). **The connections are good.**

Y N

Attach the connections securely.

Refer to WD 5 and PJ Locations. Check the wiring between the LVPS PWBA, PL 18.1 Item 14 (P/J508) and the MCU PWBA, PL 18.2 Item 24 (P/J29). **The connections are good.**

Y N

Attach the connections securely.

Refer to WD 5. Check the continuity of the cables in the HTR harness assembly, PL 7.1 Item 5. **The continuity is good.**

Y N

Install a new HTR harness assembly, PL 7.1 Item 5.

Refer to WD 5. Check the continuity of the cables in the top harness assembly, PL 18.3 Item 4. **The continuity is good.**

Y N

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 5. Verify the fuser power is approximately +5VDC by measuring the voltage between the MCU B PWBA ground and (P/J28 pin 2). **The voltage is correct.**

Y N

Refer to OF 19 +5VDC Power.

Install a new fuser assembly, PL 7.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24.

010-420, 010-421 Fuser End of Life RAP

010-420 Fuser assembly near end of life.

010-421 Fuser assembly life over.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

Install a new fuser assembly, PL 7.1 Item 1.

016-210, 506, 777, 780, 798 HDD Error RAP

016-210 One of the SW option functions cannot be executed due to a HDD error or HDD not installed.

016-506 The log image storage area on the disk is full, a job cannot be continued.

016-777 An error other than disk full was detected when opening/reading/writing file for compression conversion/image processing operation.

016-780 An error other than HDD full was detected when opening/writing file for operation.

016-798 A HDD unavailable error was returned when the decomposer called the S-image library.

Initial Actions

The HDD maybe full, Advise the customer to delete unnecessary documents.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Enter special boot mode, GP 16. Perform the LONGDIAG MODE routine
3. Disconnect then reconnect the hard disk drive harness, PL 18.2 Item 91.
4. Reload the software, GP 9.
5. Switch off, then switch on the machine, GP 4.
6. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on the ESS PWBA are securely connected, then perform the same operation when the error occurred.
7. Enter special boot mode, GP 16. Perform the STORAGE DEVICE INITIALIZE MODE routine routine.
8. If the fault persists install a new hard disk drive, PL 18.2 Item 91.
9. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.
10. When the system has been recovered, advise the customer to set a correct HDD encryption key.
11. If the problem persists, reinstall the original ESS PWBA, then contact the 2nd level support.

016-211, 016-212 SW Option Fail Memory Low RAP

016-211 Insufficient system memory was detected.

016-212 Insufficient page memory was detected.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Refer the customer to the User Guide to check memory usage.

016-213 SW Option Fail (Printer Card) RAP

016-213 The PRT_CARD was not installed or an error was detected when optional function software (internet fax kit) was enabled.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.

016-214 SW Option Fail (Fax Card) RAP

016-214 The fax card was not installed or an error was detected when SW optional function was enabled.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure the fax PWBA is correctly installed, PL 18.2 Item 7.

016-215, 016-216 SW Option Fail RAP

016-215 The scanner functions cannot be executed due to a JPEG board error or JPEG board not installed.

016-216 The system detected that the extension memory was not installed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Install a new ESS PWBA, PL 18.2 Item 4.

016-217 SW Option Fail (Controller ROM) RAP

016-217 Controller ROM does not support printer kit.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.

016-218 PS Kit Not Installed for XDOD RAP

016-218 The PS Kit required for XDOD function was not installed.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer that the postscript kit is required.

016-219 License Required (Printer Kit) RAP

016-219 The ROM was replaced without license (printer kit software key not set).

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Set the printer kit SW key to 'Enabled'.

016-220 to 016-226, 240 S2X Error RAP

016-220 A unrecoverable error was detected at the S2X PWB.

016-221 Communication with the S2X PWB has failed.

016-222 An error has occurred in the S2X PWB self-diagnostics.

016-223 The S2X PWB has failed the write/read test of the internal SDRAM.

016-224 The S2X PWB has failed to access to the internal PCI space.

016-225 The S2X PWB failed the ROM check sum test.

016-226 The S2X PWB failed to detect the video clocks sent from the IIT.

016-227 The S2X PWB failed the write/read test of the internal DDR memory.

016-228 The S2X PWB failed the desired value comparison of the high-compression process results using the internal test patterns.

016-240 The high compression PDF board (S2X) failed the NVM checksum

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-230 License Required (PS Image Log Kit) RAP

016-230 The PS-ROM was installed with 'SW key: Image Log Kit for PS' in disabled state.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Set the image log kit SW key to 'Enabled'.

016-232 MRC HW Initialize Error RAP

016-232 MRC HW initialize error. An error has occurred during high compression board initialization.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. If the fault persists contact Xerox Technical Support.

016-233 SW Option Fail (USB Host Not Installed) RAP

016-233 Any one of the SW optional functions cannot be used because the USB host has a failure or is not installed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. Install a new ESS PWBA, PL 18.2 Item 4.

016-234, 016-235 XCP Error RAP

016-234 Lack of memory causes the XCP to stop.

016-235 Another internal error causes the XCP function to stop.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Initialise the hard disk. Refer to dC355 Hard Disk Diagnostics.

016-242 System GMT Clock Fail RAP

016-242 System GMT clock fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. Install a new ESS PWBA, PL 18.2 Item 4.

016-244 Self-Signed Certificate Auto Update Fail RAP

016-244 Self-signed certificate auto update failure.

Procedure

Switch off, then switch on the machine, GP 4.

016-245, 016-246 Invalid Accessory Mode RAP

016-245 Invalid accessory in auth and account mode.

016-246 Invalid accessory kind in auth and account mode.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Switch off the machine, GP 4.
3. Disconnect an un-required or incorrect type of accessory.
4. If necessary install an accessory of the correct type.
5. Switch on the machine, GP 4.

016-310 SSMM Job Log Full RAP

016-310 A job log file was not retrieved from the external application (AWAS) and the number of files stored exceeded the specified value (280).

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.

016-311, 315, 319 Scanner Not Detected RAP

016-311 The system detected that the scanner was not installed.

016-315 An error in the I/F between the scanner and the main processor was detected.

016-319 An error in the I/F between the scanner and the main unit was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA and DADF PWB are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new components as necessary:
   - ESS PWBA, PL 18.2 Item 4.
   - DADF assembly, PL 50.1 Item 1.

016-312, 313, 314, 320 SW Option Fail (Hybrid WaterMark) RAP

016-312 When the SW optional function is being enabled, the system detected that the hybrid watermark detection H/W is not installed.

016-313 The hybrid watermark detection H/W was detected but the SW option (secure watermark kit) was not enabled.

016-314 The board for detecting the back (side 2) of a document is not installed. Therefore (paper security) is unavailable.

016-320 A software error was detected when documents were converted.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-316, 317, 318, 329, 333, 334 Page Memory Error RAP

016-316 The system detected that the page memory (standard) of the scanner was not installed.

016-317 The system detected an error in the Page Memory (standard) of the scanner.

016-318 The system detected an error in the Page Memory (option) of the scanner.

016-329 Long boot diag page memory not detected fail.

016-333 Long boot diag page memory broken standard fail.

016-334 Long boot diag page memory broken option fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-321 Fax Module Error RAP

016-321 Fax related error at booting.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

016-322 JBA Account Full RAP

016-322 The cumulated accounting data reached the specified value (15,000).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer to perform a manual retrieval of machine data from their accounting server.
3. Check the hard disk. Refer to dC355 Hard Disk Diagnostics. Advise the customer to push the user accounts to the machine from their accounting server.
4. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
5. Reload the software, GP 9.
6. Perform the OF 21 Special Boot Modes RAP.
7. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-323 B-Formatter Fatal Error RAP

016-323 Fatal error has occurred in the B-formatter task.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.

016-324 Scheduled Image Overwrite RAP

016-324 Scheduled image overwrite.

Procedure

For information only, no service action necessary. Wait for the Scheduled Image Overwrite to complete.

016-325 Using Personal Certificate RAP

016-325 The IC card personal certificate is set in the certificate for signing.

Procedure

Perform the steps that follow:

1. Enter dC131. Set NVM value 790-389 to 0.

016-326, 016-607 UI Cable Connection Fail RAP

016-326 The controller has detected a failure at its cable connection with the UI.

016-607 Controller -UI Cable Connection Fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Check the wiring between the ESS PWBA and the UI console.
2. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Ensure the connectors PJ 1 and PJ 1362 are securely connected.
3. Switch off, then switch on the machine, GP 4.
4. Install new components as necessary:
   - ESS PWBA, PL 18.2 Item 4.
   - UI assembly, PL 1.1A Item 4 C400, PL 1.1B Item 4 C405.

016-327, 016-328 Connection Fail RAP

016-327 Backplane connection fail.

016-328 The controller has detected a failure at its cable connection with the MCU.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the MCU PWBA, PL 18.2 Item 24.
4. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Ensure the connectors PJ 10 and PJ 920 are securely connected.

016-330, 331, 332 Cont System Memory Fail RAP

016-330 The memory size installed in slot 1 is outside the specification value.

016-331 The total memory size installed in slot 2 is outside the specification value.

016-332 The total memory size installed in slot 1 and 2 is outside the specification value.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-335 to 016-351 Controller Fail RAP

016-335 Cont program ROM diagnostic fail 1.

016-336 Cont program ROM diagnostic fail 2.

016-337 Cont program ROM diagnostic fail 3.

016-338 Cont font ROM diagnostic fail 1.

016-339 Cont font ROM diagnostic fail 2.

016-340 Cont font ROM diagnostic fail 3.

016-341 Cont font ROM diagnostic fail 4.

016-342 Cont RTC diagnostic fail.

016-343 Long boot diag timer fail.

016-345 Cont NVM diagnostic fail.

016-346 Cont A4 fax modem diagnosis fail.

016-347 Cont page memory diagnostic fail 1.

016-348 Cont page memory fail 2.

016-349 Cont MAC address data fail.

016-350 Cont SEEP-ROM diagnostic fail 1.

016-351 Cont SEEP-ROM diagnostic fail 2.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault is 16-342, 16-343 or 16-345, ensure the date and time on the device is set correctly.
3. If the fault is 16-349, 16-350 or 16-351, remove the EMMC card, then install the EMMC card, PL 18.2 Item 37.
4. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
5. Reload the software, GP 9.
6. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-352 Internal Network Initialize Fail RAP

016-352 Internal network initialization error.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.

016-353, 016-354 IOT-Controller Communication Fail RAP

016-353 Communication cannot be established between the IOT and the ESS PWBA.

016-354 Communication cannot be established between the IIT and the ESS PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors and surface mounted modules on the ESS PWBA are securely connected.
3. Reload the software, GP 9.
4. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the MCU PWBA, PL 18.2 Item 24.
5. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Ensure the connectors PJ 10 and PJ 920 are securely connected.
6. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-355, 016-356 Controller ASIC Fail RAP

016-355 Cont IO ASIC diagnostic fail.

016-356 Cont video ASIC diagnostic fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA and DADF PWB are securely connected. Ensure all surface mounted modules are securely connected.
3. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the MCU PWBA, PL 18.2 Item 24.
4. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Ensure the connectors PJ 10 and PJ 920 are securely connected.
5. Reload the software, GP 9.
6. If the fault persists, install a new components as necessary:
   - ESS PWBA, PL 18.2 Item 4.
   - DADF assembly, PL 50.1 Item 1.

016-357 Controller EP Communication Fail RAP

016-357 Controller to EP-controller communication fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWB, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWB, PL 18.2 Item 4.

016-358 Controller Parallel Card Fail RAP

016-358 Controller parallel port diagnostic fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-359, 016-361 Controller USB Fail RAP

016-359 Cont USB HUB diagnostic fail.

016-361 Cont USB 3.0 device diagnostic fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Install a new ESS PWBA, PL 18.2 Item 4.

016-360, 016-362 Controller UI Fail RAP

016-360 Cont UI diagnostic fail 1.

016-362 Cont UI diagnostic fail 2.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Check the wiring between the ESS PWBA and the UI console.
3. Refer to WD 9 C405 or WD 10 C400 and PJ Location. Ensure the connectors PJ 1 and PJ 1362 are securely connected.
4. Install new components as necessary:
   - ESS PWBA, PL 18.2 Item 4.
   - UI assembly, PL 1.1A Item 4, C400 or PL 1.1B Item 4, C405.

016-363 Controller LyraCard Fail RAP

016-363 Cont JPEG card diagnosed as having a failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-364, 016-365 Controller USB 2.0 Fail RAP

016-364 Cont USB 2.0 host diagnostic fail.

016-365 Cont USB 2.0 device diagnostic fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-366, 016-367 Controller HDD Fail RAP

016-366 Cont HDD diagnostic fail 1.

016-367 Cont HDD diagnostic fail 2.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Remove, then install the hard disk drive, PL 18.2 Item 91.
3. Reload the software, GP 9.
4. Install new components as necessary:
   - Hard disk drive, PL 18.2 Item 91.
   - ESS PWBA, PL 18.2 Item 4.

016-368, 369, 370 Controller Diagnostic Fail RAP

016-368 Cont torino diagnostic fail.

016-369 Cont S2X PWB diagnostic fail.

016-370 Cont rendering engine diagnosed as having a failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-371 Controller USB 1.1 Host Fail RAP

016-371 A defect was detected during a diagnostic check of USB 1.1 host (no communication with the fax card could be established).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the fax PWB, PL 18.2 Item 7 are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-383 Controller OS Communication Fail RAP

016-383 Communication failure between linux and VX works.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-400, 402, 427, 429 802.1x Authentication Failure RAP

016-400 802.1x Authentication error (incorrect user name or password). The user name or password that has been set in the machine is incorrect. The settings are different from those in the authentication device switch that is physically connected to the machine via the network.

016-402 802.1x authentication time-out (there was no response signal from the authentication device). The authentication was timed-out because there was no response signal from the authentication device switch that is physically connected to the machine via the network.

016-427 802.1x authentication failure (network 2).

016-429 802.1x authentication failure by timing out (network 2).

Procedure

Advise the customer to:

1. Enter the correct user name or password for 802.1x authentication from the machine panel.
2. Check the switch settings and network connections of the authentication device switch that is physically connected to the machine via the network and connect it correctly.
3. Check the settings in the authentication device switch that is physically connected to the machine via the network.

016-401 802.1x EAP Type Not Supported RAP

016-401 802.1x Authentication method mismatch (the authentication server does not support the authentication method of the machine). A fail signal, which indicates that the authentication method set in the machine cannot be processed, was received from the authentication device switch that is physically connected to the machine via the network.

Procedure

Advise the customer to:

1. Set the authentication method of the machine to be the same as the one set in the authentication server.
2. Check the 802.1x authentication method from the UI.

016-403, 016-430 802.1x Certificate Failure RAP

016-403 802.1x authentication certificate mismatch. The root server certificate for the authentication server (for network 1) is not stored in the machine or it is mismatched.

016-430 The route certificate of the server certificate (for network 2) of the authentication server is not stored in the machine or it does not match.

Procedure

Advise the customer to:

1. Store the root server certificate for the authentication server in the machine.
2. If the root certificate of the server certificate cannot be obtained, disable the 802.1x setting item (for fault 016-403 network 1), (for fault 016-430 network 2) in the device.

016-404, 016-431 802.1x Inside Failure RAP

016-404 An internal error has occurred in the 802.1x supplicant function of the machine. An incorrect protocol signal was received from the authentication server in network 1.

016-431 An internal error has occurred in the 802.1x supplicant function of the machine. An incorrect protocol signal was received from the authentication server in network 2.

Procedure

Advise the customer to repeat the operation.

016-405 Certificate DB File Error RAP

016-405 Certificate database file is wrong.

Procedure

Advise the customer to start 'Initialize certificate' under Maintenance.

016-406 802.1x Client Certificate Failure RAP

016-406 An error in setting up client certificate for 802.1x authentication. Although 'EAP-TLS' is selected as the authentication method for 802.1x authentication, SSL client certificate is not set up or deleted.

Procedure

Advise the customer to:

1. Store SSL client certificate in this machine and set it up as SSL client certificate.
2. If SSL client certificate cannot be set up, select an authentication method other than 'EAP-TLS'.

016-407 to 016-412 XCP Error RAP

016-407 The package management function has detected security exception.

016-408 The package management function has detected the damaged JAR file.

016-409 The package management function has detected a version mismatch.

016-410 The package management function has detected the invalid definition file.

016-411 The package management function has detected an unsupported class file version.

016-412 The package management function has detected the plug-in has caused an error that is included in a miscellaneous group of errors.

Procedure

Advise the customer to modify the plug-in, then re-install.

016-421 Input Tray Removed RAP

016-421 The paper tray is removed.

Procedure

Ensure all paper trays are fully inserted.

016-422, 016-423 Offline RAP

016-422 Diag Offline

016-423 Offline

Procedure

Perform the steps that follow:

1. Check then clear any other faults, dC125.
2. Switch off, then switch on the machine, GP 4.

016-424, 016-425 Power Mode RAP

016-424 Low power mode.

016-425 Sleep mode.

Procedure

Perform the steps that follow:

1. Press the power button on the UI to cancel low power or sleep mode.
2. If the fault persists switch off, then switch on the machine, GP 4.

016-428 802.1x EAP Type Not Supported (Network 2) RAP

016-428 802.1x Authentication method mismatch (authentication server does not support the authentication method of this device: network 2)

Procedure

Advise the customer to:

1. Set the authentication method of network 2 of this device to the same authentication method as the one set in the authentication server.
2. Check the 802.1x authenticating method on the UI.

016-432 802.1x Client Certificate Failure (Network 2) RAP

016-432 802.1x setting error of the client certificate of the authentication (network 2).

Procedure

Advise the customer to:

1. Store the client certificate to this machine SSL and set as SSL client certificate.
2. If the setting of SSL client certificate cannot be made, select other than (EAP-TLS) as the authentication method.

016-450 SMB Host Name Duplicated RAP

016-450 A PC of the same host name exists on the network.

Procedure

Advise the customer to:

1. Check whether the device host name setting of the same host name is the same as another device. If the setting is duplicated, change the host name of the device or duplicate device.
2. If a duplicated setting is not confirmed, change the device host name.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

016-453, 016-454 Dynamic DNS - IPv6 NG RAP

016-453 Failed to update of the IPv6 address and host name to the DNS server.

016-454 Dynamic DNS - dynamic update failed.

Procedure

Advise the customer to:

1. Check that DNS server address is set correctly in the device.
2. Check with the System Administrator whether the DNS server settings that allow dynamic DNS using IPv6 address have been set.

016-455, 016-456 SNTP Time Out RAP

016-455 There is no response from the SNTP server within the specified time (60sec).

016-456 A standard time synchronized source message and an asynchronous message was received from the SNTP server.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check that the SNTP server address is set correctly in the device.
   b. If the fault persists check the time on the machine, if the time on the machine is incorrect, manually set the time.

016-461 Under Non-transmitted Image Log Stagnation RAP

016-461 Creation of a new job is being restricted because image logs yet to be transferred are piled up and delayed.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check the image log management server status and the network status, and clear any cause that may impede the transfer of image logs to the image log server.
   b. Check the transfer settings and transfer all logs that are yet to be transferred. Or, change the transfer guarantee level to 'Low'.

      NOTE: *Setting the transfer guarantee level to 'Low' may cause the image logs to get deleted in sequence even before they are transferred.*

2. Reload the software, GP 9.

016-500, 016-501 Downloader Failure RAP

016-500 An error has occurred during the process of writing data to the cont-ROM.

016-501 An error has occurred during the process of writing data to the S2X-ROM.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Reload the software, GP 9.
2. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-502 ROM Write Error RAP

016-502 An error was detected when writing data to one of the ROMs in 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 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
2. Reload the software, GP 9.
3. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-503 SMTP Server Fail for Redirector RAP

016-503 DNS library call error.

Procedure

Perform the steps that follow:

1. Request the customer specify the correct SMTP server name or specify the IP address.
2. If the error persists obtain support logs, GP 15, and contact support.

016-504 POP Server Fail for Redirector RAP

016-504 The POP server name could not be resolved (though the machine tried to connect to the server).

Procedure

Perform the steps that follow:

1. Have the customer check the connection to the DNS and whether the destination server name has been registered in the DNS.
2. Ask the customer to verify the FTP server hostname is correct.
3. If the error persists obtain support logs, GP 15, and contact support.

016-505 POP Authentication Fail for Redirector RAP

016-505 Incorrect POP Server authentication information was detected.

Procedure

Perform the steps that follow:

1. Request the customer specify the correct SMTP server name or specify the IP address.
2. If the error persists obtain support logs, GP 15, and contact support.

016-507, 016-508 Image Log Send Fail RAP

016-507 A log image transfer fails, making it impossible to continue a target job which will consist of created images.

016-508 A log image transfer fails, making it impossible to continue an image transfer job.

Procedure

Perform the steps that follow:

1. Advise the customer to check the state of the destination image log control server and that of the network. Clear any factor preventing image logs from being transferred to the image log control server.

016-509, 016-510 Image Log No Send Rule RAP

016-509 Image log no send rule 1. Rules for log image transfer are not registered, causing jobs to be discontinued.

016-510 Image log no send rule 2. Rules for log image transfer are not registered, causing transfer failure.

Procedure

Perform the steps that follow:

1. Advise the customer to register rules for transfer from the destination image log control server to the device.

016-511, 016-512 Image Log Invalid Send Rule RAP

016-511 Image Log invalid Send rule 1. Rules for log image transfer are illegal, causing a job to be discontinued.

016-512 Image Log invalid Send rule 2. Rules for log image transfer are illegal.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to overwrite rules for transfer from the destination image log control server to the device.
2. If installed check the wiring between the ESS PWBA, PL 18.2 Item 4 and the optional hard disk.
3. Install a new hard disk, PL 18.2 Item 91.

016-513 SMTP Server Reception Error RAP

016-513 Error when receiving response from the SMTP server (after connecting to the server).

Procedure

Perform the steps that follow:

1. Have the customer wait 5 minutes before resubmitting the job**.**
2. Check the SSL/TLS settings and Port number:

   On the Web UI, under Connectivity > SMTP > Connection Security. Ensure that the customer is using the appropriate encryption type for their mail server.
3. If the fault persists, advise the customer to consult with their network administrator for the correct configuration.

016-514 XPS Error RAP

016-514 During XPS Bridge processing, invalid schema, parameter error, damage to XPS file, or an error internal to XPS decomposer occurred.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
2. Reload the software, GP 9.

016-515 XPS Short of Memory

016-515 During XPS Bridge processing, a lack of memory was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to check the print mode. If print mode is set to High Resolution, change it to Standard. If print mode is set to Standard, change it to High Speed.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and hard disk, PL 18.2 Item 91 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.

016-516 XPS Print Ticket Description Error RAP

016-516 XPS Print Ticket description error.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to check whether the application that sends a print job and the print instructions has a problem.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and hard disk, PL 18.2 Item 91 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.

016-517 PS Booklet Illegal Color Mode Change RAP

016-517 PS documents to be printed into a booklet have black and white and color areas.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to resubmit the job with corrected parameters. Rewrite the PostScript file so that the page device and process color model cannot be changed in the process.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and hard disk, PL 18.2 Item 91 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.

016-518 PS Booklet Conflict WM RAP

016-518 PS booklet and watermarks were specified at the same time.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. PS booklet and watermark/UUID cannot be specified at the same time. Advise the customer to cancel either one.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and hard disk, PL 18.2 Item 91 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.

016-519 Device DV Limit Reached RAP

016-519 Number of printable sides limit full.

Procedure

Ask the System Administrator to increase the limit of printable sides.

016-520 MRC HW Job Error RAP

016-520 An error has occurred during the usage of high compression board.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to repeat the operation or change the output file format/color mode.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and hard disk, PL 18.2 Item 91 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Perform dC355 Hard Disk Prediction Test.
5. Install a new hard disk, PL 18.2 Item 91.
6. Install a new ESS PWBA PL 18.2 Item 4.

016-521 SmartCard Not Found RAP

016-521 After a personal signature scan job has started up, the smart card was removed or the card reader was detached, which causes the personal signature to fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to insert the smart card into the reader then recheck the PIN before performing the personal signature scan.
2. Check the wiring between the card reader and the machine.

016-522 LDAP SSL Error 112 RAP

016-522 LDAP-SSL authentication error 112 has occurred (the client certificate cannot be obtained).

Procedure

Advise the customer to install the SSL client certificate into the device as the LDAP server will request it.

016-523 LDAP SSL Error 113 RAP

016-523 LDAP-SSL authentication error 112 has occurred (the client certificate cannot be obtained).

Procedure

The device cannot trust the SSL certificate of the LDAP server. Advise the customer to register the root certificate of the LDAP server SSL certificate in the device.

016-524, 016-525 LDAP SSL Error 114 and 115 RAP

016-524 LDAP-SSL authentication error 114 has occurred (the server certificate is close to expiring).

016-525 LDAP-SSL authentication error 115 has occurred (the server certificate has expired).

Procedure

Advise the customer to change the LDAP server SSL certificate to one that is valid.

016-526 LDAP SSL Error 116 RAP

016-526 LDAP-SSL authentication error 116 has occurred (the server name and the certificate does not match)

Procedure

Advise the customer to Ensure that the address of the LDAP server set in the device matches the address of the LDAP server defined in the SSL certificate.

016-527 LDAP SSL Error 117 RAP

016-526 LDAP-SSL authentication error 116 has occurred (the server name and the certificate does not match)

Procedure

Obtain a device log, refer to GP 15 Obtaining Audit and Device Logs. Escalate the problem to 2nd Level support.

016-528 SmartCard Not Authorized RAP

016-528 After a personal signature scan job started, the smart card PIN check status was cleared, which causes the personal signature to fail.

Procedure

If the fault persists, obtain a device log, refer to GP 15 Obtaining Audit and Device Logs. Escalate the problem to 2nd Level support.

016-529 Remote Download Server Timeout RAP

016-529 There was no response within the specified time (45 sec) when connecting to the remote download server.

Procedure

Check the network connection. Advise the customer to check that the remote download server is correctly configured and operating on the network.

016-533 Kerberos Attestation Protocol Error 37 RAP

016-533 A Kerberos server Attestation protocol error has occurred.

Procedure

NOTE: *The clock difference between the device and the Kerberos server has exceeded the clock skew limit of the Kerberos server.*

Have the customer:

1. Check that the clocks of the device and Kerberos server are set correctly.
2. Check that the daylight saving time and time zone settings for the device and the Kerberos server are the same.
3. Go to GP 15 to obtain the logs required for contacting Support for further instruction.

016-534 Kerberos Attestation Protocol Error 41 and 42 RAP

016-534 A Kerberos server Attestation protocol error has occurred.

Procedure

Advise the customer to check that the realm name and server address in the Kerberos settings of the device are set correctly.

016-535 Remote Download File Access Error RAP

016-535 There are no FW update files in the remote download server.

Procedure

Advise the customer to check the remote download server for the FW update file.

NOTE: *Refer also to GP 9 Device Software.*

016-536 Host Name Solution Error in Remote Download RAP

016-536 Remote download server name resolution error.

Procedure

Advise the customer to check the connection to the DNS and whether the remote download server name has been registered in the DNS.

016-537 Remote Download Server Connection Error RAP

016-537 Remote download server connection error.

Procedure

Advise the customer to check the network connection setting (port) of the remote download server.

016-538 Remote Download File Write Error RAP

016-538 Remote download file write to HDD error.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer to delete unnecessary files.
3. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the hard disk, PL 18.2 Item 91.
4. Perform dC355 Hard Disk Prediction Test.
5. Install a new hard disk, PL 18.2 Item 91.
6. Install a new ESS PWBA PL 18.2 Item 4.

016-539 Kerberos Attestation Other Protocol Error RAP

016-539 A Kerberos Server Attestation protocol error has occurred.

Procedure

Obtain a device log, refer to GP 15 Obtaining Audit and Device Logs, then escalate the problem to 2nd Level support.

016-543 Attestation Agent Error 543 RAP

016-543 The specified realm/domain has disappeared from the ApeosWare authentication agent (the domain was manually deleted at the ApeosWare authentication agent after obtaining the realm name list from the device).

Procedure

Advise the customer to:

1. Update the realm list, using the Update Realm button on the device, or add the domain to the ApeosWare authentication agent. To update the device realm information, perform the steps that follow:
   a. Press the Authentication Agent button on the Authentication window of the device.
   b. The Authentication Agent window appears. Press the Update button.

016-545 Attestation Agent Error 545 RAP

016-545 A Clock skew error has occurred in attestation. The time of ApeosWare Authentication Agent and ActiveDirectory is out of sync with the upper limit of the Kerberos ClockSkew set in the ActiveDirectory.

Procedure

Advise the customer to match the time of the PC where the ApeosWare Authentication agent is installed with the time of the PC where the ActiveDirectory is. Furthermore, if the Windows Time Service in the PC where the ApeosWare Authentication Agent is installed is stopped, start it.

016-546, 558, 569 Attestation Agent Errors RAP

016-546 A general user has attempted to obtain other user's information.

016-558 The machine has received an unknown error from the ApeosWare Authentication Agent.

016-569 Attestation agent errors other than listed previously.

Procedure

1. Ensure the correct user name has been used.
2. Switch off, then switch on the machine, GP 4.

016-548 Attestation Agent Error 548 RAP

016-548 The information of the machine that is performing the authentication operation is not in the database.

Procedure

Advise the customer to:.

1. Register the device in the ApeosWare Authentication Agent.
2. Switch off, then switch on the machine, GP 4.

016-553 Attestation Agent Error 553 RAP

016-553 The version information written in the SOAP header cannot be understood. The ApeosWare Authentication Agent does not support the version of the device interface.

Procedure

The version of the ApeosWare Authentication Agent needs to be upgraded. Advise the customer to check that the machine is a product that is supported by the upgraded version of the ApeosWare Authentication Agent.

016-554 Attestation Agent Error 554 RAP

016-554 The existence check for the specified user in the event of an authentication error has failed.

Procedure

Advise the customer to correctly set the domain user reference login name or the reference password of the ApeosWare Authentication Agent domain.

016-555 Attestation Agent Error 555 RAP

016-555 The ApeosWare Authentication Agent cannot connect to the database or the Active Directory.

Procedure

Advise the customer to check that the ApeosWare Authentication Agent can connect to the database or the active directory.

016-556 Attestation Agent Error 556 RAP

016-556 Error has occurred in the database that the ApeosWare Authentication Agent is connected to due to overloading.

Procedure

Advise the customer to wait 5 minutes before authenticating again as the service is overloaded.

016-557 Attestation Agent Error 557 RAP

016-557 An internal error has occurred in the ApeosWare Authentication Agent.

Procedure

Advise the customer to check the ApeosWare Authentication Agent.

016-559 Remote Download Parameter Error RAP

016-559 When performing the remote download, an invalid value is set in the required system data.

Procedure

Advise the customer to check that all system data that must be set to perform the remote download are correct.

016-560 Attestation Agent Error 560 RAP

016-560 A communication error has occurred between the ApeosWare Authentication Agent and the machine.

Procedure

Advise the customer to:

1. Check that the network cable is connected and check the settings of the authentication agent function.
2. If DNS address of the server is set as the server name/IP address of the ApeosWare Authentication Agent in the printer function settings list, check that DNS is enabled.

016-562 Detected User Duplication RAP

016-562 Two or more entries with the same IC card information were found in the temporary user DB of Active Directory or Authentication Agent..

Procedure

Advise the customer to make corrections so that the temporary user entries of the Active Directory or Authentication Agent do not have the same IC card information.

016-563 Image Log Memory Full RAP

016-563 The system data log/image creation guarantee level is set to High, resulting in insufficient memory of the image extension kit.

Procedure

Advise the customer to:

1. Delete any unnecessary files.
2. Set the image quality to normal.

016-564 Remote Download Server Authentication Failed RAP

016-564 When accessing the remote download server, an authentication error notification was issued from the server.

Procedure

Advise the customer to check that the correct user name and password was specified when accessing the remote download server.

016-565 Backup Restore Error RAP

016-565 Backup/restore error.

Procedure

Perform the steps that follow:

1. For USB backup, check that the USB memory is correctly installed. If the fault persists, use a PC to check the USB memory for a 'backup' directory. If it is not there, create it.
2. When performing restore or deletion of backup files from the USB backup file, check that the USB memory is correctly installed.

016-566 Backup Restore Condition Error RAP

016-566 Backup/restore condition error.

Procedure

Advise the customer to:

1. During backup, save the FW download file into the 'dwld' directory in the USB memory, connect it the machine, then perform the backup.
2. During restore, use the same IOT and IIT ROM versions as those during backup. When performing restore using a USB backup file, also use the same HDD configuration.
3. If there is no HDD, use the same ESS ROM versions as well. If the same configuration cannot be attained, delete the backup file from the panel.
4. If the problem occurred at an attempt to restore a backed-up file from an external place, check that the ESS/IIT/IOT/FAX ROM version is still the same as the version used when the backed-up file was created. Furthermore, check the device is the same as the one that generated the backed-up file.

016-567 Backup Capacity Full RAP

016-567 The memory capacity is not enough for back up data to be encrypted.

Procedure

Perform the steps that follow:

1. Before performing the HDD backup, delete existing backup files to increase the capacity.
2. Before performing USB backup, delete the backup files in the USB memory, or use a PC to delete unnecessary files on the USB memory to increase the capacity.

016-568 Backup Restore Failed RAP

016-568 NVM data could not be backed up or restored.

Procedure

Perform the steps that follow:

1. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
2. Before performing the restore using the HDD backup file, delete backup files.
3. For USB backup, check that the USB memory is correctly installed. If the fault persists, use a PC to format the USB Memory.
4. When performing restore using USB backup files, check that the USB memory is correctly installed. If the fault persists, delete the backup files.
5. If the problem still persists, use a PC to format the USB memory.

016-570 Job Ticket Out of Memory RAP

016-570 XPIF memory is low.

Procedure

Increase memory size for job ticket on UI Panel. Switch off, then switch on the machine, GP 4. Run the job.

016-571 Job Ticket Wrong Parameters RAP

016-571 XPIF parameter mismatch.

Procedure

Advise the customer to check for a mismatch between parameters specified by the job ticket. Correct the parameters, then resend the job.

016-572 Job Ticket Media Error RAP

016-572 XPIF media conversion error.

Procedure

Advise the customer to check that the device that receives data can print it onto paper whose properties (size/type/weight/color/punched) are specified by job ticket.

016-573 Job Ticket Parse Error RAP

016-573 XPIF Interpret error.

Procedure

Advise the customer to ensure the that software is correctly installed on client that generates job ticket; operational requirements are met; and software version matches device version.

016-574 FTP Host Name Solution Error RAP

016-574 Unable to resolve host name during FTP scan.

Procedure

1. Have the customer check the connection to the DNS and whether the destination server name has been registered in the DNS.
2. Ask the customer to verify the FTP server hostname is correct.
3. Perform GP 15 to obtain the logs required for contacting Support for further instruction.

016-575 FTP DNS Server Error RAP

016-575 The DNS server was not set during FTP scan.

Procedure

Advise the customer to set the DNS address or set the destination server address using IP address.

016-576 FTP Server Connection Error RAP

016-576 Problem with connection to server during FTP scan.

Procedure

Advise the customer to check that the network communication between the transfer destination FTP server and the machine is available. For example:

- Check that the server IP address is correct.
- Check the connection of network cables.

016-577 FTP Service RAP

016-577 Failed to connect to the FTP service of the destination server.

Procedure

Advise the customer to:

1. Check that the FTP service of the server is operating.
2. Check that the FTP port number of the server matches the FTP port number that is set on the device.

016-578 FTP Login Name or Password Error RAP

016-578 FTP scan login name or password error.

Procedure

Advise the customer to check that the login name (user name) and password are correct.

016-579 FTP Scanning Picture Preservation Place Error RAP

016-579 Problem with scanned image storage destination of FTP scan.

Procedure

Advise the customer to check that the scanned image storage destination on the FTP scan server is correct.

NOTE: *Ensure the FTP user has proper permissions to the image storage destination.*

016-580 FTP File Name Acquisition Failure RAP

016-580 Unable to obtain file name/folder name on the FTP scan server.

Procedure

1. Ask the customer to check the access rights to the FTP scan server.
2. Ask the customer to check the image storage destination folder name.
3. Perform GP 15 to obtain the machine logs and contact support for further information

016-581 FTP File Name Suffix Limit RAP

016-581 The FTP scan file name/folder name suffix has exceeded the limit.

Procedure

1. Have the customer change the file name/destination folder or move or delete the files in the destination folder.
2. If the fault persists Perform GP 15 to obtain the machine logs and contact support for further information.

016-582, 016-588 FTP File Creation Failure RAP

016-582 When creating a file in the server after connecting to the FTP server, the file creation has failed.

016-588 Failed to write data into the server after connecting to the FTP server.

Procedure

Advise the customer to:

1. Check that the specified name is a file name that can be created in the storage destination.
2. Check that the storage destination has enough free space.

016-583, 016-584 FTP Folder Creation Failure RAP

016-583 When creating a lock folder in the server after connecting to the FTP server, the lock folder creation has failed.

016-584 When creating a folder in the server after connecting to the FTP server, the folder creation has failed.

Procedure

Advise the customer to:

1. If a lock directory (*.LCK) remains in the transfer destination, delete it then retry the job.
2. Check that the specified name is a folder name that can be created in the storage destination.
3. Check whether a folder with the same name as the specified name already exists.
4. Check that the storage destination has enough free space.
5. Confirm that the FTP user has correct permissions for the scanned image destination.
6. Perform GP 15 to obtain the logs required for contacting Support for further instruction.

016-585, 587, 589 FTP File Delete/Read Failure RAP

016-585 When deleting a file in the server after connecting to the FTP server, the deletion has failed.

016-587 When deleting a folder in the server after connecting to the FTP server, the deletion has failed.

016-589 Failed to read data from the FTP server after connecting to the FTP server during scanner (save to PC) FTP transfer.

Procedure

Advise the customer to check whether there is access right to the FTP server and grant the proper rights.

016-586 FTP Lock Folder Delete Failure RAP

016-586 When deleting a lock folder in the server after connecting to the FTP server, the deletion has failed.

Procedure

Advise the customer to:

1. Check the FTP user has appropriate permissions for the scanned image destination.
2. If a lock directory (*.LCK) remains in the transfer destination, delete it then retry the job.
3. Perform GP 15 to obtain the logs required for contacting Support for further instruction.

016-590 FTP Data Reading Failure RAP

016-590 Unable to save a file after connecting to the FTP server during scanner (save to PC) FTP transfer because 'File Name Conflict' is set to 'Cancel Job'.

Procedure

Advise the customer to set 'File Name Conflict' to other than 'Cancel Job'.

016-591 FTP Scan Filing Policy RAP

016-591 Incorrect filing policy (when additional items are selected) was detected after connecting with the FTP server.

Procedure

Advise the customer that if 'Add' is selected for 'File Name Conflict', check that the file format is not set to Multi-page.

016-592 FTP DAT File Access Error RAP

016-592 An error has occurred when accessing the NEXTNAME.DAT file after connecting to the FTP server during scanner (Save to PC) FTP transfer.

Procedure

Advise the customer that if 'Add' is selected for 'File Name Conflict', check that the NEXTNAME.DAT file is correct.

016-593 to 016-596 FTP Error RAP

016-593 An internal error has occurred after connecting to the FTP server.

016-594 The TYPE command has failed after connecting to the FTP server.

016-595 The PORT command has failed after connecting to the FTP server.

016-596 The CDUP command has failed after connecting to the FTP server.

Procedure

Advise the customer to repeat the operation.

016-597 Same File on FTP Server RAP

016-597 The process was cancelled because a file/folder with the same name was detected after connecting to the FTP server.

Procedure

Advise the customer to perform the same operation again without multiple machines accessing the same folder in the same server.

016-598, 016-599 Email Message Size RAP

016-598 Email message size is over spec.

016-599 Email message size is over spec.

Procedure

Advise the customer to:

1. Reduce a resolution send parameter (image-to-send quality) then resend the job.
2. Reduce a magnification send parameter, then resend the job.
3. Increase the maximum message size (10MB recommended default).

016-600 KO Authentication Locked RAP

016-600 The number of continuous Key Operator log in attempts reached the limit.

Procedure

If required, refer to GP 3 to reset the password to 1111 (default) if the System Administrator ID is unavailable.

NOTE: *Default is 5 KO Authentication errors. dC131 NVM Read/Write [700-563] can be set between 1 to 10 KO Authentication errors.*

016-601 Illegal Access Detection RAP

016-601 The continuous number of incorrect authentication (CO/KO inclusive) log in attempts reached the limit.

Procedure

If required, refer to GP 3 to reset the password to 1111 (default) if the System Administrator ID is unavailable.

NOTE: *Default is 10 authentication errors. dC131 NVM Read/Write [700-564] can be set between 1 to 600 authentication errors.*

016-604 Debug Log Created RAP

016-604 Debug log auto creation by system.

Procedure

Switch off, then switch on the machine, GP 4.

016-606, 016-608 Controller Connection Fail RAP

016-606 Controller-back plane connection fault.

016-608 Controller-MCU cable connection fault

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new components as necessary:
   - ESS PWBA, PL 18.2 Item 4.
   - MCU PWB, PL 18.2 Item 24.

016-609, 016-610 PCI Option Fail RAP

016-609 PCI option no support device fail.

016-610 PCI EX option no support device fail.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.

016-611 EMMC Card Connection Fail RAP

016-611 EMMC card connection fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure the EMMC card, PL 18.2 Item 37 is correctly installed.
3. Install a new ESS PWBA, PL 18.2 Item 4.

016-612 Log Image Creation Failure RAP

016-612 Creation of log image has failed.

Procedure

Switch off, then switch on the machine, GP 4.

016-700 Password Below Minimum RAP

016-700 The number of digits used for the password for security and authentication prints is less than the minimum.

Procedure

Advise the customer to increase the number of password digits for the print job.

016-701 Out of ART EX Memory RAP

016-701 Insufficient memory was detected while using the ART EX.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Increase the allocated memory of the ART EX.
   b. Lower the print mode.
   c. Lower the resolution.
   d. Set Page Print mode to Enabled.
   e. Execute Image Compression in the Graphics tab of the printer driver.
2. Reload the software, GP 9.

016-702 Out of Page Buffer RAP

016-702 Unable to compress a single page due to insufficient print page buffer.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Set Print Mode to High Speed and reduce the print resolution. Retry the operation.
   b. Increase the memory to increase the page buffer.
   c. Retry the operation in Print Page Mode.
2. Reload the software, GP 9.

016-703 Email To Invalid Box RAP

016-703 When receiving Email, fax or internet fax, an invalid (not setup) mailbox number is selected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to:
   a. Check whether the selected mailbox is set up correctly.
   b. Have Email, fax or internet fax sent to a valid mailbox.
2. Ensure the fax PWBA is correctly installed, PL 18.2 Item 7.
3. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the optional hard disk, PL 18.2 Item 91.
4. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. If the fault persists, perform the 016A Scan to Network Error Entry RAP.
6. Install a new hard disk, PL 18.2 Item 91.
7. Install a new fax PWBA, PL 18.2 Item 7.

016-704 Mailbox Full RAP

016-704 The system detected that a mailbox was full (it exceeded the maximum number of documents per box) and aborted a job.

Procedure

Advise the customer to delete unnecessary documents, then repeat the operation.

016-705 Secure Print Fail RAP

016-705 Unable to perform secure print/mailbox print/pay for print storing from the printer driver. Unable to store scanned documents into a mailbox.

Procedure

Perform the steps that follow:

1. Advise the customer to check that the required optional software is installed and enabled. Also check that the correct print driver is being used.
2. If the fault persists, perform the steps that follow:
   a. Reload the software, GP 9.
   b. Check the wiring between the ESS PWB, PL 18.2 Item 4 and the hard disk, PL 18.2 Item 91.
   c. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
   d. Install new components as necessary:
      - Hard disk, PL 18.2 Item 91.
      - ESS PWB, PL 18.2 Item 4.

016-706 Maximum User Number Exceeded RAP

016-706 The system detected that a job exceeded the maximum number of users for secure and sample prints and aborted the job.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to delete unnecessary documents or users, then repeat the operation.
2. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
3. Install a new hard disk, PL 18.2 Item 91.

016-707 Sample Print Fail RAP

016-707 Fail to register sample print because HDD is not installed or it has failed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to:
   a. Remove the conditions that disable sample print.
   b. If the fault occurred at installation, check whether the operations for Sample Print are correct.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Check the wiring between the ESS PWBA and the hard disk, PL 18.2 Item 91.
4. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. Install a new hard disk, PL 18.2 Item 91.
6. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

016-708 Annotation/Watermark HDD Full RAP

016-708 When an annotation or watermark image was to be stored in the HDD, full status was detected and the job was aborted.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to:
   a. Cancel annotation or watermark, then repeat the operation.
   b. Reduce the number of document pages. In Mixed Size mode, only a single size is available.
   c. For printing Stored Document, delete unnecessary documents from the hard disk, then repeat the operation.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Check the wiring between the ESS PWBA and the hard disk, PL 18.2 Item 91.
4. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. Install a new hard disk, PL 18.2 Item 91.
6. Install a new ESS PWBA, PL 18.2 Item 4.

016-709 ART EX Command Error RAP

016-709 An ART EX command error occurred during PLW processing.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to:
   a. Switch off parallel bi-directional communication in the printer driver.
   b. Set a longer time for Auto Output Time.
   c. Change the PC BIOS settings.
   d. Use a shorter, genuine, parallel cable.
2. Ensure that all connectors on the ESS PWB, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Check the wiring between the ESS PWB, PL 18.2 Item 4 and the hard disk, PL 18.2 Item 91.
5. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
6. Install a new hard disk, PL 18.2 Item 91.
7. Install a new ESS PWB, PL 18.2 Item 4.

016-710 Delayed Print Fail RAP

016-710 Process conditions for delay print were not met.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to:
   a. If secure print, proof print or knowledge storage print is specified, disable them.
   b. Reduce the delay print jobs waiting to 100 jobs or less.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the hard disk, PL 18.2 Item 91.
4. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. Install a new hard disk, PL 18.2 Item 91.
6. Install a new ESS PWBA, PL 18.2 Item 4.

016-711 Email Transmission Size Limit RAP

016-711 The size of data to send exceeds the system data value (before connection to the server).

Procedure

Advise the customer to:

1. Reduce the resolution level, which is a transmission parameter, then resend the job.
2. Reduce the magnification ratio, which is a transmission parameter, then resend the job
3. Use System Settings to raise the data size upper limit (recommended default is 2MB).

016-712 Panther Capacity RAP

016-712 Capability of Panther in Scan service deteriorated.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to increase the resolution or enlarge the scan area.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Install a new ESS PWBA, PL 18.2 Item 4.

016-713 Security Box Password Error RAP

016-713 Password check error was detected during data storage in a mailbox.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to set a correct password and try again.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Install a new ESS PWBA, PL 18.2 Item 4.

016-714 Security Box Not Enabled RAP

016-714 The mailbox specified for the job does not exist.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to open the appropriate mailbox and then try again.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Install a new ESS PWBA, PL 18.2 Item 4.

016-715 ESCP Form Invalid Password RAP

016-715 Unable to access the ESCP form because ESCP form password did not match

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to input the correct password to use ESCP form.
2. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. Install a new ESS PWBA, PL 18.2 Item 4.

016-716 TIFF Data Overflow RAP

016-716 The system detected that the files to be spooled in TIFF exceeded the disk capacity.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ensure that all connectors on the ESS PWBA are securely connected. Ensure all surface mounted modules are securely connected.
2. Reload the software, GP 9.
3. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the hard disk, PL 18.2 Item 91.
4. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. Install a new hard disk, PL 18.2 Item 91.
6. Install a new ESS PWBA, PL 18.2 Item 4.

016-717 Fax Send Result Not Found RAP

016-717 The fax or internet fax send result information is not saved in the device memory or optional hard disk.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to:
   a. Split any internet fax documents that would exceed 2GB in document storage size into several jobs and control the usage amount of memory.
   b. If there is a large amount of scan or internet fax documents being processed, wait until the other jobs are completed before performing additional jobs.
2. Reload the software, GP 9.
3. Check the wiring between the ESS PWBA and the hard disk.
4. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. Install a new hard disk, PL 18.2 Item 91.
6. Install a new ESS PWBA, PL 18.2 Item 4.

016-718 Out of PCL6 Memory RAP

016-718 Insufficient PCL6 decomposer memory.

Procedure

Perform the steps that follow:

1. Advise the customer to decrease the resolution to reduce the PLW memory.
2. Reload the software, GP 9.

016-719 Out of PCL Memory RAP

016-719 An insufficient memory was detected while using the PCL.

Procedure

Perform the steps that follow:

1. Advise the customer to increase the PCL memory size. Increasing the memory for the whole system will increase the memory to be allocated to the decomposer in some measure.
2. Reload the software, GP 9.

016-720 PCL Command Error RAP

016-720 A PCL command error occurred during PCL processing.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the job then execute the command again.
2. Reload the software, GP 9.

016-721 Settings Error RAP

016-721 Paper types cannot be determined because all the settings for custom paper priority are set to disabled.

Procedure

Perform the steps that follow:

1. Advise the customer to correct the settings, then execute the command again.
2. Reload the software, GP 9.

016-725 B-Formatter Library Image Conversion Error RAP

016-725 An error has occurred in the B-Formatter during the image conversion of scanned document to fax sending document.

Procedure

Perform the steps that follow:

1. Advise the customer to directly scan the document and then send it to the fax recipient.
2. Reload the software, GP 9.

016-726 PDL Auto Switch Fail RAP

016-726 The printer language cannot be automatically selected when the print mode is set to Auto.

Procedure

Perform the steps that follow:

1. Advise the customer to install a Adobe Postscript 3 kit for PDF files or an emulation kit for PCL data.
2. If the fault persists for PDF files:
   a. Install a optional hard disk kit, PL 18.2 Item 91.
   b. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.

016-727 Unstorable Document RAP

016-727 The 0 page condition is detected in the print job mailbox storage.

Procedure

Perform the steps that follow:

1. Advise the customer to to switch off paper saving, then print the job again.
2. Ensure the print job is not a blank page.

016-728 Unsupported TIFF Data RAP

016-728 Unsupported TIFF data.

Procedure

For information only, no service action necessary. Refer the customer to the User Guide.

016-729 TIFF Data Size RAP

016-720 The number of colors or the resolution of the TIFF file exceeds the allowed range.

Procedure

Perform the steps that follow:

1. Advise the customer to refer to the User Guide to correct the valid range.
2. Reload the software, GP 9.

016-731, 016-732 Invalid Data RAP

016-731 The TIFF data is broken or discontinued halfway.

016-732 The decomposer detected that the form specified is not registered.

Procedure

Perform the steps that follow:

1. Advise the customer to resend the data or form data.
2. Reload the software, GP 9.

016-733 Destination Address Resolution Error RAP

016-733 A failure to resolve a Peer to Peer address problem (before connection to the server)

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check if the destination address has been entered correctly.
   b. Set a correct DNS server address.
2. Reload the software, GP 9.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

016-735 Updating Job Template RAP

016-735 The system attempted to output the job template list while the job template was being updated.

Procedure

Perform the steps that follow:

1. Advise the customer to perform the operation again after the Job Template update completes.
2. Reload the software, GP 9.

016-738, 739, 740 Booklet Size RAP

016-738 Invalid paper size for PS booklet print.

016-739 The combination of the specified document/paper sizes is incorrect.

016-740 The specified tray is invalid.

Procedure

Perform the steps that follow:

1. Advise the customer to specify the correct settings that allow booklet printing.
2. Reload the software, GP 9.

016-741 Download Mode Fail RAP

016-741 Not able to change into download mode.

Procedure

Perform the steps that follow:

1. Advise the customer to cancel the download prohibited mode then check that the jobs have completed before retrying the operation.
2. Enter dC131. Set NVM value 700-420 to 0, then retry the operation.

016-742 Download Data Product ID Mismatch RAP

016-742 A mismatch in the product ID of download data was detected.

Procedure

Advise the customer to obtain the download data again, then retry the job.

016-743 Device Model/Panel Type Error RAP

016-743 The supported model in the download data does not match the device model.

Procedure

Advise the customer to source a download file that has the same model with the device VerUP then retry the job.

016-744 Download Data CheckSum Error RAP

016-744 CheckSum error of download data.

Procedure

Perform the steps that follow:

1. Ensure that the cable connected to the device is secured correctly, then retry the job.

016-745 Download Data XPJL Fatal Error RAP

016-744 XPJL soft error during download.

Procedure

Switch off, then switch on the machine, GP 4.

016-746, 016-751 Unsupported PDF File RAP

016-746 PDF error due to unsupported function sent.

016-751 Syntax error, usage of undefined command, parameter error, damaged PDF file, internal error of the PDF decomposer has occurred during PDF bridge process.

Procedure

Perform the steps that follow:

1. Advise the customer to print via the driver from Acrobat Reader.
2. Reload the software, GP 9.
3. Perform the 016A Scan to Network Error Entry RAP.

016-747 Drawing Annotation Memory RAP

016-747 When drawing an annotation image with the copy repeat function specified, there would be insufficient memory.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Increase the annotation image size.
   b. Reduce the number of repeat images for the repeat function.
2. If the fault persists, reload the software, GP 9.

016-748, 774, 775, 778, 981 HD Full RAP

016-748 HDD full when mailbox is accessed.

016-774 Disk full was detected when opening/writing file for compression type conversion.

016-775 Disk full was detected when opening/writing file for image processing operation.

016-778 HDD full was detected when opening/writing file for operation.

016-981 When accessing the HD, the HD is detected being full.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Split the job into pages in order to prevent the full state. Reduce the resolution if possible.
   b. Delete documents that are no longer needed, such as; mailbox documents, fax send wait documents, secure print documents and delayed print documents.
   c. Retrieve each page from the EWS.
2. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
3. Perform an on demand image overwrite on the HDD.
4. Install a new hard disk, PL 18.2 Item 91.
5. Reload the software, GP 9.

016-749 JCL Syntax Error RAP

016-749 The PJL/XPJL detected a print language that cannot be printed.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Use the printer driver of the machine to print.
   b. Not use ContentsBridge to print a PDF file.
   c. Request the other party to resend the internet fax document using a print language that can be printed by the machine.
2. Reload the software, GP 9.
3. Perform the 016A Scan to Network Error Entry RAP.

016-750 Print Job Ticket Description Error RAP

016-750 When the customer uses applications such as 'ContentsBridge2005', etc. to send PDF directly, the machine received the print job ticket that was sent together with the PDF. However, the print job ticket data has text that is not supported in this machine or print instruction that is not supported by the machine.

Procedure

Perform the steps that follow:

1. Advise the customer to refer to the user Guide.
2. Reload the software, GP 9.

016-752 PDF Short of Memory RAP

016-752 Insufficient memory was detected during PDF bridge processing.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Change the print mode. When the print mode is set to High Quality, change the setting to Normal. When the print mode is set to Standard, change the setting to High Speed.
   b. Print using a driver from Acrobat Reader.
2. Reload the software, GP 9.

016-753 PDF Password Mismatched RAP

016-753 When processing a PDF file that is protected by a password, the password in the UI panel settings and the password specified using XPJL (set in the contents bridge utility) do not match.

Procedure

Perform the steps that follow:

1. Advise the customer to specify the correct password using the UI or the contents bridge.
2. Reload the software, GP 9.

016-755 PDF Print Prohibited RAP

016-755 The system processed a PDF file prohibited for printing.

Procedure

Perform the steps that follow:

1. Advise the customer to use Acrobat to clear the print prohibition setting then print the PDF file.
2. Reload the software, GP 9.

016-756 Auditron Prohibited Service RAP

016-756 Illegal User Detected

Procedure

Perform the steps that follow:

1. Advise the customer to request the Account Administrator for access to use the service.
2. Reload the software, GP 9.

016-757 Auditron Invalid User RAP

016-756 The account has not been registered.

NOTE: *When Xerox Standard Accounting has been enabled, the user account has not been properly specified in the print job data. Enter user account info correctly, then re-send the print job.*

Procedure

Perform the steps that follow:

1. Advise the customer to set the correct account, then redo.
2. Reload the software, GP 9.

016-758 Auditron Disabled Function RAP

016-758 An illegal account was detected.

Procedure

NOTE: *When Xerox Standard Accounting has been enabled, a user account has been submitted without permission to access this service.*

Perform the steps that follow:

1. Have the customer:
   a. Set the new function that is allowed for that account then try again.
      Perform one of the following:
      - Try a different user account.
      - Configure the printer to permit user access to this feature.
      - Request that the Accounting Administrator add access rights to the account.
2. If the fault persists update the Software, GP 9.

016-759 Auditron Limit Reached RAP

016-759 The number of registered users reached the limit.

Procedure

NOTE: *When Xerox Standard accounting has been enabled, the limit on the maximum number of registered users has been reached.*

Perform the steps that follow:

1. Additional users can be added to the device with expanded storage options. The productivity kit increases the maximum amount of users available for this device.
2. Have the customer delete unnecessary users or combine user accounts.
3. If the faulkt persists update the Software, GP 9.

016-760 PS Decompose Failure RAP

016-760 An error occurred in decompose processing.

Procedure

Perform the steps that follow:

1. Advise the customer to resend the job.
2. Reload the software, GP 9.

016-761 FIFO Empty RAP

016-761 Image enlargement error (FIFO empty).

Procedure

Perform the steps that follow:

1. Advise the customer to print in the high speed mode. If the fault persists, use print guaranteed mode.
2. Reload the software, GP 9.

016-762 Print Language Not Installed RAP

016-762 The system requested functions (print language, print utility, etc.) that are not installed.

Procedure

Perform the steps that follow:

1. Advise the customer to correct then select the decomposer from the UI or with a command.
2. Reload the software, GP 9.

016-763 POP Server Connect RAP

016-763 The machine cannot connect to the POP server.

Procedure

Advise the customer to:

1. Print a configuration report and confirm that the DNS settings are correct.
2. Confirm that the POP3 server settings are correct.
3. Enter the IP Address of their POP3 server into the machine.
4. If the fault persists, refer the customer to the System Administrator Guide to check that the machine is correctly configured.

016-764 SMTP Server Connect RAP

016-764 The machine failed to connect to the SMTP server.

Procedure

Advise the customer to:

1. Print a configuration report and confirm that the DNS settings are correct.
2. Confirm that the SMTP server settings are correct.
3. Enter the IP Address of their SMTP server into the machine.
4. If the fault persists, refer the customer to the System Administrator Guide to check that the machine is correctly configured.

016-765, 016-766 SMTP Server Error RAP

016-765 The SMTP server HDD is full.

016-766 The memory capacity allocated by the SMTP server is exceeded.

Procedure

Advise the customer to:

1. Delete jobs on their server because the machine is receiving communication from their SMTP (email) server that the server disk drive or mailboxes are full.
2. Refer to the product's System Administrator Guide to ensure that the machine is correctly configured if the fault persists.

016-767 Invalid Email Address RAP

016-767 The system detected that the E-mail destination address is incorrect.

Procedure

Perform the steps that follow:

1. Check the email address is correct and is a valid edmail address.
2. If the fault persists, reload the software, GP 9.

016-768 Invalid Sender Address RAP

016-768 The SMTP server refused to accept the sender address.

Procedure

Have the customer check that the sender address is correct.

1. Check the sender address is valid and has been spelled correctly.
2. Check that the correct SMTP authentication settings have been enabled.
3. Check the SMTP user name and password.

016-769 SMTP Server Unsupported DSN RAP

016-769 The SMTP server refused to accept the sender address.

Procedure

Advise the customer to contact the network administrator for advice and ensure that the SMTP server supports DSN or set Transmittal Confirmation to OFF, then send the job again.

016-770 Direct Fax Function Canceled RAP

016-770 The direct fax function is canceled by NVM.

Procedure

Advise the customer to release the direct fax job prohibition (set the target system to 0).

If the fault persists, obtain a device log, refer to GP 15 Obtaining Audit and Device Logs. Escalate the problem to 2nd Level support.

016-772 Scan Data Repository Error RAP

016-772 An error occurred while recalling the DNS resolution library.

Procedure

Perform the steps that follow:

1. Advise the customer to set the DNS address. Or, set the scan data repository address using IP address.
2. Reload the software, GP 9.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

016-776 Image Conversion Error RAP

016-776 Error due to other than HDD access during image conversion processing by S-formatter.

Procedure

Perform the steps that follow:

1. Enter dC131. Ensure NVM value 790-900 is set to 1. If the NVM value had to be changed, switch off, then switch on the machine, GP 4. Verify that the Embedded Web Server is working.
2. Advise the customer to:
   a. If a failure occurred during Salutation/Fax to Email, attempt to retrieve each page from the mailbox via the web browser.
   b. For occurrences when the password, or signature is specified by the Digital Certificate, perform the steps that follow.
      - Check the validity of the certificate.
      - Set the correct date and time of the device.
   c. When scanning is done with the TWAIN driver, change the file format to JFIF, single-page TIFF.
   d. Switch off FIPS mode, or remove PDF encryption setting in the instructions document.
   e. Set to Single File for Each Page, or set the Image Format setting to Drawing Object.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

016-779 Scan Image Conversion Error RAP

016-779 An error was detected in the Image conversion library.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Repeat the operation.
   b. Reduce the scan resolution to 400 dpi or less then repeat the operation.
2. Reload the software, GP 9.

016-781 Server Connect Error RAP

016-781 SMTP server not found.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Correctly set the device TCP/IP, IP address, subnet mask and gateway.
   b. Check that the SMTP server, IP address or hostname and port number are correct.
   c. Check network connectivity to the printer from the server, and from the printer to the server.
   d. Check whether characters other than ASCII are set for the host name of the device. Set the host name of the device to ASCII characters.
2. Enter dC131. Ensure NVM value 790-900 is set to 1. If the NVM value had to be changed, switch off, then switch on the machine, GP 4. Verify that the Embedded Web Server is working.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

016-786 HD Full Scan Write Error RAP

016-786 When performing the scan function, files cannot be written in the HDD.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure all paper trays are loaded.
3. If this occurs when sending email, Advise the customer to:
   - Reduce the resolution then resend it.
   - Reduce the size then resend it.
   - Reduce the number of pages and separate the job into several batches when sending.
   - Set the output color to Black then resend it.
4. Check the wiring between the ESS PWBA and the hard disk.
5. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
6. Reload the software, GP 9.
7. Install a new hard disk, PL 18.2 Item 91.

016-788 Retrieve to Browser Failed RAP

016-788 SMTP server not found.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer to:
   a. Reload the browser page then perform retrieval operation again.
   b. Re-activate the browser, then perform retrieval operation again.
   c. Improve the connection status to a network.
   d. Check whether there are problems such as duplicated IP addresses.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

016-790 Email Fragment Over RAP

016-790 Email fragment quantity is over spec.

Procedure

Advise the customer to:

1. Reduce resolution (image to send quality), then resend the job.
2. Reduce magnification, then resend the job.
3. Increase the maximum fragment quantity.

016-792 Specified Job Not Found RAP

016-792 An error was detected in the Image conversion library.

Procedure

Perform the steps that follow:

1. Advise the customer to repeat the operation.
2. Reload the software, GP 9.

016-794 Media Not Inserted RAP

016-794 Media not inserted.

Procedure

Perform the steps that follow:

1. Advise the customer to check that the media is inserted.
2. Reload the software, GP 9.

016-795 Media Reader Format Error RAP

016-795 The MediaLib detected this error while performing the operation that requires access to media.

Procedure

Perform the steps that follow:

1. Advise the customer to check the media content from the PC. Check the file format/directory in the media and the selected mode (Digital Camera Print/Document Print), then reset the settings.
2. Reload the software, GP 9.

016-796 Document Insert Operation Error RAP

016-796 The MediaLib detected this error while performing the operation that requires access to Media.

Procedure

Perform the steps that follow:

1. Advise the customer to check the me dis content from the PC. Check whether the print file attribute data is displayed on the PC, then reset the settings.
2. Reload the software, GP 9.

016-797 Image File Read Error RAP

016-797 The MediaLib detected this error while performing the operation that requires access to media.

Procedure

Perform the steps that follow:

1. Advise the customer to check the me dis content from the PC. Check whether the print file images are displayed on the PC, then reset the settings.
2. Reload the software, GP 9.

016-799 PLW Print Instruction Fail RAP

016-799 The specified print parameter is abnormal.

Procedure

Perform the steps that follow:

1. Advise the customer to repeat the operation.
2. Reload the software, GP 9.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

016-910, 016-911 Required Resource Not Ready RAP

016-910 The paper and staples requested by the selected print parameters are not installed.

016-911 The paper and staples requested by the print specification are not loaded or different sizes and/or types of paper switching are requested from the same tray.

Procedure

Perform the steps that follow:

1. Advise the customer to correctly load paper or install the staples.
2. Reload the software, GP 9.

016-917, 918, 919 Job Held by Toner End of Life RAP

016-917 Job held by toner Y end of life.

016-918 Job held by toner M end of life.

016-917 Job held by toner C end of life.

Procedure

Perform the steps that follow:

1. Perform the 024-923, 924, 925 Toner End of Life RAP.
2. If the fault persists:
   a. Enter special boot mode, GP 16. Perform the LONGDIAG mode routine.
   b. Reload the software, GP 9.

016-920 Destination Error RAP

016-920 The paper specified for printing can not be detected.

Procedure

Perform the steps that follow:

1. Advise the customer to correctly set the paper settings.
2. Reload the software, GP 9.

016-940 to 016-949 Document Difference RAP

016-940 After the start of a job with Duplex Output selected, a difference was detected in size between side 1 and side 2.

016-941 Mixed size/direction set for the page with images was detected after the job had started with Booklet specified.

016-942 As a result of deletion of a page for which Duplex was selected, a difference was detected in size between side 1 and side 2.

016-943 Different size settings for side 1 and side 2 were detected after the document and separators had been inserted for the pages with 2-Sided Print specified.

016-944 The document collate setting for the pages including the cover with images or the document with separators with Document Attachment specified was detected.

016-945 The documents that do not support 2-Sided Print has been inserted for the pages for 2-Sided Print.

016-946 A document or separator has been inserted between Cover pages or Separator pages.

016-947 The system detected that no tray is loaded with paper for Auto Paper Selection after the job for which the paper for APS (Auto Paper Selection) was selected or APS was set has started.

016-948 The covers with images, separators, or blank pages were detected after the job had started with Booklet specified.

016-949 The document with a different size/orientation from the operated page was tried to be inserted for the job with Attachment specified.

Procedure

Perform the steps that follow:

1. Advise the customer to specify the job to avoid the detection conditions.
2. Reload the software, GP 9.

016-982 HDD Access Error 2 RAP

016-982 HDD was determined to be full due to collate, stored or interrupted jobs.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Process or delete the jobs (documents) stored in the same HDD partition, then repeat the operation.
   b. If step A does not resolve the problem, expand the HDD partition size of the relevant service.
2. Reload the software, GP 9.
3. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the hard disk, PL 18.2 Item 91.
4. Check the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. Install a new hard disk, PL 18.2 Item 91.

016-983 Image Log HDD Full RAP

016-983 With the system data level of ensuring log image creation set to High, the log image storage area on the disk becomes full (during processing a copy/scan job).

Procedure

Advise the customer to:

1. Cancel the job.
2. Re-run the job.
3. Delete unnecessary documents saved in the device or change the level of ensuring creation (to Low).

016-985 Scan to Email Data Size RAP

016-985 Scan to email data size exceeded.

Procedure

Perform the steps that follow:

1. Advise the customer to reduce the number of documents, reduce the resolution, or increase the compression ratio if the job is multi-value scan.
2. Reload the software, GP 9.

016A Scan to Network Error Entry RAP

Use this RAP when the customer reports network failures. e.g. cannot connect to the scan server when using the FTP or SMB protocols or when a folder on the scan server cannot be opened.

Initial Actions

Consult with your manager before troubleshooting the customer's network, as the policy varies according to region. Also consult with the customer's IT personnel or system administrator.

Procedure

NOTE: *Network errors can be complex to diagnose and resolve. Actions are limited to checking for fundamental faults and to collect system information, before contacting 2nd level support.*

NOTE: *If it is possible to log in to the Embedded Web Server by entering the IP address of the device, then the network controller on the ESS PWBA is good.*

Check that the date and time are set correctly on the device, refer to GP 34 How to Set the Date and Time. **The time and date are correct.**

Y N

Set the time and date parameters correctly.

Check the LED link lights at the ESS PWBA ethernet connection. **The LEDs illuminate.**

Y N

If possible, perform the following to try and eliminate the problem of a faulty network port:

- Check the connections at the network port and ESS PWBA are good.
- Connect the device to another network port.
- Advise the customer to provide a new network port to ESS PWBA cable.
- Check the operation of a known good device to the network port.

If the fault persists, install a new ESS PWBA, PL 18.2 Item 4. **The LEDs illuminate.**

Y N

Contact 2nd level support.

Perform the Final Actions.

Perform the Final Actions.

Final Actions

Perform the steps that follow:

1. Attempt to ping the device:
   a. Print a configuration report to obtain the IP address of the device, GP 18 Printing Reports.
   b. From an internet connected PC or laptop, open a command window (CMD). Select the Windows **Start** button then in the Search box, type CMD, then press **Enter**.
   c. In the Command window (where the blinking cursor is) type ping. Press the space bar once, then enter the IP address of the device. Press **Enter**.
   d. If the ping command is successful, the device will reply reply four times. This should not take more than two or three seconds.
   e. If the ping command times out, or responds with 'host unreachable', check the IP address that was entered. If the IP address is correct, contact 2nd level support.
2. Attempt to send a scan job from the device, if the scan to job did not complete, contact 2nd level support.

017-500 Job Limit Illegal Response RAP

017-500 Invalid response from job limit server.

Procedure

Advise the customer to:

1. Check the job parameter settings, then re-run the job.
2. Check the response packet from the job limit server.

017-501 Multiple Permission Restrictions RAP

017-501 A print rights violation has occurred.

Procedure

Advise the customer to change the user privileges.

017-503 Password Over Maximum RAP

017-503 Password has exceeded maximum number of digits.

Procedure

Advise the customer to lower the number of password digits.

017-504, 017-505 Job Limit RAP

017-504 An error occurred when communicating with JobLimit server.

017-505 An error occurred when communicating with JobLimit server.

Procedure

Advise the customer to check the network status and the operating status of JobLimit server.

017-506 Job Limit Rejected RAP

017-506 The job was canceled because the JobLimitServer sent Reject.

Procedure

Advise the customer to contact the System Administrator.

017-507 Job Limit Rejected by Remote Server RAP

017-507 Disabled direct print.

Procedure

Advise the customer to change the system data that disables the printing without load to Not disable (0).

017-713 Start TLS Unsupported Fail RAP

017-713 Start TLS unsupported fail.

Procedure

Advise the customer to change the SSL operation mode setting to other than STARTTLS mode.

017-714 SMTP Over SSL Fail RAP

017-714 SSL communication failure with SMTP server.

Procedure

Perform the steps that follow:

1. Check the following:
   - If the fault occurred in TLS Mode it may be due to an incorrect port number. Check the Port Number settings of the SMTP Server.
   - Confirm that the SSL or TLS encryption type matches the appropriate port the customer selected.
2. Enter special boot mode, GP 16. Perform the LONGDIAG mode routine.

017-715 SSL Certificate Fail RAP

017-715 An SSL Server Authentication Error has occurred because there is something wrong in the Server Certificate Data.

Procedure

Advise the customer to register the root certificate of the SMTP server SSL certificate in the machine.

017-716, 717, 718 SSL Certificate (SMTP) Fail RAP

017-716 The validity period of the server certificate has not started.

017-717 The validity period of the server certificate has expired.

017-718 The server name does not match the server address of the server certificate.

Procedure

Advise the customer to:

1. Check that the SMTP server clock and machine clock are correct.
2. Check the validity period of the SMTP server certificate.
3. Check that the server names that are registered in the SMTP server certificate and the server address are correct.
4. If the clocks are correct, change the SMTP server SSL certificate to one that is valid.

   NOTE: *This problem can also be fixed by switching off the machines SSL Server Verification setting. This will render the machine unable to guarantee the authenticity of the SMTP server that it is connecting to.*

017-719 SMTP Over SSL Internal Fail RAP

017-719 An internal software error has occurred during SMTP over SSL process.

Procedure

Perform the steps that follow:

1. Advise the customer to repeat the operation.
2. Reload the software, GP 9.

017-720, 017-721 PJL Command Fail RAP

017-720 Contract type value is incorrect.

017-721 Geographic region value is incorrect.

Procedure

Advise the customer to correct the contract type or geographic region value specified by PJL command, then try again.

017-722 Total Impressions Over Fail RAP

017-722 The total impressions of billing meter in the data for PJL diag is 9,999,900 or more.

Procedure

Advise the customer to perform the operation when the value of total impressions is between 0 and 9,999,900.

017-723 DocuWorks Unsupported Character Fail RAP

017-723 When the DocuWorks decomposer is working, it detected some text that cannot be output is in use.

Procedure

Perform the steps that follow:

1. Advise the customer to print from the DocuWorks viewer using the print driver (ART-EX, PCL, etc.).
2. Reload the software, GP 9.

017-724 Denshi-Pen Syntax Fail RAP

017-725 Syntax error in XPJL, which is part of the Denshi-Pen print instruction, is detected.

Procedure

Perform the steps that follow:

1. Advise the customer to check that the device supports Denshi-Pen, if it does, perform the job again.
2. Reload the software, GP 9.

017-725 Forced Annotation Syntax Fail RAP

017-725 Syntax error in Forced Annotation instructions is detected.

Procedure

Perform the steps that follow:

1. Advise the customer to check the driver settings.
2. Reload the software, GP 9.

017-728 Scan Job Flow Document Fail RAP

017-728 MS Word or MS Excel is specified as the output format in the instructions, but the target document for processing does not possess the conditions required for format processing.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Change output format to other than MS Word, MS Excel.
   b. Start Job Flow Service after satisfying all conditions below:
      - The document for processing is a scan document.
      - The document for processing is full color.
      - Size of the document for processing is between 50x50mm and 297x432mm.
      - Color space of the document for processing is standard color space.
      - Resolution of the document for processing is 300dpi.
      - Magnification of the of the document for processing is 100%.
2. Reload the software, GP 9.

017-729 Temporary Error in PDL Transfer RAP

017-729 Temporary inability to send due to maximum jobs exceeded at the destination device, or spool area of print data full, etc.

Procedure

Advise the customer to:

1. Set the spooling of the print data at the destination device to hard disk.
2. Change spooling setting to Spool to Hard Disk.

017-730 Network Error in PDL Transfer RAP

017-730 Network occurred during PDL data transfer.

Procedure

Advise the customer to:

1. Check the connection of the network cable.
2. Check the destination device is powered on.
3. Check that the IPP port of the destination device is enabled.

017-731 POP Server Not Connected RAP

017-731 Failed to connect to the POP server.

Procedure

Advise the customer to check that network communication between the POP server and the machine is available:

1. Check that the POP server IP address that is set in the device is correct.
2. Check the connection of network cables.

017-732 Offline Error in PDL Transfer RAP

017-732 Unable to send because destination printer is offline.

Procedure

Advise the customer to disable the offline status of the destination device.

017-733 Internal Error in PDL Transfer RAP

017-733 An internal software error is detected during PDL data transfer.

Procedure

Advise the customer to repeat the operation.

017-734 IPP Data Error RAP

017-734 Syntax error, usage of undefined command, parameter error, damage of the file, or internal error of the decomposer has occurred during the decomposer process of a direct print job that used IPP in its network protocol.

Procedure

Perform the steps that follow:

1. Advise the customer to print by using a different print method (printer driver or utility other than print from IPP) that is supported by the device.
2. Reload the software, GP 9.

017-735 Unauthorized Auditron User RAP

017-735 Unauthorized user is detected.

Procedure

Perform the steps that follow:

1. Advise the customer to get permission to use the device from the account administrator.
2. Reload the software, GP 9.

017-737 Custom Transfer Out of Memory RAP

017-737 The software module that runs Java within the controller has ran out of memory and is unable to continue operating.

Procedure

Perform the steps that follow:

1. Advise the customer to deactivate or delete all unnecessary plug-ins.
2. Switch off, then switch on the machine, GP 4.
3. Enter special boot mode, GP 16. Perform the HDD INITIALIZE MODE routine.

017-738, 017-746 Custom Transfer JVM Internal Fail RAP

017-738 The system has detected that the JVM has stopped due to an internal error.

017-746 Custom transfer plug-in local disk malfunction.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Enter special boot mode, GP 16. Perform the HDD INITIALIZE MODE routine.

017-739, 017-740 Transfer Service Not Available RAP

017-739 Custom transfer XCP not activated error.

017-740 Custom transfer plug-in not activated error.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Enable the embedded plug-in feature.
   b. Input the software key for the customization kit.
2. Switch off, then switch on the machine, GP 4.

017-741 Custom Transfer Invalid Plug-In RAP

017-741 The instruction that was specified by the instruction set to the plug-in and the feature provided by the plug-in (API) are mismatched when the custom transfer job is in progress.

Procedure

Advise the customer to:

1. Upgrade the embedded plug-in feature (install the latest version).
2. Check the contents of the instruction set that is being used. If the instruction set was generated by a custom service, revise the custom service contents.

017-742, 743, 744 Custom Transfer Plug-In Connection RAP

017-742 Custom transfer plug-in server connection fail.

017-743 Custom transfer plug-in authentication fail.

017-744 Custom transfer plug-in server access fail.

Procedure

Advise the customer to:

1. Check whether the transfer destination server, etc. and the machine are able to communicate via the network.
2. Check whether it is possible to log in to the transfer destination server, etc. by using the specified user name and password.
3. Check whether it is possible to log in to the access the destination server, etc. by using the specified path.
4. Check whether the transfer destination server, etc. has enough free capacity.

017-745 Custom Transfer Plug-in Disk Full RAP

017-745 Insufficient hard disk area for processing was detected.

Procedure

Advise the customer to:

1. Lower the resolution, then re-send.
2. Reduce the size, then re-send.
3. Reduce the page count, then re-send the job in several batches.
4. Change the output color to black & white, then re-send.

017-747 Custom Transfer Plug-In Connection Time Out RAP

017-747 Custom transfer plug-in communication timed out fail.

Procedure

Advise the customer to:

1. Wait 1 minute, then re-run the job.
2. If the situation does not improve, consult with the network administrator.

017-748 Custom Transfer Plug-In Invalid Device RAP

017-748 Custom transfer plug-in invalid device settings data error.

Procedure

Advise the customer to check the device settings required for file transfer.

017-749 Custom Transfer Plug-In XML Fail RAP

017-749 When extracting the custom transfer parameter from XML file, the obtaining of the parameter has failed, the parameter format is inconsistent, or the parameter value cannot be processed due to wrong grammar.

Procedure

Advise the customer to check the contents of the instruction set that is being used. If the instruction set was generated by a custom service, revise the custom service contents.

017-750 Custom Transfer Plug-In Internal Fail RAP

017-750 An internal logic error was detected in the custom transfer plug-in.

Procedure

Perform the steps that follow:

1. Advise the customer to revise the custom transfer plug-in and then reinstall it.
2. Switch off, then switch on the machine, GP 4.

017-751 Custom Transfer Plug-In Other Fail RAP

017-751 An error specific to the custom transfer plug-in was detected.

Procedure

Advise the customer to check the error details in the job undelivered transmission report, then if necessary contact their IT help desk or system administrator.

017-755 Software Download Via Network Fail RAP

017-755 A software download via the network was performed when the software download via network is set as prohibited.

Procedure

Perform the steps that follow:

1. Either set the software download via network to allowed or perform the software download using a USB.
2. Reload the software, GP 9.

017-759 Download Data Inspection Error RAP

017-759 Electronic signature verification error of download data.

Procedure

Advise the customer to re-obtain the download data then perform the operation again.

017-760, 017-766 POP Over SSL Fail RAP

017-760 SSL communication failure with POP server.

017-766 SSL communication failure with POP Server.

Procedure

Perform the steps that follow:

1. If this had occurred in TSL mode, it may be due to a different port number. Advise the customer to check the port number settings of the POP server.
2. Reload the software, GP 9.

017-761, 017-767 SSL Server Cert Un trusted (POP) RAP

017-761 An SSL server authentication error has occurred as there is something wrong in the server certificate data.

017-767 An SSL server authentication error has occurred as there is something wrong in the server certificate data.

Procedure

The machine is unable to trust the SSL certificate of the POP server. Advise the customer to register the root certificate of the POP server SSL certificate in the machine.

017-762, 763, 764, 768, 769, 770 SSL Certificate Fail (POP) RAP

017-762 The validity period of the server certificate has not started yet.

017-763 The validity period of the server certificate has expired.

017-764 The server name does not match the server address of the server certificate.

017-768 The validity period of the Server Certificate has not started yet.

017-769 The validity period of the server certificate has expired.

017-770 The server name does not match the server address of the server certificate.

Procedure

Advise the customer to:

1. Check that the clock of the POP server and the machine are correct. If the clock is correct, change the POP server SSL certificate to one that is valid.
2. Check the validity period settings of the POP server certificate.
3. Check that the server name that are registered in the POP server certificate and the server address are correct.

   NOTE: *This problem can also be fixed by switching off the machines SSL Server Verification setting. This will render the machine unable to guarantee the authenticity of the POP server that it is connecting to.*

017-765, 017-771 POP Over SSL Internal Fail RAP

017-765 A software internal error has occurred when POP over SSL process is in progress.

017-771 A software internal error has occurred when POP over SSL process is in progress.

Procedure

Advise the customer to repeat the operation.

017-772 Scan All Blank Page Fail RAP

017-772 It was detected that all the pages are blank.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Darken the density during scan.
   b. Switch off the blank suppression instruction.
2. Enter dC131 Adjust the NVM values that follow as necessary:
   - 840-223: Blank page detection I-formatter control parameter: lower the file size based blank paper detection level.
   - 840-224: Blank page detection I-formatter control parameter: lower the black dot count based blank paper detection level.

017-773 Netlog Task Error RAP

017-773 Detected fatal error during Netlog operation.

Procedure

Advise the customer to check the setting related to the Netlog function, then if necessary contact their IT help desk or system administrator.

017-774 Message Lost Error RAP

017-774 Message discard error.

Procedure

For information only, no service action necessary.

017-775 Network API Error RAP

017-775 Sending message was discarded due to sending API error.

Procedure

Advise the customer to check if there is any issues on the network route to the Syslog server.

017-776, 017-777 Syslog Server Error RAP

017-776 The sending message was discarded because the server sent an invalid response or did not respond.

017-777 The sending queue became full and discarded the message sending request.

Procedure

Advise the customer to check:

1. The status of the Syslog server.
2. The address value of the Syslog that is set to the device.
3. Whether there is an issue in the network route between the device and the Syslog server, or a network cable failure.

017-778 Queue Error RAP

017-778 The sending queue became full due to no IP address being set or assigned, and discarded the message sending.

Procedure

Advise the customer to check if the IP address of the machine is set.

017-779 Link Error RAP

017-779 Detected an unplugged network cable on the device side.

Procedure

Check the connection state of the network cable.

017-780 Held Job Time Out RAP

017-780 Auto delete due to the time out of held Job that has been overtaken.

Procedure

Perform the steps that follow:

1. Advise the customer to disable the auto delete setting or change the timer setting (1-7200 minutes) to an appropriate value.
2. Switch off, then switch on the machine, GP 4.

017-782, 784, 785, 786 Custom Image Processing Plug-In RAP

017-782 Detected mismatch of the version of image processing module.

017-784 Custom image processing XML error.

017-785 Detected an error that is custom image processing plug-in specific.

017-786 Image processing error of custom image processing plug-in.

Procedure

Perform the steps that follow:

1. Advise the customer to reinstall after correcting the custom image processing plug-in.
2. Switch off, then switch on the machine, GP 4.

017-783 Custom Image Processing Memory RAP

017-783 The operation was unable to continue due to the memory shortage of the image processing module that is executed in the controller.

Procedure

Perform the steps that follow:

1. Advise the customer to take any one of the actions that follow:
   a. Lower the resolution.
   b. Change the output color to black & white.
2. Switch off, then switch on the machine, GP 4.

017-787 Google Cloud Print Data Error RAP

017-787 Syntax error, undefined command, parameter error, file corruption, decomposer internal error occurred when the decomposer is processing at the Google Cloud Print processing path.

Procedure

Perform the steps that follow:

1. Try the following:
   - Have the customer try to send the print job again.
   - Have the customer confirm try sending a different file/print job.
   - Have the customer use a different print method supported by the machine (print driver, utility other than Google Cloud Print).
2. Reload the software, GP 9.

017-789 Job Limit Estimation Logic Fail RAP

017-789 During job limit estimate acquisition, a logic error was detected in the ComlDvm_GetEstimation.

Procedure

Advise the customer to:

1. Check the job settings, then re-run the job.
2. Contact the system administrator.

017-790 to 017-799 Print Permission RAP

017-790 Color print made in a time zone that is prohibited.

017-791 Print made in a time zone that is prohibited.

017-792 Printing performed despite being prohibited.

017-793 Color printing performed despite being prohibited.

017-794 Print made from a prohibited application.

017-795 Color print made from a prohibited application.

017-796 Single sided print made from a prohibited application.

017-797 Print made from a paper tray that is prohibited.

017-798 Job type print made that is prohibited.

017-799 Single sided print made despite being prohibited.

Procedure

Advise the customer to set the permissions as required.

018-400 IPSEC Configuration Mismatch RAP

018-400 IPSEC error (setting mismatch).

Procedure

Advise the customer to clear the IPSEC setting mismatch and re-enable the IPSEC.

NOTE: *Mismatched IPSEC settings occur when the password is not set because the authentication method is set to pre-shared key or when IPSEC certificate is not set because the authentication method is set to digital signature.*

018-405 User Account Disabled RAP

018-405 User account disabled error.

Procedure

Advise the customer:

1. That there is a check mark at Account Invalid for the relevant user in the active directory of the LDAP authentication destination server. The server has been set to prohibit access from the relevant user.
2. To consult with the Server Administrator.

018-406 Setting Status of IP Address (IPv4) RAP

018-406 Setting state of the same IP address (IPv4).

Procedure

Perform the steps that follow:

1. Have the customer try the following:
   - Change the setting to a different IP address
   - Change the IP address to DHCP
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

018-407 Setting Status of IP Address (IPv6) RAP

018-407 Setting state of the same IP address (IPv6).

Procedure

Perform the following:

1. Have the customer change the setting to a different IP address. Either that or allow the same IP address setting.
2. If the fault persists have the customer try switching the DHCPv6 configuration to be directed by Router and disable the manual address.

018-408 Duplicate IPv4 Address RAP

018-408 The same IP address device as the IPv4 address of this machine exists on the network in the network environment where the Ethernet 2 side is connected.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Change the IPv4 address of this machine or the IPv4 address of the network upper apparatus.
   b. For manual address setting, ensure that the IP address specified by the client is not used in other places.
   c. Check the respective server setting environments with the client.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

018-409, 412, 413 Duplicate IPv6 Address 1 RAP

018-409 The same IP address device as the IPv6 state-less auto setting address1 of this machine exists on the network in the network environment where the Ethernet 2 is connected.

018-412 The same IP address device as the state-less auto setting address 2 of this machine exists on the network in the network environment where Ethernet 2 is connected.

018-413 The same IP address device as the IPv6 state-less auto setting address 3 of this machine exists on the network in the network environment where the Ethernet 2 is connected.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Change the IPv6 address of the network upper apparatus that is duplicated to resolve the IP address duplication.
   b. Check if the IP address that was set in state-less address auto setting is not used in other places.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

018-410, 018-411 Dynamic DNS Update Failure RAP

018-410 For Ethernet 2, failed to update the IPv4 address and host name to the DNS server.

018-411 For Ethernet 2, failed to update the IPv6 address and host name to the DNS server.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check if the DNS server address is correctly set to the device.
   b. Check if the DNS server is set so that the dynamic DNS can be operated.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

018-414 Duplicate IPv6 Address 2 RAP

018-414 The IPv6 manual setting address that was set in this machine in a network environment connected to Ethernet 2 is invalid.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Change the IPv6 manual setting address of this machine to the IPv6 address that can be used in the machine address.
   b. Check if the IPv6 address that was automatically set as manual address is a valid address.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

018-415 Duplicate IPv6 Address 3 RAP

018-415 The same IP address device as the IPv6 manual setting address of this machine exists on the network in the network environment where the Ethernet 2 is connected.

Procedure

Perform the steps that follow:

1. Advise the customer to change the IPv6 manual setting address of this machine or the IPv6 address of the network upper apparatus.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

018-416 Duplicate IPv6 Address 4 RAP

018-416 The same IP address device as the IPv6 link local address of this machine exists on the network in the network environment where Ethernet 2 is connected.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Change the IPv6 address of the network upper apparatus that is duplicated to resolve the IP address duplication.
   b. Check if the IPv6 address that was automatically set as link local address is not used in other places.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

018-424 to 018-426 WLAN WPA Enterprise Certificate Failure RAP

018-424 The WLAN WPA enterprise certificate is empty.

018-425 The WLAN WPA enterprise certificate is unavailable.

018-426 The WLAN WPA enterprise certificate has failed.

Procedure

Advise the customer to request their network administrator to configure the WPA-Enterprise and validate the server certificate.

018-427 Duplicate IP Address Range WiFi and WiFi Direct RAP

018-427 The machine has detected that it is connected to two (or possible more) networks that share the same IP address range.

Procedure

Perform the following

1. Change the IP address of the machine's Wi-Fi Direct DHCP server to be outside the duplicate range of the IP addresses set for Wi-Fi.
2. If the fault persists modify the printer's Wifi Direct IP address to be outside the guest's DHCP range.

018-428 WLAN Module Connection Failure RAP

018-428 There is a connection failure between the WIFI module and the ESS PWBA.

Procedure

Perform the steps that follow:

1. Switch off the machine, GP 4. Remove, then install the WIFI module. Switch on the machine, GP 4.
2. If the fault persists, install new components as necessary:
   - Wireless adaptor, PL 18.2 Item 90.
   - ESS PWBA, PL 18.2 Item 4.

018-429 to 018-436 Duplicate IP Address IPv4 (WiFi) RAP

018-429 There is an IP address conflict with another system on the network (WIFI).

018-430 There is an IP address conflict with another system on the network (WIFI direct).

018-431 There is an IP address conflict with another system on the network (WIFI).

018-432 There is an IP address conflict with another system on the network (WIFI).

018-433 There is an IP address conflict with another system on the network (WIFI).

018-434 There is an IP address conflict with another system on the network (WIFI).

018-435 There is an IP address conflict with another system on the network (WIFI).

018-436 There is an IP address conflict with another system on the network (WIFI).

Procedure

Advise the customer to request their network administrator to change the IP address of the systems the machine is connected to, to something different.

018-439 WiFi Direct Setting Conflict RAP

018-439 When activating the Wi-Fi Direct, the conflict setting for Wi-Fi Network Type Ad-hoc is detected.

Procedure

Advise the customer to request their network administrator to change the setting for the Wi-Fi network type to Infrastructure.

018-440 WiFi Direct Setting IPv6 Conflict RAP

018-440 When activating the Wi-Fi Direct of this machine, the setting for the IPv6 mode is detected in the conflict configuration information related to the IP protocol stack.

Procedure

Advise the customer to request their network administrator to change the setting for the configuration information related to the IP protocol stack to Dual or the IPv4 mode.

018-441 WiFi Direct Setting 5GHz Conflict RAP

018-441 When activating the Wi-Fi Direct of this machine, the setting for the 5GHz mode is detected in the conflict Wi-Fi Band.

Procedure

Advise the customer to request their network administrator to change the setting for the Wi-Fi band of this machine to Auto or the 2.4GHz mode.

018-500, 501, 503, 504, 506, 507, 508 CA Server Error RAP

018-500 The SSL server that is necessary for CA could not start because there was no server certificate or private key at an attempt to start the device.

018-501 The device could not connect to the CA server when trying to do CA authentication. The device has failed in communication.

018-503 The device received a message from the CA server and was waiting for a JRM/UI judgment, but received no response in time.

018-504 During communication between the device and the CA server for authentication, a mismatch in Session ID between both has occurred.

018-506 During communication between the device and the CA server, a mismatch in Field ID between both has occurred.

018-507 The CA authentication server requested an entry of user info, and the server determined that the entered info was different.

018-508 In process of CA authentication, the device has received a server exception message from the CA authentication server.

Procedure

Advise the customer to:

1. Make the MCU PWBA and the ESS PWBA the same in agreement info.
2. Set up the server certificate, or set the CA function to off.
3. Check the address of the CA server, or recheck the connection to the network.
4. Retry the authentication operation.
5. Enter the correct user name and password.
6. Check the status of the CA server. Reboot it if necessary.

018-502 SMB Login Failure RAP

018-502 When logging in to the SMB server, it was detected that the workstations that can log in during SMB scan are limited.

Procedure

1. Check that the SMB login name and password are correct.
2. Check the printer firmware (software) version, and make sure that it's up to date, GP 9.
3. Verify that the server SMB share is configured properly.
4. Verify that the server firewall is configured properly.
5. Check that they have not reached the maximum number of available connections to the share.

018-505 SMB-DOS Protocol Error RAP

018-505 SMB user authentication failed/unable to log into SMB scanner.

Procedure

Advise the customer to contact the network administrator to confirm the following:

- Server user name and password
- Server hostname or IP address
- Share name
- Server firewall settings
- In the case of Windows Server 2003, ensure that the time of the SMB server is synchronized with that of the device

018-509 Template Parameter Conflict RAP

018-509 CUI scan: an invalid job template is specified.

Procedure

Advise the customer to check whether the settings in the job template are correct. For example:

1. A setting that cannot be used in the device is set.
2. The transfer repository is not set correctly.
3. A nonexistent template name is specified.

018-524 Invalid Device Network Setting RAP

018-524 When DNS is not set in the device, the server name in the template is written as FQDN, or the port for the transfer protocol that is listed in the job template is not activated in the device (e.g. SMB, FTP).

Procedure

Advise the customer to:

1. Check whether the port and network related settings that are required to execute the scan job are set correctly in the device.
2. Check whether the DNS server setting is correct.
3. Check whether the port for the specified protocol is activate.

018-525 HDD full or Access Error RAP

018-525 During the CUI scan, the HDD is reported as full or has an internal error.

Procedure

Perform the steps that follow:

1. Advise the customer to wait for a while, then perform the same operation again.
2. If the fault persists, perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

018-526 to 018-529, 531, 532 CUI Scan Error RAP

018-526 A CUI scan start request was received when the job template is being polled.

018-527 Job Template Monitor Internal Error.

018-528 An invalid argument request was received from the SOAP client of custom service.

018-529 During the CUI scan start process that was received from the SOAP client of custom service, another CUI scan start request was received.

018-531 Other JRM detection errors during start-up of a CUI scan job.

018-532 Failed to create CUI scan job due to excessive overlapping of network transferred Jobs (maximum is 3 simultaneous jobs), or there is insufficient internal source to create Jobs (system limit).

Procedure

Advise the customer to wait for 1 minute, then perform the same operation again.

018-530 Authentication Error RAP

018-530 Authentication/DV-related error during start-up of a CUI scan job due to:

- DV no. of sheets limitation, DV color mode limitation or DV service use limitation.
- Use of an unregistered card.
- Job error when connecting to an external device or when obtaining authentication information.

Procedure

Advise the customer to either perform the correct authentication operation or check the limitations (color mode, number of sheets, services) that was set by the administrator.

018-543 Shared Name Error in SMB Server RAP

018-543 Problem with the shared name of the SMB scan server.

Procedure

Advise the customer to:

1. Check the shared name specified then set the correct name.
2. Check that the user has the right to access the shared name specified.
3. In the fault persists update the printer firmware, GP 9.

018-547 SMB Scan Users Restriction RAP

018-547 The number of SMB scan users has exceeded the limit.

Procedure

Advise the customer to:

1. Check the limit for the number of users that can connect to the shared folder.
2. Check whether the number of users who are concurrently using the server has exceeded the maximum number.
3. In the fault persists update the printer firmware, GP 9.

018-556 HTTP Server Script Error RAP

018-556 HTTP error - invalid script.

Procedure

Advise the customer to:

1. Check that the drive and directory that are specified in the HTTP server that sends scanned documents are accessible.
2. Repeat the operation.

018-557 HTTP Invalid Character in Filename RAP

018-557 A file name that contains invalid characters was specified.

Procedure

Advise the customer to ensure that the file name that is specified in the scanned document destination does not contain any invalid characters.

018-558 HTTP File Not Found RAP

018-558 The HTTP directory/file name does not exist.

Procedure

Advise the customer to:

1. Check that the directory that is specified in the scanned document destination HTTP server exists.
2. Check that the file name that is specified in the scanned document destination HTTP server exists.

018-559 HTTP File Duplication Fail RAP

018-559 Prohibit overwrite is selected for scan file name conflict.

Procedure

Advise the customer that when performing scan Jobs to set File Name Conflict to other than Cancel Job.

018-560 to 018-563 HTTP Server Login Fail RAP

018-560 HTTP user authentication error.

018-561 HTTP error, the host name is incorrect, or the script storage is incorrect.

018-562 HTTP response client error.

018-563 HTTP response server error.

Procedure

Advise the customer to:

1. Check whether the scanned document destination HTTP server is accessible from the PC.
2. Check the login user name.
3. Check the login password.
4. Check the name of scanned document destination HTTP server.
5. Check the server path name of scanned document destination HTTP server.
6. Check the server settings.

018-564 Host Name Solution Error in HTTP RAP

018-564 DNS resolution of the specified host name has failed.

Procedure

Advise the customer to:

1. Check whether the scanned document destination HTTP server has been registered in the DNS.
2. Check whether it is connected to the DNS server.
3. Check whether the DNS server address is set.

018-565 Proxy Name Solution Error in HTTP RAP

018-565 DNS resolution of the proxy server name that is set in the device has failed.

Procedure

Advise the customer to:

1. Check whether the proxy server name that is set in the device has been registered in the DNS.
2. Check whether it is connected to the DNS server.
3. Check whether the DNS server address is set.

018-566, 018-567 Server Connect Error in HTTP RAP

018-566 Failed to connect to the HTTP server.

018-567 HTTP server access error during connection, reading, writing or file closing.

Procedure

Advise the customer to:

1. Check the network cable of the device.
2. Check whether the scanned document destination HTTP server is accessible from the PC.

018-568 HTTP Server SSL Access Fail RAP

018-568 An error has occurred during SSL/TLS connection.

Procedure

Advise the customer to:

1. Check whether the scanned document destination HTTP server is accessible from the PC.
2. Check whether the SSL setting of the scanned document destination HTTP server is valid.
3. Check the name of scanned document destination HTTP server.
4. Check the server path name of scanned document destination HTTP server.

018-569 HTTP Server Certificate Fail RAP

018-569 There is a problem with SSL certificate of the server.

Procedure

Advise the customer to:

1. Check whether the scanned document destination HTTP server is accessible from the PC.
2. Check whether the SSL server certificate of the scanned document destination HTTP server is registered in the device.
3. Check whether the SSL server certificate of the scanned document destination HTTP server is valid. For example, check the items that follow:
   - The certificate has not expired yet.
   - The time that is set in the device is correct.
   - It is not in the discard list.
   - The certificate path of the SSL server certificate and import any necessary CA certificate.
4. If the certificate is not registered in the scanned document destination HTTP server, disable the device certificate validation.

018-570 HTTP Certificate Fail RAP

018-570 A client certificate authentication error has occurred in the HTML server

Procedure

Advise the customer to:

1. Check whether the scanned document destination HTTP server is accessible from the PC.
2. Check whether the SSL client certificate is set correctly in the device.
3. Check whether a valid device certificate is registered in the scanned document destination HTTP server.

018-571 Internal Error in Scan RAP

018-571 An internal error has occurred.

Procedure

Advise the customer to repeat the operation.

018-587 File Duplication Fail RAP

018-587 Prohibit overwrite is selected for scan file name conflict.

Procedure

Advise the customer to:

- Change the file name of the scan.
- Move or delete files from the file server that use the same file name.

018-588 Scan Filing Policy Invalid RAP

018-588 Invalid filing policy (when additional items are selected) was detected after connecting with the server.

Procedure

Advise the customer to:

- Change the file name of the scan.
- Move or delete files from the file server that use the same file name.

018-589 NEXTNAME File Error RAP

018-589 NEXTNAMEDAT file access error.

Procedure

Advise the customer to:

- Change the file name of the scan.
- Move or delete files from the file server that use the same file name.

018-590 Same Name Exists RAP

018-590 A file/folder with the same name was detected on the server.

Procedure

Advise the customer to:

- Perform the same operation again without multiple machines accessing the same folder in the same server.
- Change the file name of the scan.
- Move or delete files from the file server that use the same file name.

018-591 File Name Suffix Over Limit RAP

018-591 The scan file name has exceeded the suffix limit value.

Procedure

Advise the customer to change the file name/destination folder on the scan server. Else, move or delete the files in the destination folder.

018-592, 018-593 Lock Folder Fail RAP

018-592 Failed to create the scan lock folder.

018-593 Failed to delete the scan lock folder.

Procedure

Advise the customer to:

1. Check if a lock directory (*.LCK) remains in the transfer destination, delete it manually then retry the job.
2. Check whether there is a folder that has the same name as the specified name.
3. Check the user permissions for the share or the file folder.

018-595 Detected User Duplication RAP

018-595 Two or more entries that have the same information as the currently used IC card were found in the database of the LDAP server.

Procedure

Advise the customer to make corrections so that the user entries in the database of the LDAP server do not have the same IC card information.

018-596, 018-700 Network Error RAP

018-596 An undefined protocol error, and other errors with LDAP protocol.

018-700 Network stack is not initialized fail.

Procedure

Advise the customer to wait for a while, then perform the same operation again.

018-701 to 018-705 LDAP Protocol Errors 01 to 05 RAP

018-701 LDAP protocol error 01, operation error in response to the address book inquiry.

018-702 LDAP protocol error 02, protocol error in response to the address book inquiry.

018-703 LDAP protocol error 03, search time is timed out in response to the address book inquiry.

018-704 LDAP protocol error 04, too many search results to be processed in response to the address book inquiry.

018-705 LDAP protocol error 05, comparison request result is false in response to the address book inquiry.

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-706 LDAP Protocol Error 06 RAP

018-706 LDAP protocol error 06, comparison request result is true in response to the address book inquiry.

Procedure

Perform the steps that follow:

1. For a single occurrence, take no action.
2. If the fault persists, Switch off, then switch on the machine, GP 4.

018-707, 018-708 LDAP Protocol Errors 07 and 08 RAP

018-707 LDAP protocol error 07, the specified authentication method is not supported in response to the address book inquiry.

018-708 LDAP protocol error 08, strong authentication is required in response to the address book inquiry.

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-709 Active Communication is Unavailable Now Fail RAP

018-709 The Remote Authentication Library has detected that the device is in active communication state during remote access.

Procedure

1. In case of IPv4 environment, Advise the customer to:
   a. Check whether the address that is being used as the IPv4 address of the device is undefined, or whether it has become the Auto IP address.
   b. Check if the network has been connected correctly.
   c. Check with the network administrator on whether the DHCP server address has been exhausted.
2. In case of IPv6 environment, Advise the customer to:
   a. Check whether the address that is being used as the IPv6 address of the device has been allocated with a global address that uses the network address distributed by the IPv6 router.
   b. Check if the network has been connected correctly.
   c. Check with the network administrator on whether the IPv6 router has been configured correctly.

018-710 to 018-714 LDAP Protocol Errors 10 to 14 RAP

018-710 LDAP protocol error 10 at address book operation (not registered in search range).

018-711 LDAP protocol error 11 at address book operation (admin limit is exceeded).

018-712 LDAP protocol error 12 at address book operation (extended function cannot be used).

018-713 LDAP protocol error 13 at address book operation (secrecy is required).

018-714 LDAP protocol error 14 at Address Book operation (SASL bind in progress).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-715 Kerberos Attestation Protocol Error 73 RAP

018-715 If the Kerberos authentication server and the authentication method supported by the device do not match, error during Kerberos authentication is detected.

Procedure

Advice the customer that:

1. If the error occurred in the case of smart card authentication, algorithm is not supported by the device is specified by KDC.
2. In the case of password authentication, KDC does not support any of the device's algorithms.
3. KDC settings should be reviewed. Also, in the case of devices supporting FIPS, disabling FIPS mode may correct the problem.
4. If the fault persists, reload the software, GP 9.

018-716 to 018-721 LDAP Protocol Errors 16 to 21 RAP

018-716 The server returned RFC2251 standard result message 16, at address book operation (the requested attribute does not exist).

018-717 The server returned RFC2251 standard result message 17, at address book operation (the specified attribute is not defined)

018-718 The server returned RFC2251 standard result message 18, at address book operation (unsuitable combination).

018-719 The server returned RFC2251 standard result message 19, at address book operation (limit violation).

018-720 The server returned RFC2251 standard result message 20, the specified attribute already exists) in response to the address book inquiry.

018-721 The server returned RFC2251 standard result message 21 (syntax error of the specified attribute value) in response to the address book inquiry.

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-722 GCP Network Fail RAP

018-722 A network-related error has occurred during HTTP communication with Google server.

Procedure

Perform the steps that follow:

1. Advise the customer to confirm the network connection status, network settings status with the system administrator.
2. If the fault persists, reload the software, GP 9.

018-723, 018-740 GCP Certification Fail RAP

018-723 A connection certificate error has occurred during HTTP communication with Google server.

018-740 A connection certificate error has occurred during communication through XMPP protocol with Google server.

Procedure

Perform the steps that follow:

1. Advise the customer to confirm with the network administrator the correct root CA certificate is present, certificate authentication settings are correct.
2. If the fault persists, reload the software, GP 9.

018-724 GCP SSL Connection Fail RAP

018-724 Connection error of SSL has occurred during HTTP communication with Google server.

Procedure

Perform the steps that follow:

1. Advise the customer to confirm with the network administrator the network (SSL Communication) connection status and SSL settings status.
2. If the fault persists, reload the software, GP 9.

018-725 Kerberos Attestation Protocol Error 22 RAP

018-725 The user Kerberos password has expired.

Procedure

Advise the customer that the user Kerberos password set on the Kerberos server has expired, it is necessary to ask the server administrator to extend the expiration date of the password.

018-726 Kerberos Attestation Protocol Error 70 RAP

018-726 A higher CA certificate in the user SmartCard is not registered with the device.

Procedure

Advise the customer to check if a higher CA certificate in the user SmartCard is registered with the device. If not, register it with the device.

018-727 Kerberos Attestation Protocol Error 71 RAP

018-727 The certificate in the user SmartCard is incorrect (rejected by the Kerberos server).

Procedure

Advise the customer to check if the certificate in the user SmartCard is valid. If it has become invalid or expired, renew it, or if the Kerberos server prohibits the use of the certificate, it is necessary to ask the server administrator to authorise the server to permit it.

018-728 Kerberos Attestation Protocol Error 72 RAP

018-728 The Kerberos server KDC certificate is incorrect (the root CA certificate is not registered with the device; the KDC certificate has expired; or the KDC certificate address is different from that written on the certificate.)

Procedure

Advise the customer to:

1. Check if the root CA certificate of KDC certificate is registered with the device. If not, register the root CA certificate.
2. If the KDC certificate has expired, renew the Kerberos server KDC certificate
3. Check that the Kerberos server address set on the device is the same as that written on the Kerberos server KDC certificate. If they are different, change the Kerberos server address set on the device, or check the Kerberos server KDC certificate. In this case, there is a possibility of a wrong setting or Kerberos server impersonation.

018-729, 730, 738, 739, 743, 744, 745, 746 GCP Network Fail RAP

018-729 A time-out error has occurred during HTTP communication with Google server.

018-730 An other network-related internal error has occurred during HTTP communication with Google server.

018-738 A network-related error has occurred during communication through XMPP protocol with Google server.

018-739 A network-related internal error has occurred during communication through XMPP protocol with Google server.

018-743 A network related (proxy connection) error has occurred when communicating with Google server via HTTP.

018-744 A network related (DNS name resolution) error has occurred when communicating with Google server via HTTP.

018-745 A network related (proxy connection) error has occurred when communicating with Google server via XMPP protocol.

018-746 A network related (DNS name resolution) error has occurred when communicating with Google server via XMPP protocol.

Procedure

Perform the steps that follow:

1. Advise the customer to check the network connection status, settings status as the network might be congested.
2. If the fault persists, reload the software, GP 9.

018-731 GCP HDD Limit Fail RAP

018-731 Job is aborted because there is not enough capacity in the HDD.

Procedure

Perform the steps that follow:

1. Advise the customer to check the HDD available capacity, and free up space. Print again after executing all print jobs which are being spooled.
2. If the fault persists, reload the software, GP 9.

018-732 to 018-736 LDAP Protocol Errors 32 to 36 RAP

018-732 LDAP protocol error 32 at address book operation (applicable object does not exist).

018-733 LDAP protocol error 33 at address book operation (wrong alias).

018-734 LDAP protocol error 34 at address book operation (wrong DN format).

018-735 LDAP protocol error 35 at address book operation (object is terminated).

018-736 LDAP protocol error 36 at address book operation (cannot refer to alias).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-737, 018-741 GCP Other Fail RAP

018-737 Other internal error has occurred during GCP module processing.

018-741 Other internal error has occurred during GCP module (XMPP library) processing.

Procedure

Perform the steps that follow:

1. Advise the customer to check the settings.
2. If the fault persists, reload the software, GP 9.

018-747 Server Not Found in SMB RAP

018-747 During scanner (Scan to PC) SMB transfer, either there was a name resolution failure at WINS/NetBIOS broadcast, or the port of file sharing service is blocked (failed to establish TCP/IP session).

Procedure

Advise the customer to:

1. **Check the Communication Environment:**

   Check that network communication between the transfer destination SMB server and this machine is available, by the performing the steps that follow:

   a. Network cable connection.

   b. If the transfer destination address is specified using IP Address, check whether the IP address is correct.

   c. Check with the System Administrator on whether the SMB related ports are blocked (whether there are blocked ports at the transfer destination server, between the MFD and the server, etc.)

2. **Check the SMB Server:**

   Check the network settings that follow to check if the computer operates as an SMB server:

   a. Whether the SMB related ports are blocked by software, such as anti-virus or a fire wall, on the server.

3. **Check the Resolution Server Name:**

   Check the network settings that follows to check if the computer operates as an SMB server:

   a. For communication that goes beyond the subnet and the server name is 15 characters or shorter, check the WINS server settings and check whether the server name address can be resolved correctly.

4. If there is no problem, login to the SMB server from another PC using the same user name and check whether a file can be written to the same storage destination on that SMB server. If write is possible, try to perform the same operation again from the machine.

018-748, 018-750 to 018-754 LDAP Protocol Errors 48, 50 to 54 RAP

018-748 LDAP protocol error 48 at address book operation (authentication denied).

018-750 LDAP protocol error 50 at address book operation (user does not have access privileges)).

018-751 LDAP protocol error 51 at address book operation (busy).

018-752 LDAP protocol error 52 at address book operation (cannot be processed).

018-753 LDAP protocol error 53 at address book operation (execution denied).

018-754 LDAP protocol error 54 at address book operation (loop detected).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-749 LDAP Protocol Error 49 RAP

018-749 There is a LDAP (Lightweight Directory Access Protocol) error (the specified authentication certificate is invalid).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Tell the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server.
Ask the customer to re-verify user name and password to be used for authentication to cancel incorrect search login name. Check with the network administrator to verify authentication setting of server side when the status is not improved.
Verify the machine LDAP setups. If the check is OK, there may be a problem with the remote LDAP server.

018-755 Server Connection Error in SMB RAP

018-755 There is no response from the server and failure to establish TCP/IP session.

Procedure

Advise the customer to:

1. Check the transfer destination server, the router that exists between the multifunction device and the server, and the anti-virus software, fire wall software, etc.
2. If there is no problem, login to the SMB server from another PC using the same user name and check whether a file can be written to the same storage destination on that SMB server. If write is possible, try to perform the same operation again from the machine.

   NOTE: *If the situation does not improve, it is highly likely that there is a problem occurring at the server.*

018-756 Server Login Response Time-out in SMB RAP

018-756 Unable to receive a response from the server within the specified time during the scanner (scan to PC) SMB authentication.

Procedure

Advise the customer to:

1. Check if the transfer destination server belongs to the Active Directory domain, check for delays in the communication between transfer destination server and Domain Controller by the method that follows:
   a. Check whether it is taking a long time to access the transfer destination server from a PC client.
   b. If it is taking a long time, consult with the System Administrator.
2. If there is no problem, login to the SMB server from another PC using the same user name and check whether a file can be written to the same storage destination on that SMB server. If write is possible, try to perform the same operation again from the machine.

   NOTE: *If the situation does not improve, there is a possibility of bad connection status in the customers environment. Advise them to consult with the System Administrator.*

018-757 Host Name Solution Error in SMB RAP

018-757 The system has failed to resolve the SMB server name of the SMB that is specified as the transfer destination during scanning (scan to PC).

Procedure

Advise the customer to:

1. For communication that goes beyond the subnet, check the DNS server settings and check whether the server name address can be resolved correctly.
2. If there is no problem, login to the SMB server from another PC using the same user name and check whether a file can be written to the same storage destination on that SMB server. If write is possible, try to perform the same operation again from the machine.

018-758, 018-759 Picture Preservation or File Name Error RAP

018-758 There is a problem with either, the image storage location, the file name or the specified storage location does not exist on the server.

018-759 The specified storage location or file name contains restricted characters.

Procedure

Advise the customer to:

1. Check whether the storage location is correct.
2. Check whether the specified file name is one that can be created on the SMB server.
3. Check whether the storage destination or file name of the scan image that is set at the main unit contains restricted characters.

018-760 DFS Link Error in SMB RAP

018-760 The specified storage location gets linked to other shared folder during scanner (scan to PC) SMB transfer as it is set to Distributed File System (DFS).

Procedure

Advise the customer to check the settings of the distributed file system (DFS) with the system administrator.

018-761 Out of Server Memory in SMB RAP

018-761 The memory at the storage destination PC was detected to have ran out during scanner (scan to PC) SMB transfer.

Procedure

Advise the customer to:

1. Check whether the usage condition at the storage destination PC has caused all the memory to be used.
2. Terminate the applications that are currently not in use.
3. Check the memory usage status and perform upgrades to increase the memory.
4. Reboot the server.

018-762 Server Response Time-out in SMB RAP

018-762 The response from the storage destination PC has too long and caused a time-out during scanner (scan to PC) SMB transfer.

Procedure

Advise the customer to:

1. Check whether an anti-virus software is operating at the storage destination PC. If operating, reduce the number of document copies to make the transmission file smaller.
2. Check that there is no cable unplugged or any issues with the router or the hub in the network route.

018-763 Character Convert Error in SMB RAP

018-763 The character code conversion process in the multifunction device has failed during scanner (scan to PC) SMB transfer.

Procedure

Advise the customer to:

1. Check whether the server name, shared name, path name, etc. contains machine-dependent characters such as (special symbol), (number symbol), IV (roman numeral), etc.
2. If necessary, edit so that the name no longer contain any machine-dependent characters. Re-run the scanning job.
3. If the fault continues, refer to GP 15 Obtaining Audit and Device Logs, then escalate the problem to 2nd Level support.

018-764 LDAP Protocol Errors 64 to 69 and 71 RAP

018-764 LDAP protocol error 64 at address book operation (naming violation).

018-765 LDAP protocol error 65 at address book operation (object class specification error).

018-766 LDAP protocol error 66 at address book operation (entries other than termination cannot be executed).

018-767 LDAP protocol error 67 at Address Book operation (cannot be executed at RDN).

018-768 LDAP protocol error 68 at address book operation (the specified entry already exists).

018-769 LDAP protocol error 69 at address book operation (object class cannot be changed).

018-771 LDAP protocol error 71 at address book operation (influence on multiple DSA).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-770 LDAP Protocol Error 70 RAP

018-770 LDAP protocol error 70 at Address Book operation (search result is too large).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Tell the customer that the network requires service.

Ask the customer to retry search with narrower search target by changing search condition/ search start position in Address Book internal data. If the check is OK, there may be a problem with the remote LDAP server.

018-772 Shared Name Not Found in Server RAP

018-772 The shared name that was set does not exist on the transfer destination server during scanner (scan to PC) SMB transfer.

Procedure

Advise the customer to check whether the shared name that is set at the main unit exists on the transfer destination PC.

018-773 Shared Name Error in Server RAP

018-773 The Shared Name that was set at the transfer destination contains restricted characters during scanner (Scan to PC) SMB transfer, or the permission was not set for the specified Shared Name during scanner (Scan to PC) SMB transfer with a Macintosh destination.

Procedure

Advise the customer to:

1. Check whether the shared name that is set at the main unit contains restricted characters.
2. Check whether the beginning or the end of the shared name that is set at the main unit contain any blank space.
3. Check whether the shared name that is set at the main unit is only specified by a period.
4. If the transfer destination is a Macintosh, the permission setting must be changed for the user of the shared folder. For the settings, check with the System Administrator.

018-780, 018-782 to 018-784 LDAP Protocol Errors 80 and 82 to 84 RAP

018-780 LDAP protocol error 80 at address book operation (an unknown error has occurred).

018-782 LDAP protocol error 82 at address book operation (program error or SASL authentication error).

018-783 LDAP protocol error 83 at address book operation (outgoing message encoding error).

018-784 LDAP protocol error 84 at address book operation (incoming message decoding error).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

018-781 LDAP Protocol Error 81 RAP

018-781 LDAP protocol error 81 at address book operation (cannot connect to server).

Procedure

Advise the customer to:

1. Check if the network cable is connected.
2. If the network cable is connected, check the start up state of the target request server.
3. Check whether the shared name that is set at the main unit is only specified by a period.
4. Check that the server name is correct.

018-785 LDAP Protocol Error 85 RAP

018-785 LDAP protocol error 85 at address book operation (search time-out).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Tell the customer that the network requires service.

Ask the customer to retry search with narrower search target by changing search condition/ search start position in Address Book internal data. Ask the customer to verify the machine LDAP setups. If the check is OK, there may be a problem with the remote LDAP server.

018-786 to 018-797 LDAP Protocol Errors 86 to 97 RAP

018-786 LDAP protocol error 86 at address book operation (an unknown authentication method has been specified).

018-787 LDAP protocol error 87 at address book operation (error in definition of search filter).

018-788 LDAP protocol error 88 at address book operation (instruction canceled).

018-789 LDAP protocol error 89 at address book operation (an incorrect parameter was passed).

018-790 LDAP protocol error 90 at address book operation (insufficient memory).

018-791 LDAP protocol error 91 at address book operation (server connection prohibited).

018-792 LDAP protocol error 92 at address book operation (unsupported function).

018-793 LDAP protocol error 93 at address book operation (result is not returned).

018-794 LDAP protocol error 94 at address book operation (result no longer exist).

018-795 LDAP protocol error 95 at address book operation (result still exists).

018-796 LDAP protocol error 96 at address book operation (client loop detected).

018-797 LDAP protocol error 97 at address book operation (maximum hop number for reference is exceeded).

Procedure

Verify that print jobs are printing or print a configuration report and verify that network setup settings are indicated. **The printer is operational or the configuration report indicates valid network settings.**

Y N

Check for damage with the network connection. If there is no damage then there is a problem with the network. Inform the customer that the network requires service.

There is a problem with the LDAP setups on the machine or with the remote LDAP server. Advise the customer to verify the machine LDAP setups. If the check is good, there may be a problem with the remote LDAP server.

021-210, 211, 212 USB IC Card Reader Error RAP

021-210 USB IC card reader connection error.

021-211 The USB IC card reader is broken.

021-212 USB IC card reader activation failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Check the wiring between the card reader and the machine. Ensure the USB connector is fully seated.
2. Switch off, then switch on the machine, GP 4.
3. If the fault persists, advise the customer that the card reader is faulty.

021-214 USB IC Card Reader Encryption Setting RAP

021-214 Failure in the USB IC card reader encryption settings.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer that the encryption settings of the connected USB IC card reader are wrong. Connect a USB IC card reader that has never been used before, or one that has had its encryption settings initialized as factory default settings to the machine. Switch off, then switch on the machine, GP 4.

021-401 USB IC Card Reader Connection Error RAP

021-401 USB IC card reader connection status is incorrect.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer to disconnect the USB IC card reader that caused this error to occur from the USB connector.

021-500 EP Accessory Job Exclusion RAP

021-500 When the fax send billing function is enabled, the errors that follow occurred:

- There was an attempt to start up a job for accessory billing in the middle of a fax send job operation.
- There was an attempt to start up a Fax send Job in the middle of a Job for accessory billing operation. This fault is not detected when the fax send billing function is disabled.

Procedure

Advise the customer to wait for the current running job to complete, and then restart the job.

021-501 Invalid URL Detected RAP

021-501 The server URL is grammatically incorrect.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer to check the URL of the EP server.

021-502, 503, 504 Couldn’t Resolve Proxy Name RAP

021-502 Proxy server address resolution error.

021-503 Server address resolution error.

021-504 Server connection error.

Procedure

Advise the customer to:

1. Check the connection of the LAN cable.
2. Check the DNS server address settings.
3. Check the default gateway settings.
4. Check the subnet mask settings.

021-505, 021-506 SSL Error RAP

021-505 An error has occurred during SSL/TLS handshake.

021-506 The SSL certificate of the server is invalid.

Procedure

Switch off, then switch on the machine, GP 4.

021-507 Unauthorized Proxy Access RAP

021-507 Authentication of the proxy server has failed.

Procedure

Advise the customer to:

1. Check the EP proxy server authentication user.
2. Check the EP proxy server authentication password.
3. If the problem persists after checking the settings, there may be a network failure or the proxy server settings may have changed/failed. Contact the Network Administrator.

021-508, 520, 521 Host/Proxy Connection Timed Out RAP

021-508 Communication time-out has occurred.

021-520 CA communication error.

021-521 CA communication time-out.

Procedure

Advise the customer to:

1. Check the connection of the LAN cable.
2. Check the default gateway settings.
3. Check the subnet mask settings.

021-509, 515, 516, 522 Invalid Message Detected RAP

021-509 The server detected an invalid message.

021-515 Invalid product code.

021-516 Invalid serial number.

021-522 Certificate library error.

Procedure

Switch off, then switch on the machine, GP 4.

021-510, 021-511 SOAP Fault RAP

021-510 Recall status mismatch (EP system).

021-511 Installation status mismatch (EP system)

Procedure

For information only. No service action required.

021-512, 513, 514, 517, 518, 519 Installation Conflict RAP

021-512 Already has EP-SV installed on the EP system.

021-513 Already has EP-DX installed on the EP system.

021-514 Already has EP-TRESS installed on the EP system.

021-517 Communication failure with the EP center.

021-518 An internal error has occurred in the server.

021-519 High load status detected in the EP center.

Procedure

Advise the customer to check with the EP Center for the EP contract status, registration status and system operation status.

021-523 Internal Error RAP

021-523 Software failure where processing can still continue was detected.

Procedure

Perform the steps that follow:

1. If the SOAP port has stopped, Advise the customer to restart it.
2. If the fault persists, switch off, then switch on the machine, GP 4.

021-524 to 012-527 Communications Error RAP

021-524 Installation status mismatch.

021-525 Recall status mismatch.

021-526 Communication library error.

021-527 An invalid message was received from the server.

Procedure

Switch off, then switch on the machine, GP 4.

021-528, 021-529 Communication Settings RAP

021-528 Communication setting error.

021-529 The latest version is detected (software update).

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, advise the customer to check with the EP Center for the EP contract status, registration status and system operation status. If all 3 statuses are confirmed as installed enter dC131, chain-link 920-001. Set the EP installation state to installed, then perform the operation again.

021-530, 012-531 Update Server Error RAP

021-530 The software update server has detected an internal error.

021-531 The software update server has detected a large load on itself.

Procedure

Advise the customer to:

1. Wait a while, then operate again.
2. If the fault persists, Advise the customer to check with the EP Center for the EP contract status, registration status and system operation status.

021-532 to 021-535 Unsupported ROM Set RAP

021-532 An unsupported set of ROM versions is detected.

021-533 The user cannot do an update.

021-534 An unsupported sub module is detected.

021-535 An unsupported accessory is detected.

Procedure

Reload the software, GP 9.

021-700 Accessory Failure RAP

021-700 EP accessory - service canceled by USB accessory failure or disconnect.

Procedure

Perform the steps that follow:

1. Check dC122 fault history for 021-210, 021-211 or 021-212 faults. If any of the faults is listed, perform the relevant RAP.
2. If none of the faults are listed, reload the software, GP 9.

021-701 Accessory Preparing RAP

021-701 While the USB-connected accessory is being started, but is not yet ready, a job has been started and has failed.

Procedure

Perform the steps that follow:

1. Advise the customer to wait for a minimum of 3 minutes for the USB accessory to start, then re-run the job
2. If the fault persists, reload the software, GP 9.

021-732, 941, 943, 945 EP Accessory Error RAP

021-732 EP accessory error - card was missing, insufficient fee paid or insufficient card value.

021-941 EP accessory - scan service paused by disable.

021-943 EP accessory - print service paused by disable.

021-945 EP accessory - service paused by disable.

Procedure

Perform the steps that follow:

1. Advise the customer to insert a Xerox card, copy card or cash into the accessory, and ensure that there are sufficient fees or card value.
2. If the fault persists, reload the software, GP 9.

021-733, 942, 944, 946 EP Accessory Color Error RAP

021-733 EP accessory service canceled by color mode restriction.

021-942 EP accessory - scan service paused by color mode restriction.

021-944 EP accessory - print service paused by color mode restriction.

021-946 EP accessory - service paused by color mode restriction.

Procedure

Perform the steps that follow:

1. Advise the customer to operate the color restriction key SW to allow color or replace the card with another card that does not reach its upper limit in color mode.
2. If the fault persists, reload the software, GP 9.

021-947, 948, 949 Subtractive Accessory Disable (Scan) RAP

021-947 The remaining amount that the subtractive accessory has is insufficient (scan service paused by subtractive accessory disable).

021-948 The remaining amount that the subtractive accessory has is insufficient (print service paused by subtractive accessory disable).

021-949 The remaining amount that the subtractive accessory has is insufficient (service paused by subtractive accessory disable).

Procedure

Advise the customer that in the case of dispenser, to insert a card that has a remaining rate enough to continue the job. In the case of coin kit, to add a necessary amount of money to continue the job.

023-500 UI ROM Download Fail RAP

023-500 Panel ROM data write processing error detection.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Reload the software, GP 9.
2. If the fault persists, install a new UI console assembly, PL 1.1A Item 4 C400 or PL 1.1B Item 4 C405.

023-600, 023-601 UI Key Error RAP

023-600 A hard key on the panel has been found to be held down for one or more consecutive minutes.

023-601 The touch panel has been found to be held down for one or more consecutive minutes.

Procedure

For information only, no service action necessary.

024-322, 024-323 SEEPROM Refurbish RAP

024-322 A backup data read error was detected.

024-323 When restore was requested, it was detected that the backup data did not exist.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

024-340 to 024-360 IOT-ESS Communication Fail 1 RAP

024-340 MCU-ESS Communication Fail 1.

024-341 MCU-ESS Communication Fail 2.

024-342 MCU-ESS Communication Fail 3.

024-343 MCU-ESS Communication Fail 4.

024-345 MCU-ESS Communication Fail 5.

024-346 MCU-ESS Communication Fail 6.

024-347 MCU-ESS Communication Fail 7.

024-348 MCU-ESS Communication Fail 8.

024-349 MCU-ESS Communication Fail 9.

024-350 MCU-ESS Communication Fail 10.

024-351 MCU-ESS Communication Fail 11.

024-352 MCU-ESS Communication Fail 12.

024-353 MCU-ESS Communication Fail 13.

024-354 MCU-ESS Communication Fail 14.

024-355 MCU-ESS Communication Fail 15.

024-356 MCU-ESS Communication Fail 16.

024-357 MCU-ESS Communication Fail 17.

024-358 MCU-ESS Communication Fail 18.

024-359 MCU-ESS Communication Fail 19.

024-360 MCU-ESS Communication Fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

024-361 Invalid IOT Paper Size Group RAP

024-361 The paper size group setting in the ESS does not match the paper size group data detected by the MCU.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on both PWBAs are securely connected.
3. Enter special boot mode, GP 16. Perform the NVRAM INIT MODE routine.
4. Reload the software, GP 9.
5. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

024-362, 024-363 Page Sync Illegal Start or Stop RAP

024-362 Page-sync occurred before video output preparation was complete.

024-363 Page-sync completion error during video output.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA,PL 18.2 Item 4.

024-364 DMA Transfer Fail RAP

024-364 DMA transfer error. Reduction/enlargement was not completed even though the specified data was entered.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure the connectors on the hard disk are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

024-365 Overflow on Loop Back Write RAP

024-365 The extended data exceeded the reserved buffer size.

Procedure

This fault is currently not displayed. No service action necessary.

024-366 JBIG Library Other Fail RAP

024-366 Not in use now.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Update to the most recent firmware, GP 9.
3. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

024-367 Decompress Other Fail RAP

024-367 Incorrect line synchronization was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure the connectors on the hard disk are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

024-368 PCI Error RAP

024-368 PCI access error occurred due to a faulty PCI bus.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure the connectors on the hard disk are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

024-370 Marker Code Detection Fail RAP

024-370 Marker code detection error. During enlarge, when the file was enlarged only by the specified size, the end code (FF02) cannot be found in the compressed data.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Change the Print mode (Normal/High Quality/High Resolution). Inform the customer of any print mode setting changes.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. Perform the OF 21 Special Boot Modes RAP.
6. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

024-371 to 024-373, 024-375 MCU-ESS Communication Fail 2 RAP

024-371 An illegal instruction for IOT port number, time-out time, pointer, or transfer size was detected.

024-372 An illegal instruction for IOT port number, time-out time, pointer, or transfer size was detected.

024-373 When a message packet is sent from the controller, the ACK packet from the IOT cannot be received within the specified time after the specified number of retries.

024-375 An illegal instruction for IOT port number, time-out time, pointer, or transfer size was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

024-376 MCU-ESS Communication Fail 3 RAP

024-376 Occurs when a break in connection is detected at the loopback terminal of the image signal line.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Check the video harness assembly between the ESS PWBA and the ROS, PL 2.1 Item 1.
4. Reload the software, GP 9.
5. Perform the OF 21 Special Boot Modes RAP.
6. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

024-600 to 024-614 Counter Repair RAP

024-600 The billing master counter is automatically repaired.

024-601 The billing backup counter 1 is automatically repaired.

024-602 The billing backup counter 2 is automatically repaired.

024-603 The SW key master counter is automatically repaired.

024-604 The SW key backup counter 1 is automatically repaired.

024-605 The SW key backup counter 2 is automatically repaired.

024-606 Billing meter type is automatically repaired (ESS SEEP repaired).

024-607 Billing meter type is automatically repaired (ESS NVM repaired).

024-608 Billing meter type is automatically repaired (MCU NVM repaired).

024-609 Billing count type is automatically repaired (ESS SEEP repaired).

024-610 Billing count type is automatically repaired (ESS NVM repaired).

024-611 Billing count type is automatically repaired (MCU NVM repaired).

024-612 Modal break point is automatically repaired (ESS SEEP repaired).

024-613 Modal break point is automatically repaired (ESS NVM repaired).

024-614 Modal break point is automatically repaired (MCU NVM repaired).

Procedure

For information only, no service action necessary.

024-615 MCU Unsupported Drum Shut Off RAP

024-615 The IOT was detected to be of a version that does not support Drum Shut Off.

Procedure

For information only, no service action necessary.

024-616 to 024-621 Serial/Product Number Restore RAP

024-616 Serial number master was restored automatically.

024-617 Serial number backup 1 was restored automatically.

024-618 Serial number backup 2 was restored automatically.

024-619 Product number master was restored automatically.

024-620 Product number backup 1 was restored automatically.

024-621 Product number backup 2 was restored automatically.

Procedure

For information only, no service action necessary.

024-700 Memory Shortage or No Hard Disk RAP

024-700 A job that could not be printed due to insufficient system memory or hard disk not installed was received.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ensure that the connectors from the hard disk drive, PL 18.2 Item 91 to the ESS PWBA, PL 18.2 Item 4 are securely connected.
2. If the fault persists, install a new hard disk drive, PL 18.2 Item 91.

024-701 Invalid Instruction of Face Inversion RAP

024-701 Job cancellation due to invalid invert instruction.

Procedure

Advise the customer to use paper that is within specification. Refer to GP 26 Media Specifications.

024-702 Paper Jam RAP

024-702 Job cancellation due to paper jam.

Procedure

1. Check the fault history for other active jam related fault codes, dC125.
2. Clear the paper jam, then rerun the print job.

024-704 Denshi-Pen Error While Printing RAP

024-704 An error has occurred when document is output from Denshi-Pen.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, reload the software, GP 9.

024-705 Forced Annotation Template Fail RAP

024-705 The specified Forced Annotation template cannot be found in the device.

Procedure

Perform the steps that follow:

1. Advise the customer to delete the document, reload and re-try the job.
2. If the fault persists, reload the software, GP 9.

024-706 Denshi-Pen Print Condition Error RAP

024-706 Attempted to print the document specified with Denshi-Pen when forced analog watermark or force hybrid watermark is set.

Procedure

Perform the steps that follow:

1. Advise the customer to set the device to temporarily cancel forced printing.
2. If the fault persists, reload the software, GP 9.

024-707 Duplex Inversion Prohibited RAP

024-707 A duplex print was instructed for paper with paper type/size that cannot be used in Duplex/Invert.

Procedure

Perform the steps that follow:

1. Advise the customer to use paper that is within specification or to print simplex. Refer to GP 26 Media Specifications.
2. If the fault persists, reload the software, GP 9.

024-708 Duplex Inversion Prohibited (Face Down) RAP

024-708 A face down output instruction was received for duplex/invert prohibited paper.

Procedure

Perform the steps that follow:

1. Advise the customer to use paper that is within specification or to print face up. Refer to GP 26 Media Specifications.
2. If the fault persists, reload the software, GP 9.

024-742 Booklet Over Count RAP

024-742 Printed booklet sheets over count.

Procedure

Reload the software, GP 9.

024-746, 024-747 Print Request Failure RAP

024-746 The paper type specified by the job is incompatible with options such as paper tray, output tray or automatic 2 sided print/staple.

024-747 The specified combination of parameters (stored file size, paper size, paper tray, duplex command, output tray) cannot be executed or continued.

Procedure

Advise the customer to use the correct print parameters.

024-748 Bates Numbering Digit Exceeded RAP

024-748 The number of Bates numbering digits are exceeded.

Procedure

Perform the steps that follow:

1. Advise the customer to reduce the number of documents to less than the user-specified number or reduce the number of numbering digits.
2. If the fault persists, reload the software, GP 9.

024-910, 946, 959 Tray 1 Size Mismatch RAP

024-910 Size mismatch tray 1, measured length mismatch.

024-946 Tray 1 out of place.

024-959 Tray 1 size mismatch.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to:
   a. Use paper that is within specification. Refer to GP 26 Media Specifications.
   b. Ensure the paper in tray 1, PL 9.1 Item 1, is the correct size for the job.
   c. Ensure tray 1 is fully inserted.
2. Enter special boot mode, GP 16. Perform the LONGDIAG MODE routine.
3. Perform the OF 7 Registration Sensor RAP.
4. If the fault persists, reload the software, GP 4.

024-911, 912, 913, 947, 948, 949, 960, 961, 962 Option Feeder Size Mismatch RAP

024-911 Tray 2 size mismatch option feeder, measured length mismatch.

024-912 Tray 3 size mismatch option feeder, measured length mismatch.

024-913 Tray 4 size mismatch option feeder, measured length mismatch.

024-947 Tray 2 option feeder out of place.

024-948 Tray 3 option feeder out of place.

024-949 Tray 4 option feeder out of place.

024-960 Tray 2 size mismatch.

024-961 Tray 3 size mismatch.

024-962 Tray 4 size mismatch.

Procedure

Perform the steps that follow:

1. Ensure that the paper is within specification. Refer to GP 26 Media Specifications.
2. Ensure the option feeder tray is loaded with the correct size for the job.
3. Ensure the tray is fully inserted.
4. Check the paper size mechanism and actuators, PL 10.3 on the relevant tray. Install new components as necessary.
5. Refer to WD 16. Check the wiring between the relevant option size switch assembly and the option feeder PWBA. Repair the harness as necessary.
6. Install a new components as necessary:
   - Option size switch assembly, PL 10.1 Item 11.
   - Option feeder PWBA, PL 10.1 Item 10.
7. If the fault persists, reload the software, GP 9.

024-914 to 024-919, 942, 943, 955, 956, 957 Invalid Faults 1 RAP

024-914 Tray 6 size mismatch option feeder, measured length mismatch.

024-915 Tray 7 size mismatch option feeder, measured length mismatch.

024-916 Finisher stackermix full stack.

024-917 Stacker tray staple set over count.

024-919 Face up tray closed.

024-942 Copy booklet sheets count over.

024-943 Booklet low staple.

024-955 Tray 6 empty.

024-956 Tray 7 empty.

024-957 Interposer empty.

Procedure

Shown for information only. No service action necessary.

024-920 Face Down Tray 1 Full RAP

024-920 The paper tray if full.

Procedure

Perform the OF 3 Exit Tray Full RAP.

024-923, 924, 925 Toner End of Life RAP

024-923 The yellow toner cartridge is empty.

024-924 The magenta toner cartridge is empty.

024-925 The cyan toner cartridge is empty.

Procedure

Enter Diagnostics, GP 1. Select dC135 HFSI Counter. Compare the last installation of the relevant toner cartridge with the current page count to determine the number of prints/copies produced from the toner cartridge. **The relevant toner cartridge is at end of life.**

Y N

Perform ADJ 6.1 Color Toner Density Sensors Cleaning. Make a color print or copy. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new color toner density (CTD) sensor assembly, PL 6.1 Item 14. Make a color print or copy. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Reload the software, GP 9. Make a color print or copy. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24.

Install a new relevant toner cartridge, PL 5.1.

024-933, 940, 941 Drum End of Life RAP

024-933 The yellow CRU xerographic development assembly is at the end of life.

024-940 The magenta CRU xerographic development assembly is at the end of life.

024-941 The cyan CRU xerographic development assembly is at the end of life.

Procedure

Enter Diagnostics, GP 1. Select dC135 HFSI Counter. Compare the last installation of the relevant CRU xerographic development assembly with the current page to determine the number of prints/copies produced from the CRU xerographic development assembly. **The relevant CRU xerographic development assembly is at end of life.**

Y N

Switch off the machine, GP 4. Remove the relevant CRU xerographic development assembly. Clean the contacts on the transfer CRUM connector assembly, PL 8.1 Item 1 and the corresponding contacts on the CRU xerographic development assembly. Install the CRU xerographic development assembly. Switch on the machine, GP 4 . Make a color print or copy. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Reload the software, GP 9. Make a color print or copy. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24.

Install a new relevant CRU xerographic development assembly, PL 8.1.

024-934 Paper Type Mismatch RAP

024-934 The fed paper is different from that specified in the controller (plain paper and heavy-weight cannot be recognized).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Load the specified media.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.

024-939 OHP Type Mismatch RAP

024-939 Paper type mismatch. the system is shut down if transparencies with borders are detected regardless of the paper type setting in the controller.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Check the UI settings, ensure that the MSI tray is selected and the correct media used.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.

024-950 Tray 1 Empty RAP

024-950 Tray 1 is empty.

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4.

Procedure

NOTE: *The no paper sensor is integral to the registration chute assembly, PL 15.2 Item 1.*

Enter dC330, code 071-101, tray 1 no paper sensor. Manually activate the tray 1 no paper sensor. **The display changes.**

Y **N**

Check the tray 1 no paper sensor. Refer to GP 11 How to Check a Sensor. If necessary, install a new tray 1 no paper sensor.

If the fault persists, install new components as necessary:

- Tray 1 no paper sensor, PL 15.2.
- ESS PWBA, PL 18.2 Item 4.

024-951 to 024-953 Option Feeder Empty RAP

024-951 Tray 2 option feeder tray is empty.

024-951 Tray 3 option feeder tray is empty.

024-951 Tray 4 option feeder tray is empty.

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Procedure

Perform the OF 4 550 Option No Paper Sensor RAP.

NOTE: *The no paper sensor is integral to the 550 Option main feed assembly, PL 10.2 Item 1.*

024-954, 024-958 MSI Tray Fault RAP

024-954 The MSI tray is empty.

024-958 MSI paper size mismatch.

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

- Switch off, then switch on the machine, GP 4.
- Advise the customer to use paper that is within specification. Refer to GP 26 Media Specifications.
- Advise the customer to ensure the paper in the MSI tray is the correct size for the job.

Procedure

Enter dC330, code 071-100, MSI no paper sensor. Manually activate the MSI no paper sensor, PL 13.2 Item 4. **The display changes.**

Y **N**

Check the MSI no paper sensor, refer to GP 11 How to Check a Sensor. If necessary install a new MSI no paper sensor, PL 13.2 Item 4.

If the fault persists, install new components as necessary:

- MSI no paper sensor, PL 13.2 Item 4.
- MCU PWBA, PL 18.2 Item 24.

024-963, 024-9967 to 024-985 Invalid Faults 2 RAP

024-963 Finisher punch dustbox full.

024-967 Different width mix paper detect..

024-968 Stapler/punch batting.

024-969 Different width mix punch.

024-970 Tray 6 out of place.

024-971 Tray 7 out of place.

024-972 Tray 6 size mismatch.

024-973 Tray 7 size mismatch.

024-974 Interposer tray size mismatch.

024-975 Copy booklet sheets counts over.

024-976 Finisher staple status NG.

024-977 Stapler feed ready fail.

024-978 Booklet stapler NG.

024-979 Stapler near empty.

024-980 Finisher stacker tray full.

024-981 Finisher top tray full.

024-982 Stacker lower safety warning.

024-984 Booklet low staple F.

024-985 SMH stop check.

Procedure

Shown for information only. No service action necessary.

024-965, 024-966 ATS/APS RAP

024-965 The paper specified for printing is not loaded in the tray (automatic tray size/automatic paper size mode).

024-966 The paper specified for printing cannot be detected (automatic tray size/automatic paper size mode).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Reload the relevant paper tray.
2. If the fault persists, perform the steps that follow:
   a. Switch off, then switch on the machine, GP 4.
   b. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
   c. Reload the software, GP 9.

025-596, 025-597 HDD Diagnostics RAP

025-596 An NG occurred when HDD fail forecast of diagnostics was executed.

025-597 An error occurred when HDD initialization of diagnostics was executed.

Procedure

Perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

026-400 USB Host Connection Number Exceeded RAP

026-400 The number of machines that are connected to the USB Host Port of this machine has exceeded the maximum permissible number of connections.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer to disconnect some of the machines that are connected to this USB host port and ensure that the number of connected machines are below the maximum permissible number of connections.

026-402 Changed IOT Speed RAP

026-402 The IOT has started the print at a low speed.

Procedure

For information only, no service action necessary.

NOTE: *When printing at full speed becomes impossible because the internal temperature of the machine has increased, the IOT resumes printing at low speed according to the instruction from the controller. The user can continue printing at low speed while waiting until the temperature is lowered.*

026-700 LDAP Protocol Error RAP

026-700 It was detected that the error response returned from the server does not exist in the LDAP protocol definitions.

Procedure

Perform the steps that follow:

1. Advise the customer that this fault is caused when the server uses an undefined LDAP protocol that is not supported by the machine. Correct any mistakes in server settings or client operation.
2. If the fault persists, reload the software, GP 9.

026-701 Address Book Request Overflow RAP

026-701 The software in the machine was subjected to a large amount of simultaneous address queries from multiple machine panel and Web UI input devices. The processing capacity of the JRM directory service has been exceeded.

Procedure

Perform the steps that follow:

1. Advise the customer that when performing simultaneous queries on the address book in the machine from multiple machine panel and Web UI input devices, lower the query interval.
2. If the fault persists, reload the software, GP 9.

026-702 Address Book Directory Service Overflow RAP

026-702 The JRM directory service, which is an internal software of the machine, has simultaneously received two or more requests for the same operation.

Procedure

Reload the software, GP 9.

026-703 Abort With Logout RAP

026-703 Authentication is canceled when adding documents during faxing or scanning.

Procedure

Advise the customer make it impossible for authentication to be cancelled at additional document loading.

026-704 DocuWorks Error RAP

026-704 In process of operating DocuWorks decomposer, there has occurred; a syntax error, use of an undefined command, a parameter error, damage to DocuWorks file, or an internal error of DocuWorks decomposer.

Procedure

Advise the customer print from DocuWorks viewer by use of printer driver (ART-EX, PCL, etc.).

026-705 DocuWorks Short of Memory RAP

026-705 In process of operating DocuWorks decomposer, lack of memory has been detected.

Procedure

Advise the customer:

1. Change print mode from High Resolution to Standard or from Standard to High Speed.
2. Print from DocuWorks viewer by use of printer driver (ART-EX, PCL, etc.).

026-706, 026-707 DocuWorks Error RAP

026-706 DocuWorks decomposer has processed a DocuWorks document printing of which is prohibited.

026-707 In the processing of a security-protected DocuWorks file, either of the password set on the UI panel and the XPJL specified password (set in ContentsBridge utility) does not match.

Procedure

Advise the customer:

1. Enter the correct password.
2. Enter Full Access Password, etc. from DocuWorks viewer then disable printing prohibited. Print using printer driver (ART-EX, PCL, etc.).

026-708 URL Data Over Size RAP

026-708 The size of a scan to URL job has exceeded the upper limit of the size of scanned data per job.

Procedure

Advise the customer:

1. Reduce a resolution send parameter (image-to-send quality) then re-send the job.
2. Reduce a magnification send parameter, then re-send the job.
3. Increase the maximum file accumulated data size.

026-709 URL HDD Full RAP

026-709 The HDD partition for accumulated scan to URL data has become full, causing the job to fail.

Procedure

For information only, no service action necessary. Advise the customer to wait for approximately one day until an automatic deletion of documents makes space available. Then re-run the job.

026-710 S/MIME Unsupported Cipher RAP

026-710 The device has received a S/MIME encrypted mail that is encrypted by an unsupported encryption method.

Procedure

Perform the steps that follow:

1. Advise the customer:
   a. Ask the sender of the S/MIME encrypted mail to encrypt the mail by the encryption method (3DES), then re-send it.
   b. Set FIPS140 Authentication Mode of the device to off.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

026-711 Multi-Page File Size RAP

026-711 The upper limit size of the multi-page file format generated in scan service has been exceeded.

Procedure

Advise the customer:

1. Reduce the resolution level (scanned-image quality), then re-run the job.
2. Reduce the number of documents, then re-run the job.

026-712 HTTP Out Job Overlap Error RAP

026-712 The high compression/OCR processing module has detected that a job that specifies high compression/OCR processing and is to be taken out using HTTP has started while another job to be sent via the network is undergoing high compression/OCR processing.

Procedure

For information only, no service action necessary. Advise the customer that as a job specifying high compression/OCR processing is in progress, wait until the job is complete before running another job.

026-718 PS Print Instruction Fail RAP

026-718 An erroneous combination of print parameters selected (finishing, paper size, paper tray, Duplex instructions, output tray) prevents the device from running the job.

Procedure

Perform the steps that follow:

1. Advise the customer correctly set finishing, paper size, paper tray, duplex instructions, and output tray options, then re-run the job.
2. Perform the 016A Scan to Network Error Entry RAP.
3. If the fault persists, reload the software, GP 9.

026-719 Internal Error in Scan RAP

026-719 An internal error has occurred.

Procedure

Perform the steps that follow:

1. Advise the customer retry the same operation.
2. If the fault persists, reload the software, GP 9.

026-720 to 026-723 Media Error RAP

026-720 The media does not have enough space available.

026-721 An attempt to access media has failed.

026-722 The media is not formatted.

026-723 An attempt to access media has failed.

Procedure

Advise the customer:

1. Check that the media exists where scanned documents will be sent.
2. Check that the PC can access the media where scanned documents will be sent.
3. Check that a file can be created in a specified storage.
4. Check that the media is neither removed nor reinserted while being referred to or that during that time, other media is not inserted.

026-724, 026-725 Remote Download File Error RAP

026-724 The size of the remote download file reported from the EP center is different from that of the actual downloaded file.

026-725 The checksum of the remote download file reported from the EP center does not match that of the downloaded file.

Procedure

Advise the customer that it is necessary to check the size of the file registered with the EP center and the size stored in the SW repository.

026-726 Inconsistent Options RAP

026-726 The device configuration info included in XPJL does not match the actual configuration.

Procedure

Advise the customer set up the device configuration info on the printer driver screen so that it can match the actual configuration.

026-727 Media Filepath Fail RAP

026-727 The storage path with the specified character string length (including the filename) cannot be created in the media.

Procedure

Advise the customer shorten the specified storage location or the filename.

026-728, 026-729 WSD Scan Network Error RAP

026-728 An error occurred during communication with the WSD scan client. WSD scan client cancelled the job.

026-729 An error occurred during communication with the WSD scan client. WSD scan client cancelled the job or a scan from the DADF was performed from an application other than Windows fax and scan.

Procedure

Advise the customer:

1. Check whether the transfer destination WSD scan client and the machine are able to communicate via the network. For example:
   - Check whether the WSD scan client has enough free capacity.
   - Check the connection of the network cable.
2. When using DADF, perform the scan using Windows Fax & Scan or change to the platen to perform the scan.

026-730 Tray Paper Size Not Detected RAP

026-730 The paper size of the paper tray selected is unknown.

Procedure

Ensure the paper guides in the selected tray are set correctly.

026-731 to 026-733 PJL Fail RAP

026-731 The PIN number that is specified by PJL command is different from the number that is calculated from the machine's serial number.

026-732 The print count that is specified by PJL command has exceeded the machine's total impression meter value by +100.

026-733 The password that is specified by PJL command is different from the one that is set in the machine.

Procedure

Advise the customer correct the PIN number, print count or password that is specified by PJL Command, then try again.

026-734 PJL Diag Mode RAP

026-734 Unable to transition to the PJL Diag Mode.

Procedure

Advise the customer:

1. Ensure that the job has completed, then try again.
2. After completing a panel operation, wait at least 1 minute before starting the download operation.

026-739 Waiting Scan Job Deleted RAP

026-739 When there are paused scan jobs during the successful completion of a login/logout.

Procedure

For one occurrence, take no action. If the fault persists, reload the software, GP 9.

027-442, 443, 444 Duplicate IP Address 1 RAP

027-442 IPv6 - stateless auto setting IP address 1 is duplicated.

027-443 IPv6 - stateless auto setting IP address 2 is duplicated.

027-444 IPv6 - stateless auto setting IP address 3 is duplicated.

Procedure

Perform the steps that follow:

1. Advise the customer either change the IPv6 Stateless Auto Setting Address 1, 2 or 3 of this device or the IPv6 address of the other device on the network.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-445 Illegal IP Address RAP

027-445 IPv6 - manually set IP address is invalid.

Procedure

Perform the steps that follow:

1. Advise the customer change the IPv6 (Manual Setting Address) of this device to the IPv6 address that can be used as the self-machine address.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-446 Duplicate IP Address 2 RAP

027-446 IPv6 - automatically set IP address is duplicated.

Procedure

Perform the steps that follow:

1. Advise the customer change the IPv6 (Manual Setting Address) of this device to the IPv6 address that can be used as the self-machine address.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-447 Duplicate IP Address 3 RAP

027-447 IPv6 - link local IP address is duplicated.

Procedure

Perform the steps that follow:

1. Advise the customer change the IPv6 Link Local Address of this device or the IPv6 address of the other device on the network.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-452 Duplicate IP Address 4 RAP

027-452 A PC with the same IP address exists on the network.

Procedure

Perform the steps that follow:

1. Advise the customer change the duplicated IP address of the PC.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-500 SMTP Server Fail for Mail IO RAP

027-500 SMTP server address resolution fail for mail IO.

Procedure

Advise the customer:

1. Check with the System Administrator that the mail server has been launched and the environment is already used for other purposes (such as for PC).
2. Check that a correct SMTP server address is reflected in the device setting list:
   a. When the SMTP server address is specified using IP address, set a correct IP address.
   b. When the SMTP server address is specified using FQDN, check that the FQDN name is correct. Also check that a correct DNS server address is set for the device, and set a correct IP address.
   c. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-501 POP Server Fail for Mail IO RAP

027-501 Incorrect POP server name was detected.

Procedure

Advise the customer:

1. Check with the System Administrator that the mail server has been launched and the environment is already used for other purposes (such as for PC).
2. Check that a correct POP server address is reflected in the device setting list:
   a. When the POP server address is specified using IP address, set a correct IP address.
   b. When the POP server address is specified using FQDN, check that FQDN name is correct. Also check that a correct DNS server address is set for the device, and set a correct IP address.
   c. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-502 POP Authentication Fail for Mail IO RAP

027-502 Incorrect POP Server authentication information was detected.

Procedure

Perform the steps that follow:

1. Advise the customer specify the correct POP server authentication information.
2. Perform the 027-501 POP Server Fail for Mail IO RAP, then Advise the customer to specify a correct POP User Name.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-503, 533, 773, 785, 786 Server Communication Timeout RAP

027-503 Time to communicate with the POP server ran out (after connection to the server).

027-533 An internal error has occurred during SMB scan

027-773 Time to communicate with the SMTP server ran out (after connection to the server).

027-785 Response timeout occurs from the destination WebDAV server.

027-786 WebDAV server timeout is answered.

Procedure

Advise the customer:

1. wait for a while, then perform the operation again.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-504 Server Communication Timeout RAP

027-504 Unexpected response received from server.

Procedure

Perform the steps that follow:

1. Advise the customer establish the name and version of the server that is in use or if outsourcing, the name of the provider. It is possible to trace a server provider by using the Host Name that is listed in the 220 response (the very first packet) from the mail server.
2. Refer to the SMTP Communication Protocol Report, then check whether any 4XX or 5XX error responses were notified from the server. If any 4xx or 5xx errors are noted, this indicates that the problem could be on the server side. Refer to the Google search engine example below, then use the information obtained from step 1 to search the Web for troubleshooting information and then and perform the corrective actions..

   Search engine: Google

   Search result: Exchange 2007 transport access permission model. Reason: The Sender that is specified in the MAIL FROM field of the SMTP protocol does not have the access permission to set up the user so that they can read or write in a file or folder in the specified destination.

027-513 SMB Scan Client Access RAP

027-513 In scan to SMB, the user has no right to access the SMB server.

Procedure

Advise the customer:

1. Check if the specified user has read/write access in a file or folder in the specified destination.
2. Check if there are any folders with the same name as the specified file name.

027-514 Host Name Solution Error in SMB RAP

027-514 Unable to resolve host name during SMB scan.

Procedure

Advise the customer:

1. Check the connection to the DNS.
2. Check whether the SMB server name of the transfer destination has been registered in the DNS.

027-515 DNS Server Setup in SMB RAP

027-515 The DNS server was not set for DSN access during SMB scan.

Procedure

Advise the customer:

1. Set the DNS server address.
2. set the SMB server address of the transfer destination using IP address.

027-516 Server Connection Error in SMB RAP

027-516 Problem with connection to server during SMB scan.

Procedure

Advise the customer to:

1. Check that network communication between the transfer destination SMB server and this device is available, by checking:
   a. The connection of network cables.
   b. The TCP/IP settings.
   c. For communication through port 137 (UDP), port 138 (UDP) and port 139 (TCP).
2. Check the network settings that follow to see if the computer operates as an SMB server.
   a. Check that the file sharing service for Microsoft network is enabled.
   b. Check that NetBIOS over TCP/IP is enabled in the TCP/IP settings.
   c. Check the file sharing service (communications through port 137 (UDP), port 138 (UDP) and port 139 (TCP) is allowed in the firewall settings.
3. For communication that goes beyond the subnet, check the WINS server settings and check whether the server name address can be resolved correctly.
4. Check whether the NetBIOS interface device at the transfer destination SMB server has started.

027-518 Login Name or Password Error in SMB RAP

027-518 Login name or a password error in SMB.

Procedure

Advise the customer to check the password that was set for the shared folder.

027-519 Scanning Picture Preservation Place Error RAP

027-519 Scan image storage destination or file name specification error during scanner (save to PC) SMB transfer.

Procedure

Advise the customer to:

1. Check if the storage destination is correct.
2. Check if a prohibited character was detected in the specified storage destination or file name.
3. Check if the specified storage destination is linked to a different shared folder due to the distributed file system (DFS).
4. Check for the settings of the distributed file system (DFS) with the system administrator.

027-520 SMB File Name Acquisition Failure RAP

027-520 Unable to obtain the file/folder name on the SMB scan server.

Procedure

Switch off, then switch on the machine, GP 4.

027-521 File Name Suffix Limit Over in SMB RAP

027-521 The SMB scan file name/folder name suffix has exceeded the limit value.

Procedure

Advise the customer to change the file name/destination folder on the SMB scan server. Else, move or delete the files in the destination folder.

027-522 File Creation Failure in SMB RAP

027-522 Failed to create an SMB scan file.

Procedure

Advise the customer to:

1. Check if the specified file name already exists on the server.
2. Check if the specified file name is in use.
3. Check if the specified file name already exists as a directory.
4. Check if a prohibited character was detected in the specified file name.
5. Check that the specified file name can be created in the storage destination.
6. Check whether the specified file name is being used by another user.
7. Check if a file or folder with the same name as the specified file name exists.

027-523 Lock Folder Creation Failure in SMB RAP

027-523 Failed to create an SMB scan lock folder.

Procedure

Advise the customer to:

1. Manually delete the lock directory (*.LCK) from the transfer destination.
2. Check whether a folder with the same name as the specified name already exists.

027-524 Folder Creation Failure in SMB RAP

027-524 Failed to create an SMB scan folder.

Procedure

Advise the customer to check if a file or folder with the same name as the specified name exists on the SMB server.

027-525, 027-527 File Delete Failure in SMB RAP

027-525 Failed to delete an SMB scan file.

027-527 Failed to delete an SMB scan folder.

Procedure

Advise the customer to check whether the file in the specified storage destination is being used by another user.

027-526 Lock Folder Delete Failure in SMB RAP

027-526 Failed to delete an SMB scan lock folder.

Procedure

Advise the customer to manually delete the lock directory (*.LCK) from the transfer destination, then retry the job.

027-528 Data Write Failure to SMB Server RAP

027-528 The storage destination on the SMB scan data server has no free space.

Procedure

Advise the customer to check that the storage destination has enough free space.

027-529 Data Read Failure From SMB Server RAP

027-529 Unexpected error of the SMB scan data server.

Procedure

Advise the customer to log in to the SMB server from another PC using the same user name and check whether they can write a file into the same storage destination on that SMB server.

027-530 File Name Duplicate Failure in SMB RAP

027-530 Cancel Job is selected for SMB scan instead of File Name Conflict.

Procedure

Advise the customer to set File Name Conflict instead of Cancel Job.

027-531 SMB Scan Filing Policy Injustice RAP

027-531 Incorrect SMB scan filing policy (when additional items are selected).

Procedure

Advise the customer to check that the file format is not set to Multi-page when Add is selected for File Name Conflict.

027-532 NEXT NAME DAT File Access Error in SMB RAP

027-532 A file access error has occurred during scanner (save to PC) SMB transfer.

Procedure

Advise the customer to check that the NEXTNAME.DAT file is correct when Add is selected for File Name Conflict.

027-543 SMB Server Name Specification Error RAP

027-543 The SMB server (NetBIOS) name specification is incorrect.

Procedure

Advise the customer to check that the server name of the SMB server is correct.

027-547, 027-548 SMB Protocol Errors 1 RAP

027-547 SMB protocol error (4-007), the scan domain name specification is incorrect.

027-548 SMB protocol error (4-008), the scan user name specification is incorrect

Procedure

Advise the customer to have the system administrator set the domain name and user name correctly.

027-549, 027-572 to 027-576 SMB Protocol Error 4-009 RAP

027-549 SMB protocol error (4-009), the specification of password is incorrect.

027-572 SMB protocol error (4-032), incorrect parameter.

027-573 SMB protocol error (4-033), incorrect character code.

027-574 SMB protocol error (4-034), incorrect data size.

027-576 SMB protocol error (4-036), incorrect domain data size.

Procedure

Advise the customer to perform the operation again.

027-564 SMB Protocol Error 4-024 RAP

027-564 SMB protocol error (4-024), the host is missing.

Procedure

Advise the customer to:

1. Check that the authentication server and the device can communicate through the network (check the network group, TCP/IP settings, check the communication at Port No. 137 (UDP)/Port No. 138 (UDP)/Port No. 139 (TCP)).
2. If the authentication server and the device are connected to different subnets, check that the device has settings that can resolve the address of the authentication server.
3. Check if the NetBIOS over TCP/IP has become enabled at the authentication server settings:
   a. Check if the authentication server and the device can resolve the addresses from the WINS server.
   b. Check if the authentication server and the device can resolve the addresses from the DNS server.
4. Check if the NetBIOS over TCP/IP has become enabled at the authentication server settings.
5. Check at the Internet connection firewall if the communication through Ports 137, 138 and 139 are not blocked.

027-565, 027-578 SMB Protocol Errors 2 RAP

027-565 SMB protocol error (4-025), cannot connect.

027-578 SMB protocol error (4-038), communication timeout has occurred.

Procedure

Advise the customer to check that the authentication server and the device can communicate through the network (check the network group, TCP/IP settings, check the communication at Port No. 137 (UDP)/Port No. 138 (UDP)/Port No. 139 (TCP).

027-566 SMB Protocol Error 4-026 RAP

027-566 SMB protocol error (4-026), the library has not been initialized.

Procedure

Advise the customer to check if the SMB client has been started.

027-569 SMB (TCP/IP) Not Started RAP

027-569 SMB (TCP/IP) is not started

Procedure

Advise the customer to check that SMB (TCP/IP) is enabled.

027-584 SMB Protocol Error 4-044 RAP

027-584 SMB protocol error (4-044), authentication server common security mode is operating.

Procedure

Advise the customer to set the authentication server to Windows other than Win95/Win98/Me.

027-585 SMB Protocol Error 4-045 RAP

027-585 SMB protocol error (4-045), login not available time period detected by the controller software.

Procedure

Advise the customer to check with the system administrator for the time period when logging in is allowed.

027-586 SMB Protocol Error 4-046 RAP

027-586 SMB protocol error (4-046), the password has expired.

Procedure

Advise the customer to to obtain a valid password from the system administrator.

027-587 SMB Protocol Error 4-047 RAP

027-587 SMB protocol error (4-047), the password must be changed.

Procedure

Advise the customer to request the system administrator to disable the change password at next login setting.

027-588, 027-589 SMB Protocol Errors 3 RAP

027-588 SMB protocol error (4-048), the user account is disabled.

027-589 SMB protocol error (4-049), the user account is locked out.

Procedure

1. Advise the customer to request the system administrator to enable the user account.
2. If the fault persists, refer to GP 15 Obtaining Audit and Device Logs, then escalate the problem to 2nd Level support.

027-590 SMB Protocol Error 4-050 RAP

027-590 SMB protocol error (4-050), the user account has expired.

Procedure

Advise the customer to obtain a valid user account from the system administrator or request the system administrator extend the validity period of the account.

027-591 SMB Protocol Error 4-051 RAP

027-591 SMB protocol error (4-051), the user account is restricted. Blank password is not allowed.

Procedure

Advise the customer to request the system administrator set a user password.

027-600 External Print Check Mode Error RAP

027-600 External print check mode error.

Procedure

Switch off, then switch on the machine, GP 4.

027-700 Mail Address Domain Error RAP

027-700 The domain of the destination mail address is designated as a prohibited domain.

Procedure

Advise the customer to check that the domain of the destination mail address is not designated as a prohibited domain.

027-701 Disconnected Network Cable RAP

027-701 In external authentication, the disconnected cable is detected.

Procedure

Ensure the network cable is connected correctly.

027-702 to 027-709 Certificate for Addresses Error RAP

027-702 No certificate for the destination exists (before connection to the server).

027-703 The certificate for the destination expired (before connection to the server).

027-704 The certificate for the destination is not reliable (before connection to the server).

027-705 The certificate for the destination existed on a list of revoked certificates (before connection to the server).

027-706 No device certificate exists (before connection to the server).

027-707 The device certificate expired (before connection to the server).

027-708 The device certificate is not reliable (before connection to the server).

027-709 The certificate for the destination existed on a list of revoked certificates (before connection to the server).

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Store the correct certificate for the destination in the device. Check the items that follow:
      i. That the term for which the certificate is valid.
      ii. The device's time is correct.
   b. Check the certification path for the destination certificate and import the necessary CA certificate.
   c. Store in this device a destination certificate that is not on the list of revoked certificates.
   d. Check that the mail address written on the device certificate is the same as that set up on the device.
2. If the fault persists, reload the software, GP 9.

027-710 to 027-715 S/MIME Mail Error RAP

027-710 The mail I/O received S/MIME mail even though S/MIME was disabled.

027-711 SMIME mail sender certificate retrieval error.

027-712 Invalid S/MIME mail sender certificate error.

027-713 Receive S/MIME tampered mail deleted.

027-714 S/MIME mail sender impersonation error.

027-715 S/MIME encrypted mail is not registered in the device.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Enable S/MIME setting in the device.
   b. Register the sender certificate in the device or change the mailer options so that the S/MIME signature mails from the sender will be sent with the certificate.
   c. Check that the signature bearer of the CA certificate is registered in the device.
   d. Check that the mail address written on the device certificate is the same as that set up on the device.
   e. Check that the appropriate certificate is registered and is set as the S/MIME certificate in the device.
2. Advise the customer that the sender needs to send a mail that is signed with a valid certificate because the sender certificate has expired.
3. Advise the customer that the device may be blocking the attacks.
4. Reload the software, GP 9.
5. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-716 Unsigned Mail Receipt Was Rejected RAP

027-716 Prohibited unsigned mail was detected. All the S/MIME unsigned mails (including standard mails and S/MIME encrypted mails) are discarded.

Procedure

Perform the steps that follow:

1. Advise the customer to disable the flag that prohibits receiving of unreliable mail.
2. Reload the software, GP 9.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-717 No MX Record at DNS RAP

027-717 An enquiry was sent to the DNS server for the MX record, but it cannot be obtained.

Procedure

Advise the customer to:

1. Check with the DNS server administrator on the existence of DNS/MX record.
2. Check that the DNS server settings of the device is set correctly.

027-720, 027-721 Extension Server Error RAP

027-720 Server for application interface cannot be found or the DNS could not be resolved during web service interface.

027-721 Application interface destination during web service interface - not found.

Procedure

Perform the steps that follow:

1. Advise the customer to check that the DNS server address is set correctly. Check that the PC running the application interface is registered in DNS.
2. Reload the software, GP 9.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

027-722 Extension Server Timeout RAP

027-722 Application interface- timeout during web service interface.

Procedure

Perform the steps that follow:

1. Advise the customer:
   a. That if a number of documents is specified for scanning, scan one document and store it.
   b. That when scanning and storing are successful, change the application interface timeout value. If scanning and storing are not successful, perform step c.
   c. To check that the scan document can be uploaded from the PC browser. When uploading is successful, change the application interface timeout value.
2. If the fault persists, reload the software, GP 9.

027-723 Extension Server Authentication Fail RAP

027-723 Application interface during web service interface - authentication failure.

Procedure

Perform the steps that follow:

1. Advise the customer to check the user name and password to be entered for creating a job flow.
2. If the fault persists, reload the software, GP 9.

027-724, 725, 726 Extension Server Access Fail RAP

027-724 Application interface during web service interface - access failure.

027-725 Application interface during web service interface - job operation failure.

027-726 Application interface during web service interface - unknown job status.

Procedure

Perform the steps that follow:

1. Advise the customer to check that the application interface is working correctly.
2. If the fault persists, reload the software, GP 9.

027-727 Extension Server Parameters RAP

027-727 Application interface during web service - invalid parameter.

Procedure

Perform the steps that follow:

1. Advise the customer to check the parameters for creating a job flow.
2. If the fault persists, reload the software, GP 9.

027-728 Extension Server File Exceeded RAP

027-728 The number of files requested to be sent exceeded the maximum number of files that can be sent during web service interface (this occurs when a single-page document is being stored).

Procedure

Perform the steps that follow:

1. Advise the customer to set a job so that the maximum number of files that can be sent will not be exceeded.
2. If the fault persists, reload the software, GP 9.

027-730 SMTP Mail Division Error RAP

027-730 A mail was split in linking to the system.

Procedure

Advise the customer to:

1. Increase the preset pagination value.
2. Reduce the number of original pages scanned.

027-732 Server Access Error RAP

027-732 Job template server access error.

Procedure

Advise the customer to:

1. Check that the server disk is normal and has free space, and then retry the operation.

027-733 Server SSL Error RAP

027-733 The SSL setting for the job template server did not become enabled.

Procedure

Advise the customer to:

1. Check that the SSL setting for the job template server is enabled.

027-734 Server Certificate Error RAP

027-734 The SSL setting for the job template server did not become enabled.

Procedure

Advise the customer to:

1. Using the HTTPS protocol, check whether the job template server is accessible from the PC.
2. Check whether the SSL server certificate of the job template server is registered in the device.
3. Check whether the SSL server certificate of the job template server is valid. For example, check t hat:
   a. The certificate has not expired yet.
   b. The time that is set in the device is correct.
   c. It is not in the discard list.
   d. The certificate path of the SSL server certificate and import any necessary CA certificate.
4. If the certificate is not registered in the job template server, disable the device certificate validation.

027-735 Device SSL Configuration Error RAP

027-735 When SSL transfer was instructed, the SSL setting of the device is disabled.

Procedure

Advise the customer to:

1. Enable the SSL settings of the device.
2. Specify HTTP as the transfer protocol.

027-736 Device Certificate Error RAP

027-736 When server certificate validation is instructed, the server certificate validation of the device is disabled.

Procedure

Advise the customer to:

1. Enable the server certificate validation settings of the device.
2. Disable the server certificate validation setting during transfer.

027-737 Template Server Read Error RAP

027-737 An error was received from the server to a FTP command 'TYPE A', 'LIST', or 'RETR'.

Procedure

Perform the steps that follow:

1. Advise the customer to check that Read Authorization is established for the storage destination server directory set as a resource.
2. If the fault persists, reload the software, GP 9.

027-739 Invalid Template Server Path RAP

027-739 An error was received from the server to the FTP command 'CWD'.

Procedure

Perform the steps that follow:

1. Advise the customer to request the system administrator to set the resource of the storage destination path from the client PC.
2. If the fault persists, reload the software, GP 9.

027-740 Template Server Login Error RAP

027-740 Login to the FTP Server failed.

Procedure

Perform the steps that follow:

1. Advise the customer to check the user information:
   a. Set the log-in name and password in the job template file storage destination.
   b. From some other PC connected to the network, check that they can log in with the relevant account.
   c. From a client PC, set a login name and password as a resource
2. If the fault persists, reload the software, GP 9.

027-741 Template Server Connect Fail RAP

027-741 The system failed in obtaining data connection or list data using the FTP command 'LIST'.

Procedure

Perform the steps that follow:

1. Reload the software, GP 9.
2. If the fault persist, perform the 016A Scan to Network Error Entry RAP.

027-742 HDD File System Full RAP

027-742 The HDD was full when writing to a local HDD job template or when writing temporary work files.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Wait a while then try again as scanned images may cause the HDD to be full.
   b. Delete the files in the HDD.
2. If the fault persists, perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

027-743 Template Server Install Error RAP

027-743 The address format of the job template pool server is incorrect.

Procedure

Perform the steps that follow:

1. Advise the customer to set the parameters related to the job template pool server.
2. If the fault persists, reload the software, GP 9.

027-744 Template Server Error 1 RAP

027-744 An error occurred while calling the DNS resolution library.

Procedure

Perform the steps that follow:

1. Advise the customer to check the connection to the DNS and whether the job template pool server domain name has been registered in the DNS.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.
3. Reload the software, GP 9.

027-745 Template Server Error 2 RAP

027-745 The job template pool server address cannot be resolved (the DNS address is not set).

Procedure

Perform the steps that follow:

1. Advise the customer to set the DNS address or set the job template pool server address using IP address.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.
3. Reload the software, GP 9.

027-746 Job Template Pool Server Not Ready RAP

027-746 The port of the protocol specified in job template pool server settings has not started.

Procedure

Perform the steps that follow:

1. Advise the customer to start the port of the protocol (FTP client or SMB) specified in job template pool server settings.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP..
3. Reload the software, GP 9.

027-750 Fax Document Incongruent RAP

027-750 Transfer instruction when internet fax transfer is prohibited, or scan and printer document print instruction during interruption.

Procedure

Perform the steps that follow:

1. Advise the customer to change the transfer settings to receive internet fax.
2. If the fault persists, perform the 016A Scan to Network Error Entry RAP.
3. Reload the software, GP 9.

027-751 Job Template Analysis Error RAP

027-751 Instruction analysis error.

Procedure

Perform the steps that follow:

1. Advise the customer to re-examine the contents of the instruction.
2. If the fault persists, reload the software, GP 9.

027-752 Required User Entry Not Entered RAP

027-752 With the required user entry not entered, the instruction to start the job was given.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Not link the box to the instruction that requires user entry.
   b. Set preset values for the items in the instruction requiring user entry.
2. If the fault persists, reload the software, GP 9.

027-753 Job Flow Service Request Disabled RAP

027-753 Job is executed by instruction when the service is disabled.

Procedure

Perform the steps that follow:

1. Advise the customer to enable the service.
2. If the fault persists, reload the software, GP 9.

027-754 Job Flow Service File Signature Mismatch RAP

027-754 File signature settings mismatch in instruction.

Procedure

Perform the steps that follow:

1. Advise the customer to check the system data setting of the XDW/PDF signature and the signature setting that is specified in the instruction. If the system data setting is different from the setting in the instruction, either change the instruction or change the system data.
2. If the fault persists, reload the software, GP 9.

027-757 Extension Server SSL Fail RAP

027-757 Web application linkage during service linkage SSL access failed.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check the server/network connection.
   b. Check the communication route that can be reached.
   c. Ping the DNS server.
   d. Check if the CA certificate of the connection destination server is imported to the device by using the browser.
   e. Check if the device does not go through the proxy that SSL has the function to check the communication details SSL.
   f. Specify the device as out of the SSL proxy target.
   g. Check if the server supports the relevant encryption method.
   h. Set the client certificate to the device.
   i. Import the client certificate to the device and set to use as the client certificate.
   j. Check the daylight saving time difference to see if the date/time of the device is correct.
2. If the fault persists, reload the software, GP 9.

027-758 System Credential Setting Error RAP

027-758 Login credential setting error at remote authentication LDAP.

Procedure

Advise the customer to:

1. Check whether the login name and password have been set correctly.
2. Consult with the Network Administrator to check the authentication settings at the LDAP Server.

027-759 Reference Server Connection Error RAP

027-759 Reference server connection fail at remote authentication LDAP.

Procedure

Advise the customer to:

1. Check whether the device network settings are set correctly.
2. Consult with the network administrator to check the connection status from the device to the reference server.

027-760 XJT Command Fail RAP

027-760 Incorrect command from XDOD client.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check if the parameter setting specified in XDOD client is out of system specifications.
   b. Check the XDOD client and controller versions.
2. If the fault persists, reload the software, GP 9.

027-761 Web Print Timeout RAP

027-761 Although a web print job was received, the device did not start printing on time.

Procedure

Advise the customer to:

1. If on-demand print for multiple documents was instructed using the external access function, reduce the number of documents then retry it.
2. Either extend the print on demand print duration or set it to 0.

   When using the external access function to instruct printing of multiple documents by on demand print, the device does not take the print processing time into consideration until the last document is received. Therefore, for cases of large volume documents or complicated documents that require long data processing time, the device may issue timeout even before receiving the last document. Set the validity time according to the document format to be printed.

027-762 Illegal Web Print Job Ticket RAP

027-762 Although a web print job was received, the attached job execution ticket is incorrect.

Procedure

Advise the customer to repeat the print instruction.

027-763 Auditron Cannot Verify User RAP

027-763 The device cannot check user info with the external accounting server.

Procedure

Advise the customer to:

1. Check if the external accounting server is working correctly.
2. Connect the cable correctly.
3. Set up the device so that it can correctly communicate with the external accounting server.

027-764 AirPrint Scan Data Transfer Fail RAP

027-764 The device cannot communicate with the AirPrint scan client.

Procedure

Advise the customer to:

1. Check that network communication between the transfer destination AirPrint scan client and the device is available.
2. Check whether the AirPrint scan client has enough free capacity.
3. Check the network cable connection.

027-765 Host Name Solution Error in WebDAV RAP

027-765 DNS failed to resolve the specified host name.

Procedure

Advise the customer to:

1. Check that the scan document destination WebDAV server is registered in DNS.
2. Check that the DNS server connection is good.
3. Check that the DNS server is correctly configured.

027-766 Proxy Name Solution Error in WebDAV RAP

027-766 DNS failed to resolve the proxy server name.

Procedure

Advise the customer to:

1. Check that the proxy server name that is configured on the device is registered in DNS.
2. Check that the DNS server connection is good.
3. Check that the address of the DNS server is correctly configured.

027-767 WebDAV Server SSL Access Fail RAP

027-767 An error has occurred during the SSL/TLS connection.

Procedure

Advise the customer to:

1. Check the access from the PC to the scan document destination WebDAV server.
2. Check the scan document SSL settings of the destination WebDAV server.
3. Check the scan document destination WebDAV server name and server path name.

027-768 WebDAV Server Certificate Fail RAP

027-768 There is a problem with the SSL certificate of the server.

Procedure

Advise the customer to:

1. Check the access from the PC to the scan document destination WebDAV server.
2. Ensure the device is registered.
3. Ensure the scan SSL server certificate of the document destination WebDAV server is correct. For example:
   a. Check the expiration date.
   b. Check that the device time is correct.
   c. Check that they are not on the disposal list.
   d. Check the SSL server certificate of the certification path.
4. If the Scan document certificate to the destination WebDAV server is not registered, disable the certificate validation of the device.

027-769 WebDAV Server Access Fail RAP

027-769 WebDAV server connection error.

Procedure

Advise the customer to:

1. Check the network cable connection.
2. Check the access from the PC to the Scan document destination WebDAV server.
3. Ensure the correct network interface is selected.

027-770 PDL Error RAP

027-770 The DFE detected a failure in PDL during job processing.

Procedure

Perform the steps that follow:

1. Advise the customer to change the job conditions then try again.
2. If the fault persists, reload the software, GP 9.

027-771 DFE Disk Full RAP

027-771 The remaining HDD capacity in the DFE became less than 500Mb when printing from DFE.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Change the job parameters, then try again.
   b. Delete unnecessary files from the HDD in the DFE.
2. If the fault persists, reload the software, GP 9.

027-772, 774, 776 SMTP Server Error RAP

027-772 The SMTP server refused the HELO command (after connection to the server).

027-774 Unavailable letters were specified as a destination SMTP address (after connection to the server).

027-776 The SMTP server refused the EHLO command (after connection to the server).

Procedure

Advise the customer to:

- Use only ASCII letters for the device host name and destination address, then rerun the job.
- Contact the network administrator for advice and check that the SMTP server supports the HELO and EHLO commands.

027-775 Too Many SMTP Addresses RAP

027-775 The SMTP server refused the EHLO command (after connection to the server).

Procedure

Advise the customer to reduce the number of mail addresses.

027-777 SMTP Server Non Support RAP

027-777 The SMTP server does not support SMTP-AUTH (after connection to the server).

Procedure

Advise the customer to send mail without setting SMTP-AUTH.

027-778 No Mode Specified by SMTP-AUTH RAP

027-778 The mode specified by SMTP-AUTH was not found (after connection to the server).

Procedure

Advise the customer to contact the network administrator to check what SMTP authentication method the server uses.

027-779 Authentication Failure by SMTP-AUTH RAP

027-779 Authentication fail (after connecting to the server).

Procedure

Advise the customer to contact the network administrator to:

1. Refer to the Mail Communication Protocol Report and check whether any 535 SMTP authentication error response were notified from the server.
2. Perform the same corrective actions as for a user.
3. When in an environment where the SMTP Server Settings cannot be changed (when using a hosting service, etc.). Refer to the SMTP error extension code and, if 535 5.7.0 authorization failure has occurred, change 700-809 (CE) SMTP AUTH Priority Authentication Method and try again.

   0: Default setting GSSAPI > NTLM > CRAM-MD5 > LOGIN > PLAIN

   1: Use PLAIN as priority authentication method

   2: Use LOGIN as priority authentication method

   3: Use CRAM-MD5 as priority authentication method

   4: Use NTLM as priority authentication method

   5: Use GSSAPI as priority authentication method

   NOTE: *Before updating this, check the latest system data list as there could have been additions of new authentication methods. Depending on the provider, even if one has claimed to support CRAM-MD5, there might be cases where it is difficult to connect using CRAM-MD5 from this device and this could result in an error.*

027-780 WebDAV Network Interface Fail RAP

027-780 The specified network interface can not be used.

Procedure

Advise the customer to select the network interface that can be used.

027-781 WebDAV Spool Size Over RAP

027-781 Writing of scan data spool file failed because the disk is full.

Procedure

Advise the customer to split the scan data.

027-782 WebDAV Server Redirector Limit RAP

027-782 Maximum number of WebDAV server redirections has occurred.

Procedure

Advise the customer to check the redirection settings of the WebDAV server.

027-783 WebDAV User Authentication RAP

027-783 WebDAV server is not authenticated.

Procedure

Advise the customer to:

1. Check the access from the PC to the scan document destination WebDAV server.
2. Check the login user name and password.
3. Check the scan document destination WebDAV server name and server path name.

027-784 WebDAV Proxy Server Authentication RAP

027-784 WebDAV proxy server authentication failure.

Procedure

Advise the customer to check that the user name and password for the proxy server that was configured on the device are correct.

027-787 WebDAV File Name Duplication Fail RAP

027-787 Prohibit Overwrite is selected for scan File Name Conflict.

Procedure

Advise the customer to set File Name Conflict to anything other than Cancel Job.

027-788, 027-793 WebDAV Request Fail RAP

027-788 Bad request returned from the WebDAV server.

027-793 Error number 4XX returned from the WebDAV server.

Procedure

Advise the customer to:

1. Check that the drive and directory that are specified in the WebDAV server that sends scanned documents are accessible.
2. Perform the operation again.

027-789, 791, 795 Access Forbidden RAP

027-789 Access forbidden reply from WebDAV server.

027-791 WebDAV server 405 method not allowed.

027-795 WebDAV server 501 not implemented.

Procedure

Advise the customer to:

1. Check the connection to the WebDAV server.
2. Check if read/write access in a file or folder in the specified place is set.
3. Check the specified file path.

027-790, 029-792 WebDAV File Not Found RAP

027-790 WebDAV server 404 not found.

027-792 WebDAV server 409 conflict.

Procedure

Advise the customer to ensure the WebDAV storage path and directory specified in the server exist.

027-794 WebDAV Server Internal Fail RAP

027-794 WebDAV server 500 internal error.

Procedure

Advise the customer to:

1. Check that the WebDAV server is operating correctly.
2. Check the access from the PC to the scan document destination WebDAV server.

027-796 Email Not Printed RAP

027-796 Email print control through user settings.

Procedure

Perform the steps that follow:

1. Advise the customer to correct the settings, then repeat the operation.
2. If the fault persists, reload the software, GP 9.

027-797 Invalid Output Destination RAP

027-797 Incorrect output destination for email.

Procedure

Perform the steps that follow:

1. Advise the customer to specify the output destination that can be processed by the device, then repeat the operation.
2. If the fault persists, reload the software, GP 9.

027-798 JFS Target Document Not Found RAP

027-798 The execution target document in the instruction set does not exist.

Procedure

Perform the steps that follow:

1. Advise the customer to select another document, then repeat the operation.
2. If the fault persists, reload the software, GP 9.

027-799 WebDAV Server Insufficient Storage RAP

027-799 There is no free space in the storage location on the WebDAV server.

Procedure

Advise the customer to check whether or not there is free space in the storage location.

028-910, 028-912 Wrong Fuser Type RAP

028-910 Wrong fusing unit type.

028-912 Fusing unit envelope failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

Install a new fuser assembly, PL 7.1 Item 1.

028-986, 028-987 Tray Size Mismatch RAP

028-986 Tray size mismatch.

028-987 ATS/APS no destination error.

Procedure

As necessary, perform either the 024-910, 946, 959 Tray 1 Size Mismatch RAP or the 024-911, 912, 913, 947, 948, 949, 960, 961, 962 Option Feeder Size Mismatch RAP.

029-700, 029-701 WebDAV Server Response RAP

029-700 Error No.5XX was returned from the WebDAV server.

029-701 The response from the server does not meet the specifications of the WebDAV.

Procedure

Advise the customer to:

1. Ensure that the WebDAV server is operational.
2. Verify the configuration of the server .
3. Check the access from the PC to the scan document destination WebDAV server.

029-702 WebDAV Client RAP

029-702 An unexpected error has occurred in the internal library.

Procedure

Advise the customer to retry the same operation.

029-703 AirPrint Scan Client RAP

029-703 An error has occurred during the communication with the AirPrint scan client.

Procedure

Advise the customer to:

1. Check the connection of the network cable.
2. Check the transfer destination AirPrint scan client status.

029-704, 029-711 Invalid PACFile RAP

029-704 In WiFi mode, the contents of the proxy setting file (PACFile) acquired by the proxy auto- detection function (WPAD) are incorrect.

029-711 In Ethernet 1 mode, the contents of the proxy configuration file (PACFile) acquired by the proxy auto- detection function (WPAD) has detected that it is a fraud.

Procedure

Advise the customer to check the proxy configuration file that is stored in the HTTP server, it may be an invalid format, such as JavaScript or too large (greater than 64KB).

029-705, 706, 709, 712, 713, 716 PACFile Communications RAP

029-705 In WiFi mode, communication time-out when obtaining the proxy setting file (PACFile) via the proxy auto detection function (WPAD)

029-706 In WiFi mode, the proxy configuration file (PACFile) the time of acquisition in a proxy auto-detection function (WPAD), connection error has occurred.

029-709 In WiFi mode, communication time-out of the storage destination URL of the PACFile proxy auto-detection function (WPAD).

029-712 In Ethernet 1 mode, communication time-out at the time of the proxy configuration file (PACFile) acquisition occurs in a proxy auto-detection function (WPAD).

029-713 In Ethernet 1 mode, the proxy configuration file (PACFile) the time of acquisition in a proxy auto-detection function (WPAD), connection error has occurred.

029-716 In Ethernet 1 mode, communication time-out of the storage destination URL of the PACFile proxy auto-detection function (WPAD).

Procedure

Advise the customer to:

1. Check the connection of the network cable.
2. Check the default gateway configuration.
3. Verify the subnet mask setting.
4. Check the DNS server address setting.
5. If the fault persists, consult with the network administrator. There is a possibility of failure at the HTTP server that provides the PACFile or a network failure.

029-707, 029-708, 714, 715 PACFile Not Found RAP

029-707 In WiFi mode, failed to find the proxy settings file (PACFile) in the proxy automatic detection function (WPAD).

029-708 In WiFi mode, incorrect format of the storage destination URL of PACFile acquired by the proxy auto-detection function (WPAD).

029-714 In Ethernet 1 mode, failed to find the proxy settings file (PACFile) in the proxy automatic detection function (WPAD).

029-715 In Ethernet 1 mode, incorrect format of the storage destination URL of PACFile acquired by the proxy auto-detection function (WPAD).

Procedure

Advise the customer to:

1. check the device settings
   a. If the proxy server obtaining method is ‘Manually Set PACFile Storage Destination URL’, check whether the PACFile storage destination server URL setting is correct.
   b. If the proxy server obtaining method is ‘WPAD’, consult with the network administrator because the PACFile URL information that was set in the DHCP server may be incorrect.
   c. If the URL is correct, check that the PACFile is registered in the HTTP server.

029-710, 029-717 PACFile URL Not Found RAP

029-710 In WiFi mode, failed to locate the storage destination URL of PACFile the proxy auto-detection function (WPAD).

029-717 In Ethernet 1 mode, failed to locate the storage destination URL of PACFile the proxy auto-detection function (WPAD).

Procedure

Advise the customer to check whether the URL information of the PACFile is correctly registered in the DHCP server.

029-718 EIP Print Network Timeout RAP

029-718 Timeout error has occurred during HTTP communication with server.

Procedure

Advise the customer to confirm the network connection status. Or after a while, repeat the operation.

029-719 EIP Print Error With Remote Server RAP

029-719 An error on the server side has occurred, during HTTP communication with server.

Procedure

A corresponding document does not exist. Or, the server cannot be accessed. Advise the customer to confirm the server setting.

029-720 EIP Print Error With Server Permission RAP

029-720 A rejection error on the server side has occurred during HTTP communication with server.

Procedure

The file server cannot be accessed. Advise the customer to confirm the proxy server setting, the user name, the password, and the user setting for access again.

029-721, 029-722 EIP Print Fail RAP

029-721 Network-related (proxy connection) error has occurred during HTTP communication with server.

029-722 Communication failed because network-related error has occurred during HTTP communication with server.

Procedure

Advise the customer to confirm the server setting and connection status.

029-723 EIP Print SSL Connection Fail RAP

029-723 An SSL communication error has occurred during HTTP communication with server.

Procedure

An error related to SSL has occurred. The server cannot be accessed.. Advise the customer to confirm the access authentication and the SSL setting.

029-724, 029-727 EIP Print Other Network Fail RAP

029-724 Other network-related error has occurred during HTTP communication with server.

029-727 Other error has occurred during the process of the EIP Print module.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, advise the customer to contact the System Administrator.

029-725 EIP Print Network DNS Resolve Fail RAP

029-725 A network-related (DNS name resolution) error has occurred during HTTP communication with server.

Procedure

The file server cannot be accessed. Advise the customer to confirm the DNS server setting or the file server setting again.

029-726 EIP Print Software Error RAP

029-726 A problem has occurred in the software processing and it is unable to continue with the subsequent processes.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, advise the customer to contact the System Administrator.

030-910 Tray 5 Empty RAP

030-910 Tray 5 empty.

Procedure

Perform the 075-911 MSI Tray Out of Position RAP.

033-310 Fax Charge Function Fail RAP

033-310 The fax send billing function was turned on although multiple lines are installed.

Procedure

Advise the customer to switch off the fax send billing function or change to a single-line installation.

033-311 Invalid Address Book Data RAP

033-311 The registered contents in the address book are invalid.

Procedure

Initialize the Sys-User NVM, refer to dC301 Initialize NVM.

033-312, 313, 033-315 to 033-327 Fax Fault RAP

033-312 The fax PWB was unable to detect the power off at the ESS PWB side within the specified time.

033-313 After the initialization of fax card has completed, it was detected that communication cannot be established with the fax card.

033-315 USB fax class driver notifies that a fatal error has occurred.

033-316 An error has occurred at the device cont section in fax controller.

033-317 An error has occurred at the fax device section in fax controller.

033-318 A fatal error has occurred at the fax image processing.

033-319 Due to an error during fax cont 2 software processing, subsequent processes cannot be performed.

033-320 The system side did not respond within the specified time on booting.

033-321 The fax card did not respond within the specified time on booting.

033-322 An I/F timeout with the fax.

033-323 An error was detected in fax cont 2.

033-324 The USB has transitioned to an unexpected state.

033-325 A fatal error has occurred at the fax card.

033-326 The fax card has detected a fatal error.

033-327 During fax communication, the FCM stopped responding and even though a communication interrupt request was issued to the FCM, it remained unresponsive.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to principles of Operation Fax system overview.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Check that the telephone cables and network cable are securely connected.
3. Ensure that the fax PWB, PL 18.2 Item 7 is installed correctly.
4. Check the fax module ground connection.

5. Reload the software, GP 9.
6. Check that the customer fax line is operational, refer to GP 17 External Fax Line Test. Plug a phone into the fax line. Check for a dial tone. If the fax line has a fault, inform the customer to have the fax line checked by the telephone company.
7. If the fault persists, install new components as necessary:
   - Fax PWB, PL 18.2 Item 7.
   - ESS PWBA, PL 18.2 Item 4.

033-314 Controller and Fax Card ROM Mismatch RAP

033-314 The controller detected software version mismatch.

Procedure

Perform the steps that follow:

1. Switch the machine off, then on, GP 4.
2. If the fault persists, reload the software, GP 9.

033-328, 329, 340 Failed to Initialize Fax Log RAP

033-328 The initialization of communication log library has failed.

033-329 A fax controller error was detected.

033-340 The Pflite communication log write function returned an error.

Procedure

Perform the steps that follow:

1. Initialize the hard disk, perform dC355 Hard Disk Diagnostics.
2. Enter special boot mode, GP 16. Perform the NVRAM INIT MODE routine.
3. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-330 to 033-335 FoIP Error RAP

033-330 A fatal software error has occurred within the FoIP

033-331 The initialization process with the FoIP controller has failed.

033-332 The FoIP controller did not respond within the specified time on booting.

033-333 The FoIP controller did not respond within the specified time after entering sleep mode.

033-334 The FoIP message sending function returns NG.

033-335 A fault notification due to an invalid fault code was received from the fax card or FoIP.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-336 Non-mounted Channel RAP

033-336 A message meant for a channel that is not installed was received.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-339 Fax 2 Not Responding RAP

033-339 The sleep transition process has failed.

Procedure

Switch the machine off, then on, GP 4.

033-363 Fax Card Reset (Reboot) RAP

033-363 The controller reset the fax card because the fax card did not respond.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-500 to 033-507 Remote Machine Error RAP

033-500 Modem CS operation error.

033-501 The number of receive line is 0.

033-502 There was no response for up to the 3rd post message.

033-503 T1 timeout has occurred.

033-504 T2 timeout has occurred.

033-505 T5 timeout has occurred.

033-506 DCN received.

033-507 No receiving capability in the remote machine.

Procedure

Perform the steps that follow:

1. Advise the customer to check the status of the remote machine, If the remote machine is good, repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-508, 033-511 Destination Polling Error RAP

033-508 No polling document in the remote machine.

033-511 DTS/NSC resending exceeded the limit.

Procedure

Perform the steps that follow:

1. Advise the customer to check the destination device for a problem, for example a document jam or mismatched password or request a polling document to prepared. Then repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-509 DCS/NSS Resend Exceeded RAP

033-509 DCS/NSS re-send over.

Procedure

Perform the steps that follow:

1. Advise the customer to repeat the operation. If the problem persists after repeating the operation, check the status of the receiver at the destination side.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-510 Fallback Error RAP

033-510 FTT was received at 2400 bps.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-512, 513, 518, 519, 520, 534 Remote Machine Function RAP

033-512 The remote machine did not support relay broadcast function.

033-513 The remote machine does not have the mailbox function.

033-518 No SUB receive function in the receiver.

033-519 No SEP receive function in the receiver.

033-520 No PWD/SID receive function in the receiver.

033-534 No remote collate copy function in the remote machine.

Procedure

Perform the steps that follow:

1. Advise the customer to check if the remote machine has the relevant function.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-514, 516, 517, 521, 522, 033-526 to 033-529 Remote Machine Error 1 RAP

033-514 Carrier broken.

033-516 EOR-Q was received.

033-517 Timeout has occurred between the ECM frames.

033-521 The system sent a reject command signal and stopped the transmission.

033-522 DTMF I/F timed out. Correct operation was not performed within the specified time.

033-526 An ECM error has occurred.

033-527 EOR-Q was sent.

033-528 RTN was sent.

033-529 RTN was received.

Procedure

Perform the steps that follow:

1. Advise the customer to request for the sender to check the remote machine for an error, then re-send.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-523, 524, 525, 542, 546, 574 Line Not Connected RAP

033-523 Channel 1 not connected.

033-524 Channel 2 not connected.

033-525 Channel 3 not connected.

033-542 The process was requested for uninstalled channel.

033-546 The dial tone could not be detected.

033-574 An instruction was issued to a channel that is not installed.

Procedure

Perform the steps that follow:

1. Ensure the relevant telephone cable is connected correctly.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-530 DTMF Illegal Procedure RAP

033-530 An invalid procedure signal was received.

Procedure

Perform the steps that follow:

1. Advise the customer that there may be a mistake in how the operator is performing the DTMF procedure.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-531, 532, 533, 544, 552, 578 Remote Machine Error 2 RAP

033-531 A reject command signal was received.

033-532 An illegal command was received.

033-533 An error has occurred at the T.30 protocol.

033-544 Busy tone was detected.

033-552 When receiving G3 image data, the detected total number of error lines exceeded the threshold value indicated in the system data.

033-578 The frame size of received command exceeded the specification value.

Procedure

Perform the steps that follow:

1. Advise the customer to request for the sender to check the remote machine for an error, then re-send.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-535 DCN Receive at Phase B Send RAP

033-535 Phase B instruction command (DCS/NSS/NSC/DTC) was rejected at the DCN.

Procedure

Perform the steps that follow:

1. Advise the customer to check the recipient's address, folder information, etc. then repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-536 to 033-540, 568, 575, 577 Send/Receive Error RAP

033-536 The ringing stops before the resource was released.

033-537 A conflict between outgoing and incoming calls has occurred and the sending was cancelled.

033-538 During the image processing of fax send, an error has occurred in the fax card.

033-539 During the image processing of fax receive, an error has occurred in the fax card.

033-540 During the image processing for fax print format, an error has occurred.

033-568 During fax communication, there was no response from the FCM for the specified time.

033-575 Polarity inversion was detected.

033-577 An underrun has occurred at the modem.

Procedure

Perform the steps that follow:

1. Advise the customer to repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-541, 033-566 No Destination Specified RAP

033-541 The Fax Card is not able to call because there is no dial.

033-566 The fax card is unable to call because there is no dial.

Procedure

Perform the steps that follow:

1. Advise the customer to specify the appropriate address by using the speed dial number that is registered with the correct fax address number, etc.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-543, 567, 576, 702, 703 Dial Error RAP

033-543 There is incorrect (illegal) data in the dial data.

033-567 There is incorrect (illegal) data in the dial data.

033-576 The dial data is invalid.

033-702 Digits of the indicated dial data exceeds the number of allowed number of digits.

033-703 A job using an unsupported function was instructed.

Procedure

Perform the steps that follow:

1. Advise the customer to check the dial data, then repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-545 T0 Timeout RAP

033-545 The remote machine might not be a facsimile, or it is not in the facsimile mode.

Procedure

Perform the steps that follow:

1. Advise the customer to check the address number and whether the remote party is a fax machine.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-547 Abort During Transmission RAP

033-547 Aborted during transmission (operation was cancelled).

Procedure

For information only. No service action necessary.

033-548 No Manual Send Line RAP

033-548 There are no lines for manual transmission.

Procedure

Perform the steps that follow:

1. Use a phone to establish communications, then Advise the customer to repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-549, 551, 583 Fax Service Disabled RAP

033-549 The system cannot receive the service because it was prohibited to do the operation.

033-551 When a phone or fax communication was about to end, an operation was performed on that job.

033-583 The request received a connection refused response because the target connection is temporarily out of resource.

Procedure

Perform the steps that follow:

1. Advise the customer to wait for a while, then repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-550 Cannot Disable Fax Service RAP

033-550 The system is attempting to transition to the diag mode, etc., but was unable to do so because fax communication is in progress.

Procedure

Perform the steps that follow:

1. Advise the customer to wait for the job to complete its transmission, then repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-553 No Folder/Relay RAP

033-553 The F code that was sent from the remote machine is instructing a function that does not exist in the local machine.

Procedure

Perform the steps that follow:

1. Advise the customer to consult with the operator of the remote machine on whether the wrong F Code was input.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-554 Wrong Password/Receive Banned RAP

033-554 Data received without a password/a mismatch of passwords, or a mismatch of the select receive number. Mismatch of password or communication from the user other than those who are in the select receive list.

Procedure

Perform the steps that follow:

1. For a single occurrence, take no action.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-555, 033-556 Incorrect Password RAP

033-555 The machine password of local machine does not match the one that was sent from the remote machine.

033-556 The remote ID was not sent from the remote machine. The sending password and the remote ID do not match.

Procedure

Perform the steps that follow:

1. Advise the customer to consult with the operator of the remote machine on whether the wrong machine password was input.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-557, 033-565 Destinations or Services Exceeded RAP

033-557 The total number of requested services or total number of addresses exceeded the number defined by the specifications.

033-565 The total number of requested addresses exceeded the number defined by the specifications.

Procedure

Perform the steps that follow:

1. Advise the customer to wait for the jobs that are waiting to be sent to decrease or reduce the number of addresses, then try again.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-558, 033-559 Remote ID Rejection RAP

033-558 The remote ID of the remote terminal is registered in the blacklist of the local machine.

033-559 The remote ID was not sent from the remote terminal.

Procedure

Perform the steps that follow:

1. Advise the customer to change the fax machine setting to be able to receive fax messages even if destination does not send remote ID.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-560, 561, 562 TRESS/RCC RAP

033-560 For TRESS and RCC, the authentication ID that was sent from the remote terminal was invalid.

033-561 TRESS and RCC cannot be performed as the operation is prohibited or a Job is in progress.

033-562 RCC execution was put on hold as it is in the operation prohibited mode.

Procedure

Perform the steps that follow:

1. For a single occurrence, take no action.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-563, 033-569 No Printable Paper Size RAP

033-563 When formatting, registered paper that is not applicable to the document size to be printed was loaded.

033-569 The paper tray status is such that paper with orientation that can be output can only be supplied from the SMH.

Procedure

Perform the steps that follow:

1. Advise the customer to specify the correct paper size and check that the paper trays are correctly loaded with the paper guides correctly adjusted.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-564, 033-570 Power Off During Transmission RAP

033-564 An error due to power off during transmission. The power switch was turned off, or the system was reset.

033-570 An error due to power off during transmission. the power switch was turned off, or the system was reset.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check the power and line status.
   b. Wait for a while then check the fax function settings and dial numbers, then resend data if needed.
   c. Check the self-terminal status and line status, then perform the operation again.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-571, 033-588 Manual Send Job Cancelled RAP

033-571 At the start of the Job, the report area for fax was detected to be full and the job was cancelled.

033-588 T38 packet loss causing unrecoverable error was detected.

Procedure

Perform the steps that follow:

1. Advise the customer to wait for some of the jobs that are queued to be completed or cancelled, then retry the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-572 Fax Report Print Job Cancelled RAP

033-572 At the start of the job, job full was detected, only the fax report document is stored, and the printing of fax report was cancelled.

Procedure

Perform the steps that follow:

1. For a single occurrence, take no action.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-573 Domain Regulation Check Error RAP

033-573 The address was specified with a prohibited domain.

Procedure

Perform the steps that follow:

1. Advise the customer to check the address and input the correct one.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-580 Missing VoIP Gateway RAP

033-580 There is no existing VoIP gateway that correspond to the phone number that was input.

Procedure

Perform the steps that follow:

1. Advise the customer to set the correct device VoIP gateway address to correspond with the phone number that was input.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-581 Access Authentication Failure RAP

033-581 The request was asked for authentication and it failed the authentication.

Procedure

Perform the steps that follow:

1. Advise the customer to check the proxy server authentication user name, authentication password, and SIP server settings at the machine.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-582 Mismatched Ability RAP

033-582 The request received a connection refused response because the target connection has mismatched capability data.

Procedure

Perform the steps that follow:

1. Advise the customer to check the device at the recipient side. If the recipient side is guaranteed to be a supported machine, check the sip server settings between the recipient side and the machine.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-584 SIP Request Timeout RAP

033-584 SIP communication timeout has occurred.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Check whether the correct address or phone number was input.
   b. Check whether the network cable is connected.
   c. Check whether the SIP server is running.
   d. Check the connection status of the network cable between the machine and the SIP server, as well as between the machine and the recipient side.
   e. Check whether the SIP server and the recipient side are able to communicate.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-585 SIP Request Error RAP

033-585 Other error has occurred during SIP communication.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-586 T38 Protocol Not Ready RAP

033-586 Unable to obtain the IP address.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Wait for a while, then try to send again.
   b. Make it so that the IP address can be obtained and registered to the registrar server.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-587, 589, 590, 592 Remote Machine Error 3 RAP

033-587 Unable to establish T38 session (including RTP session).

033-589 The received T38 protocol data contains invalid content (including ASN.1 decode error).

033-590 Unable to continue the job as an error has occurred at the packet send (TCP, UDP, RTP) of T38 protocol.

033-592 A timeout caused by other than timeout notification (image data receive timeout and FoIP internal timeout) has occurred.

Procedure

Perform the steps that follow:

1. Advise the customer to request for the sender to check the remote machine for an error, then re-send.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-591 FoIP Max Sessions Over RAP

033-591 A new send request was initiated when the system is already communicating using the maximum number of sessions for FoIP.

Procedure

Perform the steps that follow:

1. Wait for the IP fax send that is in progress to complete, then try to send again.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-593 Cancelled By Remote Peer RAP

033-593 An interrupt process was performed at the communication partner side.

Procedure

Perform the steps that follow:

1. Advise the customer to request for the sender to re-send.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-700 T1 Timeout Fail RAP

033-700 T1 timeout has occurred when sending or at phase B and later when receiving.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Repeat the operation if the fault occurs while sending.
   b. Request for the sender to re-send if the fault occurs when receiving.
   c. Check the remote machine for an error.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-701 Retry Timeout RAP

033-701 The communication did not end normally within the retry timeout time.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-710, 712, 713, 717, 718, 719, 721 Document Not Found RAP

033-710 The specified document cannot be found

033-712 System memory full

033-713 Incorrect chain-link number.

033-717 The verification result of the specified password was NG.

033-718 The document was not found in the polling sending box or the specified folder.

033-719 The document was not found in the polling sending box or the specified folder.

033-721 The specified page cannot be generated.

Procedure

Perform the steps that follow:

1. Advise the customer to repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-716 No Specified Mailbox RAP

033-716 The status in which the job cannot be performed was detected during EP-TRESS operation.

Procedure

Perform the steps that follow:

1. For a single occurrence, take no action.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-724 Fax Receive Memory Over Flow RAP

033-724 Receive operation was aborted because the maximum limit of the image data amount that can be received for one Fax communication was exceeded.

Procedure

Perform the steps that follow:

1. Inform the customer that the optional hard disk drive is required, PL 18.2 Item 91.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-725, 033-742 Insufficient Hard Disk Space RAP

033-725 The HD was full when fax was received, or when the format or report was created.

033-742 Timed out by page read close instruction (ran out of memory during manual send).

Procedure

Advise the customer to delete unnecessary data from the hard disk.

Procedure

Perform the steps that follow:

1. Advise the customer to delete unnecessary data from the hard disk, then resend the fax.
2. If the fault occurred during an immediate send operation, increase the NVM value for scan memory threshold for immediate send scan, dC131 NVM Read/Write (NVM location 820-053).
3. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-726, 728, 734, 737, 738, 751 Fax Printing Error RAP

033-726 Two sided printing not available when receiving fax (mixed size).

033-728 Formatting for fax auto print was aborted because the instruction for fax manual print was sent during the operation.

033-734 Job was cancelled because fax print and fax auto report were started at the same time.

033-737 The fax controller detected a failure and could not continue processing the job.

033-738 The fax controller detected an error in JBIG data during coding/decoding of the JBIG data.

033-751 An activity report is generated during the time period where print is prohibited and since the machine is in sleep mode, it started the process to place the report on hold.

Procedure

Perform the steps that follow:

1. For a single occurrence, take no action.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

033-731, 732, 736, 740, 747, 749 Inconsistent Instructions RAP

033-731 Transmission closed due to start transmission from fax card and stop transmission from controller.

033-732 Print job received was cancelled at forced polling.

033-736 The data amount for fax transfer exceeded the threshold during fax transfer of internet fax off ramp.

033-740 The user cancelled immediate printing upon receiving.

033-747 When requesting to start the service from the fax card, the job could not be generated due to causes such as job number overflow.

033-749 During fax formatting, the extended image data is larger than the memory reserved.

Procedure

For information only. No service action necessary.

033-733, 735, 741, 743, 744, 745, 746, 750 Fax Document Number Error RAP

033-733 The number of job documents related to the job could not be obtained.

033-735 Fax receive - buffer allocate timeout.

033-741 When transferring image data to the fax card, the conditions for sending the response to the fax card did not match.

033-743 When receiving image data from the fax card, the conditions for sending the response to the fax card did not match.

033-744 When receiving image data from the fax card, the conditions for sending the response to the fax card did not match.

033-745 When receiving image data from the fax card, the conditions for sending the response to the fax card did not match.

033-746 When transferring image data to the fax card, the conditions for sending the response to the fax card did not match.

033-750 During formatting, when image data was retrieved from the fax card, even though the image data was determined to be free from error, extension failed.

Procedure

Perform the steps that follow:

1. Advise the customer to repeat the operation.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

041-310 IM Logic Fail RAP

041-310 IM software control error detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch the machine off, then on, GP 4.
2. Reload the software, GP 9.
3. Install a new MCU PWBA, PL 18.2 Item 24.

041-318, 041-321 Mismatch Detected RAP

041-318 Serial number mismatch is detected.

041-321 XPC mismatch is detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch the machine off, then on, GP 4.
2. Reload the software, GP 9.
3. If the fault persists, there are no further service actions, contact 2nd level support.

041-322 IOT Data Failure RAP

041-322 Data mismatch was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch the machine off, then on, GP 4.
2. Install a new MCU PWBA, PL 18.2 Item 24.

041-340, 041-363 MCU NVM (EEPROM) Data Fail RAP

041-340 NVM (EEPROM) data abnormality.

041-363 NVM (EEPROM) data broken.

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Procedure

Perform the steps that follow:

1. Switch the machine off, then on, GP 4.
2. Reload the software, GP 9.
3. Enter special boot mode, GP 16. Perform the NVRAM INIT MODE routine.
4. Install a new MCU PWBA, PL 18.2 Item 24.

042-325 Motor Failure RAP

42-325 Main motor failure

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

***NOTE:** The main motor is part of the main drive assembly, PL 3.1 Item 1.*

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- Principles of Operation Drives.

Switch the machine off, then on, GP 4. **The main motor fails to run.**

Y N

Perform SCP 5 Final Actions.

Enter dC330 code 071-001 to run the main motor. **The motor fails to run.**

Y N

The motor appears to run correctly. Check for intermittent connections, shorted or open wires. If the fault persists, install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 6 and PJ Locations. Check the connections between the main motor (P/J311) and the LVPS PWBA (P/J509), and the connection between the main motor (P/J171) and MCU PWBA (P/J17). **The connections are good.**

Y N

Secure the connections for P/J311, P/J509, P/J171 and P/J17.

Refer to WD 6 and PJ Locations. Check the continuity of the cables connected between the main motor and the MCU PWBA (P/J171 and P/J17). **The continuity is good.**

Y N

Install a new drive harness assembly, PL 18.3 Item 1.

Refer to WD 6 and PJ Locations. Check the continuity of the cables connected between the main motor and the LVPS PWBA (P/J311 and P/J509). **The continuity is good.**

Y N

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 6 and PJ Locations. Close the interlock switch(es), then check if the voltage between the LVPS PWBA ground and the P/J509 pin 1 is approximately +24VDC. **The voltage is correct.**

Y N

Refer to OF 18 +24VDC Power RAP.

Install a new main drive assembly, PL 3.1 Item 1.

042-335, 042-398 Main Fan Failure RAP

042-335 Malfunction of the main fan.

042-398 Fan failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Switch the machine off, then on, GP 4. **The main fan fails to run.**

Y N

Perform SCP 5 Final Actions.

Enter dC330 code 042-001 to run the main fan, PL 4.1 Item 13. **The main fan fails to run correctly.**

Y N

The main fan appears to run correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 4 and PJ Locations. Check the connections between the LVPS PWBA (P/J501), and the MCU PWBA (P/J29). **The connections are good.**

Y N

Secure the connections for P/J501 and P/J29.

Refer to WD 4 and PJ Locations. Check the continuity between the LVPS PWBA (P/J501), and the MCU PWBA (P/J29). **The continuity is good.**

Y N

Install a new top harness assembly.

Refer to WD 4 and PJ Locations. Check connections between the main fan and the LVPS PWBA (P/J503). **The connection is good.**

Y N

Re-seat loose fan harness connector.

Manually rotate the fan. **The fan rotates freely.**

Y N

Install a new main fan assembly, PL 4.1 Item 13.

Refer to OF 18 +24VDC Power RAP.

Install new components as necessary:

- Main fan assembly, PL 4.1 Item 13.
- LVPS PWBA, PL 18.1 Item 14.

042-348, 042-610 Over Temperature Detection Failed RAP

042-348 Temperature of the device is over the specified value.

042-610 Turn slow mode detection failed. High temperature caused printing speed restraint.

Initial Actions

- Printing has been suspended because inside of the device is extraordinarily hot. Wait until the error message turns off with the power to the device switch on.
- Ensure the printer is positioned to allow adequate airflow at all vents. Refer to GP 22, Installation Space Requirements.
- Clear vents of any dust accumulation.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Check the function of the main fan, refer to 042-335, 042-398 Main Fan Failure RAP. **The error persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the 010-319 to 10-355 Fuser Thermal Error RAP.

043-342 Sub Motor Failure RAP

43-342 Sub motor failure

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

NOTE: *The sub motor is part of the main drive assembly, PL 3.1 Item 1.*

NOTE: *The sub motor is also referred to as the PH motor within this service manual.*

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- Principles of Operation Drives.

Switch the machine off, then on, GP 4. **The sub motor fails to run.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC330 code 071-004 to run the sub motor. **The sub motor fails to run.**

Y **N**

The sub motor appears to run correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 6 and PJ Locations. Check the connections between the sub motor (P/J312) and the LVPS PWBA (P/J509), and the connection between the sub motor (P/J172) and MCU PWBA (P/J17). **The connections are good.**

Y **N**

Secure the connections for P/J312, P/J509, P/J172 and P/J17.

Refer to WD 6 and PJ Locations. Check the continuity of the cables connected between the sub motor and the MCU PWBA (P/J172 and P/J17). **The continuity is good.**

Y **N**

Install a new drive harness assembly, PL 18.3 Item 1.

Refer to WD 6 and PJ Locations. Check the continuity of the cables connected between the sub motor and the LVPS PWBA (P/J312 and P/J509). **The continuity is good.**

Y **N**

Install a new top harness assembly, PL 18.3 Item 4.

A

A

Refer to WD 6 and PJ Locations. Close the interlock switch(es), then check if the voltage between the LVPS PWBA ground and the P/J509 pin 1 is approximately +24VDC. **The voltage is correct.**

Y N

Refer to OF 18 +24VDC Power RAP.

Install a new main drive assembly, PL 3.1 Item 1.

045-310, 045-45-311 Image Ready Communication Failure RAP

045-310 Controller image preparation failure detected in the ESS PWBA.

045-311 Communication failure between MCU PWBA and ESS PWBA.

Procedure

1. Switch the machine off, then on, GP 4.
2. Refer to (WD 9 C405) or (WD 10 C400) and PJ Locations. Check the connection between the ESS PWBA (P/J920) and the MCU PWBA (P/J10).
3. Refer to (WD 9 C405) or (WD 10 C400) and PJ Locations. Check the the continuity of the cables connected between the ESS PWBA (P/J920) and the MCU PWBA (P/J10).
4. Install new components as necessary
   - ESS PWBA, PL 18.2 Item 4.
   - Main harness assembly, PL 18.3 Item 2.
   - MCU PWBA, PL 18.2 Item 24.

058-310, 058-311, 058-312, 059-326 Fuser Failure RAP

058-310 Over temperature of the fuser assembly detected by the NC sensor.

058-311 Over temperature of the fuser assembly detected by the STS sensor.

058-312 The fuser assembly fuse has failed.

059-326 The AD value of the fuser STS sensor exceeds the specified detection count.

Procedure

Perform the 010-105, 010-106 Fuser Thermal Error RAP.

059-321 Fuser End of Life RAP

059-321 Fuser assembly end of life.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

Install a new fuser assembly, PL 7.1 Item 1.

060-310 ROS Failures 1 RAP

060-310 SOS Interval ready failure.

Procedure

Perform the 092-316 Environment Temperature Sensor Fail RAP

061-320, 061-340, 061-346, 061-348 ROS Failures 2 RAP

061-320 Polygon motor 1 failure.

061-340 ROS LD K failure.

061-346 SOS INT-Q failure.

061-348 Polygon motor 1 ready check failed.

Procedure

Perform the 092-316 Environment Temperature Sensor Fail RAP

062-277, 062-316 DADF Failure RAP

062-316 DADF motor driver error detected.

062-277 Communications cannot be established between the ESS PWBA and the DADF PWBA.

Initial Actions

Perform ADJ 50.1 Scanner Cleaning Procedure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch the machine off, then on, GP 4.
2. Refer to WD 17 and PJ Locations. Check the connections between the ESS PWBA, PL 18.2 Item 4 and the DADF, PL 50.1 Item 1, (P/J1371 and P/J1377) for an open circuit, short circuit or poor contact.
3. If the fault persists, install new components as necessary:
   - DADF assembly, PL 50.1 Item 1.
   - ESS PWBA, PL 18.2 Item 4.

062-300 Platen Interlock Open RAP

062-300 Any of the faults that follow was detected:

- DADF Job was stopped by opening the platen cover.
- DADF was opened when the document was set in DADF.
- DADF was opened while feeding.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follows as necessary:

- GP 11 How to Check a Sensor.

Perform the steps that follow:

1. Switch the machine off, then on, GP 4.
2. Ensure that the DADF, PL 50.1 Item 1 open and closes correctly. Check the left counter balance assembly, PL 50.1 Item 3 and the right counterbalance assembly, PL 50.1 Item 4. If necessary, install new DADF assembly, PL 50.1 Item 1.
3. Refer to WD 17 and PJ Locations. Check the connections between the ESS PWBA, PL 18.2 Item 4 and the IIT assembly, PL 50.1 Item 2, (P/J1370, P/J1372 and P/J1374) for an open circuit, short circuit or poor contact.
4. If the fault persists, install new components as necessary:
   - IIT assembly, PL 50.1 Item 2.
   - ESS PWBA, PL 18.2 Item 4.

062-311, 360, 062-371 to 062-396 IIT Failure RAP

062-311 IISS software initialization error detected.

062-360 Carriage home position error is detected.

062-371 IIT Failure lamp error is detected.

062-380 AGC Failure. Insufficient lamp light detected during AGC brightness adjustment.

062-386 AOC Failure. CCD output error detected during AOC darkness adjustment.

062-389 Carriage overrun failure.

062-393 CCD PWBA Sync signal failure.

062-395 Trans PWBA failure.

062-396 Connection problem with the CIS flat cable was detected.

Initial Actions

Perform ADJ 50.1 Scanner Cleaning Procedure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch the machine off, then on, GP 4.
2. Reload the software, GP 9.
3. Refer to WD 17 and PJ Locations. Check the connections between the ESS PWBA, PL 18.2 Item 4 and the IIT assembly, PL 50.1 Item 2, (P/J1370, P/J1372 and P/J1374) for an open circuit, short circuit or poor contact.
4. Refer to WD 17 and PJ Locations. Check the connections between the ESS PWBA, PL 18.2 Item 4 and the DADF, PL 50.1 Item 1, (P/J1371 and P/J1377) for an open circuit, short circuit or poor contact.
5. If the fault persists, install new components as necessary:
   - IIT assembly, PL 50.1 Item 2.
   - DADF assembly, PL 50.1 Item 1.
   - ESS PWBA, PL 18.2 Item 4.

062-345 IIT EEPROM Fail RAP

062-345 Write or communication failure with the EMMC card to the ESS PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch the machine off, then on, GP 4.
2. Ensure the EMMC card, PL 18.2 Item 37 is connected correctly onto the ESS PWBA, PL 18.2 Item 4.
3. If the fault persists, install a new ESS kit, PL 18.2 Item 98.

062-362 X Hard Fail RAP

062-362 Hardware modification of cognition device was detected (Full-time detection/detection when powered up).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch the machine off, then on, GP 4.
2. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

062-790 Recognition Fail RAP

062-790 The document being scanned is prohibited by law.

Procedure

Advise the customer to refer to the Legal Notices in the User Guide to check the types of document available for copying.

065-221 to 065-225 CIS Failure RAP

065-221 CIS AGC Failure. The AGC process did not complete.

065-222 CIS AOC Failure. The AOC process did not complete.

065-223 CIS Cable connection problem.

065-224 CIS Failure. Information on the CIS cannot be read.

065-225 CIS Device failure.

Procedure

Perform the 062-277, 062-316 DADF Failure RAP.

071-101 Tray 1 Misfeed Jam RAP

71-101 The registration sensor is not turned on within the specified time.

Initial Actions

- Check media condition.
- Check for obstructions in the media path.
- Check tray 1 media guides and lift operation.
- Reverse the paper in the tray without changing the leading edge of the paper.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- GP 11 How to Check a Sensor.
- GP 12 How to Check a Solenoid or Clutch.
- Principles of Operation Feeding from Paper Cassette.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the registration sensor actuator (PL 15.2 Item 11) is undamaged and pivots freely. **The sensor actuator is operational.**

Y **N**

Install a new registration sensor actuator, PL 15.2 Item 11.

Check the retard (PL 9.1 Item 4), feed, and nudger rollers (PL 15.2 Item 7) for excessive wear or contamination. **The rollers are undamaged and clean.**

Y **N**

Clean the rollers with a cloth that is slightly dampened with water. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Install new components as necessary:

- Cassette retard holder assembly, PL 9.1 Item 97.
- Feed rolls, PL 15.2 Item 7.

The fault persists.

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Y **N**

Perform SCP 5 Final Actions

Perform the OF 7 Registration Sensor RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Perform the OF 8 Tray 1 Feed Clutch RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the OF 9 Registration Clutch RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the 042-325 Motor Failure RAP. **The motor runs.**

Y **N**

Install a new main drive assembly, PL 3.1 Item 1.

Perform SCP 5 Final Actions.

Perform the OF 7 Registration Sensor RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Perform the OF 8 Tray 1 Feed Clutch RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the OF 9 Registration Clutch RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the 042-325 Motor Failure RAP. **The motor runs.**

Y **N**

Install a new main drive assembly, PL 3.1 Item 1.

Perform SCP 5 Final Actions.

072-101, 072-103 Tray 2 Misfeed Jam RAP

72-101-00 The path sensor is not turned on within the specified time.

72-103-00 The path sensor on jam.

Initial Actions

- Check media condition.
- Check for obstructions in the media path.
- Check tray 2 media guides and lift operation.
- Check feed roller condition.
- Check actuator condition.
- Reverse the paper in the tray without changing the leading edge of the paper.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- GP 11 How to Check a Sensor.
- GP 12 How to Check a Solenoid or Clutch.
- Refer to Principles of Operation 550 Option Feeder.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the feed rollers (PL 10.2 Item 3) for excessive wear or contamination. **The rollers are undamaged and clean.**

Y **N**

Clean the rollers with a cloth that is slightly dampened with water. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Install new feed rollers, PL 10.2 Item 3. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Perform the OF 10 550 Option Main Feed Assembly Path Sensor RAP. **The fault persists.**

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Y **N**

Perform SCP 5 Final Actions

Perform the OF 12 550 Option Registration Clutch Assembly RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the OF 13 550 Option Drive Assembly RAP. **The motor runs.**

Y **N**

Install a 550 Option drive assembly, PL 10.1 Item 9.

Perform SCP 5 Final Actions.

Perform the OF 10 550 Option Main Feed Assembly Path Sensor RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Perform the OF 12 550 Option Registration Clutch Assembly RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the OF 13 550 Option Drive Assembly RAP. **The motor runs.**

Y **N**

Install a 550 Option drive assembly, PL 10.1 Item 9.

Perform SCP 5 Final Actions.

072-310 Tray 2 Motor Failure RAP

072-310 Optional feeder motor alarm signal was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. If the faut persists, perform the OF 13 550 Option Drive Assembly RAP.

072-311 Tray 2 Mode Error RAP

072-311 Option sheet feeder

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Remove the Optional 550 sheet feeder, refer to REP 10.1. Reload the software GP 9, then reinstall the Optional 550 sheet feeder. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new 550 Option feeder PWBA, PL 10.1 Item 10.

075-100 MSI Misfeed Jam RAP

075-100 MSI misfeed jam.

Initial Actions

- Check media condition.
- Check for obstructions in the media path.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- GP 11 How to Check a Sensor.
- GP 12 How to Check a Solenoid or Clutch.
- Refer to Principles of Operation Feeding from the MSI.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Enter dC330 code 071-100 MSI no paper sensor, PL 13.2 Item 4. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate normally. Clean the sensor. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 7 and PJ Locations. Check the connections between the MSI no paper sensor and the MCU PWBA, P/J212 and P/J21. **The connections are good.**

Y N

Ensure the P/J connections are securely attached.

Refer to WD 7 and PJ Locations. Check the continuity of the cables in the MSI harness assembly, PL 13.2 Item 5. **The continuity is good.**

Y N

Install a new MSI harness assembly, PL 13.2 Item 5.

Refer to WD 7 and PJ Locations. Check if the voltage between the MCU PWBA ground and P/J21 pin1 is approximately +5VDC. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power RAP.

Install a new MSI tray no paper sensor, PL 13.2 Item 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

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Check the retard roll (PL 13.3 Item 14) and feed roll (PL 13.2 Item 10) for excessive wear or contamination. **The rollers are undamaged and clean.**

Y N

Clean the rollers with a cloth that is slightly dampened with water. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Install new components as necessary:

- MSI tray feed roller, PL 13.2 Item 10.
- MSI tray separator roller assembly, PL 13.3 Item 98.

The fault persists.

Y N

Perform SCP 5 Final Actions

Perform the OF 14 MSI Tray Feed Solenoid RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24. If the fault persists, contact 2nd level support.

Perform the OF 14 MSI Tray Feed Solenoid RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Contact 2nd level support.

075-911 MSI Tray Out of Position RAP

075-911 MSI not in position.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the MSI tray installation, PL 13.3 Item 1. **The tray is installed correctly.**

Y N

Install the MSI tray correctly.

Check the MSI tray cover assembly, PL 13.3 Item 2. **The cover is not broken and works correctly.**

Y N

Install a new MSI tray cover assembly, PL 13.3 Item 2.

Enter dC330 code 071-102 MSI tray detect sensor, PL 13.2 Item 4. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate normally. Clean the sensor. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 7 and PJ Locations. Check the connections between the MSI no paper sensor and the MCU PWBA, P/J211 and P/J21. **The connections are good.**

Y N

Ensure the P/J connections are securely attached.

Refer to WD 7 and PJ Locations. Check the continuity of the cables in the MSI harness assembly, PL 13.2 Item 5. **The continuity is good.**

Y N

Install a new MSI harness assembly, PL 13.2 Item 5.

Refer to WD 7 and PJ Locations. Check if the voltage between the MCU PWBA ground and P/J21 pin1 is approximately +5VDC. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power RAP.

Install a new MSI tray detect sensor, PL 13.2 Item 4.

077-101, 077-119 Registration Sensor Off Psync on Jam RAP

077-101 The registration sensor is not turned on within the specified time.

077-119 Paper feed is slow but faster than misfeeding, paper and image transfer out of sync.

Initial Actions

- Check media condition.
- Check for obstructions in the media path.
- Check tray 1 and tray 2 media guides and lift operation.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- GP 11 How to Check a Sensor.
- GP 12 How to Check a Solenoid or Clutch.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the retard (PL 9.1 Item 4), feed, and nudger rollers (PL 15.2 Item 7) for excessive wear or contamination. **The rollers are undamaged and clean.**

Y N

Clean the rollers with a cloth that is slightly dampened with water. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Install new components as necessary:

- Cassette retard holder assembly, PL 9.1 Item 97.
- Feed rolls, PL 15.2 Item 7.

The fault persists.

Y N

Perform SCP 5 Final Actions

Perform OF 7 Registration Sensor RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform OF 9 Registration Clutch RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

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Perform the 043-342 Sub Motor Failure RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform the OF 15 Exit Sensor RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform the 042-325 Motor Failure RAP.

Perform OF 7 Registration Sensor RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform OF 9 Registration Clutch RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the 043-342 Sub Motor Failure RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform the OF 15 Exit Sensor RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform the 042-325 Motor Failure RAP.

077-104 Exit Off Jam RAP

077-104 After the fuser exit sensor turned on, the fuser exit Sensor turned off before the specified time has passed.

Initial Actions

- Check exit sensor actuator operation.
- Check for obstructions in the media path.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- GP 11 How to Check a Sensor.
- GP 12 How to Check a Solenoid or Clutch.

Perform the OF 15 Exit Sensor RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform the OF 16 Exit Drive Assembly Clutch 1 RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform the 042-325 Motor Failure RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Install a new exit assembly, PL 17.1 Item 1.

077-123 Feeder Regi Sensor On Duplex Jam RAP

077-123 Paper in the duplex path does not turn on the registration sensor in the specified time.

Initial Actions

- Check media condition.
- Check for obstructions in the media path.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- GP 11 How to Check a Sensor.
- GP 12 How to Check a Solenoid or Clutch.
- Principles of Operations Duplex Feeding.

Check the registration sensor actuator (PL 15.2 Item 11) is undamaged and pivots freely. **The sensor actuator is operational.**

Y N

Install a new registration sensor actuator, PL 15.2 Item 11.

Perform the OF 7 Registration Sensor RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Check the exit roller assembly (PL 17.1 Item 14) for excessive wear or contamination. **The roll is undamaged and clean.**

Y N

Clean the roll. If necessary install a new exit assembly, PL 17.1 Item 1.

Perform the OF 17 Exit Drive Assembly Clutch 2 RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Check the duplex roll for excessive wear or contamination. **The roll is undamaged and clean.**

Y N

Install a new duplex assembly, PL 14.1 Item 1.

Perform the 042-325 Motor Failure RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Perform the 043-342 Sub Motor Failure RAP.

077-300 Front Cover Interlock Open RAP

077-300 Front cover detected as open.

Initial Actions

- Check front cover latch and fitment.
- Check front interlock actuator.
- Check front cover interlock sensor position and condition, PL 18.2 Item 28.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

Enter dC330 code 041-302 front cover interlock sensor, PL 18.2 Item 28. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate normally. Clean the sensor. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 14 and PJ Locations. Check the connections between the front cover interlock sensor, PL 18.2 Item 28 and the MCU PWBA, PL 18.2 Item 24, P/J145 and P/J14. **The connections are good.**

Y N

Securely attach the connectors.

Check if the voltage between the MCU PWBA ground and P/J14 pin 9 is approximately +5VDC. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power RAP.

Install a new front cover interlock sensor, PL 18.2 Item 28.

077-302 Waste Door Interlock Open RAP

077-302 Waste door is detected as open.

Initial Actions

- Check right interlock actuator.
- Check right interlock switch position and condition, PL 18.1 Item 99.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follows as necessary:

- GP 13 How to Check a Switch.

Enter dC330 code 041-300 right Interlock switch, PL 18.1 Item 99. Actuate the switch. **The switch fails to operate.**

Y N

The switch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 4 and PJ Locations. Check the continuity of the cables on P/J29 and P/J501 between the MCU PWBA, PL 18.2 Item 24 and the LVPS PWBA, PL 18.1 Item 14. **There is continuity in the cables.**

Y N

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 4 and PJ Locations. Check the connections between the right Interlock switch and the LVPS PWBA, PL 18.1 Item 14, P/J42. **The connection is good.**

Y N

Securely attach the connector.

Check if the voltage between the MCU PWBA ground and P/J29 pin 15 is approximately +5VDC. **The voltage is correct.**

Y N

Refer the OF 19 +5VDC Power RAP.

Install a new right Interlock switch assembly, PL 18.1 Item 99. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new LVPS PWBA, PL 18.1 Item 14

077-322 Option Tray Communication Failure RAP

072-322 Communication failure between the MCU PWBA and the optional 550 sheet feeder.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the connections P/J27, DP/DJ271 and P/J419 between the optional 550 sheet feeder PWBA, PL 10.1 Item 10 and the MCU PWBA, PL 18.2 Item 24. **The connections are good.**

Y N

Secure the connections.

Refer to WD 16 and PJ Locations. Check the continuity of the cables on P/J419 and DP/DJ271 between the optional 550 sheet feeder PWBA and the drawer connector, PL 10.1 Item 13. **There is continuity in the cables.**

Y N

Install a new drawer 1 feeder harness, PL 10.1 Item 13.

Refer to WD 16 and PJ Locations. Check the continuity of the cables on P/J27, PL 18.2 Item 24 and DP/DJ271 between the MCU PWBA and the drawer connector. **There is continuity in the cables.**

Y N

Install a new main harness assembly, PL 18.3 Item 2.

Install a new optional 550 sheet feeder PWBA, PL 10.1 Item 10. **The fault is fixed.**

Y N

Install a new MCU PWBA, PL 18.2 Item 24.

Perform SCP 5 Final Actions.

077-323 PH Motor Failure RAP

077-323 The PH motor does not rotate correctly.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

NOTE: *The PH motor is part of the main drive assembly, PL 3.1 Item 1.*

NOTE: *The PH motor is also referred to as the sub motor within this service manual.*

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- Principles of Operation Drives.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Enter dC330 code 071-004 to run the PH motor. **The motor fails to run correctly.**

Y N

The PH motor appears to run correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 6 and PJ Locations. Check the connections between the PH motor, P/J312 and the LVPS PWBA, PL 18.1 Item 14, P/J509, and the connection between the PH motor, P/J172 and MCU PWBA,PL 18.2 Item 24, P/J17. **The connections are good.**

Y N

Secure the connections for P/J312, P/J509, P/J172 and P/J17.

Refer to WD 6 and PJ Locations. Check the continuity of the cables connected between the PH motor and the MCU PWBA, PL 18.2 Item 24, P/J172 and P/J17. **The continuity is good.**

Y N

Install a new drive harness assembly, PL 18.3 Item 1.

Refer to WD 6 and PJ Locations. Check the continuity of the cables connected between the PH motor and the LVPS PWBA, PL 18.1 Item 14, P/J312 and P/J509. **The continuity is good.**

Y N

Install a new top harness assembly, PL 18.3 Item 4.

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Refer to WD 6 and PJ Locations. Close the interlock switch(es), then check if the voltage between the LVPS PWBA ground and the P/J509 pin 1 is approximately +24VDC. **The voltage is correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Install a new main drive assembly, PL 3.1 Item 1.

077-327 Optional Feeder Composition Error RAP

077-327 Option unit structuring error, invalid tray 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 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Remove, then reinstall the Optional 550 sheet feeder, refer to REP 10.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Verify product and option compatibility, **The tray is supported.**

Y N

Install the correct tray.

Reload the software GP 9.

077-909 IOT Static Jam RAP

077-900 IOT static jam.

Initial Actions

- Clear any media from the media path.
- Check for obstructions at or near the registration sensor.

NOTE: *The registration sensor is integral to the registration chute assembly, PL 15.2 Item 1.*

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the 077-104 Exit Off Jam RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the 077-123 Feeder Regi Sensor On Duplex Jam RAP. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the OF 10 550 Option Main Feed Assembly Path Sensor RAP.

077-911, 077-967, 077-968 Paper Mismatch RAP

077-911 Paper size mismatch user intervention.

077-967 APS paper type mismatch, or printing from a tray with different paper type.

077-968 Paper type mismatch user intervention.

Procedure

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Load the specified paper, then rerun the job.

091-300 Rear Cover Interlock Open RAP

091-300 Rear cover is detected as open.

Initial Actions

- Check rear cover latch and fitment.
- Check rear interlock actuator.
- Check rear cover Interlock switch position and condition, PL 14.1 Item 3.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follows as necessary:

- GP 13 How to Check a Switch.

Enter dC330 code 041-301 rear cover Interlock switch, PL 14.1 Item 3. Actuate the switch. **The switch fails to operate.**

Y N

The switch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 4 and PJ Locations. Check the continuity of the cables on P/J29 and P/J501 between the MCU PWBA, PL 18.2 Item 24 and the LVPS PWBA, PL 18.1 Item 14. **There is continuity in the cables.**

Y N

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 4 and PJ Locations. Check the connections between the rear cover interlock sensor PL 14.1 Item 3 and the LVPS PWBA, PL 18.1 Item 14, P/J41. **The connection is good.**

Y N

Securely attach the connector.

Check if the voltage between the MCU PWBA ground and P/J29 pin 15 is approximately +5VDC. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power RAP.

Install a new rear Interlock switch harness assembly, PL 14.1 Item 3. **The error persists.**

Y N

Perform SCP 5 Final Actions.

Install a new LVPS PWBA, PL 18.1 Item 14.

091-312 HVPS CC Fail RAP

091-312 Communication failure between the development HVPS XD PWBA and MCU PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the machine off, then on, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check the connections between the MCU PWBA, PL 18.2 Item 24 and the development HVPS XD PWBA, PL 18.2 Item 25, P/J18 and P/J181. **The connections are good.**

Y N

Securely attach the connectors.

Install a new MCU-HVPS (FFC), PL 18.3 Item 6. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new development HVPS XD PWBA, PL 18.2 Item 25.

091-400, 405, 911 Waste Toner Bottle Near Full RAP

091-400 Waste bottle near full.

091-405 Waste bottle pre-near full.

091-911 Waste bottle full.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

For 091-400 and 091-405 faults acquire a new waste toner box, PL 8.1 Item 7. Install the waste toner box when necessary.
For a 019-911 fault continue this procedure.
Enter dC330 code 094-202 toner full sensor, PL 4.1 Item 17. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 4 and PJ Locations. Check the connections between the toner full sensor and the MCU PWBA, PL 18.2 Item 24, P/J203 and P/J29. **The connections are good.**

Y N

Securely attach the connectors.

Check the voltage between the MCU Board ground and P/J29 pin 20 is approximately +5VDC. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power RAP.

Install a new toner full sensor, PL 4.1 Item 17.

091-401, 402, 411, 421, 431, 480, 481, 482, 913, Drum Cartridge Life RAP

091-401 K Drum cartridge near end of life.

091-402 K Drum cartridge life over.

091-411 Drum cartridge Y near end of life.

091-421 Drum cartridge M near end of life.

091-431 Drum cartridge C near end of life.

091-480 Drum cartridge Y life over

091-481 Drum cartridge M life over.

091-482 Drum cartridge C life over.

091-913 Drum cartridge K life over.

Initial Actions

- Reseat the drum cartridge.
- Verify drum cartridge is genuine Xerox.
- Cycle system power.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check drum cartridge life count. **The drum cartridge is at or near end of life.**

Y N

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Check the drum cartridge CRUM connection terminal inside the CRU xerographic development assembly. **The connection is clean and installed correctly.**

Y N

Clean the connector, then reinstall drum cartridge.

Check the connection terminal of the CRUM connector assembly. **The connection terminal is good.**

Y N

Install a new CRUM connector assembly, PL 8.1 Item 1.

A B

A B

Refer to WD 12 and PJ Locations. Check the CRUM connections of the xerographic harness assembly and the MCU PWBA, PL 8.1 Item 8 (P/J12, P/J121, P/J122, P/J123, P/J124). **The connections are good.**

Y N

Securely attach the connectors.

Refer to WD 12 and PJ Locations. Check the continuity of the xerographic harness assembly, P/J12, P/J121, P/J122, P/J123, P/J124, PL 8.1 Item 8. **The continuity is good.**

Y N

Install a new xerographic harness assembly, PL 8.1 Item 8.

Install a new CRU xerographic development assembly (imaging unit):

- CRU xerographic development assembly (imaging unit) - Y, PL 8.1 Item 95.
- CRU xerographic development assembly (imaging unit) - M, PL 8.1 Item 96.
- CRU xerographic development assembly (imaging unit) - C, PL 8.1 Item 98.
- CRU xerographic development assembly (imaging unit) - K, PL 8.1 Item 99.

The fault persists.

Y N

Perform SCP 5 Final Actions

Install a new MCU PWBA, PL 18.2 Item 24.

Install a new xerographic development assembly, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions

Install a new MCU PWBA, PL 18.2 Item 24.

091-914 to 091-919, 091-920 to 091-928 Drum Comm Error RAP

091-914 K Drum CRUM communication error.

091-915 K Drum CRUM Data broken.

091-916 K Drum CRUM data mismatch.

091-917 Y Drum CRUM communication error.

091-918 M Drum CRUM communication error.

091-919 C Drum CRUM communication error.

091-920 Y Drum CRUM data broken.

091-922 M Drum CRUM data broken.

091-923 C Drum CRUM data broken.

091-924 Y Drum CRUM data mismatch.

091-925 M Drum CRUM data mismatch.

091-926 M Drum CRUM data mismatch.

091-928 M Drum data mismatch.

Initial Actions

- Verify drum cartridge is genuine Xerox.
- Inspect the drum cartridge xerographic connector.
- Switch off, then switch on the machine, GP 4.

Procedure

Perform the 091-401, 402, 411, 421, 431, 480, 481, 482, 913, Drum Cartridge Life RAP.

091-921, 927, 928, 929 Drum CRUM Out of Position RAP

091-921 K Drum CRUM is not positioned correctly.

091-927 Y Drum CRUM is not positioned correctly.

091-928 M Drum CRUM is not positioned correctly.

091-929 C Drum CRUM is not positioned correctly.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Check if the CRU xerographic development assembly (imaging unit) is correct for this printer and installed in the correct color location. **The imaging unit is the correct part and installed in the correct location.**

Y **N**

Install the correct CRU xerographic development assembly (imaging unit):

- CRU xerographic development assembly (imaging unit) - Y, PL 8.1 Item 95.
- CRU xerographic development assembly (imaging unit) - M, PL 8.1 Item 96.
- CRU xerographic development assembly (imaging unit) - C, PL 8.1 Item 98.
- CRU xerographic development assembly (imaging unit) - K, PL 8.1 Item 99.

Check the connection terminal of the CRUM inside the CRU xeroxgraphic developement assembly. **The connection terminal is good and not broken.**

Y **N**

Install a new CRU xerographic development assembly (imaging unit):

- CRU xerographic development assembly (imaging unit) - Y, PL 8.1 Item 95.
- CRU xerographic development assembly (imaging unit) - M, PL 8.1 Item 96.
- CRU xerographic development assembly (imaging unit) - C, PL 8.1 Item 98.
- CRU xerographic development assembly (imaging unit) - K, PL 8.1 Item 99.

Check the connection terminal of the CRUM connector assembly. **The connection terminal is good and not broken.**

Y **N**

Install a new CRUM connector assembly, PL 8.1 Item 1. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions

Install a new CRU xerographic development assembly (imaging unit):

- CRU xerographic development assembly (imaging unit) - Y, PL 8.1 Item 95.

A

A

- CRU xerographic development assembly (imaging unit) - M, PL 8.1 Item 96.
- CRU xerographic development assembly (imaging unit) - C, PL 8.1 Item 98.
- CRU xerographic development assembly (imaging unit) - K, PL 8.1 Item 99.

Install a new CRU xerographic development assembly (imaging unit):

- CRU xerographic development assembly (imaging unit) - Y, PL 8.1 Item 95.
- CRU xerographic development assembly (imaging unit) - M, PL 8.1 Item 96.
- CRU xerographic development assembly (imaging unit) - C, PL 8.1 Item 98.
- CRU xerographic development assembly (imaging unit) - K, PL 8.1 Item 99.

092-316 Environment Temperature Sensor Fail RAP

092-316 Environment temperature sensor failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

NOTE: *The environment temperature sensor is located inside the ROS.*

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Refer to WD 8 and PJ Locations. Check the connection between the ROS assembly (PL 2.1 Item 1) and the MCU PWBA, PL 18.2 Item 24, (P/J3411, P/J36, P/J111, and P/J11). **The connections are good.**

Y **N**

Ensure the P/J connections are securely attached.

Refer to WD 8 and PJ Locations. Check the connection between the ROS assembly (PL 2.1 Item 1) and the LVPS PWBA, PL 18.1 Item 14, (P/J432, P/J431 and P/J43). **The connections are good.**

Y **N**

Ensure the P/J connections are securely attached.

Refer to WD 8 and PJ Locations. Check the continuity of the cables on P/J43 and P/J431 between the LVPS PWBA and the ROS assembly. **There is continuity in the cables.**

Y **N**

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 8 and PJ Locations. Close the interlock switches then check if the voltage between the LVPS PWBA ground and the P/J43 pin 2 is approximately +5VDC. **The voltage is correct.**

Y **N**

Install a new LVPS PWBA, PL 18.1 Item 14.

Refer to WD 8 and PJ Locations. Close the interlock switches then check if the voltage between the MCU PWBA ground and the P/J36 pin 1 is approximately +24VDC. **The voltage is correct.**

Y **N**

Perform the OF 18 +24VDC Power RAP.

Refer to WD 8 and PJ Locations. Check if the voltage between the MCU PWBA ground and the P/J11 pin 1 is approximately +3.3VDC. **The voltage is correct.**

Y **N**

Perform the OF 20 +3.3VDC Power RAP.

A

A

Install a new ROS assembly, PL 2.1 Item 1. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new MCU Board, PL 18.2 Item 24.

092-318, 092- 319 to 092-321 ADC Patch Failure RAP

092-318 The TC/SAD patch of Y color is abnormally pale.

092-319 The TC/SAD patch of M color is abnormally pale.

092-320 The TC/SAD patch of C color is abnormally pale.

092-321 The TC/SAD patch of K color is abnormally pale.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off, then switch on the machine, GP 4.
2. Remove, then shake the toner cartridge, PL 5.1.
3. Reinstall the toner cartridge.
4. Remove then install the appropriate CRU xerographic development assembly (imaging unit), PL 8.1.
5. Install a new toner cartridge, PL 5.1.
6. Install a new CRU xerographic development assembly (imaging unit):
   - CRU xerographic development assembly (imaging unit) - Y, PL 8.1 Item 95.
   - CRU xerographic development assembly (imaging unit) - M, PL 8.1 Item 96.
   - CRU xerographic development assembly (imaging unit) - C, PL 8.1 Item 98.
   - CRU xerographic development assembly (imaging unit) - K, PL 8.1 Item 99.

093-320 Developer Motor Fail RAP

093-320 Developer motor rotation is not correct.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

Switch off the +24VDC supply after testing motors, solenoids, and clutches. The +24VDC low voltage power supply must be switch on when testing motors, solenoids, and clutches, (dC330 Component control code 041.001) then switched off to avoid damage to the machine.

***NOTE:** The developer motor is part of the main drive assembly, PL 3.1 Item 1.*

Refer to the procedures that follow as necessary:

- GP 10 How to Check a Motor.
- Principles of Operation Drives.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC330 code 093-001 to run the developer motor. **The motor fails to run.**

Y **N**

The motor appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 6 and PJ Locations. Check the connections between the developer motor (P/J331) and the MCU PWBA (P/J33). **The connections are good.**

Y **N**

Secure the connections for P/J331 and P/J33.

Refer to WD 6 and PJ Locations. Check the continuity of the cables connected between the PH motor and the MCU PWBA (P/J331 and P/J33). **The continuity is good.**

Y **N**

Install a new drive harness assembly, PL 18.3 Item 1.

Refer to WD 6 and PJ Locations. Close the interlock switch(es). Check if the voltage between the MCU PWBA ground and the P/J33 pin 2 is approximately +24VDC. **The voltage is correct.**

Y **N**

Perform the OF 18 +24VDC Power RAP.

Install a new main drive assembly, PL 3.1 Item 1.

093-339 Toner CRUM Authentication Fail RAP

093-339 Toner CRUM communication with the authentication IC is abnormal.

Initial Actions

- Verify the toner cartridge is a genuine Xerox.
- Inspect the toner cartridge CRUM connector.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new toner cartridge, PL 5.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA PL 18.2 Item 24.

093-406 to 093-409 Toner Cartridge Near Empty RAP

093-406 K toner cartridge near empty; replace soon.

093-407 Y toner cartridge near empty; replace soon.

093-408 M toner cartridge near empty; replace soon.

093-409 C toner cartridge near empty; replace soon.

Initial Actions

- Verify toner cartridge is genuine Xerox.
- Reseat and lock the toner cartridge.

Procedure

Check toner cartridge life count. **The toner cartridge is at or near end of life.**

Y N

Perform SCP 5 Final Actions.

install a new toner cartridge, PL 5.1.

093-444, 445, 480, 481, 482, 912 Toner Cartridge End of Life RAP

093-444 K1 toner cartridge is empty.

093-445 K2 toner cartridge is empty.

093-480 Cyan toner cartridge is empty.

093-481 Yellow toner cartridge is empty.

093-482 Magenta toner cartridge is empty.

093-912 K toner cartridge is empty.

Procedure

Information only. No service action necessary. Advise the customer that the toner cartridge is empty.

093-913 to 093-916 Toner CRUM Not in Position RAP

093-913 Toner CRUM Y not in position.

093-914 Toner CRUM M not in position.

093-915 Toner CRUM C not in position.

093-916 Toner CRUM K not in position.

Initial Actions

- Verify toner cartridge is genuine Xerox.
- Reseat and lock the toner cartridge.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check toner CRUM connector condition. **The toner CRUM assembly is good.**

Y **N**

Install a new toner cartridge, PL 5.1.

Check the connection terminal of the dispenser assembly. **The connector is good.**

Y **N**

Install a new dispenser assembly, PL 5.1.

Refer to WD 14 and PJ Locations. Check the connections between the dispenser assembly (P/J191, P/J192, P/J193 and P/J194) and the MCU PWBA (P/J19). **The connections are good.**

Y **N**

Secure the connections.

Refer to WD 14 and PJ Locations. Check the continuity of the cables connected between the between the dispenser assembly (P/J191, P/J192, P/J193 and P/J194) and the MCU PWBA (P/J19). **The continuity is good.**

Y **N**

Install a new top harness assembly, PL 18.3 Item 4.

Install a new MCU PWBA, PL 18.2 Item 24.

093-924, 927, 928, 926, 929, 937, 938, 939 Toner CRUM Communication Fail RAP

093-924 Communication failed with the CRUM of toner cartridge K.

093-926 Toner cartridge CRUM K data mismatch.

093-927 Communication failed with the CRUM of toner cartridge Y.

093-928 Communication failed with the CRUM of toner cartridge M.

093-929 Communication failed with the CRUM of toner cartridge C.

093-937 Toner cartridge CRUM Y data mismatch.

093-938 Toner cartridge CRUM M data mismatch.

093-939 Toner cartridge CRUM C data mismatch.

Initial Actions

- Verify toner cartridge is genuine Xerox.
- Reseat and lock the toner cartridge.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check toner CRUM connector condition. **The toner CRUM assembly is good.**

Y **N**

Install a new toner cartridge, PL 5.1.

Check the connection terminal of the dispenser assembly. **The connector is good.**

Y **N**

Install a new dispenser assembly, PL 5.1.

Refer to WD 14 and PJ Locations. Check the connections between the dispenser assembly, PL 5.1, (P/J191, P/J192, P/J193 and P/J194) and the MCU PWBA, PL 18.2 Item 24, (P/J19). **The connections are good.**

Y **N**

Secure the connections.

A

A

Refer to WD 14 and PJ Locations. Check the continuity of the cables connected between the between the dispenser assembly, PL 5.1, (P/J191, P/J192, P/J193 and P/J194) and the MCU PWBA, PL 18.2 Item 24, (P/J19). **The continuity is good.**

Y **N**

Install a new top harness assembly, PL 18.3 Item 4.

Install a new MCU PWBA, PL 18.2 Item 24.

093-925, 093- 933 to 093-935 Toner CRUM Broken RAP

093-925 The cell of toner cartridge K CRUM is damaged.

093-933 The cell of toner cartridge Y CRUM is damaged.

093-934 The cell of toner cartridge M CRUM is damaged.

093-935 The cell of toner cartridge C CRUM is damaged.

Initial Actions

- Verify Toner Cartridge is genuine Xerox.
- Reseat and lock the Toner Cartridge.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check toner CRUM connector condition. **The toner CRUM assembly is good.**

Y N

Install a new toner cartridge, PL 5.1.

Check the connection terminal of the dispenser assembly. **The connector is good.**

Y N

Install a new dispenser assembly, PL 5.1.

Refer to WD 14 and PJ Locations. Check the connections between the dispenser assembly, PL 5.1, (P/J191, P/J192, P/J193 and P/J194) and the MCU PWBA, PL 18.2 Item 24, (P/J19). **The connections are good.**

Y N

Secure the connections.

Refer to WD 14 and PJ Locations. Check the continuity of the cables connected between the between the dispenser assembly, PL 5.1, (P/J191, P/J192, P/J193 and P/J194) and the MCU PWBA, PL 18.2 Item 24, (P/J19). **The continuity is good.**

Y N

Install a new top harness assembly, PL 18.3 Item 4.

Install a new MCU PWBA, PL 18.2 Item 24.

094-310, 319, 325, 326 Error CTD Sensor Dirty RAP

094-310 CTD Sensor LED off condition exceeds upper limit.

094-319 CTD Sensor contamination detected.

094-325 Measurement of belt surface exceeds upper and lower limits.

094-326 Measurement of potential/density patch is too dark.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the CTD Sensor surface for smears or foreign objects, PL 6.1 Item 14. **The sensor is clean.**

Y N

Switch off the machine, GP 4. Clean the CTD sensor surface by wiping with a clean and dry, soft cotton swab, or remove the foreign objects.

Check the CTD sensor assembly installation. **The CTD sensor assembly is installed correctly.**

Y N

Reseat the color toner density (CTD) sensor, PL 6.1 Item 14.

Refer to WD 13 and PJ Locations. Check the connection between the CTD sensor assembly and the MCU PWBA, PL 18.2 Item 24, (P/J251 and P/J27). **The connections are good.**

Y N

Securely attach the connectors.

Refer to WD 13 and PJ Locations. Check the continuity of the cables in the harness between P/J251 and P/J27, connecting the CTD Sensor assembly and the MCU PWBA. **The continuity is good.**

Y N

Install a new main harness assembly, PL 18.3 Item 2.

Refer to WD 13 and PJ Locations. Check if the voltage between the MCU PWBA ground and P/J27 pin 13 is approximately +5VDC. **The voltage is approximately +5VDC.**

Y N

Refer to OF 19 +5VDC Power.

Install a new color toner density (CTD) sensor, PL 6.1 Item 14.

If directed to this procedure from an image quality RAP, click the following link to return to

- IQ2 Light or Undertoned Print RAP.
- IQ12 Fog, Background Contamination.
- IQ20 Color Registration is Out of Alignment.

094-311, 094-420 IBT Life End RAP

094-311 IBT unit has reach NVM unit dead stop.

094-420 The intermediate transfer belt (IBT) has reached end of life.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new transfer belt assembly, PL 6.1 Item 97.

094-318, 094-911 1st BTR/Transfer Belt Position Failure RAP

094-318 1st BTR contact/retract did not complete within the NVM specified time.

094-911 Transfer belt position failure.

NOTE: *The 1st BTR is an integral component of the transfer belt assembly.*

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the transfer belt assembly is installed correctly, PL 6.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check the connection of the Faston connector on the BTR harness, (PL 18.2 Item 33) to the transfer HVPS TR PWBA, PL 18.2 Item 30. **The connection is good.**

Y N

Securely attach the connector.

Refer to WD 12 and PJ Locations. Check the wiring between the transfer HVPS TR PWBA, PL 18.2 Item 30, (P/J1821) and the development HVPS XD PWBA, PL 18.2 Item 25, (P/J182). **The wiring and connections are good.**

Y N

Securely attach the connector. If necessary install a new HVPS harness assembly, PL 18.3 Item 5.

Refer to WD 12 and PJ Locations. Check the connection between the development HVPS XD PWBA, PL 18.2 Item 25, (P/J182) and the MCU PWBA, PL 18.2 Item 24, (PJ18). **The connections are good.**

Y N

Secure the connections. If necessary install a new MCU-HVPS flat flex connector, PL 18.3 Item 6.

Install new components as necessary:

- Transfer belt assembly, PL 6.1 Item 97.
- MCU PWBA, PL 18.2 Item 24.

094-417 IBT Near End of Life RAP

094-417 Intermediate transfer belt (IBT) is near end of life.

Procedure

Information only. No service action necessary. Advise the customer that the IBT is almost at end of life.

096-918 Toner CRUM Not Permitted Fail RAP

096-918 XC 3rd party CRUM is installed but not permitted by the machine.

Procedure

Perform the 093-924, 927, 928, 926, 929, 937, 938, 939 Toner CRUM Communication Fail RAP.

099-396 to 099-399 Fuser Temperature Fault RAP

099-396 No heat center temperature sensor, specified temperature has not been reached in the specified time.

099-397 Slow heat center temperature sensor, specified temperature has not been reached in the specified time.

099-398 Fast heat center temperature sensor, over temperature has been detected.

099-399 Side temperature sensor detected low fuser temperature.

Procedure

Perform the 010-319 to 10-355 Fuser Thermal Error RAP.

102-311 to 102-319 USB Dongle Errors RAP

102-311 USB dongle access failed during the initial installation by the USB dongle.

102-312 It was detected that MAC address of another M/C was recorded in the dongle during the initial installation by the USB dongle.

102-313 An illegal IOT speed setting key was detected during the initial installation by the usb dongle.

102-314 Setting the IOT speed setting key failed during the initial installation by the USB dongle.

102-315 Setting the SW Key failed during the initial installation by the USB dongle.

102-316 Setting the supply setting failed during the initial installation by the USB dongle.

102-317 Setting the page pack failed during the initial installation by the USB dongle.

102-318 Setting the country code failed during the initial installation by the USB dongle.

102-319 The NVM rewriting list process failed during the initial installation by the USB dongle.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ensure the USB dongle is installed correctly.
2. Switch off, then switch on the machine, GP 4.
3. Ensure that all connectors on the ESS PWBA, (PL 18.2 Item 4) are securely connected. Ensure all surface mounted modules on the ESS PWBA (PL 18.2 Item 4) are securely connected.
4. Reload the software, GP 9.
5. Perform the OF 21 Special Boot Modes RAP.
6. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

102-356 EWS Soft Fail RAP

102-356 Fatal error related to EWS.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, (PL 18.2 Item 4) are securely connected. Ensure all surface mounted modules on the ESS PWBA (PL 18.2 Item 4) are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

103-310 to 103-313 Hybrid Water Mark RAP

103-310 The secure watermark kit cannot be made available because the hybrid watermark detection hardware is not installed.

103-311 The secure watermark kit is not enabled.

103-312 The secure watermark kit cannot be made available because the hybrid watermark detection hardware for document side 2 is not installed.

103-313 The secure watermark kit did not become available because of insufficient IISS extension memory.

Procedure

For information only. No service action necessary.

103-314 Prohibited Originals RAP

103-314 Possible prohibited originals (system fail).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, (PL 18.2 Item 4) are securely connected. Ensure all surface mounted modules the ESS PWBA are securely connected.
3. Initialise the hard disk, refer to dC355 Hard Disk Diagnostics.
4. Reload the software, GP 9.
5. If the fault persists, install new ESS PWBA, PL 18.2 Item 4.

116-210, 116-211 Media Reader Error RAP

116-210 Fatal error of media reader.

116-211 Media reader connection cable disconnected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Check the connectors on the USB harness. If necessary install a new USB harness, PL 18.2 Item 12.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-212, 116-220 ESS Error RAP

116-212 MediaLib internal logic error has occurred.

116-220 The downloader software that processes downloads within the ESS failed to initialize during transition into download mode.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on the PWBA are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-312, 116-313 HDD Encrypt Key Fail RAP

116-312 An error in the encryption key was detected on booting.

116-313 An encryption setting error was detected on booting.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Enter special boot mode, GP 16. Perform the LONGDIAG MODE routine
3. Disconnect then reconnect the hard disk drive harness, PL 18.2 Item 91.
4. Reload the software, GP 9.
5. Switch off, then switch on the machine, GP 4.
6. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on the ESS PWBA are securely connected, then perform the same operation when the error occurred.
7. Enter special boot mode, GP 16. Perform the STORAGE DEVICE INITIALIZE MODE routine routine.
8. If the fault persists install a new hard disk drive, PL 18.2 Item 91.
9. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.
10. When the system has been recovered, advise the customer to set a correct HDD encryption key.
11. If the problem persists, reinstall the original ESS PWBA, then contact the 2nd level support.

116-314 Ethernet Address Fail RAP

116-314 An Ethernet error was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to check that the TCP/IP ports are correctly configured.
2. Switch off the machine GP 4, then:
   a. Remove the EMMC card.
   b. Reinstall the EMMC card, then switch on the machine, GP 4.
3. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
4. Reload the software, GP 9.
5. Perform the 016A Scan to Network Error Entry RAP.

116-320, 116-345 Process Error RAP

116-320 Fatal error of the STREAMZ. A problem has occurred in the software processing and it is unable to continue with the subsequent processes.

116-345 Token Ring Control IC Access error.

Procedure

Switch off, then switch on the machine, GP 4.

116-321, 322, 323, 328, 329, 338 Software Error RAP

116-321 Due to an error in software processing, subsequent processes cannot be performed.

116-322 Due to an error in software processing, subsequent processes cannot be performed.

116-323 During a read/write check at power on, OS/DD detects an error with the ESS-NVRAM board.

116-328 A failure was detected in the level 2 cache built in the CPU.

116-329 A system call error related to the serial I/F was detected.

116-338 Overall JBA fatal error. Due to an error in software processing, subsequent processes cannot be performed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-324 Exception Fail RAP

116-324 A fatal software exception error has occurred in the controller PWB CPU.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
3. Reload the software, GP 9.
4. Check the wiring between the ESS PWB, PL 18.2 Item 4 and the hard disk.
5. Initialise the hard disk. Refer to dC355 Hard Disk Diagnostics.
6. Initialize the Sys - System NVM, refer to dC301.
7. Install a new ESS PWBA, PL 18.2 Item 4.

116-325 ESS Fan Fail RAP

116-325 An error occurred in the rotation of the ESS fan.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, install new main fan, PL 4.1 Item 13.

116-330, 331, 336, 337, 339 HDD File System Fail RAP

116-330 HDD check at power on detected that an error has occurred or the HDD was not formatted.

116-331 A log related error was detected.

116-336 An error was detected when the HDD was accessed.

116-337 Overall SNTP fatal error. Due to an error in software processing, subsequent processes cannot be performed.

116-339 When the JBA is started up, the HDD is not installed.

Procedure

Perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

116-334 ESS NVRAM Data Compare Fail

116-334 ESS NVRAM Data Compare failure.

During a check of read/write at power on, System Cont detects [ESS-NVRAM with factory settings is installed] or [Illegal ESS-NVRAM data is occurring].

Because data for initialization in ESS-ROM is written on ESS-NVRAM data when 116-334 is detected, powering OFF then ON after that causes System Fails (124-315) that indicate mismatches in various data between the three locations MCU PWBA, ESS PWBA SEEP Data SYS1 and ESS PWBA NVM Data SYS2.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Check, then if necessary load the latest software, GP 9.
3. Check dC125. If a 124-3XX fault has occurred perform the dC132 Machine ID/Billing Data routine to synchronize the serial, product or billing data numbers.
4. Switch off the machine GP 4, then:
   a. Remove the EMMC card.
   b. Reinstall the EMMC card, then switch on the machine, GP 4.
5. Perform the OF 21 Special Boot Modes RAP.
6. Install a new ESS PWBA PL 18.2 Item 4.
7. If the fault persists, contact 2nd level support.

116-340 Not Enough Memory RAP

116-340 Insufficient memory was detected during initialization. A PS option requiring an additional memory was installed but memory was not added.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4.

116-341, 342, 393, 394 ROM Version Incorrect RAP

116-341 Versions of the multiple ROM DIMMs installed are incorrect.

116-342 Fatal error related to the SNMP agent.

116-393 AAA manager fatal error.

116-394 Abnormal authentication mode and accounting mode settings detected during AAA manager boot sequence.

Procedure

Reload the software, GP 9.

116-343, 346, 357, 359 Main PWB Error RAP

116-343 An error was detected in the IC in the ESS PWB.

116-346 A response such as system function recall error was detected.

116-357 PS Fatal System Error

116-359 Fatal error in PLW.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
3. Perform the OF 21 Special Boot Modes RAP.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-348, 349, 358, 360, 374 Redirecter Fail RAP

116-348 Various fatal errors detected in the redirecter.

116-349 An error occurred when calling the Pflite function using the SIF.

116-358 Fatal error related to salutation.

116-360 Fatal error related to SMB.

116-374 Fatal error of auto SW.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to check that the TCP/IP ports are correctly configured.
2. Switch off, then switch on the machine, GP 4.
3. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
4. Perform the OF 21 Special Boot Modes RAP.
5. Reload the software, GP 9.
6. Perform the 016A Scan to Network Error Entry RAP.

116-353, 354, 356, 361, 362 HDD Fail RAP

116-353 The HDD was not booted due to a physical HDD failure detected on booting.

116-354 The M/C was not started up due to a product code error detected in the HDD on booting.

116-356 The M/C was not started up due to an insufficient HDD capacity error detected during HDD formatting.

116-361 Fatal error of SPL HDD.

116-362 SSDP Software Fail.

Procedure

Perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

116-355, 363, 367, 370, 373, 376 Fatal Error RAP

116-355 Fatal error related to the SNMP Agent.

116-363 BMLinkS/print service software failure.

116-367 Overall fatal error of Parallel.

116-370 Fatal error of XJCL.

116-373 Fatal error related to dynamic DNS.

116-376 Port 9100 software fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to check that the TCP/IP ports are correctly configured.
2. Switch off, then switch on the machine, GP 4.
3. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on the ESS PWBA are securely connected.
4. Reload the software, GP 9.
5. Perform the 016A Scan to Network Error Entry RAP.
6. Perform the OF 21 Special Boot Modes RAP.
7. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-364, 365, 366, 368, 371, 372, 375, 377 Timer Fail RAP

116-364 An error in the timer was detected.

116-365 Fatal error of the SPL.

116-366 Print utility operational failure, report generator operational failure.

116-368 Fatal error of DumpPrint.

116-371 PCL decomposer software failure.

116-372 Fatal error of P-formatter.

116-375 A response such as system function recall error was detected.

116-377 Video DMA failure was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-378, 379, 395 MCR/MCC Soft Fail RAP

116-378 Fatal error related to MCR. Due to an error in software processing, subsequent processes cannot be performed.

116-369 Fatal error related to MCC. Due to an error in software processing, subsequent processes cannot be performed.

116-395 Fatal error related to USB.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to check that the TCP/IP ports are correctly configured.
2. Switch off, then switch on the machine, GP 4.
3. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
4. Reload the software, GP 9.
5. Perform the 016A Scan to Network Error Entry RAP.

116-380 ESS Font ROM DIMM #1 Check Fail RAP

116-380 ESS Font ROM DIMM #1 check failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
3. Ensure that the fax PWBA, PL 18.2 Item 7 is installed correctly.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-381 ABL Version Fail RAP

116-381 ABL did not match the ABL version information on the NVM, or corrupted data was detected.

Procedure

Initialize the NVM, refer to dC301 NVM Initialization.

NOTE: *Inform the customer that this will clear all address information.*

116-382 ABL Initialize Fail RAP

116-382 ABL has failed to access the NVM or HDD.

Procedure

Perform the steps that follow:

1. Enter dC131. Set NVM value 790-664 to 0.
2. Reload the software, GP 9.
3. If the fault persists, perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

116-383 PIT Lib Failure RAP

116-383 Board Fault/non-installation, or HDD access error.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Check dC125 Faults. If a new fault is listed, perform the relevant RAP.
3. If the fault persists, perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

116-384, 385, 387, 389 DCS/IDC Software Fail RAP

116-384 DCS-related fatal error. Due to an error in software processing, subsequent processes cannot be performed.

116-385 Fatal error related to IDC. Due to an error in software processing, subsequent processes cannot be performed.

116-387 A fatal error has occurred during the usage of high compression board.

116-389 The necessary additional RAM was not installed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

116-386 Fax USB Port RAP

116-386 At startup, the fax USB cable was connected to an incorrect port.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that the fax USB cable is connected to the correct USB port.

116-388 No HDD RAP

116-388 The system detected that the HDD was not installed, even though the system configuration (with Fax) requires a HDD.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

116-391 Illegal Code RAP

116-391 Country code/territory code/paper size group setting error detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, enter dC131. Make sure NVM values 700-165, 700-338 and 700-402 are correct. Change the values as necessary.

116-396 FIPS140 Self Test Fail RAP

116-396 At start, the FIPS140 encryption module self-test has detected a failure. Self test error due to illegal ROM (FW).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.

116-397 Illegal Setting Area Coverage Threshold RAP

116-397 The plain total color judge threshold setting is incorrect.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Enter dC131. Make sure the value of 720-061 is higher than 720-060. Adjust the values as necessary.

116-399 Initialization RAP

116-399 The machine remains in initializing state even after 10 minutes has passed since it has started up (not including the startup after power save).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Make sure all surface mounted modules on the ESS PWBA are securely connected.
3. Reload the software, GP 9.

116-701, 116-710 Out of Memory Duplex Fail RAP

116-701 One page data was printed on multiple pages during two sided print.

116-710 HP-GL spool file overflow.

Procedure

Advise the customer that the optional hard disk drive is required, PL 18.2 Item 91.

116-702, 116-703 Postscript Language RAP

116-702 Printing performed with a substitute font.

116-703 There is a problem in the PostScript data and an error occurred in PostScript grammar interpretation or language interpretation.

Procedure

Perform the steps that follow:

1. Advise the customer to ensure the appropriate font is installed.
2. Switch off, then switch on the machine, GP 4.
3. Reload the software, GP 9.

116-704 Media Reader RAP

116-704 The MediaLib detected this error while performing the operation that requires access to media.

Procedure

Ensure that all paper trays are loaded with the correct media.

116-705 to 116-709, 716, 717 Media Reader Format RAP

116-705 The MediaLib detected this error while performing the operation that requires access to media.

116-706 The MediaLib detected this error while performing the operation that requires access to media.

116-707 The MediaLib detected this error while performing the operation that requires access to media.

116-708 The MediaLib detected this error while performing the operation that requires access to media.

116-709 The MediaLib detected this error while performing the operation that requires access to media.

116-716 The MediaLib detected this error while performing the operation that requires access to media.

116-717 The MediaLib detected this error while performing the operation that requires access to media.

Procedure

Perform the steps that follow:

1. Advise the customer to check the contents in the media for errors from the PC:
   a. Check the file format/directory and selected mode (digital camera print/document print).
   b. Check whether the printed file attribute information is displayed.
   c. Check whether the print file images are displayed.
   d. Check whether the printed file attribute information is displayed.
   e. If the fault persists, inform the customer that the media may be defective.
2. If the fault persists, inform the customer that the media may be defective.

116-713 HDD Full RAP

116-713 Collate operation was split when HDD full occurred in print service.

Procedure

Perform the steps that follow:

1. Advise the customer to:
   a. Delete the stored documents to clear HDD full condition.
   b. Split the job so that HDD full does not occur.
2. If the fault persists, perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

116-714 HP-GL/2 Command Error RAP

116-714 HP-GL/2 command error occurred.

Procedure

Perform the steps that follow:

1. Reload the software, GP 9.
2. Perform the 016-210, 506, 777, 780, 798 HDD Error RAP.
3. If the fault persists, perform the 016A Scan to Network Error Entry RAP.

116-719 XPIF Parameter Cancelled RAP

116-719 Cancellation of the parameter(s) disabled by XPIF.

Procedure

Some of the parameters are disabled by XPIF so the device cannot execute them. Advise the customer to cancel the disabled parameter(s).

116-720 PCL Memory Low Page Simplified RAP

116-720 PCL memory low, page simplified.

Procedure

Advise the customer to:

1. Deactivate the unnecessary ports.
2. Adjust buffer memory sizes.
3. That if the fault persists, the optional hard disk drive is required, PL 18.2 Item 91.

116-721 to 116-724, 726, 727, 728 Color Print Permissions RAP

116-721 Color printing is prohibited in this time zone. Output changed to monochrome.

017-722 Color printing prohibited. Output changed to monochrome.

017-723 Color print attempted from a prohibited application. Output changed to monochrome.

017-724 Single sided print attempted from a prohibited application. Output changed to duplex.

017-726 Color, single sided print attempted. Output changed to monochrome, duplex.

017-727 Single sided print attempted. Output changed to duplex.

017-728 Prohibited print attempted. Output changed to acceptable output.

Procedure

Advise the customer to set the permissions and time zone as required.

116-725 HDD Image Log Full RAP

116-725 The log image storage area on the disk is full.

Procedure

Advise the customer to:

1. Rerun the job.
2. If the situation persists despite re-attempts, delete unnecessary documents saved in the device.

116-738 Size/Orientation Mismatch RAP

017-738 Form overlay is impossible because the size/orientation of the form's drawing is different from that of the paper.

Procedure

Advise the customer to select paper that has the same size and orientation as the registered form.

116-739, 741, 742, 743 Out of Disk Area RAP

017-739 The form/logo data cannot be registered due to insufficient RAM or hard disk space.

017-741 The form data cannot be registered due to the restriction on the no. of forms.

017-742 The logo data cannot be registered due to the restriction on the no. of logos.

017-743 The received data (form/logo) exceeded the registered buffer size.

Procedure

Advise the customer to delete the unnecessary forms/logos. Otherwise, if not already installed, inform the customer that the optional hard disk drive is required, PL 18.2 Item 91.

116-740 Arithmetic Error RAP

017-740 The value calculated in the interpreter exceeded the limit.

Procedure

Advise the customer to upgrade the driver.

116-746 Selected Form Not Registered RAP

017-746 The specified form is not registered.

Procedure

Advise the customer to use a registered form or register the required form.

116-747, 116-748 Invalid Page Data RAP

017-747 After subtracting the paper margin from the valid coordinate area, the result of the calculation will be negative.

017-748 Drawing data does not exist in the page data.

Procedure

Advise the customer to repeat the operation.

116-749 PostScript Font Error RAP

017-749 Job was aborted because the specified font is not found.

Procedure

Advise the customer to add the necessary font, or specify a substitute font.

116-750 Banner Sheet Cancelled RAP

017-750 Banner sheet was cancelled.

Procedure

Advise the customer to set the banner sheet feed tray status to normal or change the banner sheet feed tray.

116-752 Print Job Ticket RAP

116-752 The machine received a print job ticket sent together with a PDF but the job ticket data includes printing instructions that are not supported by the machine.

Procedure

Perform the steps that follow:

1. Obtain the Printer Setting List, Job History Report and the print job ticket that was sent when the problem reoccurred.
2. Advise the customer to:
   a. Re-run the job.
   b. Print to a machine that supports the printing instructions.
3. Reload the software, GP 9.
4. If the fault persists contact the support department.

116-771 to 116-780 Invalid JBIG Parameter RAP

116-771 An incorrect JBIG parameter DL was automatically corrected.

116-772 An incorrect JBIG parameter D was detected and automatically corrected.

116-773 An incorrect JBIG parameter P was detected and automatically corrected.

116-774 An incorrect JBIG parameter YD was detected and automatically corrected.

116-775 An incorrect JBIG parameter L0 was detected and automatically corrected.

116-776 An incorrect JBIG parameter MX was detected and automatically corrected.

116-777 An incorrect JBIG parameter MY was detected and automatically corrected.

116-778 An incorrect JBIG parameter VLENGTH was detected and automatically corrected.

116-780 The system detected an error in the document attached to the E-mail to XXX

Procedure

For information only. No service action necessary.

117-310 WSD Scan S/W Fail RAP

117-310 A problem occurred in the processing of WSD scan service software, causing the processing to discontinue.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 24 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 24.

117-311 Wrong Insertion of Security Enhancing Kit RAP

117-311 The security extension kit is not installed in the correct slot.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the machine, GP 4.
2. Remove the security enhancing kit from the incorrect slot.
3. Install the security enhancing kit in the correct slot.
4. Switch on the machine, GP 4.

117-312 Device Self Test Error RAP

117-312 During an OS self program determination test, it was detected that the checksum value and the mini OS/program were different.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Reload the software, GP 9.
2. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

117-313, 117-314 Region or Contract Change Fail RAP

117-313 The geographic region change command from the PJL can not be implemented.

117-314 The contract type change command from the PJL can not be implemented.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 24 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 24.

117-315 Contract Type/Geographic Region Changed RAP

117-315 The geographic region and contract type change command from the PJL was implemented.

Procedure

Advise the customer to install the correct CRUs for the changed geographic region and contract type.

117-316 Contract Manager Software Fail RAP

117-316 When the contract manager is running, it can no longer perform task control due to a software malfunction.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, reload the software, GP 9.

117-317, 117-318 Contract Manager PPP RAP

117-317 The contract manager detected that the PPP contract has ended.

117-318 The contract manager detected that the DC command write that was performed at the end of a PPP contract has failed.

Procedure

Advise the customer to wait for the machine to reboot.

117-319 EMMC Card Program or Font Data Access RAP

117-319 When attempting to extract programs and font data from the EMMC card into the memory immediately after power on, an access error occurred and retrying still results in access failure. Or, the write protection switch of the EMMC card is locked and prohibits writing, which is also treated as an error.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, GP 4. Remove the EMMC card, PL 18.2 Item 37, ensure the contacts on the EMMC card and socket are clean and undamaged. Ensure the write protection switch of the EMMC card is unlocked. Switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Reload the software, GP 9. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on the ESS PWBA are securely connected, then perform the same operation when the error occurred. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Perform the OF 21 Special Boot Modes RAP. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

If the problem persists, reinstall the original ESS PWBA, then contact the 2nd level support.

117-320 to 117-324, 327, 329, 338 EMMC Card Fail RAP

117-320 When starting, a EMMC card hardware error was detected by SysCheckMemory.

117-321 When starting, the installed EMMC card was detected to be unsupported by SysCheckMemory.

117-322 When starting, memory encryption error was detected by SysCheckMemory.

117-323 When starting, EMMC card file system access error was detected by SysCheckMemory.

117-324 When the OS is starting up, the system detected that the EMMC card is meant for another product and an error is issued.

117-327 Hardware fault processing of NVRAM area/access on the EMMC card.

117-329 When starting up, the EMMC card was detected to be not connected by the OS or SysCheckMemory.

117-338 Fault in the connection with EMMC card is detected by the controller.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ensure the EMMC card, PL 18.2 Item 37 is securely installed.
2. Switch off, then switch on the machine, GP 4.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. Perform the OF 21 Special Boot Modes RAP.
6. Install a new ESS PWBA, PL 18.2 Item 4.
7. If the fault persists, contact 2nd level support.

117-325, 117-326 Access Fail RAP

117-325 When the machine is starting, failed to obtain the RTC time value.

117-326 When accessing the NVRAM data during start up or operation, a software malfunction occurs where the software parameters detected by the OSDD are mismatched.

Procedure

Switch off, then switch on the machine, GP 4.

117-330 XBDS Soft Fail RAP

117-330 XBDS-related Fatal Error. A problem has occurred in the software processing and it is unable to continue with the subsequent processes.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Advise the customer to check that:
   - HTTP and HTTPS have started up normally and are operable.
   - The TCP/IP ports are correctly configured.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

117-331, 117-355 Un Initialized HDD RAP

117-331 An un initialized HDD that was used for another device was recognized.

117-355 HDD is not recognized in this startup.

Procedure

Perform the 016-210, 506, 777, 780, 798 HDD Error RAP.

117-332, 117-335 Uninitialized Used NVM RAP

117-332 An un initialized NVM that was used for another device was recognized.

117-335 Invalid NVM detection.

Procedure

Initialize the NVM, perform dC301 NVM Initialization.

117-333 Uninitialized Used Memory Card RAP

117-333 An un initialized memory card that was used for another device was recognized.

Procedure

Enter special boot mode, GP 16. Perform the STORAGE DEVICE INITIALIZE MODE routine on the 1st level menu.

117-336 PCI Option No Support Device Fail RAP

117-336 An unknown PCI option is detected by the controller.

Procedure

1. Switch off, then switch on the machine, GP 4.
2. Check if the PCI option is supported.
3. Re-insert the PCI option.

If problem persists, install a new ESS PWBA, PL 18.2 Item 4.

117-337 PCIEX Option No Support Device Fail RAP

117-337 An unknown PCIEX option is detected by the controller.

Procedure

1. Switch off, then switch on the machine, GP 4.
2. Check if the PCIEX option is supported.
3. Re-insert the PCIEX option.

If problem persists, install a new ESS PWBA, PL 18.2 Item 4.

117-339 NVM Backup is Not Carried Out Fail RAP

117-339 When the hard disk replacement is detected, it was also detected that the NVM had not been backed up beforehand.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the machine, GP 4.
2. Enter special boot mode, GP 16. Perform the STORAGE DEVICE INITIALIZE MODE routine.

117-340 Other HDD Fail RAP

117-340 A hard disk that was formatted by another machine was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Install a new hard disk, PL 18.2 Item 91.
2. If the fault persists, perform the actions that follow:
   a. Switch off, then switch on the machine, GP 4.
   b. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
   c. Reload the software, GP 9.
   d. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

117-342 Storage device incorrect-exchanged Fault RAP

117-342 One of the following apply:

- An SSD is installed to a machine that had a HDD installed.
- A HDD is installed to a machine that had an SSD installed.
- The type of storage device that is stored in the Seep has become an undefined value.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Install a new hard disk drive, PL 18.2 Item 91.
2. If the fault persists:
   a. Switch off the machine, GP 4.
   b. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
   c. Reload the software, GP 9.
   d. If the fault persists install the previously installed storage device (HDD or SSD).

117-343 Log Sending Parameter Fail RAP

117-343 An incorrect setting of the log transfer function was detected:

1. When the image log function is disabled and the auto transfer function is enabled, transfer in job units is set.
2. When the job log auto transfer function is disabled (no hard disk), the auto transfer function of the log is set to enabled.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to change the settings of the log transfer function:
   - For detection condition 1, change the operation method for Log Auto Transfer to anything other than Transfer in Job Units.
   - For detection condition 2, check whether a hard disk is installed or change the Auto Transfer function of the log to disable it.
2. Reload the software, GP 9.
3. Perform the OF 21 Special Boot Modes RAP.
4. f the fault persists install a new ESS PWBA, PL 18.2 Item 4.

117-344 Invalid User Job Type Fail RAP

117-344 The applicable user job cannot be executed at the system level.

Procedure

Advise the customer to check if public print it is set to be stored as charge print.

117-345 SSMM Batch Setting Duration Fail RAP

117-345 During the batch setting of LoDeM, a reboot occurred due to a change in system data.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. For a single occurrence, take no action.
2. If the fault persists, perform the steps that follow:
   a. Switch off, then switch on the machine, GP 4.
   b. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
   c. Reload the software, GP 9.
   d. Perform the OF 21 Special Boot Modes RAP.
   e. Install a new ESS PWBA, PL 18.2 Item 4.

117-347, 349, 350 Service Fail RAP

117-347 When the SEEP extension billing counter have been used and billing count cannot be performed as new extension counter cannot be obtained.

117-349 Detects this failure when it enters a state where it is unable to continue operating as GRS.

117-350 A problem has occurred in the AirPrint scan service software processing and it is unable to continue with the subsequent processes.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

117-348 Un Initialized Used Memory Card RAP

117-348 An un-initialized memory card that had been used in another device was recognized.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Initialize the NVM, perform dC301 NVM Initialization.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

117-354, 356, 358 Job Limit System Fail RAP

117-354 An error has occurred at Coml_SsmiIsJoblimit before the job was executed.

117-356 When obtaining the JobLimit estimation, a system error was detected in ComlDvm_GetEstimation.

117-358 A problem has occurred in software processing, and subsequent processes cannot be performed, resulting in a fatal error related to the JAL.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, enter special boot mode, GP 16. Perform the LONGDIAG MODE routine.

117-357 TPM Fail RAP

117-357 A Trusted Platform Module has failed.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

117-360 Date Limit Exceeded Fail RAP

117-360 Date limit exceeded.

Procedure

Perform the steps that follow:

1. Advise the customer to set the correct time and date.
2. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

117-362, 117-363 USB Dongle Fail RAP

117-362 During the initial installation by USB dongle, it fails to set the TSC contract mode.

117-363 During the initial installation by USB dongle, it fails to set the count-up mode.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure the correct USB dongle is installed.

117-364 Key Fail RAP

117-364 TPM encryption key data corrupted .

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4, 2 times if necessary.
2. Enter dC131. Set NVM value 700-449 to 000000000000.
3. Perform dC355 Initialize Hard Disk.
4. Switch off, then switch on the machine, GP 4.

117-365 WiFi Diagnostics Test Failure RAP

117-365 Error during WiFi diagnostics test.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Check the connection of the wireless adaptor, PL 18.2 Item 90.
3. If the fault persists install a new wireless adaptor, PL 18.2 Item 90.

118-310, 118-311 Internal Fail RAP

118-310 An internal error was detected during initialization of the IPSEC.

118-311 GCP related fatal error. The problem occurs at software processing, and processing is unable to proceed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 24 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9
4. Perform the OF 21 Special Boot Modes RAP.

121-310 EPSV-Accessory Communication Fail RAP

121-310 Transmission has failed between the EP-SV and the accessories.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. Re-run the job. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the connection to the EP Accessory, Pull out and insert the EPSV Board. Disconnect then reconnect the harness. Re-run the job. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the version of the controller ROM. **The controller ROM is the latest version.**

Y **N**

Reload the software, GP 9.

Refer to the EP Accessory manual to perform the corrective actions.

121-311 IC Card Auditron Password Fail RAP

121-311 During power ON, the machine performs an auto correction and reboots because of an incorrect combination between the external authentication settings of this machine and the connected machine.

Procedure

When the IC card gate is connected and all the following settings have been made, the IC Card Link Mode is changed to Enter Password.

- Set Login Setup / Auditron Administration > Login Setup / Auditron Mode to Remote Access.
- Set Login Setup / Auditron Administration > Login Setup / Auditron Mode > Remote Access > IC Card Link Mode to No Password Required.
- Select System Settings > Network Settings > Remote Authentication Server/Directory Service > Authentication System and set to Kerberos or SMB.

NOTE: *When the IC card gate is connected the system automatically sets Login Setup / Auditron Administration > Login Setup / Auditron Mode > Remote Access > IC Card Link Mode to Enter Password. If the customer does not want to use a password, make the appropriate settings.*

121-312 IC Card Auditron Accessory Fail RAP

121-312 During power ON, an error has occurred due to the following setting combinations that are not allowed; An EP-related product other than the IC Card Gate is connected, or, the IC Card Gate is installed together with other EP-related products.

Procedure

Perform the actions that follow:

1. Without the EP-related products connected, start up the machine and set Login Setup / Auditron Administration > Login Setup / Auditron Mode to other than Remote Access.
2. Install the IC Card Remote Authentication Kit option and set the IC Card Gate of the EP-related product to single connection.

121-313 IC Card Auditron Software-key Fail RAP

121-313 During power on, an error has occurred due to the following setting combinations that are not allowed: The IC card remote authentication kit option is not installed. and the IC card gate of EP-related product is connected singly (set).

Procedure

Perform the actions that follow:

1. Without the EP-related products connected, start up the machine and set Login Setup / Auditron Administration > Login Setup / Auditron Mode to other than Remote Access.
2. Install the IC Card Remote Authentication Kit option.

121-314 Customize User Prompts Fail RAP

121-314 When the machine was in Network Accounting Mode, ChainLink was Card Auditron Level 2 or IC Card Auditron Level 2 and the panel specified Customize User Prompts = prompt 2 only or none.

Procedure

Change the system data (Chain-Link) so that the detection condition will not occur, by enabling Card Auditron Level 2/IC Card Auditron Level 2 when the machine is in Network Accounting Mode, set Customize User Prompts to both or prompt 1 only.)

121-316 Accessory Conflict RAP

117-316 Prohibited combination of EP accessory connection and secure access authentication.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Disconnect the EP accessory.
2. Set the authentication method to an option other than Secure Access (either Authentication Off, Local Authentication or Remote Authentication).
3. Reconnect the EP accessory.

121-317 EP Function Fail RAP

117-317 When 850-020 is set to 0 (zero) and the Auditron Mode was changed from Internal Auditron to an option other than Internal Auditron.

Procedure

Enter dC131. Set the NVM value 850-020 to 0 (zero) or, return the Auditron Mode to Internal Auditron NVM value 700-540 to 1.

121-318 Auth/Account Settings Not Supported RAP

117-318 Auth/account settings not supported.

Procedure

For information only. No service actions necessary.

121-319 Fax Send Charging and Internet Fax Setting Confliction RAP

121-319 When the device is starting up, it was detected that the Internet FAX Kit function was already activated when the Fax send billing function was enabled.

Procedure

Advise the customer to disable the fax send billing function or the internet fax kit functions. Switch off, then switch on the machine, GP 4.

121-323 Web EP Software Fail RAP

121-323 Fatal error related to Web EP. Due to an error in software processing, subsequent processes cannot be performed.

Procedure

Switch off, then switch on the machine, GP 4.

121-324 Fax Send Charging Confliction RAP

117-317 It is detected that with fax send charging enabled, blank document detection is enabled or blank document detection display (KO screen display) is enabled.

Procedure

Perform the steps that follow:

1. Enter dC131. Set NVM value 850-021 to 0 (zero) to disable fax send charging or set NVM values 820-123 and 790-670 to 0 (zero).
2. Switch off, then switch on the machine, GP 4.

121-325 ICCR And Panel Auth Setting Confliction RAP

121-325 Detected a combination that is not allowed during booting and automatically disabled the setting that links authentication from the IC card and the panel.

Procedure

Perform the actions that follow:

1. Make the connection ICCR individual by USB and combine the authentication from IC card and the panel. System Data: 700-909 is reset to 0 (zero) (disabled) from 1 (enabled) in auto reboot.
2. Disconnect the EP related products and set to C/L 850-001 to 0 (zero).
3. Enable C/L: set 700-909 to 1.
4. If the problem persists, reload the software, GP 9.

121-327 EPSV Accessory Not In Service Fail RAP

121-327 When the connection of an unsupported accessory or an accessory that is not supported by this product was detected at power on.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the actions that follow:

1. Switch off the machine, GP 4.
2. Disconnect the cable between the accessory and the ESS PWBA.
3. If the system data (850-001, 850-007, etc.) was changed, return it to the default value.
4. Switch on the machine, GP 4.
5. If the problem persists, reload the software, GP 9.

121-328 to 121-332, 341, 342, 343 EP Communication Fail RAP

117-328 Cannot detect the connection of related products or there is no response from the transmission path, or a protocol error has occurred.

117-329 A communication error was detected when Message Change Answer was being transmitted.

117-330 Accessory detached boot was executed in a product that is not of an arcade specification.

117-331 A setting conflict was detected during startup: NVM 850-001 is set to 1 and connection with the accessory was not detected.

117-332 The wake command from this machine to related products has elapsed.

117-341 Undefined accessory information was detected in the wake up answer message.

117-342 Fatal error of related products in the job disable message.

117-343 Fatal error of related products in the accessory status message.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. Re-run the job. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the connection to the EP accessory, Pull out and insert the EP-IF PWBA. Disconnect then reconnect the harness. Re-run the job. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the version of the controller ROM. **The controller ROM is the latest version.**

Y **N**

Reload the software, GP 9.

Install a new EP accessory. Re-run the job. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Refer to the EP Accessory manual to perform the corrective actions.

121-339 Coin Kit Price Table Error RAP

117-339 When the machine is running, a notification is issued from the coin kit indicating that the price data in the coin kit has been changed, or, when the machine is booting or returning from power save, a notification is issued from the coin kit indicating a unit price error (the unit price table in the coin kit contains un set unit prices).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Advise the customer to correct the unit price settings in the coin kit. Switch off, then switch on the machine, GP 4.
2. If the fault persists:
   a. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
   b. Reload the software, GP 9.
   c. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

121-340 EP Accessory MisMatch RAP

117-340 The combination of accessories that are installed does not match the specifications.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Make any accessories are installed correctly and are the correct specification.
2. Switch off, then switch on the machine, GP 4.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

123-310 to 123-353 UI Error 1 RAP

123-310 The data sent from the UI to the controller exceeded the upper limit for the processing capability.

123-311 The data received from the controller exceeded the upper limit for the processing capability in the UI.

123-312 The data received from the controller has exceeded the upper limit of the processing capability in the UI.

123-325 The specified UI internal object could not be created due to a setting/specification error. UI-SW failure in the ESS PWBA.

123-326 UI software failure in the ESS PWBA.

123-333 The hardware connection in the UI is faulty or the internal connection could not be correctly detected.

123-343 UI software failure in the ESS PWBA.

123-344 UI software failure in the ESS PWBA.

123-350 MCW panel one-touch key fail.

123-352 An error internal to the con-panel (an abnormal value in EEPROM for Sys) has been detected.

123-353 The control panel has detected that the UI cable is disconnected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the wiring and connectors between the console assembly, PL 1.1A Item 4 or PL 1.1B Item 4 and the ESS PWBA, PL 18.2 Item 4. Check for loose connection, damage and contamination. **The wiring is good.**

Y **N**

Repair the wiring or install new components as necessary:

- (C400) Console assembly, PL 1.1A Item 4.
- (C405) Console assembly, PL 1.1B Item 4.
- ESS PWBA, PL 18.2 Item 4.

Reload the software, GP 9.

123-354 to 123-381 UI Error 2 RAP

123-354 The control panel has detected a drop in the +24V power supply.

123-355 The control panel has detected a drop in the +5V power supply.

123-356 The control panel has detected that FFC is disconnected from one touch key for fax or that one touch key has a problem.

123-357 The control panel has detected that writing in the EEPROM has failed.

123-358 The control panel has detected that writing in the EEPROM for logging failed.

123-362 UI software failure in the ESS PWBA.

123-368 There is insufficient memory or the connection failed.

123-369 UI software failure in the ESS PWBA.

123-371 The parameter sent from the controller was incorrect.

123-374 The job ID parameter sent from the controller was incorrect.

123-377 UI software failure in the ESS PWBA.

123-379 UI software failure in the ESS PWBA.

123-380 UI software failure in the ESS PWBA.

123-381 UI software failure in the ESS PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Check the wiring and connectors between the console assembly, PL 1.1A Item 4 or PL 1.1B Item 4 and the ESS PWBA, PL 18.2 Item 4. Check for loose connection, damage and contamination. **The wiring is good.**

Y **N**

Repair the wiring or install new components as necessary:

- (C400) Console assembly, PL 1.1A Item 4.
- (C405) Console assembly, PL 1.1B Item 4.
- ESS PWBA, PL 18.2 Item 4.

Reload the software, GP 9.

123-382 to 123-399 UI Error 3 RAP

123-382 UI software failure in the ESS PWBA.

123-383 UI software failure in the ESS PWBA.

123-384 UI software failure in the ESS PWBA.

123-389 UI software failure in the ESS PWBA.

123-390 UI software failure in the ESS PWBA.

123-392 UI software failure in the ESS PWBA.

123-393 UI software failure in the ESS PWBA.

123-395 UI software failure in the ESS PWBA.

123-396 UI software failure in the ESS PWBA.

123-397 UI software failure in the ESS PWBA.

123-398 UI software failure in the ESS PWBA.

123-399 UI software failure in the ESS PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Reload the software, GP 9.

124-310, 311, 314, 316, 318, 322, 324, 344, 380 DC132 Error RAP

124-310 Product number not specified.

124-311 Serial number not specified.

124-314 Stored data mismatch.

124-316 Stored data mismatch.

124-318 Stored data mismatch.

124-322 An internal control error was detected.

124-324 All billing counter mismatch.

124-344 All the billing meter types kept at multiple locations are different.

124-380 The CRUM destinations stored in three positions match, but their values are not set (0).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 4 Final Actions.

Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected. **The fault persists.**

Y **N**

Perform SCP 4 Final Actions.

Perform dC132. Make all three product numbers the same. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24 and ESS PWBA, PL 18.2 Item 4.

124-312, 124-357 DC132 Error 12 RAP

124-312 An internal control error was detected.

124-357 When at least one product number is not matched and the machine automatic correction has failed to correct the problem.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 4 Final Actions.

Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected. **The fault persists.**

Y **N**

Perform SCP 4 Final Actions.

Perform dC132. Make all three product numbers the same. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24 and ESS PWBA, PL 18.2 Item 4.

124-313, 124-356 DC132 Error 10 RAP

124-313 Stored data mismatch. The serial numbers do not match.

124-356 Serial number restoration fail.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 4 Final Actions.

Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected. **The fault persists.**

Y N

Perform SCP 4 Final Actions.

Perform dC132. Make all three product numbers the same. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24 and ESS PWBA, PL 18.2 Item 4.

124-315, 317, 355 Data Mismatch DC132 Error 02, 04 and 14 RAP

124-315 Stored IOT speed valve data mismatch. An internal control error was detected.

124-317 Stored product model data mismatch. An internal control error was detected.

124-355 At least one set of territory information at the 3 locations is different.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 4 Final Actions.

Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected. **The fault persists.**

Y N

Perform SCP 4 Final Actions.

Enter dC132. Compare NVM values 700-600, 700-601 and 700-602. **All three values are different.**

Y N

Install a new PWBA of the type that had the different NVM value, MCU PWBA, PL 18.2 Item 24 or ESS PWBA, PL 18.2 Item 4.

Perform dC132. Make all three product numbers the same. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24 and ESS PWBA, PL 18.2 Item 4.

124-319 DC132 Error 08 RAP

124-319 Write error occurred in the SEEPROM on the ESS PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC132. Compare NVM values 700-606, 700-607 and 700-608. **All three values are different.**

Y **N**

Install a new MCU PWBA, PL 18.2 Item 24 and ESS PWBA, PL 18.2 Item 4.

Perform dC132. Make all three values the same.

124-320 SEEPROM Fail RAP

124-320 Write error occurred in the SEEPROM on the ESS PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

124-321 Backup SRAM Fail RAP

124-321 Write error occurred in the NVM on the ESS PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Ensure that the fax PWBA, PL 18.2 Item 7 is installed correctly.
4. Reload the software, GP 9.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

124-323 DC132 06 RAP

124-323 The billing counters in multiple locations are all different.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC132. Compare NVM values 700-603, 700-604 and 700-605. **All three values are different.**

Y **N**

Install a new PWBA of the type that had the different NVM value, MCU PWBA, PL 18.2 Item 24 or ESS PWBA, PL 18.2 Item 4.

Perform dC132. Make all three product numbers the same. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24 and ESS PWBA, PL 18.2 Item 4.

124-325 Billing Restoration Fail RAP

124-325 It was detected that at boot, IOT speed registration procedure status was 1 or 2.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC132 Device ID and Billing Data. **All three serial numbers are different.**

Y **N**

Install a new PWBA of the type that had the different NVM value, MCU PWBA, PL 18.2 Item 24 or ESS PWBA, PL 18.2 Item 4.

Perform dC132. Make all three product numbers the same. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24 and ESS PWBA, PL 18.2 Item 4.

124-326 IOT Speed Not Registered RAP

124-326 IOT speed not registered.

Procedure

Advise the customer to follow the instructions on the UI in order to enter the software key for changing IOT speed.

124-327 IOT Speed Change Software Fail RAP

124-327 A software error was detected during the procedure for changing IOT speed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
2. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24
   - ESS PWBA, PL 18.2 Item 4.

124-331 to 124-339 ESS ROM DIMM RAP

124-331 The system detected that the ESS ROM DIMM #1 was not installed.

124-333 An error was detected in the Panther.

124-334 An error was detected in the standard built-in font ROM.

124-335 The installation of the font ROM was not detected.

124-337 An error was detected in the ESS built-in standard RAM.

124-338 The system detected that a duplicate font ROM was installed.

124-339 The system detected that the ROM DIMM for another model was installed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

124-340 CRUM Market Fail All RAP

124-340 The CRUM destinations stored in three positions match but their values are not set (zero).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and the MCU PWBA, PL 18.2 Item 24 are securely connected. Make sure all surface mounted modules on the ESS PWBA and MCU PWBA are securely connected.
3. Install a new MCU PWBA, PL 18.2 Item 24. Perform dC132. Make all three product numbers the same.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4. Perform dC132. Make all three product numbers the same.

124-341 CRUM Market Fail MCU RAP

124-341 One of the CRUM destinations stored in the three positions does not match (data stored in the MCU PWBA does not match).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 are securely connected. Make sure all surface mounted modules MCU PWBA are securely connected.
3. Install a new MCU PWBA, PL 18.2 Item 24. Perform dC132. Make all three product numbers the same.

124-342 CRUM Market Fail SYS 1 RAP

124-342 The CRUM destinations stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Enter dC132 Device ID and Billing Data. Make all three product numbers the same. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Remove then reinstall the EMMC card, PL 18.2 Item 37. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

If the fault persists, contact 2nd level support.

124-343 CRUM Market Fail SYS 2 RAP

124-343 The CRUM destinations stored in the ESS PWBA does not match the data stored in the MCU PWBA.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Enter dC132 Device ID and Billing Data. Make all three product numbers the same. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Remove then reinstall the EMMC card, PL 18.2 Item 37. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

If the fault persists, contact 2nd level support.

124-344 All Billing Meter Types Mismatch RAP

124-344 All the billing meter types kept at multiple locations are different.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and the MCU PWBA, PL 18.2 Item 24 are securely connected. Make sure all surface mounted modules on the ESS PWBA and MCU PWBA are securely connected.
3. Install a new MCU PWBA, PL 18.2 Item 24. Perform dC132. Make all three product numbers the same.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4. Perform dC132. Make all three product numbers the same.

124-345 Billing Meter Type Restoration Fail RAP

124-345 One billing meter type did not match, the machine tried to automatically correct it but failed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC131. Compare NVM values 720-002 and 720-062. **Both values are the same.**

Y **N**

Install a new ESS PWBA, PL 18.2 Item 4.

Install a new MCU PWBA, PL 18.2 Item 24.

124-346, 348 Information Mismatch RAP

124-346 Billing count type fail (all the three are different from each other).

124-348 Modal break point fail (all the three are different from each other).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and the MCU PWBA, PL 18.2 Item 24 are securely connected. Make sure all surface mounted modules on the ESS PWBA and MCU PWBA are securely connected.
3. Install a new MCU PWBA, PL 18.2 Item 24. Perform dC132. Make all three product numbers the same.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4. Perform dC132. Make all three product numbers the same.

124-347 Billing Count Type Restoration Fail RAP

124-347 One billing meter type did not match, the machine tried to automatically correct it but failed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC131. Compare NVM values 720-052 and 720-063. **Both values are the same.**

Y **N**

Install a new ESS PWBA, PL 18.2 Item 4.

Install a new MCU PWBA, PL 18.2 Item 24.

124-349 Modal Break Point Restoration Fail RAP

124-349 When one modal break point did not match, the machine tried to automatically correct it but failed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC131. Compare NVM values 720-057 and 720-064. **Both values are the same.**

Y **N**

Install a new ESS PWBA, PL 18.2 Item 4.

Install a new MCU PWBA, PL 18.2 Item 24.

124-350, 354 CRUM OEM Fail RAP

124-350 The CRUM OEM destinations stored in three positions match but their values are not set (zero).

124-354 The territory information that is stored in 3 locations are not initialized. Although the values all match, they are the values for Not Set (zero).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Enter dC132 Device ID and Billing Data. Make all three product numbers the same.
3. Install a new MCU PWBA, PL 18.2 Item 24.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

124-351 CRUM OEM Fail MCU RAP

124-351 One of the CRUM OEM destinations stored in three positions does not match (Data stored in the MCU Board does not match).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 are securely connected. Make sure all surface mounted modules MCU PWBA are securely connected.
3. Install a new MCU PWBA, PL 18.2 Item 24. Perform dC132. Make all three product numbers the same.

124-352 CRUM OEM Fail SYS 1 RAP

124-352 The CRUM destinations stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC132 Device ID and Billing Data. Make all three product numbers the same. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Remove then reinstall the EMMC card, PL 18.2 Item 37. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

If the fault persists, contact 2nd level support.

124-353 CRUM OEM Fail SYS 2 RAP

124-353 The CRUM destinations stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Enter dC132 Device ID and Billing Data. Make all three product numbers the same. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Remove the reinstall the EMMC card, PL 18.2 Item 37. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

If the fault persists, contact 2nd level support.

124-360 CRUM Validation Fail All RAP

124-360 The CRUM enable/disable settings stored in three positions match but their values are not set (zero).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 and the MCU PWBA, PL 18.2 Item 24 are securely connected. Make sure all surface mounted modules on the ESS PWBA and MCU PWBA are securely connected.
3. Install a new MCU PWBA, PL 18.2 Item 24. Perform dC132. Make all three product numbers the same.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4. Perform dC132. Make all three product numbers the same.

124-361 CRUM Validation Fail MCU RAP

124-361 The CRUM enable/disable settings stored in the MCU PWBA does not match (Data stored in the MCU Board does not match).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 are securely connected. Make sure all surface mounted modules MCU PWBA are securely connected.
3. Install a new MCU PWBA, PL 18.2 Item 24. Perform dC132. Make all three product numbers the same.

124-362 CRUM Validation Fail SYS 1 RAP

124-362 The CRUM enable/disable settings stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Enter dC132 Device ID and Billing Data. Make all three product numbers the same. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Remove then reinstall the EMMC card, PL 18.2 Item 37. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

If the fault persists, contact 2nd level support.

124-363 CRUM Validation Fail SYS 2 RAP

124-363 The CRUM enable/disable settings stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off, then switch on the machine, GP 4. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Enter dC132 Device ID and Billing Data. Make all three product numbers the same. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Remove the reinstall the EMMC card, PL 18.2 Item 37. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

If the fault persists, contact 2nd level support.

124-372, 373, 374 IOT Soft Fail RAP

124-372 IOT controller software failure. Due to an error in software processing, subsequent processes cannot be performed.

124-373 IOT manager software failure.

124-374 IOT The IOT controller software has detected a fatal error:

- Occurs when the system data obtained from within the controller during start up has an incorrect value.
- Occurs if diagnosics exit is carried out when SysUser NV initialization or IOT NV resulted in exit.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off the machine, GP 4.
2. Ensure that all connectors on the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules are securely connected.
3. Perform the OF 21 Special Boot Modes RAP.
4. Reload the software, GP 9.
5. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.
6. If the fault persists after installing the new ESS PWBA, reinstall the original ESS PWBA.

124-380 CRUM Market Fail All (2) RAP

124-380 The CRUM destinations stored in three positions match but their values are not set (zero).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off the machine, GP 4.
2. If the fault persists, install new components as necessary:
   - MCU PWBA, PL 18.2 Item 24.
   - ESS PWBA, PL 18.2 Item 4.

124-381 CRUM Market Fail MCU 2 RAP

124-381 One of the CRUM destinations stored in the three positions does not match (data stored in the MCU PWBA does not match).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Enter dC132 Device ID and Billing Data. Make all three values the same.
3. If the fault persists, install a new MCU PWBA, PL 18.2 Item 24.

124-382 CRUM Market Fail SYS 1 (2) RAP

124-382 The CRUM destinations stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Perform dC132, use MCU PWBA as the master to resolve the fault.
2. If the problem persists, install a new ESS PWBA, PL 18.2 Item 4.

124-383 CRUM Market Fail SYS 2 (2) RAP

124-383 The CRUM destinations stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Perform dC132, use SYS1 as the master to resolve the fault.
2. If the problem persists, install a new ESS PWBA, PL 18.2 Item 4.

124-390 CRUM OEM Fail All (2) RAP

124-390 The CRUM OEM destinations stored in three positions match but their values are not set (zero).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Install a new MCU PWBA, PL 18.2 Item 24.

124-391 CRUM OEM Fail MCU (2) RAP

124-381 One of the CRUM OEM destinations stored in three positions does not match (data stored in the MCU PWBA does not match).

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Enter dC132 Device ID and Billing Data. Make all three values the same.
3. If the fault persists, install a new MCU PWBA, PL 18.2 Item 24.

124-392 CRUM OEM Fail SYS 1 (2) RAP

124-382 The CRUM OEM destinations stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform dC132, use SYS1 as the master to resolve the fault.
3. If the problem persists, install a new ESS PWBA, PL 18.2 Item 4.

124-393 CRUM OEM Fail SYS 2 (2) RAP

124-383 The CRUM OEM destinations stored in the ESS PWBA does not match the data stored in the other locations.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform dC132, use SYS1 as the master to resolve the fault.
3. If the fault persists, install new components as necessary:
   - ESS PWBA, PL 18.2 Item 4.
   - MCU PWBA, PL 18.2 Item 24.

125-311 PSW Controller Unexpected Fail RAP

125-311 PSW controller software failure, due to an error in software processing, subsequent processes cannot be performed.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA a, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 24 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. If the fault persists, install a new ESS PWBA, PL 18.2 Item 24.

127-310 to 127-315, 342 ESS Error RAP

127-310 A fatal error occurred in the ESR task.

127-311 Fatal error related to ExtPRTc.

127-312 DFE detected a video link error.

127-313 ESS detected a video link error.

127-314 ESS detected a video link error.

127-315 A problem has occurred with software processing, causing the processing to stop.

127-342 A response such as system function recall error was detected.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
3. Reload the software, GP 9.
4. Perform the OF 21 Special Boot Modes RAP.
5. If the fault persists, install a new ESS PWBA, PL 18.2 Item 4.

127-337 Job Template HDD Write Error RAP

127-337 An error occurred when the job template was stored on the HDD.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Check the wiring between the ESS PWBA, PL 18.2 Item 4 and the hard disk.
3. Ensure that all connectors on the MCU PWBA, PL 18.2 Item 24 and the ESS PWBA, PL 18.2 Item 4 are securely connected. Ensure all surface mounted modules on both PWBAs are securely connected.
4. Initialise the hard disk. Refer to dC355 Hard Disk Diagnostics.
5. Perform the OF 21 Special Boot Modes RAP.
6. Reload the software, GP 9.
7. If the fault persists, install a new components as necessary:
   - Hard disk, PL 18.2 Item 91.
   - ESS PWBA, PL 18.2 Item 4.

127-353 to 127-399 Fatal Error RAP

127-353 Fatal error related to LPD.

127-354 Fatal error of FTP server was detected.

127-396 Fatal error related to mail IO.

127-398 Fatal error related to IPP.

127-399 Fatal error related to JME.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform the 016A Workflow Scanning Error Entry RAP.

132-310, 132-311 UI Software Failure RAP

132-310 UI browser software failure.

132-311 UI contents software failure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Start the machine in special boot mode LONGDIAG MODE, GP 16.
3. Reload the software, GP 9.
4. If the fault persists, install a new components as necessary:
   - ESS PWBA, PL 18.2 Item 4.
   - UI console assembly, PL 1.1A Item 4 C400 or PL 1.1B Item 4 C405.
   - UI harness assembly, PL 1.1A Item 1 C400 or PL 1.1B Item 1 C405.
5. If the fault persists, reinstall the original components. Obtain a device log, refer to GP 15 Obtaining Audit and Device Logs. Escalate the problem to 2nd Level support.

133-210 to 133-217 Fax Parameter Incorrect RAP

133-210 The parameter value was inappropriate.

133-211 The PV exceeds the range.

133-212 The specified data was not found (incorrect number or channel).

133-213 The specified data cannot be read due to reasons such as the specified data is broken.

133-214 Detected by FAPE (create instance failed).

133-215 Sent to the FAPE as an asynchronous event.

133-216 Sent to the FAPE as an asynchronous event.

133-217 Sent to the FAPE as an asynchronous event.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

133-218 Fax Card Message Memory RAP

133-218 Insufficient fax card message library memory.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.

133-219 to 133-223 Fax Card Error 1 RAP

133-219 Due to insufficient memory, the system was unable to reserve the memory required for processing.

133-220 Due to an error during Fax controller software processing, subsequent processes cannot be performed.

133-221 The Fax card did not respond within the specified time on booting.

133-222 The Fax card did not respond within the specified time.

133-223 Fax card reset.

Procedure

Perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

133-224 Controller ROM Fax Card ROM Mismatch RAP

133-224 Version mismatch between the controller ROM and the Fax card ROM.

Procedure

Reload the software, GP 9.

133-226 Illegal Country Code RAP

133-226 The code that does not provide fax service is set in the system data country code.

Procedure

Set a correct country code.

133-280 to 133-283 Fax Card Error 2 RAP

133-280 Due to either a Fax card failure or Fax controller software failure, subsequent processes could not be performed.

133-281 A message not specified in the I/F settings was received from the Fax card.

133-282 As downloading of Fax card could not be completed due to either a Fax card failure or Fax controller software failure, subsequent processes could not be performed.

133-283 Mailbox not open was detected when Fax report is stored in a mailbox.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

133-701 Replacement Character Detected RAP

133-701 Character replacement has occurred in destination name, sender name, comment, station name.

Procedure

Perform the steps that follow:

1. Advise the customer to set the character that can be used by referring to the User Documentation. If the customer does not know the type of letter that can be used, advise them to use only alphanumeric characters.
2. If the fault persists, perform the 033-312, 313, 033-315 to 033-327 Fax Fault RAP.

133-710 Tray Select Fail RAP

133-710 When printing Fax-received documents, it was performed via the bypass tray since the selected tray cannot be used for Fax.

Procedure

Perform the steps that follow:

1. Advise the customer to load the correct the paper size and type for Fax printing or specify the tray for Fax printing.
2. If the fault persists, perform the steps that follow:
   a. Switch off, then switch on the machine, GP 4.
   b. Reload the software, GP 9.

500-030 DC612 IOT Wait State RAP

500-030 The machine changed state during dC612.

Procedure

Allow the machine to return from the wait state, then re-run the routine.

500-033, 500-035 Diagnostic Documents RAP

500-033 The document is not loaded or the documents are not enough when a diagnostics routine is performed.

500-035 The document size is different when a Diagnostic routine is performed.

Procedure

Load the required number and size of documents, then re-run the routine.

500-990 DC612 Print Error RAP

500-990 Printing could not start due to unknown reason in dC612 test pattern print, or it was aborted.

Procedure

Re-run the routine.

OF 1 Unusual Noises RAP

Use this procedure to isolate unusual noises.

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

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Ask the customer to demonstrate the function that generates the unusual noise.
2. Check the fault and error logs.
3. Cycle system power. Wait while the printer performs a normal initialization and warm-up.
4. Run the machine in all modes. Also use the diagnostics to run individual components. Go to the relevant subsection:
   - DADF
   - Scanner
   - MSI Tray
   - Tray 1
   - 550 Optional Feeder Assembly
   - Exit Path
   - Fans

DADF

Possible causes and potential solutions are:

- **Grinding noise.**
  Possible causes are:
  – Feed bearings can stick, preventing the feed roll from free wheeling as the document is transported.
  Solution:
  – Install a new DADF feed roll kit, PL 50.1 Item 99.
  – install a new DADF, PL 50.1 Item 1.
- **Noise from the DADF input tray.**
  Possible causes are:
  – Document guides.
  Solution:
  – Clean the DADF input tray in the area below the input guides with antistatic fluid.
- **Squeaks from the DADF.**
  Possible causes are:
  – DADF exit roll assembly or take away roll assembly.
  Solution:
  – Remove and clean the shafts and plastic bushes with antistatic fluid.
- **Knocking noise.**
  Possible causes are:
  – The feed motor not tensioned correctly, causing the drive belts to slip.
  Solution:
  – install a new DADF, PL 50.1 Item 1.
- **Gear rattle.**
  Possible causes are:
  – A loose meshing of the clutch and motor gears.
  Solution:
  – install a new DADF, PL 50.1 Item 1.

Scanner

Possible causes and potential solutions are:

- **Grinding**.
  Possible causes are:
  – The scan carriage is moving erratically and the scan motor is generating a grinding sound. The teeth of the scanner drive belt are not engaging with the capstan on the scan motor.
  Solution:
  – install a new IIT assembly, PL 50.1 Item 17.

MSI Tray

CAUTION

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Run the following components:

- Enter dC330 codes 041-001, low voltage power supply +24V. Stack the codes 071-001, main drive assembly and 071-007, MSI feed solenoid to test MSI tray feed components.

Possible causes and potential solutions are:

- **No drive or a knocking noise.**
  Possible causes are:
  – Incorrectly aligned or damaged components.
  – Contamination of the drive shafts and the bearings.
  Solution:
  – Check the MSI feed roller assembly, PL 13.2 Item 98.
  – Adjust or install new components as necessary.

Tray 1

Remove tray 1 and run the following components:

- Enter dC330 code 071-001 to run the main drive assembly.

Possible causes and potential solutions are:

- **Squeaks.**
  Possible causes are:
  – Contamination of the transport assembly shafts and bearings.
  – Incorrectly aligned or damaged components.

Solution:

- Clean the feed rollers and shafts. Install a new feed roller assembly, PL 9.1 Item 96.
- Check the registration chute assembly. Install new components as necessary, PL 15.2.
- Check the tray for components that are damaged or out of position.
- Adjust or install new components as necessary.

550 Optional Feeder Assembly

NOTE: *Instructions are provided for tray 2 in the optional feeder assembly.*

Remove tray 2 and run the following components:

- Enter dC330 code 071-009 to operate the option drive assembly, PL 10.1 Item 9.
- Check tray lift by removing the tray and letting the tray drop, then push the tray back in.

Possible causes and potential solutions are:

- **No drive or a knocking noise from the feed motor.**

  Possible causes are:

  - Drive assembly, PL 10.1 Item 9.
  - Worn drive gears
  - Failed feed clutch, PL 10.1 Item 8.

  Solution:

  - Check the feed motor and feed clutch connections.
  - Check the optional feeder assembly connection to the printer.
  - Check that the tray moves freely inside the feeder assembly.
  - Adjust or install new components as necessary.

Exit Path

Run the following components:

- Combine dC330 code 071-001 main drive assembly and 071-012 exit clutch 2 to run the exit transport.
- Combine dC330 code 071-001 main drive assembly and 071-013 duplex clutch to run the duplex transport. Used for duplex and paper invert.

Possible causes:

- Exit drive assembly, PL 17.1 Item 21.
- Exit chute assembly, PL 17.1 Item 1.

Solution:

- If the noise repeats, identify the source and install new components as necessary.

Fans

Run the following components:

- Enter dC330 code 042-001 to run the main fan.

  Possible causes:

  - Bearings in the cooling fan have worn or failed.
  - Incorrectly aligned or damaged components.

  Solution:

  - Check for components that are damaged or out of position.
  - Install a new main fan, PL 4.1 Item 13.

OF 2 Control Panel Touch Screen Failure RAP

Use this procedure to solve control panel display problems when the device has power but either the display is blank, is too dark, or the touch screen responds incorrectly.

Initial Actions

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

- Login as an administrator, GP 3.
- Select, General, then Display Brightness. Adjust the brightness level.

Procedure

Access the UI wiring, refer to, C400 REP 1.1 or C405 REP 1.4. Refer to (C405 WD 9) or (C400 WD 10) and PJ Locations. Check the connection between the UI and the ESS PWBA (P/J135 and P/J1). **The connections are good.**

Y **N**

Reattach the connectors securely.

Reload the system software, GP 9. **The fault remains.**

Y **N**

Perform SCP 5 Final Actions.

Install new components as necessary:

- UI Harness assembly, PL 1.1A Item 1 C400, PL 1.1B Item 1 C405.
- UI Console assembly, PL 1.1A Item 4 C400) PL 1.1B Item 4 C405.
- ESS PWBA, PL 18.2 Item 4 .

OF 3 Exit Tray Full RAP

Initial Actions

- Empty the output tray.
- Check the full stack actuator for damage or obstructed movement.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the Fuser while it is hot.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

Enter dC330 code 071-105 full stack sensor, PL 17.1 Item 11. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Remove the exit assembly, PL 17.1 Item 1. Check the condition of the full stack sensor, PL 17.1 Item 11, stack full actuator, PL 17.1 Item 10 and exit sensor harness assembly, PL 17.1 Item 18. **The sensor is connected and the harness undamaged.**

Y N

Install a new full stack sensor or repair the harness. If the stack full actuator is damaged, install a new exit assembly, PL 17.1 Item 1.

Install new components in the order that follows until the error is corrected.

- Exit assembly, PL 17.1 Item 1.
- MCU PWBA, PL 18.2 Item 24.

OF 4 550 Option No Paper Sensor RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the no paper sensor of the 550 option main feed assembly.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

Enter dC330 code 071-115, 550 option feeder no paper sensor, refer to sensor location. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 16 and PJ Locations. Check the connection between the no paper sensor and 550 option feeder PWBA (P/J4202 and P/J420). **The connections are good.**

Y N

Reattach the connectors securely.

Refer to WD 16 and PJ Locations. Check the continuity of the wires in the harness connecting the option feeder path sensor and the 550 option feeder PWBA (P/J4202 and P/J420). **The continuity is good.**

Y N

Install a new C2 size harness assembly, PL 10.1 Item 14.

Refer to WD 16 and PJ Locations. Check for approximately +3.3VDC between the 550 option feeder PWBA ground and P/J420 pin 6. **The voltage is incorrect.**

Y N

Install a new option main feed assembly, PL 10.2 Item 1.

Refer to WD 16 and PJ Locations. Check for approximately +3.3VDC between the 550 option feeder PWB ground and P/J419 pin 4. **The voltage is incorrect.**

Y N

Install a new 550 option feeder PWBA, PL 10.1 Item 10.

Refer to WD 16 and PJ Locations. Check for approximately +3.3VDC between the MCU PWBA ground and P/J27 pin 7. **The voltage is correct.**

Y N

Refer to OF 20 +3.3VDC Power.

Refer to WD 16 and PJ Locations. Check the connections between the 550 option feeder PWBA and the MCU PWBA (P/J419, DP/J271 and P/J27). **The connections are good.**

Y N

Reattach the connectors securely.

A

A

Install new components as necessary:

- Drawer 1 feeder harness, PL 10.1 Item 13.
- Main harness assembly, PL 18.3 Item 2.
- MCU PWBA, PL 18.2 Item 24.

OF 5 Multi-feed Error RAP

To solve several sheet multi-feeds or extra blank sheet output problems.

Initial Actions

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

- Check media condition. Do not use incorrectly cut paper, damp paper, paper with rough edges, badly drilled paper, paper with wrapper wax or glue contamination.
- Check media specifications, GP 26.

Procedure

When troubleshooting multi-feeds, use a new ream of paper. If a new ream can not be used, perform the following:

1. Fan the paper.
2. Turn the paper round or turn the paper over.
3. Remove four or five sheets from the top of the stack.

MSI Tray

Perform the following:

1. Ensure that the customer is not filling the tray above the max fill line.
2. Clean the feed roller assembly with a water dampened cloth, PL 13.2 Item 98.
3. Check that the retard roller is clean, has torque resistance and does not rotate freely, PL 13.3 Item 14.

Tray 1

Check the following:

1. Check the tray side guides.
2. The bottom plate drops down when the tray is pulled out and elevates when pushed in.
   a. Check the registration chute assembly components, PL 15.2.
   b. Check the feed rolls, PL 9.1 Item 96.
   c. Check that the retard friction clutch in the retard roll assembly has a torque resistance and does not rotate freely, PL 9.1 Item 5.
3. Check the tray for worn, broken or missing components. If necessary install a new cassette assembly, PL 9.1 Item 1.

Optional Tray

Check the following:

1. The bottom plate drops down when the tray is pulled out and elevates when closed.
   a. Check the optional main feed assembly, PL 10.2 Item 1.
   b. Check that the retard friction clutch in the retard roll Assembly has a torque resistance and does not rotate freely, PL 10.3 Item 5.
2. Check tray for worn, broken or missing components. If necessary install a new cassette assembly, PL 10.3 Item 1.

OF 6 Power On Self Test (POST)

Use this RAP when the UI has stalled and shows the splash-logo screen, or the system appears to have power but the UI is blank.

- Power on Self Test (POST) occurs each time the machine is powered on. POST verifies the functionality of key subsystems.
- POST begins when power is switched on before higher level machine functions (such as the user interface) are operational.
- POST is performed by the ESS PWBA.
- The fault is communicated via an LED display on the ESS PWBA. This is to help diagnose common faults which prevent the machine from powering up correctly to the point where faults are displayed and service mode can be entered.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

To check for the system power up error:

1. Switch off the machine, GP 4.
2. To view the LEDs, remove the optional hard disk drive PL 18.2 Item 91, and hard disk drive bracket, PL 18.2 Item 13, Figure 1.

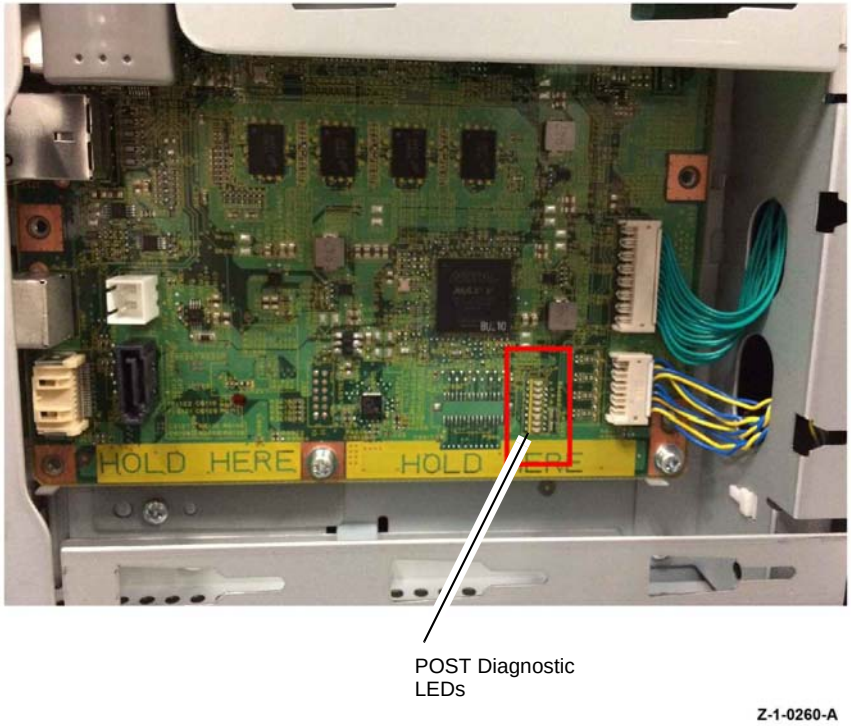

Figure 1 POST diagnostic LEDs

3. Reconnect the hard disk drive, without the hard disk drive bracket, then switch on the machine, GP 4.
4. Check if the power on self test has completed successfully by ensuring that all 8 LEDs are lit when the device has completed start-up. If the system power up sequence has failed, refer to Table 1.

Table 1 ESS Status LEDs

Number	LED Pattern								Fault Condition	Normal Diagnosis	LongBoot Diagnosis	Related Fail Code
	LED7	LED6	LED5	LED4	LED3	LED2	LED1	LED0				
1	Off	Off	Off	Off	Off	Off	Off	Off	Initial status at power-on	Yes	Yes	-
2	Off	Off	Off	Off	Off	Off	Off	On	After CA7 L1 Boot has completed, SPI initialization	Yes	Yes	-
3	Off	Off	Off	Off	Off	Off	On	Off	Before jumping to CA7 L2 Boot Stage 2	Yes	Yes	-
4	Off	Off	Off	Off	Off	Off	On	On	After jumping to CA7 L2 Boot Stage 2, after initialization during SPI	Yes	Yes	-
5	Off	Off	Off	Off	Off	On	Off	Off	After DDR initialization has completed	Yes	Yes	-
6	Off	Off	Off	Off	Off	On	Off	On	obs	Yes	Yes	-
7	Off	Off	Off	Off	Off	On	On	Off	obs	Yes	Yes	-
8	Off	Off	Off	Off	Off	On	On	On	obs	Yes	Yes	-
9	Off	Off	Off	Off	On	Off	Off	Off	Before loading CA7 Boot Loader	Yes	Yes	-
10	Off	Off	Off	Off	On	Off	Off	On	Failed to load/jump to CA7 Boot Loader	Yes	Yes	-
11	Off	Off	Off	Off	On	Off	On	Off	Reserved (OFF)	-	-	-
12	Off	Off	Off	On	Off	Off	Off	Off	Reserved (OFF)	-	-	-
13	Off	Off	Off	On	Off	Off	Off	On	SPI module initialization has completed	Yes	Yes	-
14	Off	Off	Off	On	Off	Off	On	Off	I2C module initialization has completed	Yes	Yes	-
15	Off	Off	Off	On	Off	Off	On	On	Interrupt controller initialization has completed	Yes	Yes	-
16	Off	Off	Off	On	Off	On	Off	Off	Debug serial initialization has completed	Yes	Yes	-
17	Off	Off	Off	On	Off	On	Off	On	RTC Device initialization has completed	Yes	Yes	-
18	Off	Off	Off	On	Off	On	On	Off	FCSPI module initialization has completed	Yes	Yes	-
19	Off	Off	Off	On	Off	On	On	On	SD Card Power ON has completed	Yes	Yes	-
20	Off	Off	Off	On	On	Off	Off	Off	Hard Disk Power ON has completed	-	-	-
21	Off	Off	Off	On	On	Off	Off	On	CIP UI module initialization has completed	Yes	Yes	-
22	Off	Off	Off	On	On	Off	On	Off	Reserved (OFF)	-	-	-
23	Off	Off	Off	On	On	Off	On	On	Reserved (OFF)	-	-	-
24	Off	Off	Off	On	On	On	Off	Off	Reserved (OFF)	-	-	-
25	Off	Off	Off	On	On	On	Off	On	Reserved (OFF)	-	-	-
26	Off	Off	Off	On	On	On	On	Off	Reserved (OFF)	-	-	-
27	Off	Off	Off	On	On	On	On	On	Reserved (OFF)	-	-	-
28	Off	Off	On	Off	Off	Off	Off	Off	Software initialization process has started	Yes	Yes	-
29	Off	Off	On	Off	Off	Off	Off	On	Interrupt registration table initialization has completed	Yes	Yes	-
30	Off	Off	On	Off	Off	Off	On	Off	Interrupt vector copying and enabling has completed	Yes	Yes	-
31	Off	Off	On	Off	Off	Off	On	On	Mac Address has been obtained and stored	Yes	Yes	-
32	Off	Off	On	Off	Off	On	Off	Off	Diag table initialization has completed	Yes	Yes	-
33	Off	Off	On	Off	Off	On	Off	On	Memory area variable setting has completed	Yes	Yes	-
34	Off	Off	On	Off	Off	On	On	Off	Memory area variable notification process has completed	Yes	Yes	-
35	Off	Off	On	Off	Off	On	On	On	Command table initialization has completed	Yes	Yes	-
36	Off	Off	On	Off	On	Off	Off	Off	Global variable initialization has completed	Yes	Yes	-
37	Off	Off	On	Off	On	Off	Off	On	Connection Error: Check PWBA-AIRI (eMMC daughter board)	Yes	Yes	-
38	Off	Off	On	Off	On	Off	On	Off	Reserved (OFF)	-	-	-

Table 1 ESS Status LEDs

Number	LED Pattern								Fault Condition	Normal Diagnosis	LongBoot Diagnosis	Related Fail Code
	LED7	LED6	LED5	LED4	LED3	LED2	LED1	LED0				
39	Off	Off	On	Off	On	Off	On	On	Reserved (OFF)	-	-	-
40	Off	Off	On	Off	On	On	Off	Off	Reserved (OFF)	-	-	-
41	Off	Off	On	Off	On	On	Off	On	Reserved (OFF)	-	-	-
42	Off	Off	On	Off	On	On	On	Off	Reserved (OFF)	-	-	-
43	Off	Off	On	Off	On	On	On	On	Reserved (OFF)	-	-	-
44	Off	Off	On	On	Off	Off	Off	Off	JUMP to Mini OS section	Yes	Yes	-
45	Off	Off	On	On	Off	Off	Off	On	JUMP to Panbug Main section	-	-	-
46	On Off	On Off	On Off	On Off	On Off	On Off	On Off	On Off	Flashes 0xFF ->0x00 repeatedly and alternately. DDR initialization process has failed	Yes	Yes	-
47	On Off	On Off	On Off	On Off	Off On	Off On	Off On	Off On	Flashes 0xF0 and 0x0F repeatedly and alternately. Error: Checksum Error of the bootloader image loaded to the memory from FCSPI ROM.	Yes	Yes	-
48	On Off	Off Off	On Off	Off Off	Off Off	Off On	Off Off	Off On	CA15-0: (0xA0 -> 0x05) is repeating alternately. CPLD is showing an invalid boot mode.	Yes	Yes	-
49	Flashing								Flashes right to left, left to right repeatedly. Indicates PWBA Hardware Configuration is incorrect or not set.	Yes	Yes	-
50	Off	Off	On	On	Off	On	Off	Off	CA15-0:After the recovery from Switch OFF mode is detected by CPLD flag, before proceeding to read the NVM recovery data.	-	-	-
51	Off	Off	On	On	Off	On	Off	On	CA15-0: After reading the NVM recovery data, before calculating the checksum on the DDR.	-	-	-
52	Off	Off	On	On	Off	On	On	On	CA15-0: Immediately before jumping to the Switch OFF recovery point.	-	-	-
53	On Off	On Off	Off Off	Off Off	Off Off	Off Off	Off On	Off On	CA15-0: (0xC0 -> 0x03) is repeating alternately. Checksum Error during recovery from Switch OFF mode.	Yes	Yes	-
54	Off	Off	On	On	Off	Off	On	On	CA15-0: After the recovery from CPU OFF mode is detected by CPLD flag, before proceeding to read the NVM recovery data.	-	-	-
55	Off	Off	On	On	Off	On	On	Off	CA15-0: After reading the NVM recovery data, before calculating the checksum on the DDR.	-	-	-
56	Off	Off	On	On	On	Off	Off	Off	obs	-	-	-
57	Off	Off	On	On	On	Off	Off	On	obs	-	-	-
58	Off	Off	On	On	On	Off	On	Off	obs	-	-	-
59	Off	Off	On	On	On	Off	On	On	CA15-0: Immediately before jumping to the CPU OFF recovery point.	-	-	-
60	On Off	Off Off	Off Off	Off Off	Off Off	Off Off	Off Off	Off On	0x80 -> 0x01 is repeating alternately. Stored data checksum Error during recovery from CPU OFF mode.	-	-	-
61	On Off	On Off	On Off	Off Off	Off Off	Off On	Off On	Off On	0xE0 -> 0x07 is repeating alternately. Other Error has occurred at CA15, L2 Boot.	-	-	-
62	On	On	Off	On	Off	Off	Off	Off	SD module initialization has started	Yes	Yes	117-319
63	On	On	Off	On	Off	Off	Off	On	SD Card Power ON has completed	Yes	Yes	117-319
64	On	On	Off	On	Off	Off	On	Off	SD module initialization has completed	Yes	Yes	117-319
65	On	On	Off	On	Off	Off	On	On	SD Card driver error	Yes	Yes	117-319
66	On	On	Off	On	Off	On	Off	Off	An unsupported SD Card is inserted	Yes	Yes	117-321

Table 1 ESS Status LEDs

Number	LED Pattern								Fault Condition	Normal Diagnosis	LongBoot Diagnosis	Related Fail Code
	LED7	LED6	LED5	LED4	LED3	LED2	LED1	LED0				
67	On	On	Off	On	Off	On	Off	On	SD Card is not inserted (not detected)	Yes	Yes	117-329
68	On	On	Off	On	Off	On	On	Off	Reserved (OFF)	-	-	-
69	On	On	Off	On	Off	On	On	On	Reserved (OFF)	-	-	-
70	On	On	Off	On	On	Off	Off	Off	Reserved (OFF)	-	-	-
71	On	On	Off	On	On	Off	Off	On	Reserved (OFF)	-	-	-
72	On	On	Off	On	On	Off	On	Off	SD module initialization has completed	Yes	Yes	117-319
73	On	On	Off	On	On	Off	On	On	Read process from SD Card has started	Yes	Yes	117-319
74	On	On	Off	On	On	On	Off	Off	SD module initialization check has completed	Yes	Yes	117-319
75	On	On	Off	On	On	On	Off	On	A15 Program memory expansion has completed	Yes	Yes	117-319
76	On	On	Off	On	On	On	On	Off	A7 Program memory expansion has completed	Yes	Yes	-
77	On	On	Off	On	On	On	On	On	Reserved (OFF)	-	-	-
78	On	On	Off	Off	Off	Off	Off	On	BackPlane Disconnect Detection	Yes	Yes	16-327
79	On	On	Off	Off	Off	Off	On	Off	UI cable Disconnect Detection	Yes	Yes	16-326
80	On	On	Off	Off	Off	Off	On	On	MCU Harness Disconnect Detection	Yes	Yes	16-328
81	On	On	Off	Off	Off	On	Off	Off	Detects the connection of a unknown PCI Option device.	Yes	Yes	117-336
82	On	On	Off	Off	Off	On	Off	On	Detects the connection of a unknown PCI EX Option device.	Yes	Yes	117-337
83	On	On	Off	Off	Off	On	On	Off	SD Card Insertion Detection	Yes	Yes	117-338
84	Off	On	Off	Off	Off	Off	Off	Off	IO ASIC diagnostic has started	Yes	Yes	016-355
85	Off	On	Off	Off	Off	Off	Off	On	IO ASIC diagnostic has completed	-	-	-
86	Off	On	Off	Off	Off	Off	On	Off	Codec ASIC diagnostic has started	Yes	Yes	016-356
87	Off	On	Off	Off	Off	Off	On	On	Codec ASIC diagnostic has completed	-	-	-
88	Off	On	Off	Off	Off	On	Off	Off	Standard FontROM diagnostic has started	-	-	116-380
89	Off	On	Off	Off	Off	On	Off	On	Standard FontROM diagnostic has completed	-	-	-
90	Off	On	Off	Off	Off	On	On	Off	Extension FontROM diagnostic has started	-	-	116-380 116-310 116-317
91	Off	On	Off	Off	Off	On	On	On	Extension FontROM diagnostic has completed	-	-	-
92	Off	On	Off	Off	On	Off	Off	Off	SEEP diagnostic has started	Yes	Yes	16-351 16-350
93	Off	On	Off	Off	On	Off	Off	On	SEEP diagnostic has completed	-	-	-
94	Off	On	Off	Off	On	Off	On	Off	Timer diagnostic has started	Yes	Yes	16-343
95	Off	On	Off	Off	On	Off	On	On	Timer diagnostic has completed	-	-	-
96	Off	On	Off	Off	On	On	Off	Off	PageMemory diagnostic has started	-	Yes	16-317
97	Off	On	Off	Off	On	On	Off	On	PageMemory diagnostic has completed	-	-	-
98	Off	On	Off	Off	On	On	On	Off	IITIF diagnostic has started	-	-	16-319 16-329 16-333 16-334 16-348
99	Off	On	Off	Off	On	On	On	On	IITIF diagnostic has completed	-	-	-

Table 1 ESS Status LEDs

Number	LED Pattern								Fault Condition	Normal Diagnosis	LongBoot Diagnosis	Related Fail Code
	LED7	LED6	LED5	LED4	LED3	LED2	LED1	LED0				
100	Off	On	Off	On	Off	Off	Off	Off	OS communication diagnostic has started	-	Yes	16-383
101	Off	On	Off	Off	Off	Off	Off	On	OS communication diagnostic has completed	-	-	-
102	Off	On	Off	On	Off	Off	On	Off	RTC diagnostic has started	-	Yes	16-342
103	Off	On	Off	On	Off	Off	On	On	RTC diagnostic has completed	-	-	-
104	Off	On	Off	On	Off	On	Off	Off	UI Check diagnostic has started	-	Yes	16-362
105	Off	On	Off	On	Off	On	Off	On	UI Check diagnostic has completed	-	-	-
106	Off	On	Off	On	Off	On	On	Off	Lyra diagnostic has started	-	-	-
107	Off	On	Off	On	Off	On	On	On	Lyra diagnostic has completed	-	-	-
108	Off	On	Off	On	On	Off	Off	Off	USB 1.0 Host diagnostic has started	-	-	16-371
109	Off	On	Off	On	On	Off	Off	On	USB 1.0 Host diagnostic has completed	-	-	-
110	Off	On	Off	On	On	Off	On	Off	USB 2.0 Host diagnostic has started	-	Yes	16-364
111	Off	On	Off	On	On	Off	On	On	USB 2.0 Host diagnostic has completed	-	-	-
112	Off	On	Off	On	On	On	Off	Off	USB 2.0 Device diagnostic has started	-	Yes	16-365
113	Off	On	Off	On	On	On	Off	On	USB 2.0 Device diagnostic has completed	-	-	-
114	Off	On	Off	On	On	On	On	Off	HDD diagnostic has started	-	Yes	16-366 16-367
115	Off	On	Off	On	On	On	On	On	HDD diagnostic has completed	-	-	-
116	Off	On	On	Off	Off	Off	Off	Off	HDD (UFS) diagnostic has started	-	Yes	16-372
117	Off	On	On	Off	Off	Off	Off	On	HDD (UFS) diagnostic has completed	-	-	-
118	Off	On	On	Off	Off	Off	On	Off	Torino diagnostic has started	-	-	16-368
119	Off	On	On	Off	Off	Off	On	On	Torino diagnostic has completed	-	-	-
120	Off	On	On	Off	Off	On	Off	Off	Selene diagnostic has started	-	Yes	16-369
121	Off	On	On	Off	Off	On	Off	On	Selene diagnostic has completed	-	-	-
122	Off	On	On	Off	Off	On	On	Off	Ethernet diagnostic has started	-	Yes	16-349
123	Off	On	On	Off	Off	On	On	On	Ethernet diagnostic has completed	-	-	-
124	Off	On	On	Off	On	Off	Off	Off	SdCard diagnostic has started	-	Yes	117-324 117-320 117-321 117-323
125	Off	On	On	Off	On	Off	Off	On	SdCard diagnostic has completed	-	-	-
126	Off	On	On	Off	On	Off	On	Off	IOT communication diagnostic has started	-	Yes	016-353
127	Off	On	On	Off	On	Off	On	On	IOT communication diagnostic has completed	-	-	-
128	Off	On	On	Off	On	On	Off	Off	IIT communication diagnostic has started	-	Yes	016-354
129	Off	On	On	Off	On	On	Off	On	IIT communication diagnostic has completed	-	-	-
130	Off	On	On	Off	On	On	On	Off	Standard ROM diagnostic has started	-	Yes	116-317 16-336
131	Off	On	On	Off	On	On	On	On	Standard ROM diagnostic has completed	-	-	-
132	Off	On	On	On	Off	Off	Off	Off	EP accessory diagnostic has started	-	Yes	016-357
133	Off	On	On	On	Off	Off	Off	On	EP accessory diagnostic has completed	-	-	-

Table 1 ESS Status LEDs

Number	LED Pattern								Fault Condition	Normal Diagnosis	LongBoot Diagnosis	Related Fail Code
	LED7	LED6	LED5	LED4	LED3	LED2	LED1	LED0				
134	Off	On	On	On	Off	Off	On	Off	Parallel diagnostic has started	-	Yes	016-358
135	Off	On	On	On	Off	Off	On	On	Parallel diagnostic has completed	-	-	-
136	Off	On	On	On	Off	On	Off	Off	USBHUB diagnostic has started	-	Yes	016-359
137	Off	On	On	On	Off	On	Off	On	USBHUB diagnostic has completed	-	-	-
138	Off	On	On	On	Off	On	On	Off	USB 3.0 Drv diagnostic has started	-	Yes	016-361
139	Off	On	On	On	Off	On	On	On	USB 3.0 Drv diagnostic has completed	-	-	-
140	Off	On	On	On	On	Off	Off	Off	WIFI diagnostic has started	-	Yes	016-384
141	Off	On	On	On	On	Off	Off	On	WIFI diagnostic has completed	-	-	-
142	Off	On	On	On	On	Off	On	Off	A4Fax diagnostic has started	-	Yes	016-346
143	Off	On	On	On	On	Off	On	On	A4Fax diagnostic has completed	-	-	-
144	On	Off	Off	Off	Off	Off	Off	Off	Power Savor transition (Standby -> LowPower)	Yes	-	-
145	On	Off	Off	Off	Off	Off	Off	On	Power Saving (LowPower)	Yes	-	-
146	On	Off	Off	Off	Off	Off	On	Off	Power Saving (Sleep)	Yes	-	-
147	On	Off	Off	Off	Off	Off	On	On	Power Savor transition (LowPower->Sleep)	Yes	-	-
148	Off	Off	Off	Off	Off	Off	Off	Off	Power Saving (CpuOFF)	Yes	-	-
149	On	Off	Off	Off	Off	On	Off	Off	Reserved (OFF)	-	-	-
150	On	Off	Off	Off	Off	On	On	On	Reserved (OFF)	-	-	-
151	On	Off	Off	Off	On	Off	Off	On	Power Savor transition (LowPower -> Standby)	Yes	-	-
152	On	Off	Off	Off	On	Off	On	Off	Power Savor transition (Sleep -> Standby)	Yes	-	-
153	On	Off	Off	On	Off	Off	Off	Off	Reserved (OFF)	-	-	-
154	On	Off	Off	On	Off	Off	Off	On	Reserved (OFF)	-	-	-
155	On	Off	Off	On	Off	Off	On	Off	Reserved (OFF)	-	-	-
156	On	Off	Off	On	Off	Off	On	On	Reserved (OFF)	-	-	-
157	On	Off	Off	On	Off	On	Off	Off	Reserved (OFF)	-	-	-
158	On	Off	Off	On	Off	On	Off	On	Power Savor transition (CpuOff -> Sleep)	Yes	-	-
159	On	On	On	On	On	On	On	On	VxWORKS boot complete Recovering from Power Savor	Yes	Yes	-

OF 7 Registration Sensor RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the registration sensor of the registration chute assembly.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

Enter dC330 code 071-103, registration sensor, refer to sensor location. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 11 and PJ Locations. Check the connection between the registration sensor and MCU PWBA (P/J232 and P/J23). **The connections are good.**

Y N

Reattach the connectors securely.

Check the continuity of the wires in the harness connecting the registration sensor and the MCU PWBA. **The continuity is good.**

Y N

Install a new registration harness assembly, PL 15.2 Item 8.

Refer to WD 11 and PJ Locations. Check for +5VDC between the MCU PWBA ground and P/J23 pin 6. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power RAP.

Install a new registration chute assembly, PL 15.2 Item 1.

OF 8 Tray 1 Feed Clutch RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the feed clutch.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedure that follow as necessary:

- GP 12 How to Check a Solenoid or Clutch.

Enter dC330 code 071-008, tray 1 feed clutch, PL 15.2 Item 6. Energize the clutch. **The clutch operation fails.**

Y N

The clutch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 11 and PJ Locations. Check the connection between the tray 1 feed clutch and MCU PWBA (P/J392 and P/J39). **The connections are good.**

Y N

Reattach the connectors securely.

Remove the tray 1 feed clutch, REP 15.10, then check the wire-wound resistance between both terminals for a value of 240 ohm (at 20 degrees C). **The resistance measures correctly.**

Y N

Install a new tray 1 feed clutch, PL 15.2 Item 6.

Refer to WD 4, WD 11 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the MCU PWBA ground and P/J39 pin. **The voltage is correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Install a new tray 1 feed clutch, PL 15.2 Item 6.

OF 9 Registration Clutch RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the Registration Clutch.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedure that follow as necessary:

- GP 12 How to Check a Solenoid or Clutch.

Enter dC330 code 071-010, registration clutch, PL 15.1 Item 8. Energize the clutch. **The clutch fails to operate.**

Y N

The clutch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 11 and PJ Locations. Check the connection between the registration clutch and MCU PWBA (P/J234 and P/J23). **The connections are good.**

Y N

Reattach the connectors securely.

Remove the registration clutch, REP 15.3, then check the wire-wound resistance between both terminals for a value of 240 ohm (at 20 degrees C). **The resistance measures correctly.**

Y N

Install a new registration clutch, PL 15.1 Item 8.

Refer to WD 4, WD 11 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the MCU PWBA ground and P/J23 pin 1. **The voltage is correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Install a new registration clutch, PL 15.1 Item 8.

OF 10 550 Option Main Feed Assembly Path Sensor RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the feeder path sensor of the 550 option main feed assembly.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- GP 11 How to Check a Sensor.

***NOTE:** The option feeder path sensor is the paper path registration sensor for the 550 option cassette assembly.*

Enter dC330 code 071-117, option feeder 1 path (registration) sensor, refer to sensor location. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 16 and PJ Locations. Check the connection between the option feeder path sensor and 550 option feeder PWBA (P/J4214 and P/J421). **The connections are good.**

Y N

Reattach the connectors securely.

Refer to WD 16 and PJ Locations. Check the continuity of the wires in the harness connecting the option feeder path sensor and the 550 option feeder PWBA (P/J4214 and P/J421). **The continuity is good.**

Y N

Install a new C2 size harness assembly, PL 10.1 Item 14.

Refer to WD 16 and PJ Locations. Check for approximately +3.3VDC between the 550 option feeder PWBA ground and P/J421 pin 3. **The voltage is incorrect.**

Y N

Install a new option feeder path sensor, PL 10.2.

Refer to WD 16 and PJ Locations. Check for approximately +3.3VDC between the 550 option feeder PWB ground and P/J419 pin 4. **The voltage is incorrect.**

Y N

Install a new 550 option feeder PWBA, PL 10.1 Item 10.

Refer to WD 16 and PJ Locations. Check for approximately +3.3VDC between the MCU PWBA ground and P/J27 pin 7. **The voltage is correct.**

Y N

Perform the OF 20 +3.3VDC Power RAP.

Refer to WD 16 and PJ Locations. Check the connections between the 550 option feeder PWBA and the MCU PWBA (P/J419, DP/J271 and P/J27). **The connections are good.**

Y **N**

Reattach the connectors securely.

Install new components as necessary:

- Drawer 1 feeder harness, PL 10.1 Item 13.
- Main harness assembly, PL 18.3 Item 2.
- Optional 550 sheet feeder, PL 10.1 Item 1.

OF 11 550 Option Feed Clutch Assembly RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with 550 Option feed clutch assembly.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedure that follow as necessary:

- GP 12 How to Check a Solenoid or Clutch.

Enter dC330 code 071-020 550, option feed clutch, PL 10.1 Item 8. Energize the clutch. **The clutch fails to operate.**

Y **N**

The clutch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 16 and PJ Locations. Check the connection between the 550 option feed clutch and 550 option feeder PWBA (P/J4213 and P/J421). **The connections are good.**

Y **N**

Reattach the connectors securely.

Refer to WD 16 and PJ Locations. Check the continuity of the wires in the harness connecting the 550 option feed clutch and 550 option feeder PWBA (P/J4213 and P/J421). **The continuity is good.**

Y **N**

Install a new C2 Size harness assembly, PL 10.1 Item 14.

Remove the 550 option feed clutch, REP 10.3, then check the wire-wound resistance between both terminals for a value of 240 ohm (at 20 degrees C). **The resistance measures correctly.**

Y **N**

Install a new 550 option feed clutch, PL 10.1 Item 8.

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J421 pin 1. **The voltage is incorrect.**

Y **N**

Install a new option feeder clutch, PL 10.1 Item 8.

A

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Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J419 pin 6, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J419 pin 7. **The voltage is incorrect.**

Y N

Install a new 550 option feeder PWBA, PL 10.1 Item 10.

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the MCU PWBA ground and P/J27 pin 4, then check for approximately +24VDC between the MCU PWBA ground and P/J27 pin 5. **The voltages are correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Check the connection between the 550 option feeder PWBA and the MCU PWBA (P/J419, DP/J271, and P/J27). **The connections are secure.**

Y N

Reattach the connections securely.

Install new components as necessary:

- Install a new option feeder clutch, PL 10.1 Item 8.
- 550 option draw 1 feeder harness, PL 10.1 Item 13.
- Main harness assembly, PL 18.3 Item 2.

OF 12 550 Option Registration Clutch Assembly RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the 550 option registration clutch assembly.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedure that follow as necessary:

- GP 12 How to Check a Solenoid or Clutch.

Enter dC330 code 071-022, 550 option registration clutch assembly, PL 10.2 Item 2. Energize the clutch. **The clutch fails to operate.**

Y N

The clutch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 16 and PJ Locations. Check the connection between the 550 option registration clutch assembly and 550 option feeder PWBA (P/J4201 and P/J420). **The connections are good.**

Y N

Reattach the connectors securely.

Refer to WD 16 and PJ Locations. Check the continuity of the wires in the harness connecting the 550 option registration clutch assembly and the 550 option feeder PWBA (P/J4201 and P/J420). **The continuity is good.**

Y N

Install a new C2 turn harness assembly, PL 10.1 Item 15.

Remove the 550 option registration clutch assembly, REP 10.8, then check the wire-wound resistance between both terminals for a value of 240 ohm (at 20 degrees C). **The resistance measures correctly.**

Y N

Install a new 550 option registration clutch assembly, PL 10.2 Item 2.

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J420 pin 1. **The voltage is incorrect.**

Y N

Install a new 550 option registration clutch assembly, PL 10.2 Item 2.

A

A

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J419 pin 6, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J419 pin 7. **The voltage is incorrect.**

Y N

Install a new 550 option feeder PWBA, PL 10.1 Item 10.

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the MCU PWBA ground and P/J27 pin 4, then check for approximately +24VDC between the MCU PWBA ground and P/J27 pin 5. **The voltages are correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Check the connection between the 550 option feeder PWBA and the MCU PWBA (P/J419, DP/J271, and P/J27). **The connections are secure.**

Y N

Reattach the connections securely.

Install new components as necessary:

- Install a new 550 option registration clutch assembly, PL 10.2 Item 2.
- 550 option draw 1 feeder harness, PL 10.1 Item 13.
- Main harness assembly, PL 18.3 Item 2.

OF 13 550 Option Drive Assembly RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the 550 option drive assembly.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

***NOTE:** The option feeder 1 motor is part of the 550 option drive assembly, PL 10.1 Item 9.*

Refer to the procedure that follow as necessary:

- Refer to GP 10 How to Check a Motor

Enter dC330 code 071-014, to run the option feeder 1 motor, PL 10.1 Item 9. **The motor fails to run.**

Y N

The motor appears to run correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Remove the 550 option drive assembly, then check the option feeder 1 motor, refer to GP 10. **The motor rotates easily without an overload.**

Y N

Install a new 550 option drive assembly, PL 10.1 Item 9.

Refer to WD 16 and PJ Locations. Check the connection between the 550 option drive assembly and 550 option feeder PWBA (P/J4221 and P/J422). **The connections are good.**

Y N

Reattach the connectors securely.

Refer to WD 16 and PJ Locations. Check the continuity of the wires in the harness connecting the 550 option drive assembly and the 550 option feeder PWBA (P/J4221 and P/J422). **The continuity is good.**

Y N

Install a new feeder motor harness assembly, PL 10.1 Item 16.

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J422 pin 6 **The voltage is incorrect.**

Y N

Install a new 550 option drive assembly, PL 10.1 Item 9.

A

A

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J419 pin 6, then check for approximately +24VDC between the 550 option feeder PWBA ground and P/J419 pin 7. **The voltage is incorrect.**

Y N

Install a new 550 option feeder PWBA, PL 10.1 Item 10.

Refer to WD 4, WD 16 and PJ Locations. Close the interlock switches, then check for approximately +24VDC between the MCU PWBA ground and P/J27 pin 4, then check for approximately +24VDC between the MCU PWBA ground and P/J27 pin 5. **The voltages are correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Check the connection between the 550 option feeder PWBA and the MCU PWBA (P/J419, P/J271, and P/J27). **The connections are secure.**

Y N

Reattach the connections securely.

Install new components as necessary:

- Install a new 550 option drive assembly, PL 10.1 Item 9.
- 550 option draw 1 feeder harness, PL 10.1 Item 13.
- Main harness assembly, PL 18.3 Item 2.

OF 14 MSI Tray Feed Solenoid RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the MSI Tray feed solenoid.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedure that follow as necessary:

- Refer to GP 12 How to Check a Solenoid or Clutch.

Enter dC330 code 071-007 MSI feed solenoid, PL 13.2 Item 9. Energize the solenoid. **The solenoid fails to operate.**

Y N

The solenoid appears to run correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 7 and PJ Locations. Check the connection between the MSI feed solenoid and MCU PWBA (P/J214 and P/J21). **The connections are good.**

Y N

Reattach the connectors securely.

Refer to WD 7 and PJ Locations. Check the continuity of the wires in the harness connecting the MSI feed solenoid and the MCU PWBA (P/J214 and P/J21). **The continuity is good.**

Y N

Install a new MSI harness assembly, PL 13.2 Item 5.

Refer to WD 4, WD 7 and PJ Locations. Close the interlock switches, then check if the voltage between the MCU PWBA ground and P/J21 pin 9 is approximately +24VDC. **The voltage is correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Install a new MSI Feed solenoid assembly kit, PL 13.2 Item 99.

OF 15 Exit Sensor RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the exit sensor.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follow as necessary:

- Refer to GP 11 How to Check a Sensor:

Enter dC330 code 071-104 exit sensor, PL 17.1 Item 11. Actuate the sensor. **The sensor fails to operate.**

Y N

The sensor appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 15 and PJ Locations. Check the connection between the exit sensor and MCU PWBA (P/J155, P/J151, and P/J15). **The connections are good.**

Y N

Reattach the connectors securely.

Refer to WD 15 and PJ Locations. Check the continuity of the wires in the harness connecting the exit sensor and the relay connector (P/J155 and P/J151). **The continuity is good.**

Y N

Install a new exit sensor harness assembly, PL 17.1 Item 18.

Refer to WD 15 and PJ Locations. Check the continuity of the wires in the harness connecting the relay connector and the MCU PWBA (P/J151 and P/J15). **The continuity is good.**

Y N

Install a new sensor harness assembly, PL 17.1 Item 23.

Refer to WD 15 and PJ Locations. Check if the voltage between the MCU PWBA ground and PJ /15 pin 1 is approximately +5VDC. **The voltage is correct.**

Y N

Perform the OF 19 +5VDC Power RAP.

Install a new exit sensor, PL 17.1 Item 11.

OF 16 Exit Drive Assembly Clutch 1 RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the exit drive assembly clutch 1.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedure that follow as necessary:

- Refer to GP 12 How to Check a Solenoid or Clutch.

***NOTE:** Exit clutch 1 is integral to the exit drive assembly, PL 17.1 Item 21.*

Enter dC330 code 071-011 exit clutch 1, PL 17.1 Item 21. Energize the clutch. **The clutch fails to operate.**

Y N

The clutch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 15 and PJ Locations. Check the connection between exit clutch 1 and MCU PWBA (P/J40). **The connection is good.**

Y N

Reattach the connector securely.

Refer to WD 4, WD 15 and PJ Locations. Close the interlock switches, then check if the voltage between the MCU PWBA ground and P/J40 pin 1 is approximately +24VDC. **The voltage is correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Install a new exit drive assembly, PL 17.1 Item 21.

OF 17 Exit Drive Assembly Clutch 2 RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the exit drive assembly clutch 2.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

The +24VDC supply must be switched on before testing motors, solenoids and clutches (component control code 041-001). To avoid damage to the machine, switch off the +24VDC supply when testing is complete.

Refer to the procedure that follow as necessary:

- Refer to GP 12 How to Check a Solenoid or Clutch.

***NOTE:** Exit clutch 2 is integral to the exit drive assembly, PL 17.1 Item 21.*

Enter dC330 code 071-012, exit clutch 2, PL 17.1 Item 21 Energize the clutch. **The clutch fails to operate.**

Y N

The clutch appears to operate correctly. Check for intermittent connections, shorted or open wires. If the fault persists install a new MCU PWBA, PL 18.2 Item 24.

Refer to WD 15 and PJ Locations. Check the connection between the exit clutch 2 and MCU PWBA (P/J38). **The connection is good.**

Y N

Reattach the connector securely.

Refer to WD 4, WD 15 and PJ Locations. Close the interlock switches, then check if the voltage between the MCU PWBA ground and P/J38 pin 1 is approximately +24VDC. **The voltage is correct.**

Y N

Perform the OF 18 +24VDC Power RAP.

Install a new exit drive assembly, PL 17.1 Item 21.

OF 18 +24VDC Power RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the +24VDC Power Supply.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Refer to WD 4 and PJ Locations. Check the connection between the LVPS and the MCU PWBA (P/J501 and P/J29). **The connections are good.**

Y N

Reattach the connectors securely.

Refer to WD 4 and PJ Locations. Check the continuity of the wires in the harness connecting the LVPS and the MCU Board (P/J501 and P/J29). **The continuity is good.**

Y N

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 4 and PJ Locations. Close the interlock switches, then check if the voltage between the LVPS ground and P/J501 pin 2, and the voltage between the LVPS ground and P/J501 pin 1 is approximately +24VDC. **The voltage is incorrect.**

Y N

Install a new MCU PWBA, PL 18.2 Item 24.

Switch the power off, wait a while, then switch the power on again. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 4 and PJ Locations. Check if the voltage between the LVPS PWBA connectors P/J48 pin 1 and P/J48 pin 3 is in the range of 110-127VAC ±10% or 220-240VAC ±10%. **The voltage is correct.**

Y N

Install a new AC inlet harness assembly, PL 18.1 Item 10.

Install a new LVPS PWBA, PL 18.1 Item 14.

OF 19 +5VDC Power RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the +5VDC Power Supply.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Refer to WD 4 and PJ Locations. Check the connection between the LVPS PWBA and the MCU PWBA (P/J501 and P/J29). **The connections are good.**

Y **N**

Reattach the connectors securely.

Refer to WD 4 and PJ Locations. Check the continuity of the wires in the harness connecting the LVPS PWBA and the MCU PWBA (P/J501 and P/J29). **The continuity is good.**

Y **N**

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 4 and PJ Locations. Check if the voltage between the LVPS PWBA ground and P/J501 pin 3 is approximately +5VDC. **The voltage is incorrect.**

Y **N**

Install a new MCU PWBA, PL 18.2 Item 24.

Switch the power off, wait a while, then switch the power on again. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Refer to WD 4 and PJ Locations. Check if the voltage between the LVPS PWBA connectors P/J48 pin 1 and P/J48 pin 3 is in the range of 110-127VAC ±10% or 220-240VAC ±10%. **The voltage is correct.**

Y **N**

Install a new AC inlet harness assembly, PL 18.1 Item 10.

Install a new LVPS PWBA, PL 18.1 Item 14.

OF 20 +3.3VDC Power RAP

Use this procedure when referred by a Repair Analysis Procedure to troubleshoot possible problems with the +3.3VDC Power Supply.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Check the connection between the LVPS and the MCU Board (P/J501 and P/J29). **The connections are good.**

Y **N**

Reattach the connectors securely.

Refer to WD 4 and PJ Locations. Check the continuity of the wires in the harness connecting the LVPS PWBA and the MCU PWBA (P/J501 and P/J29). **The continuity is good.**

Y **N**

Install a new top harness assembly, PL 18.3 Item 4.

Refer to WD 4 and PJ Locations. Check if the voltage between the LVPS PWBA ground and P/J501 pin 5 is approximately +3.3VDC. **The voltage is incorrect.**

Y **N**

Install a new MCU PWBA, PL 18.2 Item 24.

Switch the power off, wait a while, then switch the power on again. **The fault persists.**

Y **N**

Perform SCP 5 Final Actions.

Refer to WD 4 and PJ Locations. Check if the voltage between the LVPS PWBA connectors P/J48 pin 1 and P/J48 pin 3 is in the range of 110-127VAC ±10% or 220-240VAC ±10%. **The voltage is correct.**

Y **N**

Install a new AC inlet harness assembly, PL 18.1 Item 10.

Install a new LVPS PWBA, PL 18.1 Item 14.

OF 21 Special Boot Modes RAP

Use this RAP to solve boot up errors. If directed here from another procedure, always return to that procedure.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Enter special boot mode, GP 16.
2. Perform the special boot modes in the listed order, “a” to “e”. Check if the fault persists after each reboot. If the fault is fixed at a particular reboot there is no need to perform the remaining boot modes:
   a. LONGDIAG MODE.
   b. 01. JOB LOG CLEAR MODE.
   c. 06. HDD INITIALIZE MODE.
   d. 04. HDD FORMAT MODE.
   e. 03. NVRAM INIT MODE.

3 Image Quality

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IQ1 Image Quality Entry RAP

Use this RAP to establish the source of an image quality defect. Image quality defects can be attributed to printer components, consumables, media, internal software, external software applications, and environmental conditions.

Initial Actions

Perform the steps that follow to determine which part of the system is at fault.

1. Discuss the image quality IQ problem with the customer to fully understand the defect and the modes in which the defect occurs. Replicate the customer job that displays the customer's IQ defect.
2. 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, GP 27.
3. Check that the paper is within specifications, GP 26.
4. Ensure all connections to the printer are secure.
5. Check the CRU life counts. Replace components at end of life,dC135.
6. Determine if the defect occurs in all colors or only one color and if it is a repeating or random occurrence.
7. Inspect the visible surfaces of all rollers for obvious defects.
8. Cycle system power, GP 4.
9. Ensure the printer is positioned to allow adequate airflow at all vents. Refer to GP 22, Installation Space Requirements.
10. Ensure the printer's interior is clean.
11. Check the tray guides.
12. Use the customer's print job to check defect reoccurrence. If the defect persists, begin to isolate the defect by attempting to identify the component responsible, perform IQ22 Repeating Defects Procedure.
13. Check stored tray settings for media size and type.
14. Check image adjustment and print mode settings being used.
15. If the defect occurred in copy mode from the platen ensure the platen glass is clean, refer to ADJ 50.1.
16. If the defect occurred in copy mode from the DADF ensure the CVT glass on the IIT is clean, refer to ADJ 50.1.
17. If the defect occurred on an incoming fax, print a test page. If the test page is good contact the sender about the print defect. If the defect is replicated on the test print, go to Table 1.
18. If the fault persists go to Image Defect Definitions.

Image Defect Definitions

Table 1 lists image defect definitions and the IQ RAP used to correct the problem.

Table 1 Image defect definitions

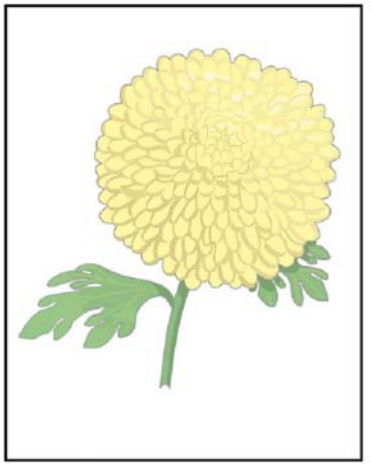
Defect	Definition	Go To
Auger Mark	Auger marks appear across output	IQ16
Bead-Carry-Out	Multiple dots appearing across image.	IQ13

Table 1 Image defect definitions

Defect	Definition	Go To
Blank Prints	Prints with no visible image, or missing one color entirely.	IQ6
Color Registration is out of Alignment	Image colors are not aligned with each other	IQ20
Fog	Toner contamination on all or part of the page appears as a very light gray dusting or fog.	IQ12
Ghosting	The image from a previous print appears on the current print.	IQ10
Horizontal Banding	Voids and streaks that appear as areas of horizontal bands.	IQ15
Incorrect Margins	Image prints outside of the page margins.	IQ19
Jagged Characters	Text in image is fuzzy or blurry	IQ14
Leading Edge Paper Damage	The page comes out with the leading edge damaged.	IQ18
Light-Induced Fatigue	Light fatigue pattern appearing across image	IQ11
Light Prints	The overall image density is too light.	IQ2
One Color Light on Print	The image density for a single color is too light.	IQ3
Pitched Color Dots	Recurring color dots or spots.	IQ8
Skewed Images	Images in the output are not parallel to the edge of the printed sheet.	IQ21
Spots	There are random spots of toner on the page.	IQ5
Unfused Image	Part or all of the image is unfused. Refer to the specification.	IQ4
Vertical Blanks	Areas of image appear as blanks or deletions.	IQ9
Vertical Process Streaks	Extraneous dark lines/bands in the process direction.	IQ7
Wrinkled Paper	The paper comes out either wrinkled, creased, stained, or torn	IQ17

IQ2 Light or Undertoned Print RAP

The overall image density is too light, Figure 1.



Z-1-0192-A

Figure 1 Light or undertone print

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the life counters of the imaging units. Replace the imaging units that are at end of life, dC135 HFSI Counter.
- Check that the electrical contact points on the imaging units are clean.
- Ensure that there are no obstructions in the laser light path.
- Go to ADJ 6.3. Check, then adjust the bias voltage as necessary.

Procedure

Check media condition, GP 26. Load new, dry recommended paper, then print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Perform ADJ 5.2 Color Calibration. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Remove the transfer roller, PL 14.1 Item 2 then check for surface contamination or excessive wear, ensure the transfer roller is correctly seated. **The transfer roller is good.**

Y N

Install a new transfer roller, PL 14.1 Item 2.

Perform the 094-310, 319, 325, 326 Error CTD Sensor Dirty RAP. **The CTD sensor good.**

Y N

Install a new color toner density (CTD) sensor, PL 6.1 Item 14.

Remove then examine the transfer belt assembly for surface contamination or excessive wear. **The transfer belt assembly is good.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Print a test print. While the print is printing, turn off system power. Open the rear cover, then check the image formed on the transfer belt. **The image is poorly formed, faint and difficult to read.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Refer to WD 12 and PJ Locations. Check the transfer HVPS TR PWBA connector connection. **The transfer HVPS TR PWBA connector is connected correctly.**

Y N

Connect the connector.

Install a new the transfer HVPS TR PWBA, PL 18.2 Item 30, then print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check P/J181 and P/J182 on the development HVPS XD PWBA. **The development HVPS XD PWBA connectors are connected correctly.**

Y N

Connect the connector.

Install a new the development HVPS XD PWBA, PL 18.2 Item 25, then print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL PL 18.2 Item 24. **The image is too light.**

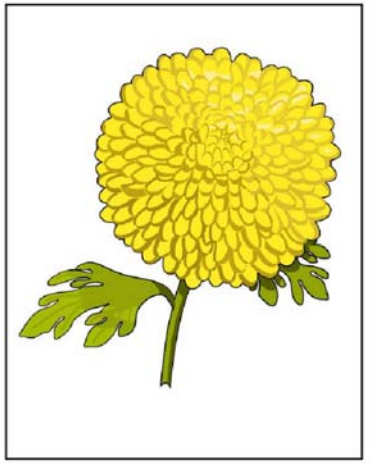
Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

IQ3 One Color is Light or Undertoned on the Print RAP

The overall image density for one color is too light, Figure 1.



Z-1-0193-A

Figure 1 Undertone in one color

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Inspect the paper path for items such as, staples, paper clips, and paper scraps.
- Go to ADJ 6.3. Check, then adjust the bias voltage as necessary.
- Check the imaging unit life counter of the affected color, dC135 HFSI Counter. If at end of life, Install a new imaging unit, PL 8.1.
- Check that the electrical contact points of the imaging unit are clean.
- Ensure that there are no obstructions in the laser light path.
- Ensure that draft mode is turned off.

Procedure

Check media condition. Load new, dry recommended paper, and print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Perform ADJ 5.2 Color Calibration. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Install a new imaging unit of the affected color, PL 8.1, then print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Remove the imaging unit of the affected color, clean the electrical contacts, then print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Print a test print. While the print is printing, turn off system power. Remove the transfer belt, then check the image formed on the belt, before image transfer. **The image of the affected color is well formed, clear, and easy to read.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new transfer HVPS TR PWBA, PL 18.2 Item 30, then print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

Install a new transfer HVPS TR PWBA, PL 18.2 Item 30, then print a test print. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24. **The image is too light.**

Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA, PL 18.2 Item 4.

IQ4 Unfused Image RAP

The printed image is not fully fused to the paper, Figure 1. The image rubs off easily. A cold environment affects the warm-up time, while high humidity has an adverse effect on fusing. Also, media weight and composition affect fusing performance.

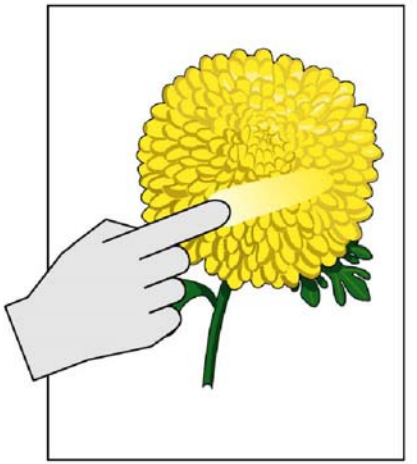


Figure 1 Unfused image

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check the environment. A location that is too cold or humid reduces fusing performance, GP 26.
- Inspect the media path for debris such as staples, paper clips, and paper scraps.
- Verify that the media type is set correctly.
- Set media type setting to the next heavier type.
- Verify that the toner cartridge(s) of the affected color(s) is genuine Xerox toner.
- Adjust the fuser temperature setting for the loaded paper type, ADJ 7.1 Fuser Adjustment.

Procedure

Rub the image with a soft cloth or tissue. **The image smears.**

Y N

Perform SCP 5 Final Actions.

Replace the media with new, dry media from an unopened ream. **The image smears.**

Y N

Perform SCP 5 Final Actions.

Check the green fuser nip release levers. **The levers are in the lowered (locked) position.**

Y N

Push the levers down, cycle system power, and test. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

WARNING

Do not touch the Fuser while it is hot.

Remove and inspect the fuser assembly, PL 7.1 Item 1. **The fuser rollers are good.**

Y N

Install a new fuser assembly, PL 7.1 Item 1.

Check the fuser electrical connection. **The connection is good.**

Y N

Repair or install a new harness.

Install a new fuser assembly, PL 7.1 Item 1. **The image smears.**

Y N

Perform SCP 5 Final Actions.

Remove then examine the transfer belt assembly for surface contamination or excessive wear. **The transfer belt is clean, not worn, and works correctly.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

If the fault persists contact 2nd level support.

WARNING

Do not touch the Fuser while it is hot.

Remove and inspect the fuser assembly, PL 7.1 Item 1. **The fuser rollers are good.**

Y N

Install a new fuser assembly, PL 7.1 Item 1.

Check the fuser electrical connection. **The connector is good.**

Y N

Repair or install a new harness.

Install a new fuser assembly, PL 7.1 Item 1. **The image smears.**

Y N

Perform SCP 5 Final Actions.

Remove then examine the transfer belt assembly for surface contamination or excessive wear. **The transfer belt is clean, not worn, and works correctly.**

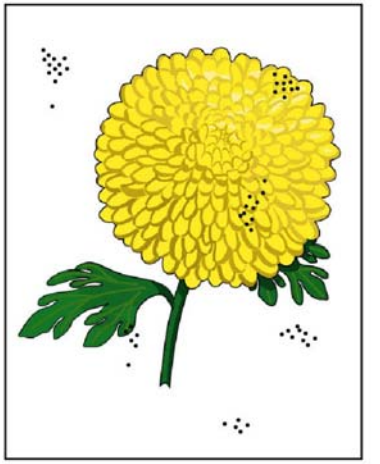
Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

If the fault persists contact 2nd level support.

IQ5 Random Spots

There are spots of toner randomly scattered on the page, Figure 1.



Z-1-0195-A

Figure 1 Random spots

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications, GP 26.
- If using recycled paper, it may have spots.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check Drum surface for spots or contamination.
- Check the Fuser for wear or contamination.
- Check that the Drum Cartridge contacts are clean.

Procedure

Check the media. **The media is clean, of the approved type, and free of defects.**

Y N

Replace the media with approved media from a freshly opened package.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**

Y N

Clean the media path.

Print 50% YMCKRGB test prints, dC612. **The image contains spots in all colors.**

Y N

Install a new imaging unit of the affected color, PL 8.1, then print a test print. **The fault persists with the affected color.**

Y N

Perform SCP 5 Final Actions.

Perform the Procedure Xerographic Check.

Perform the Procedure Xerographic Check.

Procedure

Xerographic Check

Remove the transfer belt assembly, then check for surface contamination or excessive wear. **The transfer belt assembly is good.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Check if the spots are only on the back of a single-sided print. **The back side is clear of spots.**

Y N

Remove the transfer roller, PL 14.1 Item 2, then check for surface contamination or excessive wear. **The transfer roller is good.**

Y N

Install a new transfer roller, PL 14.1 Item 2.

WARNING

Do not touch the Fuser while it is hot.

Remove the fuser assembly, then check for damage or debris on the rollers. **The fuser rollers are good.**

Y N

Install a new fuser assembly, PL 7.1 Item 1.

Refer to WD 9 and PJ Locations. Check the ROS video harness connections between the ROS assembly, PL 2.1 Item 1 and the ESS PWBA, PL 18.2 Item 4. **The connections are secure.**

Y N

Secure the connections.

Install a new ESS PWBA, PL 18.2 Item 4.

A

WARNING

Do not touch the Fuser while it is hot.

Remove the fuser assembly, then check for damage or debris on the rollers. **The fuser rollers are good.**

Y N

Install a new fuser assembly, PL 7.1 Item 1.

Refer to WD 9 and PJ Locations. Check the ROS video harness connections between the ROS assembly, PL 2.1 Item 1 and the ESS PWBA, PL 18.2 Item 4. **The connections are secure.**

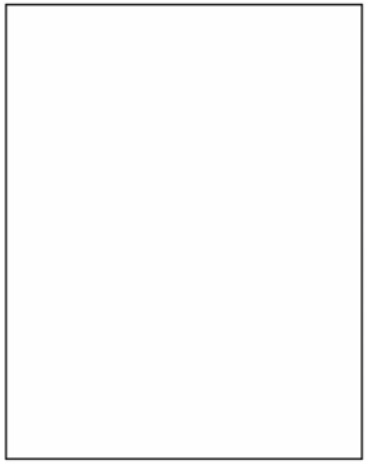
Y N

Secure the connections.

Install a new ESS PWBA, PL 18.2 Item 4.

IQ6 Blank Print or Missing One Color

No visible image anywhere on the output, Figure 1.



Z-1-0196-A

Figure 1 Blank print

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check CRU life counters. Replace components at end of life.
- Clear any obstructions in the laser light path.
- Check for multi-sheet feeds.

Procedure

Print a test print. **The test print is blank.**

Y N

Check the customer's print job settings and the printer's ethernet or USB connections. **Print job settings and network connections are good.**

A

A

Y N

Correct the settings or connections.

Install a new ESS PWBA, PL 18.2 Item 4.

Check the test print is missing one or more colors. **The print is totally blank (missing all colors).**

Y N

Remove the imaging unit of the affected color, then clean the electrical contacts; Reinstall the imaging unit, then rerun the test print. **The print is still missing the color.**

Y N

Perform SCP 5 Final Actions.

Install a new imaging unit for the affected color, PL 8.1 then rerun the test print. **The print is still missing the color.**

Y N

Perform SCP 5 Final Actions.

Perform the Procedure **Xerographic Check**.

Perform the Procedure **Xerographic Check**.

Procedure

Xerographic Check

Remove, then examine the transfer roller assembly, PL 14.1 Item 2 for surface contamination or excessive wear. **The, transfer roller is good.**

Y N

Install a new transfer roller assembly, PL 14.1 Item 2.

Refer to WD 12 and PJ Locations. Check the transfer HVPS TR PWBA connections to the bias contacts. **The connections are secure.**

Y N

Secure the connections.

Install a new transfer HVPS TR PWBA, PL 18.2 Item 30 then print a test print. **The image is blank.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check P/J181 and P/J182 on the development HVPS XD PWBA. **The development HVPS XD PWBA connectors are connected correctly.**

Y N

Connect the connector. Task complete, perform, SCP 5 Final Actions.

Install a new the development HVPS XD PWBA, PL 18.2 Item 25 then print a test print. **The image is blank.**

Y N

Perform SCP 5 Final Actions.

Check for obstructions between the ROS assembly, PL 2.1 Item 1 and drum of the imaging unit, PL 8.1. **The laser light path is clear.**

Y N

Clear the laser light path of obstructions.

Refer to WD 9 and PJ Locations. Check the ROS video harness connections between the ROS assembly, PL 2.1 Item 1 and the ESS PWBA, PL 18.2 Item 4. **The connections are secure.**

Y N

Secure the connections.

Install a new ROS assembly, PL 2.1 Item 1 then reprint the test print. **The image is blank.**

Y N

Perform SCP 5 Final Actions.

Install a new MCU PWBA, PL 18.2 Item 24. **The image is blank.**

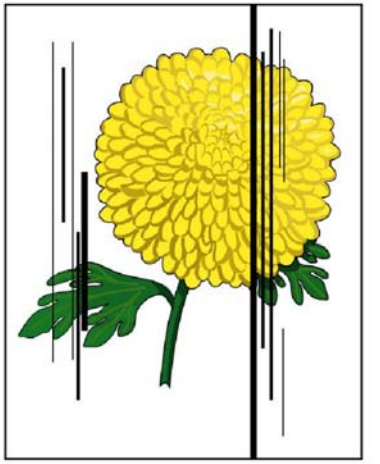
Y N

Perform SCP 5 Final Actions.

Install a new ESS PWBA PL 18.2 Item 4.

IQ7 Vertical Process Streaks

Extraneous vertical dark lines or bands, Figure 1.



Z-1-0197-A

Figure 1 Vertical process streak

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check that the Drum Cartridge contacts are clean.
- Inspect the media path for contamination or obstruction.

Procedure

Check the error mode. **The error occurs only when printing, and not when copying or scanning.**

Y N

Check the original. **The original color is clean.**

Y N

Change the original.

Clean the scanner ADJ 50.1. **The error persists when copying or scanning.**

Y N

Perform SCP 5 Final Actions.

Check the amount of toner remaining in each cartridge; install new toner cartridges as needed, PL 5.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the transfer belt for cleanliness, wear, and installation, PL 6.1 Item 1. **The transfer belt is clean, not worn, and works correctly.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

If the fault persists contact 2nd level support.

Check the amount of toner remaining in each cartridge; install new toner cartridges as needed, PL 5.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the transfer belt for cleanliness, wear, and installation, PL 6.1 Item 1. **The transfer belt is clean, not worn, and works correctly.**

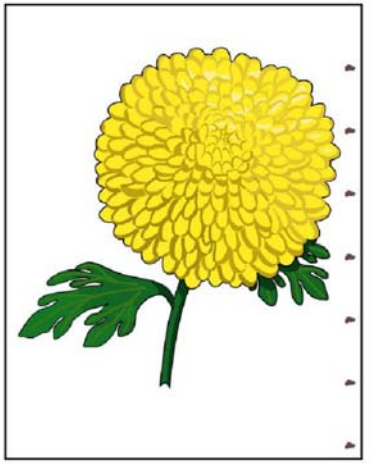
Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

If the fault persists contact 2nd level support.

IQ8 Pitched Color Dots

Recurring color dots or spots, Figure 1.



Z-1-0198-A

Figure 1 Pitched color dots

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.
- Print then analyze test pattern 61, dC612.

Procedure

Print, then analyze test pattern 61, dC612. **The defective component is identified.**

Y N

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new fuser assembly, PL 7.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install new components as necessary:

- Transfer belt assembly, PL 6.1 Item 1.
- Transfer roller assembly, PL 14.1 Item 2.
- Retard holder assembly, PL 9.1 Item 3.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check P/J181 and P/J182 on the development HVPS XD PWBA. **The Development HVPS XD PWBA connectors are connected correctly.**

Y N

Correctly connect the connectors.

Check the installation of the transfer belt assembly, PL 6.1 Item 1. **The transfer belt assembly HV terminal is clean, and it contacts the spring correctly.**

Y N

Clean the HV terminal. Reinstall the transfer belt assembly.

Check the transfer belt assembly, PL 6.1 Item 1. **The transfer belt assembly is clean, undamaged, and works correctly.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Refer to WD 12 and PJ Locations. Check the transfer HVPS TR PWBA, PL 18.2 Item 30 connector connection. **The transfer HVPS TR PWBA connector is connected correctly.**

Y N

Connect the connector.

Print a test print. **The image quality defect persists.**

Y N

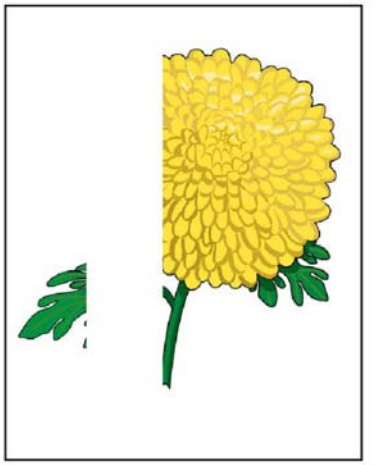
Perform SCP 5 Final Actions

Contact 2nd level support.

Clean the relevant component or install new components as necessary.

IQ9 Vertical Blanks (line, band, spots)

Use this procedure to correct defects that appear as areas of image blanks or deletions, Figure 1.



Z-1-0199-A

Figure 1 Vertical blanks

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper supply is dry and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check the installation of the imaging units.
- Clean the imaging units contacts.
- Check the transfer roller for contamination or wear.
- Check that rollers and other media path components are clean and unobstructed.
- If vertical lines of deletion appear, clean the ROS windows, ADJ 2.1 Laser Lens Cleaning.

Procedure

Print 50% YMCKRGB test prints, dC612. There should be no deletions with a diameter larger than 0.5 mm visible on the test prints. **No deletions are visible.**

Y N

Perform SCP 5 Final Actions.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**

Y N

Clean the media path.

If the vertical blank defect is in only one color, install a new imaging unit of the missing color type, PL 8.1 then reprint the test print. **The image contains spots.**

Y N

Perform SCP 5 Final Actions.

Remove then examine the transfer belt assembly, PL 6.1 Item 1 for surface contamination or excessive wear. **The transfer belt assembly is good.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Check for debris on the ROS assembly window or obstructions between the ROS assembly and imaging unit. **The laser light path is clear.**

Y N

Perform ADJ 2.1 Laser Lens Cleaning.

WARNING

Do not touch the Fuser while it is hot.

Remove and examine the fuser assembly, PL 7.1 Item 1 for damage or debris on the rollers. **The fuser rollers are good.**

Y N

Install a new fuser assembly, PL 7.1 Item 1.

Refer to WD 9 and PJ Locations. Check the ROS video harness connections between the ROS assembly, PL 2.1 Item 1 and the ESS PWBA, PL 18.2 Item 4. **The connections are secure.**

Y N

Secure the connections.

Install a new ESS PWBA PL 18.2 Item 4.

IQ10 Ghosting

The residual image from a previous print appears on the current print, Figure 1.

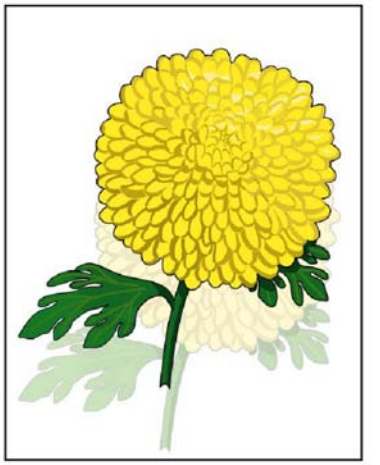


Figure 1 Ghosting

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check media type settings are correct.
- Inspect the paper path for items such as, staples, paper clips, and paper scraps.
- Check that the fuser green nip release levers are in the lowered (locked) position.
- Verify the paper is within specifications, GP 26.
- Identify the type of ghosting, refer to Figure 2. If the ghosting is positive, increase the transfer voltage. If the ghosting is negative, decrease the transfer voltage. Perform ADJ 6.3 Transfer Roller Bias Adjustment.

Procedure

Print then analyze test pattern 62, dC612. **The defective component is identified.**

Y N

Print 10 test prints. **A residual image appears on all copies.**

A

A

Y N

Set the paper type to one type higher, and print an additional 10 prints to clean residual toner from the rollers.

Measure the defect frequency on the prints. **No defect pattern is visible.**

Y N

Perform IQ22 Repeating Defects Procedure to determine the defective component.

Remove the transfer belt assembly, then check for surface contamination or excessive wear. **The transfer belt surface is good.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Check the HV terminal on the transfer belt assembly is clean and makes good contact to the spring. **The HV terminal is clean and makes contact correctly.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

WARNING

Do not touch the Fuser while it is hot.

Remove, then examine the fuser assembly, PL 7.1 Item 1 for damage or debris on the rollers. **The fuser rollers are good.**

Y N

Install a new fuser assembly, PL 7.1 Item 1.

Refer to WD 12 and PJ Locations. Check the transfer HVPS TR PWBA connector connection. **The transfer HVPS TR PWBA connector is connected correctly.**

Y N

Correctly connect the connector.

If the fault persists contact 2nd level support.

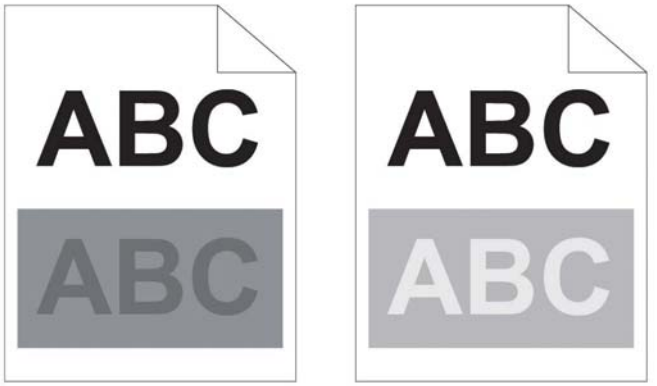


Figure 2 Ghosting Type

Clean the relevant component or install new components as necessary.

IQ11 Light Induced Fatigue

Light fatigue pattern appearing across image, Figure 1.

Figure 1 Light induced fatigue

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Check, then if necessary adjust the transfer bias voltage, ADJ 6.3. **The image quality defect persist.**

Y N

Perform SCP 5 Final Actions.

Install new imaging units, PL 8.1. **The image quality defect persist.**

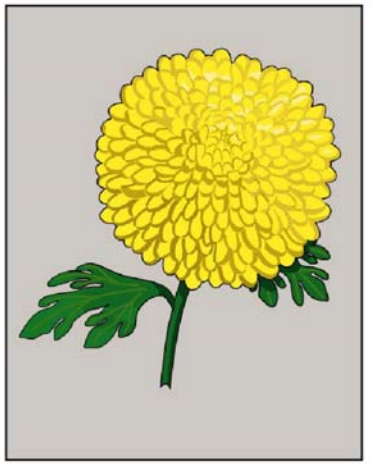
Y N

Perform SCP 5 Final Actions.

Contact 2nd level support.

IQ12 Fog, Background Contamination

There is toner contamination on all or part of the page, Figure 1. The contamination appears as a very light single or multi-color dusting or fog.



Z-1-0202-A

Figure 1 Background defect

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check media type settings are correct.
- Some glossy media or photo paper will exhibit high background. If the issue only occurs on a particular media, try a different brand.
- Check that the paper is clean, dry, and meets specifications, GP 26.
- Verify the toner cartridges, PL 5.1 are Xerox manufactured components with adequate life remaining. If non-Xerox toner cartridges are being used, this could be the problem.
- Clean the imaging unit, PL 8.1 contacts.
- Ensure all covers are in place and no outside light enters the device.

Procedure

If the background is in only one color, remove the imaging unit of that color, PL 8.1 then clean the electrical contacts. Reinstall the imaging unit, then print a test print. **The image includes background defects.**

Y N

Perform SCP 5 Final Actions.

Install a new imaging unit, PL 8.1 of the affected color, then print a test print. **The image includes background defects.**

Y N

Perform SCP 5 Final Actions.

Perform the 094-310, 319, 325, 326 Error CTD Sensor Dirty RAP, then print a test print. **The image includes background defects.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check the transfer HVPS TR PWBA connector connection. **The transfer HVPS TR PWBA connector is connected correctly.**

Y N

Correctly connect the connector.

Install a new the transfer HVPS TR PWBA, PL 18.2 Item 30, then print a test print. **The image includes background defects.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check P/J181 and P/J182 on the development HVPS XD PWBA. **The development HVPS XD PWBA connectors are connected correctly.**

Y N

Correctly connect the connector.

Install a new the development HVPS XD PWBA, PL 18.2 Item 25 then print a test print. **The image includes background defects.**

Y N

Perform SCP 5 Final Actions.

Remove, then examine the transfer belt assembly, PL 6.1 Item 1 for surface contamination or excessive wear. **The transfer belt assembly is good.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Install a new transfer HVPS TR PWBA, PL 18.2 Item 30 then print a test print. **The image includes background defects.**

Y N

Perform SCP 5 Final Actions.

install a new MCU PWBA, PL 18.2 Item 24, then print a test print. **The image includes background defects.**

Y N

Perform SCP 5 Final Actions.

A

A

Install a new ESS PWBA, PL 18.2 Item 4, then print a test print. **The image includes background defects.**

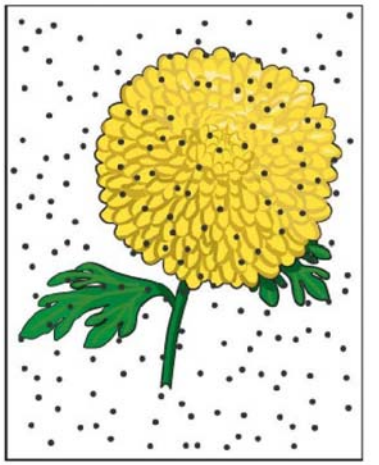
Y N

Perform SCP 5 Final Actions.

Contact 2nd level support.

IQ13 Bead-Carry-Out (BCO)

Multiple dots appearing across image, Figure 1.



Z-1-0203-A

Figure 1 Bead-carry-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 4. 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.

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Check altitude of printer installation location, ADJ 1.1. **The printer is within specified altitude limits.**

Y N

Relocate printer to within specified altitude limits. **The image quality defect persists**

Y N

Perform SCP 5 Final Actions.

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check the transfer HVPS TR PWBA connector connection. **The connection is secure.**

Y N

Secure the connection.

Install a new transfer HVPS TR PWBA, PL 18.2 Item 30 then print a test print. **The fault persists**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check P/J181 and P/J182 on the development HVPS XD PWBA, PL 18.2 Item 25. **The Development HVPS XD PWBA connectors are connected correctly.**

Y N

Correctly connect P/J181 and P/J182.

Install a new development HVPS XD PWBA, PL 18.2 Item 25.

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check the transfer HVPS TR PWBA connector connection. **The connection is secure.**

Y N

Secure the connection.

Install a new transfer HVPS TR PWBA, PL 18.2 Item 30 then print a test print. **The fault persists**

Y N

Perform SCP 5 Final Actions.

Refer to WD 12 and PJ Locations. Check P/J181 and P/J182 on the development HVPS XD PWBA, PL 18.2 Item 25. **The Development HVPS XD PWBA connectors are connected correctly.**

Y N

Correctly connect P/J181 and P/J182.

Install a new development HVPS XD PWBA, PL 18.2 Item 25.

IQ14 Jagged Characters

Text in image is fuzzy or blurry, Figure 1.

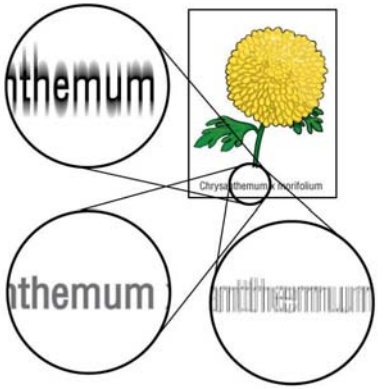


Figure 1 Jagged characters

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Set Screen to Fineness. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Set the print mode to High Quality. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Enable Print Page Mode. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

If using a downloaded font, ensure that the font is recommended for the printer, operating system, and the application being used. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

install a new ESS PWBA, PL 18.2 Item 4. **The fault persists.**

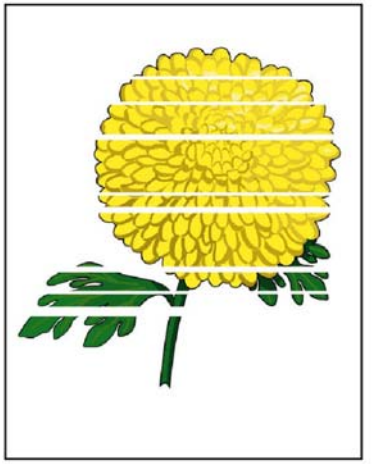
Y N

Perform SCP 5 Final Actions.

Contact 2nd level support.

IQ15 Horizontal Bands (voids, streaks)

Use this procedure to correct defects that appear as areas of horizontal bands, Figure 1.



Z-1-0205-A

Figure 1 Horizontal bands

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Perform ADJ 6.1, Color Toner Density Sensors Cleaning, then print a test print. **The image quality defect persists.**

Y N

Perform SCP 5 Final Actions.

A

A

Perform IQ22 Repeating Defects Procedure to identify a defective component. **The defective component is identified.**

Y N

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Remove the transfer belt assembly, then check for surface contamination or excessive wear. **The transfer belt assembly is good.**

Y N

Install a new transfer belt assembly, PL 6.1 Item 1.

Remove the transfer roller, PL 14.1 Item 2 then check for surface contamination or excessive wear. **The transfer roller is good.**

Y N

Install a new transfer roller, PL 14.1 Item 2.

WARNING

Do not touch the Fuser while it is hot.

install a new fuser assembly, PL 7.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new retard holder assembly, PL 9.1 Item 3. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

If the fault persists contact 2nd level support.

Clean the relevant component or install a new components a necessary. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Contact 2nd level support.

IQ16 Auger Mark

Auger marks appear across output, Figure 1.

Z-1-0206-A

Figure 1 Auger marks

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

If the fault persists contact 2nd level support.

IQ17 Wrinkled/Stained Paper

The page comes out of the output tray either wrinkled, creased, stained, or torn, Figure 1.

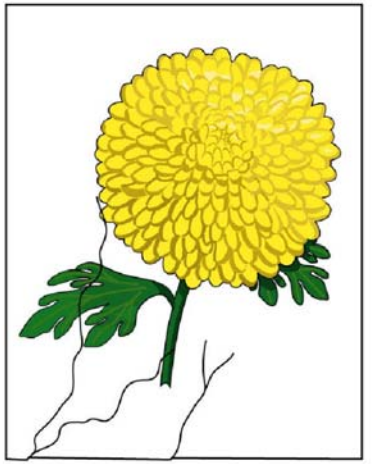


Figure 1 Wrinkled paper

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Verify that correct print media is being used and replace media if needed. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check if problem occurs on paper sheets or on envelopes. **Problem occurs on paper sheets.**

Y N

Check the location of wrinkles on the envelope. **The wrinkles more than 30mm, 1.2 inches from the four edges of the envelope.**

Y N

Wrinkles within 30mm (1.2 inches) of the envelope edge are within specification.

Reload the envelopes in the MSI tray. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the Procedure Paper Supply and Transport.

Perform the Procedure Paper Supply and Transport.

Procedure

Paper Supply and Transport

Reload the paper in the paper cassette by removing the cassette, adjusting the paper guides, and reloading the paper correctly. Reinstall the cassette and perform a test print. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the paper humidity conditioning effect by loading recommended paper from an unopened pack or one that has been sealed and stored under humidity control. Perform a test print. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the paper type setting. **The paper type setting corresponds with the paper in the cassette.**

Y N

Set the correct paper type.

Check the paper transfer path between the paper entrance and the paper exit is clear of any smears or foreign substances. **The paper transport path is clean.**

Y N

Remove the foreign substances.

Check the retard roller assembly, PL 9.1 Item 4. **The retard roller is good.**

Y N

Install a new retard roller assembly, PL 9.1 Item 4.

Check the installation status of the transfer roller assembly, PL 14.1 Item 2. **The transfer roller assembly is installed correctly.**

Y N

Reinstall transfer roller assembly.

A

A

WARNING

Do not touch the fuser while it is hot.

Check the installation of the fuser assembly, PL 7.1 Item 1. **The fuser assembly is installed correctly.**

Y N

Reinstall the fuser assembly.

Check the fuser assembly.

Remove the fuser assembly, turn the gear by hand, and examine the heat roll section for debris and damage. **The heat roll section is good.**

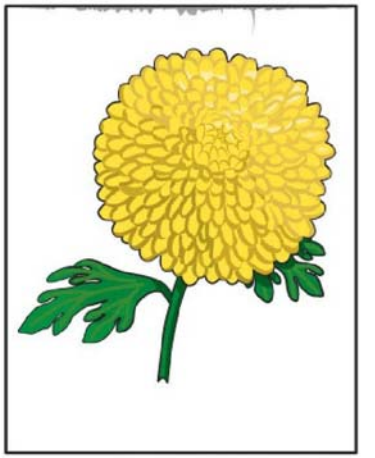
Y N

Install a new fuser assembly, PL 7.1 Item 1.

If the fault persists, contact 2nd level support.

IQ18 Leading Edge Paper Damage

The page comes out of the output tray with the leading edge damaged, Figure 1.



Z-1-0208-A

Figure 1 Leading edge damage

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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.

- Check that the paper is clean, dry, and meets specifications.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Check if damage occurs when using the MSI tray or with other trays. **The problem does not occur when using the MSI Tray.**

Y N

Reverse the paper in the MSI tray, then try again. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Insert a different sheet of paper in the MSI tray, then try again. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Use another tray in place of the MSI tray. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the Procedure Paper Supply and Transport.

Perform the Procedure Paper Supply and Transport.

Procedure

Paper Supply and Transport

Reload the paper in the paper cassette by removing the cassette, adjusting the paper guides, and reloading the paper correctly. Reinstall the cassette and perform a test print. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the paper humidity conditioning effect by loading recommended paper from an unopened pack or one that has been sealed and stored under humidity control. Perform a test print. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the paper type setting. **The paper type setting corresponds with the paper in the cassette.**

Y N

Set the correct paper type.

Check the paper transfer path between the paper entrance and the paper exit is clear of any smears or foreign substances. **The paper transport path is clean.**

Y N

Remove the foreign substances.

Check the retard roller assembly, PL 9.1 Item 4. **The retard roller is good.**

Y N

Install a new retard roller assembly, PL 9.1 Item 4.

Check the installation status of the transfer roller assembly, PL 14.1 Item 2. **The transfer roller assembly is installed correctly.**

Y N

Reinstall transfer roller assembly.

A

A

WARNING

Do not touch the fuser while it is hot.

Check the installation of the fuser assembly, PL 7.1 Item 1. **The fuser assembly is installed correctly.**

Y N

Reinstall the fuser assembly.

Check the fuser assembly.

Remove the fuser assembly, turn the gear by hand, and examine the heat roll section for debris and damage. **The heat roll section is good.**

Y N

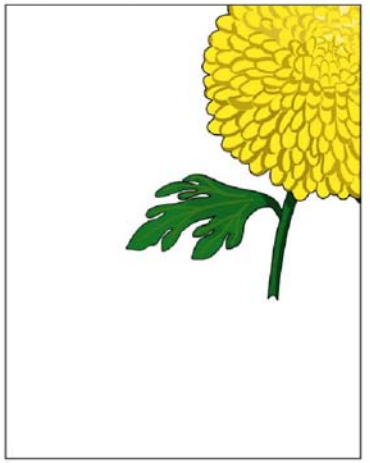
Install a new fuser assembly, PL 7.1 Item 1.

If the fault persists, contact 2nd level support.

IQ19 Incorrect Top and Side Margins

Image prints outside of the page margins, Figure 1.

Initial Actions



Z-1-0209-A

Figure 1 Incorrect margins

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

NOTE: *ADJ 5.3 Image position has separate adjustments for side 1 and side 2.*

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Ensure the margins are set correctly in the application being used. **The position of the printed image is incorrect.**

Y N

Perform SCP 5 Final Actions.

Check the error mode. **The fault only occurs during printing.**

Y N

Check the error during copy mode. **The fault only occurs when feeding an original through the DADF.**

Y N

Check the position of the original. **The original is positioned on the platen glass correctly.**

Y N

Reposition the original.

Install a new IIT assembly, PL 50.1 Item 2.

Check the DADF guides, if necessary adjust the guides. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the DADF Feed Roller, PL 50.1 Item 1. **The Feed Roller is damaged or contaminated.**

Y N

Install a new DADF assembly, PL 50.1 Item 1.

Clean the DADF feed roller, PL 50.1 Item 5. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new DADF Feed roll kit, PL 50.1 Item 99. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new DADF assembly, PL 50.1 Item 1.

Check the printing in diagnostics: dC612, test pattern 65. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform ADJ 5.3 Image Position. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new transfer belt assembly, PL 6.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Refer to WD 8 and PJ Locations. Check the wiring between the ROS assembly and the MCU PWBA. **P/J36 and P/J 11 are connected correctly.**

Y N

Secure the connections.

Install a new ROS assembly, PL 2.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

If the fault persists contact 2nd level support.

IQ20 Color Registration is Out of Alignment

Image colors are not aligned with each other, Figure 1.

Figure 1 Color reg misalignment

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

NOTE: *The terms xerographic development assembly and imaging unit are used throughout this document interchangeably.*

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Procedure

Adjust the settings of the paper type on the printer driver to those of the tray. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the auto color registration adjustment described in ADJ 5.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Manually correct the color registration using ADJ 5.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Remove the Y, M, C & K imaging units, then check the contacts at each end of the imaging units are clean and free of deformation. Reinstall the imaging unit. **The Y, M, C & K imaging units are installed correctly and their contacts are good.**

Y N

Restore and clean the interface. Reinstall the Y, M, C & K imaging units.

Install new imaging units, PL 8.1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Perform the 094-310, 319, 325, 326 Error CTD Sensor Dirty RAP. **The CTD sensor good.**

Y N

Install a new color toner density (CTD) sensor, PL 6.1 Item 14.

Install a new transfer belt assembly, PL 6.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Install a new ROS assembly, PL 2.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

If the fault persists contact 2nd level support.

IQ21 Images are Skewed

Images in the output are not parallel to the edge of the printed sheet, Figure 1.

WARNING

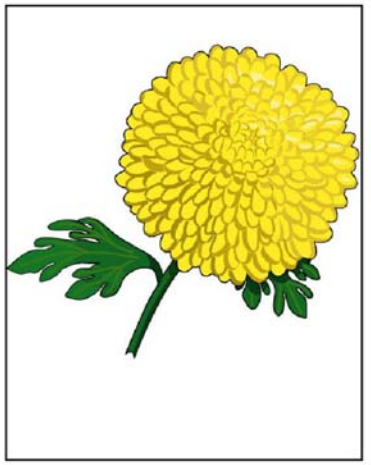
Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

WARNING

Do not touch the Fuser while it is hot.

Initial Actions

- Check that the paper is clean, dry, and meets specifications, GP 26.
- Inspect the paper path for items such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.



Z-1-0211-A

Figure 1 Skewed image

Procedure

Adjust the paper guides correctly. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Ensure the transfer belt assembly is installed correctly, PL 6.1 Item 1. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

A

Check the paper humidity conditioning effect by loading recommended paper from a unopened package or one that has been sealed and stored under humidity control. Perform a test print. **The fault persists.**

Y N

Perform SCP 5 Final Actions.

Check the paper type setting. **The paper type setting corresponds with the paper printed.**

Y N

Set the correct paper type.

Check the paper transfer path. **There is no dirt or foreign substances on the paper transfer path between the paper entrance and the paper exit.**

Y N

Remove the foreign substance.

Check the paper path TA1 and TA2 roller assemblies, PL 13.1. **The roller assemblies are not dirty, damaged, or worn and they function correctly.**

Y N

Clean or install a new TA1 or TA2 roller assembly, PL 13.1.

Check the installation status of the transfer roller assembly, PL 14.1 Item 2. **The transfer roller is installed correctly.**

Y N

Reinstall the transfer roller.

WARNING

Do not touch the Fuser while it is hot.

Check the installation status of the fuser assembly PL 7.1. **The fuser assembly is installed correctly.**

Y N

Reinstall the fuser assembly.

If the fault persists contact 2nd level support.

IQ22 Repeating Defects Procedure

Purpose

This is an image quality hardware defects detection procedure. Perform this procedure to identify if one of the following assemblies, xerographic development assembly PL 8.1, fuser assembly PL 7.1, transfer belt assembly PL 6.1 or transfer roller assembly PL 14.1, are the cause of horizontal streaks or spots that appear in a constant cycle on defective output prints and copies.

Procedure

1. At the device user interface, enter service mode, GP 1.
2. Touch Device.
3. Touch Support.
4. Touch Support Pages.
5. Touch Repeating Defects.
6. The device will print a Repeating Defects check print and a Cyan, Magenta, Green and Grey test print.
7. Refer to the instructions on the Repeating Defects check print.
8. Check if any horizontal streaks or spots on the 4 colored test prints match with any of the corresponding measurement marks on the Repeating Defects check print.

   NOTE: *The repeating defect must be measured accurately to ensure the correct assembly is identified.*

   NOTE: *The term Drum Cartridge is used on the Repeating Defects check print to describe the xerographic development assembly.*

9. Install new components as necessary:
   - Xerographic development assembly, PL 8.1.
   - Fuser assembly, PL 7.1.
   - Transfer belt assembly, PL 6.1.
   - Transfer roller assembly, PL 14.1.

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REP 1.1 UI Harness Assembly C400

Parts List on PL 1.1A

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 UI bottom left cover C400, REP 1.5.
2. Remove the left side cover assembly C400, REP 19.14.
3. Remove the ESS top plate, Figure 1.

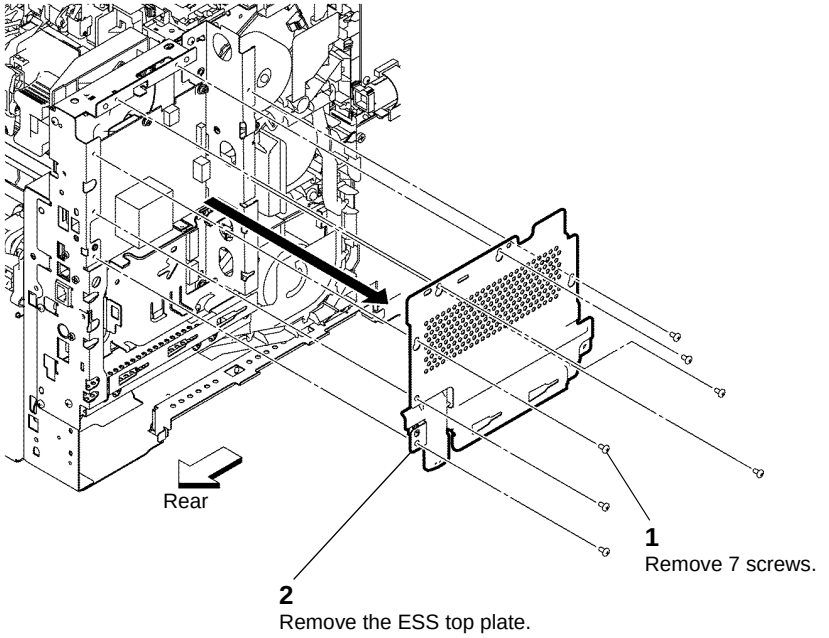


Figure 1 ESS top plate

4. Refer to REP 1.2, then disconnect P/J1 of the UI harness assembly.
5. Remove the UI harness assembly, Figure 2.

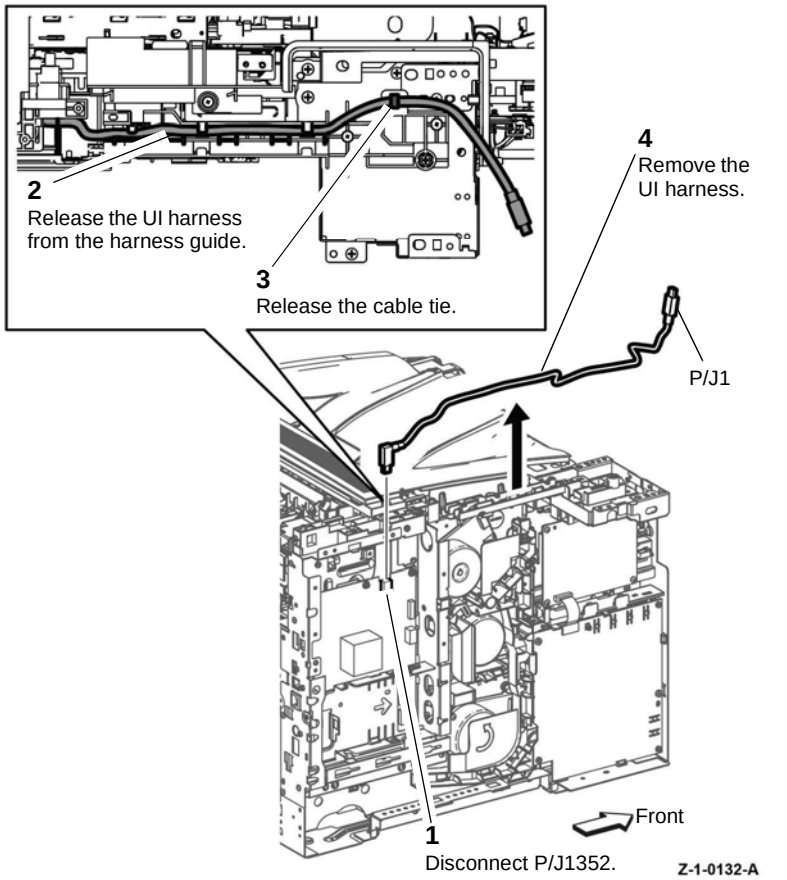


Figure 2 UI harness assembly C400

Replacement

1. The replacement is the reverse of the removal procedure. Refer to GP 8 before the screws are installed

REP 1.2 User Interface Console C400

Parts List on PL 1.1A, PL 1.2A

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 user interface top cover, Figure 1.

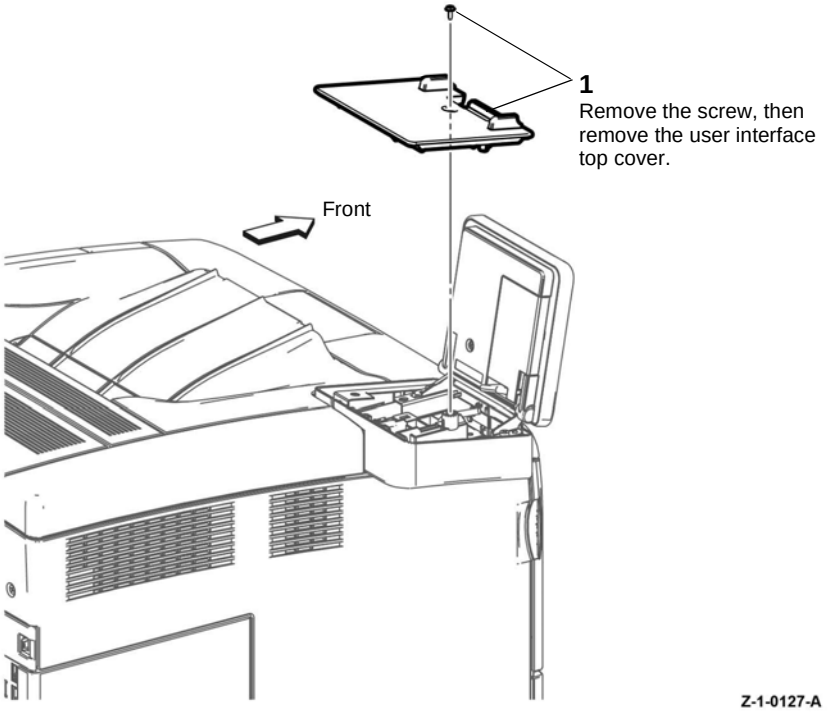


Figure 1 User interface top cover C400

2. Remove the user interface console, Figure 2

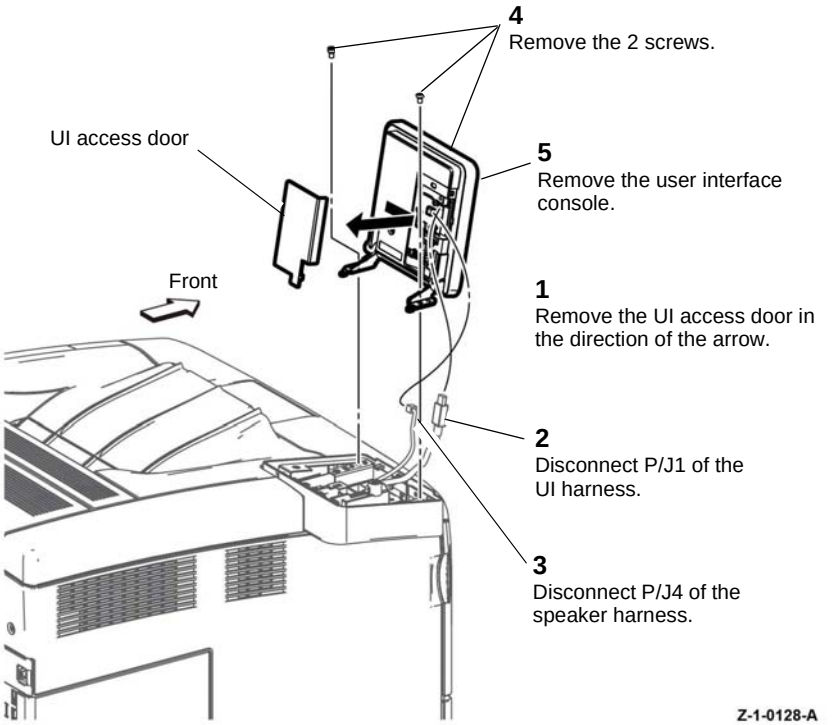


Figure 2 User interface console C400

Replacement

1. The replacement is the reverse of the removal procedure. Refer to GP 8 before the screws are installed

REP 1.3 User Interface Console C405

Parts List on PL 1.1B, PL 1.2B

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 IIT front cover, Figure 1.

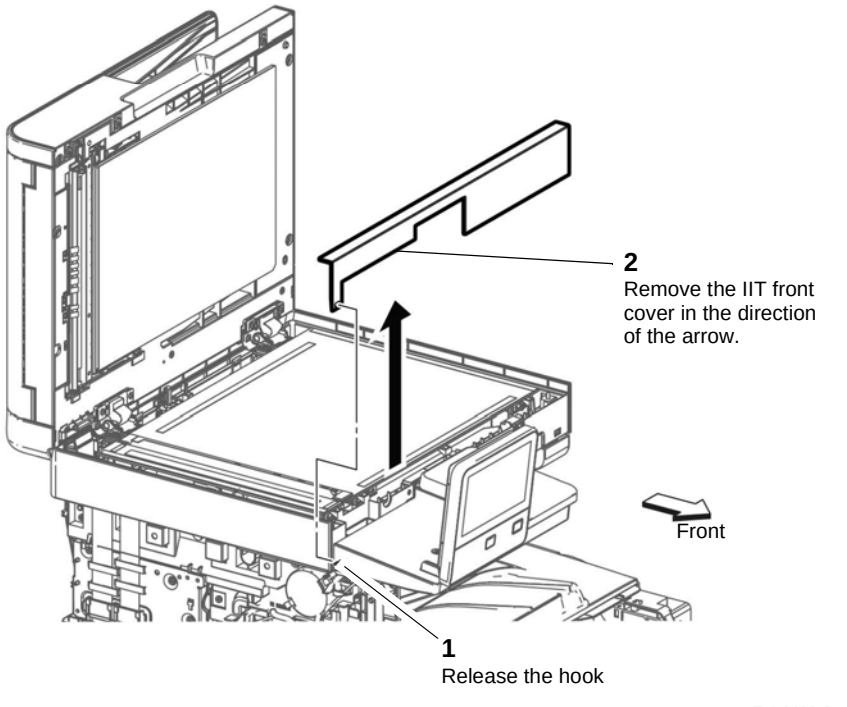


Figure 1 IIT front cover

2. Remove the cover UI base top and ICCR top covers, Figure 2 .

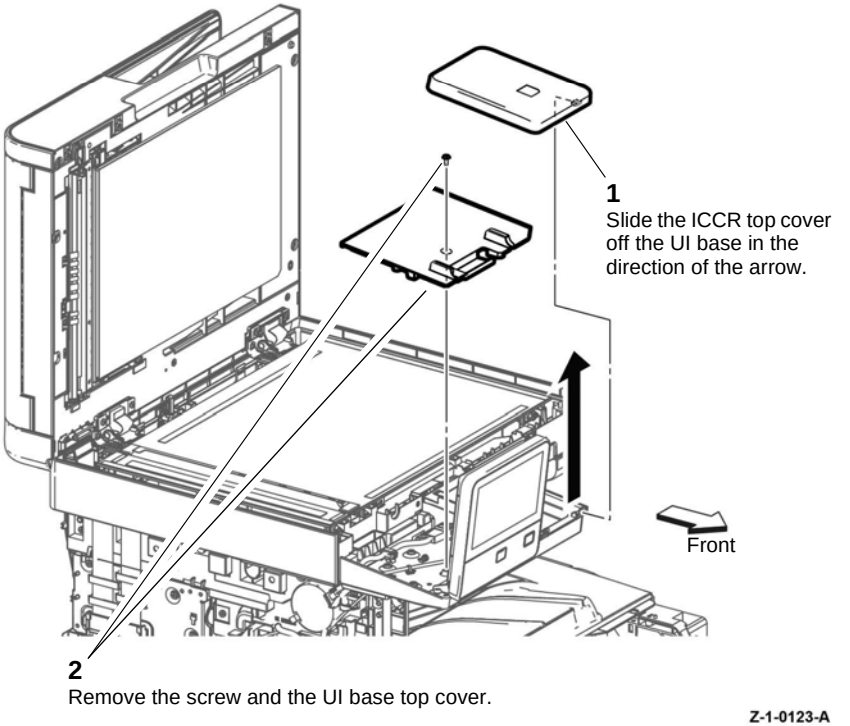


Figure 2 UI base top and ICCR covers

3. Remove the user interface console, Figure 3.

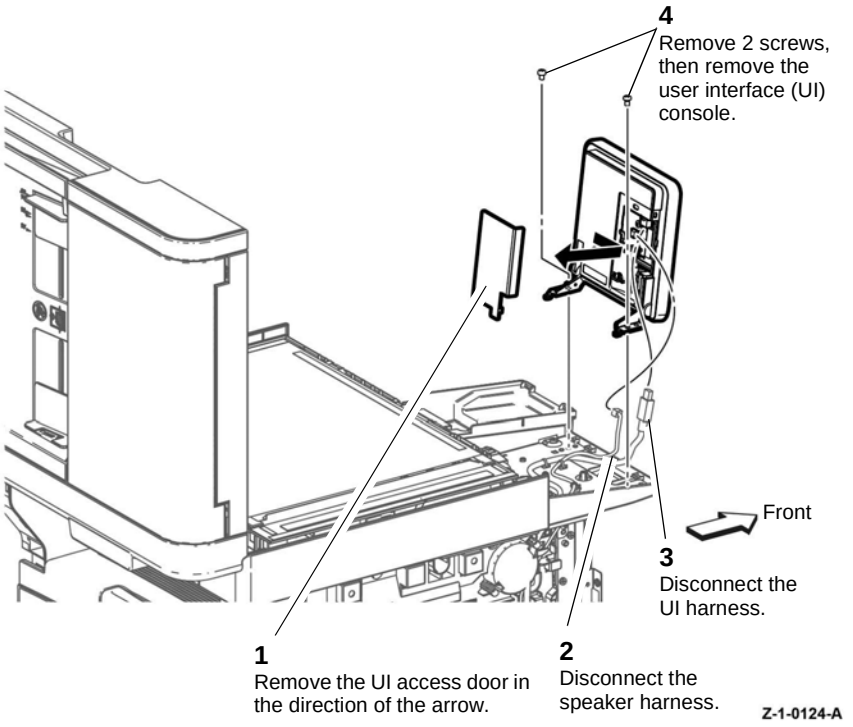


Figure 3 User interface console C405

Replacement

Replacement is the reverse of the removal procedure.

REP 1.4 UI Harness and USB Harness Assembly ICCR C405

Parts List on PL 1.1B

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 assembly.

1. Remove the left side cover assembly C405, REP 19.18.
2. Remove the user interface console C405, REP 1.3.

3. Prepare to remove the UI harness and USB harness assembly ICCR, Figure 2.

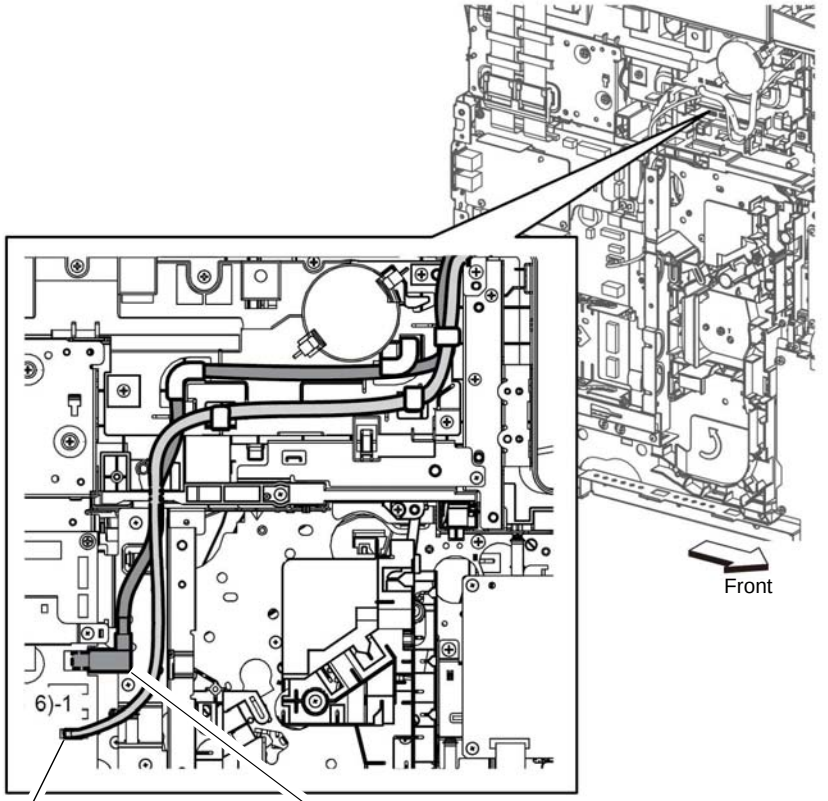


Figure 2 Disconnect the UI and USB/ICCR harnesses

4. Remove the UI harness and USB harness assembly ICCR, Figure 3.

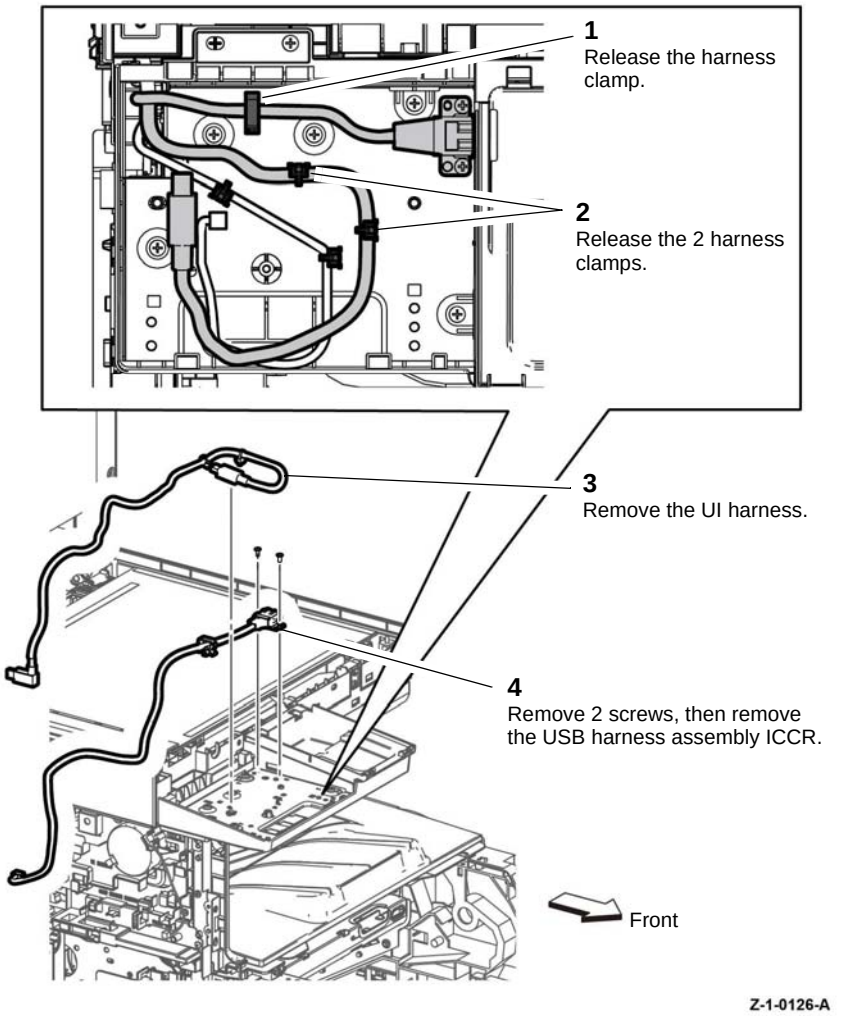


Figure 3 Remove the UI and USB-ICCR harnesses

Replacement

1. The replacement is the reverse of the removal procedure. Refer to GP 8 before the screws are installed

REP 1.5 UI Bottom Left Cover C400

Parts List on PL 1.2A

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 user interface console C400, REP 1.2.
2. Open the front cover assembly, PL 19.1A Item 1.
3. Remove the UI bottom left cover C400, Figure 1.

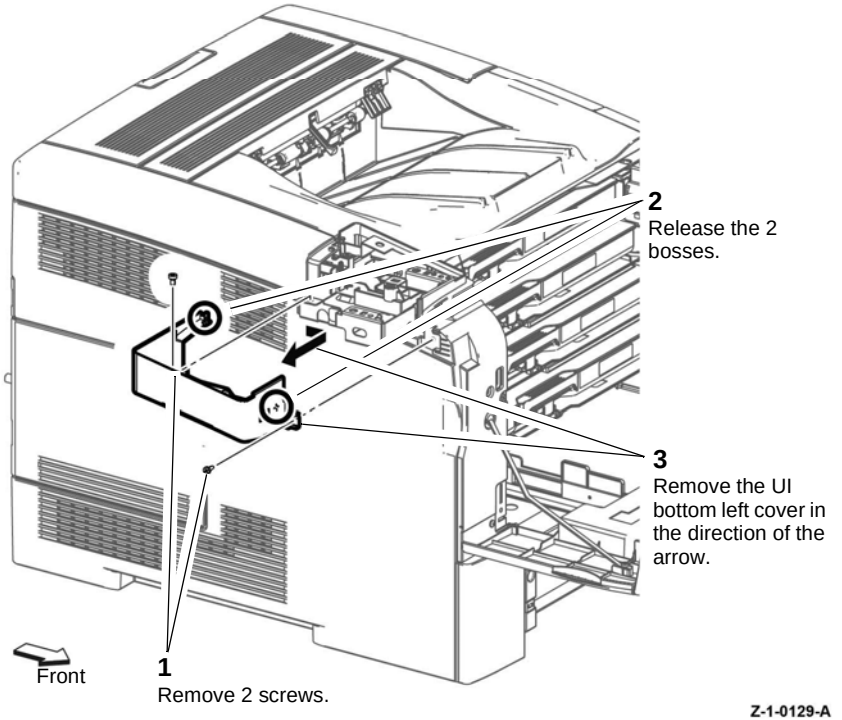


Figure 1 UI bottom left cover

Replacement

1. The replacement is the reverse of the removal procedure. Refer to GP 8 before the screws are installed

REP 1.6 UI Bottom Right Cover C400

Parts List on PL 1.2A

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 user interface bottom left cover C400, REP 1.5.
2. Remove the UI bottom right cover C400, Figure 1.

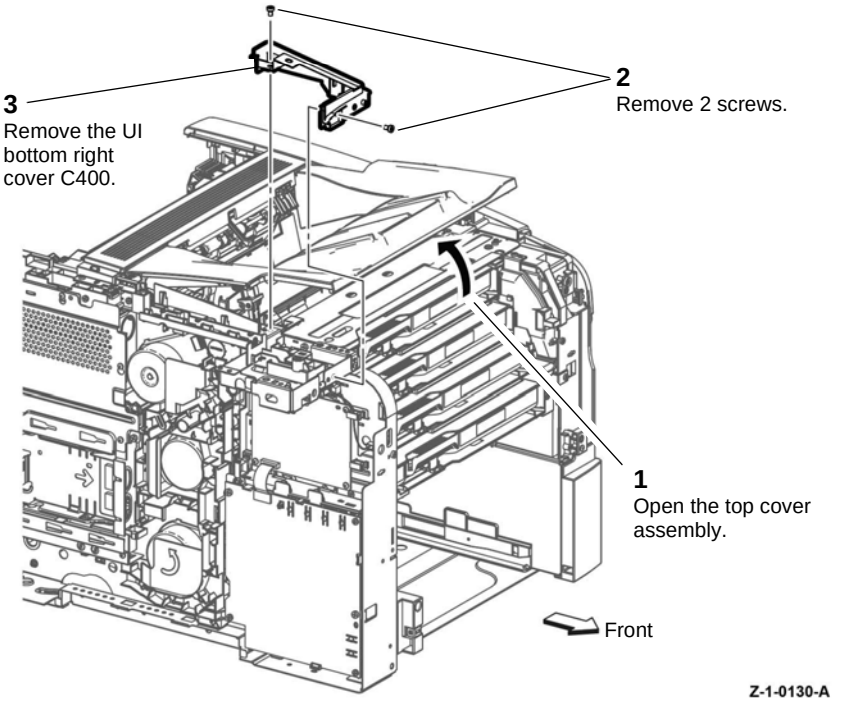


Figure 1 UI bottom right cover

Replacement

1. The replacement is the reverse of the removal procedure. Refer to GP 8 before the screws are installed

REP 2.1 ROS Assembly

Parts List on PL 2.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

Avoid exposure to laser beam. Invisible laser radiation.

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.

Figure 1 Laser beam symbol

1. Remove the front cover assembly, (C400 REP 19.1), (C405 REP 19.6).
2. Remove the UI bottom right cover, (C400 REP 1.6).
3. Remove the waste box assembly, PL 8.1 Item 7.

CAUTION

Ensure the xerographic development assemblies are stored in a dark location. The xerographic development assemblies can be damaged by exposure to light.

4. Remove the dispenser assemblies Y, M, C and K, REP 5.3.
5. Remove the ESS PWBA and EMMC Card, (C400 REP 18.4), (C405 REP 18.5).
6. Remove the ROS assembly, Figure 2.

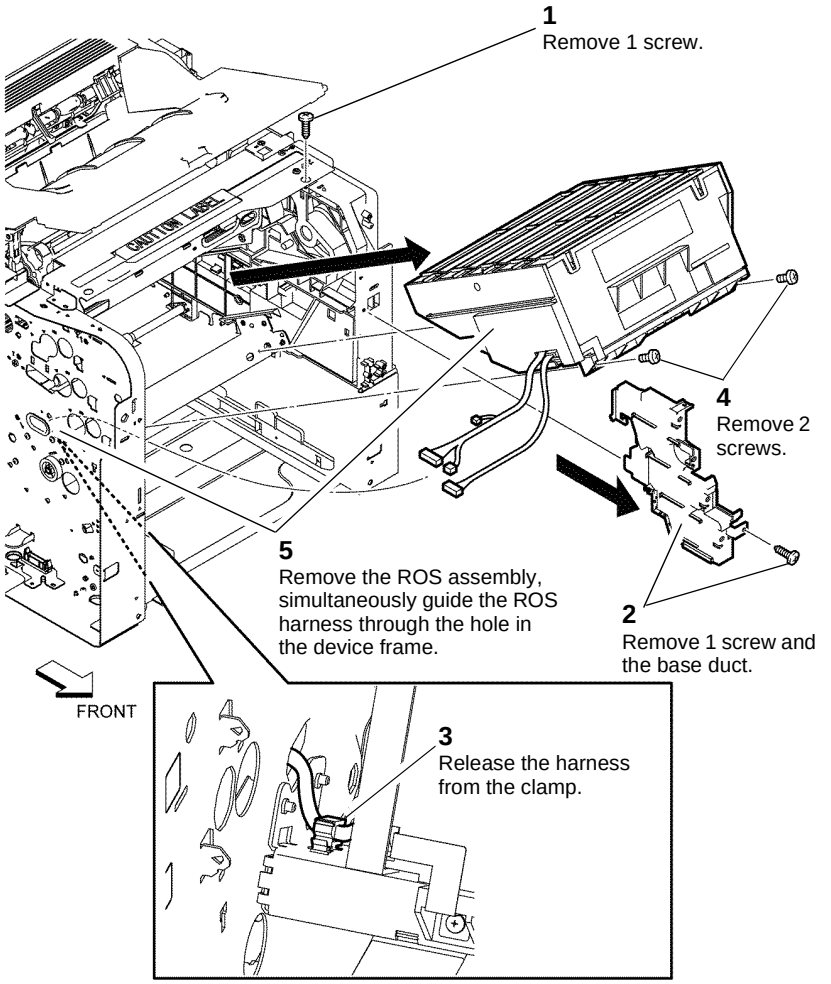


Figure 2 Remove the ROS assembly

Replacement

Ensure the ROS assembly is installed along the guides, Figure 3. Replacement is the reverse of the removal procedure.

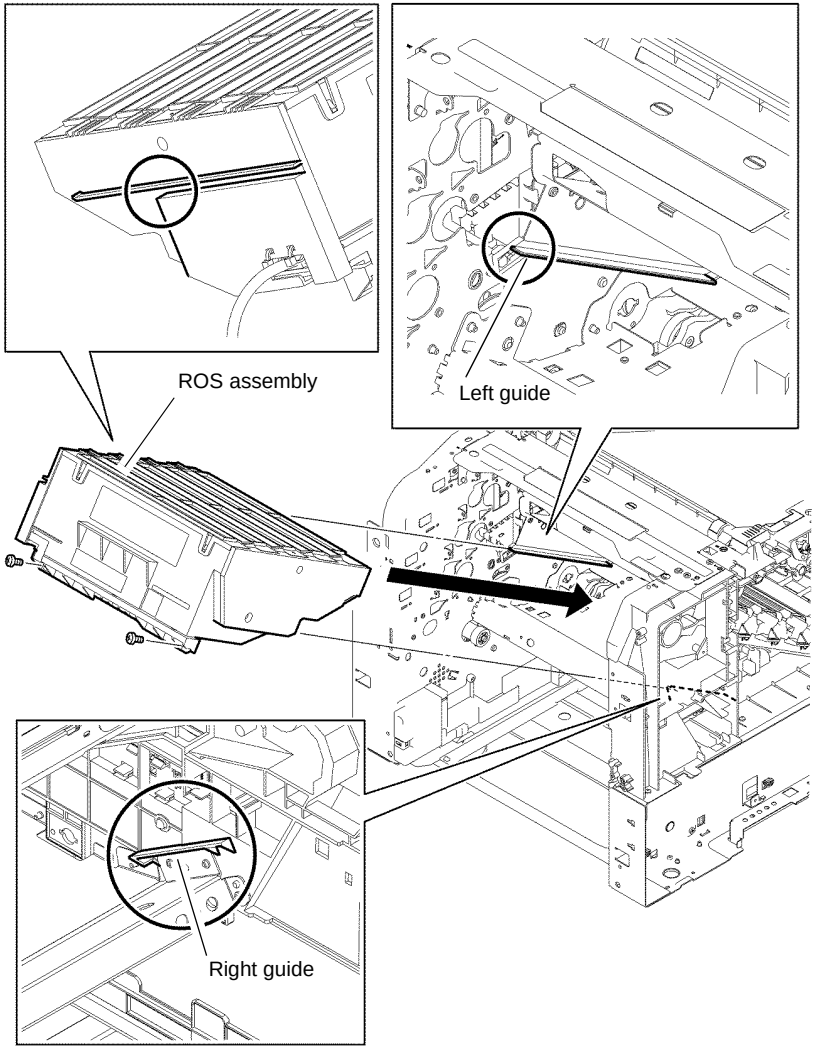


Figure 3 Replace the ROS assembly

REP 3.1 Main Drive Assembly

Parts List on PL 3.1

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 the main drive assembly is kept facing upwards during the removal procedure to avoid the gears falling off the assembly.

1. Remove the Development HVPS XD PWBA, REP 18.10.
2. Remove the ESS PWBA, (C400 REP 18.4), (C405 REP 18.5).
3. C400 devices only, remove the ESS rear plate, Figure 1.

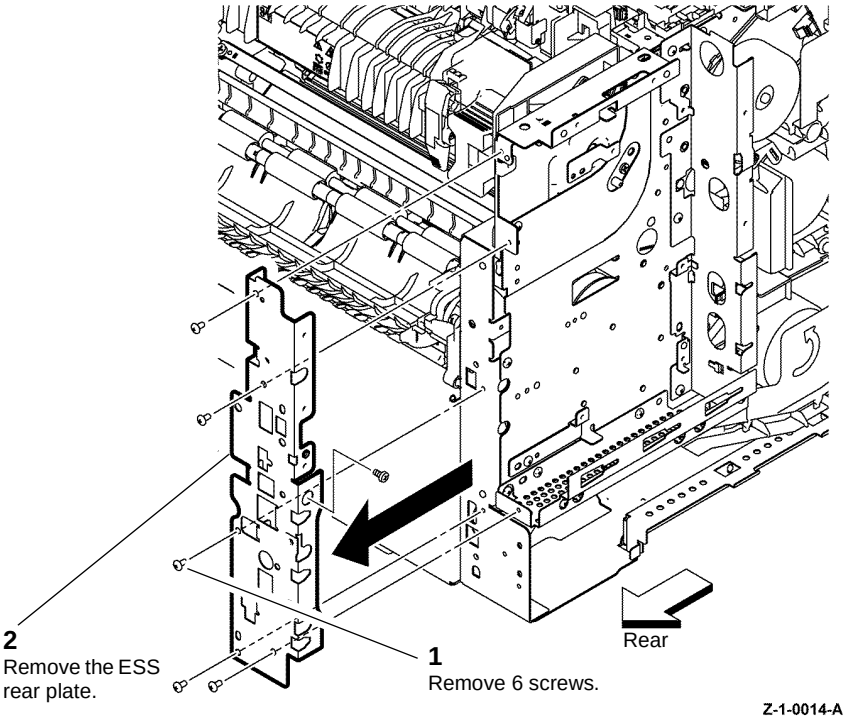


Figure 1 ESS rear plate

4. Remove the ESS bottom and front plates, (Figure 2 C400), (Figure 3 C405).

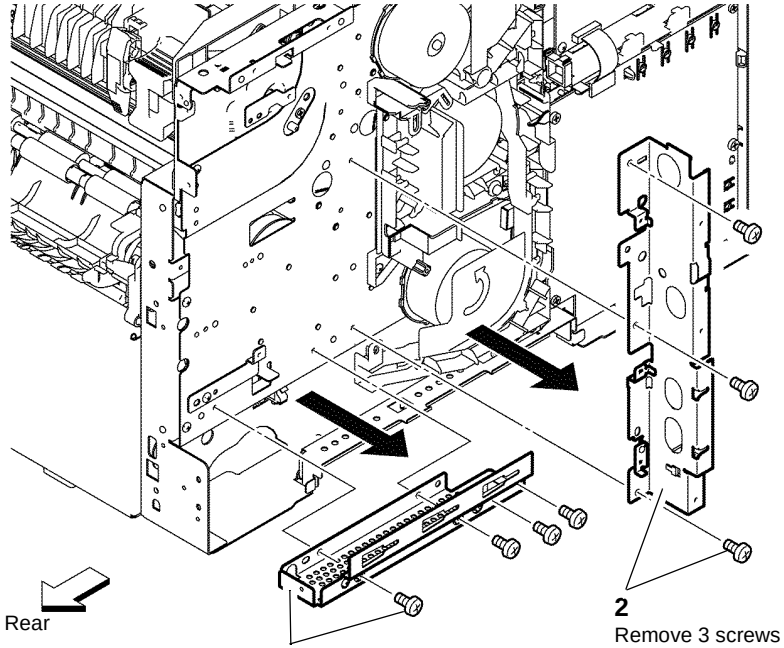


Figure 2 ESS bottom and front plates C400

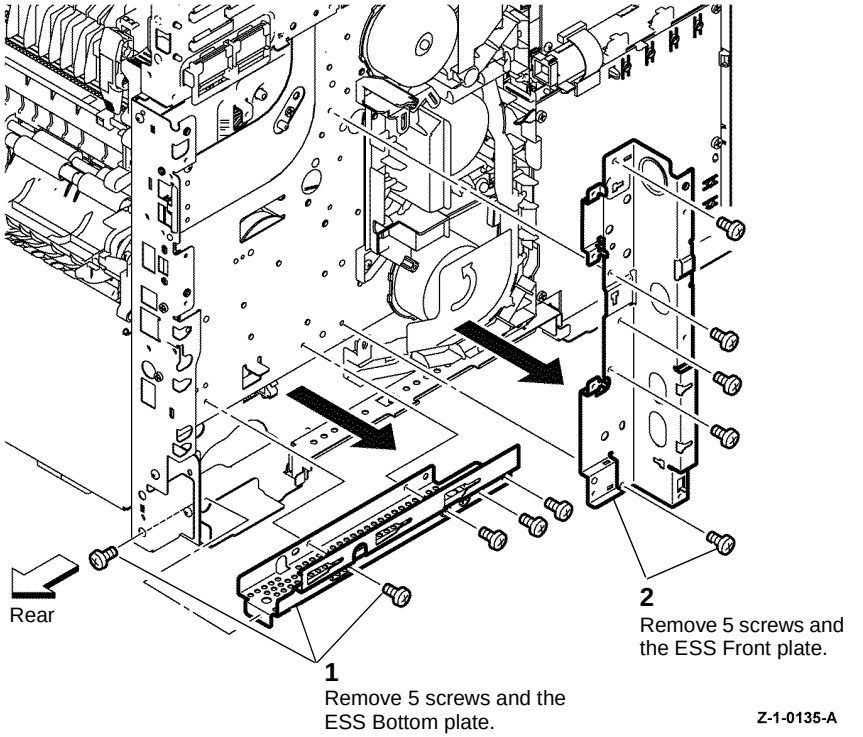


Figure 3 ESS bottom and front plates C405

5. Remove the left harness guide, Figure 4.

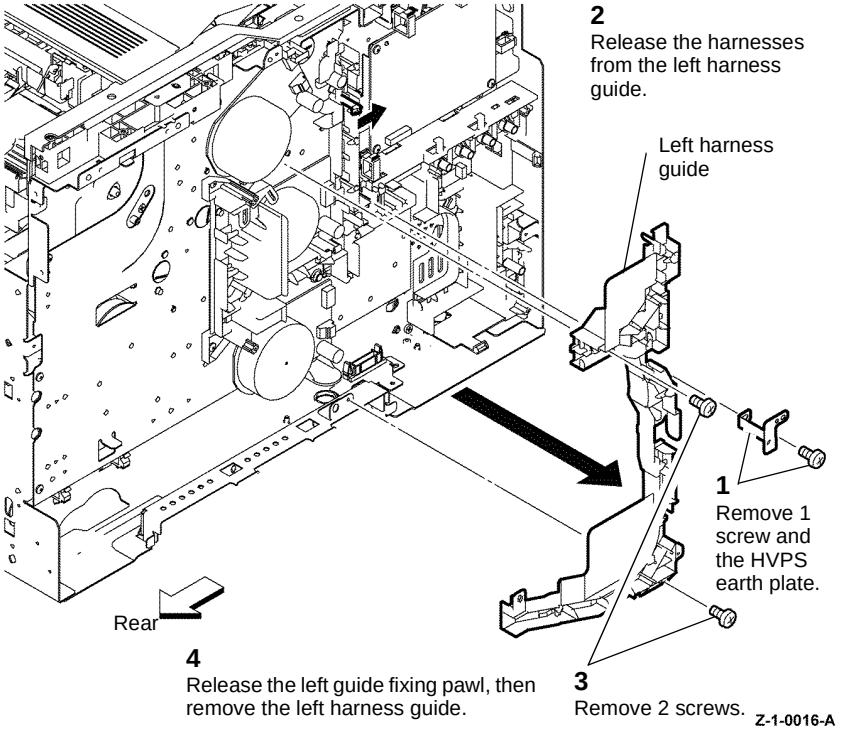


Figure 4 Left harness guide

6. Remove the video harness guide, Figure 5.

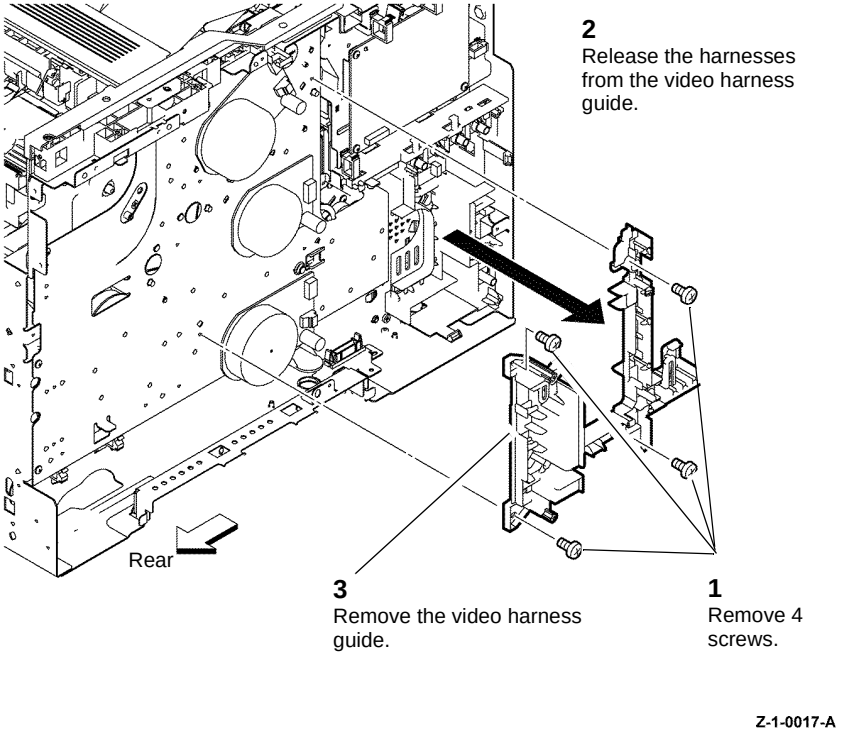


Figure 5 Video harness guide

7. Refer to Figure 6. Disconnect P/J171, P/J311, P/J172, P/J312, P/J331 and P/J213 from the main drive assembly.
8. Remove the left top under cover, refer to REP 19.2.

CAUTION

Ensure the main drive assembly is kept facing upwards during the removal procedure and then placed face upwards onto a flat surface to avoid the gears of the main drive assembly falling off.

9. Remove the main drive assembly, Figure 6.

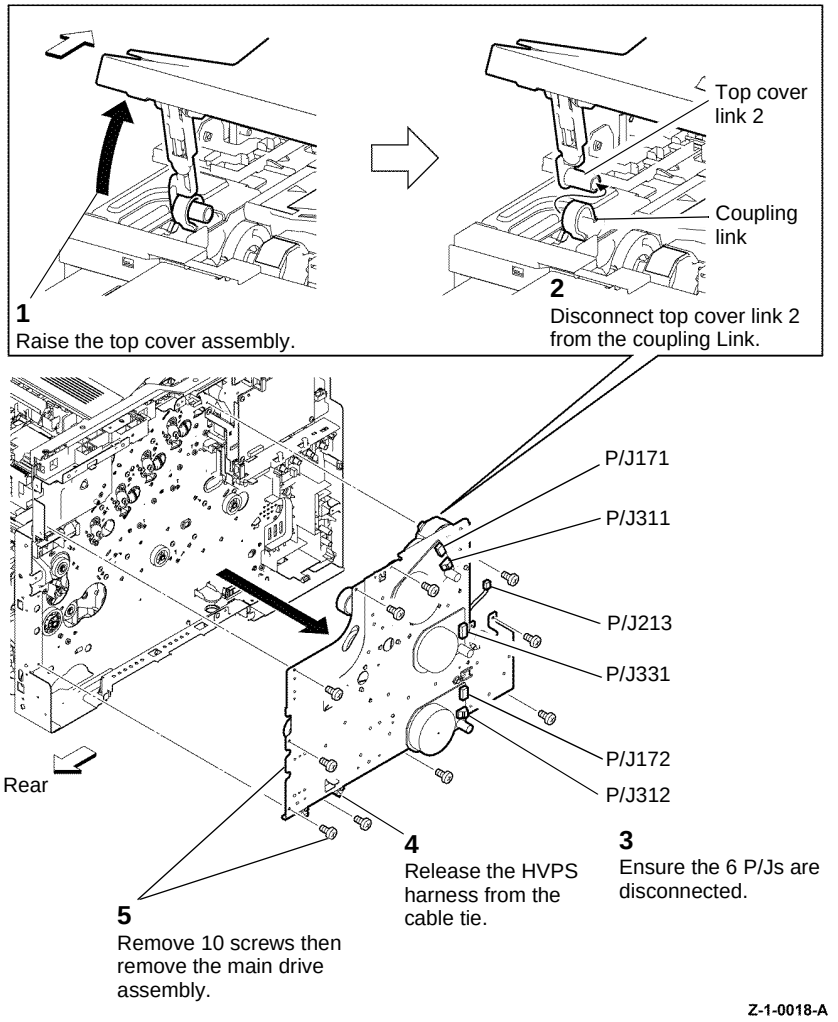


Figure 6 Main drive assembly

Replacement

NOTE: *The coupling link can retract into the printer. If necessary, use a suitable tool to hook then raise the coupling ink from inside the printer, Figure 7.*

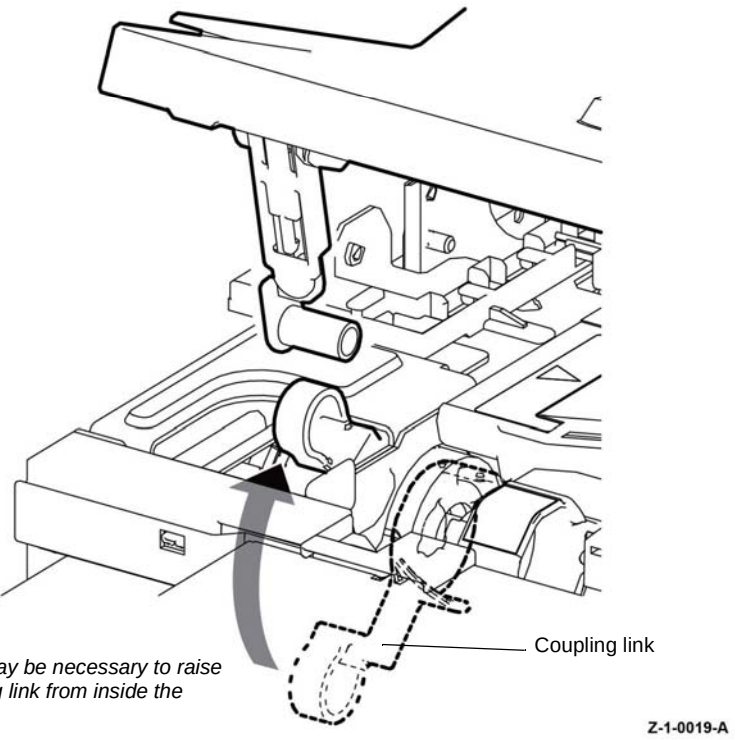


Figure 7 Position the coupling link

1. Replacement is the reverse of the removal procedure.
2. Check no wires are trapped behind the main drive assembly, before screw fixing the main drive assembly.

3. If necessary refer to Figure 8 for location of the gears on the main drive assembly.

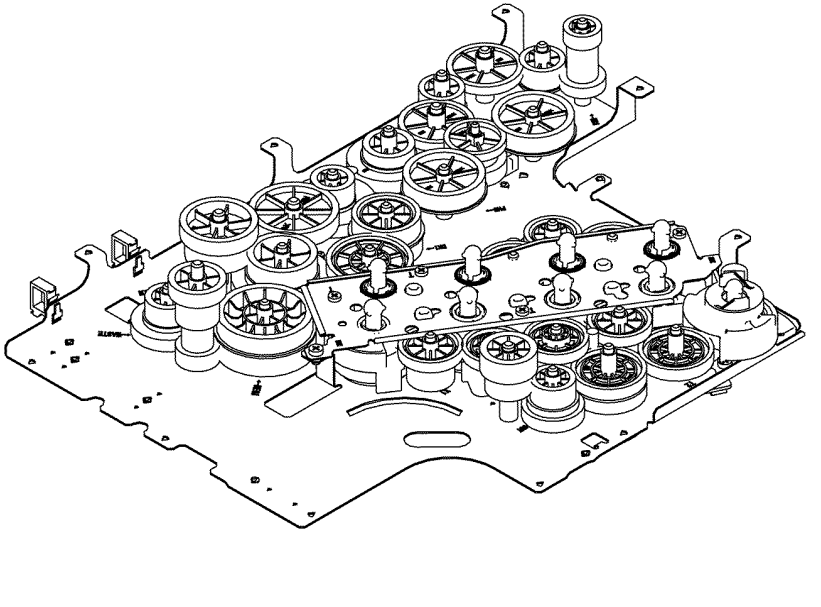


Figure 8 Main drive gear positions

4. If necessary refer to Figure 9 for routing of the harnesses.

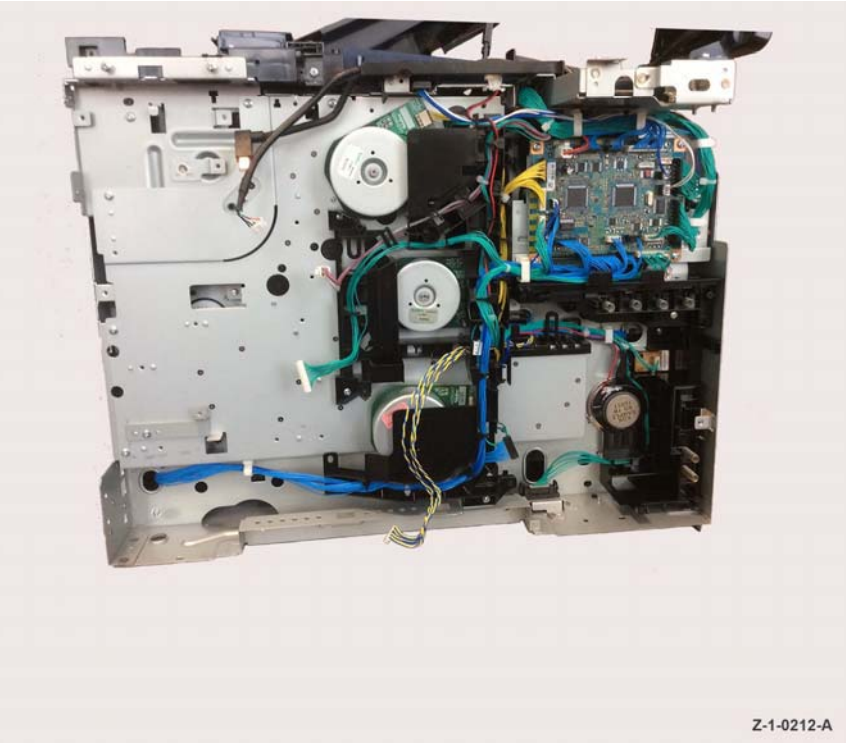


Figure 9 Harness routing

5. Do not fully tighten any of the screws fixing the ESS PWBA, ESS bottom plate and ESS rear plate, until all the screws for fixing these components are in position.

REP 3.2 Waste Drive Assembly

Parts List on PL 3.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the right side cover assembly, (C400 REP 19.5), (C405 REP 19.11).
2. Remove the waste drive assembly, Figure 1.

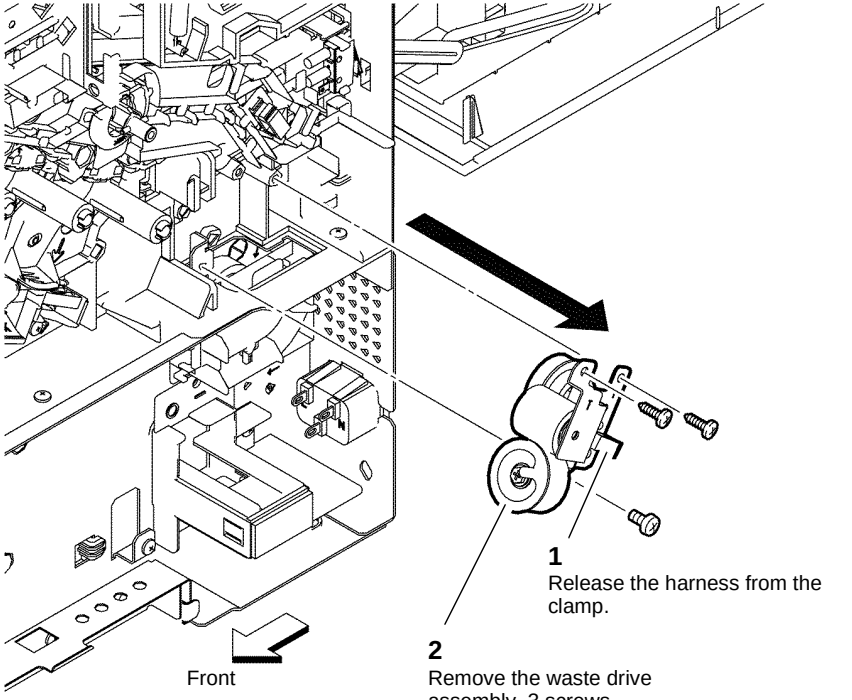


Figure 1 Remove the waste drive assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 3.3 Drive Shaft Assembly

Parts List on PL 3.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the main drive assembly, REP 3.1.
2. Remove the duplex chute assembly, REP 15.5.

3. Remove the drive shaft assembly, Figure 1.

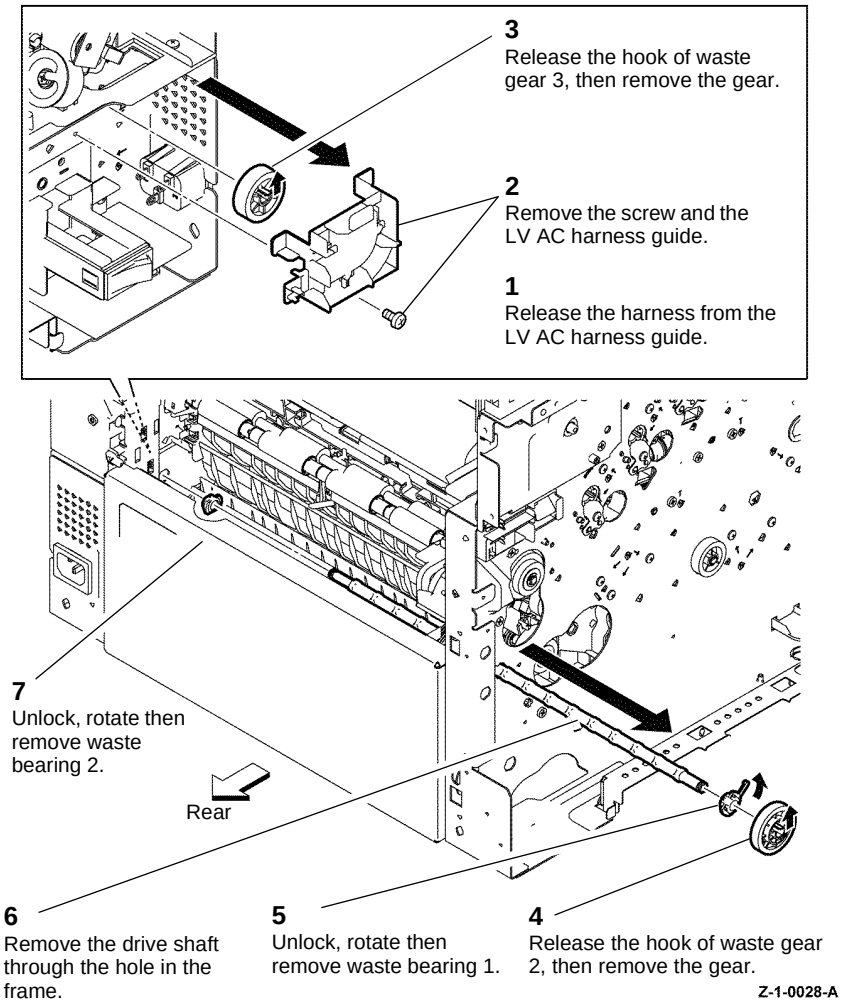


Figure 1 Remove the drive shaft assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 4.1 Main Fan

Parts List on PL 4.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 right side cover assembly, (C400 REP 19.5), (C405 REP 19.11).
2. Disconnect P/J503 from the LVPS PWBA, PL 18.1 Item 14.
3. Remove the main fan, Figure 1.

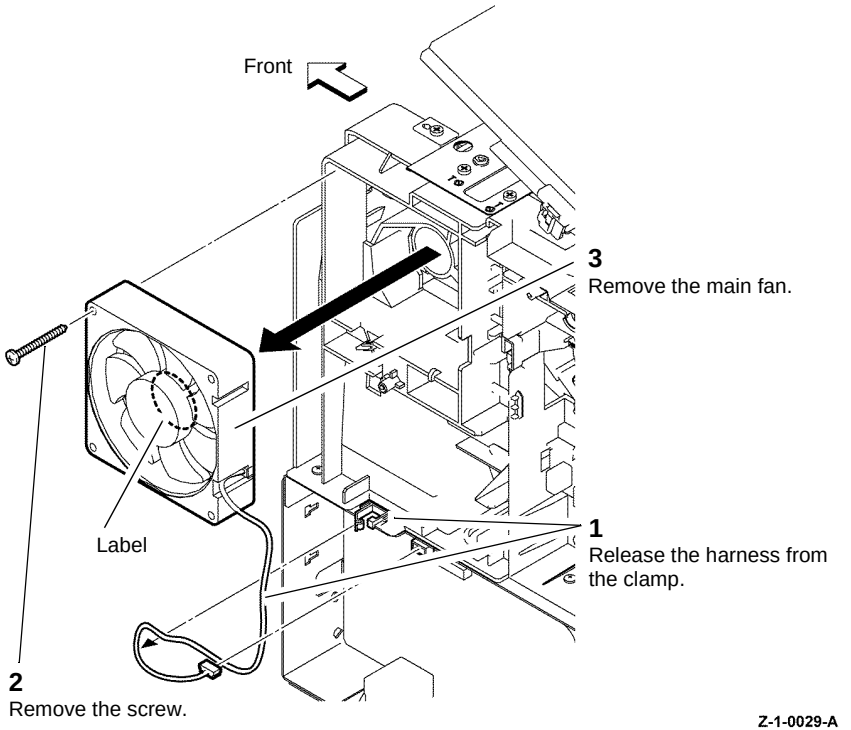


Figure 1 Remove the main fan

Replacement

1. On installation ensure the main fan is orientated with the label side of the fan facing inwards, refer to Figure 1.
2. Replacement is the reverse of the removal procedure.

REP 4.2 Toner Full Sensor

Parts List on PL 4.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 waste box, PL 8.1 Item 7.
2. Remove the waste toner box full sensor, Figure 1.

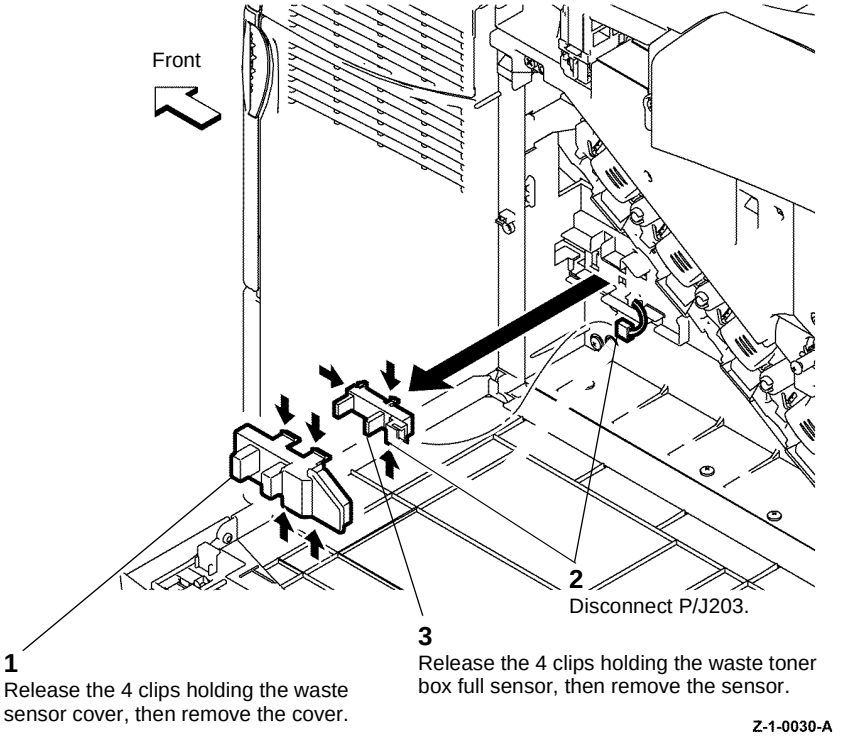


Figure 1 Remove the toner full sensor

Replacement

Replacement is the reverse of the removal procedure.

REP 4.3 Left and Right Rear Latches

Parts List on PL 4.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the right side cover assembly, (C400 REP 19.5), (C405 REP 19.11).
3. Remove the left side cover assembly, (C400 REP 19.14), (C405 REP 19.18).
4. Remove the left and right rear latches, Figure 1.

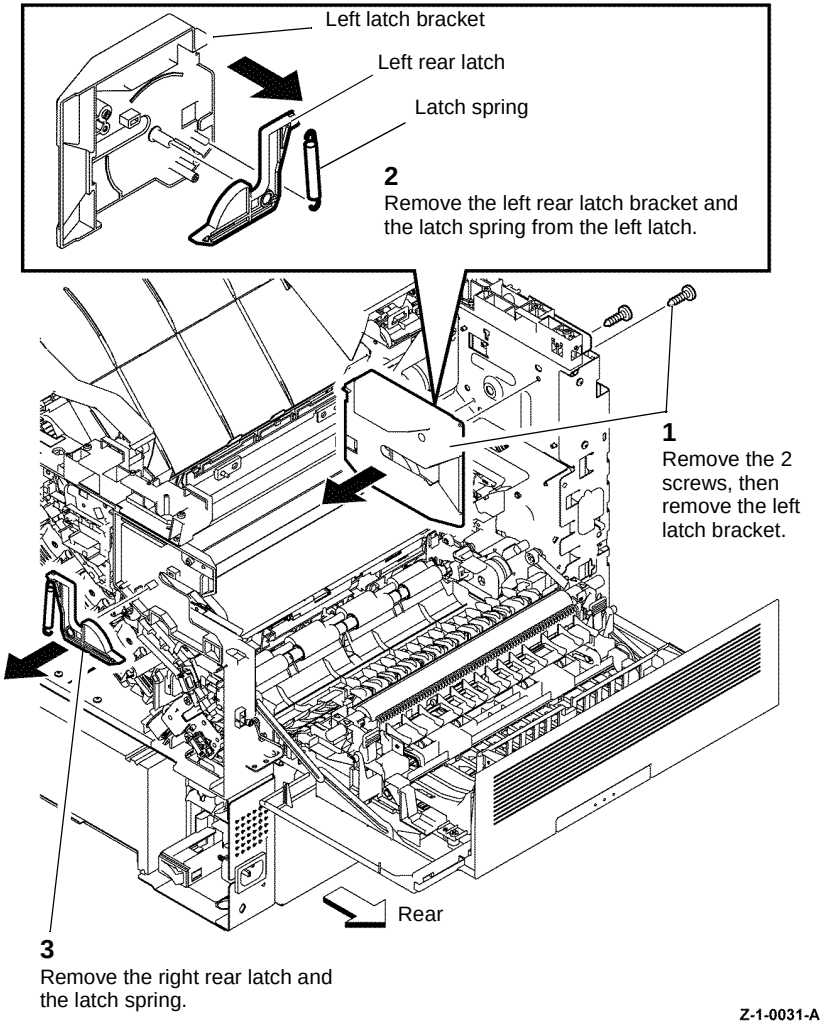


Figure 1 Remove the left and right rear latches

Replacement

Replacement is the reverse of the removal procedure.

REP 5.1 Upper Dispenser Motor Assembly

Parts List on PL 5.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MCU PWBA, REP 18.9.
2. Remove the development HVPS XD PWBA, REP 18.10.
3. Remove the MCU Plate, Figure 1.

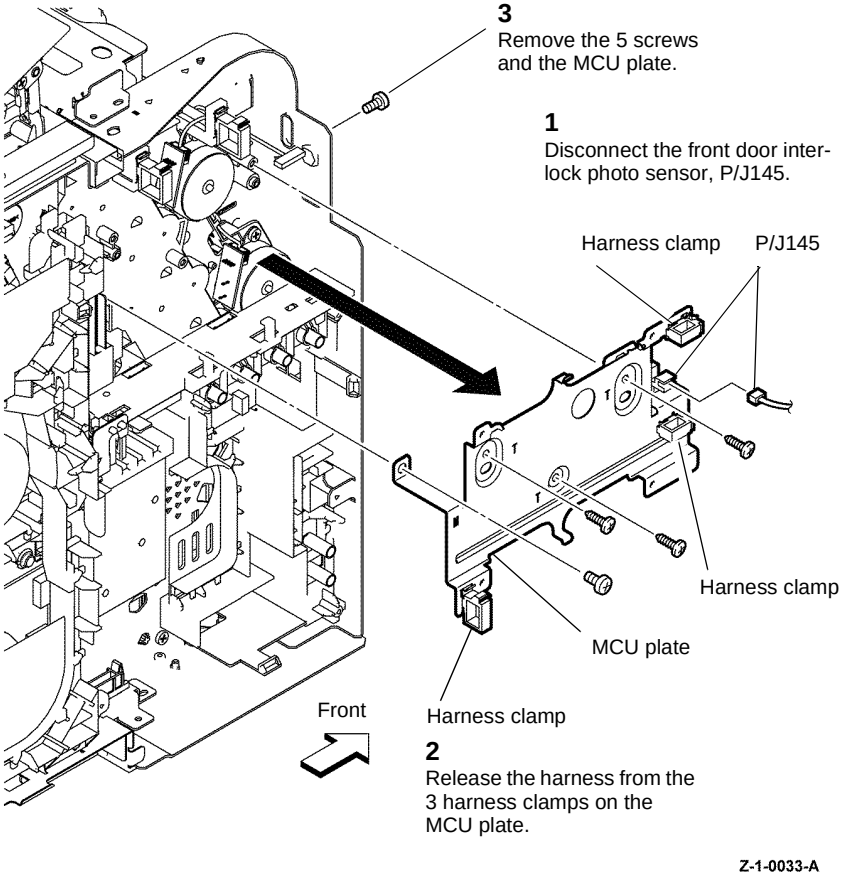


Figure 1 MCU plate

4. Remove the outer developer charge housing assembly, Figure 2.

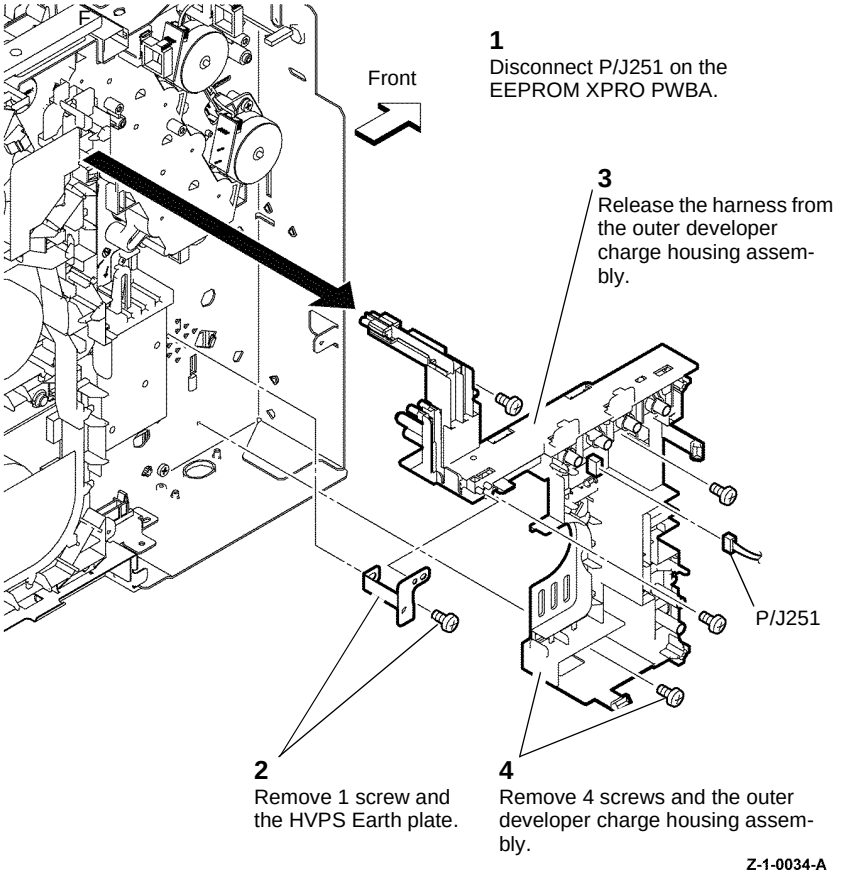


Figure 2 Outer developer charge housing

5. Remove the upper dispenser motor assembly, Figure 3.

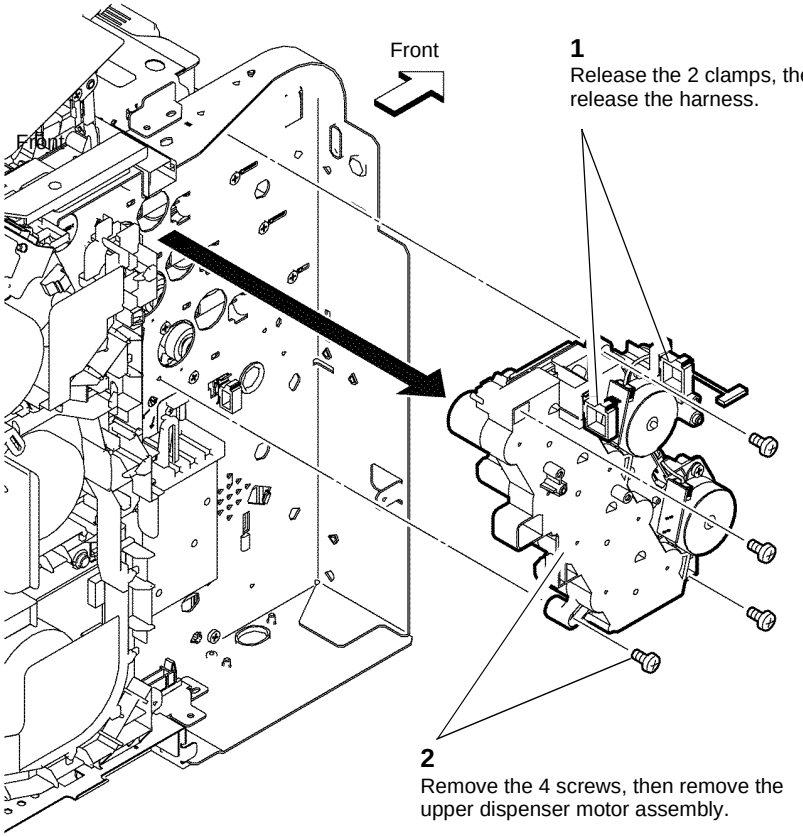
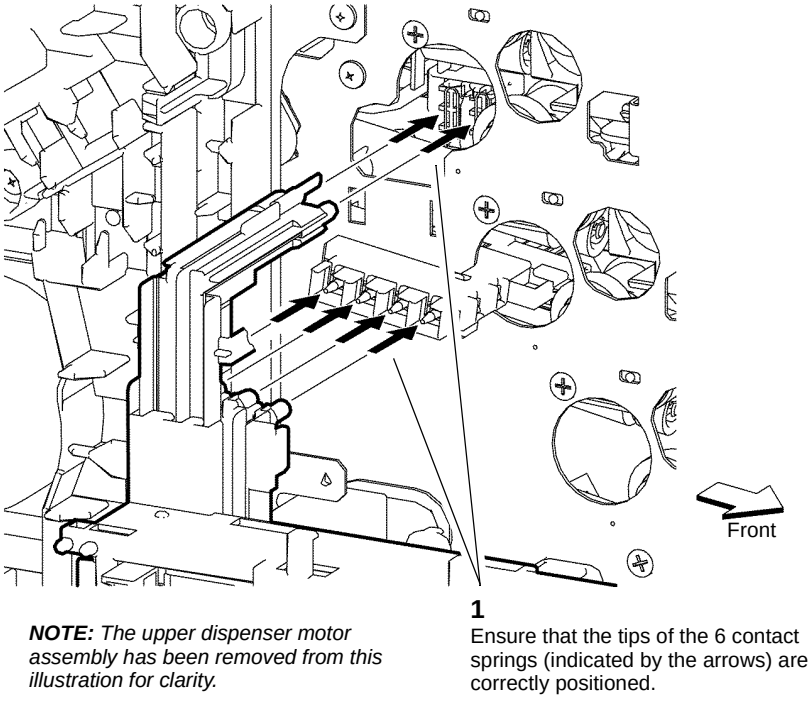


Figure 3 Upper dispenser motor assembly

Replacement

1. Replacement is the reverse of the removal procedure.
2. Ensure the outer developer charge housing assembly is installed correctly, Figure 4.



NOTE: *The upper dispenser motor assembly has been removed from this illustration for clarity.*

Figure 4 Contact springs

REP 5.2 Dispenser Motors

Parts List on PL 5.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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: *To remove only the Y, M Dispenser Motor, perform steps 1, 3 and 5.*

1. Remove the MCU PWBA, REP 18.9.
2. Remove the development HVPS XD PWBA, REP 18.10.
3. Remove the MCU Plate, Figure 1.

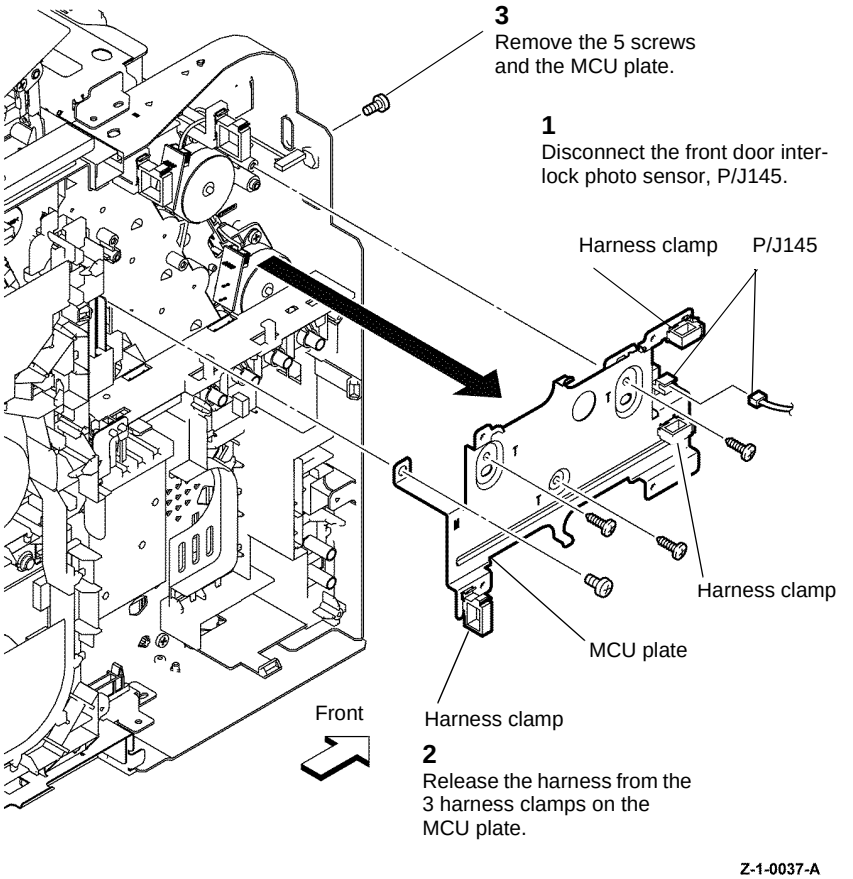


Figure 1 MCU Plate

4. Remove the outer developer charge housing assembly, Figure 2.

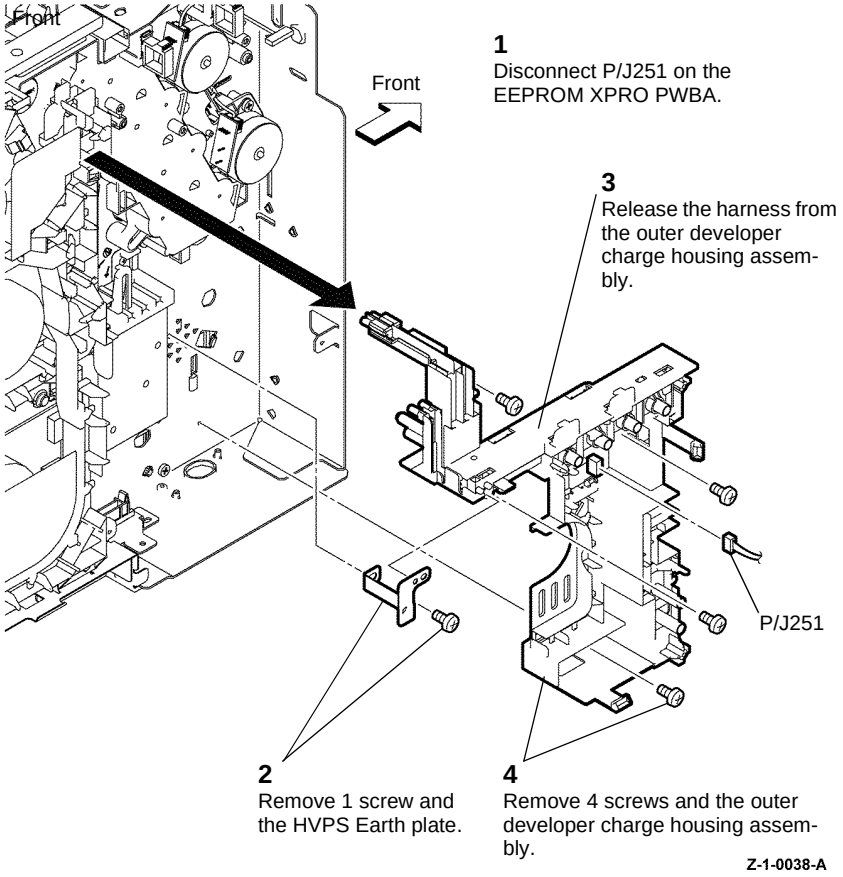


Figure 2 Outer developer charge housing

5. Remove the upper dispenser motors, Figure 3.

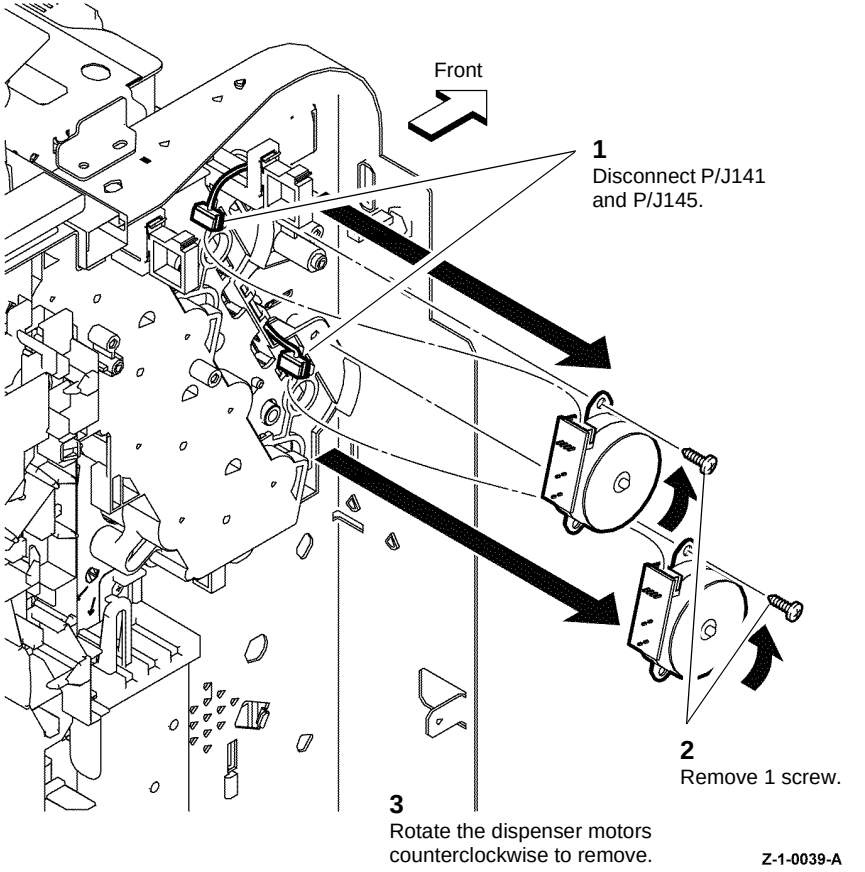
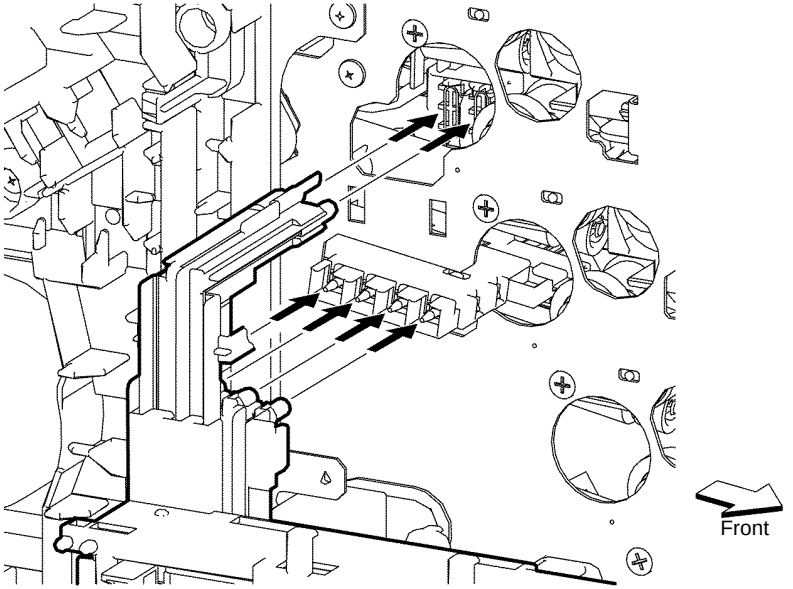


Figure 3 Upper dispenser motor assembly

Replacement

1. Replacement is the reverse of the removal procedure.
2. Ensure the outer developer charge housing assembly is installed correctly, Figure 4.



NOTE: *The upper dispenser motor assembly has been removed from this illustration for clarity.*

1
Ensure that the tips of the six contact springs (indicated by the arrows) are correctly positioned.

Z-1-0040-A

Figure 4 Contact springs

REP 5.3 Dispenser Assemblies Y, M, C, K

Parts List on PL 5.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 dispenser assemblies must be removed in the following order, K, C, M, Y.*

1. Remove the K, C, M and Y, toner cartridges PL 5.1.

CAUTION

Ensure the xerographic development assemblies are stored in a dark location. The xerographic development assemblies can be damaged by exposure to light.

2. Remove the Y, M, C and K, xerographic development assemblies, PL 8.1.
3. Remove the upper dispenser motor assembly, REP 5.1.
4. Remove the main drive assembly, REP 3.1.
5. Remove the bypass tray frame assembly, REP 13.3.

6. Remove dispenser assembly K, Figure 1.

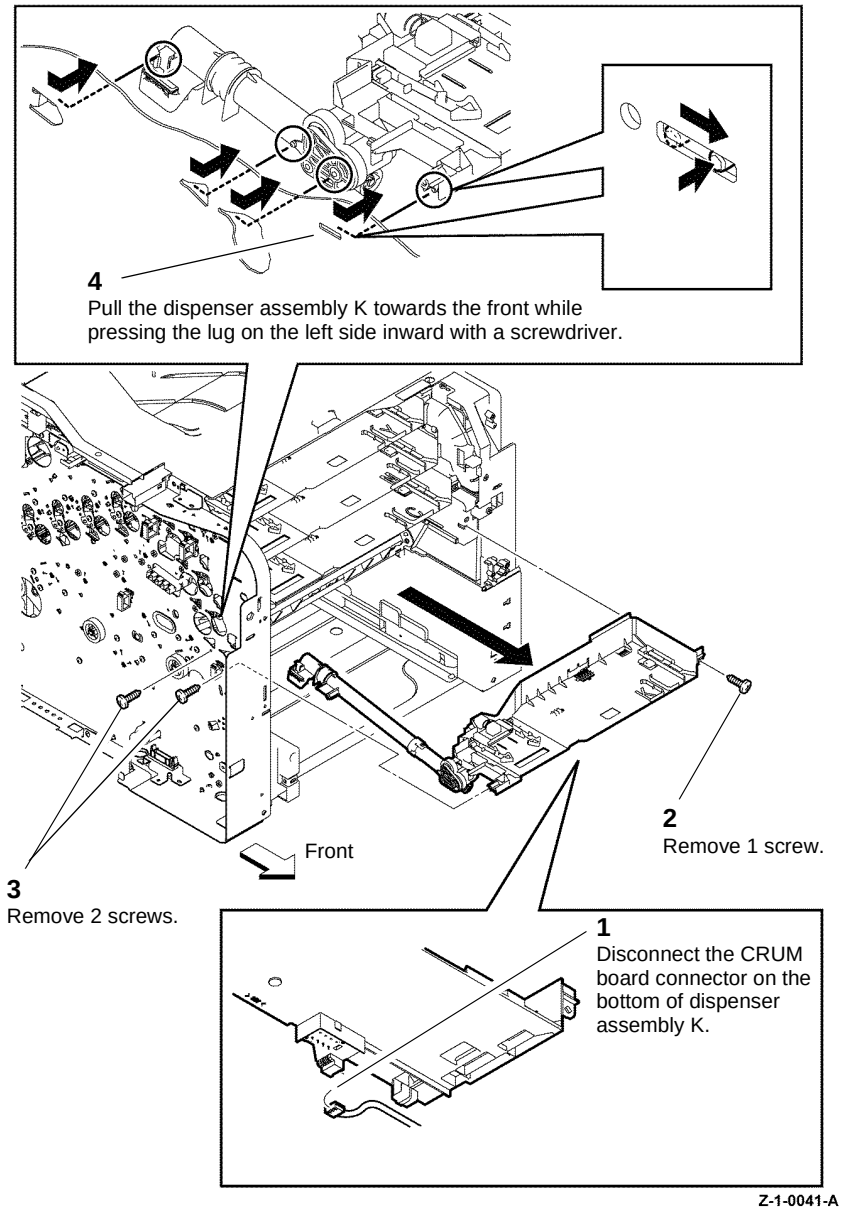


Figure 1 Dispenser assembly K

7. Remove the dispenser assemblies in the following order of C, M, and Y, Figure 2.

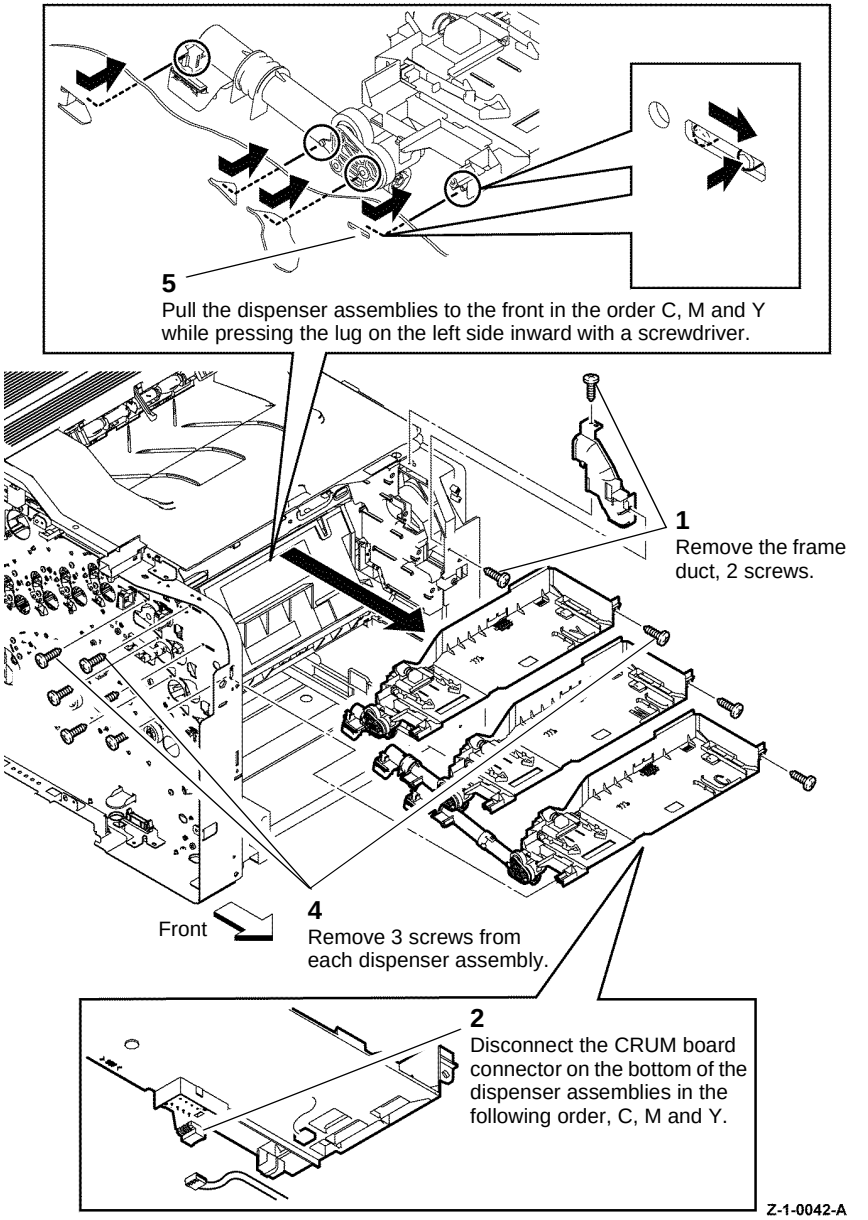


Figure 2 Dispenser assemblies C, M, and Y

Replacement

1. The dispenser assemblies must be installed in Y, M, C and K order, from top to bottom.
2. Reconnect the CRUM connector harness for each dispenser assembly before fully seating the dispenser assembly in the frame.

NOTE: *The rear hook placement can not be seen when the main drive assembly is installed. Visually check that the rear hook is in the correct position by looking into the area behind the hook where the imaging units are installed.*

3. Before securing the dispenser assemblies, ensure that the front lug and the rear hook for each dispenser assembly is in the correct position, Figure 3.

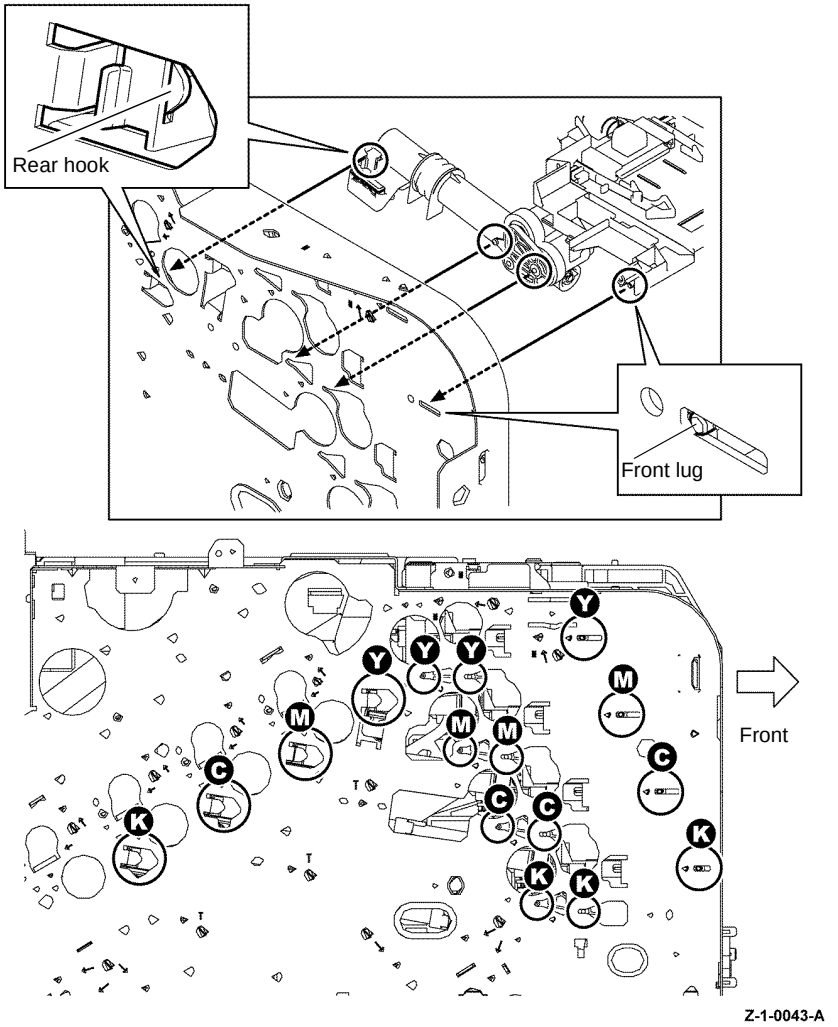


Figure 3 Dispenser assemblies installation

4. Verify the alignment of each dispenser assembly by test fitting each xerographic development assembly, before securing the dispenser assemblies in position.
5. Replacement is the reverse of the removal procedure.

REP 6.1 Left Transfer Belt Guide Assembly

Parts List on PL 6.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the upper transfer belt chute assembly, REP 15.2.

CAUTION

Ensure the xerographic development assemblies are stored in a dark location. The xerographic development assemblies can be damaged by exposure to light.

2. Remove the xerographic development assemblies Y, M, C and K, PL 8.1.

3. Remove the left transfer belt guide assembly, Figure 1.

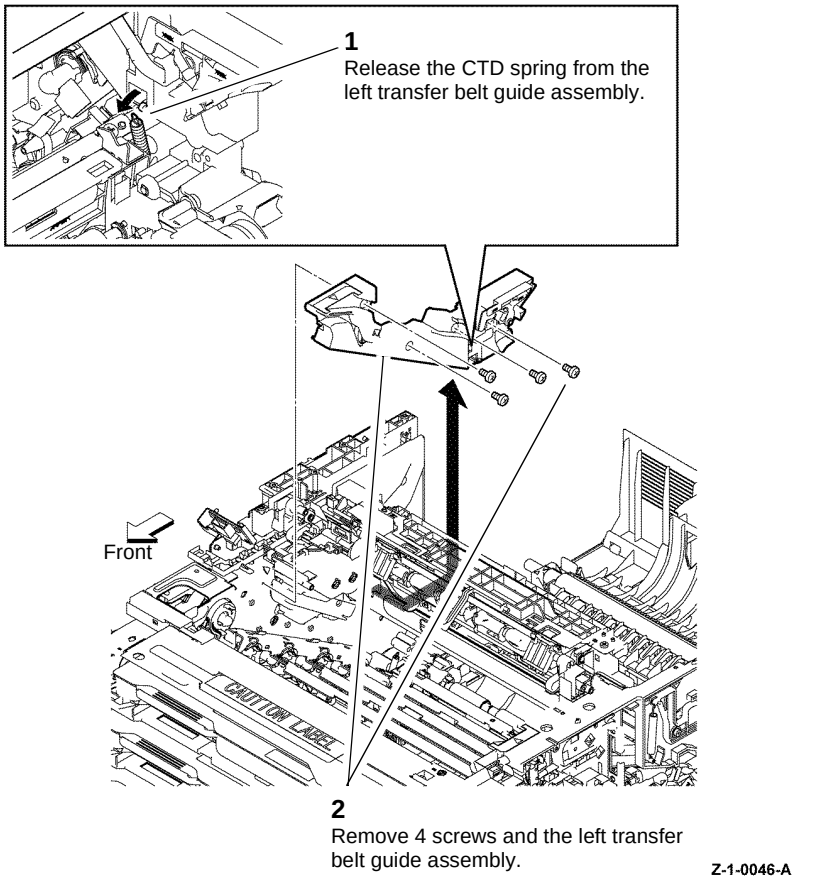


Figure 1 Left transfer belt guide assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 6.2 Color Toner Density (CTD) Sensor Assembly and Springs

Parts List on PL 6.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the upper transfer belt chute assembly, REP 15.2.
3. Remove the color toner density (CTD) right guide, PL 6.1 Item 12.
4. Remove the color toner density (CTD) springs, Figure 1.

NOTE: *Take care not to drop and lose the CTD Springs.*

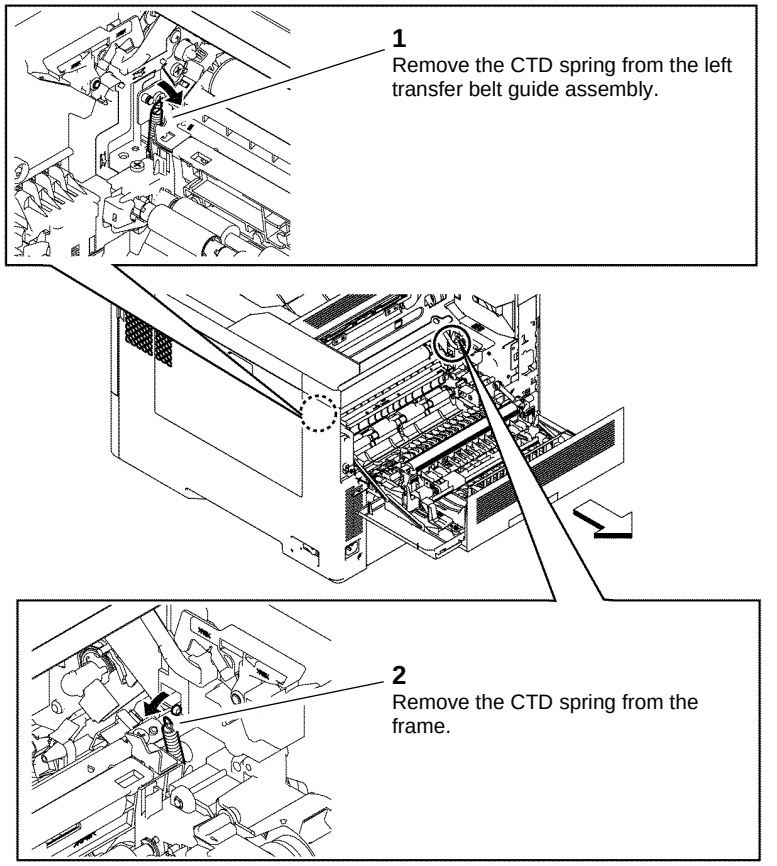


Figure 1 Remove the CTD springs

5. Remove the CTD sensor assembly, Figure 2.

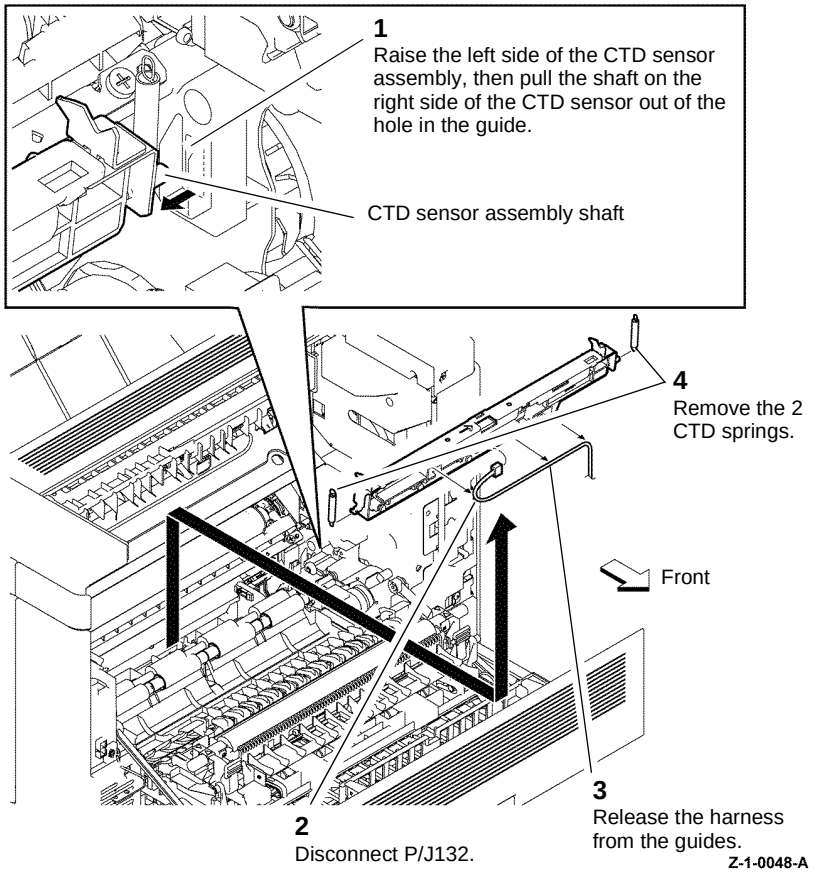


Figure 2 CTD sensor assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 6.3 Transfer Belt Assembly

Parts List on PL 6.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 front cover assembly, (C400 PL 19.1A Item 1), (C405 PL 19.1C Item 1).
2. Open the rear cover assembly, (C400 PL 19.2A Item 10), (C405 PL 19.2B Item 15).
3. Open the top cover assembly, (C400 PL 19.1A Item 10), (C405 PL 19.1C Item 10)
4. Remove the Waste Box, PL 8.1 Item 7.

CAUTION

Do not touch or place any object on the surface of the transfer belt.Contamination may cause print quality problems.

CAUTION

Ensure the transfer belt assembly is placed on a flat surface free of foreign substances and covered with a protective sheet. Contamination may cause print quality problems.

5. Remove the transfer belt assembly, Figure 1.

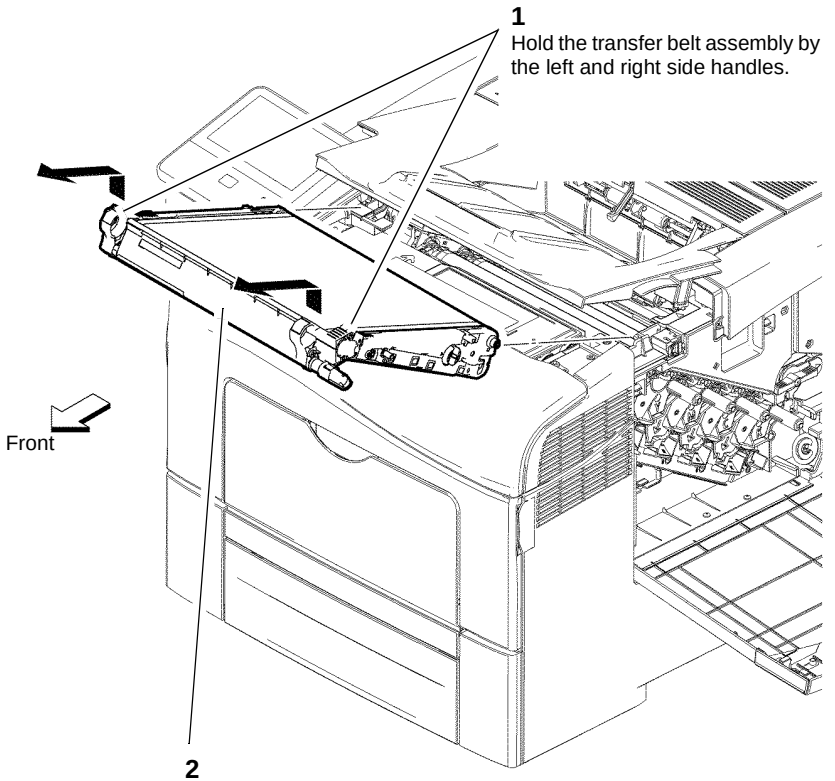


Figure 1 Transfer belt assembly

Replacement

1. Replacement is the reverse of the removal procedure.
2. The transfer belt assembly is a HFSI. If installing a new transfer belt assembly, enter dC135 then reset the counter.

REP 6.4 Transfer Belt Right Latch Kit

Parts List on PL 6.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

NOTE: *The transfer belt right latch kit includes the latch housing, transfer latch spring, transfer rear right spring, transfer latch plate and transfer right latch arm.*

1. Remove the fuser assembly, REP 7.1.
2. Remove the waste box, PL 8.1 Item 7.
3. Remove the transfer belt assembly, REP 6.3.
4. Remove the front cover assembly, REP 19.1.
5. Remove the right side cover assembly, (C400 REP 19.5), (C405 REP 19.11).

NOTE: *Take care not to drop and lose the transfer latch springs.*

6. Remove the transfer belt right latch, Figure 1.

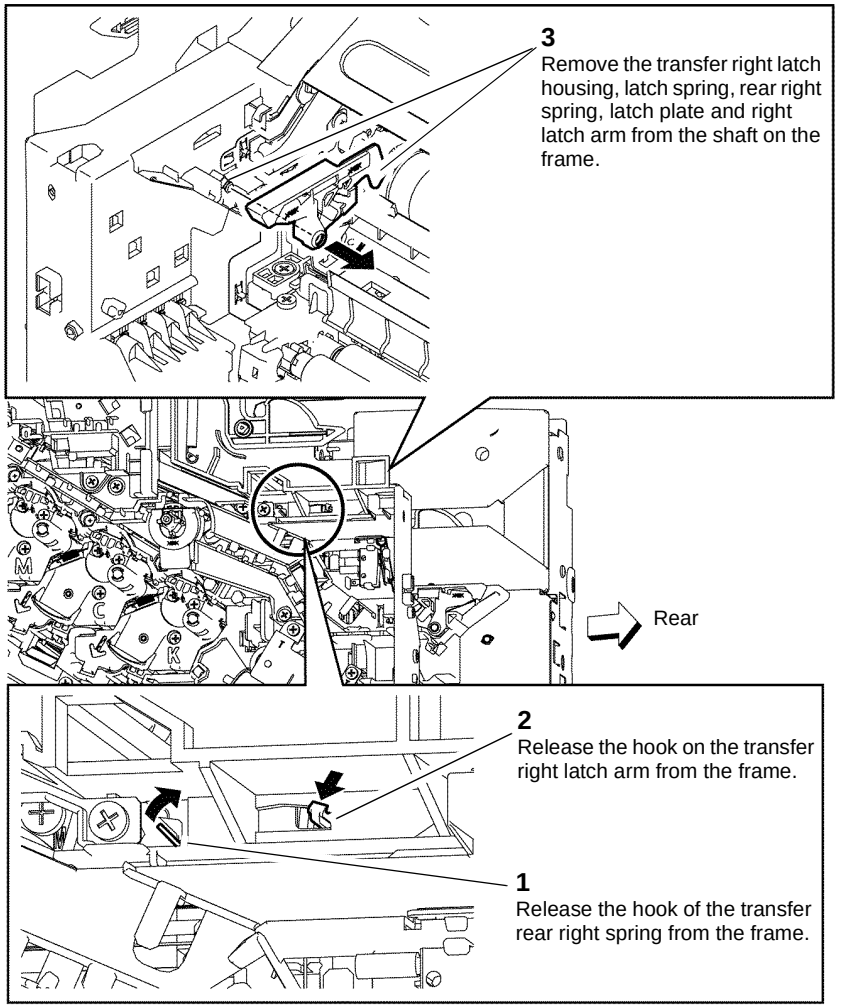


Figure 1 Transfer right latch arm assembly

Replacement

Replacement is the reverse of the removal procedure. Ensure that the straight end of the transfer right rear spring is hooked on the frame, Figure 2.

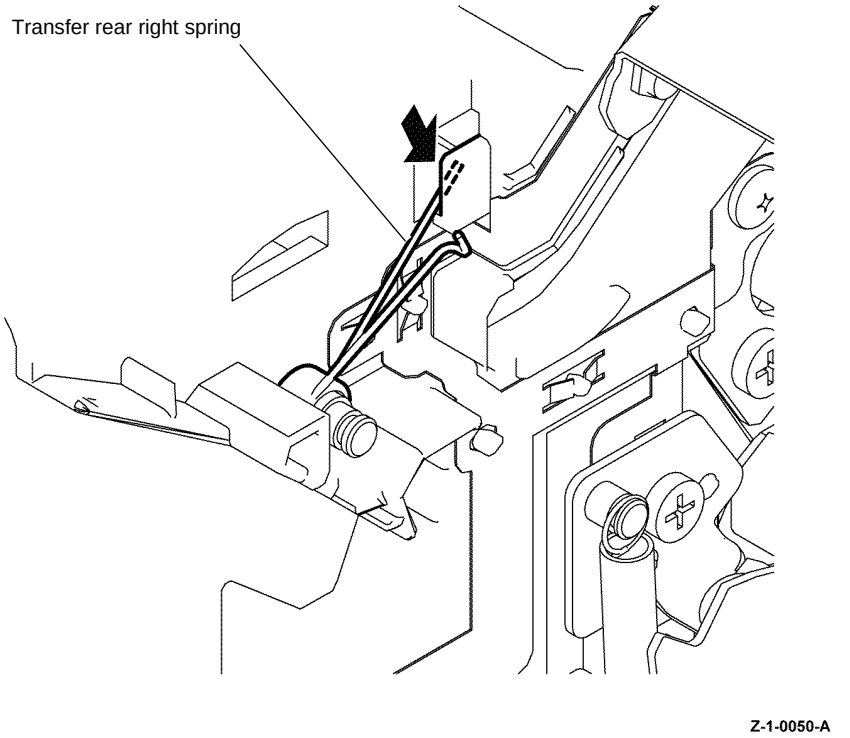


Figure 2 Transfer rear right spring

REP 6.5 Coupling Kit

Parts List on PL 6.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the transfer belt assembly, REP 6.3.
3. Remove the right side cover assembly, (C400 REP 19.5), (C405 REP 19.11).

***NOTE:** Take care not to drop and lose the dowel pin.*

4. Remove the coupling kit, Figure 1.

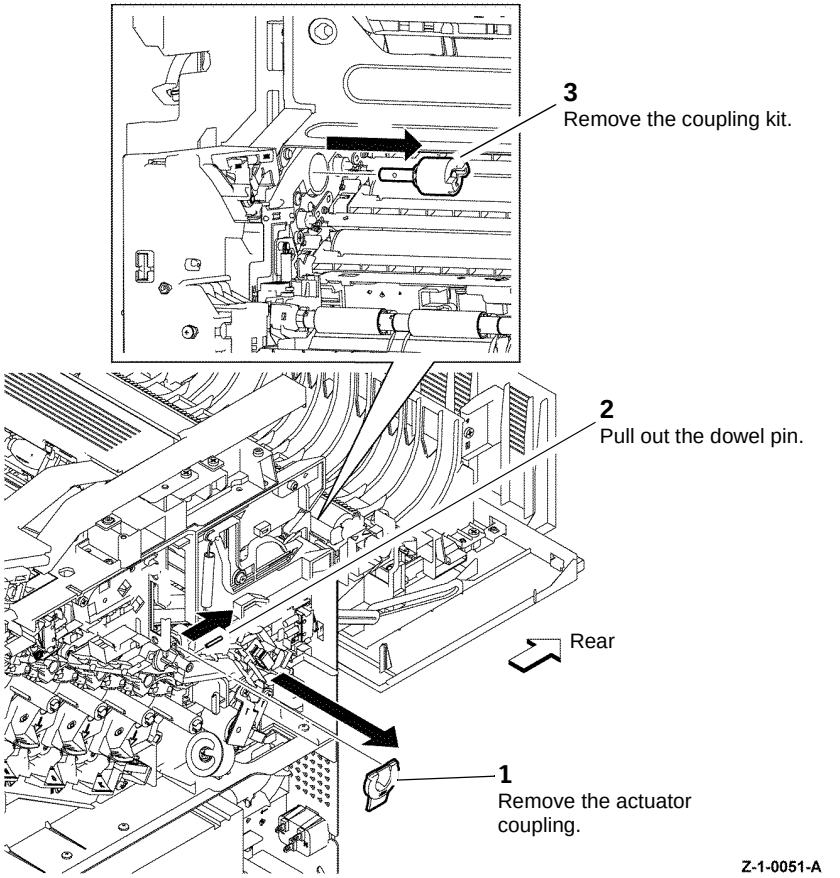


Figure 1 Remove the coupling kit

Replacement

Replacement is the reverse of the removal procedure.

REP 7.1 Fuser Assembly

Parts List on PL 7.1

Removal

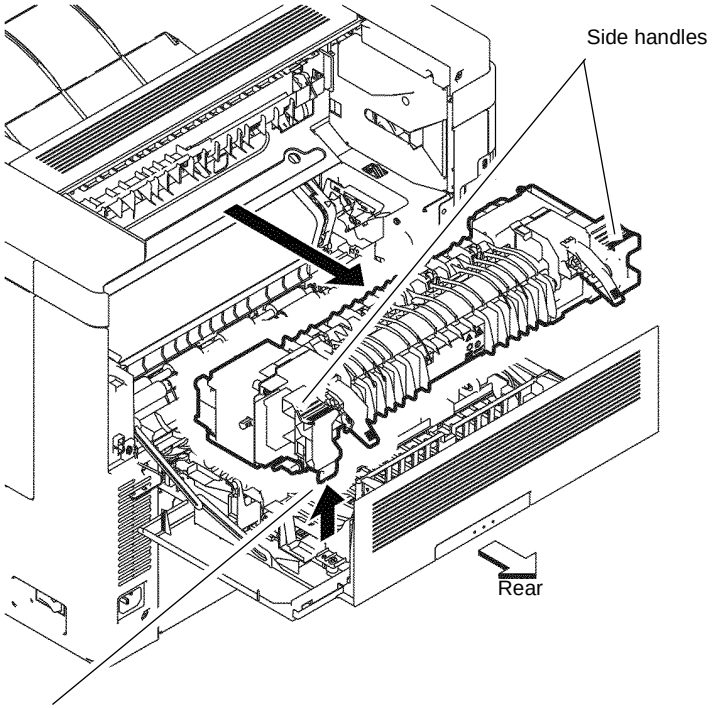
WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Open the rear cover assembly, C400 PL 19.2A Item 10, C405 PL 19.2B Item 15.
2. Remove the fuser assembly, Figure 1.



1
Press up on the fuser latch to unlock the fuser assembly.

2
Remove the fuser assembly by the right and left side handles.

Z-1-0052-A

Figure 1 Remove the fuser assembly

Replacement

1. Replacement is the reverse of the removal procedure.
2. The fuser assembly is a HFSI. If installing a new fuser assembly, enter dC135 then reset the counter.

REP 8.1 Transfer CRUM Connector Assembly

Parts List on PL 8.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

NOTE: *The following procedure describes the removal of the transfer CRUM connector assembly connected to xerographic development assembly Y, PL 8.1 Item 2. However, the removal procedure is identical for all 4 of the transfer CRUM connectors.*

1. Remove the fuser assembly, REP 7.1.
2. Remove the transfer belt assembly, REP 6.3.

CAUTION

Ensure the xerographic development assemblies are stored in a dark location. The xerographic development assemblies can be damaged by exposure to light.

3. Remove the xerographic development assemblies Y, M, C and K, PL 8.1.
4. Remove the Top Cover Assembly, (C400 REP 19.2), (C405 REP 19.7).
5. Remove the transfer CRUM connector assembly, Figure 1.

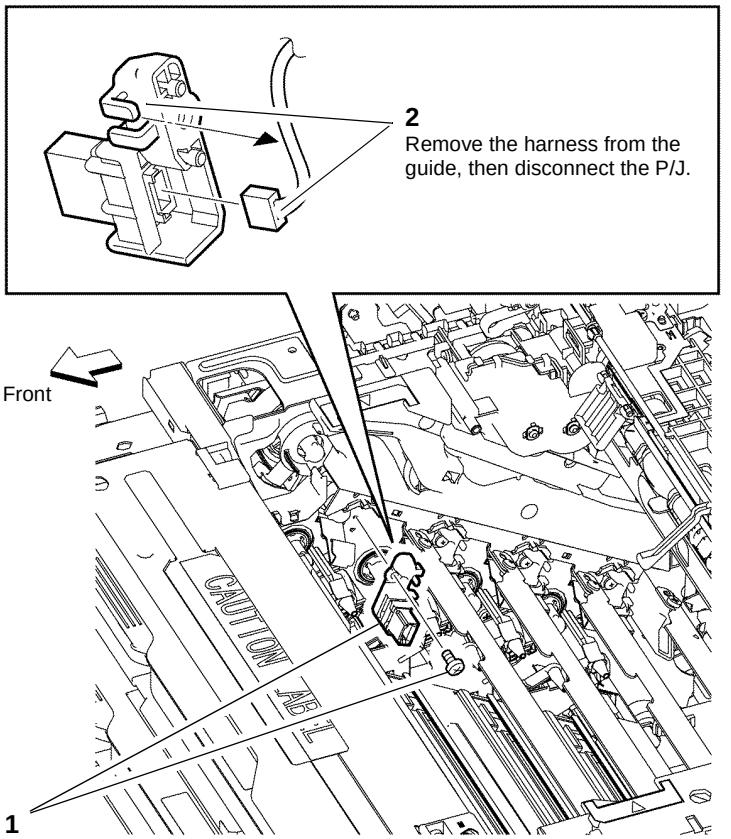


Figure 1 Transfer CRUM connector assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 9.1 Cassette Retard Holder Assembly and Feed Roll

Parts List on PL 9.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 550 cassette assembly from the device, PL 10.3 Item 1.
2. Remove the cassette retard holder assembly, Figure 1.

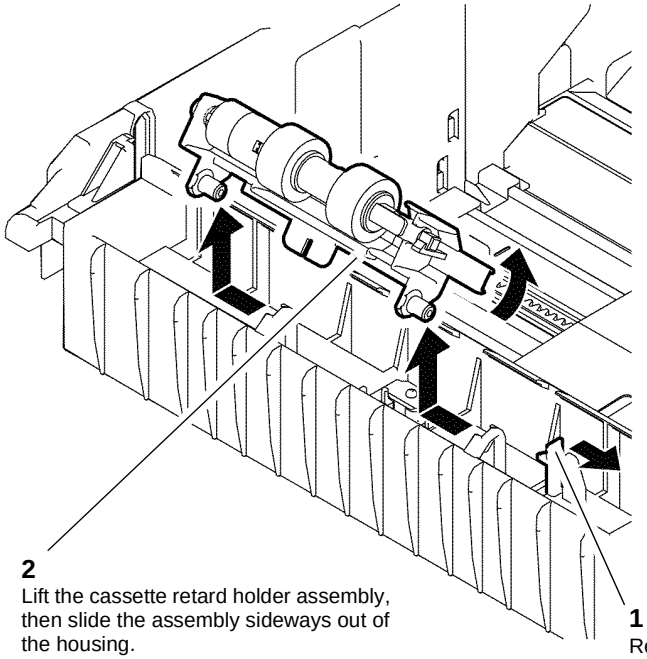


Figure 1 Cassette retard holder assembly

3. Remove the feed roller assembly, Figure 2.

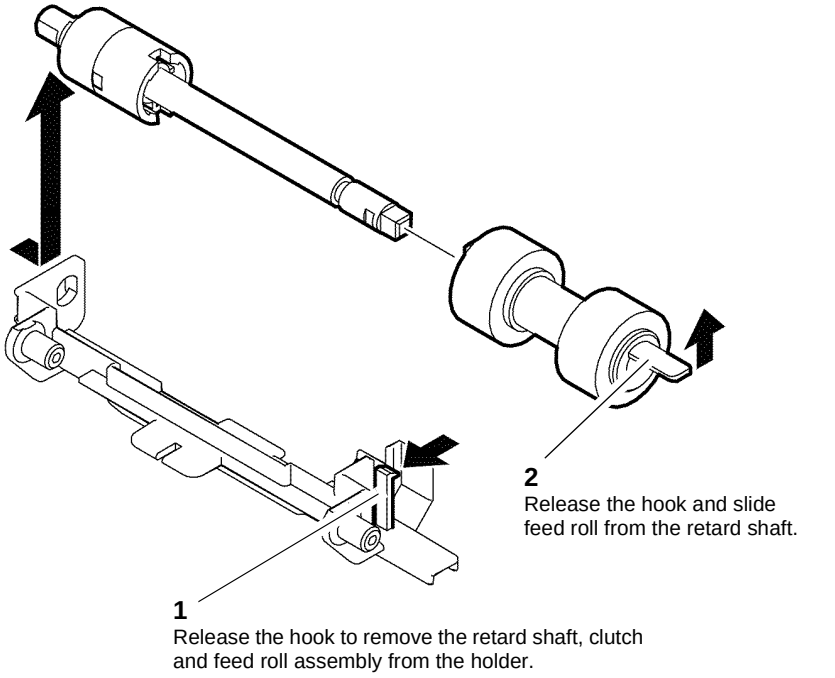


Figure 2 Feed roll assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 10.1 Optional 550-Sheet Feeder

Parts List on PL 10.1

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 GP 4. Disconnect the power 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 following procedure describes the removal of an optional 550-sheet feeder from a C400. The removal procedure is identical for the C405.*

1. Remove the 550 cassette assembly from the device, PL 10.3 Item 1.

WARNING

Use safe handling procedures when removing the module. Refer to GP 20. The module is heavy.

NOTE: *The weight of the C400 is 26kg (58lb). The weight of the C405 is 33kg (74lb).*

2. Separate the optional 550-sheet feeder, Figure 1.

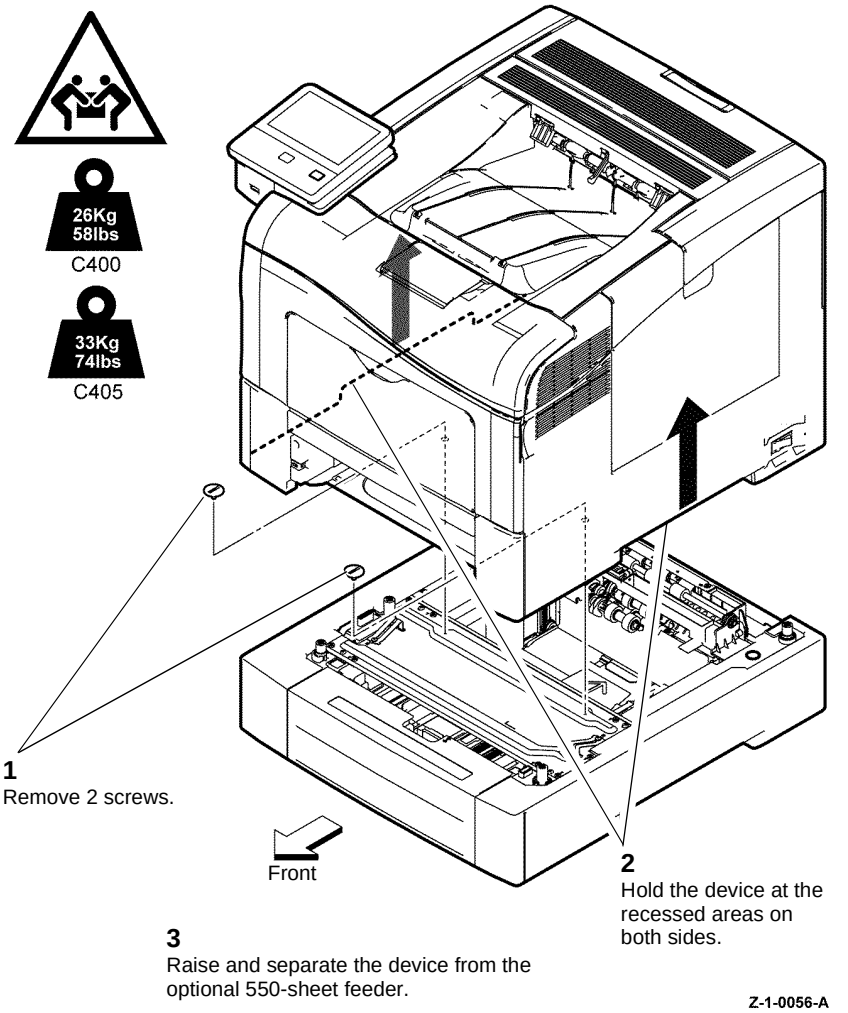


Figure 1 Optional 550-sheet feeder

Replacement

Replacement is the reverse of the removal procedure.

REP 10.2 550 Option Left Side Cover

Parts List on PL 10.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 installation or removal of this part does not require the separation of the optional 550-sheet feeder from the device.*

1. Remove the 550 option cassette assembly from the 550 optional feeder.
2. Remove the 550 option left side cover, Figure 1.

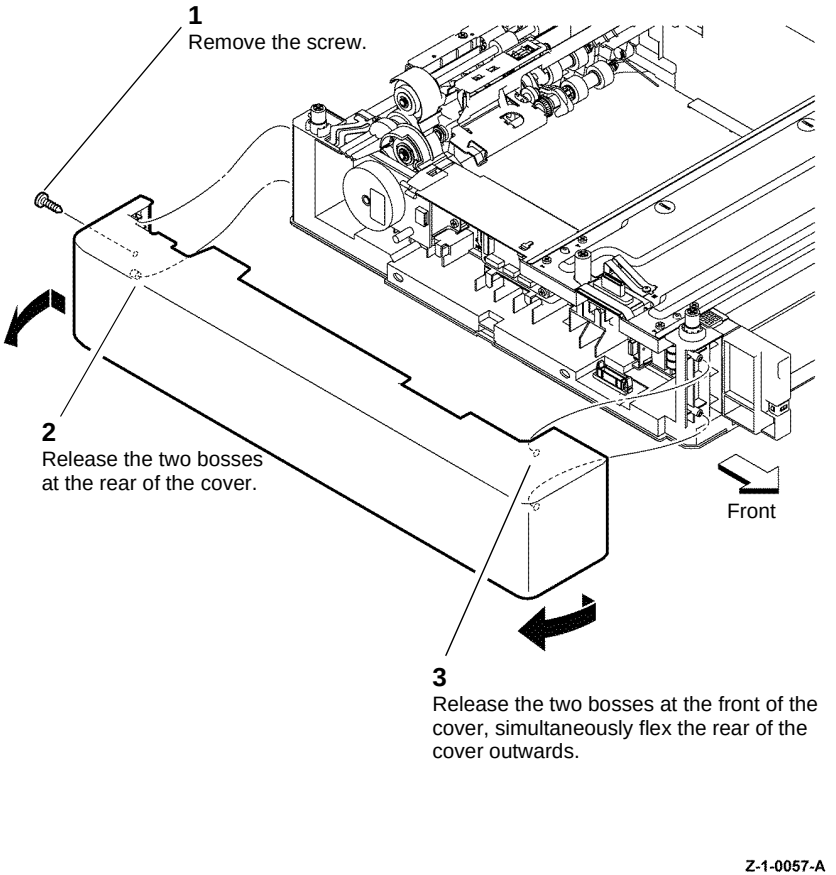


Figure 1 550 Option left side cover

Replacement

Replacement is the reverse of the removal procedure.

REP 10.3 Option Feed Clutch Assembly

Parts List on PL 10.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 550 option drive assembly, REP 10.4.
2. Remove the 550 option feed clutch assembly, Figure 1.

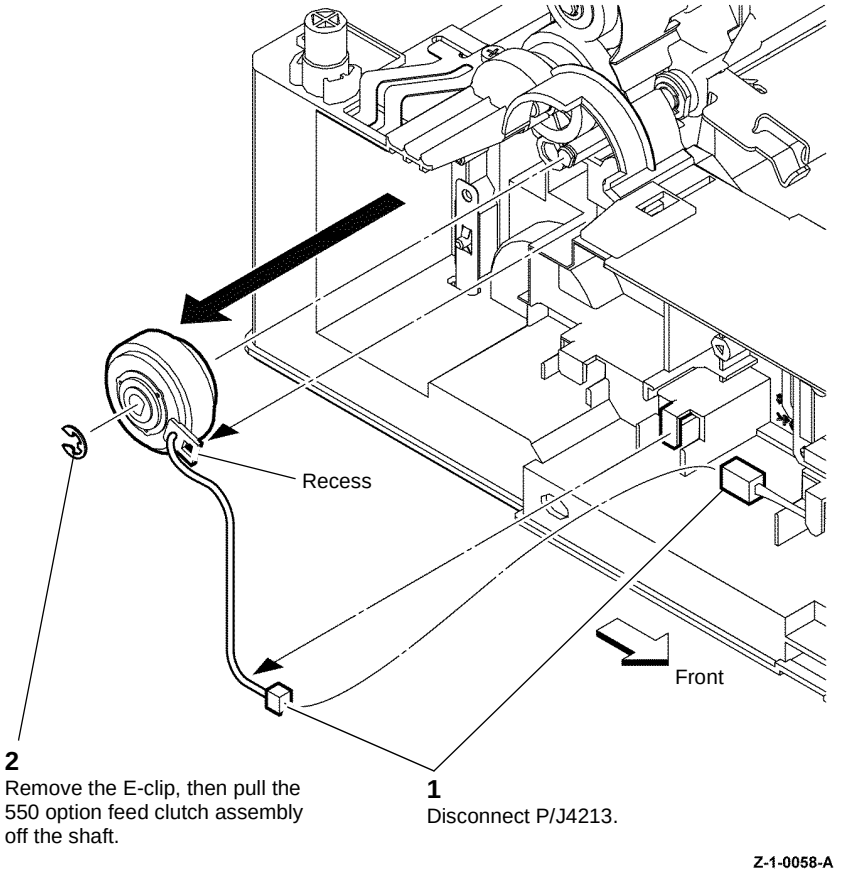


Figure 1 550 Option feed clutch assembly

Replacement

Replacement is the reverse of the removal procedure. Ensure the recess on the 550 option feed clutch assembly is aligned with the lug on the frame, refer to Figure 1.

REP 10.4 550 Option Drive Assembly

Parts List on PL 10.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 installation or removal of this part does not require the separation of the optional 550 sheet feeder from the device.*

1. Remove the 550 option cassette assembly from the optional 550-sheet feeder.
2. Remove the 550 option left side cover, REP 10.2.
3. Remove the 550 option drive assembly, Figure 1.

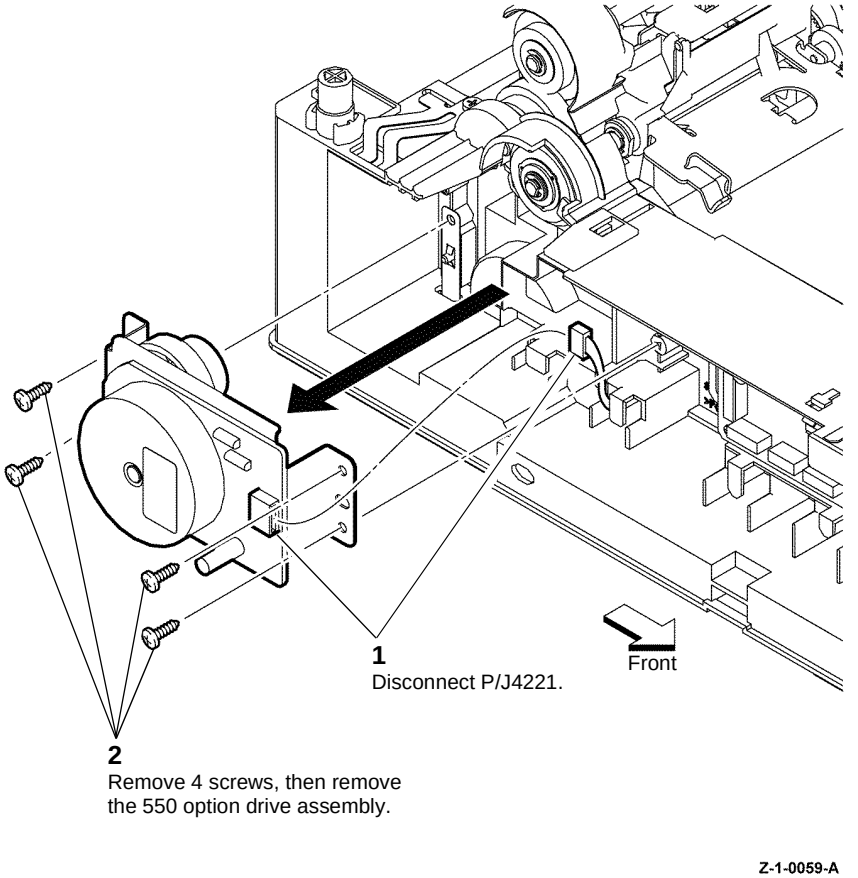


Figure 1 550 Option drive assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 10.5 550 Option Feeder PWBA

Parts List on PL 10.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 installation or removal of this part does not require the separation of the optional 550 sheet feeder from the device.*

1. Remove the 550 option cassette assembly from the optional 550 sheet feeder.
2. Remove the 550 option left side cover, REP 10.2.
3. Remove the 550 option feeder PWBA, Figure 1.

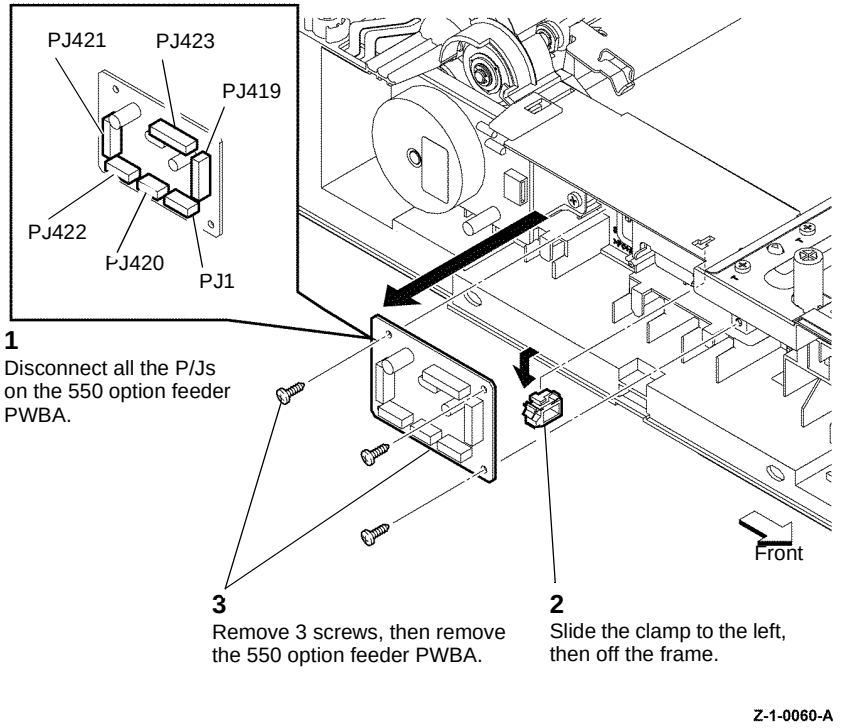


Figure 1 550 Option feeder PWBA

Replacement

Replacement is the reverse of the removal procedure.

REP 10.6 550 Option Size Switch Assembly

Parts List on PL 10.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 installation or removal of this part does not require the separation of the optional 550 sheet feeder from the device.*

1. Remove the 550 option cassette assembly from the optional 550 sheet feeder.
2. Remove the 550 option left side cover, REP 10.2.

3. Remove the option size switch assembly, Figure 1.

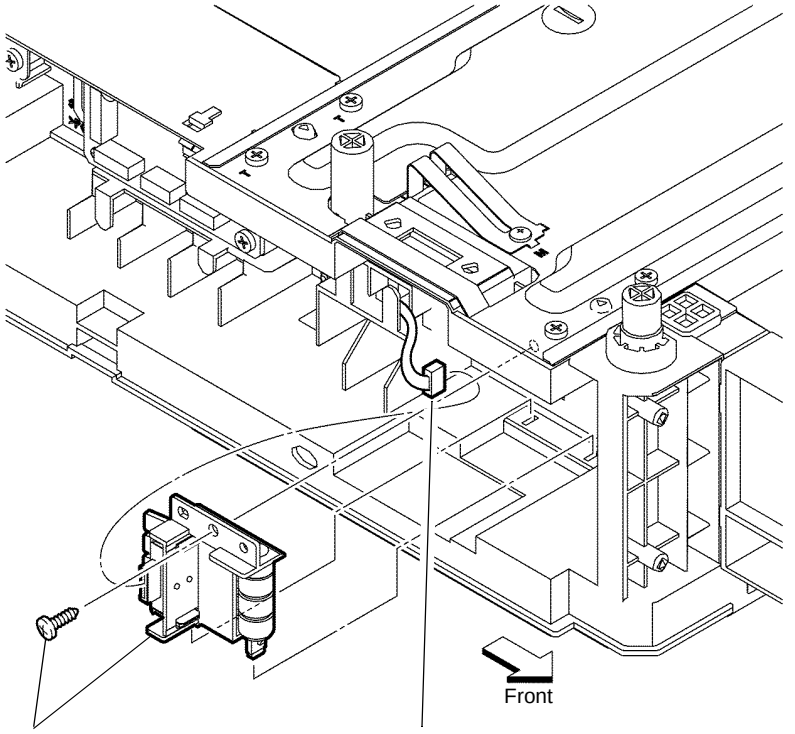


Figure 1 550 Size switch assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 10.7 550 Option Main Feed Assembly

Parts List on PL 10.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 optional 550-sheet feeder from the printer, REP 10.1.
2. Remove the 550 option feed clutch assembly, REP 10.3.

3. Remove the 550 option main feed assembly, Figure 1.

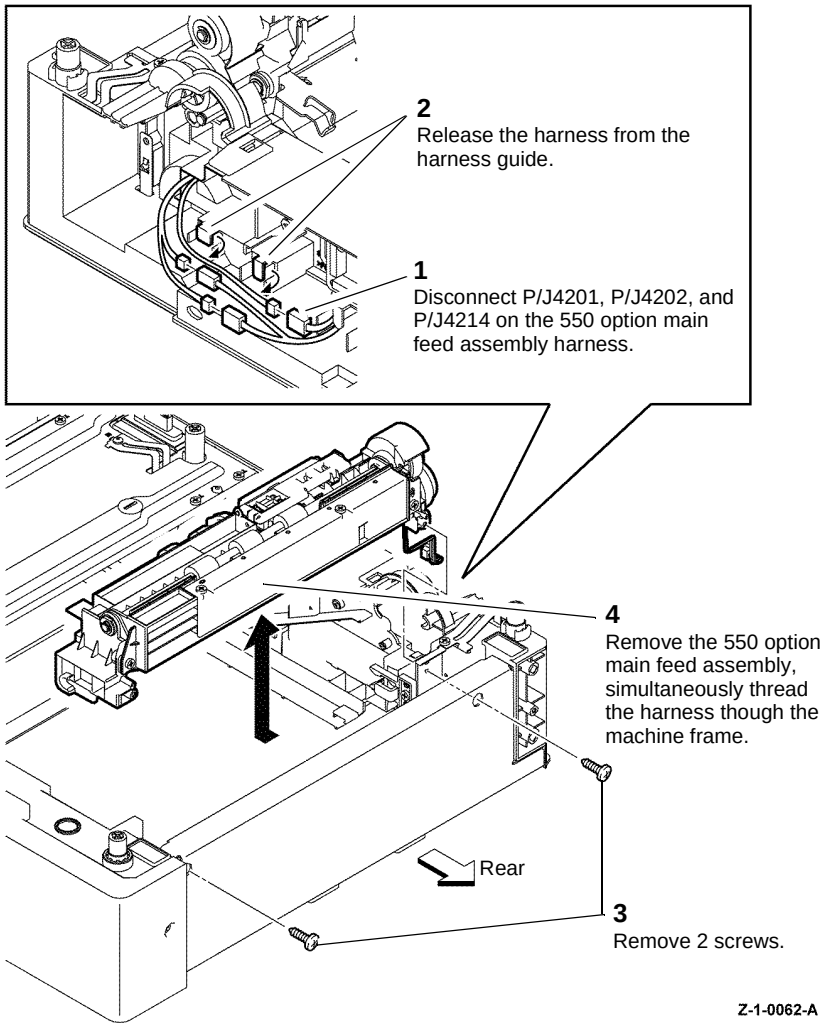


Figure 1 550 Option main feeder assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 10.8 550 Option Registration Clutch Assembly

Parts List on PL 10.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 550 option main feed assembly, REP 10.7.
2. Remove the 550 option registration clutch assembly, Figure 1.

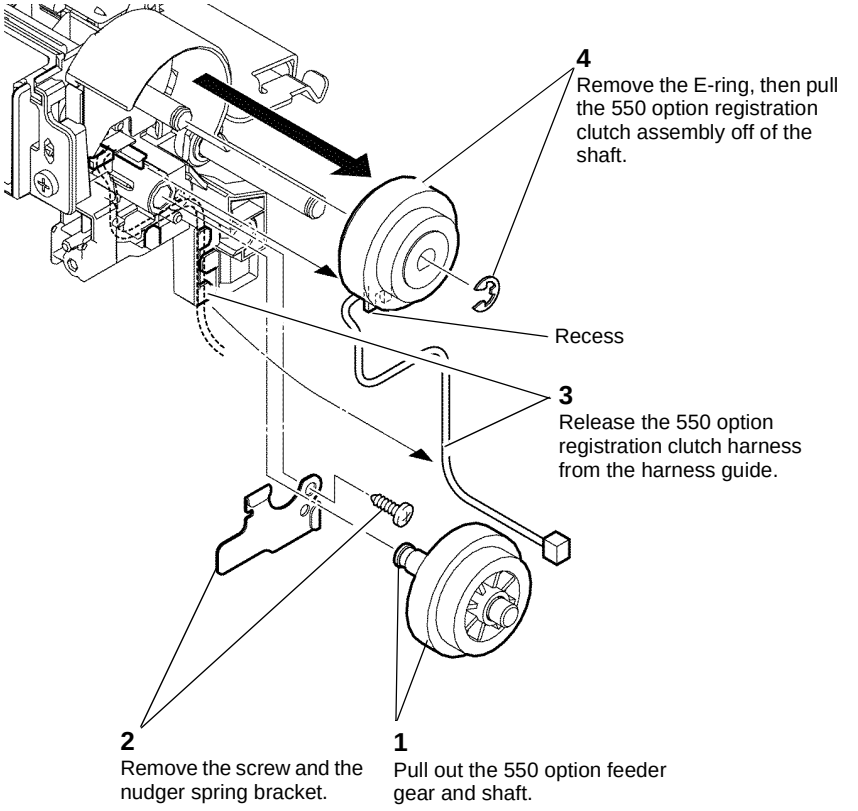


Figure 1 550 Option registration clutch assembly

Replacement

Replacement is the reverse of the removal procedure. Ensure the recess on the 550 option registration clutch assembly is aligned with the lug on the frame, refer to Figure 1.

REP 10.9 550 Option Feed Roller Assembly

Parts List on PL 10.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 550 option cassette assembly from the optional 550-sheet feeder.
2. Remove the optional 550-sheet feeder from the printer, REP 10.1.
3. Remove the feed roller assembly, Figure 1.

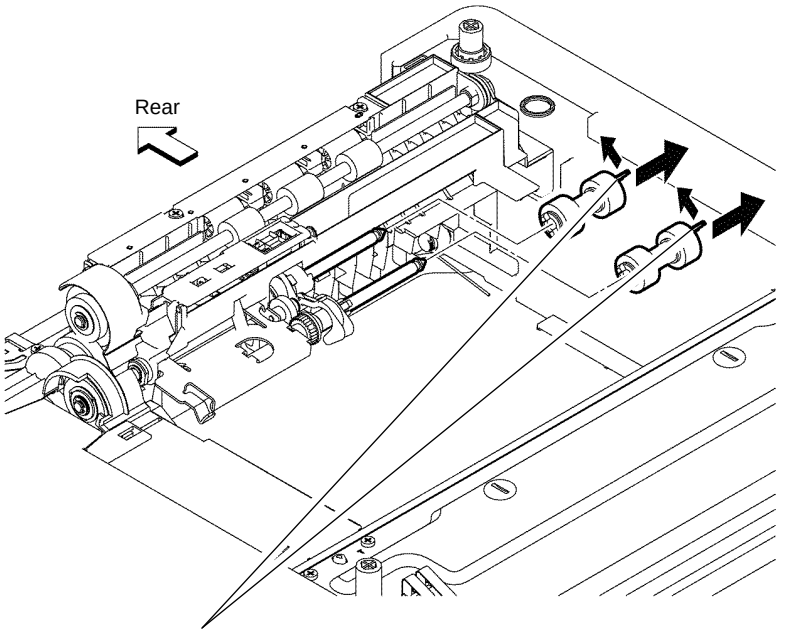


Figure 1 Remove the 550 option feed roller assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 13.1 MSI TA1 Roller Assembly

Parts List on PL 13.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray frame assembly, REP 13.3.
2. Remove the TA1 roller assembly, Figure 1.

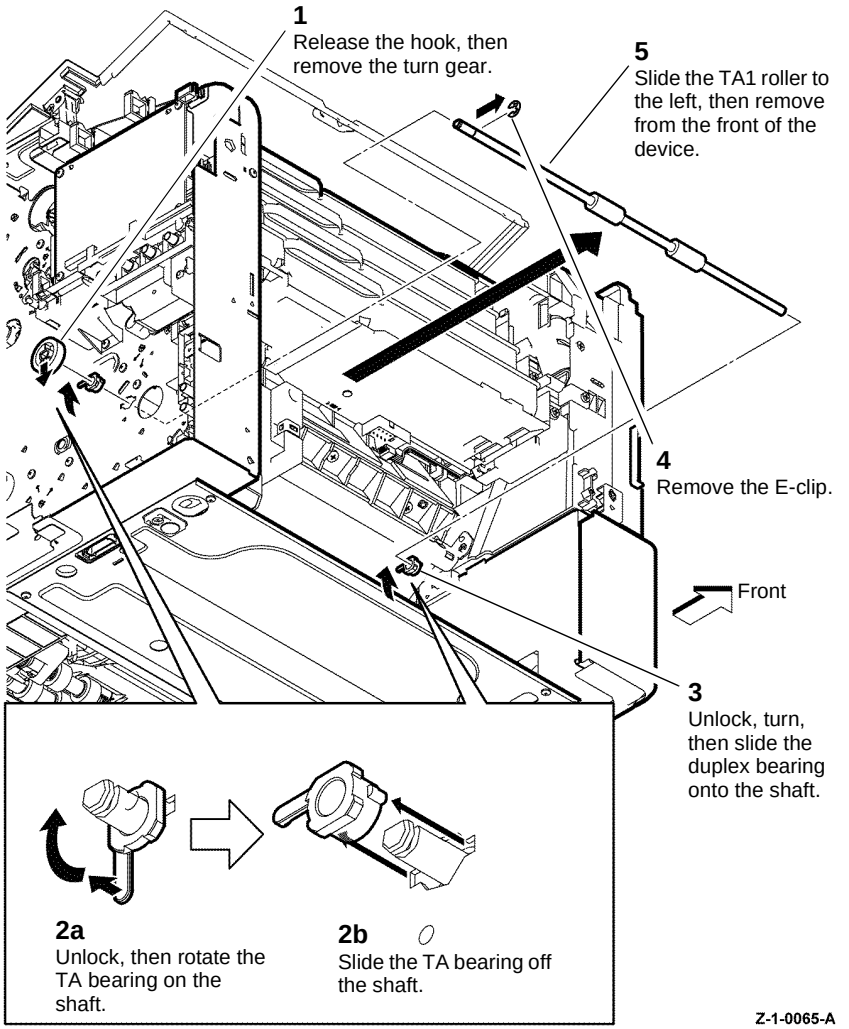


Figure 1 TA1 Roller assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 13.2 MSI TA2 Roller Assembly

Parts List on PL 13.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 ROS assembly, REP 2.1.
2. Remove main drive assembly, REP 3.1.
3. Remove the TA2 roller assembly, Figure 1.

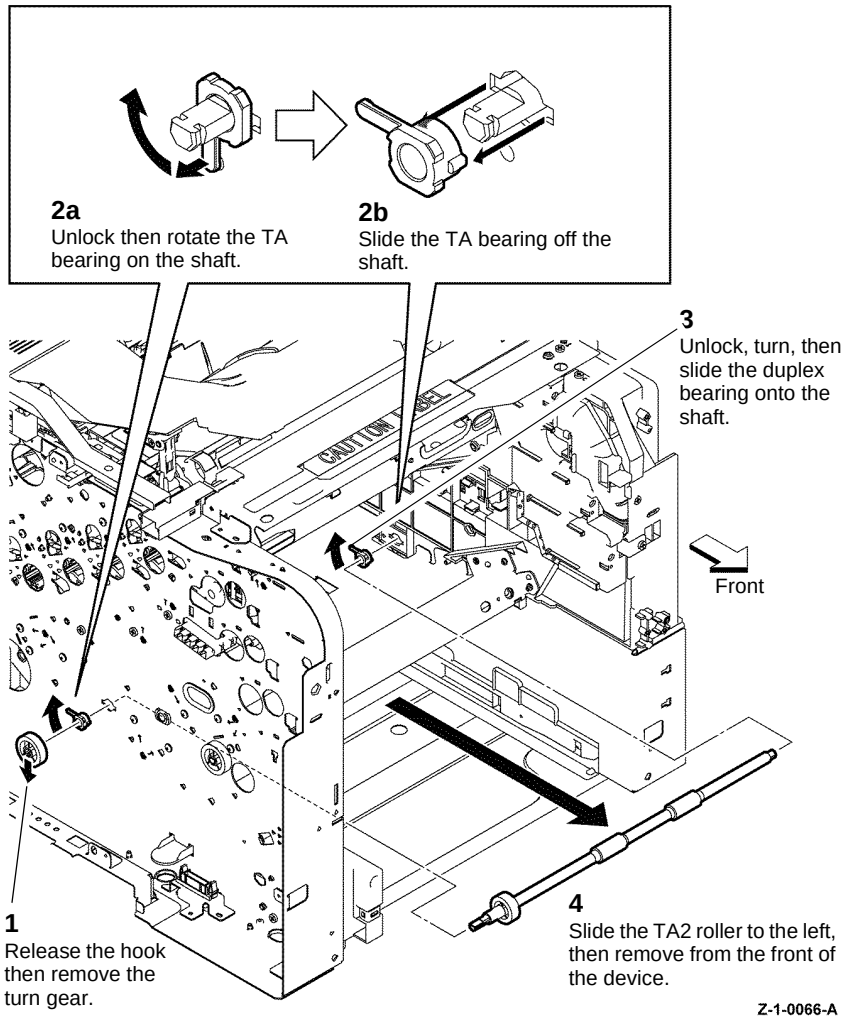


Figure 1 TA2 Roller assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 13.3 MSI Tray Frame Assembly

Parts List on PL 13.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray assembly, REP 13.9.
2. Remove the main drive assembly, REP 3.1.
3. Remove the MSI tray frame assembly Figure 1.

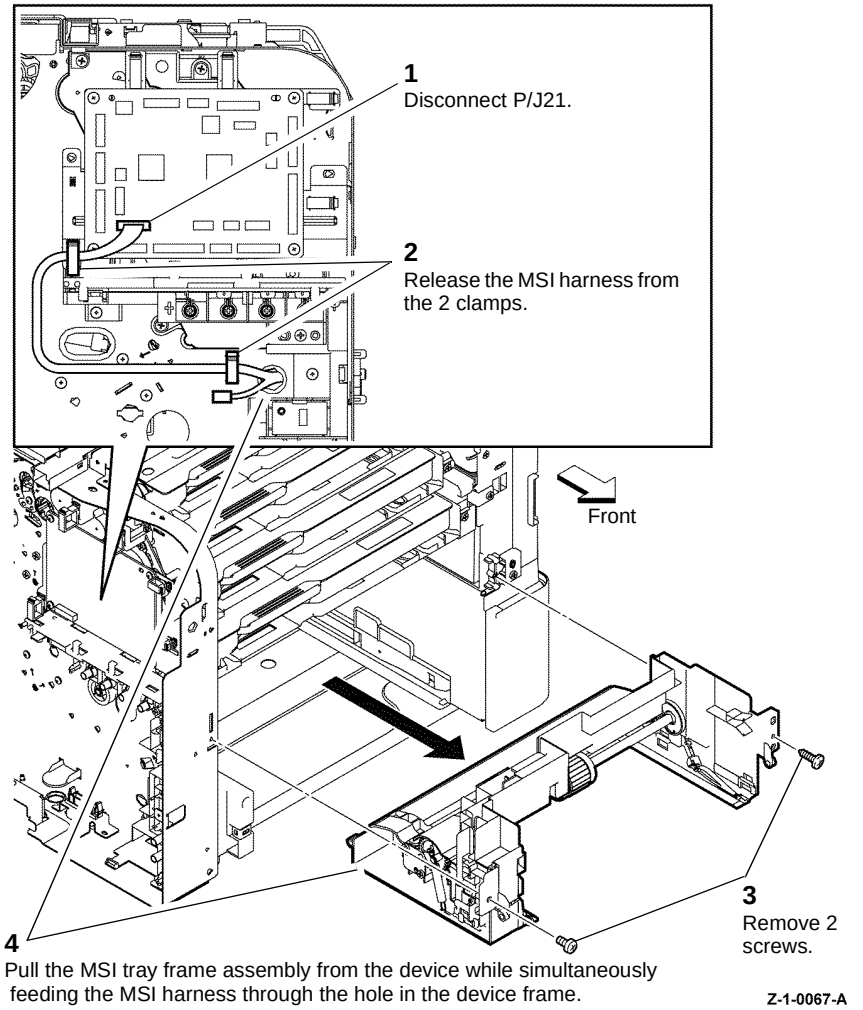


Figure 1 MSI tray frame assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 13.4 MSI Tray No Paper Sensor

Parts List on PL 13.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray frame assembly, REP 13.3.
2. Remove the MSI no paper sensor, Figure 1.

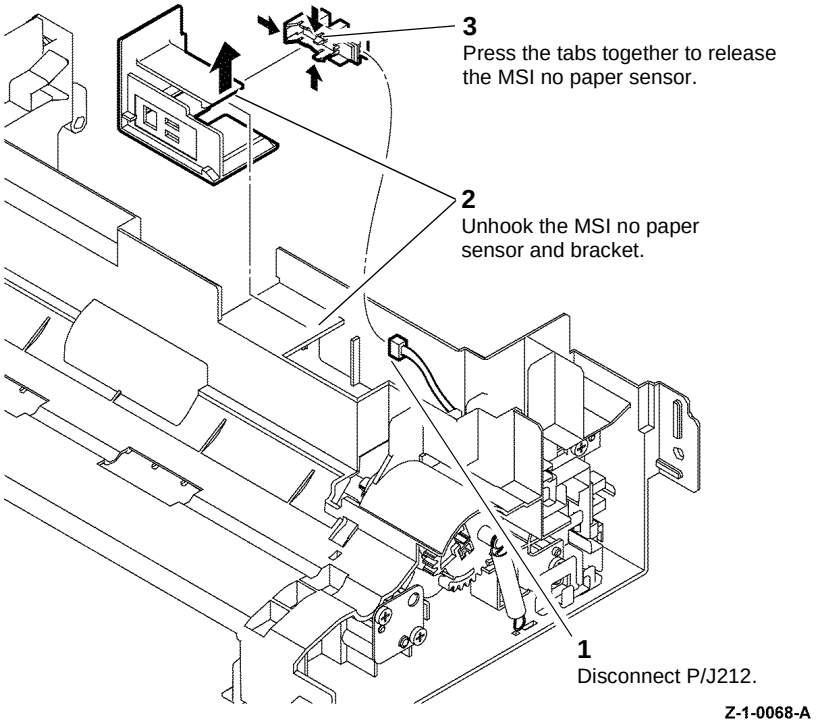


Figure 1 MSI tray no paper sensor

Replacement

Replacement is the reverse of the removal procedure.

REP 13.5 MSI Tray Detect Sensor

Parts List on PL 13.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray frame assembly, REP 13.3.
2. Remove the MSI tray detect sensor, Figure 1.

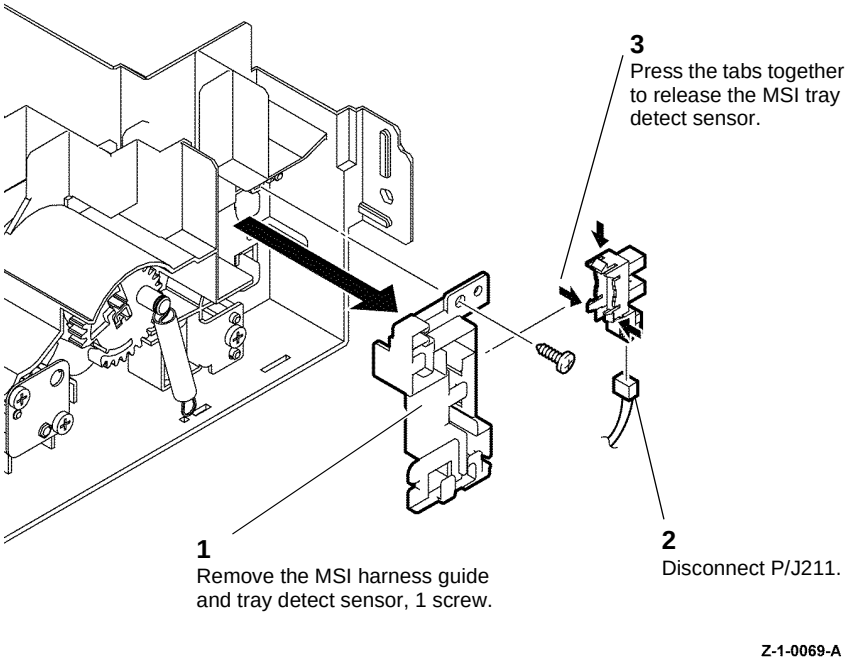


Figure 1 MSI tray detect sensor

Replacement

Replacement is the reverse of the removal procedure.

REP 13.6 MSI Tray Feed Roll

Parts List on PL 13.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 550-sheet paper tray.
2. Remove the MSI tray assembly, REP 13.9.
3. Prepare to remove the feed roller assembly, Figure 1.

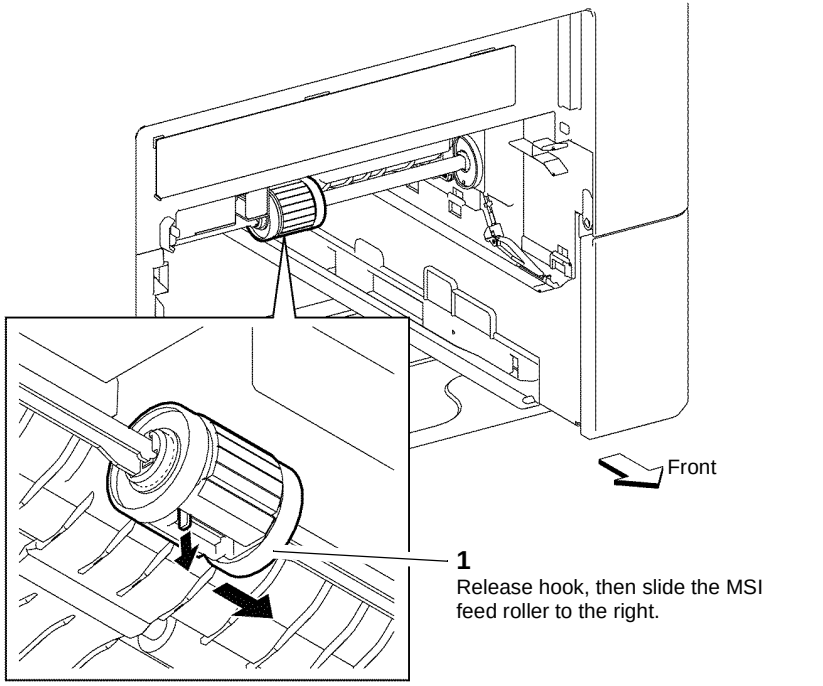


Figure 1 MSI feed roller assembly

4. Enter diagnostics dC330, code 041-001 Low voltage power supply, add code 071-007 MSI feed solenoid).

CAUTION

Do not rotate the P/H motor in reverse (clockwise). Reverse rotation of the P/H motor can break the feed roller assembly.

5. Rotate the P/H motor by hand, Figure 2.

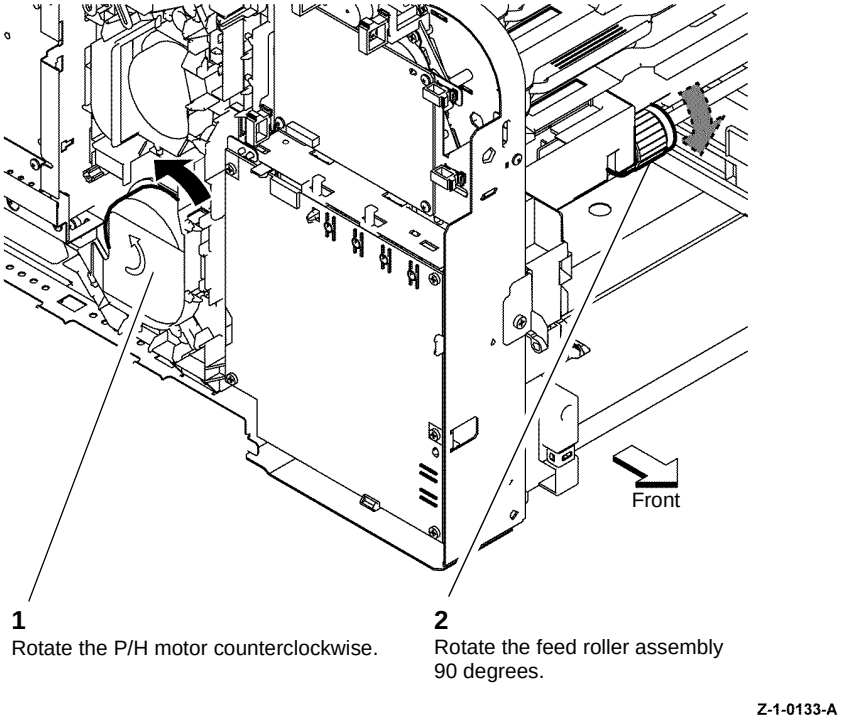


Figure 2 Feed roll rotation

6. Remove the feed roll, Figure 3.

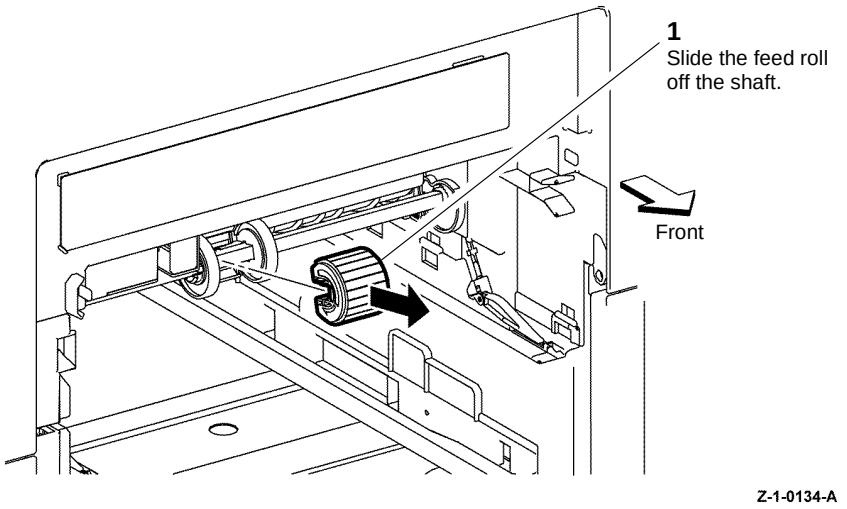


Figure 3 Feed roll removal

Replacement

Replacement is the reverse of the removal procedure.

REP 13.7 MSI Tray Feed Roller Assembly

Parts List on PL 13.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray frame assembly, REP 13.3.
2. Remove the MSI tray feed roller assembly, Figure 1.

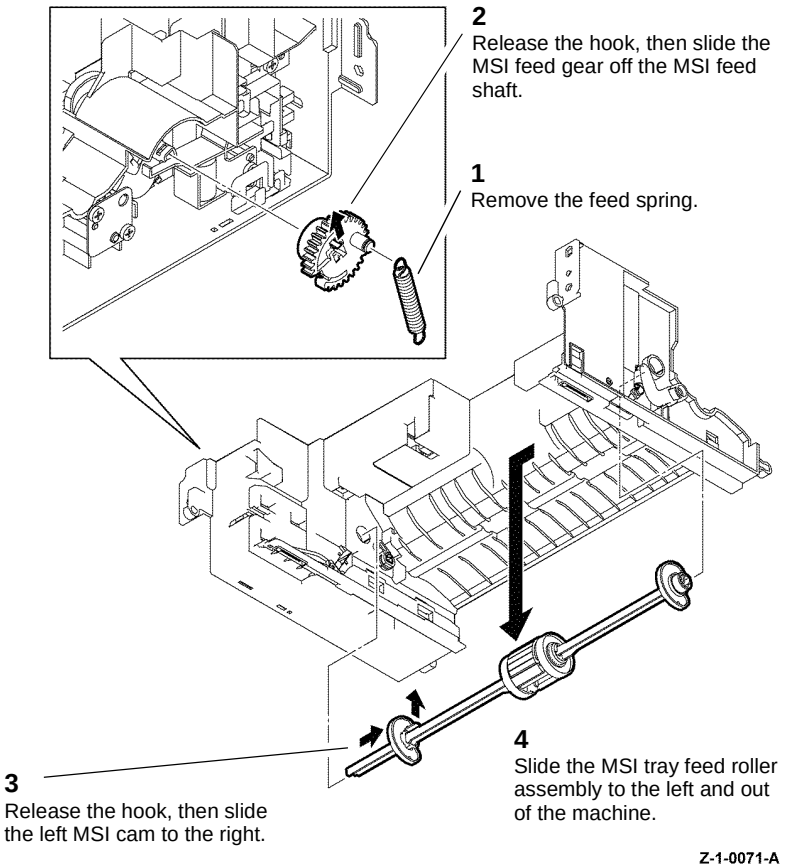


Figure 1 MSI tray feed roller assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 13.8 MSI Feed Solenoid Assembly

Parts List on PL 13.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray frame assembly, REP 13.3.
2. Remove the MSI feed solenoid assembly, Figure 1.

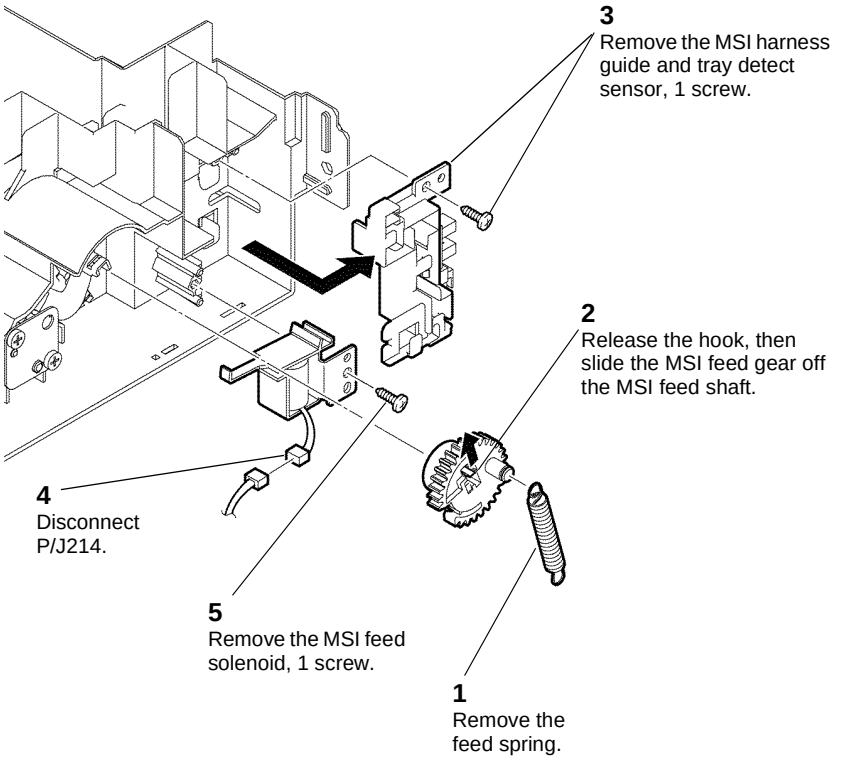


Figure 1 MSI feed gear and feed solenoid

Replacement

Replacement is the reverse of the removal procedure.

REP 13.9 MSI Tray Assembly

Parts List on PL 13.3

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray assembly, Figure 1.

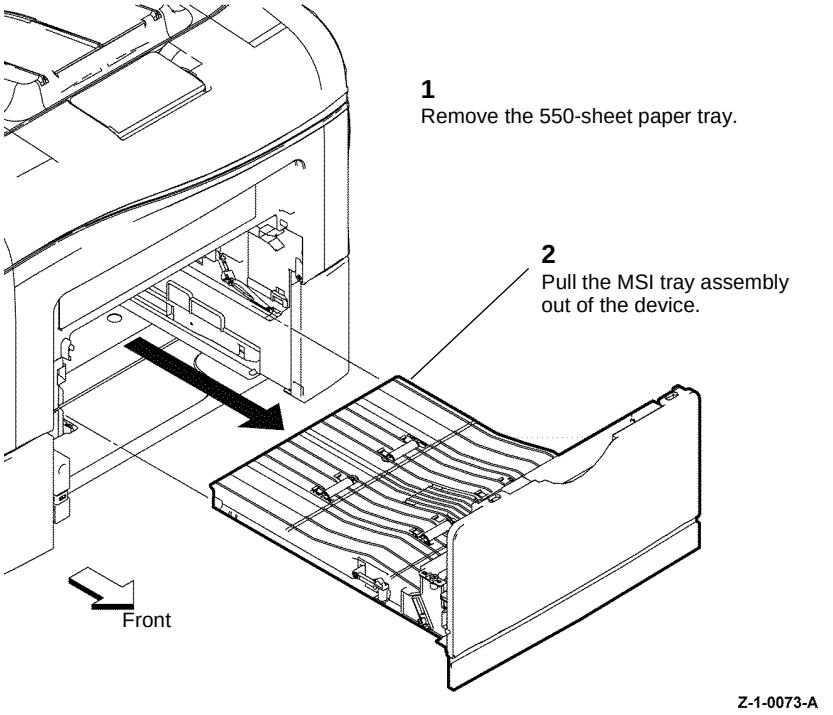


Figure 1 MSI tray assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 13.10 MSI Tray Cover Assembly

Parts List on PL 13.3

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray assembly, REP 13.9.
2. Open the MSI tray cover assembly, PL 13.3 Item 2.
3. Remove the MSI tray cover assembly, Figure 1.

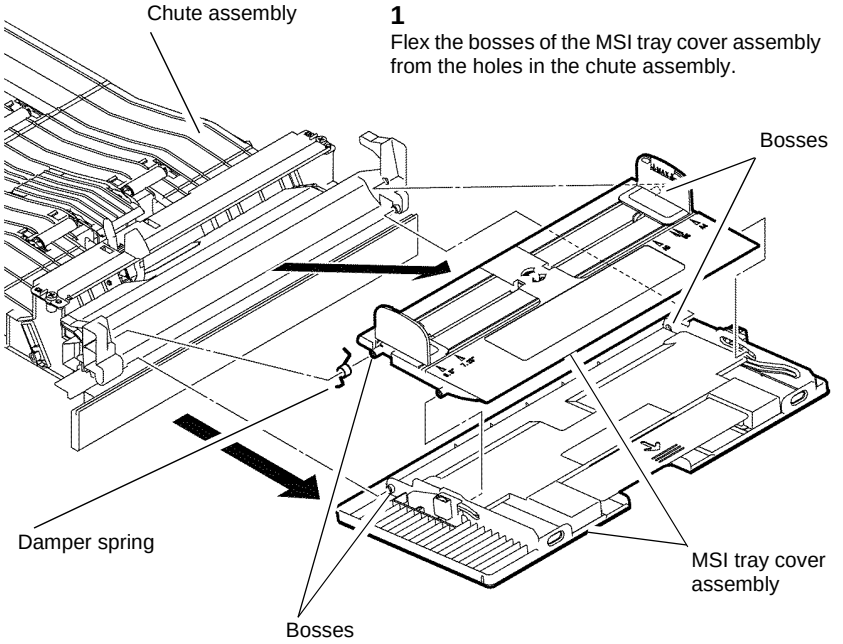


Figure 1 MSI tray cover assembly

Replacement

Replacement is the reverse of the removal procedure. Ensure the damper spring is correctly positioned, Figure 2.

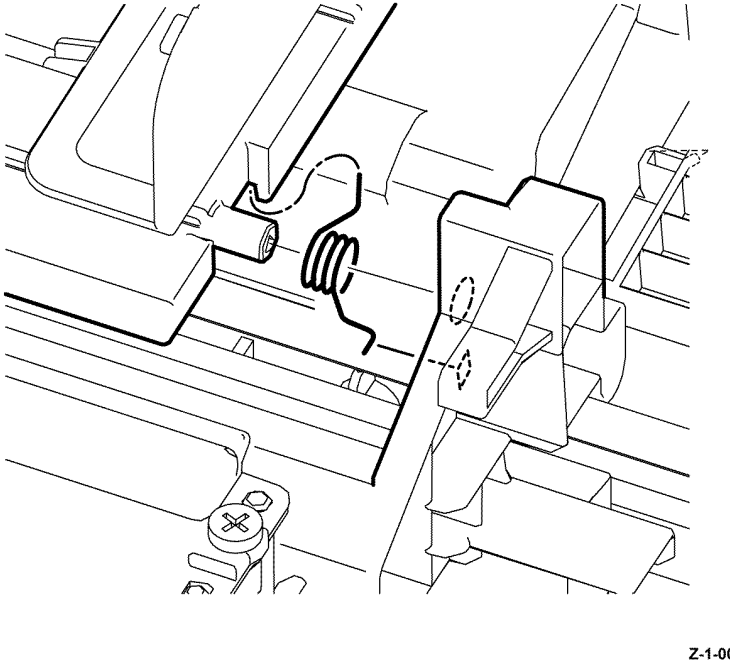


Figure 2 Damper spring position

REP 13.11 MSI Tray Lower Cover

Parts List on PL 13.3

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 550 cassette assembly from the printer, PL 9.1 Item 1.
2. Remove the MSI tray lower cover, Figure 1.

NOTE: *If the 2 clips are difficult to release, remove the MSI tray assembly first, REP 13.9.*

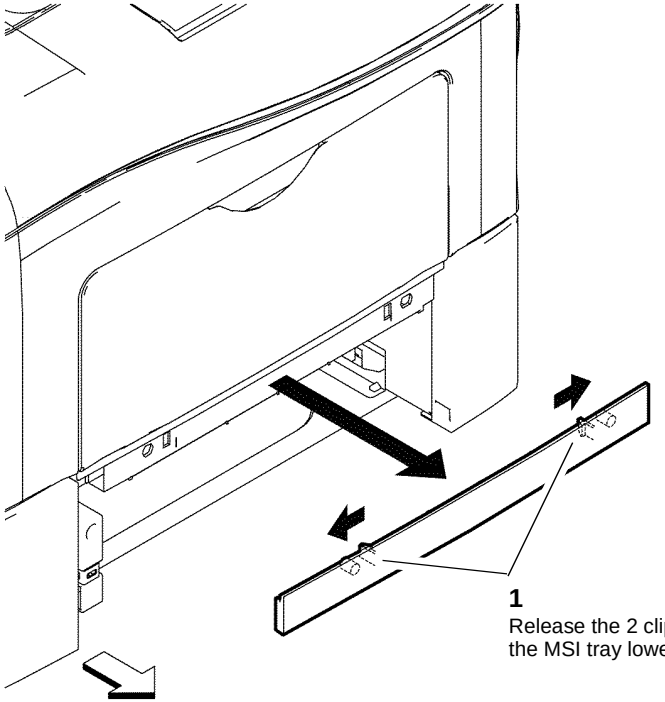


Figure 1 MSI tray lower cover

Replacement

Replacement is the reverse of the removal procedure.

REP 13.12 MSI Tray Chute Assembly

Parts List on PL 13.3

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray assembly, REP 13.9.
2. Remove the MSI tray cover assembly, REP 13.10.
3. Remove the MSI tray lower cover, REP 13.11.

NOTE: *Figure 1 shows the MSI tray chute assembly as it appears after the covers are removed.*

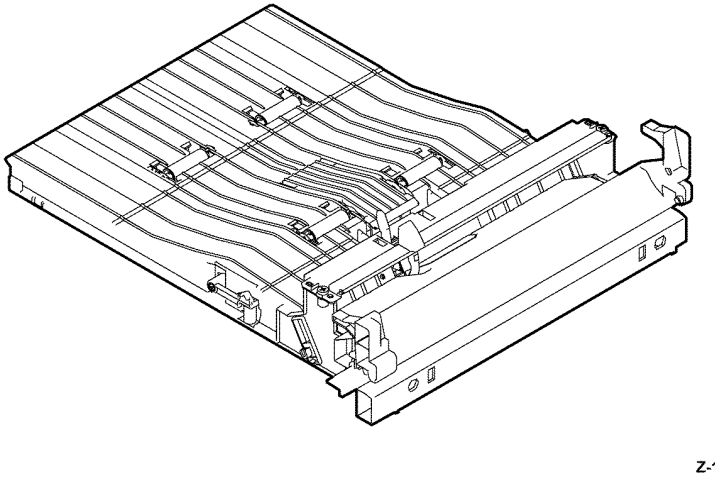


Figure 1 MSI tray chute assembly

Replacement

1. Install the MSI tray lower cover onto the new MSI tray chute assembly. Refer to REP 13.11.
2. Install the MSI tray cover assembly onto the new MSI tray chute assembly. Refer to REP 13.10.
3. Install the MSI tray assembly. Refer to REP 13.9.

REP 13.13 MSI Tray Separator Roller Assembly

Parts List on PL 13.3

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray assembly, REP 13.9.
2. Remove 2 screws then the front MSI bar, PL 13.3 Item 6.
3. Carefully flex both ends of the bottom plate assembly, (PL 13.3 Item 15) from the MSI chute assembly, PL 13.3 Item 5.
4. Remove the MSI Tray separator roller assembly, Figure 1.

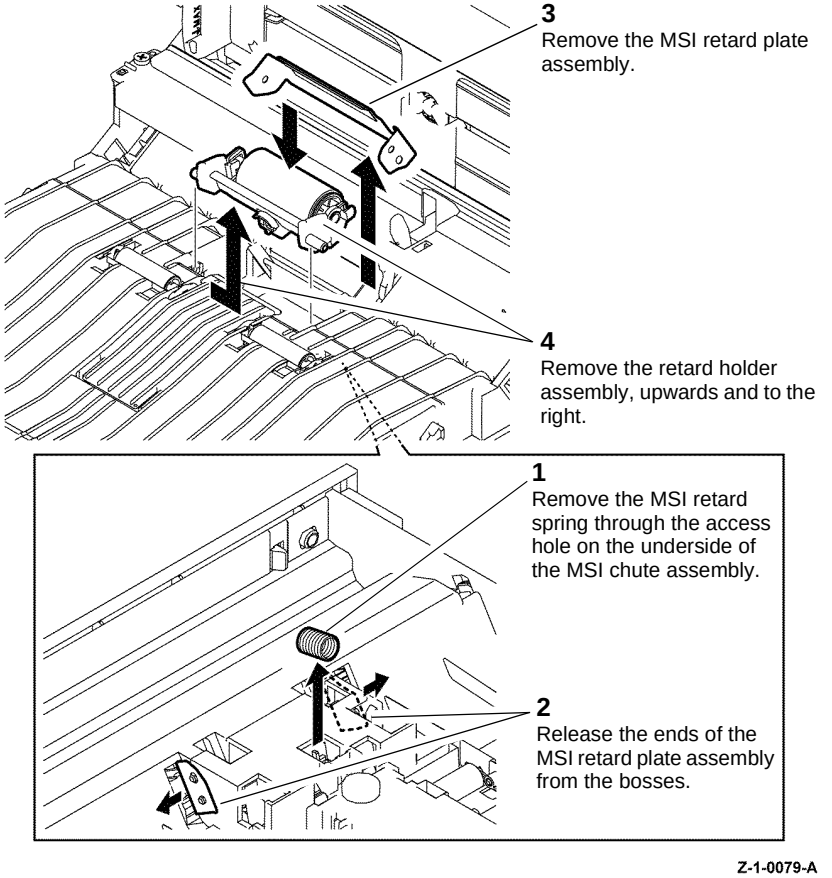


Figure 1 MSI tray separator roller assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 13.14 MSI Pinch Roll Assembly

Parts List on PL 13.3

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MSI tray assembly, REP 13.9.

CAUTION

The TA1 and TA2 pinch springs are not the same. Recognize the difference in the springs on removal. Do not to misposition the springs on their replacement.

2. Remove the MSI pinch rolls, Figure 1.

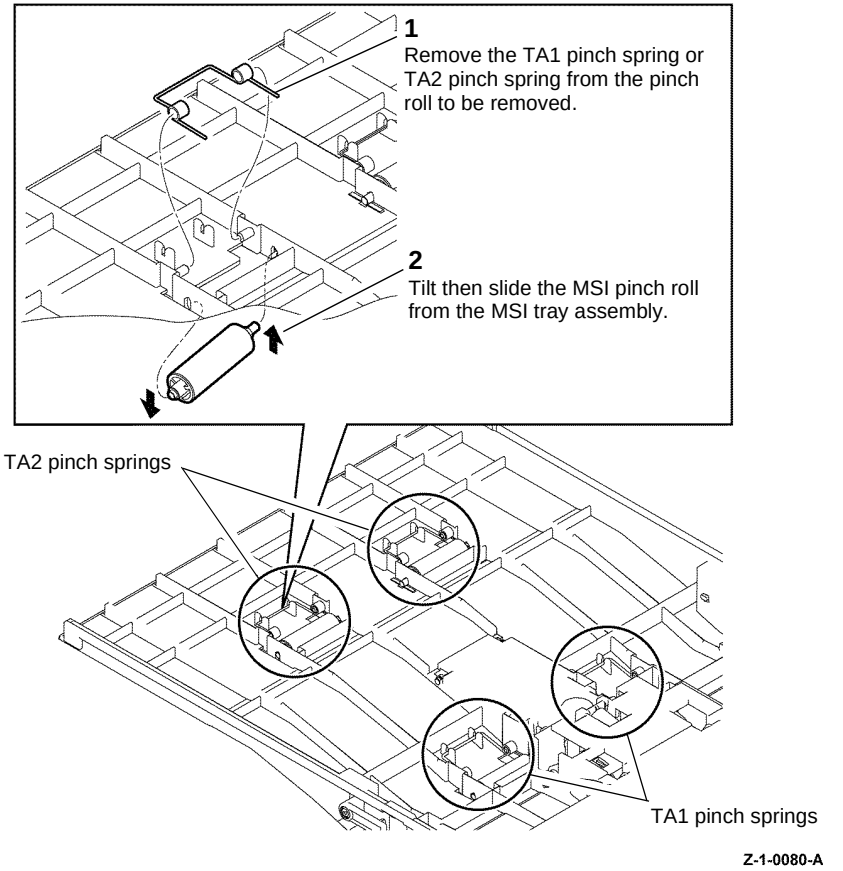


Figure 1 MSI tray pinch roll assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 14.1 Duplex Assembly

Parts List on PL 14.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the CRU Transfer Roller Assembly, REP 14.3.
3. Remove the right side cover assembly, C400 REP 19.5, C405 REP 19.11.
4. Remove the left side cover, C400 REP 19.14, C405 REP 19.18.
5. Remove the ESS PWBA and EMMC Card, C400 REP 18.4, C405 REP 18.5.
6. C400 devices only, remove the ESS rear plate, Figure 1.

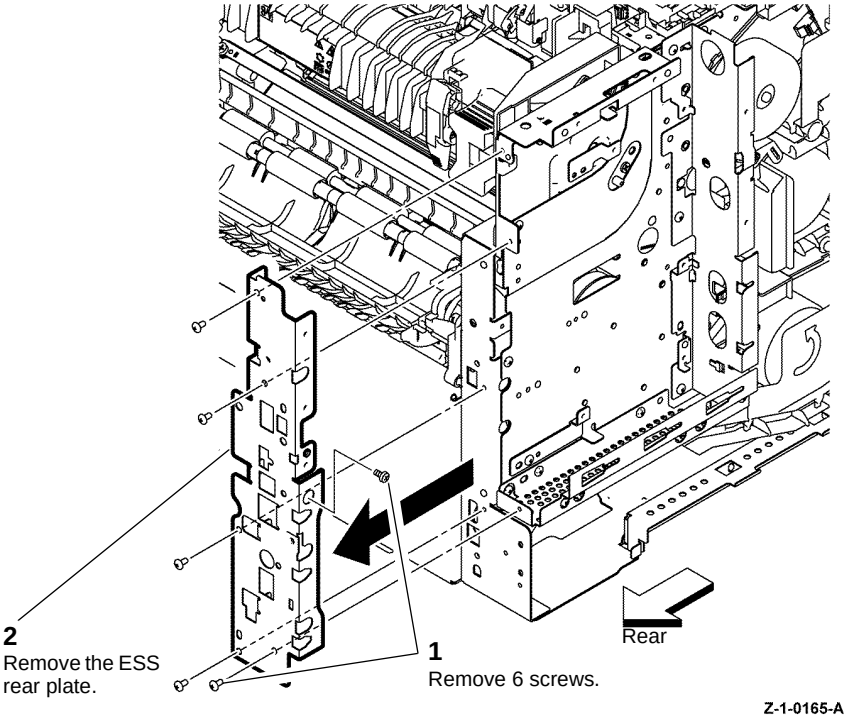


Figure 1 ESS rear plate

7. Remove the S3 rear frame, Figure 2.

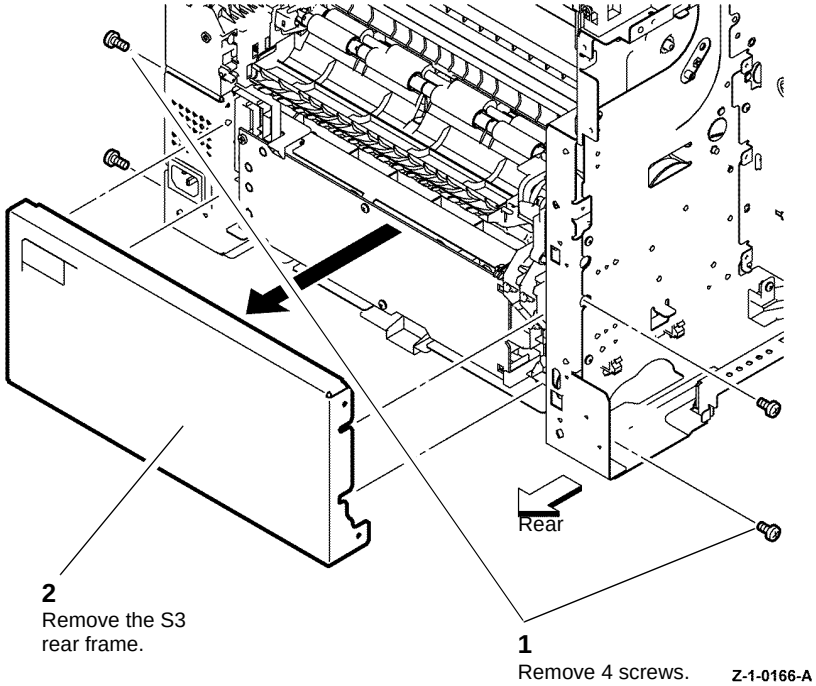


Figure 2 S3 rear frame

8. Remove the duplex assembly with the rear cover assembly, Figure 3.

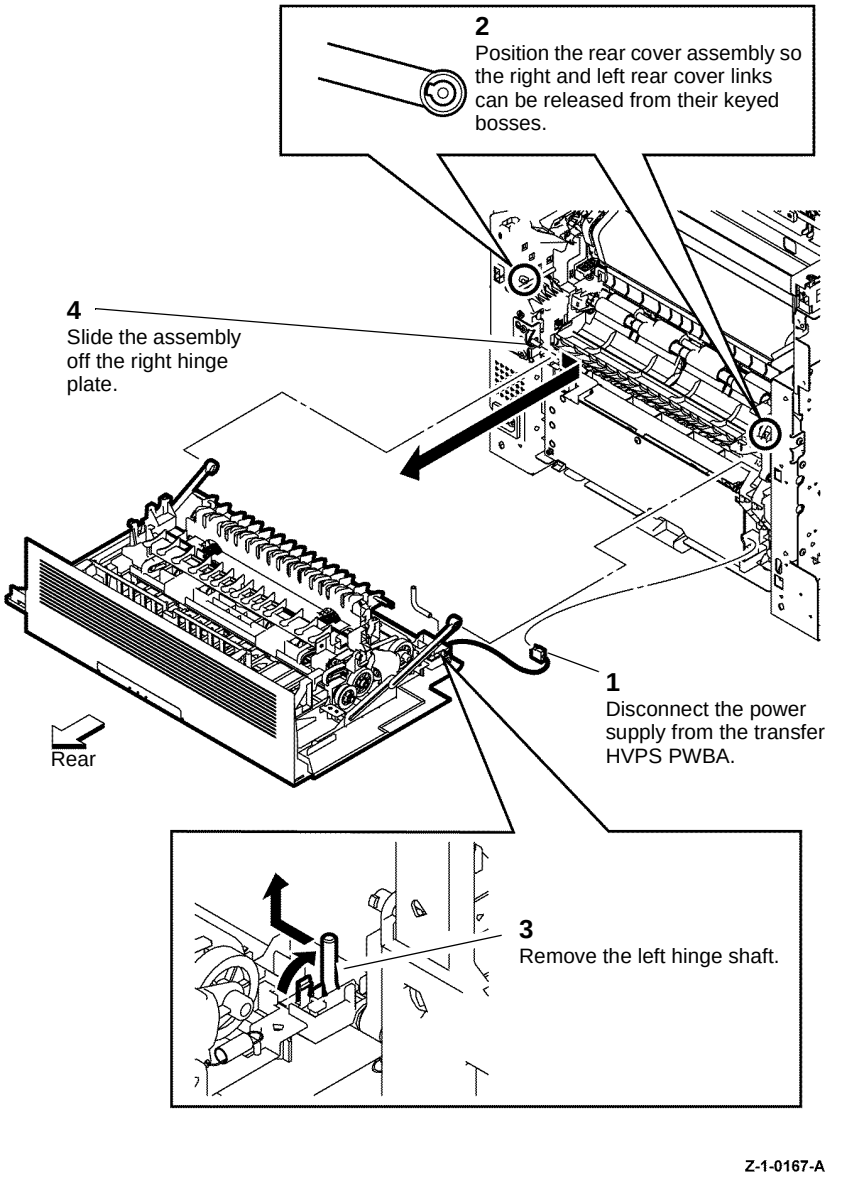


Figure 3 Duplex and rear cover assemblies

9. Remove the duplex assembly, Figure 4.

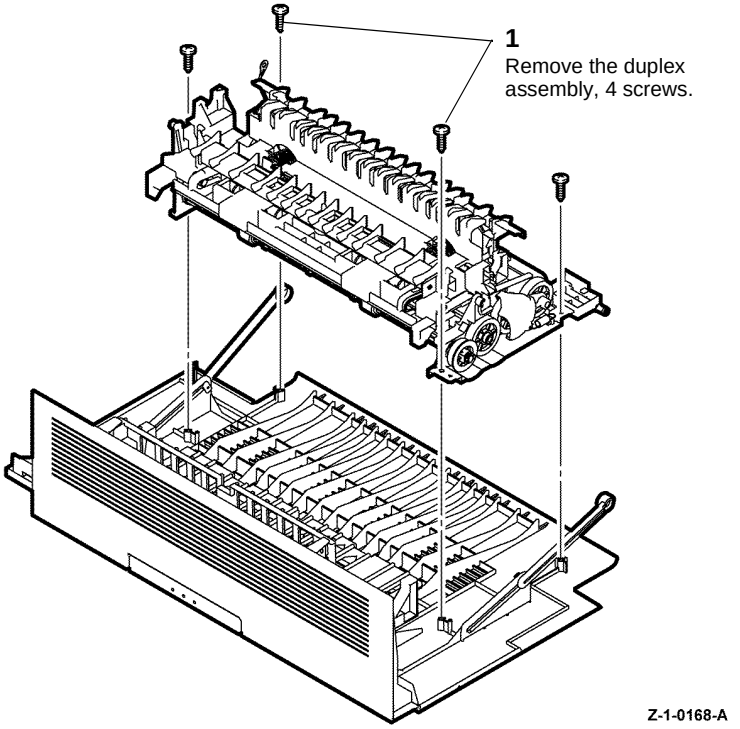


Figure 4 Duplex assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 14.2 Rear Hinge Bracket

Parts List on PL 14.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the duplex assembly, REP 14.1.
2. Remove the left side cover assembly, C400 REP 19.14, C405 REP 19.18.
3. Remove the 2 screws that attach the rear hinge bracket, refer to PL 14.1 Item 6.

Replacement

Replacement is the reverse of the removal procedure.

REP 14.3 CRU Transfer Roller Assembly

Parts List on PL 14.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 rear door assembly.
2. Remove the transfer roller, Figure 1.

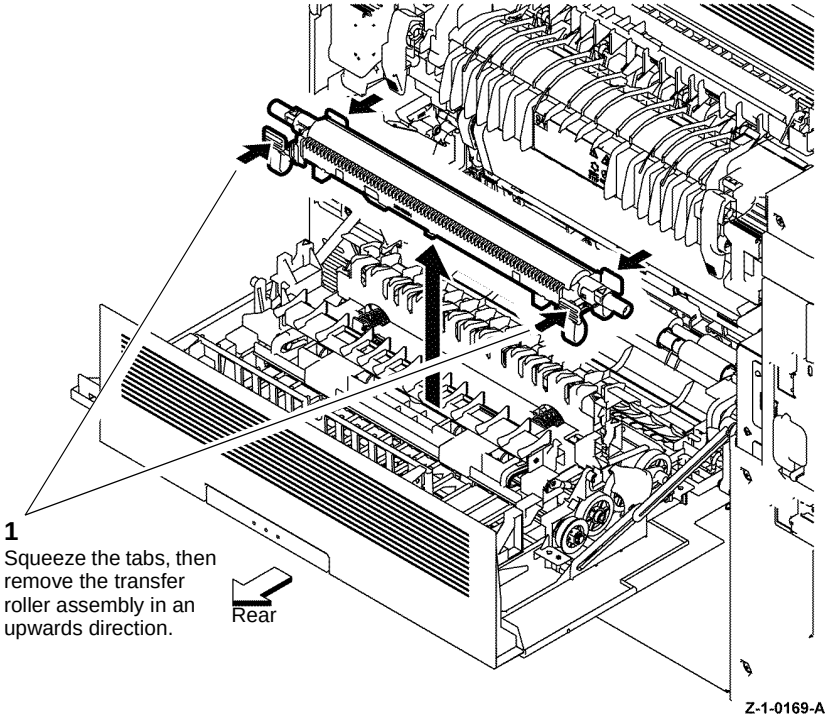


Figure 1 Remove the transfer roller

Replacement

1. Replacement is the reverse of the removal procedure.
2. The transfer roller assembly is a HFSI. If installing a new transfer roller assembly, enter dC135 then reset the counter.

REP 15.1 Lower and Option 550 Registration Chutes

Parts List on PL 15.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the 550 option cassette assembly, PL 10.3 Item 1.
2. Remove the transfer HVPS TR PWBA, REP 18.12.

NOTE: *The option 550 registration chute and lower registration chute are removed as an assembly.*

3. Remove the option 550 registration chute and lower registration chute, Figure 1.

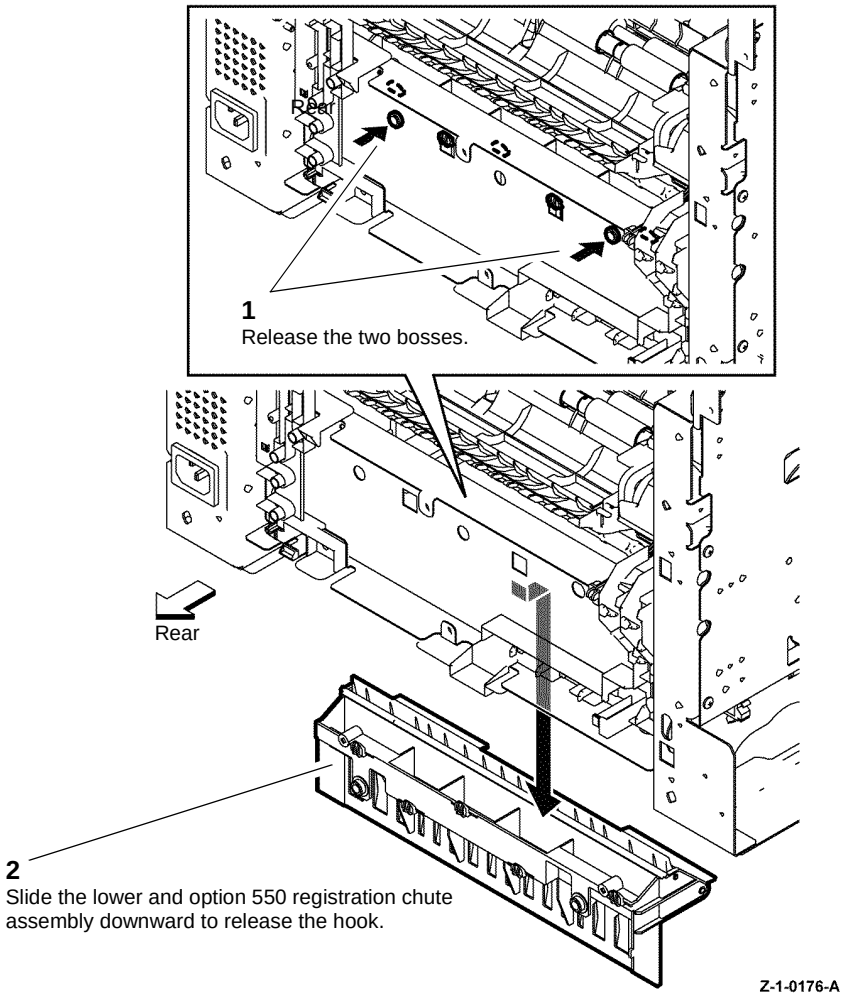


Figure 1 Removal of the chutes

Replacement

Position the left side of the lower and option 550 registration chute assembly, then swing the right side into position. Align the mounting tabs with the holes in the frame, then snap the assembly into place.

Replacement is the reverse of the removal procedure.

REP 15.2 Upper Transfer Belt Chute Assembly

Parts List on PL 15.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the transfer belt assembly, REP 6.3.
3. Remove the upper transfer belt chute assembly, Figure 1.

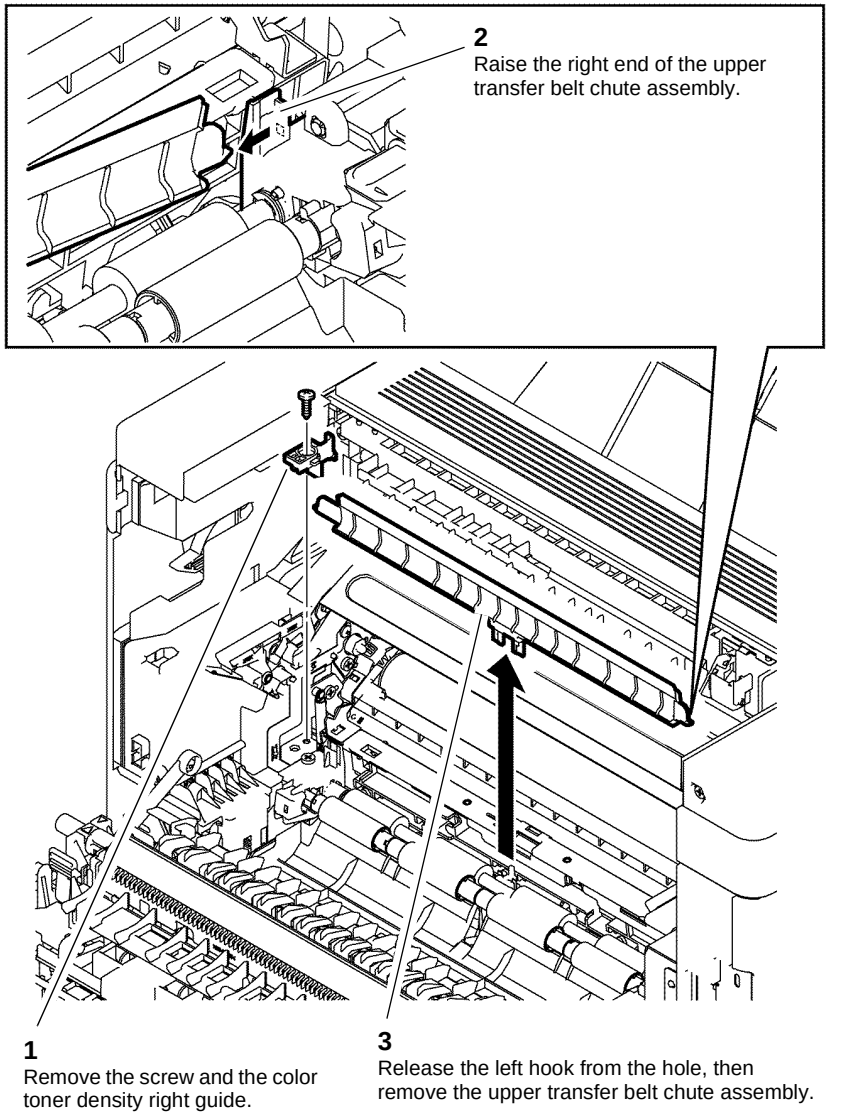


Figure 1 Upper transfer belt chute assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 15.3 Registration Clutch Assembly

Parts List on PL 15.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the rear cover assembly, C400 REP 19.13, C405 REP 19.16.
3. Remove the main drive assembly, REP 3.1.
4. Remove the S3 rear frame, Figure 1.

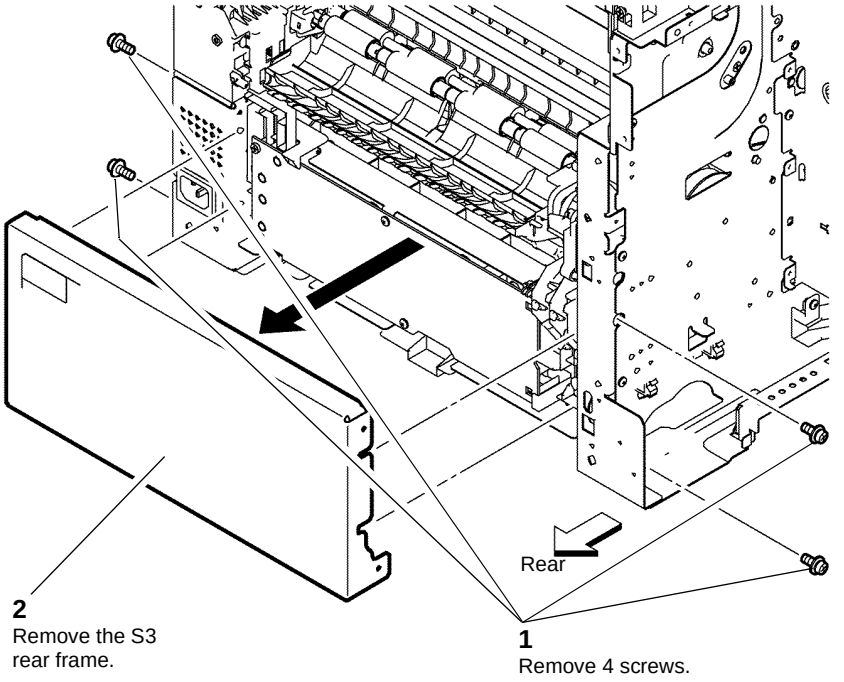


Figure 1 S3 rear frame

5. Remove the registration clutch assembly, Figure 2.

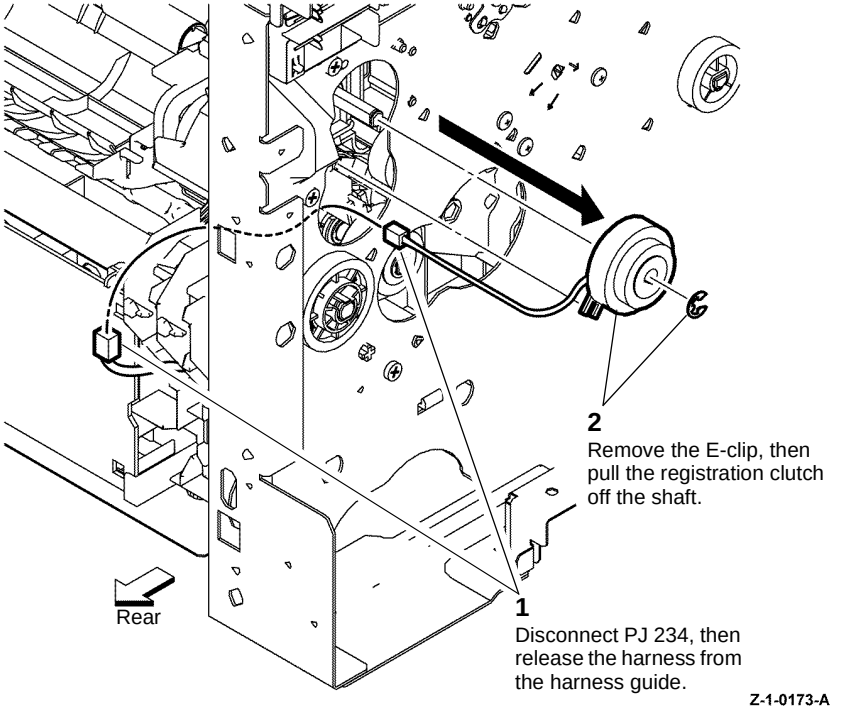


Figure 2 Registration clutch assembly

Replacement

CAUTION

When replacing the registration clutch onto the shaft, observe the following to avoid damaging the clutch and its harness:

- *Position the clutch alignment slot over the tab on the registration clutch assembly.*
- *Carefully route the harness through the harness guide.*

Replacement is the reverse of the removal procedure.

REP 15.4 Cassette Stopper

Parts List on PL 15.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the lower and option 550 registration chutes, REP 15.1.
2. Remove the cassette stopper, Figure 1.

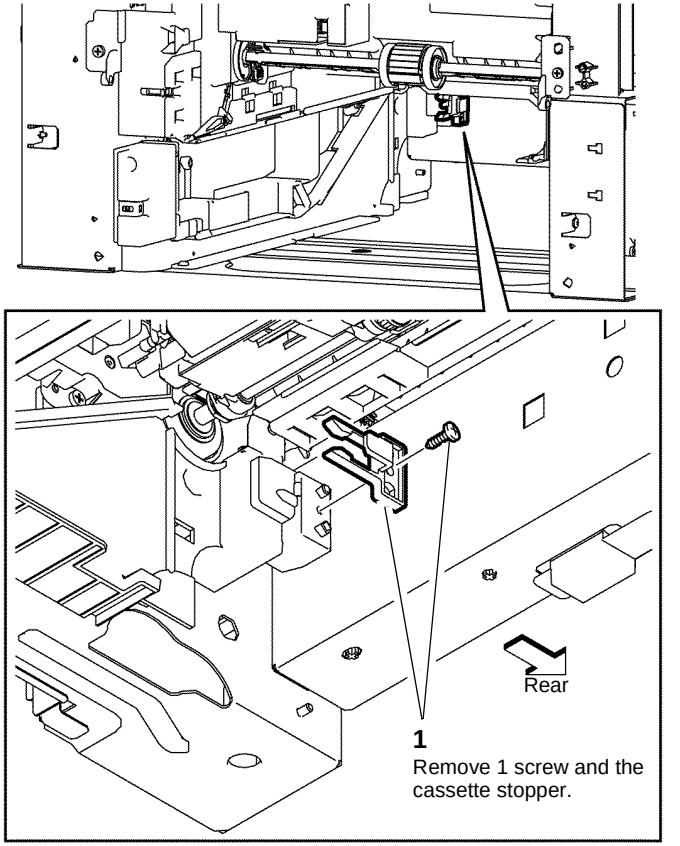


Figure 1 Remove the cassette stopper

Replacement

Replacement is the reverse of the removal procedure.

REP 15.5 Duplex Chute Assembly

Parts List on PL 15.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the duplex assembly, REP 14.1.

CAUTION

In the following step, avoid damaging the Mylar edge strip when removing the duplex chute assembly.

2. Remove the duplex chute assembly, Figure 1.

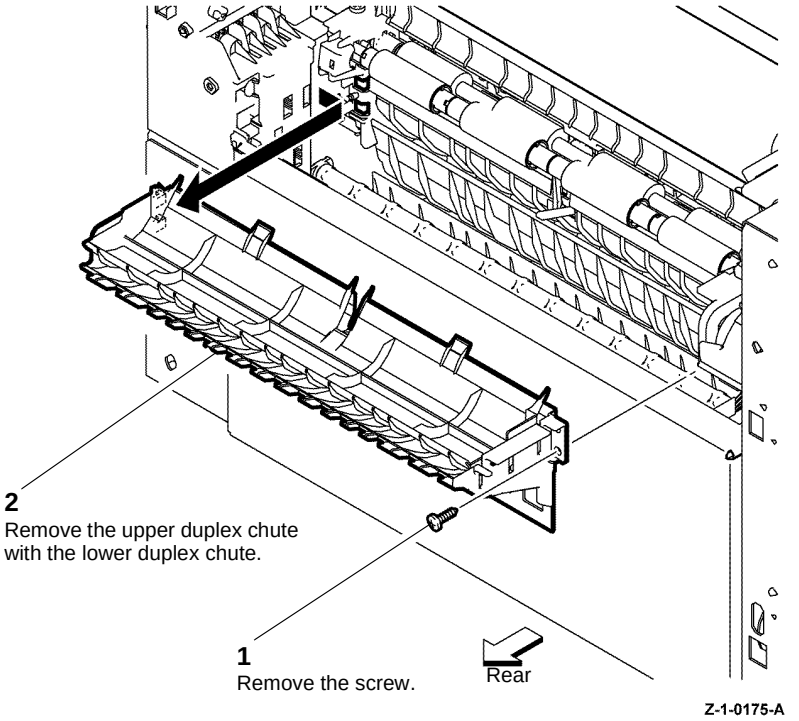


Figure 1 Duplex chute assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 15.6 Upper Registration Chute Assembly

Parts List on PL 15.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the 550 option cassette assembly from the device PL 10.3 Item 1.
2. Remove the duplex chute assembly, REP 15.5.
3. Remove the lower and option 550 registration chutes, REP 15.1.
4. Remove the registration chute assembly, REP 15.7.

Replacement

Replacement is the reverse of the removal procedure.

REP 15.7 Registration Chute Assembly

Parts List on PL 15.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.

CAUTION

Ensure the xerographic development assemblies are stored in a dark location. The xerographic development assemblies can be damaged by exposure to light.

2. Remove the xerographic development assemblies Y, M, C and K, PL 8.1.
3. Remove the color toner density (CTD) sensor assembly and springs, REP 6.2.
4. Remove the duplex assembly, REP 14.1.
5. Remove the left transfer belt guide assembly, REP 6.1.
6. Remove the lower and option 550 registration chutes, REP 15.1.
7. Remove the drive shaft assembly and bearings, REP 3.3.
8. Remove the registration clutch assembly, REP 15.3.

9. Remove the harness housing and guide, Figure 1.

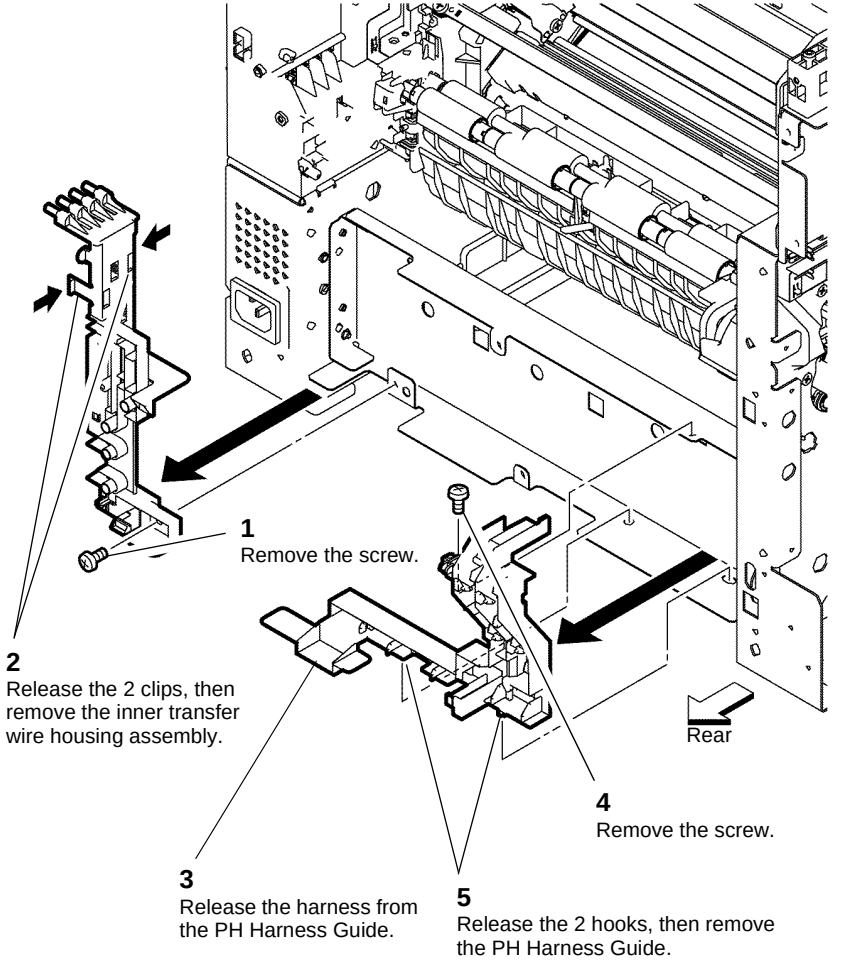


Figure 1 PH harness guide and rear hinge bracket

NOTE: *Although figure 2 illustrates a C400 device the harness connections and routing are identical for C405 machines.*

10. Disconnect the MCU PWBA and remove the harness, Figure 2.

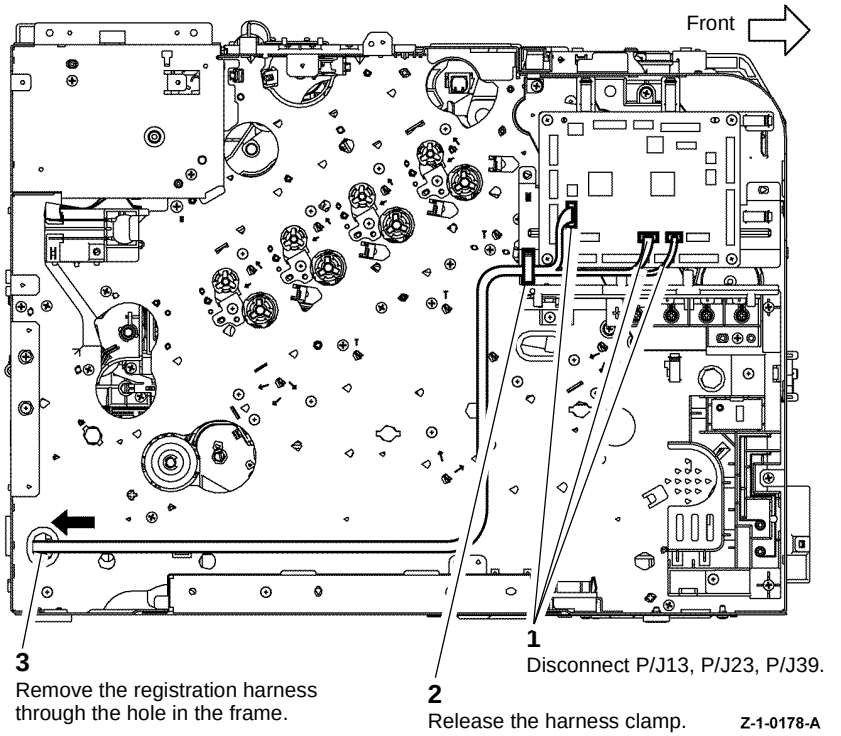


Figure 2 MCU board and harness

11. Remove the registration chute assembly, Figure 3.

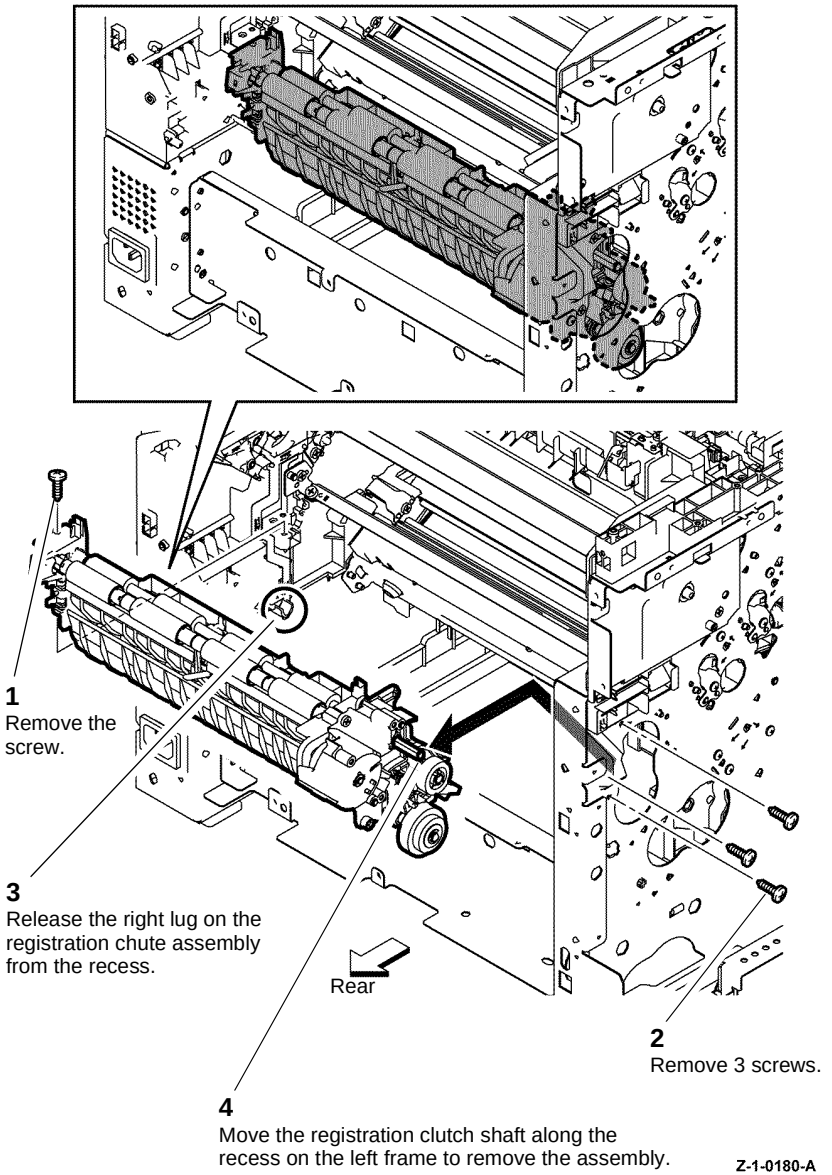


Figure 3 Registration chute assembly

Replacement

Replacement is the reverse of the removal procedure. Ensure correct installation of the inner transfer wire housing, Figure 4.

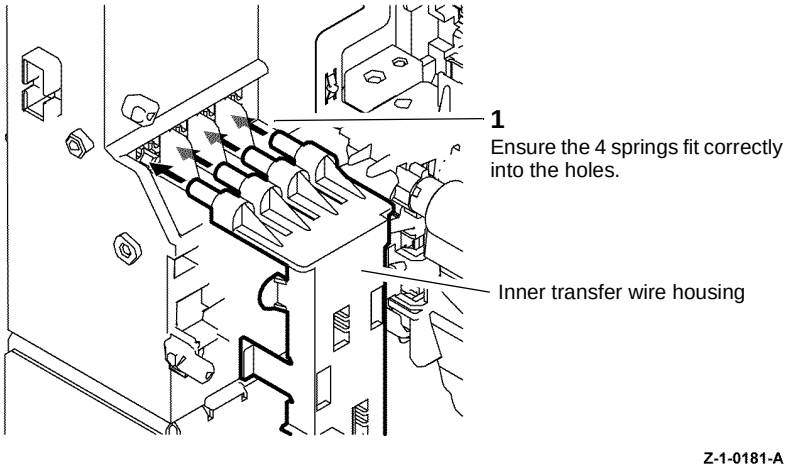


Figure 4 Inner transfer wire housing

REP 15.8 Left and Right Registration Bearings

Parts List on PL 15.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the registration chute assembly, REP 15.7.

NOTE: *Figure 1 illustrates removal of the left registration bearing. Removal of the right registration bearing is identical.*

2. Remove the right and left registration bearings, Figure 1.

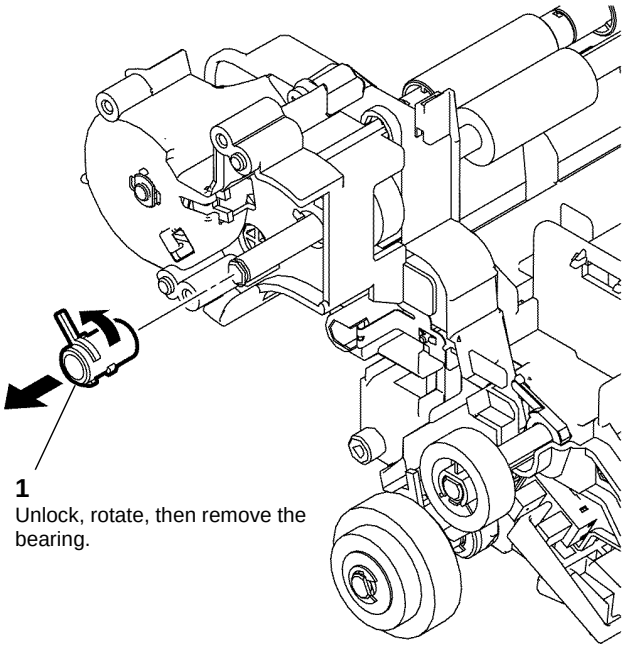


Figure 1 Registration bearings

Replacement

Replacement is the reverse of the removal procedure.

REP 15.9 Duplex Clutch Assembly

Parts List on PL 15.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the left registration bearing, REP 15.8.

CAUTION

The gears and shafts of the duplex clutch assembly can easily fall off of the assembly. Use care when removing components to avoid losing or damaging any of the other parts.

2. Remove the duplex clutch assembly, Figure 1.

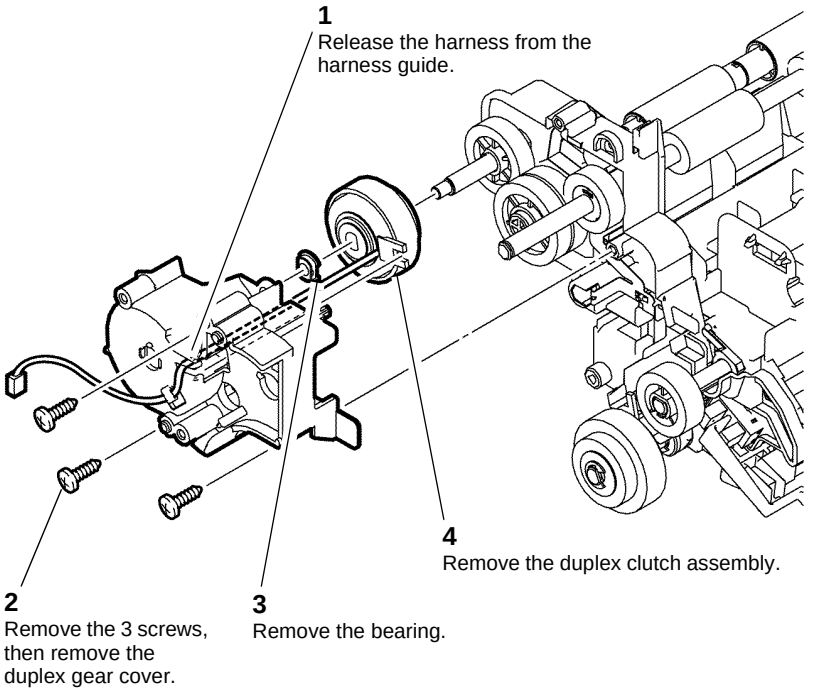


Figure 1 Duplex clutch assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 15.10 550 Option Feed Clutch Assembly

Parts List on PL 15.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the registration chute assembly, REP 15.7.
2. Remove the 550 option feed clutch assembly, Figure 1.

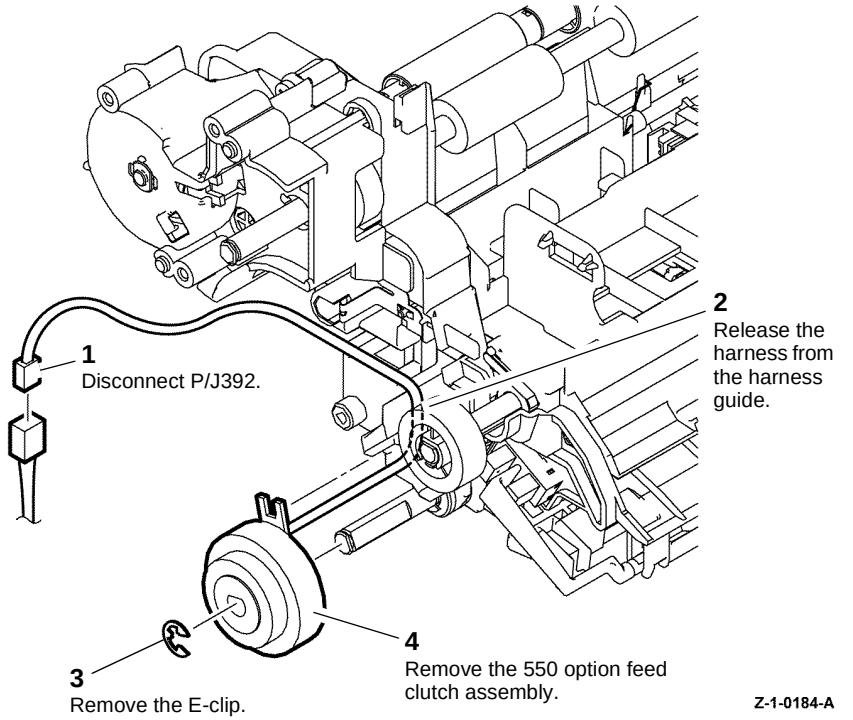


Figure 1 550 Option feed clutch assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 15.11 Feed and Nudger Roll Assembly

Parts List on PL 15.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 550 cassette assembly from the device, PL 9.1 Item 1.
2. Pull out the MSI Tray Assembly, PL 13.3 Item 1.
3. Remove the feed and nudger roll assemblies, Figure 1.

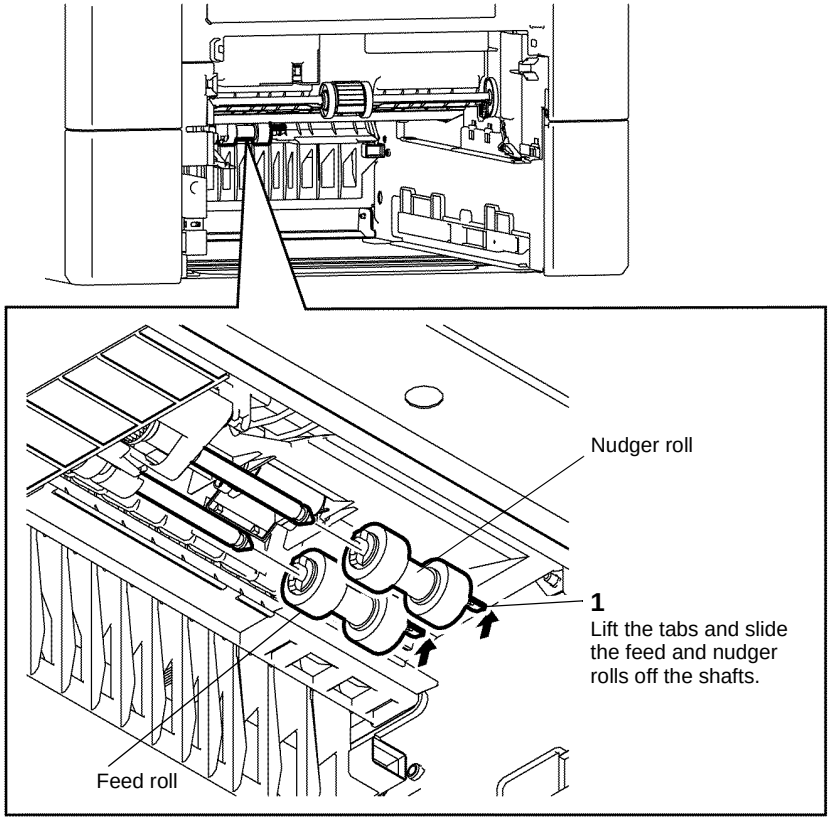


Figure 1 Remove the feed roller assembly

REP 17.1 Exit Assembly

Parts List on PL 17.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser, REP 7.1.
2. Remove the exit cover, C400 REP 19.3, C405 REP 19.8.
3. Remove the exit assembly, Figure 1.

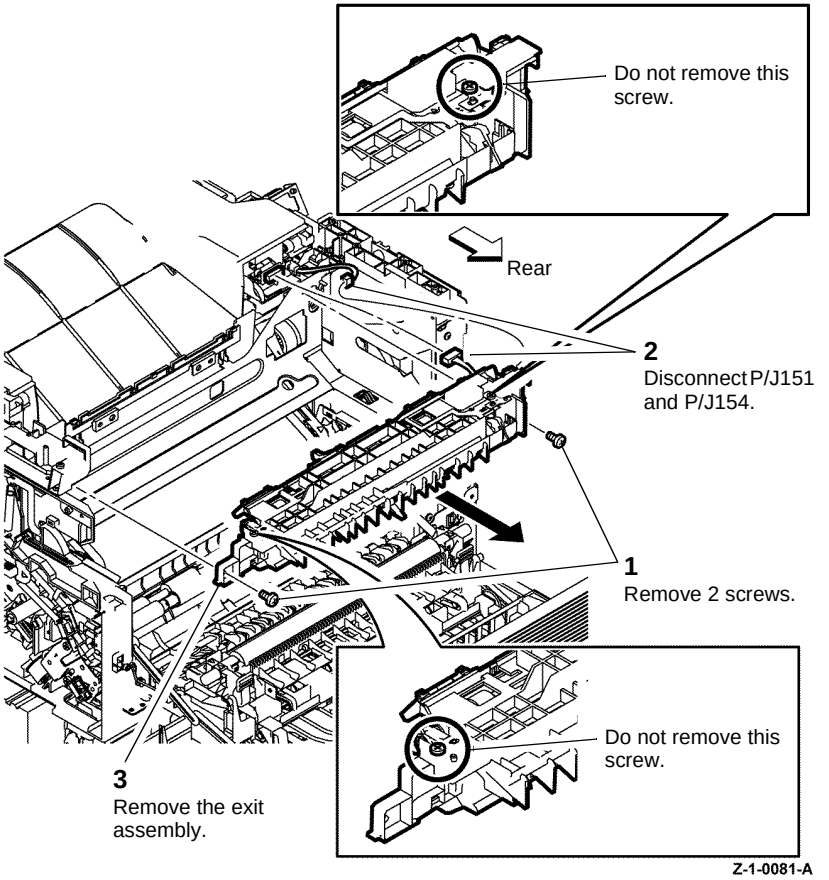


Figure 1 Exit assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 17.2 Exit Drive Assembly

Parts List on PL 17.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the main drive assembly, REP 3.1.
2. Remove the exit assembly, REP 17.1.
3. Remove the exit drive assembly, Figure 1.

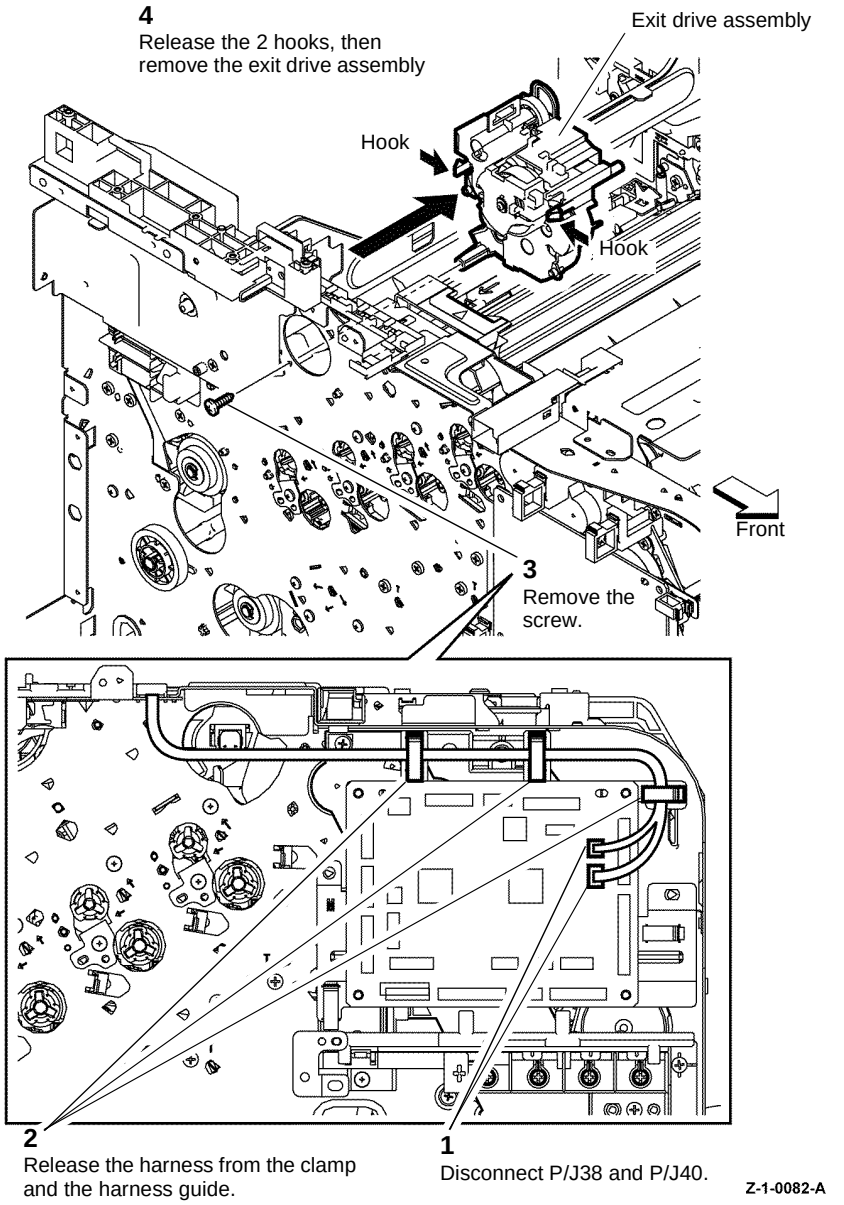


Figure 1 Exit drive assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 18.1 AC Inlet Harness Assembly

Parts List on PL 18.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the right side cover assembly, C400 REP 19.5, C405 REP 19.11.
3. Remove the AC Inlet harness assembly, Figure 1.

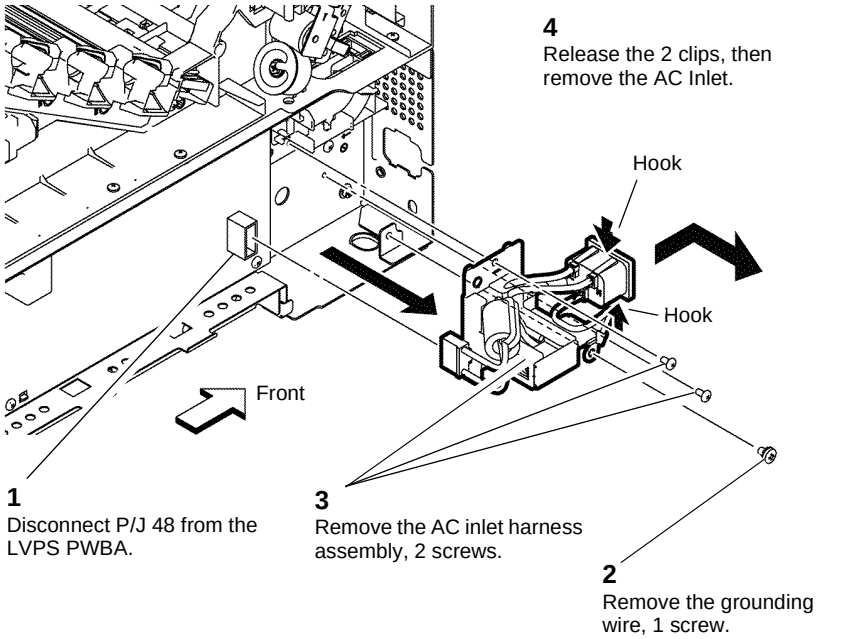


Figure 1 AC inlet harness assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 18.2 LVPS PWBA

Parts List on PL 18.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 right side cover assembly, C400 REP 19.5, C405 REP 19.11.

2. Remove the LVPS PWBA, Figure 1.

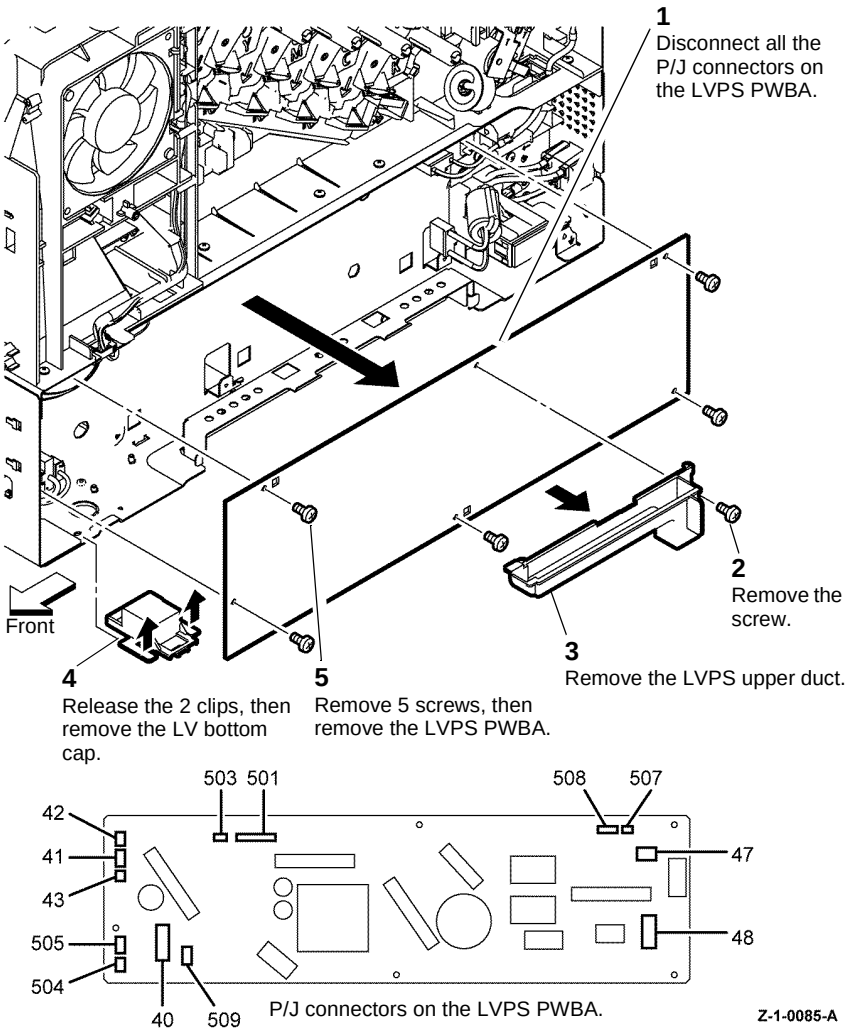


Figure 1 Remove the LVPS

Replacement

Replacement is the reverse of the removal procedure. Temporary removal of the 2 harness clamps will aid installation of the LVPS PWBA, Figure 2.

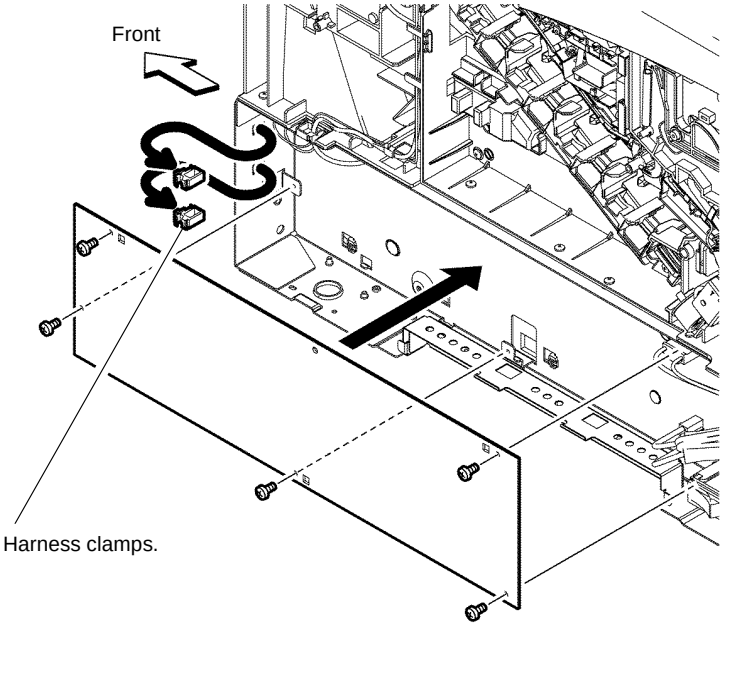


Figure 2 LVPS harness clamps

REP 18.3 Right Interlock switch assembly

Parts List on PL 18.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the right side cover assembly, C400 REP 19.5, C405 REP 19.11.
3. Remove the right interlock switch assembly, Figure 1.

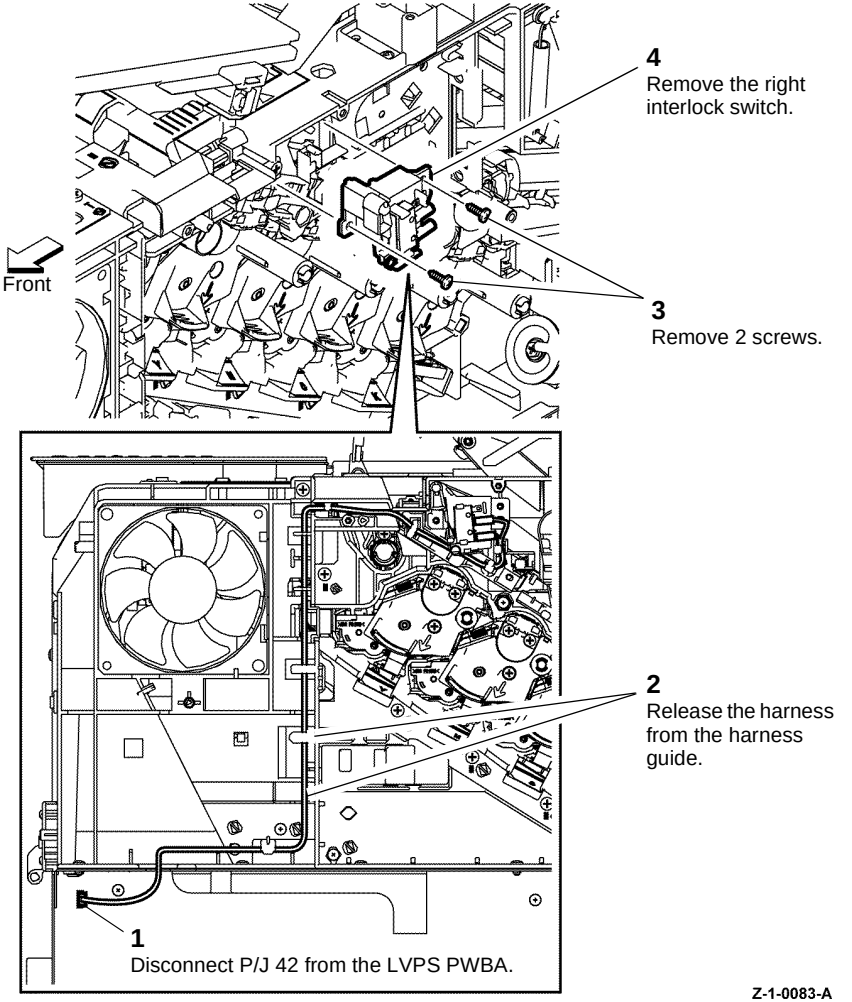


Figure 1 Right interlock switch assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 18.4 ESS PWBA and EMMC Card C400

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 ESS PWBA.

CAUTION

Do not replace the MCU PWBA and ESS PWBA at the same time. If the MCU PWBA and ESS PWBA both require replacement, ensure the ESS PWBA is installed first and that the device is switched on then off before installation of the MCU PWBA. Failure to do so will cause corruption of the device data and render the device inoperable.

CAUTION

Only hold the ESS PWBA by the designated holding positions, refer to Figure 4.

NOTE: *Observe the following when removing or replacing the ESS PWBA:*

- *Do not remove the battery from the ESS PWBA.*
- *Before removing the ESS PWBA, ensure any optional parts e.g., hard disk drive or optional wireless kit are removed.*
- *If installing a new ESS PWBA, ensure the EMMC card is removed from the old ESS PWBA and transferred to the new ESS PWBA before installation.*

1. Remove the left side cover assembly C400, REP 19.14.
2. Remove the ESS top plate, Figure 2.

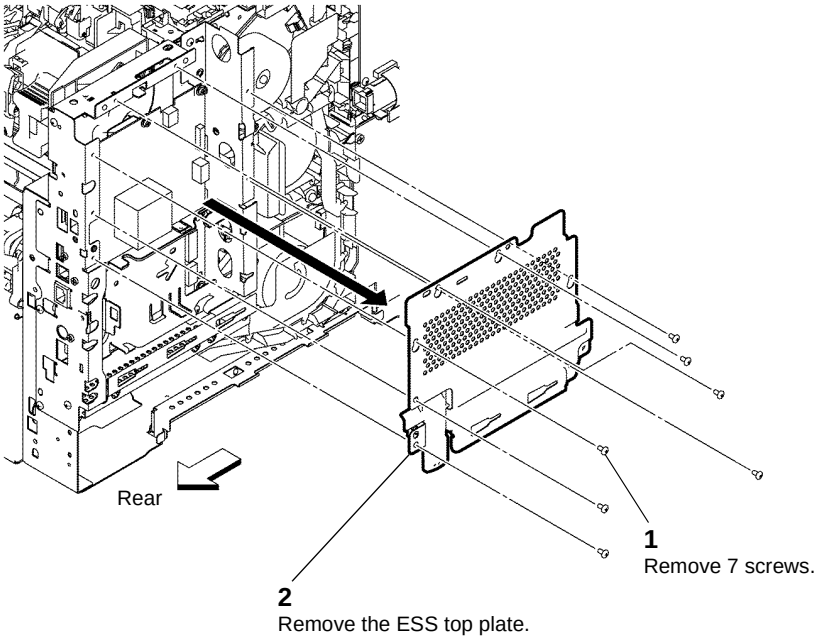


Figure 2 ESS top plate

3. Remove the hard disk drive bracket, Figure 3.

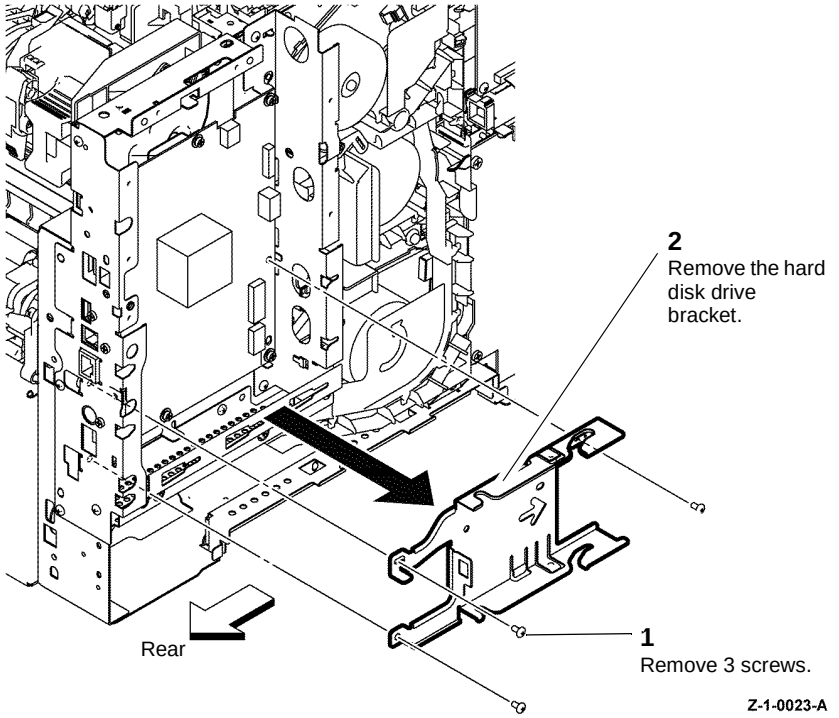


Figure 3 Hard disk drive bracket

4. Remove the ESS PWBA, Figure 4.

CAUTION

Only hold the ESS PWBA by the designated holding positions. The 2 holding positions are shown on the PWBA by the shaded areas.

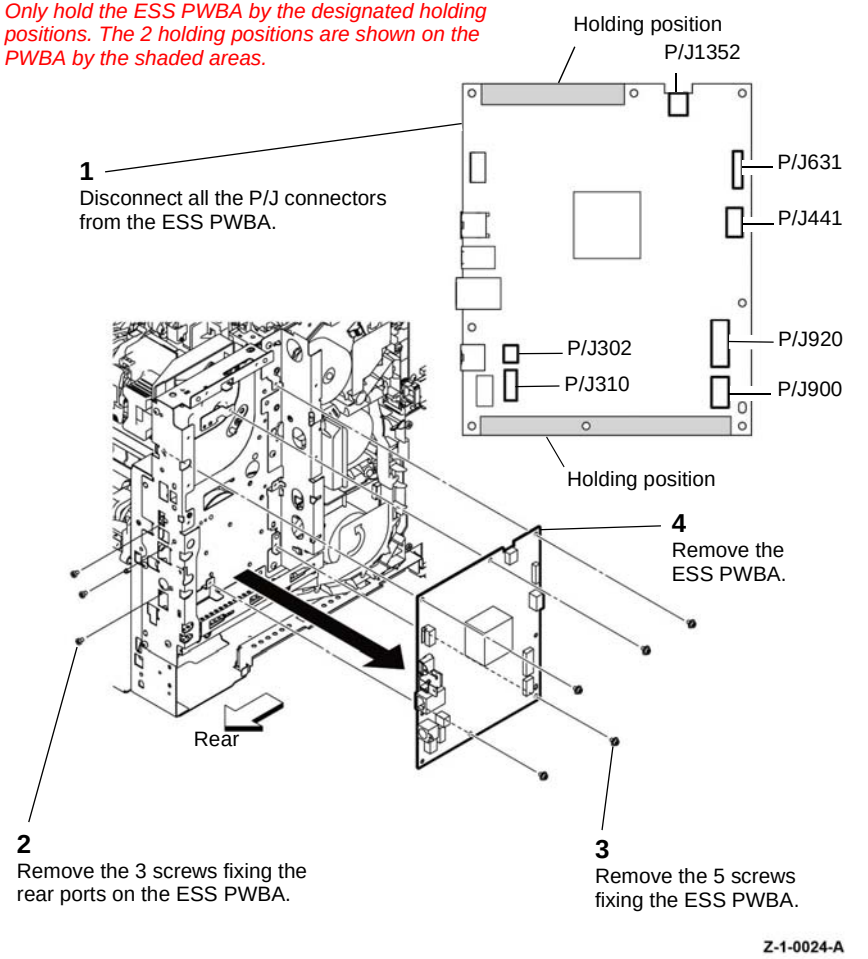


Figure 4 Remove the ESS PWBA

Replacement

1. If installing a new ESS PWBA, swap the EMMC card from the old ESS PWBA, onto the new ESS PWBA, before the new ESS PWBA is installed, Figure 5.
2. Ensure that P/J441 the power connector is correctly connected. If the power is on and the P/J441 connector is detached the machine will not work correctly. In this case, turn off the power, connect P/J441, wait five minutes, and then turn on the power to restore proper operation.
3. Replacement is the reverse of the removal procedure.

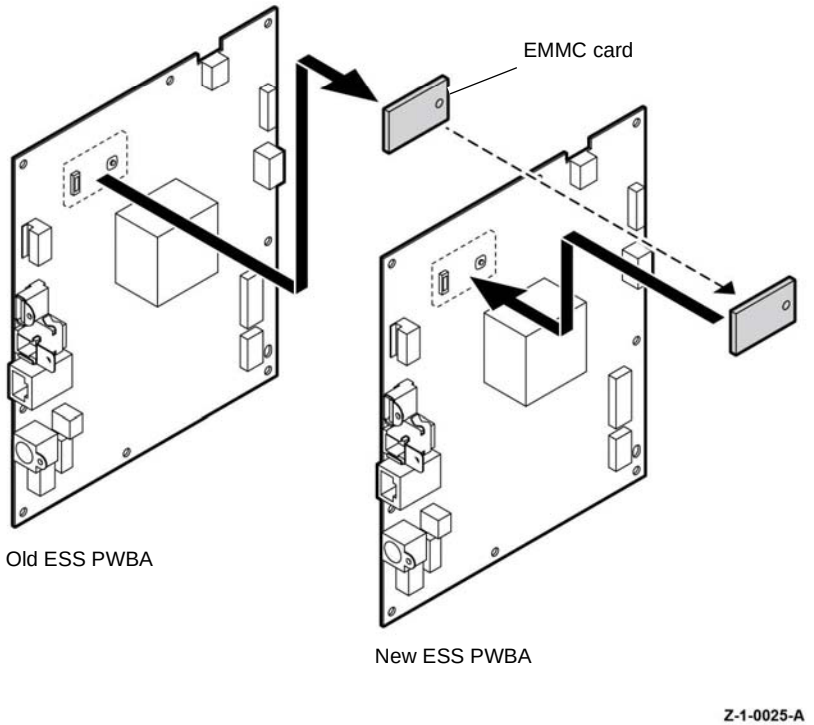


Figure 5 Transfer the EMMC card

REP 18.5 ESS PWBA and EMMC Card C405

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 ESS PWBA.

CAUTION

Do not replace the MCU PWBA and ESS PWBA at the same time. If the MCU PWBA and ESS PWBA both require replacement, ensure the ESS PWBA is installed first and that the device is switched on then off before installation of the MCU PWBA. Failure to do so will cause corruption of the device data and render the device inoperable.

CAUTION

Only hold the ESS PWBA by the designated holding positions, refer to Figure 3.

***NOTE:** Observe the following when removing or replacing the ESS PWBA:*

- *Do not remove the battery from the ESS PWBA.*
- *Before removing the ESS PWBA, ensure any optional parts e.g., hard disk drive or optional wireless kit are removed.*
- *If installing a new ESS PWBA, ensure the EMMC card is removed from the old ESS PWBA and transferred to the new ESS PWBA before installation.*
- *The Address Book data is lost when installing a new ESS PWBA. If possible, use the Address Book Editor to save any data before removing the ESS PWBA.*

1. Remove the left side cover assembly C405, REP 19.18.
2. Remove the Fax PWBA, REP 18.6.

3. Remove the Fax plate and hard disk drive bracket, Figure 2.

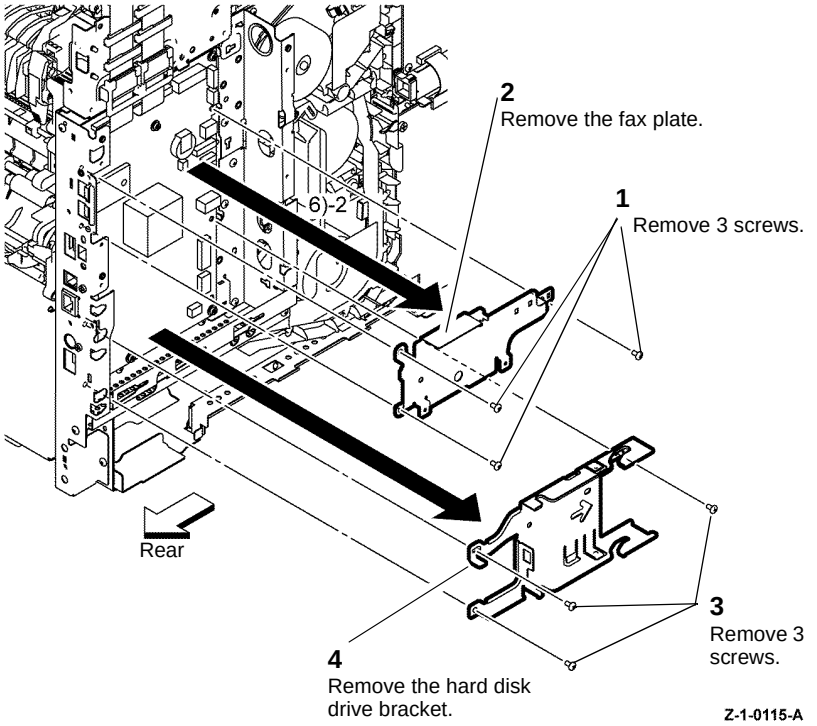


Figure 2 Fax plate and hard disk drive bracket

4. Remove the ESS PWBA, Figure 3.

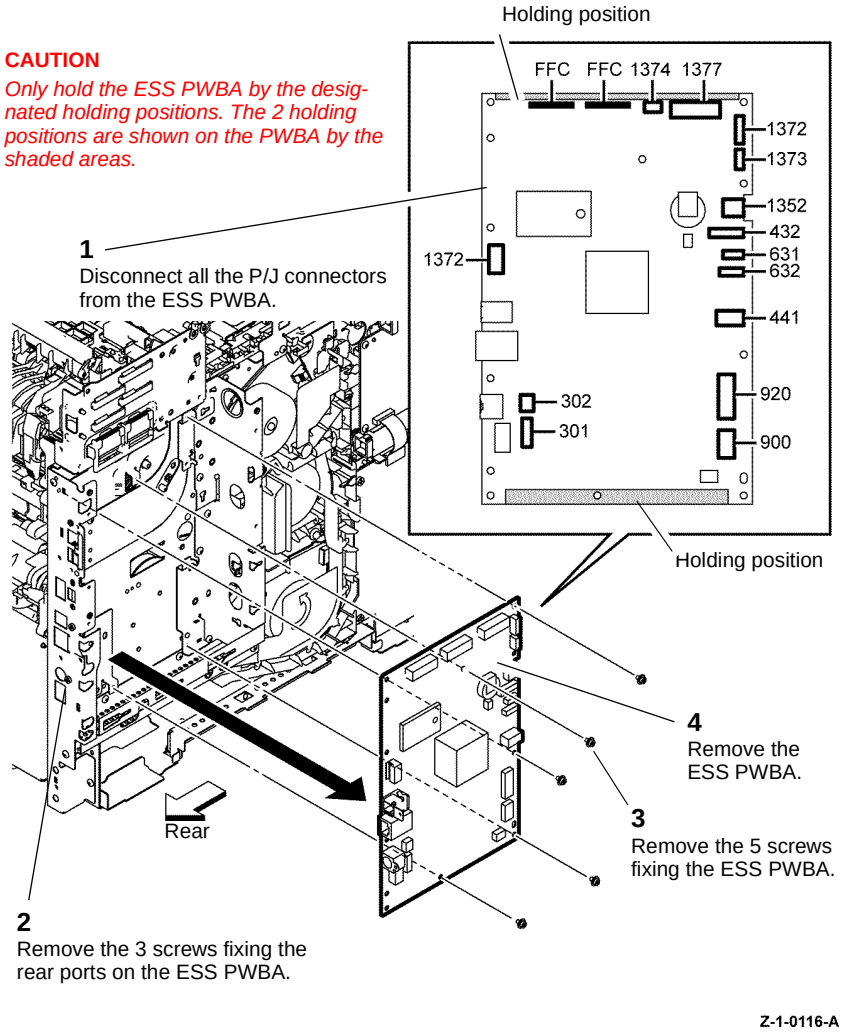


Figure 3 Remove the ESS PWBA

Replacement

1. If installing a new ESS PWBA, remove the EMMC card from the old ESS PWBA, then install the EMMC card onto the new ESS PWBA, before the new ESS PWBA is installed, Figure 4.
2. Ensure that P/J441 the power connector is correctly connected. If the power is on and the P/J441 connector is detached the machine will not work correctly. In this case, turn off the power, connect P/J441, wait five minutes, and then turn on the power to restore proper operation.
3. Replacement is the reverse of the removal procedure.

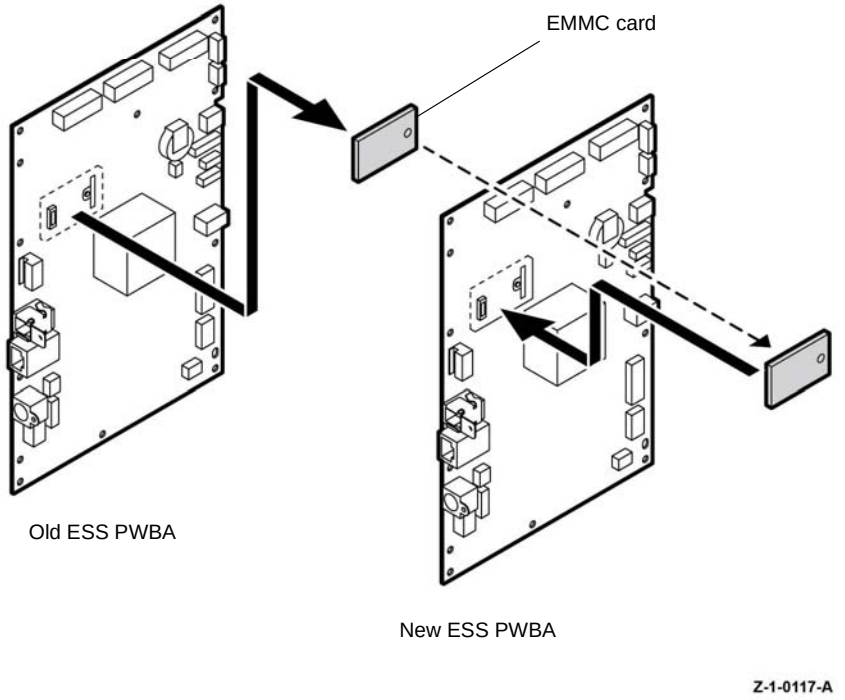


Figure 4 Transfer the EMMC card

REP 18.6 Fax PWBA

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 left side cover assembly C405, REP 19.18.
2. Prepare to remove the Fax PWBA, Figure 1.

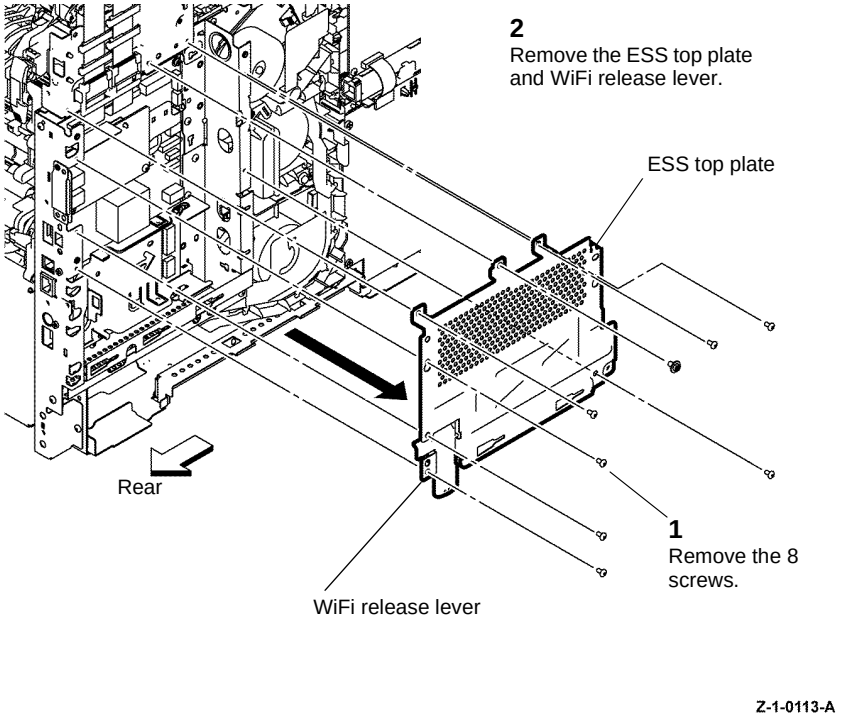


Figure 1 Remove the ESS top plate

3. Remove the Fax PWBA, Figure 2.

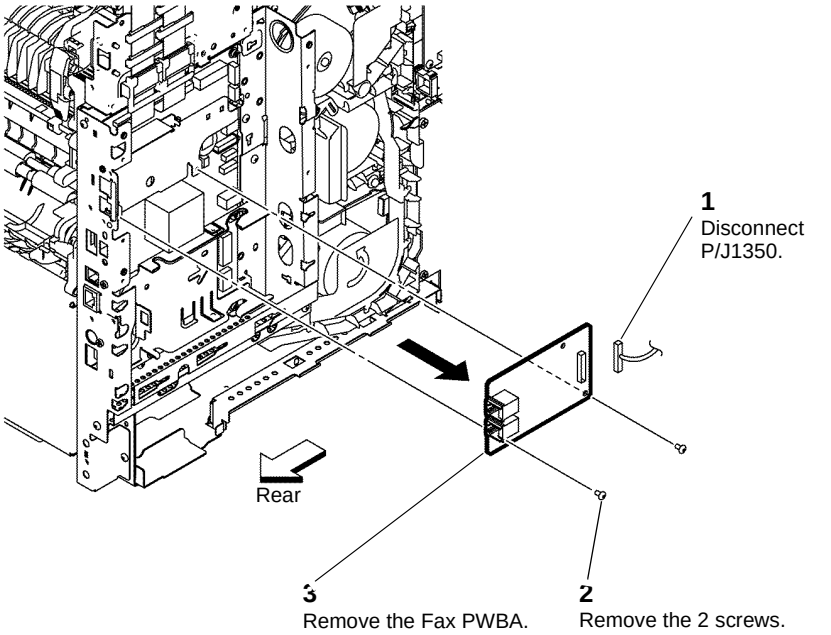


Figure 2 Fax PWBA

Replacement

Replacement is the reverse of the removal procedure.

REP 18.7 Front USB Harness C400

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 left side cover assembly C400, REP 19.14.
2. Prepare to remove the front USB harness, Figure 1.

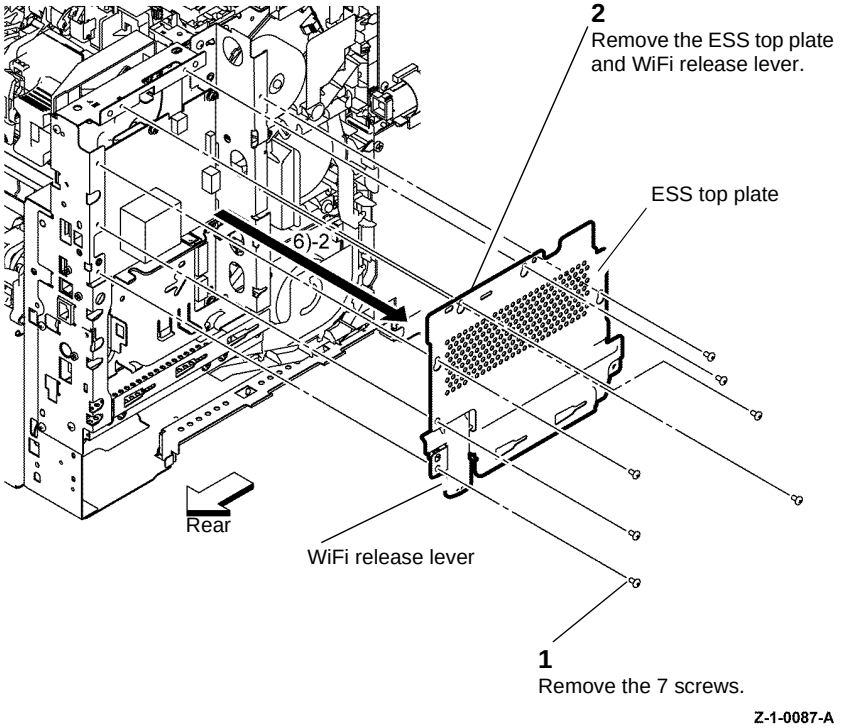


Figure 1 Remove the ESS top plate

3. Remove the front USB harness, Figure 2.

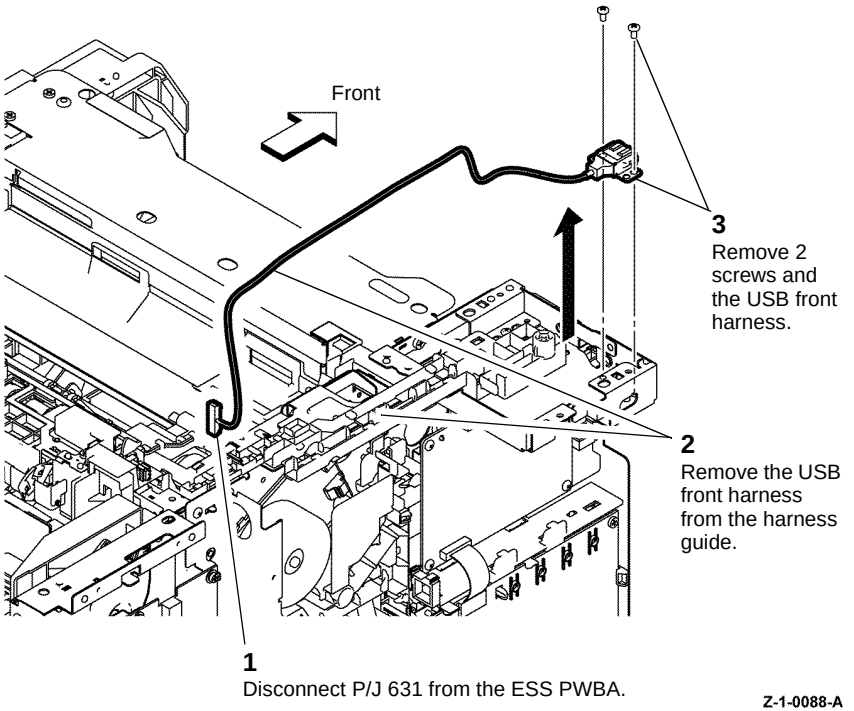


Figure 2 Front USB harness C400

Replacement

Replacement is the reverse of the removal procedure.

REP 18.8 Front USB Harness C405

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 left side cover assembly C405, REP 19.18.
2. Remove the ESS top plate, PL 18.2 Item 1.
3. Remove the front USB harness, Figure 1.

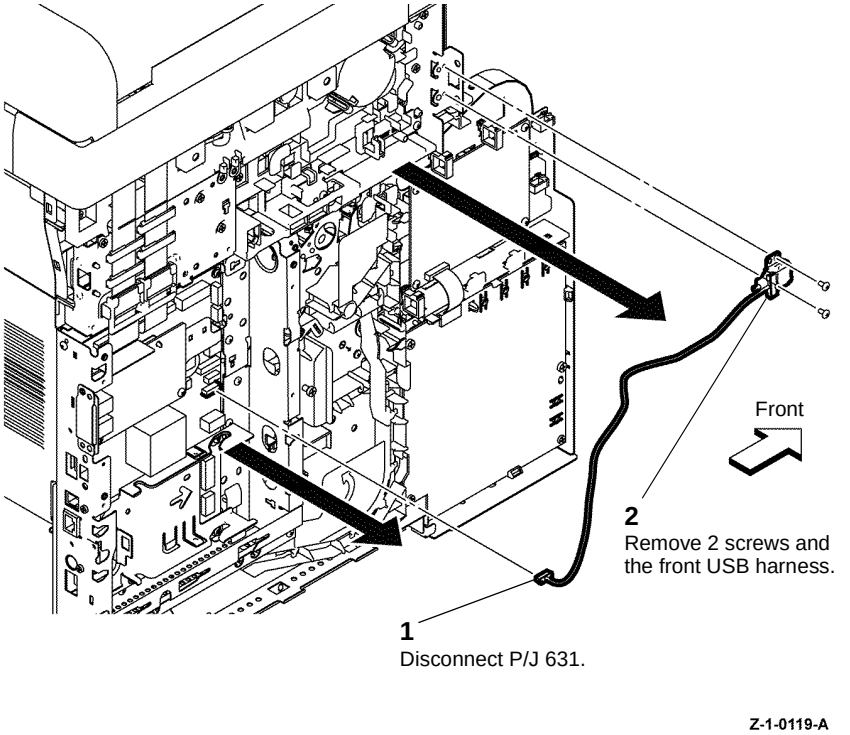


Figure 1 Front USB harness C405

Replacement

Replacement is the reverse of the removal procedure.

REP 18.9 MCU PWBA

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 MCU PWBA.

CAUTION

Do not replace the MCU PWBA and ESS PWBA at the same time. If the MCU PWBA and ESS PWBA both require replacement, ensure the ESS PWBA is installed first and that the device is switched on then off before installation of the MCU PWBA. Failure to do so will cause corruption of the device data and render the device inoperable.

1. Remove the left side cover assembly, C400 REP 19.14, C405 REP 19.18.
2. Remove the MCU PWBA, Figure 2.

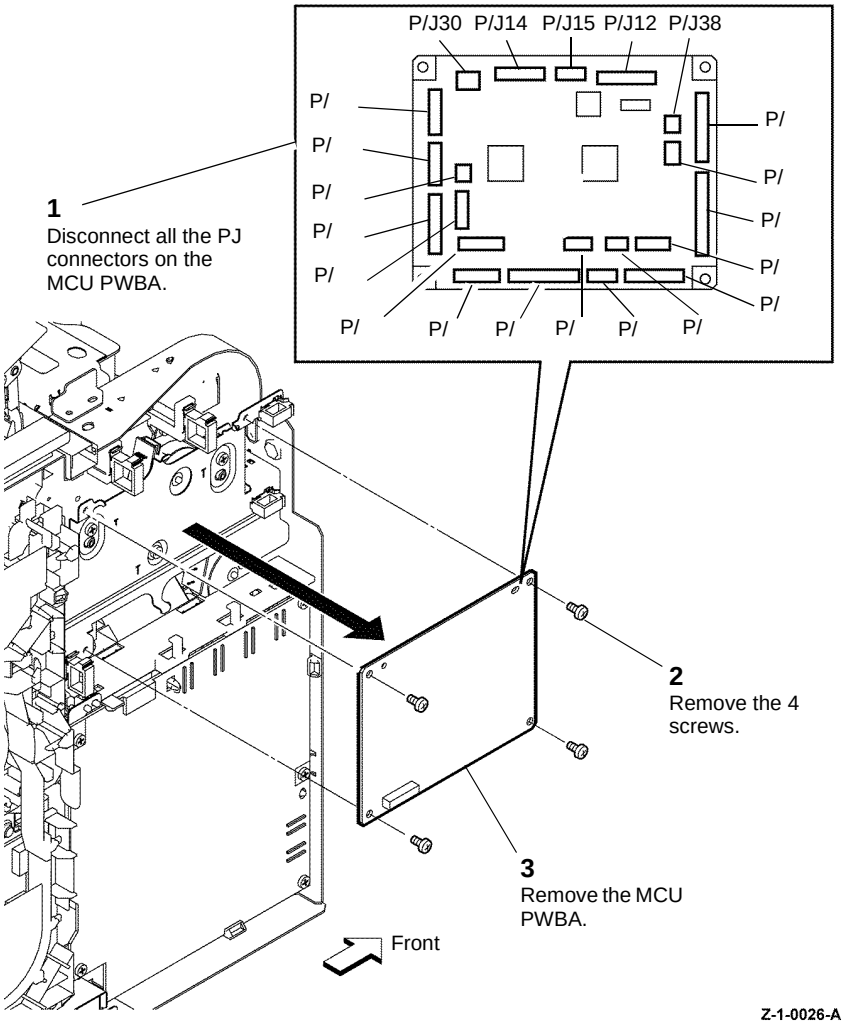


Figure 2 MCU PWBA

Replacement

1. Replacement is the reverse of the removal procedure.
2. Before installing a new MCU PWBA, swap the ROM chip U303 from the old MCU PWBA for the ROM chip U303 on the new MCU PWBA, Figure 3.

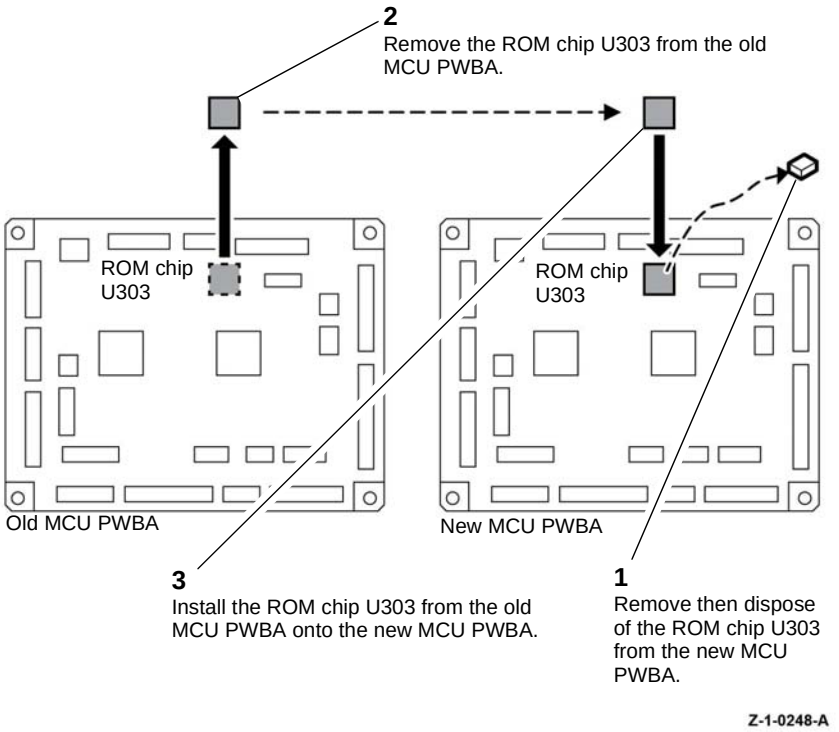


Figure 3 Swap the U303 ROM chip

3. After installing a new MCU PWBA perform dC132 Machine ID / Billing Data.

REP 18.10 Development HVPS XD PWBA

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine, GP 4. Disconnect the power 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 Development HVPS XD PWBA.

1. Remove the left side cover assembly, C400 REP 19.14, C405 REP 19.18.

2. Remove the development HVPS XD PWBA, Figure 2.

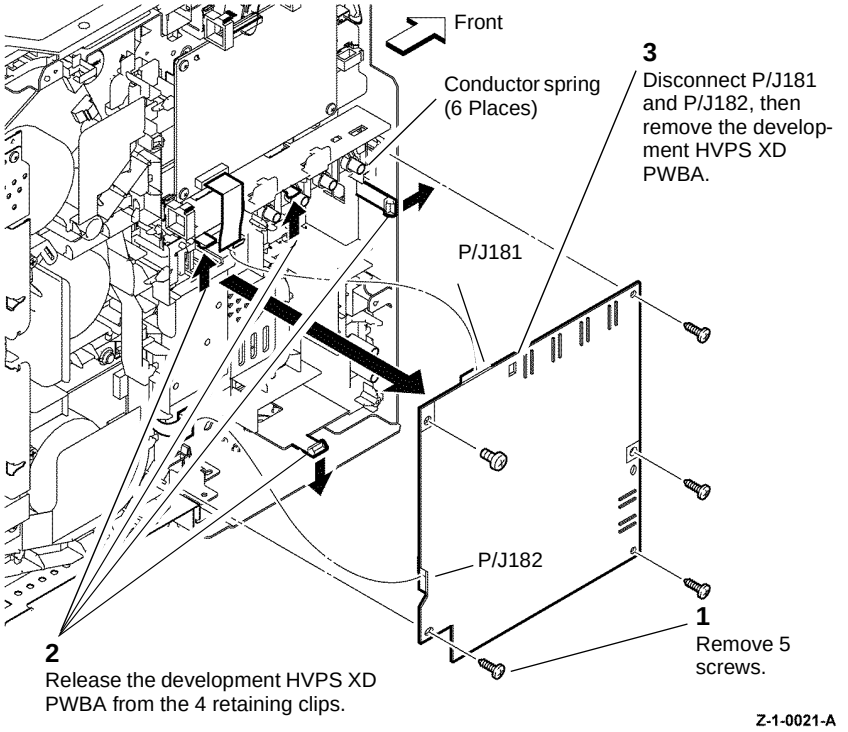


Figure 2 Development HVPS XD PWBA

Replacement

Replacement is the reverse of the removal procedure. Ensure that the 6 conductor springs are in contact with the development HVPS XD PWBA.

REP 18.11 Not Used

REP 18.12 Transfer HVPS TR PWBA

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the right side cover assembly, C400 REP 19.5, C405 REP 19.11.
2. Remove the left side cover assembly, C400 REP 19.14, C405 REP 19.18.
3. Remove the ESS PWBA, C400 REP 18.4, C405 REP 18.5.
4. C400 machines only, remove the ESS rear plate, Figure 1.

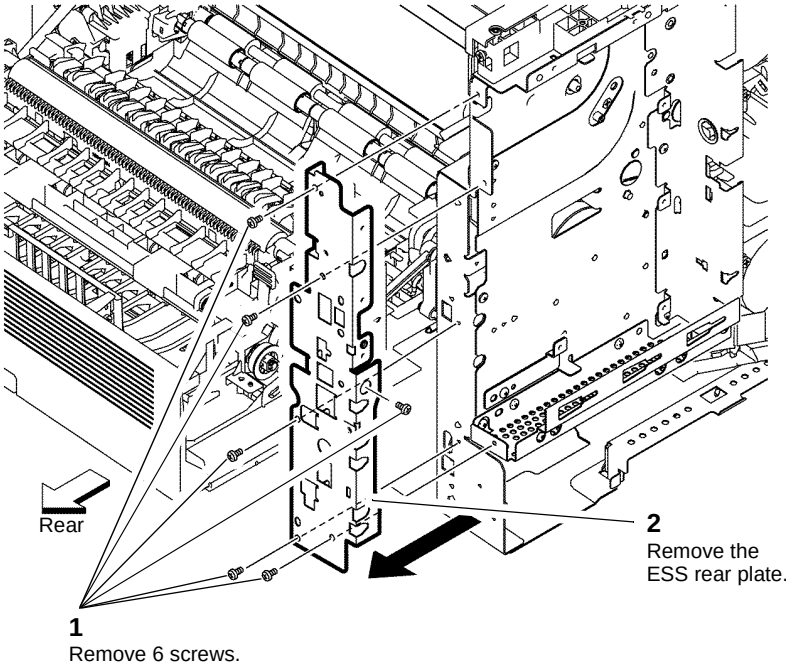


Figure 1 ESS rear plate

5. Remove the S3 rear frame, Figure 2,

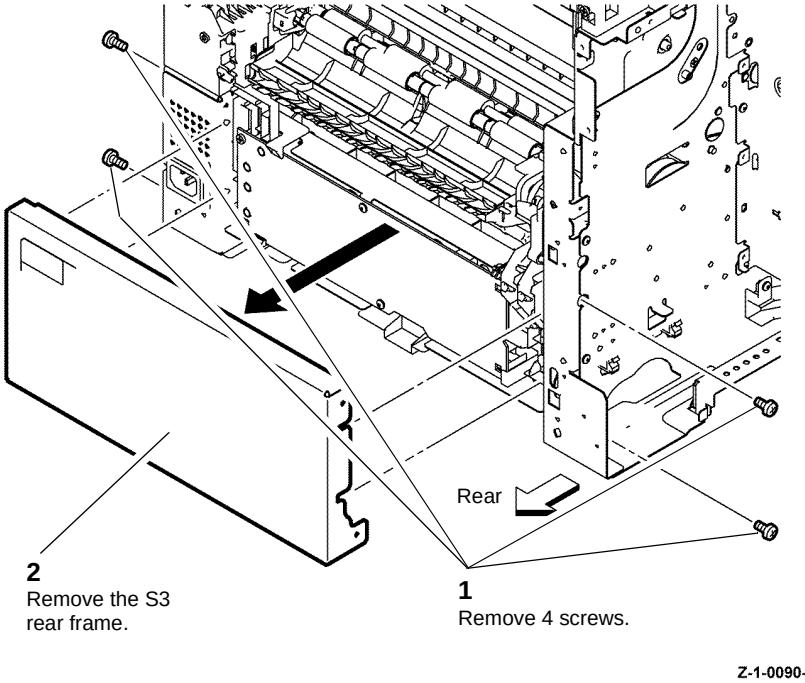


Figure 2 S3 rear frame

CAUTION

The harnesses connected to the transfer HVPS TR PWBA have a limited amount of slack. Pull carefully on the PWBA to avoid damage to the connectors and wires.

***NOTE:** Release the harness from the guide to allow enough slack to unplug the connector.*

6. Remove the transfer HVPS TR PWBA, Figure 3.

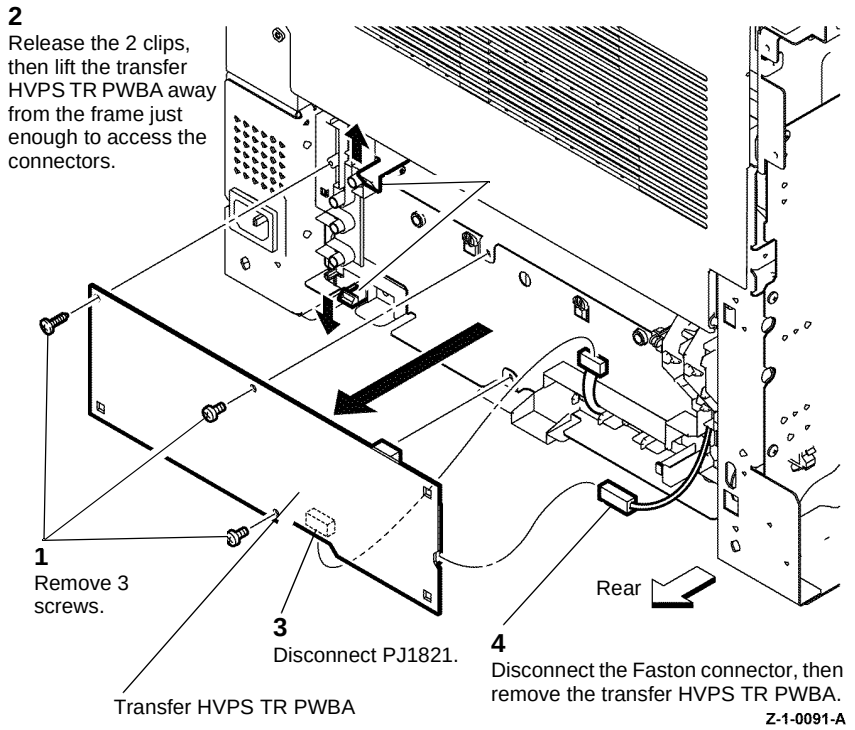


Figure 3 Transfer HVPS TR PWBA

Replacement

Replacement is the reverse of the removal procedure.

REP 18.13 Wireless Adapter

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 wireless adaptor, Figure 1.

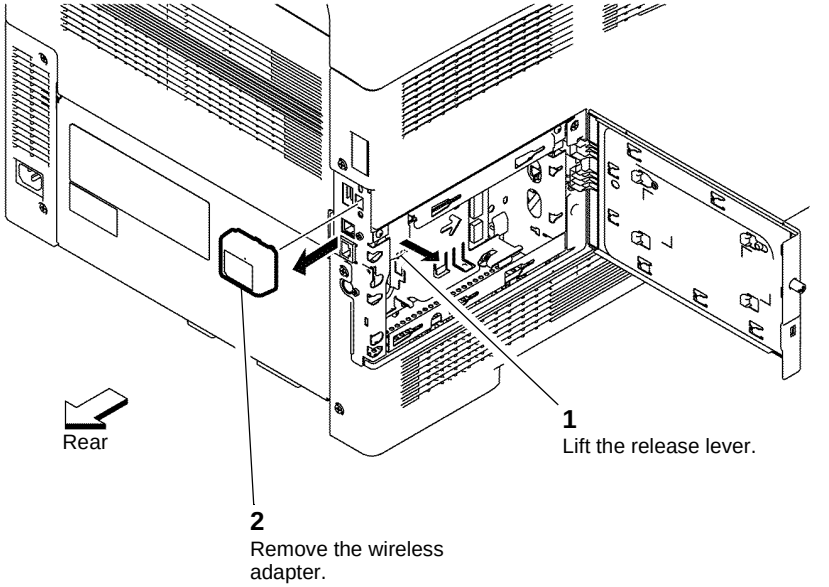


Figure 1 Wireless adapter

Replacement

Replacement is the reverse of the removal procedure.

REP 18.14 Hard Disk Drive

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

Xerox does not recommend removal of the hard disk unless it is defective or the device is being returned to Xerox. If the hard disk is thought to be defective, before removal, first create a clone file of the hard disk data, GP 14. Once the hard disk is removed a factory initialization from the special boot menu will be required, GP 16.

1. Refer to Processor TAG 027.
2. Remove the hard disk drive, Figure 1.

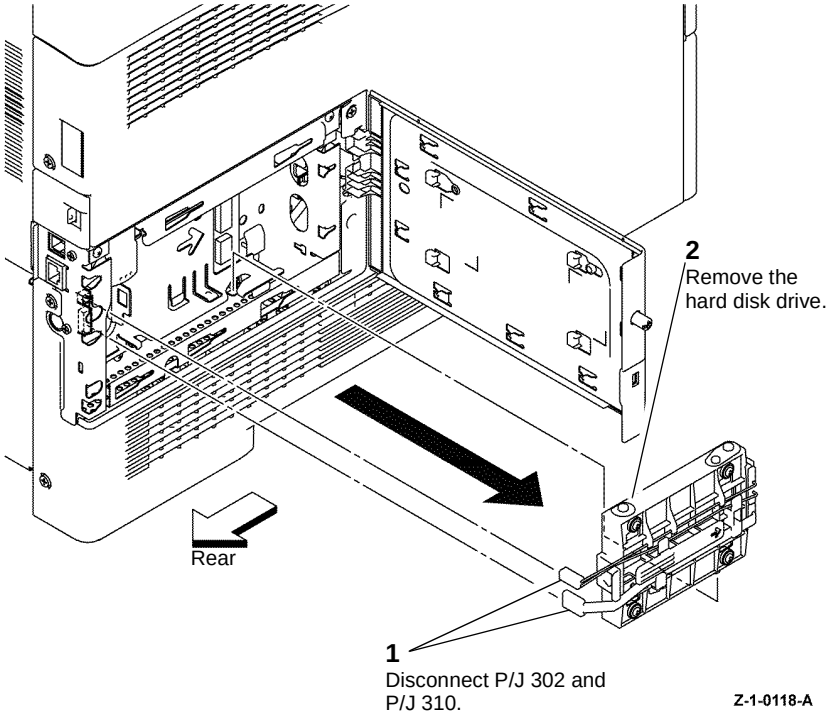


Figure 1 Hard disk drive

Replacement

1. If no hard disk drive is to be installed: perform 02. FACTORY INIT MODE, GP 16 Special Boot Modes.
2. Replacement is the reverse of the removal procedure.
3. If a new hard disk drive is installed: perform 02. FACTORY INIT MODE, GP 16 Special Boot Modes, then install the clone file saved at the start of this procedure.

REP 18.15 Varistor Assembly

Parts List on PL 18.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 main drive assembly, REP 3.1.
2. Remove the varistor assembly, Figure 1.

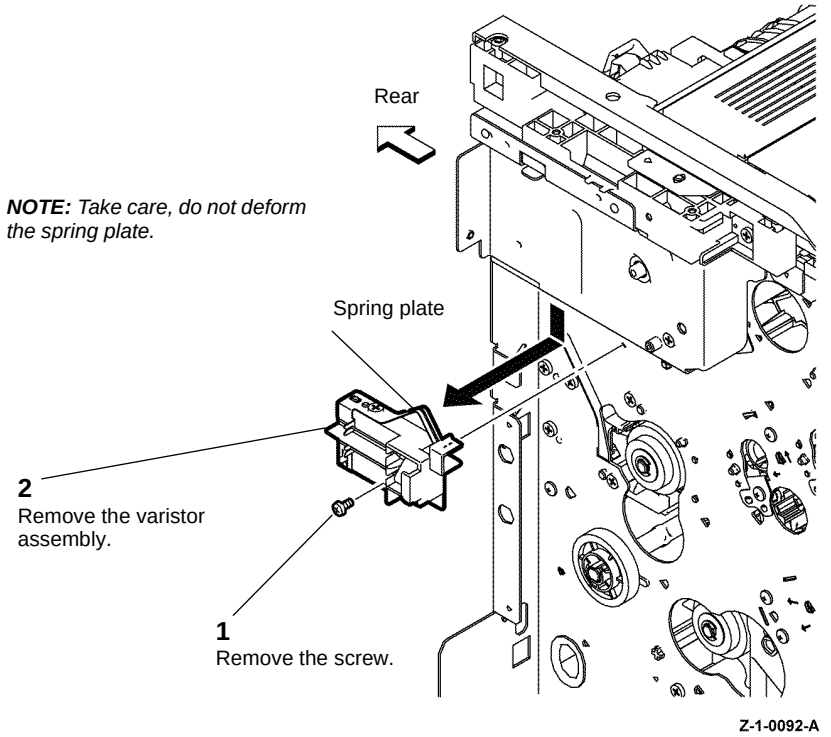


Figure 1 Remove the varistor

Replacement

Replacement is the reverse of the removal procedure.

REP 18.16 Drive Harness

Parts List on PL 18.3

Harness Location

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the drive harness assembly.

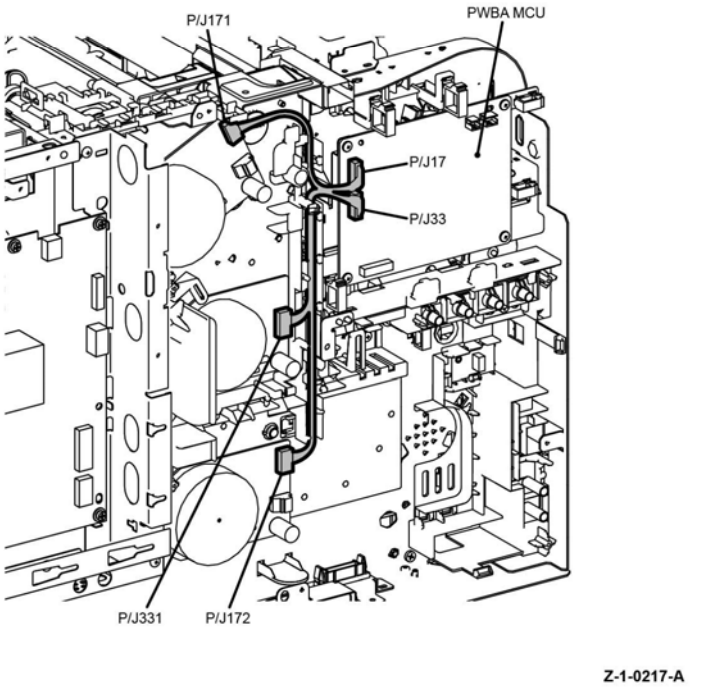


Figure 1 Drive harness

REP 18.17 Main Harness

Parts List on PL 18.3

Harness Location

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the main harness assembly.

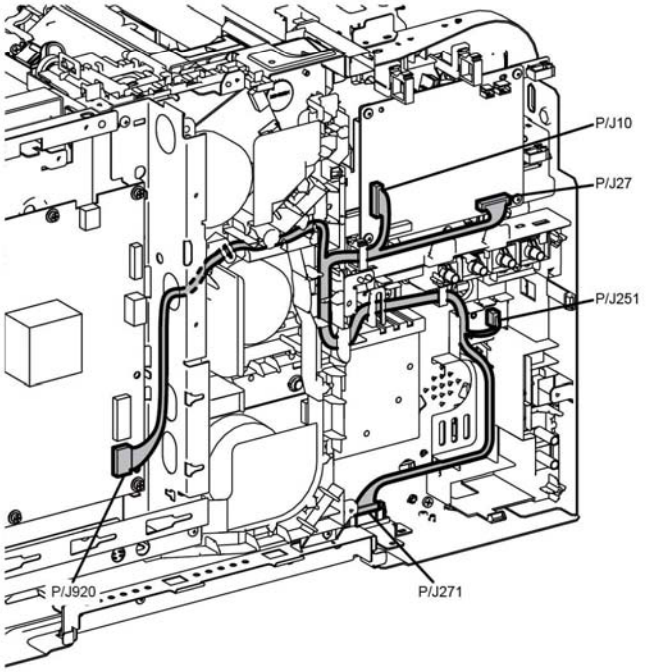


Figure 1 Main harness

REP 18.18 Top Harness Left Side

Parts List on PL 18.3

Harness Location

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the left side of the top harness assembly.

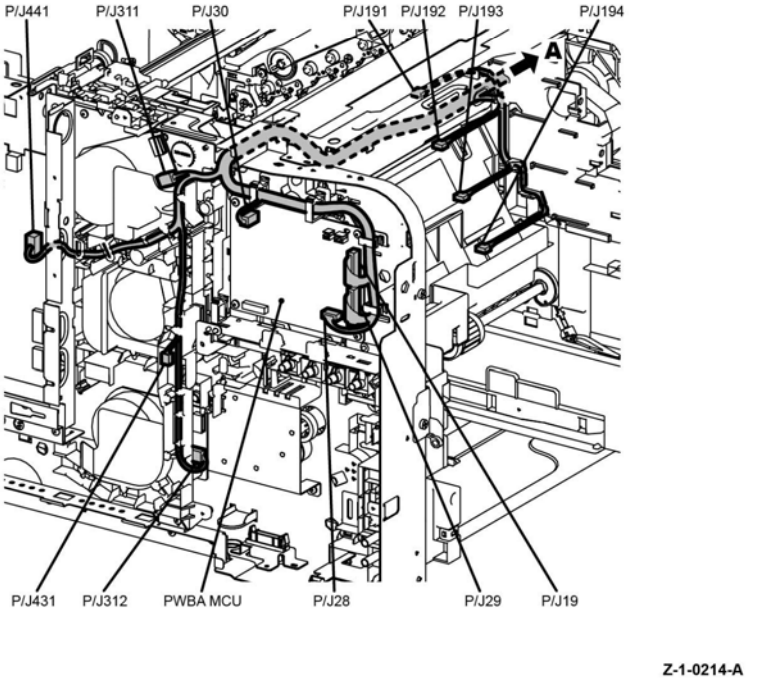


Figure 1 Top harness left

REP 18.19 Top Harness Right Side

Parts List on PL 18.3

Harness Location

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the right side of the top harness assembly.

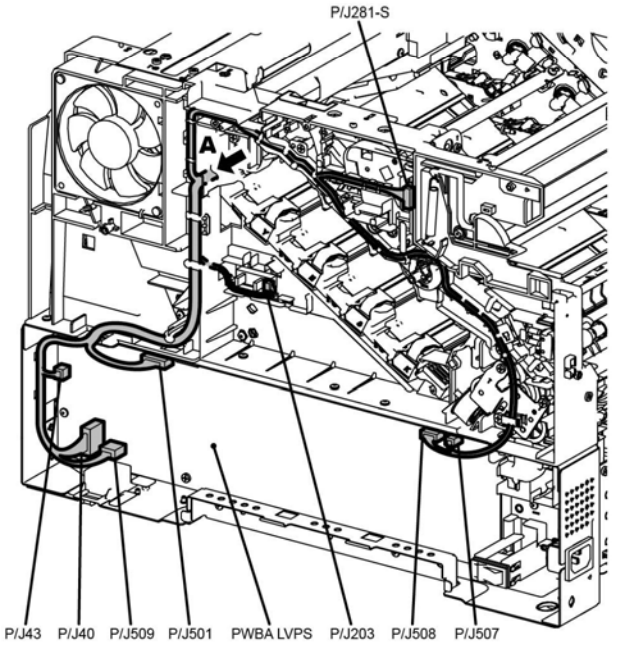


Figure 1 Top harness

REP 18.20 HVPS Harness

Parts List on PL 18.3

Harness Location

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the HVPS harness assembly.

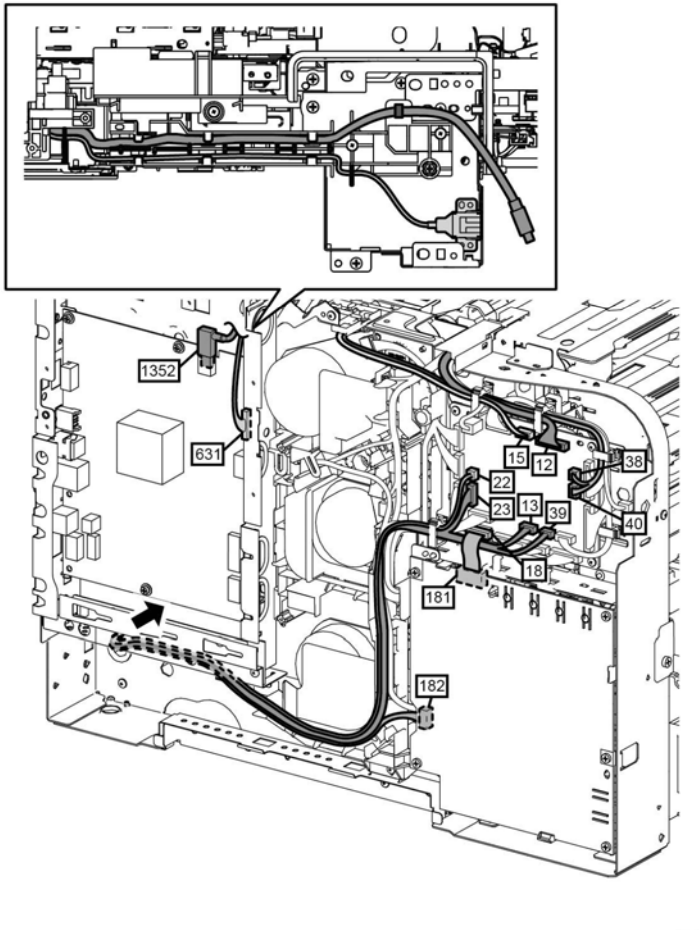


Figure 1 HVPS harness

REP 18.21 Main and Dispenser Motor Harness

Parts List on PL 18.2

Harness Location

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the dispenser motor harness assembly and main harness assembly to the 550 optional cassette.

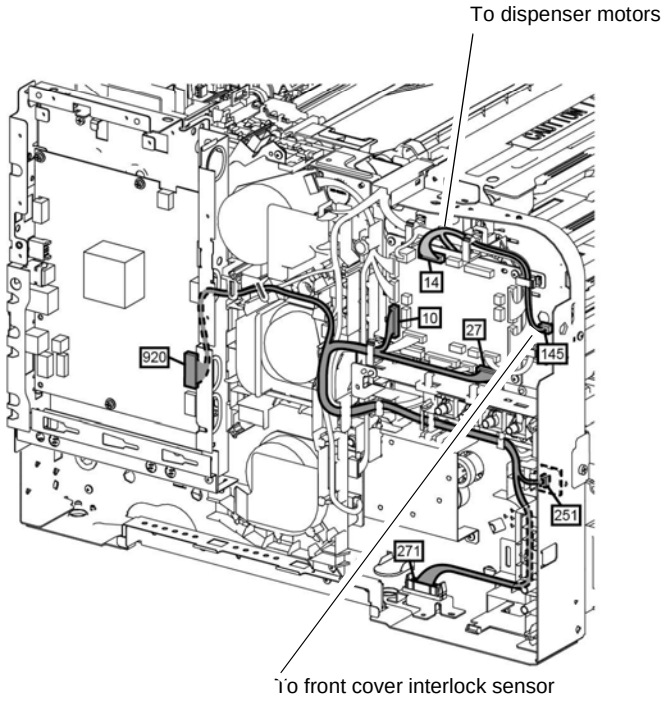


Figure 1 Dispenser harness

REP 18.22 MCU PWBA to ROS, MSI Harnesses

Parts List on PL 13.2

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the ROS and MSI harnesses assemblies to MCU PWBA.

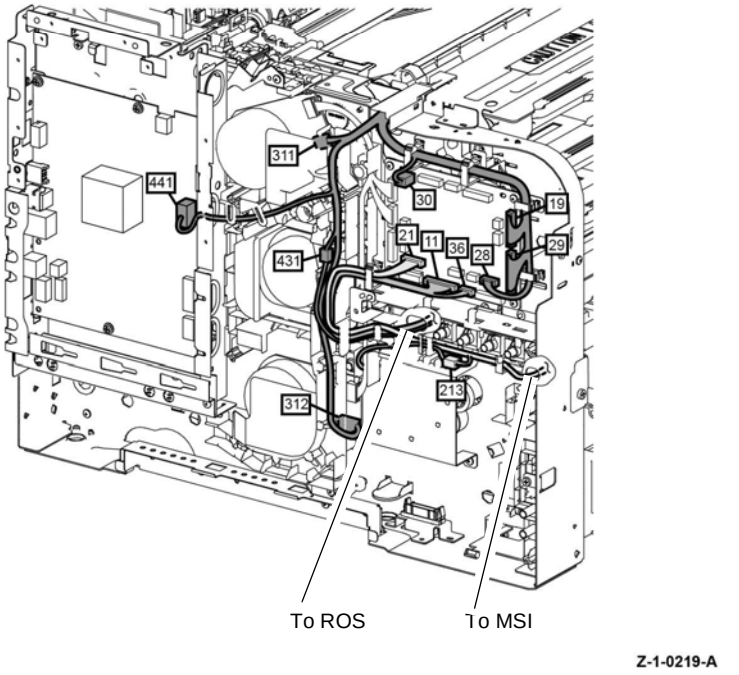


Figure 1 MCU PWBA to ROS and MSI harnesses

REP 18.23 ESS PWBA to ROS

Parts List on PL 2.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Refer to Figure 1 to locate the ROS video harness assembly to ESS PWBA

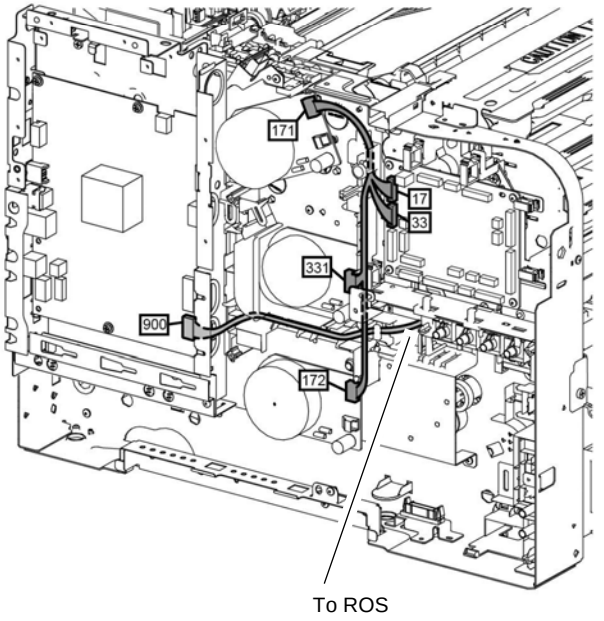


Figure 1 ESS PWBA to ROS video harness

REP 19.1 Front Cover Assembly C400

Parts List on PL 19.1A

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 IOT 550 Cassette assembly, PL 9.1 Item 1.
2. Pull the MSI tray assembly out of the device, PL 13.3 Item 1.
3. Remove the front cover assembly, Figure 1.

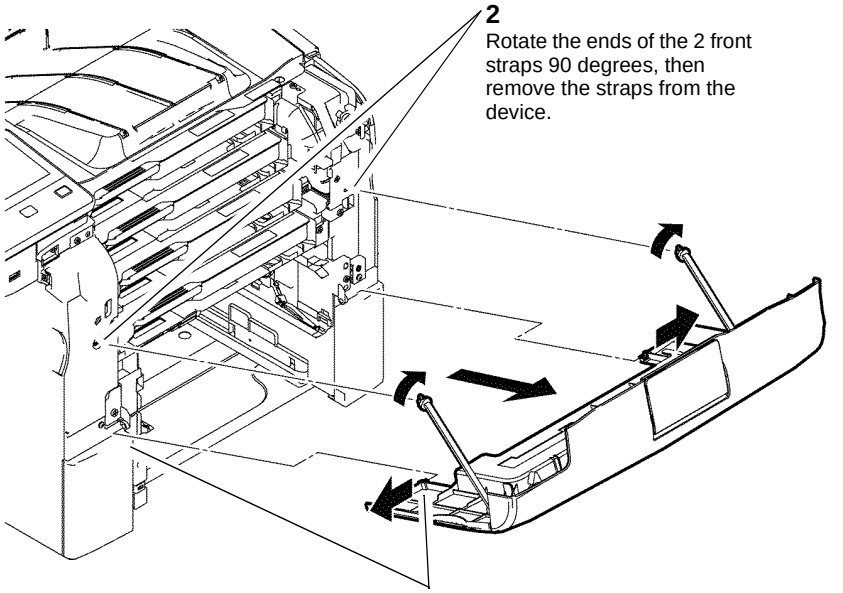


Figure 1 Front cover C400

Replacement

Replacement is the reverse of the removal procedure.

REP 19.2 Top Cover Assembly C400

Parts List on PL 19.1A

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Open the rear cover assembly, PL 19.2A Item 10.
2. Open the front cover assembly, PL 19.1A Item 1.
3. Remove the UI bottom left cover, REP 1.5.
4. Remove the transfer belt assembly, REP 6.3.
5. Remove the exit cover, REP 19.3.

6. Prepare to remove the top cover assembly, Figure 1.

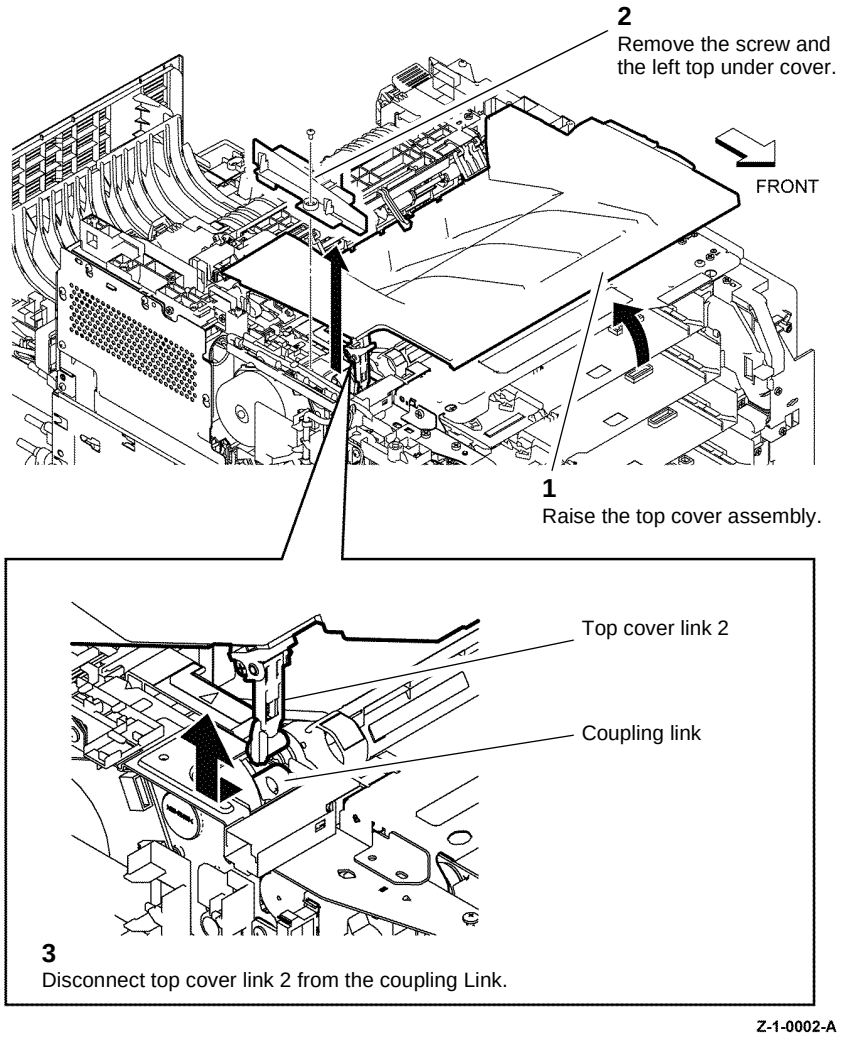


Figure 1 Preparing the top cover assembly C400

7. Remove the top cover assembly, Figure 2.

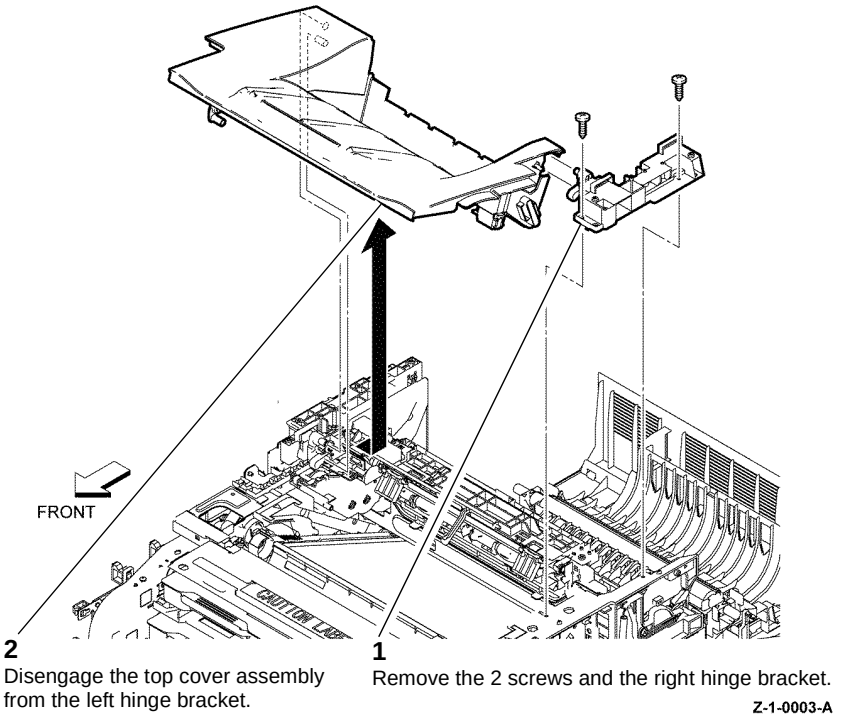


Figure 2 Top cover assembly C400

Replacement

NOTE: *The coupling link can retract into the device. If necessary, use a suitable tool to hook then raise the coupling link, Figure 4.*

Replacement is the reverse of the removal procedure. Ensure the top cover assembly is installed correctly, Figure 3.

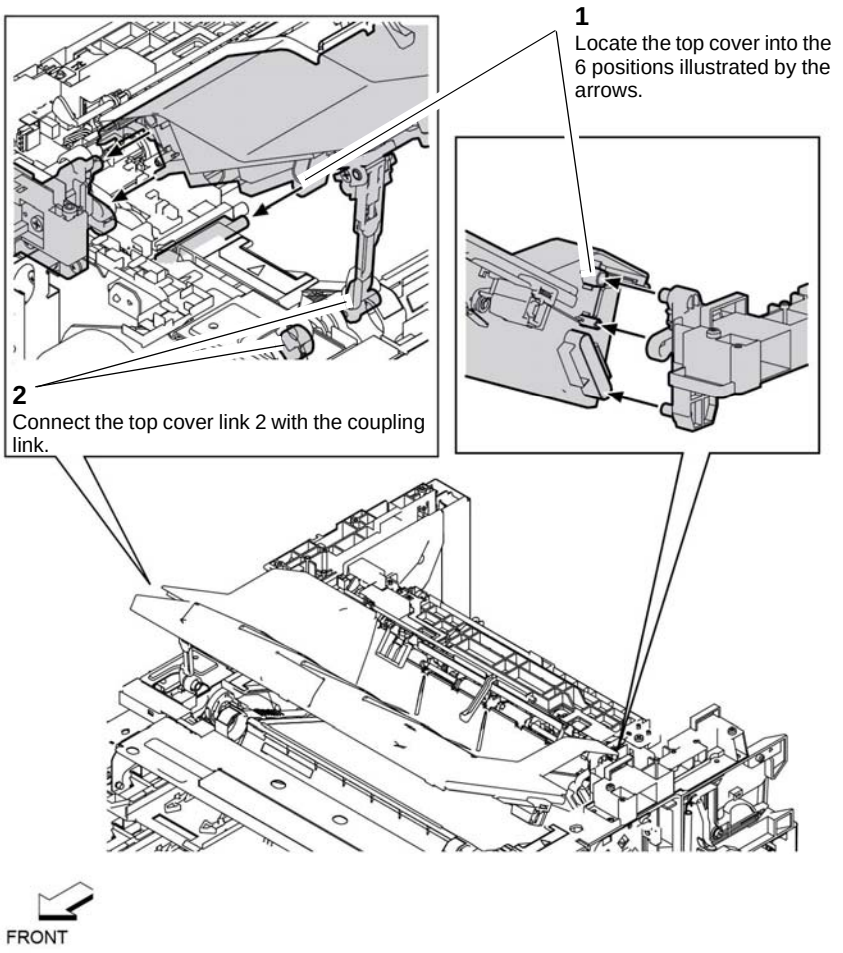
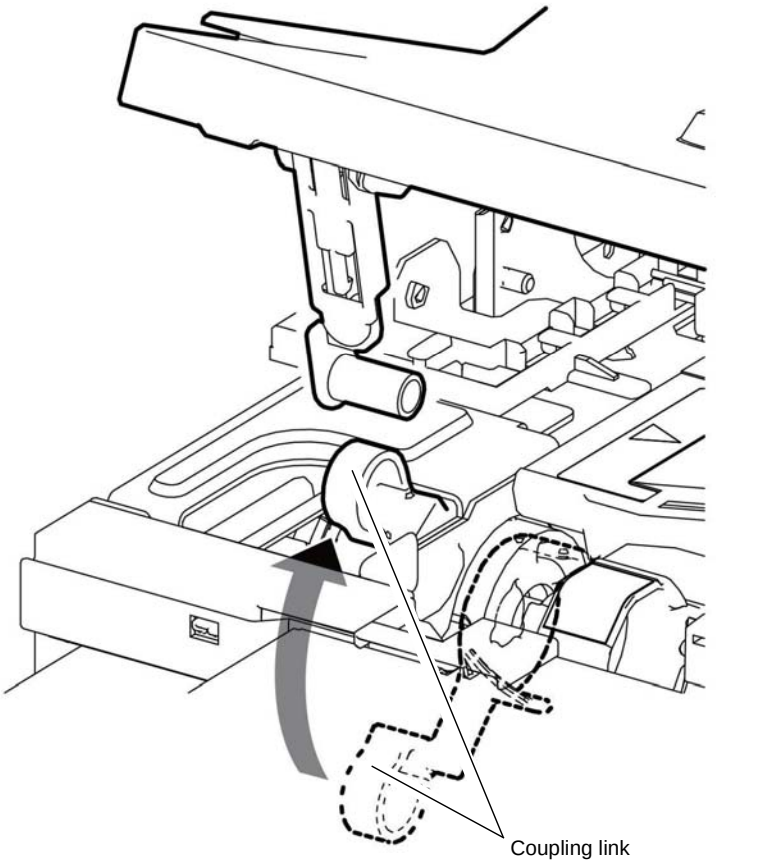


Figure 3 Align the top cover assembly C400



NOTE: *It may be necessary to raise the coupling link from inside the device.*

Figure 4 Position the coupling link C400

REP 19.3 Exit Cover C400

Parts List on PL 19.1A

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the top right cover, REP 19.4.
2. Remove the top left cover, REP 19.12.
3. Remove the exit cover, Figure 1.

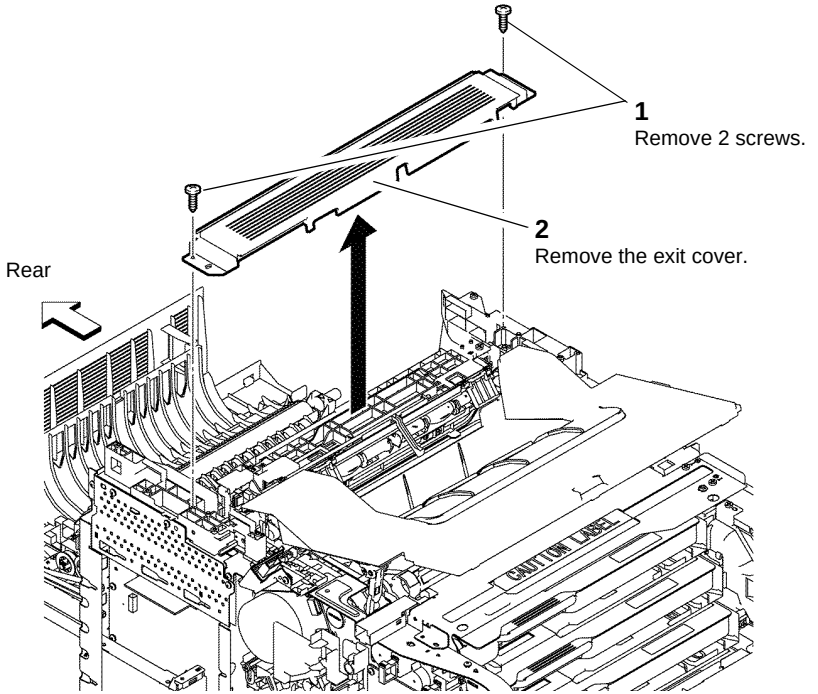


Figure 1 Exit cover C400

Replacement

Replacement is the reverse of the removal procedure.

REP 19.4 Top Right Cover C400

Parts List on PL 19.1B

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Open the rear cover assembly, PL 19.2A Item 10.
2. Open the waste door assembly, PL 19.1B Item 35.
3. Remove the top right cover, Figure 1.

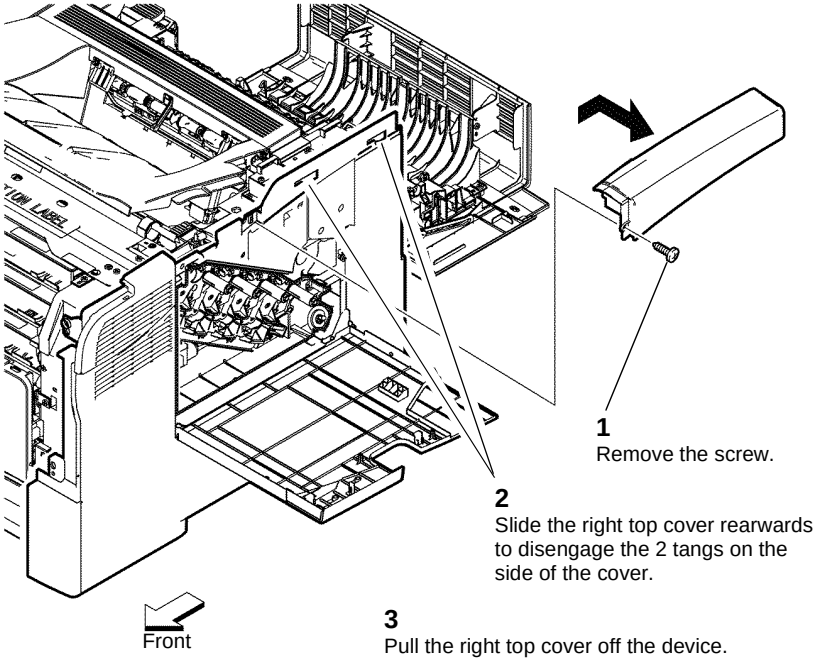


Figure 1 Top right cover C400

Replacement

Replacement is the reverse of the removal procedure. Ensure the 2 tangs on the top right cover engage with the right side cover.

REP 19.5 Right Side Cover Assembly C400

Parts List on PL 19.1B

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the top right cover, REP 19.4.
3. Remove the waste box lock, PL 6.1 Item 5.
4. Remove the waste box assembly, PL 8.1 Item 7.
5. Remove the front cover assembly, REP 19.1.
6. Remove the right side cover assembly, Figure 1.

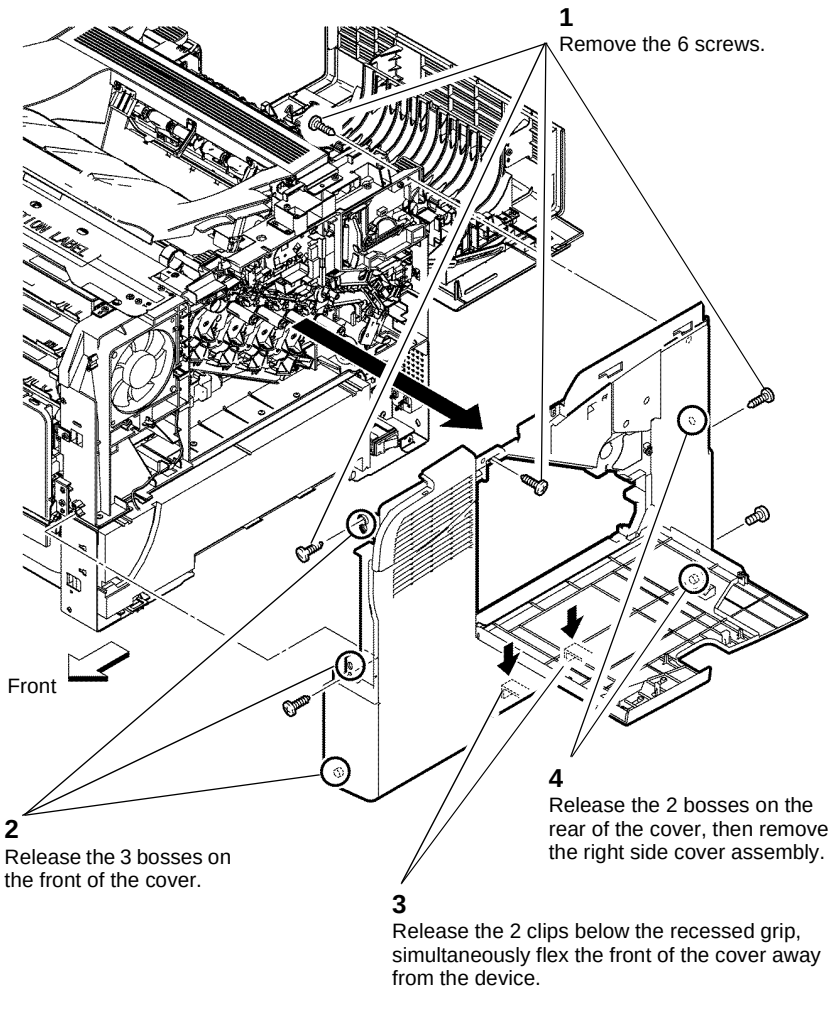


Figure 1 Right side cover C400

Replacement

Secure the 2 clips on the bottom of the cover first, then engage the remaining bosses. Replacement is the reverse of the removal procedure.

REP 19.6 Front Cover Assembly C405

Parts List on PL 19.1C

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 IOT 550 Cassette assembly, PL 9.1 Item 1.
2. Pull the bypass tray assembly out of the device, PL 13.3 Item 1.
3. Remove the front cover assembly, Figure 1.

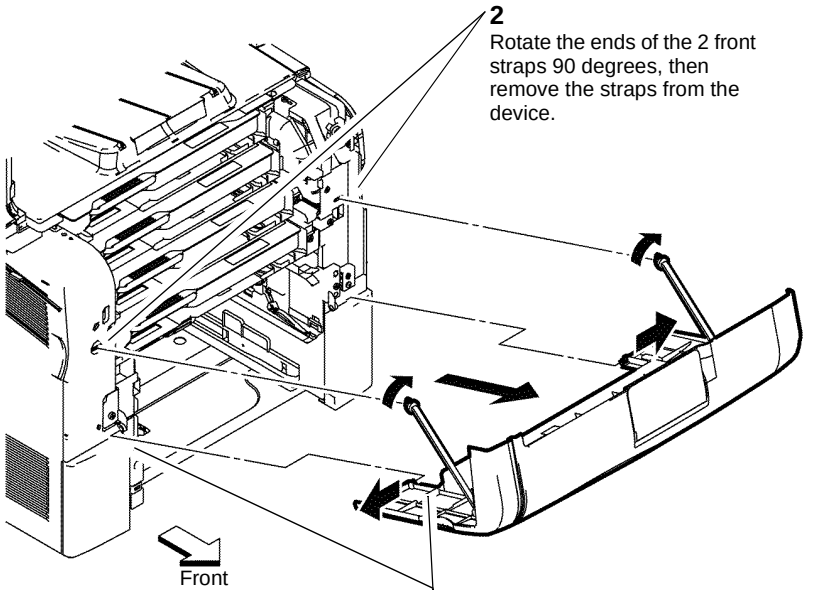


Figure 1 Front cover C405

Replacement

Replacement is the reverse of the removal procedure.

REP 19.7 Top Cover Assembly C405

Parts List on PL 19.1C

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the right upper inner cover assembly, REP 19.10.

2. Remove the top cover assembly, Figure 1.

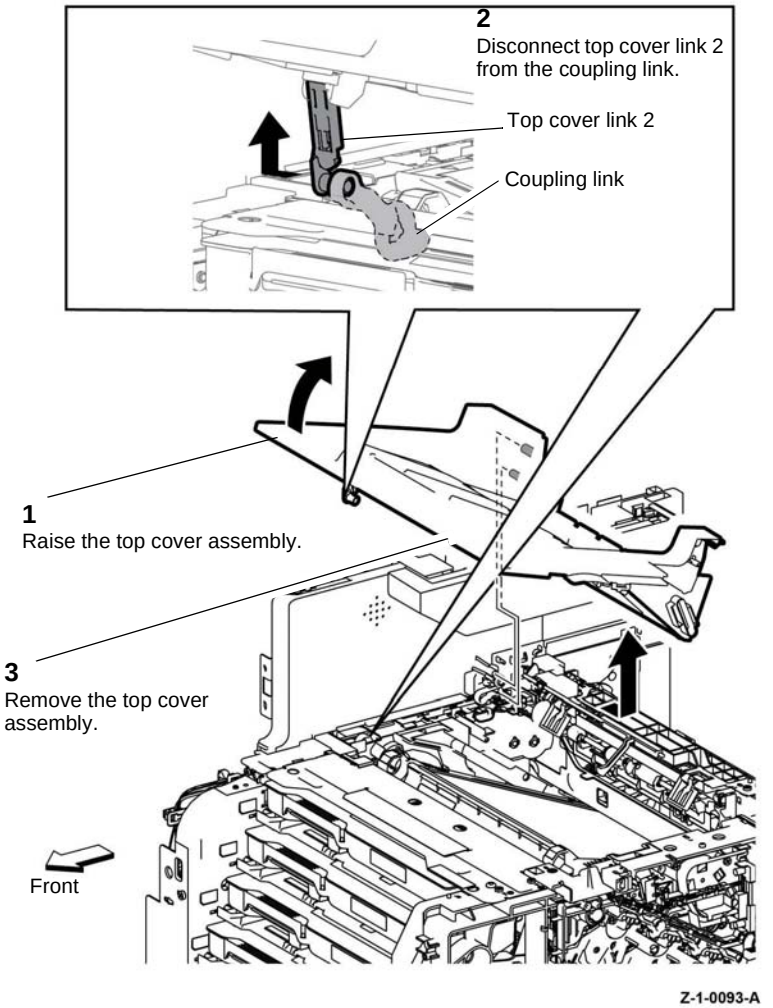


Figure 1 Top cover assembly C405

Replacement

NOTE: *The coupling link can retract into the device. If necessary, use a suitable tool to hook then raise the coupling ink from inside the device, Figure 3.*

Replacement is the reverse of the removal procedure. Ensure the 3 location points on the left side of the top cover assembly and 3 location points on the right side of the top cover assembly align correctly with the device, Figure 2.

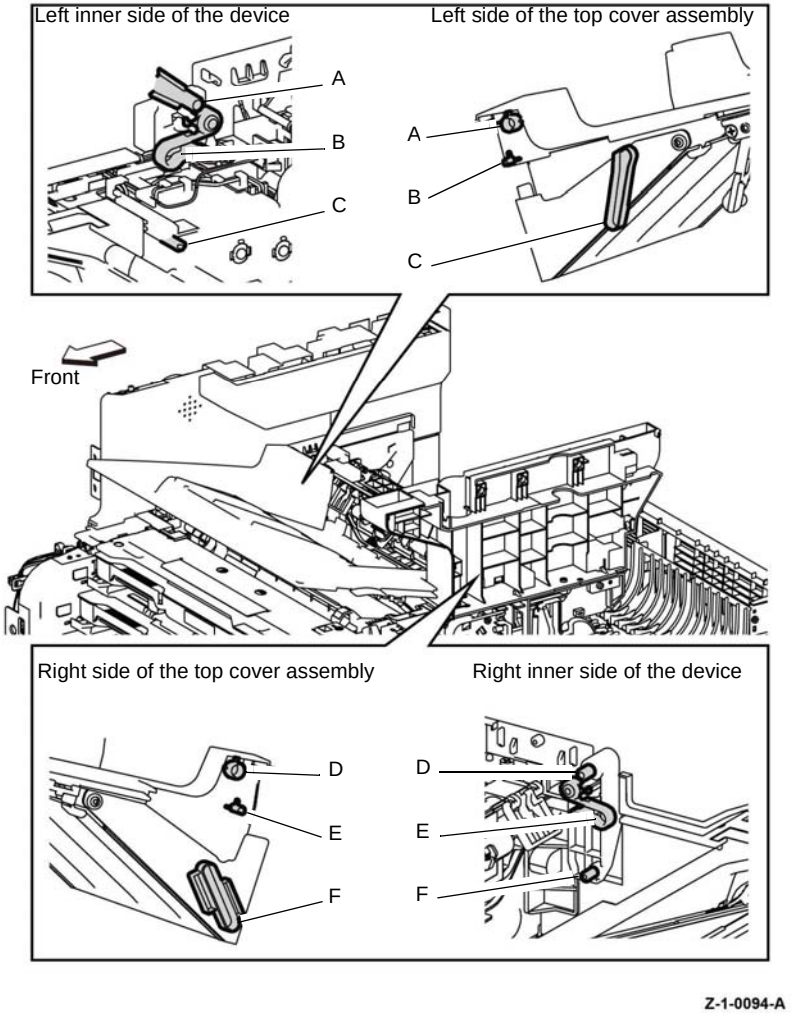
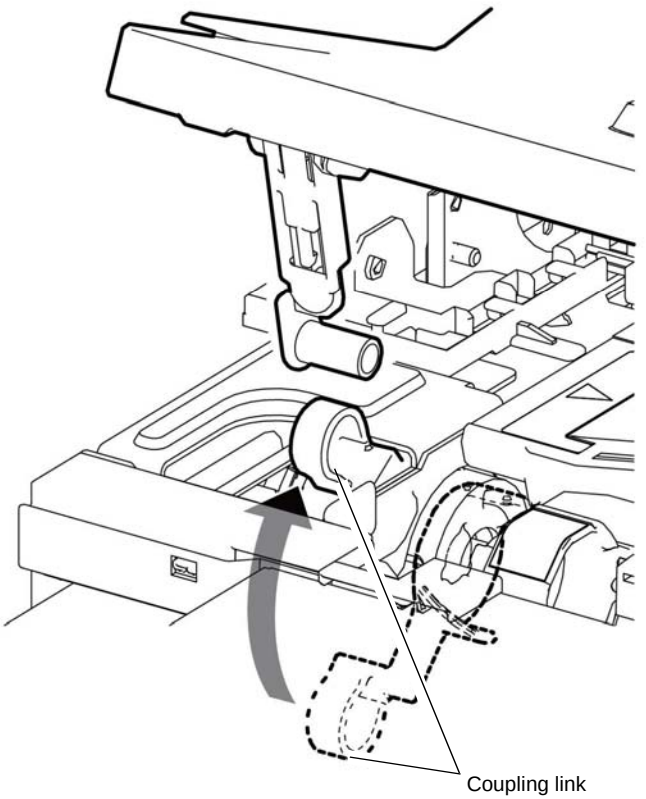


Figure 2 Align the top cover assembly C405



NOTE: *It may be necessary to raise the coupling link from inside the device.*

Z-1-0095-A

Figure 3 Position the coupling link C405

REP 19.8 Exit Cover C405

Parts List on PL 19.1C

Removal

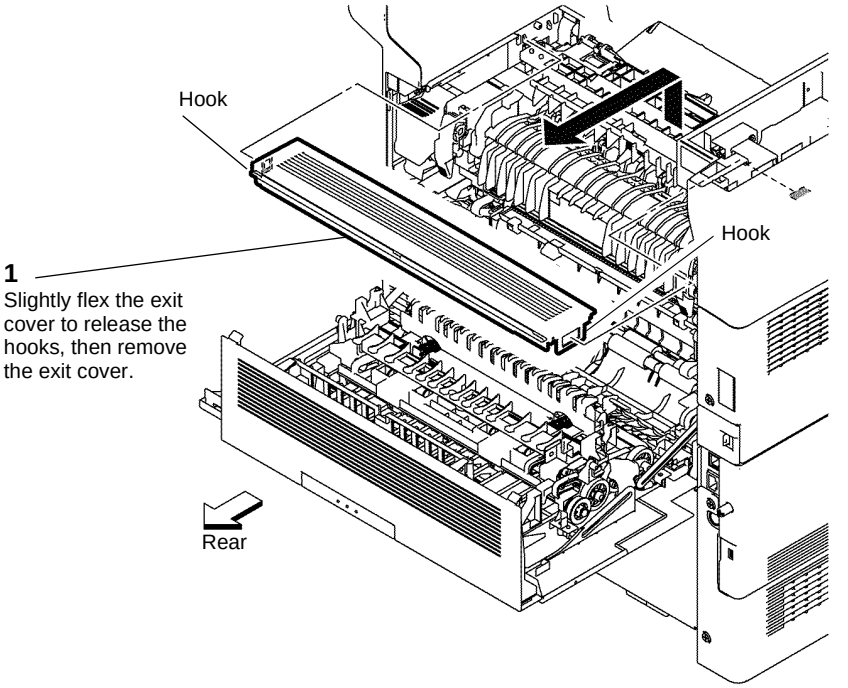
WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Open the rear cover, PL 19.2B Item 15.
2. Remove the exit cover, Figure 1.



Z-1-0121-A

Figure 1 Exit cover C405

Replacement

Replacement is the reverse of the removal procedure.

REP 19.9 Upper Right Cover C405

Parts List on PL 19.1D

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the fuser assembly, REP 7.1.
2. Remove the waste box assembly, PL 8.1 Item 7.
3. Remove the waste box lock, PL 6.1 Item 5.
4. Remove the top cover assembly C405, REP 19.7.
5. Remove the upper right cover, Figure 1.

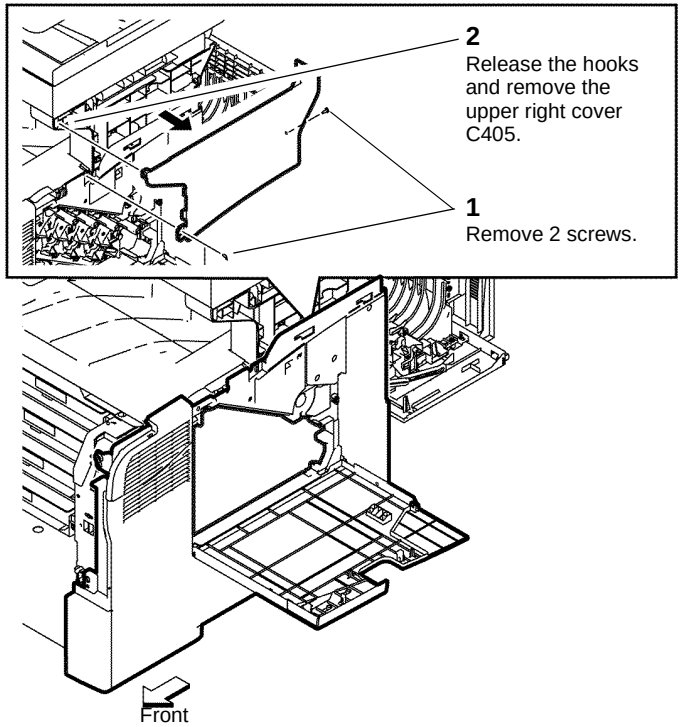


Figure 1 Upper right cover C405

Replacement

Replacement is the reverse of the removal procedure.

REP 19.10 Inner Upper Right Cover C405

Parts List on PL 19.1D

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the scanner, REP 50.4.
2. Remove the exit cover C405, REP 19.8.
3. Remove the right upper inner cover C405, Figure 1.

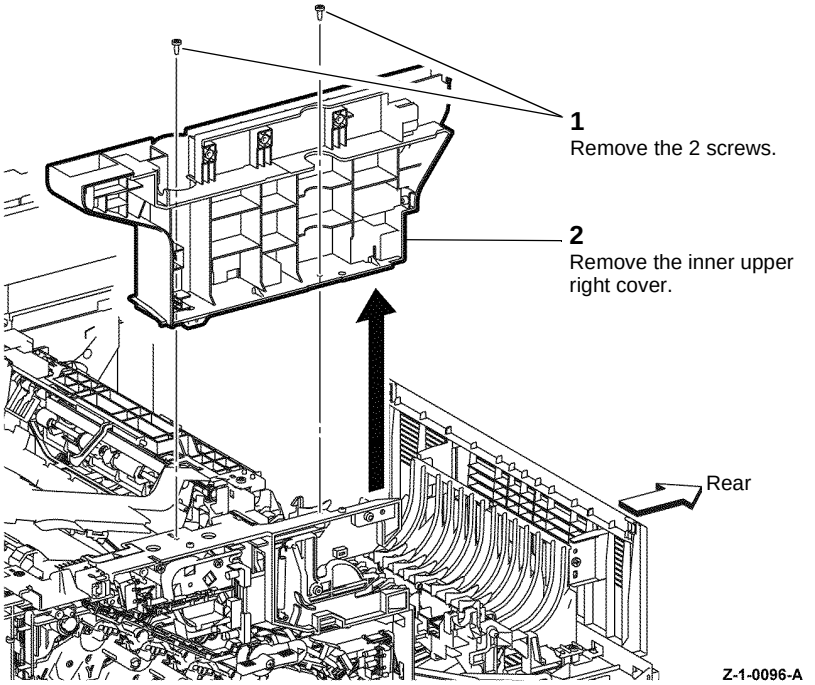


Figure 1 Inner upper right cover C405

Replacement

Replacement is the reverse of the removal procedure.

REP 19.11 Right Side Cover Assembly C405

Parts List on PL 19.1D

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the upper right cover C405, REP 19.9.
2. Remove the right side cover assembly, Figure 1.

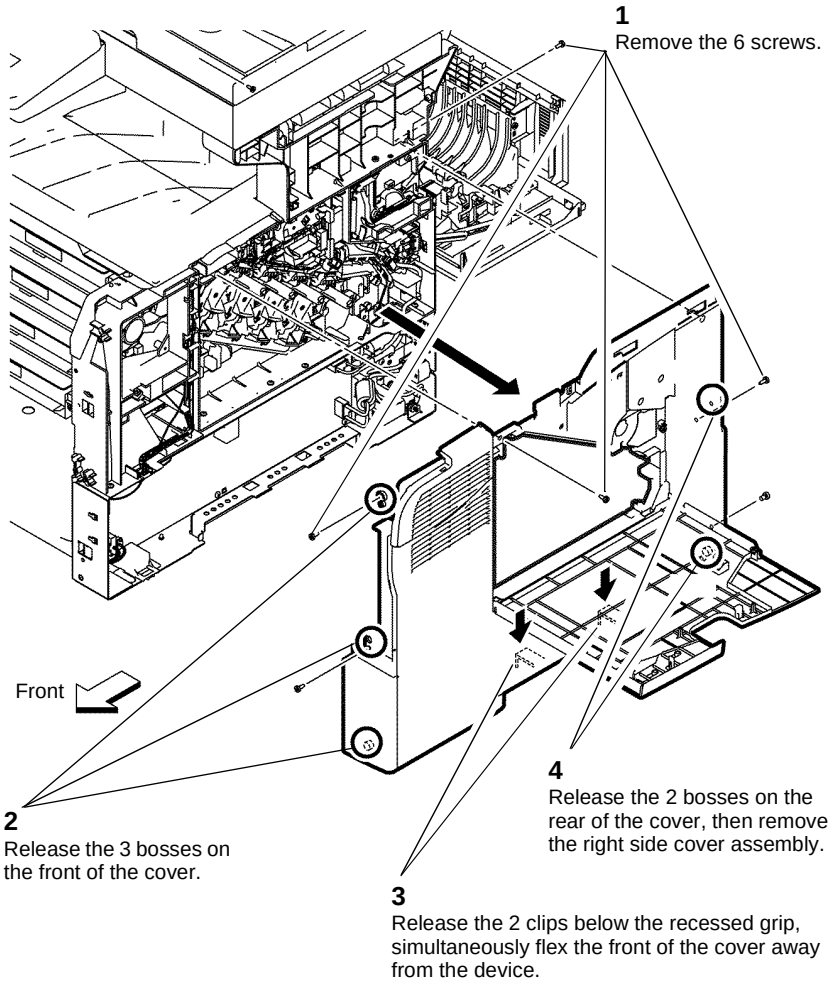


Figure 1 Right side cover C405

Replacement

Secure the 2 clips on the bottom of the cover first, then engage the remaining bosses. Replacement is the reverse of the removal procedure.

REP 19.12 Top Left Cover C400

Parts List on PL 19.2A

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 UI bottom left cover, REP 1.5.
2. Open the rear cover assembly, PL 19.2A Item 10.
3. Remove the top left cover, Figure 1.

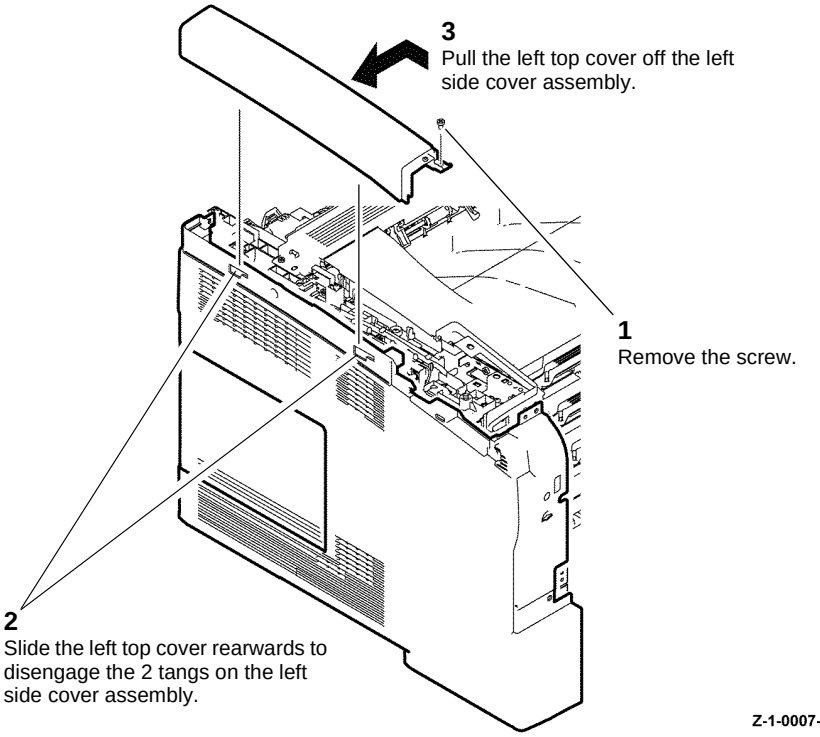


Figure 1 Top left cover removal C400

Replacement

Replacement is the reverse of the removal procedure. Ensure the 2 tangs on the top left cover engage with the left side cover.

REP 19.13 Rear Cover Assembly C400

Parts List on PL 19.2A

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 CRU transfer roller assembly, REP 14.3.
2. Remove the rear cover assembly, Figure 1.

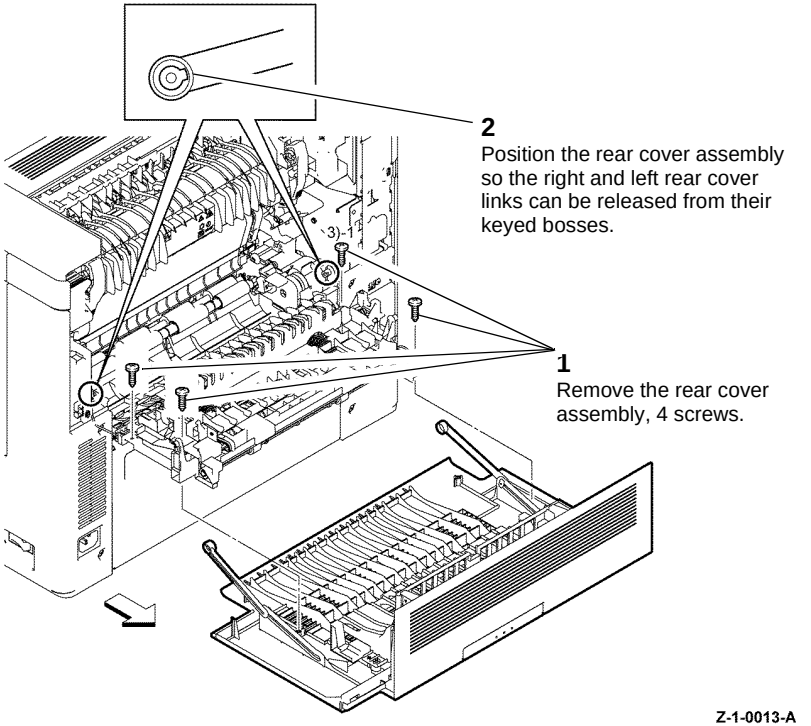


Figure 1 Rear cover assembly C400

Replacement

Replacement is the reverse of the removal procedure.

REP 19.14 Left Side Cover Assembly C400

Parts List on PL 19.2A

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 top left cover, REP 19.12.
2. Remove the front cover assembly, REP 19.1.
3. Prepare to remove the left side cover assembly, Figure 1.

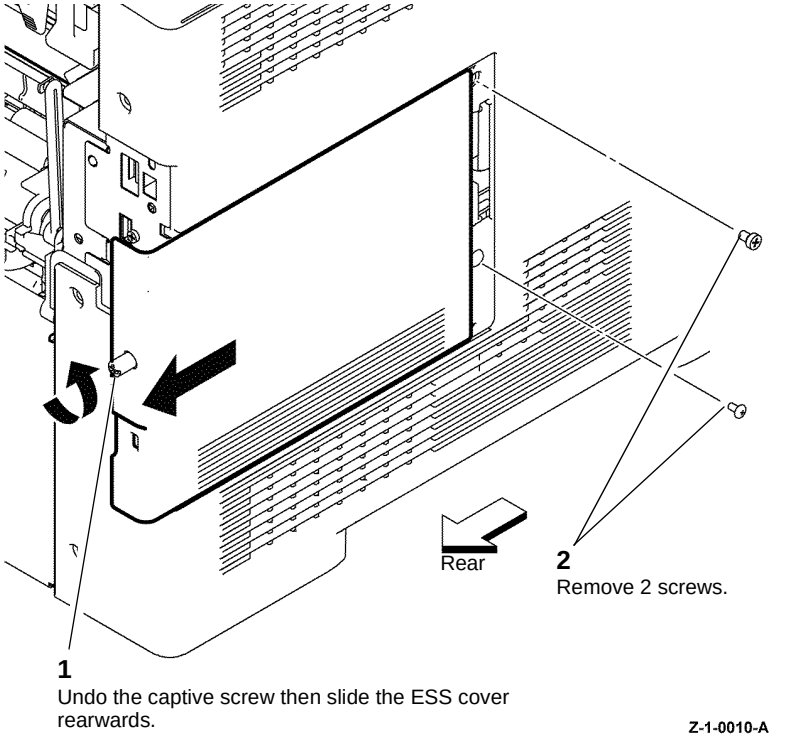


Figure 1 ESS cover C400

4. Remove the left side cover assembly, Figure 2.

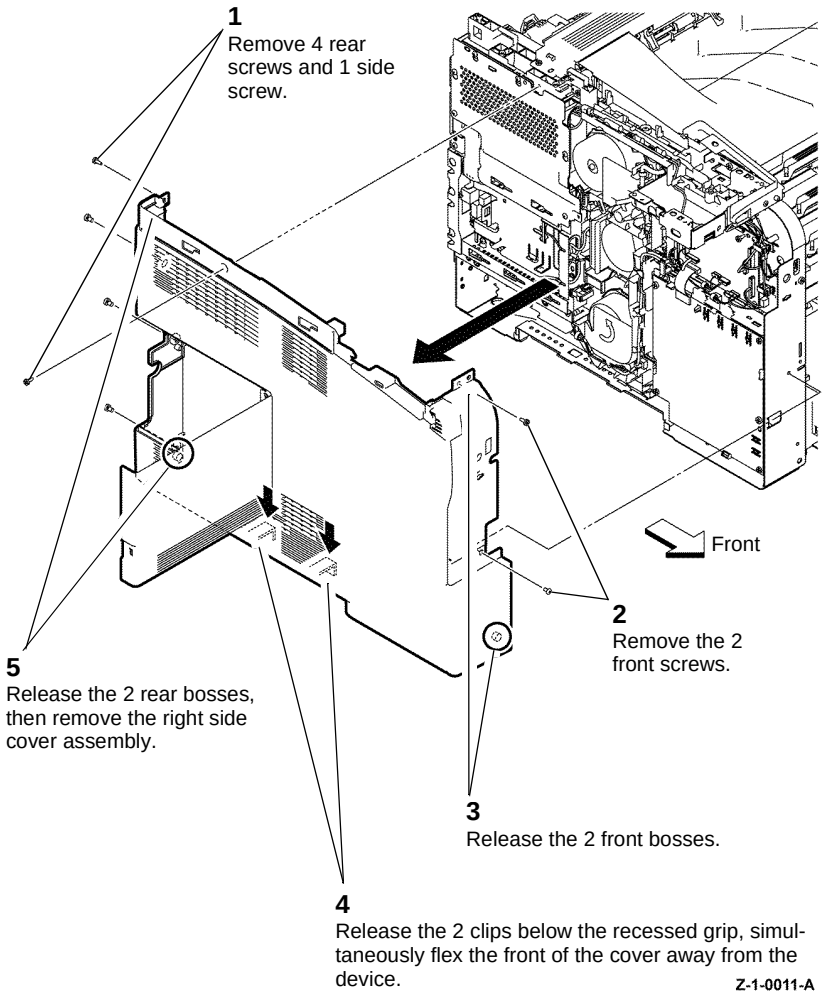


Figure 2 Remove the left side cover assembly C400

Replacement

Replacement is the reverse of the removal procedure.

REP 19.15 IIT Left Outer Base C405

Parts List on PL 19.2B

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 front cover assembly C405, REP 19.6.
2. Open the rear cover assembly, PL 19.2B Item 15.
3. Remove the IIT left outer base C405, Figure 1.

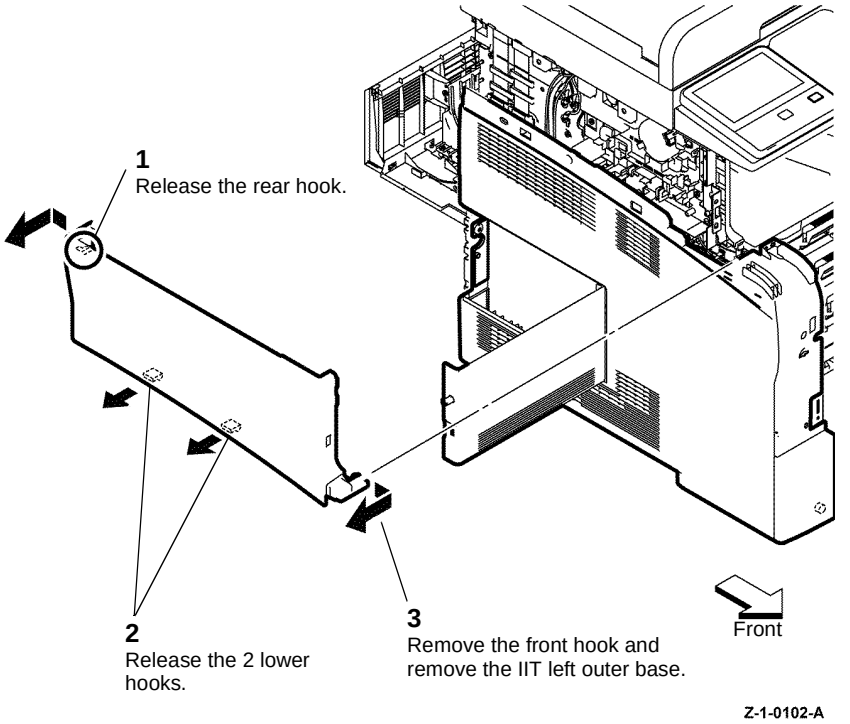


Figure 1 IIT Left outer base C405

Replacement

Replacement is the reverse of the removal procedure. Ensure the 2 tangs on the top left cover engage with the left side cover.

REP 19.16 Rear Cover Assembly C405

Parts List on PL 19.2B

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 CRU transfer roller assembly, REP 14.3.
2. Remove the rear cover assembly, Figure 1.

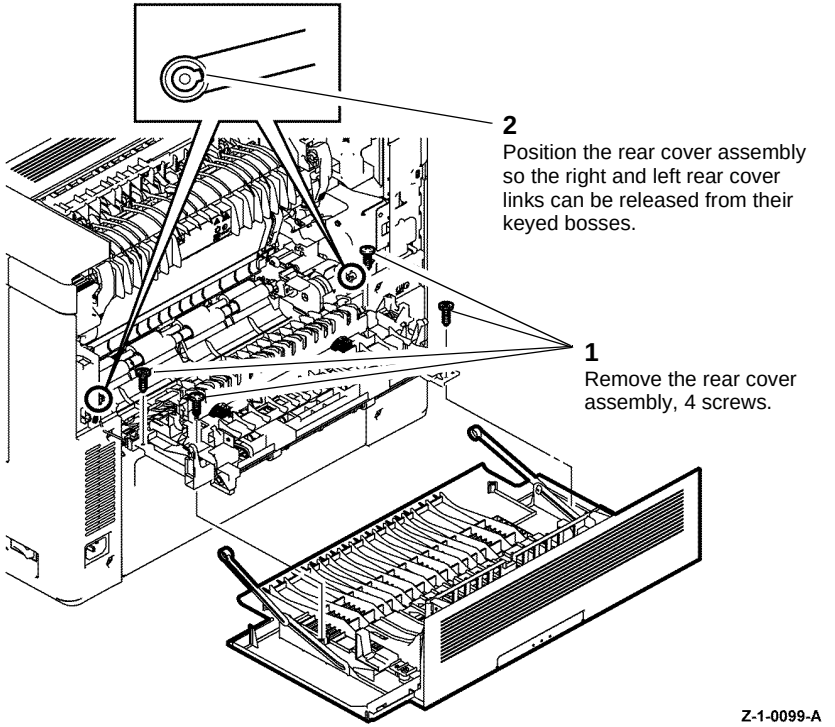


Figure 1 Rear cover assembly C405

Replacement

Replacement is the reverse of the removal procedure.

REP 19.17 Left Rear Lower Cover C405

Parts List on PL 19.2B

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 rear cover assembly, PL 19.2B Item 15.
2. Remove the left rear lower cover C405, Figure 1.

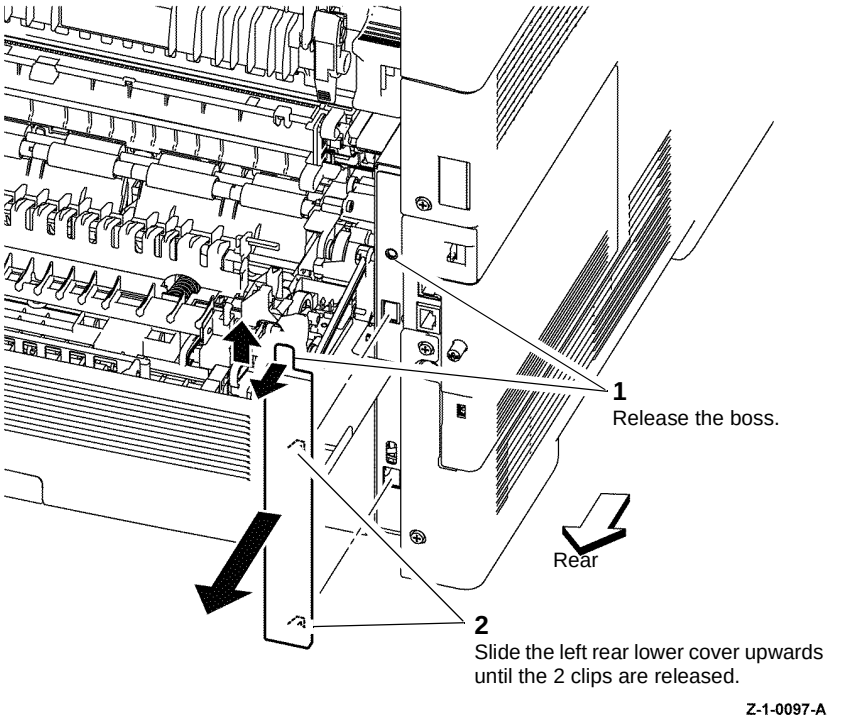


Figure 1 Left Rear lower cover C405

Replacement

Replacement is the reverse of the removal procedure.

REP 19.18 Left Side Cover Assembly C405

Parts List on PL 19.2B

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 IIT left outer base, REP 19.15.
2. Prepare to remove the left side cover assembly, Figure 1.

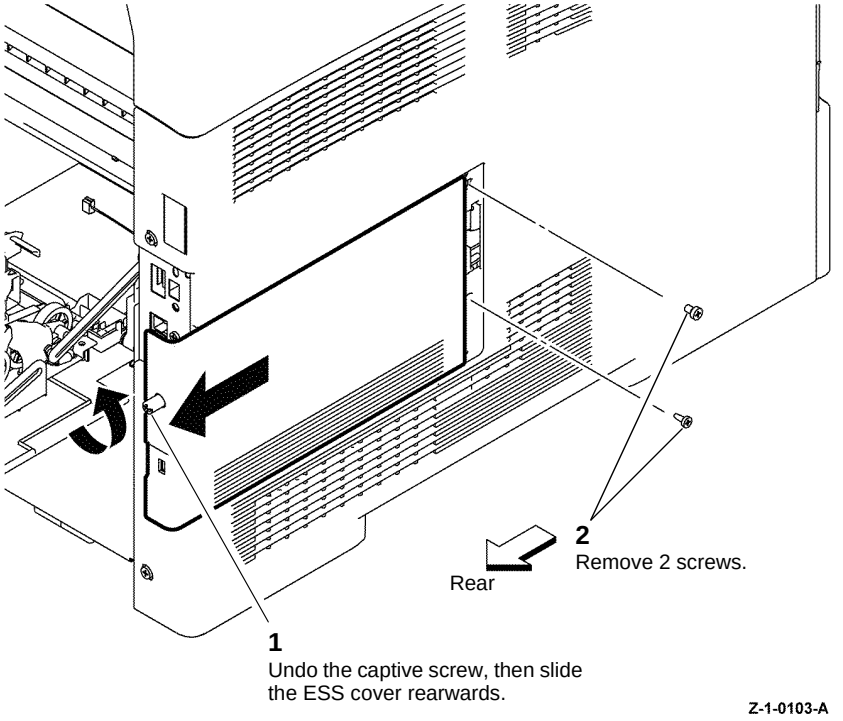


Figure 1 ESS cover C405

3. Remove the left side cover assembly, Figure 2.

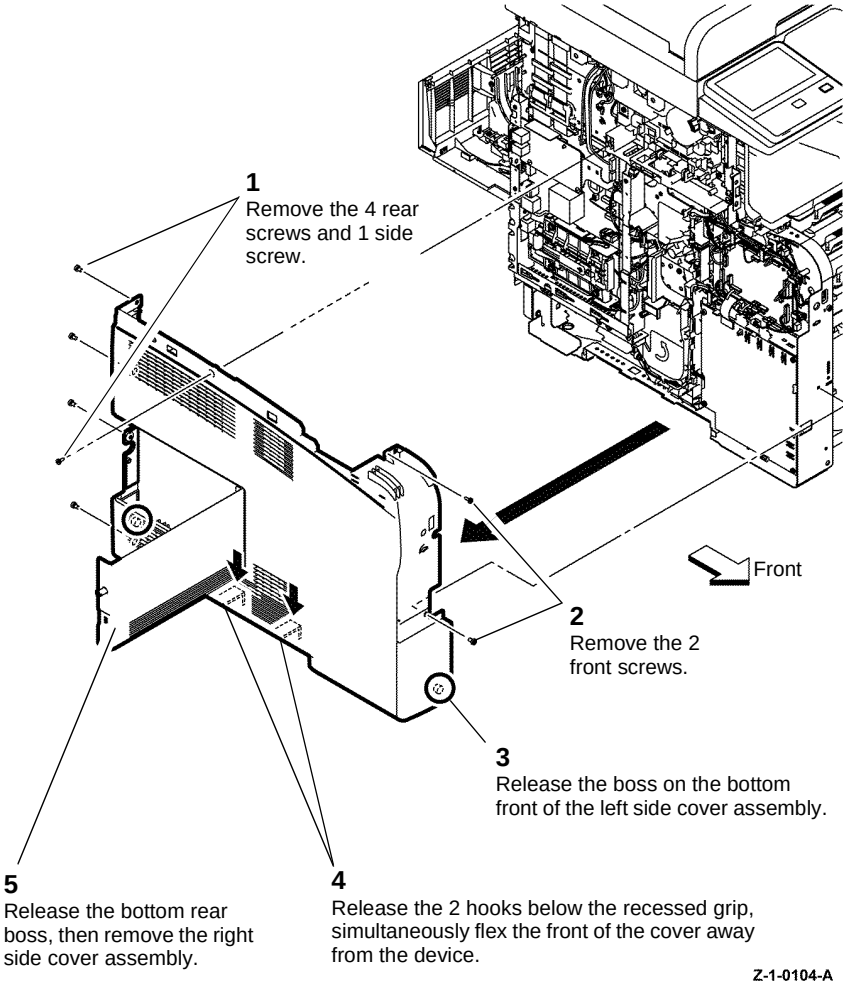


Figure 2 Remove the left side cover assembly C405

Replacement

Replacement is the reverse of the removal procedure.

REP 50.1 IIT and DADF Assemblies

Parts List on PL 50.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 scanner assembly, REP 50.4.
2. Remove the DADF assembly from the IIT assembly, Figure 1.

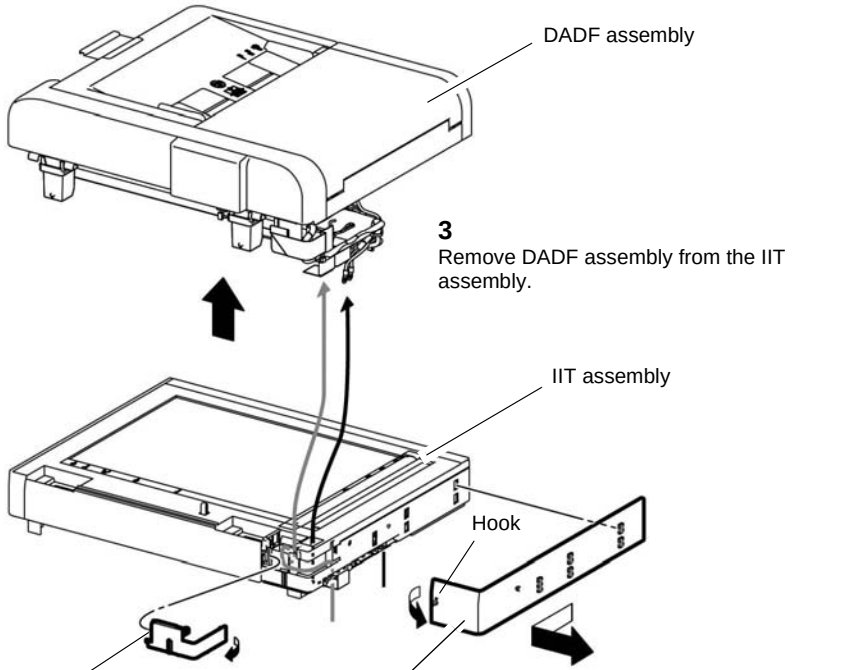


Figure 1 Separate the IIT and DADF

Replacement

Replacement is the reverse of the removal procedure. Ensure the FFC harness and the earth cables are routed correctly, Figure 2.

If necessary perform the, ADJ 50.1 Scanner Cleaning Procedure.

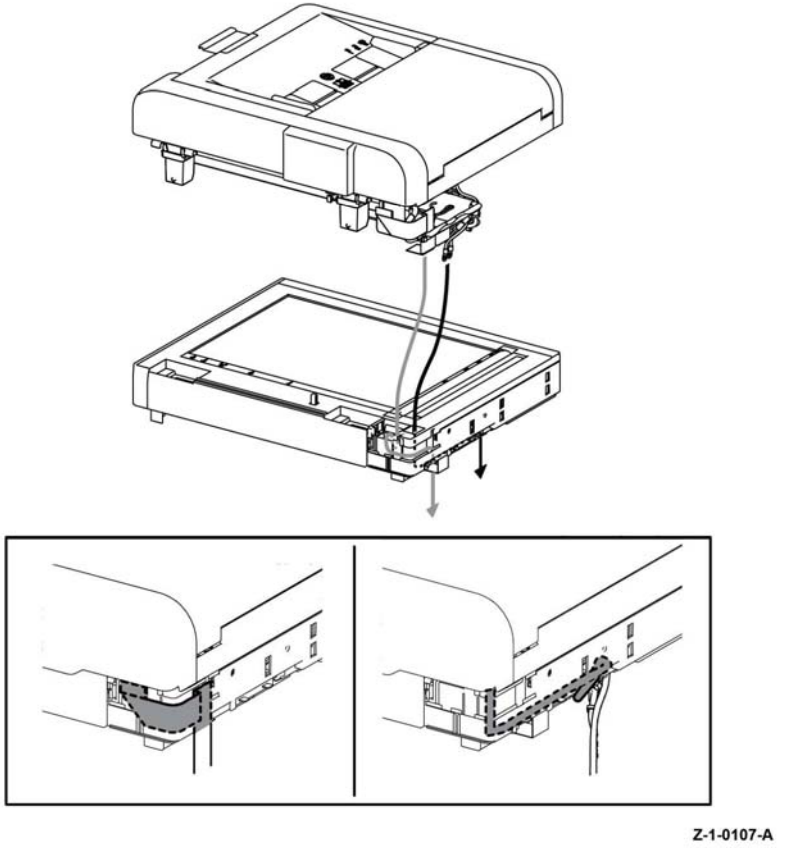


Figure 2 FFC Harness and earth cable routing

REP 50.2 Counter balance Assemblies

Parts List on PL 50.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 DADF assembly from the IIT assembly, REP 50.1.
2. Remove the counterbalance assemblies, Figure 1.

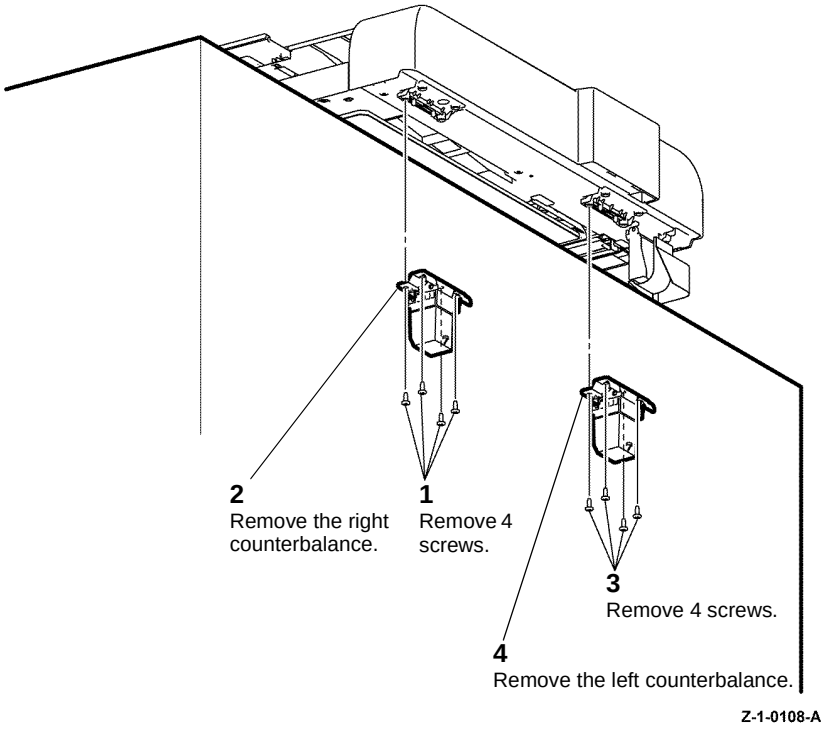


Figure 1 DADF Counterbalances

Replacement

Replacement is the reverse of the removal procedure.

REP 50.3 DADF Input Tray Assembly

Parts List on PL 50.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 DADF tray assembly, Figure 1.

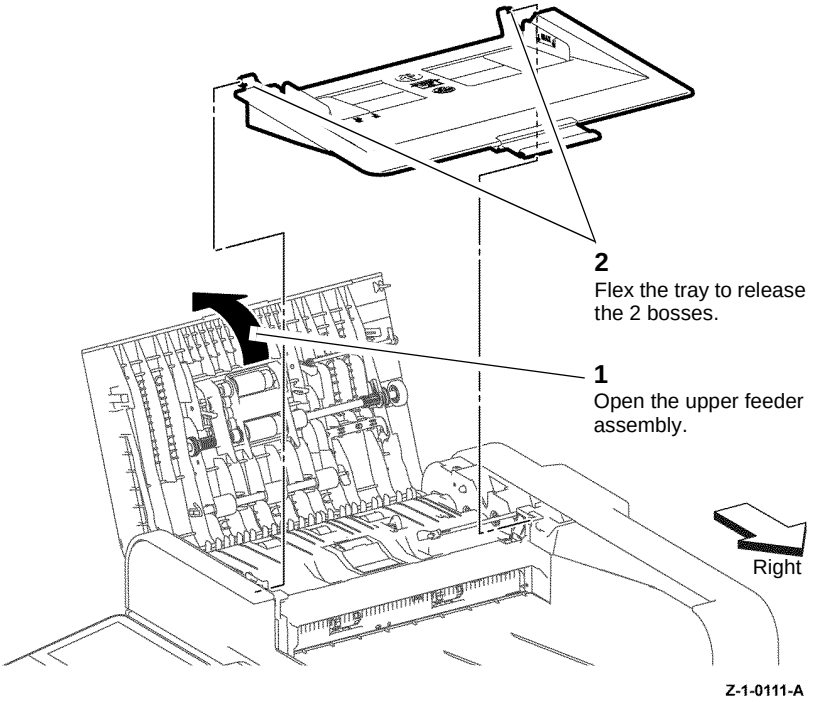


Figure 1 DADF input tray

Replacement

Replacement is the reverse of the removal procedure.

REP 50.4 Scanner Assembly

Parts List on PL 50.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 touch the fuser while it is hot.

1. Remove the right side cover assembly C405, REP 19.11.
2. Remove the left side cover assembly C405, REP 19.18.
3. Remove the scanner assembly, Figure 1.

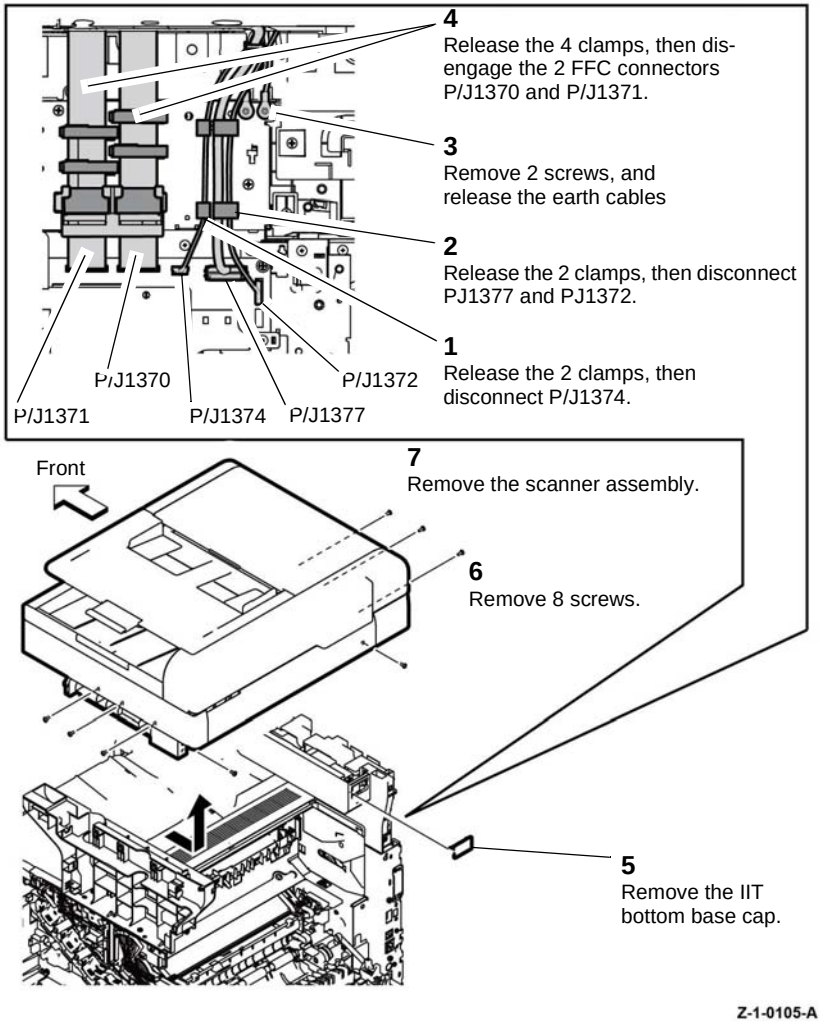


Figure 1 Scanner assembly

Replacement

Replacement is the reverse of the removal procedure.

If necessary perform the, ADJ 50.1 Scanner Cleaning Procedure.

REP 50.5 DADF Actuator

Parts List on PL 50.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 upper feeder assembly.
2. Remove the DADF actuator, Figure 1.

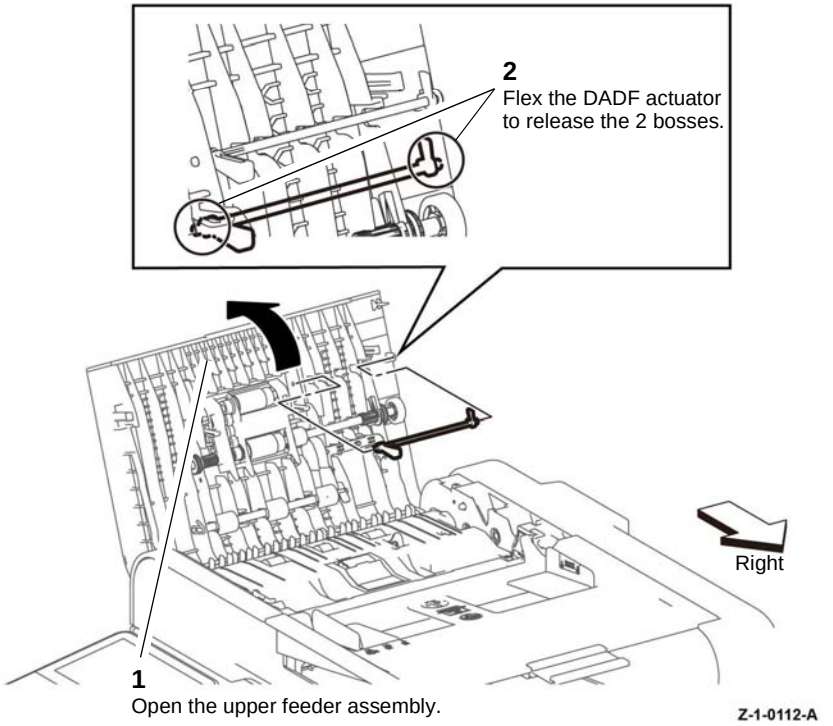


Figure 1 DADF actuator

Replacement

Replacement is the reverse of the removal procedure.

REP 50.6 DADF Feed Roll Kit

Parts List on PL 50.1

Removal

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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 DADF feeder roll, Figure 1.

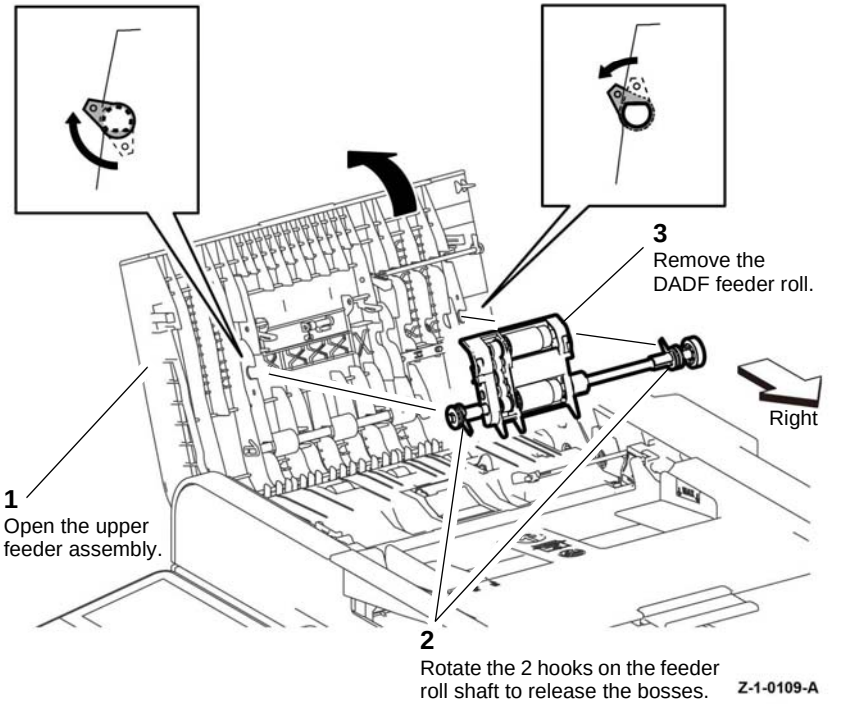


Figure 1 DADF feed roll

2. Remove the DADF separator, Figure 2.

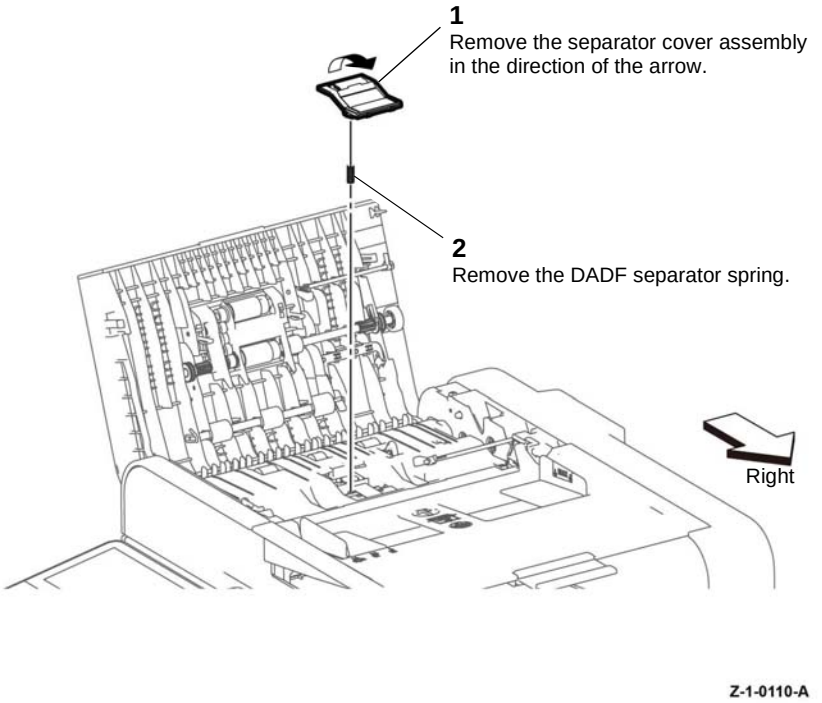


Figure 2 Remove the separation cover

Replacement

Replacement is the reverse of the removal procedure.

ADJ 1.1 Altitude Setting Adjustment

Purpose

Print quality varies with barometric pressure. Since the barometric pressure decreases as the altitude increases, altitude can affect the print quality. To optimize print quality for your location, select an altitude setting to match the location by entering Service Mode and editing NVM using a specific Chain-Link code.

Adjustment

1. Enter diagnostics, dC131.
2. Enter the Chain-Link code 746-515.
3. Referring to Table 1, set the NVM value to 1, 2, 3, 4, 5, 6, or 7, corresponding to whichever is closest to your altitude in meters. The default setting is 0. Use only the NVM values listed in Table 1.

Table 1 NVM values for altitude adjustment

Altitude	NVM Value
0 m	0 (default)
500 m	1
1000 m	2
1500 m	3
2000 m	4
2500 m	5
3000 m	6
3500 m	7

ADJ 2.1 Laser Lens Cleaning

Parts List on PL 2.1

Purpose

This procedure explains how to clean the laser lenses which can help fix problems with prints that have voids or light streaks through one or more color. Refer to GP 33 for general cleaning precautions.

Adjustment

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

If you accidentally get toner on your clothes, lightly dust them off as best as you can. If some toner remains on your clothes, use cool water, not hot, to rinse off the toner. If toner gets on your skin, wash it off with cool water and a mild soap. If you get toner in your eyes, wash it out immediately with cool water then consult a doctor

CAUTION

To avoid toner spills or malfunction, do not lay the waste box assembly on its side.

1. Remove the waste box assembly, PL 8.1 Item 7.
2. Place the removed waste box assembly on a level surface.
3. Remove the lens cleaner assembly from inside the printer, Figure 1.

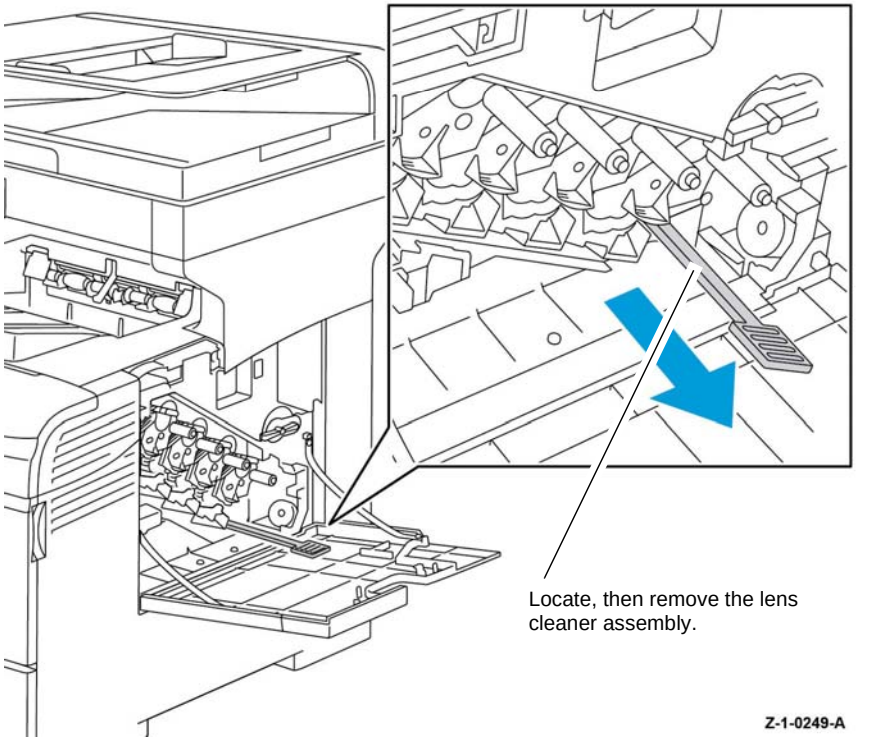


Figure 1 Len cleaner assembly

4. Insert the lens cleaner assembly into the cleaning hole of one of the 4 CRU xerographic development assemblies until it clicks, Figure 2.

5. Slide the lens cleaner assemble back to front, it's full extent, inside the CRU xerographic development assembly, 2 or more times, Figure 2.

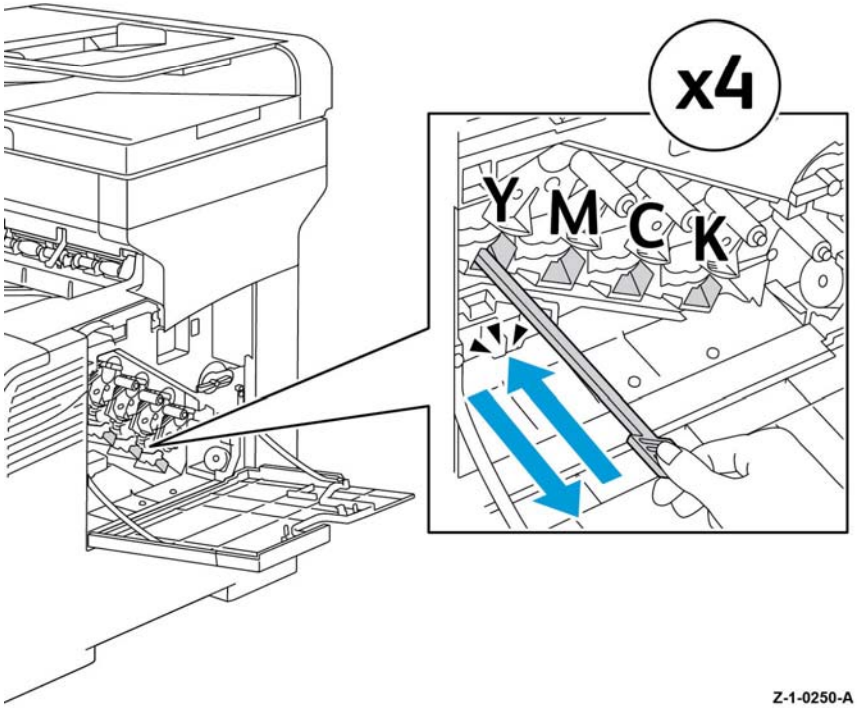


Figure 2 Cleaning the lenses

6. Perform step 4 and 5 on the other three CRU xerographic development assemblies.
7. Return the lens cleaner assembly to its original location.
8. Re-install the waste box assembly.

If directed to this procedure from an image quality RAP, click the following link to return to IQ9 Vertical Blanks (line, band, spots).

ADJ 5.1 Color Registration Adjustment

Purpose

Adjusts the color registration after the printer is moved, or after replacing a toner cartridge, or if there are printer output problems such as blurry or hazy prints, or prints with color halos.

Adjustment

Adjusting the Color Registration is accomplished in two ways:

- Performing an Automatic Color Registration Adjustment, refer to Principles of Operation Color Registration Control.
- Performing a Manual Color Registration Adjustment, by printing a Color Registration Chart and adjusting registration based on output results.

Performing an Automatic Color Registration Adjustment

To run automatic color registration adjustment:

1. At the device user interface, enter service mode, GP 1.
2. Touch Device.
3. Touch Support.
4. Select Color Registration - Automatic, touch Start.
   The printer runs while it performs the Auto Registration routine.

Performing a Manual Color Registration Adjustment

To perform a color registration adjustment:

1. At the printer control panel, enter service mode, GP 1.
2. Load the MSI tray with A4 or 8.5”x11” paper, then as necessary follow the on screen tray setting instructions. Note the device on screen instructions refer to the MSI tray as Tray 5.
3. Touch Device.
4. Touch Support.
5. Select Color Registration-Manual, then touch Start.
6. Touch Print Sample.
7. On the print sample; starting with the left side calibration lines LY, LM, and LC, circle the line in each group where the color bar aligns with the adjacent black bars, Figure 1.

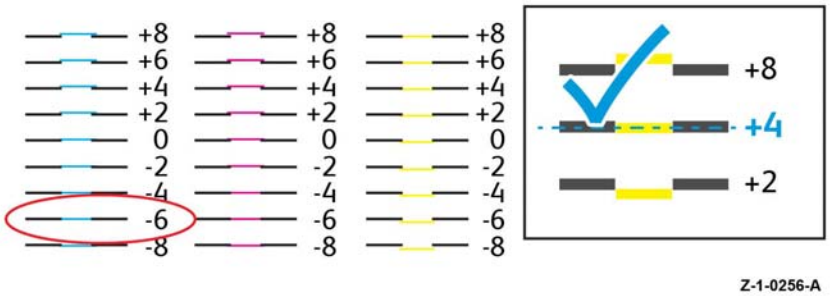


Figure 1 Aligned calibration lines

8. On the print sample; repeat the process for the right side calibration lines, RY, RM, and RC.
9. On the print sample; align a straight edge through the middle of the white zone in each of the PY, PM, and PC charts. Circle the number at the end of each chart that represents the middle of the white zone. An example is shown in Figure 2.

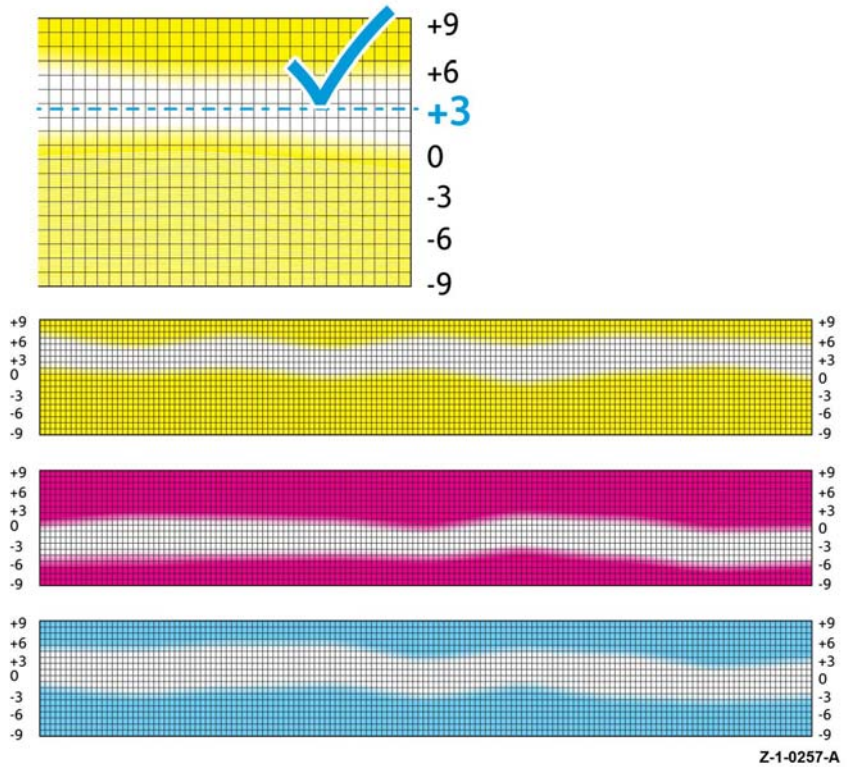


Figure 2 Middle of the white zones

10. Touch the fields on the touch screen to enter values for each LY, LM, and LC, use - and + to adjust the value to what you circled in step 7.
11. Touch the fields on the touch screen to enter values for each RY, RM, and RC, use - and + to adjust the value to what you circled in step 8.
12. Touch the fields on the touch screen to enter values for each PY, PM, and PC fields, use - and + to adjust the value to what you circled in step 9.
13. Touch Adjust (top right corner).
14. If necessary, then repeat the procedure until the color registration is corrected.
15. Touch close.

ADJ 5.2 Color Calibration

Purpose

Adjusts the color calibration to correct color appearance or for composite grays that look neutral.

Adjustment

1. At the device user interface, enter service mode, GP 1.
2. Touch Device.
3. Touch Support.
4. Touch Support Pages.
5. Touch Color Calibration.
6. Touch the fields on the touch screen to make selections for Screen Type, Target and Paper Supply as necessary.
7. Touch Start. The device will print a Printing Calibration Chart.
8. Follow the on screen instructions, then touch Continue.

ADJ 5.3 Image Position

Purpose

Perform Image Position to adjust the placement of the printed image on the page. The adjustment allows you to position the lead and side margins on both the front side and back sides of the paper, for each installed paper tray.

Adjustment

1. At the device user interface, enter service mode GP 1, steps 1 to 3.
2. Touch Device.
3. Touch Support.
4. Touch Image Position.
5. Touch the fields on the touch screen in order to make selections as necessary for the registration print:
   - Touch Paper Supply.
   - Touch the desired tray.
6. If your printer has automatic 2-sided printing, select the sides that you want to optimize:
   - To select a sample registration page for adjusting side 1, touch Adjusted Side, then touch Side 1.
   - To select a sample registration page for adjusting both sides, touch Adjusted Side, then touch Side 2.
7. Specify the consecutive number of sample pages to print:
   a. Touch Print Settings.
   b. To increase or decrease the number of sample pages, for Quantity, touch Plus (+) or Minus (-), then touch OK.
8. Touch Print Sample.
9. When printing is completed, touch Close.

NOTE: *. For identification, a single dot is printed on Side 1, and two dots are printed on Side 2.*

10. Record the image position on the sample pages, use a ruler to measure the distance of the printed image from the bottom and left edges.
11. Select the paper side for adjustment:
    a. For adjusting Side 1, touch Adjusted Side, then touch Side 1.
    b. For adjusting Side 2, touch Adjusted Side, then touch Side 2.
12. To adjust the registration, touch Lead/Side Registration:
    a. To adjust the side-to-side registration, for Side Registration, touch Plus (+) or Minus (-).
    b. To adjust the top-to-bottom registration, for Lead Registration, touch Plus (+) or Minus (-).
13. For reference, position the Sample pages so that Side-1 or Side-2 dots are at the bottom of the page.
    - For Lead Registration, a positive value shifts the image down the page.
    - For Side Registration, a positive value shifts the image to the left.

    The shift in image position can be calculated by measuring the distance of the printed image from the bottom and left edges and making a comparison with original sample pages.
14. If necessary repeat step12 and step13.

ADJ 6.1 Color Toner Density Sensors Cleaning

Parts List on PL 6.1

Purpose

This procedure explains how to clean the color toner density (CTD) sensor which can help fix problems with prints that have voids or light streaks through one or more color. Refer to GP 33 for general cleaning precautions.

Adjustment

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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

Keep toner away from the skin, eyes and mouth. If toner gets onto the skin, or into the eyes, immediately wash the toner off. If toner is inhaled or swallowed, immediately consult a doctor.

CAUTION

If you accidentally get toner on your clothes, lightly dust them off as best as you can. If some toner remains on your clothes, use cool water, not hot, to rinse off the toner.

1. Remove the transfer belt, REP 6.3.
2. Clean the color toner density (CTD) sensor, Figure 1.

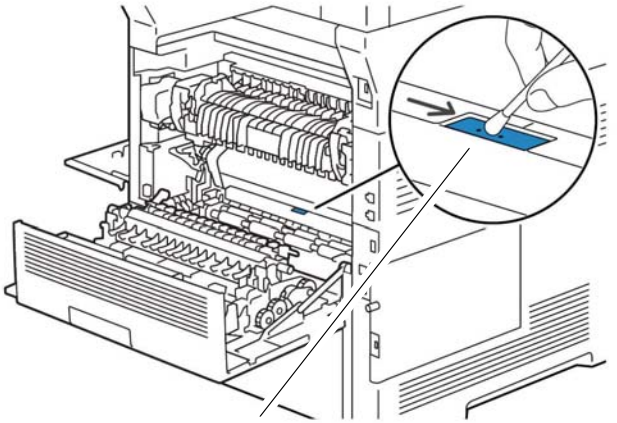


Figure 1 CTD sensor cleaning

3. Replace the transfer belt assembly, REP 6.3.

ADJ 6.2 Transfer Belt Offset Adjustment

Purpose

Transfer belt offset needs adjustment only in cases where the transfer roller bias adjustment ADJ 6.3 has reached its limit, without resolving the problem concerning the transfer of toner from the transfer belt to the paper.

Adjustment

Adjusting the transfer belt offset for black (K) or color (Y, M, C) is accomplished by adjustment of NVM values using a specific Chain-Link code, Table 1.

Editing NVM Values in Service Mode

To adjust the Transfer Belt Offset:

1. Enter dC131 NVM Read/Write.
2. Enter the Chain-Link code (refer to Table 1) for either K or YMC Offset.

Table 1 Chain-Link codes for offset adjustment

Parameter	Range	Default	Chain Link Code
K Offset	1~16	6	746-516
YMC Offset	1~16	6	746-517

CAUTION

In the following step, do not use values higher than 16.

3. Adjust the value up or down as necessary to a value with the range 1-16. The default setting is 6.
4. Touch Change, then touch OK.

ADJ 6.3 Transfer Roller Bias Adjustment

Purpose

The bias voltage applied to the transfer roller, PL 14.1 Item 2 (BTR2) controls how the toner transfers from the transfer belt assembly, PL 6.1 Item 1 to the paper. If the bias voltage is too low, the toner does not transfer correctly, producing light colors and white spots. If the bias voltage is too high, the image can become mottled.

Adjustment

Adjusting the transfer roller bias is is accomplished by adjustment of NVM values using a specific Chain-Link code.

Editing NVM Values in Service Mode

To adjust the Transfer Roller bias by editing NVM values:

1. Identify the paper type that is producing symptoms of mis-adjusted bias, Table 1.
2. Enter dC131 NVM Read/Write.
3. Enter the Chain-Link code for the paper identified in step 1. Refer to Table 1 for the appropriate Chain-Link code.

Table 1 Chain-Link codes for paper type adjustment

Parameter	Paper Type	Range	Initial	Chain Link Code
Plain Paper-L	Hole-Punched or Colored	1~16	6	746-500
Plain Paper-H	Plain	1~16	6	746-501
Recycled	Recycled	1~16	6	746-503
Heavier Paper-L	Special or Heavyweight Cardstock	1~16	6	746-504
Heavier Paper-H	Special or Heavyweight Cardstock	1~16	6	746-505
Coated Paper-M	Lightweight Glossy Cardstock	1~16	6	746-512
Coated Paper-H	Heavyweight Glossy Cardstock	1~16	6	746-513
Envelope	Envelope	1~16	6	746-509
Label-H	Labels	1~16	6	746-507

CAUTION

In the following step, do not use values higher than 16.

4. Adjust the value up or down as necessary to a value with the range 1-16. The default setting is 6.
5. Touch Change, then touch OK. If the fault persists Perform ADJ 6.2.

ADJ 7.1 Fuser Adjustment

Purpose

The fuser assembly, PL 7.1 Item 1 uses heat and pressure to bond the toner image to the paper. For optimal print quality, the device automatically adjusts the temperature of the fuser when you change the paper type. Because of differences in paper construction and thickness, the adjustment made by the device is not enough or is too much for all paper types. If the fuser assembly temperature is too low, the toner will not correctly bond to the paper. If the fuser assembly is too hot, the paper can curl.

Adjustment

Changing the fuser assembly temperature for a particular paper type is accomplished by adjustment of NVM values using a specific Chain-Link code, Table 1.

Editing NVM Values in diagnostics

To adjust the fuser temperature by editing NVM values:

1. Identify the paper type for which you need to adjust the fuser temperature, Refer to Table 1.
2. Enter dC131 NVM Read/Write.
3. Enter the Chain-Link code for the paper identified. Refer to Table 1 for the appropriate Chain-Link code.
4. Adjust the value up or down as necessary using one of the following settings:

   -9, -6, -3, 0 (default), +3, +6, +9.

   The value of the setting raises (if positive) or lowers (if negative) the fuser temperature for the specified paper type and printer speed. For example, entering +3 will raise the temperature by three degrees celsius.

Table 1 Paper type chain-link codes for fuser temperature adjustment

Media Name	Media Mode	Chain Link Code	Default
Plain	Plain-H	744-016	0
Special	Heavier-L	744-017	0
Hole Punched	Plain-L	744-018	0
Colored	Plain-L	744-019	0
Lightweight Cardstock	Heavier-L	744-036	0
Heavyweight Cardstock	Heavier-H	744-037	0
Labels	Label-H	744-039	0
Envelope	Envelope	744-041	0
Lightweight Glossy Cardstock	Coated-M	744-044	0
Heavyweight Glossy Cardstock	Coated-H	744-045	0

5. Touch Change, then touch OK.

ADJ 50.1 Scanner Cleaning Procedure

Parts List on PL 50.1

Purpose

To clean the scanner assembly ensuring optimum image quality.

Procedure

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION

When cleaning this product, only use the designated cleaning materials. Other cleaning materials may result in poor performance of the product. To prevent fires and explosions never use aerosol cleaners.

1. Open the document cover. Inspect the document glass, CVT glass and white strip. If necessary, clean them as follows

   Clean the document glass, CVT glass, platen cushion and white reference strip using a lint-free cloth or paper towel dampened with water, then wipe with a dry lint-free cloth or paper towel until they are completely dry, Figure 1.

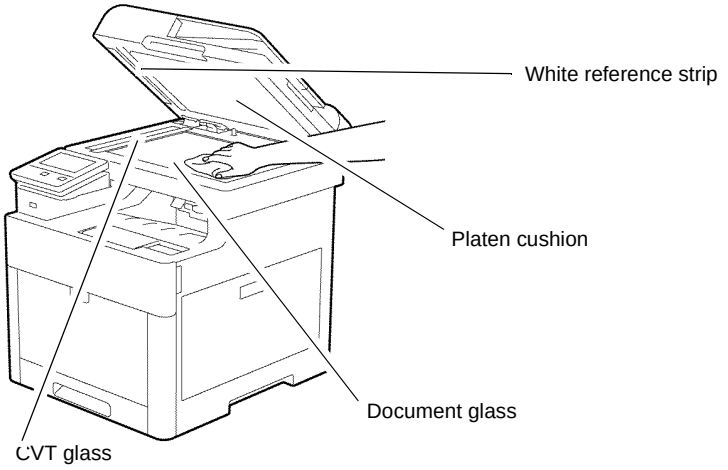


Figure 1 Document glass

2. Prepare to clean the white reference strip of the side 2 scanner, Figure 2.

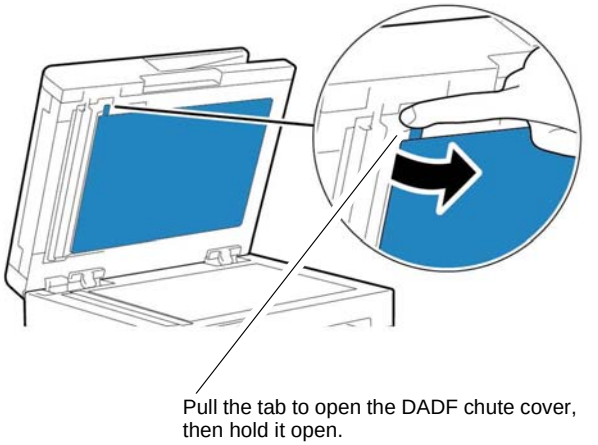


Figure 2 Open the DADF chute

3. Clean the surface of the white reference strip, Figure 3.

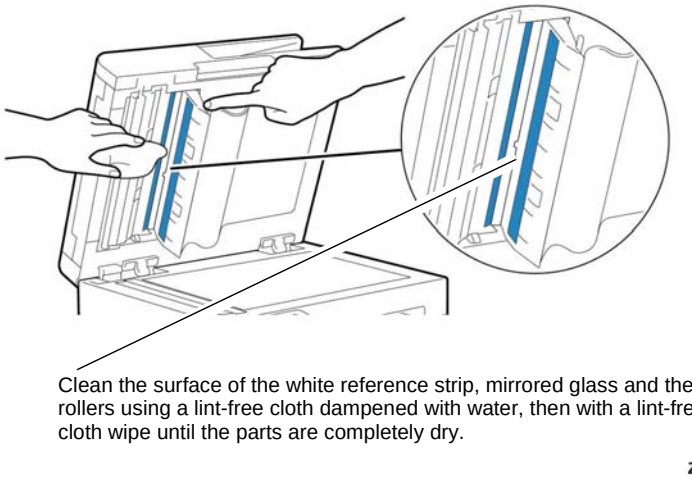


Figure 3 Side 2 scanner cleaning

4. Gently close the DADF chute cover, then the document cover.

ADJ 50.2 Scan Color Consistency

Purpose

This procedure prints a calibration chart with color values that the device uses to make self adjustments in order to preserve color consistency.

Adjustment

1. At the device user interface, enter service mode, GP 1.
2. Touch Device.
3. Touch Support.
4. Touch Scan Color Consistency.
5. Follow the on screen instructions.
6. Touch Start. The device will print a Printing Calibration Chart.
7. Follow the on screen instructions, then touch Start.

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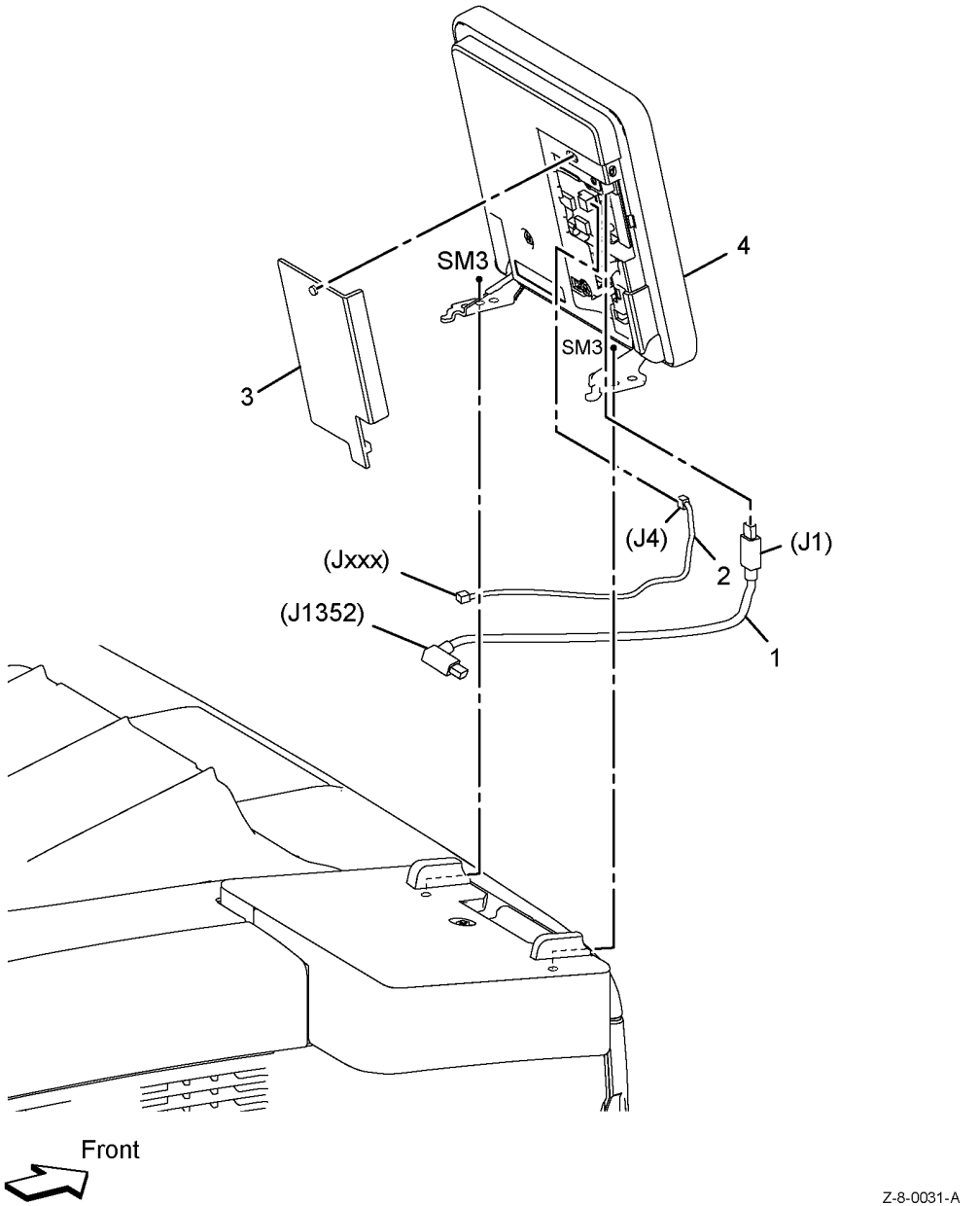
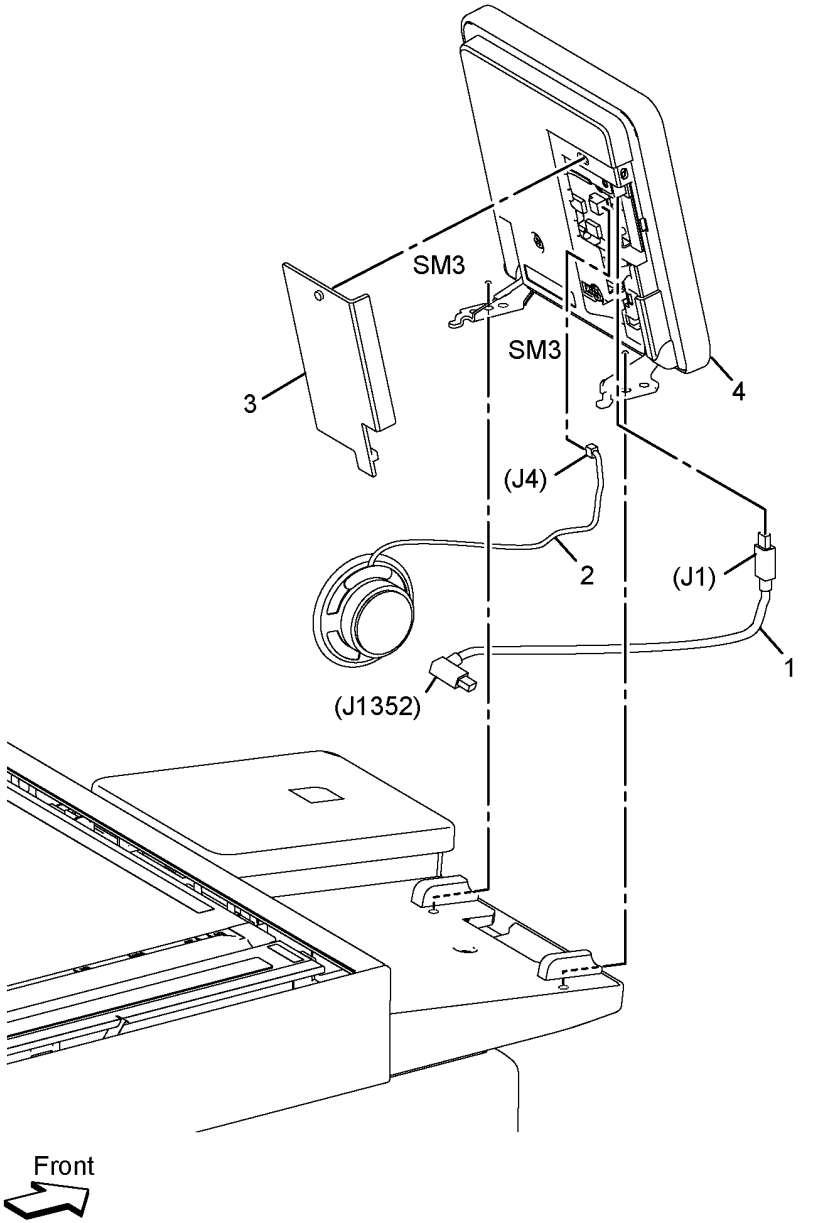
PL 1.1A UI - C400

Item	Part	Description
1	952K38420	UI harness assembly C400 (REP 1.1)
2	–	Speaker harness (Not Spared)
3	822E32001	UI access door
4	948K14383	UI console assembly C400 (REP 1.2)



PL 1.1B UI - C405

Item	Part	Description
1	952K38760	UI harness assembly C405 (REP 1.4)
2	–	UI Speaker (Not Spared)
3	822E32001	UI access door
4	948K14383	UI console assembly C405 (REP 1.3)



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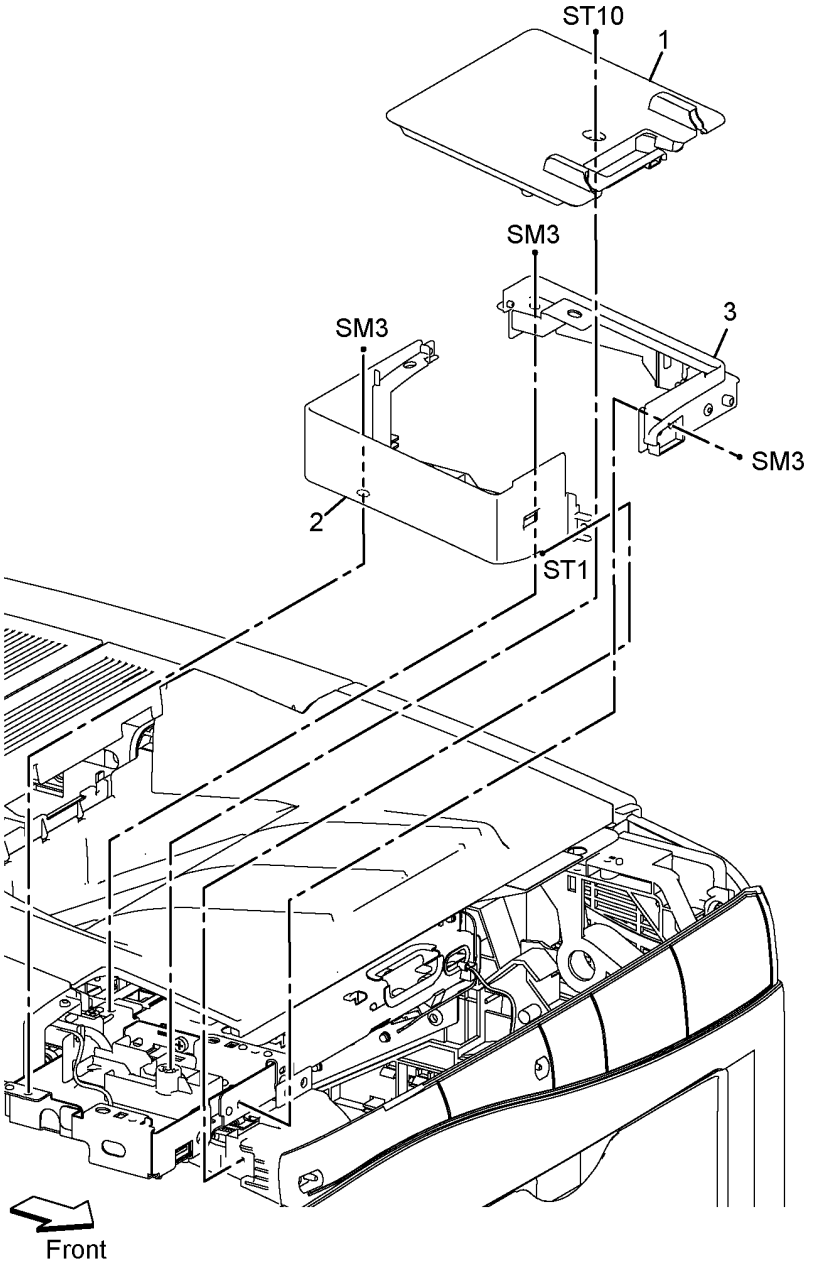
PL 1.2A UI - C400

Item	Part	Description
1	–	UI top cover (Not Spared)
2	822E29781	UI bottom left cover (REP 1.5)
3	–	UI bottom right cover (Not Spared) (REP 1.6)



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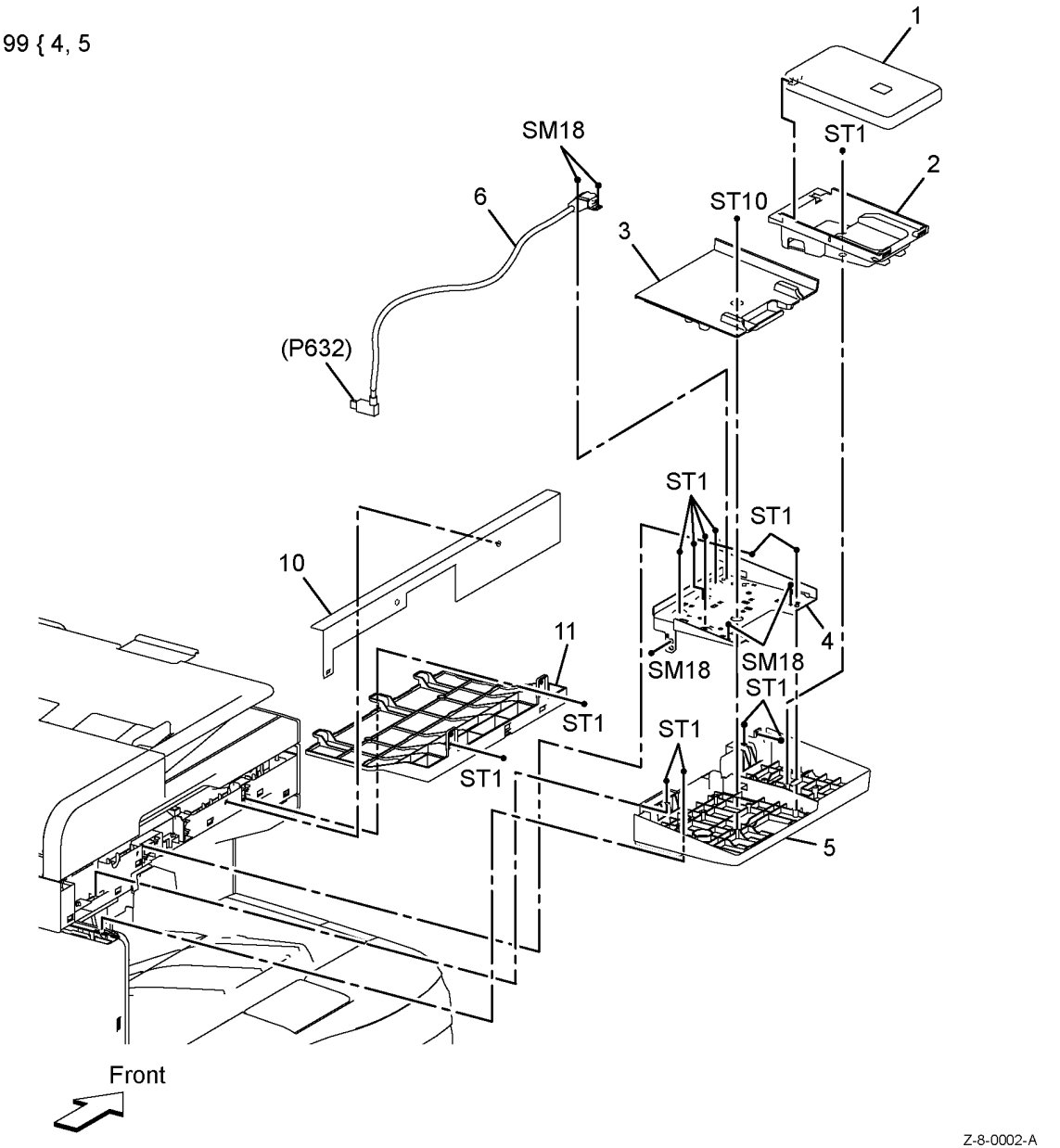
PL 1.2B UI - C405

Item	Part	Description
1	822E31951	ICCR top cover
2	–	ICCR inner cover (Not Spared)
3	–	UI base top cover (Not Spared)
4	–	Bottom plate (P/O PL 1.2B Item 99)
5	–	UI bottom base cover (P/O PL 1.2B Item 99)
6	–	ICCR USB harness assembly (Not Spared) (REP 1.4)
7	–	Not Used
8	–	Not Used
9	–	Not Used
10	822E34292	IIT front cover
11	–	IIT front under cover (Not Spared)
99	607K03890	UI bottom base kit

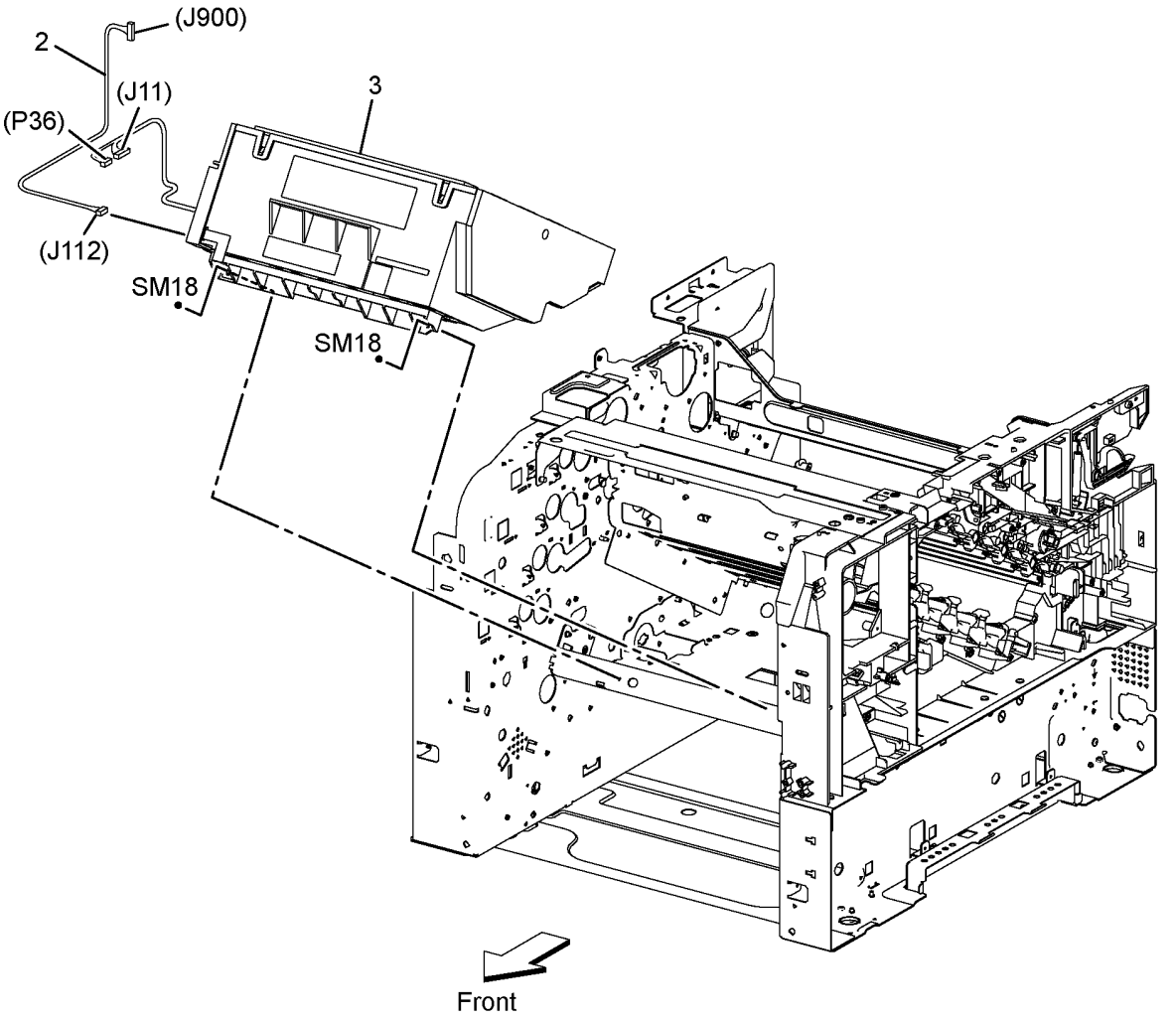


Z-8-0002-A

PL 2.1 ROS

Item	Part	Description
1	062K24636	ROS assembly (110V) (REP 2.1)
–	062K27950	ROS assembly (220V) (REP 2.1)
2	–	Video harness assembly (P/O PL 2.1 Item 1)
3	–	ROS sub assembly (P/O PL 2.1 Item 1)

1 { 2, 3



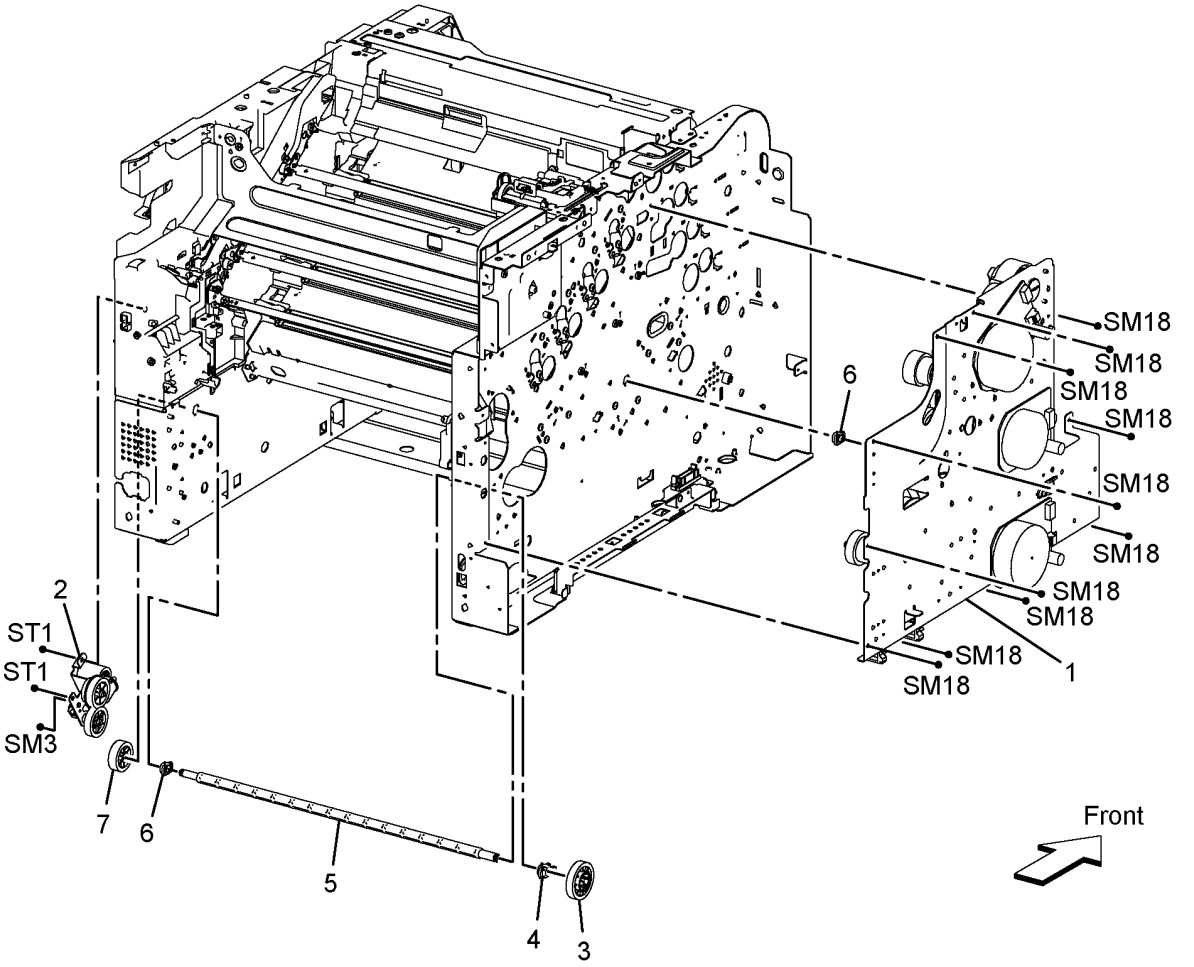
Z-8-0003-A

PL 3.1 Drive

Item	Part	Description
1	007K98851	Main drive assembly (REP 3.1)
2	007K17963	Waste drive assembly (REP 3.2)
3	–	Waste gear 2 (P/O PL 3.1 Item 8)
4	–	Waste bearing 1 (P/O PL 3.1 Item 9)
5	–	Drive shaft (P/O PL 3.1 Item 8)
6	–	Waste bearing 2 (P/O PL 3.1 Item 9)
7	–	Waste gear 3 (P/O PL 3.1 Item 8)
8	007K17971	Drive shaft assembly (REP 3.3)
9	604K90781	Waste bearing kit

8 { 3, 5, 7

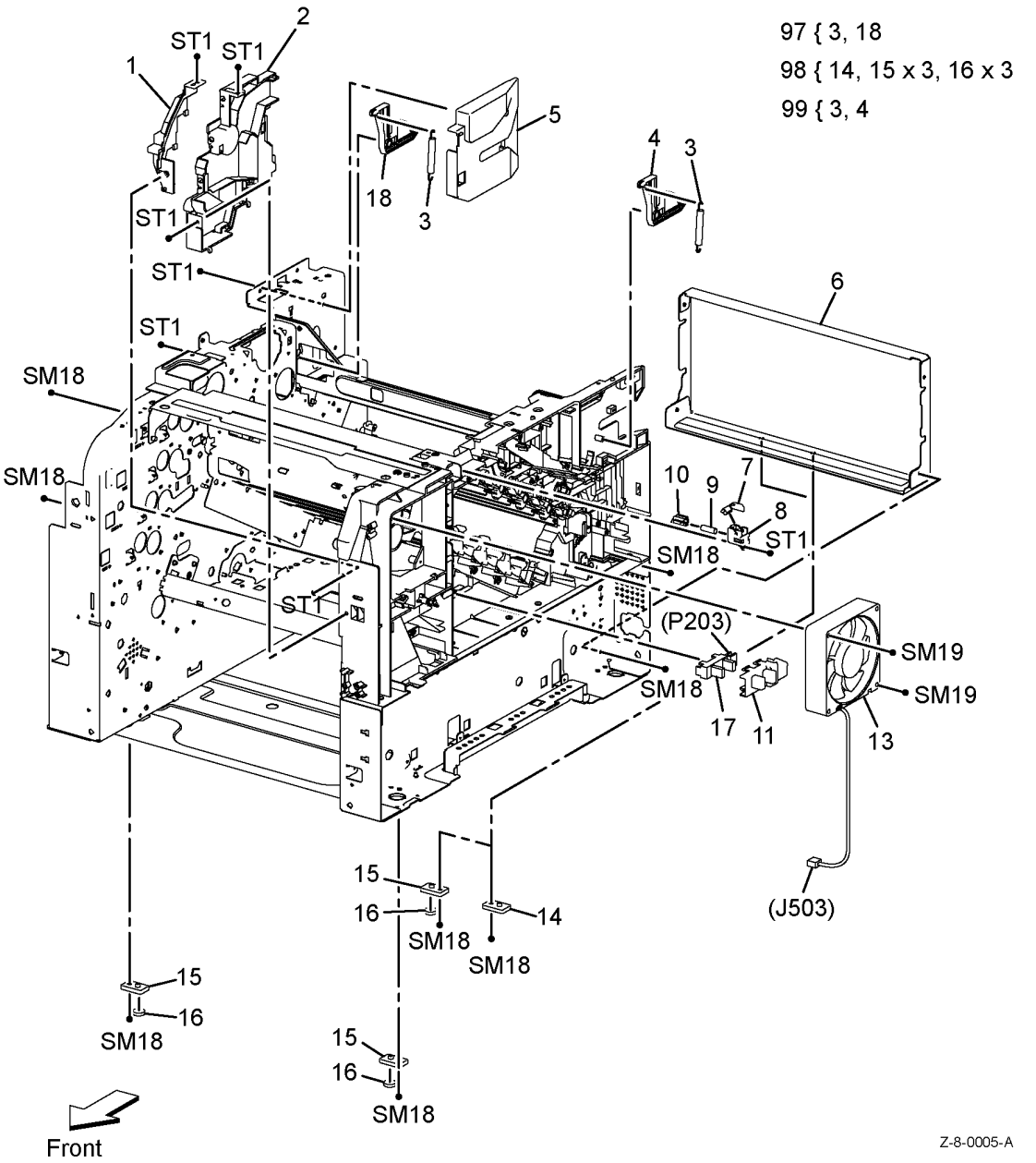
9 { 4, 6



Z-8-0004-A

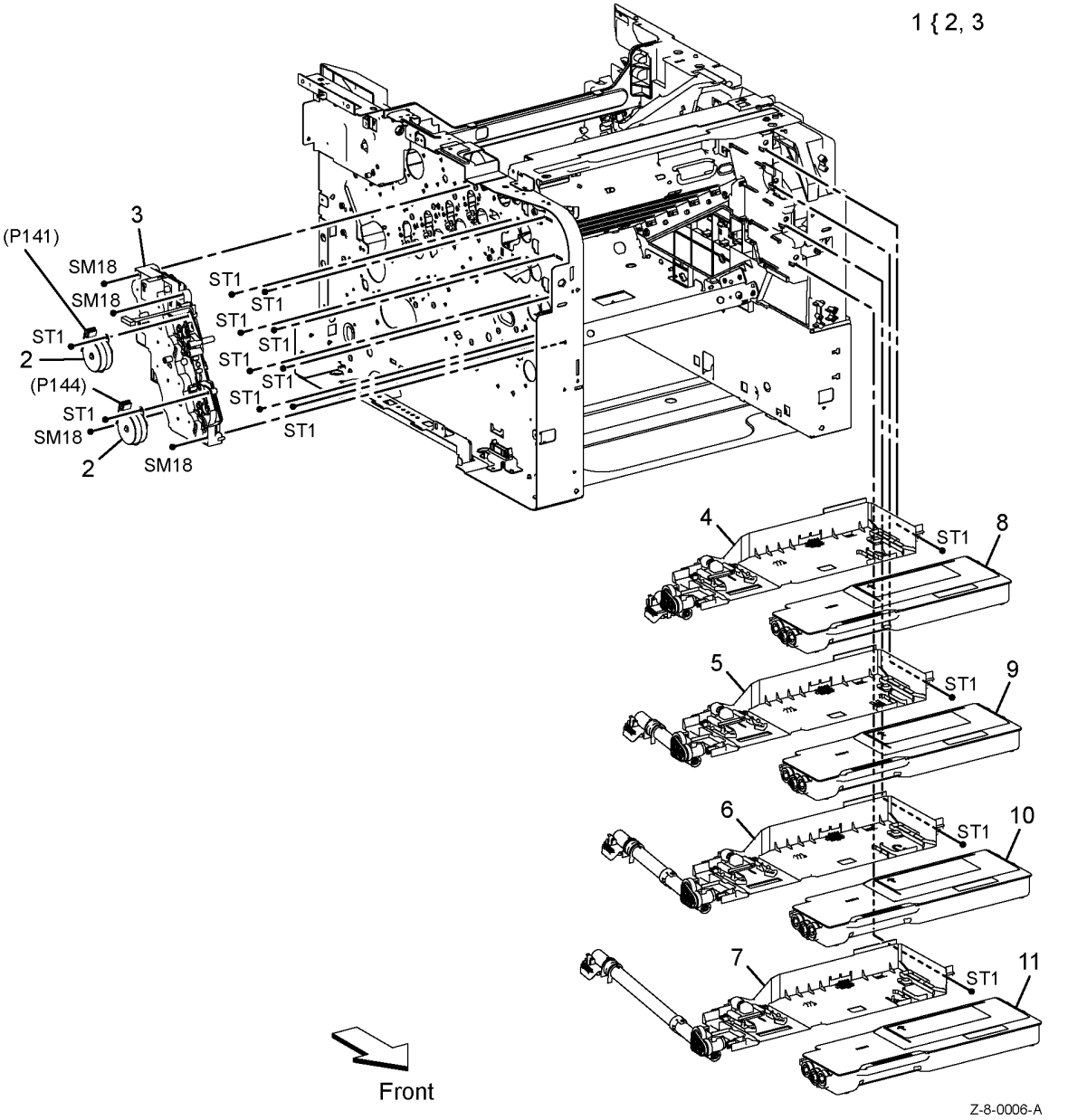
PL 4.1 NOHAD

Item	Part	Description
1	–	Frame duct (Not Spared)
2	–	Base duct (Not Spared)
3	–	Latch spring (P/O PL 4.1 Item 97)
4	–	Right rear latch (P/O PL 4.1 Item 99) (REP 4.3)
5	–	Left latch bracket (Not Spared)
6	–	S3 rear frame (Not Spared)
7	–	Right interlock belt actuator (Not Spared)
8	–	Interlock belt holder (Not Spared)
9	–	Interlock belt spring (Not Spared)
10	–	Interlock belt actuator (Not Spared)
11	–	Waste sensor cover (Not Spared)
12	–	Fan screw (not shown) (Not Spared)
13	127E86480	Main fan (REP 4.1)
14	–	Rear foot (P/O PL 4.1 Item 98)
15	–	Front base foot (P/O PL 4.1 Item 98)
16	–	Foot (P/O PL 4.1 Item 98)
17	930W00511	Toner full sensor (REP 4.2)
18	–	Left rear latch (P/O PL 4.1 Item 97)
97	604K73980	Left rear latch
98	607K00880	Foot assembly (Kit contains Rear Foot, 3 Front Foot Base and 3 Foot)
99	604K76350	Right rear latch



PL 5.1 Dispenser

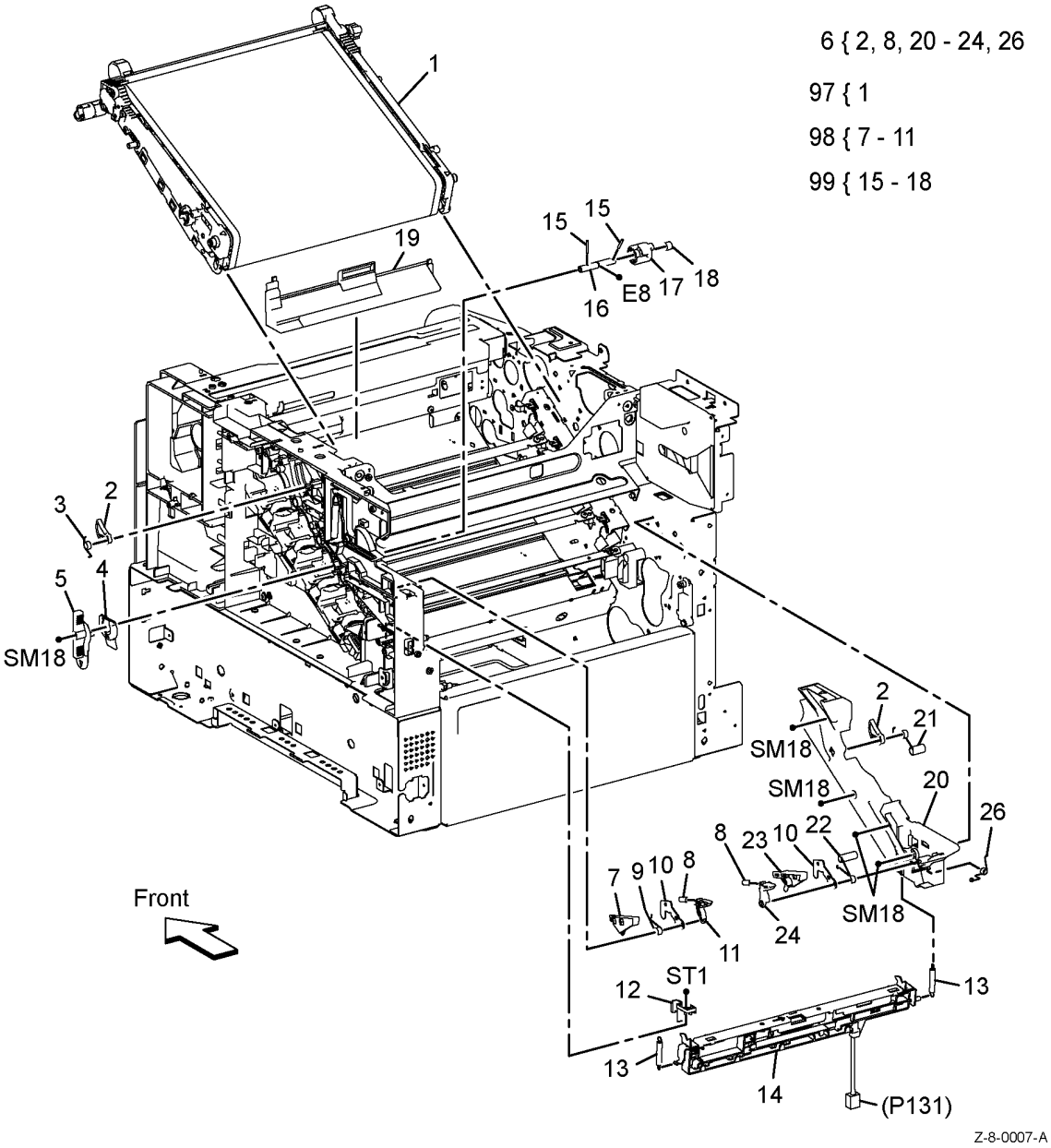
Item	Part	Description
1	127K64252	Upper dispenser motor assembly (REP 5.1)
2	127K64260	Dispenser motor (REP 5.2)
3	–	Gear motor assembly (P/O PL 5.1 Item 1)
4	094K93433	Dispenser assembly - Y (REP 5.3)
5	094K93423	Dispenser assembly - M (REP 5.3)
6	094K93413	Dispenser assembly - C (REP 5.3)
7	094K93403	Dispenser assembly - K (REP 5.3)
8	–	Toner cartridge - Y (variants below)
–	106R03529	Extra high capacity (XE)
–	106R03533	Extra high capacity (DMO)
–	106R03525	Extra high capacity (NA)
–	106R03521	High capacity (DMO)
–	106R03517	High capacity (XE)
–	106R03509	Standard capacity (DMO)
–	106R03537	Metered (WW)
–	106R03513	High capacity (NA)
–	106R03501	Standard capacity (NA/XE)
9	–	Toner cartridge - M (variants below)
–	106R03539	Metered (WW)
–	106R03515	High capacity (NA)
–	106R03527	Extra high capacity (NA)
–	106R03523	High capacity (DMO)
–	106R03531	Extra high capacity (XE)
–	106R03535	Extra high capacity (DMO)
–	106R03511	Standard capacity (DMO)
–	106R03519	High capacity (XE)
–	106R03503	Standard capacity (NA/XE)
10	–	Toner cartridge - C (variants below)
–	106R03526	Extra high capacity (NA)
–	106R03502	Standard capacity (NA/XE)
–	106R03522	High capacity (DMO)
–	106R03518	High capacity (XE)
–	106R03514	High capacity (NA)
–	106R03510	Standard capacity (DMO)
–	106R03538	Metered (WW)
–	106R03534	Extra high capacity (DMO)
–	106R03530	Extra high capacity (XE)
11	–	Toner cartridge - K (variants below)
–	106R03532	Extra high capacity (DMO)
–	106R03516	High capacity (XE)
–	106R03508	Standard capacity (DMO)
–	106R03524	Extra high capacity (NA)
–	106R03520	High capacity (DMO)
–	106R03536	Metered (WW)
–	106R03512	High capacity (NA)
–	106R03500	Standard capacity (NA/XE)
–	106R03528	Extra high capacity (XE)



PL 6.1 Transfer

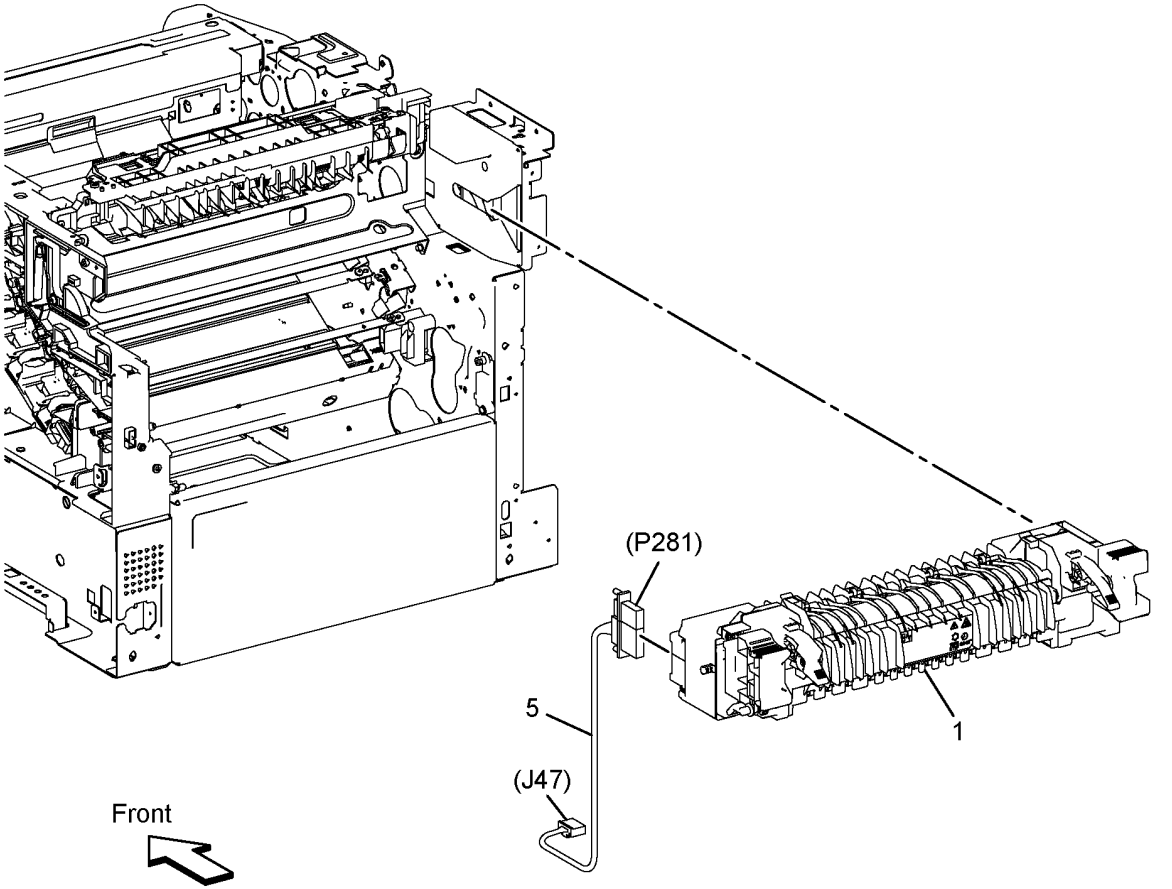
Item	Part	Description
1	–	Transfer belt assembly (P/O PL 6.1 Item 97) (REP 6.3)
2	–	Transfer front latch (P/O PL 6.1 Item 6)
3	–	Transfer front right spring (Not Spared)
4	–	Coupling actuator (Not Spared)
5	803E15100	Waste box lock
6	032K07422	Left transfer belt guide assembly (REP 6.1)
7	–	Housing (P/O PL 6.1 Item 98)
8	–	Transfer latch spring (P/O PL 6.1 Item 6)
9	–	Transfer rear right spring (P/O PL 6.1 Item 98)
10	–	Transfer latch plate (P/O PL 6.1 Item 98)
11	–	Transfer right latch arm (P/O PL 6.1 Item 98)
12	–	Color toner density (CTD) right guide (Not Spared)
13	809E96300	Color toner density (CTD) spring (REP 6.2)
14	130K77830	Color toner density (CTD) sensor assembly (REP 6.2)
15	–	Dowel pin (P/O PL 6.1 Item 99)
16	–	Coupling shaft (P/O PL 6.1 Item 99)
17	–	Tansfer retract coupling (P/O PL 6.1 Item 99)
18	–	Coupling spring (P/O PL 6.1 Item 99)
19	–	Transfer harness cover (Not Spared)
20	–	Left belt guide (P/O PL 6.1 Item 6)
21	–	Transfer front left spring (ACO) (P/O PL 6.1 Item 6)
22	–	Transfer rear left spring (P/O PL 6.1 Item 6)
23	–	Transfer left latch housing (P/O PL 6.1 Item 6)
24	–	Transfer left latch arm (P/O PL 6.1 Item 6)
25	–	Not used
26	–	Spring (P/O PL 6.1 Item 6)
97	604K77533	Transfer belt assembly (see NOTE)
98	604K76280	Transfer belt right latch kit (REP 6.4)
99	604K76290	Coupling kit (REP 6.5)

NOTE: *HFSI. To reset the HFSI count, refer to dC135*



PL 7.1 Fuser

Item	Part	Description
1	115R00088	Fuser assembly (110V) (REP 7.1)
–	115R00089	Fuser assembly (220V) (REP 7.1)
2	–	Not used
3	–	Not used
4	–	Not used
5	–	Harness assembly (Not Spared)



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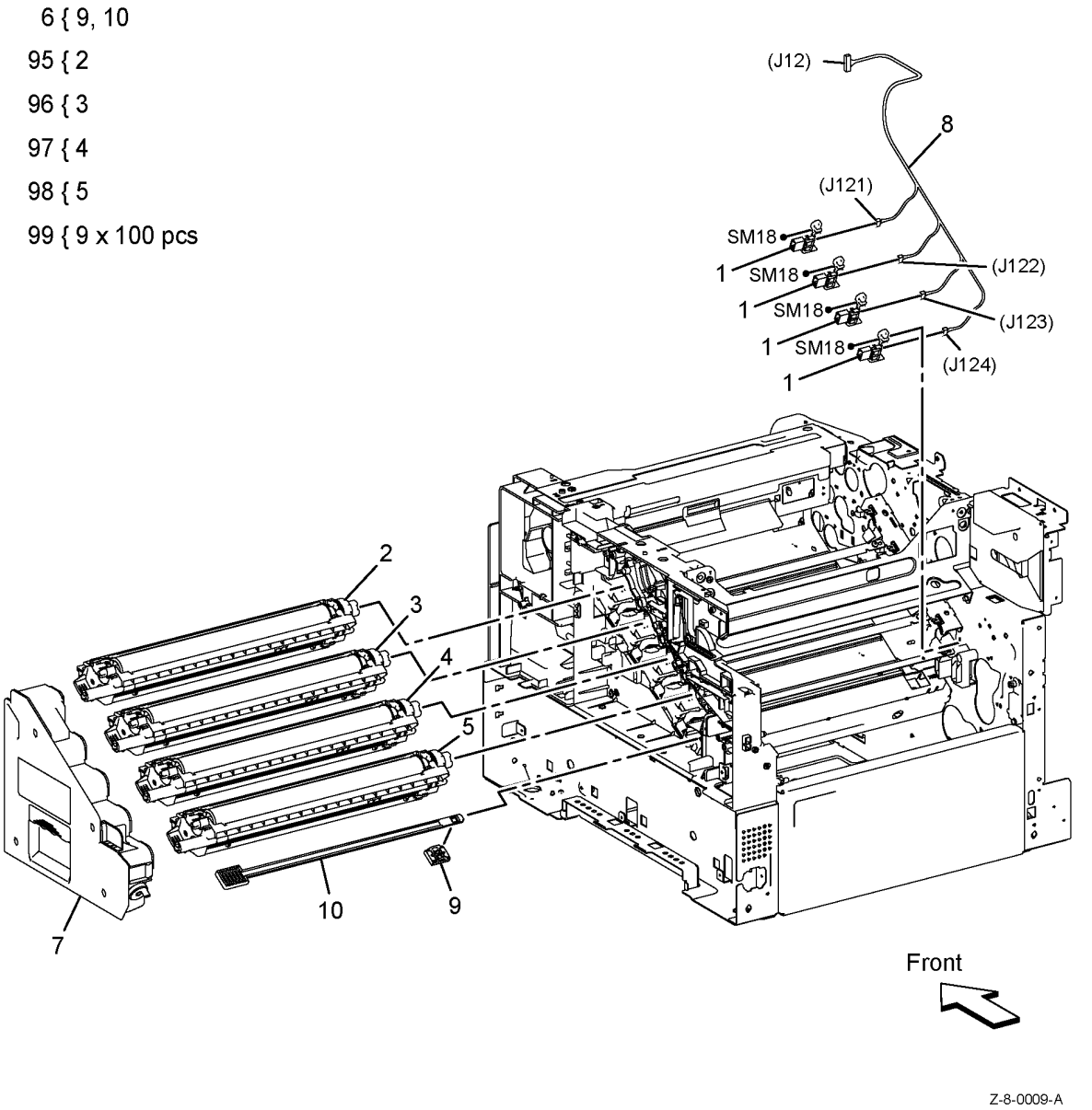
PL 8.1 Xerographics

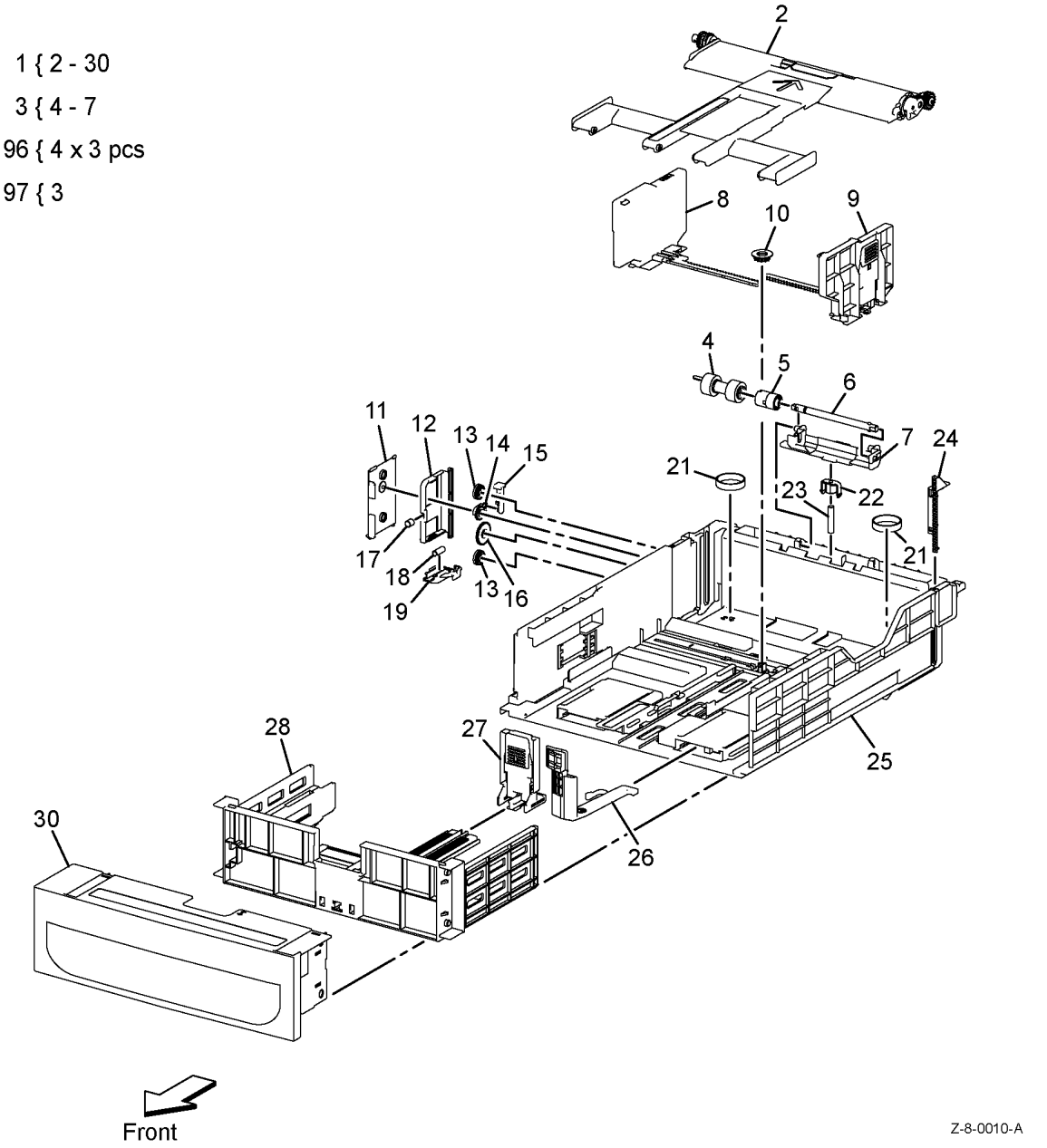
Item	Part	Description
1	019K12700	Transfer CRUM connector assembly (REP 8.1)
2	–	CRU xerographic development assembly - Y (P/O PL 8.1 Item 95)
3	–	CRU xerographic development assembly - M (P/O PL 8.1 Item 96)
4	–	CRU Xerographic Development assembly - C (P/O PL 8.1 Item 97)
5	–	CRU Xerographic Development assembly - K (P/O PL 8.1 Item 98)
6	042K94440	Lens cleaner assembly
7	108R01124	Waste box assembly
8	–	CRUM xerographic harness assembly (Not Spared)
9	–	Cleaner assembly base (P/O PL 8.1 Item 6)
10	–	Cleaner rod (P/O PL 8.1 Item 6)
95	604K77585	CRU Xerographic development assembly (imaging unit) - Y, (See NOTE)
96	604K77575	CRU Xerographic development assembly (imaging unit) - M, (See NOTE)
97	604K77565	CRU Xerographic development assembly (imaging unit) - C, (See NOTE)
98	604K77555	CRU Xerographic development assembly (imaging unit), (See NOTE)
99	–	Cleaner assembly base

NOTE: *HFSI. To reset the HFSI count, refer to dC135.*



PL 9.1 Tray

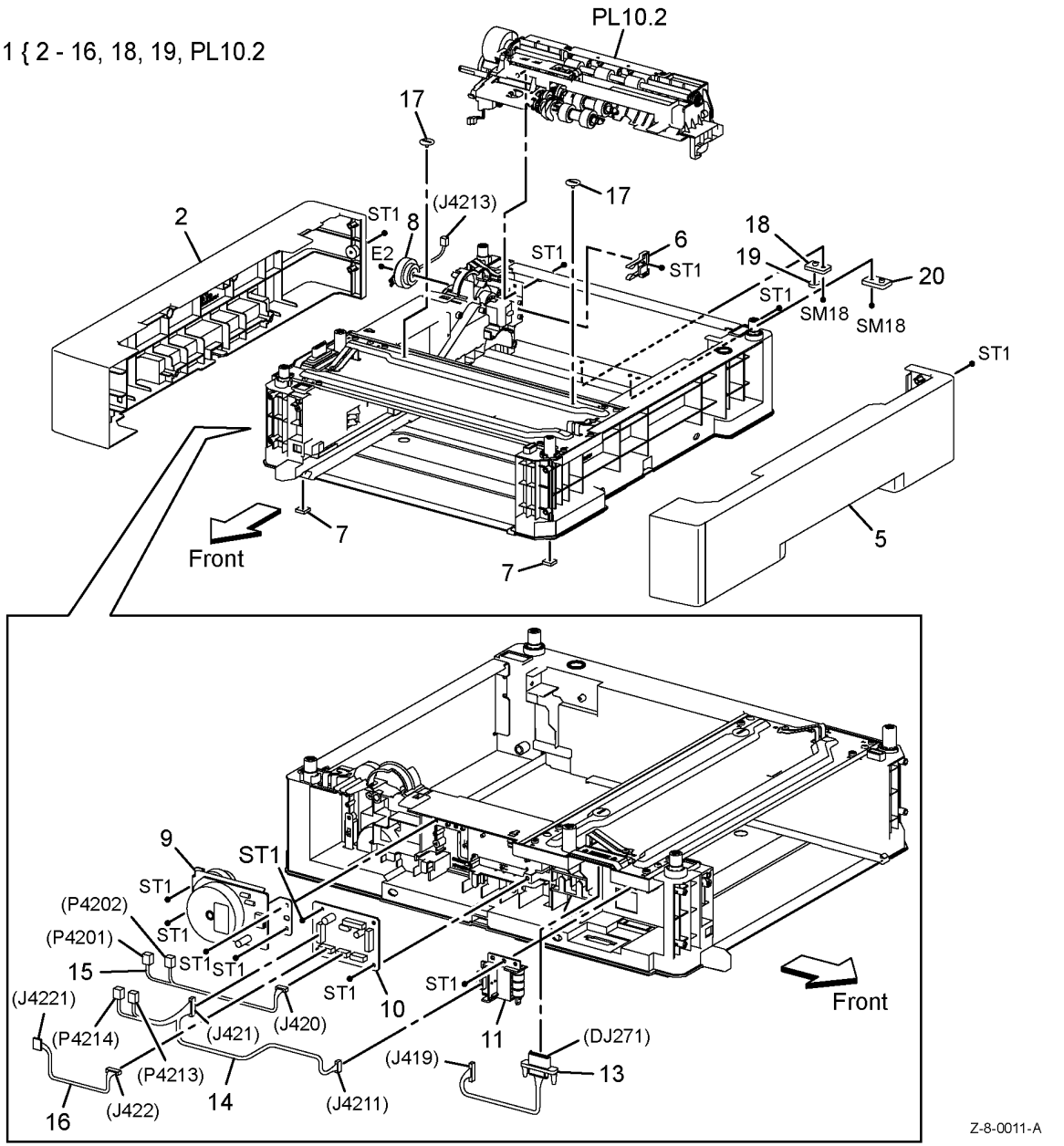
Item	Part	Description
1	050K66497	IOT 550 cassette assembly
2	–	Bottom plate assembly (P/O PL 9.1 Item 1)
3	–	Cassette retard holder assembly (P/O PL 9.1 Item 97) (REP 9.1)
4	–	Retard roller assembly (P/O PL 9.1 Item 3) (See NOTE)
5	–	Retard friction clutch (P/O PL 9.1 Item 3)
6	–	Cassette retard shaft (P/O PL 9.1 Item 3)
7	–	Cassette retard holder (P/O PL 9.1 Item 3)
8	–	Left side guide assembly (P/O PL 9.1 Item 1)
9	–	Right side guide assembly (P/O PL 9.1 Item 1)
10	–	Pinion gear (P/O PL 9.1 Item 1)
11	–	Bottom lock cover (P/O PL 9.1 Item 1)
12	–	Bottom lock rack (P/O PL 9.1 Item 1)
13	–	Bottom lock pinion gear (P/O PL 9.1 Item 1)
14	–	Bottom lock lever gear (P/O PL 9.1 Item 1)
15	–	Bottom lock lever (P/O PL 9.1 Item 1)
16	–	Bottom lock gear (P/O PL 9.1 Item 1)
17	–	Bottom lock spring (P/O PL 9.1 Item 1)
18	–	Lock spring (P/O PL 9.1 Item 1)
19	–	Left lock actuator (P/O PL 9.1 Item 1)
20	–	Not used
21	–	Upper bottom spring (P/O PL 9.1 Item 1)
22	–	MSI retard spring holder (P/O PL 9.1 Item 1)
23	–	Cassette retard spring (P/O PL 9.1 Item 1)
24	–	Upper lift rack (P/O PL 9.1 Item 1)
25	–	Base housing (P/O PL 9.1 Item 1)
26	–	End extension lever (P/O PL 9.1 Item 1)
27	–	End guide assembly (P/O PL 9.1 Item 1)
28	–	End housing (P/O PL 9.1 Item 1)
29	–	Not used
30	–	Cassette handle (P/O PL 9.1 Item 1)
96	675K47673	Feed roller assembly (Kit Contains 3 Feed Roller assembly and Instruction) (REP 9.1)
97	604K77661	Cassette retard holder assembly (Kit Contains Cassette Retard Holder assembly and Instruction) (REP 9.1)



NOTE: *HFSI. To reset the HFSI count, refer to dC135.*

PL 10.1 Option Feeder (1 of 3)

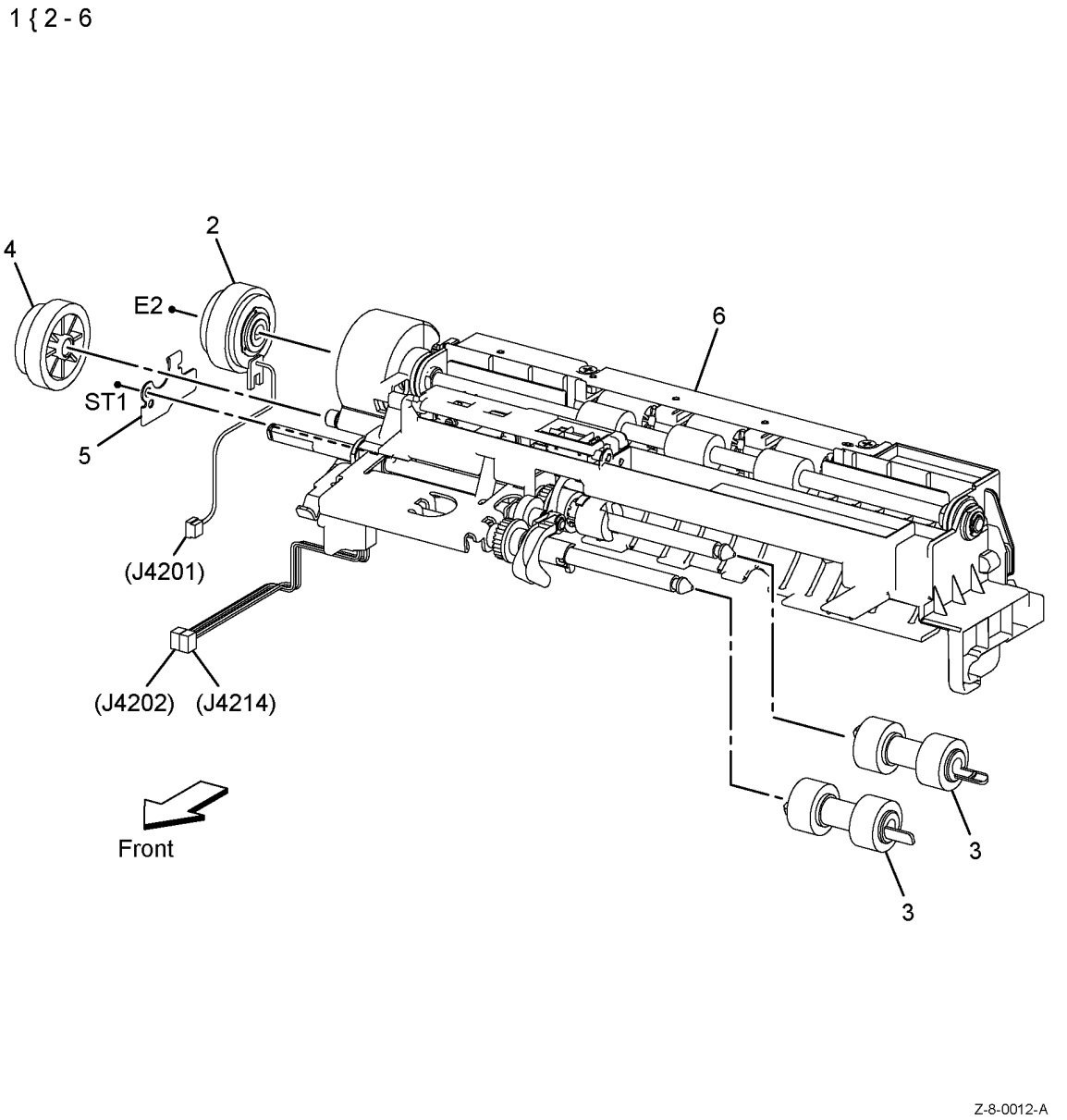
Item	Part	Description
1	604K77500	Optional 550-sheet feeder (REP 10.1)
2	–	550 Option left side cover (P/O PL 10.1 Item 1) (REP 10.2)
3	–	Not used
4	–	Not used
5	–	550 Option right side cover (P/O PL 10.1 Item 1)
6	803E10840	550 Option cassette stopper
7	–	Foot assembly (P/O PL 10.1 Item 1)
8	005K83210	550 Option feed clutch assembly (REP 10.3)
9	007K18020	550 Option drive assembly (REP 10.4)
10	960K62140	550 Option feeder PWBA (REP 10.5)
11	110K16610	550 Option size switch assembly (REP 10.6)
12	–	Not used
13	–	550 Option drawer1 feeder harness (P/O PL 10.1 Item 1)
14	–	C2 size harness assembly (P/O PL 10.1 Item 1)
15	–	C2 turn harness assembly (P/O PL 10.1 Item 1)
16	–	Feeder motor harness assembly (P/O PL 10.1 Item 1)
17	–	Joint screw (Not Spared)
18	–	Front base foot (P/O PL 10.1 Item 1)
19	–	Foot (P/O PL 10.1 Item 1)
20	–	Rear foot (Not Spared)



PL 10.2 Option Feeder (2 of 3)

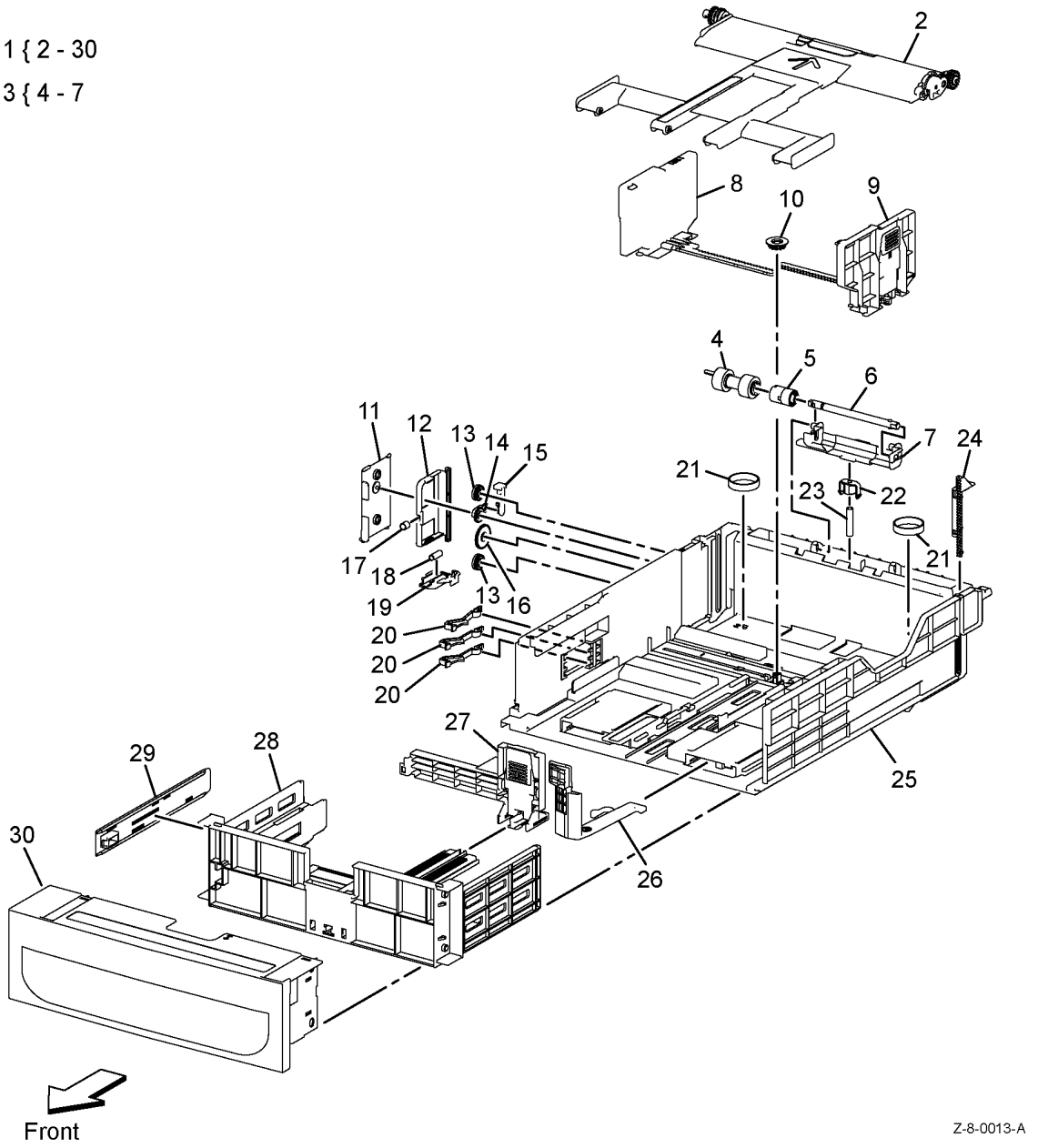
Item	Part	Description
1	059K71760	550 Option main feed assembly (REP 10.7)
2	121K48670	550 Option registration clutch assembly (P/O PL 10.2 Item 1) (REP 10.8)
3	675K47673	550 Option feed roller assembly (REP 10.9) (See NOTE)
4	–	550 Option feeder gear (P/O PL 10.2 Item 1)
5	–	Nudger spring bracket (P/O PL 10.2 Item 1)
6	–	Sub feeder assembly (P/O PL 10.2 Item 1)

NOTE: *HFSI. To reset the HFSI count, refer to dC135.*



PL 10.3 Option Feeder (3 of 3)

Item	Part	Description
1	050K66517	550 Option cassette assembly
2	–	Bottom plate assembly (P/O PL 10.3 Item 1)
3	–	Cassette retard holder assembly (P/O PL 10.3 Item 1)
4	–	Retard roller assembly (P/O PL 10.3 Item 3)
5	–	Retard friction clutch (P/O PL 10.3 Item 3)
6	–	Cassette retard shaft (P/O PL 10.3 Item 3)
7	–	Cassette retard holder (P/O PL 10.3 Item 3)
8	–	Left side guide assembly (P/O PL 10.3 Item 1)
9	–	Right side guide assembly (P/O PL 10.3 Item 1)
10	–	Pinion gear (P/O PL 10.3 Item 1)
11	–	Bottom lock cover (P/O PL 10.3 Item 1)
12	–	Bottom lock rack (P/O PL 10.3 Item 1)
13	–	Bottom lock pinion gear (P/O PL 10.3 Item 1)
14	–	Bottom lock lever gear (P/O PL 10.3 Item 1)
15	–	Bottom lock lever (P/O PL 10.3 Item 1)
16	–	Bottom lock gear (P/O PL 10.3 Item 1)
17	–	Bottom lock spring (P/O PL 10.3 Item 1)
18	–	Lock spring (P/O PL 10.3 Item 1)
19	–	Left lock actuator (P/O PL 10.3 Item 1)
20	–	Size actuator (P/O PL 10.3 Item 1)
21	–	Upper bottom spring (P/O PL 10.3 Item 1)
22	–	MSI retard spring holder (P/O PL 10.3 Item 1)
23	–	Cassette retard spring (P/O PL 10.3 Item 1)
24	–	Upper lift rack (P/O PL 10.3 Item 1)
25	–	Base housing (P/O PL 10.3 Item 1)
26	–	End extension lever (P/O PL 10.3 Item 1)
27	–	End guide assembly (P/O PL 10.3 Item 1)
28	–	End housing (P/O PL 10.3 Item 1)
29	–	Size slot plate (P/O PL 10.3 Item 1)
30	–	Cassette handle (P/O PL 10.3 Item 1)

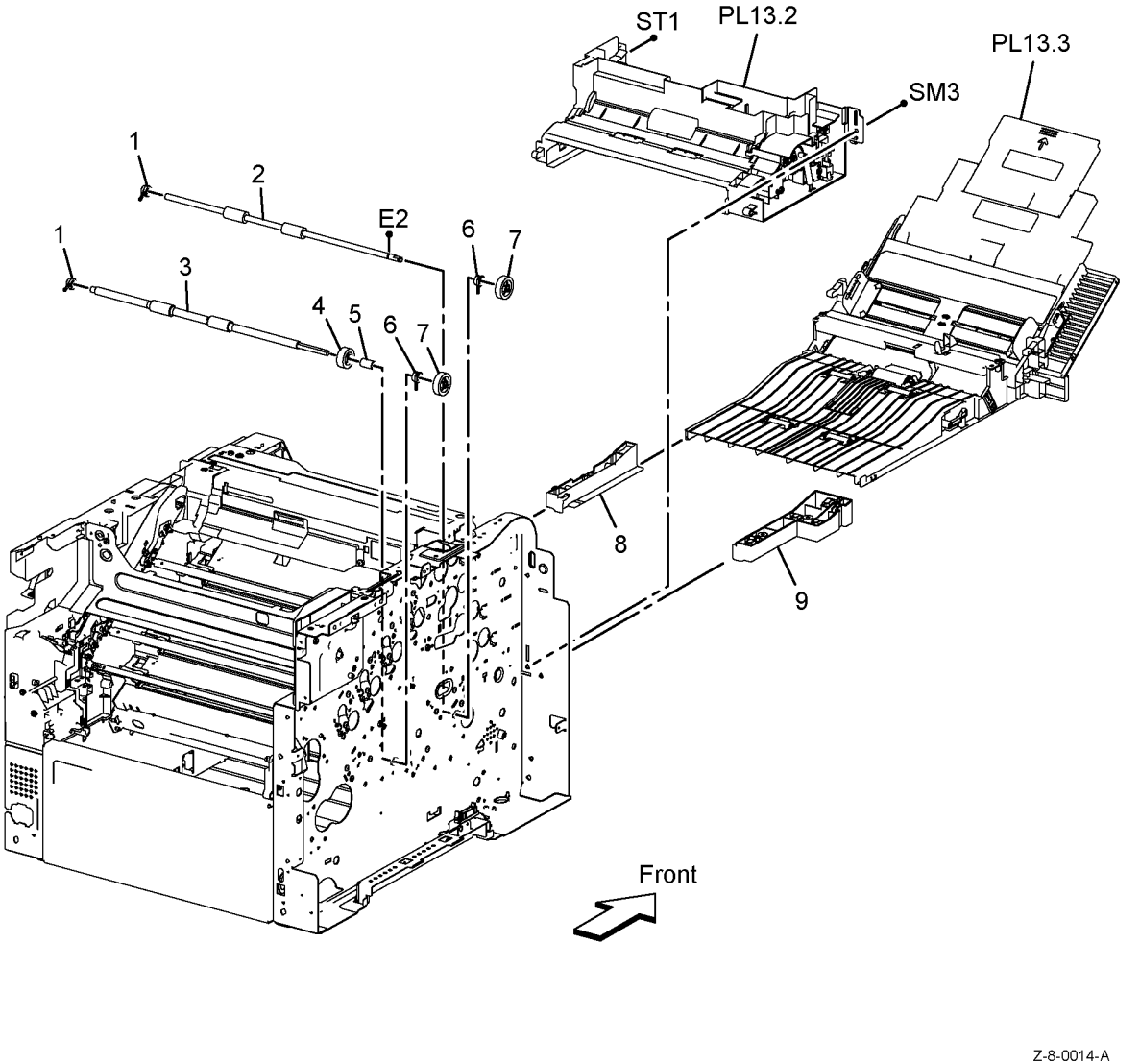


PL 13.1 MSI (1 of 3)

Item	Part	Description
1	–	Duplex bearing (P/O PL 13.1 Item 98)
2	–	TA1 roller assembly (P/O PL 13.1 Item 98) (REP 13.1)
3	–	TA2 roller assembly (P/O PL 13.1 Item 99) (REP 13.2)
4	–	TA1 gear (P/O PL 13.1 Item 99)
5	–	TA2 spacer (P/O PL 13.1 Item 99)
6	–	Bearing TA (P/O PL 13.1 Item 98)
7	–	Turn gear (P/O PL 13.1 Item 98)
8	–	MSI right guide (Not Spared)
9	–	MSI left guide (Not Spared)
98	604K73890	TA1 roller assembly kit
99	604K73900	TA2 roller assembly kit

98 { 1, 2, 6, 7

99 { 1, 3 - 7



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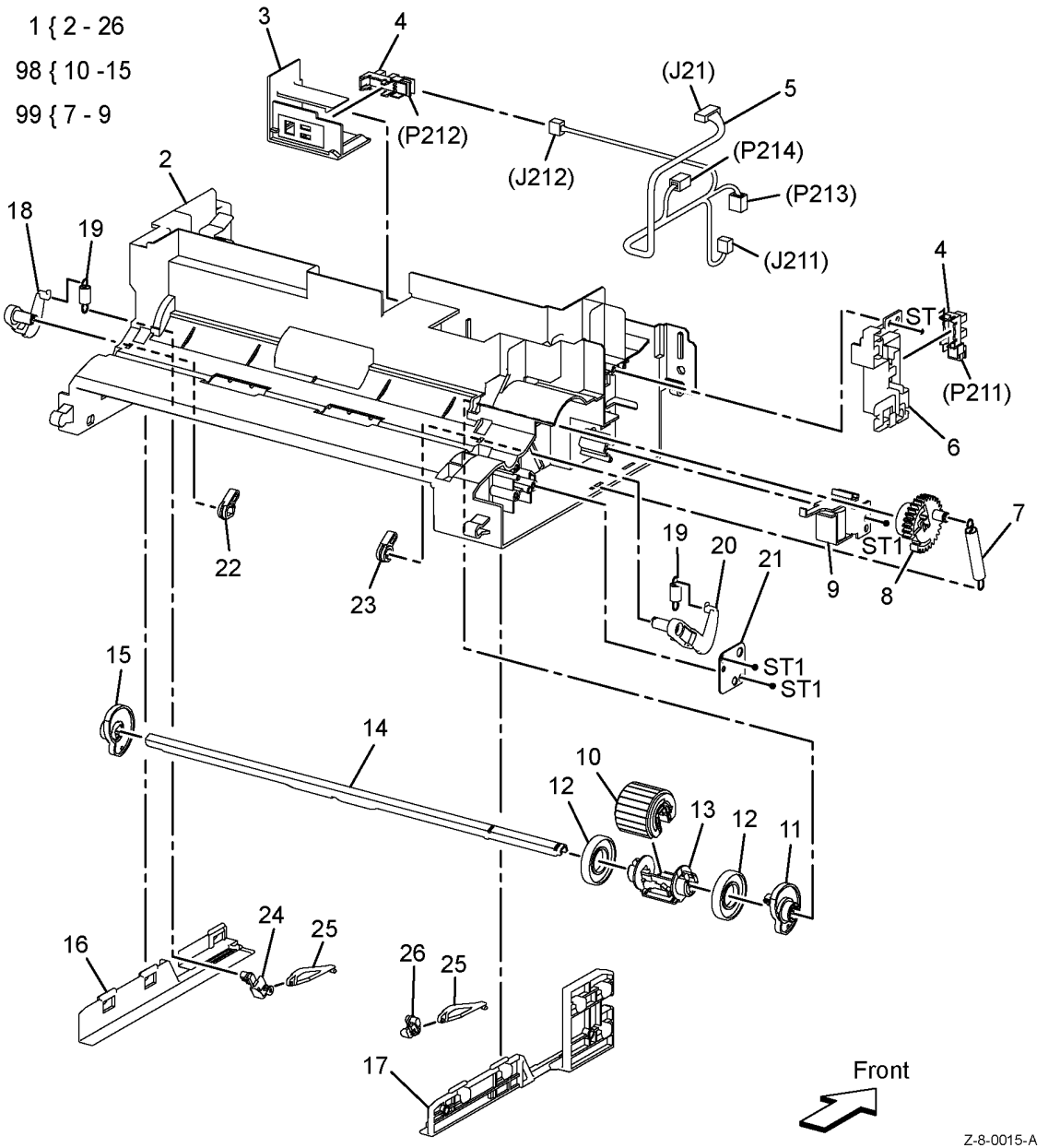
PL 13.2 MSI (2 of 3)

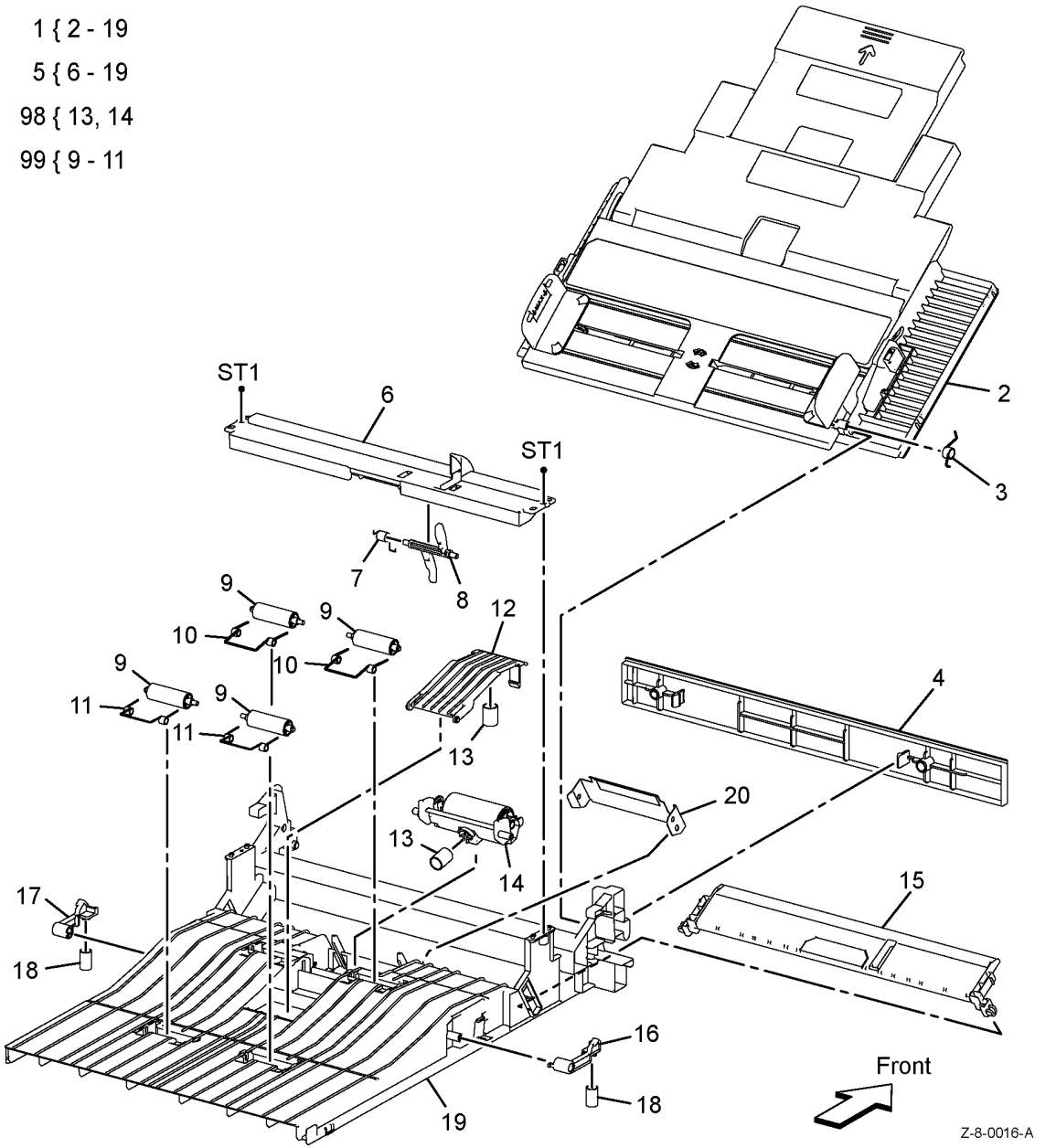
Item	Part	Description
1	801K47623	MSI tray frame assembly (REP 13.3)
2	–	MSI frame (P/O PL 13.2 Item 1)
3	–	MSI no paper sensor bracket (P/O PL 13.2 Item 1)
4	930W00123	MSI no paper sensor, (P212) (REP 13.4). MSI tray detect sensor, (P211) (REP 13.5).
5	–	MSI harness assembly (P/O PL 13.2 Item 1)
6	–	MSI harness guide (P/O PL 13.2 Item 1)
7	–	Feed spring (P/O PL 13.2 Item 99)
8	–	MSI feed gear (P/O PL 13.2 Item 99)
9	–	MSI feed solenoid (P/O PL 13.2 Item 99) (REP 13.8)
10	059K78701	MSI tray feed roller assembly (REP 13.6) (See NOTE)
11	–	MSI left cam (P/O PL 13.2 Item 98)
12	–	Core roller (P/O PL 13.2 Item 98)
13	–	Feed holder (P/O PL 13.2 Item 98)
14	–	MSI feed shaft (P/O PL 13.2 Item 98)
15	–	MSI right cam (P/O PL 13.2 Item 98)
16	–	Right support guide (P/O PL 13.2 Item 1)
17	–	Left support guide (P/O PL 13.2 Item 1)
18	–	Right arm (P/O PL 13.2 Item 1)
19	–	Spring (P/O PL 13.2 Item 1)
20	–	Left arm (P/O PL 13.2 Item 1)
21	–	Gear bracket (P/O PL 13.2 Item 1)
22	–	Right follower (P/O PL 13.2 Item 1)
23	–	Left follower (P/O PL 13.2 Item 1)
24	–	Right bottom guide (P/O PL 13.2 Item 1)
25	–	Bottom side (P/O PL 13.2 Item 1)
26	–	Left bottom guide (P/O PL 13.2 Item 1)
98	604K73910	MSI tray feed roller assembly kit (REP 13.7)
99	604K73921	MSI feed solenoid assembly kit

NOTE: *HFSI. To reset the HFSI count, refer to dC135.*



PL 13.3 MSI (3 of 3)

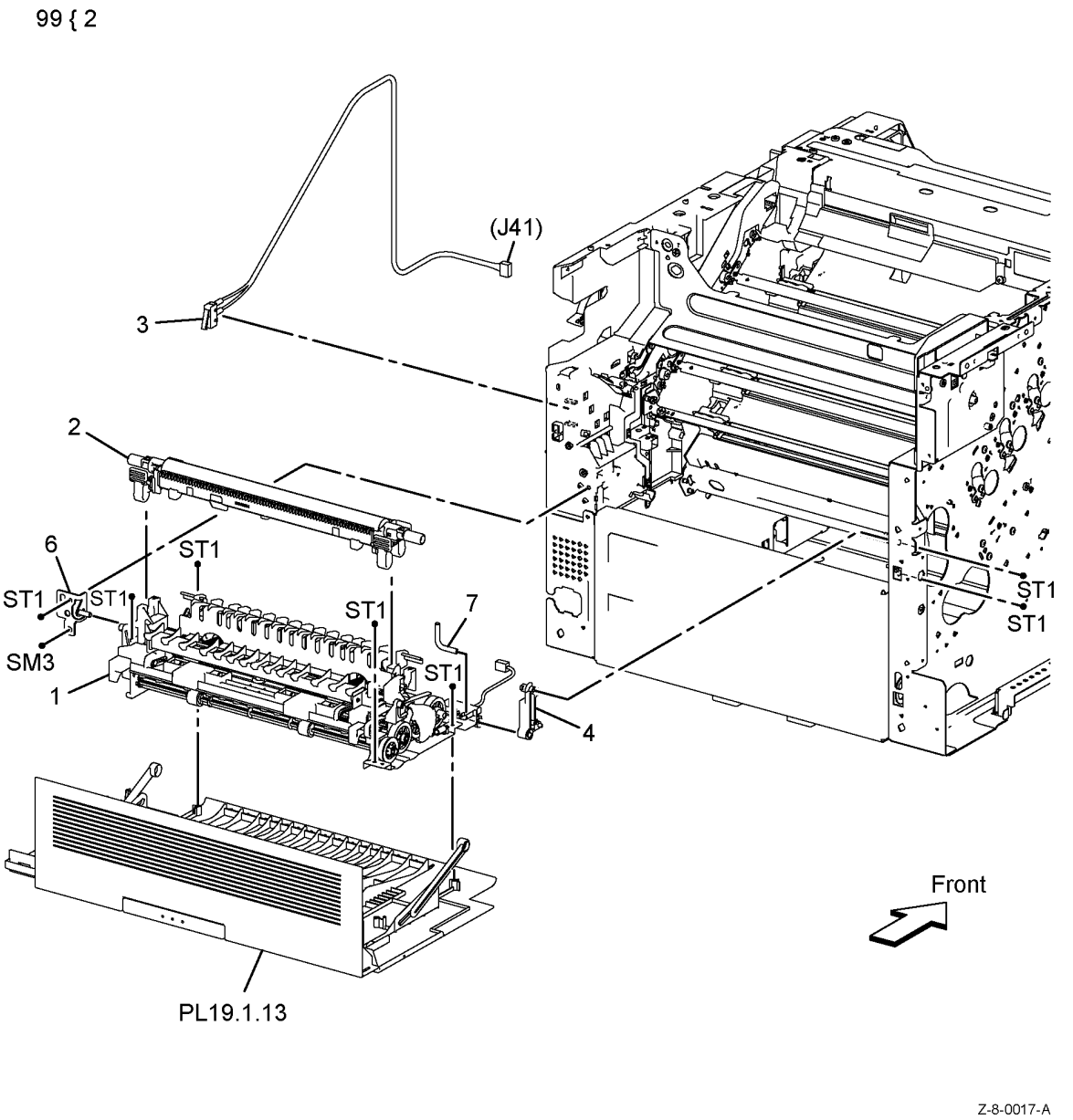
Item	Part	Description
1	050K66575	MSI tray assembly (REP 13.9)
2	848K51105	MSI tray cover assembly (REP 13.10)
3	–	Damper spring (P/O PL 13.3 Item 1)
4	–	MSI tray lower cover (P/O PL 13.3 Item 1) (REP 13.11)
5	054K46615	MSI tray chute assembly (REP 13.12)
6	–	Front MSI bar (P/O PL 13.3 Item 5)
7	–	No paper spring (P/O PL 13.3 Item 5)
8	–	No paper actuator (P/O PL 13.3 Item 5)
9	–	MSI pinch roll (P/O PL 13.3 Item 5) (REP 13.14)
10	–	TA1 pinch spring (P/O PL 13.3 Item 5)
11	–	TA2 pinch spring (P/O PL 13.3 Item 5)
12	–	Retard chute (P/O PL 13.3 Item 5)
13	–	MSI retard spring (P/O PL 13.3 Item 5)
14	–	Retard holder assembly (P/O PL 13.3 Item 5)
15	–	Bottom plate assembly (P/O PL 13.3 Item 5)
16	–	Left MSI latch (P/O PL 13.3 Item 5)
17	–	Right MSI latch (P/O PL 13.3 Item 5)
18	–	MSI latch spring (P/O PL 13.3 Item 5)
19	–	MSI chute (P/O PL 13.3 Item 5)
20	–	Plate assembly retard MSI (Not Spared)
98	604K74442	MSI tray separator roller assembly kit (REP 13.13)
99	604K73940	MSI tray pinch roller assembly kit



PL 14.1 Duplex

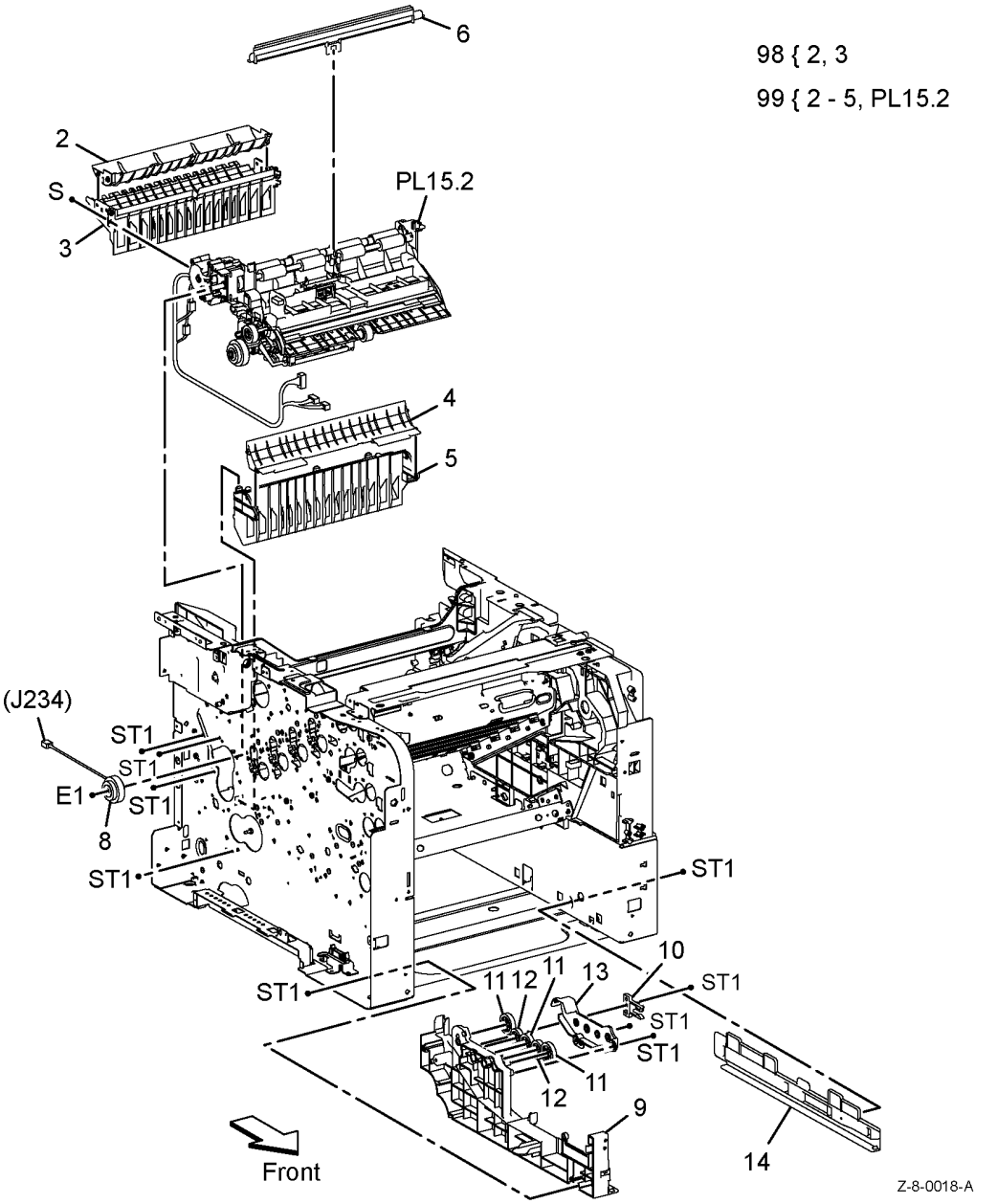
Item	Part	Description
1	054K46665	Duplex assembly (REP 14.1)
2	–	CRU transfer roller assembly (P/O PL 14.1 Item 99)
3	–	Rear interlock switch harness assembly (Not Spared)
4	868E68951	Rear hinge bracket (REP 14.2)
5	–	Not used
6	–	Right hinge plate (Not Spared)
7	–	Left hinge shaft (Not Spared)
99	604K77540	CRU transfer roller assembly Kit (REP 14.3) (see NOTE)

NOTE: *HFSI. To reset the HFSI count, refer to dC135*



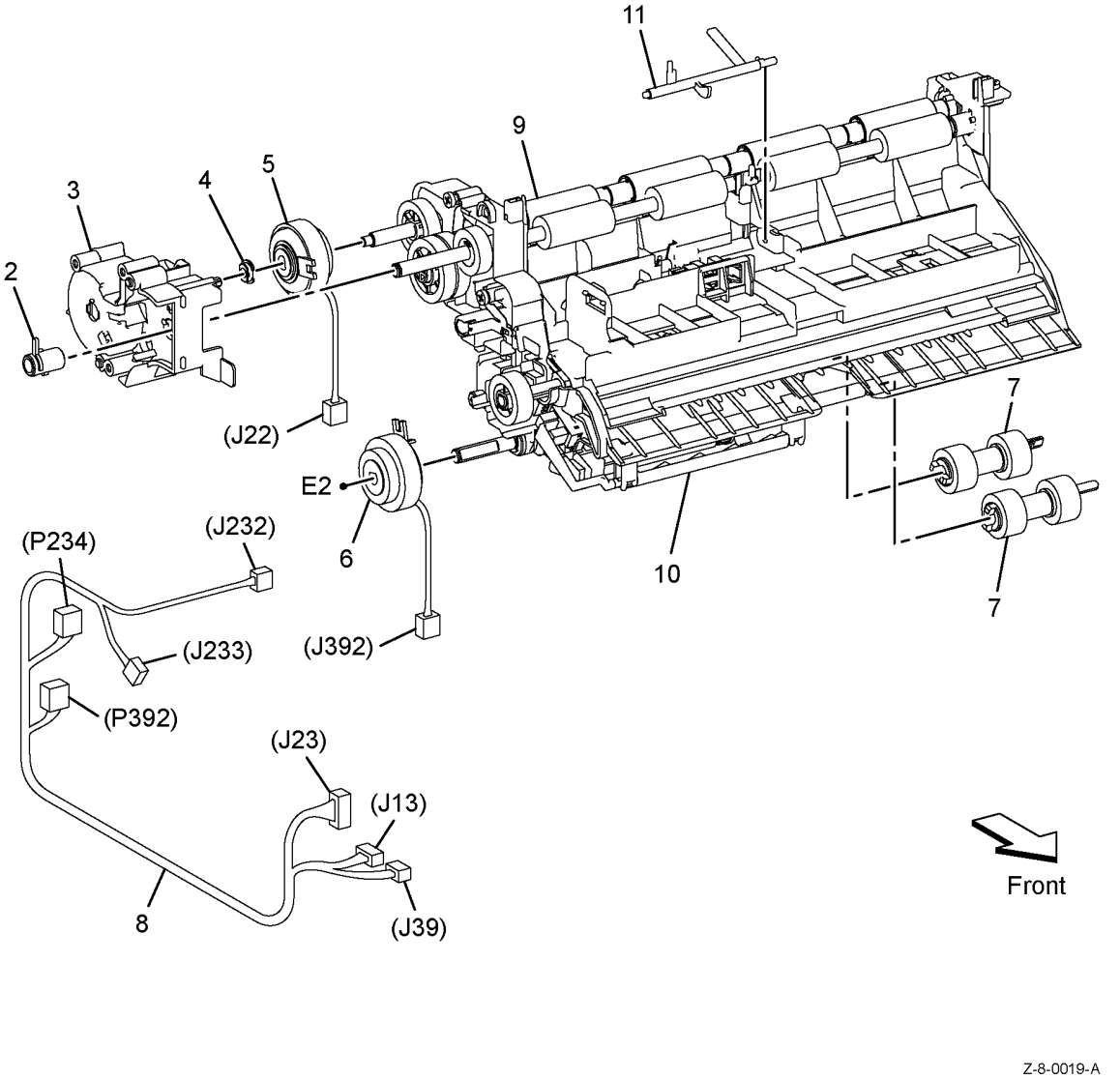
PL 15.1 Registration/Feeder (1 of 2)

Item	Part	Description
1	–	Not used
2	–	Upper duplex chute (P/O PL 15.1 Item 98) (REP 15.5)
3	–	Lower duplex chute (P/O PL 15.1 Item 98) (REP 15.5)
4	–	Lower registration chute (P/O PL 15.1 Item 99) (REP 15.1)
5	–	Opt 550 registration chute (P/O PL 15.1 Item 99) (REP 15.1)
6	054K46650	Upper transfer belt chute assembly (REP 15.2)
7	–	Not used
8	121K48670	Registration clutch assembly (REP 15.3)
9	–	Left tray guide (Not Spared)
10	–	Cassette stopper (Not Spared) (REP 15.4)
11	–	Idle gear 28 (Not Spared)
12	–	Idle gear 25 (Not Spared)
13	–	MSI gear cover (Not Spared)
14	–	Right tray guide (Not Spared)
98	054K46641	Duplex chute assembly (REP 15.5)
99	604K77761	Upper registration chute assembly kit N (REP 15.6)
–	604K77751	Upper registration chute assembly kit DN (REP 15.6)



PL 15.2 Registration/Feeder (2 of 2)

Item	Part	Description
1	054K49224	Registration chute assembly N (REP 15.7)
–	054K47996	Registration chute assembly DN (REP 15.7)
2	–	Right registration bearing (P/O PL 15.2 Item 1) (REP 15.8)
3	–	Duplex gear cover (P/O PL 15.2 Item 1)
4	–	Bearing (P/O PL 15.2 Item 1)
5	121K48680	Duplex clutch assembly (REP 15.9)
6	–	Tray 1 feed clutch (P/O PL 15.2 Item 1) (REP 15.10)
7	–	Feed roller assembly (P/O PL 15.2 Item 1) (REP 15.11)
8	–	Registration harness assembly (P/O PL 15.2 Item 1)
9	–	Registration chute sub assembly (P/O PL 15.2 Item 1)
10	120E33762	No paper sensor actuator
11	–	Registration sensor actuator (Not Spared)



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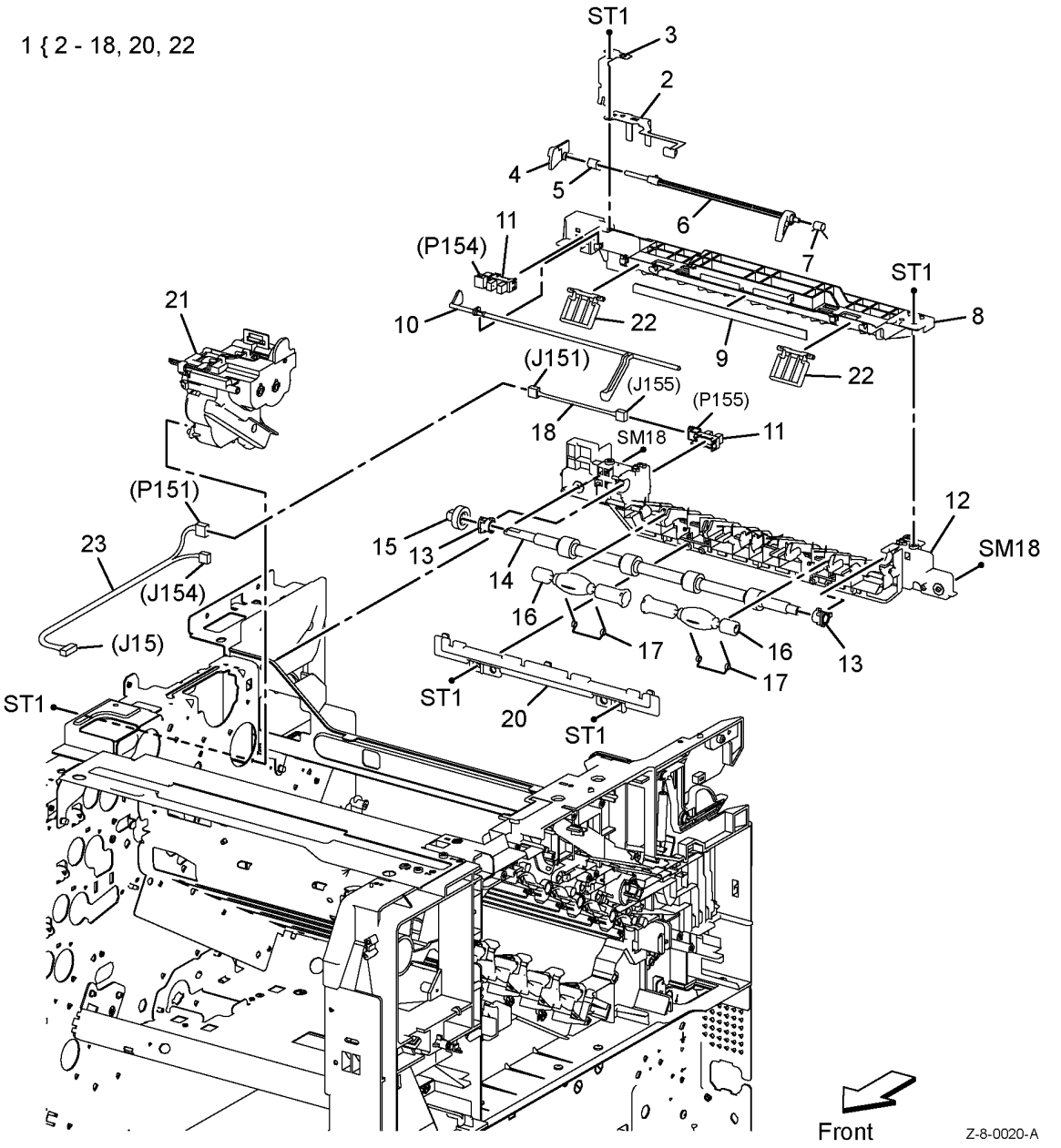
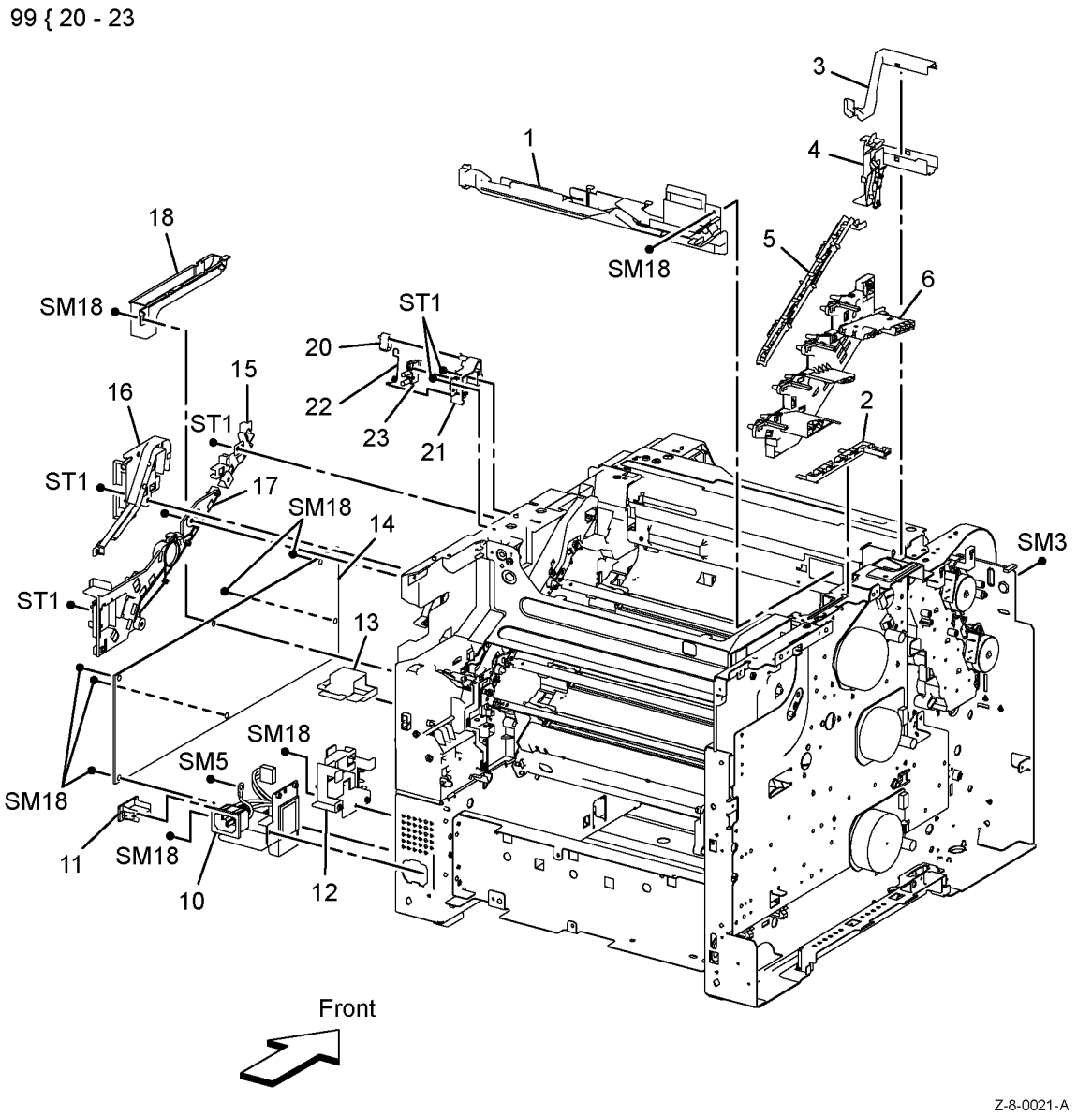
PL 17.1 Exit

Item	Part	Description
1	054K58160	Exit assembly (REP 17.1)
2	–	Exit B earth plate (P/O PL 17.1 Item 1)
3	–	Exit A earth plate (P/O PL 17.1 Item 1)
4	–	Exit B actuator (P/O PL 17.1 Item 1)
5	–	Actuator B spring (P/O PL 17.1 Item 1)
6	–	Exit A actuator (P/O PL 17.1 Item 1)
7	–	Actuator A spring (P/O PL 17.1 Item 1)
8	–	S3 upper exit chute (P/O PL 17.1 Item 1)
9	–	Exit eliminator (P/O PL 17.1 Item 1)
10	–	Stack full actuator (P/O PL 17.1 Item 1)
11	–	Exit sensor (P155) Full stack sensor (P154) (P/O PL 17.1 Item 1)
12	–	S3 lower exit chute (P/O PL 17.1 Item 1)
13	–	Exit bearing (P/O PL 17.1 Item 1)
14	–	Exit roller assembly (P/O PL 17.1 Item 1)
15	–	Exit gear (P/O PL 17.1 Item 1)
16	–	Pinch roll (P/O PL 17.1 Item 1)
17	–	Pinch spring (P/O PL 17.1 Item 1)
18	–	Exit sensor harness assembly (P/O PL 17.1 Item 1)
19	–	Not used
20	–	Tray exit cover (P/O PL 17.1 Item 1)
21	007K18766	Exit drive assembly (REP 17.2)
22	–	Exit flapper chute (P/O PL 17.1 Item 1)
23	–	Sensor harness assembly (Not Spared)



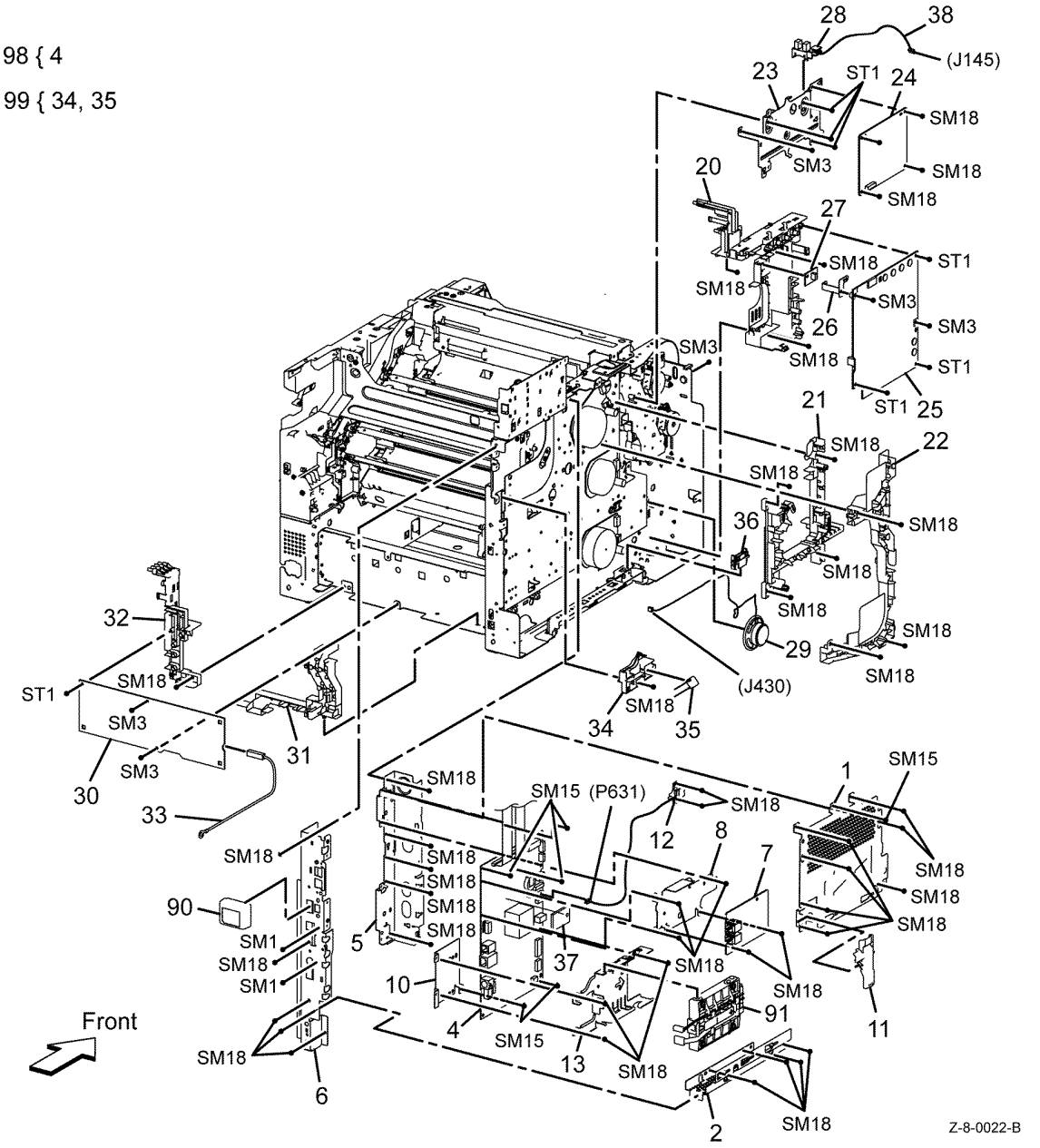
PL 18.1 Electrical (Front/Right)

Item	Part	Description
1	–	Top harness guide (Not Spared)
2	–	Exit harness guide (Not Spared)
3	–	Top harness cover (Not Spared)
4	–	Left top harness guide (Not Spared)
5	–	CRM erase harness guide (Not Spared)
6	–	Development charge housing assembly (Not Spared)
7	–	Not used
8	–	Not used
9	–	Not used
10	952K33351	Inlet harness assembly (REP 18.1).
11	–	Switch cover (Not Spared)
12	–	AC LV harness guide (Not Spared)
13	–	LV bottom cap (Not Spared)
14	105K30562	LVPS PWBA 110V (REP 18.2)
–	105K30572	LVPS PWBA 220V
15	–	Right harness guide (Not Spared)
16	–	Drawer holder (Not Spared)
17	–	Transfer wire cover (Not Spared)
18	–	Upper LVPS duct (Not Spared)
19	–	Not used
20	–	Right side interlock bracket (P/O PL 18.1 Item 99)
21	–	Interlock swing actuator (P/O PL 18.1 Item 99)
22	–	Interlock WC spring (P/O PL 18.1 Item 99)
23	–	Interlock door harness assembly (P/O PL 18.1 Item 99)
99	110K16891	Right interlock switch assembly (REP 18.3)



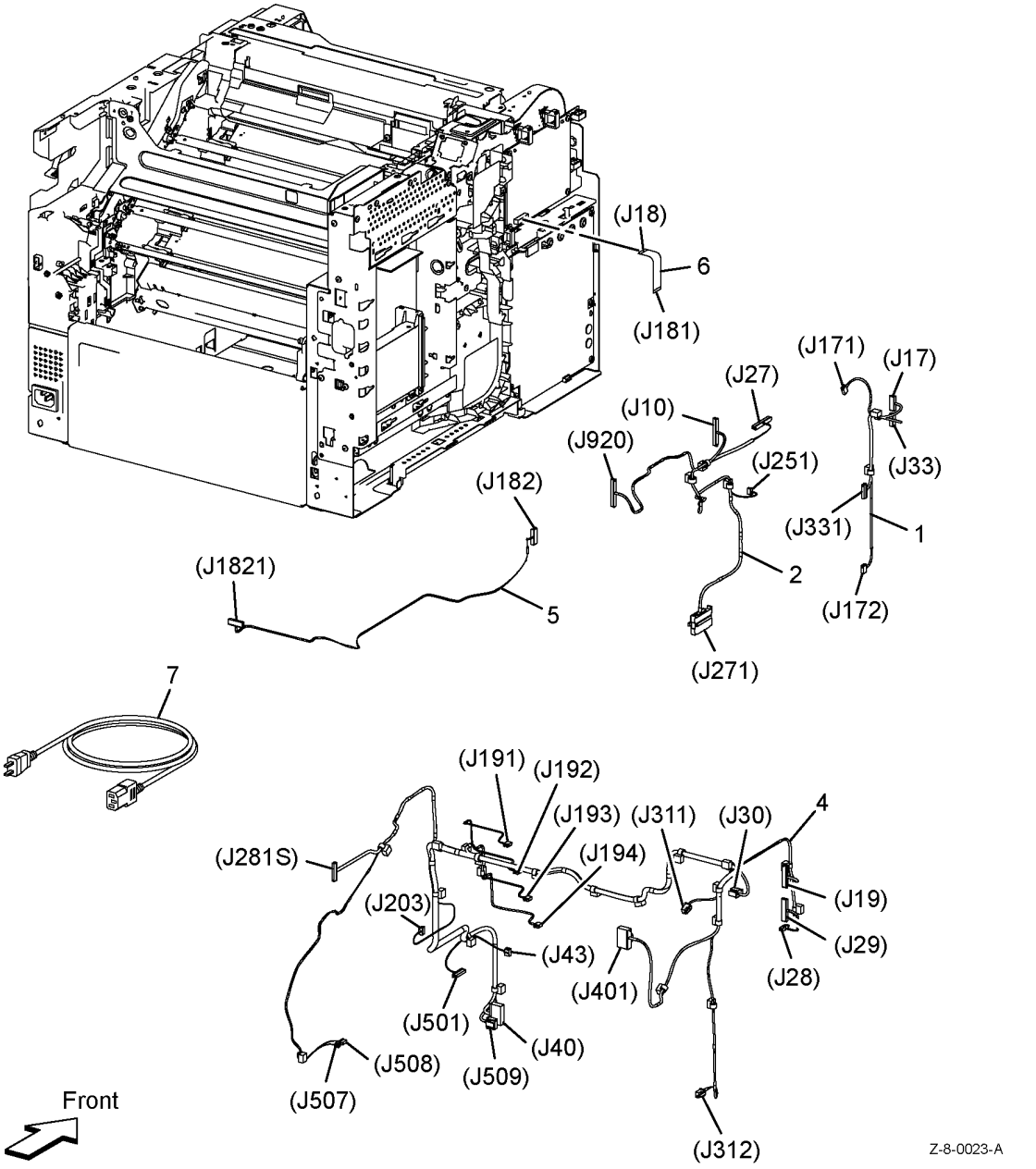
PL 18.2 Electrical (Rear/Left)

Item	Part	Description
1	–	ESS top plate (Not Spared)
2	–	ESS bottom plate (Not Spared)
3	–	Not used
4	–	ESS PWBA (P/O PL 18.2 Item 98)
5	–	ESS front plate (Not Spared)
6	–	ESS rear plate (Not Spared)
7	960K80761	Fax PWBA C405 (REP 18.6)
8	–	Fax plate (Not Spared)
9	–	Not used
10	–	ESS cover plate (Not Spared)
11	–	WiFi lever release (Not Spared)
12	952K33410	Front USB harness C400 (REP 18.7)
–	952K33910	Front USB harness C405 (REP 18.8)
13	–	Hard disk drive bracket (Not Spared)
20	–	Outer development charge housing assembly (Not Spared)
21	–	Video harness guide (Not Spared)
22	–	Left harness guide (Not Spared)
23	–	MCU plate (Not Spared)
24	960K87311	MCU PWBA (REP 18.9)
25	105K26097	Development HVPS XD PWBA (REP 18.10)
26	–	HV earth plate (Not Spared)
27	–	EEPROM XPRO board (Not Spared)
28	–	Front cover interlock sensor (Not Spared)
29	–	Speaker assembly (Not Spared)
30	105K26107	Transfer HVPS PWBA (REP 18.12)
31	–	Photo guide harness (Not Spared)
32	–	Interlock transfer wire housing assembly (Not Spared)
33	–	BTR harness assembly (Not Spared)
34	–	Ground fuser housing assembly (P/O PL 18.2 Item 99)
35	–	Resistor assembly (P/O PL 18.2 Item 99)
36	913W12104	Drawer 1 feeder
37	–	EMMC card (Not Spared)
38	–	Front cover interlock sensor harness (Not Spared) (REP 18.21)
90	–	Wireless adaptor optional (Not Spared) (REP 18.13)
91	–	Hard disk drive, optional (Not Spared) (REP 18.14)
98	607K04250	ESS Kit C400 (REP 18.4)
–	607K04270	ESS Kit C405 (REP 18.5)
99	848K69222	Varistor assembly kit (REP 18.15)



PL 18.3 Electrical

Item	Part	Description
1	–	Drive harness assembly (Not Spared) (REP 18.16)
2	–	Main harness assembly (Not Spared) (REP 18.17)
3	–	Not used
4	–	Top harness assembly (Not Spared) (REP 18.18, REP 18.19)
5	–	HVPS harness assembly (Not Spared) (REP 18.20)
6	–	MCU-HVPS flat flex connector (FFC) (Not Spared)
7	–	Power cord (Not Spared)

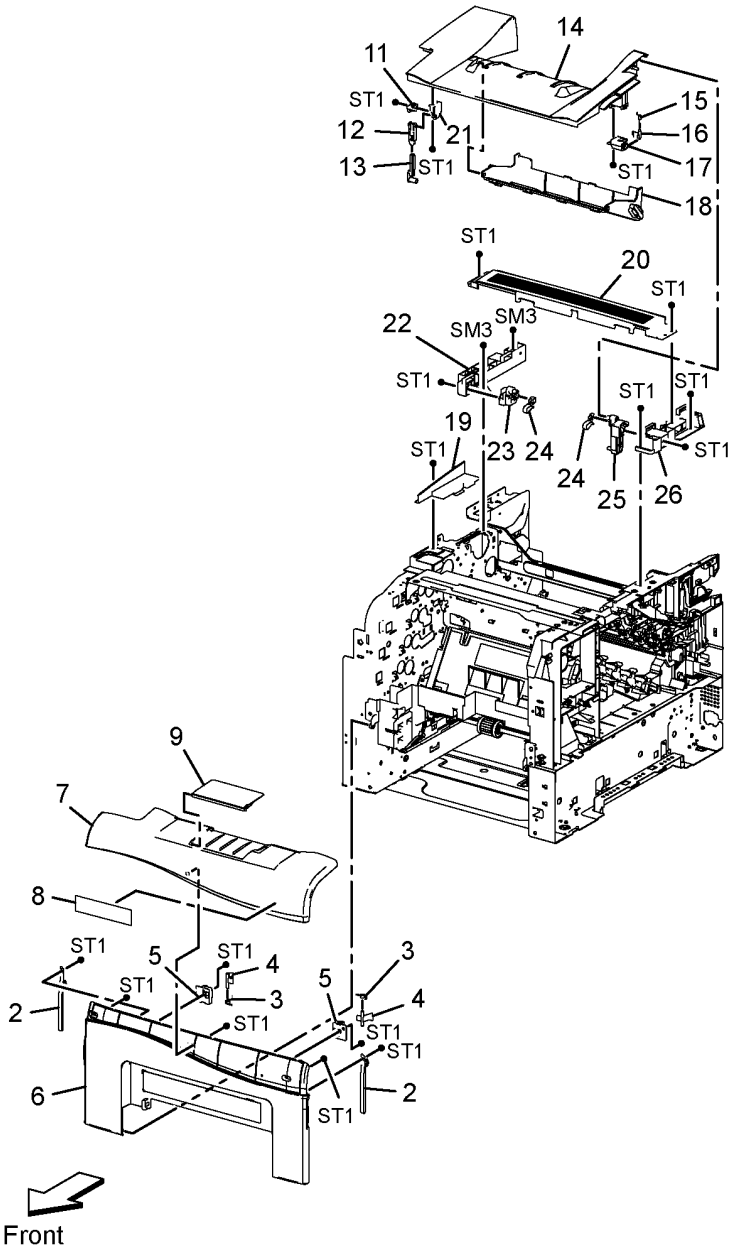


PL 19.1A Covers - C400 (1 of 2)

Item	Part	Description
1	948K02920	Front cover assembly C400 (REP 19.1)
2	–	Front strap (P/O PL 19.1A Item 1)
3	–	Front latch spring (P/O PL 19.1A Item 1)
4	–	Front latch (P/O PL 19.1A Item 1)
5	–	Latch bracket (P/O PL 19.1A Item 1)
6	–	Lower front cover C400 (P/O PL 19.1A Item 1)
7	–	Upper front cover C400 (P/O PL 19.1A Item 1)
8	–	Logo plate (P/O PL 19.1A Item 1)
9	–	Front cover extension (P/O PL 19.1A Item 1)
10	948K02960	Top cover assembly (REP 19.2)
11	–	Transfer link holder (P/O PL 19.1A Item 10)
12	–	Transfer 1 link (P/O PL 19.1A Item 10)
13	–	Transfer 2 link (P/O PL 19.1A Item 10)
14	–	Upper top cover C400 (P/O PL 19.1A Item 10)
15	–	Interlink actuator spring (P/O PL 19.1A Item 10)
16	–	Interlink turn actuator (P/O PL 19.1A Item 10)
17	–	Interlink actuator holder (P/O PL 19.1A Item 10)
18	–	Bottom top cover (P/O PL 19.1A Item 10)
19	–	Left under top cover (Not Spared)
20	822E30230	Exit cover C400 (REP 19.3)
21	–	Support transfer link holder (P/O PL 19.1A Item 10)
22	–	Left hinge bracket (Not Spared)
23	–	Left top hinge (Not Spared)
24	–	Top cover stopper (Not Spared)
25	–	Right top hinge (Not Spared)
26	–	Right hinge bracket (Not Spared)

1 { 2 - 9

10 { 11 - 18, 21



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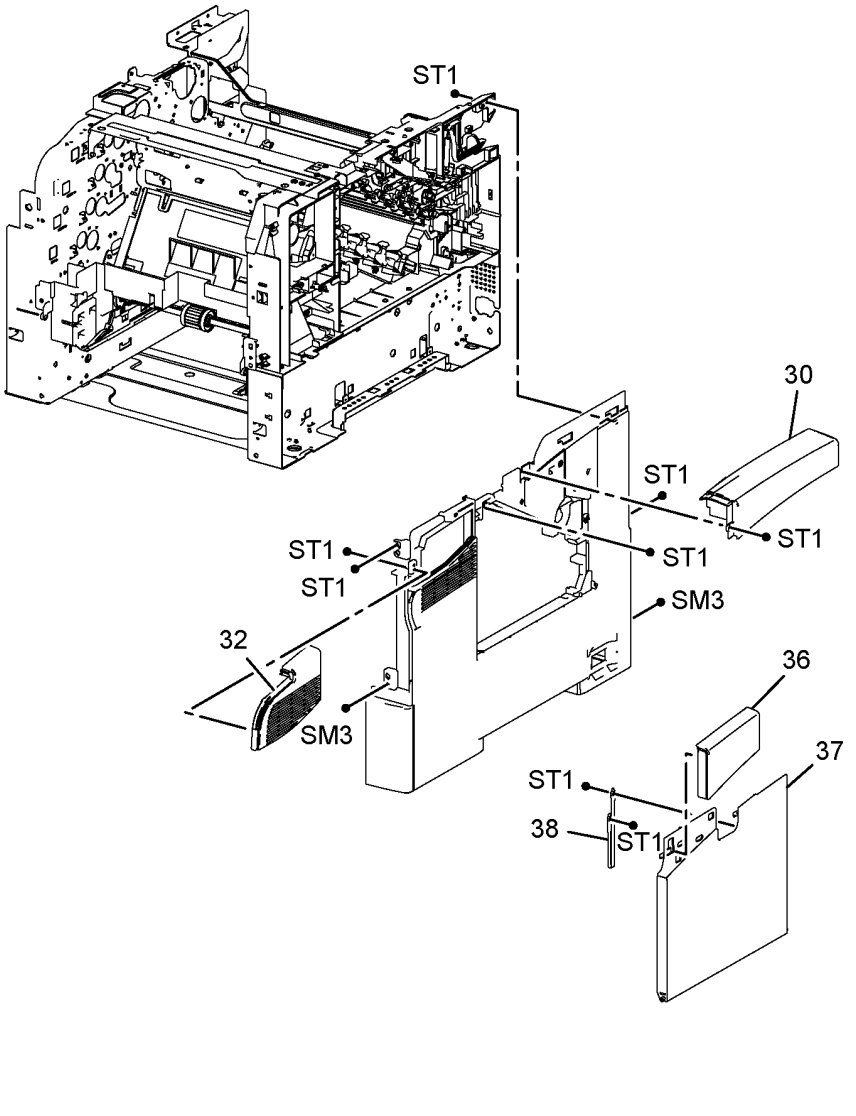
PL 19.1B Covers - C400 (2 of 2)

Item	Part	Description
30	–	Top right cover C400 (Not Spared) (REP 19.4)
31	822E14490	Right side cover assembly C400 (REP 19.5)
32	–	Front right cover C400 (P/O PL 19.1B Item 33)
33	–	Right cover (P/O PL 19.1B Item 31)
34	–	Not used
35	948K02950	Waste door cover assembly
36	–	Right door upper cover C400 (P/O PL 19.1B Item 31)
37	–	Right door cover C400 (P/O PL 19.1B Item 31)
38	–	Right side cover strap (P/O PL 19.1B Item 31)

31 { 33, 35 - 38

33 { 32

35 { 36 - 38

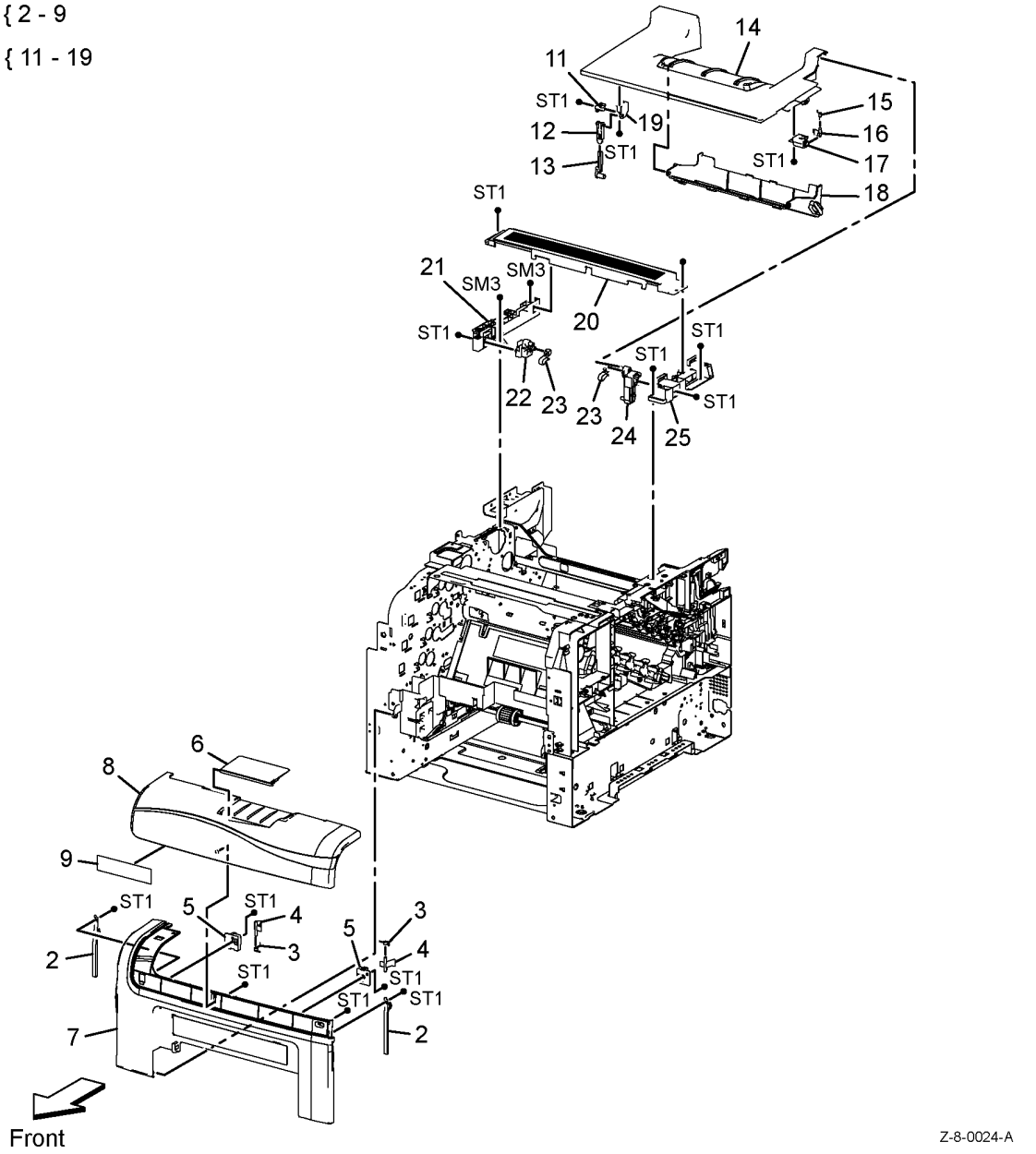


PL 19.1C Covers - C405 (1 of 2)

Item	Part	Description
1	948K03310	Front cover assembly C405 (REP 19.6)
2	–	Front strap (P/O PL 19.1C Item 1)
3	–	Front latch spring (P/O PL 19.1C Item 1)
4	–	Front latch (P/O PL 19.1C Item 1)
5	–	Latch bracket (P/O PL 19.1C Item 1)
6	–	Front cover extension (P/O PL 19.1C Item 1)
7	–	Lower front cover (P/O PL 19.1C Item 1)
8	–	Top front cover (P/O PL 19.1C Item 1)
9	–	Logo plate (P/O PL 19.1C Item 1)
10	948K03380	Top cover assembly C405 (REP 19.7)
11	–	Transfer link holder (P/O PL 19.1C Item 10)
12	–	Transfer 1 link (P/O PL 19.1C Item 10)
13	–	Transfer 2 link (P/O PL 19.1C Item 10)
14	–	Upper top cover (P/O PL 19.1C Item 10)
15	–	Interlink actuator spring (P/O PL 19.1C Item 10)
16	–	Interlink turn actuator (P/O PL 19.1C Item 10)
17	–	Interlink actuator holder (P/O PL 19.1C Item 10)
18	–	Bottom top cover (P/O PL 19.1C Item 10)
19	–	Support transfer link holder (P/O PL 19.1C Item 10)
20	822E30360	Exit cover C405 (REP 19.8)
21	–	Left hinge bracket (Not Spared)
22	–	Left top hinge (Not Spared)
23	–	Top cover stopper (Not Spared)
24	–	Right top hinge (Not Spared)
25	–	Right hinge bracket (Not Spared)

1 { 2 - 9

10 { 11 - 19



PL 19.1D Covers - C405 (2 of 2)

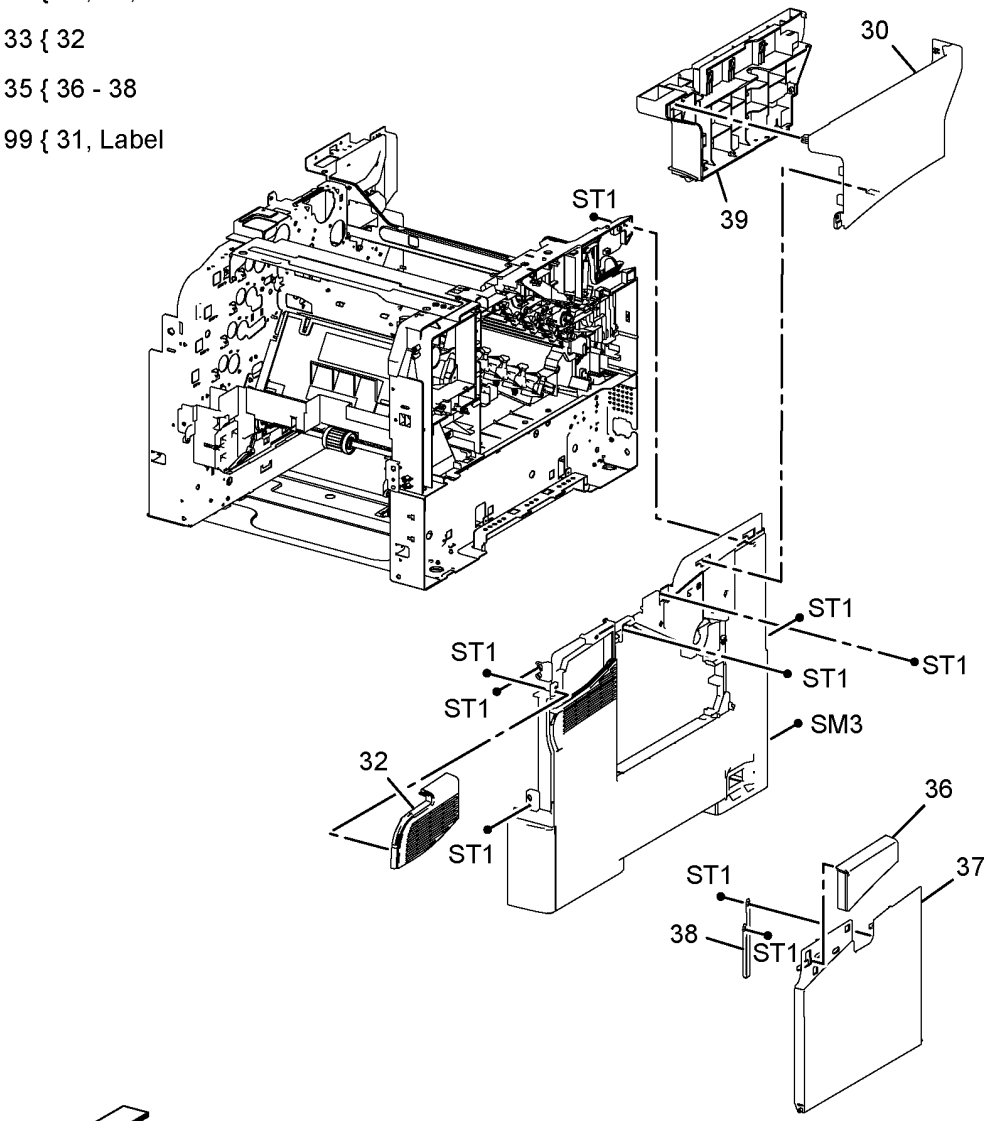
Item	Part	Description
30	822E30992	Upper right cover C405 (REP 19.9)
31	948K03351	Right side cover assembly C405 (REP 19.11)
32	–	Front right cover (P/O PL 19.1D Item 31)
33	–	Right Cover (P/O PL 19.1D Item 31)
34	–	Not Used
35	948K03370	Waste door cover assembly
36	–	Right door upper cover (P/O PL 19.1D Item 31)
37	–	Right door cover (P/O PL 19.1D Item 31)
38	–	Right side cover strap (P/O PL 19.1D Item 31)
39	–	Inner upper right cover C405 (Not Spared) (REP 19.10)

31 { 32, 33, 35 - 38

33 { 32

35 { 36 - 38

99 { 31, Label



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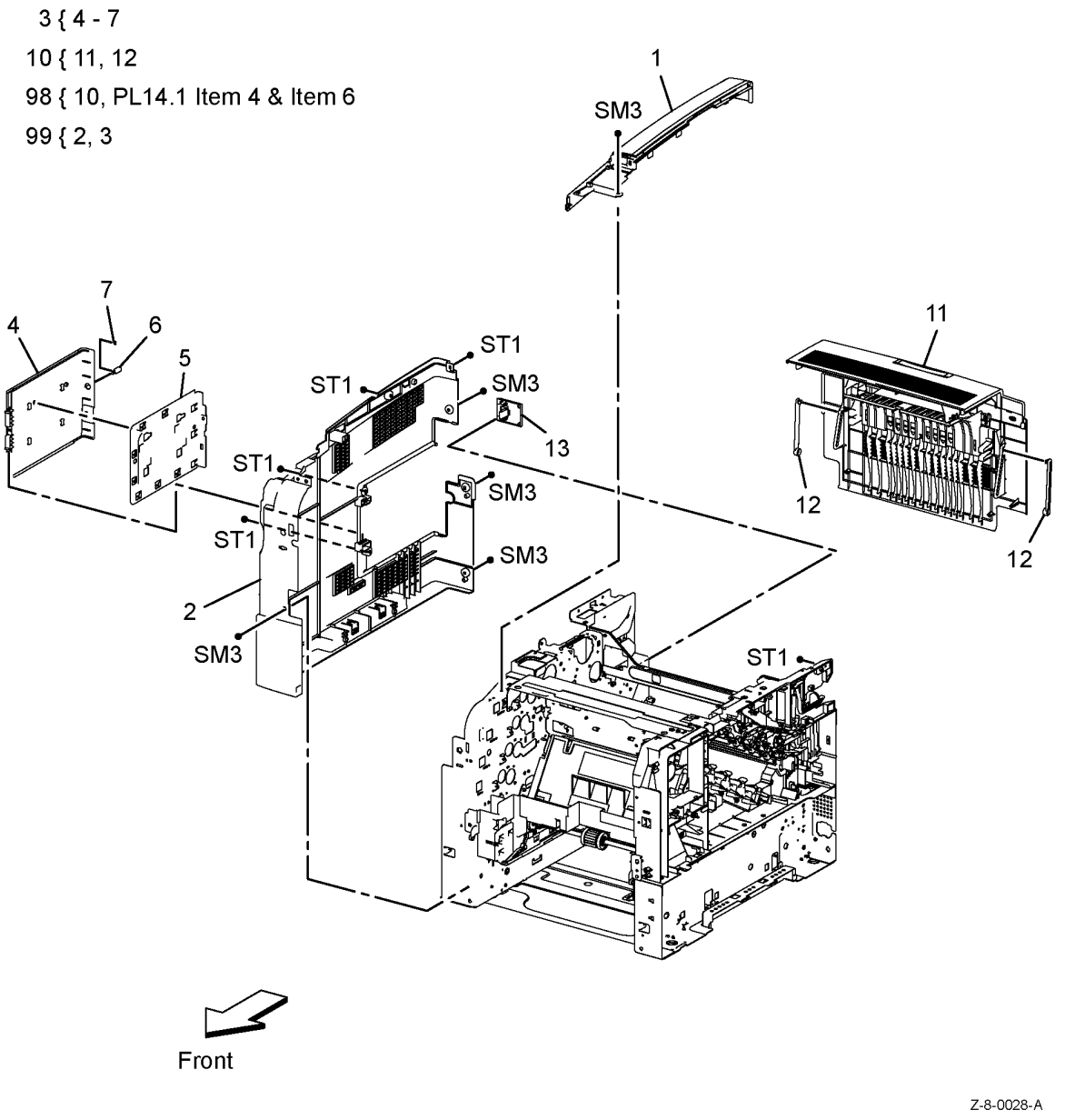
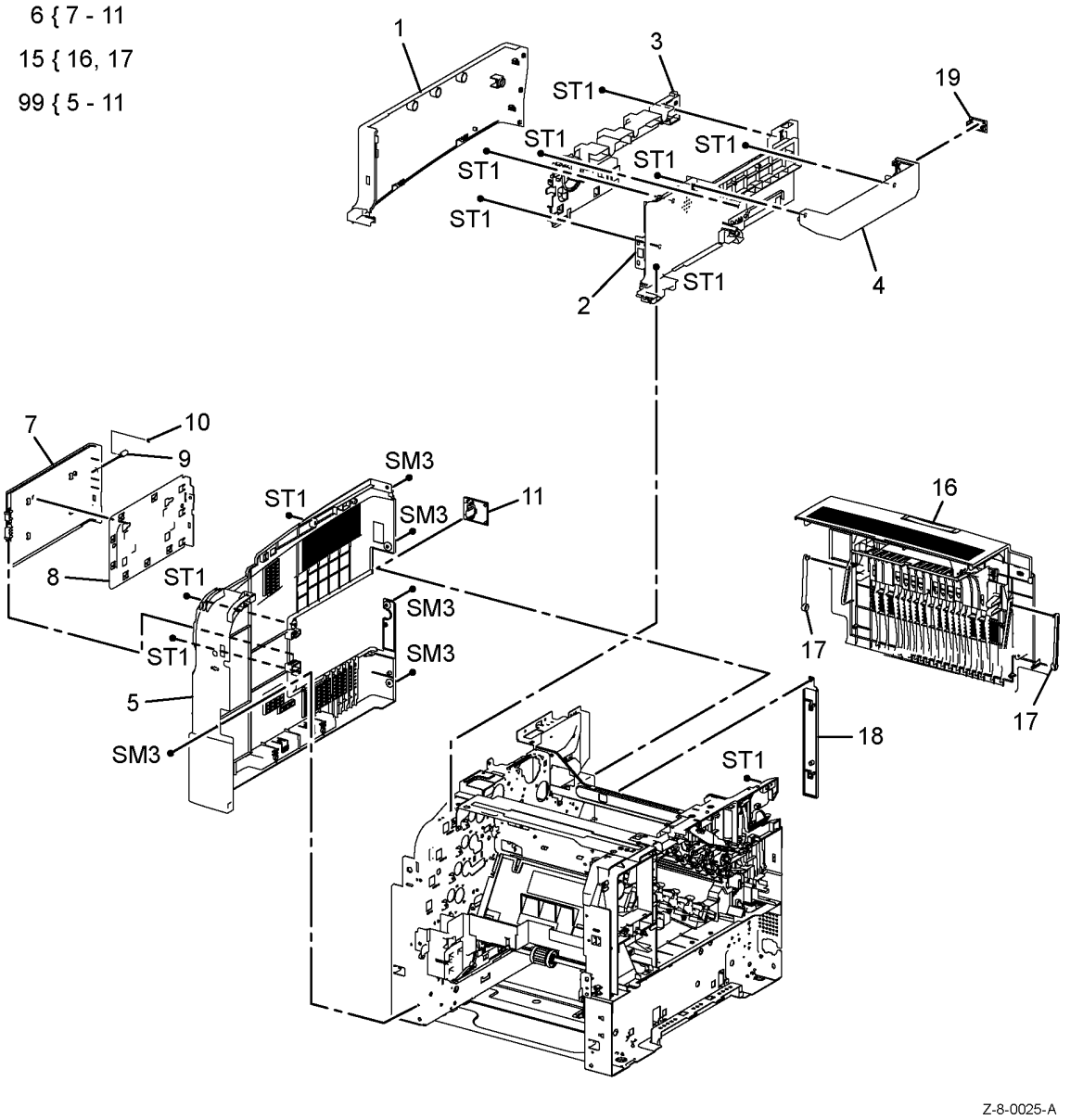
PL 19.2A Covers - C400

Item	Part	Description
1	–	Top left cover C400 (Not Spared) (REP 19.12)
2	–	Left cover C400 (P/O PL 19.2A Item 99)
3	–	ESS window cover assembly (P/O PL 19.2A Item 99)
4	–	ESS window cover C400 (P/O PL 19.2A Item 3)
5	–	ESS window plate (P/O PL 19.2A Item 3)
6	–	Thumb screw (P/O PL 19.2A Item 3)
7	–	E ring (P/O PL 19.2A Item 3)
8	–	Not used
9	–	Not used
10	607K03760	Rear cover assembly C400 (REP 19.13)
11	–	Rear cover (P/O PL 19.2A Item 10)
12	–	Rear cover link (P/O PL 19.2A Item 10)
13	822E30260	WiFi cap cover
98	–	Rear cover assembly (Not Spared)
99	948K02540	Left side cover assembly C400 (REP 19.4)



PL 19.2B Covers - C405

Item	Part	Description
1	822E30971	IIT Left outer base C405 (REP 19.15)
2	–	IIT Left inner base C405 (Not Spared)
3	–	IIT inner base (Not Spared)
4	–	IIT bottom cover (Not Spared)
5	–	Left cover (P/O PL 19.2B Item 99)
6	–	ESS window cover assembly (P/O PL 19.2B Item 99)
7	–	ESS window cover (P/O PL 19.2B Item 6)
8	–	ESS window plate (P/O PL 19.2B Item 6)
9	–	Thumb screw (P/O PL 19.2B Item 6)
10	–	E ring (P/O PL 19.2B Item 6)
11	822E30260	WiFi cap cover
12	–	Not used
13	–	Not used
14	–	Not used
15	607K03760	Rear cover assembly
16	–	Rear cover assembly C405 (P/O PL 19.2B Item 15) (REP 19.16)
17	–	Rear cover link (P/O PL 19.2B Item 15)
18	–	Left rear lower cover C405 (Not Spared) (REP 19.17)
19	–	IIT bottom base cap (Not Spared)
99	948K03330	Left side cover assembly C405 (REP 19.18)



PL 50.1 IIT/DADF

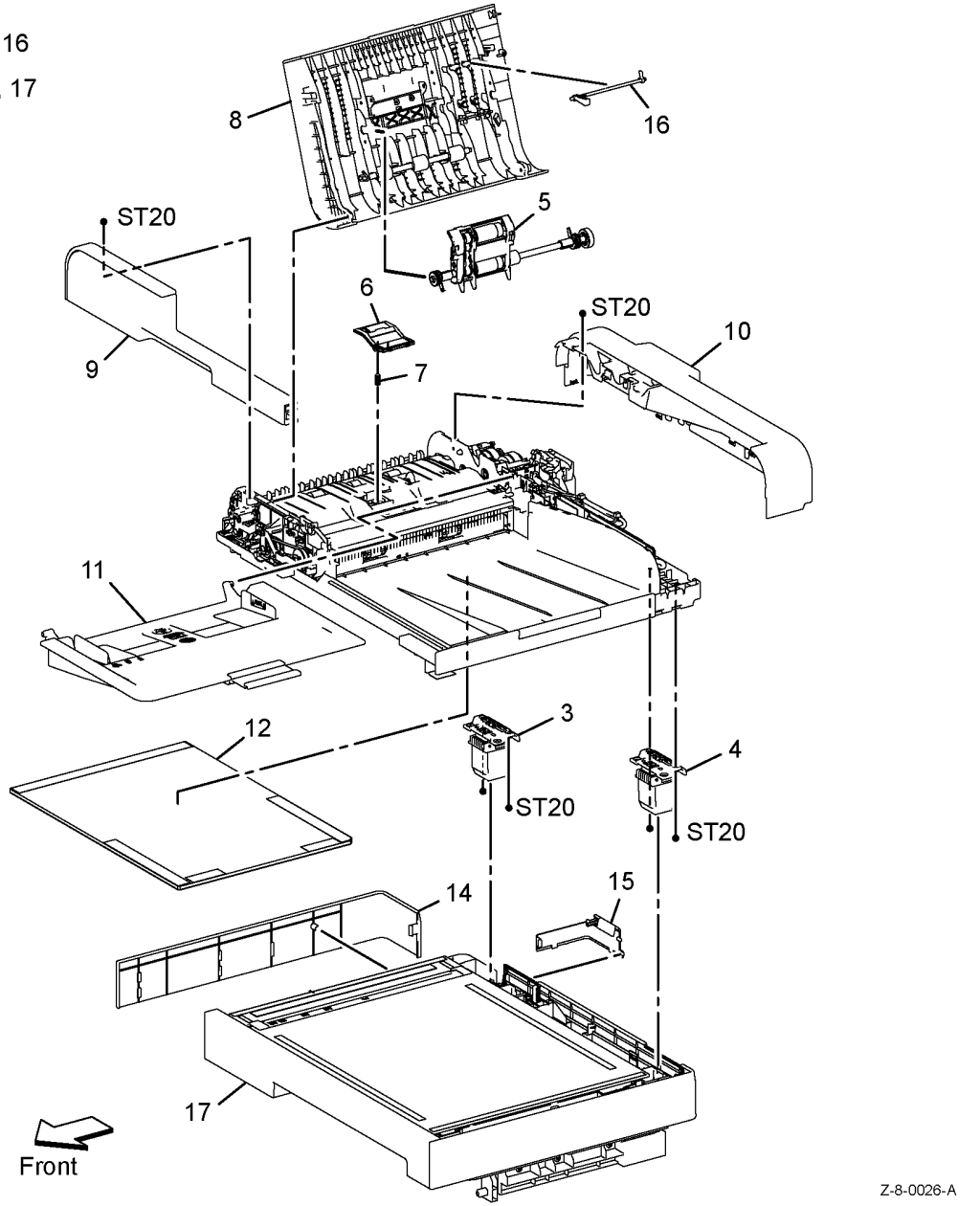
Item	Part	Description
1	607K04048	DADF assembly (REP 50.1)
2	607K04241	IIT assembly (REP 50.1)
3	036K92343	Left counter balance assembly (REP 50.2)
4	036K92323	Right counter balance assembly (REP 50.2)
5	–	DADF Feed roller (P/O PL 50.1 Item 99)
6	–	Separator cover assembly (P/O PL 50.1 Item 99)
7	–	DADF separator spring (P/O PL 50.1 Item 99)
8	–	Upper feeder assembly (P/O PL 50.1 Item 1)
9	–	DADF front cover (P/O PL 50.1 Item 1)
10	–	DADF rear cover (P/O PL 50.1 Item 1)
11	050K73592	DADF Input tray assembly (REP 50.3)
12	–	Platen cushion assembly (P/O PL 50.1 Item 1)
13	–	Scanner assembly (Not Spared) (REP 50.4)
14	–	IIT left cover (P/O PL 50.1 Item 2)
15	–	IIT Left cover cap (P/O PL 50.1 Item 2)
16	120E35671	DADF actuator (P/O PL 50.1 Item 1) (REP 50.5)
17	–	IIT assembly (P/O PL 50.1 Item 2)
99	607K00132	DADF feed roll kit (REP 50.6)

1 { 3 - 12, 16

2 { 14, 15, 17

13 { 1, 2

99 { 5, 6, 7



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GP 1 Diagnostics Entry

Purpose

This procedure describes how to enter and exit diagnostics and the available service routines.

How to Enter Diagnostics

1. If necessary, switch on the device, GP 4.
2. When the device is ready, press and hold the Home button for 5 seconds.

   NOTE: *The system administrator can set an extra level of diagnostics password protection 'Customer Service Engineer Access Restriction'. Security sensitive customers may have this feature enabled. If this feature is enabled, obtain the maintenance password from the customer.*

3. When the passcode screen opens, enter the passcode, 6789 or the CE maintenance password, then touch OK. If the maintenance password is unavailable, refer to Maintenance Password Not Available.
4. Touch Jobs, then check for pending print jobs.

   All print jobs other than secured or saved print jobs must be cleared from the device before diagnostics can be entered. If necessary, add resources or clear the paper path from jams, then print all pending print jobs. Print jobs that cannot be processed must be deleted.
5. Return to the service home screen.
6. Touch Diagnostics.
7. Select the relevant diagnostics routine:
   - dC118 Jam Counter
   - dC120 Fault Counter
   - dC122 Fault History
   - dC125 Active Faults
   - dC131 NVM Read/Write
   - dC132 Device ID / Billing Data
   - dC135 HFSI Counter
   - dC140 Analog Component Monitoring
   - dC301 Initialize NVM
   - dC305 UI Diagnostics
   - dC330 Component Control
   - dC355 Hard Disk Diagnostics
   - dC500 Threshold Setting for Blank Document Deletion
   - dC612 Test Print Pattern
   - dC676 Adjust ROS Exposure
   - dC924 TRC Adjust
   - dC939 Procon On/Off Print
   - dC945 IIT Calibration
   - dC1010 Signals Sending Test (see NOTE)
   - dC1011 Relay On/Off Test (see NOTE)

     NOTE: *For information only. Do not use this routine.*

How to Exit Diagnostics

1. Touch Exit. Select either Clear Error Log History or Keep Error Log History.
2. Touch Service.
3. Touch Log Out.

Maintenance Password Not Available

If the maintenance passcode is unavailable, perform the steps that follow:

1. From the Embedded Web Server Home screen, select **Log In**, then **Admin**.
2. Enter the password '1111' (default setting). Select **Log In**. If the administrator password is unknown go to GP 3 Administrator Log In, then perform Administrator Password Reset.
3. Select **System**, **Security**.
4. Select **Customer Service Engineer Access Restriction**. If this option is not displayed, select **Connectivity** / **HTTP** / **HTTP (SSL)** / **ON**, touch **OK**, follow the on screen instruction then touch **Restart Now**. After the restart, select **System**, then **Security**, then **Customer Service Engineer Access Restriction**.
5. Disable the feature, select **OK**, then **Restart Now**.
6. Enter diagnostics normally.

GP 2 Fault Codes and History Files

Purpose

To describe access to fault information and explain the fault code structure.

Fault Data Available from Diagnostics

Diagnostics (GP 1) gives access to the fault history options that follow:

- For information on paper jam codes, refer to dC118 Jam Counter.
- For information on failures, refer to dC120 Fault Counter.
- For information on current device faults, refer to dC125 Faults.

Function and Fault Codes

Refer to Table 1 for the function and fault code prefixes.

Table 1 Function and fault code prefixes

Chain Code	Function
02	User interface
03	Network controller (IITSC)
05	Document transportation (DADF)
010	Paper Handling / Fuser
016	Network controller (Controller)
017	Network controller (Controller)
018	Network controller (Network)
020	Fax System
021	Network controller (EP Accessory)
023	Network controller (MF-UI)
024	Network controller (IOTSC)
025	Network controller (HDD/SSD)
026	Network controller (JRM)
027	Network controller (Network)
028	Network controller (IOTSC)
029	Network controller (Network)
03X	Fax
04X	IOT Manager / Drive
05X	IOT (Jam Zone / Fuser)
06X	ROS, IIT
07X (X=tray No.)	Paper Trays & Handling / Interlocks
09X	Xerographics
102	USB
103	Network controller (IITSC)
116	Network controller (Controller)
117	Network controller (Controller)
118	Network controller (Network)
121	Network controller (EP Accessory)

Table 1 Function and fault code prefixes

Chain Code	Function
123	Network controller (MF-UI)
124	Network controller (IOTSC)
125	Network controller (PSW)
127	Network controller (Network)
13X	Network controller (Fax)
500	Diagnostics Mode

GP 3 Administrator Log In

Purpose

To enable access to administrator features on UI and web interface.

How to Enter Customer Administration Mode at the UI

Perform the steps that follow:

1. Switch on the device, GP 4.
2. When the device is ready, touch Log In in the top left corner of the UI.
3. Touch Admin.
4. The Password screen is displayed. Enter the password '1111' (default setting).

   NOTE: *If the password is not 1111, ask the customer for the current password. If the customer does not know the password, go to Administrator Password Reset.*

5. Touch OK.

Closeout

Perform the steps that follow:

1. Touch Admin in the top left corner of the UI.
2. Touch Logout.

How to Enter Customer Administration Mode via the Web page

Perform the steps that follow:

1. Type the device IP address into a web browser.
2. Select Log in, top left corner.
3. The User Accounts screen is displayed. Select Admin.
4. The admin screen is displayed. Enter the password '1111' (default setting).
5. Select Log In.

Closeout

Perform the steps that follow:

1. Select Admin, in the top left corner.
2. The pull down menu is displayed. Select Log Out .

Administrator Password Reset

To reset the admin password, contact 2nd level support.

GP 4 How to Switch Off or Switch On the Device

Purpose

To describe how to switch off or switch on the device without the loss of customer data or damage to the system hardware.

WARNING

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

Refer to:

- Power On Procedure
- Power Off Procedure
- Restart
- Sleep Mode

Power On Procedure

1. After the device has been switched off, wait a minimum of 2 minutes before the device is switched on.
2. After a service call, ensure that all service tools are removed from the device.
3. Connect the power lead from the power supply outlet to the device.
4. Press the Power button on the UI.
5. The device will perform a power on self test (POST). The POST checks that the hardware resources are available to run the operating system. If a POST fault is detected, the device is prevented from booting.

Power Off Procedure

CAUTION

Do not disconnect the power cord or interrupt the electricity supply before the power down is complete, unless advised. The data and software can become damaged.

1. Press the Power button on the UI. The Power Down Options window will display.
2. Touch the Power Off button.
3. When the device has switched off, remove the power lead from the outlet.

Restart

Restart is selected from the Power Down Options window. When pressed, the device should restart within 2 minutes.

Sleep Mode

Sleep is selected from the Power Down Options window. When pressed, the device should immediately enter sleep mode.

GP 5 Miscellaneous Checks

Purpose

To indicate which types of problems to look for when checking or inspecting parts of the device.

Procedure

1. Assess the fault. Check if the part is broken, too loose or too tight. Check if it needs cleaning or lubricating.
2. Check the components that follow as appropriate:
   - Actuators
   - Bearings
   - Drive Belts
   - Gears
   - Harnesses and Wiring
   - Rollers
   - Shafts

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.

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 6 Electrostatic Discharge Prevention

Some semiconductor components, and the sub-assemblies that contain them, are vulnerable to damage by Electrostatic Discharge (ESD). The techniques that follow reduce the occurrence of component damage caused by ESD.

Ensure the power is off and observe all other safety precautions.

- Immediately before handling any semiconductor components, drain the electrostatic charge from your body. This can be accomplished by touching an earth ground source or by wearing a wrist strap device connected to an earth ground source. Wearing a wrist strap will also prevent accumulation of additional bodily static charges. Ensure the wrist strap is removed before applying power to the unit under test to avoid potential shock.
- After removal of a static sensitive assembly from its anti-static bag, place the assembly on a grounded conductive surface. If the anti-static bag is conductive, you may ground the bag and use it as a conductive surface.
- Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage some devices.
- Do not remove a replacement component or electrical sub-assembly from its protective package until you are ready to install it.
- Immediately before removing the protective material from the leads of a replacement device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
- Minimize body motions when handling unpacked replacement devices. Motion such as your clothes brushing together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an electro-statically sensitive device.
- Handle IC's carefully to avoid bending pins.
- Pay attention to the direction of parts when mounting or inserting them on circuit boards.

GP 7 Device Specifications

Functional Specifications

Resolution

Line Density in Fast Scan Direction: 600 dots/25.4 mm

Line Density in Slow Scan Direction: 600 dots/25.4 mm (fixed)

Operation Mode

Power-Off State

The power switch is off and no power is supplied. The device does not operate

Ready (Standby) Mode

When the system starts up by power-on, it shifts from the power-off state to the Ready Mode.

In Ready Mode, the provided functions (copying, FAX sending, network scanning) become available via the operator panel. C405 only; FAX receiving & printing, Direct FAX, and local scanning also become available.

Running Modes

There are the Print mode, Scan mode, and FAX communication mode in which the IOT, IIT, and FAX communication operate respectively.

Print Mode

In this mode, the C400 IOT is operational for printing and report printing.

In this mode, the C405 IOT is operational for printing, copying, FAX received printing and report printing.

Scan Mode, C405 only.

In this mode, the IIT is operating for copy scanning, local scanning, network scanning, and FAX sending.

FAX Communication Mode, C405 only.

In this mode, FAX sending/receiving is in progress.

Low Power Mode

When no jobs are executed for a certain period of time, the device enters this mode to reduce standby electricity consumption. The user can set the time that the printer spends idle in Ready mode before it shifts to Low Power mode for a period of 0 to 60 minutes. The factory default is 1 minutes for the C405, and 1 minutes for the C400.

The following conditions trigger the printer to exit Low Power mode and return to Ready mode:

- Pressing Power button the operator panel
- Front cover open
- Side cover open.
- Rear cover open.
- MSI inserted.
- Receiving a print job.
- Receiving a FAX job (C405 only).
- Receiving Direct Fax job (C405 only).
- Start sending or polling data at the communication, if start time specified by the operator

After one minute in Low Power mode, the printer automatically enters Sleep mode for a further reduction in power consumption.

Sleep Mode

After the Low Power Mode has continued for 1 minute, the device enters Sleep mode to reduce the standby electricity consumption.

Sleep mode is cancelled by:

- Pressing Energy Saver button on the UI.
- Receiving a print job
- Receiving a Fax job (C405 only).
- Detecting hook-off of external telephone (Default:off).
- Report printing directions from CWIS.
- At the time of USB memory insertion.
- At the start of sending polling data, if start time specified by the operator (C405 only).

Machine State

Refer to Table 1 for running modes during machine states:

Table 1 Running modes during machine states

Feature	Initializing	Running	Ready	Low Power	Sleep
Exposure	Working during calibration	Working	Rest		
Developer and transfer		Working	Rest		
Fusing Unit	Rest	Working	Standby Temp	Rest	
Cooling fan	Rest	Working	Working (half)	Rest	
IIT	Working			Rest	
MCU	Working				Rest
Operation panel	Working			Energy Saver button and Ready LED Only	
Controller	Working				
Interface Port a	Working				
a. Interface Port: USB Port (Type B), Ethernet Port					

Warm-Up Time

Warm-up time is the time taken for device system to get to the ready-to-print state after the main power switch is powered on or after device system is waken up from Low Power mode.

Refer Table 2 for warm-up times for various events:

Table 2 Warm-up time

Event	State Transition	Warm-up Time	Condition
Power On	Power off to Ready	As few a 79 seconds	20degC/65%RH, Rated voltage. Power On after seasoning for 3 hours or more.
Wake up from Sleep mode	Sleep to Ready	As few as 20 seconds	20degC/65%RH, Rated voltage. Plain paper job in Deep Sleep Mode shift and 1 hour.
Wake up from Deep Sleep mode	Deep sleep to Ready		

FPOT (First Print Output Time) and FCOT (First Copy Output Time)

Refer to Table 3 for the time required for the first sheet of paper to exit the printer after pressing the start button.

Table 3 First print/copy output time

Mode	Platen	DADF
B/W	20 sec. or less	20 sec. or less
Color	22 sec. or less	22 sec. or less

Input Capacities

Refer to Table 4 for media tray capacities:

Table 4 Input capacities

Input	Capacity
Cassette Tray	550 sheets or under 59.4 mm of standard paper
Bypass Tray	150 sheets or under 15 mm of standard paper

Output Properties

Refer to Table 5 for output tray capacities:

Table 5 Output properties

Paper delivery system:	Face up deliver
Paper delivery capacity:	250 sheets (Letter/A4 standard paper)
Delivery paper size / mass:	All paper sizes applicable to this printer
Full stack detection:	There is a sensor to detect a full stack.

Paper

Refer to the following tables for supported paper types, weights, and sizes:

- Supported Paper Types and Weights - Table 6
- Supported Standard Paper Sizes - Table 7
- Supported Types and Weights for Automatic 2-Sided Printing - Table 8
- Supported Custom Paper Sizes - Table 9

Table 6 Supported paper types and weights

Tray	Paper Types	Weights
All Trays	Recycled Custom	60-105 g/m2 (16-28 lb)
	Plain Hole Punched Pre-Printed Bond Letterhead	75-105 g/m2 (20-28 lb)
	Lightweight Cardstock Lightweight Glossy Cardstock	106-163 g/m2 (28-60 lb)
	Cardstock Glossy Cardstock	164-220 g/m2 (60-80 lb)
MSI Tray	Labels Envelope	
MSI Tray	Envelope	

Table 7 Supported standard paper sizes

Tray	European Standard Sizes	North American Standard Sizes
All Trays	A4 (210 x 297 mm, 8.3 x 11.7") B5 (176 x 250 mm, 6.9 x 9.8") A5 (148 x 210 mm, 5.8 x 8.3") JIS B5 (182 x 257 mm, 7.2 x 10.1") 215 x 315 mm, 8.5 x 12.4")	Legal (216 x 356 mm, 8.5 x 14") Folio (216 x 330 mm, 8.5 x 13") Letter (216 x 279 mm, 8.5 x 11") Executive (184 x 267 mm, 7.25 x 10.5") 203 x 254 mm, 8 x 10"
MSI Tray	A4 (210 x 297 mm, 8.3 x 11.7") A5 (148 x 210 mm, 5.8 x 8.3") A6 (105 x 148 mm, 4.1 x 5.8") B6 (125 x 176 mm, 4.9 x 6.9") C5 envelope (162 x 229 mm, 6.4 x 9") C6 envelope (114 x 162 mm, 4.5 x 6.38") DL envelope (110 x 220 mm, 4.33 x 8.66") 127 x 178 mm, 5 x 7" Postcard (100 x 148 mm, 3.9 x 5.8") Postcard (148 x 200 mm, 5.8 x 7.9")	Statement (140 x 216 mm, 5.5 x 8.5") 203 x 254 mm, 8 x 10" Letter (216 x 279 mm, 8.5 x 11") Folio (216 x 330 mm, 8.5 x 13") Legal (216 x 356 mm, 8.5 x 14") Monarch envelope (98 x 190 mm, 3.9 x 7.5") No. 9 envelope (99 x 226 mm, 3.9 x 8.9") No. 10 envelope (241 x 105 mm, 4.1 x 9.5") Envelope 6 x 9 (152 x 228 mm, 6 x 9 in) 76 x 127 mm, 3 x 5" Postcard (89 x 140 mm, 3.5 x 5.5") Postcard (102 x 152 mm, 4 x 6")

Table 8 Supported paper types and weights for automatic 2-sided printing

Paper Types	Weights
Bond	60-163 g/m2 (16-60 lb)

Table 9 Supported custom paper sizes

Tray	Size
All Trays Automatic 2-Sided Printing Duplex Automatic Document Feeder	Width: 148.0-215.9 mm (5.8-8.5") Length: 210-355.6 mm (8.3-14")
MSI Tray	Width: 76.2-215.9 mm (3-8.5") Length: 127-355.6 mm (5-14")

Electrical Specifications

Table 10 lists the printer's electrical requirements.

Table 10 Electrical specifications

Characteristic	Specifications
Primary Line Voltages	• 110-127 VAC ±10% (90 ~ 140V) (10 amps) • 220-240 VAC ±10% (198 ~ 264V) (6 amps)
Primary Line Voltages Frequency Range	50/60 Hz ±3%
C400 Power Consumption at Rated Voltage Input	• Sleep: 4 Wh/h • Low Power: 14 Wh/h • Standby: 76 W/h/h • Printing: 705 Wh/h
C405 Power Consumption at Rated Voltage Input	• Sleep: 4 Wh/h • Low Power: 19.5 Wh/h • Standby: 82 Wh/h • Printing: 750 Wh/h
Rush Current	When the power button is turned on, the inrush current shall be maximum 50 Amp (Cold start)/ 135 Amp (Hot start) at first 2.5 msec, and 80 Amp (120 V/220 V/240 V) / 85 Amp (100 V) within 10 msec.

GP 8 General Disassembly Precautions

Purpose

Use these precautions when disassembling and reassembling components.

Procedure

NOTE: *The close proximity of cables to moving parts makes proper routing essential. If components are removed, any cables disturbed by the procedure must be restored as close as possible to their original positions. Before removing any component from the device, note the cable routing that will be affected.*

Whenever servicing the device, perform the following:

1. Check the replacement part number.
2. Check to verify that jobs are not stored in memory.
3. Switch off the machine, GP 4.
4. Use a flat and clean surface.
5. Only install authorized components.
6. Do not forcibly remove plastic components.
7. Ensure all components are in their correct position.
8. When replacing 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. This also applies to metal components.

GP 9 Device Software

Purpose

To provide machine software information and explain the software loading procedures.

Obtaining Machine Software

The firmware download manager tool (FWDLMgr.exe) and the device firmware file (.bin) can be downloaded from the Xerox.com, Product Support & Drivers page.

Procedure

Four methods are available to download the machine software:

1. Software Loading via the Special Boot Menu
2. Software Loading via the Embedded Web Server
3. Software Download via the USB Port
4. Software Download via the Network Port (Port 9100)

Software Loading via the Special Boot Menu

1. Download the firmware (.bin) file, refer to Obtaining Machine Software.
2. Create a folder named 'DWLD' on the USB memory device.
3. Store the software download file (.bin) in the 'DWLD' folder
4. Switch off the machine, GP 4. Insert the USB memory device.
5. Enter special boot mode, GP 16. Select Download Mode on SPECIAL BOOT MENU 1/3, then touch **YES**. The UI will display SW update progress. The machine will eventually reboot.

CAUTION

Do not switch off the printer until the reboot is complete. The printer will reboot after the download is complete.

6. After the reboot, a Software Upgrade Report will print. Remove the USB memory device.

Software Loading via the Embedded Web Server

There are three options available for updating the software via the Embedded Web Page:

- Check Now
- Periodic Updates
- Updates with File Specified

Check Now

Use this feature to check for software updates.

Perform the steps that follow:

1. Log in as an administrator via the Embedded Web Server. Ensure that software Update is set to **Enable** (Home/System/Software Update/Enable).
2. Touch **Check Now**.

Periodic Updates

Use this feature setup the device to check periodically (daily, weekly, monthly) for software updates.

Perform the steps that follow:

1. Log in as an administrator via the Embedded Web Server. Ensure that software Update is set to **Enable** (Home/System/Software Update/Enable).
2. Under the Check Automatically banner, use to pull down menu to set "When should the Device check for updates?" to Never, Daily, Weekly or Monthly.

Updates with File Specified

Perform the steps that follow:

1. Download the firmware (.bin) file, refer to Obtaining Machine Software.
2. Log in as an administrator via the Embedded Web Server. Ensure that software Update is set to **Enable** (Home/System/Software Update/Enable).
3. Under the Update with File Specified banner, touch **Select**.
4. Browse to where the firmware file (.bin) is located. Select the (.bin) file, then touch **Install Now**.

Software Download via the USB Port

Perform the steps that follow:

1. Download the appropriate firmware download manager tool (FWDLMgr.exe) and firmware (.bin) to an appropriate file location on the PWS. Refer to Obtaining Machine Software.
2. Connect a USB cable (type A/B) from the PWS to the machine.
3. Double click on FWDLMgr.exe to run the firmware download manager tool.
4. Touch **Agree** on the Firmware Update Tool (License).
5. The Printer Model And File Selection window will open. From the pull down menu, select the printer model, then browse to where the firmware file (.bin) is located. Double-click the (.bin) file then select **Add**, then select **Next**.
6. The Communication Interface Selection window will open. Select **USB Port**, then select **Next**.
7. The software update status appears on the Update in Progress screen.

CAUTION

Do not switch off the machine until the reboot is complete. The machine will reboot after the download is complete.

8. When the update is complete, the Result window will open. Touch **complete**. The machine will reboot, and a Software Upgrade Report will be printed.

Software Download via the Network Port (Port 9100)

Perform the steps that follow:

1. Download the appropriate firmware download manager tool (FWDLMgr.exe) and firmware (.bin) to an appropriate file location on the PWS. Refer to Obtaining Machine Software.
2. Switch off the machine, GP 4.
3. Disconnect the ethernet cable from the machine. Connect an ethernet crossover cable from the PWS network port to the machine network port. Refer to GP 25 Ethernet Crossover Cable Setup.
4. Switch on the machine, GP 4. When the machine reaches the Ready state, print a configuration report, GP 18.

5. Ensure the IP address (refer to the configuration report) of the machine can be pinged from the PWS:
   a. Open a command window. Select **Start** and in the Search box, type CMD, then press **Enter**.

      NOTE: *If the Windows key is enabled (the key located in the lower left corner with the Microsoft logo), hold the Windows key down, press R and release both keys to open the Run dialog, type CMD, then press **Enter** to open a Command window.*

   b. In the Command window (where the blinking cursor is) type ping. Press the space bar once, then enter the IP address of the device. Press **Enter**.
   c. If the ping command is successful, the device will reply four times. This should not take more than two or three seconds.
   d. If the ping command times out, or responds with 'host unreachable', check the IP address that was entered. If the IP address is correct, contact 2nd level support.
6. Log in as an administrator via the Embedded Web Server. Ensure that software Update is set to **Enable** (Home/System/Software Update/Enable).
7. Double click on FWDLMgr.exe to run the firmware download manager tool.
8. Touch **Agree** on the Firmware Update Tool (License).
9. The Printer Model And File Selection window will open. From the pull down menu, select the printer model, then browse to where the firmware file (.bin) is located. Double-click the (.bin) file then touch **Add** and then touch **Next**.
10. The Communication Interface Selection window will open. Select **Network (Port9100)**, then touch **Next**.
11. The Printer Specification window will open. Specify the printer to be updated (entering the IP address is the best method). Touch **Next** to start the software download.
12. The software update status appears on the Update in Progress screen.

CAUTION

Do not switch off the machine until the reboot is complete. The machine will reboot after the download is complete.

13. When the update is complete, the Result window will open. Touch **complete**. The machine will reboot, and a Software Upgrade Report will be printed.

GP 10 How to Check a Motor

This procedure describes how to check a motor:

Initial Actions

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. 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, the motor is defective. install a new motor.
4. Perform the appropriate procedure:
   - Two Wire DC Motor
   - DC Motor with Integral Encoder
   - Four Wire Stepper Motor

NOTE: *The voltages, PJ numbers, pin numbers and PWBA names shown are an example only. Go to the wiring diagram associated with the RAP for the correct information.*

Two Wire DC Motor

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*

1. Check the drive voltage when the component control code for the motor is entered. If the drive voltage is measured, install a new motor. If the drive voltage is not measured, continue to the next step.
2. Check that the drive voltage can be measured on the PWBA when the component control code for the motor forward is entered. If no drive voltage is measured, check the power to the PWBA. If the power is good install a new PWB. If the drive voltage is measured at the PWBA, check the wiring to the motor. Repair or install new wiring.

DC Motor with integral Encoder

NOTE: *This type of motor has the normal drive voltages for a DC motor, plus the +3.3V and 0V lines for the encoder. The encoder has two outputs, A and B, producing pulses when the motor is on. When the motor is running in one direction, the encoder A pulses lead the encoder B pulses. In the other direction, encoder B pulses lead encoder A pulses. In this way the controller can detect that the motor is running in the correct direction.*

Check the operation of the motor as follows:

1. Check the drive voltage when the component control code for the motor is entered. If the drive voltage is present at the motor, install a new motor. If the drive voltage is not present, go to step 2.

2. Check that the drive voltage at the driver PWBA when the component control code for the motor is entered. If the drive voltage is present, check the wiring and connectors to the motor. If the drive voltage is not present, check the power to the driver PWBA. If the power to the PWBA is good, install a new driver PWBA.

NOTE: *When checking for pulses, use a standard digital multimeter. Using the DC volts range, or the AC volts range, expect to obtain a reading greater than 1V and less than 4 volts, while the motor is running. The actual value depends on the meter's reaction to square waves and to the particular frequency of the pulses. It is common to obtain a reading of 2 to 3 volts. If the meter has a minimum and maximum recording facility, expect a maximum value of around +4.9 volts DC, and a minimum value of around +0.2 volts DC*

Check the operation of the encoder as follows:

Check for pulses when the motor is running. If pulses are present, check the driver PWB. If pulses are not present at the motor, check the wiring to the motor and repair to install new wiring. If pulses are present, install a new driver PWBA.

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 multimeter to check stepper motor coil resistance.*

1. Refer to Figure 1. Disconnect PJ111. Check the +24V supply and the phase pulses to GND when the component control code for the motor is entered. If the supply and pulses are present, install a new motor.
2. Check the connectors and wiring to the motor. Repair or install new wiring, as necessary.
3. Disconnect PJ11. Check the +24V. If +24V is not present, check the power to the PWBA. If the power is good, install a new PWBA. Check the phase pulses at the PWBA. If the phase pulses are not present at the PWBA, install a new PWBA.

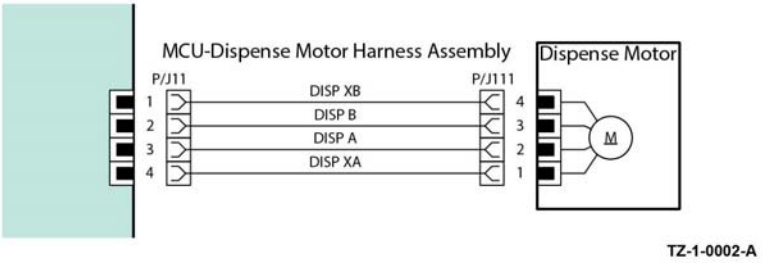


Figure 1 Example motor wiring diagram

GP 11 How to Check a Sensor

Use this procedure to check the operation of all types of sensor.

NOTE: *Some sensors have a resistor within the sensor and other sensors require a resistor on the PWB. The resistor limits the current through the LED. The voltage to the sensor LED with an external resistor, is typically 1.2V.*

NOTE: *The voltages, PJ numbers, pin numbers and PWB names shown are examples only. Go to the wiring diagram associated with the RAP for the correct information.*

NOTE: *In some cases, two sensors are used to form an interruptible beam of light. In these cases, the LED of one sensor and the sensing element of the other sensor are used. Treat the two sensors as if they were housed in the same body for diagnostic purposes, ignoring the unused part of each sensor. If the combined sensors do not operate correctly and the beam path is clear of obstruction, it may be necessary to install both new sensors.*

Quick Sensor Check

Enter the component control code for the sensor, refer to dC330. Actuate the sensor. If the display changes, the sensor operates correctly. If the display does not change, perform the procedure.

Procedure

For the sensor in the wiring diagram shown in Figure 1:

1. Actuate the sensor and check for a change in voltage at PJ27, pin 3. If the voltage changes, install a new PWB. If the voltage does not change, continue to the next step.
2. Disconnect PJ271. Check for +3.3V and 0V (GND) on the harness.
3. Disconnect PJ27 and PJ271. Check the harness and the connectors for continuity.
4. Check for +3.3V and 0V (GND) at the PWB.
5. If necessary, install new components or repair the wiring.

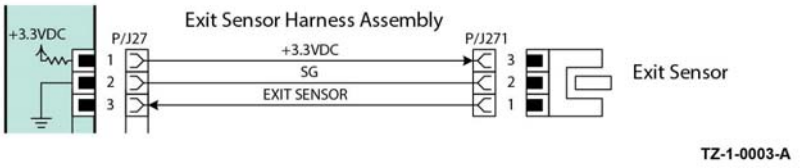


Figure 1 Example sensor wiring diagram

GP 12 How to Check a Solenoid or Clutch

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 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. For a clutch, check that the shafts, gears, rolls etc., associated with the clutch are free to rotate, clean and lubricated where applicable.
2. For a solenoid, check that the solenoid is free to actuate and that the mechanisms associated with the solenoid are free to move.

Procedure

NOTE: *The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the wiring diagram associated with the RAP for the correct information.*

NOTE: *When a solenoid is energized in diagnostics, movement is seen. When a clutch is energized in diagnostics, the sound of the clutch action is heard. If possible, run the motor connected to the clutch to confirm when the clutch is energized.*

1. Enter the dC330 output code for the clutch or solenoid. If the clutch or solenoid does not energize, continue with step 2.
2. Refer to Figure 1 to disconnect PJ17, check for +24V at pin 1 on the wiring side of the connector, If the voltage is not correct, trace the faulty component.
3. Reconnect PJ17, enter the dC330 output code for the clutch or solenoid, while measuring the voltage between pin 1 and ground. If the voltage does not change when the code is entered, install a new PWB.
4. There may be an intermittent fault, perform the actions that follow:
   a. Check the wiring. Repair or install new components as necessary.
   b. Operate the clutch or solenoid under normal running conditions. If the clutch or solenoid operates intermittently or with hesitation, install new parts.
   c. Check that the clutch or solenoid has enough drive to operate the mechanism to which it is attached; if necessary, install a new clutch or solenoid.

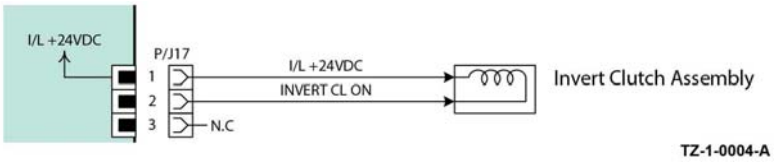


Figure 1 Example clutch wiring diagram

GP 13 How to Check a Switch

Use this procedure to check the operation of a switch.

NOTE: *Figure 1 shows an interlock switch actuated 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 4. 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 wiring diagram associated with the RAP for the correct information.*

Procedure

1. Enter diagnostics and check the switch. The switch is operating correctly, check and adjust the mechanism that actuates the switch.
2. Refer to Figure 1, then disconnect the switch.
3. +5V is available between pin 1 and pin 2 on the wiring side of the connector.
4. +5V is available at PJ231 between pins 1 and 2 on the PWB.
5. Check the supply voltage. If +5V is available, install a new PWB.
6. Check the wiring between PJ231 and the switch. Repair or install new parts as necessary.
7. Install a new switch.

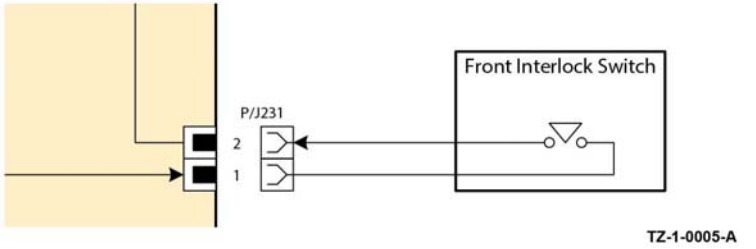


Figure 1 Example switch wiring diagram

GP 14 Cloning Network Configurations

Purpose

Use this procedure to establish a network connection between the PWS and the device, create a copy of network configuration settings and then distribute these settings to multiple devices on the network. This cloning process can also be used to backup and restore network settings lost during a software reload.

NOTE: *To establish a direct Ethernet connection between the PWS and device requires the device's driver installation CD-ROM, a crossover cable, and the PWS.*

Depending on the device, a Windows 7 (W7) driver might not be available on the device's driver installation CD-ROM. If not, download the driver from Xerox.com under the Support and Drivers page. W7 has two kernal types, 32 and 64-bit. If you try to install the wrong driver, Windows displays an error to indicate the driver is incorrect. To check the kernal type, click on Start, in the right column, right click on Computer and select Properties, you will see the kernal type listed as System Type.

Establishing a LAN connection

Use these steps to establish a Local Area Network (LAN) connection between the PWS and the device using a crossover cable.

NOTE: *Record the original data for every change you make. You may or may not need to reset the IP address, depending on PWS usage and local network practice.*

1. Print a Configuration Report, GP 18. Note the device's IP address.
2. Connect the crossover cable between the PWS and the device.
3. Open a Command window (CMD) on the PWS.
   - If running XP, click on **Start**, then select **Run**. Type **CMD** in the Run dialog box and press **Enter**.
   - If running W7, select **Start** and in the Search box above the Start button, type **CMD** and press **Enter**.

   NOTE: *If the Windows key is enabled (the key located in the lower left corner with the Microsoft logo), hold the Windows key down, press R and release both keys to open the Run dialog box.*
4. Type **ipconfig** at the prompt, then write down the current network settings displayed. Restore these settings when the LAN connection is no longer needed.

   NOTE: *Use the IPv4 address for the Local Area Connection, not the address listed under Wireless Ethernet Connection (if enabled in your laptop).*
5. Check the IP addresses of the PWS and the device. If the PWS has been connected to the same subnet, the PWS and the device address should share the same values for the first three and have a different value for the forth number. Refer to Table 1 for an example.

Table 1 Example LAN settings

	Device	PWS / Laptop
IP Address	192.168.0.2	192.168.0.5
Subnet Mask	255.255.255.0	255.255.255.0
Gateway/Router	192.168.0.1	192.168.0.1

   If the PWS and the device share similar, but unique IP address, continue. If not, use the Set a Static IP Address on the PWS to set the PWS IP address.
6. After verifying the IP addresses are correctly configured, PING the device.
   a. In the Command window (where the blinking cursor is) type the word **PING**. Press the space bar once and enter the device's IP address and press **Enter**. As an example: ping 192.168.0.2.
   b. If the device responds to the PING command, it replies four times. This should not take more than two or three seconds.
   c. If the PING command times out, or responds with "host unreachable", check the IP addresses that were entered. If the IP address is correct, contact 2nd level support.
7. If the PING command replies, exit the Command window (type "exit" at the prompt and press **Enter**). This test verifies the Ethernet connection is good.
8. Install the device driver and setup the device as a local printer. Select connect to the device using "other" port type. From the dialog drop down select Standard TCP/IP port.
9. For the device Name or IP address, enter the device's IP address (192.168.0.2 in this example).
10. When the driver installation finishes, Select **Yes** at the Print Test Print dialog box.

    NOTE: *If the test page does not print, the customer could have Accounting enabled (if the device supports it) requiring that a special code is submitted with the print job before the device prints.*
11. After the test print is completed, open a web browser on the PWS.
12. In the Address Bar (in place of a web site address or URL), enter the device's IP address (192.168.0.2 in this example).
13. If the connection is working correctly, the web page of the device will be displayed.

    NOTE: *If you are unable to open the device's webpage, verify that Web Services are enabled on the configuration page. If your web browser is set to use a Proxy address for the internet connection, you will not be able to bring up the device's webpage as you will have no connection to that proxy server while directly connected to the device via crossover Ethernet cable. Refer to PWS Browser Proxy Server Setting for instructions on Internet Explorer proxy configuration.*

Creating the Clone File

NOTE: *This procedure can be done from ANY PC connected to the network or the PWS connected to the device using an Ethernet crossover cable. The only requirement on the PC is an Internet Browser.*

1. Open Internet Explorer
2. Enter the device's IP address in the **Address** line and select **Go**.
3. When the **Internet Services** window opens, login to **Admin** mode, GP 3. Click on the **Home** tab, then the **Cloning** link.
4. Select individual parameters to clone from the device or Select/Clear All.
5. Click on Create.
6. If prompted, save the clone file to a location that you can remember easily when you need the file for installation. If you are not prompted to save the file, look for it in the Downloads folder on your computer.
7. Click Close.
8. Log out of **Admin** mode, GP 3.

Using the Clone File

NOTE: *This procedure can be done from ANY PC connected to the network or the PWS connected to the device using an Ethernet crossover cable. The only requirement on the PC is an Internet Browser.*

1. Open Internet Explorer
2. Enter the device's IP address in the **Address** line and select **Go**.
3. When the **Internet Services** window opens, login to **Admin**, GP 3. Click on the **Home** tab, then the **Cloning** link.
4. Click on the **Select** button.
5. Use the **Browse** button to navigate to the clone file, or type the full path to the file, then click **Open**.
6. Click **Install**.
7. Verify the cloned settings with a new Configuration Report.

Set a Static IP Address on the PWS

Use this procedure to manually set the PWS IP address. Instructions are given for W7 and XP.

NOTE: *If the PWS has a wireless Ethernet card/adapter installed, Windows will not use the wired Ethernet port by default until either the PWS is rebooted or you temporarily disable the wireless Ethernet card. If unsure how to disable/enable your wireless Ethernet card, restart the PWS after setting the IP address.*

For W7:

1. Open the **Control Panel**.
2. Select **Network Sharing Center**.
3. Select **Change Adaptor Settings** in the upper left corner of the Control Panel.
4. Right-click on **Local Area Connection**, then select **Properties**.
5. On the Networking tab (for local area connection), click on **Internet Protocol Version 4** (TCP/IPv4), then select **Properties**.
6. Select **Use the following IP address** and enter an IP address similar to the device to manually set the PWS IP address and subnet mask to match the device's IP configuration settings.
7. Click **OK** twice and exit Network Connections and return to Creating the Clone File.

For XP:

1. Click **Start** and select **Control Panel**.
2. Click **Network and Internet Connections** and then select **Network Connections**.
3. Right-click on **Local Area Connection** and then select **Properties**.
4. On the General tab (for local area connection), click I**nternet Protocol (TCP/IP)**, and then click on **Properties**.
5. Click **Use the following IP address** to manually set the computer's IP address and subnet mask to match the device's IP configuration.
6. Click **OK** twice to exit Network Connections and return to Creating the Clone File.

PWS Browser Proxy Server Setting

The following steps ensure the proxy server settings are correct.

1. Open **Windows Internet Explorer.**
2. Select **Tools - Internet Options**.
3. Select the **Advanced** tab.
4. Scroll down to **HTTP 1.1 Settings**.
5. Ensure that the "Use HTTP 1.1 through proxy connections" box is **un-checked**.
6. Select **OK** to close the **Internet Options** window.
7. Close **Windows Internet Explore**r.

GP 15 Obtaining Audit and Device Logs

Purpose

To obtain then download device data for analysis by 2nd level support.

NOTE: *It may not be possible to obtain a device log if the device executed a reboot after an error occurred. To enable the device log collection enter dC131 then set the NVM chain-link code 700-530 value to 0. Repeat the device log procedure then reset the NVM chain-link code 700-530 value back to 1.*

Procedure

Audit Log

To obtain the Audit Log:

1. Obtain the machine's IP address by printing a configuration report, GP 18.
2. Access the web UI by entering the IP address into a web browser on a PC on the same network as the machine.
3. Log in to the web UI as an administrator, refer to GP 3.
4. **Ensure HTTP - SSL/TLS is enabled:**
   a. Click **Connectivity**.
   b. Click **HTTP**.
   c. Enable HTTP (SSL).
   d. Click **OK**. You will be prompted to restart the machine, click **Restart Now**.
5. When the machine restarts, log back in as an administrator, then click **System**.
6. Click **Logs**.
7. Click **Audit Log**.
8. Click **Enable**.
9. Click **Export**. The auditlog.txt file is downloaded via the web browser.

Device Log

To obtain the Device Log:

1. Obtain the machine's IP address by printing a configuration report, GP 18.
2. Access the web UI by entering the IP address into a web browser on a PC on the same network as the machine.
3. Log in to the web UI as an administrator, refer to GP 3.
4. Click **System**.
5. Click **Logs**.
6. Click **Device Log**.
7. Click **Accept**. The devicelog.dat file is downloaded via the web browser.

GP 16 Special Boot Modes

Purpose

To start up the device in various modes to enable special functions, Table 1 and Table 2.

Procedure

1. Enter special boot mode: with the device in the power off state, refer to GP 7, simultaneously press then hold down the **Home** and **Power** buttons until the device powers on and the 1st level SPECIAL BOOT MENU appears, Table 1 and Figure 1.
2. To enter the 2nd level menu, simultaneously touch the letters **A** in SPECIAL, **B** in BOOT and the **Home** button. Do not hold any of the three locations, just touch/press then release simultaneously, Figure 1.

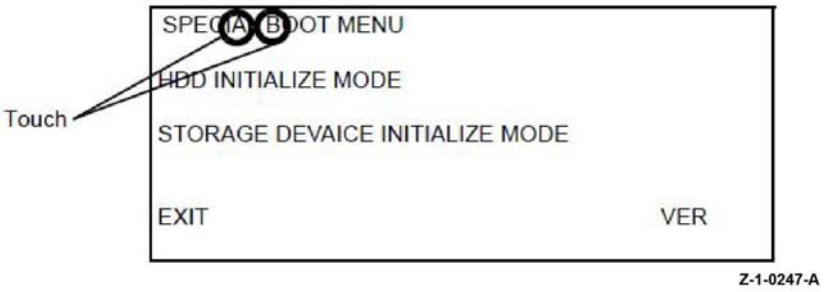


Figure 1 Accessing special boot mode

3. At the keypad screen enter code number: 6789#. The SPECIAL BOOT MENU 1/3 screen will display.

CAUTION

Do not turn off the device until the reboot is complete. The device will reboot after the download is complete.

4. Scroll through SPECIAL BOOT MENU screens 1/3, 2/3 and 3/3 to select the appropriate function, refer to Table 2, then follow the on screen instructions. The device may reboot then print a report.

Table 1 1st Level Menu

Function	Display	Description
HDD INITIALIZE MODE	--BOOT MODE-- HDD INITIALIZE MODE ARE YOU SURE? YES NO	Initializes the spool area, HDD/EMMC CARD Initialization is performed for the predetermined area of HDD/EMMC CARD partition, other areas are not effected.

Table 1 1st Level Menu

Function	Display	Description
STORAGE DEVICE INITIALIZE MODE	--BOOT MODE-- STORAGE DEVICE INITIALIZE MODE ARE YOU SURE? YES NO	Formats the HDD/EMMC CARD by force. This operation forcibly sets HHD/EMMC CARD partition condition to that at shipment.

Table 2 2nd Level Menu

Function	Display	Description
DOWNLOAD MODE	--BOOT MODE-- DOWNLOAD MODE ARE YOU SURE? YES NO	Machine starts in Firmware Download Mode, GP 9.
LONGDIAG MODE	--BOOT MODE-- LONGDIAG MODE ARE YOU SURE? YES NO	Performs a more detailed check than the usual device diagnostic items at the start up of the machine. If a fault code is displayed, perform the relevant procedure.
01. JOB LOG CLEAR MODE	--BOOT MODE-- 01. JOB LOG CLEAR MODE ARE YOU SURE? YES NO	Used when the log data has an error and a fail such as 116-331 has occurred, or when the log data must be cleared for version upgrade that involves a large change in versions.

Table 2 2nd Level Menu

Function	Display	Description
02. FACTORY INIT MODE	--BOOT MODE-- 02. FACTORY INIT MODE ARE YOU SURE? YES NO	**CAUTION** *Do not perform this mode unless directed.* Used when recovery is not achieved with Startup by “03. NVRAM INIT MODE”. This method can also be used to resolve the problem when the internal clock becomes unstable, causing all the functions that use the clock to become unstable when the ESS PWBA is initialized with the backup battery detached. When an initialization is performed with this method, the same billing mismatch, etc. occurs as after replacing the ESS PWBA. Note: When performing this boot mode on a device after replacing the IIT, perform a parameter setup for the IIT according to the instruction sheet included with the replacement IIT. Perform dC132 Machine ID and Billing Data after startup of the device. **CAUTION** *All customer configured settings will be deleted. To restore the customer configured settings, a clone file is required. Refer to GP 14.*
03. NVRAM INIT MODE	-BOOT MODE-- 03. NVRAM INIT MODE ARE YOU SURE? YES NO	Initializes the NVM of the configuration range (printer settings etc) inside the controller by force and starts up. This is the same as initializing the Sys-System NVM and Sys-User NVM in dC301.
04. HDD FORMAT MODE	-BOOT MODE-- 04. HDD FORMAT MODE ARE YOU SURE? YES NO	Formats the HDD/EMMC card by force. This operation forcibly sets the HDD/EMMC card partition condition to the setting used at shipment. **CAUTION** *All customer data on the HDD (mailboxes, scanned documents, user IDs and account IDs) will be deleted.*

Table 2 2nd Level Menu

Function	Display	Description
06. HDD INITIALIZE MODE	--BOOT MODE-- 06. HDD INITIALIZE MODE ARE YOU SURE? YES NO	Initializes the Spool Area HDD/EMMC card. Initialization is performed for the predetermined area of HDD/EMMC card partition, and the area other than this area is not influenced. **CAUTION** *All customer data on the HDD (mailboxes, scanned documents, user IDs and account IDs) will be deleted.*
SKIP INSTALL WIZARD	--BOOT MODE-- SKIP INSTALL WIZARD ARE YOU SURE? YES NO	The function started without displaying INSTALL WIZARD.

GP 17 External Fax Line Test

When the customer reports a fax issue sometimes it is very difficult to determine if the problem is with the customers phone line or the Xerox device.

The preferred method of verifying the phone line functionality is to use the modem saver device part number 600T2133 to ensure the fax line is wired correctly and to use the Analog hand set part number 600T1937 or customer's analog phone to place calls on the line. Be sure that both local and long distance calls can be placed and the line quality is clear, no static.

Use a Handset:

- Can it dial externally on the line?
- Can it receive a call on the line?
- Evaluate Line quality. Check Line for unwanted beeps, or noise.

Use Breakout Box to measure voltages (Use the device chassis as ground). Refer to Fax 101 training for Breakout Box usage instruction:

- Check ground continuity.
- Line Voltage -20 to -50 VDC?
- Loop Current 15 to 95 mA DC?
- Ring Signal 50 to 90 VAC?
- Check Ring-Ground and Tip-Ground <1VAC

If a line quality issue or incorrect voltage is found then the customer will need to resolve these problems.

GP 18 Printing Reports

Purpose

To list reports available from the control panel, refer to GP 35.

- Configuration Report
- Billing Summary Report
- Supplies Usage Report
- PostScript Font List
- PCL Font List
- Demonstration Print
- Startup Page

Configuration Report

The Configuration Report lists the current state of system configuration parameters including installed options and network settings.

Billing Summary Report

The Billing Summary Report lists Device Information, Billing Meter impression counters (for customers on billing meter supplies plans only) and Sheet Count by Paper Type.

Supplies Usage

The Supplies Usage report includes the current status of printer consumables and routine maintenance items. Installation dates and replacement part numbers are listed.

PostScript Font List

This report provides a list of the installed PostScript fonts.

PCL Font List

This report provides a list of the installed PCL fonts.

Demonstration Print

This report shows a brief synopsis of the device.

Startup Page

This report lists device type, software versions, enabled protocols and mobile connectivity.

Procedure

Reports are printed from the Control Panel

NOTE: *It is not necessary to enter SA mode (log in) in order to perform this procedure.*

- From the Home Screen touch Device.
- Touch About.
- Scroll to the bottom of the list, then touch Information Pages
- Select the desired report, then touch Print.

GP 19 Intermittent or Noise Problem

Purpose

The purpose of this RAP is to provide guidance for resolving an intermittent or noise problem. This is not an exact procedure, but a set of recommended actions that use the resources of the service manual to help locate the cause of an intermittent or noise problem.

Procedure

1. Check the service log. Recent service actions may provide information about the problem. For example, a component that was recently replaced to correct another problem may be the cause of the new intermittent problem.
2. Noise problems may be due to improper installation. Check for packing materials that have not been removed. Check for loose or missing hardware.
3. Run the device in a mode that vigorously exercises the function that is suspected. The device may fail more frequently or may fail completely under these conditions. Look for signs of failure or abnormal operation.

   An intermittent problem can usually be associated with a RAP, since when it does fail, it results in a fault code, a jam code, or some other observable symptom.
4. Using the RAP that is associated with the symptom of the intermittent problem, examine all of the components that are referenced in the RAP. Look for:
   - contamination, e.g, a feed roller that has a build up of dirt or toner.
   - wear, e.g, gear teeth that are rounded or have excessive backlash.
   - HFSI, even if they have not exceeded their expected life or copy count value, refer to Component Life SCP 4.
   - wires chafing against components of the device, especially against moving components.
   - misaligned, mis-adjusted, or incorrectly installed components.
   - slow or slipping clutches; slow or binding solenoids.
   - damaged components.
   - excessive heat, or symptoms of excessive heat, such as the discoloration of a component.
   - loose cables or wires.
5. Using the RAP that is associated with the symptom of the intermittent problem, perform all of the adjustments for the components or functions that are referenced in the RAP. Check to ensure that the adjustment can be made and that there is an adequate range of adjustment, and that it can be set to or near the nominal value. Any abnormality that is observed may be an indication of the cause of the problem. For example, a component can be adjusted to the nominal value, but it is at the limit of the adjustment range. This is not normal and may be an indication of the cause of the problem.
6. Operate all of the components in the appropriate RAP that is associated with the symptom of the intermittent problem with dC330 Component Control. Observe the components for any symptoms of abnormal operation, such as a hesitation, or an unusual sound.
7. Check that the AC and DC power are within specification.
8. Get technical advice or assistance when it is appropriate. This will depend upon the situation and the established local procedures.
9. Examine the components that are not in the RAP, but are associated with the function that is failing, refer to step 4.

10. Perform the adjustments for the components that are not in the RAP, but are associated with the function that is failing, refer to step 5.
11. Operate all of the components that are not in the RAP, but are associated with the function that is failing with dC330 Component Control. Observe the components for any symptoms of abnormal operation, such as a hesitation, or an unusual sound.
12. Replace any components or consumables that are known to be a frequent cause of the problem. When doing this, consider the cost and time required. If the suspected item is inexpensive, can be installed quickly, and has a high probability of resolving the problem, then it is reasonable to replace it.
13. Leave an accurate and detailed record of your actions in the service log. Describe what you have observed, what actions you took, and the recommended next steps.

GP 20 The module is heavy

Purpose

Use this procedure when lifting or moving heavy modules.

Procedure

When removing heavy modules from a device, the instructions that follow must be observed:

1. Ensure that a suitable stable surface to support the module after removal is located in close proximity to the device.

   NOTE: *Other parts of a 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 device and the support surface.
4. If instructed to remove the module toward the rear of the device and only 1 person is available, the module must be removed while standing at the rear of the device. If 2 people are available, the module may be removed while standing at the front of the device.
5. Two people are required if the module is to be lifted onto the floor or lifted from the floor.

GP 21 Device Lubrication

Purpose

To give information on the use of lubricants.

Procedure

CAUTION

Only use lubricants as directed. Incorrect use of lubricants could seriously affect the performance of the device.

Take the following precautions when performing device lubrication:

- Wear disposable gloves.
- Only use lubricants that are specified in the procedure.
- Only lubricate parts as directed.
- Apply only the smallest amount of lubricant, sufficient to lubricate the parts. To prevent contamination, remove any surplus lubricant.
- Take great care not to contaminate other parts with the lubricant.

GP 22 Installation Space Requirements

Purpose

To give information on the weight, size and normal installation space requirement for the C400 and C405 devices.

- Dimensions and Mass of the C405
- Dimensions and Mass of the C400

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 route

Dimensions and Mass of the C405

Refer to Table 1 for the device mass. The C405 dimensions are shown in Figure 1 and Figure 2 with MSI Tray cover and scanner cover closed.

Table 1 Printer mass

Printer	Mass
C405	32.7 kg (72lb)
Optional 550-sheet feeder	2.6 kg (5.7 lb)

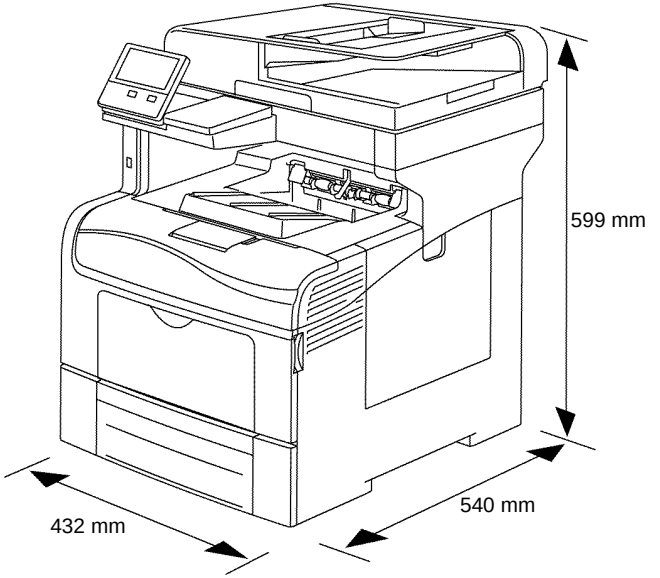


Figure 1 Device dimensions

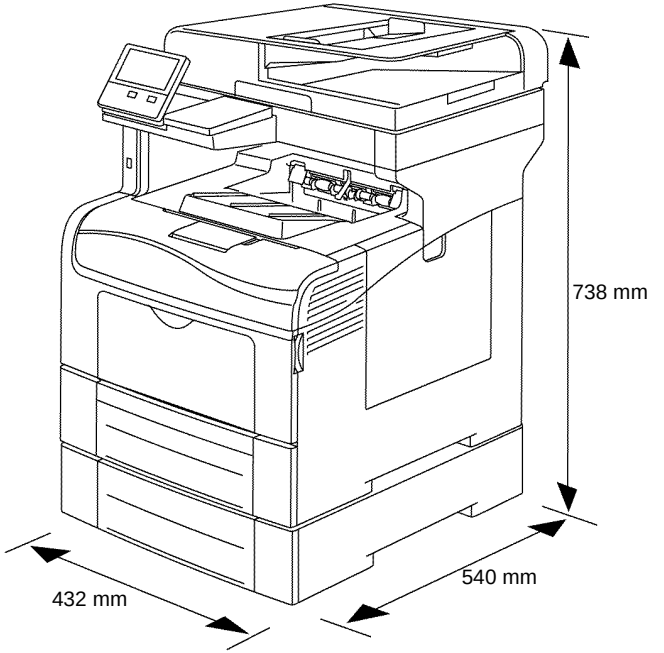


Figure 2 Dimensions w/option 550

C405 Installation Clearance Requirements

This section shows the minimum installation space needed to correctly operate and service the C405.

1. In order to function correctly, the device must be placed on a flat surface with the following minimum clearances shown in Figure 3 and Figure 4 with the optional 550-sheet feeder.

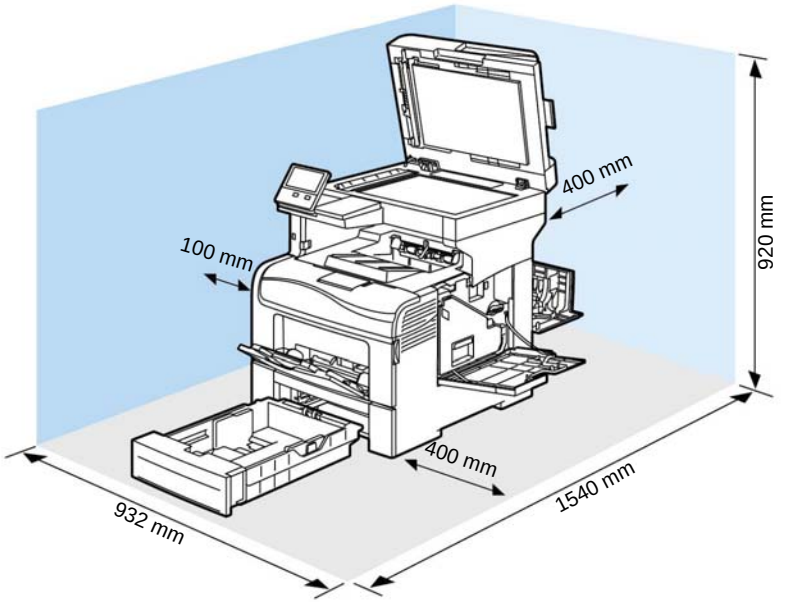


Figure 3 Minimum clearance

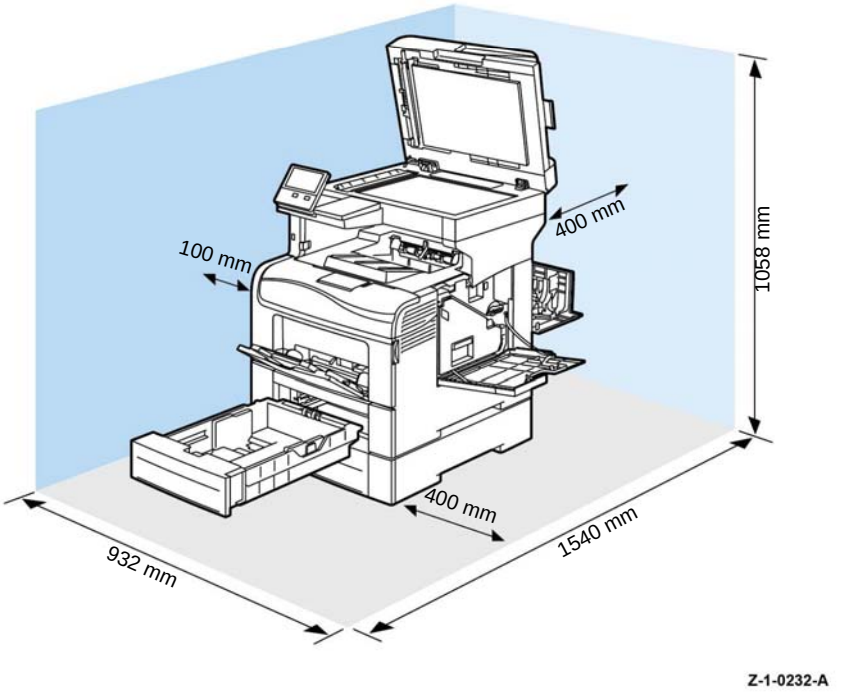


Figure 4 Minimum clearance w/option 550

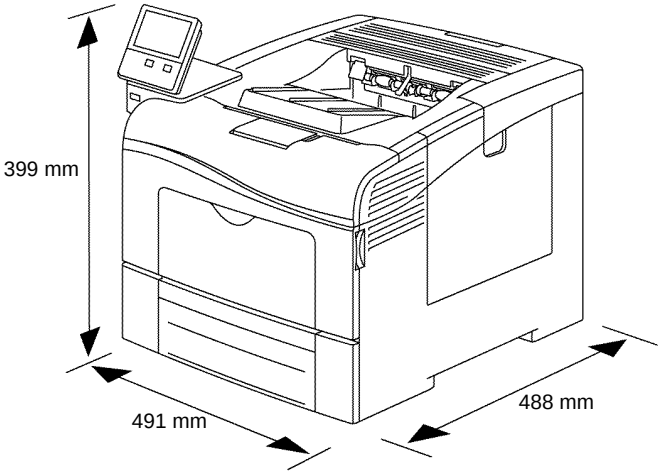
2. Mounting surface flatness must be within the specified range.
3. The device must not be tipped or tilted more than 7 mm in any direction.

Dimensions and Mass of the C400

Refer to Table 2 for the printer mass. The C400 dimensions are shown in Figure 5 and Figure 6 with MSI Tray cover and scanner cover closed.

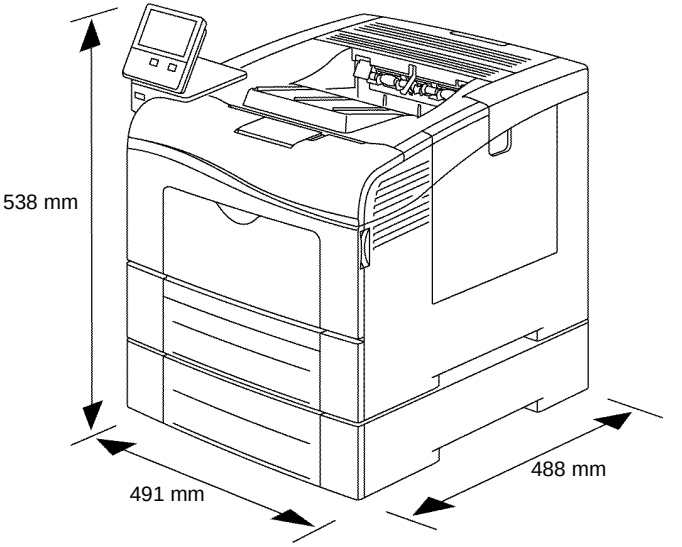
Table 2 Printer mass

Printer	Mass
C400	25.9 kg (57lb)
Optional 550-sheet feeder	2.6 kg (5.7 lb)



Z-1-0229-A

Figure 5 Device dimensions



Z-1-0230-A

Figure 6 Dimensions w/option 550

C400 Installation Clearance Requirements

This section shows the minimum installation space needed to correctly operate and service the C400.

1. In order to function correctly, the device must be placed on a flat surface with the following minimum clearances shown in Figure 7 and Figure 8 with the optional 550-sheet feeder.

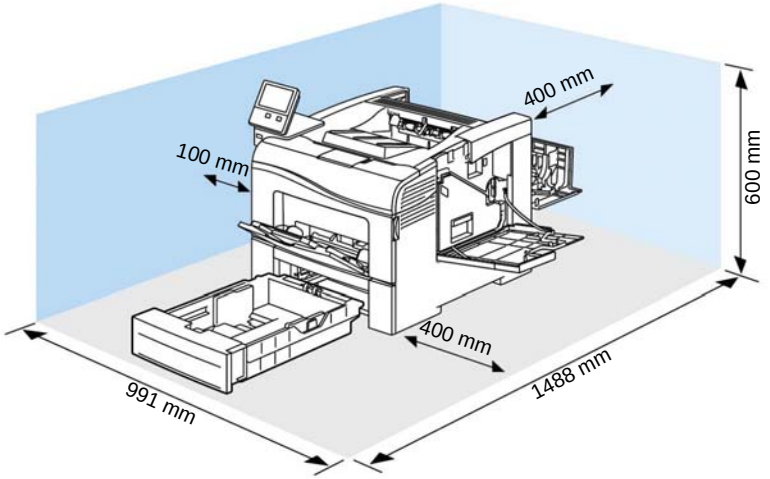


Figure 7 Minimum clearance

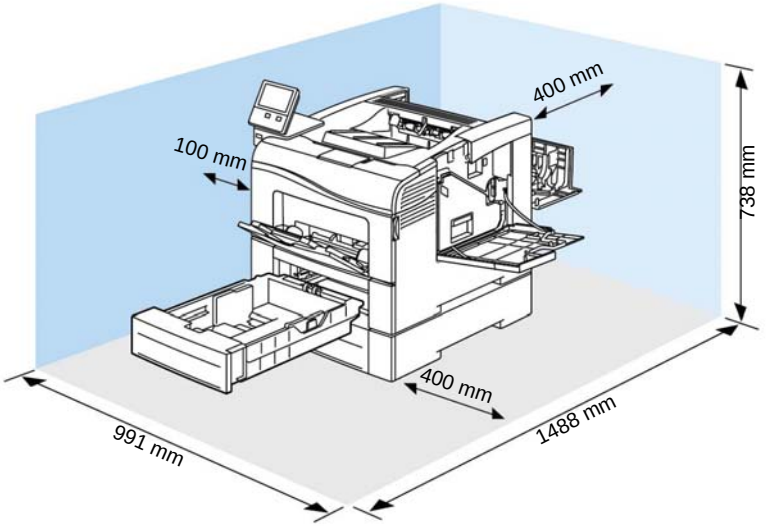


Figure 8 Minimum clearance w/option 550

2. Mounting surface flatness must be within the specified range.
3. The printer must not be tipped or tilted more than 7 mm in any direction.

GP 23 First Print Output Time

Purpose

From Ready State

First Print Output Time (FPOT) is defined as the time from when the engine receives a Start signal in Ready state, until a single page is printed and delivered to the output tray (Table 1).

From Sleep State

First Print Out Time includes the time required to print any maintenance pages (such as the configuration page) and a single customer page on A size media from Tray 2 (Table 1).

Table 1 First print/copy output time

Color Mode	FPOT (Ready)	FPOT (Power Saver/ Sleep)	FPOT (from cold)	FCOT
B/W	As fast as 13 sec	As fast as 24 sec	26.0 sec	Platen: 20 sec DADF simplex: 22 sec
Color	As fast as 14 sec	As fast as 25 sec	26.0 sec	Platen: 20 sec DADF simplex: 22 sec

GP 24 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. However, Xerox has mandated that all Xerox® VersaLink® C400 and C405 devices 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 Device

Xerox will maintain a central list of RoHS compliant devices.

All Xerox® VersaLink® C400 and C405 devices are RoHS compliant at time of manufacture.

Procedure

CAUTION

Failure to comply with RoHS guidelines can result in product recalls, imprisonment, fines or penalties.

Use only spares that are listed in the Xerox® VersaLink® C400 and C405 Spare Parts List. Do not use spare parts from other similar devices, even if the parts look identical. All Xerox® VersaLink® C400 and C405 devices are RoHS compliant at time of manufacture and must be maintained as RoHS compliant.

GP 25 Ethernet Crossover Cable Setup

Purpose

To connect and then configure a laptop to communicate with a device via a ethernet crossover cable, tool number 600T02252.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Print a configuration report, GP 18.
2. Ensure that Windows firewall and wireless network connectivity on the laptop are turned off.
3. Record the IP address and Subnet Mask of your laptop.

CAUTION

Before you change the value of a setting ensure the original value is recorded. All the original values will need to be restored to the laptop at the end of the procedure.

   a. Open a command window on the laptop. Select **Start**, then in the Search box, type CMD, then press **Enter**.
   b. Type **ipconfig** at the command prompt, then make a note of your Local Area Connection : IPv4 Address and Subnet Mask.

4. Configure the LAN connection of the laptop to enable communication with the device. Perform the relevant procedure:
   - Windows 7.
   - Windows 10.

Windows 7

Perform the steps that follow:

1. Select the Windows **Start** button, then **Control Panel**, then **Network and Sharing Centre**.
2. From the left pane, select **Change adapter settings**.
3. Right-click on the **Local Area Connection icon**. Select **Properties**. The Local Area Connection Properties window will open.
4. Select **Internet Protocol Version 4 (TCP/IPv4)**. Select **Properties**. The Internet Protocol Version 4 (TCP/IPv4) Properties window will open.
5. Double-click the entry I**nternet Protocol Version 4 (TCP/IPv4)**.
6. Select **Use the following IP address**, then enter the IP address and subnet mask.

   Refer to the configuration report then:
   - Set the IP address of the laptop one number higher than the device. For example, if the IP address of the device is 192.168.196.112, set the IP address of the laptop to 192.168.196.113.
   - Set the Subnet mask of the laptop to the same as the Subnet mask of the device.
7. Click on OK to close the properties dialog box, then OK to close the second properties dialog box.
8. Close the Local Area Connection Status dialog box.
9. Connect the ethernet crossover cable to the device, then continue with your procedure.

Windows 10

Perform the steps that follow:

1. Select the Windows **Start** button, then select **Settings**.
2. Select **Network & Internet**.
3. Under Related settings select **Network and Sharing Center**, then from the task list on the left of the screen select **Change adapter settings**.
4. Right click on **Local Area Connection** (Ethernet), then select **Properties**.
5. Select **Internet Protocol Version 4(TCP/IPv4)**, then select **Properties**. The Internet Protocol Verson 4 (TCP/IPv4) Properties window will open.
6. Select **Use the following IP address**, then enter the IP address and subnet mask.

   Refer to the configuration report then:
   - Set the IP address of the laptop one number higher than the device. For example, if the IP address of the device is 192.168.196.112, set the IP address of the laptop to 192.168.196.113.
   - Set the Subnet mask of the laptop to the same as the Subnet mask of the device.
7. Select **OK** to close the properties dialog box, then **OK** to close the second properties dialog box.
8. Close the Local Area Connection Status dialog box.
9. Connect the ethernet crossover cable to the device, then continue with your procedure.

GP 26 Media Specifications

The media trays accommodate most sizes and types of paper or other specialty media. To ensure the best print quality and to avoid jams, adhere to the guidelines in this section.

Recommended Media

A list of paper and media recommended for the C400 and C405 devices is available in GP 7, subsection Paper.

Media that May Damage to the Printer

The printer can use a variety of media for print jobs. However, some media can cause poor output quality, increased jams, or damage. Unacceptable media includes:

- Rough, plastic, or porous media
- Ink jet paper
- Non-laser glossy or coated paper
- Transparency
- Paper with cutouts or perforations
- Paper that has been stapled, folded, photocopied, or wrinkled
- Envelopes with windows, metal clasps, padding, side seams or adhesives with release strips
- CD labels
- Media that is less than 60 g/m2 or more than 216 g/m2

Media Storage Guidelines

If media handling problems are common, review these storage guidelines with the customer.

- Store media in dark, cool, relatively dry locations. Most media is susceptible to damage from ultraviolet (UV) and visible light. UV radiation, emitted by the sun and fluorescent bulbs, is particularly damaging to media. The intensity and length of exposure to visible light should be reduced as much as possible.
- Maintain constant temperatures and relative humidity
- Avoid attics, kitchens, garages, and basements. Inside walls are drier than outside walls where moisture can collect.
- Store flat. Media should be stored on pallets, cartons, shelves, or in cabinets.
- Do not open sealed packages until needed. Leave media in the original packaging. For most commercial grades, the wrapper's inner lining protects the media.

Tray Capacity

Table 1 lists tray capacities.

Table 1 Tray capacity

Media and Weight	MSI Tray	Tray 1	Optional Tray	DADF Input
Standard Paper	100 Sheets	550 Sheets	550 Sheets	60 sheets
Envelope	10 (approx.)	0	0	0
Weight	60-216 g/m2	60-216 g/m2	60-216 g/m2	60-125 g/m2

Print Image Quality

Image Quality Guarantee Conditions

The image quality is specified and guaranteed under the conditions shown in Table 2.

Table 2 Print image quality specifications

Item	Specification
Environmental conditions	Environment condition for evaluating image quality Temperature: 15-28degC Humidity: 20-70%RH
Guaranteed paper	The print quality defined in this chapter is guaranteed when standard paper is used in the tray.
Paper condition	The paper used is fresh paper immediately after unpacked, which has been left in the operating environment for 12 hours before unpacking.
Machine condition	The print image quality specified in this section is guaranteed with the printer in normal condition. Evaluation is performed without image quality adjustment (Auto Exposure OFF).
Image quality guaranteed area	The print image quality specified in this section is guaranteed in the guaranteed image quality area specified in this manual.
Criterion	At least 90% of the copy samples shall satisfy the defined copy quality at a 90% reliability level.

GP 27 Environmental Data

Operating Environment Specifications

The printer should be stored and operated under the environmental conditions shown in Table 1:

Table 1 Operating environment

Characteristic	Specification
Installation Temperature / Humidity	Installation temperature and humidity on the condition without condensation is as follows. Operating: 10-32degC, 10-85%RH (No condensation) Storage: minus 20-40degC, 5-85%RH (No condensation)
Installation Altitude	0 to 3,100m
Installation Horizontality	Longitudinal levelness of table surface on which the printer is installed Longitudinal: 1 degree or under Lateral: 1 degree or under
Storage Temperature of a Toner Cartridge	The guaranteed period of the Toner Cartridge before unpacked is as follows: Normal conditions: 24 months under 0 to 35degC, 15 to 80%RH. Harsh conditions: 1 month under -20 to 0degC and 35 to 40degC, 5 to 15%RH and 80 to 90%RH. The storage altitude shall be 0 to 3,100m. Can be extended to 0 to 15,000m when shipped by air. (Provided that the cargo bay is pressurized to 70.9275Kpa or higher.
Acoustic Noise Sound Pressure (Decibels)	Operation: 56.0 dB Standby or Ready: 30.0 dB

Safety / Environment Conditions

The printer meets the safety and environmental standards shown in Table 2:

Table 2 Safety / Environment conditions

	100-127V M/C	220-240V M/C
Safety Standard	UL60950-1, CSA 22.2 60950	IEC60950-1 / EN60950-1
Laser Safety Standard	FDA21CFR Chapter 1, Subchapter J, Section 1010, 1040	IEC60825-1 Amendment 1 + Amendment 2 / EN60825-1 Amendment 1 + Amendment 2 Class 1 Laser Product
EMI	FCC Part15 Subpart B, Class A	EN55022:2006, Class A

Noise Levels

The C400 & C405 noise levels during operation and standby are shown in Table 3.

Table 3 Noise levels

Operating Mode	Sound Power (B)	Sound Pressure (dB)
Running	6.9B	53dB
Standby	50B	29dB

GP 28 Toner CRUM Conversion

Purpose

This procedure explains how to set the geographic differentiation code and toner cartridge type to the correct values.

Introduction

The C400 & C405 devices are shipped with “worldwide neutral” toner cartridges installed at the factory. When the cartridges shipped with the printer are installed, the printer is set to worldwide neutral configuration. When the toner cartridge is replaced, the geographic differentiation code and toner cartridge type in NVM automatically change to the same settings as the replacement cartridge. Once these NVM are set, the toner configuration can only be changed with a CRUM conversion.

There are three types of toner: metered, which is a single part number world wide, sold toner that is specific to the DMO, NA, XE market, and sold toner that is specific to NA/XE markets. If a toner cartridge of the wrong type (i.e., a “sold” cartridge in a “metered” configured device) is installed, it will generate a fault code and/or a message indicating toner incompatibility.

If the problem occurs after several toner replacements, the customer may have received the wrong toner in a consumables order; either because the wrong part number was ordered, or the shipment did not match the order. Resolution in this case is simple; the customer should exchange the toner for the correct part.

If the wrong toner was installed at the first toner replacement after install, or if the configuration NVM have changed due to software or NVM corruption, perform the following procedure:

Procedure

1. Log in as an administrator via the web page, GP 3.
2. From the Home screen: on the right side of the Supplies banner touch **Details**.
3. At the bottom right of the screen touch the **Supplies Plan** icon.
4. Call Field Engineering or your NTS and provide the Device Serial Number and Total Impressions that are displayed on the Supplies Plan Screen. You will receive a 6 character plan conversion code.

NOTE: *Enter the passcode within 500 page counts of when it was issued, or it will not be valid.*

5. Enter the passcode string provided in Step 4, then touch **Apply**.

GP 29 How to Check a Dispenser Motor

Purpose

This procedure explains how to check the operation of the toner dispenser motors, PL 5.1 Item 2 and related gears, PL 5.1 Item 3. This is typically done when an fault is caused from a low amount of toner in an imaging unit’s, PL 8.1 development assembly, that is insufficient to maintain density. The two likely causes are, the print cartridge is not fully seated, or the replenisher assembly is not functioning correctly.

Procedure

WARNING

Switch off the electricity to the machine GP 4. Disconnect the power 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. Enter Service Diagnostics, GP 1.
2. Select dC330 Component Control.
3. Remove the affected toner cartridge (e.g., Cyan), PL 5.1.
4. Select code 041-001 for the 24V low voltage power supply.
5. Select the code for an unaffected toner dispenser motor (e.g., Yellow: 93-004), PL 5.1 Item 2 then listen to the gear movement. It should be smooth and relatively quiet. You can also look at the toner gear movement on the left side of the device where the toner is dispensed.
6. Turn off the unaffected toner dispenser motor (e.g., Cyan: 93-008).
7. Turn on the affected toner dispenser motor and listen to, or watch, the gear movement. If there is clicking or chattering, the problem is related to the toner dispenser assembly.
8. Turn off the affected toner dispenser motor and the low voltage power supply.
9. Touch **Close** to return to the diagnostics screen.
10. Exit diagnostics, GP 1.

GP 30 IP (ESS) Specifications

Support OS

The device supports the following operation systems with the latest service pack.

- Microsoft Windows XP (32bit / 64bit)
- Microsoft Windows Server 2003 (32bit / 64bit)
- Microsoft Windows Vista (32bit / 64bit)
- Microsoft Windows Server 2008 (32bit / 64bit)
- Microsoft Windows 7 (32bit / 64bit)
- Mac OS X 10.3.9/10.4/10.5 (PPC/x86)
- Mac OS X 10.6/10.7 (x86/x64)
- Red Hat Enterprise Linux 5/6 Desktop (x86)
- OpenSUSE Linux Enterprise Desktop 10/11 (x86)

Interface Port

See the following tables for interface port specifications:

- Table 1 USB 3.0 Type-B Interface Port Specifications
- Table 2 USB 2.0 Type-A Interface Port Specifications
- Table 3 Ethernet Interface Port Specifications
- Table 4 Wireless Interface Port Specifications
- Table 5 FAX Connection C405 only
- Table 6 Foreign Device Interface (FDI)

USB

Table 1 USB 3.0 Type-B interface port specifications

Item	Specification
Connector	One Type-B connector
Protocol	Super Speed compatible

Table 2 USB 2.0 Type-A interface port specifications

Item	Specification
Connector	Two Type-A connector
Protocol	Hi-speed USB 2.0 compatible
Supported Class	USB Mass Storage Class

Ethernet

Table 3 Ethernet interface port specifications

Item	Specification
Connector	One RJ-45 connector
Protocol	10 Base-T / 100 Base-TX / 1000 Base-T compatible

Wireless

Wireless adapter is required.

Table 4 Wireless interface port specifications

Item	Specification
Connectivity Technology	Wireless
Compliant Standards	IEEE802.11 n/g/b
Band width	2.4 GHz and 5 GHz
Data Transfer Rate	IEEE802.11n mode: 65 Mbps IEEE802.11g mode: 54, 48, 36, 24, 18, 12, 9, 6 Mbps IEEE802.11b mode: 11, 5.5, 2, 1 M bps
Protocol	refer to “Network Protocol” for details
Device Type	Wireless Adapter
Security Protocol	64(40-bit key)/128(104-bit key) WEP,WPA-PSK(TKIP,AES), WPA2-PSK(AES), WPA-Enterprise(TKIP,AES), WPA2-Enterprise(AES) (EAP method supports PEAPv0 only)
Wifi Protected Setup (WPS)	Push Button Configuration (PBC), Personal Identification Number (PIN)
Connection to the Linux machine is not guaranteed. Only for infrastructure connection and when Linux terminal is connected with Wired LAN connection.	

Fax Connection C405 only

Table 5 Fax connection

Item	Specification
Connection to public line	RKJ11 modular jack (2wire)
Terminal for external telephone	RKJ11 modular jack (2wire)

Foreign Device Interface (FDI)

Table 6 FDI connection

Item	Specification
This connector is used to use the functions that access the machine via the 3rd party accessories like as IC Card Reader/Coin Kit (Authentication/Auditron)	One Din10 pin connection providing 5V/ 120mA to connected devices.

Network Protocol

Printing Protocol

Printing protocol is shown in Table 7:

Table 7 Printing network protocol

Protocol	Transport	Maximum Sessions	Remarks
Port9100	TCP/IP	1	Windows XP/Server2003/Vista/ Server2008/ 7/Server 2008 R2 Mac OS X
LPD	TCP/IP	10	Windows XP/Server2003/Vista/ Server2008/ 7/Server 2008 R2 Mac OS X Linux
IPP/IPPS (Requires optional HDD)	TCP/IP	5	Windows XP/Server2003/Vista/ Server2008/ 7/Server 2008 R2 Mac OS X
SMB	TCP/IP	5	Windows XP/Server2003/Vista/ Server2008/ 7/Server 2008 R2
Web Services on Devices	TCP/IP	2	[Print]:Windows Vista / Server2008/ 7 / Server 2008 R2 [Scan] : Windows Vista / 7

Control and Management Protocol

Control and management protocol is shown in Table 8:

Table 8 Control and management network protocol

Protocol	Transport	Application / Usage	Remarks
HTTP/HTTPS	TCP/IP	EWS	
SMTP	TCP/IP	E-Mail Alert	
SNMP v1/v2c/v3	UDP/IP	Driver, Installer, Management	SNMP v3 Default OFF
DHCP	UDP/IP	IP setup	
BOOTP	UDP/IP	IP setup	
RARP	TCP/IP	IP management	
AutoIP	TCP/IP	Installer (Device discovery)	
WINS	TCP/IP	IP setup	
Telnet	TCP/IP	IP management	
Bonjour (mDNS)	UDP/IP	IP setup for Mac	
LDAP	TCP/IP	Address Book,ColorTrack Pro1.1	
LDAPS	TCP/IP	Address Book,ColorTrack Pro1.1	HDD option required
DNS	TCP/IP	IP management	
DDNS	TCP/IP	IP management	Default OFF
SNTP	TCP/IP	IP management	Default OFF
FTP	TCP/IP	IP management	

MIB

The following MIBs are supported.

- RFC1213 MIB-II
- RFC1514 HostResources
- RFC1759 Printer MIB
- Printer port monitor MIB
- XCMI MIB

Decomposer

PDL

The PDL decomposer specifications are shown in Table 9:

Table 9 PDL decomposer specifications

PDL	Interface		Remark
	USB I/F Net	USB Storage	
PCL 5c	Yes	No	
PCL 6	Yes	No	SupportOS: Windows XP/Server 2003/Vista/Server 2008/ 7 / Server 2008 R2
PostScript	Yes	No	SupportOS: Mac OS X(10.3.9/10.4/10.5/10.6/10.7), Linux, Windows XP/Server2003/ Vista / Server 2008 / 7 / Server 2008 R2

Table 9 PDL decomposer specifications

PDL	Interface		Remark
	USB I/F Net	USB Storage	
FX-PDF	Yes	Yes	Ver1.6
TIFF	No	Yes	
JPEG	No	Yes	
HBPL	Yes	No	
Yes: Supported No: Not supported			

Font

81 fonts and 36 Symbol Sets for PCL, 16 fonts for PDF and 136 fonts for PS3 are available as built-in font.

Image Area

The image area specifications are shown in Table 10:

Table 10 Image area specifications

Area Definition	Specification
Usable Area (maximum paper size)	215.9 x 355.6 mm (a)
Un-printable Area	Default: 4.1 mm each from four edges of paper (b)
Printable Area	207.7 x 347.4 mm
Print quality guaranteed Area	Same as Printable Area
a. Maximum width 220 mm for Envelope (DL LEF). b.Can be enabled in printer driver up to 4.0mm. Maximum printable width of paper which paper width is more than 215.9 mm is 210.9 mm. Therefore, Maximum printable area is 210.9 x 361.6 mm.	

Job Control

Print Cancel

A print job in progress can be cancelled from the operator panel.

Job Recovery

When a print job fails due to a recoverable error such as paper jam, the device recovers the job automatically after the jammed paper is removed.

Job Timeout

When a print job is stopped for a certain period of time (time can be changed at the operator panel, and unlimited also can be selected), the print data of the job is deleted as an error

ColorTrack Pro1.1

Color Track is a function to designate the use of color printing and control print volume per user.

Only the administrator can set restrictions from the EWS.

The user name and password are embedded in the print job to confirm from whom the job is sent. In addition, the user name and password are entered by user from the printer driver.

The printer can support maximum 50 accounts.

When “ColorTrack Mode” is set to “Off”, “Automatic Color to Monochrome Print” setting applies to all users. When “ColorTrack Mode” is set to “Internal Mode” or “External Mode”, “Automatic Color to Monochrome Print” setting applies to Registered Users with “Monochrome Print Only” rights and Non Registered Users.

Secure Print

When the optional HDD is attached, the printer holds print data in memory, including a user password (1~12 digits), a user name and a document name specified in the printer driver. The data is not printed until the same password, user name and document name are specified at the device UI. The data is cleared after being printed. The data remains in the device as long as it is not cleared. The data in the memory is cleared when the printer is turned off. The data on the HDD is not cleared even if the device is turned off.

Proof Print

When the optional HDD is attached, only the proof print can be selected, when multiple sets of prints are specified in the printer driver, the device prints only the first set of the print data. The user can select whether the remaining sets are printed or not (the remaining data is cleared) when the same user name and document name are entered at the UI. The data remains in the device as long as it is not cleared. The data on the memory is cleared when the device is turned off. The data on the HDD is not cleared even if the device is turned off.

IP Filter

The user can select to accept or reject jobs for the specified IP address. Up to 5 IP addresses can be specified. IP filter is available only to LPD and Port 9100.

Logging

Job Logging

The device can retain up to 20 job logs.

Job log is printed instantly by user's request or automatically when the number of the retained job logs has reached 20.

Job log includes the following information.

- Job finish date and time
- Job type (Print/File/FaxSend/FaxReceived/Copy/Scan)
- Input interface (USB, LPD, Port9100)
- Document name (File name)
- Output color
- User name/Host name
- Number of printed sheets (Color, B&W)
- Number of printed impressions (Color, B&W)
- Paper size
- Result (Successful, Error, etc.)

Error Logging

The device can retain the following errors.

Fatal error: 42 errors at the maximum (10 errors at the minimum)

Jam error: 42 errors

The user can print the error log by the panel operation.

Jam error log includes the following information:

- Date and time when jam has occurred

Jam name Fatal error log includes the following information:

- Date and time when error has occurred
- Error code

Billing Counter

The PV counter counts the number of sheets printed correctly (Similar to Odometer) (Table 11).

Table 11 Billing counter specifications

Counter	Description
Color PV (7 digits)(KCMY)	Count the number of paper printed in color.
B&W PV (7 digits)(K only)	Count the number of paper printed in B&W.
Total PV (7 digits)	Count the total number of paper printed in color and B&W.

ID Print

User name can be printed. The printing position can be selected from upper right, upper left, lower right and lower left (Only for PCL6). The user selects using the operator panel whether user name is printed or not and where it is printed.

Non-Genuine Mode

When a toner cartridge has reached end-of-life, the device stops accepting print requests (toner cartridge life is counted by the counter in CRUM). Taking into consideration that some users use refilled toner cartridges they get from remanufacturers, the device can accept a print request by the user' s panel operation even if the life of the toner cartridge has ended. Settings of toner cartridge can be made separately (settings of toner cartridge can not be made by color). When the mode has changed so that the device does not stop even after life of toner cartridge ends, the device displays a message on the operator panel to inform the user of the mode change. When the printer operates in this mode, print image quality is not guaranteed. Also, remaining toner level is not displayed (as CRUM data can not be guaranteed).

GP 31 IIT Specifications

Scanner

Scanner specifications are shown in Table 1:

Table 1 Scanner specifications

Item	Specification
Scanning Method	Platen: Document-fixed flatbed scanning method
	DADF: Carriage-fixed, document-feeding scanning method (2- side scanning)
Optical Resolution	600 x 600 dpi (max)
Light Source	LED
Maximum Scanning Guarantee Area	Platen: 215.9 mm x 297 mm (8.5" x 11.7")
	DADF: 215.9 mm x 355.6 mm (8.5" x 14")
Scanning Halftone Level	Output from the CIS has the following halftone level.
	Gray: 10bit
	Color: 10bit (R/G/B)

Platen

Platen specifications are shown in Table 2:

Table 2 Platen specifications

Item	Description
Platen Glass	Size: 221 mm x 300 mm (8.7" x 11.8") (Flat glass area)
Document Image Area (Platen mode)	Max: 215.9 mm x 297 mm (8.5" x 11.7")

DADF

DADF specifications are shown in Table 3:

Table 3 DADF specifications

Item	Description
Document Condition	Sheets without tears, wrinkles, or folds
Document Thickness	Simplex: 50g/m2 - 125g/m2 Duplex: 60g/m2 - 125g/m2
Auto Document Size Detection	None
Retention Angle / Open Angle of Platen Cover with DADF	Maximum open angle: 70 deg Platen cover can be retained at any angle: 12 +/- 5 deg through 65 +/- 5 deg Platen cover self-weight drop angle: 12 +/- 5 deg or less
Document Setting	Center Registration
Document Tray Capacity	50 sheets of standard documents, or document stack height is 8 mm or less. Document shall not be creased/folded/swollen, etc.

GP 32 Fax Specifications

Fax Send/Receive Buffer

FlashROM: 4MB

Connectable Network

The Fax can be connected to the following communication networks:

- PSTN
- PBX

The Fax **cannot** be connected to the following communication networks:

- ISDN communication network
- VoIP network

Mutual Communication Ability

Fax mutual communication ability specifications are show in Table 1:

Table 1 Fax Mutual communication ability

Characteristic	Specification
Communication Mode	Priority 1: ITU-T Super G3 Priority 2: ITU-T G3 ECM Priority 3: ITU-T G3 Notes: ITU: International Telecommunication Union ITU-T: ITU Telecommunication Standardization Sector ECM: Error Correction Mode
Modem Signal Processing	The following communication standards are supported: • V.34 (33.6 /31.2 /28.8 /26.4 /24 /21.6 /19.2 /16.8 /14.4 / 12 /9.6 /7.2 /4.8 /2.4 kbps) • V.17 (14.4 /12 /9.6 /7.2 kbps) • V.29 (9.6 /7.2 kbps) • V.27ter (4.8 /2.4 kbps)
Pixel Transmission Density (on the supported transmission path)	B/W: • R16 x 15.4 line/mm • R8 x 15.4 line/mm • R8 x 7.7 line/mm • R8 x 3.85 line/mm • 600 x 600 pixel/25.4 mm (Super Fine) • 400 x 400 pixel/25.4 mm (Super Fine) • 300 x 300 pixel/25.4 mm (Fine) • 200 x 200 pixel/25.4 mm (Fine) • 200 x 100 pixel/25.4 mm (Standard)
	Color: Not supported
Communication Image Size	Fast scan direction size on communication is 215 mm +/- 1%
Halftone/Compression Method	B/W: 1bit, JBIG, MMR, MR, MH encoding
	Color: Not supported
Communication Control Protocol	Comply with ITU-T recommendation T.30
Nonstandard Function	Not supported

Transmission Time

Image Data transmission time (Tp) of image data in G3 mode is as follows (Table 2).

Resolution conversion is not performed during transmission, and density is normal.

Specified value condition: ECM (No data error)

Table 2 Fax transmission time

Chart		14.4 Kbps (MMR)	28.8 Kbps (MMR)	33.6 Kbps (JBIG)a
IIEEJ No.4	Super Fine	56 sec. or less	29 sec. or less	22 sec. or less
	Fine	26 sec. or less	13 sec. or less	11 sec. or less
	Standard	19 sec. or less	10 sec. or less	7 sec. or less
ITU-T No.1	Super Fine	30 sec. or less	15 sec. or less	12 sec. or less
	Fine	15 sec. or less	8 sec. or less	6 sec. or less
	Standard	11 sec. or less	6 sec. or less	4 sec. or less
FX English sales Text	Standard	7 sec. or less	4 sec. or less	2 sec. or less
FX Japanese sales Text	Standard	9 sec. or less	5 sec. or less	4 sec. or less
IIEEJ No.1	Standard	75 sec. or less	38 sec. or less	20 sec. or less
a. Reference value				

Protocol Control Time

When no data error occurs, protocol control time (Tm, Tn, Tu) is as shown in Table 3:

Table 3 Fax protocol control time

Mode	Before: messages: Tm	Between messages: Tn	After messages: Tu	Total
V.17, V.29, V.27ter Standard Protocol	16.4 sec. or less	3.2 sec. or less	4.4 sec. or less	24.0 sec. or less
-V.34 Standard Protocol	9.9 sec. or less	1.0 sec. or less	0.9 sec. or less	11.8 sec. or less

In G3 mode, when a data error that exceeds the threshold occurs, Tn increases by approximately 6 seconds.

In ECM (Error Correction Mode), according to the number of resending operations performed for the occurred data error, Tn increases by approximately Tn+1 seconds for each resending operation.

Throughput

The sending time is calculated in the following formula:

Sending time = Call setup time + Tm + (N x Tp) + {(N-1) x Tn} + Tu (sec)

(N: Send quantity; Tp: Image transmission time)

Incoming Call Level

Under ideal conditions (flat line, no noise, and no other line stress), normal communication shall be guaranteed in the range from -3 through -43 dBm.

GP 33 Interior and Exterior Cleaning

Purpose

Whenever cleaning any portion of the printer, follow the precautions given here.

General Precautions

WARNING

Do not handle the fuser components until they have cooled. Some fuser components operate at hot temperatures and can produce serious personal injury if touched

CAUTION

- *Do not remove the covers or guards that are fastened with screws. You cannot maintain or service any parts that are behind these covers and guards. Do not attempt any maintenance procedure that is not described in the documentation supplied with your printer*
- *When cleaning your printer do not use organic or strong chemical solvents or aerosol cleaners. Do not pour fluids directly into any area. Use supplies and cleaning materials only as directed in this documentation.*

- Do not place anything on top of the printer.
- Do not leave the covers and doors open for any length of time, especially in well-lit places. Light exposure can damage the imaging units.
- Do not open covers and doors during printing.
- Do not tilt the printer while it is in use.
- Do not touch the electrical contacts or gears. Doing so could damage the printer and cause the print quality to deteriorate.
- Ensure any parts removed during cleaning are replaced before you plug in the printer.

Recommended Tools

- Toner vacuum cleaner
- Clean water
- Clean, dry, lint-free cloth

Cleaning Process

WARNING

Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Disconnect the power cord GP 4. Electricity can cause death or injury. Moving parts can cause injury.

Clean the exterior of the printer once a month.

- Wipe the paper tray, output tray, control panel, and other parts with a damp, soft cloth.
- After cleaning, wipe with a dry, soft cloth.
- For stubborn stains, apply a small amount of mild detergent to the cloth and gently wipe the stain off.

CAUTION

Do not spray detergent directly on the device. Liquid detergent could enter the device through a gap and cause problems. Never use cleaning agents other than water or mild detergent.

WARNING

Do not handle the fuser components until they have cooled. Some fuser components operate at hot temperatures and can produce serious personal injury if touched.

Clean the interior of the device regularly to prevent stains inside the device that can deteriorate printing quality. Clean the device interior whenever you install a new imaging unit.

After clearing paper jams or replacing a toner cartridge, inspect the inside of the device before closing the device covers.

- Remove any remaining pieces of paper or debris.
- Remove any dust or stains with a dry, clean cloth.

GP 34 How to Set the Date and Time

Purpose

To set the device's date and time.

How to Set the Date and Time at the UI

Perform the steps that follow:

1. Enter Administration Mode, GP 3.
2. Touch the Device button.
3. Touch General.
4. Touch **Date & Time**.
5. Set the correct Time Zone, Date and Time, and date and time display settings, then select OK.
6. Log out of Administration Mode, GP 3.

How to Set the Date and Time via the Webpage

Perform the steps that follow:

1. Enter Administration Mode, GP 3.
2. Click on System.
3. Click on **Date & Time**.
4. Set the correct Time Zone, Date and Time, and date and time display settings, then click on OK.
5. Log out of Administration Mode, GP 3.

GP 35 Device Information

Purpose

To provide device hardware and software information.

Service Information Available

From the Home screen, touch the Device button. This gives the options that follow:

- Language
- About:
  - Device Name
  - Model
  - Serial Number
  - Xerox Asset Tag
  - Customer Asset Tag
  - Software Version
  - Contact information
  - Network information
  - Wi-Fi information
  - Job Overwrite
  - Information Pages
- Software Update
- Notifications
- Paper Trays
- Supplies
- Billing Usage
- General:
  - Measurements
  - Reading Order
  - Date & Time
  - System Timeout
  - Display Brightness
  - Sounds
  - Power Save
  - Feature Installation
- Apps:
  - Address Book
  - Email
  - Fax
  - Scan To
- Connectivity
- Support
- Resets:
  - Reset NVRAM
  - Reset Fonts, Forms and Macros
  - Reset to Factory Defaults

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 measurements 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
1TM	One Tray Module
3TM	Three Tray Module
AAA	Authentication, Authorisation and Accounting
ABS	Automatic Background Suppression.
AC	Alternating Current
ACAST	Anti Counterfeiting Activities Support/Strategy Team
ACL	Alternating Current Live
ACN	Alternating Current Neutral
AGC	Automatic Gain Control
AHA	Advanced Hardware Architecture
AMPV	Average Monthly Print Volume
ANSAM	Answer Tone, Amplitude Modulated
APS	Auto Paper Selection
ARP	Address Resolution Protocol. Converts an IP address to a MAC address. See RARP.
ASIC	Application Specific Integrated Circuit
B	Bels (applies to sound power level units)
Binding	Part of the communication between modules.
BM	Booklet Maker
BootP	Boot Protocol. AN IP protocol for automatically assigning IP addresses.
BPS	Bits Per Second
BS	Behaviour Specification
BT	Busy Tone
BCR	Bias Charge Roll
BTR	Bias Transfer Roll
C	Celsius
CAT	Customer Admin Tool
CBC	Customer Business Center
CCD	Charged Coupled Device
CCM	Copy Controller Module
CCS	Copy Controller Service
CentreWare	CentreWare internet services is the embedded HTTP server application that is available on network enabled devices. It enables access to printing, faxing and scanning over the internet.
CIPS	Common Image Path Software

Table 1 Abbreviations

Term	Description
CIS	Contact Image Sensor
CL	Copy Lighter. A copy density setting
CQ	Copy Quality
CRC	Cyclic Redundancy Check
CRU	Customer Replaceable Unit
CRUM	Customer Replaceable Unit Monitor
CSE	Customer Service Engineer
CVT	Constant Velocity Transport
CWIS	CentreWare Internet Services (also known as Web UI)
C, Y, M, K	Cyan, Yellow, Magenta, Black (K=Black because black is seen as the key color)
DADF	Duplex Auto Document Feeder
dB	Decibel (applies to sound pressure level units)
dC	Diagnostic code
DC	Device Controller, generic term for any module that acts as a image handling device e.g., SIP. Digital Copier
DC	Direct Current
DCN	Disconnect
DCS	Digital Command Signal
DDNS	Dynamic Domain Name System
DH	Document Handler
DHCP	Dynamic Host Config Protocol (similar to BootP)
DIMM	Dual In-line Memory Module
DIP	Dual In-line Package (switch)
DIS	Digital Identification Signal
DLM	Dynamically Loadable Module
DM	Document Manager
DMA	Direct Memory Access
DMO	Developing Markets Operations
DMO-E	Developing Markets Operations East
DMO-W	Developing Markets Operations West
DN	FX acronym for a duplex enabled device
DPI	Dots per inch
DRAM	Dynamic Random Access Memory
DST	Daylight Saving Time
DT	Dial Tone
DTMF	Dual Tone Multiple Frequency
DTS	Detack Saw
Dust Off	Routine to return device to pre-install state
DVMA	Direct Virtual Memory Access
EH&S	Environmental Health and Safety

Table 1 Abbreviations

Term	Description
EJS	Easy Java Simulation
ELT	Extract, Load, Transform
Embedded Fax	A fax system included in a system device
EMC	Electromagnetic Compatibility
EME	Electromagnetic Emission
ENS	Event Notification Service. Used by a software module to alert another module of an event.
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
ERR	End Retransmission Response
ERU	Engineer Replaceable Unit
ESD	Electrostatic Discharge
ESS	Electronic Sub-System (equivalent to NC)
EU	European Union
EUR	Europe
EWS	Embedded Web Server
FAR	Fully Active Retard feeder
Fax	Facsimile
FCOT	First Copy Out Time
FDI	Foreign Device Interface
FIFO	First In First Out
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	Field Replaceable Unit
FRU	Fuser Replacement Unit
FTP	File Transfer Protocol
FX	Fuji Xerox
G3	Group 3
GMT	Greenwich Mean Time
GND	Ground
GSM	Grams per square metre
GUI	Graphical User Interface
HCF	High Capacity Feeder

Table 1 Abbreviations

Term	Description
HDD	Hard Disk Drive
HFSI	High Frequency Service Intervals
HTTP	Hyper Text Transfer Protocol
HVPS	High Voltage Power Supply
Hz	Hertz
I/O	Input/Output
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.
ICCR	IC Card Reader
ID	Identification
IDG	Inter document gap
IFax	Internet Fax
IIT	Image Input Terminal
Intlk	Interlock
ioctl	input/output control
IOT	Image Output Terminal
IP	Internet Protocol
IPA	Image Processing Accelerator. Used by the device scanning services to convert scanned images to a standard format e.g. for scan to file / scan to E-mail for network transmission.
IPS	Image Processing Service
IPSec	Internet Protocol Security
IPX	Internetwork Protocol eXchange
IQ	Image Quality
IQS	Image Quality Specification
IR	Intelligent Ready
ISDN	Integrated Services Digital Network / International Standard Data Network
ISO	International Standards Organization
ITP	Internal Test Pattern
JBA	Job Based Accounting (Network Accounting)
JIS	Japanese Industrial Standards
kg	kilogram
kHz	kilohertz
Kill All	Routine to return all NVM, including protected NVM, to a virgin state. Factory use only
KO	Key Operator
KPV	100KPV = 100,000 Print Volume
LAN	Local Area Network
LCD	Liquid Crystal Display

Table 1 Abbreviations

Term	Description
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
LOA	Load Object Attributes
LPD	Line Printer Daemon
LPH	LED Print Head. An LED array in close proximity to and the same width as the photoreceptor. Individual LEDs are switched on/off to develop the image on the xerographic drum.
lpi	Lines per inch
LVF BM	Low Volume Finisher Booklet maker
LVDS	Low Voltage Differential Signal
LVPS	Low Voltage Power Supply
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.
Mark Service	Mark Service is the software module that tells the hardware to put toner on paper.
MB	Megabyte (one MB = 1,048,576 bytes = 1024 kilobytes). Mail Box
Mb	Mega bit (one million bits)
MCF	Message Confirmation
MCU	Machine Control Unit
MF	Multifunction
mm	millimeter
Modem	MOdulator/DEModulator. Hardware unit that converts the ‘one’ and ‘zero’ binary values from the computer to 2 frequencies for transmission over the public telephone network (modulation). It also converts the 2 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.
MSG	Management Steering Group
MSI	Multi Sheet Inserter
ms	millisecond
N	Newton
N	FX acronym for a non-duplex/simplex only device

Table 1 Abbreviations

Term	Description
NA	North America
NC	Network Controller (equivalent to ESS)
NC	Normal Contrast. Copy contrast setting
NCU	Network Control Unit
NCR	No Copying Required
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.
Nm	Newton metre
NOHAD	Noise, Ozone, Heat, Airflow and Dust
NTP	Network Time Protocol
NVM	Non-Volatile Memory
OA	Open Architecture
ODIO	On Demand Image Overwrite
OEM	Original Equipment Manufacturer
OpCo	Operating Company
OS	Operating System
PABX	Private Automatic Branch Exchange
PBX	Private Branch Exchange
PC	Personal Computer
PC Fax	Personal Computer Fax
PCI	Peripheral Component Interface
PCL	Printer Control Language
PDF	Adobe Acrobat Portable Document Format
PDL	Page Description Language
PFM	Paper Feed Module
PIN	Procedural Interrupt Negative
PIN	Personal Identification Number
ping	Packet InterNet Groper. Tool to test connections between nodes by sending and returning test data.
PME	Power Management Event
POPO	Power Off Power On
POO or P of O	Principles of Operation
POST	Power On Self Test
POTS	Plain Old Telephone System
PPM	Prints per minute / Parts Per Million
PR	Photo-Receptor
Process Death	A process has stopped working.
PS	Post Script
PS	Power Supply

Table 1 Abbreviations

Term	Description
PSTN	Private Switched Telephone Network
PSW	Portable Service Workstation
Pthread	Process Thread. A very low level operating system concept for code execution.
PV	Print Volume
PWB	Printed Wiring Board
PWBA	Printed Wiring Board Assembly
PWM	Pulse-Width Modulation
PWS	Portable Work Station
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.
RDT	Remote Data Transfer
Reg	Registration
Registration Service	Monitors when RPC services go on and offline.
RF	Radio Frequency
RFID	Radio Frequency Identification
RPC	Remote Procedure Call. How the device communicates internally between software modules.
RH	Relative humidity
RMS	Root Mean Square (AC effective voltage)
RNR	Receive Not Ready
RoHS	Restriction of Hazardous Substances
ROM	Read Only Memory
ROS	Raster Optical Scanner
RR	Receive Ready
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.
RTC	Real Time Clock
Rx	Receive
S2F	Scan-to-File
SA	Systems Administration
SAKO	Systems Administration Key Operator
SAR	Semi-Active Retard feeder
SBC	Single board controller. Copy, print and UI controllers all on one PWB within the image processing module.
SCD	Software Compatibility Database
SD	Secure Digital, memory card format
SDIO	Secure Digital Input/Output

Table 1 Abbreviations

Term	Description
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
Semaphore	A variable or abstract data type.
SESS	Strategic Electronic Sub-System
SH	Staple Head
SIM	Subscriber Identity Module (also known as a SOK-Software Option Key)
SIM	Scanner Input Module
SIP	Scanning and Image Processing
SIR	Standard Image Reference
SLP	Service Location Protocol (finds servers)
SM	Scheduled Maintenance
SMART	Systematic Material Acquisition Release Technique
SMB	Server Message Block. Microsoft Server / Client Communications protocol
SMP	Service Maintenance Pack (contains a software package)
SNMP	Simple Network Management Protocol
Snr	Sensor
SOK	Software Option Key (also known as a SOIM-Subscriber Identity Module)
SPAR	Software Problem Action Request
spi	Spots per inch
SPI	Service Provider Interface. Steps to process a job.
SR	Service Representative
SRS	Service Registry Service
SS or S/S	Sub System
SSDP	Simple Service Discovery Protocol
SSID	Service Set Identifier (wireless network name)
STM	Single Tray Module
SU	Staple Unit
SW	Switch
SW or S/W	Software
sync	synchronize
TAR	Take Away Roll
TAR or tar	An archive file format, derived from Tape ARchive
TBC	To Be Confirmed
TBD	To Be Defined
TC	Toner Concentration
TCF	Training Check Field
TCO	Thermal Cutout
TCP/IP	Transmission Control Protocol/Internet Protocol

Table 1 Abbreviations

Term	Description
TE	Trail Edge
Template	A collection of Scan to File attributes that can be conveniently re-used.
TIFF	Tagged Image File Format
TP	Test Point
TPM	Trusted Platform Module
TRC	Toner Reproduction Curve
TrueType	Standard outline font format for windows
TTM	Tandem Tray Module
TTY	Teletype Terminal
Tx	Transmit
UART	Universal Asynchronous Receiver Transmitter
U-boot	Universal Boot Loader
UI	User Interface (display screen)
UK	United Kingdom
UM	Unscheduled Maintenance
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
USSG	United States Solutions Group
V.17 / V.29 / V.34	Modem standards
VOIP	Voice Over Internet Protocol
WC	WorkCentre
WEB UI	CentreWare Internet Services
XCL	Xerox Canada Limited
XE	Xerox Europe
XEIP	Xerox Extensible Interface Platform
XLA	Xerox Latin America
XML	eXtensible Markup Language
XPS	XML Paper Specification (printing format)
XRU	Xerographic Replacement Unit
XSA	Xerox Standard Accounting

dC118 Jam Counter

Purpose

To view the number of jams that have occurred. dC118 Jam Counters records the number of occurrences of a jam and allows the counters to be sorted by occurrences.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC118 Jam Counter.

   NOTE: *There will be a delay while the machine retrieves the jam counter data.*

   NOTE: *Faults that have occurred since the previous exit from the Service Mode with (Exit (Clear Log) will be displayed.*
3. A list of jams that have occurred is displayed.
4. Touch the back button (top left) to return to the Diagnostics screen.
5. Exit diagnostics, GP 1.

dC120 Failure Counter

Purpose

To view the faults raised by the machine. dC120 Fault Counters records the number of occurrences of a fault.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC120 Failure Counter.

   NOTE: *There will be a delay while the machine retrieves the fault counter data.*
3. A list of faults that have occurred on the machine is displayed.
4. Touch the back button (top left) to return to the Diagnostics screen.
5. Exit diagnostics, GP 1.

dC122 Fault History

Purpose

To view the fault history in 4 categories: Document Feeder Jam, Paper Jam, Failure, and Last 40 Faults.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC122 Fault History.
3. The dC122 Fault History screen is displayed.

   NOTE: *Malfunctions that have occurred since the previous exit from Service Mode (with Exit Clear Log) will be displayed.*

4. Touch Failure to choose between:
   - Paper Jams
   - Document Feeder Jams
   - Failures
   - Last 40 Faults
5. Touch the back button (top left) to return to the Diagnostics screen.
6. Exit diagnostics, GP 1.

dC125 Active Faults

Purpose

To view the current faults.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC125 Faults.

   NOTE: *There will be a delay while the machine retrieves the fault data.*

3. A list of current faults is displayed.
4. Touch Close to return to the Diagnostics screen.
5. Exit diagnostics, GP 1.

dC131 NVM Read/Write

Purpose

To review and modify values within the machine configuration and control parameters stored in NVM.

Only change an NVM value when instructed by a service procedure or when following advice from engineering/technical support.

Description

Each NVM item is identified using an NVM chain link number in the form XXX-XXX.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC131 NVM Read/Write.
3. To read NVM, enter the required chain link number. The current value will be displayed.
4. To write NVM:
   a. Enter the required chain link number.
   b. Touch Change.
   c. Enter a new value.
   d. Touch OK.
   e. The new value will be displayed in the Current Value box.
5. Touch the back button (top left) to return to the Diagnostics screen.
6. Exit diagnostics, GP 1.

NOTE: *The Edoc CD must be in the CD drive to use the link below.*

For the NVM tables, refer to the NVM Document

dC132 Machine ID and Billing Data

Purpose

To view and if necessary reset the mismatch of Serial No., Product No. and Billing Counter values between the MCU PWBA and ESS PWBA, when either a new MCU PWBA or ESS PWBA has been install or the device was started in 02. FACTORY INIT MODE Special Boot Mode GP 16. The procedure that follows allows the values in the new PWBA to be synchronize with those values in the un replaced PWBA.

The Serial No., Product No., and Billing Counter are held at the following three locations respectively:

- MCU PWBA (IOT).
- EMMC card (SEEP Data SYS1) on the ESS PWBA.
- Soldered NVM (NVM Data SYS2) on the ESS PWBA.

NOTE: *Be aware of the following:*

- *This function must only be used when a failure has occurred.*
- *When the three values (IOT, SYS1, SYS2) are the same, there is no need to continue with this diagnostic function.*
- *When exiting the diagnostics after synchronizing the Serial No., the failure is cancelled.*

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC132 Device ID and Billing Data.
3. Select the correct data area (IOT, SYS1 or SYS2). For example, if a new MCU PWBA (IOT) was installed, touch SYS1 or SYS2 for entering the serial numbering in the next step.
4. Follow the on screen instructions and enter the serial number, then touch OK.
5. Follow the on screen instruct i os and re-enter the serial number, then touch OK.
6. Exit diagnostics, GP 1.

dC135 HFSI Counter

Purpose

To view and reset the Spec Life (threshold value) and the Current Value (usage status) of the high frequency service items (HFSI), refer to Table 1.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC135 HFSI Counter. The HFSI Counter screen will open.
3. Touch Chain-Link, then enter the relevant Chain-Link number or select the component from the list.
4. Touch Details. The Details screen will open, displaying the part name, current value, last replacement data, 2nd last replacement data, 3rd last replacement data and the specified life.
5. To reset an HFSI value:
   a. Touch Reset.
   b. The Reset Current Value screen will open.
   c. Touch Yes to reset the NVM value.

   NOTE: *The three previous replacement values will be updated.*
6. To edit the specified life of an HFSI:
   a. Touch Spec Life.
   b. The Spec Life screen will open.
   c. Enter the new value.
   d. Touch OK.
7. Touch Close to return to the HFSI Counter screen.
8. Touch Close to return to the Diagnostics screen.
9. Exit diagnostics, GP 1.

Table 1 High Frequency service items

Item	Description	Recommended Life	Reference
CRU xerographic development assembly	The total sides of copies and prints after the last HFSI reset.	60k impressions	PL 8.1
MSI tray feed roller	Sheets fed from tray 1 after last HFSI reset.	100k feeds	PL 13.2 Item 10
Tray 1 feed roller assembly	Sheets fed from tray 1 after last HFSI reset.	100k feeds	PL 9.1 Item 4
Optional tray feed roller	Sheets fed from tray 2 after last HFSI reset.	100k feeds	PL 10.2 Item 3
Maintenance Kit, includes Transfer belt assembly and Transfer roller assembly	Total prints after the last HFSI reset.	100k impressions	PL 6.1 Item 1, PL 14.1 Item 2

dC140 Analog Component Monitoring

Purpose

To provide tools to start (actuate) and stop (de-actuate) monitoring of specific analog components. The nominal range of the analog value and when monitoring is active the current value is displayed. The values are updated at least every second to allow the component state to be monitored.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC140 Analog Component Monitoring. The Analog Monitor screen will open.
3. Touch Chain-Link.
4. Enter the relevant Chain-Link number, refer to Input List Table 1 and Output List Table 2.
5. Touch OK.
6. Touch Start. The screen will display the information that follows:
   - Chain-Link number of the component.
   - Input or output code clarification.
   - The enabled or disabled state.
   - The output level.
7. To temporarily change the output level of a component:
   a. Touch the wrench symbol.
   b. Touch the +/- buttons or use the keypad to enter the new value (1 to 65535).
   c. Touch OK.
8. Touch Stop All to stop component operation.
9. Touch Close to return to the Diagnostics screen.
10. Exit diagnostics, GP 1.

Table 1 Input list

Chain-Link	Component	Command	Operation	Note
010.200	Fusing NC Sensor Voltage Compensation	04 : Monitor	01:Start 02:Stop	
010.201	Fusing NC Sensor Voltage	04 : Monitor	01:Start 02:Stop	
010.202	Fusing NC Sensor Voltage Difference	04 : Monitor	01:Start 02:Stop	
010.203	Fusing STS Sensor	04 : Monitor	01:Start 02:Stop	
046-200	2nd BTR Current Monitor	04 : Monitor	01:Start 02:Stop	
061.200	ROS Temperature Sensor	04 : Monitor	01:Start 02:Stop	
092.200	CTD Sensor Voltage 1	04 : Monitor	01:Start 02:Stop	

Table 2 Output List

Chain-Link	Component	Command	Note
46 - 001	DA_VREF_Y	03:Write	
46 - 002	DA_VREF_M	03:Write	
46 - 003	DA_VREF_C	03:Write	
46 - 004	DA_VREF_K	03:Write	
46 - 005	DA_TR1_YMC	03:Write	
46 - 006	DA_TR1_K	03:Write	
46 - 007	DA_TR2	03:Write	
46 - 008	DA_TR2_CLN	03:Write	
46 - 009	DA_DBAC_YMC	03:Write	
46 - 010	DA_DBAC_K	03:Write	
46 - 011	DA_DBDC_YMC	03:Write	
46 - 012	DA_DBDC_K	03:Write	
46 - 013	DA_BCR_K	03:Write	
46 - 014	DA_BCR_Y	03:Write	
46 - 015	DA_BCR_M	03:Write	
46 - 016	DA_BCR_C	03:Write	
91 - 001	DA_CTD_LED1	03:Write	
91 - 002	DA_CTD_VOUT1	03:Write	

dC301 Initialize NVM

Purpose

To reset the values of all applicable NVM parameters to default.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch the dC301 Initialize NVM button.
3. The Initialize NVM screen is displayed with the following items. Select the item to be initialized:
   - IOT (Resets NVM associated with the print engine).
   - IOT1 (Do not use).
   - IOT2 (Do not use).
   - Output Finisher (Do not use).
   - Finisher (Do not use).
   - IFM (Do not use).
   - HCS (Do not use).
   - IISS-IIT/IPS (Do not use).
   - IISS-Extension (Do not use).
   - Input Device (Do not use).
   - Sys-System (Resets CSE definable data).
   - Sys-User (Resets controller settings and user definable data).
   - Fault Counter (Do not use).
   - HCS1 (Do not use).
   - HCS2 (Do not use).
   - PFIM (Do not use).
4. Touch Start.
5. Follow the UI messages to initialize the NVM.
6. Touch the back button (top left) to return to the Diagnostics screen.
7. Enter dC131. Ensure NVM value 790-900 is set to 1. If the NVM value had to be changed, switch off, then switch on the machine, GP 4. Verify that the Embedded Web Server is working.
8. Exit diagnostics, GP 1.

dC305 UI Diagnostics

Purpose

To test the LED and Audio functions of the user interface.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC305 UI Panel Diagnostics.
3. Touch LED test or Audio test.

LED test

1. Touch the 1 or more LEDs to be diagnosed.
   - Interactive
   - Error
   - Intracavity
   - NFC
   - Power
   - Data
2. Touch Off or Steady On.
3. Touch the back button (top left) to return to the Diagnostics screen.

Audio test

1. Touch Volume, then slide to adjust for loudness.
2. Touch the pattern to be diagnosed. The audio sounds with the specified volume and pattern.
   - Pattern 1
   - Pattern 2
   - Pattern 3
   - Pattern 4
   - Pattern 5
   - Pattern 6
3. Touch the back button (top left) to return to the Diagnostics screen.
4. Exit diagnostics, GP 1.

dC330 Component Control

Purpose

To show the status of input components e.g. sensors, and to run or energize output components e.g. motors, solenoids.

Description

Output and input component codes are entered into the Component Control Table on the UI, and then checked individually or in permitted groups. The codes in the tables are grouped in function chain order. Refer to GP 2 Fault Codes and History Files.

NOTE: *To check the operation of the ROS and fuser temperature, 2nd BTR current and CTD sensor, refer to dC140 Analog Monitoring.*

Go to the appropriate procedure:

- Input Components
- Output Components

Input Components

When the appropriate code is entered, the status of the component is shown on the UI.

CAUTION

Switch off the +24VDC supply after testing motors, solenoids, and clutches. The +24VDC low voltage power supply must be switch on when testing motors, solenoids, and clutches, (dC330 Component control code 041.001) then switched off to avoid damage to the machine.

NOTE: *The logic level shown on a wiring diagram with the signal name is the actual signal as measured with a service meter. This is not necessarily 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.

Go to the appropriate table:

- Table 1 Chain 10 Component Input Codes
- Table 2 Chain 40 Component Input Codes
- Table 3 Chain 60 Component Input Codes
- Table 4 Chain 70 Component Input Codes
- Table 5 Chain 90 Component Input Codes

Output Components

When the appropriate code is entered, the component runs or energizes for a set time. The default timeout for most components is set at 90 seconds, but can be as short as 5 seconds. Some components require that other components are run or energized at the same time. It is possible to enter and run or energize up to 6 component control codes (not fax), but only in permitted groups. If illegal combinations of codes are entered, the components do not run or energize.

Go to the appropriate table:

- Table 6 Chain 10 Component Output Codes
- Table 7 Chain 40 Component Output Codes
- Table 8 Chain 60 Component Output Codes
- Table 9 Chain 70 Component Output Codes
- Table 10 Chain 90 Component Output Codes

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC330 Component Control.
3. Touch Chain-Link.
4. Enter the relevant Chain-Link number.
5. Touch OK.
6. Locate the component to be tested. In the case of a solenoid, clutch or motor be sure to switch on the +24V power supply (chain link 041-001) prior to running the component's diagnostic. Open doors will inhibit the +24V supply. You must keep all doors closed or interrupt the door sensor to keep the supply active.
7. Touch Start. The component will operate and the screen will display the information that follows:
   - Chain-Link number of the component.
   - Input or output code clarification.
   - The component status.
   - Operation counter.

   NOTE: *The Cyclic Motion (top right on the display) is not functional on the C400 and C405 devices. Selecting Cyclic Motion On will result in a machine fault.*
8. Toggle Cyclic Motion to repeat the operation.
9. Touch Stop All to stop component operation.
10. Touch Close to return to the Diagnostics screen.
11. Exit diagnostics, GP 1.

Input Codes

Table 1 Chain 10 component input codes

Chain-Link	Component Name	State	Comments
010.200	Fusing Relay Enable	On / Off	
010.201	Fusing Fuse Sensor	On / Off	

Table 2 Chain 40 component input codes

Chain-Link	Component Name	State	Comments
041.300	Side Cover Interlock Switch	On / Off	
041.301	Rear Cover Interlock Switch	On / Off	
041.302	Front Cover Sensor	On / Off	
042.200	LVPS Fan Fail	On / Off	Alarm signal

Table 3 Chain 60 component input codes

Chain-Link	Component Name	State	Comments
062.091	Exchange to DADF	On / Off	Sends a document exchange instruction signal to the DADF.
062.201	Sheet Abort	On / Off	
062.212	ITT Regi Sensor	On / Off	
062.240	ADF Exist	On / Off	
062.251	APS Sensor 1	On / Off	
062.272	ScanStart	On / Off	
062.301	Angle Sensor	On / Off	
062.300	Platen Cover Sensor	On / Off	

Table 4 Chain 70 component input codes

Chain-Link	Component Name	State	Comments
071.100	MSI No Paper Sensor	On / Off	
071.101	Tray 1 No Paper Sensor	On / Off	
071.102	MSI Detect Sensor	On / Off	
071.103	Registration Sensor	On / Off	
071.104	Exit Sensor	On / Off	
071.105	Full Stack Sensor	On / Off	
071.109	Option Feeder 1 Size Sensor 0	On / Off	
071.110	Option Feeder 1 Size Sensor 1	On / Off	
071.111	Option Feeder 1 Size Sensor 2	On / Off	
071.115	Option Feeder 1 No Paper Sensor	On / Off	
071.117	Option Feeder 1 Path (regi) Sensor	On / Off	
071.200	Main Motor Alarm	On / Off	
071.201	Sub Motor Alarm	On / Off	
071.202	Option Feeder 1 Motor Alarm	On / Off	

Table 5 Chain 90 component input codes

Chain-Link	Component Name	State	Comments
093.200	Developer Motor Alarm	On / Off	
094.202	Waste Toner Box Full Sensor	On / Off	

Output Codes

Table 6 Chain 10 component input codes

Chain-Link	Component Name	State	Comments
010.001	Fusing Relay	On / Off	

Table 7 Chain 40 component input codes

Chain-Link	Component Name	State	Comments
041.001	Low Voltage Power Supply 24V	On / Off	
042.001	Main Fan	On / Off	Normal speed
042.002	Main Fan	On / Off	Half speed

Table 8 Chain 60 component input codes

Chain-Link	Component Name	State	Comments
061.001	ROS Motor	On / Off	
062.002	IIT Exposure Lamp	On / Off	The lamp will switch on for 2 minutes then automatically switch off. The M/C will not accept a stop instruction before auto turn off.
062.005	IIT Scan Motor (Scan)	On / Off	Forward. The carriage will move 50 mm in the scan direction, then stop. The M/C will not accept a stop instruction before auto stop.
062.006	IIT Scan Motor (Return)	On / Off	Reverse. The carriage will move 50 mm in the return direction, then stop. The M/C will not accept a stop instruction before auto stop.

Table 9 Chain 70 component input codes

Chain-Link	Component Name	State	Comments
071.001	Main Motor	On / Off	Normal speed
071.002	Main Motor	On / Off	Half speed
071.004	Sub (Paper Transport/PH) Motor	On / Off	Normal speed

Table 9 Chain 70 component input codes

Chain-Link	Component Name	State	Comments
071.005	Sub (Paper Transport) Motor	On / Off	Half speed
071.007	MSI Feed Solenoid	On / Off	
071.008	Tray 1 Feed Clutch	On / Off	
071.009	Take Away 2 Clutch	On / Off	
071.010	Registration Clutch	On / Off	
071.011	Exit Clutch	On / Off	
071.012	Exit Clutch 2	On / Off	
071.013	Duplex Clutch	On / Off	
071.014	Option Feeder 1 Motor	On / Off	Normal speed
071.015	Option Feeder 1 Motor	On / Off	Half speed
071.020	Option Feeder 1 Feed Clutch	On / Off	
071.022	Option Feeder 1 Take Away Clutch	On / Off	

Table 10 Chain 90 component input codes

Chain-Link	Component Name	State	Comments
093.001	Developer Motor	On / Off	Normal speed
093.002	Developer Motor	On / Off	Half speed
093.004	Yellow Toner Dispense Motor	On / Off	Normal speed
093.005	Yellow Toner Dispense Motor	On / Off	Half speed
093.006	Magenta Toner Dispense Motor	On / Off	Normal speed
093.007	Magenta Toner Dispense Motor	On / Off	Half speed
093.008	Cyan Toner Dispense Motor	On / Off	Normal speed
093.009	Cyan Toner Dispense Motor	On / Off	Half speed
093.010	Black Toner Dispense Motor	On / Off	Normal speed
093.011	Black Toner Dispense Motor	On / Off	Half speed

dC355 Hard Disk Diagnostics

Purpose

To:

- Initialize the hard disk (partition A only).
- To perform failure prediction test for the hard disk.

Procedure

1. Enter Service Diagnostics, GP 1.
2. Touch dC355 Hard Disk Diagnostics.
3. Touch Initialize Hard Disk or Hard Disk Failure Prediction Test.

Initialize Hard Disk

1. Touch Partition A, then touch Start. The Partition A will be initialized confirmation screen will open.
2. Touch Yes.
3. Touch the back button (top left) to return to the Diagnostics screen.
4. Exit diagnostics, GP 1.

Hard Disk Failure Prediction Test

1. Touch Hard Disk Failure Prediction Test.
2. Touch Start.
3. Touch the back button (top left) to return to the Diagnostics screen.
4. Exit diagnostics, GP 1.

dC500 Blank Page Threshold Value

Purpose

To set the value that is used to determine what is a blank page when performing blank page detection for fax enabled devices.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC500 Blank Page Threshold Value.
3. Follow the UI messages.
4. Touch Start.
5. A single side is then scanned and the threshold value coefficient is displayed and set.
6. Touch Close to return to the Diagnostics screen.
7. Exit diagnostics, GP 1.

dC612 Print Test Pattern

Purpose

To print the internal test patterns that are stored in the device for checking image quality and isolating problems.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC612 Print Test Pattern.
3. Select the Pattern Number, Table 1. Select from the available options for the selected test pattern, then set the values:
   - Quantity
   - Paper Supply
   - Output Color
   - Cin%
   - Screen
   - 1 sided or 2 Sided
4. Touch the Start button.
5. Touch the Close button to return to the Diagnostics screen.
6. Exit diagnostics, GP 1.

Pattern Numbers and Images

NOTE: *If the settings for a test pattern are wrong, the message appears: [Invalid parameter. Please re-enter.] and the Print Test Pattern cannot be performed. In this case, change the settings and repeat the test print.*

Table 1 includes the print test patterns commonly used to check image quality and isolate problems. Test patterns 102 to 161 are for use on the DADF scanner.

If directed to this procedure from an image quality RAP, click the following link to return to IQ1Image Quality Entry RAP.

Table 1 Test patterns

No.	Pattern name/Purpose	Screen Settings
51	Total Chart (A4)/ SFP development.	Screen must be set to: Gradation, Standard or Fineness.
52	Total Chart (A4)/SFP development.	Screen must be set to: Gradation, Standard or Fineness.
53	Total Chart (A4)/SFP development.	Screen must be set to: Gradation, Standard or Fineness.
54	C-TRACS Confirmation PG (A4/Print)/For verifying the effect of calibration.	Screen must be set to: Gradation, Standard or Fineness.
55	C-TRACS Confirmation PG (A4/Print) For verifying the effect of calibration.	Screen must be set to: Gradation, Standard or Fineness.

Table 1 Test patterns

No.	Pattern name/Purpose	Screen Settings
56	ProconPG(A4)/For isolating problems.	Screen must be set to: Gradation, Standard or Fineness.
57	ProconPG(A4)/For isolating problems.	Screen must be set to: Gradation, Standard or Fineness.
58	SD TP124600 (Black & White Grid)/For alignment confirmation	Screen must be set to: Gradation, Standard or Fineness.
59	Whole-page Halftone (A4)/ For defect/banding detection. It is desirable that Color/Cin can be selected. Color: R/G/B/C/M/Y/K/3C/ 4C/BW.	Screen must be set to: Gradation, Standard or Fineness.
60	Production banding Chart (A4)/4 color HT band Common to Cin all colors. For white line detection.	Screen must be set to: Gradation, Standard or Fineness.
61	DrumPitch Halftone (A4)/For isolating problems.	Screen must be set to: Gradation, Standard or Fineness.
62	Ghost Chart/For isolating problems.	Screen must be set to: Gradation, Standard or Fineness.
63	Color Regi (A4/For Measurement)/For isolating problems. HT for Cregi patch/ Ladder/FXBG For banding verification at half speed.	Screen must be set to: Gradation, Standard or Fineness.
64	Color Regi Adjustment Chart (A4)/For color Regi fine adjustment in fast scan direction.	Screen must be set to: Gradation, Standard or Fineness.
65	Pitch Confirmation Chart (A4)/For isolating problems.	Screen must be set to: Gradation, Standard or Fineness.
66	4-Color Confirmation Chart (A4)/For isolating problems.	Screen must be set to: Gradation, Standard or Fineness.
67	Toner Palette (A4)/For isolating problems.	Screen must be set to: Gradation, Standard or Fineness.
102	Procon PG/Binary	Screen must be set to: Copy Error Diffusion
104	Calibration/Binary (For creating originals)	Screen must be set to: Copy Error Diffusion
106	Calibration/Binary (For confirming gradation)	Screen must be set to: Copy Error Diffusion
108	Highlight PG/Binary	Screen must be set to: Copy Error Diffusion
113	Pre IPS/FS Increment RGB	Screen must be set to: Copy Error Diffusion
117	Pre IPS/SS Increment RGB	Screen must be set to: Copy Error Diffusion
122	Pre IPS/Shading Data Color	Screen must be set to: Copy Error Diffusion

Table 1 Test patterns

No.	Pattern name/Purpose	Screen Settings
124	Pre IPS/YMCK Vertical Stripes	Screen must be set to: Copy Error Diffusion
125	Pre IPS/8-Shaded Patch	Screen must be set to: Copy Error Diffusion
126	Pre IPS/Solid	Screen must be set to: Copy Error Diffusion
127	Post IPS/Grid/4C	Screen must be set to: Copy Error Diffusion
128	Post IPS/Grid/BW	Screen must be set to: Copy Error Diffusion
129	Post IPS/FSRE/Grid	Screen must be set to: Copy Error Diffusion
130	Post IPS/FSRE/Diagonal Grid	Screen must be set to: Copy Error Diffusion
161	Scan Multi-value (ASE L*Path Check)	Screen must be set to: Copy Error Diffusion

dC676 Adjust ROS Exposure

Purpose

To adjust the ROS exposure.

Procedure

1. Enter Diagnostics, GP 1.
2. Touch dC676 Adjust ROS Exposure. The Adjust ROS Exposure screen is displayed.
3. Touch Start.
4. Touch Close to return to the Diagnostics screen.
5. Exit diagnostics, GP 1.

dC924 ROS TRC Manual Adjustment

Purpose

To adjust image quality (TRC) to meet the preferences of the customer, by increasing or decreasing the center value of gradation correction for each (Y, M, C, K) color, in low density, medium density, and high density ranges.

CAUTION

Perform this adjustment only to correct a strong customer complaint. Altering the setpoints will affect both print and copy modes and creates an overlap among the low, medium, and high densities. For these reasons, it is recommended that this procedure not be used unless absolutely necessary.

NOTE: *Before performing this adjustment, ensure that there are no problems with the IOT.*

Procedure

1. Obtain a representative full-color original from the customer, then make 2 copies from the platen glass for comparison during step 9.
2. Enter Diagnostics, GP 1.
3. Touch dC924 TRC Adjust. The TRC Adjust screen is displayed.
4. Change the respective low density, medium density and high density output of each color Y, M, C and K (Black) with a value from the range -128 to +127, then touch Adjust.
5. Touch Target.

   Select one of the targets that follow to apply the TRC adjustment.
   - None
   - Copy jobs only
   - Copy & Print jobs
6. Touch the back button (top left) to return to the diagnostics screen.
7. Exit diagnostics, GP 1.
8. Switch off, then switch on the machine, GP 4.
9. Make 2 prints or copies, then ask the customer if the desired result is achieved.
10. If necessary repeat the adjustment until the customer is satisfied with the image quality.

dC939 Procon On/Off Print

Purpose

The procedure prints out the process control test pattern in two different modes. The comparison between the two prints can help isolate process control related image quality problems.

The Procon On/Off Print consists of the following:

- Procon On Print: This is a print mode that uses the current Procon Data with the Procon (Process Control) soft enabled and the Tone Reproduction Curve (TRC) adjustment enabled.
- Procon Off print: This is a print mode that uses IOT features with the Procon routine fully turned off.

Procedure

Procon On Print

1. Enter Service Diagnostics, GP 1.
2. Touch dC939 Procon On / Off. The Procon On / Off Print screen is displayed.
3. Touch Procon On / Off.
4. Load A4 or A3 paper into tray 1, then touch Start. The internal test pattern Pcon PG print is output and the results are displayed.
5. Check the image quality of the internal test pattern Pcon PG print.
6. Touch Close to return to the Procon On / Off Print screen.

Procon Off print

1. Touch Procon Off Print.
2. Load A4 or A3 paper into tray 1, then touch Start. The internal test pattern Pcon PG print is output and the results are displayed.
3. Compare the output of the ProCon On and ProCon Off prints. Evaluate according to one of the following problem statements:
   - The problem involves a single color, this is an indication that the imaging unit and/or power supplies or ROS may be at fault.
   - The problem involves all colors, this is an indication that the 2nd BTR and/or transfer belt assembly may be at fault.
   - The ProCon Off print is OK, but ProCon On print is unacceptable, this is an indication that the CTD sensor assembly may be at fault.
4. Touch Close to return to the Procon On / Off print screen.
5. Touch the back button (top left) to return to the Diagnostics screen.
6. Exit diagnostics, GP 1.

dC945 IIT Calibration

Purpose

To perform white reference adjustment, CCD calibration, optical axis deviation correction and shading correction for the scanner.

CAUTION

Do not perform this routine unless directed to do so by a Image Quality Repair Analyst Procedure (RAP), repair procedure or service bulletin instruction.

Procedure

1. Enter diagnostics, GP 1.
2. Touch dC945 IIT Calibration. The IIT Calibration screen is displayed.
3. Choose and touch the relevant procedure:
   - White Reference Adjustment - Side 1
   - CCD Calibration - Side 1
   - Optical Axis Correction
   - White Reference Adjustment - Side 2
   - CCD Calibration - Side 2
   - Shading Correction - Side 2

White Reference Adjustment - Side 1

To perform automatic correction for IIT white sensitivity level and gray balance.

1. Touch White Reference Adjustment - Side 1.
2. Follow the UI messages.
3. Touch Close.
4. Touch the back button (top left) to return to the Diagnostics screen.
5. Perform dC945 CCD Calibration - Side 1.

CCD Calibration - Side 1

To perform automatic correction for the CCD color sensitivity dispersion and when the yellow component of the image looks abnormal.

1. Touch CCD Calibration - Side 1
2. Follow the UI messages.
3. If the result is NG (No Good) perform the necessary adjustment.
4. Touch Close.
5. Touch the back button (top left) to return to the Diagnostics screen.
6. Perform dC945 CCD Calibration - Side 1.

Optical Axis Correction

To automatically measure and adjust the skew for platen and side registration.

1. Touch Optical Axis Correction.
2. Follow the UI messages.
3. If the result is NG (No Good) perform the necessary adjustment.
4. Touch Close.
5. Touch the back button (top left) to return to the Diagnostics screen.
6. Perform dC945 CCD Calibration - Side 1.

White Reference Adjustment - Side 2

To perform automatic correction for IIT white sensitivity level and gray balance.

1. Touch White Reference Adjustment - Side 2.
2. Follow the UI messages.
3. Touch Close.
4. Touch the back button (top left) to return to the Diagnostics screen.
5. Perform dC945 CCD Calibration - Side 1.

CCD Calibration - Side 2

To perform automatic correction for the CCD color sensitivity dispersion and when the yellow component of the image looks abnormal.

1. Touch CCD Calibration - Side 2.
2. Follow the UI messages.
3. If the result is NG (No Good) perform the necessary adjustment.
4. Touch Close.
5. Touch the back button (top left) to return to the Diagnostics screen.
6. Perform dC945 CCD Calibration - Side 1.

Shading Correction - Side 2

To perform shading correction for the side 2 scanner.

1. Touch Shading Correction - Side 2.
2. Follow the UI messages.
3. If the result is NG (No Good) perform the necessary adjustment.
4. Touch Close.
5. Touch the back button (top left) to return to the Diagnostics screen.
6. Perform dC945 CCD Calibration - Side 1.

dC1010 Signals Sending Test

Purpose

For information only. Do not use this routine.

dC1011 Relay On/Off Test

Purpose

For information only. Do not use this routine.

Change Tags

Purpose

To provide a list of all the tag numbers used together with a description of each of the machine modifications.

Change Tag Introduction

This section describes tags associated with the device, as well as multinational applicability, classification codes, and permanent or temporary modification information. Important modifications to the device are identified by a tag number which is recorded on a tag matrix.

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 tag matrix for the IOT is affixed to the chassis inside the front door.

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: 027

CLASS: 2

NAME: **Maintenance Release Code**

PURPOSE: Update for C400 and C405 devices that were manufactured with ‘Launch’ code **v67.03.71** (C400) and **v68.03.71** (C405) software.

It is imperative to install the maintenance release code software on a device prior to installing an optional hard disk drive. Installing a hard disk drive in a device running ‘Launch’ code causes the device to lose its installed Xerox Apps Gallery.

Refer to service bulletin **T8614-03-14** for the maintenance release code software download locations, installation directions and a list of the numerous software bug fixes.

KIT NUMBER: Not applicable

PARTS LIST ON: Not applicable

7 Wiring Data

Plug Jack Locations
PJ Locations..... 7-3

Wiring Diagrams
System Wiring Diagrams..... 7-15

PJ Locations

PJ Location Tables

Purpose

The P/J locator diagrams show the location of the connections within the device. Use these diagrams to locate connections referenced in the procedures presented in Sections, 2 - Status Indicator RAPs, 4 - Repairs and Adjustments, and 6 - General Procedures and Information.

How to find a P/J location:

1. Locate the P/J connector designator in the first column of the table.
2. With this information, refer to the Map column for the figure number.
3. Use the coordinates to find the P/J connector designator's location on the P/J locator map diagrams.
4. Use the wiring diagram column to view the component interconnections.

PJ Location Tables

To locate a PJ, go to the appropriate table

- C405 P/J Connections, Table 1.
- C400 P/J Connections,Table 2.

Location Maps for Plug Jack Connectors

- P/J Locations Drives C405, Figure 1.
- P/J Locations Paper Path C405, Figure 2.
- P/J Locations CRUM and ROS C405, Figure 3.
- P/J Locations Fuser and LVPS C405, Figure 4.
- P/J Locations Rear and Left Side PWBAs C405, Figure 5.
- P/J Locations 550 Option Tray C405, Figure 6.
- P/J Locations Drives C400, Figure 7.
- P/J Locations Paper Path C400, Figure 8.
- P/J Locations CRUM and ROS C400, Figure 9.
- P/J Locations Fuser and LVPS C400, Figure 10.
- P/J Locations Rear and Left Side PWBAs C400, Figure 11.
- P/J Locations 550 Option Tray C400, Figure 12.

Table 1 Plug / Jack locations C405 devices

P/J	Map	Coordinates	Connection Details	Wiring Diagram
1	Figure 6	G-183	Not Connected	-
10	Figure 5	H-164	MCU PWBA and ESS PWBA	WD 9
11	Figure 5	I-165	MCU PWBA and ROS assembly	WD 8
12	Figure 5	J-163	MCU PWBA and transfer CRUM connectors Y, M, C, and K	WD 13
13	Figure 5	I-164	MCU PWBA and color toner density (CTD) Sensor (via inline connector PJ131)	WD 13
14	Figure 5	H-163	MCU PWBA and upper dispenser motor assembly	WD 14
15	Figure 5	I-163	MCU PWBA and stack full and exit sensors	WD 15

Table 1 Plug / Jack locations C405 devices

P/J	Map	Coordinates	Connection Details	Wiring Diagram
17	Figure 5	H-163	MCU PWBA and main motor and sub motor	WD 6
18	Figure 5	H-166	MCU PWBA and HVPS XD PWBA (via MCU-HVPS Flat Flex Connector (FFC)	WD 12
19	Figure 5	J-163	MCU PWBA and toner CRUM connectors (Y, M, C, and K)	WD 14
21	Figure 5	H-164	MCU PWBA and MSI assembly	WD 7
22	Figure 5	H-164	MCU PWBA and duplex clutch	WD 11
23	Figure 5	H-164	MCU PWBA and registration chute assembly	WD 11
27	Figure 5	J-165	MCU PWBA and EEPROM XPRO PWBA and 550 feeder PWBA (via inline connector DP/ J271)	WD13, WD 16
28	Figure 5	J-164	MCU PWBA and fuser assembly	WD 5
29	Figure 5	J-164	MCU PWBA and LVPS	WD 4, WD 5
30	Figure 5	H-163	MCU PWBA and LVPS	WD 4
33	Figure 5	H-164	MCU PWBA and developer motor	WD 6
36	Figure 5	I-165	MCU PWBA and ROS scanner motor	WD 8
38	Figure 5	J-163	MCU PWBA and exit clutch 2 (exit drive assembly)	WD 15
39	Figure 5	J-164	MCU PWBA and 550 option feed clutch	WD 11
40	Figure 5	J-163	MCU PWBA and exit clutch 1 (drive assembly exit)	WD 9, WD 15
40	Figure 4	B-158	LVPS and MCU PWBA, ESS PWBA	WD 4, WD 9
41	Figure 4	A-157	LVPS and rear interlock switch	WD 4
42	Figure 4	A-157	LVPS and front interlock switch	WD 4
43	Figure 4	A-158	LVPS and top harness assembly	WD 4, WD 8
47	Figure 4	H-157	LVPS and fuser harness assembly	WD 5
48	Figure 4	H-158	LVPS and inlet harness assembly	WD 4
101	Figure 5	B-163	EMMC card and ESS PWBA	WD 9
112	Figure 3	H-139	ROS assembly and ESS PWBA	WD 8, WD 9
121	Figure 3	G-139	Transfer CRUM connector (Y) and CRUM xerographic harness assembly	WD 13
122	Figure 3	F-139	Transfer CRUM connector (M) and CRUM xerographic harness assembly	WD 13
123	Figure 3	F-139	Transfer CRUM connector (C) and CRUM xerographic harness assembly	WD 13
124	Figure 3	E-140	Transfer CRUM connector (K) and CRUM xerographic harness assembly	WD 13

Table 1 Plug / Jack locations C405 devices

P/J	Map	Coordinates	Connection Details	Wiring Diagram
131	Figure 4	I-152	Inline connector Color toner density (CTD) Sensor and MCU PWBA	WD 13
132	Figure 4	G-152	Color toner density (CTD) Sensor	WD 13
141	Figure 1	F-108	Dispenser Motor (Y, M) and MCU PWBA	WD 14
144	Figure 1	G-110	Dispenser Motor (C, K) and MCU PWBA	WD 14
145	Figure 1	H-109	Front cover interlock sensor and MCU PWBA	WD 14
151	Figure 2	F-122	Inline connector exit sensor and MCU PWBA	WD 15
154	Figure 2	F-122	Stack full sensor and MCU PWBA	WD 15
155	Figure 2	E-122	Exit sensor and inline connector PJ151	WD 15
171	Figure 1	E-108	Main drive motor and MCU PWBA	WD 6
172	Figure 1	E-110	Sub motor and MCU PWBA	WD 6
181	Figure 5	I-171	HVPS XD PWBA and MCU PWBA (via MCU-HVPS flat flex connector (FFC)	WD 12
182	Figure 5	H-173	HVPS XD PWBA and HVPS TR PWBA	WD 12
191	Figure 3	F-136	Toner CRUM(Y) and MCU PWBA	WD 14
192	Figure 3	F-137	Toner CRUM(M) and MCU PWBA	WD 14
193	Figure 3	G-137	Toner CRUM(C) and MCU PWBA	WD 14
194	Figure 3	G-138	Toner CRUM(K) and MCU PWBA	WD 14
203	Figure 4	D-153	Toner full sensor and MCU PWBA and LVPS	WD 4
211	Figure 2	J-124	MSI Detect sensor and MCU PWBA	WD 7
212	Figure 2	H-123	MSI No paper sensor and MCU PWBA	WD 7
213	Figure 1	F-110	Takeaway clutch (Main drive assembly) and MCU PWBA	WD 7
214	Figure 2	I-125	MSI Feed solenoid and MCU PWBA	WD 7
232	Figure 2	D-124	Regi sensor (registration chute assembly) and MCU PWBA	WD 11
233	Figure 2	E-125	No paper sensor (registration chute assembly) and MCU PWBA	WD 11
234	Figure 2	D-126	Registration clutch (registration chute assembly) and MCU PWBA	WD 11
251	Figure 1	G-111	EEPROM XPRO PWBA and MCU PWBA	WD 13
271	Figure 1, Figure 6	F-112/I-182	550 Option feeder PWBA and MCU PWBA	WD 16
281	Figure 4	E-152	Fuser assembly and MCU PWBA	WD 5
302	Figure 5	B-165	ESS PWBA and OPT HDD	-
310	Figure 5	B-165	ESS PWBA and OPT HDD	-
311	Figure 1	E-108	Main motor and LVPS	WD 6
312	Figure 1	E-111	Sub motor and LVPS	WD 6
331	Figure 1	E-109	Developer motor and MCU PWBA	WD 6
340	Figure 5	A-165	ESS PWBA and Ethernet	-
392	Figure 2	E-126	550 Option feed clutch and MCU PWBA	WD 11

Table 1 Plug / Jack locations C405 devices

P/J	Map	Coordinates	Connection Details	Wiring Diagram
419	Figure 6	G-183	550 Option PWB and MCU PWBA (via inline connector DP/J271)	WD 16
420	Figure 6	G-183	550 Option PWBA and registration clutch and no paper sensor	WD 16
421	Figure 6	F-183	550 Option PWBA and registration sensor, feed clutch and size switch assembly	WD 16
422	Figure 6	F-183	550 Option PWBA and 550 Option drive assembly	WD 16
423	Figure 6	G-183	550 Option PWBA	-
430	Figure 5	D-164	ESS PWBA and speaker assembly	WD 9
431	Figure 3	H-140	Inline connector between ROS assembly and LVPS	WD 8
432	Figure 5	D-164	ESS PWBA and LVPS (via inline connector P/J431)	WD 8, WD 9
441	Figure 5	D-164	ESS PWBA and LVPS	WD 9
501	Figure 4	C-157	LVPS and MCU PWBA and toner full sensor	WD 4
503	Figure 4	C-157	LVPS and main fan	WD 4
507	Figure 4	H-157	LVPS and P/J5071	WD 4
508	Figure 4	H-157	LVPS and MCU PWBA	WD 5
509	Figure 4	B-158	LVPS and main drive assembly	WD 6
631	Figure 5	D-164	ESS PWBA and front USB harness	-
632	Figure 5	D-164	ESS PWBA and USB harness assembly ICCR	-
900	Figure 5	D-166	ESS PWBA and video harness assembly	WD 9
920	Figure 5	D-165	ESS PWBA and MCU PWBA	WD 9
1315	Figure 5	A-164	ESS PWBA and USB3.0 Device	-
1344	Figure 5	A-164	ESS PWBA and wireless module	-
1350	Figure 5	E-171	Fax PWBA and fax harness assembly	-
1352	Figure 5	D-163	ESS PWBA and UI harness	WD 9
1370	Figure 5	C-162	ESS PWBA and scanner assembly	WD 17
1371	Figure 5	B-162	ESS PWBA and scanner assembly	WD 17
1372	Figure 5	D-162	ESS PWBA and scanner assembly	WD 17
1374	Figure 5	C-162	ESS PWBA and scanner assembly	WD 17
1377	Figure 5	D-162	ESS PWBA and scanner assembly	WD 17
1821	Figure 5	C-173	HVPS TR and HVPS XD PWBA	WD 12
4201	Figure 6	E-184	550 Option feeder PWBA and 550 Option registration clutch	WD 16
4202	Figure 6	E-184	Inline connector between 550 Option no paper sensor and 550 Option feeder PWBA	WD 16
4203	Figure 6	D-182	550 Option no paper sensor and 550 Option feeder PWBA (via inline connector P/J4202)	WD 16

Table 1 Plug / Jack locations C405 devices

P/J	Map	Coordinates	Connection Details	Wiring Diagram
4211	Figure 6	I-183	550 Option Size Switch assembly and 550 Option feeder PWBA	WD 16
4212	Figure 6	D-182	550 Option registration sensor and 550 Option feeder PWBA (via inline connector P/J4214)	WD 16
4213	Figure 6	E-184	550 Option feed clutch and 550 Option feeder PWBA	WD 16
4214	Figure 6	E-184	Inline connector between 550 Option registration sensor and 550 Option feeder PWBA	WD 16
4221	Figure 6	F-183	550 Option drive assembly and 550 Option feeder PWBA	WD 16
6101	Figure 5	A-165	ESS PWBA and FDI Cable	-
7401	Figure 5	A-163	ESS PWBA and EMMC CARD	WD 9
281S	Figure 4	E-152	Fuser assembly and MCU PWBA and LVPS	WD 5
MJ1	Figure 5	D-171	Network cable and PWBA FAX	-
MJ2	Figure 5	D-171	Network cable and PWBA FAX	-

Table 2 Plug / Jack locations C400 devices

P/J	Map	Coordinates	Connection	Wiring Diagram
1	Figure 12	G-183	Not Connected	-
10	Figure 11	H-164	MCU PWBA and ESS PWBA	WD 10
11	Figure 11	I-165	MCU PWBA and ROS assembly	WD 8
12	Figure 11	J-163	MCU PWBA and transfer CRUM connectors Y, M, C, and K	WD 13
13	Figure 11	I-164	MCU PWBA and color toner density (CTD) Sensor (via inline connector PJ131)	WD 13
14	Figure 11	H-163	MCU PWBA and upper dispenser motor assembly	WD 14
15	Figure 11	I-163	MCU PWBA and stack full and exit sensors	WD 15
17	Figure 11	H-163	MCU PWBA and main motor and sub motor	WD 6
18	Figure 11	H-166	MCU PWBA and HVPS XD PWBA (via MCU-HVPS Flat Flex Connector (FFC)	WD 12
19	Figure 11	J-163	MCU PWBA and toner CRUM connectors (Y, M, C, and K)	WD 14
21	Figure 11	H-164	MCU PWBA and MSI assembly	WD 7
22	Figure 11	H-164	MCU PWBA and duplex clutch	WD 11
23	Figure 11	H-164	MCU PWBA and registration chute assembly	WD 11

Table 2 Plug / Jack locations C400 devices

P/J	Map	Coordinates	Connection	Wiring Diagram
27	Figure 11	J-165	MCU PWBA and EEPROM XPRO PWBA and 550 feeder PWBA (via inline connector DP/J271)	WD 13
28	Figure 11	J-164	MCU PWBA and fuser assembly	WD 5
29	Figure 11	J-164	MCU PWBA and LVPS	WD 4, WD 5
30	Figure 11	H-163	MCU PWBA and LVPS	WD 4
33	Figure 11	H-164	MCU PWBA and developer motor	WD 6
36	Figure 11	I-165	MCU PWBA and ROS assembly	WD 8
38	Figure 11	J-163	MCU PWBA and exit clutch 2 (exit drive assembly)	WD 15
39	Figure 11	J-164	MCU PWBA and 550 option feed clutch	WD 11
40	Figure 11	J-163	MCU PWBA and exit clutch 1 (drive assembly exit)	WD 10, WD 15
40	Figure 10	B-158	LVPS and ESS PWBA	WD 4, WD 10
41	Figure 10	A-157	LVPS and rear interlock switch	WD 4
42	Figure 10	A-157	LVPS and front interlock switch	WD 4
43	Figure 10	A-158	LVPS and top harness assembly	WD 4, WD 8
47	Figure 10	H-157	LVPS and fuser harness assembly	WD 5
48	Figure 10	H-158	LVPS and inlet harness assembly	WD 4
101	Figure 11	B-163	EMMC card and ESS PWBA	WD 10
112	Figure 9	H-139	ROS assembly and ESS PWBA	WD 8, WD 10
121	Figure 9	G-139	Transfer CRUM connector (Y) and CRUM xerographic harness assembly	WD 13
122	Figure 9	F-139	Transfer CRUM connector (M) and CRUM xerographic harness assembly	WD 13
123	Figure 9	F-139	Transfer CRUM connector (C) and CRUM xerographic harness assembly	WD 13
124	Figure 9	E-140	Transfer CRUM connector (K) and CRUM xerographic harness assembly	WD 13
131	Figure 10	I-152	Inline connector Color toner density (CTD) Sensor and MCU PWBA	WD 13
132	Figure 10	G-152	Color toner density (CTD) Sensor	WD 13
141	Figure 7	F-108	Dispenser Motor (Y,M) and MCU PWBA	WD 14
144	Figure 7	G-110	Dispenser Motor (C, K) and MCU PWBA	WD 14
145	Figure 7	H-109	Front cover interlock sensor and MCU PWBA	WD 14
151	Figure 8	F-122	Inline connector exit sensor and MCU PWBA	WD 15

Table 2 Plug / Jack locations C400 devices

P/J	Map	Coordinates	Connection	Wiring Diagram
154	Figure 8	F-122	Stack full sensor and MCU PWBA	WD 15
155	Figure 8	E-122	Exit sensor and inline connector PJ151	WD 15
171	Figure 7	E-108	Main drive motor and MCU PWBA	WD 6
172	Figure 7	E-110	Sub motor and MCU PWBA	WD 6
181	Figure 11	I-171	HVPS XD PWBA and MCU PWBA (via MCU-HVPS flat flex connector (FFC)	WD 12
182	Figure 11	H-173	HVPS XD PWBA and HVPS TR PWBA	WD 12
191	Figure 9	F-136	Toner CRUM(Y) and MCU PWBA	WD 14
192	Figure 9	F-137	Toner CRUM(M) and MCU PWBA	WD 14
193	Figure 9	G-137	Toner CRUM(C) and MCU PWBA	WD 14
194	Figure 9	G-138	Toner CRUM(K) and MCU PWBA	WD 14
203	Figure 10	D-153	Toner full sensor and MCU PWBA and LVPS	WD 4
211	Figure 8	J-124	MSI Detect sensor and MCU PWBA	WD 7
212	Figure 8	H-123	MSI No paper sensor and MCU PWBA	WD 7
213	Figure 7	F-110	Takeaway clutch (Main drive assembly) and MCU PWBA	WD 7
214	Figure 8	I-125	MSI Feed solenoid and MCU PWBA	WD 7
232	Figure 8	D-124	Regi sensor (registration chute assembly) and MCU PWBA	WD 11
233	Figure 8	E-125	No paper sensor (registration chute assembly) and MCU PWBA	WD 11
234	Figure 8	D-126	Registration clutch (registration chute assembly) and MCU PWBA	WD 11
251	Figure 7	G-111	EEPROM XPRO PWBA and MCU PWBA	WD 13
271	Figure 7, Figure 12	F-112/I-182	550 Option feeder PWBA and MCU PWBA	WD 16
281	Figure 10	E-152	Fuser assembly and MCU PWBA	WD 5
302	Figure 11	B-165	ESS PWBA and OPT HDD	-
310	Figure 11	B-165	ESS PWBA and OPT HDD	-
311	Figure 7	E-108	Main motor and LVPS	WD 6
312	Figure 7	E-111	Sub motor and LVPS	WD 6
331	Figure 7	E-109	Developer motor and MCU PWBA	WD 6
340	Figure 11	A-165	ESS PWBA and Ethernet	-
392	Figure 8	E-126	550 Option feed clutch and MCU PWBA	WD 11
419	Figure 12	G-183	550 Option PWB and MCU PWBA (via inline connector DP/J271)	WD 16
420	Figure 12	G-183	550 Option PWBA and registration clutch and no paper sensor	WD 16
421	Figure 12	F-183	550 Option PWBA and registration sensor, feed clutch and size switch assembly	WD 16

Table 2 Plug / Jack locations C400 devices

P/J	Map	Coordinates	Connection	Wiring Diagram
422	Figure 12	F-183	550 Option PWBA and 550 Option drive assembly	WD 16
423	Figure 12	G-183	550 Option PWBA	-
430	Figure 11	D-164	ESS PWBA and speaker assembly	WD 9
431	Figure 9	H-140	Inline connector between ROS assembly and LVPS	WD 8
432	Figure 11	D-164	ESS PWBA and LVPS via inline connector P/J431	WD 8
441	Figure 11	D-164	ESS PWBA and LVPS	WD 9
501	Figure 10	C-157	LVPS and MCU PWBA and toner full sensor	WD 4
503	Figure 10	C-157	LVPS and main fan	WD 4
507	Figure 10	H-157	LVPS and P/J5071	WD 4
508	Figure 10	H-157	LVPS and MCU PWBA	WD 5
509	Figure 10	B-158	LVPS and main drive assembly	WD 6
631	Figure 11	D-164	ESS PWBA and front USB harness	-
632	Figure 11	D-164	ESS PWBA and USB harness assembly ICCR	-
900	Figure 11	D-166	ESS PWBA and video harness assembly	WD 10
920	Figure 11	D-165	ESS PWBA and MCU PWBA	WD 10
1315	Figure 11	A-164	ESS PWBA and USB3.0 Device	-
1344	Figure 11	A-164	ESS PWBA and wireless module MODULE	-
1352	Figure 11	D-163	ESS PWBA and UI harness	WD 10
1821	Figure 11	C-173	HVPS TR and HVPS XD PWBA	WD 12
4201	Figure 12	E-184	550 Option feeder PWBA and 550 Option registration clutch	WD 16
4202	Figure 12	E-184	Inline connector between 550 Option no paper sensor and 550 Option feeder PWBA	WD 16
4203	Figure 12	D-182	550 Option no paper sensor and 550 Option feeder PWBA (via inline connector P/J4202)	WD 16
4211	Figure 12	I-183	550 Option Size Switch assembly and 550 Option feeder PWBA	WD 16
4212	Figure 12	D-182	550 Option registration sensor and 550 Option feeder PWBA (via inline connector P/J4214)	WD 16
4213	Figure 12	E-184	550 Option feed clutch and 550 Option feeder PWBA	WD 16
4214	Figure 12	E-184	Inline connector between 550 Option registration sensor and 550 Option feeder PWBA	WD 16
4221	Figure 12	F-183	550 Option drive assembly and 550 Option feeder PWBA	WD 16
6101	Figure 11	A-165	ESS PWBA and FDI Cable	-
7401	Figure 11	A-163	ESS PWBA and EMMC CARD	WD 10

Table 2 Plug / Jack locations C400 devices

P/J	Map	Coordinates	Connection	Wiring Diagram
281S	Figure 10	E-152	Fuser assembly and MCU PWBA and LVPS	WD 5
MJ1	Figure 11	D-171	Network cable and PWBA FAX	-
MJ2	Figure 11	D-171	Network cable and PWBA FAX	-

P/J Locations Drives C405

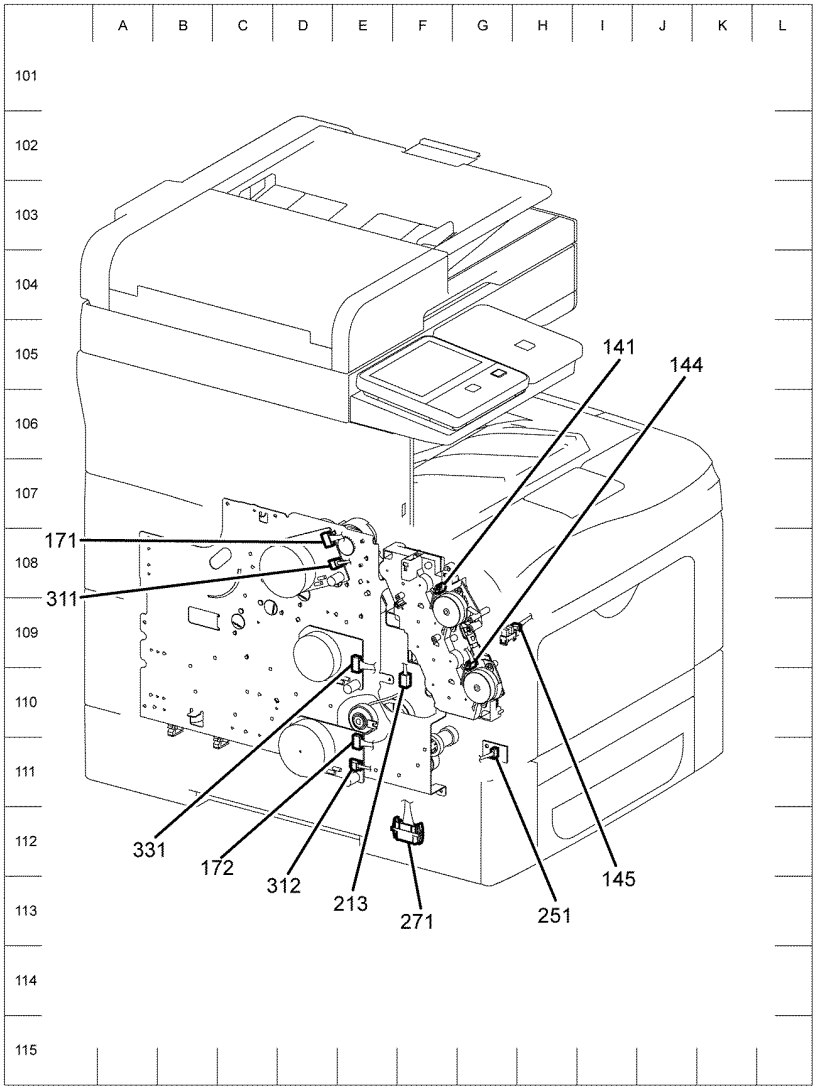


Figure 1 P/J locator map-drives

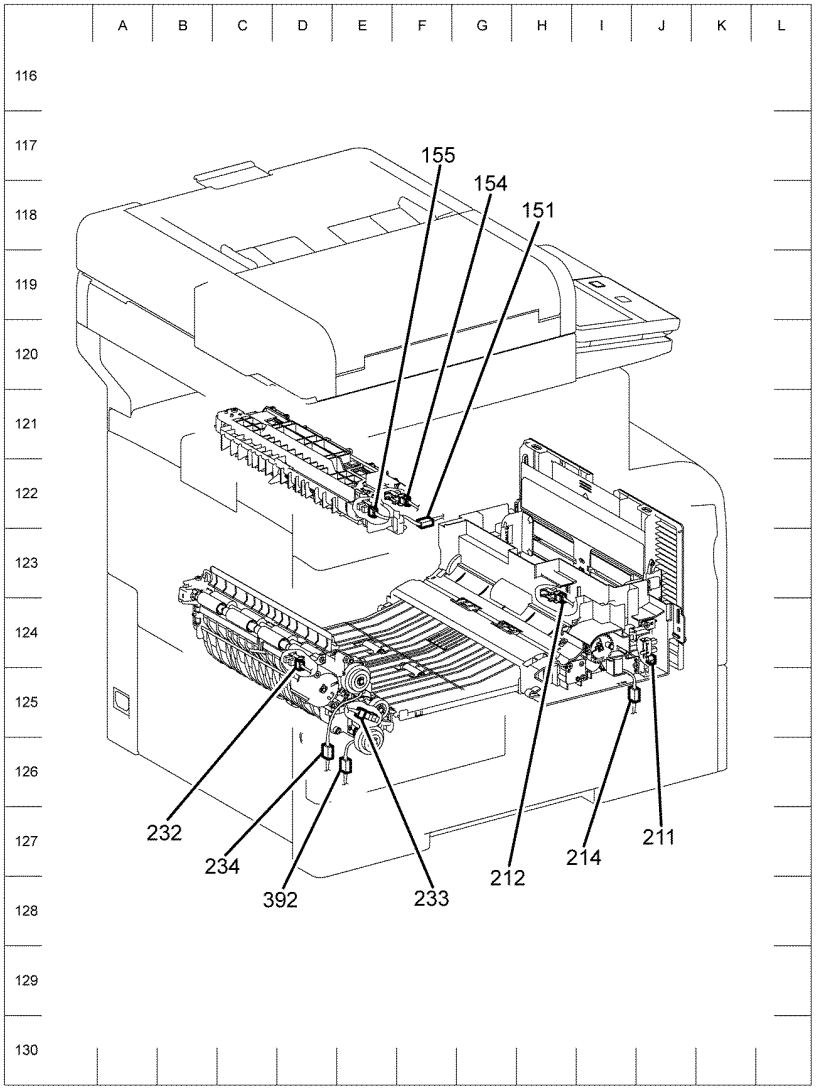


Figure 2 P/J locator map-paper path

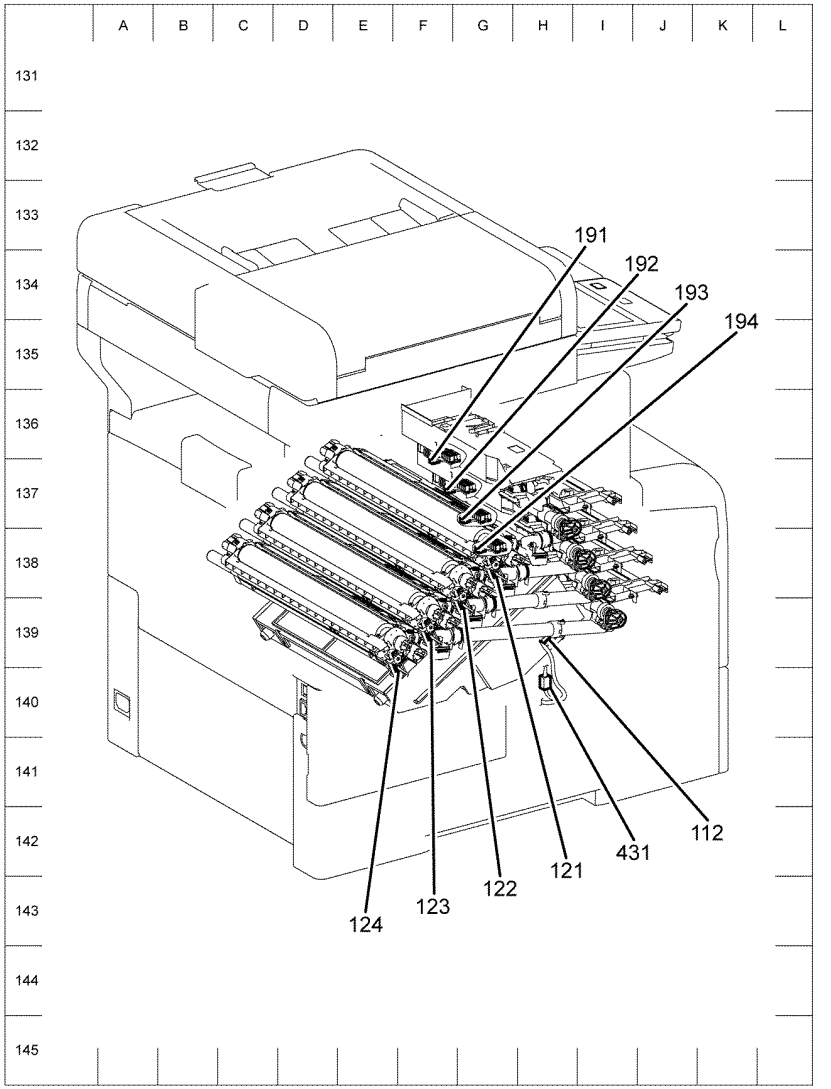
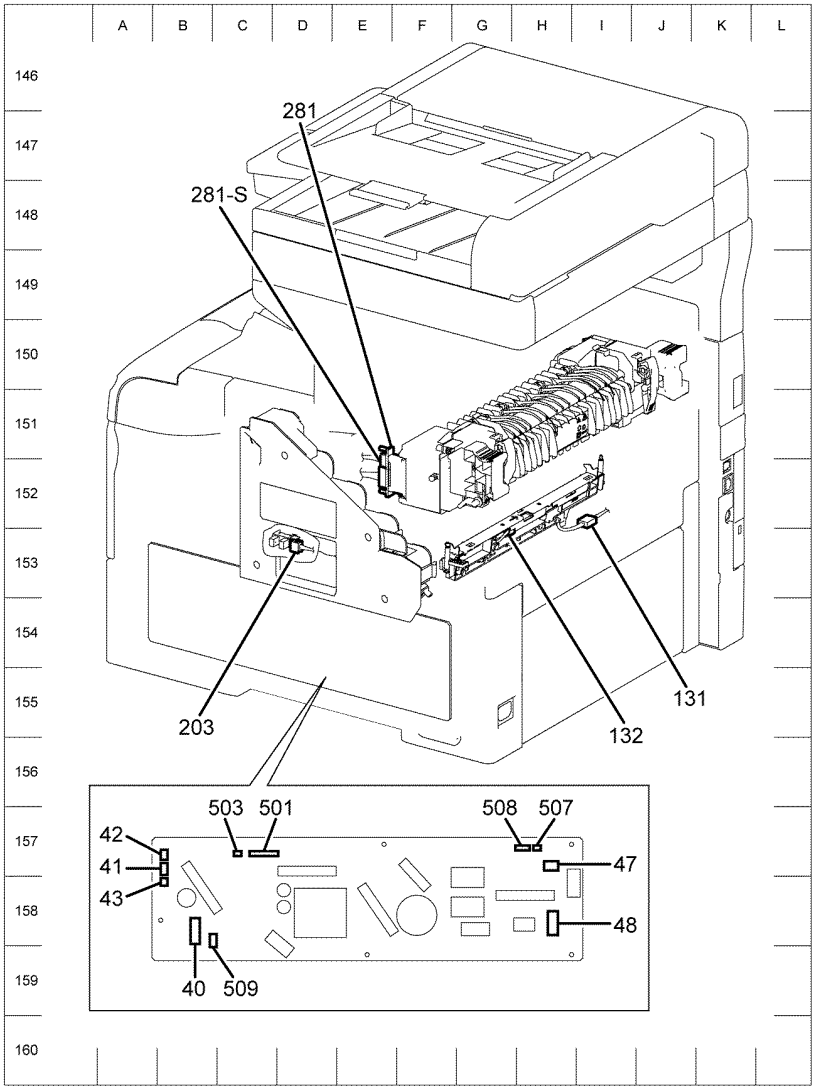
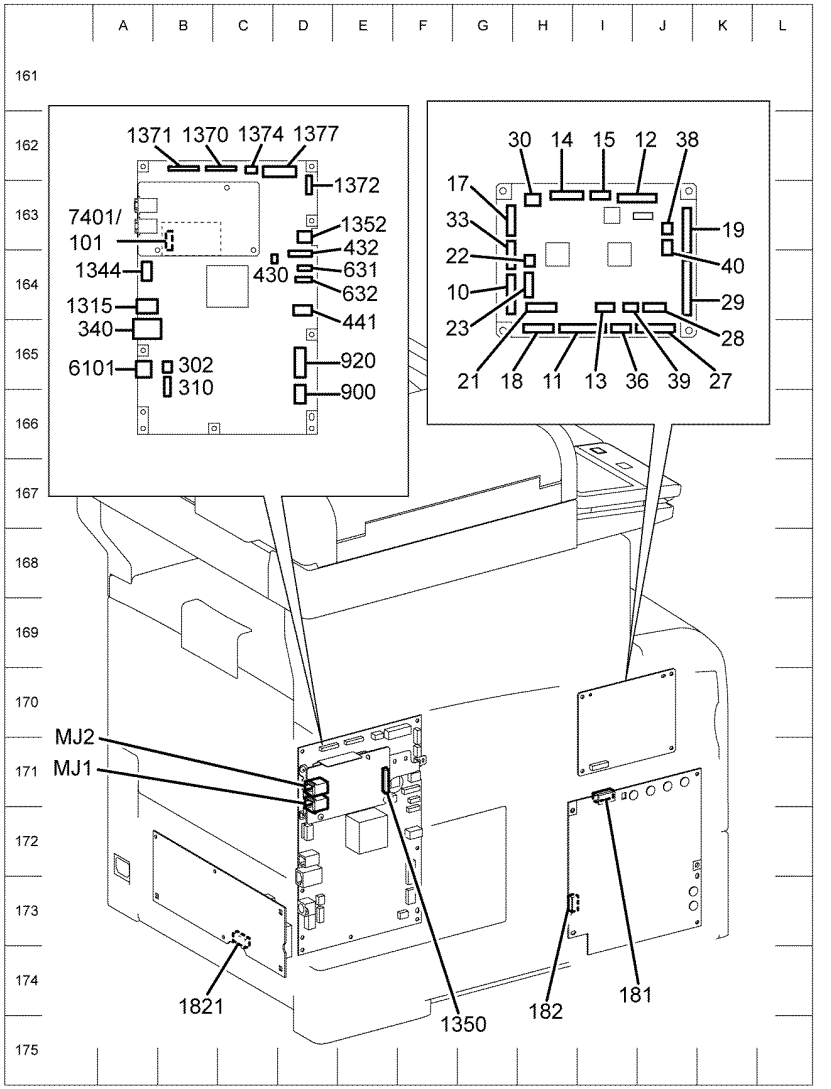


Figure 3 P/J locator map-CRUM and ROS



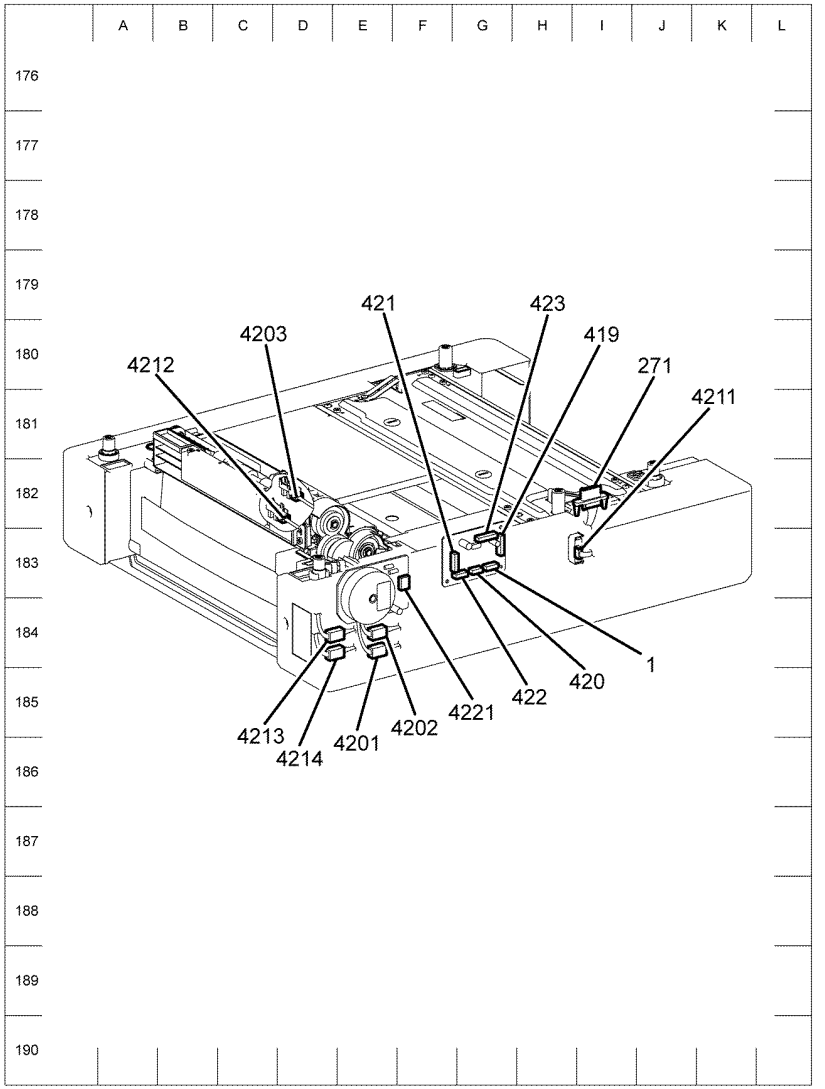
Z-1-0139-A

Figure 4 P/J locator map-fuser and LVPS



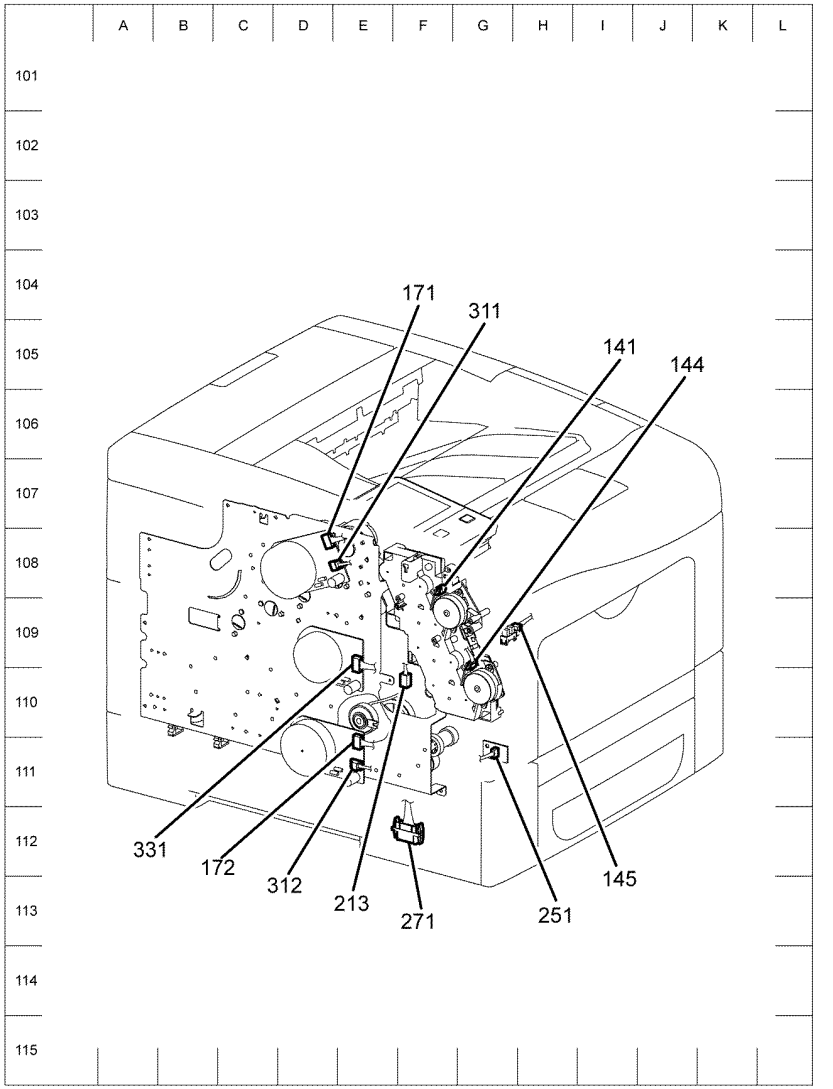
Z-1-0140-A

Figure 5 P/J locator map-rear and left side PWBAs



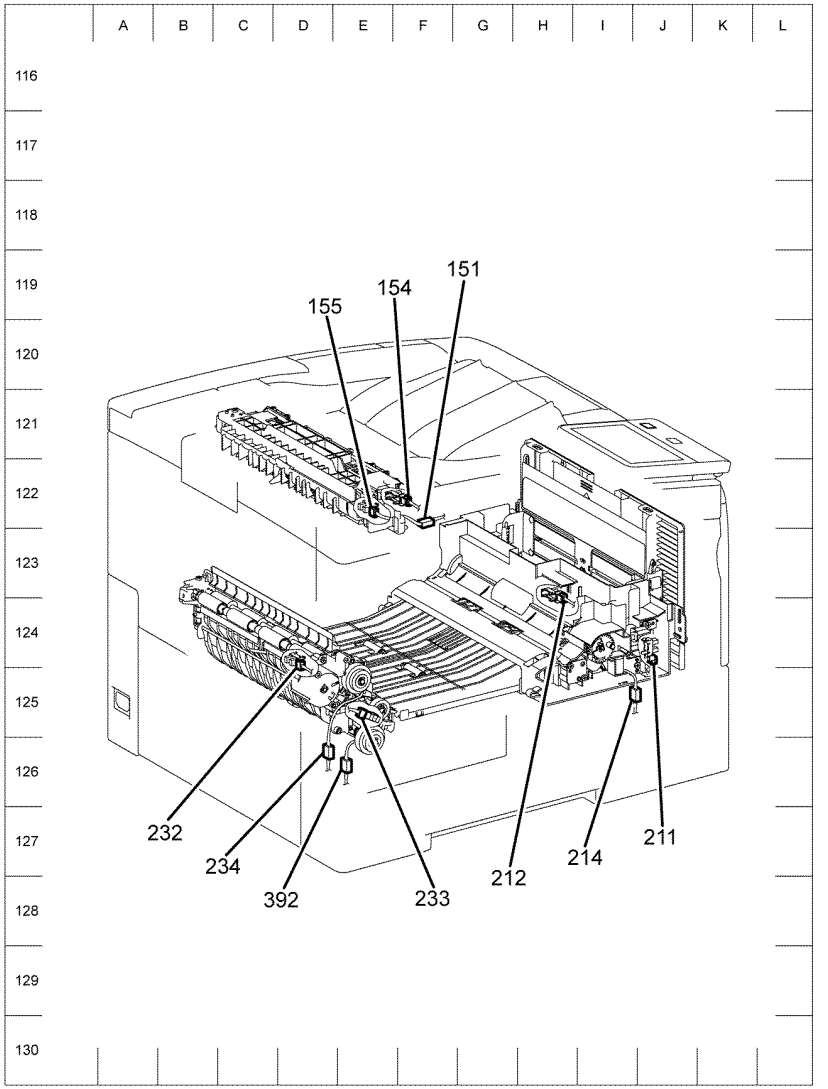
Z-1-0141-A

Figure 6 P/J locator map-550 option tray



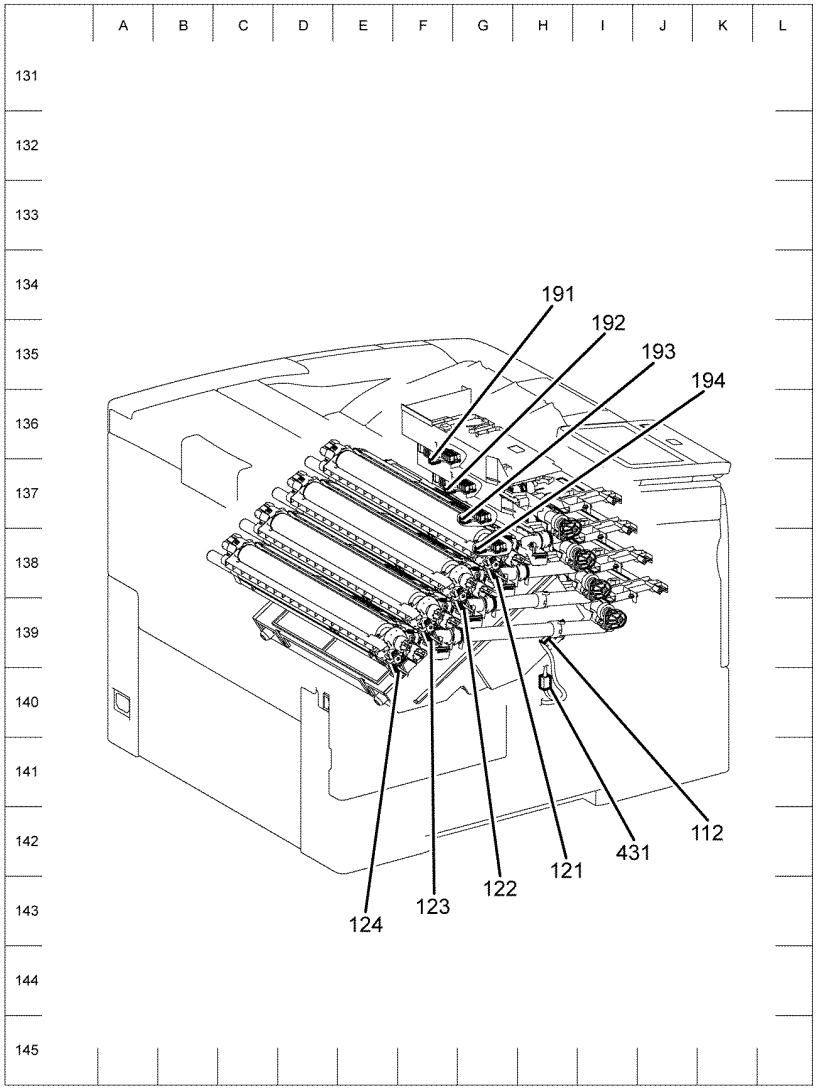
Z-1-0142-A

Figure 7 P/J locator map-drives



Z-1-0143-A

Figure 8 P/J locator map-paper path



Z-1-0144-A

Figure 9 P/J locator map-CRUM and laser

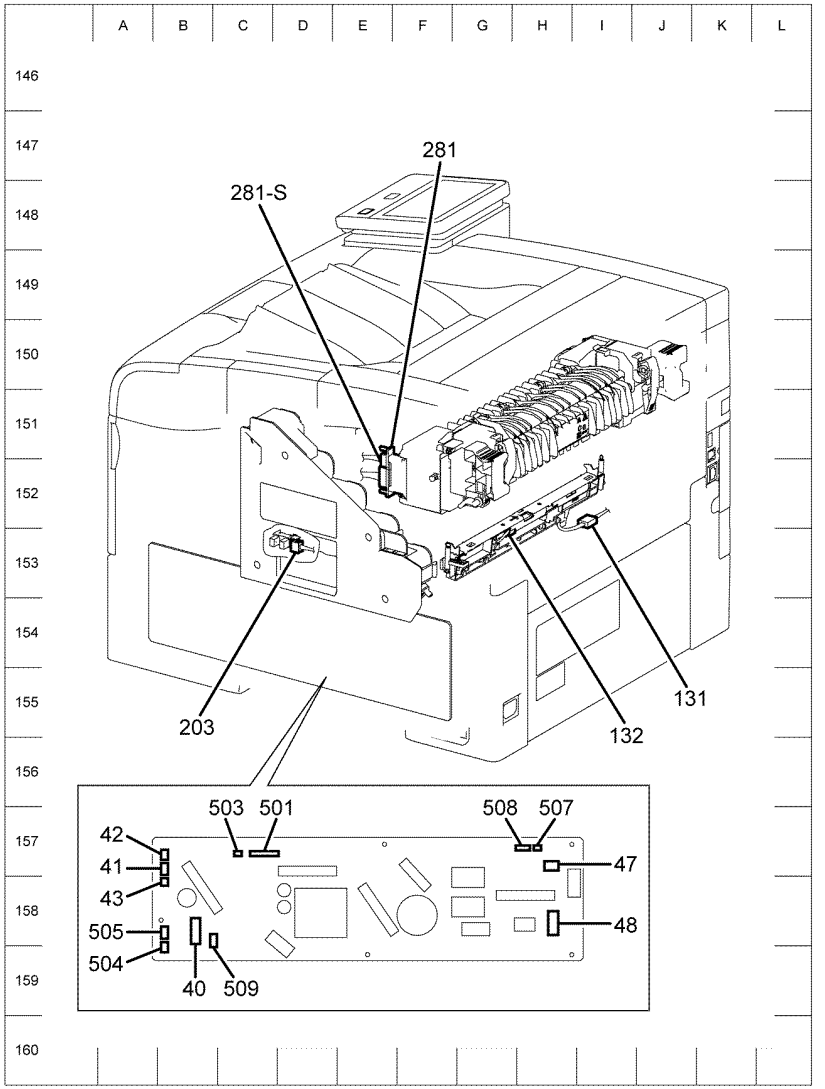


Figure 10 P/J locator map-fuser and LVPS

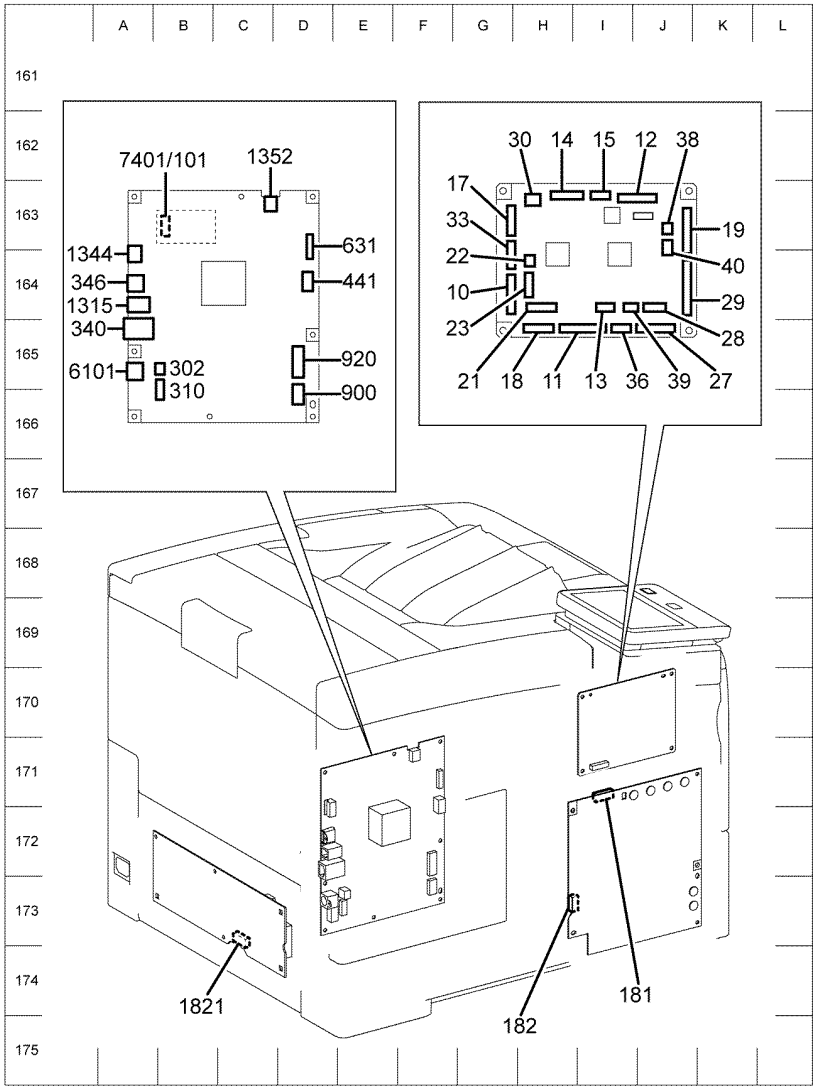


Figure 11 P/J locator map-rear and left side PWBAs

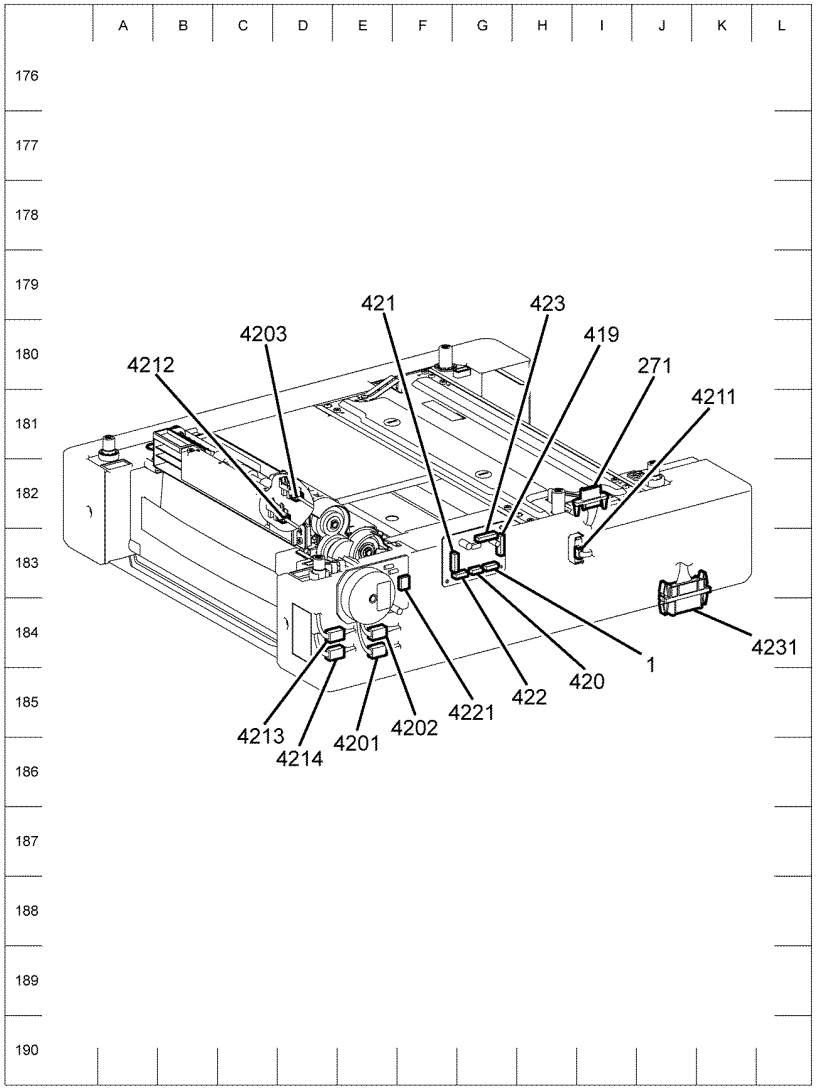


Figure 12 P/J locator map-550 option tray

System Wiring Diagrams

Wiring diagrams are an aid to trace wiring faults. This section shows the system wiring diagrams for the C400 and C405 devices including the 550 Option feeder tray.

Refer to Table 1 for a list of the wiring diagrams and the connection details shown in each diagram.

Table 1 Wiring diagrams and connection details

Chain	Diagram	Connection Details
Device system (1 of 3)	Figure 1	Wiring Diagram 1: System wiring; Cooling, AC Power, Fusing, Drive, Laser, Controller.
Device system (2 of 3)	Figure 2	Wiring Diagram 2: System wiring; MSI, Transport, HVPS, Xerographic, Developer, Exit, 550 Option Feeder.
Device system (3 of 3)	Figure 3	Wiring Diagram 3: System wiring; Scanner, ROS.
Power regulation and distribution	Figure 4 Table 2	Wiring Diagram 4: Interconnection Wiring; AC Power. Connections of PWBA LVPS with PWBA MCU. Connections of inlet harness assembly with PWBA LVPS. Connections of main fan with LVPS. Connections of rear interlock switch with PWBA LVPS. Connections of door interlock switch with PWBA LVPS. Connections of PWBA MCU with toner full sensor.
Fuser	Figure 5 Table 3	Wiring Diagram 5: Interconnection Wiring; Fusing. Connections of fuser assembly with PWBA LVPS. Connections of fuser assembly with PWBA MCU. Connections of PWBA LVPS with PWBA MCU.
Drive	Figure 6 Table 4	Wiring Diagram 6: Interconnection Wiring; Drive. Connections of main drive assembly with PWBA MCU. Connections of main drive assembly with PWBA LVPS.
MSI	Figure 7 Table 5	Wiring Diagram 7: Interconnection Wiring; MSI. Connections of MSI detect sensor with PWBA MCU. Connections of MSI no paper sensor with PWBA MCU. Connections of main drive assembly with PWBA MCU. Connections of MSI feed solenoid with PWBA MCU.
ROS	Figure 8 Table 6	Wiring Diagram 8: Interconnection Wiring; ROS. Connections of ROS ASSY with PWBA MCU. Connections of ROS ASSY with PWBA LVPS.
Controller C405	Figure 9 Table 7	Wiring Diagram 9: Interconnection Wiring; Controller (C405). Connections of PWBA ESS with PWBA MCU. Connections of PWBA ESS with PWBA LVPS. Connections of PWBA ESS with PWBA ESS. Connections of PWBA ESS with ROS ASSY. Connections of PWBA ESS with PWBA Fax. Connections of PWBA ESS with EMMC card. Connections of PWBA ESS with UI console assembly. Connections of PWBA ESS with speaker assembly.

Table 1 Wiring diagrams and connection details

Chain	Diagram	Connection Details
Controller C400	Figure 10 Table 8	Wiring Diagram 10: Interconnection Wiring; Controller (C400). Connections of PWBA ESS with PWBA MCU. Connections of PWBA ESS with PWBA LVPS. Connections of PWBA ESS with PWBA ESS. Connections of PWBA ESS with ROS ASSY. Connections of PWBA ESS with EMMC CARD. Connections of PWBA ESS with UI console assembly. Connections of PWBA ESS with UI speaker.
Paper transport	Figure 11 Table 9	Wiring Diagram 11: Interconnection Wiring; Paper Transport. Connections of registration clutch assembly with PWBA MCU. Connections of registration chute assembly with PWBA MCU. Connections of 550 Option feed clutch assembly with PWBA MCU. Connections of duplex clutch assembly with PWBA MCU.
HVPS	Figure 12 Table 10	Wiring Diagram 12: Interconnection Wiring; HVPS. Connections of HVPS Xero deve with PWBA HVPS TR. Connections of HVPS Xero deve with PWBA MCU.
Xerographics	Figure 13 Table 11	Wiring Diagram 13: Interconnection Wiring; Xerographics. Connections of Xero deve CRU ASSY Y with PWBA MCU. Connections of Xero deve CRU ASSY M with PWBA MCU. Connections of Xero deve CRU ASSY C with PWBA MCU. Connections of Xero deve ASSY K with PWBA MCU. Connections of CTD Sensor with PWBA MCU. Connections of PWBA EEPROM XPRO with PWBA MCU.
Developer	Figure 14 Table 12	Wiring Diagram 14: Interconnection Wiring; Developer. Connections of toner cartridge Y with PWBA MCU. Connections of toner cartridge M with PWBA MCU. Connections of toner cartridge C with PWBA MCU. Connections of toner cartridge K with PWBA MCU. Connections of toner dispense motor (Y, M) with PWBA MCU. Connections of toner dispense motor (C, K) with PWBA MCU. Connections of front cover sensor with PWBA MCU
Exit	Figure 15 Table 13	Wiring Diagram 15: Interconnection Wiring; Exit. Connections of exit sensor with PWBA MCU. Connections of stack full sensor with PWBA MCU. Connections of exit Clutch 1 with PWBA MCU. Connections of exit Clutch 2 with PWBA MCU.
Optional 550 cassette	Figure 16 Table 14	Wiring Diagram 16: Interconnection Wiring; 550 Feeder. Connections of feeder PWBA with PWBA MCU. Connections of registration clutch assembly with 550 Option feeder PWBA. Connections of 550 Option main feed assembly with 550 Option feeder PWBA. Connections of 550 Option feed clutch assembly with 550 Option feeder PWBA. Connections of 550 Option size switch assembly with 550 Option feeder PWBA. Connections of 550 Option drive assembly with 550 Option feeder PWBA.
Scanner	Figure 17	Wiring Diagram 17: Interconnection Wiring; Scanner. Connections of scanner assembly with PWBA ESS. Connections of scanner assembly with UI console. Connections of PWBA ESS with PWBA USB HUB. Connections of UI console with PWBA USB HUB.

WD 1 System Wiring (1 of 3)

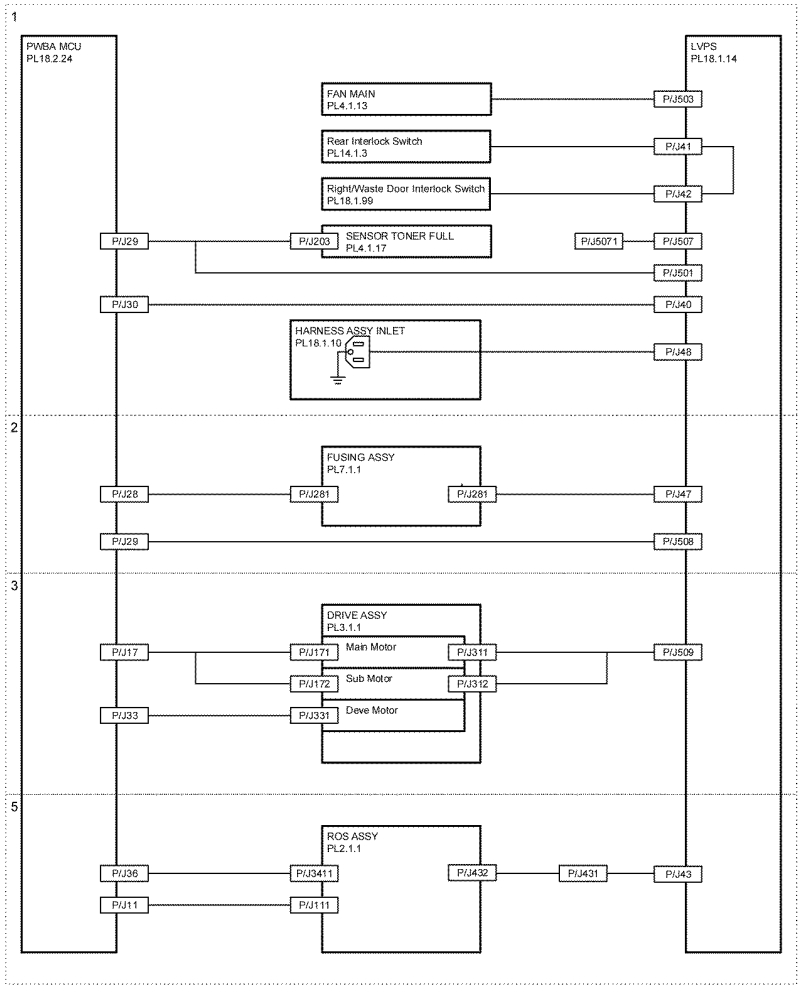


Figure 1 Wiring diagram 1

WD 2 System Wiring (2 of 3)

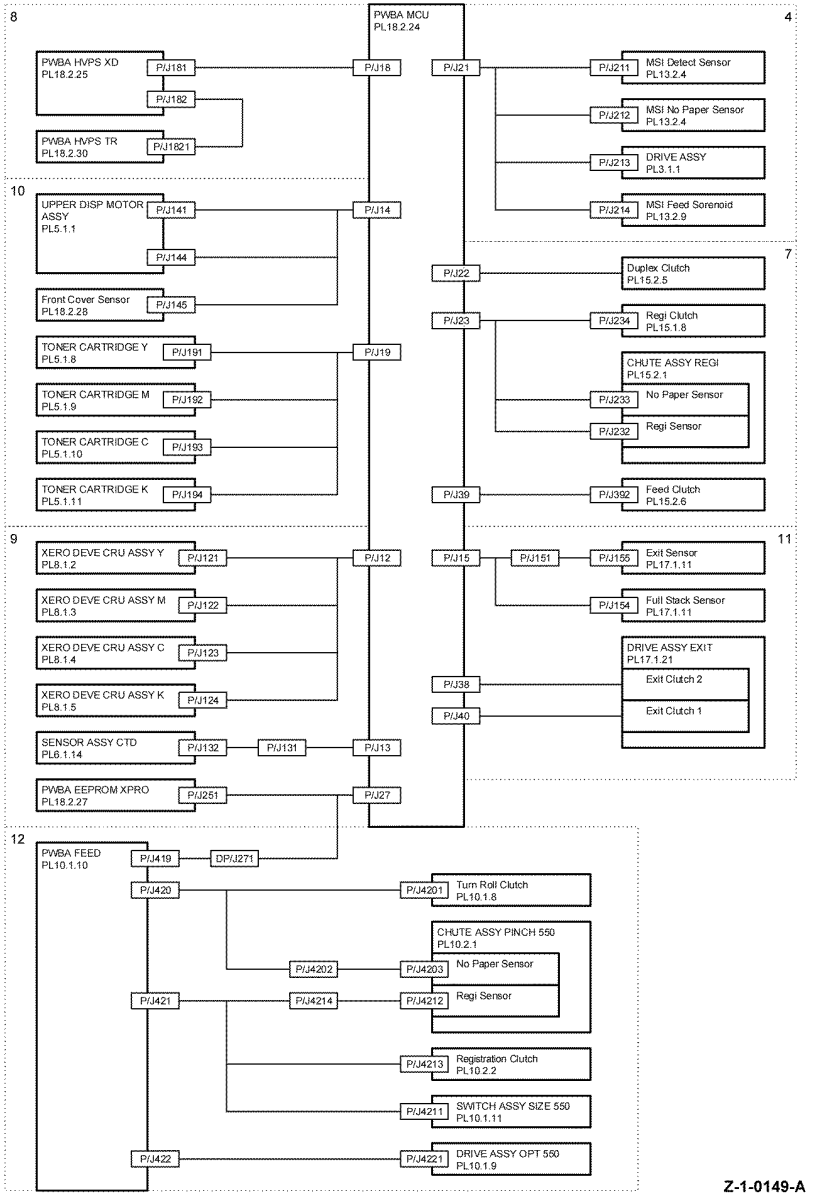
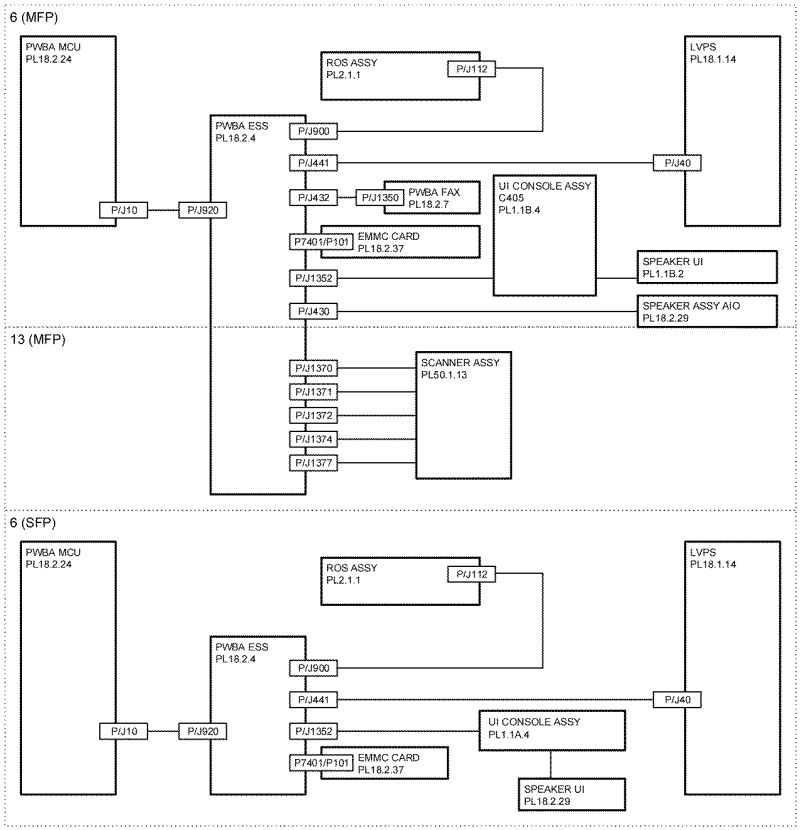
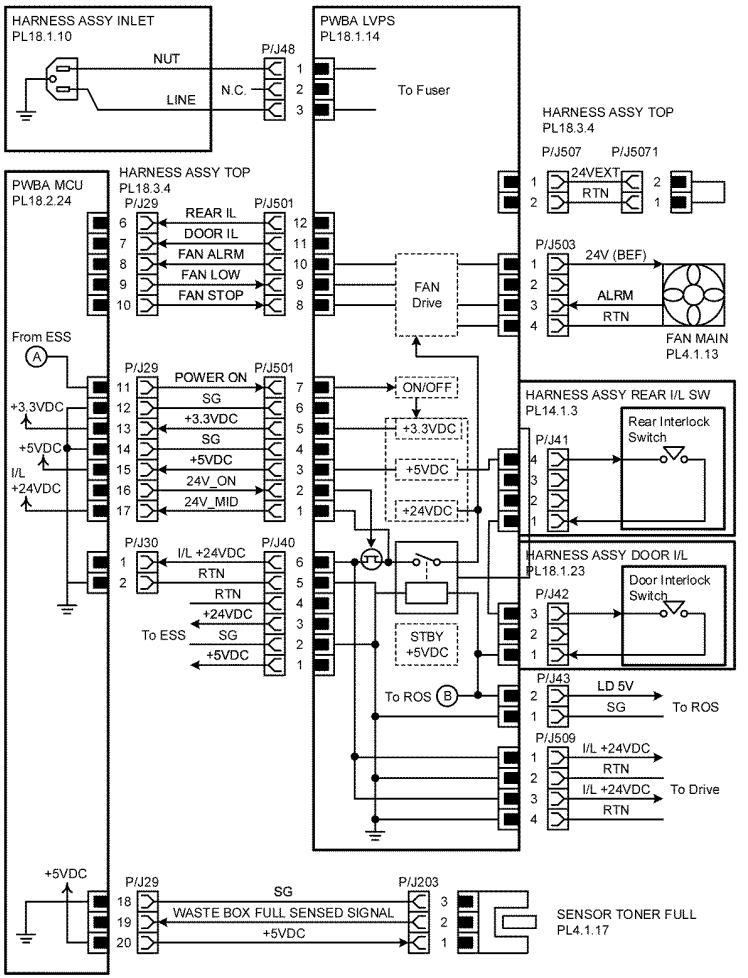


Figure 2 Wiring diagram 2



Z-1-0150-A

Figure 3 Wiring diagram 3



Refer to Table 3 for signal line names and descriptions.

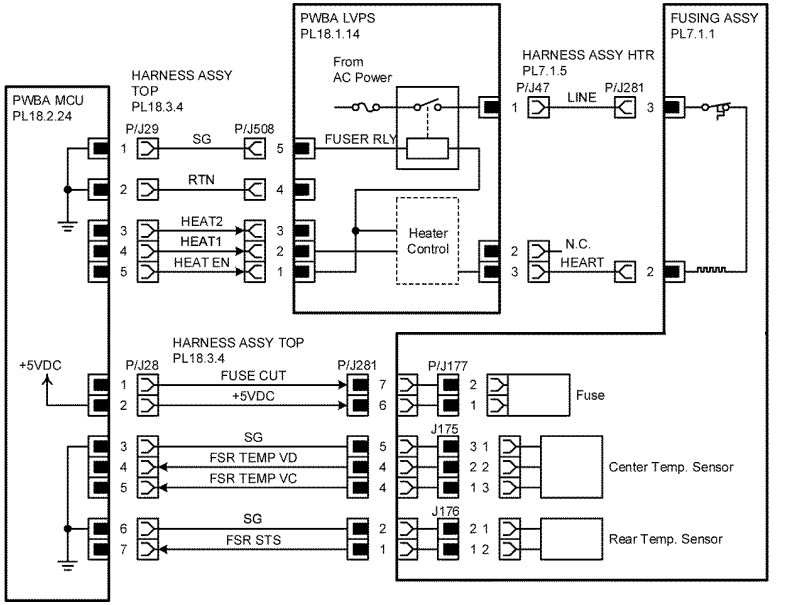
Z-1-0151-A

Figure 4 Wiring diagram 4

Table 2 Wiring diagram 4 signals

Signal line name	Description,
REAR IL	ON/OFF detect signal of the rear interlock switch.
DOOR IL	ON/OFF detect signal of the door interlock switch.
FAN ALRMFAN LOWFAN STOP	Drive control signal of the main fan.
WASTE BOX FULL SENSED SIGNAL	Full detect signal of the waste box by the toner full sensor.
Link to wiring diagram WD 4 AC Power, Figure 4.	

WD 5 Fusing



Refer to Table 4 for signal line names and descriptions.

Z-1-0152-A

Figure 5 Wiring diagram 5

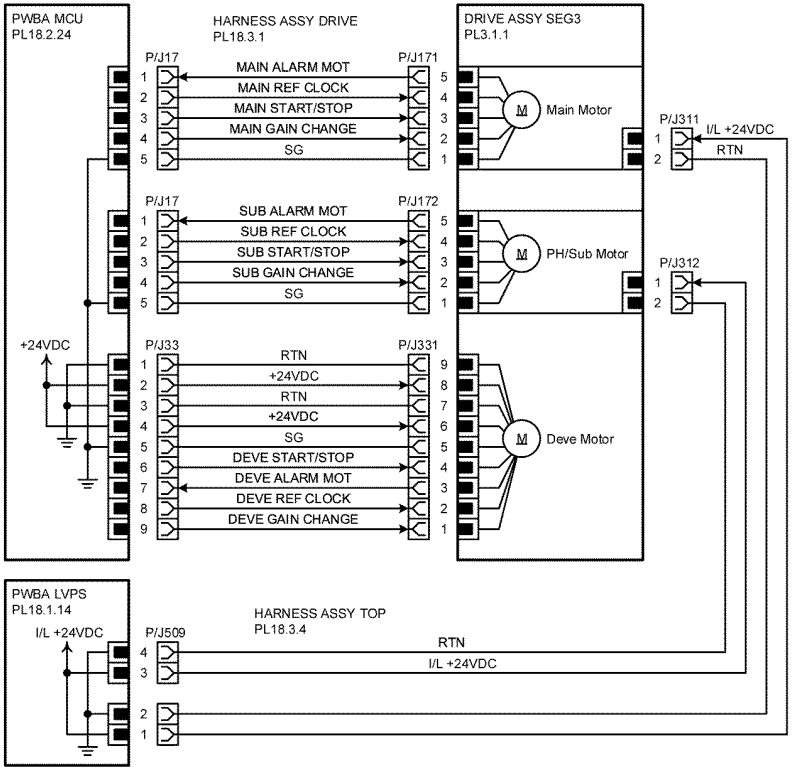
Table 3 Wiring diagram 5 signals

Signal line name	Description
HEAT2HEAT1HEAT EN	Temperature control signal of the Fusing Assy

Table 3 Wiring diagram 5 signals

Signal line name	Description
FUSE CUT	Control signal of the Fuse
FSR TEMP VDFSR TEMP VC	Temperature data measured by the Center Temp. Sensor
FSR STS	Temperature data measured by the Rear Temp. Sensor

WD 6 Drive



Refer to Table 5 for signal line names and descriptions.

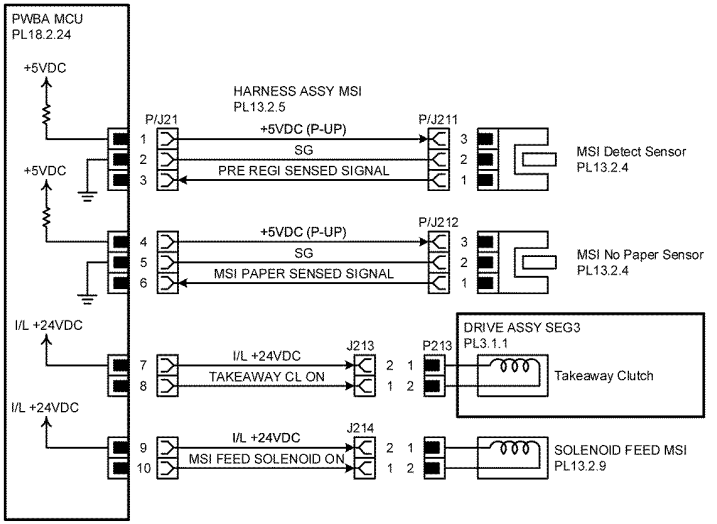
Z-1-0153-A

Figure 6 Wiring diagram 6

Table 4 Wiring diagram 6 signals

Signal line name	Description
MAIN ALARM MOTMAIN REF CLOCKMAIN START/STOPMAIN GAIN CHANGE	Drive control signal of the Main Motor
SUB ALARM MOTSUB REF CLOCKSUB START/STOPSUB GAIN CHANGE	Drive control signal of the Sub Motor
DEVE START/STOPDEVE ALARM MOT-DEVE START/STOPDEVE GAIN CHANGE	Drive control signal of the Deve Motor

WD 7 MSI



Refer to Table 6 for signal line names and descriptions.

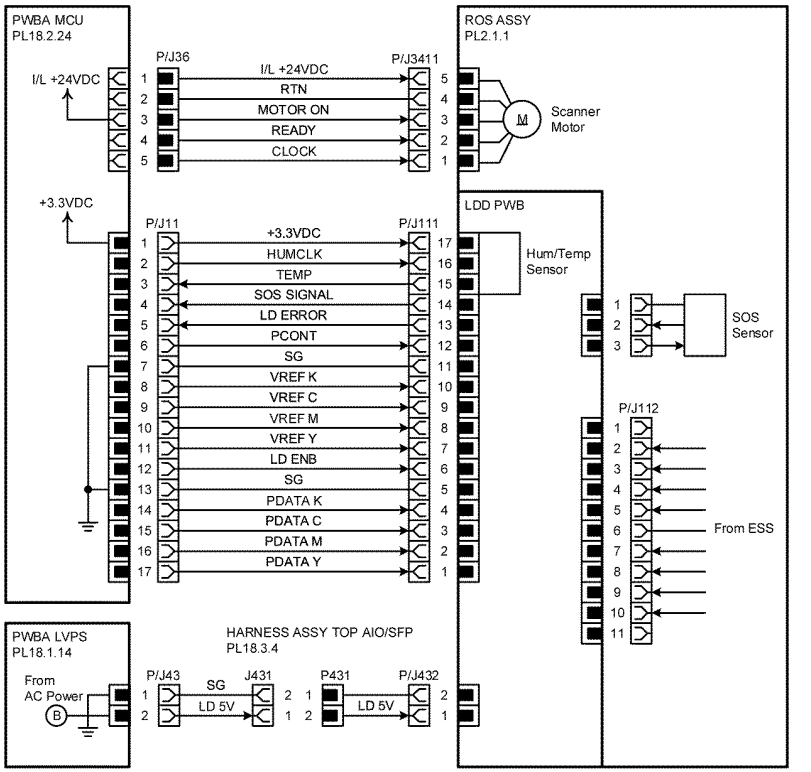
Z-1-0154-A

Figure 7 Wiring diagram 7

Table 5 Wiring diagram 7 signals

Signal line name	Description
PRE REGI SENSED SIGNAL	Detect signal of paper in the Pre Registration section by the MSI Sensor
MSI PAPER SENSED SIGNAL	Detect signal of paper in the MSI section by the MSI No Paper Sensor
TAKEAWAY CL ON ON/OFF	Signal of the Takeaway Clutch
MSI FEED SOLENOID ON ON/OFF	Signal of the MSI Feed Solenoid

WD 8 ROS



Refer to Table 7 for signal line names and descriptions.

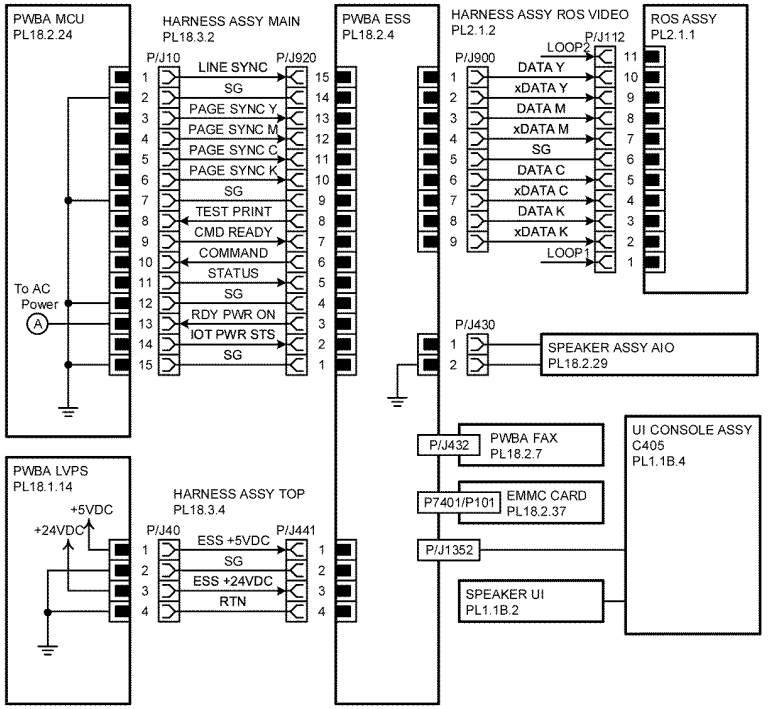
Z-1-0155-A

Figure 8 Wiring diagram 8

Table 6 Wiring diagram 8 signals

Signal line name	Description
MOTOR ONREADYCLOCK	Drive control signal of the Scanner Motor in the ROS ASSY
HUMCLKTEMPSOS SIGNALLD ERRORP-CONTVREF KVREF CVREF MVREF YLD ENBPDATA KPDATA CPDATA MPDATA Y	Control signal of the LD light intensity in the ROS ASSY

WD 9 Controller C405



Refer to Table 8 for signal line names and descriptions.

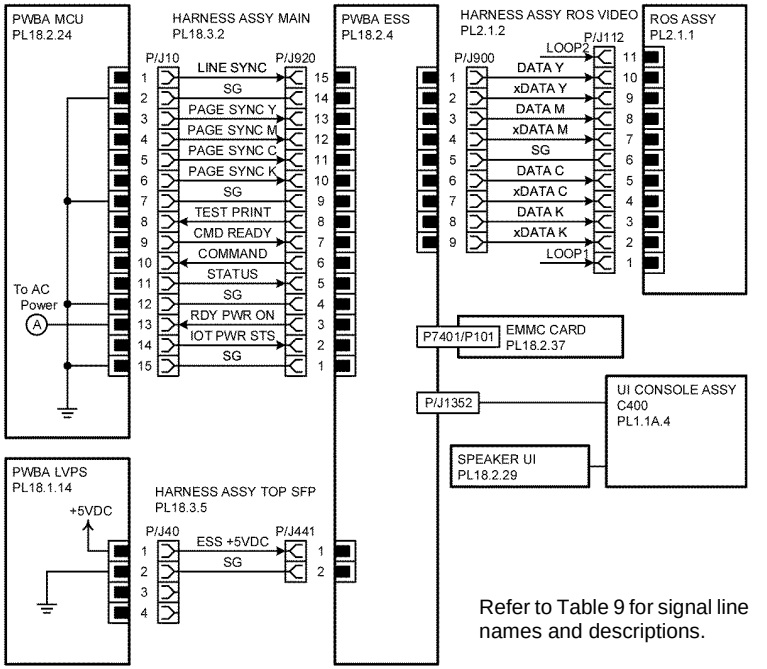
Z-1-0156-A

Figure 9 Wiring diagram 9

Table 7 Wiring diagram 9 signals

Signal line name	Description
LINE SYNCPAGE SYNC YPAGE SYNC MPAGE SYNC CPAGE SYNC KTEST PRINTCMD READYCOMMANDSTA-TUSRDY PWR ONIOT PWR STS	Control signal of the PWBA ESS
DATA YxDATA YDATA MxDATA MDATA CxDATA CDATA KxDATA K	Image data of each color (Y/M/C/K)

WD 10 Controller C400



Refer to Table 9 for signal line names and descriptions.

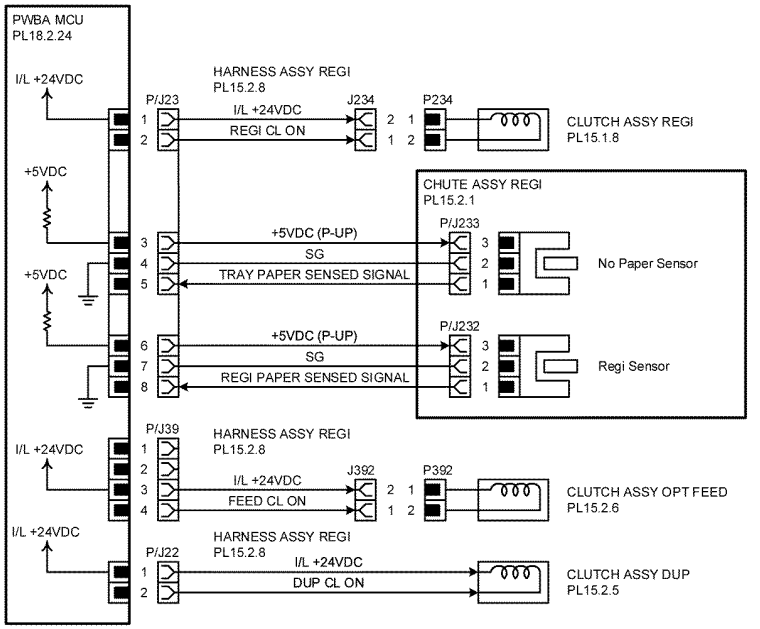
Z-1-0157-A

Figure 10 Wiring diagram 10

Table 8 Wiring diagram 10 signals

Signal line name	Description
LINE SYNCPAGE SYNC YPAGE SYNC MPAGE SYNC CPAGE SYNC KTEST PRINTCMD READYCOMMANDSTA-TUSRDY PWR ONIOT PWR STS	Control signal of the PWBA ESS
DATA YxDATA YDATA MxDATA MDATA CxDATA CDATA KxDATA K	Image data of each color (Y/M/C/K)

WD 11 Paper Transport



Refer to Table 10 for signal line names and descriptions.

Z-1-0158-A

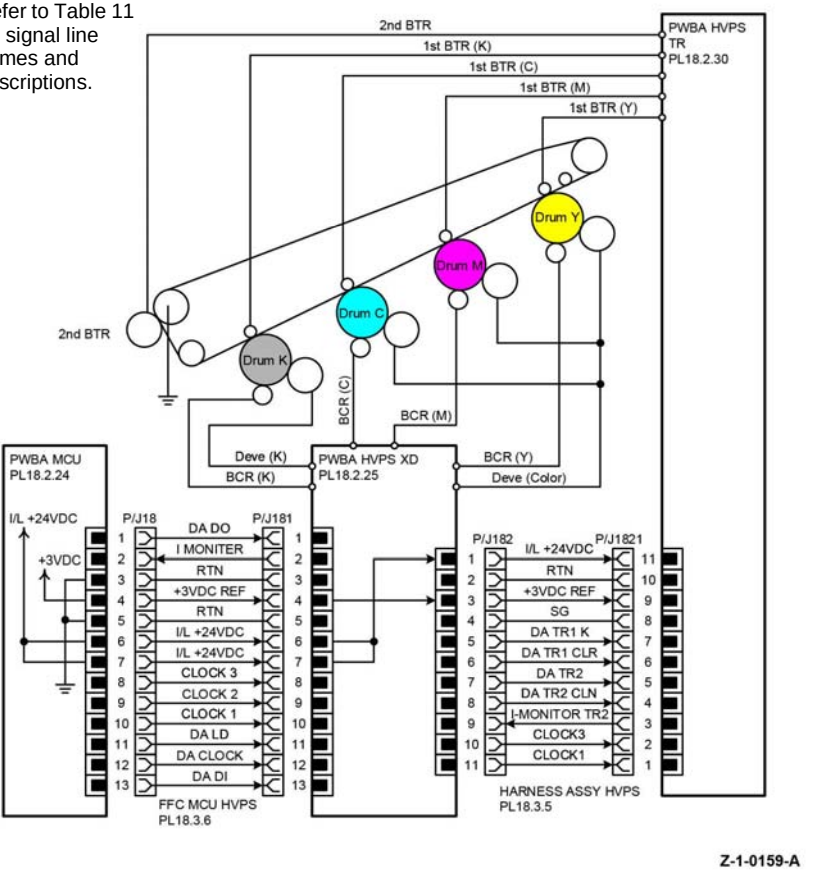
Figure 11 Wiring diagram 11

Table 9 Wiring diagram 11 signals

Signal line name	Description
REGI CL ON	ON/OFF signal of the Regi Clutch
TRAY PAPER SENSED SIGNAL	Detect signal of paper inside the tray by the No Paper Sensor
REGI PAPER SENSED SIGNAL	Detect signal of paper in the Pre Registration section by the Regi Sensor
FEED CL ON	ON/OFF signal of the Feed Clutch
DUP CL ON	ON/OFF signal of the Duplex Clutch

WD 12 HVPS

Refer to Table 11 for signal line names and descriptions.

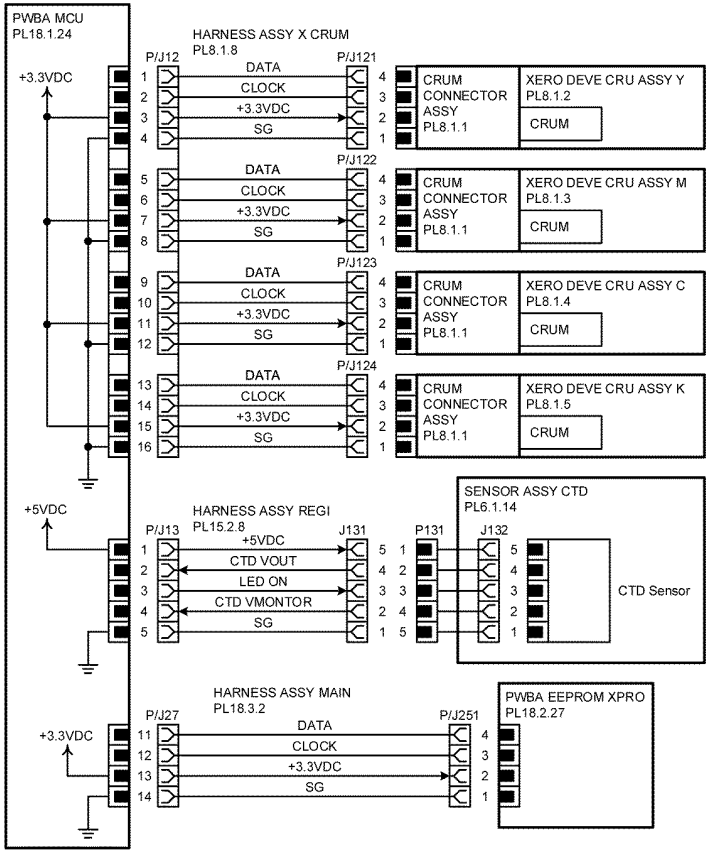


Z-1-0159-A

Figure 12 Wiring diagram 12

Table 10 Wiring diagrams 12 signals

Signal line name	Description
DA DOI MONITER+3VREFI/L +24VDCCLOCK 3CLOCK 2CLOCK 1DA LDDA CLOCKDA DIDA TR1 KDA TR1 CLRDA TR2DA TR2 CLNI-MONITOR TR2	Control signal of the HVPS



Refer to Table 12 for signal line names and descriptions.

Z-1-0160-A

Figure 13 Wiring diagram 13

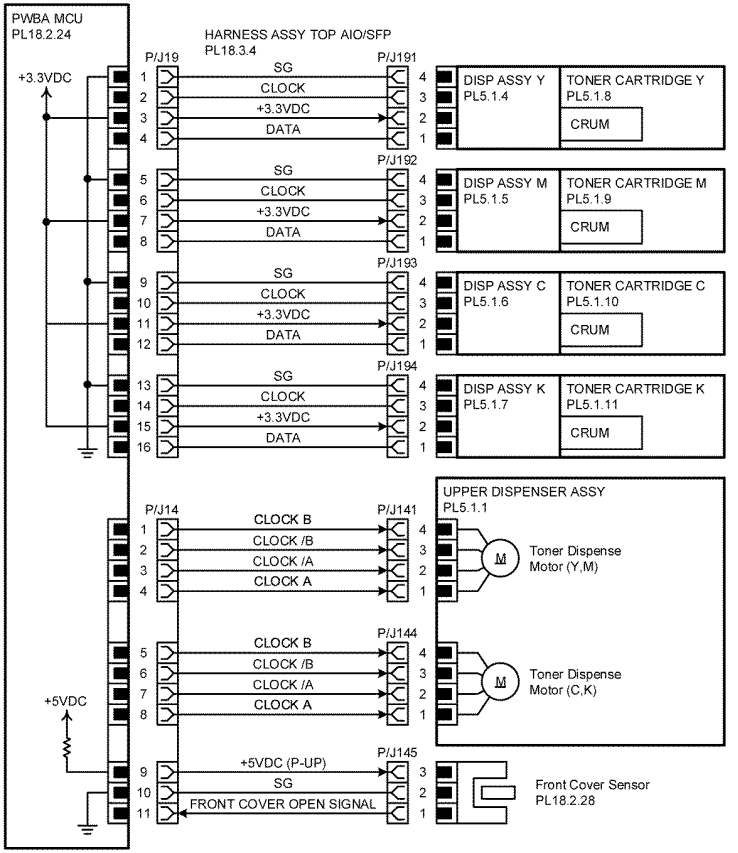
Table 11 Wiring diagram 13 signals

Signal line name	Description
DATACLOCK	Control signal of the XERO DEVE CRU ASSY Y/M/C/K and the PWBA EEPROM

Table 11 Wiring diagram 13 signals

Signal line name	Description
CTD VOUT	Toner patch density data measured by the CTD Sensor
LED ON	LED lighting signal of the CTD Sensor
CTD VMONTOR	Voltage monitor signal of the CTD Sensor

WD 14 Developer



Refer to Table 13 for signal line names and descriptions.

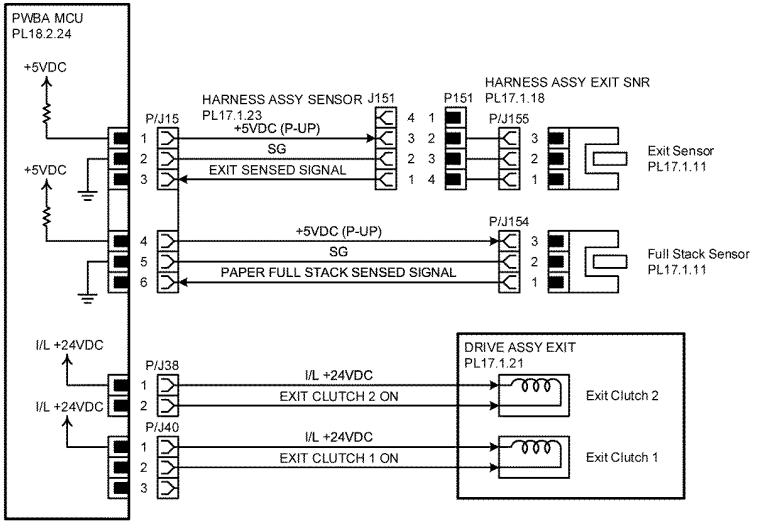
Z-1-0161-A

Figure 14 Wiring diagram 14

Table 12 Wiring diagram 14 signals

Signal line name	Description
CLOCKDATA	Control signal of the TONER CARTRIDGE Y/M/C/K
CLOCK BCLOCK /BCLOCK /ACLOCK A	Drive control signal of the Toner Dispense Motor (Y, M) / (C, K)
FRONT COVER OPEN SIGNAL	FRONT COVER opening/closing detect signal by the Front Cover Sensor

WD 15 Exit



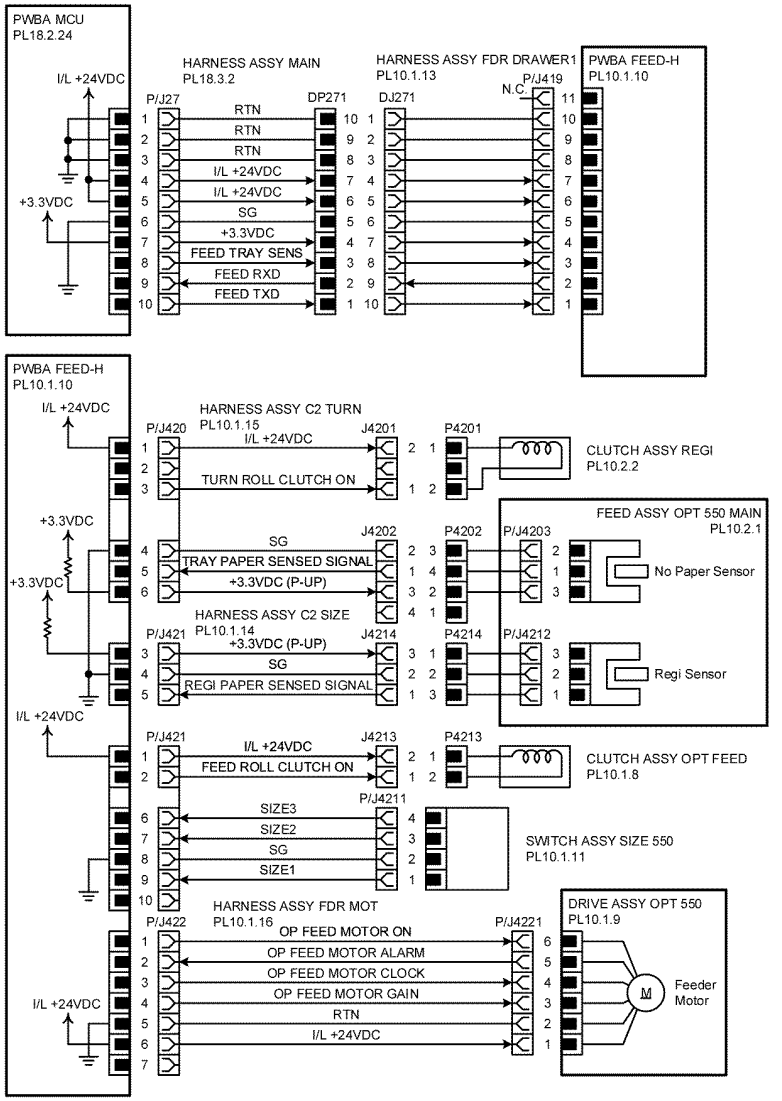
Refer to Table 14 for signal line names and descriptions.

Z-1-0162-A

Figure 15 Wiring diagram 15

Table 13 Wiring diagram 15 signals

Signal line name	Description
EXIT SENSED SIGNAL	Detect signal of paper in the Exit section by the Exit Sensor
PAPER FULL STACK SENSED SIGNAL	Paper full detect signal of the output tray by the Full Stack Sensor
EXIT CLUTCH 2 ON	ON/OFF signal of the EXIT CLUTCH 2
EXIT CLUTCH 1 ON	ON/OFF signal of the EXIT CLUTCH 1



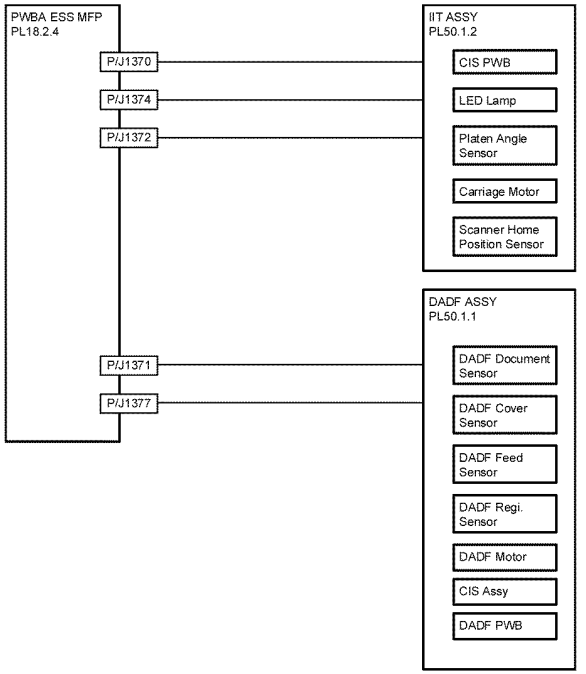
Refer to Table 15 for signal line names and descriptions.

Z-1-0163-A

Figure 16 Wiring diagram 16

Table 14 Wiring diagram 16 signals

Signal line name	Description
FEED TRAY SENSFEED RXDFEED TXD	Control signal of the PWBA FEED
TURN ROLL CLUTCH ON	ON/OFF signal of the Turn Roll Clutch
TRAY PAPER SENSED SIGNAL	Detect signal of paper inside the optional tray by the C2 No Paper Sensor
REGI PAPER SENSED SIGNAL	Detect signal of paper in the Registration section of the optional tray by the C2 Regi Sensor
FEED ROLL CLUTCH ON	ON/OFF signal of the C2 Feed Clutch
SIZE3SIZE2SIZE1	Detect signal of a paper size inside the optional tray by the SWITCH ASSY SIZE
OP FEED MOTOR ONOP FEED MOTOR ALARMOP FEED MOTOR CLOCKOP FEED MOTOR GAIN	Drive control signal of the Option Feeder Motor



Z-1-0164-A

Figure 17 Wiring diagram 17

8 Principles of Operation

Printing Process 8-3
Scanning Process 8-13
Paper Path 8-14
Function of Major Components 8-18
Data Flow 8-31
Control 8-32
Drive Transmission Route 8-35
FAX System 8-37
NFC (Near Field Communication) 8-40
Sensors 8-41
Device Options 8-42

Printing Process

This section describes the operational characteristics of the Xerox® VersaLink® C400 Color Printer and Xerox® VersaLink® C405 Color Multifunction Printer. It provides detailed descriptions of the media path, xerographics, and major assemblies for each model, Figure 1.

Summary of Printing Process

The devices are full-color xerographic devices operating on a tandem printing system that has four color-specific drum/developer sets for yellow, magenta, cyan, and black (Y, M, C, K). The four color-separated images of the original document are created with toner on the drums and then transferred in registration onto the Intermediate Transfer Belt (IBT) to reproduce a full color image. The completed toner image is transferred and fixed on the print medium, and then output as a print, Figure 2.

The printer's printing process comprises of the following steps:

1. Charging: The drum surface is electrically charged.
2. Exposure: The image is formed on the drum surface by laser beams.
3. Development: The image is developed with toner.
4. Primary Transfer: The four color separation images on the drums are transferred onto the IBT.
5. Cleaning - Drum and BCR: The drums are electrically neutralized and the toner remaining on the drums and BCRs is removed.
6. Secondary Transfer: The toner image on the IBT is transferred onto the medium.
7. Neutralization: Electric charge of the paper is eliminated.
8. Cleaning - IBT and 2nd BTR: The toner remaining on the IBT and 2nd BTR is removed.
9. Fusing: The toner is fixed to the print medium by heat and pressure.
10. Waste Toner Collection: Removal of excess toner.

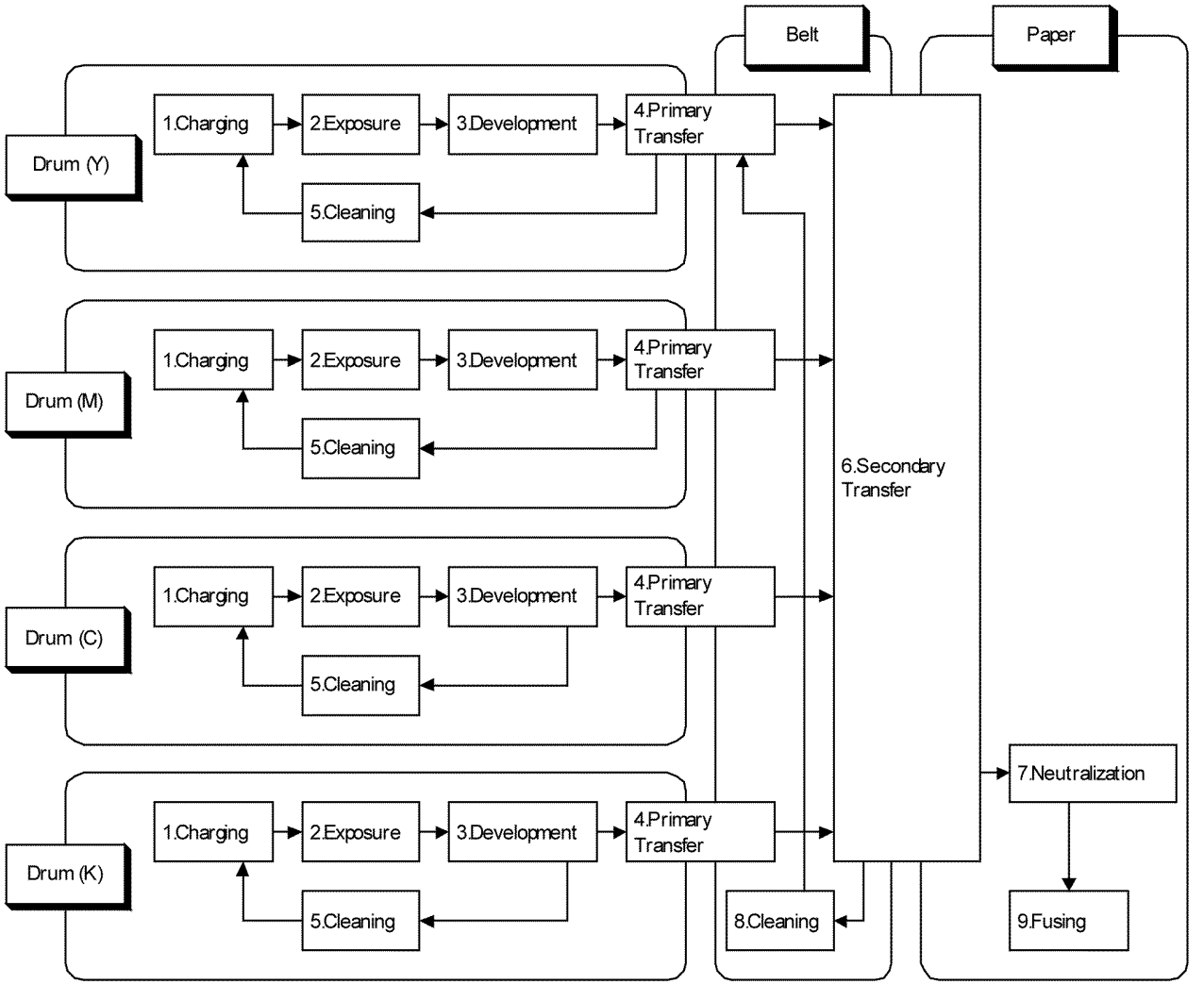


Figure 1 Printing flow diagram

Figure 2, illustrates the printing process.

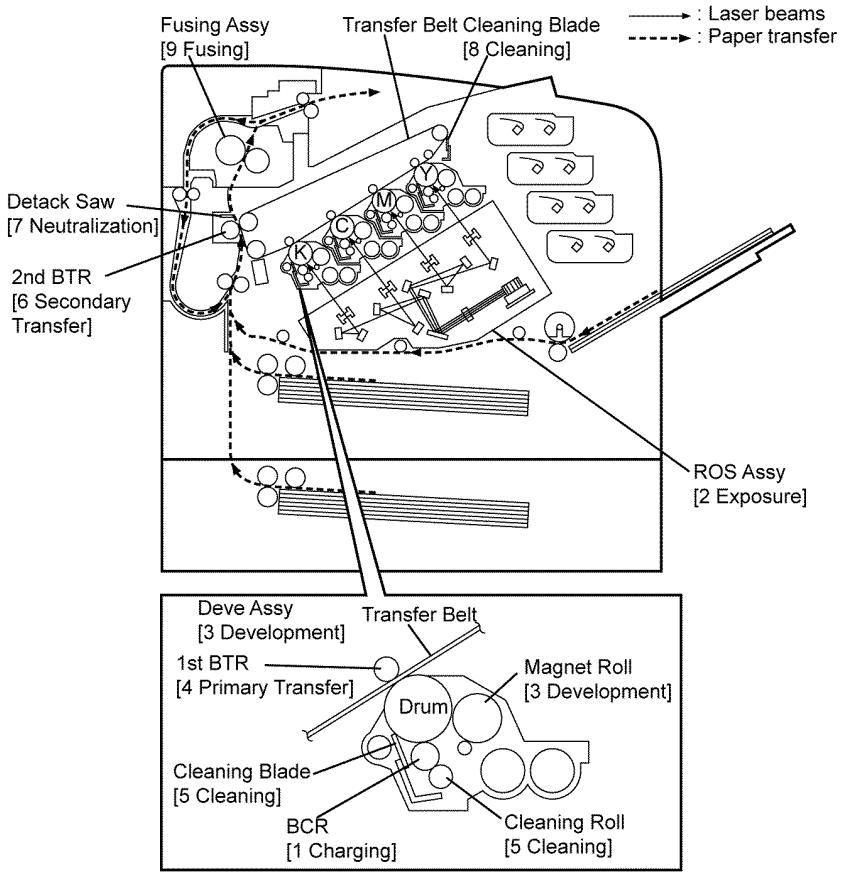


Figure 2 Printing process

Charging

In the charging process, the surface of the drum rotating at a constant speed is uniformly charged with negative polarity by the discharge from the Bias Charge Roll (BCR). This process is performed in parallel for the colors yellow, magenta, cyan and black.

- Bias Charge Roll (BCR)

  The BCR is kept in contact with the drum and rotates following the rotations of the drum. The BCR is a conductive roll that uniformly and negatively charges the drum surface with the negative voltage applied by the HVPS.
- Drum

  The drum surface is uniformly and negatively charged with DC bias voltage.

  The drum surface consists of a photoreceptor (which is an insulator in the dark and a conductor in the light) backed with a conductor.
- Cleaning Roll

  The cleaning roll physically contacts the BCR to remove the toner

Figure 3, illustrates the charging process.

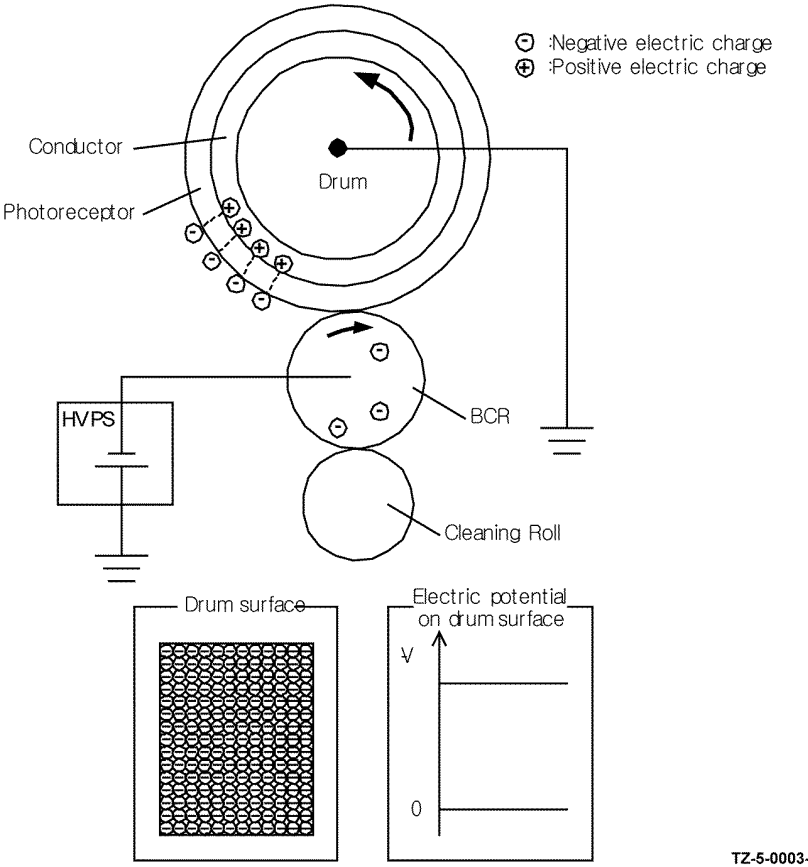


Figure 3 Charging

Exposure

In the exposure process, the drum surface charged negatively is scanned by laser beams to form invisible electrostatic latent image on the drum surface.

This process is performed in parallel for yellow, magenta, cyan, and black colors, Figure 4.

- Laser beams are emitted from the LD (Laser Diode) for each color, they pass through a lens, mirror and filter system then illuminate the polygon mirror. The laser beams (one for each color) are reflected by the polygon mirror through two lenses, reflected by the mirrors and the irradiated to the drums of each color.
- The polygon mirror, appointed with six reflecting mirror faces, is rotated by the scanner motor. Thus, the laser beam irradiated is scanned in the drum axis direction, by changes of reflection angle of the polygon mirror. Scanning is performed using one reflecting mirror face for each line.
- The laser beam deflected to the farthest point among the laser beams is reflected by the polygon mirror onto the Start Of Scan (SOS) mirror, and then reflected onto the SOS sensor. The SOS sensor generates the scanning standard signal by the incidence of the laser beam. The SOS sensor signals are used to synchronize the starting point of the laser-beam scanning with the starting point of the image writing.

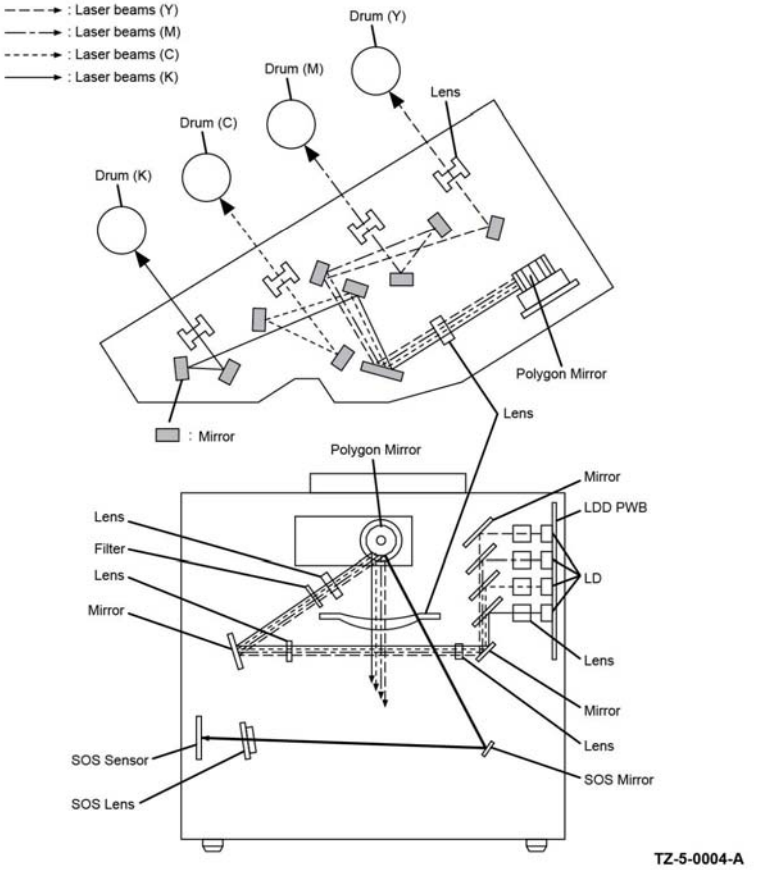
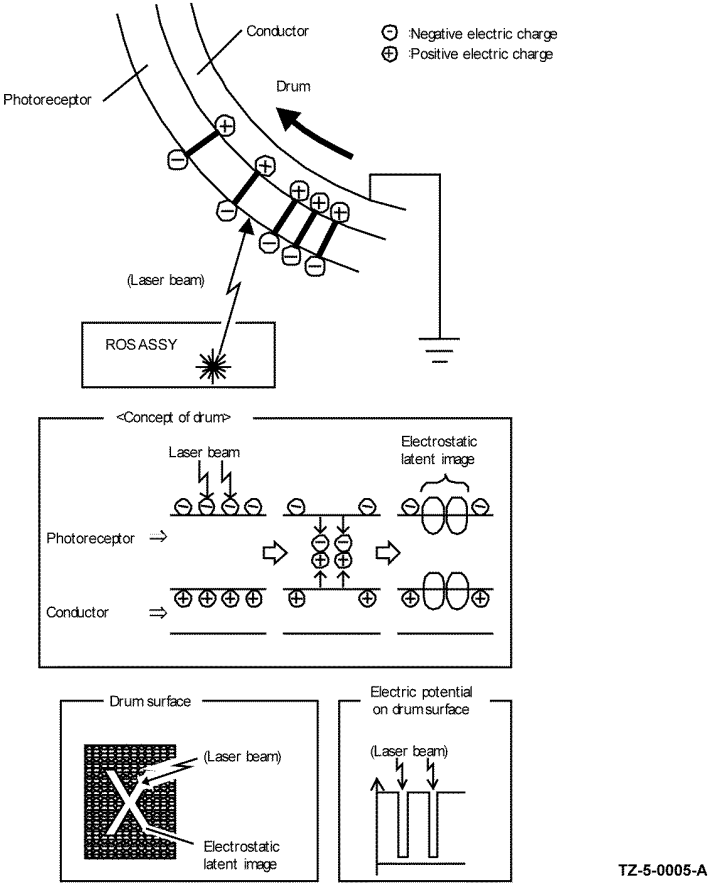


Figure 4 ROS assembly

- The Raster Output Scanner (ROS) assembly interprets printing data signals from the ESS PWBA then irradiates the laser beams onto the surface of the drum to create a latent image. The laser scans from one end of the drum surface to the other while being turned off and on forming a single line of a latent image. The laser diode only lights up for areas of the drum to be developed by toner. The drum surface irradiated by the laser beams becomes a conductor, and the negative charge on the drum surface flows to the positive side. The charges cancel each other out causing the potential on the drum surface to drop. Areas on the drum surface where the potential drops become the electrostatic latent image. The scanner motor turns on when it receives a signal, and turns off after printing ends. The motor remains off in the standby and power-saving states, Figure 5.



TZ-5-0005-A

Figure 5 Latent image formation

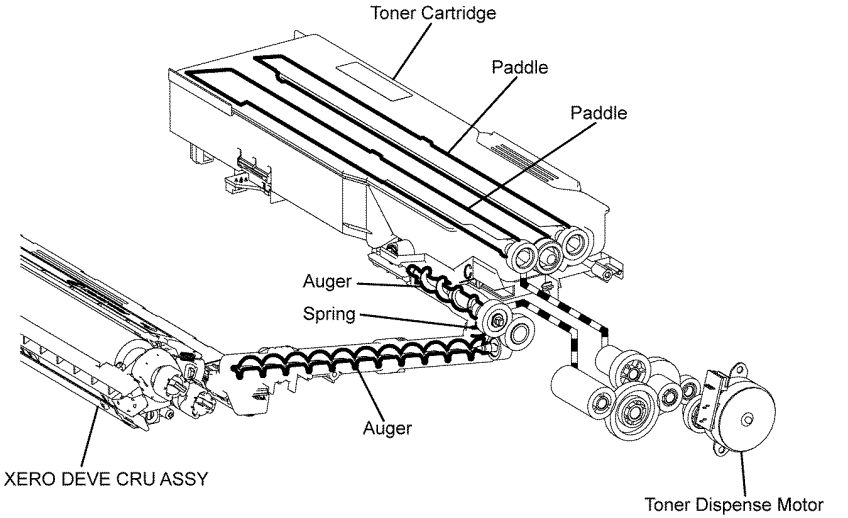
Development

The development process makes a visible image appear on the drum surface by electrically attracting toner particles to the electrostatic latent image.

This process is performed in parallel for the colors yellow, magenta, cyan and black independently.

Toner dispensing

The toner in the in each of the 4 toner cartridges is fed into the respective xerographic development assembly (imaging unit) by the auger in the dispenser assembly and the paddle in the toner cartridge, driven by the dispenser motor, Figure 6.



TZ-5-0006-A

Figure 6 Toner dispenser

Development

In the xerographic development assembly the incoming toner is mixed with the existing developer material (toner/carrier mixture) by the auger and then supplied to the magnet roll located near the drum surface. The toner and carrier are charged by friction due to agitation (toner in negative, carrier in positive), and they attract each other electrically. The carrier, due to its magnetic properties, is attracted to the magnet roll, and then uniformly leveled by the trimmer rod, Figure 7.

The Magnet Roll is covered by a thin semi-conductive sleeve all over the surface. The DB (Developing Bias) voltage is supplied to this semiconductor sleeve from the High Voltage Power Supply (HVPS). The DB voltage is negative DC voltage combined with AC voltage. The DC voltage keeps the magnet roll at a constant negative voltage against the photoreceptor layer of the drum. Therefore, in the area where the negative electric charge on the drum surface does not decrease, the potential is lower than that of the magnet roll, while the potential is higher than that of the magnet roll in the area where the negative charge on the drum surface decreases. The AC voltage shakes the developer on the surface of the magnet roll so that the toner easily flies to the drum. Thus, only the portions of the drum surface where the negative charge has decreased below that of the magnet roll (electrostatic latent image) attract the toner to form an image on the drum. Once the toner is deposited on the drum, the potential and the toner-attracting force of the corresponding portion decreases because the increase of negative charge lowers the potential at that portion, Figure 7.

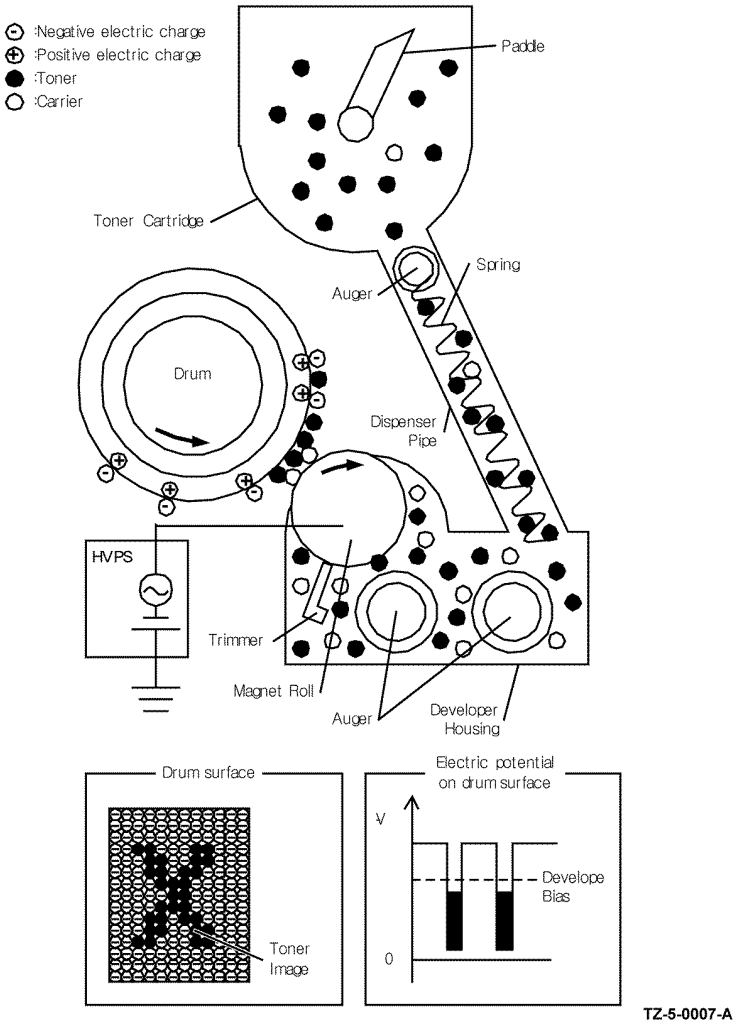


Figure 7 Developer

Primary Transfer

In the primary transfer process, the toner images formed on the drums are transferred onto the IBT via the 1st BTR (First Bias Transfer Roll). The four color separation images are transferred from the drums onto the IBT in the order of Y, M, C, and K, Figure 8.

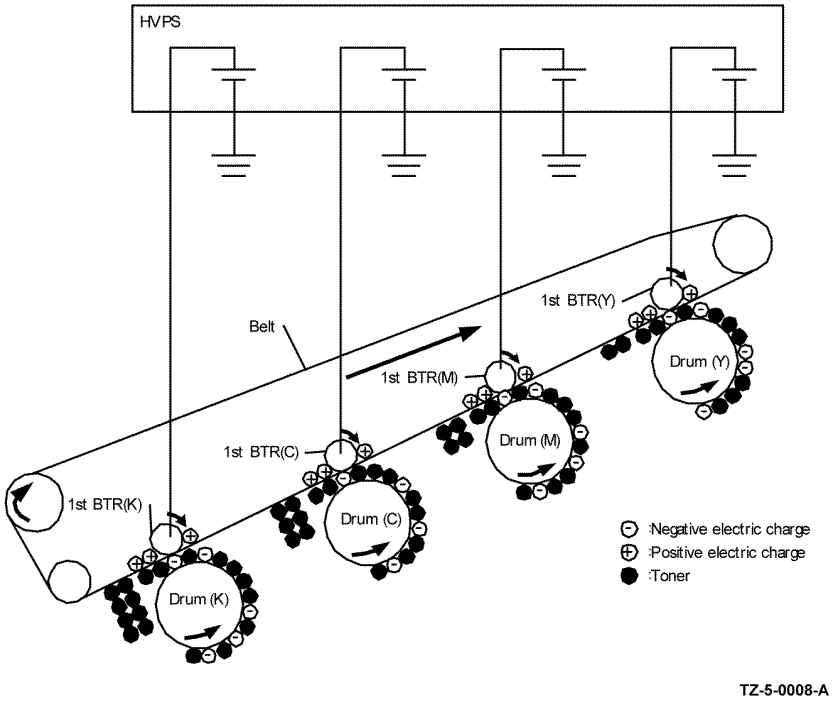


Figure 8 Transfer order

The 1st BTR is a metal roll, to which the positive voltage from the High Voltage Power Supply (HVPS) is applied. The 1st BTR positively charges the backside of the IBT with the voltage generated by the contact resistance with the IBT. The toner images on the drums are transferred to the IBT due to the attracting force generated between the negative polarity of the toner image and the positive polarity on the IBT, Figure 9.

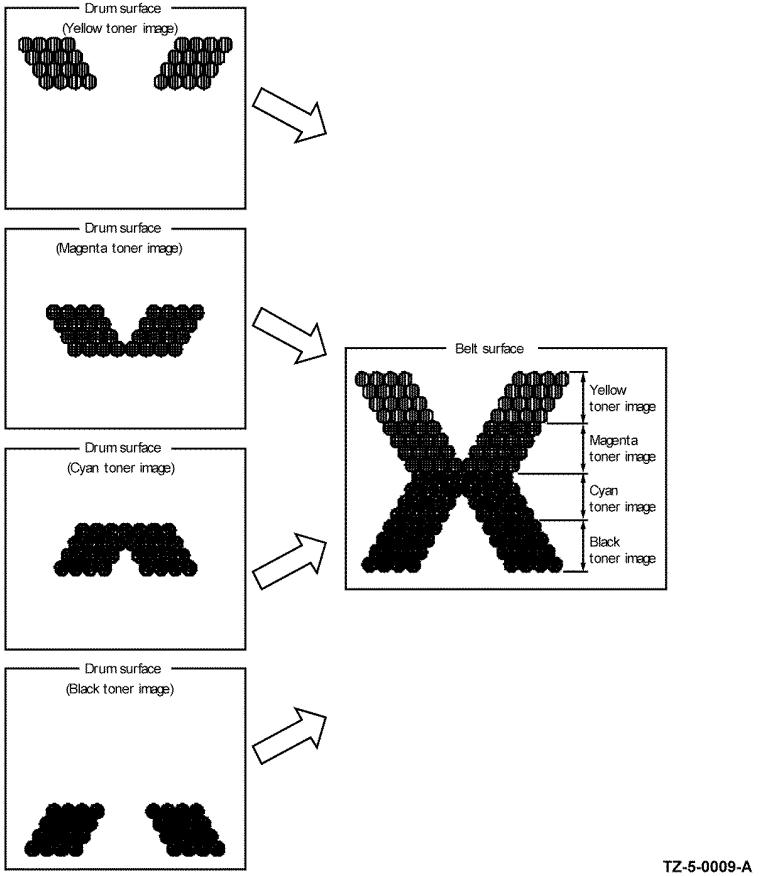


Figure 9 Drum to IBT transfer

Cleaning - Drum and BCR

In the cleaning process, excess toner and charge is removed from the drum and BCR surfaces.

- Drum cleaning
- BCR Cleaning

Drum cleaning

The excess toner that was not transferred to the IBT in the primary transfer process remains on the drum surface. To prevent this excess toner from causing trouble in the subsequent processes, the toner is scraped off by the drum cleaning blade in contact with the drum surface, and is then collected into the waste box assembly, Figure 10. Refer to NOHAD & Waste Toner.

BCR Cleaning

The remaining toner is roiled by a cleaning roll (made of spongy material) in contact with the BCR surface, and then collected to the drum. The toner returned to the drum is scraped off by the drum cleaning blade, Figure 10.

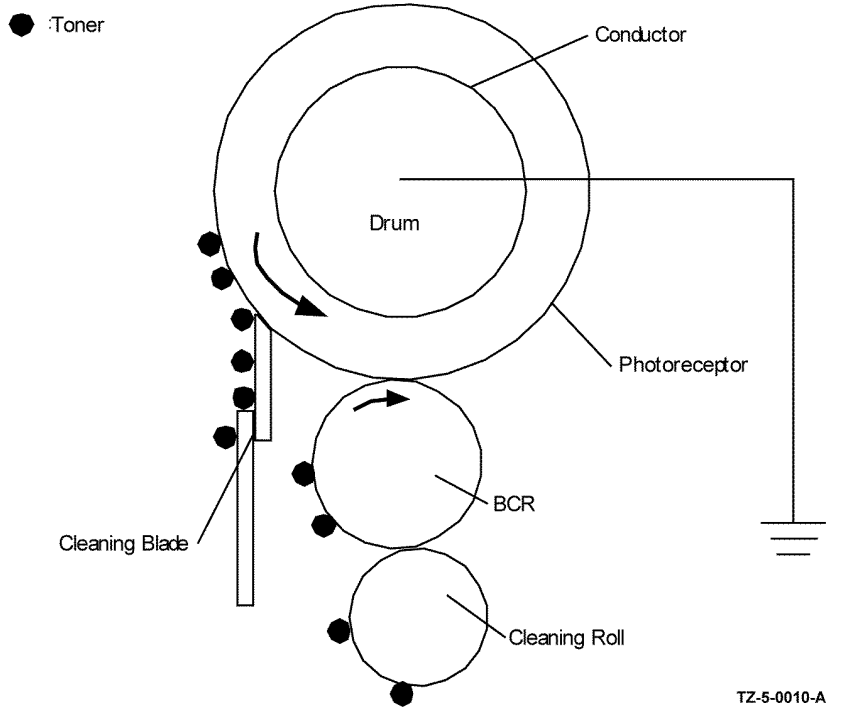


Figure 10 Drum and BCR cleaning

Secondary Transfer

In the secondary transfer process, the toner image completed on the surface of the IBT is transferred onto the print medium using the 2nd BTR (Second Bias Transfer Roll). The print medium passes between the 2nd BTR and the IBT that runs in contact with the conductive roll (Back Up Roll). The toner image on the IBT moves onto the print medium due to the attracting force generated between the grounded Back Up Roll and the positively polarized 2nd BTR, Figure 11.

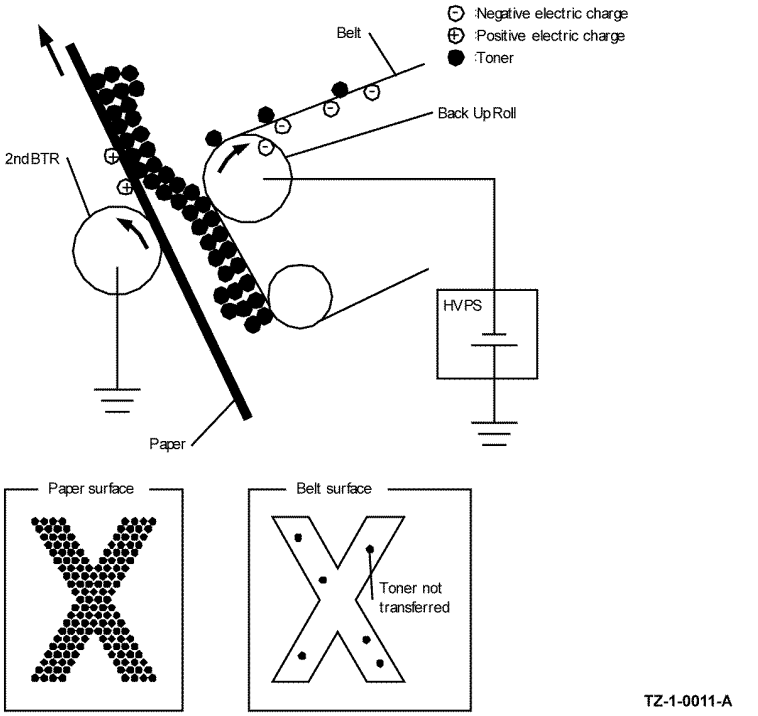


Figure 11 Secondary transfer

Neutralization

In the Neutralization process, the charge on the paper is neutralized by the eliminator. The charge is neutralized to prevent the toner on the paper from spreading over the surrounding metal surfaces. The eliminator is a metal sheet that is held at the ground potential. The Eliminator is installed several millimeters away from the backside of the IBT, Figure 12.

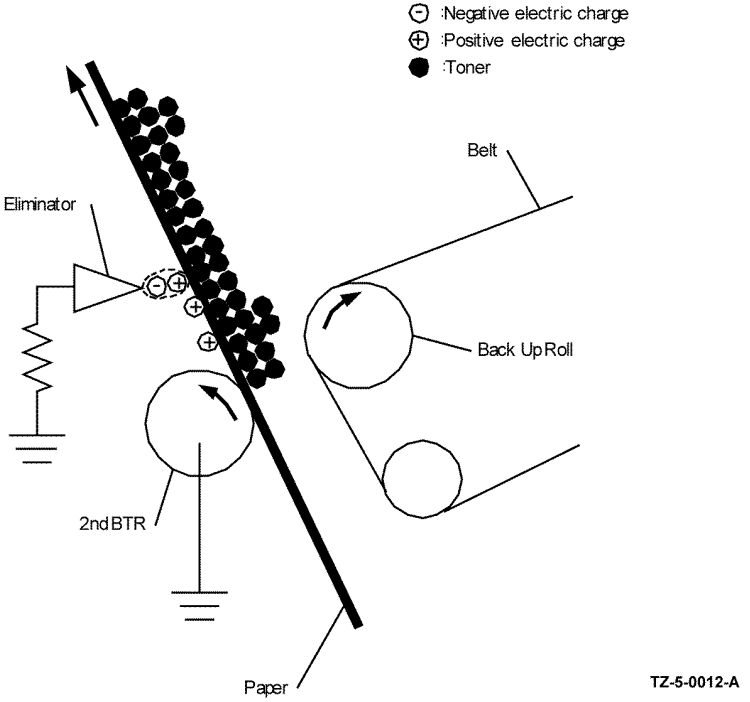


Figure 12 Neutralization

Cleaning - IBT and 2nd BTR

- Belt cleaning
- 2nd BTR cleaning

In the cleaning process, the toner and charge remaining on the IBT and the toner remaining on the 2nd BTR are removed after the toner image is transferred onto the print medium.

Belt cleaning

The excess toner that was not transferred to the print medium in the secondary transfer process remains on the IBT surface. To prevent the excess toner from causing trouble in the subsequent processes, the toner is scraped off by a cleaning blade in contact with the IBT surface, and then is collected into the waste box assembly, refer to Figure 13.

2nd BTR cleaning

The excess toner deposited on the 2nd BTR in the secondary transfer process soils the backsides of the subsequent sheets. To prevent this trouble, the excess toner on the 2nd BTR is transferred back onto the IBT using the attracting force generated by the back up roll. The back up roll is positioned opposite the 2nd BTR and is positively polarized by DC voltage from the HVPS. The excess toner remaining on the IBT is scraped off by the belt cleaning Blade that is in contact with the IBT, and is then collected into the waste box assembly, Figure 13. Refer to NOHAD & Waste Toner.

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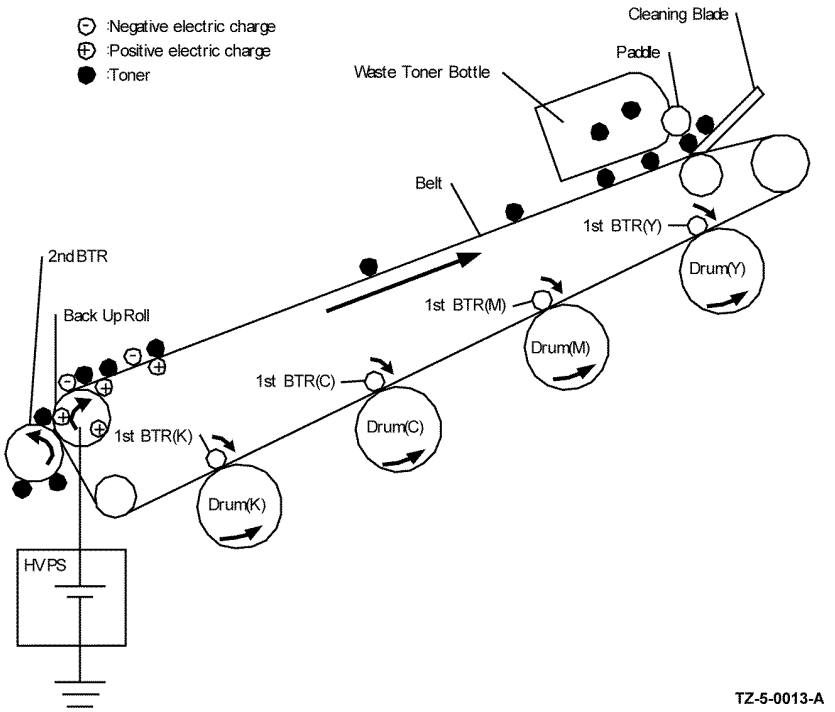

Figure 13 IBT and 2nd BTR cleaning

Fusing

In the fusing process, toner is fixed onto the print medium by heat and pressure. The toner particles are melted by the heat roll heated by the heater lamp, and then fused onto the print medium by the pressure between the heat roll and the pressure belt. The pressure belt is friction driven by the heat roll and nips the print media against the heat roll utilizing a self contain pressurizing mechanism, Figure 14.

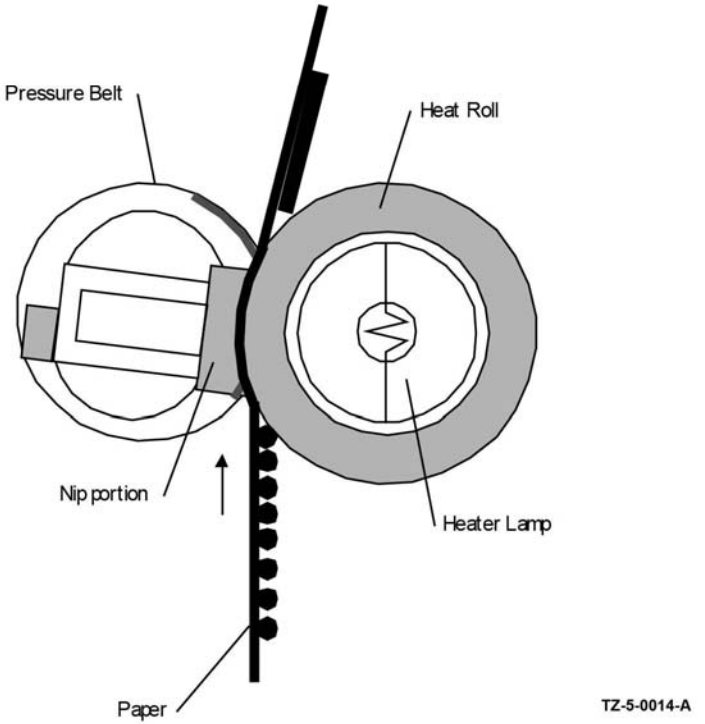

Figure 14 Fusing

Waste Toner Collection

The excess toner generated by the Y, M, C and K drum cleaning is fed to the waste box assembly by the drum cleaning auger in the respective xerographic development assembly (Imaging Unit).

The excess toner generated by the belt cleaning is fed to the waste box assembly by the belt cleaning auger in the transfer belt assembly.

The drum cleaning auger and the belt cleaning auger are driven by the main motor.

The excess toner fed to the waste box assembly is collected into the box by the waste auger in the waste box assembly.

The waste auger in the waste box assembly is driven by the PH Motor via the gear from the drive shaft assembly, Figure 15.

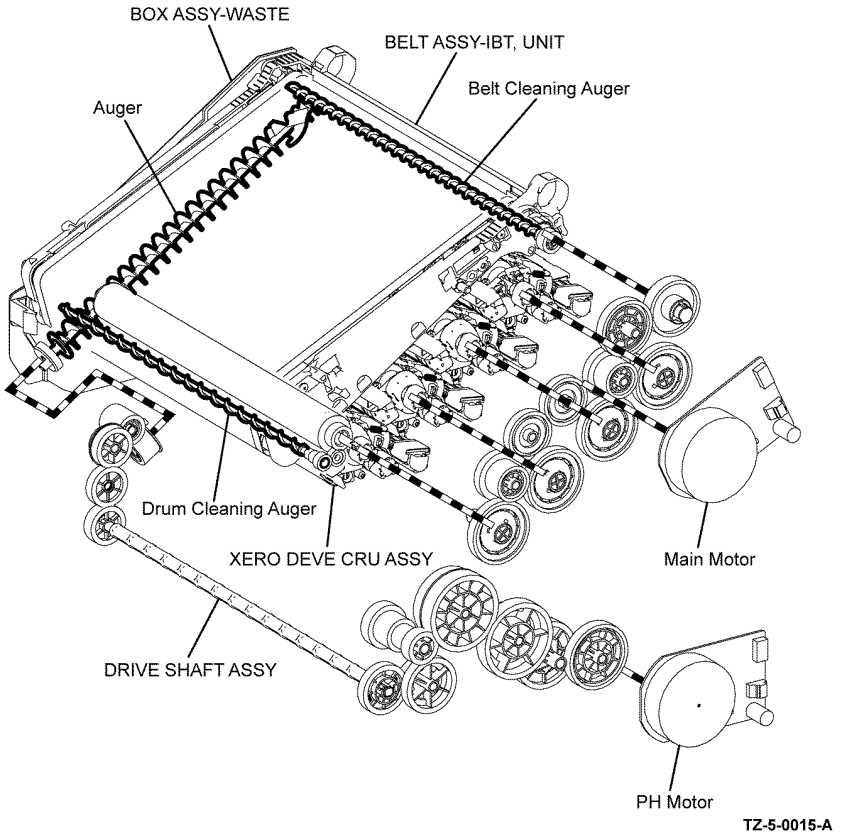

Figure 15 Waste toner collection

Scanning Process

- Document Scanning at the IIT.
- Document Scanning at the DADF C405.

Document Scanning

The scanner assembly consists of the Image Input Terminal (IIT) and the Duplex Automatic Document Feeder (DADF).

Document Scanning at the IIT

Document scanning at the IIT is performed by the carriage assembly within the IIT.

The carriage assembly consists of the CIS image sensor for converting image to data, the LED array lamp for illuminating the original, and the rod scope for converting the original image to a full-size image, Figure 1.

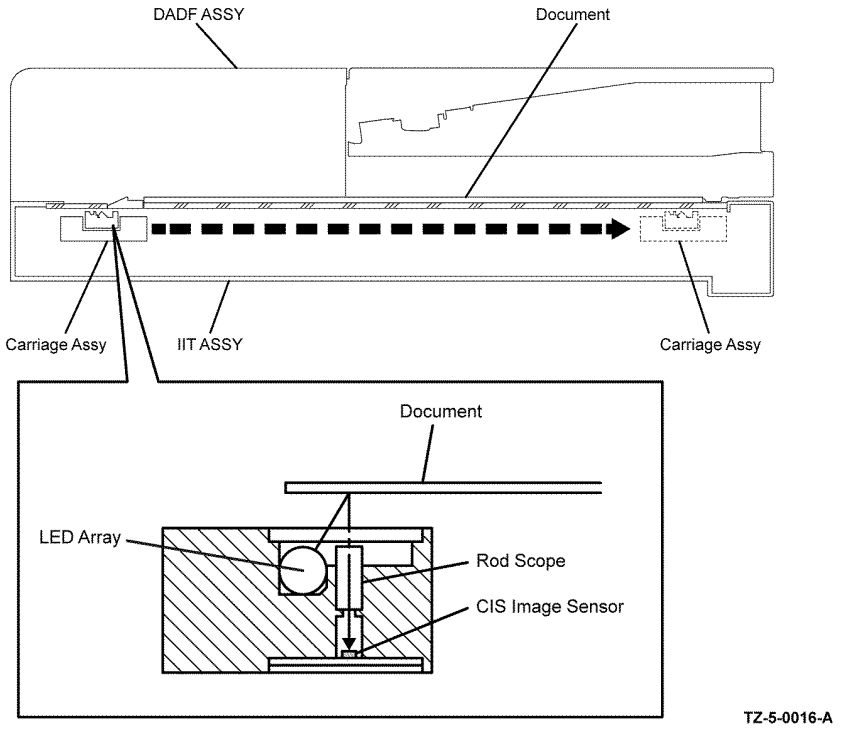

Figure 1 Scanner assembly

Document Scanning at the DADF C405

The C405 DADF has a different system from the conventional document feeder, being capable of scanning both the front and back of a document during a one pass conveyance.

As documents are fed at a speed corresponding to the set magnification a Contact Image Sensor (CIS) assembly in the IIT reads the front of the document, and a CIS assembly in the DADF reads the back of the document. These two scanning parts are arranged so as to interpose the paper path from both sides, and this allows both sides of the document to be scanned without rotation, Figure 2.

Document feeding starts from the document feeder tray of the DADF. As the DADF nudger roll and the DADF feed roll rotate a document is nipped and then fed between the DADF feed roll and the retard pad into the DADF document path. The document continues transportation via the DADF takeaway roll. Aligned by the DADF regi roll the document is then transported over the CVT (Constant Velocity Transport) window of the IIT, allowing the reflected image to be scanned (simplex image) by the CIS assembly mounted on the carriage assembly that is stationed in the scanner home position. The document is then transported via the DADF transport roll and DADF exit roll passed the CIS assembly within the DADF (for duplex images the back of the document is scanned at this point via this CIS assembly) to the DADF document output tray. All DADF rolls are rotated by torque from the DADF motor, Figure 2.

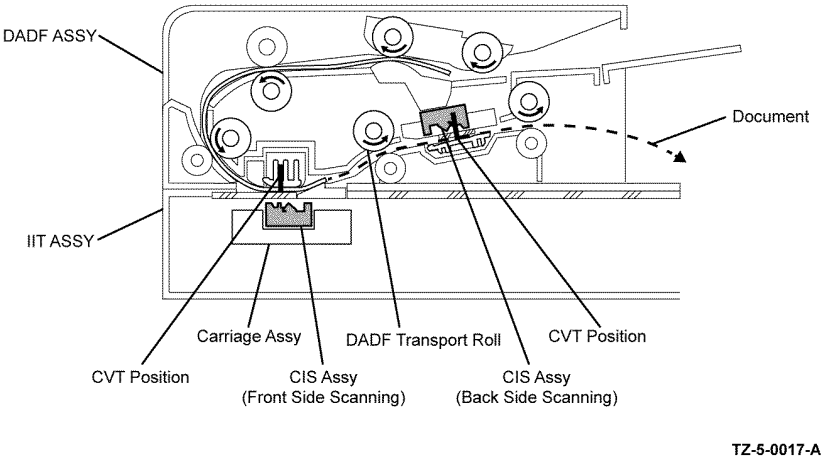

Figure 2 DADF scanning

Paper Path

This section describes the paper feed path of the entire device and the paper feed process in each feed section.

- Paper Path Layout
- Feeding from Paper Cassette
- Feeding from the MSI
- Feeding in the Registration Section
- Transfer, Fusing and Exit
- Duplex Feeding

Paper Path Layout

Figure 1 illustrates the paper feed layout with the 550 optional cassette assembly installed, and the components relevant to paper feed.

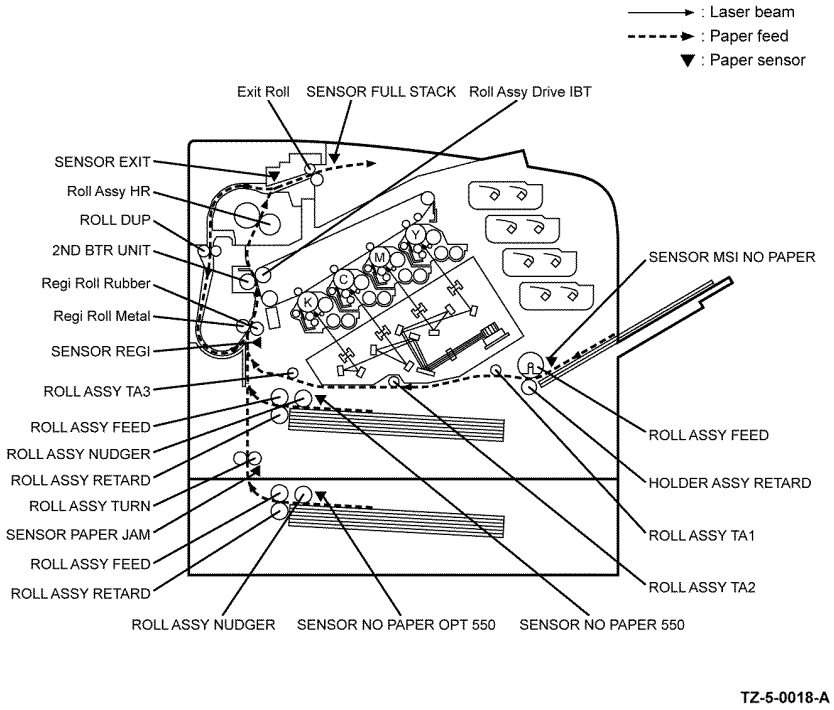

Figure 1 Paper path

Feeding from Paper Cassette

The paper loaded in the paper cassette is fed between the feed roller and the retard roller by the nudger roller, and then fed further to the registration section by the rotation of the feed roller and the retard Roller, Figure 2.

The nudger roller and the feed roller are rotated by the torque of the PH motor via the feed clutch assembly.

The retard roller, pressed from underneath by the spring pressure and forced to the feed roller, plays the role of fanning a sheet by the rotation friction.

When the sheet is lapped over, the break force of the torque limiter combined with the retard roller separates and feeds only the sheet on the top.

The bottom plate assembly is the mechanism driven by the gear located on the side of the paper cassette. Unless the interlock gear is unlocked, the bottom plate assembly keeps the state that it is not lowered or elevated from the arbitrary position. The sheet is fed at this position.

As the media feed is proceeded and several sheets of paper on the top of the paper loaded are decreased, the nudger roller lowers down and the lever unlocks the gear, and then the bottom plate assembly is elevated.

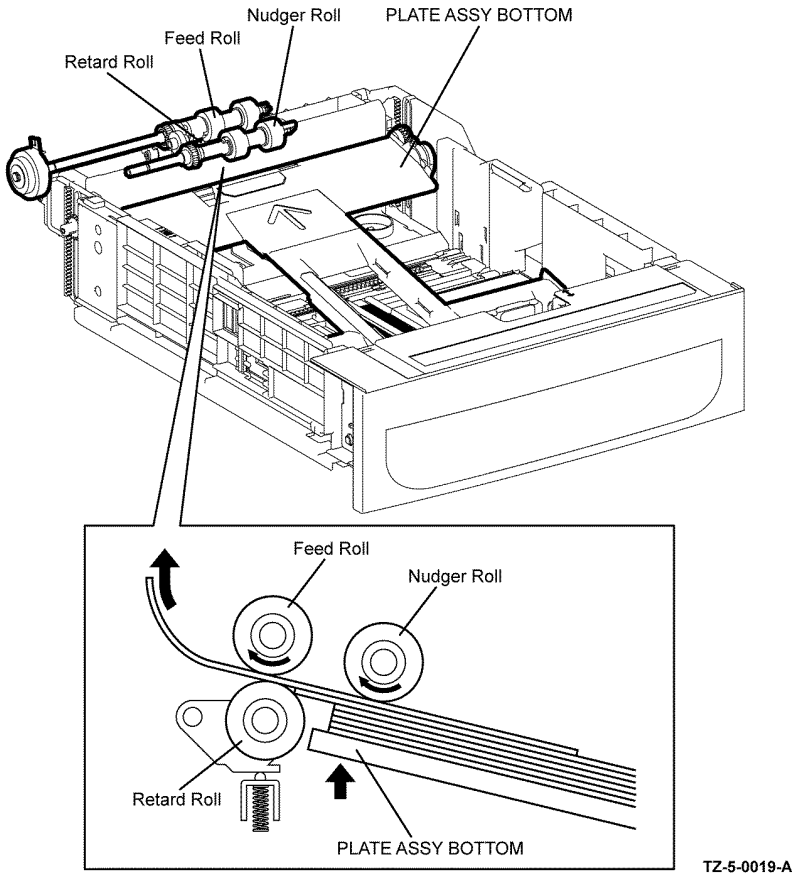

Figure 2 Paper feed from the cassette

Feeding from the MSI

When sheet feeding from the MSI starts, the feed roller rotates, driven by the PH motor and controlled by the MSI feed solenoid, to feed the sheet to the position where it is nipped between the feed Roller and the retard roller, Figure 3.

As the feed roller rotates, the MSI Left cam and MSI Right cam also rotate to lift the bottom plate assembly via the left arm and right arms to the sheet feeding position.

Normally, when only one sheet is fed, both the feed roller and retard roller rotate to allow the sheet to pass. However, when two sheets are fed concurrently, only the feed roller rotates and the retard roller is locked thereby allowing the upper sheet to pass by being separated from the lower sheet that is stopped by the friction of the retard roller at rest.

The retard roller is being pushed toward the feed roller by spring pressure, and controlled by the torque limiter (friction clutch assembly) with which it is coupled.

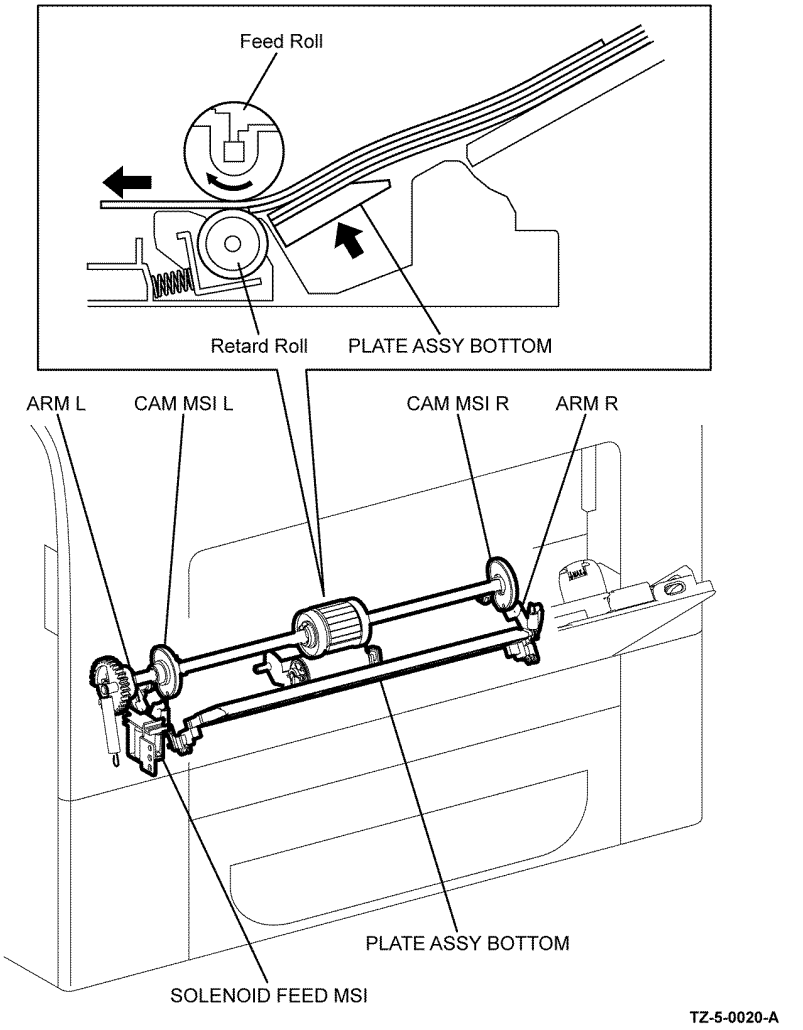

Figure 3 MSI media feed

Feeding in the Registration Section

Feeding to the registration section

Sheets are transported from the MSI to the registration section by the takeaway rollers TA1 roller assembly, TA2 roller assembly, and TA3 roller assembly, all driven by the PH motor, Figure 4.

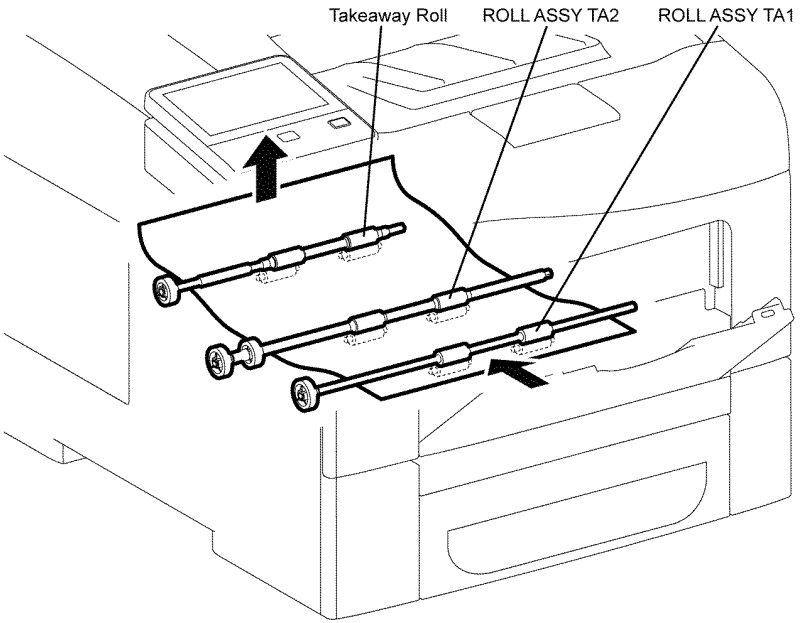

Figure 4 MSI feed to registration

Sheet are transported directly from the paper cassette through the chute and then fed to the registration section, Figure 5.

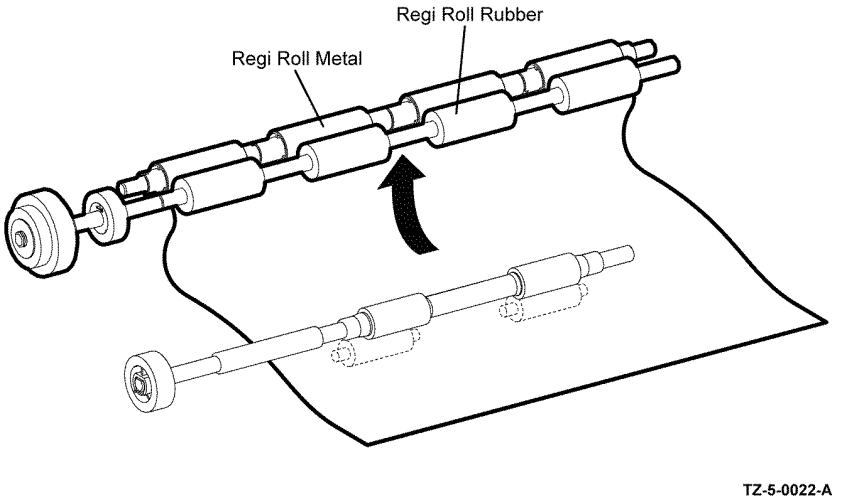

Figure 5 Cassette feed to registration

Lead-Edge registration (paper skew correction)

When a sheet fed out of the MSI or cassette assembly reaches the toner transfer section, the toner image may not be transferred at the correct position onto the sheet due to misalignment of lead edges in the MSI or cassette assembly.

To avoid this problem, the lead edge position of the sheet is corrected at the registration section before the sheet is forwarded to the toner transfer section. By thrusting the edge of the sheet against the locked regi roll the lead edge position of the sheet is corrected, Figure 6.

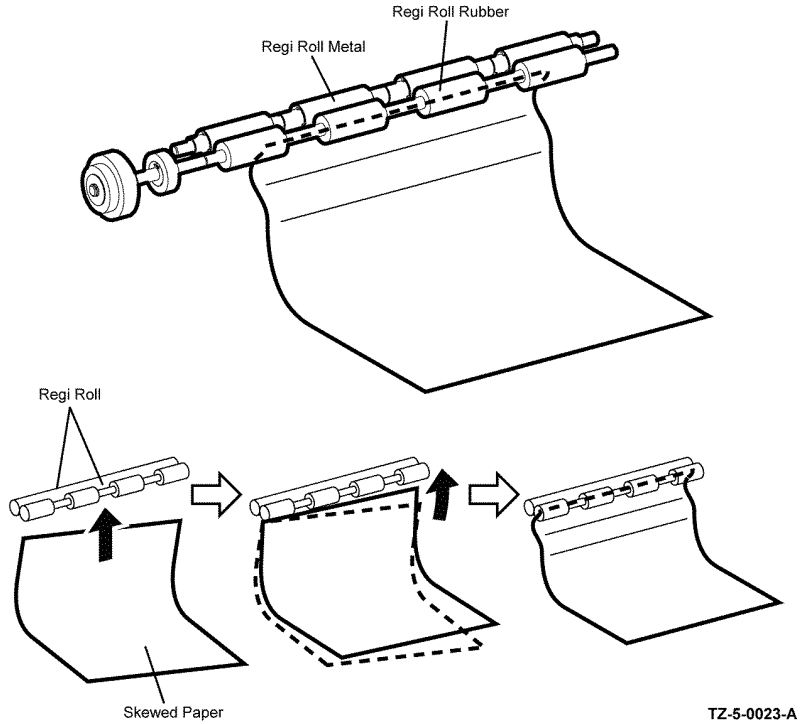

Figure 6 Lead edge correction

Feeding from the registration section

After the lead edge position of a sheet has been corrected in the registration section, at the proper timing it is fed to the toner transfer section by the rotation of the regi roll. The regi roll is rotated by the drive from the PH motor via the registration clutch assembly.

Transfer, Fusing and Exit

After a sheet has passed through the registration section, the toner image on the intermediate transfer belt (IBT) is transferred onto the sheet by the IBT and the 2nd BTR, via the drive of the developer motor. The sheet is then fed to the exit section, were the toner image is fused by the heat roll that is rotated by the drive of the main motor. The drive of the main motor is also transmitted to exit clutch 1. When energized exit clutch 1 rotates the exit roll in the sheet exit direction, and the print complete sheet is ejected from the device. The completion of the sheet exit is detected by exit senor, Figure 7.

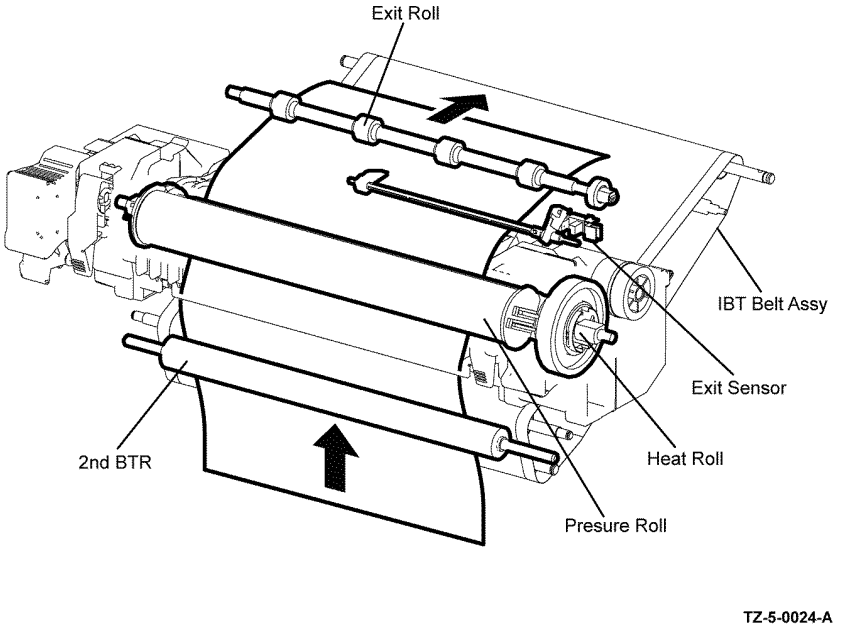

Figure 7 Transfer fusing and exit

Duplex Feeding

After a sheet has passed through the fuser assembly and side 1 printing is completed, at the proper timing the main motor drive is transferred to exit clutch 2 and the rotation of the exit roll is reversed to the duplex feed direction, and the sheet is nipped in the duplex assembly. The duplex roll is rotated by the drive of the PH motor, and the sheet is fed to the duplex registration position, Figure 8.

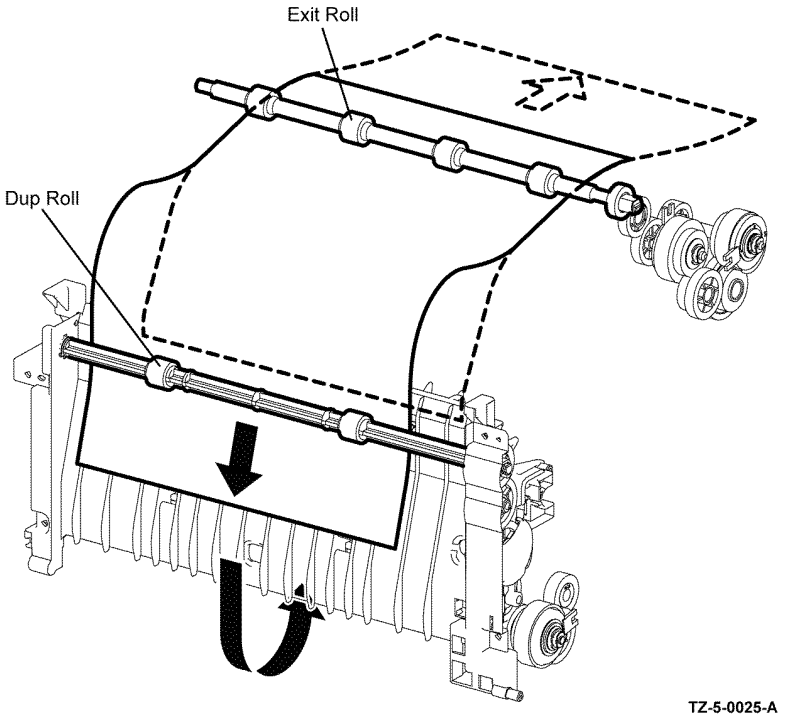

Figure 8 Media feed to duplex

Function of Major Components

This section describes the major functional components of the C400 and C405 devices and the scanner with corresponding illustrations.

- ROS Assembly
- Drives
- NOHAD & Waste Toner
- Dispenser
- Xerographics and Transfer
- Fusing
- Paper Transport
- MSI
- Exit
- Electrical (C405)
- Electrical (C400)
- 550 Option Feeder
- UI console Assembly
- FAX
- Scanner

ROS Assembly

The ROS assembly is an exposure unit that outputs laser beams to form an electrostatic latent image on the drum surface, Figure 1.

The ROS assembly consists of parts that follow.

- Scanner motor.

  The polygon mirror is installed on the rotation axis of the scanner motor.
- LDD PWBA.

  The Laser Diode (LD) installed on the Laser Diode Driver (LDD) PWBA emits laser beams to expose the drum surface.

  The LDD PWBA converts the image data input from the ESS PWBA to the ROS assembly into the laser beams and also controls the other components in the ROS assembly.
- Humidity/Temperature sensor
- SOS Sensor

  Start Of Scan (SOS) sensor generates a pulse when the laser beam passes across it. This pulse (start of scan) is sent to the MCU PWBA and used to synchronize each line of the video data.

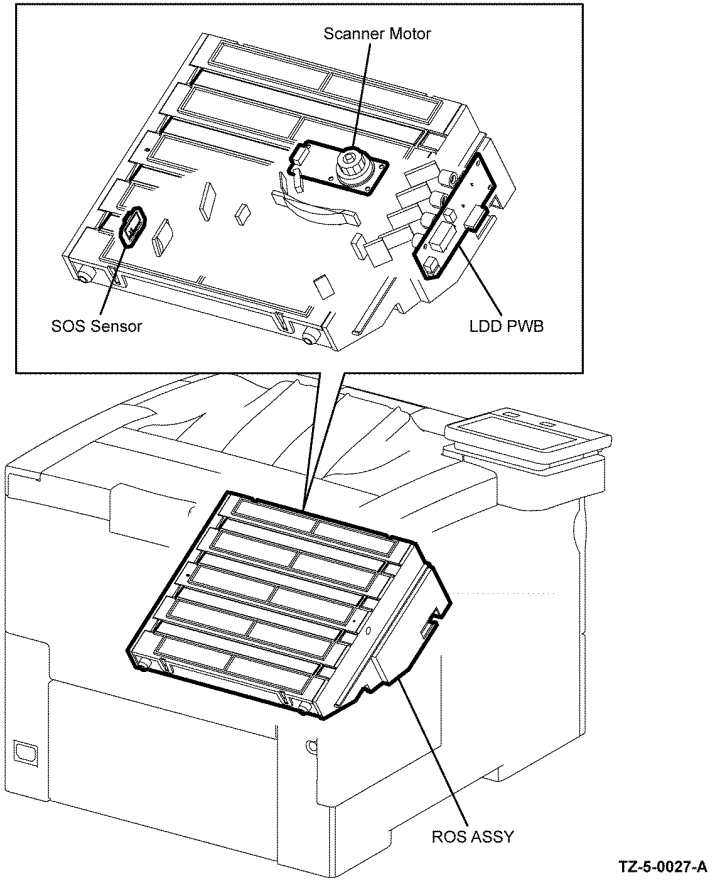

Figure 1 ROS assembly

Drives

Media is driven through the device primarily by the main drive assembly. Motion of the main drive assembly is converted by a series of gears, clutches, and solenoids to move media through the print process. The main drive assembly gets +24V power from the LVPS. Motor control signals come from the MCU PWBA, Figure 2.

The Drive assembly consists of the parts that follow.

- Main motor.

  The DC motor that drives the heat roll in the fuser assembly, the exit roller assembly in the exit section, the drum in each of the 4 color imaging units, the magnetic roller in the black imaging unit and the belt & cleaner in the transfer belt assembly.
- PH motor

  The DC motor that drives each roller of the media feed section (feed from the MSI/tray, registration, and duplex feed). Also, drives the drive shaft assembly and the auger in the waste box assembly via the gear.
- Development motor

  The DC motor that drives the magnet roller in the imaging units Y/M/C (Yellow/Magenta/Cyan).
- Takeaway clutch

  Transfers the drive of the PH motor to the takeaway roller

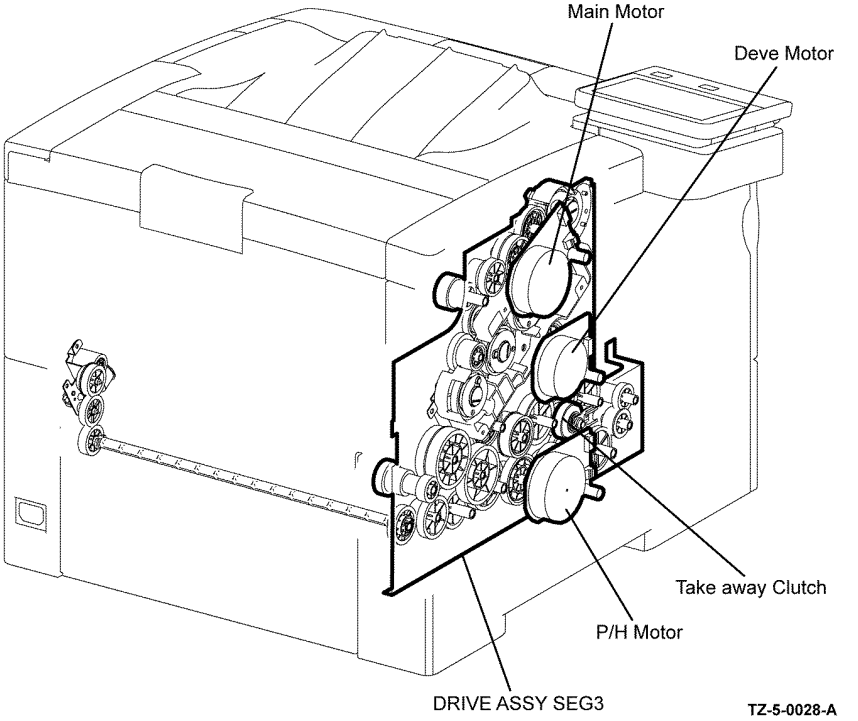

Figure 2 Main drives assembly

NOHAD & Waste Toner

Noise Ozone Heat And Dust (NOHAD) and waste toner consists of parts that follow, Figure 3.

- Main fan.
  Draws air from outside the machine, and prevents temperature rise inside the machine
- Toner full sensor.
  Detects when the waste box assembly is full.
- Waste box assembly.
  Stores the waste toner conveyed from the IBT and the 4 color CRU Xerographic development assemblies (imaging units) via the belt cleaning auger and the drum cleaning auger.

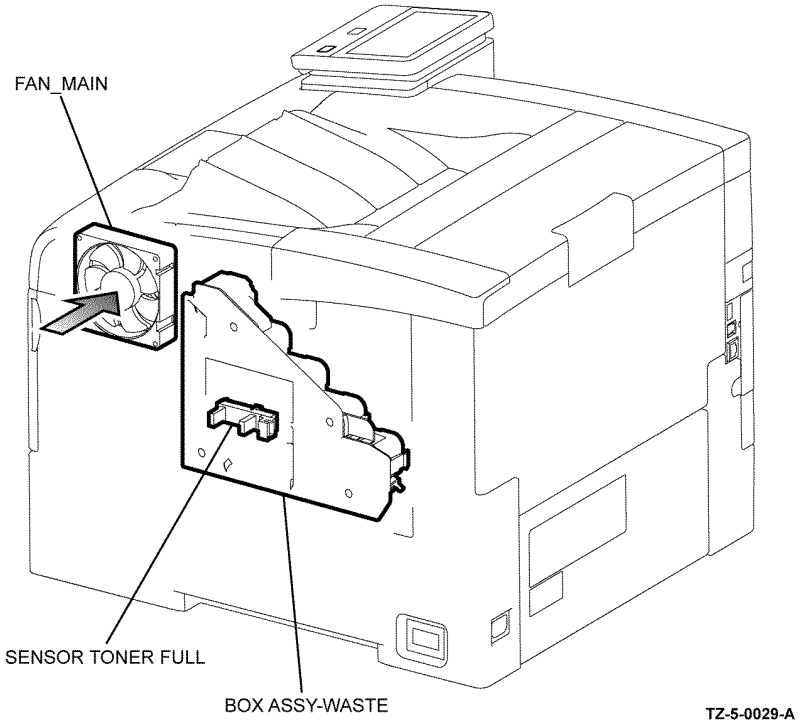

Figure 3 Waste toner and cooling

Dispenser

The upper dispenser motor assembly drives the paddle in the toner cartridge and the auger of the dispenser assembly and feeds toner to the development section in the imaging unit. The upper dispenser motor assembly consists of the parts that follow, Figure 4.

- Toner dispense motors (Y, M).
  Drives the yellow and magenta toner cartridges and the dispenser assembly via the gear.
- Toner dispense motors (C, K).
  Drives the cyan and black toner cartridges and the dispenser assembly via the gear.

The toner cartridges Y, M, C & K store toner and a small amount of carrier, also they install a toner Customer Replaceable Unit Monitor (CRUM), which is an involatile memory module that stores the toner usage information.

The dispenser assembly Y, M, C, K feeds the toner in the toner cartridges to the developer.

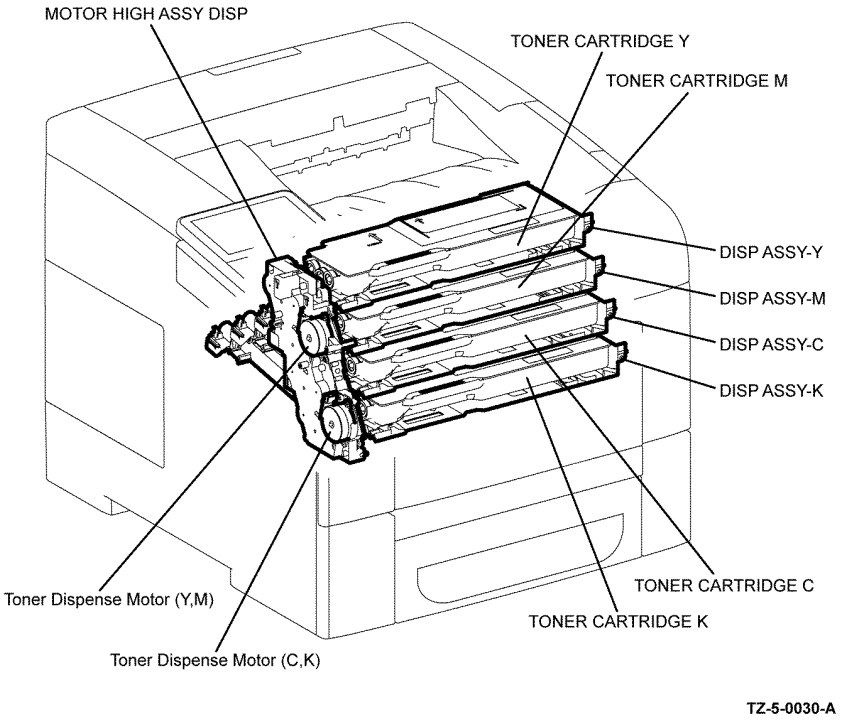

Figure 4 Dispenser

Xerographics and Transfer

The Color Toner Density (CTD) sensor assembly is a unit that includes the CTD sensor

- CTD Sensor

  The reflective color toner density sensor. Irradiates light from the LED in the sensor to the intermediate transfer belt, detects the reflected light from the intermediate transfer belt with the light receiving element, and outputs the electric signal corresponding with the light intensity. Before the secondary transfer, detects the toner patch density on the intermediate transfer belt.

CRU Xerographic development assemblies Y, M, C & K

Are units that consists of the drum to form the static latent image and toner image, and the developer to transfer toner to the drum in yellow, magenta, cyan, and black, Figure 5.

- Drum

  Forms the static latent image and the toner image.
- BCR

  Bias Charging Roller (BCR) charges the drum.
- Cleaning Roll

  Cleans toner on the BCR surface.
- Cleaning Blade

  Cleans the remaining toner from the drum after the toner image is transferred onto the sheet.
- Magnet Roll

  Contacts with the drum and forms the toner image on the drum.
- Auger

  Stirs toner.
- Trimmer Rod

  Regulates toner and carrier pile height on the magnet roller.

Transfer belt assembly (IBT)

The primary transfer unit that transfers the toner image on the drum surface of each color to the intermediate transfer belt, Figure 5.

The IBT consists of the following components:

- 1st BTR Roll (Y), (M), (C) &(K)

  Impresses the positive electric charge on the reverse side of the IBT in printing, and transfers the toner image formed on the drum to the IBT.
- IBT

  Reduplicates and transfers the toner image formed on the drums of each color.
- Back Up Roll

  Contacts with the 2nd BTR via the IBT in the secondary transfer, and transfers the toner image on the IBT to the sheet.
- Belt Cleaner

  After the toner image is transferred onto the sheet, cleans the remaining toner on the IBT.

Transfer roller assembly

The transfer roller assembly consists of the following components:

- Transfer roller

  Contacts with the reverse side of the toner transfer face on the sheet, and transfers the toner image formed in the IBT to the sheet, Figure 5.
- Eliminator

  Neutralizes the sheet.

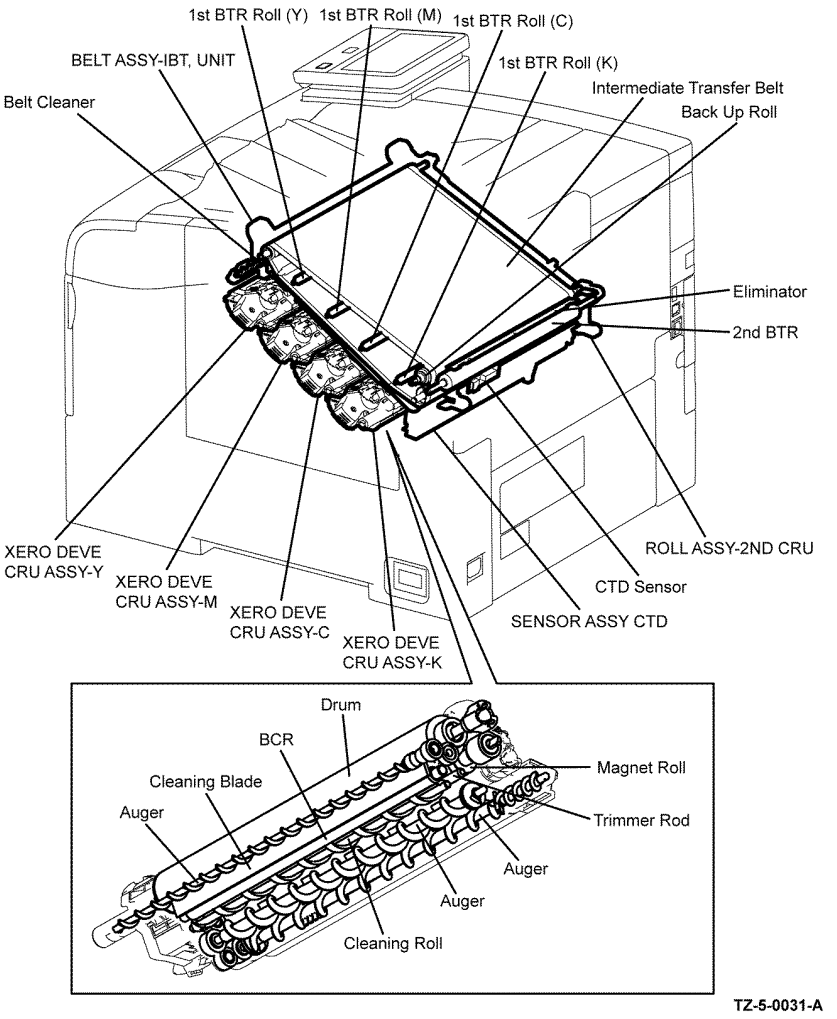

Figure 5 Transfer

Fusing

Fuser assembly

The fuser receives its drive from the main drive assembly. After the toner image is transferred to the media, the media passes through the fuser. The pressure roller is pressed against the heat roller to melt the toner and bond the image to the media. As a CRU, the fuser is replaced as a unit, Figure 6.

The fuser assembly mainly of the following components:

- Heat Roll

  A metal roll with a surface for transferring heat to fuse toner on a sheet.
- Pressure Belt

  A belt containing the pressurization system inside. Combined with the heat roll it impresses toner onto the sheet.
- Heater Lamp

  A heating element sealed inside the heat roll.
- Center Temperature Sensor (contactless type)

  A thermistor, located in the fuser, detects the surface temperature on the heat roll and reacts corresponding with temperature changes. Based on the temperature detected, the thermistor controls ON (energize) / OFF (extinguish) operation.
- Side Temperature Sensor (contact type)

  A thermistor, located in contact with the heat roll detects the surface temperature on the heat roll and reacts corresponding with temperature changes. Prevents the abnormally high temperature of the heat roll.
- Thermostat

  Located in series with the power source of the heater lamp, and prevents the secondary excess rise of temperature by opening when the temperature excess rise preventions (primary) by temp. sensor (thermistor) fails and temperature on the interface part reaches to a certain level.
- Fuse

  A fuse is installed in fuser assemblies that are shipped as spare parts.

The life expectancy of the Fuser is 200,000 Letter/A4 size pages. Several factors can reduce Fuser life:

- Greater than 5% coverage
- Printing on heavy media
- Printing on transparencies or specialty media

The device shuts off power to the fuser assembly for the reasons that follow:

- Fuser error
- Jam error
- Cover open
- ROS error
- CPU or NVRAM error
- Fan error

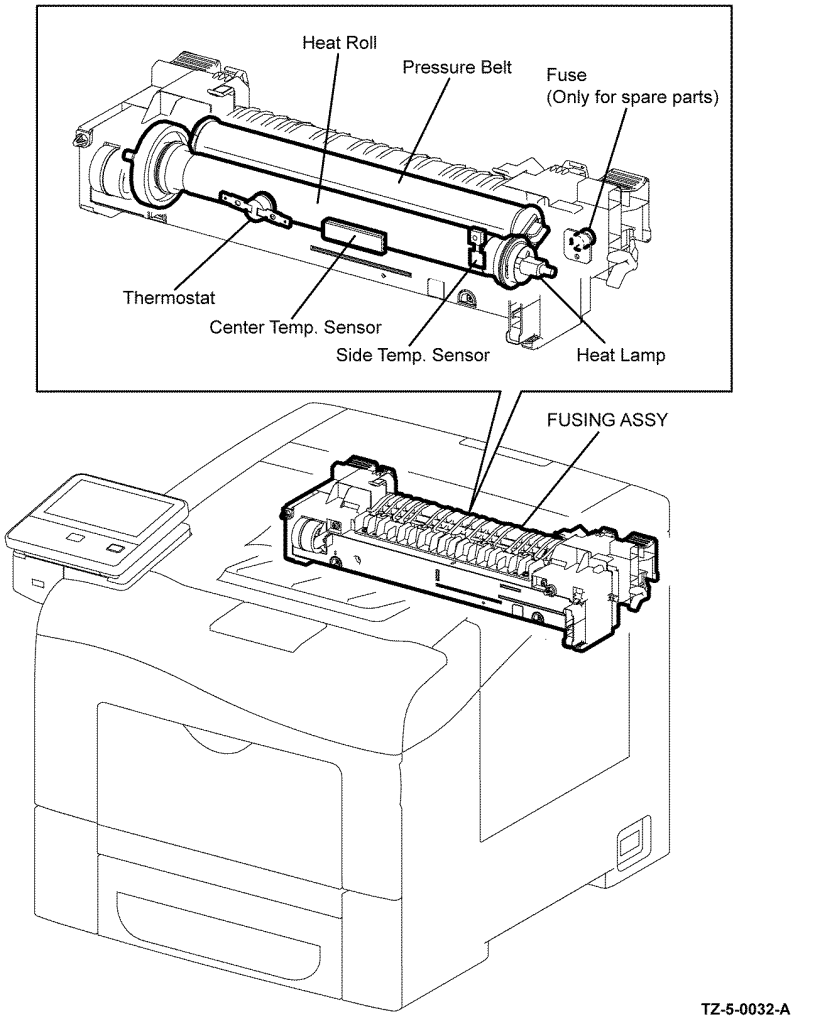

Figure 6 Fuser

Paper Transport

Registration clutch assembly

Transfers the drive of the PH motor to the registration roll, Figure 7.

Registration chute assembly

The registration chute assembly consists of the following components:

- No paper sensor
  By change of the actuator, detects presence or absence of paper in the paper cassette.
- Registration sensor
  Detects that the lead edge of a sheet has reached the registration section.

Feed clutch assembly

Transfers the drive of the PH motor to the feed rolls.

Duplex clutch

Transfers the drive of the PH motor to the duplex roll inside the duplex assembly.

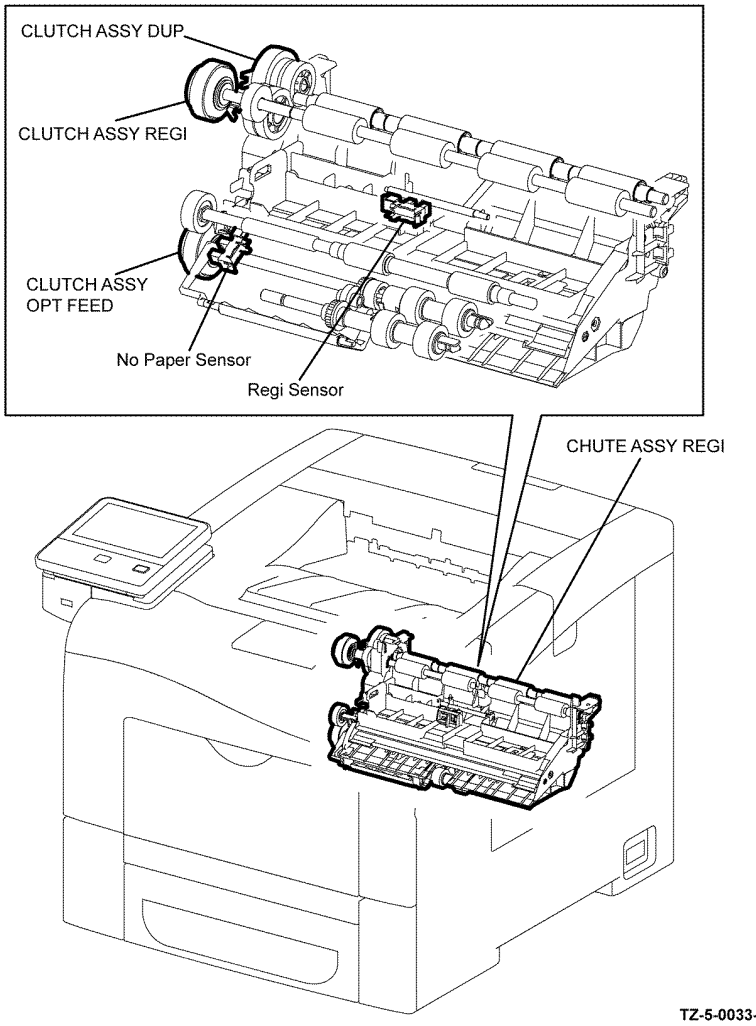

Figure 7 Registration and feed

MSI

MSI Detect sensor

Detects the installation of the MSI tray assembly, Figure 8.

MSI No paper sensor

Actuator movement indicates presence or absence of paper in the MSI.

MSI Feed solenoid

Transfers the drive of the PH motor to the MSI feed roll.

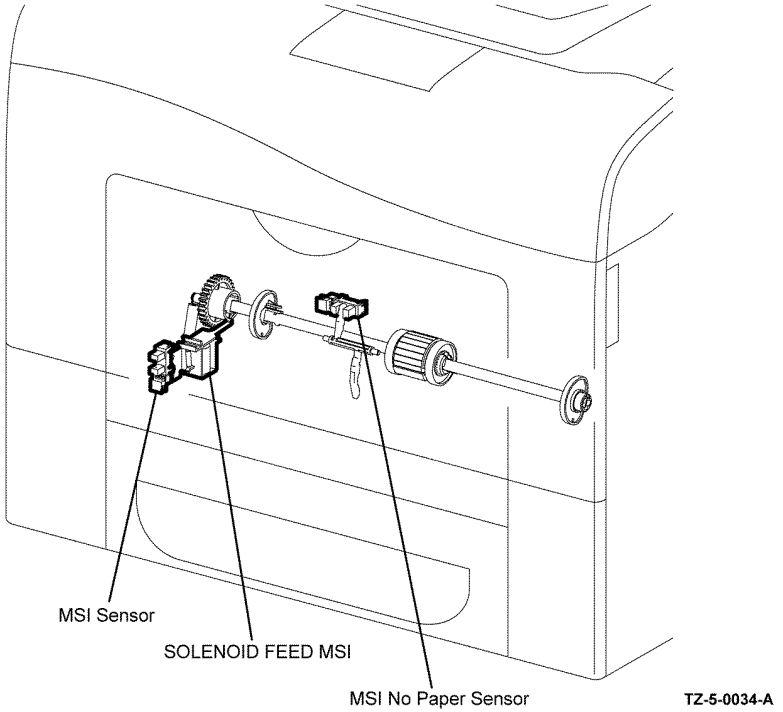

Figure 8 MSI

Exit

The exit assembly discharges the media from the fuser assembly to the output tray or back through the duplex path, Figure 9.

Exit sensor

Detects a sheet as it passes out of the fuser assembly.

Full stack sensor

Detects a sheet as it passes out of the fusing unit.

Exit drive assembly

The exit drive consists of the components that follow:

- Exit clutch 1

  Transfers the drive of the main motor to the exit roller assembly. The exit roller rotates in the paper exit direction.
- Exit Clutch 2

  Transfers the drive of the main motor to the exit roller assembly. The exit roller rotates in the duplex feed direction.

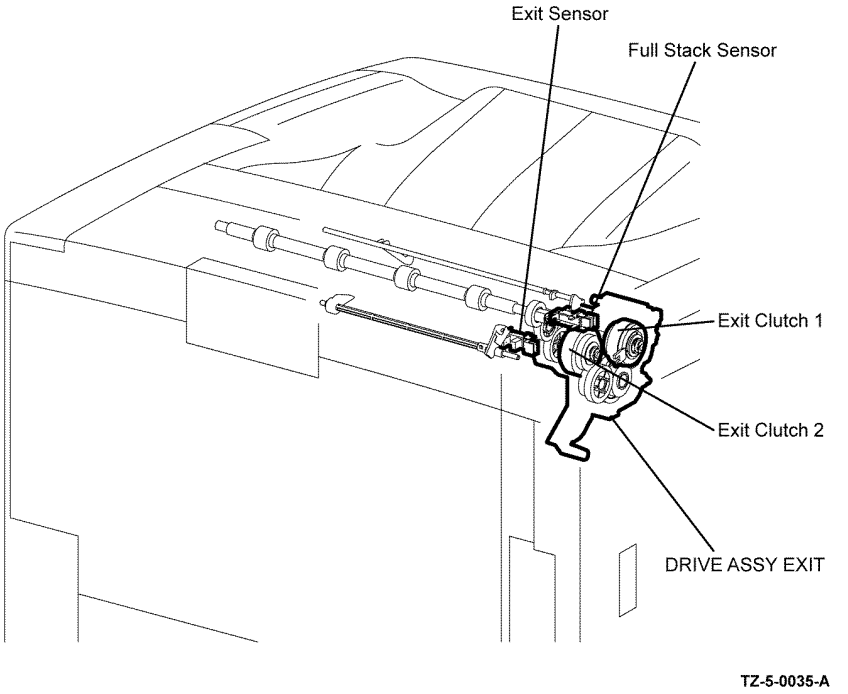

Figure 9 Exit and duplex feed

Electrical (C405)

The electrical components provide the power to operate the imaging input and output components, and process image data, Figure 10.

UI Console assembly, PL 1.1B Item 4.

Consists of the LCD touch screen, LED energy saver and Home buttons. LED machine status display, NFC response LED and ICCR storage garage.

Rear interlock switch harness assembly, PL 14.1 Item 3.

Detects the opening and closing of the rear cover assembly.

Front cover interlock sensor harness, PL 18.2 Item 38.

Detects the opening and closing of the front cover assembly.

MCU PWBA, PL 18.2 Item 24.

Manages the printing operation according to information obtained through communications with the ESS PWBA and from sensors and switches located throughout the device. The MCU PWBA performs these functions.

The MCU PWBA performs these functions.

- Communicates with the Image Processor.
- Controls the print sequence.
- Distributes low DC voltages to various printer components.
- Monitors printer status.
- Maintains a running print count.
- Writes the NVRAM settings.
- Controls printer options.

ESS PWBA, PL 18.2 Item 4.

A printer controller. The ESS PWBA receives host data, buffers, stores, and sends the data to the print engine in a rasterized format. The secondary function of the ESS PWBA is to provide print control, control panel control, ROS Unit control, networking via the Ethernet, FAX connection, FDI connection, WiFi connection, configuration setup, error reporting, and job recovery. The ESS PWBA connects to the MCU PWBA directly. The UI console is connected to the ESS PWBA and signals pass to the MCU PWBA via the ESS PWBA.

LVPS PWBA, PL 18.1 Item 14.

Generates the +24VDC and +5VDC from the AC power source to provide power for each component.

HVPS TR PWBA, PL 18.2 Item 30.

Provides high voltage to the 1st BTR contained in the IBT.

HVPS XD PWBA, PL 18.2 Item 25.

Provides high voltage to the magnet roll and BCR contained in the CRU xerographic development assembly (imaging unit) for each color.

PWBA EEPROM, PL 18.2 Item 27.

Non-volatile memory that stores the machine information.

Wireless adaptor, PL 18.2 Item 90.

Controls the wireless network interface.

EMMC card, PL 18.2 Item 37.

Non-volatile memory that stores the machine information.

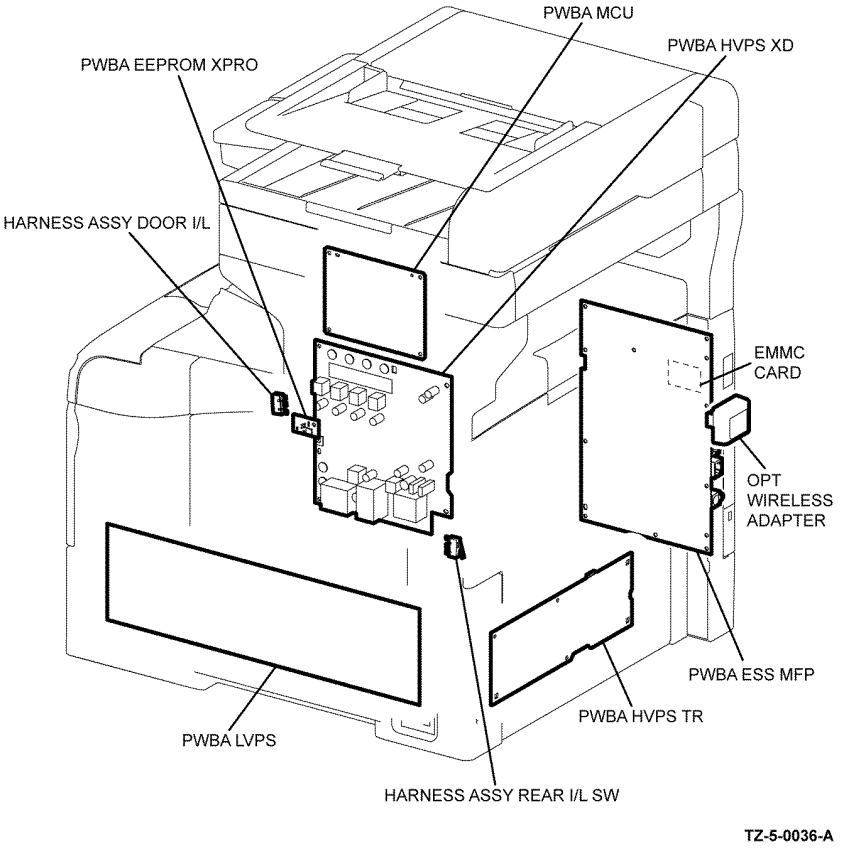

Figure 10 C405 Electrical

Electrical (C400)

The electrical components provide the power to operate the imaging input and output components, and process image data, Figure 11.

UI Console assembly, PL 1.1A Item 4.

Consists of the LCD touch screen, LED energy saver and Home buttons. LED machine status display, NFC response LED and ICCR storage garage.

Rear interlock switch harness assembly, PL 14.1 Item 3.

Detects the opening and closing of the rear cover assembly.

Front cover interlock sensor harness, PL 18.2 Item 38.

Detects the opening and closing of the front cover assembly.

MCU PWBA, PL 18.2 Item 24.

Manages the printing operation according to information obtained through communications with the ESS PWBA and from sensors and switches located throughout the device. The MCU PWBA performs these functions.

The MCU PWBA performs these functions.

- Communicates with the Image Processor.
- Controls the print sequence.
- Distributes low DC voltages to various printer components.
- Monitors printer status.
- Maintains a running print count.
- Writes the NVRAM settings.
- Controls printer options.

ESS PWBA, PL 18.2 Item 4.

A printer controller. The ESS PWBA receives host data, buffers, stores, and sends the data to the print engine in a rasterized format. The secondary function of the ESS PWBA is to provide print control, Control Panel control, ROS Unit control, networking via the Ethernet, FDI connection, WiFi connection, configuration setup, error reporting, and job recovery. The ESS PWBA connects to the MCU PWBA directly. The UI console is connected to the ESS PWBA and signals pass to the MCU PWBA via the ESS PWBA.

LVPS PWBA, PL 18.1 Item 14.

Generates the +24VDC and +5VDC from the AC power source to provide power for each component.

HVPS TR PWBA, PL 18.2 Item 30.

Provides high voltage to the 1st BTR contained in the IBT.

HVPS XD PWBA, PL 18.2 Item 25.

Provides high voltage to the magnet roll and BCR contained in the CRU xerographic development assembly (imaging unit) for each color.

PWBA EEPROM, PL 18.2 Item 27.

Non-volatile memory that stores the machine information.

Wireless adaptor, PL 18.2 Item 90.

Controls the wireless network interface.

EMMC card, PL 18.2 Item 37.

Non-volatile memory that stores the machine information.

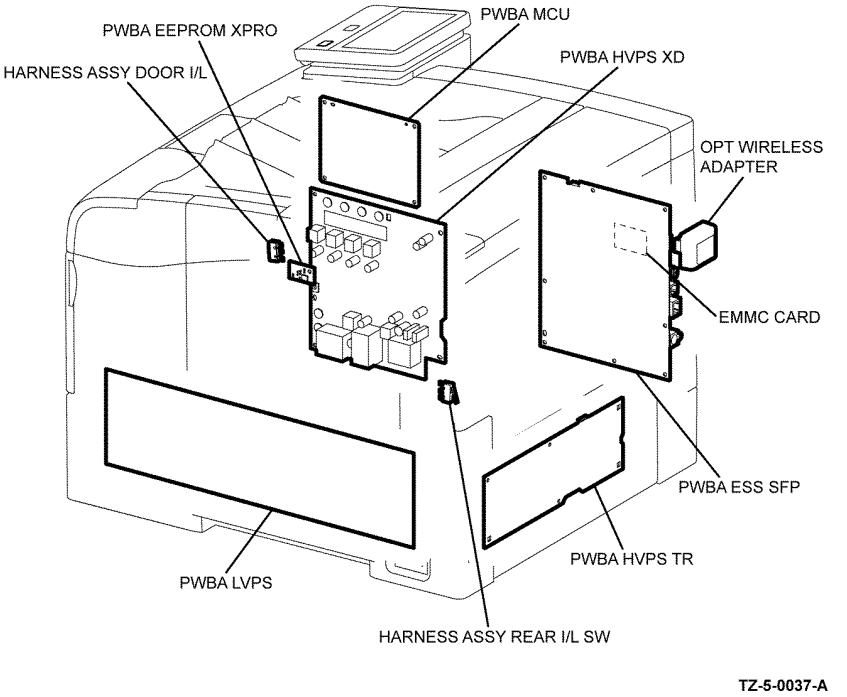

Figure 11 C400 Electrical

550 Option Feeder

The 550 optional tray is identical to the standard tray 1. The feeder assembly is also identical to those used for tray 1. The optional tray is therefore functionally equivalent in terms of the feeder mechanism that moves media from the tray into the device, Figure 12.

550 Option feeder PWBA

Controls each component in the optional tray.

550 Option feed clutch assembly

Transfers the drive of the 550 option drive assembly to the 550 option feed and nudger rolls.

550 Option size switch assembly

Detects a paper size, and presence or absence of paper in the 550 option paper cassette.

550 Option drive assembly

The DC motor that drives each roll of the paper feed section in the optional tray.

550 Option main feed assembly

The 550 option main feed assembly consists of the following components:

- No paper sensor. By change of the actuator position, signals the absence of paper in the paper cassette
- Registration sensor. Detects that the lead edge of a sheet has reached the registration section.

550 Option registration clutch assembly

Transfers the drive of the 550 option drive assembly to the 550 option registration roll.

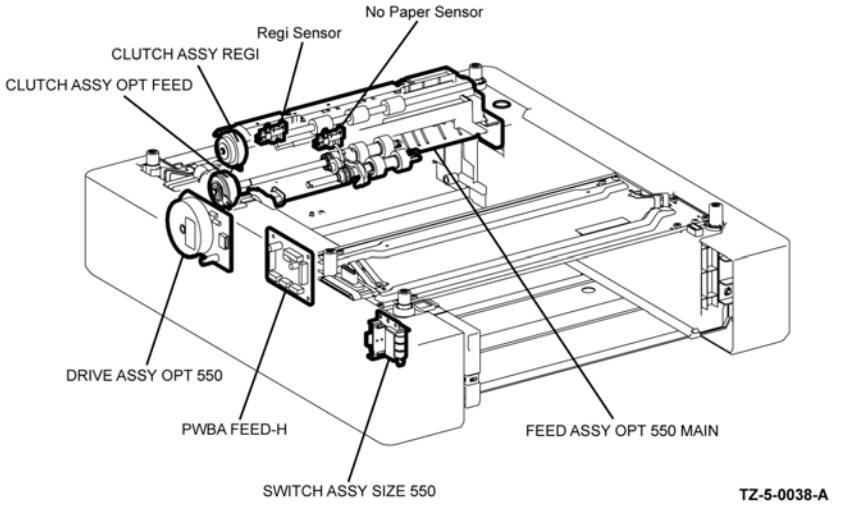

Figure 12 Optional 550 paper tray

UI console Assembly

- UI Console assembly C405
- UI Console assembly C400

UI Console assembly C405

UI Console displays the state of the printer via the LCD touch screen and LED machine status display, and enables operation the device by means of the touch screen and buttons.

The UI speaker generates synchronised operational sounds for the UI console. The UI speaker is attached to the side of main device

Figure 13. The User Interface (UI) consists of the components that follow:

- LCD touch screen
- LED energy saver button
- Home button
- LED machine status display
- NFC response LED
- ICCR storage garage

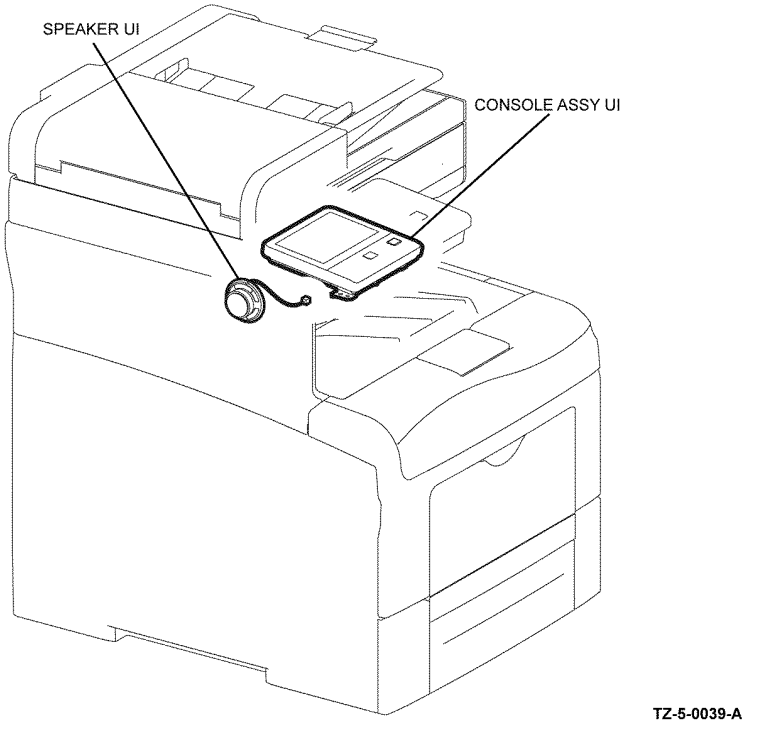

Figure 13 C405 User interface

UI Console assembly C400

UI Console displays the state of the printer via the LCD touch screen and LED machine status display, and enables operation the device by means of the touch screen and buttons.

The UI speaker generates synchronised operational sounds for the UI console. The UI speaker is attached to the side of main device

Figure 14. The User Interface (UI) consists of the components that follow:

- LCD touch screen
- LED energy saver button
- Home button
- LED machine status display
- NFC response LED
- ICCR storage garage

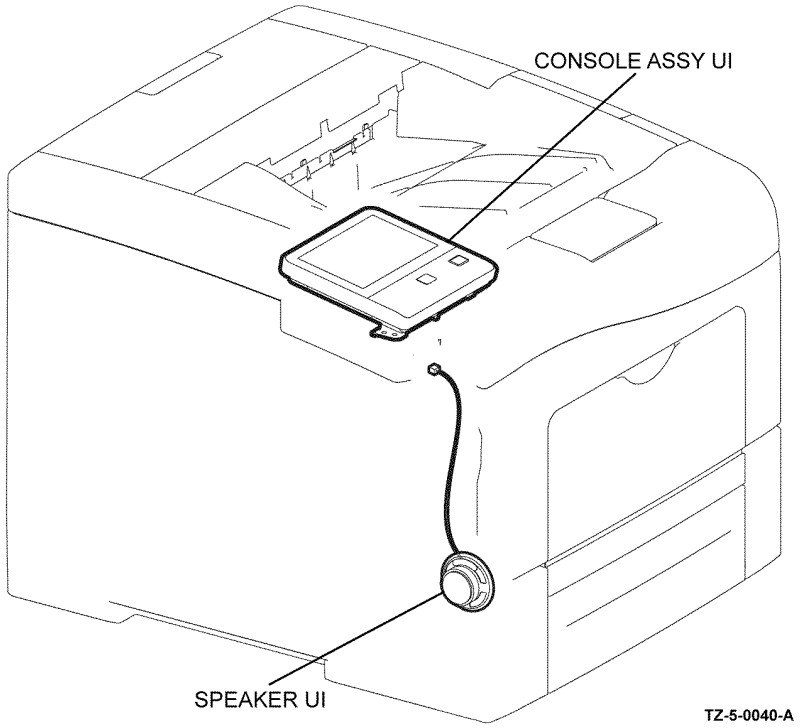

Figure 14 C400 User interface

FAX

Fax PWBA

The PWBA for controlling the fax signal, Figure 15.

Speaker assembly

Indicates an incoming fax call. The speaker is located on the left side of the device, behind the HVPS XD PWBA.

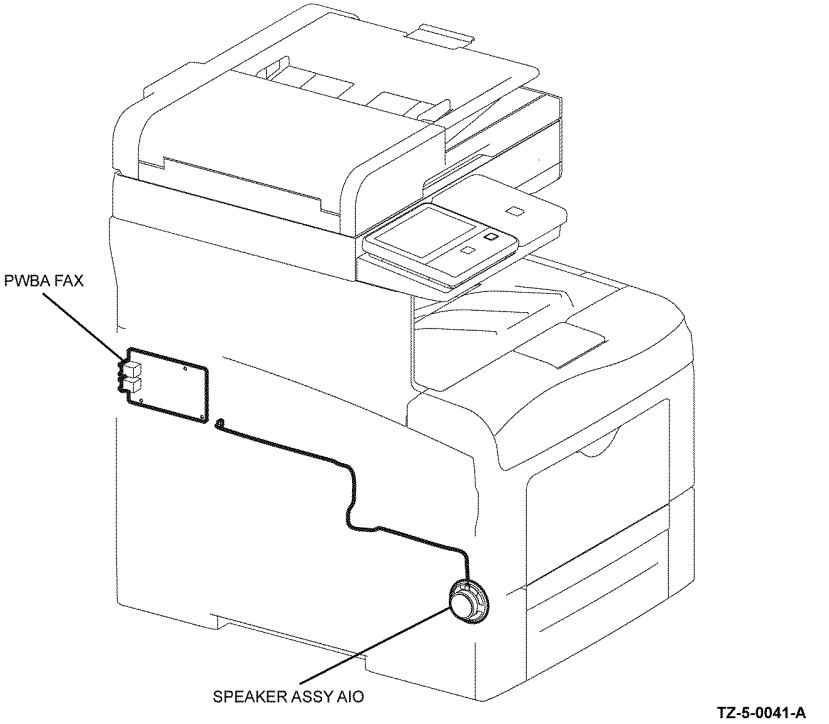

Figure 15 Fax

Scanner

The Image Input Terminal (IIT) consist of the components that follow:

- IIT assembly
- DADF assembly

IIT assembly

Figure 16. The Image Input Terminal (IIT) consist of the components that follow:

- Carriage motor

  The stepper motor that drives the carriage assembly.
- Scanner home position sensor (CVT position)

  Part of the rear side of the carriage assembly frame functions as an actuator and blocks the light on the scanner home position sensor, thus detecting the carriage is in the home position.
- Platen angle s sensor

  Detects when the platen is open/closed.
- LED lamp, refer to Document Scanning at the IIT.
- CIS PWB, refer to Document Scanning at the IIT.

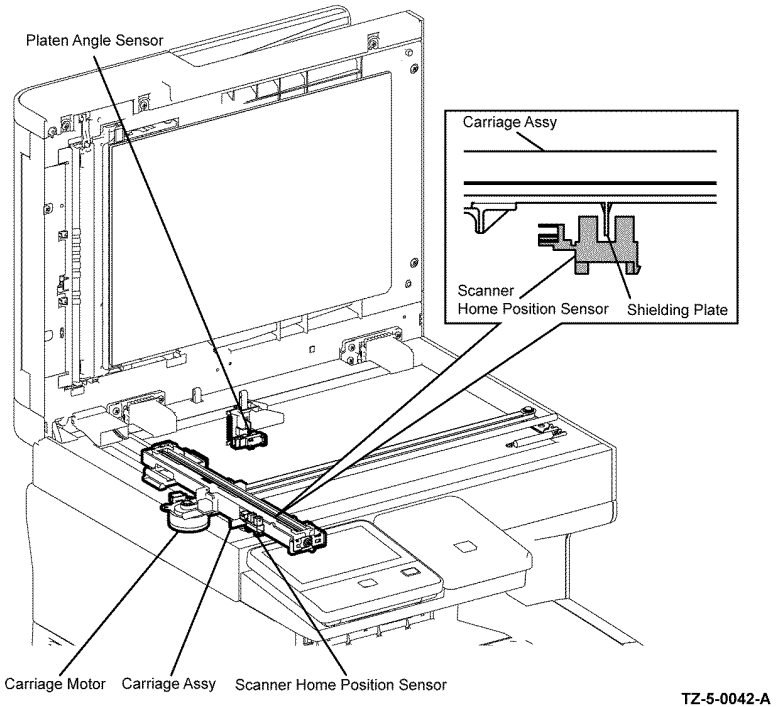

Figure 16 IIT assembly

DADF assembly

Figure 17. The DADF consists of the components that follow:

- DADF document sensor

  Detects when a document is present on the DADF feeder tray.
- DADF cover sensor

  Detects whether the DADF top cover is open.
- DADF feed sensor

  Located near the side of the DADF feed roll, detects the paper passing.
- DADF registration sensor

  Located near the side of the DADF Registration roll, detects the paper passing.
- DADF motor

  The DADF motor rotates the DADF nudger roll, DADF feed roll, DADF takeaway roll, DADF registration roll, DADF transport roll, and DADF exit roll.
- CIS Assembly

  Scans the image on the back side of the document in the duplex mode.
- DADF PWBA

  Controls the whole DADF system.

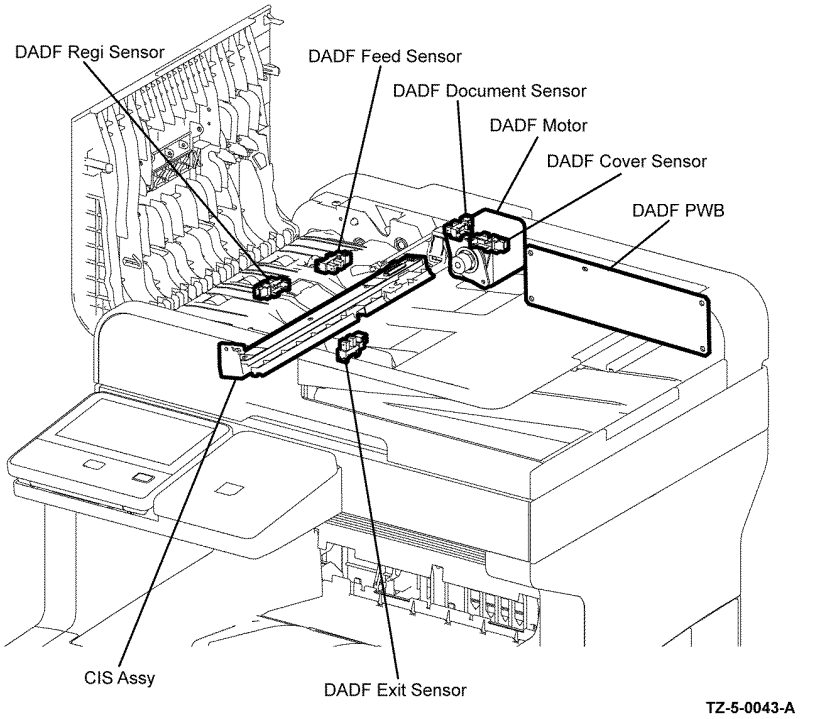

Figure 17 DADF feed

- Document Stopper

  When a document is loaded in the DADF, the document stopper is locked to prevent the document from being moved forward.

  When the DADF starts feeding, the front portion of the pickup assembly is lowered. This unlocks the document stopper that blocks the document. When the document stopper is pressed by the lead edge of the document in the feed direction, the document is fed. When the paper feed is completed, the pickup assembly returns to its original position, Figure 18.

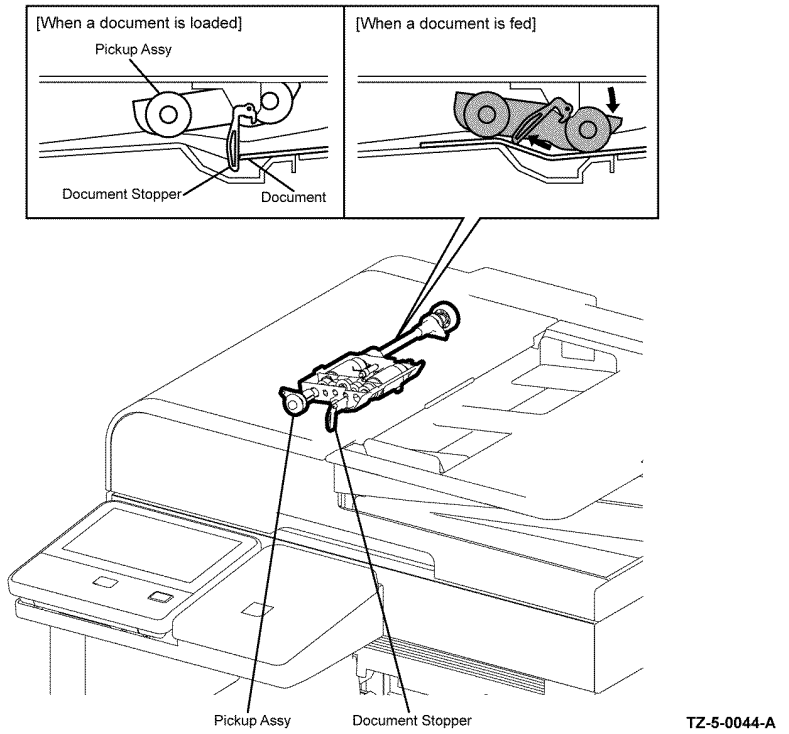

Figure 18 DADF document stopper

- DADF pinch roll

  The DADF pinch roll is normally pressed against the direction of the DADF takeaway roll by the pressure of the spring.

  Documents are fed between the DADF pinch roll and the DADF takeaway roll to the CVT window by the rotation of the DADF takeaway roll.

  If a jam occurs between the DADF pinch roll and the DADF takeaway roll, it is difficult to retrieve the jammed documents due to the high spring pressure of DADF pinch roll.

  To retrieve the jammed documents, open the DADF top cover to release the spring pressure, thereby making enough clearance between the DADF pinch roll and the DADF takeaway roll, Figure 19.

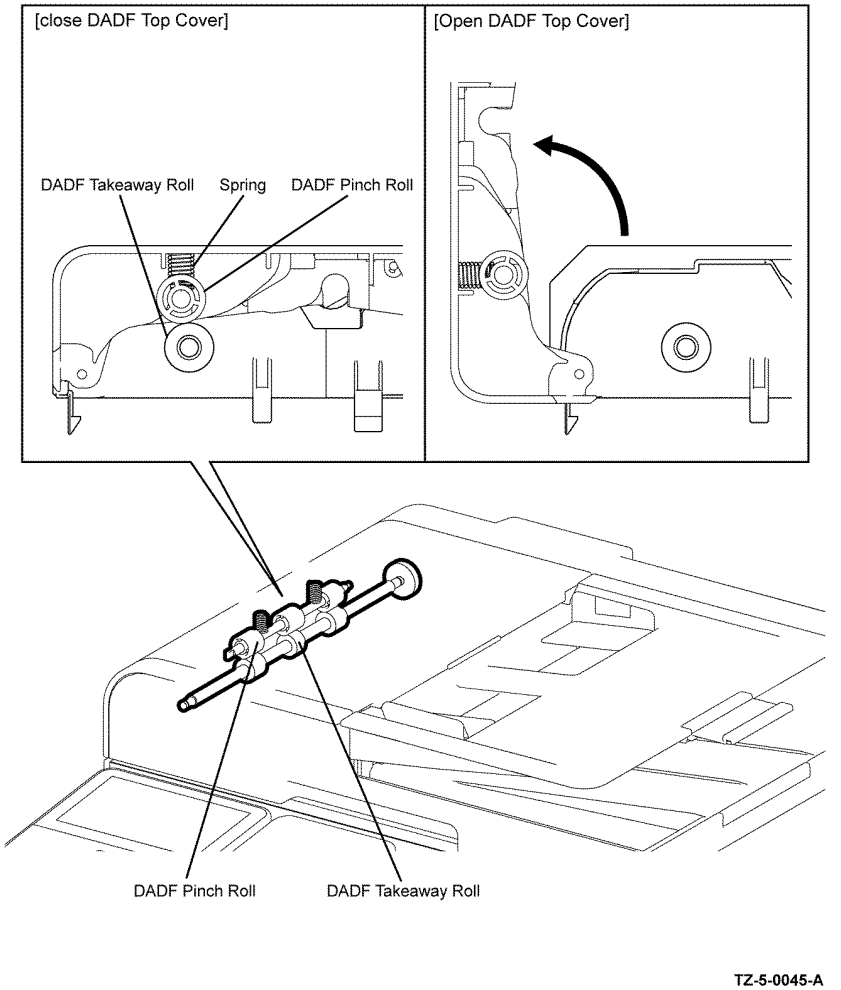

Figure 19 Takeaway and pinch roll

Data Flow

- Data Flow Image Output Terminal (IOT)
- Data Flow Scanner

Data Flow Image Output Terminal (IOT)

The print data (electrical signals) from the print controller flows as shown below before it is turned into a print, Figure 1.

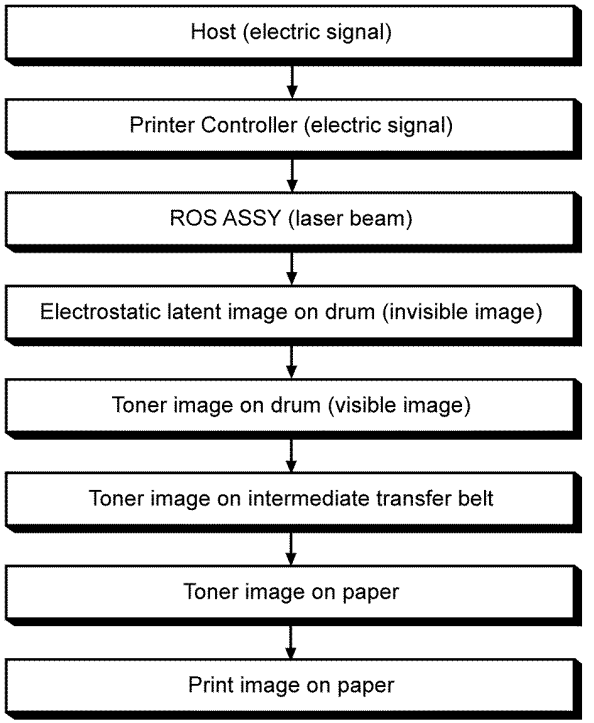

Figure 1 Print data flow

Data Flow Scanner

The image data from the document on the IIT or DADF encounters the components that follow before it is processed in the print engine section, Figure 2.

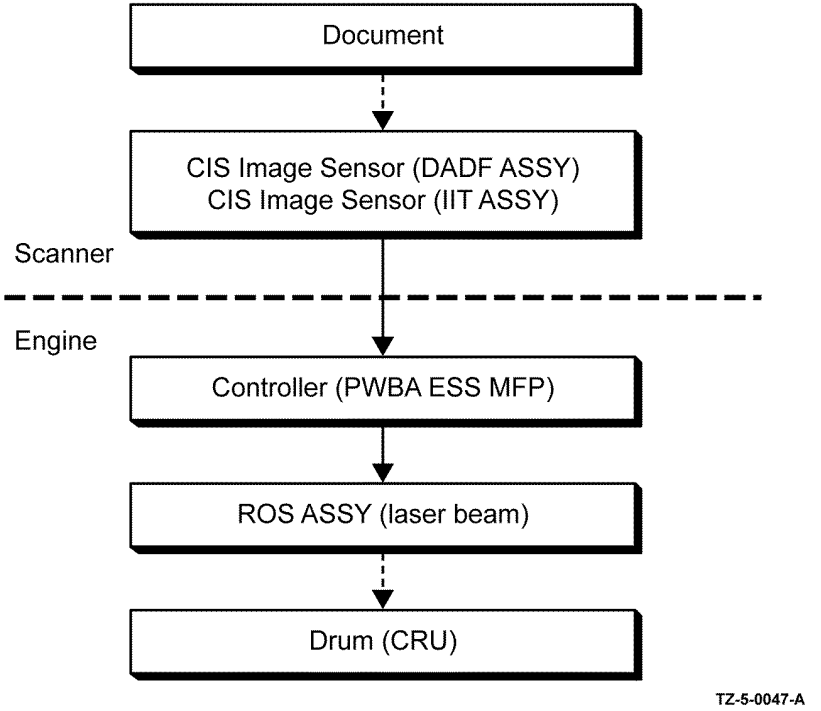

Figure 2 Image data flow

Control

This section describes the components that control the printer processes, color registration, fusing, and scanning.

- Paper Size Detect (optional feeder only)
- Process Control
- Potential Control
- Toner Density Control
- High Area Coverage Mode
- Admix Mode
- ADC Sensor Adjustment
- Color Registration Control
- Fuser Assembly Control
- Document Scanning Steps
- System Configuration

Paper Size Detect (optional feeder only)

Detects paper size, and presence or absence of paper in the 550 paper cassette.

Load paper in the paper cassette, then adjust the left guide assembly, right guide assembly, and end guide assembly to the paper size. Linked with the end guide assembly, the position of the size slot plate is changed, and the three size actuators on the side of the cassette depress the size switch assembly. The detected paper size corresponds to the combination of actuators depressing the size switch.

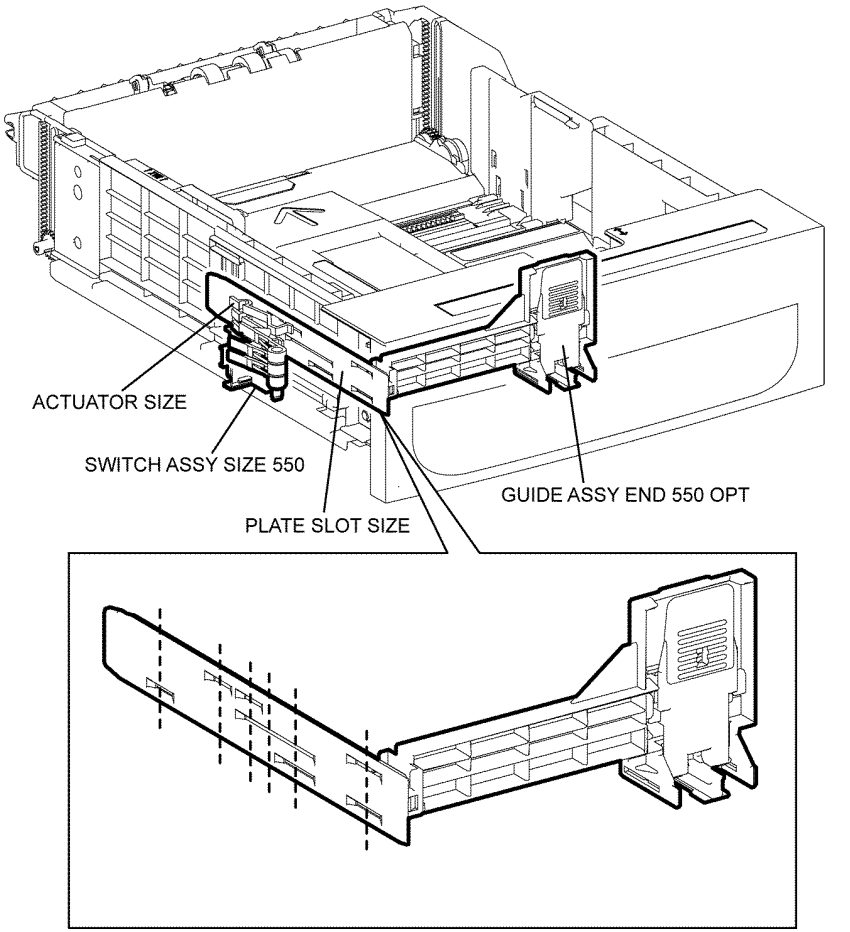

Figure 1 Paper size detection

Process Control

The parameters related to image information must be corrected to stabilize printing. The control of the entire printing process including the parameter correction control is called process control. The process control is performed by the following two methods after every 30 cumulative prints upon termination of a print run or during a continuous run:

- Potential Control
- Toner Density Control

To supplement the above two controls, the following controls are provided:

- High Area Coverage Mode
- Admix Mode
- ADC Sensor Adjustment

Potential Control

To stabilize the print image density, the drum charging voltage, the developing DC voltage, and the LD light amount of the ROS are adjusted according to the ever-changing developing capability of each color developer. The adjusted drum charging voltage, the developing DC voltage, and the LD light amount of the ROS are fed back to keep the print image density constant.

The outline of control is as follows:

1. The humidity sensor (temperature and humidity sensor) detects the temperature and humidity.
2. The patches of respective colors (yellow, magenta, cyan, and black) for the potential control are generated and transferred onto the IBT.
3. The ADC Sensor (Auto Density Control) detects the density of the patches on the IBT.
4. The drum charging voltage, the developing DC voltage, and the LD light amount of the ROS are adjusted for each color according to the detected patch density.

Toner Density Control

The toner density must be kept constant to stabilize the print image quality. The control system for this purpose is called toner density control.

1. ICDC (Image Count Dispense Control): The quantity of the toner to be consumed in the developing process is calculated in terms of toner dispensing time based on the quantity of the video signals that have been input to the ROS. The amount of the toner to be fed to the developer section is controlled by turning on the toner motor for the toner-dispensing time thus calculated.
2. ADC (Auto Density Control): The patches of respective colors (yellow, magenta, cyan, and black) for the toner density control are generated under the specified potential condition, and then transferred onto the IBT. The ADC Sensor measures the densities of these patches and compares them with the reference value. If the toner density is lower than the reference value, the toner dispense quantity is increased at the next printing. If the toner density is higher than the reference value, the toner dispense quantity is reduced at the next printing. The toner dispense quantity is calculated in terms of the toner dispensing time on a color-by-color basis.

High Area Coverage Mode

A continuous printing of a high area coverage data that exceeds the extra toner dispense capability causes the toner density in the developer to be lowered. The High Area Coverage Mode postpones the next page feed and dispenses the toner during this time if the toner dispense time has reached the specified value during a continuous printing.

Admix Mode

This mode executes extra toner dispensation to prevent the toner density from being lowered whenever the value of the toner density control patch measured by the ADC Sensor falls far below the reference value. If the toner density level cannot be recovered even after this operation, it is determined that the toner has run out.

ADC Sensor Adjustment

The ADC Sensor is a reflection type sensor that irradiates the light from its LED onto the target and detects the reflected light at its photoreceptor and outputs electric signals responsive to the amount of the detected light. To ensure an accurate patch density measurement, the surfaces of the ADC sensor is cleaned to remove soil due to toner, etc., and the light quantity adjustment is made so that the reflected light quantity satisfies the predetermined value when the patch for potential control and toner density control are created.

Color Registration Control

The printer uses a tandem system where the drums and developers are arranged respectively for each of yellow, magenta, cyan, and black colors. Since the four color-separated images overlay one another on the print medium, a color shift may occur. The color registration control calculates how much the registration is shifted, and adjusts the ROS write timing. The lateral registration control adjusts all of the four colors in lateral directions.

The color registration control is executed during a process control based on the change in the internal temperature and the print count.

The Color Registration Control follows this process:

1. With no toner on the Belt, the output values of the ADC sensor is measured to determine the threshold value.
2. The patch for color registration control is generated on the IBT. This patch comprises four cycles of a color pattern, each containing 10 mm color bars starting with a black trigger line followed in order by K, C, K, M, K, and Y.
3. The density of the patch is measured by the ADC sensor.
4. The shift correction amount is calculated from the threshold value determined in Step 1, and the patch density measured in step 3.
5. The ROS write timing is changed according to the shift correction amount.

Fuser Assembly Control

Fuser Assembly Temperature Control

To control the fuser assembly temperature, the target temperature is set, and then the heater lamp is turned on/off so that the surface temperature of the heat roll satisfies the target value.

The surface temperature of the heat roll is detected by the temp. sensor (NCS = Non Contact Sensor) in the middle of the heat roll and the temp. sensors (STS= Soft Touch Sensor) at the end sections. When the temperature detected is higher than the target value, the heater lamp is turned off. When the temperature is below the target value, the heater lamp is turned on.

However, the STS may detect a temperature lower than the actual value when an error occurs during the temperature detection. To prevent, in such a case, the heater lamp from activating for an excessive duration causing the fuser assembly to melt or burn, the heater lamp is turned off unless warm-up is completed within the specified time.

The target temperature varies depending on the printer status such as warm-up, printing, or process control, and is calibrated according to the interior temperature detected by the hum/temp sensor, the temperature difference between the middle and the ends of the heat roll, the printing mode, and the input power supply voltage.

Cooling Down

During the printing cycle, if the temperature of the heat roll becomes nonuniform between the area that contacts the sheet and the area that does not, paper feeding is suspended for a certain duration to compensate for the temperature non uniformity of the heat roll. This is called cooling down. When the temperature of the heat roll end is high, cooling down is performed to lower the temperature to the target value.

Document Scanning Steps

A CIS image sensor is used to read image data from the document. To ensure a stabilized image reading, the CIS image sensor output is adjusted. Adjustment includes Automatic Gain Control (AGC) and Automatic Offset Control (AOC).

Reference data (obtained by reading image data from a white reference plate via the CIS image sensor) for adjustment is collected and used to perform compensation on the read image data. Compensation includes shading compensation, white variation compensation, and black variation compensation. These adjustment and compensation steps are described below:

- AGC (Auto Gain Control): White Level Variation Adjustment

  During AGC, the scanner assembly is moved to the position of the white reference strip, and the exposure lamp is illuminated. The light reflected from the white reference strip is read by the CIS image sensor as the white reference value, which is used to adjust CIS image sensor output.
- AOC (Auto Offset Control)

  AOC is performed by turning off the exposure lamp after AGC. This state is read by the CIS image sensor as the black reference value, which is used to adjust CIS image sensor output. (The order of AGC and AOC adjustment depends on the model.)
- Shading Compensation

  Shading compensation compensates for pixel-by-pixel sensitivity variations and the non uniformity of lamp light in the fast scanning direction. The AGC and AOC adjustment values are used to compensate for the image data read by the CIS image sensor.

System Configuration

The ESS PWBA controls the fax, scanner, and DADF. Fax and copy operations are performed according to data entered at UI console, Figure 2.

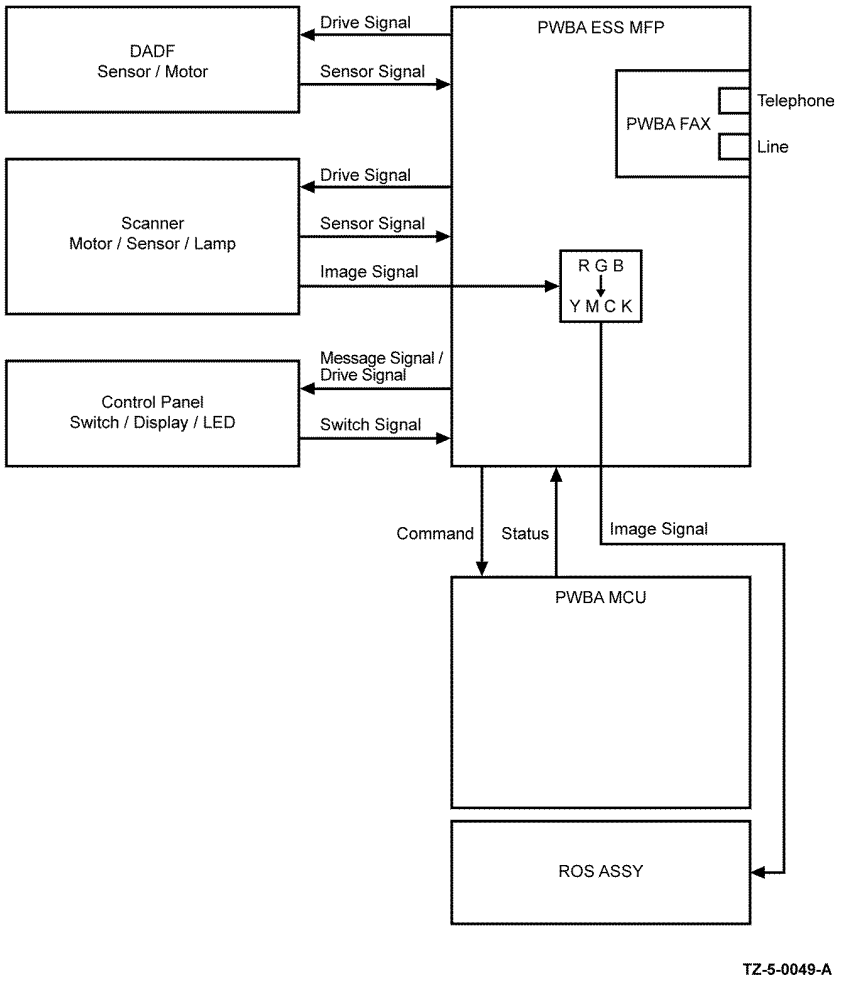

Figure 2 System configuration

Drive Transmission Route

This section describes the drive transmission between the motors and gears and sub-assemblies.

- Main Motor
- PH Motor
- Development Motor
- DADF Motor

Main Motor

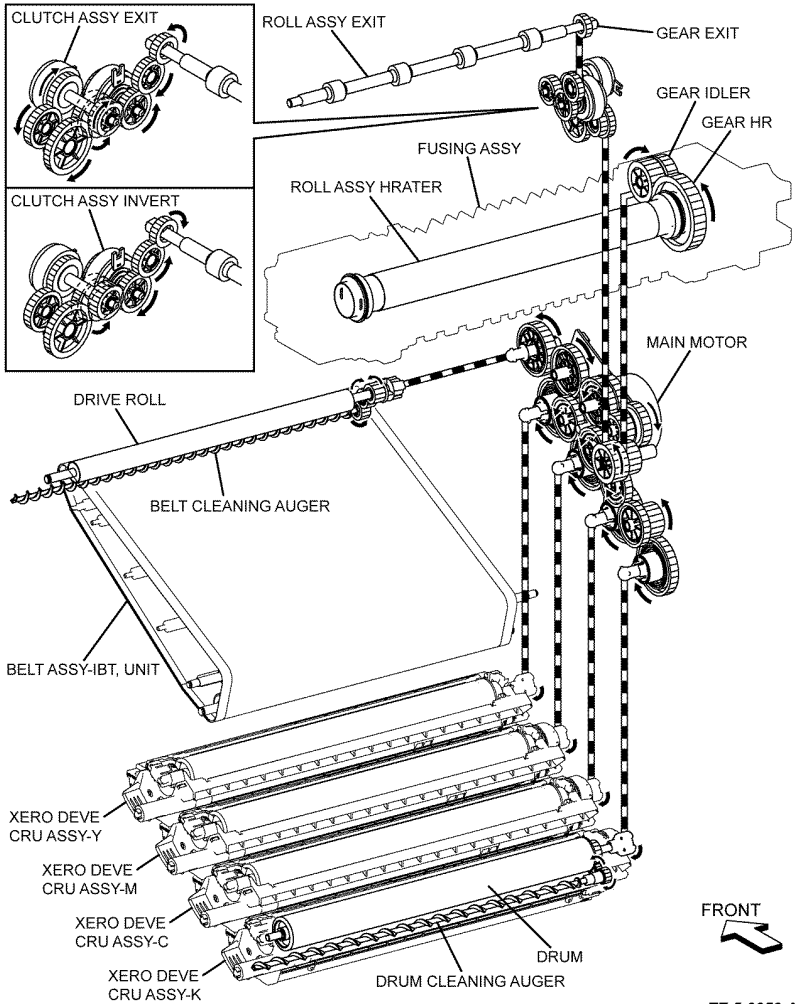

Figure 1 Main motor drive

PH Motor

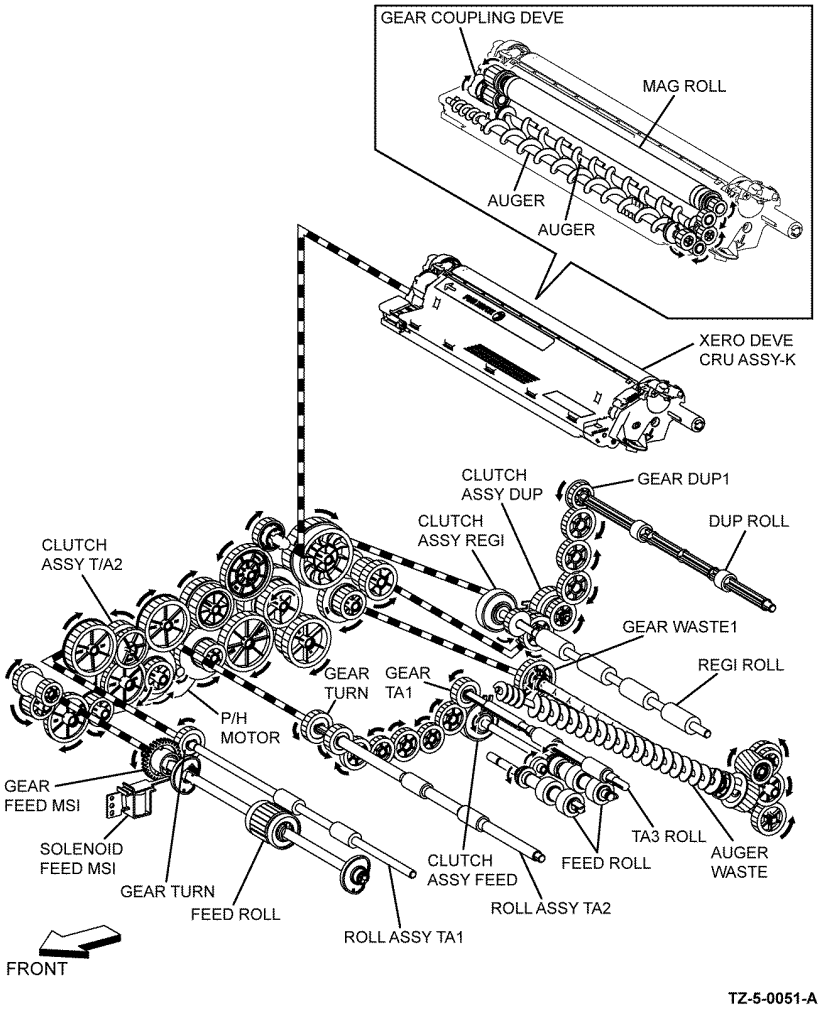

Figure 2 PH motor drive

Development Motor

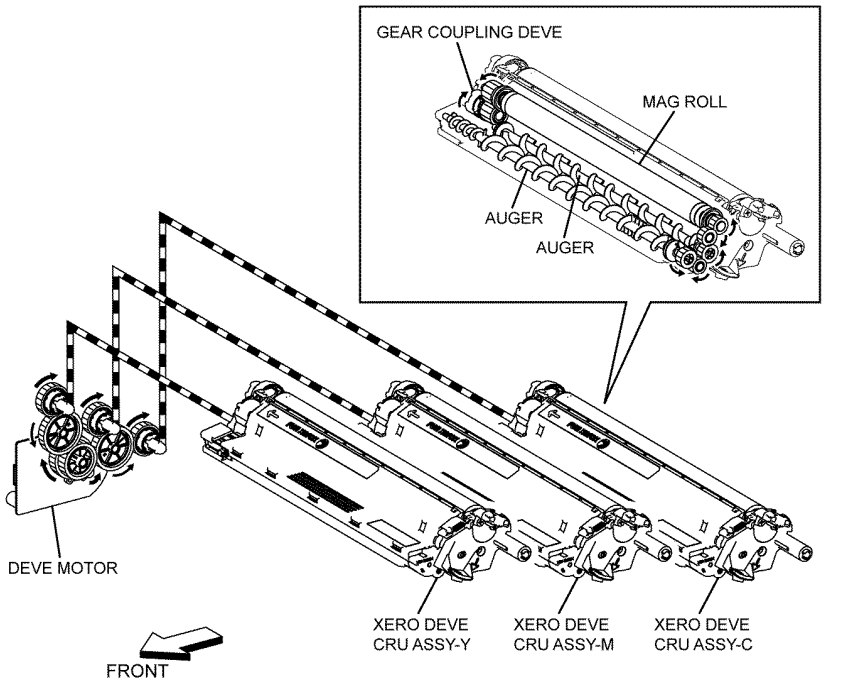

Figure 3 Development motor drive

DADF Motor

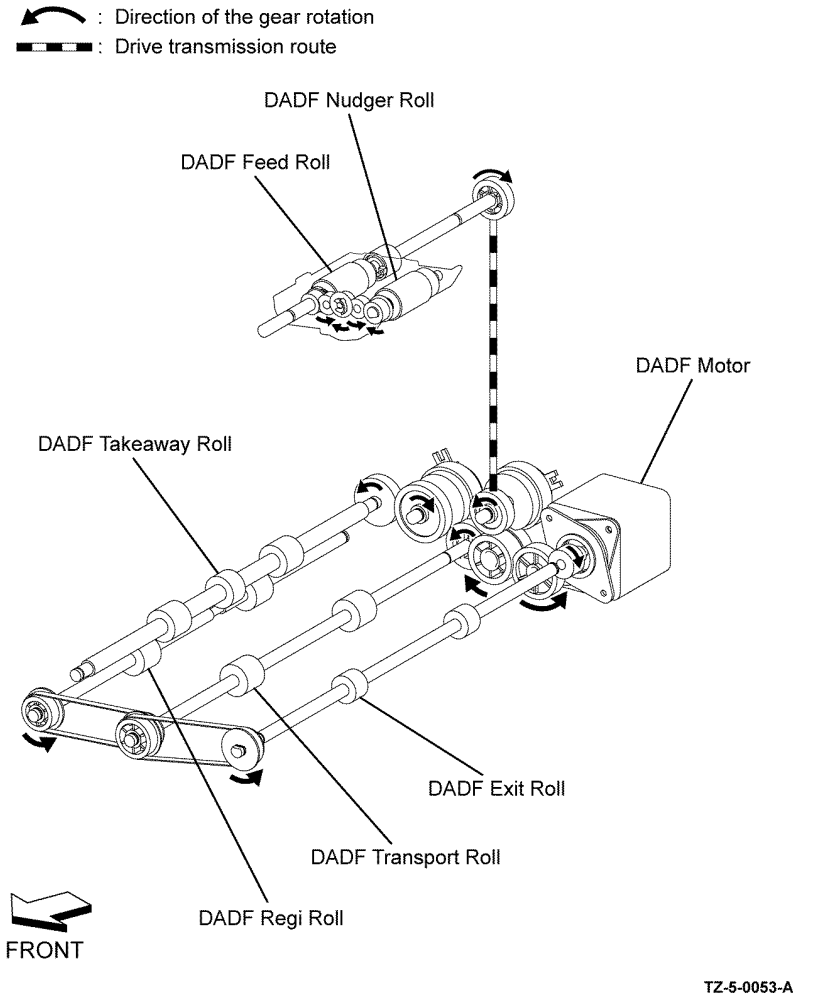

Figure 4 DADF motor drive

FAX System

A FAX (abbreviation of facsimile) is a device that sends and receives image data using either an analog or a digital telephone line. The following describes the analog line system (For G3, refer to Fax Standards (ITU-T Recommendations).

- Fax system overview
- Unit Mechanism
- Printer
- FAX system detailed
- Fax Standards (ITU-T Recommendations)
- Fault Isolation Procedure for FAX

Fax system overview

The three basic units of a FAX are the Scanner (for reading the image), the Control Circuit, and the Printer, Figure 1.

The scanner splits the image into a fine grid, then reads the brightness (white/black) of each cell. This operation is called scanning. The white/black information is converted to a digital signal: bright cells become 1, dark cells 0.

The digital signal from a scanned image is subjected to DA conversion (modulation) by the control circuit to enable transmission over an analog telephone line. After conversion, the data is sent as an analog signal. The audible sound during transmission is image data that has become an analog signal.

The analog signal arriving over the telephone line is then subjected to AD conversion (demodulation) by the control circuit of the receiving FAX machine, and restored to a digital signal.

The black/white information obtained from the AD conversion is sent to the printer, where black cells are reproduced on the paper at the positions where they were on the original.

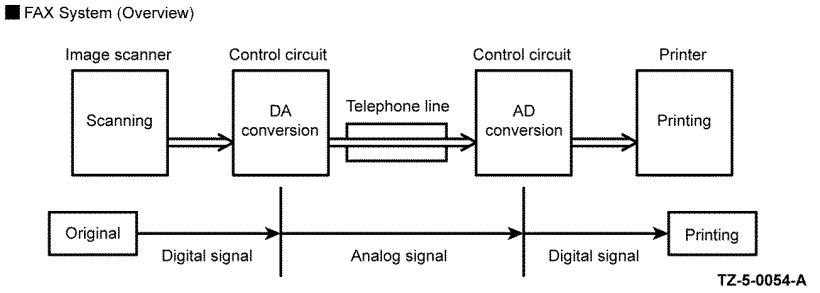

Figure 1 Fax System overview

Unit Mechanism

Scanner

The scanner consists of the Image Input Terminal (IIT) and the Duplex Automatic Document Feeder (DADF). Document scanning is performed by the carriage assembly in the IIT. A scanned document is processed through the device in the same manor as any document that is scanned or copied. The CIS image sensor read the light reflected from the original, outputting to the control circuit sequentially which areas of the scanned document are white and which areas are black as binary data (1/0 digital data: 1 bit).

NOTE: *To scan the original, the carriage assembly (CIS image sensor unit) must be shifted a distance of one line after each line is scanned. When the original is scanned on the platen glass of the IIT, the carriage assembly is moved with respect to the original. In the case of a FAX equipped with the DADF (Duplex Automatic Document Feeder), scanning via the DADF is performed by moving the original with the carriage assembly fixed in one position. This is known as constant velocity transport (CVT).*

NOTE: *During scanning, the finer the grid into which the original is divided, the greater the scanning precision of the original image. For a G3 FAX (normal mode: G3 normal), scanning is performed at the resolution of 8 divisions per millimeter (200 dpi) in the horizontal direction and 3.85 divisions per millimeter in the vertical direction. This means that the 200 dpi in-line carriage assembly is shifted approximately four times per millimeter in the vertical direction. For an A4 original, the data amounts to approximately two million pixels. In the high-quality mode (G3 fine), scanning resolution is 8 divisions per millimeter in the horizontal direction and 7.7 divisions per millimeter in the vertical direction, where the data amounts to approximately four million pixels. As resolution increases, the amount of data also increases, lengthening the transmission time.*

Control Circuit

The control circuit executes scanning of image data by controlling the image scanner. The CIS image sensor scans the original image one line at a time. When scanning of one horizontal line is completed, the next line below is scanned. As this continues, the original is scanned from end to end one line at a time and converted to digital data as black-and-white information.

Because this image data is a set of digital signals, it cannot be transmitted using an analog telephone line. It must be subjected to DA conversion (modulation). Also, the receiving FAX machine must perform AD conversion to restore the incoming digital data to analog data.

DA conversion, analog signal transmission, analog signal reception, and AD conversion are all performed by a modem (modulator/demodulator) in the control circuit. A modem consists of a network control unit (NCU) for connecting to the telephone line and an A/D conversion unit for performing DA and AD conversions.

NOTE: *The control circuit also retains other important functions such as data compression and memory. With data compression, any part of the scanned image data that consists of continuous white or black pixels is encoded into a single element, thus compressing the volume of data. Memory temporarily stores data during transmission and reception.*

Printer

The printer prints image data from the control circuit onto the surface of paper. The principle is the same as that of an ordinary printer in that black is applied to specified locations on the paper.

FAX system detailed

The steps that follow describe the line connection procedure between two FAX modules, Figure 2.

1. When an AT command (a modem control command) is sent from the control circuit to the modem, the hook switch is activated, and a state is obtained that is identical to that when the handset of a telephone is lifted. A dial tone (400Hz/48VDC) is sent from the local switch. The modem's speaker emits the dial tone as an audible sound.
2. After the image has been scanned, the telephone number (a previously stored number, number entered by pressing phone buttons, etc.) is automatically dialed and transmitted to the local switch.
3. The FAX of the receiving party automatically answers when it receives the call signal, and the hook switch is activated. The local switch on the receiving party side receives a response signal and stops sending tones to the sending and receiving parties, thereby establishing a communications path between the both parties.

   In the case of a telephone call, only voice conversion between the two parties follows. For FAX, preparation for delivery of image data is required that includes the following types of exchanges:

   - The sending FAX indicates that the transmission is a FAX transmission.
   - The receiving FAX indicates that it is ready to receive and also its communications capacity.
   - The sending FAX then sends data in accordance with the receiving FAX's communications capacity.

   Once mutual preparation is completed, image data sending and receiving is started. Image data is modulated into an analog signal by the A/D converter at the sending FAX, then it is sent from its NCU. Image data received by the NCU of the receiving FAX is demodulated into a digital signal by its A/D converter and then sent to the control circuit. When image data reception is completed, the FAX automatically disconnects the line (hook is OFF).

   In summary, the NCU automatically executes a series of such operations from hook switch ON to hook switch OFF.

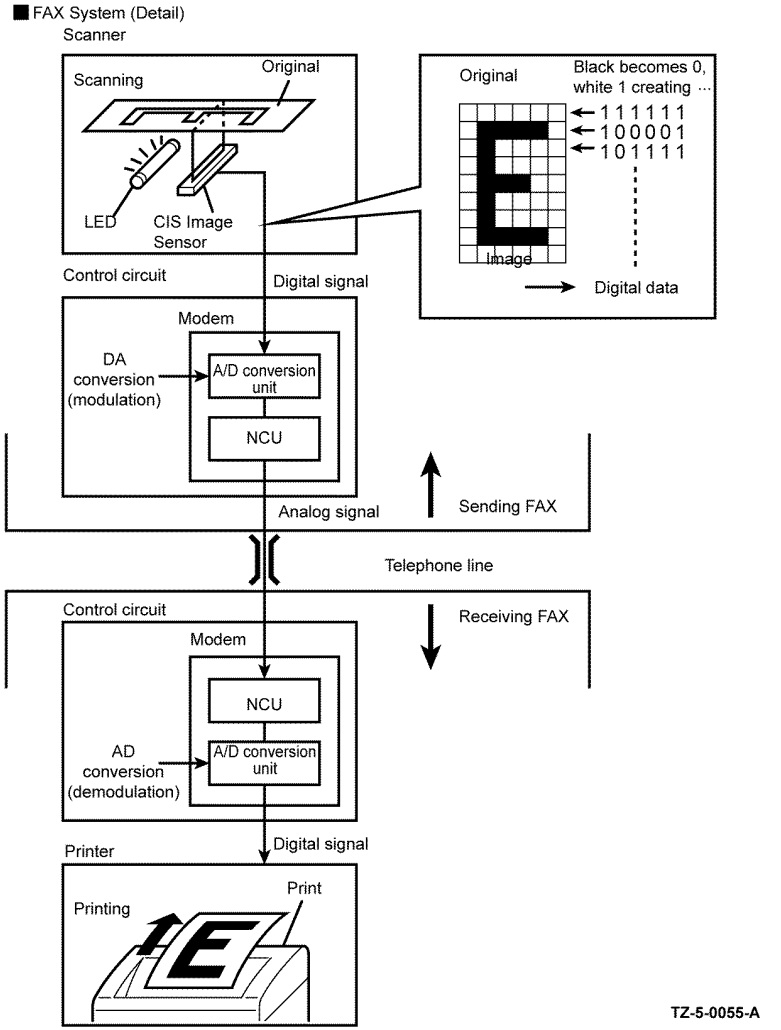

Figure 2 Fax system detail

Fax Standards (ITU-T Recommendations)

International FAX standards (ITU-T recommendations) include G1 to G4. G1 to G3 use analog telephone networks. G4 uses a digital telephone network (ISDN). G3 is the standard currently in the greatest use. FAXes conforming to Super G3, a recently added standard, are equipped with a fast 33.6kps modem and reduce transmission times to approximately half those of G3 FAXes

Table 1 FAX groups

Standard	Year Issued	Minimum Transmission Time for Single-Page A4 Document	Maximum Resolution	Maximum Transmission Speed	Features
Group 1 (G1)	1968	Approx. 6 min.	100 x 100dpi	(Analog)	First standard. Analog transmission. No band compression technology
Group2 (G2)	1976	Approx. 3 min.	100 x 100dpi	(Analog)	Analog transmission. Band compression technology adopted.
Group3 (G3)	1980	Approx. 1 min (14.4kbps) Approx. 3 sec (33.6kbps)	600 x 600dpi	14.4kbps (Super G3: 33.6kbps)	Connection to analog line using FAX modem. Image data in digital format. Data compression. Most common standard in use.
Group4 (G4)	1988	Approx. 3 sec.	400 x 400dpi	64kbps (Using ISDN)	Digital transmission. Supported by various digital transmission services. Halftone supported.

Fault Isolation Procedure for FAX

Because a FAX is composed of multiple blocks, pinpointing a fault is problematic. This section describes a simple fault isolation procedure that is based on the contents of Fax system overview.

Fault Occurs

Test the copy function of the device. If the printing results of the copy function are correct, the probability of a fault in the FAX itself is low. The fault is likely in the telephone line or receiving FAX. Retry sending the FAX, if there is no improvement assume the fault is in the telephone line and contact the telephone company.

If the printing results of the copy function are incorrect, it can be determined if the fault is in the scanner or printer by operating each unit separately via a computer.

- Send Fault
- Receive Fault
- Other Problems

Send Fault

NOTE: *If the telephone line condition is degraded, white horizontal lines, missing rows, and/or cut-off top/bottom may occur.*

NOTE: *Branch connections or an incoming call (call waiting) may cause image corruption.*

1. Problem with print quality at receiving FAX, such as corrupt image, lines in image, top/bottom cut off.
   a. If the copy function is normal.
      Cause: Degraded telephone line connection caused by noise, etc.; or a fault in the printer of the receiving FAX.
      Corrective Action: Determine whether fault is in telephone line or at receiving FAX by trying copy function at receiving FAX.
   b. If the copy function is faulty.
      Cause: Dirt or fault in the scanner.
      Corrective Action: Clean platen glass or the repair scanner. If the original is being sent from the DADF, try executing a copy with the original placed on the platen glass. If this solves the problem, the fault is in the DADF.
2. Cannot dial.
   Cause: Incorrect connection. Incorrect setup of dial type and/or line type.
   Corrective Action: Correct the connection. Reset the dial type and/or line type to correct settings.

Receive Fault

NOTE: *If the telephone line condition is degraded, white horizontal lines, missing rows, and/or cut-off top/bottom may occur.*

NOTE: *Branch connections or incoming call (call waiting) may also cause image corruption.*

1. Problem with printing quality, such as corrupt image, lines in image, top/bottom cut off.
   a. If copy function is normal.
      Cause: Degraded telephone line connection caused by noise, etc.; or a fault in the scanner of the sending FAX.
      Corrective Action: Determine whether fault is in telephone line or at sending FAX by trying copy function at receiving FAX.
   b. If copy function is faulty.
      Cause: Dirt or fault in printer.
      Corrective Action: Clean all parts of printer or repair printer.

NOTE: *If a call is made to the FAX from a telephone, and the FAX does not emit its ringing sound, a telephone line fault is highly probable.*

2. Does not emit a response signal.
   Cause: Incorrect connection. Incorrect setup of dial type, line type, and/or reception mode.
   Corrective Action: Correct the connection. Reset the dial type, line type, and/or receive mode to correct settings.

Other Problems

- Branch Connection (Parallel Connection)

- Call Waiting
- DSL (Digital Subscriber Line)
- Noise

Branch Connection (Parallel Connection)

During FAX reception, if the handset of another telephone on a branch connection is lifted, the received image may be corrupted or a transmission error may occur. Branch connection may also interfere with caller identification, call waiting, the receiving operation of connected telephones.

Call Waiting

If a call comes in during FAX sending/reception, as with branch connections the image may be corrupted.

DSL (Digital Subscriber Line)

DSL, a high-speed digital transmission method using existing telephone lines, has several types. These include ADSL (Asymmetric Digital Subscriber Line) with differing upstream and downstream transmission speeds, SDSL (Symmetric Digital Subscriber Line) with symmetrical upstream and downstream transmission speeds, and VDSL (Very high bit rate Digital Subscriber Line) which features higher speed. However, because the line is used for both voice and data transmission, various problems may occur, such as noise during spoken conversation, low sound volume, and mis-dialing. Replacing the splitter may improve the situation.

Noise

If electronic equipment (television, computer, microwave, etc.) or devices equipped with motors are located near a FAX, noise from them may degrade the line condition.

Because FAX data is audio data, the line quality affects the quality/stability of image data as well as that of conversation.

NFC (Near Field Communication)

- Overview of NFC
- Basic Principle of Operation of NFC

Overview of NFC

NFC is a standard for short distance radio communication using the radio frequency band of 13.56 MHz. The device is provided with a user authentication feature using MIFARE cards or contactless smart cards supporting NFC.

A smart card reader/writer is installed at the NFC marked area of the operator panel of the device.

NFC is defined as a set of internationally certified radio communication technology standards for existing smart cards and radio-frequency identification (RFID) system including ISO/IEC18092 (NFC IP-1) and ISO/IEC21418 (NFC IP-2). Refer to each of the mentioned standards for further details on NFC.

Basic Principle of Operation of NFC

A smart card contains an IC chip and an antenna that allow the data stored in the IC chip to be read when brought into the close proximity of a card reader/writer, Figure 1.

Data communication using a smart card consists of the following steps:

1. The user brings a smart card into the close proximity of the card reader/writer.
2. The card reader/writer generates an electromagnetic field.
3. Induced current flows in the antenna, allowing the IC chip to operate.
4. The smart card and the card reader/writer perform bidirectional authentication and communication (read/write of data).

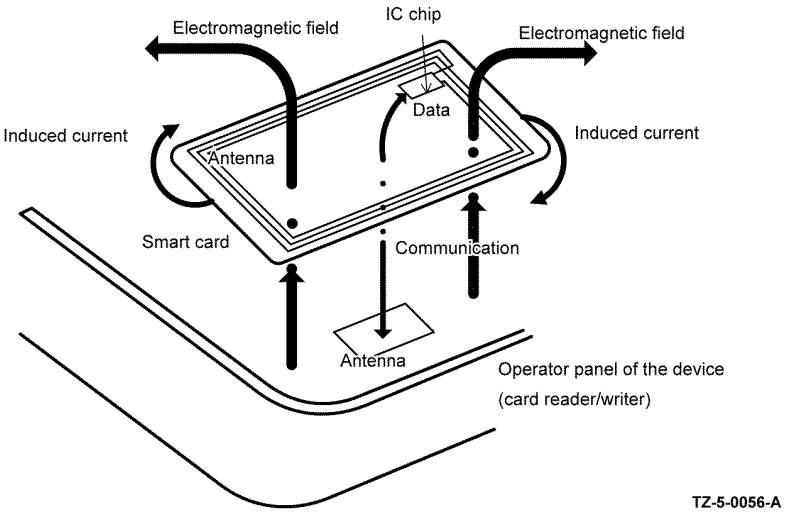

Figure 1 Near field communication

Sensors

The printer contains sensors of various types that perform a variety of functions. One group of sensors track media as it moves along the media path to detect jams. Other sensors detect the presence of the drum cartridge, stop printer activity if a door is open (interlock), and monitor the fusing temperature.

- Sensor Types
- Sensor and Switch Locations

Sensor Types

- Photo Sensors
- Thermistors
- Micro switches

The types of sensors used vary with function. In general, there are three types in use.

Photo Sensors

Two types of photo sensors are used, photo-reflective and photo-receptive. Photo-reflective sensors use light reflected back from an object to detect its presence. Photo-receptive sensors use an actuator or the object itself to block the light path to detect an object or condition.

Photo-reflective sensors have the light emitter and light receiver aligned on a single surface. Output of the photo-receptor is High (> +4.5 V) when light is being reflected back and Low (< +.3 V) when it is not. Photo-receptive sensors consist of a LED in one arm of a U-shaped holder, and a photo-transistor in the other arm. When the sensing area is vacant, nothing is between the arms of the sensor, light falls on the photo-receptor sending the signal high. If the light is interrupted, the photo-transistor goes low.

Thermistors

Thermistors have a known value of resistance whose value varies with temperature. Used primarily in the fuser for temperature sensing.

Micro switches

Micro switches are used primarily as cover interlocks in the printer. They are in a normally open state, and close when actuated. A bank of micros witches is used to detect media size in the universal trays. Micro switches also employ hooks or catches for retention in the bracket or frame. Figure 1 shows Interlock Switch locations.

Sensor and Switch Locations

- Media Size Sensing
- Media Present Sensing

Table 1 lists sensors in the media path and interlock switches. The table describes the type and function of sensors in the media path and switches used to determine operational status and detect jams or failures. Error detection is based on media transport timing through the sensing area and on activation of interlocks.

Table 1 List of sensor and interlock functions

Number	Name	Type	Function
S1	MSI No paper	Photo-receptive	Signals no media in Bypass Tray
S2	Registration	Photo-receptive	Signals leading edge at registration
S3	Path	Photo-receptive	Signals media exit from feeder
S4	Exit	Photo-receptive	Signals media exit from Fuser
S5	Stack Full	Photo-receptive	Signals output tray full
S7	Tray 1 No paper	Photo-receptive	Signals no media in Tray 1
S8	ADC	Photo-reflective	Monitors Toner density
S10	Rear Interlock	Micro switch	Signals Rear Cover open
S12	Front interlock	Micro switch	Signals Front Cover open
S13	Size Switch	Micro switch	Signals media size in tray
S14	Legal	Photo-receptive	Signals Legal media in DADF Input
S16	Environmental	pcb	Monitors temperature and humidity
S17	Internal temp	Thermistor	Monitors internal temperature

Figure 1 shows interlock switch locations. Figure 2 shows sensor locations in the media path.

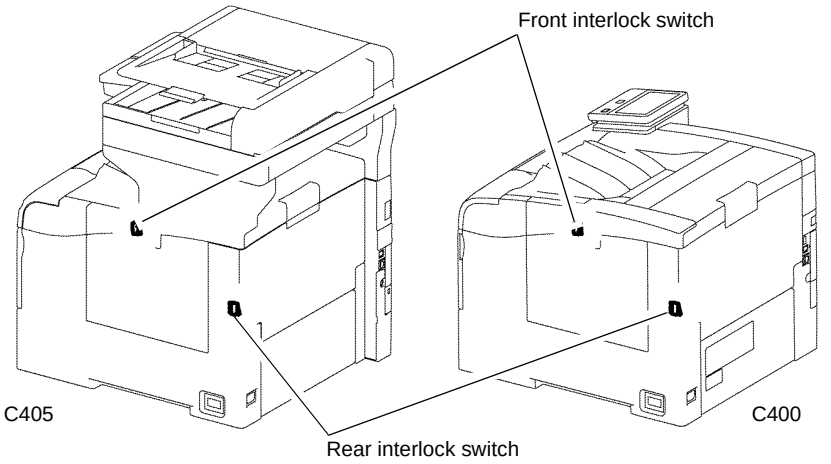

Figure 1 Interlock switch locations

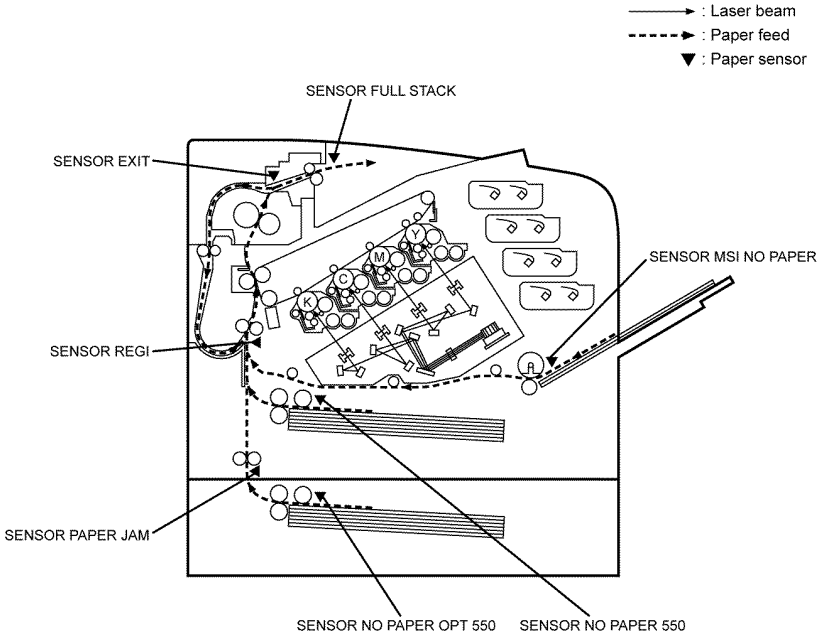

Figure 2 Media path sensors

Media Size Sensing

Tray 1 and optional feeders detect media size using an array of micro switches (size switch) mounted in the tray cavity. When the tray end guide is adjusted, the guide changes the size switch actuator positions. Actuating different combinations of the size switch produces different combinations of high and low signals. These signals identify what size media is loaded and what to display on the control panel. Also, actuation of the size switch signals the tray is present and closed to the MCU PWBA.

Media Present Sensing

When the last sheet is fed from any tray, the no paper sensor actuator drops to block the no paper sensor. Feeding is inhibited until media is loaded into the tray.

Device Options

Users can install the additional units that follow:

- Wireless network adaptor.
- 320 GB Hard drive.
- Optional 550 sheet feeder.