

**Sample  
Fault Code Structure:  
007.002.00**

ColorQube 8700/8900  
v1/v2/v3 ConnectKey  
Service Manual **Updated 9/24/15 DAW**

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# General and Operational Overview

# 1

This chapter includes:

- [About this Service Manual](#)
- [Manual Organization](#)
- [Safety](#)
- [Regulatory](#)
- [Introduction](#)
- [Printer Configurations](#)
- [Parts of the Printer](#)
- [Routine Maintenance Items](#)
- [Consumables](#)
- [Specifications](#)
- [Power Saver](#)
- [Operational Overview](#)
- [Major Assemblies and Functions](#)
- [Print Process and Purge System](#)
- [Options](#)
- [Information Pages, Support Pages, Print Test Patterns, Reports, and Logs](#)

# About this Service Manual

The ColorQube 8700/8900 v1/v2/v3 Service Manual is the primary document used for diagnosing, repairing, maintaining, and troubleshooting the printer. Use this manual as your primary resource for understanding the operational characteristics of the printer and all available options. This manual describes specifications and the diagnosis and repair of problems occurring in the printer and attached options. Also included are detailed replacement procedures, parts lists, and wiring diagrams.

To ensure complete understanding of this product, participation in Xerox ColorQube 8700/8900 Service Training is strongly recommended. To service this product, Xerox certification for this product is required.

## Service Manual Revision

Updates are issued as the printer changes or as corrections are identified.

## Technical Support Information

For manual updates, Service Bulletins, knowledge base, and technical support, go to:

- Xerox Global Service Net - <https://www.xrsgsn.com/secure/main.pl>

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

## Manual Terms

Various terms are used throughout this manual to either provide additional information on a specific topic or to warn of possible danger present during a procedure or action. Be aware of all symbols and terms when they are used, and always read Note, Caution, and Warning statements.



**CAUTION:** A caution indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, results in damage to, or destruction of, equipment.



**WARNING:** A warning indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, results in injury or loss of life.

**Note:** A note indicates an operating or maintenance procedure, practice or condition that is necessary to efficiently accomplish a task. A note can provide additional information related to a specific subject or add a comment on the results achieved through a previous action.

**Replacement Note:** A replacement note provides important information related to parts replacement. When needed, replacement notes appear at the end of the disassembly procedure.

# Manual Organization

The ColorQube 8700/8900 v1/v2/v3 Service Manual contains these chapters:

## **Chapter 1 - General and Operational Overview**

This chapter contains important safety information and regulatory requirements, printer's operation, configuration, specifications, consumables, long life maintenance items, and component locations.

## **Chapter 2 - Error Troubleshooting**

This chapter contains detailed troubleshooting procedures for error messages and codes generated by resident diagnostics. In addition, this chapter includes Service Diagnostics procedures and troubleshooting methods for situations where error indicator is not available.

## **Chapter 3 - Image Quality**

This chapter contains the diagnostic aids for troubleshooting image quality problems, as well as image quality specifications and image defect samples associated with the printer output.

## **Chapter 4 - Service Parts Disassembly**

This chapter contains removal procedures for spare parts listed in the Parts List. A replacement procedure is included when necessary.

## **Chapter 5 - Parts List**

This chapter contains exploded views of the print engine and optional Field Replaceable Units (FRUs), as well as part numbers for orderable parts.

## **Chapter 6 - Maintenance**

This chapter contains procedures for the adjustment of the print engine components, periodic cleaning for the printer, moving the printer, and firmware update.


## **Chapter 7 - Plug/ Jack and Wiring Diagrams**


This chapter contains drawings, lists of the plug/jack locations and the wiring diagrams for the printer.

## **Reference A**

This chapter contains an illustration of the printer's Control Panel menu structure, media guidelines, and a list of acronyms and abbreviations.

# Safety

 **WARNING:** Do not push objects (including paper clips or staples) into slots or openings on the printer. Making contact with a voltage point or shorting out a part could result in fire or electrical shock.

 **WARNING:** Do not remove the covers or guards that are fastened with screws unless you are installing optional equipment and are specifically instructed to do so. Power should be Off when performing these installations. Disconnect the power cord when removing the covers and guards for installing optional equipment. Except for user-installable options, there are no parts that you can maintain or service behind these covers.

The following are hazards to your safety:

- The power cord is damaged or frayed.
- Liquid is spilled into the printer.
- The printer is exposed to water.

If any of these conditions occur, do the following:

1. Turn Off the printer immediately.
2. Disconnect the power cord from the electrical outlet.
3. Call an authorized service representative.

## Power Safety Precautions

### Power Source

For 115 VAC printers, do not apply more than 127 volts RMS between the supply conductors or between either supply conductor and ground. For 230 VAC printers, do not apply more than 254 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord and connector. This manual assumes that the reader is a qualified service technician.

Plug the three-wire power cord (with grounding prong) into a grounded AC outlet only. If necessary, contact a licensed electrician to install a properly grounded outlet. If the product loses its ground connection, contact with conductive parts may cause an electrical shock. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.


- Verify direct connection to AC outlet - The printer requires most of the current in a 15 Amp circuit or a direct connection to 20 Amp wall outlet. Never use power strips, surge protectors, extension cords or Uninterruptible Power Supplies (UPS).

- Check AC Voltage Drop with a volt-meter at the wall outlet in use as the printer warms up and heaters turn On. On 120 VAC or 240 VAC, 1 % drop is normal; 2 % or more may represent an overloaded circuit and will result in Printhead Tilt errors or other engine faults. It is recommended this be done immediately after repair, or when coming out of Power Save Mode to observe effect of maximum current draw.

**Note:** Before plugging in Xerox equipment, please check AC outlet for correct Hot/ Neutral/ Ground orientation by measuring approximately 110-120 or 220-240 Volts AC from Hot (short slot) to Ground, as well as Hot to Neutral (long slot).

- If an AC Power Filter must be used to prevent electrical noise from interfering with internal printer communications, Xerox recommends the use of 142E01500 (available for customers to order at 800-828-5881) or a similar high-current Noise Filter.

## Disconnecting Power


 **WARNING:** Turning the power Off using the power switch does not completely de-energize the printer. You must also disconnect the power cord from the printer's Alternating Current (AC) inlet. Disconnect the power cord by pulling the plug, not the cord.

Disconnect the power cord in the following cases:

- if the power cord or plug is frayed or otherwise damaged,
- if any liquid or foreign material is spilled into the printer,
- if the printer is exposed to any excess moisture,
- if the printer is dropped or damaged,
- if you suspect that the printer needs cleaning, servicing or repair,
- whenever you clean the product.

## Power Cord

- Use the power cord supplied with the printer.
- Plug the power cord directly into a properly grounded electrical outlet. Make sure each end of the cord is securely connected. If you do not know if an outlet is grounded, ask an electrician to check the outlet.
- Do not use a ground adapter plug to connect the printer to an electrical outlet that does not have a ground connection terminal.

 **WARNING:** Avoid the potential of electrical shock by ensuring that the printer is properly grounded. Electrical printers may be hazardous if misused.

- Do not use an extension cord, power strip, or surge protector.
- Verify that the printer is plugged into an outlet that is capable of providing the correct voltage and power. Review the printer's electrical specification with an electrician if necessary.
- Do not place the printer in an area where people might step on the power cord.
- Do not place objects on the power cord.

The power cord is attached to the printer as a plug-in device on the back of the printer. If it is necessary to disconnect all electrical power from the printer, disconnect the power cord from the electrical outlet.

## Telephone Line Cord



**CAUTION:** To reduce the risk of fire, use only No. 26 American Wire Gauge (AWG) or larger telecommunication line cord.

## Electrostatic Discharge (ESD) Precautions

Some semiconductor components, and the respective sub-assemblies that contain them, are vulnerable to damage by Electrostatic Discharge (ESD). These components include Integrated Circuits (ICs), Large-Scale Integrated circuits (LSIs), field-effect transistors, and other semiconductor chip components. The following techniques will reduce the occurrence of component damage caused by static electricity.

Be sure the power is Off to the chassis or circuit board, and observe all other safety precautions.

- Immediately before handling any semiconductor components assemblies, 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. Be sure to remove the wrist strap before applying power to the unit under test to avoid potential shock.
- After removing a static sensitive assembly from its anti-static bag, place it 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 ICs and Erasable Programmable Read-Only Memories (EPROMs) carefully to avoid bending pins.
- Pay attention to the direction of parts when mounting or inserting them on the Printed Circuit Boards (PCBs).

## Service Safety Summary

### General Guidelines

#### **For qualified service personnel only:**

Refer also to the preceding [Power Safety Precautions](#) on page 1-4.

#### **Avoid servicing alone:**

Do not perform internal service or adjustment of the printer unless another person capable of rendering first aid or resuscitation is present.

#### **Use care when servicing with power:**

Dangerous voltages may exist at several points in the printer. 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.

### Warning Labels


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

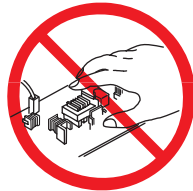
### Safety Interlocks

Make sure all covers are in place and all Interlock Switches are functioning correctly after you have completed a printer service call. If you bypass an Interlock Switch during a service call, use extreme caution when working on or around the printer.

## Servicing Electrical Components


Before starting any service procedure, switch the printer power Off and unplug the power cord from the wall outlet. If you must service the printer with power applied, be aware of the potential for electrical shock.

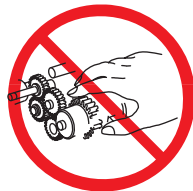
 **WARNING:** Do not touch any electrical component unless you are instructed to do so by a service procedure.



## Servicing Mechanical Components

When servicing mechanical components within the printer, manually rotate the Drive Assemblies, Rollers, and Gears.

 **WARNING:** Do not try to manually rotate or manually stop the drive assemblies while any printer motor is running.





## Operational Safety

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

Your attention to the following safety guidelines helps to ensure the continued, safe operation of your printer.

### Printer Location

- Do not block or cover the slots or openings on the printer. These openings are provided for ventilation and to prevent overheating of the printer.
- Place the printer in an area where there is adequate space for operation and servicing.
- Place the printer in a dust-free area.
- Do not store or operate the printer in an extremely hot, cold, or humid environment.
- Place the printer on a level, solid non-vibrating surface with adequate strength to hold the weight of the printer.
- Do not place the printer near a heat source.
- Do not place the printer in direct sunlight to avoid exposure to light-sensitive components.
- Do not place the printer where it is directly exposed to the cold air flow from an air conditioning unit.

### Operational Guidelines

- Do not open any media tray during operation. The media from the lower trays passes through the upper trays and opening one could cause a jam.
- Do not open the doors when the printer is printing.
- Do not move the printer when it is printing.
- Keep hands, hair, neckties, etc., away from the Exit and Feed Roller.

### Printer Supplies

- Use the supplies specifically designed for your printer. 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 printer, options, and supplies.



**CAUTION:** Use of non-Xerox supplies is not recommended. The Xerox Warranty, Service Agreements, and Total Satisfaction Guarantee do not cover damage, malfunction, or degradation of performance caused by use of non-Xerox supplies, or the use of Xerox supplies not specified for this printer. 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.

## Health and Safety Incident Reporting

This section defines requirements for notification of health and safety incidents involving Xerox products (equipment and materials) at customer locations worldwide. These requirements apply to Xerox Corporation and its subsidiaries worldwide.

### Objective

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

### Definitions

#### Incident

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

### Requirements

#### Initial Report

1. Xerox organizations have established a process for individuals to report product incidents to Xerox Environment Health & Safety (EH & S) within 24 hours of becoming aware of the event.
2. The information to be provided at the time of reporting is outlined in the Health and Safety Incident Report form.

The Health and Safety Incident Report form used to report incidents involving Xerox products is available on Xerox Global Service Net (GSN) at <https://www.xrsgsn.com/secure/main.pl?catid=12571>.

If you are unable to download the form, request a form when reporting the incident by phone, electronic mail or Fax.

3. The initial notification may be made by any of the methods that follow:
  - For incidents in North America and Developing Markets West (Brazil, Mexico, Latin American North and Latin American South):
    - Phone\* Xerox EH & S at: +1-800-828-6571.
    - Electronic mail Xerox EH & S at: [usa.xerox.ehs@xerox.com](mailto:usa.xerox.ehs@xerox.com).
    - Fax Xerox EH & S at: +1-585-216-8817 [intelnet 8-219-8817].
  - For incidents in Europe and Developing Markets East (Middle East, Africa, India, China and Hong Kong):
    - Phone\* Xerox EH & S at: +44 (0) 1707 353434.
    - Electronic mail Xerox EH & S at: [ehs-europe@xerox.com](mailto:ehs-europe@xerox.com).
    - Fax Xerox EH & S at: +44 (0) 1707 353914 [intelnet 8 668 3914].

**Note:** Initial notification made by phone must be followed within 24 hours by a completed Health and Safety Incident Report form sent to the indicated electronic mail address or fax number. If sending a fax, please also send the original form by internal mail.

### **Responsibilities for Resolution**



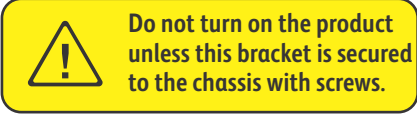




1. Business Groups / Product Design Teams responsible for the product involved in the incident shall:
  - a. Manage field bulletins, customer correspondence, product recalls, safety retrofits.
  - b. Fund all field retrofits.
2. Field Service Operations shall:
  - a. Preserve the Xerox product involved 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.




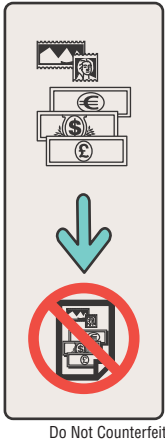


## Maintenance Safety

- Do not attempt any maintenance procedure that is not specifically described in the documentation supplied with your printer.
- Do not use aerosol cleaners. Clean the printer with a dry lint-free cloth only.

Do not burn any consumables or long life maintenance items. For information on Xerox supplies recycling programs, go to [www.xerox.com/gwa](http://www.xerox.com/gwa).

## Printer Symbols

Symbol	Description
	Hot surface on or in the printer. Use caution to avoid personal injury.
	Use caution (or draws attention to a particular component). Refer to the manual(s) for information.
	Do not turn On the printer unless the bracket is secured to the chassis.
	Avoid pinching fingers in the printer. Use caution to avoid personal injury.
	Line Voltage present on the Fuse and Fuse Holder Contacts.
	Danger, High Voltage
	The surface is hot while the printer is running. After turning Off the power, wait 30 minutes.

Symbol	Description
	<p>Oil from the cleaning kit can stain clothing and material. Do not tip the cleaning kit because oil can drip from the tray. Do not let the cleaning kit contact your clothing.</p>
	<p>Do not tip the printer. It can cause ink to spill.</p>
	<p>Do not look into the scanner during operation.</p>
 <p>Do Not Counterfeit</p>	<p>Do not counterfeit.</p>
	<p>Recycle the item.</p>
	<p>Protective Ground symbol.</p>

## Regulatory

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)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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 this 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.

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 receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not approved by Xerox can void the authority of the user to operate this equipment.

**Note:** To ensure compliance with Part 15 of the FCC rules, use shielded interface cables.

### Canada

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



**CAUTION:** This is a Class A product. In a domestic environment, this product can cause radio interference in which case the user could be required to take adequate measures.



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

December 12, 2006: Low Voltage Directive 2006/95/EC

December 15, 2004: Electromagnetic Compatibility Directive 2004/108/EC

March 9, 1999: Radio & Telecommunications Terminal Equipment (R&TTE) Directive (1999/5/EC)

This printer, if used properly in accordance with the instructions, is not dangerous for the consumer or for the environment.

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

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

## European Union Lot 4 Imaging Equipment Agreement Environmental Information

### Environmental Information Providing Environmental Solutions and Reducing Cost

#### Introduction

The following information has been developed to assist users and has been issued in relation to the European Union (EU) Energy Related Products Directive, specifically the Lot 4 study on Imaging Equipment. This requires manufacturers to improve environmental performance of in scope products and supports the EU action plan on energy efficiency.

In scope products are Household and Office equipment that meet the following criteria.

- Standard monochrome format products with a maximum speed less than 66 A4 images per minute
- Standard color format products with a maximum speed less than 51 A4 images per minute

#### Environmental Benefits of Duplex Printing

Most Xerox® products have duplex printing, also known as 2-sided printing, capability. This enables you to print on both sides of the paper automatically, and therefore helps to reduce the use of valuable resources by reducing your paper consumption. The Lot 4 Imaging Equipment agreement requires that on models greater than or equal to 40 ppm color or greater than or equal to 45 ppm monochrome the duplex function has been auto enabled, during the setup and driver installation. Some Xerox® models below these speed bands may also be enabled with 2-sided printing settings defaulted on at the time of install. Continuing to use the duplex function will reduce the environmental impact of your work.

However, should you require simplex/ 1-sided printing, you may change the print settings in the print driver.

### **Paper Types**

This product can be used to print on both recycled and virgin paper, approved to an environmental stewardship scheme, which complies with EN12281 or a similar quality standard. Lighter weight paper (60 g/m<sup>2</sup>), which contains less raw material and thus save resources per print, may be used in certain applications. We encourage you to check if this is suitable for your printing needs.

### **Power Consumption and Activation Time**

The amount of electricity a product consumes depends on the way the device is used. This product is designed and configured to enable you to reduce your electricity costs. After the last print, it switches to Ready Mode. In this mode, it can print again immediately as needed. If the product is not used for a period of time, the device switches to Power Saver Mode. In this mode, only essential functions remain active in order to enable reduced product power consumption.

Upon exiting from Power Saver Mode, the first print takes slightly longer than in Ready Mode. This delay is the result of the system leaving Energy Saver mode and is typical of most imaging products on the market.

There is something to consider if you wish to set a longer Activation Time or would like to deactivate the Energy Saver Mode completely. The device can switch to a lower energy level only after a longer period of time or not at all.

To learn more about Xerox participation in sustainability initiatives, visit our web site at:  
[www.xerox.com/environment](http://www.xerox.com/environment)

## **Germany**

### **Blendschutz**

Das Gerät ist nicht für die Benutzung im unmittelbaren Gesichtsfeld am Bildschirmarbeitsplatz vorgesehen. Um störende Reflexionen am Bildschirmarbeitsplatz zu vermeiden, darf dieses Produkt nicht im unmittelbaren Gesichtsfeld platziert werden.

### **Lärmemission**

Maschinenlärminformations-Verordnung 3. GPSGV: Der höchste Schalldruckpegel beträgt 70 dB(A) oder weniger gemäß EN ISO 7779.



## Importeur

Xerox GmbH

Hellersbergstraße 2-4

41460 Neuss

Deutschland

## Turkey RoHS Regulation

In compliance with Article 7 (d), we hereby certify “it is in compliance with the EEE regulation.”

“EEE yönetmeligine uygundur.”

## Copy Regulations

### United States

Congress, by statute, has forbidden the reproduction of the following subjects under certain circumstances. Penalties of fine or imprisonment may be imposed on those guilty of making such reproductions.

1. Obligations or Securities of the United States Government, such as:
  - Certificates of Indebtedness.
  - National Bank Currency.
  - Coupons from Bonds.
  - Federal Reserve Bank Notes.
  - Silver Certificates.
  - Gold Certificates
  - United States Bonds.
  - Treasury Notes.
  - Federal Reserve Notes.
  - Fractional Notes.
  - Certificates of Deposit.
  - Paper Money.
  - Bonds and Obligations of certain agencies of the government, such as FHA and so on.
  - Bonds. United States Savings Bonds may be photographed only for publicity purposes in connection with the campaign for the sale of such bonds.
  - Internal Revenue Stamps. If it is necessary to reproduce a legal document on which there is a canceled revenue stamp, this may be done provided the reproduction of the document is performed for lawful purposes.
  - Postage Stamps, canceled or uncanceled. For philatelic purposes, Postage Stamps may be photographed, provided the reproduction is in black and white and is less than 75 % or more than 150 % of the linear dimensions of the original.
  - Postal Money Orders.
  - Bills, Checks, or Drafts of money drawn by or upon authorized officers of the United States.
  - Stamps and other representatives of value, of whatever denomination, which have been or may be issued under any Act of Congress.
  - Adjusted Compensation Certificates for Veterans of the World Wars.
2. Obligations or Securities of any Foreign Government, Bank, or Corporation.
3. Copyrighted materials, unless permission of the copyright owner has been obtained or the reproduction falls within the “fair use” or library reproduction rights provisions of the copyright law. Further information of these provisions may be obtained from the Copyright Office, Library of Congress, Washington, D.C. 20559. Ask for Circular R21.
4. Certificate of Citizenship or Naturalization. Foreign Naturalization Certificates may be photocopied.
5. Passports. Foreign Passports may be photocopied.
6. Immigration papers.

7. Draft Registration Cards.
8. Selective Service Induction papers that bear any of the following Registrant's information:
  - Earnings or Income
  - Court Record
  - Physical or mental condition
  - Dependency Status
  - Previous military service
  - Exception: United States military discharge certificates may be photographed.
10. Badges, Identification Cards, Passes, or Insignia carried by military personnel, or by members of the various Federal Departments, such as FBI, Treasury, etc. (Unless photograph is ordered by the head of such department or bureau.)

Reproducing the following is also prohibited in certain states:

- Automobile Licenses
- Driver's Licenses
- Automobile Certificates of Title

The above list is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your attorney.

For more information about these provisions contact the Copyright Office, Library of Congress, Washington, D.C. 20559. Ask for Circular R21.

## Canada

Parliament, by stature, has forbidden the reproduction of the following subjects under certain circumstances. Penalties of fine or imprisonment may be imposed on those guilty of making such reproduction.

- Current bank notes or current paper money.
- Obligations or securities of a government or bank.
- Exchequer bill paper or revenue paper.
- The public seal of Canada or of a province, or the seal of a public body or authority in Canada, or of a court of law.
- Proclamations, orders, regulations or appointments, or notices thereof (with intent to falsely cause same to purport to have been printed by the Queens Printer for Canada, or the equivalent printer for a province).
- Marks, brands, seals, wrappers or designs used by or on behalf of the Government of Canada or of a province, the government of a state other than Canada or a department, board, Commission or agency established by the Government of Canada or of a province or of a government of a state other than Canada.
- Impressed or adhesive stamps used for the purpose of revenue by the Government of Canada or of a province or by the government of a state other than Canada.
- Documents, registers or record kept by public officials charged with the duty of making or issuing certified copies thereof, where the copy falsely purports to be a certified copy thereof.

## General and Operational Overview

- Copyrighted material or trademarks of any manner or kind without the consent of the copyright or trademark owner.

The above list is provided for your convenience and assistance, but it is not all-inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your solicitor.

## Other Countries

Copying certain documents may be illegal in your country. Penalties of fine or imprisonment may be imposed on those found guilty of making such reproductions.

- Currency notes
- Bank notes and cheques
- Bank and government bonds and securities
- Passports and identification cards
- Copyright material or trademarks without the consent of the owner
- Postage stamps and other negotiable instruments

This above list is not inclusive and no liability is assumed for either its completeness or accuracy. In case doubts, contact your legal counsel.

## Fax Regulations

### United States

#### Fax Send Header Requirements

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including a fax machine, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity or individual. The telephone number provided may not be a 900 number or any other number for which charges exceed local or long distance transmission charges.

For instructions on programming the Fax Send Header information, refer to the section of the System Administrator Guide on Setting Transmission Defaults.

#### Data Coupler Information

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the Administrative Council for Terminal Attachments (ACTA). On the cover of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

You may safely connect the machine to the following standard modular jack: USOC RJ-11C using the compliant telephone line cord (with modular plugs) provided with the installation kit. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g, 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

To order the correct service from the local telephone company, please provide the Facility Interface Code (FIC) and Service Order Code (SOC) listed below:

- Facility Interface Code (FIC) = 02LS2
- Service Order Code (SOC) = 9.0Y



**CAUTION:** Ask your local Telephone Company for the modular jack type installed on your line. Connecting this machine to an unauthorized jack can damage telephone company equipment. You, not Xerox, assume all responsibility and/or liability for any damage caused by the connection of this machine to an unauthorized jack.

If this Xerox® equipment causes harm to the telephone network, the Telephone Company could temporarily discontinue service to the telephone line to which it is connected. If advance notice is not practical, the Telephone Company notifies you of the disconnection as soon as possible. If the Telephone Company interrupts your service, they can advise you of your right to file a complaint with the FCC if you believe that it is necessary.

The Telephone Company could change its facilities, equipment, operations, or procedures which could affect the operation of the equipment. If the Telephone Company changes something that affects the operation of the equipment, they should notify you in order for you to make necessary modifications to maintain uninterrupted service.

If you experience trouble with this Xerox® equipment, please contact the appropriate service center for repair or warranty information. Contact information is contained in the Machine Status menu on the printer and in the back of the Troubleshooting section of the User Guide. If the equipment is causing harm to the telephone network, the Telephone Company may request you to disconnect the equipment until the problem is resolved.

Only a Xerox service representative or an authorized Xerox Service provider are authorized to make repairs to the printer. This applies at any time during or after the service warranty period. If unauthorized repair is performed, the remainder of the warranty period is null and void.

This equipment must not be used on party lines. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission, or corporation commission for information.

Your office could have specially wired alarm equipment connected to the telephone line. Make sure that the installation of this Xerox® equipment does not disable your alarm equipment.

If you have any question about what will disable alarm equipment, consult your telephone company or a qualified installer.

## Canada

This product meets the applicable Industry Canada technical specifications.

A representative designated by the supplier should coordinate repairs to certified equipment. Repairs or alterations made by the user to this device, or device malfunctions, could cause the telecommunications company to request you to disconnect the equipment.

For user protection, make sure that the printer is properly grounded. The electrical ground connections of the power utility, telephone lines, and internal metallic water pipe systems, if present, must be connected together. This precaution could be vital in rural areas.



**WARNING:** Do not attempt to make such connections yourself. Contact the appropriate electric inspection authority, or electrician, to make the ground connection.

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirements that the sum of the Ringer Equivalent Numbers of all of the devices does not exceed 5. For the Canadian REN value, please see the label on the equipment.

## European Union

### Radio Equipment & Telecommunications Terminal Equipment Directive

The Facsimile has been approved in accordance with the Council Decision 1999/5/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not give an unconditional assurance of successful operation on every PSTN network terminal point.

In the event of a problem you should contact your authorized local dealer.

This product has been tested to and is compliant with ES 203 021-1, -2, -3, a specification for terminal equipment for use on analog-switched telephone networks in the European Economic Area. This product provides a user-adjustable setting of the country code. The country code should be set prior to connecting this product to the network. Refer to the customer documentation for the procedure for setting the country code.

**Note:** Although this product can use either loop disconnect (pulse) or DTMF (tone) signaling, we recommend that you set it to use DTMF signaling for more reliable and faster call setup. Modification of this product, connection to external control software, or connection to an external control apparatus not authorized by Xerox will invalidate its certification.

## New Zealand

1. The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, it does not provide any sort of warranty, and it does not imply that any Telepermitted product is compatible with all Telecom network services. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model.  
The equipment may not be capable of correct operation at the higher data speeds designated. 33.6 kbps and 56 kbps connections are likely to be restricted to lower bit rates when connected to some PSTN implementations. Telecom will accept no responsibility for difficulties arise in such circumstances.
2. Immediately disconnect this equipment should it become physical damaged, and arrange for its disposal or repair.
3. This modem shall not be used in any manner which could constitute a nuisance to other Telecom customers.
4. This device is equipped with pulse dialing, while the Telecom standard is DTMF tone dialing. There is no guarantee that Telecom lines will always continue to support pulse dialing.
5. Use of pulse dialing, when this equipment is connected to the same line other equipment, may give rise to 'bell tinkle' or noise and may also cause a false answer condition. Should such problems occur, the user should NOT contact the Telecom Fault Service.
6. DTMF tones dialing is the preferred method because it is faster than pulse (decadic) dialing and is readily available on almost all New Zealand telephone exchanges.



**WARNING:** No '111' or other calls can be made from this device during a mains power failure.

7. This equipment may not provide for the effective hand-over of a call to another device connected to the same line.
8. Some parameters required for compliance with Telecom Telepermit requirements are dependent on the equipment (computer) associated with this device. The associated equipment shall be set to operate within the following limits for compliance with Telecom Specifications:

For repeat calls to the same number:

- There shall be no more than 10 call attempts to the same number within any 30 minute period for any single manual call initiation, and
- The equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next attempt.

For automatic calls to different numbers:

The equipment shall be set to ensure that automatic calls to different numbers are spaced such that there is no less than five seconds between the end of one call attempt and the beginning of another.

9. For correct operation, total of the RNs of all devices connected to a single line at any time should not exceed five.



# Introduction

The ColorQube 8700/8900 printer combines a color solid ink print engine, a Scanner, Copier, and Fax. The ColorQube 8700/8900 printer offers color and mono print speed at 19/18-ppm, copy and scan resolutions at to 600 x 600 dots-per-inch (dpi), while it can achieve print resolutions up to 525 x 2400 dpi. The printer supports up to 44 page per minute (PPM) and includes Adobe PostScript 3 and PCL6, USB 2.0, and 10/100/1000 Base-TX Ethernet. The Scanner supports Scan to Desktop, Scan to Public Folder (mailbox), Scan to Network/FTP, Scan to USB, and Network Scan to E-Mail using 7" touch-screen Control Panel with resolution up to 600 dpi. A Convenience Stapler is a standard feature for the ColorQube 8700/8900 printer.


The ColorQube 8700/8900 printer provides two standard paper trays. The 100-sheet Tray 1 supports manual feed of specialty media, card stock, and envelopes. Tray 2 provides 525 sheets of capacity. The Output Tray holds 350 sheets facedown.

Available options for the ColorQube 8700/8900 printer include optional 525-Sheet Feeder, 1800-Sheet Feeder, Wireless LAN, and Foreign Device Interface (FDI). Additional trays (Trays 3-5) or one 1800-Sheet Feeder can be combined with an additional two 525 sheet trays for a maximum input of 3,475 sheets. A 650-Sheet Finisher with stapling and offset stacking features is available with the ColorQube 8700/8900 printer per selected model. The printer Storage Cart is available for mobility.

# Printer Configurations

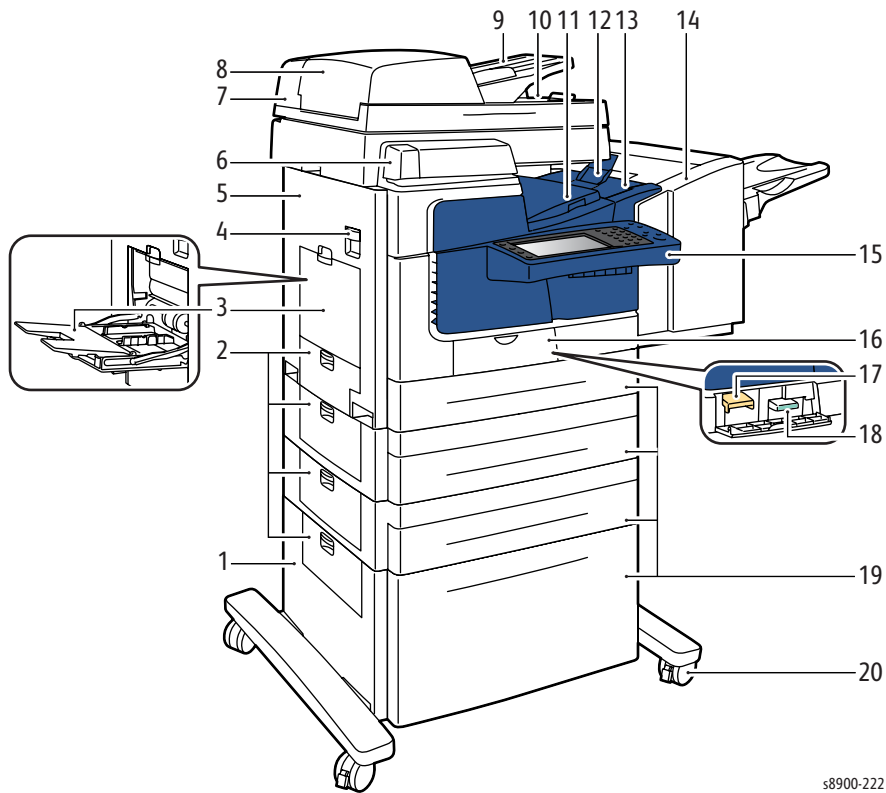
The ColorQube 8700/8900 v1/v2/v3 is available in four configurations.

Features	Printer Configurations			
	8700S	8700X	8700XF	8900X
Processor	1.33 GHz	1.33 GHz	1.33 GHz	1.33 GHz
Memory Configuration	1 GB	1 GB	1 GB	1 GB
Adobe PostScript 3 Fonts	Standard	Standard	Standard	Standard
PCL6 Fonts	Standard	Standard	Standard	Standard
USB 2.0 Hi-Speed	Standard	Standard	Standard	Standard
Ethernet Interface	10/100/1000 Base-TX	10/100/1000 Base-TX	10/100/1000 Base-TX	10/100/1000 Base-TX
Tray 1 (100 Sheet)	Standard	Standard	Standard	Standard
Tray 2 (525 Sheet)	Standard	Standard	Standard	Standard
525-Sheet Feeder (up to 3)	Optional (up to 3)	Optional (up to 3)	(2) Standard	Optional (up to 3)
1800-Sheet Feeder	Optional	Optional	Standard	Optional
Automatic Duplex	Standard	Standard	Standard	Standard
Hard Disk Drive	Standard	Standard	Standard	Standard
Convenience Stapler	Standard	Standard	Standard	Standard
Copy	Standard	Standard	Standard	Standard
Scan	Standard	Standard	Standard	Standard
Fax	Optional	Standard	Standard	Standard
650-Sheet Finisher	Optional	Optional	Standard	Optional
Storage Cart	Optional	Optional	Optional	Optional
Wireless LAN	Optional	Optional	Optional	Optional
Foreign Device Interface	Optional	Optional	Optional	Optional
<b>Print Speed (ppm)</b>				
Fast Color (188 x 400)	44/31	44/31	44/31	44/31
Standard (300 x 450)	30/25	30/25	30/25	30/25
Enhanced (525 x 450)	19/18	19/18	19/18	19/18

Features	Printer Configurations			
	8700S	8700X	8700XF	8900X
Photo (525 x 2400)	6/6	6/6	6/6	6/6
PCL (400 x 600)	20/18	20/18	20/18	20/18
PCL (600 x 600)	11/11	11/11	11/11	11/11
<b>Printer Resolution - PostScript</b>				
Fast Color 	188 x 400	188 x 400	188 x 400	188 x 400
Standard	300 x 450	300 x 450	300 x 450	300 x 450
Enhanced	525 x 450	525 x 450	525 x 450	525 x 450
Photo	525 x 2400	525 x 2400	525 x 2400	525 x 2400
<b>Copy Resolution (dpi)</b>				
Color	488 x 488	488 x 488	488 x 488	488 x 488
Mono	488 x 488	488 x 488	488 x 488	488 x 488
<b>Scanning Resolution (dpi)</b>				
From Document Glass	600 x 600	600 x 600	600 x 600	600 x 600
From DADF	600 x 600	600 x 600	600 x 600	600 x 600

# Parts of the Printer

## Left Front View - ColorQube 8700 XF

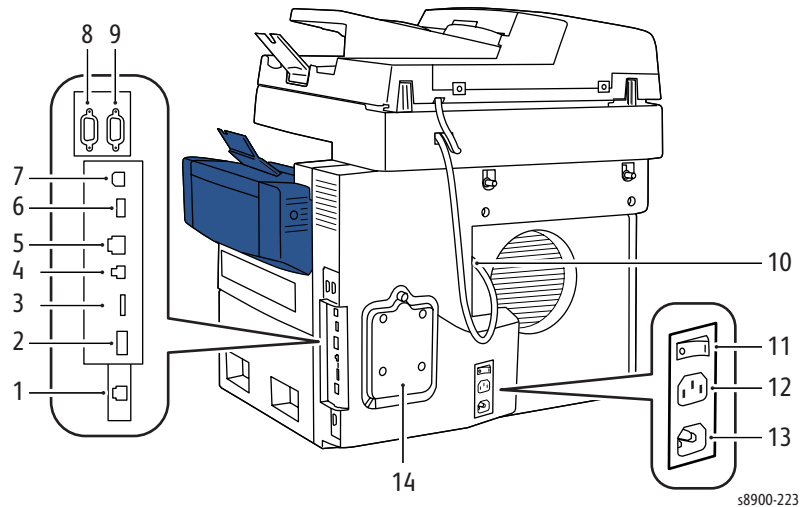


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- |     |                                 |     |                    |
|-----|---------------------------------|-----|--------------------|
| 1.  | 1800-Sheet High-Capacity Feeder | 11. | Output Tray        |
| 2.  | Tray 2/3/4/5 Left Side Door     | 12. | Tray Extender      |
| 3.  | Tray 1                          | 13. | Ink Access Door    |
| 4.  | Left Hand Door Release          | 14. | 650-Sheet Finisher |
| 5.  | Left Hand Door                  | 15. | Control Panel      |
| 6.  | Convenience Stapler             | 16. | Front Door         |
| 7.  | Scanner with Document Feeder    | 17. | Cleaning Unit      |
| 8.  | Document Feeder Top Cover       | 18. | Waste Tray         |
| 9.  | Document Feeder Tray            | 19. | Trays 2-5          |
| 10. | Document Feeder Output Tray     | 20. | Locking Wheels     |

## Right Rear View

The right and rear view consists of the printer's electronic components. The rear panel allows access to the Hard Disk Drive.

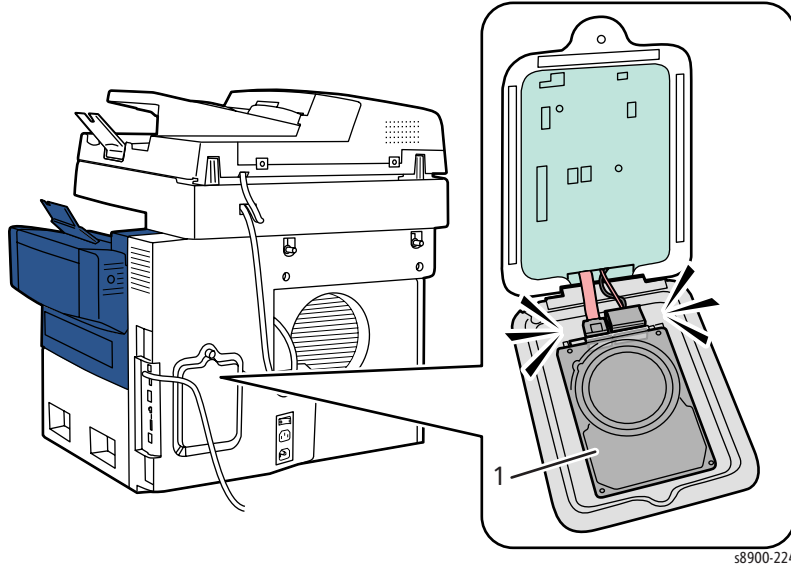


1. Fax Line Connector
2. Feature Card Slot
3. Service Only Port - Serial Cable
4. Service Only Port
5. Ethernet Connection
6. USB Data Port
7. USB Printer Port
8. Foreign Device Interface
9. Finisher Interface
10. Scanner Port
11. Power Switch
12. Power Connector for Finisher
13. Power Connector for Printer
14. Hard Disk Drive Cover

## Hard Disk Drive

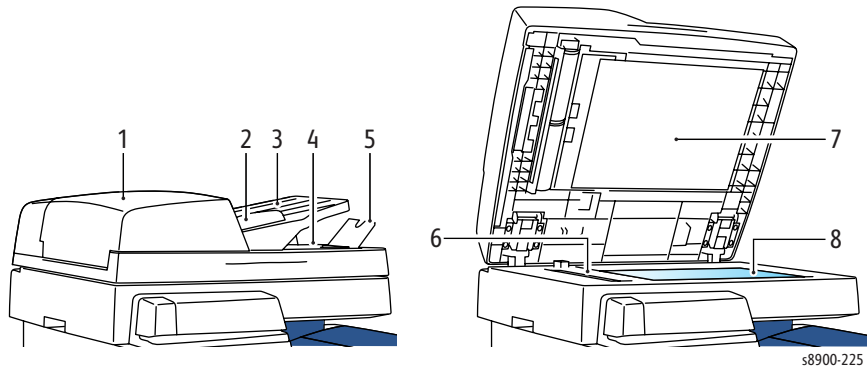
The ColorQube 8700/8900 supports an optional internal Hard Disk Drive. The Hard Disk Drive has a minimum 160 GB capacity. Features include:

- Secure Print
- Proof Print
- Save Print
- Disk Collation



1. Hard Disk Drive

## Scanner with Duplex Automatic Document Feeder (DADF)



1. DADF Top Cover
2. DADF Width Guides
3. DADF Tray
4. DADF Output Tray
5. Output Tray Paper Stop
6. Constant Velocity Transport (CVT) Glass
7. Document Cover
8. Document Glass

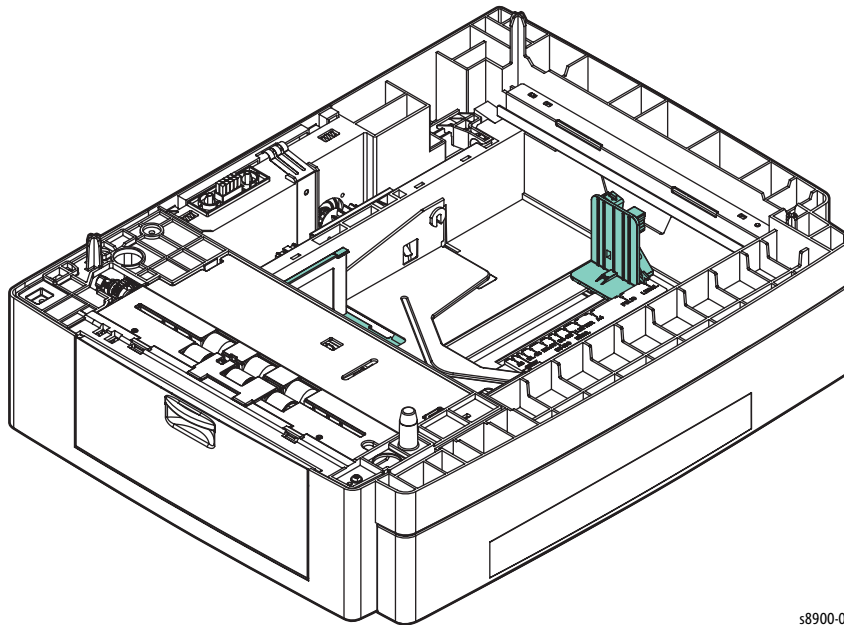
## Printer Options

The ColorQube 8700/8900 v1/v2/v3 printer options include:

- Optional 525-Sheet Feeder (Tray 3, 4, or 5)
- Optional 1800-Sheet High Capacity Feeder
- Storage Cart
- 650-Sheet Finisher
- Foreign Device Interface
- External Wireless Network Adapter

### Optional 525-Sheet Feeder (Tray 3, 4, or 5)

The Optional 525-Sheet Feeder increases the input capacity of the printer and can be attached to the printer underneath Tray 2. The Optional 525-Sheet Feeder is customer installable.

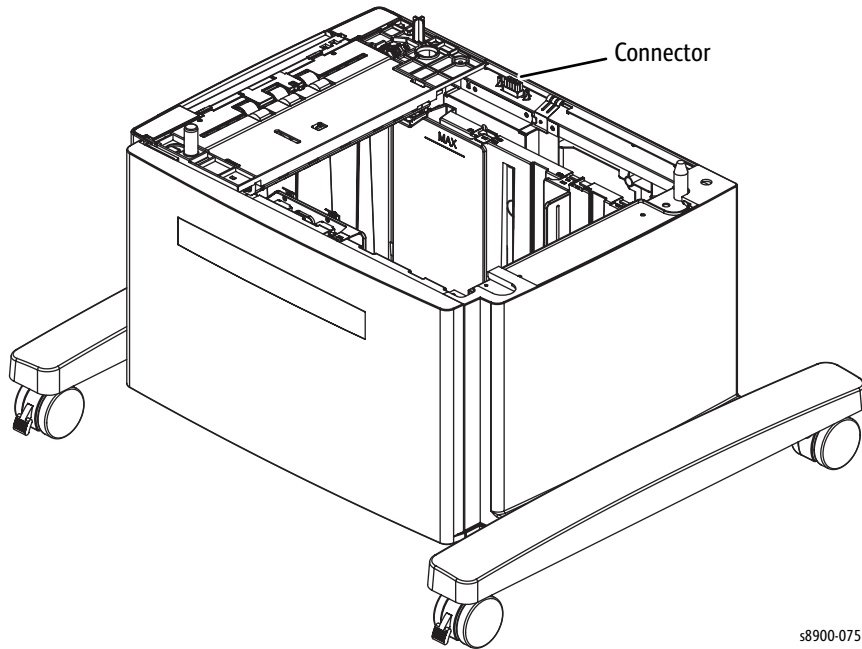


s8900-064



## Optional 1800-Sheet High Capacity Feeder

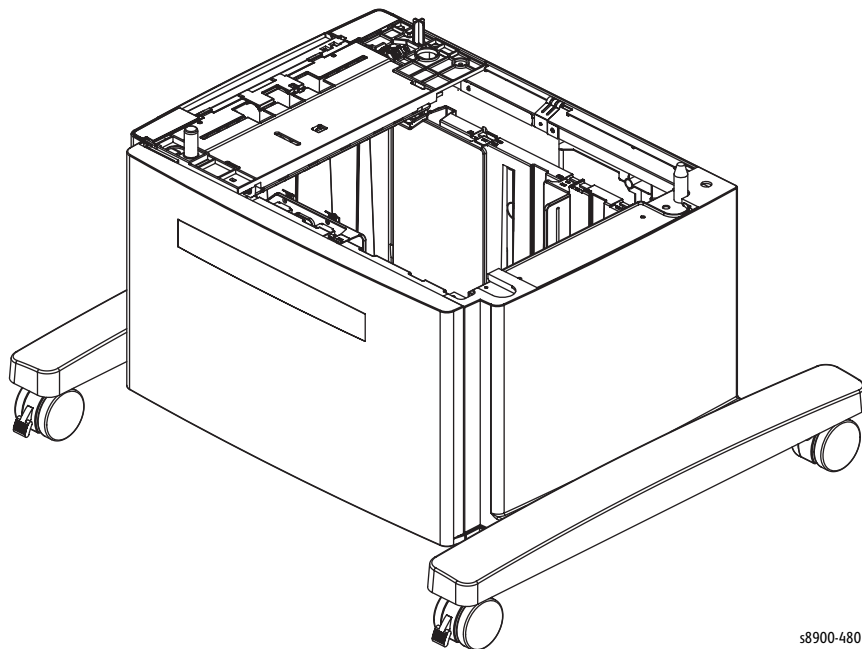
The Optional 1800-Sheet High Capacity Feeder increases the input capacity of the printer and can be attached to the printer underneath Tray 2. The Optional 1800-Sheet Feeder is customer installable.



s8900-075

## Storage Cart

The Storage Cart supports a fully-optioned printer.

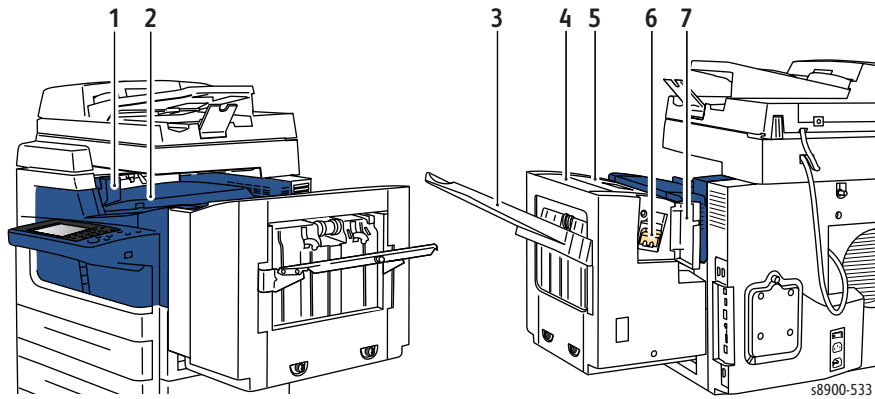


s8900-480

## 650-Sheet Finisher

The Finisher is a customer installable option. The Finisher features include:

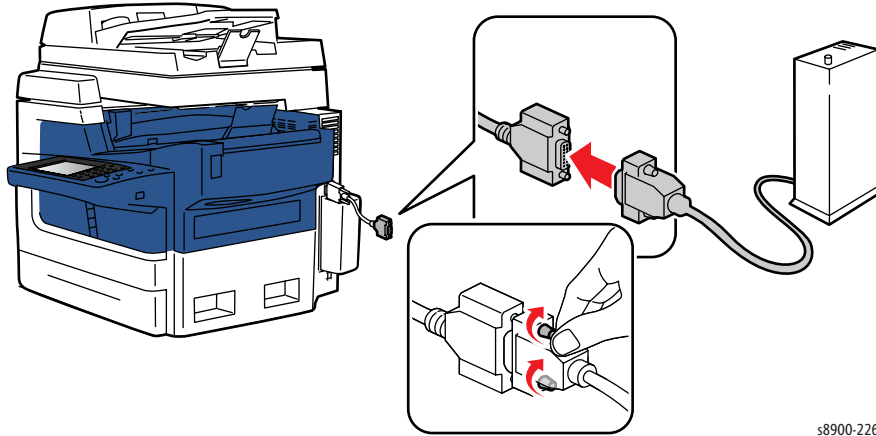
- 650 Sheet Offset, Stack, and Staple
- Tray Capacity: 650 sheets
- Staple: maximum 50 sheets, corner or parallel to the edge
- Staple Cartridge Capacity: 5,000 staples



1. Output Tray
2. Finisher Transport Cover
3. Finisher Output Tray
4. Exit Cover
5. Finisher Top Cover
6. Staple Cartridge
7. Finisher Stapler Door

## Foreign Device Interface

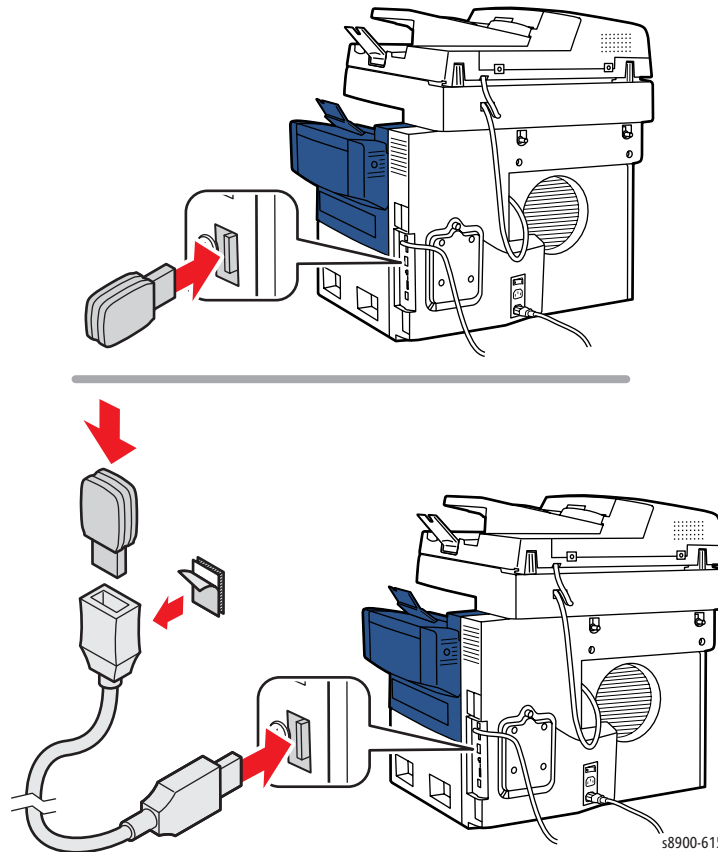
The Foreign Device Interface (FDI) cable provides the capability to connect an external device such as Coin Operation device to the printer.



s8900-226

## External Wireless Network Adapter

The External Wireless Network Adapter enables the printer to connect to a wireless network.

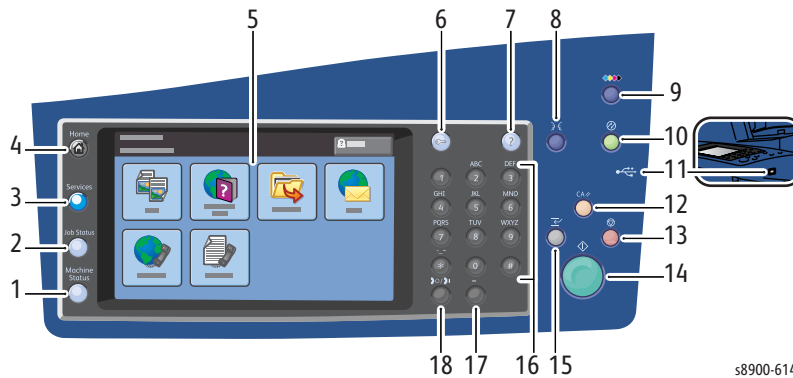


s8900-615

## Control Panel Layout

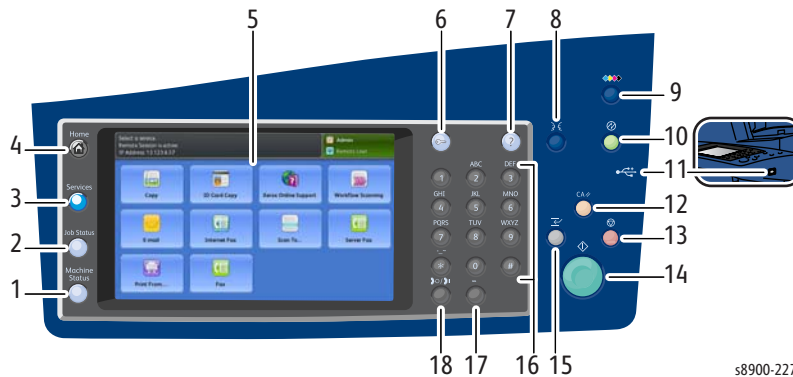
### Control Panel Button Description

The Control Panel consists of 7 LEDs (also as functional buttons), one 7 inch Wide Video Graphics Array (WVGA) touch screen display, and 27 functional buttons. These buttons are used to navigate the menu system, perform functions, and select modes of operation for the printer, scanner, copier, and fax.



s8900-614

**Color Cube 8700 V1/V2 Control Panel UI**



s8900-227

**Color Cube 8700 V3 Control Panel UI**

- |    |                       |  |
|----|-----------------------|--|
| 1. | <b>Machine Status</b> | Displays the status of the printer on the touch screen.  |
| 2. | <b>Job Status</b>     | Displays lists of the active or completed jobs on the touch screen.                              |
| 3. | <b>Services</b>       | Provides access to the options for the selected copy, scan, or fax function on the touch screen. |
| 4. | <b>Services Home</b>  | Provides access to printer features, such as copy, scan, and fax.                                |
| 5. | <b>Touch Screen</b>   | Displays information and provides access to printer functions.                                   |
| 6. | <b>Log In/Out</b>     | Provides access to password-protected features.  |
| 7. | <b>Help (?)</b>       | Displays information about the current selection.  |

- |     |                                |   |
|-----|--------------------------------|---|
| 8.  | <b>Language</b>                | Changes the touch screen language and keyboard settings.  |
| 9.  | <b>Ink Access Door Release</b> | Turns the release motor On for the Ink Access Door.   |
| 10. | <b>Power Saver</b>             | Enters and exits low-power mode.  |
| 11. | <b>USB Memory Port</b>         | Provides USB Flash drive connection for use with Scan to USB and Print from USB functions.  |
| 12. | <b>Clear All</b>               | If pressed once, resets to the default settings and displays the first screen for the current selection. If pressed twice, Clear All resets all the features to their default settings. |
| 13. | <b>Stop</b>                    | Temporarily stops the current job. Follow the on-screen instructions to cancel or resume your job.  |
| 14. | <b>Start</b>                   | Starts the selected copy, scan, fax, or Print From job, such as Print from USB.   |
| 15. | <b>Interrupt Print</b>         | Interrupts or resumes the current print, copy, or fax job.  |
| 16. | <b>Alphanumeric Keypad</b>     | Enters alphanumeric information.  |
| 17. | <b>C (clear)</b>               | Deletes numeric values or the last digit entered using the alphanumeric keys.   |
| 18. | <b>Dial Pause</b>              | Inserts a pause in a telephone number when transmitting a fax.  |

## LED Indicators

Item	LED Button	Printer State
1.	Services	Blue when the screen is active
2.	Job Status	Blue when the screen is active
3.	Machine Status	Blue when the screen is active
4.	Login/ Out	Green when the screen is active
5.	Help (?)	Green when the screen is active
6.	Interrupt Printing	Green when feature is active
7.	Power Save	Flashing green in Power Save Mode

## Service Control Panel Access

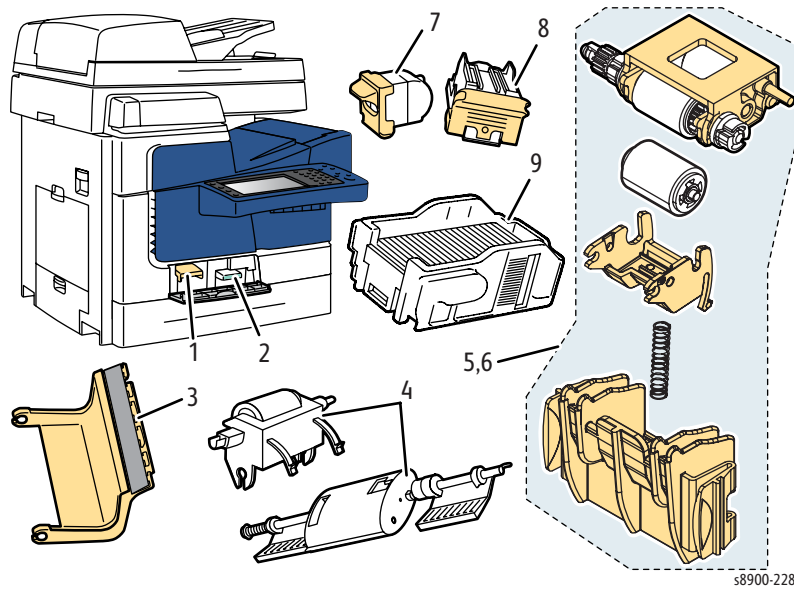
LED Button	Printer State
Enter Service Diagnostics	"*" then + "#" then + <b>Stop</b> buttons Enter password <b>1991</b>
Service Copy Mode	"*" + "#" + <b>Stop</b> buttons Enter password <b>2732</b>
Control Panel Calibration	<b>Dial Pause</b> + "*" + "#" buttons

**Note:** The LED is not illuminated when processing jobs.

## Routine Maintenance Items

Cleaning Unit life expectancy depends on the unit capacity.

- Standard capacity Cleaning Unit produces 10,000 prints regardless of the colors used.
- Extended-capacity Cleaning Unit for the ColorQube 8700/8900 produces 30,000 pages up to 20 % coverage and 20,000 - 30,000 pages when coverage exceeds 20 % .



# Consumables

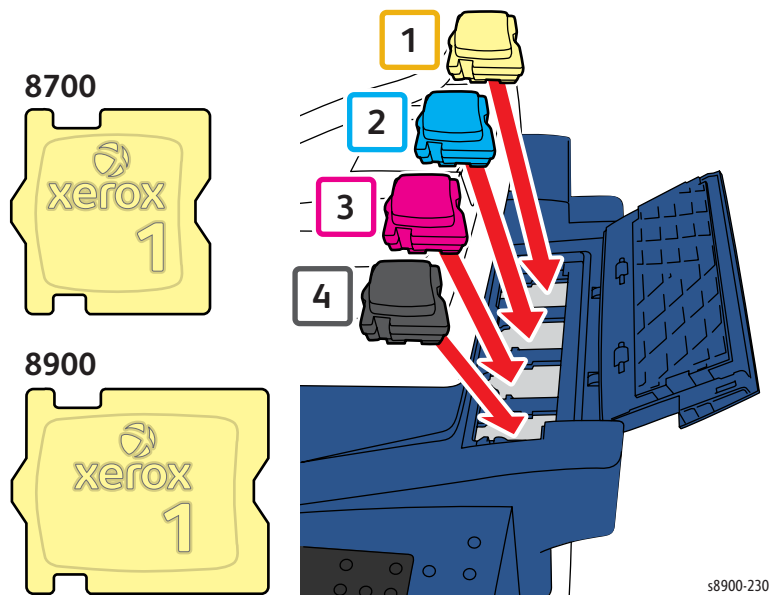
**! CAUTION:** The ColorQube 8700/8900 printer uses a new formulation of Ink having unique properties. The Ink Loader on these products is keyed to accept this Ink shape only. The use of Ink not specifically designed for this product can result in printer failures.

**Note:** Print life is based on “typical” office printing and 5 % coverage per color.

The Long Life Maintenance life span is detected in three stages: Near, Life End, and Dead Stop.

## Consumables Life Expectancy

Item	Description	Print Life (per stick)
1.	Black Ink Stick - 8700S/ X/ XF	2,250 pages
2.	Cyan, Magenta, Yellow Ink Sticks - 8700S/ X/ XF	2,100 pages
3.	Black Ink Stick - 8900X	3,000 pages
4.	Cyan, Magenta, Yellow Ink Sticks - 8900X	2,817 pages



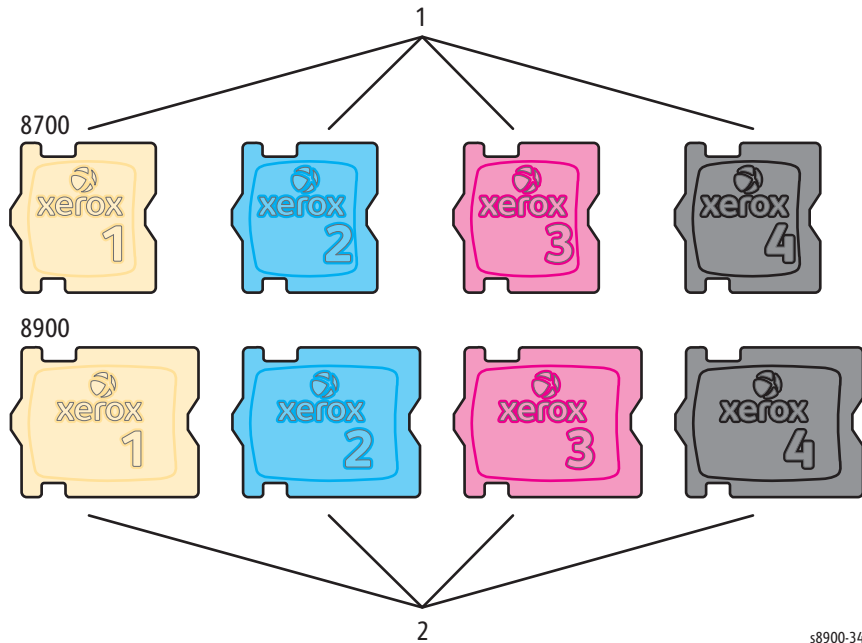
s8900-230



**! CAUTION:** Only use ink designed exclusively for the printer. Use of ink other than Genuine Xerox solid ink may affect print quality and printer reliability. It is the only ink designed and manufactured under strict quality controls by Xerox for specific use with these printers.

**Note:** Verify that the molded Xerox label is shown on top of the ink stick.

1. ColorQube 8700S/ X/ XF
2. ColorQube 8900X



**Learning Mode** - The printer is programmed to lock the sensor to use a particular ink stick after a few non-factory sticks have inserted.

**Factory Ink Sticks** - Factory ink sticks of each color are provided with new printers and replacement Printheads.

Different ink stick types or SKUs meant for particular geographic regions can be determined by looking at size of the ink stick and the bottom of the ink stick. Compare the letter pattern in [Table 1 - ColorQube 8700 S/ X/ XF Ink SKU Definitions](#) on page 1-42 and [Table 2 - ColorQube 8900 X SKU Definitions](#) on page 1-43 table for the different regions on the ColorQube 8700 and 8900 ink sticks.

**Notes:**

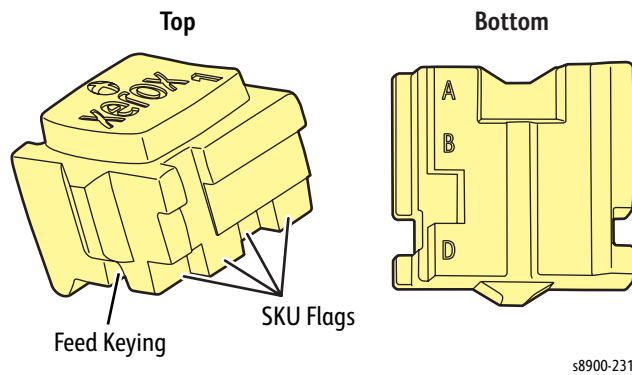
- The ColorQube 8900 North America ink sticks are not compatible with the ColorQube 8700 North America printers, and the ColorQube 8900 Xerox Europe ink sticks are not compatible with the ColorQube 8700 Xerox Europe printers.
- The ColorQube 8700 Factory ink sticks A\_D are compatible with both the ColorQube 8700 and ColorQube 8900 printers. Customers are limited to using a maximum of three Factory ink sticks for each color.

## ColorQube 8700 S/ X/ XF Ink SKU Definitions

**Table 1 - ColorQube 8700 S/ X/ XF Ink SKU Definitions**

Description	A	B	C	D
North America (NA)	A		C	
Xerox Europe (XE)	A	B	C	
Developing Markets Organization (DMO)	A	B		
Metered	A	B		D
Factory	A			D

**Note:** ColorQube 8700 Metered ink stick shown in the following illustration.



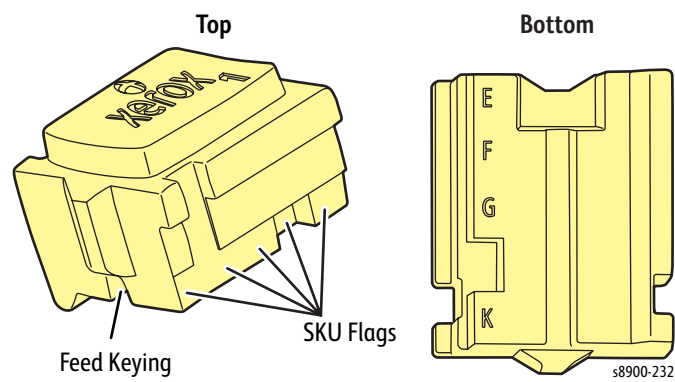
**Ink Stick Keys and SKU Flags Example - ColorQube 8700 Metered Ink Stick**

## ColorQube 8900 X Ink SKU Definitions

**Table 2 - ColorQube 8900 X SKU Definitions**

Description	E	F	G	H	K
North America (NA)	E	F	G	H	
Xerox Europe (XE)	E	F		H	
Developing Markets Organization (DMO)	E	F	G		
Metered	E	F	G		K

**Note:** ColorQube 8900 Metered ink stick shown in the following illustration.



**Ink Stick Keys and SKU Flags Example - ColorQube 8900 Metered Ink Stick**

# Specifications

## Print Engine Specifications

Characteristic	Specifications
Printing Process	Four-color (CMYK) solid ink Printhead architecture.
Image System	Transfix transfer from oil coated Drum.
Color Medium	Cyan, Magenta, Yellow, and Black Ink Sticks, each shape-coded. the printer uses the subtractive color system to produce the colors Red, Green, and Blue.
Color Management	<ul style="list-style-type: none"> <li>• Automatic, Black &amp; White</li> <li>• Office: sRGB, sRGB Scientific, LCD Display, Vivid Color, None</li> <li>• Press: Commercial, Euroscale, SWOP</li> </ul>
Resolution	<ul style="list-style-type: none"> <li>• Fast Color: 188 x 400 dpi</li> <li>• Standard: 300 x 450 dpi</li> <li>• Enhanced: 450 x 525 dpi</li> <li>• Photo: 525 x 2400 dpi</li> </ul>
First Print Out Time	<ul style="list-style-type: none"> <li>• From Cold Start: Less than 12 minutes</li> <li>• From ENERGY STAR Mode: 2 minutes</li> </ul>
Printer Life	600,000 pages
Recommended AMPV*	2,000 prints/ month
Operating System	<ul style="list-style-type: none"> <li>• Windows 2003 Server/ 2008 Server/ Windows 7/ XP/ Vista</li> <li>• Macintosh: OS 10.5 or higher</li> <li>• Linux</li> </ul>
* Assumes a 30 day month of printing	

## Memory Specification

Characteristic	Specifications
Maximum RAM	1 GB
Supported RAM	Supports 1 GB of DDR2 SDRAM using 1 slot.

## Scanning Specifications

Characteristic	Specifications
Scanning Technology	Flatbed Color CCD Scanner
Scanning Mode	<ul style="list-style-type: none"> <li>Document Glass: Document fixed flatbed scanning</li> <li>DADF: Carriage fixed, document feeding scanning (single pass)</li> </ul>
Scanning Speed	<ul style="list-style-type: none"> <li>Color: Up to 40 ppm</li> <li>Text and Photo: 40 ppm</li> </ul>
Resolution	<ul style="list-style-type: none"> <li>Optical Scan: 600 x 600 dpi</li> <li>Color (Max.): 600 x 600 dpi</li> <li>Mono (Max.): 600 x 600 dpi</li> </ul>
Halftone/ Grayscale	256 levels
Bit Depth	<ul style="list-style-type: none"> <li>Color: 24 bits</li> <li>Mono: 1 bit for line-art halftone 8 bits for gray scale</li> </ul>
Maximum Scanning Area	8.5" x 14" (216mm x 356mm)
File Formats	JPG, Tiff, Multi Page Tiff, PDF, Searchable PDF
Advanced Settings	Lighten/ Darken, Background suppression, Resolution
Layout Adjustments	Scan to edge, Auto-detect original size
Scan Destinations	<ul style="list-style-type: none"> <li>Scan to Mailbox</li> <li>Scan to E-Mail</li> <li>Scan to public folder</li> <li>Scan to desktop</li> <li>Scan to Network/ FTP</li> <li>Scan to USB</li> </ul>

## Copy Specifications

Characteristic	Specifications
Resolution	488 x 488 dpi
Copy Speed (Simplex)	<ul style="list-style-type: none"> <li>Letter: 20 ppm</li> <li>A4: 20 ppm</li> </ul>
Quantity	1 to 999
Input/ Output	1:1, 1:2, 2:2, 2:1
Document Scanner	DADF with 50-sheet capacity
Copy Size (Max.)	<ul style="list-style-type: none"> <li>Platen: 8.5 x 11 inches (Letter)</li> <li>DADF: 8.5 x 14 inches (Legal)</li> </ul>

Characteristic	Specifications
Copy to Mailbox	Yes
Concurrency	Yes
Duplex Copy	Yes
Collation (Sorting)	Yes
Copy Features & Options	<ul style="list-style-type: none"> <li>• Anamorphic Zoom</li> <li>• Annotation</li> <li>• Auto Job Centering</li> <li>• Automatic Background Suppression</li> <li>• Darkness Control</li> <li>• Margin Shift</li> <li>• Book Copy</li> <li>• Book Copy with Center Erase</li> <li>• Covers</li> <li>• Edge Erase</li> <li>• Transparencies</li> <li>• Create Booklet</li> <li>• N-UP</li> <li>• Image Rotate</li> <li>• Mixed Size Originals</li> <li>• Image Shift</li> <li>• Transparency Dividers</li> <li>• Transparency Interleave</li> <li>• Job Interrupt</li> <li>• Job Build</li> <li>• Photo Mode</li> <li>• Program Ahead</li> <li>• Poster</li> </ul>
Reduce/ Enlarge	<ul style="list-style-type: none"> <li>• From Glass: 25 % - 400 %</li> <li>• From DADF: 25 % - 100 %</li> <li>• Pre-set Settings: 6 + custom</li> </ul>

## Copy Speed

Mode	1st Page, 1st Set	Additional Pages, 1st Set	Additional Sets
Mono	16 sec	At 20 ppm	At 20 ppm
Color	16 sec	At 20 ppm	At 20 ppm

## Fax Specifications

Characteristic	Specifications
Type	ECM/ Super G3
Modem Speed	V.34 (up to 33.6Kbps)
TX Speed	3 sec per page (at V.34)
Resolution	<ul style="list-style-type: none"> <li>• Standard: 200 x 100 dpi</li> <li>• Fine: 200 x 200 dpi</li> <li>• Super Fine: 600 x 600 dpi</li> </ul>
Scan Speed at DADF	1.1 seconds per page
Compression	MH, MR, MMR, JBIG
Auto Redial	Up to 13 times
Mailboxes	Up to 200
Phone Number Stored (Max.)	Up to 200
Speed Dial	Up to 200 locations
Broadcast	Up to 200 locations
Network Server Fax	Enablement
Receive Mode	Fax, Tel, ANS/FAX

Characteristic	Specifications
Fax Features	<ul style="list-style-type: none"> <li>• 2-Sided Faxing (Duplex)</li> <li>• Delayed Send</li> <li>• External Phone Interface</li> <li>• Fax forward to Fax</li> <li>• Internet Fax</li> <li>• Fax forward to E-Mail</li> <li>• Color Internet Fax (Send/ Receive)</li> <li>• LAN Fax</li> <li>• PC Fax (via Fax Modem)</li> <li>• Secure Fax</li> <li>• Junk Fax Barrier</li> <li>• Last number redial</li> <li>• Memory receive</li> <li>• Mixed Size Originals</li> <li>• Key Volume Adjust</li> <li>• OHD Volume Adjust</li> <li>• Ring Volume Adjust</li> <li>• Speaker Volume Adjust</li> <li>• Off Hood Dial</li> <li>• Pause</li> <li>• Phone Book Search</li> <li>• Polling</li> <li>• Send Confirmation</li> <li>• Send Receive Reporting Journal/ Printout</li> </ul>

## Electrical Specifications

Characteristic	Specifications
Primary Line Voltages	<ul style="list-style-type: none"> <li>• 90 - 140 VAC</li> <li>• 180 - 264 VAC</li> </ul>
Primary Line Voltages Frequency Range	47 - 63 Hz
Max Power Consumption at Rated Voltage Input	<ul style="list-style-type: none"> <li>• Warm-Up Peak: 1500 W</li> <li>• Printing: 600 W</li> <li>• Idle: 300 W</li> <li>• Power Saver: 70 W</li> </ul>
In-rush Current	Less than 60 A
Leakage Current	Less than 3.5 mA



## Environmental Specifications

Characteristic	Specifications	
	Operating	Storage
Temperature	10° to 32° C (50° to 90° F)	-29° to 55° C (-20° to 131° F)
Humidity	10% to 80% RH Non-Condensing	Uncontrolled to 85% RH, non-condensing
Altitude	4,000 meters (13,123 ft.)	6,092 meters (19,987 ft.)
Acoustic Noise	Sound Power Level (Bels)	Sound Pressure (Decibels)
Printing	7.3 B	58.0 dB
Copying (Document Glass)	<7.0 B	55.0 dB
Idle	5.0 B	35.0 dB

**Note:** Check that the printer is on a stable, non-vibrating surface. Advise the customer to use care not to shake the printer excessively when loading media or closing the Left Hand Door. During operation, the ink is in liquid form and can spill from the Printhead reservoir resulting in output defects.

## Print Speed

### Print Modes and Speeds

Resolution	Simplex, A4 Paper	Auto Duplex, A4 Paper
<b>Tray 1</b>		
Fast Color (188 x 400)	13 ppm	15 ppm
Standard (300 x 450)	13 ppm	15 ppm
Enhanced (525 x 450)	11 ppm	13 ppm
Photo (525 x 2400)	6 ppm	6 ppm
PCL 600 x 400 Mode	11 ppm	11 ppm
PCL 600 x 600 Mode	11 ppm	11 ppm
<b>Tray 2</b>		
Fast Color (188 x 400)	44 ppm	31 ppm
Standard (300 x 450)	30 ppm	25 ppm
Enhanced (525 x 450)	19 ppm	18 ppm
Photo (525 x 2400)	6 ppm	6 ppm
PCL 600 x 400 Mode	20 ppm	18 ppm
PCL 600 x 600 Mode	11 ppm	11 ppm

## Warm-Up Time

Warm-up time is defined as the time from a power-off or a sleep condition, to a ready to print/ copy condition, and is measured in ambient temperature 27°C and at nominal line voltage for both 120V and 240V models.

Characteristic	Specifications
<b>Ready to Print</b>	
From Power On	<12 minutes
From Power Saver Mode	<2 minutes
<b>Ready to Scan</b>	
From Power On	<4 minutes
From Power Saver Mode	<5 seconds

Any of the following interrupts shall wake the printer from Sleep mode via the Control Panel accelerometer (not all interrupts are sensor driven):

### Scanner

- Scanner open
- DADF Top Cover open
- Key press on the Control Panel
- Touch panel press on the Control Panel

### Engine

- Left Door open
- Main Paper Tray open
- Optional Paper
- Cleaning Unit removed
- Power Switch turned off
- Wake-on-Ethernet - any packets specifically for the printer (ignore broadcast packets)
- Wake-on-USB (device port) - cable connected, job arrives or host device plugged into the Control Panel
- Fax to Print (fax forward to e-mail should stay in Low power mode)

### First Print Output Time

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. First Print Out Time includes the time required to print any maintenance pages (such as the mud page) and a single customer page on A size media from Tray 2.

#### From Ready State

Resolution	Time
Fast Color (188 x 400)	9 seconds or less
Standard (300 x 450)	10 seconds or less
Enhanced (525 x 450)	12 seconds or less
Photo (525 x 2400)	24 seconds or less

**From Non-Ready State**

Starting State	Time
Off (cold)	12 minutes
Power Saver	2 minutes
Low Power (Standby)	30 seconds
Quiet Warm-Up	30 seconds

**First Copy Output Time**

First Copy Output Time (FCOT) is defined when a document is placed on the printer in Ready condition and the **Start** button is pressed until the trail edge of the first copied output passes the Exit Rollers.

**From Ready State**

Original Location	Time
DADF	As fast as 16 seconds
Platen	As fast as 16 seconds

**From Non-Ready State**

Starting State	Time	
	Platen	DADF
Power Saver	2 minutes	2 minutes
Low Power	30 seconds	30 seconds
Quiet Warm-Up	30 seconds	30 seconds

**Cool Down Transition Time**

At nominal ambient conditions, the printer will cool to a movable condition within specified times.

Transition	Maximum Transition Time
From Ready	35 minutes
From ENERGY STAR	20 minutes

## Cold Print Process Settings

The printer uses lower Drum temperature settings to allow the printer to have a lower FPOT from power saver and low power mode. This allows printing to occur sooner for the first print, but at slower print speed. Certain print types (duplex, transparencies, etc.) may be excluded from cold print process and will therefore have a longer FPOT.

Characteristic	Setting
Drum Temperature	47° C
Preheat Temperature	Normal Range
Transfix Speed	<ul style="list-style-type: none"> <li>• 5 ips up to Drum temperature of 50° C</li> <li>• 10 ips up to Drum temperature of 57° C</li> </ul>
Reservoir Temperature	Normal Range
Jetstack Temperature	Normal Range

## Media and Tray Specifications

Refer to the Recommended Media Lists (RML) on the Xerox web sites for the latest updates.

- United States: [www.xerox.com/paper](http://www.xerox.com/paper)
- Europe: [www.xerox.com/europaper](http://www.xerox.com/europaper)

### Supported Envelopes

Type	Dimension	Tray 1	Trays 2/ 3/ 4/ 5
#10 Commercial Envelope	4.1 x 9.5 in. (104 x 241 mm)	Yes	No
Monarch Envelope	3.9 x 7.5 in. (99 x 190 mm)	Yes	No
European DL Envelope	4.3 x 8.7 in. (109 x 221 mm)	Yes	No
C5 Envelope	6.4 x 9.0 in. (163 x 229 mm)	Yes	No
6" x 9" Envelope	6.0 x 9.0 in. (152 x 229 mm)	Yes	No
US #5 - 1/2 Baronial	4.375 x 5.75 in. (111 x 146 mm)	Yes	No
US #6 - 3/4 Envelope	3.625 x 6.5 in. (92 x 165 mm)	Yes	No
<b>Note:</b> Do not use envelopes with hot melt glue, windows, or metal clasps.			

### Media that may cause 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
- Paper that has been stapled, folded, photocopied, or wrinkled
- Envelopes with windows, metal clasps, padding, or adhesives with release strips
- Media that is less than 60 g/m<sup>2</sup> or more than 220 g/m<sup>2</sup>

### Media Storage Guidelines

If media handling problems are a common occurrence, review the following storage guidelines with the customer.

- Store paper in dark, cool, relatively dry locations. Most paper items are susceptible to damage from ultraviolet (UV) and visible light. UV radiation, which is emitted by the sun and fluorescent bulbs, is particularly damaging to paper items. The intensity and length of exposure to visible light on paper items should be reduced as much as possible.
- Maintain constant temperatures and relative humidity.
- Avoid light, heat, and dampness.
- Avoid attics, kitchens, garages, and basements for storing paper. Inside walls are drier than outside walls where moisture can collect.
- Store paper flat. Paper should be stored on pallets, cartons, shelves, or in cabinets.
- Avoid having food or drinks in the area where paper is stored or handled.

- Do not open sealed packages of paper until needed. Leave paper in the original packaging. For most commercial grades, the wrapper’s inner lining protects the paper.
- Some specialty media is packaged inside sealed plastic bags. Leave the media inside the bag until needed; return unused media to the bag.

## Supported Media

Information about paper sizes and weights that can be used in the printer trays is available on the Paper Tips page.

See also: Recommended Media List at [www.xerox.com/paper](http://www.xerox.com/paper)

## Media Tray Capacity

Media and Weight	Tray 1	Tray 2	525-Sheet Feeder	1800-Sheet Feeder
Standard Paper	100 sheets	525 sheets	525 sheets	1800 sheets
Envelope	10	40	40	N/A
Weight	60-220 g/m <sup>2</sup>	60-220 g/m <sup>2</sup>	60-220 g/m <sup>2</sup>	60-122 g/m <sup>2</sup>

## Physical Dimensions and Clearances

### Print Engine

Characteristic	8700 X/ X, 8900 X	8700 XF
Width	23.8 in. (60.5 cm)	46.9 in. (119.0 cm)
Depth	23.4 in. (59.5 cm)	23.4 in. (59.5 cm)
Height	24.2 in. (61.5 cm)	48.0 in. (122.0 cm)
Weight	112.8 lb. (51.2 kg)	191.3 lb. (86.9 kg)

### Optional 525-Sheet Feeder

Characteristic	8700 S/ X/ XF, 8900 X
Width	22.3 in. (56.7 cm)
Depth	16.9 in. (43.0 cm)
Height	6.7 in. (17.1 cm)
Weight	13.0 lb. (5.9 kg)

### Optional 1800-Sheet Feeder

Characteristic	8700 S/ X/ XF, 8900 X
Width	28.1 in. (71.4 cm)
Depth	24.6 in. (62.5 cm)
Height	15.8 in. (40.1 cm)
Weight	47.3 lb. (21.5 kg)

### Finisher

Characteristic	8700 S/ X/ XF, 8900 X
Width	21.4 in. (54.5 cm)
Depth	15.7 in. (40.0 cm)
Height	15.2 in. (38.6 cm)
Weight	29.1 lb. (13.2 kg)

### Storage Cart

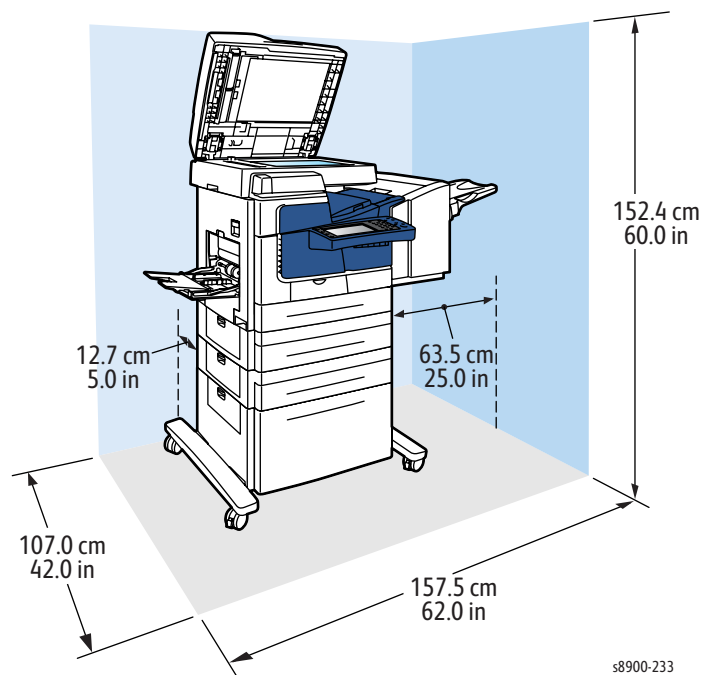
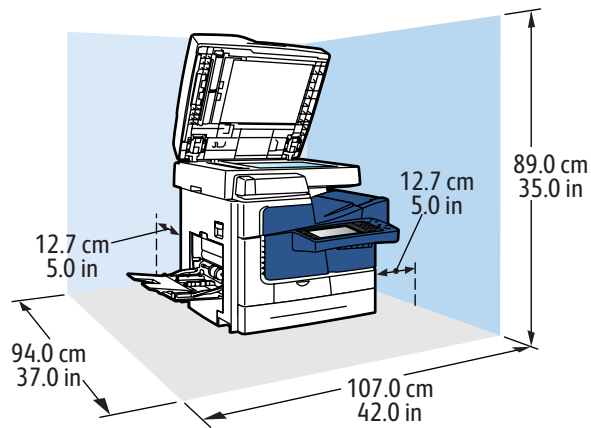
Characteristic	8700 S/ X/ XF, 8900 X
Width	28.1 in. (71.4 cm)
Depth	24.6 in. (62.5 cm)
Height	15.8 in. (40.1 cm)
Weight	40.55 lb. (18.36 kg)



## Clearance and Mounting Surface Specifications

These specifications apply to any printer used as a table-top printer, without a Lower Tray Assembly or Storage Cart (shown in the lower illustration).

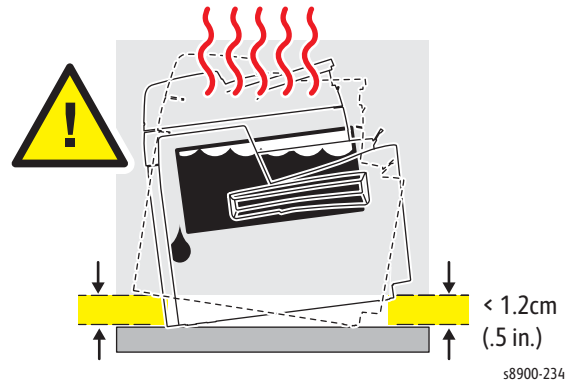
1. In order to function properly, the printer must be placed on a flat surface with the following minimum clearances.



s8900-233

## General and Operational Overview

1. Mounting surface flatness must be within the specified range.
2. The printer must not be tipped or tilted more than 0.5 inches or dropped suddenly.



## Power Saver

The ColorQube 8700/8900 printer has Power Saver settings to reduce energy consumption without turning off the printer. The Power Saver settings can be set at the Control Panel or in CentreWare IS. The Power Saver button on the Control Panel can be used to put the printer in or bring it out of Power Saver mode.

When the printer is in Power Saver or Standby mode, any of the listed actions cause the printer to exit Power Saver or Standby mode and start warming up.

- The printer receives a print job.
- The Power Saver button is pressed.

**Note:** Any other action, such as opening a door or inserting a tray, may or may not exit Power Saver or Standby mode depending on the “[Manual Wake-Up](#)” settings.

If the Power Saver button is lit solid, pressing the button causes a menu with no items to be displayed for 5 seconds. Pressing the button again returns the printer to Ready state.

When the printer enters Power Saver mode, the Control Panel is displayed and printer status shows Power Saver mode. The printer does not enter Power Saver mode at the following conditions:

1. Any Door/ Cover is open.
2. The printer is in fault/jam state.
3. The Cleaning Unit is empty or missing.
4. The Waste Tray is missing.
5. Ink is melting.
6. Ink is needed.

## Ready Mode

Ready Mode-idle is the state when the printer has completed its power on sequence and is ready to produce hard copy output, or scanning output. This mode is the default "customer" mode entered from a System power up or on wake-up from Low Power or Sleep mode. Ready mode-busy is the state where the printer is currently in the process of scanning/marking and is when the System is consuming most power.

## Lower Power Mode

Entry to Low Power mode can only occur from Ready mode. In Low Power mode the printer is not producing hard copy output and is consuming less power than in Ready mode. This mode maintains the capability to respond to external wake-up events, (primarily walk-up users begin to program their job settings at the Control Panel), within an acceptable amount of time, while reducing the System's power consumption to a lower level.

## Sleep Mode

Entry to Sleep mode can occur from Low Power mode or via the Control Panel button. In Sleep mode the printer is idle in its lowest power consumption mode. This mode maintains the capability to respond to external wake-up events, (walk-up users begin to program their job settings at the Control Panel, or receipt of print jobs over the network), while reducing the System's power consumption to its lowest level. The compromise made to reduce power consumption to its lowest level is that the time to recover to Ready mode will be longer than from Low Power mode.

## Warm-up Settings

Warm-up Setting can be used to warm up the printer automatically.

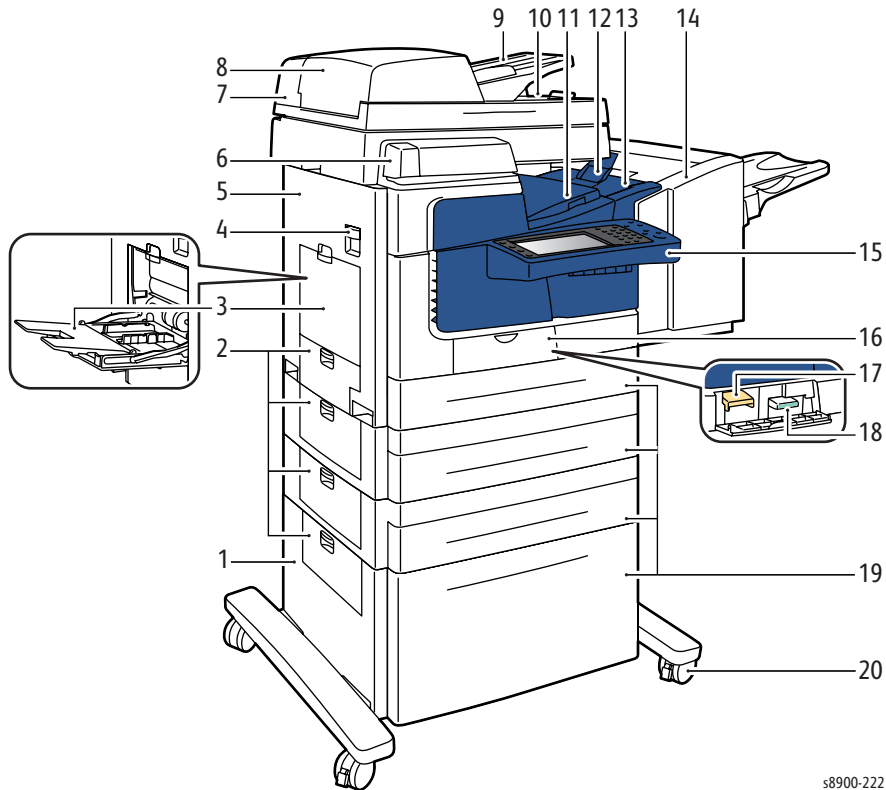
Mode	Description	Note
Intelligent Ready	<ul style="list-style-type: none"> <li>Intelligent Ready with Fast Resume Off: The printer automatically monitors the printer usage patterns and follows a warm-up schedule based on the printer usage.</li> <li>Intelligent Ready with Fast Resume On: Works in the same way as Intelligent Ready, but allows longer wait time in Ready mode and Lower power mode to enhance printer readiness.</li> </ul>	Causes the printer to exit Standby and Power Saver modes.
Scheduled Wake-up	The printer warms up at scheduled times. The Warm-up Settings can be used to set one warm-up time for each day. The printer can also be set to enter Standby mode at a specific time.	Causes the printer to exit Standby and Power Saver modes.
Job Activated	The printer warms up when it receives a job activity.	

## Fast Resume

Fast Resume brings the printer out of Power Saver and Standby modes more quickly. This changes the default Sleep/ Low Power time-outs and increases energy usage. Fast Resume can be set to On/ Off.

# Operational Overview

The ColorQube 8700/8900 uses a Printhead and solid ink technology to produce color or black and white output.

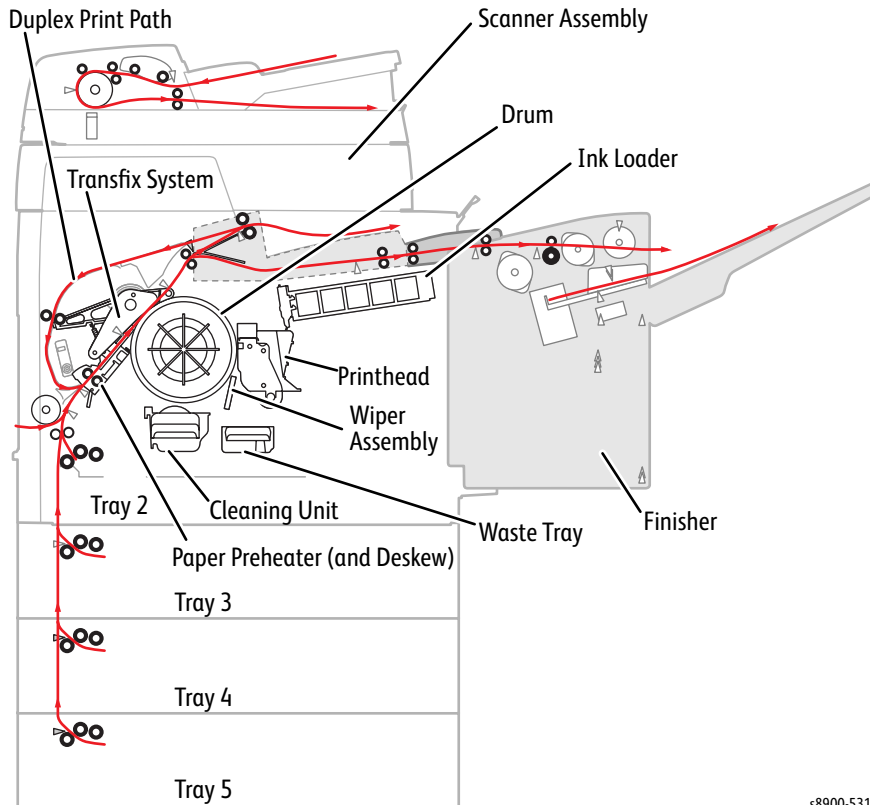


s8900-222

- |     |                                 |     |                    |
|-----|---------------------------------|-----|--------------------|
| 1.  | 1800-Sheet High-Capacity Feeder | 11. | Output Tray        |
| 2.  | Tray 2/3/4/5 Left Side Door     | 12. | Tray Extender      |
| 3.  | Tray 1                          | 13. | Ink Access Door    |
| 4.  | Left Side Door Release          | 14. | 650-Sheet Finisher |
| 5.  | Left Side Door                  | 15. | Control Panel      |
| 6.  | Convenience Stapler             | 16. | Front Door         |
| 7.  | Scanner with Document Feeder    | 17. | Cleaning Unit      |
| 8.  | Document Feeder with Top Cover  | 18. | Waste Tray         |
| 9.  | Document Feeder Tray            | 19. | Trays 2-5          |
| 10. | Document Feeder Output Tray     | 20. | Locking Wheels     |

## System Overview

The ColorQube 8700/8900 is divided into two main components: the DADF/ Scanner and the Print Engine sections. The ColorQube 8700/8900 consists of the DADF Assembly, Scanner Assembly, Control Panel, Print Engine, Optional 525-Sheet Feeder(s)/ Optional 1800-Sheet Feeder and Optional Finisher.



s8900-531

The printer is made up of ten major subsystems.

- The Process Drive
- The Media Path Drive
- The Ink Loader
- The Printhead
- The Drum Maintenance System
- The Preheat and Deskew System
- The Drum Assembly and Transfix System
- The Exit Module
- The Purge System
- The Electrical System

## Process Drive

The Process Drive is an open loop system that transmits torque to two main Camshaft assemblies, One Camshaft assembly controls the Transfix Roller loading, and the other controls the Drum Maintenance System and Printhead Tilt System.

## Media Path Drive

The Media Drive Assembly controls each Roller in the media transport system. The Media Drive Assembly includes a Drive Motor, Gearbox, Solenoid, and two Clutches. The Media Drive Motor also drives the Wiper Assembly through a gear train and Clutch on the Exit Module.

## Ink Loader

The Ink Loader melts the ink as required by the Printhead. The melted ink drops into the Ink Reservoirs of the Printhead underneath the Ink Loader.

## Printhead

The Printhead interfaces with the electronics of the printer to jet ink onto the Drum surface to create an image. The Printhead includes 1236 interleaved jets (309 of each primary color) and provide the ability to substitute a weak or missing jet to restore image quality.

## Drum Maintenance System

The Drum Maintenance System creates a thin intermediate liquid surface, a layer of silicone oil, on the surface of the Drum prior to printing. The oil keeps the ink from sticking to the Drum's surface and facilitates its transfer to the sheet of paper or transparency film.

## Preheater and Deskew System

The Preheat and Deskew serves to ensure that the print media (paper, envelope, or transparency film) aligns properly to the Drum and that the media is sufficiently heated to facilitate transfer of the image from the Drum to the media.

## Drum Assembly and Transfix System

The image is first printed as a "mirror" image on the rotating Drum. A sheet of warmed media feeds from the Preheater and passes between the Drum and the Transfix Roller. The process gear train then loads the Transfix System and presses the paper to the Drum to adhere the image.

## Exit Module

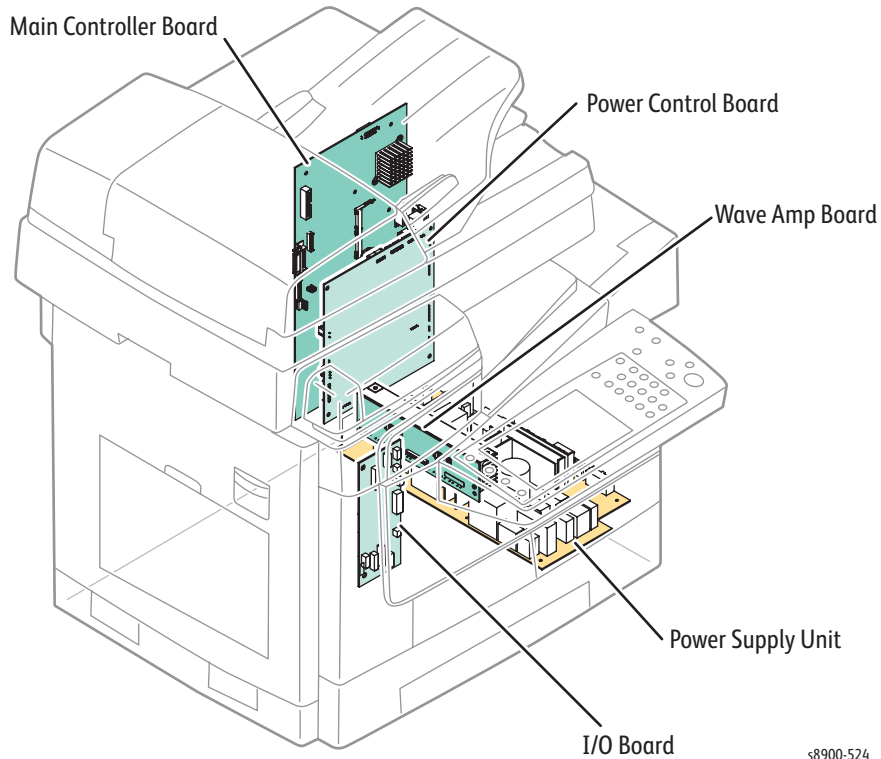
The Exit Module is controlled by the Media Path Drive. Media is output either to the Output Tray on the Ink Loader or directed into the duplex path for duplex prints. The Exit Module also routes paper to the Finisher via the Horizontal Transport/ Diverter.

## Purge System

The Purge System uses an air hose and Purge Pump to pressurize the Printhead to purge debris or air bubbles that may be obstructing the Printhead jets.

## Electrical System

The electrical system includes the Main Controller Board, Power Control Board, Power Supply Unit, I/O Board, and Wave Amp Board.



s8900-524

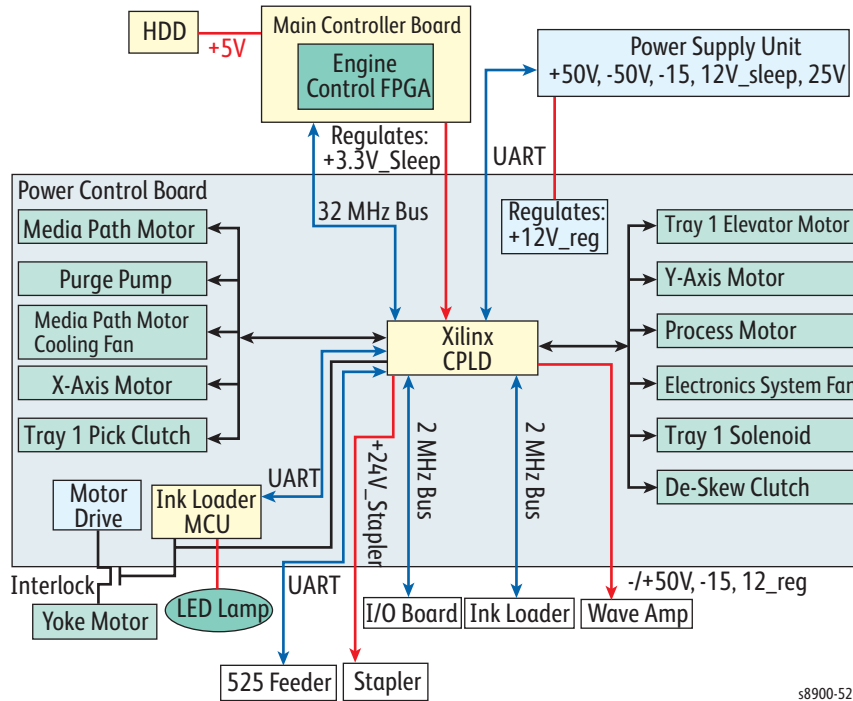


## System Diagram

The following diagram illustrates the printer's device controller function.

The CPLD is a complex programmable logic device, similar to the FPGA (field-programmable gate array).

The *UART* (*Universal Asynchronous Receiver/ Transmitter*) is a microchip which runs the device controller's interface for attached serial devices.

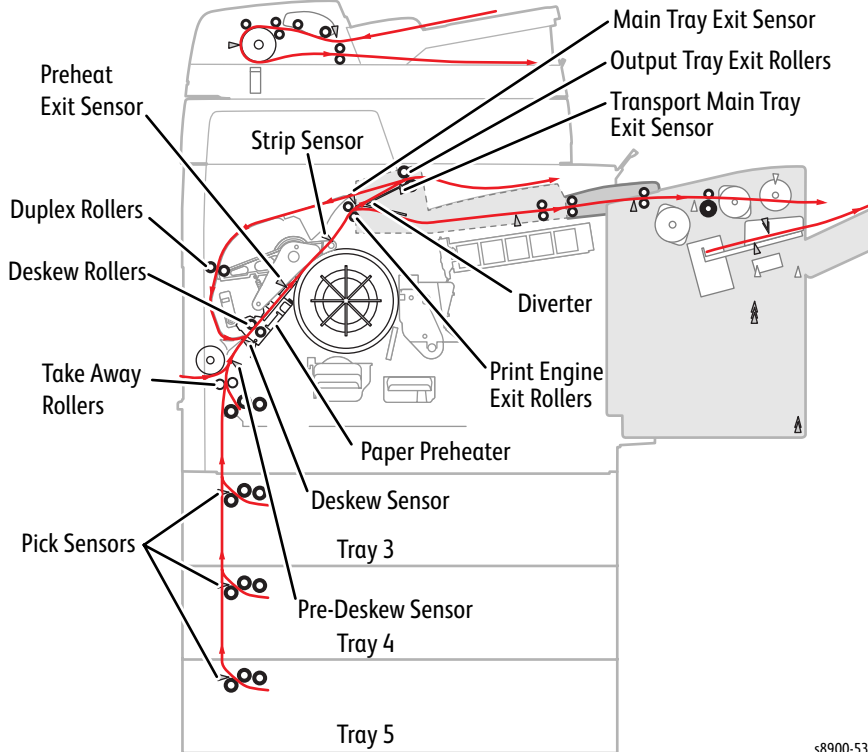


s8900-527

## Paper Path of the Printer

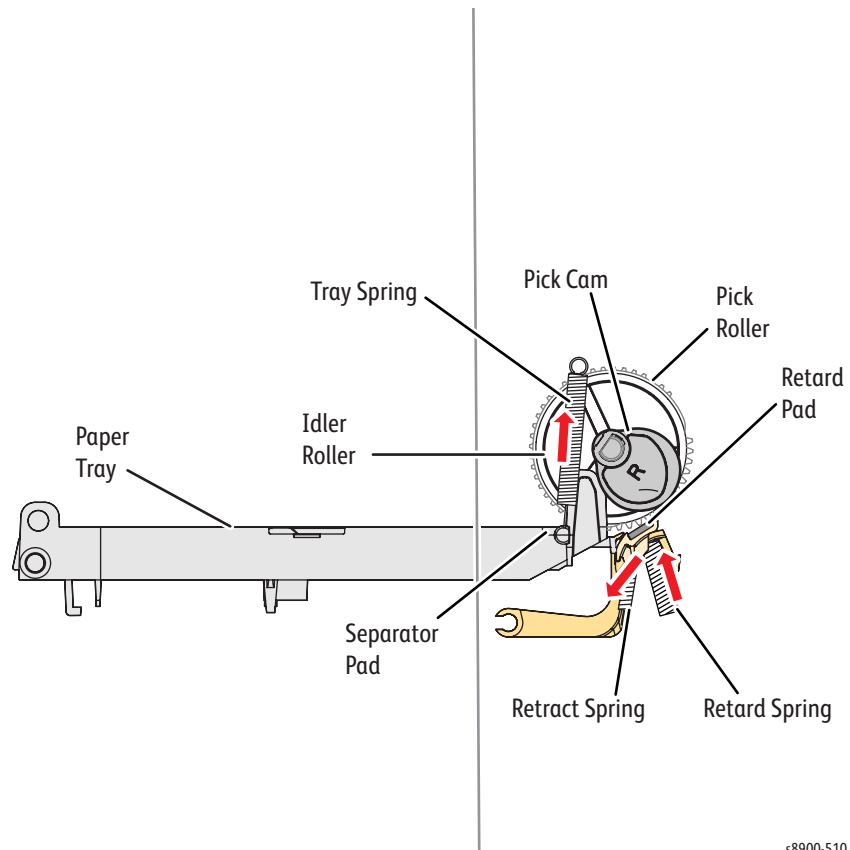
The paper is supplied from Tray 1, Tray 2, or optional Tray 3/4/5 and is transported upward through the Preheater towards the Drum. After passing through the Preheating and image transferring processes, the paper is lifted off the Drum and fed to the Exit Rollers and the Output Tray.

In Duplex Mode, the Exit Roller reverses direction before the paper exits the printer. The paper is routed back to the Preheater, where it waits until the image for side two has been jetted onto the Drum. Then, the paper is routed through the Preheater, between the Transfix Roller and Drum, to the Output Tray.



## Paper Pick from Tray 1

For Tray 1, the pick process is different than the pick process used by the other trays. To pick a sheet of paper, the Tray 1 Pick Solenoid actuates, and the Drive Gear rotates slightly to engage with the drive train. Pressure provided by the Lift Plate force against a Cam causes the Roller to rotate enough so the missing tooth gear engages the drive train. The Pick Roller rotates to engage with the Retard Pad to pick the paper, and the Separator Pad Assembly prevents multiple sheets from being picked by the Pick Roller.

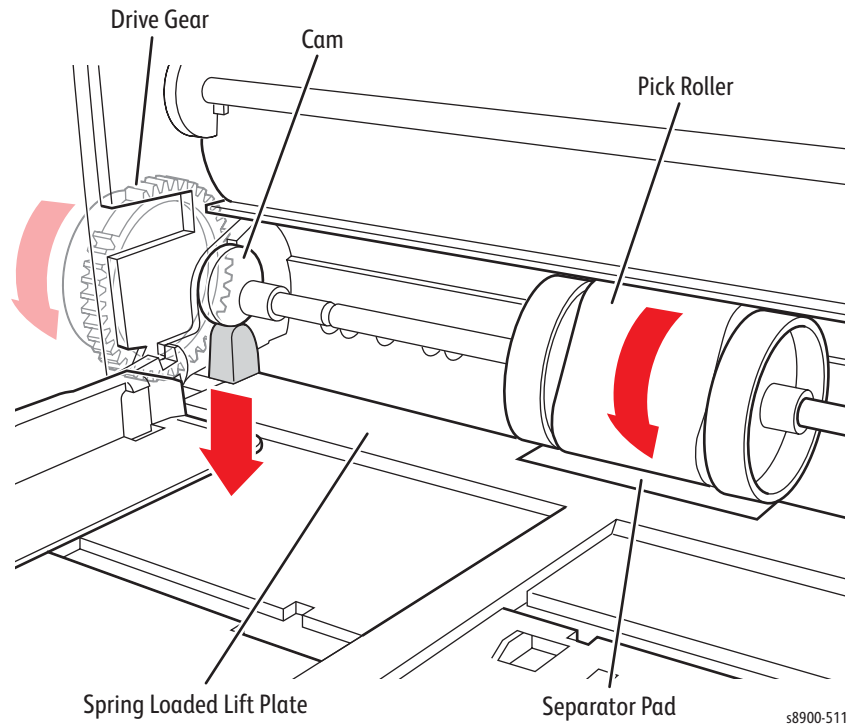


s8900-510

## General and Operational Overview

Key differences in the Tray 1 pick process include:

- Lift Plate force is optimized to support heavier paper
- 100-sheet capacity
- Pick Roller creates the buckle for the deskew process
- Pick Roller drive disengages when the door is opened and closed
- Pivoting Separator Pad to prevent it from binding

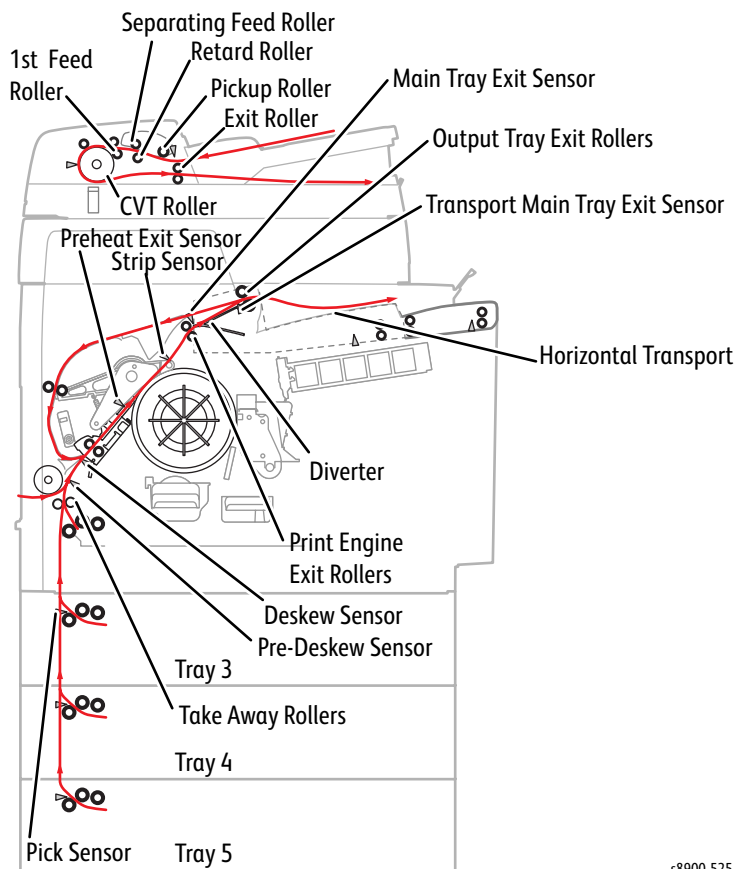


## Paper Pick for Trays 2 ~ 5

**Note:** Trays 3, 4, and 5 are optional 525-Sheet Feeders. The lowest tray may be an optional 1800-Sheet Feeder.

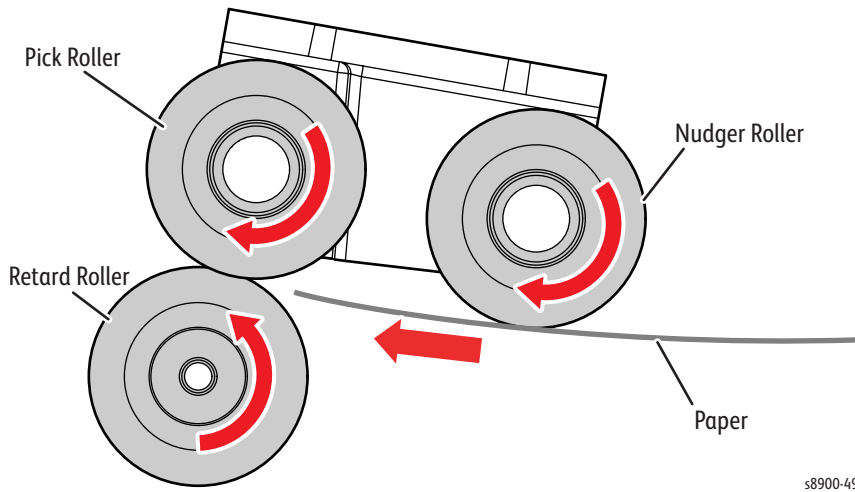
To pick a sheet of paper, the media path drive starts the process. The Pick Clutch engages to turn the Pick Roller and the Nudger Roller. The Nudger Roller advances one sheet of paper forward into the pick nip. The Retard Roller prevents two sheets from advancing. The sheet of paper continues past the Take Away Rollers until the sheet completes the deskew process. When using the optional 525-Sheet Feeder, paper is pre-picked from the tray and staged in the paper path while the printer is printing previous pages, only when printing multiple page jobs.

The deskew process uses a buckle deskew for all three paper paths. The paper is first driven against the Deskew Gate, causing a buckle in the paper. This ensures that the leading edge is straight to prevent skewing. Only the Exit Roller reverses during duplex printing.



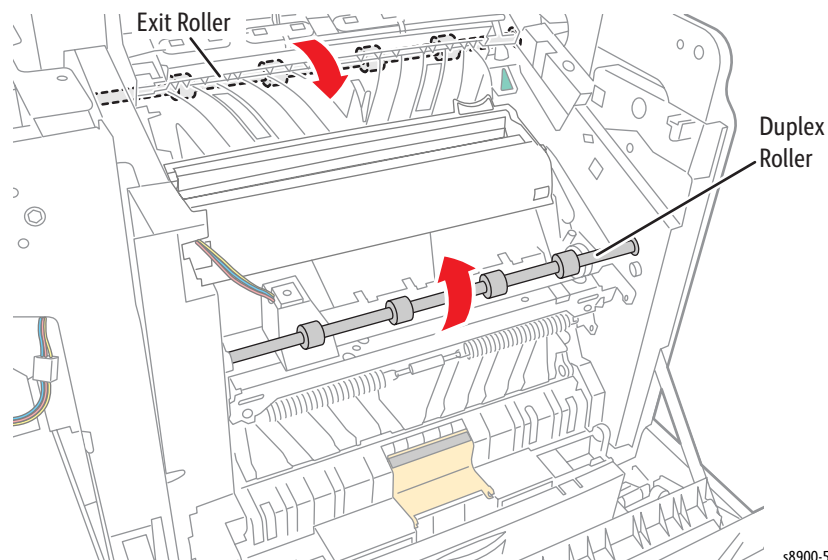
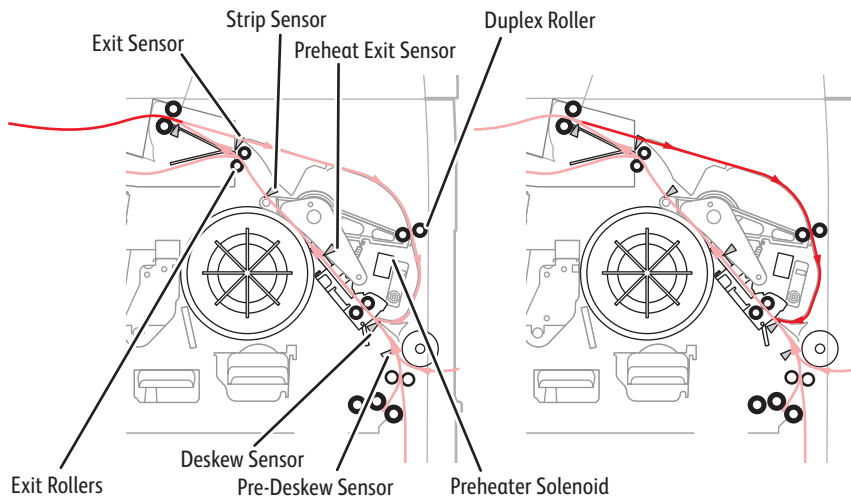
s8900-525

General and Operational Overview



## 2-Sided (Duplex) Printing

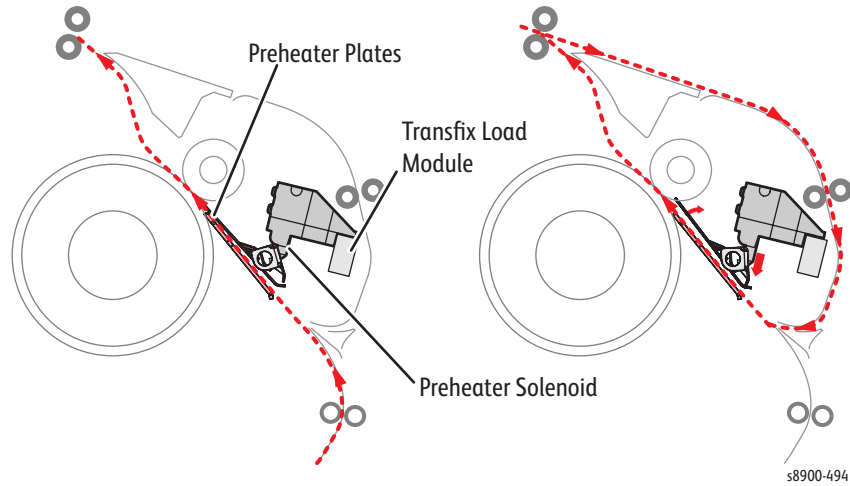
When duplex printing, the Exit Rollers pull the paper to a predetermined location. In this position, the trailing edge of the paper is adjacent to the Exit Rollers. The Exit Rollers then pull the paper back into the duplex path. From a non-rotating deskew nip, the print continues through the paper Preheater and transfix system to the Exit Tray in the same manner as a single-sided print.



s8900-523

## General and Operational Overview

The Preheater Lift Solenoid, mounted to the Transfix Load Module, increases the physical spacing between the Preheater Plates when printing the second side of duplex prints. The increased spacing prevents the paper from rubbing as hard against the Plates, which can potentially cause smearing to occur.

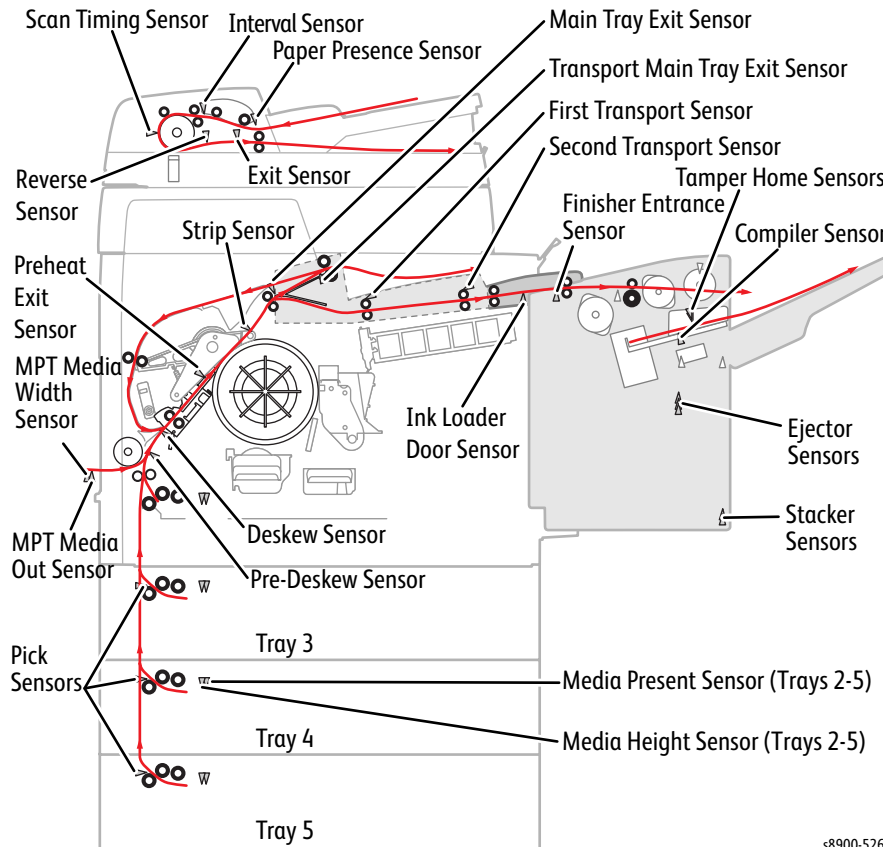




# Major Assemblies and Functions

## Sensors

The printer contains Sensors of various types that perform a variety of functions. One group of Sensors track the progress of the paper along the paper path, and detects if a paper jam occurs. Other Sensors detect the presence of the Ink Sticks, stop printer activity if a door is open (interlock), detect the presence and size of media, and monitor printer temperatures.



s8900-526

## Sensor Types

The type of Sensors used vary with function. In general, there are three types in use:

- Photo Sensors
- Microswitches
- Temperature Sensors

Two types of Photo Sensors are used: Photo-reflective and Photo-receptive.

### Photo Sensors

**Photo-reflective** - Photo-reflective Sensors use light reflected back from an object to detect its presence. Photo-reflective Sensors have the light emitter and light receiver aligned on a single surface. Output of the Photo-receptor is High when light is being reflected back and Low when it is not.

**Photo-receptive** - Photo-receptive Sensor uses an Actuator or the object itself to block the light path to detect an object or condition. 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.

### Microswitches

Microswitches are used primarily as Paper Size Sensors and Cover Interlocks. They are in a normally Open state, and Close when actuated. A bank of microswitches is used to detect paper size in the universal trays in Tray 2 and 525-Sheet Feeders. Microswitches also employ hooks or catches for retention in the bracket or frame.

### Temperature Sensors

The Temperature Sensors (Thermistors) have a known value of resistance whose value varies with temperature. The Temperature Sensors are used primarily in the Drum, Preheater, Inkloader, and Printhead for temperature sensing.

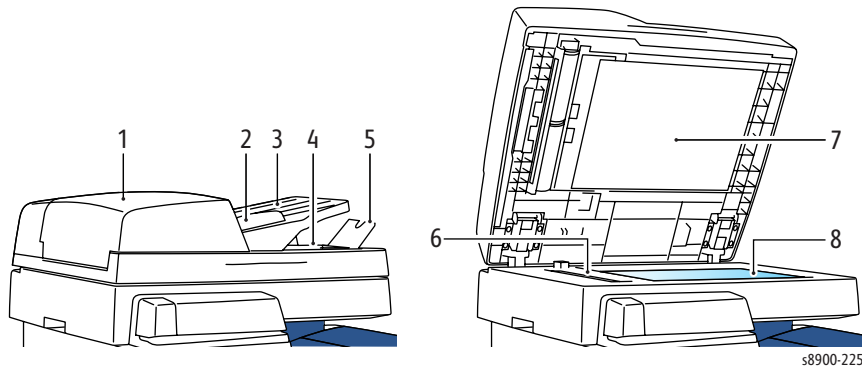
## DADF/ Scanner

The DADF/ Scanner generates the image data for copies and scans and is made up of two major subsystems:

- Duplex Automatic Document Feeder (DADF)
- Scanner Assembly

### Duplex Automatic Document Feeder

The DADF is capable of automatically feeding original documents from the input tray and scanning either side document or both sides of a double-sided document.



1. DADF Top Cover
2. DADF Width Guides
3. DADF Tray
4. DADF Output Tray
5. Output Tray Paper Stop
6. Constant Velocity Transport (CVT) Glass
7. Document Cover
8. Document Glass

### Document Input Tray

The Input Tray feeds documents into the DADF for simplex or duplex scanning. Tray capacity is 50 sheets.

### Document Output Tray

Media is fed through the DADF and exits to the Document Output Tray.

## Interval Sensor

The Interval Sensor determines when the following sheet needs to be picked up and the Electrical Clutch needs to be turned Off, so that it can manage consistent inter-document gap.

## End Guide

The End Guide supports big sheets longer than LT (279mm) so that the sheets won't be dropped.

## Side Guides

The Side Guides arrange and hold the documents to identify correct size and feed them into the DADF without skew.

## Paper Presence Sensor and Actuator

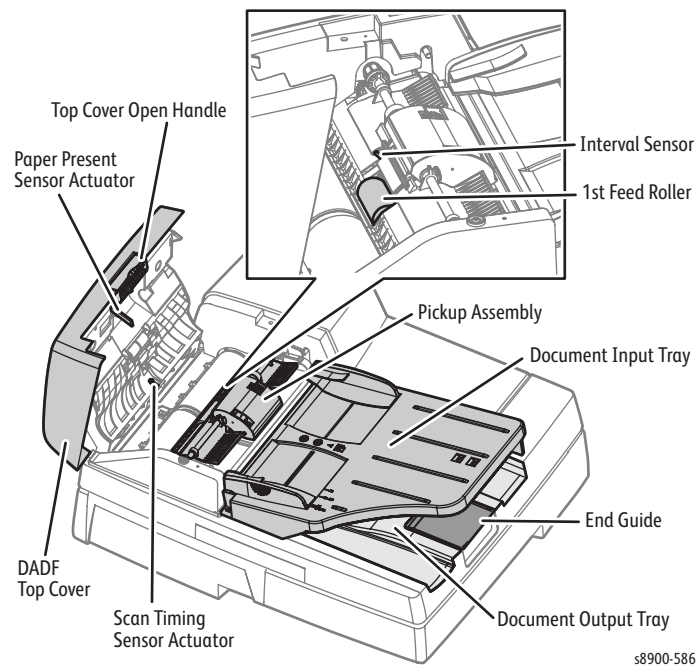
The Paper Presence Sensor and its Actuator determine if DADF job can get started.

## Scan Timing Sensor and Actuator

The Scan Timing Sensor and its Actuator determine when capturing image data from the CCDM needs to start.

## Pickup Roller Assembly and Retard Roller

The Pickup Roller is the first of several Feed Rollers. It is designed to work with the Retard Roller to ensure that only single sheet of media is fed at a time.



## DADF Top Cover Open/ Close Sensor

The optical Sensor detects the status of the DADF Top Cover. When the DADF Top Cover is open, DADF operation is inhibited, an error message appears on Control Panel screen instructing the user to close the DADF Top Cover to continue.

## Feed Roller Driving Motor

The Stepper Motor drives the 1st Feed Roller and Exit Roller.

## CVT Roller Driving Motor

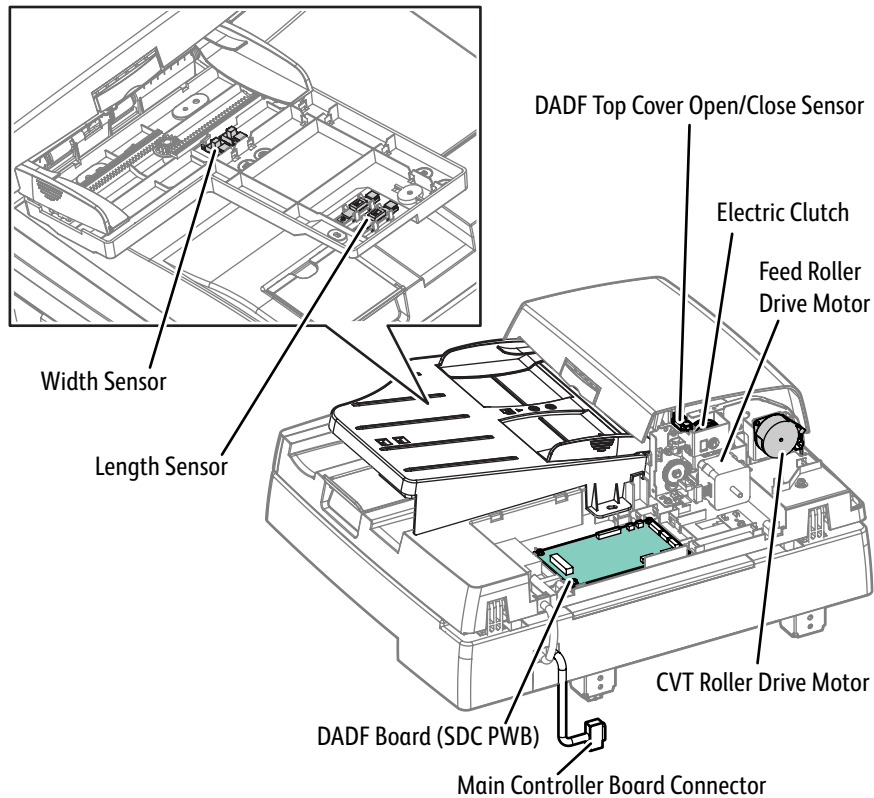
The Stepper Motor is dedicated to drive only the CVT Roller.

## Electric Clutch

The Electric Clutch is turned On to drive the Pick-up Assembly Shaft only when paper is picked. It will be turned Off when lead edge passes the 1st Feed Roller.

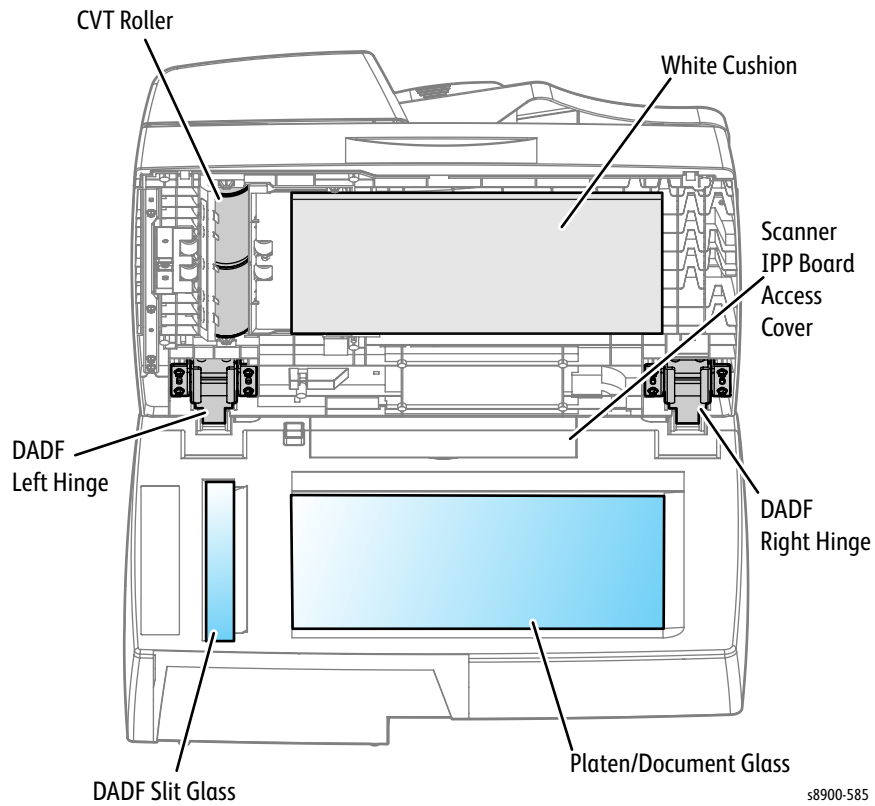
## DADF/ Scanner Main Controller Board Connection

The DADF Main Controller Board connector on the rear of the DADF communicates with the Scanner Board (IPP PWB) and the communication is passed to the Main Controller Board of the printer.



## DADF Hinges

Mechanical connection between the DADF and Scanner portion consists of a set of hinges. These hinges allow for the DADF to lift from the scanner glass for copying a book.

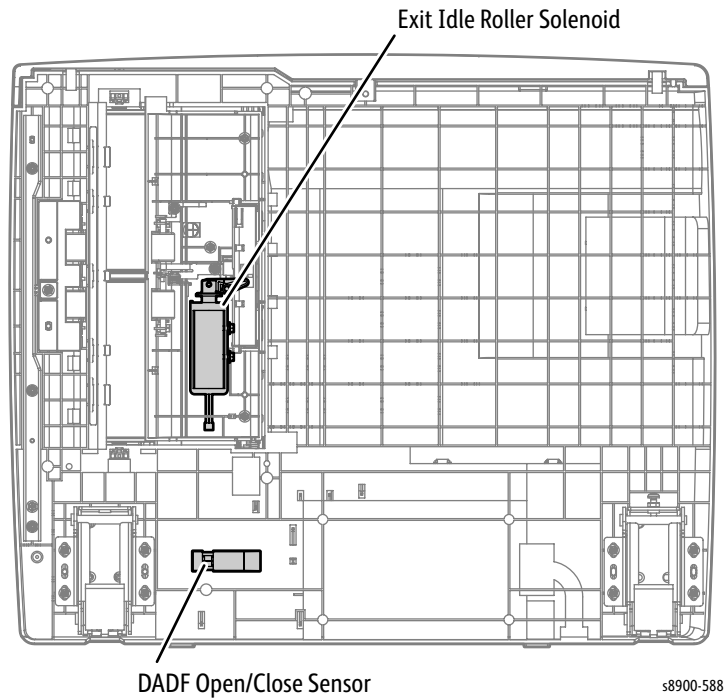


## DADF Open/ Close Sensor

The optical Sensor detects the status of the DADF. If the DADF is raised, the DADF operation will be inhibited and only the Scanner will function.

## Exit Idle Roller Solenoid

The Exit Idle Roller Solenoid opens and closes the Exit Idle Roller by mechanical links to minimize image defect that can be caused by roller engagement.



## Scanner

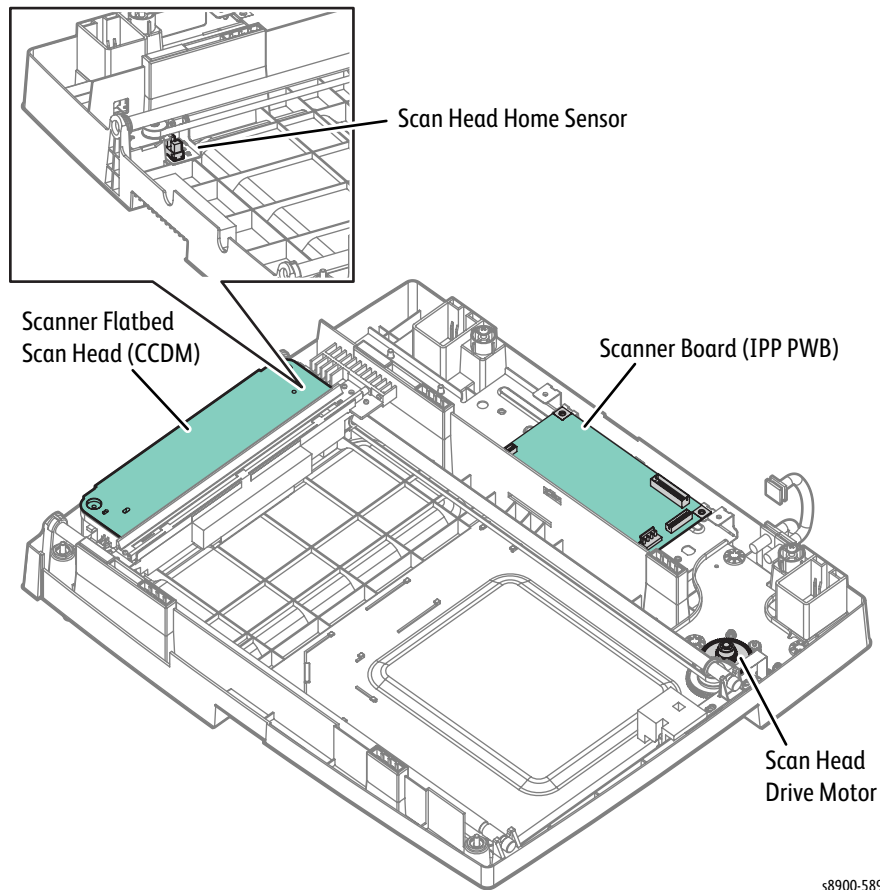
### Scanner Flatbed Scan Head (CCDM)

The Scan Head is homed fully to the left as the DADF passes documents over a Constant Velocity Transport (CVT) Glass. A Charge Coupled Device (CCD) and LED Lamp in the Scan Head are used for exposure and imaging.

The Scan Head is moved under the Platen/ Document Glass when imaging books or stationary documents.

### Scanhead Home Sensor

The Scanhead Home Sensor is used to control scanhead location during scanning.



s8900-589



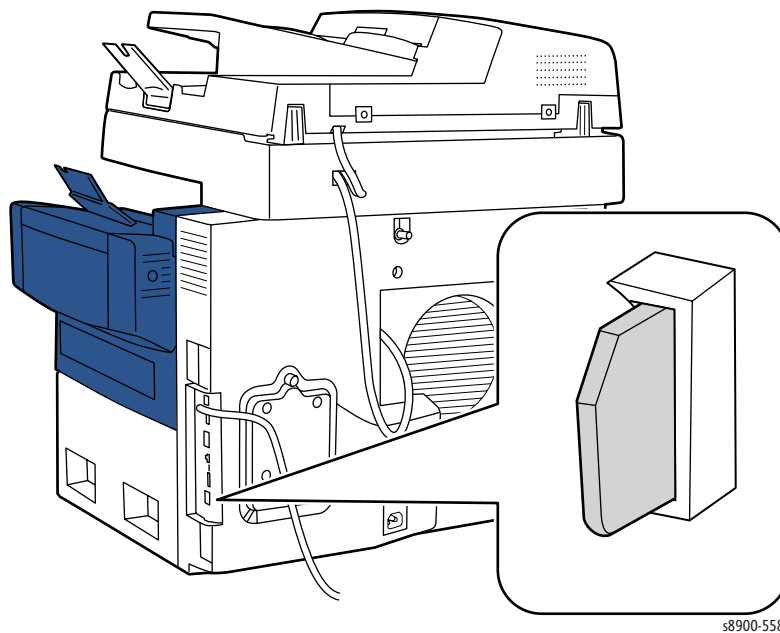
## Print Engine

### Electrical Components

Imaging data is received from the print function and is processed through the imaging path portion of the Main Controller Board. This data then is split into two paths. One of these paths is through the Power Control Board to the Wave Amplifier. This data controls the operation of the Wave Amplifier with regard to the drive algorithm to use for driving the jet stacks (discussed later in the Printhead section). The second path is through a ribbon cable from the Main Controller Board to the Printhead Control Board (located on the underside of the Printhead). These two signals are interpreted by the Printhead to produce the image on the Drum.

### Feature Card

The Feature Card activates certain printer features or capabilities. Once the card has activated a printer's features, that card will not function in any other printer. Also, that card no longer needs to remain in the printer; the card can be removed and the printer will retain its activated features.

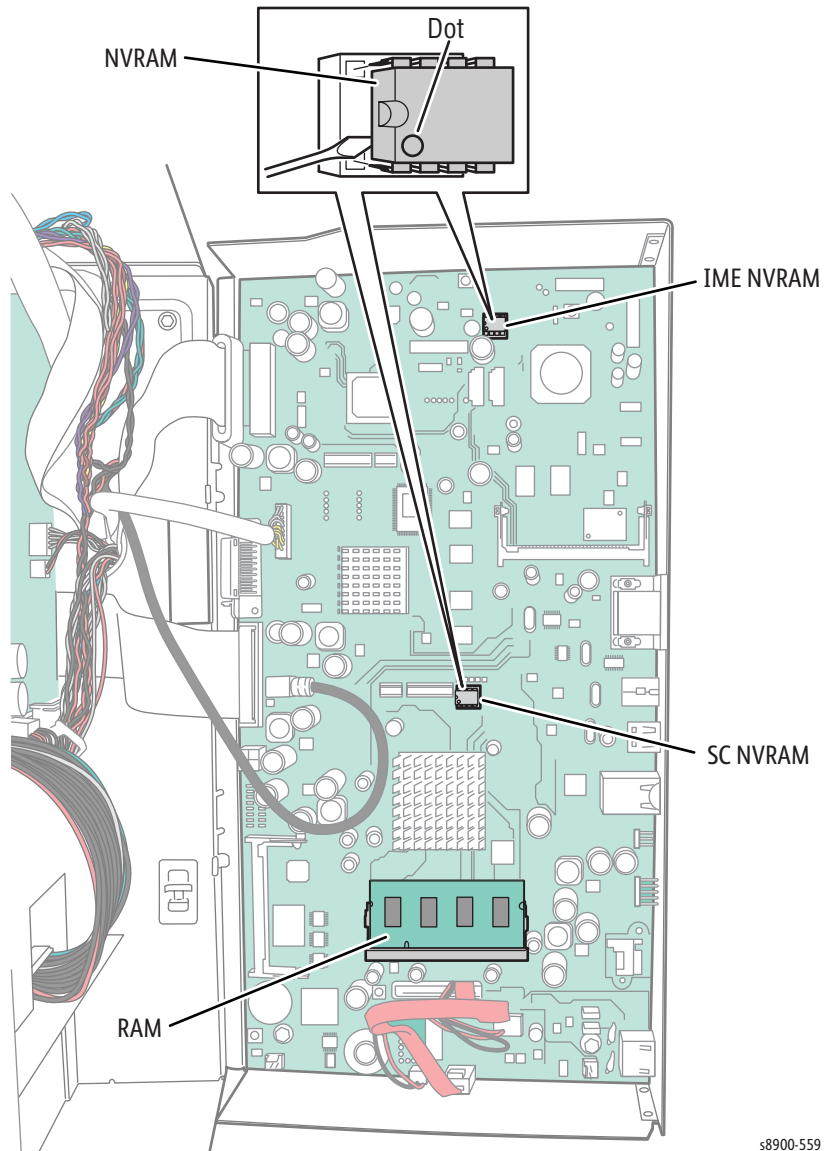


## NVRAM

The Main controller Board contains two socketed NVRAM devices. U611, near the top of the board, contains control parameters for the print engine. U511, in the center of the board, contains values for the system controller and network controller. Included are the printer serial number, MAC address and model type. When the Main Controller Board is replaced, the NVRAM chips must be transferred to the replacement Main Controller Board.

## RAM (DIMM)

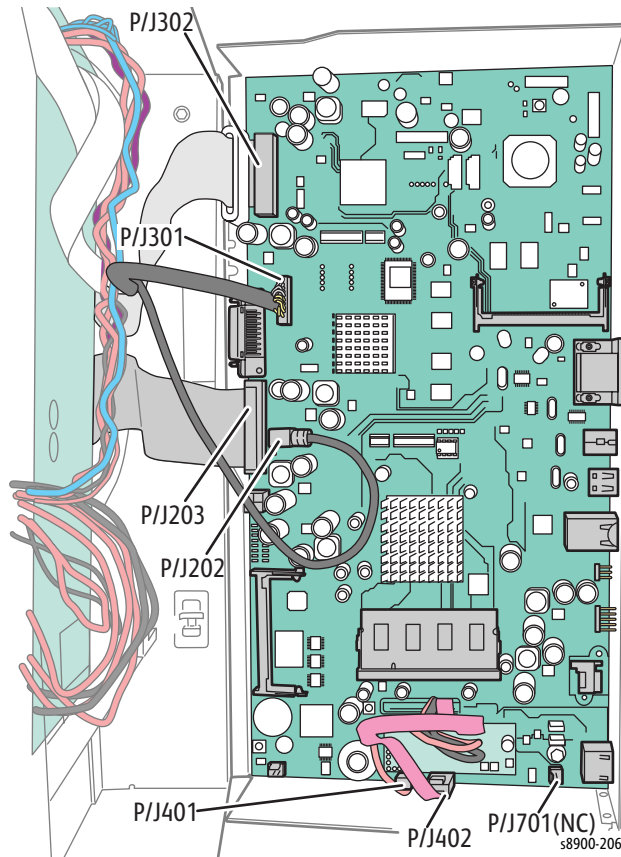
The ColorQube 8700/8900 printer supports a single 1GB RAM.



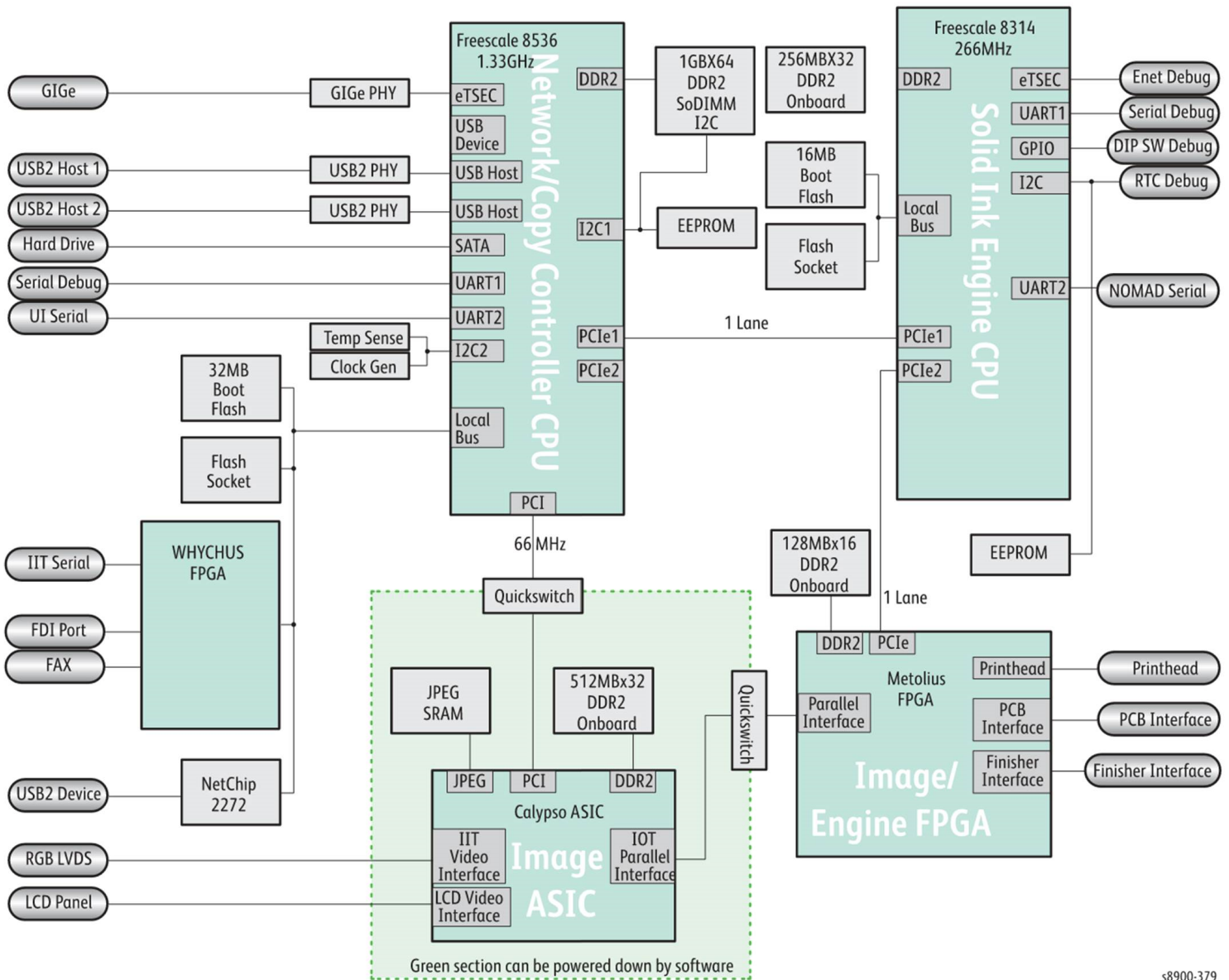
s8900-559

## Main Controller Board

The Main Controller Board controls the operation of all the mechanical and electrical systems in the print engine. Through the Power Control and I/O Boards, signals are passed to the different gear trains, heater controls, and drive motors, and signals are received from the Sensors for proper operation of the print engine. The Main Controller Board also controls the network functionality, PostScript and PCL interpretation, memory, print job management, and provides support for Ethernet and USB 2.0 external I/O interfaces.

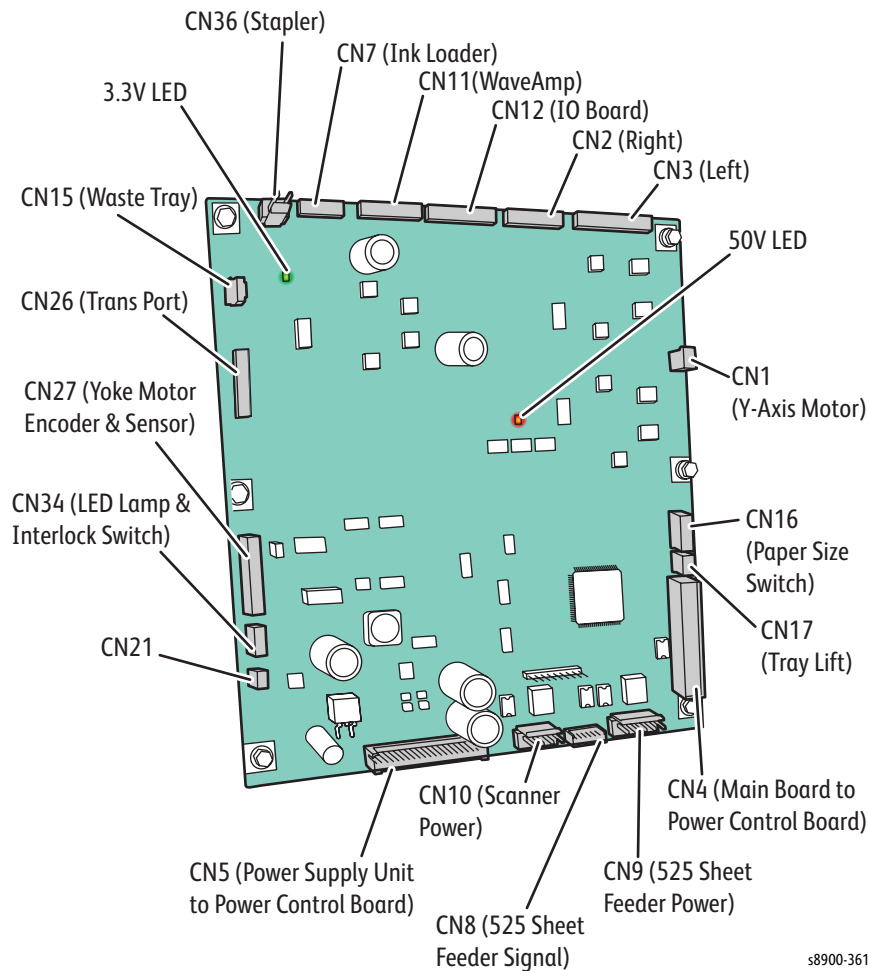


The Main Controller Board controls the Scanner using a RS422 serial link and performs pre-rendering and rendering functions on Scanner and print data using the Xerox designed Calypso ASIC. It will also perform some post-rendering functions using the Metolius FPGA. This FPGA will include all of the functionality of the current FANG FPGA along with support for the image path, mark path, user interface, and Finisher. The Main Controller Board will support Gigabit Ethernet, USB Host, USB device, Fax port, and serial debug connections. It will also include a SATA Hard Drive. The engine control processor will have its own debug interface which will support a Dongle that will include 10/ 100 Ethernet, RTC, and DIP Switches.



## Power Control Board

The Power Control Board acts as an interconnect board between the Main Controller Board, Power Supply Unit, 525-Sheet Feeder/ 1800-Sheet Feeder, and the I/O Board. The Power Control Board distributes drive voltages to operate the printer's various Motors, Solenoids, and Clutches. The Power Control Board provides the interface that returns information from the printer's Sensors to the Main Controller Board. The Sensors are used to track mechanical and thermal functions. The Power Control Board also generates regulated 1.8V and 12V\_reg.



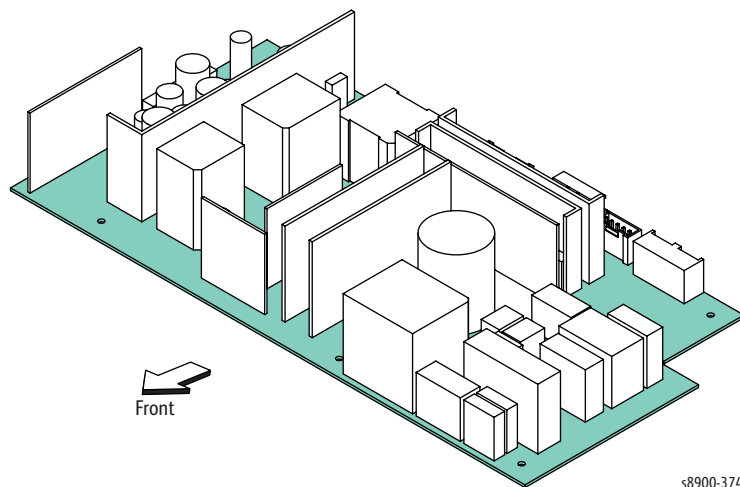
## Power Supply Unit

There are no field adjustments on the Power Supply Unit. In general, the Power Supply Unit has two main, yet interrelated sections: the AC section and the DC section. In the AC section, power is routed to 11 triacs. Under the Main Board Logic Control, the triacs supply AC power to the 11 heaters in the system.

Three fuses provide current protection to the triacs. Fuses F020 and F030, F021 protect the power supply from, most often, a shorted triac caused by a defective heater. If the fuses blow, the Power Supply Unit (and, of course, the defective heater must be replaced). Otherwise uncontrolled, with the heater replaced but the triac shorted, AC power may be applied to the heater. Each time the Main Controller Board turns on a triac to activate a heater, it is turned on for only a fraction of a second. The Main Controller Board must constantly readdress each heater it wants to remain on. This means if the print engine firmware should fail, the heaters automatically shut Off.

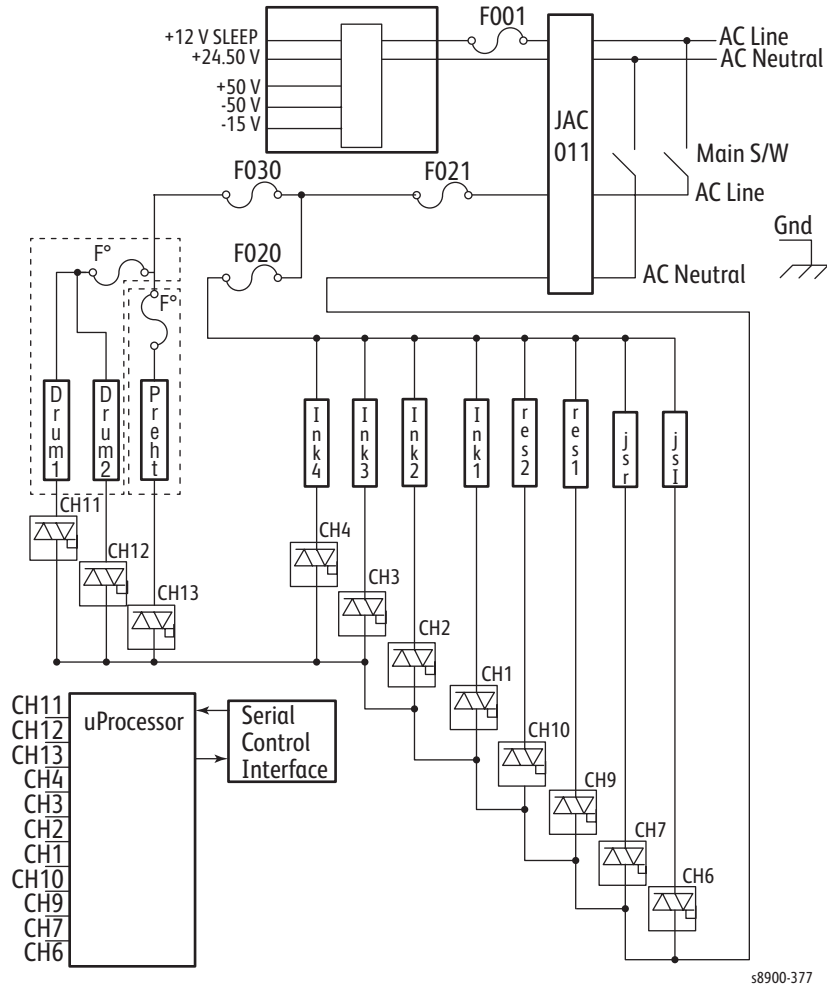
The printer is also protected by thermal fuses. A thermal fuse opens in the unlikely event of a “runaway” heater following a hardware failure. The Drum Fuse is located in the Drum and the Preheater thermal fuses are located on the Preheater. Additional thermal fuses are located on the Printhead, on the chassis outside the Printhead and on the ink melting elements. An open thermal fuse is a likely indication of a leaky or shorted triac in the power supply. It is best to verify that the triacs are functional when replacing a heater with an open thermal fuse.

The DC Power Supply Unit generates +12V\_SLEEP, +24.5V, -15V, and +/- 50V. These voltages are used directly or regulated to other voltage values as needed by various circuits in the printer. The Power Control Board regulates +50V to +12V and 3.3V to a local 1.8V. The Main Controller Board also has regulators providing +3.3V, +2.5V, +1.8V, +1.2V, and +1.0V. The HDD Option Board has a regulator converting +12V\_SLEEP to +5V for use by the HDD. The Power Supply Unit outputs just +12V\_SLEEP in Power Saver modes. Fuse F001 provides protection for the switching Power Supply Unit in the DC section.



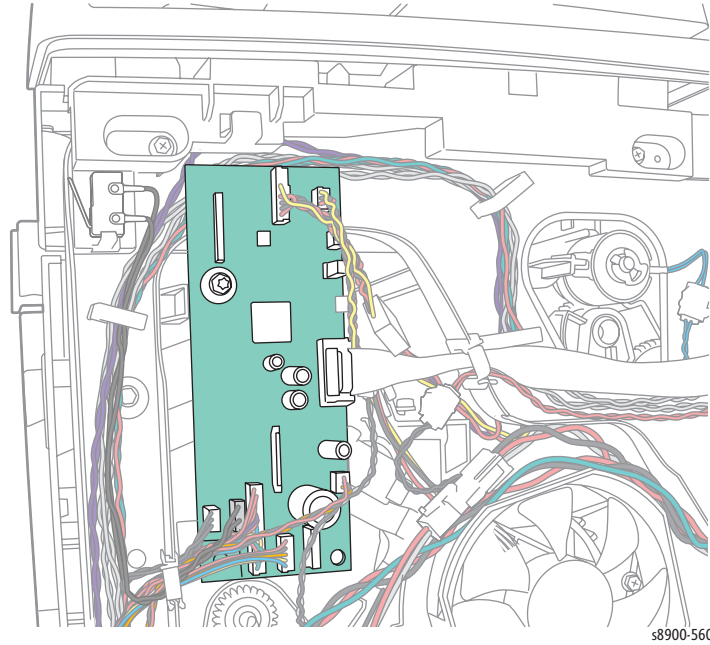
### Power Supply Unit Diagram

**⚠ WARNING:** Do not touch the Power Supply Unit; AC voltages and DC voltages up to 400V are present. The power switch does not disconnect power from the printer. The power switch signals the supply and the printer logic to begin a shutdown sequence.



## I/O Board

All sensor and switch readings are input into the I/O Board. The I/O Board translates these states into encoded information that it sends over a serial data bus (I/O Board Data Cable) to the Main Controller Board. The Main Controller Board has no direct connection to the Sensors, Switches, or Solenoids. In order to activate a Clutch or Solenoid, the Main Controller Board sends a command to the I/O Board, which processes the command and activates the appropriate device.



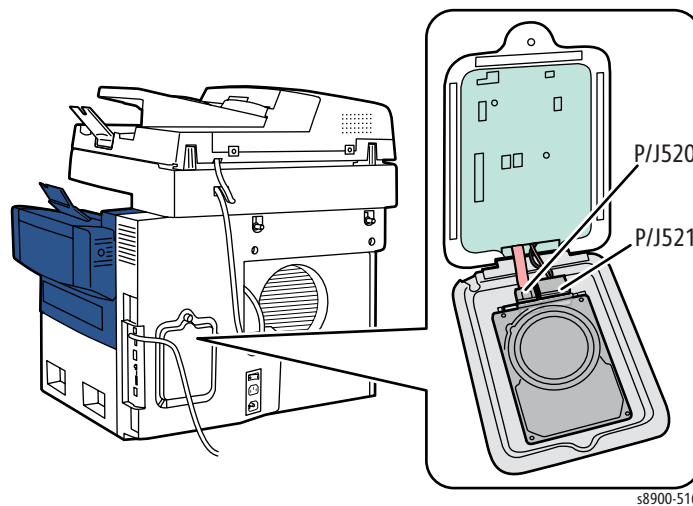


## Hard Disk Drive

The Hard drive is a key component for storing print engine information. Most of the Fax settings and the fax address book are stored on the Hard Drive along with any user forms or fonts. If the Hard Drive has to be replaced the customer will need to re-input the fax address book and reload any saved forms. If the printer does not power up after replacing the Hard Drive, verify the connections.

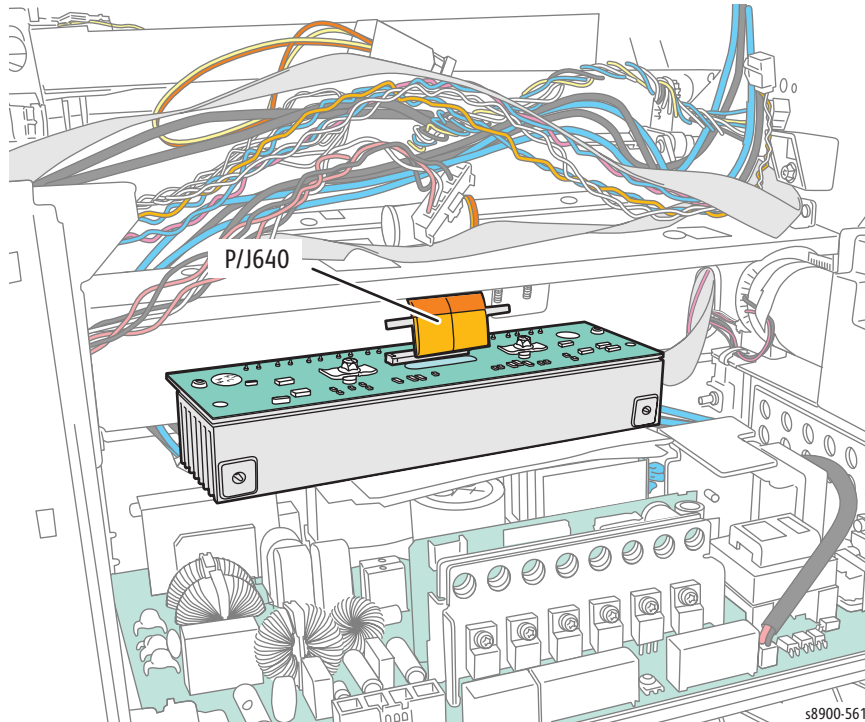
The Hard Disk Drive must be connected properly for the printer to fully power on and come to a Ready state. A Hard Disk Drive data cable is plugged into the Main Controller Board from the Hard Disk Drive Board. A separate power cable must be plugged into the Power Control Board from the Hard Disk Drive Board to provide signals and power for the Hard Disk Drive Board.

**Note:** The Printer content on the hard drive can be upgraded via a USB Flash Drive or through a CWIS function.



## Wave Amplifier

The Wave Amplifier serves as a high-voltage linear power amplifier for the VPP/ VSS generated waveform transducer to drive the Printhead load requirements. The Wave Amp also drives all active piezo-electric transducers (PZT) elements.



The Wave Amp includes two independent discrete high-voltage linear power amplifiers, one for generating the positive polarity VPP pulses and another for generating the negative polarity VSS pulses.

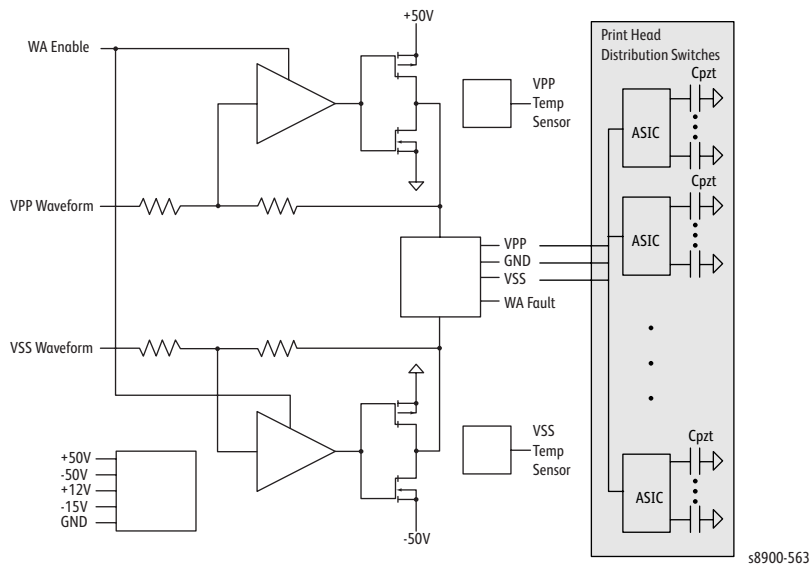
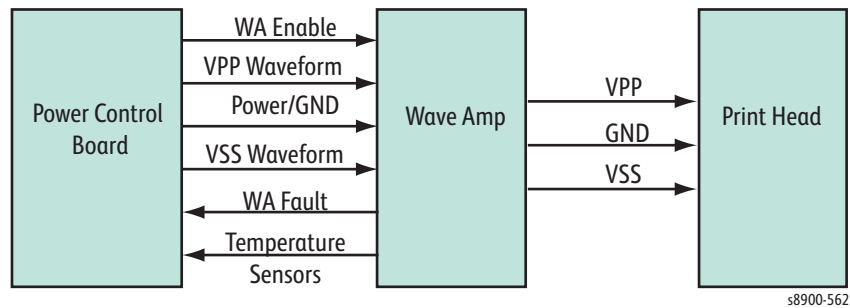
The high-voltage linear power amplifier design features an AC-coupled driver topology with DC feedback. The AC coupled drive is good for the pulsed application and provides high current drive for fast slew rates while maintaining good recovery and transient performance. The design also has a "near zero" control switch that provides DC restoration for the drive coupling capacitors and activates a secondary feedback control loop to drive and hold the output at ground potential that otherwise would result in "open loop" operation when not pulsing. The Wave Amp also has an enable control as well as over-current fault detection. Each polarity driver has a Temperature Sensor.

Both polarity driver designs utilize power MOSFETs as the principle driving devices. These devices are capable of supplying the large currents required for driving several PZT elements at the required bandwidths with relatively simple drive circuitry. The MOSFET devices are utilized in a feedback amplifier circuit to provide controlled, linear waveform amplification and to buffer the drive for the control waveforms derived from system memory.

The pulse sequences for the different polarity drivers are asymmetrical and result in non-uniform power dissipation distribution between the similar linear power amplifiers. Thus, the VSS driver power dissipation is primary limiting factor for thermal performance. The four VPP/VSS MOSET devices are

mounted on a large common heat sink with the VSS MOSFET drains contacting the heat sink and the VPP MOSFETs drains electrically insulated from the common heat sink.

Although this approach would allow simultaneous opposite polarity pulses, the differential input voltage limitations for the ASIC and the desire for maximum drive result in using only one polarity pulse at a time, appropriately selected by the print head ASIC.



Solid ink printers currently use Printheads that utilize tiny Piezo-electric Transducer (PZTs) as the mechanical driving element to precisely transfer minuscule molten ink droplets from the Printhead to the Drum. The PZT elements are relatively simple and reliable components for use in these high dot resolution Printhead Assemblies and can supply the required mechanical force. The PZT element assembly is central to the printing process and precise control of the PZT element is critical to achieving the optimal print quality.

Ink droplet drive is achieved by applying a controlled electrical voltage to the PZT element that changes the physical displacement of the crystal structure. This physical movement of the PZT element provides the force necessary to push the ink through a tiny print head orifice and produces the ink droplet. The pulse shapes of the drive waveform for the PZT elements helps define the characteristics for the ink droplet, although many mechanical and fluid dynamic principles also come into play.

Generally, every droplet from each PZT element should look the same, whether all PZT elements are active or only a single PZT element is active. In addition, droplets from separate PZT elements that are

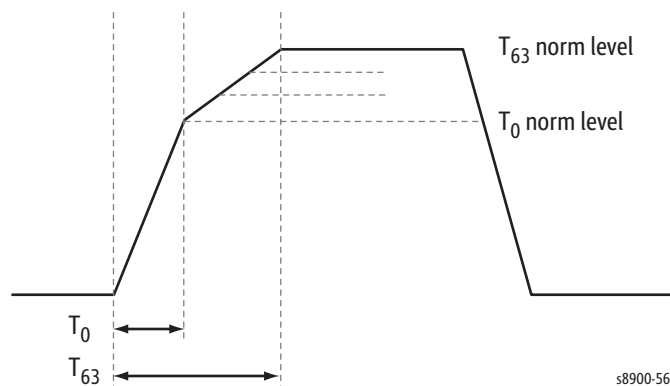
intended to be emitted at the same time do indeed leave the print head synchronously and with the same force. This requires that every PZT receive a normalized drive for uniform ink droplets deposition.

Determining PZT final drive characteristics is an optimization process where drive parameters require adjustments for the normalization of every ink droplet and are subject to change. Therefore, the PZT drive parameters require flexibility of adjustment and a simple means for normalization of the resultant ink droplet pixel transferred to the print media. Drive waveforms are stored in memory and the PZT drivers provide the high-voltage linear power amplification necessary for driving the large PZT capacitive loads for entire print heads.

The Printhead ASIC has drive voltage limitations relative to the drive voltage requirements for the PZT elements. To reduce the voltage amplitude necessary for causing enough physical displacement and pressure, two polarities of pulses are used. The leading edge of the positive polarity pulse causes the PZT to deform away from the orifice to help draw ink into the reservoir and create additional PZT displacement. The trailing edge starts the driving motion back to the rest position for forcing ink out the orifice. The leading edge of an immediately following negative polarity pulse continues to drive the ink forward. The trailing edge brings the PZT back to its rest position. The final result is asymmetrical polarity pulse sequences for the Wave Amp driver. The pulse sequence is common to all active PZT elements when the head is fired. The repetition rate is optimized for the specific print head design.

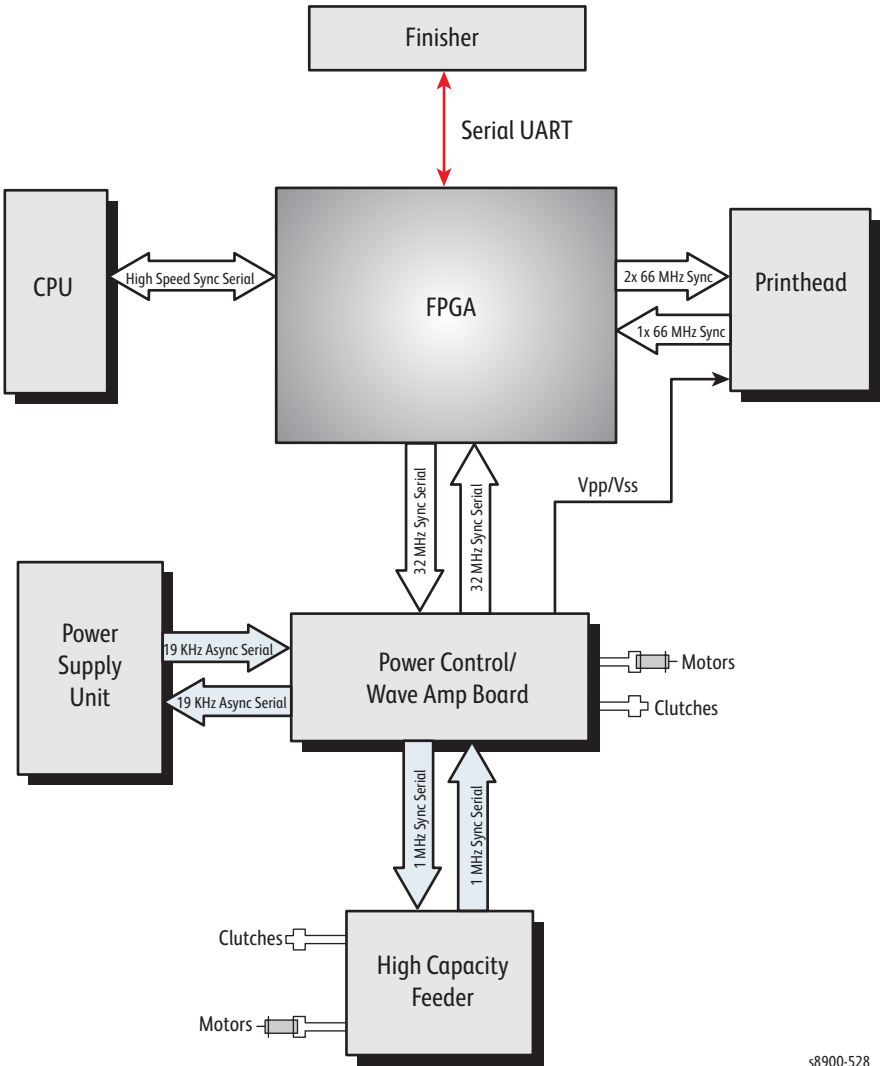
### Ink Droplet Normalization Process

The desired ink droplet normalization process would typically equalize the drop mass emitted from each PZT, synchronize their emergence times, and equalize the velocity of travel to the Drum. Individually controlled drop mass may be desirable for some printing applications but more difficult to implement. Current normalization implementations use the finite rise time of the leading edge of a common piezo-electric transducer (PZT) Wave Amp driver pulse to time discriminate various voltage levels. The ASIC uses synchronous time counters to discriminate individual discrete voltage levels from a known voltage slew rate. The ASIC terminates PZT capacitance charging by opening MOSFET switches. To improve the time discrimination limitations, the drive voltage rising edge has a breakpoint to a reduced slew rate near the top of the drive pulse where DAC-controlled discrete time increments in the ASIC resolve various voltage levels. The time resolution limitations in the ASIC and the subsequent slew rate limitations for the PZT driver provide limitations to the eventual resolution and firing frequency.



**FPGA**

The FPGA is the Printhead interface and motor controller for the ColorQube 8700/8900 printer.



s8900-528

## Voltage Supplies

Figure 1 - Voltage illustrates voltage generation for the boards.

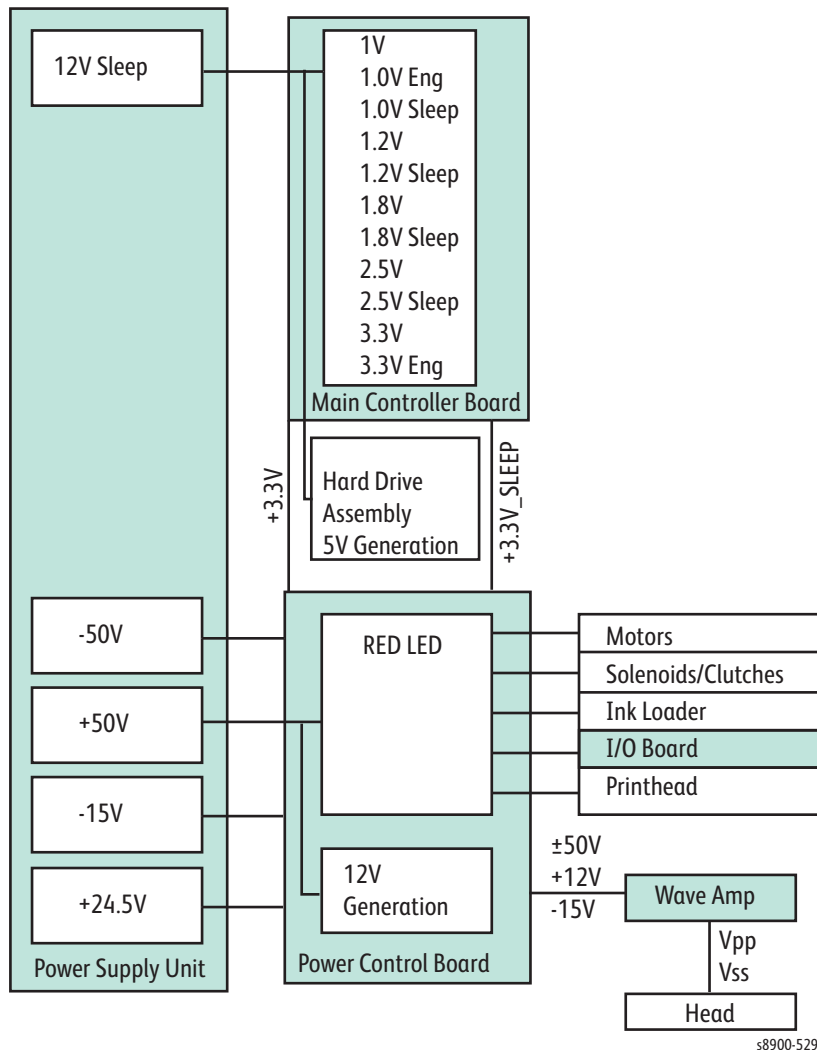


Figure 1 - Voltage

### +3.3V Distribution

+3.3V\_SLEEP DC is regulated on the Main Controller Board. The Power Supply Unit inputs +12V\_SLEEP to the Main Controller Board. It is then passed through a switching regulator. The Power Control Board connects 3.3V to 3.3V\_SLEEP with a switch when not in power saving modes.

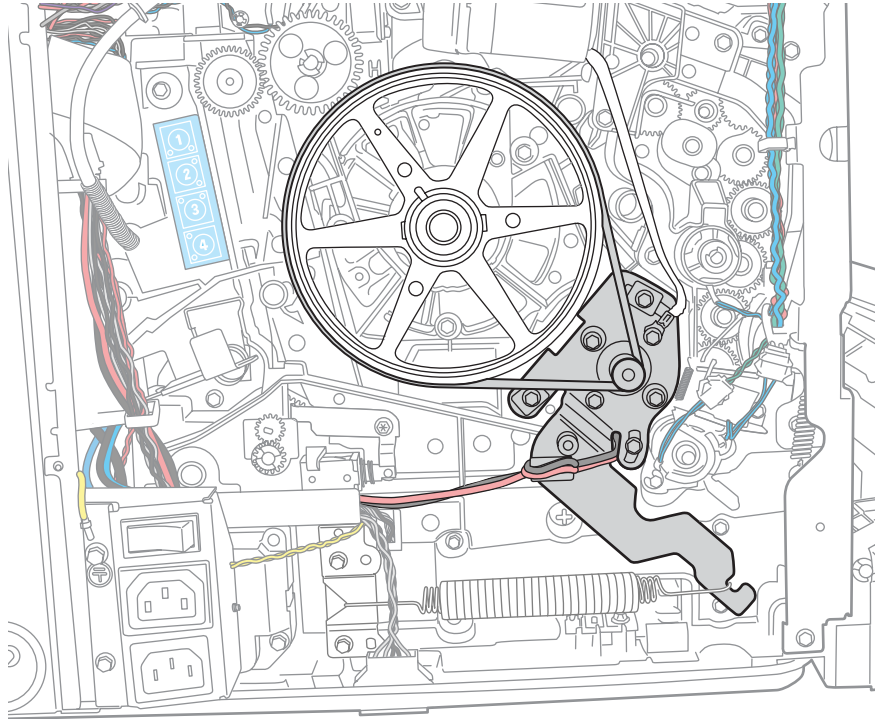
### +12V

The Power Supply Unit delivers +50V to the Power Control Board. The Power Control Board utilizes a switching regulator to generate +12V for the system.

## Motors

### Y-Axis Motor

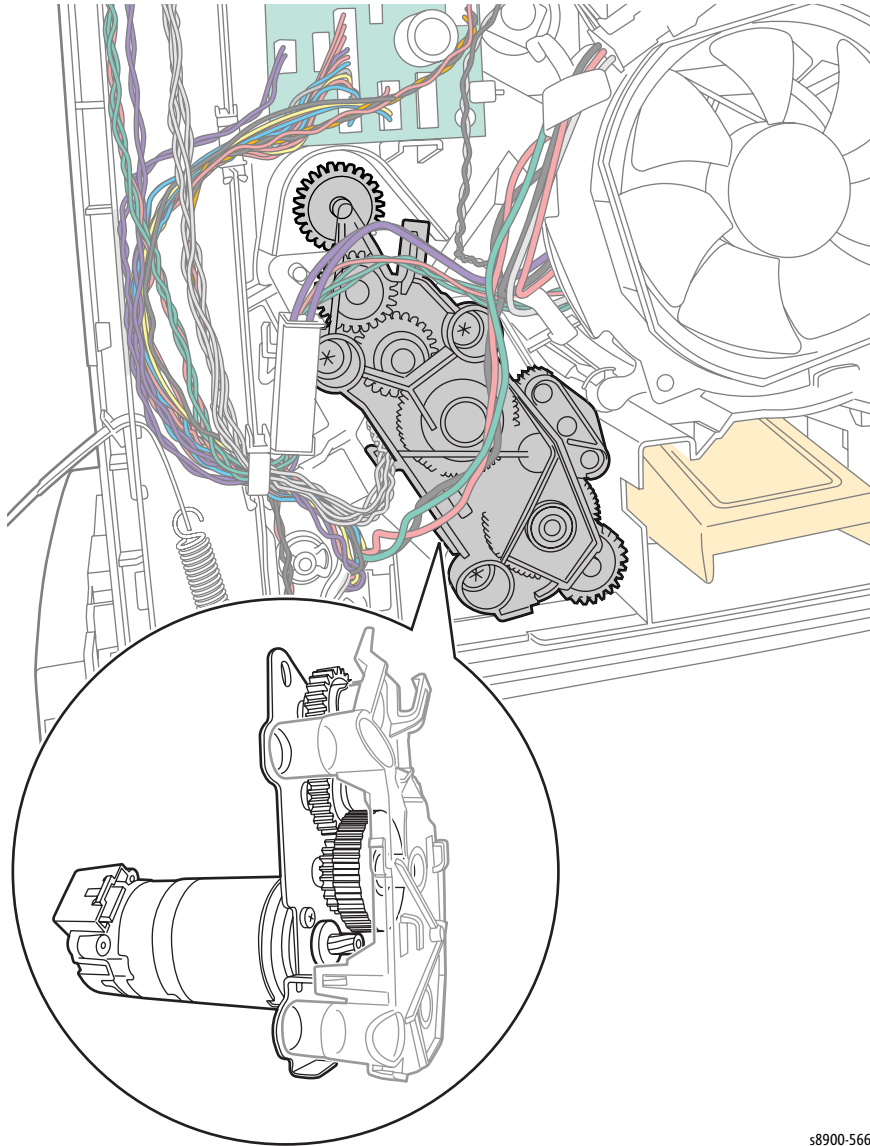
The Y-Axis Motor is a DC Motor that is used to turn the Drum. The Power Control Board drives the Y-Axis Motor with an H-bridge transistor configuration. An H-bridge configuration is used so the Motor can turn in both directions.



s8900-565

## Process Drive Motor

The Process Drive Motor is a DC Motor with an encoder that is used to turn the Process Drive mechanism. The Power Control Board drives the Process Drive Motor with an H-bridge transistor configuration. An H-bridge configuration is used so the Motor can turn in both directions.

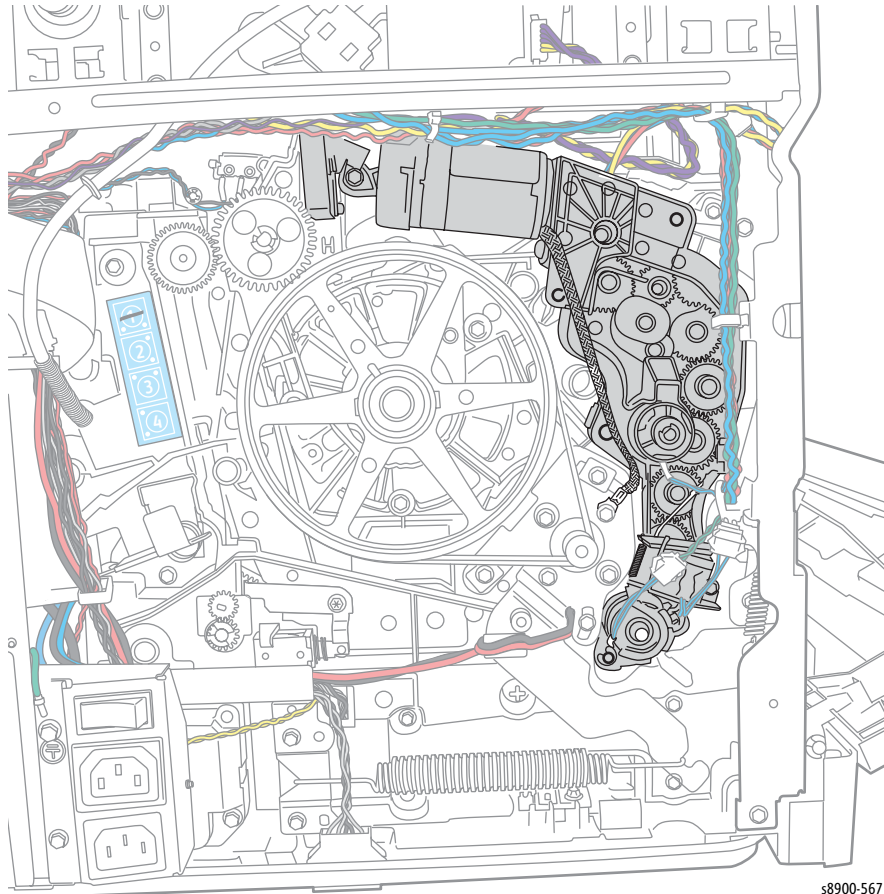


s8900-566



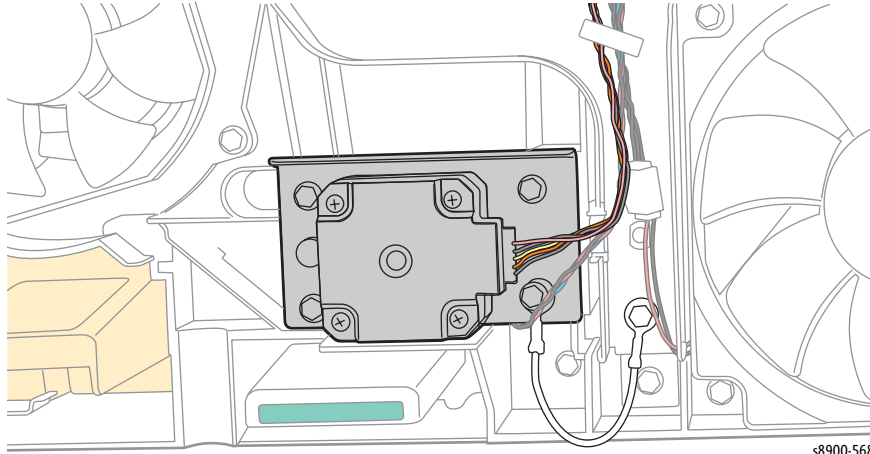
## Media Drive Motor

The Media Path Motor is a DC Motor with an encoder that is used to turn the paper feed mechanism. The Media Path Motor also moves the head wipe when the Head Maintenance Clutch is engaged. The Power Control Board drives the Media Path Motor with an H-bridge transistor configuration. An H-bridge configuration is used so the Motor can turn in both directions.



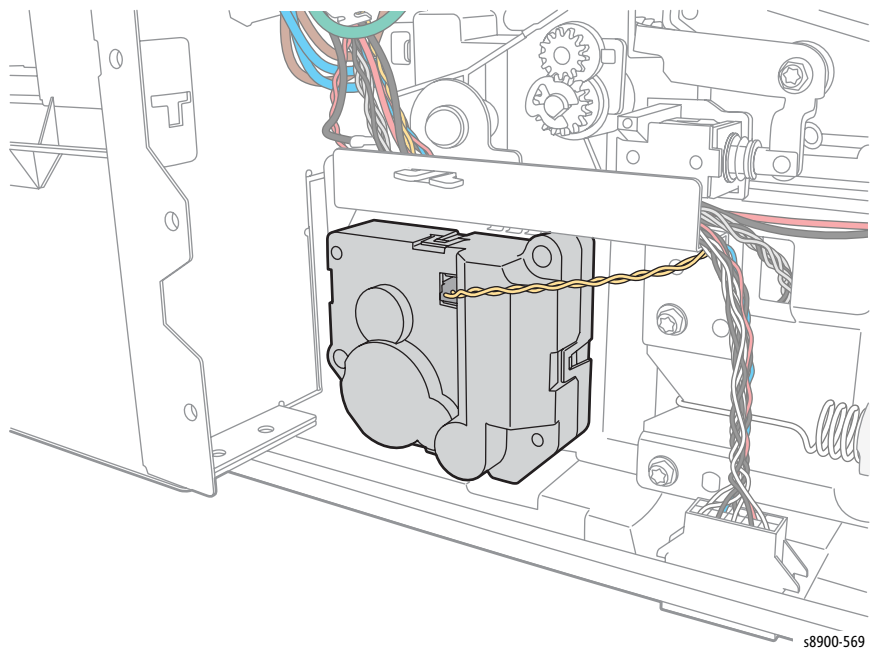
### X-Axis Motor

The X-Axis Motor is a current controlled stepper motor. The Power Control Board drives the X-Axis Motor with two H-bridge transistor configurations one for each phase. The X-Axis Motor is used for turning the nose cone and moving the Printhead side to side.



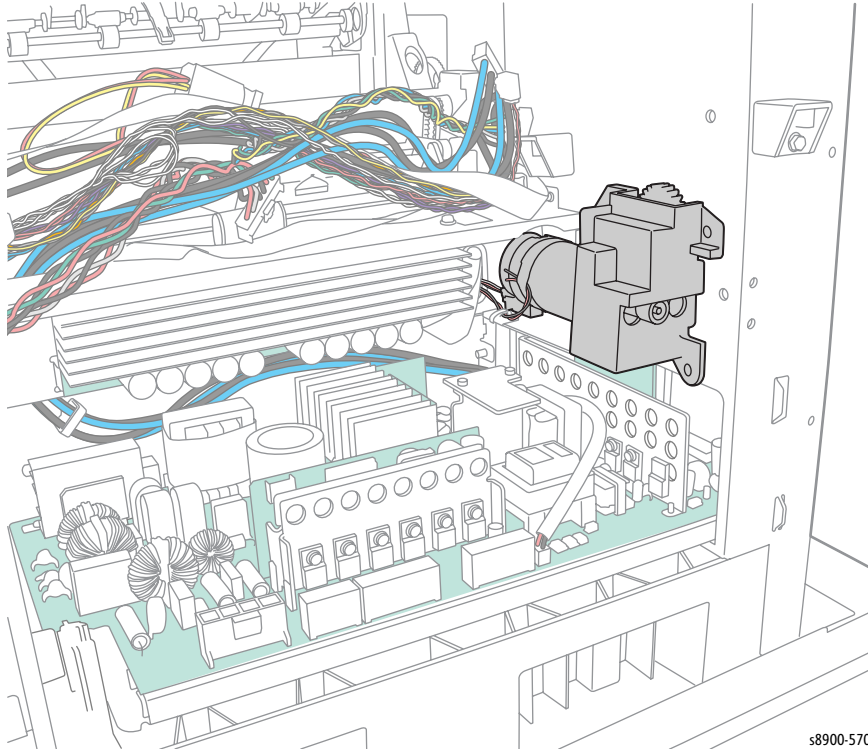
### Tray 2 Lift Motor

The Tray 2 Lift Motor is a DC motor used to raise the paper to the pick. The Power Control Board drives the Tray 2 Lift Motor with the +12V coming from the Power Supply Unit. The Tray 2 Lift Motor is current limited to 112mA. It has a brake that shorts both motor leads. This prevents the motor from coasting and brings the motor to a more precise stop. The Tray 2 Lift Motor and the Brake have a lock out in the PLD to prevent both from being activated at the same time, which would cause a shoot through condition that would damage the drivers.



## Yoke Motor

The Yoke Motor is a DC Motor that is used to turn the Gear of the Yoke Motor for moving the Ink Push Block. The Ink Loader MCU drives the DC Motor Driver (L6226Q) on the Power Control Board. A bidirectional motor driver is used so the Motor can turn in both directions.

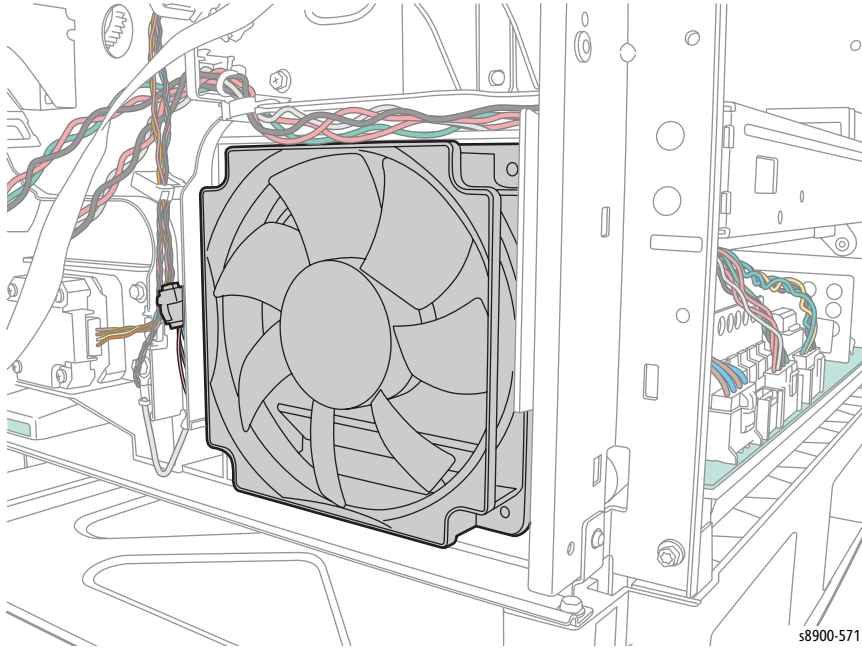


s8900-570

## Fans

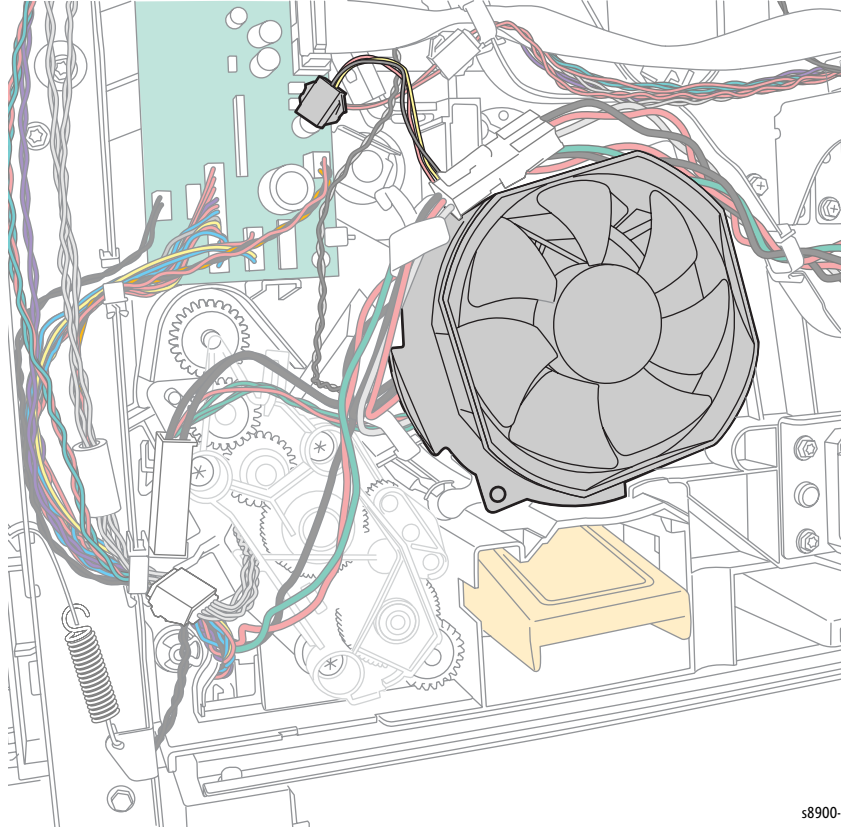
### Electronics System Fan

The Power Control Board drives the Electronics System Fan by providing 12V, ground and sending a 3.3V pulse to the Fan to turn the Fan on. This allows the Fan to be pulse width modulated to reduce the speed of the Fan, by reducing the effective voltage.



## Drum Cooling Fan

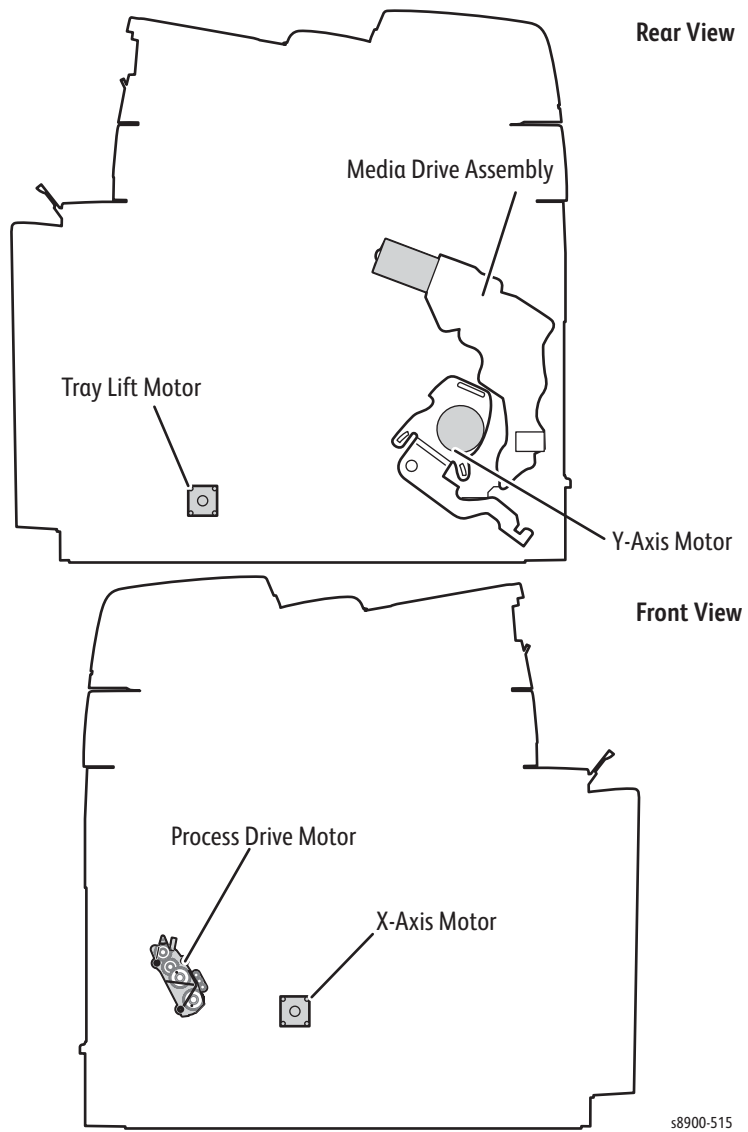
The Power Control Board drives the Drum Cooling Fan by providing 12V to one side of the Fan and switching the ground on the other side. This allows the Fan to be pulse width modulated to reduce the speed of the Fan, by reducing the effective voltage.



s8900-572

## System Drive

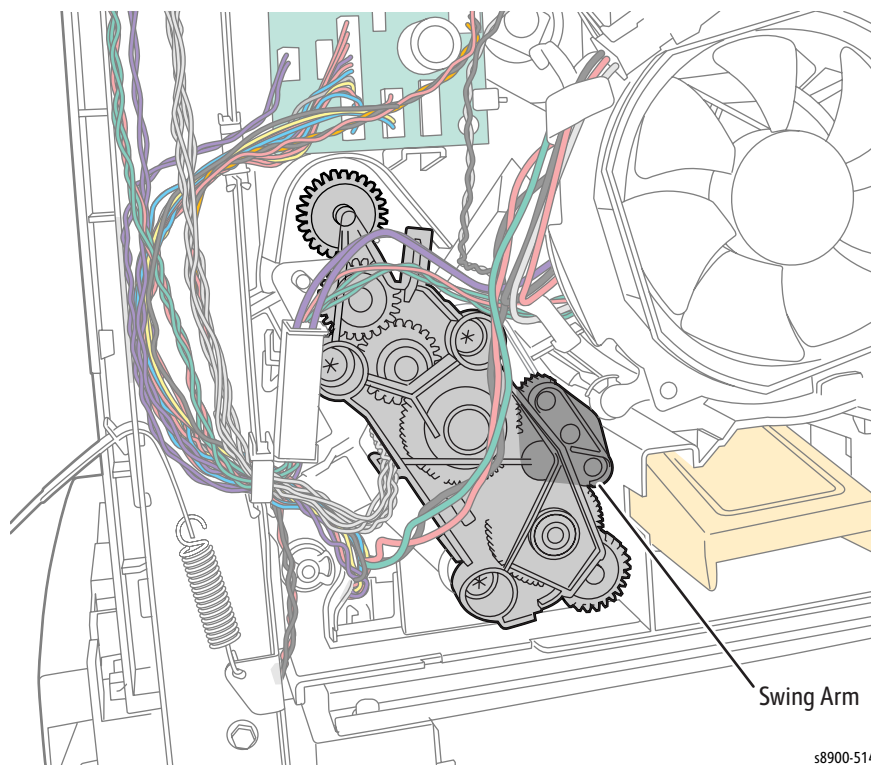
The System Drive includes the Process Drive Assembly and Media Drive Assembly.



## Process Drive Assembly

The Process Drive is an open loop system that transmits torque to two Camshaft assemblies. One Camshaft assembly, Transfix Camshaft, controls Transfix Roller loading. The second Camshaft, Drum Maintenance Camshaft, controls the Drum Maintenance and Printhead Tilt Systems. The Printhead is tilted during power down and warm-up to perform maintenance on it and to put it in a position to save power in Power Saver mode.

A DC Servo Motor powers the Process Drive to rotate the gears to specific positions during the printing process. The Process Drive is able to actuate each Camshaft system independently or concurrently through the use of the Swing Arm in the gear train. Operation of the Transfix and Drum Maintenance System is controlled by the rotational direction of the Motor.



**Figure 1 - Swing Arm Location**

When the Process Drive Motor rotates in one direction, the Swing Arm engages the lower gears. When the Motor rotates in the opposite direction, the upper gears are engaged.

Since the system is open loop, special attention to the home position of the Process Drive gears and the mating Camshaft gears is critical. The Process Drive gearbox is mechanically keyed upon installation via gear orientations. These gear orientations allow the subsystems to self home during operation. If either the gearbox or cam gears is out of home during installation, the system does not function properly. [Figure 2 - Transfix System](#) on page 1-104 and [Figure 3 - Drum Maintenance System](#) on page 1-104 illustrate the rotation direction of the gears.



### Transfix

The Process Drive Motor rotates clockwise causing the Swing Arm to rotate and engage the upper gear train. This rotates the Transfix Cams and lowers the spring-loaded Transfix Roller into contact with the Drum.

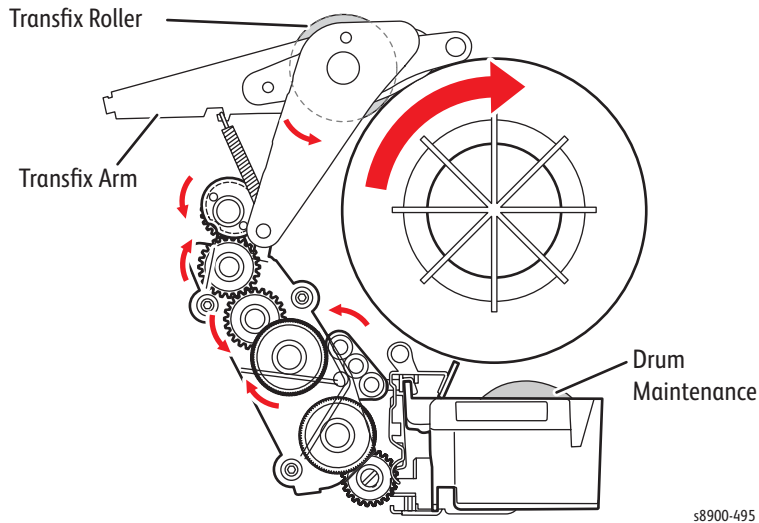


Figure 2 - Transfix System

### The Drum Maintenance (Oiling)

The Process Drive rotates counter-clock wise causing the Swing Arm to rotate and engage the lower Gear. This rotate the Drum Maintenance Cam Shaft. Cam on the Cam Shaft push the Drum Maintenance Unit (Cleaning Unit) into contact with the Drum.

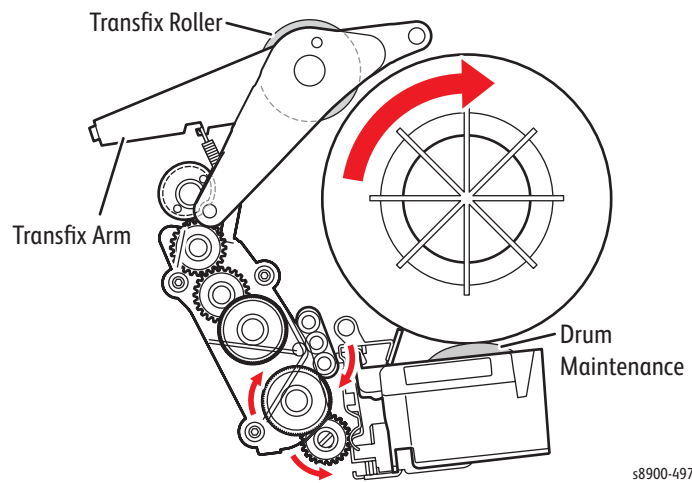
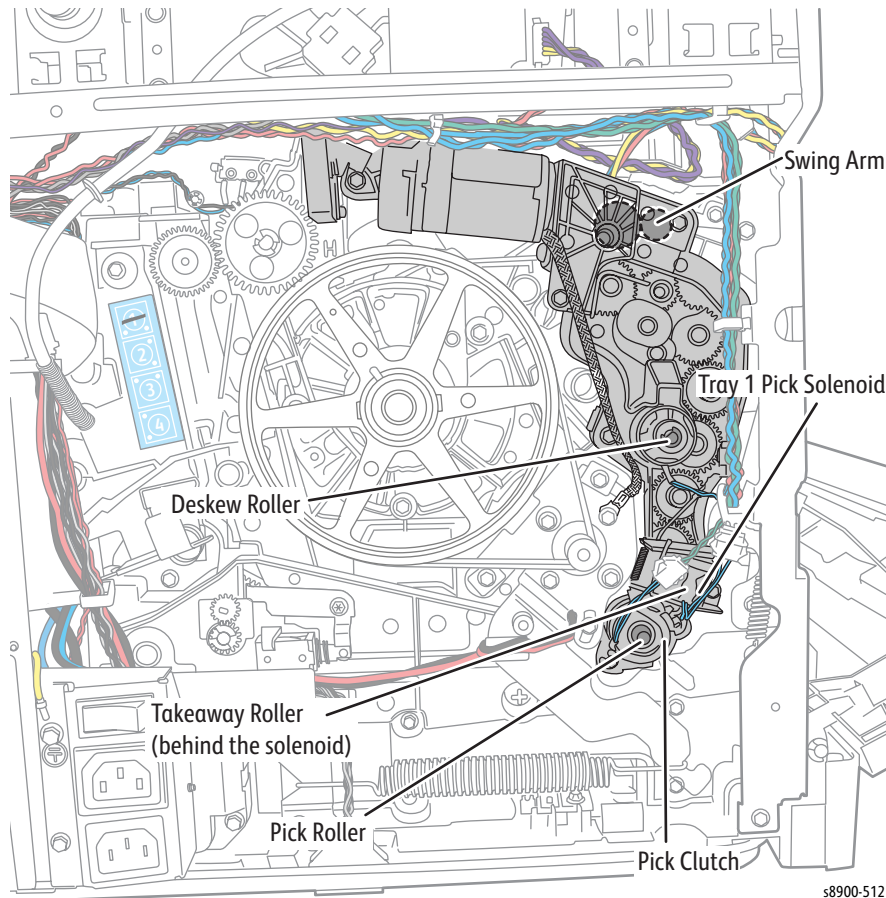


Figure 3 - Drum Maintenance System



## Media Drive Assembly

The Media Drive assembly controls each Roller in the paper transport system. A gear train located behind the Motor connects it to the Exit Rollers, which are built into the Exit Module. Gear trains located within the Media Drive Assembly, along with two Clutches and a Solenoid, allow the Motor to control the Pick, Takeaway, Duplex, and Deskew Rollers. A unique Swing Arm allows the Pick, Takeaway, Deskew, and Duplex Rollers to rotate in the same direction regardless of the direction the Motor is rotating.



s8900-512

## Print Process and Purge System

Once an image has been processed and a printing bitmap created, the print cycle begins. The Printhead and Drum are brought up to their operating temperatures and the ink levels in the ink reservoirs are checked. Ink is added from the Ink Loader, if necessary.

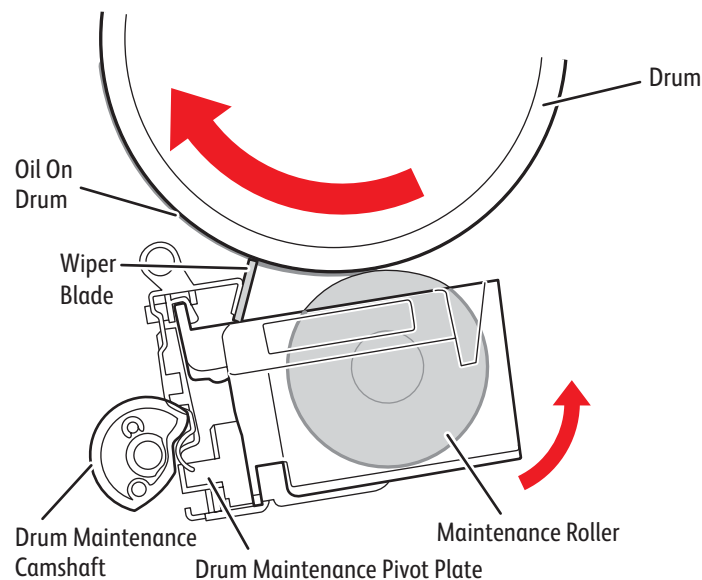
In the Ready state, the print process consists of the following steps:

- Drum Preparation
  - Ink Loader
  - Printhead
  - Drum Assembly
  - Transfix System
- Transfix and Exiting

**⚠ WARNING:** Keep your fingers away from the Y-Axis Drum rotation drive system; it uses a closed-loop servo drive system and is inherently dangerous. The Motor speeds up if it senses the drive system slowing down, and fingers caught in the Belts and Gears can be severely injured.

### Drum Preparation

To prepare the Drum, a thin coating of silicone oil is applied to the surface of the Drum. First the Drum is rotated. Next, the Oil Roller and Blade of the Drum Maintenance Unit are raised into contact with the Drum. To accomplish this, the Process Drive rotates the Drum Maintenance Camshaft lifting the Oil and Wiper Blade to the Drum. The Drum is rotated against the oil saturated Roller. There are separate cams for the Blade and the Roller.



s8900-498

## Printing

To print, the Drum starts rotating at a speed dependent upon print resolution. As the Drum reaches the correct speed, the jets begin to fire to deposit the image on the oiled portion of the Drum. As the jets fire, the Printhead moves from right to left to complete the image on the Drum.

When printing, the printer performs a “six-jet interlace,” in which each jet lays down a particular number of pixel columns, depending on the print resolution. Each jet lays down one pixel column for each Drum rotation, which varies from 6 to 16 rotations, depending on the print resolution.

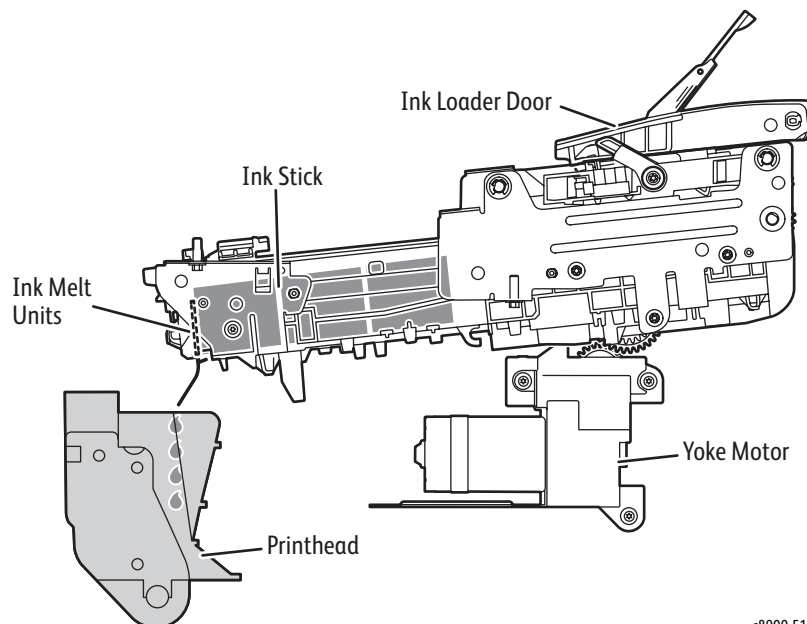
Interlacing “averages out” the variability between jets by interlacing each jet with other jets. In some test prints, the Printhead moves to the right and lays down 309 parallel bands of ink. Each band is composed of 15 pixel columns of dots from an individual jet.

Jet substitution allows a better performing jet to be used in place of a missing or poorly performing neighboring jet. When jet substitution is used, the Printhead makes a second right-to-left movement to deposit the pixel columns of the substituted jets.

## Ink Loader

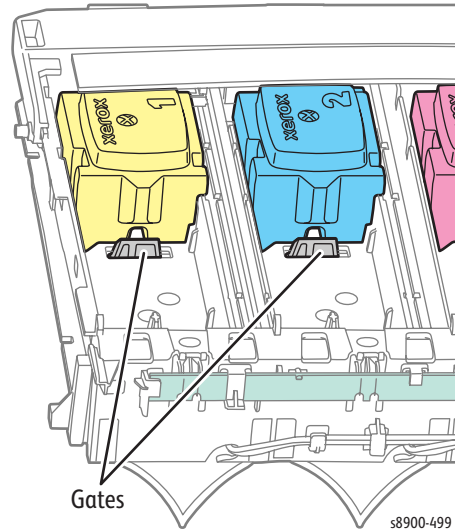
The Ink Loader consists of four parallel channels with an ink melting element at the end of each channel. Ink sticks, one color loaded in each channel, are pressed by coil spring pressure into the melting elements. As ink is required by the Printhead, the appropriate color’s melting element is activated and the end of the ink stick is melted. The melted ink drips into the ink reservoirs of the Printhead underneath.

The Yoke Motor moves the Ink Loader to the [Home](#) and [Away](#) positions and causes the unlatching of the Door. The Away position is where the Yoke moves to the position for ink loading. The Home position is where the Yoke travels toward the Heater and loads the ink for melting.



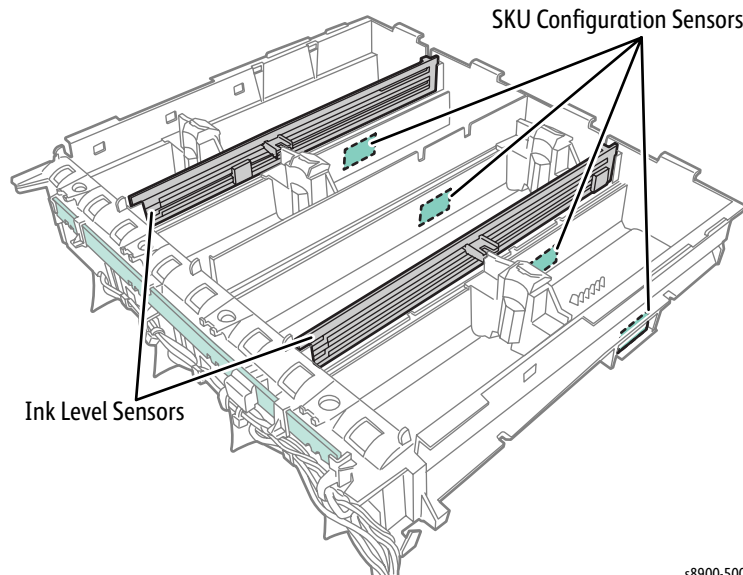
The Ink Stick Gate Solenoid (one for each color) prevents movement of the ink stick until it is sensed. When the correct ink stick is inserted, the Solenoid is activated to lower the gate. The Configuration Sensor is activated to determine when the ink stick has traveled past the gate. When the ink stick has moved sufficiently forward, the gate is returned to the Locked position.

The gate will also lower when an ink stick is moved back up to the gate to allow removal. When you move an ink stick back, an ink stick back up the ink channel and contact the raised gate, the SKU notch A (or notch E on Enterprise ink sticks) will trip / trigger the lower-most SKU sensor. Notch A and E are always have material present (logical 1). The transition of the sensor from no material to material present signals the printer to lower the gate.



The Chute Level Sense detects the Ink Stick when the Ink Loader Door is closed and alert the user to install more ink sticks before the current sticks are completely consumed. The Stock Keeping Unit (SKU) Configuration Sensor detects the presence or absence of ink thereby determining the ink SKU.

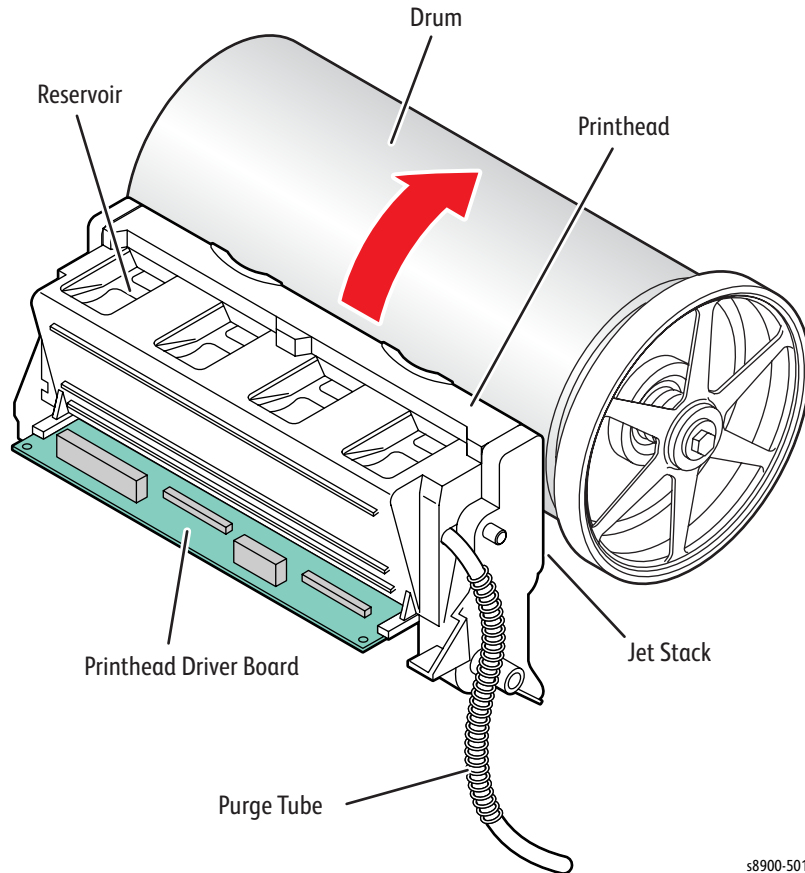
The Ink Level Sensors inside the Printhead detect that the Printhead has run out of ink.



## Printhead

The Printhead is the heart of the printer, spanning nearly the length of the Drum. Using its 1236 jet nozzles (309 jets for each primary color), with a horizontal motion of slightly less than 5 mm (0.2 inches), the Printhead can print the entire image on the rotating Drum. The Printhead provides one size ink drop that it uses for all print-quality modes.

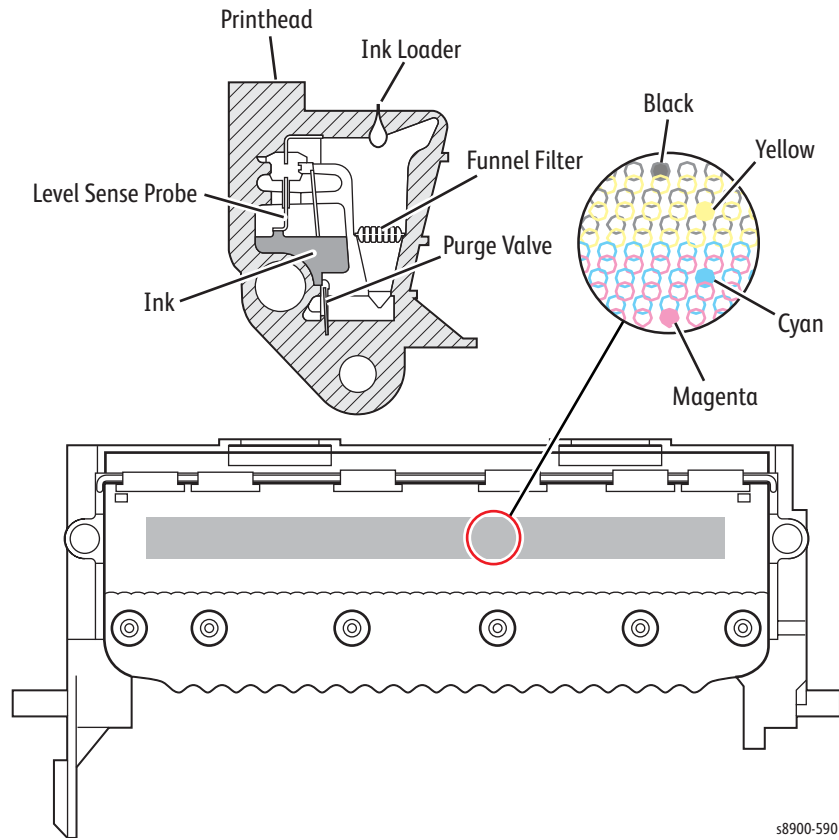
The Printhead jets receive drive signals from the Wave Amp. The internal Jet Stack Heaters receive control signals as well as AC power from the Electronics Module. Additional features of the Printhead include the Lift Handles, Purge Tube, and head-to-drum contacts.



s8900-501

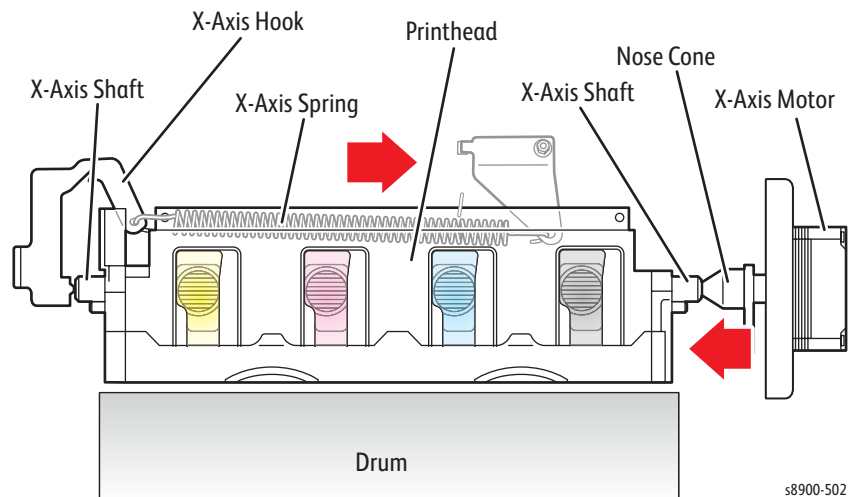
The Printhead's Jet Stack is fabricated from a stack of chemically etched steel plates which are brazed together to form the jet array. Channels formed by the stacked plates route ink past the 1236 individual, piezo-electric crystal-driven diaphragms, which force the ink in droplets out the 1236 corresponding nozzles. Looking at the Printhead face, the nozzles are arranged in 12 rows, in color order KYKYKYCMMCMM, where K = black, Y = yellow, C = cyan, and M = magenta. During the printing process, the Printhead would only have to travel approximately 14 pixels horizontally to provide complete coverage. However, the Printhead travels much further, depending on print resolution, to interlace each jet with the output of neighboring jets.

The jet array is bonded to a cast aluminum ink reservoir. The reservoir supplies the molten ink to the jet array. Heaters in the reservoir and the jet array keep the ink in a liquid state.



X-Axis or lateral movement of the Printhead is accomplished by means of a stepper motor driving a fine-thread screw and conical nut. The Printhead is supported by two short X-Axis Shafts and correct spacing to the Drum is maintained by sliding contact with two plastic buttons on either end of the Drum Assembly. A tension spring linked to the Printhead's left shaft provides a pre-loaded force so the Printhead's right shaft is held against the nose cone eliminating all play in the system.

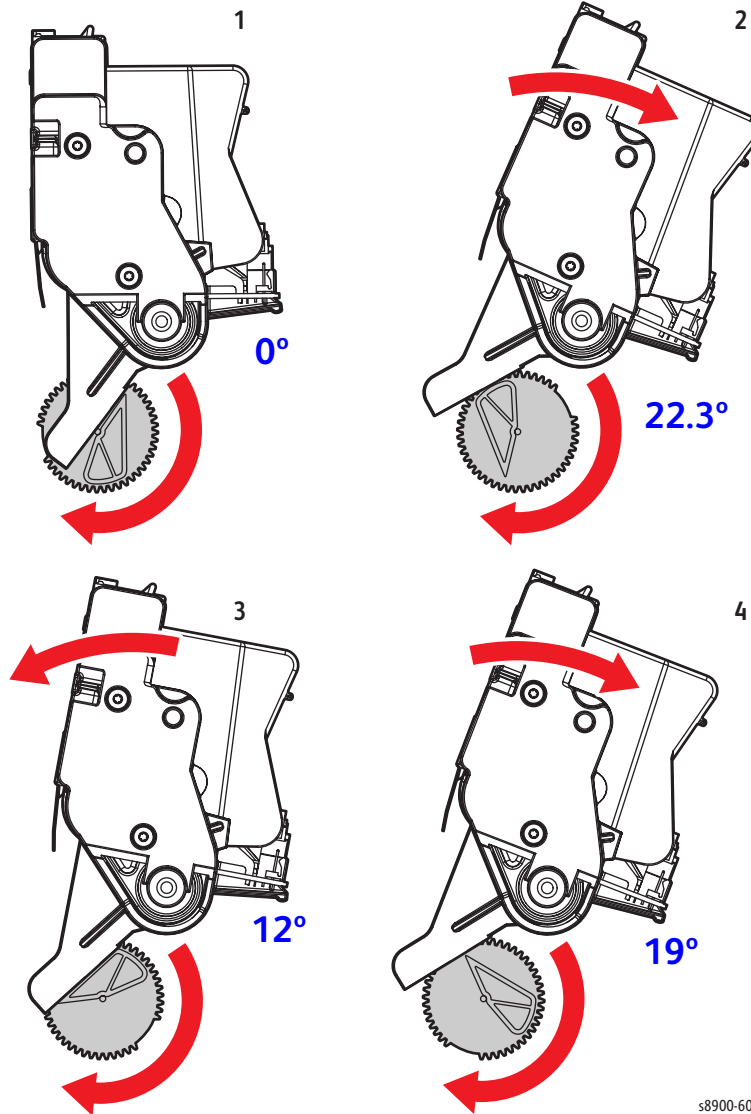
The X-Axis system has no encoder to provide position feedback. To find the Printhead Home position, the X-Axis system drives the Printhead against the left frame, stalls, then reverses and moves a set distance.



## Printhead Tilt

The Printhead is able to rotate into four basic positions.

1. Print/ Ready Position (0 degree)
2. Park/ Sleep Position (22.3 degrees)
3. Wipe Position (12 degrees)
4. Wiper Bypass Position (19 degrees)

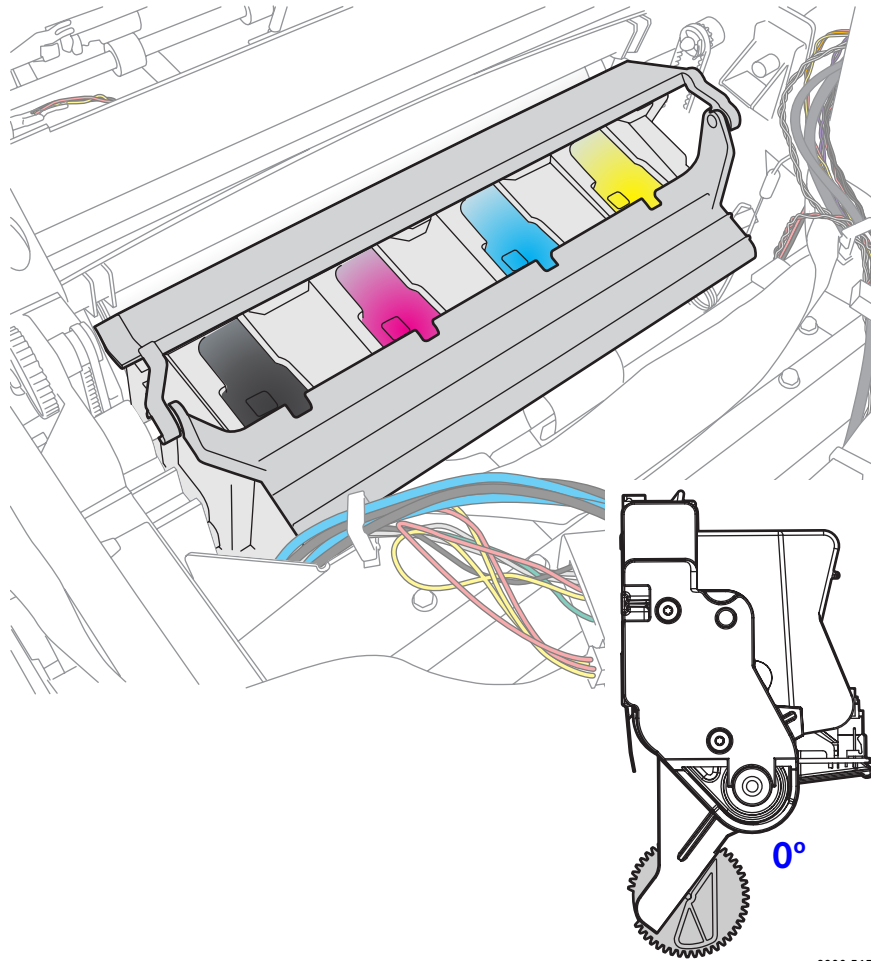


s8900-602



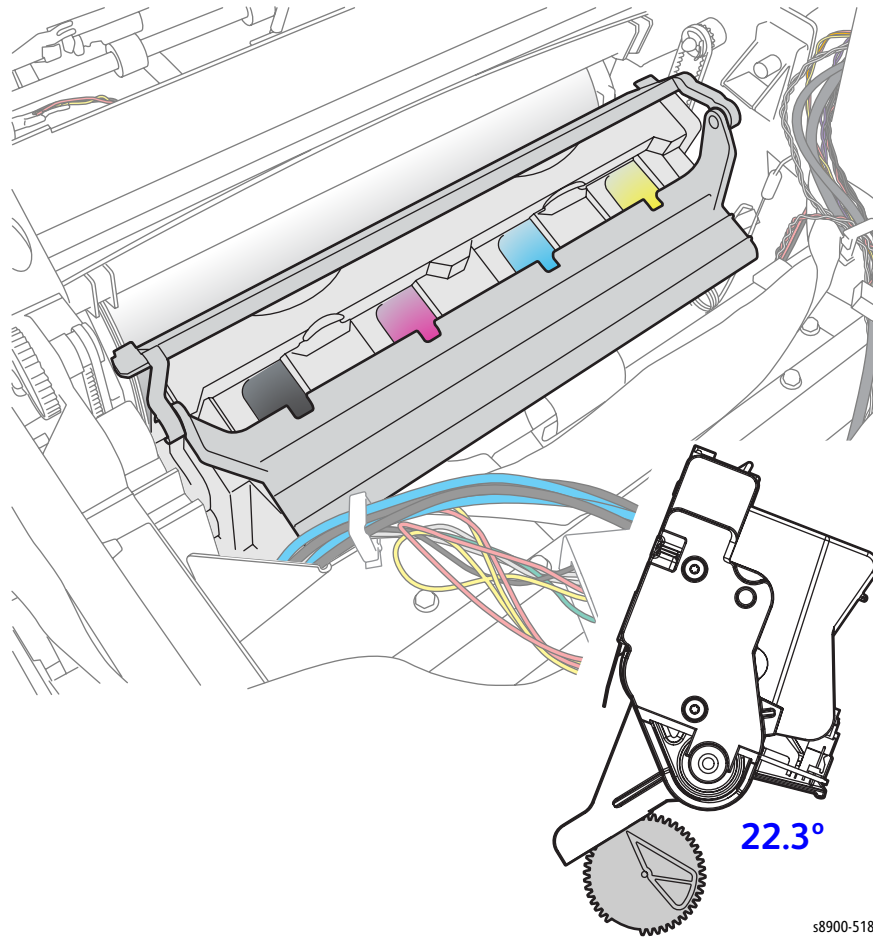
### Printhead Positions

1. **Print/ Ready Position (0 degree):** The Printhead is forward and resting against the right and left head-to-drum buttons. The head-to-drum buttons define the space between the Jet Stack and the Drum.

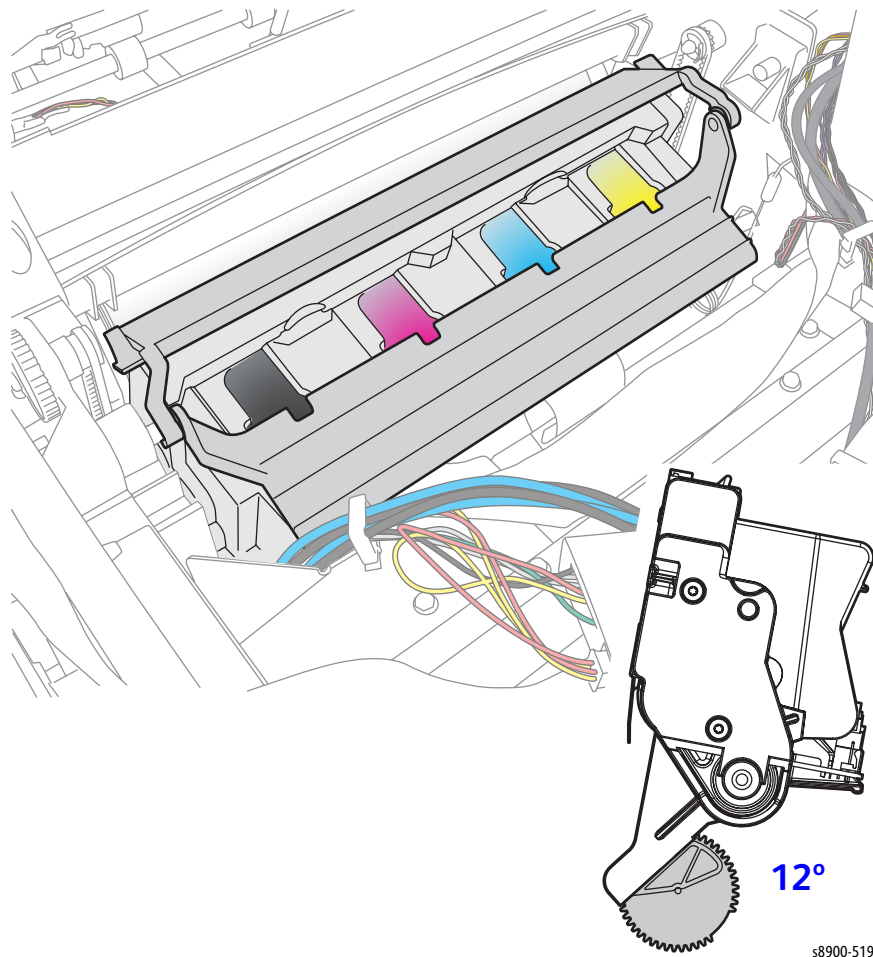


s8900-517

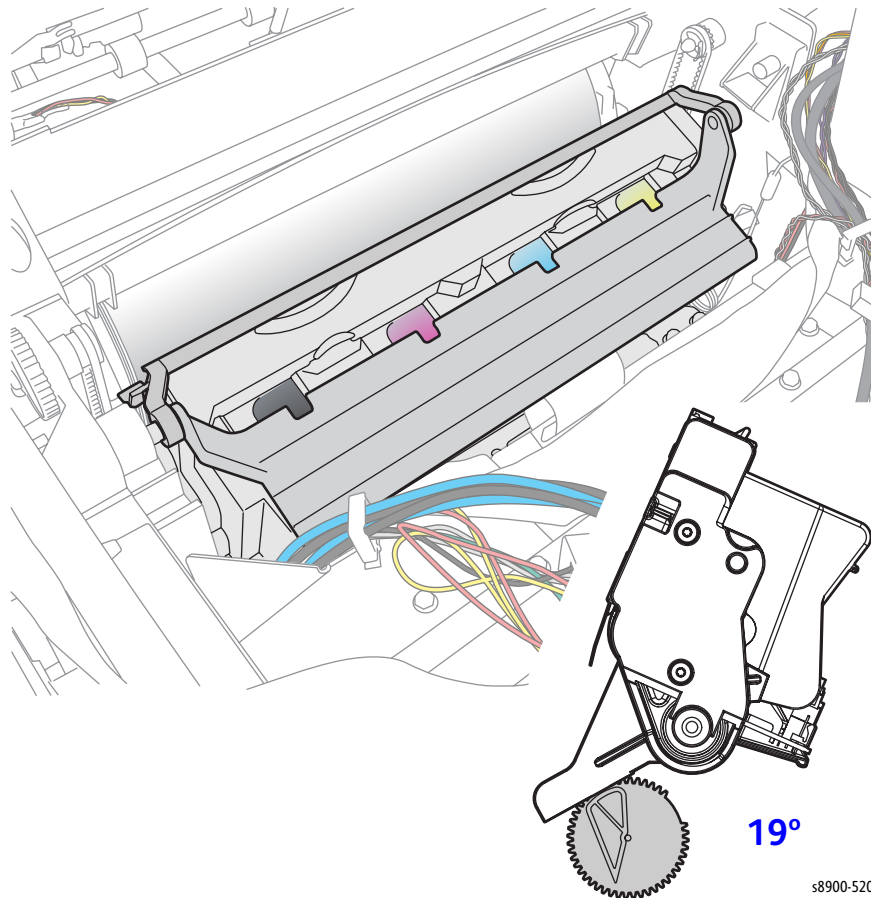
2. **Park/ Sleep Position (22.3 degrees):** Allows the wiper to clear the Printhead in order to be in the Wipe Printhead position, and also allow the Printhead be parked for shipping. In this position, the Printhead tilt arm/ follower is engaged at the Park position of the Tilt Cam.



3. **Wipe Position (12 degrees):** The Printhead tilt arm/ follower is engaged with the tilt cam, and the head overload spring contact is engaged with the overload spring-plate to provide the correct force for the wiper.



4. **Wiper Bypass Position (19 degrees):** The Printhead restraint pins are resting against the right and left locks. In this position, the Printhead tilt arm/ follower is free of the tilt cam, and the head is secured for shipping.



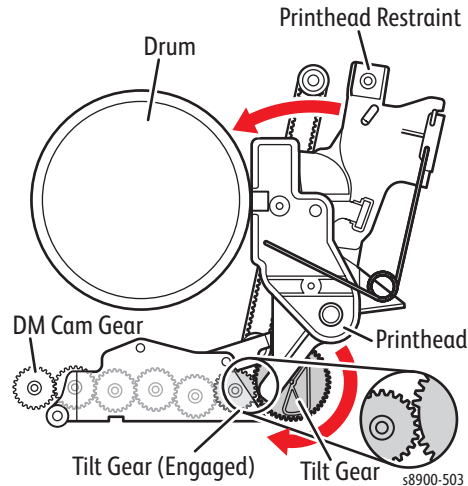
The head Tilt Cam tilts the head into the basic four positions: Print, Park, Wipe, and Wiper Bypass positions. The Cam has five special features and associated functions:

1. The Cam is combined with a missing tooth gear (Head Tilt Gear) that allows the Cam to be inactive in the Print position. This frees the Process Drive to perform other printer operations.
2. The Cam has a latching feature to unlatch and latch the missing tooth gear to engage the Printhead tilt drive train.
3. The Cam profile has a standby dwell (the portion of the Cam that has a constant radius). This holds the Printhead back in the Park position.
4. The Cam profile has a wipe dwell that holds the Printhead back in the Wipe position.
5. The Cam profile increases the power consumption at a specific phase of rotation. This allows the software to identify a power consumption footprint to alert the printer when the head is locked in error.

The Printhead is tilted away from the Drum and locked for shipping. When the Printhead is locked in the shipping position, there are three key restraining elements:

1. When parked, the Printhead is restrained from rotating about the X-Axis by a pin on the right side of the Printhead, extracting into the right restraint when the X-Axis Motor is fully retracted.

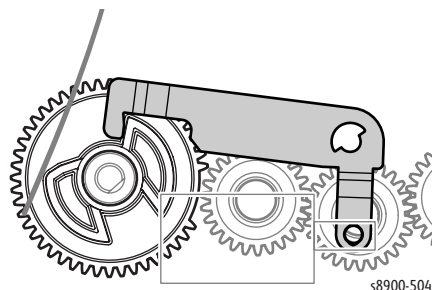
2. The Printhead is restrained at the X-Axis shafts by the right and left Printhead Restraints that limit motion at both ends of the Printhead.
3. The Printhead is limited to the nominal motion of 4.6 mm in the X-Axis (left/ right side motion when the Printhead is back and locked) by the right restraint and the left home stop on the left side frame.



In the Print position (0 degree), the Printhead is forward and resting against the right and left head-to-drum buttons. The head-to-drum buttons define the space between the jet stack and the Drum. When the Process Drive is activated, it drives the Drum Maintenance Camshaft to engage the tilt gear train. The Tilt Cam tilts the Printhead into the Print position. The Cam is combined with a missing tooth gear that allows the Cam to be inactive in the Print position, freeing the Process Drive to perform other printer operations.

The Cam has a latching mechanism to unlatch and latch the Head Tilt Gear to engage the Printhead tilt drive train. The Cam's latching mechanism also holds the gear in place. A leaf spring applies constant pressure to engage the gear when the latching mechanism is released. The arm of the latching mechanism is inside the frame; the rest is visible, outside the frame. The Head Tilt Solenoid is actuated and deactuated when the Head Tilt Gear rotates to the respective engaged and disengaged positions.

The action of the Solenoid ensures that the Head-Tilt Gear engages the Tilt Drive Gear. Through a follower gear, the compound gear drives the Tilt Cam Gear clockwise when viewed from the Waste Tray slot. A cam follower, mounted on the lower end of the Tilt Arm, follows the rotating Tilt Cam Gear and tilts the Printhead. After one revolution of the Tilt Gear, the latching mechanism is pulled back into position by the Head Tilt Solenoid.

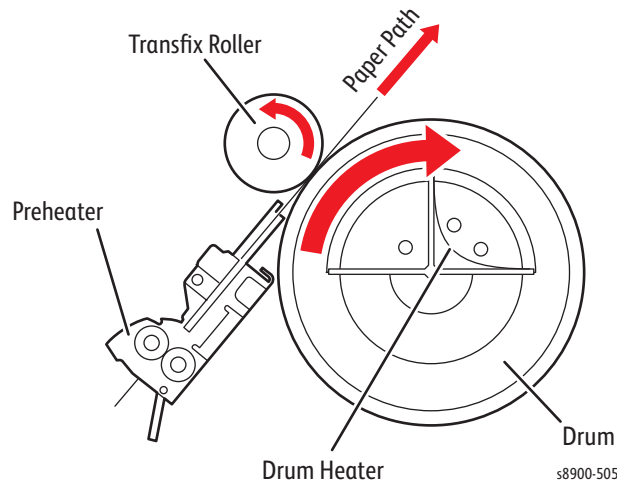


## Drum Assembly

The Drum Assembly and Transfix System form the key portion of the printer where imaging takes place. The Drum Assembly and Transfix System are separate, but interrelated. This section discusses the Drum Assembly. The next section goes into more detail on the transfix system.

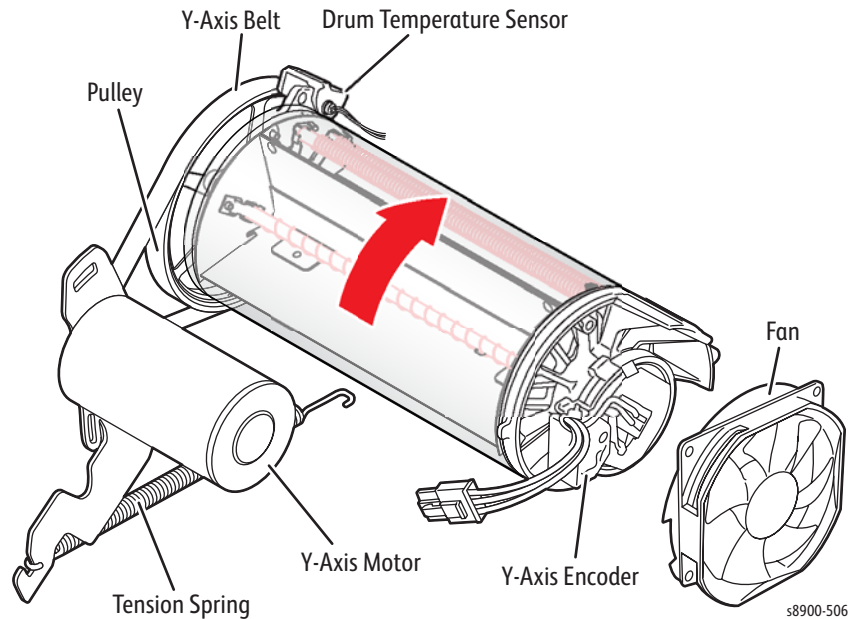
The Y-Axis Motor rotates the Drum Assembly. The Drum only rotates forward. A drive belt connects between the Y-Axis Motor and Drum pulley. A closed-loop servo drive system is used to maintain a constant rate of Drum rotation. This system increases the Y-Axis Motor drive current to compensate for conditions that could slow down the Drum, such as thicker media.

In operation, the image to be printed is formed on the rotating Drum. The Preheater heats the media to prepare it for image transfer. The heated media is then passed between the Drum (now rotating much more slowly) and the Transfix Roller. Under the pressure between the Drum and the Transfix Roller, the image is transferred. An encoder disk and Sensor on the left end of the Drum monitors the Drum's speed and position.



The Drum Heater heats the surface of the Drum for imaging. The Drum Heater does not rotate. The heater is inside the Drum, and is controlled by the Main Controller Board. The Drum Heater consists of two resistive heater coils that operate at line voltage. A Temperature Sensor in contact with the Drum surface monitors the Drum temperature. The Main Controller Board interprets the sensor's signal and turns On the Drum Heater and Drum Fan to heat the Drum, or turns On the Drum Fan alone to cool the Drum.

The Drum is driven by the Y-Axis Motor through a single reduction belt drive, the Motor rotates the Drum at a high speed for imaging and a constant low speed for image transfer. The Y-Axis assembly uses an active tension system to allow the pulley to float while the spring adjusts the tension.



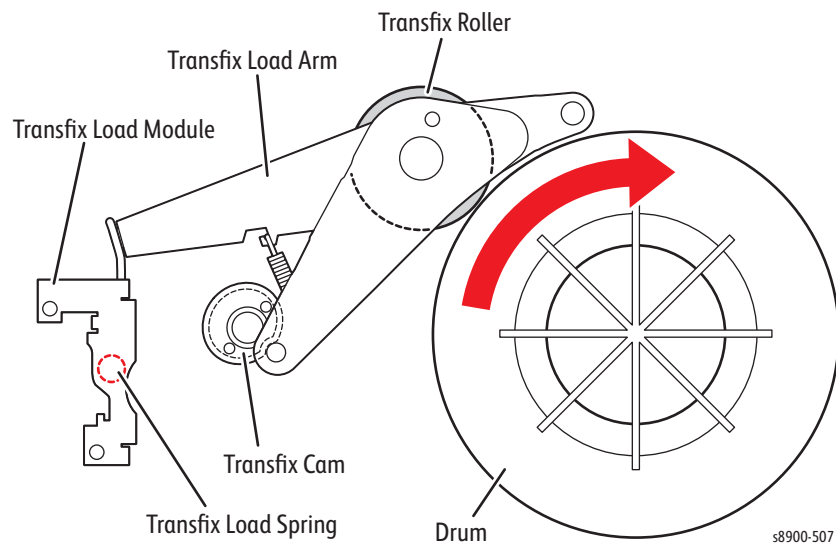
**!** **WARNING:** Keep your fingers away from the Drum drive; it uses a closed-loop servo drive system. Since the motor speeds up if it senses the Drum slowing down, fingers caught in the Belts and Gears can be severely injured.

## Transfix System

The Transfix Roller, applies pressure to the back side of the media as it moves between the Transfix Roller and Drum. This pressure transfers the image from the Drum to the media. A set of springs in the Transfix Load Module, acting through the Transfix Load Arms, evenly apply pressure across the Transfix Roller as it rests against the Drum. The pressure must be uniform across the length of the Transfix Roller to avoid paper wrinkles and light spots on the prints.

After the Transfix Roller is engaged, the Drum rotates to advance the media during the transfix process. The Drum continues to advance the media until the Transfix Roller is disengaged. The Transfix Roller is lifted and lowered by the action of the Process Drive. All gears move to rotate the Transfix Camshaft to bring the Transfix Roller into contact with the Drum. The gears reverse to rotate the Transfix Roller back to its original position. The Transfix Load Springs and double lever arms increase the force when the Camshaft is engaged.

**⚠ CAUTION:** Never attempt to adjust or increase the transfix pressure of the springs.





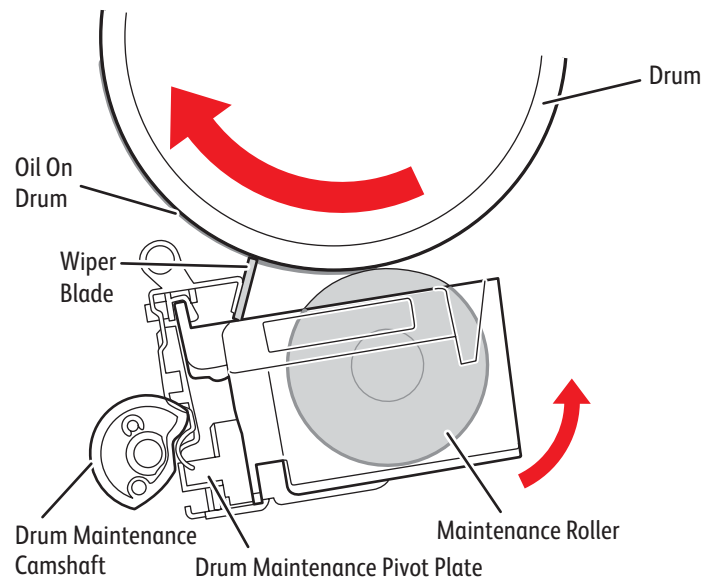
## Drum Maintenance System

The Drum Maintenance System creates a thin layer of silicone oil on the surface of the Drum prior to printing. The oil keeps the ink from sticking to the Drum's surface and facilitates image transfer to the media. The oil is contained in a porous foam Roller in the Cleaning Unit.

Prior to each print, the Process Drive rotates the Drum Maintenance Camshaft to move the Drum Maintenance Pivot Plate, forcing the oil Roller and Wiper Blade against the Drum. The Wiper Blade produces a smooth and even oil film across the Drum's surface. The excess oil drains back into the Drum Maintenance Unit through a felt filter for reuse. As the Drum completes one rotation, the Process Drive rotates the Cam lowering the oil Roller and Wiper Blade away from the Drum.

The Drum has a floating deadband area. The deadband is a narrow section of the Drum's surface containing excess oil and other debris cleared by the Drum Maintenance Wiper Blade. An oil bar is left on the Drum surface in this deadband area as the Blade is lowered from the Drum. The deadband area's location is controlled to keep it outside of the Drum's image area.

An EEPROM, built-in to the Cleaning Unit, stores the number of oiling cycles performed by the Drum Maintenance System to track consumable life. At startup, four oiling cycles are performed to condition the Drum.

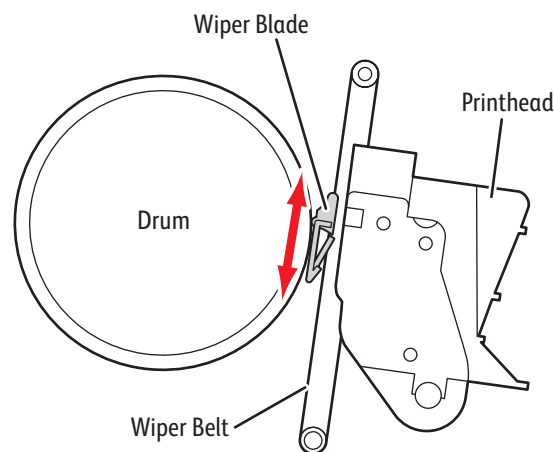
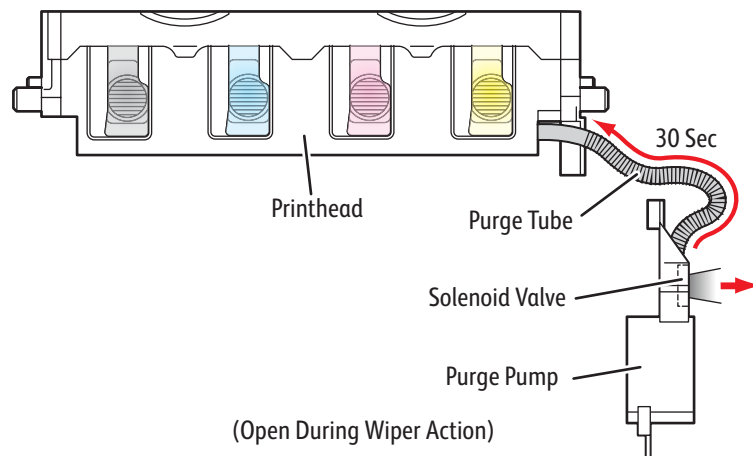


## Printhead Maintenance

To perform a Printhead maintenance cycle, the Printhead is first tilted away from the Drum to allow the Wiper Blade to pass by. The Wiper Blade is then raised in front of the Printhead. The media path drive governs wiper movement when it engages the Head Maintenance Clutch on the exit shaft of the system. The Purge Pump applies pressure to the ink reservoir for approximately 2.5 seconds. Valves in the reservoir seal when pressure is applied. The pressurization ejects a small amount of ink from the jets. Following the pressure purge, the Printhead tilts into the Wiper Blade and the wipe cycle begins. The pump runs again with the Solenoid for approximately 30 seconds, creating a neutral balance between pressure and ink. The Wiper Blade lowers and wipes excess ink from the jets into the Waste Tray. A proper purge covers the length of the Waste Tray with a single layer of ink about 20 mm wide.

The level of the ink in the reservoir is kept constant. If the purge tubing is pinched, the Printhead may not purge properly. In addition, because the purge tubing also acts as a vent to atmosphere when not purging, a more serious failure can occur if the ink overfills and the reservoir cannot vent properly.

**⚠ WARNING:** When servicing the printer be careful of the Wiper Blade as it passes the Printhead. If a damaged Wiper Blade catches on the Printhead, it could propel hot liquid ink upward into your face.



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## Transfix and Exiting

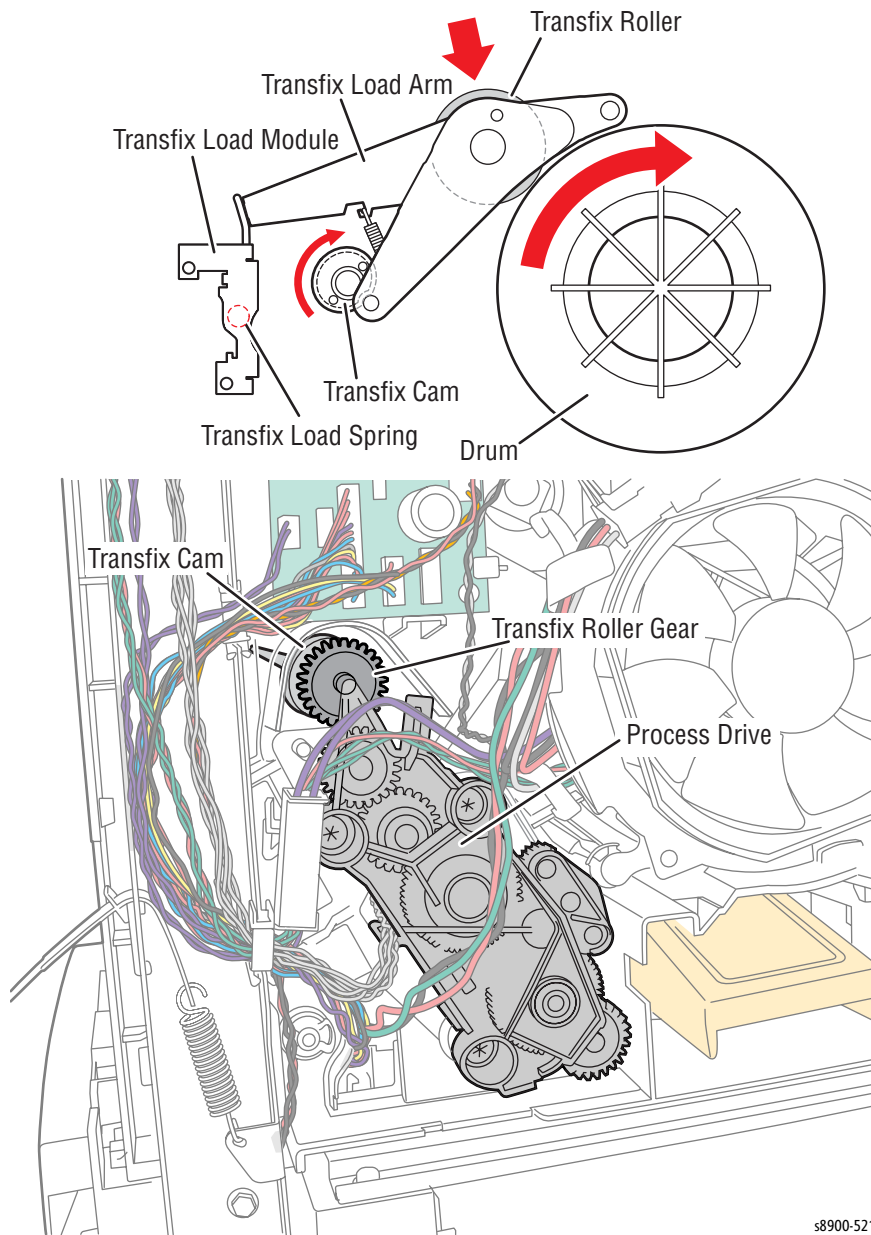
Transfixing and Exiting consist of four major functions:

1. Stage the paper for contact with the image on the Drum and Transfix Roller nip.
2. Load the Transfix Roller and engage the Stripper Blade.
3. Strip the paper from the Drum.
4. Exit the paper from the printer, or exit the paper for 2-sided printing.

Tripping the Preheater Exit Sensor sets up a series of events that occur on a predetermined schedule. Media is transported through the Preheater to thermally prepare it for transfixing. The Preheat Sensor detects the media's presence and registers the leading edge with the image on the Drum. Based on the timing information from the Preheater Exit Sensor, the Transfix Roller lowers onto the leading edge in the nip. Timing is based on the Sensor ensuring the image is perfectly aligned for transfix to the paper. The Process Drive lifts and lowers the Transfix Roller.

At the point which the Transfix Roller is loaded, but before the Drum begins to rotate, the Stripper Solenoid is engaged. The Stripper Blade is actuated by energizing the Stripper Solenoid. The Solenoid mounts on the Upper Inner Duplex Guide and activates the strip solenoid lever. The lever rotates the Stripper Carriage until it hits the transfix ground pins, causing the paper Stripper Blade to momentarily drop onto the deadband of the Drum. This action catches the leading edge and guides the media to the rotating Exit Rollers.

After the Transfix Roller is engaged, the Drum rotates to advance the media and transfix the image. All gears move to rotate the Transfix Camshaft to bring the Transfix Roller into contact with the Drum. The Transfix Roller nip applies the load necessary to transfer the image. Once the image is transferred, the Drum stops rotating and the Transfix Roller is lifted by the Process Drive.

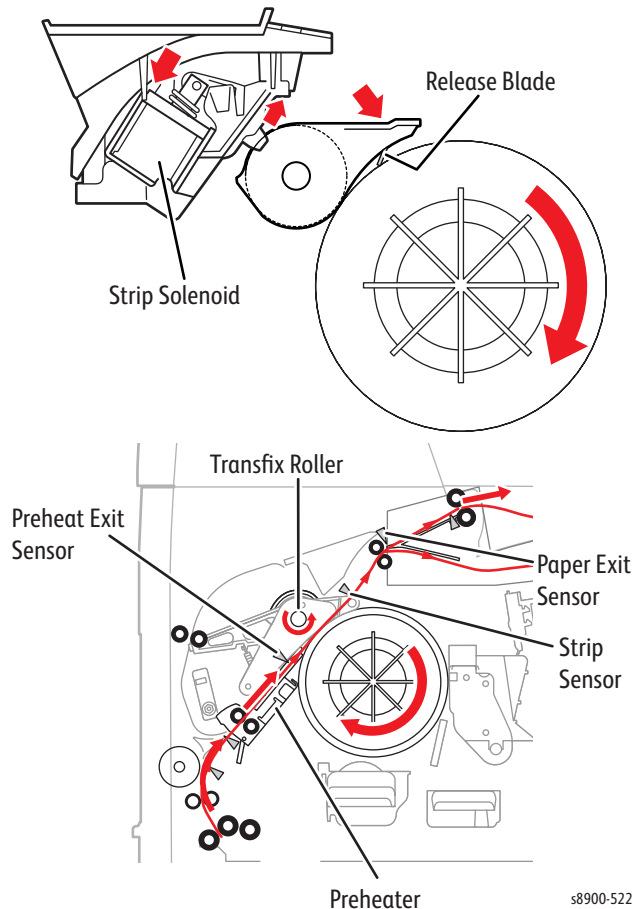


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After the leading edge of the media is beyond the Stripper Blade, the Stripper Solenoid is de-energized. Once the Solenoid is de-energized, the Solenoid Return Spring provides force to move the Solenoid Plunger out of the Solenoid Coil which rotates the Stripper Carriage back to its Ready position.

The Deskew Rollers are not driven during transfixing. The Media Drive rotates the Exit Rollers in the correct direction to pull the paper out with the Deskew Clutch de-energized.

As the Process Drive lifts the Transfix Roller, the Exit Rollers transport the media into the Exit Module. The media is then fed out over the Ink Loader until the trailing edge is at the nip of the Exit Module Roller.



## Purge System

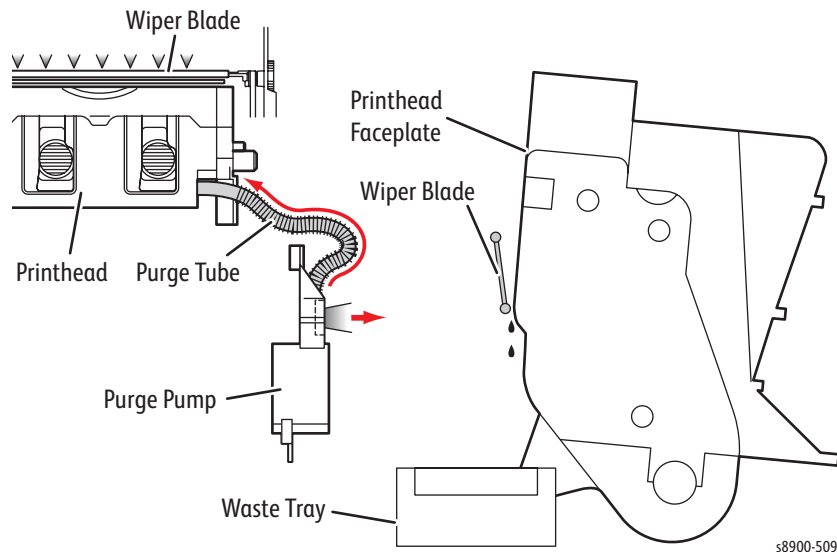
Proper Printhead operation is dependant on the purge system shown in the illustration. The purge pump pushes air into the Printhead to purge any debris or air bubbles that may be obstructing the Printhead jets.

Waste ink expelled during a purge cycle is removed from the Printhead Faceplate by the Wiper Blade and collected in the Waste Tray. Following the purge, a cleaning page is printed.

Auto Purge is an automatic cleaning cycle, which is performed when the printer is powered and the Printhead temperature is below 90 degree C. Manual Purge and Advanced Purge are cleaning cycles that can be performed from the Control Panel. Advanced Purge focuses on the selected problematic jet.

Purge Mass is the amount of ink collected in the Waste Tray following the purge.

Purge Efficiency is the success rate of a cleaning cycle, measured as the percentage of times a single printer performs a cleaning cycle with no missing jets following that cycle. Purge failures are only counted for weak or missing jets that can be cleared by cleaning cycle.

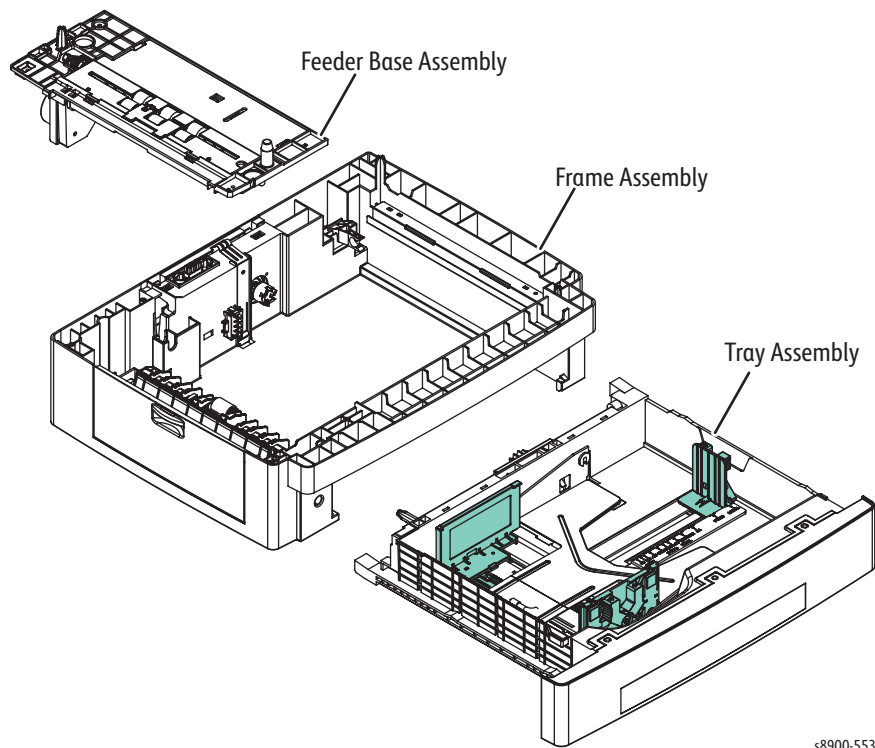


# Options

## 525-Sheet Feeder

The Optional 525-Sheet Feeder increases the input capacity of the printer. Up to three 525-Sheet Feeders (Trays 3-5) can be installed on a ColorQube 8700/8900 printer.

- One 1800-Sheet Feeder can also be combined with an additional two 525 sheet trays for a maximum input of 3,475 sheets
- Trays will not be physically numbered, but will be referred to at the Control Panel from top (Tray 1) to bottom (Tray 5/ HCF).



### Frame Assembly

The frame assembly is a main structure of a 525-Sheet Feeder. Major components include the Feed Base Assembly, the Retard Roller Assembly, a Lift Motor, and a Media Size Switch.

#### Retard Roller Assembly

The Retard Roller separates papers with the Separation Roller in the Feed Base Assembly.

#### Lift Motor

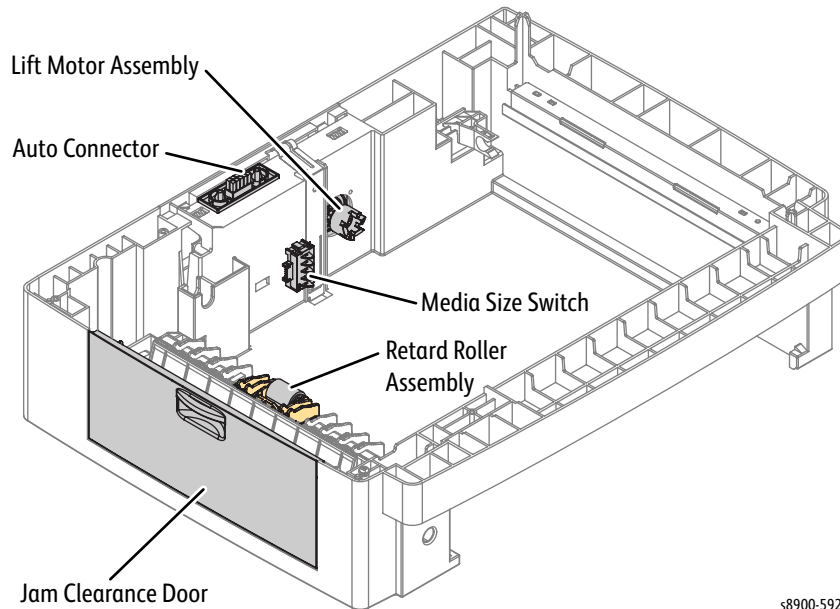
The Lift Motor drives the Lower Plate that lifts and lowers paper in the Tray.

### Media Size Switch

The Media Size Switch contains five pins that detect the media size.

### Auto Connector

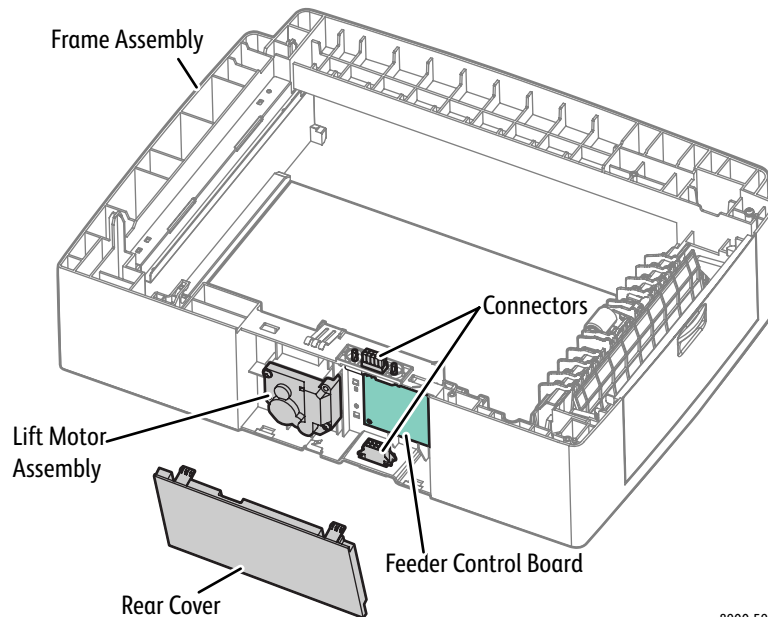
The Auto Connector connects the Sheet Feeder to the printer.



s8900-592

### 525-Sheet Feeder Control Board

The 525-Sheet Feeder Control Board drives the 525-Sheet Feeder Motor.



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## Feed Base Assembly

The Feed Base Assembly contains the Pick-up Roller Assembly and some Sensors, which drive the Feed Rollers.

### Pick-up Roller Assembly

The Pick-up Roller Assembly has two rubber Rollers.

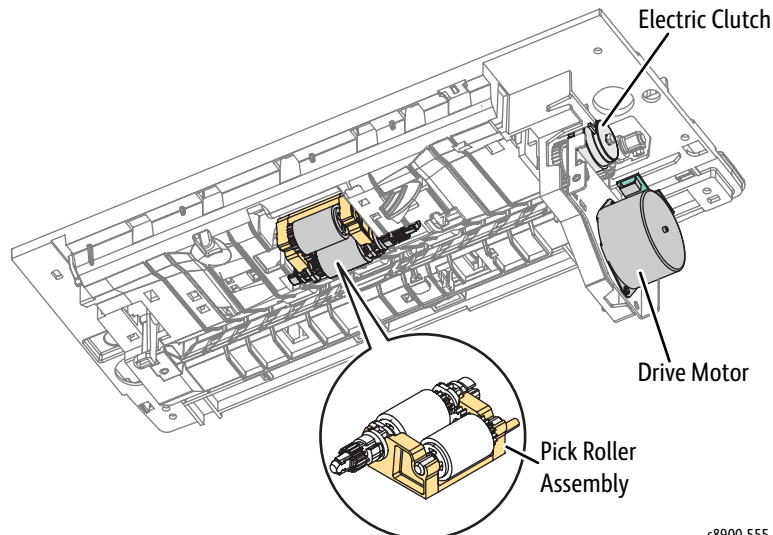
- A Pick Roller picks media.
- A Separation Roller separates papers.

### Drive Motor

The Drive Motor drives the Feed Roller and Pick-up Assembly with 24V power.

### Electric Clutch

The Electric Clutch is operated when the Pick-up Roller Assembly runs.



s8900-555

### Feed Roller (Takeaway Roller)

The Feed Roller feeds media upward to the printer.

### Elevator Top Sensor and Actuator

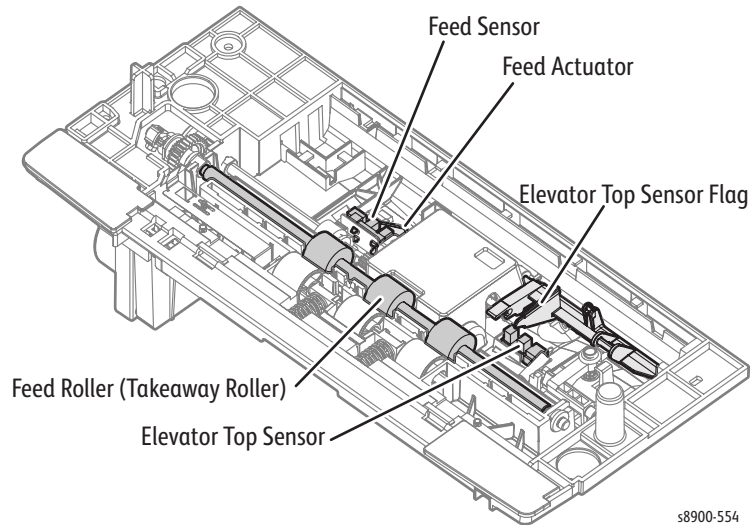
The Elevator Top Sensor and Actuator detect the Lower Plate in the Tray. It determines the position of the Pick-up Roller and the height of the stack on the Lower Plate.

### Paper Present Sensor and Flag

The Paper Present Sensor and Flag detect media in the Tray.

### Jam Clearance Door Sensor

The Jam Clearance Door Sensor detects the open and close status of the Jam Clearance Door on the left side.



### Tray

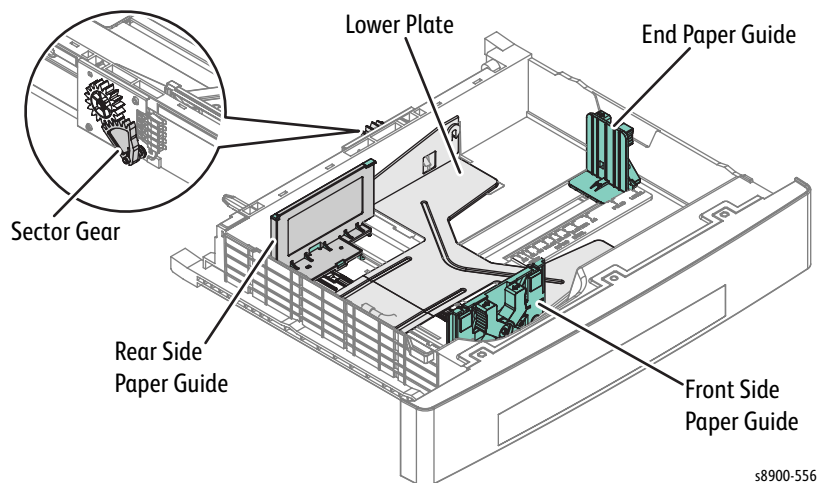
The Tray contains a Front/ Rear Side and an End Guide to prevent media skew and some components for lifting media such as the Lower Plate, Lift Shaft and a Sector Gear.

#### Front/ Rear side Guides and End Guide

Both Side Guides arrange and hold sheets to identify correct size and feed them into the IOT without skew.

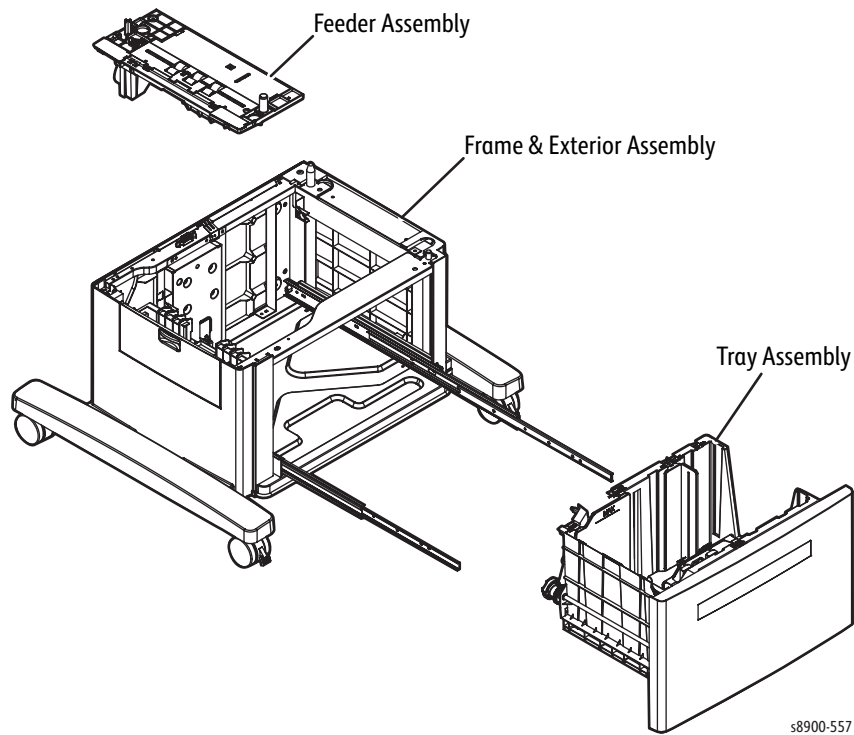
#### Lower Plate, Lift shaft and Sector Gear

The Lower Plate, Lift Shaft and Sector Gear components lift and lower the media in the Tray.



## 1800-Sheet Feeder

The Optional 1800-Sheet Feeder increases the input capacity of the printer.



### Side Guides and End Guide

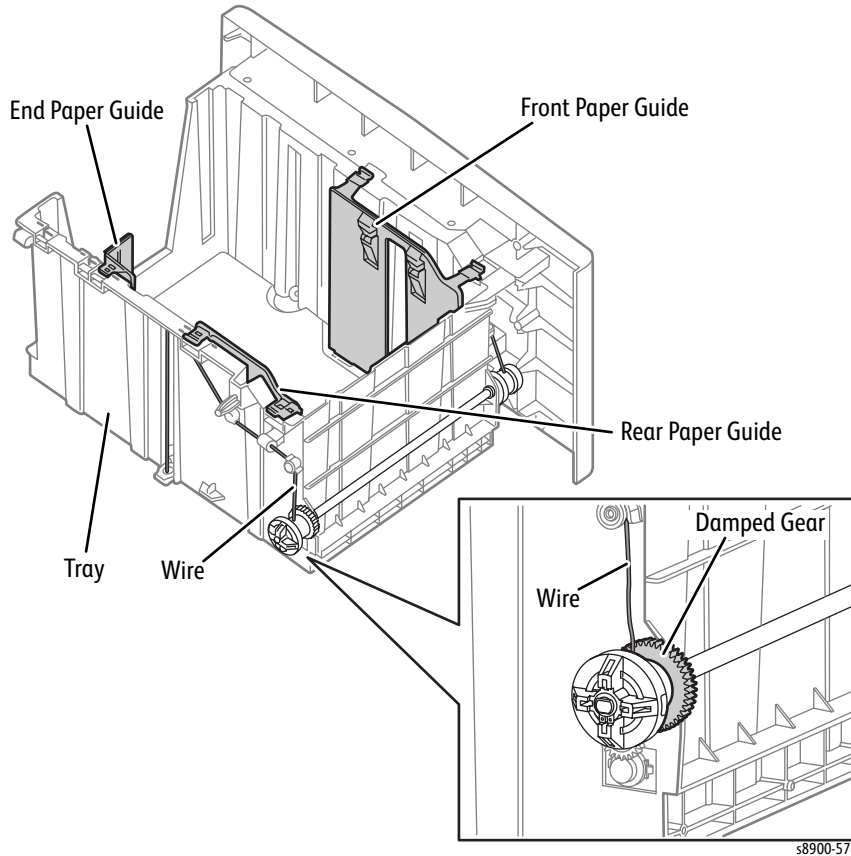
The Side Guides arrange and hold sheets to identify correct size and feed them to the print engine or 525 feeder without skew.

### Damped Gear

The Damper Gear prevents noise from occurring when the bottom plate drop down rapidly, after the tray is pulled out.

## Wires

The wires are used to lift the Bottom Plate. There are three Wires, one is located on the rear side of the tray, and the others are located on the front side.



## Tray Lift Motor

The Tray Lift Motor drives to lift the Bottom Plate in the tray.

## Tray Present Switch

The Tray Present Switch detects the presence of the paper tray. When the tray is pulled out, the 1800-Sheet Feeder operation is inhibited, a message of paper size and tray state appeared on the UI screen instructing the user to push in the tray to continue.

## Lift Movement Sensor

The Lift Movement Sensor detects lift shaft rotation and de-activates the Pick Up Roller Clutch.

## Caster

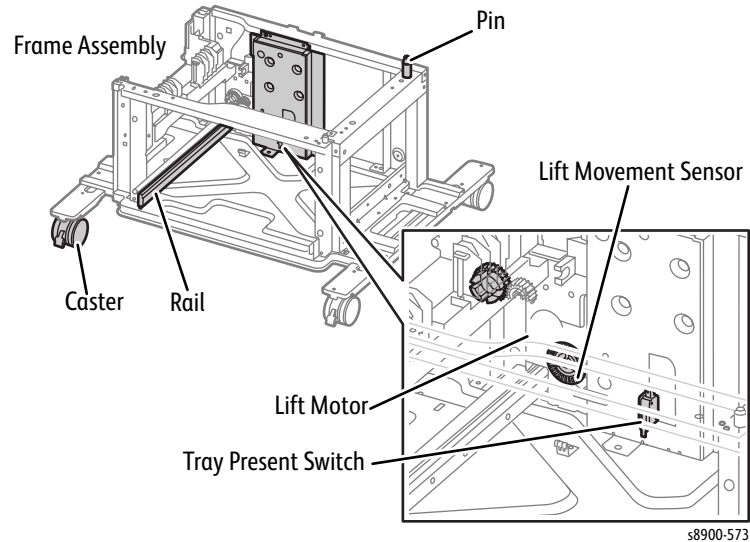
The 1800-Sheet Feeder has four casters. Two of the casters can be locked to prevent the 1800-Sheet Feeder from moving.

## Rail

The Rail has ball slide bearing to assist the tray's movement.

## Docking Guide Pin

The 1800-Sheet Feeder has 4 Docking Guide Pins. Two of the Pins are located on the Feed Unit. The Pins prevent the printer from shifting from side to side.



## Elevator Top Sensor

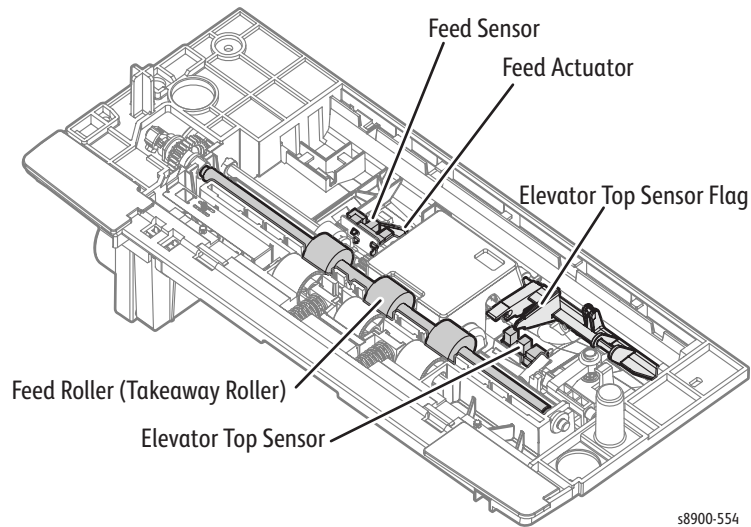
The Elevator Top Sensor detects the arrange height of the Bottom Plate and arrange nip force of the Pick Up Roller.

## Paper Present Sensor and Flag

The Paper Present Sensor and Flag detect paper in the tray. When the Sensor detects that paper is not available in the tray, a message of tray status appears on the Control Panel.

### Feed Sensor

The Feed Sensor and Feed Actuator detect the paper and check for jams.



### Drive Motor

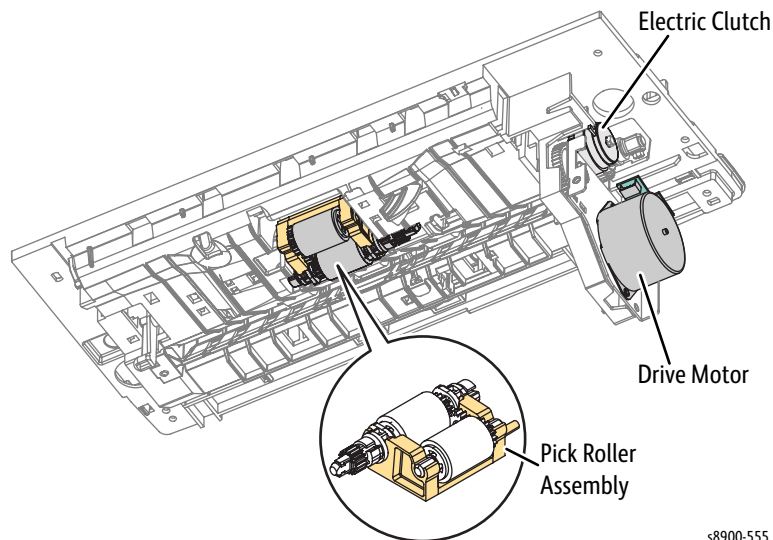
The Drive Motor drives the Feed Roller and Pick-up Roller.

### Pick-up Roller and Retard Roller

The Pickup Roller is designed to work with the Retard Roller to ensure that only single sheet of paper is fed at a time.

### Electric Clutch

The Electric Clutch is turned On only when paper is picked to drive the Pick-up Roller. The Electric Clutch turns Off when the lead edge passes the Feed Sensor.



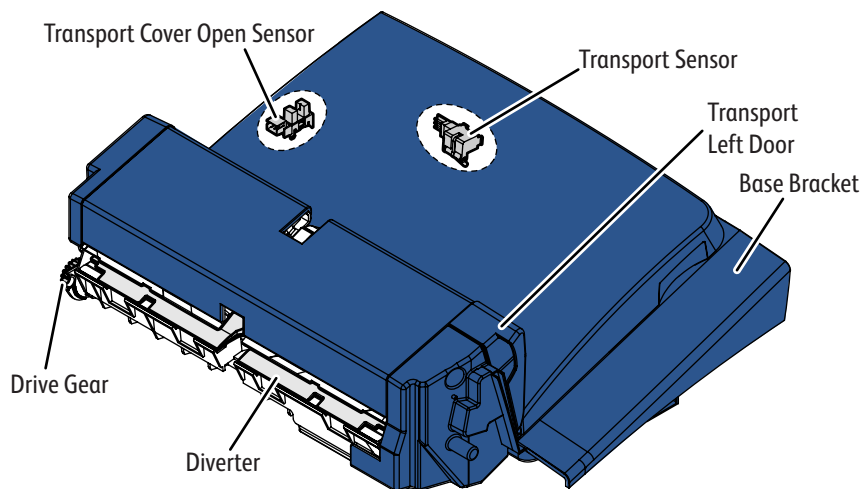
## Horizontal Transport

The Horizontal Transport delivers paper to the Finisher. The Horizontal Transport receives power from the printer and the Finisher. There is no Motor in the Horizontal Transport.

### Horizontal Transport Components

#### Drive Gear

The Drive Gear meshes with the media path drive from the printer and drives the Horizontal Transport.



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#### Separator Solenoid

When there is output to the Finisher, the Solenoid pulls back and diverts the paper to the Finisher.

Where there is output to the internal catch tray, or if it is the first side of a duplex print, the Diverter directs the media to the Output Tray Exit Rollers.

#### Exit Sensor

The Exit Sensor detects the status of the paper as it exits. When paper jams, the Sensor detects the jam position and an error message appears on the Control Panel.

#### Transport Left Door Open Sensor

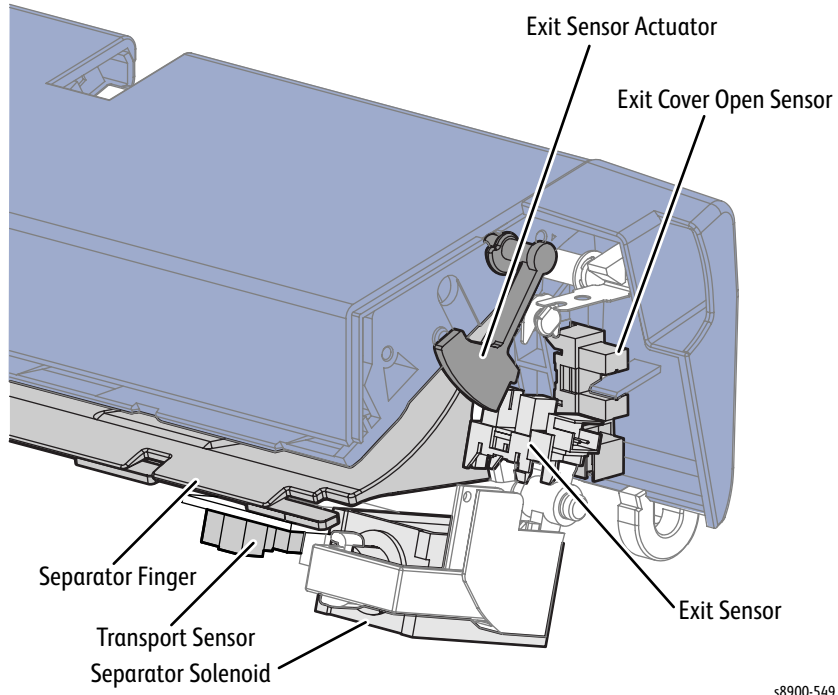
The Transport Left Door Open Sensor detects the status of the Transport Left Door. When the cover is open, operation is inhibited and an error message appears on the Control Panel displaying message instructing the user to close the Transport Left Door.

#### Transport Cover Open Sensor

The Transport Cover Sensor detects the status of the Transport Cover. When the Transport Cover is open, operation is inhibited and an error message appears on the Control Panel displaying message instructing the user to close the Transport Cover.

### Transport Sensor

When paper is transported to the Finisher, the Transport Sensor detects the paper status. If paper jams, the Sensor detects the jam position and an error message appears on the Control Panel.



s8900-549

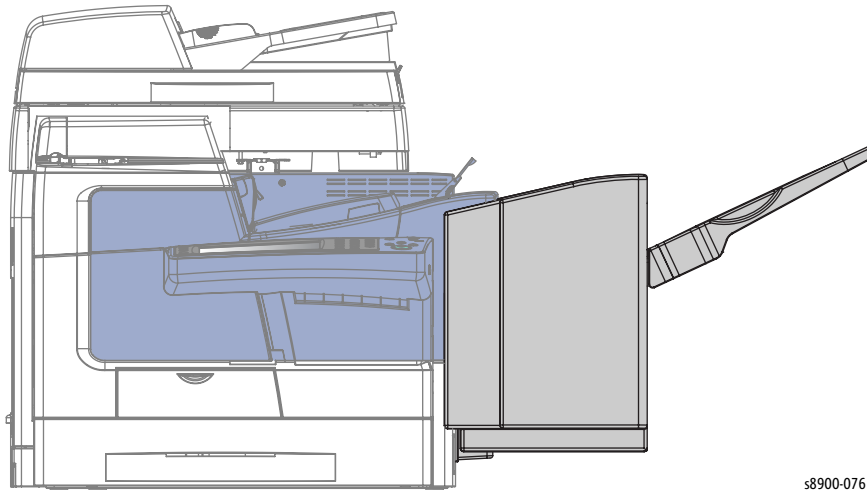


## Finisher

### Overview

The Finisher provides one bin, a high capacity 650 sheet Stacker Tray (80 gsm/ 20 lb.). When the high capacity Stacker Tray is selected, the output will be compiled and tamped. User may choose the following finishing options when output is directed to the Stacker Tray.

- Off-setting of sets (25mm) to create a visible set boundary stacking feature.
- Automatic stapling of up to 50 sheets (80 gsm) sets, single rear only.



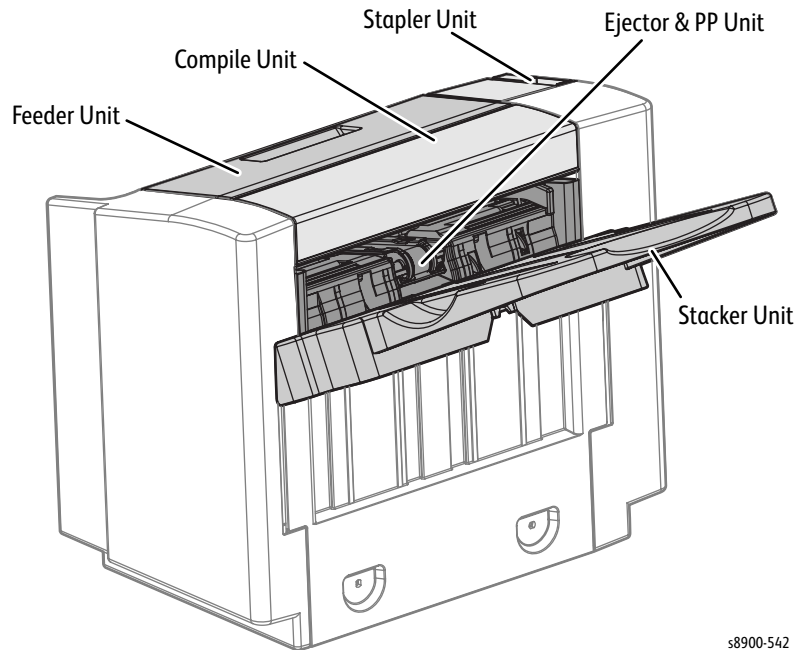
The Finisher receives and sends serial input and output data to and from the print engine.

The machine interface comprises of the Finisher PWB, communication cable, a bulkhead connector, and a harness. The communication cable is the electrical connection between the print engine and the Finisher PWB.

Communication between the print engine PWB and the Finisher PWB are provided by the communication cable. If any communications data lines become open circuit or short circuit, a communication's fault is declared by the print engine.

The Finisher is divided into five main components:

- Feeder Unit
- Compiler Unit
- Stapler Unit
- Ejector & Paper Press (PP) Unit
- Stacker Unit



### **Power/ Interlock Switch**

The Finisher requires a dedicated power cord which is connected to the self adjusting Finisher Power Supply module located inside the Finisher. The Power Supply module will accept 90 to 265 volts AC at 50 or 60 Hz.

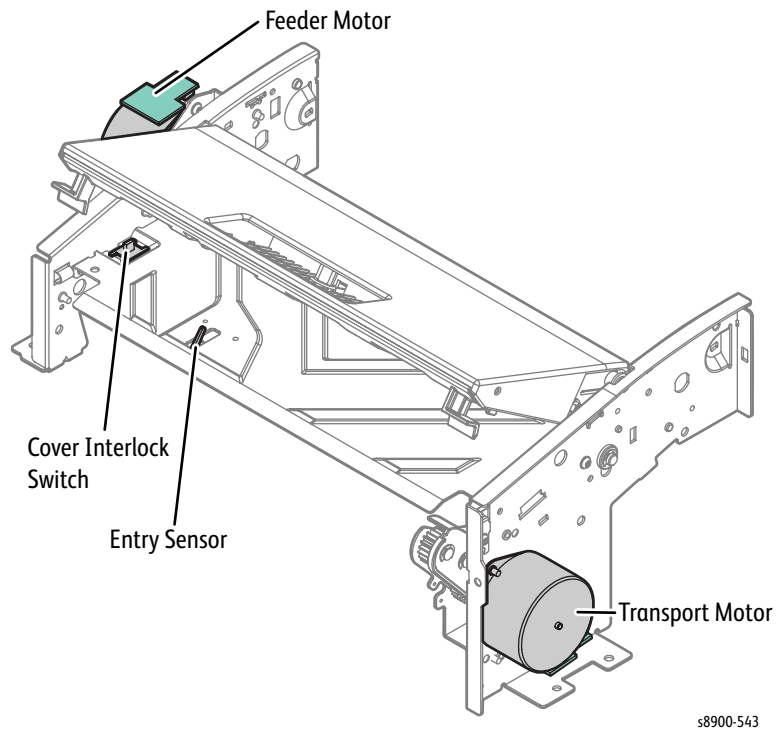
Interlock Switches in the Finisher interrupt power when the Jam Cover Interlock Staple Cover or Docking Interlock are opened for jam clearance or service.

### **Entrance Paper Path**

The entrance paper path is located in the middle left side of the Finisher. It receives printed sheets from the host machine and moves them into the Stacker Tray.

## Feeder Unit

The Feeder transfers paper from the print engine through the Horizontal Transport and Inkload Door to the Finisher.



### Transport Motor

The Transport Motor is a Stepper Motor located on the front frame. The output shaft of the Motor drives a toothed gear, that transfers mechanical drive to two sets of nip rolls in the Transport paper path.

### Entry Sensor

The Entry Sensor is located in the Finisher entrance paper path. In addition to supplying the Finisher PWB with jam detection information, the sensor signal is used to time the operation of components in the Finisher.

### Feed Motor

The Feed Motor is a Stepper Motor located on the rear frame. The output shaft of the Motor drives a toothed gear, that transfers mechanical drive to one of nip rolls in the Finisher paper path.

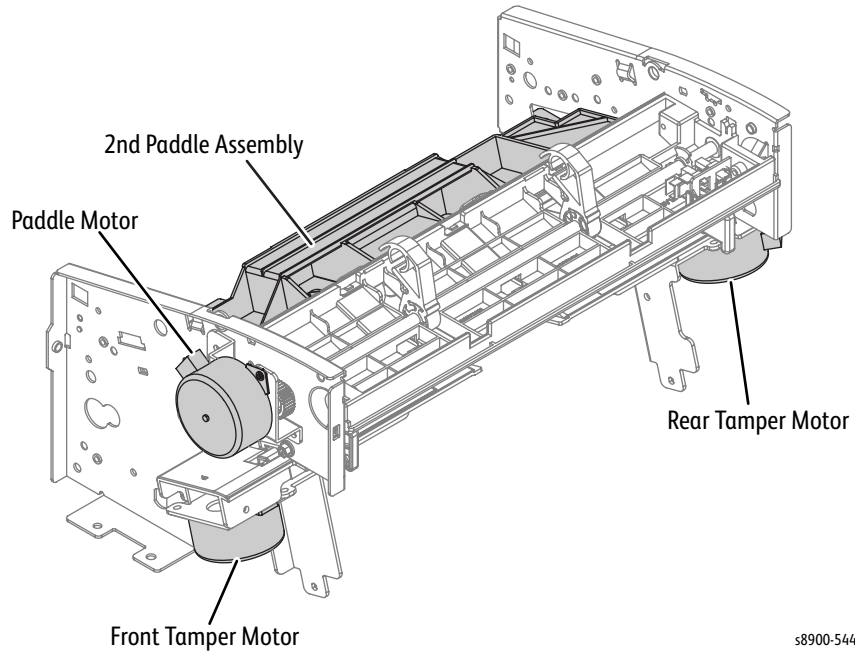
### Cover Interlock Switch

The Cover Interlock Switch is located at the rear of the Feed Guide Bracket. The Interlock Switch senses the Top Cover condition.

## Compiler Unit

The Compiler unit is divided into two main components: Paddle Module and Tamper Module.

- The Paddle Module is used for paper direction of feed (DOF) compiling.
- The Tamper Module is used for paper side to side (STS) compiling and Offsetting



### Paddle Motor

The Paddle Motor is located on the front frame. The output shaft of the motor drives a toothed gear, that drive to the Paddle Rubber for paper direction of feed (DOF) finishing.

### 2nd Paddle Assembly

The 2nd Paddle Assembly, located on the Feed Shaft, is driven by the Feed Motor. It is used to the back of paper Direction of Feed (DOF) finishing.

### Front/ Rear Tamper Motor

The Front Tamper is driven to the Front Tamper Arm. The Rear Tamper is driven to the Rear Tamper Arm. The Tamper Motors are mounted on the front and rear frames of the Compiler Carriage and drive their respective Tamper Arms using a toothed belt driven lead screw for each Tamper.

### Tamping

The purpose of the tamping function is to align the sheets in the compiler carriage to eliminate skew and offset. Tamping registers all sheets in the correct position, as a set, for correct stapling.

## Tamp Position

Upon actuation of the Compiler Sensor by the first sheet of a set, the Tamper Arms are moved from the Home position to the Ready position. The Ready position is paper size dependent and the information obtained from the print engine. When each sheet of the set is fully within the compiling area, the Tamper Arms are moved to the tamp position and then back to the Ready position to wait for the next sheet. The Tamper Arms are moved back to the Ready position at a slower speed so that an over tamp buckle is avoided which could move sheets out of the registered position.

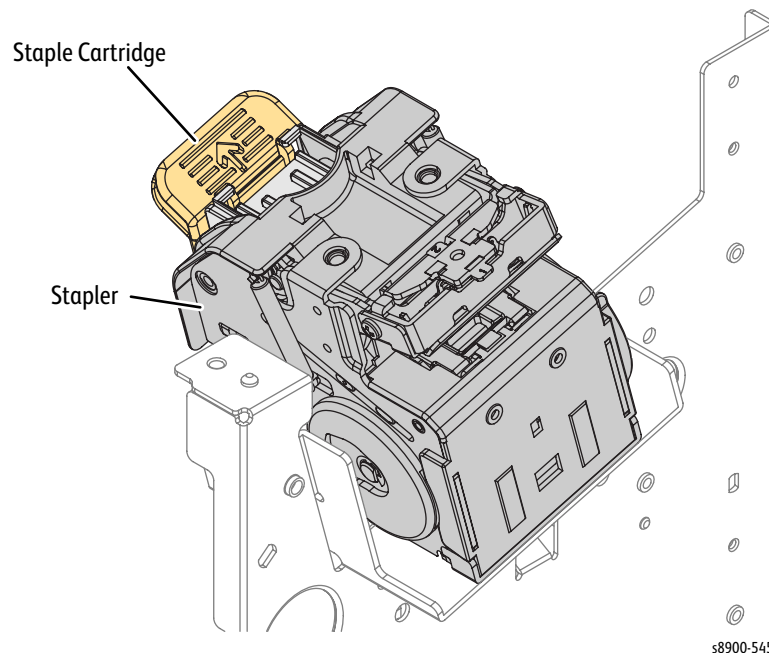
## Home Position

The Tamper Arms are initially at a Home position that puts them outside of the paper path. The Home position are detected by the Front Tamper Home Sensor and the Rear Tamper Home Sensor, which monitors flags located on the Tamper Arms.

## Stapler Unit

The purpose of the compiler carriage stapler is to staple the compiled sets in the compiler tray. Up to 50 sheets of paper (80 gsm/20 lb) can be stapled.

Once the signal has been received to staple, the Staple Head 1 Motor (located within the Staple Head) is energized. The Motor remains energized until the cam has made a complete revolution and the Staple Head Home Sensor has been actuated. The one revolution of the cam enables a staple to be driven through the set, clinched, and then return the Staple Head to the Home (open) position for the next staple.



## Stapler

The Stapler is located on the rear frame.

## Staple Cartridge

Each Staple Cartridge contains 5000 staples. The Staples Cartridge is a customer replaceable.

## Priming Sensor

Priming of the Staple Head is the pre-forming of the first two staples in the staple stick. If the Staple Head Home Sensor is low at machine initialization, the Priming Sensor (located within the Staple Head) is checked for staple head primed (H) (high = primed). If the Sensor is high then the initialization is complete. If the Staple Head primed signal is low, the control logic will cycle the Staple Head 1 Motor until the Priming Sensor signal goes high.

## Home Sensor

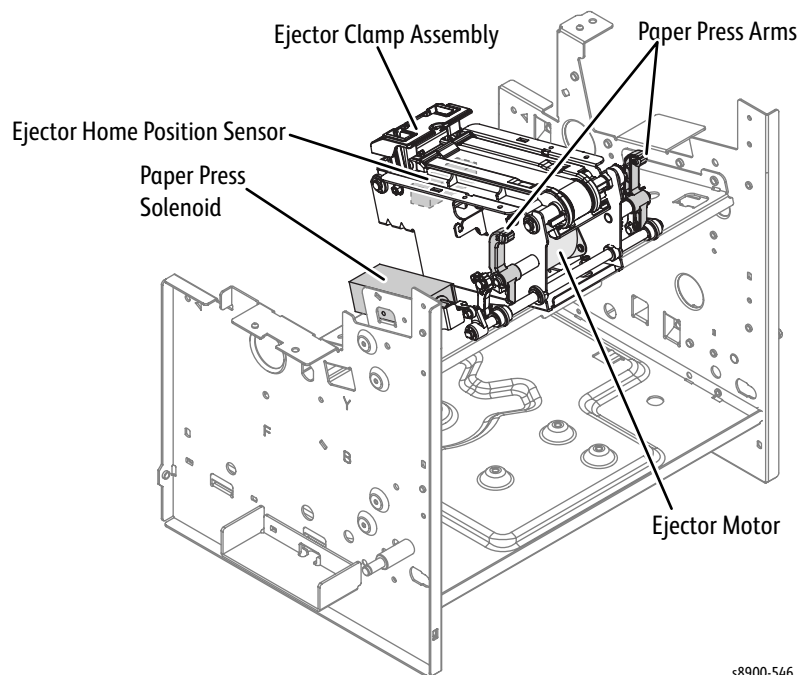
After the Staple has been formed in the compiled set, the Staple Head cam continues to rotate until it has made one complete revolution and the Staple Head Home Sensor (located within the Staple Head) has been actuated, sending a (H) signal to the control logic to stop the Staple Head 1 Motor at the Home position.

## Low Staple Sensor

The Low Staple Sensor (located within the Staple Head) is used to detect the presence of the staples (and therefore a Staple Cartridge) in the compiler cartridge stapler. The sensor signals the control logic when the cartridge is missing or low on staples.

## Ejector and Paper Guide

The Ejector pushes the finished set onto the Stacker Tray. The Paper Guide keeps the sets of Stacker Tray neat.



s8900-546

## Ejector Clamp Assembly

When the Ejector pushes the finished set, the Ejector Clamp Assembly crimps the set unit while pushing the finished set onto the Stacker Tray.

## Ejector Motor

The Ejector Motor is a Stepper Motor located on the Ejector Clamp Bracket Frame. The Motor drives a gear as the gear transfers power to the Ejector Clamp Assembly while pushing the finished set onto the Stacker Tray.

## Ejector Home Position Sensor

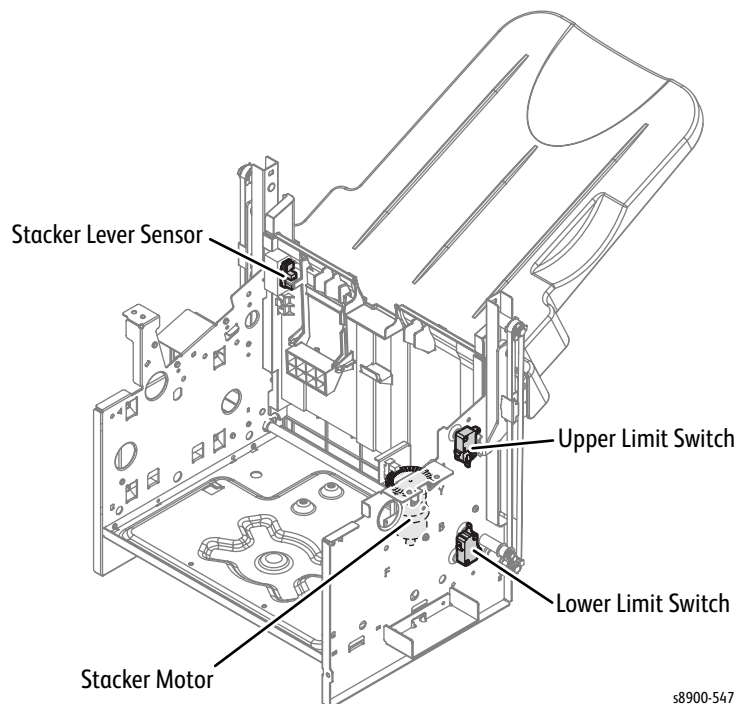
The Ejector Home Position Sensor is located on the Ejector Clamp Bracket Frame. After the Ejector pushes the finished set onto the Stacker Tray, the Ejector Clamp Assembly returns to the home position to wait for the next set.

## Paper Guide Solenoid

The Paper Guide Solenoid is located on the Ejector Base Bracket. When the finished set is ready to be ejected to the Stacker Tray, the Paper Guide Solenoid pushes the Paper Guide Arms upward. The Paper Guide Arms return to the original position after the Ejector Paper Guide Solenoid de-energized.

## Stacker Unit

The Stacker Unit can stack up to 650 sheets. It can control the tray which moves down to maintain the top of the stack at the correct level.



### **Stacker Motor**

As the paper stack increases in the tray, the Stacker Elevator Motor lowers the Tray to the appropriate eject height to receive the set.

### **Stacker Lever Sensor**

The Stacker Level Sensor measures the height of the stack in tray. This signal is used by the Finisher Main Controller Board to determine when to lower the tray in steps to maintain the correct stack height, with regard to the output from the compiler.

### **Upper Limit Switch**

The Upper Limit Switch is a micro switch located on the front frame. The Switch is actuated when the tray is above its normal level of operation. When the Switch is actuated, the reverse, upward direction of the Elevator Motor is disabled, but the Motor is allowed to drive the stack down.

### **Lower Limit Switch**

The Lower Limit Switch is a micro switch located on the front frame. The Switch is actuated when the tray is at its lowest allowable limit of operation. When the Switch is actuated, the forward, downward direction of the Elevator Motor is disabled, but the Motor is allowed to drive the stack up.

### **Bin 1 Stacking**

Bin 1 of the Low Capacity Stacker Stapler (LCSS) provides a platform to stack up to 650 sheets. As the paper stack increases in the tray, the bin 1 elevator lowers the tray to the appropriate eject height to receive the first set.

The Bin 1 Upper Level Sensor measures the height of the stack in bin 1. This signal is used by the LCSS PWB to determine when to lower bin 1 in steps to maintain the correct stack height, with regard to the output from the compiler. The 90 % full sensor is used to signal when bin 1 is 90 % full, together with the bin 1 lower line limit switch being made. The control logic will allow 10 % more set feeds prior to declaring a bin 1 full status to the print engine.



# Information Pages, Support Pages, Print Test Patterns, Reports, and Logs

## Accessing Information Pages

1. On the Control Panel menu, press the **Machine Status** button.
2. Touch **Machine Information**.
3. Touch **Information Pages**.



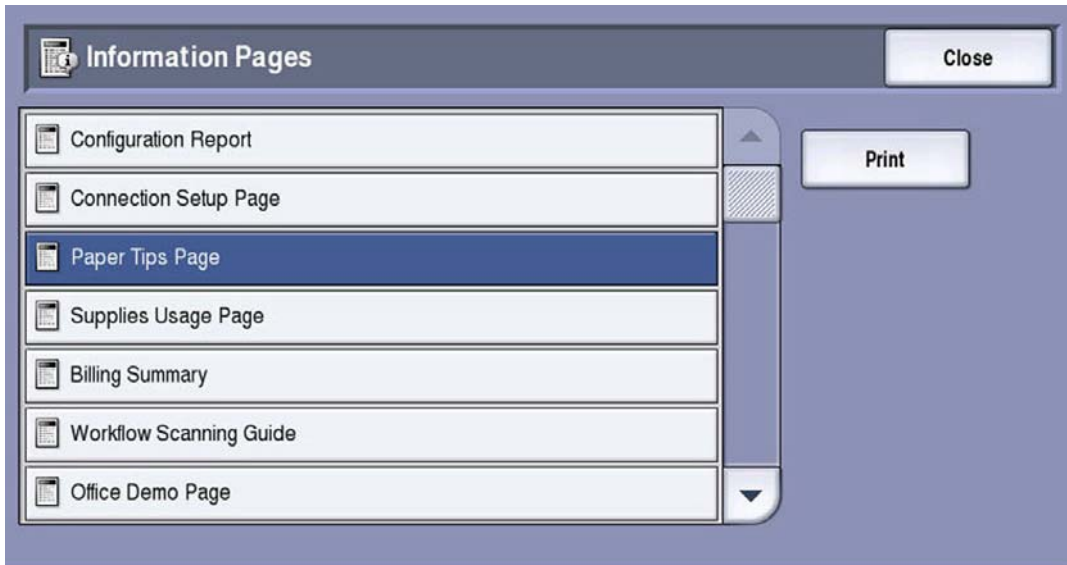
CQ8700/ 8900 UI



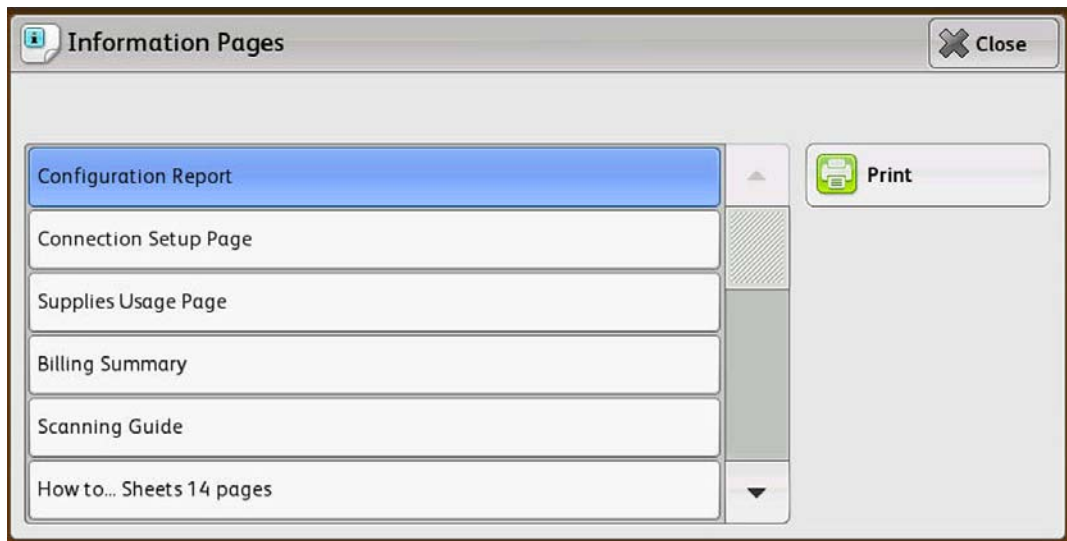
CQ8700/ 8900 V1/V2 UI

General and Operational Overview

4. Scroll down the menu and select the appropriate page.
5. Touch **Print** to print the page.



CQ8700/ 8900 UI



CQ8700/ 8900 Version 101/ 102/ 202 UI

## Accessing Troubleshooting Pages

1. Access the [Machine Status/ Tools](#) ([Accessing Machine Status/ Tools Menu](#) on page 2-4).
2. On the Control Panel menu, touch **Tools**.
3. Touch **Troubleshooting**.[Accessing Machine Status/ Tools Menu](#) on page 2-4
4. Select **Support Pages**.



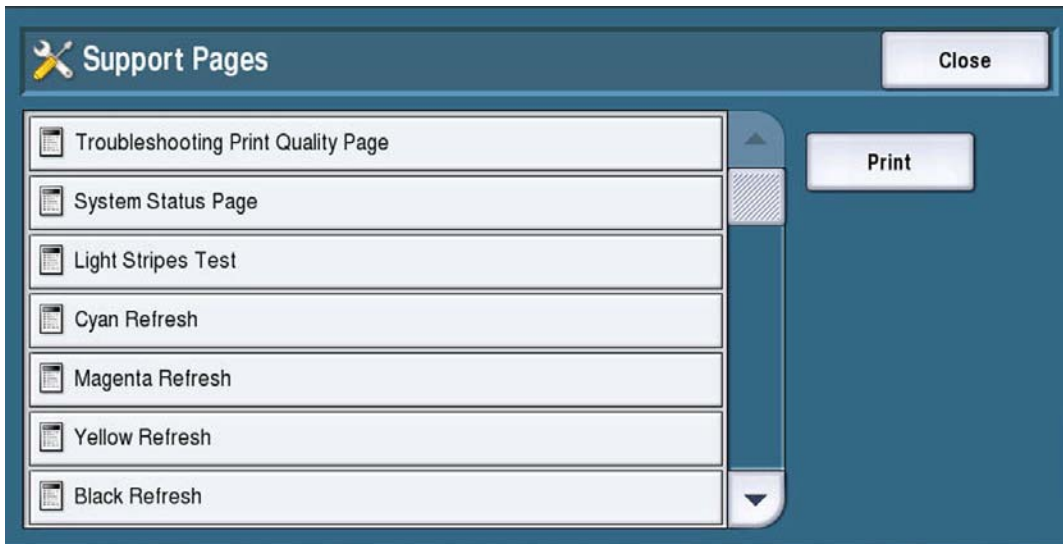
CQ8700/ 8900 UI



CQ8700/ 8900 Version 101/ 102/ 202 UI

## General and Operational Overview

5. A list of support pages is displayed.
6. Select the appropriate page to be printed.
7. Touch **Print** to print the page.



## Accessing the Print Test Patterns

1. Enter Service Diagnostics: Press and hold the “\*” then + “#” then + **Stop** buttons.
2. On the Control Panel screen, enter password **1991**.
3. Touch **Enter**.

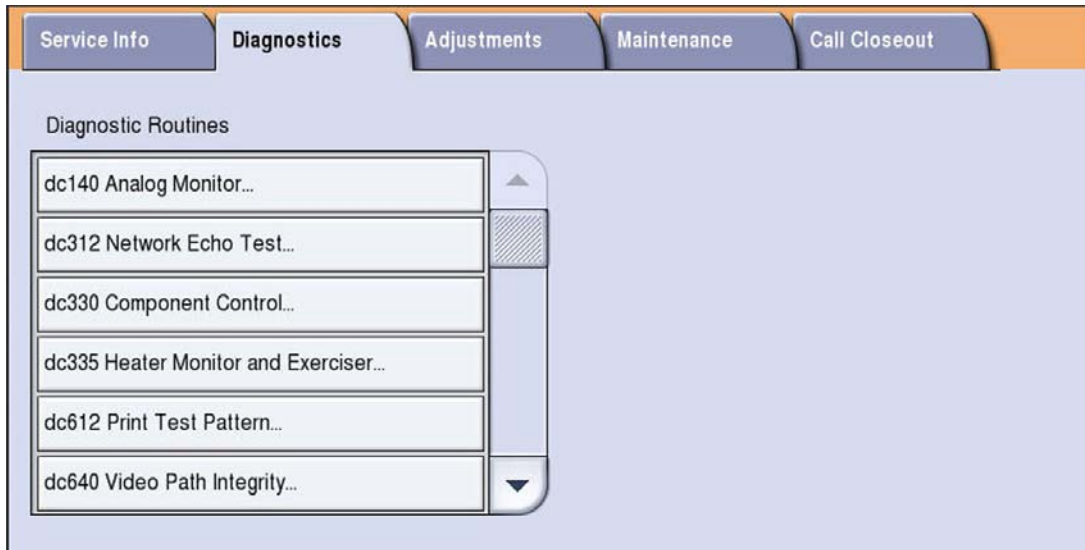


CQ8700/ 8900 UI



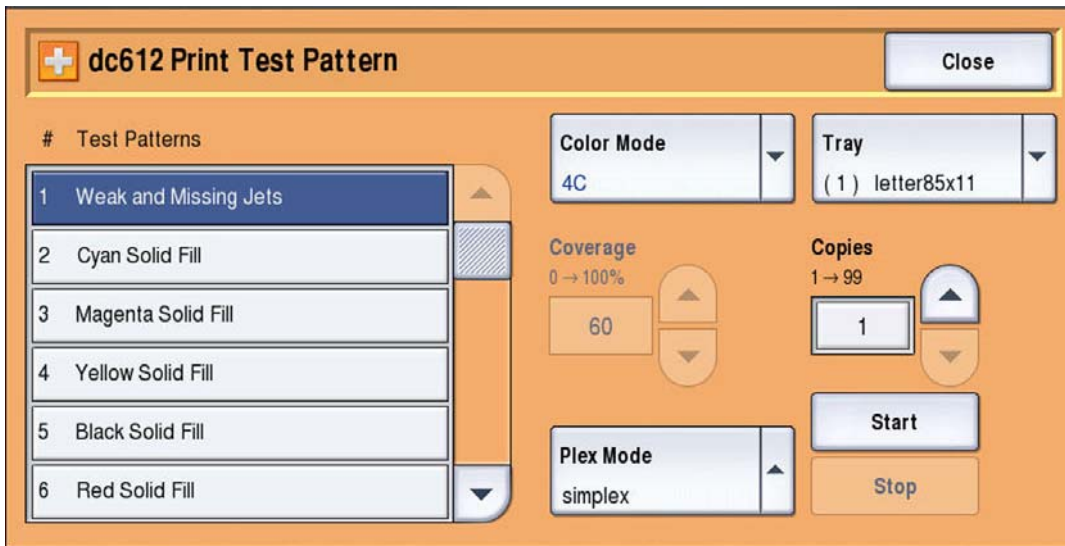
CQ8700/ 8900 Version 101/ 102/ 202 UI

4. Touch **Diagnostics**.
5. Select **dc612 Print Test Pattern**.



6. A **dc612 Print Test Pattern** screen is displayed.
7. Select the appropriate test pattern to print.
  - Weak and Missing Jets
  - Cyan Solid Fill
  - Magenta Solid Fill
  - Yellow Solid Fill
  - Black Solid Fill
  - Red Solid Fill
  - Green Solid Fill
  - Blue Solid Fill
  - White Solid Fill
  - C,M,Y,K,R,G,B Solid Fills
  - Chase Page
  - Skew/Margin Test Print
  - Cleaning Page
  - Light Stripes Page
  - Service Usage Profile

8. Make changes to the settings as appropriate.
  - Color Mode
  - Tray
  - Coverage
  - Plex Mode
  - Copies
9. Touch **Start** to print the page(s).



## List and Description of Information Pages, Support Pages, Print Test Patterns, Reports, and Logs

The following Information Pages, Support Pages, Print Test Patterns, Reports, and Logs are available in the ColorQube 8700/8900 and ColorQube 8700/8900 v1/v2/v3 printers.

Page	Control Panel Menu Access and Description
<b>Information Pages</b>	Contains a list of pages that include printer information, sample pages, and font information.
Access Information Pages: <ol style="list-style-type: none"> <li>a. Press the <b>Machine Status</b> button.</li> <li>b. Touch <b>Machine Information</b>.</li> <li>c. Touch <b>Information Pages</b>.</li> </ol>	
Configuration Report	Lists all information about the current configuration of the printer.
Connection Setup Page	The Connection Setup Page is a multiple page document. This document lists information about connection types (i.e., USB and Ethernet), procedures for setting up connections for various operating systems, and an overview of hardware connections.
Supplies Usage Page	Provides coverage information and part numbers for reordering supplies.
Billing Summary	The Billing Summary provides information regarding various print counters, billing meters, and coverage.
Workflow Scanning Guide	The Workflow Scanning Guide is a multiple page document. This document contains description on how to use the scan features in the device.
"How to" Sheets (14 pages)	User-centric pages describing to the customer how to use certain common machine functions. Those functions include: <ul style="list-style-type: none"> <li>- How to use the Control panel</li> <li>- Machine Status</li> <li>- Printer Tool</li> <li>- Paper handling</li> <li>- Copying</li> <li>- Scanning and E-mailing</li> <li>- Retrieving Scanned Files</li> <li>- Faxing</li> <li>- Printing from USB</li> </ul>
Office Demo Page	The Office Demo Page is a page contains text.
Graphics Demo Page	The Graphics Demo Page is a page contains a graphic image.
2-Sided Demo Page	This feature requires automatic 2-sided printing option. Prints two pages on one sheet containing a graphic image on one side, and text on the other side.



Page	Control Panel Menu Access and Description
Monochrome Example Page	Monochrome sample page contains Tiered billing examples to provide customers an idea of the various styles of prints.
Useful Color Example Page	Color sample page contains Tiered billing examples to provide customers an idea of the various styles of prints.
Everyday Color Example Page	Color sample page contains Tiered billing examples including photo(s) to provide customers an idea of the various styles of prints.
Expressive Color Example Page	Color sample page contains Tiered billing examples including photo(s) to provide customers an idea of the various styles of prints.
CMYK Sampler Pages	The CMYK Sampler Pages contain spectrum of color rectangles with the values of each component color (Cyan, Magenta, Yellow, Black). Customer can use these pages to control color without changing the driver or application settings by selecting and entering the color and formula for that color to generate specific color.
RGB Sampler Pages	The RGB Sampler Pages contain spectrum of color rectangles with the values of each component color (Red, Green, Blue). Customer can use these pages to control color without changing the driver or application settings by selecting and entering the color and formula for that color to generate specific color.
Spot Color Sampler Pages	The Spot Color Sampler Pages contain spectrum of color rectangles with the values of each component Pantone color. Customer can use these pages to control color without changing the driver or application settings by selecting and entering the color and formula for that color to generate specific color.
PCL Font List	Contains list of PCL fonts available internally within the printer or installed on the printer's Hard Drive, if the optional Hard Drive is installed.
PostScript Font List	Contains list of PostScript fonts available within the printer or installed on the printer's Hard Drive, if the optional Hard Drive is installed.
<b>Support Pages</b>	Contains a list of embedded pages to assist with troubleshooting errors. The support pages include Troubleshooting Print Quality Page, System Status Page, Light Stripes Test, Cyan Refresh, Magenta Refresh, Yellow Refresh, Black Refresh, and Service Usage Profile.
Access Troubleshooting Support Pages: <ol style="list-style-type: none"> <li>Press <b>Machine Status</b> button.</li> <li>Touch <b>Tools</b>.</li> <li>Touch <b>Troubleshooting</b>.</li> <li>Touch <b>Support Pages</b>.</li> </ol>	
Troubleshooting Print Quality Page	Prints five pages with information on correcting print quality problems.
System Status Page	Provides information about the printer including Jam History and Fault History. A Fault History page is included with the System Status Page.

Page	Control Panel Menu Access and Description
Light Stripes Test	Prints continuous lines of lighter colors or empty stripes visible on the printed output.
Cyan Refresh	Performs cleaning procedure to correct color mixing and prints 20 pages of solid fill prints.
Magenta Refresh	Performs cleaning procedure to correct color mixing and prints 20 pages of solid fill prints.
Yellow Refresh	Performs cleaning procedure to correct color mixing and prints 20 pages of solid fill prints.
Black Refresh	Performs cleaning procedure to correct color mixing and prints 20 pages of solid fill prints.
Service Usage Profile	Contains a detailed log of printer use, tallying numbers of jams, how often features are used, usage by tray, job and page counts, and so on.
<b>Print Test Patterns</b>	
<p>Access Print Test Patterns in Service Diagnostics</p> <ol style="list-style-type: none"> <li>Press the “*” then + “#” then + <b>Stop</b> buttons.</li> <li>Enter password <b>1991</b>.</li> <li>Touch <b>Enter</b>.</li> <li>Touch <b>Diagnostics</b>.</li> <li>Touch <b>dc612 Print Test Pattern</b>.</li> </ol>	
Weak and Missing Jets	Contains diagnostic image for evaluating jetting performance of the Print head and prints a Weak and Missing Jets Print page.
Cyan Solid Fill	Prints 2 pages of Cyan solid fills simplex/duplex depends on the Plex Mode selection.
Magenta Solid Fill	Prints 2 pages of Magenta solid fills simplex/duplex depends on the Plex Mode selection.
Yellow Solid Fill	Prints 2 pages of Yellow solid fills simplex/duplex depends on the Plex Mode selection.
Black Solid Fill	Prints 2 pages of Black solid fills simplex/duplex depends on the Plex Mode selection.
Red Solid Fill	Prints 2 pages of Red solid fills simplex/duplex depends on the Plex Mode selection.
Green Solid Fill	Prints 2 pages of Green solid fills simplex/duplex depends on the Plex Mode selection.
Blue Solid Fill	Prints 2 pages of Blue solid fills simplex/duplex depends on the Plex Mode selection.
White Solid Fill	Prints 2 blank pages simplex/duplex depends on the Plex Mode selection.
C,M,Y,K,R,G,B Solid Fills	Prints 7 solid fill pages for YMCKRGB.

Page	Control Panel Menu Access and Description
Chase Page	Prints a blank sheet of paper that is used to remove contamination from the Drum, Transfix Roller, and media path
Skew/ Margin Test Print	Evaluates image alignment to the page. This print includes a blank page and Skew/Margin Test print.
Cleaning Page	Removes discolored ink from the Print Head.
Light Stripes Page	Prints lines from each jet to see if any jet is clogged. This page is formatted for Letter, Legal or A4 sizes, and output may vary on other sizes.
Service Usage Profile	Contains a detailed log of printer use, tallying numbers of jams, how often features are used, usage by tray, job and page counts, and so on.
<b>Reports</b>	
<p>Access Reports (*) (Fax Activity, Fax Address Book, Fax Protocol, Fax Options, Fax Pending):</p> <ol style="list-style-type: none"> <li>Log into as an Administrator (<a href="#">Accessing Machine Status/ Tools Menu</a> on page 2-4).</li> <li>Press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools</b>.</li> <li>Touch <b>Service Settings</b>.</li> <li>Touch <b>Embedded Fax Settings</b>.</li> <li>Touch <b>Print Fax Reports</b>.</li> </ol> <p><b>Note:</b> The <a href="#">Fax Protocol Report</a> can be accessed using another option.</p> <ol style="list-style-type: none"> <li>Press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools</b>.</li> <li>Touch <b>Troubleshooting</b>.</li> <li>Touch <b>Fax</b>.</li> <li>Touch <b>Fax Protocol Report</b>.</li> </ol>	
Copy Activity Report	<p>Contains usage information of completed copier service session for a user.</p> <ul style="list-style-type: none"> <li><b>Enable/ Disable:</b> <b>Machine Status</b> button &gt; <b>Tools</b> &gt; <b>Accounting Settings</b> &gt; <b>Copy Activity Report</b></li> <li><b>Export (to USB):</b> <b>Machine Status</b> button &gt; <b>Tools</b> &gt; <b>Accounting Settings</b> &gt; <b>Accounting Mode</b> &gt; <b>Xerox Standard Accounting</b> &gt; <b>Report and Reset</b> &gt; <b>Export Report</b></li> </ul>
Fax Acknowledgment Report	<p>Contains the delivery status (success or failure) of the Internet Fax job. The report may be delayed due to the recipient's response time.</p> <p><b>Print Report/ Off:</b> <b>Services Home</b> &gt; <b>Internet Fax</b> &gt; <b>Internet Fax Options</b> &gt; <b>Fax Acknowledgment Report</b></p>
Fax Activity Report (*)	Contains usage information of the fax sessions.
Fax Address Book Report (*)	<b>Contains Address Book...add/revise info.</b>

Page	Control Panel Menu Access and Description
Fax Confirmation Report	<p>The Confirmation Report provides evidence of the transfer status for scan to export jobs. When a job successfully transfers, the report will reflect the success. When a job is not transferred to the specified destination, the report will reflect a failure and identify a probable failure reason.</p> <p><b>Print Confirmation/ Off:</b> <a href="#">Services Home</a> &gt; <a href="#">Fax</a> &gt; <a href="#">Fax Options</a> &gt; <a href="#">Confirmation Report</a></p>
Fax Protocol Report (*)	<p>Provides transmission results, timing, and communications activity information about each Fax transmission similar to the Transmission Report, and a detailed log of the communications activity between devices.</p>
Fax Options Report (*)	<p>Mailbox Save and Print, Waiting Send, Fax Jobs held for resources such as default paper size and type, and Fax Forward Jobs are listed. *Print list for customer before performing service procedures, if possible.</p>
Fax Pending Jobs Report (*)	<p>List of fax jobs that have not yet been sent to their destinations.</p>
<b>Logs</b>	
Audit Log	<p>Provides event information to help examine the history of actions or changes made on a device.</p> <p><b>Download (to USB):</b> <a href="#">Machine Status</a> button &gt; <a href="#">Tools</a> &gt; <a href="#">Security Settings</a> &gt; <a href="#">Audit Log</a> &gt; <a href="#">Download Log</a></p>
Network Log - Basic	<p>Records a minimum list of network actions that have occurred on the printer.</p> <p><b>Download:</b> <a href="#">Machine Status</a> button &gt; <a href="#">Tools</a> &gt; <a href="#">Network Settings</a> &gt; <a href="#">Network Logs</a> &gt; <a href="#">Basic</a> &gt; <a href="#">Download Basic Log File</a></p>
Network Log - Enhanced	<p>Records a detailed of network actions that have occurred on the printer. Job processing times increase as long as this option is selected.</p> <p>Access is limited to Admin Mode.</p> <p><b>Note:</b> check to see if download feature is available like the Basic Log.</p>

# Error Troubleshooting

# 2

This chapter includes:

- Introduction
- Power On Self-Test (POST)
- Print Engine Self-Test (PEST)
- Service Diagnostics
- Messages, Chain Link Codes, and Procedures
- Error Messages
- General Troubleshooting
- Electrical Troubleshooting
- Sheet Feeder Troubleshooting
- Control Panel Troubleshooting
- DADF Troubleshooting
- Scanner Troubleshooting
- Finisher Troubleshooting
- Fax Troubleshooting
- Noise Troubleshooting
- USB Port Testing
- Network Troubleshooting
- Operating System and Application Problems
- Printhead Cleaning Cycle
- Printhead Troubleshooting Checklist

# Introduction

This chapter covers the general startup, PostScript, power supply operations of the printer, general troubleshooting, and Service Diagnostics used to test system operation and troubleshooting procedures to correct problems. Also discussed are error messages and numeric codes displayed on the Control Panel or listed on the Error History Report.

The printer tracks and reports errors in a number of ways. The two types of error reporting discussed in this chapter include:

- Error messages and Chain Link codes display on the Control Panel
- Engine (fatal) and Jam Error logs display on the Control Panel or listed on the Fault History

Troubleshooting print quality problems are covered in Chapter 3 [Image Quality](#) on page 3-1.

## Servicing Instructions

The service checklist below is an overview of the path a service technician should take when servicing the printer.

Step 1: Identify the Problem	
	<ol style="list-style-type: none"> <li>1. Verify the reported problem does exist.</li> <li>2. Check for any error codes and write them down.</li> <li>3. Print normal customer prints and service test prints.</li> <li>4. Make note of any print-quality problems in the test prints.</li> <li>5. Make note of any mechanical or electrical abnormalities present.</li> <li>6. Make note of any unusual noise or smell coming from the printer.</li> <li>7. View the fault codes in the Fault History.</li> <li>8. Verify the AC input power supply is within proper specifications by measuring the voltage at the electric outlet while the printer is running (see <a href="#">Power Safety Precautions</a> on page 1-4) for detail information.</li> </ol>
Step 2: Inspect and Clean the Printer	
	<ol style="list-style-type: none"> <li>1. Follow the <a href="#">Cleaning</a> on page 6-11 in Chapter 6, Maintenance.</li> <li>2. Turn the printer power Off.</li> <li>3. Disconnect the AC power cord from the wall outlet.</li> <li>4. Verify the power cord is free from damage or short circuit and is connected properly.</li> <li>5. Inspect the printer interior and remove any debris such as paper clips, staples, pieces of paper, or dust.</li> <li>6. Do not use solvents or chemical cleaners to clean the printer interior.</li> <li>7. Do not use any type of oil or lubricant on printer parts.</li> <li>8. Clean all rubber rollers with a lint-free cloth, dampened slightly with cold water and mild detergent.</li> <li>9. Inspect the interior of the printer for damaged wires, loose connections, toner leakage, and damaged or obviously worn parts.</li> </ol>

**Step 3: Find the Cause of the Problem**

1. Refer to [Messages, Chain Link Codes, and Procedures](#) on page 2-85 procedures to find the cause of the problem.
2. Refer to [The Page column references the procedure related to the error.](#) on page 2-93 to check the printer and optional components.
3. Refer to Chapter 7 [Plug/Jack Diagrams and Designators](#) on page 7-2 to locate test points.
4. Take voltage readings as instructed in the appropriate troubleshooting procedure.

**Step 4: Correct the Problem**

1. Refer to Chapter 5 [Parts List](#) on page 5-1 to locate a part number.
2. Refer to Chapter 4 [Service Parts Disassembly](#) on page 4-1 to replace the part.

**Step 5: Final Checkout**

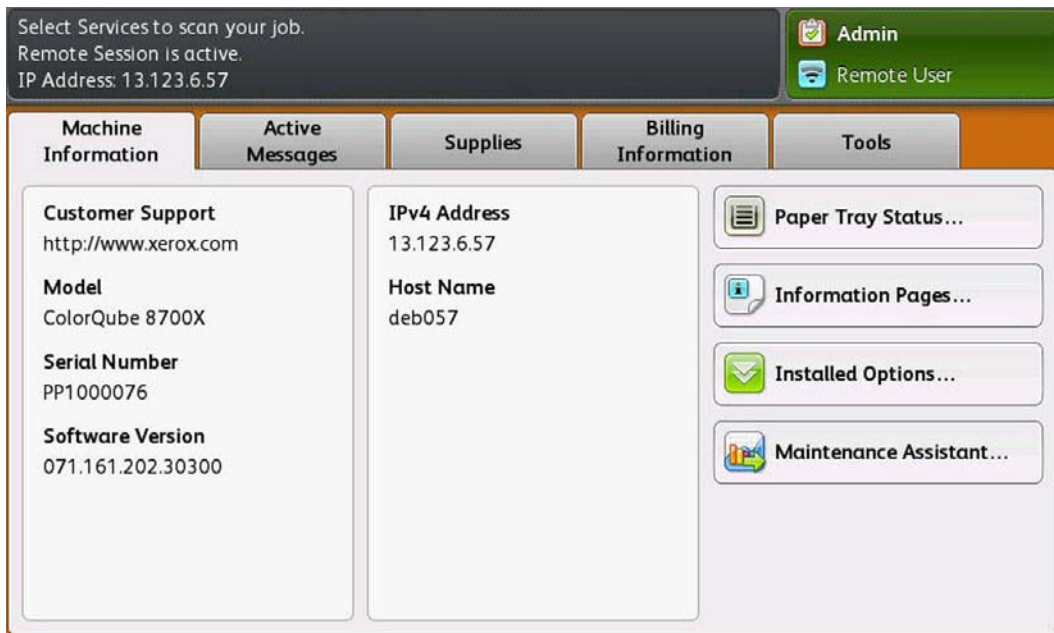
1. Test the printer to be sure you have corrected the initial problem and there are no additional problems present.

## Control Panel Shortcut

LED Button	Printer State
Enter Service Diagnostics	“*” then + “#” then + <b>Stop</b> buttons Enter password <b>1991</b>
Service Copy Mode	“*” + “#” + <b>Stop</b> buttons Enter password <b>2732</b>
Control Panel Calibration	<b>Dial Pause</b> + “*” + “#” buttons
<b>Note:</b> The LED is not illuminated when processing jobs.	

## Accessing Machine Status/ Tools Menu

1. Press the **Log In/ Out** button.
2. On the Control Panel UI, in the **User Name** field, enter **admin** (default User Name).
3. Touch **Next**.
4. In the password field, enter **1111** (default password).
5. Touch **Done**.
6. The UI screen is displayed with the **Admin** button highlighted.
7. On the Control Panel, press the **Machine Status** button.
8. Touch **Tools** to access various printer settings.





## System Status Page

The System Status page is a multiple page document. Page one includes System Information, Current Settings, Ink Sticks information, Printhead Clean Count, and Power On Info. Page two is a list of the most recent faults that have occurred giving the error code, date, time, and page count at the time they happened.

### Accessing System Status Page

1. On the Control Panel, press the **Log In/Out** button.
2. Log in as an Administrator ([Accessing Machine Status/ Tools Menu](#) on page 2-4).
3. On the Control Panel, press the **Machine Status** button.
4. Touch **Tools**.
5. Touch **Troubleshooting**.
6. Under the **Features** screen, select **Support Pages**.



7. On the **Support Pages** screen, select **System Status Page**.
8. Touch **Print**.
9. Touch **Close** to return to the **Tools** menu.
10. Press the **Services Home** button to return to the default screen.

## Fault History

The Fault History lists the most recent printer fault codes with a time and date stamp. Use the fault code to determine the appropriate trouble shooting procedure to correct printer problems.

**Note:** Fault Code may be displayed different format containing different pre-fix (i.e. 089-XXX vs. 389-XXX) on the Services Home Menu and Fault History.

### Fault Code Displayed on the Services Home Menu



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CQ8700/ 8900 Version 101/ 102/ 202 UI

Fault Code Displayed on the Fault History



## Accessing Fault History

Fault History is available in two locations:

- Machine Status Menu
- Service Diagnostics

### Current Faults

The current faults lists the displayed status messages on the control panel.

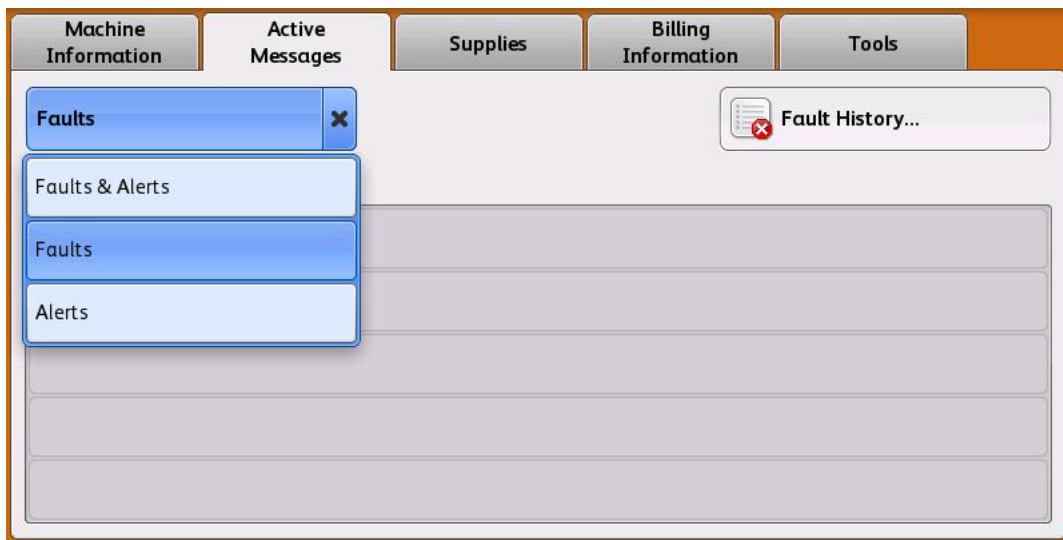
### Current Messages

The current messages lists the displayed status messages on the control panel that have an associated pop up window. To view the pop up window, highlight a status message then touch the instruction button.

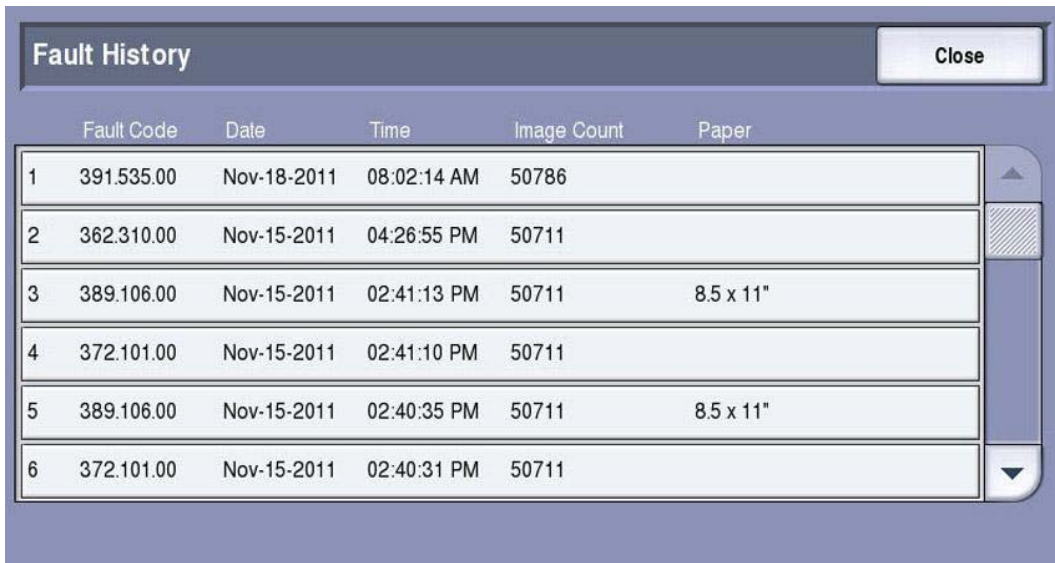
### Accessing Fault History from Machine Status Menu

**Note:** The Fault History can be viewed on the Control Panel without logging in as an administrator.

1. On the Control Panel, press the **Machine Status** button.
2. Touch the **Active Messages** tab.
3. Touch the **Faults and Alerts** menu to select the appropriate option.



- A list of fault codes is displayed.



The screenshot shows a 'Fault History' window with a 'Close' button in the top right corner. The window contains a table with the following columns: Fault Code, Date, Time, Image Count, and Paper. The table lists six fault events, with the 'Paper' column only containing data for the third and fifth entries.

	Fault Code	Date	Time	Image Count	Paper
1	391.535.00	Nov-18-2011	08:02:14 AM	50786	
2	362.310.00	Nov-15-2011	04:26:55 PM	50711	
3	389.106.00	Nov-15-2011	02:41:13 PM	50711	8.5 x 11"
4	372.101.00	Nov-15-2011	02:41:10 PM	50711	
5	389.106.00	Nov-15-2011	02:40:35 PM	50711	8.5 x 11"
6	372.101.00	Nov-15-2011	02:40:31 PM	50711	

### Accessing Fault History in Service Diagnostics Menu

The dc122 Fault History routine displays the most recent (last 40) faults.

1. Access the Service Diagnostics menu ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Service Info**.
3. Touch **dc122 Fault History**.
4. A **dc122 Fault History** screen is displayed. Information includes:
  - Chain-Link
  - Description
  - Date & Time

Chain Link	Description	Date & Time
303-316-00	Communication Fault	2011/12/09 10:07:10
362-310-00	IISS / Scanner -Controller communication Fail	2011/12/02 13:18:03
303-316-00	Communication Fault	2011/11/29 17:06:54
362-310-00	IISS / Scanner -Controller communication Fail	2011/11/29 17:06:52
391-535-00	Print Head 1 right jet heater too hot	2011/11/18 08:02:14
362-310-00	IISS / Scanner -Controller communication Fail	2011/11/15 16:26:55

5. Select the desired **Chain-Link** and select **Details** to view the fault detail.

Chain Link	Description	Date & Time
372-101-00	LE Late At Feed	2011/11/15 14:41:10
389-106-00	MP Sensor 8 LE Timeout	2011/11/15 14:40:35
372-101-00	LE Late At Feed	2011/11/15 14:40:31
303-777-00	Power Loss Detected	2011/11/15 10:41:43
391-535-00	Print Head 1 right jet heater too hot	2011/11/13 08:02:16
303-777-00	Power Loss Detected	2011/11/10 0

Details...

Close Menu

6. A [Details](#) screen is displayed.
7. Touch [Close](#) to return to the [dc122 Fault History](#) screen.
8. Touch [Close](#) to return to the [Service Info](#) menu.



The screenshot shows a 'Details' screen with a 'Close' button in the top right corner. The screen displays the following information:

Chain Link:	391-535-00
Description:	Print Head 1 right jet heater too hot
Date & Time:	2011/11/13 08:02:16
Copy Count:	50606
Paper Size:	custom

## System Startup

When the power switch is turned on, the Power Supply Unit provides 1.0V\_Sleep, 1.2V\_Sleep, 5V\_Sleep, and 12V\_Sleep power. Following a strict power on sequence, the electronics is powered on.

When the 12V\_Sleep power is enabled, the U-Boot, IME, and the CC perform basic hardware initialization activities. The execution of U-Boot results in the following behavior observed on the UI Panel:

- The backlight screen is powered on after one second.
- At 2.5 seconds, the following LED buttons are illuminated - Services, Job Status, Machine Status, Interrupt Print, and Power Saver.
- At 3.5 seconds, the splash screen is displayed with the E-Star logo.
- At 5 seconds, the aforementioned LED buttons will begin flashing at a rate of one hertz: Off, On, Off, On for duration of two seconds.

The hardware initialization activities conducted by the IME differ, depending on the start-up mode of the printer. The start-up mode composed of Customer, Development, Diagnostic, Manufacturing 1 & 2, and BDS Modes is controlled by the insertion or removal of the external dongle switch.

If the start-up mode requires the execution of the Print Engine Self-Test (PEST), the IME will perform PEST to confirm the health of the electrical systems. Subsequently, the AC power is applied to the system by the print engine to enable the Printhead, all Heaters, Drum, Finisher (if installed), and the Paper Feeders.

The CC's operating system starts the application that manages the creation and initialization of the system's software services. The initialization tasks include the following:

- Power On Self-Test
- Establish communication with the other platforms, i.e. IME, NC, UI, DADF/Scanner, Fax, etc.
- Checks if the execution of the Install Wizard is warranted.
- Performs software compatibility check. If an incompatible software set is found then software upgrade is initiated.

The Power-On Self-Test verifies the health of the System Memory, Hard Disk, EEPROM, and RTC. POST errors are conveyed via the LEDs located on the edge of the Main Controller Board, as follows:

- System Memory Error - red LED flashes.
- Hard Disk fault - yellow LED flashes.
- EEPROM failure - red and yellow LEDs flashes in phase.
- RTC failure - red and yellow LEDs flashes out of phase.

The CC initiates communication with the following platforms after the operating system has been loaded using the described protocol:

- **IME** - TCP/IP communication over PC Express. If CC is unable to establish communication with the IME, then a "Printing service is unavailable" message is posted on the Control Panel.
- **UI** - Inter-process communication via RS422. If CC is unable to establish communication with the UI within two minutes of powering on the machine, then a 303.347 status is raised and a "System Unavailable" message is posted on the WebUI.



- **DADF/ Scanner** - Inter-process communication via RS422. If CC is unable to establish communication with the DADF/ Scanner after ten seconds of powering on the DADF/ Scanner, then a "Scanner Fault" message is posted on the Control Panel.
- **NC** - Inter-process communication. If CC is unable to establish communication with the NC after five minutes, then a 303.332 status is raised and a "NC Unavailable" message is posted on the Control panel.
- **Fax** - Inter-process communication. If CC is unable to establish communication with the Fax after one minute, then a "Fax Unavailable" message is posted on the Control panel.

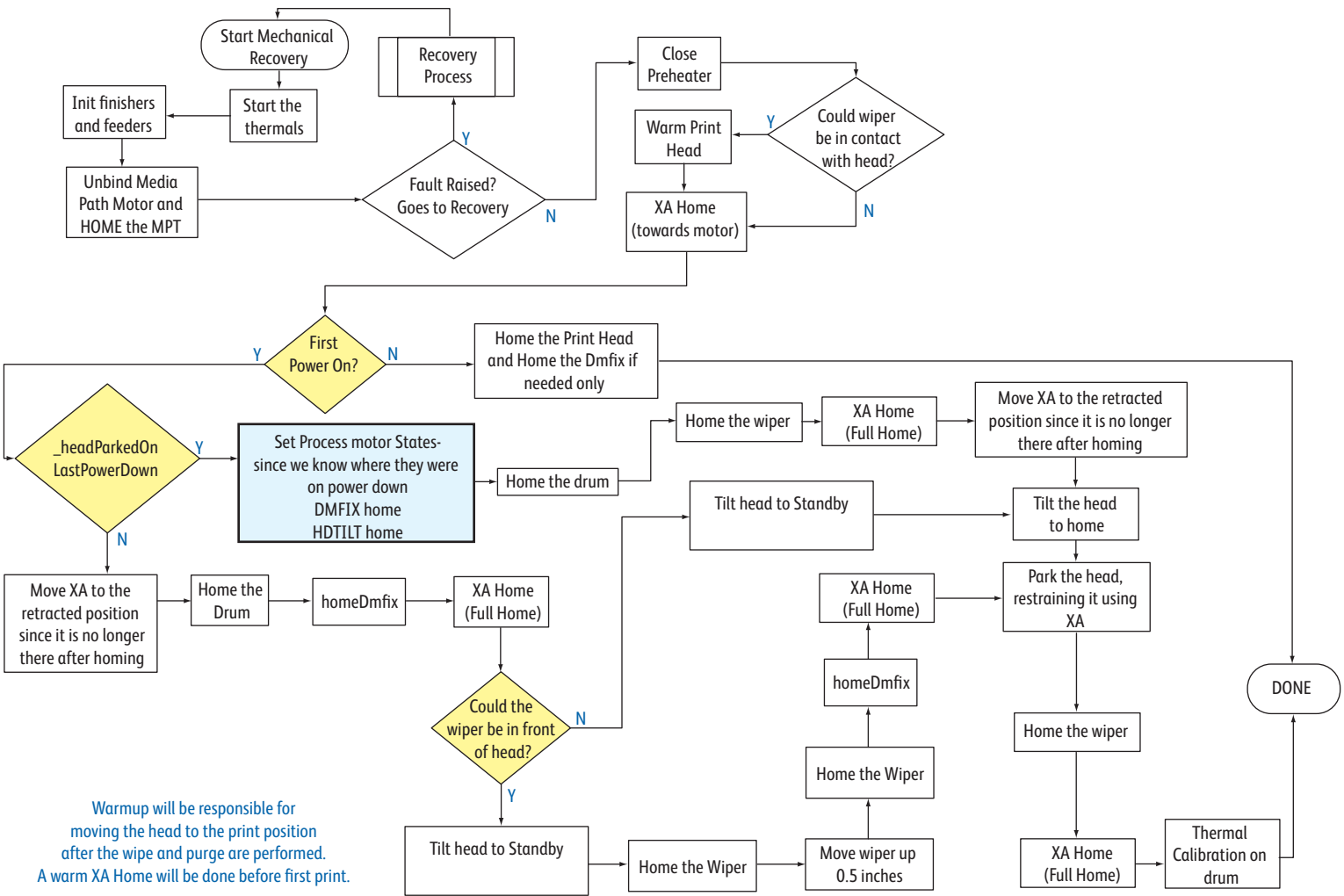
After communication has been established between the "Core Modules", (CC, NC, IME, and DADF/ Scanner), the CC determines the printer's configuration and capabilities and detects the following components:

- Finisher
- Foreign Device Interface (FDI)
- Additional media trays.

Upon successfully establishing communication with all the platforms, the "Machine Install Phase" NVM flag is checked to determine if the printer is powered On for the first time. If the power on event corresponds to a pristine printer, then the printer's serial number and product ID is populated. In the subsequent power-on, the CC invokes the Customer Install Wizard so the customer is permitted to configure the printer's time, date, default language, etc.

### Mechanical Engine Initialization Diagram

Use the Mechanical Engine Initialization diagram to troubleshoot failures that occur during the power-on sequence.



Warmup will be responsible for moving the head to the print position after the wipe and purge are performed. A warm XA Home will be done before first print.

s8900-343

## Unplanned Shutdown

If the printer was not shutdown by the power switch the last time it was turned off or it was shutdown with ink on the Drum.

As soon as the printer has warmed up, the Media Path Motor moves the Wiper to the bottom of its travel and the Process Motor moves the Printhead to the print position as the chase page is sent through the paper path to clean ink from the Drum.

## Temperature Below Purge Threshold

If the Printhead, ink Reservoirs, or jetstack temperature are below purge threshold, the printer performs a printhead cleaning cycle.

1. The printer waits for the Printhead to reach its purge temperature.
2. The printer moves the Wiper to the bottom of its travel and tilts the Printhead forward to its Print position to check the ink levels. If the ink level is low, ink is melted into the appropriate reservoirs.
3. The Printhead tilts to the Park position and moves the Wiper Assembly to the Purge position in front of the Printhead Faceplate.
4. The Purge Pump begins the pressure purge after about 3 seconds the Purge Pump Solenoid opens.
5. The Printhead tilts forward against the Wiper Assembly (Wipe position) and the purge and wipe cycle begins.
6. The Control Panel indicates the printer is performing the cleaning process.
7. The Printhead is moved left to the tilt zone, where the Printhead can tilt back without interference, and the Media Path Motor moves the Wiper to the bottom of its travel to engage the Printhead Tilt Cam. The Process Motor rotates the Printhead Tilt Gears, which tilt in order to move the Printhead to the forward Print position.
8. The temperature of the Printhead, Drum, and Paper Preheater are allowed to stabilize at their operating temperatures and ink is melted if needed.
9. The Printhead is homed to the Print position for printing.
10. A Cleaning page is printed at this time, if a purge was performed.
11. The print engine is initialized and is ready to print.

## Power On Self-Test (POST)

POST is the Power On Self-Test that runs during the boot process and prior to loading of the operating systems (OS) and the Engine software regions. POST and the Boot loader share the same OS and much of the same linkage.

POST diagnostics provide a quick means of isolating a defective subsystem associated with the Main Controller Board and SDRAM. There are two kinds of POST faults: soft and hard. A soft fault is any fault that allows the operating system to initialize. Soft faults do not stop printer operation and are reported on the Startup page after the system is running. A hard fault prevents the operating system from initializing stopping further printer operation. Hard faults are indicated with blinking LEDs and the failed test appearing on the display.

### Sequence

At power-on the Copy Controller shall perform its initialization activities. Note this includes hardware initialization tasks (such as CPU, FPGA, System RAM, and EPC memory initialization), and configuring the PCI busses, loading the U-boot software and running the Power On Self Test (POST) to confirm the CC is capable of running its operating system.

- If POST detects a System memory error then the red LED on the edge of the board shall flash.
- If POST detects a Hard Disk failure then the yellow LED on the edge of the board shall flash.
- If POST detects an EEPROM failure then the red and yellow LEDs on the edge of the board shall flash in phase.
- If POST detects a RTC failure then the red and yellow LEDs on the edge of the board shall flash out of phase.

# Print Engine Self-Test (PEST)

Print Engine Self-Test (PEST) tests components if they are drawing power. PEST tests occur after POST tests have been run and PostScript has been initialized. PEST checks the connections and operation of various components. PEST runs as part of the print engine.

## PEST Error Reporting

Fault codes for PEST are displayed on the Control Panel and are in the 399.XXX.ZZ series.

For troubleshooting PEST fault codes, see [Messages, Chain Link Codes, and Procedures](#) on page 2-85.

Refer to [dc123 PEST Fault History](#) on page 2-35 for detail fault history information.

- Hard PEST faults are defined as faults that stop the printer.
- Soft PEST faults are defined as faults that do not stop the printer. These might be components that are operational but not within expected limits. The printer will operate but the change in the condition of the component might help identify changes or potential faults in the printer.
- The PEST fault history grows upwards. The top entry is the latest entry.
- Each time the printer starts, an entry is entered into the PEST fault history.

The entry format is:

- XXX is a numerical chain number.
- YYY is a numerical chain link.
- 399.000.ZZ is a delimiter that indicates the start of the PEST. If no faults are detected, 399.000.ZZ is the only entry in the PEST fault history for that start up.
- If there are no faults, the next entry will be 399.000.ZZ indicating the start of the previous PEST.
- If faults are detected, they are entered in the fault history above the 399.000.ZZ for the start of the PEST.
- Soft faults are listed directly above the 399.000.ZZ start of PEST entry.
- Hard faults are listed above the soft faults with a delimited of 399.999.ZZ between the hard and soft faults.

## Service Diagnostics

The ColorQube 8700/8900 has built-in diagnostics that allow access to Sensors, Clutches, Solenoids, printer status, turning the motors On and Off, and some NVRAM access. Using these tests, service technicians should be able to diagnose the problems quickly and isolate which component or sub assembly part needs replacement.

If confronted with an error that requires more than a cursory investigation to clear or when directed by a troubleshooting procedure, use Service Diagnostics to exercise selected sub-assemblies or parts in the vicinity of the reported error. Diagnostic tests are controlled from the Control Panel.

**Note:** Clear pending print jobs before attempting to enter Service Diagnostics. No new jobs are processed while the printer is in diagnostic mode.

### Using Service Diagnostics

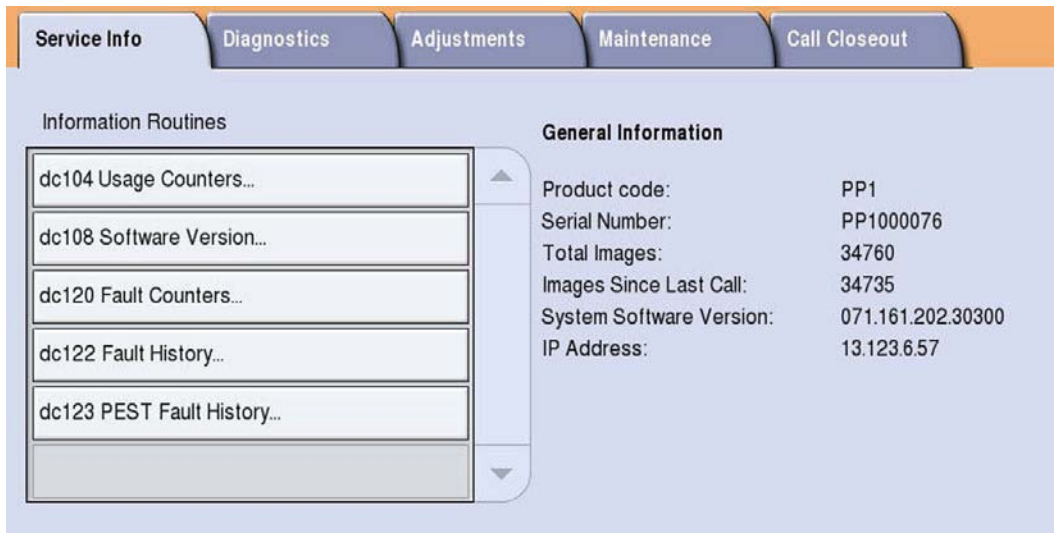
The printer's operating system monitors sensors located throughout the print engine and attached options. Sensor signals are used to monitor media handling and mechanical activity along the entire media path. As a sheet travels along the paper path, sensors change state temporarily to indicate the sheet's presence. If the pattern of sensor state changes differs from the expected timing for a particular media size and path, the sensor where the timing difference occurs identifies the error to report.

However, having the error message information does not necessarily pinpoint the problem. Sensor signals locate where, but often cannot identify why. Motors, belts, gears, solenoids, and numerous other parts are involved in media transport. The Service Diagnostics' suite of tests and utilities are the best tools available to pinpoint the root cause behind the reported error.

## Entering Service Diagnostics

**Note:** Diagnostics and General information are also available in CWIS. (see page 2-23)

1. Press and hold the “\*” then + “#” then + **Stop** buttons.
2. On the **Login** screen on the UI, enter **1991**.
3. Touch **Enter**.
4. The **Service Info** tab is displayed as the default screen upon entering Service Diagnostics.



### General Information

General Information lists information about the printer.

- Product Code
- Serial Number
- Total Images
- Images Since Last Call
- System Software Version
- IP Address

### Service Info

Service Information lists utilities for managing counters, reviewing status, and access to embedded test prints.

- dc104 Usage Counters
- dc108 Software Versions
- dc120 Fault Counters
- dc122 Fault History
- dc123 PEST Fault History

## Diagnostics

Diagnostics lists utilities for testing components and combinations of components.

- dc140 Analog Monitor
- dc312 Network Echo Test
- dc330 Component Control
- dc335 Heater Monitor and Exerciser
- dc612 Print Test Pattern
- dc640 Video Path Integrity
- dc959 Cleaning Unit Exerciser
- dc962 Transfix Load Test

## Adjustments

Adjustments lists utilities for accessing NVRAM and making xerographic process adjustments.

- dc131 NVM Read/Write
- dc 301 NVM Initialization
- dc361 NVM Save and Restore
- dc608 Document Feeder Registration
- dc609 Document Glass Registration

## Maintenance

Maintenance lists utilities for managing consumables.

- dc103 Billing Plan
- dc132 Serial Number
- dc137 Page Pack
- dc968 Head Purge
- dc969 Clean Ink Smears

## Call Closeout (Exiting Service Diagnostics)

Call Closeout takes the printer out of Service Diagnostics mode. Available options include the reset of the Reset Counters, Reset Waste Counters, Exit Only, and Exit & Reboot. It is recommended that following diagnostic testing, reboot the printer to return it to correct operation.



## Entering Service Diagnostics using CWIS

1. In your browser web address field, enter the IP Address for the printer you want remote access to.
2. At the CWIS home page, select **Login** in the upper right menu field.
3. Login as a System Administrator using the user name "**Admin**" and the password "**1111**".
4. Select the **Support** tab.
5. Select the **Remote Control Panel** tab, and select **Edit** from the Configuration field.
6. Login in as an "**Admin**" again.
7. Select either **For Admin and Diagnostics Users**, or **For all Users** and then **Save**.
8. Select **Logout** from the upper right menu field and confirm the logout on the pop-up screen.
9. Now **Login** using "**Diag**" and the user name and "**3424**" as the password.
10. Select the **Support** tab and the **Remote Control Panel** tab.
11. Select the **Open Remote Control Panel** and log in using "**Diag**" and the **password**.
12. Once the system is connected, select the **Service Diagnostics** button, and enter the password '**1991**'
13. You now have access to all the diagnostic functions.

## Service Diagnostic Routines

The Services Diagnostics menu provides access to these diagnostic routines.

Test	Control Panel Display	Test Description
<b>General Information:</b> Provides information about the printer.		
	<ul style="list-style-type: none"><li>• Product Code</li><li>• Serial Number</li><li>• Total Images</li><li>• Images Since Last Call</li><li>• System Software Version</li><li>• IP Address</li></ul>	
<b>Service Info:</b> Provides information required during the servicing of the system.		

Test	Control Panel Display	Test Description
dc104 Usage Counters	<p><b>Impression Counters</b></p> <ul style="list-style-type: none"> <li>• Total Impressions <ul style="list-style-type: none"> <li>– Black Impressions <ul style="list-style-type: none"> <li>– Black Copied Impressions</li> <li>– Black Printed Impressions</li> </ul> </li> <li>– Color Impressions <ul style="list-style-type: none"> <li>– Color Copied Impressions</li> <li>– Color Printed Impressions</li> </ul> </li> </ul> </li> <li>• Stored Image Printed Impressions <ul style="list-style-type: none"> <li>– Black Stored Image Printed Impressions</li> <li>– Color Stored Image Printed Impressions</li> </ul> </li> <li>• Embedded Fax Impressions</li> </ul> <p><b>Sheet Counters</b></p> <ul style="list-style-type: none"> <li>• Black Copied Sheets</li> <li>• Color Copied Sheets</li> <li>• Black Printed Sheets</li> <li>• Color Printed Sheets</li> <li>• Embedded Fax Sheets</li> <li>• Black Copied 2-Sided Sheets</li> <li>• Color Copied 2-Sided Sheets</li> <li>• Black Printed 2-Sided Sheets</li> <li>• Color Printed 2-Sided Sheets</li> </ul> <p><b>Images Sent Counters</b></p> <ul style="list-style-type: none"> <li>• Embedded Fax Images Sent</li> <li>• E-mail Images Sent</li> <li>• Network Scanning Images Sent</li> </ul> <p><b>Fax Impressions Counters</b></p> <ul style="list-style-type: none"> <li>• Embedded Fax Impressions</li> </ul> <p><b>Update</b></p> <p><b>Close</b></p>	Displays printer usage information.
dc108 Software Version	<ul style="list-style-type: none"> <li>• Software Upgrade</li> <li>• Copy Controller</li> <li>• Copy Controller OS</li> <li>• DUI H8</li> <li>• Fax</li> <li>• Imaging Output Terminal</li> <li>• Network Controller</li> <li>• Document Feeder</li> <li>• User Interface</li> <li>• Image Input Terminal</li> <li>• XUI Language Version</li> </ul>	Displays the current software information: <ul style="list-style-type: none"> <li>• System Software Version</li> <li>• Software Module Name</li> </ul>

Test	Control Panel Display	Test Description
dc120 Fault Counters	<ul style="list-style-type: none"> <li>• Chain Link</li> <li>• Description</li> <li>• Occurrences</li> <li>• Sort on Occurrences</li> <li>• Include Zero Occurrences</li> <li>• Chain</li> <li>• Find</li> <li>• Close</li> </ul>	Provides faults and the number of occurrences. The counter can be sorted the by occurrences to find a specific chain module and exclude fault counters with zero counts.
dc122 Fault History	<ul style="list-style-type: none"> <li>• Chain Link</li> <li>• Description</li> <li>• Date &amp; Time</li> <li>• Chain Link</li> <li>• Description</li> <li>• Date/ Time</li> <li>• Copy Count</li> <li>• Paper Size</li> <li>• Close</li> </ul>	Displays the most recent (last 40) Faults.
dc123 PEST Fault History	<ul style="list-style-type: none"> <li>• #</li> <li>• Chain Link</li> <li>• Close</li> </ul>	Display the "PEST Error log" held by the IME (Internal Marking Engine).
<b>Diagnostics:</b> Provides access to specific component controls and test patterns.		
dc140 Analog Monitor	<ul style="list-style-type: none"> <li>• ID</li> <li>• Component Name</li> <li>• Status</li> <li>• Range</li> <li>• Value</li> <li>• Close</li> </ul>	Monitors one or more analog inputs for diagnostic troubleshooting.
dc312 Network Echo Test	<ul style="list-style-type: none"> <li>• Protocol                             <ul style="list-style-type: none"> <li>– TCP/IP</li> <li>– Novell or IPX</li> <li>– Apple Talk</li> </ul> </li> <li>• Start Test</li> <li>• Close</li> </ul>	Verifies the connectivity of the printer on the attached network and tests the network drivers on the printer.

Test	Control Panel Display	Test Description
dc330 Component Control	<ul style="list-style-type: none"> <li>• Chain Link</li> <li>• I/O</li> <li>• Description</li> <li>• Chain</li>   <li>• Chain Link</li> <li>• I/O</li> <li>• Description</li> <li>• State</li> <li>• Chain</li> <li>• Link</li> <li>• Add</li> <li>• Close</li> </ul>	<p>Provides a means to test subsystems and discrete components of the printer and attached options. Two component types are defined:</p> <ul style="list-style-type: none"> <li>• Inputs: Sensors, Switches and Motor Encoders</li> <li>• Outputs: Motors, Fans, Solenoids, Clutches, indicator lamps (e.g. LED's)</li> </ul>
dc335 Heater Monitor and Exerciser	<ul style="list-style-type: none"> <li>• Component <ul style="list-style-type: none"> <li>– Print Head</li> <li>– Drum</li> <li>– Pre Heater</li> <li>– Ink Melt</li> </ul> </li> <li>• Heater <ul style="list-style-type: none"> <li>– Reservoir</li> <li>– Left Jetstack</li> <li>– Right Jetstack</li> </ul> </li> <li>• Setpoint Mode <ul style="list-style-type: none"> <li>– Off</li> <li>– Sleep</li> <li>– Low</li> <li>– Ready</li> </ul> </li> <li>• Graph</li> <li>• Close</li> </ul>	<p>Identifies problems within the print engine heater system. The thermal monitors and exercisers contained in the group include:</p> <ul style="list-style-type: none"> <li>• Print Head Thermal Test</li> <li>• Drum Thermal Test</li> <li>• Pre Heater Thermal Test</li> <li>• Ink Melt Plate Thermal Test</li> </ul>

Test	Control Panel Display	Test Description
<a href="#">dc612 Print Test Pattern</a>	<ul style="list-style-type: none"> <li>• #</li> <li>• Test Patterns</li> <li>• Color Mode                             <ul style="list-style-type: none"> <li>– 4C</li> <li>– 3C</li> <li>– Yellow</li> <li>– Magenta</li> </ul> </li> <li>• Tray                             <ul style="list-style-type: none"> <li>– letter85x11</li> </ul> </li> <li>• Plex Mode                             <ul style="list-style-type: none"> <li>– simplex</li> <li>– duplex</li> </ul> </li> <li>• Coverage</li> <li>• Copies</li> <li>• Start</li> <li>• Stop</li> <li>• Close</li> </ul>	<p>Provides test patterns for troubleshooting print-quality problems. Test patterns include:</p> <ul style="list-style-type: none"> <li>• Weak and Missing Jets</li> <li>• Cyan Solid Fill</li> <li>• Magenta Solid Fill</li> <li>• Yellow Solid Fill</li> <li>• Black Solid Fill</li> <li>• Red Solid Fill</li> <li>• Green Solid Fill</li> <li>• Blue Solid Fill</li> <li>• White Solid Fill</li> <li>• C,M,Y,K,R,G,B Solid Fills</li> <li>• Chase Page</li> <li>• Skew/ Margin Test Print</li> <li>• Cleaning Page (Mud Page)</li> <li>• Light Stripes Page</li> <li>• Service Usage Profile</li> </ul>
<a href="#">dc640 Video Path Integrity</a>	<ul style="list-style-type: none"> <li>• Start</li> <li>• Close</li> </ul>	<p>Validates the integrity of the video path in the printer.</p>
<a href="#">dc959 Cleaning Unit Exerciser</a>	<ul style="list-style-type: none"> <li>• Routines                             <ul style="list-style-type: none"> <li>– Full Speed Exerciser</li> <li>– Slow Speed Exerciser</li> </ul> </li> <li>• Print Test Pattern                             <ul style="list-style-type: none"> <li>– Oil Bar Chase</li> </ul> </li> <li>• Close</li> </ul>	<p>Allows service technicians to troubleshoot problems with Drum cleaning, lubrication, copy quality, and paper handling. The routine also can generate identified test patterns.</p>
<a href="#">dc962 Transfix Load Test</a>	<ul style="list-style-type: none"> <li>• Start</li> <li>• Close</li> </ul>	<p>Provides a simplified method to troubleshoot the transfix load system. Each test will be run in the correct sequence and report the results (fault code and description).</p>
<p><b>Adjustments:</b> Contains service diagnostic/mode routines that modify or change a value setting for the printer.</p>		
<a href="#">dc131 NVM Read/Write</a>	<ul style="list-style-type: none"> <li>• Enter NVM ID (left)</li> <li>• Enter NVM ID (right)</li> <li>• Read</li> <li>• Table (NVM ID, Description, Value, Default, Min, Max)</li> <li>• Clear</li> <li>• Close</li> </ul>	<p>Displays the value for a given NVM parameter ID and will write new values into given locations. Refer to the NVM Value Tables in <a href="#">Reference</a> on page A-1).</p>

Test	Control Panel Display	Test Description
dc301 NVM Initialization	<ul style="list-style-type: none"> <li>• Domain <ul style="list-style-type: none"> <li>– Copier</li> <li>– Network Controller</li> <li>– Fax</li> </ul> </li> <li>• NVM Data <ul style="list-style-type: none"> <li>– User</li> <li>– System</li> <li>– All</li> </ul> </li> <li>• Close</li> </ul>	Resets selected NVM to their factory default settings.
dc361 NVM Save and Restore	<ul style="list-style-type: none"> <li>• Location</li> <li>• Serial Number</li> <li>• Date</li> <li>• Platform</li> <li>• Close</li> </ul>	Saves or restores system NVM contents to or from the installed Feature Card or/ if installed, a USB memory device. Use this routine to save and restore system and customer parameters.
dc608 Document Feeder Registration	<ul style="list-style-type: none"> <li>• Description</li> <li>• Before Registration</li> <li>• After Registration</li> <li>• Center Registration</li> <li>• Lead Edge</li> <li>• Close</li> </ul>	Checks the registration and de-skew of the document glass and DADF and correct any misalignments.
dc609 Document Glass Registration	<ul style="list-style-type: none"> <li>• Description</li> <li>• Before Registration</li> <li>• After Registration</li> <li>• Top Edge</li> <li>• Lead Edge</li> <li>• Start</li> <li>• Close</li> </ul>	Checks the image registration of the Document Glass and corrects any misalignments.
<b>Maintenance:</b> Provides the ability to perform maintenance routines and access CRU/HFSI usage and Fault logs.		
dc103 Billing Plan	<ul style="list-style-type: none"> <li>• Billing Plan Passcode</li> <li>• Cancel</li> <li>• Save</li> <li>• Invalid Passcode</li> <li>• Close</li> </ul>	Enables CSE to enter a passcode at the Local UI in order to enable an alternate Billing Plan using Service Diagnostics.
dc132 Serial Number	<ul style="list-style-type: none"> <li>• Serial Number</li> <li>• Close</li> </ul>	Displays printer serial number and allows the CSE to re-enter the product serial number into the printer.

Test	Control Panel Display	Test Description
dc137 PagePack	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> <li>• PagePack Passcode</li> <li>• Cancel</li> <li>• Save</li> <li>• Close</li> </ul>	Enables or disables PagePack feature.
dc968 Head Purge	<ul style="list-style-type: none"> <li>• Print Pages                             <ul style="list-style-type: none"> <li>– Jet Test Page</li> <li>– Cleaning Page</li> </ul> </li> <li>• Purge</li> <li>• Reset Waste Counter</li> <li>• Close</li> </ul>	Cleans any of the 4 heads, which is suspected to contain a jet that has degraded operation (i.e blocked). Printing Jet Test Page identifies any defective heads and printing cleaning pages removes the purged ink from the drum.
dc969 Clean Ink Smears	<ul style="list-style-type: none"> <li>• Start</li> <li>• Close</li> </ul>	Removes residual ink from the paper path, Print Head and Drum surfaces.
<b>Call Closeout:</b> Provides the ability to exit Diagnostics and clear specific counters.		
Call Closeout (Exiting Service Diagnostics)	<ul style="list-style-type: none"> <li>• Reset Waste Counter                             <ul style="list-style-type: none"> <li>– Reset Counter</li> </ul> </li> <li>• Exit Only</li> <li>• Exit and Reboot</li> </ul>	Exits the Service Diagnostics menu.

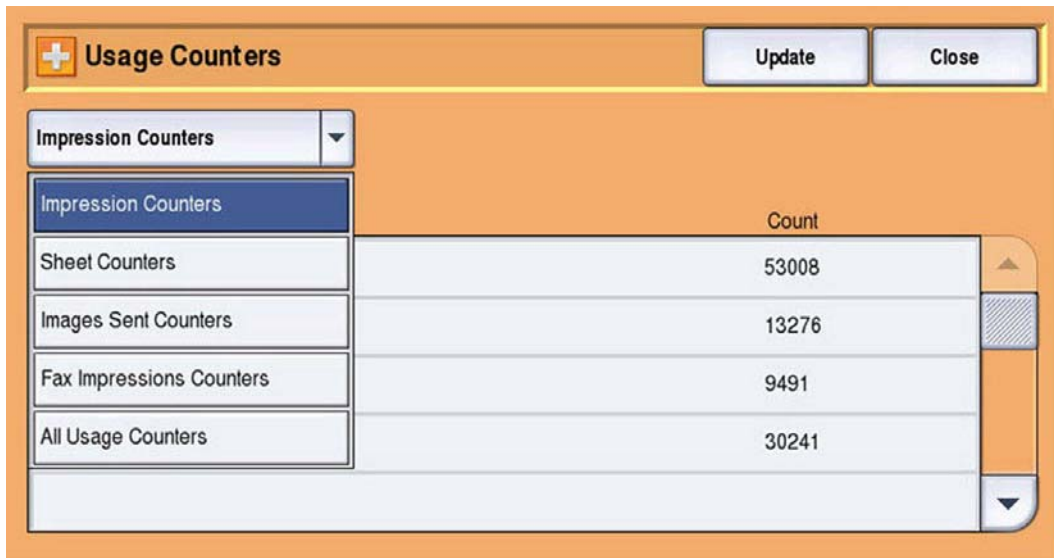


## Service Info

### dc104 Usage Counters

The dc104 Usage Counters routine displays printer usage information.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Service Info](#).
3. Touch [dc104 Usage Counters](#).
4. A [Usage Counters](#) screen is displayed containing a list of options:
  - Impression Counters
  - Sheet Counters
  - Images Sent Counters
  - Fax Impressions Counters
  - All Usage Counters

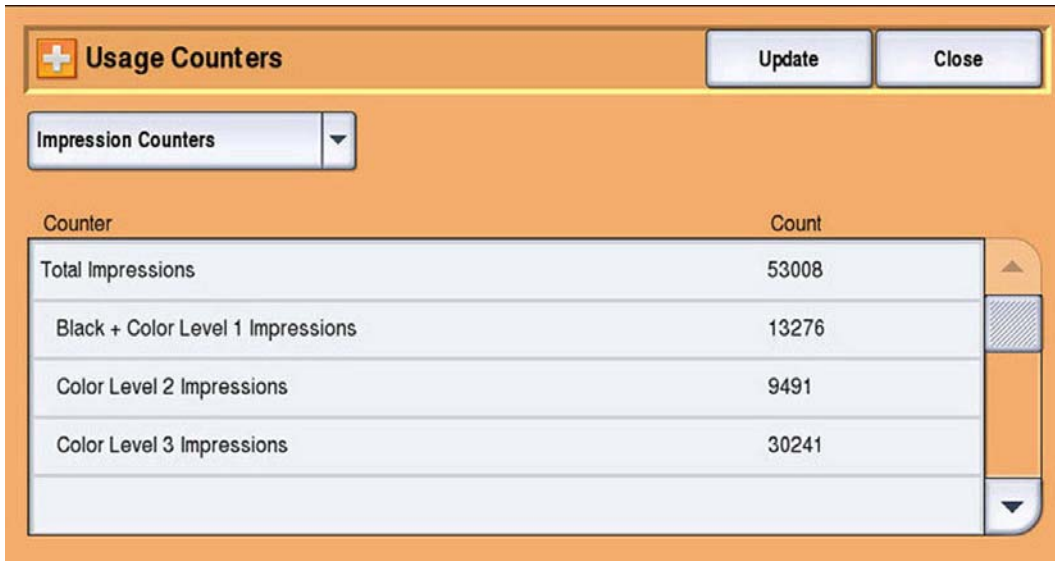


5. Select the desired counter from the menu to view the count information for each impression.

**Impression Level**

- Level 1 - Pure Black and Color prints <1.5 %
- Level 2 - Color prints 1.5 to 8 %
- Level 3 - Color prints >8 %

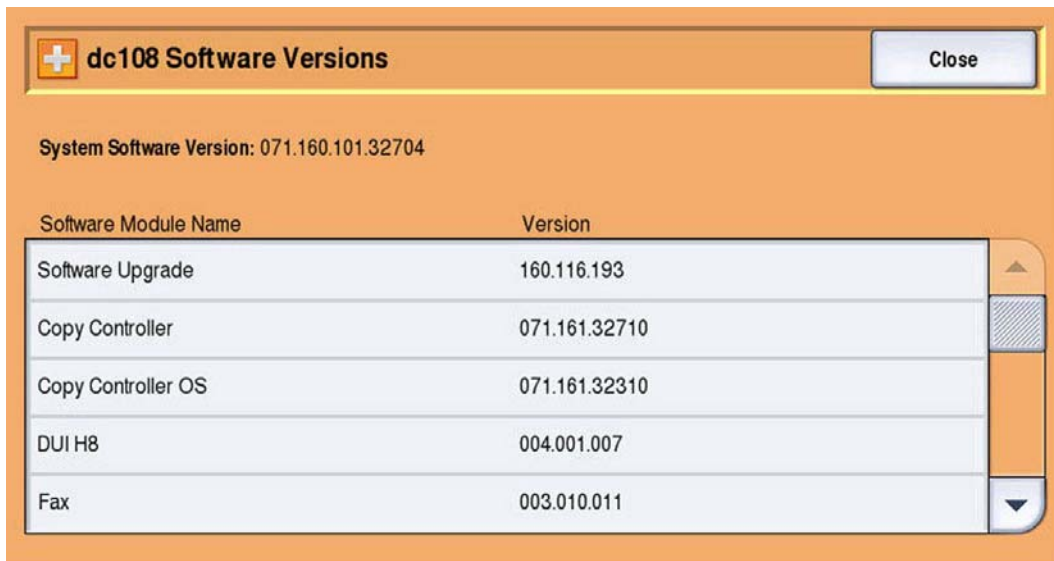
6. Touch **Close** to return to the Service Info menu.



## dc108 Software Version

The dc108 Software Versions routine displays the current system software versions.

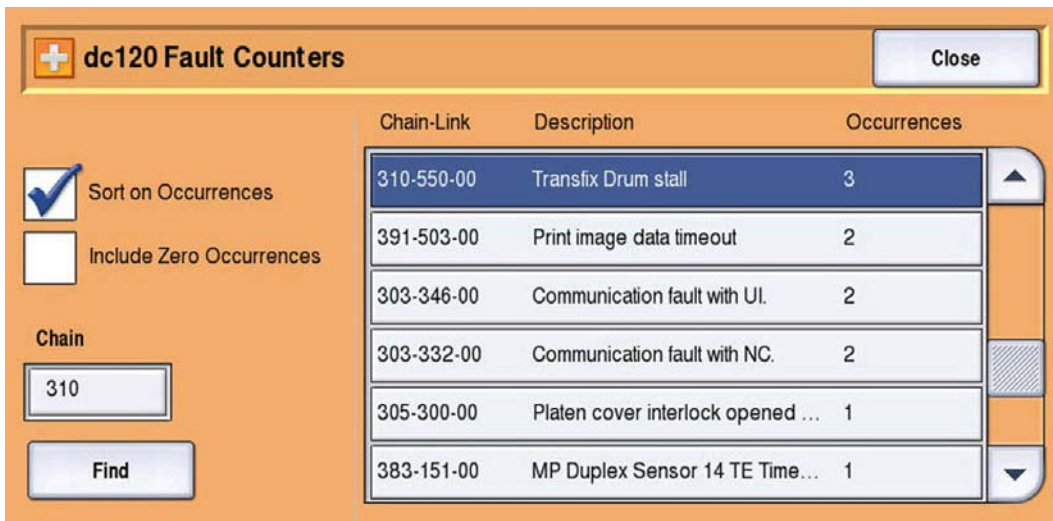
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Service Info**.
3. Touch **dc108 Software Versions**.
4. A **dc108 Software Version** screen is displayed listing current firmware versions for the printer and attached options.
5. Touch **Close** to return to the Service Info menu.



## dc120 Fault Counters

The dc120 Fault Counters provides faults and the number of occurrences. The counter can be sorted by occurrences to find a specific chain module and exclude fault counters with zero counts.

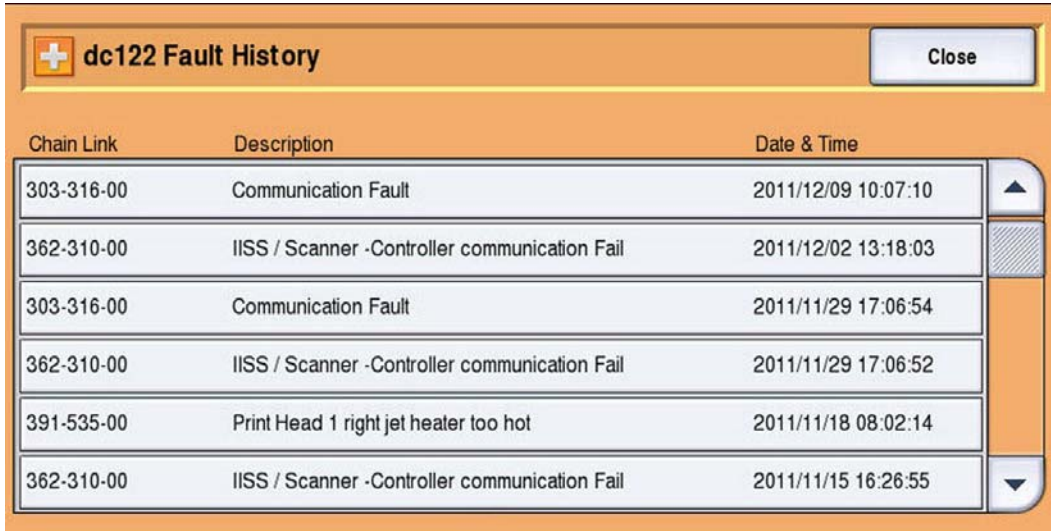
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Service Info**.
3. Touch **dc120 Fault Counters**.
4. A [dc120 Fault Counters](#) screen is displayed.
5. Enter the desired **Chain** number.
6. Select the desired occurrences to be sorted.
7. Touch **Find** to retrieve the faults.
8. Touch **Close** to return to the [Service Info](#) menu.



## dc122 Fault History

The dc122 Fault History routine displays the most recent (last 40) faults.


1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Service Info](#).
3. Touch [dc122 Fault History](#).
4. A [dc122 Fault History](#) screen is displayed. Information includes:
  - [Chain-Link](#), [Description](#), [Date & Time](#)



The screenshot shows the 'dc122 Fault History' screen with a 'Close' button in the top right. The table below lists the most recent faults.

Chain Link	Description	Date & Time
303-316-00	Communication Fault	2011/12/09 10:07:10
362-310-00	IISS / Scanner -Controller communication Fail	2011/12/02 13:18:03
303-316-00	Communication Fault	2011/11/29 17:06:54
362-310-00	IISS / Scanner -Controller communication Fail	2011/11/29 17:06:52
391-535-00	Print Head 1 right jet heater too hot	2011/11/18 08:02:14
362-310-00	IISS / Scanner -Controller communication Fail	2011/11/15 16:26:55

5. Select the desired [Chain-Link](#) and select [Details](#) to view the fault detail.



The screenshot shows the 'dc122 Fault History' screen with the 'Print Head 1 right jet heater too hot' fault selected. A context menu is visible with 'Details...' and 'Close Menu' options.

Chain Link	Description	Date & Time
372-101-00	LE Late At Feed	2011/11/15 14:41:10
389-106-00	MP Sensor 8 LE Timeout	2011/11/15 14:40:35
372-101-00	LE Late At Feed	2011/11/15 14:40:31
303-777-00	Power Loss Detected	2011/11/15 10:41:43
391-535-00	Print Head 1 right jet heater too hot	2011/11/13 08:02:16
303-777-00	Power Loss Detected	2011/11/10 0

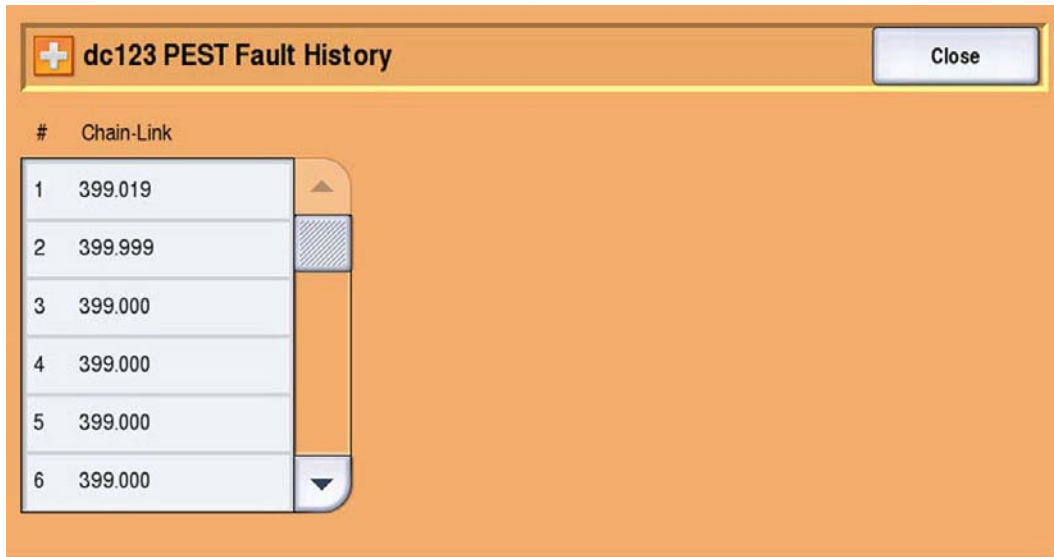
6. A [Details](#) screen is displayed.
7. Touch [Close](#) to return to [dc122 Fault History](#) screen.
8. Touch [Close](#) to return to the [Service Info](#) menu.



## dc123 PEST Fault History

The dc123 PEST Fault History display the "PEST Error log". PEST errors identify all faults (categorized as hard PEST faults) and abnormalities (categorized as soft PEST faults).

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Service Info**.
3. Touch **dc123 PEST Fault History**.
4. A **dc123 PEST Fault History** screen is displayed containing # and [Chain-Link](#) information.
5. Touch **Close** to return to the [Service Info](#) menu.

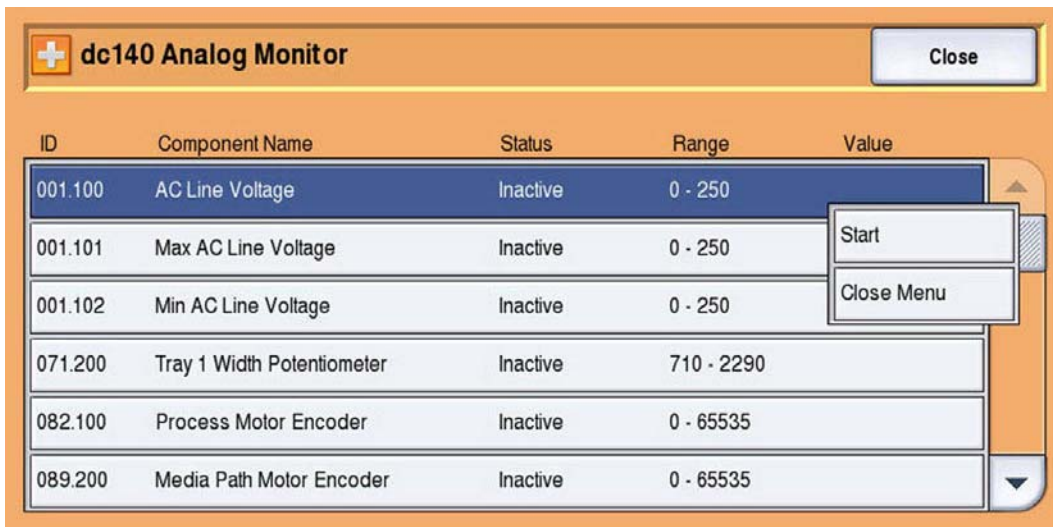


## Diagnostics

### dc140 Analog Monitor

The dc140 Analog Monitor monitors one or more analog inputs for diagnostic troubleshooting. When monitoring is active, the current value is displayed with the nominal range of the analog value. The values are updated at least every second to allow the component state to be monitored. [Table 1 - dc140](#) on page 2-37 lists the detail information for the chain links and components.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Service Info](#).
3. Touch [dc140 Analog Monitor](#).
4. A dc140 Analog Monitor is displayed. Information includes:
  - ID
  - Component Name
  - Status
  - Range
  - Value
5. Select a desired component name and select [Start](#) to begin the test.





6. The result is displayed in the **Value** column.
7. Touch **Close** to return to the **Service Diagnostics** menu.

The screenshot shows a software window titled "dc140 Analog Monitor" with a "Close" button in the top right corner. Below the title bar is a table with the following data:

ID	Component Name	Status	Range	Value
001.100	AC Line Voltage	Active	0 - 250	117 Volts
001.101	Max AC Line Voltage	Inactive	0 - 250	
001.102	Min AC Line Voltage	Inactive	0 - 250	
071.200	Tray 1 Width Potentiometer	Inactive	710 - 2290	
082.100	Process Motor Encoder	Inactive	0 - 65535	
089.200	Media Path Motor Encoder	Inactive	0 - 65535	

Table 1 - dc140

Chain Link	Description	Min.	Max.	Comment
001.100	AC Line Voltage	0	250	Current AC line voltage
001.101	Max AC Line Voltage	0	250	Maximum AC Line Voltage measured
001.102	Min AC Line Voltage	0	250	Minimum AC Line Voltage measured
071.200	Tray 1 Width Potentiometer	710	2290	Value = 1/10 mm
082.100	Process Motor Encoder	0	65535	Ticks = encoder ticks
089.200	Media Path Motor Encoder	0	65535	Ticks = encoder ticks
093.101	Yellow Ink Load Sensors	1000	1111	Represents value of 4 binary sensors A, B, C and D A = 1
093.102	Cyan Ink Load Sensors	1000	1111	Represents value of 4 binary sensors A, B, C and D A = 1
093.103	Magenta Ink Load Sensors	1000	1111	Represents value of 4 binary sensors A, B, C and D A = 1
093.104	Black Ink Load Sensors	1000	1111	Represents value of 4 binary sensors A, B, C and D A = 1
094.100	Y Motor Encoder	0	65535	Ticks = encoder ticks

## dc312 Network Echo Test

The dc312 Network Echo Test verifies the connectivity of the printer on the attached network and test the network drivers on the printer.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Diagnostics**.
3. Touch **dc312 Network Echo Test**.
4. A [Network Echo Test](#) screen is displayed.
5. Select a desired Protocol to test ([TCP/IP](#), [Novell or IPX](#), or [Apple Talk](#)).
6. Touch **Start Test** to begin the test.
7. A message is displayed when the test is completed.
8. Touch **Close** to return to the [Service Diagnostics](#) menu.



## dc330 Component Control

The dc330 Component Control is used to test subsystems and discrete components of the printer and attached options. Two component types are defined:

- Inputs: Sensors, Switches, and Motor Encoders
- Outputs: Motors, Solenoids, Clutches, Lamps (e.g. LED's) and heaters.

Output and input component control 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.

### Notes:

- To check the operation of motor encoders, line voltages, and the Tray 1 width potentiometer, refer to [dc140 Analog Monitor](#) on page 2-36.
- Some multiple components can be tested simultaneously.



**CAUTION:** Check the [Component Control Codes \(add additional Chain Links for Final Review\)](#) on page 2-42 for components that will damage the printer if run together.

### Input Components

When the appropriate code is entered, the status of the component will be shown on the Control Panel.

**Note:** The logic level shown on the circuit diagrams with the signal name will be the actual signal as measured with a service meter. This will not necessarily be the same as the logic state shown on the Control Panel, 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.

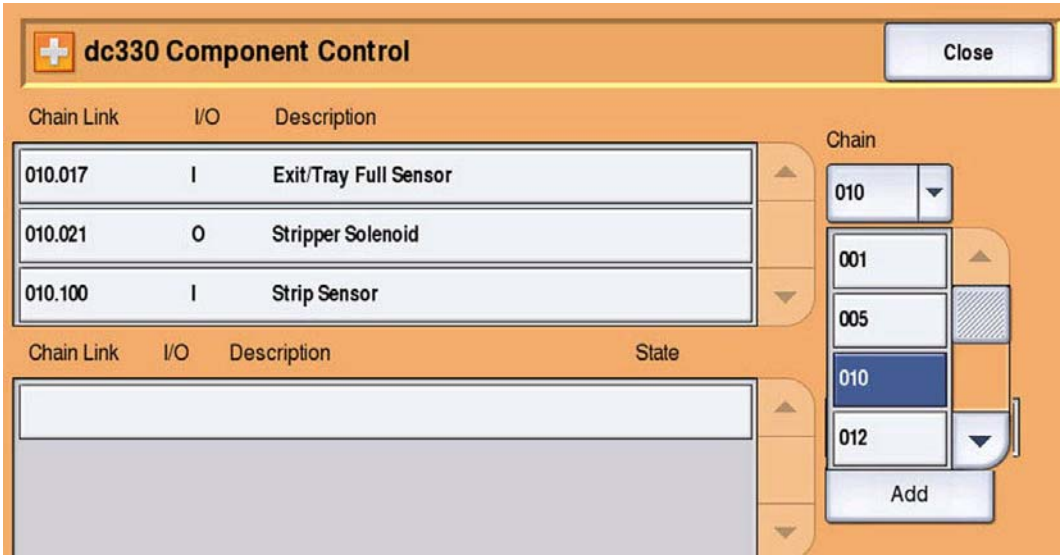
### Output Components

When the appropriate code is entered, the component will run or energize for a set time. The default time-out 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 energize at the same time. It is possible to enter and run or energize up to six component control codes (not fax), but only in permitted groups. If illegal combination of codes are entered, the components will not run or energize.

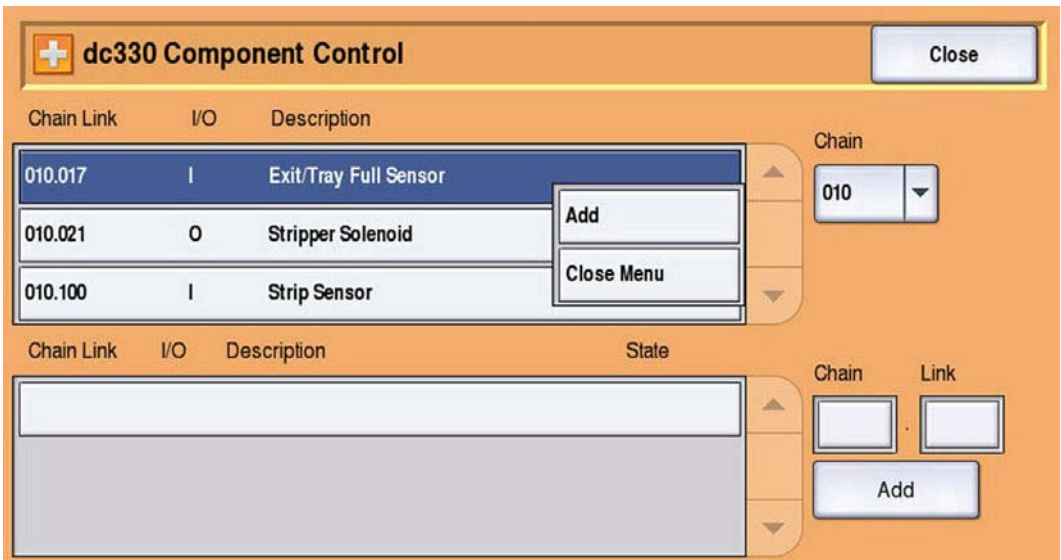
### Procedure

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Diagnostics](#).
3. Touch [dc330 Component Control](#).
4. A [dc330 Component Control](#) screen is displayed. Information includes:
  - Chain Link
  - I/O (Input or Output)
  - Description

5. To select or enter the component control code.
  - If the component control code is not known:
    - a. From the **Chain** drop-down list, select the **Chain number**.
    - b. Touch **Add**.

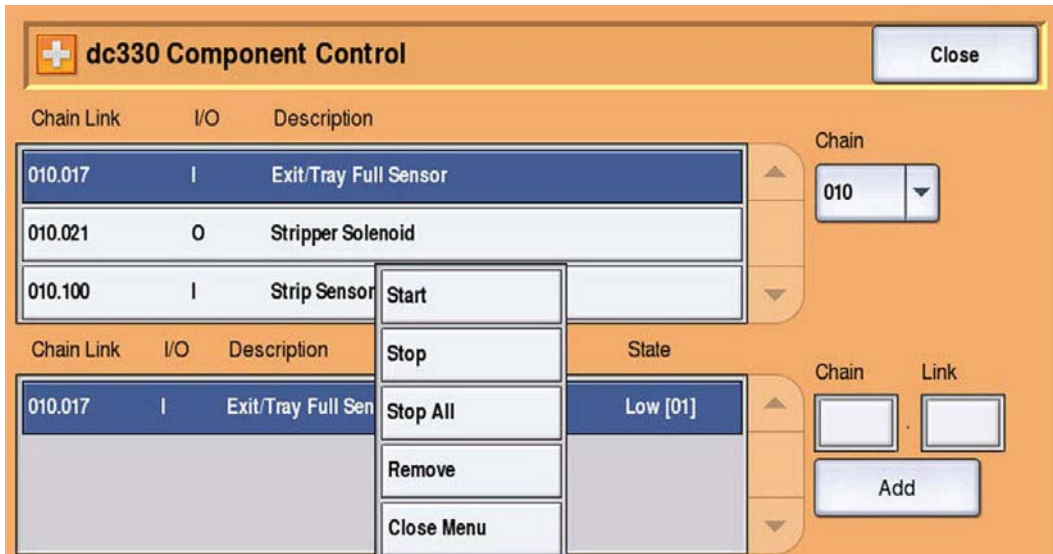


- a. Select the component for testing.
- b. Touch **Add**.



- If the required component control code is known:
- a. Touch the **Chain** field and enter **3 digit chain number** using the numeric key pad.
  - b. Touch the **Link** field and enter the required **link number** using the numeric key pad.
  - c. Touch **Add**.

6. Touch **Start** to perform the test.
7. The value is displayed in the **State** column.
8. Touch **Stop** to end the test.
9. Touch **Close** to return to the **Diagnostics** menu.



**Note:** Sensor, Motor, Clutch, and Solenoid test results appear as On or Off states. The test also allow audible and visual confirmation of operation where applicable. Refer to the [Component Control Codes \(add additional Chain Links for Final Review\)](#) on page 2-42 for specific details of each test.

- [Table 1 - Print Engine](#) on page 2-42
- [Table 2 - DADF/ Scanner](#) on page 2-48
- [Table 3 - Finisher](#) on page 2-49

## Component Control Codes (add additional Chain Links for Final Review)

Table 1 - Print Engine

Chain Link	I/O	Description	Description of State
001.100	I	Top Left Door Interlock	High/ Low (closed)
010.017	I	Exit/Tray Full Sensor	High/ Low (closed)
010.021	O	Stripper Solenoid	On/ Off
010.100	I	Strip Sensor	High/ Low (closed)
042.065	O	Electronics Fan Motor	On/ Off
071.001	O	Tray 1 Pick Solenoid	On/Off
071.100	I	Tray 1 Paper Present Sensor	High/ Low (closed)
072.001	O	Tray 2 Pick Clutch	On/ Off
072.002	O	Tray 2 Tray Lift Motor	On/ Off
072.100	I	Tray 2 Paper Present Sensor	High/ Low
072.101	I	Tray 2 Tray Lift Sensor	High/ Low
072.102	I	Tray 2 Left Side Door Open Sens	High/ Low (closed)
072.321	I	Tray 2 Paper Size Switch 1	High/ Low
072.322	I	Tray 2 Paper Size Switch 2	High/ Low
072.323	I	Tray 2 Paper Size Switch 3	High/ Low
072.324	I	Tray 2 Paper Size Switch 4	High/ Low
072.325	I	Tray 2 Paper Size Switch 5	High/ Low
073.001	O	Tray 3 Pick Clutch	On/ Off <i>Note:</i> Pick Clutch for HCF 525 in Tray 3 position.
073.003	O	Tray 3 Feed Motor	On/ Off <i>Note:</i> Feed Motor for HCF 525 in Tray 3 position.
073.011	O	Tray 3 Pick Clutch	On/ Off <i>Note:</i> Pick Clutch for HCF 1800 in Tray 3 position.
073.013	O	Tray 3 Feed Motor	On/Off <i>Note:</i> Feed Motor for HCF 1800 in Tray 3 position.

Table 1 - Print Engine (Continued)

Chain Link	I/O	Description	Description of State
073.100	I	Tray 3 Paper Empty Sensor	1 = Empty 0 = Not empty <b>Note:</b> Paper Empty Sensor for HCF 525 in Tray 3 position.
073.101	I	Tray 3 Elevator Top Sensor	1 = Top 0 = Bottom <b>Note:</b> Elevator Top Sensor for HCF 525 in Tray 3 position.
073.102	I	Tray 3 Left Side Door Open Sensor	High/ Low <b>Note:</b> Left Side Door Open Sensor for HCF 525 in Tray 3 position.
073.103	I	Tray 3 Feed Sensor	1 = Paper detected 0 = Paper not detected <b>Note:</b> Feed Sensor for HCF 525 in Tray 3 position.
073.200	I	Tray 3 Paper Empty Sensor	1 = Empty 0 = Not empty <b>Note:</b> Paper Empty Sensor for HCF 1800 in Tray 3 position.
073.201	I	Tray 3 Elevator Top Sensor	1 = Top 0 = Bottom <b>Note:</b> Elevator Top Sensor for HCF 1800 in Tray 3 position.
073.203	I	Tray 3 Feed Sensor	1 = Paper detected 0 = Paper not detected <b>Note:</b> Feed Sensor for HCF 1800 in Tray 3 position.
073.203	I	Tray 3 Feed Sensor	1 = Paper detected 0 = Paper not detected <b>Note:</b> Feed Sensor for HCF 1800 in Tray 3 position.
073.321	I	Tray 3 Paper Size Switch 1	High/ Low
073.322	I	Tray 3 Paper Size Switch 2	High/ Low
073.323	I	Tray 3 Paper Size Switch 3	High/ Low
073.324	I	Tray 3 Paper Size Switch 4	High/ Low
073.325	I	Tray 3 Paper Size Switch 5	High/ Low

**Table 1 - Print Engine (Continued)**

Chain Link	I/O	Description	Description of State
074.001	O	Tray 4 Pick Clutch	On/ Off <b>Note:</b> Pick Clutch for HCF 525 in Tray 4 position.
074.003	O	Tray 4 Feed Motor	On/ Off <b>Note:</b> Feed Motor for HCF 525 in Tray 4 position.
074.011	O	Tray 4 Pick Clutch	On/ Off <b>Note:</b> Pick Clutch for HCF 1800 in Tray 4 position.
074.013	O	Tray 4 Feed Motor	On/ Off <b>Note:</b> Feed Motor for HCF 1800 in Tray 4 position.
074.100	I	Tray 4 Paper Empty Sensor	1 = Empty 0 = Not empty <b>Note:</b> Paper Empty Sensor for HCF 525 in Tray 4 position.
074.101	I	Tray 4 Elevator Top Sensor	1 = Top 0 = Bottom <b>Note:</b> Elevator Top Sensor for HCF 525 in Tray 4 position.
074.102	I	Tray 4 Left Side Door Open Sensor	1 = Door open 0 = Door closed <b>Note:</b> Left Side Door Open Sensor for HCF 525 in Tray 4 position.
074.103	I	Tray 4 Feed Sensor	1 = Paper detected 0 = Paper not detected <b>Note:</b> Feed Sensor for HCF 525 in Tray 4 position.
074.200	I	Tray 4 Paper Empty Sensor	1 = Empty 0 = Not empty <b>Note:</b> Paper Empty Sensor for HCF 1800 in Tray 4 position.
074.201	I	Tray 4 Elevator Top Sensor	1 = Top 0 = Bottom <b>Note:</b> Elevator Top Sensor for HCF 1800 in Tray 4 position.



Table 1 - Print Engine (Continued)

Chain Link	I/O	Description	Description of State
074.203	I	Tray 4 Feed Sensor	1 = Paper detected 0 = Paper not detected <b>Note:</b> Feed Sensor for HCF 1800 in Tray 4 position.
074.321	I	Tray 4 Paper Size Switch 1	High/ Low <b>Note:</b> Paper Size Switch 1 for HCF 525 in Tray 4 position.
074.322	I	Tray 4 Paper Size Switch 2	High/ Low <b>Note:</b> Paper Size Switch 2 for HCF 525 in Tray 4 position.
074.323	I	Tray 4 Paper Size Switch 3	High/ Low <b>Note:</b> Paper Size Switch 3 for HCF 525 in Tray 4 position.
074.324	I	Tray 4 Paper Size Switch 4	High/ Low <b>Note:</b> Paper Size Switch 4 for HCF 525 in Tray 4 position.
074.325	I	Tray 4 Paper Size Switch 5	High/ Low <b>Note:</b> Paper Size Switch 5 for HCF 525 in Tray 4 position.
075.001	O	Tray 5 Pick Clutch	On/ Off <b>Note:</b> Pick Clutch for HCF 525 in Tray 5 position.
075.003	O	Tray 5 Feed Motor	On/ Off <b>Note:</b> Feed Motor for HCF 525 in Tray 5 position.
075.011	O	Tray 5 Pick Clutch	On/ Off <b>Note:</b> Pick Clutch for HCF 1800 in Tray 5 position.
075.013	O	Tray 5 Feed Motor	On/ Off <b>Note:</b> Feed Motor for HCF 1800 in Tray 5 position.
075.100	I	Tray 5 Paper Empty Sensor	1 = Empty 0 = Not empty <b>Note:</b> Paper Empty Sensor for HCF 525 in Tray 5 position.
075.101	I	Tray 5 Elevator Top Sensor	1 = Top 0 = Bottom <b>Note:</b> Elevator Top Sensor for HCF 525 in Tray 5 position.

**Table 1 - Print Engine (Continued)**

Chain Link	I/O	Description	Description of State
075.102	I	Tray 5 Left Side Door Open Sensor	1 = Door open 0 = Door closed <b>Note:</b> Left Side Door Open Sensor for HCF 525 in Tray 5 position.
075.103	I	Tray 5 Feed Sensor	1 = Paper detected 0 = Paper not detected <b>Note:</b> Feed Sensor for HCF 525 in Tray 5 position.
075.200	I	Tray 5 Paper Empty Sensor	1 = Empty 0 = Not empty <b>Note:</b> Paper Empty Sensor for HCF 1800 in Tray 5 position.
075.201	I	Tray 5 Elevator Top Sensor	1 = Top 0 = Bottom <b>Note:</b> Elevator Top Sensor for HCF 1800 in Tray 5 position.
075.203	I	Tray 5 Feed Sensor	1 = Paper detected 0 = Paper not detected <b>Note:</b> Feed Sensor for HCF 1800 in Tray 5 position.
075.321	I	Tray 5 Paper Size Switch 1	High/ Low <b>Note:</b> Paper Size Switch 1 for HCF 525 in Tray 5 position.
075.322	I	Tray 5 Paper Size Switch 2	High/ Low <b>Note:</b> Paper Size Switch 2 for HCF 525 in Tray 5 position.
075.323	I	Tray 5 Paper Size Switch 3	High/ Low <b>Note:</b> Paper Size Switch 3 for HCF 525 in Tray 5 position.
075.324	I	Tray 5 Paper Size Switch 4	High/ Low <b>Note:</b> Paper Size Switch 4 for HCF 525 in Tray 5 position.
075.325	I	Tray 5 Paper Size Switch 5	High/ Low <b>Note:</b> Paper Size Switch 5 for HCF 525 in Tray 5 position.
082.001	O	Move Head Carriage to Standby	On/ Off <b>Note:</b> Move Head carriage to standby position.

Table 1 - Print Engine (Continued)

Chain Link	I/O	Description	Description of State
082.002	O	Move Head Carriage to Home	On/ Off <b>Note:</b> Move Head carriage to home (print) position.
082.003	O	Paper Path Motor	On/ Off
089.010	O	Deskew Clutch	On/ Off
089.011	O	Preheater Solenoid Wide Path Position	On/ Off <b>Note:</b> The Solenoid is a push/pull type which is activated for 600 msec to set the width to wide path. State will change from On to Off after 2 seconds.
089.012	O	Preheater Solenoid Narrow Path Position	On/ Off <b>Note:</b> The Solenoid is a push/pull type which is activated for 600 msec to set the width to narrow path. State will change from On to Off after 2 seconds.
089.100	I	PreDeskew Sensor	HIGH with paper, LOW without paper
089.101	I	Deskew Sensor	HIGH with paper, LOW without paper
089.102	I	Preheat Exit Sensor	HIGH with paper, LOW without paper
091.001	O	X-Axis Motor	On/ Off <b>Note:</b> Runs Motor to stall towards front, then moves away. Cycle takes about 5 seconds to complete.
091.010	O	Head Maintenance Clutch	On/ Off
091.011	O	Head Tilt Solenoid	On/ Off
091.019	I	Waste Tray Present Sensor	High/ Low
093.001	O	Ink Load Door Open	On/ Off <b>Note:</b> Moves the Ink Load Yoke right and opens the Ink Load Door.
093.002	O	Purge Pump Motor	On/ Off <b>Note:</b> Runs Purge Pump Motor briefly.
093.010	O	Purge Valve Solenoid	On/ Off <b>Note:</b> To be able to hear this Solenoid it is cycled on (600ms) and off (600ms) for 10 seconds.
093.025	I	Ink Load Door Sensor	High/ Low
093.110	I	Ink Load Yoke Right Sensor	High/ Low

Table 1 - Print Engine (Continued)

Chain Link	I/O	Description	Description of State
093.111	I	Ink Load Yoke Left Sensor	High/Low
094.001	O	Y-Axis Motor Forward Slow Speed	On/ Off <b>Note:</b> Runs the Y-Axis Motor in the forward direction at slow speed. (600 mm/sec).
094.002	O	Y-Axis Motor Forward Fast Speed	On/ Off <b>Note:</b> Runs the Y-Axis Motor in the forward direction at fast speed. (2314 mm/sec).
094.003	O	Y-Axis Motor Reverse Slow Speed	On/ Off <b>Note:</b> Runs the Y-Axis Motor in the reverse direction at slow speed. (600 mm/sec).
094.004	O	Y-Axis Motor Reverse Fast Speed	On/ Off <b>Note:</b> Runs the Y-Axis Motor in the reverse direction at fast speed. (2314 mm/sec).

Table 2 - DADF/ Scanner

Chain Link	I/O	Description	Description of State
005.062	O	DADF Feed Clutch	On/ Off
005.074	O	DADF Feed Motor	On/ Off
005.099	O	DADF CVT Motor	On/ Off
005.100	O	DADF Duplex Solenoid	On/ Off
005.106	I	DADF Top Cover Sensor	High/ Low <b>Note:</b> Determines whether the jam removal cover is open.
005.190	I	DADF Width Sensor 1	High/ Low <b>Note:</b> Determines sheet is A5 or not.
005.191	I	DADF Width Sensor 2	High/ Low <b>Note:</b> Determines sheet width either A4/B4 or Letter/A4/Legal.
005.192	I	DADF Length Sensor 1	High/ Low <b>Note:</b> Determines sheet Length is either A4/Legal or A5/B5/Letter.
005.193	I	DADF Length Sensor 2	High/ Low <b>Note:</b> Determines sheet Length is Legal or not.

Table 2 - DADF/ Scanner (Continued)

Chain Link	I/O	Description	Description of State
005.194	I	DADF Paper Presence Sensor	High/ Low <b>Note:</b> Determines whether sheet(s) exist on tray.
005.195	I	DADF Interval Sensor	High/ Low <b>Note:</b> Determines timing of CVT roller start and pick-up start for the next sheet.
005.196	I	DADF Scan Timing Sensor	High/ Low <b>Note:</b> Determines timing of scan start.
005.197	I	DADF Reverse Sensor	High/ Low <b>Note:</b> Determines when sheet will go into CVT roller again for duplex scan.
005.209	I	DADF Exit Sensor	High/ Low <b>Note:</b> Determines whether sheet is completely out of the Exit Roller.
062.018	I	Scanner Carriage Home Sensor	High/ Low
062.019	I	Scanner Platen Down Sensor	High/ Low
062.023	O	Scanner Carriage Move Home	On/ Off
062.024	O	Scanner Carriage Move Cal Strip	On/ Off
062.025	O	Scanner Carriage Move CVT	On/ Off

Table 3 - Finisher

Chain Link	I/O	Description	Description of State
012.001	O	ICT Diverter Solenoid	On/ Off <b>Note:</b> ICT Diverter Solenoid located on Horizontal Transport Assembly.
012.002	O	ICT Transport Feed Motor	On/ Off
012.003	O	Staple Jaw Motor	On/Off NOTE Staple Head Motor 1 cycle <b>Note:</b> Paper must be inserted in staple jaw for this test.
012.004	O	Clamp Motor Home	On/ Off <b>Note:</b> Clamp Motor moves to Home position.

Table 3 - Finisher (Continued)

Chain Link	I/O	Description	Description of State
012.005	O	Feed Motor	On/ Off <b>Note:</b> Paper Path Feed Motor
012.006	O	Stacker Motor Move Up	On/ Off <b>Note:</b> Stacker Bin Elevator Motor moves up.
012.007	O	Front Tamper Motor Move Home	On/ Off <b>Note:</b> Front Tamper Motor moves to Home position.
012.008	O	Rear Tamper Motor Move Home	On/ Off <b>Note:</b> Rear Tamper Motor moves to Home position.
012.009	O	Paddle Motor Move Home	On/ Off <b>Note:</b> Paddle Roll Motor moves to Home position.
012.010	O	Stacker Motor Move Down	On/ Off <b>Note:</b> Stacker Bin Elevator Motor moves down.
012.011	O	Front Tamper Motor Move Away	On/ Off <b>Note:</b> Front Tamper Motor moves to away position.
012.012	O	Rear Tamper Motor Move Away	On/ Off <b>Note:</b> Rear Tamper Motor moves to away position.
012.013	O	Clamp Motor Move Pre-Rotate	On/ Off <b>Note:</b> Clamp Motor moves to pre-rotate position.
012.014	O	Clamp Motor Move POP	On/ Off <b>Note:</b> Clamp Motor moves to POP position.
012.015	O	PNS Solenoid	On/Off <b>Note:</b> Pressing and Support Unit Solenoid
012.100	I	ICT Transport Paper Path Sensor	High/ Low
012.101	I	ICT Transport Present Sensor	High/ Low <b>Note:</b> ICT Transport Present Sensor - High if the ICT Transport Assembly is present.
012.102	I	ICT Exit Door Open Sensor	High/ Low
012.103	I	ICT Transport Cover Open Sensor	High/ Low

Table 3 - Finisher (Continued)

Chain Link	I/O	Description	Description of State
012.104	I	Tamper Front Home Sensor	High = Home Low = Not home
012.105	I	Tamper Rear Home Sensor	High = Home Low = Not home
012.106	I	Paper Detect Sensor	High = Paper Low = No paper
012.107	I	Entry Sensor	High = Paper Low = No paper
012.111	I	Clamp Home Sensor	High = Home Low = Not home
012.112	I	Paddle Home Sensor	High = Home Low = Not home
012.113	I	Stacker High Sensor	High = Flag detect Low = No flag detect
012.114	I	Stacker Encoder Sensor	High = Flag detect Low = No flag detect
012.115	I	Staple Ready Sensor	High = Detect priming Low = Not detect priming <b>Note:</b> Staple Self Priming Sensor
012.116	I	Staple Home Sensor	High = Home Low = Not home
012.117	I	Staple Pin Sensor	High = Pin empty Low = Pin not empty
012.118	I	Stacker Upper Limit Switch	High = Paper Low = No paper
012.119	I	Stacker Down Limit Switch	High = Switch pressed Low = Switch not pressed
012.120	I	Cover Interlock Switch	High = Closed Low = Open
012.121	I	Staple Cover Switch	High = Closed Low = Open
012.122	I	Jam Cover Switch	High = Closed Low = Open
012.130	I	ICT Paper Full Sensor	High/ Low
012.131	I	ICT Transport Sensor 1	High/ Low

Table 3 - Finisher (Continued)

Chain Link	I/O	Description	Description of State
012.140	I	SCT Present Sensor	High = Present Low = Not present
012.141	I	Stacker Present Sensor	High = Present Low = Not present



## dc335 Heater Monitor and Exerciser

The dc335 Heater Monitor and Exerciser allows the heater systems of the printer to be run in specified modes and to measure the temperature of those systems. The system include the following components:

- **Print Head** - Operation of the reservoir and Jetstack Heaters for each thermal setpoint on the Print Head.
- **Drum** - Operation of the drum surface heater.
- **Preheat Assembly** - Operation of the Preheat Assembly.
- **Ink** - Operation of the Ink Loader Melt Plates.

dc335 generates a graph showing the temperature of the chosen component against the target temperature.

The term setpoint mode is used to describe the printer mode which defines the temperature of the heater being exercised. The four modes are:

- **Ready** - The heaters will run at the same operational temperature as printing copies.
- **Low** - Heaters running at low temperature mode. Used to conserve electrical power while still being able to quickly return to Ready/ Standby.
- **Sleep** - Very conservative heater low temperature mode. Keeping only the Print Heads slightly warm while the rest of the printer is allowed to cool to room temperature.
- **Off** - Heaters are turned Off (setpoint mode value = ambient temperature)

The temperature for each component with the associated setpoint modes are listed in [Table 1 - Setpoint Temperature](#) on page 2-53.

**Table 1 - Setpoint Temperature**

Component	Setpoint Ready	Setpoint Low	Setpoint Sleep	Setpoint Off
Print Head Reservoir	115° C	108° C	95° C	Ambient
Print Head Left Jetstack	116° C	107° C	95° C	Ambient
Print Head Right Jetstack	116° C	107° C	95° C	Ambient
Drum	60° C	52° C	Ambient	Ambient
Preheater	60° C	45° C	Ambient	Ambient

The Ink Melt Plate Heaters only have options for On and Off as listed in [Table 2 - Ink Melt Temperature](#) on page 2-54.

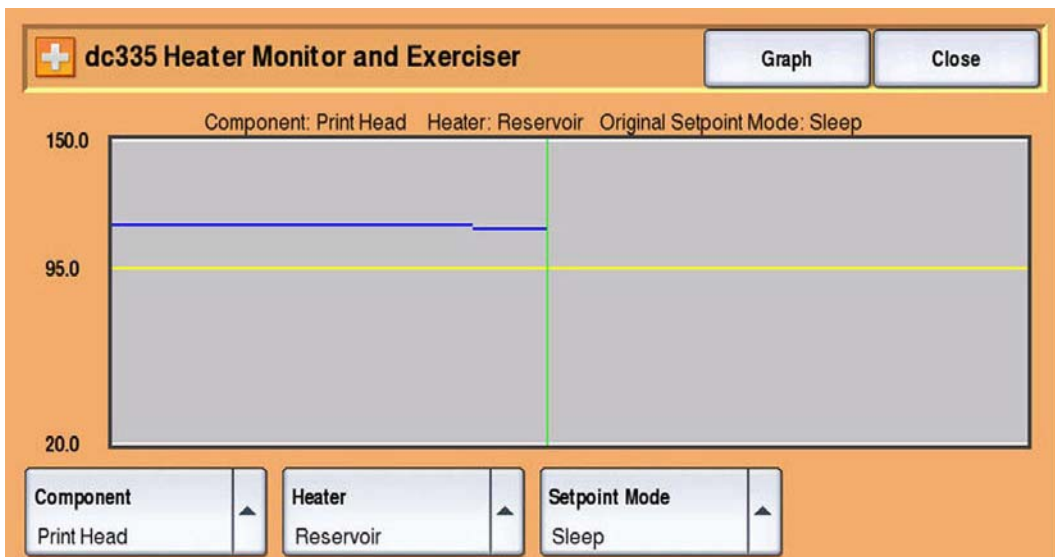
**Table 2 - Ink Melt Temperature**

Component	Setpoint Ready	Setpoint Low
Ink Melt Y	110° C	Ambient
Ink Melt M	110° C	Ambient
Ink Melt C	110° C	Ambient
Ink Melt K	110° C	Ambient

**Note:** The Ink Melt Heater Setpoint Mode for On is displayed as 110° C. This is a target temperature only. The Heater will turn On for a few seconds each time it is activated. It is not intended to reach 110 degrees. Due to the risk of overflow if the ink melt is continuously activated the software will ignore the command.

**Procedure**

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Diagnostics**.
3. Touch **dc335 Heater Monitor and Exerciser**.
4. A **dc335 Heater Monitor and Exerciser** screen is displayed. Information includes:
  - **Component** - includes *Print Head, Drum, Pre Heater, Ink Melt*
  - **Heater** - includes *Reservoir, Left Jetstack, Right Jetstack*
  - **Setpoint Mode** - includes *Off, Sleep, Low, Ready*
5. Select the desired component to test.
6. Touch **Graph** to start the process.
7. Touch **Close** to return to the Diagnostics menu.



## dc612 Print Test Pattern

The dc612 Print Test Patterns routine provides access to embedded test prints for troubleshooting image quality and media transport problems. Options include number of prints, source tray and simplex or duplex printing.

**Note:** In most instances, the recommended paper size is Letter/A4, but the test can be run from all trays, paper sizes or paper types.

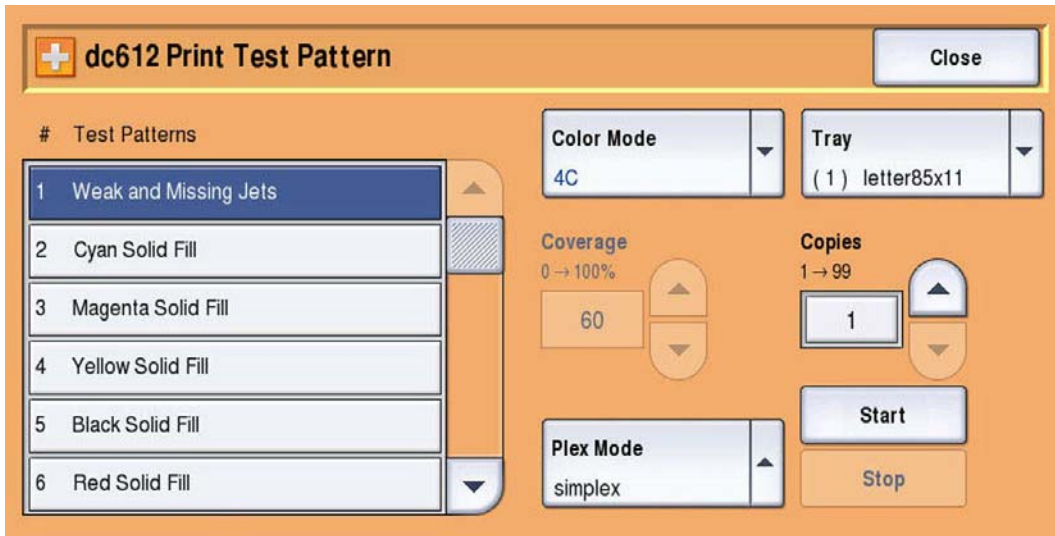
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Diagnostics**.
3. Select **dc612 Print Test Pattern**.



4. A [dc612 Print Test Pattern](#) screen is displayed.
5. Select a test pattern from the list.
  - Weak and Missing Jets
  - Cyan Solid Fill
  - Magenta Solid Fill
  - Yellow Solid Fill
  - Black Solid Fill
  - Red Solid Fill
  - Green Solid Fill
  - Blue Solid Fill
  - White Solid Fill
  - C,M,Y,K,R,G,B Solid Fills
  - Chase Page
  - Skew/Margin Test Print
  - Cleaning Page (Mud Page)
  - Light Stripes Page
  - Service Usage Profile

6. Make the necessary adjustments ([Color Mode](#), [Tray](#), [Coverage](#), [Plex Mode](#), [Copies](#)).
7. Touch **Start** to print the page(s).
8. Touch **Close** to return to the [Diagnostics](#) menu.

**Note:** Defects revealed by the prints may not occur in the course of ordinary printing. In servicing the system, you should minimize the defects shown by the prints but not necessarily eliminating them.



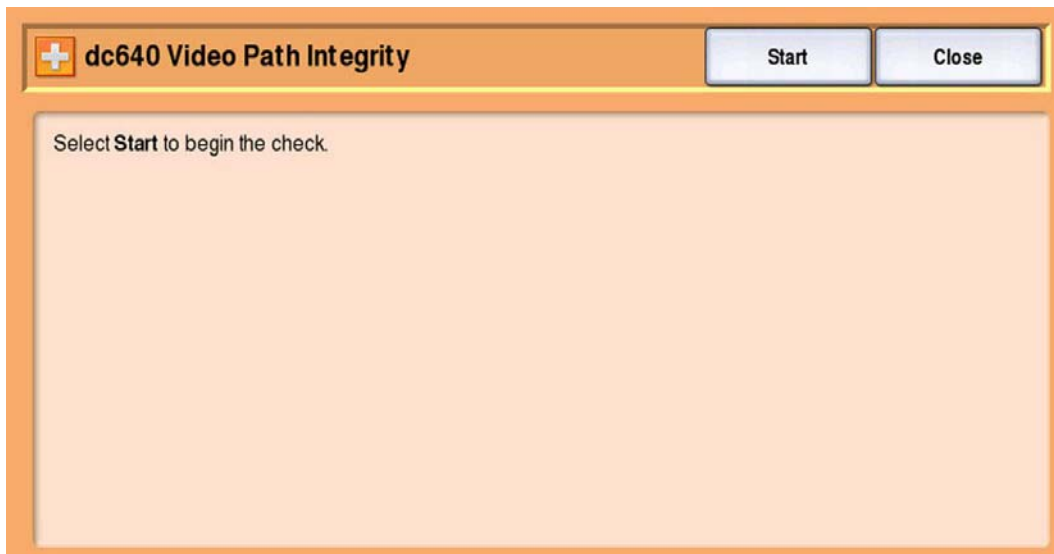
## dc640 Video Path Integrity

The dc640 Video Path Integrity validates the Copy Controller Module (CCM) Video path.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Diagnostics**.
3. Touch **dc640 Video Path Integrity**.
4. A **dc640 Video Path Integrity** screen is displayed.
5. Touch **Start** to begin the test.
6. An **In Progress** screen is displayed.

During the test, the printer performs the following check:

- a. A golden test pattern is held within the printer. This pattern is not a printable image, but is data that is used as a standard for comparison to data generated by, and transmitted through the printer.
  - b. A test pattern is generated and transferred to the Electronic pre-collated (EPC) memory. This test pattern is compared to the golden test pattern for verification.
  - c. An image is then transferred from EPC to the copy control PWB. The image is then compared to the test pattern.
7. At the end of the test, a Pass/Fail result is returned on the Control Panel.
  8. When the test is complete, touch **Close** to return to the **dc640 Video Path Integrity** screen.
  9. Touch **Close** to return to the **Diagnostics** menu.



## dc959 Cleaning Unit Exerciser

The dc959 Cleaning Unit Exerciser allows service technicians to troubleshoot problems with Drum cleaning, lubrication, copy quality, and paper handling. The Cleaning Unit Exerciser tests provides the following features:

- To cycle and observe operation of the cleaning unit while in the normal installed position.
- To operate Drum cleaning in slow speed mode for difficult to observe problems.
- To print specific test patterns to diagnose problems related to Drum maintenance.

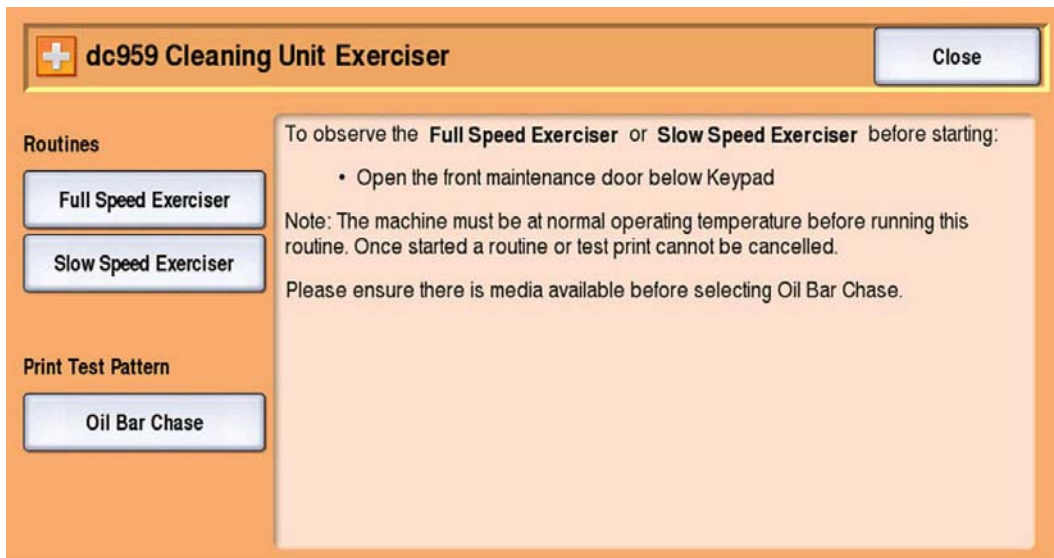
**Note:** Follow the instructions on screen before starting these routines. The Cleaning Unit must be installed before running the self test.

### Procedure

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Diagnostics**.
3. Touch **dc959 Cleaning Unit Exerciser**.
4. A **dc959 Cleaning Unit Exerciser** screen is displayed.
5. Select the Exerciser speed (Slow or Full).
  - **Full Speed Exerciser** - The Drum rotates for 1 complete DMU cycle.
  - **Slow Speed Exerciser** - The Drum rotates for 2 complete DMU cycles.

**Note:** Before printing the test pattern, ensure that A4 or 8.5 x 11 inch plain paper is loaded. Use the best quality media available. Do not use hole punched paper.

6. To print the Oil Bar Chase, touch **Oil Bar Chase**.
7. Touch **Close** to return to the **Diagnostics** menu.



## dc962 Transfix Load Test

The dc962 Transfix Load Test provides a simplified method to troubleshoot the transfix load system. Each test will be run in the correct sequence and report the results (fault code and description). The test includes:

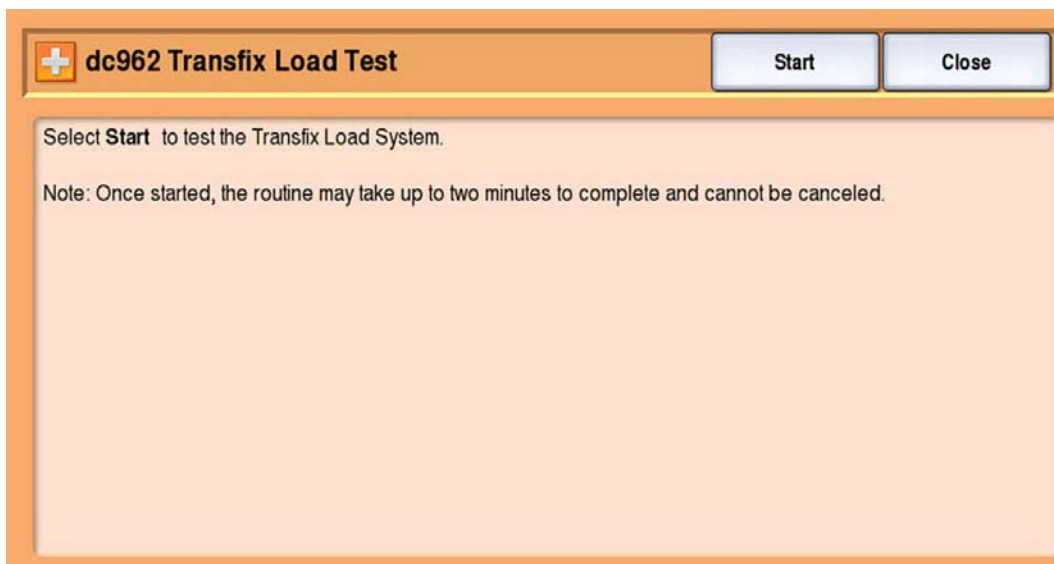
- Home the Transfix Load system and verify the position (approximately 2 seconds to complete)
- Load Transfix system - Record load of the Transfix front and rear (approximately 30 seconds to complete)
- Unload Transfix system - Record unload of the Transfix front and rear (approximately 30 seconds to complete)

### Notes:

- The Transfix Load test does not run media as part of the test. If a fault has been indicated while printing, but that fault cannot be replicated when running this test, then a media related problem may be indicated.
- The Transfix Load test may return no failure results even when a Transfix Load issue is present. Print quality, noise or other symptoms may not be captured by this test.

### Procedure

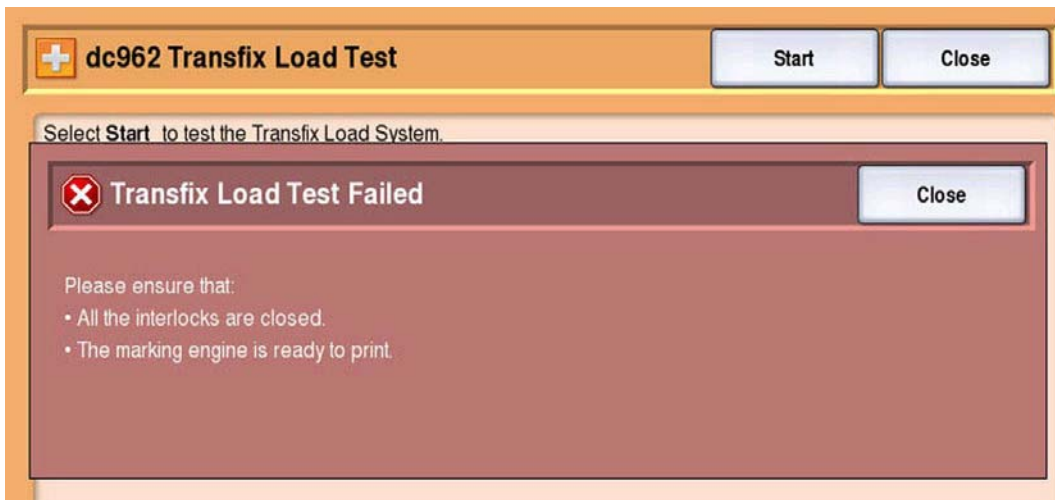
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Diagnosics**.
3. Scroll down the Diagnostic Routines menu and touch **dc962 Transfix Load Test**.
4. A **dc962 Transfix Load Test** screen is displayed.
5. Touch **Start** to begin the test.



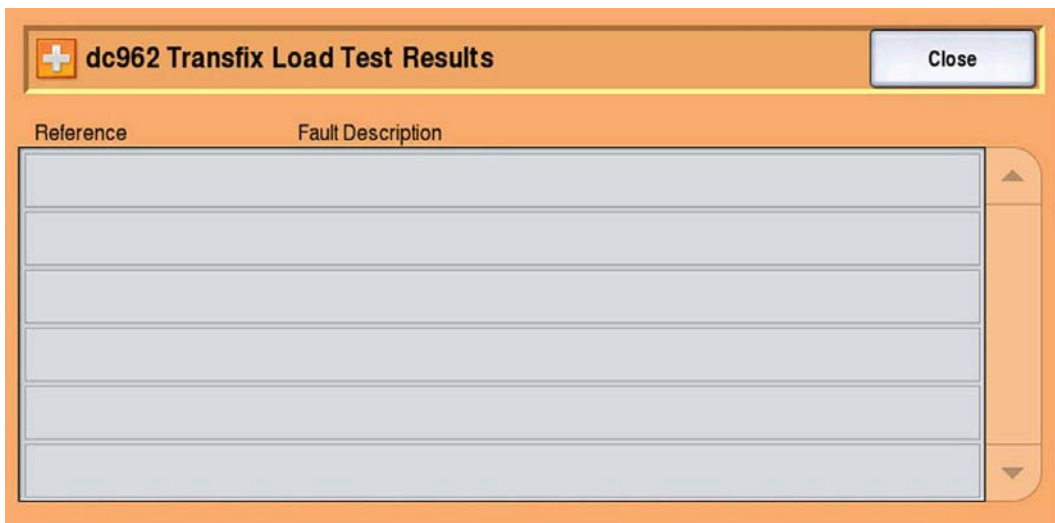
6. An **In Progress** screen is displayed.
7. On completion of the test, the results table is displayed.

Reference	Fault Description
394.526	Y-Axis Stall Fault
394.558	DM Timing Error
394.700	DM fix Homing Error
394.702	Process Drive Stall Fault

- If errors are indicated, go to Transfix Error Troubleshooting RAPs ([394.700 - Process Drive Fault](#) on page 2-334, [394.701 & 394.702 - Process Drive Fault](#) on page 2-337) after exiting Service Diagnostics mode.



- Touch **Close** to return to the [dc962 Transfix Load Test](#) screen.
- Touch **Close** to return to the [Diagnostics](#) menu.





## Adjustments

The Adjustments procedures contain information for how to adjust and calibrate various components of the printer. The listed adjustment procedures are available through the Customer Menu and Service Diagnostics.

- [ADJ 1.6 Document Feeder Registration](#) on page 6-44
- [ADJ 1.7 Document Glass Registration](#) on page 6-47

## dc131 NVM Read/ Write



**CAUTION:** Be careful when making changes to the NVM value. Always write down the original NVM value (for reference) prior to making any changes. Incorrect changes to an NVM value could make the printer inoperable. For NVM value, refer to the NVM Value tables in the [Reference](#) on page A-1.

The dc131 NVM Read/Write routine provides access to read and modify specific NVM values within the printer configuration and control parameters stored in NVM.

### Notes:

- This does not include customer administration or accounting data. These are accessible from the billing facility, refer to the User Guide.
- Each NVM item is identified using an NVM ID and NVM index numbers in the form XXX-XXX, where XXX- is the ID prefix, and -XXX is the NVM ID. Index numbers range from 0 to 999. Refer to the NVM Value tables in the [Reference](#) on page A-1 for comprehensive information.

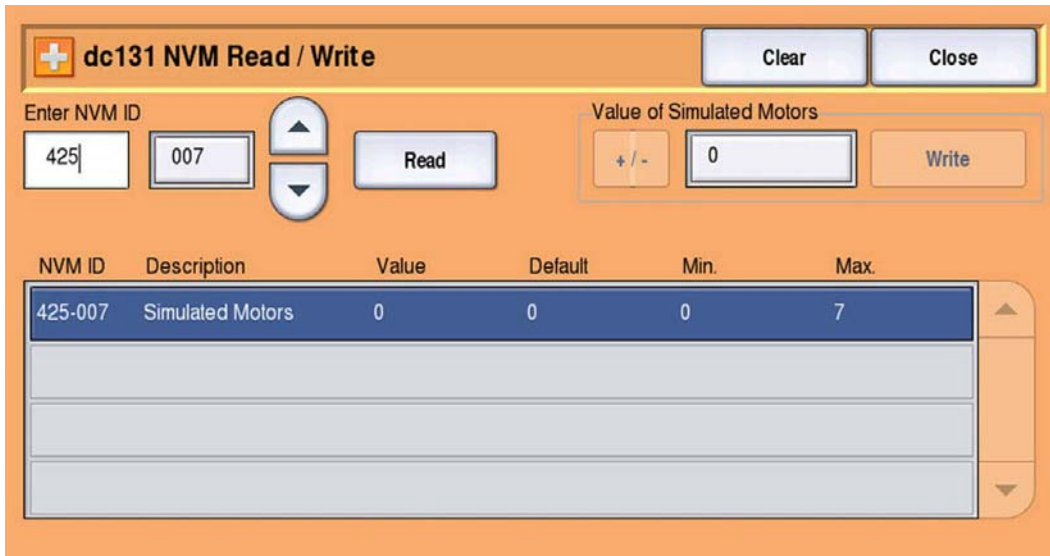
### Procedure

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Adjustments](#).
3. Touch [dc131 NVM Read/ Write](#).
4. A [dc131 NVM Read/ Write](#) screen is displayed.

### Reading NVM Value

1. In the left [Enter NVM ID](#) field, enter the [NVM ID](#) value.
2. In the right [Enter NVM ID](#) field, enter the [NVM INDEX](#) value.
3. Touch [Read](#) to begin the process.
4. The NVM information is displayed in the table.
  - NVMs will be added to the table, if not already in the table.
  - The most recent read NVM will be highlighted in the table.
  - The value of the NVM will be displayed in the Value field.
  - The Value field will only enable when there is a highlighted row in the table.

- When the NVM value has been read successfully, a NVM Read completed successfully message is displayed.

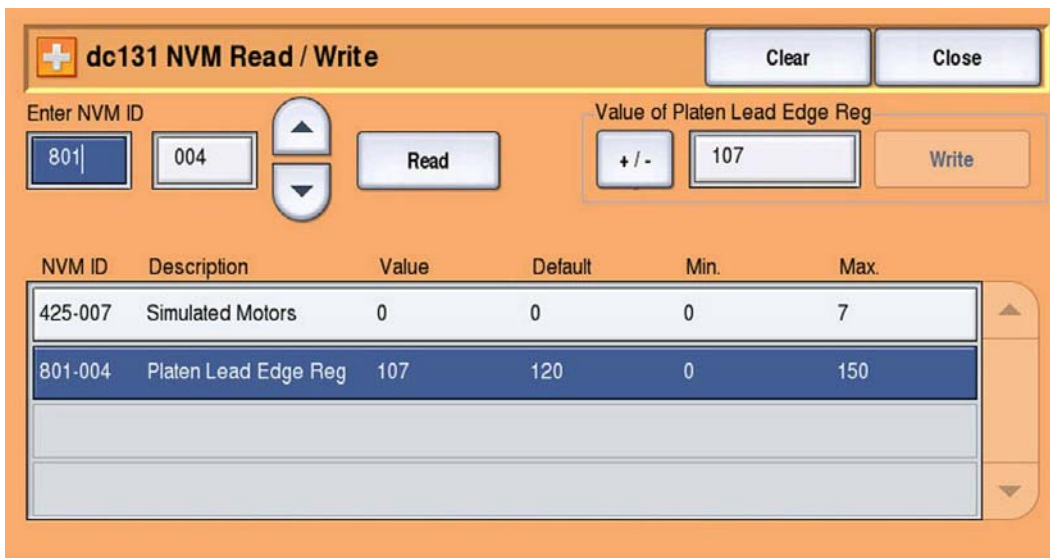


### Writing NVM Value

- Perform [Reading NVM Value](#) on page 2-61.

**Note:** The Write button will not be accessible if the Value field is the same as the current value.

**Example:** Same Value - (107 and 107)



**Example:** Same Value - (-107 and 107)


NVM ID	Description	Value	Default	Min.	Max.
425-007	Simulated Motors	0	0	0	7
801-004	Platen Lead Edge Reg	107	120	0	150

2. Touch **+/-** to toggle the value to positive or negative.
3. In the value field, enter the desired value.
4. Touch **Write** to perform the NVM Write routine.
5. A **Write in process... message** is displayed.
6. An **NVM ID updated successfully message** is displayed when an NVM value has been updated.

#### Clearing NVM Display Table

1. On the Control Panel, touch **Clear** to clear all data.
2. This process removes all the currently displayed NVM values from the table.
3. Touch **Close** to return to the **Adjustments** menu.

## dc301 NVM Initialization

 **CAUTION:** Use the NVM Initialization procedure as a last option when servicing the ColorQube 8700/8900 printer.

The dc301 NVM Initialization routine allows the user to reset the NVM value to default value or all applicable NVM within a specified service or module. Multiple services and/or modules may be initialized by a single request.

Following an NVM initialization, the printer is unable to communicate on the network and has lost several parameters specific to the customer's configuration. If possible, print a Configuration page to capture networking parameters. and discuss the customer's configuration to document these settings before resetting NVRAM.

The three machine domains are:

- Copier
- Network Controller
- Fax

### Notes:

- Copier NVM initialization will reset the system controller and the NVM values.
- The Network Controller does not contain any NVM values that are accessible by the NVM features. There is no NVM initialization for the Network Controller.

Three types of initialization are:

- **User Data** - The data which defines the way the customer prefers that the equipment operates (i.e. customer preference, SA/KO settings, configuration).
- **System Data** - The data which defines the way the equipment operates in relation to its environment (i.e. machine variables).
- **All Data** - The additional data (on top of System and User data) which may be initialized without significantly impacting the printer operation. (i.e. machine variables, SA/KO settings, Fault log).

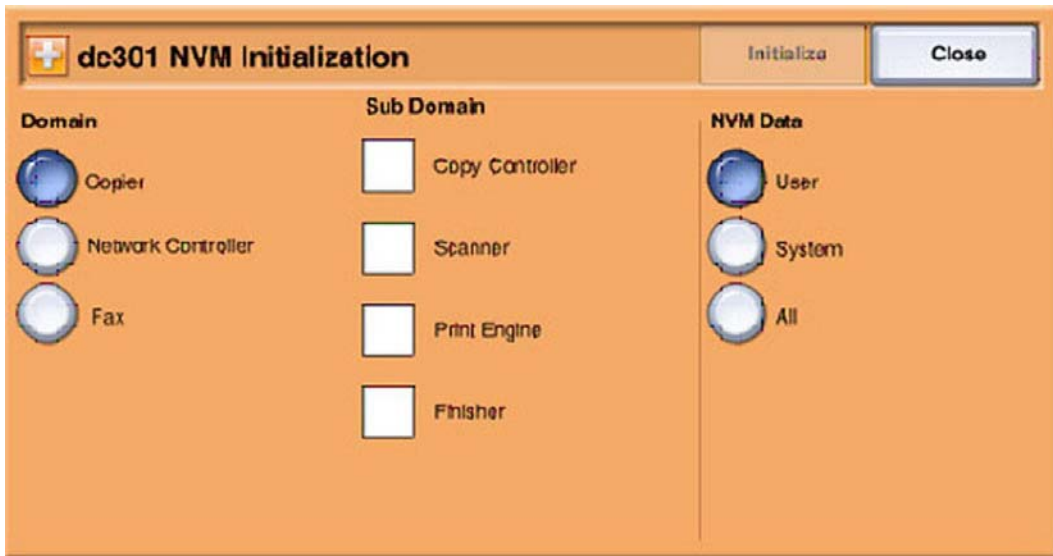
### Copier NVM Initialization

The Copier NVM Initialization resets specific printer variable NVM or all printer variable NVM non-volatile memory (with the exception of Protected NVM for which a password is required) to their default values.

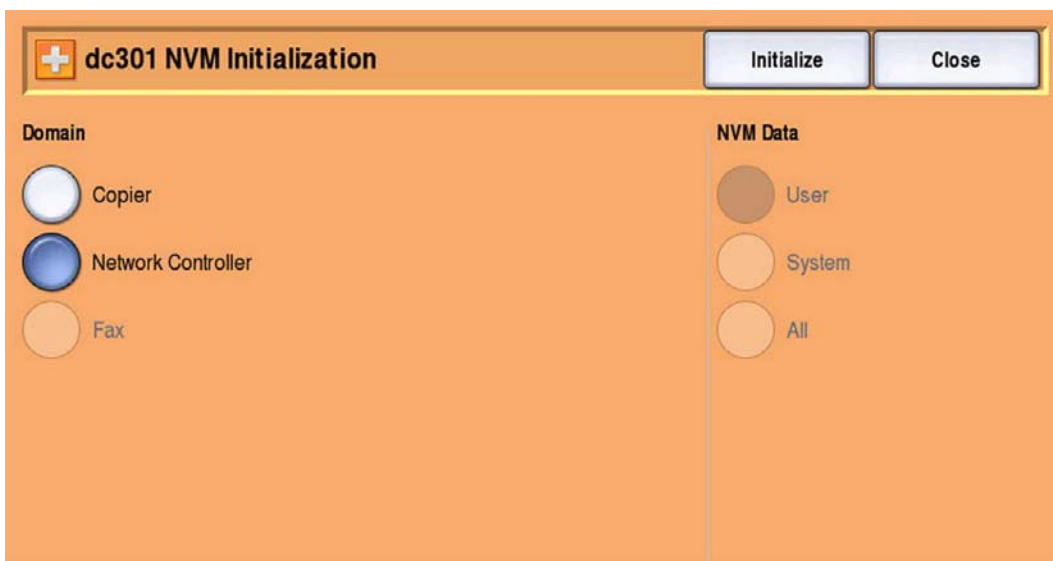
**Note:** Initialization does not affect the billing counter and accounting.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Adjustments**.
3. Touch **dc301 NVM Initialization**.
4. A **dc301 NVM Initialization** screen is displayed.
5. Under **Domain**, touch **Copier**.
6. Under **Sub Domain**, select the appropriate option (**Copy Controller**, **Scanner**, **Print Engine**, or **Finisher** (when configured)).

- Under **NVM Data**, select the initialization type. Touch **User**, **System**, or **All** (refer to [Table 1 - Copier NVM](#) on page 2-67 for functions that are set to default).



**Note:** Sub Domain is not available when Network Controller or Fax is selected.



- Touch **Initialize** to perform the procedure.
- A prompt is displayed “**Are you sure you want to initialize NVM?**”
- Touch **Initialize**.
- After the NVM Initialization procedure is complete, an **Initialization successful** message is displayed.
- Touch **Close** to return to the **Adjustments** menu.

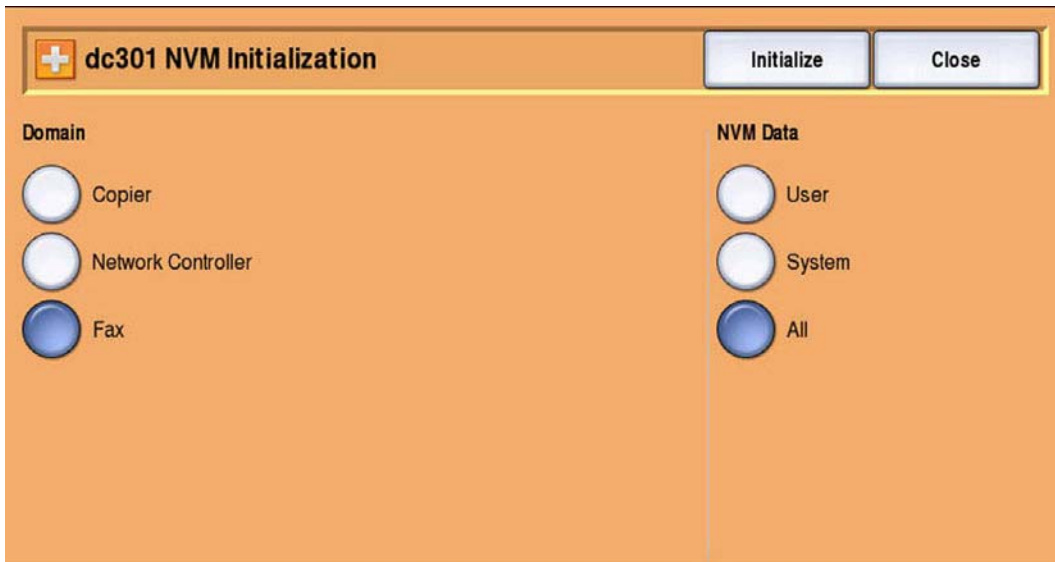
**Note:** Resetting all NVM data within the Copier Domain will cause the installation wizard to appear after the next reboot.

If, after reboot, no services are displayed on the Control Panel, restart the printer.

### Embedded Fax NVM Initialization

The Embedded Fax NVM Initialization returns to default the embedded fax NVM settings that are stored on the compact flash card.

1. Save the NVM to disk, refer to [dc361 NVM Save and Restore](#) on page 2-69.
2. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
3. Touch [Adjustments](#).
4. Touch [dc301 NVM Initialization](#).
5. A [dc301 NVM Initialization](#) screen is displayed.
6. Under [Domain](#), touch [Fax](#).
7. Under [NVM Data](#), select the initialization type. Touch [User](#), [System](#), or [All](#) (refer to [Table 2 - Embedded Fax NVM](#) on page 2-68 for functions that are set to default).



8. Touch [Initialize](#) to perform the procedure.
9. A prompt is displayed “[Are you sure you want to initialize NVM?](#)”
10. Touch [Initialize](#).
11. After the NVM Initialization procedure is complete, an [Initialization successful](#) message is displayed.
12. Touch [Close](#) to return to the [Adjustments](#) menu.

**Note:** Resetting all NVM data within the Copier Domain will cause the installation wizard to appear after the next reboot.

Table 1 - Copier NVM

	NVM Initialization Type	User Data NVM	System Data NVM	All Data NVM
Copy Controller Categories	Billing Counter	N	N	N
	System Usage Counter			Y
	Fault Counter (1)			Y
	Diagnostic Counter (1)			Y
	SA / KO Setting	Y		Y
	Fault Log			Y
	Configuration			Y
	Debug			Y
	NVM Machine Variable		Y	Y
	Machine Variable DADF		Y	Y
	Machine Variable Platen		Y	Y
	Auditron	Y		Y
	Crash Recovery			Y
	Completed Job Log			Y
	Controller Access Machine Speed, Market Region	N	N	N
	JBA Database	Y		Y
	JBA Configuration	Y		Y
	Auditron Configuration	Y		Y
	Xerox Standard Accounting			N
	HFSI Counter	N	N	N
User Interface Categories	NVM Machine Variable		Y	Y
	SA / KO Setting	Y		Y
	Configuration			Y
Image Input Terminal Categories	NVM Machine Variable		Y	Y
	SA / KO Setting	Y		Y
	Configuration			Y

**Table 1 - Copier NVM (Continued)**

NVM Initialization Type		User Data NVM	System Data NVM	All Data NVM
Finisher Categories	Booklet Maker	N	N	N
	Configuration			Y
<p>(1) These counters are reset using the Reset Counters option provided in the Call Closeout feature.</p> <p><b>Note:</b> The booklet maker NVM are not reset as they are custom set for each unit.</p>				

**Table 2 - Embedded Fax NVM**

NVM Initialization Type	User Data NVM	System Data NVM	All Data NVM
Controlled Access (2)			Y
Completed Job Log	Y		(Y)
Auditron	Y		(Y)
Configuration	Y	Y	(Y)
SA / KO Setting	Y		(Y)
<p>(2) The Fax functionality for the NVM All Data Initialization will result in all of the NVM data being deleted, which is why the other categories are shown in brackets.</p>			



## dc361 NVM Save and Restore

The dc361 NVM Save and Restore routine back-ups NVM data and restores the printer's NVM parameters to their previous values following a service action (i.e. NVM module replacement, Copy Controller (CC) Hard Disk Drive replacement, Printed Circuit Board (PCB) replacement, or any others that would necessitate a full NVM initialization).

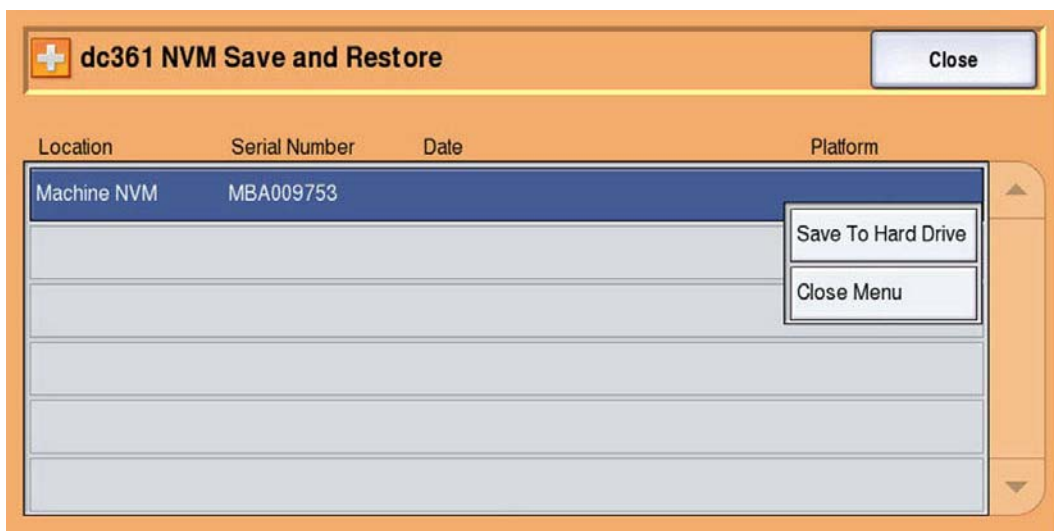
DC361 routine can be used to recover a printer's NVM values to one of the last 30 auto-saved set of parameters, in the event that a complete NVM failure occurred. The "Auto Save" function automatically store the NVM once each day for the last 30 days.

DC361 routine also includes the capability to copy files between the Hard Disk Drive and a USB drive.

**Note:** Fax Phone Books and E-mail Addresses are saved and restored using CWIS.

### Saving NVM

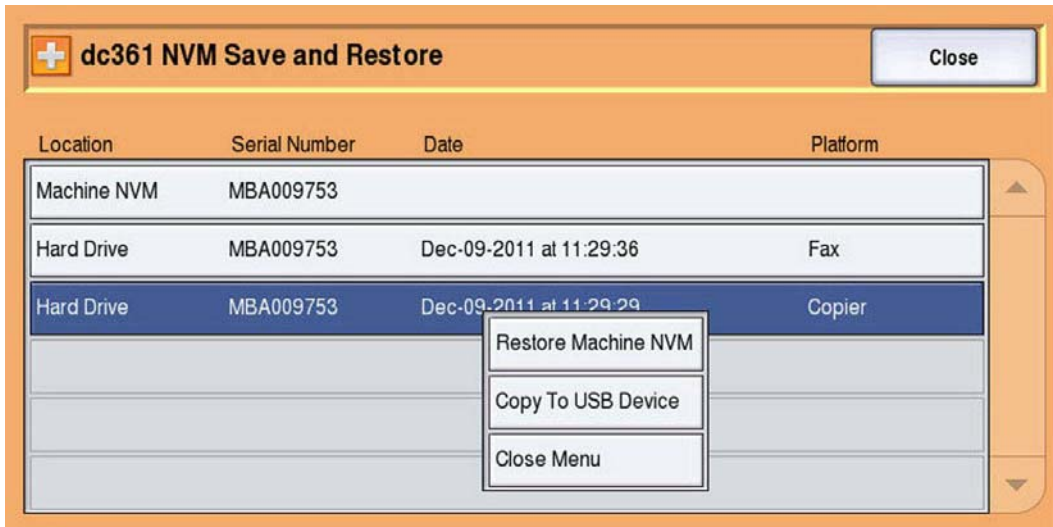
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Adjustments](#).
3. Touch [dc361 NVM Save and Restore](#).
4. A [dc361 NVM Save and Restore](#) screen is displayed.
5. Select [Machine NVM](#) and select [Save To Hard Drive](#).



6. A progress message [Saving NVM in Progress](#) is displayed.
7. When NVM Save procedure is complete, a [dc361 NVM Save and Restore](#) menu is displayed.
8. Touch [Close](#) to return to the [Adjustments](#) menu.

### Copying NVM from Hard Drive to USB Device

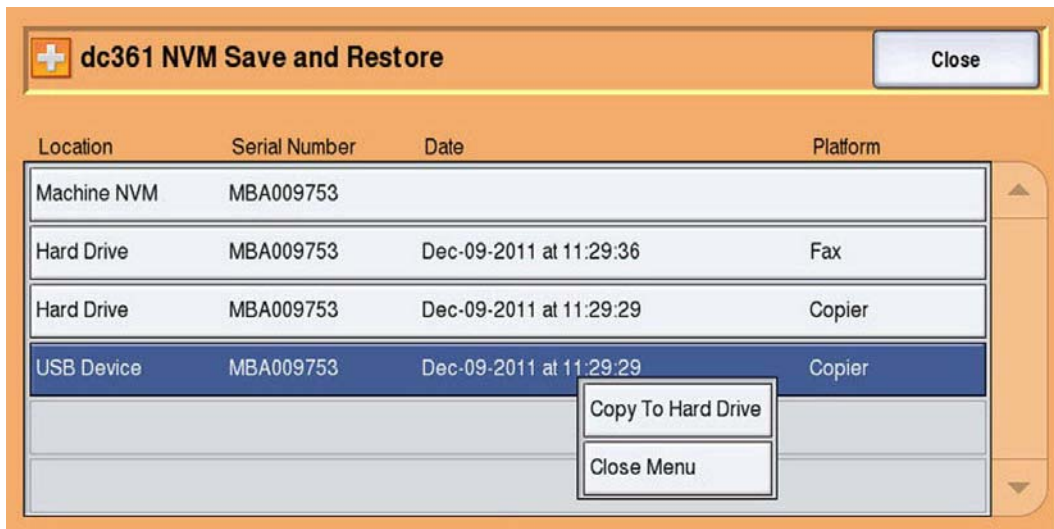
1. Connect a USB device to the printer.
2. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
3. Touch [Adjustments](#).
4. Touch [dc361 NVM Save and Restore](#).
5. A [dc361 NVM Save and Restore](#) screen is displayed
6. Select [Hard Drive](#) and select [Copy To USB Device](#).



7. An [In progress](#) message screen is displayed.  
**Note:** If the restore operation fails while attempting to restore a Fax Platform file, verify that the Fax service has been setup. If needed, perform the Fax setup in the Embedded Fax menu, then retry the Fax Platform restore.
8. When NVM copy procedure is complete, a [dc361 NVM Save and Restore](#) menu is displayed.
9. Touch [Close](#) to return to the [Adjustments](#) menu.

### Copying NVM from USB Device to Hard Drive

1. Connect a USB device containing NVM data to the printer.
2. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
3. Touch [Adjustments](#).
4. Touch [dc361 NVM Save and Restore](#).
5. A [dc361 NVM Save and Restore](#) screen is displayed
6. Select [USB Device](#) and select [Copy To Hard Drive](#).

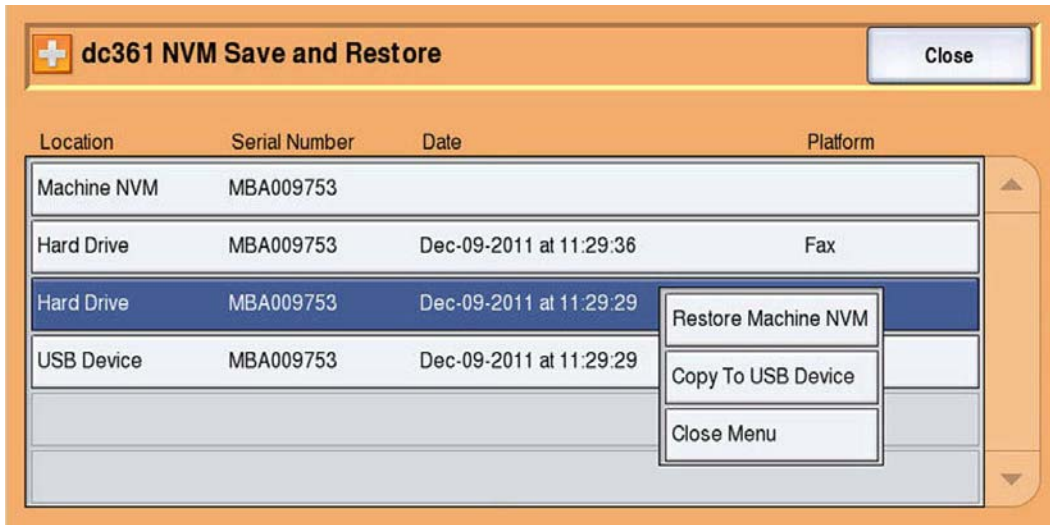


7. An [In progress](#) message screen is displayed.
 

**Note:** If the restore operation fails while attempting to restore a Fax Platform File, verify that the fax service has been setup. If needed, perform the fax setup in the Embedded Fax menu, then retry the Fax Platform restore.
8. When NVM copy procedure is complete, a [dc361 NVM Save and Restore](#) menu is displayed.
9. Touch [Close](#) to return to the [Adjustments](#) menu.

### Restoring NVM

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Adjustments](#).
3. Touch [dc361 NVM Save and Restore](#).
4. A [dc361 NVM Save and Restore](#) screen is displayed.
5. Select [Hard Drive](#) and select [Restore Machine NVM](#).



6. An [In progress](#) message screen is displayed.
7. When NVM Restore procedure is complete, a [dc361 NVM Save and Restore](#) menu is displayed.
8. Touch [Close](#) to return to the [Adjustments](#) menu.

## dc608 Document Feeder Registration

**Note:** Document Feeder Registration routine is also available through the Customer Menu (refer to [ADJ 1.6 Document Feeder Registration](#) on page 6-44).

The dc608 Document Feeder Registration routine checks the image registration (on the page) of the documents fed through the DADF and automatically corrects any misalignments relative to the image being placed on the page. This adjustment also performs a de-skew adjustment and automatically corrects any misalignment.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Adjustments](#).
3. Touch [dc608 Document Feeder Registration](#).
4. A [dc608 Document Feeder Registration](#) screen is displayed.
5. Place three blank sheets of paper in the Document Feeder.
6. Ensure the Feed Guides are tight against the paper.
7. Touch [Start](#) to begin the process.
8. A [Registration Check in Process](#) is displayed above the screen.
9. Upon completion, a [Registration was successful](#) message is displayed above the screen when passed.
10. The results are displayed under the [After Registration](#) column.
11. Touch [Close](#) to return to the [Adjustments](#) menu.



Description	Before Registration	After Registration
Center Registration	2707	2703
Lead Edge	177	181


To correct the Document Feeder registration, insert 3 blank letter / A4 white sheets in any orientation into the Document Feeder. Ensure the guides are tight against the paper and select the Start button.

## dc609 Document Glass Registration

**Note:** Document Glass Registration routine is also available through the Customer Menu (refer to [ADJ 1.7 Document Glass Registration](#) on page 6-47).

The dc609 Document Platen Registration routine checks the image registration (on the page) of the documents placed on the document glass and automatically corrects any misalignments relative to the image being placed on the page.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Adjustments](#).
3. Touch [dc609 Document Glass Registration](#).
4. A [dc609 Document Glass Registration](#) screen is displayed.
5. Open the Document Feeder.
6. Remove any documents from the Document Glass.
7. Leave the Document Feeder open.
8. Touch [Start](#) to begin the process.
9. A [Registration Check in Progress](#) is displayed above the screen.
10. Upon completion, a [Registration was successful](#) message is displayed above the screen when passed.
11. The results are displayed under the [After Registration](#) column.
12. Touch [Close](#) to return to the [Adjustments](#) menu.



Description	Before Registration	After Registration
Top Edge	83	82
Lead Edge	107	107

To correct the Document Glass registration, open the top cover, remove any paper from the document glass and select Start.

## Maintenance

### dc103 Billing Plan

The dc103 Billing Plan enables CSE to enter a passcode at the Local UI in order to enable an alternate Billing Plan using Service Diagnostics.

1. Enter a valid Billing Plan Password number, using the keypad.
2. Select **Save**.

#### Passcode Information:

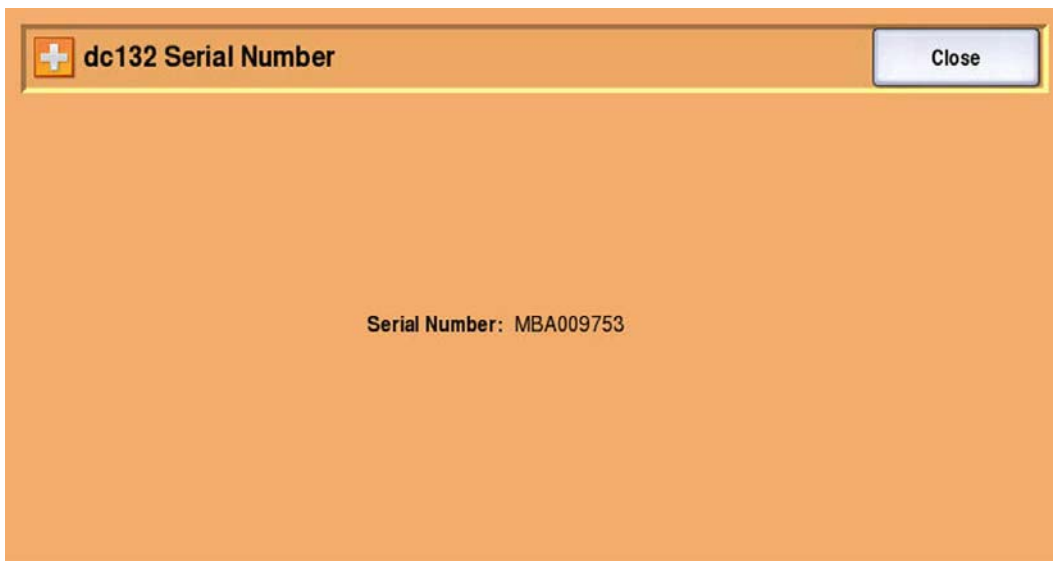
- Traditional = 1791
- 2 Tiered = 2487
- 3 Tiered = 3258

## dc132 Serial Number

The dc132 Serial Number displays printer serial number and allows the CSE to re-enter the product serial number into the printer.

### Reading the Serial Number

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Maintenance**.
3. Touch **dc132 Serial Number**.
4. A **dc132 Serial Number** screen is displayed.





## Entering the Serial Number

**!** **CAUTION:** Be sure to verify and enter the serial number correctly (letters are letters, numbers are numbers). Once the information is entered (right or wrong), the serial number cannot be changed.

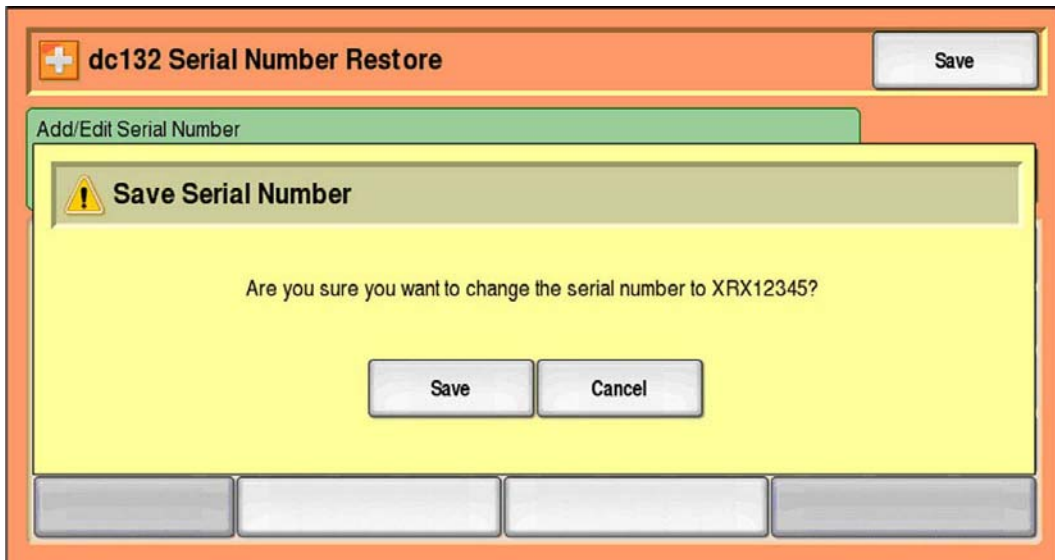
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Maintenance**.
3. Touch **dc132 Serial Number**.
4. A [dc132 Serial Number Restore](#) screen is displayed.
5. Enter the serial number for the printer.

**Note:** Verify that the serial number is correctly entered.

6. Touch **Save** to continue.

The screenshot shows a software interface for entering a serial number. At the top, there is a title bar with a plus sign icon and the text "dc132 Serial Number Restore". To the right of the title bar is a "Save" button. Below the title bar is a text input field with a green border and the label "Add/Edit Serial Number". The input field is currently empty with a vertical cursor. To the right of the input field is a "Clear Text" button. Below the input field is a virtual keyboard with keys for numbers 1-0, letters Q-P, A-L, Z-M, and navigation arrows.

7. A verification screen is displayed.
8. Touch **Save** to save the information.
9. Touch **Close** to return to the **Maintenance** menu.



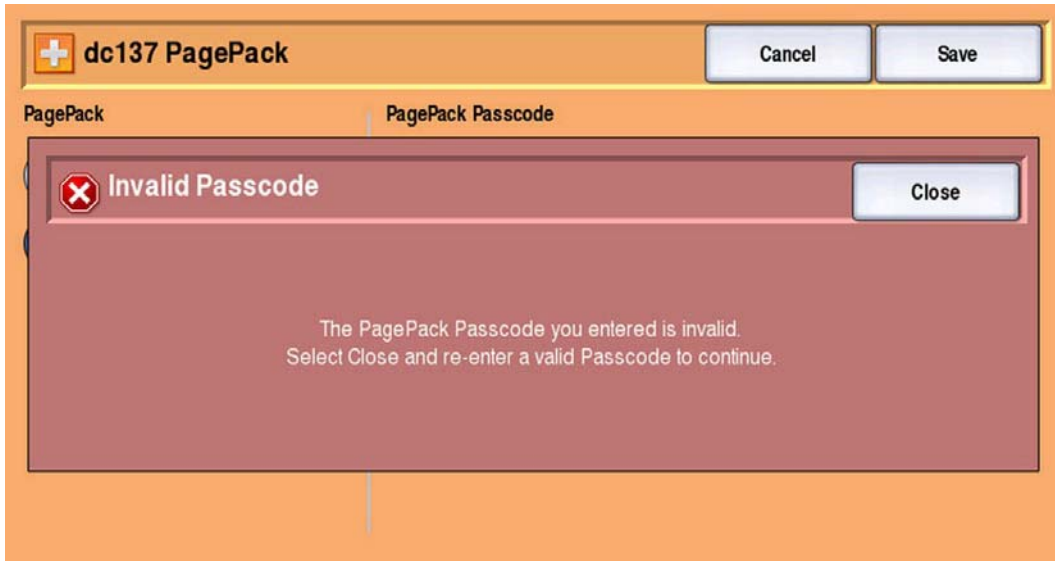
## dc137 PagePack

The dc137 PagePack enables or disables Page Pack feature. Page Pack requires unique CRU components, a valid Page PIN and an established Page Pack contact.

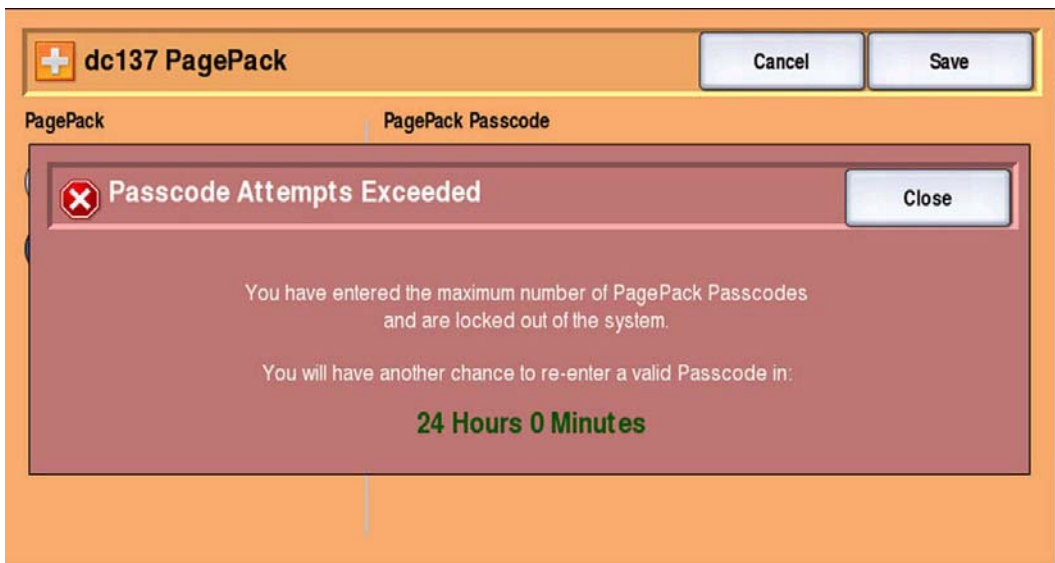
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Maintenance**.
3. Touch **dc137 Page Pack**.
4. A **dc137 PagePack** screen is displayed.
5. Select **Disabled** or **Enabled**.
6. If **Enabled**, a **PagePack Passcode** field is displayed.
7. Enter the 4 digit PagePack passcode.
8. Touch **Save**.
  - a. A correct passcode will exit the **dc137 PagePack** screen.

The screenshot shows the 'dc137 PagePack' configuration window. The window title is 'dc137 PagePack' with a plus icon on the left and 'Cancel' and 'Save' buttons on the right. The main area is divided into two sections. The left section, titled 'PagePack', contains two radio buttons: 'Disabled' (unselected) and 'Enabled' (selected). The right section, titled 'PagePack Passcode', contains a text input field with four asterisks and a cursor, indicating a 4-digit passcode is being entered.

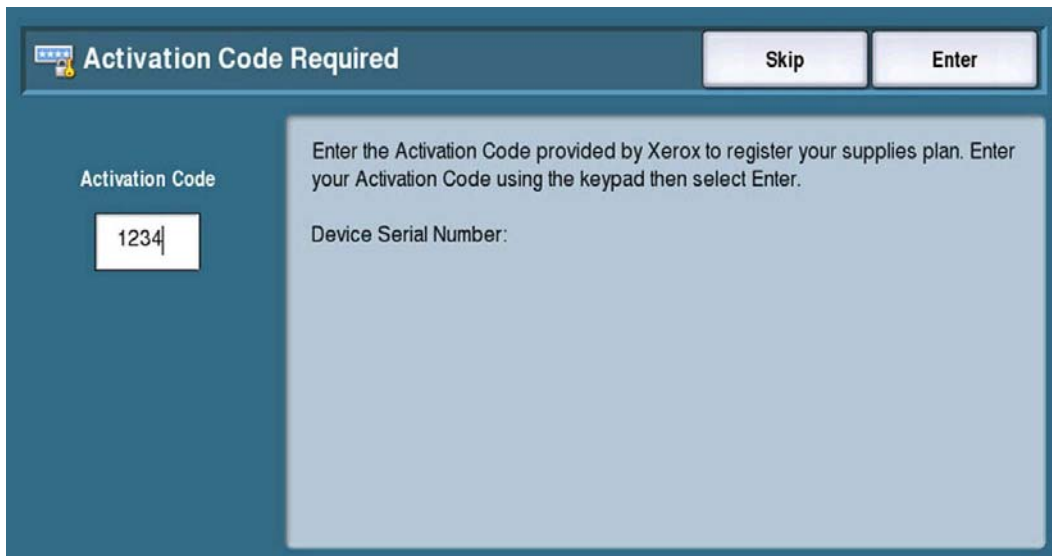
- b. If an incorrect passcode is entered, an [Invalid Passcode](#) screen is displayed.



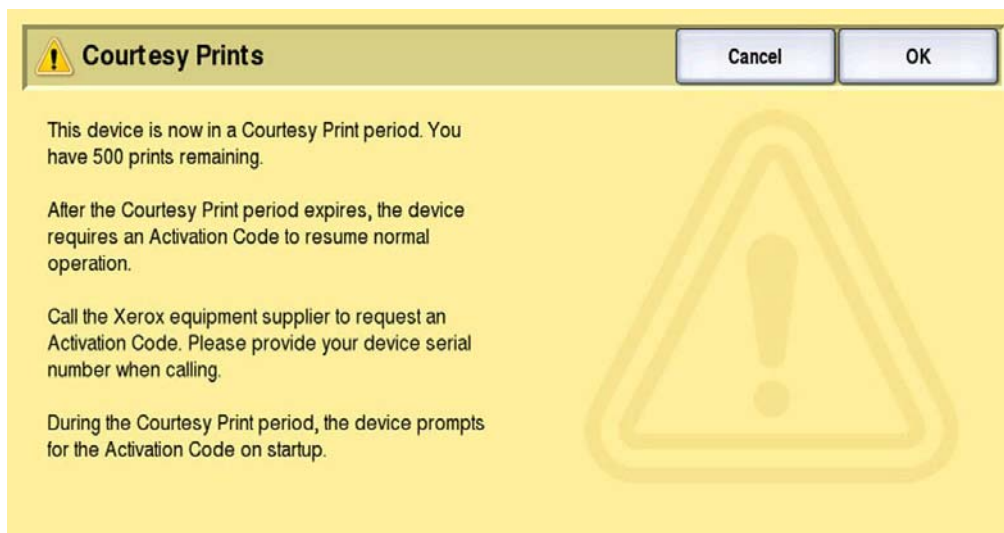
**Note:** The printer shall not allow more than 5 attempts at entering the PIN in any 24 hour period. If more than 5 attempts are made, PIN entry is locked out for 24 hours.



- c. An [Activation Code Required](#) screen is displayed after the [PagePack Passcode](#) screen is closed.
- d. Enter the [Activation Code](#) and touch [Enter](#) to continue.



- e. If the passcode is not available for a short period of time, courtesy prints are available for temporarily print jobs.
- f. Touch [Skip](#).
- g. A [Courtesy Prints](#) screen is displayed.
- h. Touch [OK](#) to exit the [Courtesy Prints](#) screen.
- i. This allows the printer to print x number of pages.




## dc968 Head Purge

The dc968 Head Purge cleans the Printhead, which is suspected to contain a jet that has degraded operation (i.e blocked). After the purge process, printing the Jet Test Pages identifies any defective jets and printing Cleaning pages removes the purged ink from the Drum.

Before running the Head Purge routine, check the following:

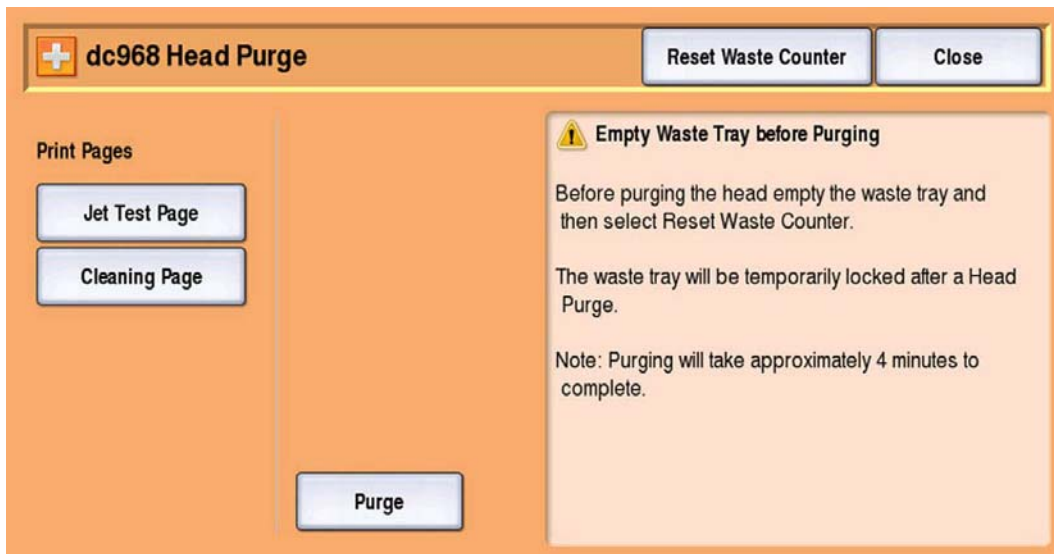
- Sufficient ink must be available for each color.
  - The Waste Tray must not be full.
  - A4 or Letter size paper should be loaded.
  - The printer is ready to print.
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
  2. Touch [Maintenance](#).
  3. Touch [dc968 Head Purge](#).
  4. A [dc968 Head Purge](#) screen is displayed.
  5. Touch [Jet Test Page](#) to print the Jet Test Page.

 **CAUTION:** Empty the Waste Tray before purging the Head. When the Waste Tray has been emptied, touch Reset Waste Counter.

6. Touch [Purge](#) to start the purging process.

**Note:** The purging process takes approximately 4 minutes to complete.

7. A [Head Purge in Progress](#) screen is displayed.
8. When the Head has finished purging, the printer will print a Cleaning page.
9. Touch [Jet Test Page](#). The printer will run the jet test routine.
10. Inspect the Jet Test Pages. If a defect is found, repeat the procedure.
11. Touch [Close](#) to return to the [Maintenance](#) menu.



## dc969 Clean Ink Smears

The dc969 Clean Ink Smears removes residual ink from the paper path, Print Head and Drum surfaces.

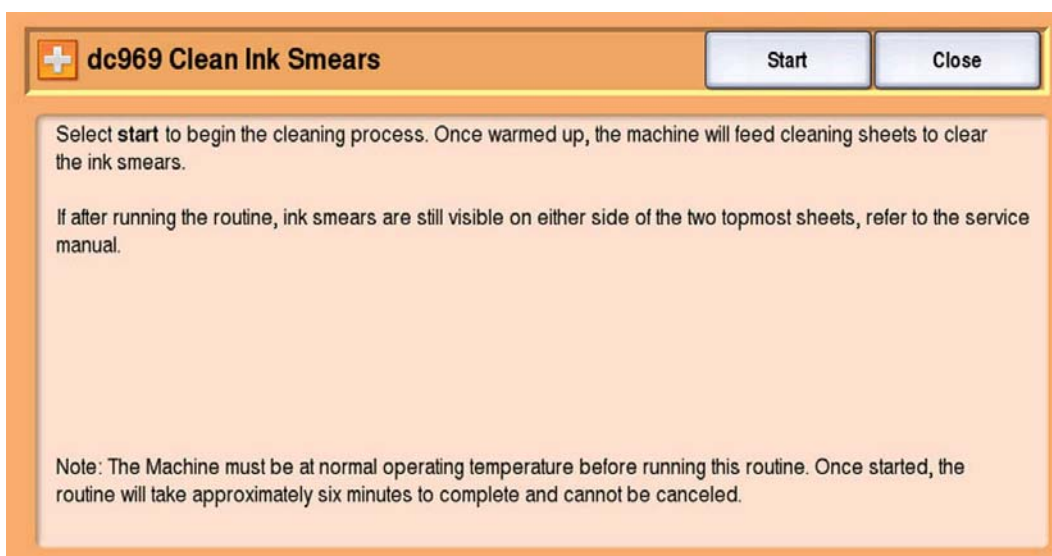
1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Maintenance**.
3. Touch **dc969 Clean Ink Smears**.
4. A **dc969 Clean Ink Smears** screen is displayed.
5. Touch **Start** to begin the process.
6. A **Cleaning Ink Smears in Progress** screen is displayed.

### Notes:

- This procedure must run to completion. To stop the routine would require excessive time to recover and add to customer/service cost. The full procedure takes approximately six minutes to complete.
    - The temperature of the Preheat Assembly is increased to loosen ink for removal. The warm-up procedure takes approximately 30 seconds.
    - 10 sheets of A4 size (or 8.5 x 11) plain paper are fed through the duplex path to absorb and remove the unwanted ink.
  - Running the 10 sheets takes approximately 1 minute.
    - The temperature is set to return to normal.
    - A number of sheets, up to 25 are fed through the simplex path to cool the Preheat Assembly to normal operating temperature.
  - Running the cool down chase sheets requires approximately 2 minutes but will vary according to local conditions.
7. If a Chase sheet paper jam occurs during this procedure, the Preheat Assembly is locked until it cools to a safe normal operating temperature.

**Note:** The procedure can be repeated as necessary until all ink smears are removed.

8. Touch **Close** to return to the Maintenance menu.

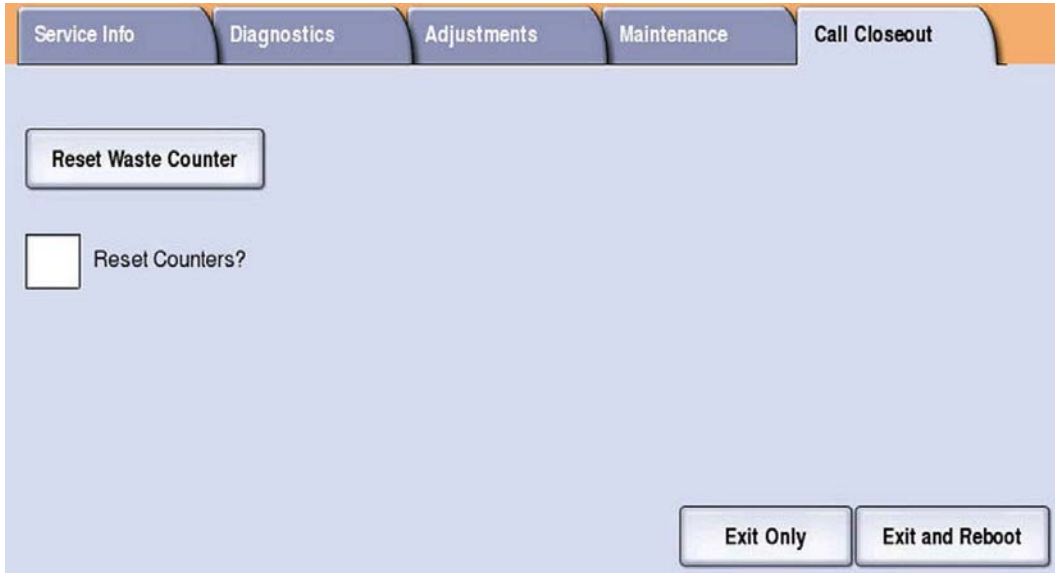


## Call Closeout

Call Closeout takes the printer out of Service Diagnostics mode. Available options include Reset Counters, Exit Only, Exit and Reboot. It is recommended that following diagnostic testing, reboot the printer to return it to correct operation.

Resetting the Waste Tray option is available if needed. (*verify*)

1. Touch **Call Closeout**.
2. Touch **Exit Only** or **Exit and Reboot** to exit Service Diagnostics.





# Messages, Chain Link Codes, and Procedures

The error messages and chain link codes generated by the printer's operating system are the lead-in to the troubleshooting procedures that follow in subsequent pages. This section correlates the output of the printer's diagnostic aids and provides the troubleshooting procedures to locate and correct the reported errors.

## Error Messages Abbreviations

Due to limited display space, some error messages include abbreviations. The most common abbreviations used throughout this chapter are listed in the following table.

Term	Definition
ASIC	Application-Specific Integrated Circuit
BLK	Black
COMM	Communication
CRU	Customer Replaceable Unit
ER/ ERR	Error
ENV	Environment
FUNC	Function
MAC address	Access Control Address
NVM	Non-Volatile Memory. Used instead of NVRAM.
NVRAM	Non-Volatile Random Access Memory
PCL	Printer Control Language
PDL	Page Description Language
RAM	Random Access Memory
ROM	Read Only Memory

## Fault Codes Error Reporting

Fault codes are saved to NVRAM and can be retrieved from the printer's fault history. In normal customer mode, the printer will reboot each time a fault occurs.

### Interpreting Fault Codes

- Failing system (3XX.yyy.00)
- Failing subsystem (3xx.YYY.00)
- Print engine page count when the error occurred (3xx.yyy.00:123)

Device faults indicate a hardware problem. The most common device faults troubleshooting procedures are documented in this chapter.

Software faults occur when the printer has a corrupted data, incorrect instructions, errors in floating point math, or the execution of code that should not have been reached. Sometimes this is caused by hardware but it is usually due to a problem with software. Most of the time reboot of the printer will fix these problems. All software errors are combined into one fault code 392.571, and if they are chronic that error will be displayed on the Control Panel.

### Fault Code and Message Code Definition

Fault Code contains Chain number (0-99) and Link number (0-999).

- **Chain Number** - indicates target feature area.
- **Link Number** - The fault type is defined by the Link number.

Chain	Sub System	Definition
301	System	Power and Interlock
302	User Interface	System Controller/ UI
303	Machine Run Control	Machine Run Control
305	DADF	Document Transport
310	Drum or Transfix	Transfix, Post Transfix, Media Path
312	LCSS	Finisher and Transport Unit
316	Network Controller	Network Controller
319	Image Processing	Video Image Manipulation
320	Fax	Local Facsimile Device
322	System Errors	System Controller
362	Scanner	Document Scanner
372	Feeder MT	Tray 2
373	Feeder HCF1 - Paper Path	HCF1 Tray 3

Chain	Sub System	Definition
374	Feeder HCF2 - Paper Path	HCF2 Tray 4
375	Feeder HCF3 - Paper Path	HCF3 Tray 5
383	Duplex	Duplex portion of Media Path
388	Preheater	Preheater
389	Media Path	Media path
391	Marking	Printhead Wiper, Head Tilt
392	Electronics	Electronics not specific to another chain
393	Ink	Ink delivery and Ink Thermals
394	Drum Maintenance	Drum, Stripper, Drum Maintenance
399	PEST	Print Engine Self-Test

## Fault Codes Summary

### POST Faults

- **303.332 NC** - Inter-process communication. If CC is unable to establish communication with the NC after five minutes, then a "NC Unavailable" message is posted on the Control panel.
- **303.347 UI** - Inter-process communication via RS422. If CC is unable to establish communication with the UI within two minutes of powering on the printer, then a "Communication Fault with UI" message is posted on the WebUI.
- **IME - TCP/IP** communication over PC Express. If CC is unable to establish communication with the IME, then a "Printing service is unavailable" message is posted on the Control panel.
- **Fax - Inter-process** communication. If CC is unable to establish communication with the Fax after one minute, then a "Fax Unavailable" message is posted on the Control Panel.
- **IIT - Inter-process** communication via RS422. If CC is unable to establish communication with the IIT after ten seconds of powering on the IIT, then a "Scanner Fault" message is posted on the Control Panel.

### Soft Faults

Soft faults are events that occur within the system and, in most cases cause no disruption to the operation of the printer. The system automatically recovers from these events and no action is required by service. Soft fault events are viewable in Service Diagnostics [dc120 Fault Counters](#) on page 2-32).

### Hard Faults

Hard faults are events that occur within the system that shut down one or more functions within the printer and require service for corrective action. Hard faults are logged in the [Machine Status/ Faults Tab](#) and [Diagnostics dc122 Fault History](#) on page 2-33. A printable version of the fault log is available in the System Status Embedded Page.

## Accessing Fault History

Fault History is available in two locations:

- Machine Status Menu
- Service Diagnostics

## Current Faults

The current faults lists the displayed status messages on the control panel.

## Current Messages

The current messages lists the displayed status messages on the control panel that have an associated pop up window. To view the pop up window, highlight a status message then touch the instruction button.

## Fault History

The Fault History lists the most recent printer fault codes with a time and date stamp. Use the fault code to determine the appropriate trouble shooting procedure to correct printer problems.

**Note:** Fault Code may be displayed different format containing different pre-fix (i.e. 089.XXX vs. 389.XXX) on the Services Home Menu and Fault History.

## Fault Code Displayed on the Services Home Menu

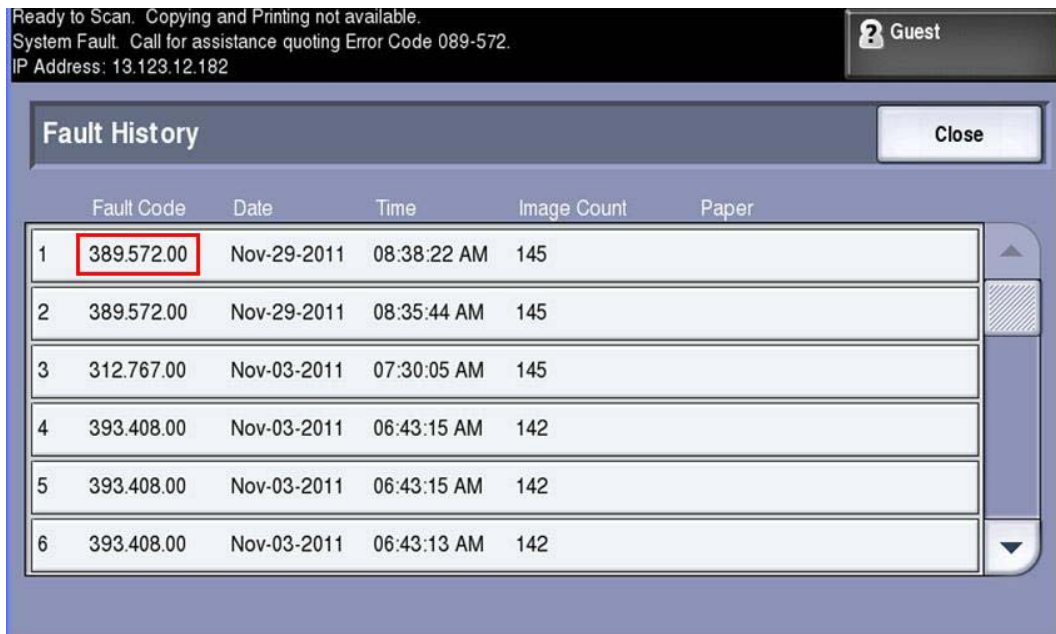


Figure 1 - CQ8700/ CQ8900 Control Panel UI



Figure 2 - CQ8700/ CQ8900 Version 101/ 102/ 202 Control Panel UI

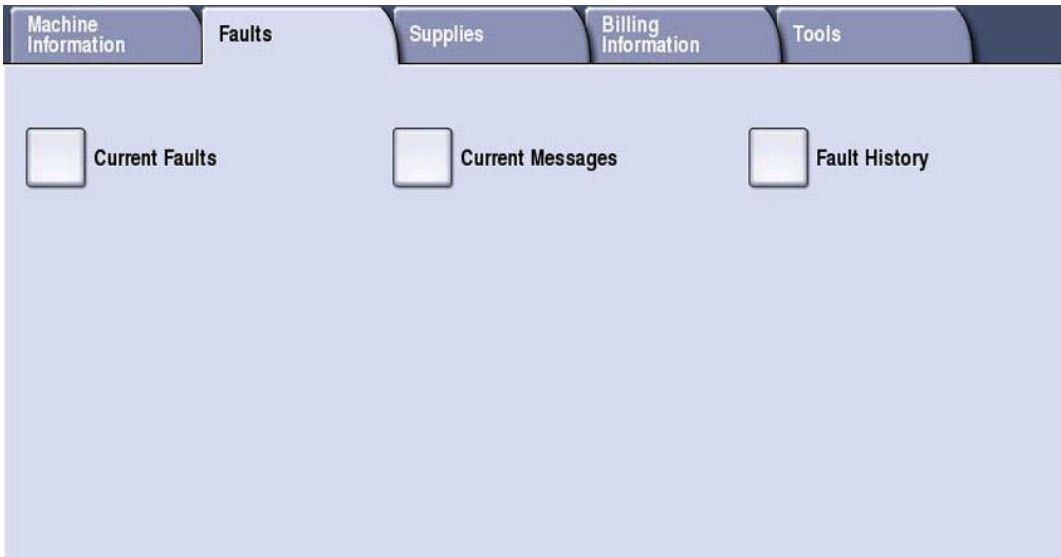
Fault Code Displayed on the Fault History



## Accessing Fault History from Machine Status Menu

**Note:** The Fault History can be viewed on the Control Panel without logging in as an administrator.

1. On the Control Panel, press the **Machine Status** button.
2. Touch the **Faults** tab.
3. Touch **Fault History**.



4. A list of fault codes is displayed.

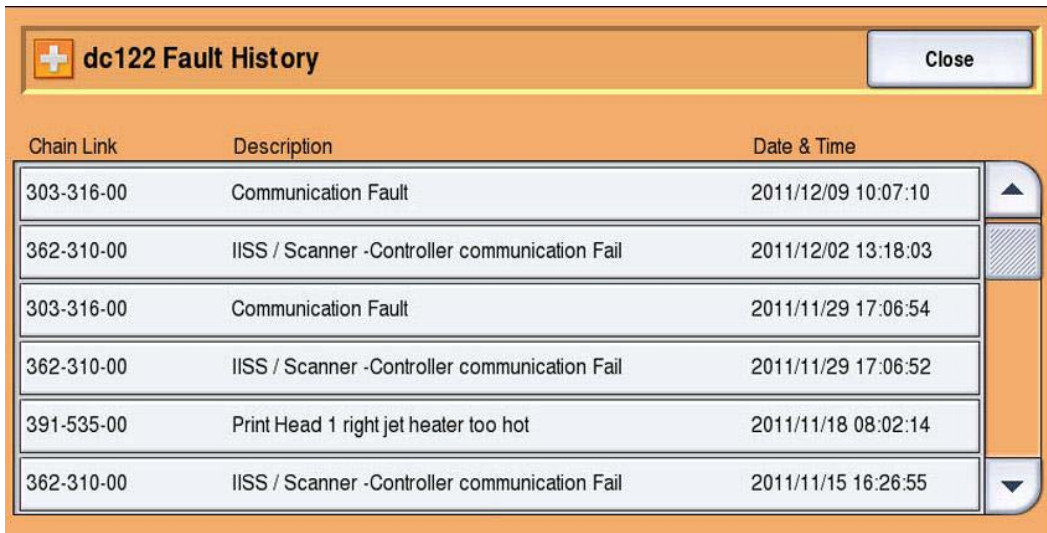
The screenshot shows a "Fault History" dialog box with a "Close" button in the top right corner. The dialog contains a table with the following data:

	Fault Code	Date	Time	Image Count	Paper
1	391.535.00	Nov-18-2011	08:02:14 AM	50786	
2	362.310.00	Nov-15-2011	04:26:55 PM	50711	
3	389.106.00	Nov-15-2011	02:41:13 PM	50711	8.5 x 11"
4	372.101.00	Nov-15-2011	02:41:10 PM	50711	
5	389.106.00	Nov-15-2011	02:40:35 PM	50711	8.5 x 11"
6	372.101.00	Nov-15-2011	02:40:31 PM	50711	

## Accessing Fault History in Service Diagnostics Menu

The dc122 Fault History routine displays the most recent (last 40) faults.

1. Access [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
2. Touch [Service Info](#).
3. Touch [dc122 Fault History](#).
4. A [dc122 Fault History](#) screen is displayed. Information includes:
  - Chain-Link
  - Description
  - Date & Time



The screenshot shows the 'dc122 Fault History' screen with a 'Close' button in the top right. The table below lists the fault history entries.

Chain Link	Description	Date & Time
303-316-00	Communication Fault	2011/12/09 10:07:10
362-310-00	IISS / Scanner -Controller communication Fail	2011/12/02 13:18:03
303-316-00	Communication Fault	2011/11/29 17:06:54
362-310-00	IISS / Scanner -Controller communication Fail	2011/11/29 17:06:52
391-535-00	Print Head 1 right jet heater too hot	2011/11/18 08:02:14
362-310-00	IISS / Scanner -Controller communication Fail	2011/11/15 16:26:55

5. Select the desired [Chain-Link](#) and select [Details](#) to view the fault detail.



The screenshot shows the 'dc122 Fault History' screen with a 'Close' button in the top right. The table below lists the fault history entries. A context menu is open over the entry with Chain Link '391-535-00', showing 'Details...' and 'Close Menu' options.

Chain Link	Description	Date & Time
372-101-00	LE Late At Feed	2011/11/15 14:41:10
389-106-00	MP Sensor 8 LE Timeout	2011/11/15 14:40:35
372-101-00	LE Late At Feed	2011/11/15 14:40:31
303-777-00	Power Loss Detected	2011/11/15 10:41:43
391-535-00	Print Head 1 right jet heater too hot	2011/11/13 08:02:16
303-777-00	Power Loss Detected	2011/11/10 0

6. A [Details](#) screen is displayed.
7. Touch [Close](#) to return to the [dc122 Fault History](#) screen.
8. Touch [Close](#) to return to the [Service Info](#) menu.





## Fault Codes and Error Messages

The Fault Code and Error Message table lists possible errors and page references for the corrective procedure. Use the Chain Link to identify the proper procedure to correct the error.

**Note:** Fault Code may be displayed different format containing “.” vs. “-” (389.XXX vs. 389-XXX) on the Services Home Menu and Fault History.

- The Fault Code column lists the codes displayed in the fault history.
- The Fault Description column shows the message as it appears on the printer’s Control Panel.
- The Page column references the procedure related to the error.

### Fault Code and Fault Message Display

Fault Code	Fault Description	Page
<b>302 - System Controller/ UI (page 2-117)</b>		
N/A	Network Failure	<a href="#">2-121</a>
302.302.00	Flash Failure	<a href="#">2-117</a>
302.306.00	Flash Failure	<a href="#">2-117</a>
302.308.00	Flash Failure	<a href="#">2-117</a>
302.315.00	Service Registry Bad Data	<a href="#">2-117</a>
302.316.00	SRS Error	<a href="#">2-118</a>
302.317.00	SRS Error	<a href="#">2-118</a>
302.320.00	Data Time Out Error	<a href="#">2-118</a>
302.321.00	XEIP Browser Dead	<a href="#">2-119</a>
302.380.00	UI Communication Fault	<a href="#">2-120</a>
302.381.00	UI Communication Fault	<a href="#">2-120</a>
<b>303 - Machine Run Control (page 2-122)</b>		
303.316.00	CCM Cannot Communicate with IOT	<a href="#">2-122</a>
303.325.00	System Detects the Printer Clock Failed to Increment During Power On	<a href="#">2-123</a>
303.331.00	Main Controller Board Cannot Communicate with ESS	<a href="#">2-124</a>
303.332.00	Main Controller Board Cannot Communicate with ESS	<a href="#">2-124</a>
303.338.00	Main Controller on the CCB/ SBC has Reset	<a href="#">2-125</a>
303.346.00	Unable to Communicate with Control Panel	<a href="#">2-126</a>
303.347.00	Main Controller PWB Cannot Communicate with UI PWB	<a href="#">2-127</a>
303.362.00	CCS Power Fault	<a href="#">2-128</a>
303.397.00	System Configuration Recovery Attempt	<a href="#">2-129</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
303.398.00	SIM Card Fault	<a href="#">2-130</a>
303.399.00	SIM Card Fault	<a href="#">2-130</a>
303.401.00	Fax Not Detected	<a href="#">2-174</a>
303.403.00	Fax Not Detected	<a href="#">2-174</a>
303.417.00	Incompatible Fax Software	<a href="#">2-175</a>
303.555.00	CCM POST failure detected / NVM battery dead	<a href="#">2-131</a>
303.777.00	Power Loss Detected	<a href="#">2-132</a>
303.788.00	Failed to Exit Power Save Mode	<a href="#">2-134</a>
303.790.00	CCS Timezone Cannot be Set	<a href="#">2-135</a>
<b>305 - DADF (page <a href="#">2-137</a>)</b>		
305.250.00	DADF Corrupted Flash Memory	<a href="#">2-137</a>
305.251.00	DADF Corrupted Flash Memory	<a href="#">2-137</a>
305.252.00	DADF Communication Errors	<a href="#">2-138</a>
305.253.00	DADF Communication Errors	<a href="#">2-138</a>
305.254.00	DADF Communication Errors	<a href="#">2-138</a>
305.255.00	Late Pre Scan Status Message	<a href="#">2-113</a>
305.256.00	Eject Count Error	<a href="#">2-113</a>
305.257.00	Unknown Doc Size	<a href="#">2-113</a>
305.258.00	DADF Cover Open During Init	<a href="#">2-113</a>
305.259.00	DADF Hotline Error	<a href="#">2-113</a>
305.260.00	DADF not in Standby	<a href="#">2-113</a>
305.300.00	DADF Open During Run	<a href="#">2-113</a>
305.307.00	DADF Top Cover Open	<a href="#">2-113</a>
305.310.00	DADH Source Doc Too Short for DADH	<a href="#">2-113</a>
305.330.00	DADF LE Late to Post Feed	<a href="#">2-140</a>
305.331.00	DADF Multipick	<a href="#">2-142</a>
305.335.00	DADF Jams	<a href="#">2-143</a>
305.340.00	DADF Jams	<a href="#">2-143</a>
305.345.00	DADF Jams	<a href="#">2-143</a>
305.346.00	DADF Jams	<a href="#">2-143</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Fault Description	Page
305.350.00	DADF Jams	<a href="#">2-143</a>
305.352.00	DADF Jams	<a href="#">2-143</a>
<b>310 - Transfix, Post Transfix, Media Path (<a href="#">page 2-145</a>)</b>		
310.540.00	Transfix Task Late	<a href="#">2-113</a>
310.545.00	Drum Initial Position Wrong	<a href="#">2-145</a>
310.550.00	Y-Axis Fault	<a href="#">2-146</a>
<b>312 - Finisher (<a href="#">page 2-148</a>)</b>		
312.024.00	Finisher Paddle Fault	<a href="#">2-148</a>
312.025.00	Finisher Paddle Fault	<a href="#">2-148</a>
312.101.00	Finisher Entry Jams	<a href="#">2-149</a>
312.102.00	Finisher Transport Jam	<a href="#">2-150</a>
312.125.00	Finisher Entry Jams	<a href="#">2-149</a>
312.195.00	Finisher Entry Jams	<a href="#">2-149</a>
312.283.00	Finisher Ejector Clamp Fault	<a href="#">2-152</a>
312.284.00	Finisher Ejector Clamp Fault	<a href="#">2-152</a>
312.303.00	Transport Cover Fault	<a href="#">2-153</a>
312.312.00	Finisher Jam Cover Fault	<a href="#">2-155</a>
312.336.00	Finisher Staple Cover Fault	<a href="#">2-154</a>
312.371.00	Finisher Stapler Move Fault	<a href="#">2-156</a>
312.392.00	Finisher Front Tamper Fault	<a href="#">2-157</a>
312.393.00	Finisher Front Tamper Fault	<a href="#">2-157</a>
312.396.00	Finisher Rear Tamper Fault	<a href="#">2-158</a>
312.397.00	Finisher Rear Tamper Fault	<a href="#">2-158</a>
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312.494.00	Finisher Communication Fault	<a href="#">2-160</a>
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312.767.00	No Transport/ Catch Tray Installed	<a href="#">2-163</a>
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312.769.00	Finisher Catch Tray or Transport Installation Fault	<a href="#">2-164</a>
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316.810.09	Other Network Faults 6	<a href="#">2-166</a>
316.810.19	Other Network Faults 6	<a href="#">2-166</a>
316.810.47	Other Network Faults 6	<a href="#">2-166</a>
316.811.09	Other Network Faults 6	<a href="#">2-166</a>
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316.812.00	Other Network Faults 6	<a href="#">2-166</a>
316.812.09	Other Network Faults 6	<a href="#">2-166</a>
316.812.19	Other Network Faults 6	<a href="#">2-166</a>
316.812.47	Other Network Faults 6	<a href="#">2-166</a>
316.813.00	Other Network Faults 6	<a href="#">2-166</a>
316.813.09	Other Network Faults 6	<a href="#">2-166</a>
316.813.47	Other Network Faults 6	<a href="#">2-166</a>
316.814.00	Other Network Faults 6	<a href="#">2-166</a>
316.814.09	Other Network Faults 6	<a href="#">2-166</a>
316.814.47	Other Network Faults 6	<a href="#">2-166</a>
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316.816.09	Other Network Faults 6	<a href="#">2-166</a>
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316.824.47	Other Network Faults 7	<a href="#">2-168</a>
316.825.47	Other Network Faults 7	<a href="#">2-168</a>
316.826.47	Other Network Faults 7	<a href="#">2-168</a>
316.827.47	Other Network Faults 7	<a href="#">2-168</a>
316.828.47	Other Network Faults 7	<a href="#">2-168</a>
316.829.47	Other Network Faults 7	<a href="#">2-168</a>
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319.301.00	System Disk (HDD 1) Failure	<a href="#">2-169</a>
319.302.00	System Disk (HDD 1) Failure	<a href="#">2-169</a>
319.303.00	System Disk (HDD 1) Failure	<a href="#">2-169</a>
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319.402.00	Stress Out of Memory	<a href="#">2-171</a>
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319.409.00	Job Integrity Failure	<a href="#">2-171</a>
319.410.00	Image Structure Failure	<a href="#">2-172</a>
319.410.01	Image Structure Failure	<a href="#">2-172</a>
319.410.02	Image Structure Failure	<a href="#">2-172</a>
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319.410.12	Image Structure Failure	<a href="#">2-172</a>
319.410.13	Image Structure Failure	<a href="#">2-172</a>
319.750.00	EPC Memory Change Detected	<a href="#">2-173</a>
319.752.00	Imaging Rotation Detected	<a href="#">2-173</a>
319.754.00	Image Disk Config Fault	<a href="#">2-113</a>
<b>303/ 320 - Fax (<a href="#">page 2-174</a>)</b>		
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303.403.00	Fax Not Detected	<a href="#">2-174</a>
303.417.00	Incompatible Fax Software	<a href="#">2-175</a>
320.302.00	Fax Reset Failure	<a href="#">2-176</a>
320.303.00	Fax Reset Failure	<a href="#">2-176</a>
320.305.00	Fax System Low Memory Unrecoverable	<a href="#">2-177</a>
320.320.00	Fax Fault Not Cleared by Reset	<a href="#">2-178</a>
320.323.00	Fax System Memory Low	<a href="#">2-179</a>
320.324.00	Fax System Memory Low	<a href="#">2-179</a>
320.331.00	Fax Network Line 1 Fault	<a href="#">2-180</a>
320.338.00	Fax Network Line 1 Fault	<a href="#">2-180</a>
320.339.00	Fax Network Line 1 Fault	<a href="#">2-180</a>
320.341.00	Fax Network Line 1 Fault	<a href="#">2-180</a>
320.342.00	Fax File Integrity Fault	<a href="#">2-181</a>
320.701.00	Fax Phone Book Download Failed	<a href="#">2-182</a>
320.710.00	Image Overwrite Error	<a href="#">2-183</a>
320.711.00	Image Overwrite Error	<a href="#">2-183</a>
<b>322 - Network Faults (<a href="#">page 2-184</a>)</b>		
322.300.05	Image Complete not Received from Video	<a href="#">2-183</a>
322.300.10	Failed to transfer image due to decoding error	<a href="#">2-113</a>
322.300.16	When machine determines that it needs to do a reset in order to avoid an impending real time clock overflow	<a href="#">2-113</a>
322.301.05	Scan resources not available	<a href="#">2-113</a>

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<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
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322.310.04	Pages received from Extended Job Service out of Sequence	<a href="#">2-113</a>
322.314.04	Module Registration Error	<a href="#">2-113</a>
322.315.04	One or more e modules did not respond with completion message	<a href="#">2-113</a>
322.316.04	Job Requires Paper Tray that does not exist.	<a href="#">2-113</a>
322.317.04	Job requires finishing capability that does not exist	<a href="#">2-113</a>
322.318.04	Job requires an IOT capability that does not exist	<a href="#">2-113</a>
322.321.00	SM Failed to remove Scan to file	<a href="#">2-113</a>
322.321.04	Proposal Response Time Out Error - RS422 Configuration mismatch	<a href="#">2-113</a>
322.330.01	List Jobs Request Timed out between UI CCS	<a href="#">2-113</a>
322.330.02	List Jobs Request Timed out between CCS and NCPrintService	<a href="#">2-113</a>
322.330.03	List Jobs Request Timed out between CCS and Scan To File Service	<a href="#">2-113</a>
322.330.04	List Jobs Request Timed out between CCS and Scan To Fax Service	<a href="#">2-113</a>
322.330.05	List Jobs Request Timed out between Queue Utility and DC Job Services	<a href="#">2-113</a>
322.330.06	NC Scan to Distribution Service not responding to List Jobs RPC Call	<a href="#">2-113</a>
322.350.01	Software detects non-valid Xerox SOK 1	<a href="#">2-184</a>
322.350.02	Software detects non-valid Xerox SOK 2 or 3	<a href="#">2-185</a>
322.351.01	SOK 1 Write Failure	<a href="#">2-186</a>
322.351.02	SOK 2 Write Failure	<a href="#">2-186</a>
322.351.03	SOK 3 Write Failure	<a href="#">2-186</a>
322.352.00	Serial Number Missing from Memory	<a href="#">2-187</a>
322.701.04	Module completion message received after IOT returned to Standby	<a href="#">2-113</a>
322.720.00	Service Registry Bad data / Corrupted	<a href="#">2-113</a>
322.721.00	Triple A gets no response from SRS	<a href="#">2-113</a>
322.750.04	Output Device Configuration Mismatch	<a href="#">2-113</a>
322.750.17	Accessory Card Configuration Mismatch	<a href="#">2-113</a>
322.751.04	Paper Tray Configuration Mismatch	<a href="#">2-113</a>
322.754.17	When the System detects the UI Configuration has changed during the Power On Sequence	<a href="#">2-113</a>

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<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
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362.277.00	Image Overwrite Error	<a href="#">2-187</a>
362.310.00	Scanner Communication Failure	<a href="#">2-189</a>
362.450.00	Scanner Calibration Error	<a href="#">2-190</a>
362.451.00	Scanner Calibration Error	<a href="#">2-190</a>
362.452.00	Scanner Calibration Error	<a href="#">2-190</a>
362.453.00	Scanner Calibration Error	<a href="#">2-190</a>
362.454.00	Scanner Calibration Error	<a href="#">2-190</a>
362.455.00	Scanner Calibration Error	<a href="#">2-190</a>
362.456.00	Scanner Calibration Error	<a href="#">2-190</a>
362.457.00	Scanner Calibration Error	<a href="#">2-190</a>
362.458.00	Scanner Calibration Error	<a href="#">2-190</a>
362.459.00	Scanner Calibration Error	<a href="#">2-190</a>
362.460.00	Scanner Calibration Error	<a href="#">2-190</a>
362.461.00	Scanner Calibration Error	<a href="#">2-190</a>
362.462.00	Scanner Calibration Error	<a href="#">2-190</a>
362.463.00	Scanner Calibration Error	<a href="#">2-190</a>
362.464.00	Scanner Calibration Error	<a href="#">2-190</a>
362.465.00	Scanner Calibration Error	<a href="#">2-190</a>
362.466.00	Scanner Calibration Error	<a href="#">2-190</a>
362.467.00	Scanner Calibration Error	<a href="#">2-190</a>
362.468.00	Scanner Calibration Error	<a href="#">2-190</a>
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362.471.00	IIT FPGA Errors	<a href="#">2-192</a>
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362.473.00	Uart Rx Wrap Error	<a href="#">2-115</a>
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362.477.00	Scanner Stepper Error	<a href="#">2-193</a>
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362.486.00	Supply Error	<a href="#">2-198</a>
362.487.00	System PLL Error	<a href="#">2-199</a>
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372.101.00	Tray 2 Mis-Feed Jam	<a href="#">2-200</a>
372.215.00	Tray 2 Raise Failure	<a href="#">2-201</a>
372.217.00	Tray 2 Bump-up Failure	<a href="#">2-202</a>
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373.101.00	Tray 3 Mis-Feed Jam	<a href="#">2-203</a>
373.215.00	Tray 3 Feeder Faults	<a href="#">2-205</a>
373.217.00	Tray 3 Feeder Faults	<a href="#">2-205</a>
373.910.00	Tray 3 Static Jam	<a href="#">2-207</a>
373.952.00	Tray 3 Feeder Faults	<a href="#">2-205</a>
<b>374 - Tray 4 (<a href="#">page 2-208</a>)</b>		
374.101.00	Tray 4 Mis-Feed Jam	<a href="#">2-208</a>
374.106.00	Lower Tray Vertical Transport Jam	<a href="#">2-210</a>
374.215.00	Tray 4 Feeder Faults	<a href="#">2-211</a>
374.217.00	Tray 4 Feeder Faults	<a href="#">2-211</a>
374.910.00	Tray 4 Static Jam	<a href="#">2-213</a>
374.952.00	Tray 4 Feeder Faults	<a href="#">2-211</a>
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375.101.00	Tray 5 Mis-Feed Jam	<a href="#">2-214</a>

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375.110.00	Lower Tray Vertical Transport Jam	<a href="#">2-216</a>
375.215.00	Tray 5 Feeder Faults	<a href="#">2-217</a>
375.217.00	Tray 5 Feeder Faults	<a href="#">2-217</a>
375.910.00	Tray 5 Static Jam	<a href="#">2-219</a>
375.952.00	Tray 5 Feeder Faults	<a href="#">2-217</a>
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383.118.00	Media Path 2nd Side Duplex Jams	<a href="#">2-220</a>
383.149.00	Media Path Duplex Jams	<a href="#">2-221</a>
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388.501.00	Preheater Thermal Faults	<a href="#">2-222</a>
388.502.00	Preheater Thermal Faults	<a href="#">2-222</a>
388.503.00	Preheater Thermal Faults	<a href="#">2-222</a>
388.504.00	Preheater Thermal Faults	<a href="#">2-222</a>
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389.103.00	Media Path 2nd Side Duplex Jams	<a href="#">2-224</a>
389.104.00	Media Path Sensor 8 MPT LE Timeout	<a href="#">2-225</a>
389.105.00	Media Path Sensor 8 Duplex LE Timeout	<a href="#">2-226</a>
389.106.00	Media Path Sensor 8 LE Timeout	<a href="#">2-227</a>
389.107.00	Media Path Sensor 8 TE Timeout	<a href="#">2-229</a>
389.108.00	Media Path Sensor 9 LE Timeout	<a href="#">2-230</a>
389.109.00	MP Sensor 9 TE Timeout	<a href="#">2-115</a>
389.110.00	Media Path Sheet Too Long	<a href="#">2-231</a>
389.111.00	Media Path Sheet Too Short	<a href="#">2-232</a>
389.112.00	Media Path Sensor 10 LE Timeout	<a href="#">2-233</a>

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389.117.00	Media Path Sheet Too Long (No Purge)	<a href="#">2-234</a>
389.118.00	Media Path Sheet Too Short (No Purge)	<a href="#">2-235</a>
389.119.00	Media Path MPT Reverse Shingle Detected	<a href="#">2-236</a>
389.120.00	Media Path Sheet Too Late At Appr	<a href="#">2-237</a>
389.121.00	Media Path Sensor 12 LE Timeout	<a href="#">2-238</a>
389.122.00	Media Path Sensor 12 TE Timeout	<a href="#">2-241</a>
389.146.00	Finisher Transport Jam	<a href="#">2-242</a>
389.147.00	Media Path Sensor 14 LE Timeout	<a href="#">2-243</a>
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389.150.00	MP Sensor 16 TE Timeout	<a href="#">2-115</a>
389.570.00	Media Drive Faults	<a href="#">2-246</a>
389.571.00	Media Drive Faults	<a href="#">2-246</a>
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391.527.00	Left Jetstack Thermal Faults	<a href="#">2-249</a>
391.531.00	Left Jetstack Thermal Faults	<a href="#">2-249</a>
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391.539.00	Right Jetstack Thermal Faults	<a href="#">2-251</a>
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391.551.00	Printhead Reservoir Thermal Faults	<a href="#">2-253</a>
391.555.00	Printhead Reservoir Thermal Faults	<a href="#">2-253</a>
391.610.00	Printhead Calibration Fault	<a href="#">2-255</a>
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391.713.00	Wiper or Media Drive Faults	<a href="#">2-257</a>
391.714.00	Wiper or Media Drive Faults	<a href="#">2-257</a>
391.715.00	Wiper or Media Drive Faults	<a href="#">2-257</a>
391.716.00	Wiper or Media Drive Faults	<a href="#">2-257</a>
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391.722.00	Printhead Tilt Fault	<a href="#">2-266</a>
391.723.00	Printhead Tilt Fault	<a href="#">2-269</a>
391.724.00	Printhead Park Fault (soft error)	<a href="#">2-271</a>
391.725.00	Process Drive Fault	<a href="#">2-272</a>
391.726.00	Process Drive Fault	<a href="#">2-273</a>
391.850.00	Left Jetstack Thermal Faults	<a href="#">2-249</a>
391.854.00	Right Jetstack Thermal Faults	<a href="#">2-251</a>
391.858.00	Printhead Reservoir Thermal Faults	<a href="#">2-253</a>
391.862.00	Left Jetstack Thermal Faults	<a href="#">2-249</a>
391.866.00	Right Jetstack Thermal Faults	<a href="#">2-251</a>
391.870.00	Printhead Reservoir Thermal Faults	<a href="#">2-253</a>
391.900.00	Printhead NVRAM or PLD Fault	<a href="#">2-275</a>
391.903.00	Printhead NVRAM or PLD Fault	<a href="#">2-275</a>
391.904.00	Printhead NVRAM or PLD Fault	<a href="#">2-275</a>
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392.500.00	Driver Board Serial Link Down	<a href="#">2-276</a>
392.550.00	Safety Timer Timeout Fault	<a href="#">2-277</a>
392.553.00	Ink Loader or I/O Board Disconnected	<a href="#">2-278</a>
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392.558.00	Ecm PS Link Broken	<a href="#">2-280</a>
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392.570.00	Interrupt Storm Fault	<a href="#">2-282</a>

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392.579.00	CDI Submit Sheet Error	<a href="#">2-284</a>
392.587.00	Wave Amp Fault	<a href="#">2-285</a>
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392.590.00	Electronic Faults	<a href="#">2-287</a>
392.591.00	Electronic Faults	<a href="#">2-287</a>
392.592.00	Electronic Faults	<a href="#">2-287</a>
392.593.00	Electronic Faults	<a href="#">2-287</a>
392.594.00	Electronic Faults	<a href="#">2-287</a>
392.595.00	Electronic Faults	<a href="#">2-287</a>
392.596.00	Electronic Faults	<a href="#">2-287</a>
392.597.00	Electronic Faults	<a href="#">2-288</a>
392.601.00	Electronic Faults	<a href="#">2-288</a>
392.602.00	Power Supply Overvoltage Watchdog Timer Went Off	<a href="#">2-289</a>
392.604.00	Electronics Fan Faults	<a href="#">2-290</a>
392.605.00	Electronics Fan Faults	<a href="#">2-290</a>
392.606.00	Electronics Fan Faults	<a href="#">2-290</a>
392.607.00	Wave Amp Faults	<a href="#">2-291</a>
392.608.00	Wave Amp Faults	<a href="#">2-291</a>
392.609.00	Wave Amp Faults	<a href="#">2-291</a>
392.990.00	Ink Loader Disconnect	<a href="#">2-293</a>
392.991.00	Inkloader Board Error	<a href="#">2-294</a>
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393.403.00	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.404.00	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.405.00	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.406.00	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.407.00	Ink Loader Yoke Faults	<a href="#">2-295</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
393.408.00	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.409.00	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.410.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.411.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.412.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.413.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.414.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.415.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.416.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.417.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.418.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.419.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.420.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.421.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.422.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.423.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.424.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.425.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.426.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.427.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.428.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.429.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.430.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.431.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.432.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.433.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.434.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.435.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.436.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>
393.437.00	Incompatible/Invalid Ink Stick Fault	<a href="#">2-297</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Fault Description	Page
393.439.00	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.441.00	Inkload MCU Error	<a href="#">2-299</a>
393.442.00	Inkload Yoke Sensor Error	<a href="#">2-300</a>
393.501.00	Ink Loader Fault	<a href="#">2-301</a>
393.506.00	Ink Loader Fault	<a href="#">2-301</a>
393.511.00	Ink Loader Fault	<a href="#">2-301</a>
393.516.00	Ink Loader Fault	<a href="#">2-301</a>
393.523.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.524.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.525.00	Ink Loader Thermal Fault	<a href="#">2-306</a>
393.526.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.527.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.528.00	Ink Loader Thermal Fault	<a href="#">2-306</a>
393.529.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.530.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.531.00	Ink Loader Thermal Fault	<a href="#">2-306</a>
393.532.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.533.00	Ink Loader Thermal Fault	<a href="#">2-304</a>
393.534.00	Ink Loader Thermal Fault	<a href="#">2-306</a>
393.581.00	Printhead Level Sense Fault	<a href="#">2-308</a>
393.582.00	Printhead Level Sense Fault	<a href="#">2-308</a>
393.583.00	Printhead Level Sense Fault	<a href="#">2-308</a>
393.584.00	Printhead Level Sense Fault	<a href="#">2-308</a>
393.597.00	Printhead Level Sense Fault	<a href="#">2-309</a>
393.598.00	Printhead Level Sense Fault	<a href="#">2-309</a>
393.599.00	Printhead Level Sense Fault	<a href="#">2-309</a>
393.600.00	Ink Loader Thermal Fault	<a href="#">2-311</a>
393.601.00	Ink Loader Thermal Fault	<a href="#">2-311</a>
393.602.00	Ink Loader Electrical Fault	<a href="#">2-313</a>
393.603.00	Ink Loader Thermal Fault	<a href="#">2-311</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
393.604.00	Ink Loader Thermal Fault	<a href="#">2-311</a>
393.605.00	Ink Loader Electrical Fault	<a href="#">2-313</a>
393.606.00	Ink Loader Thermal Fault	<a href="#">2-311</a>
393.607.00	Ink Loader Thermal Fault	<a href="#">2-311</a>
393.608.00	Ink Loader Electrical Fault	<a href="#">2-313</a>
393.609.00	Ink Loader Thermal Fault	<a href="#">2-311</a>
393.610.00	Ink Loader Thermal Fault	<a href="#">2-311</a>
393.611.00	Ink Loader Electrical Fault	<a href="#">2-313</a>
393.800.00	Printhead Level Sense Fault	<a href="#">2-309</a>
393.893.00	Ink Loader Fault	<a href="#">2-314</a>
393.894.00	Ink Loader Fault	<a href="#">2-314</a>
393.895.00	Ink Loader Fault	<a href="#">2-314</a>
393.896.00	Ink Loader Fault	<a href="#">2-314</a>
393.901.00	Printhead NVRAM or PLD Fault	<a href="#">2-275</a>
393.962.00	Incompatible/Invalid Ink Sticks	<a href="#">2-315</a>
393.963.00	Incompatible/Invalid Ink Sticks	<a href="#">2-315</a>
393.964.00	Incompatible/Invalid Ink Sticks	<a href="#">2-315</a>
393.965.00	Incompatible/Invalid Ink Sticks	<a href="#">2-315</a>
393.966.00	Unidentified Ink Sticks	<a href="#">2-317</a>
393.967.00	Unidentified Ink Sticks	<a href="#">2-317</a>
393.968.00	Unidentified Ink Sticks	<a href="#">2-317</a>
393.969.00	Unidentified Ink Sticks	<a href="#">2-317</a>
393.982.00	Ink Load Obstruction Fault	<a href="#">2-318</a>
393.983.00	Ink Load Obstruction Fault	<a href="#">2-318</a>
393.984.00	Ink Load Obstruction Fault	<a href="#">2-318</a>
393.985.00	Ink Load Obstruction Fault	<a href="#">2-318</a>
393.992.00	Black channel exceeded factory ink stick quota	<a href="#">2-115</a>
393.993.00	Magenta channel exceeded factory ink stick quota	<a href="#">2-115</a>
393.994.00	Ink Loader Fault	<a href="#">2-314</a>
393.995.00	Ink Loader Fault	<a href="#">2-314</a>



## Fault Code and Fault Message Display (Continued)

Fault Code	Fault Description	Page
393.996.00	Ink Loader Fault	2-314
393.997.00	Ink Loader Fault	2-314
393.998.00	Cyan channel exceeded factory ink stick quota	2-115
393.999.00	Yellow channel exceeded factory ink stick quota	2-115
<b>394 - Drum, Stripper, Drum Maintenance (page 2-320)</b>		
394.000.00	Trapped Ink Stick Faults	2-320
394.001.00	Trapped Ink Stick Faults	2-320
394.002.00	Trapped Ink Stick Faults	2-320
394.003.00	Trapped Ink Stick Faults	2-320
394.004.00	Factory Ink Stick Exceeded Quota Faults	2-321
394.005.00	Factory Ink Stick Exceeded Quota Faults	2-321
394.006.00	Factory Ink Stick Exceeded Quota Faults	2-321
394.007.00	Factory Ink Stick Exceeded Quota Faults	2-321
394.510.00	Y-Axis Fault	2-322
394.511.00	Y-Axis Fault	2-322
394.512.00	Y-Axis Fault	2-322
394.513.00	Y-Axis Fault	2-322
394.524.00	Y-Axis Fault	2-324
394.526.00	Y-Axis Fault	2-324
394.536.00	Drum Thermal Fault	2-325
394.538.00	Drum Thermal Fault	2-325
394.539.00	Drum Thermal Fault	2-325
394.540.00	Drum Thermal Fault	2-325
394.541.00	Drum Thermal Fault	2-325
394.548.00	Y-Axis Fault	2-327
394.550.00	Y-Axis Fault	2-327
394.568.00	DM Read Error	2-328
394.570.00	Drum Maintenance Fault	2-329
394.573.00	DMU Version Error	2-330
394.596.00	Y-Axis Thermal Slowdown Enabled	2-331

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
394.597.00	Y-Axis Thermal Slowdown Enabled (Envelopes)	<a href="#">2-331</a>
394.598.00	Y-Axis Position Error Slowdown Enabled	<a href="#">2-331</a>
394.599.00	Y-Axis Position Error Slowdown Enabled (Envelopes)	<a href="#">2-331</a>
394.626.00	Drum Thermal Fault	<a href="#">2-332</a>
394.700.00	Process Drive Fault	<a href="#">2-334</a>
394.701.00	Process Drive Fault	<a href="#">2-337</a>
394.702.00	Process Drive Fault	<a href="#">2-337</a>
394.703.00	X-Axis Fault	<a href="#">2-339</a>
394.704.00	Wiper or Media Drive Fault	<a href="#">2-257</a>
<b>399 - PEST (page 2-340)</b>		
399.000.00	PEST- Test Started	<a href="#">2-116</a>
399.001.00	PEST - Generic Error	<a href="#">2-340</a>
399.002.00	PEST - Left Jetstack Disconnect	<a href="#">2-341</a>
399.003.00	PEST - Right Jetstack Disconnect	<a href="#">2-341</a>
399.004.00	PEST - Reservoir Disconnect	<a href="#">2-344</a>
399.005.00	PEST - Reservoir Disconnect	<a href="#">2-344</a>
399.006.00	PEST - Drum Heater Disconnect	<a href="#">2-346</a>
399.008.00	PEST - Preheat Heater Disconnect	<a href="#">2-348</a>
399.009.00	PEST - All Ink Melters are Disconnected	<a href="#">2-350</a>
399.010.00	PEST - All Ink Melters are Disconnected	<a href="#">2-350</a>
399.011.00	PEST - All Ink Melters are Disconnected	<a href="#">2-350</a>
399.012.00	PEST - All Ink Melters are Disconnected	<a href="#">2-350</a>
399.013.00	PEST - All Ink Melters are Disconnected	<a href="#">2-350</a>
399.014.00	PEST - Media Path Cooling Fan	<a href="#">2-352</a>
399.015.00	PEST - Drum Cooling Fan Disconnect	<a href="#">2-353</a>
399.016.00	PEST - All Three Clutches Failed	<a href="#">2-354</a>
399.017.00	PEST - Head Maintenance Clutch Disconnect	<a href="#">2-356</a>
399.018.00	PEST - Main Tray Deskew Clutch Disconnect	<a href="#">2-357</a>
399.019.00	PEST - Main Tray Pick Clutch Disconnect	<a href="#">2-358</a>
399.020.00	PEST - Multipurpose Tray Pick Solenoid Disconnect	<a href="#">2-359</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
399.021.00	PEST - Strip Solenoid Disconnect	<a href="#">2-360</a>
399.022.00	PEST - Preheat Solenoid Disconnect	<a href="#">2-361</a>
399.023.00	PEST - Head Tilt Solenoid Disconnect	<a href="#">2-363</a>
399.030.00	PEST - X-Axis Motor Disconnect	<a href="#">2-364</a>
399.031.00	PEST - X-Axis Motor Disconnect	<a href="#">2-364</a>
399.032.00	PEST - X-Axis Motor Disconnect	<a href="#">2-364</a>
399.033.00	PEST - X-Axis Motor Disconnect	<a href="#">2-364</a>
399.034.00	PEST - X-Axis Motor Disconnect	<a href="#">2-364</a>
399.035.00	PEST - Y-Axis Motor Disconnect	<a href="#">2-366</a>
399.036.00	PEST - Y-Axis Motor Disconnect	<a href="#">2-366</a>
399.037.00	PEST - Media Path Motor Disconnect	<a href="#">2-367</a>
399.038.00	PEST - Media Path Motor Disconnect	<a href="#">2-367</a>
399.039.00	PEST - Process Motor Disconnect	<a href="#">2-368</a>
399.040.00	PEST - Process Motor Disconnect	<a href="#">2-368</a>
399.059.00	PEST - VPP/ VSS Measurement Too Low	<a href="#">2-369</a>
399.060.00	PEST - VPP/ VSS Measurement Too Low	<a href="#">2-369</a>
399.061.00	PEST - The Wave Amp Shorted	<a href="#">2-372</a>
399.062.00	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-375</a>
399.063.00	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-375</a>
399.064.00	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-375</a>
399.065.00	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-375</a>
399.066.00	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-375</a>
399.067.00	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-375</a>
399.068.00	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-375</a>
399.069.00	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-375</a>
399.070.00	PEST - All Ink Loader Gates Failed	<a href="#">2-376</a>
399.071.00	PEST - Power Dump Circuit Disconnected	<a href="#">2-378</a>
399.072.00	PEST - Ink Loader Yoke Motor	<a href="#">2-379</a>
399.073.00	PEST - Ink Loader Yoke Motor	<a href="#">2-379</a>
399.080.00	PEST - Power Supply Fault	<a href="#">2-380</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
399.081.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.082.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.083.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.084.00	PEST - Power Supply Fault	<a href="#">2-382</a>
399.085.00	PEST - Power Supply Fault	<a href="#">2-382</a>
399.086.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.087.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.088.00	PEST - Power Supply Fault	<a href="#">2-382</a>
399.089.00	PEST - Power Supply Fault	<a href="#">2-382</a>
399.090.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.091.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.092.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.093.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.094.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.095.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.096.00	PEST - Power Supply Fault	<a href="#">2-382</a>
399.097.00	PEST - Power Supply Fault	<a href="#">2-382</a>
399.098.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.099.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.100.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.101.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.102.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.103.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.104.00	PEST - Power Supply Fault	<a href="#">2-380</a>
399.105.00	PEST - Power Supply Fault	<a href="#">2-380</a>
<b>Error Messages (<a href="#">page 2-384</a>)</b>		
	Close Left Door (when actually closed)	<a href="#">2-384</a>
	Close Ink Loader Door (when actually closed)	<a href="#">2-385</a>
	Paper Jam - Open Left Door to Clear (no jam is present and message won't clear)	<a href="#">2-386</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Fault Description</b>	<b>Page</b>
	Tray 2 Empty (when it has paper)	<a href="#">2-387</a>
	Tray 2 is Missing (when inserted)	<a href="#">2-389</a>
	Unload Output Tray (when not full)	<a href="#">2-390</a>
	Cleaning Unit Missing (when installed)	<a href="#">2-391</a>
	Waste Tray Missing (when installed)	<a href="#">2-391</a>
	Ink Sticks Jammed	<a href="#">2-391</a>
	Remove Incompatible/Invalid Ink Sticks (Cyan, Magenta, Yellow, Black)	<a href="#">2-392</a>
	Remove Unidentified Ink Sticks (Cyan, Magenta, Yellow, Black)	<a href="#">2-393</a>

**Fault Code with Basic Action**

<b>Fault Code</b>	<b>Description</b>	<b>Action</b>
<b>305 DADF</b>		
305.255.00	Late Pre Scan Status Message	POPO
305.256.00	Eject Count Error	POPO
305.257.00	Unknown Doc Size	POPO
305.258.00	DADF Cover open during init	POPO
305.260.00	DADF not in Standby	POPO
305.300.00	DADF Open During Run	POPO
305.307.00	DADF Top Cover Open	POPO
305.310.00	DADH Source Doc Too Short for DADH	POPO
<b>310 - Transfix, Post Transfix, Media Path</b>		
310.540.00	Transfix Task Late	Self-recovering soft fault, no action needed.
<b>319 - Video Image Manipulation</b>		
319.754.00	Image disk config fault	POPO
<b>322 - System Controller</b>		
322.300.05	Image Complete not received from Video	Scan job is automatically deleted. User needs to rerun job.

**Fault Code with Basic Action (Continued)**

<b>Fault Code</b>	<b>Description</b>	<b>Action</b>
322.300.10	Failed to transfer image due to decoding error	Self-recovering soft fault, no action needed.
322.300.16	When printer determines that it needs to do a reset in order to avoid an impending real time clock overflow	Self-recovering soft fault, no action needed.
322.301.05	Scan resources not available	Scan job is automatically deleted. User needs to rerun job.
322.309.04	Consecutive no accepts received from a module exceeds threshold value (currently 20).	POPO
322.310.04	Pages received from Extended Job Service out of Sequence	Scan/ Copy job is automatically deleted. User needs to rerun job.
322.314.04	Module Registration Error	Self-recovering soft fault, no action needed.
322.315.04	One or more e modules did not respond with completion message	Scan/ Copy job is automatically deleted. User needs to rerun job.
322.316.04	Job Requires Paper Tray that does not exist	Print job deleted.
322.317.04	Job requires finishing capability that does not exist	Print job deleted.
322.318.04	Job requires an IOT capability that does not exist	Print job deleted.
322.321.00	SM Failed to remove Scan to file	POPO
322.321.04	Proposal Response Time Out Error - RS422 Configuration mismatch	POPO
322.330.01	List Jobs Request Timed out between UI CCS	Self-recovering soft fault, no action needed.
322.330.02	List Jobs Request Timed out between CCS and NCPrintService	Self-recovering soft fault, no action needed.
322.330.03	List Jobs Request Timed out between CCS and Scan To File Service	Self-recovering soft fault, no action needed.
322.330.04	List Jobs Request Timed out between CCS and Scan To Fax Service	Self-recovering soft fault, no action needed.
322.330.05	List Jobs Request Timed out between Queue Utility and DC Job Services	Self-recovering soft fault, no action needed.

**Fault Code with Basic Action (Continued)**

<b>Fault Code</b>	<b>Description</b>	<b>Action</b>
322.330.06	NC Scan to Distribution Service not responding to List Jobs RPC call	Self-recovering soft fault, no action needed.
322.701.04	Module completion message received after IOT returned to standby	Self-recovering soft fault, no action needed.
322.720.00	Service Registry Bad data / Corrupted	POPO
322.721.00	Triple A gets no response from SRS	POPO
322.750.04	Output Device Configuration Mismatch	Self-recovering soft fault, no action needed.
322.750.17	Accessory Card Configuration Mismatch	Self-recovering soft fault, no action needed.
322.751.04	Paper Tray Configuration Mismatch	Self-recovering soft fault, no action needed.
322.754.17	When the System detects the UI Configuration has changed during the Power On Sequence	Self-recovering soft fault, no action needed.
322.755.17	RDT Configuration Mismatch	Self-recovering soft fault, no action needed.
<b>362 - Scanner</b>		
362.473.00	Uart Rx Wrap Error	POPO
362.475.00	Move before reset error	POPO
<b>389 - Media Path</b>		
389.109.00	MP Sensor 9 TE Timeout	Self-recovering soft fault, no action needed.
389.113.00	MP Sensor 10 TE Timeout	Self-recovering soft fault, no action needed.
389.150.00	MP Sensor 16 TE Timeout	Self-recovering soft fault, no action needed.
<b>391 - Printhead Wiper, Head Tilt</b>		
391.503.00	PrintSeq Image Data Timeout	Self-recovering soft fault, no action needed
391.614.00	Head Field Data NVRAM	Manufacturing only fault.
<b>393 - Ink Delivery and Ink Thermals</b>		
393.992.00	Black channel exceeded factory ink stick quota	Only 3 factory sticks allowed per color.
393.993.00	Magenta channel exceeded factory ink stick quota	Only 3 factory sticks allowed per color.

**Fault Code with Basic Action (Continued)**

<b>Fault Code</b>	<b>Description</b>	<b>Action</b>
393.998.00	Cyan channel exceeded factory ink stick quota	Only 3 factory sticks allowed per color.
393.999.00	Yellow channel exceeded factory ink stick quota	Only 3 factory sticks allowed per color.
<b>399 - Print Engine Self-Test</b>		
399.000.00	PEST- Test Started	No fault indicated, just a delineator used for the PEST fault history table to indicate a PEST test was started.




## 302 - System Controller/ UI

### Flash Failure

A flash error has occurred. The following troubleshooting procedure applies to these errors.

#### Applicable Fault Codes

- 302-302.00: Flash Rewrite Failure
- 302.306.00: Flash Erase Failure
- 302.308.00: Flash Download Failure

 **WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

#### Troubleshooting Procedure


Step	Actions and Questions
1.	Turn Off the printer, then turn the printer back On.
2.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.

### Service Registry Bad Data

The system has timed out during database processing. The database that the ApeosWare Authentication Agent is connected to has overloaded and resulted in an error.

#### Applicable Fault Code

- 302.315.00: Service Registry bad or corrupted data

 **WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

#### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn the printer back On.
2.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.

## SRS Error

An SRS error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 302.316.00: SRS returns to LUI invalid fields, invalid data or missing data
- 302.317.00: LUI gets no response from SRS



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn the printer back On.
2.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.

## Data Time Out Error

A Control Panel error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 302.320.00: UI does not receive requested data from the CCM within the specified time out window.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn the printer back On.
2.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.

## XEIP Browser Dead

A Control Panel error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 302.321.00: The user interface has detected that the EIP (Extensible Interface Platform) browser does not respond, or is known to be not working.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Before a new User Interface Assembly is installed, identify the printer software level. Check the compatibility of software on the new user interface assembly. Install software to meet the customer printer requirements.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> <li>• Control Panel, PL 4.1.15</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn the printer back On. <b>Note:</b> If the Control Panel is unavailable, the power down request cannot be confirmed. The printer will power down automatically after 60 seconds.
2.	Ensure the Customer Service button is enabled on the Control Panel, as detailed in the System Administrator's Guide. If necessary, perform <a href="#">Firmware Upgrade</a> on page 6-51.
3.	Check that the printer is communicating with the network, for example by sending a print job. If necessary, check the network cable and check with the customer that their network and web browser are running correctly.
4.	Check the cables between P/J905 on the Control Panel PWB and P/J19 on the Single Board Controller PWB. If necessary, repair the wiring harness, or install a new Control Panel wiring harness. If necessary, install new components: <ul style="list-style-type: none"> <li>• Main Controller Board (REP 10.3, <a href="#">page 4-162</a>)</li> <li>• Control Panel (REP 4.6, <a href="#">page 4-38</a>)</li> </ul>

## UI Communication Fault

A Control Panel error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 302.380.00: Communication via H-H USB net path connection between NC and Control Panel is not working.
- 302.381.00: Communication via USB connection between CC and Control Panel is not working.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Before a new Control Panel is installed, identify the printer software level. Check the compatibility of the software on the new user interface assembly. Install the software to meet the customer printer requirements.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> <li>• Control Panel, PL 4.1.15</li> </ul>	<a href="#">Overview Wiring Diagram</a> on page 7-62

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn the printer back On. <b>Note:</b> If the Control Panel is unavailable, the power down request cannot be confirmed. The printer will power down automatically after 60 seconds.
2.	Check the cable connectors between the Main Controller Board P/J301 and the Control Panel CN5.
3.	If necessary, install new components: <ul style="list-style-type: none"> <li>• Main Controller Board (REP 10.3, <a href="#">page 4-162</a>)</li> <li>• Control Panel (REP 4.6, <a href="#">page 4-38</a>)</li> </ul>

## Network Failure

Use this procedure 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.

### Troubleshooting Procedure

Consult your manager before troubleshooting the customer's network, as the policy varies according to region.

If it is possible to log into CWIS by entering the IP address of the printer, then the Network Controller is OK. Refer to [Network Troubleshooting](#) on page 2-459 for detail procedures.

# 303 - Machine Run Control

## CCM Cannot Communicate with IOT

A communication with IOT error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.316.00: The communications between the Copy Controller PWB through the media path PWB and to the IME Controller PWB have failed



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	If the fault occurs during a software upgrade, wait 15 minutes for the software programming operation to complete, before performing the next task. Turn Off the printer, then turn it back On.
2.	If the fault was detected during a software upgrade, perform <a href="#">Firmware Upgrade</a> on page 6-51.
3.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## System Detects the Printer Clock Failed to Increment During Power On

The software has detected that the printer clock has not increment within 1.5 seconds during the Power On Self Test operation. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.325.00: System detects the printer clock failed to increment during power on



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Check the Fault History file for other 303.xxx fault codes.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Perform <a href="#">Firmware Upgrade</a> on page 6-51.
3.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Main Controller Board Cannot Communicate with ESS

A Main Controller Board error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 303.331.00: The Copy Controller cannot communicate with the Network Controller.
- 303.332.00: The Copy Controller was unable to communicate with the Network Controller after 12 minutes.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Check the Fault History file for other 303.xxx fault codes.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Perform <a href="#">Firmware Upgrade</a> on page 6-51.
3.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).



## Main Controller on the CCB/ SBC has Reset

A communication error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.338.00: The Copy Controller cannot communicate with the Network Controller.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Check the Fault History file for other 303.xxx fault codes.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Perform <a href="#">Firmware Upgrade</a> on page 6-51.
3.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Unable to Communicate with Control Panel

A Control Panel communication error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.346.00: Unable to re-establish communication with the UI after 30 seconds.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Perform <a href="#">Firmware Upgrade</a> on page 6-51.

## Main Controller PWB Cannot Communicate with the Control Panel PWB

A communication error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.347.00: The Copy Controller PWB/ single board controller PWB to UI Control PWB communications have failed.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Check the Fault History file for other 303.xxx fault codes.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> <li>• Control Panel, PL 4.1.15</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Ensure the connectors between the Main Controller Board and Control Panel are correctly and securely seated. Check the wiring harness between the Main Controller Board and Control Panel.
3.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## CCS Power Fault

The Copy Controller software fault has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.362.00: The Copy Controller software has failed to exit from a timer and has detected that this is caused by an abnormal power condition.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Check the Fault History file for other 303.xxx fault codes.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Power Supply, PL 10.1.10</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Check the wiring harness connectors for the Power Supply.
3.	Replace the Power Supply (REP 10.3, <a href="#">page 4-162</a> ).

## System Configuration Recovery Attempt

The system configuration has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.397.00: System configuration is lost and an attempt recovery made (from SIM).



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Check the Fault History file for other 303.xxx fault codes.

### Troubleshooting Procedure

**Note:** This is a soft fault and for information only. No functions in the printer will be disabled and no action is necessary.

## SIM Card Fault

The system configuration has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 303.398.00: SIM Card serial number mismatch between the option and the printer.
- 303.399.00: SIM Card data cannot be processed by the printer.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Action

- Check the Fault History file for other 303.xxx fault codes.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Power Supply, PL 10.1.10</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Check that the Feature Card is a valid option for this printer. There is a mismatch between the Feature Card and the printer and the two are not compatible. Obtain a SIM card that is compatible with this printer.

## CCM POST Failure Detected/ NVM Battery Dead

A POST failure has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.555.00: CCM POST Failure Detected / NVM Battery Dead



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Power Loss Detected

A power input loss has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.777.00: The fault history file indicates that the system has previously detected a power input loss.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

**Note:** This fault code will occur any time the power is shut down abnormally, including when the power cord is pulled out while the printer is On.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Check with the customer that the AC mains (line) input power source is not experiencing interruptions.
2.	Check with the customer that the printer does not share a power supply with any other equipment. Sharing a power source may cause the safety over current device to switch Off the electrical supply to the printer. This would cause a 303.707.00 fault. If possible, ensure the printer is connected to a dedicated power source.
3.	Refer to <a href="#">Figure 1 - Power Input Circuit</a> on page 2-133 and check the power input circuit and its connectors.



Troubleshooting Procedure (Continued)

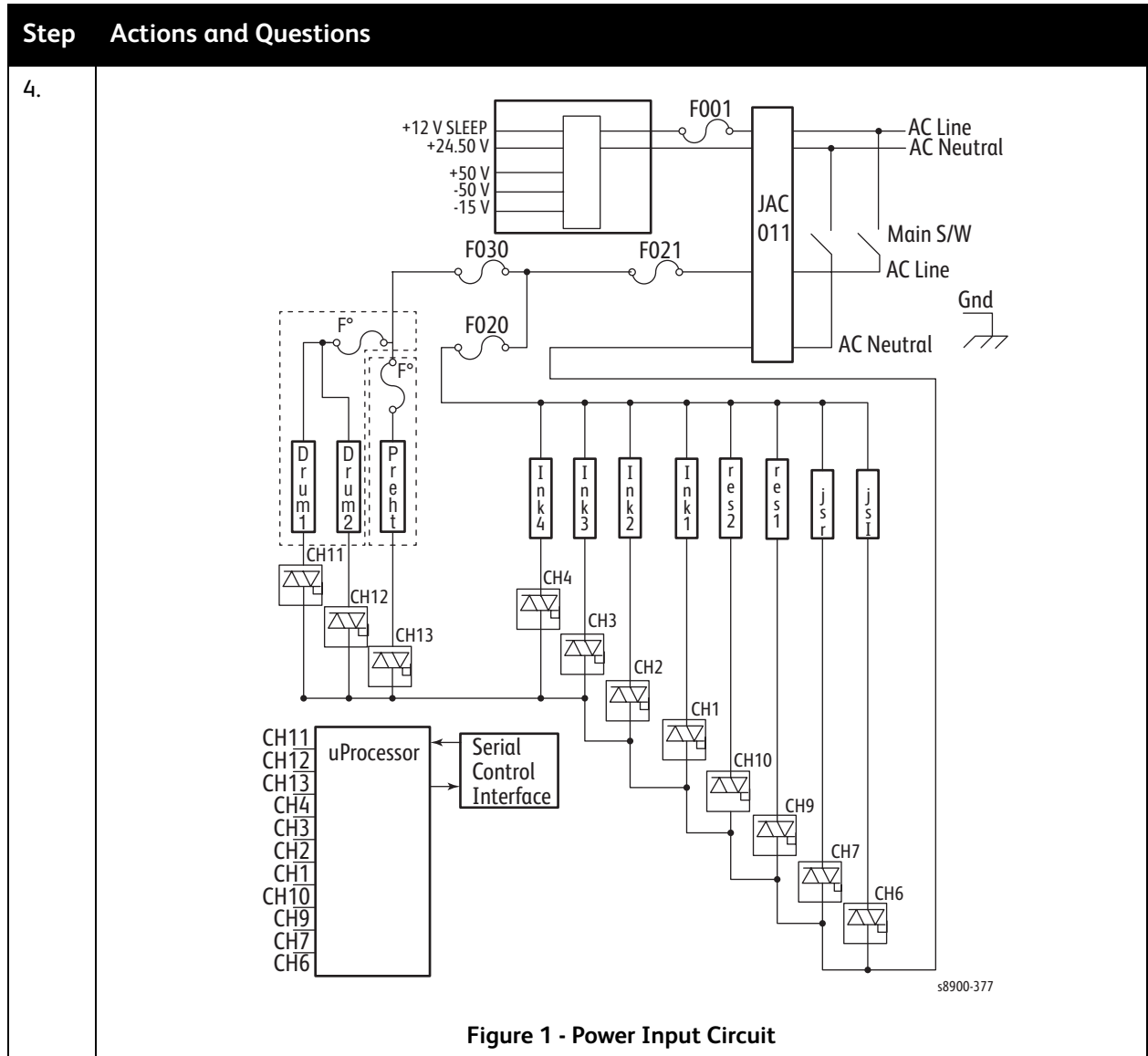


Figure 1 - Power Input Circuit

## Failed to Exit Power Save Mode

The OS failed to exit power save mode. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.788.00: The OS failed to return the system to Ready mode after the request from the Power Saver System manager.



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn the printer back On.
2.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.

## CCS Timezone Cannot be Set

A Timezone error has occurred. The following troubleshooting procedure applies to this error.

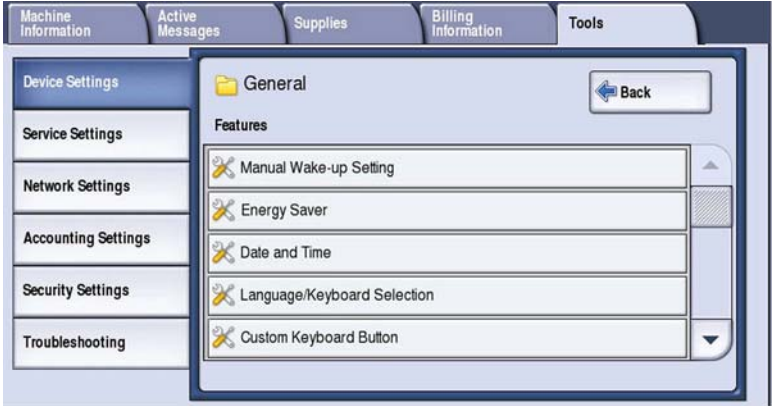
### Applicable Fault Code

- 303.790.00: At power up, the Timezone is not valid due to NVM corruption, or OS file system problem. Timezone overridden to GMT:DST disabled.


### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions
1.	<p>Reset the time zone in customer Tools.</p> <ol style="list-style-type: none"> <li>Enter <a href="#">Machine Status/Tools</a> (<a href="#">Accessing Machine Status/ Tools Menu</a> on page 2-4).</li> <li>On the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools</b>.</li> <li>Verify that <a href="#">Device Settings</a> is highlighted.</li> <li>Touch <b>Date and Time</b>.</li> </ol> 

### Troubleshooting Procedure (Continued)

Step	Actions and Questions
2.	<p>From the pull-down menu, select the appropriate time zone.</p> 

# 305 - DADF

## DADF Corrupted Flash Memory

A DADF error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 305.250.00: Kernel Checksum Error
- 305.251.00: Application Checksum Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF PWB (SDC), PL 1.4.12</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the DADF (SDC) PWB (REP 1.4, <a href="#">page 4-9</a> ). Does the problem persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Duplex Automatic Document Feeder Assembly (REP 1.1, <a href="#">page 4-5</a> ) Does the error persist?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Troubleshooting complete.

## DADF Communication Errors

A DADF error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 305.252.00: Stepper Controller Communications Error
- 305.253.00: IIT - DADH Communications Error
- 305.254.00: Communications Sequence Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF PWB (SDC), PL 1.4.12</li> <li>• Scanner PWB (IPP), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the DADF (SDC) PWB (REP 1.4, <a href="#">page 4-9</a> ). Does the problem persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Scanner PWB (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Replace the Duplex Automatic Document Feeder Assembly (REP 1.1, <a href="#">page 4-5</a> ) Does the error persist?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Troubleshooting complete.

## DADF Hotline Error

A DADF error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 305.259.00: DADF Hotline Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF PWB (SDC), PL 1.4.12</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the DADF (SDC) PWB (REP 1.4, <a href="#">page 4-9</a> ). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Duplex Automatic Document Feeder Assembly (REP 1.1, <a href="#">page 4-5</a> ) Does the error persist?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Troubleshooting complete.

## DADF LE Late to Post Feed

A DADF error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 305.330.00: LE Late to Post Feed Sensor S5

### Initial Actions

- Check for jammed sheet.
- Check that the media is supported from the DADF.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open DADF Top Cover and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the media is the correct size and type for the tray. Does the problem persist?	Go to step 3.	Troubleshooting complete.
3.	Check the DADF Pick Roller Assembly for proper operation. Replace the DADF Pick Roller if necessary or near end of life (REP 1.3, <a href="#">page 4-8</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Run <a href="#">dc330 Component Control</a> on page 2-39, test 005.062 (Feed Clutch). Does the Clutch activate?	Go to step 5.	Replace the Clutch (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).
5.	Run <a href="#">dc330 Component Control</a> , test 005.074 (Feed Motor). Does the Motor run?	Go to step 6.	Replace the Feed Motor (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
6.	Run <a href="#">dc330 Component Control</a> , test 005.195 (Interval Sensor) and manually activate the Sensor Does the Sensor display change?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Replace the Interval Sensor (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).

## DADF Multipick

A DADF error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 305.331.00: TE late to post feed sensor S5 (multi-feed)

### Initial Actions

- Check for jammed sheet.
- Check that the media is supported from the DADF.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Pick Roller/ Retard Roller Assembly, PL 1.2.20</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open DADH top cover and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the media is the correct size and type for the tray. Does the error persist?	Check the DADH Pick Roller Assembly for proper operation. Replace if necessary or near end of life (REP 1.3, <a href="#">page 4-8</a> ).	Troubleshooting complete.

## DADF Jams

A DADF Jam has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 305.335.00: LE late to TAR sensor S6
- 305.340.00: LE Late to Registration Sensor S7
- 305.345.00: LE Late to Exit Sensor S8 (FWD)
- 305.346.00: TE Late to Exit Sensor S8 (FWD)
- 345.350.00: LE Late to CVT Sensor S10 (FWD)
- 345.352.00: LE Late to CVT Sensor S10 (REV)

### Initial Actions

- Check for service bulletins related to DADF Jams.
- Check for jammed sheet.
- Check that the media is supported from the DADF.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> <li>• Scanner Assembly, PL 2.1.42</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open DADF Top Cover and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the media is the correct size and type for the tray. Does the problem persist?	Go to step 3.	Troubleshooting complete.
3.	Check the DADF Pick Roller Assembly for proper operation. Replace if necessary or near end of life (REP 1.3, <a href="#">page 4-8</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	Run <a href="#">dc330 Component Control</a> on page 2-39, test 005.062 (Feed Clutch). Does the Clutch activate?	Go to step 5.	Replace the Clutch (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).
5.	Run <a href="#">dc330 Component Control</a> , test 005.074 (Feed Motor). Does the Motor work?	Go to step 6.	Replace the Feed Motor (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).
6.	Run <a href="#">dc330 Component Control</a> , test 005.099 (CVT Motor). Does the Motor work?	Go to step 7.	Replace the CVT Motor (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).
7.	Run <a href="#">dc330 Component Control</a> , test 005.195 (Interval Sensor) and manually activate the Sensor. Does the Sensor display change?	Go to step 8.	Replace the Interval Sensor (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).
8.	Run <a href="#">dc330 Component Control</a> , test 005.196 (scan timing) and manually activate the Sensor Does the Sensor display change?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Replace the Scan Timing Sensor (DADF Assembly) (REP 1.1, <a href="#">page 4-5</a> ).

# 310 - Transfix, Post Transfix, Media Path

## Drum Initial Position Wrong

A Drum error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 310.545.00: Drum Position Wrong

### Initial Actions

- Reboot the printer and verify the error persists.
- Check all the Drum cable connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Drum Assembly, PL 7.1.21</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Rerun the job. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Run the job at a higher print resolution. Does the error persist?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ).	Troubleshooting complete.

## Y-Axis Fault

A Y-Axis error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 310.550.00: Drum Stall

### Initial Actions

- Reboot the printer and verify the error persists.
- Check all the Drum cable connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Y-Axis Belt, PL 7.1.20</li> <li>• Drum Assembly, PL 7.1.21</li> <li>• Y-Axis Motor Assembly, PL 9.1.3</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel</a> on page 7-67</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Verify that user is setting correct paper type when running thick media or envelopes. Does the media selection have the correct media type?	Go to step 2.	Set the correct media type.
2.	Try running media from Tray 1. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Check the Drum Power and encoder wiring harness connectors P/J51, P/J502, and P/J505. Are the connections secure and undamaged?	Go to step 4.	Reseat and/or repair the wiring harnesses.
4.	Clean the Y-Axis Belt and Pulleys with Isopropyl Alcohol. Replace the Y-Axis Belt (REP 7.12, <a href="#">page 4-95</a> ). Turn On the printer. Does the error persist?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ). Go to step 5.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	Does the error persist?	Replace the Y-Axis Motor Assembly (REP 9.2, <a href="#">page 4-135</a> ).	Troubleshooting complete.

# 312 - Finisher

## Finisher Paddle Fault

A finisher error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.024.00: Paddle Home Fault
- 312.025.00: Paddle Move Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Assembly, PL 16.1.7</li> <li>• Feed/ Paddle Unit (Paddle Roll Motor), PL 16.2.1</li> <li>• Finisher Control Board, PL 16.2.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Remove the Finisher Covers (Rear Cover, REP 16.1 - <a href="#">page 4-214</a> ) (Front Cover, REP 16.2 - <a href="#">page 4-215</a> ) and check for any damaged or unplugged cables. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Run <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">012.009</a> . Does the paddle rotate?	Go to step 2.	Inspect and replace Paddle Roll Motor (REP 16.4, <a href="#">page 4-220</a> ) or Finisher Control Board (REP 16.6, <a href="#">page 4-224</a> ).
3.	Run <a href="#">dc330 Component Control</a> , codes <a href="#">012.112</a> and <a href="#">012.009</a> . Does the display change?	Troubleshooting complete.	Replace Paddle Sensor (REP 16.4, <a href="#">page 4-220</a> ).



## Finisher Entry Jam

A finisher Sensor error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.101.00: Finisher Entry Sensor not cleared Jam
- 312.125.00: Finisher Entry Sensor not made Jam
- 312.195.00: Paper Detect Sensor not made Jam
- 312.610.00: Finisher Entry Sensor static jam
- 312.950.00: Preparation time violation on Finisher Entry Sensor

### Initial Actions

- Check Finisher/Transport area for jams.
- Verify the Finisher is seated/installed properly.
- Make sure paper tray settings are correct.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Assembly, PL 16.1.7</li> <li>• Feed/ Paddle Unit (Paddle Roll Motor), PL 16.2.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Remove the Finisher Covers (Rear Cover, REP 16.1 - <a href="#">page 4-214</a> ) (Front Cover, REP 16.2 - <a href="#">page 4-215</a> ) and check for any damaged or unplugged cables. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">012.106</a> (Entry Sensor) or <a href="#">012.107</a> (Paper Detect Sensor) and manually activate the Sensor. Does display change?	Troubleshooting complete.	Replace the Paddle Sensor (Feed/ Paddle Unit) (REP 16.4, <a href="#">page 4-220</a> ).

## Finisher Transport Jam

A finisher jam has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 312.102.00: Late IME Exit

### Initial Actions

- Check for jammed sheets in the Transport Unit.
- Verify the Transport Unit is seated/installed properly.
- Verify the Finisher is installed properly.
- If the problem persists, perform the following procedure.

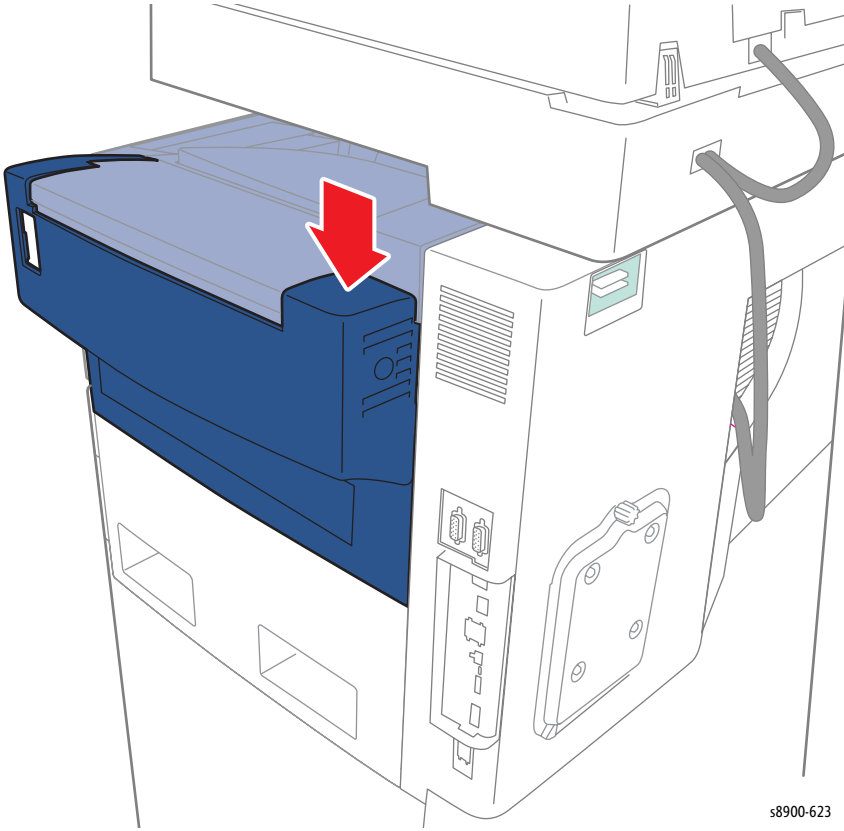
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport, PL 3.1.19</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Remove and reinstall the Finisher (REP 16.3, <a href="#">page 4-216</a> ). Verify that the Gear Train meshes with the Gears on the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	Verify that the Right Side Cover is fully seated at the rear side. Press down to reseat if needed as shown in <a href="#">Figure 1 - Right Side Cover</a> . Does the error persist?	Go to step 3.	Troubleshooting complete.
<div style="text-align: right; margin-bottom: 0;">s8900-623</div>  <p style="text-align: center;"><b>Figure 1 - Right Side Cover</b></p>			
3.	Verify the Horizontal Transport Cover is fully closed and closes easily. Is the Transport Cover closed?	Go to step 4.	Close the Horizontal Transport Cover or replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).
4.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">012.100</a> (ICT Transport Paper Path Sensor). Manually activate the Paper Path Sensor in the Horizontal Transport. Does display change?	Troubleshooting complete.	Replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).

## Finisher Ejector Clamp Fault

A Finisher Ejector Clamp error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.283.00: Finisher Ejector clamp motor stall
- 312.284.00: Finisher Ejector clamp return home fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check for damage or obstructions around the stapler.
- Remove and reinsert the stapler cartridge.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Assembly, PL 16.1.7</li> <li>• Finisher Ejector/Tamper Assembly (Staple Cover, Switch), PL 16.2.6</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Alternately run <a href="#">dc330 Component Control</a> on page 2-39, tests <a href="#">012.004</a> , <a href="#">012.013</a> and <a href="#">012.014</a> . Does the Ejector Clamp move?	Go to step 2.	Replace the Ejector/Tamper) (REP 16.9, <a href="#">page 4-230</a> ).
2.	Run <a href="#">dc330 Component Control</a> , test <a href="#">012.111</a> and alternately run <a href="#">dc330 Component Control</a> , tests <a href="#">012.004</a> , <a href="#">012.013</a> and <a href="#">012.014</a> . Does the display change?	Troubleshooting complete.	Go to step 3.
3.	Remove the Finisher Covers (Rear Cover, REP 16.1 - <a href="#">page 4-214</a> ) (Front Cover, REP 16.2 - <a href="#">page 4-215</a> ) and check the Clamp Home Sensor wiring. Reseat or repair the wiring. Does the error persist?	Replace the Finisher Assembly (REP 16.3, <a href="#">page 4-216</a> ).	Troubleshooting complete.

## Transport Cover Fault

A Horizontal Transport Unit jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 312.303.00: Transport cover opened in run

### Initial Actions

- Check that the transport is installed properly.
- Check that the transport cover closes smoothly.
- Check for jammed sheets in transport.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport, PL 3.1.4</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">012.103</a> . Open and close the Transport Cover. Does the display change?	Open the Ink Loader Door, then remove and reinstall the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).	Replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).

## Finisher Staple Cover Fault

A Finisher Cover error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.336.00: Finisher Staple Cover Opened in run
- 312.602.00: Finisher Staple Cover is open

### Initial Actions

- Check staple cover for obstructions.
- Close the Staple Cover Door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Stapler Unit (Staple Cover), PL 16.2.2</li> <li>• Finisher Control Board, PL 16.2.3</li> <li>• Finisher Ejector/Tamper Assembly (Staple Cover, Switch), PL 16.2.6</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">012.121</a> . Open and close the Staple Cover. Does the display change?	Go to step 2.	Replace the Staple Cover Switch (Ejector/Tamper) (REP 16.9, <a href="#">page 4-230</a> ).
2.	Check the Staple Cover for damage to the finger that triggers the Switch. Is the Staple Cover damaged?	Replace the Staple Cover (Stapler Unit) (REP 16.5, <a href="#">page 4-223</a> ).	Replace the Finisher Control Board (REP 16.6, <a href="#">page 4-224</a> ).

## Finisher Jam Cover Fault

A Finisher Jam Cover error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.312.00: Finisher Jam Cover Opened in run
- 312.564.00: Finisher Jam Cover is open

### Initial Actions

- Check jam cover for obstructions
- Check that the jam cover is closed.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Assembly, PL 16.1.7</li> <li>• Feed/ Paddle Unit (Paddle Roll Motor), PL 16.2.1</li> <li>• Finisher Control Board, PL 16.2.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">012.122</a> and open and close the Jam Cover. Does the display change?	Go to step 2.	Replace the Finisher (REP 16.3, <a href="#">page 4-216</a> ).
2.	Check the Jam Cover for damage, especially to the finger that triggers the Switch. Is there damage?	Replace the Feed/ Paddle Unit (REP 16.4, <a href="#">page 4-220</a> ).	Replace the Finisher Control Board (REP 16.6, <a href="#">page 4-224</a> ).

## Finisher Stapler Move Fault

A Finisher Stapler error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 312.371.00: Stapler Move Fault

### Initial Actions

- Check for damage or obstructions around the stapler.
- Remove and reinsert the stapler cartridge.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Assembly, PL 16.1.7</li> <li>• Finisher Stapler Unit (Staple Cover), PL 16.2.2</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Insert a sheet of paper into the Finisher Stapler. Run <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">012.003</a> . Does the Stapler move?	Go to step 2.	Replace the Staple Motor (Stapler Unit) (REP 16.5, <a href="#">page 4-223</a> ).
2.	Run <a href="#">dc330 Component Control</a> , tests <a href="#">012.116</a> and <a href="#">012.003</a> . Does the display change?	Troubleshooting complete.	Replace the Stapler Unit (REP 16.5, <a href="#">page 4-223</a> ).



## Finisher Front Tamper Fault

A Finisher Front Tamper error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.392.00: Finisher Front Tamper move fault
- 312.393.00: Finisher Front Tamper home fault

### Initial Actions

- Check for damage or obstructions around tamper assembly
- Reboot the printer.
- Make sure paper tray settings are correct.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Front Tamper (Ejector/Tamper Assembly), PL 16.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Alternately run <a href="#">dc330 Component Control</a> on page 2-39, tests <a href="#">012.007</a> and <a href="#">012.011</a> . Does the Tamper move?	Go to step 2.	Replace the Front Tamper Unit (Ejector/Tamper Assembly) (REP 16.9, <a href="#">page 4-230</a> ).
2.	Run <a href="#">dc330 Component Control</a> , test <a href="#">012.104</a> and manually move the Front Tamper. Does the display change?	Troubleshooting complete.	Replace the Front Tamper Unit (Ejector/Tamper Assembly) (REP 16.9, <a href="#">page 4-230</a> ).

## Finisher Rear Tamper Fault

A Finisher Rear Tamper error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.396.00: Finisher Rear Tamper move fault
- 312.397.00: Finisher Rear Tamper home fault

### Initial Actions

- Check for damage or obstructions around tamper assembly
- Reboot the printer.
- Make sure paper tray settings are correct.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Rear Tamper (Ejector/Tamper Assembly), PL 16.2.6</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Alternately run <a href="#">dc330 Component Control</a> on page 2-39, tests <a href="#">012.008</a> and <a href="#">012.012</a> . Does the Tamper move?	Go to step 2.	Replace the Rear Tamper Unit (Ejector/Tamper Assembly) (REP 16.9, <a href="#">page 4-230</a> ).
2.	Run <a href="#">dc330 Component Control</a> , test <a href="#">012.105</a> and manually move the Front Tamper. Does the display change?	Troubleshooting complete.	Replace the Rear Tamper Unit (Ejector/Tamper Assembly) (REP 16.9, <a href="#">page 4-230</a> ).

## Finisher Stacker Fault

A Finisher Stacker error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 312.462.00: Finisher Stacker bin elevator move fault

### Initial Actions

- Check for damage or obstructions around the Stacker.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Assembly, PL 16.1.7</li> <li>• Stacker Motor Encoder Sensor, PL 16.13.19</li> <li>• Stacker Motor, PL 16.13.20</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Run <a href="#">dc330 Component Control</a> on page 2-39, tests <a href="#">012.006</a> and <a href="#">012.010</a> . Does the bin move?	Go to step 2.	Replace the Finisher Assembly (REP 16.3, <a href="#">page 4-216</a> ).
2.	Run <a href="#">dc330 Component Control</a> , test <a href="#">012.114</a> and also alternately run <a href="#">dc330 Component Control</a> tests <a href="#">012.006</a> and <a href="#">012.010</a> . Does the display change?	Troubleshooting complete.	Replace the Finisher Assembly (REP 16.3, <a href="#">page 4-216</a> ).

## Finisher Communication Fault

A Finisher communication error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.492.00: CDI Communications failure with Finisher
- 312.493.00: Finisher failure to Cycle Up in time
- 312.494.00: Finisher failure to return Prep Time

### Initial Actions

- Verify all the Finisher cable connections are seated properly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Finisher Assembly, PL 16.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Are the Finisher connections (data and power) are fully seated?	Go to step 2.	Reseat the connectors.
2.	Power Of and power On the printer. Does the error persist?	Replace the Finisher Assembly (REP 16.3, <a href="#">page 4-216</a> ).	Troubleshooting complete.

## Finisher Transport Jam

A Finisher Transport error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 312.613.00: Finisher Transport Static jam

### Initial Actions

- Check for jammed sheets in Transport.
- Verify transport unit fully seated and installed correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport or Catch Tray (Output Tray), PL 3.1.4/ PL 3.1.19</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">012.100</a> . Manually activate the Paper Path Sensor in the Transport Unit. Does the display change?	Troubleshooting complete.	Replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).

## No Catch Tray Installed

A Finisher Catch Tray error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 312.766.00: No Catch Tray Installed

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Horizontal Transport or Catch Tray (Output Tray), PL 3.1.4/ PL 3.1.19</li><li>• Ink Loader Bezel, PL 3.1.6</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Install the Catch Tray (Output Tray) or Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).
2.	If installed when fault is thrown then replace the Ink Load Bezel (REP 3.3, <a href="#">page 4-21</a> ).

## No Transport/ Catch Tray Installed

A Finisher Catch Tray error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 312.767.00: No Catch Tray Installed

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport or Catch Tray (Output Tray), PL 3.1.6</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Install the Catch Tray (Output Tray) or Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).
2.	If installed when fault is thrown then replace the Ink Load Bezel (REP 3.3, <a href="#">page 4-21</a> ).

## Finisher Catch Tray or Transport Installation Fault

A Finisher Catch Tray error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 312.768.00: Catch tray not installed but Ink Load Cover closed
- 312.769.00: Transport not installed but Ink Load Cover closed

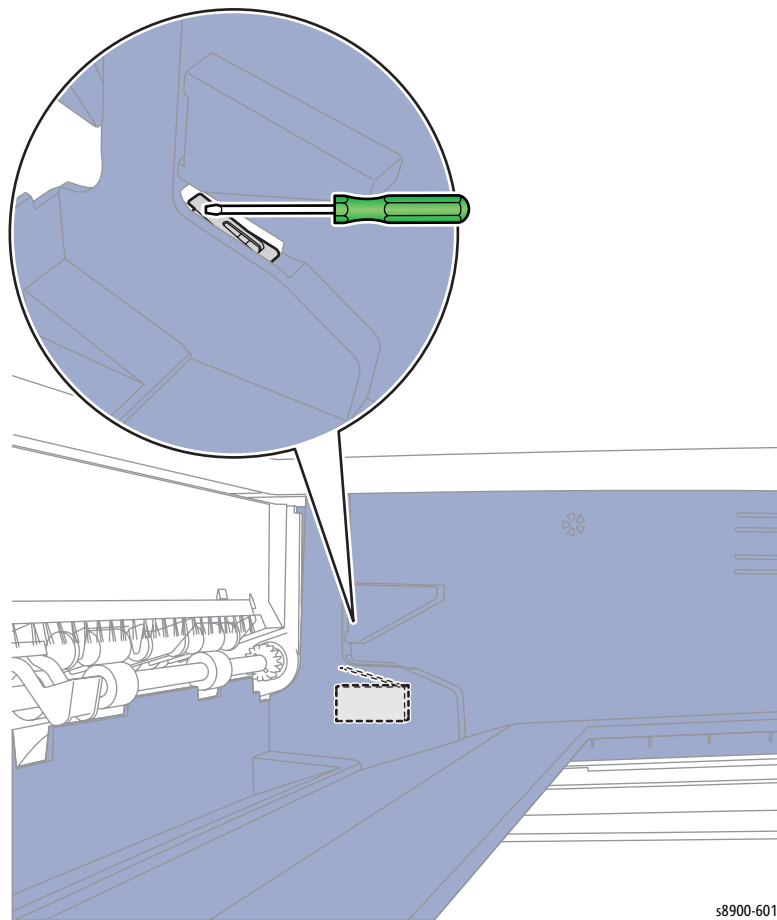
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Horizontal Transport or Catch Tray (Output Tray), PL 3.1.6</li></ul>	



Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Is the Output Tray or Transport installed?	Replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).	Turn On the printer. Use a flat screwdriver to depress the Sensor Flag (see <a href="#">Figure 1 - Sensor Flag Location</a> ). Press the button to open Ink Load Door (REP 3.2, <a href="#">page 4-20</a> ). Install the Horizontal Transport. Close the Ink Load Door and reboot the printer.



s8900-601

Figure 1 - Sensor Flag Location

# 316 - Network Controller

## Other Network Faults 6

A network error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 316.810.00: Scan to Distribution Death Error
- 316.810.09: Scan Service Available
- 316.810.19: Failed to Remove Accounting
- 316.810.47: SESS Diagnostics Failure
- 316.811.09: SMB Death Error
- 316.811.19: Failed to Initiate Operation
- 316.811.47: SESS Diagnostics Failure
- 316.812.00: TCP/IP Service Unavailable
- 316.812.09: TCPIP Service Unavailable
- 316.812.19: Failed to Change the Enable Upgrade Flag
- 316.812.47: SESS Diagnostics Failure
- 316.813.00: WS Scan Temp Death Error
- 316.813.09: Scan Service Unavailable
- 316.813.47: SESS Diagnostics Failure
- 316.814.00: Scan Compressor Death Error
- 316.814.09: Scan Compressor Service Unavailable
- 316.814.47: SESS Diagnostics Failure
- 316.815.09: Service Registry Process Death
- 316.815.47: SESS Diagnostics Failure
- 316.816.09: EIP Service not Responding
- 316.816.47: SESS Diagnostics Failure



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Troubleshooting Procedure

Step	Actions and Questions
1.	For a single occurrence, turn Off the printer, then turn it back On.
2.	For multiple occurrences, perform <a href="#">Firmware Upgrade</a> on page 6-51.
3.	Use laptop and crossover cable to confirm error.

**Troubleshooting Procedure (Continued)**

<b>Step</b>	<b>Actions and Questions</b>
4.	Verify network setup.

## Other Network Faults 7

A network error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 316.820.47: SESS Diagnostics Failure
- 316.821.47: SESS Diagnostics Failure
- 316.822.47: SESS Diagnostics Failure
- 316.823.47: SESS Diagnostics Failure
- 316.824.47: SESS Diagnostics Failure
- 316.825.47: SESS Diagnostics Failure
- 316.826.47: SESS Diagnostics Failure
- 316.827.47: SESS Diagnostics Failure
- 316.828.47: SESS Diagnostics Failure
- 316.829.47: SESS Diagnostics Failure



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

### Troubleshooting Procedure

Step	Actions and Questions
1.	For a single occurrence, turn Off the printer, then turn it back On.
2.	For multiple occurrences, perform <a href="#">Firmware Upgrade</a> on page 6-51.

# 319 - Video Image Manipulation

## System Disk (HDD 1) Failure

A system disk error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 319.300.00: Unable to read or write data from the system disk
- 319.301.00: Unable to write data to the system disk
- 319.302.00: Bad data received from the disk (i.e., disk returns data other than a read or write operation in response to a read or write request from)
- 319.303.00: Unable to format the system disk
- 319.310.00: Disk system does not return capacity information during power up



**WARNING:** Ensure that the electricity to the printer is switched Off while performing tasks that do not need electricity. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

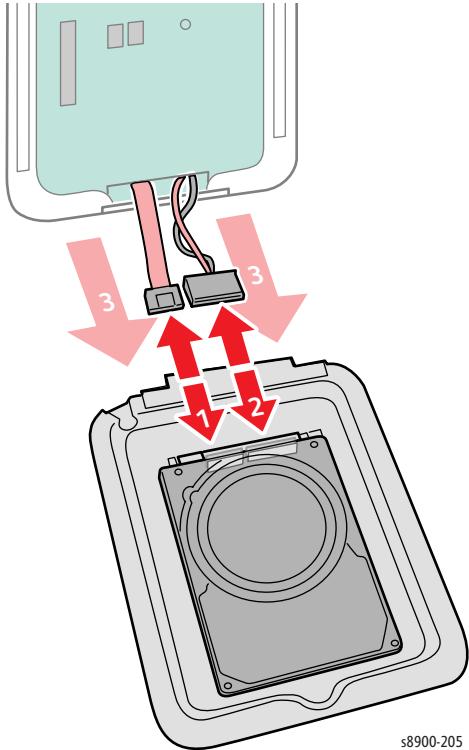
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Hard Disk Drive, PL 10.1.1</li> <li>• Main Controller Board, PL 10.1.3</li> </ul>	<a href="#">Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel</a> on page 7-67

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the wiring harness connectors (power and signal) between the Main Controller Board and Hard Disk Drive.		
2.	Check the Hard Disk Drive voltages. Measure +5V on the black and red connectors. (see <a href="#">Figure 1 - Hard Disk Drive Connectors</a> on page 2-170) Is there +5V measured?	Go to step 3.	Go to step 5.
3.	If necessary, perform <a href="#">Firmware Upgrade</a> on page 6-51. Does the error still persists?	Replace the Hard Disk Drive (REP 10.1, <a href="#">page 4-159</a> ). Go to step 4.	Troubleshooting complete.
4.	Does the error still persists?	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	Disconnect the connectors from the Hard Disk Drive as shown in <a href="#">Figure 1 - Hard Disk Drive Connectors</a> . Measure +5V on the Hard Drive connectors. Is there +5V measured?	Troubleshooting complete.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).
<div style="text-align: center;">  <p>s8900-205</p> </div> <p style="text-align: center;"><b>Figure 1 - Hard Disk Drive Connectors</b></p>			

## Stress Out of Memory

A memory error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 319.401.00: Out of memory by a stress document.
- 319.402.00: Out of memory caused by a stress job.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	If the fault remains for more than five minutes, turn Off the printer, then turn it back On. Does the error still persists?	Per form <a href="#">Firmware Upgrade</a> on page 6-51.	Troubleshooting complete.

## EPC Out of Memory

A memory error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 319.403.00: Out of memory with greater than one job in EPC

### Troubleshooting Procedure

Step	Actions and Questions
1.	No service action is required. Re-scan the job.

## Job Integrity Failure

Image processor determines that it cannot guarantee the integrity of the job being processed. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 319.409.00: Image processor determines that it cannot guarantee the integrity of the job being processed.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Re-run all uncompleted jobs.

## Image Structure Failure

An image structure error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 319.410.00: The system has detected a mark output time-out.
- 319.410.01: The system has detected a mark output time-out.
- 319.410.02: The system has detected a compress image time-out.
- 319.410.03: The system has detected a decompress image time-out.
- 319.410.04: The system has detected a merge image time-out.
- 319.410.05: The system has detected a rotate image time-out.
- 319.410.06: The system has detected a network input failure.
- 319.410.07: The system has detected an e-fax send/receive failure.
- 319.410.08: The system has detected a scan input failure.
- 319.410.09: The system has detected a byte counter error.
- 319.410.10: The system has detected the image set up was too late.
- 319.410.11: The system has detected a DMA master abort.
- 319.410.12: The system has detected a Huffman error (image encoding error).
- 319.410.13: The system has detected an EOR error.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
	<a href="#">Overview Diagram</a> on page 7-62

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	If the fault remains for more than five minutes, turn Off the printer, then turn it back On. Re-run the job. Does the error still persists?	Check the in-line connectors from the Scanner (P/J 603) and the Control Panel (CN5). Perform <a href="#">Firmware Upgrade</a> on page 6-51.	Troubleshooting complete.



## EPC Memory Change Detected

A memory error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 319.750.00: The system detects that the EPC memory size configuration has changed during the power On sequence.

### Troubleshooting Procedure

Step	Actions and Questions
1.	No service action is required. Re-run the job.
2.	Reload software (refer to <a href="#">Firmware Upgrade</a> on page 6-51).

## Imaging Rotation Detected

A memory error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 319.752.00: The system detects that the image rotation configuration has changed during the power On sequence

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Re-run the job.
3.	Reload software (refer to <a href="#">Firmware Upgrade</a> on page 6-51).

# 303/ 320 - Fax

## Fax Not Detected

A fax error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 303.401.00: The basic (embedded) fax PWB has not been detected or confirmed.
- 303.403.00: Extended fax PWB has not been confirmed or detected. This is information only. The printer does not have an extended fax PWB.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Main Controller Board, PL 10.1.3</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Check that the model type allows fax. Replace the Main Controller Board (with Fax PWB) (REP 10.3, <a href="#">page 4-162</a> ).

## Incompatible Fax Software

A fax error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 303.417.00: The fax version supplied at power On is not compatible with the image processing software.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Turn Off the printer, then turn it back On.
2.	Perform <a href="#">Firmware Upgrade</a> on page 6-51.
3.	Replace the Main Controller Board (with Fax PWB) (REP 10.3, <a href="#">page 4-162</a> ).

## Fax Reset Failure

The embedded fax PWB will automatically reset itself. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 320.302.00: Unexpected reset on the embedded fax PWB due to hardware or software error.
- 320.303.00: Unrecoverable embedded fax PWB failed to hardware or software error.

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Turn Off the printer, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Clear the Fax Board NVM. Go to <a href="#">dc301 NVM Initialization</a> on page 2-64, select <a href="#">Fax NVM Initialization</a> and perform the routine, <a href="#">All Data</a> . Is the fault cleared?	Troubleshooting complete.	Go to step 3.
3.	Reload the software (refer to <a href="#">Firmware Upgrade</a> on page 6-51). Does the error persist?	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).	Troubleshooting complete.

## Fax System Low Memory Unrecoverable

The embedded fax PWB will automatically reset itself. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 320.305.00: Unrecoverable fax system low memory due to hardware or software error.

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Turn Off the printer, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Clear the images from the embedded Fax PWB. Go to <a href="#">dc301 NVM Initialization</a> on page 2-64, select <b>Fax NVM Initialization</b> and perform the routine, <b>All Data</b> . Is the fault cleared?	Troubleshooting complete.	Reload the software (refer to <a href="#">Firmware Upgrade</a> on page 6-51).

## Fax Fault Not Cleared by Reset

After five instances of an unrecoverable fax fault and has not been cleared by a card reset. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 320.320.00: Fax Fault Not Cleared by Reset

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Turn Off the printer, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Clear the images from the embedded Fax PWB. Go to <a href="#">dc301 NVM Initialization</a> on page 2-64, select <b>Fax NVM Initialization</b> and perform the routine, <b>All Data</b> . Is the fault cleared?	Troubleshooting complete.	Reload the software (refer to <a href="#">Firmware Upgrade</a> on page 6-51).

## Fax System Memory Low

A fax memory error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 320.323.00: The fax system memory is low, less than 6MB.
- 320.324.00: There is not memory to use the fax service.

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Turn Off the printer, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Clear the images from the embedded Fax PWB. Go to <a href="#">dc301 NVM Initialization</a> on page 2-64, select <b>Fax NVM Initialization</b> and perform the routine, <b>All Data</b> . Is the fault cleared?	Troubleshooting complete.	Reload the software (refer to <a href="#">Firmware Upgrade</a> on page 6-51).

## Fax Network Line 1 Fault

A fax communication error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 320.331.00: No communication via the PSTN 1 port.
- 320.338.00: Fax communication error at power up or reboot.
- 320.339.00: Fault at fax port 1 on the basic Fax Card.
- 320.341.00: Miscellaneous faults on the embedded fax PWB.



**WARNING:** Do not touch the test pads on the embedded Fax PWB while the fax cable is connected to the printer. Dangerous voltages may be present that could cause death or injury.

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Turn Off the printer, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the customer line is operational, plug a phone into the line and check for a dial tone. If a phone is not available, then use a line test tool. Refer to the <a href="#">Fax Troubleshooting</a> on page 2-437 for additional troubleshooting procedure. Is the phone line connection working?	Install new parts in the following order: <ul style="list-style-type: none"> <li>• Telephone Cable</li> <li>• Main Controller Board (REP 10.3, <a href="#">page 4-162</a>)</li> </ul>	Inform the customer to have the line checked by the telephone company.



## Fax File Integrity Fault

A fax communication error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 320.342.00: An error has occur when accessing the file on a non-volatile device.

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Turn Off the printer, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Clear the images from the embedded Fax Board. Go to <a href="#">dc301 NVM Initialization</a> on page 2-64, select <b>Fax NVM Initialization</b> and perform the routine, <b>All Data</b> . Is the fault cleared?	Troubleshooting complete.	Reload the software (refer to <a href="#">Firmware Upgrade</a> on page 6-51).

## Fax Phone Book Download Failed

A fax phone book download error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 320.701.00: An error has occur when accessing the file on a non-volatile device.

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reload the software (refer to <a href="#">Firmware Upgrade</a> on page 6-51).	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> )	Troubleshooting complete.

## Image Overwrite Error

Immediate image overwrite error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 320.710.00: On demand overwrite error has occurred on the Fax Card when overwriting the compact flash memory.
- 320.711.00: Image Overwrite Error

**Note:** Make a backup of the phone book and the customer settings. Refer to [dc361 NVM Save and Restore](#) on page 2-69.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Turn Off the printer, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Clear the images from the embedded Fax Board. Go to <a href="#">dc301 NVM Initialization</a> on page 2-64, select <b>Fax NVM Initialization</b> and perform the routine, <b>All Data</b> . Is the fault cleared?	Troubleshooting complete.	Go to step 3.
3.	Reload software (refer to <a href="#">Firmware Upgrade</a> on page 6-51). Does the error persist?	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).	Troubleshooting complete.

## 322 - Network Faults

### Software Detects Non-valid Xerox SOK 1

A network error has occurred. The following troubleshooting procedure applies to this error.

#### Applicable Fault Code

- 322.350.01: Software detects non-valid Xerox SOK 1

#### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

#### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Feature Card, PL 1.1.7</li></ul>	

#### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Feature Card (REP 10.5, <a href="#">page 4-168</a> ).

## Software Detects Non-valid Xerox SOK 2 or 3

A network error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 322.350.02: Software detects non-valid Xerox SOK 2 or 3

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Feature Card, PL 1.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace or install the Feature Card (REP 10.5, <a href="#">page 4-168</a> ).

## SOK 1/ SOK 2/ SOK 3 Write Failure

A network error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 322.351.01: SOK 1 Write Failure
- 322.351.02: SOK 2 Write Failure
- 322.351.03: SOK 3 Write Failure

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Feature Card, PL 1.1.7</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace or install the Feature Card (REP 10.5, <a href="#">page 4-168</a> ).

## Serial Number Missing from Memory

A serial number error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 322.352.00: Serial number missing from memory

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Feature Card, PL 1.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Enter the serial number into the printer (refer to <a href="#">dc132 Serial Number</a> on page 2-76).

# 362 - Scanner

## DADF Communication Failure

A DADF error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 362.277.00: IISS-DADF communication Fail

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify DADF cables are properly connected.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF PWB (SDC), PL 1.4.12</li> <li>• Scanner/ DADF Assembly, PL 2.1.41</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the DADF (SDC) PWB (REP 1.4, <a href="#">page 4-9</a> ). Does the error persist?	Replace the Scanner/ DADF Assembly (REP 2.3, <a href="#">page 4-17</a> ).	Troubleshooting complete.



## Scanner Communication Failure

A scanner communication error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 362.310.00: IISS/Scanner - Controller/CCS communication fail

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify all Scanner and DADF cables are properly connected.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Scanner Hinge Power Harness, PL 2.1.40</li> <li>• Scanner/ DADF Assembly, PL 2.1.41</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the firmware version (refer to <a href="#">dc108 Software Version</a> on page 2-31). Is the firmware version at version <b>071.161.35100</b> or higher?	Go to step 3.	Perform firmware upgrade ( <a href="#">Firmware Upgrade</a> on page 6-51). Go to step 3.
3.	Is the scanner hinge power harness seated properly and connected?	Replace the Scanner/ DADF Assembly (REP 2.3, <a href="#">page 4-17</a> ).	Repair or replace wiring harness.

## Scanner Calibration Error

A scanner calibration error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 362.450.00: Calibration Dark Range Not Clear
- 362.451.00: Calibration Dark Range Not Done
- 362.452.00: Calibration Pixel Offset Not Clear
- 362.453.00: Calibration Pixel Offset Not Done
- 362.454.00: Calibration Gain Range Not Clear
- 362.455.00: Calibration Gain Range Not Done
- 362.456.00: Calibration Pixel Gain Not Clear
- 362.457.00: Calibration Pixel Gain Not Done
- 362.458.00: Calibration Dark Range Errors
- 362.459.00: Calibration Pixel Offset Hi Errors
- 362.460.00: Calibration Pixel Offset Lo Errors
- 362.461.00: Calibration Gain Range Errors
- 362.462.00: Calibration Pixel Gain Hi Errors
- 362.463.00: Calibration Pixel Gain Lo Errors
- 362.464.00: Scan Controller Busy Error
- 362.465.00: Dark Loop Settle Error
- 362.466.00: Dark Range Rail Error
- 362.467.00: Gain Range Rail Error
- 362.468.00: Color State Errors

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• DADF Assembly, PL 1.1.22</li><li>• Scanner Board (IPP PWB), PL 2.1.16</li><li>• Scanner Assembly, PL 2.1.39</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the Scanner Board (IPP) (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Does the error persist?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.

## IIT FPGA Error

A scanner error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 362.469.00: FPGA Communications Error
- 362.470.00: FPGA Read Error
- 362.471.00: FPGA Write Wrap Error
- 362.472.00: FPGA Bus Time Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Does the error persist?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.

## Scanner Stepper Error

A scanner error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 362.474.00: Stepper Speed Error
- 362.476.00: Stepper Home Error
- 362.477.00: Stepper Busy Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Perform <a href="#">dc330 Component Control</a> on page 2-39 to test the Scanner Motor. Does the Motor operate?	Go to step 4.	Go to step 3.
3.	Replace the Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Does the error persist?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.

## Real Time Error

A scanner error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 362.478.00: Stepper Speed Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF Board (SDC PWB), PL 1.4.12</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the Scanner Board (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the DADF Board (SDC PWB) (REP 1.4, <a href="#">page 4-9</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Does the error persist?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.

## Page Synchronization Error/ Initialize Time Out

A scanner error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 362.479.00: Page Synchronization Error
- 362.480.00: Initialize Time Out

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the Scanner Board (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Does the error persist?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.

## DADF Client Time Out Error

A DADF error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 362.481.00: DADH Client Time Out

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF Board (SDC PWB), PL 1.4.16</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the DADF Board (SDC PWB) (REP 1.4, <a href="#">page 4-9</a> ). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Replace the Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Troubleshooting complete.



## Application Code not Present

A scanner error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 362.484.00: Apps Code Not Present

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Reload firmware ( <a href="#">Firmware Upgrade</a> on page 6-51). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Does the error persist?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.

## Supply Error

A voltage supply error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 362.485.00: Supply 12 Volt Error
- 362.486.00: Supply 24 Volt Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Scanner Hinge Power Harness, PL 2.1.40</li> <li>• Scanner/ DADF Assembly, PL 2.1.41</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Is the scanner hinge power harness seated properly and connected?	Replace the Scanner/ DADF Assembly (REP 2.3, <a href="#">page 4-17</a> ).	Repair or replace wiring harness.

## System PLL Error

A system error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 362.487.00: System PLL Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> ). Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Does the error persist?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.

# 372 - Tray 2

## Tray 2 Mis-Feed Jam

A Tray 2 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 372.101.00: Tray 2 LE Late at Feed

### Initial Actions

- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Inner Simplex Guide, PL 8.1.2</li> <li>• Pick Assembly, PL 8.1.8</li> <li>• Pick Roller, PL 8.1.8</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Perform initial actions above. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Run <a href="#">dc330 Component Control</a> on page 2-39 to check the Pre-deskew Flag for correct operation, code <a href="#">089.100</a> . Does the display change?	Go to step 3.	Replace Inner Simplex Guide (REP 8.2, <a href="#">page 4-121</a> ).
3.	Inspect the Tray 2 Pick and Retard Rollers for the presence of oil. Is oil present?	Replace the Pick and Retard Rollers (REP 8.7, <a href="#">page 4-128</a> ). Clean up any oil puddles in the Chassis under the Cleaning Unit.	Replace the Pick and Retard Rollers (REP 8.7, <a href="#">page 4-128</a> ).

## Tray 2 Raise Failure

A Tray 2 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 372.215.00: Tray 2 Raise Failure

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the paper path in the printer for obstructions or jammed sheets.
- Check that the Paper Guides are set properly.
- Verify that the No Paper Flag Sensor is not broken or damaged.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Tray 2 Lift Motor, PL 9.1.5</li> <li>• Sensor, Tray Lift, PL 11.1.12</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reinsert Tray 2. Does the error persist?	Check Tray 2 Lift Sensor for blockages, and check function of the Tray 2 Lift Motor.	Troubleshooting complete.

## Tray 2 Bump-up Failure

A Tray 2 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 372.217.00: Tray 2 Bump Failure

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the paper path in the printer for obstructions or jammed sheets.
- Check that the Paper Guides are set properly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Tray 2 Lift Motor, PL 9.1.5</li> <li>• Sensor, Tray Lift, PL 11.1.12</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reinsert Tray 2. Does the error persist?	Check Tray 2 Lift Sensor for blockages, and check function of the Tray 2 Lift Motor.	Troubleshooting complete.

# 373 - Tray 3

## Tray 3 Mis-Feed Jam

A Tray 3 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 373.101.00: Tray 3 LE Late at Feed

### Initial Actions

- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- Check that the left side door is latched properly.
- Check appropriate tray jam clearance door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Pick Assembly, PL 8.1.8</li> <li>• Pick Roller, PL 8.1.8</li> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Perform initial actions above. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Tray Feed Sensor for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">073.103</a> (for 525-Sheet Feeder) or <a href="#">073.203</a> (for 1800-Sheet Feeder). Does the display change?	Replace the Pick and Retard Rollers (REP 8.7, <a href="#">page 4-128</a> ).	Go to step 3.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	Remove the Covers from the Feeder (525-Sheet Feeder Front Cover, REP 13.1, <a href="#">page 4-202</a> ), (1800-Sheet Feeder Front Cover, REP 14.3, <a href="#">page 4-211</a> ) and check for unplugged cables. Reseat the cables. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.



## Tray 3 Feeder Faults

A Tray 3 Feeder error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 373.215.00: HCF1 Raise Failure
- 373.217.00: Tray Bump-up Failure
- 373.952.00: HCF1 Motor Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check paper path in the printer and High-Capacity Feeders (HCFs) for obstructions or jammed sheets.
- Check that the Paper Guides are set properly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	<a href="#">Map 6 - Rear Side</a> on page 7-22

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Power the printer Off, then turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check paper path in the printer and HCFs for obstructions or jammed sheets. Remove obstructions. For HCF Motor Stall failure, send a print job to feed paper from the tray at fault. For HCF Raise failure, reinsert the tray and verify that it raised properly. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	Remove the Covers from the Feeder (525-Sheet Feeder Front Cover, REP 13.1, <a href="#">page 4-202</a> ), (1800-Sheet Feeder Front Cover, REP 14.3, <a href="#">page 4-211</a> ) and check for unplugged cables. Reseat the cables. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.

## Tray 3 Static Jam

A Tray 3 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 373.910.00: Tray 3 Static Feed Jam

### Initial Actions

- Check for jammed sheet in vertical paper path.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the left side door is latched properly.
- Check appropriate tray jam clearance door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for and remove any jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Tray Feed Sensor for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">073.103</a> (525-Sheet Feeder) or <a href="#">073.203</a> (1800-Sheet Feeder). Does the display change?	Troubleshooting complete.	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>

# 374 - Tray 4

## Tray 4 Mis-Feed Jam

A Tray 4 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 374.101.00: Tray 4 LE Late at Feed

### Initial Actions

- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- Check that the Left Side Door is latched properly.
- Check appropriate tray jam clearance door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Pick Assembly, PL 8.1.8</li> <li>• Pick Roller, PL 8.1.8</li> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Perform initial actions above. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Tray Feed Sensor for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">074.103</a> or <a href="#">074.203</a> . Does the display change?	Replace the Pick and Retard Rollers (REP 8.7, <a href="#">page 4-128</a> ).	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Remove the Covers from the Feeder (525-Sheet Feeder Front Cover, REP 13.1, <a href="#">page 4-202</a> ), (1800-Sheet Feeder Front Cover, REP 14.3, <a href="#">page 4-211</a> ) and check for unplugged cables. Reseat the cables. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.

## Lower Tray Vertical Transport Jam

A 525-Sheet Feeder error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 374.106.00: LE Late at TAR 1

### Initial Actions

- Check Tray 3 and Tray 4 jam clearance doors.
- Check for jammed sheet in vertical paper path.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Take Away Roller Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code for the Feed Sensor of the appropriate Tray ( <a href="#">073.103</a> , <a href="#">073.203</a> , <a href="#">074.103</a> , <a href="#">074.203</a> ). Does the display change?	Troubleshooting complete.	Replace the 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a> ).

## Tray 4 Feeder Faults

A Tray 4 Feeder error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 374.215.00: HCF2 Raise Failure
- 374.217.00: Tray Bump-up Failure
- 374.952.00: HCF2 Motor Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Paper Guides are set properly.
- Check paper path in the printer and Sheet Feeders for obstructions or jammed sheets.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	<a href="#">Map 6 - Rear Side</a> on page 7-22

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Power the printer Off and turn it back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check paper path in the printer and Sheet Feeder for obstructions or jammed sheets. Remove obstructions. <ul style="list-style-type: none"> <li>• For Sheet Feeder Motor Stall failure, send a print job to feed paper from the tray at fault.</li> <li>• For Sheet Feeder Raise failure, reinsert the tray and verify that it raised properly.</li> </ul> Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	Remove the Covers from the Feeder (525-Sheet Feeder Front Cover, REP 13.1, <a href="#">page 4-202</a> ), (1800-Sheet Feeder Front Cover, REP 14.3, <a href="#">page 4-211</a> ) and check for unplugged cables. Reseat the cables. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.



## Tray 4 Static Jam

A Tray 4 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 374.910.00: Tray 4 Static Feed Jam

### Initial Actions

- Check for jammed sheet in vertical paper path.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the left side door is latched properly.
- Check appropriate tray jam clearance door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for and remove any jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Tray Feed Sensor for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">074.103</a> or <a href="#">074.203</a> . Does the display change?	Troubleshooting complete.	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>

# 375 - Tray 5

## Tray 5 Mis-Feed Jam

A Tray 5 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 375.101.00: Tray 5 LE Late at Feed

### Initial Actions

- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- Check that the left side door is latched properly.
- Check appropriate tray jam clearance door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Pick Assembly, PL 8.1.8</li> <li>• Pick Roller, PL 8.1.8</li> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Perform initial actions above. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Tray Feed Sensor for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">075.103</a> or <a href="#">075.203</a> . Does the display change?	Replace the Pick and Retard Rollers (REP 8.7, <a href="#">page 4-128</a> ).	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Remove the Covers from the Feeder (525-Sheet Feeder Front Cover, REP 13.1, <a href="#">page 4-202</a> ), (1800-Sheet Feeder Front Cover, REP 14.3, <a href="#">page 4-211</a> ) and check for unplugged cables. Reseat the cables. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.

## Lower Tray Vertical Transport Jam

A 525-Sheet Feeder error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 375.106.00: LE Late at TAR 1
- 375.110.00: LE Late at TAR 2

### Initial Actions

- Check Tray 3, 4, and 5 jam clearance doors.
- Check for jammed sheet in vertical paper path.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Take Away Roller Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code for the Feed Sensor of the appropriate Tray ( <a href="#">073.103</a> , <a href="#">073.203</a> , <a href="#">074.103</a> , <a href="#">074.203</a> ). Does the display change?	Troubleshooting complete.	Replace the 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a> ).

## Tray 5 Feeder Faults

A Tray 5 Feeder error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 375.215.00: HCF2 Raise Failure
- 375.217.00: Tray Bump-up Failure
- 375.952.00: HCF2 Motor Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Paper Guides are set properly.
- Check paper path in the printer and Sheet Feeders for obstructions or jammed sheets.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Power Supply to Power Control Harness, PL 10.1.39</li> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	<a href="#">Map 6 - Rear Side</a> on page 7-22

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Power Off the printer, and then back On. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check paper path in the printer and Sheet Feeders for obstructions or jammed sheets. Remove obstructions. For Sheet Feeder Motor Stall failure, send a print job to feed paper from the tray at fault. For Sheet Feeder Raise failure, reinsert the Tray and verify that it raised properly. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	Remove the Covers from the Feeder (525-Sheet Feeder Front Cover, REP 13.1, <a href="#">page 4-202</a> ), 1800-Sheet Feeder Front Cover, REP 14.3, <a href="#">page 4-211</a> ) and check for unplugged cables. Reseat the cables. Does the error persist?	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> <li>or</li> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>	Troubleshooting complete.

## Tray 5 Static Jam

A Tray 5 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 375.910.00: Tray 5 Static Feed Jam

### Initial Actions

- Check for jammed sheet in vertical paper path.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the left side door is latched properly.
- Check appropriate tray jam clearance door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• 525-Sheet Feeder with Tray, PL 13.1.42</li> <li>• 1800-Sheet Feeder with Tray, PL 14.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for and remove any jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Tray Feed Sensor for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">075.103</a> or <a href="#">075.203</a> . Does the display change?	Troubleshooting complete.	Replace the Sheet Feeder. <ul style="list-style-type: none"> <li>• 525-Sheet Feeder (REP 13.3, <a href="#">page 4-207</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• 1800-Sheet Feeder (REP 14.1, <a href="#">page 4-208</a>)</li> </ul>

# 383 - Duplex Portion of Media Path

## Media Path 2nd Side Duplex Jams

A jam error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 383.117.00: MP 2nd Side Duplex Sheet Too Long (No Purge)
- 383.118.00: MP 2nd Side Duplex Sheet Too Short (No Purge)

### Initial Actions

- Check for jammed sheet in tray.
- Check the condition of the media in the Exit Tray.
- Verify that the media is supported for duplexing.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Remove media from the Exit Tray.	Troubleshooting complete.



## Media Path Duplex Jams

A jam error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 383.149.00: MP Duplex Sensor 14 LE Missing
- 383.151.00: MP Duplex Sensor 14 TE Timeout

### Initial Actions

- Check for jammed sheet in vertical paper path.
- Check the condition of the media in tray.
- Check that the media is supported from tray and for duplexing.
- Check that the Left Side Door is latched properly.
- Check appropriate tray jam clearance door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Exit Module Assembly, PL 11.1.24</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Remove media from Exit Tray and reprint. Does the error persist?	Replace Exit Module Assembly (REP 11.6, <a href="#">page 4-190</a> ).	Troubleshooting complete.

# 388 - Preheater

## Preheater Thermal Faults

A Preheater Thermal error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 388.500.00: Preheat heater is too hot.
- 388.501.00: Preheat is heating too slow.
- 388.502.00: Preheat thermistor is bad.
- 388.503.00: Preheater thermistor is open.
- 388.504.00: Preheater thermistor is shorted.

### Initial Actions

- Verify power source.
- Reboot the printer and verify the error persists.
- Check the ambient room temperature.
- Check that the Preheater is plugged in.
- If the problem persists, perform the following procedure.

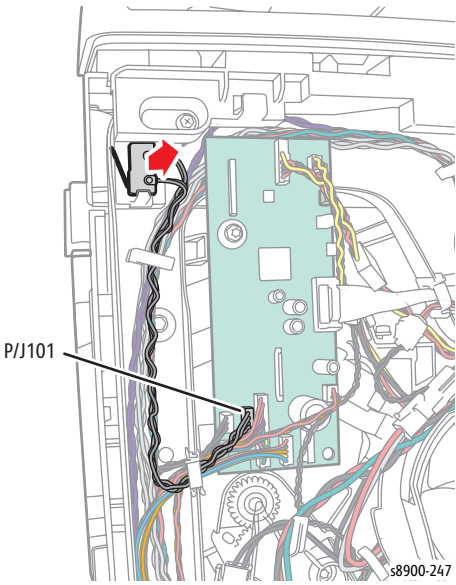
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 9 - Left Side</a> on page 7-25</li> <li>• <a href="#">Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel</a> on page 7-67</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Verify that the ambient temperature is within environmental specifications (refer to <a href="#">Environmental Specifications</a> on page 1-49 in Chapter 1 (General and Operational Overview). Is the temperature within specifications?	Go to step 2.	Advise customer of operational requirements.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	Verify operation using <a href="#">dc335 Heater Monitor and Exerciser</a> on page 2-53. Check the Preheater wiring harness connector P/J523. Are the connections secure and undamaged?	Go to step 3.	Reseat and/or replace the wiring harnesses.
3.	Check the Front Side Power Control Harness for damage. Is the Front Side Power Control Harness damaged?	Replace the Front Side Power Control Harness.	Go to step 4.
4.	Check the Preheater Thermistor for continuity. Disconnect the wiring harness connector P/J101 from the I/O Board (see <a href="#">Figure 1 - Plug/Jack Connector</a> ). Measure the connector between pins 1 (red) and 2 (red). The measurement should be about 110 ohms at room temperature. Does the error persist?	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).	Troubleshooting complete.
 <p>Figure 1 - Plug/Jack Connector</p>			

# 389 - Media Path

## Media Path 2nd Side Duplex Jams

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.103.00: MP Sensor 8 Multi-Pick

### Initial Actions

- Try different media. Current media may be curling.
- Check % of fill on the 1st side causing media to curl.
- Check for jammed sheet in tray.
- Check the condition of the paper in the exit tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Remove media from the Exit Tray.	Troubleshooting complete.

## Media Path Sensor 8 MPT LE Timeout

A Tray 1 error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.104.00: MPT Mispick, Pre-deskew Sensor time-out from Tray 1

### Initial Actions

- Check for jammed sheet in tray.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Left Side Door, PL 6.1.21</li> <li>• Inner Simplex Guide, PL 8.1.2</li> <li>• Separator Pad Kit, PL 8.1.7</li> <li>• Media Drive, PL 9.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets and to reset tray. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the D-roller and Pick Pad for damage, debris or excessive wear and clean or replace if necessary. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Check the Pick Solenoid for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code 071.001. Does the display change?	Go to step 4.	Replace the Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ).
4.	Check the Pre-deskew Flag for correct operation, using <a href="#">dc330 Component Control</a> , code 089.100. Does the display change?	Print media using a different tray.	Replace Inner Simplex Guide (REP 8.2, <a href="#">page 4-121</a> ).

## Media Path Sensor 8 Duplex LE Timeout

- A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.105.00: Duplex sheet stalled in turnaround path

### Initial Actions

- Check for jammed sheet in tray.
- Check that the media is supported from tray.
- Check that the media is supported for auto-duplex printing.
- Check that the Paper Guides are set correctly.
- Check that the left side door is latched properly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Left Side Door, PL 6.1.21</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets and to reset tray. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Are the Paper Guides in the tray snugly against the media?	Go to step 3.	Adjust the Tray Paper Guides.
3.	Does the printed side of the sheet show excessive skew or dog eared corners?	Refer to the troubleshooting procedure <a href="#">IQ9 - Skew</a> on page 3-32 in Chapter 3, Print Quality Troubleshooting.	Replace the Left Side Door Assembly (REP 6.5, <a href="#">page 4-55</a> ).

## Media Path Sensor 8 LE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.102.00: MP Sensor 8 Tray 2 LE Timeout
- 389.106.00: MP Sensor 8 LE Timeout

### Initial Actions

- Check for jammed sheet in tray (if printing from tray 2)
- Check for jammed sheet in vertical paper path.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- Check that the left side door is latched properly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Inner Simplex Guide, PL 8.1.2</li> <li>• Pick Assembly and Retard Roller Kit, PL 8.1.8</li> <li>• Media Drive, PL 9.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets and to reset tray. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Is there a sheet in the path when the jam is declared?	Go to step 3.	Go to step 5. (only possible when printing from Tray 2)
3.	Check the Pick and Retard Rollers for damage, debris or excessive wear and clean or replace if necessary (REP 8.7, <a href="#">page 4-128</a> ). Does the problem persist?	Go to step 4.	Troubleshooting complete.
4.	Check the Pre-deskew Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">089.100</a> . Does the display change?	Check paper path for obstructions.	Replace the Inner Simplex Guide (REP 8.2, <a href="#">page 4-121</a> ).

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	Is there media in Tray 2 when fault is declared?	Go to step 6.	Repair or seat the Paper Presence Flag.
6.	Check the Pick Clutch for correct operation, using <a href="#">dc330 Component Control</a> , code <a href="#">072.001</a> . Does the display change?	Try using different media, or flipping media over in tray.	Replace the Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ).



## Media Path Sensor 8 TE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.107.00: Sheet failed to exit sensor 8 (pre-deskew) in the expected time

### Initial Actions

- Check for jammed sheet in tray
- Check the condition of the paper in tray
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Inner Simplex Guide, PL 8.1.2</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets and to reset tray. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Pre-deskew Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">089.100</a> . Does the display change?	Try using a different media.	Replace the Inner Simplex Guide (REP 8.2, <a href="#">page 4-121</a> ).

## Media Path Sensor 9 LE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.108.00: Sheet failed to enter Sensor 9 (deskew) in the expected time

### Initial Actions

- Check for jammed sheet in tray
- Check the condition of the paper in tray
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets and to reset tray. Does the error persist?	Replace the Preheater (REP 7.14, <a href="#">page 4-103</a> ).	Troubleshooting complete.

## Media Path Sheet Too Long

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.110.00: MP Sheet Too Long

### Initial Actions

- Check for jammed sheet in the tray.
- Check the condition of the paper in the tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Load/ fan fresh media and reset. Try loading only a few sheets. Some photo media may require running one sheet at a time. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Check the Preheat Exit Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">089.102</a> . Does the display change?	Remove the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ) and check the Preheater Flag for ink or paper interference.	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).

## Media Path Sheet Too Short

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.111.00: MP Sheet Too Short

### Initial Actions

- Check for jammed sheet in the tray.
- Check the condition of the media in the tray.
- Verify the Tray Settings in the Tray Setup menu.
- Check that the media is supported from the tray.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the backstop in the paper tray is snugly against the media.	Go to step 3.	Adjust the Paper Guide.
3.	Check the Preheat Exit Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">089.102</a> . Does the display change?	Remove the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ) and check the Preheater Flag for ink or paper interference.	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).

## Media Path Sensor 10 LE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.112.00: Sheet failed to enter sensor 10 (preheat exit)

### Initial Actions

- Check for jammed sheet in tray.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Preheat Sensor for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">089.102</a> . Does the display change?	Check for other paper path obstructions. Ensure the Preheater Plate moves freely.	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).

## Media Path Sheet Too Long (No Purge)

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.117.00: MP Sheet Too Long (No Purge)

### Initial Actions

- Check for jammed sheet in tray.
- Check the condition of the paper in tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Separator Pad Kit, PL 8.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. If the problem is multi-pick, (shingled) sheets, replace the Separator Pad Kit (REP 8.6, <a href="#">page 4-127</a> ). Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Try loading only a few sheets. Some photo media may require running one sheet at a time. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Check the Preheat Exit Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">089.102</a> . Does the display change?	Remove the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ) and check the Preheater Flag for ink or paper interference.	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).

## Media Path Sheet Too Short (No Purge)

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.118.00: MP Sheet Too Short (No Purge)

### Initial Actions

- Check for jammed sheet in tray.
- Check the condition of the paper in tray.
- Verify the media Settings in the Tray Setup menu.
- Check that the media is supported from tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the backstop in the paper tray is snugly against the media. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Check the Preheat Exit Flag for correct operation, using <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">089.102</a> . Does the display change?	Remove the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ) and check the Preheater Flag for ink or paper interference.	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).

## Media Path MPT Reverse Shingle Detected

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.119.00: Tray1 Reverse Shingle Detected

### Initial Actions

- Check for jammed sheet in tray.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Left Side Door, PL 6.1.21</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Clean the Tray 1 Pick Roller, if problem persists try replacing appropriate Separator Pad. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Try using different media. Does the error persist?	Replace Left Side Door Assembly (REP 6.5, <a href="#">page 4-55</a> ).	Troubleshooting complete.



## Media Path Sheet Too Late At Appr

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.120.00: MP Sheet Too Late at Approach

### Initial Actions

- Check for jammed sheet in tray.
- Check the condition of the paper in tray.
- Check that the media is supported from tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Try using different media. Does the error persist?	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).	Troubleshooting complete.

## Transfix Load Timing Error

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 89.121: Transfix Load Timing Error

### Initial Actions

- Check that the media is supported from tray.
- Check that the appropriate media type is set (lightweight, plain, envelope, heavy, etc.)
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Process Drive, PL 9.1.8</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check for and remove the clear plastic spacer from the process drive swing arm. Verify that no cables are routed tightly over the process drive. Does the error persist?	Replace Process Drive.	Troubleshooting complete.

## Media Path Sensor 12 LE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.123.00: Sheet failed to strip

### Initial Actions

- Check for jammed sheet in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- Check that the appropriate media type is set (lightweight, plain, envelope, heavy, etc.)
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Upper Inner Duplex Guide and Solenoid, PL 6.1.2</li> <li>• Strip Carriage, PL 7.1.17</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Transfix Camshaft, PL 7.1.25</li> <li>• Lower Exit Guide Assembly, PL 11.1.13</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the media is the correct size and type for the tray. Verify the media type is set in the Control Panel menu. Does the problem persist?	Go to step 3.	Troubleshooting complete.
3.	Check the Cleaning Unit for proper operation. Replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a> ) if necessary or near end of life. Does the error persist?	Go to step 4.	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
4.	Is the image is off-center (top to bottom)?	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ).	Go to step 5.
5.	Check the Stripper Blade for damage or bending. Is it damaged?	Replace the Stripper Carriage (REP 7.10, <a href="#">page 4-91</a> ).	Go to step 6.
6.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">010.100</a> (Strip Sensor). Does the display change?	Go to step 7.	Replace the Lower Exit Guide (REP 11.4, <a href="#">page 4-188</a> ).
7.	Run <a href="#">dc330 Component Control</a> , test <a href="#">010.021</a> (Strip Solenoid). Does the Solenoid activate?	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ) and Transfix Camshaft (REP 7.16, <a href="#">page 4-112</a> ).	Replace the Upper Inner Duplex Guide and Solenoid (REP 6.1, <a href="#">page 4-45</a> ).

## Media Path Sensor 12 TE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.122.00: Sheet failed to the Exit Sensor 12 (strip) in the expected time.

### Initial Actions

- Check for jammed sheet in tray.
- Check that the media is supported from tray.
- Check that the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Strip Carriage Assembly, PL 7.1.17</li> <li>• Lower Exit Guide Assembly, PL 11.1.13</li> <li>• Exit Module Sensor Assembly, PL 11.1.29</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the media is the correct size and type for the tray. Does the problem persist?	Go to step 3.	Troubleshooting complete.
3.	Check the Stripper Blade for damage or bending. Is it damaged?	Replace the Stripper Carriage Assembly (REP 7.10, <a href="#">page 4-91</a> ).	Go to step 4.
4.	Check the Strip Sensor Flag for proper function. Does the Flag move freely?	Go to step 5.	Replace the Lower Exit Guide Assembly (REP 11.4, <a href="#">page 4-188</a> ).
5.	Verify oil roll is properly oiling the Drum. If the Cleaning Unit is near end of life, retest. Does the problem persist?	Go to step 6.	Troubleshooting complete.
6.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">010.100</a> (Strip Sensor). Does the display change?	Troubleshooting complete.	Replace the Exit Module Sensor Assembly.

## Finisher Transport Jam

A Finisher jam has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.146.00: Late IME Exit

### Initial Actions

- Check for jammed sheets in the Transport Unit.
- Verify the Transport Unit fully seated and installed correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport, PL 3.1.19</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Verify the Horizontal Transport Cover is fully closed and closes easily. Is the Transport Cover closed?	Go to step 2.	Close the door or replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).
2.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">010.100</a> (ICT Transport Paper Path Sensor). Manually activate the Paper Path Sensor in the Horizontal Transport. Does the display change?	Troubleshooting complete.	Replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).

## Media Path Sensor 14 LE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.147.00: Sheet failed to reach the Exit Flag in the expected time.

### Initial Actions

- Check for jammed sheet in tray.
- Check that the media is supported from tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport, PL 3.1.19</li> <li>• Process Drive Assembly, PL 9.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Side Door and check for jammed sheets. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the media is the correct size and type for the tray. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	If the Horizontal Transport unit is installed, remove and reseal it (REP 3.2, <a href="#">page 4-20</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">010.017</a> (Exit Sensor). Does the display change?	Troubleshooting complete.	Replace the Process Drive Assembly (REP 9.5, <a href="#">page 4-142</a> ).

## Media Path Sensor 14 TE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.148.00: Sheet failed to Exit Sensor 14 (exit) in the expected time.

### Initial Actions

- Check for jammed sheet in tray.
- Check that the media is supported from tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport, PL 3.1.19</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Horizontal Transport Jam Clearance Door and check for jammed sheets. Does the error persist?	Verify that the Horizontal Transport is properly installed, and reseal or replace as needed (REP 3.2, <a href="#">page 4-20</a> )	Troubleshooting complete.



## Media Path Sensor 16 LE Timeout

A jam error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.149.00: Sheet failed to reach the Exit Flag 2 on Horizontal Transport in the expected time.

### Initial Actions

- Check for jammed sheet in tray.
- Check that the media is supported from tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport, PL 3.1.19</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Horizontal Transport Jam Clearance Door and check for jammed sheets. Does the error persist?	Verify that Horizontal Transport is properly installed.	Troubleshooting complete.
2.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">012.100</a> (ICT Transport Sensor). Does the display change?	Verify that the Horizontal Transport is properly installed.	Replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ).

## Media Drive Faults

A Media Drive error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 389.570.00: Media Path Over Current Fault
- 389.571.00: Media Path Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Media Drive wiring harnesses.
- Check the printer for jammed sheet in the paper path.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Takeaway Roller, PL 8.1.4</li> <li>• Duplex Roller, PL 8.1.5</li> <li>• Media Drive with 2 Clutches, PL 9.1.1</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> <li>• Exit Roller, PL 11.1.6</li> </ul>	<p><a href="#">Map 6 - Rear Side</a> on page 7-22</p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Remove the Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ) and turn each printer Shaft by hand. Do you feel any unusual resistance?	Go to step 2.	Troubleshooting complete.
2.	Clear the obstruction or replace the defective Drive Shaft or Bushing (see <a href="#">Service Kits</a> on page 5-86 (Mechanical Hardware Kit) in Chapter 5 Parts List). Enter <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">082.003</a> Paper Path Motor. Press <b>Start</b> . Does the Motor run?	Troubleshooting complete.	Replace the Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ).

## Media Path Motor Fault

A Media Path Motor error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 389.572.00: Media Path Motor/ Wiring Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Media Drive wiring harnesses.
- Check if the Preheater wiring harness caught in the Takeaway Roller (TAR).
- Check the Takeaway Roller D-Shaft is properly meshed to the Drive Train.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Media Drive with 2 Clutches, PL 9.1.1</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<a href="#">Map 6 - Rear Side</a> on page 7-22

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Inspect the Motor Cable for bent pins, loose connections or damaged wires. Does the error persist?	Replace the Rear Umbilical Harness or Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ).	Troubleshooting complete.

# 391 - Printhead Wiper, Head Tilt

## X-Axis Fault

An X-Axis error has occurred. The X-Axis position is 0.0254 mm away from desired position. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.500.00: Sfwa Image Initial Position

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• X-Axis Motor, PL 9.1.9</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 4 - Front Side (Fan, Motor)</a> on page 7-20</li> <li>• <a href="#">Map 5 - Front Side</a> on page 7-21</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the X-Axis wiring harness and connections. Are the connections secure and undamaged?	Replace the X-Axis Motor (REP 9.7, <a href="#">page 4-147</a> ).	Reseat and/or replace the Front Umbilical Harness.

## Left Jetstack Thermal Faults

A Left Jetstack Thermal error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 391.523.00: Left Jetstack Heater is too hot.
- 391.527.00: Left Jetstack Heater too slow, did not stabilize in time.
- 391.531.00: Left Jetstack Thermistor bad reading, cannot trust temperature.
- 391.850.00: Left Jetstack Thermistor is open.
- 391.862.00: Left Jetstack thermistor is shorted.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Printhead wiring harness connectors.
- If the problem persists, perform the following procedure.

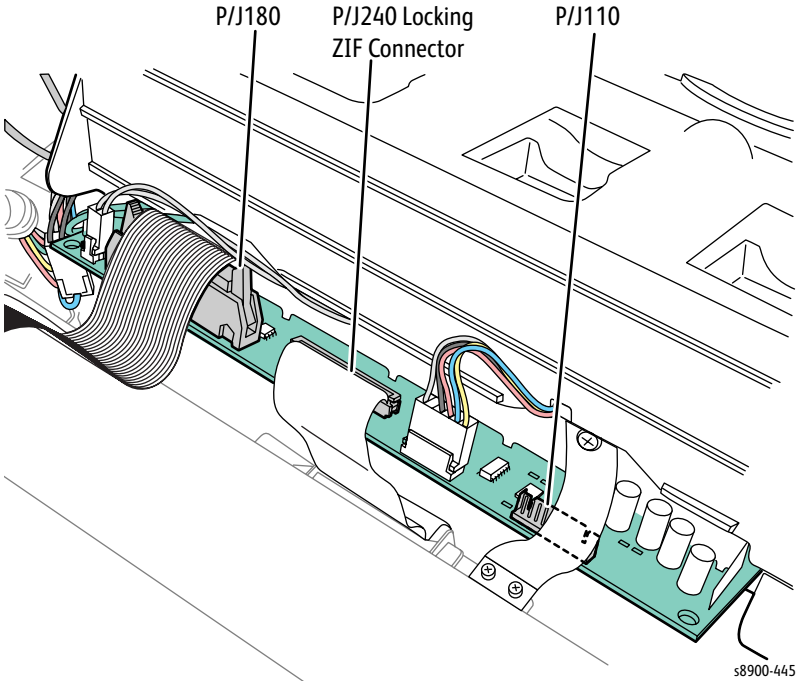
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Cable, Printhead Data Interface, PL 7.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Printhead wiring harness connectors P/J180 and P/J240 and wiring. Are the connections secure and undamaged?	Go to step 3.	Go to step 2.
2.	Reseat and/or replace the wiring harness (Printhead Data Interface Cable). Does the error persist?	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Turn Off the printer.                      Check the Thermistor for continuity on P/J110 connector (see <a href="#">Figure 1 - Plug/Jack Connector</a>).</p> <ul style="list-style-type: none"> <li>• Short pin 4 to pin 10.</li> <li>• Measure the Thermistor to ground.                             <ul style="list-style-type: none"> <li>– Pin 2 (Left Jetstack Thermistor) to pin 4</li> </ul> </li> <li>• Check the results as follows:                             <ul style="list-style-type: none"> <li>– Good: 4.88 kohms at room temperature (The Printhead must be cool.)</li> <li>– Open: &gt;5 kohms</li> <li>– Short: 0 ohms</li> </ul> </li> </ul> <p>Does the error persist?</p>	<p>Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>).</p>	<p>Troubleshooting complete.</p>
 <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connector</b></p>			

## Right Jetstack Thermal Faults

A Right Jetstack Thermal error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 391.535.00: Right Jetstack Heater is too hot.
- 391.539.00: Right Jetstack Heater is too slow, did not stabilize in time.
- 391.543.00: Right Jetstack Thermistor bad reading, cannot trust temperature.
- 391.854.00: Right Jetstack Thermistor is open.
- 391.866.00: Right Jetstack Thermistor is shorted.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Printhead wiring harness connectors.
- If the problem persists, perform the following procedure.

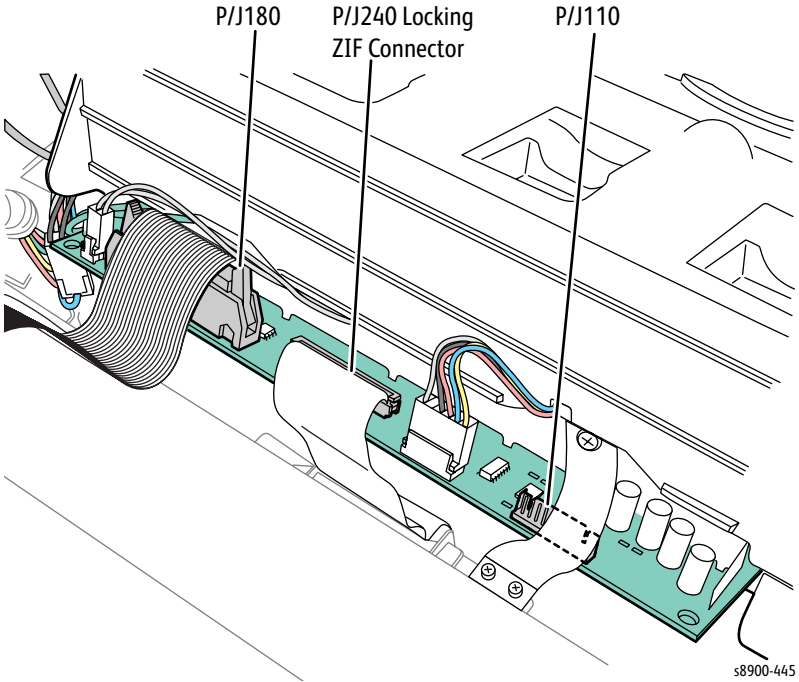
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Cable, Printhead Data Interface, PL 7.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Update the Printhead with file: 8X00-91-535HeadNVMFix.dlm (download from the Xerox Support website). Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the Printhead wiring harness connectors P/J180 and P/J240 and wiring. Are the connections secure and undamaged?	Go to step 4.	Go to step 3.
3.	Reseat and/or replace the wiring harness (Printhead Data Interface Cable). Does the error persist?	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	<p>Turn Off the printer.                      Check the Thermistor for continuity on P/J110 connector (see <a href="#">Figure 1 - Plug/Jack Connector</a>).</p> <ul style="list-style-type: none"> <li>• Short pin 4 to pin 10.</li> <li>• Measure the Thermistor to ground.                             <ul style="list-style-type: none"> <li>– Pin 1 (Right Jetstack Thermistor) to pin 4</li> </ul> </li> <li>• Check the results as follows:                             <ul style="list-style-type: none"> <li>– Good: 4.88 kohms at room temperature (The Printhead must be cool.)</li> <li>– Open: 4.99 kohms</li> <li>– Short: 0 ohms</li> </ul> </li> </ul> <p>Does the error persist?</p>	<p>Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>).</p>	<p>Troubleshooting complete.</p>
 <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connector</b></p>			



## Printhead Reservoir Thermal Faults

A Printhead Reservoir Thermal error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 391.547.00: Reservoir Heater is too hot.
- 391.551.00: Reservoir Heater is too slow.
- 391.555.00: Reservoir Heater thermistor is bad.
- 391.858.00: Reservoir thermistor is open.
- 391.870.00: Reservoir thermistor is shorted.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Printhead wiring harness connectors.
- If the problem persists, perform the following procedure.

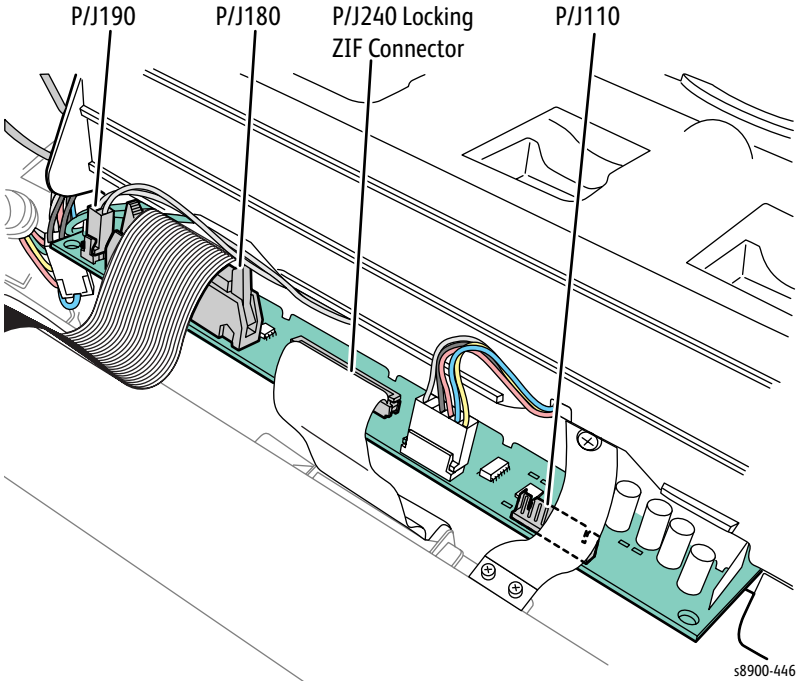
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Cable, Printhead Data Interface, PL 7.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Reservoir Thermistor wiring harness connector P/J190 (2-pin) on the Printhead Board. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness (Printhead Interface Cable).
2.	Check the Printhead wiring harness connectors P/J180 and P/J240 and wiring. Are the connections secure and undamaged?	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Go to step 3.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Turn Off the printer.</p> <p>Check the Thermistor for continuity on P/J110 connector (see <a href="#">Figure 1 - Plug/Jack Connector</a>).</p> <ul style="list-style-type: none"> <li>• Short pin 4 to pin 10.</li> <li>• Measure the Thermistor to ground.                             <ul style="list-style-type: none"> <li>– Pin 3 (Reservoir Thermistor) to pin 4</li> </ul> </li> <li>• Check the results as follows:                             <ul style="list-style-type: none"> <li>– Good: 4.88 kohms at room temperature (The Printhead must be cool.)</li> <li>– Open: 4.99 kohms</li> <li>– Short: 0 Ohm</li> </ul> </li> </ul> <p>Does the error persist?</p>	<p>Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>).</p>	<p>Troubleshooting complete.</p>
 <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connector</b></p>			

## Printhead Calibration Fault

A Printhead Calibration error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.610.00: Head Calibration Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Printhead wiring harness connectors.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Cable, Printhead Data Interface, PL 7.1.41</li> <li>• Wave Amp, PL 10.1.13</li> <li>• Cable, ZIF, Wave Amp Drive, PL 10.1.33</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Map 19 - Wave Amp Board</a> on page 7-35</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Check the Printhead wiring harness connectors P/J180 and P/J240.</p> <p>Release the Printhead end of the cable and carefully examine the conductor ends (a magnifier helps) to see that they are not cracked or torn. If the cable looks good, carefully reinstall it using a ZIF tool (refer to <a href="#">Unlocking/ Locking the ZIF Connector</a> on page 4-72 in Chapter 4 for how to use the ZIF tool for unlocking/locking the ZIF cable connector).</p> <p><b>CAUTION:</b> Failure to properly unlock the connector will damage the cable.</p> <p>Are the connections secure and undamaged?</p>	Go to step 3.	Go to step 2.
2.	<p>Reseat and/or replace the wiring harness (Printhead Interface Cable or Wave Amp Cable).</p> <p>Does the error persist?</p>	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Troubleshooting complete.
3.	<p>Reboot the printer.</p> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
4.	Check the +50V LED on the power supply. Is the LED on?	Go to step 5.	Follow diagnostic procedure for <a href="#">Printer Fails Power-up: +50V LED Does Not Illuminate</a> on page 2-423.
5.	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ). Does the error persist?	Replace the Wave Amp Board (REP 10.7, <a href="#">page 4-172</a> ).	Troubleshooting complete.

## Wiper or Media Drive Faults

A Wiper or Media Drive error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 391.710.00: Wiper Homing Stall
- 391.711.00: Wiper Move Up Stall
- 391.712.00: Wiper Move Down Stall
- 391.713.00: Wiper Cannot Verify Home
- 391.714.00: Wiper No Stall Homing
- 391.715.00: Wiper Away from Home
- 391.716.00: Wiper No Clutch Stall
- 394.704.00: Wiper Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the printer for a jammed sheet in the paper path.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Wiper, PL 7.1.13</li> <li>• Media Drive, with 2 Clutches, PL 9.1.1</li> <li>• Head Maintenance Clutch, PL 11.1.23</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check that no wiring harness is interfering with the Take Away Rollers (behind the Simplex Guide). Check the printer for obstruction. Is there a jammed sheet, partial sheet or other obstruction in the printer?	Remove the sheet or obstruction.	Go to step 2.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
2.	Inspect the Wiper system for improper operation, obstructions or damage. Verify that the Wiper is aligned properly left to right. Is everything in place?	Go to step 3.	Remove obstruction. Replace damaged part or re-align the Wiper (refer to the <a href="#">ADJ 1.1 Wiper Blade Adjustment</a> on page 6-32).
3.	Tilt the head back and run the Wiper all the way up and down in its track. Does it move smoothly?	Go to step 4.	Replace the Printhead Wiper (REP 7.7, <a href="#">page 4-86</a> ).
4.	Turn On the printer and observe the Media Path Drive during the wipe portion of a purge. Do the Gearbox Gears turn smoothly but not the Wiper Gears?	Replace the Head Maintenance Clutch (REP 11.5, <a href="#">page 4-189</a> ).	Replace the Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ).

## Printhead Tilt Fault

A Printhead Tilt error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.720.00: Motor did not stall while moving from Print to Park.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check for obstructions or ink spills around the Printhead.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Left Printhead Restraint, PL 7.1.7</li> <li>• Right Printhead Restraint, PL 7.1.8</li> <li>• Process Drive with Gear Box and Motor, PL 9.1.7</li> <li>• Head Tilt Solenoid, PL 9.1.12</li> <li>• Head Tilt Gear, PL 9.1.13</li> </ul>	<a href="#">Purge Pump, Media Path Motor, Fans, Printhead Tilt Solenoid</a> on page 7-64

### Troubleshooting Procedure

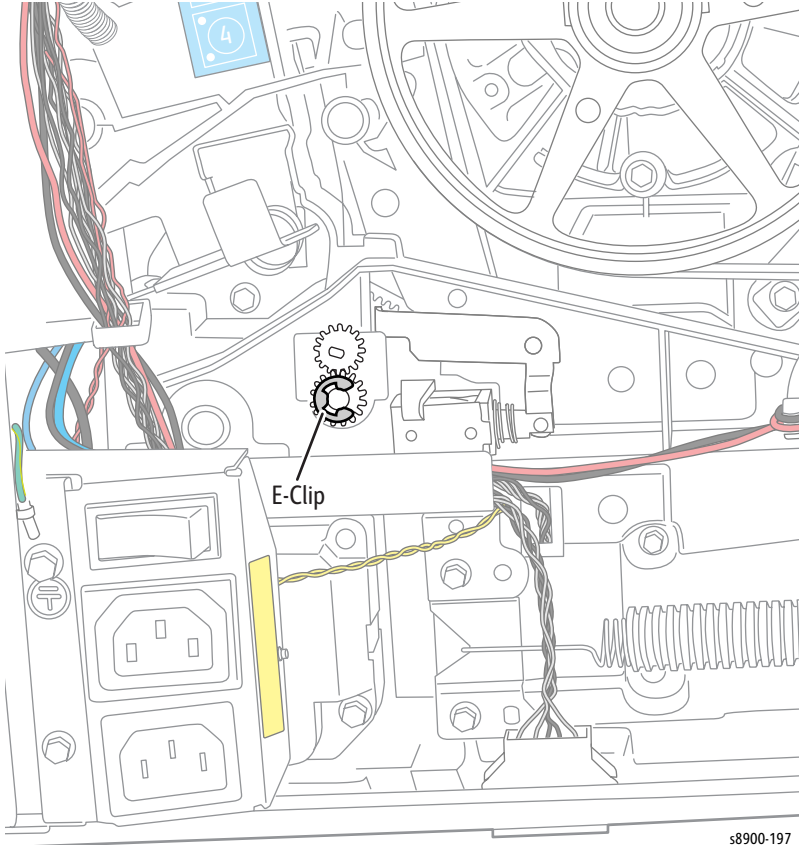
Step	Actions and Questions	Yes	No
1.	Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Remove the Printhead Restraints (REP 7.6, <a href="#">page 4-82</a> ). Inspect the Printhead journals, bearings surfaces, chassis base under the Head Tilt gear, and Roll Block for ink puddles or debris. Is there visible ink outside of the Printhead that would hinder the Head Tilt Gear or Printhead motion?	The Printhead has overflowed. Remove the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ). Clean the chassis and gear train of ink debris. Reinstall a new Printhead.	Reinstall the Printhead Restraints (REP 7.6, <a href="#">page 4-82</a> ). Go to step 3.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Check the Head Tilt Latch movement. Does the latch move up and down during the Mech-Init sequence?	Go to step 4.	Inspect the Head Tilt Latch for damage. Slightly loosen the screw on the Head Tilt Latch and verify free movement up and down.
4.	Enter <a href="#">dc330 Component Control</a> on page 2-39, code 091.011 Head Tilt Solenoid. Press <b>Start</b> . Does the Solenoid activate?	Go to step 5.	Reconnect the wiring harness connector and reroute the wiring to prevent pinching. Replace the Head Tilt Solenoid if necessary (REP 9.10, <a href="#">page 4-151</a> ).



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	<p>Check for a KL-Clip (see <a href="#">Figure 1 - KL-Clip Location</a>).</p> <p>Is there a KL-Clip on the end of the Head Tilt Cam Shaft outside of the Damper Assembly?</p> <p>Upgrade the KL-Clip to the new head tilt damper e-ring (part of the mech. kit). Reboot the printer. Does the error persist?</p> <p><b>Note:</b> Be careful not to push the Head Tilt Gear back into the printer.</p>	Go to step 6.	Troubleshooting Complete.
 <p style="text-align: center;"><b>Figure 1 - KL-Clip Location</b></p>			
6.	<p>Reboot the printer.</p> <p>Does the Process Drive chatter before/while engaging the Head Tilt Drive?</p>	<p>The Process Drive is worn.</p> <p>Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a>).</p>	Go to step 7.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
7.	Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Lift the latch and verify the Head Tilt Gear has engaged the Drive Train. Turn the DM Cam Shaft. Does the Head Tilt Drive tilt the Head?	The Process Drive is worn. Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	The Head Tilt Gear is broken. Replace the Head Tilt Gear (REP 9.11, <a href="#">page 4-154</a> ).

## Printhead Tilt Fault

A Printhead Tilt error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.721.00: Motor stalled while tilting Head Forward from Park

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Process Drive gear train is properly homed ([ADJ 1.3 Process Drive Alignment](#) on page 6-38).
- Check for obstructions or ink spills around the Printhead.
- If the problem persists, perform the following procedure.

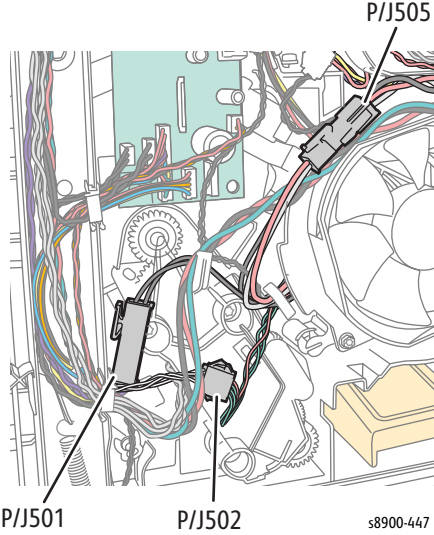
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Left Printhead Restraint, PL 7.1.7</li> <li>• Right Printhead Restraint, PL 7.1.8</li> <li>• Process Drive with Gear Box and Motor, PL 9.1.7</li> <li>• X-Axis Motor, PL 9.1.9</li> <li>• Head Tilt Solenoid, PL 9.1.12</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 4 - Front Side (Fan, Motor)</a> on page 7-20</li> <li>• <a href="#">Map 5 - Front Side</a> on page 7-21</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Reboot the printer. (Use the <a href="#">Sleep</a> button on the Control Panel to cycle the Printhead into and out of Sleep 10 times to test the Printhead Tilt.) Does the Process Drive stay in time?	Go to step 10.	Go to step 2.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Check the wiring harnesses. Are the wires around the Process Drive Swing Arm routed incorrectly?</p>	<p>Reroute the wires as shown in <a href="#">Figure 1 - Wiring Harness Location</a>. The wires should not contact the swing arm section of the Process Module.</p>	Go to step 3.
 <p><b>Figure 1 - Wiring Harness Location</b></p>			
3.	<p>Remove the Printhead Restraints (REP 7.6, <a href="#">page 4-82</a>). Inspect the Printhead journals, bearings surfaces, chassis base under the Head Tilt gear, and Roll Block for ink puddles or debris. Is there visible ink outside of the Printhead that would hinder the Head Tilt gear or Printhead motion?</p>	<p>The Printhead has overflowed. Remove the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>). Clean the chassis and gear train of ink debris. Reinstall a new Printhead.</p>	Go to step 4.
4.	<p>Check the top and left sides of the Printhead. Is there collected ink on the top and left sides of the Printhead?</p>	<p>The Ink Loader has mis-dripped. Remove the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>). Clean the chassis and gear train of ink debris. Reinstall the Printhead.</p>	Go to step 5.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Reboot the printer. Does the Process Drive chatter before engaging the Head Tilt Drive?	The Process Drive is worn. Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Go to step 6.
6.	Inspect the Cone-nut on the X-Axis Motor lead screw shaft. Is the Cone-nut damaged or broken?	Remove and reinstall the X-axis Motor (REP 9.7, <a href="#">page 4-147</a> ) with the Cone-nut correctly engaged on chassis rib.	Go to step 7.
7.	Inspect the anti-rotation feature of the Cone-nut where it engages the chassis rib. Is the Cone-nut not engaged on both sides of the chassis rib?	Remove and reinstall the X-axis Motor (REP 9.7, <a href="#">page 4-147</a> ) with the Cone-nut correctly engaged on chassis rib.	Go to step 8.
8.	With the printer stalled on <a href="#">391.721</a> fault, re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Does the Head tilt freely forwards and backwards without rubbing on the Printhead Restraints?	Go to step 9.	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ) and Printhead Restraints (REP 7.6, <a href="#">page 4-82</a> ).
9.	Manually rotate the Head back. Bring the Wiper up and allow the Printhead to rest on the Wiper. Is the Wiper not aligned with the Jetstack? Is the Wiper skewed?	The Wiper Clips are interfering with the Head Tilt motion. Re-home the Wiper Blade ( <a href="#">ADJ 1.1 Wiper Blade Adjustment</a> on page 6-32) at bottom of its travel.	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).
10.	Has the printer been running large continuous print job recently?	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Troubleshooting complete.

## Printhead Tilt Fault

A Printhead Tilt error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.722.00: Motor stalled while tilting Printhead from Print to Park

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Process Drive gear train is properly homed ([ADJ 1.3 Process Drive Alignment](#) on page 6-38).
- Check for obstructions or ink spills around the Printhead.
- If the problem persists, perform the following procedure.

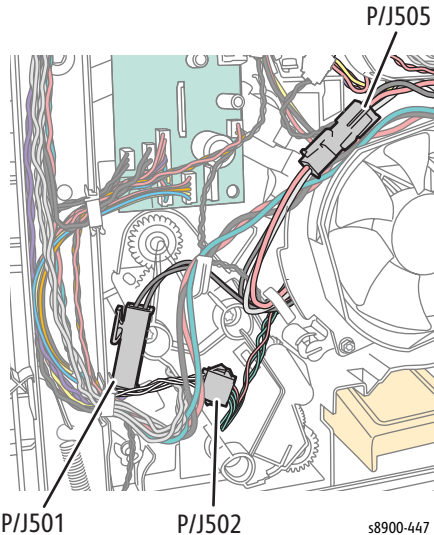
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Left Printhead Restraint, PL 7.1.7</li> <li>• Right Printhead Restraint, PL 7.1.8</li> <li>• Roll Block, PL 7.1.9</li> <li>• Process Drive with Gear Box and Motor, PL 9.1.7</li> <li>• X-Axis Motor, PL 9.1.9</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 4 - Front Side (Fan, Motor)</a> on page 7-20</li> <li>• <a href="#">Map 5 - Front Side</a> on page 7-21</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Check the wiring harnesses.</p> <p>Are the wires around the Process Drive Swing Arm routed incorrectly?</p> <p>Could the Swing Arm be biased to one side of its motion?</p>	<p>Reroute the wires as shown in <a href="#">Figure 1 - Wiring Harness Location</a>. The wires should not contact the swing arm section of the Process Module.</p>	Go to step 3.
 <p><b>Figure 1 - Wiring Harness Location</b></p>			
3.	<p>Remove the Printhead Restraints (REP 7.6, <a href="#">page 4-82</a>).</p> <p>Inspect the Printhead journals, bearings surfaces, chassis base under the Head Tilt gear, and Roll Block for ink puddles or debris.</p> <p>Is there visible ink outside of the Printhead that would hinder the Head Tilt gear or Printhead motion?</p>	<p>The Printhead has overflowed. Remove the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>).</p> <p>Clean the chassis and gear train of ink debris. Reinstall a new Printhead.</p>	Go to step 4.
4.	<p>Check the top and left sides of the Printhead.</p> <p>Is there collected ink on the top and left sides of the Printhead?</p>	<p>The Ink Loader has mis-dripped.</p> <p>Remove the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>).</p> <p>Clean the chassis and gear train of ink debris. Reinstall the Printhead.</p>	Go to step 5.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
5.	Reboot the printer. Does the Process Drive stall in the swing arm section?	The Process Drive is worn. Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Go to step 6.
6.	Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Reboot the printer. Does the Process Drive chatter during or at end of Printhead tilt motions?	The Process Drive is worn. Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Go to step 7.
7.	Inspect the Cone-nut on the X-Axis Motor lead screw shaft. Is the Cone-nut damaged or broken?	Remove and reinstall the X-axis Motor (REP 9.7, <a href="#">page 4-147</a> ) with the Cone-nut correctly engaged on chassis rib.	Go to step 8.
8.	Inspect the anti-rotation feature of the Cone-nut where it engages the chassis rib. Is the Cone-nut not engaged on both sides of the chassis rib?	Remove and reinstall the X-axis Motor (REP 9.7, <a href="#">page 4-147</a> ) with the Cone-nut correctly engaged on chassis rib.	Replace the X-Axis Motor (REP 9.7, <a href="#">page 4-147</a> ) and Cone-nut Assembly.



## Printhead Tilt Fault

A Printhead Tilt error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.723.00: Printhead is not following forward on Headtilt Cam

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Process Drive gear train is properly homed ([ADJ 1.3 Process Drive Alignment](#) on page 6-38).
- Check for obstructions or ink spills around the Printhead.
- If the problem persists, perform the following procedure.

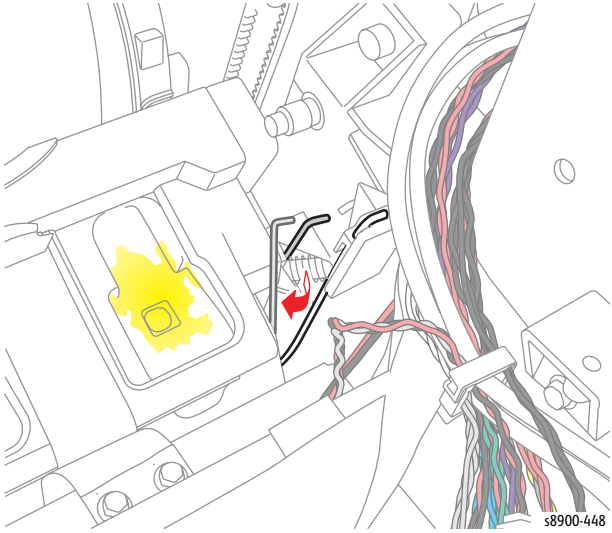
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Left Printhead Restraint, PL 7.1.7</li> <li>• Right Printhead Restraint, PL 7.1.8</li> <li>• Roll Block, PL 7.1.9</li> <li>• Drum Maintenance Camshaft, PL 7.1.31</li> <li>• Process Drive with Gear Box and Motor, PL 9.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Reboot the printer. Does the error persist?	Go to step 2.	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Is the Head Tilt Spring (located on the Left Printhead Restraint) is installed on the v-notch on the Printhead?</p>	Go to step 3.	Install the Head Tilt Spring on the proper notch on the Printhead (see <a href="#">Figure 1 - Head Tilt Spring</a> ).
 <p><b>Figure 1 - Head Tilt Spring</b></p>			
3.	<p>Inspect the Jetstack Cap. Is there visible ink collected on the Printhead side of the cap?</p>	Remove the collected ink. Tilt the Printhead to Standby position. Verify wiper motion rotates the Jetstack Cap away from the Printhead. Verify the lift posts on the Wiper Clips are not broken or bent.	Go to step 4.
4.	<p>Check the Wiper Alignment. Is the Wiper misaligned?</p>	The Wiper Clip is interfering with Head Tilt motion. Re-home the Wiper Blade ( <a href="#">ADJ 1.1 Wiper Blade Adjustment</a> on page 6-32) at bottom of travel.	Go to step 5.

### Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	<p>Remove the Printhead Restraints (REP 7.6, <a href="#">page 4-82</a>).</p> <p>Inspect the Printhead journals, bearings surfaces, chassis base under the Head Tilt gear, and Roll Block for ink puddles or debris.</p> <p>Is there visible ink outside of the Printhead that would hinder the Head Tilt Gear of Printhead motion?</p> <p>Is there ink outside of funnels or on the circuit board of the Printhead?</p>	The Printhead has overflowed. Remove the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ). Clean the chassis and gear train of ink debris. Reinstall a new Printhead.	Go to step 6.
6.	<p>Re-home the Process Drive (<a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38).</p> <p>Does the Drum Maintenance move and down in correlation to the Camshaft movement?</p>	Go to step 7.	Replace the Drum Maintenance Camshaft (REP 7.17, <a href="#">page 4-113</a> ) and Process Drive (REP 9.5, <a href="#">page 4-142</a> ).
7.	<p>Re-home the Process Drive (<a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38).</p> <p>Is the Overload Spring (underneath the Left Side of the Printhead) applying pressure to the Printhead during the head motion cycle?</p>	Troubleshooting complete.	The Overload Spring mechanism is broken. Replace the printer.

### Printhead Park Fault (soft error)

A Printhead error has occurred. The Printhead couldn't park in tilt-back position.

### Applicable Fault Code

- 391.724.00: Couldn't park the Printhead in tilt-back position

### Troubleshooting Procedure

Step	Actions and Questions
1.	<b>Note:</b> This error only recorded in the Fault History, but not as a printer failure.

## Process Drive Fault

A Process Drive error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.725.00: Process Motor is skipping during head tilt.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Process Drive gear train is properly homed ([ADJ 1.3 Process Drive Alignment](#) on page 6-38).
- Check that the Printhead is home ([ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35).
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Process Drive with Gear Box and Motor, PL 9.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Process Drive alignment. Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Home the Printhead ( <a href="#">ADJ 1.2 Homing the Printhead Forward to Print Position</a> on page 6-35). Reboot the printer. Does the problem persist?	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Troubleshooting complete.

## Process Drive Fault

A Process Drive error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 391.726.00: Process Motor is stalled before engaging Head Tilt.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Process Drive gear train is properly homed ([ADJ 1.3 Process Drive Alignment](#) on page 6-38).
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Process Drive with Gear Box and Motor, PL 9.1.7</li> <li>• Head Tilt Solenoid, PL 9.1.12</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Process Drive alignment. Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the Printhead is home ( <a href="#">ADJ 1.2 Homing the Printhead Forward to Print Position</a> on page 6-35). Does the error persist?	Go to step 3.	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Check the Head Tilt Solenoid. Is the Head Tilt Solenoid latch “home position” down with the Printhead forward (see <a href="#">Figure 1 - Head Tilt Solenoid Latch Position</a> )?	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Loosen the Head Tilt Latch or replace the Head Tilt Solenoid (REP 9.10, <a href="#">page 4-151</a> ).
<p style="text-align: center;"><b>Figure 1 - Head Tilt Solenoid Latch Position</b></p>			

## Printhead NVRAM or PLD Fault

A Printhead NVRAM error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 391.900.00: Printhead NVRAM Read Error
- 391.903.00: Printhead NVRAM Read/Write Error
- 391.904.00: Printhead has wrong PLD version.
- 393.901.00: Head Waveform Zero Drop Mass

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Printhead wiring harness connectors.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Cable, Printhead Data Interface, PL 7.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Printhead wiring harness connectors P/J180, P/J201, and P/J240. Are the connections secure and undamaged?	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Go to step 2.
2.	Reseat and/or replace the wiring harness. Does the error persist?	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Troubleshooting complete.

# 392 - Electronic

## Driver Board Serial Link Down

A circuit board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.500.00: Driver Board Serial Link Down

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Main Controller Board, PL 10.1.3</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).



## Safety Timer Timeout Fault

A circuit board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.550.00: Safety Timer Timeout Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Ink Loader or I/O Board Disconnected

An Ink Loader or I/O Board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.553.00: Ecm Board Link Broken

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify the Ink Loader cable connection to the Ink Loader and Electronics Module.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader &amp; Bezel, PL 3.1.24</li> <li>• Cable, Ink Loader Data, PL 3.2.46</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, I/O Board Data, PL 10.1.34</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Ink Loader Board wiring harness connectors P/J702 & P/J401 and I/O Board connectors P/J801 and P/J402. Are the connections secure and undamaged?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Reseat and/or replace the damaged cable (Ink Loader Data Cable or I/O Board Data Cable).

## System Timer Skipped Fault

A circuit board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.555.00: System Timer Skipped Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Ecm PS Link Broken

A circuit board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.558.00: Ecm PS Link Broken

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Main Controller Board, PL 10.1.3</li><li>• Power Supply Unit, PL 10.1.10</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ) or Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).

## PS Version Mismatch

A circuit board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.563.00: PS Version Mismatch

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Power Supply Unit, PL 10.1.10</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.
2.	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).

## Interrupt Storm Fault

A circuit board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.570.00: Interrupt Storm Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Main Controller Board, PL 10.1.3</li><li>• Power Supply Unit, PL 10.1.10</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.
2.	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ) and Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Software Fault

A software error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.571.00: Software Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check code version of the printer.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check code version on the printer. Is the code the latest release?	Reset NVRAM (refer to <a href="#">dc301 NVM Initialization</a> on page 2-64.	Download the latest code (refer to <a href="#">Firmware Upgrade</a> on page 6-51).

## CDI Submit Sheet Error

- 1) queue\_full
- 2) bad\_resolution
- 3) duplicate\_sheet\_id
- 4) cant\_duplex\_media\_type
- 5) bad\_image\_description

A circuit board error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.579.00: CDI Submit Sheet Error

### Initial Actions

- Resend job.
- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Reload firmware (refer to <a href="#">Firmware Upgrade</a> on page 6-51).



## Wave Amp Fault

A Wave Amp error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.587.00: Wave Amp Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Wave Amp wiring connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Wave Amp Board, PL 10.1.13</li> <li>• Cable, ZIF, Wave Amp Drive, PL 10.1.33</li> <li>• Cable, Wave Amp Signal, PL 10.1.35</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Map 19 - Wave Amp Board</a> on page 7-35</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

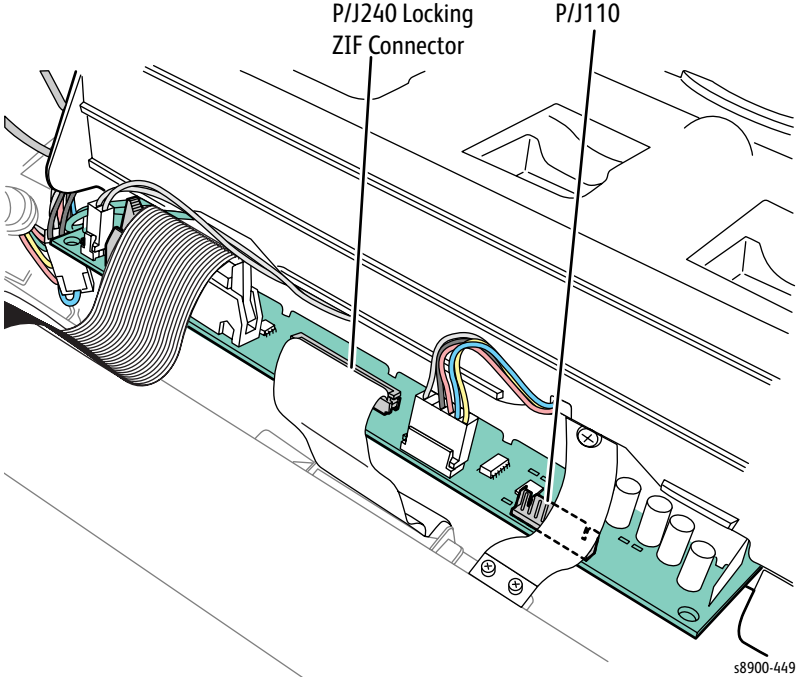


**CAUTION:** Handle the ribbon cables carefully. Check that each cable is square to the socket and fully inserted. Damage to the Wave Amplifier could result from improper cable connections.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Check the wiring harness connectors P/J640 &amp; P/J800 on the Wave Amp, P/J240 on the Printhead Board, and CN11 on the Power Control Board.</p> <p>Inspect the ends of the drive cable conductors of damage.</p> <p>Release the end of the cable and carefully examine the conductor ends (a magnifier helps) to see that they are not cracked or torn. If the cable looks good, carefully reinstall it using a ZIF tool (refer to <a href="#">Unlocking/ Locking the ZIF Connector</a> on page 4-72 in Chapter 4 for how to use the ZIF tool for unlocking/locking the ZIF cable connector).</p> <p><b>CAUTION:</b> Failure to properly unlock the connector will damage the cable.</p> <p>Are the connections secure and undamaged?</p>	Go to step 2.	Reseat the wiring harnesses.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	Replace the Wave Amp Signal Cable and/or Wave Amp Drive Cable. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Unplug the Wave Amp Drive cable, then test VPP/VSS points on the Printhead Board wiring harness connector P/J110) (see <a href="#">Figure 1 - Plug/Jack Connector</a> ). Measure resistance of each to ground. <ul style="list-style-type: none"> <li>• Pin 1 (VSS)</li> <li>• Pin 2 (Ground)</li> <li>• Pin 3 (VPP)</li> </ul> Is either one shorted?	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Replace the Wave Amp (REP 10.7, <a href="#">page 4-172</a> ).
 <p>The diagram shows a green printed circuit board (PCB) with various components. On the left, a P/J240 Locking ZIF Connector is shown with a bundle of wires. On the right, a P/J110 connector is shown with three pins. The PCB also features several cylindrical components and other electronic parts. The diagram is labeled with 'P/J240 Locking ZIF Connector' and 'P/J110'.</p> <p style="text-align: right;">s8900-449</p>			
<p><b>Figure 1 - Plug/Jack Connector</b></p>			

## Electronic Faults

An electronic error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 392.588.00: PS Timeout ErrTx
- 392.589.00: PS Parity ErrTx
- 392.590.00: PS Line FreqErrTx
- 392.591.00: PS Data ErrTx
- 392.592.00: PS Secure PgrmErrTx
- 392.593.00: PS Framing ErrRx
- 392.594.00: PS Parity ErrRx
- 392.595.00: PS Over Flow ErrRx
- 392.596.00: PS Comm ErrRx

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Power Supply Unit, PL 10.1.10</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).

## Electronic Faults

An electronic error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 392.597.00: PS 50 Volts Down
- 392.601.00: PS Over Voltage Watchdog Timer

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Power Supply Unit, PL 10.1.10</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 7 - Right Side, Power Supply Unit</a> on page 7-23</li> <li>• <a href="#">Overview Diagram</a> on page 7-62</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check all the Power Supply Unit cabling. Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harnesses.
2.	Follow the diagnostic procedure for +50V Short Circuits ( <a href="#">Printer Fails Power-up: +50V LED Does Not Illuminate</a> on page 2-423, General Troubleshooting). Is there a short circuit?	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).	Troubleshooting complete.

## Power Supply Overvoltage Watchdog Timer Went Off

The load dumping to the Power Supply exceeded the allowable time limit. Currently not display on the Control Panel. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.602.00: Power Supply Overvoltage Watchdog Timer Went Off

### Troubleshooting Procedure

Step	Actions and Questions
1.	<b>Note:</b> The fault code will only appear on the Fault History.

## Electronics Fan Faults

An Electronics Fan error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 392.604.00: Processor exceeded panic temperature
- 392.605.00: Wave Amp Thermistor exceeded maximum temperature
- 392.606.00: Electronics Fan not working properly

### Initial Actions

- Check for any blockages in the air path flow or vents.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Electronics System Fan, PL 9.1.10</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Purge Pump, Media Path Motor, Fans, Printhead Tilt Solenoid</a> on page 7-64</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Ensure the vents of the printer are not blocked. Provide adequate clearance (refer to <a href="#">Clearance and Mounting Surface Specifications</a> on page 1-57 in Chapter 1.</p> <p>Check the Electronics System Fan wiring harness connector P/J507.</p> <p>Is the connection secure and undamaged?</p>	Go to step 2.	Reseat and/or replace the wiring harness. Go to step 2.
2.	<p>Enter <a href="#">dc330 Component Control</a> on page 2-39, code <a href="#">042.065</a>.</p> <p>Press <b>Start</b>.</p> <p>Is the Electronics System Fan turning?</p>	Troubleshooting complete	Go to step 3.
3.	<p>Replace the Electronics System Fan (REP 9.8, <a href="#">page 4-149</a>).</p> <p>Enter <a href="#">dc330 Component Control</a>, code <a href="#">042.065</a>.</p> <p>Press <b>Start</b>.</p> <p>Is the Fan turning?</p>	Troubleshooting complete.	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).

## Wave Amp Faults

A Wave Amp error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 392.607.00: Wave Amp thermistor is open.
- 392.608.00: Wave Amp thermistor is shorted.
- 392.609.00: Wave Amp thermistor gave a bad reading.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Wave Amp wiring connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Wave Amp, PL 10.1.13</li> <li>• Cable, Wave Amp Signal, PL 10.1.35</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 19 - Wave Amp Board</a> on page 7-35</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Reseat the Wave Amp cable connection P/J640 to the Printhead and P/J800 to the Power Control Board.</p> <p>Release the end of the cable and carefully examine the conductor ends (a magnifier helps) to see that they are not cracked or torn. If the cable looks good, carefully reinstall it using a ZIF tool (refer to <a href="#">Unlocking/ Locking the ZIF Connector</a> on page 4-72 in Chapter 4 for how to use the ZIF tool for unlocking/locking the ZIF cable connector).</p> <p><b>CAUTION:</b> Failure to properly unlock the connector will damage the cable.</p> <p>Does the error persist?</p>	Go to step 2.	Troubleshooting complete.

**Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
2.	Check the +50V LED on the Power Supply. Is the LED on?	Go to step 3.	Follow the diagnostic procedure for +50V short circuits ( <a href="#">Printer Fails Power-up: +50V LED Does Not Illuminate</a> on page 2-423).
3.	Replace the Wave Amp cable. Does the error persist?	Replace the Wave Amp (REP 10.7, <a href="#">page 4-172</a> ).	Troubleshooting complete.



## Ink Loader Disconnect

An Ink Loader error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.990.00: Ink Loader Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify the Ink Loader cable connection to the Ink Loader and Electronics Module.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Cable, Ink Loader Data, PL 3.2.47</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, I/O Board Data, PL 10.1.34</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Ink Loader Board wiring harness connectors P/J702 and CN7. Are the connections secure and undamaged?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Reseat and/or replace the wiring harness.

## Ink Loader Board Error

An Ink Loader error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 392.991.00: Inkload Board Wrong PLD version

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Ink Loader Assembly, PL 3.1.18</li><li>• Ink Loader Board, PL 3.2.30</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> ).

# 393 - Ink Delivery and Ink Thermals

## Ink Loader Yoke Faults

An Ink Load Yoke error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.402.00: Inkload MCU Parity Error
- 393.403.00: Inkload MCU Checksum Error
- 393.404.00: Inkload Yoke Move To Home Position Timeout
- 393.405.00: Inkload Yoke Move To Away Position Timeout
- 393.406.00: Inkload Yoke Move Attempted With Cover Open
- 393.407.00: Inkload Yoke Stuck At Home Position
- 393.408.00: Inkload Yoke Motor Overcurrent
- 393.409.00: Inkload Cover Open Failure
- 393.439.00: Inkload Yoke Stuck At Away Position

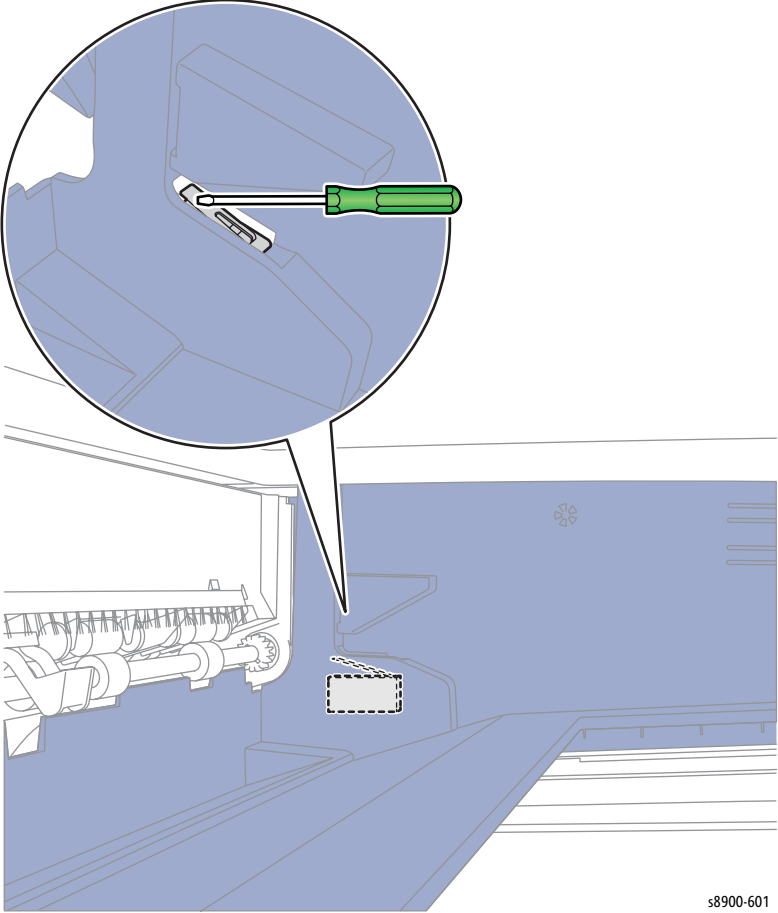
### Initial Actions

- Check for obstruction in the Ink Loader.
- Check for service bulletins related to the Ink Load Yoke faults.
- Open and close the Ink Load Door.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Ink Loader Yoke Motor Assembly, PL 3.2.23</li> </ul>	

Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Open the Ink Loader Door and remove Horizontal Transport. Carefully use a screwdriver to press down on the SCT Sensor (see <a href="#">Figure 1 - SCT Sensor Location</a>).</p> <p>Check for obvious obstructions to yoke movement.</p> <p>Alternately run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">093.001</a> to move the Yoke.</p> <p>Does the Yoke move freely?</p>	<p>Troubleshooting complete.</p>	<p>Go to step 2.</p>
 <p>s8900-601</p> <p><b>Figure 1 - SCT Sensor Location</b></p>			
2.	<p>Check the motor wiring and gear train for damage.</p> <p>Replace if necessary.</p> <p>Rerun <a href="#">dc330 Component Control</a> tests.</p> <p>Does the Yoke move freely?</p>	<p>Troubleshooting complete.</p>	<p>Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a>).</p>

## Incompatible/Invalid Ink Stick Fault

An incompatible/invalid ink stick error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.410.00: Cyan channel detected incompatible/invalid DMO stick
- 393.411.00: Cyan channel detected incompatible/invalid NA stick
- 393.412.00: Cyan channel detected incompatible/invalid XE stick
- 393.413.00: Cyan channel detected incompatible/invalid FACTORY stick
- 393.414.00: Cyan channel detected incompatible/invalid METERED stick
- 393.415.00: Cyan channel detected incompatible/invalid SR stick
- 393.416.00: Cyan channel detected incompatible/invalid FX stick
- 393.417.00: Magenta channel detected incompatible/invalid DMO stick
- 393.418.00: Magenta channel detected incompatible/invalid NA stick
- 393.419.00: Magenta channel detected incompatible/invalid XE stick
- 393.420.00: Magenta channel detected incompatible/invalid FACTORY stick
- 393.421.00: Magenta channel detected incompatible/invalid METERED stick
- 393.422.00: Magenta channel detected incompatible/invalid SR stick
- 393.423.00: Magenta channel detected incompatible/invalid FX stick
- 393.424.00: Yellow channel detected incompatible/invalid DMO stick
- 393.425.00: Yellow channel detected incompatible/invalid NA stick
- 393.426.00: Yellow channel detected incompatible/invalid XE stick
- 393.427.00: Yellow channel detected incompatible/invalid FACTORY stick
- 393.428.00: Yellow channel detected incompatible/invalid METERED stick
- 393.429.00: Yellow channel detected incompatible/invalid SR stick
- 393.430.00: Yellow channel detected incompatible/invalid FX stick
- 393.431.00: Black channel detected incompatible/invalid DMO stick
- 393.432.00: Black channel detected incompatible/invalid NA stick
- 393.433.00: Black channel detected incompatible/invalid XE stick
- 393.434.00: Black channel detected incompatible/invalid FACTORY stick
- 393.435.00: Black channel detected incompatible/invalid METERED stick
- 393.436.00: Black channel detected incompatible/invalid SR stick
- 393.437.00: Black channel detected incompatible/invalid FX stick

### Initial Actions

- Check for obstruction in the Ink Loader.
- Open and close the Ink Load Door.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions
1.	<p>Verify the region of the printer using the Service Usage Profile.                      Accessing the Service Usage Profile via CWIS:</p> <ol style="list-style-type: none"> <li>a. Click <b>Status</b> &gt; <b>SMart eSolutions</b> &gt; <b>Maintenance Assistance</b> &gt; <b>Download File to Your Computer</b></li> <li>b. Right-click on file <b>UsageLog.csv</b>.</li> <li>c. Save the file to your computer.</li> <li>d. On the Service Usage Profile, check the region information - <b>Token 306</b>.                             <ul style="list-style-type: none"> <li>– NA - North America</li> <li>– EU -Europe</li> <li>– DMO - Developing Market Org.</li> <li>– M - Metered</li> <li>– Neutral - No region learned</li> </ul> </li> </ol>
2.	<p>Obtain the 6-digit supplies reset pin code from the Xerox Escalated Phone Support.</p>
3.	<p>From the Control Panel, access the <b>Admin</b> mode (<a href="#">Accessing Machine Status/ Tools Menu</a> on page 2-4).</p> <ol style="list-style-type: none"> <li>a. Press the <b>Machine Status</b> button.</li> <li>b. Touch <b>Tools</b> &gt; <b>Device Settings</b> &gt; <b>Supplies</b> &gt; <b>Enter Supplies Activation Code</b>.</li> <li>c. Enter the <b>6-digit code</b> and touch <b>Enter</b>.</li> </ol> <p><b>Note:</b> Be sure to exit the Admin mode after completion.</p>
4.	<p>Insert a stick of the correct SKU into the printer.</p>

## Inkload MCU Error

An Ink Load MCU error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 393.441.00: Inkload MCU not programmed

### Initial Actions

- Power Off and power On the printer.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Inkload Yoke Sensor Error

An Ink Load Yoke error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 393.442.00: Inkload Yoke Sensors Invalid

### Initial Actions

- Power Off and power On the printer.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Ink Loader Assembly, PL 3.1.18</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> ).



## Ink Loader Fault

An Ink Loader error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.501.00: Black Ink Stick Jam Fault
- 393.506.00: Magenta Ink Stick Jam Fault
- 393.511.00: Cyan Ink Stick Jam Fault
- 393.516.00: Yellow Ink Stick Jam Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify that ink stick is Xerox ink.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Ink Load Yoke Motor Assembly, PL 3.2.23</li> <li>• Xerox Ink Sticks (Cyan, Magenta, Yellow, Black)</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p><b>Note:</b> Check the Electronics System Fan for function, as proper cooling is required to prevent ink stick jams. Ensure the vents are not blocked. Provide adequate clearance (refer to <a href="#">Clearance and Mounting Surface Specifications</a> on page 1-57 in Chapter 1). If the Electronics System Fan is not functioning, refer to <a href="#">Electronics Fan Faults</a> on page 2-290, fault codes <a href="#">392.604 ~ 392.606</a>.</p> <p>Remove the Horizontal Transport or Ink Load Cover (REP 3.2, <a href="#">page 4-20</a>), so that you can see the ink sticks in the channels.</p> <p>Remove all ink sticks from color that is failing (including sticks that may be melted to the Heater at the front of the Ink Loader).</p> <p><b>Note:</b> Follow the Ink Stick removal procedure (REP 3.8, <a href="#">page 4-32</a>) to remove the Ink Sticks.</p>		

Troubleshooting Procedure (Continued)

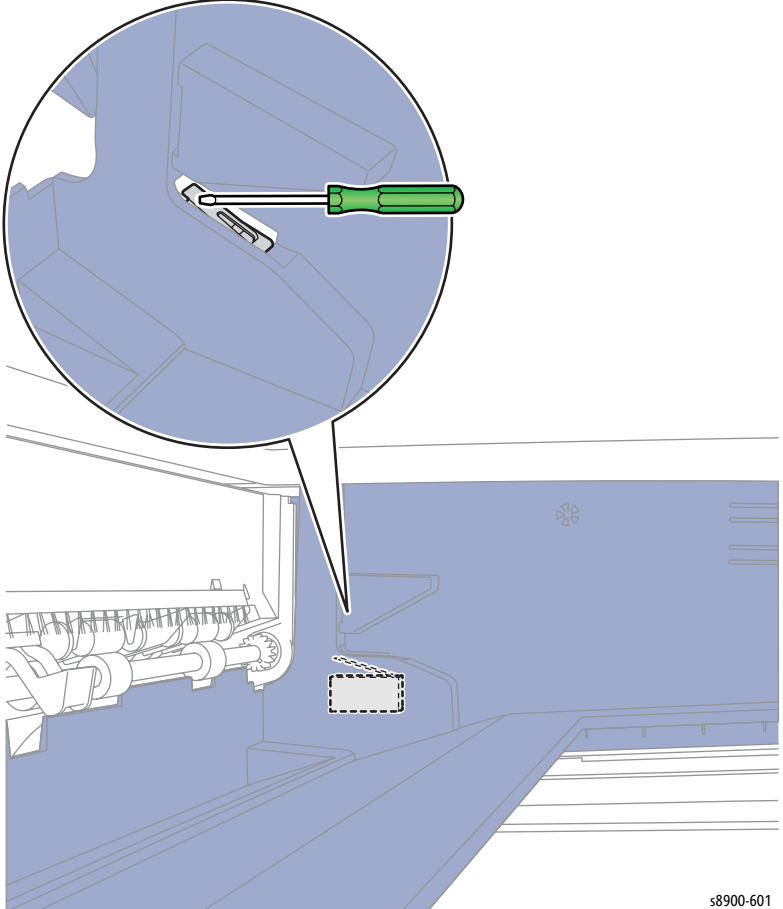
Step	Actions and Questions	Yes	No
2.	<p>Remove the Horizontal Transport/ Ink Loader Cover (REP 3.2, <a href="#">page 4-20</a>).</p> <p>Check for obvious obstruction to yoke movement.</p> <p>Carefully use a screwdriver to press the SCT Sensor down as shown in <a href="#">Figure 1 - STC Sensor Location</a>.</p> <p>Alternately run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">093.001</a> to move the Yoke.</p> <p>Does the Yoke move?</p>	Go to step 3.	Replace the Ink Loader Yoke Motor Assembly (REP 3.6, <a href="#">page 4-27</a> ).
 <p style="text-align: right; font-size: small;">s8900-601</p>			
3.	<p>Using a flashlight, look for ink shards or other obstruction in the track.</p> <p>Are there any ink shards or obstructions?</p>	Go to step 6.	Go to step 4.

Figure 1 - STC Sensor Location

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	Remove the Ink Loader from the printer. Is there any ink hanging from the bottom of the Ink Loader that is not on the metal heater? (Look for ink debris on top of the Printhead. Ink dust is normal, pools of frozen ink are not normal.)	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ). Transfer the ink sticks to the new Ink Loader.	Go to step 5.
5.	Reboot the printer. Does the error persist?	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ). Transfer the ink sticks to the new Ink Loader.	Troubleshooting complete.
6.	Remove any obstructions and replace at least 2 ink sticks. Reboot the printer. Does the error persist?	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ). Transfer the ink sticks to the new Ink Loader.	Troubleshooting complete.

## Ink Loader Thermal Fault

An Ink Loader Thermal error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.523.00: Cyan ink melt heater is too hot.
- 393.524.00: Cyan ink melt heater is too slow.
- 393.526.00: Magenta ink melt heater is too hot.
- 393.527.00: Magenta ink melt heater is too slow.
- 393.529.00: Yellow ink melt heater is too hot.
- 393.530.00: Yellow ink melt heater is too slow.
- 393.532.00: Black ink melt heater is too hot.
- 393.533.00: Black ink melt heater is too slow.

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

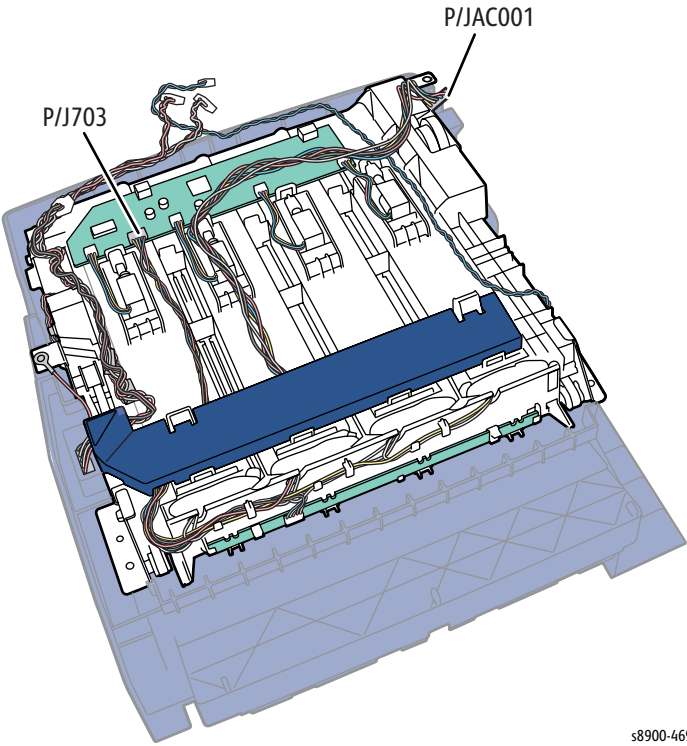
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Cable, Ink Loader Data, PL 3.2.46</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 7 - Right Side, Power Supply Unit</a> on page 7-23</li> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reseat the Ink Loader Data cable connectors CN7 and P/J702. Does the error persist?	Go to step 2.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Check the Ink Loader Thermistor for continuity.</p> <ol style="list-style-type: none"> <li>Disconnect the wiring harness connector P/J703 from the Ink Loader Board (see <a href="#">Figure 1 - Plug/Jack Connector</a>).</li> <li>Measure the connector for continuity. The measurement should read ~200k Ohms at room temperature ~25 Degree Celsius between the white and each colored wire.</li> </ol> <p>Check the Ink Loader Heater for continuity.</p> <ol style="list-style-type: none"> <li>Disconnect the wiring harness connector P/JAC001 from the Power Supply Unit.</li> <li>Measure the connector for continuity. The measurement should read ~120 ohms between the white and each colored wire.</li> </ol> <p>Does the error persist?</p>	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ).	Troubleshooting complete.
<div style="text-align: center;">  <p style="text-align: right; margin-right: 50px;">s8900-469</p> </div> <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connector</b></p>			

## Ink Loader Thermal Fault

An Ink Loader Thermal error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.525.00: Cyan ink melt heater is too hot.
- 393.528.00: Magenta ink melt heater is too hot.
- 393.531.00: Yellow Thermistor reading bad.
- 393.534.00: Black ink melt heater is too hot.

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

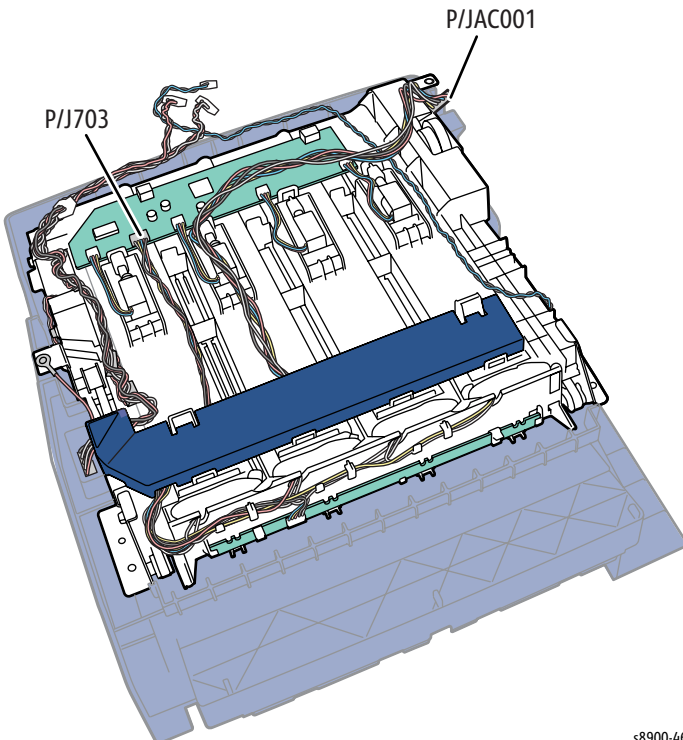
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Cable, Ink Loader Data, PL 3.2.46</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 7 - Right Side, Power Supply Unit</a> on page 7-23</li> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reseat the Ink Loader Data cable connectors CN7 and P/J702. Does the error persist?	Go to step 2.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Check the Ink Loader Thermistor for continuity.</p> <ol style="list-style-type: none"> <li>Disconnect the wiring harness connector P/J703 from the Ink Loader Board (see <a href="#">Figure 1 - Plug/Jack Connector</a>).</li> <li>Measure the connector for continuity. The measurement should read ~200k Ohms at room temperature ~25 Degree Celsius between the white and each colored wire.</li> </ol> <p>Check the Ink Loader Heater for continuity.</p> <ol style="list-style-type: none"> <li>Disconnect the wiring harness connector P/JAC001 from the Power Supply Unit.</li> <li>Measure the connector for continuity. The measurement should read ~120 ohms between the white and each colored wire.</li> </ol> <p>Does the error persist?</p>	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ).	Troubleshooting complete.
<div style="text-align: center;">  <p style="text-align: right;">s8900-469</p> </div> <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connector</b></p>			

## Printhead Level Sense Fault

A Printhead Level Sense error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.581.00: Head Open or Shorted LS - Black
- 393.582.00: Head Open or Shorted LS - Magenta
- 393.583.00: Head Open or Shorted LS - Cyan
- 393.584.00: Head Open or Shorted LS - Yellow

### Initial Actions

- Reboot the printer and verify the error persists.
- Check for ink spills around the Printhead.
- Check for mixed ink in the Printhead reservoirs.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Cable, Printhead Interface, PL 7.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 10 - Left Side (bottom), Preheater</a> on page 7-26</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Printhead cable connector P/J130 and the Gray Printhead Data Cable P/J180 for damage. Are the cables damaged?	Go to step 2.	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).
2.	Replace or repair the wiring harnesses. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Check the +50V LED on the Power Supply. Is the LED on?	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ).	Follow the diagnostic procedure for +50V short circuits ( <a href="#">Printer Fails Power-up: +50V LED Does Not Illuminate</a> on page 2-423).



## Printhead Level Sense Fault

A Printhead Level Sense error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.597.00: An over range level sense error occurred in the Black Printhead reservoir.
- 393.598.00: An over range level sense error occurred in the Magenta Printhead reservoir.
- 393.599.00: An over range level sense error occurred in the Cyan Printhead reservoir.
- 393.800.00: An over range level sense error occurred in the Yellow Printhead reservoir.

### Initial Actions

- Check the Ink Loader for improperly installed ink sticks.
- Turn the printer power off and allow the printer to cool until the ink solidifies (approximately 30 minutes).
- Investigate where the contamination came from and remove the contamination source. One ink color contaminating another color can cause this error.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Cable, Printhead Interface, PL 7.1.41</li> <li>• Main Controller Board, PL 10.1.3</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Xerox Ink Sticks</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Ink Loader chutes for improperly installed Ink Sticks. Has the Ink Sticks been loaded incorrectly or the wrong ink used?	Go to step 3.	Go to step 2.
2.	Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	<p><b>CAUTION:</b> Do not attempt to remove ink from the Printhead reservoir. Purge the reservoir using Solid Color Test Prints as described.</p> <p>Clear the Ink Loader of ink. For these types of errors, clear the Ink Loader of the incorrect ink. Remove the Ink Loader (REP 3.6, <a href="#">page 4-27</a>).</p> <p>Load the correct ink into the chutes.</p> <p>Clean the area surrounding the Printhead reservoir for the affected color(s).</p> <p>Install the Ink Loader.</p> <p>Has all the improper ink been removed from the Ink Loader and Printhead areas?</p>	Go to step 4.	Continue cleaning until no residual ink remains in the Ink Loader or area surrounding the Printhead.
4.	<p>Replace the Printhead Assembly (REP 7.3, <a href="#">page 4-62</a>).</p> <p>Does the error persist?</p>	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).	Troubleshooting complete.

## Ink Loader Thermal Fault

An Ink Loader Thermal error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.600.00: Cyan ink melt thermistor is open.
- 393.601.00: Cyan ink melt thermistor is shorted.
- 393.603.00: Magenta ink melt thermistor is open.
- 393.604.00: Magenta ink melt thermistor is shorted.
- 393.606.00: Yellow ink melt thermistor is open.
- 393.607.00: Yellow ink melt thermistor is shorted.
- 393.609.00: Black ink melt thermistor is open.
- 393.610.00: Black ink melt thermistor is shorted.

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

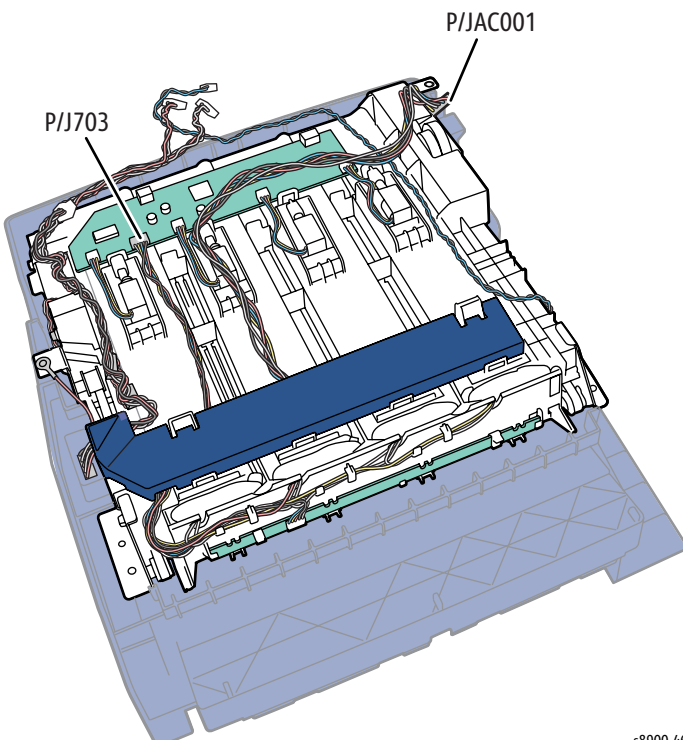
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Cable, Ink Loader Data, PL 3.2.46</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reseat the Ink Loader Data cable connectors CN7 and P/J702. Does the error persist?	Go to step 2.	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Check the Ink Loader Thermistor for continuity.</p> <ol style="list-style-type: none"> <li>Disconnect the wiring harness connector P/J703 from the Ink Loader Board (see <a href="#">Figure 1</a>).</li> <li>Measure the connector for continuity. The measurement should read ~200k Ohms at room temperature ~25 Degree Celsius between the white and each colored wire.</li> </ol> <p>Does the error persist?</p>	<p>Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a>).</p>	<p>Troubleshooting complete.</p>
<div style="text-align: center;">  <p>The diagram shows a top-down view of the ink loader assembly. A green printed circuit board (PCB) is visible with various components. Two connectors are specifically labeled: P/J703, located on the left side of the board, and P/JAC001, located on the right side. Wires are connected to these connectors. A blue component, likely the ink loader, is shown below the PCB. The entire assembly is mounted on a blue base plate.</p> <p style="text-align: right;">s8900-469</p> </div> <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connector</b></p>			

## Ink Loader Electrical Fault

An Ink Loader error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.602.00: Cyan ink melt thermistor bad reading
- 393.605.00: Magenta ink melt thermistor bad reading
- 393.608.00: Yellow ink melt thermistor bad reading
- 393.611.00: Black ink melt thermistor bad reading

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Cable, Ink Loader Data, PL 3.2.46</li> <li>• Power Control Board, PL 10.1.4</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Reseat the Ink Loader Data cable connectors CN7 and P/J702. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ). Reboot the printer with the new Power Control Board. Does the error persist?	Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> ).	Troubleshooting complete.

## Ink Loader Fault

An Ink Loader error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.893.00: Black Ink Stick Potential Jam
- 393.894.00: Magenta Ink Stick Potential Jam
- 393.895.00: Cyan Ink Stick Potential Jam
- 393.896.00: Yellow Ink Stick Potential Jam
- 393.994.00: Black Ink Stick Potential Jam2
- 393.995.00: Magenta Ink Stick Potential Jam2
- 393.996.00: Cyan Ink Stick Potential Jam2
- 393.997.00: Yellow Ink Stick Potential Jam2

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify that ink stick is Xerox ink.
- If the problem persists, perform the following procedure.

**Note:** This fault code is a self-recovering fault, and will appear in fault history. If it becomes chronic it will lead to hard faults 393.501, 393.506, 393.511 or 393.516.

### Troubleshooting Procedure

**Note:** No repair procedure is needed for these fault codes.

## Incompatible/Invalid Ink Sticks

An Ink Stick Sense error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.962.00: Cyan channel detected incompatible/invalid ink stick
- 393.963.00: Magenta channel detected incompatible/invalid ink stick
- 393.964.00: Yellow channel detected incompatible/invalid ink stick
- 393.965.00: Black channel detected incompatible/invalid ink stick

### Initial Actions

- Verify ink sticks in question are the correct SKU/Re-Order number for the customer.
- Verify, using the Control Panel menus, that the locked SKU/Re-Order number is correct.
- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Ink, Rainbow Pack, Xerox Supplies and Accessories</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Press the button to open the Ink Loader Door. Is there an ink stick visible in the insertion opening?	Go to step 2.	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ).
2.	Remove the ink stick identified as incompatible/invalid (refer to <a href="#">ColorQube 8700 S/ X/ XF Ink SKU Definitions</a> on page 1-42/ <a href="#">ColorQube 8900 X Ink SKU Definitions</a> on page 1-43 in Chapter 1). Does the ink stick SKU match what the printer is set to?	Go to step 5.	Go to step 3.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Is the printer set to the correct ink SKU for the customer?</p> <p>Accessing the Service Usage Profile via CWIS:</p> <ol style="list-style-type: none"> <li>Click <b>Status &gt; SMart eSolutions &gt; Maintenance Assistance &gt; Download File to Your Computer.</b></li> <li>Right-click on file <b>UsageLog.csv.</b></li> <li>Save the file to your computer.</li> <li>On the Service Usage Profile, check the region information - <b>Token 306.</b> <ul style="list-style-type: none"> <li>– NA - North America</li> <li>– EU -Europe</li> <li>– DMO - Developing Market Org.</li> <li>– M - Metered</li> <li>– Neutral - No region learned</li> </ul> </li> </ol>	Go to step 8.	Go to step 4.
4.	<p>Contact Escalated Phone Support to retrieve the 6-digit pin code.</p> <p>From the Control Panel, access the Admin mode (<a href="#">Accessing Machine Status/ Tools Menu</a> on page 2-4).</p> <ol style="list-style-type: none"> <li>Press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Device Settings &gt; Supplies &gt; Enter Supplies Activation Code.</b></li> <li>Enter the <b>6-digit code</b> and touch <b>Enter.</b></li> </ol> <p><b>Note:</b> Be sure to exit the Admin mode after completion.</p>		
5.	<p>Insert a stick of the correct SKU into the printer.</p> <p>Does the error persist?</p>	Go to step 9.	Inform customer of correct ink sticks to use.
6.	<p>Is the ink stick damaged?</p>	Go to step 8.	Go to step 7.
7.	<p>Re-insert the stick in question.</p> <p>Does the error persist?</p>	Go to step 8.	Inform customer to re-try sticks, and inform Xerox of sticks which will not work.
8.	<p>Insert a different stick of the correct SKU.</p> <p>Does the error persist?</p>	Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> ).	Inform customer to re-try sticks, and inform Xerox of sticks which will not work.
9.	<p>Enter <a href="#">dc140 Analog Monitor</a> on page 2-36 for the failing color (<a href="#">393.101</a>, <a href="#">393.102</a>, <a href="#">393.103</a> or <a href="#">393.104</a>) and insert stick.</p> <p>Does the display match the inserted SKU?</p> <p>Does the error persist?</p>	<p><b>Note:</b> Contact Escalated Phone Support to retrieve the snippet).</p> <p>Install neutral region snippet and set printer using correct SKU sticks.</p>	Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> ).



## Unidentified Ink Sticks

An Ink Stick Sense error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.966.00: Cyan channel detected unidentified ink stick
- 393.967.00: Magenta channel detected unidentified ink stick
- 393.968.00: Yellow channel detected unidentified ink stick
- 393.969.00: Black channel detected unidentified ink stick

### Initial Actions

- Open and close Ink Load Door using the **Ink Access Door Release** button.
- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Ink, Rainbow Pack, Xerox Supplies and Accessories</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	If firmware version is 071.161.35100 or 071.161.36010, perform <a href="#">Firmware Upgrade</a> on page 6-51. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	<b>Note:</b> This set of fault codes indicates a stick was added while printer was powered Off. <ul style="list-style-type: none"> <li>a. Open the Ink Load Door.</li> <li>b. Remove any visible sticks.</li> <li>c. Close Ink Load Door.</li> </ul> Does error persist?	Replace Ink Loader.	Troubleshooting complete. Inform customer of proper procedure for adding ink sticks to printer.

## Ink Load Obstruction Fault

An Ink Loader error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 393.982.00: Black obstructed, reservoir not filled
- 393.983.00: Magenta obstructed, reservoir not filled
- 393.984.00: Cyan obstructed, reservoir not filled
- 393.985.00: Yellow obstructed, reservoir not filled

### Initial Actions



**CAUTION: DO NOT REBOOT THE PRINTER** - this could cause head overflow

- Check for ink spills around the Printhead.
- Look for evidence that the printer was not tipped.
- Check the Ink Loader for bent melt tips.
- Check the Ink Loader power cable mis-routing around the melt tips.
- Check height of ink levels in the head reservoir.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Xerox Ink Sticks</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Remove the Printhead (REP 7.3, <a href="#">page 4-62</a> ) to inspect for ink spills. Clean if necessary. Check the reservoir for evidence of overflow. Is the head overfilled or the Air Hose full of ink?	Replace the Print Head (REP 7.3, <a href="#">page 4-62</a> ). and upgrade firmware to the latest version ( <a href="#">Firmware Upgrade</a> on page 6-51) to reduce risk of overflow.	Go to step 2.
2.	Remove the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ) and inspect the melt tip for color that is failing. Is the melt tip bent or angled incorrectly?	Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> ) and go to step 5.	Go to step 3.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Is any ink hanging from the bottom of the Ink Loader that is not on the metal heater?</p> <p><b>Note:</b> Look for ink debris on top of the Printhead.</p> <p>Ink dust is normal, pools of frozen ink is not normal.</p>	<p>Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a>) and go to step 5.</p>	<p>Go to step 4.</p>
4.	<p>Inspect the Ink Loader for any cabling or obstruction to the melt tips.</p> <p>Is there any obstruction?</p>	<p>Re-route the cables.</p>	<p>Replace the Print Head (REP 7.3, <a href="#">page 4-62</a>).</p>

# 394 - Drum, Stripper, Drum Maintenance

## Trapped Ink Stick Faults

An Ink Loader error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 394.000.00: Black channel has trapped ink stick
- 394.001.00: Magenta channel has trapped ink stick
- 394.002.00: Cyan channel has trapped ink stick
- 394.003.00: Yellow channel has trapped ink stick

### Initial Actions

- Check for trapped ink stick inside the Ink Loader.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Remove the trapped ink stick.
2.	Perform the Ink SKU Sensor test in Service Diagnostics (Diagnostics Menu > Monitor Menu)

## Factory Ink Stick Exceeded Quota Faults

An Ink Loader error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 394.004.00: Black channel exceeded factory ink stick quota
- 394.005.00: Magenta channel exceeded factory ink stick quota
- 394.006.00: Cyan channel exceeded factory ink stick quota
- 394.007.00: Yellow channel exceeded factory ink stick quota

### Initial Actions

- Check the type of ink stick in the Ink Loader.
- If the problem persists, perform the following procedure.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Remove the trapped ink stick.
2.	Perform the Ink SKU Sensor test in Service Diagnostics (Diagnostics Menu > Monitor Menu)

## Y-Axis Fault

A Y-Axis error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 394.510.00: Drum Image Initial Position
- 394.511.00: Drum stall During Imaging Acceleration
- 394.512.00: Drum stall During Imaging at Constant Velocity
- 394.513.00: Drum stall During Imaging Deceleration

### Initial Actions

- Reboot the printer and verify the error persists.
- Check all the Drum cable connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Y-Axis Belt, PL 7.1.20</li> <li>• Drum Assembly, PL 7.1.21</li> <li>• Y-Axis Motor, PL 9.1.3</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel</a> on page 7-67</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum power and encoder wiring harness connectors P/J501, P/J505, and P/J502. Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Clean the Y-Axis Belt and pulley with Isopropyl Alcohol. Power on the printer. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Y-Axis Belt (REP 7.12, <a href="#">page 4-95</a> ). Does the error persist?	Go to step 4.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	Replace the Y-Axis Motor Assembly (REP 9.2, <a href="#">page 4-135</a> ). Does the error persist?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ).	Troubleshooting complete.

## Y-Axis Fault

A Y-Axis error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 394.524.00: Y-Axis Over Current Fault
- 394.526.00: Y-Axis Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check all the Drum cable connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Y-Axis Belt, PL 7.1.20</li> <li>• Drum Assembly, PL 7.1.21</li> <li>• Y-Axis Motor, PL 9.1.3</li> <li>• Cable, Right Side Power Control, PL 10.1.40</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum Power and Encoder wiring harness connector P/J502. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check the Y-Axis Motor wiring harness connector P/J545. Is the connection secure and undamaged?	Go to step 3.	Reseat and/or replace the wiring harness.
3.	Clean the Y-Axis Belt and Pulley with Isopropyl Alcohol. Power On the printer. Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Replace the Y-Axis Motor Assembly (REP 9.2, <a href="#">page 4-135</a> ). Does the error persist?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ).	Troubleshooting complete.



## Drum Thermal Fault

A Drum Heater error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 394.536.00: Drum Heater is too hot.
- 394.538.00: Drum is heating too slow.
- 394.539.00: Drum Thermistor is open.
- 394.540.00: Drum Thermistor is bad.
- 394.541.00: Drum Thermistor bad reading, cannot trust temperature.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the ambient room temperature.
- Check the Fan operation and vents.
- Check that the Drum Heater and Thermistor are plugged in.
- If the problem persists, perform the following procedure.

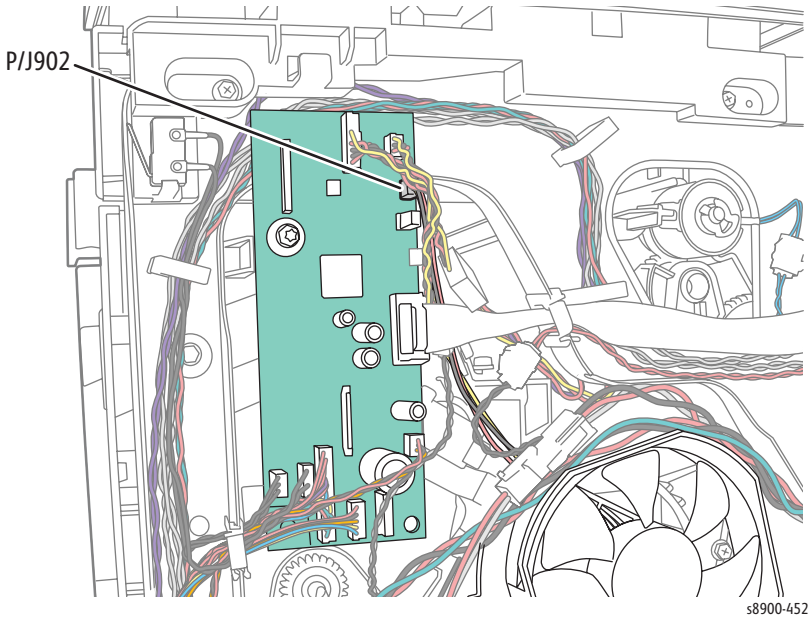
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Drum Assembly, PL 7.1.21</li> <li>• Drum Cooling Fan, PL 9.1.8</li> <li>• Drum Thermistor (Temperature Sensor), PL 11.1.28</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Verify that the ambient temperature is within environmental specifications (room temperature) (refer to <a href="#">Environmental Specifications</a> on page 1-49 in Chapter 1). Is the temperature within specifications?	Go to step 2.	Advise customer of operational requirements.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	Check resistance across the Drum Thermistor. n Check resistance on the wiring harness connector P/J902 (see <a href="#">Figure 1 - Plug/Jack Connector</a> ). n At Room Temperature: 280 kohms n At Operating Temperature: 50 kohms Is it open or shorted?	Replace the Drum Temperature Sensor (REP 11.9, <a href="#">page 4-197</a> ) and /or wiring cable.	Go to step 3.
 <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connector</b></p>			
3.	Check airflow at the vents. Is there adequate clearance, and are the vents clean?	Go to step 4.	Clean the vents and/or advise customer of clearance requirements (refer to <a href="#">Clearance and Mounting Surface Specifications</a> on page 1-57 in Chapter 1).
4.	Run <a href="#">dc330 Component Control</a> on page 2-39, test <a href="#">42-064</a> to check the Drum Cooling Fan for operational. Does the Fan operate?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ).	Replace the Drum Cooling Fan (REP 9.6, <a href="#">page 4-146</a> ).

## Y-Axis Fault

A Y-Axis error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 394.548.00: Y-Axis Position Error
- 394.550.00: Y-Axis Calibration Error

### Initial Actions

- Reboot the printer and verify the error persists.
- Check all the Drum cable connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Drum Assembly, PL 7.1.21</li> <li>• Y-Axis Belt, PL 7.1.20</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel</a> on page 7-67</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum power and encoder wiring harness connectors P/J114, P/J120, and P/J122. Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Clean the Y-Axis Belt (REP 7.12, <a href="#">page 4-95</a> ) and Pulley with Isopropyl Alcohol. Power on the printer. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ). Does the error persist?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ).	Troubleshooting complete.

## DM Read Error

A DM error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 394.568.00: DM Read Error

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Cleaning Unit, PL 4.1.17</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a> ).

## Drum Maintenance Fault

A Drum Maintenance error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 394.570.00: DM Write Error
- NA: Chronic “maintenance kit missing” messages even when it is installed.

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify the Cleaning Unit is genuine Xerox.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Drum Maintenance Pivot Plate Assembly, PL 7.1.26</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum Maintenance Pivot Plate wiring harness connector P/J901. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a> ). Does the error persist?	Replace the Pivot Plate Assembly (REP 7.15, <a href="#">page 4-106</a> ).	Troubleshooting complete.

## DMU Version Error

A Drum Maintenance error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 394.573.00: DMU Version Error

### Initial Actions

- Reboot the printer and verify the error persists.
- Verify the Cleaning Unit is genuine Xerox.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Cleaning Unit, PL 4.1.17</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a> ).

## Y-Axis Thermal Slowdowns Enabled

High use has caused the unit to go into Y-Axis Thermal Slowdown mode. The following troubleshooting procedure applies to these errors.

**Note:** These fault codes are expected behavior under high print usage conditions and will cause the printing speed to be reduced to prevent the Motors from overheating and failing. Further troubleshooting may not be necessary.

### Applicable Fault Codes

- 394.596.00: Y-Axis Thermal Slowdown Enabled
- 394.597.00: Y-Axis Thermal Slowdown Enabled (Envelopes)
- 394.598.00: Y-Axis Position Error Slowdown Enabled
- 394.599.00: Y-Axis Position Error Slowdown Enabled (Envelopes)

### Initial Actions

- Allow the printer to cool off by opening the paper tray and Left Side Door for 30 minutes.
- If the problem is persistent and occurs under low-use conditions, perform the following the procedure.

### Troubleshooting Procedure

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Y-Axis Motor, PL 9.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Replace the Y-Axis Motor (REP 9.2, <a href="#">page 4-135</a> ). <b>Note:</b> If high print usage is the cause of the slowdown, then replacing the Motor may not resolve the issue.

## Drum Thermal Fault

A Drum Heater error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 394.626.00: Drum Fan has been on too long.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the ambient room temperature.
- Check the Fan operation and vents.
- Check that the Drum Heater and Thermistor are plugged in.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Drum Cooling Fan, PL 9.1.9</li> <li>• Power Supply Unit, PL 10.1.10</li> <li>• Drum Thermistor (Temperature Sensor), PL 11.1.28</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Verify that the ambient temperature is within environmental specifications (room temperature) (refer to <a href="#">Environmental Specifications</a> on page 1-49 in the Introduction and General Information Chapter). Is the temperature within specifications?	Go to step 2.	Advise customer of operational requirements.
2.	Check resistance across the Drum Thermistor. <ul style="list-style-type: none"> <li>a. Check resistance on the wiring harness connector P/J902.                             <ul style="list-style-type: none"> <li>– At Room Temperature: 280 kohms</li> <li>– At Operating Temperature: 50 kohms</li> </ul> </li> </ul> Is it open or shorted?	Replace the Drum Temperature Sensor (REP 11.9, <a href="#">page 4-197</a> ) and/or wiring cable.	Go to step 3.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Check airflow at the vents. Is there adequate clearance, and are the vents clean?	Go to step 4.	Clean the vents and/or advise customer of clearance requirements (refer to <a href="#">Clearance and Mounting Surface Specifications</a> on page 1-57 in Chapter 1).
4.	Enter <a href="#">dc330 Component Control</a> on page 2-39, code 042.064. Press <b>Start</b> . Does the Drum Cooling Fan operate?	Go to step 5.	Replace the Drum Cooling Fan (REP 9.6, <a href="#">page 4-146</a> ).
5.	Turn On the AC switch. If the heaters immediately turn On and glow before the printer has finished booting up, then a triac is stuck on. Are the Heater Coils glowing? (indicates stuck triac in the Power Supply)	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).	Replace the Drum Temperature Sensor (REP 11.9, <a href="#">page 4-197</a> ).

## Process Drive Fault

A Process Drive error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 394.700.00: Process Module Homing Error

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Process Drive gear train is properly homed ([ADJ 1.3 Process Drive Alignment](#) on page 6-38).
- If the problem persists, perform the following procedure.

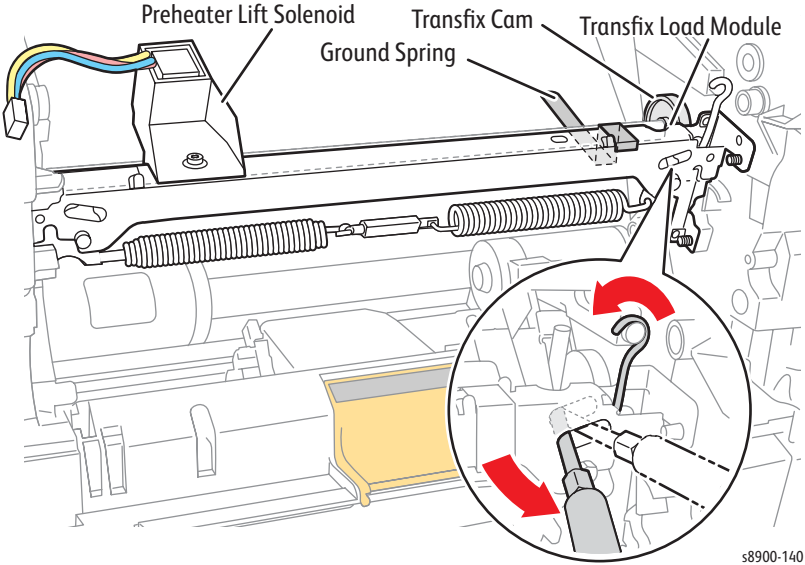
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Transfix Arm Kit (with pins), PL 7.1.16</li> <li>• Transfix Camshaft, PL 7.1.25</li> <li>• Drum Maintenance Cam Shaft, PL 7.1.31</li> <li>• Transfix Load Module, PL 7.1.35</li> <li>• Process Drive with Gear Box and Motor, PL 9.1.8</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum Maintenance Cam Shaft for a rotated cam closest to the opening for the DMU opening on the front of the unit. Is the cam rotated with respect to the cam at the other end?	Replace the Drum Maintenance Cam Shaft (REP 7.17, <a href="#">page 4-113</a> ).	Go to step 2.
2.	Check Process Drive alignment. Re-home the Process Drive ( <a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38). Does the error persist?	Go to step 3.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p><b>Note:</b> Transfix load is required to home the Process Drive correctly. Without adequate transfix load, the Process Drive will not home properly.</p> <p>Check the Load Arm Hooks.</p> <p>Are the Load Arm Hooks connected to the Load Arms?</p>	Go to step 4.	<p>Hook the Load Arms (see <a href="#">Figure 1 - Load Arm Location</a>).</p> <p><b>CAUTION:</b> Be careful not to pry against the Transfix Cam to prevent damaging the Cam (see <a href="#">Figure 1 - Load Arm Location</a>).</p>
 <p style="text-align: center;"><b>Figure 1 - Load Arm Location</b></p>			
3.	Are the load module hooks broken?	<p>Replace Transfix Load Module (REP 7.18, <a href="#">page 4-115</a>) and Load Arms (REP 7.9, <a href="#">page 4-89</a>).</p> <p>Loosen and retighten the Drum screws to reseat the Drum in the chassis.</p> <p>Follow steps 1-4 and 7-10 of the Drum Installation procedure (REP 7.13, <a href="#">page 4-96</a>).</p>	Go to step 5.
4.	Check the Transfix Camshaft for movement. Does the Transfix Camshaft spin a full 360 degrees during homing sequence?	Replace the Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a> ).	Go to step 6.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
5.	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ). Does the error persist?	Go to step 6.	Troubleshooting complete.
6.	Check the Transfix Load Arms for damage. <b>Note:</b> Also look for polished metal on the Transfix Cams. This happens when the followers no longer spin and are sliding on the surface of the Cam. <b>Note:</b> Do the removed Transfix Load Arms show excessive wear at the Transfix Roller Shaft interface? Does the follower Roller Bearing show excessive resistance to spinning?	Replace the Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a> ). <b>Note:</b> Transfix load is insufficient. Too much wear in the printer from a high cycle count is a common culprit.	Replace the Transfix Camshaft (REP 7.16, <a href="#">page 4-112</a> ).

## Process Drive Fault

A Process Drive error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 394.701.00: Process Drive Over Current Fault
- 394.702.00: Process Drive Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- Check that the Process Drive gear train is properly homed.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Transfix Camshaft, PL 7.1.25</li> <li>• Drum Maintenance Camshaft, PL 7.1.31</li> <li>• Process Drive with Gear Box and Motor, PL 9.1.8</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p><b>Note:</b> A failing Transfix Camshaft can force the Process Drive out of time.</p> <p>Check the Process Drive Transfix Camshaft, Cams and End Bearings. Check the Process Drive alignment. Re-home the Process Drive (<a href="#">ADJ 1.3 Process Drive Alignment</a> on page 6-38).</p> <p>Does the error persist?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Check the printer usage.</p> <p><b>Note:</b> An overheated Motor will lose ability to maintain torque requirements. Lots of slow (photo-mode) printing, or thick media, or jobs over 500 pages will cause this problem.</p> <p>Has the printer been under heavy print loads?</p>	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Go to step 3.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	<p>Check the Drum Maintenance and Transfix Camshafts movement.</p> <p><b>Note:</b> The transfix will only move freely for 45 degrees of motion before a torque load is developed.</p> <p>Do the Drum Maintenance and Transfix Camshafts move smoothly?</p>	<p>Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a>).</p>	<p>Replace the faulty Camshaft.</p> <ul style="list-style-type: none"> <li>• Drum Maintenance Camshaft - REP 7.17, <a href="#">page 4-113</a>)</li> <li>• Transfix Camshaft (REP 7.16, <a href="#">page 4-112</a>)</li> </ul>

## X-Axis Fault

An X-Axis error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 394.703.00: X-Axis Stall Fault

### Initial Actions

- Reboot the printer and verify the error persists.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• X-Axis Motor, PL 9.1.9</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the X-Axis wiring harness connector P/J542. Is the connection secure and undamaged?	Replace the X-Axis Motor (REP 9.7, <a href="#">page 4-147</a> ).	Reseat and/or replace the Front Side Harness.

# 399 - PEST

## PEST - Generic Error

An error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.001.00: PEST - Generic Error

### Troubleshooting Procedure

Step	Actions and Questions
1.	Reboot the printer.
2.	Reload software, refer to <a href="#">Firmware Upgrade</a> on page 6-51.

### Application Fault Code

- 399.007.00: PEST - 50 VDC Power Error

### Troubleshooting Procedure

Step	Actions and Questions
1.	Check the connections to the Power Control pwb.
2.	Perform <a href="#">Adj 1.2, Homing the Printhead</a> Forward to Print Position.
3.	Perform <a href="#">Adj 1.3 Process Drive Alignment</a> .
4.	Replace the Power Control pwb.



## PEST - Left/ Right Jetstack Disconnect

A Printhead Left/Right Jetstack error has occurred. The Jetstack is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.002.00: PEST - Left Jetstack Disconnect
- 399.003.00: PEST - Right Jetstack Disconnect

### Initial Actions

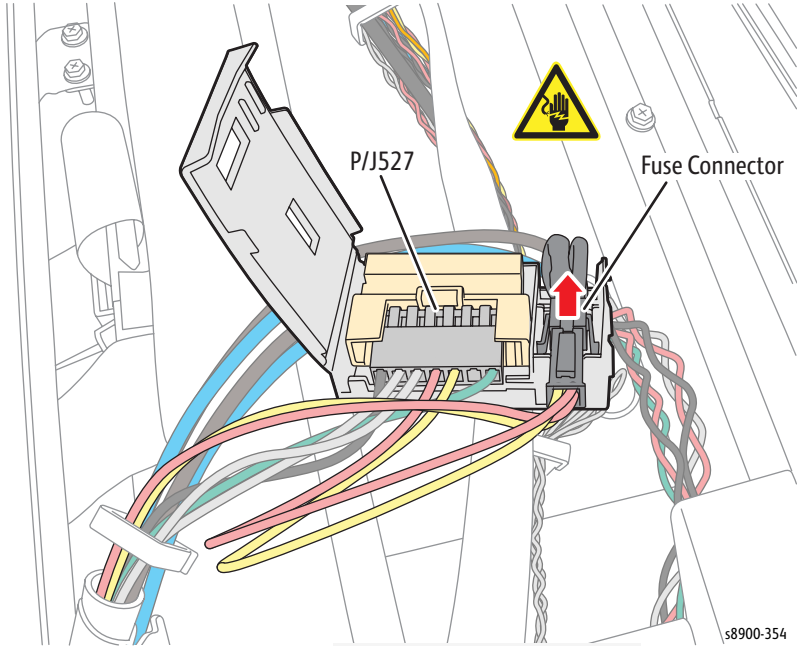
- Reboot the printer and verify the error persists.
- Check the Printhead wiring harness connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Printhead Heater Wiring Extension, PL 7.1.40</li> <li>• Power Supply Unit, PL 10.1.10</li> <li>• Jetstack Fuse, PL 10.1.15</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 7 - Right Side, Power Supply Unit</a> on page 7-23</li> <li>• <a href="#">Map 12 - Ink Loader (top side)</a> on page 7-28</li> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> </ul>

**! WARNING:** Line voltage present on the Fuse and Fuse Holder Contacts.

Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Check the wiring harness connectors P/JAC002 and the extension cable side of P/J527 to the Jetstack Fuse (see <a href="#">Figure 1 - Jetstack Fuse</a>).</p> <p>Are the connections secure and undamaged?</p>	Go to step 2.	<p>Reset and/or replace the wiring harness.</p> <p><b>Note:</b> In very rare cases a Jet Stack Heater may be visibly delaminate.</p>
 <p><b>Figure 1 - Jetstack Fuse</b></p>			
2.	<p>Measure the Pin 1-4 black-red circuit and the Pin 1-5 black-yellow circuit (P/JAC002). Each should measure ~250 ohms.</p> <p><b>Note:</b> A Jetstack Heater may delaminate and cause Jetstack Thermal Fault <a href="#">391.523</a> or <a href="#">391.535</a> (Jetstack Heater is Too Hot) and yet its resistance will measure correctly. In the event of such an error, replace the Printhead (REP 7.3, <a href="#">page 4-62</a>).</p> <p>Is a circuit shorted?</p>	<p>Replace the following components.</p> <ul style="list-style-type: none"> <li>• Printhead (REP 7.3, <a href="#">page 4-62</a>)</li> <li>• Power Supply Unit (REP 10.6, <a href="#">page 4-169</a>)</li> </ul>	Go to step 3.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>A circuit is open.</p> <p>Check the Jetstack Fuses (see <a href="#">Figure 1 - Jetstack Fuse</a>) (Fuses are connected Pin 1 to 3 and Pin 2 to 4 of P/J132).</p> <p>Are the Jetstack Fuses OK?</p>	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	Go to step 4.
4.	<p>Perform the following checks:</p> <ul style="list-style-type: none"> <li>• Test F020 in the Power Supply Unit. Refer to <a href="#">Testing F020 and F030, F021</a> on page 2-415 in the Electrical Troubleshooting section in the Electrical Troubleshooting section.</li> <li>• Test for bad Jetstack triac. Refer to <a href="#">Checking for Shorted and Leaky Triacs</a> on page 2-417 in the Electrical Troubleshooting section.</li> <li>• Test for shorts to Earth. Measure the resistance of P/JAC002 Pin 1 to Pin 7. It should be greater than 2 Mega-ohms.</li> </ul> <p>Are F2 and the triacs OK, and is P/JAC002 Pin 1 to Pin 7 greater than 2 Mega-ohms? (Ensure your DMM is rated to measure high-impedance resistance.)</p>	Replace the AC Fuse (REP 10.10, <a href="#">page 4-182</a> ).	<p>Replace the following components:</p> <ul style="list-style-type: none"> <li>• Power Supply Unit (REP 10.6, <a href="#">page 4-169</a>)</li> <li>• Printhead (REP 7.3, <a href="#">page 4-62</a>)</li> <li>• AC Fuse (REP 10.10, <a href="#">page 4-182</a>)</li> </ul>

## PEST - Reservoir Disconnect

A Printhead Reservoir error has occurred. The Reservoir is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.004.00: PEST - Reservoir0 Disconnect
- 399.005.00: PEST - Reservoir1 Disconnect

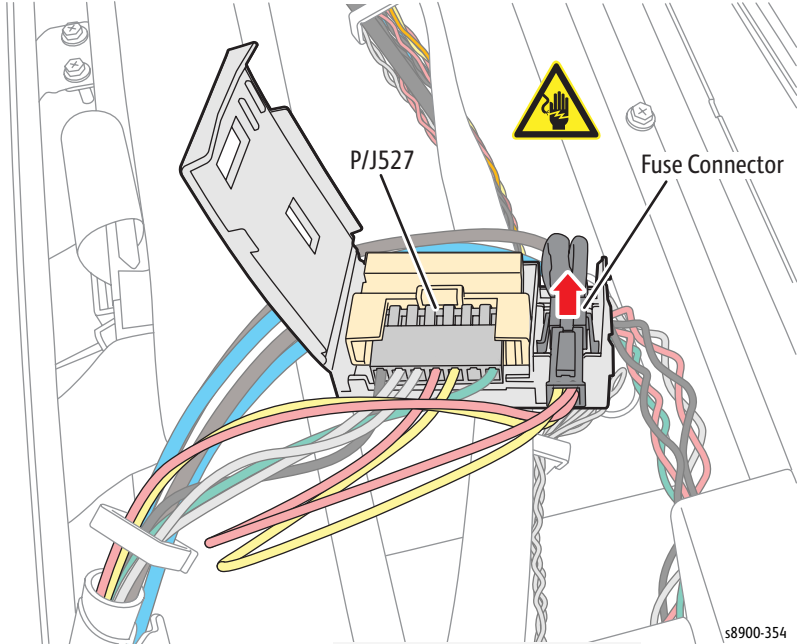
### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Printhead wiring harness connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Printhead Assembly, PL 7.1.3</li><li>• Printhead Heater Wiring Extension, PL 7.1.40</li><li>• Power Supply Unit, PL 10.1.10</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">Map 7 - Right Side, Power Supply Unit</a> on page 7-23</li><li>• <a href="#">Map 12 - Ink Loader (top side)</a> on page 7-28</li><li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li><li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li></ul>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Printhead wiring harness connector P/JAC002 and the extension cable side of P/J527 (see <a href="#">Figure 1 - Jetstack Fuse</a> ). Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
			
2.	Measure the Pin 1-2, black-white circuit and the Pin 1-3 black-white circuit. Each should measure ~49 ohms. Are they open or shorted?	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	Go to step 3.
3.	Perform the following checks: <ul style="list-style-type: none"> <li>• Test F020 in the Power Supply Unit. Refer to <a href="#">Testing F020 and F030, F021</a> on page 2-415 in the Electrical Troubleshooting section.</li> <li>• Test for bad Reservoir triac. Refer to <a href="#">Checking for Shorted and Leaky Triacs</a> on page 2-417 in the Electrical Troubleshooting section.</li> <li>• Test for shorts to Earth. Measure the resistance of P/JAC002 Pin 1 to Pin 7. It should be greater than 2 Mega-ohms.</li> </ul> Are F020 and the triacs OK, and is P/JAC002 Pin 1 to Pin 7 greater than 2 Mega-ohms? (Ensure your DMM is rated to measure high-impedance resistance.)	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	Replace the following components: <ul style="list-style-type: none"> <li>• Power Supply Unit (REP 10.6, <a href="#">page 4-169</a>)</li> <li>• Printhead (REP 7.3, <a href="#">page 4-62</a>)</li> </ul>

## PEST - Drum Heater Disconnect

A Drum Heater error has occurred. The Drum Heater is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.006.00: PEST - Drum Heater Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Drum Heater wiring harness connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Drum Assembly, PL 7.1.21</li> <li>• Power Supply Unit, PL 10.1.10</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 7 - Right Side, Power Supply Unit</a> on page 7-23</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> <li>• <a href="#">Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel</a> on page 7-67</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum Heater wiring harness connector P/J505. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check the Drum Heater for proper resistance. Disconnect the Drum Heater wiring harness connector P/J505 from the Front Side harness. Measure the red-black circuit and the white-black circuit. Each heater element in the circuit should measure ~65 ohms (white-black ~65 ohms, red-black ~65 ohms). Is it open or shorted?	Go to step 5.	Go to step 3.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Perform the following checks: <ul style="list-style-type: none"> <li>• Test F030 in the Power Supply Unit. Refer to <a href="#">Testing F020 and F030, F021</a> on page 2-415 in the Electrical Troubleshooting section.</li> <li>• Test for bad Drum triac. Refer to <a href="#">Checking for Shorted and Leaky Triacs</a> on page 2-417 in the Electrical Troubleshooting section.</li> </ul>	Replace the Front Side Power Control Harness.	Replace the following components: <ul style="list-style-type: none"> <li>• Power Supply Unit (REP 10.6, <a href="#">page 4-169</a>)</li> <li>• Drum Assembly (REP 7.13, <a href="#">page 4-96</a>)</li> </ul>
4.	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ). Does the error persist?	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).	Troubleshooting complete.

## PEST - Preheat Heater Disconnect

A Preheat Heater error has occurred. The Preheat Heater is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.008.00: PEST - Preheat Heater Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Preheat Heater’s wiring connection.
- Check that the Preheater is plugged in.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Power Supply Unit, PL 10.1.10</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 7 - Right Side, Power Supply Unit</a> on page 7-23</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> <li>• <a href="#">Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel</a> on page 7-67</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the wiring harness connectors P/JAC003, P/J523, and P/J540. Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Disconnect the wiring harness connector P/JAC003 from the Power Supply Unit. At the harness, measure the red-black Preheater circuit; the circuit should measure ~55 ohms. Are they open or shorted?	Go to step 5.	Go to step 3.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Perform the following checks: <ul style="list-style-type: none"> <li>• Test F030 in the Power Supply Unit. Refer to <a href="#">Testing F020 and F030, F021</a> on page 2-415 in the Electrical Troubleshooting section.</li> <li>• Test for bad Preheater triac. Refer to <a href="#">Checking for Shorted and Leaky Triacs</a> on page 2-417 in the Electrical Troubleshooting section.</li> </ul>	Replace the Front Side Power Control Harness.	Replace the following components: <ul style="list-style-type: none"> <li>• Power Supply Unit (REP 10.6, <a href="#">page 4-169</a>)</li> <li>• Preheater Assembly (REP 7.14, <a href="#">page 4-103</a>)</li> </ul>
4.	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ). Does the error persist?	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).	Troubleshooting complete.

## PEST - Ink Melters are Disconnected

An Ink Melter error has occurred. One or more Ink Melters are not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.009.00: PEST - All Ink Melters are Disconnected.
- 399.010.00: PEST - Inkmelt 0 Disconnect
- 399.011.00: PEST - Inkmelt 1 Disconnect
- 399.012.00: PEST - Inkmelt 2 Disconnect
- 399.013.00 PEST - Inkmelt 3 Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Ink Melters' wiring connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> <li>• Power Supply Unit, PL 10.1.10</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Ink Loader Data cable connectors CN7 and P/J702. Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check the Ink Loader Melters for continuity. Is it open or shorted?	Go to step 4.	Go to step 3.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Perform the following checks: <ul style="list-style-type: none"> <li>• Test F020 in the Power Supply Unit. Refer to <a href="#">Testing F020 and F030, F021</a> on page 2-415 in the Electrical Troubleshooting section.</li> <li>• Test for bad Inkload triac. Refer to <a href="#">Checking for Shorted and Leaky Triacs</a> on page 2-417 in the Electrical Troubleshooting section.</li> </ul> Are F020 and the triacs OK?	Replace the wiring harness.	Replace the following components: <ul style="list-style-type: none"> <li>• Power Supply Unit (REP 10.6, <a href="#">page 4-169</a>)</li> <li>• Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a>)</li> </ul>
4.	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ). Does the error persist?	Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a> ).	Troubleshooting complete.

## PEST - Media Path Cooling Fan

A fan error has occurred. The following troubleshooting procedure applies to this error.

**Note:** Error only declared when printer is in Manufacturing Mode.

### Applicable Fault Code

- 399.014.00: PEST - Media Path Cooling Fan Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Media Path Cooling Fan wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Media Path Cooling Fan, PL 9.1.14</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Purge Pump, Media Path Motor, Fans, Printhead Tilt Solenoid</a> on page 7-64</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Media Path Cooling Fan wiring harness connector P/J510. Is the connection secure and undamaged?	Replace the Media Path Cooling Fan (REP 9.12, <a href="#">page 4-158</a> ).	Reseat and/or replace the Media Path Cooling Fan.

## PEST - Drum Cooling Fan Disconnect

A Drum Cooling Fan error has occurred. The Drum Cooling Fan is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.015.00: PEST - Drum Cooling Fan Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Drum Fan for function.
- Check the Drum Fan's wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Drum Cooling Fan, PL 9.1.8</li> <li>• I/O Board, PL 10.1.32</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum Cooling Fan wiring harness connector P/J533. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the wiring harness connector P/J533. Is it open or shorted?	Go to step 3.	Replace the I/O Board (REP 10.11, <a href="#">page 4-183</a> ).
3.	Replace the Drum Cooling Fan (REP 9.6, <a href="#">page 4-146</a> ). Does the error persist?	Replace the I/O Board (REP 10.11, <a href="#">page 4-183</a> ).	Troubleshooting complete.

## PEST - All Three Clutches Failed

The Clutch error has occurred. The Clutches are not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.016.00: PEST - All Three Clutches Failed

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Clutches' wiring connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Media Drive with 2 Clutches, PL 9.1.1</li> <li>• Power Control Board, PL 10.1.4</li> <li>• I/O Board, PL 10.1.32</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> <li>• Head Maintenance Clutch, PL 11.1.23</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Optional Tray, Clutches, Solenoids, Tray 2 Lift Motor</a> on page 7-65</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the following wiring harness connectors. <ul style="list-style-type: none"> <li>• Tray 2 Pick Clutch (P/J516)</li> <li>• Deskew Clutch (P/J514)</li> <li>• Head Maintenance Clutch (P/J506)</li> </ul> Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harnesses.
2.	Check resistance on the Clutches' wiring harness connectors P/J506, P/J514, P/J516. Are they open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Front Side Wiring Harness and Rear Side Wiring Harness P/J535. Are they open or shorted?	Replace the Front Side Wiring Harness/Rear Side Wiring Harness.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	Replace the following components: <ul style="list-style-type: none"> <li>• Head Maintenance Clutch (REP 11.5, <a href="#">page 4-189</a>)</li> <li>• Media Drive (REP 9.1, <a href="#">page 4-131</a>).</li> </ul> Does the error persist?	Replace the following components: <ul style="list-style-type: none"> <li>• I/O Board (REP 10.11, <a href="#">page 4-183</a>)</li> <li>• Power Control Board (REP 10.4, <a href="#">page 4-165</a>).</li> </ul>	Troubleshooting complete.

## PEST - Head Maintenance Clutch Disconnect

The Head Maintenance Clutch error has occurred. The Head Maintenance Clutch is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.017.00: PEST - Head Maintenance Clutch Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Clutches' wiring connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Power Control Board, PL 10.1.4</li> <li>• I/O Board, PL 10.1.32</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> <li>• Head Maintenance Clutch, PL 11.1.23</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Head Maintenance Clutch wiring harness connector P/J506. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harnesses.
2.	Check resistance on the Head Maintenance Clutch wiring harness connector P/J506. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Front Side Wiring Harness CN2 (pin 7). Is it open or shorted?	Replace the Front Side Wiring Harness.	Troubleshooting complete.
4.	Replace the Head Maintenance Clutch (REP 11.5, <a href="#">page 4-189</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.



## PEST - Main Tray Deskew Clutch Disconnect

The Main Tray Deskew Clutch error has occurred. The Clutch is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.018.00: PEST - Main Tray Deskew Clutch Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Clutches' wiring connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Media Drive with 2 Clutches, PL 9.1.1</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Optional Tray, Clutches, Solenoids, Tray 2 Lift Motor</a> on page 7-65</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Main Tray Deskew Clutch wiring harness connector P/J514. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Main Tray Deskew Clutch wiring harness connector P/J514. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Rear Side Wiring Harness CN3 (pin 25). Is it open or shorted?	Replace the Rear Side Wiring Harness.	Troubleshooting complete.
4.	Replace the Media Drive (REP 9.1, <a href="#">page 4-131</a> ). Also upgrade firmware to the device ( <a href="#">Firmware Upgrade</a> on page 6-51) to reduce the risk of this error recurring. Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Main Tray Pick Clutch Disconnect

The Main Tray Pick Clutch error has occurred. The Clutch is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.019.00: PEST - Main Tray Pick Clutch Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Clutches' wiring connections.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Media Drive with 2 Clutches, PL 9.1.1</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Optional Tray, Clutches, Solenoids, Tray 2 Lift Motor</a> on page 7-65</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Main Tray Pick Clutch wiring harness connector P/J516. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Main Tray Pick Clutch wiring harness connector P/J516. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Rear Side Wiring Harness CN3 (pin 21). Is it open or shorted?	Replace the Rear Side Wiring Harness.	Troubleshooting complete.
4.	Replace the Media Drive (REP 9.1, <a href="#">page 4-131</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Multipurpose Tray Pick Solenoid Disconnect

The Multipurpose Tray Pick Solenoid error has occurred. The Solenoid is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.020.00: PEST - Multipurpose Tray Pick Solenoid Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Solenoid's wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Tray 1 Pick Solenoid, PL 9.1.6</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Optional Tray, Clutches, Solenoids, Tray 2 Lift Motor</a> on page 7-65</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Tray 1 Pick Solenoid wiring harness connector P/J515. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Tray 1 Pick Solenoid wiring harness connector P/J515. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Rear Side Wiring Harness CN3 (pin 23). Is it open or shorted?	Replace the Rear Wiring Harness.	Troubleshooting complete.
4.	Replace the Tray 1 Pick Solenoid (REP 9.4, <a href="#">page 4-141</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Strip Solenoid Disconnect

The Strip Solenoid error has occurred. The Solenoid is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.021.00: PEST - Strip Solenoid Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Solenoid’s wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Upper Duplex Guide w/Strip Solenoid, PL 6.1.9</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Strip Solenoid wiring harness connector P/J504. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Strip Solenoid wiring harness connector P/J504. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Front Side Wiring Harness CN2 (pins 11~12). Is it open or shorted?	Replace the Front Side Wiring Harness.	Troubleshooting complete.
4.	Replace the Strip Solenoid (REP 6.3, <a href="#">page 4-50</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Preheat Solenoid Disconnect

The Preheat Solenoid error has occurred. The Solenoid is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.022.00: PEST - Preheat Solenoid Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Solenoid's wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Preheater Lift Solenoid, PL 9.1.11</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Optional Tray, Clutches, Solenoids, Tray 2 Lift Motor</a> on page 7-65</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Preheat Lift Solenoid wiring harness connector P/J513. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance of the Preheat Lift Solenoid at the wiring harness connector P/J513 (refer to <a href="#">Testing Motor and Solenoid Resistances</a> on page 2-408 in the Electrical Troubleshooting section). Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Rear Side Wiring Harness connector CN3 (pins 27~29). Is it open or shorted?	Replace the Rear Side Wiring Harness.	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
4.	Replace the Preheat Lift Solenoid (REP 9.9, <a href="#">page 4-150</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Head Tilt Solenoid Disconnect

The Head Tilt Solenoid error has occurred. The Solenoid is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.023.00: PEST - Head Tilt Solenoid Disconnect

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Solenoid's wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Head Tilt Solenoid, PL 9.1.12</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Purge Pump, Media Path Motor, Fans, Printhead Tilt Solenoid</a> on page 7-64</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Head Tilt Solenoid wiring harness connector P/J535. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Head Tilt Solenoid wiring harness connector P/J535. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Rear Side Wiring Harness connector CN3 (pins 17~18). Is it open or shorted?	Replace the Rear Side Wiring Harness.	Troubleshooting complete.
4.	Replace the Head Tilt Solenoid (REP 9.10, <a href="#">page 4-151</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - X-Axis Motor Disconnect

The X-Axis Motor error has occurred. The Motor is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.030.00: PEST - X-Axis Motor Disconnect
- 399.031.00: PEST - X-Axis Motor Phase A Disconnect
- 399.032.00: PEST - X-Axis Motor Phase A Short
- 399.033.00: PEST - X-Axis Motor Phase B Disconnect
- 399.034.00: PEST - X-Axis Motor Phase B Short

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the X-Axis Motor’s wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• X-Axis Motor, PL 9.1.9</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the X-Axis Motor wiring harness connector P/J542. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the X-Axis Motor wiring harness connector P/J542. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Front Side Wiring Harness CN2 (pins 17-20). Is it open or shorted?	Replace the Front Side Wiring Harness.	Troubleshooting complete.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	Replace the X-Axis Motor (REP 9.7, <a href="#">page 4-147</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Y-Axis Motor Disconnect

The Y-Axis Motor error has occurred. The Motor is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.035.00: PEST - Y-Axis Motor Disconnect
- 399.036.00: PEST - Y-Axis Motor Short

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Y-Axis Motor’s wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Y-Axis Motor, PL 9.1.3</li> <li>• Power Control Board, PL 10.1.4</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Y-Axis Motor wiring harness connector P/J545. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Y-Axis Motor wiring harness connector P/J545. Is it open or shorted?	Go to step 4.	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).
3.	Replace the Y-Axis Motor (REP 9.2, <a href="#">page 4-135</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Media Path Motor Disconnect

The Media Path Motor error has occurred. The Motor is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.037.00: PEST - Media Path Motor Disconnect
- 399.038.00: PEST - Media Path Motor Short

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Media Path Motor's wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Media Drive with 2 Clutches, PL 9.1.1</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Rear Umbilical Harness, PL 10.1.41</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Purge Pump, Media Path Motor, Fans, Printhead Tilt Solenoid</a> on page 7-64</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Media Path Motor wiring harness connector P/J106. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Media Path Motor connector P/J106. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Rear Side Wiring harness connector CN3 (pins 11-16). Is it open or shorted?	Replace the Rear Side Wiring Harness.	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).
4.	Replace the Media Drive (REP 9.1, <a href="#">page 4-131</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - Process Motor Disconnect

The Process Motor error has occurred. The Motor is not drawing the expected power from the Power Supply. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.039.00: PEST - Process Motor Disconnect
- 399.040.00: PEST - Process Motor Short

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Process Motor’s wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Process Drive with Gear Box and Motor, PL 9.1.7</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, Front Umbilical Harness, PL 10.1.42</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Process Motor wiring harness P/J538. Is the connection secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Check resistance on the Process Motor wiring harness connector P/J538. Is it open or shorted?	Go to step 4.	Go to step 3.
3.	Check resistance on the Front Side Wiring Harness connector CN2 (pins 1-6). Is it open or shorted?	Replace the Front Side Wiring Harness.	Troubleshooting complete.
4.	Replace the Process Drive (REP 9.5, <a href="#">page 4-142</a> ). Does the error persist?	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).	Troubleshooting complete.

## PEST - VPP/ VSS Measurement Too Low

A Wave Amp error has occurred. VPP/ VSS measurement is too low. The Printhead power cable may be disconnected. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes


- 399.059.00: PEST - VSS measurement too low, head power cable may be disconnected.
- 399.060.00: PEST - VPP measurement too low, head power cable may be disconnected.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the component power connections and harness condition.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

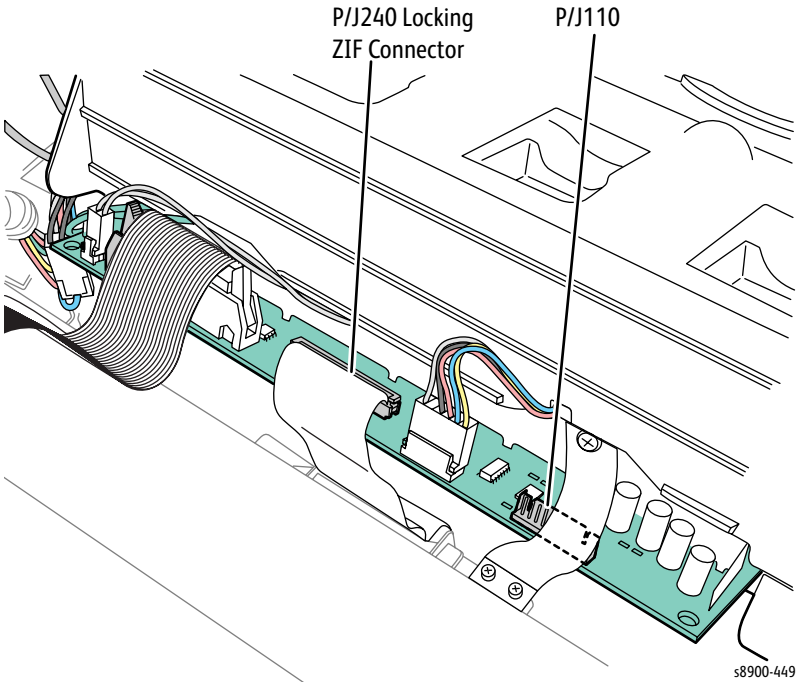
Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Wave Amp, PL 10.1.13</li> <li>• Cable, ZIF, Wave Amp Drive, PL 10.1.33</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Map 19 - Wave Amp Board</a> on page 7-35</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> </ul>

 **CAUTION:** The white Printhead Data cable connects using locking ZIF connectors. Handle the ribbon cables carefully. Check that each cable is square to the socket and fully inserted before locking the connector. Damage to the Wave Amplifier could result from improper cable connections.

**Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1.	<p>Check the wiring harness connectors P/J640 &amp; P/J800 on the Wave Amp, P/J240 on the Printhead Board (see <a href="#">Figure 1 - Plug/Jack Connectors</a> on page 2-371), and CN3 on the Power Control Board.</p> <p>Release the end of the cable and carefully examine the conductor ends (a magnifier helps) to see that they are not cracked or torn. If the cable looks good, carefully reinstall it using a ZIF tool (refer to <a href="#">Unlocking/ Locking the ZIF Connector</a> on page 4-72 in Chapter 4 for how to use the ZIF tool for unlocking/locking the ZIF cable connector).</p> <p><b>CAUTION:</b> Failure to properly unlock the connector will damage the cable.</p> <p>Are the connections secure and undamaged?</p>	Go to step 2.	Reseat the wiring harnesses.
2.	<p>Replace the Wave Amp Signal Cable and/or Wave Amp Drive Cable.</p> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Unplug the Wave Amp Drive cable, then test VPP/VSS points on the Printhead Board wiring harness connector P/J110 (see <a href="#">Figure 1 - Plug/Jack Connectors</a> ). Measure resistance of each to ground. <ul style="list-style-type: none"> <li>• Pin 1 (VSS)</li> <li>• Pin 2 (Ground)</li> <li>• Pin 3 (VPP)</li> </ul> Is either one shorted?	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	Replace the Wave Amp (REP 10.7, <a href="#">page 4-172</a> ).
<div style="text-align: center;">  <p style="text-align: center;">s8900-449</p> </div> <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connectors</b></p>			

## PEST - The Wave Amp Shorted

A Wave Amp error has occurred. The Wave Amp appears to be shorted. It is drawing too much power. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.061.00: PEST - The wave amp appears to be shorted. It is drawing too much power.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the component power connections and harness condition.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

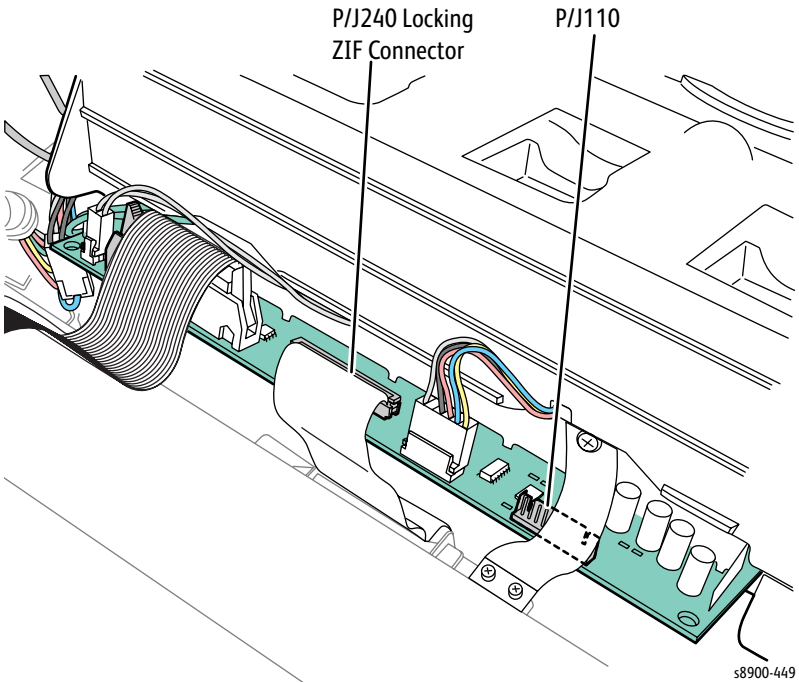
Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Wave Amp, PL 10.1.13</li> <li>• Cable, ZIF, Wave Amp Drive, PL 10.1.33</li> <li>• Cable, Wave Amp Signal, PL 10.1.35</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 18 - Printhead</a> on page 7-34</li> <li>• <a href="#">Map 19 - Wave Amp Board</a> on page 7-35</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Wave Amp, Printhead, Print Head Heaters</a> on page 7-63</li> </ul>

### Troubleshooting Procedure

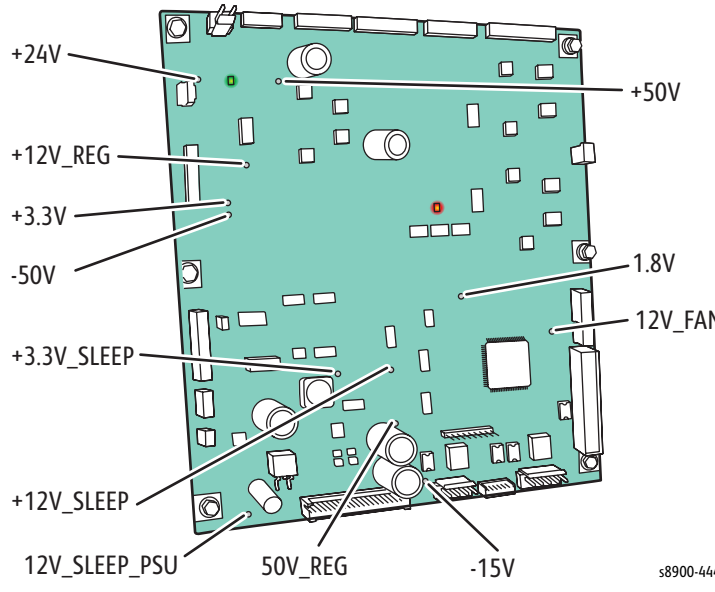
Step	Actions and Questions	Yes	No
1.	<p>Check the wiring harness connectors P/J640 &amp; P/J800 on the Wave Amp, P/J240 on the Printhead Board (<a href="#">Figure 2 - Test Points</a> on page 2-374), and CN3 on the Power Control Board.</p> <p>Inspect the ends of the drive cable conductors of damage.</p> <p>Release the end of the cable and carefully examine the conductor ends (a magnifier helps) to see that they are not cracked or torn. If the cable looks good, carefully reinstall it using a ZIF tool (refer to REP <a href="#">Unlocking/ Locking the ZIF Connector</a> on page 4-72 in Chapter 4 for how to use the ZIF tool for unlocking/locking the ZIF cable connector).</p> <p><b>CAUTION:</b> Failure to properly unlock the connector will damage the cable.</p> <p>Are the connections secure and undamaged?</p>	Go to step 2.	Reseat the wiring harnesses.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	Replace the Wave Amp Signal Cable and/or Wave Amp Drive Cable. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Unplug the Wave Amp Drive cable, then test VPP/VSS points on the Printhead Board wiring harness connector P/J110 (see <a href="#">Figure 2 - Test Points</a> ). Measure resistance of each to ground. <ul style="list-style-type: none"> <li>• Pin 1 (VSS)</li> <li>• Pin 2 (Ground)</li> <li>• Pin 3 (VPP)</li> </ul> Is either one shorted?	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	Go to step 4.
<div style="text-align: center;">  <p>P/J240 Locking ZIF Connector</p> <p>P/J110</p> <p>s8900-449</p> </div> <p style="text-align: center;"><b>Figure 1 - Plug/Jack Connectors</b></p>			

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
4.	<p>Unplug the Wave Amp signal cable from the Power Control Board. Power On the printer.</p> <p>Measure voltage at test point TP117 on the Power Control Board (see <a href="#">Figure 2 - Test Points</a>). <a href="#">Table 1 - Test Points and Voltage Ranges</a> lists the test points and voltage ranges to be expected.</p> <p>Is it shorted?</p>	<p>Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a>).</p>	<p>Replace the Wave Amp (REP 10.7, <a href="#">page 4-172</a>).</p>
 <p><b>Figure 2 - Test Points</b></p>			

**Table 1 - Test Points and Voltage Ranges**

Test Point/ Description	Min	Nom	Max
3_3V: +3.3V	3.0	3.3	3.6
12V_SLEEP: +12V_SLEEP	11	12	13
24V: +24V	23.5	24.5	26.5
50V: 50V	47	49	52
12V_REG: +12V_REG	11	12	13
-50V: -50V	-47	-49	-52
-15V: -15V	-13	-15	-17
3_3_SLEEP: +3.3V_SLEEP	3.0	3.3	3.6

## PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected

An Ink Loader Solenoid Gate error has occurred. The Ink Loader Solenoid Gate 0/1/2/3 seems to be disconnected. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.062.00: PEST - Ink Loader Solenoid Gate0 push seems to be disconnected.
- 399.063.00: PEST - Ink Loader Solenoid Gate0 pull seems to be disconnected.
- 399.064.00: PEST - Ink Loader Solenoid Gate1 push seems to be disconnected.
- 399.065.00: PEST - Ink Loader Solenoid Gate1 pull seems to be disconnected.
- 399.066.00: PEST - Ink Loader Solenoid Gate2 push seems to be disconnected.
- 399.067.00: PEST - Ink Loader Solenoid Gate2 pull seems to be disconnected.
- 399.068.00: PEST - Ink Loader Solenoid Gate3 push seems to be disconnected.
- 399.069.00: PEST - Ink Loader Solenoid Gate3 pull seems to be disconnected.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the component power connections and harness condition.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader &amp; Bezel, PL 3.1.18</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
<b>Note:</b> The ability of the Solenoid to move back and forth should not affect the result of the PEST test.			
1.	Check the Ink Loader Solenoid wiring harness connectors P/J701, P/J801, P/J802, and P/J901 on the Ink Loader Board. Are the connections secure and undamaged?	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ).	Reseat the wiring harnesses.

## PEST - All Ink Loader Gates Failed

An Ink Loader Gate error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.070.00: PEST - All Ink Loader Gates Failed

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the component power connections and harness condition.
- If the problem persists, perform the following procedure.

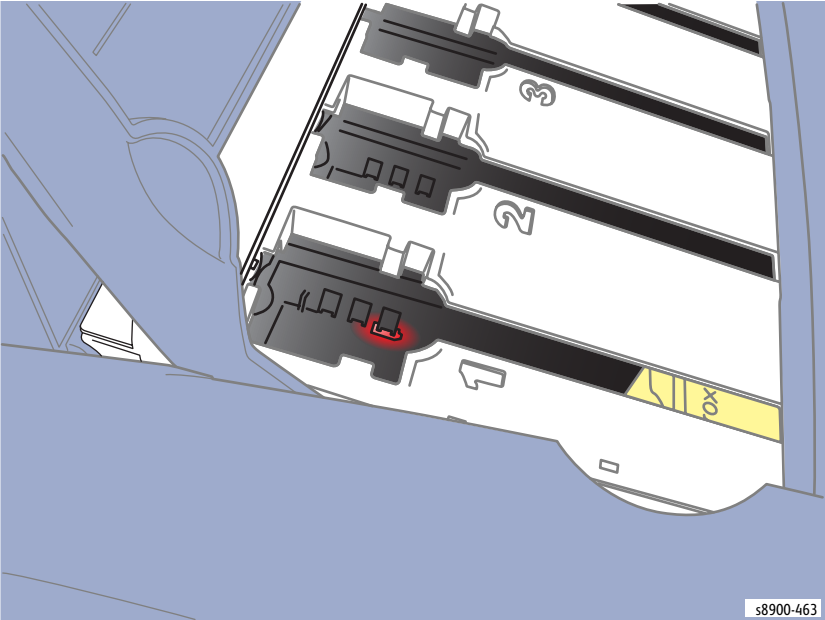
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader &amp; Bezel, PL 3.1.18</li> <li>• Cable, Ink Loader Data, PL 3.2.46</li> <li>• Power Control Board, PL 10.1.4</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 11 - Ink Loader (bottom side)</a> on page 7-27</li> <li>• <a href="#">Map 21 - Power Control Board</a> on page 7-37</li> <li>• <a href="#">Ink Level Sensors, Gate Solenoids, Ink Loader Board</a> on page 7-66</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the wiring harness connectors CN7 and P/J702. Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Check that the 50V red LED on the Ink Loader Board is active (see <a href="#">Figure 1 - Ink Loader LED</a> for location from the top side of the printer).</p> <p><b>Note:</b> The +50V will not be on at all time. The +50V can be Off when the printer is at Ready mode.</p> <p>Is the red LED On?</p>	Replace the Ink Loader (REP 3.6, <a href="#">page 4-27</a> ).	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).
			
<p><b>Figure 1 - Ink Loader LED</b></p>			

## PEST - Power Dump Circuit Disconnected

A power dump circuit error has occurred. The following troubleshooting procedure applies to this error.

### Applicable Fault Code

- 399.071.00: PEST - Power Dump Circuit seems to be disconnected.

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the component power connections and harness condition.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Drum Assembly, PL7.1.21</li> <li>• Power Control Board, PL 10.1.4</li> <li>• Cable, AC Heater, Drum, Preheater, PL 10.1.40</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">Map 20 - Main Controller Board</a> on page 7-36</li> <li>• <a href="#">Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid</a> on page 7-68</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the wiring harness connectors CN2 and P/J501. Are the connections secure and undamaged?	Go to step 2.	Reseat and/or replace the wiring harness.
2.	Unplug the connector P/J501 and measure resistance on the Drum side. The measurement should be at 13 ohms. Is it open or shorted?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ).	Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a> ).

## PEST - Ink Loader Yoke Motor

An Ink Loader Yoke Motor error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.072.00: PEST - The IME could not retrieve information from Ink Load Yoke Motor test
- 399.073.00: PEST - The Ink Load Yoke Motor failure

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the Ink Load Yoke Motor wiring connection.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Yoke Motor Assembly, PL3.2.23</li> </ul>	<a href="#">Map 21 - Power Control Board</a> on page 7-37

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check Ink Loader Yoke Motor wiring harness connection CN21 that connects to the Power Control Board. Is wiring connection secure?	Replace the Ink Loader Yoke Motor (REP 3.5, <a href="#">page 4-23</a> ).	Reseat the cable.

## PEST - Power Supply Fault

A Power Supply error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.080.00: PEST - Power Supply +2.5V Sleep Over Limit
- 399.081.00: PEST - Power Supply +2.5V Sleep Under Limit
- 399.082.00: PEST - Power Supply +3.3V Sleep Over Limit
- 399.083.00: PEST - Power Supply +3.3V Sleep Under Limit
- 399.086.00: PEST - Power Supply +1.2V Sleep Over Limit
- 399.087.00: PEST - Power Supply +1.2V Sleep Under Limit
- 399.090.00: PEST - Power Supply +1.8V Sleep Over Limit
- 399.091.00: PEST - Power Supply +1.8V Sleep Under Limit
- 399.092.00: PEST - Power Supply +1.0V Eng Over Limit
- 399.093.00: PEST - Power Supply +1.0V Eng Under Limit
- 399.094.00: PEST - Power Supply +1.2V Over Limit
- 399.095.00: PEST - Power Supply +1.2V Under Limit
- 399.098.00: PEST - Power Supply +1.0V Over Limit
- 399.099.00: PEST - Power Supply +1.0V Under Limit
- 399.100.00: PEST - Power Supply +1.0V Sleep Over Limit
- 399.101.00: PEST - Power Supply +1.0V Sleep Under Limit
- 399.102.00: PEST - Power Supply +3.3V Eng Over Limit
- 399.103.00: PEST - Power Supply +3.3V Eng Under Limit
- 399.104.00: PEST - Power Supply +5.0V Sleep Over Limit
- 399.105.00: PEST - Power Supply +5.0V Sleep Under Limit

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the component power connections and harness condition.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> <li>• Main Controller Board, PL 10.1.3</li> </ul>	<p><a href="#">Map 20 - Main Controller Board</a> on page 7-36</p>



## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Test the power supply. Test voltages on Main Controller Board at P/J 902 (see <a href="#">Figure 1 - Power Supply Voltages</a> ). Are measurements within +/- 5 %?	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).	Go to step 2.
<p>813W22773 J902 CON9X2</p> <p>1.0V_ENG — P1      P2 — 1.8V_ENG        1.8V_SLEEP — P3      P4 — 3.3V_SLEEP        1.2V — P5      P6 — 3.3V_ENG        3.3V — P7      P8 — 1.8V        5V — P9      P10 — 1.0V        5V_BIAS_SLEEP — P11      P12 — 2.5V_SLEEP        3.3V_PH — P13      P14 — 5V_HD        1.2V_SLEEP — P15      P16 — 5V_SLEEP        P17      P18 — 1.0V_SLEEP</p> <p>s8900-453</p>			
2.	Unplug the Printhead gray cable and re-measure voltage. Are voltages within +/- 5 %?	Replace the Print Head (REP 7.3, <a href="#">page 4-62</a> ).	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

Figure 1 - Power Supply Voltages

## PEST - Power Supply Fault

A Power Supply error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Codes

- 399.084.00: PEST - Power Supply +12V Over Limit
- 399.085.00: PEST - Power Supply +12V Under Limit
- 399.088.00: PEST - Power Supply -15V Over Limit
- 399.089.00: PEST - Power Supply -15V Under Limit
- 399.096.00: PEST - Power Supply +12V Sleep Over Limit
- 399.097.00: PEST - Power Supply +12V Sleep Under Limit

### Initial Actions

- Reboot the printer and verify the error persists.
- Check the component power connections and harness condition.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"><li>• Power Control Board, PL 10.1.4</li><li>• Power Supply Unit, PL 10.1.10</li></ul>	<a href="#">Map 21 - Power Control Board</a> on page 7-37

**Note:** Error only declared when unit is in Manufacturing Mode.

**Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1.	<p>Check voltage at test point on Power Control Board (see <a href="#">Figure 1 - Power Supply Voltages</a>). Are the voltages within +/- 5 % of specification?</p>	<p>Replace the Power Control Board (REP 10.4, <a href="#">page 4-165</a>).</p>	<p>Go to step 2.</p>
<p><b>Figure 1 - Power Supply Voltages</b></p>			
2.	<p>Unplug all component cables from Power Supply, turn On the printer and re-measure at test points. Are voltages within specification?</p>	<p>Plug in components one at a time to determine cable/subsystem causing the failure.</p>	<p>Replace the Power Supply Unit (REP 10.6, <a href="#">page 4-169</a>).</p>

# Error Messages

## Close Left Door (when actually closed)

A Left Door error has occurred. The following troubleshooting procedure applies to this error.

### Initial Actions

- Check that there is nothing blocking the Left Door.
- Check that connection to the I/O Board is secured.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Left Door Assembly, PL 6.1.21</li> <li>• I/O Board, PL 10.1.32</li> <li>• Left Door Safety Interlock Switch, PL 11.1.25</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 6 - Rear Side</a> on page 7-22</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Open the Left Door. Check area around the door sensor. Inspect the plastic component that engages the Sensor when the door is closed. Is the plastic component damaged?	Replace the Left Side Door (REP 6.5, <a href="#">page 4-55</a> ).	Go to step 2.
2.	Check the Left Door Switch wiring harness connector P/J101. Is the connection secure and undamaged?	Go to step 3.	Reseat and/or replace/repair the wiring harness.
3.	Check resistance on the Left Door Safety Interlock Switch wiring harness connector P/J101. Is is open or shorted?	Replace the Left Door Safety Interlock Switch (REP 11.7, <a href="#">page 4-193</a> ).	Replace the I/O Board (REP 10.11, <a href="#">page 4-183</a> ).

## Close Ink Loader Door (when actually closed)

An Ink Loader Door error has occurred. The following troubleshooting procedure applies to this error.

### Initial Actions

- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Ink Loader Assembly, PL 3.1.18</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Press the Ink Load Door button to re-open door, then close the Door. Does error persist?	Go to step 2.	Troubleshooting complete.
2.	Power the printer Off then back On. Does error persist?	Replace the Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> ).	Troubleshooting complete.

## Paper Jam - Open Left Door to Clear (no jam is present and message won't clear)

A paper jam has occurred. The following troubleshooting procedure applies to this error.

### Initial Actions

- Check the paper path for obstructions.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Inner Simplex Guide with Pre-deskew and Harness, PL 8.1.2</li> <li>• Exit Module Sensor Assembly, PL 11.1.29</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Enter <a href="#">dc330 Component Control</a> on page 2-39, codes: <ul style="list-style-type: none"> <li>• <a href="#">089.100</a> (Pre-deskew Sensor),</li> <li>• <a href="#">089.101</a> (Deskew Sensor),</li> <li>• <a href="#">089.102</a> (Preheat Exit Sensor),</li> <li>• <a href="#">010.100</a> (Strip Sensor)</li> </ul> Toggle each Sensor. Does the display change?	Open and close Tray 2, 3, or 4.	Replace the failed Sensor. <ul style="list-style-type: none"> <li>• Inner Simplex Guide with Deskew Sensor and Harness (REP 8.2, <a href="#">page 4-121</a>)</li> </ul> or <ul style="list-style-type: none"> <li>• Exit Module Sensor Assembly (PL 11.1.29)</li> </ul>

## Tray 1 Empty (when it has paper)

A Tray 1 error has occurred. The following troubleshooting procedure applies to this error.

### Initial Actions

- Remove any paper from Tray 1.
- Inspect the Paper Tray for damage.
- Reload Tray 1 with fresh paper and confirm the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• I/O Board, PL 10.1.32</li> <li>• Left Door Assembly, PL 6.1.21</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Disconnect and reconnect Tray 1 sensor plug at I/O board P/J546 and at Tray 1 P/J402. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Replace the Left Door Assembly. Does the error persist?	Replace I/O board.	Troubleshooting complete.

## Tray 2 Empty (when it has paper)

A Tray 2 error has occurred. The following troubleshooting procedure applies to this error.

### Initial Actions

- Remove any paper from Tray 2.
- Inspect the Paper Tray for damage.
- Reload Tray 2 with fresh paper and confirm the Paper Guides are set correctly.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Inner Simplex Guide, PL 8.1.2</li> <li>• Tray 2 Media Lift Motor, PL 9.1.5</li> <li>• I/O Board, PL 10.1.32</li> <li>• Tray Lift Sensor, PL 11.1.12</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 4 - Front Side (Fan, Motor)</a> on page 7-20</li> <li>• <a href="#">Map 9 - Left Side</a> on page 7-25</li> <li>• <a href="#">Optional Tray, Clutches, Solenoids, Tray 2 Lift Motor</a> on page 7-65</li> <li>• <a href="#">I/O Board, Sensors (2 of 2)</a> on page 7-70</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Remove the Inner Simplex Guide (REP 8.2, <a href="#">page 4-121</a> ) and check that wires are not blocking the Tray Lift Sensor (orange flag) located on the chassis base under the Preheater. Is the Tray Lift Sensor blocked by the wiring harnesses?	Go to step 4.	Go to step 2.
2.	Check that the Tray Lift Sensor wiring harness P/J537 is properly plugged in and wires are undamaged. Is the connection secure and undamaged?	Go to step 3.	Reseat and/or replace the wiring harness.
3.	Check that the Tray 2 Lift Motor wiring harness connector P/J536 (on the left side chassis) is plugged in and wires are undamaged. Is the connection secure and undamaged?	Replace the Tray 2 Media Lift Motor (REP 9.3, <a href="#">page 4-138</a> ).	Reseat and/or replace the wiring harness.
4.	Move the wiring harnesses away from the Tray Lift Sensor. Does the error persist?	Go to step 5.	Troubleshooting complete.
5.	Replace the Tray Lift Sensor (REP 11.3, <a href="#">page 4-187</a> ). Does the error persist?	Replace the I/O Board (REP 10.11, <a href="#">page 4-183</a> ).	Troubleshooting complete.



## Tray 2 is Missing (when inserted)

A Tray 2 error has occurred. The following troubleshooting procedure applies to this error.

### Initial Actions

- Remove the tray and inspect the tray cavity to ensure that it is free of obstructions or debris.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Paper Size Switch, PL 11.1.30</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 17 - Paper Size Switch/ Sensor</a> on page 7-33</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Paper Size Switch wiring connector P/J532 for damage or being unplugged. Is the connection secure and undamaged?	Replace the Paper Size Switch (REP 11.10, <a href="#">page 4-199</a> ).	Reseat and/or replace the wiring harness.

## Unload Output Tray (when not full)

An Output Tray error has occurred. The following troubleshooting procedure applies to this error.

### Initial Actions

- Remove all paper from the Output Tray.
- If the problem persists, perform the following procedure.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Horizontal Transport, PL 3.1.19</li> <li>• Engine Exit Flag, PL 11.1.16</li> <li>• Exit Module Assembly, PL 11.1.24</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Map 3 - Front Side (I/O Board, Fan)</a> on page 7-19</li> <li>• <a href="#">I/O Board, Sensors (1 of 2)</a> on page 7-69</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Exit Flag for free movement. Is the Flag bent, warped, or unseated?	Reseat or replace the Exit Module Assembly (REP 11.6, <a href="#">page 4-190</a> ).	Go to step 2.
2.	Check the Exit Flag wiring harness connector P/J601. Is the connection secure and undamaged?	Replace the Horizontal Transport (REP 3.2, <a href="#">page 4-20</a> ) or the Exit Module Assembly (REP 11.6, <a href="#">page 4-190</a> ) if one is installed.	Reseat and/or replace the wiring harness.

## Cleaning Unit Missing (when installed)

A Maintenance Kit error has occurred. The following troubleshooting procedure applies to this error.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Refer to <a href="#">Cleaning Unit Missing</a> on page 2-428 in the Electrical Troubleshooting section.

## Waste Tray Missing (when installed)

A Waste Tray error has occurred. The following troubleshooting procedure applies to this error.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Refer to <a href="#">Waste Tray Missing</a> on page 2-428 in the Electrical Troubleshooting section.

## Ink Sticks Jammed

An Ink Sticks Jammed error has occurred. The following troubleshooting procedure applies to this error.

### Troubleshooting Procedure

Step	Actions and Questions
1.	Refer to <a href="#">Ink Loader Fault</a> on page 2-301, fault codes <a href="#">393.501</a> , <a href="#">393.506</a> , <a href="#">393.511</a> , and <a href="#">393.516</a> for troubleshooting procedure.

## Remove Incompatible/Invalid Ink Sticks (Cyan, Magenta, Yellow, Black)

An incompatible/invalid ink stick error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Messages

- Remove incompatible/invalid yellow ink stick (slot 1)
- Remove incompatible/invalid cyan ink stick (slot 2)
- Remove incompatible/invalid magenta ink stick (slot 3)
- Remove incompatible/invalid black ink stick (slot 4)

### Troubleshooting Procedure

Step	Actions and Questions
1.	Refer to <a href="#">Incompatible/Invalid Ink Sticks</a> on page 2-315, fault codes <a href="#">393.962</a> ~ <a href="#">393.965</a> for troubleshooting procedure.

## Remove Unidentified Ink Sticks (Cyan, Magenta, Yellow, Black)

An unidentified ink stick error has occurred. The following troubleshooting procedure applies to these errors.

### Applicable Fault Messages

- Remove unidentified yellow ink stick (slot 1)
- Remove unidentified cyan ink stick (slot 2)
- Remove unidentified magenta ink stick (slot 3)
- Remove unidentified black ink stick (slot 4)

### Troubleshooting Procedure

Step	Actions and Questions
1.	Refer to <a href="#">“Unidentified Ink Sticks”</a> on page 2-317, fault codes <a href="#">393.966</a> ~ <a href="#">393.969</a> for troubleshooting procedure.

# General Troubleshooting

## Resetting System Administrator (SA) Password

The SA Passcode Reset Feature allows the user to access the printer for which the SA Passcode has been lost.

1. Obtain the printers serial number and current page count.
2. Contact Escalated Hardware Support and provide the printer information to the support personnel. They will provide you a 12-digit reset code.
3. Enter Admin mode. Press Machine Status, Tools, General, Feature Installation.
4. If Admin mode cannot be accessed, press \*, 3, Clear.
5. Enter the 12-digit reset code.

**Note:** The admin pass code will be reset to the factory default 1111.

If using the \* 3 Clear does not work, go to...

**Machine Status -> Tools -> General -> Feature Installation -> enter the 12 digit reset code.**

## Resetting the Control Panel to Factory Settings

The Reset UI to Factory Settings procedure restores the Control Panel features settings in non-volatile memory to their factory default values. All current values set by the customer will be lost.

**!** **CAUTION:** Use the Reset UI to Factory Settings procedure as a last option when servicing the ColorQube 8700/8900 printer.

1. Print a Configuration Page.
2. Log into the **Tools** menu ([Accessing Machine Status/ Tools Menu](#) on page 2-4).
3. On the Control Panel, touch **Tools**.
4. Touch **Device Settings**.
5. Under *Features*, scroll down the menu and touch **Reset UI to Factory Settings**.



6. A **Reset UI to Factory Settings** screen appears.
7. Touch **Restart**.

**!** **CAUTION:** Do not turn Off the printer while Resetting UI to Factory Settings procedure is in progress.

8. The printer reboots after the Resetting UI process is complete.

## Software Reset

Software Reset feature restarts the printer faster and wastes fewer consumables than powering the printer On and Off. Restarting the printer can take up to five minutes during which time CentreWare Internet Services is not available.

The Software Reset routine allows the user to reboot the printer software for the Copy Controller, Network Controller, or both.

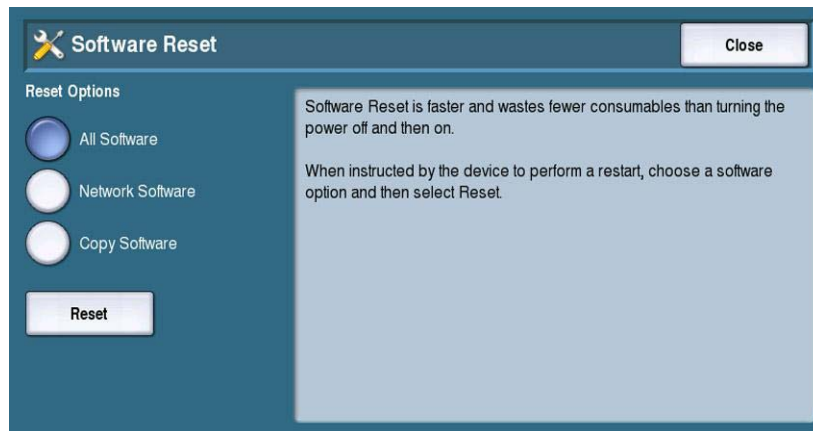
**⚠ CAUTION:** The user needs to be logged in as admin (if security option is enabled) to see the reset options.

1. Log into the **Tools** menu ([Accessing Machine Status/ Tools Menu](#) on page 2-4).
2. On the Control Panel, touch **Tools**.
3. Touch **Troubleshooting**.
4. Under **Features**, scroll down the menu.
5. Touch **Resets**.





6. Touch **Software Reset**.
7. The **Software Reset** menu is displayed. Select the desired option.
  - **All Software** - Resets both Network and Controller software.
  - **Network Software** - Resets only Network software.
  - **Copy Software** - Resets only Copy software.
7. Touch **Reset**.



8. A **Software Reset Confirmation** screen appears.
9. Touch **Reset** to begin the process.
10. A **System Restart** appears.

**!** **CAUTION:** Do not turn Off the printer while Software Reset process is in progress.

11. The printer automatically reboots after Software Reset process is complete.

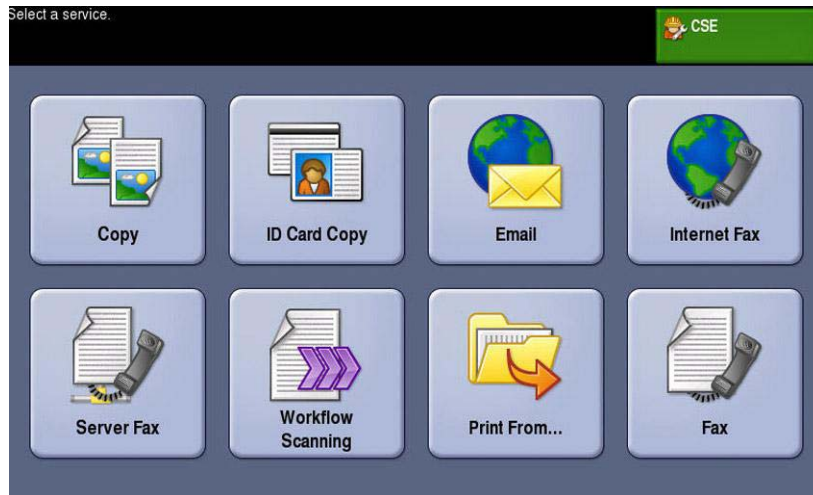
## Service Copy Mode

Service Copy Mode routine allows the CSE to access the customer copy screens for the purpose of running test copy jobs. The CSE can use this test to assist with identifying a wide range of problems from paper feed, copy transportation, finishing, document handling and poor copy quality.

Service Copy Mode provides a local login method for the CSE that bypasses the controlled access applications and therefore allow the CSE to run copy jobs for test purposes.

Service Copy Mode also allows the CSE to access settings and calibrations found in the Machine Status/Tools menu in the event the menu is locked by the customer. Information Pages can not be printed because only copy jobs can be ran when in Service Copy Mode.

1. Press the “\*” + “#” + “**Stop**” buttons simultaneously to access the Service Copy Mode menu.
2. On the Control Panel, in the password field, enter **2732** (default password).
3. Touch **Enter**.
4. The Control Panel screen appears with the **CSE** button highlighted in green.



5. Be sure to log out when troubleshooting is complete.

## Cloning

Cloning allows the customer or CSE to clone the configuration data of the printer. The Clone feature will create a.dlm file that can be used to configure other printers or copy the customer's configuration data back to the printer after a service procedure (replacement of a hard drive). **Note that all printers must have the same version of software for the.dlm file to be accepted.**

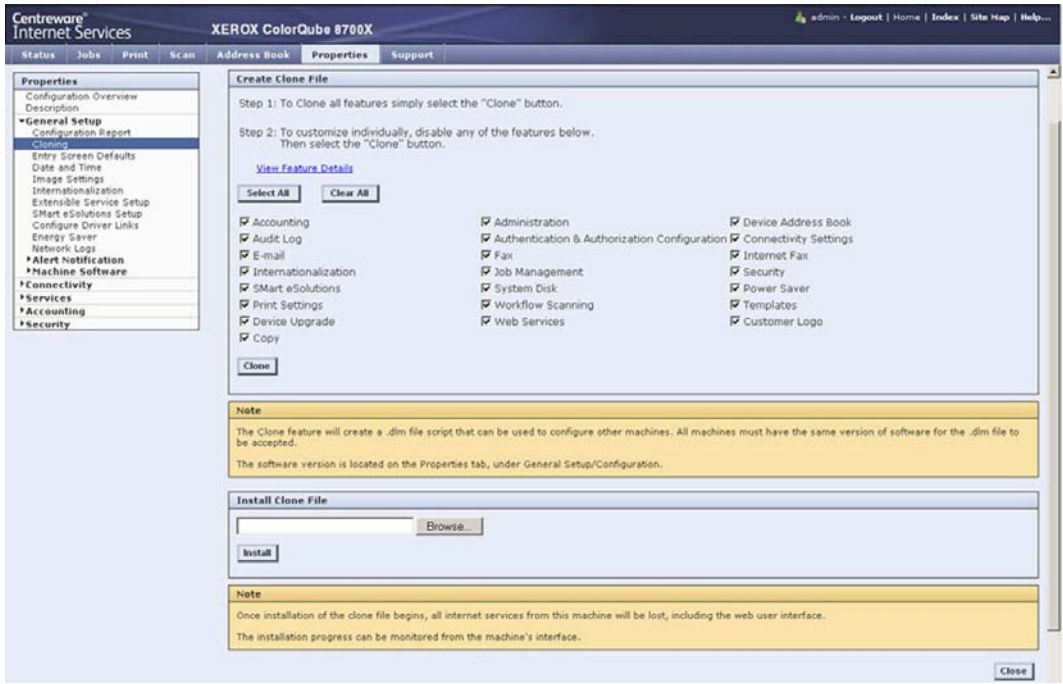
### Notes:

- When transferring printer configurations from one printer to another printer, all default information should be selected when performing Cloning (refer to “[Table 1 - ColorQube 8700/ 8900 Cloning Configurations](#)” on page 2-400 and “[Table 2 - ColorQube 8700/ 8900 Version 101/ 102/ 202 Cloning Configurations](#)” on page 2-401 for complete cloning features).
- When the printer hangs, only clone identified features to prevent from transferring corrupted configurations to the printer. Refer to [Table 1 - ColorQube 8700/ 8900 Cloning Configurations](#) on page 2-400 and [Table 2 - ColorQube 8700/ 8900 Version 101/ 102/ 202 Cloning Configurations](#) on page 2-401 for specific configurations).

## Creating a Clone File

1. In a web browser, enter the printer's IP address.
2. In the upper right corner, click **Login**.
3. In the **User ID** field, enter **admin** (default User ID).
4. In the **Password** field, enter **1111** (default password).
5. Click **Login**.
6. From the top menu, click **Properties**.
7. On the left side, expand **General Setup**.
8. Select **Cloning**.
9. Verify all boxes on the **Cloning** page are checked.

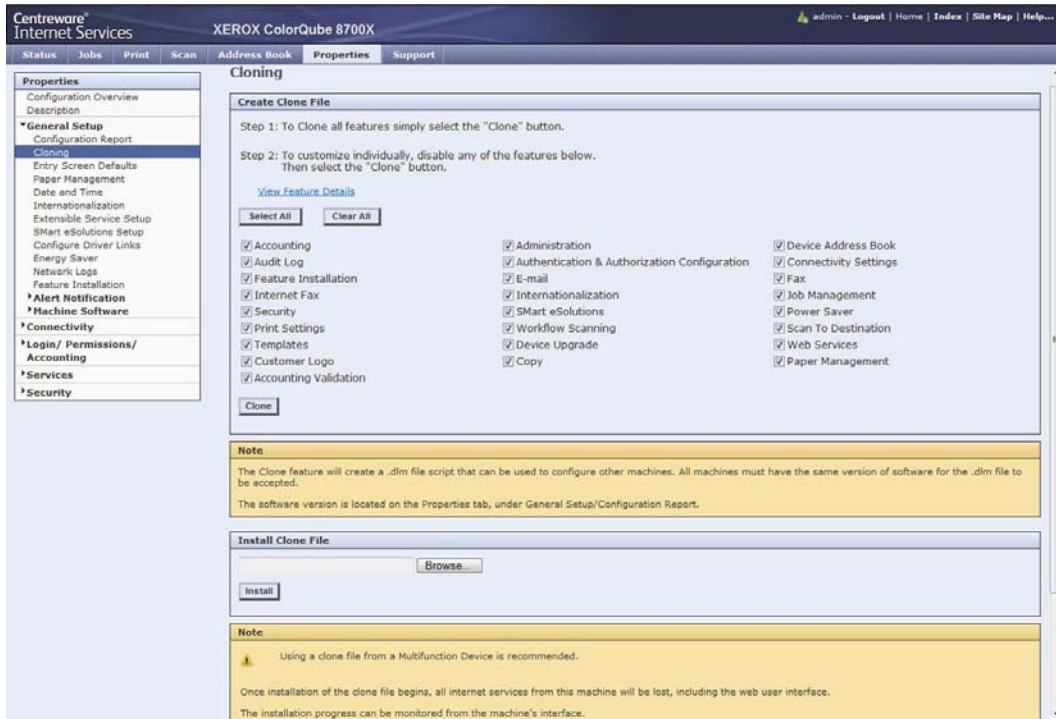
10. Click **Clone**.



**CQ8700/ 8900 CWIS**

**Table 1 - ColorQube 8700/ 8900 Cloning Configurations**

Features		
Accounting	Administration	Device Address Book
Audit Log	Authentication & Authorization Configuration	Connectivity Settings
E-mail	Fax	Internet Fax
Internationalization	Job Management	Security
Smart eSolutions	System Disk	Power Saver
Print Settings	Workflow Scanning	Templates
Device Upgrade	Web Services	Customer Logo
Copy		



**CQ8700/ 8900 Version 101/ 102/ 202 CWIS**

**Table 2 - ColorQube 8700/ 8900 Version 101/ 102/ 202 Cloning Configurations**

Features		
Accounting	Administration	Device Address Book
Audit Log	Authentication & Authorization Configuration	Connectivity Settings
Feature Installation	E-mail	Fax
Internet Fax	Internalization	Job Management
Security	SMart eSolutions	Power Saver
Print Settings	Workflow Scanning	Scan To Destination
Templates	Device Upgrade	Web Services
Customer Logo	Copy	Paper Management
Accounting Validation		

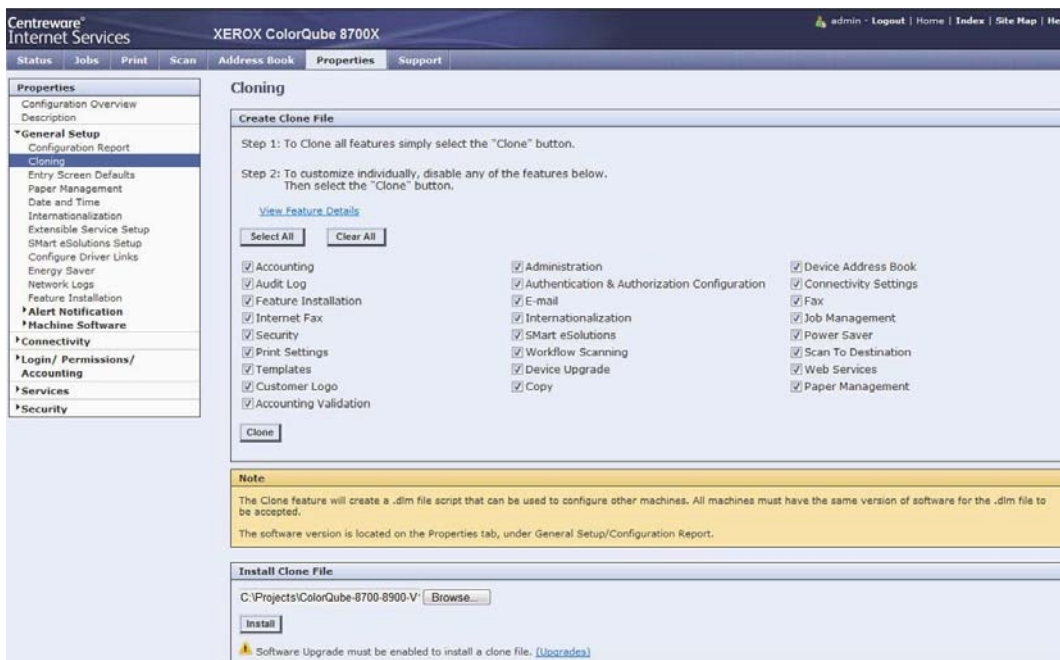
11. A progress bar is displayed on the bottom of the page.
12. A [Cloning Instructions](#) screen is displayed when Cloning process is complete.
13. Right-click the [Cloning.dlm](#) link to save the file to appropriate location.

**Note:** Change the cloning file name to reflect selected features.



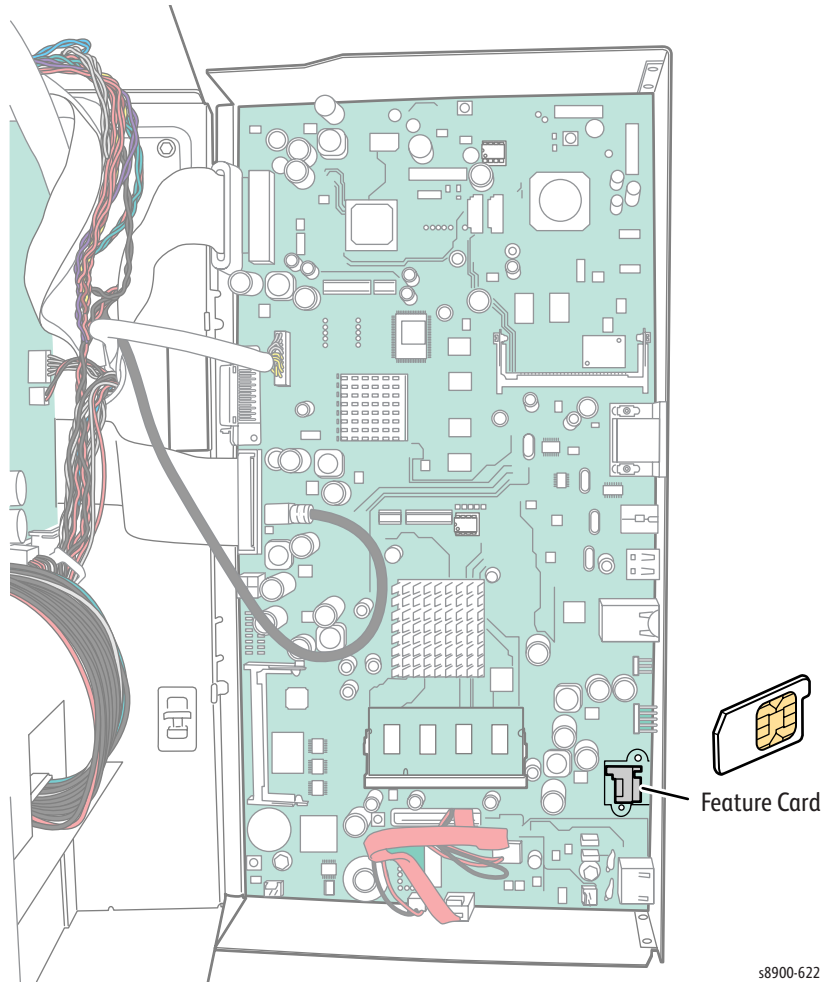
## Installing a Clone File

1. In a web browser, enter the printer's IP address.
2. In the upper right corner, click **Login**.
3. In the **User ID** field, enter **admin** (default User ID).
4. In the **Password** field, enter **1111** (default password).
5. Click **Login**.
6. Click **Status > Welcome**.
7. Click **I have A Cloning File**.
8. Under **Install Clone File**, click **Browse** to find and select the saved clone file.
9. Click **Open**.
10. Click **Install**.
11. A progress bar is displayed at the bottom of the screen and disappeared when the installation process is complete.



## Feature Card Parameters

The Feature Card is used to modify configuration settings and to enable/disable system options. The card's contents are read when the system boots and are mirrored in system NVM. The system locks the card the first time it is read by writing its serial number to the card. From that point on, only the system with the matching serial number will be able to successfully read the card. The configuration and options settings on the card are fixed and cannot change.





# Electrical, Boot-up, and UI Troubleshooting

The electrical components contain the Power Supply Unit, Main Controller Board, and the Power Control Board. The printer contains many self test routines to aid in diagnosing problems.

**Note:** If the printer encounters certain fault conditions, the printer may reboot up to three times before displaying a fault code - this is an attempt to correct the problem and reduce the number of unnecessary service calls.

Following the suggested debug procedures in the specified sequence generally provides better test coverage than performing tests in a different order.

## Electrical Components Service Hints

The Electrical Components Service Hints contain instructions to check various components prior to replacing the Boards.

**1. Check for known problems listed in Eureka and GSN web site.**

Service technicians are always looking for ways to help with printer problems. Refer to the experts; Eureka and GSN may already provide a solution.

**2. Print an engine Test Page (if available).**

If the printer has the capability to print an engine Test Print, use this test page to determine if the print engine (vs. the Image Processor) is working.

**3. Never use an Uninterruptible Power Supplies (UPS).**

UPS devices may not have the capacity to power the printer. A quality, high-capacity surge protector may be OK for the printer, but only if it is not also supporting other high-current devices. For testing purposes, use a dedicated circuit to verify operation.

**4. Reseat all cables connected to the boards.**

Any loose cable connection can cause the printer to fail.

**5. Disconnect the printer from the network and connect with cross-over cable.**

Some networks interfere with the printer's ability to boot up and can hang the printer connect with a cross-over cable and verify the network port. Verify the USB port with another USB cable.

**6. Disconnect all 3rd party devices and cables, then reboot the printer.**

Xerox printers are tested without 3rd party devices and cables; these may cause the printer to fail. Always remove these devices and test the printer.

**7. Simplify the printer.**

Disconnect the Lower Tray assemblies, and other optional equipment. Verify if the option is causing the printer to fail.

**8. Verify dedicated AC connection to the printer.**

Test the printer on a dedicated AC circuit. Verify the AC voltage is correct. If there is a significant AC voltage drop (6 volts or more on a 120V circuit) when the printer is turned On, the circuit is too heavily loaded and will cause problems for the printer.

**9. Reseat all memory modules and verify if the memory is supported.**

Refer to Printer Configurations [Printer Configurations](#) on page 1-26 in Chapter 1 for memory configurations.

Corrupted RAM modules have caused printer failures and should be tested. Some 3rd party RAM modules will not work in the printer. Was 3rd party RAM recently installed?

**10. Replace the NVRAM Chip (if present).**

Some printers contain an NVRAM (Non-Volatile RAM) chip that may cause printer problems. If the NVRAM chip is a replaceable part, try installing a new one.

**11. Perform a Factory Reset.**

Unknown errors may be cleared by resetting the printer back to factory defaults. If possible, copy customer settings before performing a reset.

**12. Check for available firmware upgrades and update as appropriate.**

If the problem is re-occurring, a firmware upgrade may be available to resolve the problem.

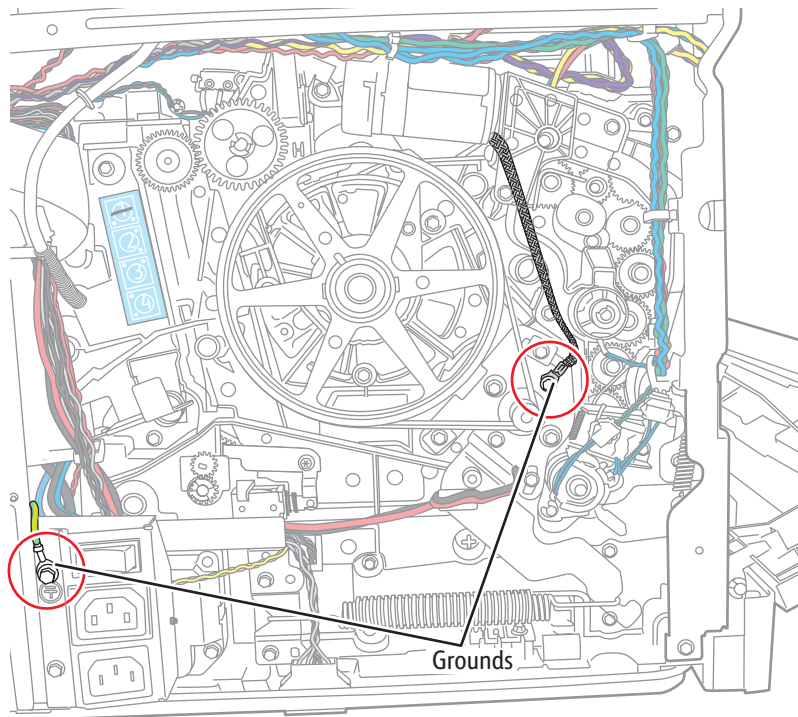
## Printer Ground Integrity

Intermittent or missing ground connections can result in printer interference. As examples:

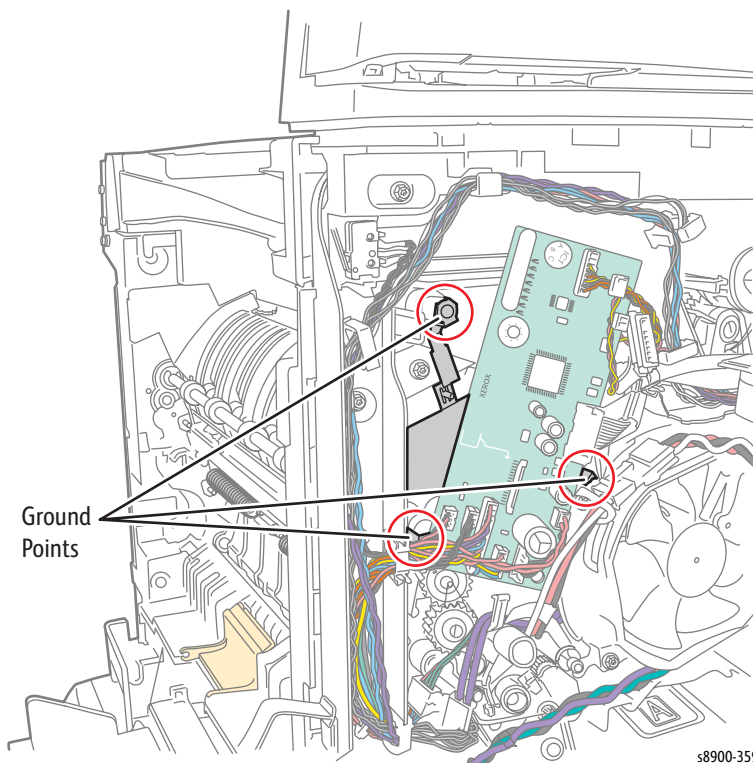
- Blank or intermittent Control Panel display
- I/O Board errors
- False jam reporting
- Erroneous thermistor readings
- Damage to the electrical boards

## Key Ground Connections

Check that the grounding points are in contact with the frame.



s8900-360



s8900-359

## Testing Motor and Solenoid Resistances

1. Turn Off the printer and disconnect the power cord.
2. With a DMM set for measuring resistance, test each motor's windings for correct resistance (disconnected from the printer). Rotate the motor's drive shaft slightly while taking the measurement.

**Table 1 - Motor and Solenoid Resistance**

Motor or Solenoid	Resistance (approximate)
Process Drive Motor Media Path Drive Motor	2.85~3.85 ohms (Difficult to measure due to variability at the brush/commutator interface.)
Y-Axis Motor	1.05~1.43 ohms (Difficult to measure due to variability at the brush/commutator interface.)
X-Axis Motor	5.9 ohms/phase +/- 10 % (pins 2 to 4 and pins 3 to 5)
Tray Lift Motor	50~500 ohms
Head Maintenance Clutch	186 ohms +/- 15 %
Paper-Pick Clutch Deskew Clutch	186 ohms +/- 15 %
MPT Pick Solenoid	124 ohms +/- 5 %
Preheater Lift Solenoid	~18 ohms blue-red, ~18 ohms yellow-red, ~36 ohms blue-yellow
Ink Loader Solenoid	~10 ohms blue-red, ~10 ohms yellow-red, ~20 ohms blue-yellow
Ink Loader Yoke Motor	60 ohms +/- 15 %

## Verifying Power Supply Operation

The power supply is divided into three sections: an AC section used for heaters, a DC section used to power the control logic, and Electronics System Fan (powered in Sleep and Ready states, as indicated by the +3.3V Sleep and +3.3V LEDs) and a DC section for motors, solenoids, and printhead driver (powered in Ready states, as indicated by the +50V LED). Verifying the Power Supply involves four steps:

1. Checking for proper AC voltage.
2. Testing for a short on the +3.3V SLEEP, +3.3V, or Electronics System Fan power supplies.
3. Inspecting the Power Supply fuses (skip this step unless a heater failure is present).
4. Testing for a shorted Motor or Solenoid, which shuts down the +50V supply.
  - To troubleshoot the first 2 items, go to [Printer Fails Power-Up: 3.3 V LED Does Not Illuminate](#) on page 2-419.
  - To troubleshoot step 3, go to [Measuring AC Voltages](#) on page 2-415.
  - To troubleshoot step 4, go to [Printer Fails Power-up: +50V LED Does Not Illuminate](#) on page 2-423.

## LED Information

### LED Blink Patterns

- Red LED blinks, yellow is off: RAM failure.
- Yellow LED blinks, red LED is off: Disk failure.
- Red and yellow LEDs blink in phase (both on, then both off): EEPROM failure
- Red and yellow LEDs blink out of phase (only one on at a time): RTC failure

**Note:** If the board experiences a RAM failure, you cannot hit ENTER and get to a u-boot prompt. U-boot cannot provide that function without RAM.

### DC Power LEDs

- +3.3V Sleep LED (green)
- +3.3V LED (green)
- +50V LED (red)

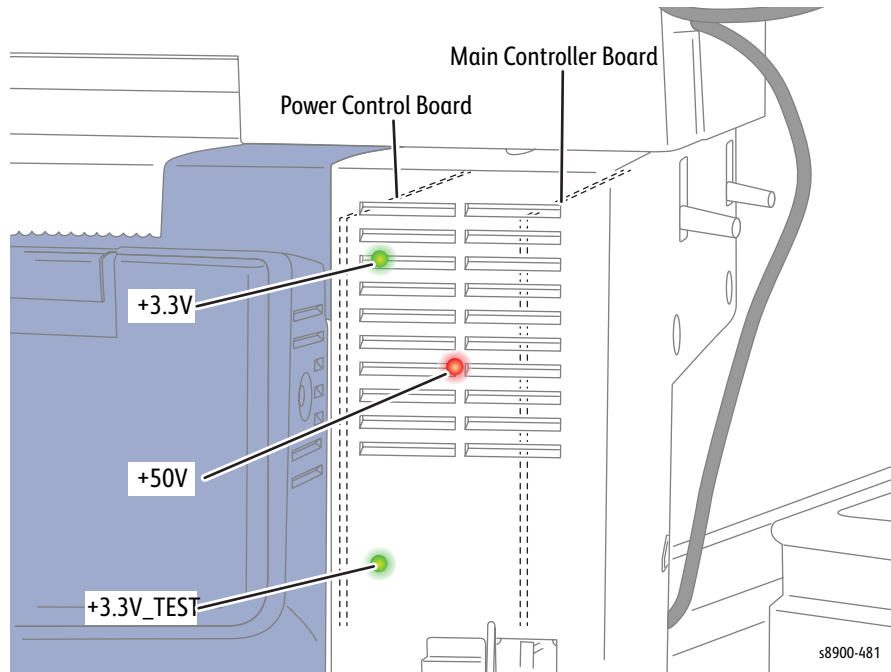
The +50V LED goes off when the printer is turned off, a short circuit or overload is present on the +50V or -50V supplies, or when the printer goes into a deep Standby mode (15-20 seconds). The +3.3V LED goes off when the printer is turned Off or enters Sleep Mode (time according to user preference).

The +50 V is on at the following stages:

- During mechanical initialization - bringing up the printer
- The printer is printing.
- The printer is recovering from jam.
- Drum slew - managing Drum Thermals
- Drum Maintenance
- Any Tray is open.

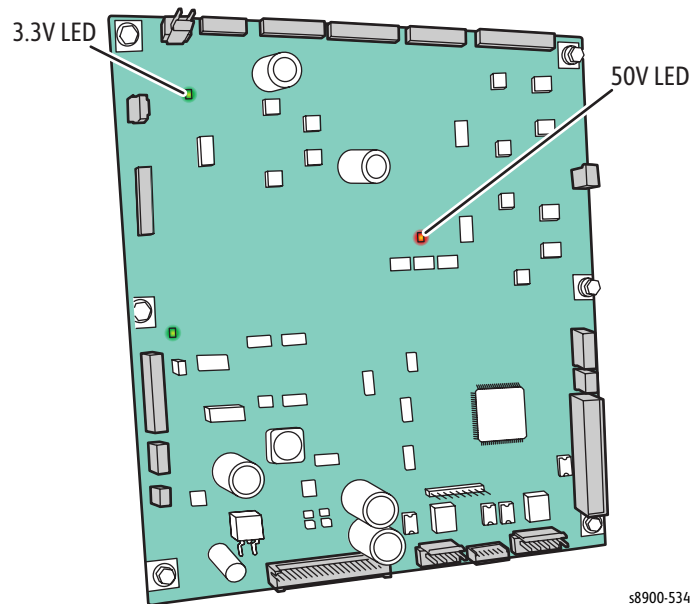
## Error Troubleshooting

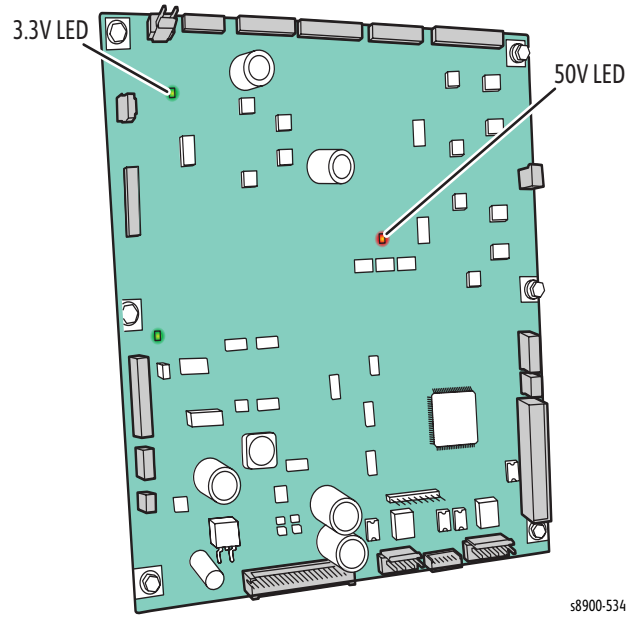
- Any Door is open.
- The printer is melting ink.
- The printer is performing a head maintenance cycle.
- The Printhead is tilting.



The 50 volts will be off when the printer is idle and not performing any of the listed tasks. The +50V LED may be dim or extinguished when 50V is off.

The +50V will not be on at all time. The +50V can be Off when the printer is at [Ready](#) mode.



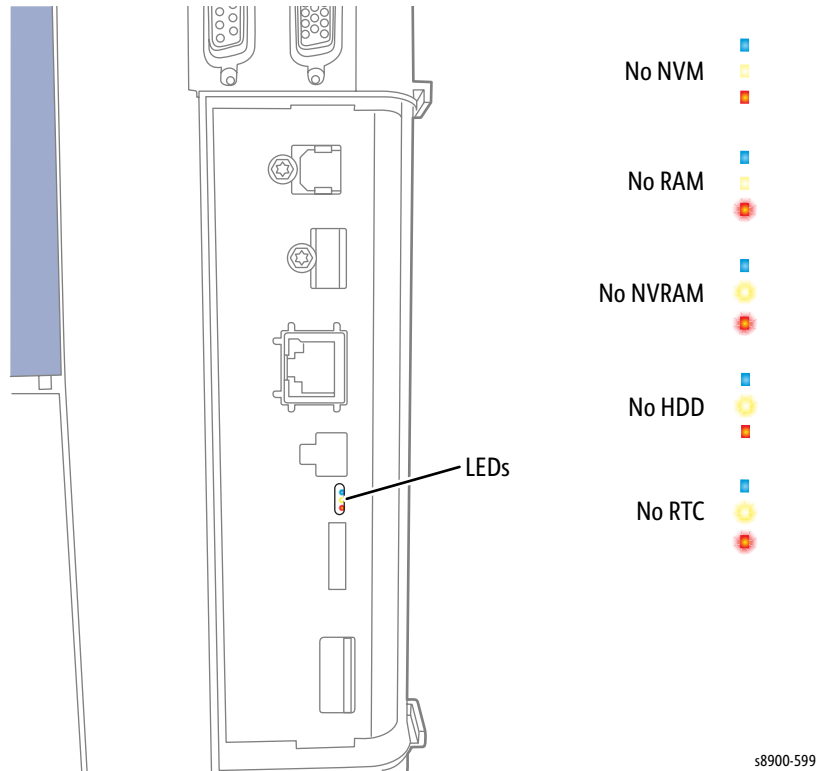


## Diagnostic LEDs

The Main Controller Board has 3 LEDs: blue, yellow, and red.

The following error codes apply:

- RAM Error: Blink Red LED - refers to DIMM
- Disk Error: Blink Yellow LED - refers to Hard Drive
- RTC Error: Blink Red and Yellow LEDs



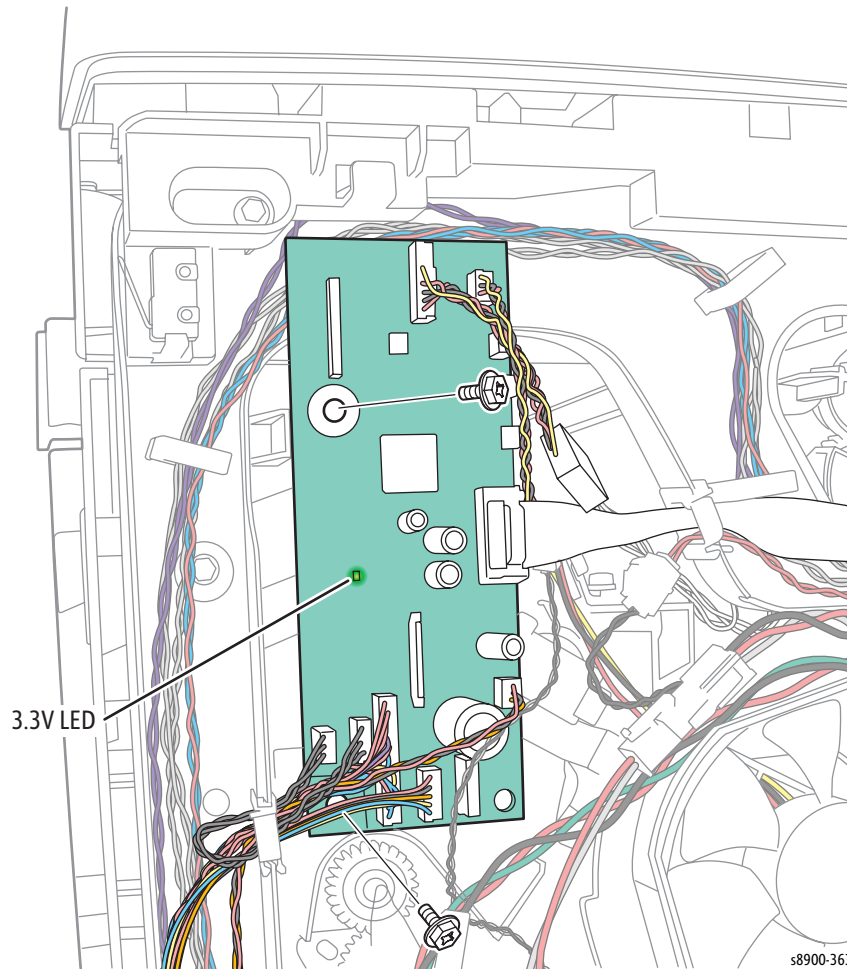
### LED Status

LED					
	No NVM	No RAM	No NVRAM	No HDD	No RTC
Blue		Off	Off	Off	Off
Yellow		Off	Flashing (same time)	Flashing	Flashing (out of phase)
Red		Flashing	Flashing (same time)	Off	Flashing (out of phase)
Power Control Board	Off				



## I/O Board LED

The I/O Board has one LED. The green LED indicates +3.3V is provided. This LED acts in a similar manner to the +3.3V power LED in the Electronics Module.



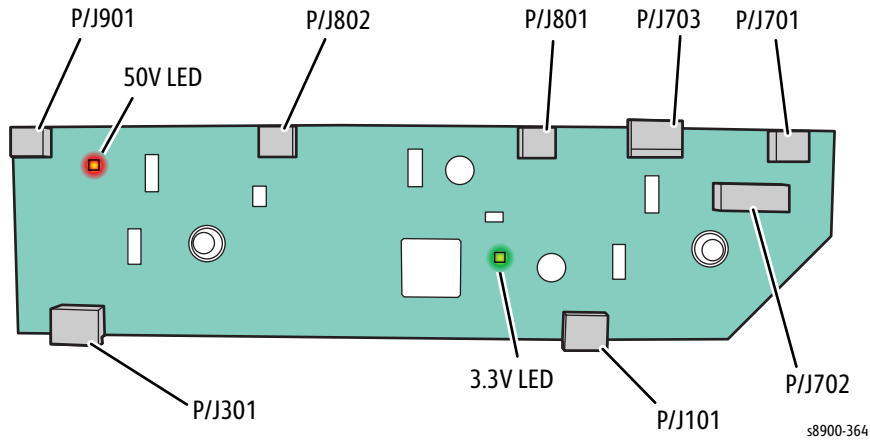
## Ink Loader Board LEDs

The Ink Loader Board has two LEDs:

- +3.3V (green)
- +50V (red)

These LEDs indicate the same status as the +3.3V and +50V on the Power Control Board.

The +50V will not be on at all time. The +50V can be Off when the printer is at Ready mode.



## Measuring AC Voltages

AC line voltages are present on the Power Supply and in the printers, via the heaters, while the printer is plugged into an AC outlet. The power switch position is detected by software and proper shut down is followed by a power off signal to the Power Supply. The printer may be operating for a considerable time after the switch is turned Off.

1. AC Input: With a DMM set to measure AC voltages, measure the power being supplied to the printer; it should measure between 90 to 134 VAC (115 VAC nominal) or 180 to 254 VAC (220 VAC nominal). The service diagnostic function may also be used to measure the input voltage. Refer to the [Service Diagnostics](#) on page 2-18 for more details.
2. If a heater shorts fuse, F020 and F030, F021 are opens. The Power Supply may not shut down; however, a fault code is displayed on the Control Panel.

## Testing F020 and F030, F021

The Printhead and Ink Loader connect to Fuse F020. The Drum and Preheater connect to Fuse F030.

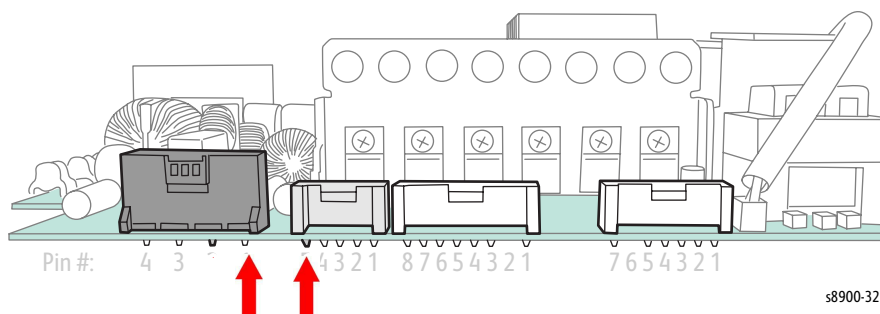
All AC Outputs (Printhead, Ink Loader, Drum Preheater) connect to Fuse F021.

1. Turn the power switch Off and wait for the printer to shut down.
2. Disconnect the power cord.
3. Remove the covers (as needed to access the Power Supply Unit on the right side of the printer).
4. Place the Power Switch in the On position. If the power switch is in the Off position, false readings may result. Having the switch in the On position closes the circuit, which is necessary for tests.
5. The Fuses are not serviceable. Check the affected heaters for short circuits across the heater and to ground. Replace the Power Supply Unit (REP 10.6, [page 4-169](#)) to replace the Fuses.

## Measuring Fuse F020

For Fuse F020, measure the resistance between Pin 1 on AC input JAC011 to Pin 5 on JAC001.

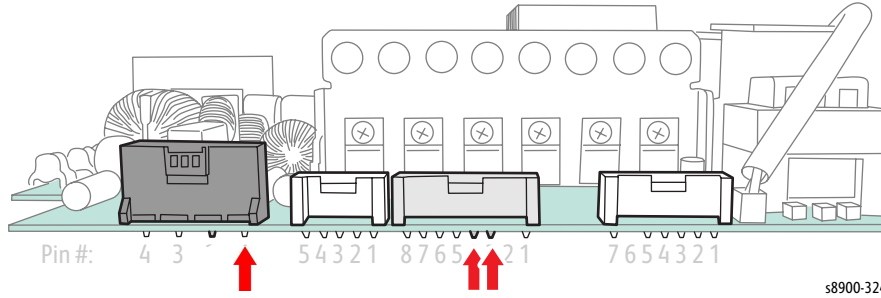
If the measurement is 0 ohms, F020 is not damaged.



### Measuring Fuse F030

For fuse F030, measure the resistance between Pin 1 on AC input JAC011 to Pin 3, 4 on JAC003.

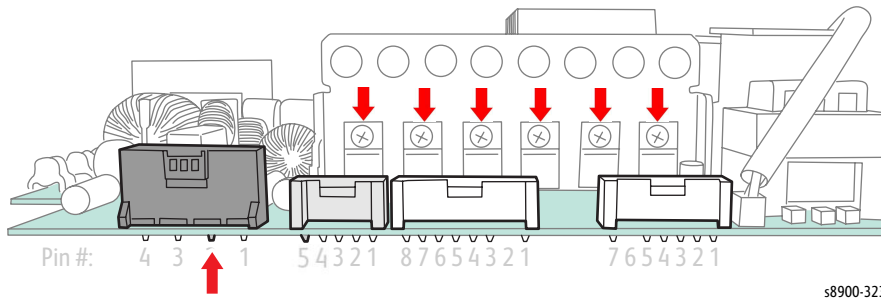
If the measurement is 0 ohms, F030 is not damaged.



### Measuring Fuse F021

For fuse F021, measure the resistance between Pin 2 on AC input JAC011 to Pin 3 of each triac (labeled CRxxx).

If the measurement is 0 ohms, F021 is not damaged.



## Checking for Shorted and Leaky Triacs

1. Turn the power switch Off.
2. **IMPORTANT:** Disconnect the power cord from the printer.
3. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
4. From the back of the printer, there is one heater cable connector (JAC0033) on the left above the power switch and two (JAC002 and JAC001) under the Ink Loader.
5. Place the Power Switch in the On position. If the power switch is left in the Off position, false readings may result.
6. For triac testing, measure the resistance between Pin 2 on AC input jack JAC011 to triac channels in [Table 1 - Triac Channel](#).
7. If the measurement is greater than 3M ohms, triac is not damaged.
8. If any triac is found damaged, replace the Power Supply (REP 10.6, [page 4-169](#)).

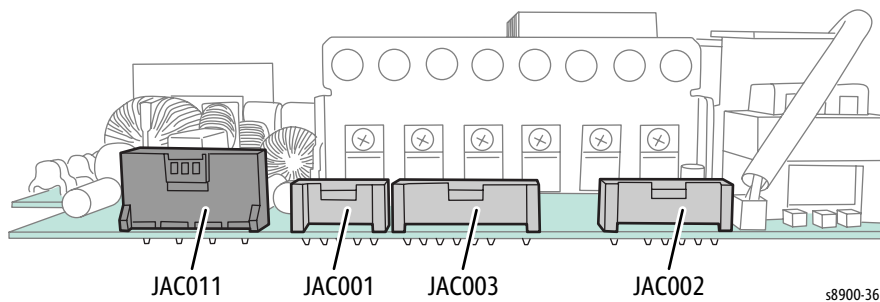
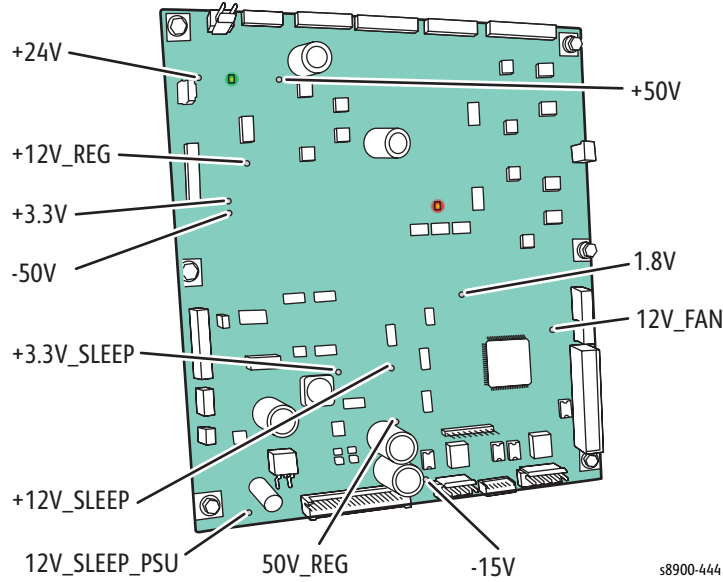


Table 1 - Triac Channel

Channel Function	CH #	Triac Measurement Pin			
		AC Input Connector	Connector		
		JAC011	JAC001	JAC002	JAC003
Ink Melt Color 1	1	PIN 2	PIN 1		
Ink Melt Color 2	2	PIN 2	PIN 2		
Ink Melt Color 3	3	PIN 2	PIN 3		
Ink Melt Color 4	4	PIN 2	PIN 4		
Jet Stack Left	6	PIN 2		PIN 5	
Jet Stack Right	7	PIN 2		PIN 4	
Reservoir #1	9	PIN 2		PIN 3	
Reservoir #2	10	PIN 2		PIN 2	
Drum #1	11	PIN 2			PIN 7
Drum #2	12	PIN 2			PIN 6
Paper Preheat	13	PIN 2			PIN 5

## Measuring DC Voltages

1. Check the Power Supply Status LEDs; they all should be bright. If the LEDs are not all brightly lit, false readings will result.
2. Test for voltage at the test points on the Power Control. [Table 2 - Test Points and Voltage Ranges](#) lists the test points and voltage ranges to be expected:



**Table 2 - Test Points and Voltage Ranges**

Test Point/ Description	Min.	Nom	Max
3_3V: +3.3V	3.0	3.3	3.6
12V_SLEEP: +12V_SLEEP	11	12	13
24V: +24V	23.5	24.5	26.5
50V: 50V	47	49	52
12V_REG: +12V_REG	11	12	13
-50V: -50V	-47	-49	-52
-15V: -15V	-13	-15	-17
3_3_SLEEP: +3.3V_SLEEP	3.0	3.3	3.6

## Fault Message Displayed on the Control Panel

The printer has detected a fault condition. See [Messages, Chain Link Codes, and Procedures](#) on page 2-85 for definitions and solutions.

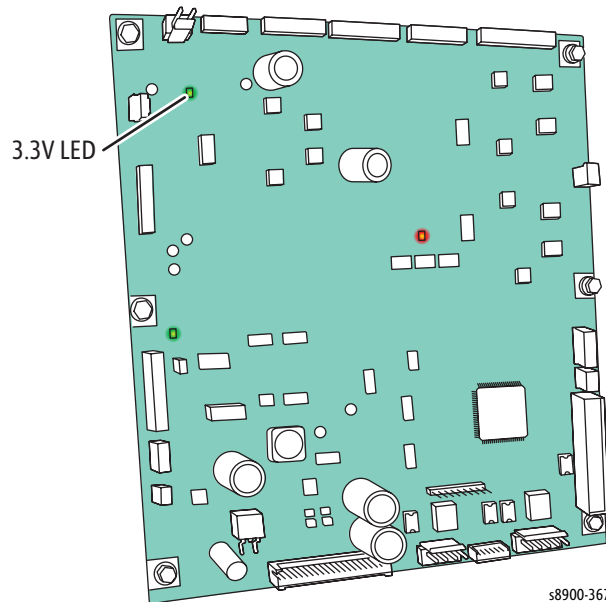
## Blank Display and the PS and PE LEDs are Flashing a Fault Code

The printer has detected a fault condition but cannot display a message on the LCD. Some portion of the chain of devices used to drive the LCD may be defective since an fault message is not displayed. See [Messages, Chain Link Codes, and Procedures](#) on page 2-85 for definitions and solutions.

## Printer Fails Power-Up: 3.3 V LED Does Not Illuminate

The printer is not receiving proper AC or a short circuit is present on the +3.3V, +3.3V\_SLEEP, or +12V\_SLEEP supply.

**CAUTION:** Use caution with hazardous voltages when diagnosing AC problems. The 3.3 V LED is located on the Power Control Board.



1. Inspect the power cord.
  - a. Verify AC outlet voltage and current capacities are within specifications.
  - b. If necessary, move the printer to a different outlet and retest.
2. Transient on AC line tripped protective circuitry in printer power supply. Cycle power switch to the printer to reset protective circuits in the Power Supply Unit.
3. An open Fuse F020 can result in a dead Power Supply Unit if it is restarted. Verify that the Fuses are good. Refer [Testing F020 and F030, F021](#) on page 2-415.
4. **Short Circuit on 3.3V or +12V\_SLEEP Supply.** ESD damage to the printer may occur if static electricity is discharged to printer electronics.

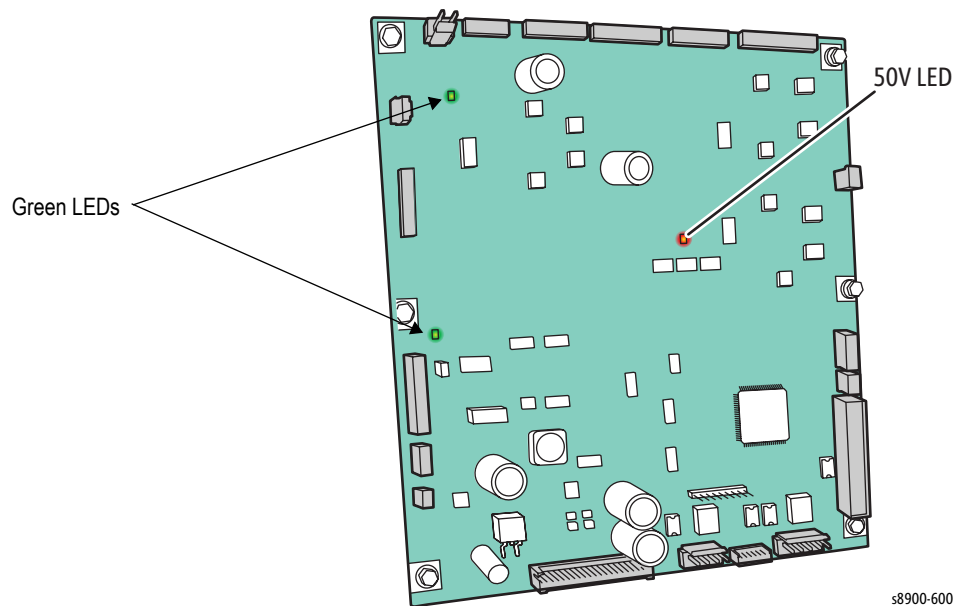
- a. With the power cord connected, touch the metal Card Cage to discharge any static electricity.
  - b. Turn Off the printer.
  - c. Unplug the power cord and remove the printer's covers.
  - d. Unplug the following Power Control Board connections. This step removes all other circuits so the Power Control Board can be tested alone.
    - Power Control to I/O Board (P/JCN12)
    - Power Control Right (Front) (P/JCN2)
    - Power Control to Ink Loader Board (P/JCN7)
    - Stapler (P/JCN36)
    - Wave Amp (P/JCN11)
    - Power Control Rear (P/J CN3)
    - Y-Axis Motor (P/JCN1)
    - Transport Sensor & Solenoid (P/JCN26)
    - Ink Loader Yoke Sensor (P/CN27)
    - IPP (Scanner) Power (P/JCN10)
    - 525/ 1800 Feeder Power (P/JCN9)
    - 525/ 1800 Feeder Signal (P/JCN8)
    - Paper Size Sensor (P/JCN16)
    - Waste Tray Detecting Sensor (P/JCN15)
    - Tray Lift Sensor (P/JCN17)
    - Yoke Motor (P/JCN21)
    - LED Lamp & Interlock Switch (P/JCN34)
    - Printhead Data (P/J302)
    - Control Panel Cable (P/JCN5)
    - USB Cable
  - e. Plug in the power cord and turn on the printer.
  - f. If the +3.3V LED does not illuminate when the power is turned On and AC is present, the Main Controller Board is defective. Replace the Main Controller Board (REP 10.3, [page 4-162](#)) and proceed to **step 4g**. If the +3.3V LED illuminates the Main Controller Board is functional. Skip the rest of this section and proceed to **step 5**. Plug in all the cables removed during service.
  - g. Trace through all service steps performed to reattach any cables that were unplugged during debugging.
  - h. Attach the printer covers.
  - i. Perform full test of the printer.
5. **Short circuit on 3.3V power supply within the I/O Board.**
- a. **Required:** Follow all procedures from step 4.f before proceeding with the following steps. The I/O board needs to be isolated from other components in the printer to be effectively tested.
  - b. Turn Off the printer and wait 30 seconds for the Power Supply capacitors to discharge. Damage to circuits within the board may occur if the Power Supply capacitors are not allowed to fully discharge.
  - c. Plug in the Power Control to I/O Board connector P/J801. This step adds the I/O Board back to the working Power Control Board - nothing else is connected.



- d. Turn On the printer.
  - e. If the +3.3V LED does not illuminate, there is a short on the I/O Board or related harnesses. Proceed to **step 6**. If the +3.3V LED does illuminate, the I/O Board and related harnesses are functional. Skip **step 5** and proceed to **step 7**.
6. If the +3.3V LED does not illuminate when the I/O Board is connected by itself to the Main Controller Board, turn power Off for the following checks:
    - a. Verify short is on the I/O Board by using an ohmmeter to check the resistance on P/J301, pins 4 and 8 to ground. Resistance of less than 50 ohms indicates a problem. Verify the harness is OK by disconnecting P/J801 on the I/O Board and retesting with the ohmmeter at P/J301.
    - b. To isolate problem to the I/O Board or related cabling, unplug the I/O Board connectors:
      - Control Panel (P/J202, P/J301)
      - Tray 1 (MPT) (P/J402)
    - c. Retest the resistance of the I/O Board. If the resistance is still less than 50 ohms, replace the I/O Board (REP 10.11, [page 4-183](#)), reinstall all cables and retest the printer.
    - d. If the I/O Board resistance is OK, plug in the I/O Board connectors one at a time and retest the resistance until the faulty subsystem is discovered. Repair as needed.
    - e. Plug in all the cables removed during service.
    - f. Trace through all service steps performed to reattach any cables that were unplugged during debugging.
    - g. Attach the printer covers.
    - h. Perform full test of the printer.
  7. **Procedure to check for a Short circuit on 3.3 V power supply within the Printhead.**
    - a. **Required:** Follow all procedures from **step 5.e** before proceeding. The following procedure relies on a working Main Controller Board to determine if the Printhead is causing a short circuit.
    - b. With power cord connected, touch the metal chassis to discharge any static electricity. ESD damage to the printer may occur if static electricity is discharged to printer electronics.
    - c. Turn Off the printer and wait 30 seconds for the Power Supply capacitors to discharge. Damage to circuits within the board may occur if the power supply capacitors are not allowed to fully discharge.
    - d. Plug in the Printhead interface connector P/J302 to the Main Controller Board. This adds the Printhead back to a working Main Controller Board and I/O Board.
    - e. Turn On the printer.
    - f. If the +3.3V LED illuminates, the Printhead is functional. Skip to **step 8** if the LED illuminates. If the +3.3V LED does not illuminate when the Printhead is connected to the Main Controller Board, proceed to **step 8**.
  8. If the +3.3V LED did not illuminate, verify the short is on the Printhead by using an ohmmeter to check the resistance on P/J180 pin 21 to ground. A resistance of less than 50 ohms indicates the Printhead is faulty.  
 Replace the Printhead Assembly (REP 7.3, [page 4-62](#)) and retest the printer. Skip the rest of this step if the +3.3V LED is lit because the problem is elsewhere in the printer.
    - a. Carefully test the printer to ensure damage to the Power Control Board did not occur due to the shorted Printhead.
    - b. Plug in all cables removed during service.

- c. Trace through all service steps performed to reattach any cables that were unplugged during debugging.
  - d. Attach the printer covers.
  - e. Perform full test of the printer.
9. **Procedure to check for a short circuit on the 3.3V power supply within the Ink Loader.**
- a. **Required:** Follow all procedures from **step 7.f** before proceeding. The following procedure relies on a working Power Control Board to determine if the Ink Loader is causing a short circuit.
  - b. With the power cord connected, touch the metal chassis to discharge any static electricity. ESD damage to the printer may occur if static electricity is discharged to printer electronics.
  - c. Turn Off the printer and wait 30 seconds for power supply capacitors to discharge. Damage to circuits within the Power Control Board may occur if the power supply capacitors are not allowed to fully discharge.
  - d. Plug in the Power Control to Ink Loader Board connector CN7 to the Power Control Board. This step adds the Ink loader back to a working Power Control Board, I/O Board, and Printhead.
  - e. Turn On the printer.
  - f. If the +3.3V LED illuminates, the Ink Loader is functional. Skip to **step 10** if the LED illuminates.
  - g. If the +3.3V LED does not illuminate when the Ink Loader is connected to the Power Control Board, verify the short is on the Ink Loader by using an ohmmeter to check the resistance on CN7 Pins 1 and 2 to ground. A resistance of less than 50 ohms indicates the Ink Loader or harness is faulty. Replace the Ink Loader (REP 3.6, [page 4-27](#)) and retest the printer.
  - h. Plug in all the cables removed during service.
  - i. Trace through all service steps performed to reattach any cables that were unplugged during debugging.
  - j. Attach the printer covers.
  - k. Perform full test of the printer.
10. The short is on the Power Control Front or Power Control Rear harness. Reconnect these harnesses one at a time to determine which harness and/or subsystem is faulty. Repair as necessary.
- Drum Encoder
  - Process Motor Encoder
  - Electronics System Fan
  - Media Path Motor Encoder
  - 1800-Sheet Feeder option

## Printer Fails Power-up: +50V LED Does Not Illuminate



1. Verify that no PEST faults exist, and that the 3.3V LEDs are both illuminated. Pull out a tray or open a door, verify the +50V LED is not illuminated, and proceed to the next step.



**CAUTION:** ESD damage to the printer may occur if static electricity is discharged to printer electronics.

- a. With the power cord connected, touch the metal chassis to discharge any static electricity.
  - b. Turn Off the printer and wait 30 seconds for power supply capacitors to discharge. Damage to circuits within the Power Supply Unit may occur if the Power Supply Unit capacitors are not allowed to fully discharge.
  - c. Turn On the printer.
  - d. If the +50V LED does not illuminate when the power is turned on and AC is present, then 50V is not functional.
2. Test the boards by isolating them from rest of the printer.
    - a. Unplug power cord and remove printer's covers.
    - b. Unplug the following board connections. This step removes all other circuits so the boards can be tested alone.
      - Power Control to I/O Board (P/JCN12)
      - Power Control Front (P/JCN2)
      - Power Control to Ink Loader Board (P/JCN7)
      - Stapler (P/JCN36)
      - Wave Amp (P/JCN11)
      - Power Control Rear (P/JCN3)
      - Y-Axis Motor (P/JCN1)

- Transport Sensor & Solenoid (P/JCN26)
  - Ink Loader Yoke Sensor (P/JCN27)
  - IPP (Scanner) Power (P/JCN10)
  - 525/ 1800-Sheet Feeder Power (P/JCN9)
  - 525/ 1800 Sheet Feeder Signal (P/JCN8)
  - Paper Size Sensor (P/JCN16)
  - Waste Tray Detecting Sensor (P/JCN15)
  - Tray Lift Sensor (P/JCN17)
  - Yoke Motor (P/JCN21)
  - LED Lamp & Interlock Switch (P/JCN34)
  - Printhead Data (P/J302)
  - Control Panel Cable (P/JCN5)
  - USB Cable
- c. Turn On the printer.
- d. Check if 50V LED is On. If it is functional, the Power Control Board is good. Proceed to the next step.
3. Test the Ink Loader Board.
- a. Turn Off the printer and wait 30 seconds.
  - b. Touch the metal chassis to discharge any static electricity.
  - c. Connect this cable to the Power Control Board.
    - Power Control to Ink Loader Board (P/CN7)
  - d. Turn On the printer. Check if 50V is illuminated
  - e. If a malfunction is indicated, go to the wiring diagram and test to determine where the overload or short circuit is located. A resistance of less than 50 ohms between a voltage and the chassis indicates a defect. Note that the short could be on +50V, -50V, +12V, or +24.5V. Repair or replace the harness and/or Ink Loader Board as necessary.
4. Test the other components.
- a. If the Power Control to Ink Loader Board test shows that 50V is functional, reconnect the other disconnected cables one at a time and retest (repeat Step 3), in the following order:
    1. Power Control to I/O Board (P/CN12)
    2. Power Control Right (P/CN2)
    3. Wave Amp signal (P/CN11)
    4. Power Control Left (P/CN3)
    5. Y-Axis Motor (P/CN1)
    6. Printhead Data (P/J302)

When a malfunction is indicated, go to the wiring diagram and test to determine where the overload or short circuit is located. A resistance of less than 50 ohms between a voltage and the chassis indicates a defect. Note that the short could be on +50V, -50V, or +12V. Repair or replace the harness and/or circuit board as necessary.

Associated wiring diagrams:

1. Power Control to I/O Board (P/CN12)

2. Power Control Right (P/CN2)
  3. Wave Amp signal (P/CN11)
  4. Power Control Left (P/CN3)
  5. Y-Axis Motor (P/CN1)
  6. Printhead Data (P/J302)
- b. Plug in all the cables removed during service.
  - c. Trace through all service steps performed to reattach any cables that were unplugged during debugging.
  - d. Attach the printer covers.
  - e. Perform full test of the printer.

## Printer Prints and the Display is Frozen with No Errors

### 1. Electrostatic Discharge

- a. If the printer is currently powered on and frozen, open then close the Left Side Door of the printer and see if the LCD responds.
- b. If printer appears functional after operating the door, advise customer that failure may have been due to an ESD event. Thoroughly test the printer for any other problems.
- c. Skip the rest of this section if the printer appears functional, otherwise continue debugging.
- d. With the power cord connected, touch the metal chassis to discharge any static electricity. ESD damage to the printer may occur if static electricity is discharged to printer electronics.
- e. Turn Off the printer and wait 30 seconds for the Power Supply capacitors to discharge. Damage to circuits within the Power Supply may occur if the Power Supply capacitors are not allowed to fully discharge.
- f. Unplug the power cord and remove the printer's covers. Use caution around motors, pulleys and live AC connections when working with the printer covers off.
- g. Examine the printer for loose grounding connections, especially the ground strap on the Y-Axis Motor. Eliminate the possibility of internally generated ESD from affecting the printer.
- h. Plug in all cables removed during service. Trace through all service steps performed to reattach any cables that were unplugged during debugging.
- i. Attach the printer covers.
- j. Perform full test of printer.

### 2. Control Panel Failure

- a. Unplug the original Control Panel at connector P/J403 and plug in a known working Control Panel. This checks for a keypad or LCD failure in the Control Panel.
- b. Plug in all cables removed during service. Trace through all service steps performed to reattach any cables that were unplugged during debugging.
- c. Attach the printer covers.
- d. Perform full test of the printer.

## Display Functions, but Sent Jobs Do Not Print

1. Computer driver incorrect or improperly installed.
  - a. Verify printer hardware is functional by sending a test print via the printer Control Panel.
  - b. If a test print is properly produced, continue to next steps, focusing on problems outside the printer (network, Ethernet, or computer driver configuration issues).
  - c. If a test print is not properly produced, the focus of problems within the printer suggests that the internal settings are corrupt.
  - d. Use a known functional computer to test printer using the printer's USB port. If test computer successfully prints pages, review the version of driver, the installation and the settings of the customer's computer.
  - e. If test computer is unsuccessful, continue with debug.
2. Customer network or printer's Ethernet port not properly configured.
  - a. Refer to Network Problems for procedures related to communication problems.
  - b. Disconnect the printer from its network to see if the behavior continues.
3. Printer internal settings corrupted.
  - a. From the Control Panel, access [dc301 NVM Initialization](#) on page 2-64.
  - b. Perform full test of printer.

## Printer Hangs or Resets Unexpectedly

1. Transient on AC line tripped reset circuitry in the printer.
  - a. Cycle power to ensure printer initializes during stable AC power.
2. Check if non-Xerox, third-party RAM DIMM is installed. Non-compliant RAM can cause erratic printer behavior.
3. Internal fault
  - a. Record any fault codes and report to Xerox Technical Support. If the printer detects an error, the printer will attempt to reboot and reinitialize (up to three times) to correct the problem. After the third cycle of rebooting, a fault code displays on the LCD and flashes on the PS and PE indicators.
4. Disconnect the printer from its network, for a few hours if necessary, to see if the behavior continues.

**Note:** If an AC Power Filter must be used to prevent electrical noise from interfering with internal printer communications, Xerox recommends the use of 142E01500 (available for customers to order at 800-828-5881) or a similar high-current Noise Filter.

## Printer Fails to Enter Energy Star Mode

The printer will not enter a Lower Power or Sleep state under the following conditions regardless of the energy consumption configuration:

1. Any Door/ Cover is open.
2. The printer is in fault/jam state.
3. The Cleaning Unit is empty or missing.
4. The Waste Tray is missing.
5. Ink is melting.
6. Ink is needed.

By default, the printer is configured to be Energy Star Tier II compliant. There are a number of controls available to the customer for customizing the Sleep/Wake/Power consumption of the printer. The controls are located on the printer's Control Panel menu (**Machine Status** button > **Tools** > **Device Settings** > **Energy Saver**) and in the printer's web page CentreWare IS. The printer's Wake/Sleep behavior, expected or not, is likely due to how the customer has programmed these settings. It is very unlikely the printer hardware/firmware is at fault. If there is a problem, perform an NVRAM reset ([dc301 NVM Initialization](#) on page 2-64) to return the printer to its default state.

In its default configuration (lowest energy consumption).

- Fast Resume: Off
- Wake when: Job activated
- Enters Standby mode following 2 minutes of inactivity.
- Enters Power Saver mode after 30 minutes of inactivity.

When Fast Resume is turned on:

- Fast Resume: On
- Enters Standby mode following 1 hour of inactivity.
- Enters Power Saver mode after 2 hours of inactivity.

The printer can be awoken automatically in three ways:

- **Job Activated** – receiving a print job wakes the printer up. The printer goes into Standby and Power Saver based on the Fast Resume On/Off setting.
- **Scheduled** – the printer can be woke up (Warm-up Settings) and placed into Standby (Standby Settings), once a day, at pre-determined times. Use CentreWare IS to program the times. When Scheduled is selected, the printer will go to Standby after 2 minutes of inactivity and remains at *Ready* for the entire time between the programmed Wake-up and Standby settings. When the Standby Setting time is reached the printer will then proceed to the Power Saver state. When Scheduled is active it ignores the Fast Resume setting.
- **Intelligent Ready** – the printer wakes up and goes into Standby mode based on learned customer printing history. The printer adapts to the patterns of customer printing to be at a Ready state when it expects the customer will print. Likewise, to conserve power the printer will go to Standby mode at times when it expects the customer not to print.

## Cleaning Unit Missing

1. The Cleaning Unit missing or not fully seated.
  - a. Fully install the Cleaning Unit.
2. Connector not fully seated.
  - a. Check the I/O Board connector P/J901 for proper mating.
3. Replace the Cleaning Unit (REP 4.8, [page 4-40](#)). If that does not fix the problem, then replace the Drum Maintenance Pivot Plate (REP 7.15, [page 4-106](#)).

## Waste Tray Missing

1. Waste Tray missing or not fully seated.
  - a. Fully install the Waste Tray.
2. Connector not fully seated.
  - a. Check the I/O Board connector P/J102 for proper mating.
3. Check that the Waste Tray Sensor is correctly installed at the end of the Waste Tray Cover.



# Sheet Feeder Troubleshooting

## UI Message - Tray X (3, 4, or 5) is not available

1. Notify your administrator.
  - For 525-Sheet Feeder, refer to [525-Sheet Feeder Does Not Function](#) on page 2-429.
  - For 1800-Sheet Feeder, refer to [1800-Sheet Feeder Does Not Function](#) on page 2-429.

## 525-Sheet Feeder Does Not Function

1. Thermal safety fuse blown.
  - Power cycle the printer.
  - The safety fuse is a self resetting device. Power cycling ensures the fuse cools enough to reset itself.
1. 525-Sheet Feeder faulty.
  - Turn Off the printer and wait 30 seconds for power supply capacitors to discharge.
  - Check for unplugged cable or bent pins on the printer or 525-Sheet Feeder at connector location.
  - Replace the 525-Sheet Feeder (REP 13.3, [page 4-207](#)).
  - Perform full test of the printer.

## 1800-Sheet Feeder Does Not Function

1. Thermal safety fuse blown.
  - Power cycle the printer.
  - The safety fuse is a self resetting device. Power cycling ensures the fuse cools enough to reset itself.
1. 1800-Sheet Feeder faulty.
  - Turn Off the printer and wait 30 seconds for power supply capacitors to discharge.
  - Check for unplugged cable or bent pins on the printer or 1800-Sheet Feeder at connector location.
  - Replace the 1800-Sheet Feeder (REP 14.1, [page 4-208](#)).
  - Perform full test of the printer.

## Multiple Feeders do not Function

1. Follow troubleshooting tips for [525-Sheet Feeder Does Not Function](#) on page 2-429 for Feeder in top position. Feeders are connected in a serial manner and if the top most Feeder is faulty, all Lower Trays will also not function.

# Control Panel Troubleshooting

## Control Panel is Blank

A blank Control Panel indicates some portion of the chain of devices used to drive the LCD may be defective. If no error indication is available, use the following procedure to check the Control Panel.

1. If the printer is powered on, open then close the Left Side Door to see if the Control Panel responds.
2. If the printer is functional after operating the door, advise customer that failure may have been due to an ESD event. Thoroughly test the printer for any other problems.
3. Skip the rest of this section if the printer now appears functional, otherwise continue troubleshooting.
4. With the power cord connected, touch the Electronics Module to discharge any static electricity to prevent ESD damage to the printer may occur if static electricity is discharged to printer electronics.
5. Repair Steps:
  - Check for loose cable connection at the Control Panel and at the Main Controller Board.
  - Try reloading code and retest.
  - Replace the Control Panel (REP 4.6, [page 4-38](#)) and retest.
  - Replace the Main Controller Board (REP 10.3, [page 4-162](#)).

## Control Panel Calibration

The control panel calibration provides access to various tests that help troubleshoot issues with the display or buttons. A touch panel calibration routine is available to align touching the screen to the on screen display. The touch panel calibration should always been performed after an LCD display is replaced.

**Note:** If you are unable to navigate the menus, press and hold the Power Saver button for 5 seconds, then press and release the Pause button to reset the touchscreen to factory defaults and initiate a touchscreen calibration routine.

### Procedure

1. Press the “**Dial Pause**” + “**\***” + “**#**” buttons simultaneously to access the Panel Diagnostics menu.
2. A list of tests is displayed on the Panel Diagnostics menu.
  - LCD Pixel Test
  - Touch Panel Calibration
  - Touch Panel Test
  - Button Test
  - Display Vertical Test
  - LED Test
  - Exit

3. Select the test on the Control Panel or press the number on the Control Panel corresponding to the test on the Control Panel to be performed.
4. To exit any test while the test is in progress, press the “**C**” button on the Control Panel.
5. To exit Control Panel calibration, touch **Exit**.

### User Interface Calibration Menu

Type of Test	Description
LCD Pixel Test	Allows the user to determine whether the pixels in the display are functioning correctly.
Touch Panel Calibration	Performs a nine point calibration of the Control Panel to align the touch sensitive layer with the underlying LCD display.
Touch Panel Test	Allows the user to touch the panel and confirm it is being sensed.
Display Vertical Test	Allows the user to visually detect luminosity defects in the LCD display.
LED Test	Allows the user to verify each of the LED’s associated with the Control Panel are working in relation to the corresponding hard keys.
Exit	Exits the Control Panel Calibration.

# DADF Troubleshooting

## Frequent Paper Jam

### Initial Actions

- Check the paper path for debris or obstructions.
- Check the original documents for wrinkles or tears and use the document glass if necessary.
- Ensure the original documents are not above the paper fill line (maximum 50 pages).
- Ensure original documents are printed on 60 to 120 gsm media.
- Ensure no magazine or book is on the Document Glass (if platen is raised due to thickness of magazine, it would cause a DADF jam).
- Make sure the original documents are free of staples and paper clips, remove as necessary.
- If problem persists, follow the procedure below.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Duplex Automatic Document Feeder, PL 1.1.22</li> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Is the paper correctly loaded in the tray?	Go to step 2.	Reposition the paper in the tray.
2.	Check the placement of the paper Guides. Are the Guides in the correct position?	Go to step 3.	Reposition the Guides.
3.	Check the following for evidence of fault or damage: <ul style="list-style-type: none"> <li>• Cork Pad (PL 1.2.17)</li> <li>• Retard Roller (PL 1.2.16)</li> </ul>	Replace the DADF Pick Roller Assembly (REP 1.3, <a href="#">page 4-8</a> ).	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).
4.	<b>Note:</b> After the DADF replacement, if registration occurs, perform the calibration procedure ( <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44).		

## Frequent Double Feed and Skew

### Initial Actions

- Check the paper path for debris or obstructions.
- Check the original documents for wrinkles or tears and use the document glass if necessary.
- Ensure the original documents are not above the paper fill line (maximum 50 pages).
- Ensure original documents are printed on 60 to 120 gsm media.
- Make sure the original documents are free of staples and paper clips, remove as necessary.
- If problem persists, follow the procedure below.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Duplex Automatic Document Feeder, PL 1.1.22</li> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Is the paper correctly loaded in the tray?	Go to step 2.	Reposition the paper in the tray.
2.	Check the placement of the paper guides. Are the Guides in the correct position?	Go to step 3.	Reposition the Guides.
3.	Check the following for evidence of fault or damage: <ul style="list-style-type: none"> <li>• Cork Pad (PL 1.2.17)</li> <li>• Retard Roller (PL 1.2.16)</li> </ul>	Replace the DADF Pick Roller Assembly (REP 1.3, <a href="#">page 4-8</a> ).	Go to step 4.
4.	Run <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44 (using the Tools Menu) or <a href="#">dc608 Document Feeder Registration</a> on page 2-73 (in Service Diagnostics). Is the image still skewed?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Troubleshooting complete.
5.	<b>Note:</b> After the DADF replacement, if registration occurs, perform the calibration procedure ( <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44).		

# Scanner Troubleshooting

## Scanner Fault Troubleshooting

The scanner has reported a failure or is not performing as expected.

### Initial Actions

- Confirm the Scanner interface cable connector is correctly seated and has no bent pins.
- Ensure Scanner voltage in the scanner hinge. Is 24V available on the hinge connector going up to the Scanner? If no, check engine side troubleshooting procedure for possible power supply issues. If there is 24V, then go to next step.
- Power cycle the printer.
- If problem persists, follow the procedure below.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Scanner Assembly, PL 2.1.39</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Remove and reseal the scanner interface cable and inspect for bent pins. Retest.
2.	Remove and reseal the Scanner (REP 2.2, <a href="#">page 4-13</a> ). Retest.
3.	Replace the Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> ) and/or DADF Board (SDC PWB) (REP 1.4, <a href="#">page 4-9</a> ) Boards in the DADF.
4.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). <b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform the calibration procedure ( <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47).

# Finisher Troubleshooting

## UI Message - Finisher Communication Error

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Finisher Assembly, PL 16.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Finisher power and data cables are fully seated and have no bent pins.		
2.	Power cycle the printer.		
3.	Retest.		
4.	Check that the Horizontal Transport Unit is correctly installed and fully seated.		
5.	Replace the Finisher Assembly (REP 16.3, <a href="#">page 4-216</a> )		

## Finisher is not Recognized

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Finisher Assembly, PL 16.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions
1.	Power cycle the printer.
2.	Check the Finisher power and data cables are fully seated and have no bent pins.
3.	Retest.
4.	Check that the Horizontal Transport Unit is correctly installed and fully seated.
5.	Replace the Finisher Assembly (REP 16.3, <a href="#">page 4-216</a> )

## Prints do not Output to the Finisher

1. Check driver to verify output location.
2. Verify print job is correct media size/ type for the Finisher.

Sizes/ types that will automatically be routed to the internal catch tray instead of the Finisher:

- Media length shorter than 250 mm
- Media width less than 176 mm
- Envelopes, labels, transparencies, and glossy media

## Prints will not Staple in the Finisher

1. Check driver to verify output stapling is selected.
2. Verify media size is A, A4, Folio, or Legal.

## Finisher stack is messy, stapled sets are mis aligned

1. Upgrade firmware.
2. Remove and re-install Finisher.



# Fax Troubleshooting

The Control Panel displays one of these errors related to Fax operation:

- **Fax Memory is Low** indicates insufficient room, for Fax images stored on the Copy Controller Hard Drive. The CC Hard Drive has a separate partition dedicated to storing images waiting to be printed, stored for polling or Fax Mailboxes.
- Fax and LAN Fax services are disabled. User intervention is required to delete unnecessary mailbox images or fax jobs stored for polling.
- **No Dial Tone Detected** indicates that the system did not detect a dial tone when attempting to send a Fax. Fax and LAN Fax services are disabled. Fax subsystem parameters are adjustable and jobs received before the dial tone was lost are accessible.
- **Line 1 Unavailable** indicates a communication error has occurred. Fax and LAN Fax are disabled.

In addition to the Control Panel messages, the system provides several built-in tools for troubleshooting Fax problems.

## Initial Fax Checks

Check these items first. Use a desk telephone and a second, known-good phone line to test Fax line function.

- Check that Fax is enabled and configured properly for the local phone line.
- Check the target Fax number. If the number is in memory, is it saved correctly?
- Call the target Fax number from a desk phone and confirm a Fax tone response.
- Use a desk phone to confirm a dial tone on the FAX line supporting the system. Note that the printer only supports ANALOG phone line.
- Check Fax cord condition and connections between the system and Fax line.
- Enable Transmission Reports if reports aren't being printed.

If the Fax line, Fax number, and cabling are all functional, use the following tools to isolate the problem.

## Fax Troubleshooting Tools

The primary tools for troubleshooting Fax problems are Service Diagnostic tests, an Analog Phone set, the Fax Transmission Report, and the Fax Protocol Report. Diagnostic test results, result codes provided on the Transmission Report, and communication logs from the Protocol Report provide valuable clues to the root cause of Fax errors. A Fax subsystem reset is also available on the Control Panel menu to quickly restore factory default settings. Note: Keep in mind that fax only works on an analog line.

## Fax Reset (dc301 NVM Initialization)

All fax user and system NVM data can be restored to factory default values using dc301 NVM Initialization ([Embedded Fax NVM Initialization](#) on page 2-66). All customer programmed data, such as the Individual and Group Speed Dial directories, are lost when a Reset Fax command is issued.

## Fax Protocol Report

The Protocol Report provides transmission results, timing, and communications activity information about each Fax transmission similar to the Transmission Report, and a detailed log of the communications activity between devices. Use this report to diagnose possible communications errors between printers.

The most common commands exchanged between Fax printers during a typical transfer of data are listed in the following table. When reviewing the Protocol Report, trace the exchange of commands to identify irregularities. Commands in parentheses ( ) may or may not appear in the log.

1. Access the **Tools** menu ([Accessing Machine Status/ Tools Menu](#) on page 2-4).
2. On the Control Panel menu, touch **Tools** > **Troubleshooting** > **Fax**.
3. Touch **Fax Protocol Report**.
4. Touch **Print Now**.

**Table 1 - Common Fax Communication Commands**

Command	Definition	Appropriate Responses
(NSF) (CSI) DIS	Negotiating capabilities from a manual receiver or an auto answer terminal	(NSC) (CIG) DTC (TSI) DCS (NSF) (CSI) DIS (CRP) (TSI) (NSS) (PWD) (SEP) (CIG) DTC (PWD) (SUB) (TSI) DCS
NSC) (CIG) DTC (PWD) (SEP) (CIG) DTC	Mode setting from calling terminal This is a poll operation.	(TSI) DCS (NSF) (CSI) DIS (CRP) (TSI) (NSS)
(TSI) DCS (TSI) (NSS) (PWD) (SUB) (TSI) DCS	Mode setting from manual transmitter or automatic receiver.	CFR FTT (NSC) (CIG) DTC (NSF) (CSI) DIS (CRP)
CTC	Mode setting from the transmitter to the receiver.	CTR) (CRP)
(EOR-NULL)	Indicates the next block transmission from the transmitter to the receiver.	(ERR) (RNR) (CRP)

Table 1 - Common Fax Communication Commands (Continued)

Command	Definition	Appropriate Responses
(EOR-MPS) or (EOR-EOP) or (EOR-EOM) or (EOR-PRI-MPS) or (EOR-PRI-EOP) or (EOR-PRI-EOM)	Indicate the next message transmission from the transmitter to the receiver.	(ERR) (RNR) PIN (CRP)
MPS or EOP or EOM or (PRI-MPS) or (PRI-EOP) or (PRI-EOM)	Post-message commands	MCF RTP RTN PIP PIN (CRP)
(PPS-NULL)	Post-message command for a partial page: from the transmitter to the receiver.	(PPR) MCF (RNR) (CRP)
(PPS-MPS) or (PPS-EOP) or (PPS-EOM) or (PPS-PRI-MPS) or (PPS-PRI-EOP) or (PPS-PRI-EOM)	Post-message commands for a complete page: from the transmitter to the receiver.	(PPR) MCF (RNR) PIP PIN (CRP)
(RR)	Ask for the status of the receiver: from the transmitter to the receiver	(RNR) (ERR) MCF PIP PIN (CRP)
DCN	Phase E command	None

## Fax Confirmation Report

The Transmission Report provides transmission status and activity information about each Fax transmission. Generation of this report is optional and is in an Error Only state by default.

1. Access [Accessing Machine Status/ Tools Menu](#) on page 2-4.
2. From the Control Panel, press the **Machine Status** button.
3. Touch **Tools** > **Service Settings** > **Embedded Fax Settings** > **Setup Fax Reports**.
4. Select **Confirmation Report** to change the Error Only default.
5. Touch **Save** to save the configuration.

**Note:** Also by default, for the ColorQube 8700/8900, the Transmission Report includes a reduced image of the document scanned for faxing. Result codes appear in the Results box. The results format is <code><speed>. The code is listed in [Table 2 - Fax Result Codes](#). Speed is the transmission baud rate (e.g. 14400).

Typically, the results are CP<speed> for a completed Fax. Fax failures (FA) may omit the speed if the system was unable to start the connection. The job termination results (FA, TU, TS) count as errors for the purpose of printing a Transmission Report.

**Table 2 - Fax Result Codes**

Code	Definition	Description
FA	Fax Failed	The system was unable to connect to the Remote Station.
TU	Terminated by user	The transmission was canceled by the user.
TS	Terminated by system	The system ran out of resources. Typically, memory.
CP	Completed	The system was able to deliver the Fax.

## Fax Troubleshooting Procedures

The following provides procedures and suggestions for correcting some common problems.

1. Disable Junk Fax Prevention. This may prevent a Fax being received because the printer does not recognize the sending phone number as an acceptable source. Junk Fax Prevention compares the incoming caller Fax Machine ID with ones listed in the Dial Directory. When not finding a match, the Fax refuses the transmission.
2. Check the phone line. Especially if problems occur during receive and transmit. Does the provider support Fax protocol? Is there noise on the phone line? Is the phone line connected correctly? Is call forwarding on? Is 'Secure Send or Receive' on? All these effect Fax transmission.

In the case of DSL, most DSL configurations share the same phone line with analog signals used by standard phones and dial-up (analog) modems. Typically a filter is installed between the DSL equipment and the analog equipment attached to that line. DSL Performance varies based on the quality and configuration of the specific site and equipment. Note that printer may / may not require an Analog Phone line, some filters work, some don't.

3. Reduce transmission speed. The ColorQube 8700/8900 uses 33.6 kbps by default. Some phone lines and older Fax machines do not support these speeds.

## Troubleshooting Sending or Receiving a Fax

Embedded fax is unable to consistently transmit or receive.

### Initial Actions

- Print a Configuration Report and confirm the model configuration supports Embedded Fax (ColorQube 8700X, 8700XF, 8900X). Also confirm Fax is listed as Installed/ Enabled in the Services section of the report.
- Check the phone line condition and connections. Refer to [Fax Troubleshooting](#) on page 2-437 for additional troubleshooting procedures.
- Check that Fax is configured properly for the local phone line.
- Call the target Fax number from a desk phone and confirm a Fax tone response.
- Power cycle the Printer and confirm the Printer powers up to the *Ready* state.
- If problem persists, follow the procedure below.

**Note:** ColorQube 8700S configuration does not support Fax.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>• Main Controller Board, PL 10.1.3</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Confirm the Fax service is setup. Is the Fax feature box on the Control Panel Features screen grayed out?	Perform the Fax setup in the <a href="#">Embedded Fax</a> menu.	Go to step 2.
2.	Check the Fax line using a phone. Does the phone ring?	Go to step 3.	Inform the customer the phone line requires.
3.	Check the Line 1 Setup settings in the <a href="#">Embedded Fax</a> Menu. Are the settings correct?	Go to step 4.	Modify the settings.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	<p>Check the dialing activity using the system speaker.                      Enable Audio Line Monitor.</p> <ol style="list-style-type: none"> <li>Access the <b>Tools</b> menu (<a href="#">Accessing Machine Status/ Tools Menu</a> on page 2-4).</li> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Press <b>Tools &gt; Service Settings &gt; Transmission Defaults</b>.</li> <li>Select Audio Line Monitor.</li> <li>Select <b>Enable</b>.</li> <li>Touch <b>Save</b>.</li> <li>Adjust volume and time as appropriate.</li> <li>Touch <b>Close</b> to exit.</li> </ol> <p>Does the system Fax Dial?</p>	Go to step 5.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).
5.	<p>Is the problem you are troubleshooting related to receiving a Fax?</p> <p><b>Note:</b> Auto Delay, Junk Fax prevention, or Secure Receive settings might impede inbound calls.</p>	Go to step 6.	Go to step 11.
6.	<p>Check the following settings:</p> <ul style="list-style-type: none"> <li>Auto Answer Delay</li> <li>Junk Fax Prevention</li> <li>Paper Settings</li> <li>Ring Volume</li> <li>Secure Receive</li> <li>Default Output Options</li> </ul> <p>Are the settings correct?</p>	Go to step 7.	Modify the settings.
7.	<p>Is the correct phone number being used to fax to the printer?</p>	Go to step 8.	Enter the correct phone number.
8.	<p>Print an Activity Report:</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Service Settings &gt; Embedded Fax Settings &gt; Print Fax Reports &gt; Activity Report</b>.</li> <li>Touch <b>Print Now</b>.</li> </ol> <p>Do incoming calls appear on the report?</p>	Go to step 9.	Change configuration settings that could impede inbound calls.
9.	<p>Does the remote Fax answer then fail to complete the transmission?</p> <p><b>Note:</b> The system is set to super G3 (33.6 kbps) by default. Some phone lines and older Fax machines do not support this speed.</p>	Reduce the transmission speed until the connection is consistent.	Go to step 10.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
10.	Send a test Fax from a local machine. Does the System answer?	Check the line quality.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).
11.	Check the following settings: <ul style="list-style-type: none"> <li>• Automatic Redial Settings</li> <li>• Automatic Resend</li> <li>• Audio Line Monitor</li> <li>• Send Transmission Header Text</li> <li>• Batch Send</li> </ul> Are the settings correct?	Go to step 12.	Modify the settings.
12.	Check the target Fax number. If the number is in memory, is it saved correctly?	Go to step 13.	Enter the correct phone number.
13.	Does the remote Fax answer then fail to complete the transmission?  <b>Note:</b> The system is set to super G3 (33.6 kbps) by default. Some phone lines and older Fax machines do not support this speed.	Reduce the transmission speed until the connection is established.	Go to step 14.
14.	Send a test Fax to a local machine. Does the System answer?	Go to step 15.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).
15.	Insert a dialing pause following the external access number that precedes the Fax number on many office phone systems. Does the remote machine ring?	Troubleshooting complete.	Select a different access point and retest the connection.

## Noise Troubleshooting

Various noises could occur while the printer is in operation at different stage (refer to Printing Process (Stages)) which consist of different clicking, beeping, and whirring noises. These noises will occur during printing as well as non-printing operations. The noises can range from very slight to somewhat loud, depending on the mode. These should be considered normal operation if they happen only during power up and not during printing.

Noises during printing should be slight and should include a whirring noise as well as paper movement noises. A metallic clicking sound can be heard when the printer prints the second side of a two-sided print.

### Printing Process (Stages)

- **Media Pick and Stage** - There will a click sound as the pick roller is engaged, followed by gear drive and paper noise as the media is staged.
- **Imaging** - During media pick and stage, the image will be applied to the Drum. This consists of a steady whirring sound as the drum is spinning at a constant speed.
- **Printing** - The Drum starts rotating at a speed dependent upon print resolution. As the Drum reaches the correct speed, the jets begin to fire to deposit the image on the oiled portion of the Drum. As the jets fire, the Printhead moves from right to left to complete the image on the Drum.
- **Transfix/ Maintenance Kit Actuation and Sheet Exit** - There will be a burst of noise as the image is transfixed and the sheet exits, as well as loading the Maintenance Kit to oil the drum. The noise will consist of rapid gear mesh squeaks along with roller thumps. In addition, a constant motor buzz will be audible from the Media Path Gearbox.

### Normal Noises

- These noises are considered normal but may sound strange to those unfamiliar with a solid ink printer.

**Table 1 - Normal Noises**

Defect	Description	Noise Sample
<b>Note:</b> Click on each noise sample link under the Noise Sample column to hear the sound sample.		
<b>Printing/ Copying/ Scanning</b>		
<b>Note:</b> Four pages are printed for simplex and duplex sound samples.		
Simplex, A-size, 20lb, Tray 2, Enhanced Mode	The printer makes whirling and paper movement noises while is printing A-size paper Simplex in Enhanced mode.	<a href="#">A-Size Simplex, Enhanced</a>
Duplex, A-size, 20lb, Tray 2, Enhanced Mode	The printer makes whirling and paper movement noises while printing A-size paper Duplex in Enhanced mode.	<a href="#">A-size Duplex, Enhanced</a>



Table 1 - Normal Noises (Continued)

Defect	Description	Noise Sample
<b>Note:</b> Click on each noise sample link under the Noise Sample column to hear the sound sample.		
Simplex, A-size, 20lb, Tray 2, Fast Mode	The printer makes whirling and paper movement noises while printing A-size paper Simplex in Fast mode.	<a href="#">A-size Simplex, Fast</a>
Duplex, A-size, 20lb, Tray 2, Fast Mode	The printer makes whirling and paper movement noises while is printing A-size paper Duplex in Fast mode.	<a href="#">A-size Duplex, Fast</a>
<b>Copying</b>		
Simplex, A-size, 20lb	The printer makes whirling and paper movement noises while copying and printing A-size paper Simplex.	<a href="#">A-size Simplex Copy</a>
Duplex, A-size, 20lb	The printer makes whirling and paper movement noises while copying and printing A-size paper Duplex.	<a href="#">A-size Duplex Copy</a>
<b>Scanning</b>		
A-size, Scan Platen, 600 dpi	The scanner makes whirling noises while copying.	<a href="#">A-size Scanning Platen, 600 dpi</a>
A-size, Scan Platen, 1200 dpi	The scanner makes whirling noises while copying.	<a href="#">A-size Scanning Platen, 1200 dpi</a>
A-size, DADF, 300 dpi	The DADF makes whirling noises while copying.	<a href="#">A-size Scanning DADF, 300 dpi</a>
<b>Finisher</b>		
Simplex, Enhanced Mode	The printer makes whirling and paper movement noises while printing and transferring paper to the Finisher.	<a href="#">Simplex, Enhanced</a>
Simplex, Enhanced Mode, Stapling	The printer makes whirling and paper movement noises while printing, transferring, and stapling paper.	<a href="#">Simplex, Enhanced</a>
Simplex, Fast Mode, Stapling	The printer makes whirling and paper movement noises while printing, transferring, and stapling paper.	<a href="#">Simplex, Fast</a>
<b>Non-Printing</b>		
Ink Loading	The Ink Loader makes clicking sound while loading ink sticks.	<a href="#">Ink Loading</a>
Unlock Ink Loader	The Ink Loader unlocks the gate	<a href="#">Unlock Ink Loader Gate</a>

**Table 1 - Normal Noises (Continued)**

Defect	Description	Noise Sample
<b>Note:</b> Click on each noise sample link under the Noise Sample column to hear the sound sample.		
Enter Power Saver Mode	If the printer sits idle for two hours, it goes into an Energy-saving Standby mode. Two hours after that, the printer goes into a Power Saver (ENERGY STAR) mode. When the printer does this, it tilts the Printhead back into a parked position. This accounts for some of the noises the printer makes after it has been idle for four hours. (The ENERGY STAR time delay may be as long as 4 hours or as short as 30 minutes, depending on what Power Saver Timeout has been set to.)	<a href="#">Enter Power Saver</a>
Exit Power Saver Mode	The printer makes various noises when exiting Power Saver mode.	<a href="#">Exit Power Saver</a>
Power Down	The printer is in progress of powering Off.	N/A

## Abnormal Noises Due to Failures (No Service Faults)

The following noises can occur during printing or non-printing operations. Though they do not result in an obvious loss of functionality or a service fault, they are hardware failures and should be considered abnormal.

**Table 2 - Abnormal Noises to Failures**

Defect	Description	Procedure	Noise Sample
<b>Note:</b> Click on each noise sample link under the Noise Sample column to hear the sound sample.			
<b>Printing</b>			
Drum Ground Plane Rubbing	The Drum ground plane on the left side of the Exit Module is held in place by a post feature of the Exit Module. If the post breaks, the ground plane can come into contact with the Drum Pulley resulting a metallic rubbing noise.	<a href="#">Drum Ground Plane Rubbing</a> on page 2-448	<a href="#">Drum Ground Plane Rubbing</a>
Drum Knocking (Drum Belt)	A defect in the Drum Belt can cause a low pitch knocking sound to occur during the imaging stage of printing.	<a href="#">Drum Knocking (Drum Belt)</a> on page 2-449	<a href="#">Drum Knocking (Drum Belt)</a>
Y-Axis Motor Bearing	A defective Y-Axis Motor bearing can cause a metallic brushing or scraping sound during imaging.	<a href="#">Y-Axis Motor Bearing</a> on page 2-450	<a href="#">Y-Axis Motor Bearing</a>
Tray 1 - Squeaking	Tray 1 may make a squeaking noise when it picks the last sheet from a stack of paper.	<a href="#">Tray 1 - Squeaking</a> on page 2-450	<a href="#">Tray 1 - Squeaking</a>

Table 2 - Abnormal Noises to Failures (Continued)

Defect	Description	Procedure	Noise Sample
<b>Note:</b> Click on each noise sample link under the Noise Sample column to hear the sound sample.			
Tray 1 - Buzzing	The printer makes a buzzing, grinding sound during the print process when Tray 1 Roller is out of position.	<a href="#">Tray 1 - Buzzing, Grinding</a> on page 2-451	<a href="#">Tray 1 - Buzzing</a>
<b>Non-Printing</b>			
Process Motor Gear Box (Transfix Output Gear)	A stripped transfix output gear in the Process Motor Gear Box can cause a tooth skipping noise during startup.	<a href="#">Process Motor Gear Box (Transfix Output Gear)</a> on page 2-452	<a href="#">Process Motor Gear Box (Transfix Output Gear)</a>
Process Motor Gear Box (Compound/ Helical Gear)	A stripped compound or helical gear in the Process Motor Drive can cause a tooth skipping noise during startup and printing.	<a href="#">Process Drive Gear Box (Compound/ Helical Gear)</a> on page 2-454	<a href="#">Process Motor Gear Box (Compound/ Helical Gear)</a>
Gear Skipping (HM Gear Train/MP Gear Box)	It could be due to a loose Head Maintenance Gear Train on the left side of the Exit Module, or a problem within the Media Path Gear Box (007K20040, Media Drive with 2 Clutches).	<a href="#">Gear Skipping (Head Maintenance Train/ Media Path Gear Box)</a> on page 2-456	<a href="#">Gear Skipping</a>

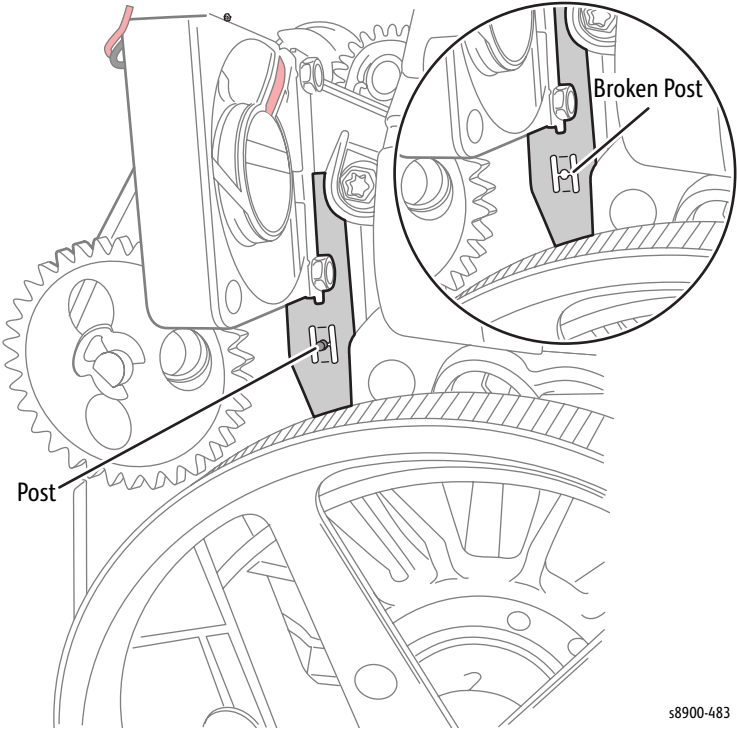
## Drum Ground Plane Rubbing

The Drum Ground Plane on the left side of the Exit Module is held in place by a post feature of the Exit Module. If the post breaks, the Ground Plane can come into contact with the Drum Pulley resulting a metallic rubbing noise.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Exit Module Assembly, PL 11.1.24</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Remove the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Remove the Rear Cover (REP 4.1, <a href="#">page 4-33</a> ). Inspect the Exit Module. Check that the post of the Exit Module is not broken. Is the post broken (see <a href="#">Figure 1 - Broken Post</a> )?	Replace the Exit Module (REP 11.6, <a href="#">page 4-190</a> ).	Troubleshooting complete.
 <p style="text-align: right;">s8900-483</p>			
<b>Figure 1 - Broken Post</b>			

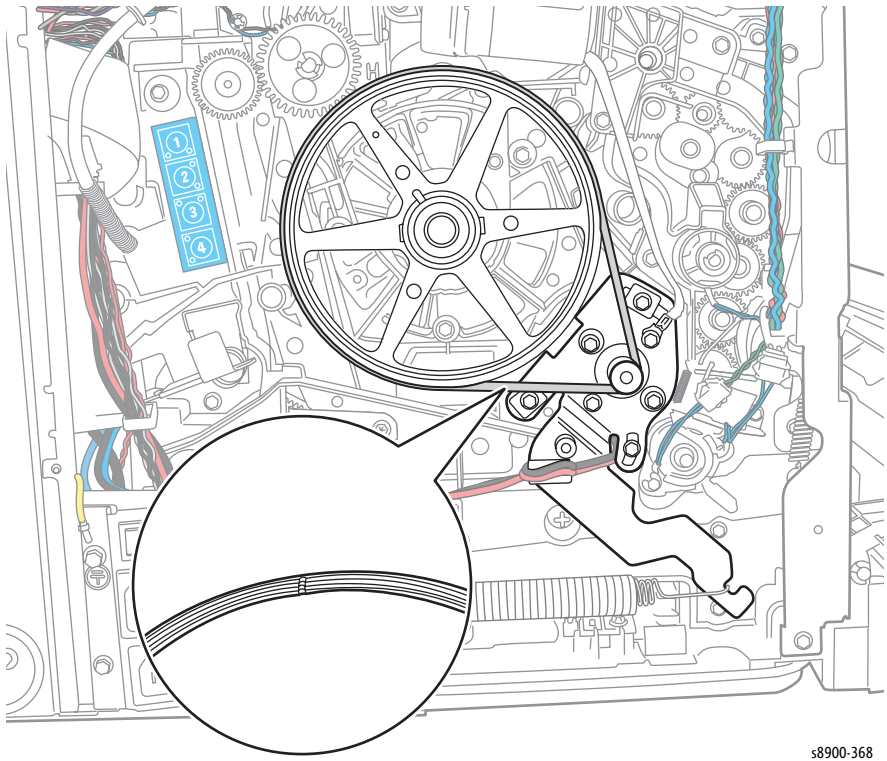
## Drum Knocking (Drum Belt)

A defect in the Drum Belt can cause a low pitch knocking sound to occur during the imaging stage of printing.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Y-Axis Belt, PL 7.1.20</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Is the belt new?	Replace the Drum for a possible bad bearing. (REP 7.13)	Replace the Y-Axis Belt (REP 7.12, <a href="#">page 4-95</a> ).
 <p style="text-align: center;"><b>Figure 1 - Damaged Belt</b></p>			

## Y-Axis Motor Bearing

A defective Y-Axis Motor bearing can cause a metallic brushing or scraping sound during the imaging stage of printing.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Y-Axis Motor Assembly, PL 9.1.9</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Is there a metallic brushing or scraping sound during imaging? Is there black dust or debris from the bearing under either end of the Motor? If you remove the belt does the motor spindle feel loose due to a bad bearing?	Replace the Y-Axis Motor Assembly (REP 9.2, <a href="#">page 4-135</a> ).	Troubleshooting complete.

## Tray 1 - Squeaking

Tray 1 may make a squeaking noise when it picks the last sheet from a stack of paper. In some cases, depending on the type of paper being used, the squeaking sound may be noticed during the picking of any sheet of the stack.

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Separator Pad Kit, PL 8.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check that the squeaking is not too loud. Is the squeaking sound loud?	Replace the Separator Pad Kit (REP 8.6, <a href="#">page 4-127</a> ).	Troubleshooting complete.

## Tray 1 - Buzzing, Grinding

The printer makes a buzzing, grinding sound during the print process when Tray 1 Roller is out of position.

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Check for a buzzing, grinding sound during the print process.</p> <p>Is there a buzzing, grinding sound?</p>	<p>Open and close Tray 1. This will reset the Pick Roller position and should eliminate the noise.</p>	<p>Troubleshooting complete.</p>

## Process Motor Gear Box (Transfix Output Gear)

A stripped Transfix Output Gear in the Process Motor Gear Box can cause a tooth skipping noise during startup.

### Troubleshooting Reference

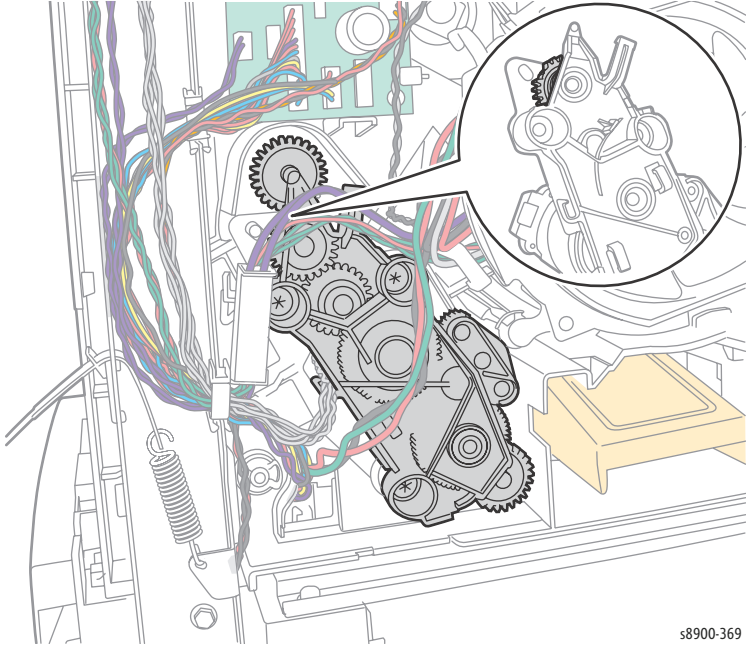
Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Process Drive with Gear Box and Motor, PL 9.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for tooth skipping noise during printer startup. Is there a tooth skipping sound?	Go to step 3.	Go to step 2.
2.	Check and tighten loose fasteners to 12 in-lbs to secure the Process Drive. Does the error persist?	Replace the Process Drive Assembly (REP 9.5, <a href="#">page 4-142</a> ).	Troubleshooting complete.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Remove the Process Drive Assembly (REP 9.5, <a href="#">page 4-142</a> ). Check the Process Drive for stripped Gear (see <a href="#">Figure 1 - Stripped Gear</a> ). Is the Transfix Output Gear on the Process Drive stripped?	Replace the Process Drive Assembly (REP 9.5, <a href="#">page 4-142</a> ).	Troubleshooting complete.
 <p style="text-align: right; font-size: small;">s8900-369</p>			
<b>Figure 1 - Stripped Gear</b>			

## Process Drive Gear Box (Compound/ Helical Gear)

A stripped compound or helical gear in the Process Motor Drive can cause a tooth skipping noise during startup and printing.

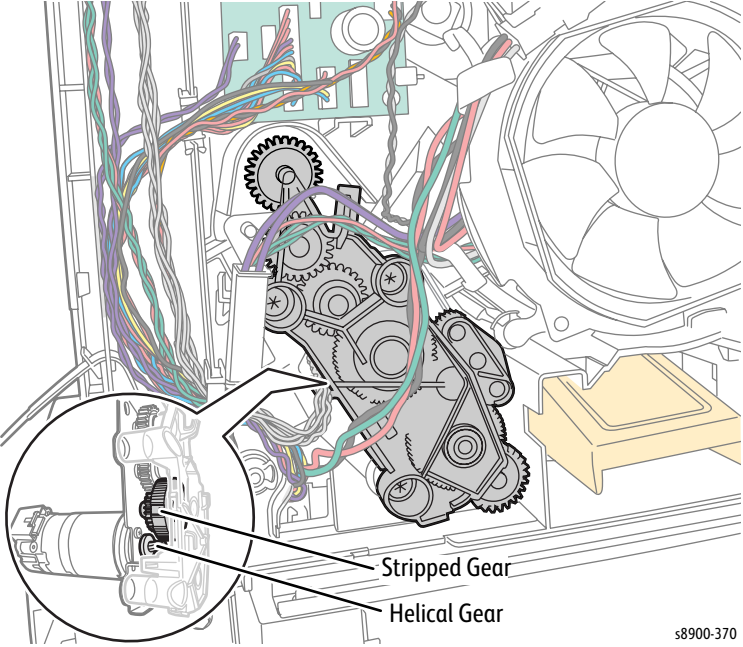
### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Process Drive with Gear Box and Motor, PL 9.1.7</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for tooth skipping noise during printer startup and while printing. Is there a tooth skipping sound?	Go to step 3.	Go to step 2.
2.	Check and tighten loose fasteners to 12 in-lbs to secure the Process Drive. Does the error persist?	Replace the Process Drive Assembly (REP 9.5, <a href="#">page 4-142</a> ).	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Remove the Process Drive Assembly (REP 9.5, <a href="#">page 4-142</a> ). Check the Process Drive for stripped Gear (see <a href="#">Figure 1 - Stripped Gear</a> ). Is the Compound/Helical Gear on the Process Drive stripped?	Replace the Process Drive Assembly (REP 9.5, <a href="#">page 4-142</a> ).	Troubleshooting complete.
 <p style="text-align: right; margin-right: 50px;">s8900-370</p> <p style="text-align: center;"><b>Figure 1 - Stripped Gear</b></p>			

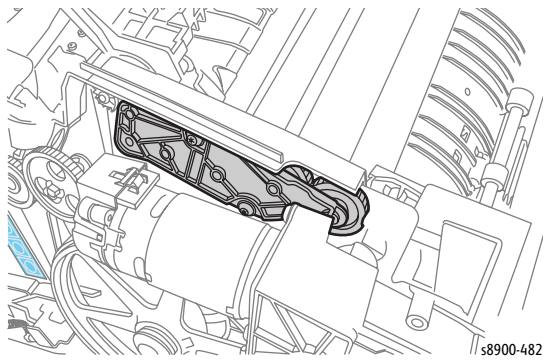
## Gear Skipping (Head Maintenance Train/ Media Path Gear Box)

There is a gear skipping noise coming from the left side of the printer. It could be due to a loose Head Maintenance Gear Train on the left side of the Exit Module or a problem within the Media Path Gear Box (Media Drive with 2 Clutches).

### Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack Map References
<ul style="list-style-type: none"> <li>Media Drive with 2 Clutches, PL 9.1.1</li> </ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for gear skipping noise on the rear side of the printer. Is there a gear skipping sound?	Go to step 2.	Troubleshooting complete.
2.	Remove the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ). Remove the Rear Cover (REP 4.1, <a href="#">page 4-33</a> ). Remove the Stay Bracket (REP 12.1, <a href="#">page 4-201</a> ). Loosen the Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ). Check the Head Maintenance Gear Train on the left side of the Exit Module (see <a href="#">Figure 1 - Exit Module</a> ). Is the Head Maintenance Gear Train loose?	Tighten the Head Maintenance Gear.	Go to step 3.
3.	Check the Media Drive Assembly for damage. Is the Media Drive Assembly damaged?	Replace the Media Drive Assembly (REP 9.1, <a href="#">page 4-131</a> ).	Troubleshooting complete.
			
<b>Figure 1 - Exit Module</b>			

## Other

Ensure the Tilt Gear Noise Damper is correctly installed on the Tilt Gear Shaft and secured in place with its KL-clip.

# USB Port Testing

In situations where USB communications fail, test the printer's USB Port directly using a USB cable and a second, known good USB Port. A successful test using this procedure eliminates the printer's USB Port as the root cause.

## Initial Actions

- Check that the driver software is properly installed on the host.
- Make sure the USB cable is connected at both ends and is serviceable.
- Print a Configuration page and verify that USB 2.0 is enabled in the printer's NVRAM.
- Reboot the printer.
- If the problem persists, follow the procedure below.

**Note:** The testing procedure was developed for Windows XP. If a different operating system is in use, adapt the steps as necessary.

## USB Port Verification

1. Verify that the printer is Ready.
2. Insert the "Software and Product Documentation" CD-ROM into the computer.
3. If the installer autoruns, exit the installer window.
4. Connect a USB cable between the printer and computer's USB Ports. The computer automatically detects the new hardware and assigns a driver.

**Note:** If the driver is not installed on the computer, locate the driver files on the CD-ROM. Once the files are located, the computer installs the driver and automatically configures it to match the printer's feature set.

5. On the computer, click **Start > Settings > Printers and Faxes**.
6. Locate the printer being tested, right-click and from the pull-down menu, select **Properties**.
7. Open the **General** tab and click the **Print Test Page** button to generate the test print. If the test page prints, the USB port is functioning normally.

# Network Troubleshooting

This procedure details a method of troubleshooting network printing problems. Perform Network Diagnostics to run a test on the TCP/IP connection (Ethernet Port).

## Windows Ethernet Port Verification

1. Connect a crossover cable between the printer and computer's Ethernet Ports.
2. Verify that the printer is *Ready*.
3. From the computer menu, click **Start > Run** at the computer to access the Run dialog.
4. In the Run, type in **cmd** and click **OK** to launch the MS-DOS command window.
5. At the MS\_DOS command prompt, type **ipconfig** and press **Enter** to display the computer's *IP Address, Subnet Mask, and Default Gateway*.
6. Print the Configuration page to verify that TCP/IP is enabled and obtain the current TCP/ IP values stored in the printer's NVRAM.

**Note:** Configure the printer's TCP/IP network parameters to enable direct communication with the computer.

7. Disable DHCP/BOOTP and AutoIP on the printer.
8. Select an IP address for the printer that matches the computer, except for the last field, which must be unique.
9. Edit the printer's *Gateway* and *Subnet Mask* to match the computer.
10. At the MS\_DOS command prompt, type **ping** followed by a **space** and the printer's IP address, and then press **Enter**. If the number of packets sent and received match, the Ethernet Port is functional. If the request times out and fails to reply, either the cable or the port is defective.

## Ethernet Port Verification for LOCAL LINK Default IP Addresses

An alternate method is required to test the Ethernet port when the PC's IP address falls within the range 169.254.xxx.xxx. PCs that have not been configured for a specific network default to a "LOCAL LINK" value within the 169.254.xxx.xxx range.

### Notes:

- To comply with industry standards, ColorQube products cannot be manually configured for IP addresses within the LOCAL LINK range.
  - Always print the Configuration page to obtain a record of the printer settings before changing the IP address. After testing the printer, be sure to restore the printer's original network settings.
1. Connect a crossover cable between the PC and printer.
  2. Verify the printer is *Ready*.
  3. Use the printer's control panel to enable **AutoIP**:
    - a. From the printer's Control Panel, enter **Machine Status** menu ([Accessing Machine Status/Tools Menu](#) on page 2-4).
    - b. Touch **Tools** > **Network Settings** > **Advanced Settings**.
    - c. A **Warning** screen is displayed. Touch **Continue** to proceed with the procedure.
    - d. Select **Ethernet Physical Media**.
    - e. Select **Auto**.
    - f. Touch **Save**.
  4. After the printer's IP address is set, test communication by sending the "PING" command.
  5. If the test fails, install a different cable and retest.



## Mac OS X Ethernet Port Verification

### For Mac OS 10.5.x/ 10.6.x/ 10.7.x

1. Turn the printer On and wait until it is *Ready*.
2. To check the computer's TCP/IP settings, use the Apple menu to select **System Preferences**.
3. Select **Network**.
4. Select **Ethernet** in the left column of the Network window.
5. The computer's IP Address, Subnet Mask, and Gateway should be displayed on the Network window after selecting Ethernet (in step 4 above).
6. Print the Configuration page and verify that TCP/IP is enabled on the printer.
7. Select an IP address for the printer that matches the computer, except for the last field, which must be unique.
8. Edit the printer's *Gateway* and *Subnet Mask* to exactly match the computer's.
9. Connect a crossover cable between the Ethernet Ports on the printer and the Mac.
10. Test the application using Network Utility by double-clicking the hard drive icon.
11. Select **Applications > Utilities > Network Utility**.
12. Click the **PING** tab.
13. Enter the printer's IP address.
14. Configure the utility to ping the printer four times. The test will end after four attempts.
15. Click the **PING** button to complete the test.
16. If the number of packets sent and received match, the test was successful and the Ethernet port is functioning.

### For Mac OS 10.4.x

1. Turn the printer On and wait until it is *Ready*.
2. To check the computer's TCP/IP settings, use the Apple menu to select **System Preferences**.
3. Select **Network**.
4. Select **Show Built-in Ethernet**.
5. Click the **TCP/IP** tab and record the computer's IP Address, Subnet Mask, and Gateway.
6. Print the Configuration page and verify that TCP/IP is enabled on the printer.
7. Select an IP address for the printer that matches the computer, except for the last field, which must be unique.
8. Edit the printer's *Gateway* and *Subnet Mask* to exactly match the computer's.
9. Connect a crossover cable between the Ethernet Ports on the printer and the Mac.
10. Test the application using Network Utility by double-clicking the hard drive icon.
11. Select **Applications > Utilities > Network Utility**.
12. Click the **PING** tab.
13. Enter the printer's IP address.
14. Configure the utility to ping the printer four times. The test will end after four attempts.
15. Click the **PING** button to complete the test.

16. If the number of packets sent and received match, the test was successful and the Ethernet port is functioning.

## Obtaining Serial Back Channel Trace

In rare cases the printer may exhibit unusual behavior that is difficult to troubleshoot. In such cases, if feasible, it can be useful to obtain a Back Channel Trace from the printer's on-board serial port. The Back Channel Trace, lists step-by-step what the printer is doing up to the point that an error occurs. The trace may offer clues to help troubleshoot the problem.

**Note:** For Windows 7, download a third party software such as Tera Term or PuTTY in place of HyperTerminal.

### Required Tools

- Computer with a serial port or a USB to Serial DB9 adaptor
- Serial Null Modem Cable - P/N 600T80375
- Serial Adapter Cable - P/N 600T80374

### Procedure

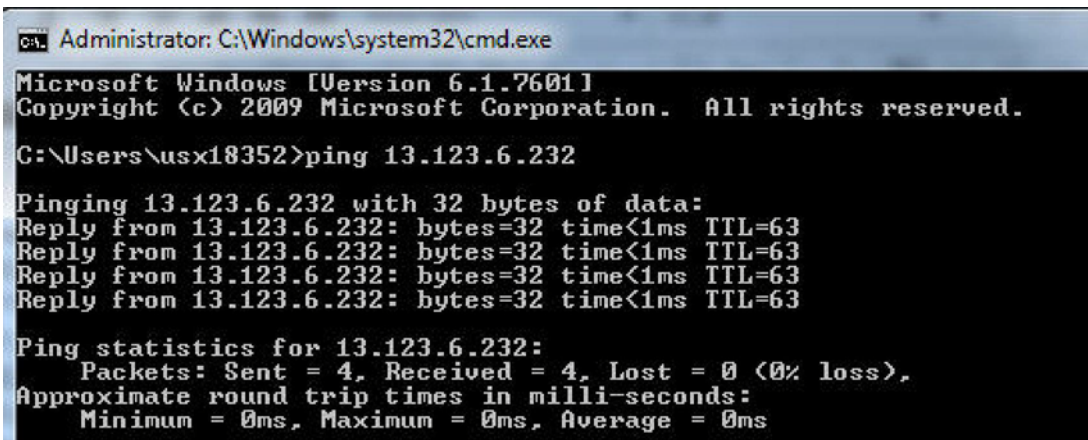
1. Connect the serial cable to the computer. Serial port settings are **115.2 kbaud, 8 bits, None Parity, 1 Stop bit**, and **Hardware Control** or **Xon/ Xoff** for bi-direct communication.
2. Turn Off the printer.
3. Connect the serial cable with adapter to the 5-pin connector (J14). The label **THIS SIDE UP** of the serial port adapter should face towards the back of the printer.
4. Start up a terminal program such as in MS Window's HyperTerminal (usually located in **Programs > Accessories > Communications > HyperTerminal**). Ensure the serial port settings, usually COM1: is correct.
5. Turn On the printer.

The trace should appear in the terminal dialog window. Examine the trace to troubleshoot the problem. Save the trace as a file, if necessary.

# Operating System and Application Problems

## Verify Settings

1. Verify the settings on the Configuration page.
  - TCP/IP v4: Enabled
  - IP Address: xxx.xxx.xxx.xxx
  - Subnet Mask: 255.xxx.xxx.xxx
  - Router/Gateway: xxx.xxx.xxx.xxx
  - Automatic Addressing: DHCP or Disabled
  - DHCP Server: xxx.xxx.xxx.xxx
  - Self Assigned Address State: Enabled or Disabled
  - Self Assigned Address: xxx.xxx.xxx.xxx
  - LPR/LPD: Enabled or Disabled
  - Port Number: 515
2. Ping the printer (from a PC):
  - a. Open a Windows command prompt.
  - b. Type 'ping printer IP's' address.
  - c. Verify that there is communication between the printer and the computer.
3. Verify that the client is logged on to the network and printing to the correct print queue. The user should also have access to the printer queue.



```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\usx18352>ping 13.123.6.232

Pinging 13.123.6.232 with 32 bytes of data:
Reply from 13.123.6.232: bytes=32 time<1ms TTL=63
Reply from 13.123.6.232: bytes=32 time<1ms TTL=63
Reply from 13.123.6.232: bytes=32 time<1ms TTL=63
Reply from 13.123.6.232: bytes=32 time<1ms TTL=63

Ping statistics for 13.123.6.232:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

## Windows XP, Windows 7/ Vista, Windows Server Troubleshooting

**Note:** For Windows XP, select Classic Look or Windows XP procedures will not match the following procedures.

1. To select **Classic Look**, click **Start**, select **Control Panel**, and select **Taskbar** and **Start Menu**.
2. Select the **Start Menu** tab and then **Classic Start Menu**.
3. Click **OK**.

This troubleshooting section assumes you have completed the following tasks.

- Loaded a Phaser printer PCL or PostScript printer driver.
- Printed and kept a current copy of the Configuration page.

### Verify Driver Installation

1. From the desktop, right-click **My Network Places**, and select **Properties**.
2. Right-click **Local Area Connection** and select **Properties**.
3. Click the **General** tab. View the list of installed network protocols to verify that TCP/IP is installed. (For more information, contact your network administrator.)
4. Click **Install** to install any components not listed, and then restart your computer.
5. From the **Start** menu, select **Start > Settings > Printers and Faxes**.
6. Right-click the printer icon, and select **Properties**.
7. Click the **Advanced** tab. Verify that the correct printer driver is installed.
8. Click the **Ports** tab. Verify that the IP Address in the **Print to the Following Ports** list is identical to the one on the Configuration page. You may need to click the **Configure Port** button to see the IP address. If necessary, re-select the TCP/IP number used for the printer.
9. Try to ping the printer.
10. Access the CentreWare IS.

### Windows Printing Problems

1. Try printing a test page from the printer driver's Properties dialog box.
2. Try printing from another application.
3. Try printing to another network printer.
4. Try printing from another computer.

## Macintosh Troubleshooting (Mac OS 10.5 and Higher)

The following procedures eliminates cabling, communication, and connection problems. Once you complete these steps, print a test page from your software application.

**Note:** If the job prints, no further troubleshooting is necessary. If there are print-quality problems, refer to the User Guide at [www.xerox.com/office/8700support](http://www.xerox.com/office/8700support).

### Verify the settings on a Macintosh

- Configure IPv4: Manually
- IP Address: xxx.xxx.xxx.xxx
- Subnet Mask: 255.xxx.xxx.xxx
- Router: xxx.xxx.xxx.xxx
- DNS Server: xxx.xxx.xxx.xxx
- Server Domain: xxx.xxx.xxx.xxx
- IPv6 Address: xxxx:xxx:xxxx:xxx:xxx:xxx:xxxx

### Macintosh Troubleshooting OS 10.5 Step-by-Step

Perform these steps only for Mac OS 10.5 and higher.

1. Open the **Network Utility** and click the **Ping** tab.
2. Enter the printer's IP address.
3. Click **Ping**. If you do not get a response, verify that your TCP/IP settings are correct for your printer and computer.

**Note:** See also: [www.xerox.com/office/8700support](http://www.xerox.com/office/8700support)

### Macintosh Printing Problems

**Note:** The following steps are for diagnosing a networked printer running Mac OS X, version 10.5 or later, and assume that CentreWare access is enabled. If you are using Mac OS X, but an earlier version than 10.5, upgrade first.

1. Cycle power the printer Off and On, and then try printing again.
2. Determine the printer's IP address from the Control Panel or Startup page. Return the Control Panel to the initial menu, and then check to make sure it indicates Ready to Print.
3. Make sure you can connect to the printer via network from the host: Open a Safari or Internet Explorer window to the printer's IP address.
  - a. If you cannot see the CentreWare IS page from the printer CentreWare IS web server, the printer may be Off, on a different network, or the host is not networked correctly. Try Steps **b** through **f** to correct the problem. If you make any changes to the network, try printing the job again.
  - b. Open **System Preferences**, select **Network > Ethernet > Advanced > TCP/ IP** tab. Make sure you have a valid IP address. Correct the settings and retry if needed.

- c. If you are on a network with a proxy server, ensure the local connections are excluded from the proxy. Check **System Preferences > Advanced > Proxies** tab; in the **Bypass proxy settings for these Hosts and Domains**, ensure the local network devices are excluded from proxy redirection.
    - For example: If you open Safari to the printer IP and get an error message similar to Error – the request item could not be loaded by the proxy, you are probably accessing the proxy server for a local address. This is incorrect.
  - d. Open the **Terminal** tool located at **Applications > Utilities**, and select **New Window**. Once you have a prompt, try network connectivity using the Ping command.
    - For example: ping 13.62.70.112 checks for echo replies from the printer with that IP address.
  - e. In the Terminal tool, try using Traceroute to determine if you are on the same subnet as your system.
    - For example: traceroute 13.62.70.112 should produce exactly one hop before completing the trace. Correct as needed, and retry your print job.
  - f. If you still cannot connect to the printer via network, try another computer.
4. If there is still no output, try printing from a simple application. In the **Applications** folder, locate and open **TextEdit**, select **New File**, and create a small test document. From the **File** menu, select **Print**.
  5. In the **Applications** folder, locate the **TextEdit** tool and try to print the document again.
    - a. Once you have opened a document or created a new document, from the **File** menu, select **Print**.
    - b. Click on the **Printer** pull-down menu, and select your **ColorQube 8700/8900** printer. If your printer is not listed, then select **Add Printer**.
    - c. From the pull-down menu, select **Internet Printing Protocol - IPP or Line Printer Daemon - LPD**. Enter the printer's IP address in the **Printer's Address** text area.
    - d. From the pull-down menu, click **Print Using**, and **Select a driver to use**, and then select **XEROX**. A scrolling list should display.
    - e. Pick the **Xerox ColorQube 8700/8900** configuration. You can check the exact configuration on the printer's Startup page in the upper right corner.
    - f. The newly added printer displays in bold on the printer list, indicating it is the default printer. When you are done adding the new printer, close the **Printer List** dialog.
    - g. From the **Printer** pull-down menu, select your printer. In the dialog box, click **Print**.
  6. If you can print from the **TextEdit** tool, but cannot print from your application, the problem is likely in your application. Check for upgrade availability or contact the application vendor for further diagnosis.

## UNIX/ Linux

This section includes:

- Quick Install Steps
- Additional Resources

Your printer supports connection to a variety of UNIX platforms through the Network interface. The workstations currently supported by CentreWare for UNIX/ Linux to a network-connected printer are:

- Sun Solaris
- IBM AIX
- Hewlett-Packard HP-UX
- Linux (i386) tested on SUSE 10.0, RedHat 9, Fedora Core1

The following procedures enable you to connect your printer using any of the supported versions of UNIX or Linux listed above.

### Quick Install Steps

Perform the following procedures to set up the printer and install the appropriate drivers.

#### From the Printer

To set up the printer:

1. Verify that both TCP/IP protocol and the proper connector are enabled.
2. On the Control Panel, select one of these IP address options:
  - Allow the printer to set up a DHCP address
  - Enter the IP address manually
3. Print the Configuration page and keep it for reference.

#### From Your Computer

To install the CentreWare for Unix driver:

1. Go to [www.xerox.com/office/8700drivers](http://www.xerox.com/office/8700drivers).
2. Under the **Operating System** pull-down menu, select the platform your are running (UNIX), and file type (Drivers).
3. Click **Go to Downloads**.
4. From the list of provided files, download the **PrinterPackageXPXX** and the appropriate CentreWare printer driver for your platform <OS>XPXX 4.xx.x.tar.
  - a. As root untar the Driver and Printer package, this will create two subdirectories. Cd to <O/S>InstallPackage and type `./setup` to install the driver.
  - b. CD to the **PrinterPackagexpxx** and type `./setup` to install the printer specific data files.
  - c. Type `xpadmin` to open the admin tool for creating print queues. Select the printer from the list of discovered printers you want to print to. Click on the printer icon at the top left of the screen to add a print queue.

5. Print a test page and verify the print quality of the printed page.

**Note:** If print-quality problem exists, or your job did not print, refer to the User Guide at [www.xerox.com/office/8700support](http://www.xerox.com/office/8700support).



## Printhead Cleaning Cycle

**Note:** If the cleaning process is interrupted (i.e., open any door), the entire cycle will restart. This may increase the amount of ink in the Waste Tray if more than one pressure purge (step 4) occurs.

If the Printhead, Ink Reservoirs, or Jetstack temperature are below purge threshold, the printer performs a head clean cycle.

1. The printer waits for the Printhead to reach its purge temperature.
2. The printer moves the Wiper Blade to the bottom of its travel and tilts the Printhead forward to its print position to check the ink levels. If the ink level is low, ink is melted into the appropriated reservoirs.
3. The Printhead tilts to the Standby position and moves the Wiper Blade to the purge position in front of the Printhead faceplate.
4. The Purge Pump begins the pressure purge. After about 3 seconds, the Purge Pump Solenoid opens.
5. The Printhead tilts forward against the Wiper Blade and the purge and wipe cycle begins.
6. The Control Panel indicates the printer is performing the cleaning process.
7. The Printhead is moved left to the tilt zone, where the Printhead can tilt back without interference, and the Media Drive motor moves the Wiper Blade to the bottom of its travel to engage the PrintHead Tilt Cam. The Process Drive motor rotates the Printhead tilt gears, which move the Printhead to the forward print position.
8. The temperature of the Printhead, Drum and Preheater are allowed to stabilize at their operating temperatures and ink is melted if needed.
9. The Printhead is homed to the Print position for printing.
10. A *Cleaning* page is printed at this time, if a purge was performed.
11. A *Configuration* page is printed (if enabled).
12. The Control Panel displays a message that the printer is initializing and then displays *Select a Service message* at the Home screen.

## Printhead Troubleshooting Checklist

The Printhead Troubleshooting Checklist provides the procedure for troubleshooting Printhead problems. Complete this checklist as part of the Printhead replacement process.

**Note:** The Printhead Troubleshooting Checklist is available at the end of this ColorQube 8700/8900 Service Manual and it is also included with a new Printhead.

# Image Quality

# 3

This chapter includes:

- [Print-Quality Problems Overview](#)
- [Checklist Before Troubleshooting Print-Quality](#)
- [Print-Quality Troubleshooting](#)
- [Copy/ Scan Troubleshooting](#)
- [Test Prints](#)
- [Image Quality Specifications](#)

## Print-Quality Problems Overview

Print-quality defects can be attributed to printer components, consumables, paper, internal software, external software applications, and environmental conditions. To successfully troubleshoot print-quality problems, eliminate as many variables as possible. The first step is to generate prints using information pages embedded in the printer on laser paper from the Recommended Media List (RML). Refer to [Media and Tray Specifications](#) on page 1-54 for supported and specialty paper that have been tested and approved for use in the ColorQube 8700/8900 v1/v2/v3 printer. Use paper from a fresh ream that is acclimated to room temperature and humidity.

Print the Configuration page to determine the temperature and humidity under which the printer is operating. Compare this to the [Environmental Specifications](#) on page 1-49. Extreme temperature and humidity can adversely affect the xerographic and fusing characteristics of the printer.

When analyzing a print-quality defect, first determine if the defect occurs in all colors or only one color and if it is repeating or random occurrence.

# Checklist Before Troubleshooting Print-Quality

## Checking the Printer Condition

### Cleaning

Paper, ink debris, and dust particles can accumulate inside the printer and cause print-quality problem such as Smearing. Clean the inside of the printer to prevent these problems.

### Operating Environment

Check the temperature, humidity, clearances, and supporting surface meet specifications. Refer to [Environmental Specifications](#) on page 1-49 in Chapter 1 (General and Operational Overview).

### Media Condition

Paper should be fresh and stored in the operating environment for 12 hours before use for printing. The print-quality is best when quality paper is fed from the tray. The print quality is evaluated on the maximum size of each centerline media. Check the condition and type of media loaded. Refer to [Media Guidelines](#) on page A-2 in Appendix A for details on determining proper media condition.

- Color Print Quality: Xerox-brand X-Pression paper
- Black and White Quality: Xerox-brand 4200 paper

### Printer Condition

The specified print quality is guaranteed with the printer in specified normal environmental condition.

### Environmental Condition

- Temperature: 10° C - 32° C (50° F - 89.6° F)
- Humidity: 10 % RH - 85 % RH (85 % RH at 28° C) (82.4° F)

**Note:** Defects may occur due to condensation after around 30 minutes if the printer is turned On in a critical environment such as 85 % at 10° C (50° F).

# Print-Quality Troubleshooting

## Print-Quality Defect Definitions

The following table lists the print-quality defect corrective procedure, their definition, and the page where each procedure is provided.

### Print-Quality Definitions

Defect	Description	Page
IQ1 - Image Quality Entry	General information.	3-7
IQ2 - Light Stripes (Weak or Missing Jets)	There is one or more color bars are missing on the page.	3-10
IQ3 - Missing Ink, Stripes, Scratches or Marks Down the Print or Parallel to the Long Axis of Media	Color bars of all 4 colors are missing on the page.	3-16
IQ4 - Random Spots of Ink/ Streaks, Smudges, or Smears Along Long Axis of Print	Ink displaced in the process direction. Variation in gloss seen as a line in the process direction.	3-19
IQ5 - Partial Image/ Color Missing/ Massive Jet Loss	All of the image does not transfer to the paper.	3-22
IQ6 - The Printed Image is Too Light or Too Dark	The overall image density is too light or too dark.	3-24
IQ7 - No Image is Printed	The entire image area is blank.	3-27
IQ8 - Color is Uneven or Wrong (Uniformity)	How dark or light a single color appears in multiple areas.	3-29
IQ9 - Skew	The printed image is not parallel with both sides of the paper.	3-32
IQ10 - Ink Ghosting/ Extra Ink or Residual Image	Color on a print where no color should be printed is often called a latent image.	3-34
IQ11 - Fuzzy or Blurry Printing	The image or text appears blurry on the page.	3-37
IQ12 - Vertical Lines Appear Wavy	The printed image has vertical image distortion in the direction of the paper travel.	3-41
IQ13 - Gloss Ghosting/ Latent Image	Latent gloss image	3-44
IQ14 - Oil on Print	Oil stains the edge of the print.	3-47
IQ15 - Incomplete Image Transfer, Drop Out, Missing Pixels	Portion of image is not transferred from the Drum to page.	3-49

**Print-Quality Definitions (Continued)**

<b>Defect</b>	<b>Description</b>	<b>Page</b>
<a href="#">IQ16 - Repeating Print Defects</a>	Image defect occurring at regular intervals.	<a href="#">3-54</a>
<a href="#">IQ17 - White Stripes (Pinstripes)</a>	This print-quality problem has a series of regularly spaced white stripes approximately 0.7 mm (0.03 in.) apart.	<a href="#">3-56</a>
<a href="#">IQ18 - Media Wrinkling or Damage</a>	Areas of prints have distinctive "worm track" patterns, and/or wrinkles in the paper itself.	<a href="#">3-59</a>
<a href="#">IQ19 - Image is Offset or Cutoff</a>	Image is not centered on the page.	<a href="#">3-61</a>
<a href="#">IQ20 - Poor Ink Adhesion, Poor Image Durability</a>	The overall image density is too light in all colors.	<a href="#">3-63</a>
<a href="#">IQ21 - Gloss Irregularities</a>	Variations in the glossiness of the printed image.	<a href="#">3-66</a>
<a href="#">IQ22 - Grainy</a>	Speckled or sand-like appearance in what is meant to be a smooth area.	<a href="#">3-68</a>

The following table provides definitions of various defects that are not referenced in the Print-Quality troubleshooting procedures.

**General Print-Quality Definitions**

<b>Defect</b>	<b>Description</b>
Banding	Image irregularities along the short axis of media.
Blistering	A solid fill area has a textured appearance that sometimes cause ink to flake off the media when rubbed.
Blocking	Ink transfer from an adjacent print in the stack.
Cohesion	Incomplete image transfer to media.
Contamination	Ink or other debris easily wiped from image or component.
Damage	The media is cut, wrinkled, or folded.
Ink Discoloration	Color shift due to the ink remaining molten but unused in the delivery path for long periods of time or different ink colors mixing.
Intensity	How dark or light a color appears (saturation).
Latent Image	A faint outline of a previous image is seen as variation in gloss on a subsequent image.
Offset	Image placement on media is shifted or cut off.
Pixel	Single drop of ink.
Process Defect	Media or image irregularity from media transport.

**General Print-Quality Definitions (Continued)**

<b>Defect</b>	<b>Description</b>
Residual Image	Ink from a previous print is deposited onto a subsequent print.
Roller Mark	A gloss line or ink smudge along the long axis of the media caused by a Roller.
Spot	One or more random spots transfixed to the media.
Stripper Blade Marks	Line along the short axis of media caused by the Stripper Blade.
Void	Area of image without ink.



## IQ1 - Image Quality Entry

The purpose of this procedure is to establish the source of the imaging defect. After following the Initial Actions, select the procedure that best describes the observed defect.

### Initial Actions

Computer applications, hardware malfunctions, or communication can cause print-quality issues. Hardware failures that result in image quality problems can occur in the Print Engine.

Use the following steps to determine which part of the printer is at fault.

1. Cycle power to the printer.
2. Print the [2-Sided Demo](#) page from the Control Panel.
  - a. Press the **Machine Status** button.
  - b. Touch **Machine Information** > **Information Pages**.
  - c. Scroll down the menu and select **2-Sided Demo Page**.
  - d. Touch **Print** to print the page.
3. If the image defect appears on the printed page, the problem is within the Print Engine. When analyzing a print-quality defect from a Print Engine malfunction, determine if the defect occurs:
  - in all colors
  - in only one color
  - as a repeating or random defect

**Note:** The paper should be from an unopened ream that has been acclimated to room temperature.

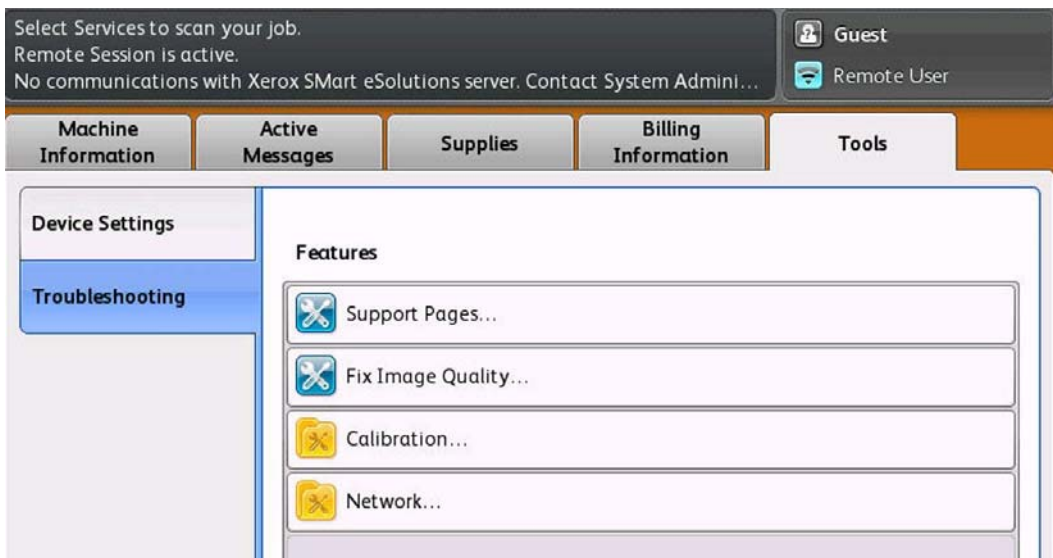
## Diagnosing Print-Quality Problems

The Troubleshooting Print Quality page includes instructions for printing the Light Stripes test print and a good overview of the most common print quality problems. The Eliminate Light Stripes test print indicates individual weak or missing jets or an obstruction in the imaging path that affects a vertical band down the entire page. Also, you may see color variation from jet to jet on the Light Stripes test print. Some variation is normal, occasionally occurs, and usually self-corrects within a few printed pages. If a print-quality problem is not resolved with the information provided in the Diagnosing Print-Quality Problems section, refer to the [Test Prints](#) on page 3-88.

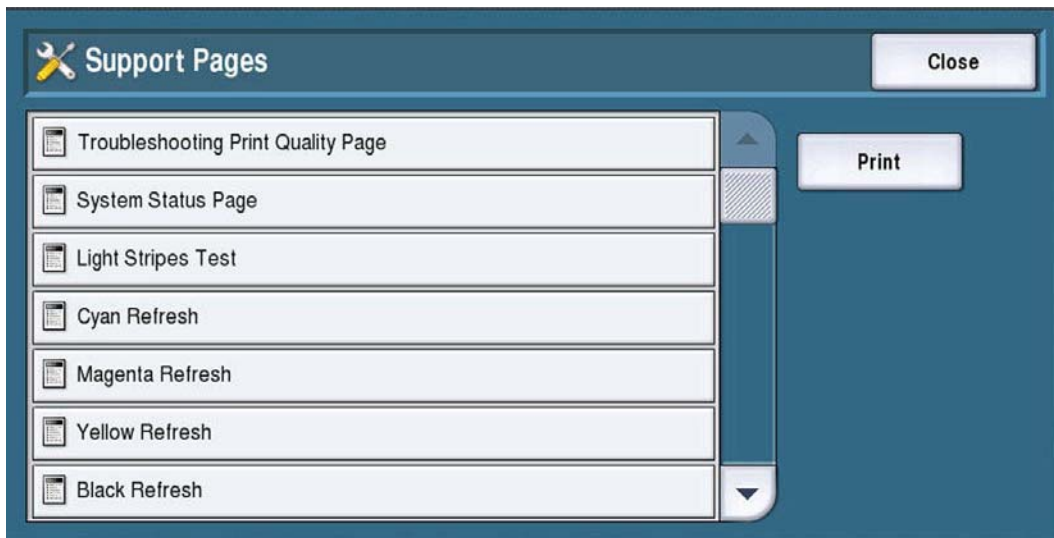
### Printing the Troubleshooting Print Quality Page:

**Note:** The [Troubleshooting Print Quality](#) pages include five pages with information on correcting print quality problems.

1. From the Control Panel, press the **Machine Status** button.
2. Touch **Tools**.
3. Touch **Troubleshooting**.
4. Touch **Support Pages**.



5. Select **Troubleshooting Print Quality Page**.
6. Touch **Print** to print the pages.



## IQ2 - Light Stripes (Weak or Missing Jets)

Light stripes typically result from an obstructed Printhead jet. Most jet obstructions are caused by paper fibers or air bubbles.

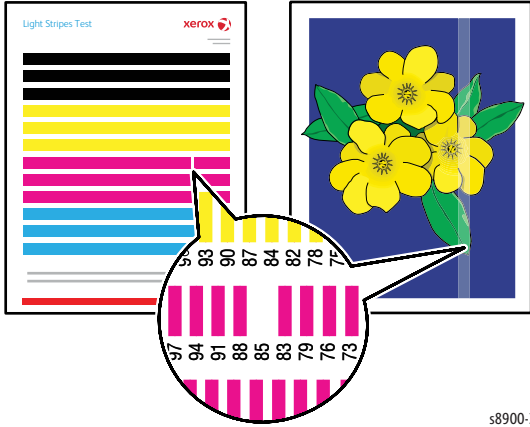
**Note:** If there are discolored jets (see [Figure 2 - Weak Jet](#) on page 3-11), print several Solid Fill test prints in the affected color. The example print in [Figure 1 - Missing Jets](#) on page 3-10 illustrates the magenta stripe containing the discolored jets, therefore you would print the [Magenta Solid Fill](#) page.

Discolored jets will self-correct with normal printing.

### Initial Actions

1. Print the Light Stripes test print.
  - a. From the Control Panel, press the **Machine Status** button.
  - b. Touch **Tools > Troubleshooting > Support Pages**.
  - c. Touch **Light Stripes Test**.
  - d. Touch **Print** to print the page.
2. Check the exit path for debris or contamination.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"><li>• Printhead Assembly, PL 7.1.3</li><li>• Wave Amp, PL 10.1.13</li></ul>	 <p>s8900-382</p> <p><b>Figure 1 - Missing Jets</b></p>

Troubleshooting Reference (Continued)

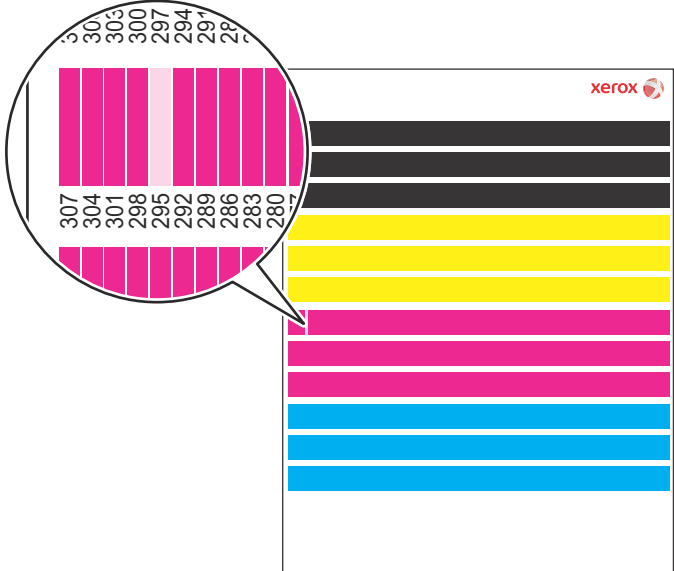
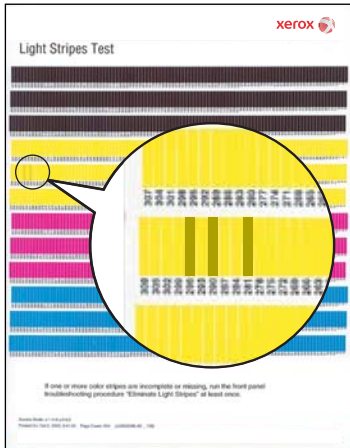
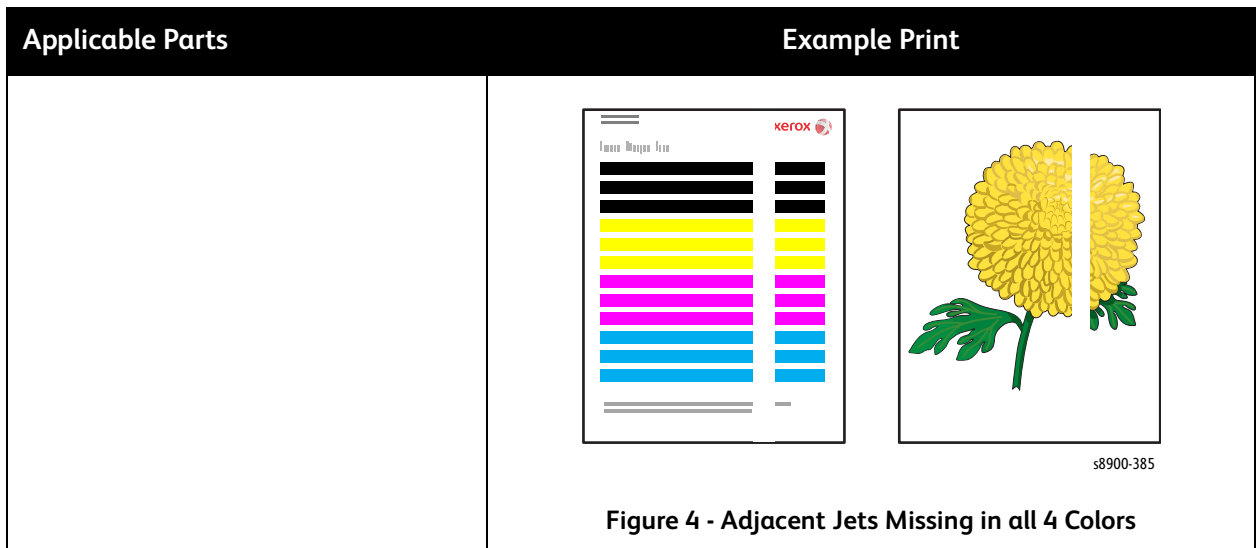
Applicable Parts	Example Print
	 <p style="text-align: right;">Weak Jet</p>
	 <p style="text-align: right;">s8900-383</p>

Figure 2 - Weak Jet

Figure 3 - Discolored Jet

Troubleshooting Reference (Continued)



## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Print the Light Stripe test print.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Print Test Page</b>.</li> </ol> <p>If a weak or missing jet is observed (see <a href="#">Figure 1 - Missing Jets</a> on page 3-10 or on page 3-11), go to step 2.</p> <ul style="list-style-type: none"> <li>If individual jets are discolored (refer to <a href="#">Figure 3</a>), print Solid Fills (<a href="#">dc612 Print Test Pattern</a> on page 2-55) of the affected color to clear the jets. Using <a href="#">Figure 3 - Discolored Jet</a> on page 3-11 as an example, print yellow solid fills of the affected color to clear the discolored jet.</li> </ul> <p><b>Note:</b> It is not unusual to see individual discolored jets after a Printhead purge. These will self correct with normal printing.</p> <ul style="list-style-type: none"> <li>If the same jet(s) in all colors are discolored, check the Printhead Maintenance Wiper Blade for damage or excess blobs of ink. If damaged, replace the Blade (REP 7.15, <a href="#">page 4-106</a>).</li> </ul> <p>Also, inspect the Printhead Face Plate for ink in the area of the jet orifices (ink below the orifices on the drip bib is expected). If excess blobs of ink are observed on the Printhead Wiper Blade or in the area of the jet orifices on the Printhead Face Plate, initiate a Printhead purge (go to step 2).</p> <p>Check for scapes of paper in path scraping ink off of the Drum.</p> <p>Does the error persist?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Initiate a Printhead purge.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Light Lines &gt; Fix</b>.</li> </ol> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Repeat the Printhead purge process (go to step 2). Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Are there several adjacent jets missing in all colors (see <a href="#">Figure 4 - Adjacent Jets Missing in all 4 Colors</a> on page 3-12)?	Go to step 5.	Go to step 6.
5.	Perform the following steps: <ul style="list-style-type: none"> <li>a. Check that the Wave Amp cables properly seated.</li> <li>b. If error persists, replace the Wave Amp cables.</li> <li>c. If error persists, replace the Wave Amp (REP 10.7, <a href="#">page 4-172</a>).</li> </ul> Does the error persist?	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	Troubleshooting complete.
6.	Perform an advance purge (an advanced purge will print five 2-sided prints of the affected jet followed by a printhead purge): <ul style="list-style-type: none"> <li>a. From the Control Panel, press the <b>Machine Status</b> button.</li> <li>b. Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>c. Touch <b>Advanced &gt; Jet Purge</b>.</li> <li>d. Select the affected color and jet number (from the <a href="#">Weak and Missing Jet</a> test print).</li> <li>e. Touch <b>Fix</b>.</li> </ul> Does the error persist?	Go to step 7.	Troubleshooting complete.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
7.	<p>Place the affected jet(s) into <a href="#">Jet Substitution Mode</a>.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Advanced &gt; Jet Substitution</b>.</li> <li>Enter the jet color and number (from the <a href="#">Weak and Missing Jet</a> test print).</li> <li>Touch <b>Add</b>.</li> </ol> <p><b>Note:</b> Jet Substitution Mode substitutes a neighboring jet for the malfunctioning jet that is causing the light stripe. The printer has been designed to compensate for a malfunctioning jet. After substituting a jet, print a <a href="#">Weak and Missing Jet</a> test page (<a href="#">dc612 Print Test Pattern</a> on page 2-55) to verify Jet Substitution Mode is enabled for the correct jet.</p> <p>Does the error persist?</p>	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	Troubleshooting complete.

## IQ3 - Missing Ink, Stripes, Scratches or Marks Down the Print or Parallel to the Long Axis of Media



Missing ink along the long axis of the media typically results from something scraping the image off the Drum prior to transfixing. The missing ink will be seen in all 4 colors and the boundary of the missing ink will be jagged or irregular (a clean, well defined boundary that corresponds to specific jets on the Light Stripe test print generally indicates a jetting issue - refer to [IQ2 - Light Stripes \(Weak or Missing Jets\)](#) on page 3-10). Scratches or marks typically results from obstructions in the paper path that damages the image or media. Some faint burnish marks from Sensor Flags, Paper Path Rollers or ribs is normal.

### Initial Actions

1. Check that supported media is being used.
2. Check for any debris or jammed media in the exit path.
3. Print the Test page.
  - a. From the Control Panel, press the **Machine Status** button.
  - b. Touch **Tools > Troubleshooting > Fix Image Quality**.
  - c. Touch **Print Test Page**.
4. Is there a weak or missing jet? Go to [IQ2 - Light Stripes \(Weak or Missing Jets\)](#) on page 3-10.

**Note:** If there are a series of regularly spaced white lines approximately 0.7 mm (0.03 in.) apart, see [IQ17 - White Stripes \(Pinstripes\)](#) on page 3-56.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Stripper Blade (Stripper Carriage Assembly), PL 7.1.17</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Drum Wiper Blade Assembly, PL 7.1.23</li> <li>• Drum Maintenance Camshaft, PL 7.1.31</li> <li>• Inner Simplex Guide with Predeskew Sensor and Harness, PL 8.1.2</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> <li>• Process Drive with Gear Box, PL 9.1.8</li> <li>• Lower Exit Guide Assembly w/Strip Flag, PL 11.1.13</li> </ul>	<div style="border: 1px solid black; padding: 10px;"> <p>ColorQube® 8700 Solid Ink Printer Performance, Simplicity, Affordability</p>  <p style="text-align: right;"><b>xerox</b> </p> <p style="text-align: right; font-size: small;">s8900-384</p> </div> <p style="text-align: center;"><b>Figure 1 - Scrape from Preheater Cable</b></p>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Check the exit area, exit frame, Preheater, Cleaning Unit, DMU Blade, Printhead, and the Stripper Blade to see that nothing is in contact with the Drum.</p> <p>Are there any parts contacted with the Drum?</p>	Troubleshooting complete.	Go to step 2.
2.	<p>The scratch occurred during the pick or transport process from Tray 2, 3, 4, or 5. Inspect the Pick Guides, Left Door, and Cleaning Unit.</p> <p>Replace or clean parts as needed.</p> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.
3.	<p>Remove the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a>). Check for ink debris on the Preheater wires or connectors indicating wiring touching the Drum.</p> <p>Reinstall the Preheater and carefully dress and route the wires. Perform the <a href="#">Remove Print Smears</a> routine.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Smears &gt; Fix</b> (see <a href="#">IQ4 - Random Spots of Ink/ Streaks, Smudges, or Smears Along Long Axis of Print</a> on page 3-19).</li> </ol> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
4.	<p>Replace the Paper Guides.</p> <ul style="list-style-type: none"> <li>Inner Simplex Guide with Predeskew Sensor and Harness (REP 8.2, <a href="#">page 4-121</a>)</li> <li>Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a>)</li> <li>Lower Exit Guide Assembly with Strip Flag (REP 11.4, <a href="#">page 4-188</a>)</li> </ul> <p>If the mark shows along the long axis of the media with dull or low gloss surface, inspect the Drum Wiper Blade for debris or damage.</p> <p>Remove debris or replace the Drum Wiper Blade Assembly (REP 7.15, <a href="#">page 4-106</a>) if damaged.</p> <p>Does the error persist?</p>	Go to step 5.	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
5.	Perform the <a href="#">dc959 Cleaning Unit Exerciser</a> on page 2-58 ( <a href="#">Cleaning Unit Exerciser</a> > <a href="#">Slow Speed Exerciser</a> ). While the test is running, ensure that the Drum Cleaning Blade is not in constant contact with the Drum. Does the error persist?	Replace the Drum Maintenance Camshaft (REP 7.17, <a href="#">page 4-113</a> ) and Process Drive (REP 9.5, <a href="#">page 4-142</a> ).	Troubleshooting complete.

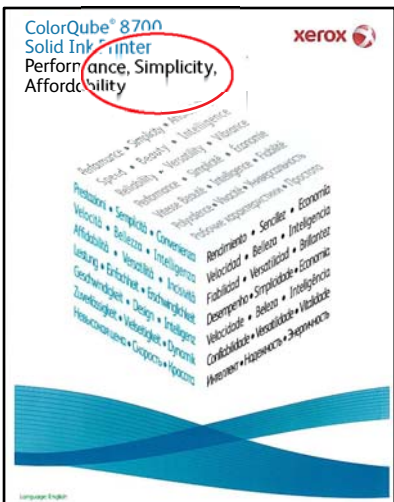

## IQ4 - Random Spots of Ink/ Streaks, Smudges, or Smears Along Long Axis of Print

Random spots of ink and smudges or smears typically result from ink residue in the paper path. Residue can collect on the rollers, paper guide ribs, or inside the Preheater.

### Initial Actions

- Check that supported media is being used. Glossy and heavier weight or textured media can cause smearing or blocking.
- If running pre-printed forms, ensure that “Pre-Printed” media has been confirmed from the Control Panel and that the customer is choosing “Pre-Printed” media in the driver.

### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Strip Solenoid, PL 6.1.9</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Drum Wiper Blade Assembly, PL 7.1.23</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> </ul>	
Example Print	
 <p>Figure 1 - Streaks, Smudges, or Smears</p>	 <p>Smudges or Smears</p> <p>Figure 2 - Smudges or Smears</p>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>If ink is transferred from adjacent print in the stack, this is blocking. To prevent this, do not allow print job to sit in the Exit Tray for long time or allow large stack to accumulate in the Exit Tray.</p> <p>Glossy and heavier weight media are susceptible to blocking and should be removed from the tray immediately.</p> <p>Clean the Print Engine exit path and Lower Duplex Guide, and wipe the Stripper Blade with a lint-free cloth.</p> <p>Does the error persist?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Perform the <a href="#">Remove Print Smears</a> routine.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Smears &gt; Fix</b>.</li> </ol> <p>The process automatically corrects Ink Smear issues and takes about 5 minutes.</p> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.
3.	<p>Repeat the previous step up to 3 times if ink is seen on the <a href="#">Remove Print Smears</a> page.</p> <p>Load fresh media and reprint the test page.</p> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
4.	<p>If smudges occur only on the first printed side of 2-sided print.</p> <ol style="list-style-type: none"> <li>Check that the Preheater Solenoid works correctly (<a href="#">Service Diagnostics</a> menu &gt; <a href="#">Diagnostics</a> tab &gt; <a href="#">dc330 Component Control</a>).</li> <li>Select Chain <b>089</b>, Links <b>011</b> and <b>012</b>.</li> <li>Open the Left Side Door.</li> <li>Remove the Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a>). The Preheater should alternate between On and Off position.</li> <li>Replace the Strip Solenoid (REP 6.3, <a href="#">page 4-50</a>) and/ or the Preheater (REP 7.14, <a href="#">page 4-103</a>) if necessary.</li> </ol> <p>Does the error persist?</p>	Go to step 5.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	Check the Drum Wiper Blade Assembly for damage or debris. Replace the Wiper Blade Assembly (REP 7.15, <a href="#">page 4-106</a> ) if necessary. Does the error persist?	Go to step 6.	Troubleshooting complete.
6.	Check the Cleaning Unit. Replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a> ) if necessary. Does the error persist?	Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> ). If ink spots appear after the Light Lines Test print, inspect the Face Plate for ink and follow the Printhead Checklist if ink is seen.	Troubleshooting complete.

## IQ5 - Partial Image/ Color Missing/ Massive Jet Loss

Significant jet loss can occur during high-coverage printing due to ink starvation. Restricted ink flow typically occurs in individual jets and is caused by air bubbles that form while the ink cools. These bubbles are usually cleared during the warm-up process or periodic cleaning cycles. More significant ink flow restrictions can occur when the system is mishandled while the ink is in liquid form. While ink is liquid, tipping, tilting, or using excessive force to close a tray can cause ink to infiltrate the upper portions of the Printhead blocking the flow of ink and air.

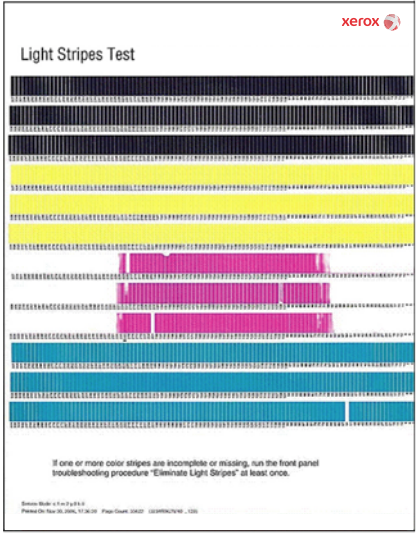
Symptoms of mishandling include:

- Defective DM Oil Roll
- Ink in the Purge Hose
- Ink reservoir overflow
- Ink accumulations under the Printhead obstructing Printhead movement.
- Massive jet loss in one or more colors ([Figure 1 - Massive Jet Loss](#) on page 3-22 contains an example of massive jet loss).

### Initial Action

- Inspect the Printhead Assembly for blockage of the Purge Hose or accumulations of ink underneath the Printhead. If there is a blockage, replace the Printhead (REP 7.3, [page 4-62](#)).

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Drum Assembly, PL 7.1.21</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Drum Maintenance Pivot Plate/ Drum Wiper Blade Assembly, PL 7.1.23, PL 7.1.26</li> </ul>	 <p style="text-align: center;"><b>Figure 1 - Massive Jet Loss</b></p>



## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Print a <a href="#">Light Stripes Test</a> page.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Print Test Page</b>.</li> </ol> <p>Is the ink is missing in all colors and does it appear that it is being scraped off (e.g. the missing ink boundary is jagged)?</p>	Go to <a href="#">IQ3 - Missing Ink, Stripes, Scratches or Marks Down the Print or Parallel to the Long Axis of Media</a> on page 3-16.	Go to step 2.
2.	<p>If there are massive missing jets (refer to <a href="#">Figure 1 - Massive Jet Loss</a> on page 3-22), check that a sufficient amount of ink is being purged into the Waste Tray following a Printhead cleaning cycle.</p> <ol style="list-style-type: none"> <li>Empty the Waste Tray.</li> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Light Lines &gt; Fix</b>.</li> </ol> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.
3.	<p>Check for a defective Purge Pump or a pinched, blocked or disconnected Air Hose on the Printhead.</p> <p>Replace the Purge Pressure Pump if necessary (REP 7.8, <a href="#">page 4-88</a>).</p> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
4.	<p>Go to <a href="#">IQ2 - Light Stripes (Weak or Missing Jets)</a> on page 3-10.</p> <p>Does the error persist?</p>	Follow the instructions on the Printhead Troubleshooting Checklist.	Troubleshooting complete.

## IQ6 - The Printed Image is Too Light or Too Dark

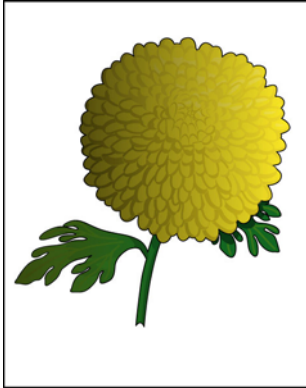
The overall image density is too light or too dark.

**Note:** It is normal for Chase sheets after a jam to be lighter than expected.

### Initial Actions

- a. Check the supported media is being used.
- b. Check that correct color ink sticks are in the Ink Loader.
- c. Perform Light Stripes test.
  - From the Control Panel, press the **Machine Status** button.
  - Touch **Tools > Troubleshooting > Support Pages**.
  - Touch **Light Stripes Test**.
  - Touch **Print** to print the page.
- d. Check for missing or discolored jets (see [IQ2 - Light Stripes \(Weak or Missing Jets\)](#) on page 3-10).
- e. Check the driver setting. There are advanced option controls that allow the user to lighten and darken prints.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"><li>• Ink Sticks</li><li>• Media</li><li>• Upper Duplex Guide with Solenoid, PL 6.1.2</li><li>• Printhead Assembly, PL 7.1.3</li><li>• Lower Inner Duplex Guide, PL 8.1.3</li></ul>	<div></div> <p>Color Uneven or Wrong (Scan Direction)</p> <p><b>Figure 1 - Printed Image is Too Light or Too Dark</b></p>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Verify that paper type is NOT set to <b>Transparency</b>.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Machine Information</b> &gt; <b>Paper Tray Status</b>.</li> <li>Set paper type to <b>Plain Paper</b>.</li> <li>Enter <b>Machine Status/Tools</b> (<b>Accessing Machine Status/ Tools Menu</b> on page 6-5).</li> <li>Touch <b>Tools</b> &gt; <b>Device Settings</b> &gt; <b>Paper Management</b> &gt; <b>Paper Type and Color</b> &gt; <b>Plain</b>.</li> <li>Touch <b>Save</b>.</li> </ol> <p>Does the error persist after making the adjustments?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Check that the correct driver setting and color correction setting are correct.</p> <ol style="list-style-type: none"> <li>From the <b>Start</b> menu, select <b>Settings</b> &gt; <b>Devices and Printers</b> &gt; <b>Xerox ColorQube 8700DN</b> or <b>Xerox ColorQube 8900</b>.</li> <li>Highlight <b>Xerox ColorQube 8700DN</b> or <b>8900</b>.</li> <li>Right-click and select <b>Printing Preferences</b>.</li> <li>Click the <b>Color Options</b> tab.</li> <li>Under <b>Color Correction</b>, ensure <b>Automatic Color (Recommended)</b> is selected.</li> <li>Under <b>Saved Settings</b>, verify that <b>Driver Defaults</b> is selected.</li> <li>Click <b>OK</b> to close the window.</li> </ol> <p>Print <b>Solid Fills</b> page (<b>dc612 Print Test Pattern</b> on page 2-55) to verify it's not a computer application issue.</p> <p>Try <b>Custom Color Options</b> in the printer driver to adjust color to customer preference.</p> <p>Suggest <b>Photo Mode</b> for more saturated prints.</p> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Insert new ink of the affected color and perform the <a href="#">Solid Fill Prints</a> routine until the affected color returns to normal.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Support Pages</b>.</li> <li>Select <a href="#">Cyan Refresh</a>, <a href="#">Magenta Refresh</a>, etc... (There are also solid fill prints in <a href="#">Service Diagnostics</a> menu &gt; <b>Diagnostics</b> tab &gt; <a href="#">dc612 Print Test Pattern</a>).</li> </ol> <p>This could require several ink sticks of the affected color.</p> <p>Does the error persist?</p>	<p>Replace the Printhead (REP 7.3, <a href="#">page 4-62</a>).</p>	<p>Troubleshooting complete.</p> <p>Check if <a href="#">Intelligent Ready</a> power save mode is On. If necessary, advise the customer that using Intelligent Ready power saver mode may avoid future ink discoloration.</p>

## IQ7 - No Image is Printed

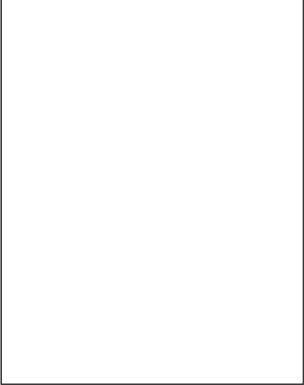
The printer processes a sheet of paper, but no image appears on the output.

**Note:** Blank sheets accompanying multi-picks or chase pages following a jam are a part of normal operation.

### Initial Actions

- Check the supported media is being used.
- Print the internal Demonstration page to verify issue is not caused by computer application.
- Check for media or debris around the Printhead and Drum.
- Check for jam code in Fault History to determine if the black page is actually a chase page following a jam.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"><li>• Printhead Assembly, PL 7.1.3</li><li>• Power Control Board, PL 10.1.4</li><li>• Wave Amp, PL 10.1.13</li><li>• Cable, ZIF, Wave Amp Drive, PL 10.1.33</li><li>• Cable, Wave Amp Signal, PL 10.1.35</li></ul>	 <p>Blank Print</p> <p><b>Figure 1 - No Image is Printed</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Inspect and reseat the Wave Amp and data cables connected to the Printhead Assembly. Release the end of the cable and carefully examine the conductor ends (a magnifier helps) to see that they are not cracked or torn. If the cable looks good, carefully reinstall it using a ZIF tool (refer to <a href="#">Unlocking/ Locking the ZIF Connector</a> on page 4-72 in Chapter 4 for how to use the ZIF tool for unlocking/locking the ZIF cable connector).</p> <p><b>CAUTION:</b> Failure to properly unlock the connector will damage the cable. Replace any defective cables.</p> <p>Does the error persist?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Replace parts in the following order until the problem is fixed.</p> <ul style="list-style-type: none"> <li>• Wave Amp (REP 10.7, <a href="#">page 4-172</a>)</li> <li>• Power Control Board (REP 10.4, <a href="#">page 4-165</a>)</li> </ul> <p>Does the error persist?</p>	Follow the instructions on the Printhead Troubleshooting Checklist.	Troubleshooting complete.

## IQ8 - Color is Uneven or Wrong (Uniformity)

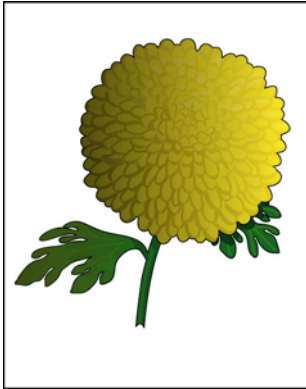
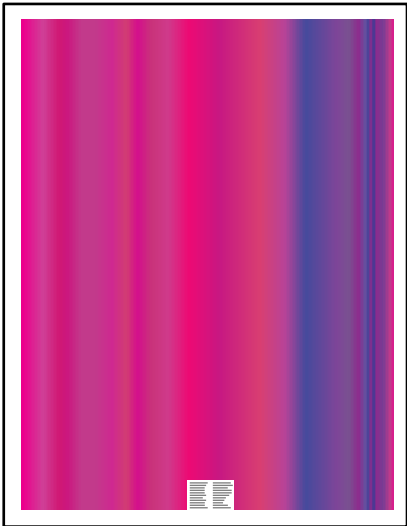
Uneven or incorrect colors typically result from incorrect colors in the Ink Loader, old ink in the Printhead, or color mixing at the faceplate.

**Note:** Using non-Xerox ink may cause unpredictable color results.

### Initial Actions

- Check the supported media is being used.
- Check that correct color ink sticks are in the Ink Loader.
- Perform Light Stripes test. Check for missing or discolored jets (see [IQ2 - Light Stripes \(Weak or Missing Jets\)](#) on page 3-10).

### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"> <li>• Printhead Assembly, PL 7.1.3</li> </ul>	
Example Print	
 <p>Color Uneven or Wrong (Scan Direction)</p> <p><b>Figure 1 - Color is Uneven or Color is Wrong</b></p>	 <p>s8900-388</p> <p><b>Figure 2 - Uneven Color</b></p>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>In the print driver, check that print mode is not set to <b>Fast Color</b> or <b>Standard</b>. From the Control Panel, ensure that paper type is <b>NOT</b> set to <b>Transparency</b>.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Machine Information</b> &gt; <b>Paper Tray Status</b>.</li> <li>Set paper type to <b>Plain Paper</b>.</li> <li>Enter <b>Machine Status/Tools</b> (<b>Accessing Machine Status/ Tools Menu</b> on page 6-5).</li> <li>Touch <b>Tools</b> &gt; <b>Device Settings</b> &gt; <b>Paper Management</b> &gt; <b>Paper Type and Color</b> &gt; <b>Plain</b>.</li> <li>Touch <b>Save</b>.</li> </ol> <p>Does the error persist after making the adjustments?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Check that the correct driver setting and color correction setting are correct.</p> <ol style="list-style-type: none"> <li>From the <b>Start</b> menu, select <b>Settings</b> &gt; <b>Devices and Printers</b> &gt; <b>Xerox ColorQube 8700DN</b> or <b>Xerox ColorQube 8900</b>.</li> <li>Highlight <b>Xerox ColorQube 8700DN</b> or <b>8900</b>.</li> <li>Right-click and select <b>Printing Preferences</b>.</li> <li>Click the <b>Color Options</b> tab.</li> <li>Under <b>Color Correction</b>, ensure <b>Automatic Color (Recommended)</b> is selected.</li> <li>Under <b>Saved Settings</b>, verify that <b>Driver Defaults</b> is selected.</li> <li>Click <b>OK</b> to close the window.</li> </ol> <p>Print <b>Solid Fills</b> page to verify it's not a computer application issue.</p> <p>Try <b>Custom Color Options</b> in the printer driver to adjust color to customer preference. Suggest printing in <b>Photo</b> mode for more vibrant colors.</p> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p><b>Note:</b> If the printer has a low print volume and the ink is exposed to too high temperature for a long period of time, color shift occurs slightly.</p> <p><b>Example:</b> Red changes to orange, cyan changes to light green. Clear discolored jets in the Printhead. Print a <a href="#">Solid Fill test print (dc612 Print Test Pattern)</a> on page 2-55).</p> <p>Perform the <a href="#">Purge</a> procedure up to 10 times, checking output each time or run Solid Fills of the affected color.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Light Lines</b>.</li> <li>Touch <b>Fix</b>.</li> </ol> <p><b>Note:</b> The purge function is also available under <a href="#">Service Diagnostics</a> menu &gt; <b>Maintenance</b> tab &gt; <a href="#">dc968 Head Purge</a>.</p> <p>If some improvement is seen, the ink could be discolored due to prolonged heat exposure without printing.</p> <p>Does the error persist?</p>	Replace the Printhead (REP 7.3, <a href="#">page 4-62</a> ).	<p>Troubleshooting complete.</p> <p>Check if <a href="#">Intelligent Ready</a> power save mode is on. If necessary, advise the customer that using Intelligent Ready power saver mode may avoid future ink discoloration.</p>

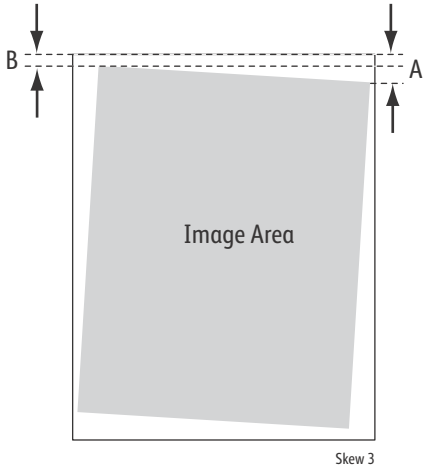

## IQ9 - Skew

The printed image is not parallel with both sides of the paper.

### Initial Actions

- Check the supported media is being used.
- Check for any debris or jammed media in the exit path.

### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"><li>• Preheater and Deskew Assembly, PL 7.1.22</li><li>• Out Takeaway Guide Assembly, PL 8.1.1</li><li>• Takeaway Roller, PL 8.1.4</li></ul>	
Example Print	
 <p><b>Figure 1 - Skew</b></p>	 <p><b>Figure 2 - Skew Margin</b></p>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Print the <a href="#">Manufacturing Skew Margin</a> test print (<a href="#">dc612 Print Test Pattern</a> on page 2-55).</p> <ol style="list-style-type: none"> <li>Access Service Diagnostics (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>Touch <b>Diagnostics</b>.</li> <li>Touch <b>dc612 Print Test Pattern</b>.</li> <li>Select <b>Skew/ Margin test print</b>.</li> </ol> <p>Check that the magenta box is squarely position on the paper (see <a href="#">Figure 2 - Skew Margin</a> on page 3-32).</p> <p>Does the magenta box not positioned correctly?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Check the Preheater that the Deskew Gate is operational (spring load movement).</p> <p>Are the Deskew Gates damaged?</p>	Go to step 3.	Troubleshooting complete.
3.	<p>Replace the Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a>).</p> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
4.	<p>Check the Out Takeaway Guide Assembly for damage.</p> <p>Is the Out Takeaway Guide Assembly damaged?</p>	Go to step 5.	Troubleshooting complete.
5.	<p>Replace the Out Takeaway Guide Assembly (REP 8.1, <a href="#">page 4-120</a>).</p> <p>Does the error persist?</p>	Replace the Takeaway Roller (REP 8.4, <a href="#">page 4-124</a> ).	Troubleshooting complete.

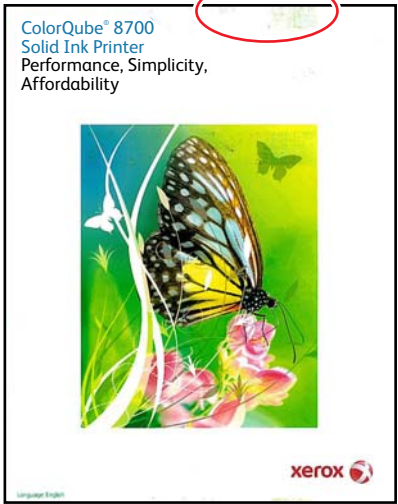

## IQ10 - Ink Ghosting/ Extra Ink or Residual Image

Color appearing on blank areas can be caused by a residual latent image from previous print. Residual or latent images typically result from insufficient oiling of the Drum or Drum Thermistor issues. Insufficient oiling is often the result of a defective or expended Drum Maintenance Unit. Printing an image over the hole of a pre-punched media will also leave ink on the Drum which will show up on subsequent prints. Ink Ghosting can also be caused by Blocking - Ink from one print is transferred to the back side of a subsequent print in the output stack.

### Initial Actions

- Check the supported media is being used.
- If using pre-punched media, ensure the correct media type has been confirmed on the Control Panel.

### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Strip Solenoid, PL 6.1.9</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Drum Wiper Blade Assembly, PL 7.1.23</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> <li>• Pick Assembly and Retard Roller Kit, PL 8.1.7</li> <li>• Drum Temperature Sensor, PL 11.1.28</li> </ul>	
Example Print	
 <p style="text-align: center;"><b>Figure 1 - Ink on White Portion of Page</b></p>	 <p style="text-align: center;"><b>Figure 2 - Residual or Latent Image from Previous Print</b></p>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	If ink is transferred from adjacent print in the stack, this is blocking. To prevent this, do not allow print job to sit in the Exit Tray for long time or allow large stack to accumulate in the Exit Tray. Glossy and heavier weight media are susceptible to blocking and should be removed from the tray immediately.		
2.	Try printing using a smoother, higher quality paper. Some recycled papers are too coarse. Watermarked or punched paper could also cause latent images. Does the error persist?	Go to step 2.	Troubleshooting complete.
3.	Check the Cleaning Unit for sufficient oil. Remove the Cleaning Unit and press loose piece of paper against Oil Roller with light finger pressure. If oil does not appear on page, replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a> ). If the Cleaning Unit is dry and the printer indicates there is more than 25 % of life remaining (from the Control Panel, press the <b>Machine Status</b> button, then touch <b>Supplies</b> ), replace the Drum Wiper Blade (REP 7.15, <a href="#">page 4-106</a> ). Clean the Stripper Blade. Perform the <a href="#">Remove Print Smears</a> routine. <ul style="list-style-type: none"> <li>a. From the Control Panel, press the <b>Machine Status</b> button.</li> <li>b. Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>c. Touch <b>Smears &gt; Fix</b>.</li> </ul> Does the error persist?	Go to step 3.	Troubleshooting complete.
4.	Check condition of the Drum Temperature Sensor (debris and damage). Ensure the Drum Temperature Sensor is contacting the Drum. Replace the Drum Temperature Sensor (REP 11.9, <a href="#">page 4-197</a> ) if necessary. Does the error persist?	Go to step 4.	Troubleshooting complete.
5.	Remove the Drum Wiper Blade Assembly (REP 7.15, <a href="#">page 4-106</a> ). Clean the plastic Wiper Blade with a lint-free cloth. Replace the Drum Wiper Blade if it is damaged. Does the error persist?	Go to step 5.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
6.	<p>Check for dust or debris on the Feed Rollers and Retard Rollers.</p> <p>Perform the <a href="#">Remove Print Smears</a> routine.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Smears &gt; Fix</b>.</li> </ol> <p>Replace the Pick Rollers (REP 8.7, <a href="#">page 4-128</a>) if necessary.</p> <p>Does the error persist?</p>	Go to step 6.	Troubleshooting complete.
7.	<p>If ink spots appear after Light Lines test or after long time in Power Saver mode, check the Purge Pressure Pump, Printhead Wiper, and Printhead.</p> <ul style="list-style-type: none"> <li>For manually printing 2-sided prints, when loading a tray with paper already printed on one side, at the printer Control Panel, set the tray's paper type to <a href="#">2nd Side</a>. Also, at the computer's printer driver, select <a href="#">2nd Side</a> as the <a href="#">Paper Type</a>. This ensures the best print quality.</li> <li>Check that the Preheater Solenoid works correctly. Enter <a href="#">Service Diagnostics</a> (<a href="#">Entering Service Diagnostics</a> on page 2-19). <ol style="list-style-type: none"> <li>Touch <a href="#">Diagnostics &gt; dc330 Component Control</a>.</li> <li>Select Chain <b>089</b>, Link <b>011</b> and <b>012</b>.</li> <li>Open the Left Side Door.</li> <li>Remove the Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a>). The Preheater should alternate between On and Off position. Replace the Strip Solenoid (REP 6.3, <a href="#">page 4-50</a>) and/or the Preheater (REP 7.14, <a href="#">page 4-103</a>) if necessary.</li> </ol> </li> </ul>		

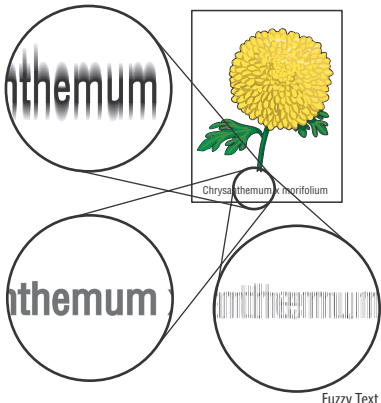
## IQ11 - Fuzzy or Blurry Printing

Fuzzy text typically results from one of the three causes illustrated. An error in Y-Axis Drum rotation results in text appearing as shown in Figure 1 at the upper left. Fuzzy text may also occur following a Printhead Assembly replacement if the Printhead or X-Axis Bias Hook is not correctly installed. X-Axis errors cause text to appear as shown at the lower right in the illustration.

### Initial Actions

1. Check the supported media is being used.
2. Check for any debris or jammed media in the exit path.
3. Perform the [Remove Print Smears](#) routine.
  - a. From the Control Panel, press the **Machine Status** button.
  - b. Touch **Tools** > **Troubleshooting** > **Fix Image Quality**.
  - c. Touch **Smears** > **Fix**.
4. Print the image in a higher print resolution.

### Troubleshooting Reference

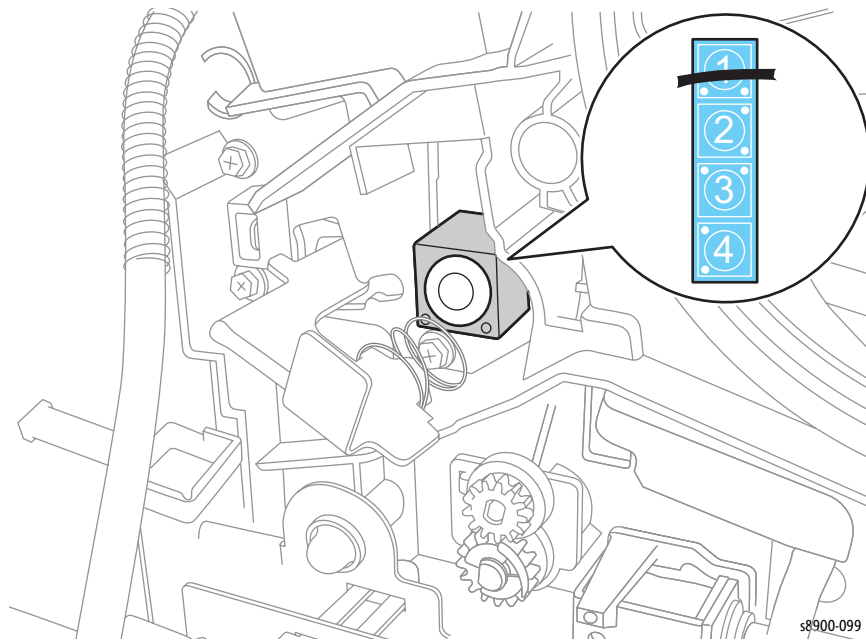
Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Roll Block, PL 7.1.9</li> <li>• (Y-Axis Encoder) Drum Assembly, PL 7.1.21</li> <li>• Wave Amp, PL 10.1.13</li> <li>• Cable, ZIF, Wave Amp Drive, PL 10.1.33</li> </ul>	 <p style="text-align: center;"><b>Figure 1 - Fuzzy Text</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Upgrade the printer firmware ( <a href="#">Firmware Upgrade</a> on page 6-51). Does the error persist?	Go to step 2.	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

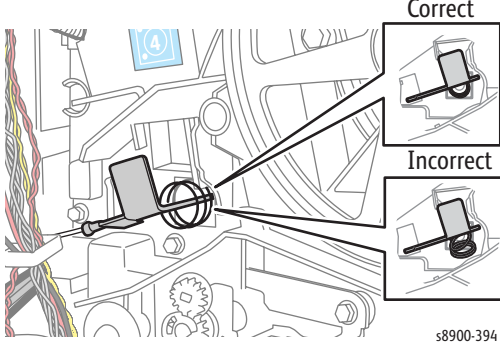
Step	Actions and Questions	Yes	No
2.	Try printing using a smoother, higher quality paper, some recycled or watermarked papers are too coarse. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Use a higher quality print mode. Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	If the blurriness localized in an area along the long axis of the media, go to <a href="#">IQ2 - Light Stripes (Weak or Missing Jets)</a> on page 3-10. Does the error persist?	Go to step 5.	Troubleshooting complete.
5.	Check that the dot on the Printhead Roll Block match with the label of the left side of the frame (see <a href="#">Figure 2 - Printhead Roll Block</a> on page 3-38). Check for wax spilled on head shaft at/near roll block. Adjust the position of the dot if necessary. Does the error persist?	Go to step 6.	Troubleshooting complete.



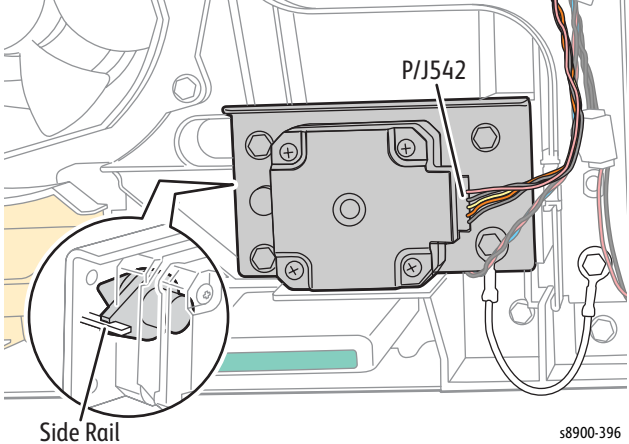
**Figure 2 - Printhead Roll Block**



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
6.	<p>Check that the Printhead is tilted forward against the Drum button. If necessary, realign the X-Axis Bias Plate and Spring so it is contacting the Roll Block. Check that the Head Tilt Spring is installed correctly.</p> <p>Set the X-Axis Bias Hook and spring on the left end of the Printhead Shaft. Ensure the point of the hook is centered in the Printhead's stub shaft and the rest of the hook floats freely.</p> <p>Does the error persist?</p>	Go to step 7.	Troubleshooting complete.
<div style="text-align: center;">  <p>s8900-394</p> </div> <p><b>Figure 3 - X-Axis Bias Plate and Spring Alignment</b></p>			
7.	<p>Check the X-Axis motion. Verify that there is nothing interfering with the X-Axis motion.</p> <p>Does the error persist?</p>	Go to step 8.	Troubleshooting complete.

Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
8.	<p>Check the X-Axis motion.                      Ensure the X-Axis Motor is correctly installed with the nose cone fork properly interfaced to its guide in the right side frame (see <a href="#">Figure 4 - X-Axis Motor and Nose Cone Fork Installation</a> on page 3-40).                      Does the error persist?</p>	Go to step 9.	Troubleshooting complete.
 <p><b>Figure 4 - X-Axis Motor and Nose Cone Fork Installation</b></p>			
9.	<p>Check that the Printhead is tilted forward against the Drum in proper print position.                      Realign the Printhead if necessary.                      Does the error persist?</p>	Go to step 10.	Troubleshooting complete.
10.	<p>Check the Printhead Wave Amp cables.                      Release the end of the cable and carefully examine the conductor ends (a magnifier helps) to see that they are not cracked or torn. If the cable looks good, carefully reinstall it using a ZIF tool (refer to <a href="#">Unlocking/ Locking the ZIF Connector</a> on page 4-72 in Chapter 4 for how to use the ZIF tool for unlocking/locking the ZIF cable connector).  <b>CAUTION:</b> Failure to properly unlock the connector will damage the cable.                      Are the Printhead Wave Amp cables secured?</p>	Go to step 11.	Troubleshooting complete.
11.	<p>Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a>) if encoder is faulty.                      Does the error persist?</p>	Replace the Wave Amp (REP 10.7, <a href="#">page 4-172</a> ).	Troubleshooting complete.

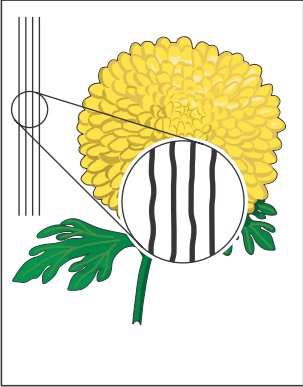
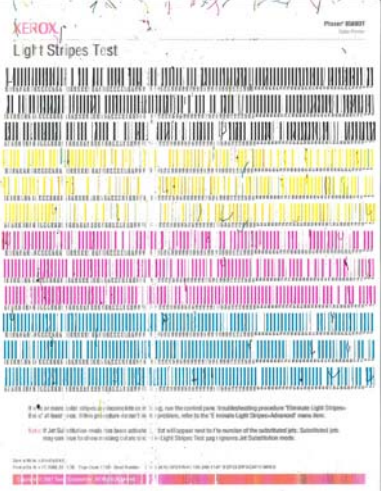
## IQ12 - Vertical Lines Appear Wavy

Wavy or ill-formed vertical lines typically result from excessive Drum oiling or X-Axis motion issues.

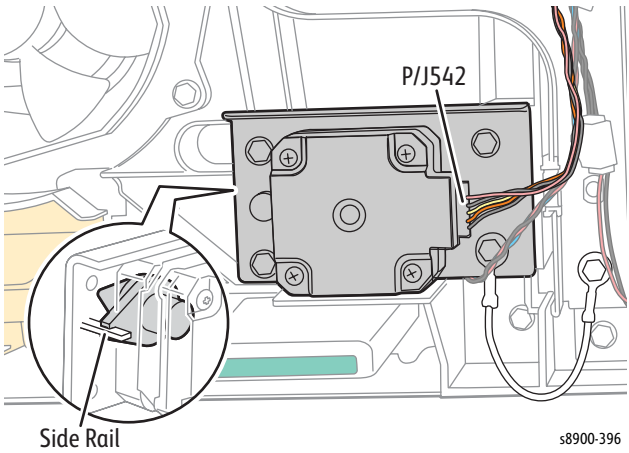
### Initial Action

- Check the supported media is being used.

### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Strip Solenoid, PL 6.1.9</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Drum Wiper Blade Assembly, PL 7.1.23</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> <li>• Pick Assembly and Retard Roller Kit, PL 8.1.7</li> <li>• Drum Temperature Sensor, PL 11.1.28</li> </ul>	
Example Print	
 <p>Vertical Lines Appear Wavy</p> <p><b>Figure 1 - Wavy Vertical Lines on Output</b></p>	 <p>s8900-395</p> <p><b>Figure 2 - X-Axis Motion Issue</b></p>

**Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1.	Check the X-Axis motion. Verify that there is nothing interfering with X-Axis motion. Check for wax spilled on head shaft/roll block area. Replace any defective parts found. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the X-Axis motion. Ensure the X-Axis Motor is correctly installed with the nose cone fork properly interfaced to its guide in the right side frame (see <a href="#">Figure 3 - X-Axis Motor and Nose Cone Fork Installation</a> on page 3-42). Check to see if Motor is overly warm to touch, if so replace it. Does the error persist?	Go to step 3.	Troubleshooting complete.
 <p>The diagram shows a top-down view of the X-axis motor assembly. A grey motor housing is mounted on a metal frame. A nose cone fork is inserted into a guide on the side rail. The side rail is labeled 'Side Rail'. The motor is labeled 'P/J542'. A wiring harness with red, yellow, and blue wires is connected to the motor. A small green bar is visible on the side rail. The diagram is labeled 's8900-396'.</p> <p><b>Figure 3 - X-Axis Motor and Nose Cone Fork Installation</b></p>			

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Check the Drum maintenance Cam Roller and Pivot Plate are functioning correctly. Perform the <a href="#">Cleaning Unit</a> test (<a href="#">dc959 Cleaning Unit Exerciser</a> on page 2-58).</p> <ol style="list-style-type: none"> <li>Enter <a href="#">Service Diagnostics</a> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>Touch <a href="#">Diagnostics</a> &gt; <a href="#">dc330 Component Control</a>.</li> <li>Select the <a href="#">Head Maintenance Clutch Chain 091</a>, Link <a href="#">10</a>.</li> </ol> <p><b>Note:</b> The Cleaning Unit Test is also available under the <a href="#">Service Diagnostics</a> menu &gt; <a href="#">Diagnostics</a> tab &gt; <a href="#">dc959 Cleaning Unit Exerciser</a>.</p> <ol style="list-style-type: none"> <li>Select <a href="#">Slow Speed Exerciser</a>.</li> <li>Open the Front Door and observe the DM Roller and Blade activation.</li> </ol> <p>Does the error persist?</p>	Replace any defective parts found.	Troubleshooting complete.

## IQ13 - Gloss Ghosting/ Latent Image

Gloss Ghosting typically results from stacked prints, faulty or expended Drum Maintenance Unit, or Drum thermal regulation. Transfer Roller ghosting is only seen on the first side printed of a duplex print. Drum ghosting can occur on a simplex print (or on both sides of a duplex print).

### Initial Actions

- Check the supported media is being used.
- Check the Cleaning Unit.

### Troubleshooting Reference

Applicable Parts	Example Print				
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Strip Solenoid, PL 6.1.9</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Drum Wiper Blade Assembly, PL 7.1.23</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> <li>• Pick Assembly and Retard Roller Kit, PL 8.1.7</li> <li>• Drum Temperature Sensor, PL 11.1.28</li> <li>• DM Oil Roll or NXTI or Very Heavy % of fill on repeated prints.</li> </ul>	 <p style="text-align: right; font-size: small;">s8900-397</p> <p style="text-align: center;"><b>Figure 1 - Ghosting (Transfix)</b></p>				
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; border-bottom: 1px solid black; padding-bottom: 5px;">1st Page</td> <td style="text-align: center; border-bottom: 1px solid black; padding-bottom: 5px;">2nd Page</td> </tr> <tr> <td style="text-align: center; border: 1px solid black; padding: 10px;">  </td> <td style="text-align: center; border: 1px solid black; padding: 10px;">  <p style="text-align: right; font-size: small;">s8900-398</p> </td> </tr> </table> <p style="text-align: center;"><b>Figure 2 - Drum Ghosting</b></p>		1st Page	2nd Page		 <p style="text-align: right; font-size: small;">s8900-398</p>
1st Page	2nd Page				
	 <p style="text-align: right; font-size: small;">s8900-398</p>				

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Use a different type of media or media from a different ream. Flip media over to other side. For some media types, there is significant difference in performance from one side to another.</p> <p>Does the error persist?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Check the Drum Maintenance print parts for damage or defects:</p> <ul style="list-style-type: none"> <li>• Drum Maintenance Pivot Plate</li> <li>• Drum Maintenance Cam Shaft</li> <li>• Drum Wiper Blade Assembly</li> </ul> <p>Check the Cleaning Unit for sufficient oil. Remove the Cleaning Unit and press loose piece of paper against Oil Roller with light finger pressure. If oil does not appear on the page, replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a>).</p> <p>If the Cleaning Unit is dry and the printer indicates there is more than 25 % of life remaining (from the Control Panel, press the <b>Machine Status</b> button, then touch <b>Supplies</b>), replace the Drum Wiper Blade (REP 7.15, <a href="#">page 4-106</a>).</p> <p>Check that the Drum Maintenance Camshaft and Pivot Plate are functioning correctly.</p> <p>Replace the Drum Maintenance Camshaft (REP 7.17, <a href="#">page 4-113</a>) and/ or Pivot Plate (REP 7.15, <a href="#">page 4-106</a>) if necessary.</p> <p>Perform the <b>Cleaning Unit</b> test (<a href="#">dc959 Cleaning Unit Exerciser</a> on page 2-58).</p> <ol style="list-style-type: none"> <li>a. Enter <b>Service Diagnostics</b> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>b. Touch <b>Diagnostics</b> &gt; <b>dc330 Component Control</b>.</li> <li>c. Select the <b>Head Maintenance Clutch Chain 091</b>, Link <b>10</b>.</li> </ol> <p><b>Note:</b> The <b>Cleaning Unit Test</b> is also available under the <b>Service Diagnostics</b> menu &gt; <b>Diagnostics</b> tab &gt; <b>dc959 Cleaning Unit Exerciser</b>.</p> <ol style="list-style-type: none"> <li>d. Select <b>Slow Speed Exerciser</b>.</li> <li>e. Open the Front Door and observe the DM Roller and Blade activation.</li> </ol> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	Check the condition of the Drum Temperature Sensor (debris and damage). Ensure the Drum Temperature Sensor is contacting the Drum. Replace the Drum Temperature Sensor (REP 11.9, <a href="#">page 4-197</a> ) if necessary. Does the error persist?	Go to step 4.	Troubleshooting complete.
4.	Run multiple, 2-sided prints. Some amount of Transfix Roller ghosting is inherent to the printer. This type of ghosting is most pronounced on the first side printed of a print. Ghosting should fade on subsequent prints.		



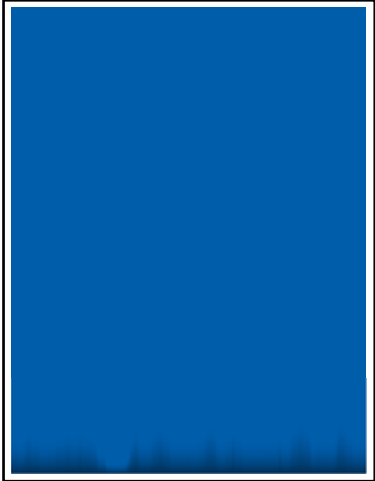
## IQ14 - Oil on Print

Oil streaks or spots typically results from excessive or insufficient Drum oiling. A problem with the Cleaning Unit is the likely cause.

### Initial Actions

- Check the supported media is being used.
- Check for a defective DM Roll, or a pivot plate that is not holding the DM Roll against the Drum.
- Check the Cleaning Unit.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Drum Maintenance Wiper Blade, PL 7.1.23</li> <li>• Drum Maintenance Camshaft, PL 7.1.25</li> <li>• Drum Maintenance Pivot Plate, PL 7.1.26</li> <li>• Drum Maintenance Camshaft, PL 7.1.31</li> </ul>	 <p>Figure 1 - Oil Streak on Print</p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Drum Maintenance Plate ground connection. Verify that the ground connection is secure between the Drum Maintenance Shaft and Drum Fan. Does the error persist?	Go to step 2.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	<p>Perform the <a href="#">Remove Print Smears</a> routine.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools &gt; Troubleshooting &gt; Fix Image Quality</b>.</li> <li>Touch <b>Smears &gt; Fix</b>.</li> </ol> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.
3.	<p>Clean the Stripper Blade and Exit Guide.</p> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
4.	<p>Check the Cleaning Unit for sufficient oil. Remove the Cleaning Unit and press loose piece of paper against Oil Roller with light finger pressure. If oil does not appear on the page, replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a>). If the Cleaning Unit is dry and the printer indicates there is more than 25 % of life remaining (from the Control Panel, press the <b>Machine Status</b> button, then touch <b>Supplies</b>), replace the Drum Wiper Blade (REP 7.15, <a href="#">page 4-106</a>).</p> <p>Check that the Drum Maintenance Cam Roller and Pivot Plate are functioning correctly.</p> <p>Perform the <a href="#">Cleaning Unit</a> test (<a href="#">dc959 Cleaning Unit Exerciser</a> on page 2-58).</p> <ol style="list-style-type: none"> <li>Enter <a href="#">Service Diagnostics</a> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>Touch <b>Diagnostics &gt; dc330 Component Control</b>.</li> <li>Select the <b>Head Maintenance Clutch Chain 091, Link 10</b>.</li> </ol> <p><b>Note:</b> The <a href="#">Cleaning Unit Test</a> is also available under the <a href="#">Service Diagnostics</a> menu &gt; <b>Diagnostics</b> tab &gt; <a href="#">dc959 Cleaning Unit Exerciser</a>.</p> <ol style="list-style-type: none"> <li>Select <b>Slow Speed Exerciser</b>.</li> <li>Open the Front Door and observe the DM Roller and Blade activation.</li> </ol> <p>Does the error persist?</p>	Go to step 5.	Troubleshooting complete.
5.	<p>Check and clean the Drum Wiper Blade Assembly. Replace the Wiper Blade Assembly (REP 7.15, <a href="#">page 4-106</a>) if necessary.</p> <p>Replace any defective parts found.</p> <ul style="list-style-type: none"> <li>Drum Maintenance Cam Shaft (REP 7.16, <a href="#">page 4-112</a>)</li> <li>Drum Maintenance Pivot Plate (REP 7.15, <a href="#">page 4-106</a>)</li> </ul>		

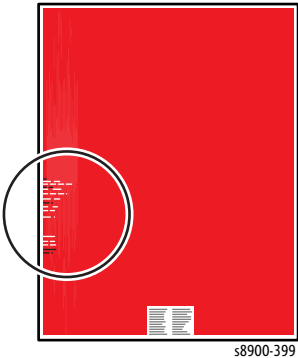
## IQ15 - Incomplete Image Transfer, Drop Out, Missing Pixels

Incomplete image transfer typically results from coarse, light, watermarked media, or improper Transfix Load, Preheater, or Drum Thermals. The image may have a random graininess appearance. Incomplete image transfer limited the second side printed of a duplex print may be the result of improper Drum oiling.

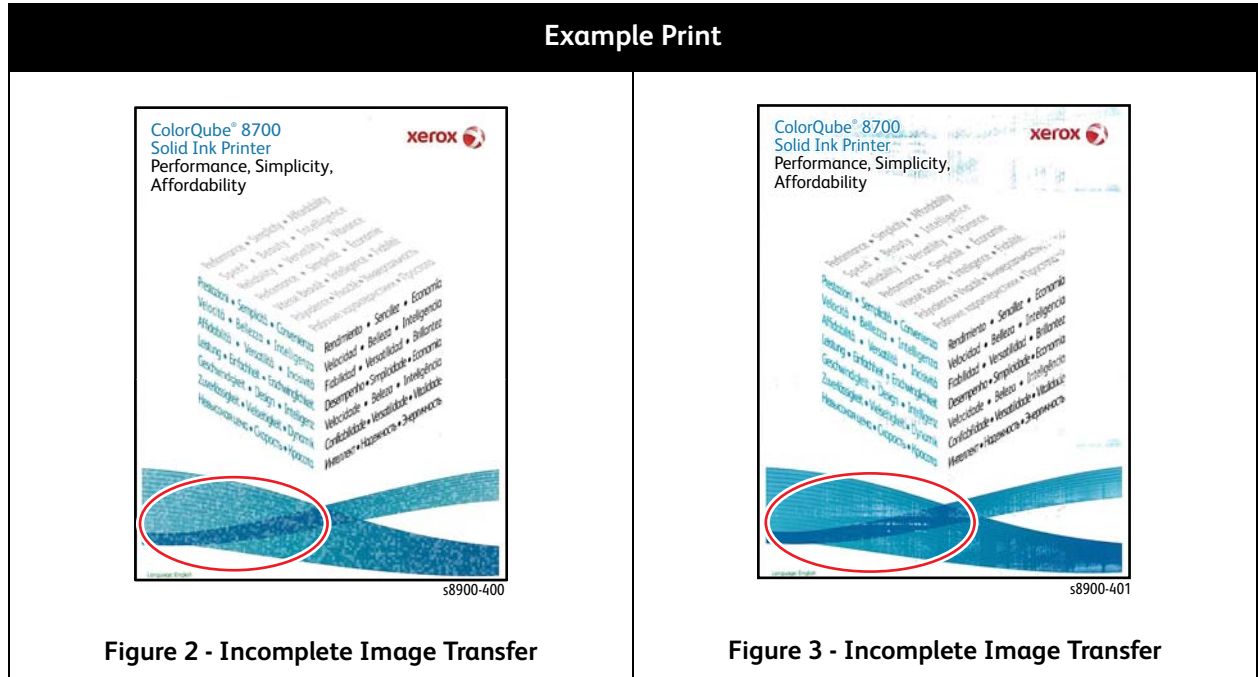
### Initial Actions

1. Check the supported media is being used.
2. Incomplete transfer is normal if printing over envelope seams.
3. Confirm the use of Xerox ink sticks.
4. Check the Cleaning Unit.
5. Perform the [Remove Print Smears](#) routine.
  - a. From the Control Panel, press the **Machine Status** button.
  - b. Touch **Tools** > **Troubleshooting** > **Fix Image Quality**.
  - c. Touch **Smears** > **Fix**.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Transfix Arm Kit, PL 7.1.16</li> <li>• Drum Maintenance Wiper Blade, PL 7.1.23</li> <li>• Drum Maintenance Camshaft, PL 7.1.25</li> <li>• Drum Maintenance Pivot Plate, PL 7.1.26</li> <li>• Drum Maintenance Camshaft, PL 7.1.31</li> <li>• Transfix Load Module, PL 7.1.35</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> <li>• Drum Cooling Fan, PL 9.1.9</li> <li>• Drum Temperature Sensor, PL 11.1.28</li> <li>• DM Oil Roll</li> </ul>	<div style="text-align: center;">  </div> <p style="text-align: center;"><b>Figure 1 - Incomplete Image Transfer</b></p>

Troubleshooting Reference



Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Try using a higher quality print mode. Does the error persist?	Go to step 2.	Troubleshooting complete. Some amount of incomplete transfer in low coverages is normal, especially on rough media.
2.	Try to print on different type of media, media from a different ream, or flipping media over to other side. For some media types, there is significant difference in performance from one side to another. For problematic media, set media type to Card Stock which prints slower but can improve transfer. For this case, Card Stock setting may be used for all media types. Does the error persist?	Go to step 3.	Troubleshooting complete.

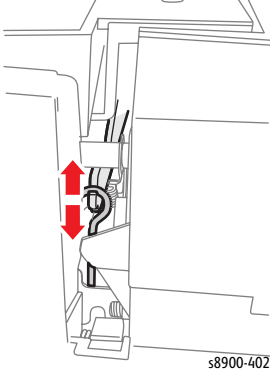
## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Check life remaining in the Cleaning Unit.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Machine Information</b> &gt; <b>Information Pages</b>.</li> <li>Select <b>Supplies Usage Page</b>.</li> <li>Touch <b>Print</b>.</li> </ol> <p>If less than 25 % life remaining (or less than 1,000 pages is displayed in pages remaining) then the Cleaning Unit may be out of oil. Verify this by removing the Cleaning Unit and press loose piece of paper against the oil roller with light finger pressure. If oil does not appear on the page, replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a>).</p> <p>If the Cleaning Unit life was greater than 25 % and it needs to be replaced, also replace the Drum Wiper Blade (REP 7.15, <a href="#">page 4-106</a>).</p> <p>If the Cleaning Unit needs replacement, clean ink off the Drum by running <b>Remove Print Smears</b> several times if necessary.</p> <ol style="list-style-type: none"> <li>From the Control Panel, press the <b>Machine Status</b> button.</li> <li>Touch <b>Tools</b> &gt; <b>Troubleshooting</b> &gt; <b>Fix Image Quality</b>.</li> <li>Touch <b>Smears</b> &gt; <b>Fix</b>.</li> </ol> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	<p>Perform the Cleaning Unit test (<a href="#">dc959 Cleaning Unit Exerciser</a> on page 2-58).</p> <ol style="list-style-type: none"> <li>Enter <a href="#">Service Diagnostics</a> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>Touch <a href="#">Diagnostics</a> &gt; <a href="#">dc330 Component Control</a>.</li> <li>Select the <a href="#">Head Maintenance Clutch Chain 091</a>, Link <a href="#">10</a>.</li> </ol> <p><b>Note:</b> The <a href="#">Cleaning Unit Test</a> is also available under the <a href="#">Service Diagnostics</a> menu &gt; <a href="#">Diagnostics</a> tab &gt; <a href="#">dc959 Cleaning Unit Exerciser</a>.</p> <ol style="list-style-type: none"> <li>Select <a href="#">Slow Speed Exerciser</a>.</li> <li>Open the Front Cover and observe the DM Roller and Blade activation.</li> <li>Check that the Drum Maintenance Cam Roller and Pivot Plate are functioning correctly.</li> </ol> <p>Replace the Drum Maintenance Camshaft (REP 7.17, <a href="#">page 4-113</a>) and/or Pivot Plate Assembly (REP 7.15, <a href="#">page 4-106</a>) if necessary.</p> <p>Does the error persist?</p>	Go to step 5.	Troubleshooting complete.
5.	<p>Clean the Stripper Blade and Exit Guides.</p> <p>Does the error persist?</p>	Go to step 6.	Troubleshooting complete.
6.	<p>Check the Drum Cooling Fan.</p> <ol style="list-style-type: none"> <li>Enter <a href="#">Service Diagnostics</a> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>Touch <a href="#">Diagnostics</a> &gt; <a href="#">dc330 Component Control</a>.</li> <li>Select the Drum Fan Motor Chain <a href="#">042</a>, Link <a href="#">064</a>.</li> </ol> <p>If the Fan does not operate during the test, replace the Drum Cooling Fan (REP 9.6, <a href="#">page 4-146</a>).</p> <p>Does the error persist?</p>	Go to step 7.	Troubleshooting complete.
7.	<p>Check the Drum Temperature Sensor for debris or damage. Ensure the Drum Temperature Sensor is contacting the Drum. Replace the Sensor (REP 11.9, <a href="#">page 4-197</a>) if necessary.</p> <p>Does the error persist?</p>	Go to step 8.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
8.	<p>Is the image incomplete on only the sides of the print? This indicates incomplete Transfix Cam rotation, and can also be a damaged Oil roll. Check for a damaged Transfix Cam Roller or a malfunction of the Process Drive.</p> <p>Check the Transfix Arm movement. The Transfix Arms should move during transfix (see <a href="#">Figure 4 - Transfix Arm Movement</a> on page 3-53).</p> <ol style="list-style-type: none"> <li>Remove the Control Panel (REP 4.6, <a href="#">page 4-38</a>).</li> <li>Remove the Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a>).</li> <li>Open the Left Door. While printing a test print page, look through the gap on each side between the printer frame and the Left Side Door and check to see if the Arm moves up or down. Replace the Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a>) if no movement is visible.</li> <li>Replace any damaged parts found.</li> </ol> <p>Does the error persist?</p>	Go to step 9.	Troubleshooting complete.
 <p><b>Figure 4 - Transfix Arm Movement</b></p>			
9.	<p>Check that the Preheater Solenoid works correctly.</p> <p>Replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a>) if not completed on previous step.</p> <p>Replace the Drum Wiper Blade if damaged (REP 7.15, <a href="#">page 4-106</a>).</p> <ol style="list-style-type: none"> <li>Enter <a href="#">Service Diagnostics</a> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>Touch <a href="#">Diagnostics</a> &gt; <a href="#">dc330 Component Control</a>.</li> <li>Select the <a href="#">Preheater Solenoid</a> Chain <a href="#">089</a>, Links <a href="#">011</a> and <a href="#">012</a>.</li> <li>Open the Left Side Door. Remove the Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a>). The Preheater should alternate between On and Off position.</li> </ol> <p>Replace the Transfix Load Module (REP 7.18, <a href="#">page 4-115</a>) and the Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a>).</p>		

## IQ16 - Repeating Print Defects

Repeating defects typically result from debris or damage to an imaging component. The interval between the defect can reveal the affected component. The print defects can occur as spots of extra ink, spots of missing ink or areas of gloss variation.

### Initial Actions

- Check the supported media is being used.
- Verify the use of Xerox supplies.
- Print several test prints as a sample.
- Measure the interval between defects and note their position.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Transfix Roller, PL 7.1.18</li> <li>• Drum Assembly, PL 7.1.21</li> </ul>	<div style="text-align: center;"> </div> <p style="text-align: center;">Repeating Defects</p> <p style="text-align: center;"><b>Figure 1 - Repeating Print Defects</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Repeating defects that occur every 11.6 cm (4.58 in.) are caused by the Transfix Roller. Clean or replace the Transfix Roller (REP 7.10, <a href="#">page 4-91</a> ) as needed. Does the error persist?	Go to step 2.	Troubleshooting complete.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
2.	A repeating defect that has a different position along the long axis on the media on each page, but has the same position along the short axis of the media indicates a defect on the Drum. Clean the Drum. Inspect the Drum for nicks or scratches. Does the error persist?	Replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a> ).	Troubleshooting complete.

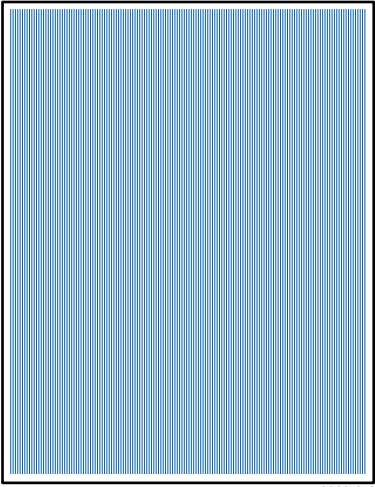
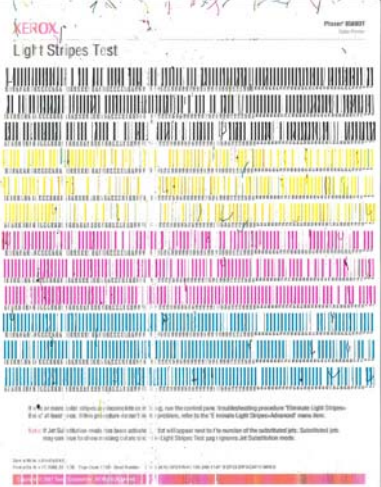
## IQ17 - White Stripes (Pinstripes)

White striping appears as a series of evenly-spaced pinstripes approximately 0.7 mm (0.03 in.) apart. This indicates a malfunction in the X-Axis Drive. This can cause vertical lines to be wavy.

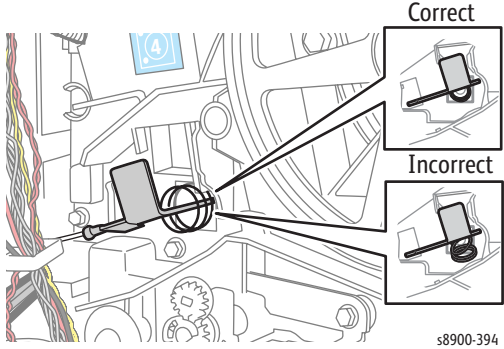
### Initial Actions

1. Check the supported media is being used.
2. Print the [Light Stripes Test](#) print.
  - a. From the Control Panel, press the **Machine Status** button.
  - b. Touch **Tools** > **Troubleshooting** > **Support Pages**.
  - c. Select **Light Stripes Test**.
  - d. Touch **Print**.
3. Print several solid-fill test prints as a sample.

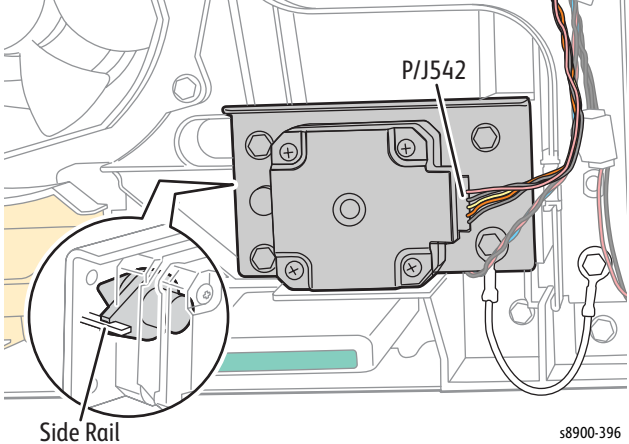
### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"><li>• Upper Duplex Guide with Solenoid, PL 6.1.2</li><li>• Preheater and Deskew Assembly, PL 7.1.22</li><li>• Lower Inner Duplex Guide, PL 8.1.3</li><li>• X-Axis Motor, PL 9.1.9</li></ul>	
Example Print	
 <p>s8900-613</p> <p><b>Figure 1 - White Stripes (Pinstripes)</b></p>	 <p>s8900-395</p> <p><b>Figure 2 - X-Axis Motion Issue</b></p>

## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Print several solid-fill test prints ( <a href="#">dc612 Print Test Pattern</a> on page 2-55). Check the X-Axis motion. Ensure that nothing is interfering with the X-Axis motion. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check that the X-Axis Bias Hook and spring on the left end of the Printhead Shaft installed correctly (see <a href="#">Figure 3 - X-Axis Bias Plate and Spring Alignment</a> on page 3-57). Ensure the point of the hook is centered in the shaft and the rest of the hook floats freely. Does the error persist?	Go to step 3.	Troubleshooting complete.
<div style="text-align: center;">  <p>s8900-394</p> </div> <p><b>Figure 3 - X-Axis Bias Plate and Spring Alignment</b></p>			

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
3.	<p>Check the X-Axis motion. Ensure the X-Axis Motor is correctly installed with its nose cone fork properly interfaced to its guide in the right side frame (see <a href="#">Figure 4 - X-Axis Motor and Nose Cone Fork Installation</a> on page 3-58). Ensure the X-Axis Motor is functioning. Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
<div style="text-align: center;">  <p><b>Figure 4 - X-Axis Motor and Nose Cone Fork Installation</b></p> </div>			
4.	<p>Check the Printhead Wiper is homed correctly and not restricting X-Axis motion. Remove any obstructions such as cables, screws, or damaged parts. Does the error persist?</p>	Go to step 5.	Troubleshooting complete.
5.	<p>Check the Printhead motion. Clear any interference with the horizontal motion of the Printhead. Does the error persist?</p>	Replace the X-Axis Motor (REP 9.7, <a href="#">page 4-147</a> ).	Troubleshooting complete.

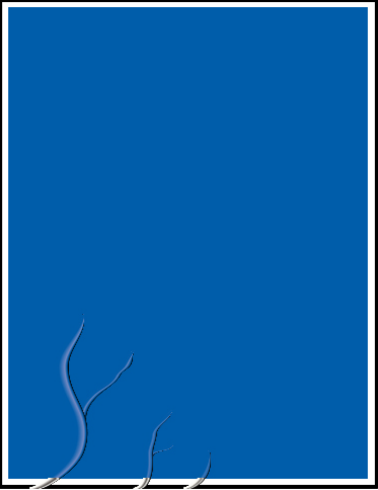
## IQ18 - Media Wrinkling or Damage

Wrinkling generally appears in areas of solid fill near the image edge. This problem is more often seen on short-grain media. Some wrinkling of envelope flaps is expected. You may see wrinkling on the second side of a 2-sided print on solid prints. Wrinkling could indicate a malfunction in the Transfix mechanism.

### Initial Actions

- Check that supported media is being used. Damp, moisture-laden paper may wrinkle and curl following printing. Light weight medias tend to be prone to wrinkling.
- Print several solid-fill test prints as a sample.
- Print using a higher-quality or heavier media type; try a different ream of media.

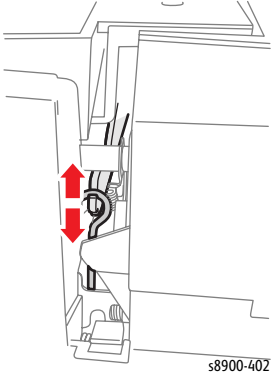
### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Transfix Arm Kit, PL 7.1.16</li> <li>• Stripper Carriage Assembly, PL 7.1.17</li> <li>• Transfix Roller, PL 7.1.18</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Transfix Camshaft, PL 7.1.25</li> <li>• Transfix Load Module, PL 7.1.35</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> <li>• DM Oil Roll</li> </ul>	 <p>Figure 1 - Wrinkling</p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Is the image is very skewed on the page, go to <a href="#">IQ9 - Skew</a> on page 3-32.		
2.	Suggest increasing the margin size of the image. Does the error persist?	Go to step 2.	Troubleshooting complete.
3.	Suggest printing high coverage pages as 1-sided job. Does the error persist?	Go to step 3.	Troubleshooting complete.

**Troubleshooting Procedure (Continued)**

Step	Actions and Questions	Yes	No
4.	<p>Check the Transfix components. Verify that the Transfix Load is working. Check the Transfix Arm movement (see <a href="#">Figure 2 - Transfix Arm Movement</a> on page 3-60).</p> <ol style="list-style-type: none"> <li>a. Remove the Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a>).</li> <li>b. Close the Left Side Door. While printing a test print page, look through the gap on each side between the printer frame and the Left Side Door and check to see if the Arm moves up or down. Replace the Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a>) if no visible movement.</li> </ol> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
 <p><b>Figure 2 - Transfix Arm Movement</b></p>			
5.	<p>Check the Preheater and Deskew Assembly is operating correctly. The upper plates on the Preheater should lay flat and not overlap. Replace the Preheater (REP 7.14, <a href="#">page 4-103</a>) if necessary. Check for media damage caused by the Stripper Carriage Assembly. Replace the Strip Carriage (REP 7.10, <a href="#">page 4-91</a>) if necessary.</p> <p>Replace the parts in the following order:</p> <ul style="list-style-type: none"> <li>• Transfix Roller (REP 7.10, <a href="#">page 4-91</a>)</li> <li>• Transfix Camshaft (REP 7.16, <a href="#">page 4-112</a>)</li> <li>• Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a>)</li> <li>• Transfix Load Module (REP 7.18, <a href="#">page 4-115</a>)</li> </ul>		

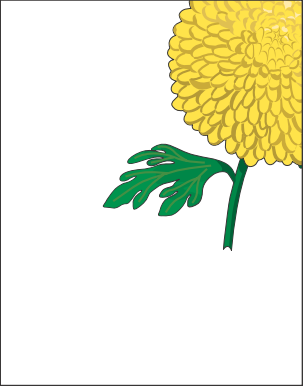
## IQ19 - Image is Offset or Cutoff

Image offset generally appears as a result of a mismatch between the application and the driver.

### Initial Actions

1. Check that supported media is being used.
2. Print a [Configuration](#) page from the Control Panel.
3. Print a [Manufacturing Skew Margin](#) page.
  - a. Enter [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 2-19).
  - b. Touch [Diagnostics](#) > [dc612 Print Test Pattern](#).
  - c. Select [Skew/Margin](#) test print.
4. Check the application print settings.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Tray Guides</li> </ul>	<div style="text-align: center;">  <p>Image Not Centered</p> </div> <p><b>Figure 1 - Image is Offset or Cut-Off</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the image location on the Skew Margin page to verify it's not a computer application issue. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	Check the application for correct image sizing and orientation. Does the error persist?	Go to step 3.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	<p>Correct the application settings. Some side to side adjustment can be made using Center Image.</p> <ol style="list-style-type: none"> <li>Enter <a href="#">Service Diagnostics</a> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>Touch <a href="#">Adjustments</a> &gt; <a href="#">dc131 NVRAM Read/Write</a>. <ul style="list-style-type: none"> <li>Tray 1 - Enter <a href="#">NVMID 492, Index 72</a></li> <li>Tray 2 - Enter <a href="#">NVMID 492, Index 73</a></li> <li>Tray 3 - Enter <a href="#">NVMID 492, Index 74</a></li> <li>Tray 4 - Enter <a href="#">NVMID 492, Index 75</a></li> <li>Tray 4 - Enter <a href="#">NVMID 492, Index 76</a></li> </ul> </li> <li>Enter image shift amount (in mpts, 2800 is approximately equal to 1mm) and touch <a href="#">Write</a>.</li> <li>To shift the image: <ul style="list-style-type: none"> <li>To the left, enter a <a href="#">positive</a> number</li> <li>To the right, enter a <a href="#">negative</a> number</li> </ul> </li> </ol> <p>Does the error persist?</p>	Go to step 4.	Troubleshooting complete.
4.	<p>Check the media size listed on the Configuration page and verify it matches media in the tray. This test print uses the tray selected in the <a href="#">Tray Settings</a> menu (<a href="#">Machine Status</a> button &gt; <a href="#">Tools</a> &gt; <a href="#">Device Settings</a> &gt; <a href="#">Tray Settings</a>).</p> <p>Does the media information match with the Configuration page?</p>	Go to step 5.	Correct the media information.
5.	<p>Check the Tray Guide adjustment. Are the Guides adjusted properly?</p>	Go to step 6.	Adjust the Guides and verify paper is stacked neatly in the tray.
6.	<p>Troubleshooting complete.</p> <p>If skew is shown on simplex prints:</p> <ul style="list-style-type: none"> <li>In Trays 2, 3, 4, or 5 check for a worn Takeaway Roller or Pick Roller.</li> <li>In Tray 1, check for a worn Pick Roller.</li> </ul> <p>If skew is shown on duplex prints, check for a worn Duplex Roller and verify that the Left Door is completely closed and latched on both the left and right sides. If the lead-edge margins are outside of tolerance, check the Preheater Flag.</p>		



## IQ20 - Poor Ink Adhesion, Poor Image Durability

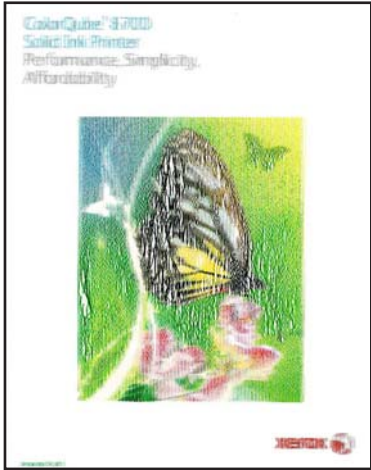

Poor ink adhesion generally appears as a result of overly glossy media coatings, improper temperature regulation of the Preheater or Drum or excess oil. Ink may have a blistered or orange peel texture and flake off the media.

**Note:** Some customer actions will cause ink to be removed from the image such as scratch or abrading the surface of the image or applying/removing tape or sticky notes. This is expected behavior. No further service actions can correct this behavior.

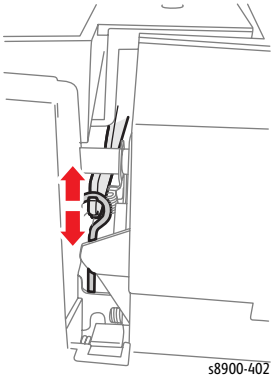
### Initial Actions

- Check that supported media is being used.
- Verify the use of Xerox supplies.
- Print a Configuration page from the Control Panel.
- Check the application print settings.

### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"> <li>• Cleaning Unit, PL 4.1.17</li> <li>• Upper Inner Duplex Guide with Solenoid, PL 6.1.2</li> <li>• Transfix Load Arms, PL 7.1.16</li> <li>• Transfix Roller, PL 7.1.18</li> <li>• Preheater and Deskew Assembly, PL 7.1.22</li> <li>• Drum Wiper Blade Assembly, PL 7.1.23</li> </ul>	<ul style="list-style-type: none"> <li>• Transfix Camshaft, PL 7.1.25</li> <li>• Drum Maintenance Pivot Plate, PL 7.1.26</li> <li>• Drum Maintenance Camshaft, PL 7.1.31</li> <li>• Transfix Load Module, PL 7.1.35</li> <li>• Lower Inner Duplex Guide, PL 8.1.3</li> <li>• Drum Temperature Sensor, PL 11.1.28</li> </ul>
Example Print	
 <p style="text-align: center;">s8900-403</p>	 <p style="text-align: center;">s8900-404</p>
<b>Figure 1 - Poor Ink Adhesion</b>	<b>Figure 2 - Poor Ink Adhesion</b>

**Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1.	Check the media type. If the media appears glossy, replace the media and reprint. Print the same image on standard office paper. Does the error persist?	Go to step 2.	Troubleshooting complete.
2.	For problematic media, set media type to Card Stock, which prints slower but can improve durability. For this case, Card Stock setting may be used for all media types. Does the error persist?	Go to step 3.	Troubleshooting complete.
3.	Check the position and cleanliness of the Drum Temperature Sensor (REP 11.9, <a href="#">page 4-197</a> ). Is the Sensor positioned properly with no interference?	Go to step 4.	Clean or correctly position the Sensor.
4.	Check the Transfix Load is working properly. The Transfix Arms should move during transfix (see <a href="#">Figure 3 - Transfix Arm Movement</a> on page 3-64). a. Remove the Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a> ). b. Close the Left Door. While printing a test print page, look through the gap on each side between the printer frame and the Left Door and check to see if the Arm moves up or down. Replace the Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a> ) if no movement is visible. Does the error persist?	Go to step 5.	Troubleshooting complete.
<div style="text-align: center;">  <p><b>Figure 3 - Transfix Arm Movement</b></p> </div>			

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	<p>Check the Cleaning Unit parts for damage or defects:</p> <ul style="list-style-type: none"> <li>• Drum Maintenance Pivot Plate</li> <li>• Drum Maintenance Cam Shaft</li> <li>• Drum Wiper Blade Assembly</li> </ul> <p>Check the Cleaning Unit for sufficient oil. Remove the Cleaning Unit and press loose piece of paper against Oil Roller with light finger pressure. If oil does not appear on the page, replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a>). If the Cleaning Unit is dry and the printer indicates there is more than 25 % of life remaining (from the Control Panel, press the <b>Machine Status button</b>, then touch <b>Supplies</b>), replace the Drum Wiper Blade (REP 7.15, <a href="#">page 4-106</a>).</p> <p>Check that the Drum Maintenance Camshaft and Pivot Plate are functioning correctly. Replace the Drum Maintenance Camshaft (REP 7.17, <a href="#">page 4-113</a>) and/or Pivot Plate (REP 7.15, <a href="#">page 4-106</a>) if necessary.</p> <p>Does the error persist?</p>	Go to step 6.	Troubleshooting complete.
6.	<p>Check that the Preheater Solenoid works correctly.</p> <ol style="list-style-type: none"> <li>a. Enter <b>Service Diagnostics</b> (<a href="#">Entering Service Diagnostics</a> on page 2-19).</li> <li>b. Touch <b>Diagnostics &gt; dc330 Component Control</b>.</li> <li>c. Select the <b>Preheater Solenoid</b> Chain <b>089</b>, Links <b>011</b> and <b>012</b>.</li> <li>d. Open the Left Side Door.</li> <li>e. Remove the Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a>). The Preheater should alternate between open and closed position. Replace the Strip Solenoid (REP 6.3, <a href="#">page 4-50</a>) and/or the Preheater (REP 7.14, <a href="#">page 4-103</a>) if necessary.</li> </ol> <p>Replace the following parts in this order:</p> <ul style="list-style-type: none"> <li>• Transfix Roller (REP 7.10, <a href="#">page 4-91</a>)</li> <li>• Transfix Camshaft (REP 7.16, <a href="#">page 4-112</a>)</li> <li>• Transfix Load Arms (REP 7.9, <a href="#">page 4-89</a>)</li> <li>• Transfix Load Module (REP 7.18, <a href="#">page 4-115</a>)</li> </ul>		

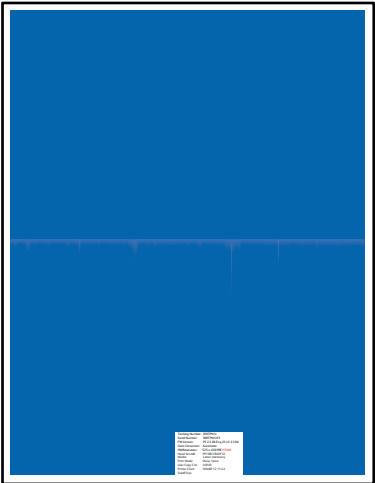
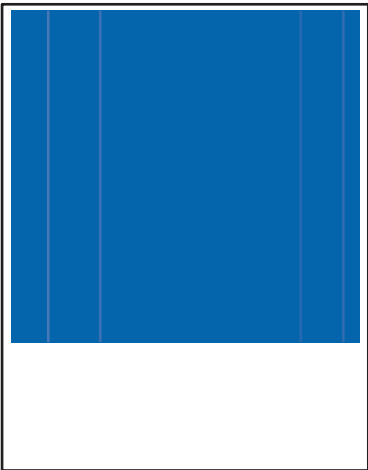
## IQ21 - Gloss Irregularities

There are variations in the glossiness of the printed image. Gloss is affected by media type, Drum surface, or uneven oiling. Gloss defects can be in any direction.

### Initial Actions

- Check that supported media is being used.
- Check the application print settings.
- If the outline of a previous image can be seen, refer to [IQ3 - Missing Ink, Stripes, Scratches or Marks Down the Print or Parallel to the Long Axis of Media](#) on page 3-16.

### Troubleshooting Reference

Applicable Parts	
<ul style="list-style-type: none"><li>• Cleaning Unit, PL 4.1.17</li><li>• Drum Assembly, PL 7.1.21</li><li>• Drum Wiper Blade Assembly, PL 7.1.23</li><li>• Drum Maintenance Pivot Plate Assembly, PL 7.1.26</li><li>• Drum Maintenance Camshaft, PL 7.1.31</li><li>• Process Drive with Gear Box and Motor, PL 9.1.8</li></ul>	
Example Print	
 <p>s8900-405</p> <p><b>Figure 1 - Glossy</b></p>	 <p>s8900-406</p> <p><b>Figure 2 - Glossy Vertical Lines</b></p>

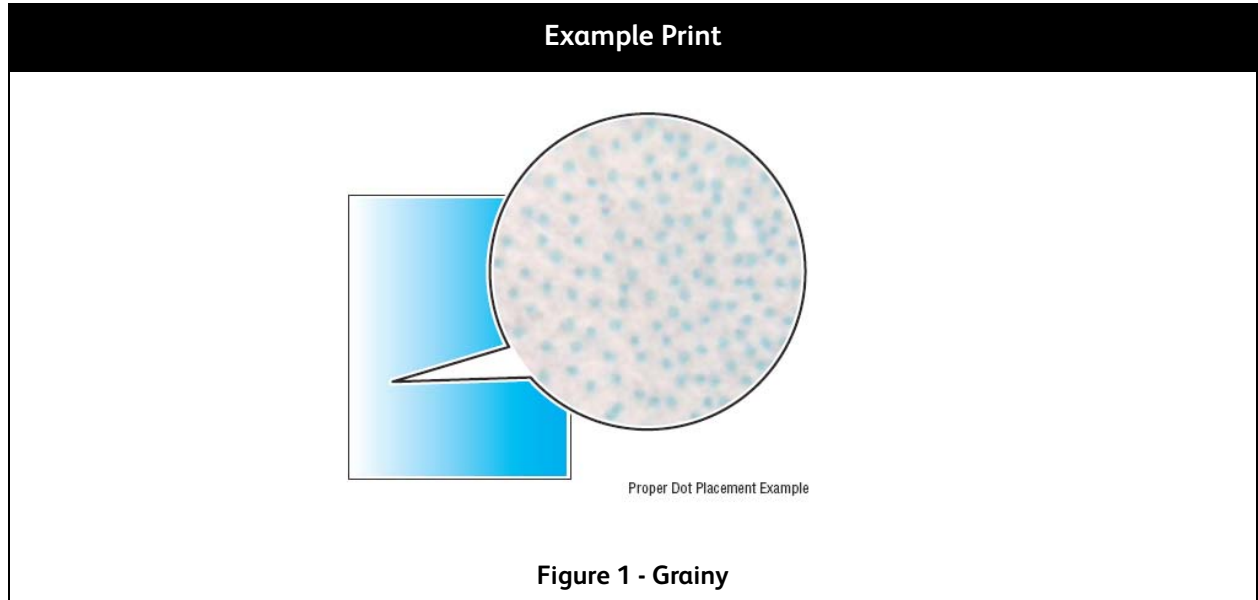
## Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	<p>Print a <b>Blue Solid Fill</b> page.</p> <ol style="list-style-type: none"> <li>Enter <b>Service Diagnostics</b> (<b>Entering Service Diagnostics</b> on page 2-19).</li> <li>Touch <b>Diagnostics</b>.</li> <li>Touch <b>dc612 Print Test Pattern</b>.</li> <li>A <b>dc612 Print Test Pattern</b> screen is displayed.</li> <li>From the list select <b>TP8 Blue Solid Fill</b>.</li> </ol> <p>Check for oil and gloss on the page. Is there gloss or oil mark on the page?</p>	Go to step 2.	Troubleshooting complete.
2.	<p>Check the Cleaning Unit for sufficient oil. Remove the Cleaning Unit and press loose piece of paper against Oil Roller with light finger pressure. If oil does not appear on the page, replace the Cleaning Unit (REP 4.8, <a href="#">page 4-40</a>).</p> <p>If the Cleaning Unit is dry and the printer indicates there is more than 25 % of life remaining (from the Control Panel, press the <b>Machine Status</b> button, then touch <b>Supplies</b>), replace the Drum Wiper Blade (REP 7.15, <a href="#">page 4-106</a>).</p> <p>Check that the Drum Maintenance Cam Roller and Pivot Plate are functioning correctly.</p> <p>Perform the Drum Maintenance Drive test.</p> <ol style="list-style-type: none"> <li>Enter <b>Service Diagnostics</b> (<b>Entering Service Diagnostics</b> on page 2-19).</li> <li>Touch <b>Diagnostics</b> &gt; <b>dc330 Component Control</b>.</li> <li>Select <b>Head Maintenance Clutch</b>, Chain <b>091</b>, Link <b>010</b>.</li> </ol> <p>or</p> <ol style="list-style-type: none"> <li>Run <b>dc959 Cleaning Unit Exerciser</b> on page 2-58, also in <b>Service Diagnostics</b>.</li> </ol> <p>Does the error persist?</p>	Go to step 3.	Troubleshooting complete.
3.	<p>If glossy vertical line is visible, it's possible there is a defect on the Drum Wiper Blade Assembly. Clean and replace the Drum Wiper Blade (REP 7.15, <a href="#">page 4-106</a>) if necessary.</p> <p>If glossy defects line up with Paper Path Rollers, Flags, or Guides, clean the paper path. Ensure the Rollers are properly installed.</p> <p>Check operation of the Drum Maintenance Pivot Plate Assembly (REP 7.15, <a href="#">page 4-106</a>), Drum Maintenance Camshaft (REP 7.17, <a href="#">page 4-113</a>), and Process Drive (REP 9.5, <a href="#">page 4-142</a>). Replace the parts if necessary.</p> <p>A gloss line along the long axis of the media can be caused by a drum scratch. Check the Drum for scratches along its circumference and replace the Drum Assembly (REP 7.13, <a href="#">page 4-96</a>) if necessary.</p>		

## IQ22 - Grainy

There are specks or dots of color on the image.

### Troubleshooting Reference



### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Some graininess in image is normal and inherent in the image. If the pattern of graininess is exactly the same on multiple copies of the same print, suggest running the image in a higher print resolution. If the pattern of graininess is random and changes appearance on multiple copies of the same print, go to <a href="#">IQ15 - Incomplete Image Transfer, Drop Out, Missing Pixels</a> on page 3-49.		

# Copy/ Scan Troubleshooting

Before troubleshooting copy or scan problems, print an internal page for inspection and correct print engine defects first. Copy a clean original document or test pattern to proceed with Scanner/DADF Image Quality troubleshooting below.

## Copy/ Scan Defect Definitions

The following table lists the print-quality defect corrective procedure, their definition, and the page where each procedure is provided.

### Copy/ Scan Definitions

Defect	Description	Page
<a href="#">Lines, Spots, Streaks and Smears</a>	Poor overall print-quality from a copy or scan.	<a href="#">3-70</a>
<a href="#">Background Color, Text, and Images on Copies are Too Light, Too Dark, or Blurry</a>	The image on the copy appears too light, too dark, or blurry.	<a href="#">3-72</a>
<a href="#">Skew</a>	The printed image is not parallel on both sides of the paper.	<a href="#">3-74</a>
<a href="#">Damaged Paper</a>	Paper comes out of the DADF wrinkled, folded, or torn.	<a href="#">3-78</a>
<a href="#">Wavy Lines</a>	The printed image has vertical image distortion in the direction of the paper travel.	<a href="#">3-41</a>
<a href="#">Spots Present in Copies</a>	There are spots in copies when scanning document on the Document Glass.	<a href="#">3-82</a>
<a href="#">Large Jitter</a>	The carrier generates jitter while moving from the home position.	<a href="#">3-83</a>
<a href="#">Image Mis-registered</a>	The composite color image may be misaligned or present an incorrect color scheme.	<a href="#">3-84</a>
<a href="#">Image Blurry</a>	Image on the paper is blurry.	<a href="#">3-86</a>
<a href="#">Overscan</a>	Scanning starts prior to the leading of the paper reaches the Scan Head area.	<a href="#">3-87</a>


## Lines, Spots, Streaks and Smears

Poor overall print-quality from a copy or scan.

### Initial Actions

- Print an embedded page to determine if the defect is within the DADF/ Scanner or print engine.
- Check the document glass for debris or paper residue.
- Check the DADF paper path for damage, paper dust and debris.
- Check the CVT window for dust and debris.

### Troubleshooting Procedure

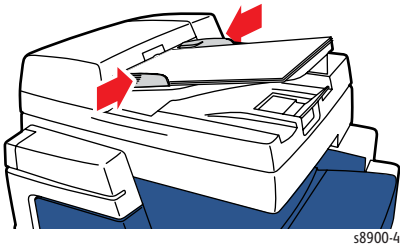
Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Scanner Assembly, PL 2.1.42</li> </ul>	<div style="text-align: center;">  <p>Ink Smears Duplex</p> </div> <p><b>Figure 1 - Lines, Spots, Streaks, and Smears</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Print an embedded page to determine if the defect is in the DADF/ Scanner or print engine. Does the defect appear in the embedded page?	Go to pertinent print-quality troubleshooting procedure.	Go to step 2.
2.	Clean the Document Glass and CVT window using a soft cloth or cotton swab dampened with isopropyl alcohol (90 %). Does the error still occur?	Go to step 3.	Troubleshooting complete.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Adjust the Guides on the DADF Input Tray (see <a href="#">Figure 2 - Guides Adjustment</a> on page 3-71). Is the paper being fed through the DADF?	Clean the DADF and Feed Rollers.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).
<p><b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47.</p>			
<div style="text-align: center;">  <p>s8900-466</p> </div> <p style="text-align: center;"><b>Figure 2 - Guides Adjustment</b></p>			

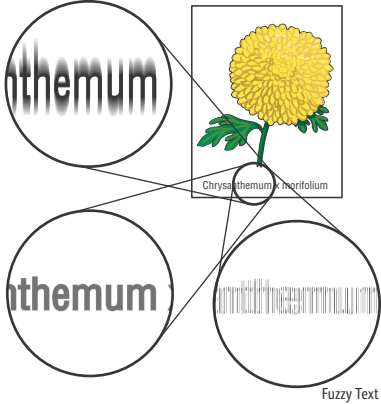
## Background Color, Text, and Images on Copies are Too Light, Too Dark, or Blurry

Background Color, Text, and Images on Copies are Too Light, Too Dark, or Blurry.

### Initial Actions

- Raise and lower the Document Feeder to ensure proper position during the copy sequence.
- Verify the size and condition of customer original documents are within DADF specifications.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Scanner Assembly, PL 2.1.42</li> </ul>	 <p>Figure 1 - Fuzzy Text</p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the Scanner Cable connector. Is the cable connected securely?	Go to step 2.	Go to step 3.
2.	Adjust one or more of the settings in: <ul style="list-style-type: none"> <li>• Copy Image Quality tab</li> <li>• Scan Advanced Setting tab</li> </ul> Does the error still occur?	Go to step 4.	Troubleshooting complete.
3.	Reconnect the Scanner cable connector. Does the error still occur?	Go to step 4.	Troubleshooting complete.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
4.	Clean the Document Glass and CVT window using a soft cloth or cotton swab dampened with isopropyl alcohol (90 %). Does the error still occur?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Troubleshooting complete.
<p><b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47.</p>			

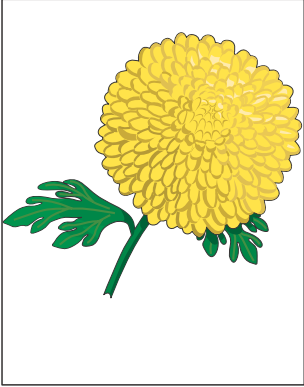
## Skew

The printed image is not parallel with both sides of the paper.

### Initial Actions

- Check the DADF paper path for paper dust or debris. Clean the paper path as needed.
- Check the original document for a skewed image or other physical damage to the paper.

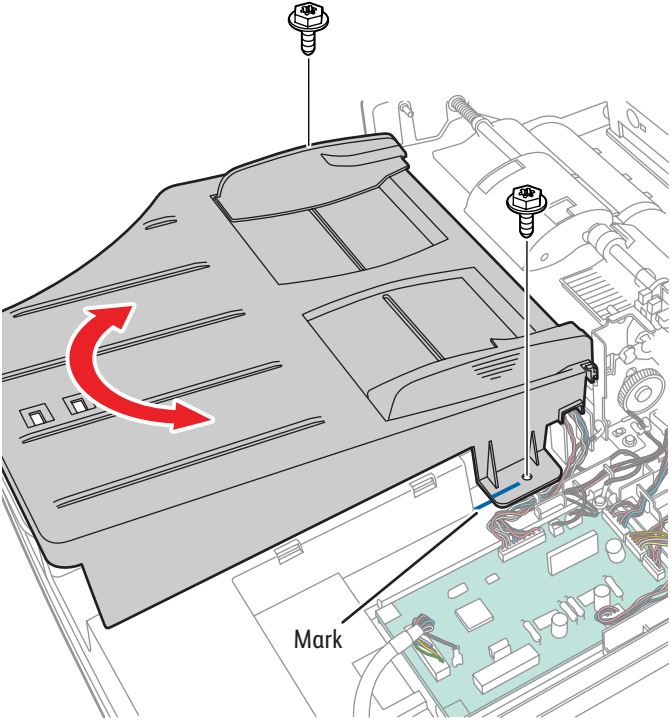
### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF Retard Roller, PL 1.2.16</li> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> <li>• Scanner Assembly, PL 2.1.42</li> </ul>	<div style="text-align: center;">  <p style="text-align: right; font-size: small;">Skew 2</p> <p><b>Figure 1 - Skew</b></p> </div>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Print an embedded page to determine if the defect is in the DADF/ Scanner or print engine. Does the defect occur in the embedded page?	Go to the pertinent print quality troubleshooting procedure.	Go to step 2.
2.	Perform a copy job. Does the error still occur when copying?	Go to step 3.	Troubleshooting complete.
3.	Is the paper being fed through the DADF?	Go to step 4.	Go to step 8.
4.	Check the document. Does the document meet the specifications (refer to <a href="#">Copy Specifications</a> on page 1-45 or <a href="#">Scanning Specifications</a> on page 1-45)?	Check the paper guide setting to ensure it is adjusted correctly. Reset the side guide of the DADF. Go to step 5.	Use the document glass to make the copy or change the paper type.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	<p>Adjust the DADF Input Tray.</p> <p>Remove the DADF Rear Cover (steps 1 - 3, REP 1.1, <a href="#">page 4-5</a>).</p> <p>Use a black marker and place a mark on the Input Tray bracket for a starting point prior to adjusting the Tray (see <a href="#">Figure 2 - Starting Points</a> on page 3-75).</p> <p>Loosen the front screw that secures the Input Tray.</p> <p>Loosen the rear screw that secures the Input Tray.</p> <p>Adjust the Input Tray.</p> <p>Does the error still occur?</p>	Go to step 6.	Troubleshooting complete.
 <p style="text-align: center;"><b>Figure 2 - Starting Points</b></p>			
6.	<p>Perform <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44.</p> <p>This adjustment compensates for image mis-registration (on the page) and skewed paper fed through the DADF.</p> <p>Does the image quality improve?</p>	Troubleshooting complete.	Go to step 7.

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
7.	Check the DADF Feed Roller and Separator Pad. Is the Feed Roller or Separator Pad dirty, worn, or damaged?	Clean or replace the components. <ul style="list-style-type: none"> <li>• DADF Retard Roller (REP 1.2, <a href="#">page 4-7</a>)</li> <li>• DADF Pick Roller Assembly (REP 1.3, <a href="#">page 4-8</a>)</li> </ul>	Go to step 8.
8.	Check the wiring harness connector from the DADF to the Scanner. Is the wiring harness connector connected securely?	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).	Reconnect the wiring harness connectors.
<p><b>Note:</b> After the DADF replacement, if registration occurs, perform <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44.</p>			
9.	Check the document placement. Is the document placed on the glass correctly?	Go to step 10.	Reseat the document.
10.	Adjust the Scanner Assembly. <ol style="list-style-type: none"> <li>Open the Scanner Assembly.</li> <li>Use a black marker and place a mark on the Input Tray bracket for a starting point prior to adjusting the Tray (see <a href="#">Figure 3 - Starting Points</a> on page 3-77).</li> <li>Loosen the 2 screws that secure the Scanner feet.</li> <li>Slightly adjust the Scanner Assembly (pull to the front or push towards the rear depending the skew).</li> </ol> <p><b>Note:</b> Be sure the Rollers on the bottom of the DADF are parallel with the CVT window.</p> <p>Does the error still occur?</p>	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Troubleshooting complete.
<p><b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform the calibration procedure (<a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47).</p>			

Troubleshooting Procedure (Continued)

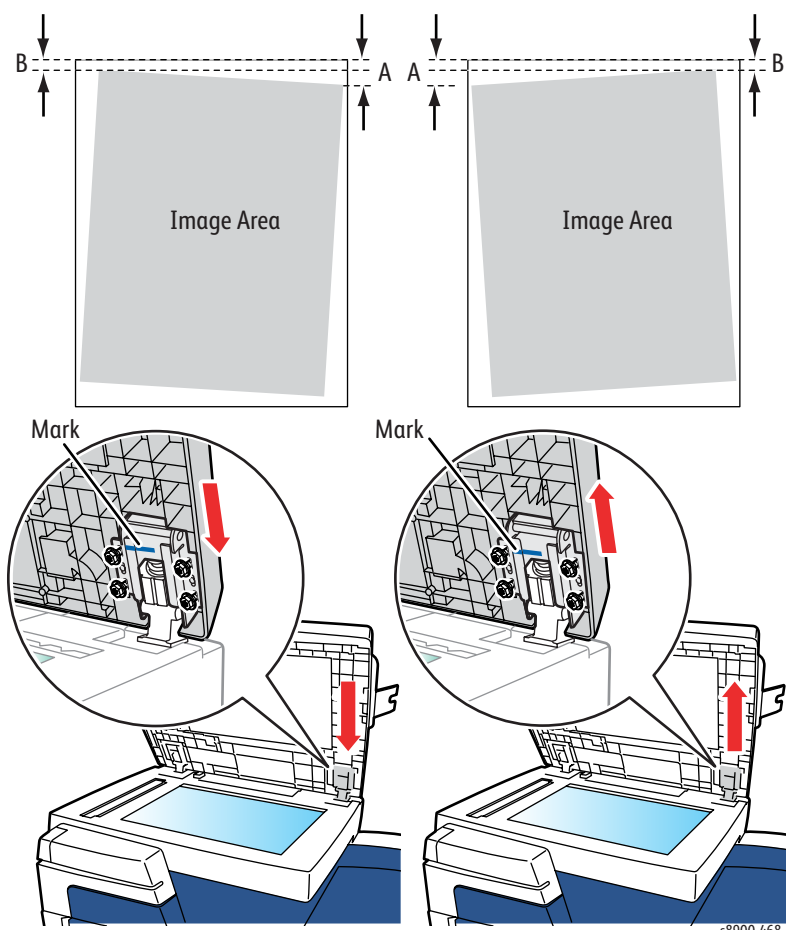
Step	Actions and Questions	Yes	No
	 <p>The diagram illustrates two starting points for image quality adjustment. The top part shows two trapezoidal 'Image Area' rectangles. The left rectangle has a vertical dimension 'A' and a horizontal dimension 'B'. The right rectangle has a vertical dimension 'A' and a horizontal dimension 'B'. Below these are two printer diagrams. The left printer has a red arrow pointing down, and the right printer has a red arrow pointing up. Both printer diagrams have a callout circle labeled 'Mark' pointing to a specific component on the right side of the printer's internal mechanism.</p>		

Figure 3 - Starting Points

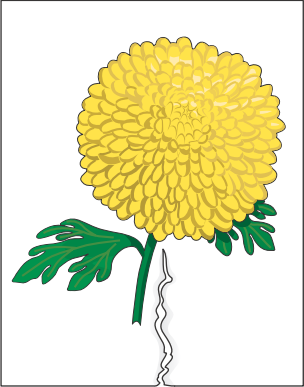
## Damaged Paper

Paper comes out of the DADF wrinkled, folded, or worn-out.

### Initial Actions

- Check the DADF paper path for paper dust or debris. Clean the paper path as needed.
- Check the media for the correct type and size.
- Check that there is are no punched media.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• DADF Retard Roller, PL 1.2.16</li> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> </ul>	<div style="text-align: center;">  <p>Damaged Print Media</p> </div> <p><b>Figure 1 - Damaged Paper</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Does the document meet the media specifications (refer to <a href="#">Media and Tray Specifications</a> on page 1-54)?	Go to step 2.	Change the paper type or use the document glass mode.
2.	Check the side guide setting. Reset the side guide setting. Does the document feed correctly?	Troubleshooting complete.	Go to step 3.



## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Replace the DADF Retard Roller and Pick Roller Assembly. <ul style="list-style-type: none"> <li>• DADF Retard Roller (REP 1.2, <a href="#">page 4-7</a>)</li> <li>• DADF Pick Roller Assembly (REP 1.3, <a href="#">page 4-8</a>)</li> </ul> Does the document feed correctly?	Troubleshooting complete.	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).
<b>Note:</b> After the DADF replacement, if registration occurs, perform <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44.			

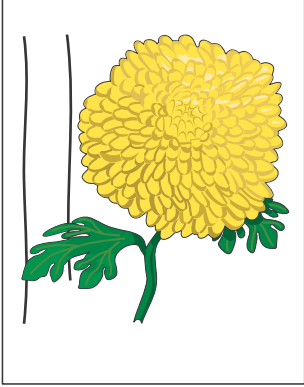
## Vertical Image Distortion

The printed image has vertical image distortion in the direction of the paper travel.

### Initial Actions

- Check the DADF paper path for paper dust or debris. Clean the paper path as needed.
- Print an embedded page to determine if the defect is within the DADF/ Scanner or print engine.
- Verify copy job before printing.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• DADF Assembly, PL 1.1.22</li> <li>• Scanner Assembly, PL 2.1.42</li> </ul>	<div style="text-align: center;">  <p>Hunting</p> </div> <p style="text-align: center;"><b>Figure 1 - Vertical Image Distortion</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the paper condition. Is the paper dry, recommended, loaded in the correct position, and meet the media specifications?	Go to step 2.	Replace the paper or use the document glass mode.
2.	Is the DADF closed against the document glass completely?	Go to step 3.	Close the DADF.
3.	Clean the document glass and CVT window using a soft cloth or cotton swab dampened with isopropyl (90 %). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4.	Is the paper being fed through the DADF?	Go to step 5.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
5.	Use the document glass to make copy. Does the error still occur?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Replace the DADF Assembly (REP 1.1, <a href="#">page 4-5</a> ).
<p><b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47.</p> <p><b>Note:</b> After the DADF replacement, if registration occurs, perform <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44.</p>			

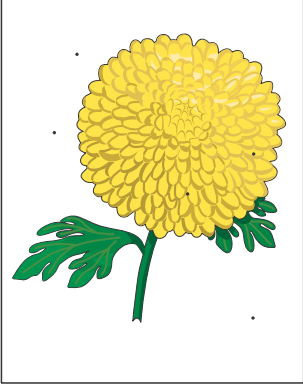
## Spots Present in Copies

There are spots in copies when scanning document on the Document Glass.

### Initial Action

- Check the Document Glass for paper dust or debris.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Scanner Assembly, PL 2.1.42</li> </ul>	<div style="text-align: center;">  <p>Spots on Glass</p> <p><b>Figure 1 - Spots</b></p> </div>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Clean the glass surfaces with a lint free cloth. Does the error still occur?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Troubleshooting complete.
<p><b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47.</p>			

## Large Jitter

The carrier generates jitter while moving from the home position.

### Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

### Troubleshooting Reference

Applicable Parts
<ul style="list-style-type: none"> <li>• DADF Retard Roller, PL 1.2.16</li> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> <li>• Scanner Assembly, PL 2.1.42</li> <li>• Main Controller Board, PL 10.1.3</li> </ul>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the DADF wiring harness connector. Is the connector securely connected?	Go to step 2.	Reconnect the wiring harness connector.
2.	Check the Scanner cable connector. Is the cable connected securely?	Replace the Pick Roller/ Retard Roller Assembly. <ul style="list-style-type: none"> <li>• Retard Roller (REP 1.2, <a href="#">page 4-7</a>)</li> <li>• Pick Roller Assembly (REP 1.3, <a href="#">page 4-8</a>)</li> </ul>	Reconnect the Scanner cable connector.
3.	Check the Main Controller Board voltage. Is there +5 V applied to the Main Controller Board?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).
<p><b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47.</p>			


## Image Mis-registered

The composite color image may be misaligned or present an incorrect color scheme.

### Initial Actions

- Check the paper transfer path.
- Verify that only occurs when scanning and not printing as well.
- Ensure there is no debris in the transfer path.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• Scanner Assembly, PL 2.1.42</li> </ul>	<div style="text-align: center;">  <p>Color Registration</p> </div> <p><b>Figure 1 - Registration</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check the DADF wiring harness connector. Is the connector securely connected?	Go to step 2.	Reconnect the wiring harness connector.
2.	Is the paper fed from the document glass?	Perform <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47 in Chapter 6, Maintenance. Make sure the paper is placed properly against back left corner of the glass.	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).
<p><b>Note:</b> After the Scanner Assembly replacement, if registration occurs, perform <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47.</p>			

## Troubleshooting Procedure (Continued)

Step	Actions and Questions	Yes	No
3.	Is the paper fed from the DADF?	Perform <a href="#">ADJ 1.6 Document Feeder Registration</a> on page 6-44.	Replace the Main Controller Board (REP 10.3, <a href="#">page 4-162</a> ).

## Image Blurry

Image on the paper is blurry.

### Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

### Troubleshooting Procedure

Applicable Parts	
<ul style="list-style-type: none"><li>• Scanner Assembly, PL 2.1.42</li></ul>	

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for any debris on the document glass. Is there debris on the document glass?	Remove the debris and clean the document glass using a moistened lint-free cloth.	Go to step 2.
2.	Check the Scanner cable connector. Is the cable connected securely?	Replace the Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> ).	Reconnect the Scanner cable.
<b>Note:</b> After the Scanner Assembly replacement, if mis-registration occurs, perform the calibration procedure ( <a href="#">ADJ 1.7 Document Glass Registration</a> on page 6-47).			



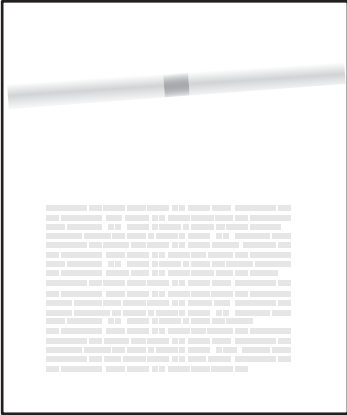
## Overscan

Scanning starts prior to the leading of the paper reaches the Scan Head area when scanning documents using the DADF.

### Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

### Troubleshooting Reference

Applicable Parts	Example Print
<ul style="list-style-type: none"> <li>• DADF Pick Roller Assembly, PL 1.2.20</li> <li>• Scanner Board (IPP PWB), PL 2.1.16</li> </ul>	 <p>Overscan</p> <p><b>Figure 1 - Overscan</b></p>

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1.	Check for any debris on the document glass. Is there debris on the document glass?	Remove the debris and clean the document glass using a moistened lint-free cloth. Go to step 2.	Replace the DADF Pick Roller Assembly (REP 1.3, <a href="#">page 4-8</a> ). Go to step 2.
2.	Does the error occur?	Perform <a href="#">dc301 NVM Initialization</a> on page 2-64. Go to step 3.	Troubleshooting complete.
3.	Does the error occur?	Replace the Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> ).	Troubleshooting complete.

## Test Prints

A variety of test prints are available in the Service Diagnostics Menu to aid in determining the quality of output from the printer and to assist in troubleshooting problems. This section shows how to select and analyze all test prints available to the printer.

The Test Patterns can be accessed through the Customer Menu or Service Diagnostics.

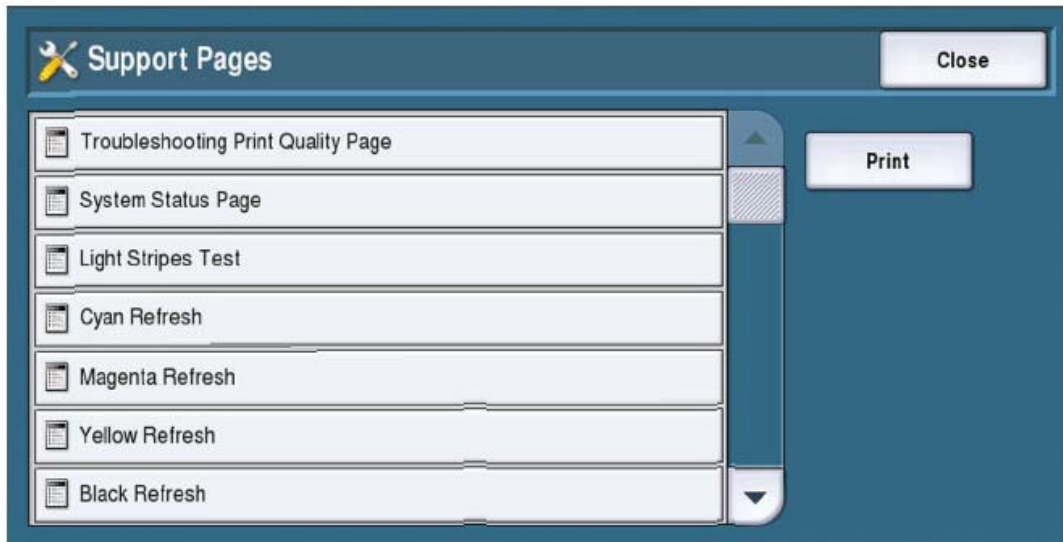
### Accessing Troubleshooting Print-Quality Pages

The Troubleshooting Print-Quality Pages can be access through the Customer Menu.

1. On the Control Panel, press the **Machine Status** button.
2. Touch **Tools**.
3. Touch **Troubleshooting**.
4. Touch **Support Pages**.



5. Select **Troubleshooting Print Quality Page**.
6. Touch **Print**.



## Accessing the Print Test Patterns (dc612)

The Print Test Patterns can be accessed through the Service Diagnostics menu.

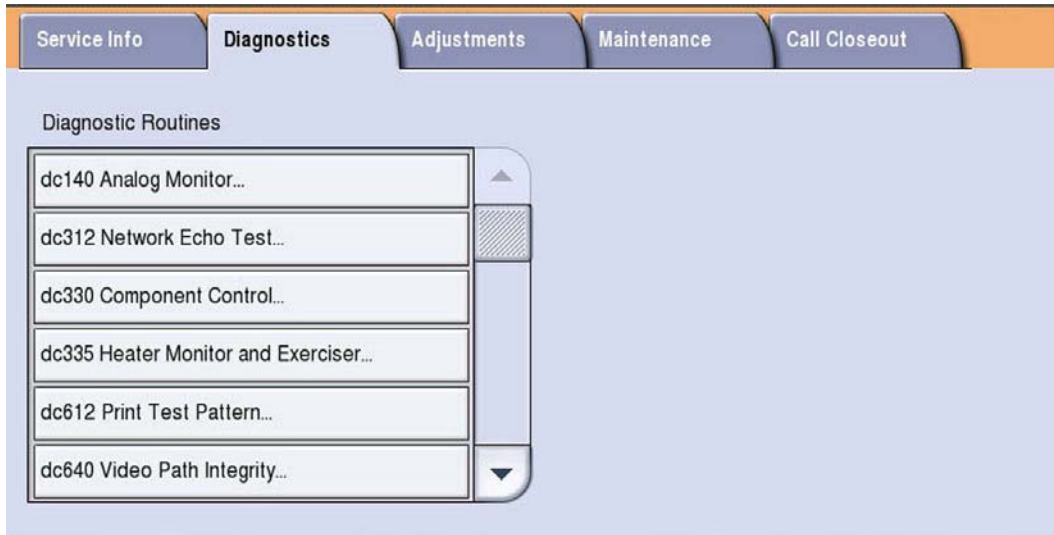
**Note:** Defects revealed by the prints may not occur in the course of ordinary printing. In servicing the system, you should minimize the defects shown by the prints but not necessarily eliminating them.

### Print Test Patterns

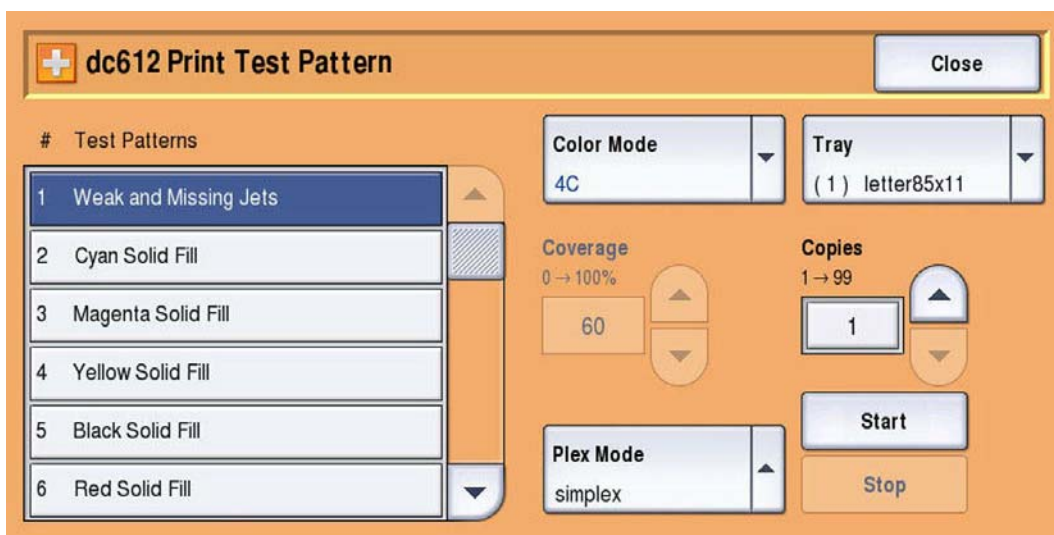
Item	Description	Page
1.	Weak and Missing Jets	<a href="#">page 3-92</a>
2.	Cyan Solid Fill	<a href="#">page 3-93</a>
3.	Magenta Solid Fill	<a href="#">page 3-93</a>
4.	Yellow Solid Fill	<a href="#">page 3-94</a>
5.	Black Solid Fill	<a href="#">page 3-94</a>
6.	Red Solid Fill	<a href="#">page 3-95</a>
7.	Green Solid Fill	<a href="#">page 3-95</a>
8.	Blue Solid Fill	<a href="#">page 3-96</a>
9.	White Solid Fill	<a href="#">page 3-96</a>
10.	C, M, Y, K, R, G, B Solid Fills	<a href="#">page 3-97</a>
11.	Chase Page	<a href="#">page 3-98</a>
12.	Skew/ Margin Test Print	<a href="#">page 3-98</a>
13.	Cleaning Page (Mud Page)	<a href="#">page 3-99</a>
14.	Light Stripes Page	<a href="#">page 3-99</a>
15.	Service Usage Profile	<a href="#">page 3-99</a>

## Procedure

1. Enter **Service Diagnostics** ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Diagnostics**.
3. Select **dc612 Print Test Pattern**.

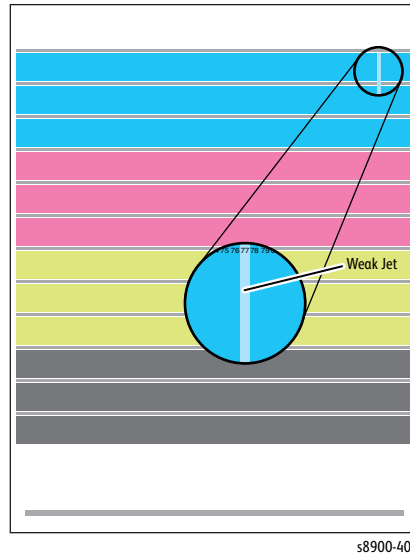


4. A **dc612 Print Test Pattern** screen is displayed.
5. Select a test pattern from the list (see [Print Test Patterns](#) on page 3-90).
6. Make the necessary adjustments (**Color Mode**, **Tray**, **Coverage**, **Plex Mode**, **Copies**).
7. Touch **Start** to print the page(s).
8. Touch **Close** to return to the **Diagnostics** menu.



## Weak or Missing Jets

This print is similar to Light Stripes Test page. This print shows the jets not outputting enough ink, if any, compared to its neighboring jets. Note that the yellow jets' bands have a small amount of cyan ink added to them. This tints them green to make them more visible.



### Look for:

No interlacing is used in this print: expect light/dark variation between jets. Look for much lighter colored vertical bands in the horizontal bars. Weak jets in the yellow band are distinguished by a cyan tint.

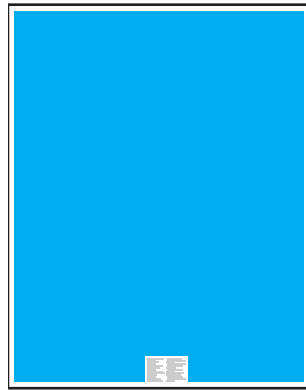
### Causes:

A jet may be partially clogged. Perform printhead clean/purge cycles on the printhead to remove contaminants from the poorly-performing jet.

If jet substitution mode is required, see Jet Substitution Mode. Test the purge system and the Wiper Blade performance. Turn the printer Off for 2 hours (or overnight, if practical). Print the Test pages to see if problems still persist. Perform a Clean/Purge cycle again if problem persists. There may be a problem in the Purge Pump assembly or the Wiper Assembly may not be compliant. Verify that the printer is using Xerox ink. Follow the instructions on the Printhead Troubleshooting Checklist.

## Cyan Solid Fill

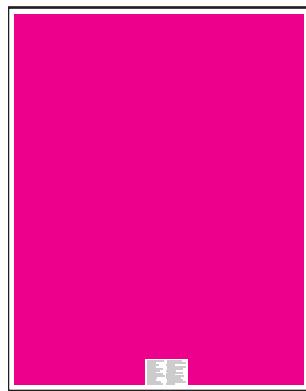
This test prints 2 pages of Cyan solid fills simplex/ duplex depends on the Plex Mode selection.



Cyan Solid

## Magenta Solid Fill

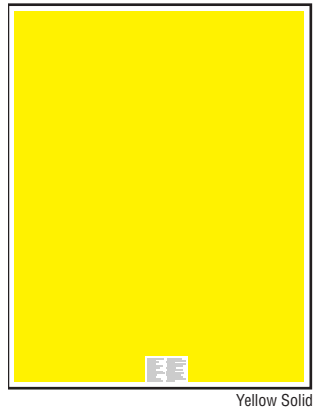
This test prints 2 pages of Magenta solid fills simplex/duplex depends on the Plex Mode selection.



Magenta Solid

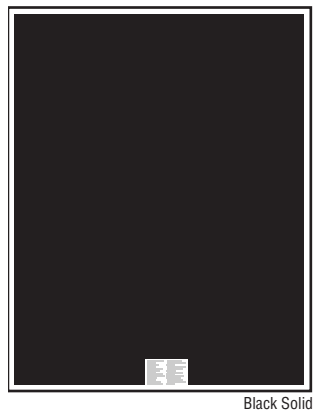
## Yellow Solid Fill

This test prints 2 pages of Yellow solid fills simplex/duplex depends on the Plex Mode selection.



## Black Solid Fill

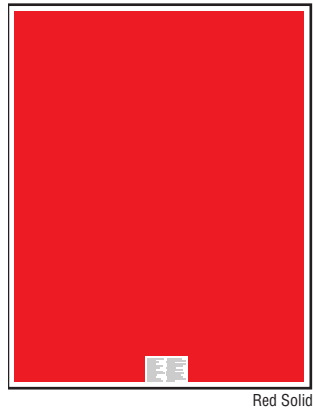
This test prints 2 pages of Black solid fills simplex/duplex depends on the Plex Mode selection.





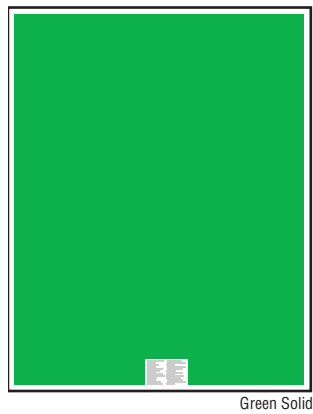
## Red Solid Fill

This test prints 2 pages of Red solid fills simplex/duplex depends on the Plex Mode selection.



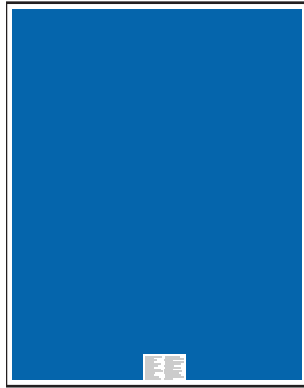
## Green Solid Fill

This test prints 2 pages of Green solid fills simplex/duplex depends on the Plex Mode selection.



## Blue Solid Fill

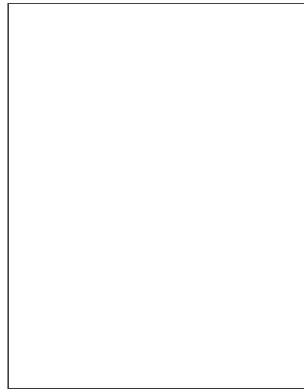
This test prints 2 pages of Blue solid fills simplex/duplex depends on the Plex Mode selection.



Blue Solid

## White Solid Fill

This test prints 2 blank pages simplex/duplex depends on the Plex Mode selection.



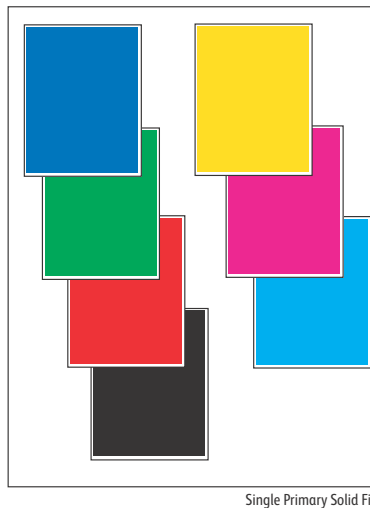
Blank Print

## C, M, Y, K, R, G, B Solid Fills

This test prints a single-sided, solid-fill print in all seven colors to show uniformity of fill. If colors are uneven or wrong, see [IQ8 - Color is Uneven or Wrong \(Uniformity\)](#) on page 3-29.

Look for:

- Even, uniform fill throughout each print.
- Wrinkles or deformity of the paper.
- Proper ink transfer.
- White striping or banding.

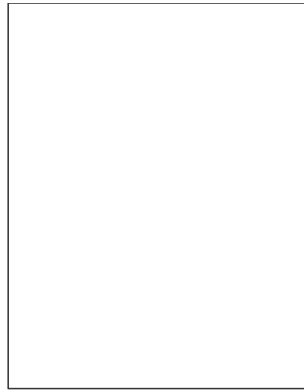


### Causes

- Weak jets or improper Drum heating can cause uneven fills.
- To solve wrinkling, try different print media. Replace the Cleaning Unit to correct streaking. Check the Drum Temperature Sensor for debris build-up on the Sensor. Check to see if the Sensor is in improper contact with the Drum. See the [Reverse Text](#) test print.
- As a last resort to fix wrinkling, replace the Transfix Roller (REP 7.10, [page 4-91](#)), Transfix Load Module (REP 7.18, [page 4-115](#)), and Transfix Load Arms (REP 7.9, [page 4-89](#)).
- If there is poor transfer on one side, check to see if the transfix load arm assemblies are moving easily. Clean any contamination that may be interfering with the transfix arm assembly movement. If either of the transfix load arm assemblies are worn, replace the worn load arm assembly.
- If there are repeating white stripes on the print, there may be a problem with the X-Axis motion, see [IQ17 - White Stripes \(Pinstripes\)](#) on page 3-56.

## Chase Page

A blank piece of paper is used to remove contamination from the Drum, Transfix Roller, and media path.



Blank Print

## Skew/ Margin Test Print

This print includes a blank page and Skew/Margin Test print. This print is used by Manufacturing and Engineering only.

Paper Path



Blank Print

Skew Margin



s8900-389

## Cleaning Page (Mud Page)

The Cleaning Page is automatically printed following a purge. It is used to flush the Printhead jets of any possible contamination or color mixed jets. It can also be printed on its own.

## Light Stripes Page

The Light Stripes Test page prints lines from each jet to see if any jet is clogged. This page is formatted for Letter, Legal or A4 sizes, and output may vary on other sizes.

## Service Usage Profile

The Service Usage Profile contains a detailed log of printer use, tallying numbers of jams, how often features are used, usage by tray, job and page counts, and so on.

## Manufacturing Skew and Margins

This print is used to gauge skew and margins on 2-sided prints.

### Skew

- The measurement between the edge of the paper and the magenta frame should be within tolerance along the entire length of the top of the paper.
- For example, the measurement on the top left side of the sheet should be the same as the measurement on the top right side of the sheet (within tolerance).
- To calculate skew: Measure the margin at the leading edge of each corner, and then take the difference between them.
- For example, if the margin at the right leading edge corner is 5.1 mm, and the margin at the left leading edge corner is 4.9 mm, then the skew would be  $(5.1 - 4.9) = 0.2$  mm. The skew tolerance for the following media types are:
  - All sizes except envelopes and custom sizes:  $0.0 \pm 0.89$  mm
  - Envelopes:  $0.0 \pm 1.04$  mm
  - Evaluate Custom media using this formula:  $\text{Skew Spec (mm)} = 998.4 * (\text{width} - 12.5)^{-1.02}$ , where width is in millimeters

## Margins

- Measure from the margin frame to the edge of the paper at the midpoint on the top and left-edge margin (right side of paper, left side of system) of the paper.
- The tolerance for margin is the margin  $\pm 2$ . See the Media Margin Specifications.

**Note:** The measurement for skew and margins for Side 1 and Side 2 may not match.

Check that the media is supported for the tray and the guides are properly adjusted.

If you have skew on simplex prints:

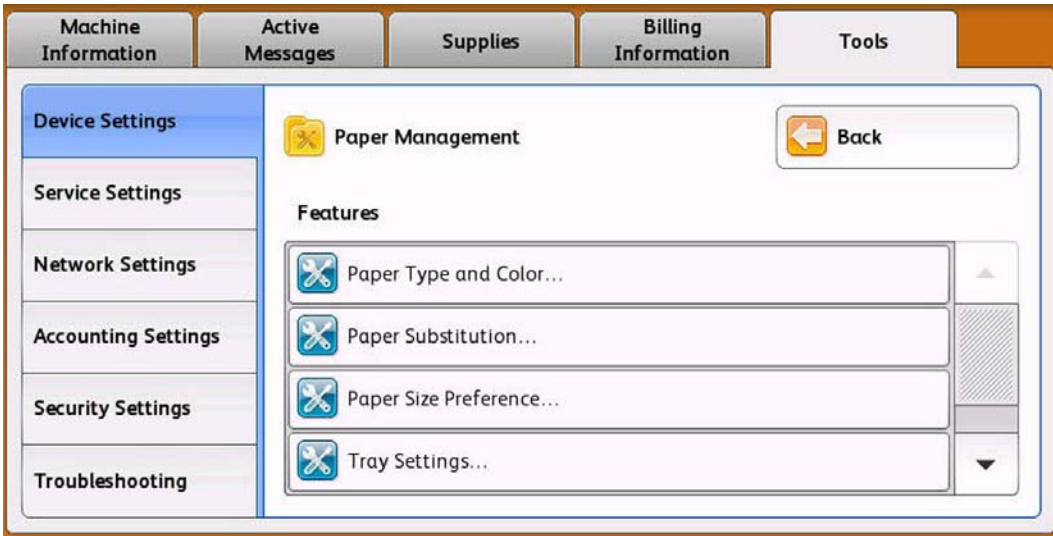
- In Trays 2, 3, 4, or 5 check for a worn Takeaway Roller or Pick Roller.
- In Tray 1, check for a worn Pick Roller.

This test print uses the tray selected in the Tray Settings menu.

1. Access [Machine Status/ Tools](#) ([Accessing Machine Status/ Tools Menu](#) on page 2-4).
2. Touch **Tools**.
3. Touch **Device Settings**.
4. Touch **Paper Management**.



5. Select the appropriate feature(s) and make necessary changes.



6. If you have skew on duplex prints, check for a worn Duplex Roller and verify that the Left Door is completely closed and latched on both the left and right sides. If the lead-edge margins are outside of tolerance, check the Preheater Flag.

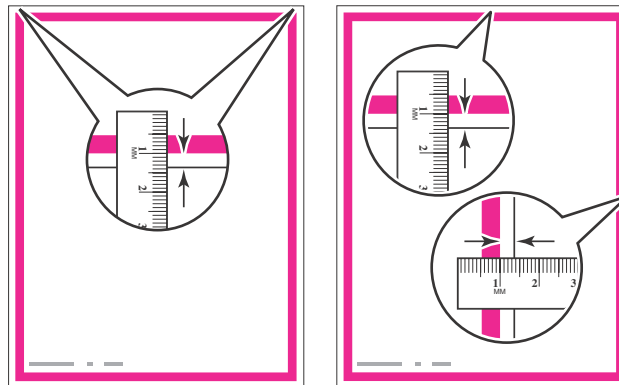


## Center Image Function

Center Image allows the user to shift the image left-and right. Depending on the amount of shift when shifting to the right, the right edge of the image may be clipped.

Correct the application settings. Some side to side adjustment can be made using Center Image.

1. Enter **Service Diagnostics** ([Entering Service Diagnostics](#) on page 2-19).
2. Touch **Adjustments**.
3. Touch **dc131 NVRAM Read/Write**.
  - Tray 1 - Enter NVMID **492**, Index **72**
  - Tray 2 - Enter NVMID **492**, Index **73**
  - Tray 3 - Enter NVMID **492**, Index **74**
  - Tray 4 - Enter NVMID **492**, Index **75**
  - Tray 4 - Enter NVMID **492**, Index **76**
4. Enter image shift amount (in mpts, 2800 is approximately equal to 1mm) and touch **Write**.
5. To shift the image:
  - To the left, enter a **positive (+)** number
  - To the right, enter a **negative (-)** number



Skew and Margin Measurement

## Jet Substitution Mode

Jet Substitution Mode provides a solution for print-quality problems when weak or missing jets are not recoverable by cleaning. This mode substitutes adjacent jets to print the area normally covered by the problem jet. Perform a cleaning procedure before disabling any jets. Substituted jets are stored and remain disabled until Jet Substitution Mode is turned Off. Substituted jets can recover on their own. When this occurs, jet sub can be turned Off.

Jet Substitution Mode (see [Figure 1 - Jet Substitution Mode](#) on page 3-104), is not effective in correcting situations where 3 or more consecutively numbered jets (1) are weak or missing. Jet substitution requires the presence of a numerically adjacent functional jet to replace the affected jet.

### Examples:

- If jet 2 is missing, jet 1 or jet 3 could substitute for 2.
- If jets 1, 2, and 3 were all missing, no jet is available to substitute for jet 2.

Once Jet Substitution mode is enabled for a particular jet, the [Light Stripes Test](#) page displays a black line (2) underneath the substituted jet number. It is normal for the substituted jet to appear either blank or filled on [Light Stripes Test](#) page after substitution, because Jet Substitution is ignored when printing the [Light Stripes Test](#) page. Also, [Saved & Stored](#) jobs stored on the hard drive will not print correctly because they were rendered before the Jet Substitution was made.

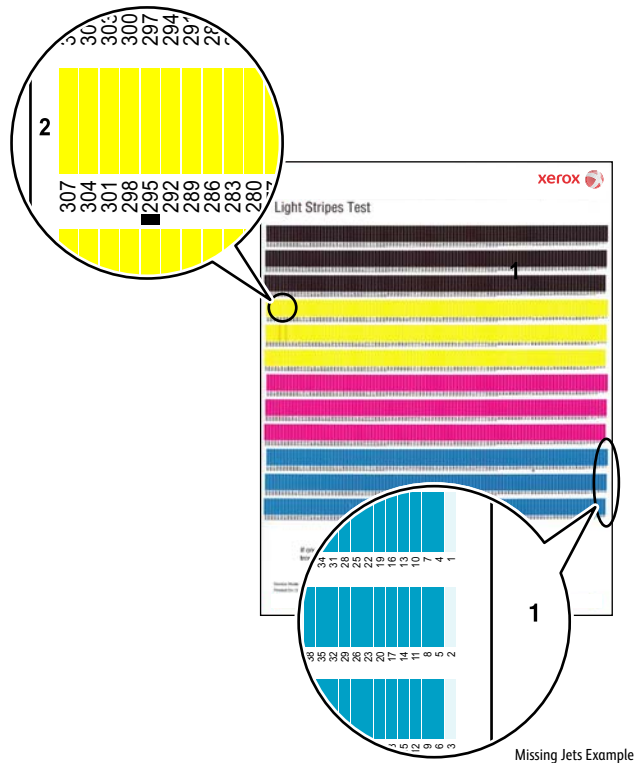


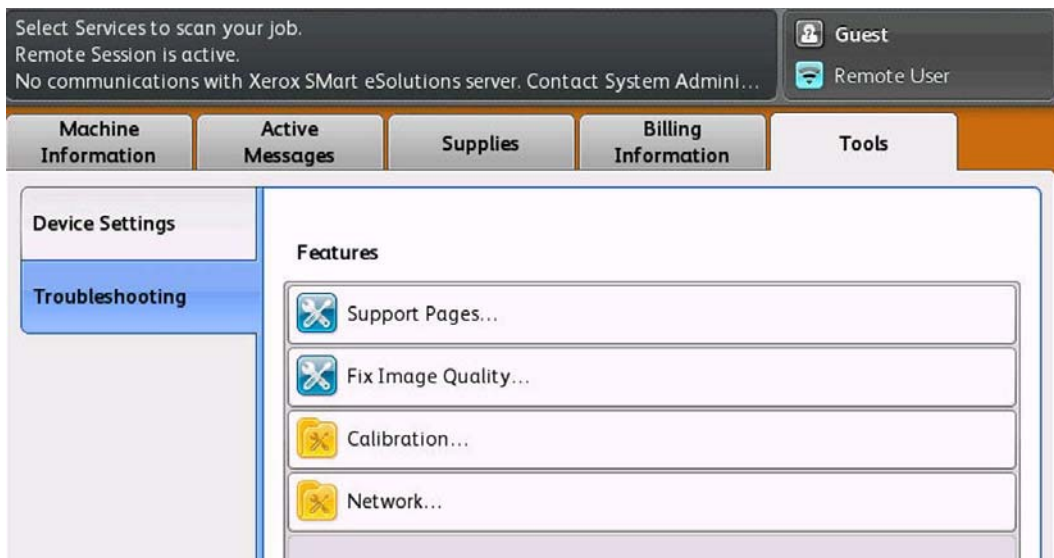
Figure 1 - Jet Substitution Mode

## Enabling Jet Substitution Mode

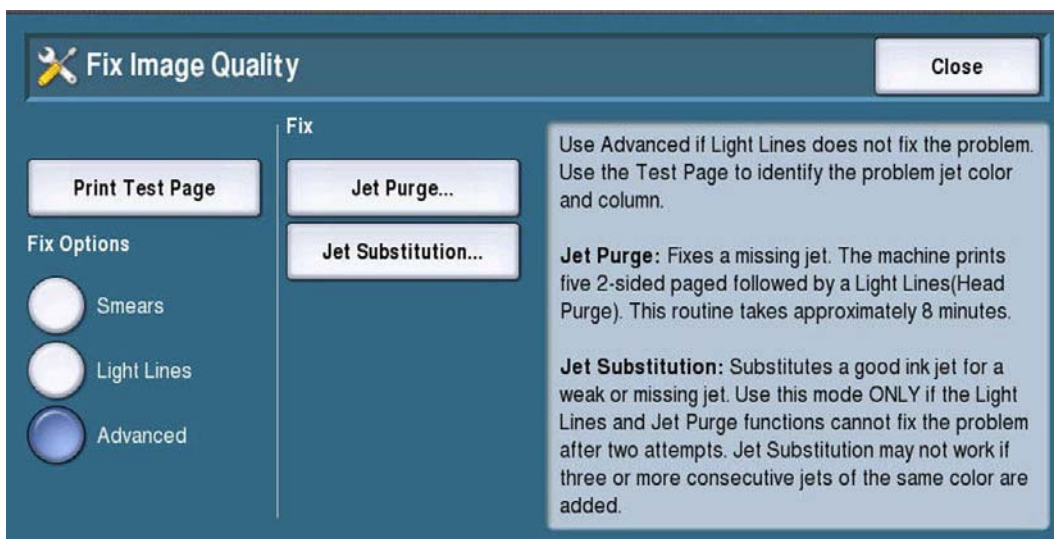
To correct print-quality problems, refer to the Light Stripes test page to determine which jets are weak or missing.

To access Jet Substitution Mode from the Control Panel:

1. Press the **Machine Status** button.
2. Touch **Tools**.
3. Touch **Troubleshooting**.
4. Touch **Fix Image Quality**.

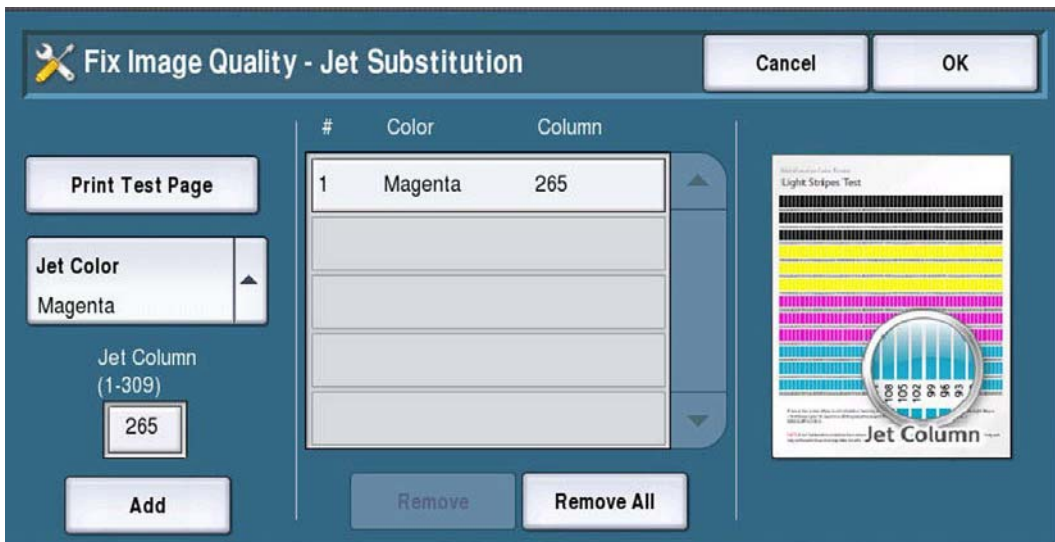


5. Touch **Advanced**.
6. Touch **Jet Substitution**.

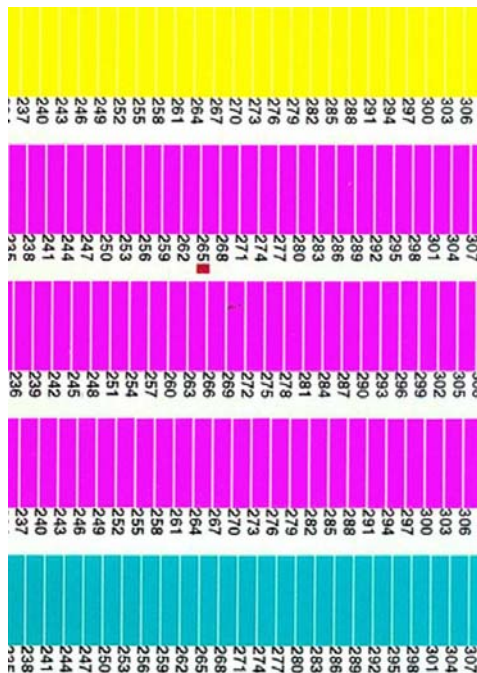


## Image Quality

7. Touch **Print Test Page** to print the **Light Stripes Test** page.
8. Check the **Light Stripes Test** page for any missing color(s).
9. Under the **Jet Color** menu, select the affected color missing on the **Light Stripes Test** page.
10. Under the **Jet Column**, enter the number of the substituted jet.
11. Touch **Add**.
12. Touch **OK** to begin the process.
13. Touch **Print Test Page** to print the **Light Stripes Test** page.



14. A **Light Stripes Test** page is printed containing the substituted jet information (a dot is shown next to the affected color).
15. Verify the selected jet for the affected color has been substituted.



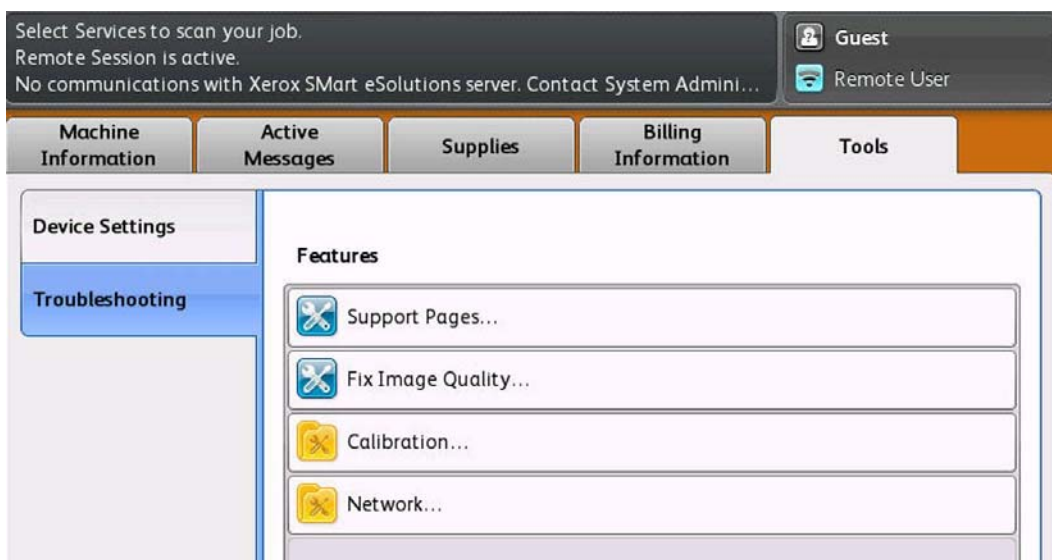
16. If the jet substitution did not correct the weak or missing jet problem, continue to make changes as needed.
17. After the process is complete, touch **Close** to return to the **Tools** menu.

## Disabling Jet Substitution Mode

After replacing the Printhead, disable **Jet Substitution Mode** to restore normal operation.

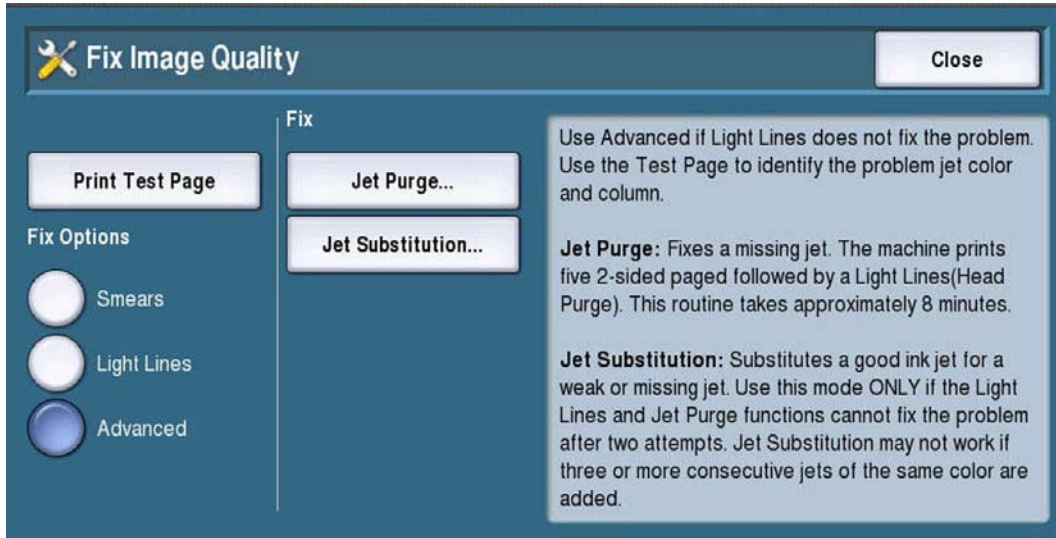
To disable Jet Substitution Mode

1. From the Control Panel, press the **Machine Status** button.
2. Touch **Tools**.
3. Touch **Troubleshooting**.
4. Touch **Fix Image Quality**.

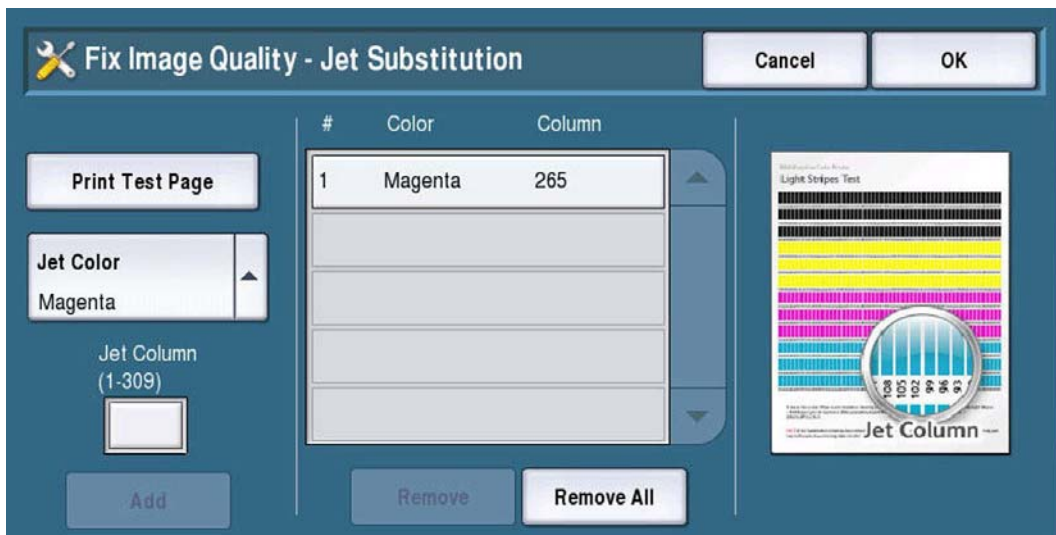


## Image Quality

5. Touch **Advanced**.
6. Touch **Jet Substitution**.



7. If any jets are displayed, touch **Remove All**.
8. Touch **OK** to exit the **Fix Image Quality** screen.



9. Touch **Close** to return to the **Tools** menu.

# Image Quality Specifications

The Image Quality specifications are provided as follows.

## Environmental Condition

- Temperature: 10° C - 32° C (50° F - 89.6° F)
- Humidity: 10 % RH - 85 % RH (85 % RH at 28° C) (82.4° F)

**Note:** Defects may occur due to condensation after around 30 minutes if the printer is turned On in a critical environment such as 85 % at 10° C (50° F).

## Quality Paper

The print-quality is best when quality paper is fed from the tray. The print quality is evaluated on the maximum size of each centerline media.

- Color Print-Quality: Xerox-brand X-Pression paper
- Black and White Quality: Xerox-brand 4200 paper

## Paper Condition

Paper should be fresh and stored in the operating environment for 12 hours before use for printing.

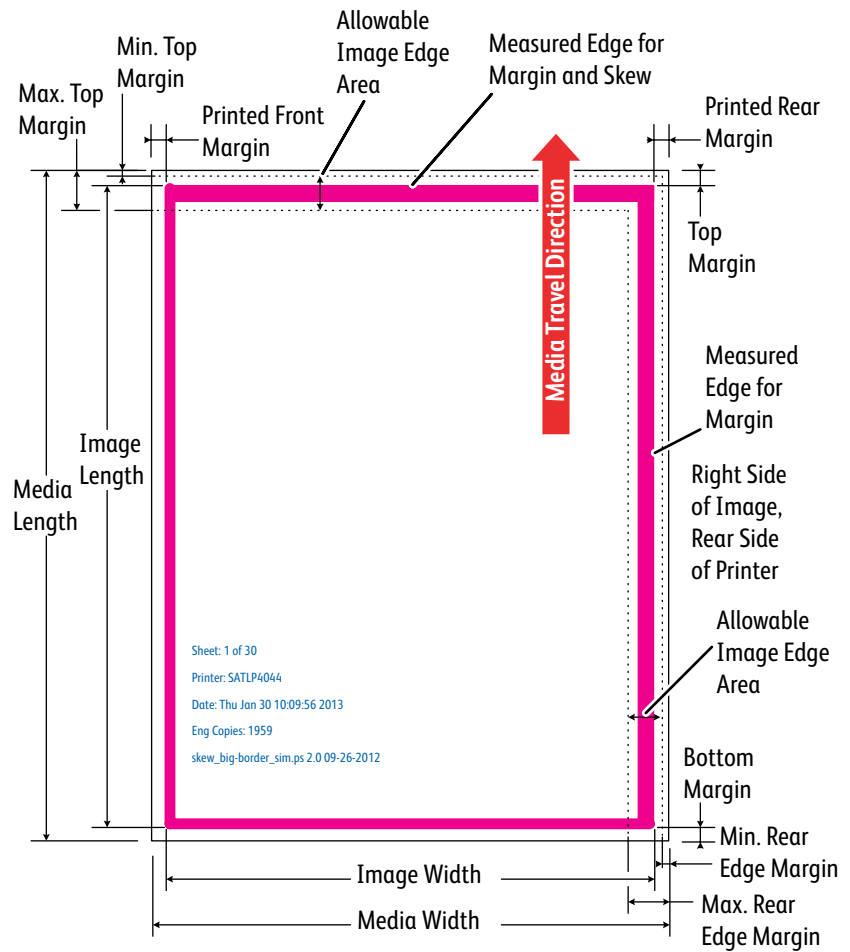
## Printer Condition

The specified print-quality is guaranteed with the printer in specified normal environmental condition.



## Maximum Print Area

Characteristic	Specification
Maximum Print Area	206 mm x 346 mm
Guaranteed Image Area	206 mm x 346 mm



### Notes:

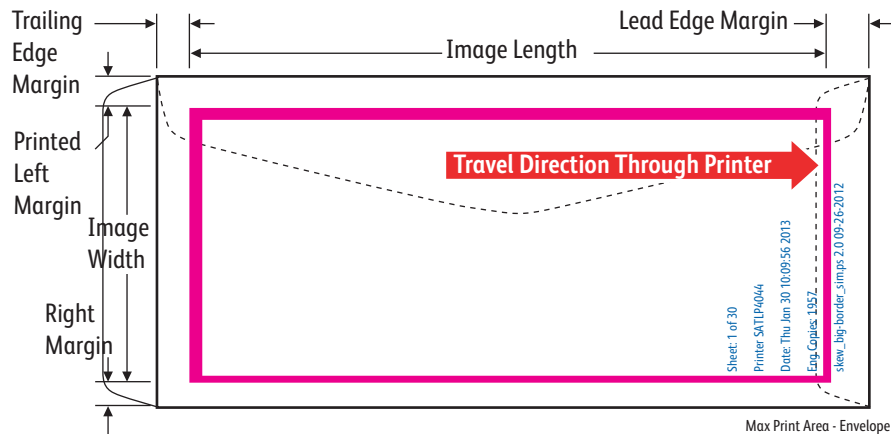
- Image is as viewed on the printed page.
- Right image edge as viewed is the left image edge as printed.
- Left image edge as viewed is the right image edge as printed.



## Maximum Print Area - Envelope

**Note:** Length Envelope flaps are opposite the image side when envelope flaps are folded. For envelope types with flaps on the short edge, flap is to be on leading edge if packaged already folded, and flap is to be on trail edge if packaged with flap unfolded.

- Lead Edge Margins: 5 mm (.197 inches)
- Trail Edge Margins: 5 mm (.197 inches)
- Right/ Left Margins: 5 mm (.197 inches)



For the envelopes listed below, the leading and trailing edge margins are 20 mm (.787 inches). The left and right-side margins are 5 mm (.197 inches).

- DL (110 x 220 mm / 4.33 x 8.66 inches)
- 6 x 9 envelope (152.4 x 228.6 mm / 6 x 9 inches)
- C5 (162 x 229 mm / 6.38 x 9.02 inches)

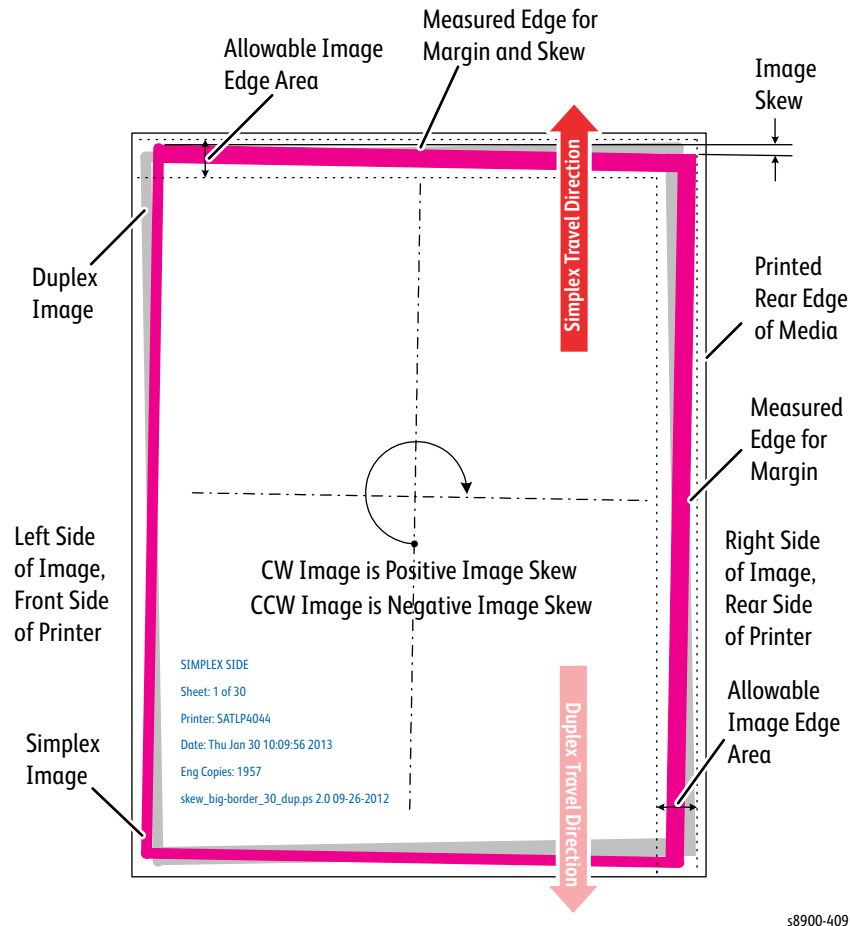
For the envelopes listed below, the leading and trailing edge margins are 15 mm (.59 inches). The left and right-side margins are 5 mm (.197 inches).

- #10 Commercial (104.65 x 241.3 mm / 4.12 x 9.5 inches)
- Monarch (98.3 x 190.5 mm / 3.87 x 7.5 inches)
- #5-1/2 Baronial (112.125 x 146.05 mm / 4.375 x 5.75 inches)
- A7 (Lee) (133.35 x 184.15 mm / 5.25 x 7.25 inches)
- #6-3/4 (92.075 x 165.1 mm / 3.625 x 6.5 inches)
- Choukei 3 Gou (120 x 235 mm / 4.72 x 9.25 inches)
- Choukei 4 Gou (90 x 205 mm / 3.54 x 8.07 inches)

**Note:** #10 Commercial, DL, and C5 envelopes can be printed from all paper trays. All other envelopes can be printed from Paper Tray 1 only.

## Image Alignment (Skew)

Image Alignment is the location of the largest possible image with respect to the edges of the media. Margins are measured perpendicular to the respective media edges. The leading edge of the media, on a given image, is the edge that first exits the printer. Image skew is measured along the leading edge of the media and must reside completely within the allowable leading edge area. This specification applies to both simplex and duplex images.



**Note:** To derive the skew specification for a particular media size, measure the width of the leading edge in millimeters. Next, divide the measured length by 1000, then multiply by the appropriate Image Area Tolerance specification in milli-radians. For example, A 5 in. by 7 in. custom page would have a leading edge width, in millimeters, of 127 mm (5 in.). Dividing the 127 by 1000 (127/1000), then multiplying the result by the 11 milli-radians specification results in a maximum skew of 1.4 mm (127/1000) x 11 = 1.4 mm.

### Printer Skew Specification

Characteristic	Specification
Printed Rear Side Margin, Envelope	6.5 mm +/- 2.35 mm (0.256 in. + .09 in.)
Printed Rear Side Margin, All other sizes	5.0 mm + 2.35 mm (0.197 in. + .09 in.)

**Printer Skew Specification (Continued)**

<b>Characteristic</b>	<b>Specification</b>
Leading Edge Margin, Envelope	15.0 mm + 2.0 mm (0.59 in. + .08 in.)
Leading Edge Margin, Trays 2-5: Narrow, Thick or Lightweight media	6.0 mm + 1.3 mm (0.24 in. + .05 in.)
Leading Edge Margin, All other	5.0 mm + 1.3 mm (0.197 in. + .05 in.)
<b>Image Area Tolerance Zone</b>	
Image Skew, Envelopes	11.5 milli-radians measured across the leading edge
Image Skew, A/ A4/ Legal Size, Trays 2-5	6.3 milli-radians measured across the leading edge
Image Skew, A/ A4/ Legal Size, Tray 1	7.0 milli-radians measured across the leading edge

Image Quality

# Service Parts Disassembly

This chapter includes:

- [Overview](#)
- [Duplex Automatic Document Feeder](#)
- [Scanner Assembly](#)
- [Ink Loader](#)
- [Cover](#)
- [Stapler Assembly](#)
- [Left Side Door/ Tray 1](#)
- [Imaging](#)
- [Paper Path](#)
- [Drive](#)
- [Electrical](#)
- [Exit, Sensors, and Actuators](#)
- [Frame](#)
- [525-Sheet Feeder](#)
- [1800-Sheet Feeder](#)
- [Storage Cart](#)
- [Finisher](#)

## Overview

This chapter contains the removal procedures for field-replaceable parts listed in Chapter 5. In most cases, the replacement procedure is simply the reverse of the removal procedure.

In some instances, additional steps are necessary and are provided for replacement of the parts. For specific assemblies and parts, refer to Chapter 5 - [Parts List](#) on page 5-1.

**Note:** Always use the correct type and size screw (see [Fastener Types](#) on page 4-4). Using the wrong screw can damage tapped holes. Do not use excessive force to remove or install either a screw or a printer part.

**WARNING:** Unplug the AC power cord from the wall outlet before servicing the printer.

### Standard Orientation of the Printer

When needed, printer orientation is called out in the procedure as an aid to locating parts. [Figure 1 - Printer Orientation](#) illustrates the right, left, front, and rear sides of the printer.

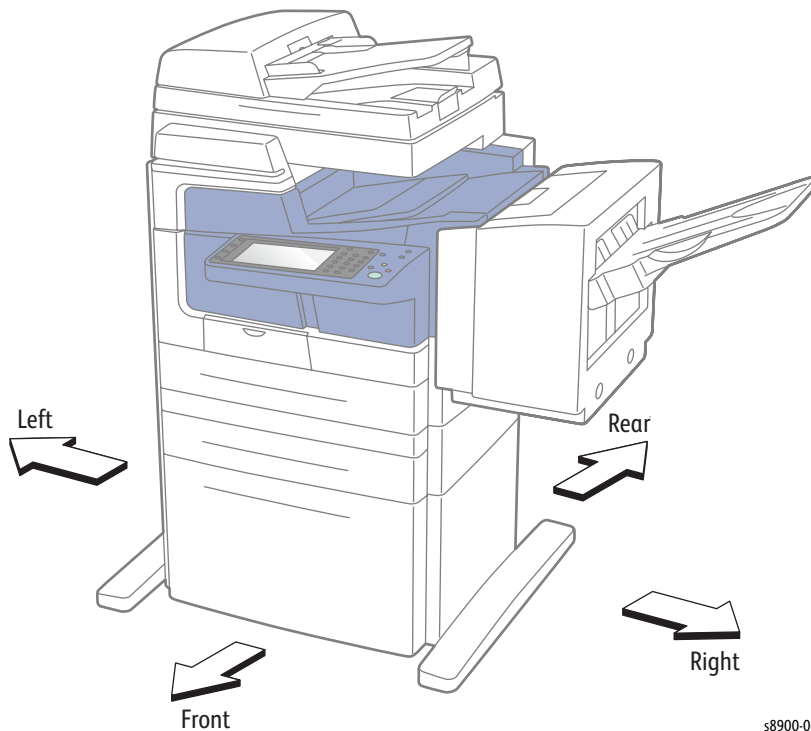



Figure 1 - Printer Orientation

s8900-001


## Preparation


 **CAUTION:** Following reassembly, but before restoring power, be sure the components are all in their home positions, otherwise damage to the printer will occur. Refer to [Adjustments](#) on page 6-32 in Chapter 6 (Maintenance) for procedures on setting components to their home positions.

Before you begin any removal and replacement procedure:

1. If replacing a circuit board, wear an Electrostatic Discharge wrist strap to help prevent damaging to the sensitive electronics of the printer circuit boards.
2. Turn the printer power Off and disconnect the power cord from the wall outlet.
3. Disconnect all computer interface cables from the printer.

**Note:** Names of parts that appear in the removal and replacement procedures may not match the names that appear in the Parts List. For example, a part called the No Paper Sensor in a removal procedure may appear on the Parts List as Optical Sensor. When working on a removal procedure, ignore any prerequisite procedure for parts already removed.

 **CAUTION:** Many parts are secured by plastic tabs. Do not over flex or force these parts. Do not over torque screws threaded into plastic.

 **WARNING:** Unplug the power cord from the wall outlet before removing any printer port.

## Notations in the Disassembly Text

- The notation “(REP X.X.X)” points to a prerequisite procedure in the current disassembly procedure being performed.
- The notation “PLX.X.X” indicates that this component is listed in the Parts List.
- The notation “XX in.-lbs. is the torque specification for the subject fastener.
- Bold arrow in an illustration shows direction of movement when removing or replacing a component.
- The notation “(plastic T-20)” or “(metal, T-20)” refer to the type of screw being removed. Plastic refers to a metal, self-tapping screw used to secure parts onto plastic. Metal refers to metal, fine-threaded screws used to secure parts onto metal.

## Recommended Tool Kit

Refer to [Recommended Tool Kit](#) on page 6-3 in Chapter 6 (Maintenance)

## Fastener Types

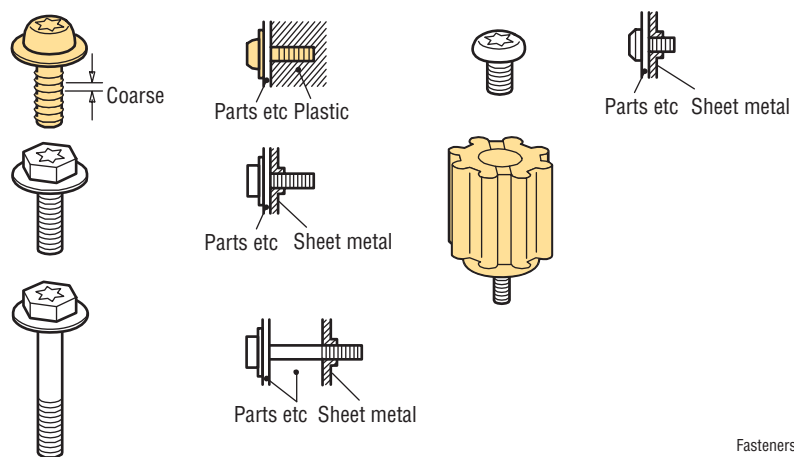
### CAUTIONS:

- Use care when installing self-tapping screws in plastic. To properly start the screw in plastic, turn the screw counter-clockwise until you feel the screw engage the threads, then tighten as usual. Improperly aligning or over tightening the screw can result in damage to previously tapped threads. Always use the correct type and size screw. Using the wrong screw can damage tapped holes. Do not use excessive force to remove or install either a screw or a printer part.
- Screws in plastic are torqued to 12 in.-lbs., metal to 15 in.-lbs., unless otherwise specified. Irreversible damage can result from over tightening the screws into plastic parts. Always use the correct type and size screw. Using the wrong screw can damage tapped holes.

Follow these guidelines for fasteners in this product.

- Always use the correct type and size screw; coarse thread, brass-colored screws into plastic and fine thread, silver-colored screws into metal.
- Do not use excessive force to remove or install either a screw or a printer part. If using a power driver to install a screw into plastic, start the screw by hand.
- If you strip out threads in the plastic chassis, a silver-blue-tinted thread repair screw (included in the hardware kit) can be used to correct the problem.
- If you remove a silver-blue-tinted thread repair screw during disassembly, replace the screw the same location or additional damage to the printer will occur.
- When you re-install a screw into plastic, always rotate the screw 1/2 turn counter-clockwise to allow the screw to seat into the screw-hole's threads. You can usually feel and hear it seat. This ensures the screw's threads align into the existing threads of the screw hole instead of cutting new threads which will weaken the joint and possibly strip it.

Fasteners used in the product appear in [Figure 2 - Fastener Types](#). Removal procedures include dimensional specifications for screws being removed.



**Figure 2 - Fastener Types**

 **CAUTION:** Many parts are secured by plastic tabs or hooks. Do not over flex or force these parts.

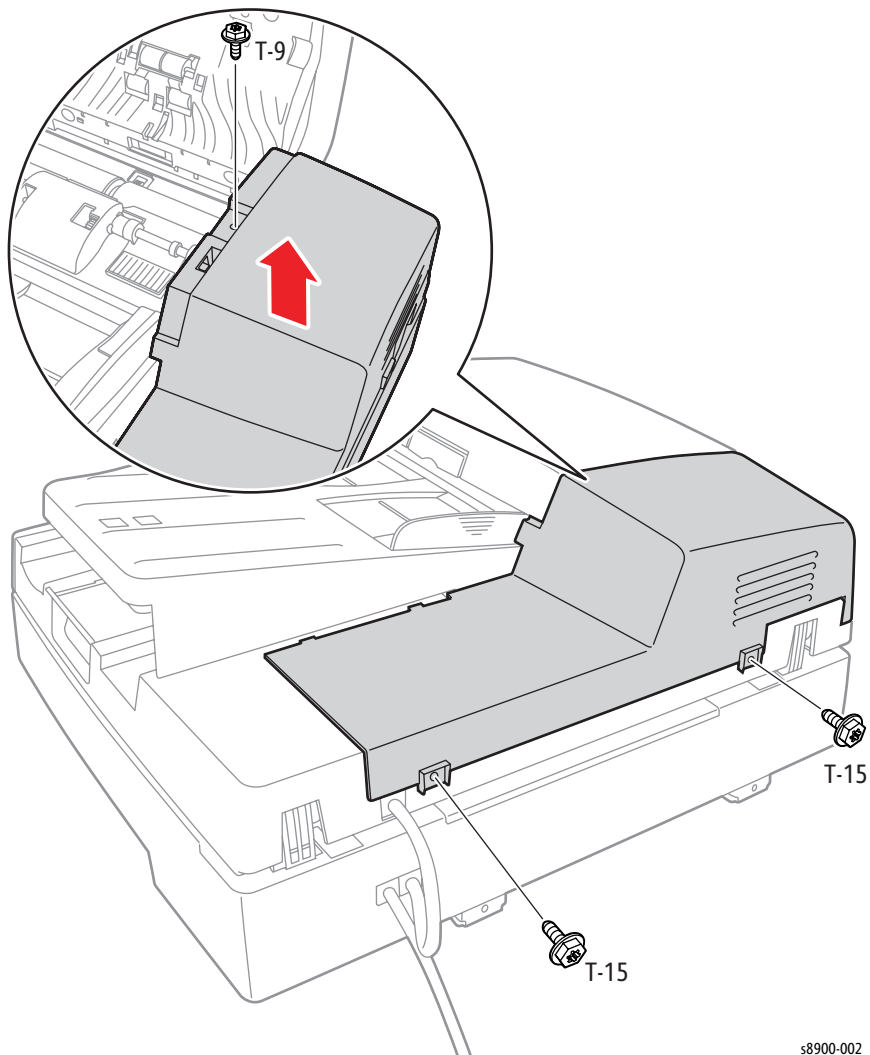


# Duplex Automatic Document Feeder

## REP 1.1 Duplex Automatic Document Feeder

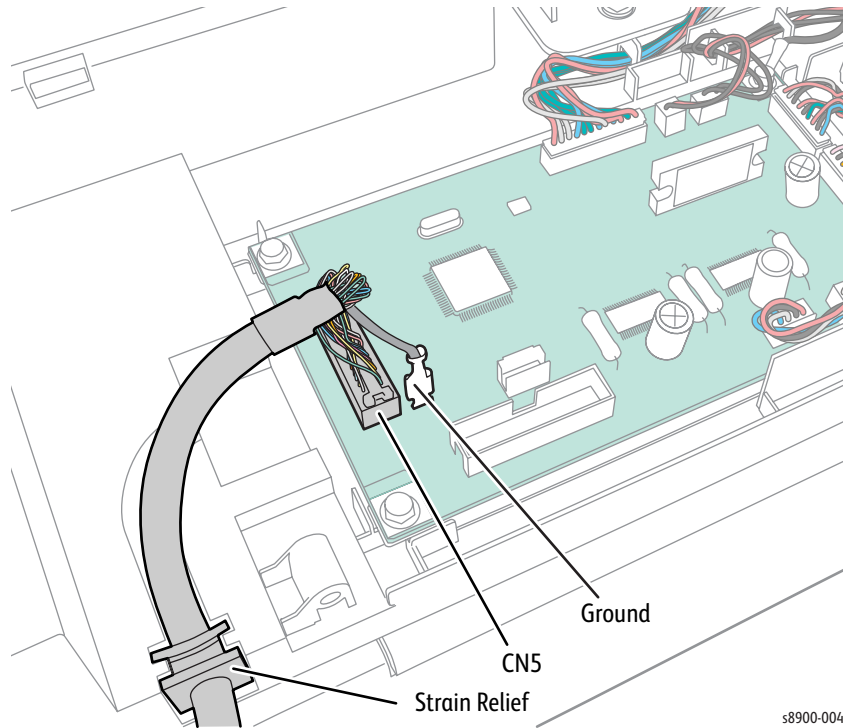
### PL 1.1.22

1. Open the DADF Top Cover.
2. Remove 3 screws (2 T-15, 1 T-9) that secure the DADF Rear Cover.
3. Lift the DADF Rear Cover to remove.

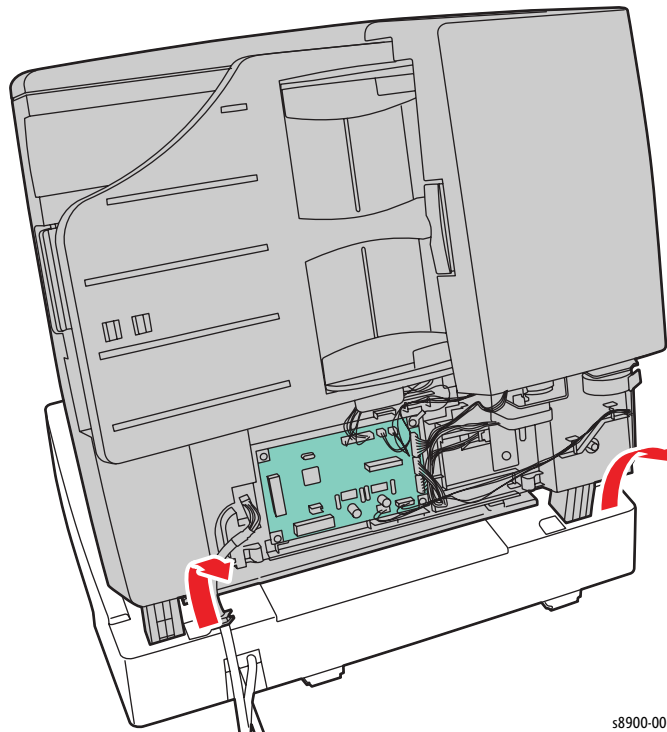


s8900-002

4. Disconnect the Ground and wiring harness connector CN5.
5. Release the cable from the strain relief cable holder.



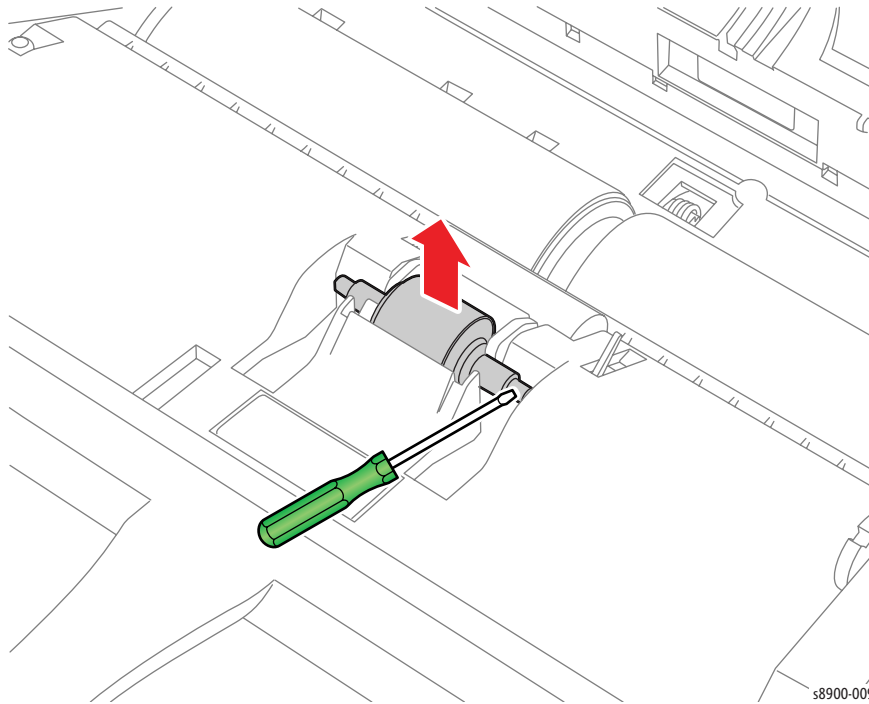
6. Lift the DADF while tilting it towards the rear until the DADF hinges are cleared from the Scanner.



## REP 1.2 DADF Retard Roller

### PL 1.2.16

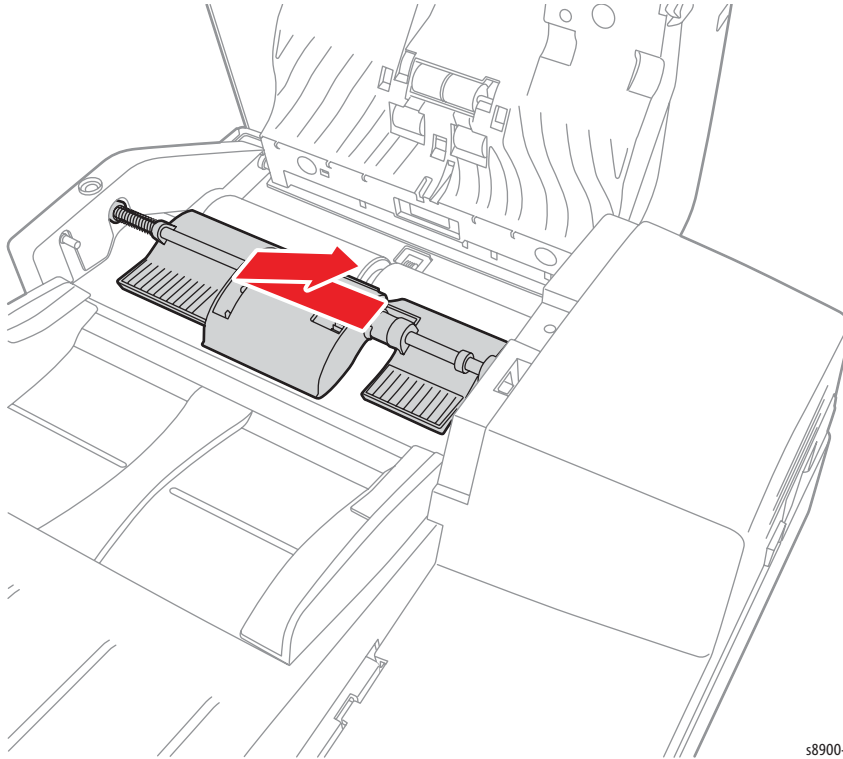
1. Remove the DADF Pick Roller Assembly (REP 1.3, [page 4-8](#)).
2. Pry the Retard Roller and remove the Roller.



## REP 1.3 DADF Pick Roller Assembly

### PL 1.2.20

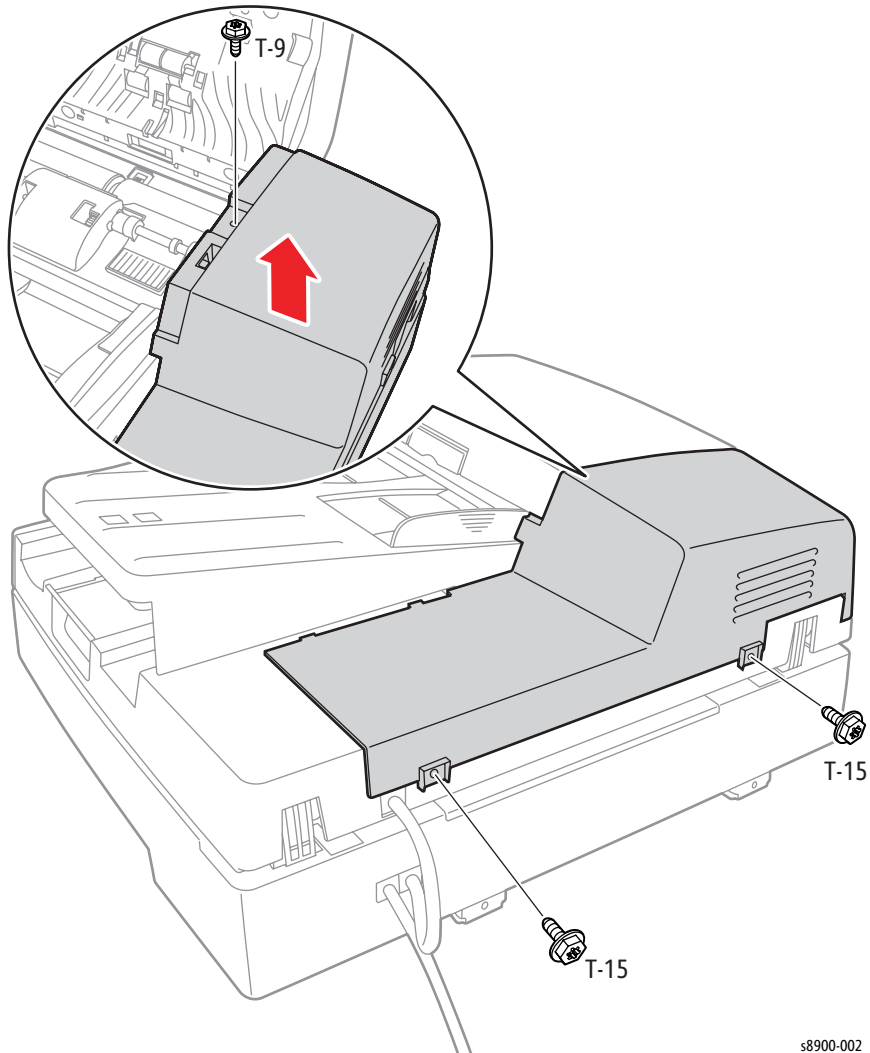
1. Open the DADF Top Cover.
2. Push the Pick Roller Assembly towards the front of the printer while lifting it to remove.



## REP 1.4 DADF Board (SDC PWB)

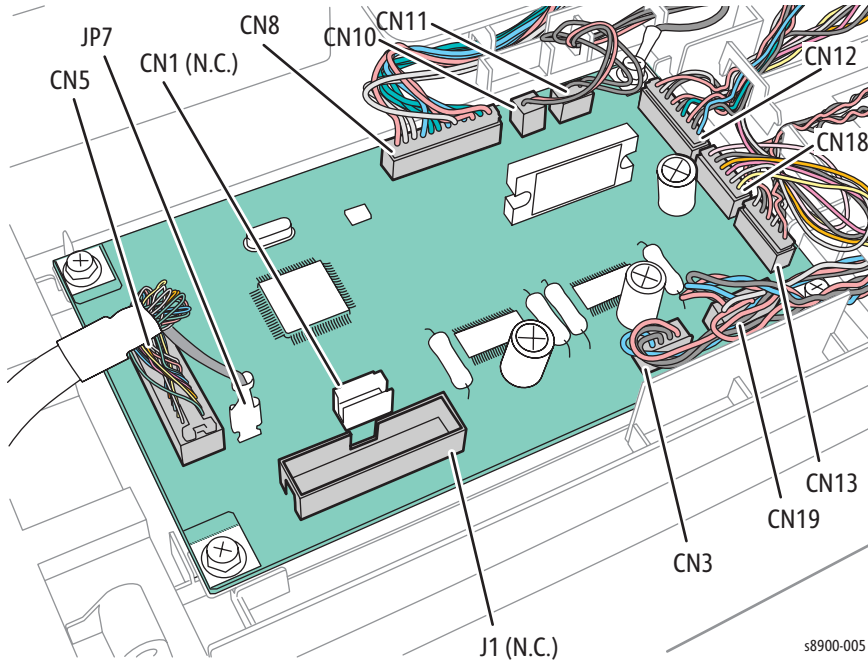
### PL 1.4.12

1. Open the DADF Top Cover.
2. Remove 3 screws (2 T-15, 1 T-9) that secure the Duplex Automatic Document Feeder.
3. Lift the DADF Rear Cover to remove.

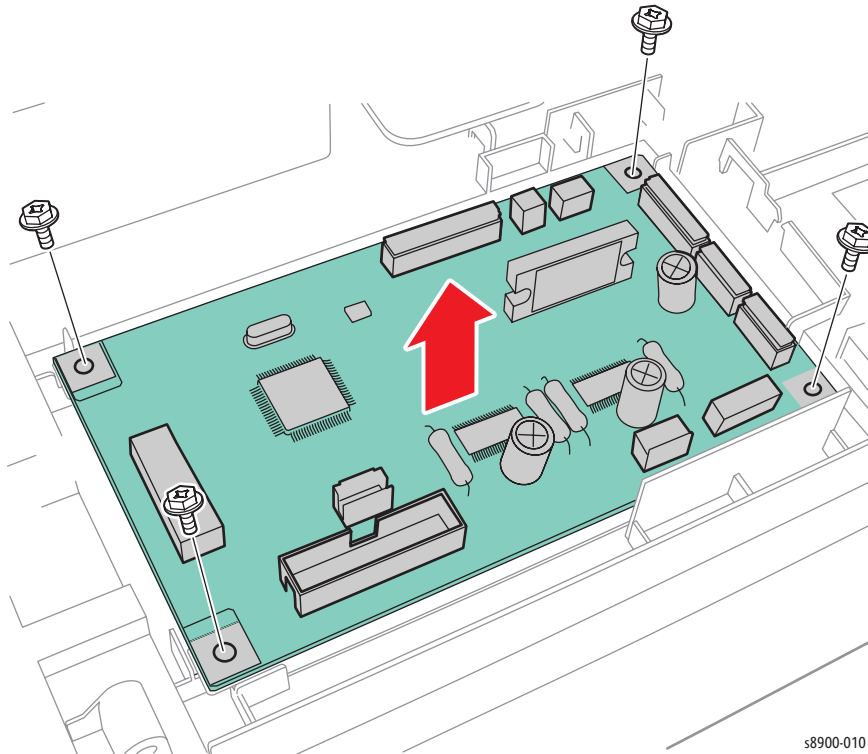


s8900-002

4. Disconnect the 10 wiring harness connectors (CN3, CN5, CN8, CN10, CN11, CN13, CN12, CN18, CN19, and JP7).



5. Remove 4 screws that secure the DADF Board.
6. Lift and remove the DADF Board.

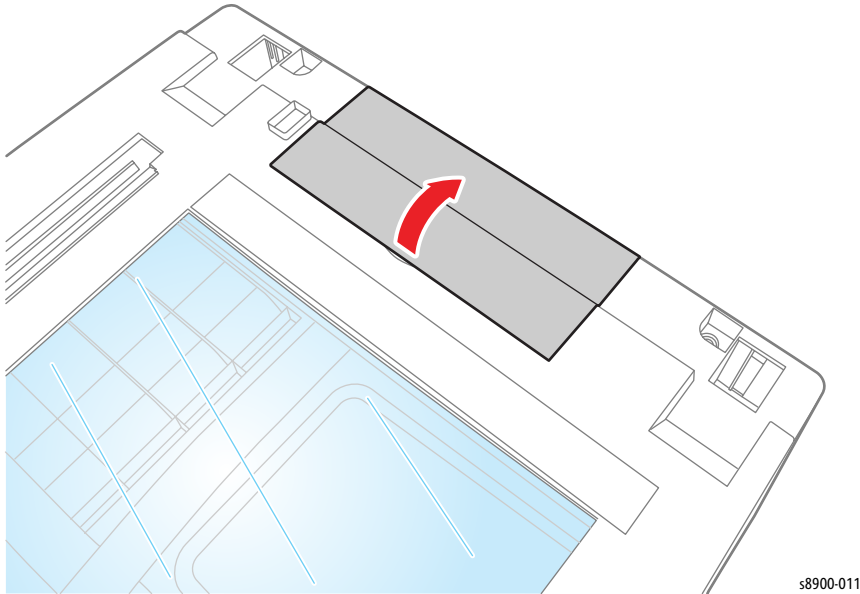


# Scanner Assembly

## REP 2.1 Scanner Board (IPP PWB)

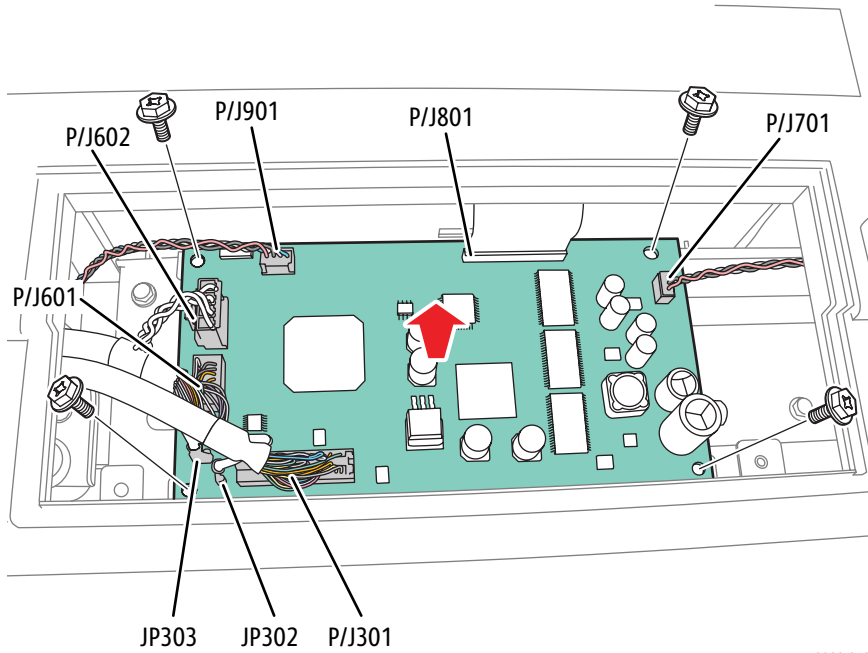
### PL 2.1.16

1. Remove the DADF (REP 1.1, [page 4-5](#)).
2. Pry the Scanner Upper Cover to remove.



## Service Parts Disassembly

3. Disconnect the 8 wiring harness connectors (JP302, JP303, P/J301, P/J601, P/J602, P/J701, P/J801, and P/J901).
4. Remove 4 screws that secure the Scanner Board.
5. Lift and remove the Scanner Board.



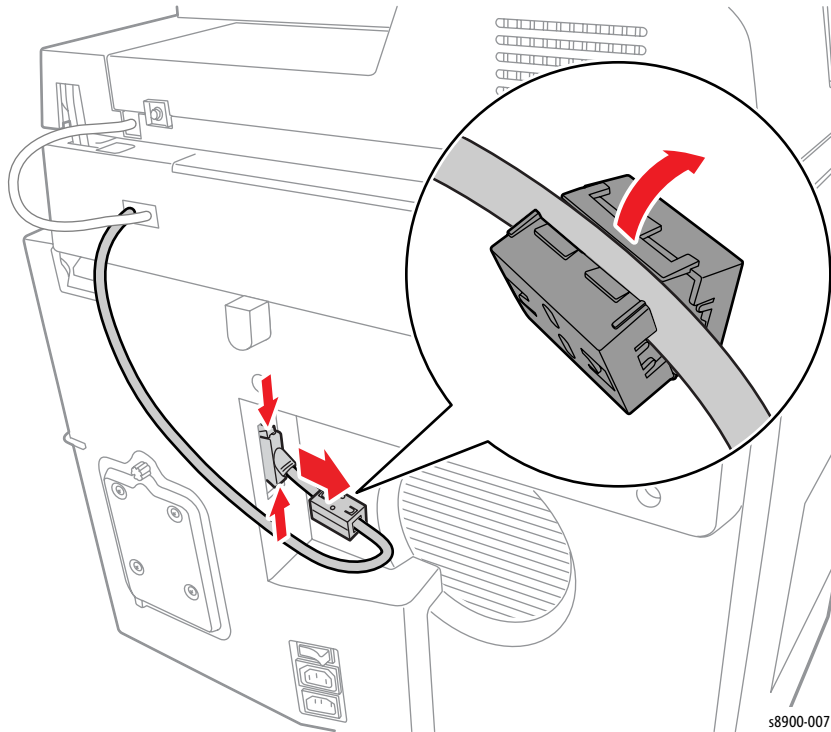


## REP 2.2 Scanner Assembly

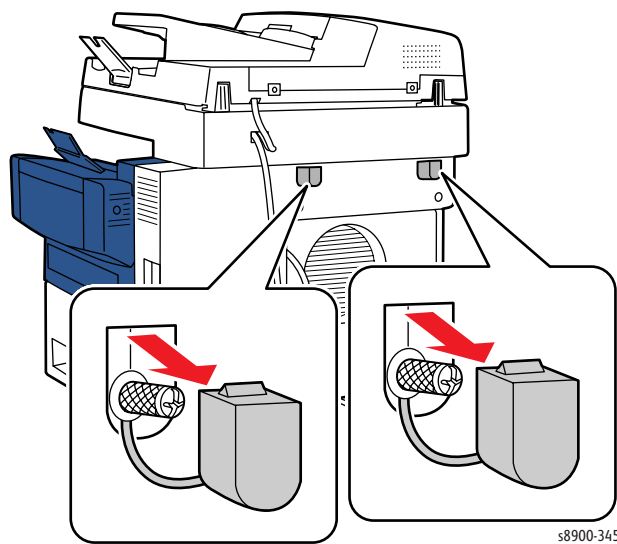
### PL 2.1.39

**Note:** Be sure to transfer the Ferrite Core from the old Scanner Assembly to the new one if it does not have a Ferrite Core.

1. Disconnect the Scanner cable connector.

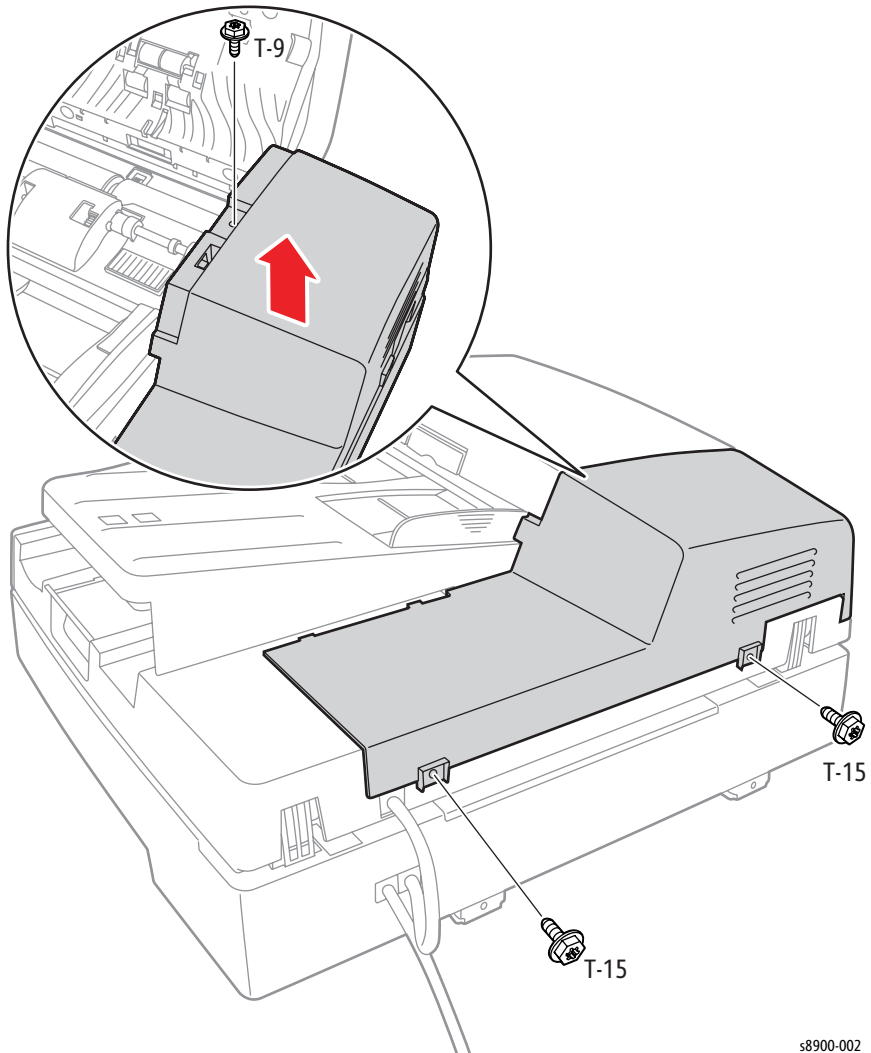


2. Remove the screw covers.



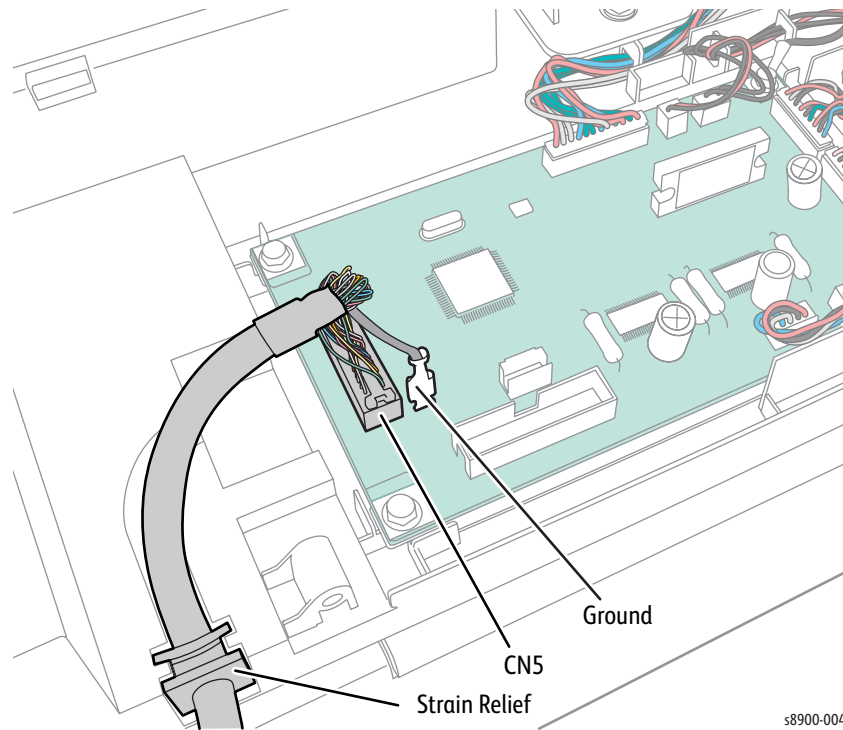
## Service Parts Disassembly

3. Open the DADF Top Cover.
4. Remove 3 screws that secure the DADF Rear Cover.
5. Lift the DADF Rear Cover to remove.

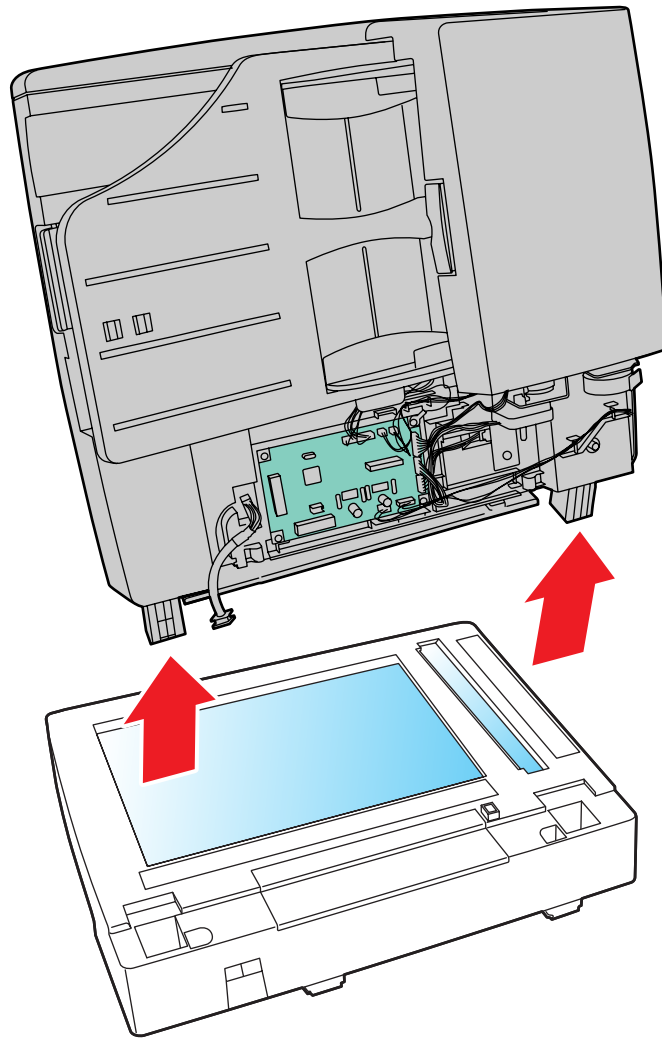


s8900-002

6. Disconnect the Ground and wiring harness connector CN5.
7. Release the cable from the strain relief cable holder.



8. Lift the DADF while tilting it towards the rear until the DADF hinges are cleared from the Scanner Assembly.



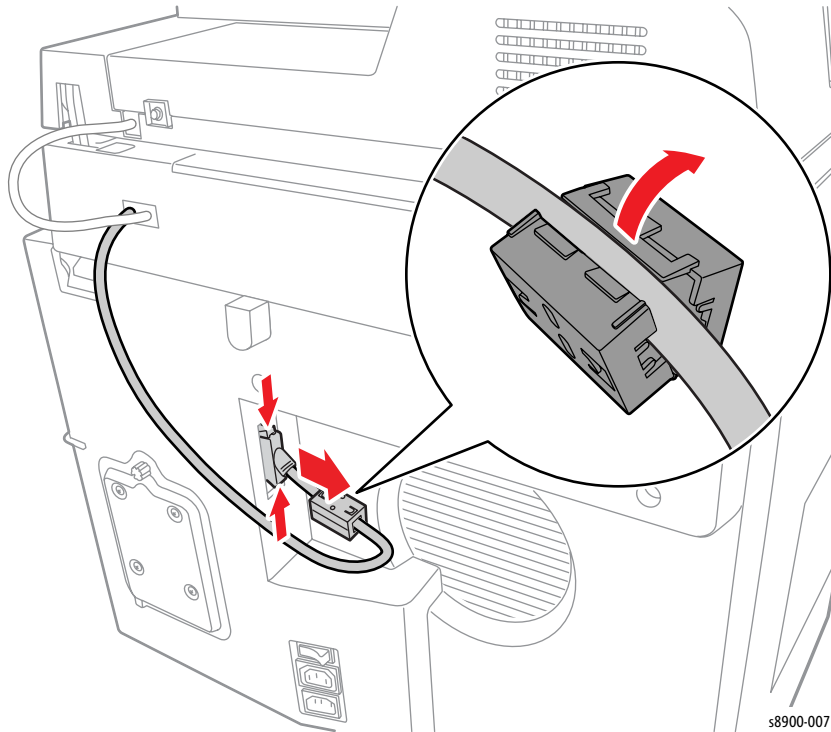
s8900-591

## REP 2.3 Scanner/ DADF Assembly

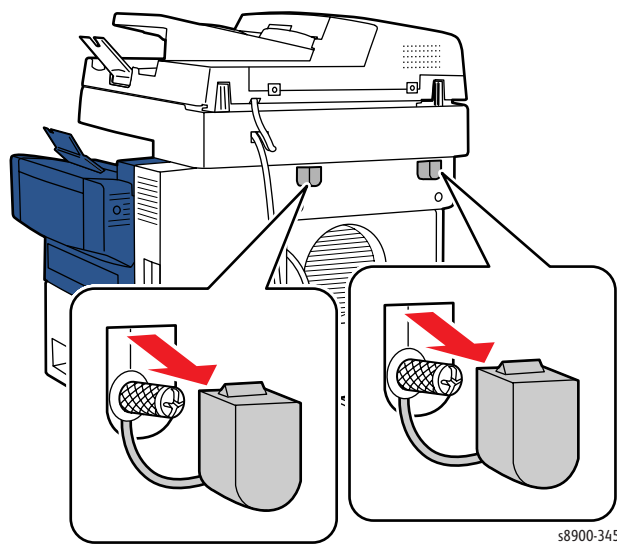
### PL 2.1.41

**Note:** Be sure to transfer the Ferrite Core from the old Scanner Assembly to the new one if it does not have a Ferrite Core.

1. Disconnect the Scanner cable connector.

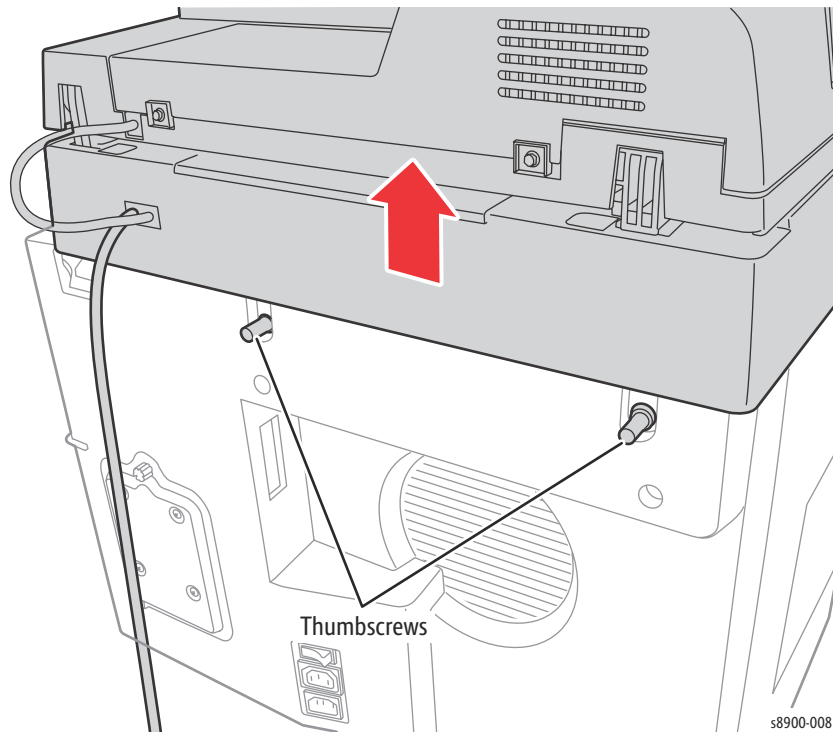


2. Remove the screw covers.



## Service Parts Disassembly

3. Loosen the 2 thumb screws.
4. Lift the Scanner/ DADF Assembly to remove.



# Ink Loader

## REP 3.1 Ink Access Door (Ink Loader Cover)

### PL 3.1.1

1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Use a flat tip screwdriver to release the latch to open the Ink Access Door.

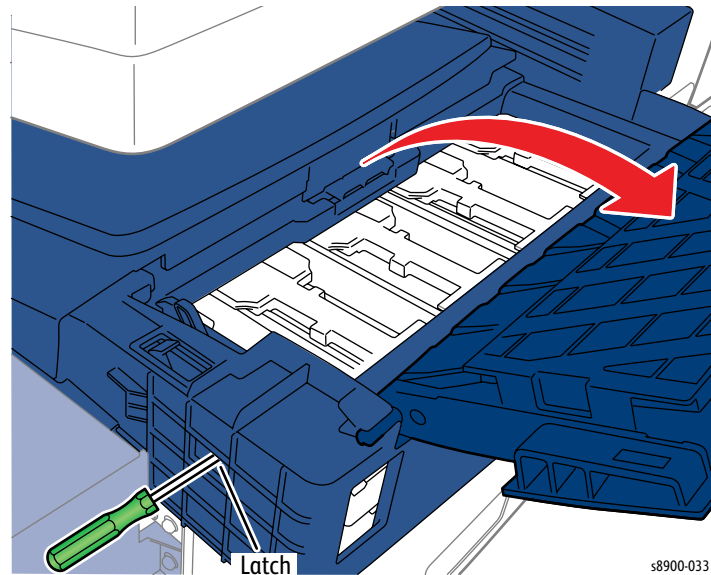


Figure 1 - Latch Location

3. Release the Ink Loader Cover from the Bezel to remove.
4. [Figure 2 - Printer without Scanner](#) shows the printer without the Scanner attached for visibility of the Ink Access Door.

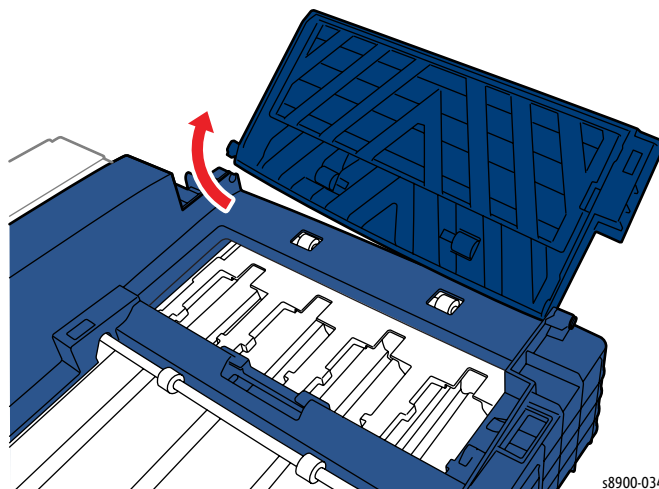


Figure 2 - Printer without Scanner

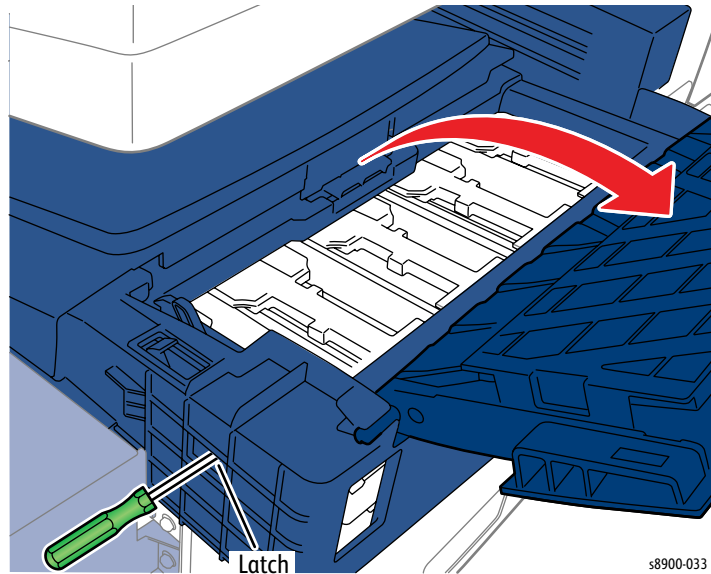
## REP 3.2 Output Tray/ Horizontal Transport

### PL 3.1.4/ PL 3.1.19

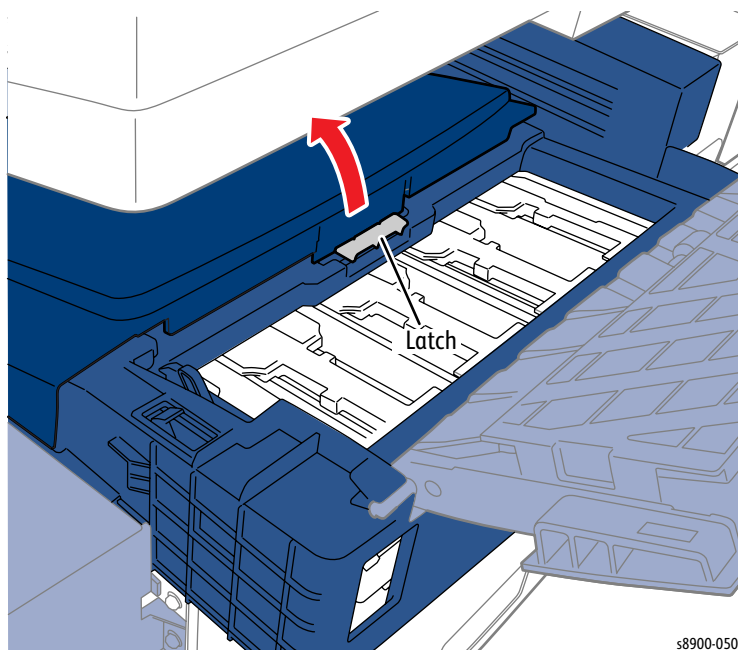
1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).

**Note:** The Ink Access Door can be opened with printer power On by pressing the Ink Loader Door button on the Control Panel.

2. Use a flat tip screwdriver to release the Latch to open the Ink Access Door (Ink Loader Cover).



3. Press the latch while pushing the Output Tray/ Horizontal Transport towards the left side of the printer and lift the Output Tray/ Horizontal Transport to remove.

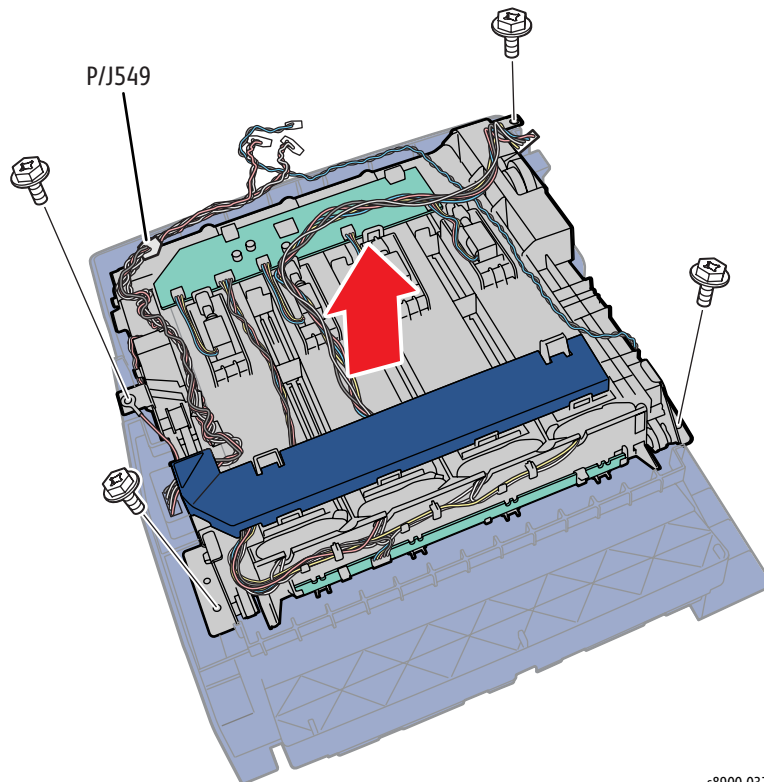




## REP 3.3 Ink Loader Bezel

### PL 3.1.6

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
6. Disconnect the Door Latch Sensor wiring harness connector P/J549.
7. Release the wiring harness from all the clips.
8. Remove 4 screws that secure the Ink Loader Bezel.
9. Lift the Ink Loader Base to remove from the Bezel.

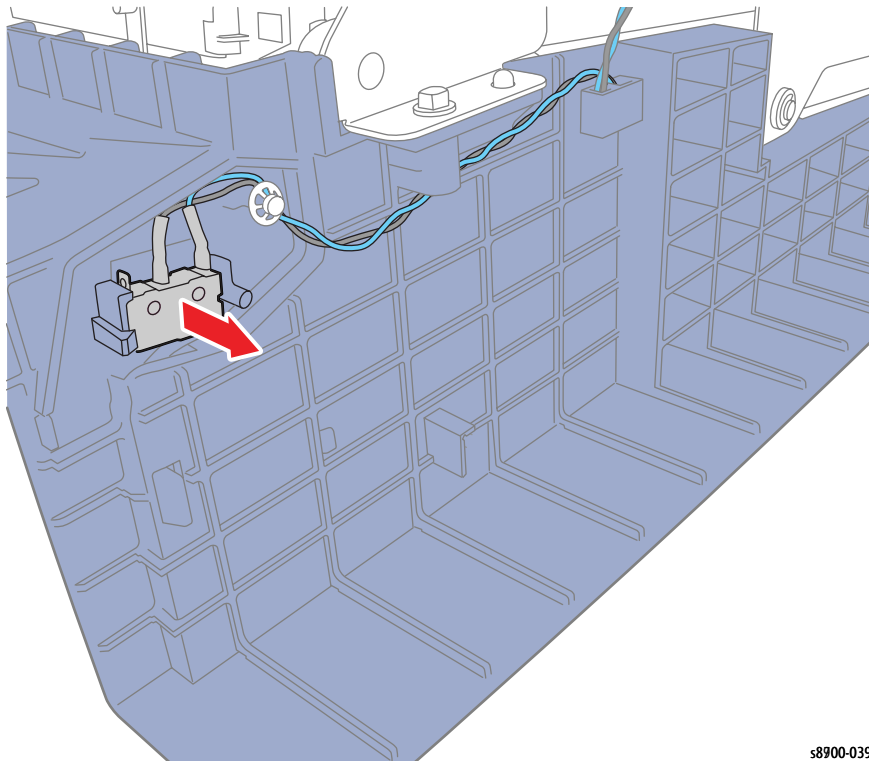


s8900-037

## REP 3.4 Ink Loader Door Switch

### PL 3.1.9

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
6. Release and disconnect the black and blue wiring harnesses from the wiring bundle.
7. Remove the Ink Loader Door Latch Switch.

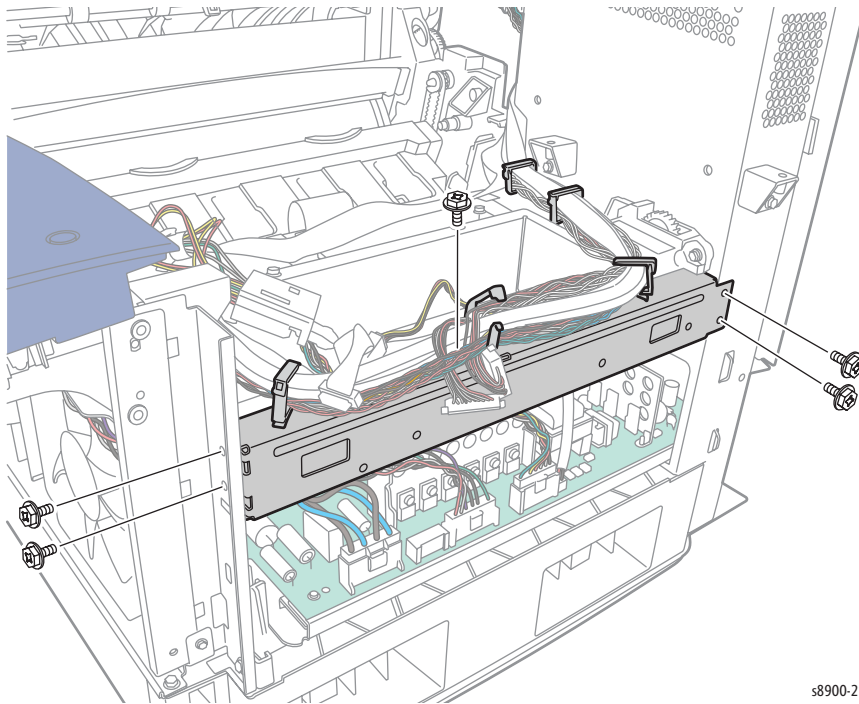


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## REP 3.5 Ink Loader Yoke Motor Assembly

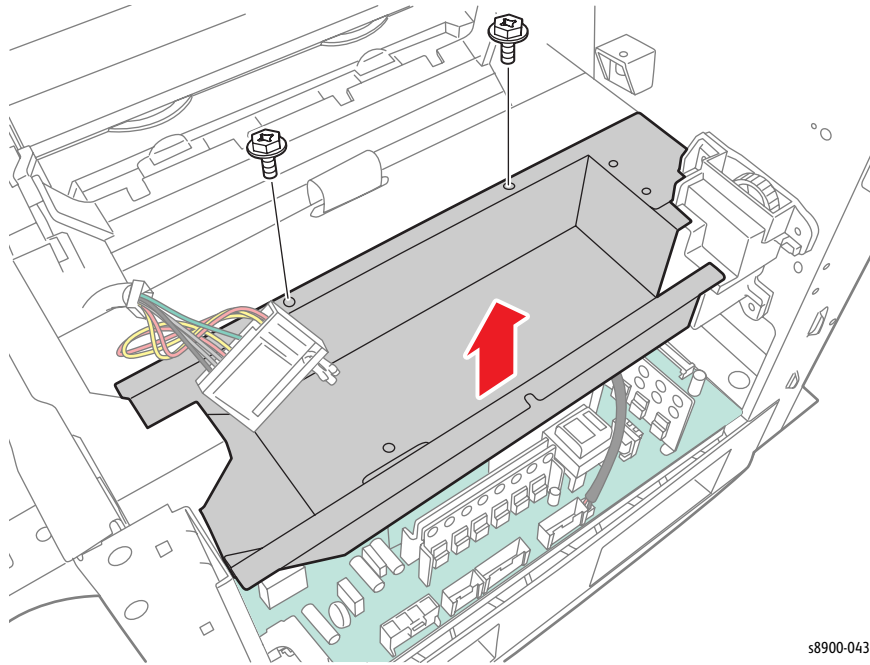
### PL 3.2.23

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Right Upper Cover (REP 4.2, [page 4-34](#)).
4. Remove the Right Lower Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
8. Disconnect the wiring harness from the retaining clips.
9. Remove 5 screws that secure the Right Frame Bracket (PL 10.1.8).
10. Remove the Right Frame Bracket.



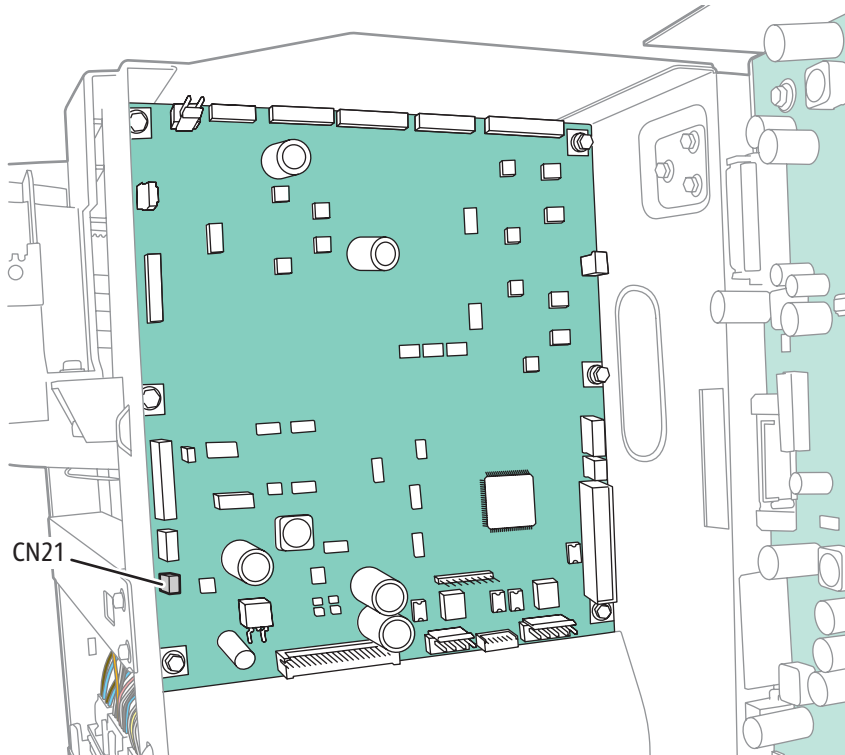
## Service Parts Disassembly

11. Remove 2 screws that secure the Power Supply Duct Bracket (PL 10.1.9).
12. Release the wiring harnesses from the clips and move them away from the Duct Bracket.
13. Remove the Duct Bracket.



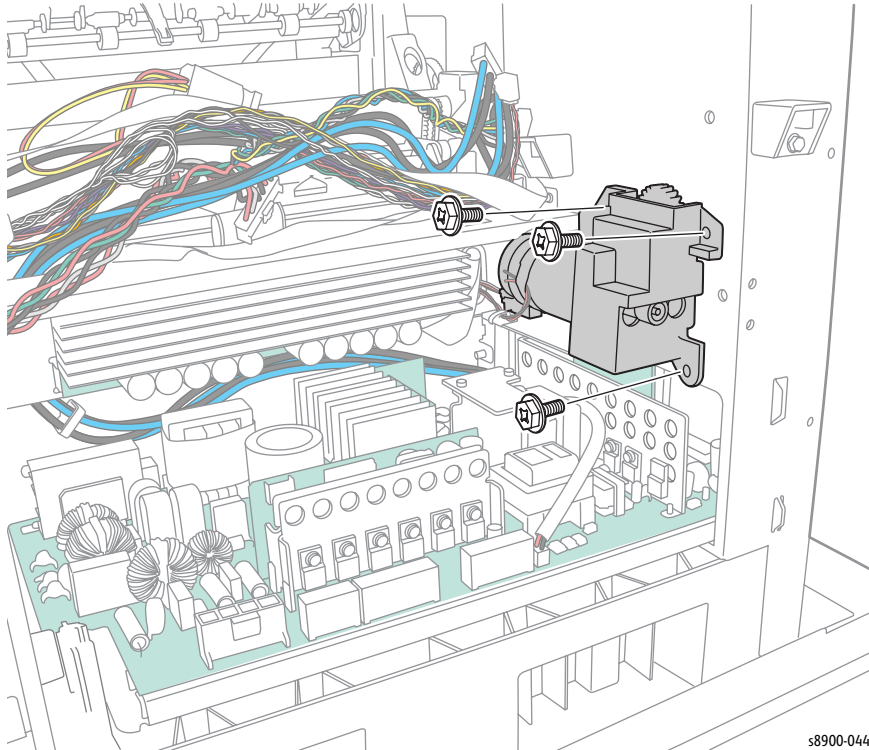
s8900-043

14. Open the Card Cage (REP 10.2, [page 4-160](#)).
15. Disconnect the Yoke Motor wiring harness connector CN21 from the Power Control Board.



## Service Parts Disassembly

16. Remove 3 screws that secure the Yoke Motor.
17. Remove the Ink Loader Yoke Motor.



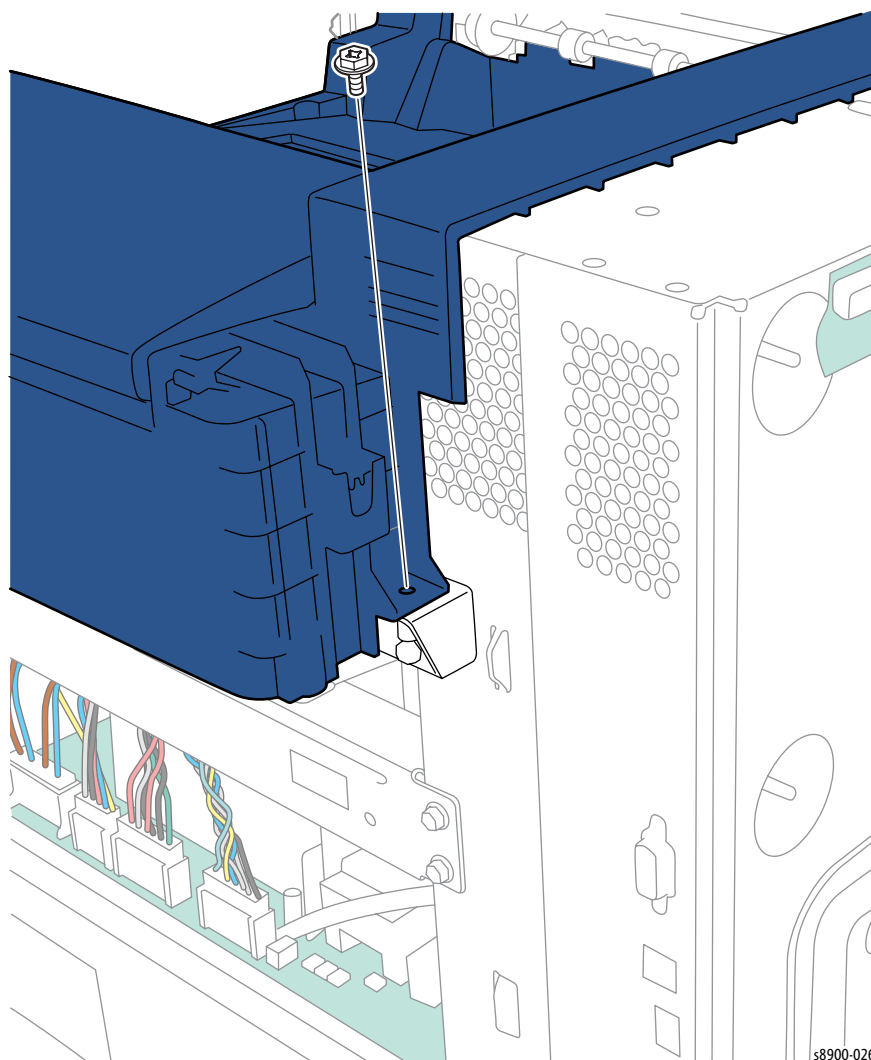
s8900-044

## REP 3.6 Ink Loader Assembly (with Bezel)

### PL 3.1.18

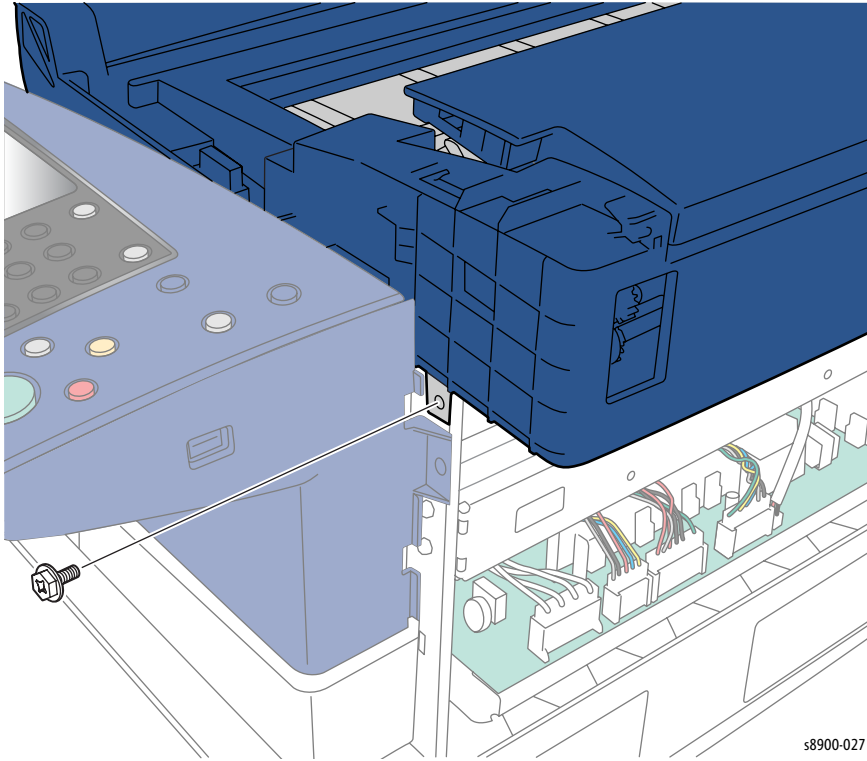
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Horizontal Transport (REP 3.2, [page 4-20](#)).
7. From the right side of the printer, remove 1 screw that secures the Ink Loader.

**Note:** Be sure not to lose the plastic piece this screw goes into.

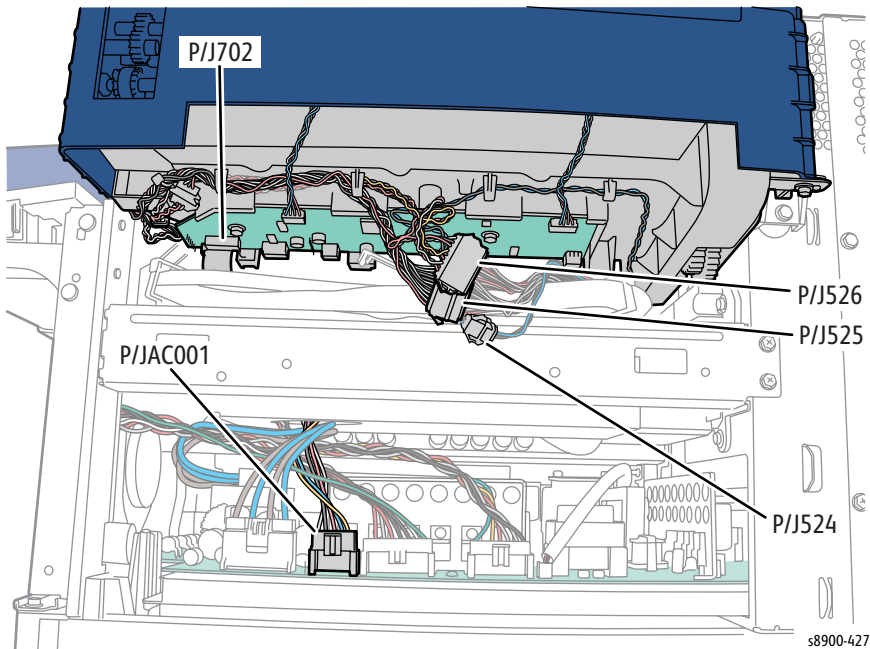


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- From the front side of the printer, remove 1 screw that secures the Ink Loader.

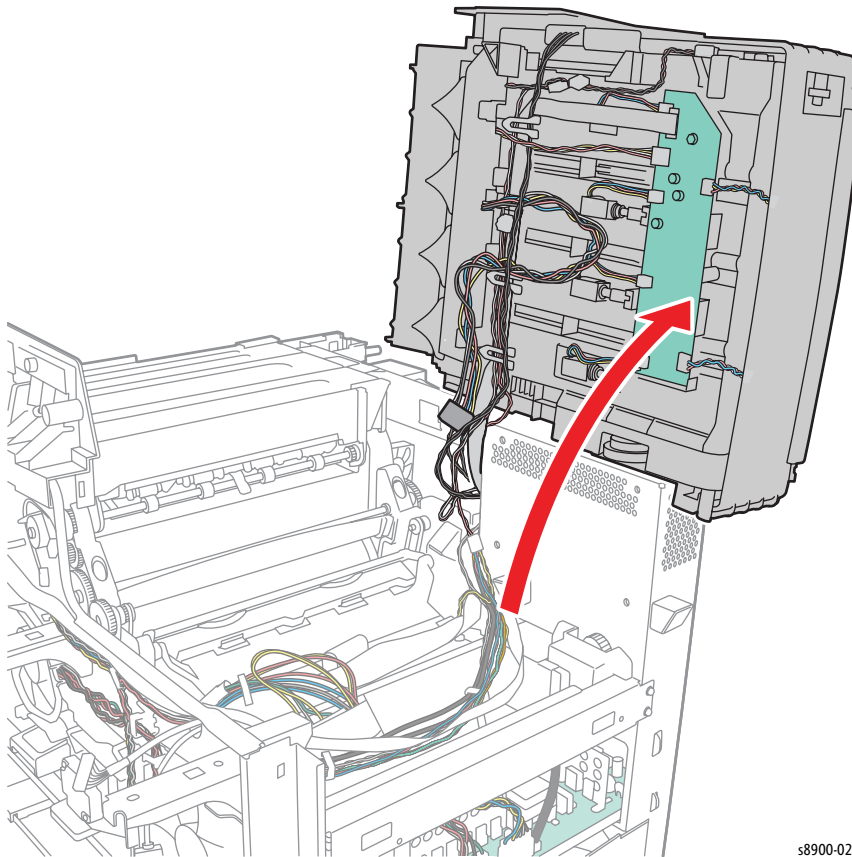


- Disconnect the wiring harness connector P/J JAC001 from the Power Supply Unit.
- Disconnect 3 wiring harness connectors P/J524, P/J525, and P/J526.
- Disconnect 1 flat cable (gray) connector P/J702 from the Ink Loader Board.





12. Lift and remove the Ink Loader Assembly.



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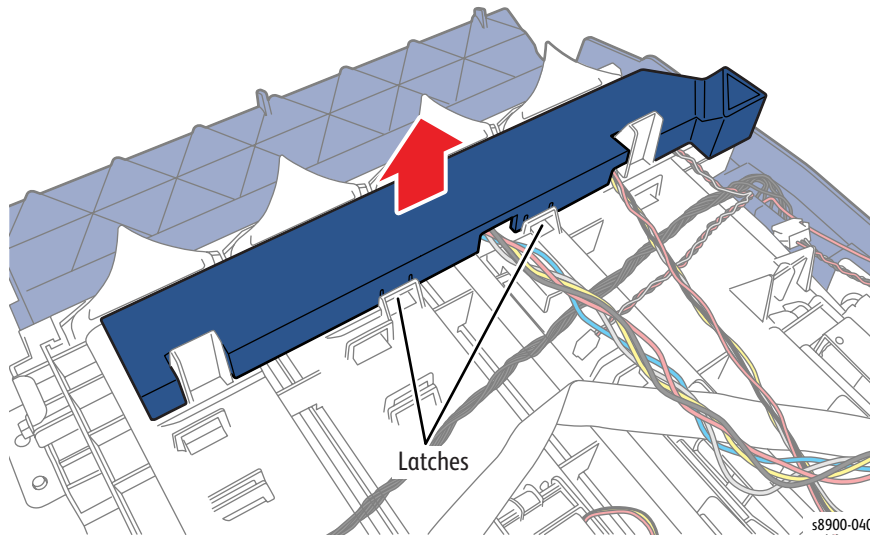
**Replacement Notes:**

- Install the new ink loader with NO ink in it, then power On and add ink, otherwise you can get an error if the ink is pre-loaded.
- If the Ink Loader is installed with the Horizontal Transport attached, a paper exit jam can occur due to Exit Flag jam. Be sure to separate the Horizontal Transport (REP 3.2, [page 4-20](#)) from the Ink Loader prior to installation to prevent the Exit Flag jam.

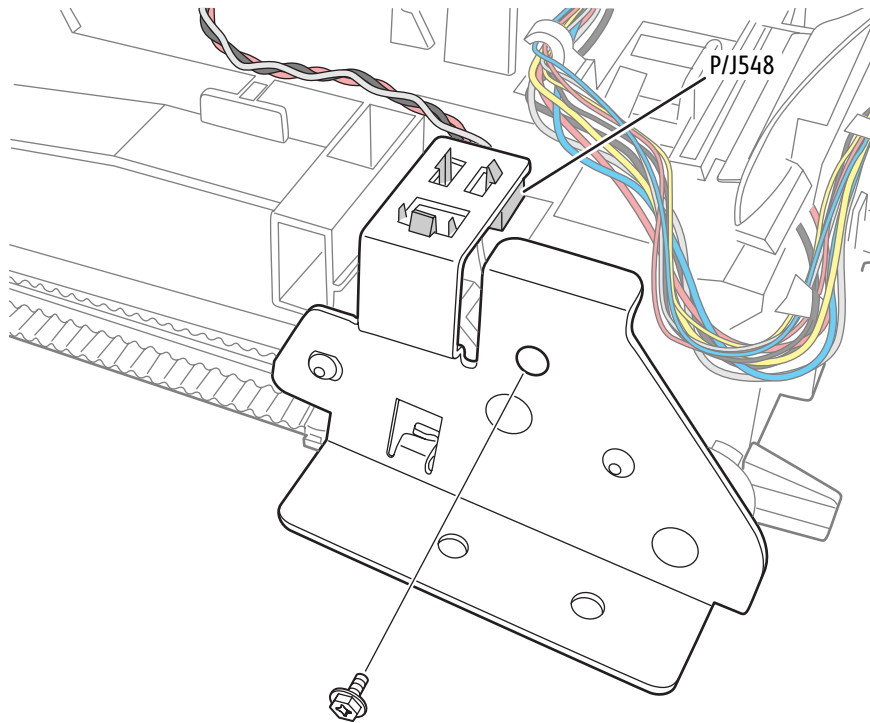
## REP 3.7 Ink Loader Sensor

### PL 3.2.22/ PL 3.2.28

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
8. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
9. Release the 2 latches while lifting the Yoke Ink Load from the Ink Loader Assembly.



10. Remove the Ink Loader Bezel (REP 3.3, [page 4-21](#)).
11. Remove 1 screw that secures the Bracket.
12. Disconnect the Sensor connector P/J 548 and release the Sensor from the Bracket.



s8900-041

## REP 3.8 Ink Stick

Parts List - [Xerox Supplies and Accessories](#) on page 5-83

1. Open the Ink Load Door and remove the Catch Tray.
2. Turn Off the printer and unplug the power cable.
3. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
4. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).

**Note:** The Ink Loader can be removed from the printer at this step but it is not necessary ([REP 3.6 Ink Loader Assembly \(with Bezel\)](#) on page 4-27).

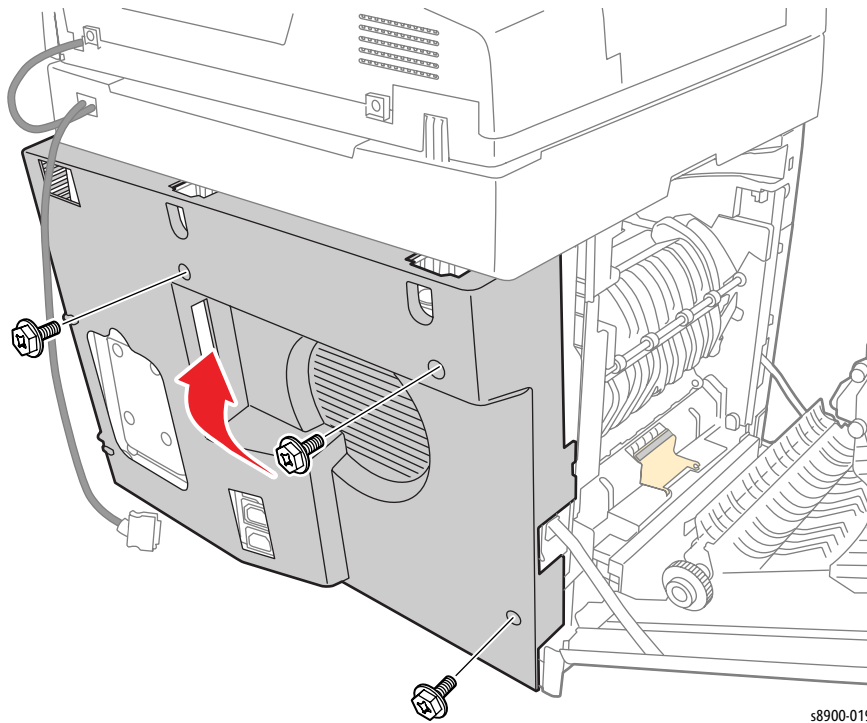
5. Use tool to lower the Ink Chute Gate for necessary color(s).
6. Manually remove ink sticks. Use tool to pry partial sticks off the melt plate and remove.
7. Turn On the printer.
8. Add ink sticks only after the printer is at [Select a Service](#) screen ([Ready](#) mode).

# Cover

## REP 4.1 Rear Cover

### PL 4.1.1

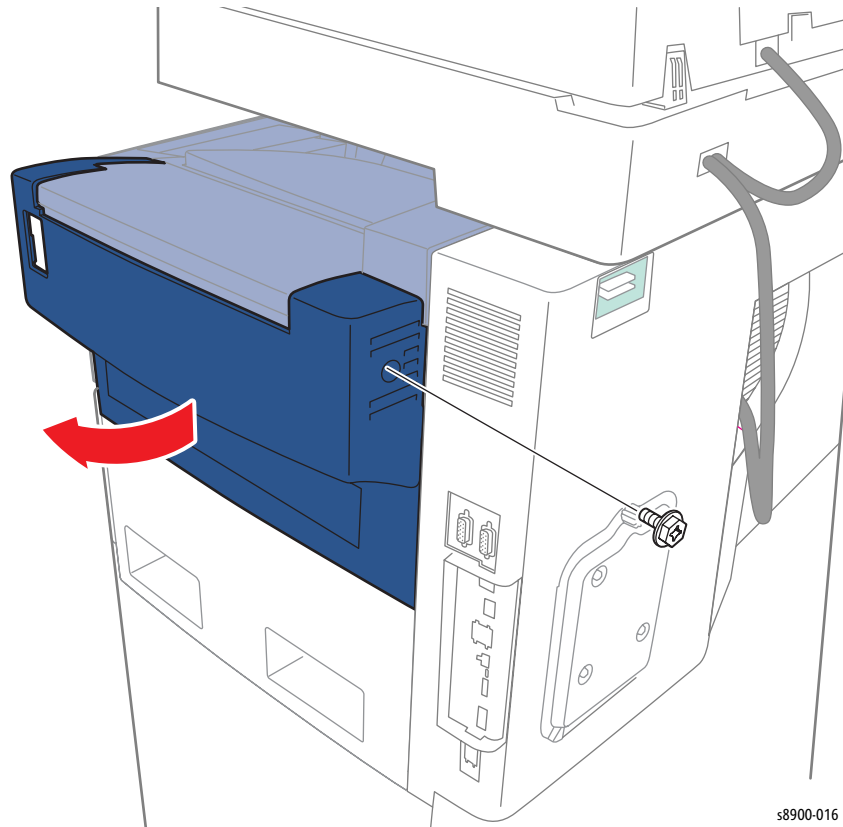
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Open the Left Side Door.
3. Remove 3 screw that secures the Rear Cover.
4. Lift and pull the Rear Cover away from the printer to remove.



## REP 4.2 Upper Right Cover

### PL 4.1.5

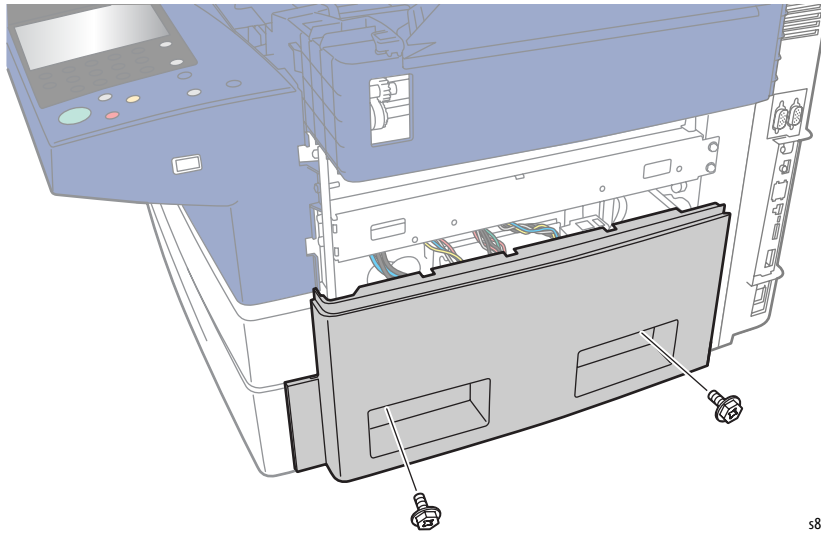
1. Remove 1 screw that secures the Right Upper Cover.
2. Slide the Upper Right Cover out while lifting the Cover to clear the hook in the front of the Cover to remove.



## REP 4.3 Lower Right Cover

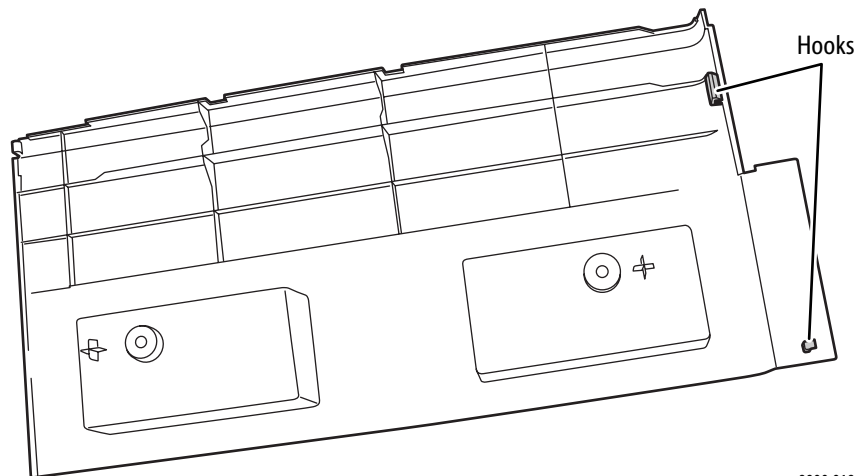
### PL 4.1.8

1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove 2 screws that secure the Lower Right Cover.



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3. Pivot the Cover towards the front to release the hooks to remove.

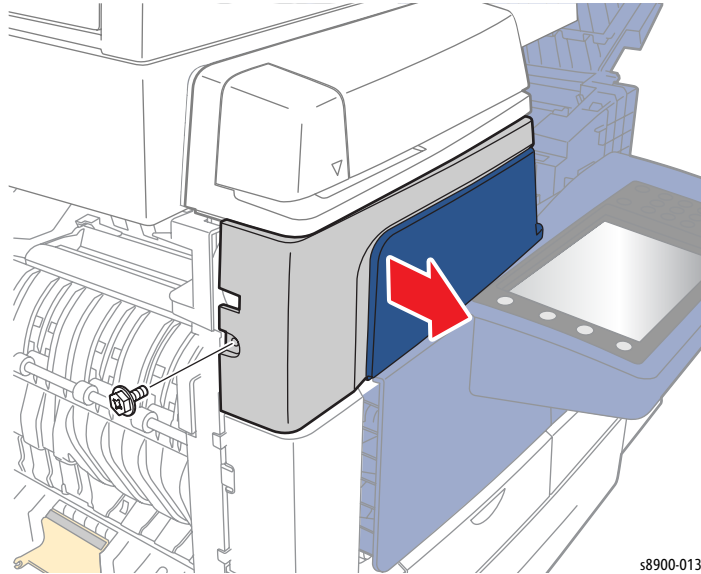


s8900-018

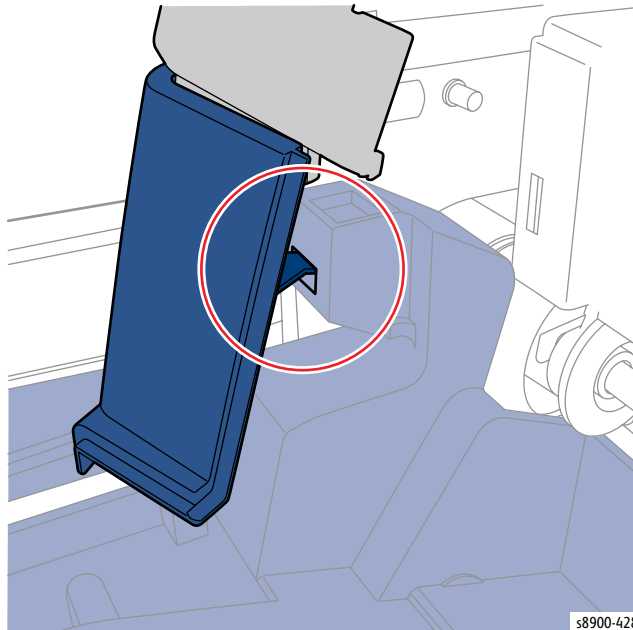
## REP 4.4 Upper Front Cover

### PL 4.1.9

1. Remove the Output Tray (REP 3.2, [page 4-20](#)).
2. Open the Left Side Door.
3. Remove 1 screw that secures the Upper Front Cover.
4. Slide the Upper Front Cover towards the front of the printer to remove.



**Replacement Note:** Be sure to rotate the Cover from the rear in order to sit the Cover in place.

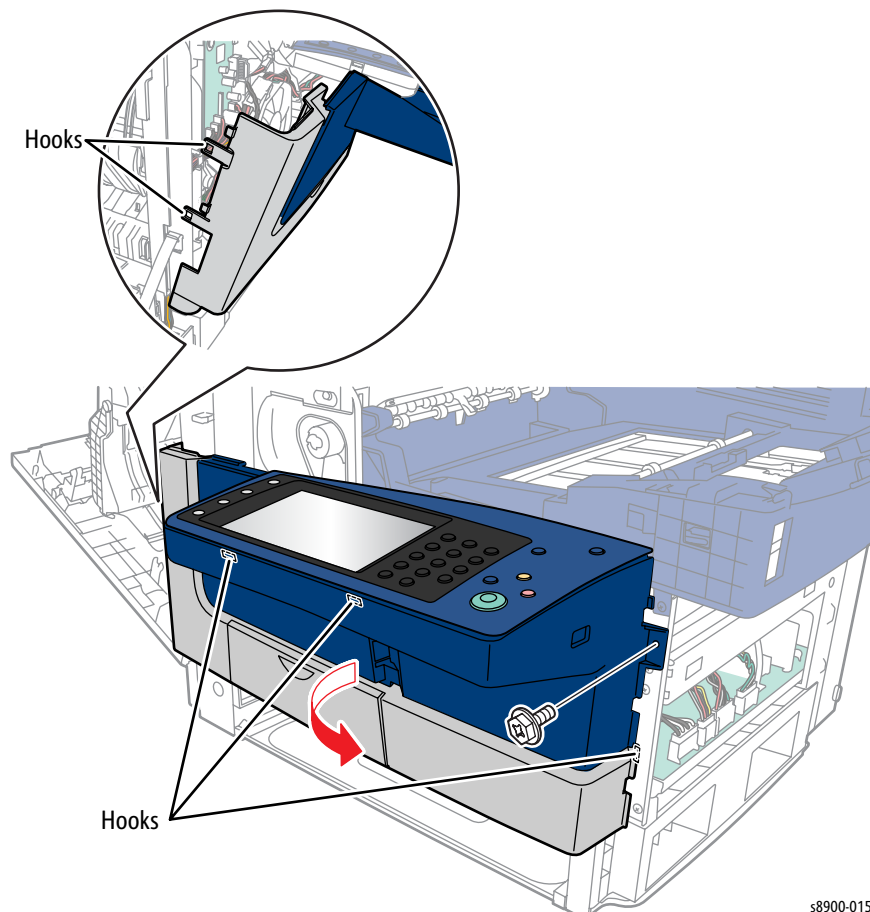




## REP 4.5 Lower Front Cover

PL 4.1.11/ PL 4.1.12

1. Remove Tray 2.
2. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove 1 screw that secures the Lower Front Cover.
6. Squeeze the 2 tabs and pull the Cover downward while pushing the Cover towards the right side to release the tabs to remove.

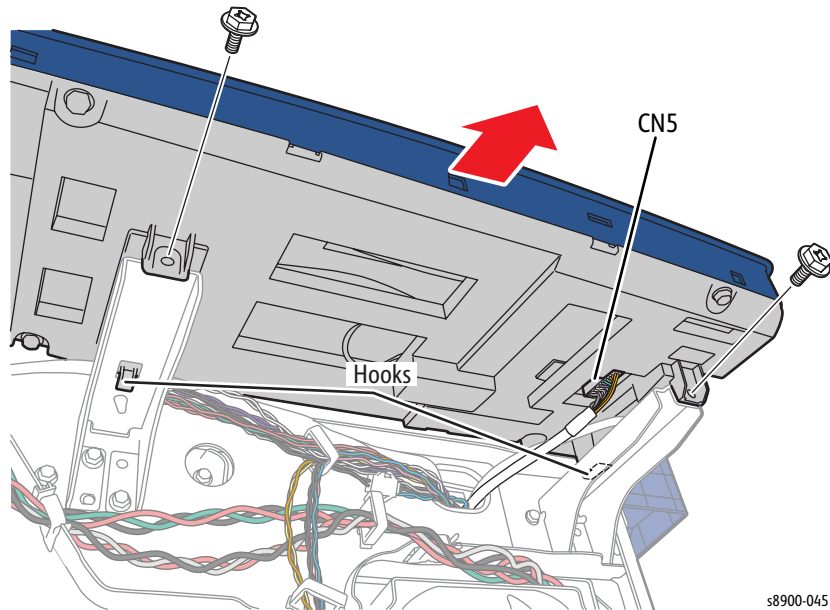


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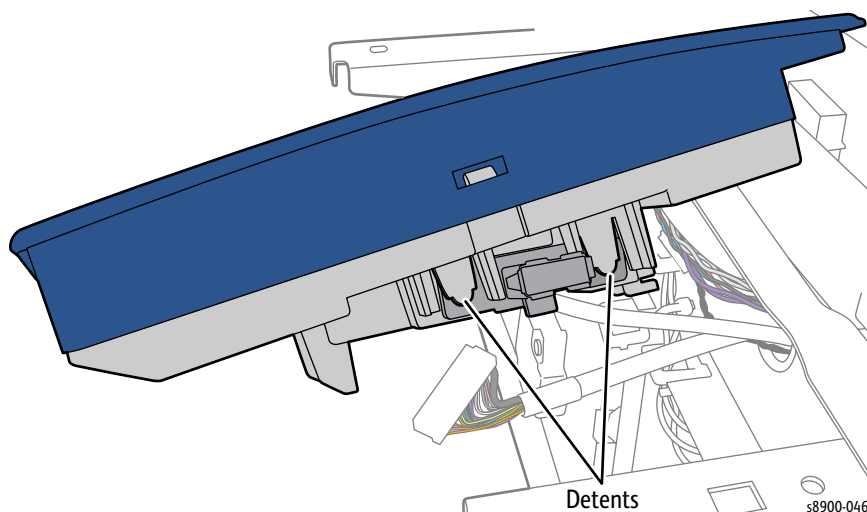
## REP 4.6 Control Panel (UI)

### PL 4.1.15

1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Disconnect the wiring harness connector CN5.
6. Remove 2 screws that secure the Control Panel.
7. Slide the Control Panel forward to release the 2 hooks from the printer frame.



8. Lift the Control Panel and release the 2 detents of the Control Panel from the USB connector.
9. Remove the Control Panel.

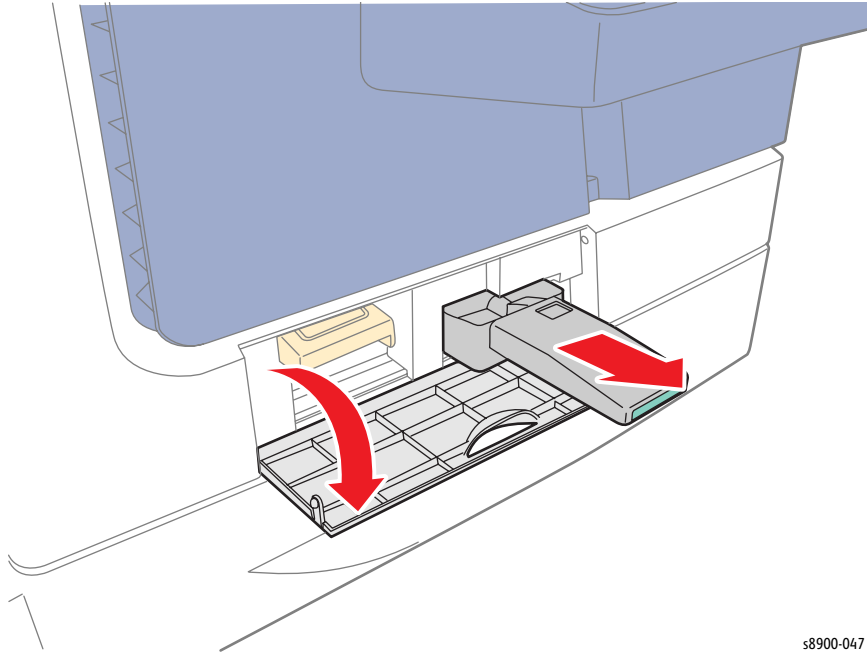


## REP 4.7 Waste Tray

### PL 4.1.16

**Note:** The Waste Tray will not release if the Printhead is parked or printer power is Off.

1. Open the Front Door.
2. Pull the Waste Tray out from the printer.

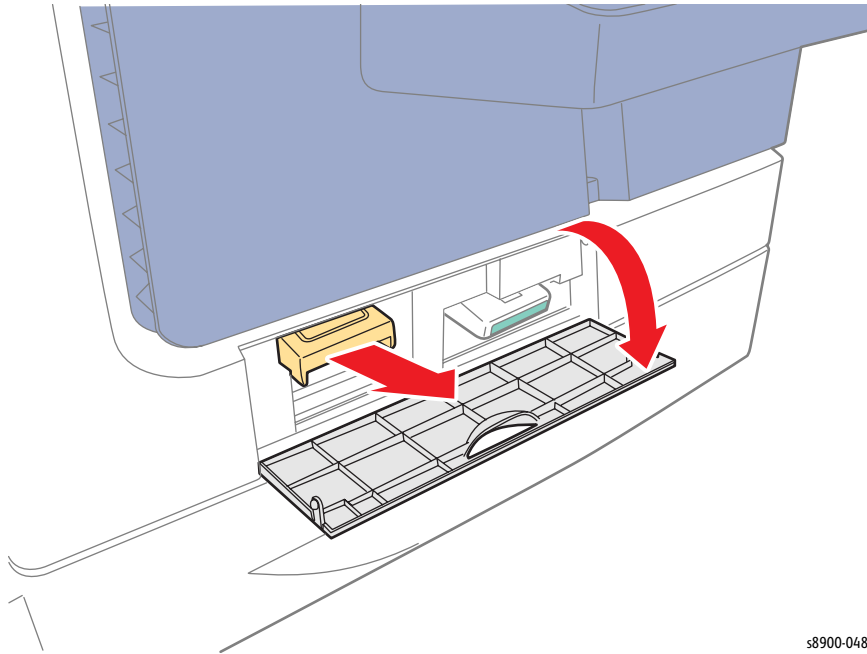


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## REP 4.8 Cleaning Unit

### PL 4.1.17

1. Open the Front Door.
2. Pull the Cleaning Unit out from the printer.



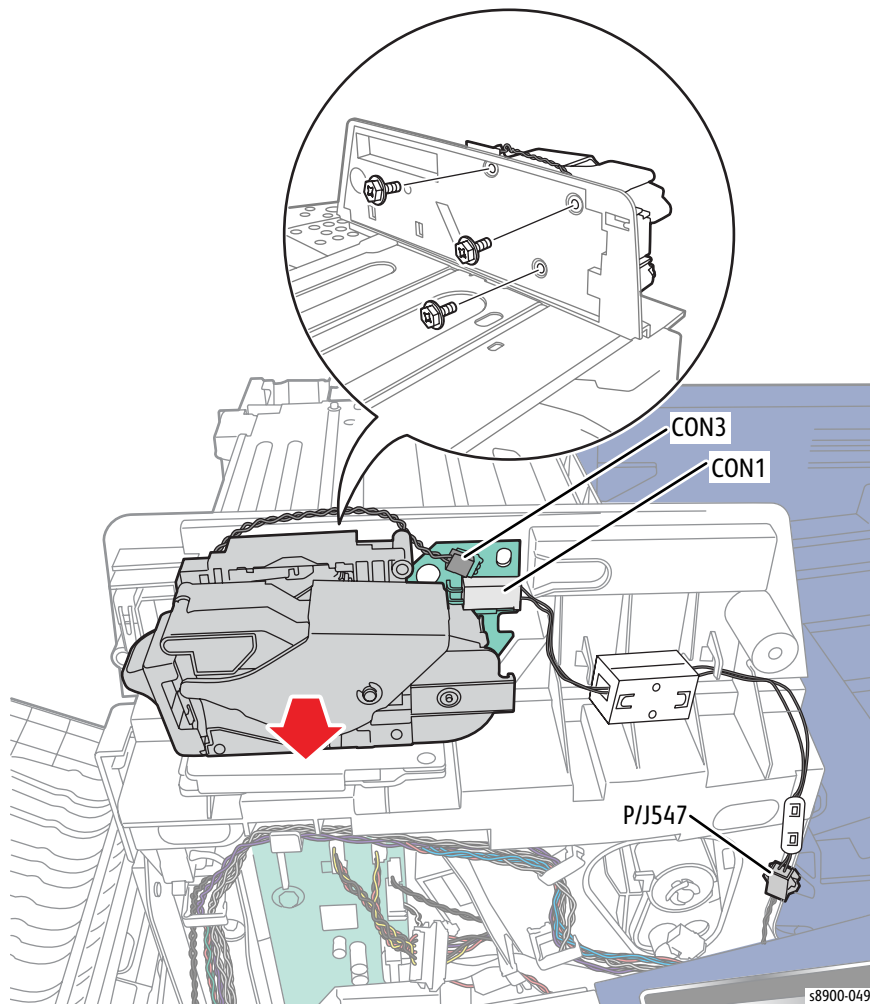
s8900-048

# Stapler Assembly

## REP 5.1 Stapler Assembly

### PL 5.1.3

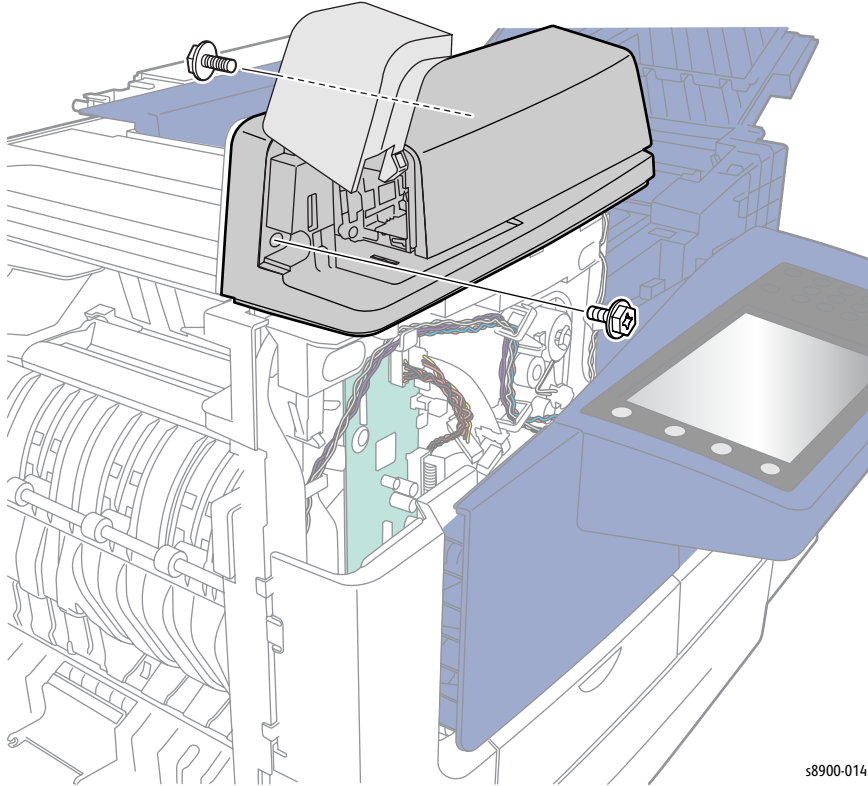
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
3. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
4. Disconnect the 2 wiring harness connectors CON1 and CON3 (Stapler Assembly and Interlock Switch).
5. Remove 3 screws that secure the Stapler Assembly.
6. Remove the Stapler Assembly.



## REP 5.2 Stapler Cover

### PL 5.1.4

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
3. Open the Stapler Cover.
4. Remove 2 screw that secures the Stapler Cover.
5. Slide the Stapler Cover upward to remove.

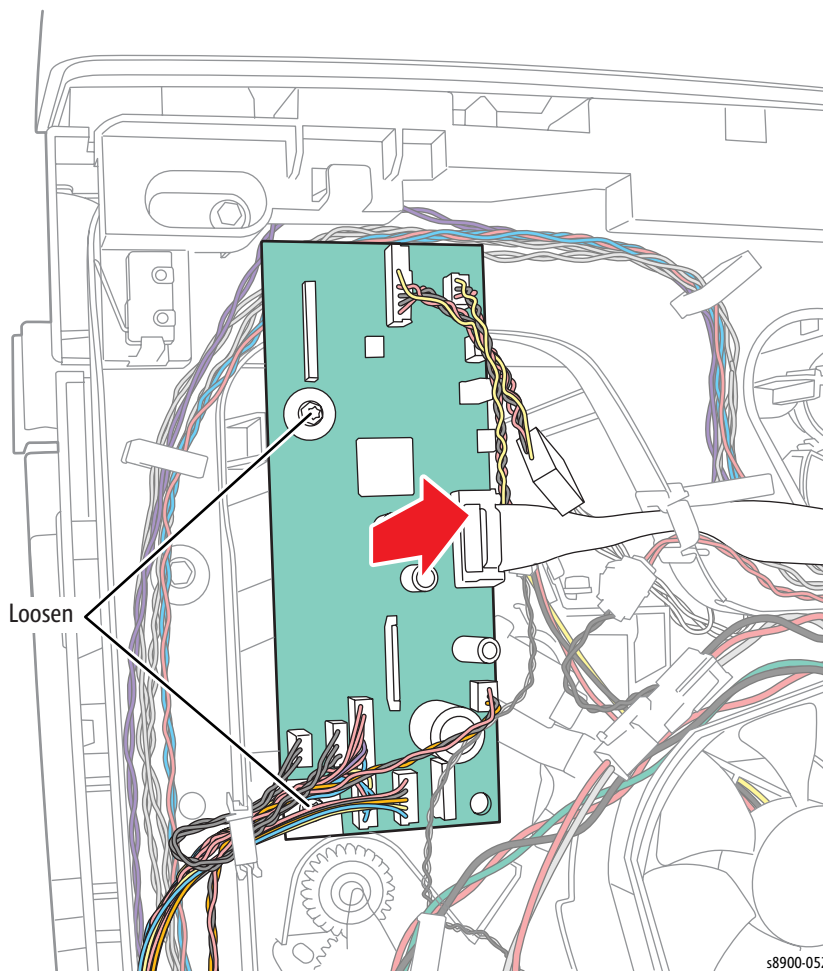


s8900-014

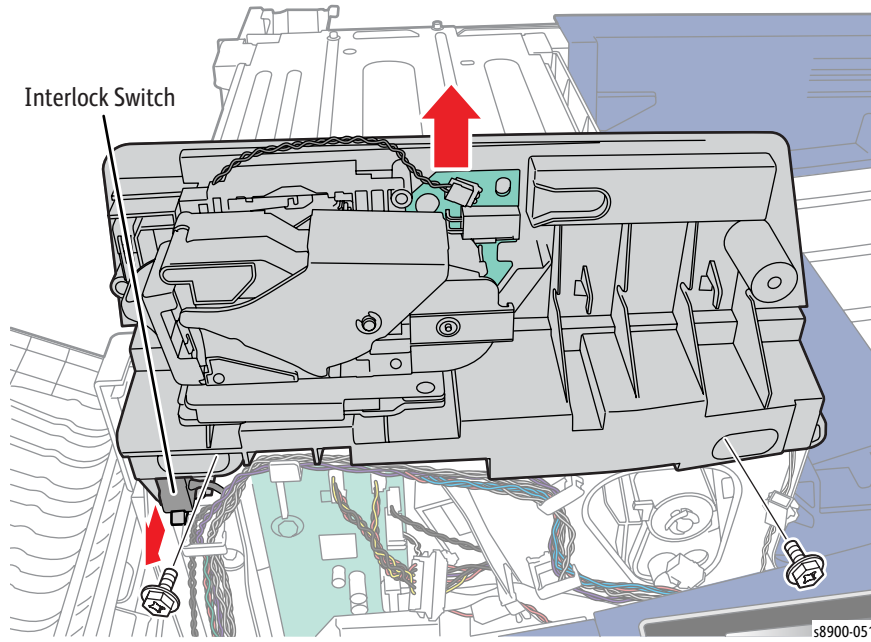
## REP 5.3 Convenience Stapler with Bracket and Cover

### PL 5.1

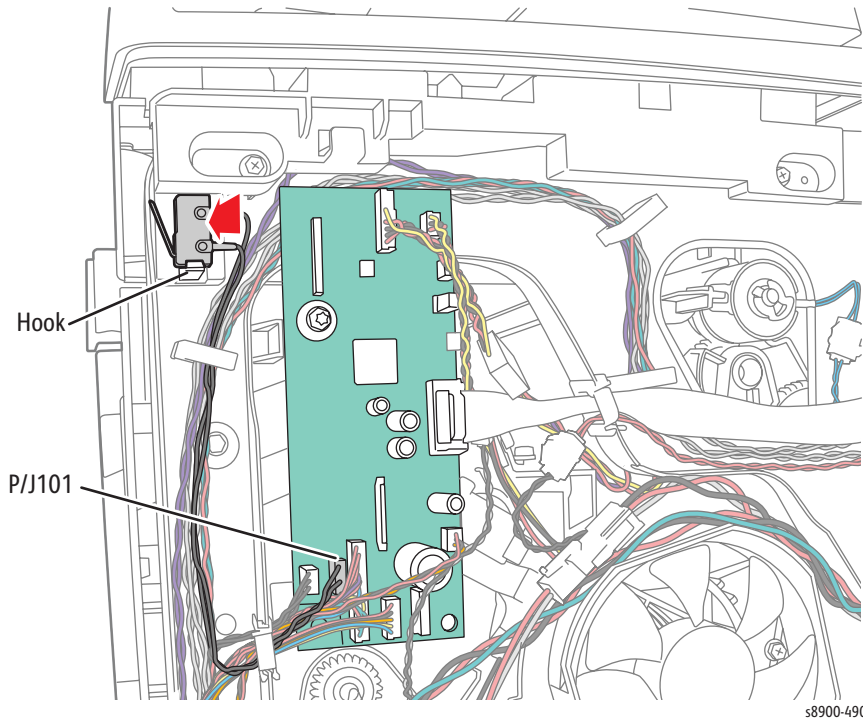
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
7. Loosen 2 screws that secure the I/O Board.
8. Tilt the I/O Board towards the front.



9. Release the Interlock Switch from the Stapler Frame.
10. Remove 2 screws that secure the Stapler Bracket.
11. Remove the Convenience Stapler with Bracket.



**Replacement Note:** Handle the Interlock Switch with caution to prevent damaging the Switch. Be sure to install the Interlock Switch in the correct position.



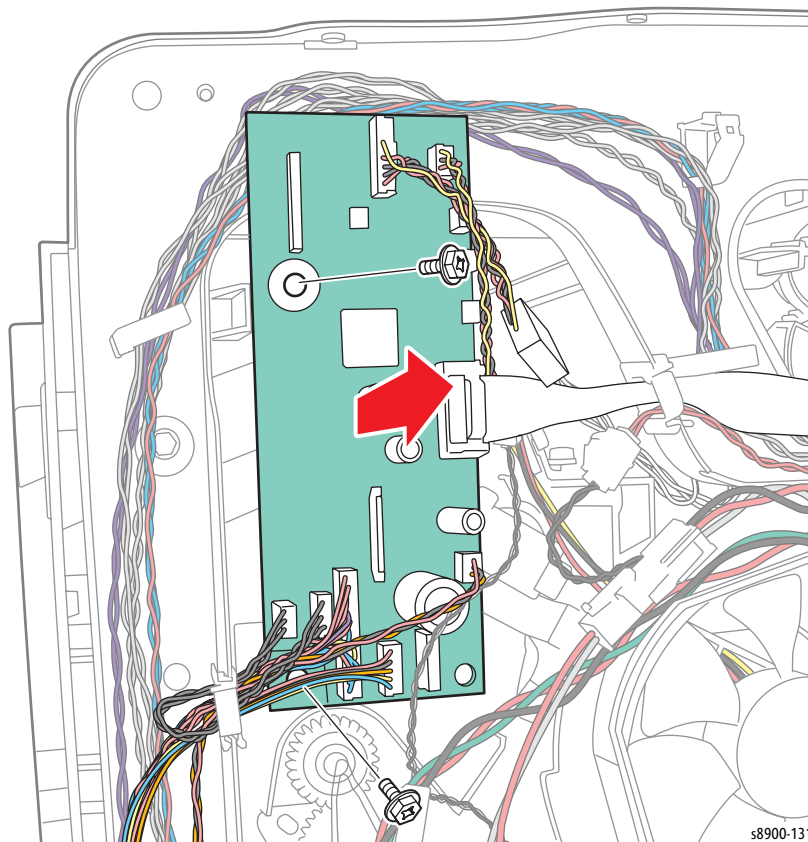


# Left Side Door/ Tray 1

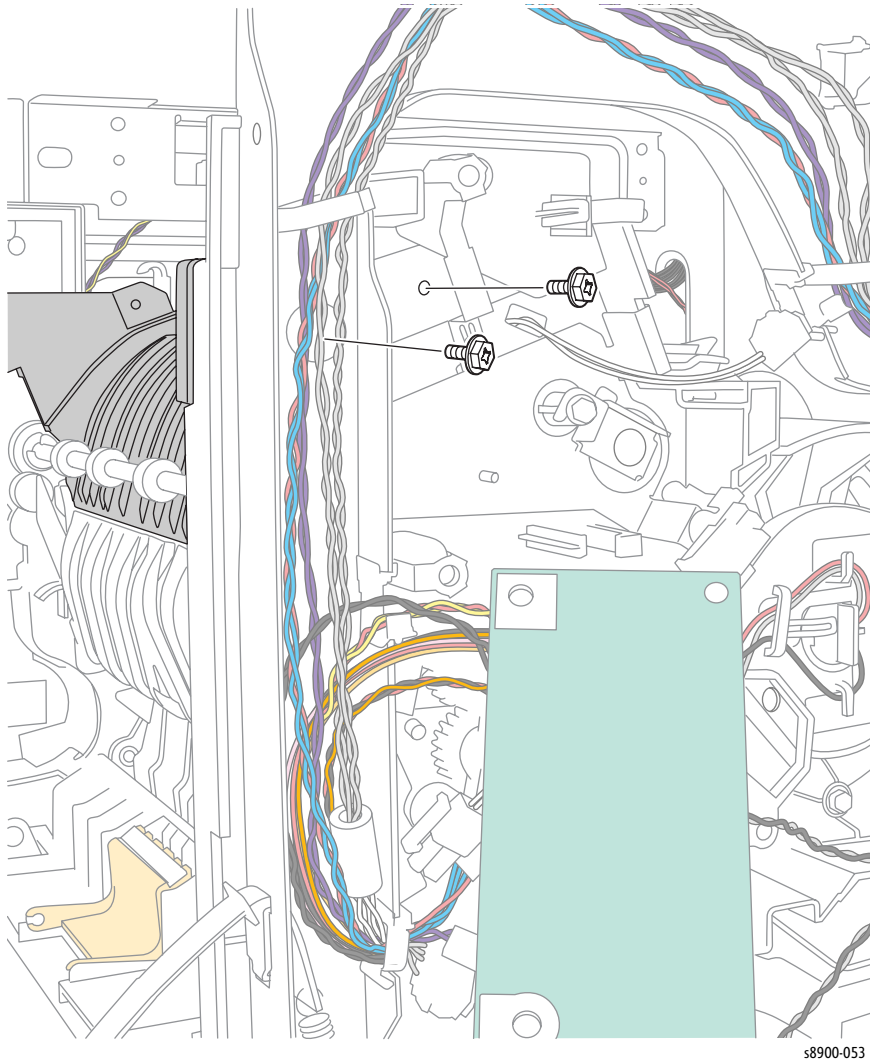
## REP 6.1 Upper Inner Duplex Guide

### PL 6.1.2

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Open the Left Side Door.
8. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
9. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
10. Remove 2 screws that secure the I/O Board.
11. Move the I/O Board away from the printer frame to access the screws.



12. From the front of the printer, remove 2 screws that secure the Upper Inner Duplex Guide.

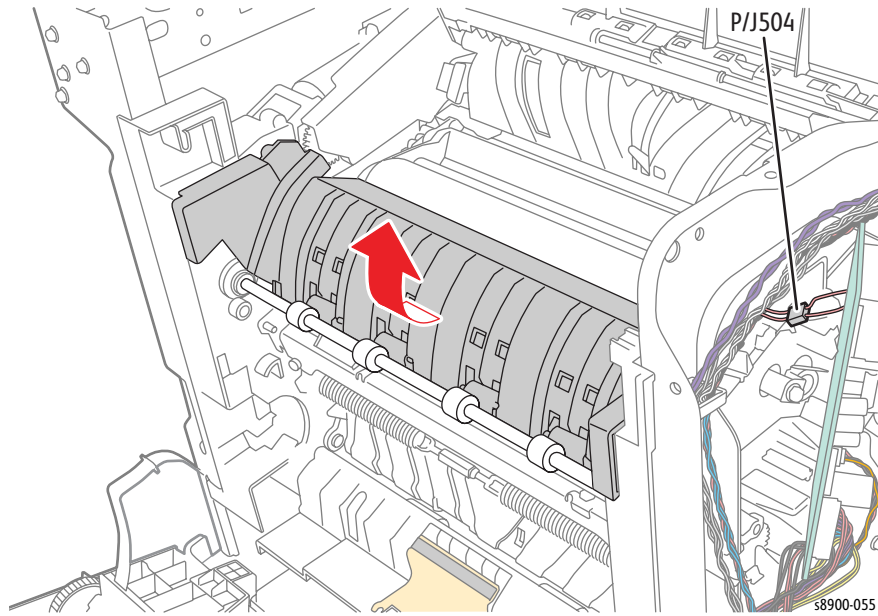


13. From the rear side of the printer, remove 2 screws that secure the Upper Inner Duplex Guide.



s8900-054

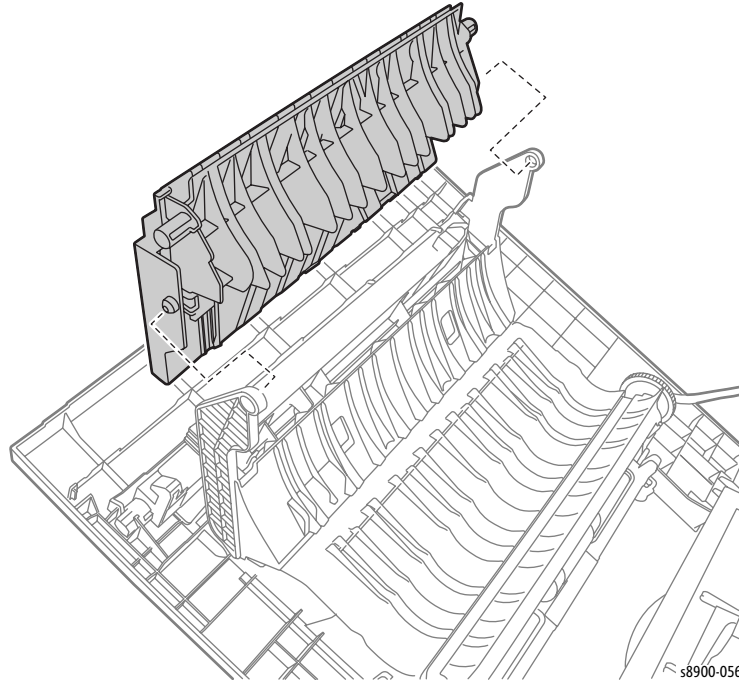
14. Disconnect the Solenoid wiring harness connector P/J504.
15. Lift and remove the Upper Inner Duplex Guide.



## REP 6.2 Pivoting Duplex Guide

### PL 6.1.6

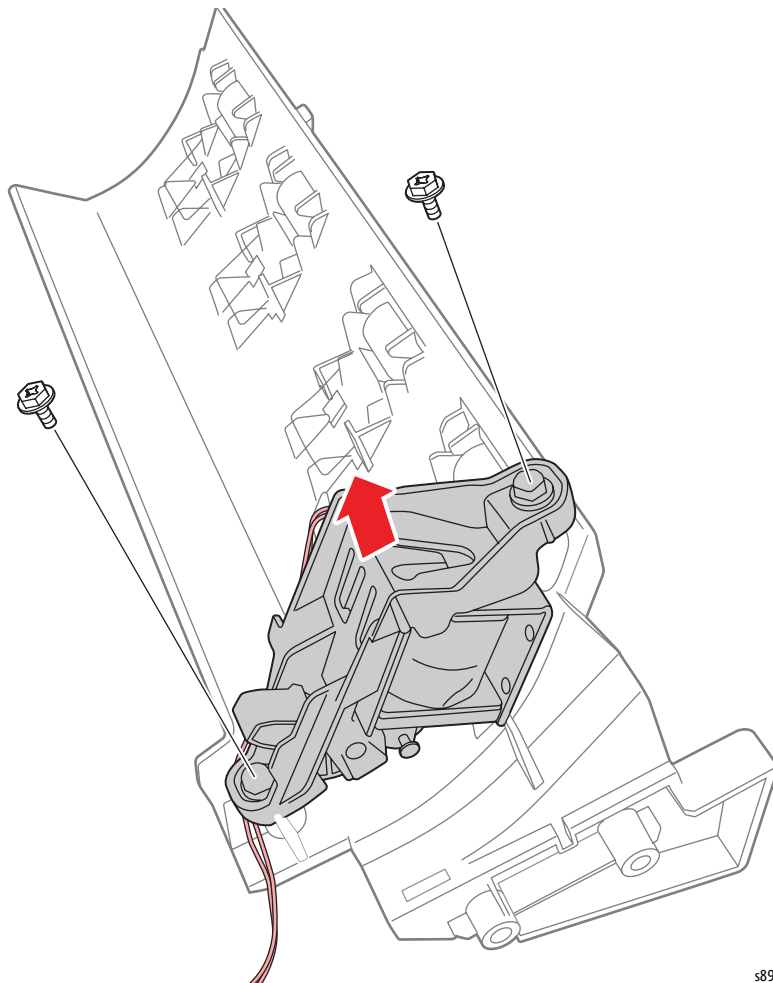
1. Open the Left Side Door.
2. Release the Latch of the Upper Exit Guide from the Pivoting Duplex Guide.
3. Lift and remove the Pivoting Duplex Guide.



## REP 6.3 Strip Solenoid

### PL 6.1.9

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Open the Left Door.
8. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
9. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
10. Remove the Upper Inner Duplex Guide with Solenoid (REP 6.1, [page 4-45](#)).
11. Remove 2 screws that secure the Strip Solenoid.
12. Remove the Strip Solenoid.

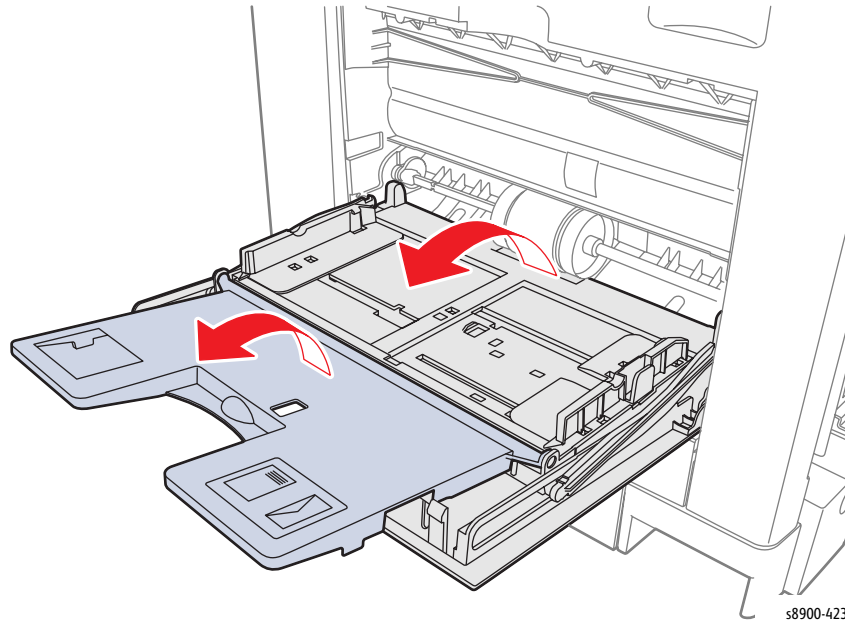


s8900-057

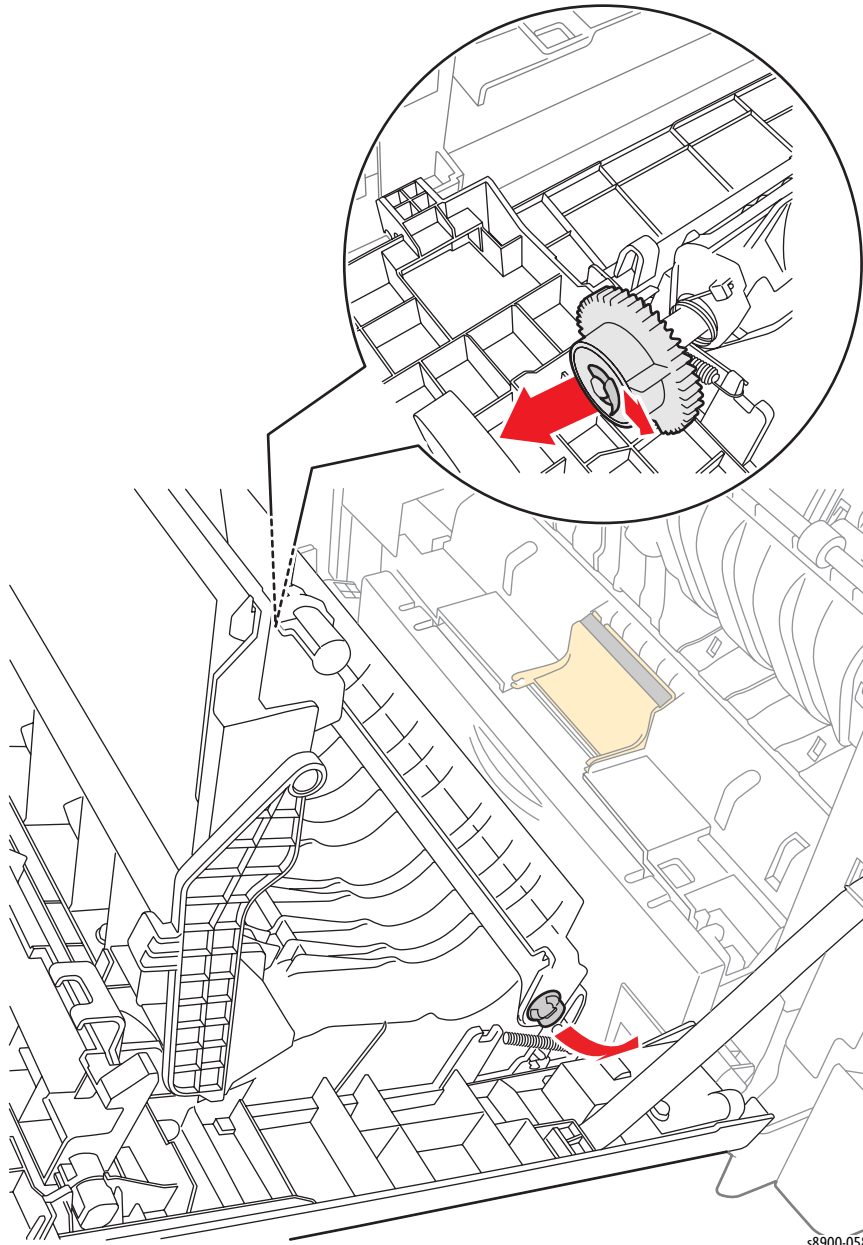
## REP 6.4 Tray 1 Pick Roller

### PL 6.1.19

1. Open Tray 1.
2. Open the Extension Tray.



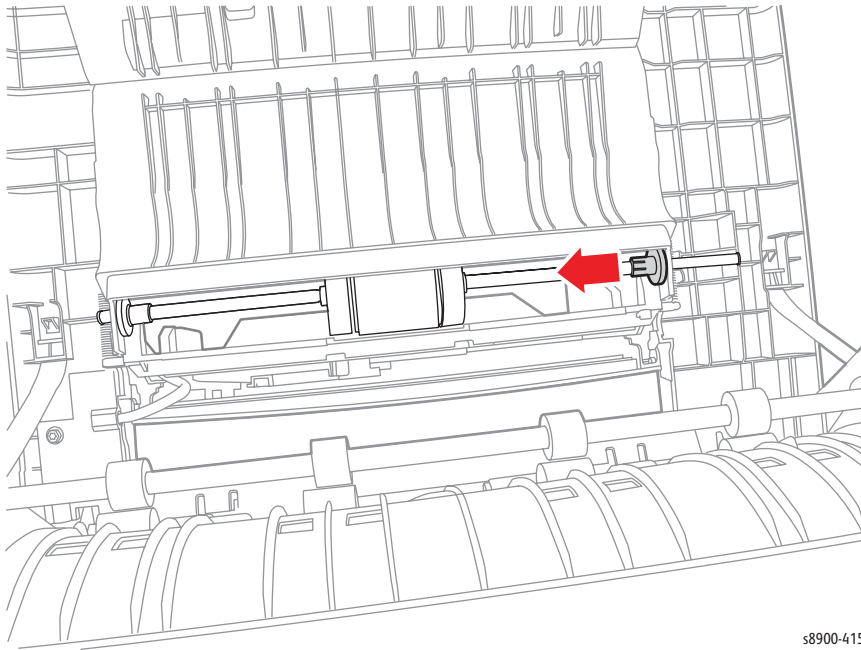
3. Open the Left Side Door.
4. Remove the KL Clip from the right side of the Left Side Door.
5. Remove the KL Clip on the left side of the Left Side Door.
6. Remove the Gear.



s8900-058

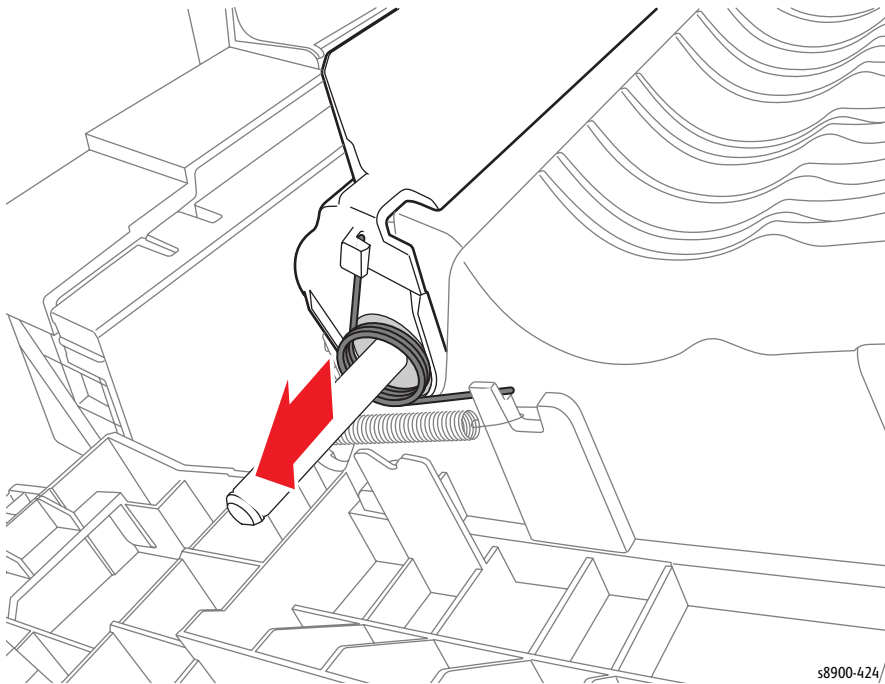


7. Lift the black Stopper and push towards the front side.



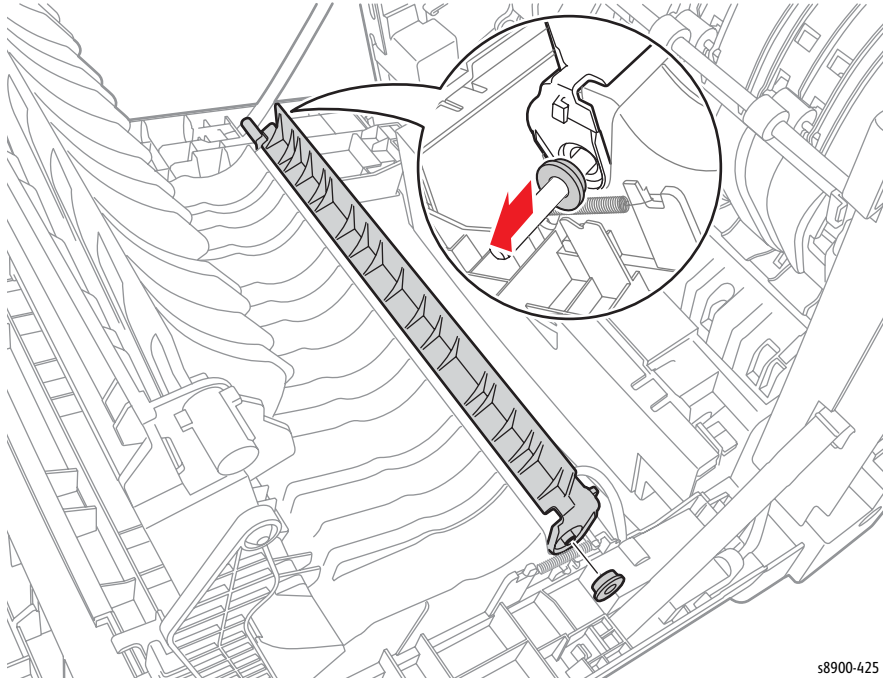
s8900-415

8. Remove the Spring.



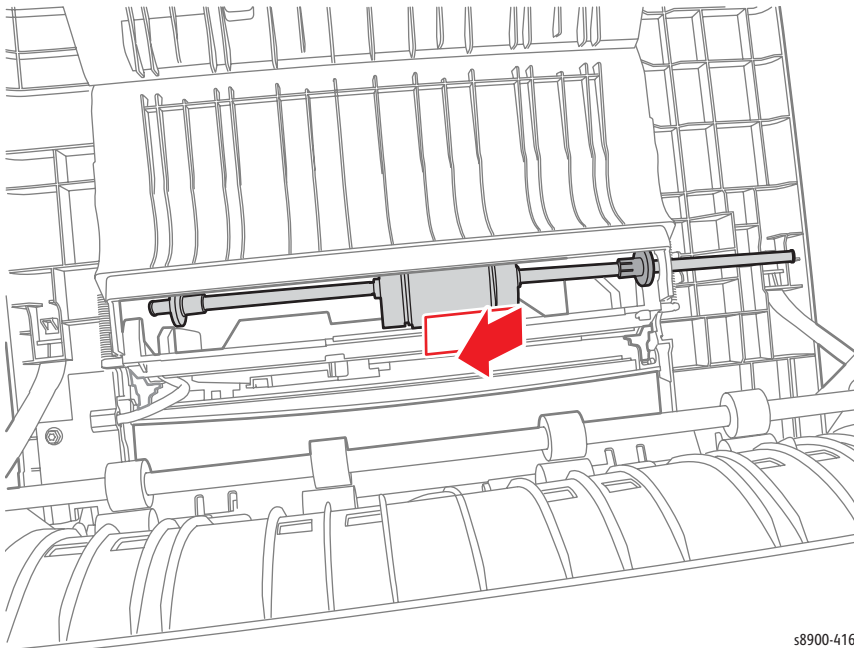
s8900-424

9. Remove the 2 bearings on the left and right sides.



s8900-425

10. Push the Pick Roller Assembly towards the rear of the printer while lowering the Pick Roller Assembly to remove.

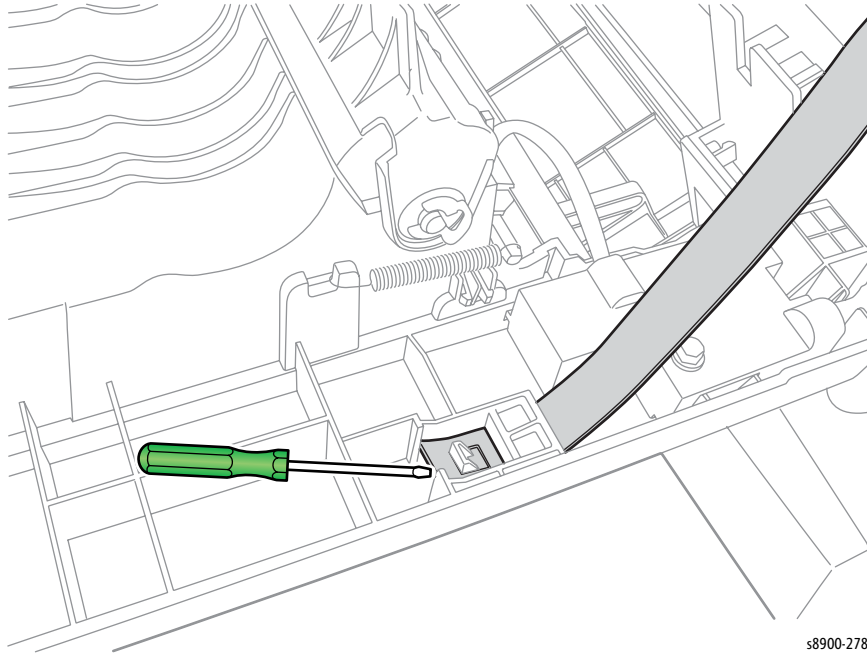


s8900-416

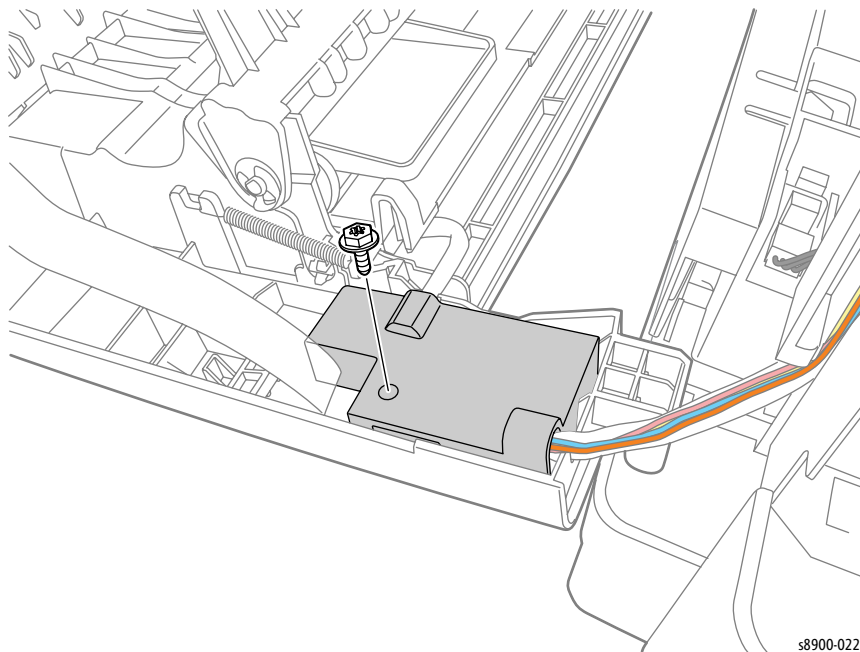
## REP 6.5 Left Side Door Assembly

### PL 6.1.21

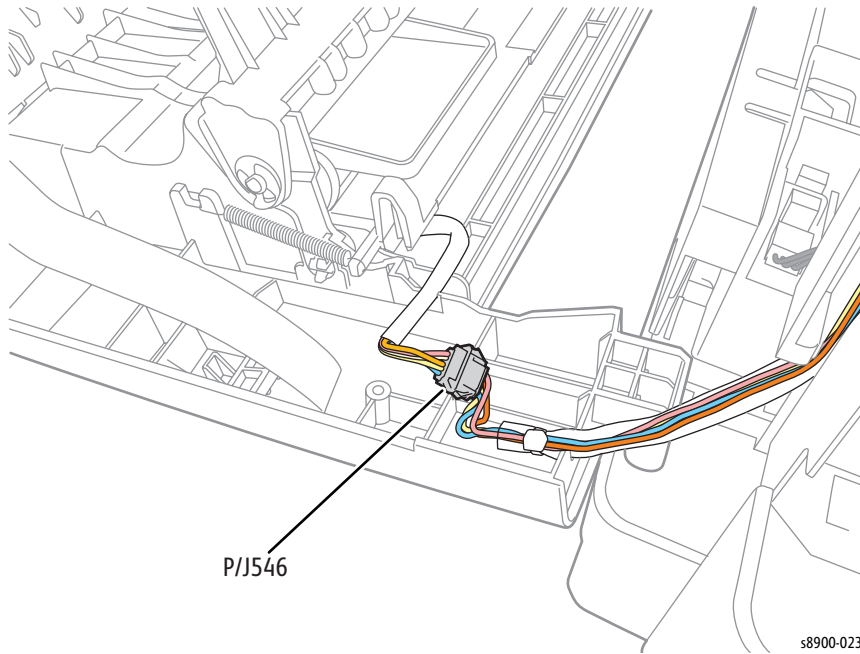
1. Open the Left Side Door.
2. Use a flat tip screwdriver to release the straps on the left and right sides from the door.



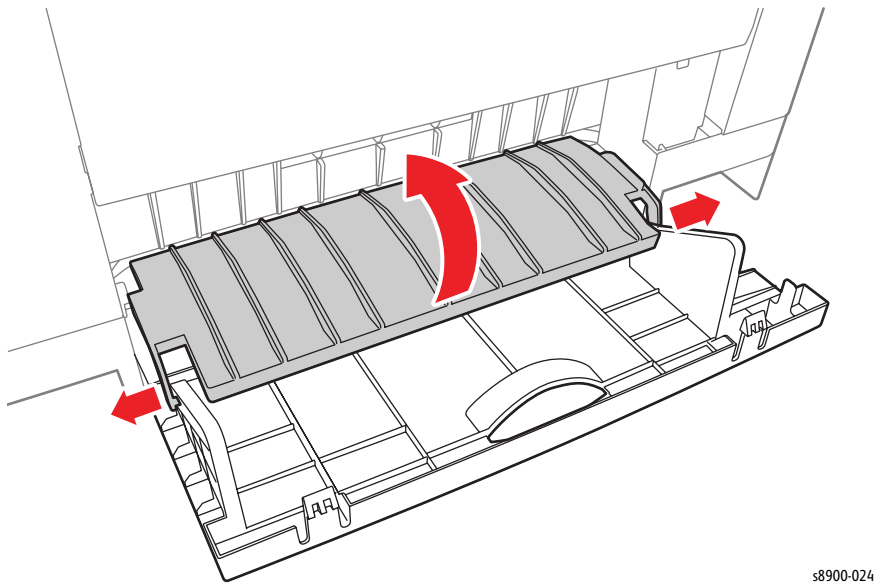
3. Remove 1 screw that secures the Connector Cover.
4. Remove the Connector Cover.



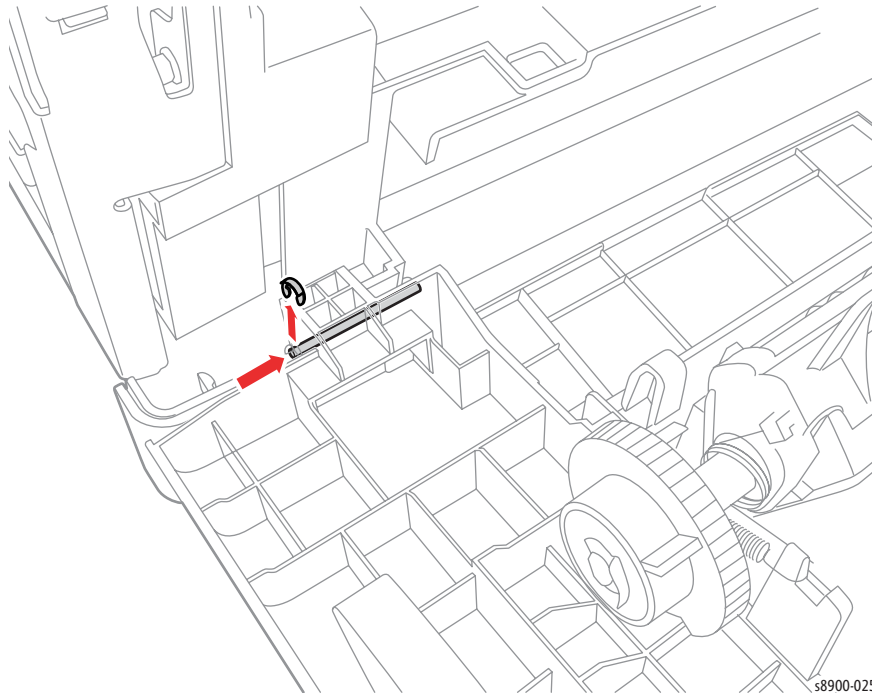
5. Disconnect the wiring harness connector P/J546.



6. Close the Left Side Door.
7. Open the Lower Left Door.
8. Release the notches on the Inner Lower Left Door and close the Lower Inner Door.



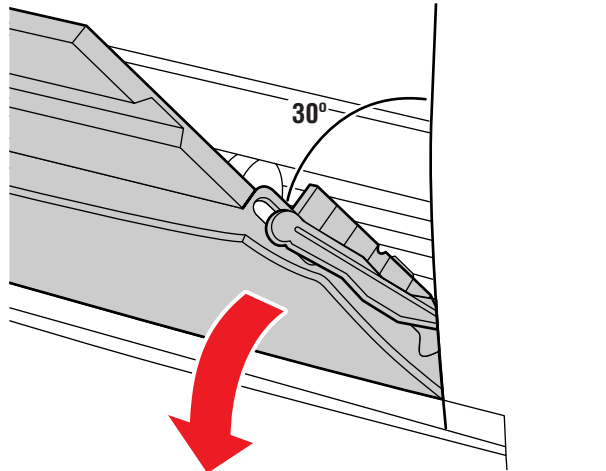
9. Remove the KL-Clip.
10. Push the pin towards the front of the printer to remove.
11. Lift the Left Side Door to remove.



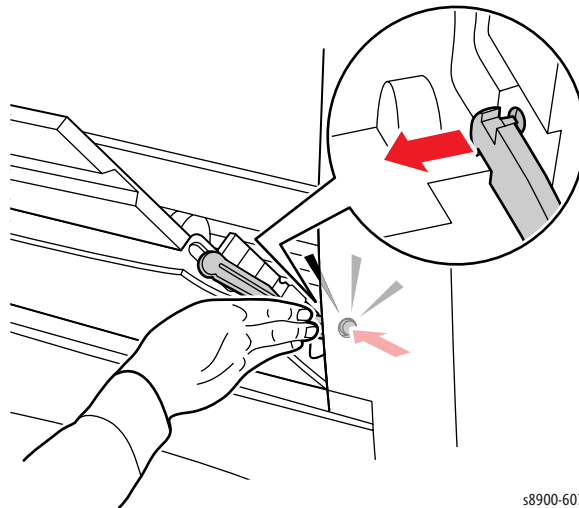
## REP 6.6 Tray 1 Arm

### PL 6.1.23

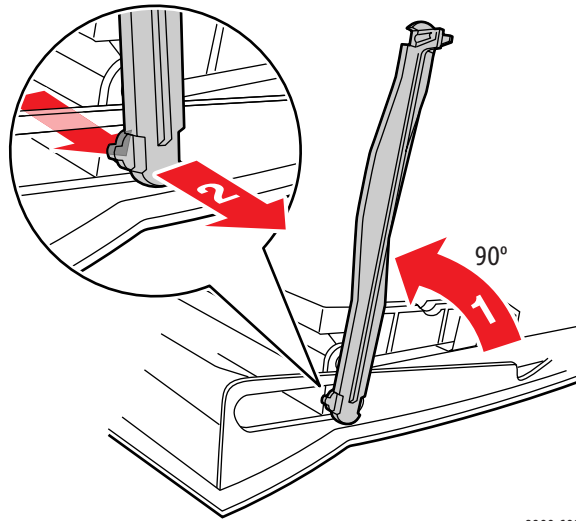
1. Open the Tray 1 at about 30 degree angle.



2. Push the Arm towards the inside to release the Arm from the notch.



3. Rotate the Tray 1 Arm upward around a 90 degree angle to release the Arm from the open slot on Tray 1.



s8900-608

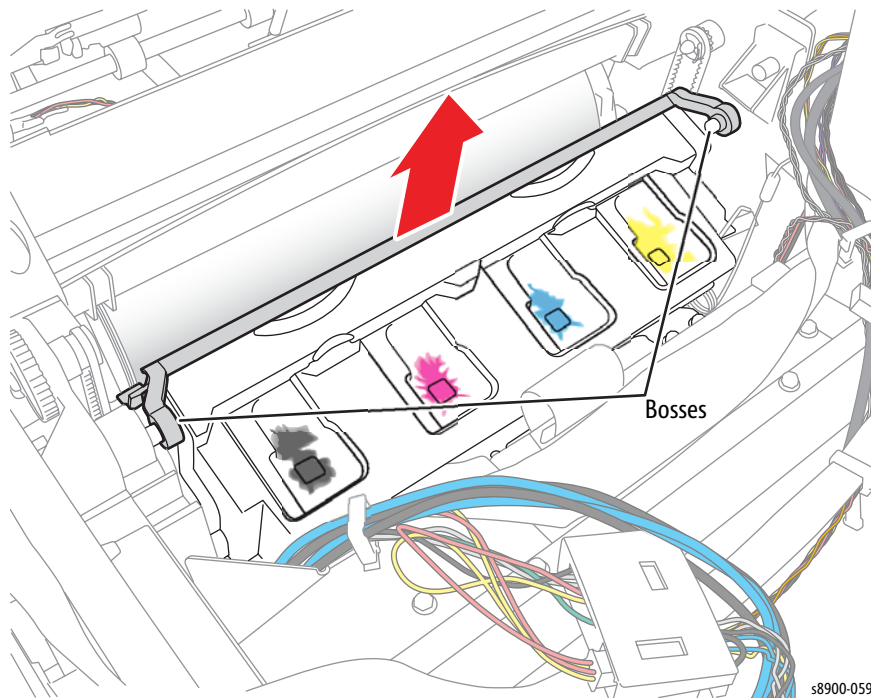
# Imaging

## REP 7.1 Jet Stack Cap

### PL 7.1.1

**!** **WARNING:** Allow adequate time for the printer to cool before servicing. The Printhead could still be hot. Removing the print head too soon may cause wax spillage. Allow 20 minutes to cool

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
6. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
7. Release the Jetstack Cap from the left and right pins.
8. Lift and remove the Jet Stack Cap.



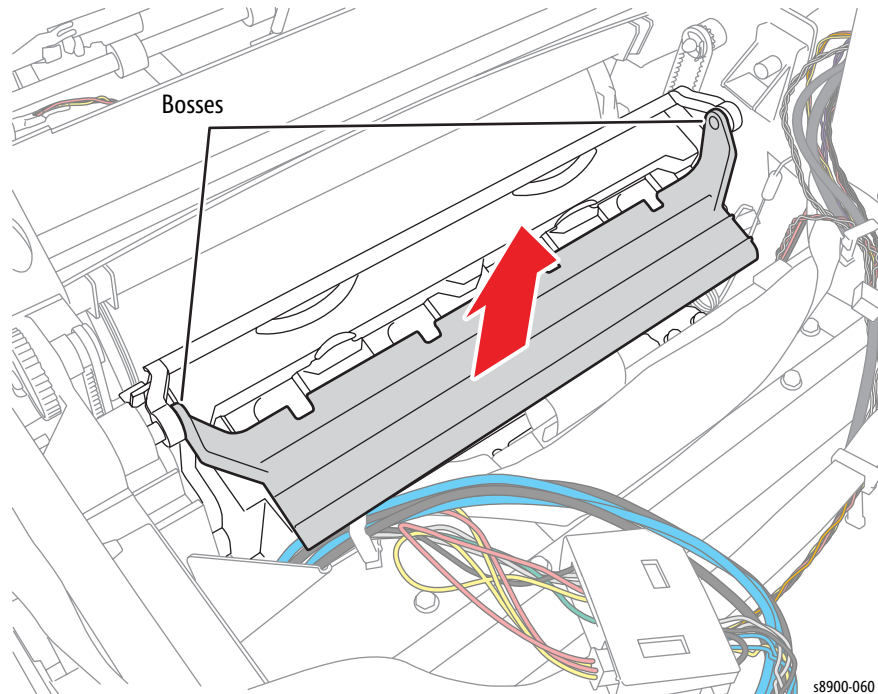


## REP 7.2 Funnel Cap

### PL 7.1.2

**!** **WARNING:** Allow adequate time for the printer to cool before servicing. The Printhead could still be hot. Removing the print head too soon may cause wax spillage. Allow 20 minutes to cool

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
6. Remove the Funnel Cap from the left and right pins.
7. Lift and remove the Funnel Cap.





## REP 7.3 Printhead Assembly [Video available here](#)

### PL 7.1.3

#### **WARNINGS:**

- Disconnect the Power Cord before servicing the printer. Line Voltage present on the Fuse and Fuse Holder Contacts.
- Removing the print head too soon may cause wax spillage. Allow 20 minutes to cool. The Roll Block that retains the Printhead Shaft remains hot longer than other nearby components.

#### Notes:

- Allow the Printhead to cool for 20 minutes so that liquid ink solidifies in the Printhead.
- Use the Printhead Troubleshooting Checklist to troubleshoot Printhead operation before replacement. A copy of this checklist is included with the replacement Printhead. Return the completed checklist with the defective part if Printhead replacement is necessary.
- When parked, the Printhead is held in place by pins that are captured by the left Printhead Restraint. If the Restraints are released, tension from the Printhead Tilt Spring will force the Printhead toward the Drum. Gradually release the spring tension when unlocking the Printhead Restraints.

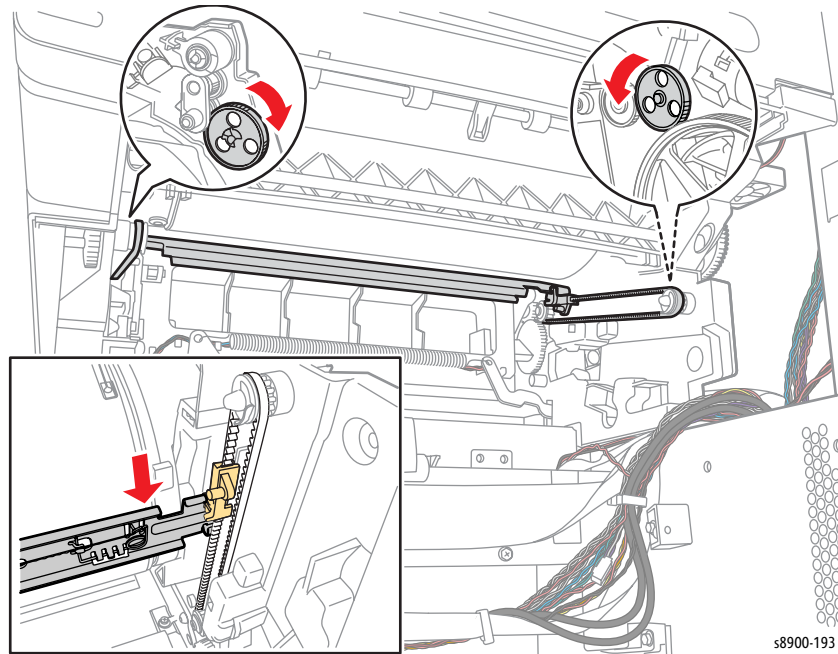
#### **CAUTIONS:**

- Do not tilt the Printhead to avoid damage to the Printhead, as liquid can spill inside the Printhead.
- To prevent the Printhead from contacting the Drum while releasing the Printhead Restraints, perform the [ADJ 1.4 Manual Printhead Parking](#) on page 6-40 to move the Printhead away from the Drum.
- Verify that the Printhead Wiper is at the bottom of its travel position. If not, perform [ADJ 1.1 Wiper Blade Adjustment](#) on page 6-32.
- Perform the Printhead removal steps in the order given and use the Printhead finger recesses to lift the Printhead from the chassis. Do not touch the Printhead Jetstack.

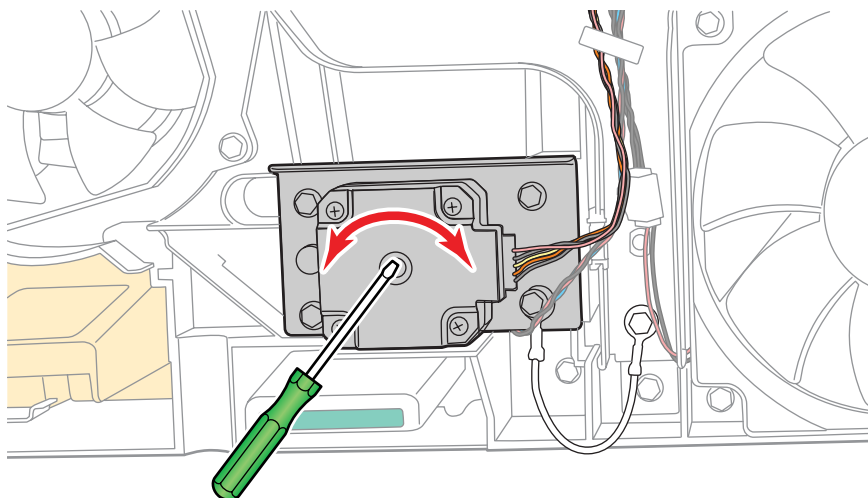
**Note:** For additional tips, refer to the Printhead Removal video above (also available in the ColorQube 8700/8900 Training materials).

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
8. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
9. Remove the Jet Stack Cap (REP 7.1, [page 4-60](#)).
10. Place several sheets of paper between the Printhead and Drum to protect the Drum.

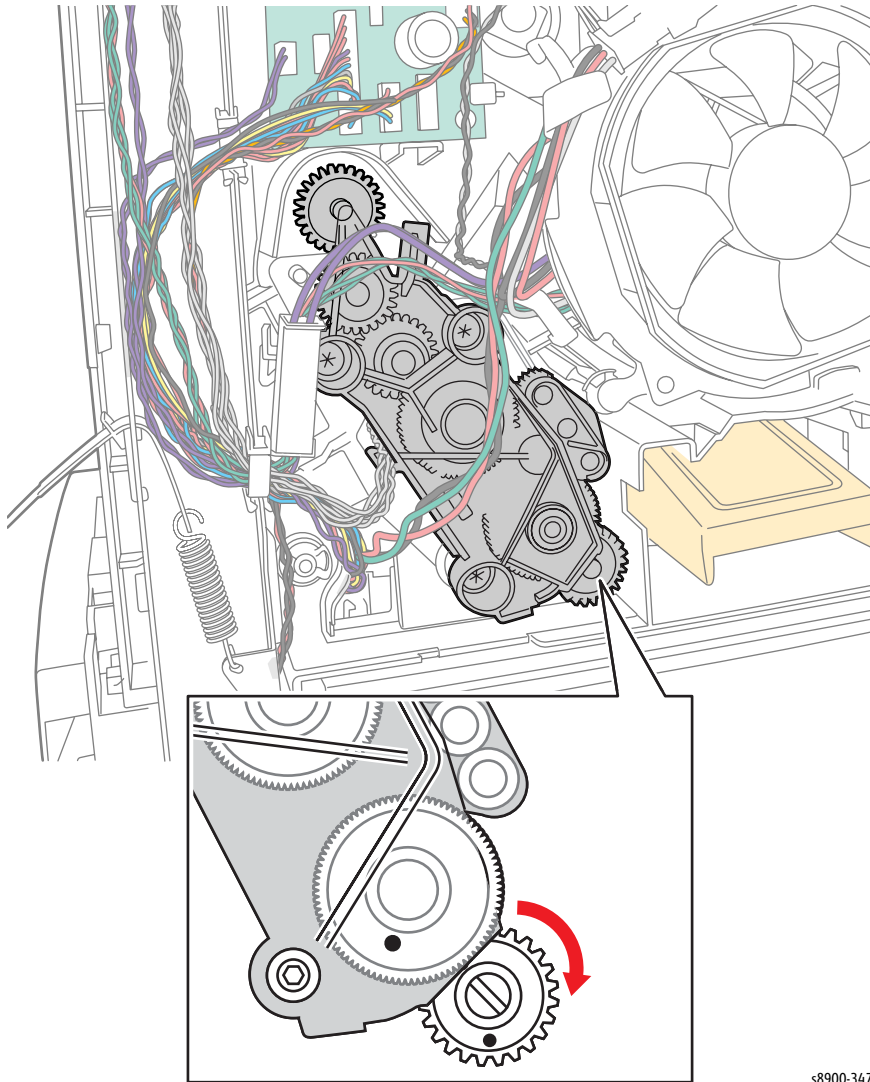
11. Hold the Printhead back (only if the Printhead not tilted back).
12. Lower the Wiper Blade to its lowest position by rotating the Wiper Drive Gears.



13. Use a small flat tip screwdriver to adjust the X-Axis Motor to center the Printhead and allow removing the Printhead Restraints.
  - a. Adjust counter-clockwise to remove the Printhead pin from the right Restraint (adjusting the Head to X-Axis Tilt position).
  - b. Turn the Motor counter-clockwise until resistance, then 1 rotation clockwise to set to tilt position.

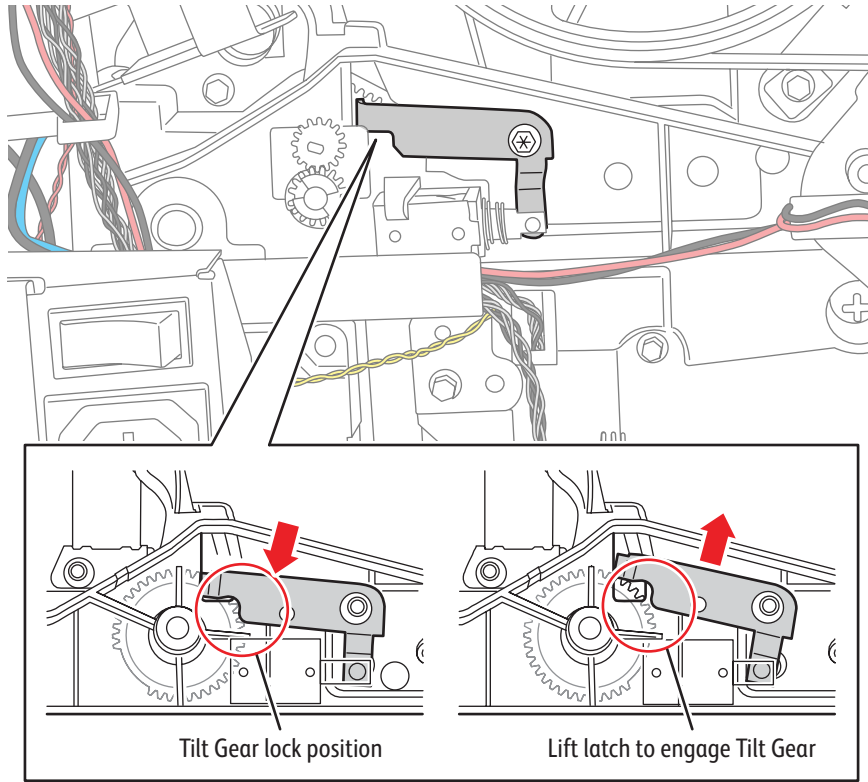


14. Insert a screwdriver into the Drum Maintenance Camshaft and rotate it clockwise to disengage the Head Tilt Gear.



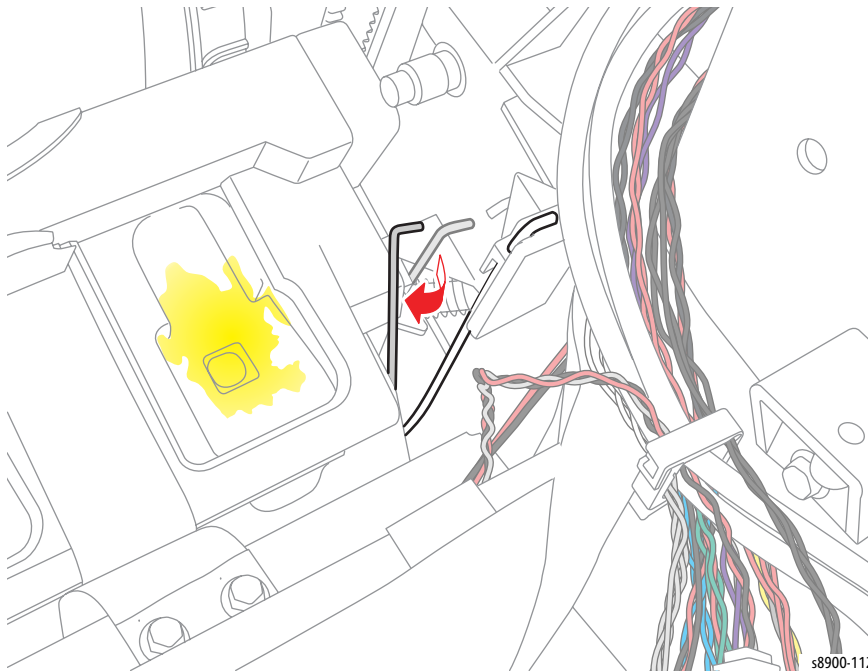
s8900-347

**Note:** If the Head is in Park position (the Gear does not move), push on the Solenoid.



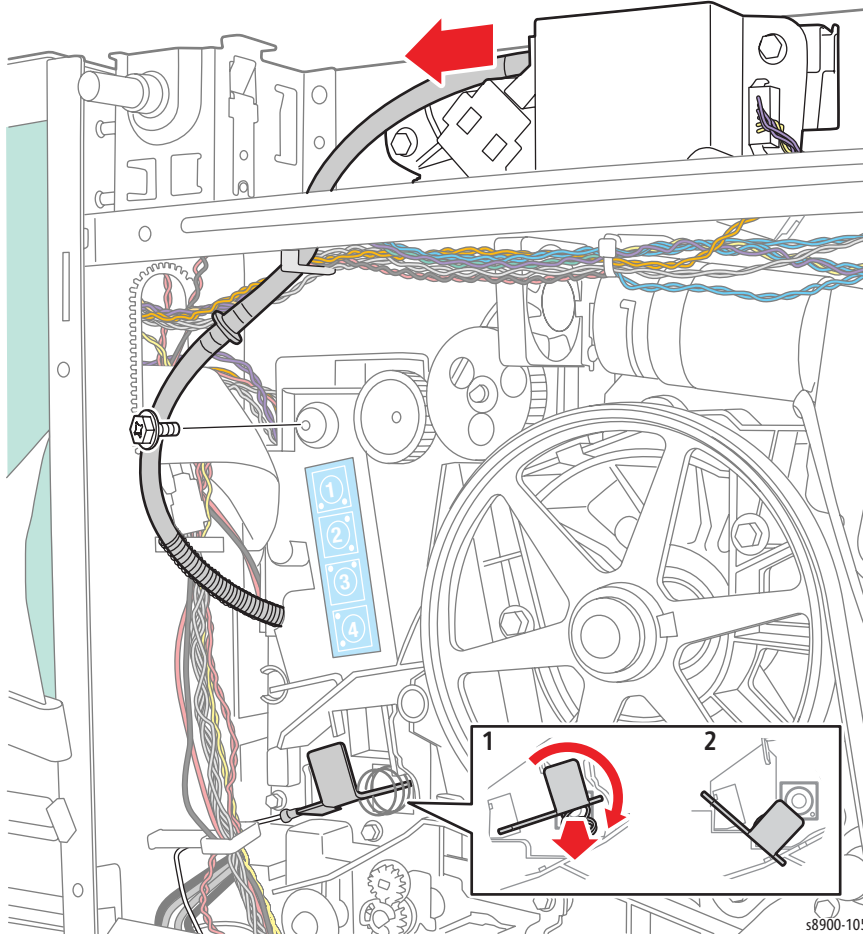
s8900-097

15. Move the Printhead Tilt Spring from its position on the Printhead to release its tension and hook it behind the notch.



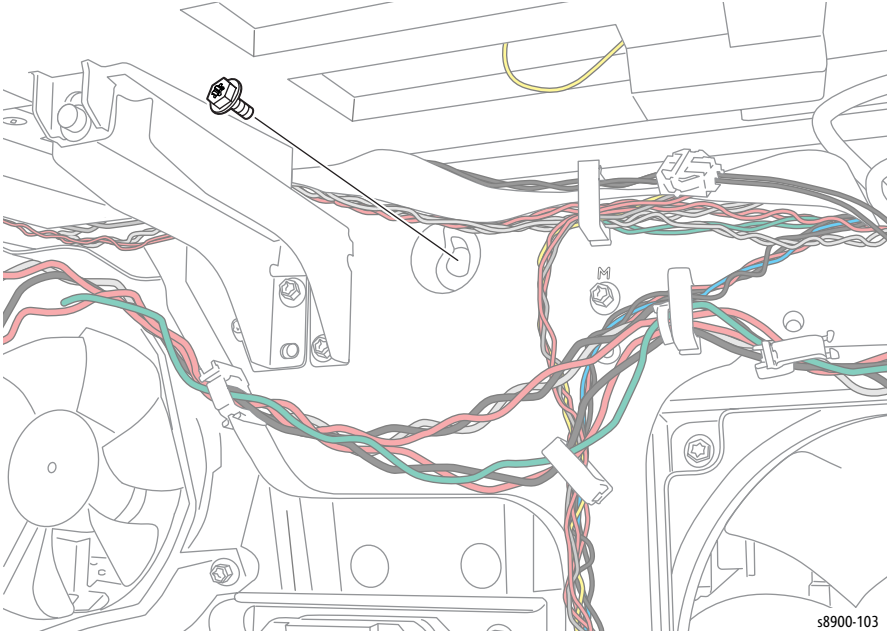
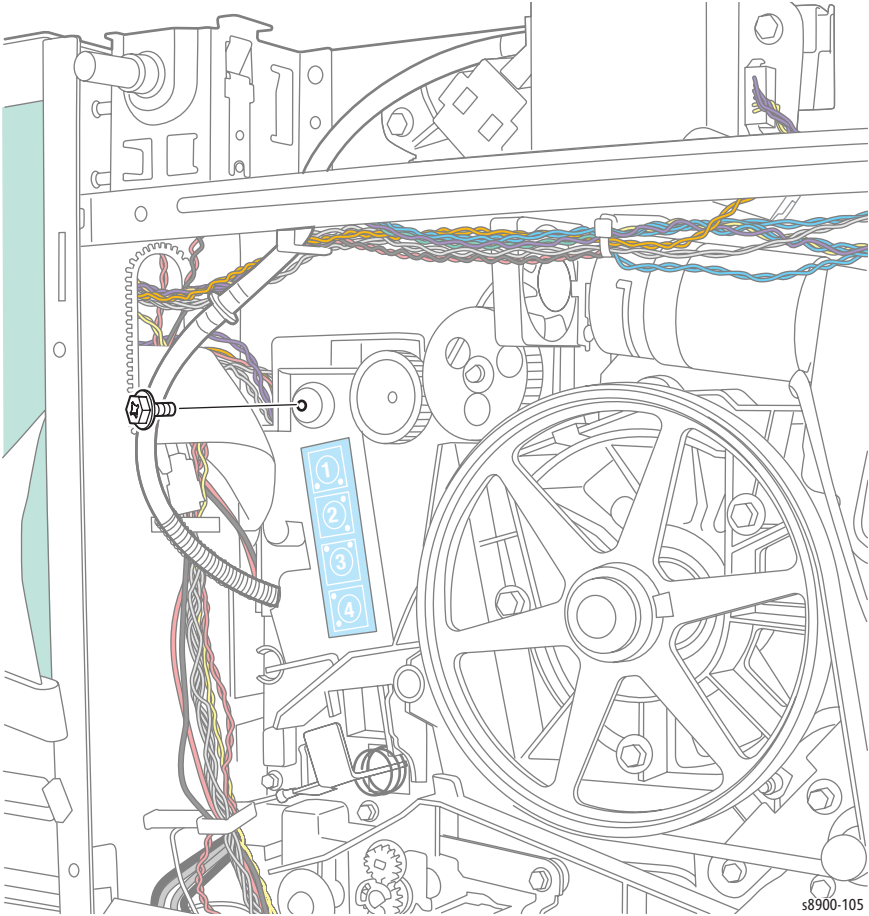
s8900-112

16. Disconnect the Air Hose from the Purge Pump.
17. Release the Air Hose from the Clamp and route it through the hole of the frame.  
**Note:** Note the routing of the air hose so it can be removed and reattached properly, and doesn't get kinked in the process.
18. Pull the X-Axis Bias Spring and Hook out slightly, and then rotate downward to allow it to rest in detents provided on the frame.

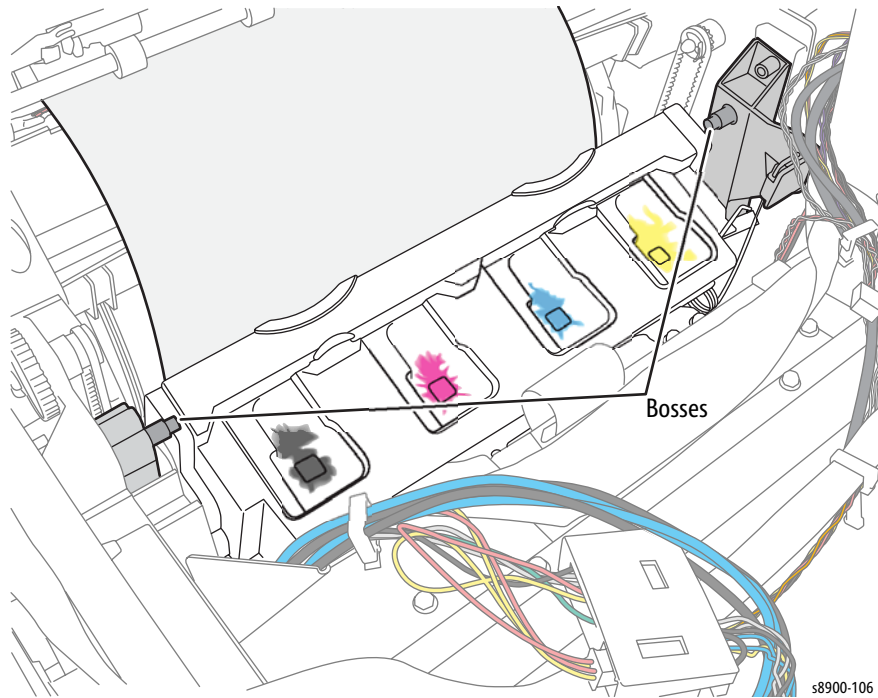




19. Remove 1 screw (plastic, T-20) that secures each Printhead Restraint.

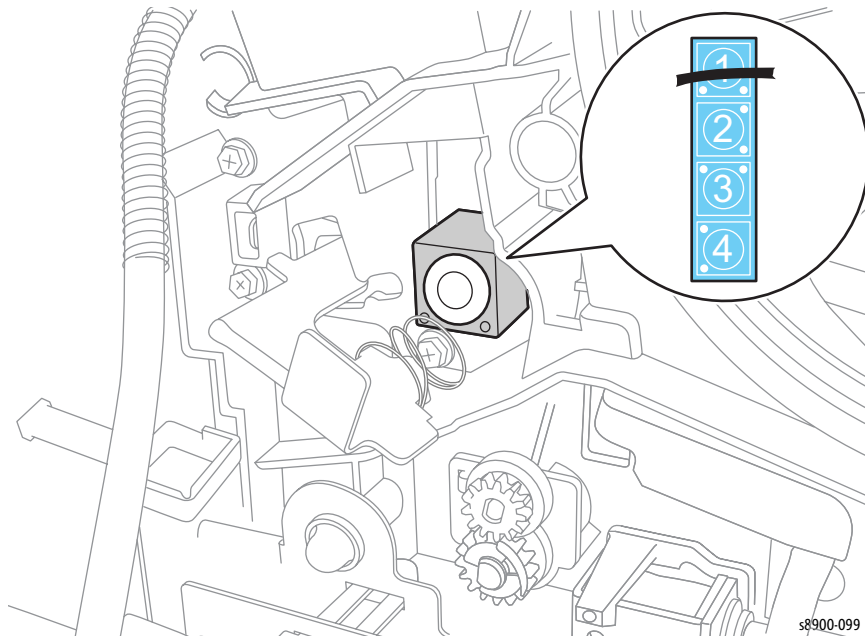


20. Shift the Printhead Restraint inwards toward the Printhead while lifting it.



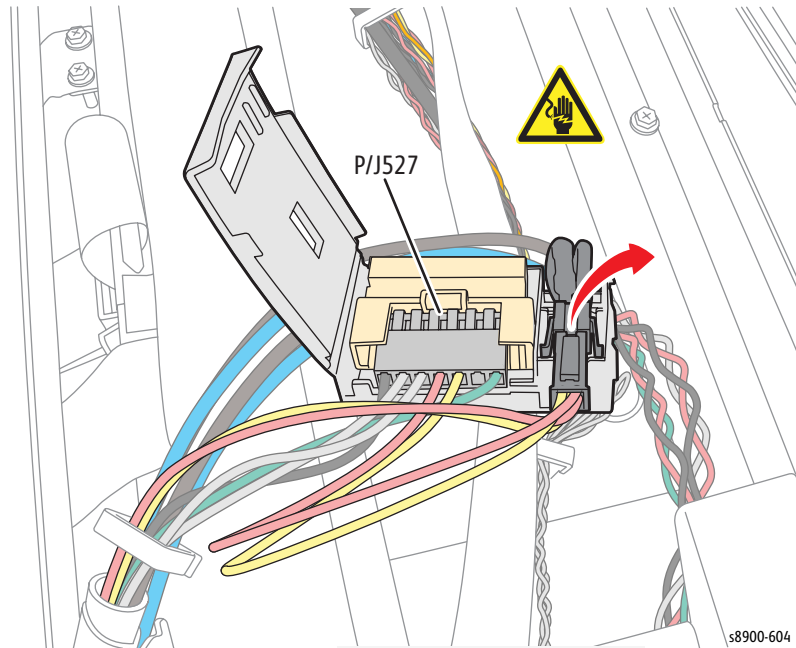
21. Remove the Roll Block on the left end of the Printhead Shaft.

**Note:** The check mark on the label indicates the proper orientation of the Roll Block.

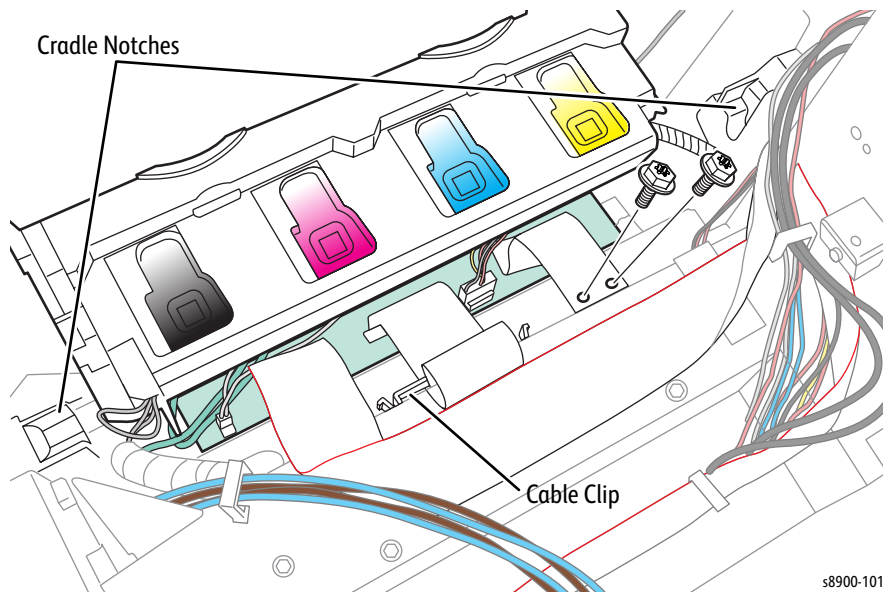




22. Open the Fuse Holder and disconnect the connector P/J527.
23. Release the Fuse from the Fuser Holder.

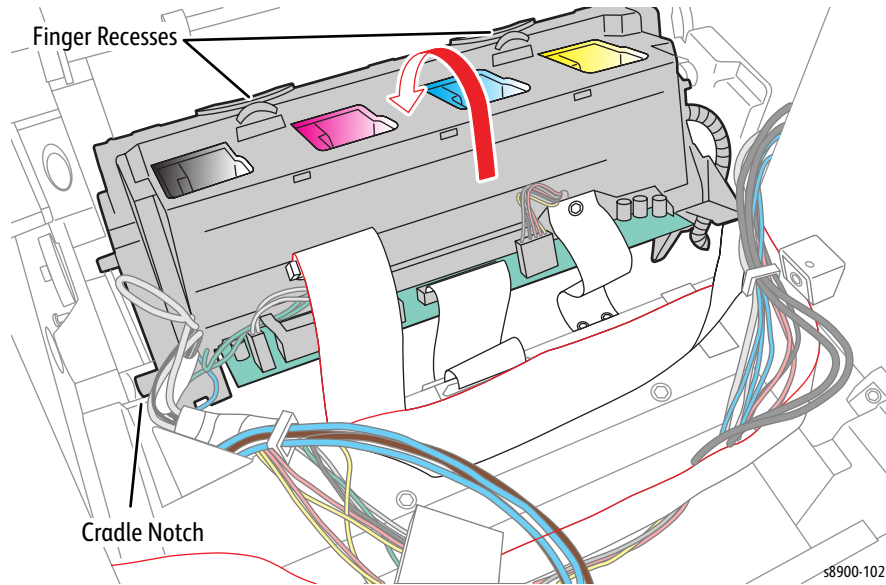


24. Remove the Ribbon Cable Retaining Clip.
25. Remove 2 screws (metal, T-20) that secure the Ground Cable.



## Service Parts Disassembly

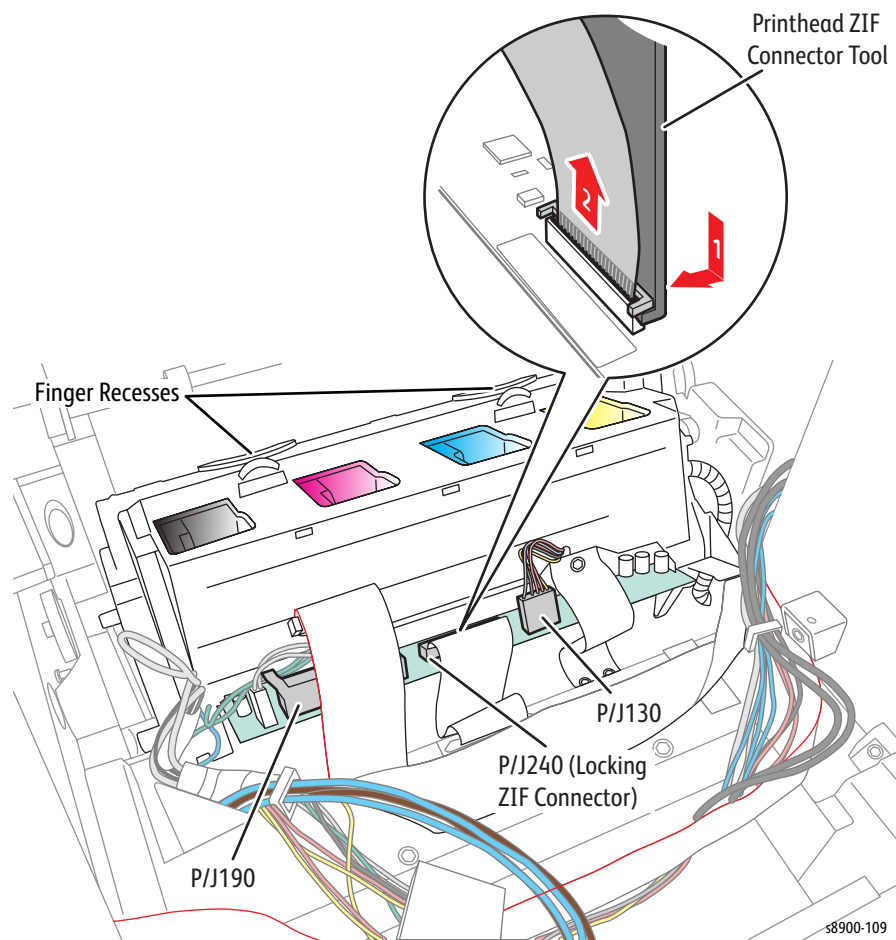
26. Release the wiring harness from the Clip.
27. Push the Air Hose into the Chassis.
28. Hold and lift the Printhead using the finger recesses and place the end of the Shafts in the cradle notches near the top of the frame.



**CAUTION:** Be sure to unlock the ZIF connector to release the ribbon cable. Be careful when disconnecting the ribbon cable to prevent damaging the cable. DO NOT pull on the cable until you have released the lock.

**Note:** The ribbon cable connector is the locking type connector and requires unlocking prior to removal and locking after reinstallation of the cable in order to make adequate connection. Be sure to use the Unlock/Lock Tool to disconnect the ZIF connector (see details in Unlocking/ Locking the ZIF Connector procedure).

29. Disconnect the ribbon cable P/J190 from the Printhead Assembly.
30. Use the Unlock/Lock tool to unlock the ZIF connector P/J240 from the Printhead by gently lifting up on the ends of the connector lock.
31. Use the finger recesses to hold and lift the Printhead away from the printer.

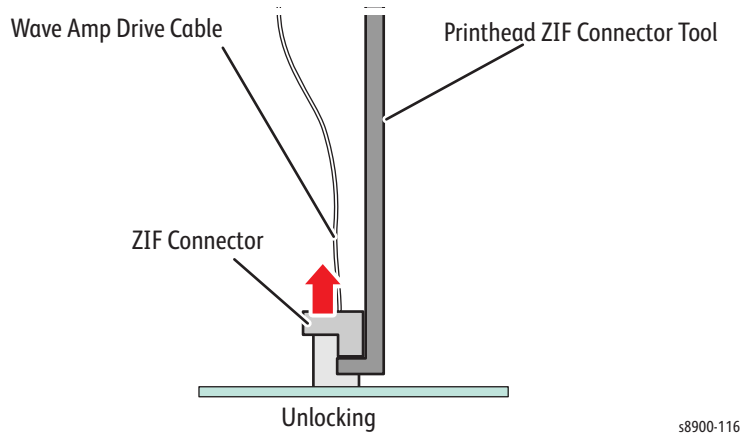


## Unlocking/ Locking the ZIF Connector

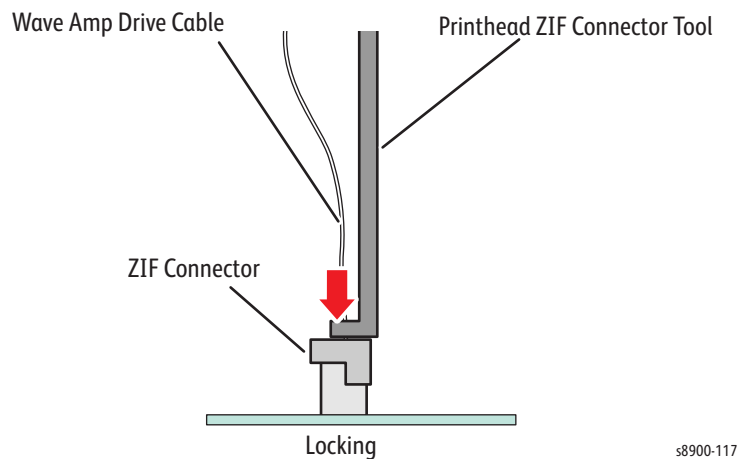
The printer uses a special, low-impedance cable to transmit the amplified drive waveform from the Wave Amp to the Printhead piezo-crystals. A locking, zero insertion force (ZIF) connector secures the cable to the Printhead Assembly. Due to the ZIF connector's location, a special tool is available for assisting with unlock and lock the connector.

 **CAUTIONS:**

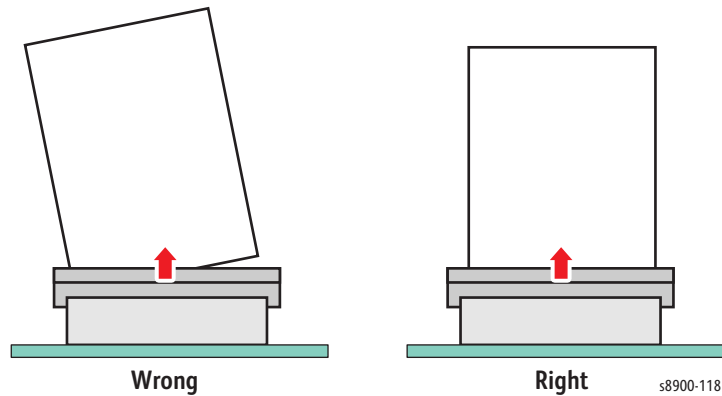
- Be sure to properly unlock the ZIF connector before removing the cable. **NEVER** pull a ZIF cable from a locked connector.



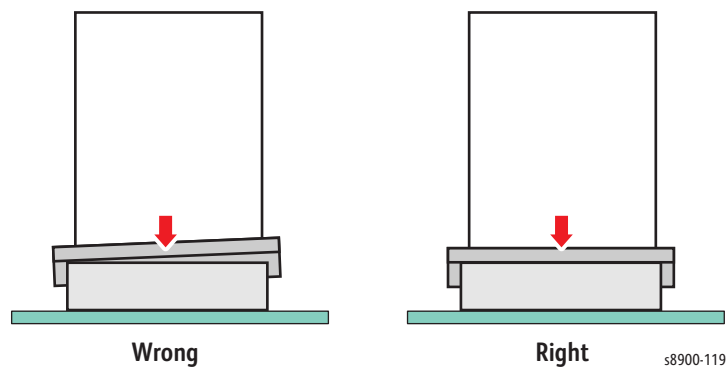
- Be sure to use the Unlock/ Lock tool to secure the ZIF connector.



- Be sure to insert the cable fully and squarely in the ZIF connector before locking the connector.



- Be sure the connector is securely locked.

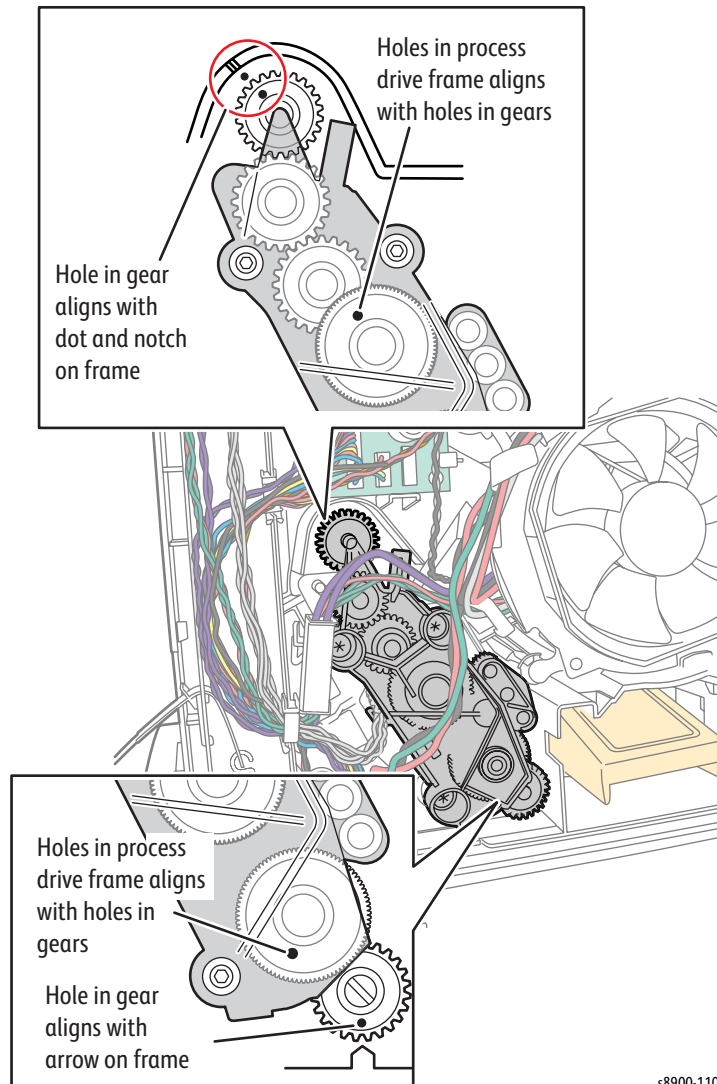


- A cable restraint clip is used to keep the drive cable from interfering with the Printhead's Funnel Cap. Be sure the cable is properly restrained.
- Do not put sharp bends (creases) in the cable; particularly near the ends of the cable, it can crack the conductors and cause [399.059](#) and [399.060](#) Vss and Vpp faults.

**Replacement Note:** Follow these steps to install the replacement Printhead.

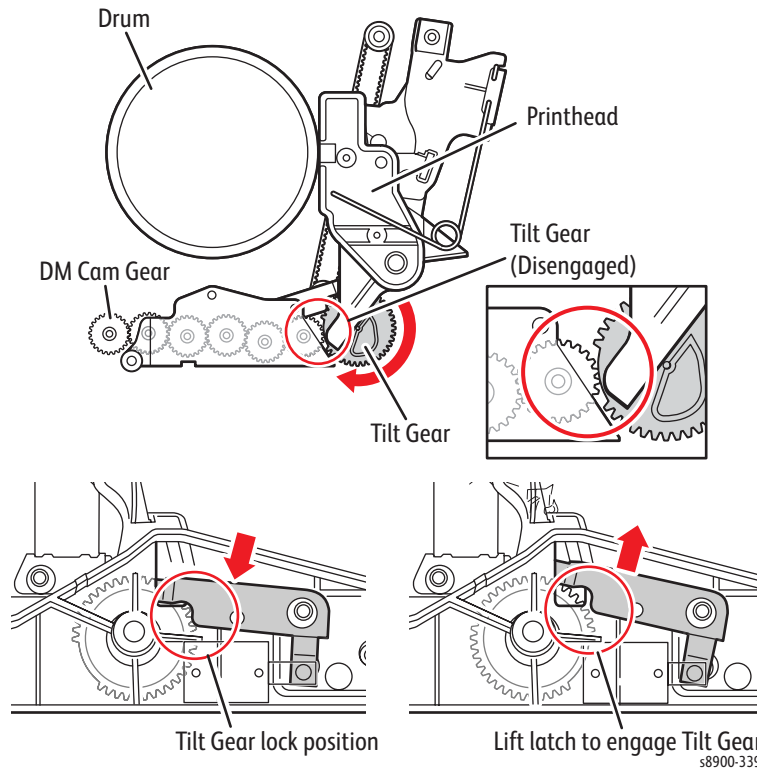
1. Set the Head Tilt Gear to its home position by performing the [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35.

**Note:** Be sure the gear (under the Process Drive) is at 6 o'clock position. Pressing down on the Cleaning Unit handle will force the DM cam gear to its 6 o'clock position. Hold it in this position while you install the Process Drive Assembly.



s8900-110

**Note:** Be sure the Head Tilt Gear aligns with the Head Tilt Drive Gear (missing tooth facing forward).

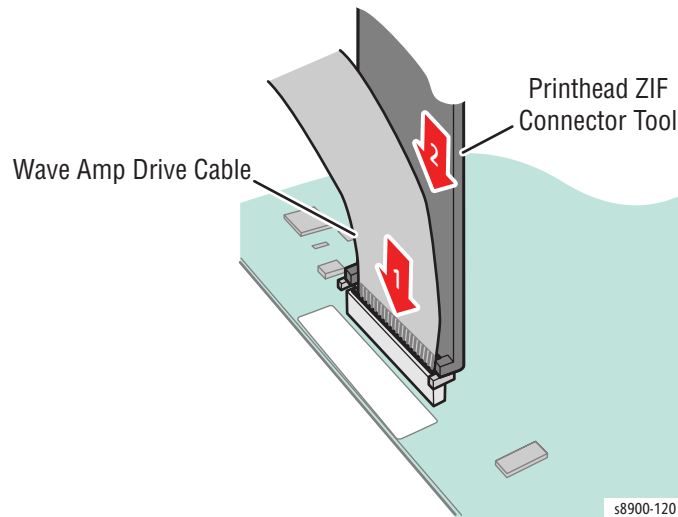


2. If the Wiper Blade is not at its lowest position, rotate the Wiper Drive Gears to lower the Wiper Blade to the bottom of its travel.
3. Rest the Printhead in the Cradle Notches and attach the 2 ribbon cables. Be sure to fully insert and then lock the ZIF cable.

**!** **CAUTION:** Do not push hard on the cable to prevent bending at the end of the cable.

**Note:** Be sure to use the Unlock/ Lock Tool to secure the ZIF connector (see detail procedure [Unlocking/ Locking the ZIF Connector](#) on page 4-72).

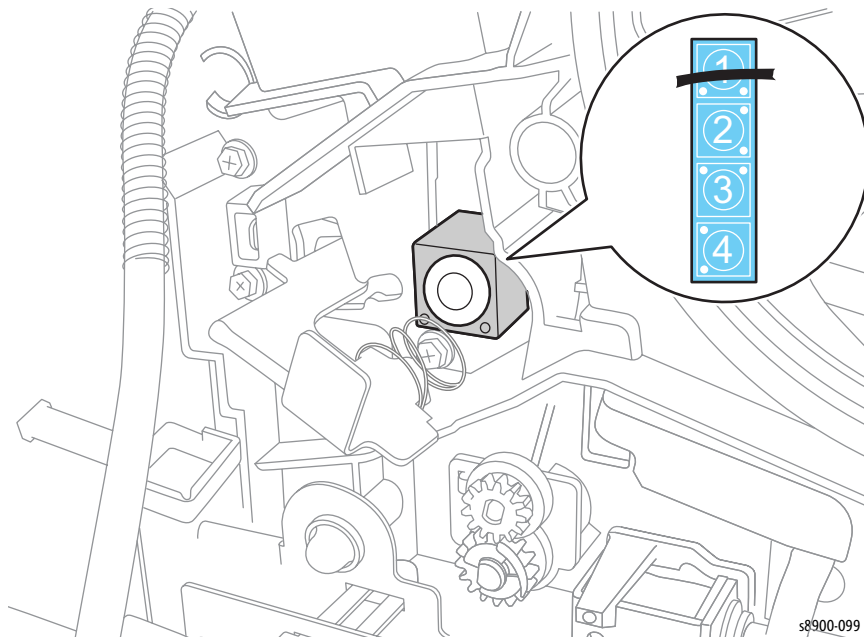
4. Gently place the end of the Wave Amp Drive cable P/J240 squarely into the ZIF connector.
5. While maintaining slight downward pressure on the cable to keep the end in the connector gently reach in with the tool to squarely push the lock closed.



6. Seat and lock the Ribbon Cable P/J190.
7. Lower the Printhead Assembly into its mounts. The Printhead should tilt forward in the print position.

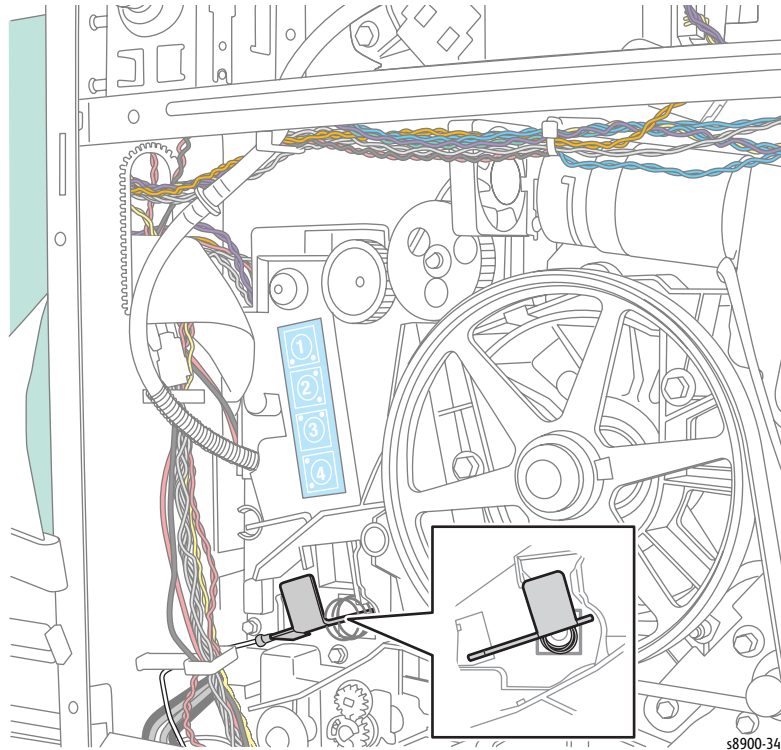
**Note:** For Printhead replacement, be sure to transfer the Purge Pump Hose from the old Printhead to the new Printhead.

8. Route the Purge Pump Hose through the frame and connect it to the Purge Pump.
9. Install the Roll Block on the left end of the Printhead Shaft. Orient the Roll Block as shown on the label attached to the frame. The check mark indicates the correct orientation.

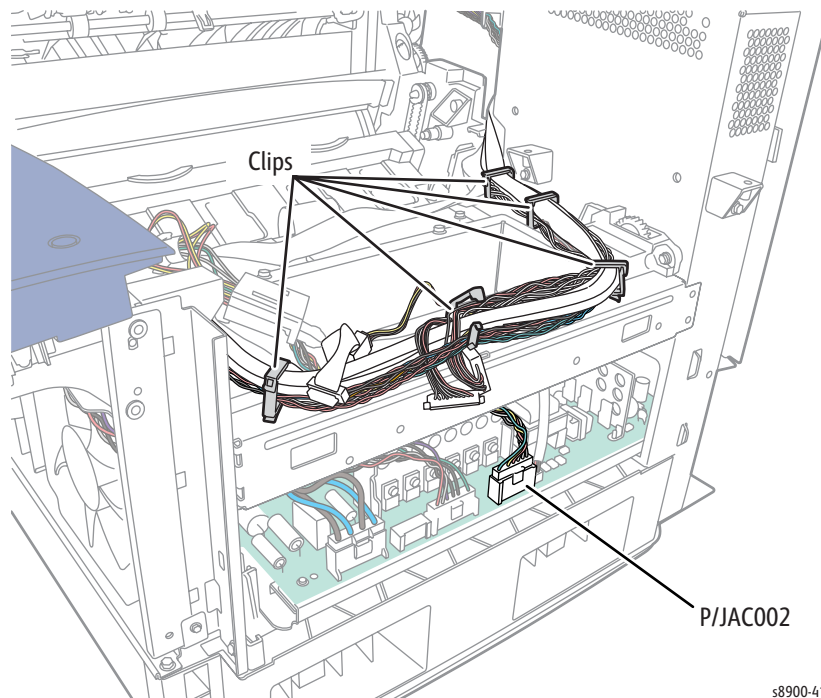




- Set the X-Axis Bias Hook and spring on the left end of the Printhead Shaft. Ensure the point of the hook is centered in the shaft and the rest of the hook floats freely.

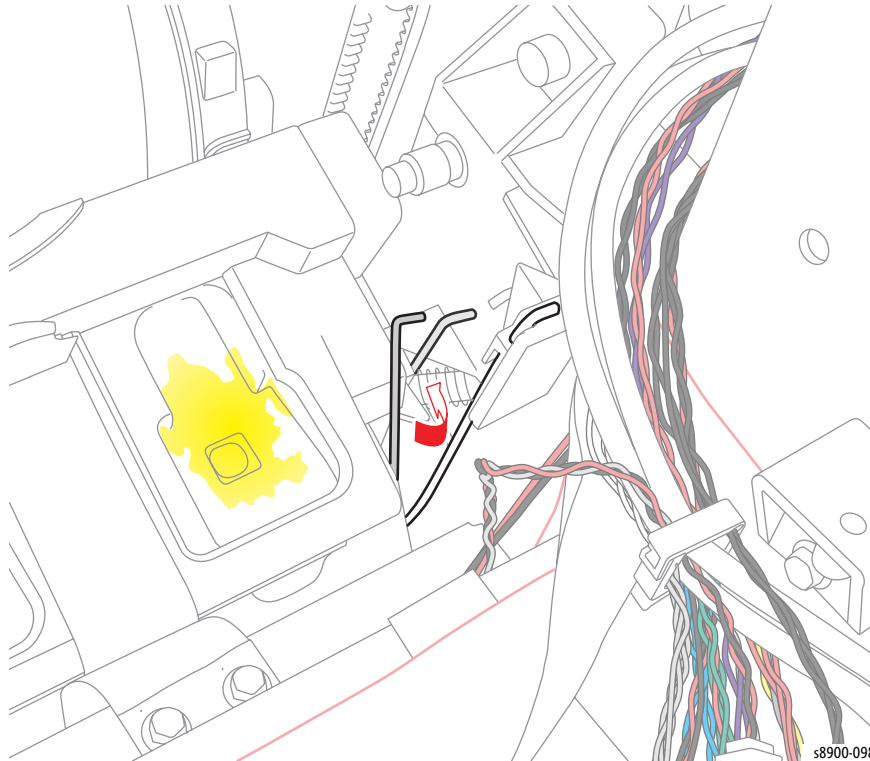


- Properly route the wiring harnesses and reconnect the Printhead Heater wiring harness connector P/JAC002.



**Note:** Errors [391.720 ~ 391.723](#) are often the result of Printhead interference by the Printhead Heater wiring harness. Make certain the wiring harness is properly restrained and does not obstruct Printhead movement.

12. Install the left and right Printhead Restraints. Check that the Restraints do not obstruct the Roll Block.
13. Be sure the Tilt Spring on the left Restraint is properly positioned in the notch on the back of the Printhead and does not pinch the Purge Pump Hose.
14. Install the Ribbon Cable Retaining Clip.
15. Install the Ground Strap and 2 screws.



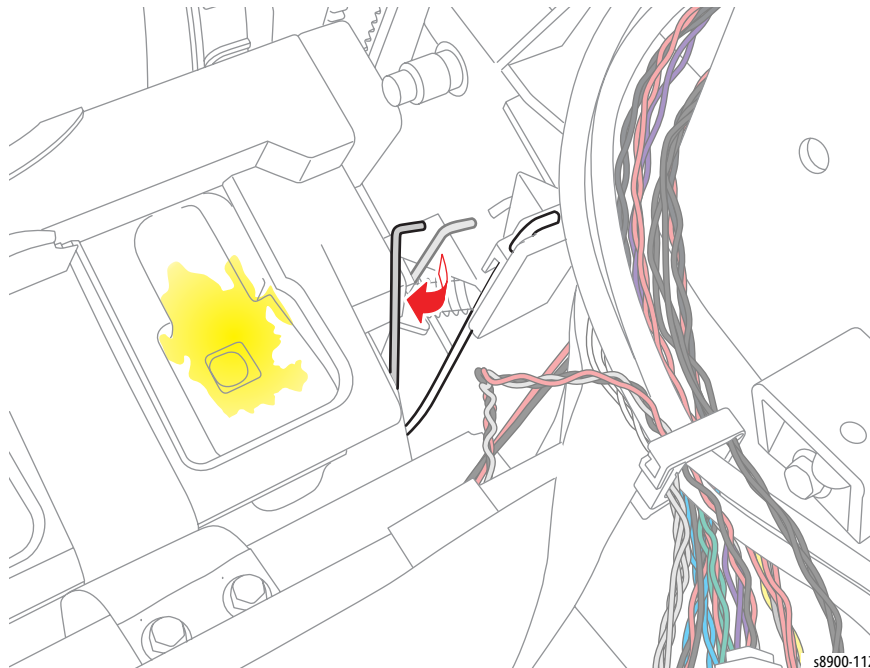
16. Install the Jetstack Cap.
17. Install the Funnel Cap.
18. Install the Ink Loader.
19. Perform the [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35 to home the Head Tilt Gear.
20. Reassemble the remaining components, and turn the printer power On.
21. Print the Light Stripes page. Check if any jets are being substituted. If necessary, use the Control Panel to reset the jet substitution.
22. Package the defective Printhead and completed Printhead Checklist in the replacement part's packaging.

## REP 7.4 X-Axis Bias Spring Hook, X-Axis Roll Adjuster Spring

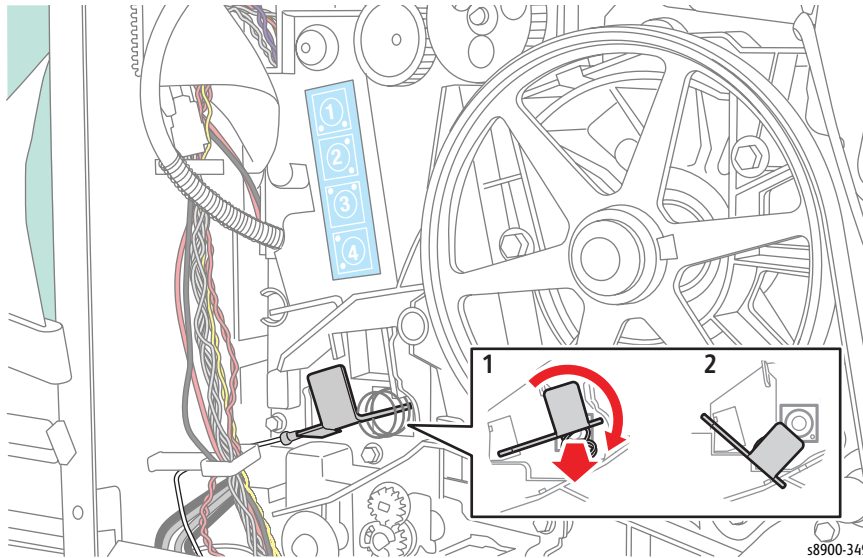
### PL 7.1.4/ PL 7.1.6

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
8. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
9. Remove the Jet Stack Cap (REP 7.3, [page 4-60](#)).
10. Place several sheets of paper between the Printhead and Drum to protect the Drum.

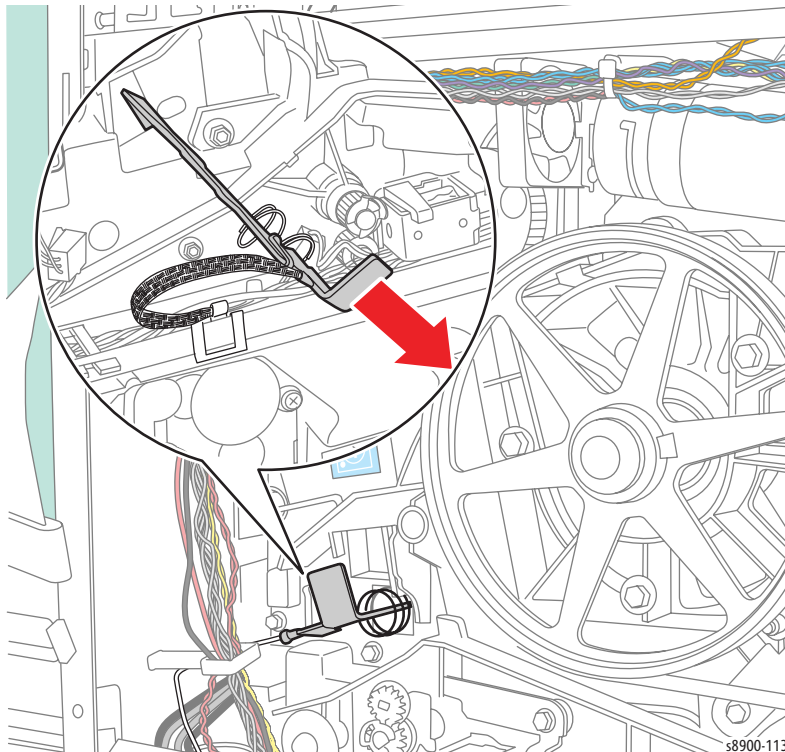
**Note:** Paper dust may cause missing jets is Printhead is being installed.



11. Pull the X-Axis Bias Spring and Hook out slightly, and then rotate downward to allow it to rest in detents provided on the frame.



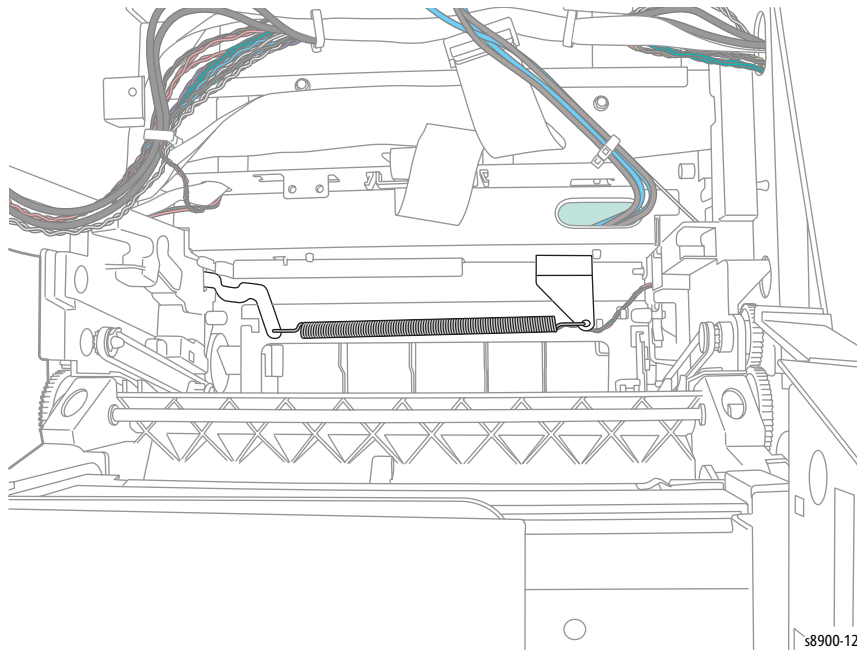
12. Pull the X-Axis Bias Spring Hook out.
13. Disconnect the wiring harness connector on the X-Axis Bias Spring Hook.



## REP 7.5 X-Axis Bias Spring

### PL 7.1.5

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
6. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
7. Remove the Jet Stack Cap (REP 7.1, [page 4-60](#)).
8. Remove the Control Panel (REP 4.6, [page 4-38](#)).
9. Remove the Printhead Assembly (REP 7.3, [page 4-62](#)).
10. Remove the X-Axis Bias Spring using a spring hook or pliers.



**Replacement Note:** **DO NOT** rotate the spring more than one-quarter turn.

Perform the following adjustment procedures before restoring printer power.

- [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35
- [ADJ 1.3 Process Drive Alignment](#) on page 6-38

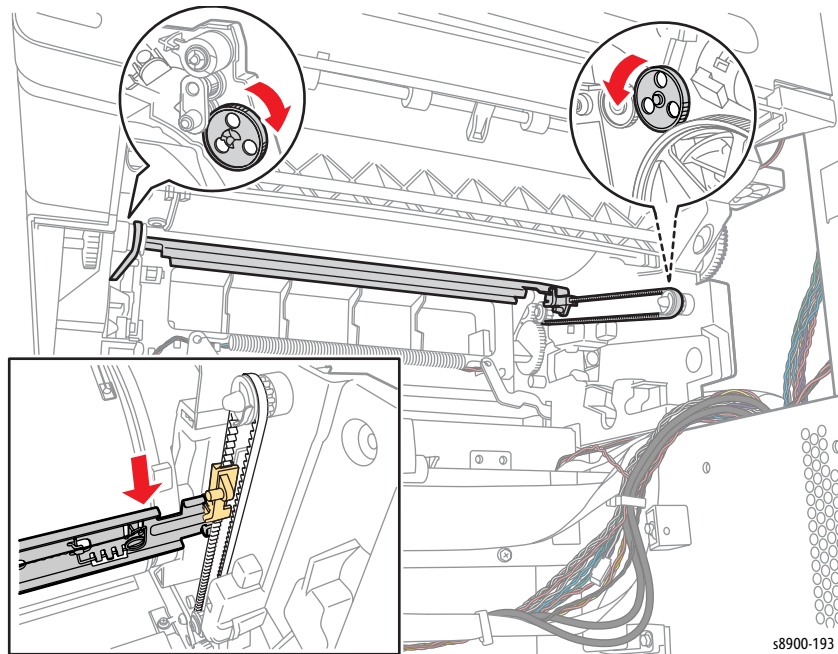
## REP 7.6 Left and Right Printhead Restraints

### PL 7.1.7, PL 7.1.8

**Note:** When parked, the Printhead is held in place by pins that are captured by the left Printhead Restraints. If the pins are released, tension from the Printhead Tilt Spring forces the Printhead toward the Drum. Gradually release the tension when unlocking the Restraints.

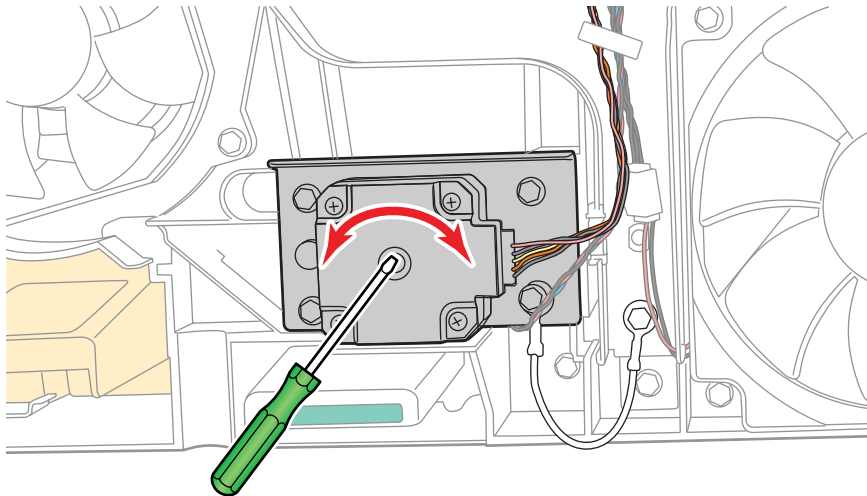
**!** **WARNING:** Allow 20 minutes for the printer to cool before servicing the printer.

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
6. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
7. Remove the Jet Stack Cap (REP 7.1, [page 4-60](#)).
8. Place several sheets of paper between the Printhead and Drum to protect the Drum.
9. Lower the Wiper Blade to its lowest position by rotating the Wiper Drive Gears.



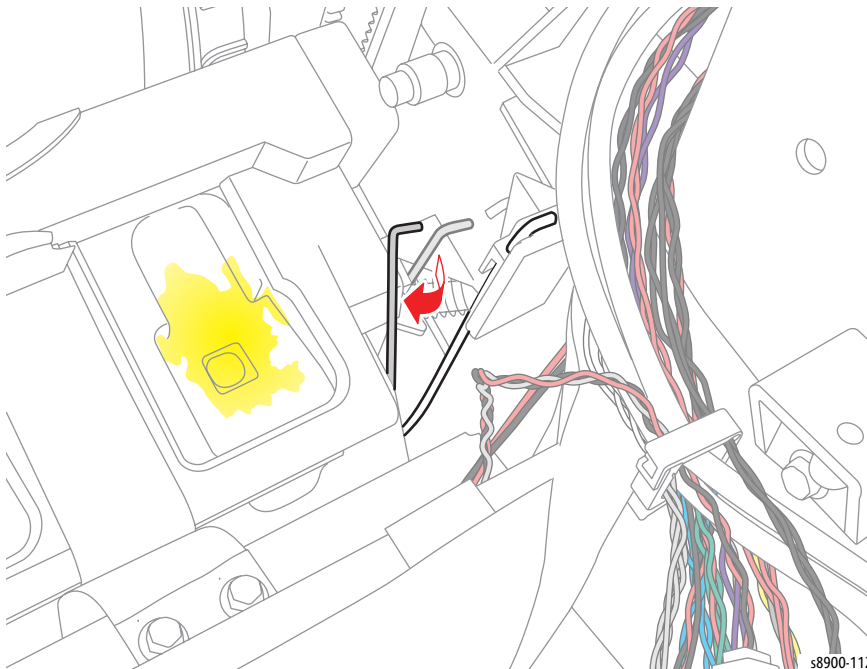


10. Use a small flat tip screwdriver to adjust the X-Axis Motor to center the Printhead and allow removing the Printhead Restraints.
- Adjust counter-clockwise to remove the Printhead pin from the right Restraint (adjusting the Head to X-Axis Tilt position).
  - Turn the Motor counter-clockwise until resistance, then 1 rotation clockwise to set to tilt position.



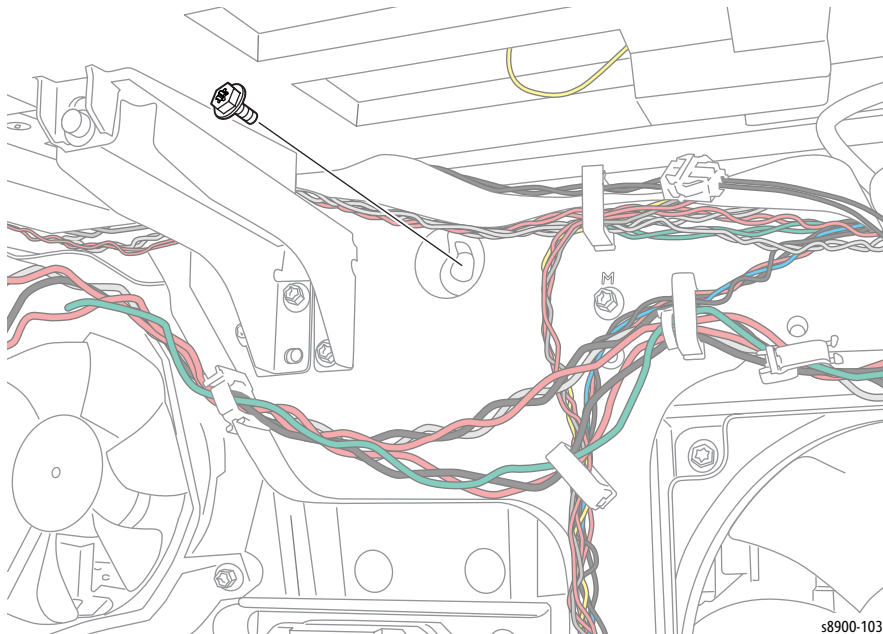
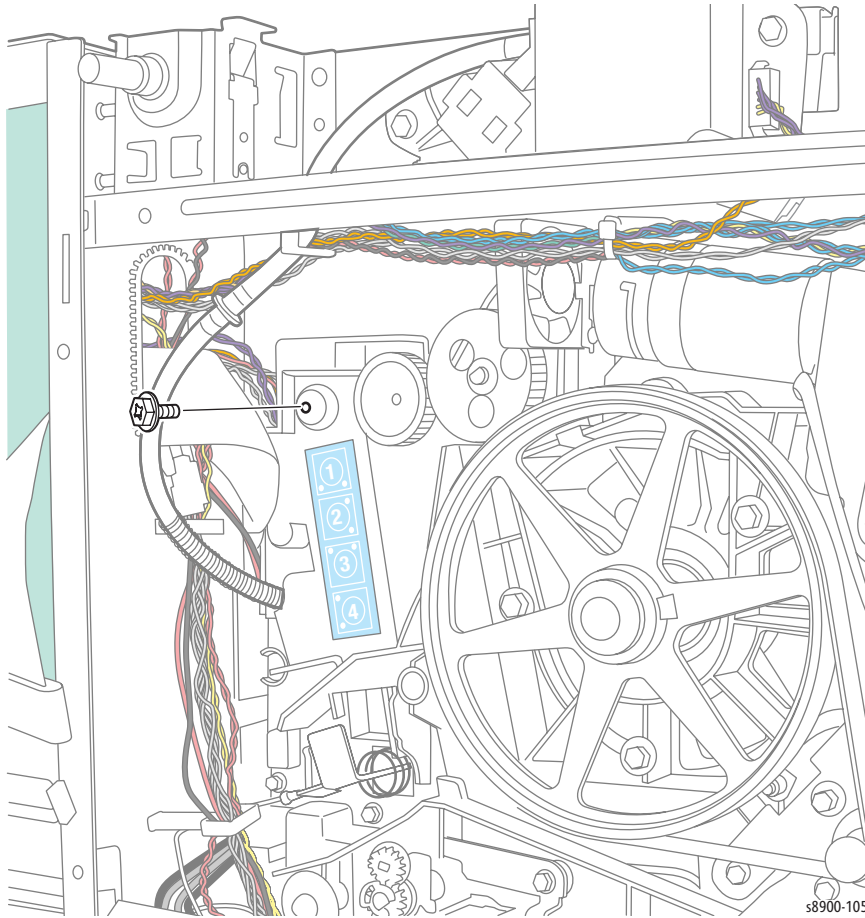
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11. Move the Printhead Tilt Spring from its position on the Printhead to release its tension and hook it behind the notch.



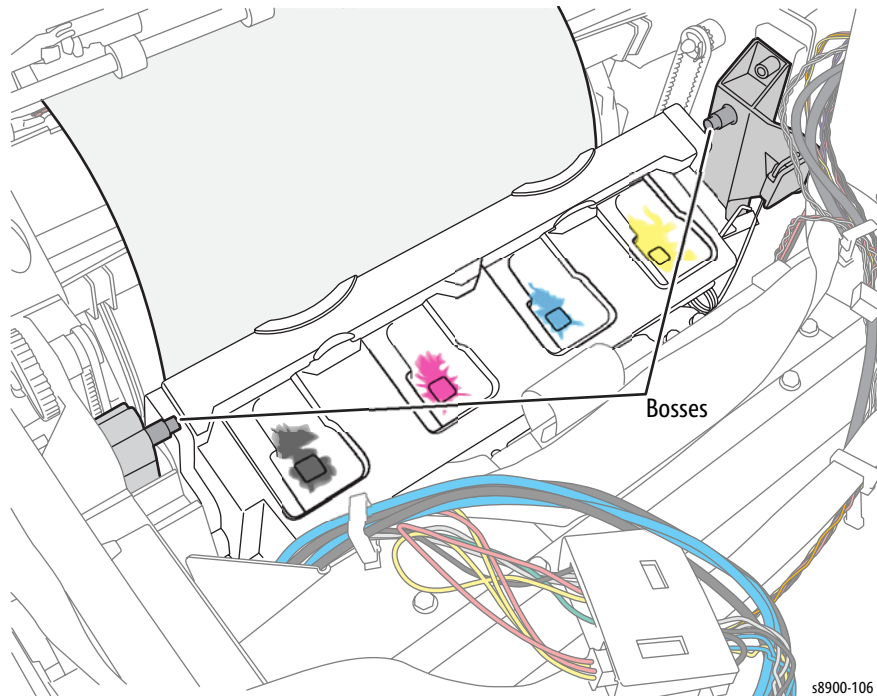
s8900-112

12. Remove 1 screw (plastic, T-20) that secures each Printhead Restraint.





13. Shift the Printhead Restraint inwards toward the Printhead while lifting it.



#### Replacement Notes:

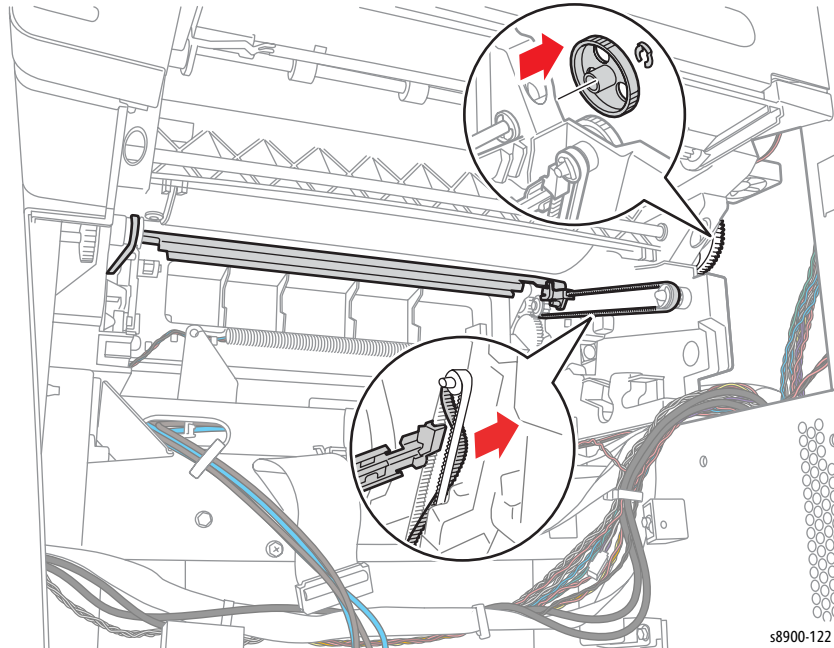
- Check that the Left Printhead Restraint does not interfere with the Roll Block. Also, make sure the Tilt Spring on the Left Printhead Restraint is properly positioned in the notch on the back of the Printhead and does not pinch the Air Hose.
- A PQ defect will happen if the spring is not properly reinstalled properly.
- Perform the following adjustment procedures before restoring printer power.
  - [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35
  - [ADJ 1.3 Process Drive Alignment](#) on page 6-38

## REP 7.7 Printhead Wiper and Wiper Drive Belt

### PL 7.1.13/ PL 7.1.14

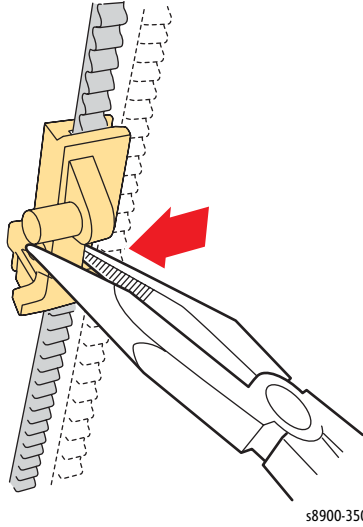
#### Notes:

- Place several sheets of paper between the Printhead and Drum before servicing the Printhead Wiper.
  - Paper dust may cause missing jets.
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
  2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
  3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
  4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
  5. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
  6. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
  7. Remove the Jet Stack Cap (REP 7.1, [page 4-60](#)).
  8. Remove the Control Panel (REP 4.6, [page 4-38](#)).
  9. Remove the Printhead Assembly (REP 7.3, [page 4-62](#)).
  10. Using the gears, position the Printhead Wiper Blade at the top of its travel.
  11. Remove the KL-Clip and large drive gear on the rear side of the printer.
  12. Hold the Wiper while rotating the small drive gear. This lowers the left end of the wiper producing slack in the Wiper Belt. Remove the Wiper Belt from the Wiper Clip to release the Wiper.



**Replacement Notes:**

- When reinstalling the belt into the wiper clip, place the belt partly on the clip, and then press the center of the clip with a small needle-nose pliers until the belt is secured in the clip.

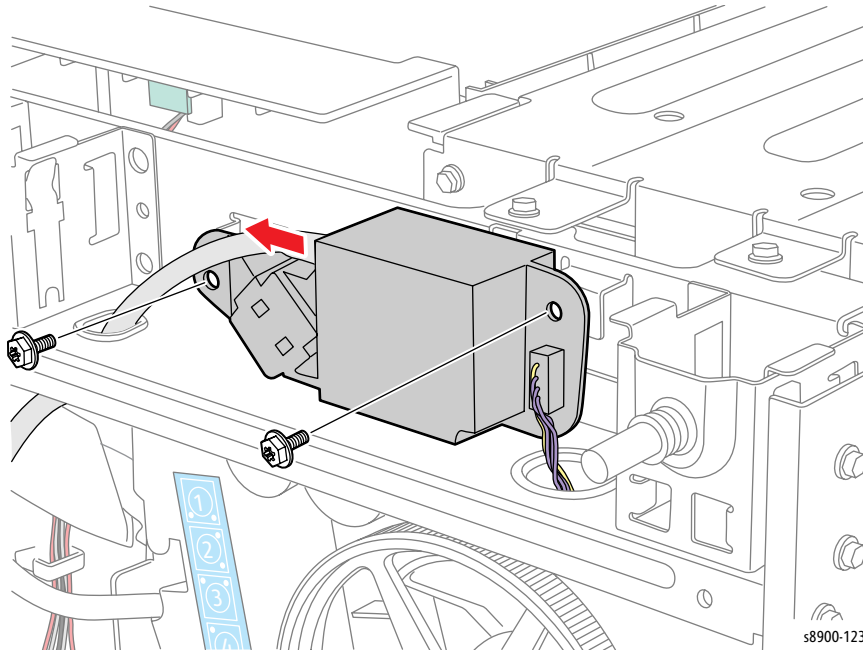


- Perform [ADJ 1.1 Wiper Blade Adjustment](#) on page 6-32 to position the Wiper Blade so that both ends are all the way down following reassembly. Also, make sure the metal portion of the blade is nearest the Drum Assembly.
- Install the Printhead.
- Perform [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35.
- Perform [ADJ 1.3 Process Drive Alignment](#) on page 6-38.
- Turn the printer power On to check wiper operation.

## REP 7.8 Purge Pressure Pump

### PL 7.1.15

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Disconnect the Air Hose from the Purge Pump.
4. Remove 2 screws that secure the Purge Pump.
5. Remove the Purge Pump.



## REP 7.9 Transfix Arm Kit (with Pins)

### PL 7.1.16

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
8. Remove the Stapler with Bracket (REP 5.3, [page 4-43](#)).
9. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
10. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
11. Remove the Upper Inner Duplex Guide (REP 6.1, [page 4-45](#)).

#### CAUTIONS:

- Use care when releasing the Transfix Module Spring Hooks. Move the lever handle towards the center of the printer as indicated in [Figure 1 - Hook Locations](#).
  - Be careful not to pry against the Transfix Cam as shown in [Figure 1 - Hook Locations](#) to prevent damaging the Cam.
12. Insert a T-20 or T-15 Torx bit through the right side slotted hole in the Transfix Load Module. Engage the hole at the back of the module, and lever the module's spring cam towards the center of the printer while disconnecting the spring hooks from the Transfix Load Arms. Repeat this process for the left side.

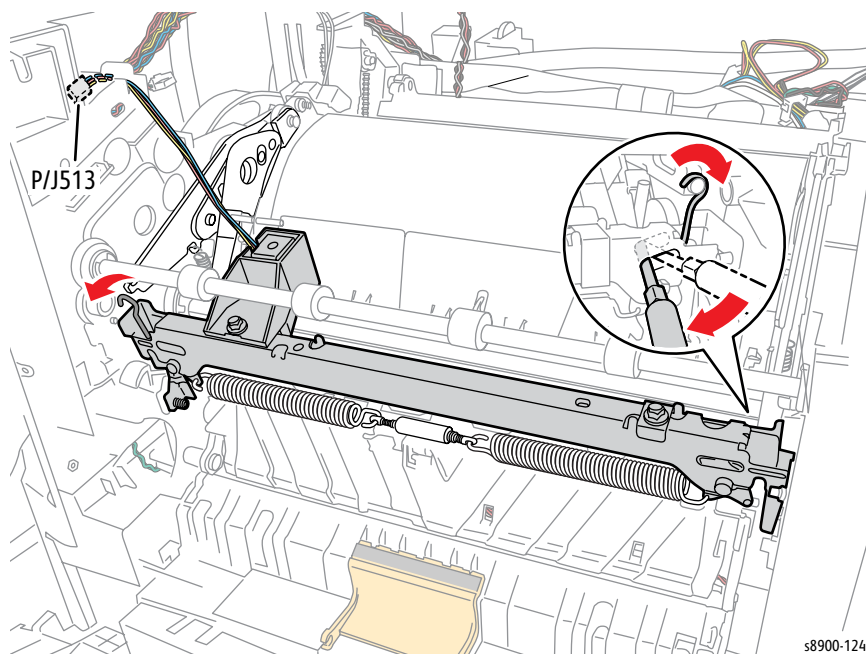
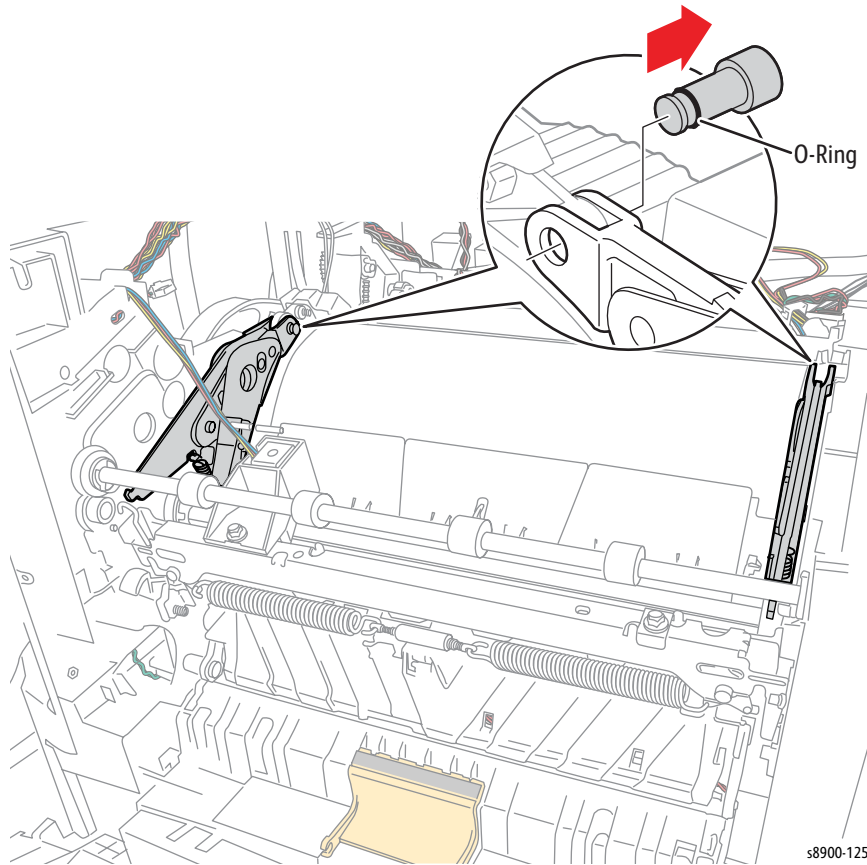


Figure 1 - Hook Locations

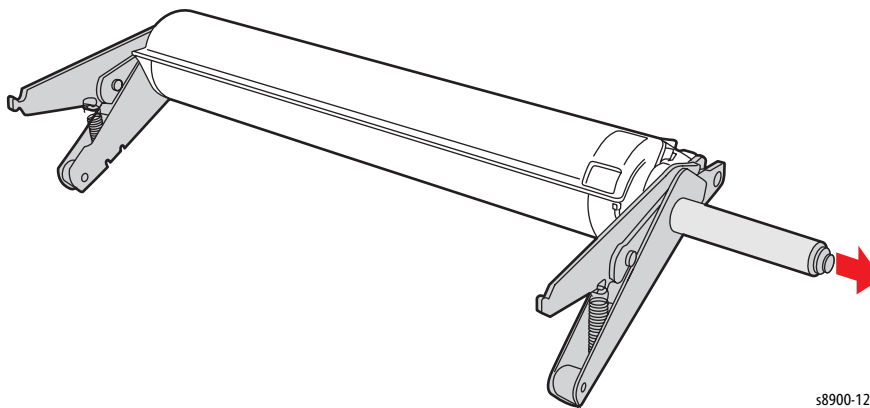
**Note:** In the following step, the Stripper Carriage Assembly, Transfix Roller, Transfix Roller Shaft, and the two Transfix Load Arms are removed as a single assembly.

**CAUTION:** Be careful not to lose the rubber O-ring. (The O-ring is for noise dampening during strip.)

13. Remove the Clevis Pins from the left and right Transfix Load Arms to release the Transfix Roller Assembly with Transfix Load Arms from the chassis.



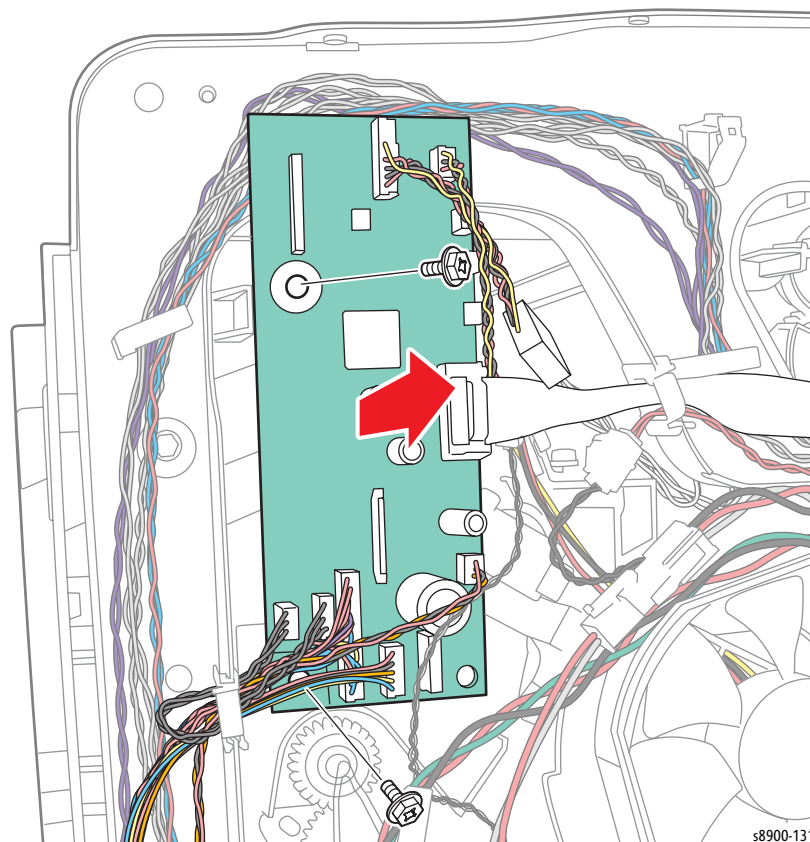
14. Pull the Shaft out from the Transfix Roller and remove the Transfix Arms.



## REP 7.10 Stripper Carriage Assembly/ Transfix Roller

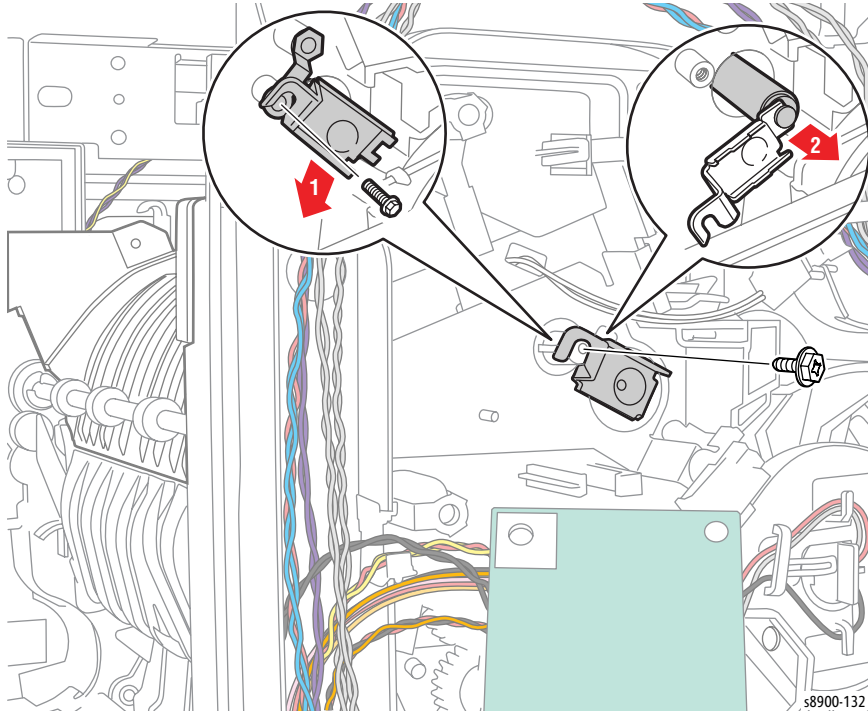
### PL 7.1.17/ PL 7.1.18

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
8. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
9. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
10. Remove the Upper Inner Duplex Guide (REP 6.1, [page 4-45](#)).
11. Remove 2 screws that secure the I/O Board.
12. Move the I/O Board away from the printer to access the I/O Board Ground screw.

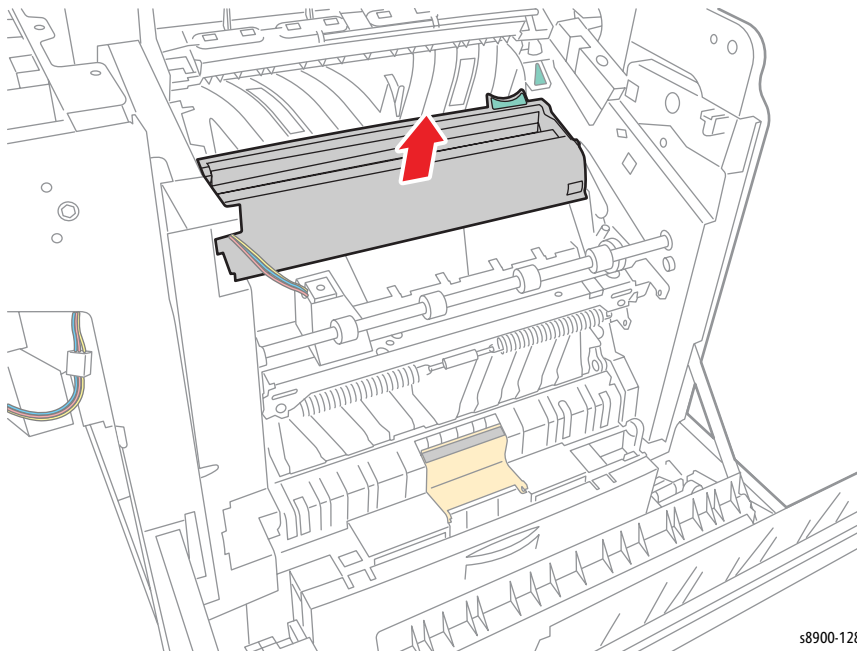




13. Remove 1 screw (plastic, T-20) that secures the I/O Board Ground and the Transfix Roller Shaft Restraint, then remove the Restraint.
14. Hold the Transfix Roller and Stripper Blade with one hand, engage the end of the Transfix Roller Shaft with the Transfix Roller Shaft Restraint and pull the shaft out of the Stripper Carriage Assembly.

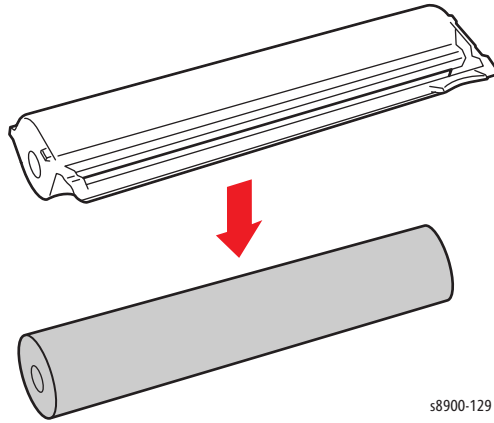


15. Lift the Stripper Carriage Assembly and Transfix Roller up and out of the chassis.
16. Remove the Stripper Carriage Assembly.





17. Remove the Transfix Roller from the Stripper Carriage Assembly.

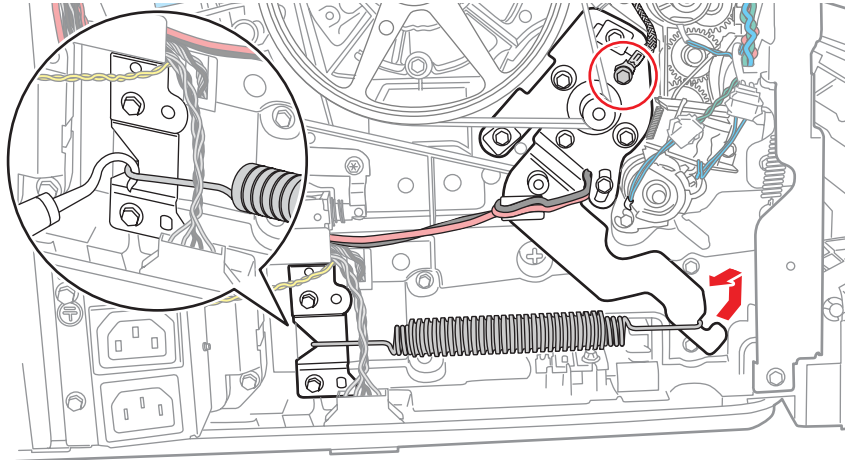


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## REP 7.11 Y-Axis Tension Spring

### PL 7.1.19

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Release Y-Axis Belt tension by pulling the end of the Spring Arm toward the rear side of the printer. Remove the belt from the Drum Pulley, then the Motor.
4. Remove the Y-Axis Spring using either a spring hook or pliers.

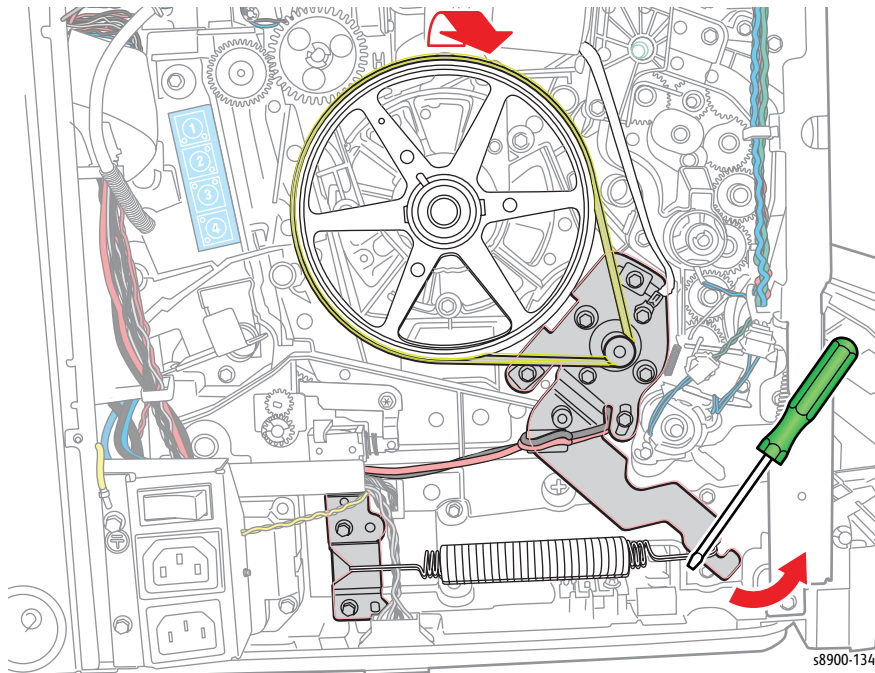


s8900-133

## REP 7.12 Y-Axis Belt

### PL 7.1.20

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Position a screwdriver under the Spring Arm in order to release tension on the Y-Axis Belt.
4. Use the screwdriver as a lever and pull up on the Spring Arm while removing the Y-Axis Belt.





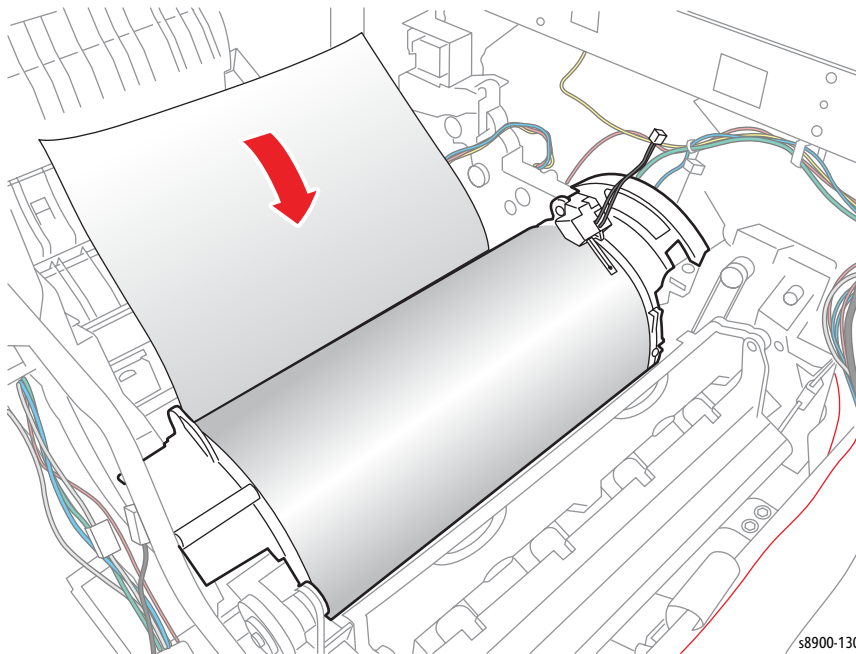
## REP 7.13 Drum Assembly [Video available here](#)

### PL 7.1.21

**Note:** For additional tips, refer to the [Drum Removal video](#) above (also available in the ColorQube 8700/8900 Training materials).

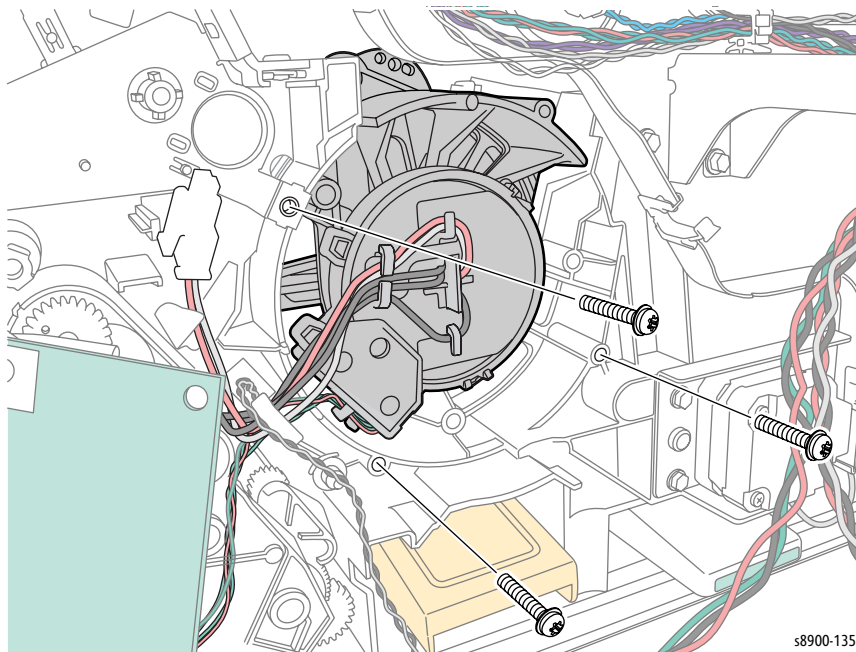
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
8. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
9. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
10. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
11. If the Printhead is tilted forward, perform [ADJ 1.4 Manual Printhead Parking](#) on page 6-40 to park the Printhead.
12. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
13. Remove the Inner Simplex Guide (REP 8.2, [page 4-121](#)).
14. Remove the Upper Inner Duplex Guide (REP 6.1, [page 4-45](#)).
15. If the Wiper Assembly is in raised position, perform [ADJ 1.1 Wiper Blade Adjustment](#) on page 6-32 to place the Printhead Wiper in its lowered, home position.
16. Remove the Media Drive Assembly (REP 9.1, [page 4-131](#)).
17. Remove the Y-Axis Belt (REP 7.12, [page 4-95](#)). Relieve tension on the belt by pulling the end of the Spring Arm toward the rear side. With the tension released, slide the belt off the pulley.
18. Remove the Exit Module Assembly (REP 11.6, [page 4-190](#)).
19. Remove the Drum Cooling Fan (REP 9.6, [page 4-146](#)).

20. Remove the Stripper Carriage Assembly and Transfix Roller (REP 7.10, [page 4-91](#)).
21. Remove the Transfix Arm Kit with Pins (REP 7.9, [page 4-89](#)).
22. Insert one sheet of paper between the Drum and Preheater to prevent scratching the Drum.



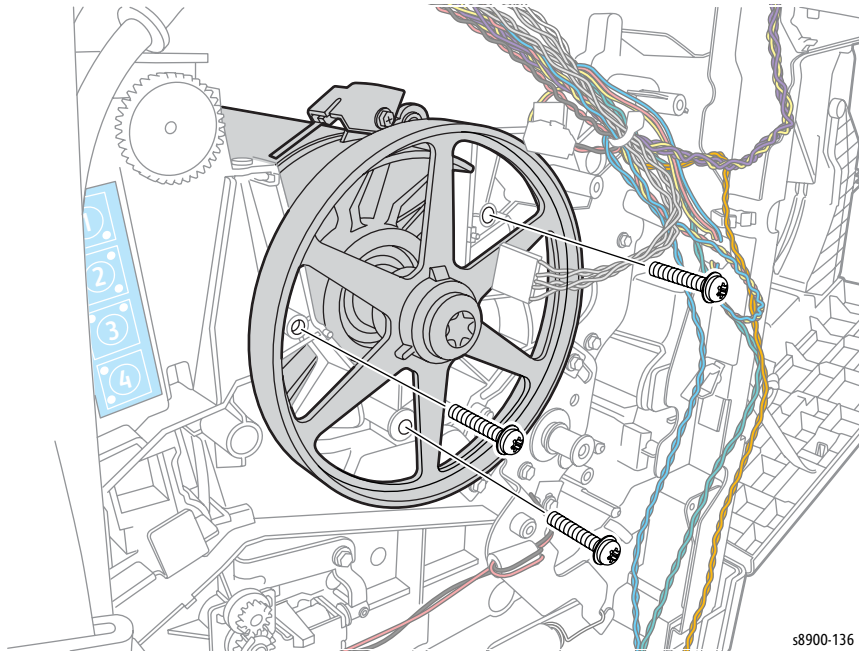
**Figure 1 - Inserting Paper**

23. Remove 3 screws (metal, T-20 hex-head), 2 washers, and the Ground Plate from the front side of the Drum Assembly.



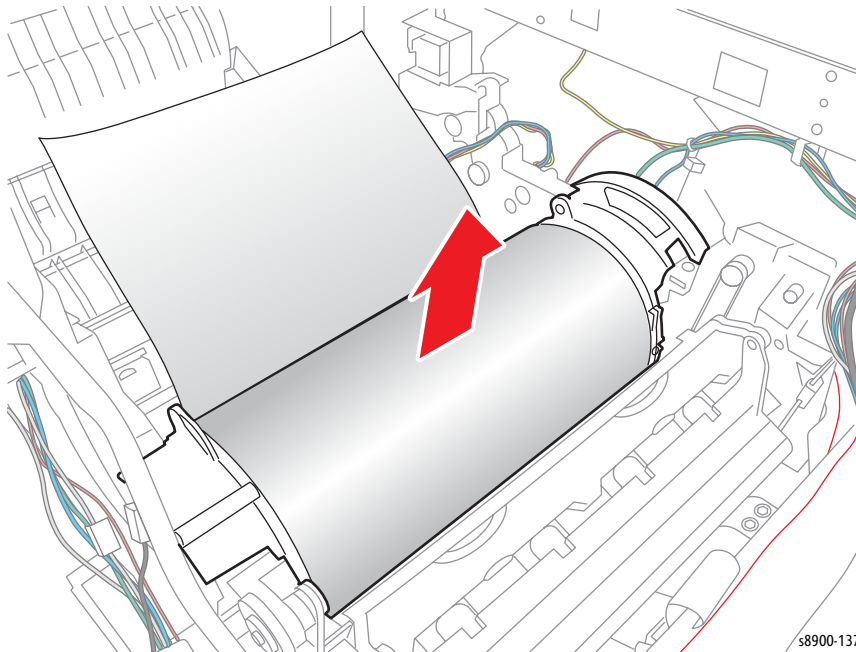
**Figure 2 - Removing the screws, washers, and Ground Plate**

24. Remove 3 screws (metal, T-20) and 3 washers from the rear side of the Drum Assembly.



**Figure 3 - Removing the screws and washers**

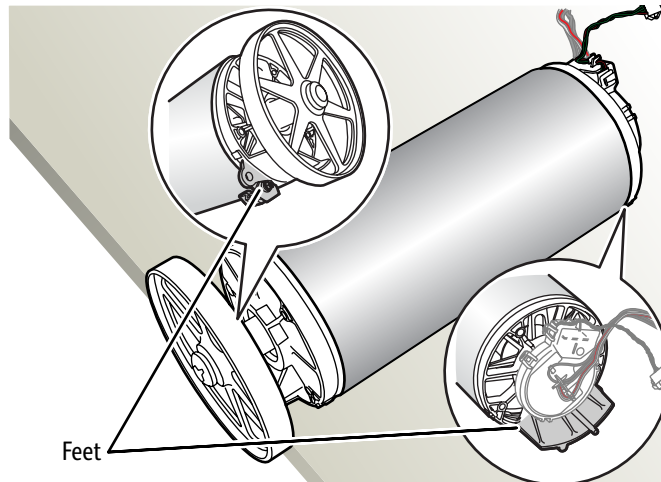
25. Lift the Drum Assembly straight out of the chassis using the metal grips on the Drum.



**Figure 4 - Removing the Drum Assembly**

**Note:** Do not rest the Drum Assembly on the pulley. Allow the pulley to overhang the surface and rest the assembly on its feet.

26. Place the Drum Assembly on its feet on a flat surface with the wheel overhanging the surface area as shown in [Figure 5 - Drum's Feet](#). Do not rest the Drum Assembly on the pulley.



s8900-138

Figure 5 - Drum's Feet

## Drum Installation

**Replacement Note:** To help seat the Drum properly, steps 2-6 provide an explicit order of placement for installing the screws to secure the Drum Assembly to the chassis.

**Note:** Screw holes on the replacement Drum Assembly are not pre-threaded.

**CAUTION:** The Drum Temperature Sensor wiring harness is routed through the Exit Module. Use care when reinstalling to avoid damaging the Sensor.

1. Seat the Drum Assembly into the chassis.
2. Align the screw holes in the front and back of the Drum Assembly to the holes in the chassis sides.
3. Install 1 screw (metal, T-20) and washer at the rear position on the back side to hold the Drum Assembly; keep the screw loose.
4. Install 1 screw (metal, hex-head) and washer at the rear position on the front side to hold the Drum Assembly; keep the screw loose.
5. Align the clevis pins on the Transfix Load Arms with the holes in the mounting ears on the Drum Assembly. The Transfix Load Arms should point in the opposite direction as the Drum Thermistor. Position the Cam Followers on the Transfix Load Arms under the Transfix Cams.



6. Insert the Clevis Pins through the clevis and the mounting ears on the Drum Assembly (insert the pins from the outside). Check that the O-ring on each Clevis Pin is inside the chassis.

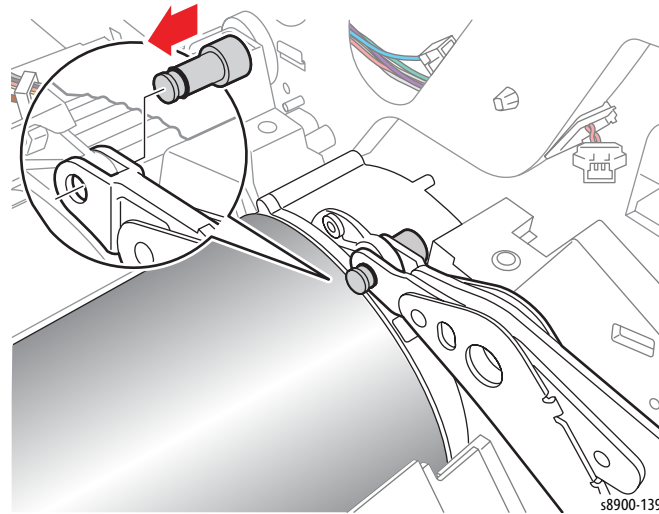


Figure 6 - O-ring Location

**CAUTIONS:**

- Ensure to move the Spring Cam towards the center of the printer. Applying pressure in the wrong direction can damage the Transfix Load Module.
  - Be careful not to pry against the Transfix Cams as shown in the illustration to prevent damaging the Cam.
7. Insert a T-20 Torx bit through the right side slotted hole in the Transfix Load Module. Engage the hole at the back of the module, and lever the module's spring cam towards the center of the printer while connecting the spring hooks to the Transfix Load Arms. Repeat this process for the left side.

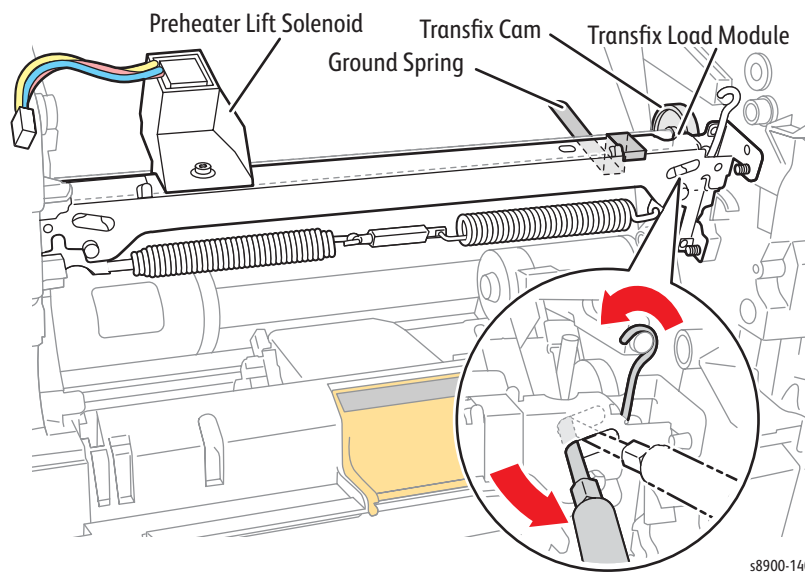


Figure 7 - Connecting the Spring Hooks



8. Install the bottom screws (metal, T-20), one on each side, keeping them loose.
9. Install the front screws (metal, hex-head) (with a washer and Ground Plate), one on each side, keeping the screws loose.
10. Tighten and torque the six screws to 25 in.-lbs. in the following order: first back screws on both sides, second bottom screws on both sides, and third front screws on both sides.
11. Seat the Exit Module in the chassis by first engaging the 2 front locating pins, and then the rear locating pins.

**Note:** Rotate the Drum Assembly to verify that the Drum rotates freely. If the Drum is not rotated freely, check the Drum Maintenance Cam at 6 o'clock position.

12. Install the Exit Module; secure and torque the 4 screws to 12 in.-lbs.

**Note:** After installing the Exit Module, perform [ADJ 1.1 Wiper Blade Adjustment](#) on page 6-32. The printer may report errors [391.720~391.723](#) if the Wiper is misaligned.

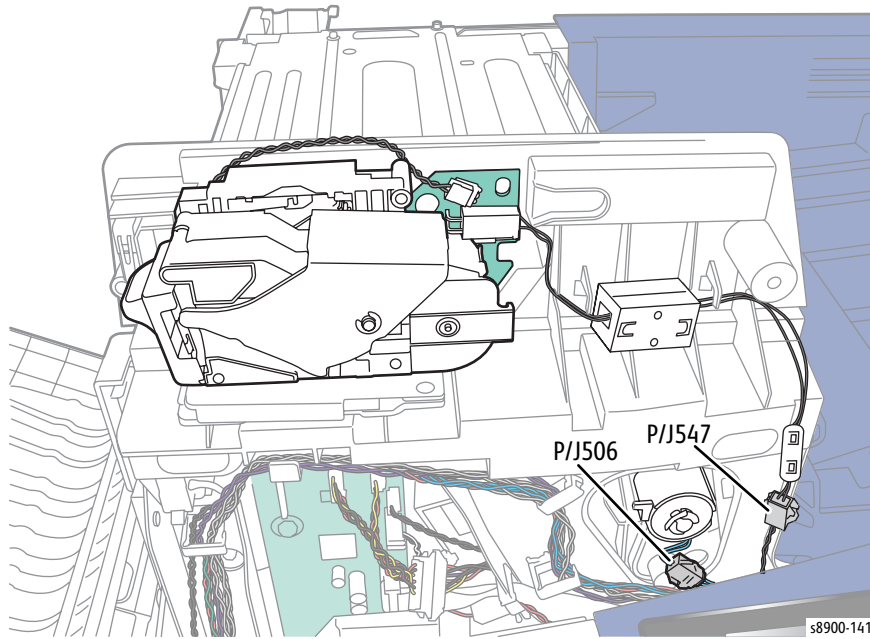
13. Pull the lower end of the Y-Axis Spring Arm toward the rear side of the printer and install the Y-Axis Belt first on the motor pulley, and then on the drum pulley. Align the grooves of the belt with those on the motor pulley. Check that the cross-ribs are away from the pulleys.
14. Connect the Drum Temperature Sensor wiring harness.
15. Install the Media Drive and connect the wiring harness.
16. Connect the Drum Heater Load Dump wiring harness connector P/J501 to the Front Side Harness.
17. Connect the Drum Heater wiring harness connector P/J505 to the Front Side Harness.
18. Dress the rear side cabling into the retainers in the frame. Secure the Drum Heater and Drum Encoder harnesses under the retainer located on the Process Drive.
19. Install the Drum Cooling Fan and secure it with 3 screws (plastic, T-20). Torque the screws to 12 lbs.

**Note:** Use care not to pinch the Drum Heater or Drum Encoder harnesses between the chassis and fan shroud.

20. Route the Strip Solenoid wiring harness through the right side of the chassis and install the Upper Duplex Guide and solenoid on the 4 mounting pins on the frame.
21. Install the I/O Board.
22. Connect the Drum Cooling Fan wiring harness connector P/J903 to the I/O Board.
23. Install the Upper Inner Duplex Guide.
24. Install the Lower Inner Duplex Guide.
25. Install the Ink Loader and Bezel.

**Note:** Be sure to connect the following wiring harnesses correctly.

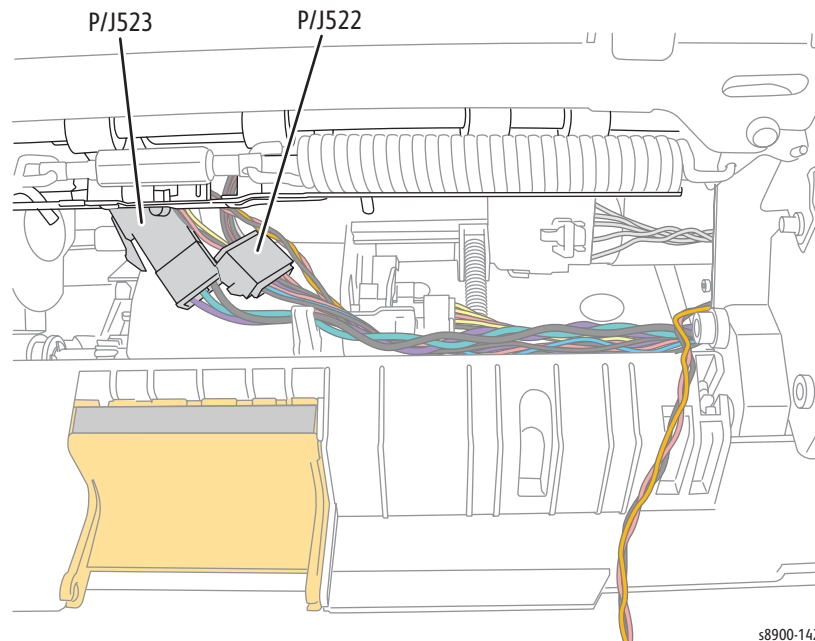
- Blue to Blue - for the Exit Module
- Black to Black - for the Stapler Assembly



## REP 7.14 Preheater and Deskew Assembly

### PL 7.1.22

1. Open the Left Side Door.
2. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
3. Remove the Inner Simplex Guide with Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
4. Disconnect the Paper Preheater wiring harness connector P/J523 and the Preheater Temperature Sensor wiring harness connector P/J522 from the Preheater and Deskew Assembly.



**Figure 1 - Disconnecting the Plug/Jack connectors**

**!** **CAUTION:** Use care when removing the Preheater. Do not pry the Preheater from the printer to prevent damaging the Preheater.

5. Slide the latches in and forward to release the Preheater as shown in [Figure 2 - Removing the Preheater](#).

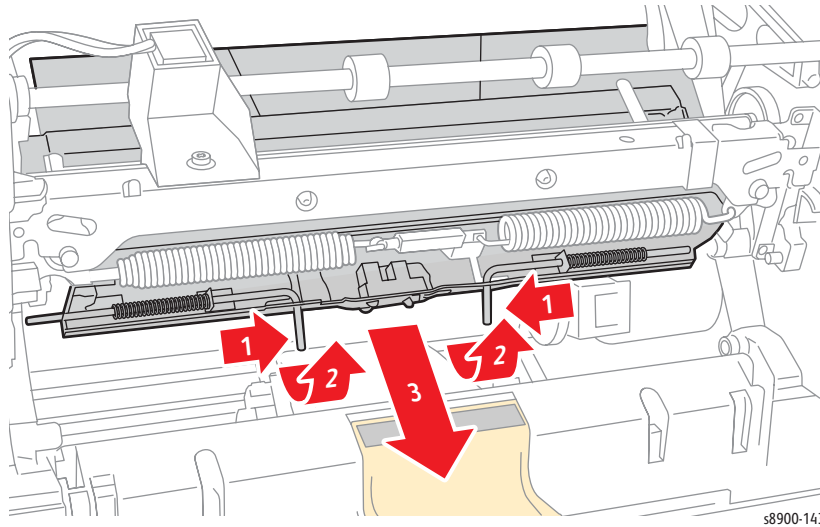


Figure 2 - Removing the Preheater

**Replacement Notes:**

- Orient the wiring harness flat in under the Preheater, then gently insert the Preheater into place. **DO NOT** force it. Once fully inserted, release the latches to secure the Preheater to the printer frame as shown in [Figure 3 - Installing the Preheater](#).
- Be careful not to damage or dislodge the Registration Sensor.

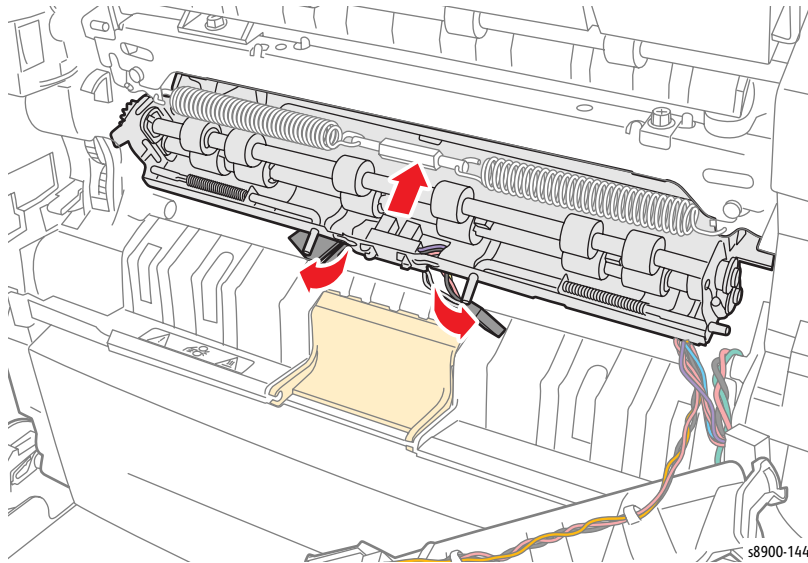
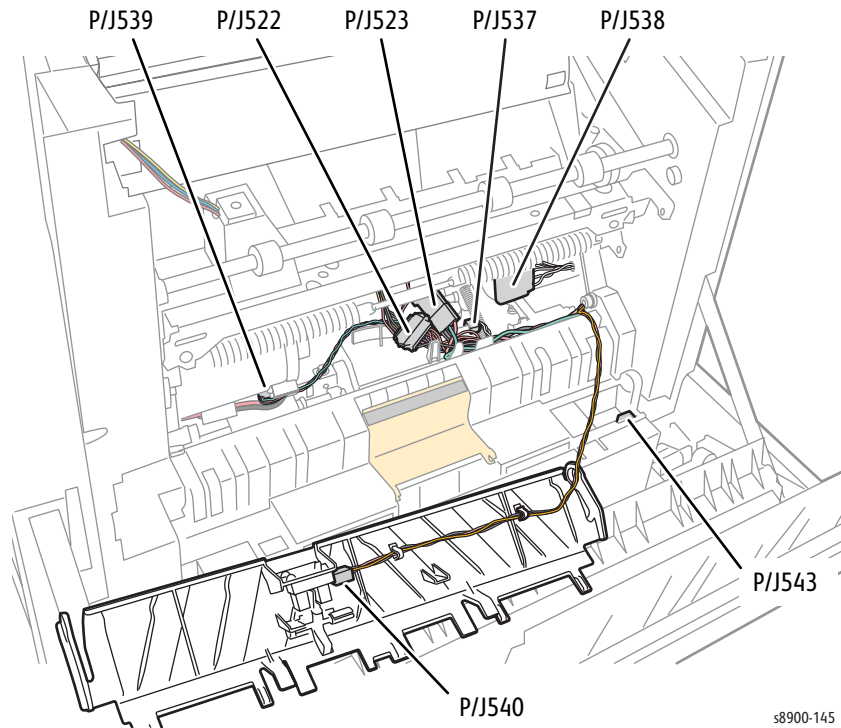


Figure 3 - Installing the Preheater

- Be careful not to release the spring under the wiring harnesses when dressing the wiring harnesses.
- Be sure to dress the wiring harnesses under their tabs and routing guides.
- The fingers on the Inner Simplex Guide go over the Deskew Roller. To install, first snap the left retainer in place, followed by the right. Make sure the sensors are properly positioned when completing the installation.



## REP 7.15 Drum Maintenance Pivot Plate/ Drum Wiper Blade Assembly

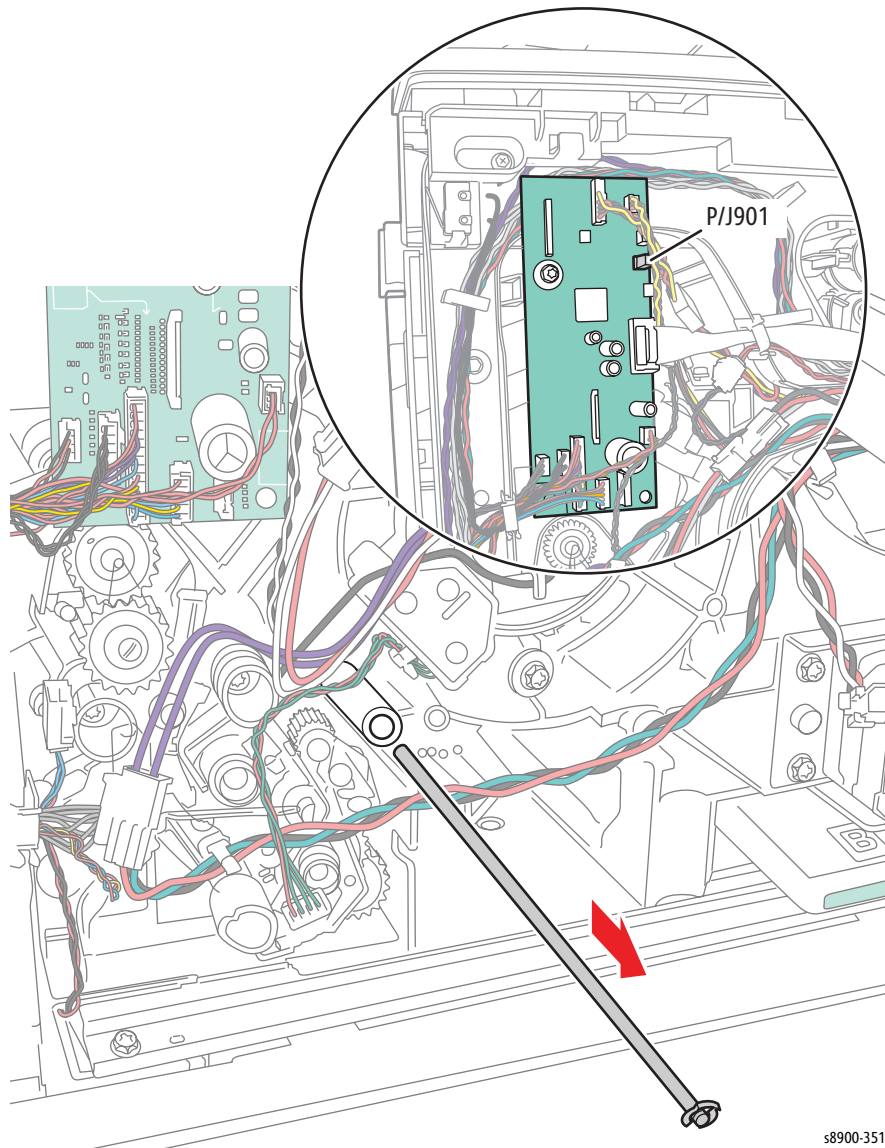
### PL 7.1.23, PL 7.1.26

1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
6. Remove the Inner Simplex Guide with Pre-Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
7. Remove the Preheater and Deskew Assembly (REP 7.14, [page 4-103](#)).

**Note:** Be sure to place a sheet of paper through the front of the printer between the Drum Assembly and the Pivot Plate Assembly to prevent damaging the Drum while removing the Pivot Plate Assembly

8. Remove the Cleaning Unit (REP 4.8, [page 4-40](#)).
9. Remove the Drum Cooling Fan (REP 9.6, [page 4-146](#)).

10. Push the Ground Plate out of the way to get access to the Shaft.
11. Disconnect the wiring harness connector P/J901 from the I/O Board.  
**Note:** For the following step, be sure to keep the C-Clip attach to the Shaft.
12. Pull the Pivot Plate Shaft out from the chassis.



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**Figure 1 - Removing the Pivot Plate Shaft**

13. Feed the wiring harness through the hole in the chassis near the front of the Drum Assembly while sliding the Plate downward and out from the Drum Maintenance drawer cavity.

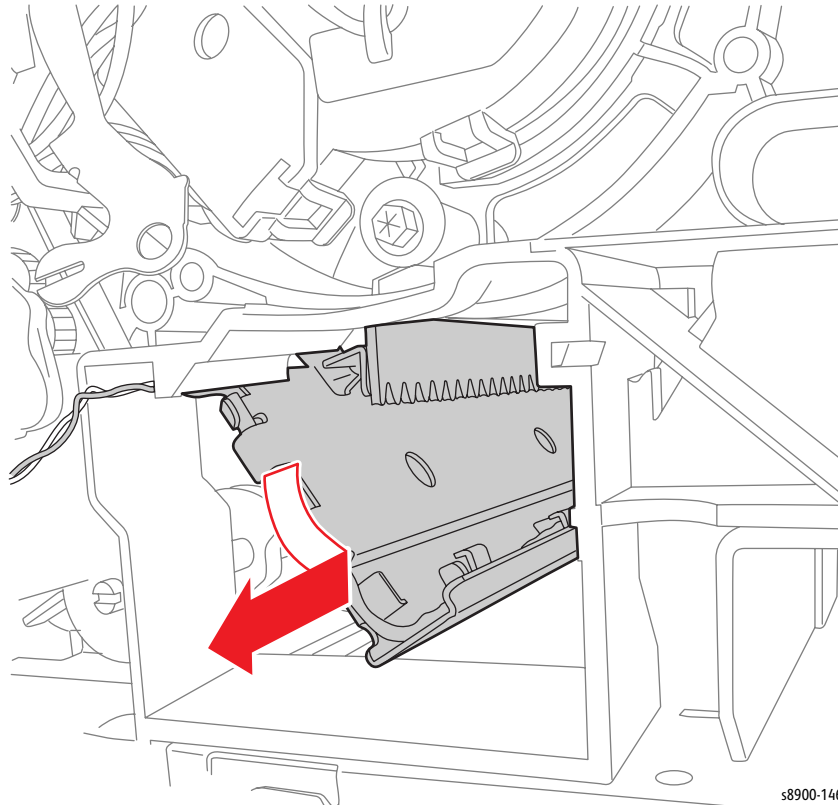


Figure 2 - Removing the Drum Maintenance Pivot Plate

### Drum Wiper Blade Assembly

Lift and remove the Drum Wiper Blade Assembly from the Drum Maintenance Pivot Plate.

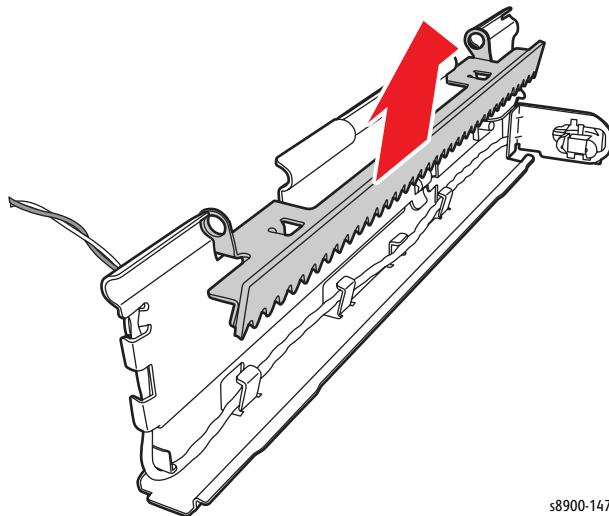
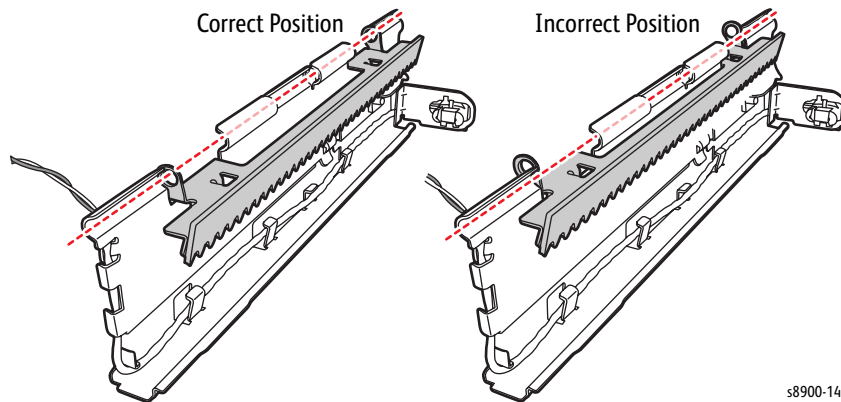


Figure 3 - Removing the Drum Wiper Blade Assembly



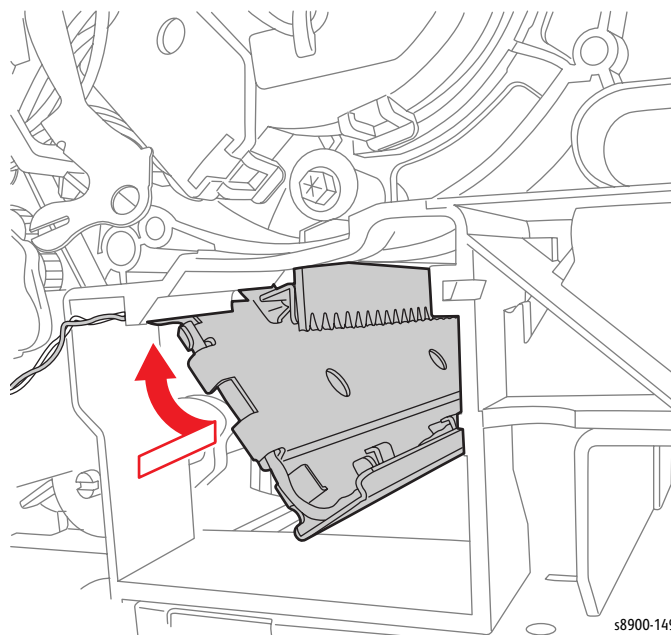
### Replacement Notes:

- Before installing the Process Drive, perform [ADJ 1.4 Manual Printhead Parking](#) on page 6-40 and [ADJ 1.1 Wiper Blade Adjustment](#) on page 6-32 to put the Printhead and Wiper Assembly in the Home position.
- Be sure to place a sheet of paper through the front of the printer between the Drum Assembly and the Pivot Plate Assembly to prevent damaging the Drum while installing the Pivot Plate Assembly.
- Do not remove the wiring harness from the harness clips on the Pivot Plate. Be sure the Blade sits towards the edge of the Drum Maintenance Pivot Plate as shown in [Figure 4 - Blade Position](#). Verify the blade position.



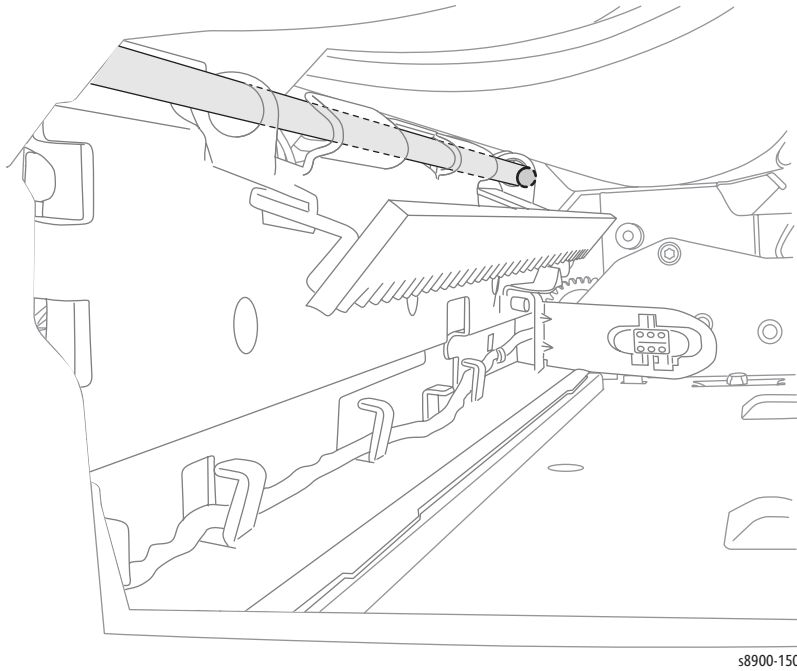
**Figure 4 - Blade Position**

- Be careful to avoid touching the blade against the Drum.
- Be sure to tilt and insert the Drum Maintenance Pivot Plate upward while holding the Pivot Plate from the rear.



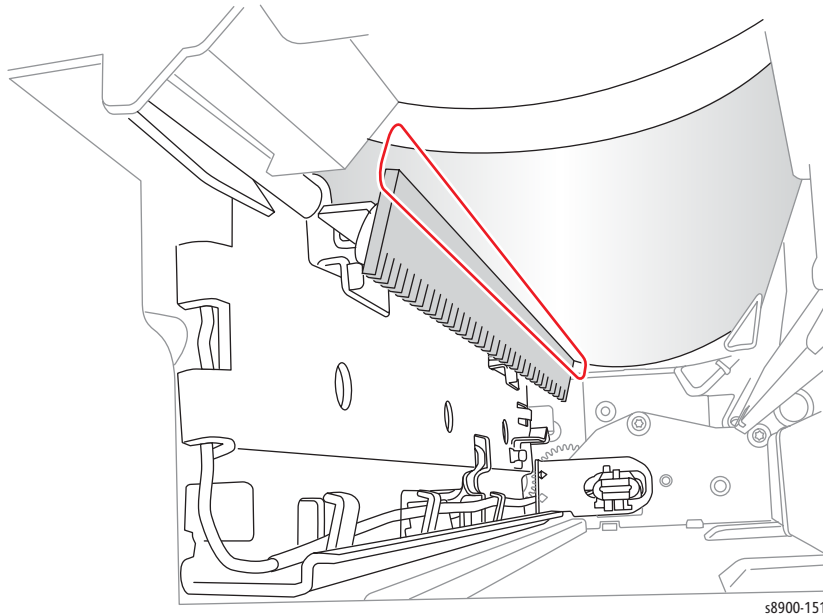
**Figure 5 - Installing the Drum Maintenance Pivot Plate**

- Be sure to check the Brush Bushing is in place.
- Be sure to align the Shaft with the hole on the rear side printer frame.



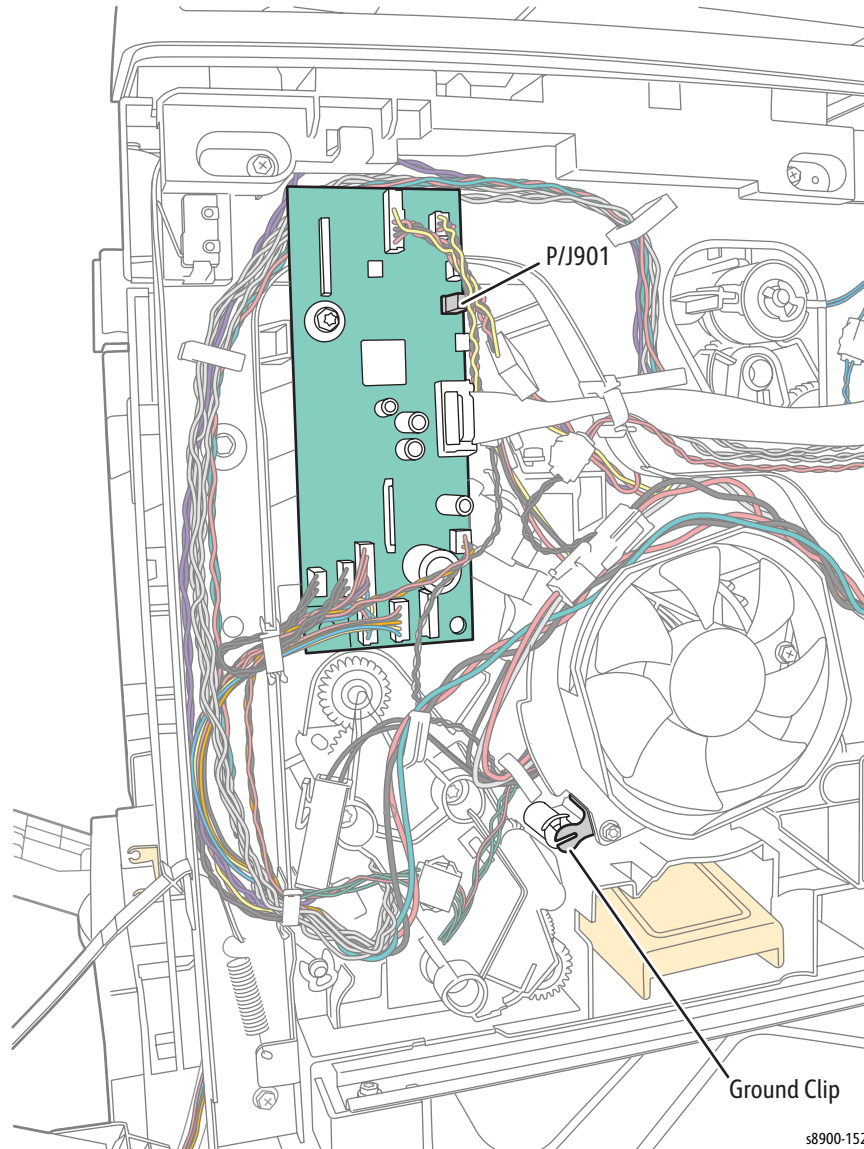
**Figure 6 - Aligning the Shaft**

- Be sure to verify that the space between the Blade and Drum Assembly is even from one end to the other end at 1/4 in. (6 mm). There should be about a quarter of an inch level space between the Blade and Drum.



**Figure 7 - Blade and Drum Assembly spacing**

- Check that the right end of the Pivot Plate Shaft is in contact with the Ground Clip (as shown in [Figure 8 - Ground Clip and Pivot Shaft](#)) following installation of the Drum Cooling Fan.
- Be sure to connect the wiring harness connector P/J901 to the I/O Board.

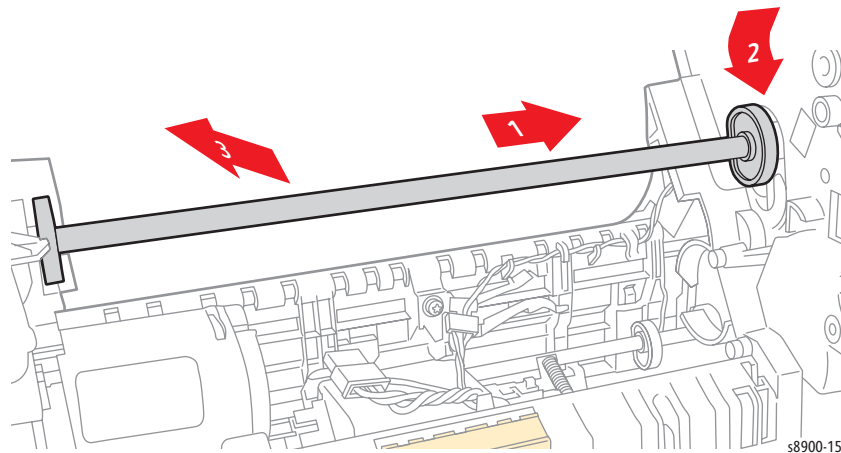


**Figure 8 - Ground Clip and Pivot Shaft**

## REP 7.16 Transfix Cam Shaft

### PL 7.1.25

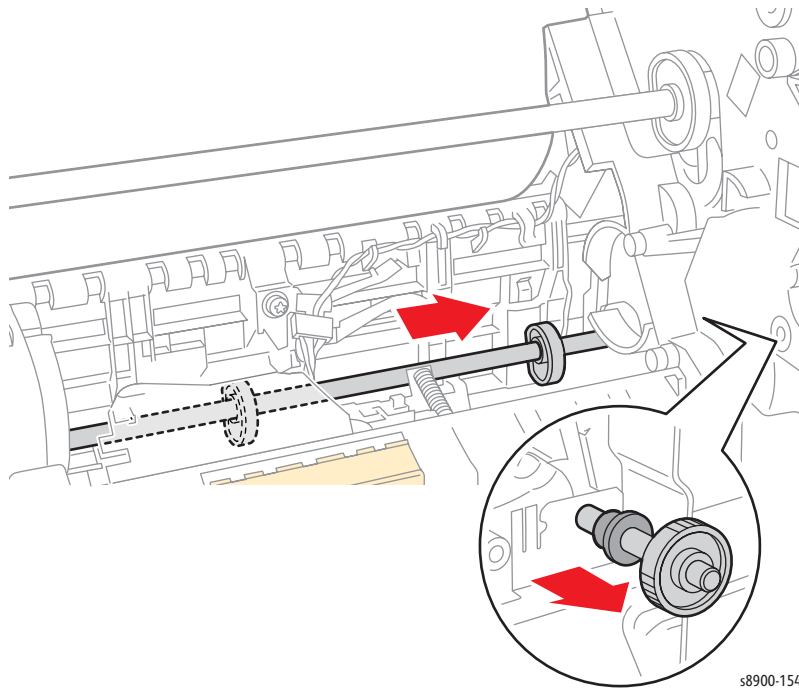
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
8. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
9. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
10. Remove the Upper Inner Duplex Guide (REP 6.1, [page 4-45](#)).
11. Remove the Duplex Roller (REP 8.5, [page 4-126](#)).
12. Remove the Transfix Load Arms (REP 7.9, [page 4-89](#)).
13. Remove the Process Drive Assembly (REP 9.5, [page 4-142](#)).
14. Slide the Cam Shaft to the right, making sure the Bearing slides over to the gear. Move the Cam Shaft down and slightly to the right, and then up to the left to remove it from the chassis.



## REP 7.17 Drum Maintenance Cam Shaft

### PL 7.1.31

1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Remove the Cleaning Unit (REP 4.8, [page 4-40](#)).
6. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
7. Remove the Inner Simplex Guide with Pre-Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
8. Remove the Preheater and Deskew Assembly (REP 7.14, [page 4-103](#)).
9. Remove the Drum Maintenance Pivot Plate (REP 7.15, [page 4-106](#)).
10. Remove the Process Drive (REP 9.5, [page 4-142](#)).
11. Slide the Camshaft to the right, release the bushing by carefully prying it from the ground plate, and move the left end of the Camshaft towards the rear of the printer. Next, move the Camshaft to the right, then lift the Camshaft through the slot while removing it to the right.

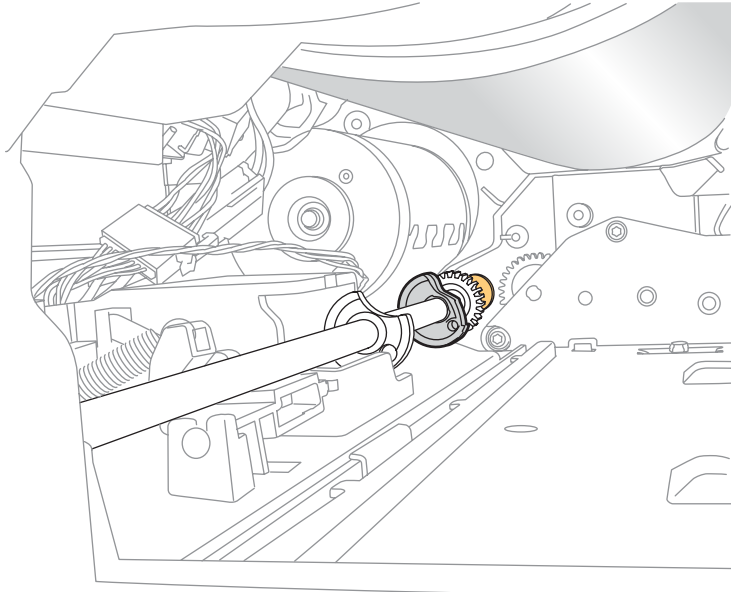


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Replacement Notes:

**!** **CAUTION:** When reinstalling the Camshaft, line up the hole on the bushing with the metal ground plate. Do not bend the Ground Plate while installing the Camshaft.

- When installing the Camshaft, position the flat side of the D-shaped cams towards the right side of the printer as shown in the illustration. Align the hole in the white Head Tilt Gear with the arrow on the chassis to put the Head Tilt Gear in home position.
- [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35 and [ADJ 1.3 Process Drive Alignment](#) on page 6-38 before restoring printer power.



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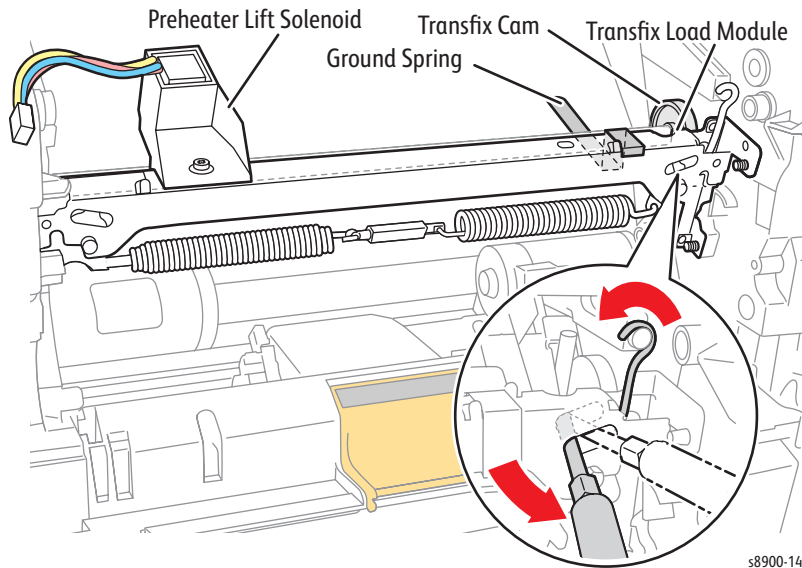
## REP 7.18 Transfix Load Module

### PL 7.1.35

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
8. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
9. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
10. Remove the Inner Simplex Guide with Pre-Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
11. Remove the Upper Inner Duplex Guide (REP 6.1, [page 4-45](#)).
12. Remove the Preheater and Deskew Assembly (REP 7.14, [page 4-103](#)).
13. Remove the Media Drive Assembly (REP 9.1, [page 4-131](#)).
14. Remove the Exit Module (REP 11.6, [page 4-190](#)).
15. Remove the Duplex Roller (REP 8.5, [page 4-126](#)).

**!** CAUTIONS:

- Use care when releasing the Transfix Module Spring Hooks. Move the lever handle towards the center of the printer as indicated in [Figure 1 - Releasing the Transfix Module Spring Hooks](#).
  - Be careful not to pry against the Transfix Cam (see [Figure 1 - Releasing the Transfix Module Spring Hooks](#)) to prevent damaging the Cam.
16. Insert a T-20 or T-15 Torx bit through the right side slotted hole in the Transfix Load Module. Engage the hole at the back of the module, and lever the module's spring cam towards the center of the printer while disconnecting the spring hooks from the Transfix Load Arms. Repeat this process for the left side.



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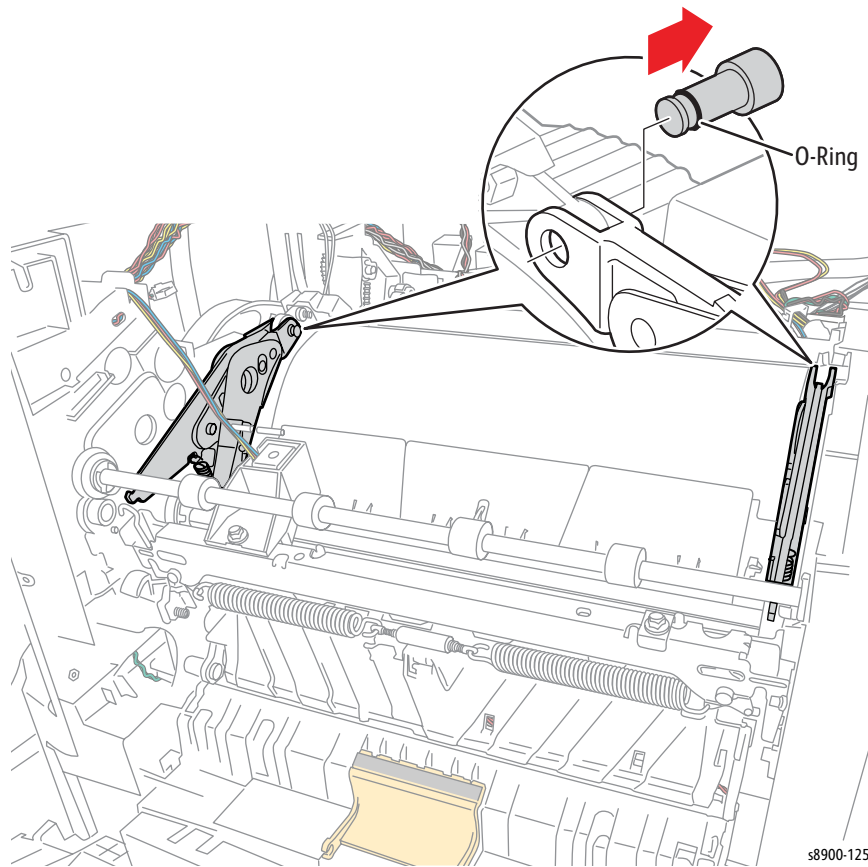
**Figure 1 - Releasing the Transfix Module Spring Hooks**



**!** **CAUTION:** Be careful not to lose the rubber O-ring (see [Figure 2 - O-Ring Location](#)). (The O-ring is for noise dampening during strip.)

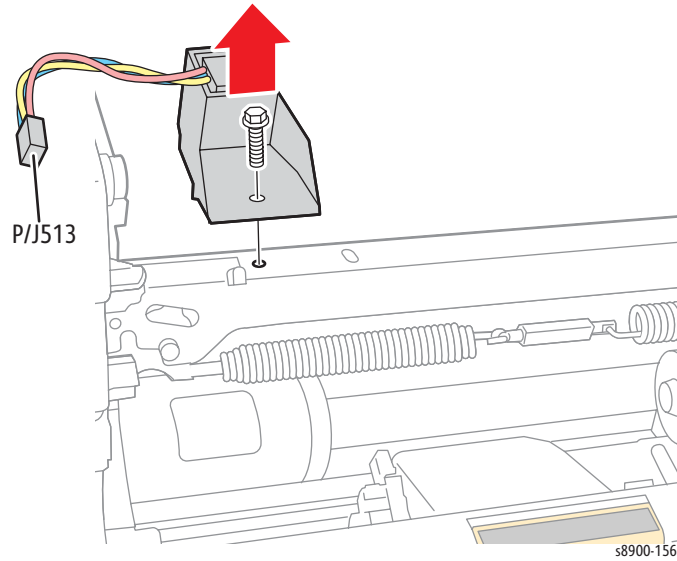
**Note:** In the following step, the Media Release Blade, Transfix Roller, Transfix Roller Shaft, and the two Transfix Load Arms are removed as a single assembly.

17. Remove the Clevis Pins from the left and right Transfix Load Arms to release the Transfix Roller Assembly with Transfix Load Arms from the chassis.



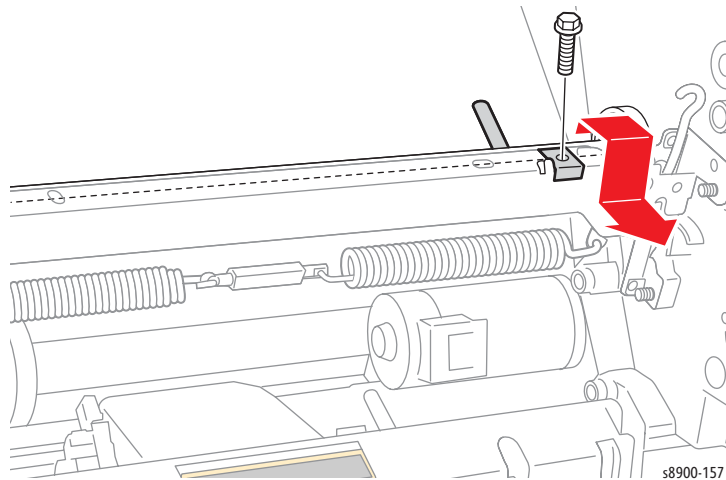
**Figure 2 - O-Ring Location**

18. Disconnect the Preheater Lift Solenoid wiring harness connector P/J513.
19. Remove 1 screw that secures the Preheater Lift Solenoid to the Transfix Load Module.
20. Remove the Preheater Lift Solenoid.



**Figure 3 - Plug Jack Location**

21. Remove 1 screw that secures the Transfix Load Module Ground Spring and remove the Ground Strap.



**Figure 4 - Screw Location**

22. Remove 4 screws (metal, T-20), 2 at each end, that secure the Transfix Load Module to the chassis.

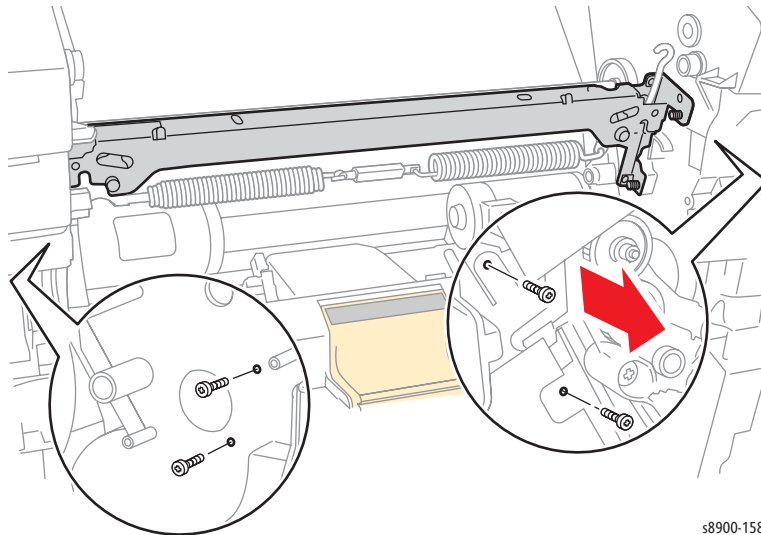


Figure 5 - Removing the screws

23. Rotate the top of the Transfix Load Module forward and spread the chassis slightly at the right side to remove it.

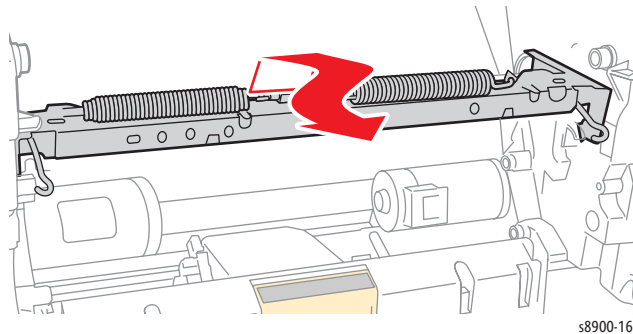


Figure 6 - Removing the Transfix Load Module

#### Replacement Notes:

- Place a small amount of Rheolube 768 grease (P/N 070E00890) in the groove at the end of each Transfix Load Arm before reattaching the Spring Hooks. Also, when replacing the Grounding Springs on the Transfix Load Module, make sure the springs rest below the Transfix Camshaft.
 

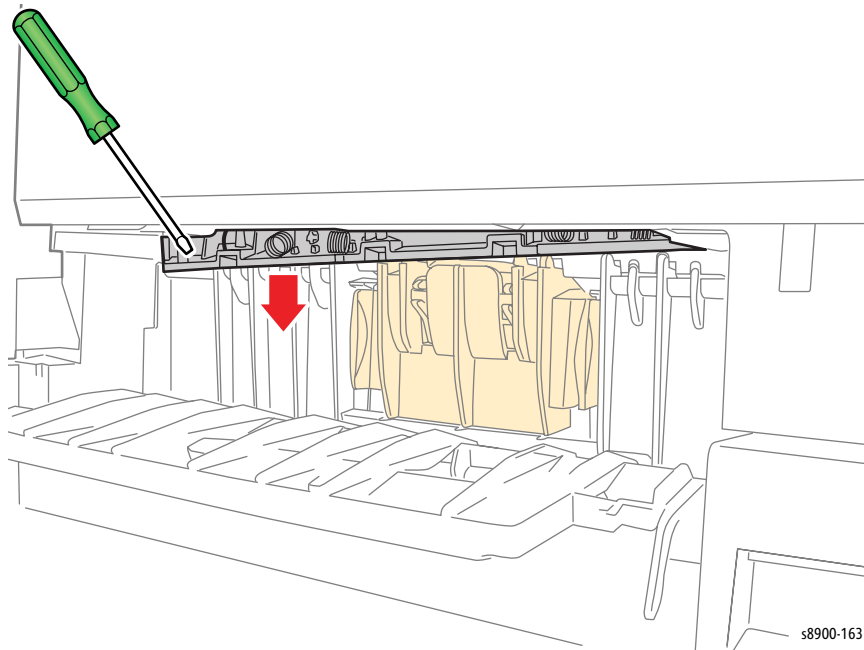
**Note:** Check the Recommended Tools and Supplies, because use of unapproved petroleum-based lubricants destroys plastic parts. Classifying Order Numbers as Non-returnable should be verified with the Parts Planner.
- After replacing the Exit Module, perform [ADJ 1.1 Wiper Blade Adjustment](#) on page 6-32. Fault codes [391.720 ~ 391.723](#) indicate misalignment of the Wiper Assembly.

# Paper Path

## REP 8.1 Out Takeaway Guide Assembly

### PL 8.1.1

1. Remove the Jam Guide Door (Lower Left Door) (REP 13.2, [page 4-205](#)).
2. Use a flat tip screwdriver to release one of the latches of the Takeaway Guide and remove the Guide from the printer frame.

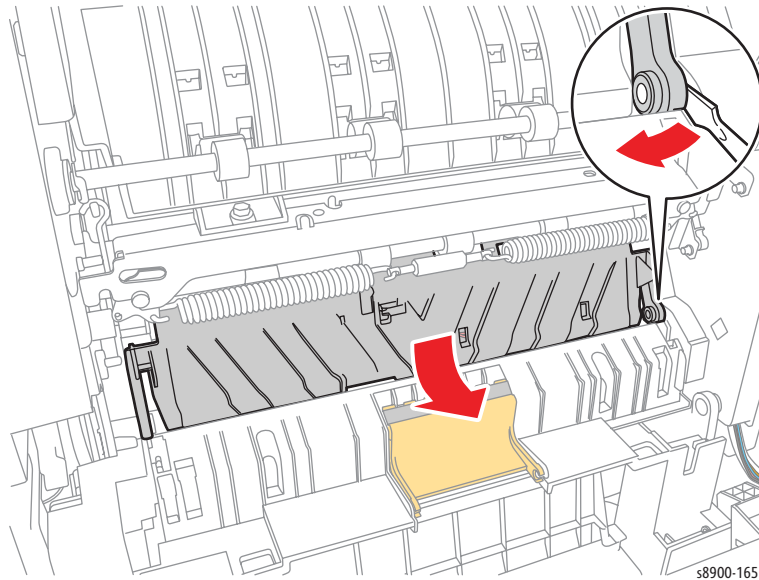


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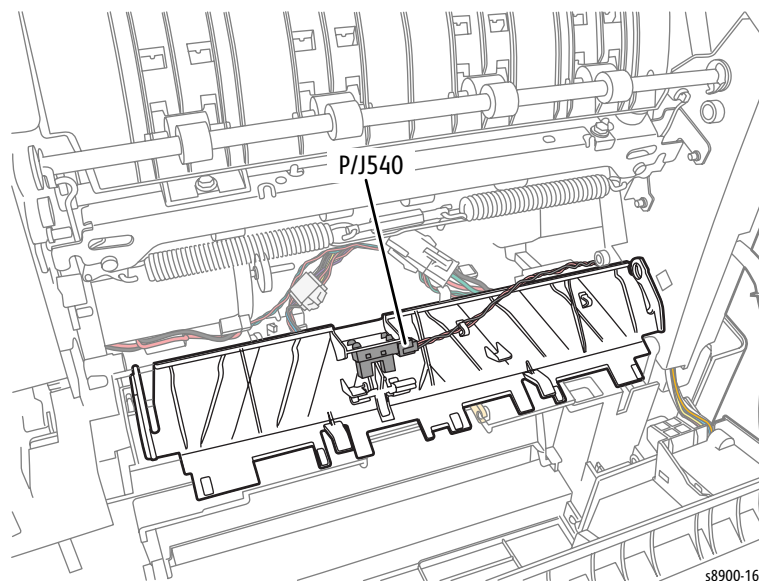
## REP 8.2 Inner Simplex Guide with Deskew Sensor and Harness

### PL 8.1.2

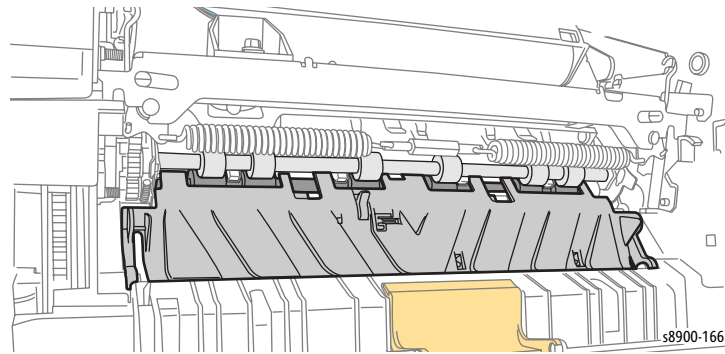
1. Open the Left Side Door.
2. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
3. Pry inward on the 2 retainers to release them from the mounting post.
4. Slide the Guide down and forward to remove it from the chassis.



5. Disconnect the wiring harness connector P/J540 from the Inner Simplex Guide. Release the wiring harness from the Inner Simplex Guide.



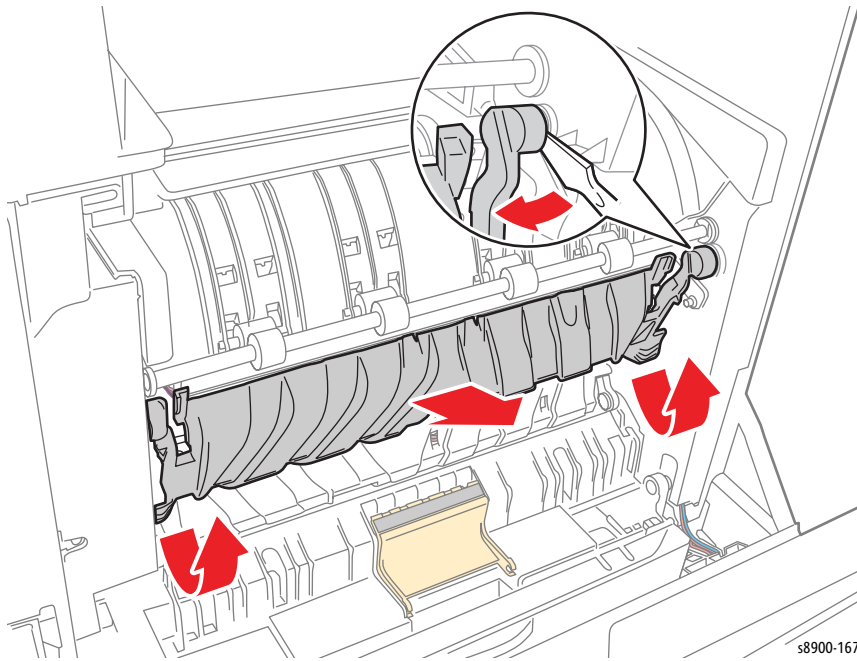
**Replacement Note:** Position the fingers on the Inner Simplex Guide over the segment roller. Install the Guide by snapping the left side to the retaining post, then the right side.



## REP 8.3 Lower Inner Duplex Guide

### PL 8.1.3

1. Open the Left Side Door.
2. Pull the tabs at the bottom of the Guide forward and let the Guide swing free.
3. Pry on the right, upper retainer inward, towards the center of the printer, to release it from the boss and remove the Guide.

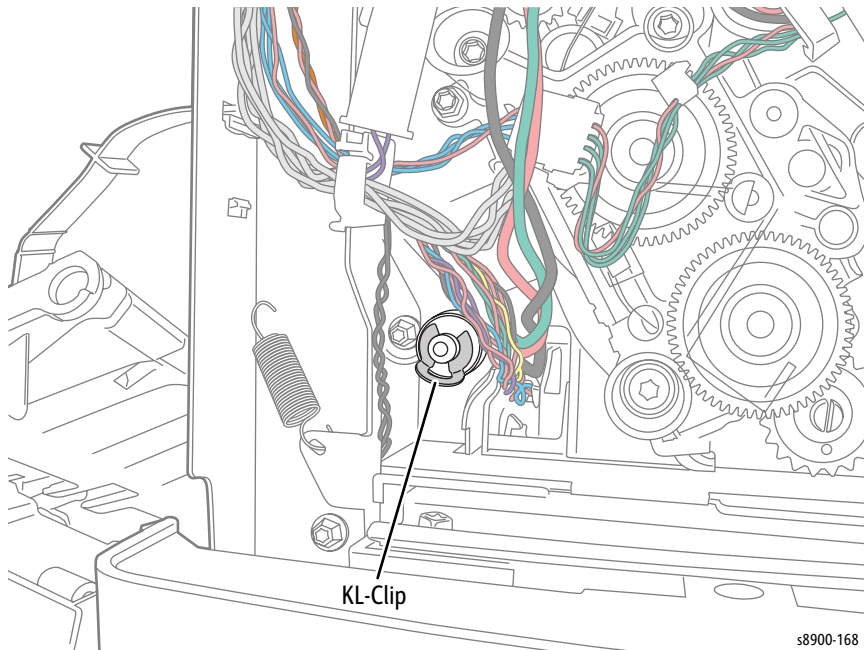


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## REP 8.4 Takeaway Roller

### PL 8.1.4

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
8. Remove the Inner Simplex Guide with Pre-Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
9. Remove the Media Drive Assembly (REP 9.1, [page 4-131](#)).
10. Remove the KL-Clip from the right end of the Takeaway Roller shaft.

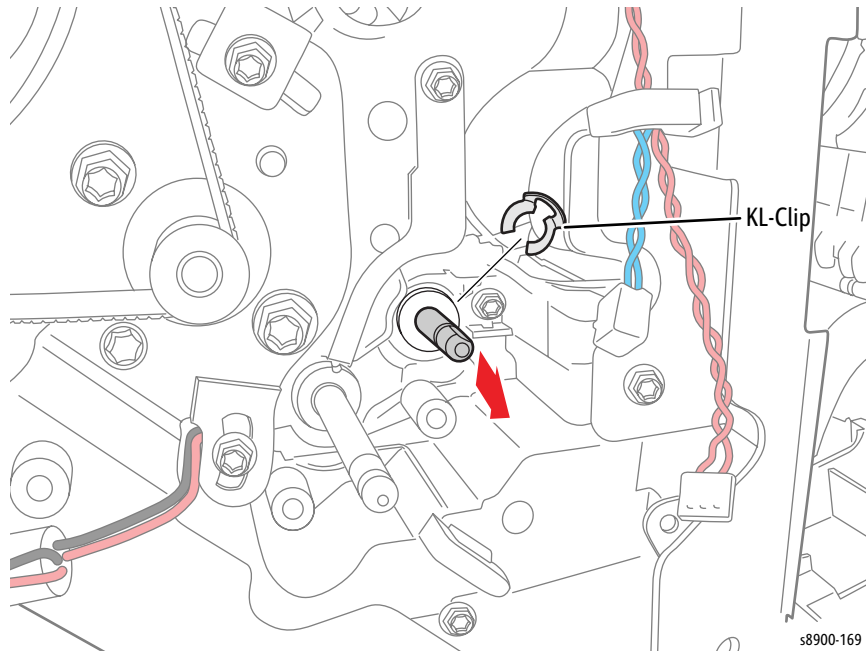


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11. Remove the KL-Clip and bushing from the left end of the shaft. Slide the shaft to the left to release the right end from the chassis. Rotate the shaft forward, and then remove it to the right.

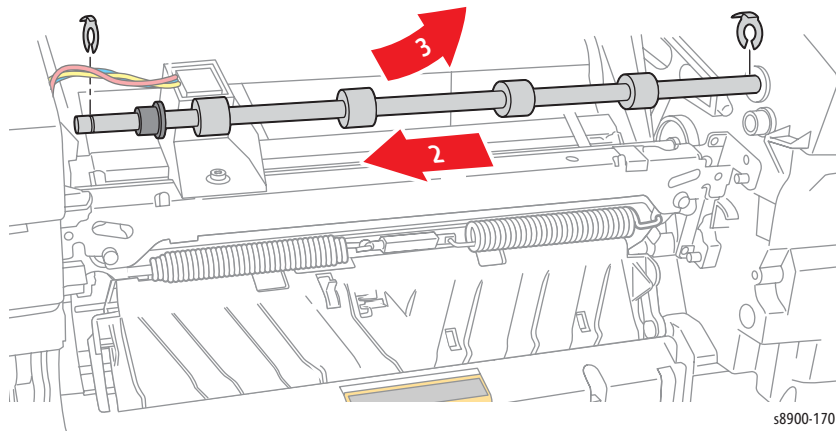
**Note:** Pressure from the Idler Rollers may make it difficult to slide the Takeaway Roller Shaft to the left during removal.



## REP 8.5 Duplex Roller

### PL 8.1.5

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
8. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
9. Remove the Upper Inner Duplex Guide (REP 6.1, [page 4-45](#)).
10. Remove the KL-Clips on the left and right ends of the Roller Shaft, move the bearing to the right, slide the Shaft to the left to release the right end from the chassis, and lift the right end upward to clear the top of the frame at the right.

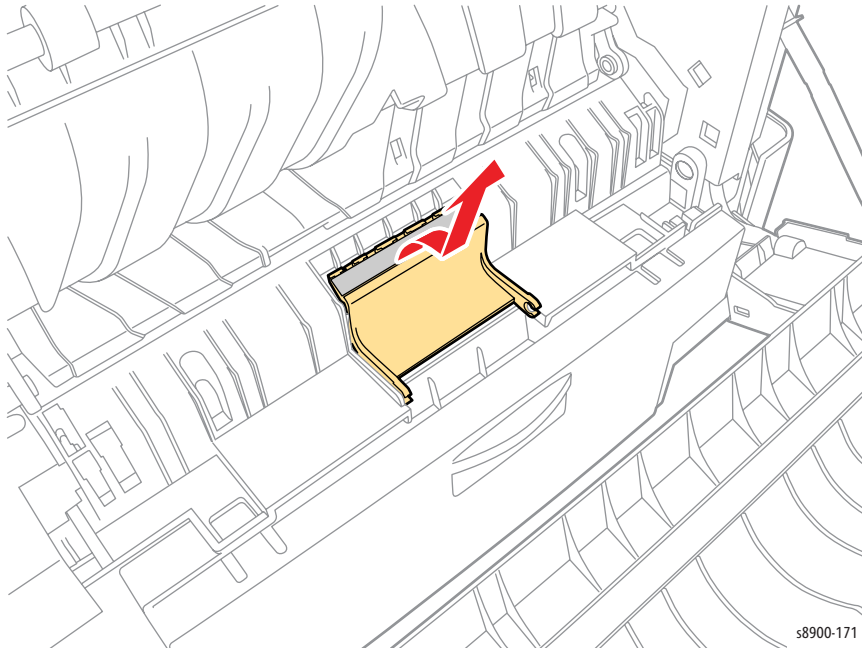


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## REP 8.6 Separator Pad Kit

### PL 8.1.7

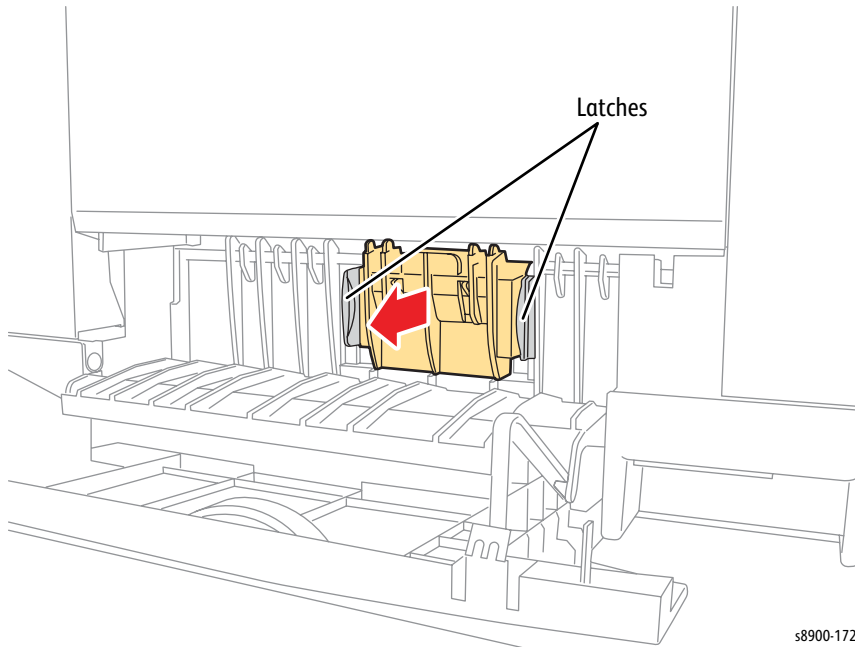
1. Open the Left Side Door.
2. Pry the Separator Pad towards the front of the printer and lift the Pad away from the printer.



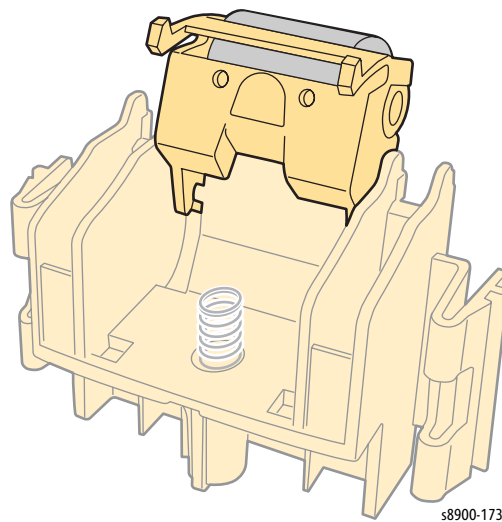
## REP 8.7 Pick Roller Assembly and Retard Roller

### PL 8.1.8

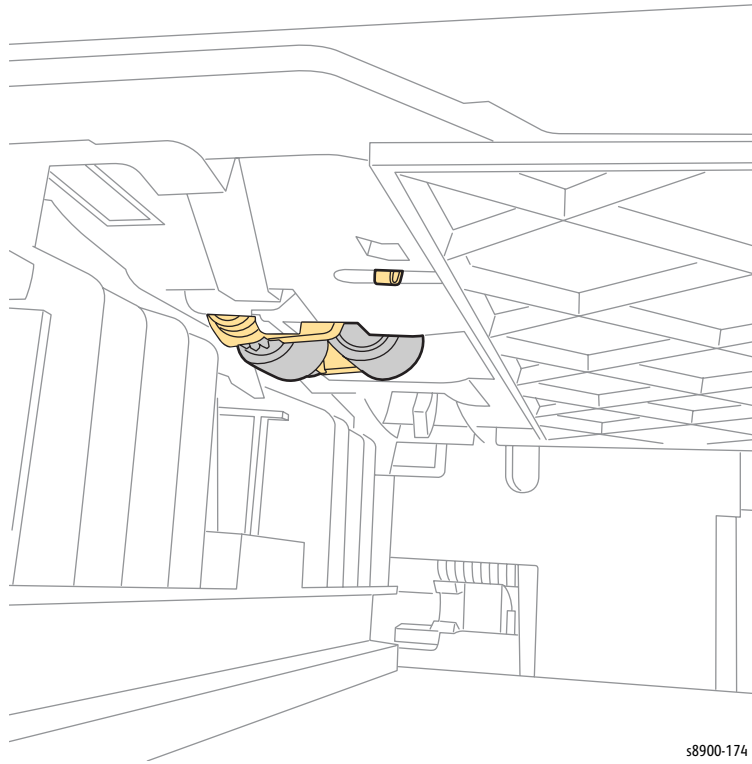
1. Remove Tray 2/3/4/5.
2. Open the Lower Left Door.
3. Release the latch and pull the Retard Roller Assembly to remove.



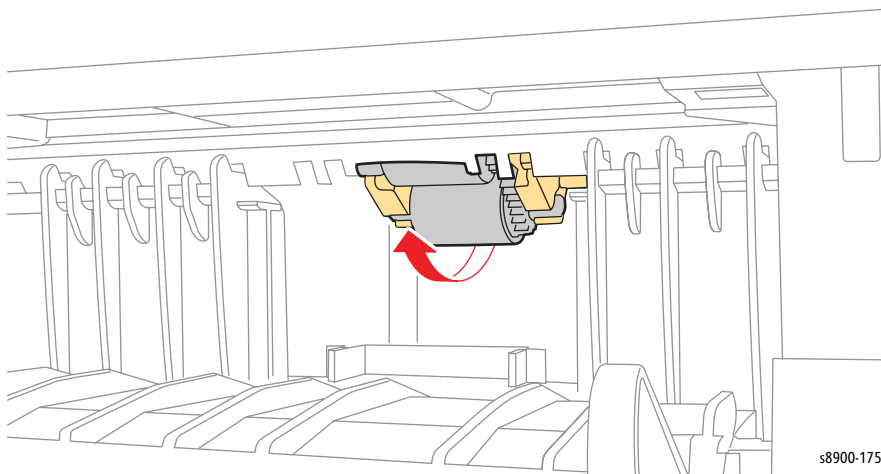
4. Remove the Retard Roller from the Carrier.



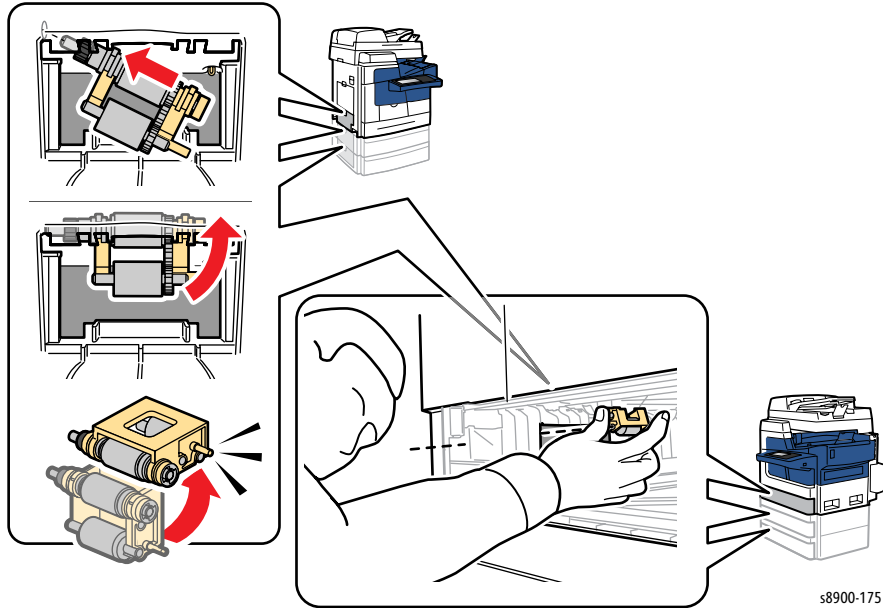
- From the front of the printer, push the Lever to release the Pick Roller Assembly.



- Pull the Pick Roller Assembly downwards to remove.



**Replacement Note:** For the Pick Roller, insert the replacement Roller with the metal shaft at the top and toward the left. The Grey Rollers should be facing you. Position the Roller back about 2 inches (5 cm) in the tray cavity. Feel for a large plastic lip on the right and the mating gear on the left. Rotate the Pick Roller up and back to snap it into place.



# Drive

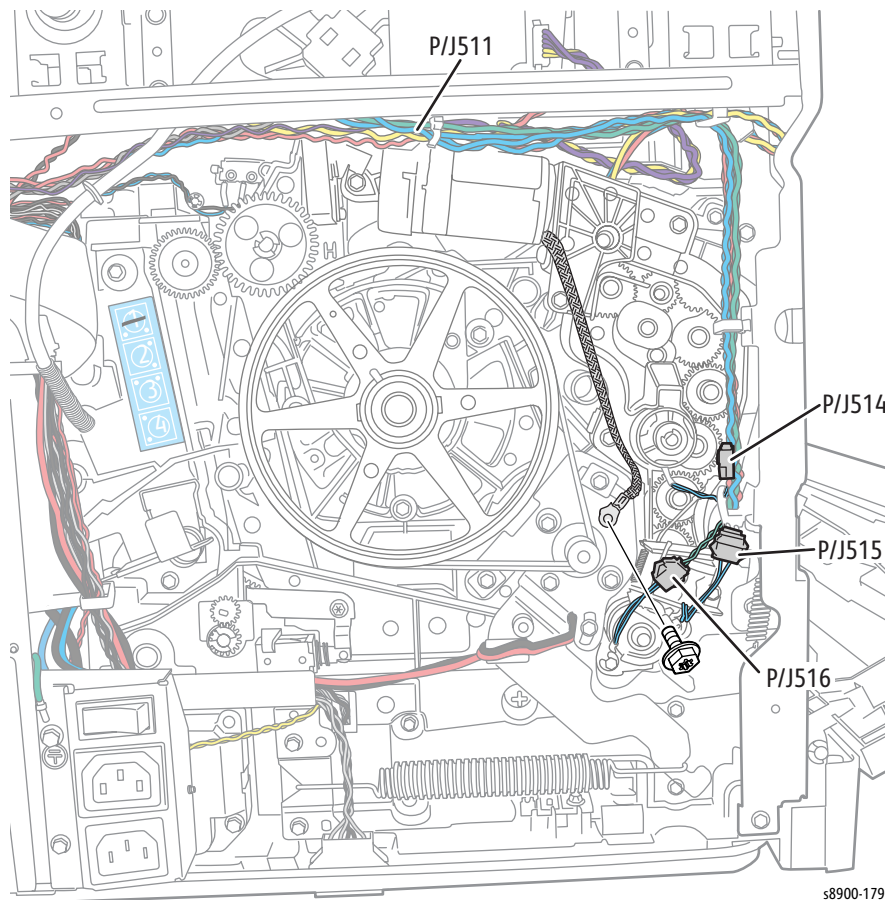


## REP 9.1 Media Drive Assembly *(Video available here)*

### PL 9.1.1

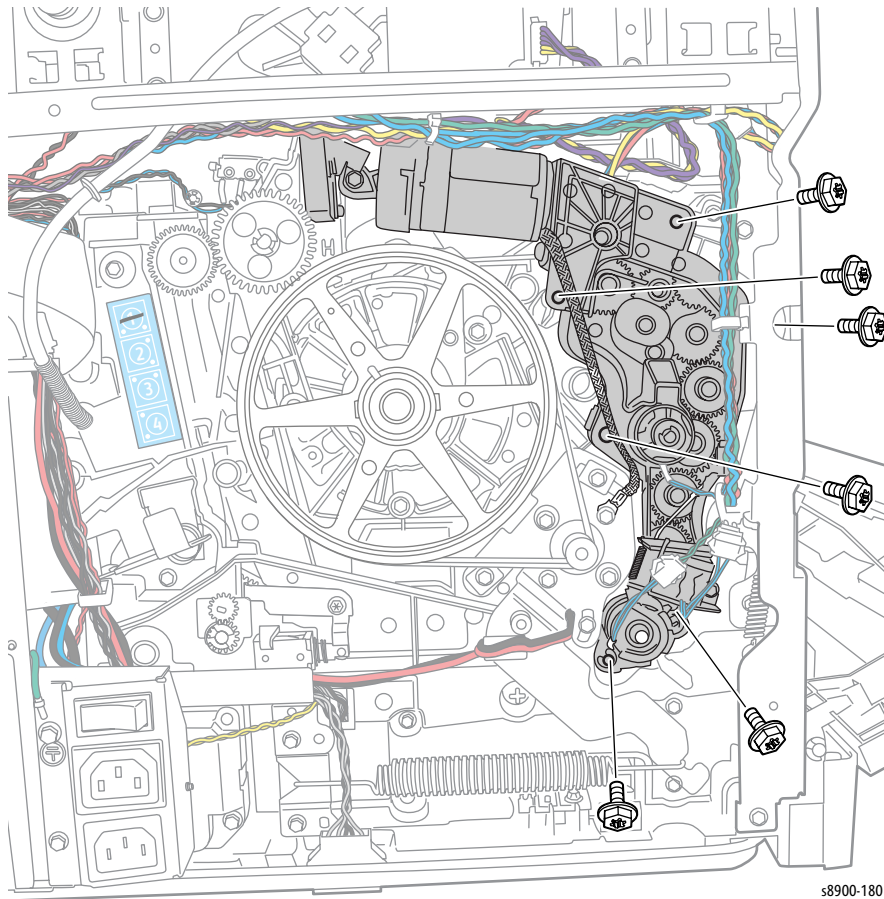
**Note:** **DO NOT** remove the Tray 1 Pick Solenoid screw. A new Solenoid is included with the new Media Drive Assembly. No screw loosening is required.

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Disconnect the Media Drive Assembly wiring harness connectors from the Rear Side Harnesses.
  - Media Path Motor (P/J511)
  - Deskew Clutch (P/J514)
  - Tray 2 Pick Clutch (P/J516)
  - Tray 1 Pick Solenoid (P/J515)
4. Remove 1 screw (metal, T-20) that secures the braided ground strap to the Y-Axis Motor Plate.



## Service Parts Disassembly

5. Remove 6 screws (plastic, T-20) that secure the Media Drive Assembly to the frame.
6. Remove the Media Drive Assembly.





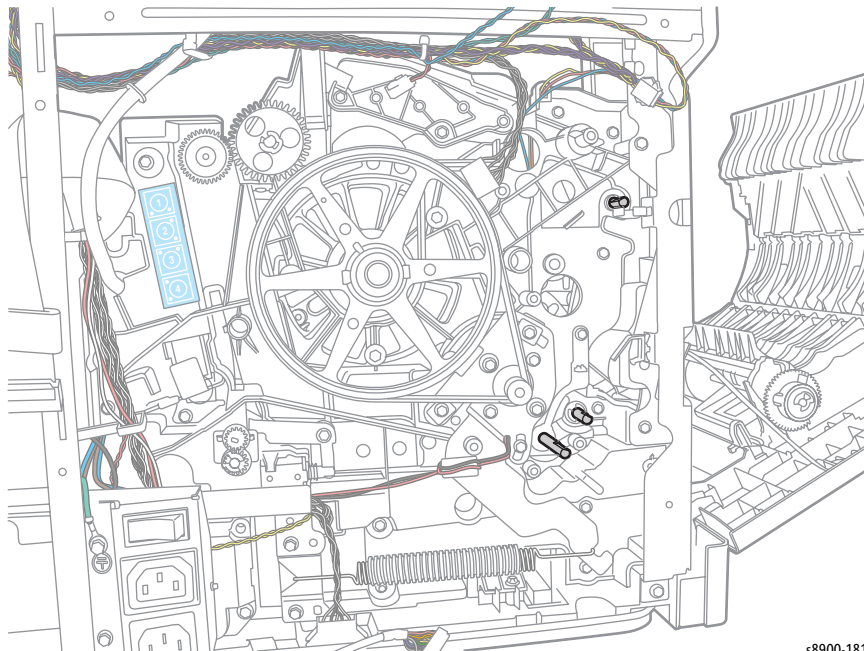
## Media Drive Installation

**Replacement Note:** For additional tips, refer to the [Media Drive Installation video](#) (also available in the ColorQube 8700/8900 Training materials).

**⚠ CAUTION:** When replacing the Media Drive screws, torque to no more than 12 in.-lbs. Overtightening these fasteners can result in irreversible damage to the chassis.

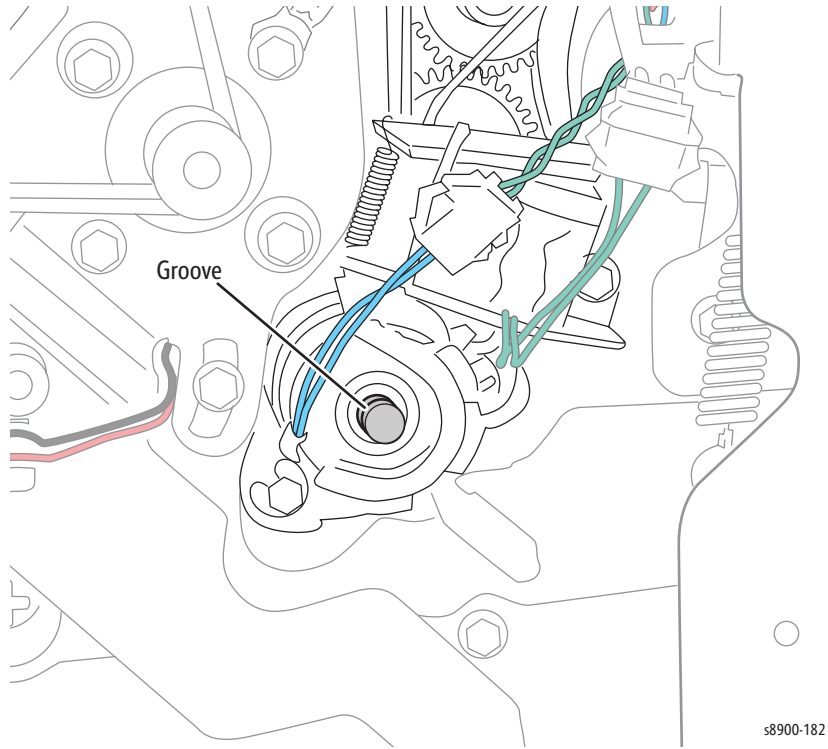
1. Remove Tray 2.
2. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
3. Remove the Inner Simplex Guide with Pre-deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
4. While placing the Media Drive Assembly into its position on the frame, rotate the Rollers in this order to align the shafts and gears:
  - Pick Roller (to seat the D-shaped shaft into the Pick Clutch)
  - Take Away Roller (to seat the shaft in the keyed gear)
  - Duplex Roller (to seat the shaft in the keyed gear)

**Note:** Check that the Media Drive Assembly is correctly positioned before tightening the screws.



s8900-181

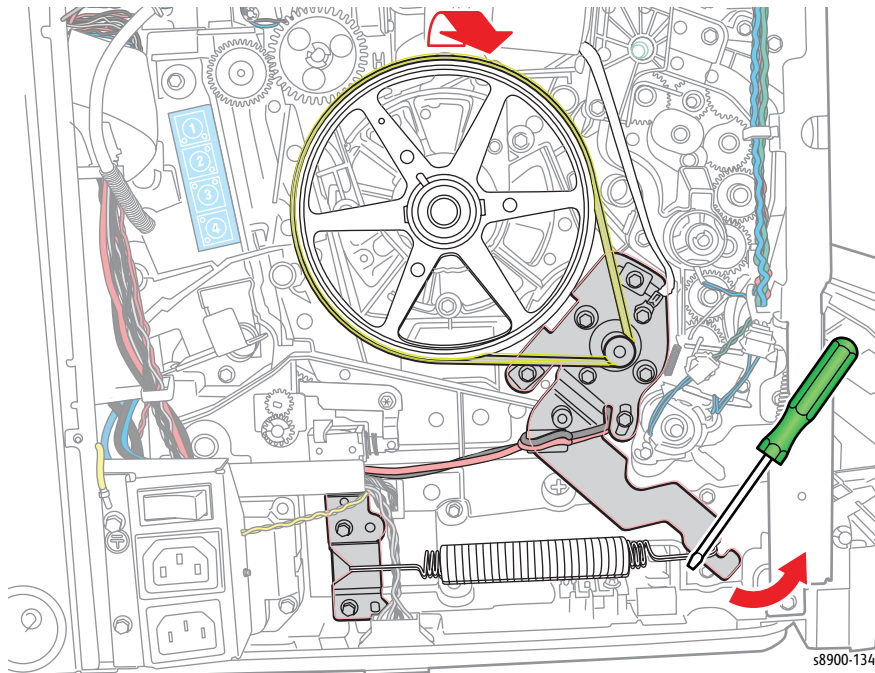
Verify that the shaft groove is showing before tightening the screws.



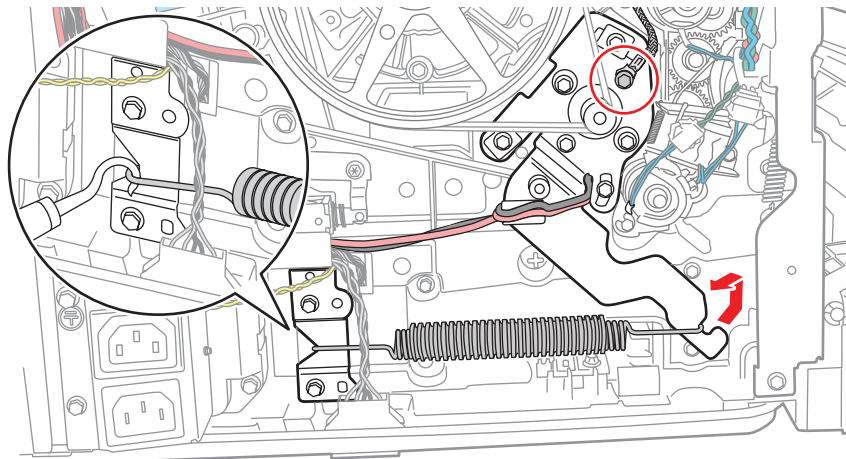
## REP 9.2 Y-Axis Motor Assembly

### PL 9.1.3

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Position a screwdriver under the Spring Arm in order to release tension on the Y-Axis Belt.
4. Use the screwdriver as a lever and pull up on the Spring Arm while removing the Y-Axis Belt.



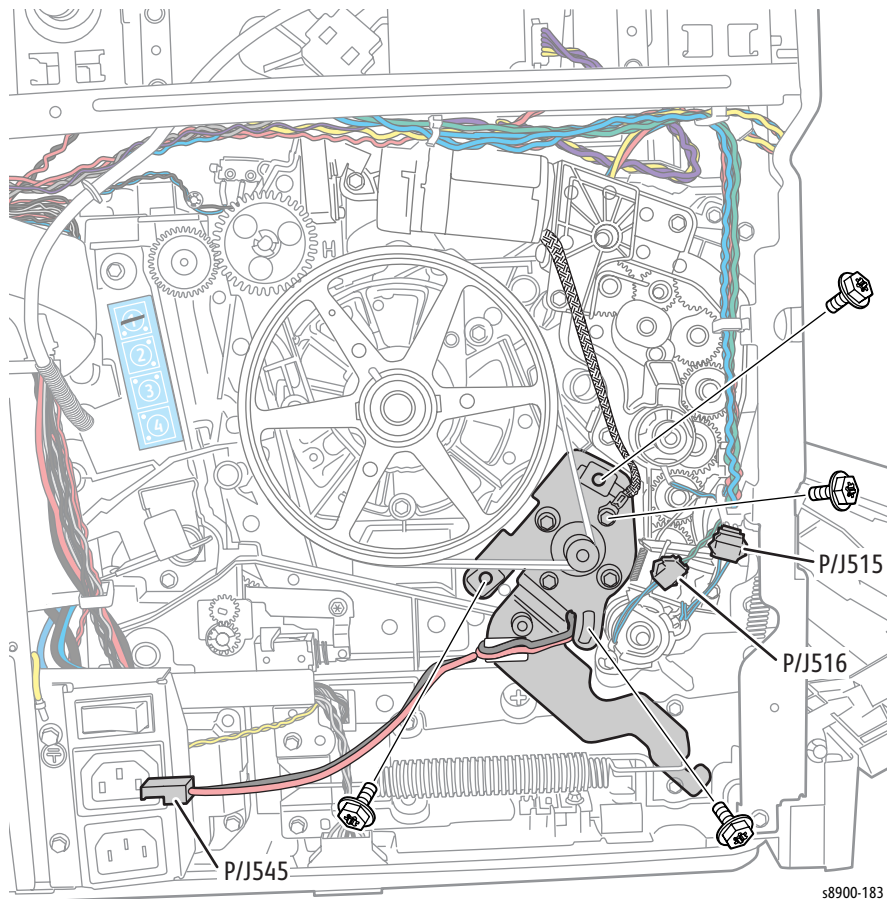
5. Remove 1 screw that secures the Ground Wire to the Y-Axis Motor Assembly.
6. Remove the Y-Axis Spring using either a spring hook or a set of pliers. Brace the printer to prevent movement while removing the Spring.



7. Disconnect the Y-Axis Motor wiring harness connector P/J545 and remove the wiring harness from the cable guide.
8. Disconnect the Tray 2 Pick Clutch wiring harness connector P/J516 and Tray 1 Pick Solenoid wiring harness connector P/J515 from the Rear Side Harnesses.
9. Release the wiring harness from the retainers in the chassis.

**Note:** Observe the routing of the Y-Axis Motor harness. The harness exits the motor cavity through the notch provided at the bottom of the mount.

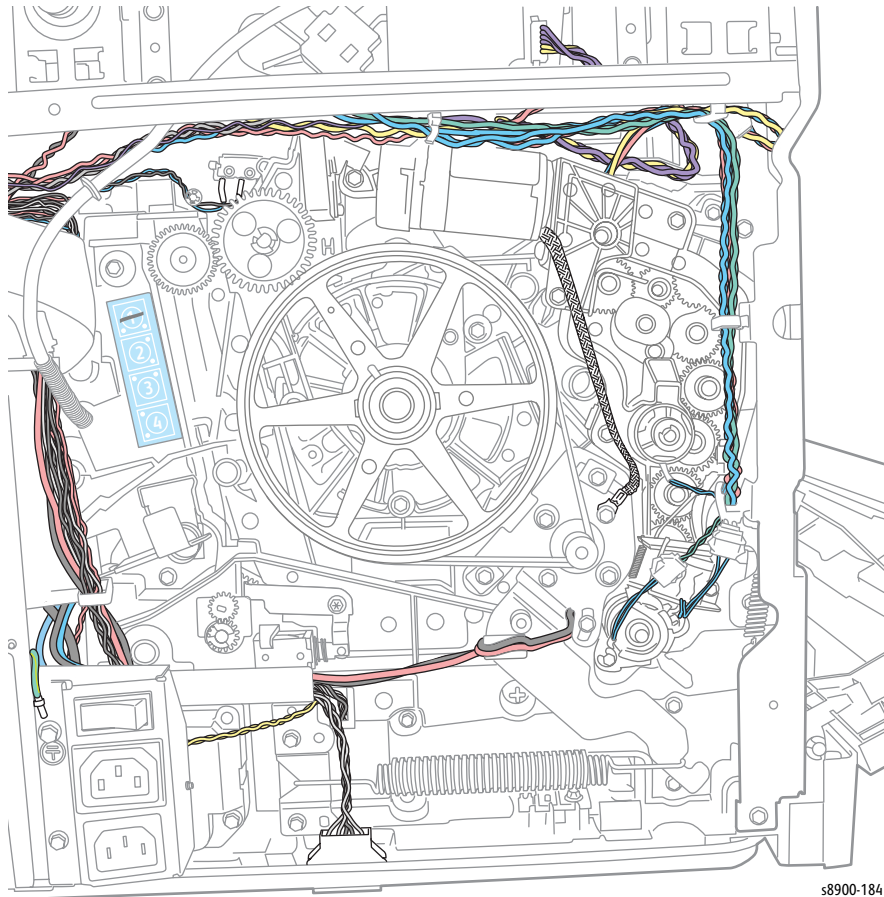
10. Remove 3 screws (plastic, T-20), and 2 screws (metal, T-20) with ground connections from the Spring Arm and slide the Y-Axis Motor Assembly out of the chassis.



## Replacement Notes:

**!** **CAUTION:** When replacing the Y-Axis Drive screws, torque to no more than 12 in.-lbs. Overtightening these fasteners can result in irreversible damage to the chassis.

- Check that the grounding lugs are captured by the screws, and wiring is correctly routed.
- Be sure the wiring harnesses are routed away from the Motor.



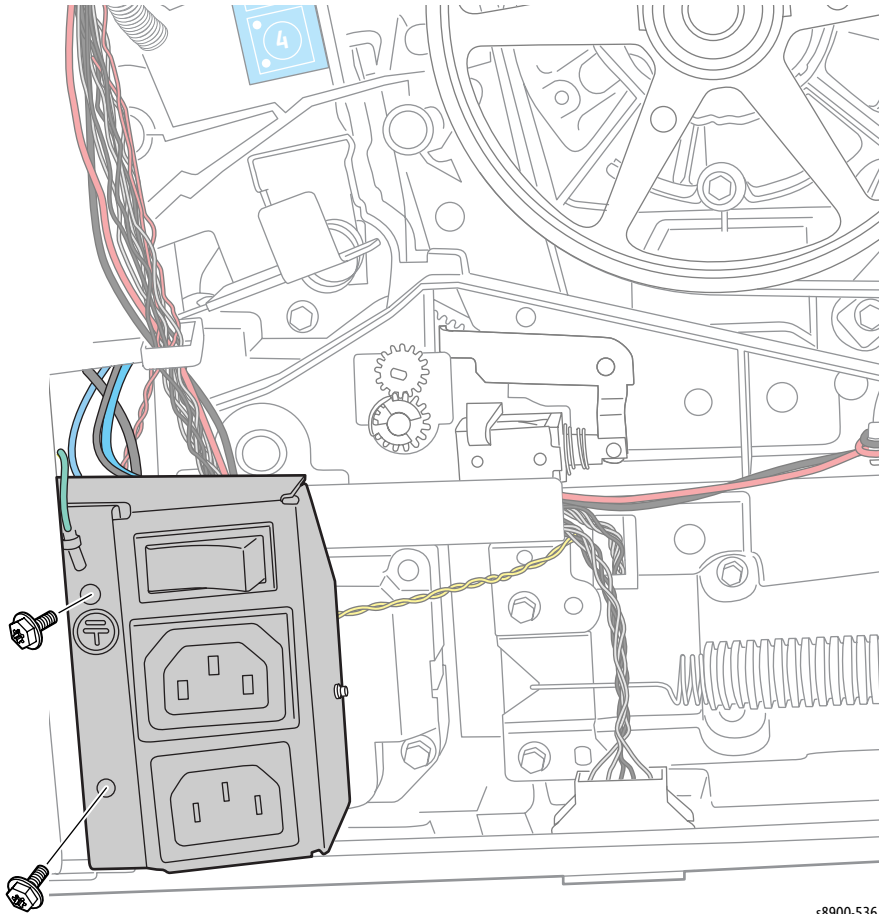
s8900-184



## REP 9.3 Tray 2 Media Lift Motor

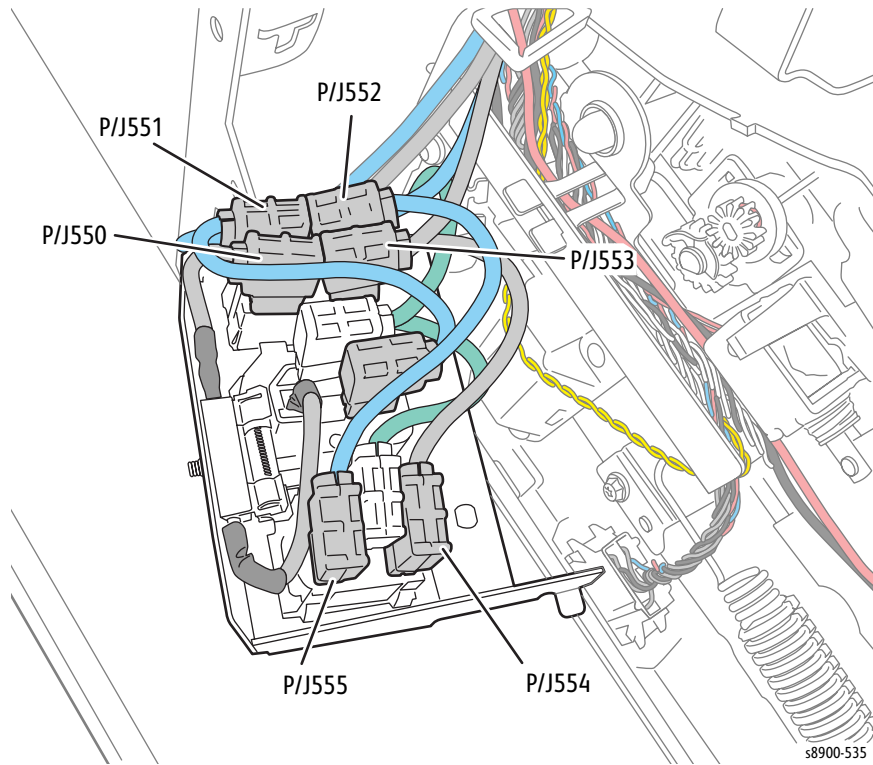
### PL 9.1.5

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove 2 screws that secure the Ground and the AC Inlet Assembly.
4. Remove the AC Inlet Assembly (PL 10.1.22).

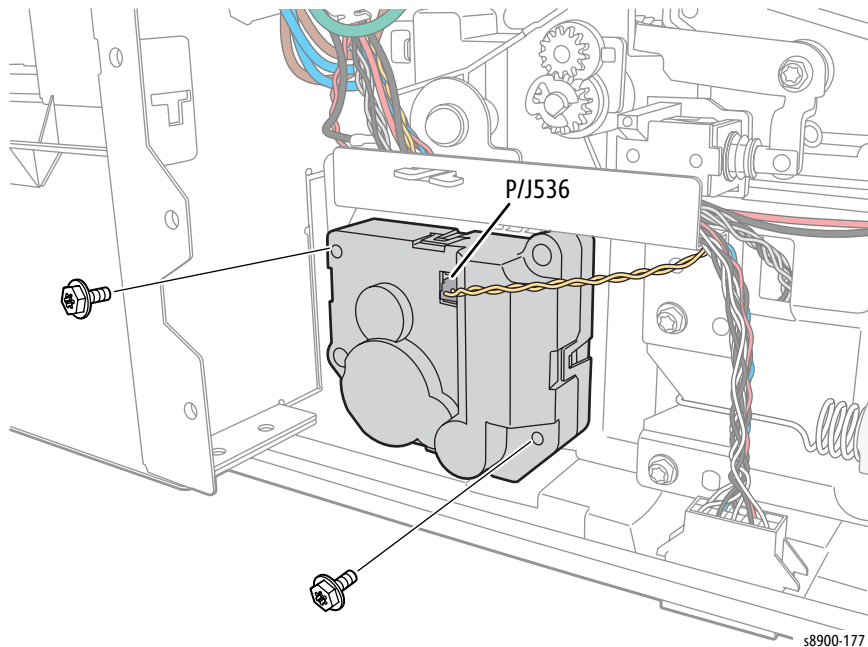


s8900-536

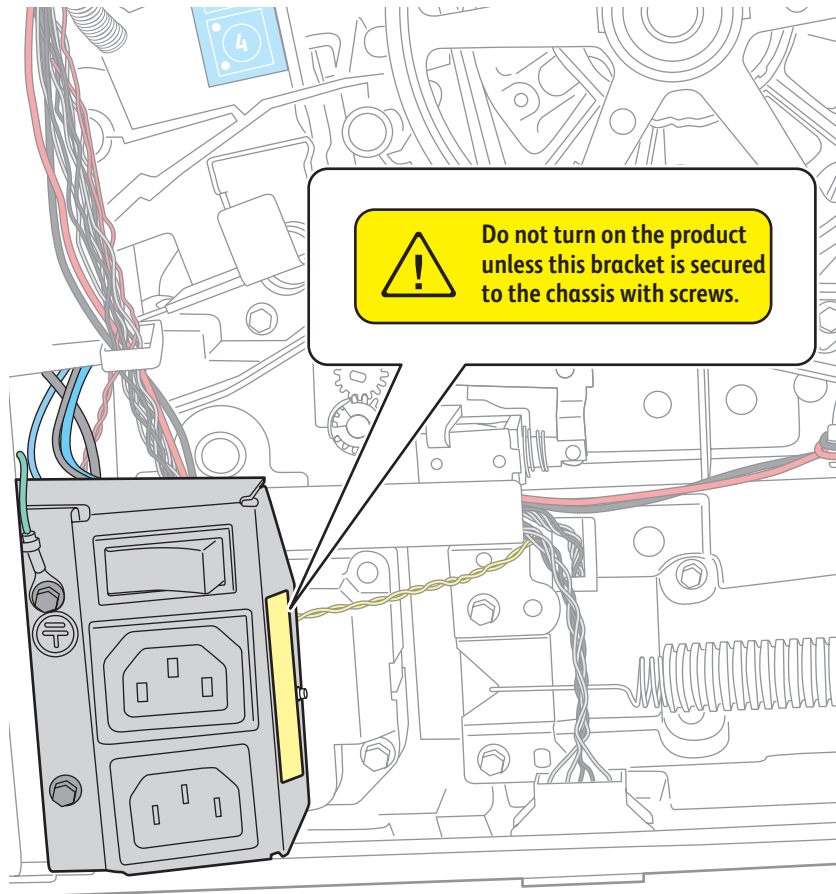
5. Disconnect the wiring harness connectors P/J550, P/J551, P/J552, P/J553, and P/J554.



6. Disconnect the Tray 2 Lift Motor wiring harness connector P/J536 from the Motor.
7. Remove 2 screws that secure the Tray 2 Media Lift Motor.
8. Remove the Tray 2 Media Lift Motor.



**!** **WARNING:** Be sure to secure the AC Inlet Assembly with 2 screws before power On the printer.



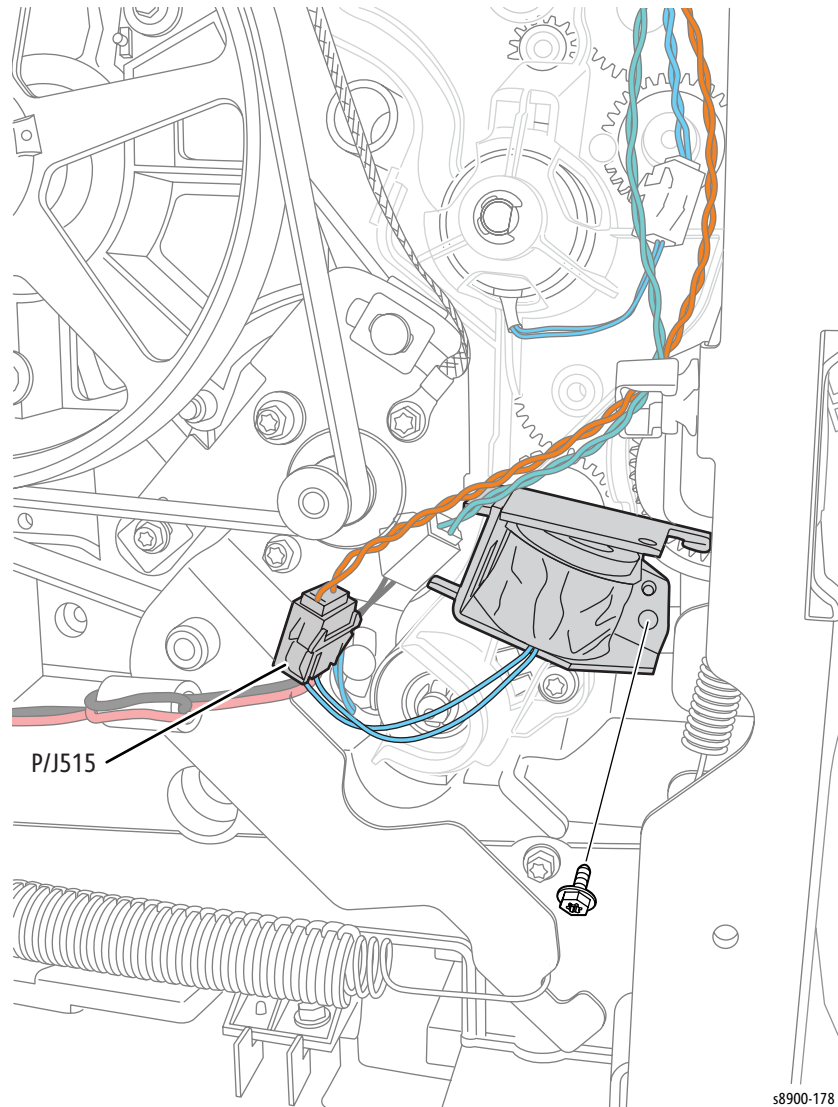
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## REP 9.4 Tray 1 Pick Solenoid

### PL 9.1.6

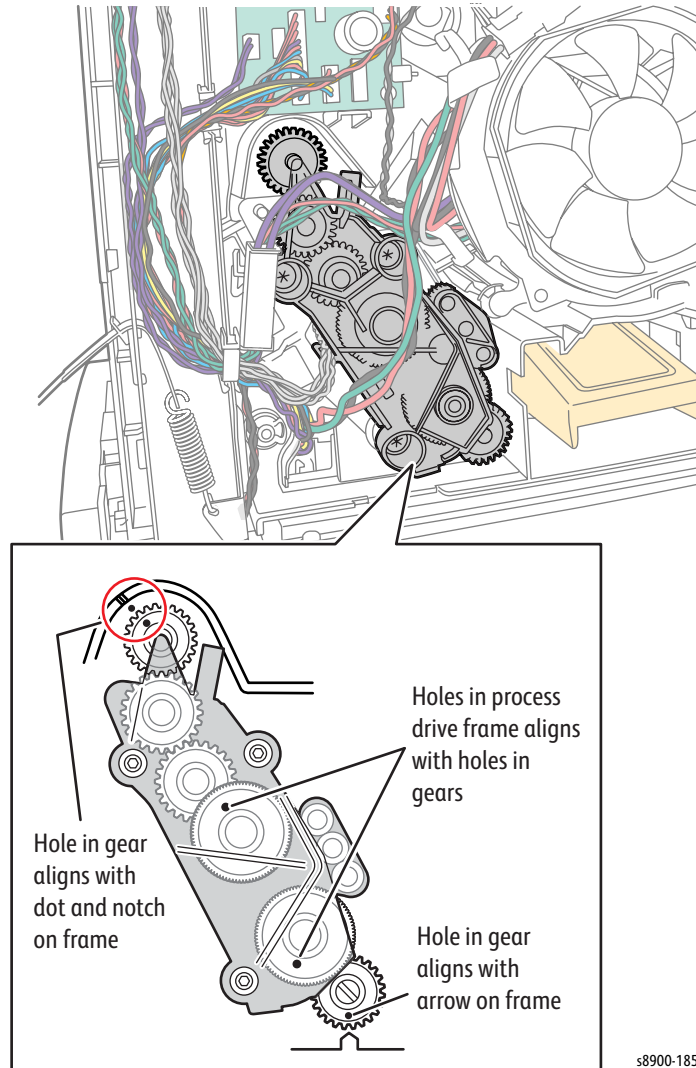
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Disconnect the Tray 1 Pick Solenoid wiring harness connector P/J515 from the Rear Side Harness.
4. Remove 1 screw (plastic, T-20) that secures the Solenoid to the Media Drive Assembly.
5. Remove the Tray 1 Pick Solenoid.



**Replacement Note:** Align the hole in the Solenoid with the boss on the Media Drive Assembly before tightening the screw.

## REP 9.5 Process Drive Assembly

**!** **CAUTION:** If the Process Drive is being reinstalled, pin the gears using the holes provided in the Process Drive frame (see [Figure 1 - Gear Alignment](#)) to maintain gear alignment. Use a paper clip or similar object to pin the gears before removing the drive. Replacement drives have pins installed. Do not remove these pins until the drive has been installed. Installation of the Process Drive with misaligned gears can damage the printer. See [Figure 1 - Gear Alignment](#) to verify proper gear position before replacing the screws.



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**Figure 1 - Gear Alignment**

1. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
2. Remove the Right Upper Cover (REP 4.2, [page 4-34](#)).
3. Remove the Right Lower Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).

6. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
7. Disconnect the Inner Simplex Guide with Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
8. Pin the Process Drive gears, if the drive is being reinstalled, using paper clips or similar objects.
9. Disconnect the three wiring harness connectors P/J501, P/J502, and P/J505 from the Front Side Harnesses.
10. Move all the wiring harnesses away from the Process Drive Assembly.
11. Release the Drum Encoder and Drum Fan wiring from the Process Drive wiring retainers.

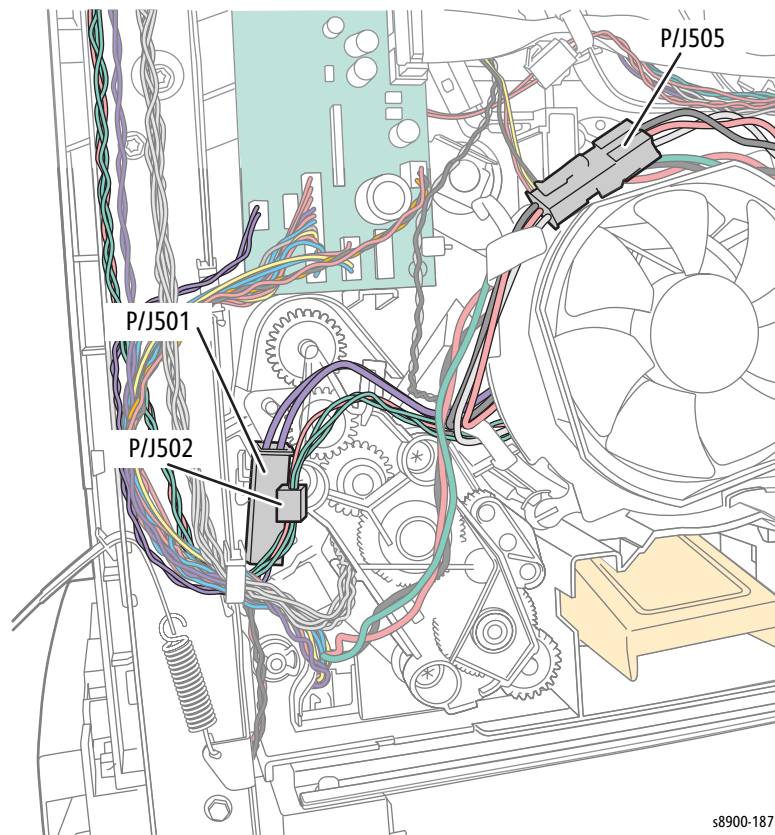
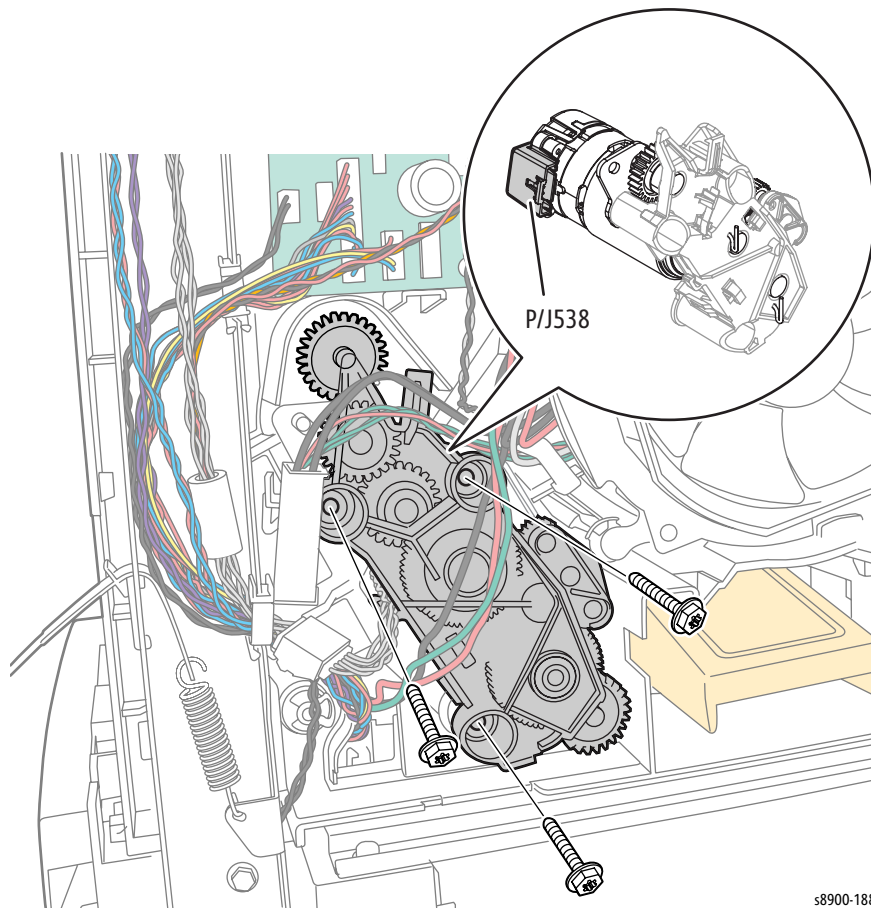


Figure 2 - Plug/ Jack Locations

12. Remove 3 screws (plastic, T-20) that secure the Process Drive to the chassis.
13. Pull the Process Drive out from the printer.
14. Disconnect the wiring harness connector P/J538.



s8900-188

Figure 3 - Removing the Process Drive

## Replacement

**Replacement Note:** Before installing the Process Drive, perform [ADJ 1.4 Manual Printhead Parking](#) on page 6-40 and [ADJ 1.1 Wiper Blade Adjustment](#) on page 6-32 to put the Printhead and Wiper Assembly in the Home position.

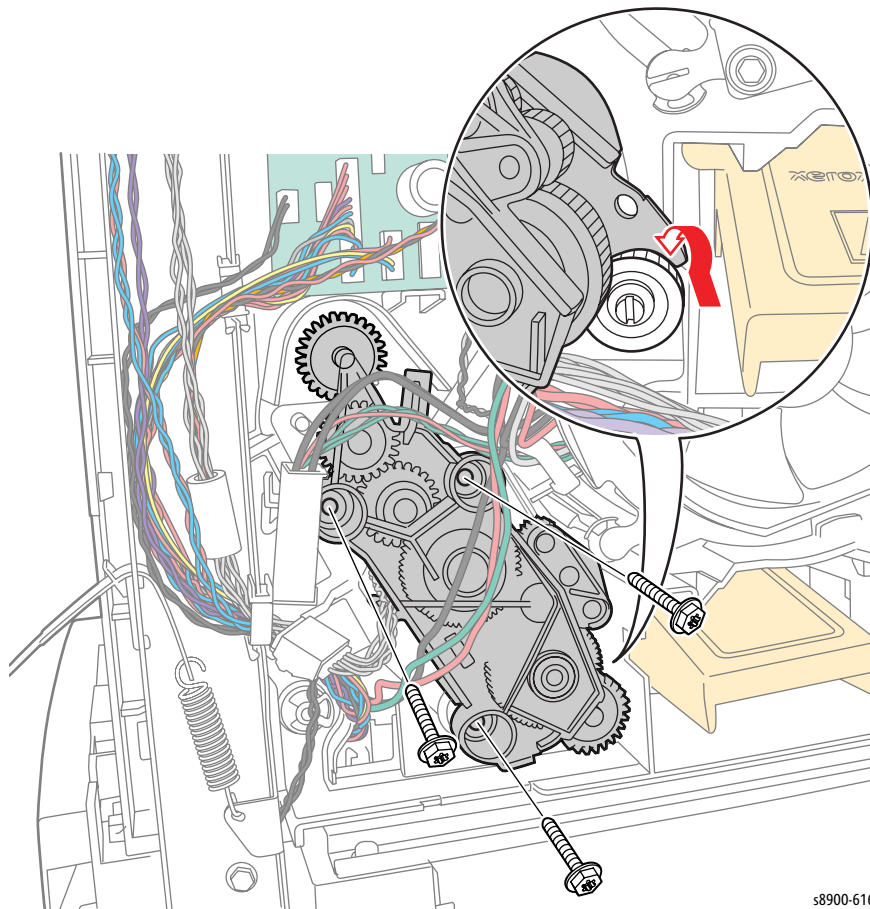
**! CAUTION:** Before tightening the Process Drive mounting screws, align the holes in the Process Drive flange with the mounting bosses on the frame, seat the Gears, and press the Process Drive tightly against the printer frame (see [Figure 1 - Gear Alignment](#) on page 4-142). Next, seat all three screws before torquing the screws to a final tightness of 12 in-lbs. Tightening the screws individually before seating all three can put undue strain on the mounting bosses. **DO NOT** use the screws to pull the Process Drive into alignment.

1. Slightly insert the Process Drive while rotating the Process Drive towards the left hand side until the flange sits behind the gear (see [Figure 4 - Installing the Process Drive](#) on page 4-145).

2. Before tightening the Process Drive mounting screws, align the holes in the Process Drive flange with the mounting bosses on the frame, seat the Gears, and press the Process Drive tightly against the frame (see [Figure 1 - Gear Alignment](#) on page 4-142).

**!** **CAUTION: DO NOT** use the screws to pull the Process Drive into alignment.

3. Next, seat all three screws before torquing the screws to a final tightness of 12 in-lbs. Tightening the screws individually before seating all three can put undue strain on the mounting bosses.
4. Perform the following adjustment procedures before restoring printer power.
  - [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35
  - [ADJ 1.3 Process Drive Alignment](#) on page 6-38



**Figure 4 - Installing the Process Drive**



## REP 9.6 Drum Cooling Fan

### PL 9.1.8

1. Remove the Right Upper Cover (REP 4.2, [page 4-34](#)).
2. Remove the Right Lower Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Release the wiring harnesses from the harness clip.
6. Disconnect the wiring harness connector P/J533 from the I/O Board.
7. Remove 3 screws that secure the Drum Cooling Fan.
8. Remove the Drum Cooling Fan.

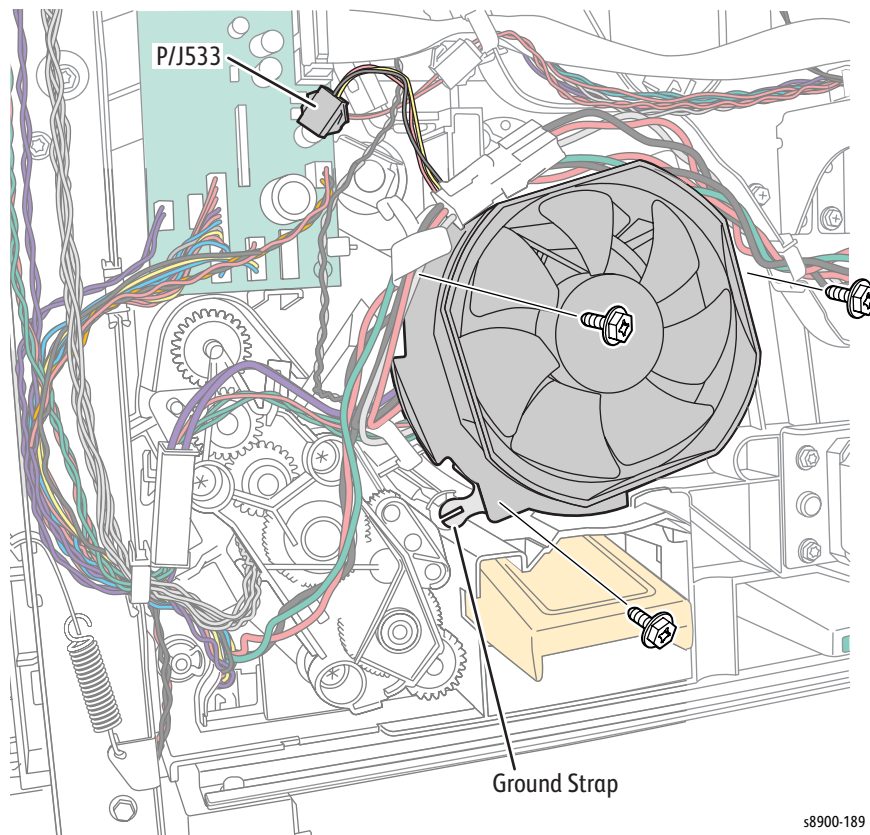


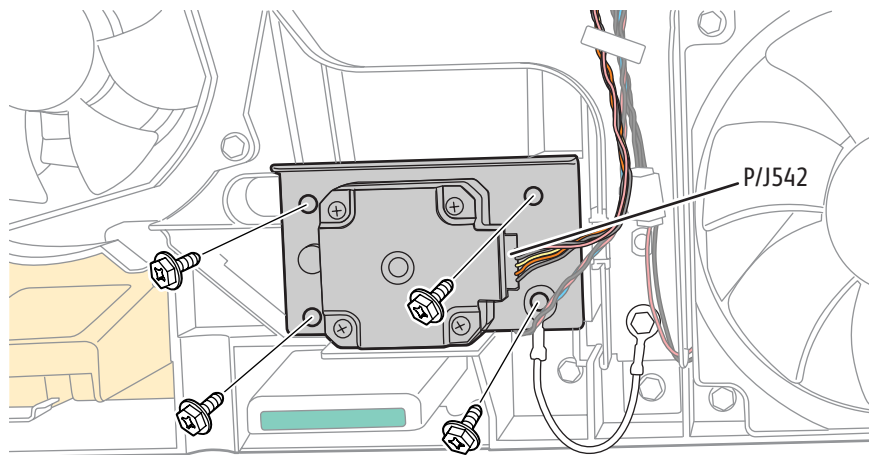
Figure 1 - Ground Strap Location

**Replacement Note:** Check that the Grounding Strap contacts the Pivot Plate Shaft following installation (see [Figure 1 - Ground Strap Location](#)).

## REP 9.7 X-Axis Motor Assembly with Bracket

### PL 9.1.9

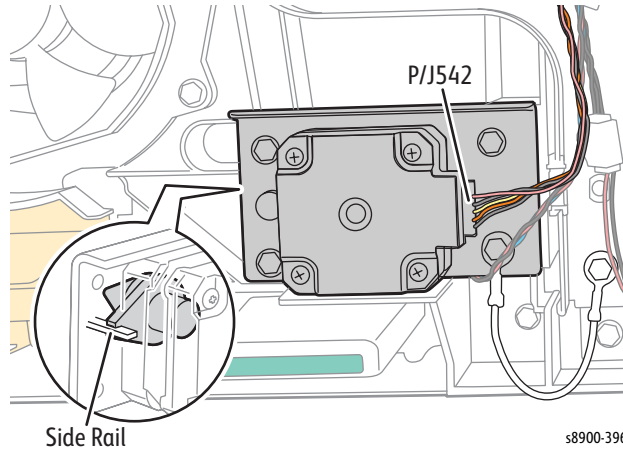
1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Disconnect the wiring harness connector P/J542.
6. Remove 4 screws that secure the X-Axis Motor Assembly.
7. Remove the X-Axis Motor Assembly.



s8900-190

**Figure 1 - Removing the X-Axis Motor Assembly**

**Replacement Note:** Engage the fork extending from the cone-nut of the Motor Assembly with the chassis rib as shown in [Figure 2 - Engaging the Fork](#). Also, slip the mounting plate behind the ground strap and replace the cable retainer on the lower right screw.



**Figure 2 - Engaging the Fork**

Perform the following adjustment procedures before restoring printer power.

- [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35
- [ADJ 1.3 Process Drive Alignment](#) on page 6-38

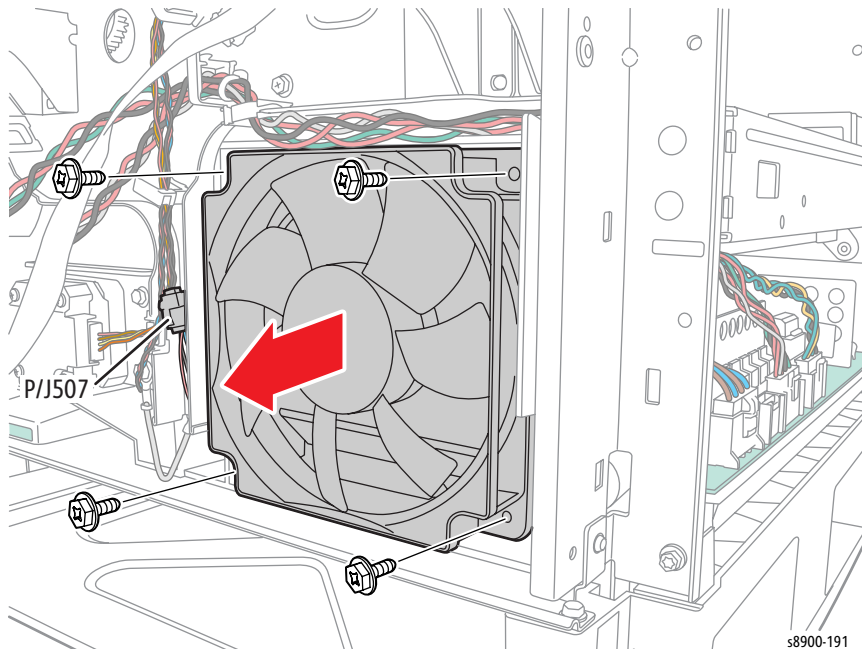
**Note:** Do not over tighten the screws as the holes in the chassis strip out easily.



## REP 9.8 Electronics System Fan

### PL 9.1.10

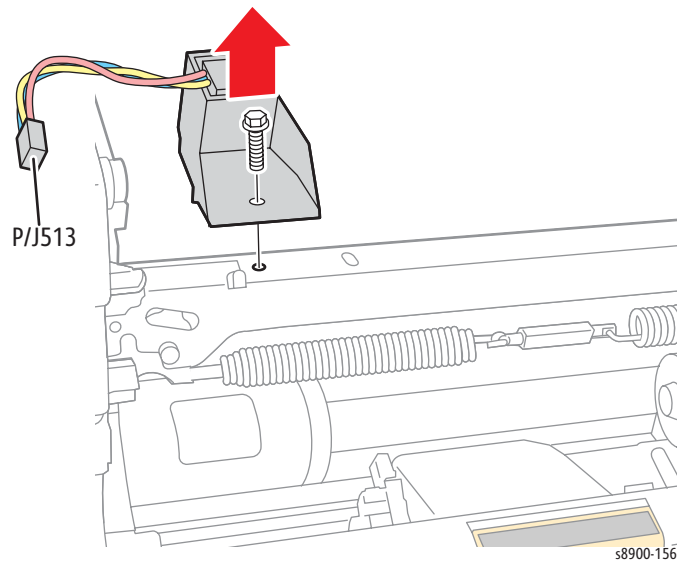
1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Disconnect the wiring harness connector P/J507.
6. Remove 4 screws that secure the Electronics System Fan.
7. Remove the Electronics System Fan.



## REP 9.9 Preheater Lift Solenoid Assembly

### PL 9.1.11

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Right Upper Cover (REP 4.2, [page 4-34](#)).
4. Remove the Right Lower Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Stapler with Bracket (REP 5.3, [page 4-43](#)).
8. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
9. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
10. Remove the Upper Inner Duplex Guide (REP 6.1, [page 4-45](#)).
11. Disconnect the Preheater Lift Solenoid wiring harness connector P/J513.
12. Remove 1 screw that secures the Preheater Lift Solenoid to the Transfix Load Module.
13. Remove the Preheater Lift Solenoid.



## REP 9.10 Head Tilt Solenoid Assembly

### PL 9.1.12

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Lower the Wiper Blade to its lowest position by rotating the Wiper Drive Gears.

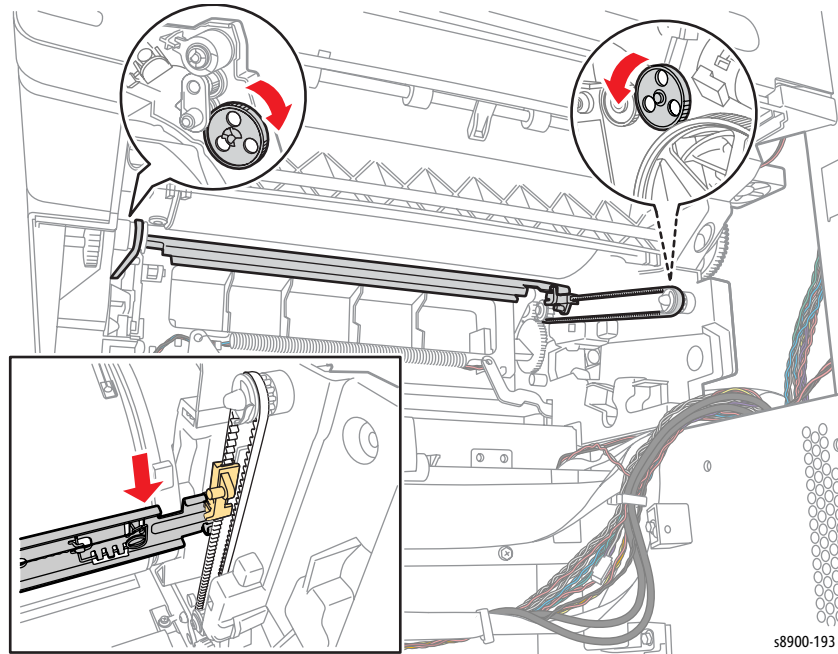


Figure 1 - Lowering the Wiper Blade

4. Disconnect the Head Tilt Solenoid wiring harness connector P/J535 from the Rear Side Harness.
5. Remove 1 screw (plastic, T-20) that secures the Solenoid Actuator to the frame and remove it from the frame.
6. Release the hook to release the Solenoid from the frame.

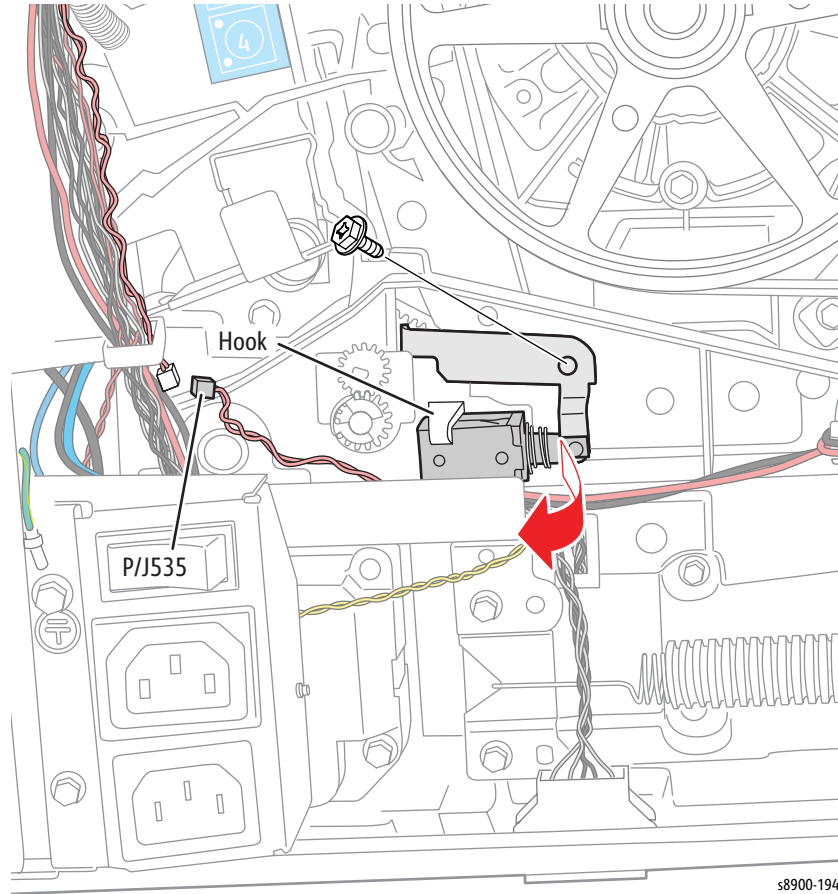


Figure 2 - Releasing the Hook

## Replacement Note:

**⚠ CAUTION:** When replacing the Head Tilt Solenoid screw, torque to no more than 12 in.-lbs. Overtightening this fastener can result in irreversible damage to the chassis.

To ensure proper operation of the Printhead following reassembly, perform these steps in the order given.

1. Insert the plastic end of Head Tilt Solenoid into the frame, swing to the right and replace the screw.
2. With the Printhead centered on the Drum, use a screwdriver to turn the lower screw of the Process Drive clockwise until you hear the Head Tilt Solenoid snap into place (see [Figure 3 - Head Tilt Latch Position](#)).

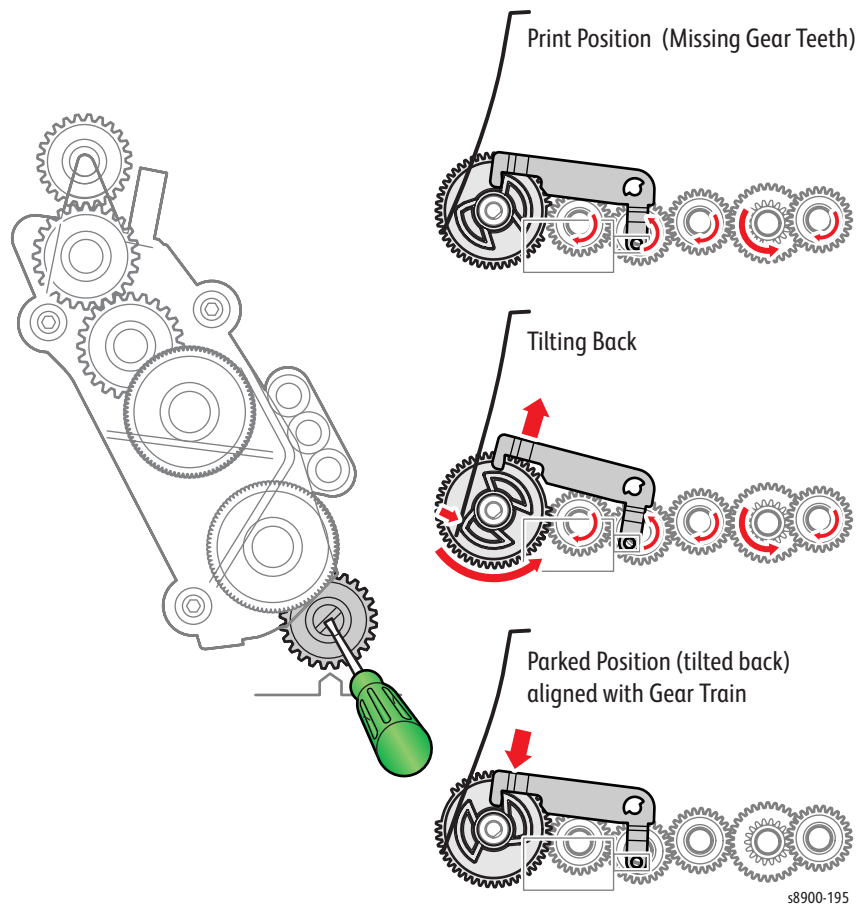
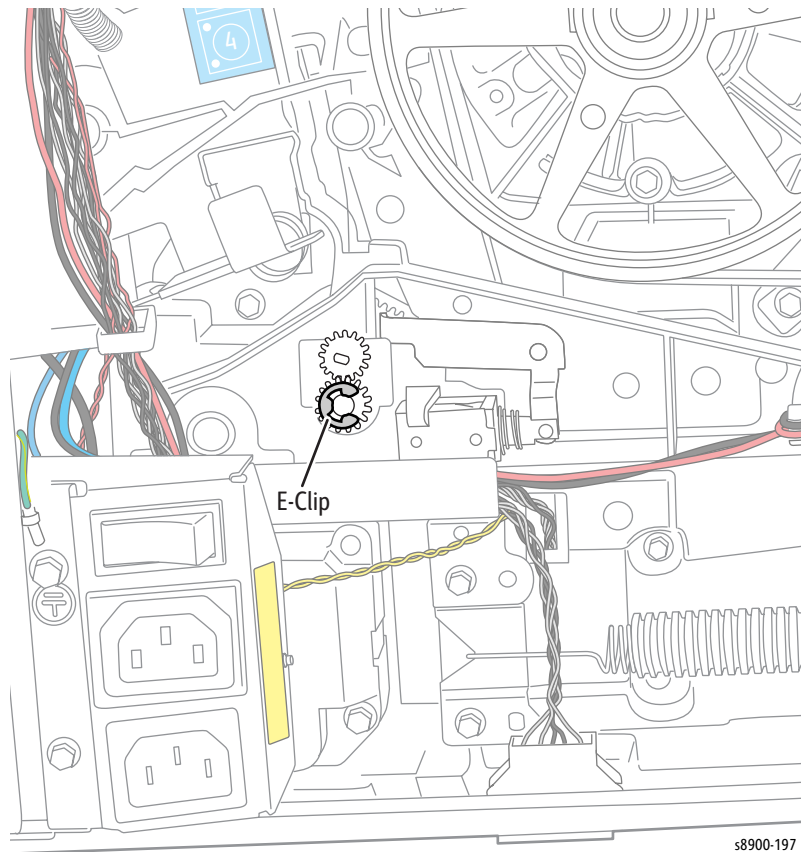


Figure 3 - Head Tilt Latch Position

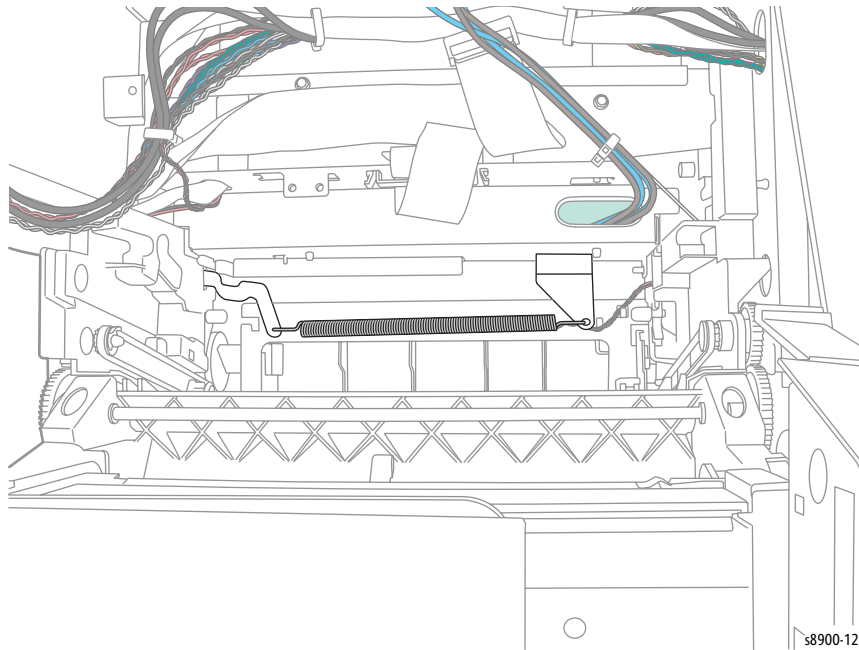
## REP 9.11 Head Tilt Gear

### PL 9.1.13

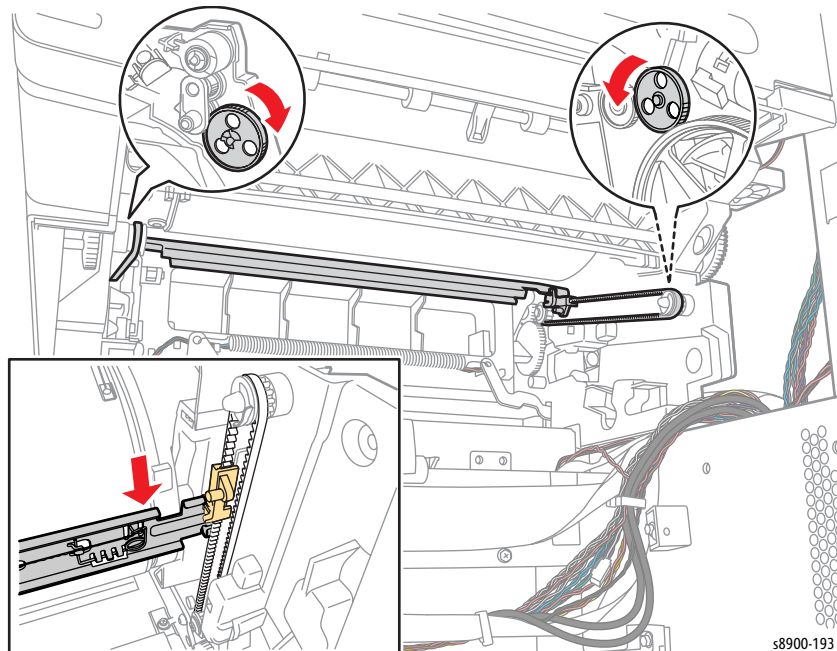
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
8. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
9. Remove the Jet Stack Cap (REP 7.1, [page 4-60](#)).
10. Remove the Control Panel (REP 4.6, [page 4-38](#)).
11. Remove the Printhead (REP 7.3, [page 4-62](#)).
12. Remove the KL-Clip from the rear side of the printer.



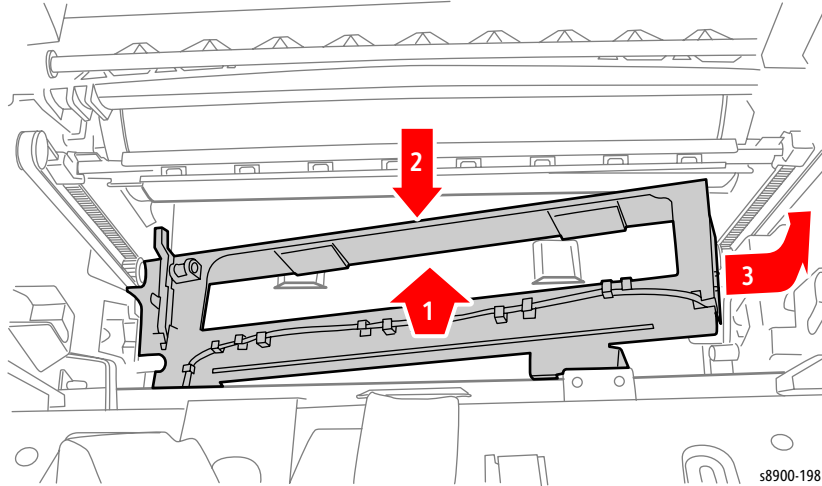
13. Remove the Waste Tray (REP 4.7, [page 4-39](#)).
14. Remove the X-Axis Bias Spring (REP 7.5, [page 4-81](#)).
15. Remove 2 screws (metal, T-20) that secures the X-Axis Spring Retainer to the chassis.



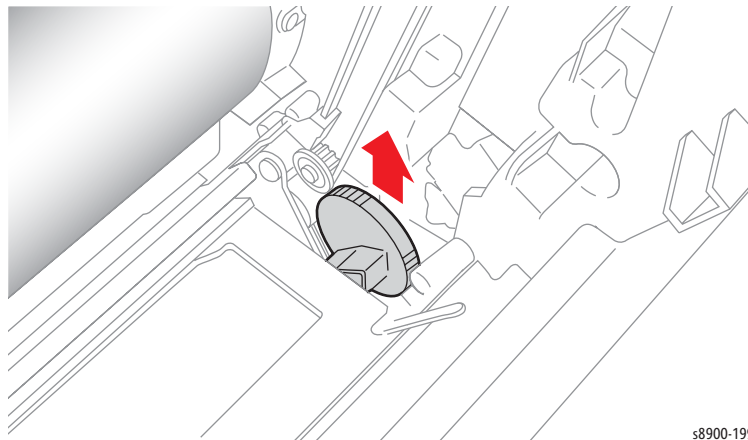
16. Unlock the Wiper Blade and raise the Wiper Blade to the top of its travel.



17. Remove the Waste Tray Cover without disconnecting the Waste Tray Sensor harness.
  - Lift the center of the cover to release the right side hook.
  - Move the cover towards the back to release the 2 tabs from the chassis.
  - Pull the cover right to release the left hook and position the cover out of the way.



18. Reach into the Waste Tray cavity and pull the gear and shaft from the chassis.



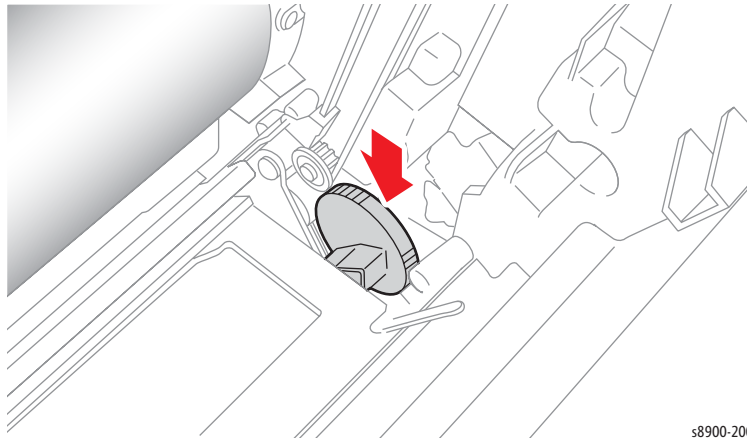
**Replacement Note:** The leaf spring on the back side of the chassis must be behind the gear to engage. Lubricate the curved surface of the gear using a small amount of Rheolube 768 grease (P/N 070E00890).

**Note:** Check the Recommended Tools and Supplies, because use of unapproved petroleum-based lubricants destroys plastic parts. Classifying Order Numbers as Non-returnable should be verified with the Parts Planner.

1. Remove the Leaf Spring from the chassis.

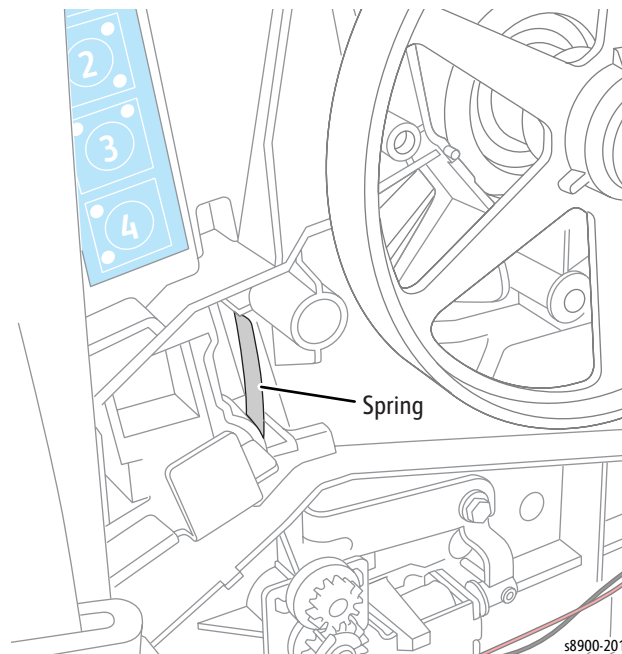


2. Partially insert the Head Tilt Gear Shaft into the chassis.



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3. Replace the spring. Turn the Head Tilt Gear while inserting the spring to guide the spring to its proper position behind the gear.



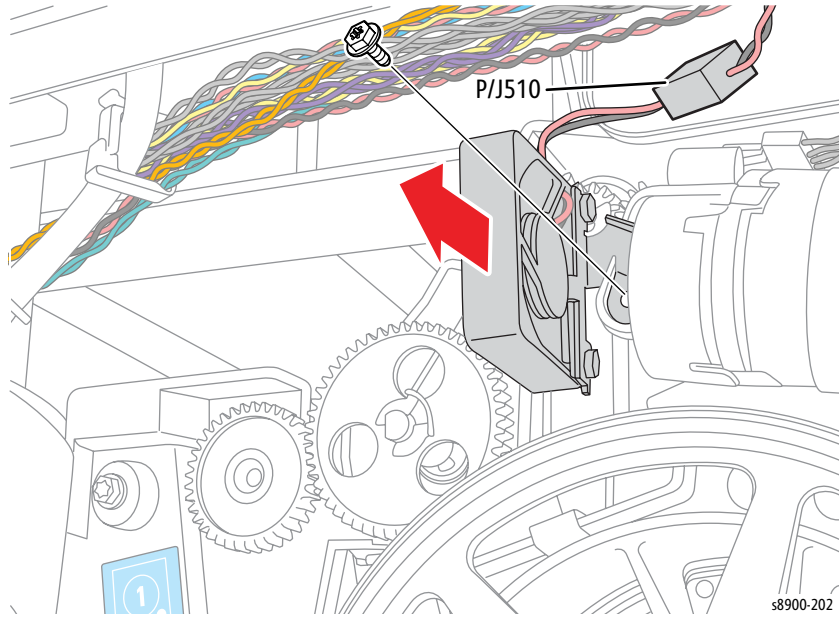
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4. Seat the gear by lifting the Head Tilt Solenoid Actuator.
5. Replace the KL-Clip on the end of the Head Tilt Gear Shaft.
6. Perform the following adjustment procedures before restoring the printer power.
  - [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35
  - [ADJ 1.3 Process Drive Alignment](#) on page 6-38

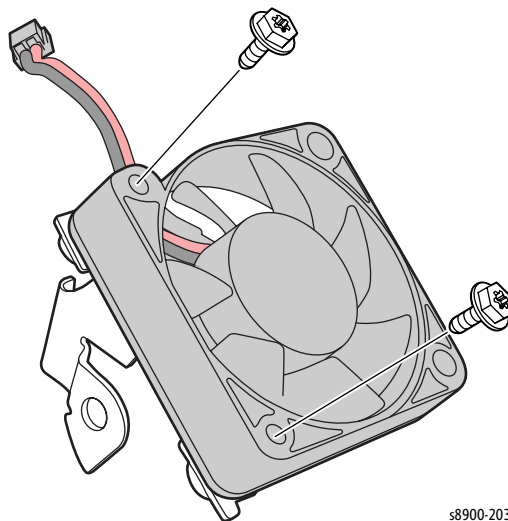
## REP 9.12 Media Path Motor Cooling Fan

### PL 9.1.14

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Disconnect the Fan wiring harness connector P/J510.
4. Remove 1 screw that secures the Paper Path Motor Cooling Fan from the Frame.
5. Remove the Paper Path Motor Cooling Fan with the Bracket.



6. Remove 2 screws that secure the Paper Path Motor Cooling Fan.
7. Remove the Fan.

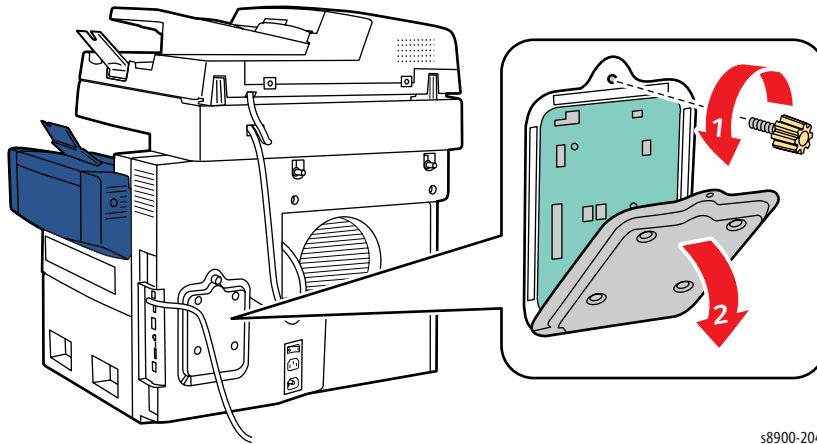


# Electrical

## REP 10.1 Hard Disk Drive

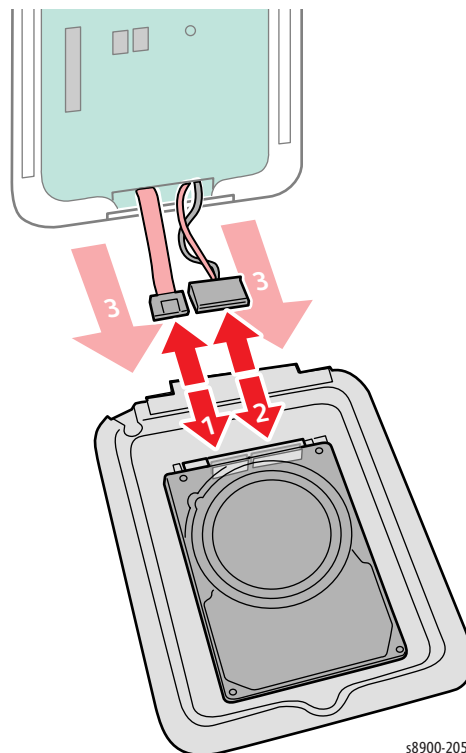
### PL 10.1.1

1. Remove 1 Thumb screw that secures the Hard Disk Drive Panel.
2. Open the Hard Disk Drive Panel.



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3. Disconnect the wiring harness connectors and remove the Hard Disk Drive.

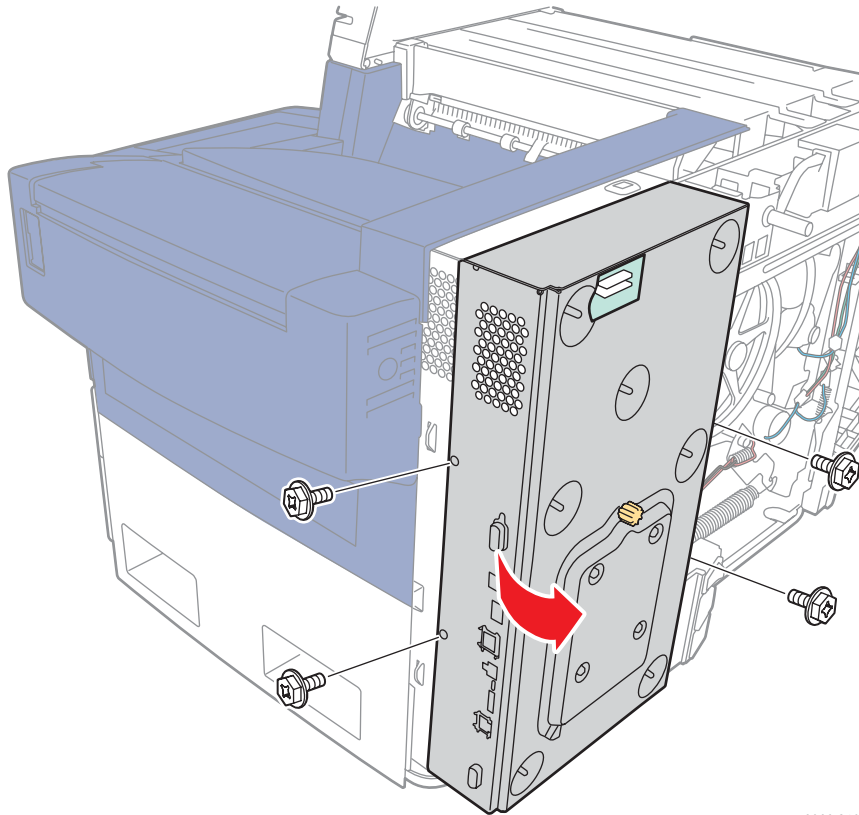


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## REP 10.2 Card Cage (Bracket Housing)

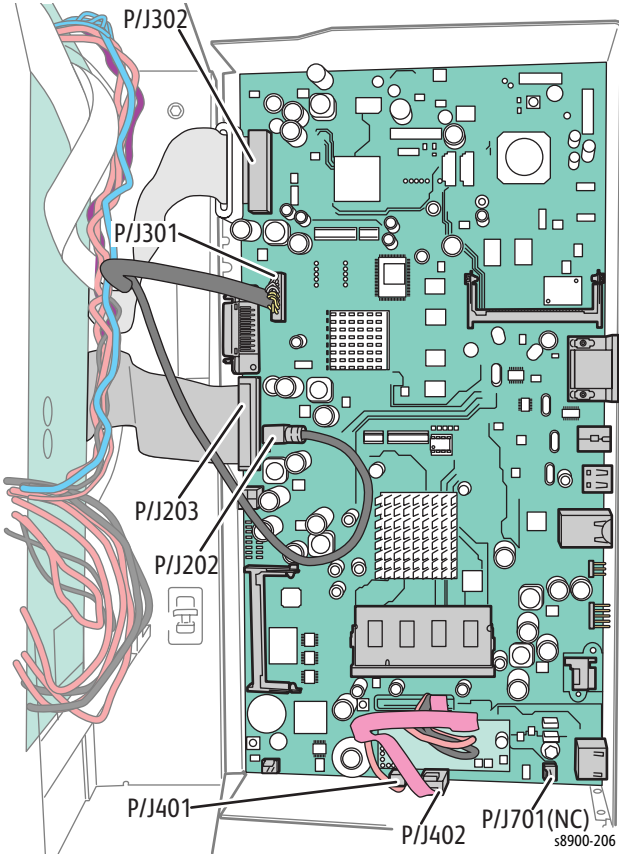
### PL 10.1.2

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove 4 screws that secure the Card Cage.
4. Open the Card Cage.



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- 5. Disconnect 6 wiring harness connectors (P/J202, P/J203, P/J301, P/J302, P/J401, and P/J402) from the Main Controller Board.
- 6. Lift and remove the Card Cage.

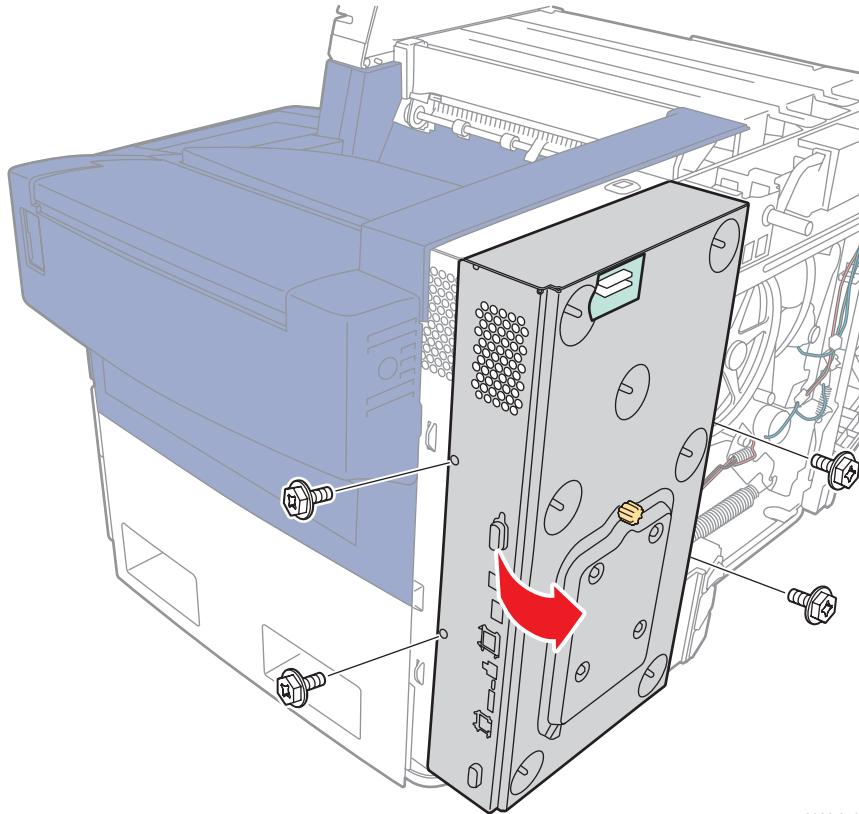


## REP 10.3 Main Controller Board

### PL 10.1.3

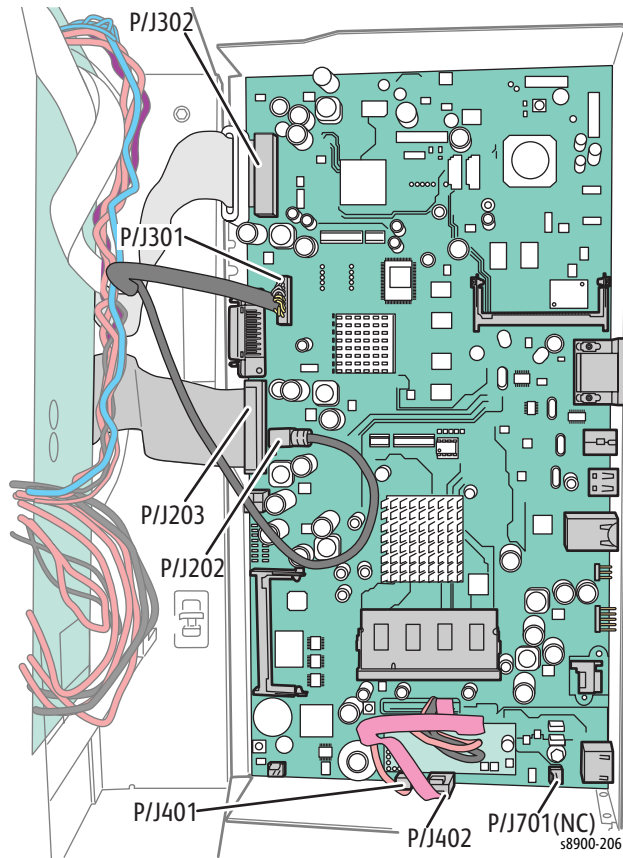
**!** **CAUTION:** The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove 4 screws that secure the Card Cage.
4. Open the Card Cage.

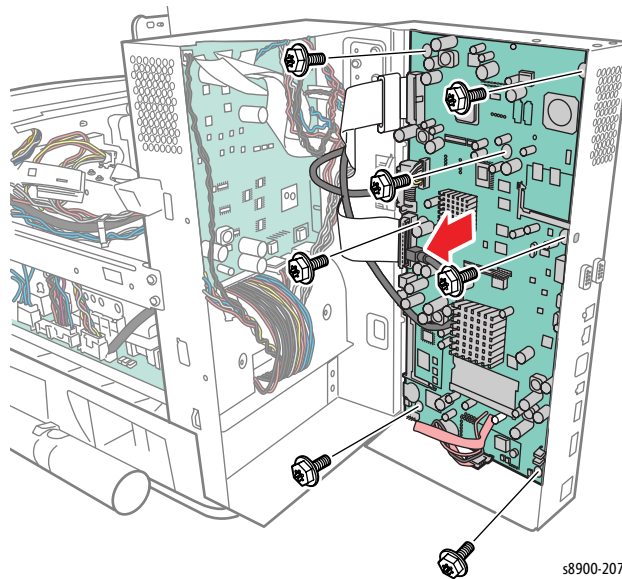


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5. Disconnect 6 wiring harness connectors (P/J202, P/J203, P/J301, P/J302, P/J401, and P/J402) from the Main Controller Board.

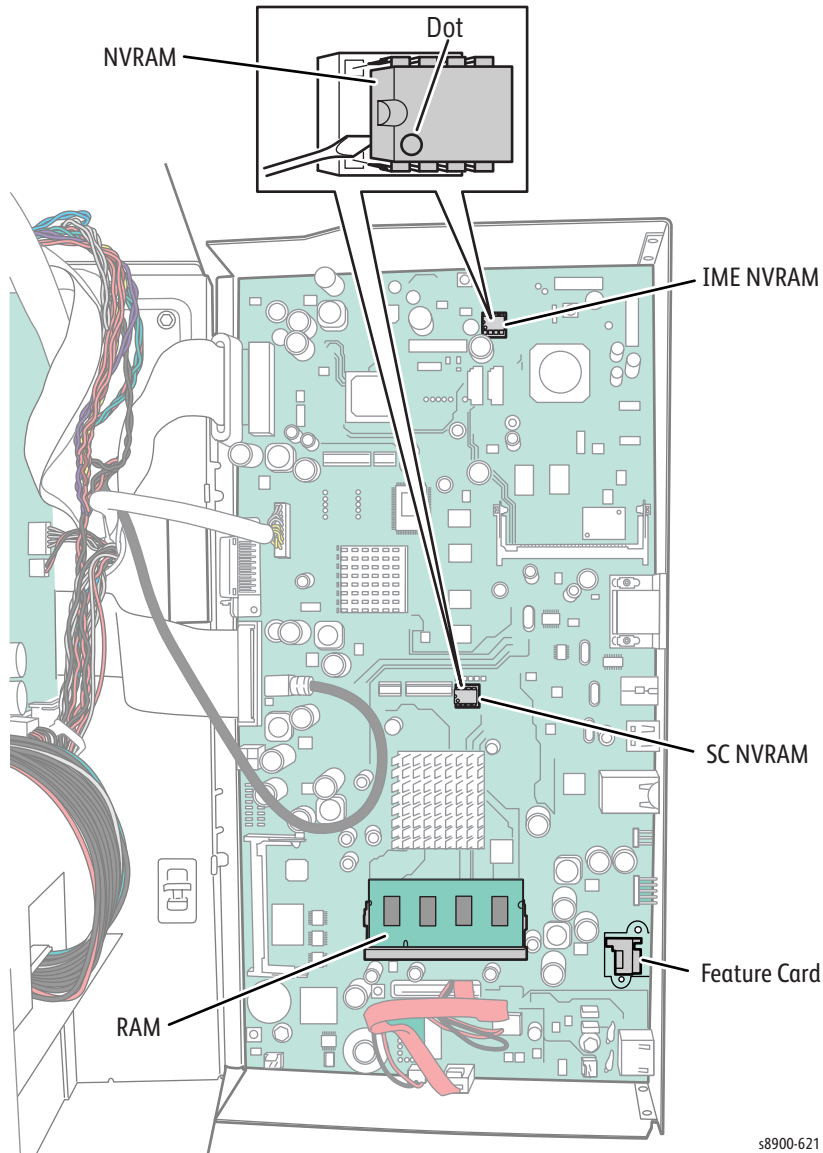


6. Remove 7 screws that secure the Main Controller Board.
7. Remove the Main Controller Board.



**Replacement Note:** When replacing the Main Controller Board, be sure to remove the two NVRAM Chips (IME and SC NVMRAMs) from the old PWB and transfer it to the new PWB. If the Feature Card is installed on the Main Controller Board, transfer the Feature Card to the new Main Controller Board. Printers shipped within North America are pre-configured without Feature Cards, but may be needed to restore features lost as a result of hardware failure.

**Note:** Observe the orientation of the NVRAM device before removing it from the Main Controller Board.





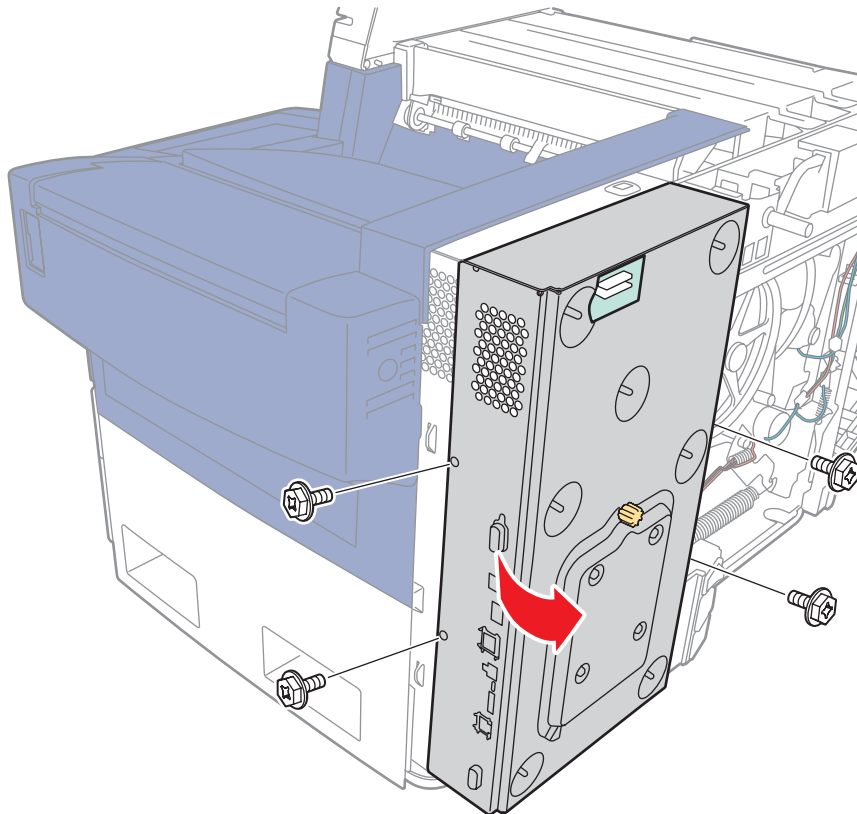
## REP 10.4 Power Control Board

### PL 10.1.4

**!** **WARNING:** Be sure to disconnect AC power prior to removing the Power Control Board.

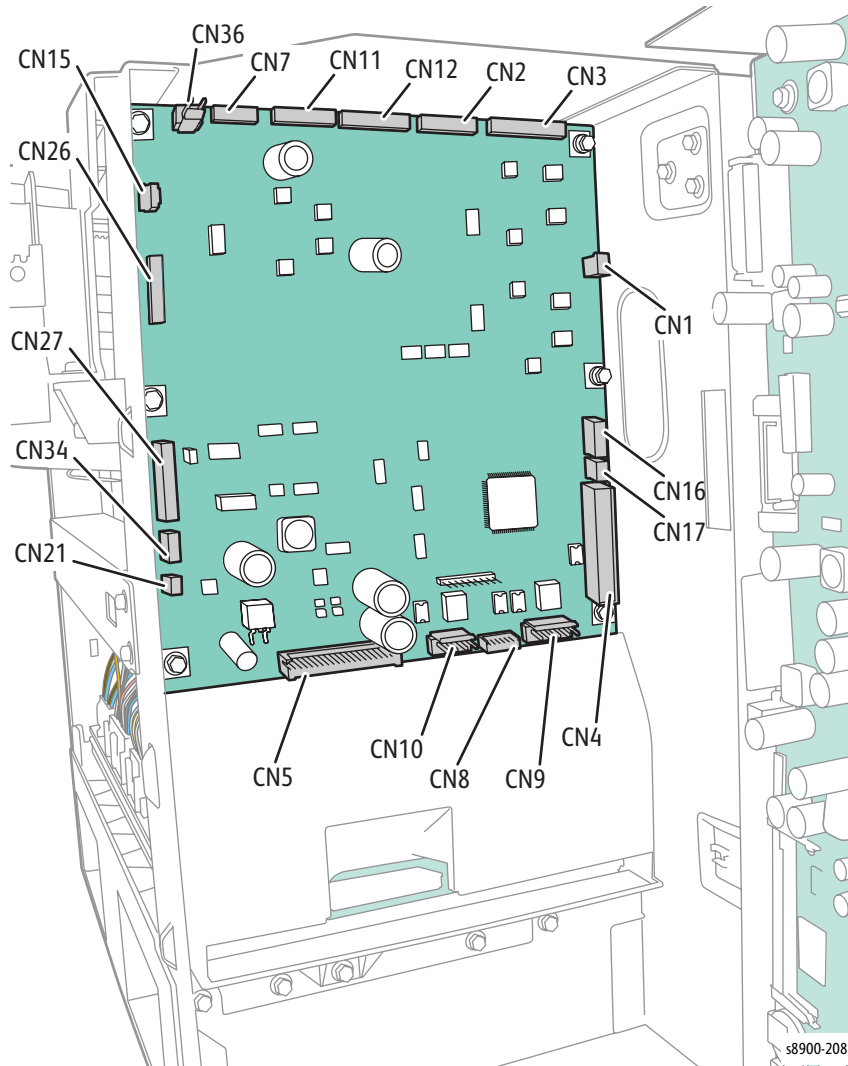
**!** **CAUTION:** The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in the Chapter 1 (General and Operational Overview).

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove 4 screws that secure the Card Cage.
4. Open the Card Cage.

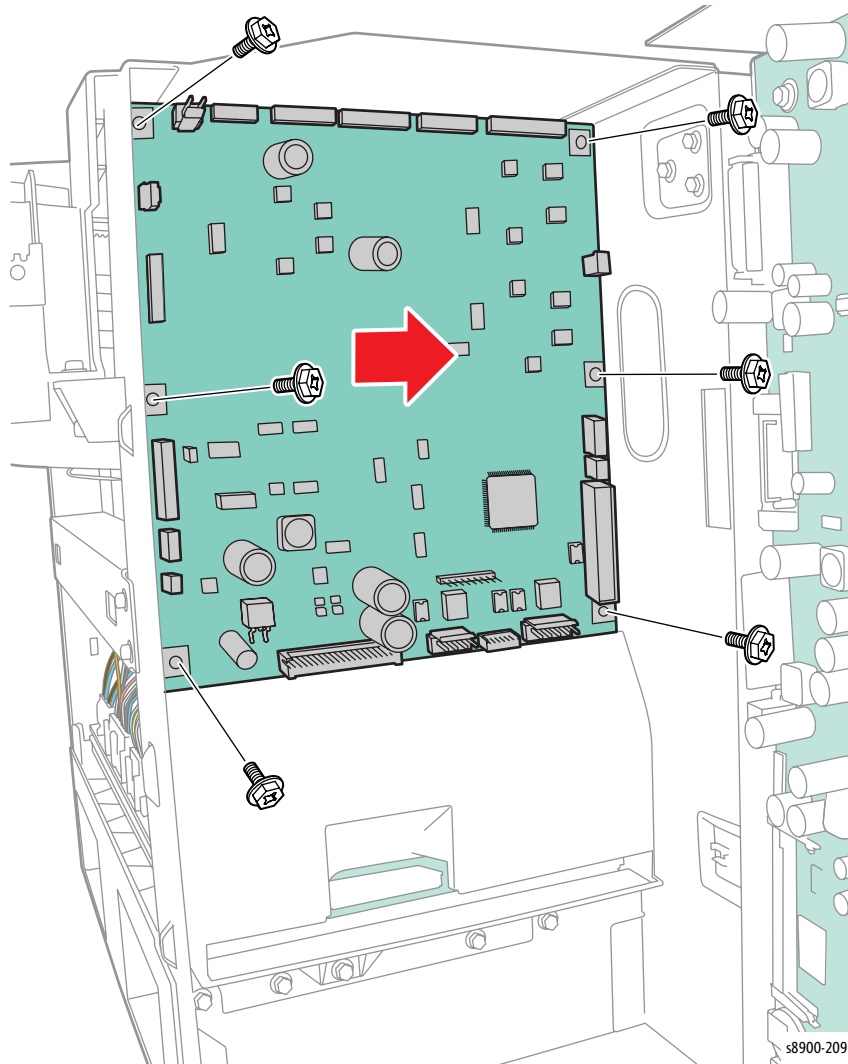


s8900-219

5. Disconnect 19 wiring harness connectors from the Power Control Board.



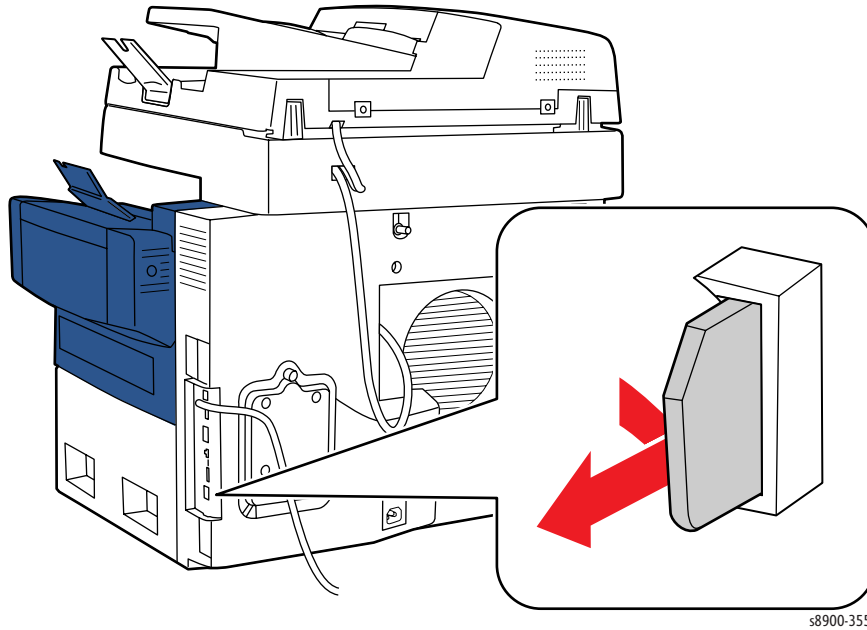
6. Remove 6 screws that secure the Power Control Board.
7. Remove the Power Control Board.



## REP 10.5 Feature Card

### PL 10.1.7

1. Turn Off the printer.
2. In the right rear of the printer, slightly bend the Feature Card while pulling it out from the printer to remove.



s8900-355

## REP 10.6 Power Supply Unit

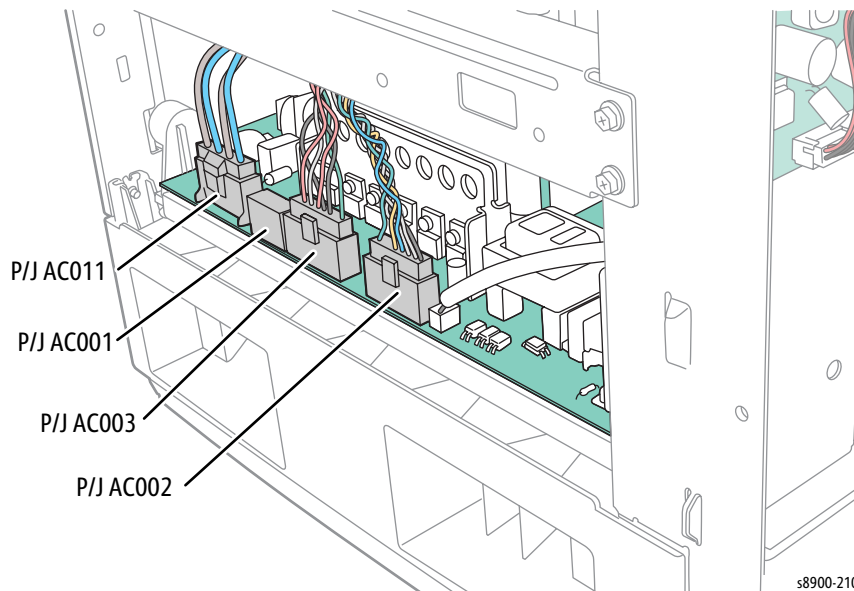
### PL 10.1.10

#### **WARNINGS:**

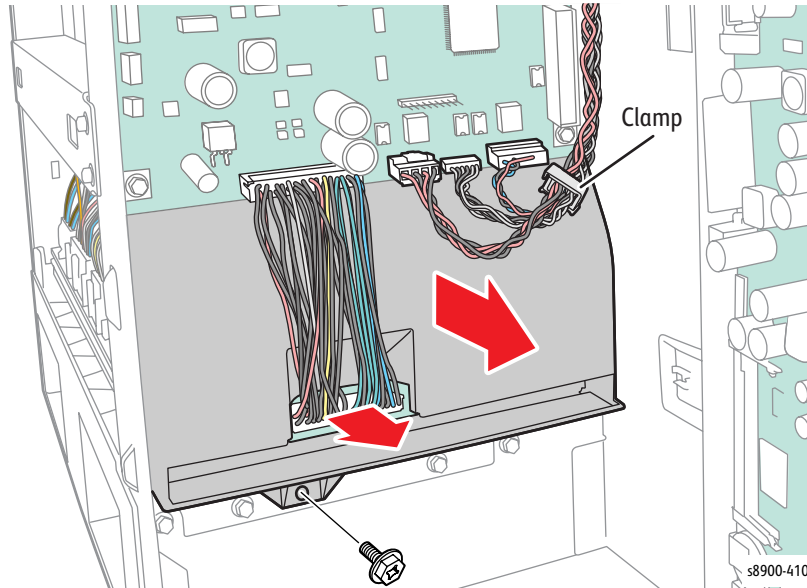
- Be sure to disconnect AC power prior to removing the Power Supply Unit
- Warning: Up to 400V DC may be stored in the Power Supply Unit Capacitors. Wait 10 minutes after disconnecting AC power before touching any Power Supply Unit Heatsinks or handling the Power Supply Unit PWB.

#### **CAUTION:** The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Disconnect 4 wiring harness connectors (P/J AC001, P/J AC002, P/J AC003, and P/J AC011) from the Power Supply Unit.
6. Open the Card Cage (REP 10.2, [page 4-160](#)).



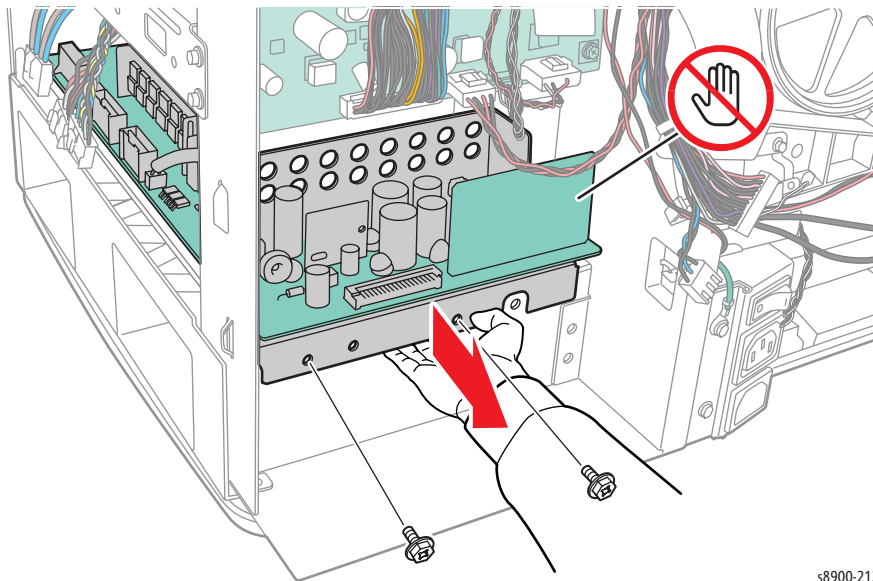
7. Release the wiring harnesses from the Clamp.
8. Disconnect the wiring harness connector.
9. Remove 1 screw that secures the Power Supply Unit Duct (PL 10.1 Item 20).
10. Remove the Duct.



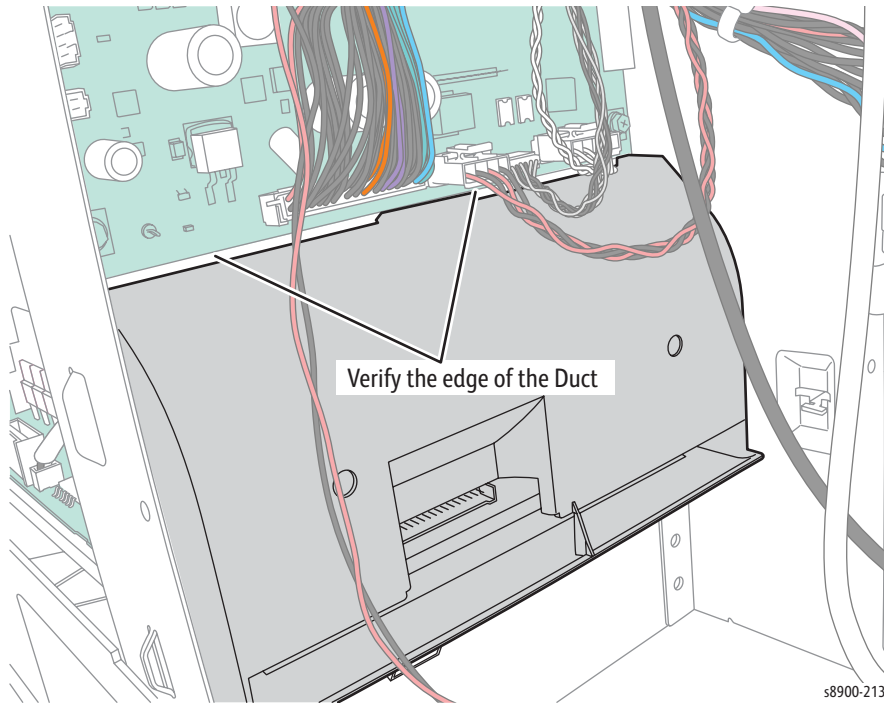
**! CAUTIONS:**

- The Power Supply Unit is heavy. Handle the Power Supply Unit with care.
- **DO NOT** pull on the Riser Card.

11. Remove 2 screws that secure the Power Supply Unit.
12. While lifting the front and rear of the Power Supply Unit, slide the Board out to remove.



**Replacement Note:** Be sure the edge of the Duct sits underneath the Power Control Board.



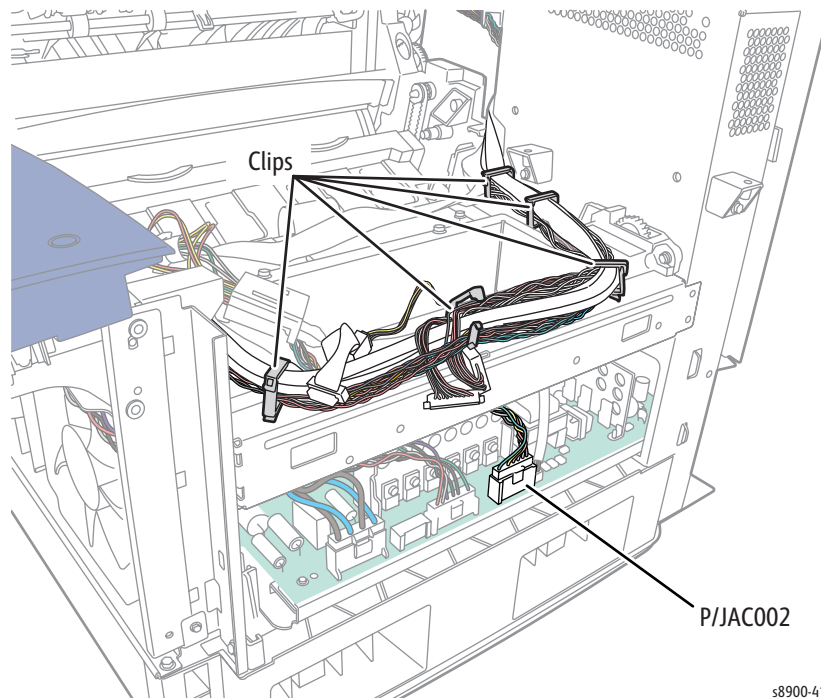
## REP 10.7 Wave Amp

### PL 10.1.13

**! WARNING:** Disconnect the Power Cord before servicing the printer. Line Voltage present on the Fuse and Fuse Holder Contacts.

**! CAUTIONS:**

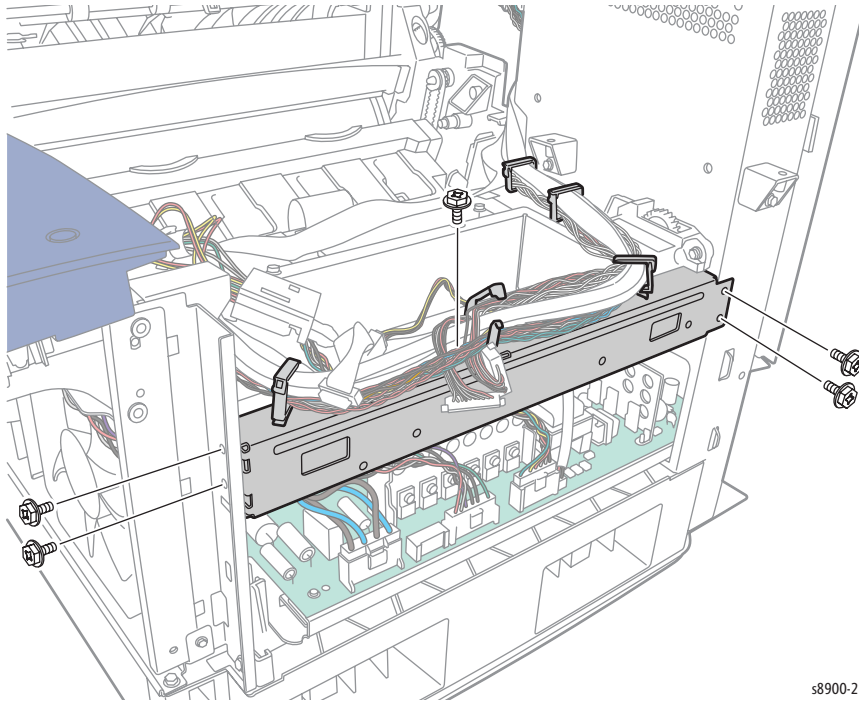
- The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).
  - Handle the ribbon cables carefully. Check that each cable is square to the socket and fully inserted. Damage to the Wave Amplifier could result from improper cable connections.
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
  2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
  3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
  4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
  5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
  6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
  7. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
  8. Release the wiring harnesses from the 5 Clamps.



s8900-411

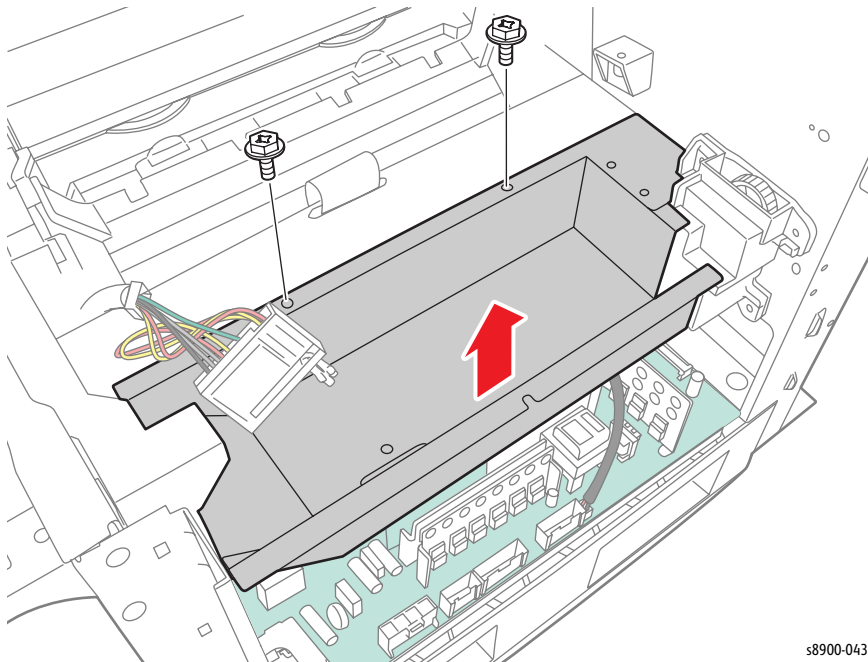


9. Remove 5 screws that secure the Right Frame Bracket (PL 10.1.8).
10. Remove the Duct Bracket.



s8900-214

11. Remove 2 screws that secure the Power Supply Unit Bracket Duct (PL 10.1.9).
12. Release the wiring harness from the wiring clip in the Duct.
13. Lift and remove the Duct.

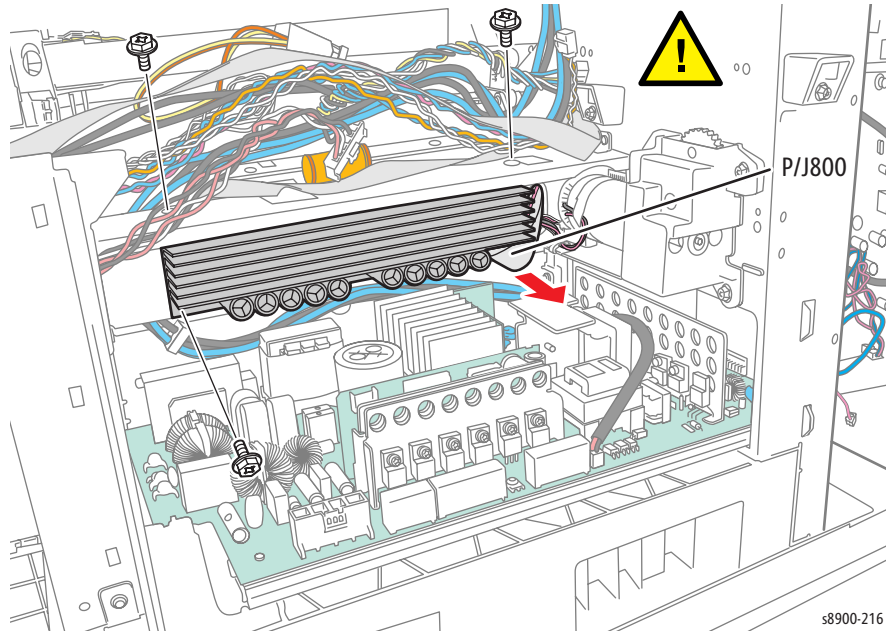


s8900-043

14. Disconnect the wiring harness connector P/J800.

 **CAUTION:** Be sure to hold the Wave Amp to prevent it from dropping.

15. Remove 3 screws that secure the Wave Amp.

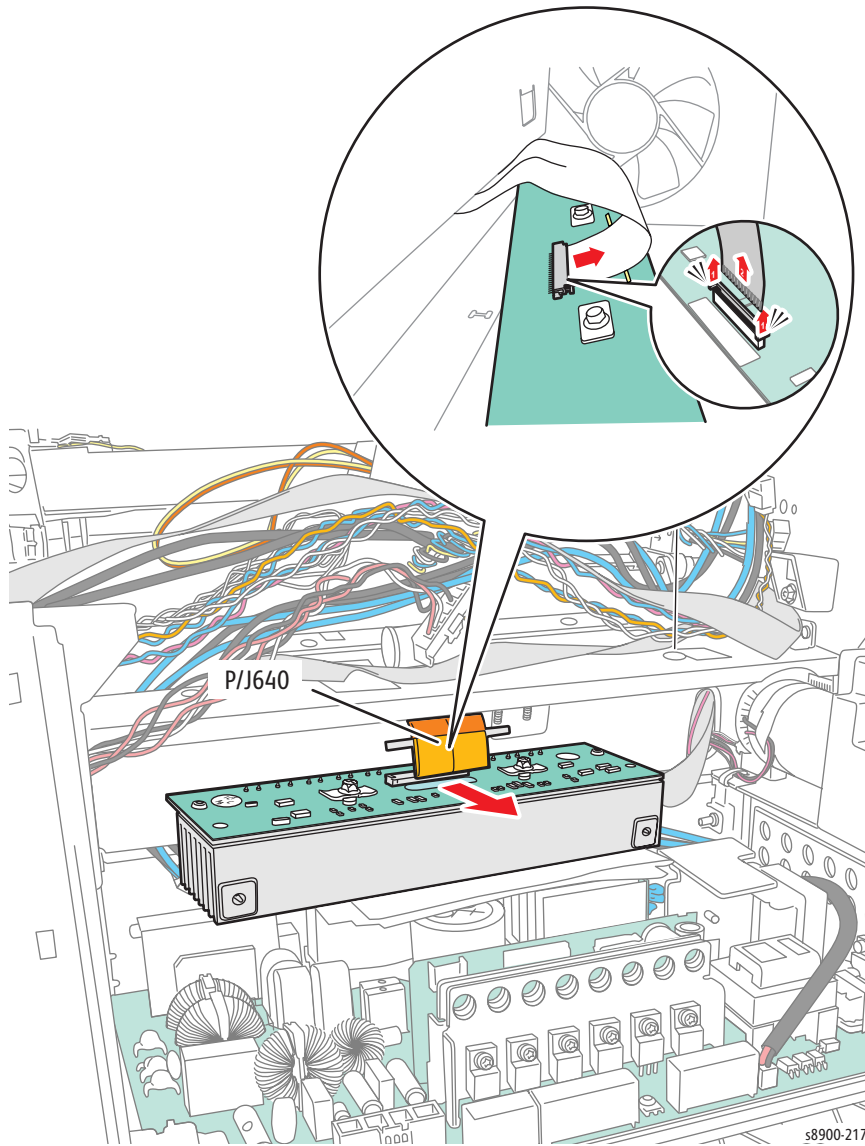


**!** **CAUTION:** Be sure to unlock the ZIF connector to release the ribbon cable. Be careful when disconnecting the ribbon cable to prevent damaging the cable. **DO NOT** pull on the cable until you have released the locks.

**Note:** The ribbon cable connector is the locking type connector and requires unlocking prior to removal and locking after reinstallation of the cable in order to make proper connection.

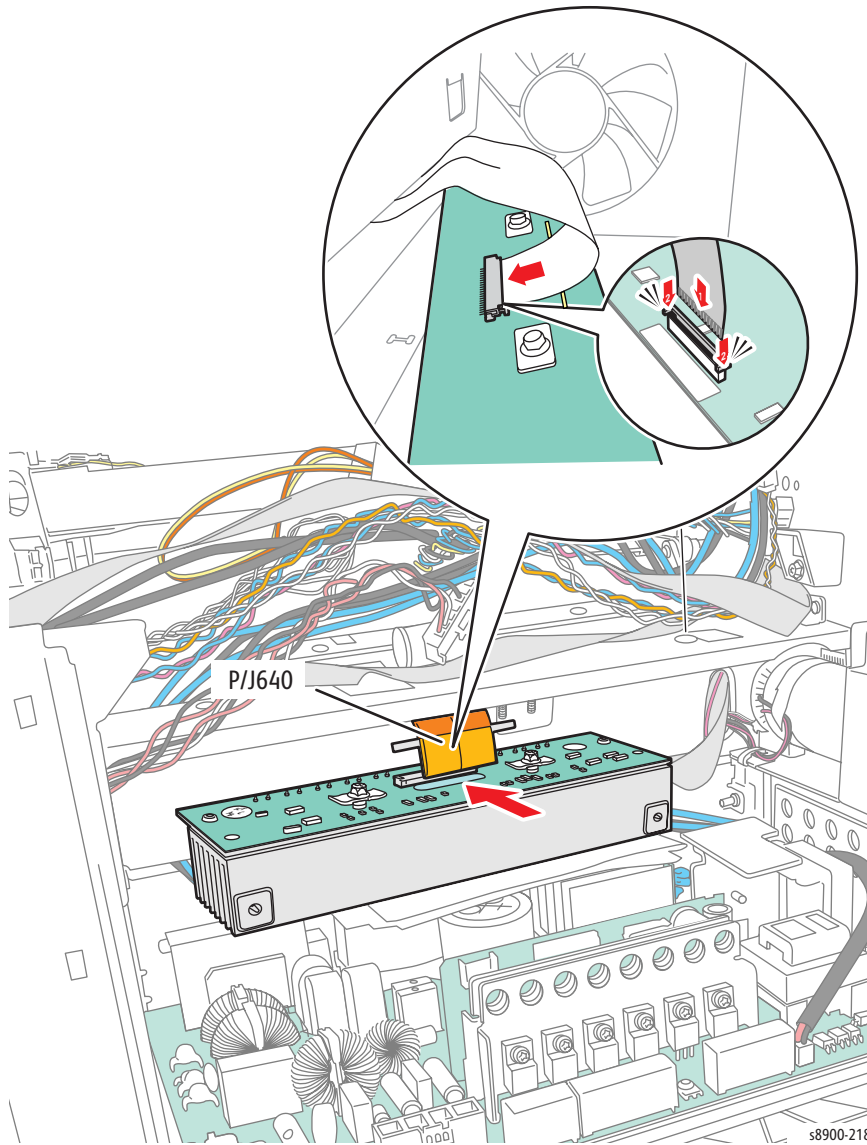
16. Disconnect the Wave Amp Cable P/J640.

17. Remove the Wave Amp.

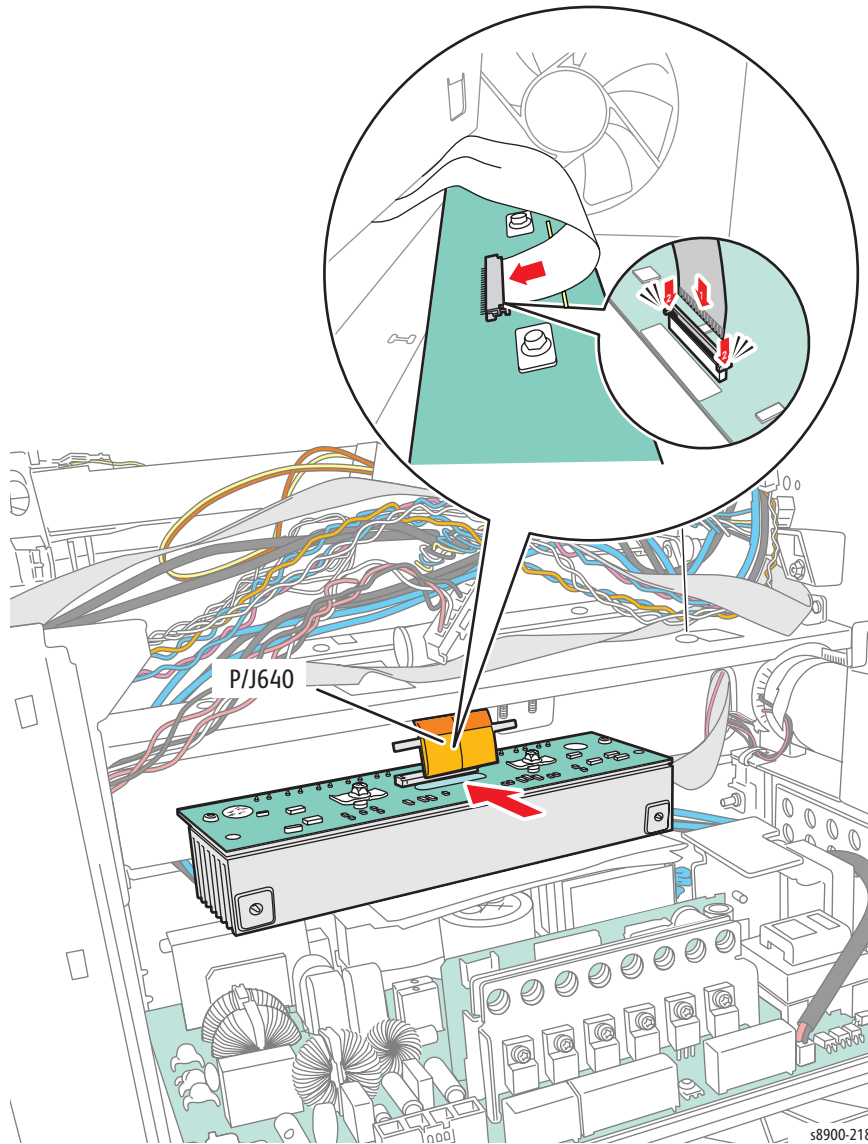


Replacement Notes:

- Route the cables through the slots provided. Position the T-shaped strain relief near the Wave Amplifier following installation.
- Be sure to align the pins in the rear of the Wave Amp Board.
- Lay the Wave Amp on top of the flat surface on the rear of the printer to connect the wiring harness connector as shown in the illustration. Be sure to press the locks a couple of times to secure the cable connector.



**!** **CAUTION:** Be sure to secure the wiring harness connector P/J640 and lock the ribbon cable in place.



Perform the following adjustment procedures before restoring printer power.

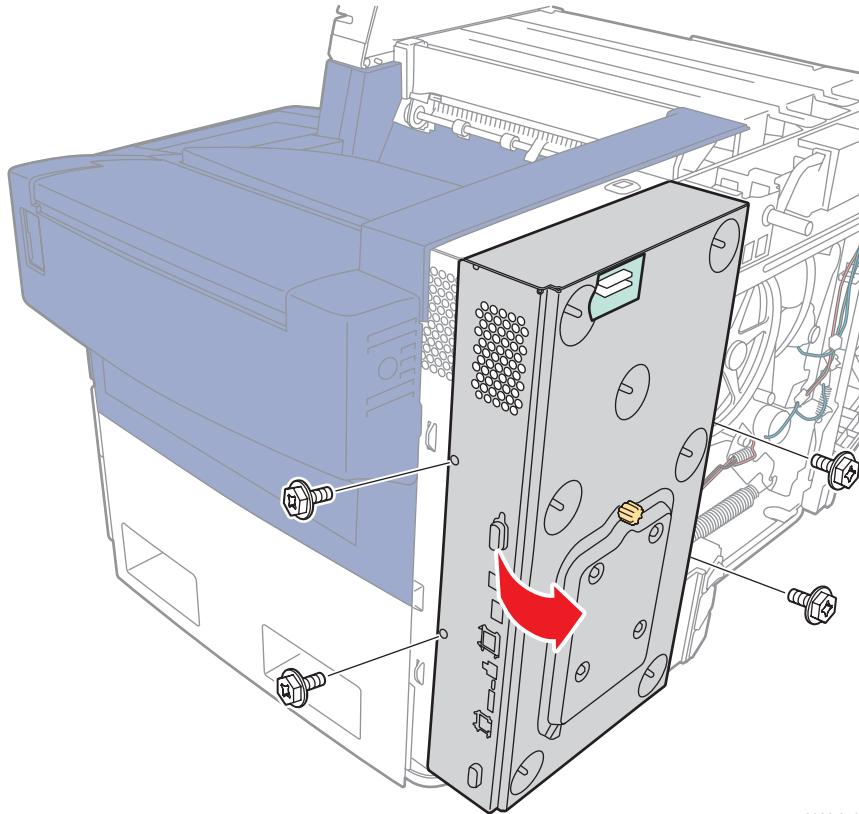
- [ADJ 1.2 Homing the Printhead Forward to Print Position](#) on page 6-35
- [ADJ 1.3 Process Drive Alignment](#) on page 6-38

## REP 10.8 NVRAM (IME NVRAM, SC NVRAM)

PL 10.1.29/ PL 10.1.44

**!** **CAUTION:** NVRAM is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove 4 screws that secure the Card Cage.
4. Open the Card Cage.

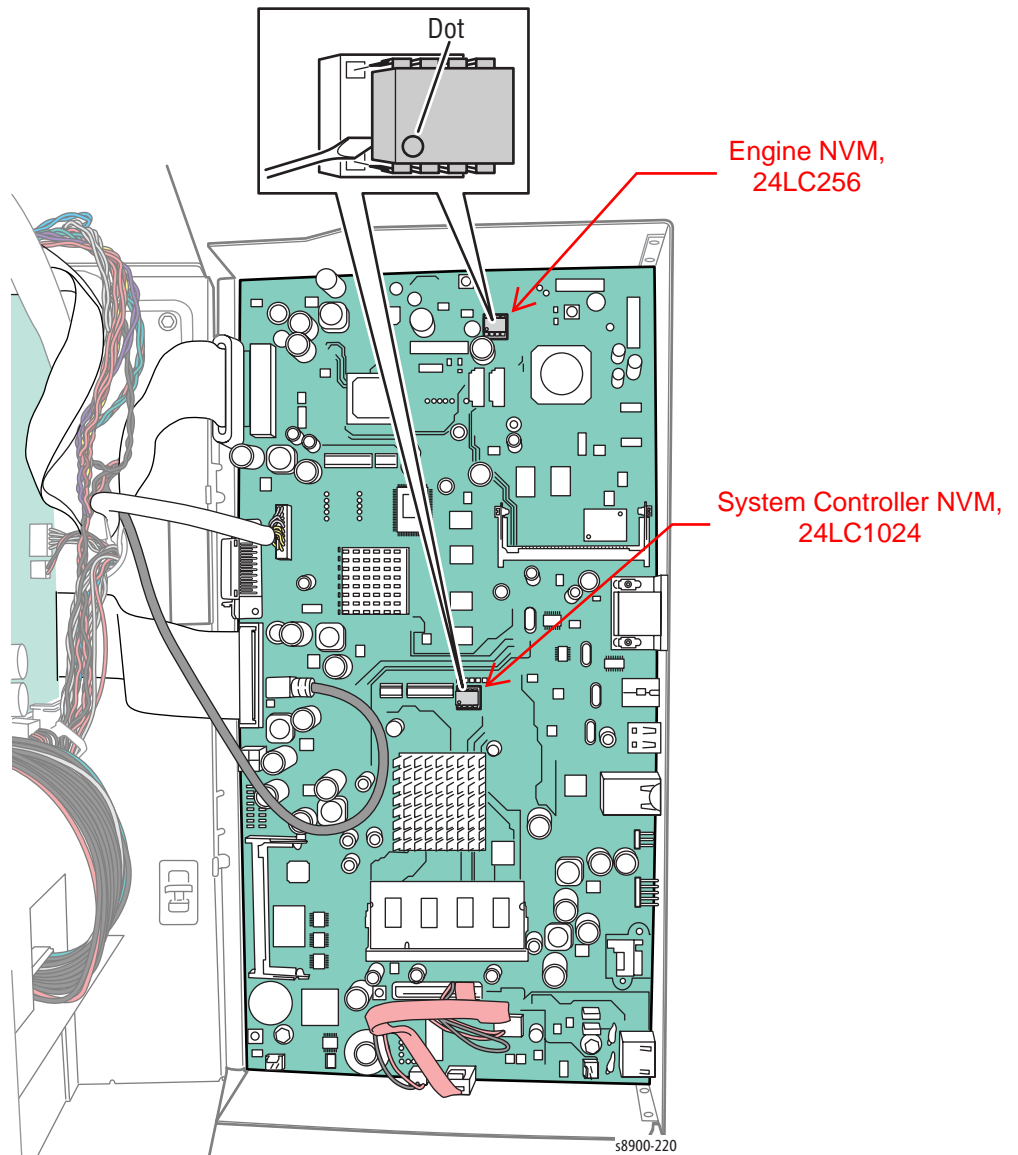


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**Note:** Observe the orientation of the NVRAM devices before removing it from the Main Controller Board.

5. Release the NVRAM from the Main Controller Board.

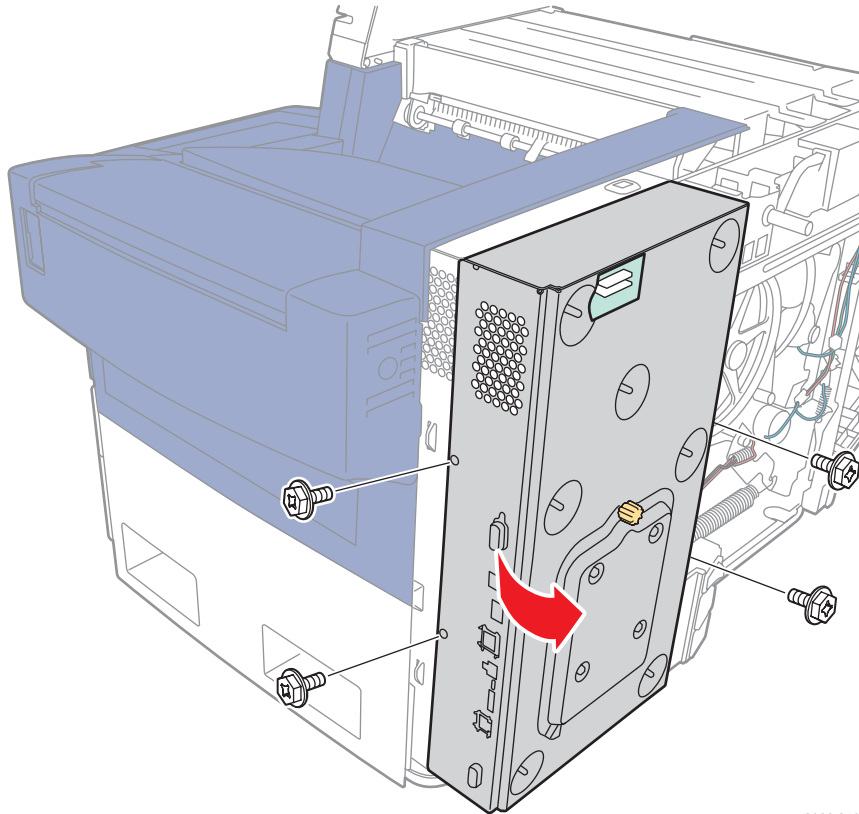


## REP 10.9 RAM

### PL 10.1.30

**!** **CAUTION:** RAM is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove 4 screws that secure the Card Cage.
4. Open the Card Cage.



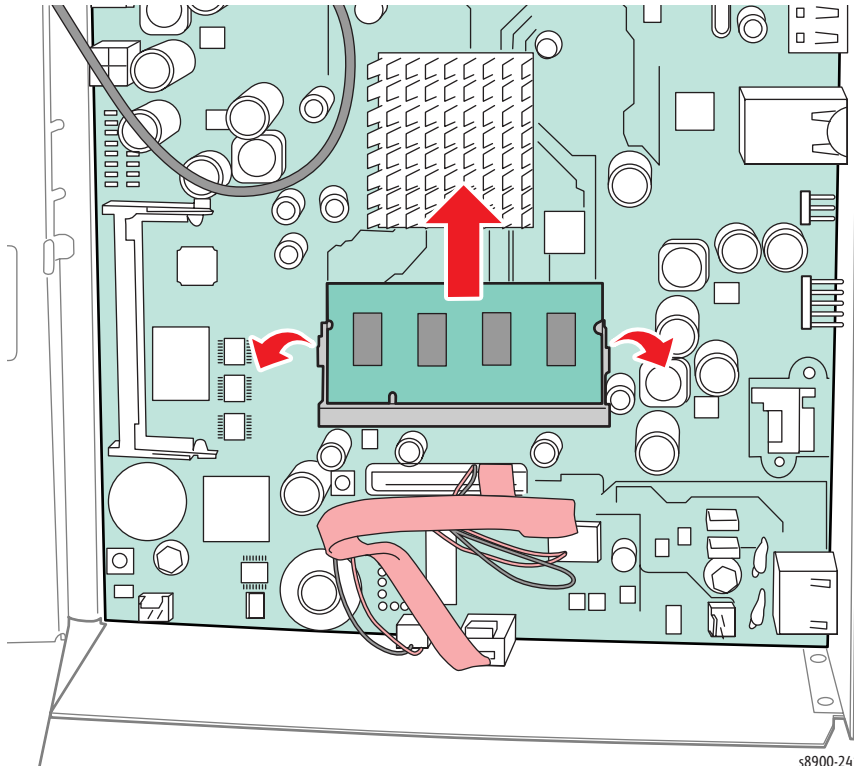
s8900-219



**!** **CAUTION:** Be careful when releasing the clips to prevent damaging the RAM module.

**Note:** Observe the orientation of the RAM device before removing it from the Main Controller Board.

5. Release the clips that secure the RAM module and remove the RAM from the Main Controller Board.

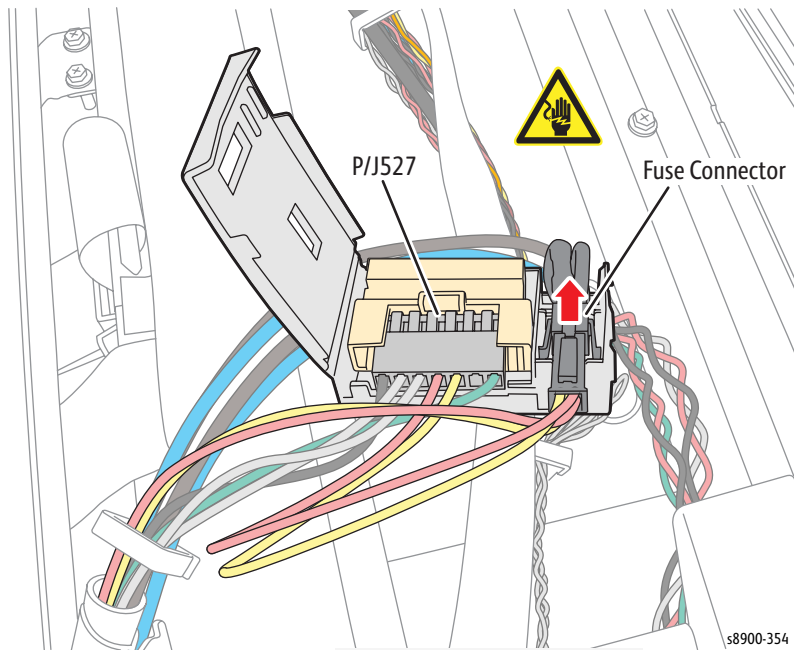


## REP 10.10 AC Fuse

### PL 10.1.31

**!** **WARNING:** Disconnect the Power Cord before servicing the printer. Line Voltage present on the Fuse and Fuse Holder Contacts. Be careful when handling the AC Fuse. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
8. Open the Fuse Holder.
9. Disconnect the wiring harness connector P/J527.
10. Disconnect the Fuse from the Fuse connector.
11. Release the Fuse from the Fuser Holder.

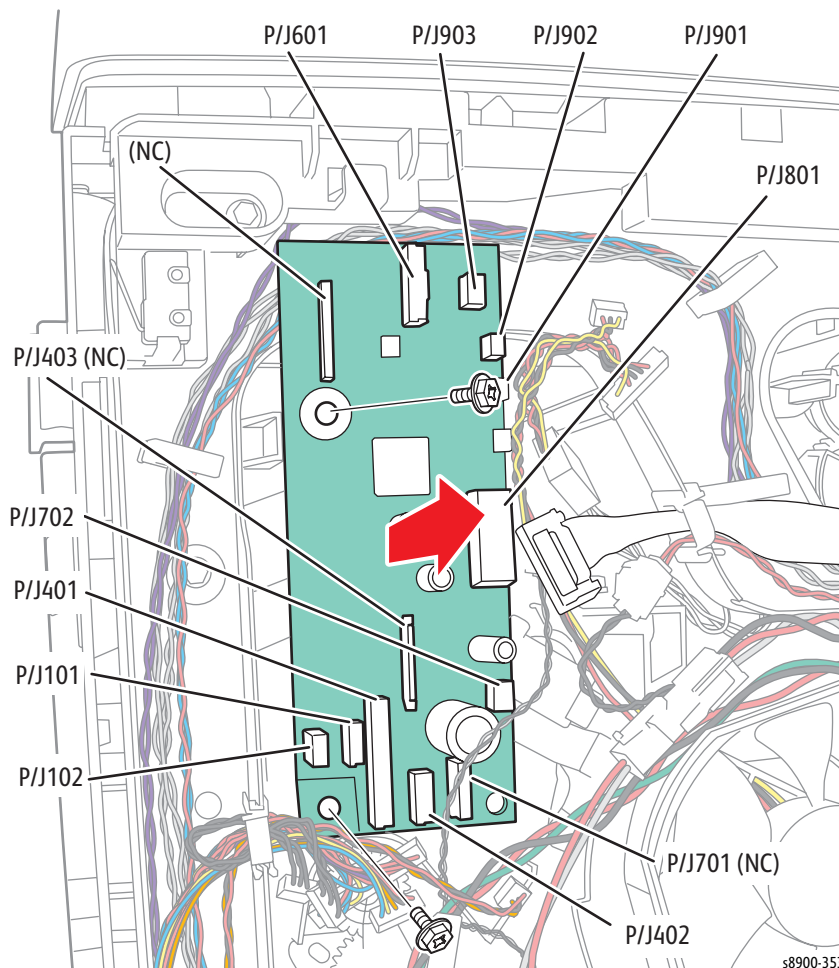


## REP 10.11 I/O Board

### PL 10.1.32

**⚠ CAUTION:** The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Disconnect all the wiring harness connectors from the I/O Board.
6. Remove 2 screws that secure the I/O Board.
7. Remove the I/O Board.

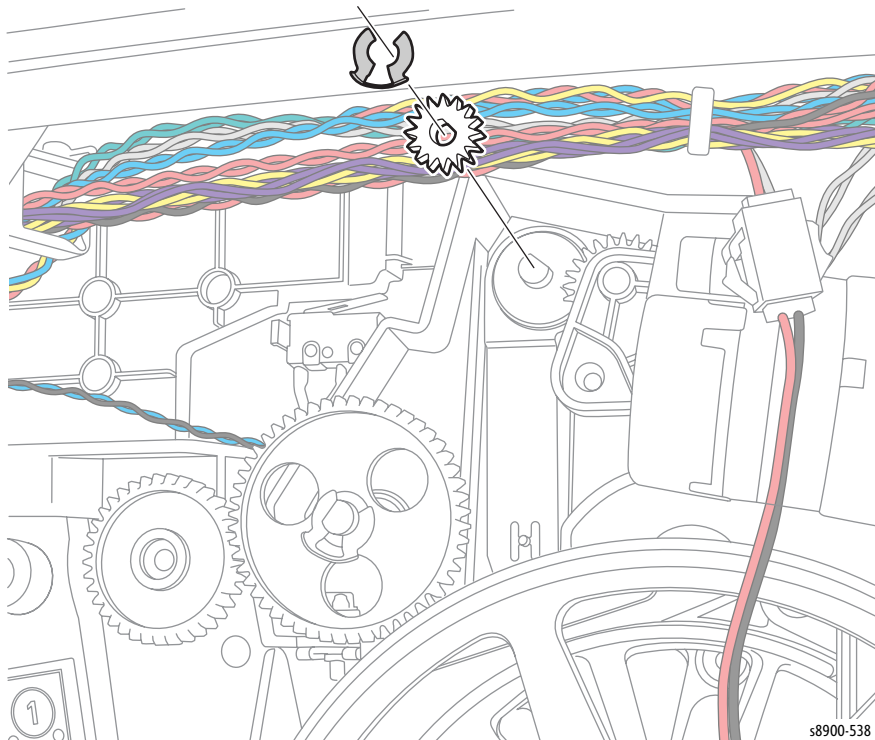


# Exit, Sensors, and Actuators

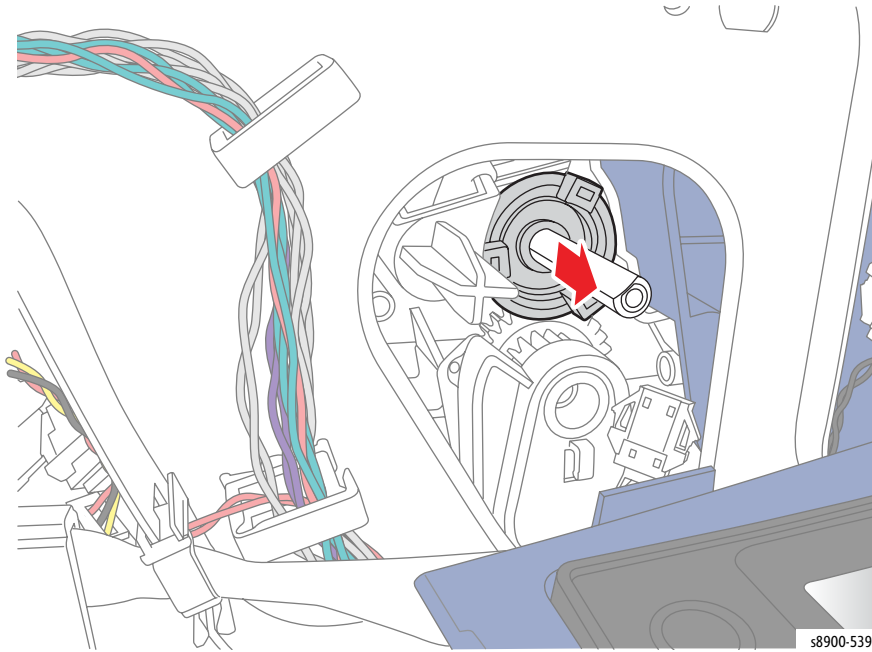
## REP 11.1 Exit Roller

### PL 11.1.6

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Horizontal Transport (REP 3.2, [page 4-20](#)).
5. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
6. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
7. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
8. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
9. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
10. Open the Exit Guide upward.
11. Remove the Maintenance Clutch (REP 11.5, [page 4-189](#)).
12. Remove the Media Path Motor Cooling Fan (REP 9.12, [page 4-158](#)).
13. From the rear side of the printer, remove the KL-Clip.
14. Remove the Gear on the end of the Shaft.

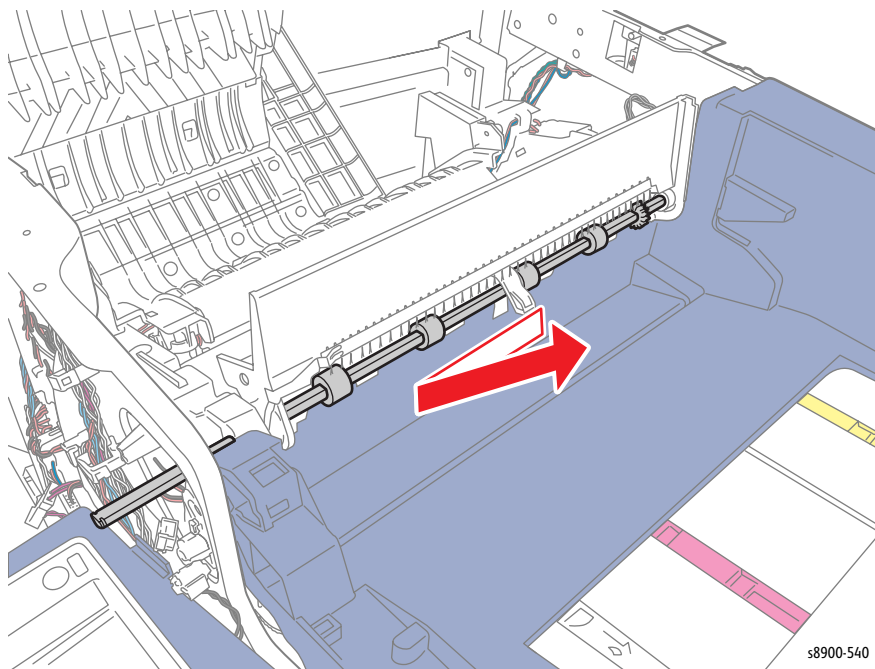


15. From the front side of the printer, remove the plastic Bushing.



16. Slide the Shaft towards the front of the printer until the Shaft clears the back of the printer.

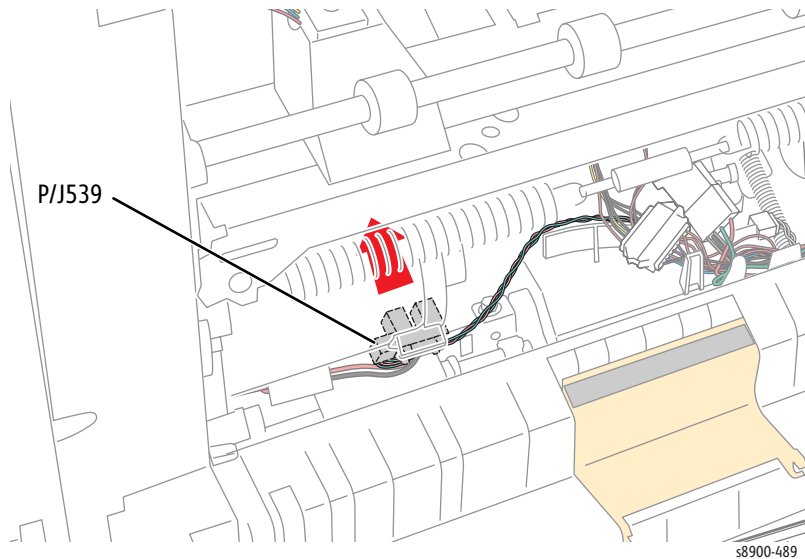
17. Lift the Shaft and push towards the rear of the printer to remove.



## REP 11.2 No Paper Sensor

### PL 11.1.7

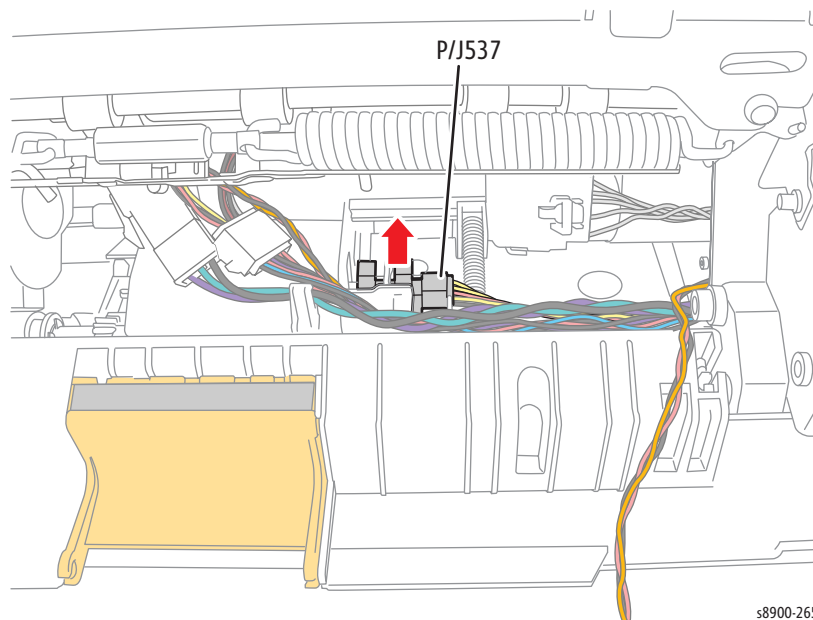
1. Open the Left Door.
2. Remove the Pick Roller Assembly and Retard Rollers (REP 8.7, [page 4-128](#)).
3. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
4. Remove the Inner Simplex Guides with Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
5. Release the 4 hooks that secure the No Paper Sensor to the left side of the Pick Assembly recess.
6. Disconnect the wiring harness connector P/J539 from the wiring harness and remove the No Paper Sensor.



## REP 11.3 Tray Lift/ Paper Height Sensor

### PL 11.1.12

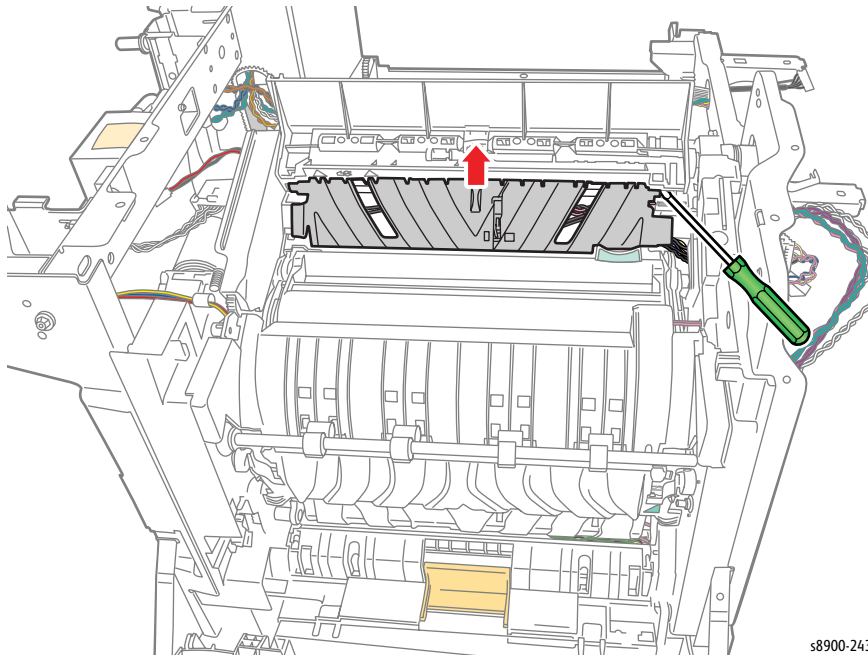
1. Open the Left Door.
2. Remove the Pick Roller Assembly and Retard Rollers (REP 8.7, [page 4-128](#)).
3. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
4. Remove the Inner Simplex Guides with Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
5. Disconnect the wiring harness connector P/J537.
6. Release the 4 hooks that secure the Paper Height Sensor to the right side of the Pick Assembly recess.



## REP 11.4 Lower Exit Guide Assembly with Strip Flag

### PL 11.1.13

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
8. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
9. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
10. Use a screwdriver to release the Lower Exit Guide Assembly from the Exit Roller.
11. Remove the Lower Exit Guide Assembly.



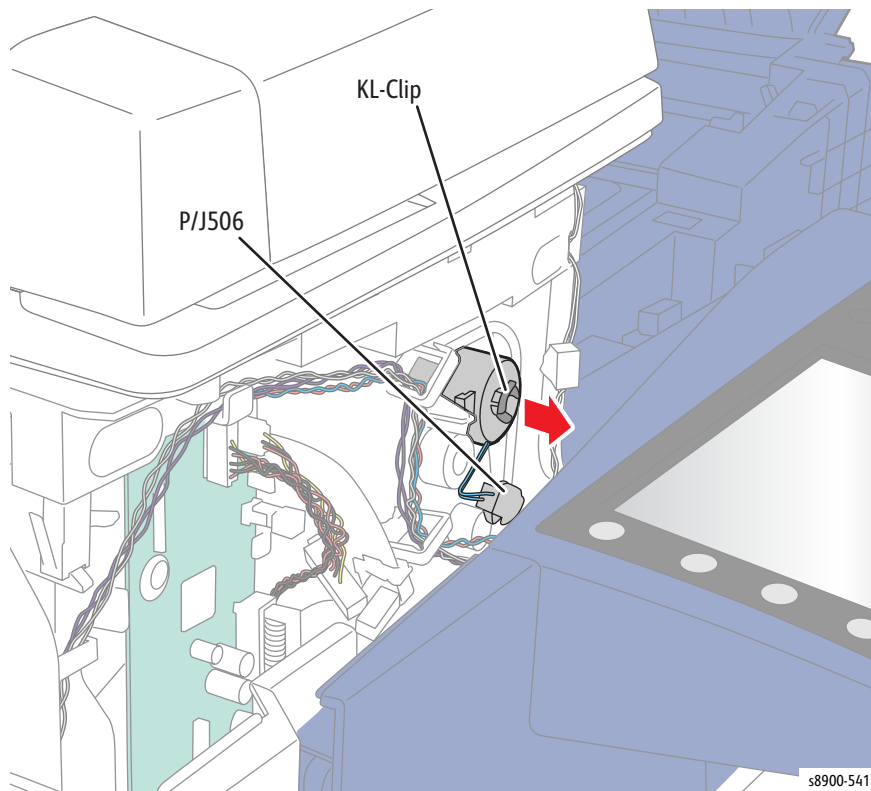
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## REP 11.5 Head Maintenance Clutch (Electric Clutch)

### PL 11.1.23

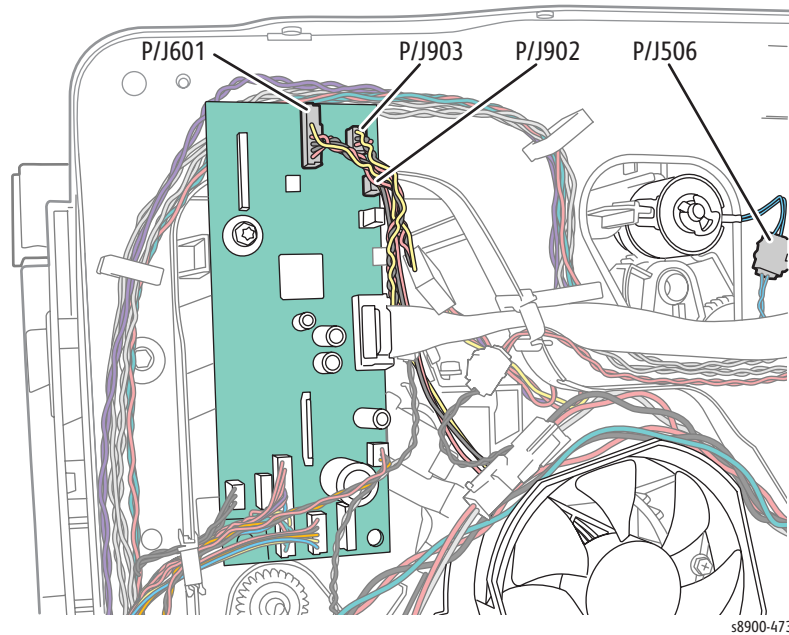
1. Remove the Output Tray (REP 3.2, [page 4-20](#)).
2. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
3. Disconnect the Head Maintenance Clutch wiring harness connector P/J506 from the wiring harness.
4. Remove the KL-Clip.
5. Remove the Head Maintenance Clutch.



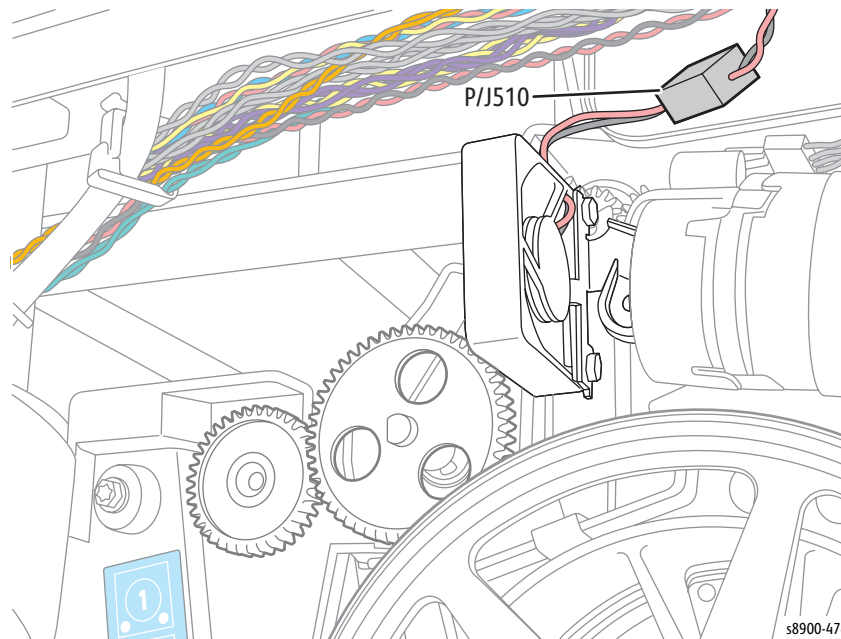
## REP 11.6 Exit Module Assembly

### PL 11.1.24

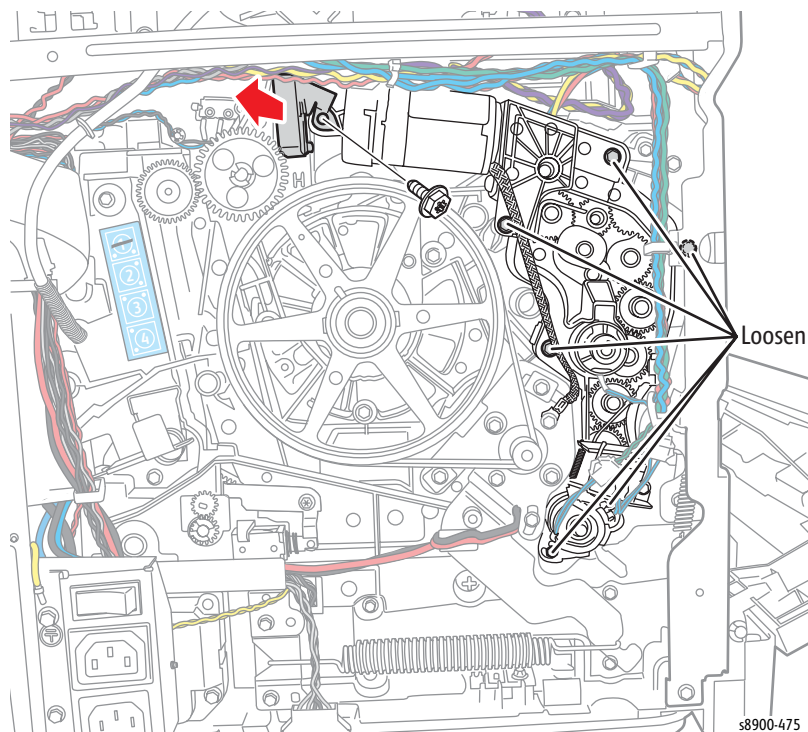
1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
8. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
9. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
10. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
11. Disconnect 3 wiring harness connectors P/J601, P/J902, and P/J903 from the I/O Board.
12. Disconnect 1 interim wiring harness connector P/J506.



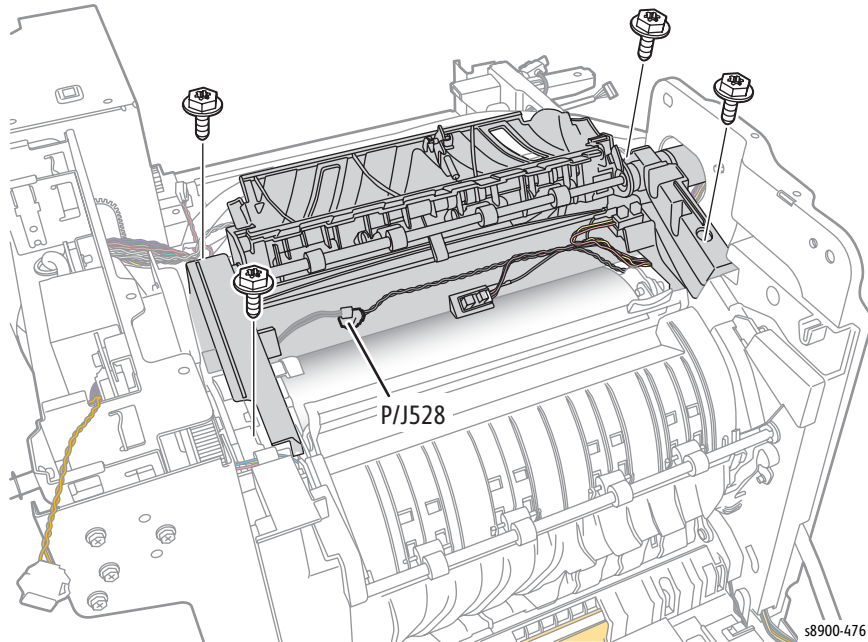
13. Disconnect the Fan wiring harness connector P/J510.



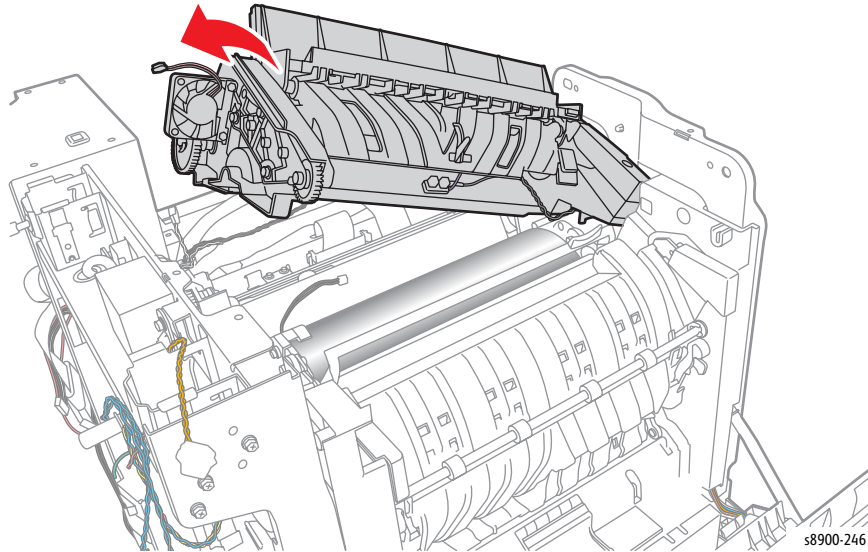
14. Loosen the 6 screws (plastic, T-20) that secure the Media Drive Assembly. Allow the Media Drive Assembly to hang next to the printer.
15. Remove 1 screw that secures the Paper Path Motor Cooling Fan from the Frame.
16. Remove the Paper Path Motor Cooling Fan with the Bracket.



17. Disconnect the Drum Temperature Sensor wiring harness connector P/J528.
18. Remove 4 screws that secure the Exit Module Assembly.



19. Lift the Exit Module to remove.



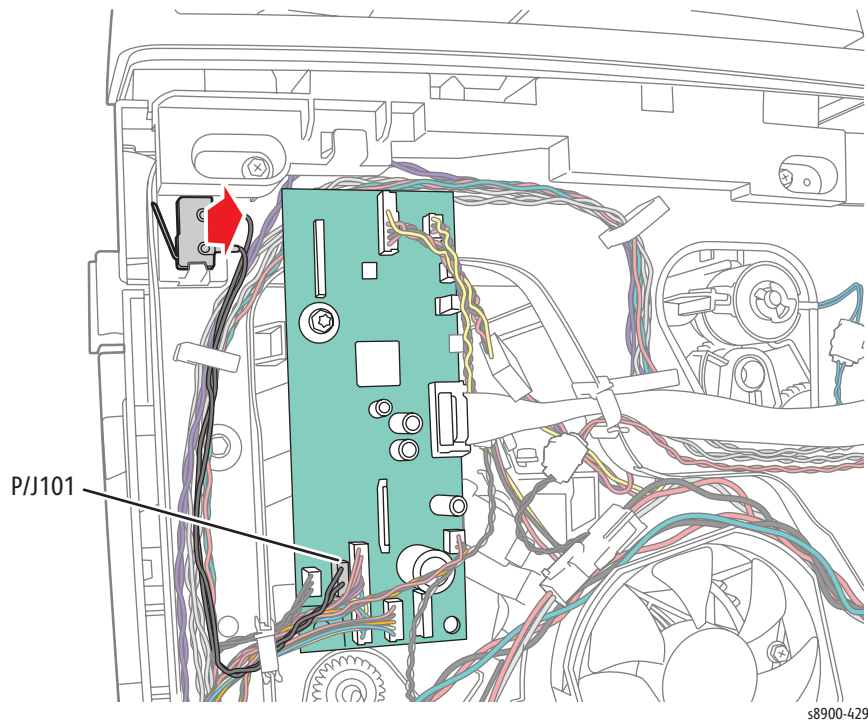
**Replacement Notes:**

- If the Ink Loader is installed with the Horizontal Transport attached, a paper exit jam can occur due to Exit Flag jam.
- Be sure to separate the Horizontal Transport (REP 3.2, [page 4-20](#)) from the Ink Loader prior to installation to prevent the Exit Flag jam.

## REP 11.7 Left Door Safety Interlock Switch

### PL 11.1.25

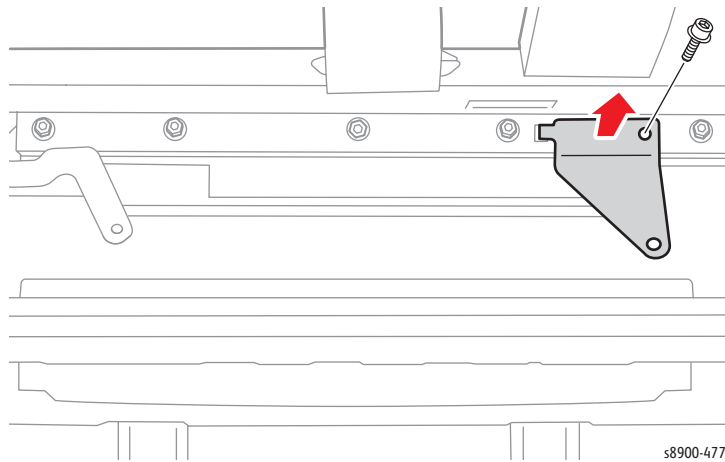
1. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
2. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
5. Disconnect the wiring harness connector P/J101 from the I/O Board.
6. Release the Safety Interlock Switch from the printer frame.



## REP 11.8 Waste Tray Opto Sensor

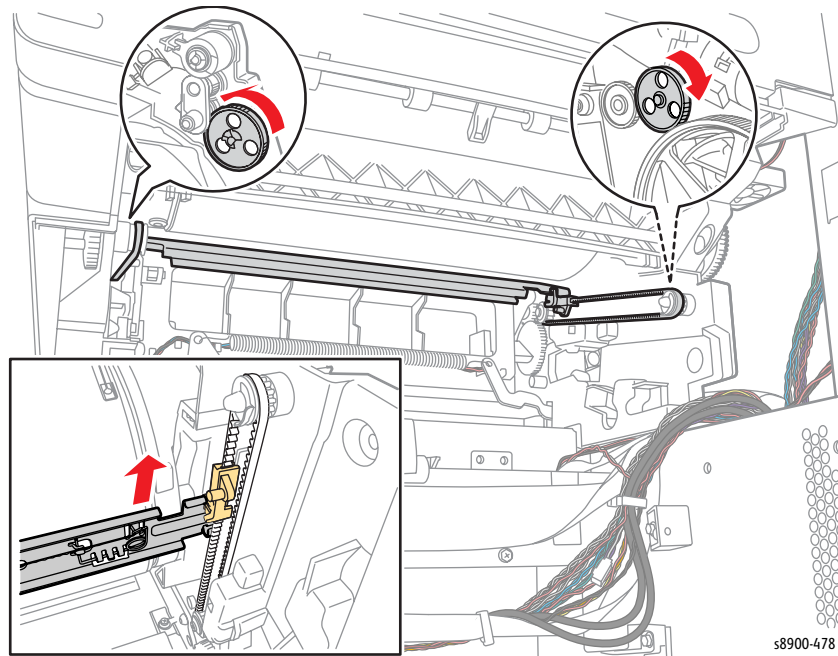
### PL 11.1.27

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader and Bezel (REP 3.6, [page 4-27](#)).
8. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
9. Remove the Jet Stack Cap (REP 7.1, [page 4-60](#)).
10. Remove the Waste Tray (REP 4.7, [page 4-39](#)).
11. Remove the X-Axis Bias Spring (REP 7.5, [page 4-81](#)).
12. Remove 1 (metal, T-20) screw that secures the X-Axis Spring Retainer to the chassis.



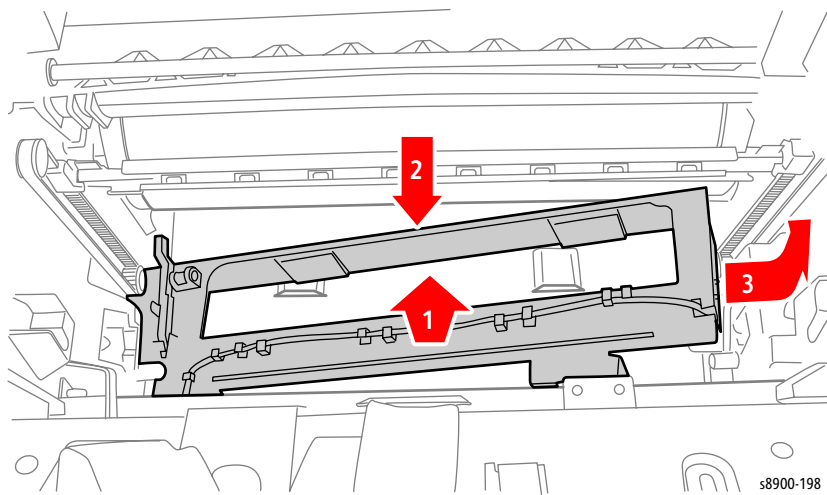


13. Raise the Wiper Blade to the top of its travel.



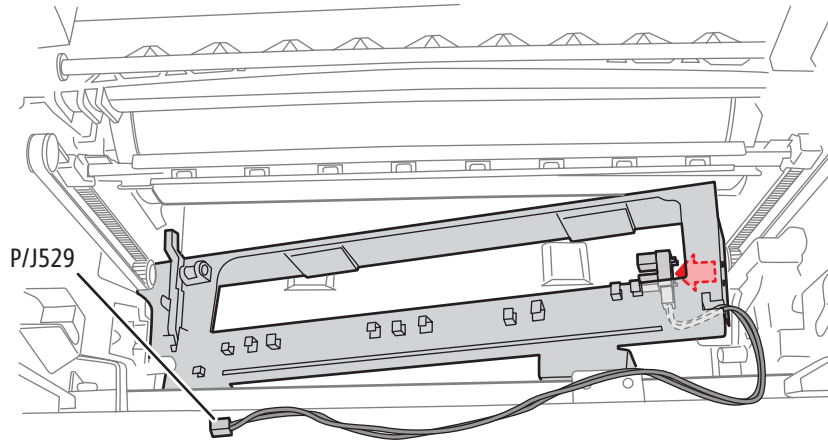
14. Remove the Waste Tray Cover without disconnecting the Waste Tray Sensor harness.

- a. Lift the center of the cover to release the right side hook.
- b. Move the cover towards the rear to release the 2 tabs from the chassis.
- c. Pull the cover to the right to release the left hook and position the cover out of the way.



Service Parts Disassembly

15. Disconnect the Waste Tray Detect Sensor wiring harness connector P/J529 from the I/O Board.
16. Unlace the Sensor wiring harness from the retainers and guides.
17. Release the hooks that secure the Sensor to the cover and remove the Sensor.



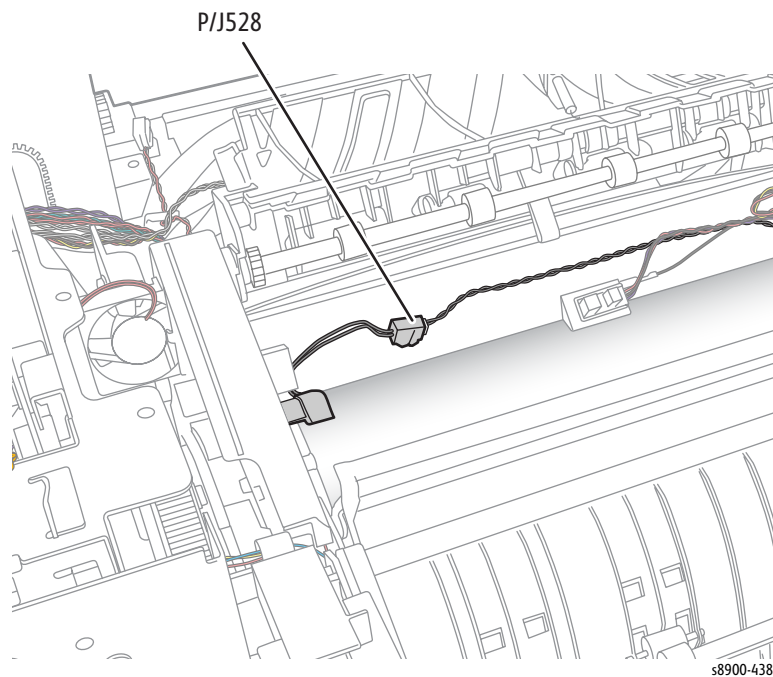
s8900-479



## REP 11.9 Drum Temperature Sensor

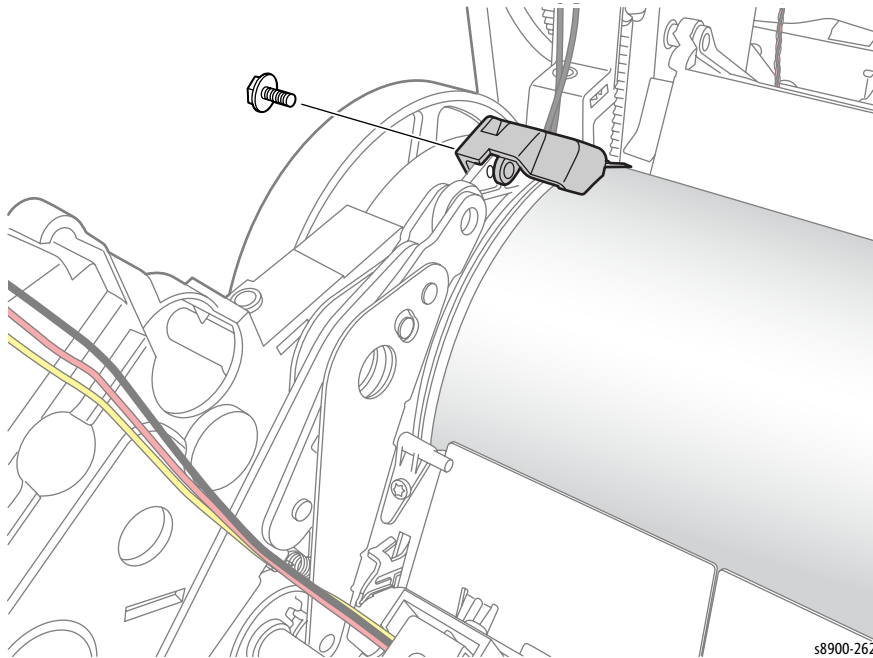
### PL 11.1.28

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
8. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
9. Remove the Ink Loader with Bezel (REP 3.6, [page 4-27](#)).
10. Remove the Control Panel (REP 4.6, [page 4-38](#)).
11. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
12. Disconnect the Drum Temperature Sensor connector P/J528.



## Service Parts Disassembly

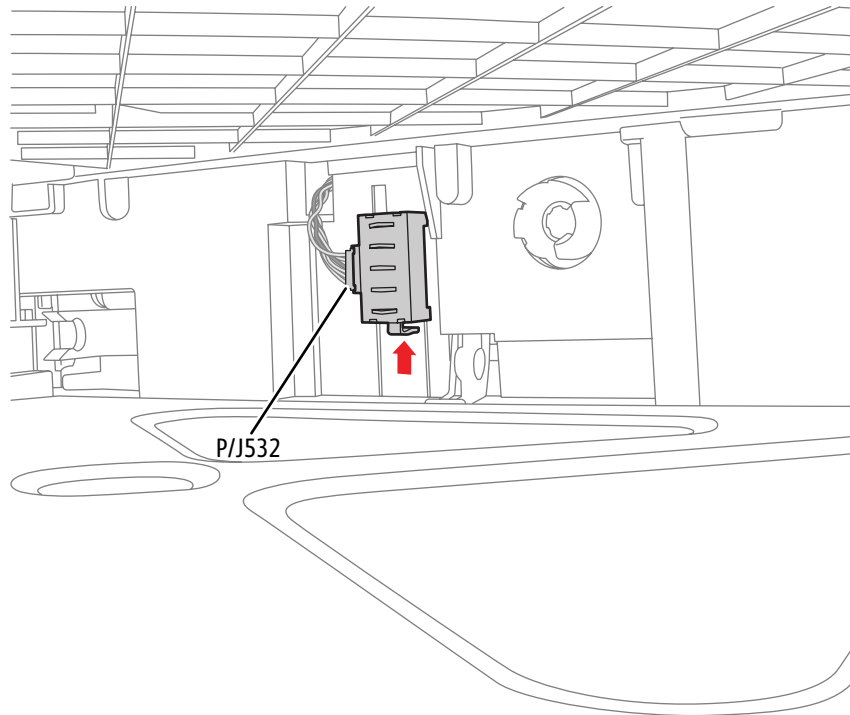
13. Remove the Exit Module (REP 11.6, [page 4-190](#)).
14. Remove 1 screw that secures the Drum Temperatures Sensor.
15. Remove the Drum Temperature Sensor.



## REP 11.10 Paper Size Switch Assembly

### PL 11.1.30

1. Remove Tray 2.
2. Disconnect the wiring harness connectors P/J532.
3. Release the Paper Tray Sensor from the printer frame.



s8900-263

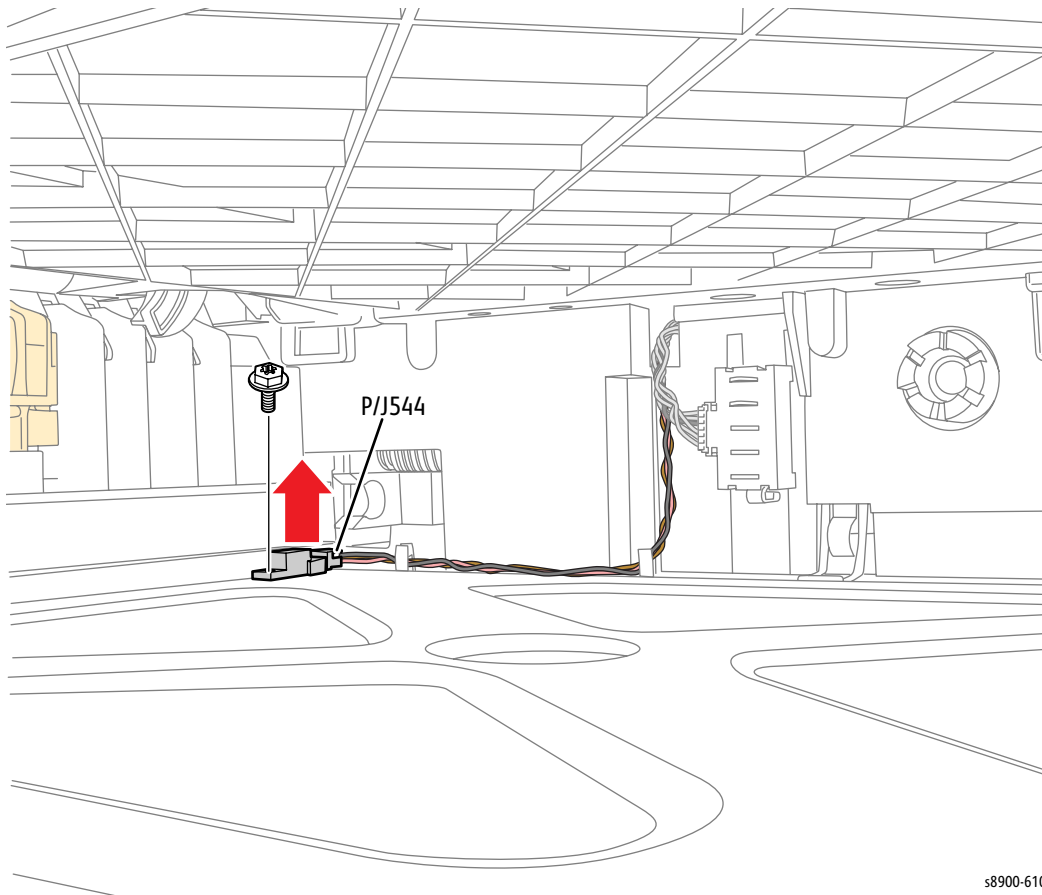
## REP 11.11 Tray Lift Sensor

PL 11.1.31/ PL 12.1.17

1. Remove Tray 2.

**Note:** For the following step, use a stubby screwdriver with T-10 torque bit to access the screw.

2. Remove 1 screw that secures the Tray Life Sensor.
3. Release the Sensor from the printer frame.
4. Disconnect the wiring harness connector P/J544.



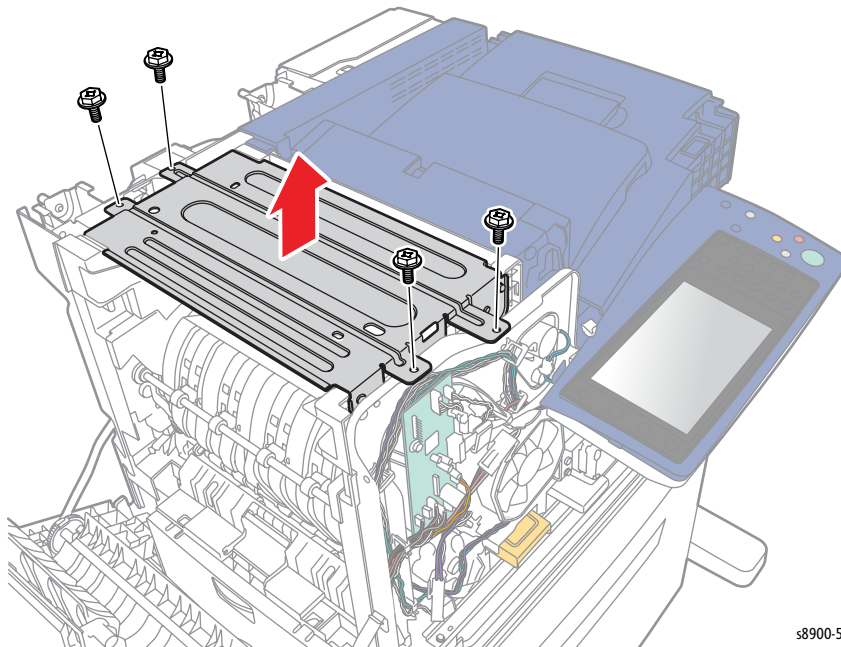
s8900-610

# Frame

## REP 12.1 Stay Bracket

### PL 12.1.4

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
4. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
5. Remove 4 screws that secure the Stay Bracket.
6. Lift the Bracket to remove.



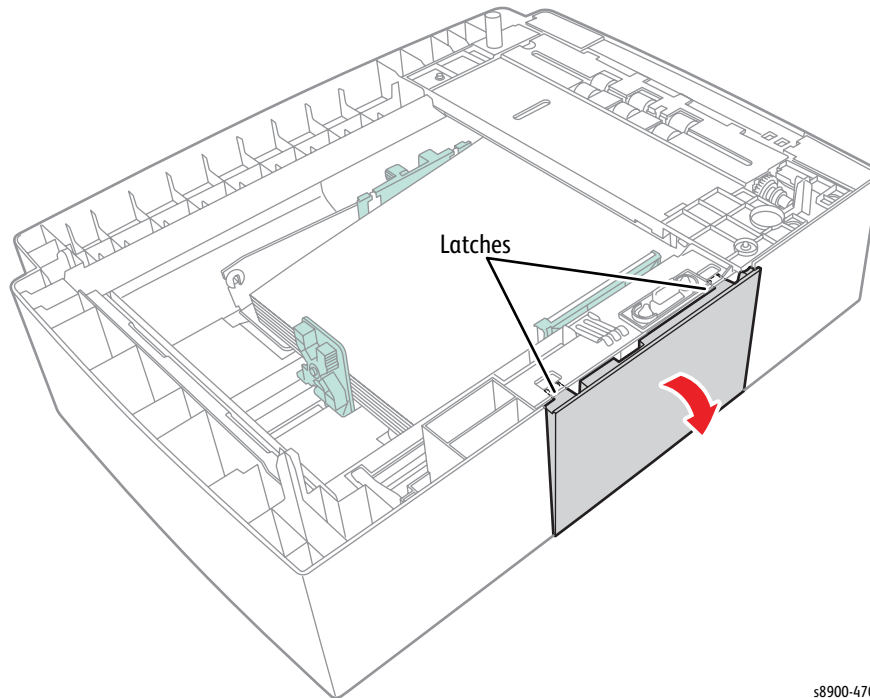
s8900-537

# 525-Sheet Feeder

## REP 13.1 525-Sheet Feeder Control Board

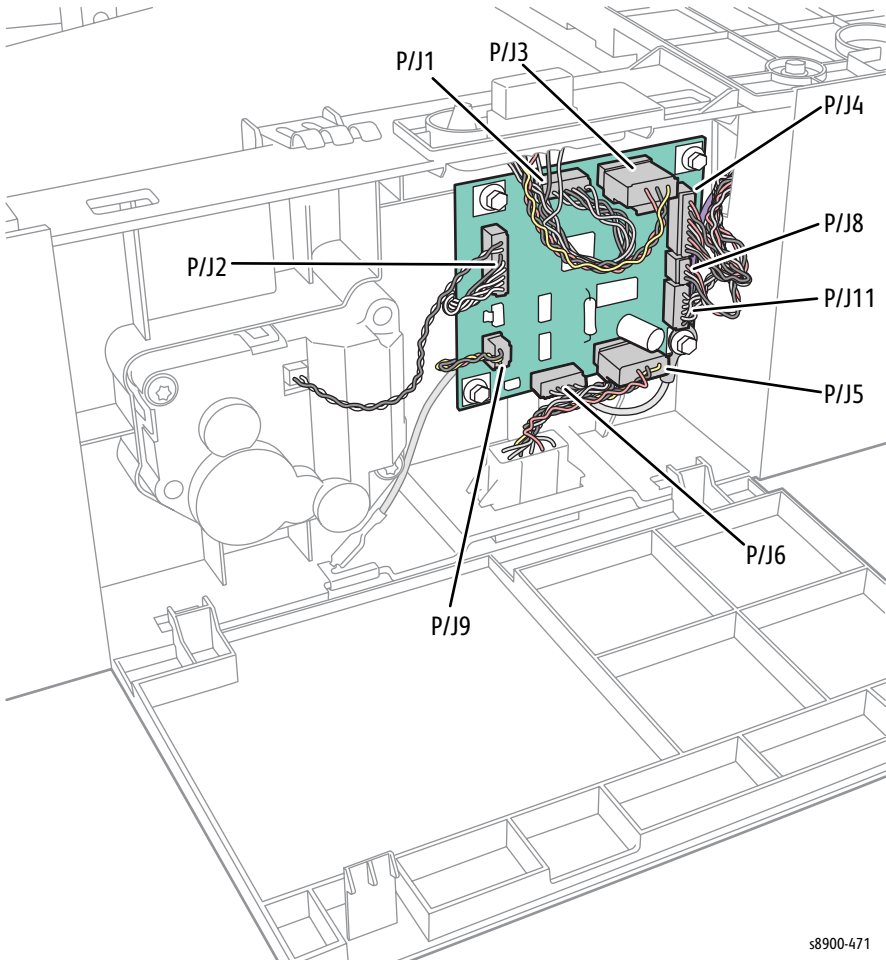
### PL 13.1.32

1. Remove the 525-Sheet Feeder (REP 13.3, [page 4-207](#)).
2. Release the 2 latches that secure the Rear Cover and remove the Cover.



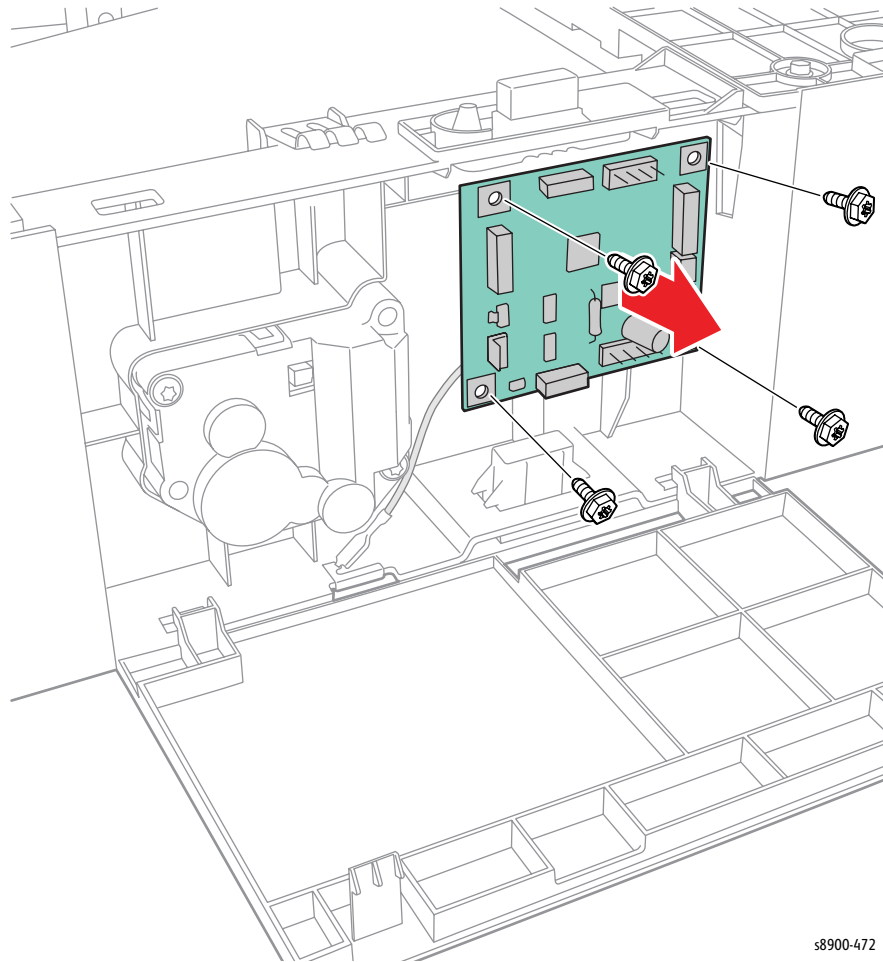
s8900-470

3. Disconnect the 9 wiring harness connectors.



## Service Parts Disassembly

4. Remove 4 screws with 2 Grounds that secure the Sheet Feeder Control Board.
5. Remove the 525-Sheet Feeder Control Board.

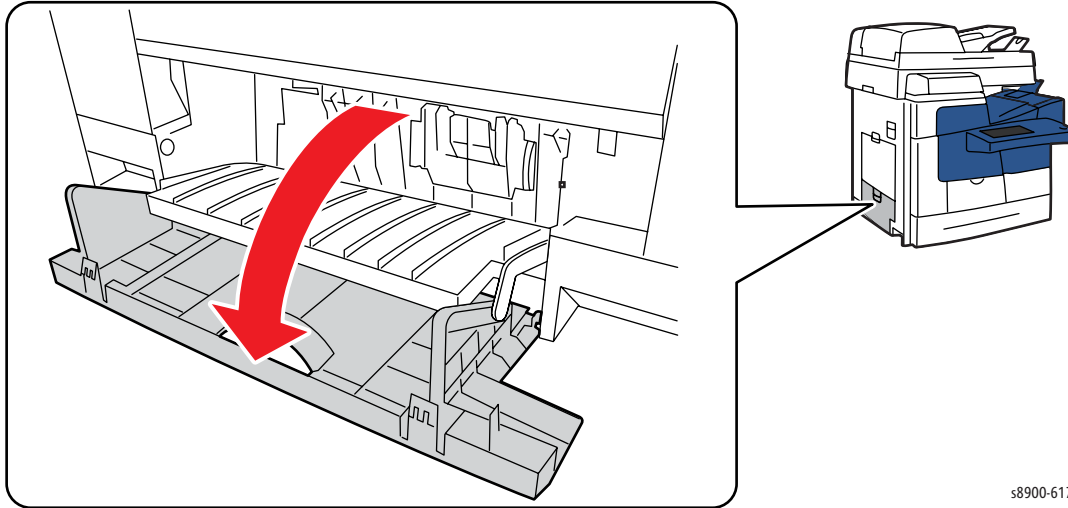




## REP 13.2 Tray 2 Jam Access Door

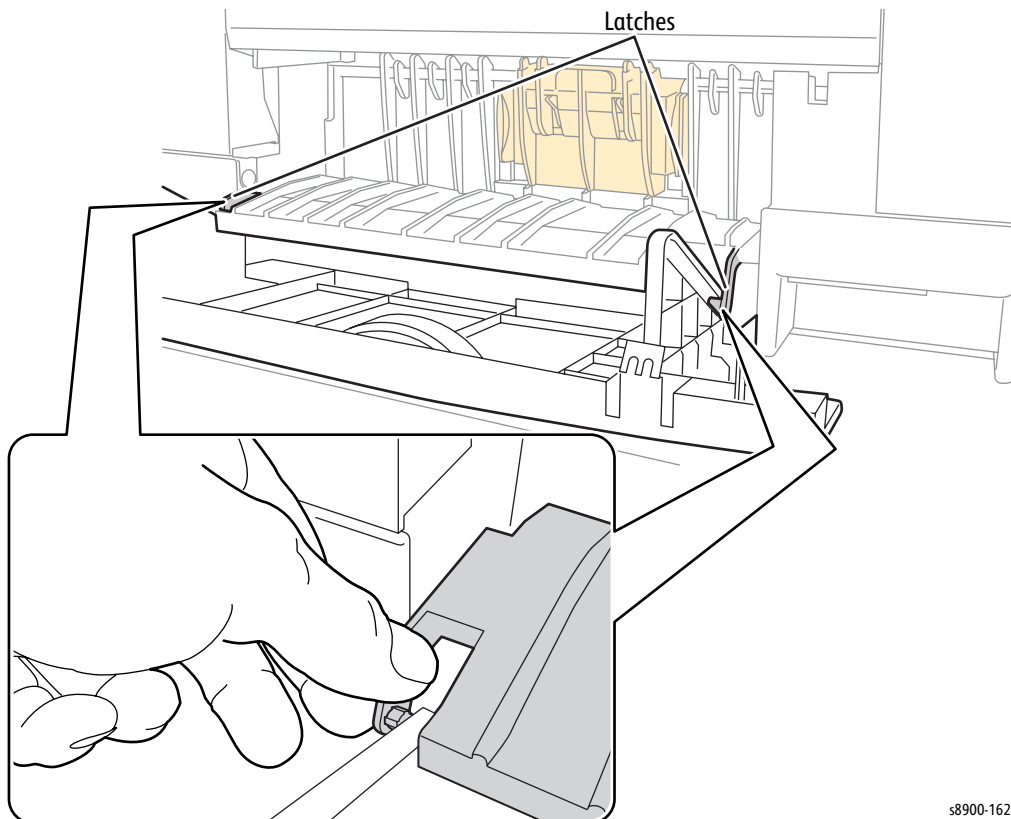
### PL 4.1

1. Open the Lower Left Door.



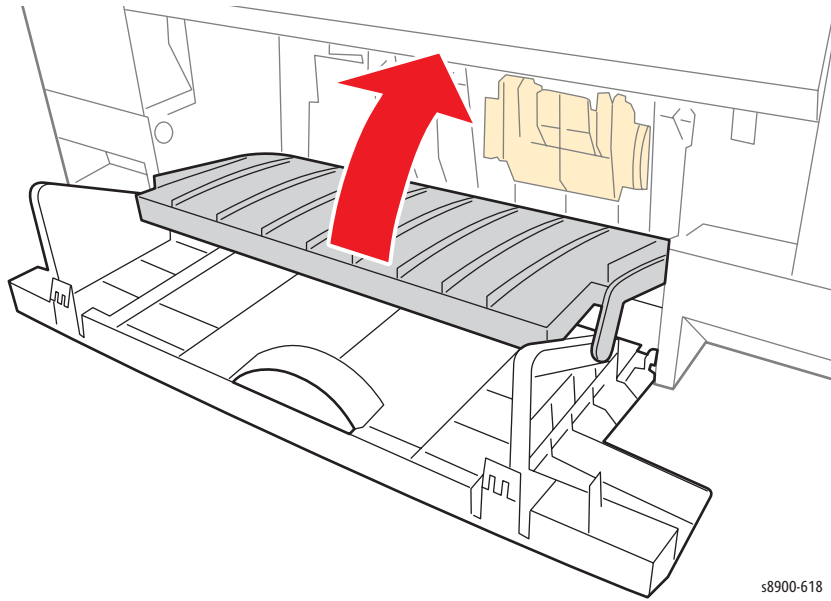
s8900-617

2. Release the left and right tabs of the Jam Guide from the Tray 2 Jam Access Door.



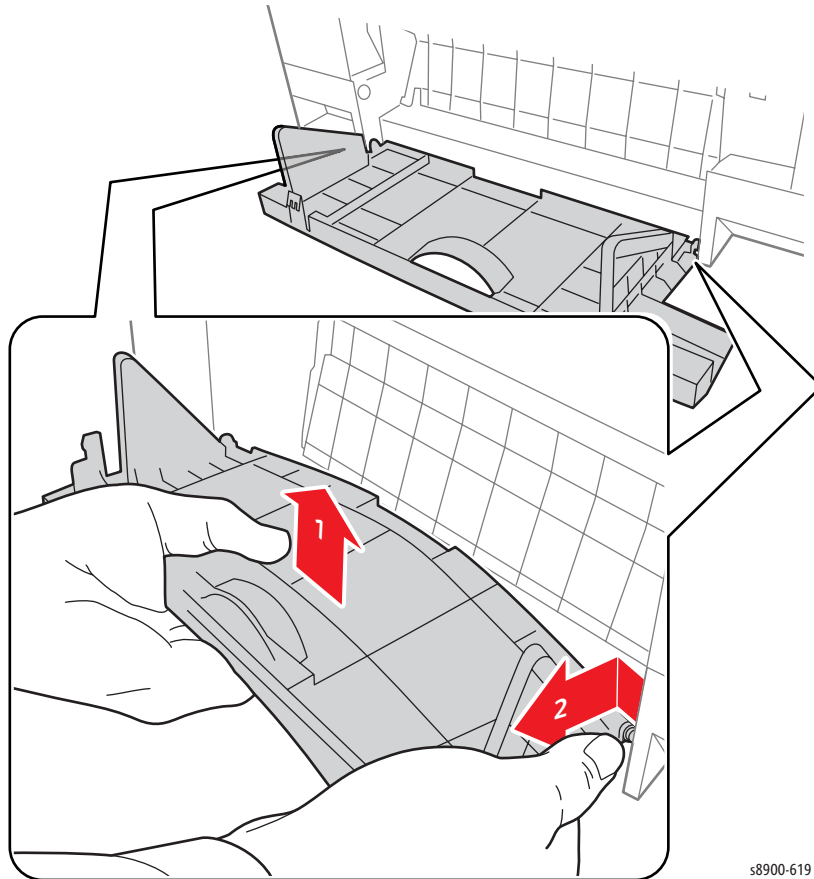
s8900-162

3. Close the Jam Guide.



s8900-618

4. Slightly flex the Jam Guide Door in and upward while releasing the notch on the right side Jam Guide Door from the printer frame, and slide the Jam Guide Door out to remove.



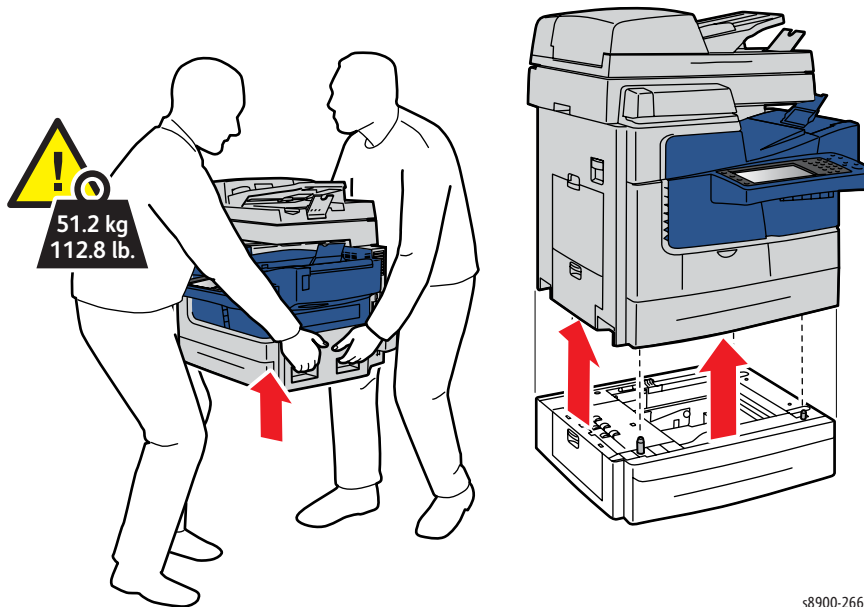
s8900-619

## REP 13.3 525-Sheet Feeder Assembly

### PL 13.1.42

#### **WARNINGS:**

- Parts of the printer are hot. To avoid personal injury or damage to the printer, allow the ink to solidify. Run the shutdown procedure to park the Printhead and begin cooling the printer. Wait at least 30 minutes for the printer to cool before moving or packing the printer.
  - Back injury could result if you do not lift the printer properly. Two people are required to move the printer from the Optional 525-Sheet Feeder. Use safety lifting and handling techniques when moving the printer.
1. Carefully lift the printer away from the 525-Sheet Feeder and place the printer on a flat surface.



s8900-266

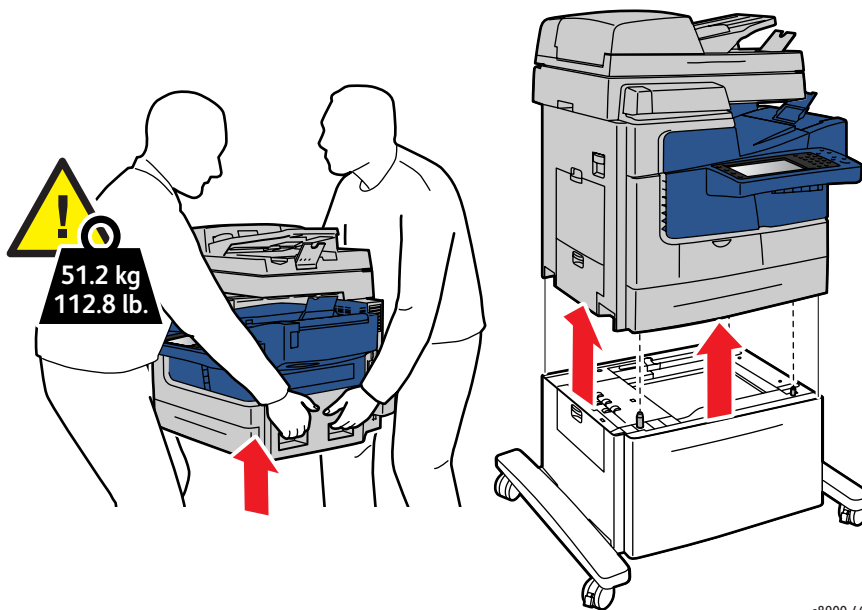
# 1800-Sheet Feeder

## REP 14.1 1800-Sheet Feeder Assembly

### PL 14.1.1

 **WARNINGS:**

- Parts of the printer are hot. To avoid personal injury or damage to the printer, allow the ink to solidify. Run the shutdown procedure to park the Printhead and begin cooling the printer. Wait at least 30 minutes for the printer to cool before moving or packing the printer.
  - Back injury could result if you do not lift the printer properly. Two people are required to move the printer from the Optional 1800-Sheet Feeder. Use safety lifting and handling techniques when moving the printer.
1. Carefully lift the printer away from the 1800-Sheet Feeder and place the printer on a flat surface.

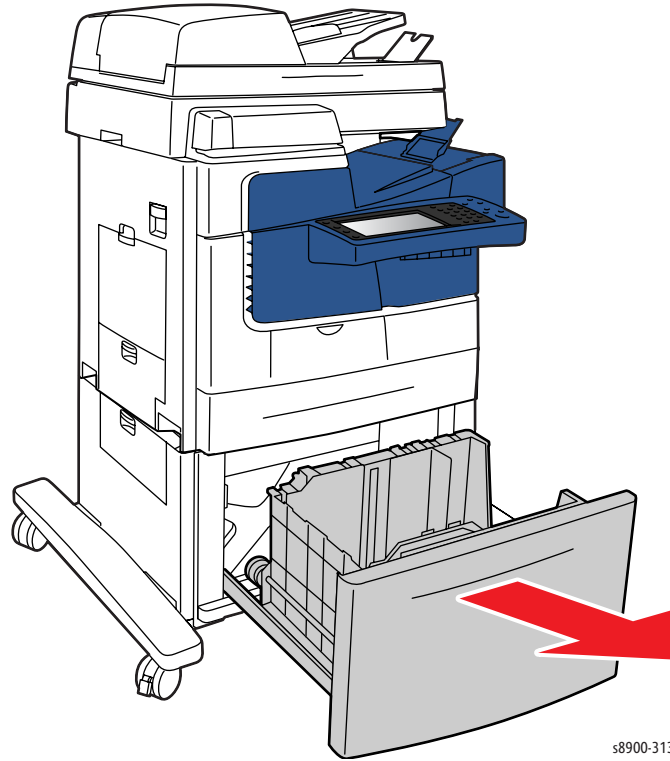


s8900-461

## REP 14.2 1800-Sheet Feeder Tray

### PL 14.1.5

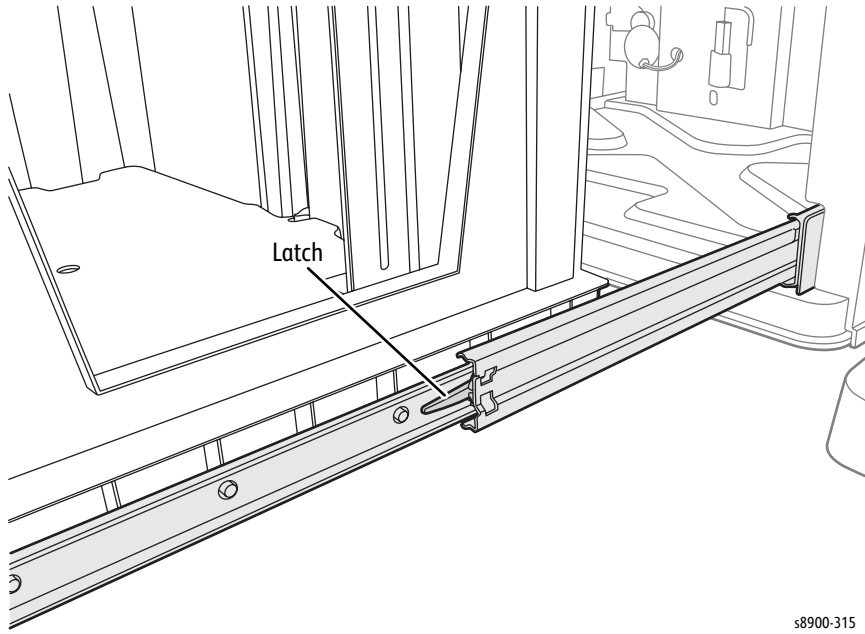
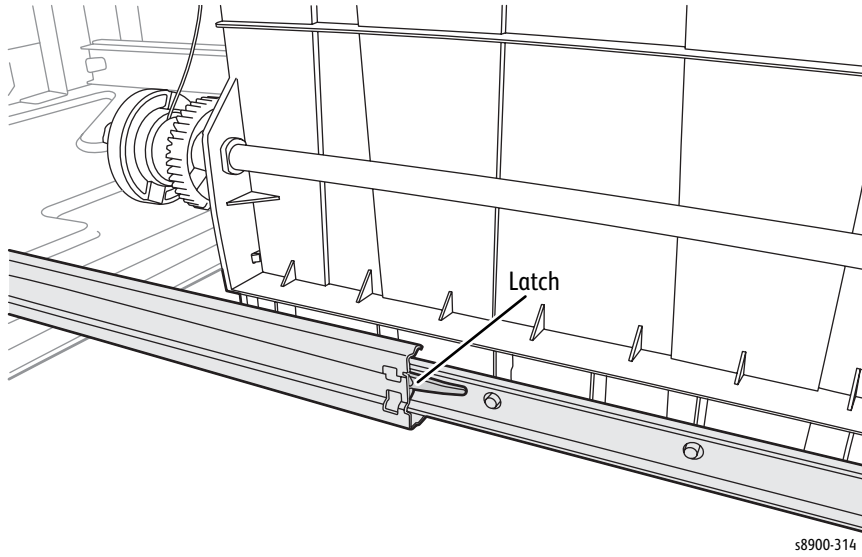
1. Pull out the 1800-Sheet Feeder Tray.



s8900-313

2. Remove paper from the Tray.

3. Release the latches on the left and right sides of the Tray while pulling the Tray out.

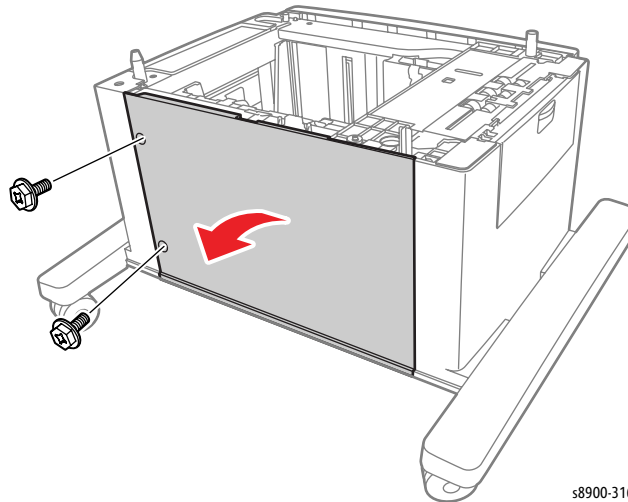


## REP 14.3 1800-Sheet Feeder Control Board

### PL 14.2.37

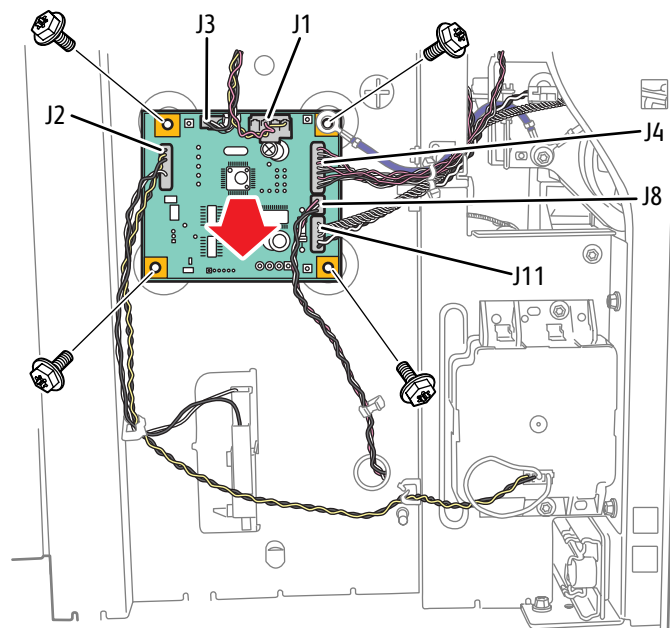
**⚠ CAUTION:** The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1.

1. Remove 2 screws that secure the Sheet Feeder Rear Cover.
2. Remove the Rear Cover.



s8900-316

3. Disconnect the 6 wiring harness connectors J1, J2, J3, J4, J8, and J11.
4. Remove 4 screws that secure the Feeder Control Board.
5. Remove the Feeder Control Board.

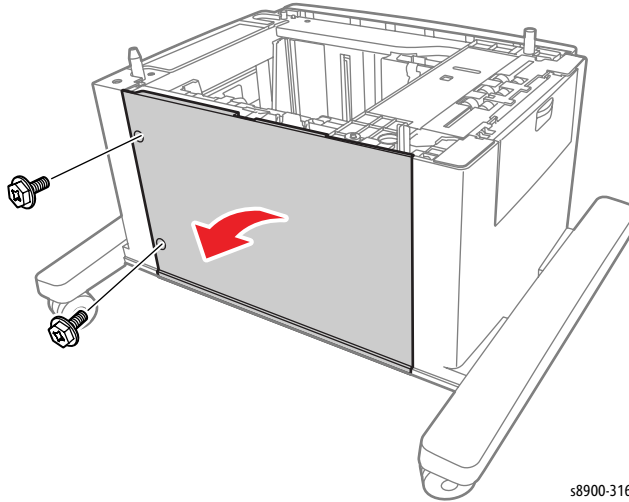


s8900-356

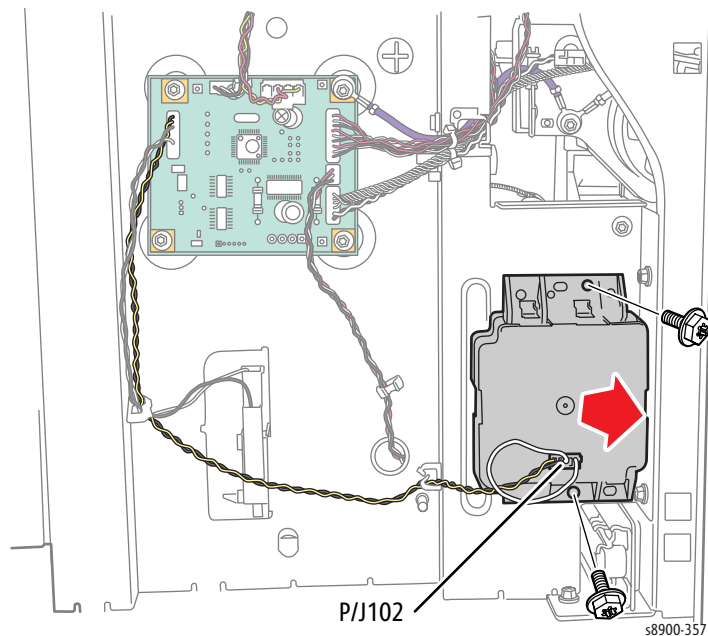
## REP 14.4 1800-Sheet Feeder Motor

### PL 14.3.21

1. Remove 2 screws that secure the Sheer Feeder Rear Cover.
2. Remove the Rear Cover.



3. Disconnect the wiring harness connector P/J102.
4. Remove 2 screws that secure the Motor.
5. Remove the Motor.





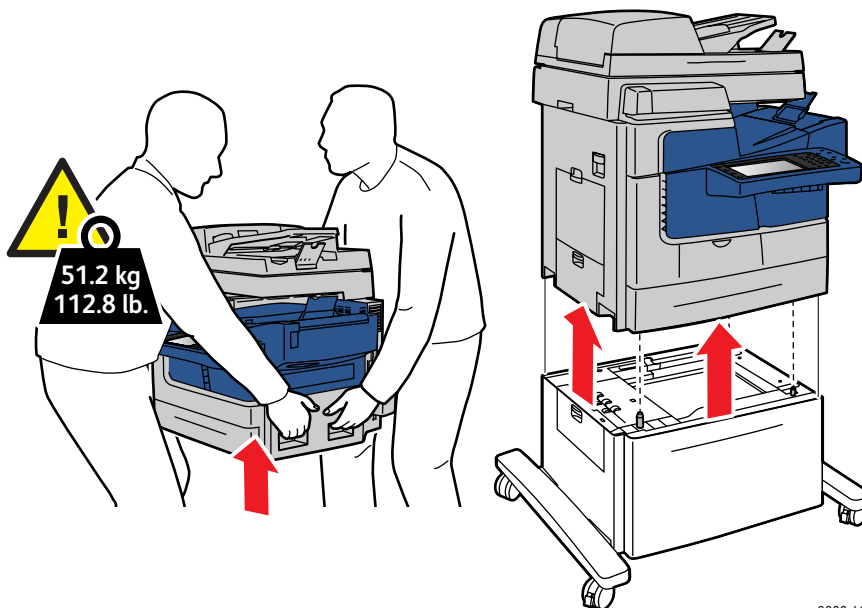
# Storage Cart

## REP 15.1 Storage Cart

### PL 15.1.1

#### **WARNINGS:**

- Parts of the printer are hot. To avoid personal injury or damage to the printer, allow the ink to solidify. Run the shutdown procedure to park the Printhead and begin cooling the printer. Wait at least 30 minutes for the printer to cool before moving or packing the printer.
  - Back injury could result if you do not lift the printer properly. Two people are required to move the printer from the Storage Cart. Use safety lifting and handling techniques when moving the printer.
1. Carefully lift the printer away from the Storage Cart and place the printer on a flat surface.



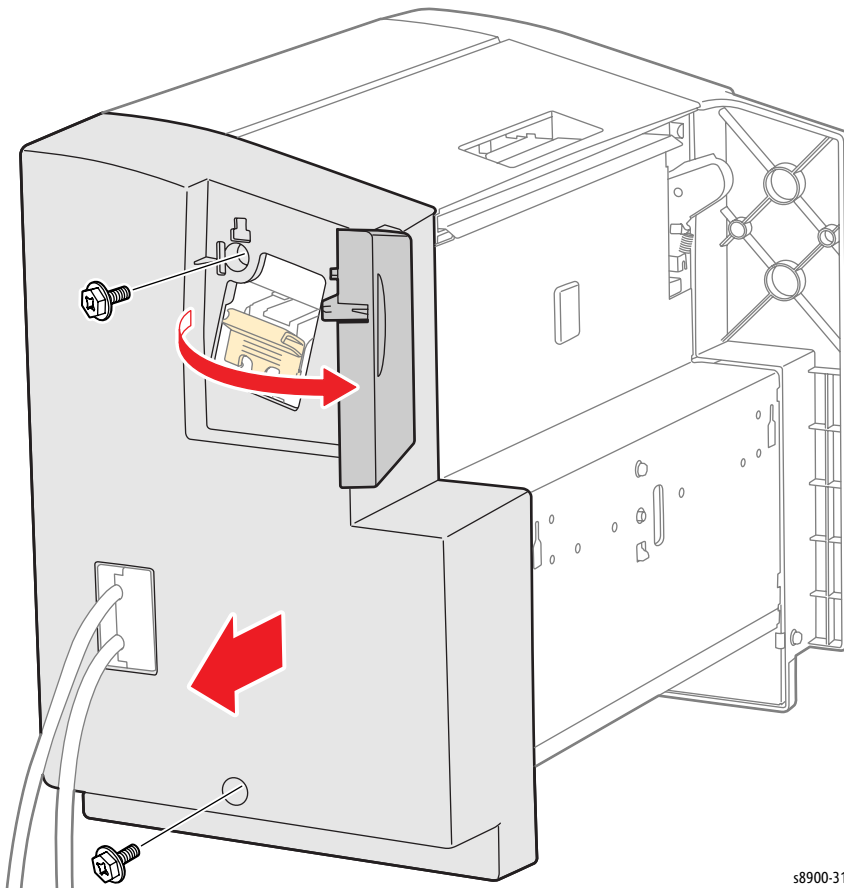
s8900-461

# Finisher

## REP 16.1 Finisher Rear Cover

### PL 16.1.3

1. Remove the Finisher Assembly (REP 16.3, [page 4-216](#)).
2. Open the Stapler Cover.
3. Remove 2 screws that secure the Finisher Rear Cover (PL 16.1.3).
4. Slide the Rear Cover out to remove.

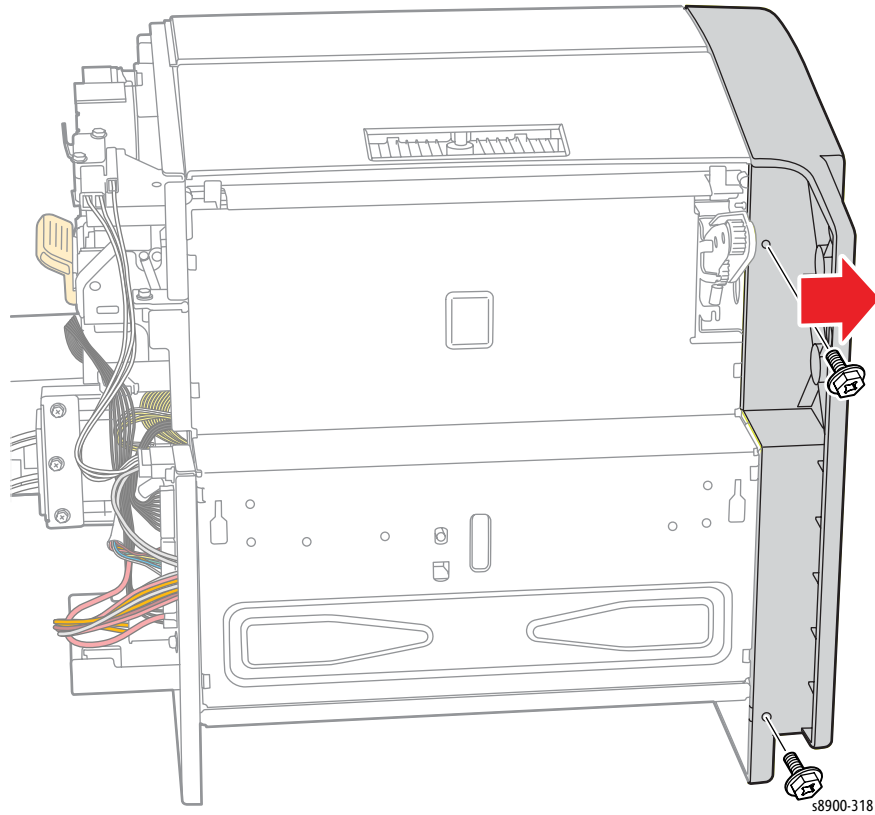


s8900-317

## REP 16.2 Finisher Front Cover

### PL 16.1.4

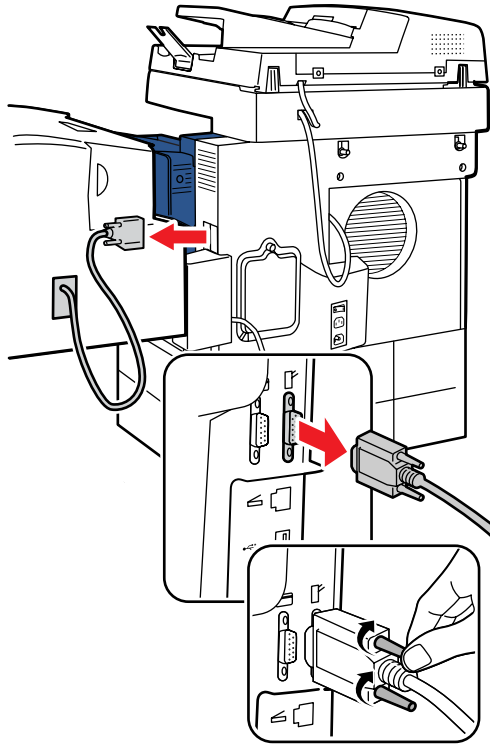
1. Remove the Finisher Assembly (REP 16.3, [page 4-216](#)).
2. Remove 2 screws that secure Finisher Front Cover (PL 16.1.4).
3. Slightly lift the edge of the Finisher while sliding the Front Cover away from the Finisher Assembly to remove.



## REP 16.3 Finisher Assembly

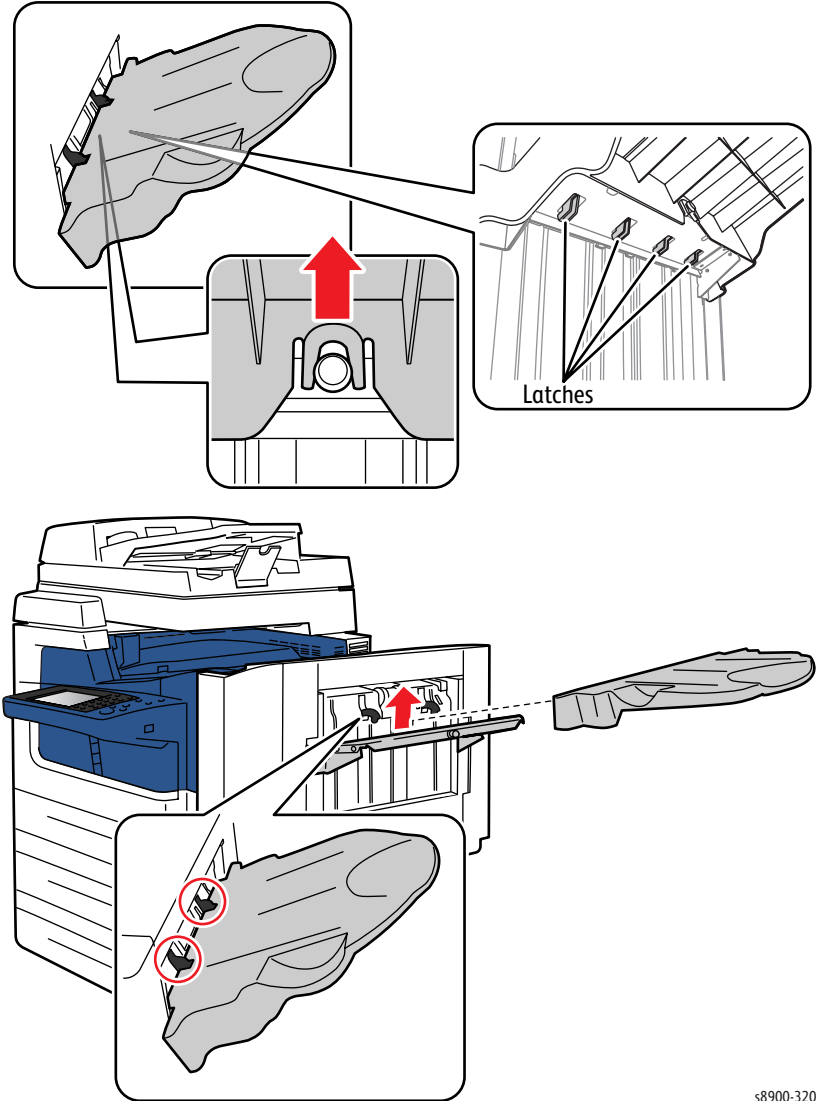
### PL 16.1.7

1. Disconnect the 2 cables (power and data cables).



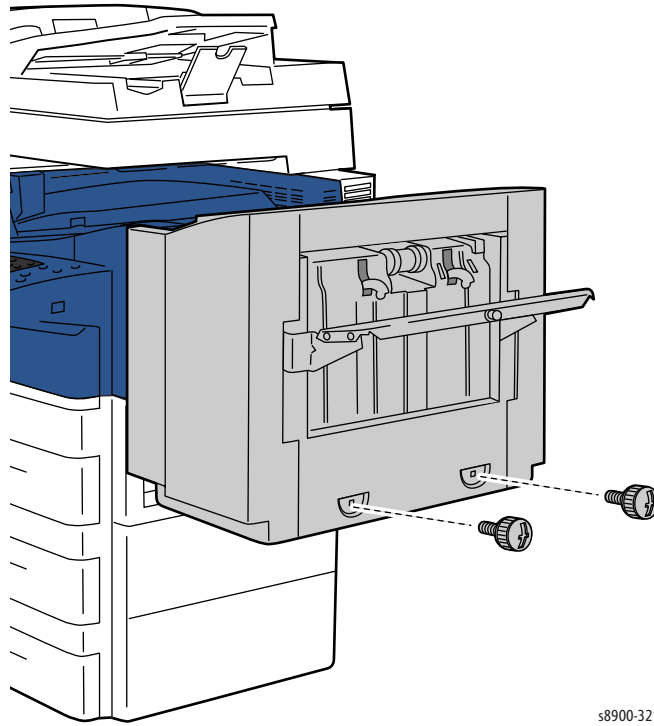
s8900-319

2. Lift the Tray Assembly while pushing it upward to release the 4 latches to remove the Tray.



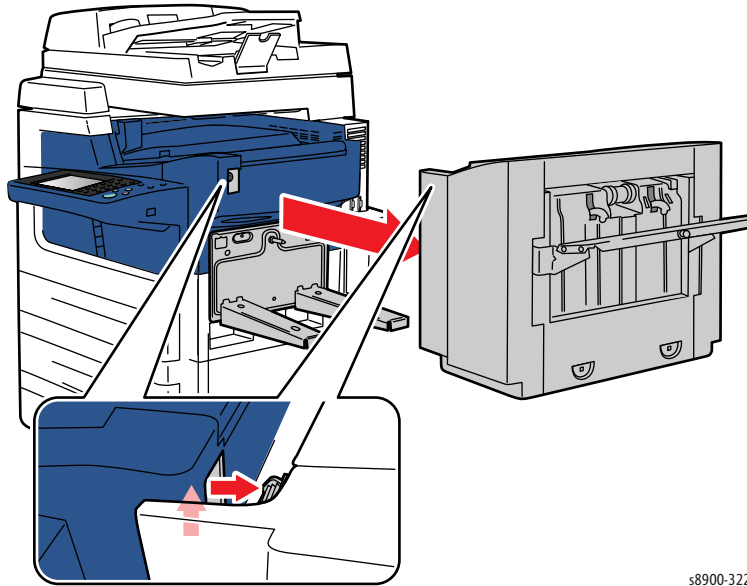
s8900-320

3. Remove the 2 thumb screws that secure the Finisher Assembly.

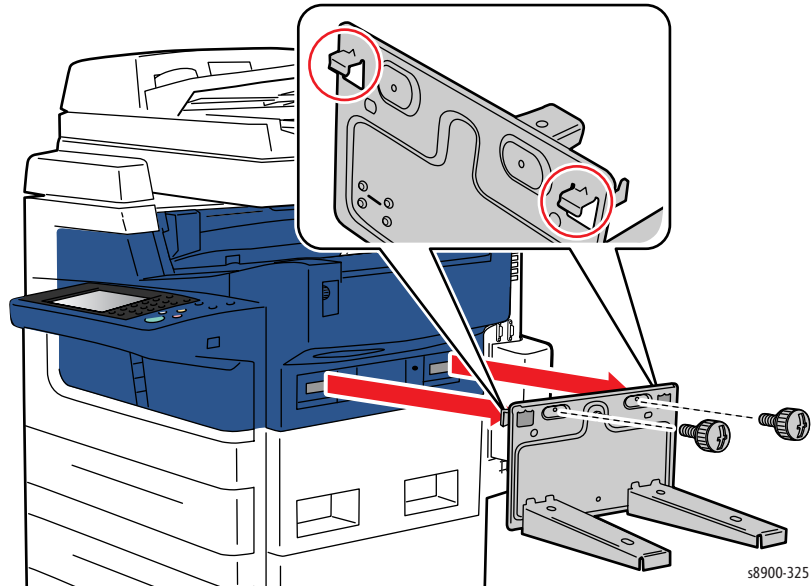


4. While lifting the Finisher Assembly, slide it out away from the printer.

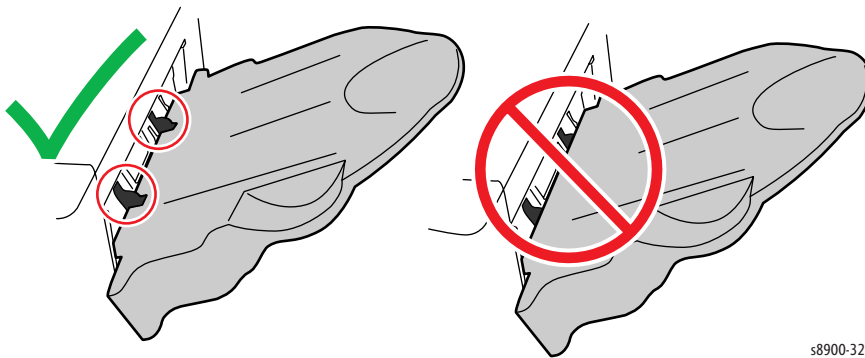
**CAUTION:** The finisher unit weighs 29.1 lb. (13.2 kg). Proceed with discretion.



1. Remove the 2 thumb screws that secure the Finisher Bracket.
2. Remove the Finisher Bracket.



**Replacement Note:** Make sure the tampers sit on top of the Tray Assembly.

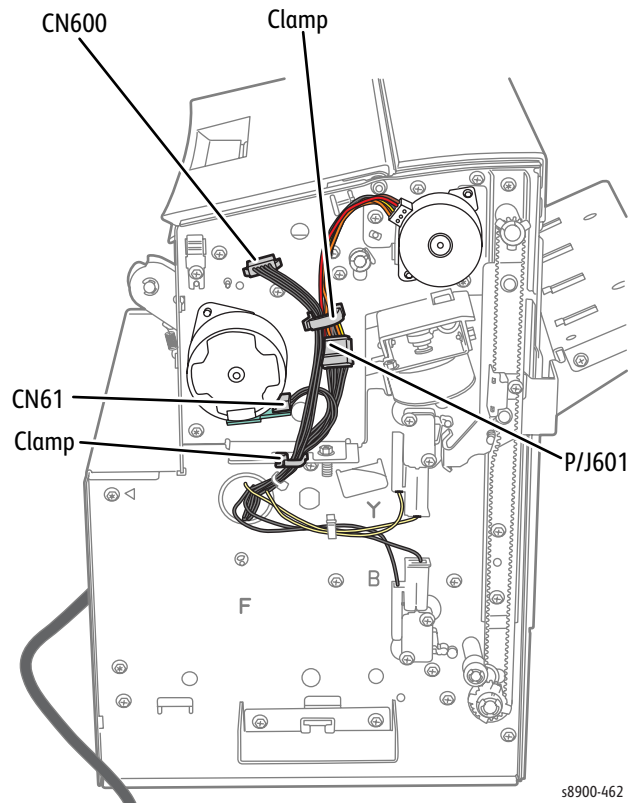


s8900-326

## REP 16.4 Finisher Feed/ Paddle Unit

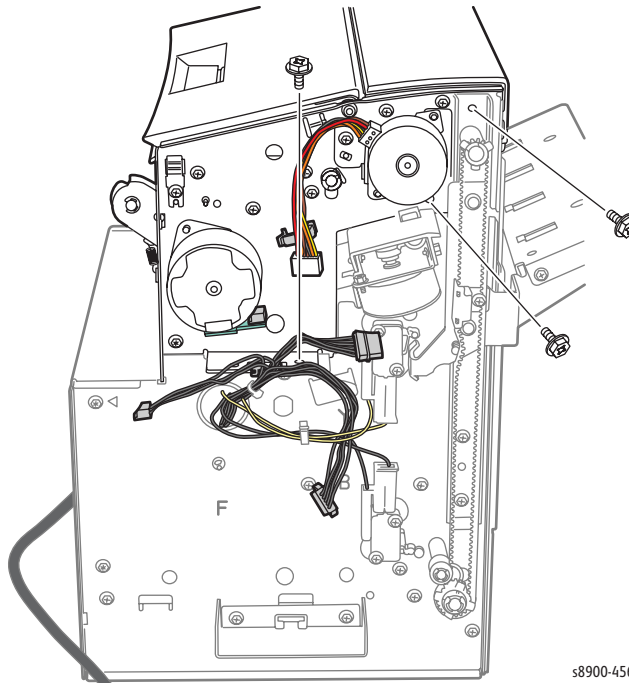
### PL 16.2.1

1. Remove the Finisher Assembly (REP 16.3, [page 4-216](#)).
2. Remove the Finisher Rear Cover (REP 16.1, [page 4-214](#)).
3. Remove the Finisher Front Cover (REP 16.2, [page 4-215](#)).
4. Remove the Lower Left Sub Assembly (REP 16.7, [page 4-226](#)).
5. On the front side, disconnect the 3 wiring harness connectors CN61, CN600, and P/J601.
6. Release the wiring harnesses from 2 Clips.

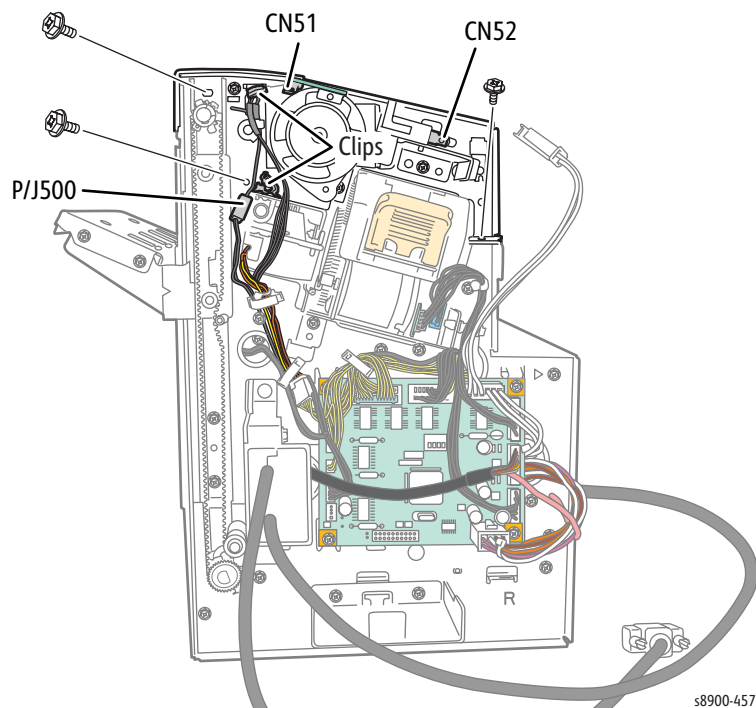




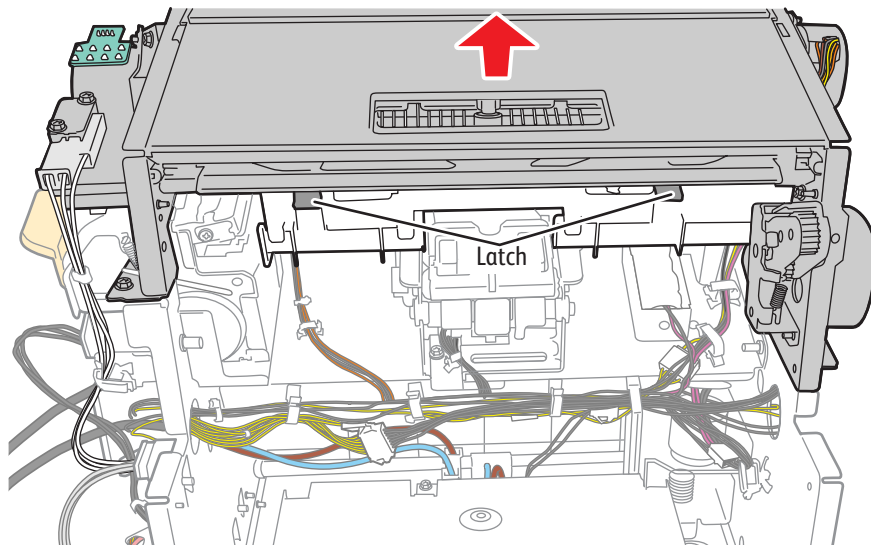
7. Remove 3 screws.



8. On the rear side, disconnect the 3 wiring harness connectors CN51, CN52, and P/J500.
9. Release the 2 wiring harnesses from the Clips.
10. Remove 3 screws.



11. Press on the latches while lifting the Feed/ Paddle Unit to remove.

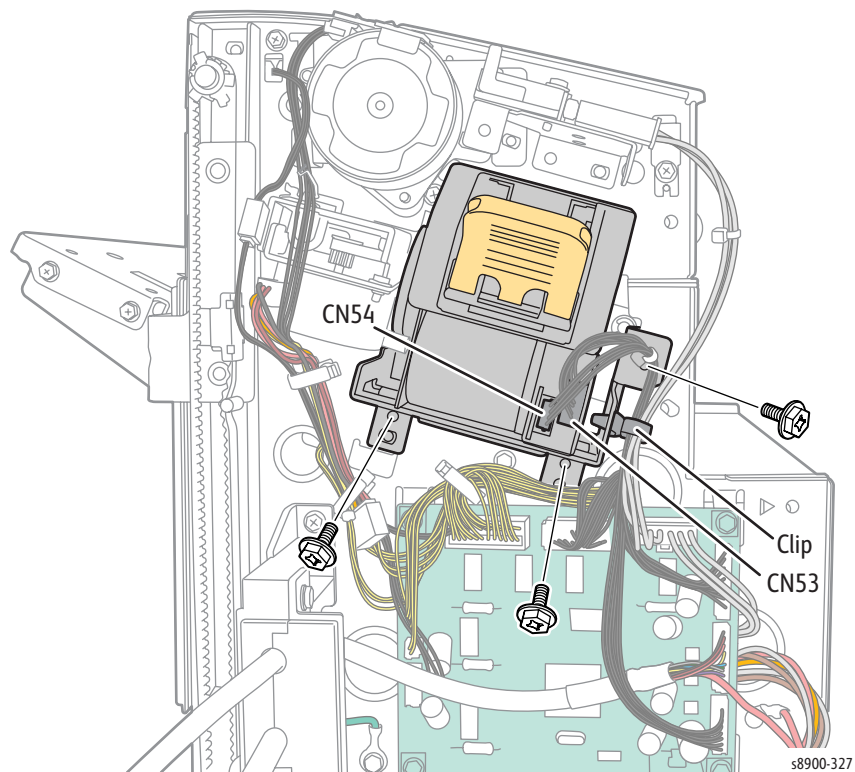


s8900-458

## REP 16.5 Finisher Stapler Unit

### PL 16.2.2

1. Remove the Finisher Assembly (REP 16.3, [page 4-216](#)).
2. Remove the Finisher Rear Cover (REP 16.1, [page 4-214](#)).
3. Disconnect 2 wiring harness connectors CN53 and CN54.
4. Release the wiring harness from the clip.
5. Remove 3 screws that secure the Stapler Unit.
6. Slide the Stapler Unit out to remove.

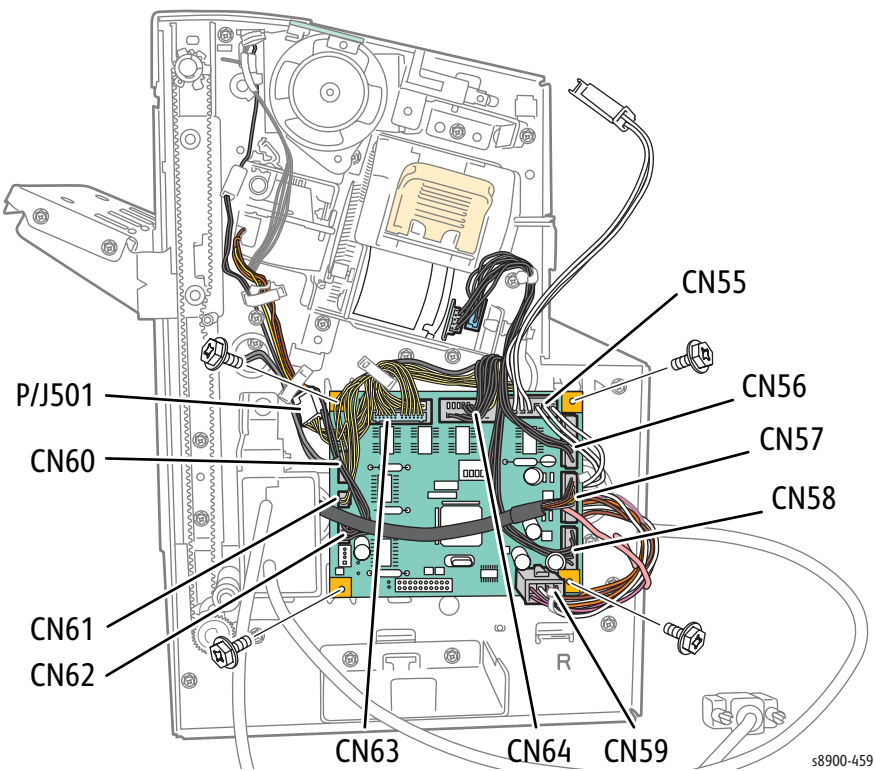


## REP 16.6 Finisher Control Board

### PL 16.2.3

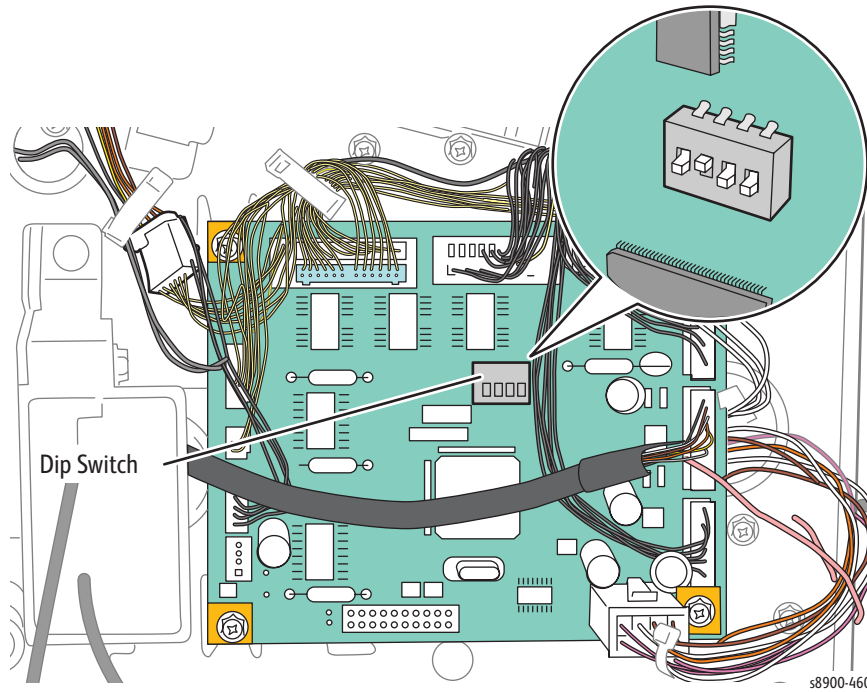
**⚠ CAUTION:** The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

1. Remove the Finisher Assembly (REP 16.3, [page 4-216](#)).
2. Remove the Finisher Rear Cover (REP 16.1, [page 4-214](#)).
3. Disconnect the 11 wiring harness connectors.
4. Remove 4 screws that secure the Finisher Control Board.
5. Remove the Finisher Control Board.



**!** **CAUTION:** Do not change the dip switch locations.

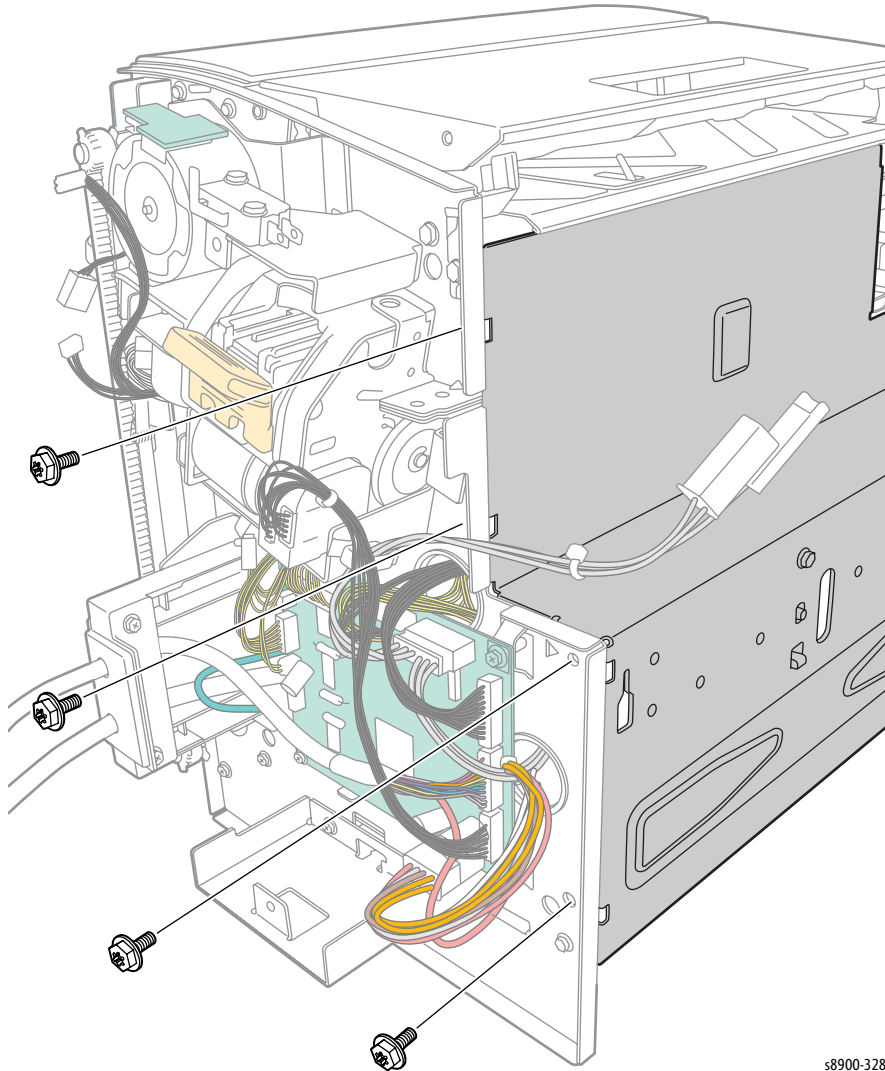
- 1 - Down
- 2 - Up
- 3 - Down
- 4 - Down



## REP 16.7 Lower Left Sub Assembly

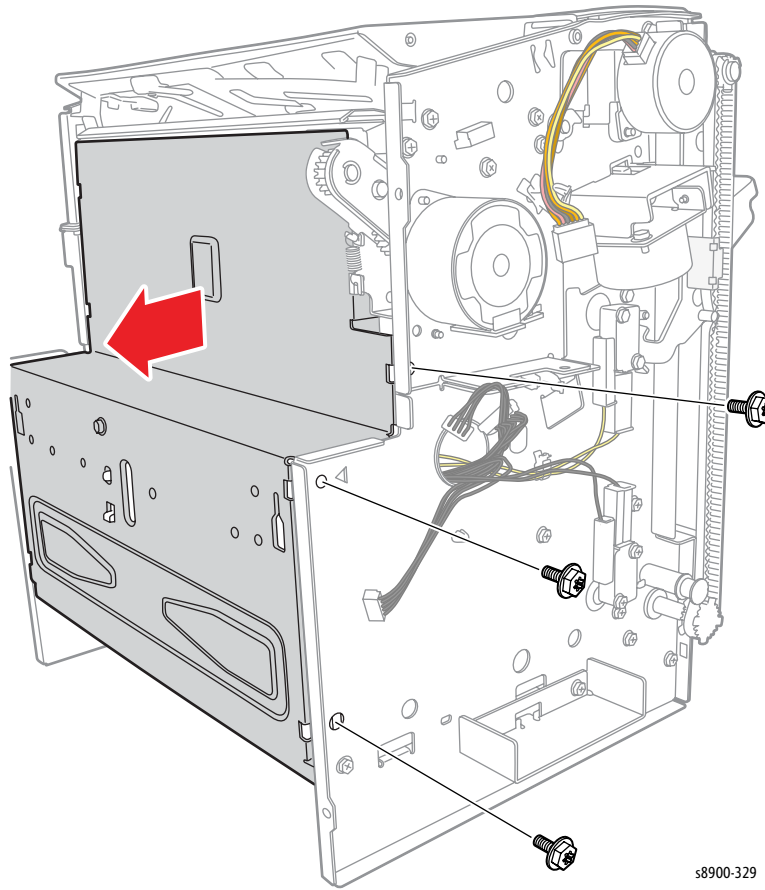
### PL 16.2.4

1. Remove the Finisher Assembly (REP 16.3, [page 4-216](#)).
2. Remove the Finisher Rear Cover (REP 16.1, [page 4-214](#)).
3. Remove the Finisher Front Cover (REP 16.2, [page 4-215](#)).
4. Remove 4 screws on the Rear Side that secure the Lower Left Sub Assembly (PL 16.2.4).

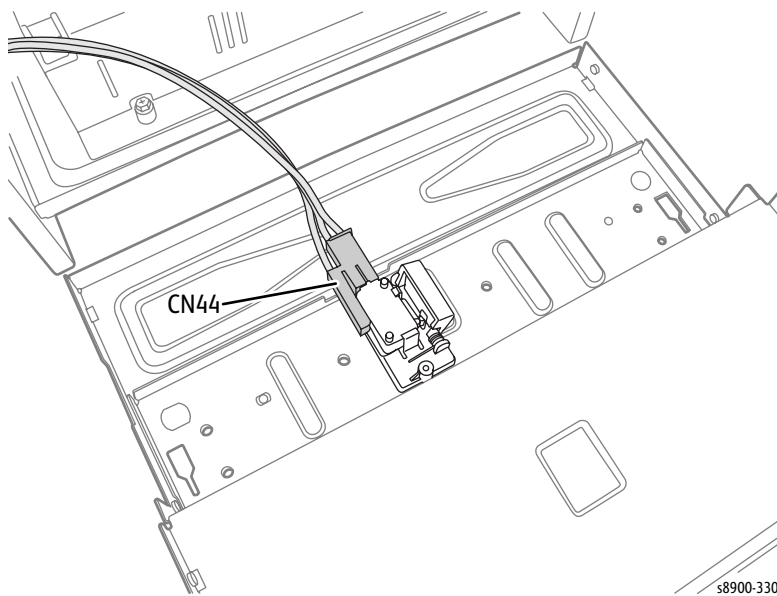


s8900-328

5. Remove 3 screws on the Front Side that secure the Lower Left Sub Assembly.
6. Remove the Lower Left Sub Assembly.



7. Disconnect the Interlock Switch connector CN44.

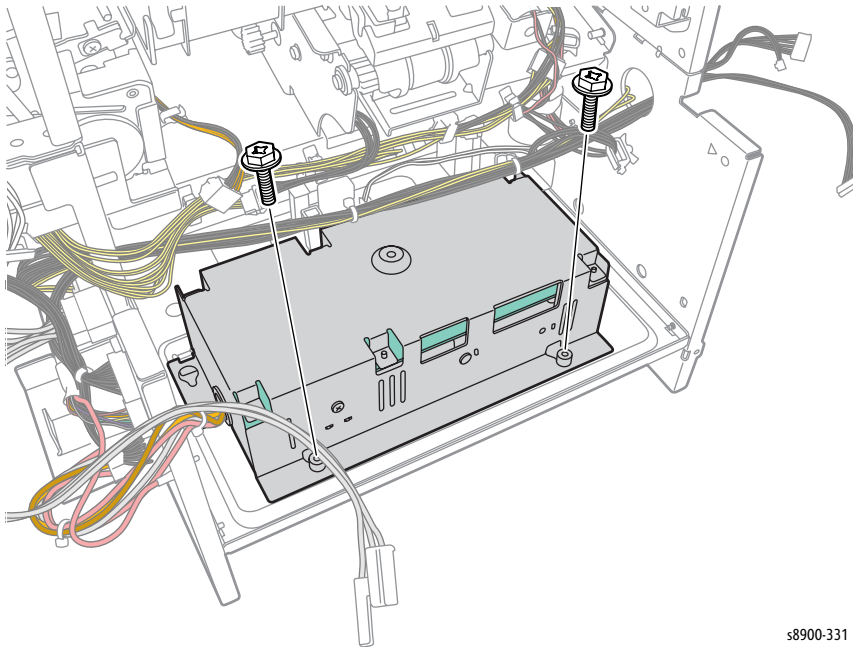


## REP 16.8 Finisher Power Supply

### PL 16.2.5

**!** **CAUTION:** The circuit board is vulnerable to ESD. Review the [Electrostatic Discharge \(ESD\) Precautions](#) on page 1-6 in Chapter 1 (General and Operational Overview).

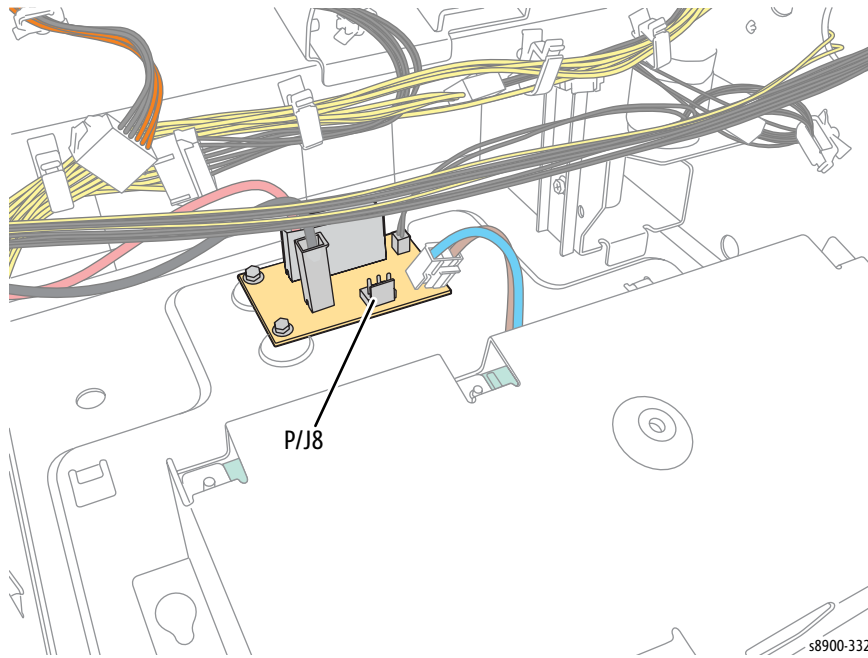
1. Remove the Finisher Assembly (REP 16.3, [page 4-216](#)).
2. Remove the Finisher Front Cover (REP 16.2, [page 4-215](#)).
3. Remove the Finisher Rear Cover (REP 16.1, [page 4-214](#)).
4. Remove the Lower Left Sub Assembly (REP 16.7, [page 4-226](#)).
5. Remove 2 screws that secure the Power Supply.
6. Pass the wiring harness through the hole.



s8900-331



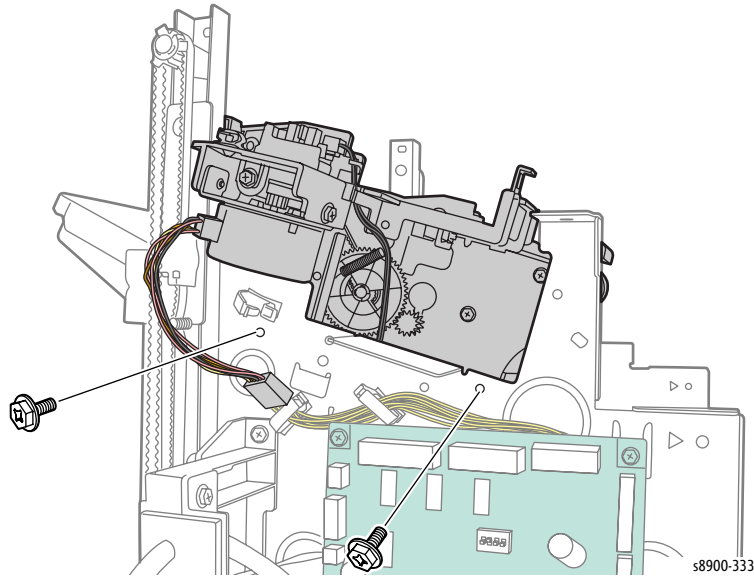
7. Disconnect the power wiring harness connector J8 from the Power Control Board.
8. Lift and remove the Power Control Board.



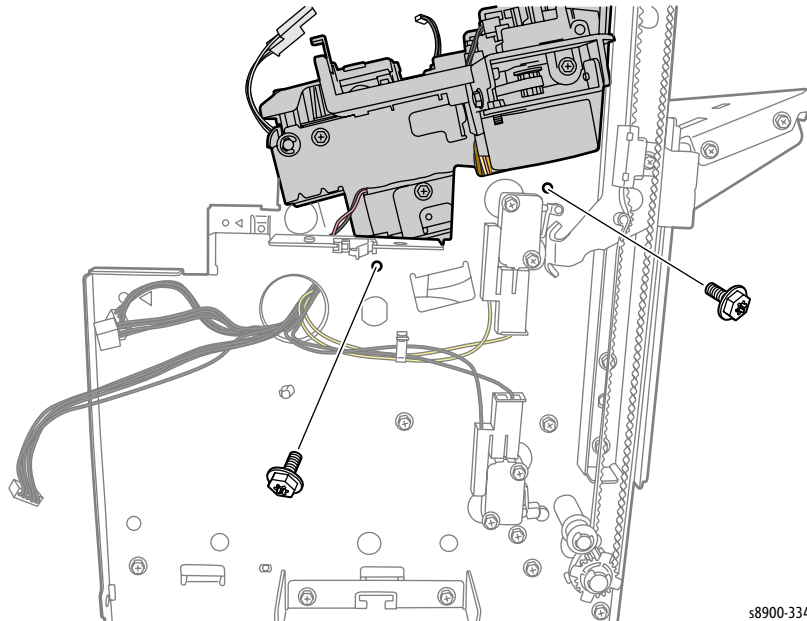
## REP 16.9 Finisher Ejector/ Tamper Assembly

### PL 16.2.6

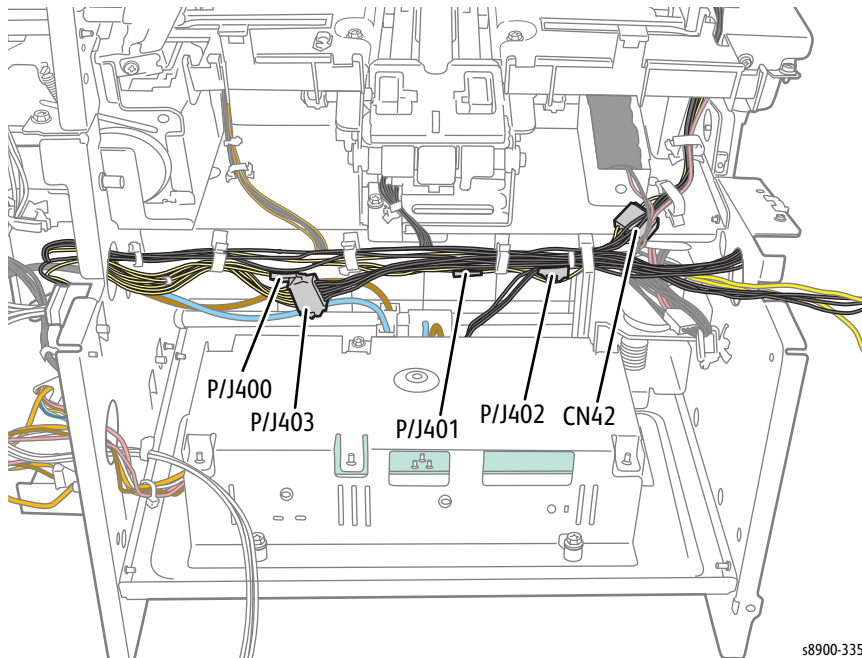
1. Remove the Finisher Stapler Unit (REP 16.5, [page 4-223](#)).
2. Remove the Finisher Feed/ Paddle Unit (REP 16.4, [page 4-220](#)).
3. From the rear side, disconnect 1 wiring harness connector P/J501.
4. From the rear side, remove 2 screws that secure the Ejector/ Tamper Assembly.



5. From the front side, disconnect 2 Interlock Switch wiring harness connectors CN62 and CN63.
6. Release the wiring harnesses from the Clip.
7. Remove 2 screws that secure Ejector/ Tamper Assembly.

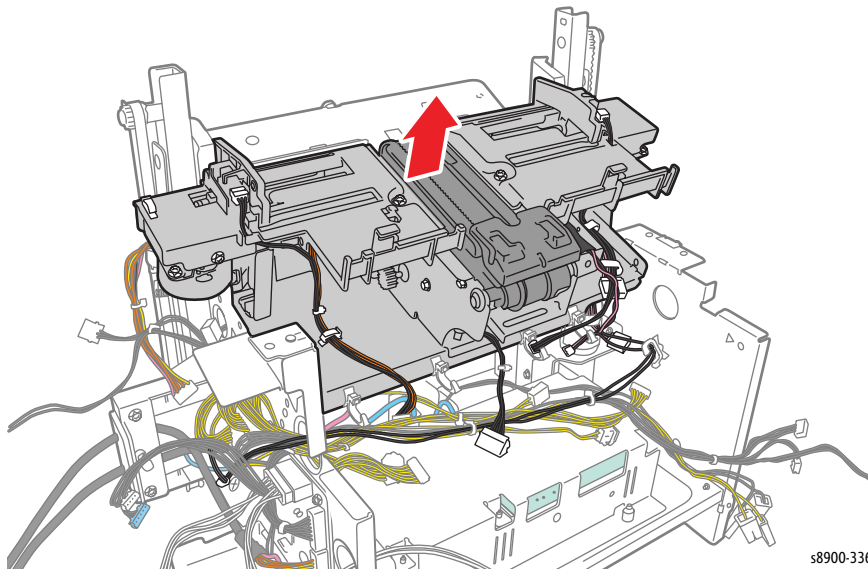


8. From the left side, disconnect 5 wiring harness connectors CN42, P/J400, P/J401, P/J402, and P/J403.



s8900-335

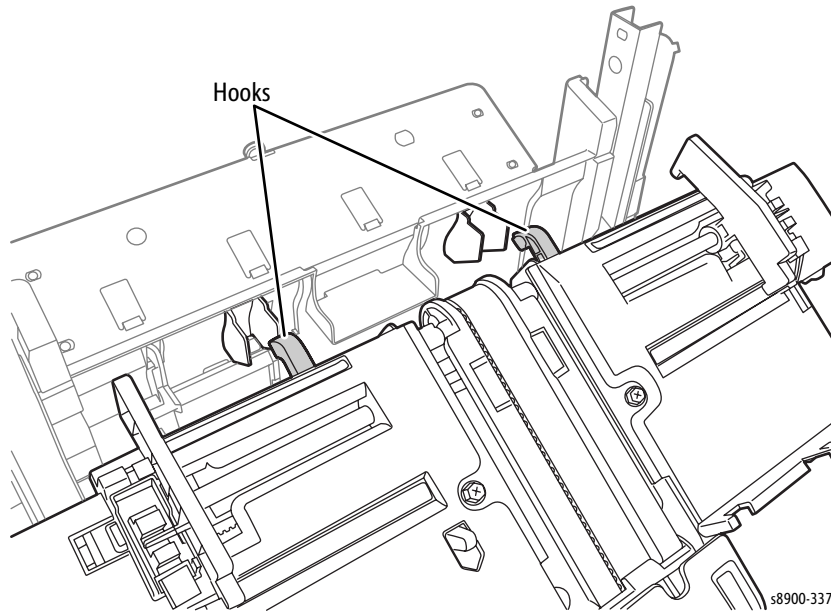
9. Tilt the Ejector/ Tamper Assembly towards you while lifting the Assembly to remove.



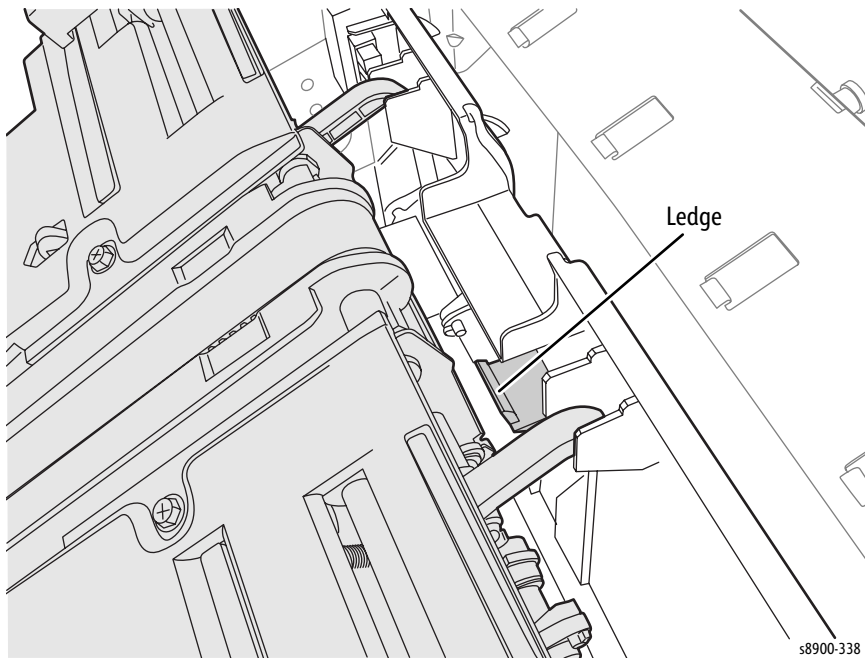
s8900-336

Replacement Notes:

- Be sure to position the hooks through the holes on the Shield to sit the Ejector/ Tamper Assembly in place.



- Be sure the bottom edge of the Ejector/ Tamper Assembly sit on the ledge of the Shield.



# Parts List

# 5

## In this chapter...

- [Serial Number Format](#)
- [Using the Parts List](#)
- [General Overview](#)
- [Duplex Automatic Document Feeder](#)
- [Scanner Assembly](#)
- [Ink Loader Assembly](#)
- [Cover](#)
- [Stapler Assembly](#)
- [Left Side Door/ Tray 1](#)
- [Imaging](#)
- [Paper Path](#)
- [Drive](#)
- [Electrical](#)
- [Exit, Sensors, and Actuators](#)
- [Frame](#)
- [525-Sheet Feeder](#)
- [1800-Sheet Feeder](#)
- [Storage Cart](#)
- [Finisher](#)
- [Xerox Supplies and Accessories](#)

## Serial Number Format

Changes to Xerox products are made to accommodate improved components as they become available. It is important when ordering parts to include the following information:

- Component's part number
- Product type or model number
- Serial Number of the printer

The serial numbers are only reset to the starting serial number when the ending serial number is reached. At that time the revision digit will be rolled. Serial numbers below 10001 are reserved for XOG Final Integration Center (FIC) sites if re-serialization is needed.

### XM Format

#### Production Units (MP Build)

The nine-digit serial number has the following format:

- **PPSSSSSS**
- **PPP** = Three digit alphanumeric product code
- **SSSSSS** = Six digit numeric serial number

Product	Product Code	Starting Serial Number	Ending Serial Number
8700_X 8700_XJ 8700_XM	DA3	000601	050600
8900_XJ 8900_XM	DA4	100601	125600
<ul style="list-style-type: none"> <li>• The 8700_X, 8700_XJ and 8700_XM will use the serial number range sequentially.</li> <li>• The 8900_XJ and 8900_XM will use the serial range sequentially.</li> </ul>			

## ASM Format

### Production Units (MP Build)

The ten-digit serial number has the following format:

- **PPSSSSSSc**
- **MMM** = Three digit alphanumeric product code
- **SSSSSS** = Six digit numeric serial number
- **c** = check digit

Product	Product Code	Starting Serial Number	Ending Serial Number
8700_ASM	DA3	050601	100500
8900_ASM	DA4	125601	150500

## Examples

### DA3074072

- Product code for 8700\_X printer = DA3
- Serial number for 8700\_X = 074072

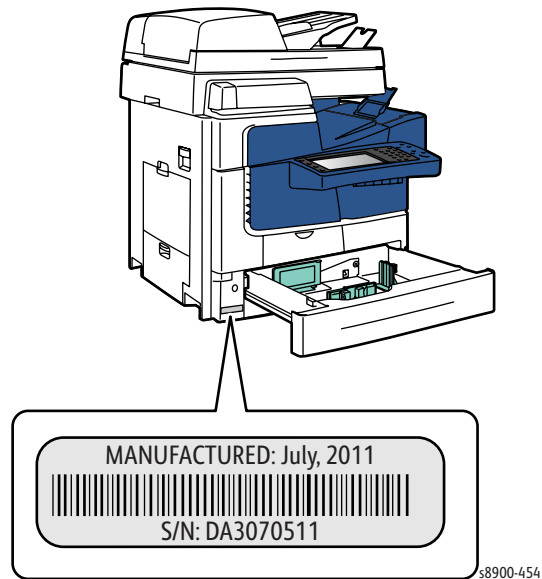
### 3271334523

- Mfg Location code for 8900\_ASM printer = 327
- Serial number for 8900\_ASM = 133452
- Check digit = 3

## Serial Number Location

### S/N DA3070511

- **DA**: Product Code for the ColorQube 8700
- **3** = Revision Level
- **070511** = Serial Number for ColorQube 8700





## Using the Parts List

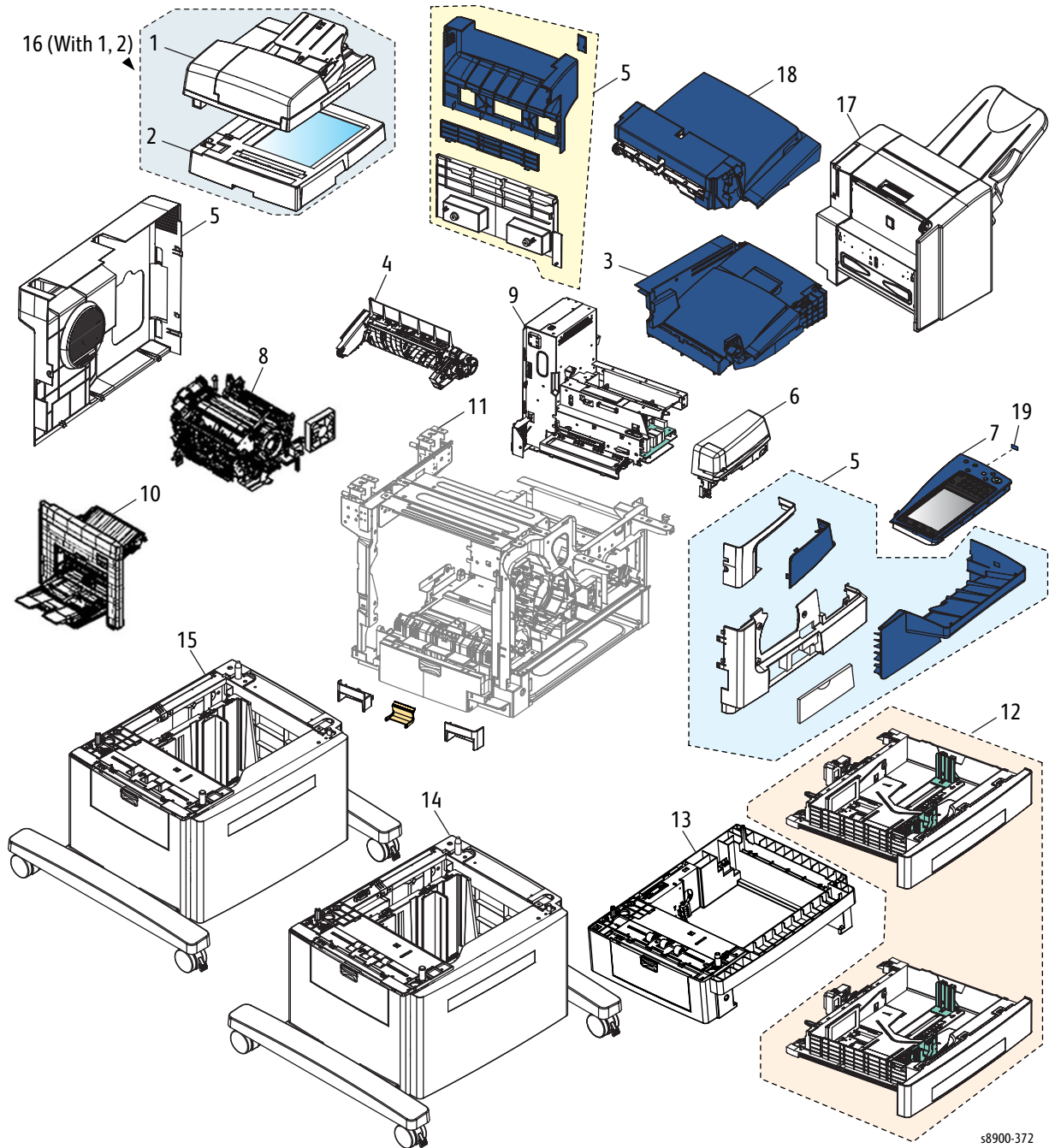
- **ID No.:** The callout number from the exploded part diagram.
- **Name/ Description:** The name of the part to be ordered and the number of parts supplied per order.
- **Part Number:** The material part number used to order that specific part.
- Parts identified throughout this manual are referenced **PL#.#.#**; For example, PL3.1.10 means the part is item 10 of Parts List 3.1.
- A black triangle preceding a number followed by a parenthetical statement in an illustrated parts list means the item is a parent assembly, made up of the individual parts called out in parentheses.
- The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.
- An asterisk (\*) following a part name indicates the page contains a note about this part.
- The notation (NS) next to a part indicates that particular part is not spared, but contained in a kit or major assembly.
- The notation “**J1<>J2 and P2**” is attached to a wire harness. It indicates that connector Jack 1 is attached to one end of the wire harness and connector J2 is attached to the other end that is plugged into P2.

**Note:** Only parts showing part numbers are available for ordering by support. Parts not showing part numbers are available on the parent assembly.

Abbreviation	Meaning
C	C-ring
E	E-ring
KL	K-clip
S	Screw

# General Overview

## Printer Overview

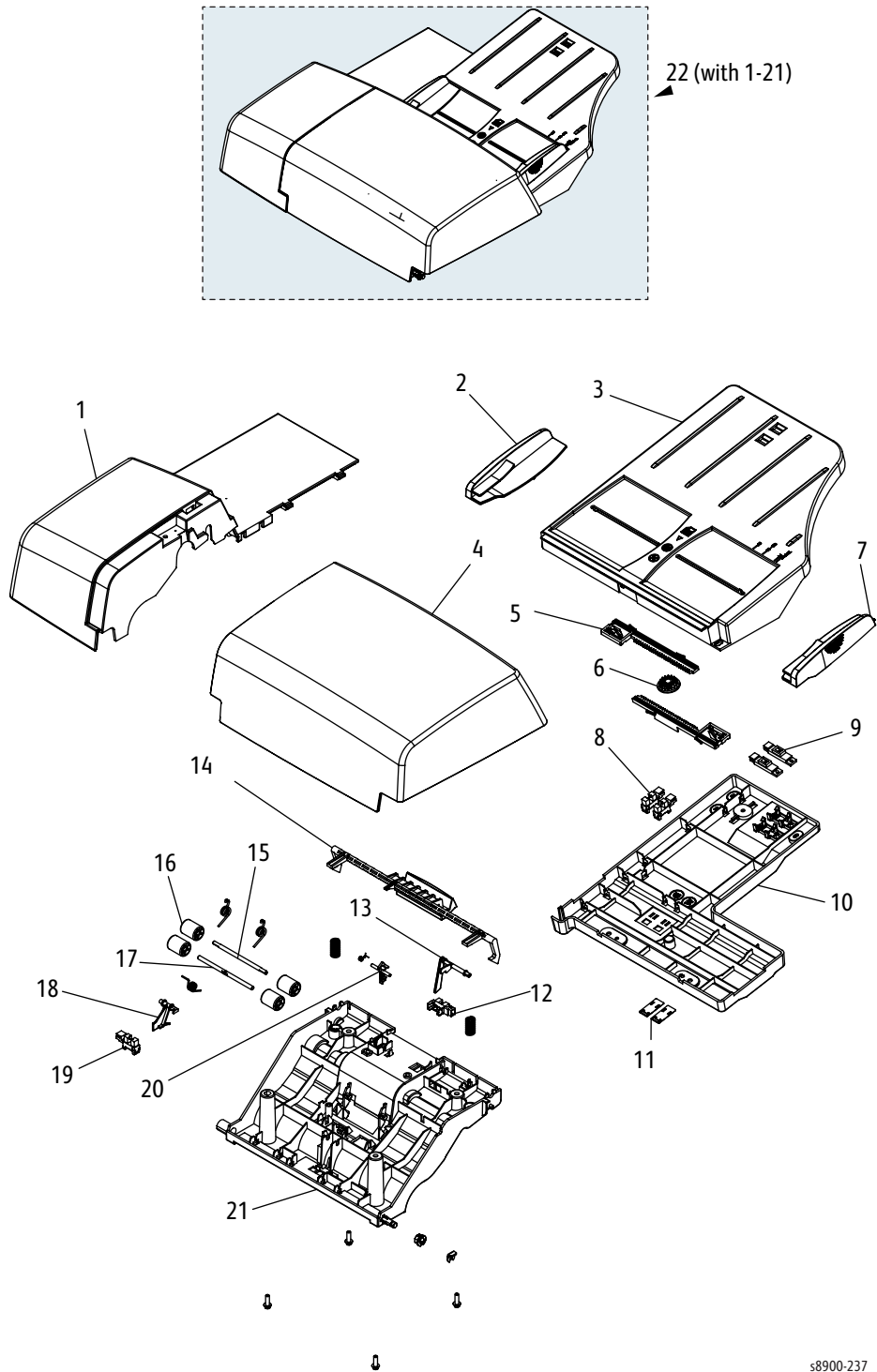


## Printer Overview

Item	Description	Parts List	Page
1.	Duplex Automatic Document Feeder	1.1	<a href="#">page 5-8</a>
2.	Scanner Assembly	2.1	<a href="#">page 5-16</a>
3.	Ink Loader	3.1	<a href="#">page 5-19</a>
4.	Exit, Sensors, and Actuators	11.1	<a href="#">page 5-38</a>
5.	Cover	4.1	<a href="#">page 5-24</a>
6.	Stapler Assembly	5.1	<a href="#">page 5-26</a>
7.	Control Panel (UI)	4.1	<a href="#">page 5-24</a>
8.	Drive	9.1	<a href="#">page 5-34</a>
9.	Electrical	10.1	<a href="#">page 5-35</a>
10.	Left Side Door/ Tray 1	6.1	<a href="#">page 5-27</a>
11.	Frame	12.1	<a href="#">page 5-41</a>
12.	Tray 2, 3, 4, 5	13.1 14.1	<a href="#">page 5-43</a> <a href="#">page 5-48</a>
13.	525- Sheet Feeder	13.1	<a href="#">page 5-43</a>
14.	1800- Sheet Feeder	14.1	<a href="#">page 5-48</a>
15.	Storage Cart	15.1	<a href="#">page 5-57</a>
16.	Scanner/ DADF Assembly (Customer Replaceable)	2.1	<a href="#">page 5-16</a>
17.	Finisher	16.1	<a href="#">page 5-58</a>
18.	Horizontal Transport (required for Finisher)	3.1	<a href="#">page 5-19</a>
19.	USB Port Cover	4.1	<a href="#">page 5-24</a>

# Duplex Automatic Document Feeder

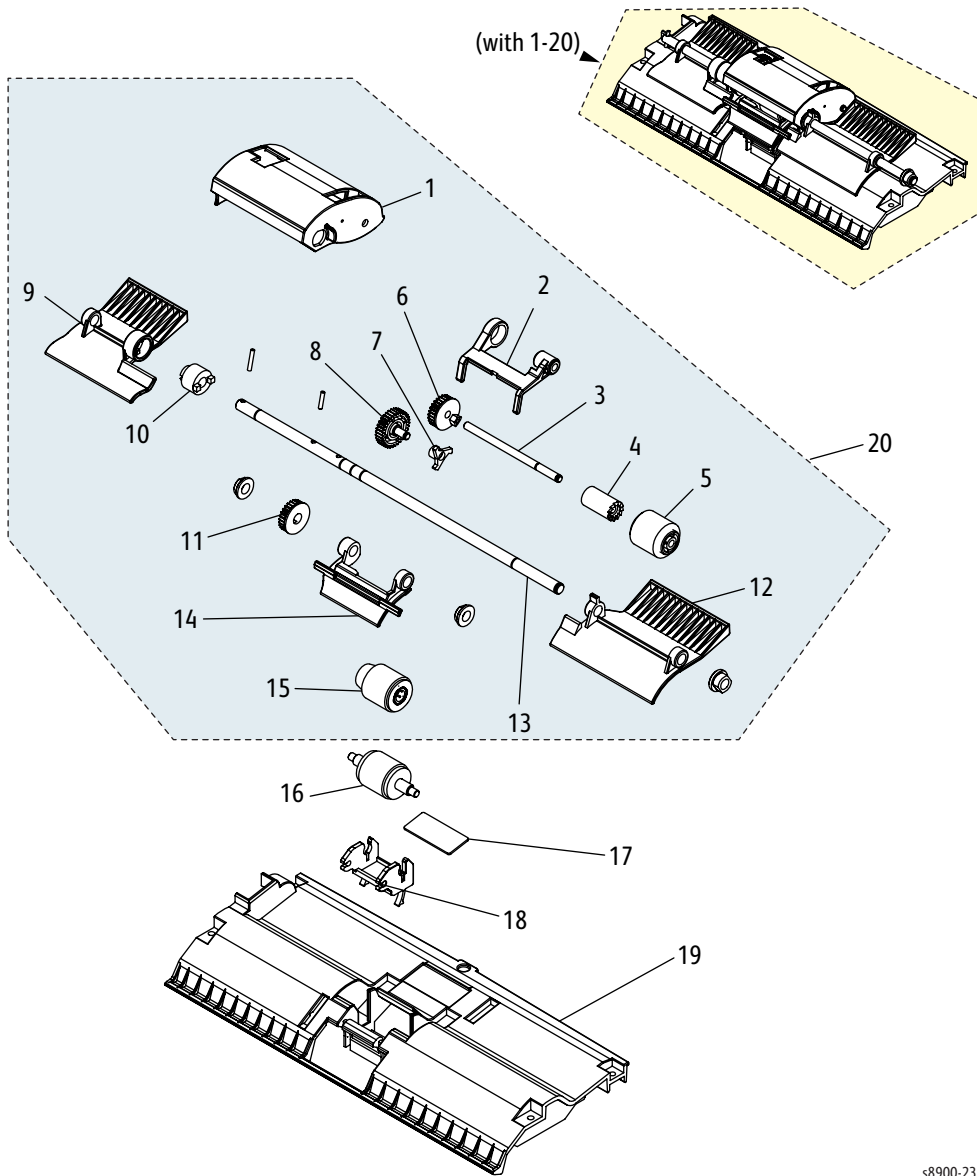
## Parts List 1.1 Duplex Automatic Document Feeder (1 of 4)



## Parts List 1.1 Duplex Automatic Document Feeder (1 of 4)

Item	Description	Part Number
1.	Rear Cover	
2.	Rear Side Fence	
3.	Document Tray	
4.	Top Cover	
5.	Side Fence Rack Gear	
6.	Gear	
7.	Front Side Fence	
8.	Sensor BL205319	
9.	Sensor	
10.	Inner Tray Cover	
11.	Sensor	
12.	Sensor	
13.	Paper Presence Sensor Actuator	
14.	Top Cover Handle	
15.	1st Feed Idle Roller Shaft	
16.	Feed Idle Roller	
17.	CVT Roller Idle Shaft	
18.	Scan Timing Sensor Actuator	
19.	Sensor	
20.	Pickup Parking Lever	
21.	Top Guide Cover	
22.	Duplex Automatic Document Feeder (REP 1.1, <a href="#">page 4-5</a> )	059K83560

## Parts List 1.2 Duplex Automatic Document Feeder (2 of 4)

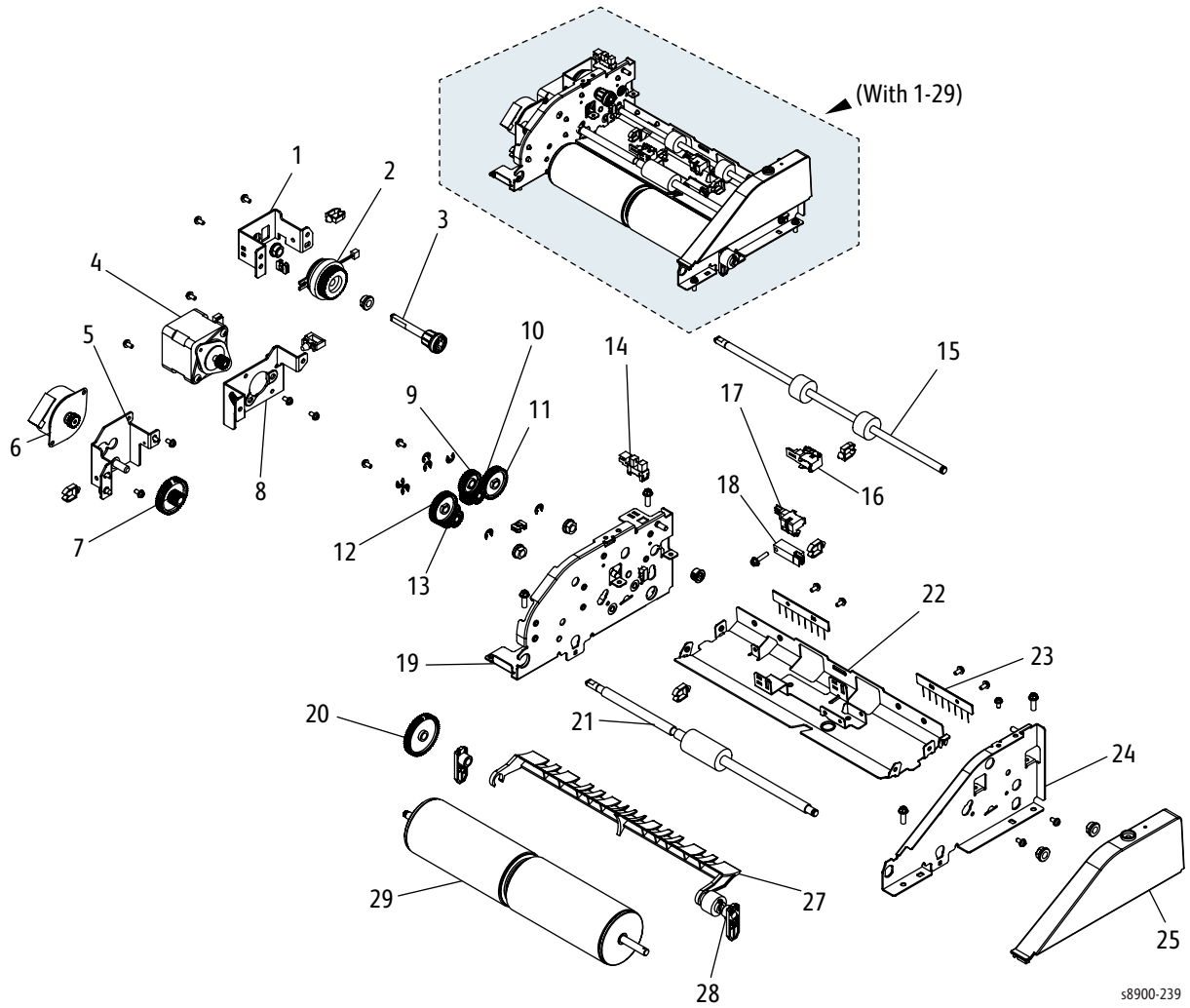


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## Parts List 1.2 Duplex Automatic Document Feeder (2 of 4)

Item	Description	Part Number
1.	Outer Pickup Housing	
2.	Pickup Stopper	
3.	Roller Pickup Shaft	
4.	Idle Pickup Latch	
5.	Roller Pickup Hub	
6.	Gear, Pickup Feed One-way M06Z27	
7.	Pickup Park Actuator	
8.	Gear, Pick Up Relay M06Z33	
9.	Rear Pickup Wing	
10.	Limiter OLTR Pickup Torque	
11.	Gear, Pickup Feed M06Z27	
12.	Front Pickup Wing	
13.	Roller Feed Shaft	
14.	Center Pickup Wing	
15.	Pickup Roller	
16.	Retard Roller	
17.	Cork Pad	
18.	Retard Roller Case	
19.	Input Guide	
20.	DADF Pick Roller/ Retard Roller Assembly (REP 1.2, <a href="#">page 4-7</a> ) (REP 1.3, <a href="#">page 4-8</a> )	059K83490

### Parts List 1.3 Duplex Automatic Document Feeder (3 of 4)

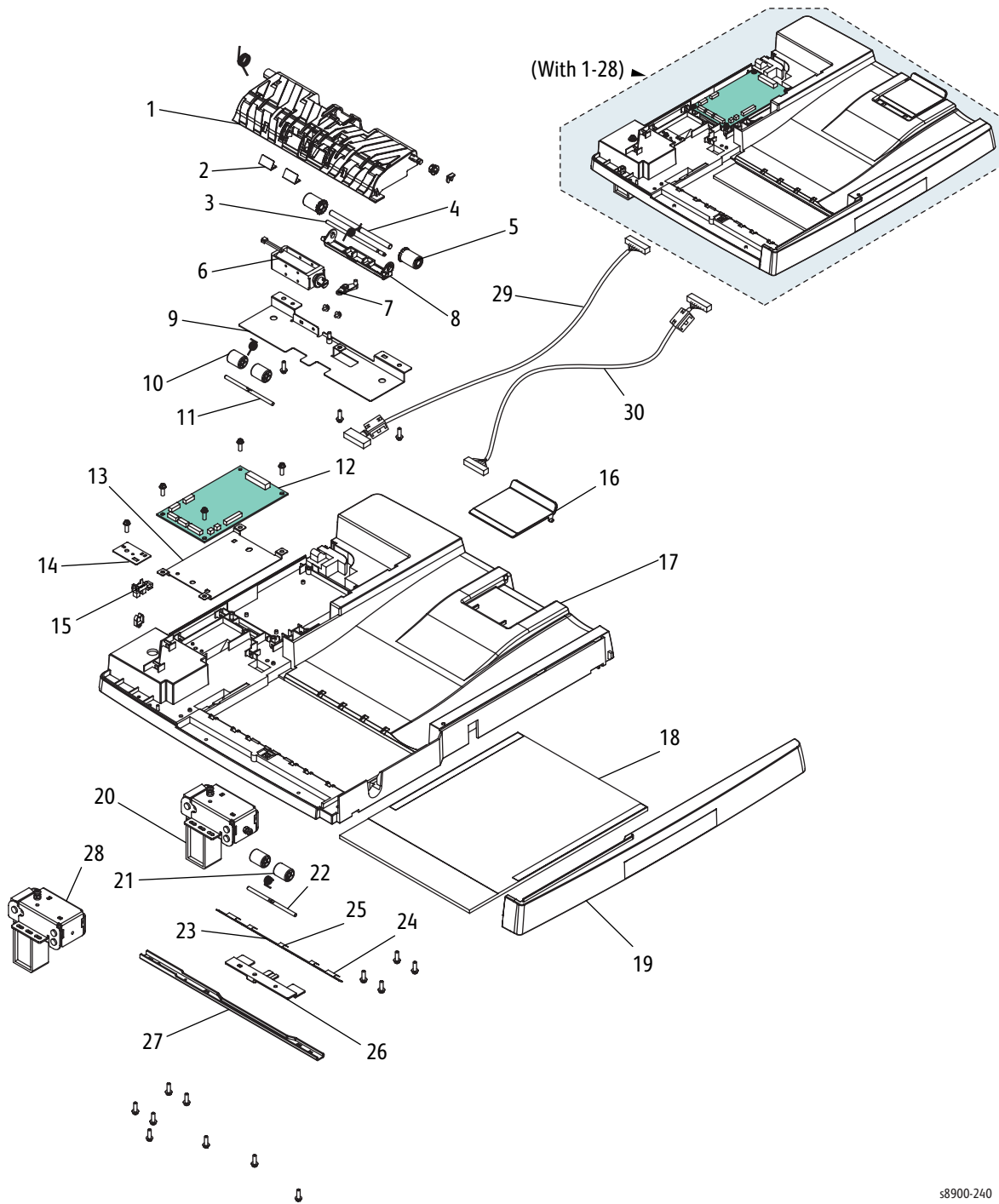




## Parts List 1.3 Duplex Automatic Document Feeder (3 of 4)

Item	Description	Part Number
1.	Pickup Clutch Bracket	
2.	Clutch, Helical M06Z43	
3.	Drive Shaft Pickup Assembly	
4.	Feed Motor Assembly 42 Hybrid	
5.	CVT Motor Bracket Assembly	
6.	CVT Motor Assembly 042 OM	
7.	Gear, Helical M06Z49Z17	
8.	Feed Motor Bracket	
9.	Gear, Helical M06Z33	
10.	Gear, Helical M06Z34Z22	
11.	Gear, Helical M06Z43	
12.	Gear, Helical M06Z43	
13.	Gear, Helical M06Z34Z22	
14.	Sensor BL105319	
15.	Roller	
16.	Sensor	
17.	Sensor	
18.	Sensor	
19.	Rear Frame Assembly	
20.	Gear, Helical M06Z5	
21.	1st Feed Roller	
22.	Upper Guide Bracket Assembly	
23.	Guide Antistatic Brush	
24.	Front Frame Assembly	
25.	Front Frame Cover	
26.	Entrance Roller Knob	
27.	CVT Roller Diverter	
28.	CVT Roller Stopper	
29.	CVT Roller Assembly	

### Parts List 1.4 Duplex Automatic Document Feeder (4 of 4)



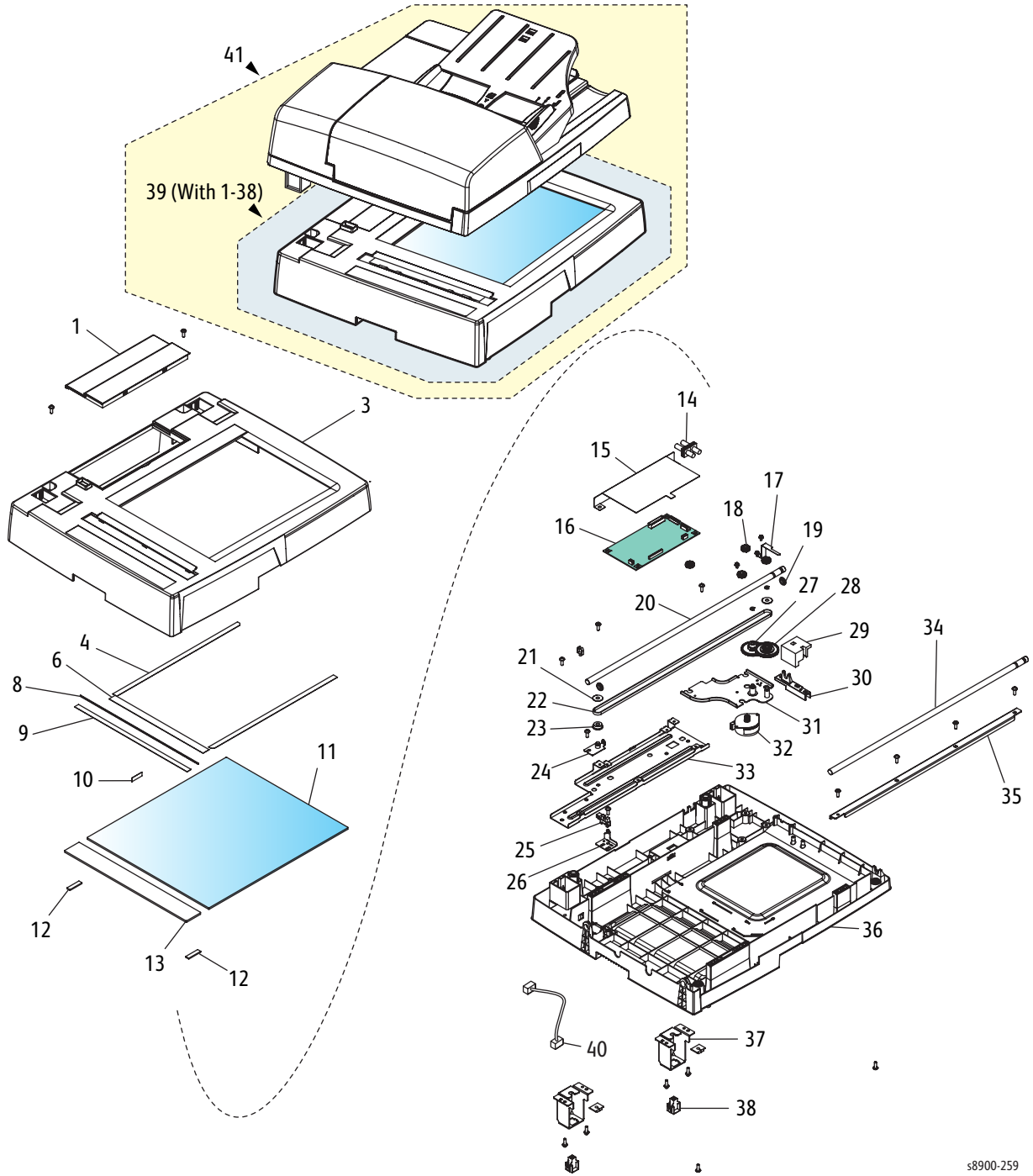
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## Parts List 1.4 Duplex Automatic Document Feeder (4 of 4)

Item	Description	Part Number
1.	Lower Guide	
2.	Lower Guide Mylar	
3.	Idle Housing Shaft	
4.	Idle Roller Shaft	
5.	Idle Roller	
6.	Solenoid	
7.	Solenoid Linker	
8.	Idle Roller Shaft Housing	
9.	Lower Guide Bracket Assembly	
10.	Feed Idle Roller	
11.	CVT Idle Roller Shaft	
12.	DADF Board (SDC PWB) (REP 1.4, <a href="#">page 4-9</a> )	960K72010
13.	PCB Bracket	
14.	Sensor Bracket	
15.	Sensor BL205319	
16.	Main Cover End Fence	
17.	Main Cover	
18.	White Cushion	
19.	Main Cover Handle	
20.	Right Hinge	
21.	Feed Idle Roller	
22.	Idle Roller Shaft	
23.	Main Cover Protect Mylar	
24.	Main Cover Long Mylar	
25.	Main Cover Mylar	
26.	Idle Roller Cover	
27.	Main Cover Bracket	
28.	Left Hinge	
29.	Main Controller Board to IPP Board Cable	117E37920
30.	IPP to SDC Board Cable, 36 Pin	117E37900

# Scanner Assembly

## Parts List 2.1 Scanner Assembly



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## Parts List 2.1 Scanner Assembly

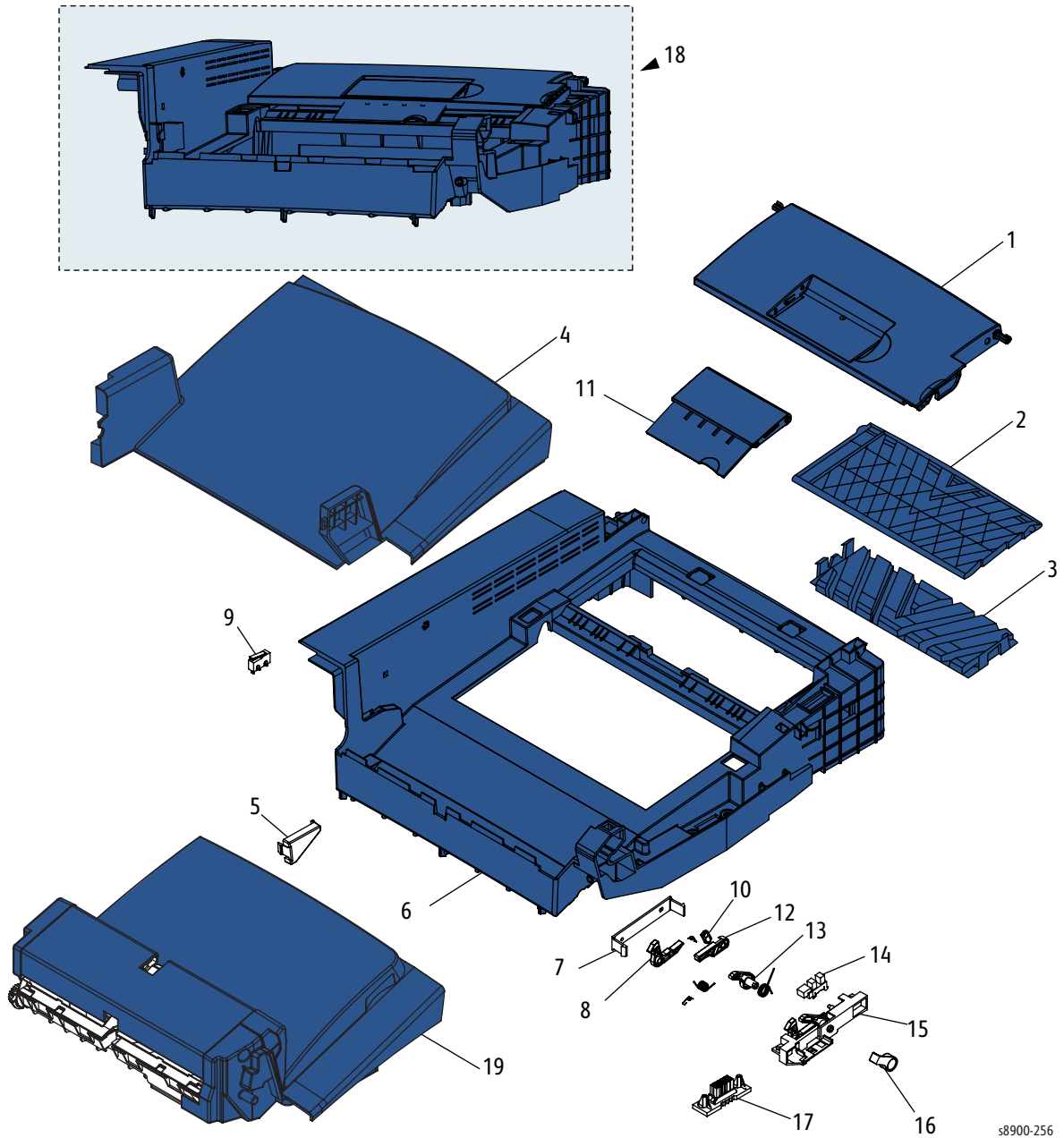
Item	Description	Part Number
1.	Upper Sub Cover	
2.	Scale Label	
3.	Upper Cover	
4.	Top Contact Glass Tape	
5.	Right Contact Glass Tape	
6.	Calibration Strip	
7.	Left Contact Glass Tape	
8.	SLII Glass Cushion	
9.	Left SLII Glass Tape	
10.	Upper Sub Cover Tape	
11.	Contact Glass	
12.	Glass Damper	
13.	SLII Glass	
14.	ICC Harness Assembly	
15.	Cover Bracket	
16.	Scanner Board (IPP PWB) (REP 2.1, <a href="#">page 4-11</a> )	960K72000
17.	Ground Bracket	
18.	Screw M3 x 6	
19.	Shaft Damper	
20.	Guide Shaft 010	
21.	Gear Cap	
22.	Timing Belt 435M XL4.8	
23.	Tension R Idler	
24.	Tension Bracket Assembly	
25.	Interrupt Photo Sensor	
26.	Home Sensor Bracket	
27.	Gear, M06Z23 M05Z73	
28.	Gear, M06Z63 Pulley MXL25T	
29.	Jig for Guide Shaft	
30.	Base Shaft Guide	

**Parts List 2.1 Scanner Assembly (Continued)**

Item	Description	Part Number
31.	Motor Bracket Assembly	
32.	Motor Assembly	
33.	Rear Stay Bracket	
34.	Guide Shaft 010	
35.	Front Stay Bracket	
36.	Base Cover	
37.	Mount Bracket	
38.	Auto Connector Plug 4P	
39.	Scanner Assembly (REP 2.2, <a href="#">page 4-13</a> )	062K28380
40.	Scanner Hinge Power Harness	952K26410
41.	Scanner/ DADF Assembly (REP 2.3, <a href="#">page 4-17</a> )	084K42630

# Ink Loader Assembly

## Parts List 3.1 Ink Loader (1 of 2)



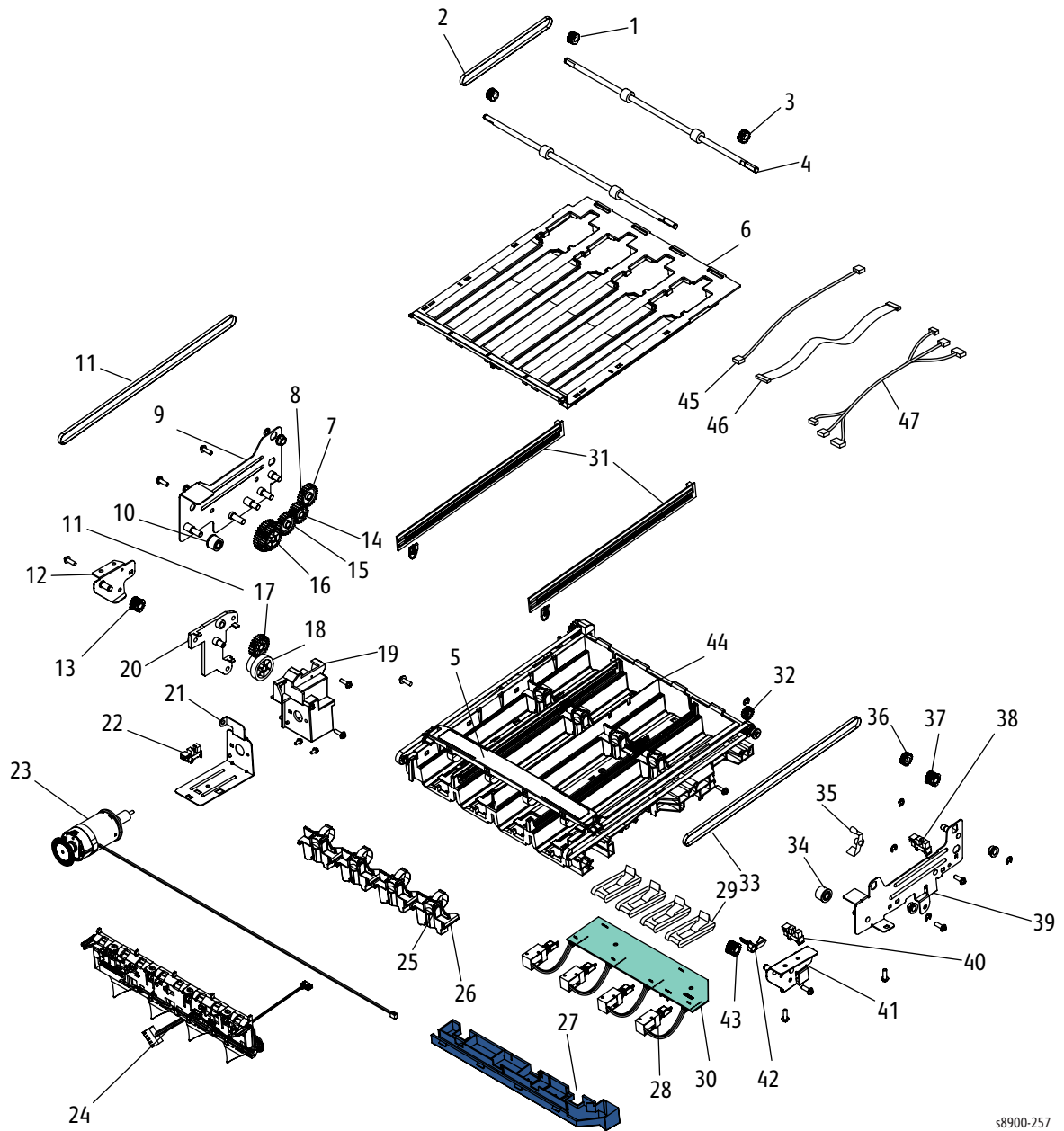
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## Parts List 3.1 Ink Loader (1 of 2)

Item	Description	Part Number
1.	Ink Access Door (Ink Loader Cover) (REP 3.1, <a href="#">page 4-19</a> )	101E29680
2.	Upper Ink Door Guide	
3.	Lower Ink Door Guide	
4.	Ink Cover (Output Tray)	848E85660
5.	Transport Guide	
6.	Ink Loader Bezel / Sensor & Harness (REP 3.3, <a href="#">page 4-21</a> )	848K95960
7.	Ink Door Latch Sub Housing	
8.	Ink Door Latch	
9.	Ink Loader Door Switch (REP 3.4, <a href="#">page 4-22</a> )	120E37210
10.	Ink Door Latch Actuator	
11.	Stopper	
12.	Ink Door Latch Actuator	120E37210
13.	Ink Door Support	
14.	Sensor BL205319	
15.	Ink Door Latch Housing	
16.	Open Door Flag	
17.	Center	
18.	Ink Loader Assembly (REP 3.6, <a href="#">page 4-27</a> )	815K19660
19.	Output Tray/ Horizontal Transport (Diverter) (required for use with the finisher) (REP 3.2, <a href="#">page 4-20</a> )	032E41230



## Parts List 3.2 Ink Loader (2 of 2)



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## Parts List 3.2 Ink Loader (2 of 2)

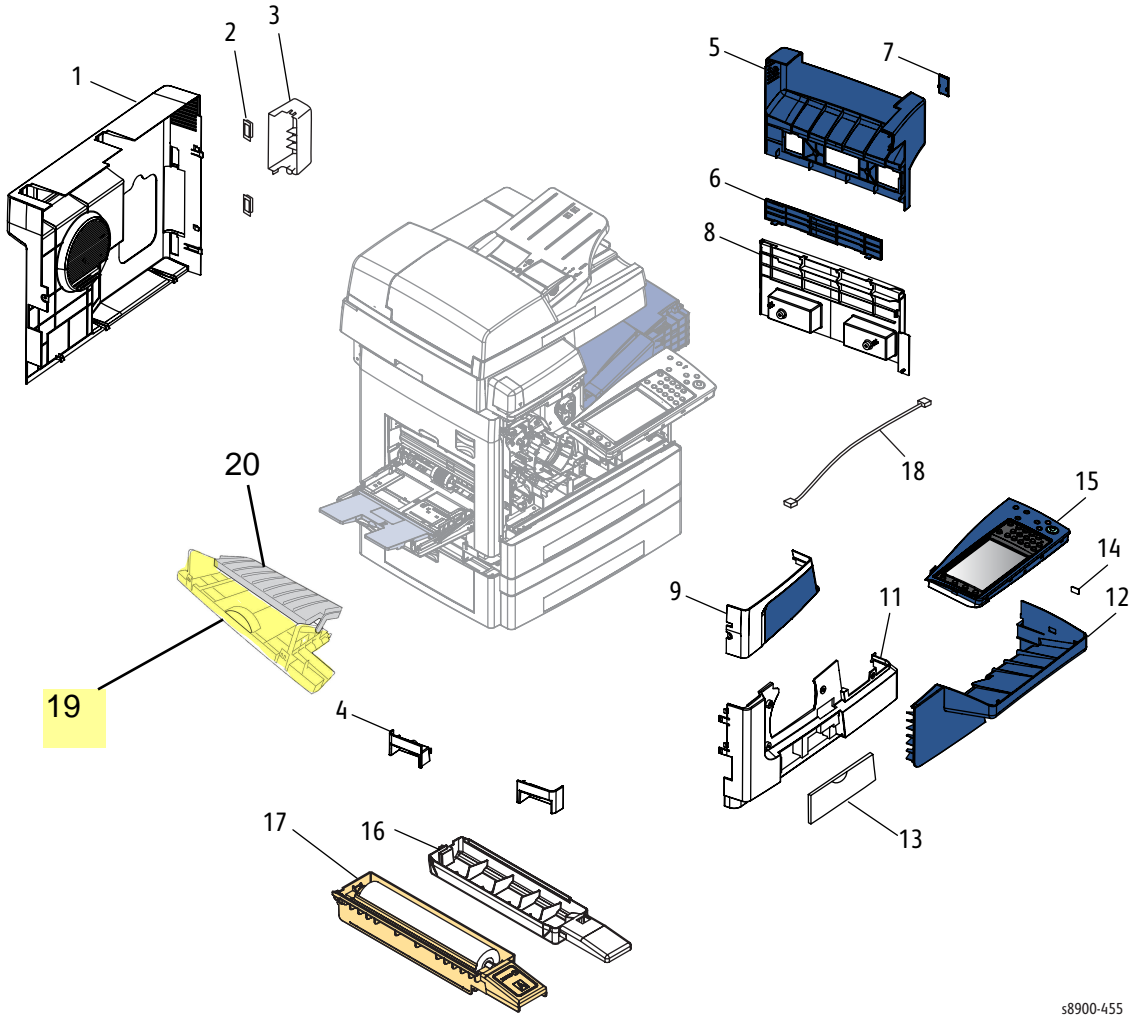
Item	Description	Part Number
1.	Pulley D Cut S2m 12.73	
2.	Timing Belt B40S2M 300	
3.	Pulley M08Z16	
4.	Transport Roller	
5.	Ink Load Yoke	
6.	Ink Load Key Plate	
7.	Pulleys 3M 14.32 Gear M1Z20	
8.	Gear, Spur M1Z24	
9.	Gear Train Bracket Assembly	
10.	Belt Idler	
11.	Timing Belt B60S3M609	
12.	Rear Left Assembly Bracket	
13.	Pulley Left S3M 14.32	
14.	Gear Thick Spur M1Z20	
15.	Gear, Spur M1Z24	
16.	Gear, M1Z34 Gear M1Z25	
17.	Gear, Spur M1Z24	
18.	Gear, M1Z20 Wormwheel M0.8Z34	
19.	Motor Housing	
20.	Motor Sub Housing	
21.	Motor Bracket	
22.	Ink Loader Sensor BL205319 (REP 3.7, <a href="#">page 4-30</a> )	
23.	Ink Loader Yoke Motor Assembly 3657 (REP 3.5, <a href="#">page 4-23</a> )	127K69110
24.	Ink Load	
25.	CF Spring	
26.	Push Block	
27.	Chute Duct	
28.	Dual Position Solenoid	
29.	Ink Gate	
30.	PCBA Assembly	

## Parts List 3.2 Ink Loader (2 of 2) (Continued)

Item	Description	Part Number
31.	PCB Chute Level Sensor	
32.	Moving Yoke Shaft	
33.	Timing Belt B60S3M609	
34.	Belt Idler	
35.	Retracted Yoke Actuator	
36.	Gear M08Z16	
37.	Pulley D Cut Right S3M 14.32	
38.	Ink Loader Sensor BL205319 (REP 3.7, <a href="#">page 4-30</a> )	
39.	Right Front Bracket Assembly	
40.	Sensor BL205319	
41.	Left Front Bracket Assembly	
42.	Forward Yoke Actuator	
43.	Left Pulley S3M 14.32	
44.	Ink Load Base Chute	
45.	Ink Loader Horizontal Transport Harness/ Connector	952K26420
46.	Ink Loader Data Cable	117E37860
47.	Ink Loader Combo Umbilical with Cover Switch	052E47700

# Cover

## Parts List 4.1 Cover



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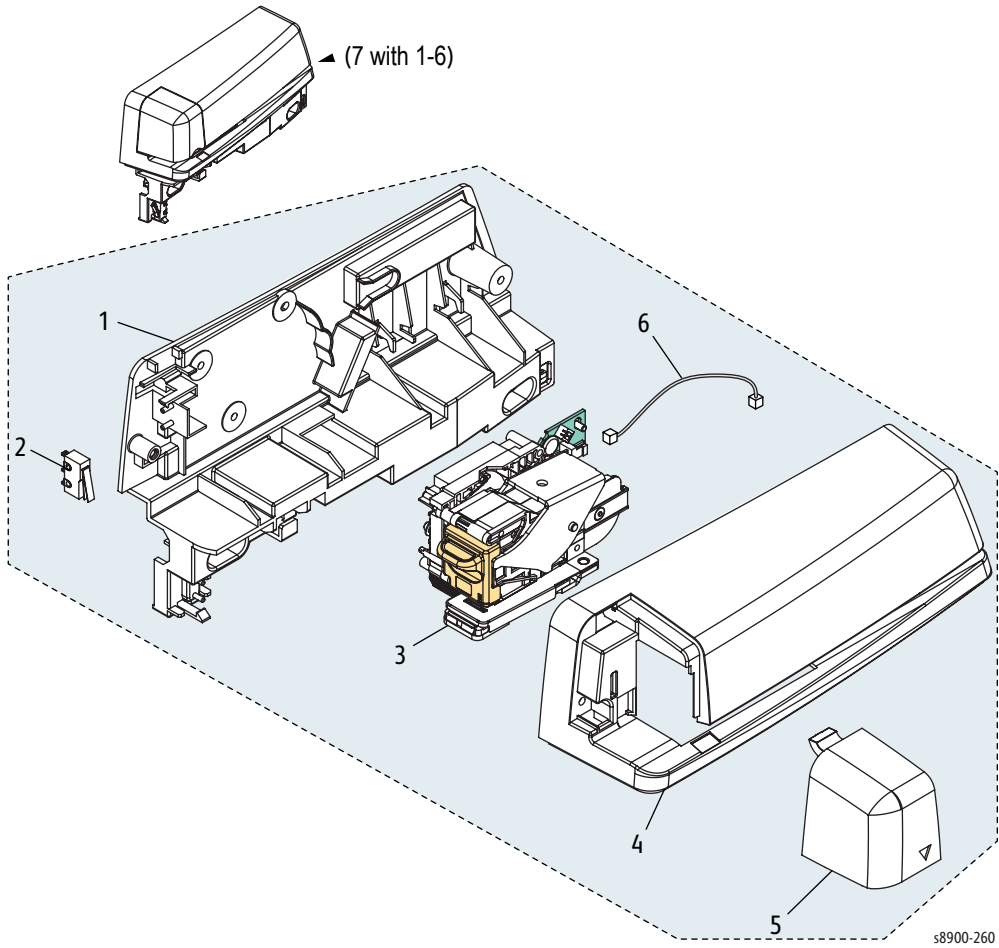
## Parts List 4.1 Cover

Item	Description	Part Number
1.	Rear Cover (REP 4.1, <a href="#">page 4-33</a> )	848E85600
2.	Connector Cover	
3.	Rear Cable Cover / Cable Management	848E97700
4.	Front Left Handle	
5.	Upper Right Cover (REP 4.2, <a href="#">page 4-34</a> )	848E85610
6.	Small Finisher Cover	
7.	Small Transport Cover	
8.	Lower Right Cover (REP 4.3, <a href="#">page 4-35</a> )	848E85620
9.	Upper Front Cover (REP 4.4, <a href="#">page 4-36</a> )	848E85630
10.	Door / Jam Guide, T2	822E16730
11.	Lower Front Cover (REP 4.5, <a href="#">page 4-37</a> )	848E85640
12.	Lower Front Cover	
13.	Front Door	848E90690
14.	Front USB Cover	822E16650
15.	Control Panel (UI) (REP 4.6, <a href="#">page 4-38</a> )	101K70870
16.	Waste Tray (REP 4.7, <a href="#">page 4-39</a> )	109R00754
17.	Cleaning Unit, Standard (REP 4.8, <a href="#">page 4-40</a> ) *	109R00784
	Cleaning Unit, Extended (REP 4.8, <a href="#">page 4-40</a> ) *	109R00783
18.	Control Panel Data Harness	952K26370
19.	Left - Tray 2 Jam Door	822E16730
20.	Left-Tray 2 Jam Door Guide	032K10510

\*Replace consumables from customer stock as needed or use the standard supply channel, under warranty.

# Stapler Assembly

## Parts List 5.1 Stapler Assembly

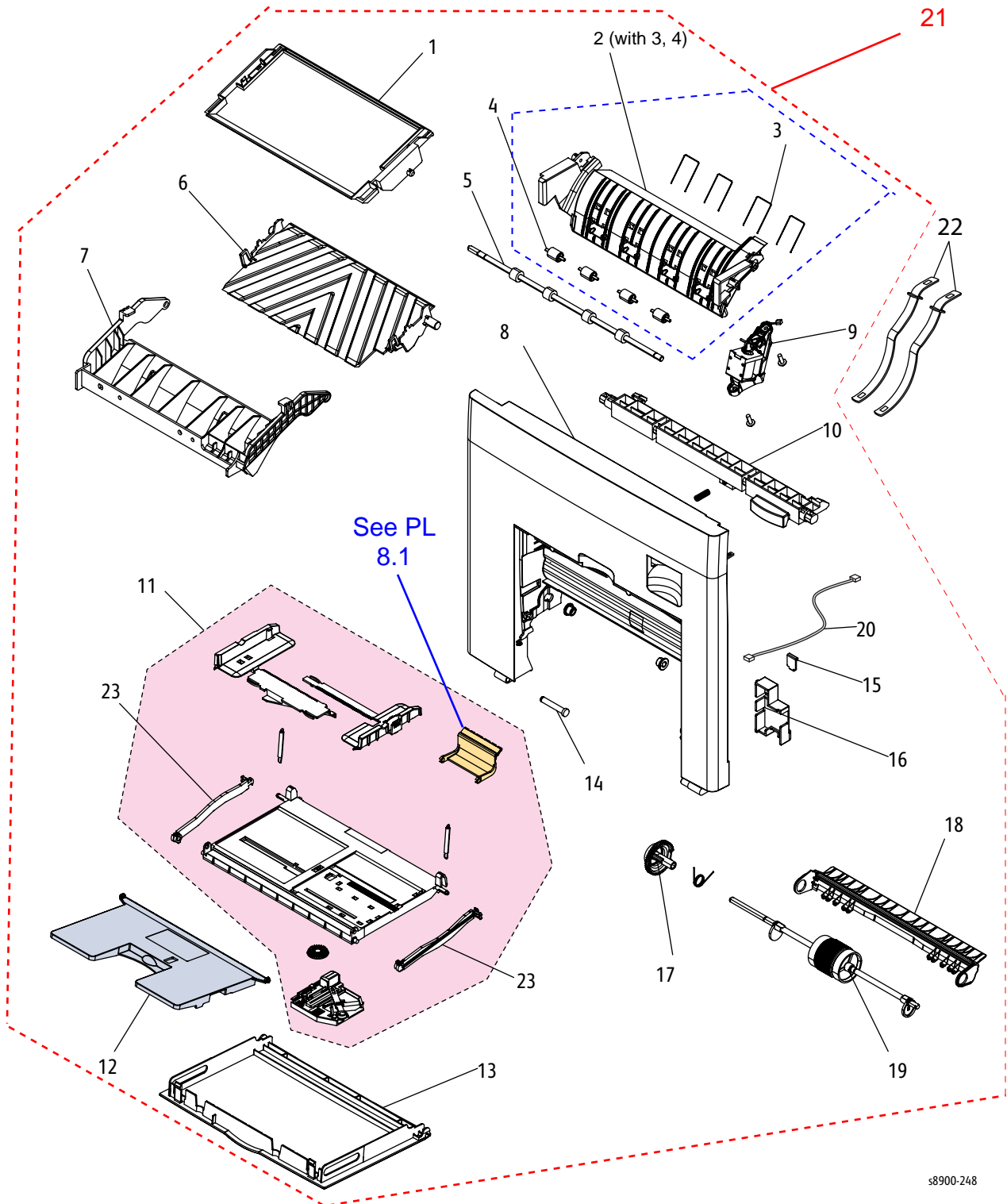


### Parts List 5.1 Stapler Assembly

1.	Stapler Housing Cover	
2.	Stapler Microswitch	110E21420
3.	Stapler Assembly (REP 5.1, <a href="#">page 4-41</a> )	059K83510
4.	Stapler Cover and Door (REP 5.2, <a href="#">page 4-42</a> )	848E85670
5.	Open Stapler Cover	
6.	Stapler Wiring Harness	952K26400
7.	Stapler Assembly	059K83510

# Left Side Door/ Tray 1

## Parts List 6.1 Left Side Door/ Tray 1



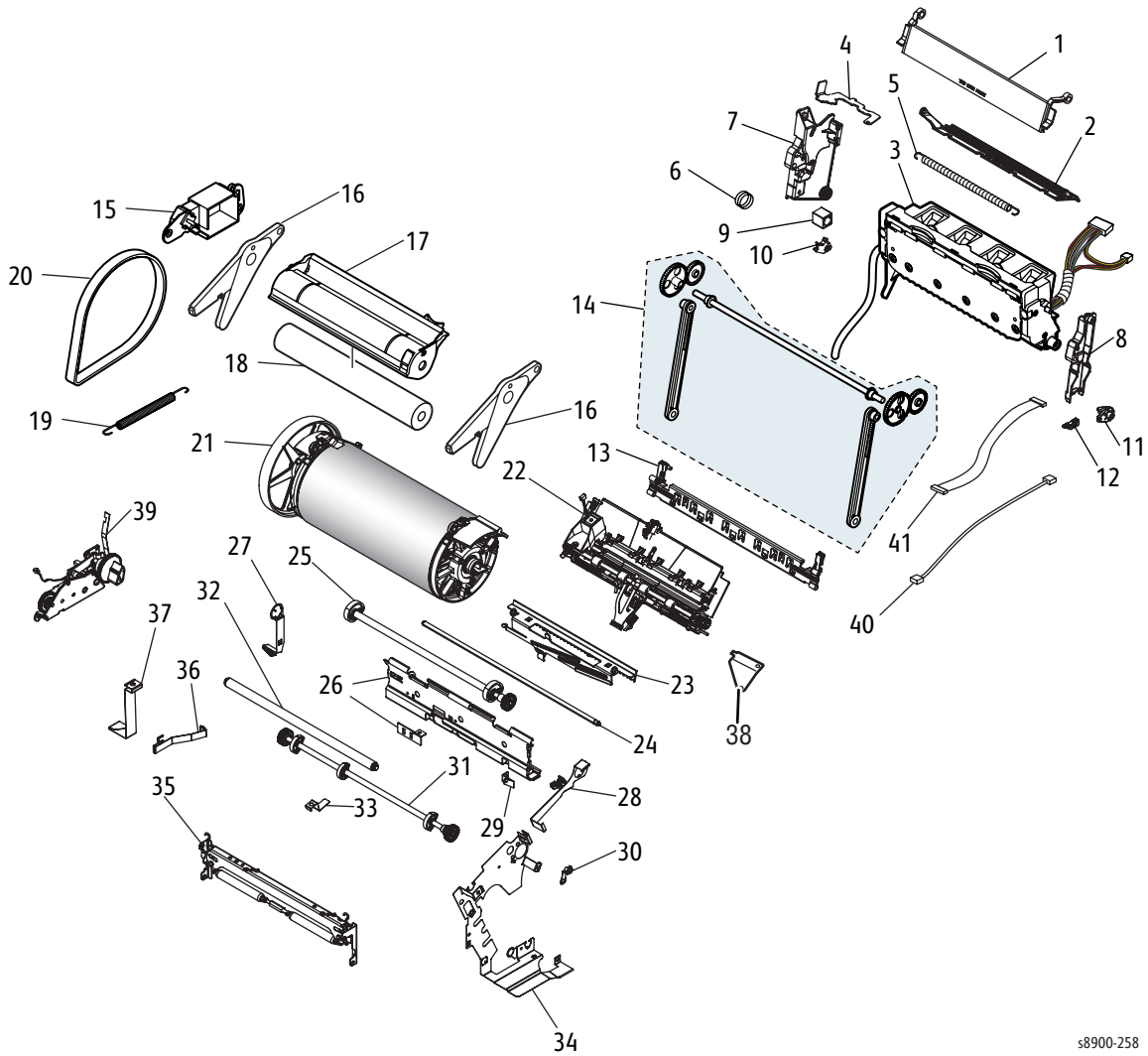
**Parts List 6.1 Left Side Door/ Tray 1**

Item	Description	Part Number
1.	Upper Right Exit Guide	
2.	Upper Inner Duplex Guide (REP 6.1, <a href="#">page 4-45</a> )	032K10520
3.	Idle Roller Duplex Spring (part of Item #2)	
4.	Idler Roller (part of Item #2)	
5.	Roller	
6.	Pivoting Duplex Guide (REP 6.2, <a href="#">page 4-49</a> )	032E41250
7.	Upper Outer Duplex Guide	
8.	Left Side Door	
9.	Strip Solenoid Assembly (REP 6.3, <a href="#">page 4-50</a> )	121K56210
10.	Duplex Hook Handle	
11.	Tray 1	
12.	Flip Out Plate	
13.	Tray 1 Cover	
14.	Duplex Hinge Door Pin	029E49330
15.	Duplex Band Plate	
16.	Duplex Harness Cover	
17.	Tray 1 Pick Gear	
18.	Diverter Entrance Guide	
19.	Tray 1 Pick Roller Assembly	059K63590
20.	Cable, Left Side Door	117E37850
21.	Left Side Door/ Tray 1 (items 1-20) (REP 6.5, <a href="#">page 4-55</a> )	848E85650
22.	Front Door Stay w/Springs	not spared
23.	Tray 1 Arm (REP 6.6, <a href="#">page 4-58</a> )	050K68070



# Imaging

## Parts List 7.1 Imaging



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## Parts List 7.1 Imaging

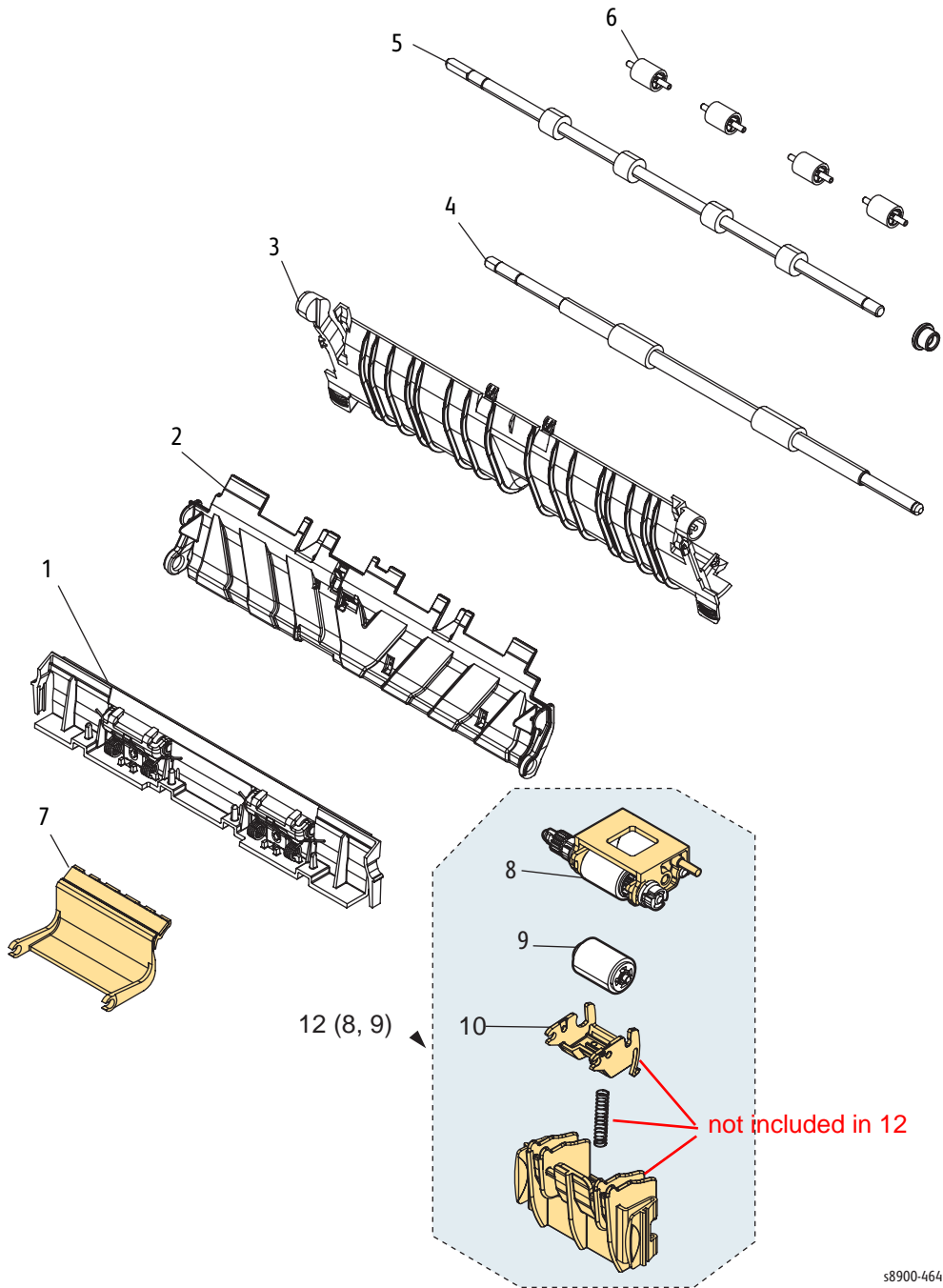
Item	Description	Part Number
1.	Jet Stack Cap (REP 7.1, <a href="#">page 4-60</a> )	021E17590
2.	Funnel Cap (REP 7.2, <a href="#">page 4-61</a> )	093K24020
3.	Print Head Assembly (REP 7.3, <a href="#">page 4-62</a> )	604K61960
4.	Hook, X-Axis Bias Spring (REP 7.4, <a href="#">page 4-79</a> )	019E75180
5.	Spring, X-Axis Bias (REP 7.5, <a href="#">page 4-81</a> )	809E69930
6.	Spring, X-Axis Roll Adjuster (REP 7.4, <a href="#">page 4-79</a> )	809E69940
7.	Left Printhead Restraint (REP 7.6, <a href="#">page 4-82</a> )	120E36720
8.	Right Printhead Restraint (REP 7.6, <a href="#">page 4-82</a> )	120E36710
9.	Roll Block	
10.	Right Bearing, X-Axis Slider	013E43680
11.	Axis Nut	
12.	Left Bearing, X-Axis Slider	013E43690
13.	Printhead Wiper (REP 7.7, <a href="#">page 4-86</a> )	033K04890
14.	Belt, Wiper Drive (REP 7.7, <a href="#">page 4-86</a> )	023E31250
15.	Purge Pressure Pump Kit (REP 7.8, <a href="#">page 4-88</a> )	094E02790
16.	Transfix Arm Kit (with Pins) (REP 7.9, <a href="#">page 4-89</a> )	059K77530
17.	Stripper Carriage Assembly (REP 7.10, <a href="#">page 4-91</a> )	041K06650
18.	Transfix Roller (REP 7.10, <a href="#">page 4-91</a> )	059K76540
19.	Spring, Y-Axis Tension (REP 7.11, <a href="#">page 4-94</a> )	809E69920
20.	Y-Axis Drum Belt (REP 7.12, <a href="#">page 4-95</a> )	023E32000
21.	Drum Assembly (REP 7.13, <a href="#">page 4-96</a> )	020K20790
22.	Preheater and Deskew Assembly (REP 7.14, <a href="#">page 4-103</a> )	126E02850
23.	Drum Wiper Blade Assembly (REP 7.15, <a href="#">page 4-106</a> )	033K04980
24.	Pivot Plate Shaft	
25.	Transfix Cam Shaft (REP 7.16, <a href="#">page 4-112</a> )	008K02360
26.	Drum Maintenance Pivot Plate Assembly (REP 7.15, <a href="#">page 4-106</a> )	020K21600
27.	EC Ground Strap, Left Exit	
28.	EC Ground Plane	
29.	EC Ground Strap, X-Axis	
30.	EC Ground Strap, I/O Board	

## Parts List 7.1 Imaging (Continued)

Item	Description	Part Number
31.	Drum Maintenance Cam Shaft (REP 7.17, <a href="#">page 4-113</a> )	008K02370
32.	Transfix Roller Shaft	
33.	EC Ground Strap, Transfix Cam	
34.	EC Ground Plane	
35.	Transfix Load Module (REP 7.18, <a href="#">page 4-115</a> )	103K01680
36.	Static Tray Strap	
37.	Static Base Strap	
38.	X-Axis Bias Spring Retainer	
39.	Head Tilt Gear Train	607K01020
40.	Printhead Heater Wiring Extension	117E37940
41.	Cable, Printhead Data Interface	117E37950

# Paper Path

## Parts List 8.1 Paper Path



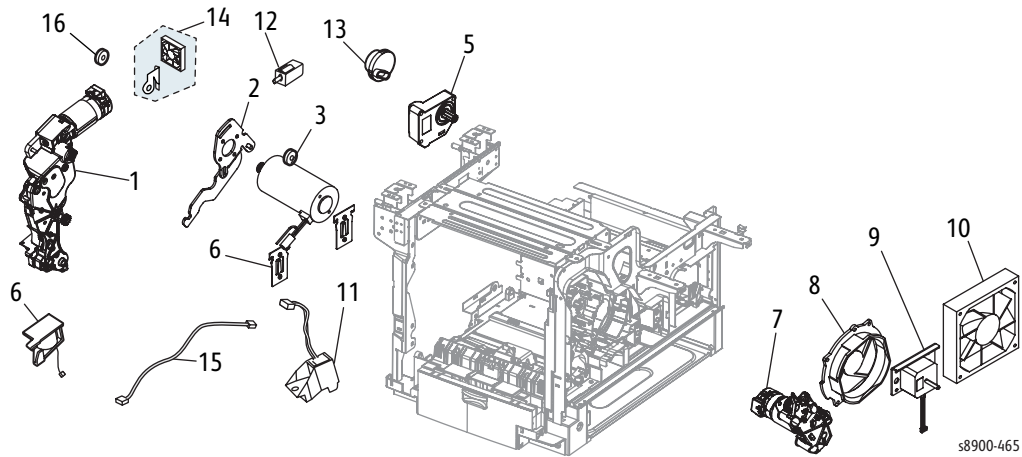
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## Parts List 8.1 Paper Path

1.	Out Takeaway Guide Assembly (REP 8.1, <a href="#">page 4-120</a> )	032K09900
2.	Inner Simplex Guide with Predeskew Sensor (REP 8.2, <a href="#">page 4-121</a> )	032E40680
3.	Lower Inner Duplex Guide (REP 8.3, <a href="#">page 4-123</a> )	032K09880
4.	Takeaway Roller (REP 8.4, <a href="#">page 4-124</a> )	022E32420
5.	Duplex Roller (REP 8.5, <a href="#">page 4-126</a> )	022E32410
6.	Idler Roller	
7.	Separator Pad Kit (REP 8.6, <a href="#">page 4-127</a> )	604K31140
8.	Pick Assembly	
9.	Retard Roller with Tire	
10.	Truck Housing	
11.	Truck Guide	
12.	Pick Roller Assembly and Retard Roller Kit (REP 8.7, <a href="#">page 4-128</a> )	930K02010

# Drive

## Parts List 9.1 Drive



### Parts List 9.1 Drive

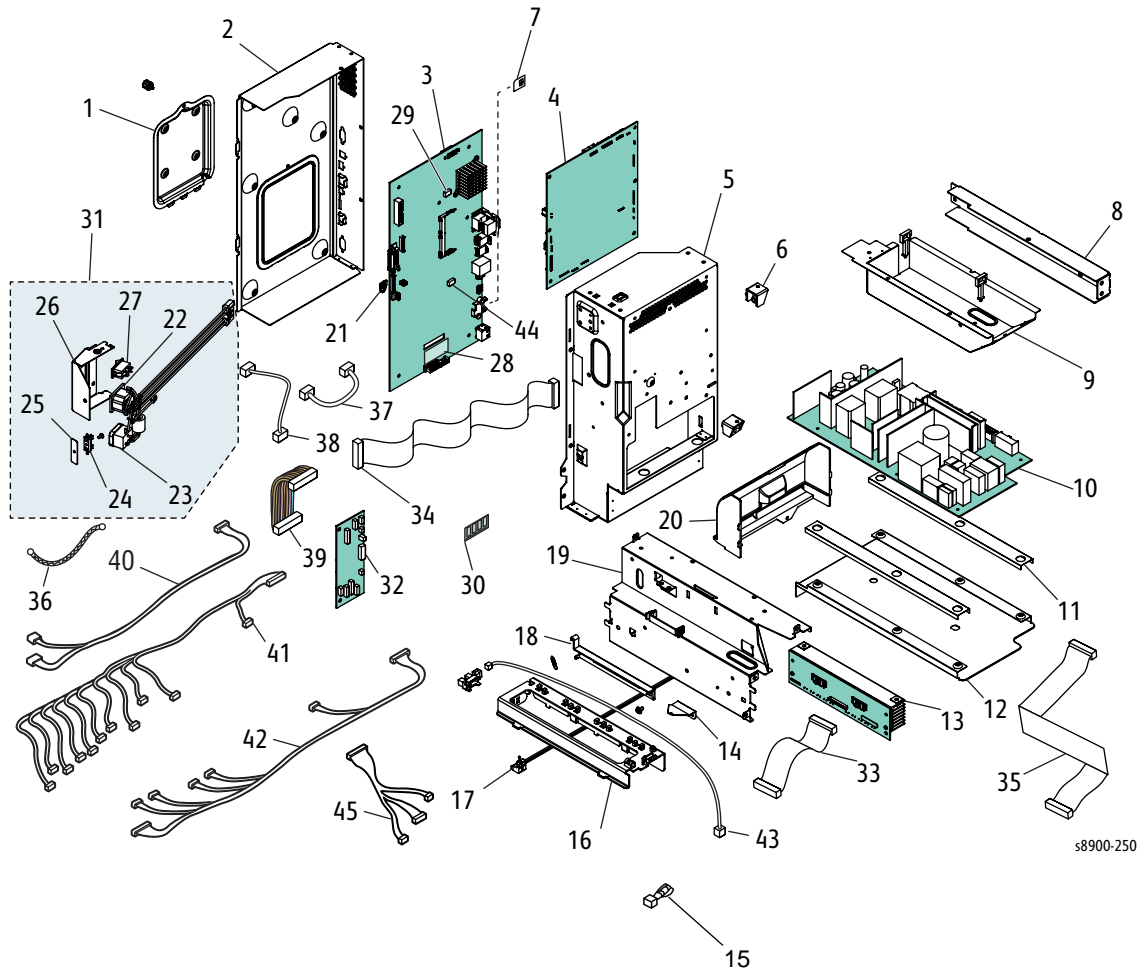
Item	Description	Part Number
1.	Media Drive with 2 Clutches (REP 9.1, <a href="#">page 4-131</a> )	007K20040
2.	Y-Axis Motor Mounting	
3.	Y-Axis Motor Assembly (REP 9.2, <a href="#">page 4-135</a> )	127K68130
4.	Base Nut Plate	
5.	Tray 2 Lift Motor (REP 9.3, <a href="#">page 4-138</a> )	127E17400
6.	Tray 1 Pick Solenoid (REP 9.4, <a href="#">page 4-141</a> )	121E20120
7.	Process Drive with Gear Box and Motor (REP 9.5, <a href="#">page 4-142</a> )	007K21860
8.	Drum Cooling Fan (REP 9.6, <a href="#">page 4-146</a> )	127E16890
9.	X-Axis Motor Assembly with Bracket (REP 9.7, <a href="#">page 4-147</a> )	127K68450
10.	Electronics System Fan (REP 9.8, <a href="#">page 4-149</a> )	133K25010
11.	Preheater Lift Solenoid Assembly (REP 9.9, <a href="#">page 4-150</a> )	121K44430
12.	Head Tilt Solenoid Assembly (REP 9.10, <a href="#">page 4-151</a> )	607K03300
13.	Compound Head Tilt Gear (REP 9.11, <a href="#">page 4-154</a> )	807E39790
14.	Media Path Motor Cooling Fan (REP 9.12, <a href="#">page 4-158</a> )	119679000
15.	Y-Axis Motor Harness Extension	117E37960
16.	Damper, CAM, Head Tilt	004K07630

17. Process Drive Post Repair Kit

604K55230

# Electrical

## Parts List 10.1 Electrical



## Parts List 10.1 Electrical

Item	Description	Part Number
1.	Hard Drive Cover/ Hard Disk Drive (REP 10.1, <a href="#">page 4-159</a> )	604K99040
2.	Bracket Housing (Card Cage) (REP 10.2, <a href="#">page 4-160</a> )	
3.	Main Controller Board with USB (Plus) (REP 10.3, <a href="#">page 4-162</a> )	960K82140
4.	Power Control Board (REP 10.4, <a href="#">page 4-165</a> )	960K72030
5.	Frame Assembly	
6.	Ink Load Support	
7.	Feature Card (Set Plan Sold) (REP 10.5, <a href="#">page 4-168</a> )	237E26560
	Feature Card (Enable Metered)	237E26570
	Feature Card (Disable Fax)	237E26580
	Feature Card (Enable Fax)	237E26590
8.	Right Frame Bracket	
9.	Bracket Duct - Power Supply	
10.	Power Supply Unit (includes items 10, 11, 12, 20)(REP 10.6, <a href="#">page 4-169</a> )	112E01200
11.	Mylar - Power Supply	
12.	Lower Bracket - Power Supply	
13.	Wave Amp Board (REP 10.7, <a href="#">page 4-172</a> )	960K59601
14.	Head Spring Bracket	
15.	Jetstack Fuse	952K00190
16.	Waste Tray Cover	
17.	Filler	
18.	Overload Bracket	
19.	Mid Wall Bracket	
20.	Duct	
21.	Nut Plate Frame	
22.	AC Connector	
23.	EC In Always	
24.	Fuse Holder	
25.	Inlet Mylar	
26.	Inlet Bracket	

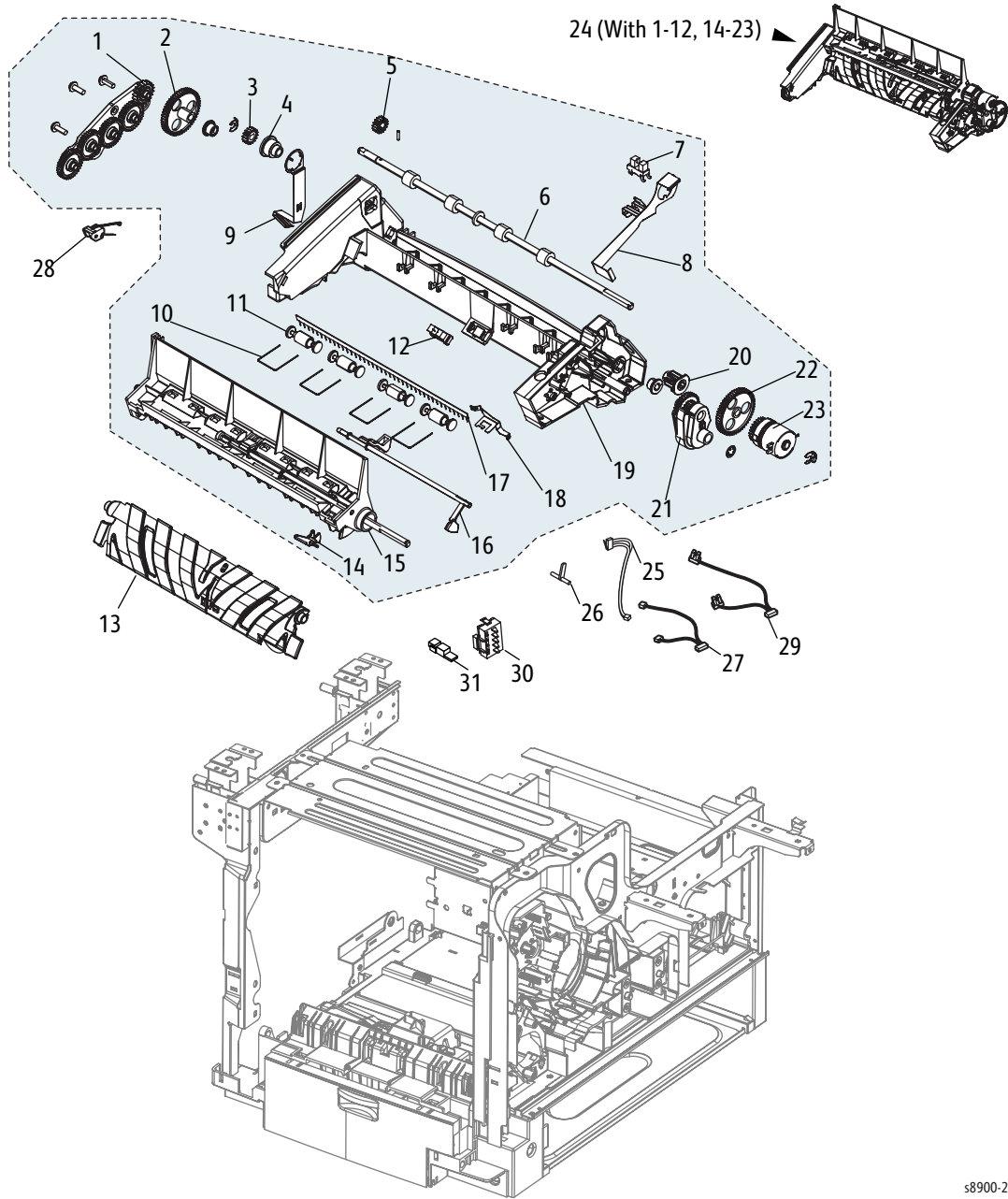


## Parts List 10.1 Electrical (Continued)

Item	Description	Part Number
27.	Inlet	
28.	Fax Board	
29.	8-Pin NVRAM U611 (856476800) (REP 10.8, <a href="#">page 4-178</a> )	237E26660
30.	1GB MB RAM, SO-DIMM; 200-Pin DDR2 (REP 10.9, <a href="#">page 4-180</a> )	237E25730
31.	AC Switch Receptacle with 3.5A Fuses	108E12450
32.	I/O Board (REP 10.11, <a href="#">page 4-183</a> )	960K59610
33.	Cable, ZIF, Wave Amp Drive	117E36970
34.	Cable, I/O Board Data	117E37990
35.	Cable, Wave Amp Signal	117E38000
36.	Cable, Ground Strap, Y-Axis Motor	117E34880
37.	Hard Drive Data Cable	117E38010
38.	Hard Drive Power Cable	117E38020
39.	Power Supply to Power Control Harness	117E38040
40.	Cable, AC Heater, Drum, Preheater	117E36480
41.	Rear Umbilical Harness	117E37980
42.	Front Umbilical Harness (preheater signal)	117E80300
43.	Waste Tray Sensor Harness Extension	117E37930
44.	System Cont NVRAM, 8700 U503	237E26670
	System Cont NVRAM, 8900 U503	237E26680
45.	Cable, Front Umbilical, Preheater	117E36740
46.	Cable Right Side Power Control	117E38030

# Exit, Sensors, and Actuators

## Parts List 11.1 Exit, Sensors, and Actuators



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## Parts List 11.1 Exit, Sensors, and Actuators

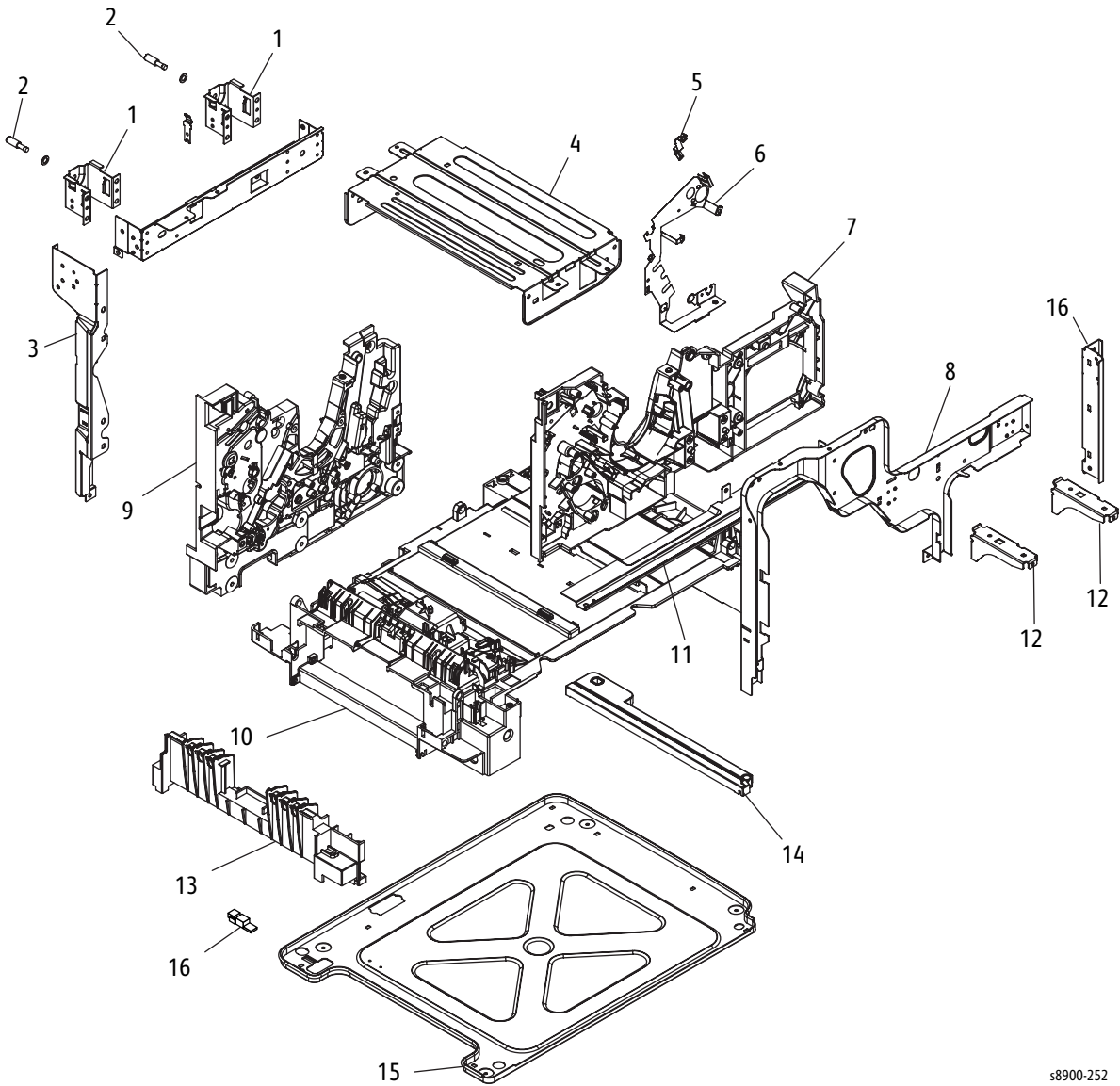
1.	Assembly Frame Gear Box	
2.	HM Gear Drive	
3.	MC Media Gear 16T Keyed	
4.	Bushing	
5.	Gear M 08Z16 Exit	
6.	Exit Roller (REP 11.1, <a href="#">page 4-184</a> )	059E05611
7.	Optical Sensor (Generic, Snap In) (No Paper Sensor) (REP 11.2, <a href="#">page 4-186</a> )	130E11530
8.	EC Plane Ground	
9.	Left Exit EC Ground Strap	
10.	Idle Exit Roller Spring	
11.	Roller Idler Cor2	
12.	Optical Sensor (Generic, Snap In) (Tray Lift/ Paper Height Sensor)	130E11530
13.	Lower Exit Guide Assembly with Strip Flag (REP 11.4, <a href="#">page 4-188</a> )	032K09890
14.	Strip Flag	
15.	Upper Right Exit Guide	032E41260
16.	Exit Flag	
17.	Exit Static Brush	
18.	Exit Ground Clip	
19.	Exit Frame (Top Frame with Duplex Guide Rails)	
20.	Exit Plastic Bushing	
21.	Lock Swing Arm Assembly	
22.	HM Drive Gear	
23.	Head Maintenance Clutch (Wiper) (REP 11.5, <a href="#">page 4-189</a> )	033E06050
24.	Exit Module Assembly (REP 11.6, <a href="#">page 4-190</a> )	038K23780
25.	Left Door Safety Interlock Switch (Mech) (REP 11.7, <a href="#">page 4-193</a> )	110E21500
26.	Paper Present Flag	130E11550
27.	Waste Tray Opto Sensor (REP 11.8, <a href="#">page 4-194</a> )	130E12620
28.	Drum Temperature Sensor (REP 11.9, <a href="#">page 4-197</a> )	930K01380

**Parts List 11.1 Exit, Sensors, and Actuators (Continued)**

29.	Exit Module Sensor Assembly (Strip Sensor)	930K01500
30.	Tray Paper Size Switch Assembly (REP 11.10, <a href="#">page 4-199</a> )	930K01840
31.	Tray Lift Sensor (REP 11.11, <a href="#">page 4-200</a> )	

# Frame

## Parts List 12.1 Frame



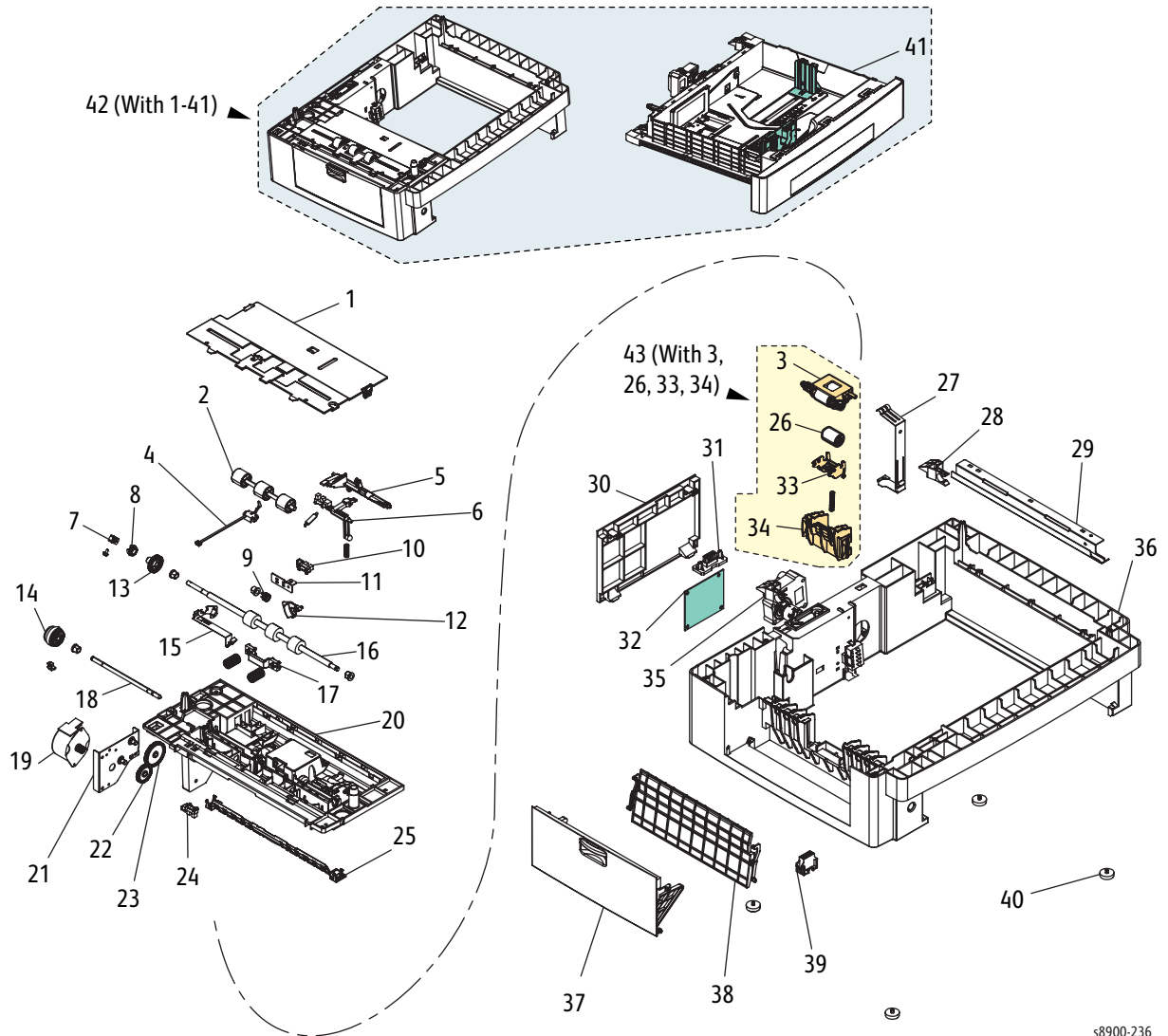
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## Parts List 12.1 Frame

Item	Description	Part Number
1.	Rear Frame Assembly	
2.	Thumb Screw	
3.	Rear Support	
4.	Stay Bracket (REP 12.1, <a href="#">page 4-201</a> )	
5.	I/O Board Ground Plate	
6.	Side Frame Ground Plate	
7.	Front Side Frame	
8.	Front Frame Assembly	
9.	Rear Side Frame	
10.	Frame Base	
11.	Front Pan Base Chassis	
12.	UI Mount Bracket	
13.	Left Guide	
14.	Right Rail	
15.	Base Bracket	
16.	Bracket	
17.	Tray Lift Sensor (REP 11.11, <a href="#">page 4-200</a> )	130E11530

# 525-Sheet Feeder

## Parts List 13.1 525-Sheet Feeder (1 of 2)



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**Parts List 13.1 525-Sheet Feeder (1 of 2)**

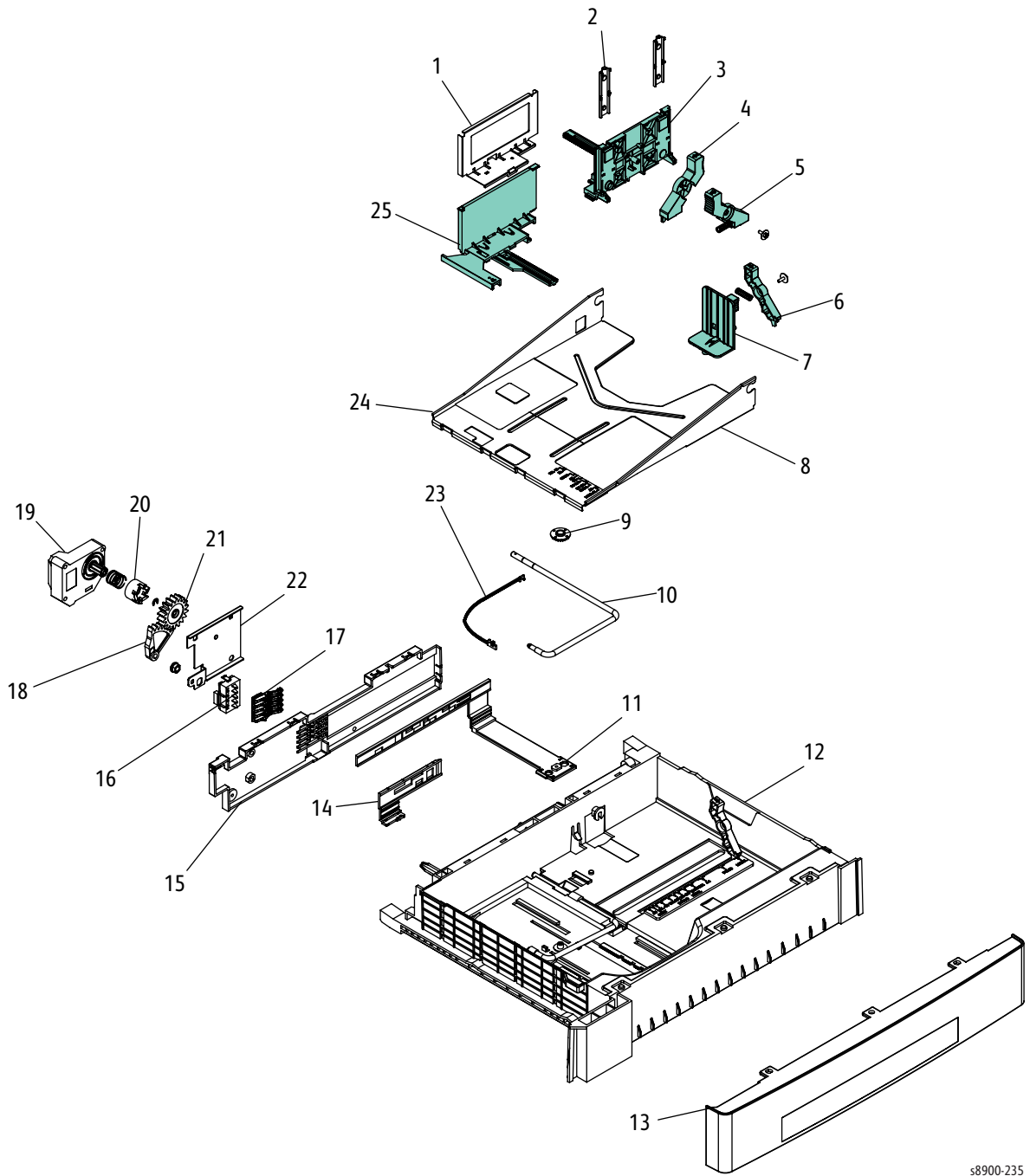
<b>Item</b>	<b>Description</b>	<b>Part Number</b>
1.	Feed Top Cover	
2.	Idle Roller Assembly	
3.	Pick Assembly	
4.	HCF Pick Sensor Assembly	
5.	Feed Actuator	
6.	Feed Pickup Bar	
7.	Drive Stopper	
8.	Latch	
9.	Pick Shaft Feed Gear	
10.	Interrupt Photo Sensor	
11.	Flag Sensor Bracket	
12.	Feed Flag	
13.	Latch Gear M08Z31	
14.	Clutch 25T	
15.	Feed Strip Ground Bracket	
16.	Feed Roller Shaft Assembly	
17.	Idle Holder	
18.	Clutch Shaft	
19.	Motor	
20.	Feed Frame	
21.	Drive Bracket	
22.	Gear, M08Z34	
23.	Gear, M08Z47	
24.	Interrupt Photo Sensor	
25.	Feed Guide	
26.	Retard Roller with Tire	
27.	Earth Bracket	
28.	Tray Clamp	
29.	Rail Bracket	
30.	Rear Cover	



## Parts List 13.1 525-Sheet Feeder (1 of 2)

Item	Description	Part Number
31.	Auto Connector 42474	
32.	525-Sheet Feeder Control Board (REP 13.1, <a href="#">page 4-202</a> )	960K71970
33.	Truck Housing	
34.	Truck REP Guide 525	
35.	Motor Assembly PM49	
36.	Base Frame	
37.	Jam Guide Door (REP 13.2, <a href="#">page 4-205</a> )	822E42450
38.	Jam Guide	038E52200
39.	Auto Connector 42475	
40.	Foot FF008AR79_6mm	
41.	525 Sheet Tray, Adjustable to Legal	050E29250
42.	525-Sheet Feeder Base Assy with Tray (REP 13.3, <a href="#">page 4-207</a> )	059K83530
43.	Pick Assembly and Retard Roller Kit (items 3, 26, 33 & 34)	930K02010

## Parts List 13.2 525-Sheet Feeder (2 of 2)



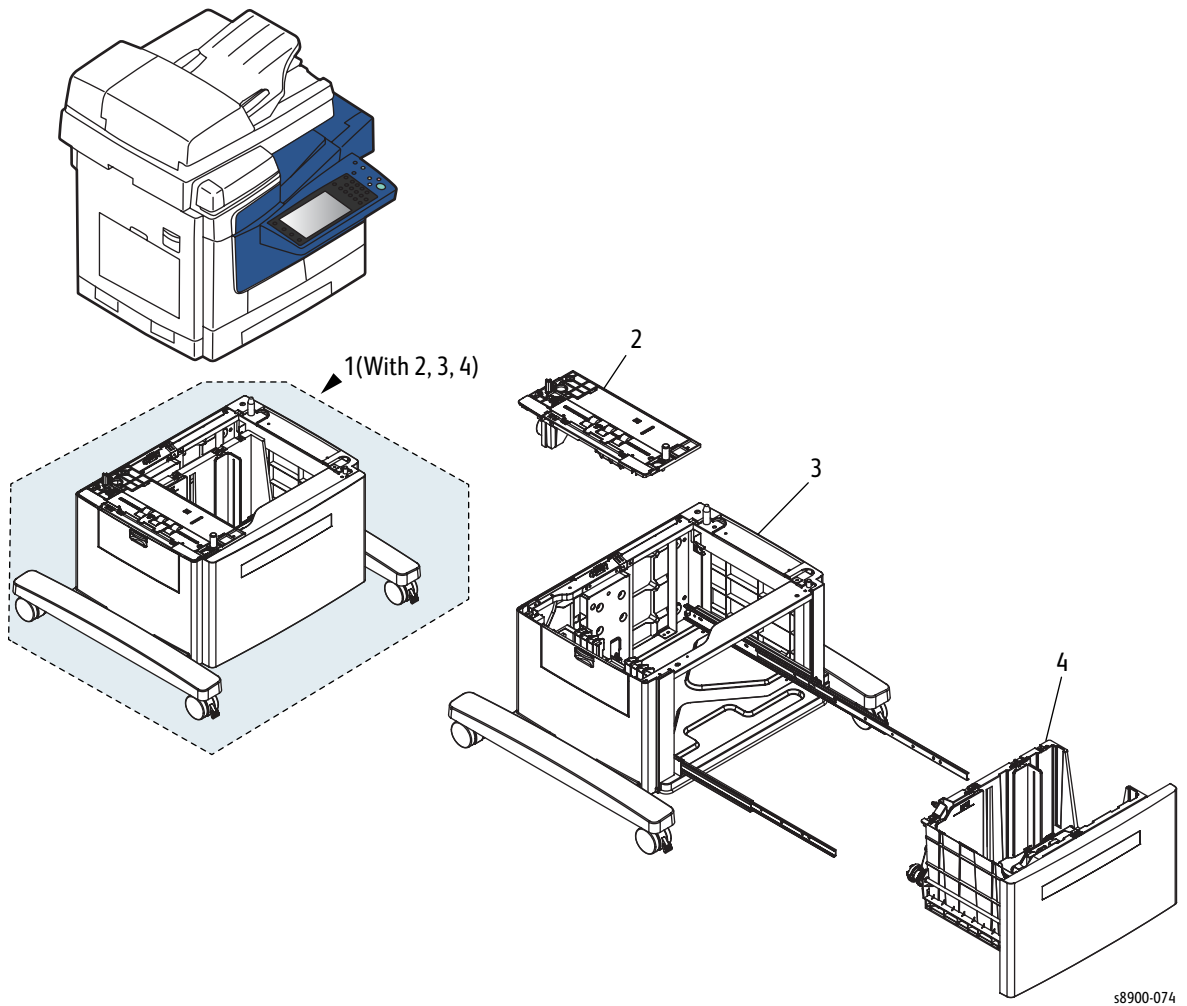
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## Parts List 13.2 525-Sheet Feeder (2 of 2)

Item	Description	Part Number
1.	Rear Fence Side Plate	
2.	Front Fence Side Plate	
3.	Front Side Fence	
4.	Right Side Fence Stopper	
5.	Left Side Fence Stopper	
6.	End Fence Stopper	
7.	Tray End Fence	
8.	Lower Tray Plate	
9.	Pinion Side Fence Gear	
10.	Tray Lift Shaft	
11.	End Fence Bracket	
12.	Tray	
13.	Tray Handle Cover	
14.	Rear Side Fence Bracket	
15.	Rear Tray Plate	
16.	Media Size Switch	930K01840
17.	Media Size Finger	
18.	Gear Sector	
19.	Lift Motor Geared	127E17400
20.	Coupler	
21.	Coupler Gear	
22.	Coupler Gear Bracket Assembly	
23.	Rear Side Fence Connector	
24.	Cork Pad	
25.	Rear Tray Side Fence	

# 1800-Sheet Feeder

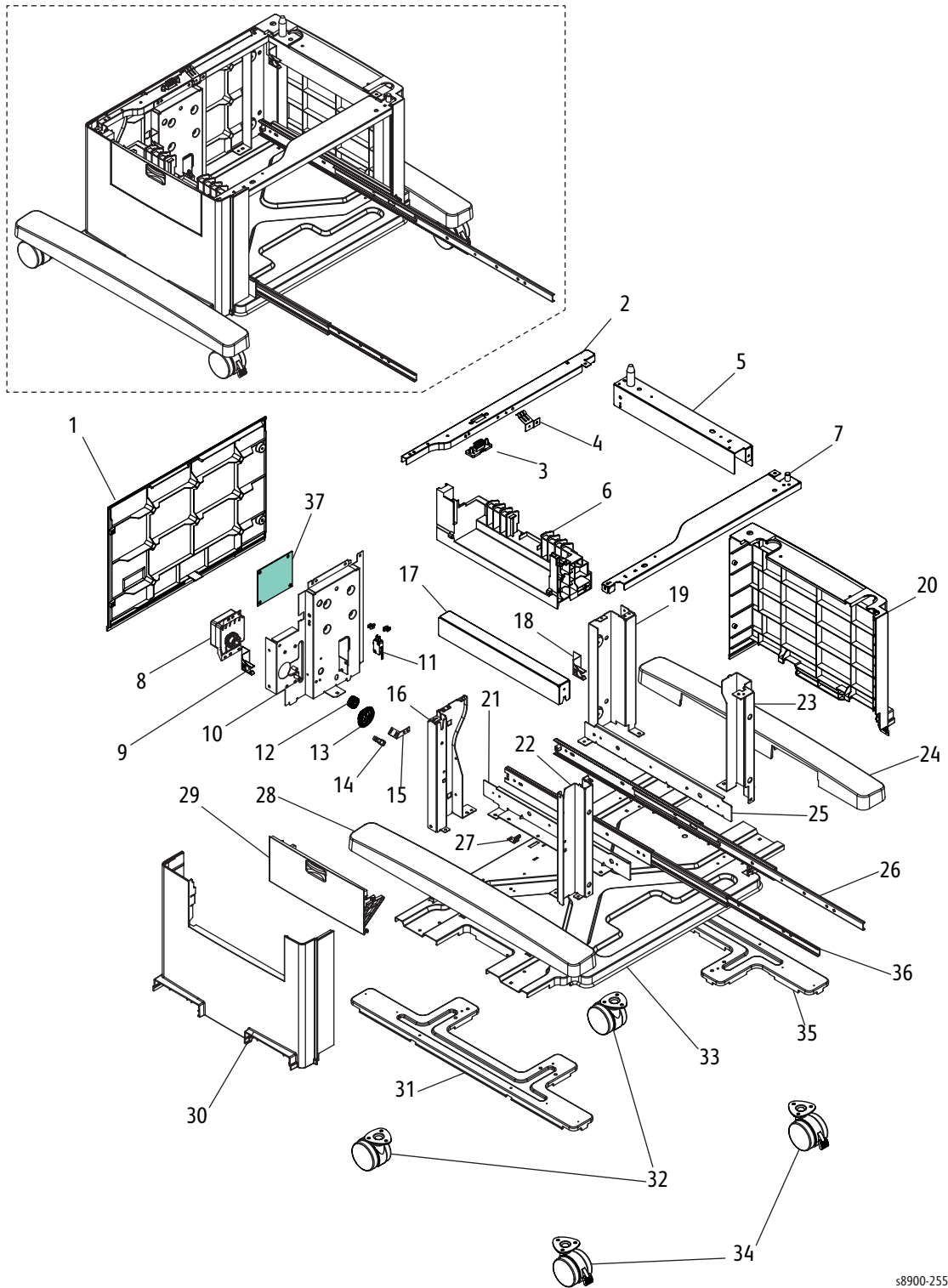
## Parts List 14.1 1800-Sheet Feeder (1 of 4)



## Parts List 14.1 1800-Sheet Feeder (1 of 4)

Item	Description	Part Number
1.	1800-Sheet Feeder Assembly (with Tray) (REP 14.1, <a href="#">page 4-208</a> )	059K83540
2.	Pick Up	
3.	Frame and Exterior	
4.	1800-Sheet Feeder Tray	050E29320

Parts List 14.2 1800-Sheet Feeder - Frame and Exterior (2 of 4)



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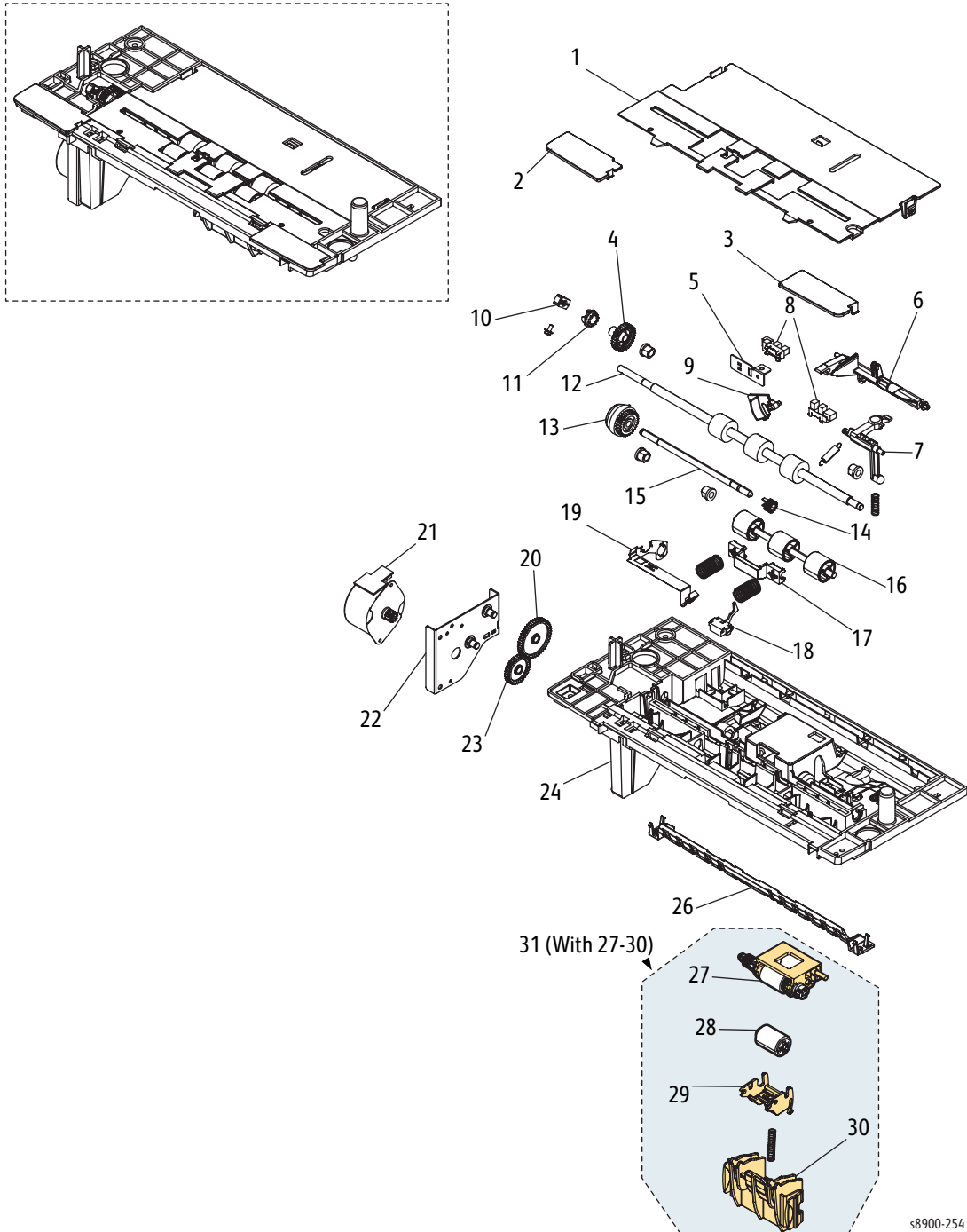
## Parts List 14.2 1800-Sheet Feeder - Frame and Exterior (2 of 4)

Item	Description	Part Number
1.	Rear Cover	
2.	Rear Support Bracket	
3.	Auto Connector 42474	
4.	Earth Bracket	
5.	Right Support Bracket Assembly	
6.	Feed Guide	
7.	Front Support Bracket Assembly	
8.	Motor DMA_B111	
9.	Tray Clamp	
10.	Board Bracket Assembly	
11.	Interlock Switch VP331A-OF-7_Mount	
12.	Gear, Thick Spur M1Z20	
13.	Lift Encoder	
14.	Sensor	
15.	Encoder Sensor Bracket	
16.	Left Rear Frame	
17.	Left Support Bracket	
18.	Tray Clamp	
19.	Right Rear Frame	
20.	Right Cover	
21.	Left Rail Support Bracket	
22.	Left Front Frame	
23.	Right Front Frame	
24.	Caster Cover	
25.	Right Rail Support Bracket	
26.	Rail JW 351-400	
27.	Bracket Earth	
28.	Caster Cover	
29.	Guide Jam Door	
30.	Left Cover	

**Parts List 14.2 1800-Sheet Feeder - Frame and Exterior (2 of 4) (Continued)**

<b>Item</b>	<b>Description</b>	<b>Part Number</b>
31.	Caster Bracket Assembly	
32.	Left Total Caster Assembly	
33.	Base Frame	
34.	Total Caster Assembly with Lock	
35.	Caster Bracket Assembly	
36.	Rail JW 351-400	
37.	1800-Sheet Feeder Control Board (REP 14.3, <a href="#">page 4-211</a> )	960K71980

### Parts List 14.3 1800-Sheet Feeder - Pick Up (3 of 4)



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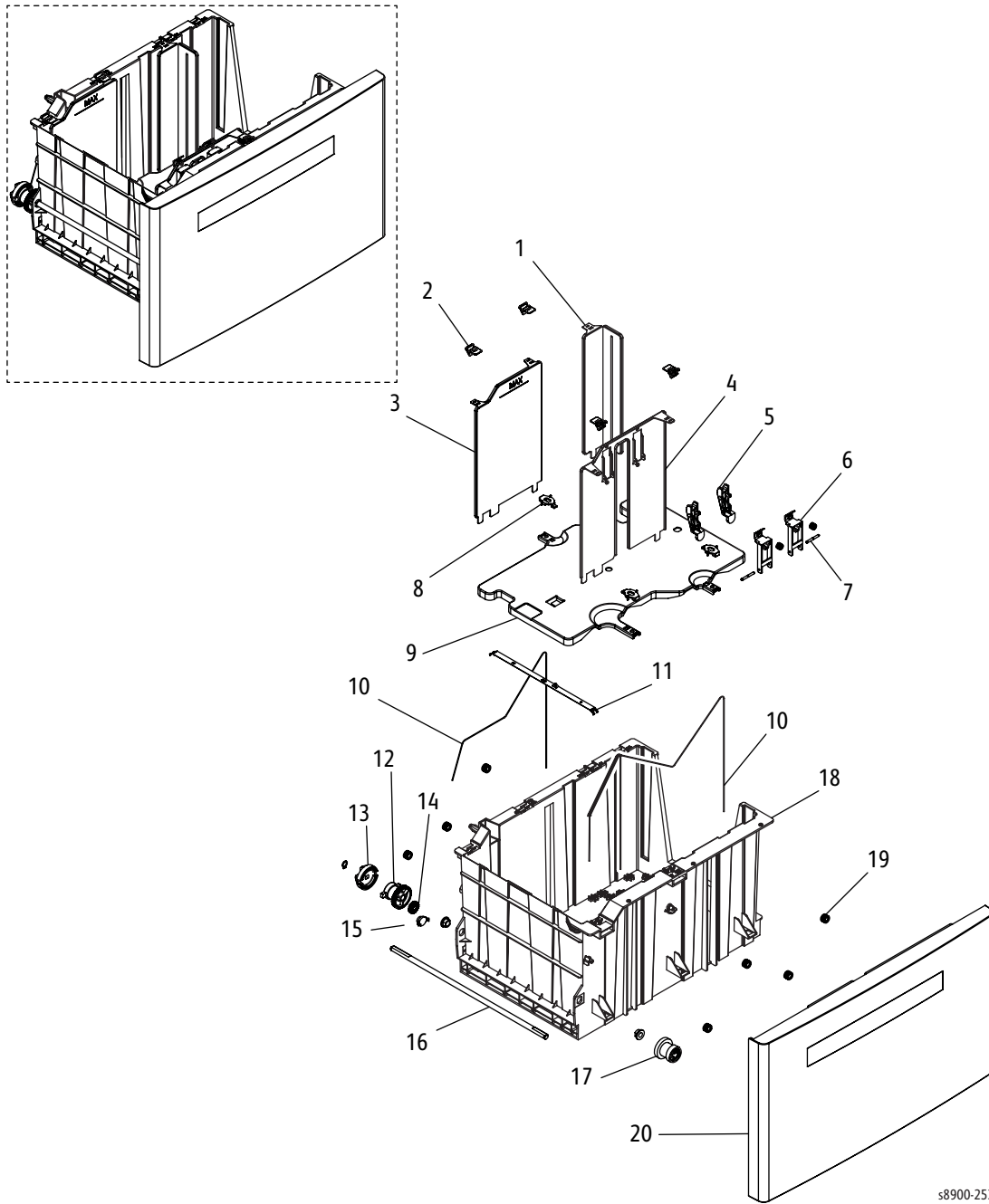
## Parts List 14.3 1800-Sheet Feeder - Pick Up (3 of 4)

Item	Description	Part Number
1.	Feed Top Cover	
2.	Rear Sub Cover	
3.	Front Sub Cover	
4.	Gear, M08Z31 Latch	
5.	Flag Sensor Bracket	
6.	Feed Actuator	
7.	Feed Pickup Bar	
8.	Interrupt Photo Sensor	
9.	Feed Flag	
10.	Drive Stopper	
11.	Latch	
12.	Roller Feed Shaft Assembly	
13.	Clutch	
14.	Pick Feed Shaft Gear	
15.	Clutch Shaft	
16.	Idle Roller Assembly	
17.	Idle Holder	
18.	Pick Sensor Assembly	
19.	Feed Ground Strip Bracket	
20.	Gear, M08Z47	
21.	1800-Sheet Feeder Motor Assembly PM49 (REP 14.4, <a href="#">page 4-212</a> )	127E17390
22.	Drive Bracket Assembly	
23.	Gear, M08Z34	
24.	Feed Frame	
25.	Interrupt Photo Sensor	
26.	Feed Guide	
27.	Pick Assembly	
28.	Retard Roller with Tire	
29.	Truck Housing	
30.	Truck Guide	

**Parts List 14.3 1800-Sheet Feeder - Pick Up (3 of 4) (Continued)**

<b>Item</b>	<b>Description</b>	<b>Part Number</b>
31.	Pick Assembly and Retard Roller Kit (items 27, 28, 29 & 30)	930K02010

### Parts List 14.4 1800-Sheet Feeder - Lift (4 of 4)



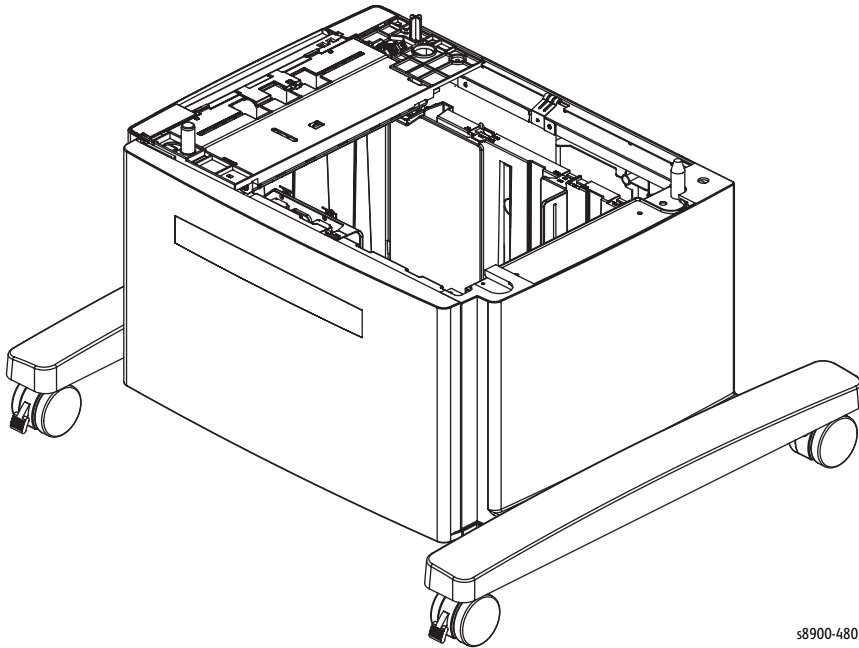
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**1800-Sheet Feeder - Lift (4 of 4)**

Item	Description	Part Number
1.	Right Fence	
2.	Fence Fixer	
3.	Rear Fence	
4.	Front Fence	
5.	Lower Paper Tensioner	
6.	Upper Paper Tensioner	
7.	Tensioner Shaft	
8.	Bottom Plate Wire Fixer	
9.	Bottom Plate	
10.	Wire	
11.	Fence Earth Plate	
12.	Rear Lift Wire Roller	
13.	Tray Coupler	
14.	Gear, M08Z22	
15.	Damper (per Gear)	
16.	Lift Shaft	
17.	Front Lift Wire Roller	
18.	Tray	
19.	Idle Wire Roller	
20.	Front Cover	

# Storage Cart

## Parts List 15.1 Storage Cart



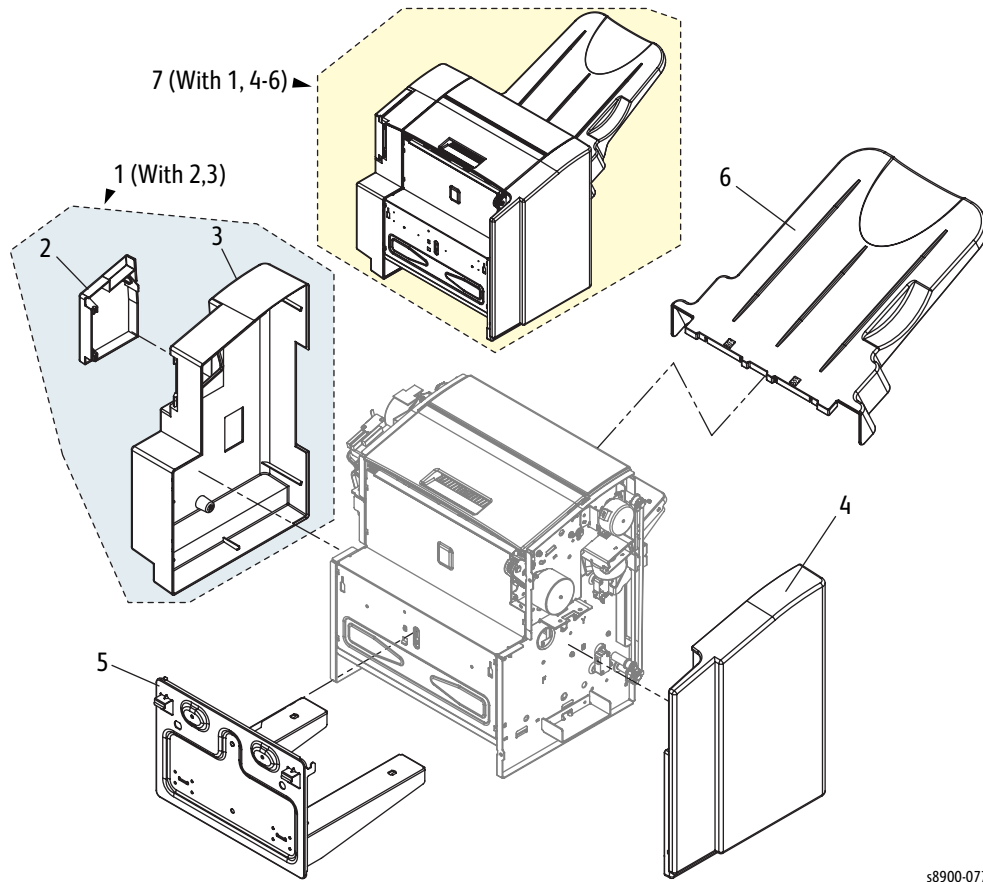
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### Parts List 15.1 Storage Cart

Item	Description	Part Number
1.	Storage Cart Assembly (REP 15.1, <a href="#">page 4-213</a> )	078K00880

# Finisher

## Parts List 16.1 Finisher - Cover (1 of 18)

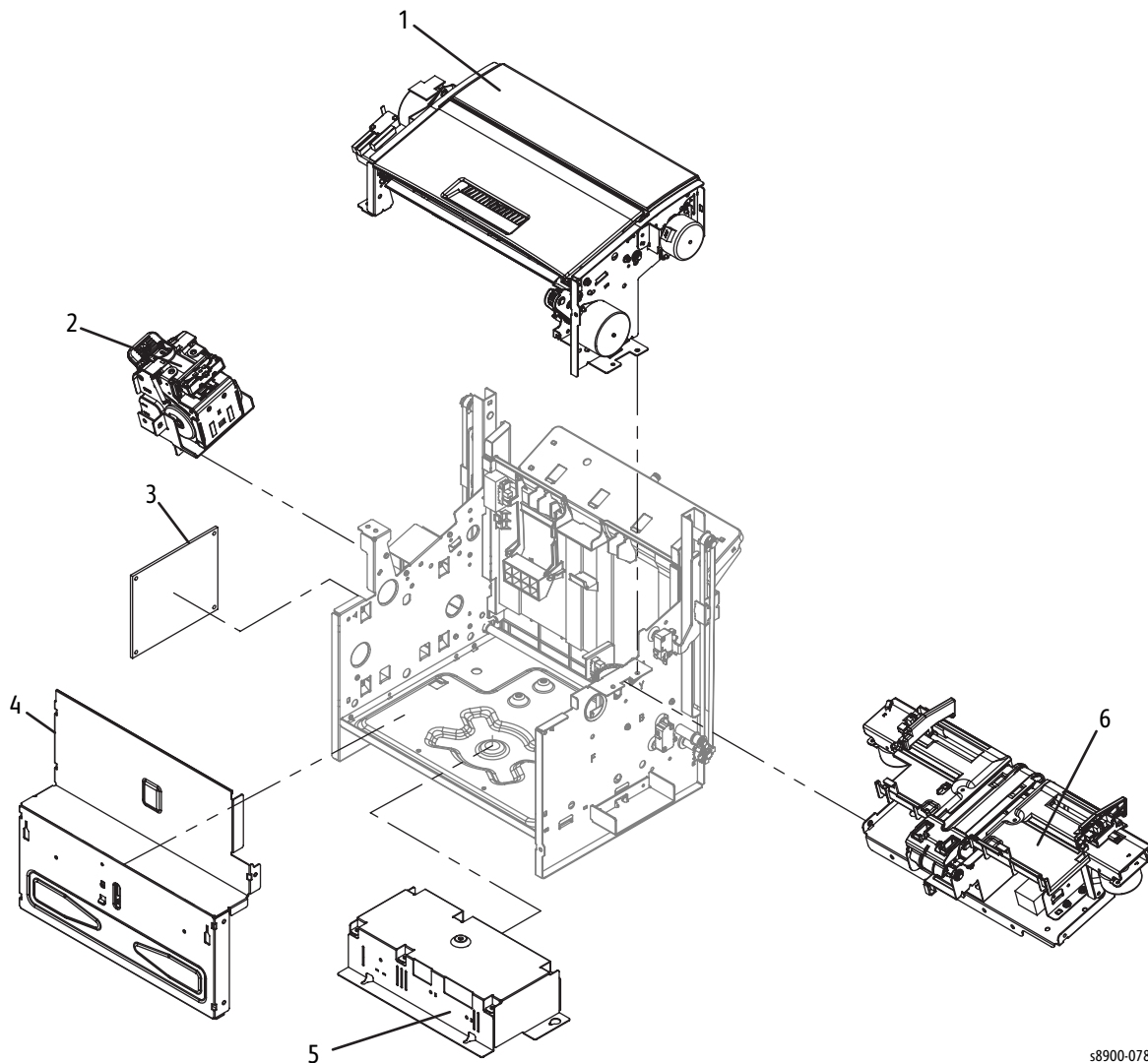


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## Parts List 16.1 Finisher - Cover (1 of 18)

Item	Description	Part Number
1.	Rear Cover	
2.	Stapler Cover	
3.	Rear Cover	
4.	Front Cover	
5.	Mount Assembly	
6.	Finisher Output Tray	050E29360
7.	Finisher Assembly w/Mount (requires Horizontal Transport (PL3.1) for operation) (REP 16.3, <a href="#">page 4-216</a> )	059K83520

## Parts List 16.2 Finisher (2 of 18)

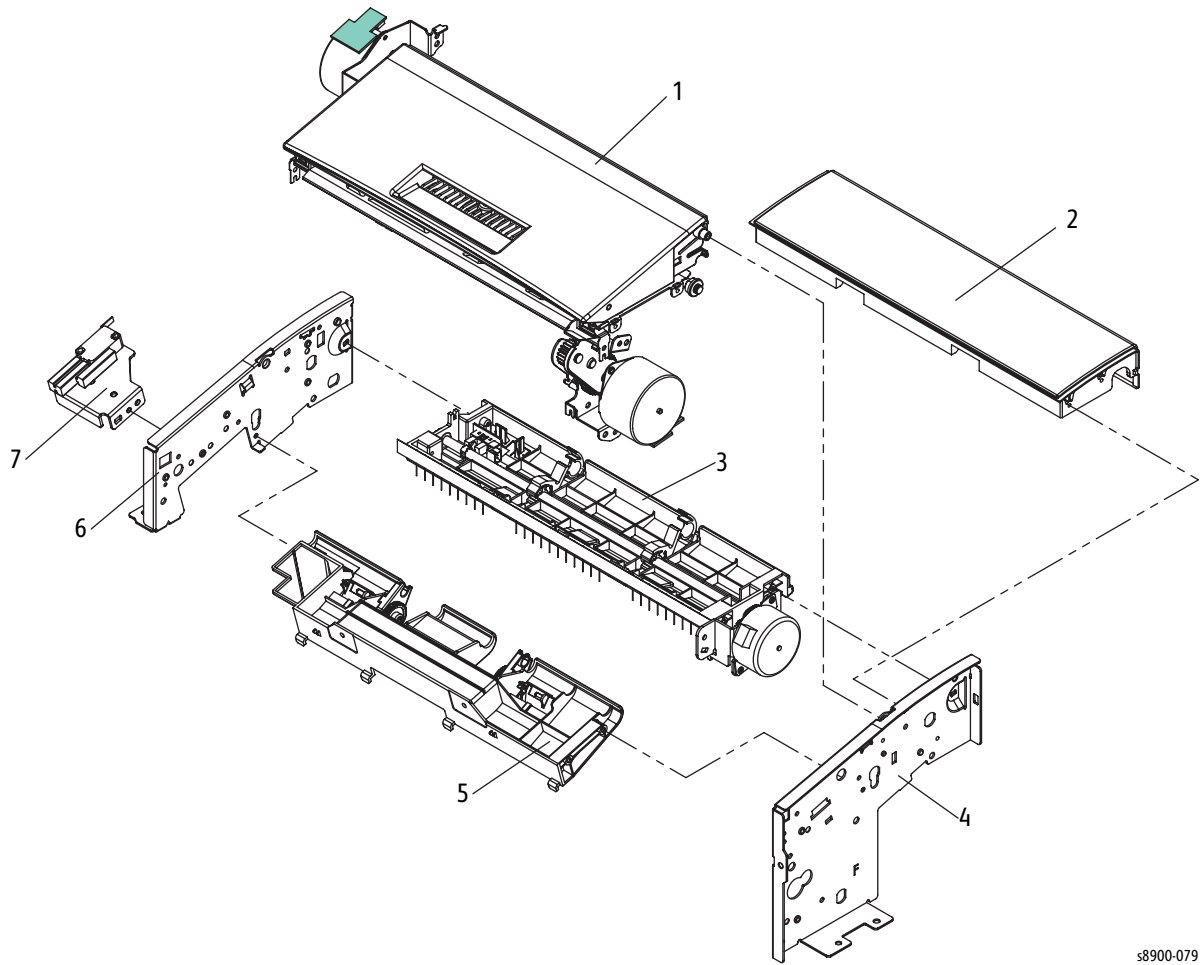


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## Parts List 16.2 Finisher (2 of 18)

Item	Description	Part Number
1.	Feed/ Paddle Unit (REP 16.4, <a href="#">page 4-220</a> )	033E05700
2.	Finisher Stapler Unit (REP 16.5, <a href="#">page 4-223</a> )	029K04760
3.	Finisher Control Board (REP 16.6, <a href="#">page 4-224</a> )	960K71990
4.	Lower Left Sub Assembly (REP 16.7, <a href="#">page 4-226</a> )	
5.	Finisher Power Supply (REP 16.8, <a href="#">page 4-228</a> )	112E01190
6.	Finisher Ejector/ Tamper Assembly (REP 16.9, <a href="#">page 4-230</a> )	059E11630

Parts List 16.3 Finisher - Feed/ Paddle Assembly (3 of 18)



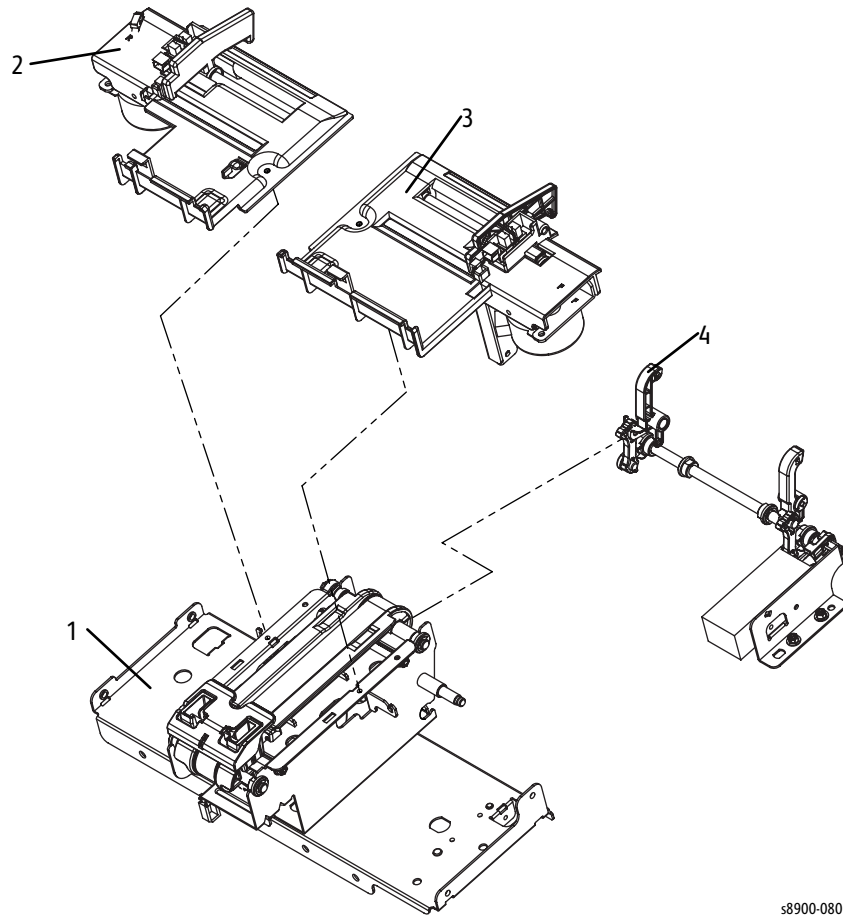
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Parts List 16.3 Finisher - Feed/ Paddle Assembly (3 of 18)

Item	Description	Part Number
1.	Feed Unit	
2.	Top Cover	
3.	1st Sub Paddle Assembly	
4.	Front Upper Frame	
5.	2nd Sub Paddle Assembly	
6.	Rear Upper Frame	
7.	Switch Cover Assembly	



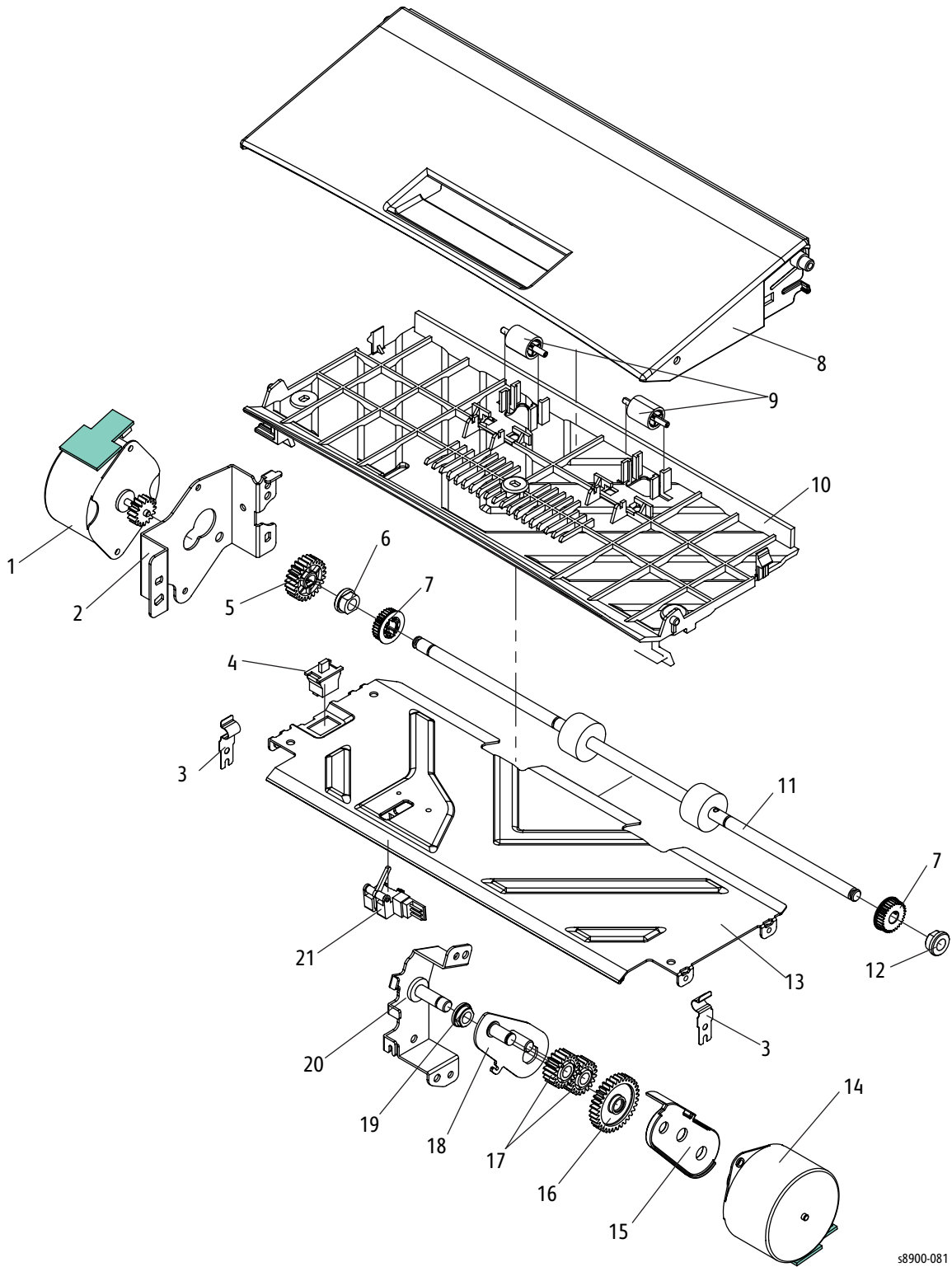
## Parts List 16.4 Finisher - Ejector Tamper Assembly (4 of 18)



### Parts List 16.4 Finisher - Ejector Tamper Assembly (4 of 18)

Item	Description	Part Number
1.	Ejector Unit	
2.	Sub Rear Tamper Assembly	
3.	Sub Front Tamper Assembly	
4.	Paper Press Arm Assembly	

Parts List 16.5 Finisher - Feed Unit (5 of 18)

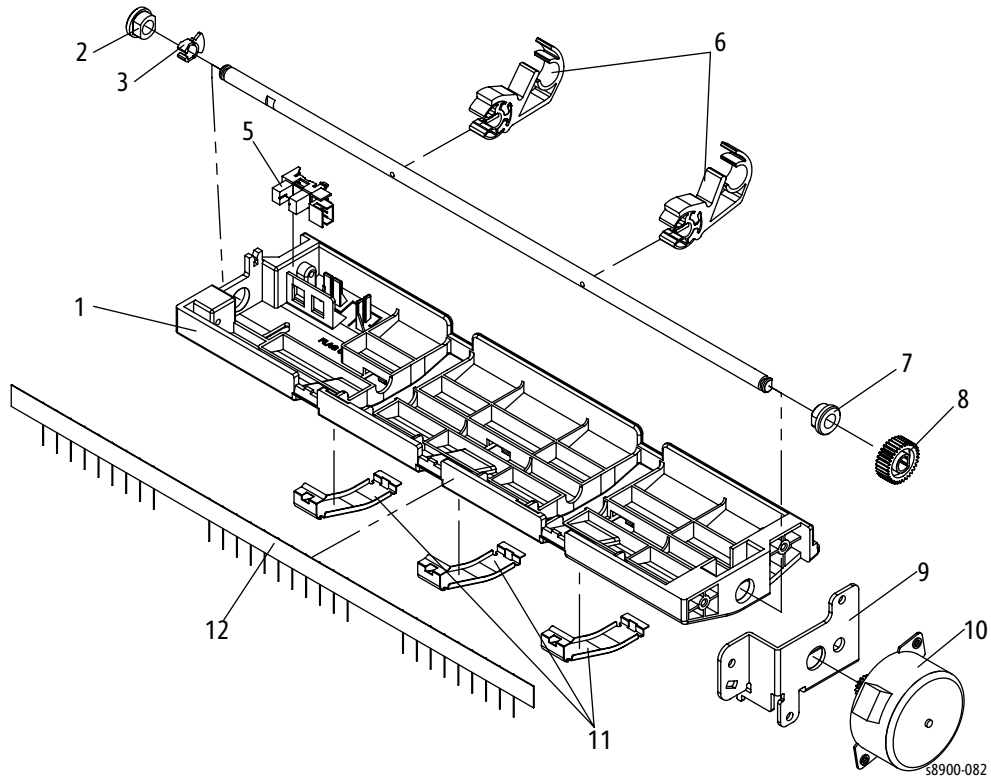


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## Parts List 16.5 Finisher - Feed Unit (5 of 18)

Item	Description	Part Number
1.	Feed Assembly PM49	
2.	Feed Motor Bracket	
3.	Lock Guide Bracket	
4.	Push 1 Pole S/W	
5.	Exit Roller Feed Gear M08T25	
6.	Dry Bearing NTN6	
7.	Drive Roller Gear	
8.	Upper Jam Clearance Cover	
9.	Idler Duplex Roller	
10.	Upper Jam Clearance Guide	
11.	Exit Feed Roller	
12.	Bushing 6 10 9	
13.	Lower Entrance Guide Assembly	
14.	PM Assembly 49	
15.	Couple Bracket	
16.	Gear, M08Z34	
17.	Gear, M08Z20	
18.	Couple Bracket Assembly	
19.	Rotate Paddle Bushing	
20.	Fix Couple Bracket Assembly	
21.	Photo Sensor	

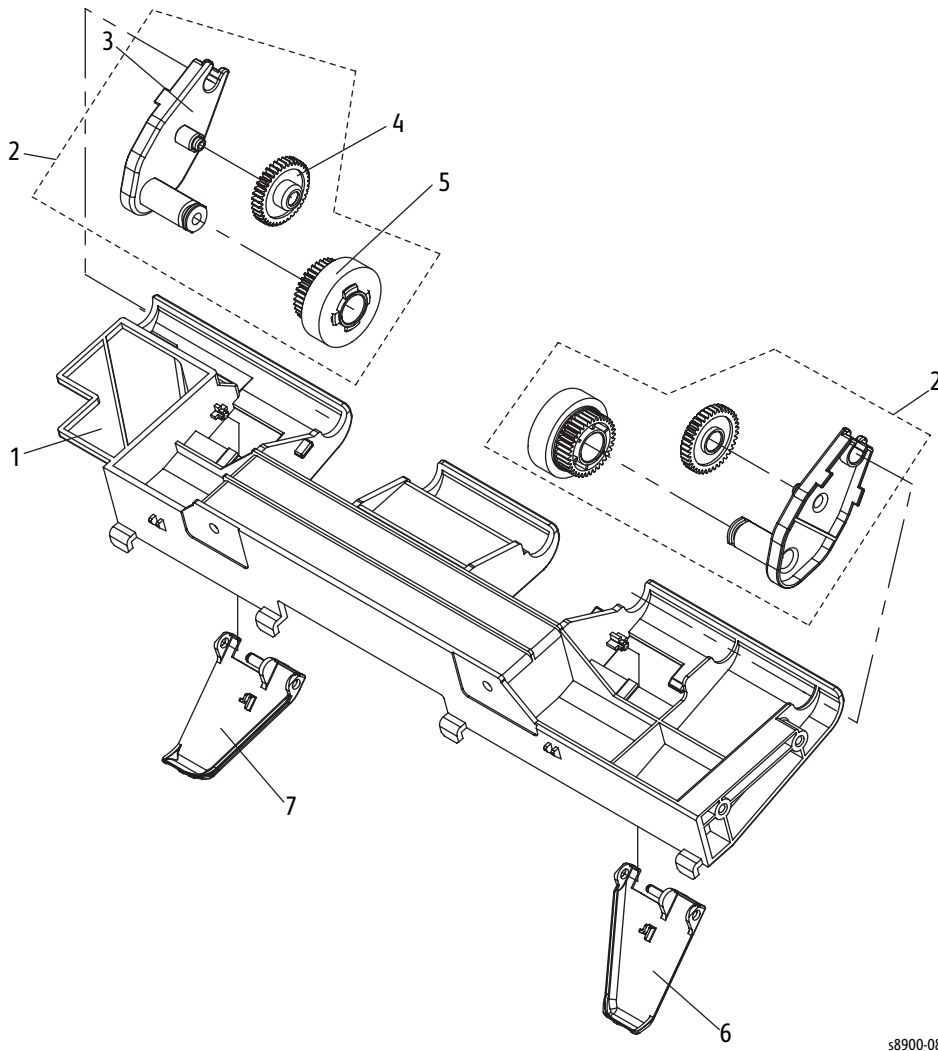
Parts List 16.6 Finisher - Paddle Unit (6 of 18)



Parts List 16.6 Finisher - Paddle Unit (6 of 18)

1.	Ceiling Paddle Bracket	
2.	Dry Bearing NTN6	
3.	Flag Home Roller Paddle Bracket	
4.	1st Paddle Shaft	
5.	Photo Interrupt Sensor	
6.	Paddle Roller Assembly	059K84340
7.	Bushing 6 10 9	
8.	Gear, Paddle M05Z33	
9.	Motor Paddle Bracket	
10.	Motor Paddle Assembly	
11.	AUX Ceiling Bracket	
12.	Antistatic Brush	

Parts List 16.7 Finisher - 2nd Paddle (7 of 18)

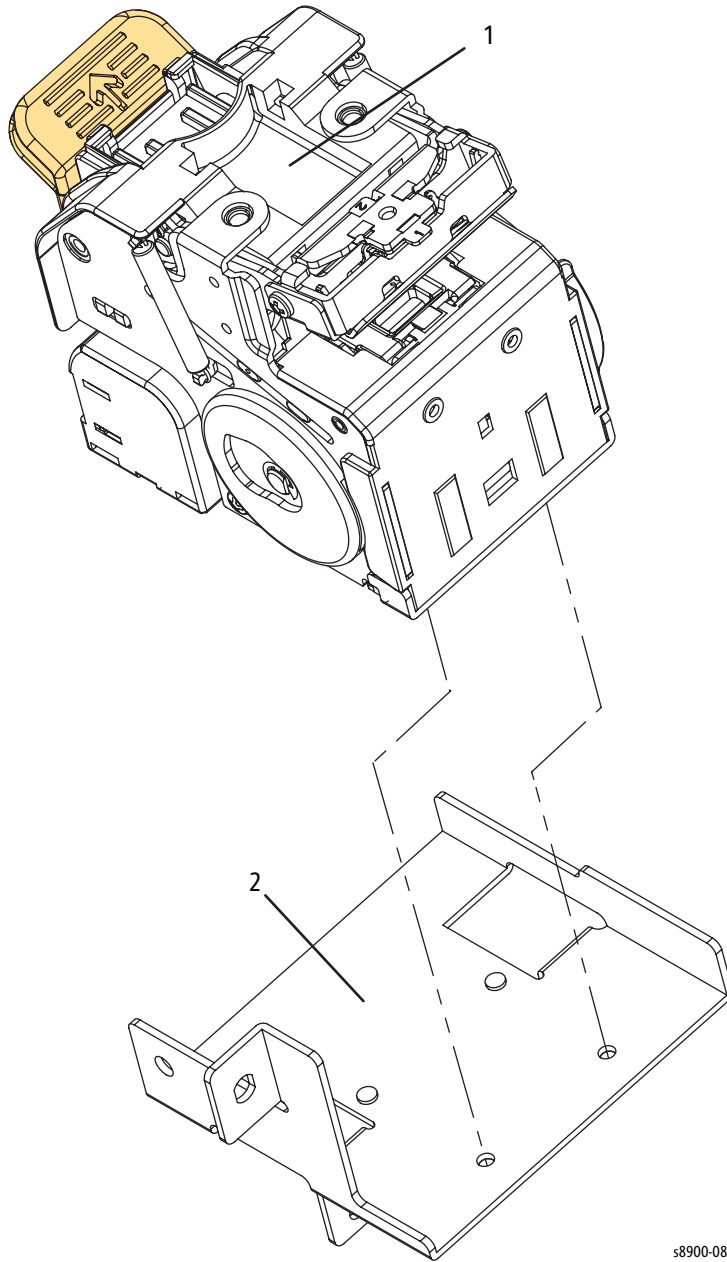


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Parts List 16.7 Finisher - 2nd Paddle (7 of 18)

1.	Suppressor Curl Stay	
2.	Sub Housing Roller Assembly	
3.	Housing Roller Bracket	
4.	Idle Roller Gear	
5.	Sponge Roller Assembly	059K84350
6.	2nd Suppressor Bracket	
7.	Rear Bracket	

### Parts List 16.8 Finisher - Stapler (8 of 18)

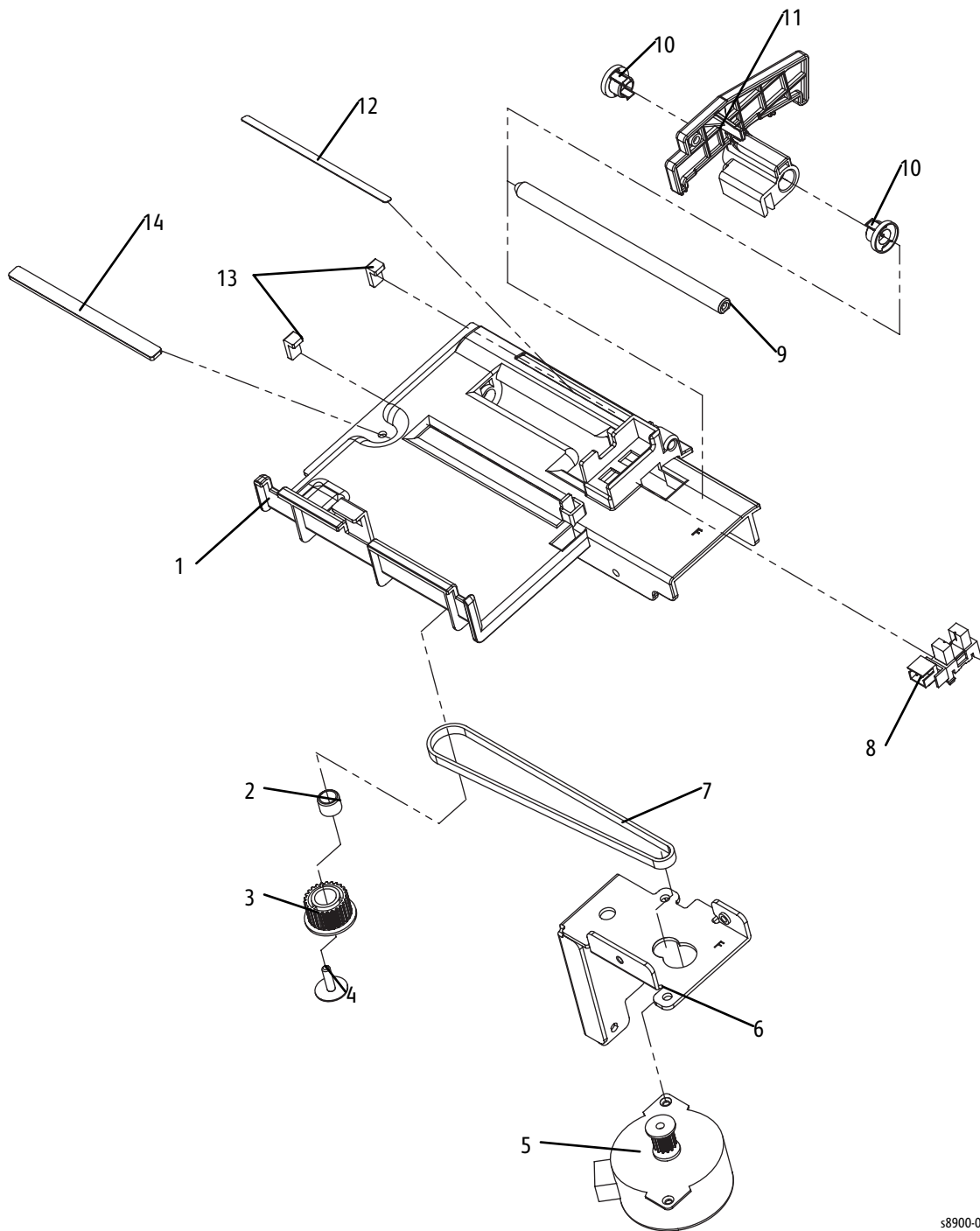


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### Parts List 16.8 Finisher - Stapler (8 of 18)

Parts List 16.8 Finisher - Stapler (8 of 18)		
1.	Stapler Unit	
2.	Base Bracket	

### Parts List 16.9 Finisher - Front Tamper Unit (9 of 18)



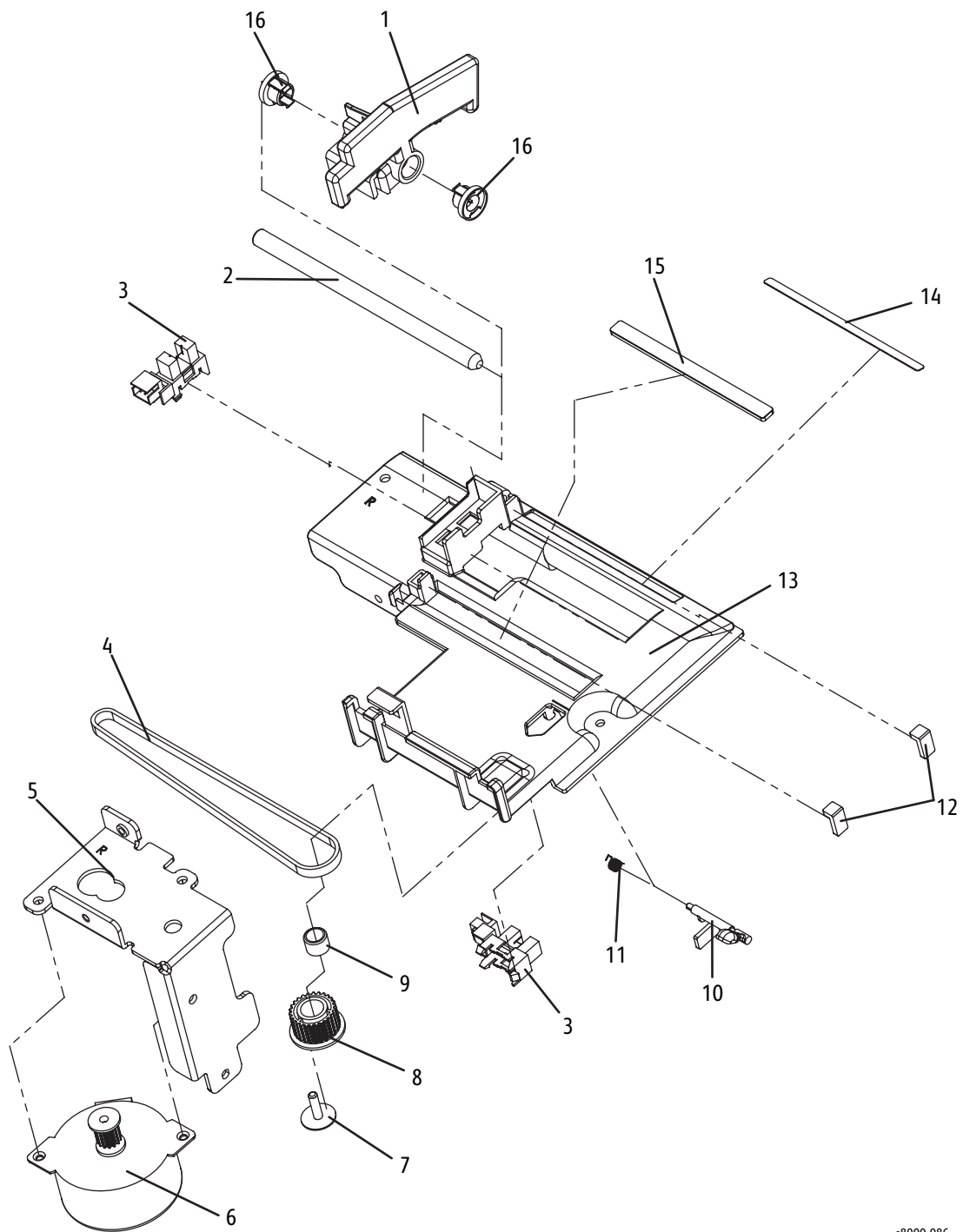
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**Parts List 16.9 Finisher - Front Tamper Unit (9 of 18)**

Item	Description	Part Number
1.	Front Tamper Base	
2.	Tamper Pulley Shaft	
3.	Idle Pulley S2MT26	
4.	Screw - HEXA 12W.F.W M3 10 T2	
5.	Tamper Motor Assembly	
6.	Tamper Motor Bracket	
7.	Timing Belt B40S2M248	
8.	Photo Interrupt Sensor	
9.	Tamper Shaft	
10.	Bushing	
11.	Front Tamper Tray	
12.	Tamper Teflon Tape	
13.	Tamper Damper	
14.	Tamper Sponge Teflon Tape	



### Parts List 16.10 Finisher - Rear Tamper Unit (10 of 18)

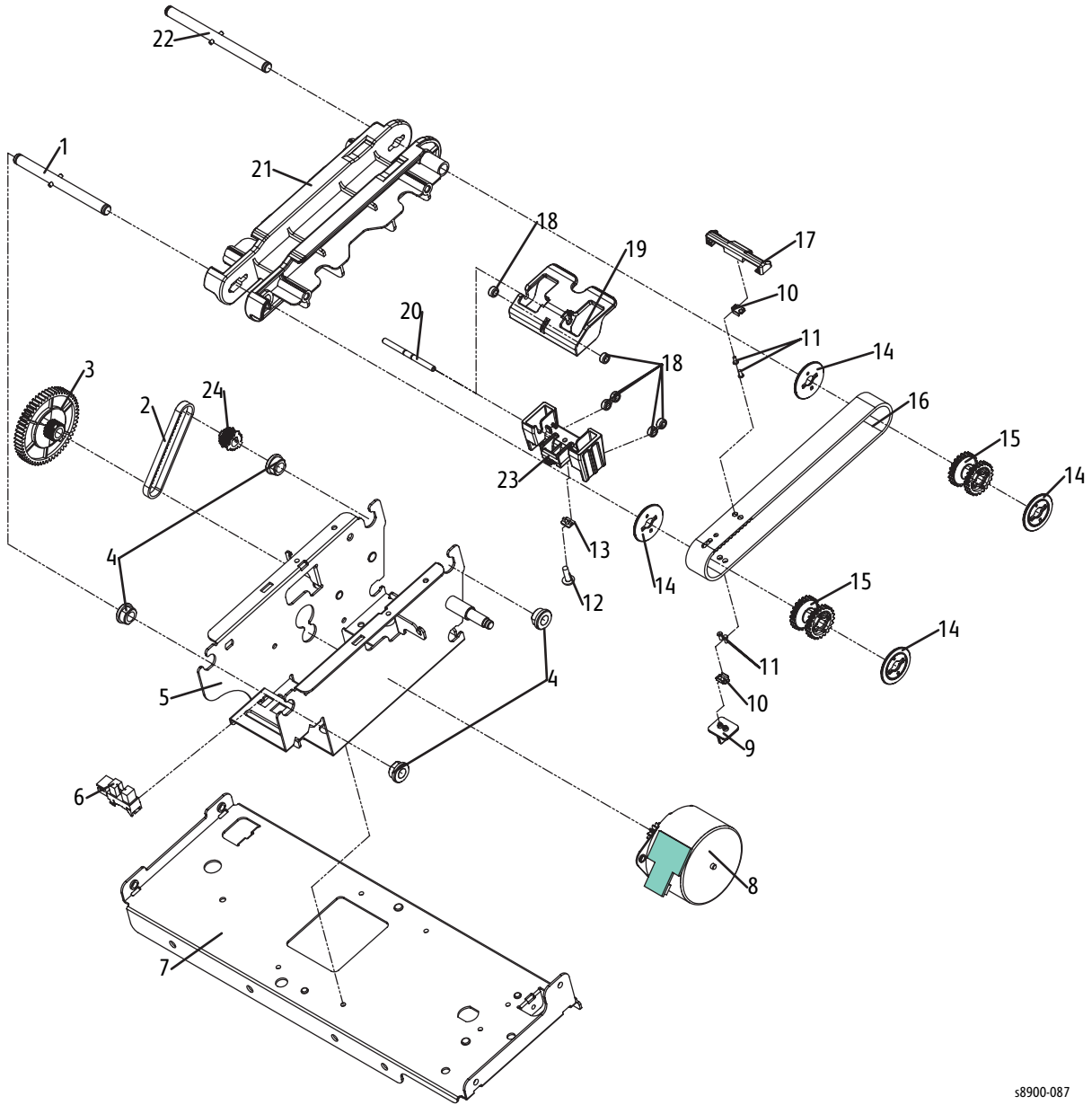


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**Parts List 16.10 Finisher - Rear Tamper Unit (10 of 18)**

Item	Description	Part Number
1.	Rear Tamper Tray	
2.	Tamper Shaft	
3.	Photo Interrupt Sensor	
4.	Timing Belt B40S2M248	
5.	Tamper Motor Bracket	
6.	Tamper Motor Assembly	
7.	Screw - HEXA 12W.F.W M3 10 T2	
8.	Idle Pulley S2MT26	
9.	Tamper Shaft Pulley	
10.	Paper Detect Actuator	
11.	Actuator Tamper Spring	
12.	Tamper Damper	
13.	Rear Tamper Base	
14.	Tamper Teflon Tape	
15.	Tamper Sponge Teflon Tape	
16.	Bushing	

### Parts List 16.11 Finisher - Ejector Unit (11 of 18)

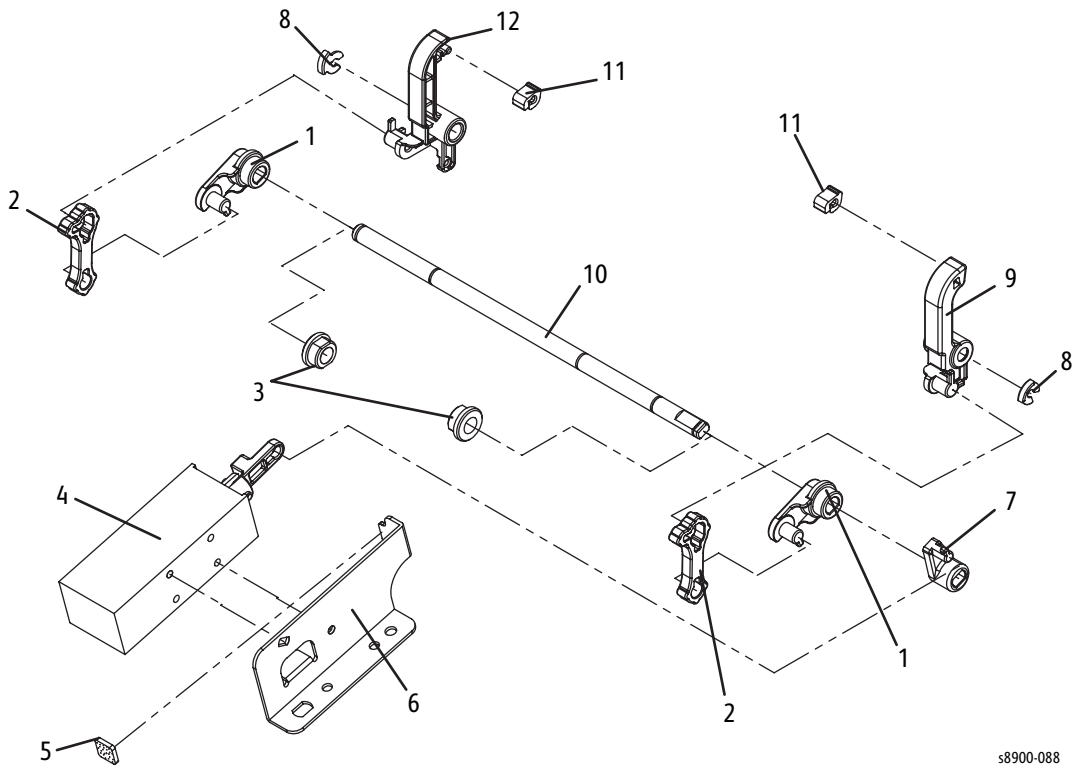


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**Parts List 16.11 Finisher - Ejector Unit (11 of 18)**

<b>Item</b>	<b>Description</b>	<b>Part Number</b>
1.	Shaft Clamp Assembly	
2.	Timing Belt BS2M130	
3.	Gear, Pulley M08Z56 S2MT18	
4.	Bushing 6 10 9	
5.	Bracket Clamp Assembly	
6.	Photo Interrupt Sensor	
7.	Main Support Bracket	
8.	Motor PM49 M49-3KA Z14	
9.	Sensor Flag	
10.	Holder Bracket	
11.	Screw M1.6 4 T2	
12.	Screw M3.0 10 T2	
13.	AUX Belt Bracket	
14.	Middle Spacer	
15.	Pulley Pin S3MT22	
16.	Timing Belt BS3M333	
17.	Support Clamp	
18.	Arm Roller	
19.	Arm Clamp	
20.	Clamp Axis Shaft	
21.	Main Ramp	
22.	Main Shaft Clamp Assembly	
23.	Base Clamp	
24.	Pulley S2M18T	

Parts List 16.12 Finisher (12 of 18)

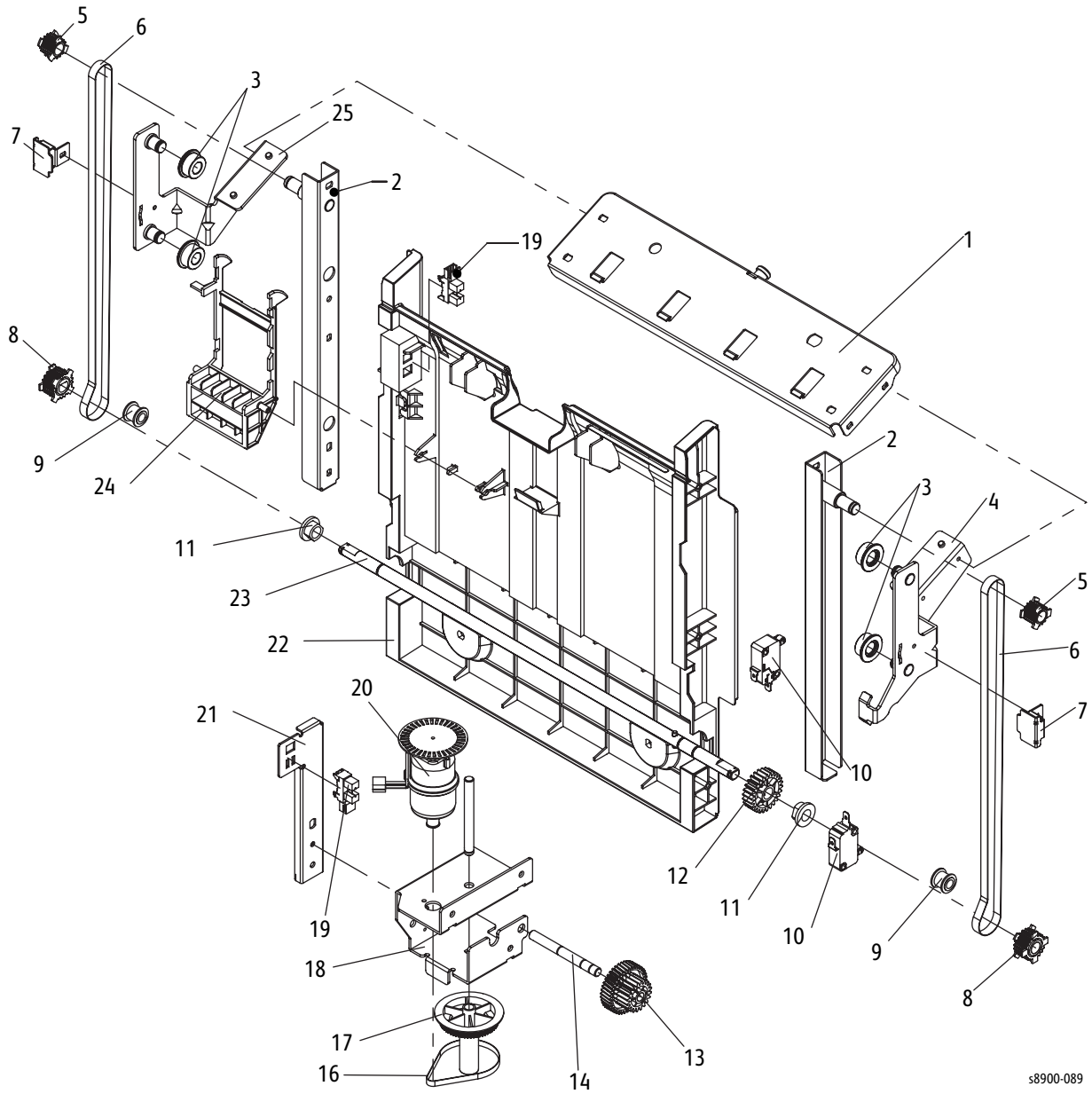


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Parts List 16.12 Finisher (12 of 18)

Item	Description	Part Number
1.	Base Arm	
2.	Main Link	
3.	Bushing 6 10 9	
4.	Solenoid Assembly	
5.	Damper	
6.	Solenoid Bracket	
7.	Base Solenoid Arm	
8.	Snap Ring T0 63	
9.	Front Plate	
10.	Main Shaft	
11.	Tip	
12.	Rear Plate	

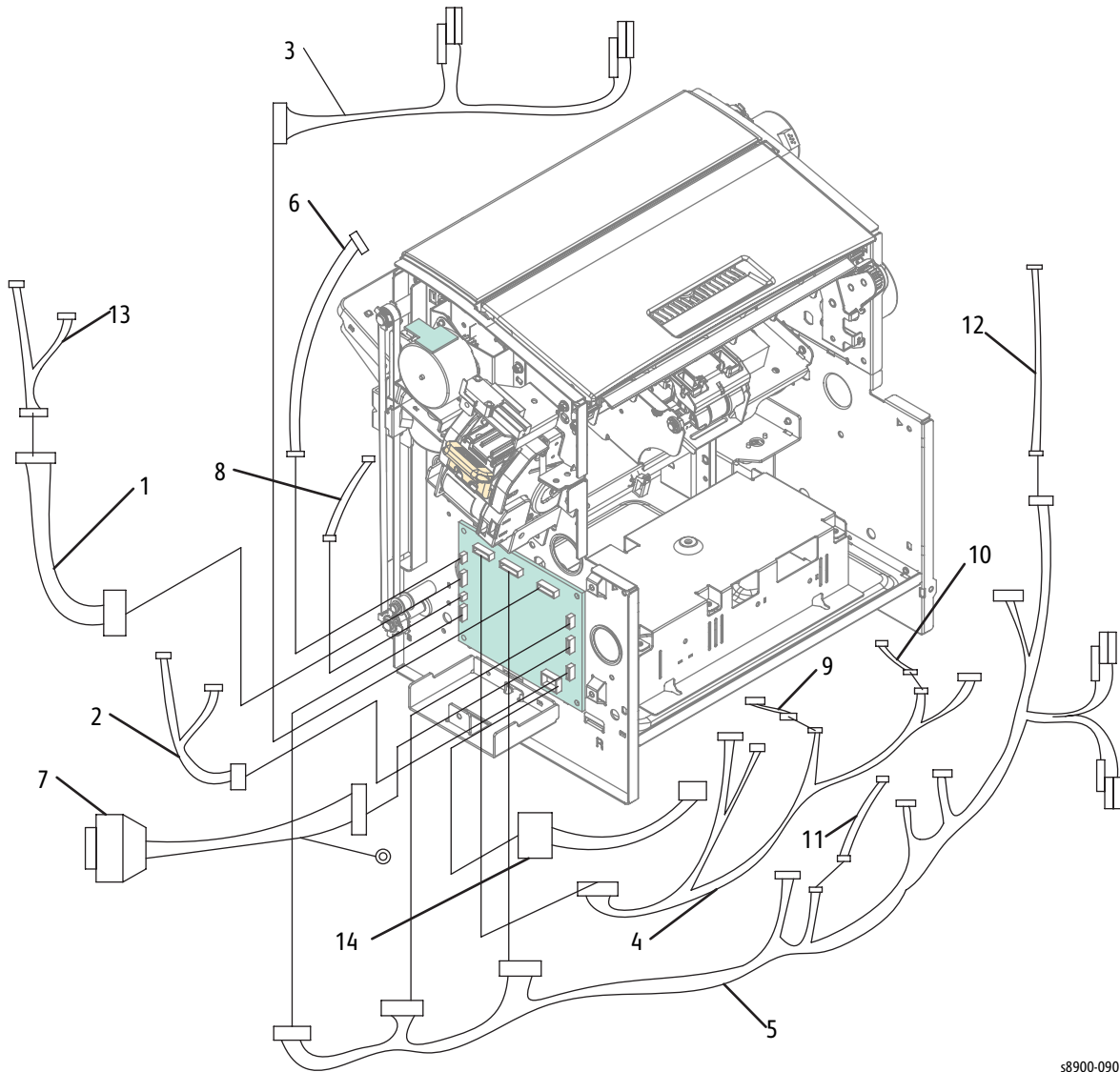
### Parts List 16.13 Finisher - Stacker Unit (13 of 18)



**Parts List 16.13 Finisher - Stacker Unit (13 of 18)**

<b>Item</b>	<b>Description</b>	<b>Part Number</b>
1.	Base Bracket Assembly	
2.	Rail Guide Bracket Assembly	
3.	Bushing 8x15	
4.	Front Support Bracket Assembly	
5.	Pulley S3M15T	
6.	Timing Belt B60S3M591	
7.	Timing Belt Bracket	
8.	Pulley S3M20T	
9.	Tension Roller	
10.	Interlock Switch VP332A_4D	
11.	Dry Bearing NTN8	
12.	Gear, Z26	
13.	Gear, Z20 Wormwheel Z40	
14.	Wormwheel Shaft	
15.	Worm Shaft	
16.	Timing Belt B40S2M144	
17.	Worm S2M40T	
18.	Motor Bracket	
19.	Photo Interrupt Sensor	
20.	Motor Assembly	
21.	Motor Sensor Bracket	
22.	Shield	
23.	Main Shaft Assembly	
24.	Sensor Bracket	
25.	Rear Support Bracket Assembly	

### Parts List 16.14 Finisher - Electrical (Wiring Harnesses) (14 of 18)



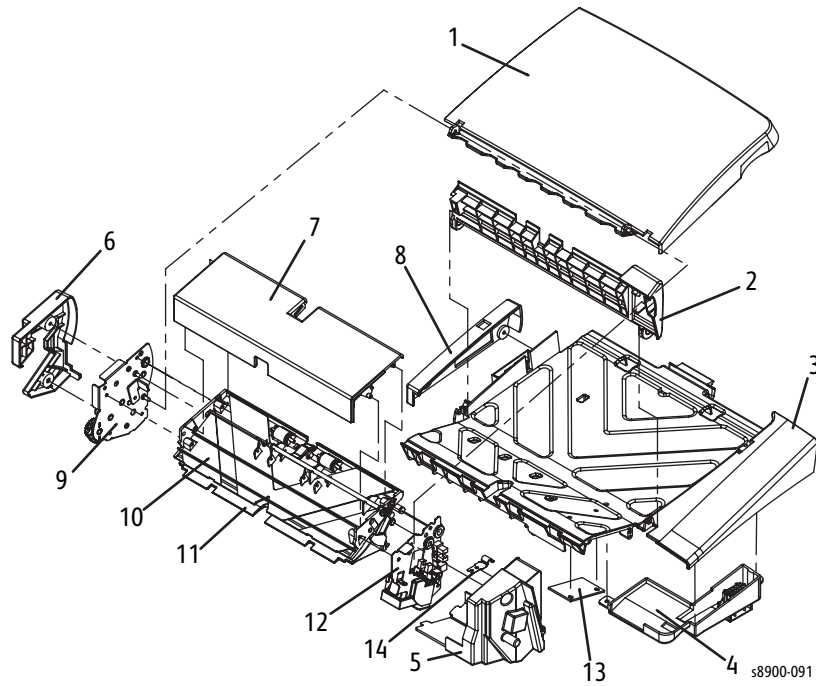
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**Parts List 16.14 Finisher - Electrical (Wiring Harnesses) (14 of 18)**

<b>Item</b>	<b>Description</b>	<b>Part Number</b>
1.	Main Ejector Harness	
2.	Main Stapler Harness	
3.	Dock & Staple I/L Harness	
4.	Main Tamper Harness	
5.	Paddle & STK Interlock Harness	
6.	STK Level Sensor Harness	
7.	Interface Cable Harness	952K26360
8.	Solenoid Harness	
9.	Tamper Paper Detect Sensor Harness	
10.	Front Tamper Home Sensor Harness	
11.	Paddle Home Sensor Harness	
12.	Entry Sensor Harness	
13.	Sub Ejector Harness	
14.	Main Power Harness	

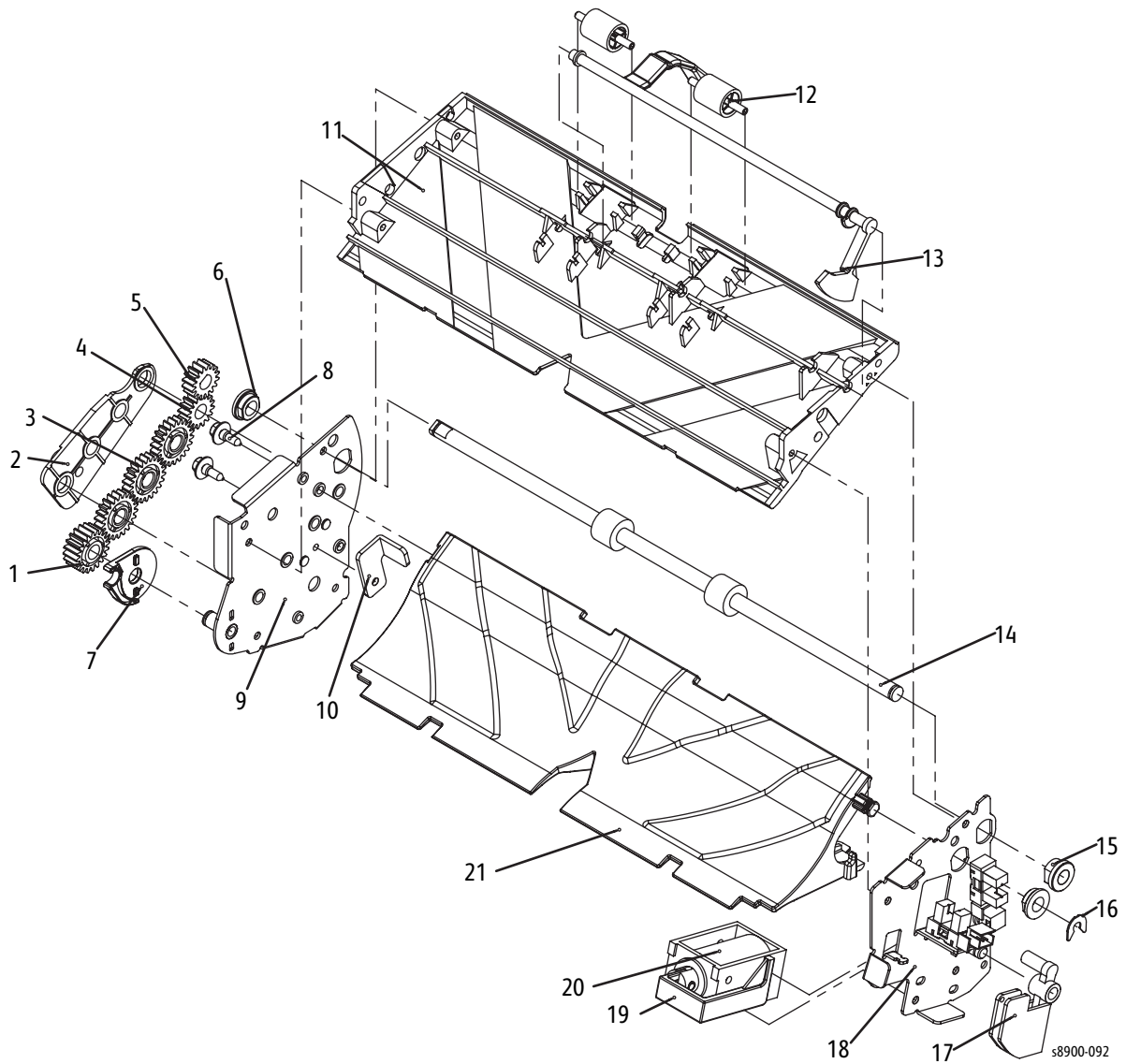
Parts List 16.15 Finisher - Covers and Bracket (15 of 18)



Parts List 16.15 Finisher - Covers and Bracket (15 of 18)

Item		
1.	ICT Tray	
2.	Exit Jam Cover	
3.	Lower Guide	
4.	Bracket	
5.	Front Cover	
6.	Rear Cover	
7.	Top Cover	
8.	Guide Cover	
9.	Rear Frame Sub Assembly	
10.	Upper Exit Guide	
11.	Gate Diverter	
12.	Front Frame Sub Assembly	
13.	Transport PWB	
14.	Guide Lock	

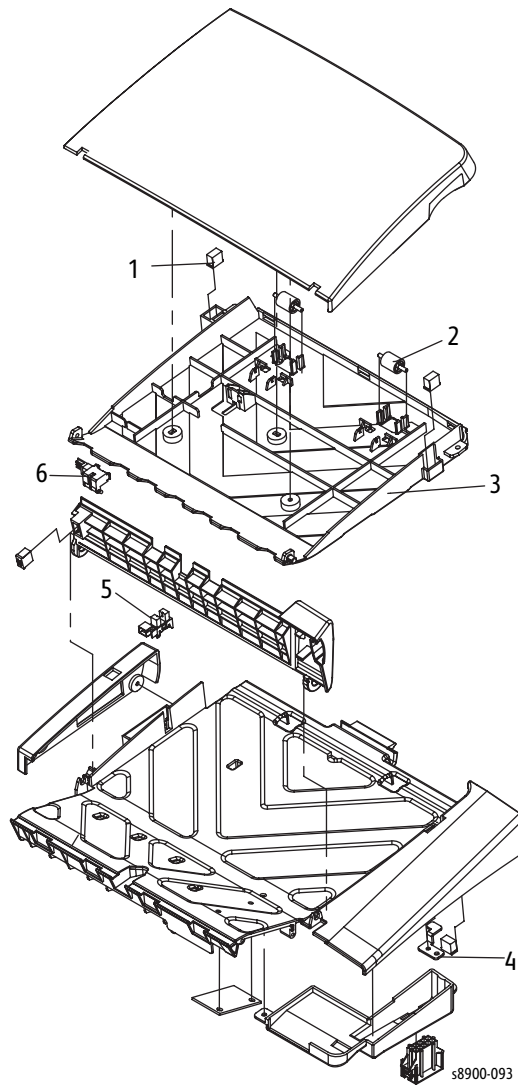
### Parts List 16.16 Finisher - Driver Unit (16 of 18)



**Parts List 16.16 Finisher - Driver Unit (16 of 18)**

<b>Item</b>	<b>Description</b>	<b>Part Number</b>
1.	Gear: M0.8:Z20	
2.	Exit Support Bracket	
3.	Gear: M08Z22	
4.	Gear: T16M0.8	
5.	Gear: M08Z16	
6.	Paddle Rotate Bushing	
7.	Flange Bracket	
8.	Screw: M4XF3	
9.	Rear Frame Bracket Assembly	
10.	End Stop Offset Retainer Bracket	
11.	Upper Exit Guide	
12.	Idler Duplex Roller	
13.	Exit Flag Bracket	
14.	Exit Roller	
15.	Dry Bearing	
16.	E-Ring PHI 4	
17.	Link 2 Solenoid Bracket	
18.	Front Frame Bracket Assembly	
19.	Link 1 Solenoid Bracket	
20.	Transport Solenoid	
21.	Gate Diverter	

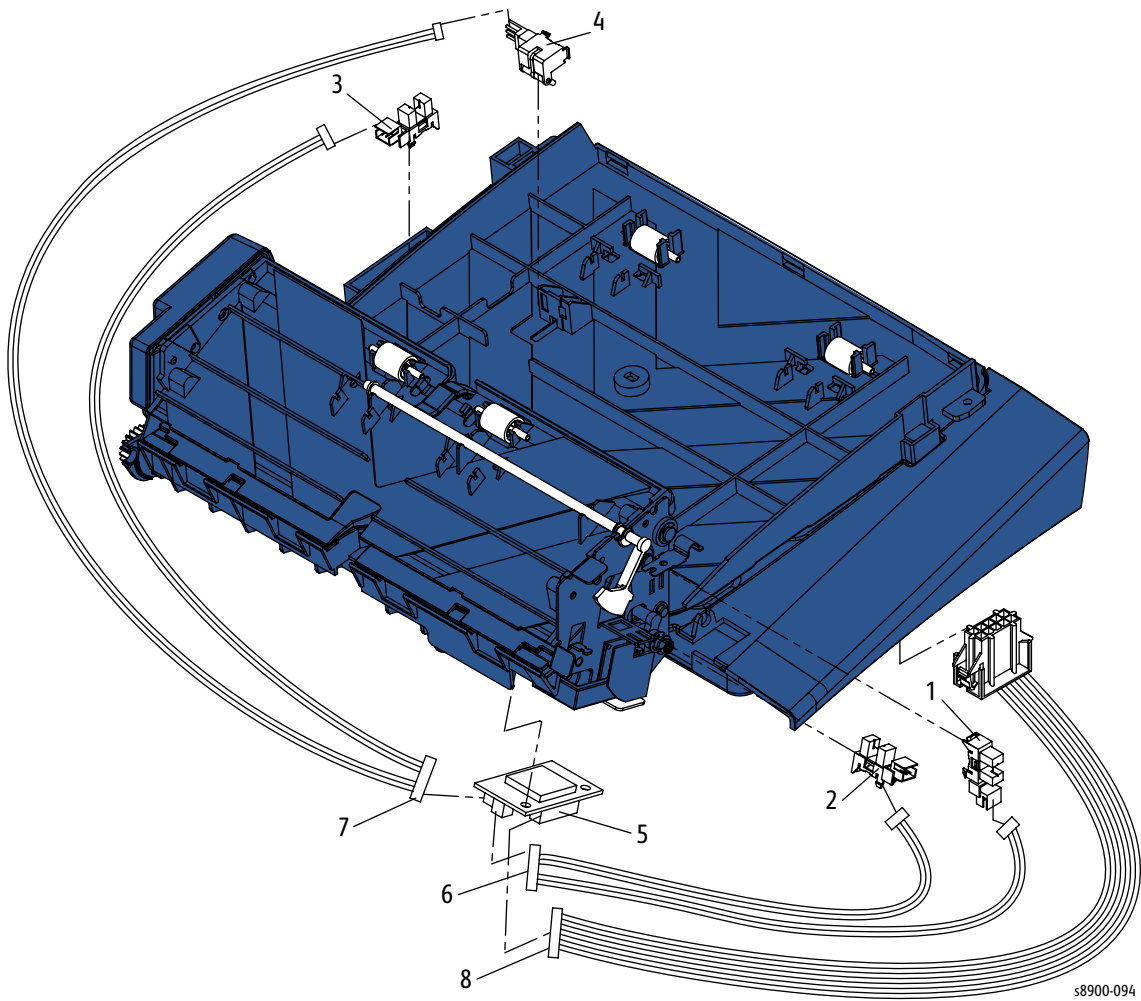
## Parts List 16.17 Finisher - Paper Path and Tray (17 of 18)



## Parts List 16.17 Finisher - Paper Path and Tray (17 of 18)

Item	Description	Part Number
1.	Cover Magnet	
2.	Idler Duplex Roller	
3.	Upper Guide	
4.	Magnet Bracket	
5.	Photo Interrupt Sensor	
6.	Photo Sensor	

Parts List 16.18 Finisher - Sensors and Electrical (18 of 18)



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Parts List 16.18 Finisher - Sensors and Electrical (18 of 18)

Item	Description	Part Number
1.	Open Door ICT Sensor	
2.	Paper Exit Sensor	
3.	Switch Sensor	
4.	Jam Cover Sensor	
5.	Transport Card PCB Assembly	
6.	ICT Sensor ETE Harness	
7.	Transport Paper Detect Sensor EDT Harness	
8.	Transport Unit ETC Harness	

# Xerox Supplies and Accessories

## Consumables and Routine Maintenance Items

Description	Part Number
Xerox ColorQube Ink Cyan, ColorQube 8700 (2 Sticks), North America	108R00990
Xerox ColorQube Ink Magenta, ColorQube 8700 (2 Sticks), North America	108R00991
Xerox ColorQube Ink Yellow, ColorQube 8700 (2 Sticks), North America	108R00992
Xerox ColorQube Ink Black, ColorQube 8700 (2 Sticks), North America	108R00993
Xerox ColorQube Ink Black, ColorQube 8700 (4 Sticks), North America	108R00994
Xerox ColorQube Ink Cyan, ColorQube 8700 (2 Sticks), EEA	108R00995
Xerox ColorQube Ink Magenta, ColorQube 8700 (2 Sticks), EEA	108R00996
Xerox ColorQube Ink Yellow, ColorQube 8700 (2 Sticks), EEA	108R00997
Xerox ColorQube Ink Black, ColorQube 8700 (2 Sticks), EEA	108R00998
Xerox ColorQube Ink Black, ColorQube 8700 (4 Sticks), EEA	108R00999
Xerox ColorQube Ink Cyan, ColorQube 8700 (2 Sticks), Outside NA, EEA, AP	108R01000
Xerox ColorQube Ink Magenta, ColorQube 8700 (2 Sticks), Outside NA, EEA, AP	108R01001
Xerox ColorQube Ink Yellow, ColorQube 8700 (2 Sticks), Outside NA, EEA, AP	108R01002
Xerox ColorQube Ink Black, ColorQube 8700 (2 Sticks), Outside NA, EEA, AP	108R01003
Xerox ColorQube Ink Black, ColorQube 8700 (4 Sticks), Outside NA, EEA, AP	108R01004
Xerox ColorQube Ink Cyan, ColorQube 8700(2 Sticks), Asia Pacific	108R01005
Xerox ColorQube Ink Magenta, ColorQube 8700 (2 Sticks), Asia Pacific	108R01006
Xerox ColorQube Ink Yellow, ColorQube 8700 (2 Sticks), Asia Pacific	108R01007
Xerox ColorQube Ink Black, ColorQube 8700 (2 Sticks), Asia Pacific	108R01008
Xerox ColorQube Ink Black, ColorQube 8700 (4 Sticks), Asia Pacific	108R01009
Xerox ColorQube Ink Metered Cyan, ColorQube 8700 (4 Sticks)	108R01010
Xerox ColorQube Ink Metered Magenta, ColorQube 8700 (4 Sticks)	108R01011
Xerox ColorQube Ink Metered Yellow, ColorQube 8700 (4 Sticks)	108R01012
Xerox ColorQube Ink Metered Black, ColorQube 8700 (4 Sticks)	108R01013
Xerox ColorQube Ink Cyan, ColorQube 8900 (6 Sticks), North America	108R01014
Xerox ColorQube Ink Magenta, ColorQube 8900 (6 Sticks), North America	108R01015
Xerox ColorQube Ink Yellow, ColorQube 8900(6 Sticks), North America	108R01016

**Consumables and Routine Maintenance Items (Continued)**

Description	Part Number
Xerox ColorQube Ink Black, ColorQube 8900 (6 Sticks), North America	108R01017
Xerox ColorQube Ink Cyan, ColorQube 8900 (6 Sticks), EEA	108R01018
Xerox ColorQube Ink Magenta, ColorQube 8900 (6 Sticks), EEA	108R01019
Xerox ColorQube Ink Yellow, ColorQube 8900 (6 Sticks), EEA	108R01020
Xerox ColorQube Ink Black, ColorQube 8900 (6 Sticks), EEA	108R01021
Xerox ColorQube Ink Cyan, ColorQube 8900 (6 Sticks), Outside NA, EEA, AP	108R01022
Xerox ColorQube Ink Magenta, ColorQube 8900 (6 Sticks), Outside NA, EEA, AP	108R01023
Xerox ColorQube Ink Yellow, ColorQube 8900 (6 Sticks), Outside NA, EEA, AP	108R01024
Xerox ColorQube Ink Black, ColorQube 8900 (6 Sticks), Outside NA, EEA, AP	108R01025
Xerox ColorQube Ink Metered Cyan, ColorQube 8900 (6 Sticks)	108R01026
Xerox ColorQube Ink Metered Magenta, ColorQube 8900 (6 Sticks)	108R01027
Xerox ColorQube Ink Metered Yellow, ColorQube 8900 (6 Sticks)	108R01028
Xerox ColorQube Ink Metered Black, ColorQube 8900 (6 Sticks)	108R01029
Xerox ColorQube Ink Cyan, ColorQube 8900 (6 Sticks), Asia Pacific	108R01030
Xerox ColorQube Ink Magenta, ColorQube 8900 (6 Sticks), Asia Pacific	108R01031
Xerox ColorQube Ink Yellow, ColorQube 8900 (6 Sticks), Asia Pacific	108R01032
Xerox ColorQube Ink Black ColorQube 8900 (6 Sticks), Asia Pacific	108R01033
Xerox ColorQube Rainbow Pack, ColorQube 8700/8900	058K00260
Extended-Capacity Maintenance Kit, ColorQube	109R00783
Standard-Capacity Maintenance Kit, ColorQube	109R00784
Waste Tray	109R00754
Cleaning Kit 8500/8800 Series	016184500
Staple Cartridge (for 20 sheet convenience stapler) (2 pack, 1,500/Pack)	108R00823
Staple Cartridge	008R12964
Staple Refill (3 pack, 5,000/Pack)	008R12941



## Options

Description	Part Number
525-Sheet Feeder	059K83530
1800-Sheet Feeder	059K83540
Storage Cart	078K00880
Wireless Network Adapter with NA power converter 110V	097S03740
Wireless Network Adapter with Euro power converter 220V	097S03741
Wireless Network Adapter with UK power converter 220V	097S03742

## Power Cords

Description	Part Number
Power Cord, North America (NEMA 5-15), 115V, 13A	117E35170
Power Cord, Euro, 230V	117E29500
Power Cord, UK, 240V	117E29510
Power Cord, Australia, 230V	117E29490
Power Cord, Switzerland, 230V	117E35050
Power Cord, Denmark, 230V	117E29460
Power Cord, China, 220V	117E35030
Power Cord, Argentina, 220V	117E35040
Power Cord, Italy, 230V	117E29450
Power Cord, Israel, 230V	117E29480
Power Cord, India/ South Africa, 230V	117E29470

## Service Kits

Service Kits are developed to provide an easy means to obtain spare parts normally associated with larger assemblies. A number of Service Kits have been developed for the ColorQube 8700/8900. The following tables list the contents for each kit.

### Kits and Miscellaneous

#### Kits and Other Items

Description	Part Number
Mechanical Hardware Kit	604K42210
Repackaging Kit	695K28480
Grease, Nye Rheolube 368F	070E00890
Tool, Screwdriver, Torque, Adjust	003082700
Bit, Screwdriver, 0.25 Hexdrive, T20	003086600
CA ASSY,SP; Discrete, Serial Adapter; Crimp 5,26 AWG,(1 X 5, JACK TIP) X (DSUB, Female, STR, 25 POS, AMP 147913-7); High Reliability	600T80374
Cable, Serial, DB9F-DB25M, PC Null-Modem Type; Belkin #F2L044-10	600T80375
Printhead ZIF Connector Unlock/Lock Tool	650K32910
Inbox Kit, 8700/8900 (110V)	650K33220
Inbox Kit, 8700/8900 (220V)	650K33230
FDI Cable	097S04408
USB-to-Serial Adapter (refer to Eureka Tip #1330326)	600T02332 or 655N00472
USB Stick w/ Code Update 360 & Printhead Update	301E64130
USB - MR Code & Printhead Update	630K13980
USB Stick w/ V2.256 Maintenance Release	301E13960
USB Stick w/ V3 "ConnectKey" code	630K13990
FRU, USB v3 "ConnectKey" (upgrade kit)	630K13990
FRU, USB v2.265 (downgrade kit)	630K14010

# Maintenance

# 6

This chapter includes:

- [Service Maintenance Procedure](#)
- [Recommended Tool Kit](#)
- [Cleaning](#)
- [Moving the Printer](#)
- [Adjustments](#)
- [Firmware Upgrade](#)

# Service Maintenance Procedure

## Maintenance Safety

- Do not attempt any maintenance procedure that is not specifically described in the documentation supplied with your printer.
- Do not use aerosol cleaners. Clean the printer with a dry lint-free cloth only.

Do not burn any consumables or routine maintenance items. For information on Xerox supplies recycling programs, go to [www.xerox.com/gwa](http://www.xerox.com/gwa).

Perform the following procedures whenever you check, service, or repair a printer. Cleaning the printer, as outlined in the following steps, assures proper operation of the printer and reduces the probability of having to service the printer in the future.

The frequency of use, the type of paper printed on, and operating environment are factors in determining how critical cleaning the printer is and how often it is necessary.

## Repair, Inspect, and Prevent (RIP) Procedure

- Perform these routine maintenance procedures during the course of servicing the printer.
- Clean the Feed Rollers, Transfer Rollers, and Paper Guides; replace if necessary.
- Remove and clean the paper trays.
- Print a Configuration and Error History pages; diagnose, and repair any problems as indicated.
- Check cleanliness of the interior and exterior, including Fans; if necessary, clean (dust or vacuum) these areas.
- Review proper printer operation using a customer file, if possible. Check with the customer regarding any special applications they may be using.
- Review with the customer all work that was performed and discuss proper printer care.

## Final Actions

The intent of this procedure is to be used as a guide to follow at the end of every service call.

1. Check that the exterior of the printer and the adjacent area is clean. Use a dry cloth or a cloth moistened with water to clean the exterior of the printer. Do not use solvents.
2. Check the supply of consumables. Ensure that an adequate supply of consumables is available according to local operating procedures.
3. Conduct any operator training that is needed. Ensure the operator understands the periodic maintenance procedures in the User Guide.
4. Reconnect the printer to the customer network. Verify function by printing one or more test prints. Present the test prints to the customer as examples of printer performance.
5. Discuss the service call with the customer to ensure that the customer understands what has been done and is satisfied with the results of the service call.

## Recommended Tool Kit

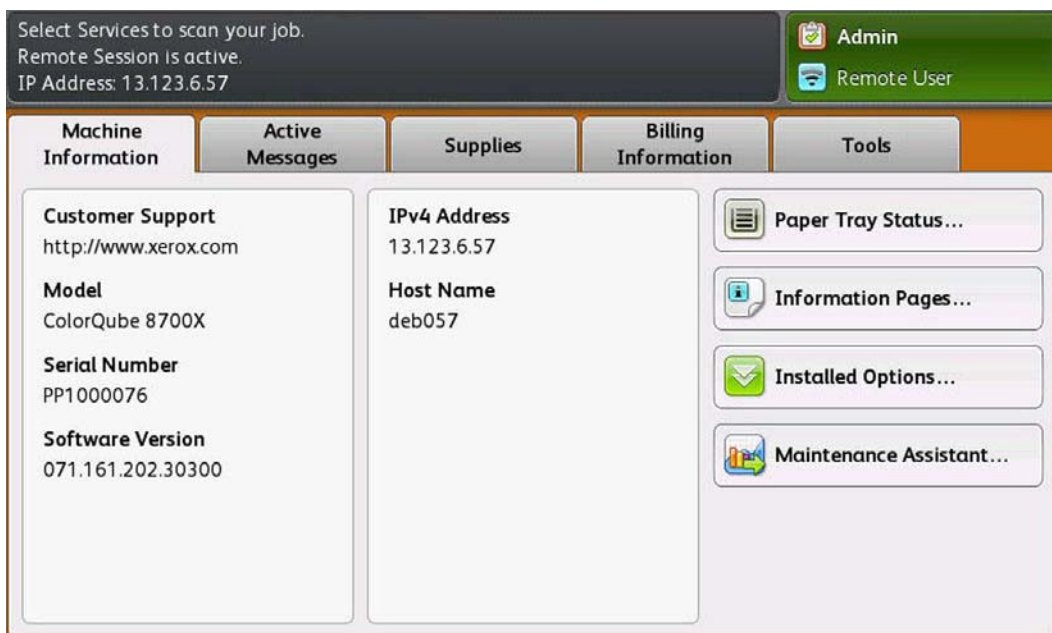
Description	Detail
<b>Required Tools</b>	
Assorted Nut Drivers	
Cleaners	Multipurpose surface cleaner and Alcohol
Driver Extension	
ESD Strap	
Ethernet Crossover Cable	Tech tool to connect the printer directly to a laptop or computer without a hub or router.
Flashlight	
Flathead Drivers	5.0 x 75 mm, 3.0 x 75 mm
Lint-Free Cloths	
Lubricant/ Grease	Reolube P/N 070E00890
Multimeter	Volts, Ohms, Current
Needle Nose Pliers	Tech
Phillips Drivers	Phillips # 2 and # 1 5.0 x 75 mm, 3.0 x 75 mm, 6.0 x 100 mm
Serial Adapter Cable	600T80374 To connect a computer's serial port to the printer's Service Only port to obtain BackChannel Trace information. Requires use of a RS-232 Null Modem cable.
RS-232 Serial Null Modem Cable	P/N 600T80375
USB/ Serial Adapter	
Small Channel Lock Pliers	
Torque Screw Driver	Required for this printer - <a href="#">P/N 003082700</a>
Torx Driver Bits	T5, T8, T10, T15, T20 Extended Shank 3" (75 mm)
Wire Cutters	
<b>Highly Recommended Tools</b>	
Nut Driver	5.5 mm (magnetic) - P/N 600T2123
Vacuum	General cleaning and ink particle removal
<b>Optional Tools</b>	
3 -Prong Claw Part-Retriever	
Bootable CDs and Thumb Drive	

Maintenance

Description	Detail
Dental Mirror	
Electrical Tape	
Heat Shrink Tubing	
IC Chip Puller	
Jeweler's Screwdriver Kit	
Pointer with Magnetized Head	
Screw Box	
Soldering Iron	
Tweezers	
Utility Knife	

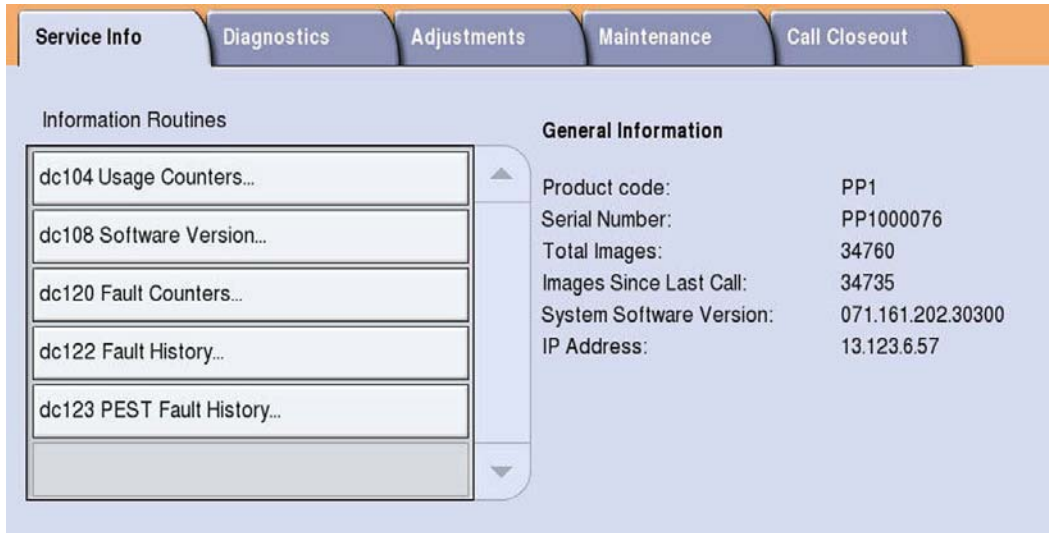
## Accessing Machine Status/ Tools Menu

1. Press the **Log In/ Out** button.
2. On the Control Panel UI, in the **User Name** field, enter **admin** (default User Name).
3. Touch **Next**.
4. In the password field, enter **1111** (default password).
5. Touch **Done**.
6. The UI screen is displayed with the **Admin** button highlighted.
7. On the Control Panel, press the **Machine Status** button.
8. Touch **Tools** to access various printer settings.



## Entering Service Diagnostics

1. Press and hold the [\*] then + [#] then + [Stop] buttons.
2. On the Login screen on the UI, enter 1991.
3. Touch Enter.
4. The Service Info tab is displayed as the default screen upon entering Service Diagnostics.





## Routine Maintenance Activities

### Procedure

1. Clean the Pick Rollers on every call.
2. Use the Control Panel to check maintenance item counters.
3. Compare the counter values to those listed in following table.
4. Advise the customer if a Cleaning Unit is near End of Life and empty the Waste Tray.  
**WARNING:** Use only approved cleaners and greases on parts.

Item	Routine Maintenance Items	Print Life
1	Cleaning Unit (Extended-Capacity)	30,000 cycles (0-20%) coverage
	Cleaning Unit (Standard-Capacity)	20,000 - 30,000 cycles (20-100%) coverage
2	Waste Tray	Empty every 7 Purges when printer prompts.

### Inspection

#### Rollers

Replace the 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).

#### Belts

There are 3 rubber Belts in the printer. Inspect the Belts for wear. Look for these problems:

- Loose rubber particles below the Belts indicate a worn Belt.
- Missing teeth in the Belts.
- Cracking or moderate fraying; a small amount of fraying is inevitable, so look for other signs of wear before replacing the Belt.

## Empty the Waste Tray

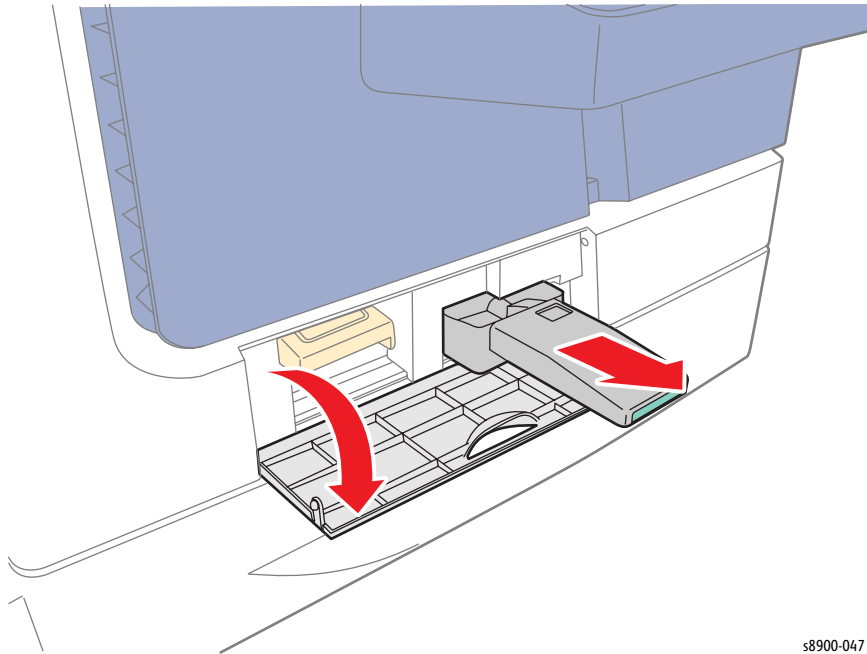
The Waste Tray must be emptied when the Control Panel displays a message stating that the Waste Tray is full.

**!** **CAUTION:** Never reuse waste ink in the printer; it will damage the Printhead.

1. Open the Front Door.

**!** **WARNING:** The Waste Tray may be hot. Handle the Waste Tray carefully.

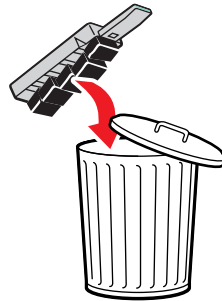
2. Pull the Waste Tray out from the printer.



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**Note:** The Waste Tray may be locked if the printer is in a warm-up cycle, or if the ink is cooling down following the Light Lines - Fix routine. If the tray is locked, close the Door and wait 15 minutes before repeating steps 1 and 2.

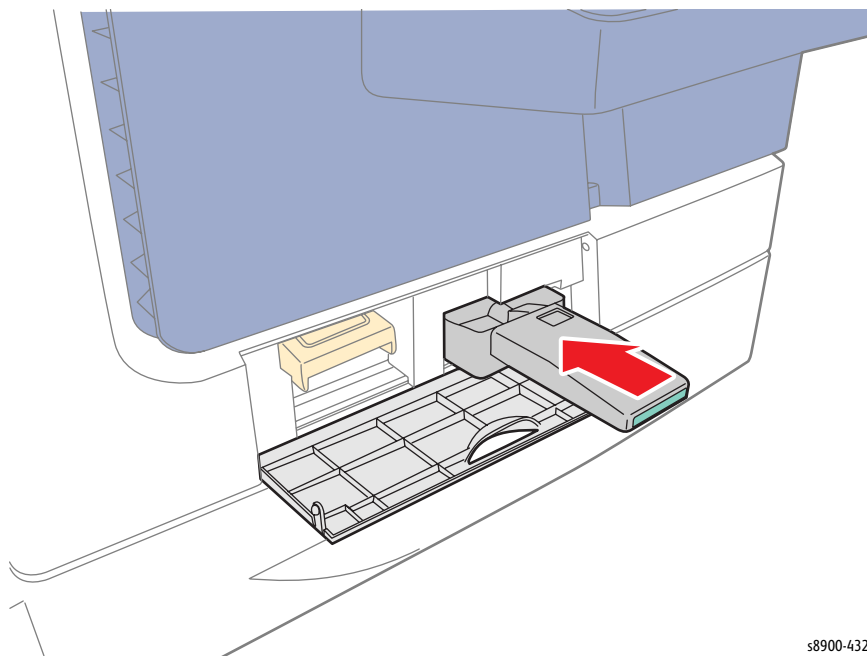
3. Empty the Waste Tray in a waste container. The ink is non-toxic and can be discarded as normal office waste.



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**Note:** The Waste Tray must be out of the printer for more than five seconds or you will continue to receive a Waste Tray Full message on the Control Panel.

4. Insert the Waste Tray into the printer and push it completely into the Waste Tray slot.
5. Close the Front Door.



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## Lubrication

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 the grease approved for the printer.

- Rheolube 768 Grease: Part Number 070E00890



**CAUTION:** Plastic parts will deteriorate when unspecified grease and chemicals are used. To avoid damage to the printer, use only Rheolube 768 grease.

# Cleaning

 **CAUTION:** Do not use any solvents unless directed to do so in this manual.

Cleaning is indicated if the printer is having print-quality or paper-feeding problems. Some cleaning procedures, such as purging the jet nozzles are done automatically when necessary. Other procedures, such as scrubbing the Paper Feed Rollers with a moistened lint-free wipe, must be done by the customers, but only if the Rollers are visibly dirty.

Cleaning is indicated by any of the following:

- Light stripes or missing colors appear in prints.
- Ink smears or random streaks appear on the front or back of prints.
- Only spots appear along the tops of prints.
- Mispicks or multiple picks occur at the media tray.
- Persistent paper jams inside the printer or at the media tray if the Rollers are visibly dirty.
- Wiggly vertical stripes caused by too much oil created by a dirty Drum Maintenance Unit blade.
- Most print-quality problems can be corrected by running the cleaning procedures on the printer's Control Panel menu.

## General Cleaning

Use a dry lint-free cloth or a lint-free cloth moistened with water for all cleaning unless directed otherwise in this manual. Wipe with a dry, lint-free cloth if a moistened cloth is used.

Inspect the vents on the exterior of the printer for dust. Clean as necessary.

Appropriate cleaning procedures, as listed in the following tables, should be performed when specific print-quality or paper transport problems occur.

**Note:** Clear packaging tape (such as 3M 3750) is recommended for cleaning the Pick Roller and Separator Pad.

### Light Stripes or Missing Colors

Problem Type	Solution
Missing or light-colored stripes on prints.	Perform the procedure <a href="#">Light Lines (Manual Purge)</a> on page 6-18.
Ink smears on the front, back, or edges of a page.	Perform the procedure for <a href="#">Smears</a> on page 6-13. Check the Drum Maintenance Unit for ink and paper-dust build-up on the Blade.

### Media Jams

Problem Type	Solution
Tray 1 (MPT) jams	Clean the Pick Roller. Refer to the Clean the Tray 1 Pick Roller procedure.
Left Hand Door jams	Clean the Exit Rollers and Stripper Blade.
Tray 2-5 jams	Clean the appropriate Tray Pick Roller.
Duplex path jam	Clean the Preheater, Duplex Rollers, and Exit Rollers.
Double picks	Clean the Retard Roller and Pick Roller using a moistened lint-free cloth. Clean the Pick Roller Assembly with clear packaging tape (refer to <a href="#">Cleaning the Tray 2/ 3/ 4/ 5 Pick Roller and Retard Roller Assembly</a> on page 6-26.

### Cleaning the Control Panel

**! CAUTION:** Do not use any organic solvent, acid, or alkali solution.

1. Use a dry or soft cloth to wipe the Control Panel. Be sure there are no scratches on the Control Panel surface.



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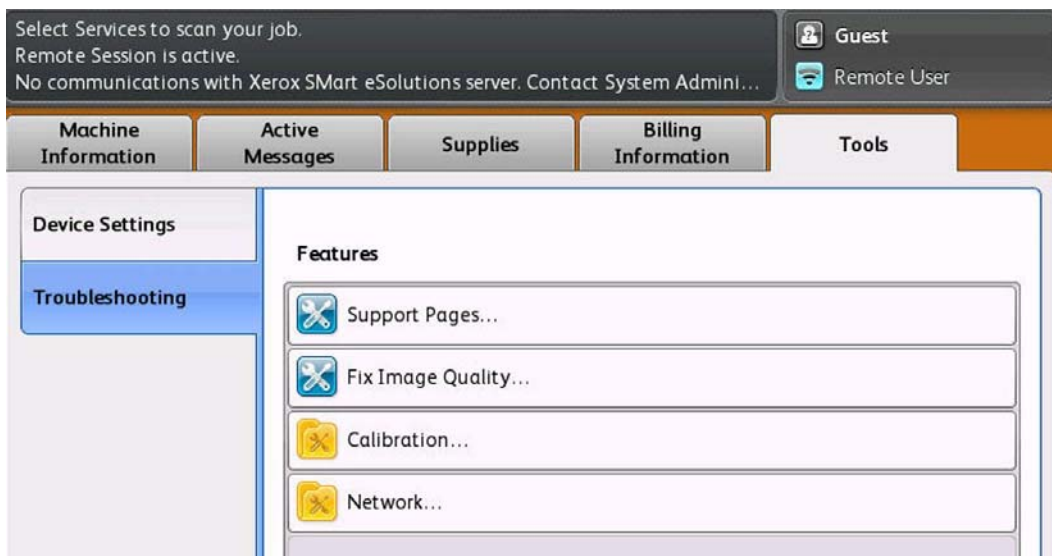
## Cleaning the Preheater

The Preheater cleaning is necessary when stray ink is left in the Preheater, resulting in ink streaks on media as it travels through the Preheater.

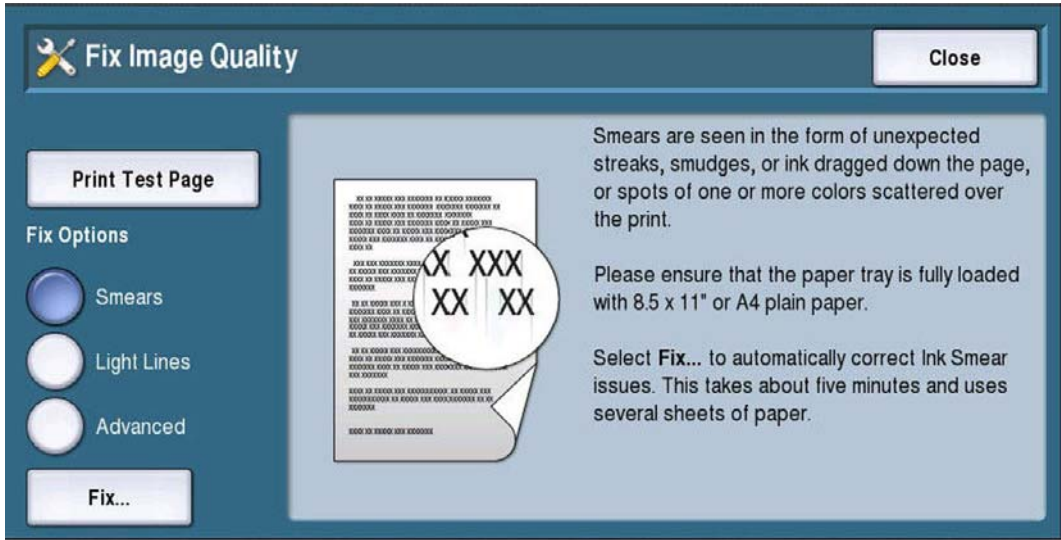
The Preheater cleaning cycle consists of processing 5 simplex cleaning sheets at an elevated preheat temperature of 90 degrees Celsius. The Preheater is then turned Off, and up to 20 duplex sheets are processed through the printer until the Preheater temperature reaches the stability band maximum for a given print mode.

## Smears

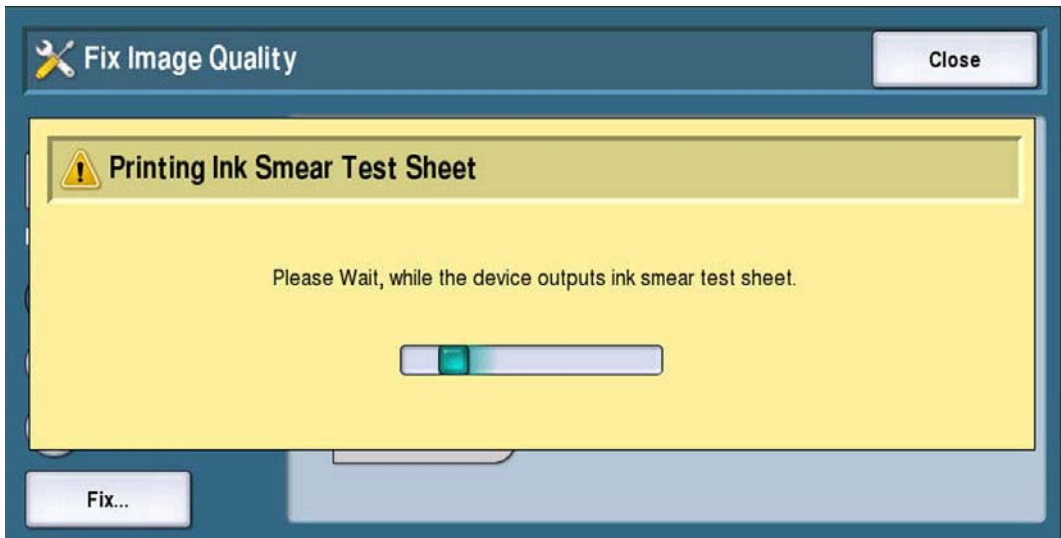
1. From the Control Panel, press the **Machine Status** button.
2. Touch **Tools**.
3. Touch **Troubleshooting**.
4. Touch **Fix Image Quality**.



5. Touch **Smears**.
6. Touch **Fix**.

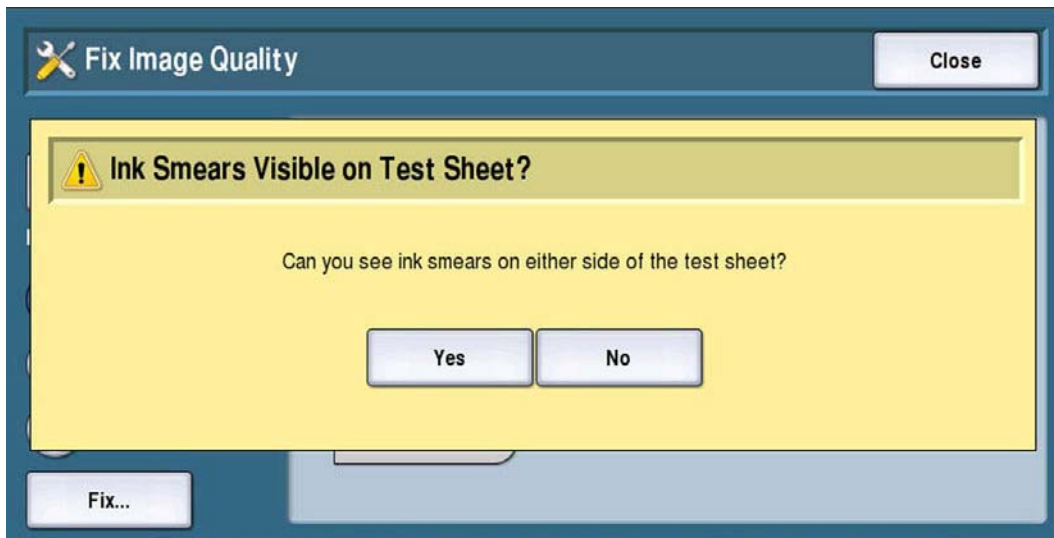


7. A test sheet is printed.
8. On the UI, a **Printing Ink Smear Test Sheet** screen is displayed.



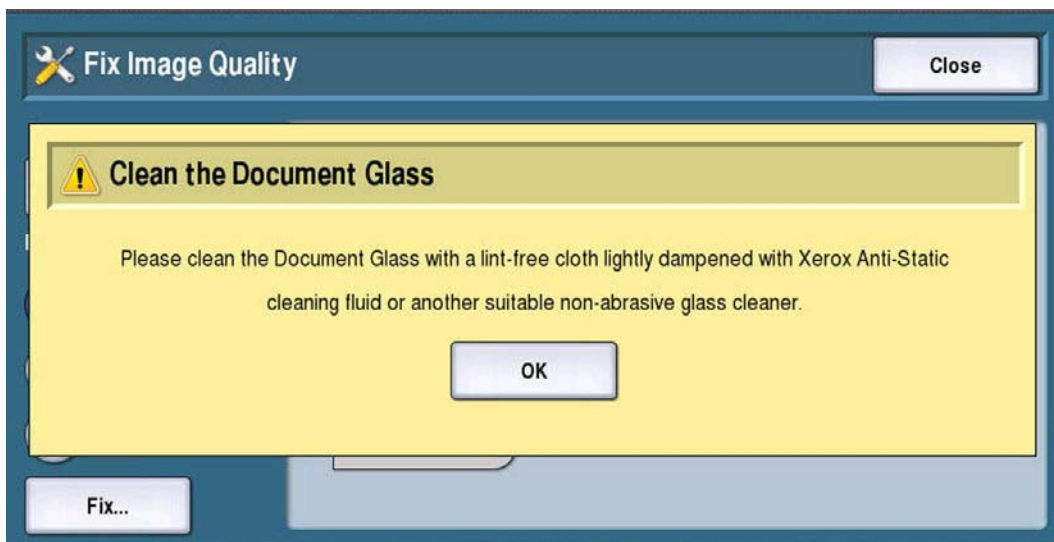


9. A message asking to check for smears on the test sheet.
10. Touch **Yes/ No** according to any ink smear on the test sheet.



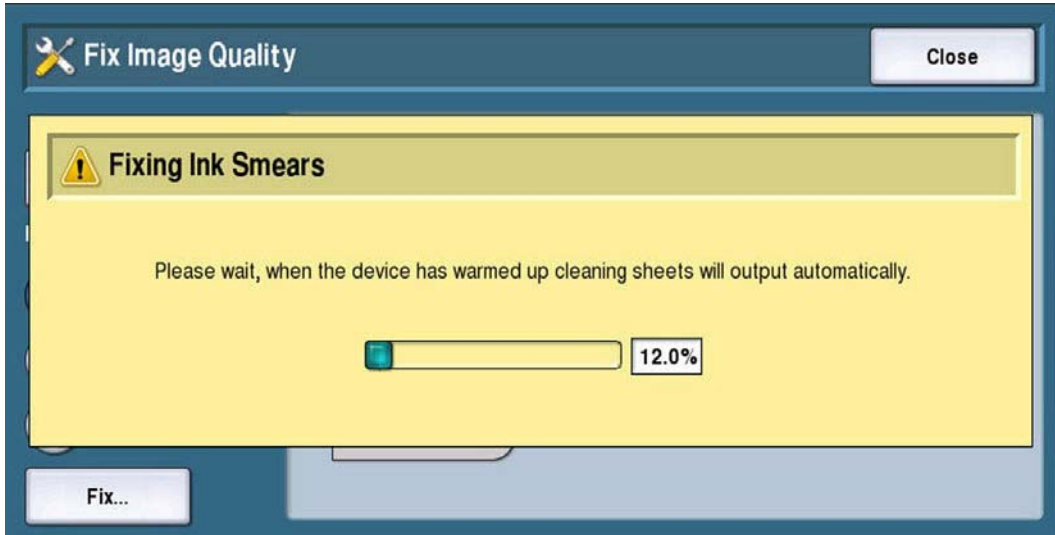
#### No Ink Smear on the Test Sheet

- a. If there are no ink smears on the test sheet, a [Clean Document Glass](#) screen is displayed.
- b. Clean the Document Glass per instruction.
- c. Go to Step 11.

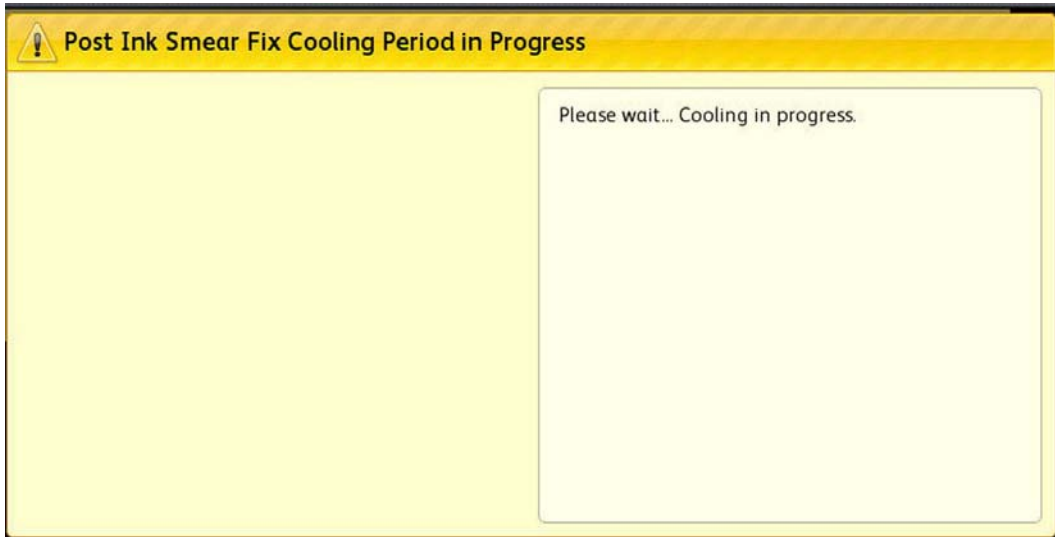


### Ink Smears on the Test Sheet

- a. If there are ink smears on the test sheet, a [Fixing Ink Smears](#) screen is displayed while the fixing is in progress.
- b. Ten sheets of paper are printed.

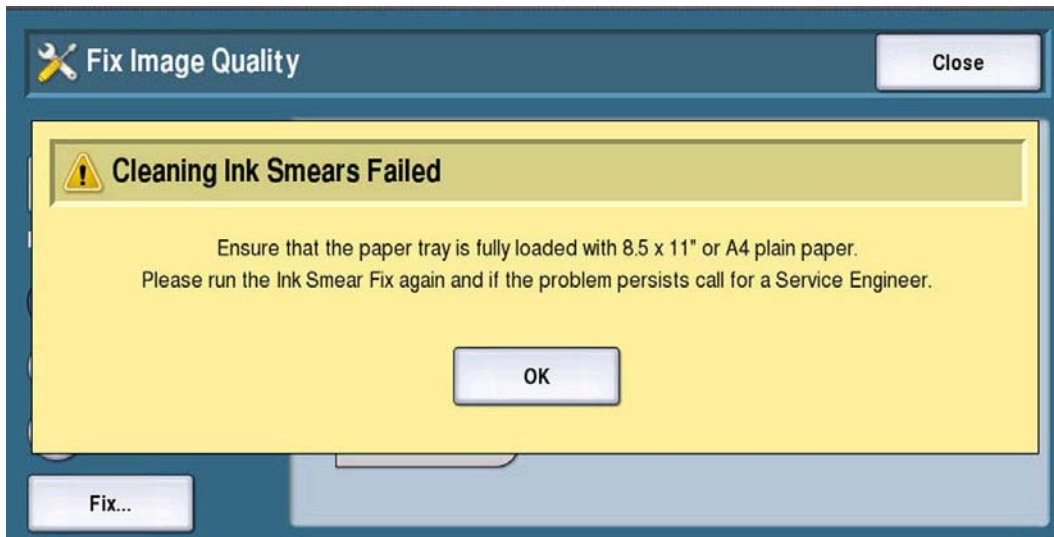


- c. After the [Fixing Ink Smears](#) process is complete, a [Cooling Period](#) screen is displayed.



### Cleaning Ink Smears Failed

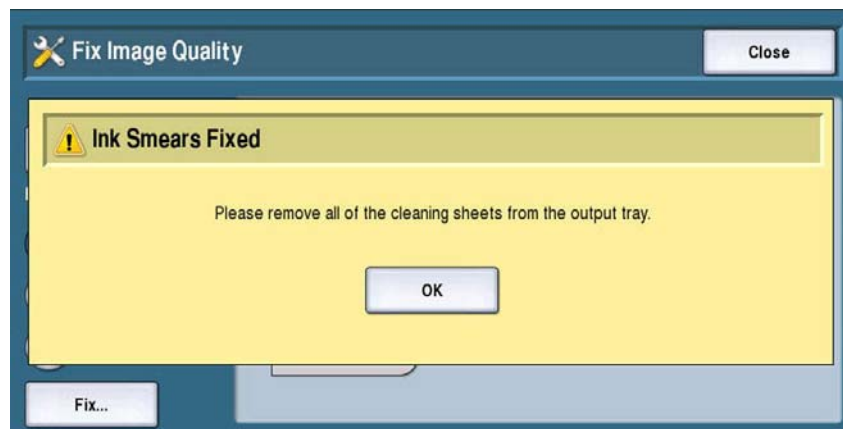
- When the [Cleaning Ink Smears](#) process failed, a failure screen is displayed providing instructions to be corrected.
- Follow the on-screen UI instructions and re-run the [Cleaning Ink Smears](#) process.
- Touch **OK** to return to the [Fix Image Quality](#) screen.



- Re-run the [Cleaning Ink Smears](#) process as in Step 5.

### Cleaning Ink Smears Passed

- When the [Cleaning Ink Smears](#) process passed, an [Ink Smears Fixed](#) screen is displayed.
- Remove the cleaning sheets from the output tray.
- Go to Step 11.



- Touch **OK** to return to the [Fix Image Quality](#) screen.
- Touch **Close** to return to the [Tool](#) menu.

## Cleaning the Printhead

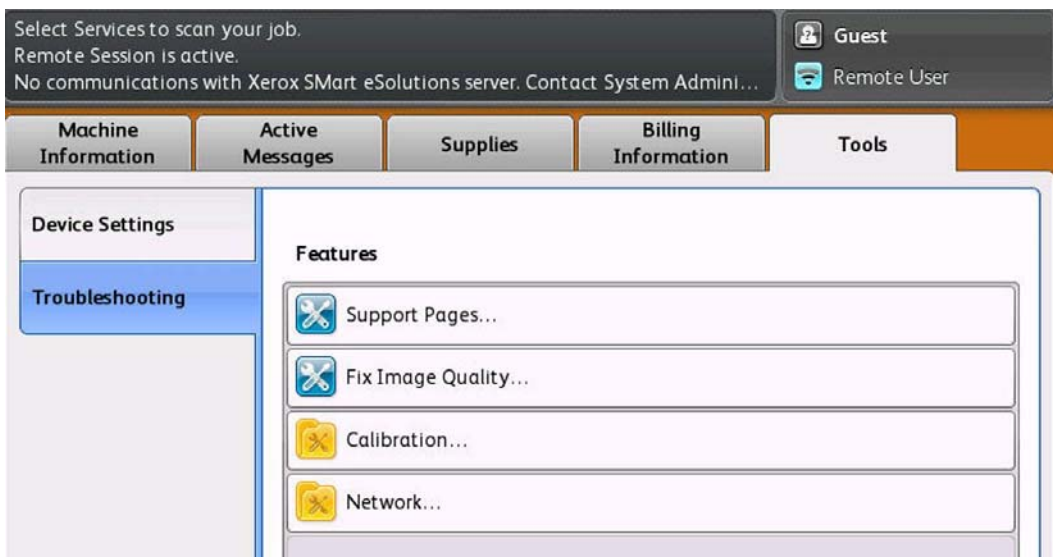
The Printhead cleaning is an auto-purge process when the printer comes up from a Cold state (less than 90° Celsius). The Printhead cleaning cycle consists of the following operations: applying pressure to the reservoir of the Printhead to push ink out of the jets and wiping ink from the face of the Printhead.

Two routines are available for Printhead cleaning using the Control Panel:

- Light Lines (Manual Purge)
- Advanced Purge

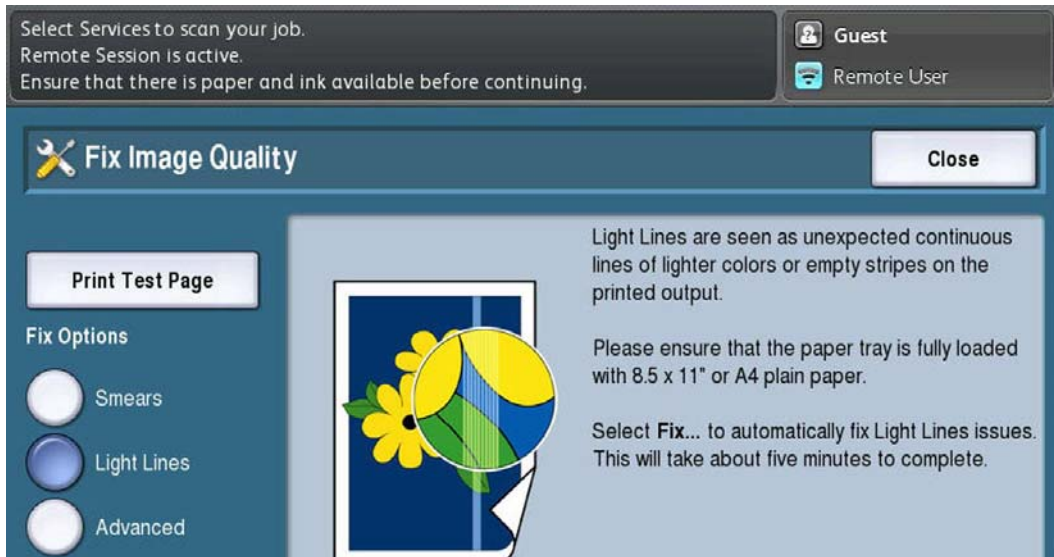
### Light Lines (Manual Purge)

1. From the Control Panel, press the **Machine Status** button.
2. Touch **Tools**.
3. Touch **Troubleshooting**.
4. Touch **Fix Image Quality**.

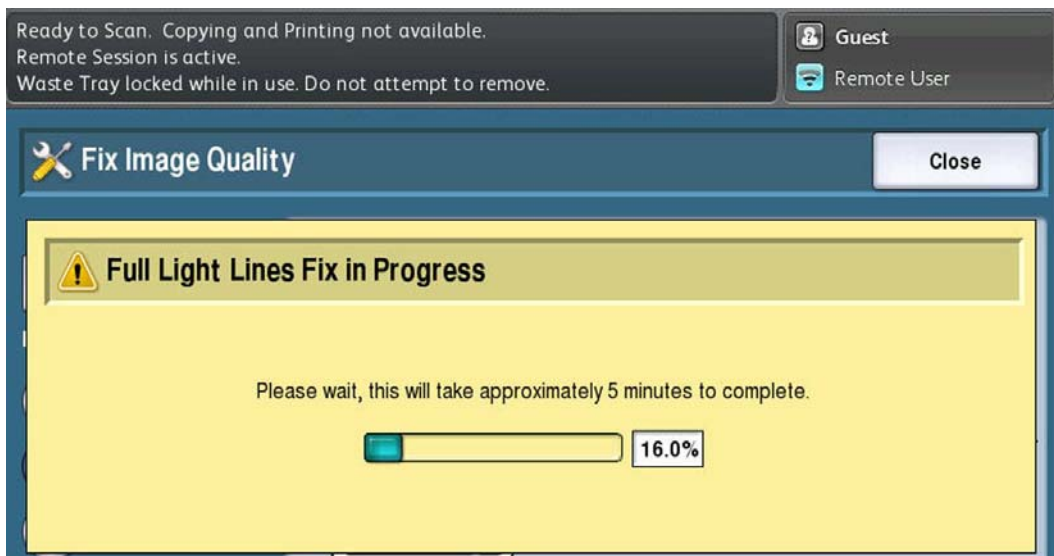


CQ8700/ 8900 Version 101/ 102/ 202 UI

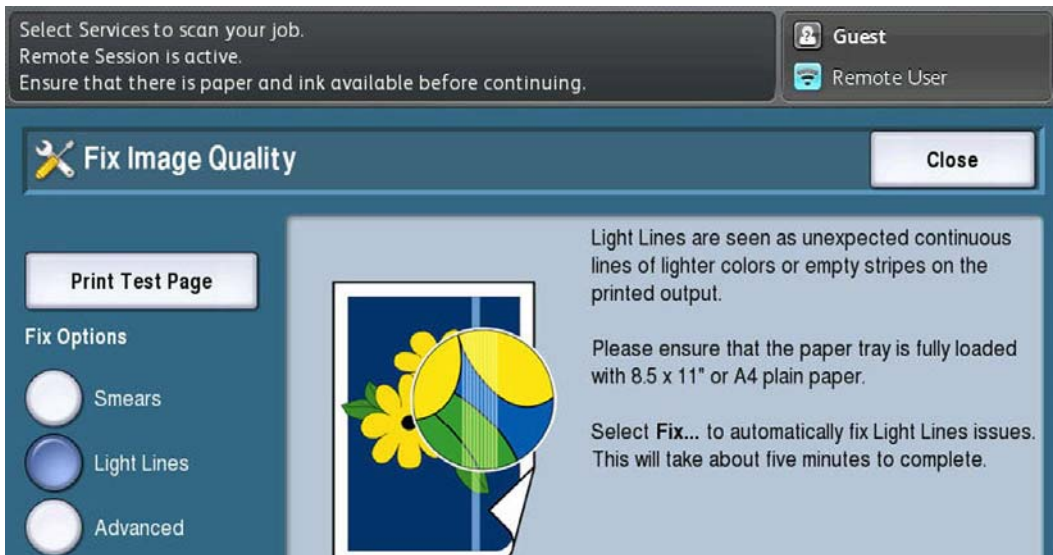
5. Touch **Light Lines**.
6. Touch **Fix**.



7. The printer starts the **Light Lines Fix** process as an **In Progress** screen is displayed on the UI.

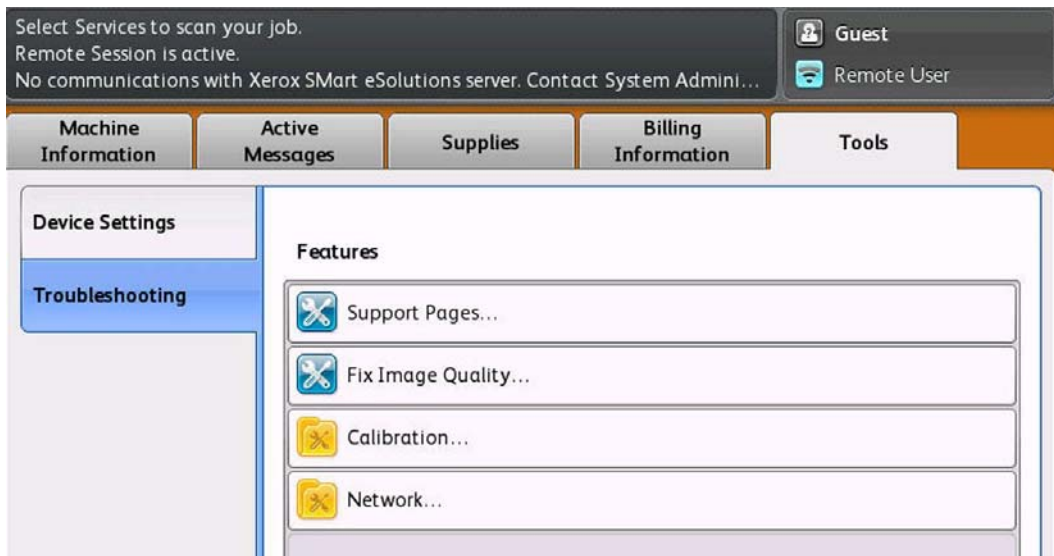


8. When the process is complete, the [Fix Image Quality](#) screen is displayed.
9. A [Cleaning Page](#) is printed.
10. Touch [Close](#) to return to the [Tools](#) menu.



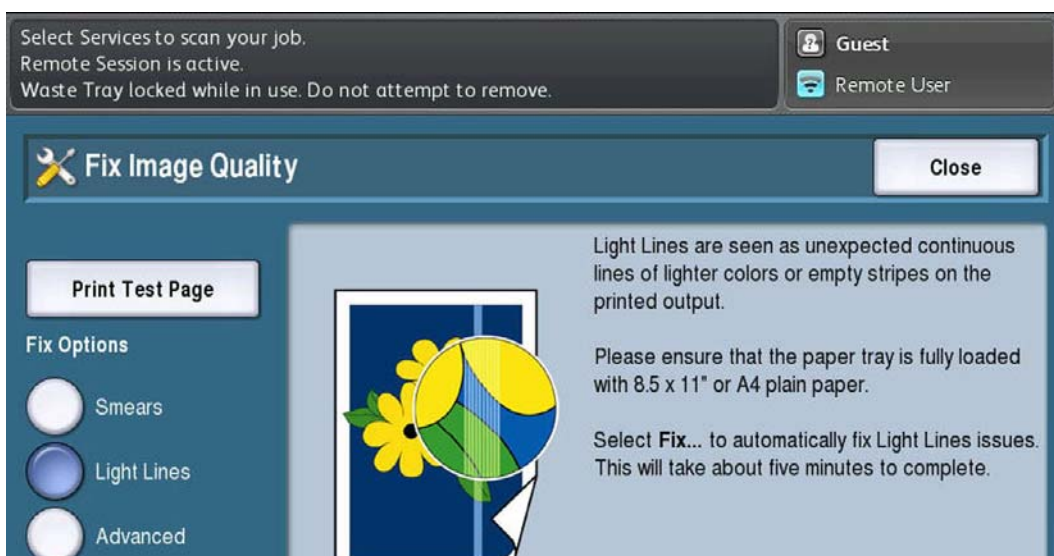
## Advanced Purge

1. On the Control Panel, press the **Machine Status** button.
2. Touch **Tools**.
3. Touch **Troubleshooting**.
4. Touch **Fix Image Quality**.



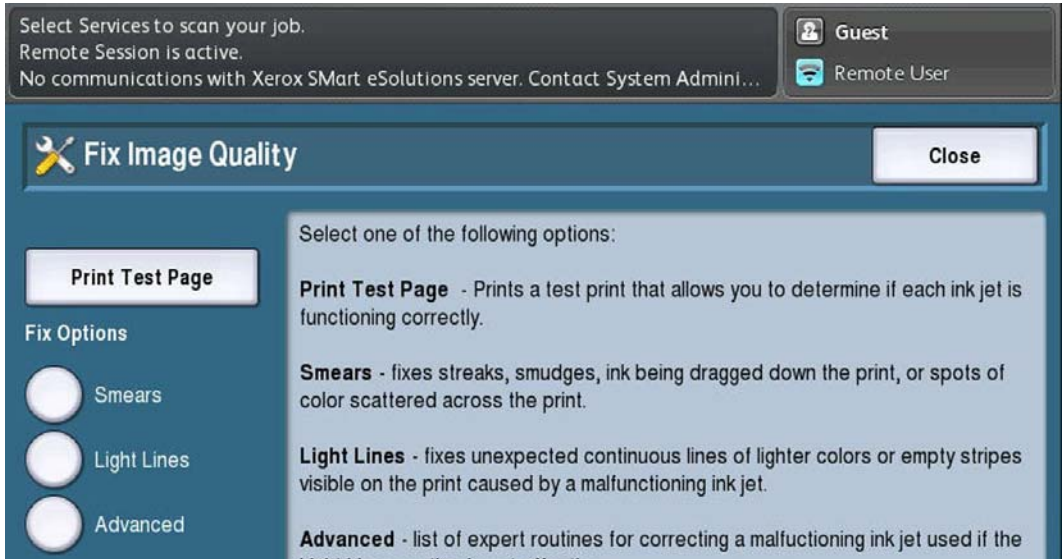
CQ8700/ 8900 Version 101/ 102/ 202 UI

5. Touch **Print Test Page** to print the page.
6. A **Light Stripes Test** page is printed.
7. On the **Light Stripes Test** page, check for missing color(s) in each jet column number.

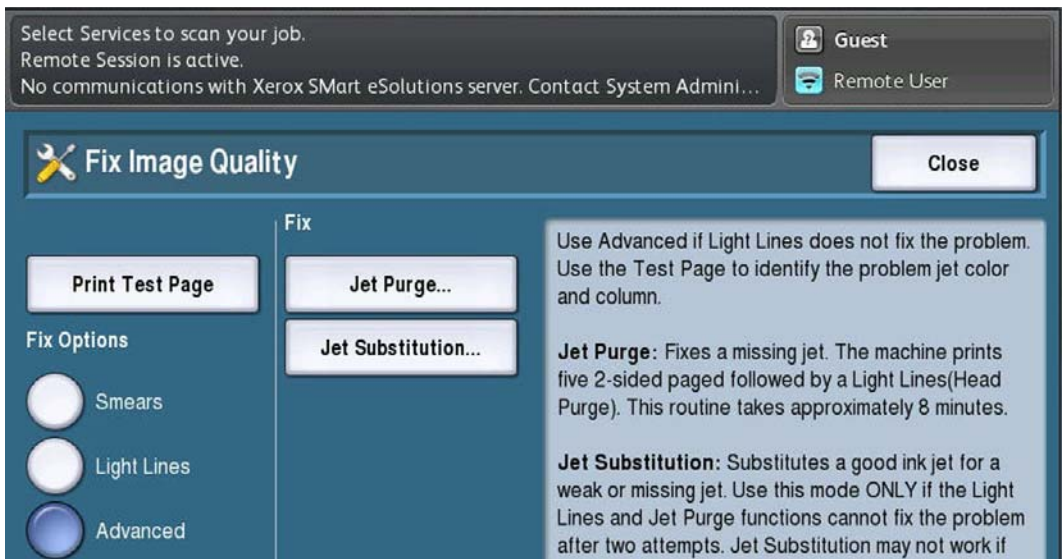




8. Touch **Advanced**.
9. Touch **Jet Purge**.

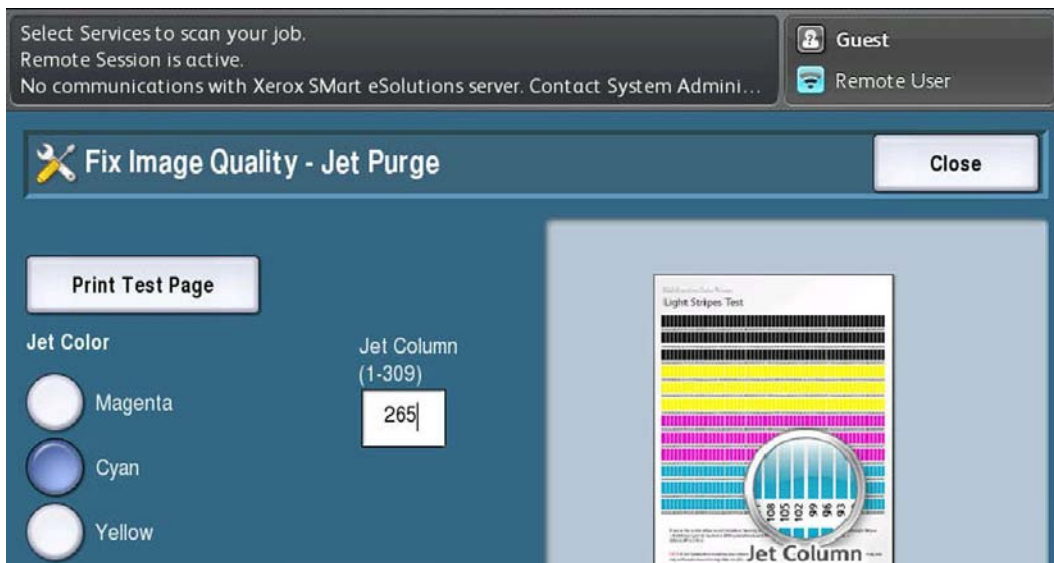


10. Select the affected **Jet Color** from the **Light Stripes Test** page.
11. Enter the affected **Jet Column** number from the **Light Stripes Test** page.
12. Touch **Fix**.

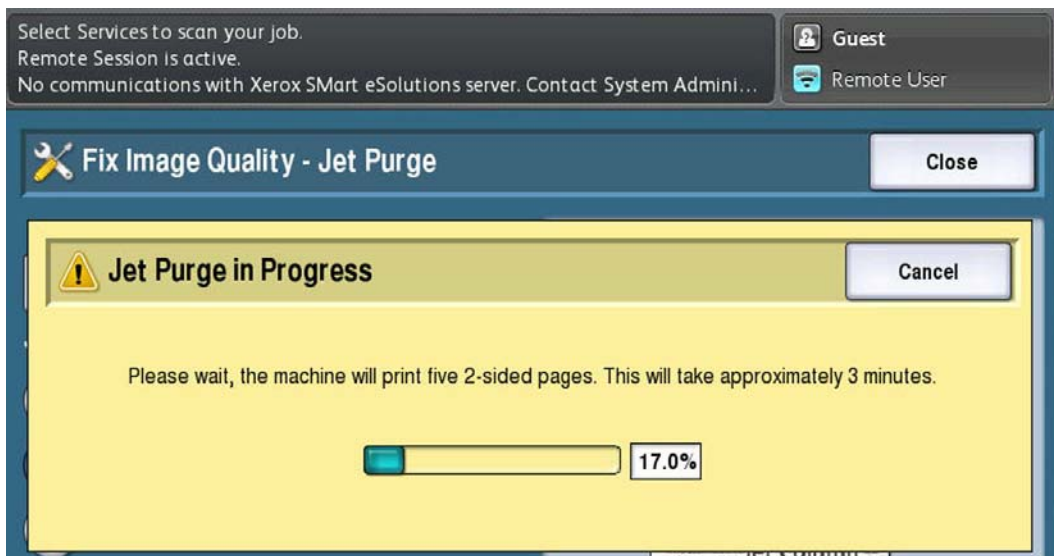




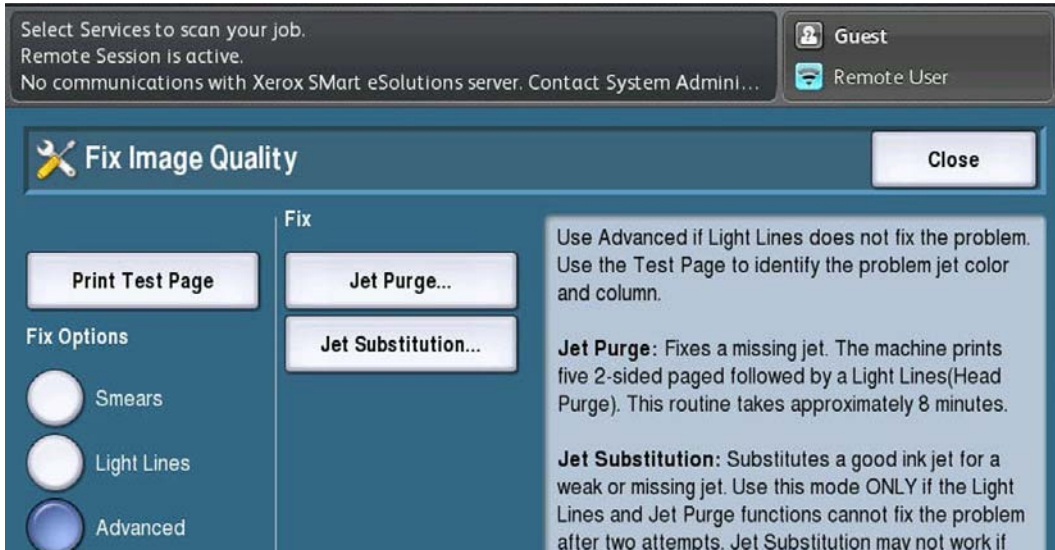
13. The printer starts the **Jet Purge** process as an **In Progress** screen is displayed on the UI.



14. Ten affected color bars pages are printed.
15. The printer continues with the **Full Light Lines Fix** process as an **In Progress** screen is displayed on the UI.

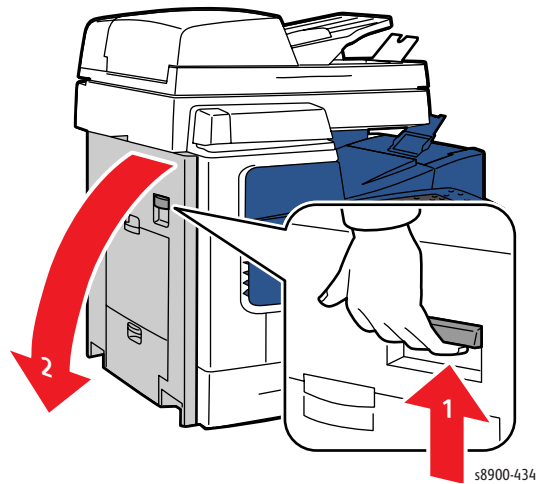


16. When the process is complete, the [Fix Image Quality](#) screen is displayed.
17. A [Cleaning Page](#) is printed.
18. Touch [Close](#) to return to the [Fix Image Quality](#) menu.
19. Touch [Close](#) to return to the [Tools](#) menu.

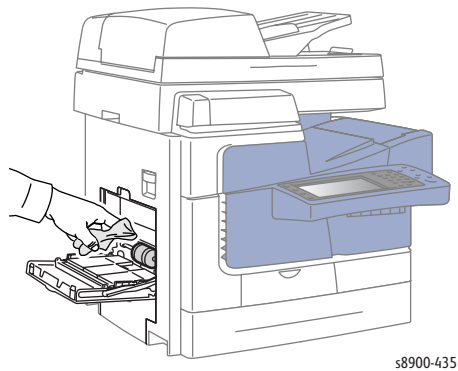


## Cleaning the Tray 1 Pick Roller

1. Open Tray 1.

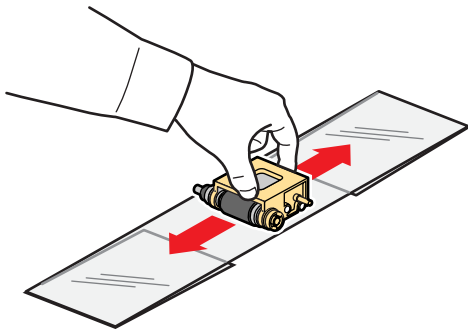


2. Use a moistened lint-free cloth to clean the Pick Roller. Be sure the Pick Roller is not damaged. Replace the Pick Roller if it appears to be excessively worn or damaged.



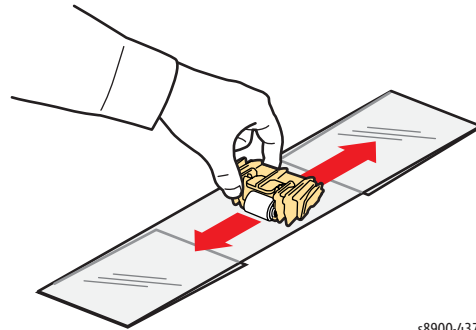
## Cleaning the Tray 2/ 3/ 4/ 5 Pick Roller and Retard Roller Assembly

1. Remove Tray 2/ 3/ 4/ 5.
2. Remove the Retard Roller and Pick Roller Assembly (REP 8.7, [page 4-128](#)).  
**Note:** Clear packaging tape can also be used to clean the Retard Roller.
3. Peel off a strip of tape. Stretch the tape across the table with the sticky side up. Fasten it to the table at both ends.
4. Roll the Retard Roller/ Pick Roller across the tape to remove the debris from the Roller.



s8900-436

Figure 1 - Pick Roller Assembly



s8900-437

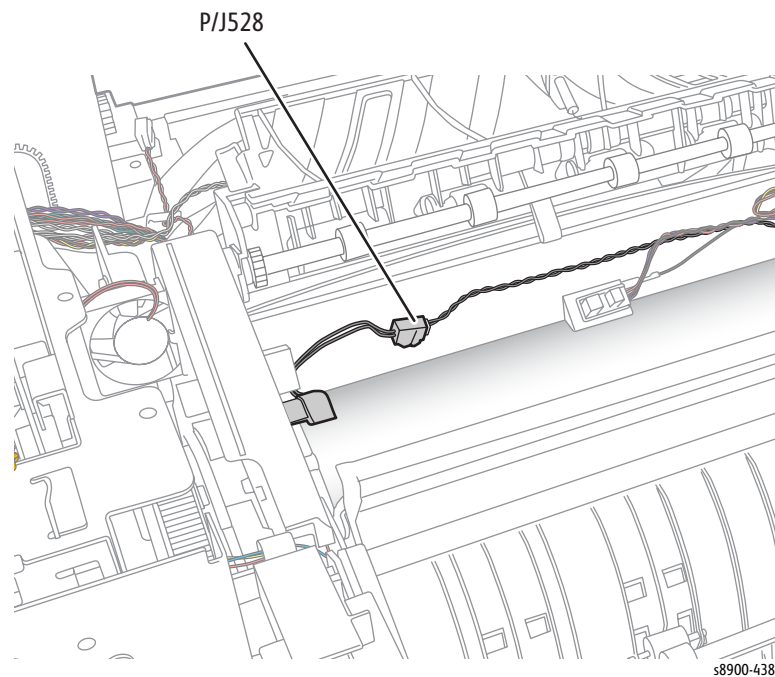
Figure 2 - Retard Roller Assembly

5. Install the Retard Roller/ Pick Roller Assembly.

## Cleaning the Drum Temperature Sensor

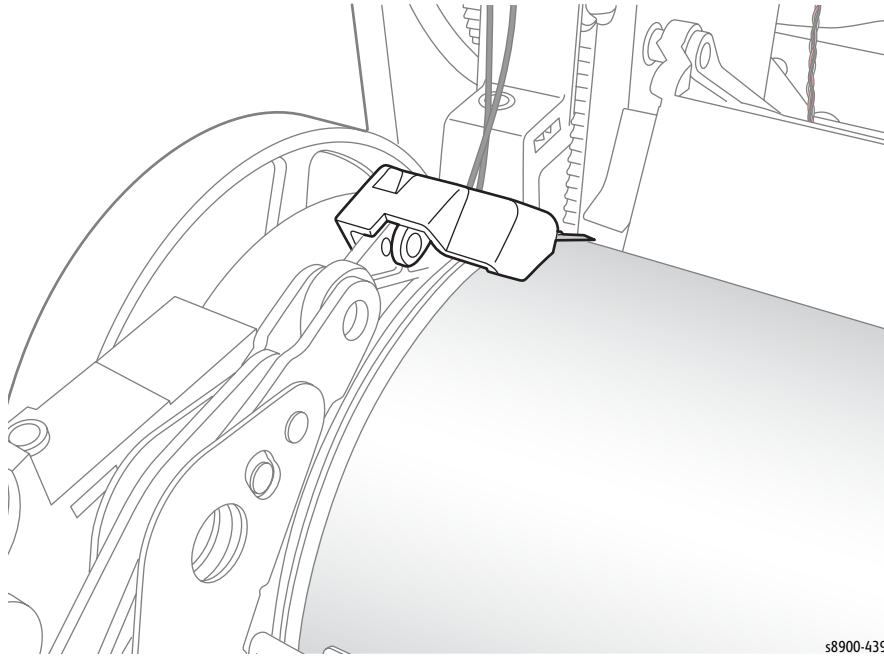
**!** **CAUTION:** Cleaning under the Sensor is not recommended. Only perform this procedure when there is an issue with Drum temperatures (too hot or too cold) or there is a significant amount of debris accumulated under the Sensor. Use care not to bend the Sensor.

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).page 4-35Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Stapler Cover (REP 5.2, [page 4-42](#)).
6. Remove the Convenience Stapler with Bracket (REP 5.3, [page 4-43](#)).
7. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
8. Remove the Ink Loader (REP 3.6, [page 4-27](#)).
9. Remove the Control Panel (REP 4.6, [page 4-38](#)).
10. Remove the Stay Bracket (REP 12.1, [page 4-201](#)).
11. Disconnect the Drum Temperature Sensor connector P/J528.



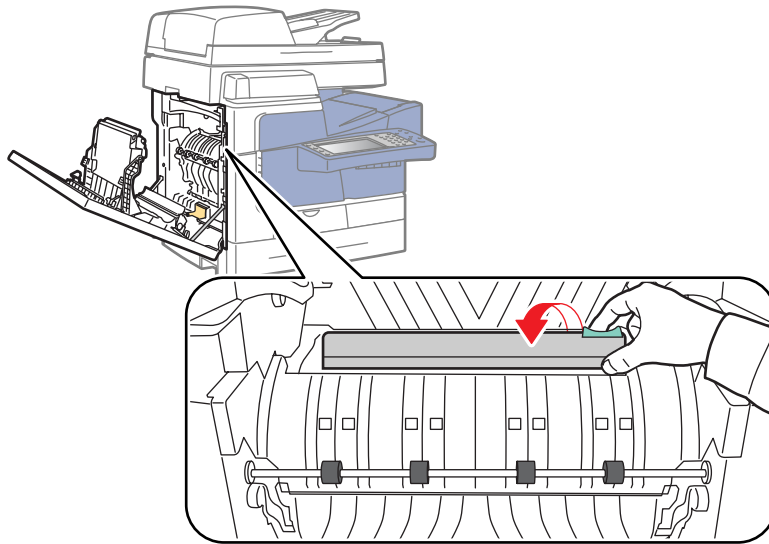
## Maintenance

12. Remove the Exit Module (REP 11.6, [page 4-190](#)).
13. Using a dry swab, carefully clean the Sensor.



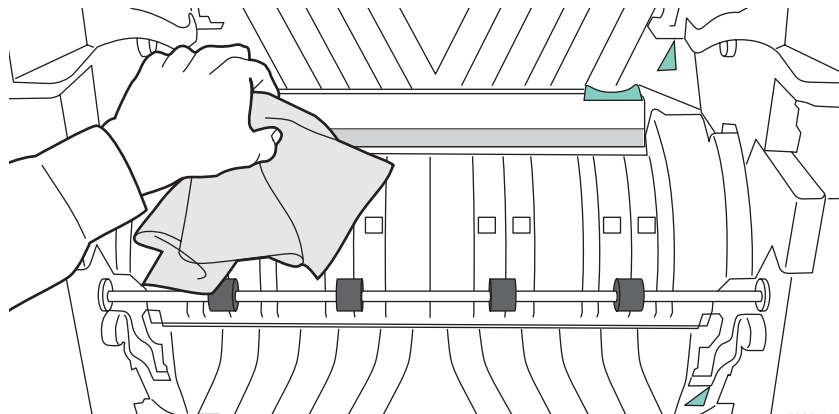
## Clean the Paper Release Blade

1. Open the Left Hand Door.
2. Lift the Paper Guide toward the left side of the printer.



s8900-440

3. Use a moistened lint-free cloth to wipe the plastic paper release blade on the lower area of the Paper Guide.



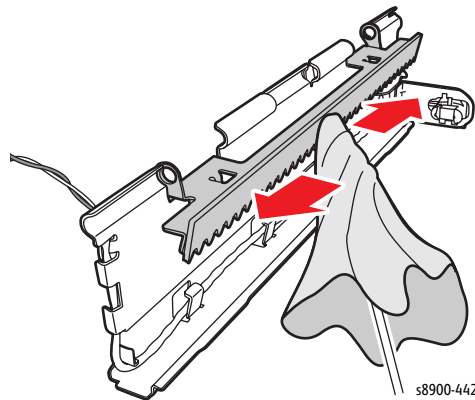
s8900-441

## Cleaning the Drum Maintenance Wiper Blade Assembly

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)).
8. Remove the Inner Simplex Guide with Pre-Deskew Sensor and Harness (REP 8.2, [page 4-121](#)).
9. Remove the Preheater and Deskew Assembly (REP 7.14, [page 4-103](#)).

**Note:** Be sure to place a sheet of paper through the front of the printer between the Drum Assembly and the Pivot Plate Assembly to prevent damaging the Drum while removing the Pivot Plate Assembly.

10. Remove the Cleaning Unit (REP 4.8, [page 4-40](#)).
11. Remove the Drum Cooling Fan (REP 9.6, [page 4-146](#)).
12. Remove the Drum Maintenance Pivot Plate/Drum Wiper Blade Assembly (REP 7.15, [page 4-106](#)).





## Moving the Printer

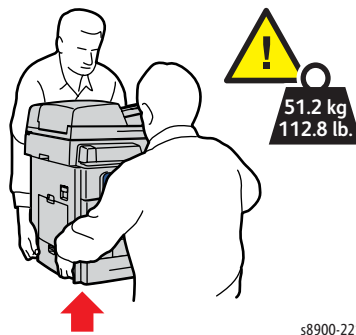
**! WARNING:** Parts of the printer are hot. Wait at least 30 minutes for the printer to cool before moving or packing the printer.

**! CAUTION:** To avoid ink spills, after turning Off the printer, wait for 30 minutes before moving the printer. Do not tilt the Printhead to avoid damage to the Printhead, as liquid can spill inside the Printhead.

**! WARNINGS:**

- Use the power switch to turn Off the printer, and unplug all cables and cords. Do not turn the printer Off by pulling the power cord or using a power-strip with an On/ Off switch.
- Back injury could result if you do not lift the printer properly.

The printer is heavy and must be lifted by two people. Use safety lifting and handling techniques when moving the printer.



s8900-221

When shipping the printer, repack the printer using the original packing material and boxes or a Xerox packaging kit. Instructions for repacking the printer are included in the kit. If you do not have all the original packaging, or are unable to repack the printer, contact your local Xerox service representative.

**! CAUTION:** Failure to repack the printer properly for shipment can result in damage to the printer. Damage to the printer caused by improper packaging is not covered by the Xerox warranty, service agreement, or Total Satisfaction Guarantee.

# Adjustments

## Overview

The Adjustments section contains procedures for adjusting and calibrating various components of the printer. Some of the adjustment routines can be accessed through [Machine Status/ Tools Menu](#) ([Accessing Machine Status/ Tools Menu](#) on page 6-5) and [Service Diagnostics](#) ([Entering Service Diagnostics](#) on page 6-6).

**Note:** The menu screens for the routines in the Customer Menu and Service Diagnostics have different color.

- Customer Menu: Blue
- Service Diagnostics: Orange

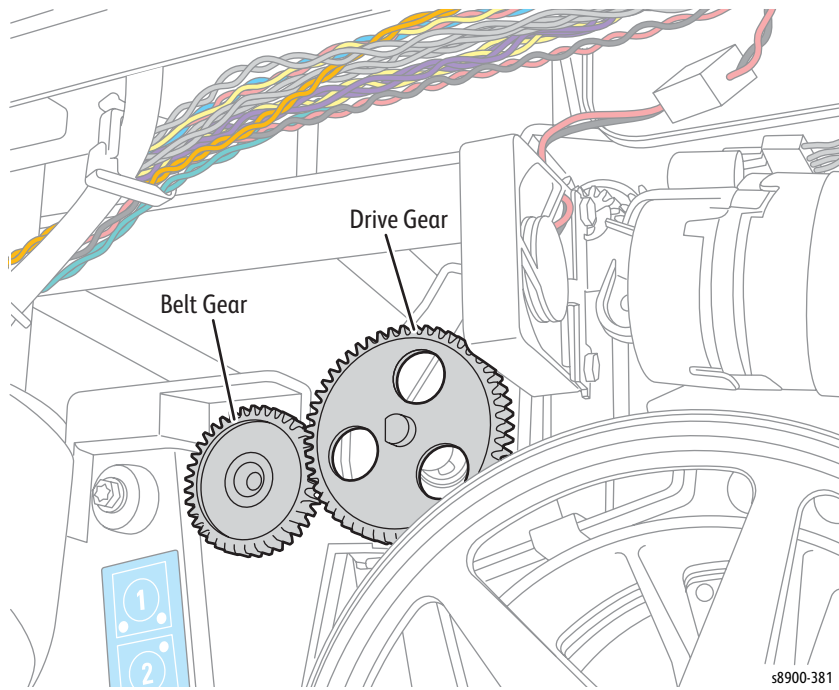
## ADJ 1.1 Wiper Blade Adjustment

The Wiper Blade Adjustment procedure sets the Printhead Wiper Blade alignment or place the Wiper Blade at the bottom of its travel position.

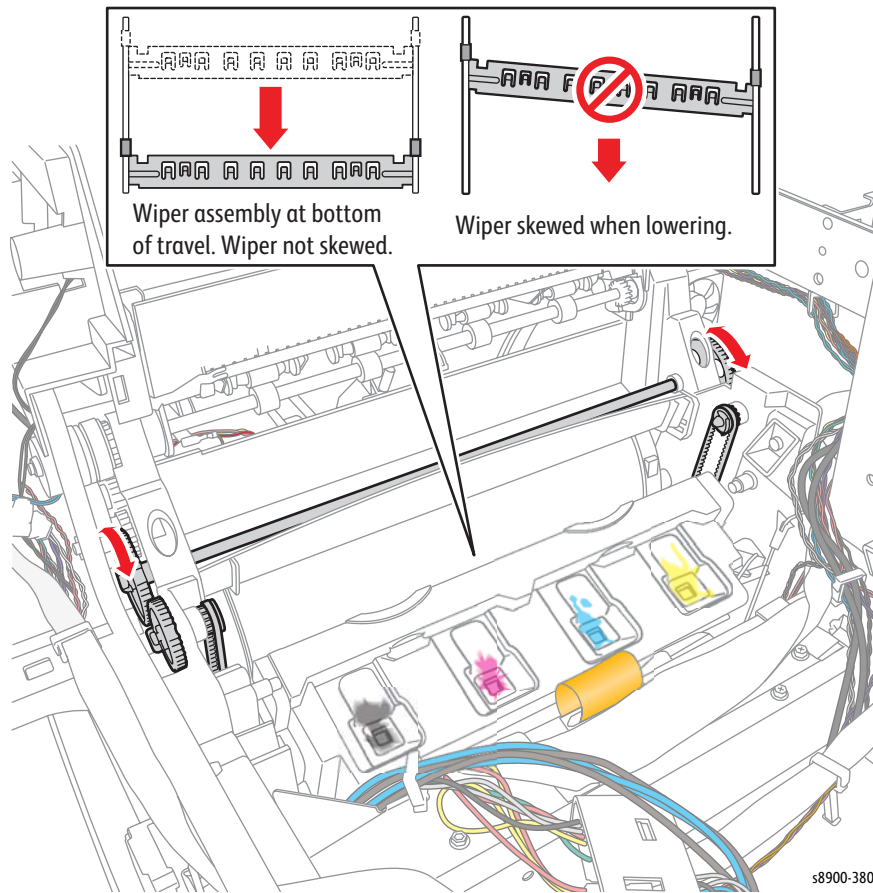
**Note:** To ensure Wiper Blade alignment, and ensure the Wiper is in the Home position, remove the Wiper Drive Gear, lower the Blade, and then re-install the Gear.

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
8. Remove the Funnel Cap (REP 7.2, [page 4-61](#)).
9. Remove the Jet Stack Cap (REP 7.1, [page 4-60](#)).

10. Remove the KL-Clip that secures the left side Wiper Blade Drive Gear.



11. Rotate the left and right Wiper Belt Gears to lower the Wiper Blade to the bottom of its travel. As you lower the Wiper Blade, keep the blade parallel to the Drum.



12. Install the KL-Clip.

**Replacement Note:** If the printer is experiencing 391.710 ~ 391.716 Wiper Movement faults, readjust the Wiper alignment so that the left-end is slightly lower (one drive gear tooth) than the right-end.

## ADJ 1.2 Homing the Printhead Forward to Print Position

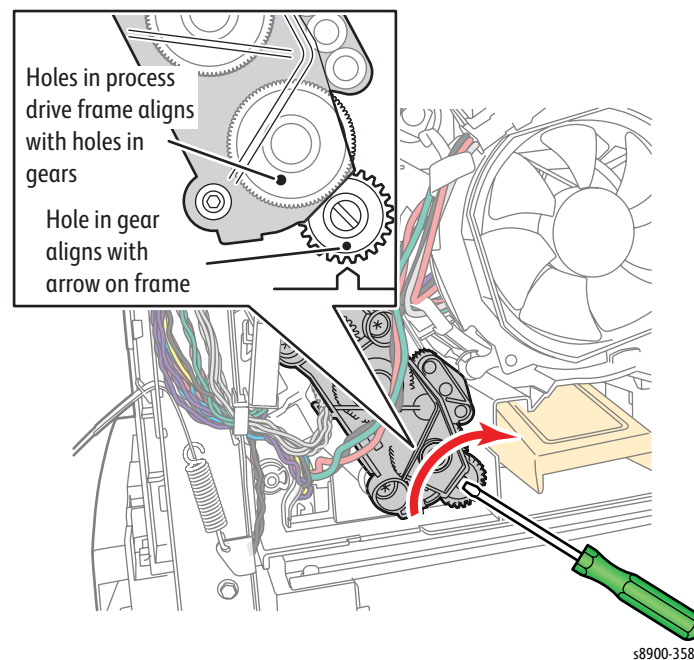
The Homing the Printhead Forward to Print Position adjustment procedure homes the Head Tilt Gear and as a result, the Printhead.

Two procedures are provided:

- [Printhead is Installed](#) on page 6-35
- [Printhead is Not Installed](#) on page 6-37

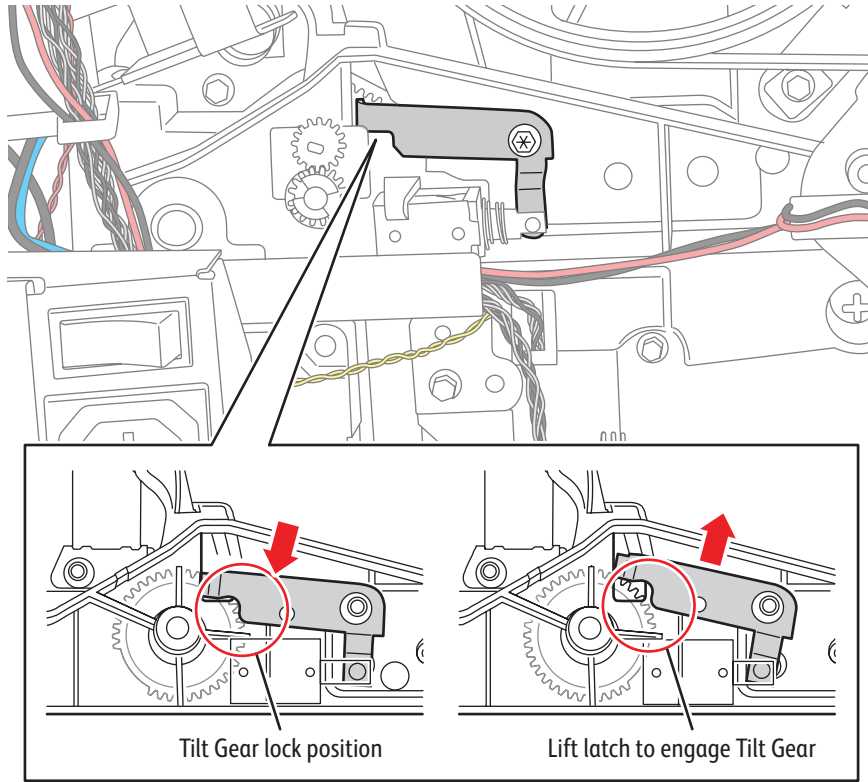
### Printhead is Installed

1. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
2. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
6. Remove the Cleaning Unit (REP 4.8, [page 4-40](#)) (optional or if possible).
7. Use a small screwdriver to rotate the X-Axis Shaft with the Printhead centered over the Drum to clear the Left and Right Printhead Restraints.
8. Use a flat blade screwdriver to rotate the Drum Maintenance Camshaft 360° clockwise. If the Head Tilt Gear is engaged, manually assist the movement of the Printhead. There is an audible click when the Head Tilt Gear disengages from its drive train.



9. Disengagement of the Head Tilt Gear.

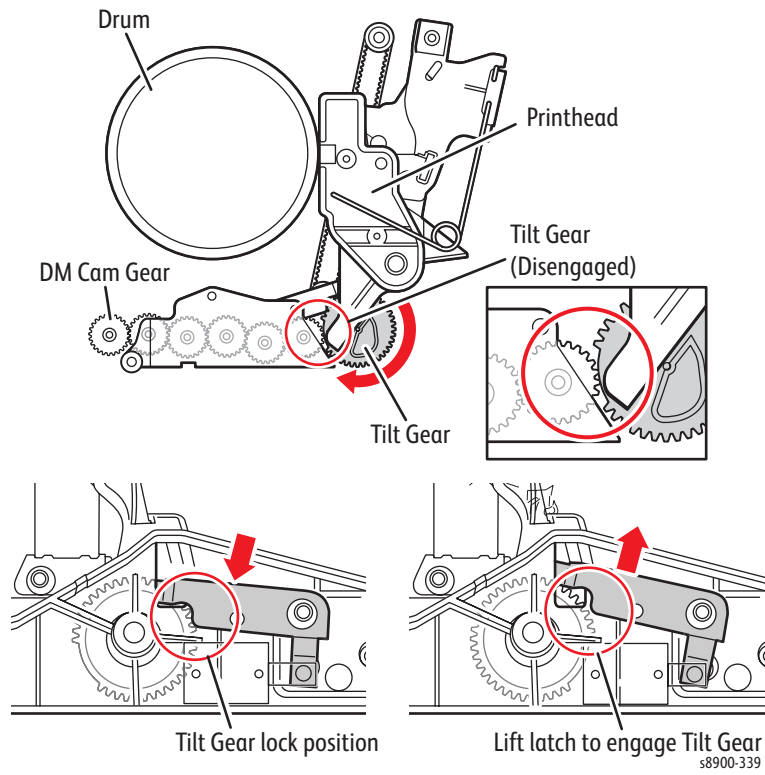
**Note:** If the latch is accidentally engaged (upward), rotate the gear CCW to disengage it.



s8900-097

## Printhead is Not Installed

1. Disengage the Headtilt Gear.



## ADJ 1.3 Process Drive Alignment

The Process Drive Alignment procedure correctly orients the Process Drive's Gears to their home positions.

**Note:** Usually, manually tilting the head back and forth using Drum Maintenance Shaft should leave the Process Drive aligned.



**CAUTION:** Place the Printhead, Head Tilt Gear, Printhead Wiper Blade, and Process Drive in their home positions before restoring printer power. Improper alignment could result in damage or errors.

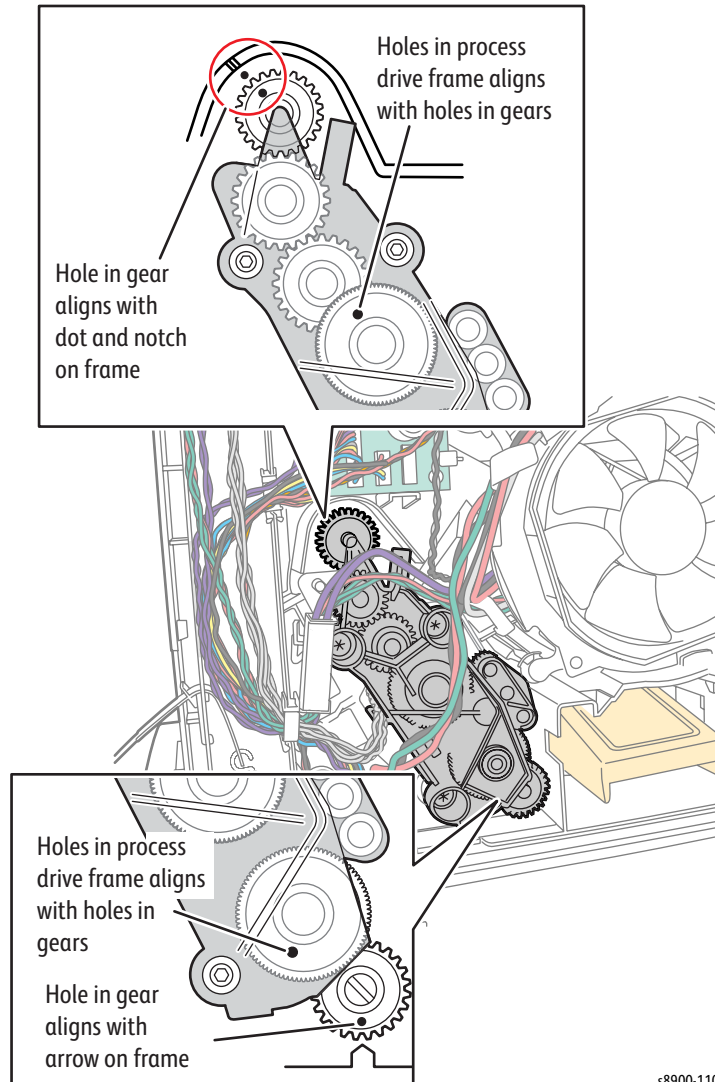
1. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
2. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
3. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
4. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
5. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
6. Remove the Lower Inner Duplex Guide (REP 8.3, [page 4-123](#)). (optional)
7. Remove the Inner Simplex Guide (REP 8.2, [page 4-121](#)). (optional)
8. Remove the Process Drive Assembly (REP 9.5, [page 4-142](#)).
9. Rotate the Process Drive Gears to align positions. Pin the Gears if pins are available.
10. Verify the Transfix Drive Gear is at its 11 o'clock position and the Drum Maintenance Drive Gear is at its 6 o'clock position.



## 11. Re-install the Process Drive Assembly.

**Note:** Examine the Process Drive alignment points to verify proper gear alignment.

- The holes in the Process Drive and gears must align.
- The hole in the Camshaft gear must align with the arrow on the chassis.
- The hole in the Transfix Camshaft Gear must align with the hole in the chassis.



s8900-110

## 12. **Optional:** Perform [dc962 Transfix Load Test](#) on page 2-59 to verify if it is properly Homed.

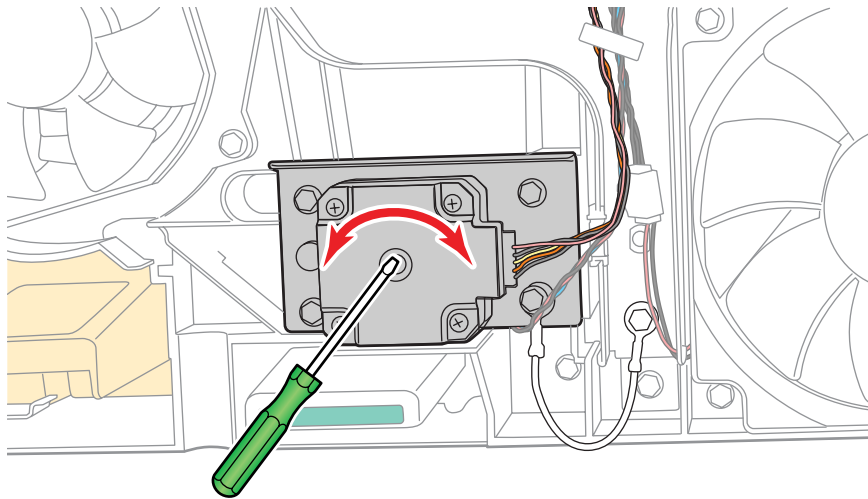
## ADJ 1.4 Manual Printhead Parking

The Manual Printhead Parking adjustment procedure places the Printhead in a parked position, away from the Drum, during service procedures or when the UI parking routine is unavailable.

Use this procedure to move the Printhead to its parked position.

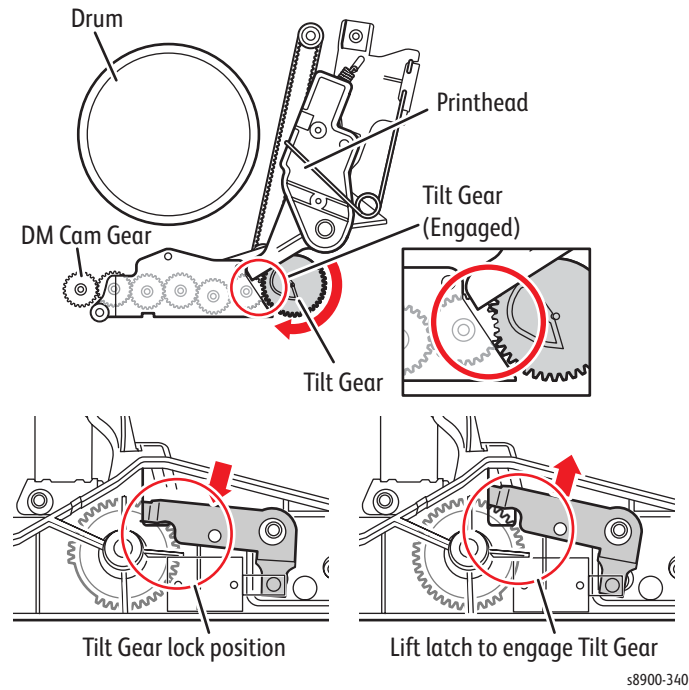
**!** **CAUTION:** After servicing the printer, place the Printhead, Head Tilt Gear, Printhead Wiper Blade, and Process Drive in their home positions before turning the printer power On. Damage to the Process Drive or printer errors can result during printer initialization.

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
8. Center the Printhead to the Drum using a small flat blade screwdriver to rotate the X-Axis Motor Shaft. When centered, the Printhead can be tilted back and forward.

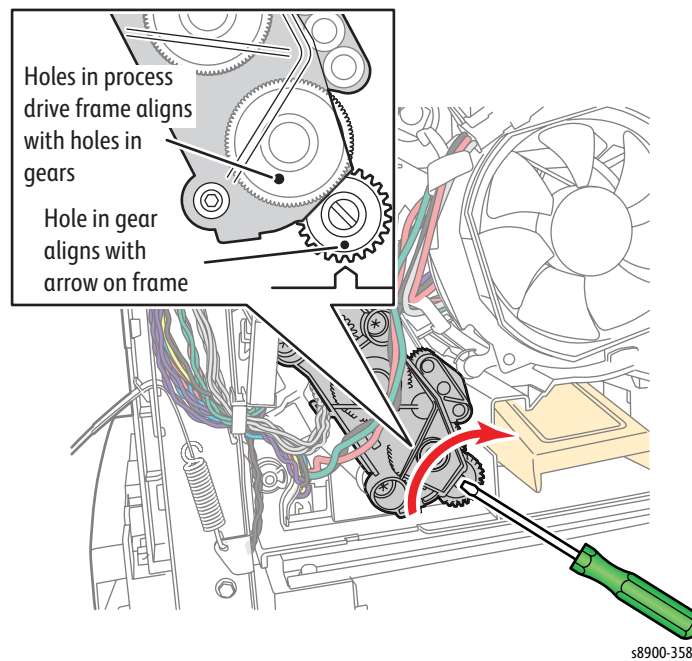


s8900-061

- Engage the Head Tilt Gear. The tilt gear is spring loaded and should engage its gear train.



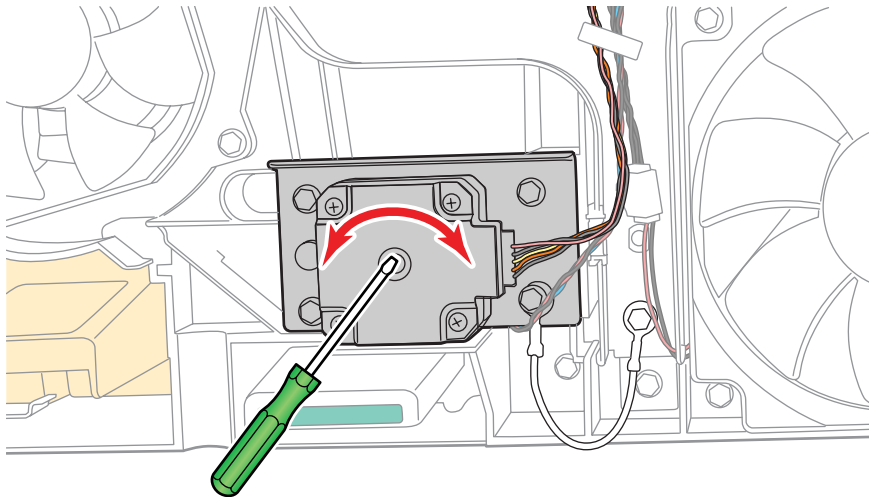
- Rotate the Drum Maintenance Camshaft until the Printhead has tilted back to its parked position, which is the furthest point from the Drum.
- Lower the tilt latch to lock the tilt gear (and the Printhead) in the tilted back position.
- Use a small flat blade screwdriver to rotate the X-Axis Motor to move the Printhead all the way to the right.



## ADJ 1.5 Center the Printhead

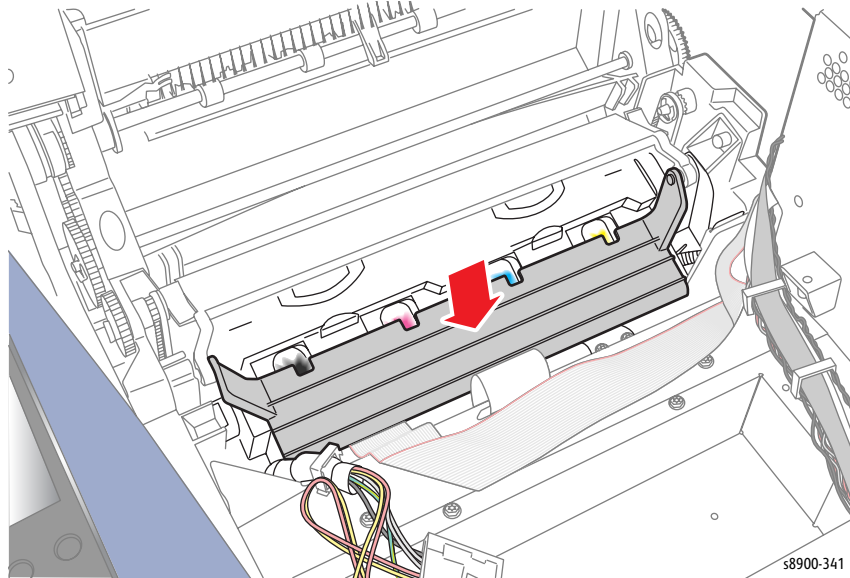
The Center the Printhead adjustment procedure allows tilting the Printhead backwards into the Parked position.

1. Remove the Scanner Assembly (REP 2.2, [page 4-13](#)).
2. Remove the Rear Cover (REP 4.1, [page 4-33](#)).
3. Remove the Upper Right Cover (REP 4.2, [page 4-34](#)).
4. Remove the Lower Right Cover (REP 4.3, [page 4-35](#)).
5. Remove the Upper Front Cover (REP 4.4, [page 4-36](#)).
6. Remove the Lower Front Cover (REP 4.5, [page 4-37](#)).
7. Remove the Ink Loader Assembly (REP 3.6, [page 4-27](#)).
8. Use a small flat tip screwdriver to adjust the X-Axis Motor to center the Printhead and allow removing the Printhead Restraints.
  - Adjust counter-clockwise to remove the Printhead pin from the right Restraint (adjusting the Head to X-Axis Tilt position).
  - Turn the Motor counter-clockwise until resistance, then 1 rotation clockwise to set to tilt position.



s8900-061

9. To verify that the Printhead is centered, install the Funnel Cap.
10. Check that the four notches on the Funnel Cap are aligned in the middle of the Printhead Reservoirs.



## ADJ 1.6 Document Feeder Registration

**Note:** The Document Feeder Registration routine is also available in [Service Diagnostics \(dc608 Document Feeder Registration on page 2-73\)](#).

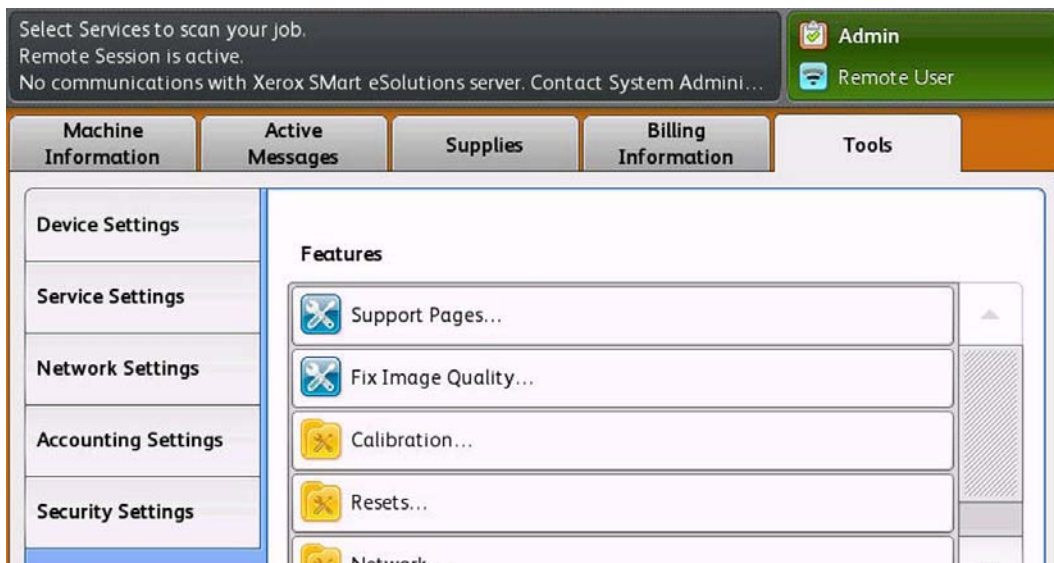
The Document Feeder Registration routine checks the image registration (on the page) of the documents fed through the DADF and automatically corrects any misalignments relative to the image being placed on the page. This adjustment also performs a de-skew adjustment and automatically corrects any misalignment.

The process performs automatically and requires the user to place 3 sheets of letter or A4 paper on the DADF and then the target sheet. The printer will report to the user (**Pass/ Fail**) the outcome of the adjustment.

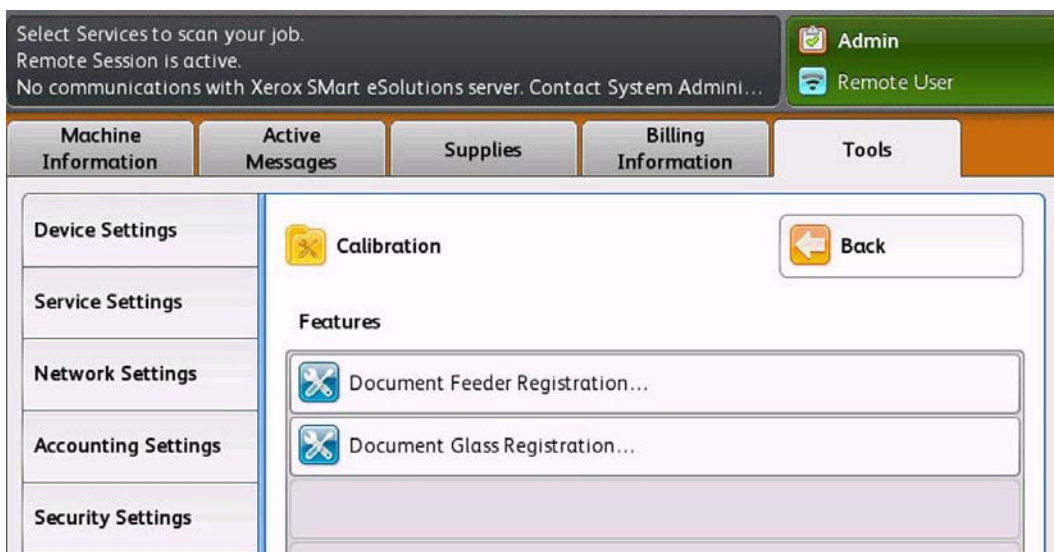
1. Access [Machine Status/Tools \(Accessing Machine Status/ Tools Menu on page 2-4\)](#).
2. Touch **Troubleshooting**.
3. Touch **Calibration**.



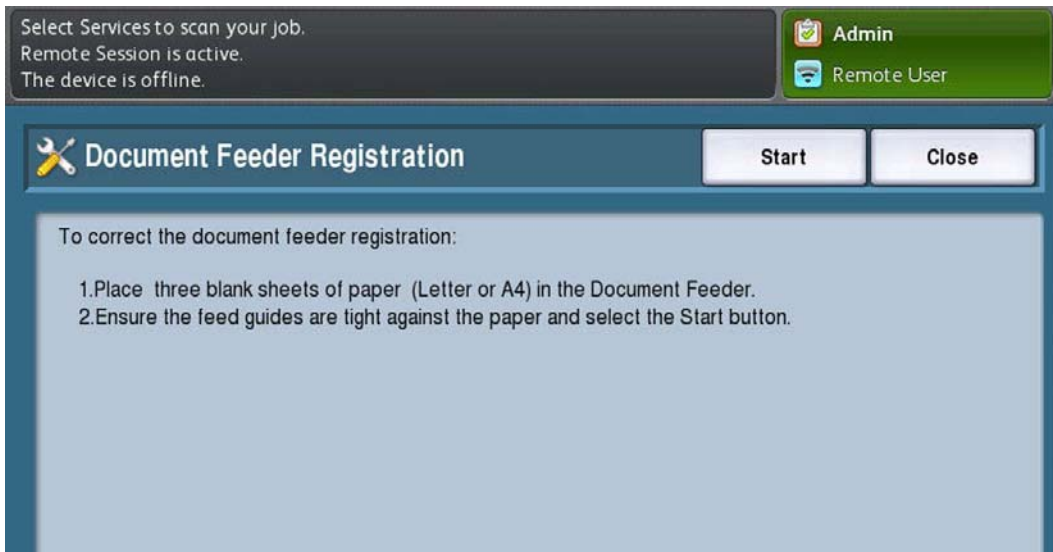
4. Touch **Document Feeder Registration**.



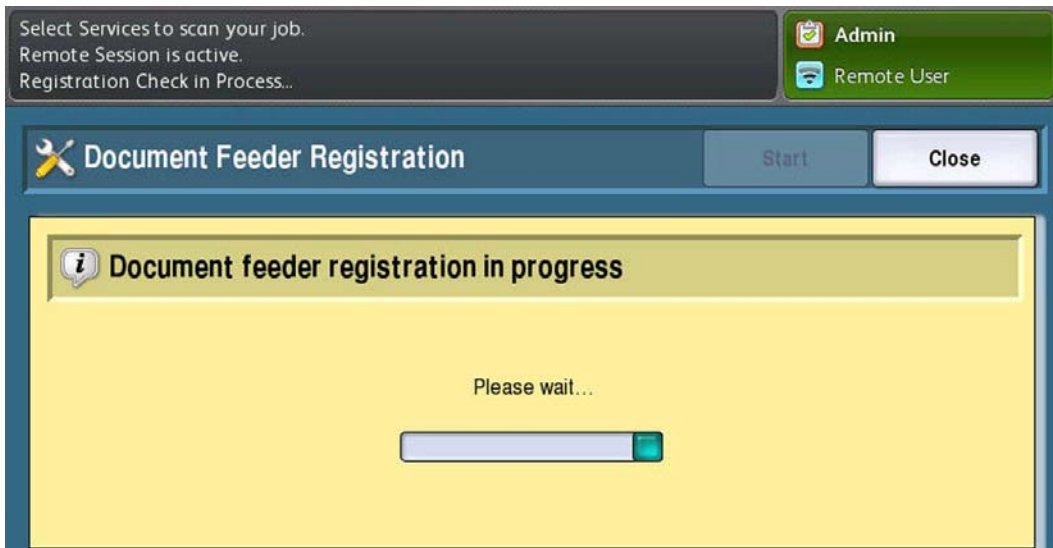
5. A **Document Feeder Registration** screen is displayed.
6. Place three blank sheets of paper in the Document Feeder.
7. Ensure the Feed Guides are tight against the paper.
8. Touch **Start** to begin the process.



- An **In Progress** screen is displayed.



- On completion of the registration process, a "...successful..." screen is displayed.
- Touch **Close** to return to the **Document Feeder Registration** screen.
- Touch **Close** to return to the **Calibration** menu.





## ADJ 1.7 Document Glass Registration

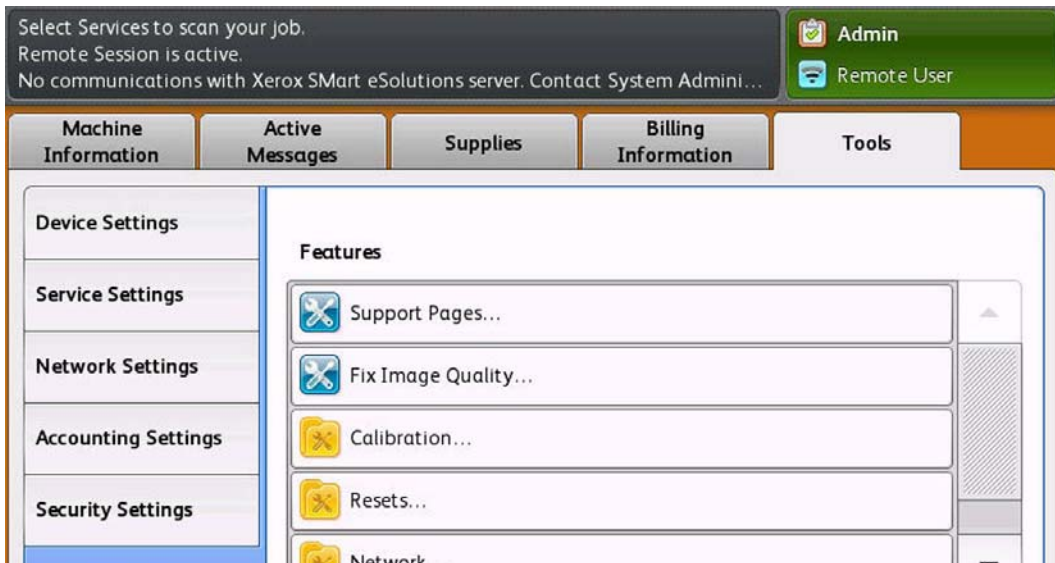
**Note:** The Document Glass Registration routine is also available in [Service Diagnostics \(dc609 Document Glass Registration on page 2-74\)](#).

The Document Glass Registration routine checks the image registration (on the page) of the documents placed on the document glass and automatically corrects any misalignments relative to the image being placed on the page.

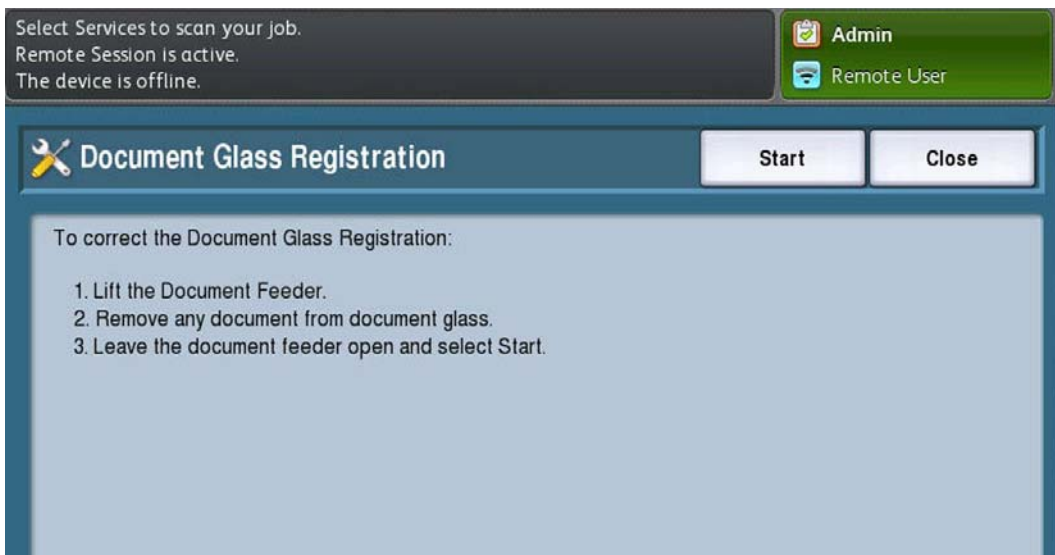
1. Access [Machine Status/Tools \(Accessing Machine Status/ Tools Menu on page 2-4\)](#).
2. Touch **Troubleshooting**.
3. Touch **Calibration**.



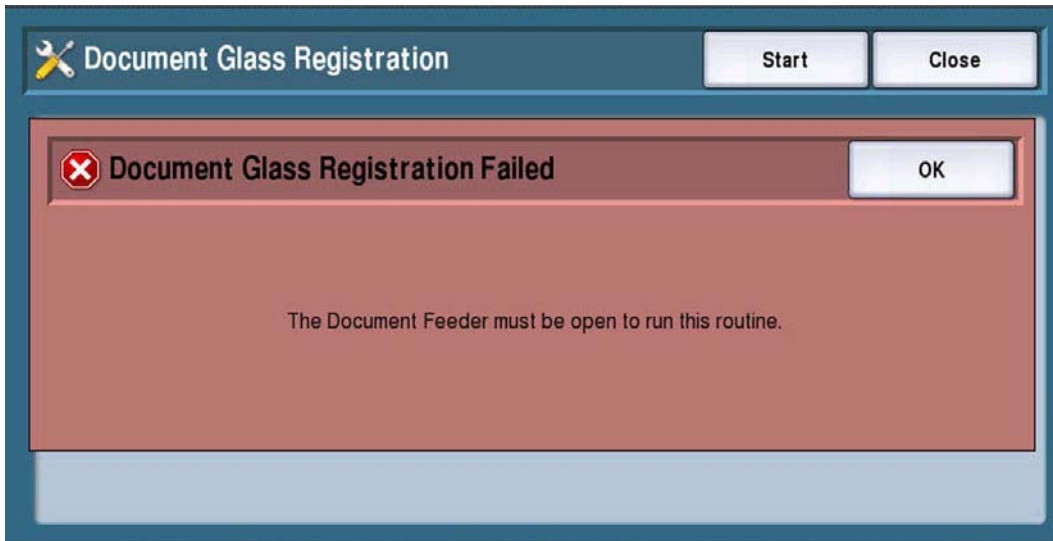
4. Touch **Document Glass Registration**.



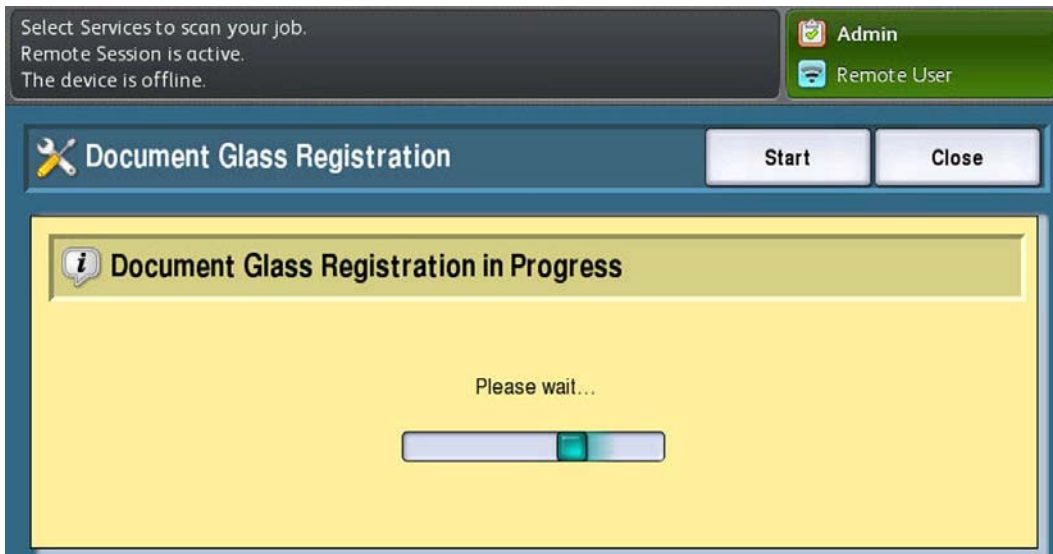
5. Open the Document Feeder.
6. Remove any documents from the Document Glass.
7. Leave the Document Feeder open.
8. Touch **Start** to begin the process.



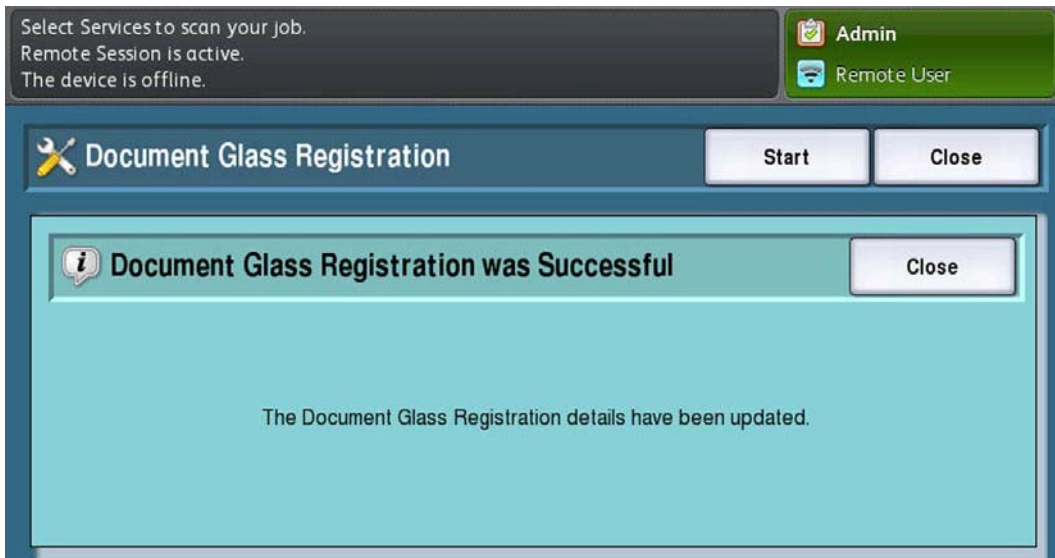
**Note:** If the Document Feeder is not open, a failed message is displayed.



9. An **In Progress** screen is displayed.



10. On completion of the registration process, a “...successful...” screen is displayed.
11. Touch **Close** to return to the **Document Glass Registration** screen.
12. Touch **Close** to return to the **Calibration** menu.



# Firmware Upgrade

## Notes:

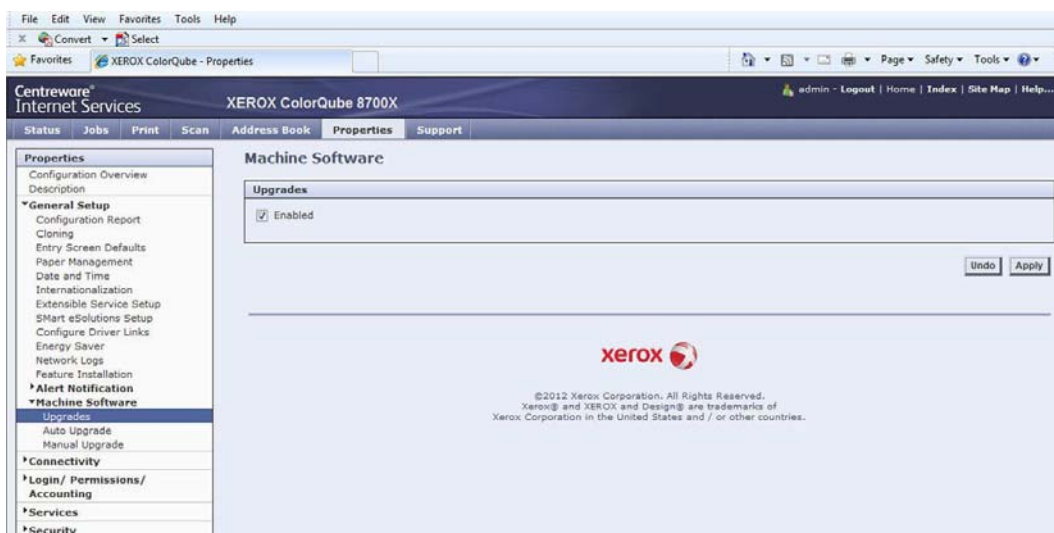
- When performing a manual upgrade, use the Web UI to download the.dlm file before using the AltBoot process.
- Connect via a crossover and not on the customer network and fax phone line to keep another job from corrupting while updating.
- The AltBoot process should only be used to recover a printer that has corrupted software preventing one of the other upgrade methods from being utilized.

## CWIS Upgrade

The Web UI method allows the user to perform the firmware upgrade process using CWIS menu. The CWIS Upgrade method replaces the Hard Disk Drive (HDD) files with DLM's files only if they are newer than the HDD's. All NVM settings and address books are retained.

## Notes:

- The CWIS Upgrade method requires the machine to be at [Ready](#).
  - Download the correct firmware file from the Xerox support web site.
1. In a web browser, enter the printer's IP address.
  2. In the upper right corner, click [Login](#).
  3. In the [User ID](#) field, enter [admin](#) (default User ID).
  4. In the [Password](#) field, enter [1111](#) (default password).
  5. Click [Login](#).
  6. From the top menu, click [Properties](#).
  7. From the [Properties](#) menu on the left, expand [General Setup](#) > [Machine Software](#) > [Upgrades](#). Verify that the '[Enabled](#)' checkbox is selected.

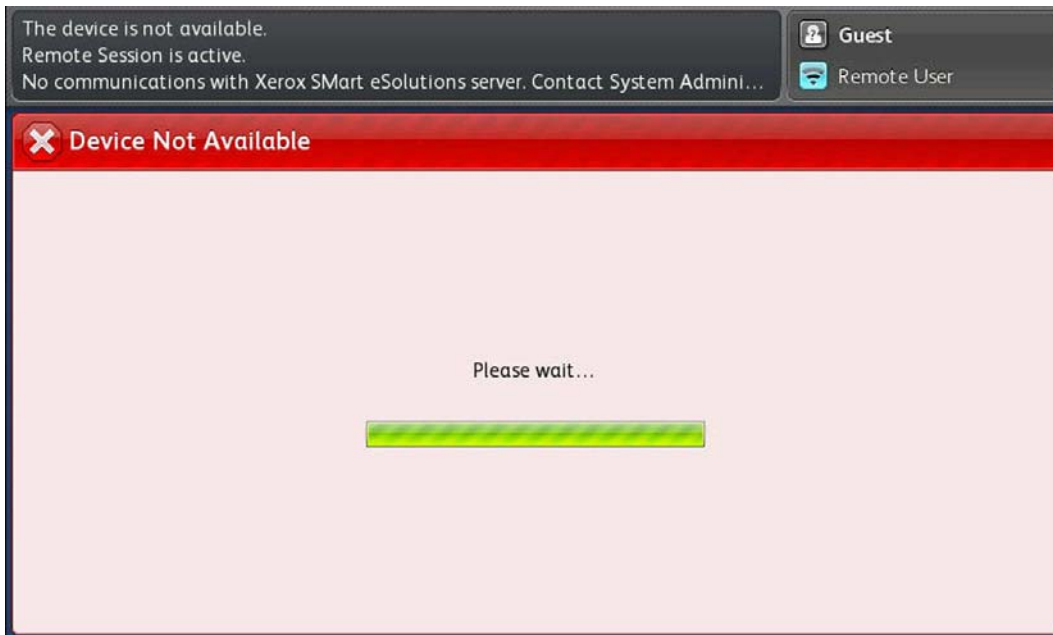


8. Under [Machine Software](#), select [Manual Upgrade](#).

9. Click **Browse** to locate the **.dlm** file.
10. Click **Open**.
11. Click **Install Software** to download the firmware to the printer.
12. A status message and progress bar appear at the bottom of the web browser.
13. A **File has been submitted** window appears on screen.
14. Click **OK** to close the **Message** window.

**! CAUTION:** Do not reboot or turn Off the printer.

15. Within 2-3 minutes, on the Control Panel UI, a **Device Not Available** screen is displayed indicating firmware upgrade is starting.



16. The printer reboots. This should take approx 5 to 7 minutes.
17. On the Control Panel UI, a **Software Upgrade** screen is displayed indicating firmware upgrade is in progress. The firmware will be upgraded for some or all of the followings depends on the changes.

**Note:** Depending on the options installed, the printer may reboot more than once.

- Scanner Controller
- User Interface
- Print/ Copy Engine
- Copy Controller
- Network Controller

18. When the firmware upgrade process is complete, the printer reboots.
19. The printer will continue initializing and print the Software Upgrade Report, followed by the Configuration Report.

## USB Upgrade

The USB Upgrade is another method that replaces the HDD files with DLM's files only if they are newer than the HDD's (like the CWIS Upgrade). All NVM settings and address books are retained.

**Note:** The USB Upgrade method requires the machine to be at **Ready**.

### Preparation

Prior to performing the firmware upgrade, a USB Thumb Drive containing the latest firmware must be available.

**Note:** The folder name is case sensitive.

1. In the root directory of the USB Thumb Drive, create an **UPGRADE** folder.
2. Copy the latest firmware file (\*.dlm) to the **UPGRADE** folder.

### Procedure

1. Insert the prepared USB Thumb Drive in the USB Port on the right side of the printer's Control Panel.
2. On the Control Panel, press the **Power Saver** button.
3. On the UI screen, touch **Quick Restart**.
4. A **Quick Restart** screen appears confirming the restarting process. Touch **Restart**.
5. A **System Restart** screen appears while the printer is rebooting.
6. On the UI, a **Software Upgrade** screen appears with multiple progress bars. The process takes approximately 20 minutes.
7. When the upgrade is complete, the display shows a message asking you to remove the USB Thumb Drive and press '**0**' to Reboot.
8. Disconnect the USB Thumb Drive from the printer.
9. Press the '**0**' button to reboot the printer.
10. Wait for the printer to reboot and return to the main menu.
11. The printer will continue initializing and print the Software Upgrade Report, followed by the Configuration Report.

## USB AltBoot Upgrade

The AltBoot procedure performs software version checking prior to starting the upgrade. If the version of a software module on the USB thumb drive is equal or less than that loaded on the printer, then that module will not be upgraded. The USB AltBoot Upgrade method reformats the HDD. The HDD files are replaced with DLM's files no matter what version (allows you to downgrade code). Only NVM settings that are stored on the HDD are reset to factory settings.

Some NVM values returned to factory settings, some NVM are retained.

- CCS NVM that is stored on the Copy Controller NVM chip is not reset.
- Only configuration data stored on the HDD is affected.
- Firmware modules (IIT/ IOT/ Finisher/ Feeder, etc.) are not typically at all until the next power up cycle. Then only certain firmware modules are upgrade in order to ensure compatibility.
- Virtually all "Network Controller" settings are preserved via "Clone-to-Self" feature. Cloning should happen automatically. Only manually Clone if settings are missing. Although Fax Address Books are not captured by cloning, other setting are.

**Note:** AltBoot Upgrade method can be used on machine that is not capable of coming to **Ready**.



### CAUTIONS:

- Only perform this procedure as a last option to recover a corrupted system.
- Do not reboot or turn Off the printer during the restore process. The printer automatically reboots when the process is complete.

## Preparation

Prior to performing the firmware upgrade, a USB Thumb Drive containing the latest firmware must be available.

**Note:** The folder name is **NOT** case sensitive.

1. In the root directory of the USB Thumb Drive, create an **altboot** folder (e.g., altboot, ALTBOOT).
2. Copy the latest firmware file (\*.dlm) to the **altboot** folder.



**CAUTION:** Using the Quick Restart method could cause the machine to malfunction, unless the machine has specific code version.

Code versions impacted by the Quick Restart method:

- 071.160.101.35100
- 071.160.101.36000

## Procedure

1. Insert the prepared USB Thumb Drive in the USB Port on the right side of the printer's Control Panel.
2. On the Control Panel, press the **Power Saver** button.
3. On the UI screen, touch **Quick Restart**.



4. A [Quick Restart](#) screen appears confirming the restarting process.
5. Touch **Restart**.
6. A [System Restart](#) screen appears while the printer is rebooting.
7. On the UI, a [Software Upgrade](#) screen appears with multiple progress bars. The process takes approximately 20 minutes.
8. When the upgrade is complete, the display shows a message asking you to remove the USB Thumb Drive and press '**0**' to Reboot.
9. Disconnect the USB Thumb Drive from the printer.
10. Press the '**0**' button to reboot the printer.
11. Wait for the printer to reboot and return to the main menu.
12. The printer will continue initializing and print the Software Upgrade Report, followed by the Configuration Report.

## USB AltBoot - Forced Upgrade

The AltBoot (Forced Upgrade) procedure restores printer firmware. Version checking will not be performed and the .dlm file on the USB thumb drive is “forced” onto the printer. Use this procedure when the printer has hung and no other method to return the printer to operation has succeeded. AltBoot resets printer configuration to its default values. The Forced Upgrade method reformats the HDD. All HDD files are replaced with DLM’s files no matter what version (allows you to downgrade code). Restore customer settings after the printer returns to the main menu.

Some of the NVM values are reset to factory settings.

- CCS NVM that is stored on the Copy Controller NVM chip is not reset.
- Only configuration data stored on the HDD is affected.
- Firmware modules (IIT/ IOT/ Finisher/ Feeder, etc.) are “Forced Upgraded” to whatever software version is available in the dlm file.
- No “Network Controller” (Authentication, Accounting, Scan Services, Web Services, etc.) settings are preserved except for low level connectivity settings (IPv4/ IPv6, Netware, etc.)

### Notes:

- AltBoot Forced Upgrade method can be used on machine that is not capable of coming to [Ready](#).
- Cloning (“Cloning” on [page 2-399](#)) the printer is recommended, before performing AltBoot procedure. If the printer failure is such that cloning is not possible, ensure that the customer is aware of the data loss.

### CAUTIONS:


- Only perform this procedure as a last option to recover a corrupted firmware. The .dlm file for printer configuration will be deleted.  
The AltBoot procedure will delete all stored data on the System Disk Drive, including email addresses, Xerox Standard Accounting data, and network configuration information.
- Do not reboot or turn Off the printer during the restore process. The printer automatically reboots when the process is complete.

## Preparation

Prior to performing the firmware upgrade, a USB Thumb Drive containing the latest firmware must be available.

**Note:** The folder name is **NOT** case sensitive.

1. In the root directory, create an [altboot](#) folder (e.g., altboot, ALTBOOT).
2. Next, using Notepad or similar utility, create a zero-length file in the [altboot](#) folder called [FORCED\\_UPGRADE](#) with no extension. Again, this file must reside in the [altboot](#) folder and be named exactly as shown.
3. Finally, copy the latest firmware file (\*.dlm) to the [altboot](#) folder.

 **CAUTION:** Using the Quick Restart method could cause the machine to malfunction, unless the machine has specific code version.

Code versions impacted by the Quick Restart method:

- 071.160.101.35100
- 071.160.101.36000



### Procedure (see attached pdf file)

1. Insert the prepared USB Thumb Drive in the USB Port on the right side of the printer's Control Panel.
2. On the Control Panel, press the **Power Saver** button.
3. On the UI, touch **Quick Restart**.
4. On the UI, a **Software Upgrade** screen appears with multiple progress bars. The process takes approximately 20 minutes. Forced Upgrade will upgrade the firmware for the following items:  
**Note:** Depending on the options installed, the printer may reboot more than once.
  - Scanner Controller
  - User Interface
  - Print/ Copy Engine
  - Copy Controller
  - Network Controller
5. When the upgrade is complete, the UI displays a message asking you to remove the USB Thumb Drive and press '**0**' to Reboot.
6. Disconnect the USB Thumb Drive from the printer.
7. Press the '**0**' button to reboot the printer.
8. Wait for the printer to reboot and return to the main menu. This may take up to 40 minutes.
9. The printer will continue initializing and print the Software Upgrade Report, followed by the Configuration Report.



# Plug/Jack and Wiring Diagrams

This chapter includes:

- [Plug/Jack Diagrams and Designators](#)
- [Plug/Jack Locators](#)
- [Notations Used in the Wiring Diagrams](#)
- [Overview Wiring Diagram](#)
- [Print Engine Wiring Diagrams](#)
- [DADF/ Scanner Wiring Diagrams](#)
- [Horizontal Transport Wiring Diagram](#)
- [525-Sheet Feeder Wiring Diagram](#)
- [1800-Sheet Feeder Wiring Diagram](#)
- [Finisher Wiring Diagram](#)

## Plug/Jack Diagrams and Designators

This chapter contains the Plug/Jack Designators, Locators, and wiring diagrams for the print engine and all options.

The Plug/Jack Locator diagrams show the P/J locations within the printer, Optional 550-Sheet Feeder, and Duplex Unit. Use these illustrations to locate P/J connectors called out in the Troubleshooting procedures presented in Chapters 2 and 3.

The Plug/Jack locators consist of the P/J Designator Tables and the P/J Locator Diagrams.

- The P/J column lists the Plug/Jack numbers in numerical order.
  - The Map column provides the map number of the specific areas (i.e., Electrical, Laser Unit...etc.)
  - The Coordinates column lists the diagram coordinates for the location of the connector.
  - The Remarks column provides a brief description of each connection.
1. Locate the P/J connector designator in the first column of the table.
  2. With this information, go to the map listed in the second column.
  3. Use the coordinates to locate the connection indicated on the map with its P/J designation number.

## Print Engine Plug/Jack Designators

### Print Engine Plug/Jack Designators

P/J	Map	Coordinates	Remarks
CON1	1	G-107	Connects the Stapler Assembly
CON3	1	F-106	Connects the Interlock Switch
CN1	2	K-106	No connection
CN1	21	I-106	Connects the Power Control Board to the Y-Axis Motor
CN2	2	J-106	No connection
CN2	21	G-104	Connects the Power Control Board to the front side
CN3	21	H-104	Connects the Power Control Board to the rear side
CN4	21	I-109	Connects the Power Control Board to the Main Controller Board
CN5	2	I-107	Connects the Control Panel to Main Controller Board
CN5	4	H-104	Connects the Control Panel Board to the Main Controller Board
CN5	21	E-111	Connects the Power Control Board to the Power Supply Unit
CN7	21	D-104	Connects the Power Control Board to the Ink Loader
CN8	21	H-110	Connects the Power Control Board to the 525 Feeder and 1800-Sheet Feeder
CN9	21	H-110	Connects the Power Control Board to the 525 Feeder and 1800-Sheet Feeder
CN10	21	G-110	Connects the Power Control Board to the Scanner
CN11	21	E-104	Connects the Power Control Board to the Wave Amp
CN12	21	F-104	Connects the Power Control Board to the I/O Board
CN13	6	A-105	Connects the Power Control Board to the Main Controller Board
CN15	21	C-105	Connects the Power Control Board to the Waste Tray Sensor
CN16	21	I-108	Connects the Power Control Board to the Paper Size Switch
CN17	21	I-108	Connects the Power Control Board to the Tray Lift Sensor
CN21	21	C-109	Connects the Power Control Board to the Ink Loader Yoke Motor
CN26	21	C-105	Connects the Power Control Board to the Horizontal Transport
CN27	21	C-108	Connects the Power Control Board to the Ink Loader Sensors
CN34	21	C-109	Connects the Power Control Board to the Ink Loader Switch & LED
CN36	21	D-104	Connects the Power Control Board to the Stapler
JP1	2	J-107	No connection

**Print Engine Plug/Jack Designators (Continued)**

<b>P/J</b>	<b>Map</b>	<b>Coordinates</b>	<b>Remarks</b>
JP2	2	J-106	No connection
P/J1	13	E-108	Connects the Ink Loader Thermistor
P/J101	3	E-107	Connects the IO Board to the Left Door Interlock Switch
P/J101	11	D-106	Connects the Ink Loader Board to the Solenoid
P/J101	20	E-112	Connects the Main Controller Board
P/J102	3	D-107	Connects to IO Board to the Jam Door Sensor
P/J103	20	E-109	No Connection
P/J130	18	F-107	Connects the Printhead
P/J180	18	C-105	Connects the Printhead and the Main Controller Board
P/J190	18	B-105	Connects the Printhead
P/J201	20	E-108	Connects the Main Controller Board
P/J202	20	E-107	Connects Main Controller Board to USB Device
P/J203	20	E-107	Connects the Main Controller Board to the Power Control Board
P/J204	20	E-106	Connects the Main Controller Board to the DADF/ Scanner.
P/J240	18	E-106	Connects the Printhead and the Wave Amp
P/J301	11	F-105	Connects the Ink Loader Board to Solenoid
P/J301	20	E-105	Connects the Control Panel Board to the Main Controller Board
P/J302	20	E-104	Connects the Main Controller Board to the Printhead
P/J401	3	E-107	Connects the I/O Board to the Tray Lift Sensor (Paper Height Sensor)
P/J401	20	F-111	Connects the Main Controller Board to the HDD
P/J402	3	F-107	Connects the I/O Board to the Tray 1 (MPT) Board
P/J402	20	G-112	Connects the Main Controller Board to the Hard Disk Drive
P/J403	3	E-106	No connection
P/J404	20	G-110	DIMM Connection
P/J501	3	E-110	Connects the Drum Heater Load Dump to the Power Control Board
P/J502	3	D-110	Connects the Drum Encoder to the Power Control Board
P/J503	3	G-105	Connects the Main Controller Board to Exit Roller Sensors
P/J504	3	H-106	Connects the Strip Solenoid to the Power Control Board
P/J505	3	H-107	Connects the Drum Heater to the Power Supply Unit
P/J506	5	G-108	Connects the Head Maintenance Clutch to the Power Control Board



## Print Engine Plug/Jack Designators (Continued)

P/J	Map	Coordinates	Remarks
P/J507	4	E-107	Connects the Electronics System Fan to the Power Control Board
P/J508	4	E-104	Connects the Waste Tray to the Power Control Board
P/J509	5	H-107	Connects Main Controller Board to the Stapler
P/J510	6	E-103	Connects the Paper Path Motor Cooling Fan to the Power Control Board
P/J511	6	F-103	Connects the Media Path Motor to the Power Control Board
P/J512	6	G-103	Connects the Purge Pump to the Power Control Board
P/J513	6	J-103	Connects the Preheater Lift Solenoid to the Power Control Board
P/J514	6	J-107	Connects the Deskew Clutch to the Power Control Board
P/J515	6	J-108	Connects the Tray 1 Pick Solenoid to the Power Control Board
P/J516	6	I-108	Connects the Tray 2 Pick Clutch to the Power Control Board
P/J517	6	E-111	Connects the 525-Sheet Feeder to the Power Control Board
P/J518	6	B-111	Connects the Finisher to the Power Control Board
P/J519	6	B-112	Connects the AC Source to the Power Control Board
P/J520	8	H-107	Connects the HDD to the Main Controller Board
P/J521	8	I-107	Connects the HDD to the Main Controller Board
P/J522	9	E-107	Connects the Preheat Temperature Sensor to the I/O Board
P/J522	10	N/A	Connects the Preheat Temperature Sensor to the I/O Board
P/J523	9	F-107	Connects the Preheat Temperature Thermistor to the I/O Board
P/J523	10	N/A	Connects the Preheat Temperature Thermistor to the I/O Board
P/J524	11	E-105	Connects the LED & Switch to the Power Control Board
P/J524	12	E-110	Connects Power Control Board to LED & Switch
P/J525	11	D-105	Connects the Power Control Board to the Ink Loader Sensors
P/J525	12	E-109	Connects the Power Control Board to the Ink Loader Sensors
P/J526	11	E-105	Connects the Ink Loader
P/J526	12	F-110	Connects the Power Control Board to the Horizontal Transport
P/J527	12	D-107	Connects Power Control Board to the Printhead
P/J528	14	F-107	Connects the Drum Temperature Sensor to the I/O Board
P/J529	15	F-106	Connects the Waste Tray to the Power Control Board
P/J530	4	I-107	Connects the Main Controller Board to the USB Device
P/J531	16	H-109	Connects the Power Control Board to the Cleaning Unit

**Print Engine Plug/Jack Designators (Continued)**

<b>P/J</b>	<b>Map</b>	<b>Coordinates</b>	<b>Remarks</b>
P/J532	17	E-106	Connects the Paper Size Switch to the Power Control Board
P/J533	3	G-106	Connects the Drum Cooling Fan to the I/O Board
P/J535	6	B-109	Connects the Printhead Tilt Solenoid to the Power Control Board
P/J536	6	C-110	Connects the Tray 2 Lift Motor to the Power Control Board
P/J537	9	F-107	Connects the Tray Lift Sensor (Paper Height Sensor) to the I/O Board
P/J538	9	G-107	Connects the Process Motor to the Power Control Board
P/J539	9	C-108	Connects the No Paper Sensor to the I/O Board
P/J540	9	E-110	Connects the Preheat Deskew Sensor to the I/O Board
P/J541	11	B-109	Connects the Horizontal Transport to the Power Control Board
P/J542	4	D-108	Connects the X-Axis Motor to the Power Control Board
P/J543	9	I-109	Connects the Jam Door Sensor to the I/O Board
P/J544	17	A-108	Connects the Tray Lift Sensor to the Power Control Board
P/J545	6	A-105	Connects the Y-Axis Motor to the Power Control Board
P/J548	11	C-109	Connects the Ink Loader Sensor
P/J549	11	B-108	Connects the Power Control Board to the Horizontal Transport
P/J601	3	E-103	Connects the I/O Board to the Strip Sensor
P/J640	19	E-106	Connects the Wave Amp and the Printhead
P/J701	3	F-107	No connection
P/J701	11	C-107	Connects the Ink Loader Board to the Solenoid
P/J701	20	I-112	No connection
P/J702	20	J-112	Fax Line Connector
P/J702	3	F-107	Connects the I/O Board to the Preheat Deskew Sensor
P/J702	11	C-106	Connects the Ink Loader Board to Power Control Board
P/J702	12	D-109	Connects the Ink Loader Board to the Power Control Board
P/J703	11	C-106	Connects the Ink Loader Board to the Thermistor
P/J703	20	J-110	Service Only Port - Serial Cable
P/J704	20	J-109	Service Only Port
P/J800	19	A-107	Connects the Wave Amp and the Power Control Board
P/J801	3	E-105	Connects the I/O Board to the Power Control Board

**Print Engine Plug/Jack Designators (Continued)**

<b>P/J</b>	<b>Map</b>	<b>Coordinates</b>	<b>Remarks</b>
P/J801	11	D-106	Connects the Ink Loader Board to the Solenoid
P/J802	11	E-106	Connects the Ink Loader Board to the Solenoid
P/J802	20	J-109	Ethernet Connector
P/J804	20	I-107	USB Port
P/J805	20	J-106	Foreign Interface Device connection
P/J806	20	I-106	No connection
P/J808	20	I-108	USB Memory Port
P/J901	3	F-104	Connects the I/O Board to the Cleaning Unit
P/J901	11	G-106	Connects the Ink Loader Board to the Solenoid
P/J902	3	F-104	Connects the I/O Board to Drum Temperature Sensor
P/J903	3	F-103	Connects the I/O Board to the Drum Cooling Fan
P/JAC001	7	D-107	Connects the Power Supply Unit to the Ink Loader
P/JAC001	11	H-105	Connects the Power Supply Unit to Ink Loader
P/JAC002	7	F-106	Connects the Power Supply Unit to the Printhead Heaters
P/JAC003	7	E-106	Connects the Power Supply Unit to the Paper Preheater
P/JAC011	7	D-106	Connects the Power Supply Unit to the AC Inlet
U704	20	J-111	Feature Card Slot

## Scanner/ DADF Plug/Jack Designators

### Scanner/ DADF Plug/Jack Designators

P/J	Map	Coordinates	Remarks
CN1	23	C-109	Connects the Scanner Control Board
CN3	23	F109	Connects the Scanner Control Board to the Open CVT Motor
CN5	23	B-109	Connects the Scanner Control Board to the IPP Board
CN8	23	D-107	Connects the Scanner Control Board to the DADF Paper Size Sensor
CN10	23	F-107	Connects the Scanner Control Board to the DADF Solenoid
CN11	23	F-107	Connects the Scanner Control Board to the Electric Clutch
CN12	23	G-107	Connects the Scanner Control Board to the Reverse Sensor, Exit Sensor, Interval Sensor
CN13	23	H-108	Connects the Scanner Control Board to the Cover Open Sensor and DADF Open Sensor
CN18	23	G-108	Connects the Scanner Control Board to the Feed Motor
CN19	23	I-112	Connects the Scanner Control Board to the Scan Timing Sensor and Paper Present Sensor
J1	23	C-110	Connects the Scanner Control Board
JP7	23	C-109	Ground Connector
JP302	22	C-108	Connects the IPP Board (Scanner)
JP303	22	C-108	Connects the IPP Board (Scanner)
P/J100	23	I-107	Connects the DADF Open Sensor to the Scanner Control Board
P/J101	23	I-103	Connects the Top Cover Open Sensor to the Scanner Control Board
P/J102	25	F-111	Connects the Reverse Sensor to the Scanner Control Board
P/J103	25	H-108	Connects the Exit Sensor to the Scanner Control Board
P/J104	25	G-106	Connects the Interval Sensor to the Scanner Control Board
P/J105	26	E-102	Connects the Length Sensor 2 to the Scanner Control Board
P/J106	26	F-104	Connects the Length Sensor 1 to the Scanner Control Board
P/J107	26	F-110	Connects the Width Sensor 2 to the Scanner Control Board
P/J108	26	G-110	Connects the Width Sensor 1 to the Scanner Control Board
P/J109	24	C-106	Connects the Scan Timing Sensor to the Scanner Control Board
P/J110	24	H-109	Connects the Paper Present Sensor to the Scanner Control Board
P/J301	22	D-108	Connects the IIP Board (Scanner)
P/J601	22	C-108	Connects the IPP Board (Scanner)

**Scanner/ DADF Plug/Jack Designators (Continued)**

<b>P/J</b>	<b>Map</b>	<b>Coordinates</b>	<b>Remarks</b>
P/J602	22	C-107	Connects the IPP Board (Scanner)
P/J701	22	H-107	Connects the IPP Board (Scanner)
P/J801	22	G-106	Connects the IPP Board (Scanner)
P/J901	22	D-106	Connects the IPP Board (Scanner)

## Horizontal Transport Plug/Jack Designators

### Horizontal Transport Plug/Jack Designators

P/J	Map	Coordinates	Remarks
CN1	27	B-105	Connects the Trans Unit ETE Harness to the Engine Unit ETC Harness
CN2	27	B-109	Connects the Exit Sensor to the ICT Sensor ETE Harness
CN2	28	H-107	Connects the Paper Detect Sensor to the Paper Detect Sensor Harness
CN3	27	D-108	Connects the Transport Board to the ICT Sensor ETE Harness
CN4	27	D-109	Connects the Transport Board to the Solenoid Harness
CN5	27	E-108	Connects the Transport Board to the ICT Sensor ETE Harness
CN6	27	E-108	Connects the Transport Board to the Trans Paper Detect Sensor ETE Harness
CN7	27	J-106	Connects the ICT Cover Detect Sensor to the Trans Paper Detect Sensor ETE Harness
P/J100	27	H-107	Connects Trans Paper Detect Sensor ETE Harness to Paper Detect Sensor Harness

## 525-Sheet Feeder Plug/Jack Designators

### 525-Sheet Feeder Plug/Jack Designators

P/J	Map	Coordinates	Remarks
J1	29	I-105	Connects the 525 Feeder to the Print Engine
J2	29	G-106	Connects the 525-Sheet Feeder Board to the Switch and Motor
J3	29	H-105	Connects the 525-Sheet Feeder Board to the Print Engine
J4	29	J-106	Connects the 525-Sheet Feeder Board to the Sensors
J5	29	I-108	Connects the 525-Sheet Feeder Board to the Lower Unit
J6	29	H-108	Connects the 525-Sheet Feeder Board to the Lower Unit
J8	29	J-107	Connects the 525-Sheet Feeder Board to the Cover Open Sensor
J9	29	G-107	Connects the 525-Sheet Feeder Board to the Tray Lift Sensor
J11	29	J-107	Connects the 525-Sheet Feeder Board to the Motor and Solenoid
P/J102	29	C-106	Connects the 525-Sheet Feeder Board to the DC Motor
P/J105	30	G-104	Connects the 525-Sheet Feeder Board to the Size Detect Switch
P/J106	30	F-110	Connects the 525-Sheet Feeder Board to the Electric Clutch
P/J107	30	J-109	Connects the 525-Sheet Feeder Board to the Feed Sensor
P/J108	30	G-110	Connects the 525-Sheet Feeder Board to the Step Motor
P/J109	31	H-106	Connects the 525-Sheet Feeder Board to the Elevator Top Sensor
P/J110	31	E-107	Connects the 525-Sheet Feeder Board to the Paper Empty Sensor
P/J111	30	C-105	Connects the 525-Sheet Feeder Board to the Tray Lift Sensor

## 1800-Sheet Feeder Plug/Jack Designators

### 1800-Sheet Feeder Plug/Jack Designators

P/J	Map	Coordinates	Remarks
J1	32	D-104	Connects the 1800-Sheet Feeder Board to the Print Engine
J2	32	B-104	Connects the 1800-Sheet Feeder Board to the Switch and Motor
J3	32	C-104	Connects the 1800-Sheet Feeder Board to the Print Engine
J4	32	E-104	Connects the 1800-Sheet Feeder Board to the Sensors
J8	32	E-105	Connects the 1800-Sheet Feeder Board to the Cover Open Sensor
J11	32	E-105	Connects the 1800-Sheet Feeder Board to the Motor and Solenoid
P/J102	32	H-109	Connects the DC Motor to the 1800-Sheet Feeder Board
P/J104	32	C-108	Connects the Tray Set Switch to the 1800-Sheet Feeder Board
P/J105	33	E-104	Connects the Encoder Sensor to the 1800-Sheet Feeder Board
P/J106	33	F-110	Connects the Electric Clutch to the 1800-Sheet Feeder Board
P/J107	33	I-109	Connects the Feed Sensor to the 1800-Sheet Feeder Board
P/J108	33	G-110	Connects the Step Motor to the 1800-Sheet Feeder Board to the 1800-Sheet Feeder Board
P/J109	34	H-106	Connects the Elevator Top Sensor to the 1800-Sheet Feeder Board
P/J110	34	E-107	Connects the Paper Empty Sensor to the 1800-Sheet Feeder Board



## Finisher Plug/Jack Designators

### Finisher Plug/Jack Designators

P/J	Map	Coordinates	Remarks
CN2	35	B-106	Connects the Jam Cover Switch to the Entry Sensor Harness
CN3	35	D-107	Connects the Entry Sensor to the Entry Sensor Harness
CN12	36	B-105	Connects the Tamper Rear Home Sensor to the Tamper Paper Detect Sensor Harness
CN13	36	D-105	Connects the Tamper Paper Detect Sensor to the Tamper Paper Detect Sensor Harness
CN14	36	E-108	Connects the Clamp Home Sensor to the Sub Ejector Harness
CN15	36	E-108	Connects the Ejector Clamp Motor to the Sub Ejector Harness
CN18	36	J-105	Connects the Tamper Front Home Sensor to the Tamper Front Home Sensor Harness
CN21	37	D-105 D-108	Connects the Relay Board to the Power Code
CN22	37	G-109	Connects the Relay Board to the AC Power Harness
CN23	37	J-106	Connects the Relay Board to the Paddle & STK Interlock ETC Harness
CN31	38	H-107	Connects the Power Supply Unit to the Main Power Harness
CN32	38	B-107	Connects the Power Supply Unit to the AC Power Harness
CN41	39	H-106	Connects the Paddle & STK Interlock ETC Harness to the Stacker Encoder Sensor
CN42	39	I-106	Connects the Main Tamper Harness to the Front Tamper Motor Harness
CN43	39	I-107	Connects the Paddle & STK Interlock ETC Harness to the Stacker Motor Harness
CN44	39	C-112	Connects the Dock & Staple Interlock Harness to the Dock Interlock Switch
CN51	40	D-103	Connects the Paddle & STK Interlock ETC Harness to the Feed Motor
CN52	40	F-103	Connects the Dock & Staple Interlock Harness to the Stapler Interlock Switch
CN53	40	F-106	Connects the Main Staple Harness to the Stapler Sensors
CN54	40	F-106	Connects the Main Staple Harness to the Stapler Motor
CN55	40	G-107	Connects the Finisher Board to the Dock & Staple Interlock Harness
CN56	40	H-107	Connects the Finisher Board to the Paddle & STK Interlock ETC Harness
CN57	40	H-108	Connects the Finisher Board to the Interface Cable

**Finisher Plug/Jack Designators**

<b>P/J</b>	<b>Map</b>	<b>Coordinates</b>	<b>Remarks</b>
CN58	40	H-108	Connects the Finisher Board to the Main Staple Harness
CN59	40	G-109	Connects the Finisher Board to the Main Power Harness
CN60	40	E-107	Connects the Finisher Board to the Stacker Level Sensor Harness
CN61	40	E-108	Connects the Finisher Board to the Main Ejector Harness
CN61	41	E-106	Connects the Paddle & STK Interlock ETC Harness to the Transport Motor
CN62	40	E-108	Connects the Finisher Board to the PP Solenoid Harness
CN62	41	G-107	Connects the Paddle & STK Interlock ETC Harness to the Stacker Upper Limit Switch
CN63	40	E-107	Connects the Finisher Board to the Main Tamper Harness
CN63	41	G-108	Connects the Paddle & STK Interlock ETC Harness to the Stacker Lower Limit Switch
CN64	40	G-107	Connects the Finisher Board to the Paddle & STK Interlock ETC Harness
P/J100	35	J-107	Connects the Entry Sensor Harness to the Paddle & STK Interlock ETC Harness
P/J400	39	D-106	Connects the Main Tamper Harness to the Tamper Paper Detect Sensor Harness
P/J401	39	G-106	Connects the PP Solenoid Harness to the PP Solenoid
P/J402	39	H-106	Connects the Main Tamper Harness to the Tamper Front Home Sensor Harness
P/J403	39	E-107	Connects the Main Ejector Harness to the Sub Ejector Harness
P/J500	40	D-104	Connects the Main Tamper Harness to the Paddle Home Sensor Harness
P/J501	40	E-107	Connects the Main Tamper Harness to the Rear Tamper Motor Harness
P/J600	41	E-104	Connects the Paddle & STK Interlock ETC Harness to the Entry Sensor Harness
P/J601	41	F-105	Connects the Paddle & STK Interlock ETC Harness to the Tamper Front Motor Harness

# Plug/Jack Locators

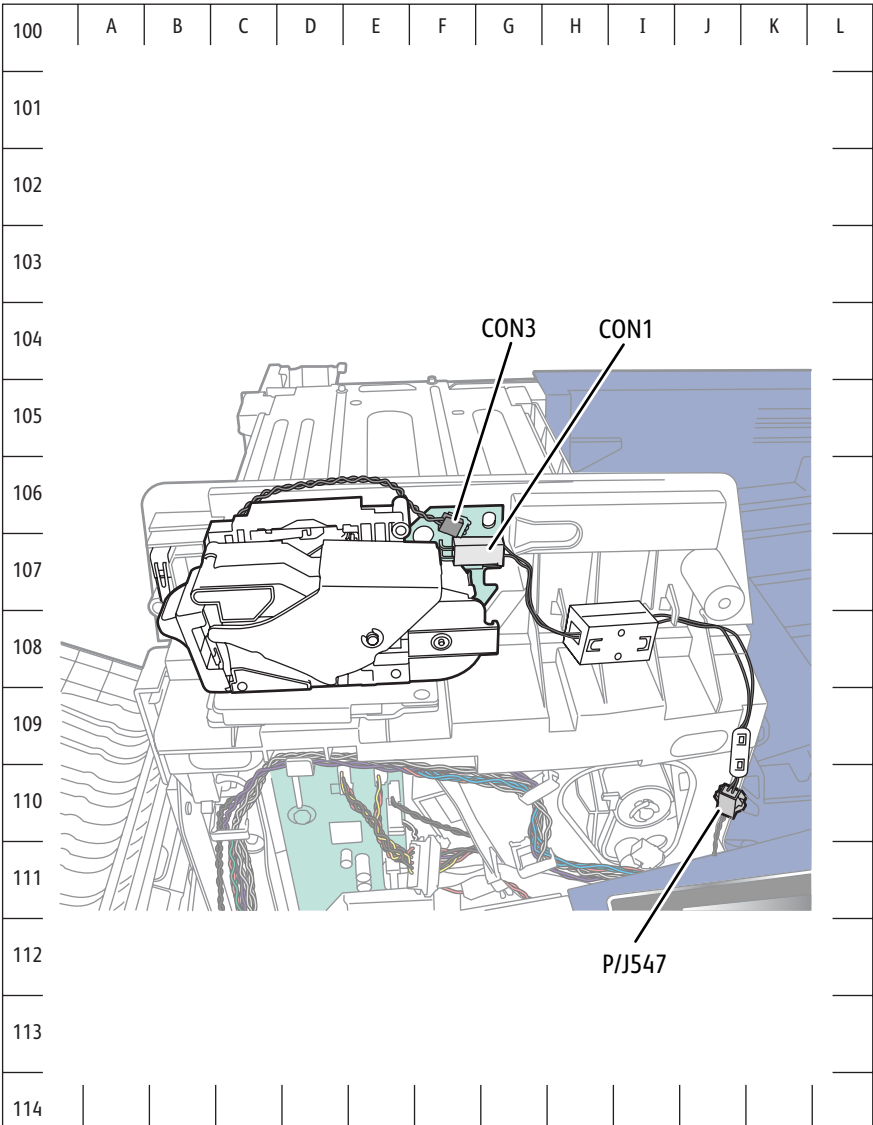
Maps 1 through 14 indicate the location of key connections within the printer, Duplex Unit, and 550-Sheet Feeder Unit. Connections are referenced by their P/J designation.

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2. [Map 2 - Control Panel](#) on page 7-18
3. [Map 3 - Front Side \(I/O Board, Fan\)](#) on page 7-19
4. [Map 4 - Front Side \(Fan, Motor\)](#) on page 7-20
5. [Map 5 - Front Side](#) on page 7-21
6. [Map 6 - Rear Side](#) on page 7-22
7. [Map 7 - Right Side, Power Supply Unit](#) on page 7-23
8. [Map 8 - Hard Drive](#) on page 7-24
9. [Map 9 - Left Side](#) on page 7-25
10. [Map 10 - Left Side \(bottom\), Preheater](#) on page 7-26
11. [Map 11 - Ink Loader \(bottom side\)](#) on page 7-27
12. [Map 12 - Ink Loader \(top side\)](#) on page 7-28
13. [Map 13 - Ink Loader Thermistor](#) on page 7-29
14. [Map 14 - Drum Temperature Sensor](#) on page 7-30
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16. [Map 16 - Cleaning Unit](#) on page 7-32
17. [Map 17 - Paper Size Switch/ Sensor](#) on page 7-33
18. [Map 18 - Printhead](#) on page 7-34
19. [Map 19 - Wave Amp Board](#) on page 7-35
20. [Map 20 - Main Controller Board](#) on page 7-36
21. [Map 21 - Power Control Board](#) on page 7-37
22. [Map 22 - Scanner \(IPP PWB\)](#) on page 7-38
23. [Map 23 - DADF \(SDC PWB\)](#) on page 7-39
24. [Map 24 - DADF \(top side\)](#) on page 7-40
25. [Map 25 - DADF \(bottom side\)](#) on page 7-41
26. [Map 26 - DADF \(Input Tray\)](#) on page 7-42
27. [Map 27 - Horizontal Transport \(bottom side\)](#) on page 7-43
28. [Map 28 - Horizontal Transport \(bottom side\)](#) on page 7-44
29. [Map 29 - 525-Sheet Feeder \(rear side\)](#) on page 7-45
30. [Map 30 - 525-Sheet Feeder \(inside\)](#) on page 7-46
31. [Map 31 - 525-Sheet Feeder \(bottom side\)](#) on page 7-47
32. [Map 32 - 1800-Sheet Feeder \(rear side\)](#) on page 7-48
33. [Map 33 - 1800-Sheet Feeder \(inside\)](#) on page 7-49
34. [Map 34 - 1800-Sheet Feeder \(bottom side\)](#) on page 7-50
35. [Map 35 - Finisher \(top side\)](#) on page 7-51
36. [Map 36 - Finisher \(Tamper and Ejector Module\)](#) on page 7-52

## Plug/Jack and Wiring Diagrams

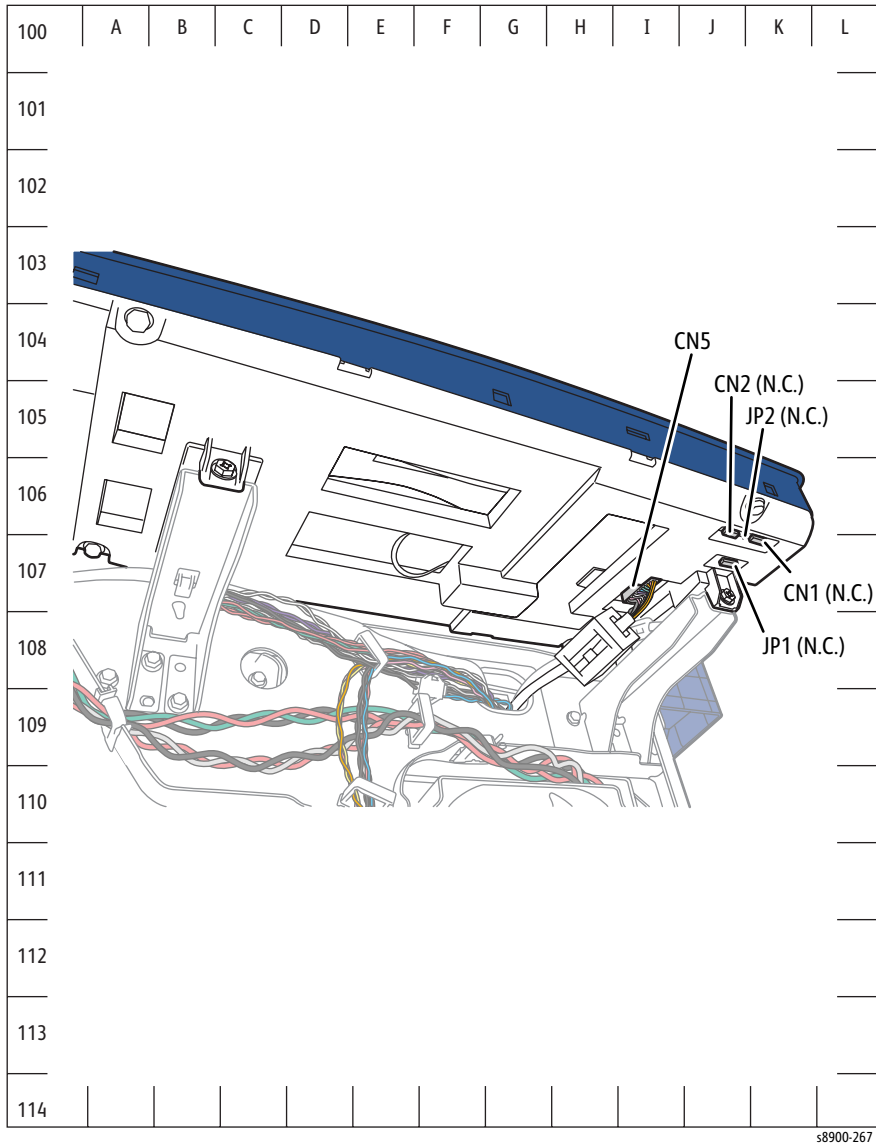
37. [Map 37 - Finisher \(Relay Board\)](#) on page 7-53
38. [Map 38 - Finisher \(Power Supply\)](#) on page 7-54
39. [Map 39 - Finisher \(left side\)](#) on page 7-55
40. [Map 40 - Finisher \(rear side\)](#) on page 7-56
41. [Map 41 - Finisher \(front side\)](#) on page 7-57

# Map 1 - Stapler Assembly

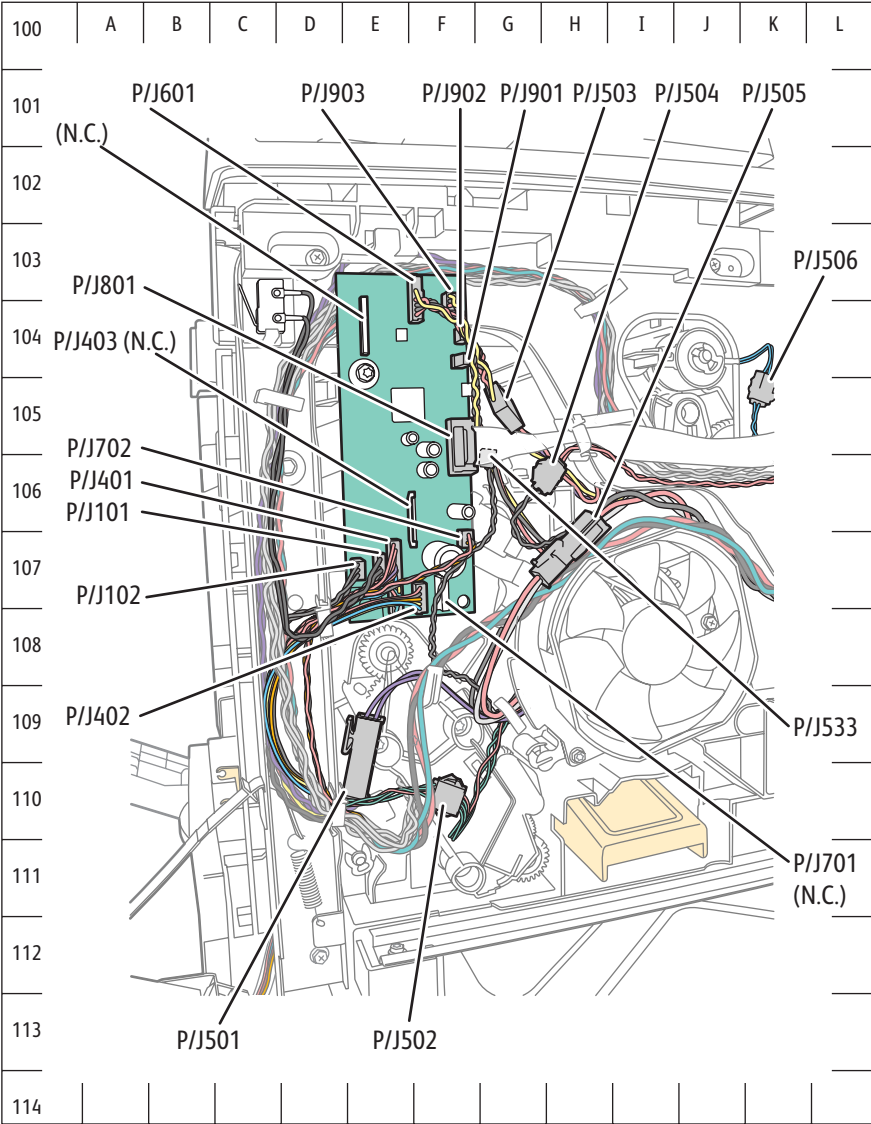


s8900-426

## Map 2 - Control Panel

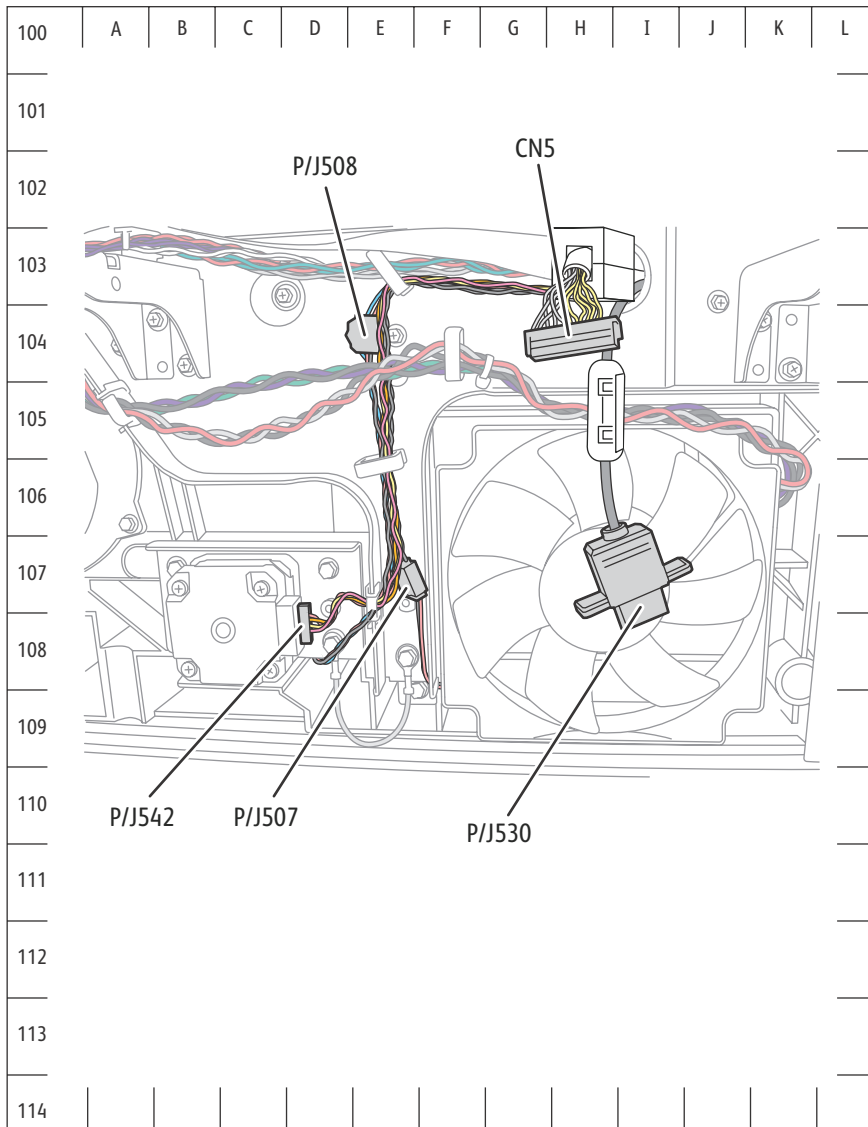


Map 3 - Front Side (I/O Board, Fan)



s8900-268

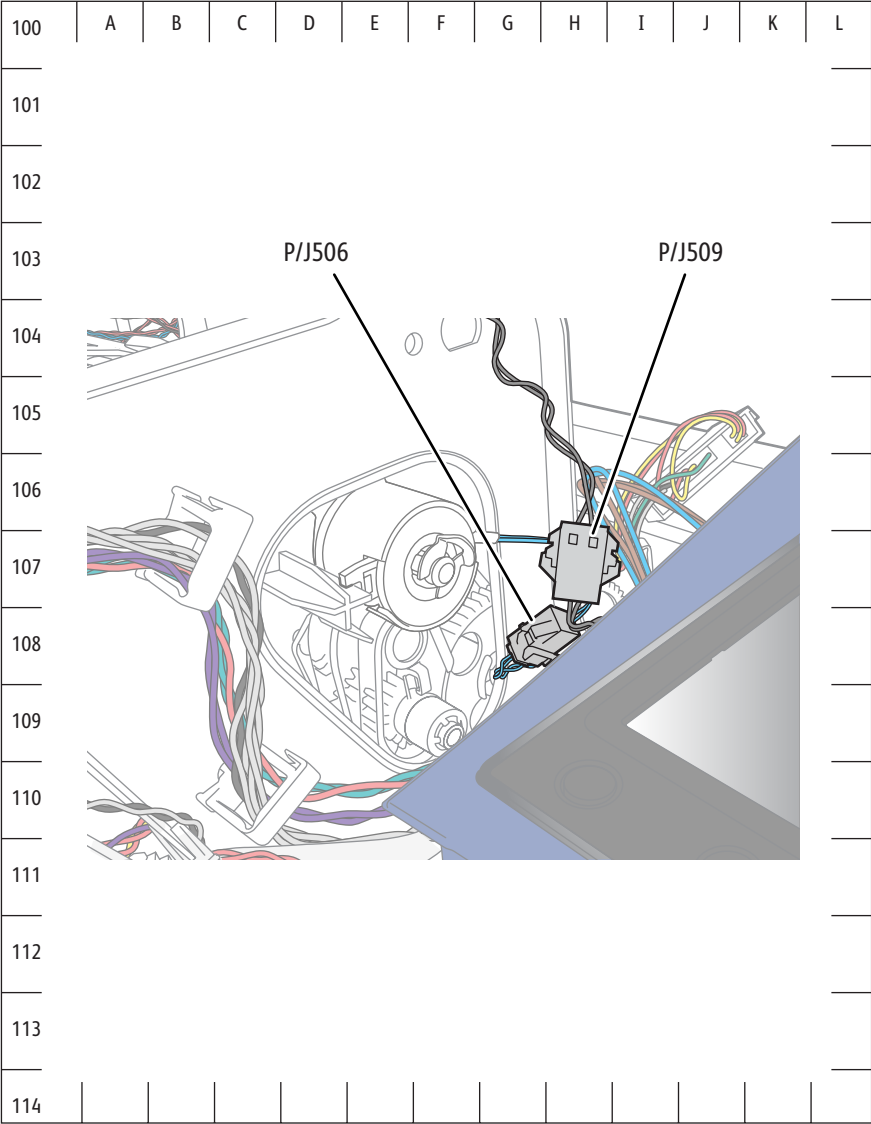
### Map 4 - Front Side (Fan, Motor)



s8900-269

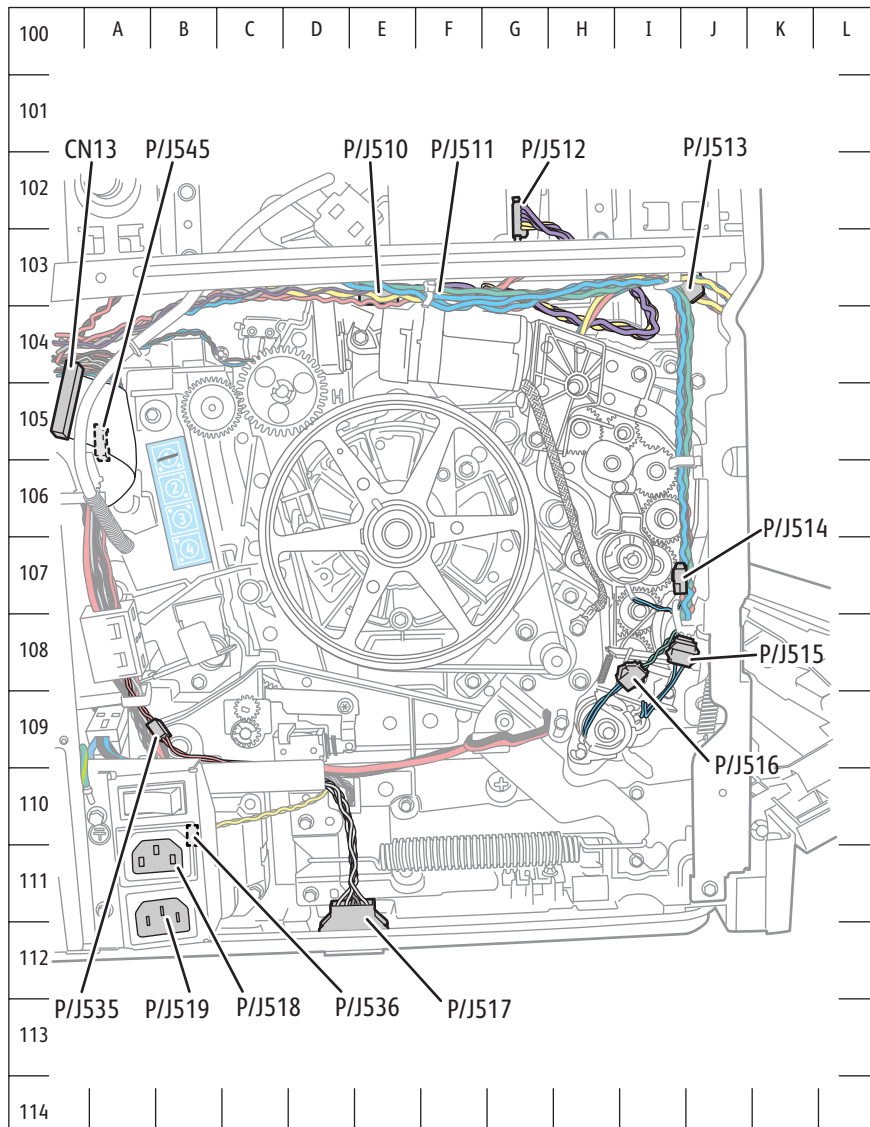


Map 5 - Front Side



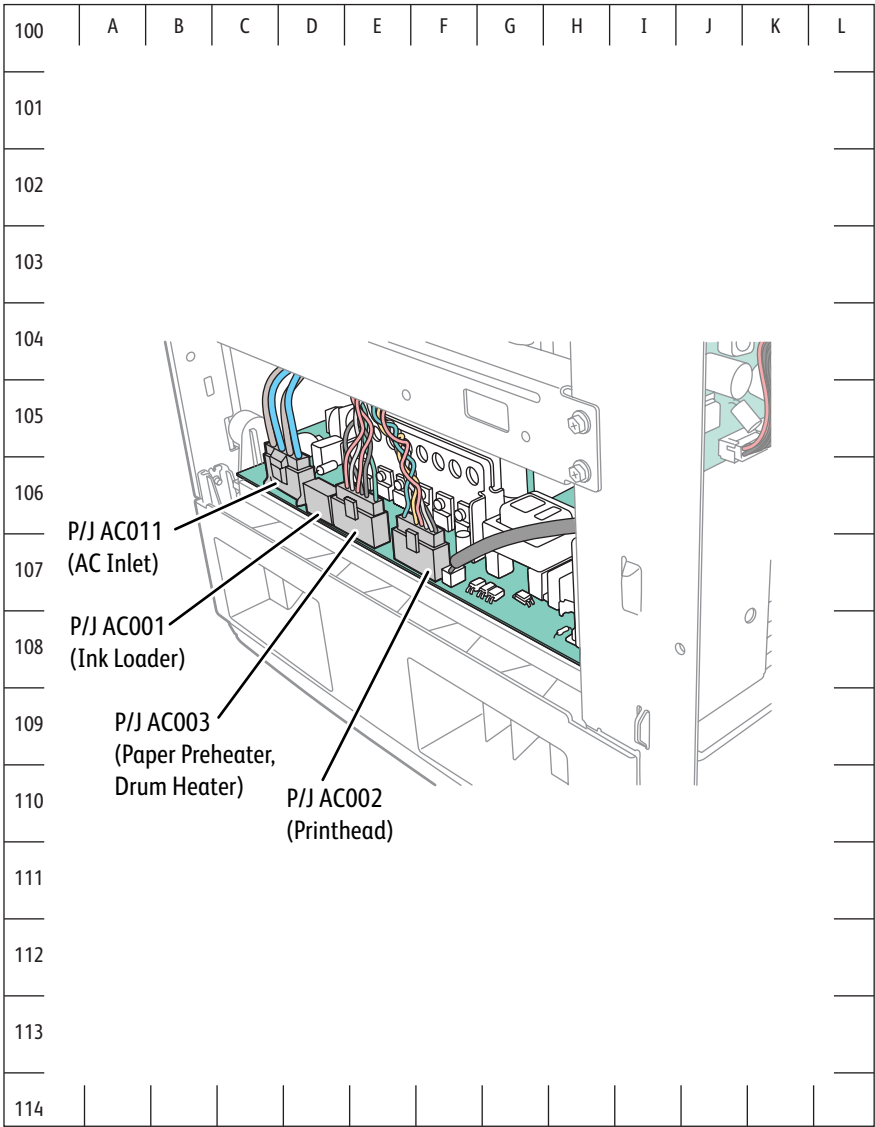
s8900-344

## Map 6 - Rear Side

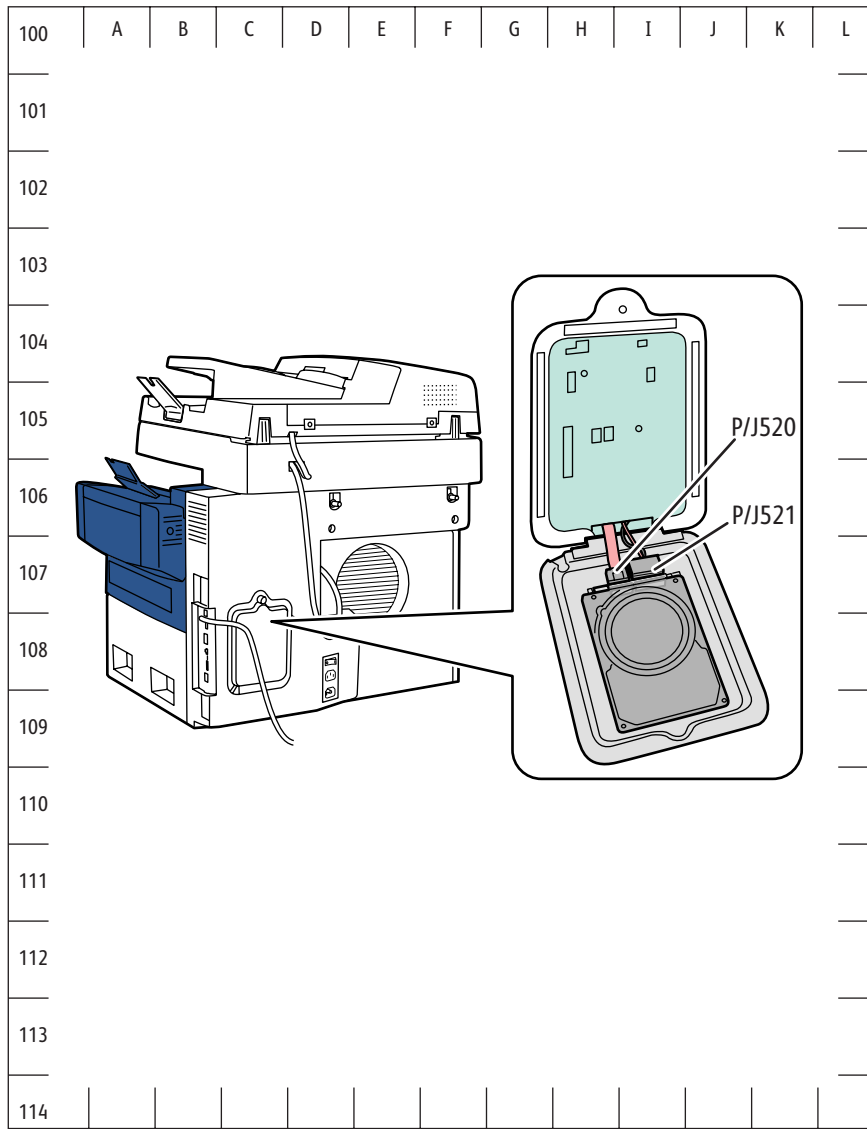


s8900-270

### Map 7 - Right Side, Power Supply Unit

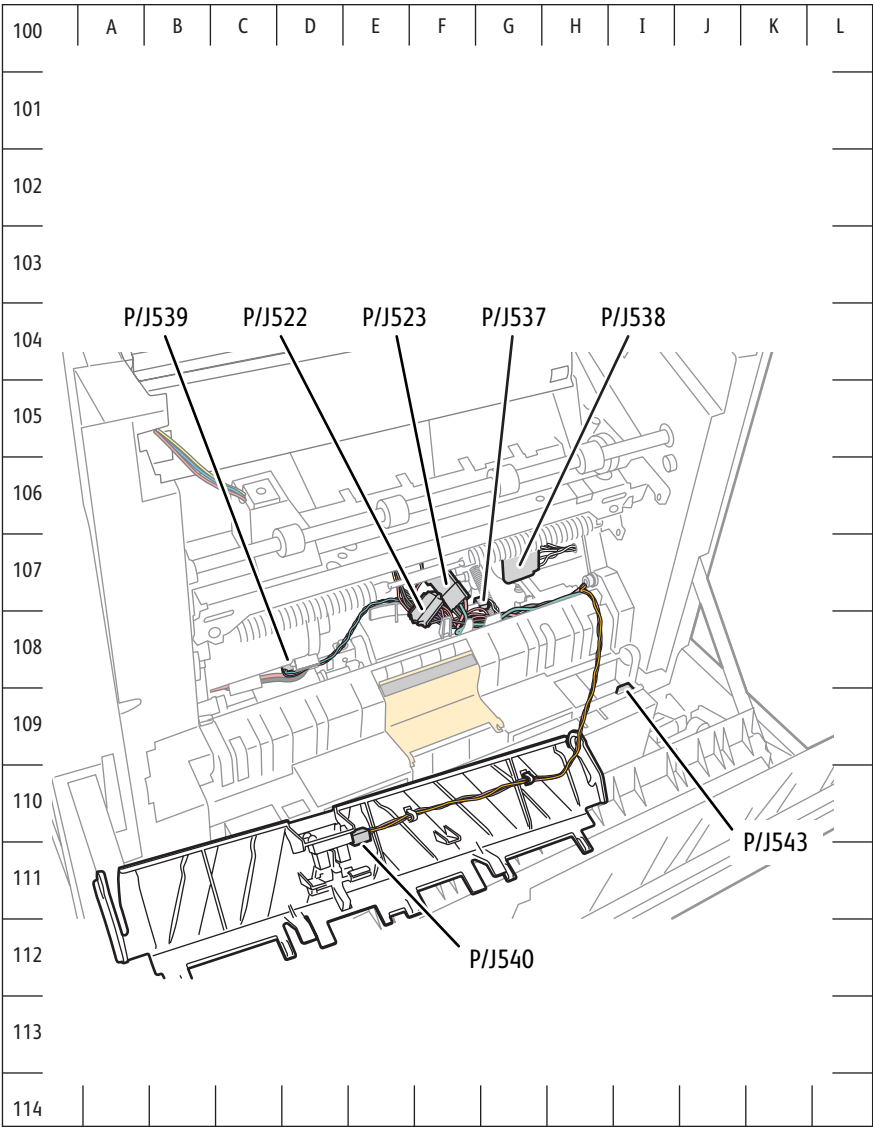


## Map 8 - Hard Drive



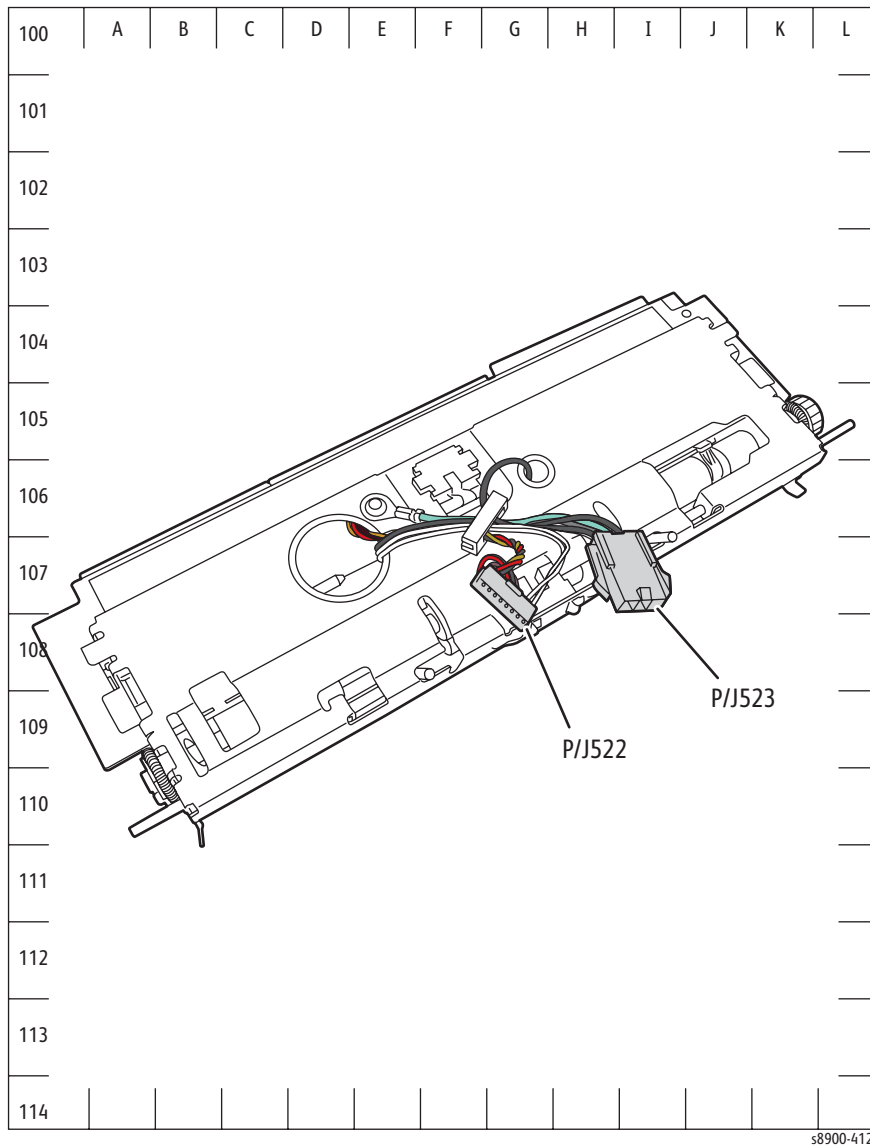
s8900-272

Map 9 - Left Side

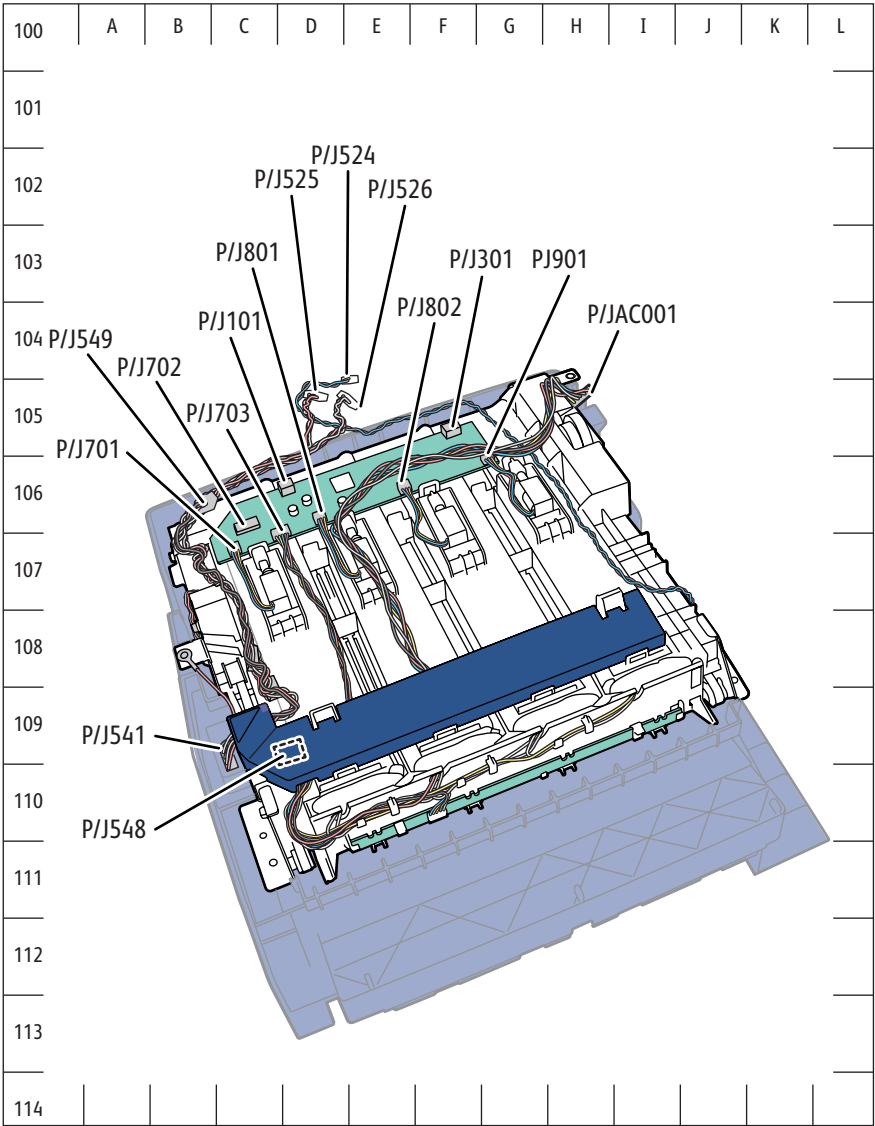


s8900-484

### Map 10 - Left Side (bottom), Preheater

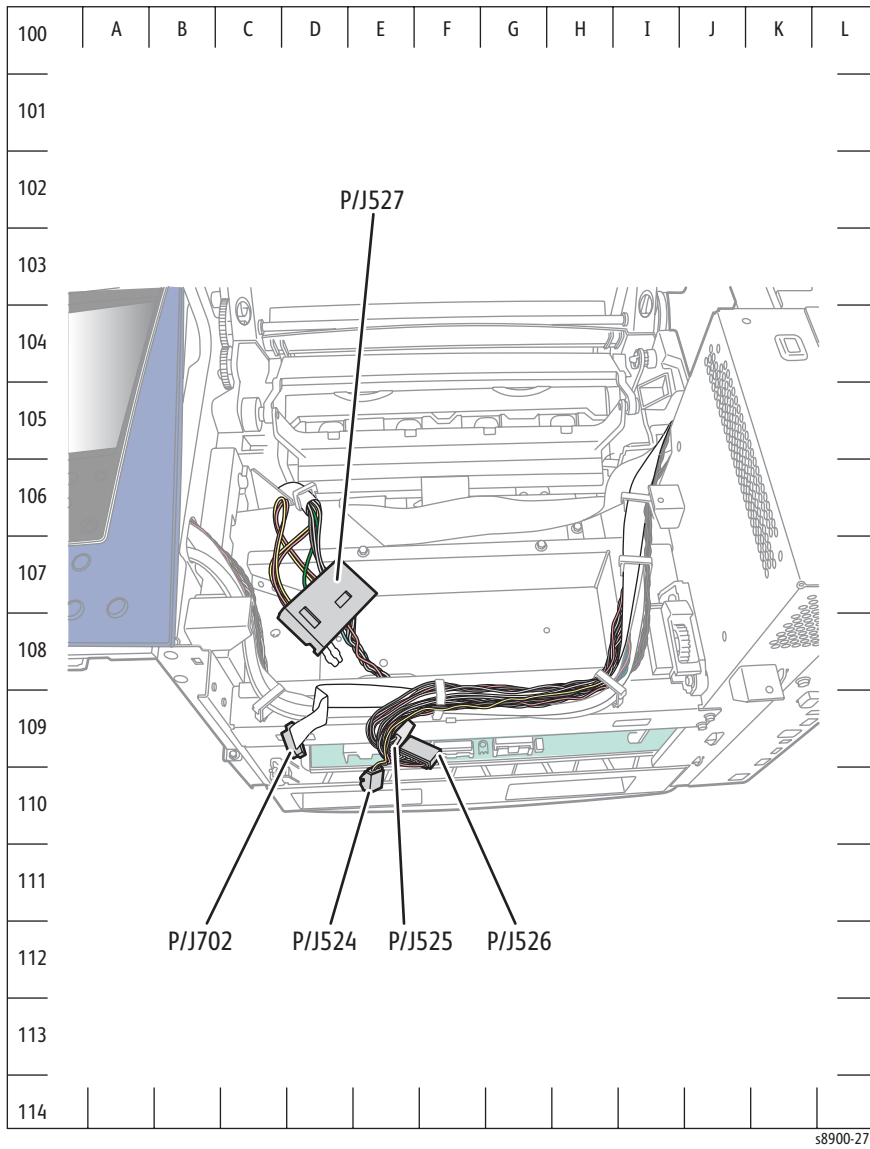


Map 11 - Ink Loader (bottom side)



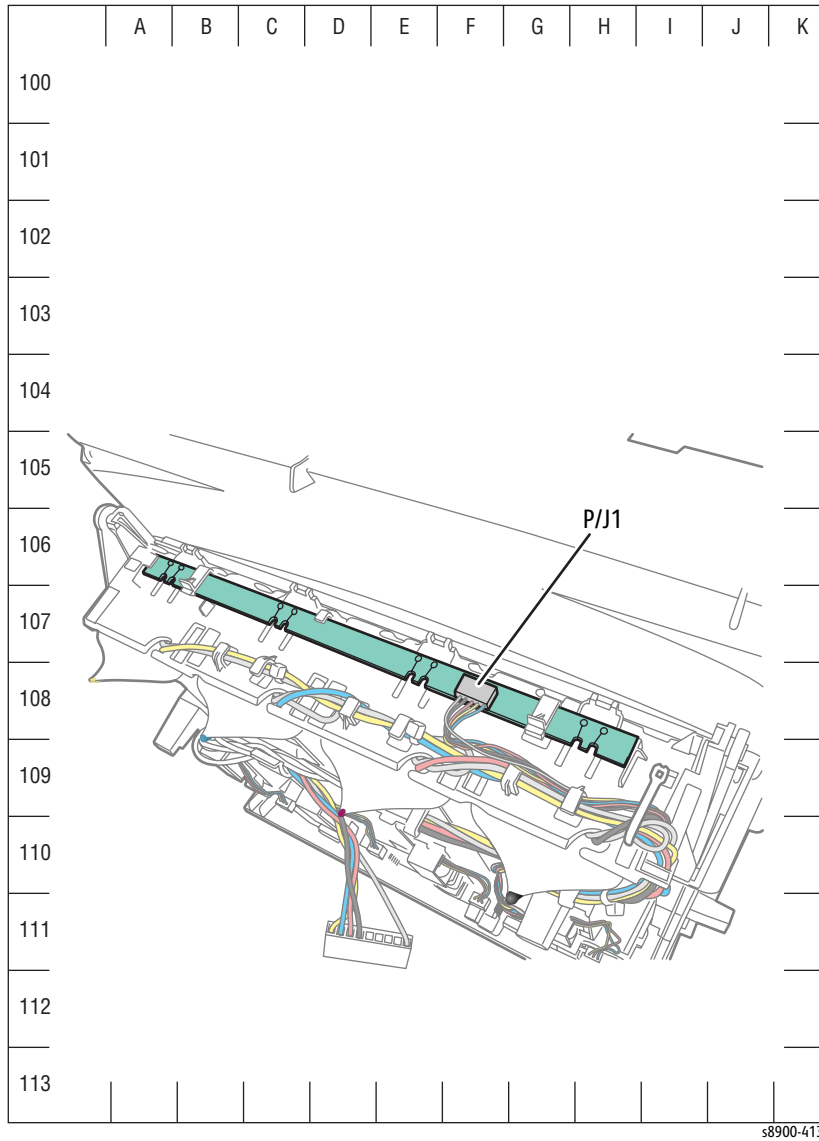
s8900-274

## Map 12 - Ink Loader (top side)

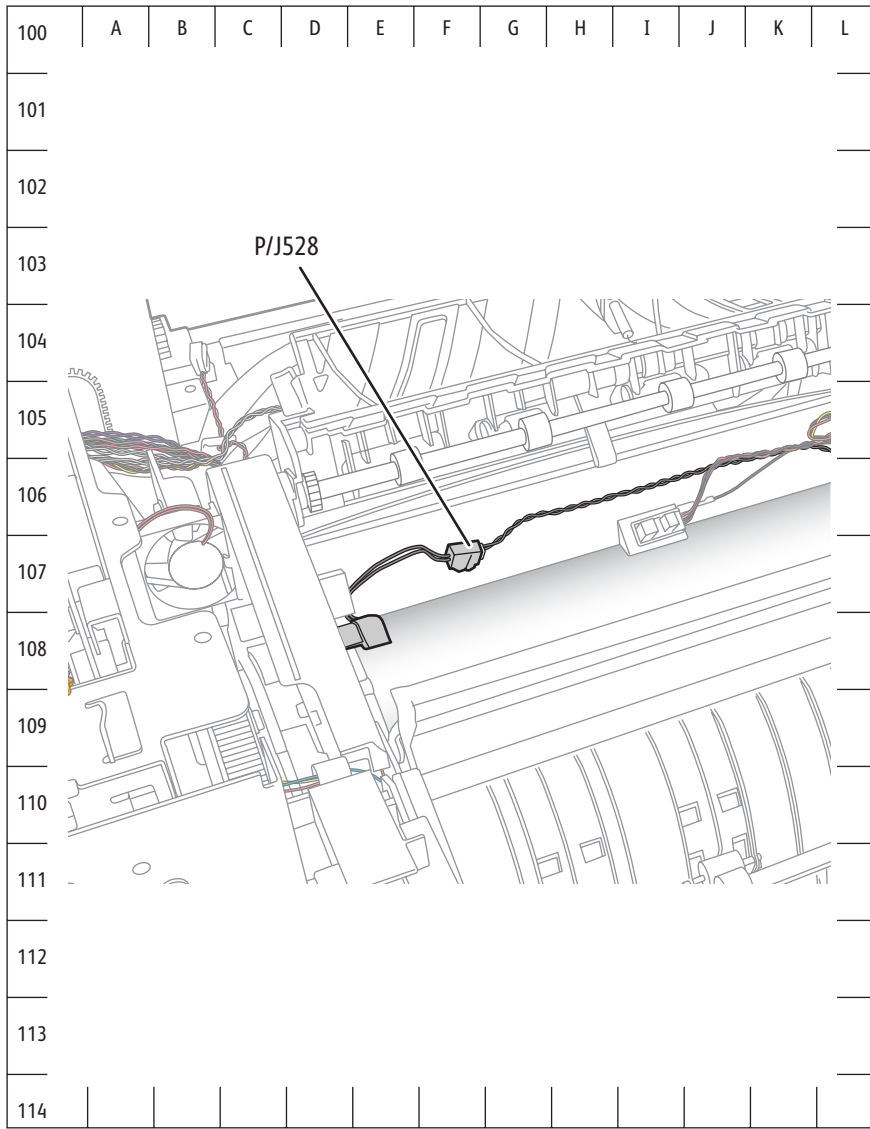




### Map 13 - Ink Loader Thermistor

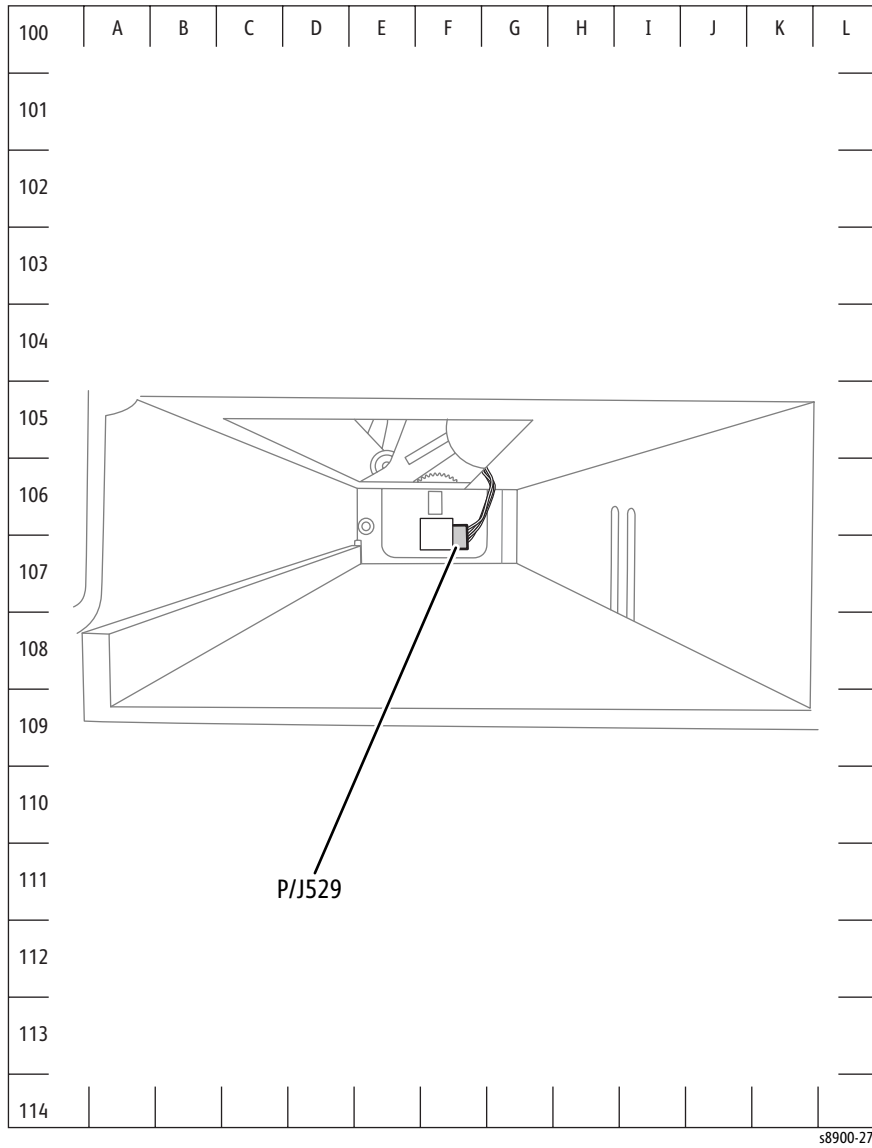


## Map 14 - Drum Temperature Sensor

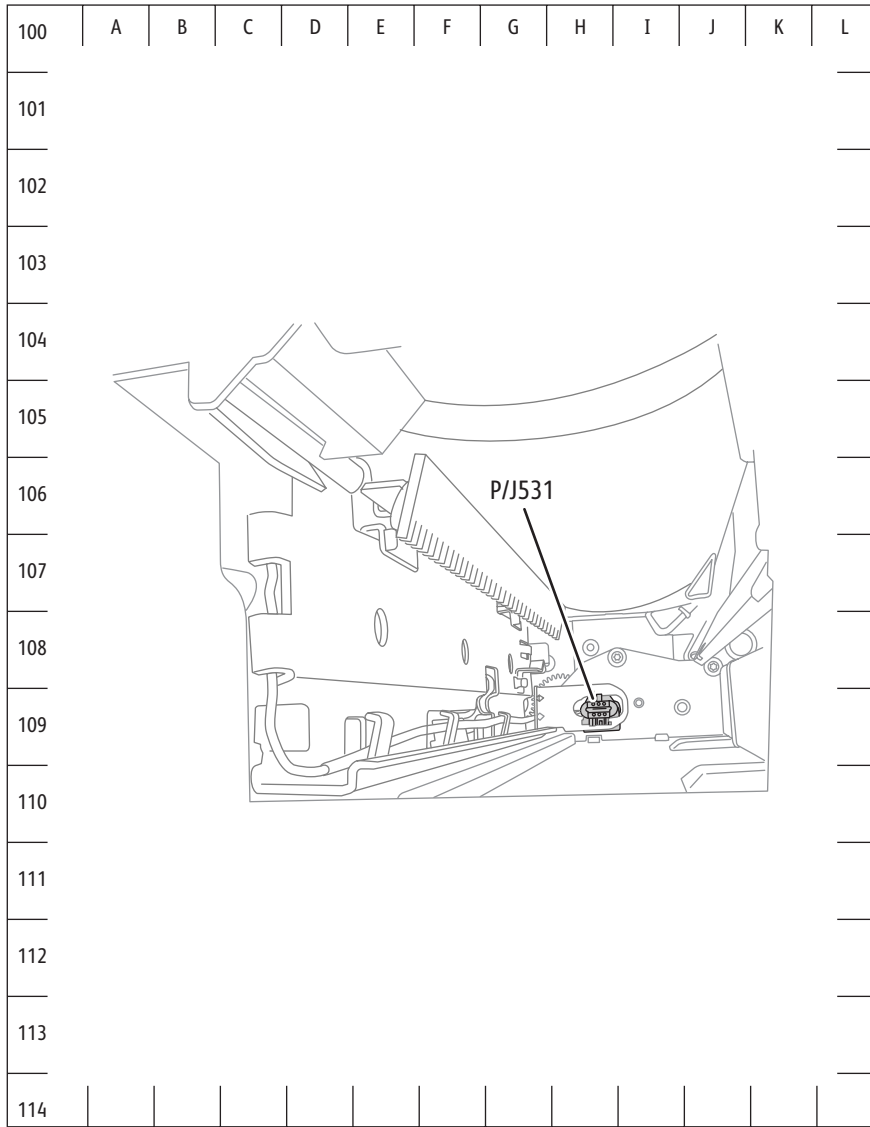


s8900-414

# Map 15 - Waste Tray

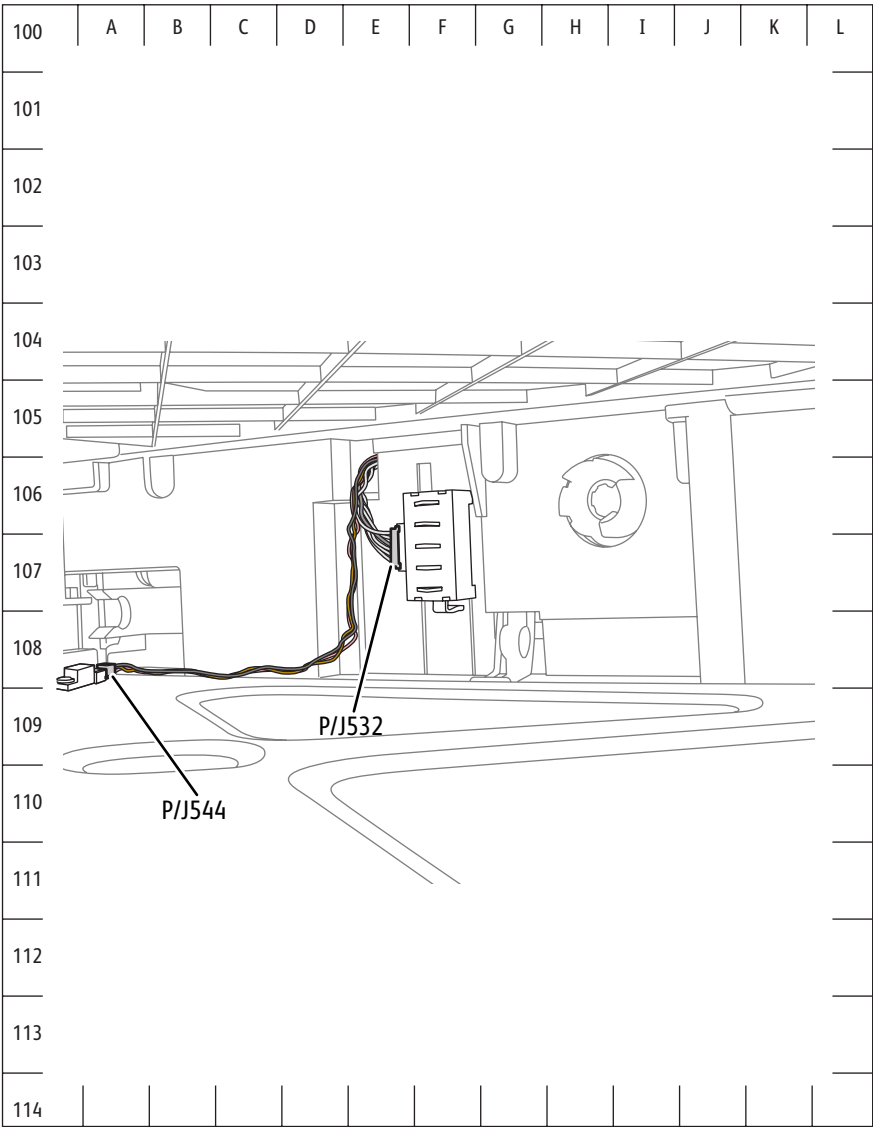


## Map 16 - Cleaning Unit



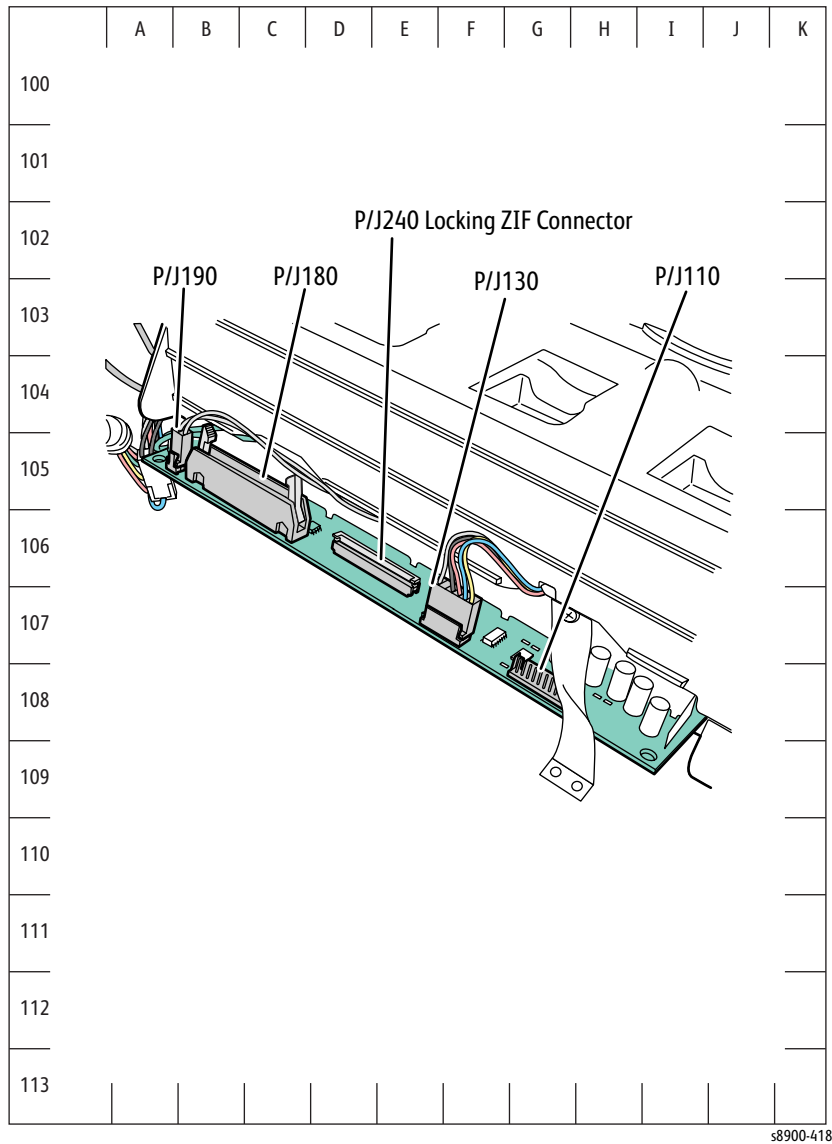
s8900-279

Map 17 - Paper Size Switch/ Sensor

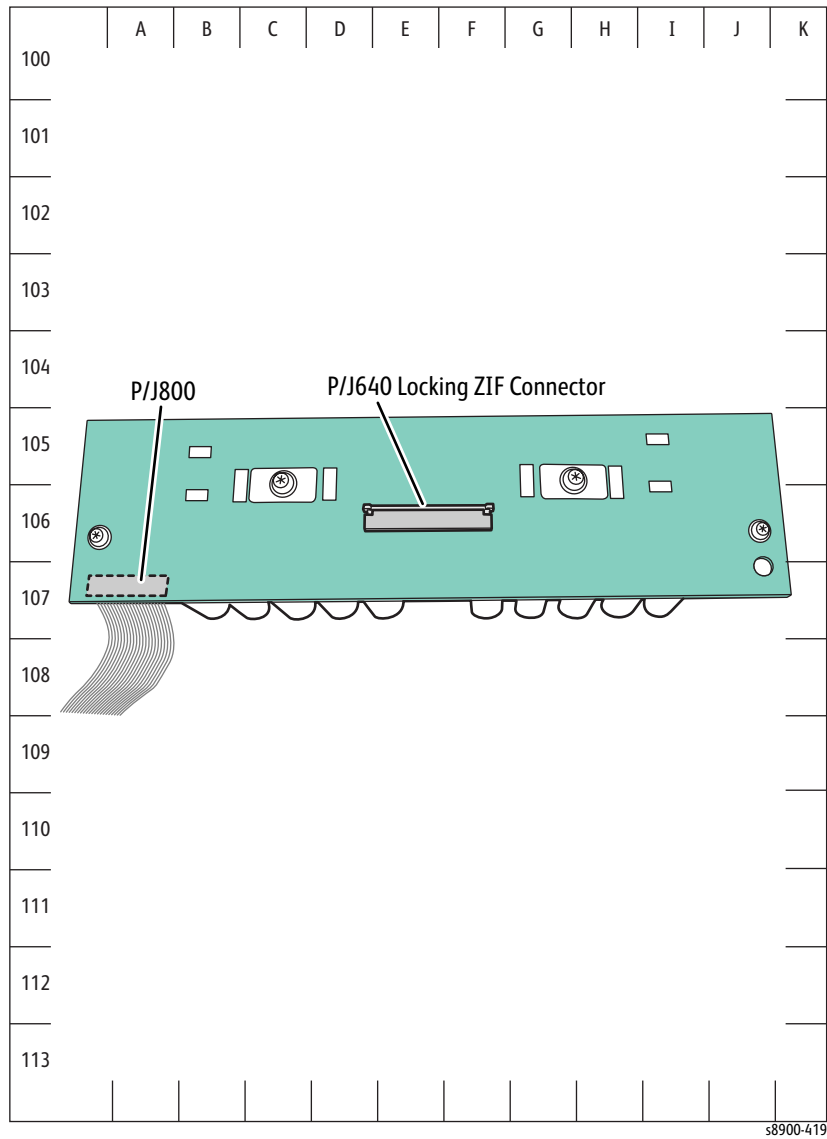


s8900-417

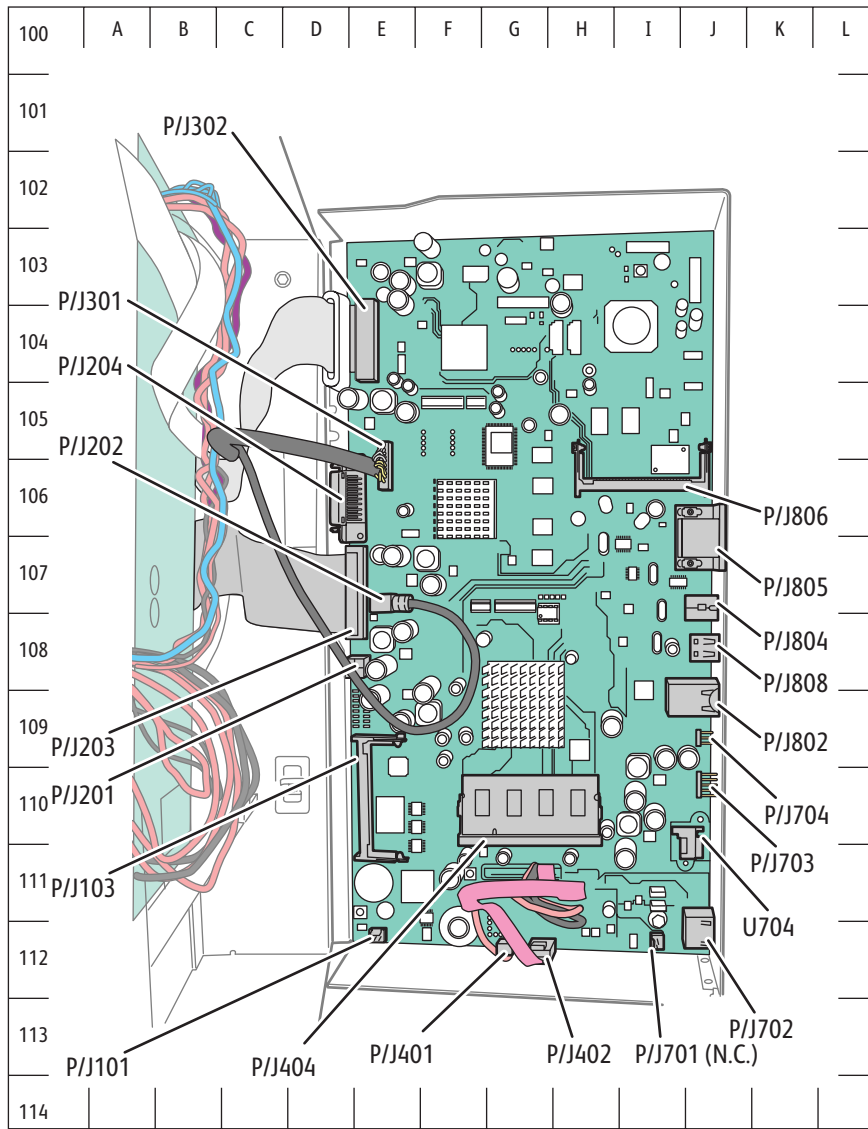
## Map 18 - Printhead



### Map 19 - Wave Amp Board



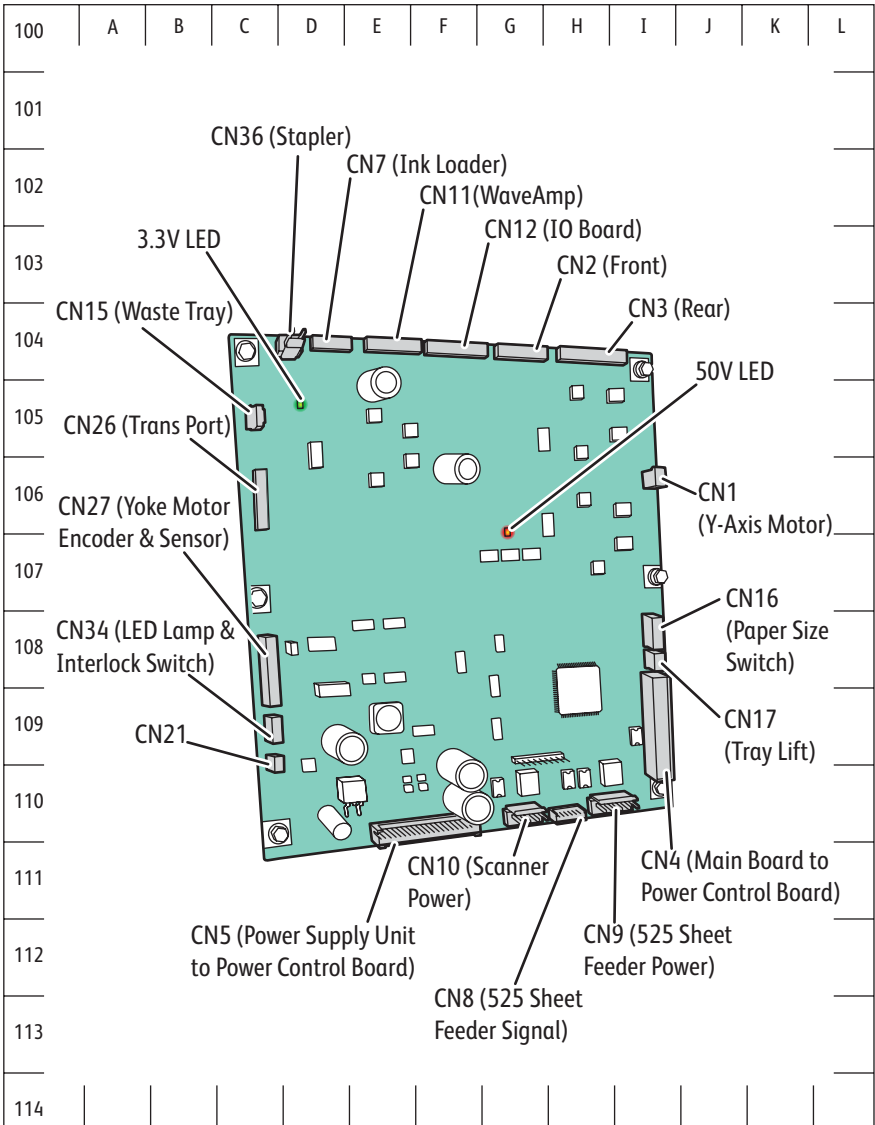
## Map 20 - Main Controller Board



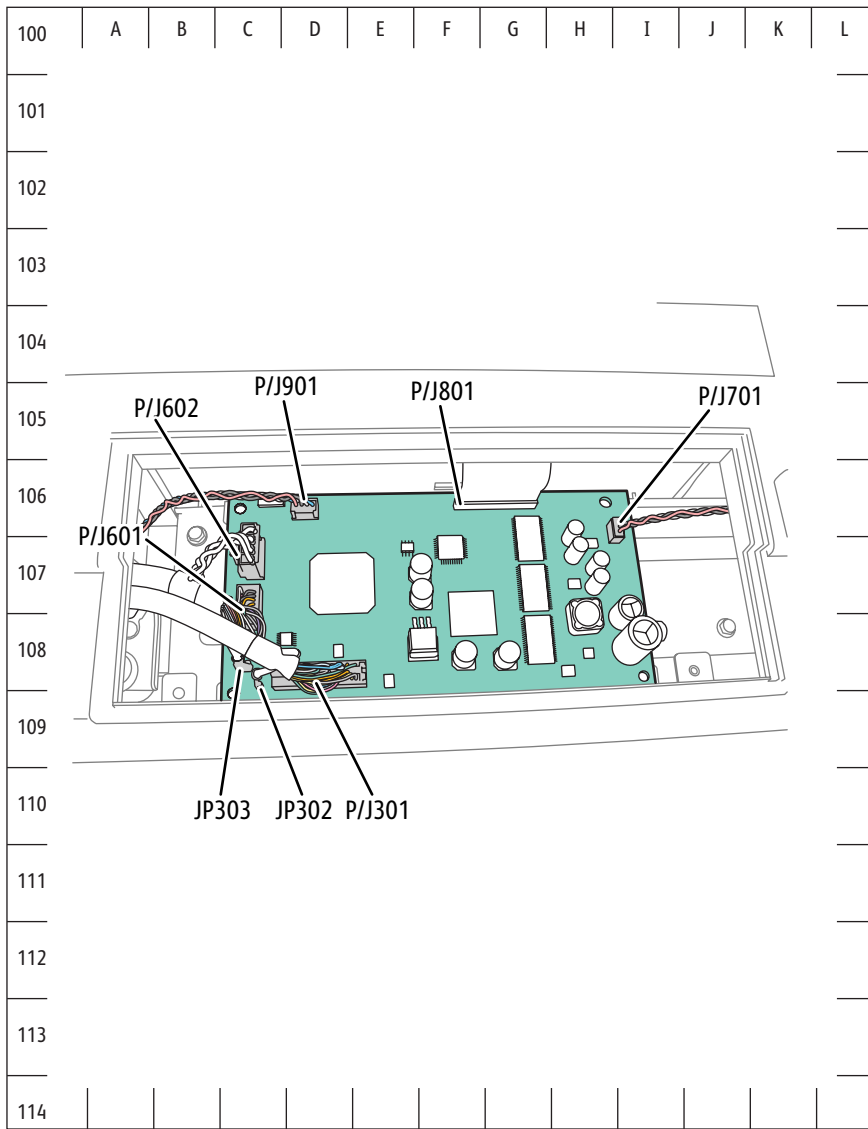
s8900-280



### Map 21 - Power Control Board

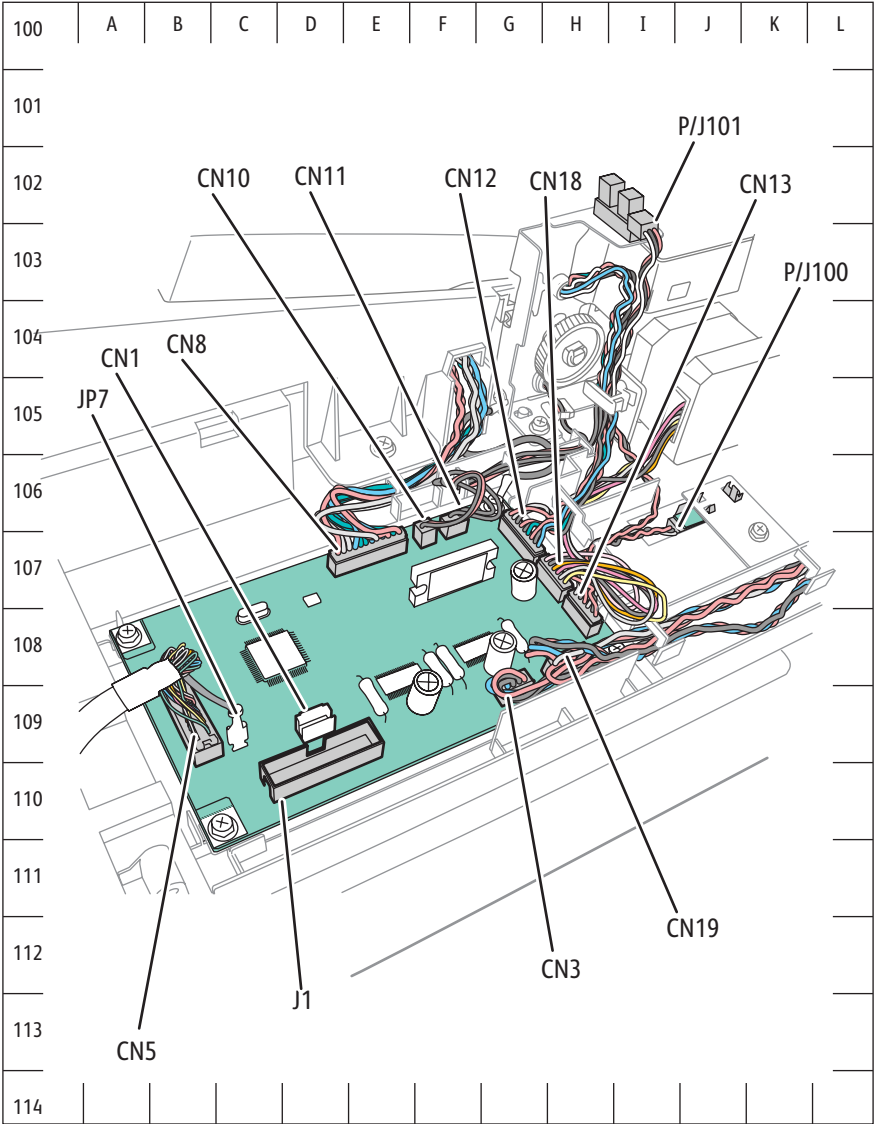


## Map 22 - Scanner (IPP PWB)



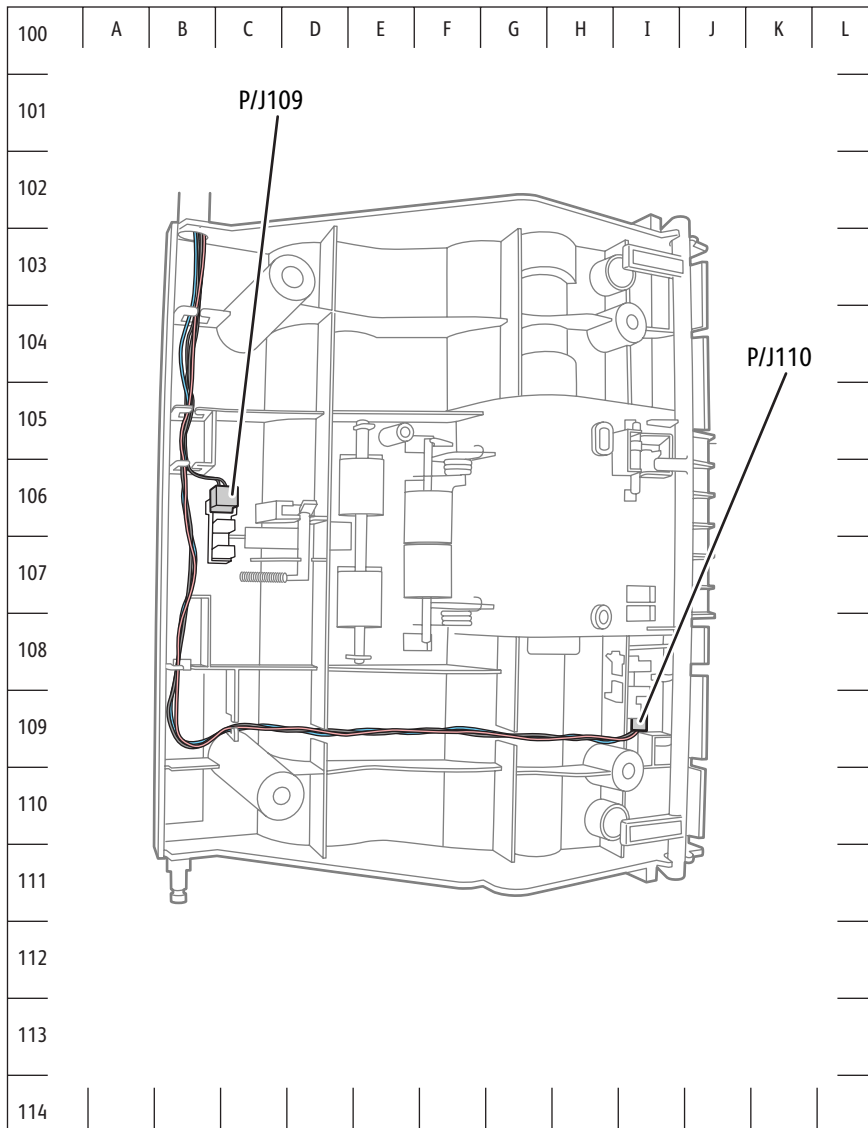
s8900-443

Map 23 - DADF (SDC PWB)



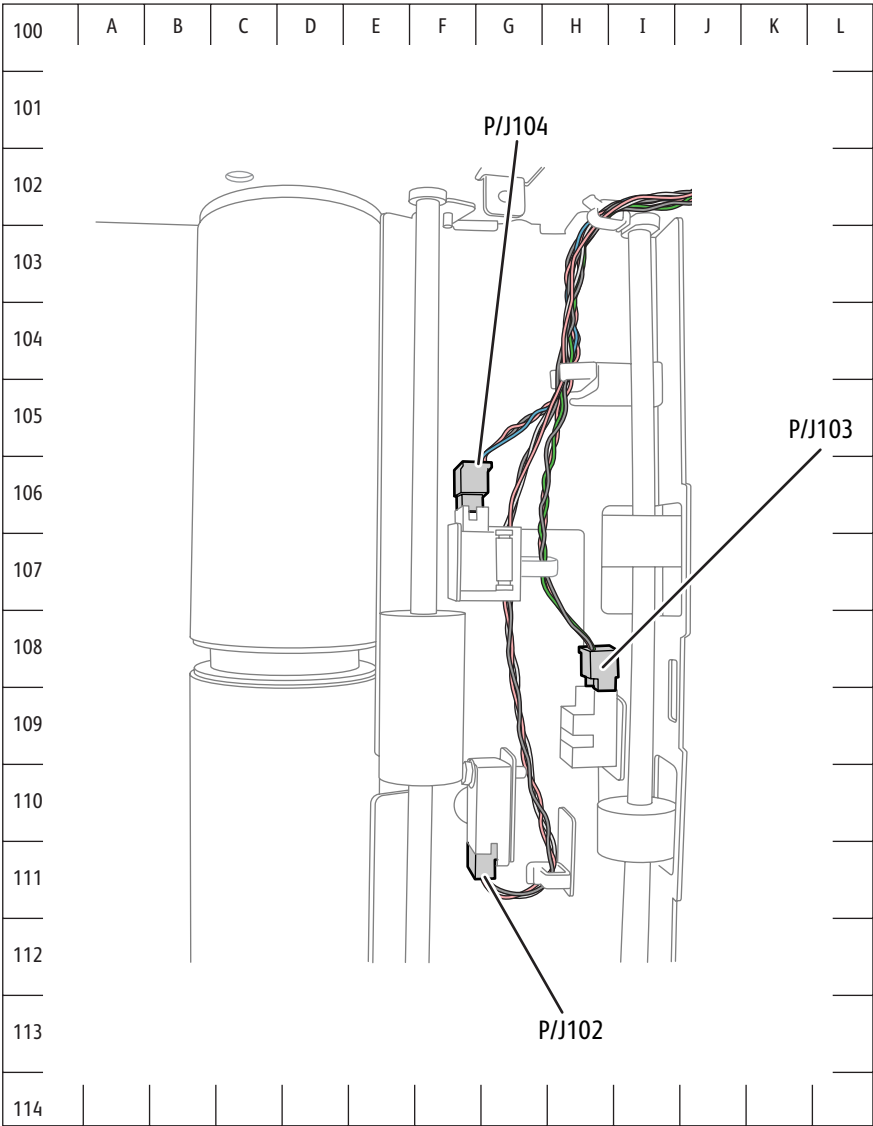
s8900-281

Map 24 - DADF (top side)



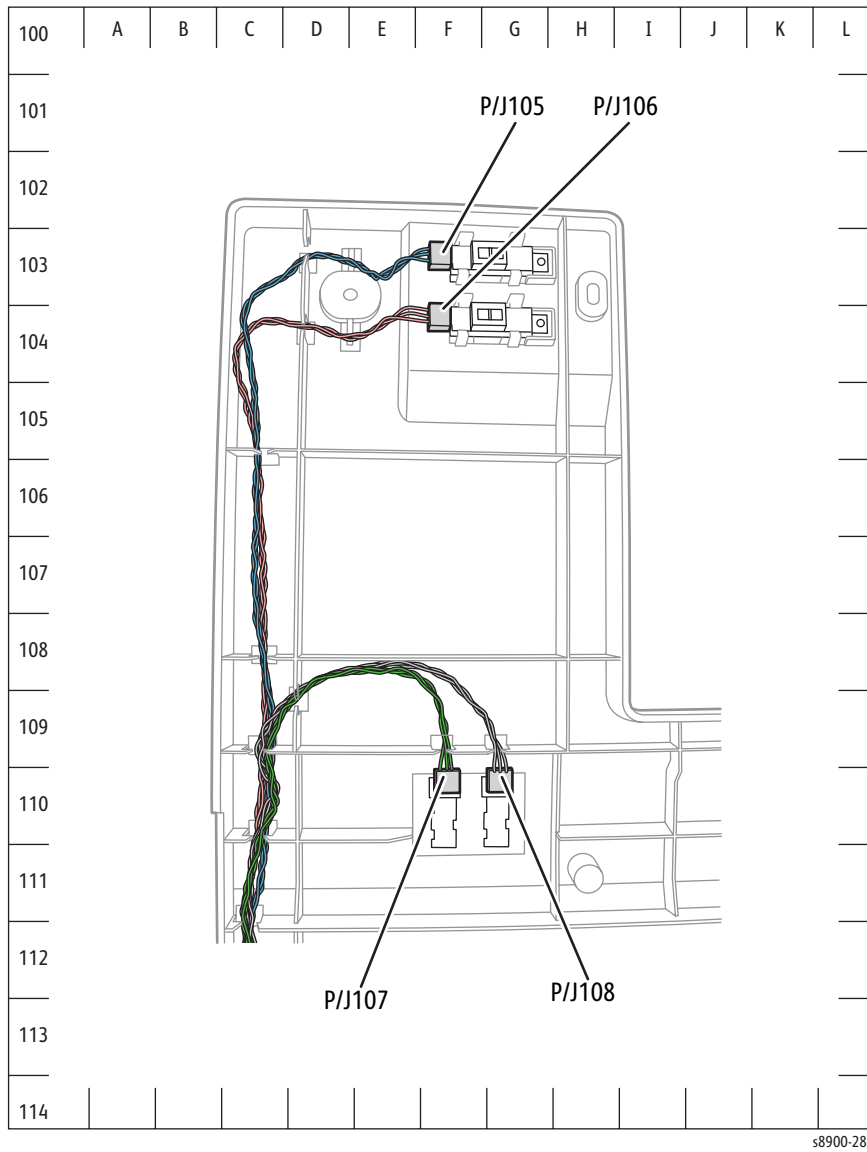
s8900-282

Map 25 - DADF (bottom side)

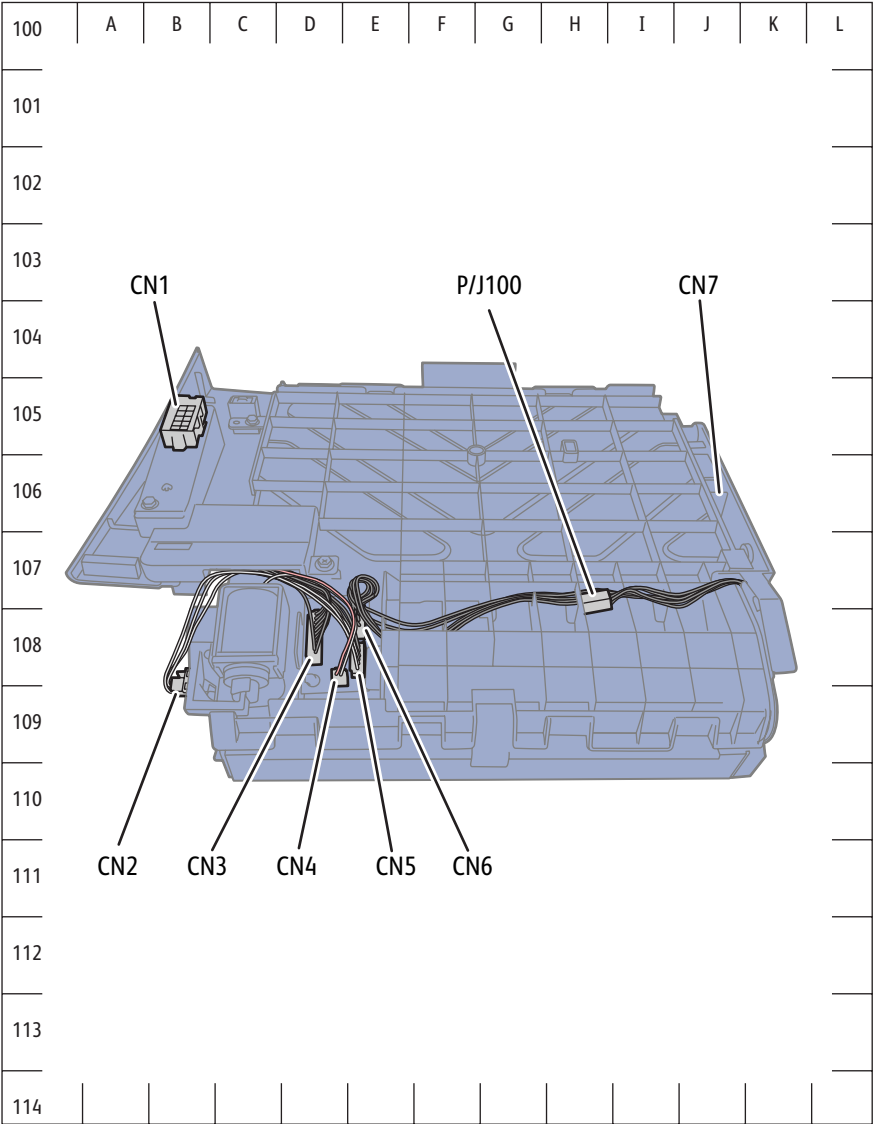


s8900-283

## Map 26 - DADF (Input Tray)

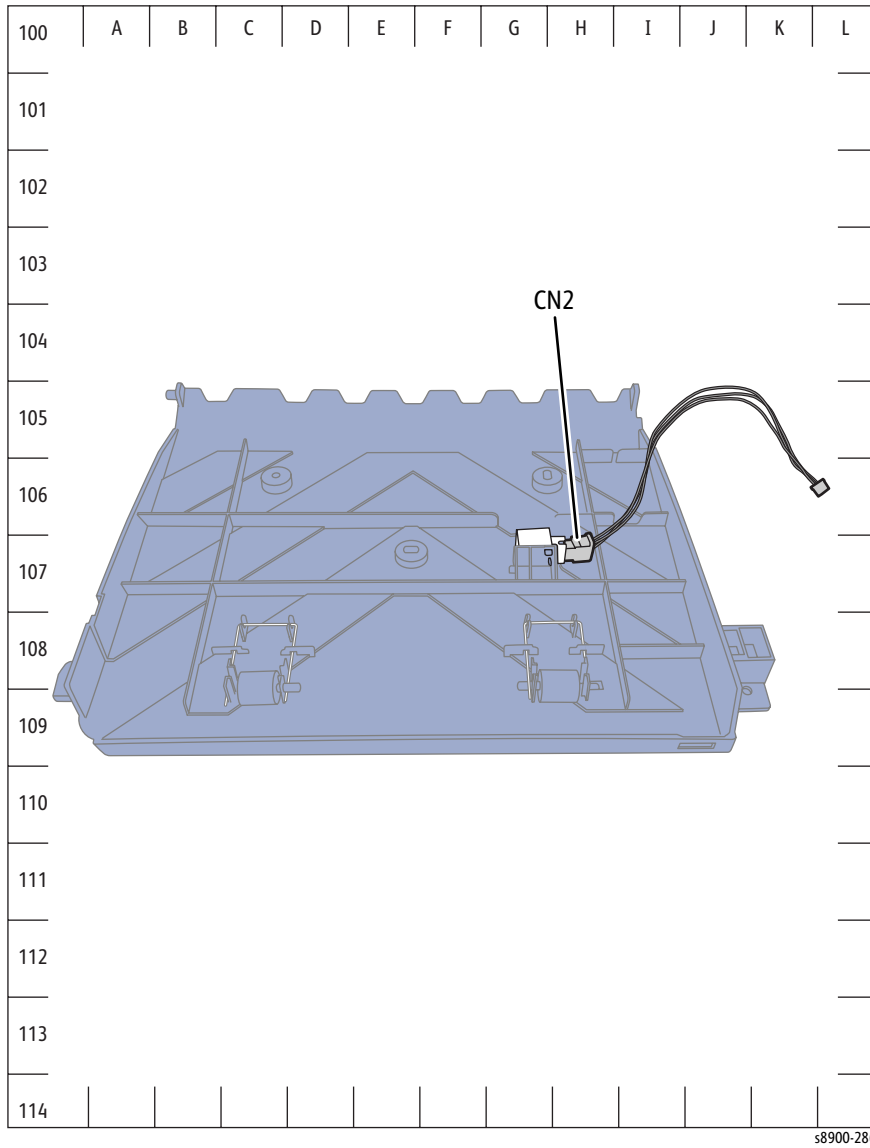


Map 27 - Horizontal Transport (bottom side)



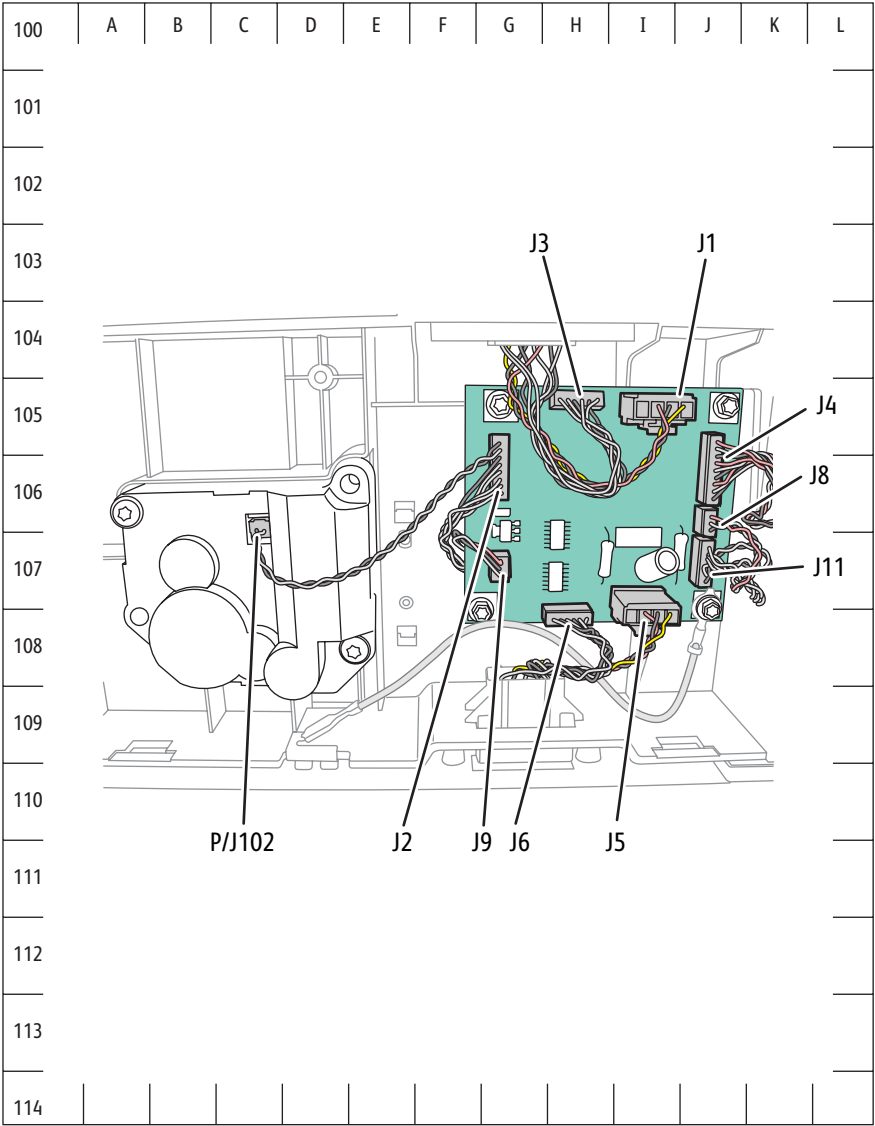
s8900-285

### Map 28 - Horizontal Transport (bottom side)



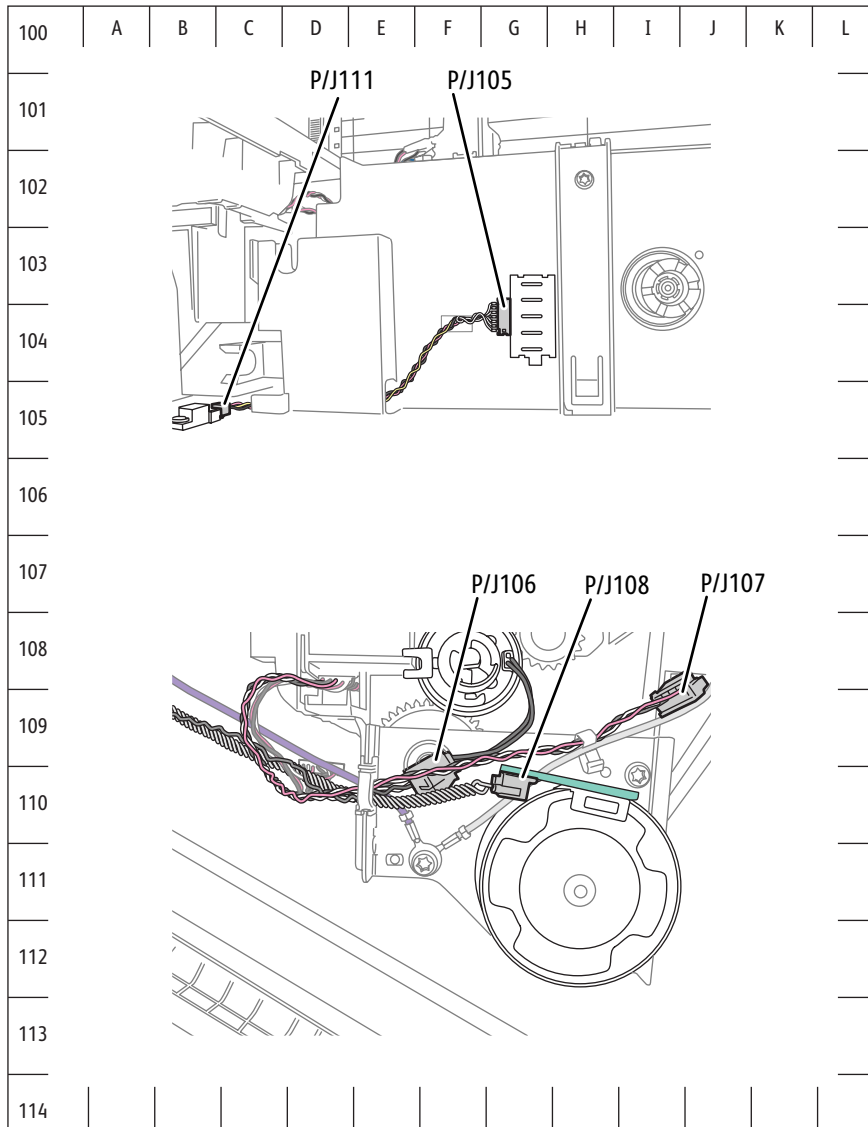


Map 29 - 525-Sheet Feeder (rear side)



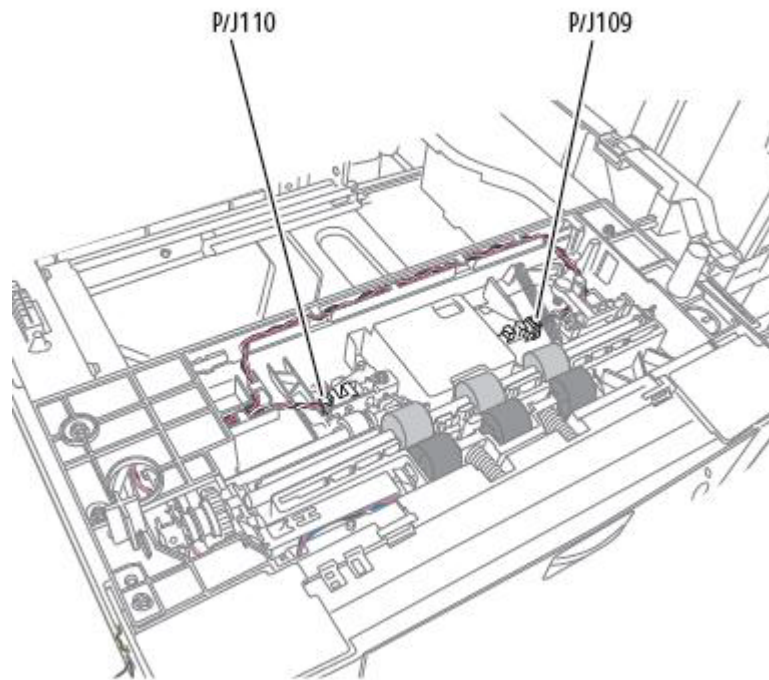
s8900-287

### Map 30 - 525-Sheet Feeder (inside)

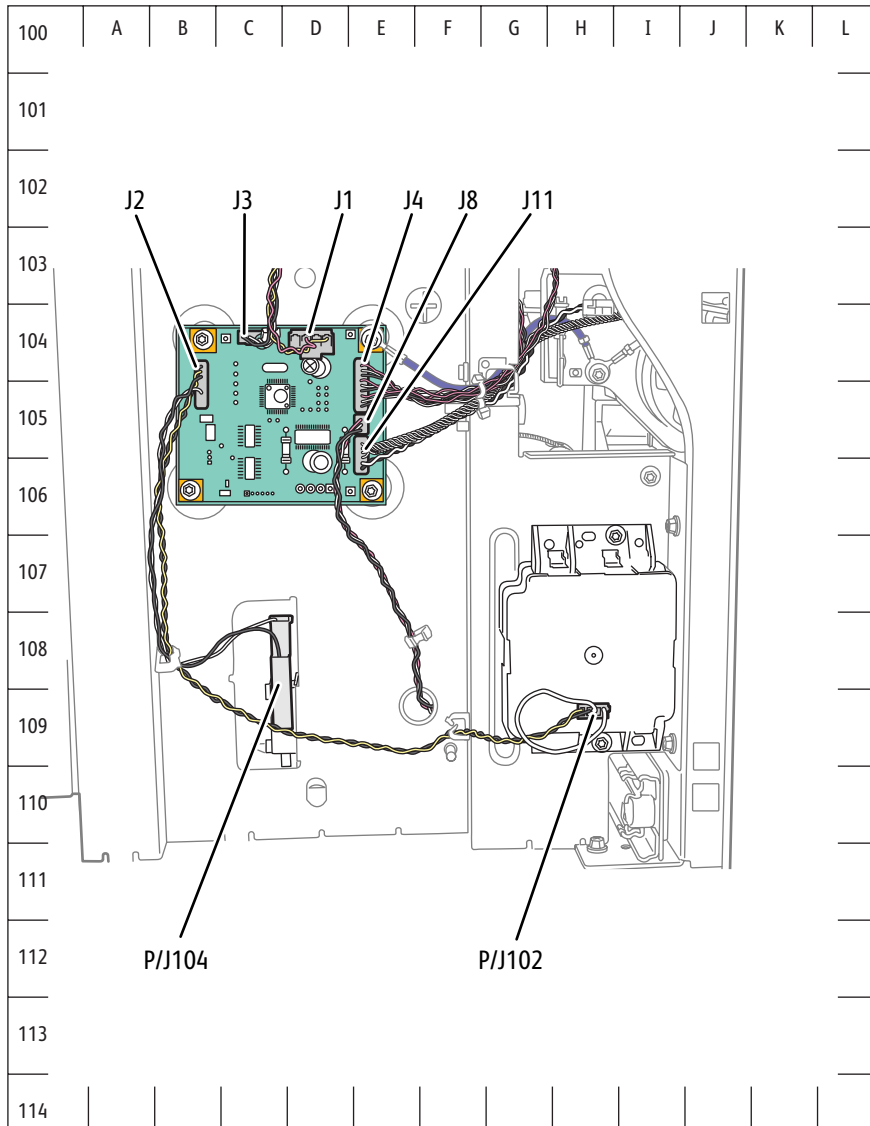


s8900-288

Map 31 - 525-Sheet Feeder (bottom side)

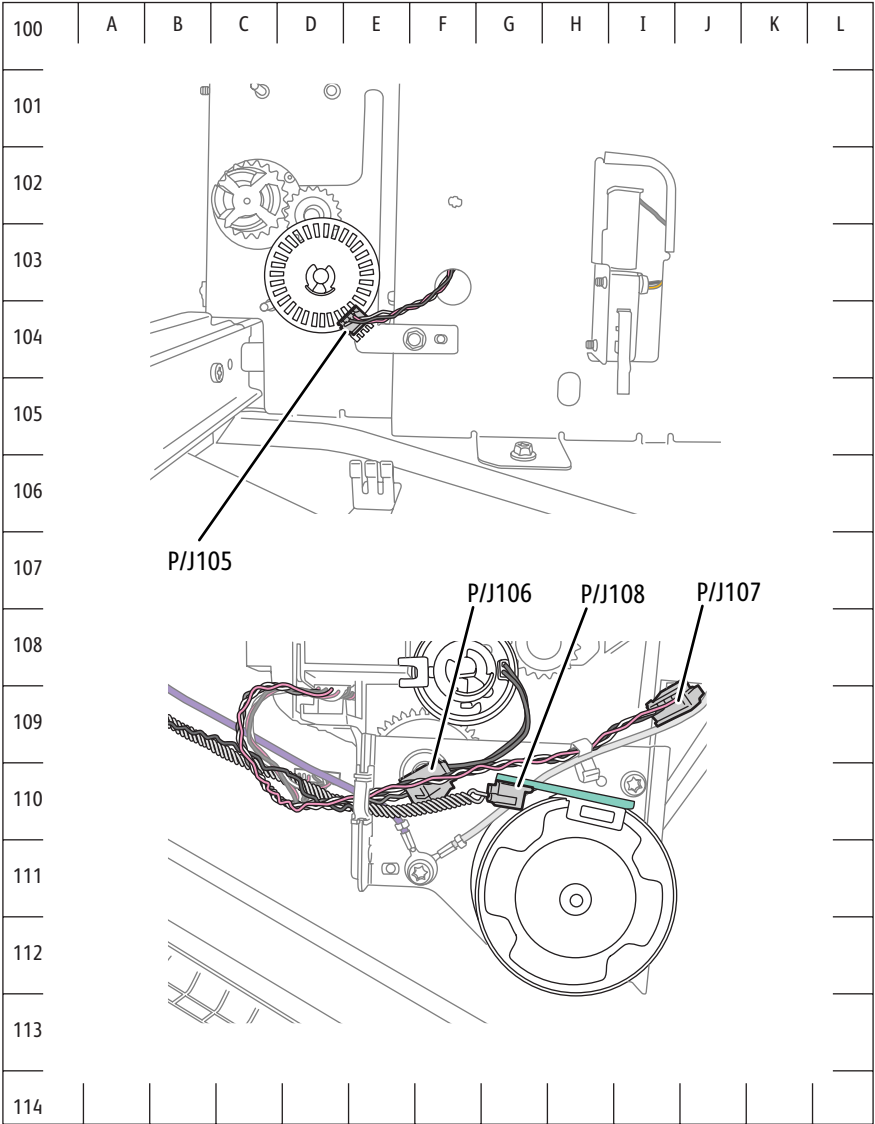


### Map 32 - 1800-Sheet Feeder (rear side)



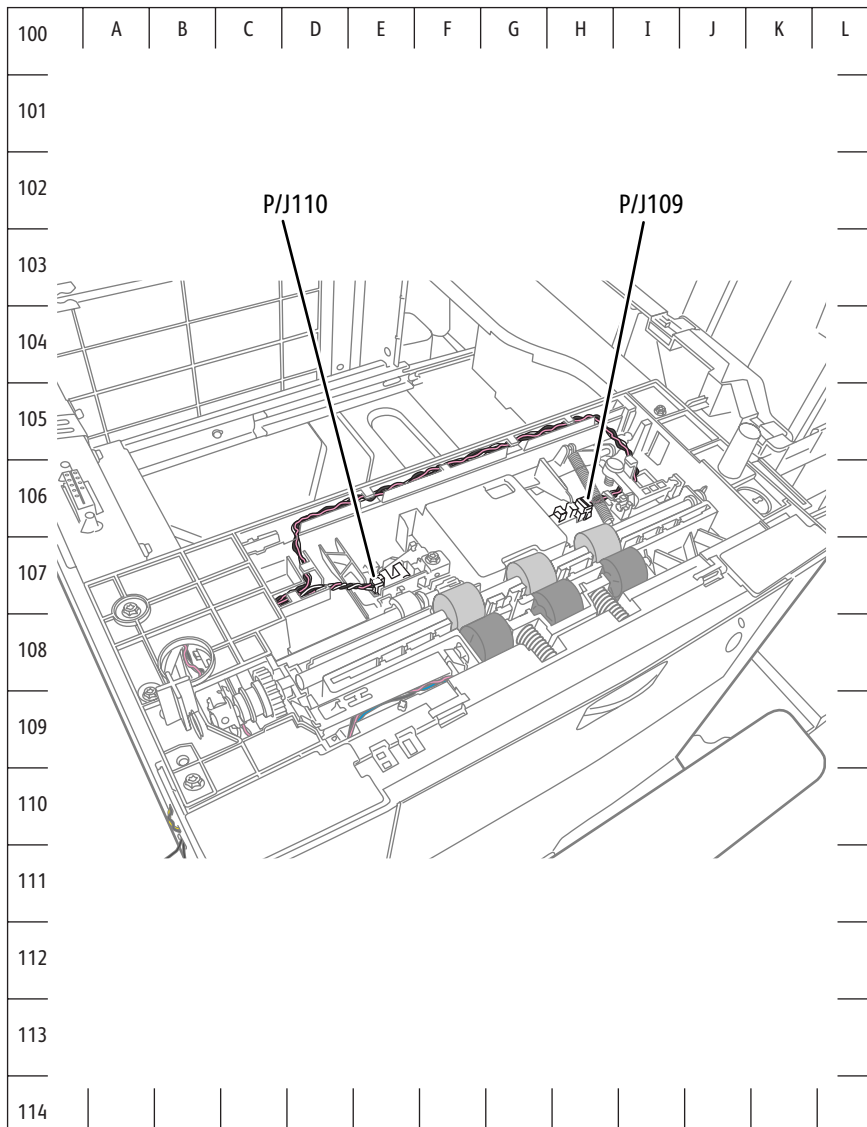
s8900-290

Map 33 - 1800-Sheet Feeder (inside)



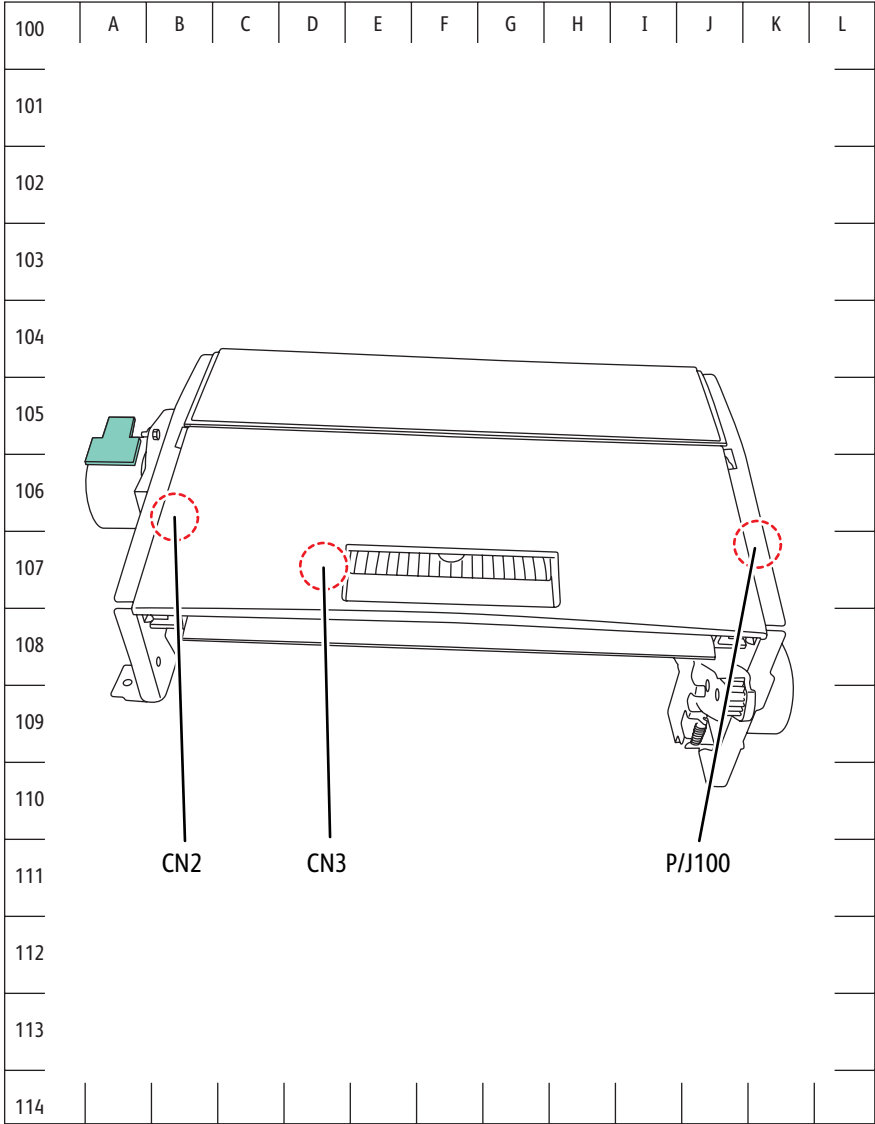
s8900-291

Map 34 - 1800-Sheet Feeder (bottom side)



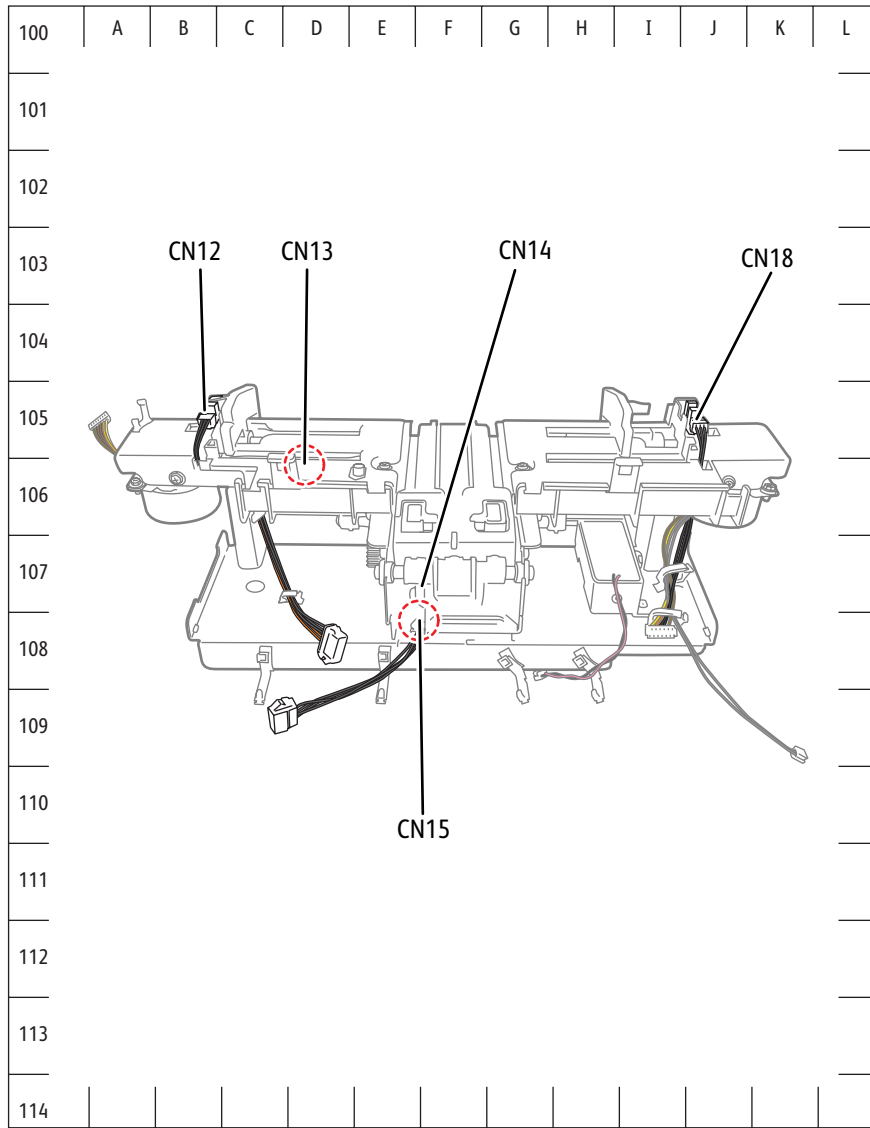
s8900-289

Map 35 - Finisher (top side)



s8900-292

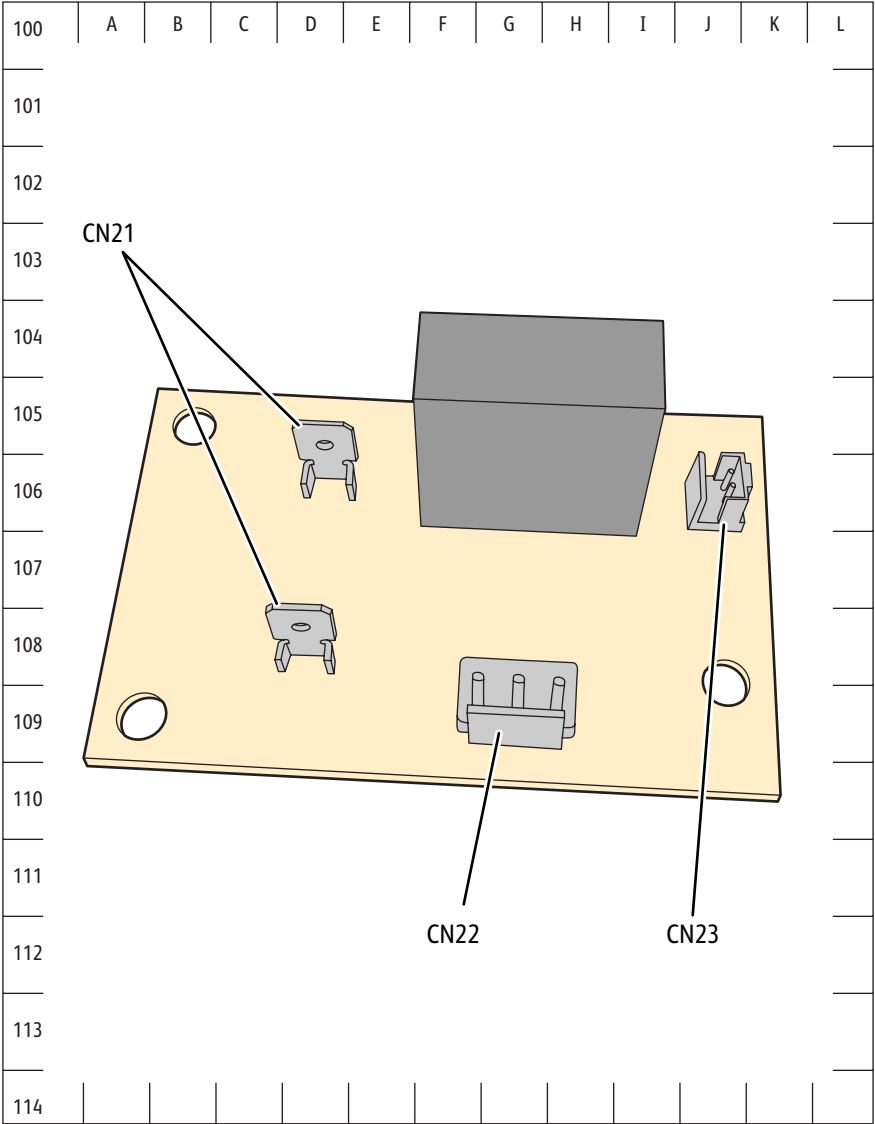
## Map 36 - Finisher (Tamper and Ejector Module)



s8900-293

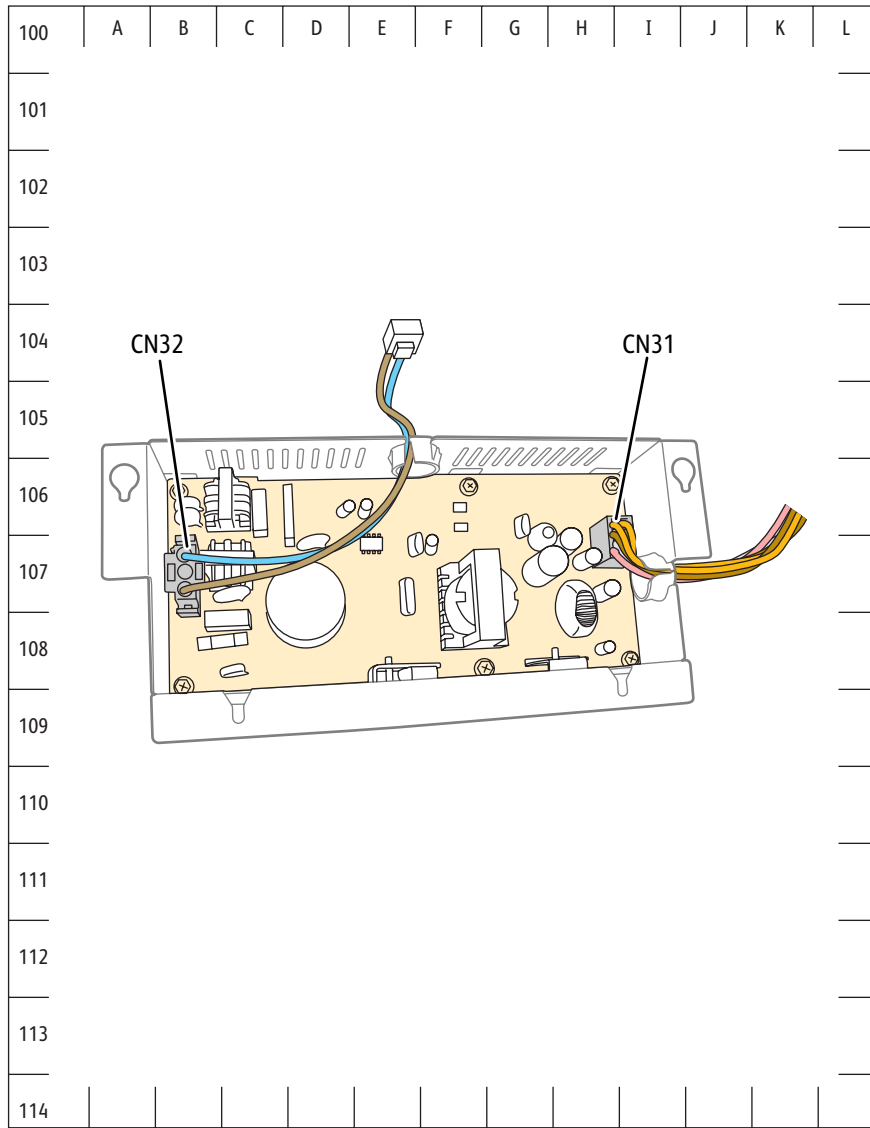


### Map 37 - Finisher (Relay Board)



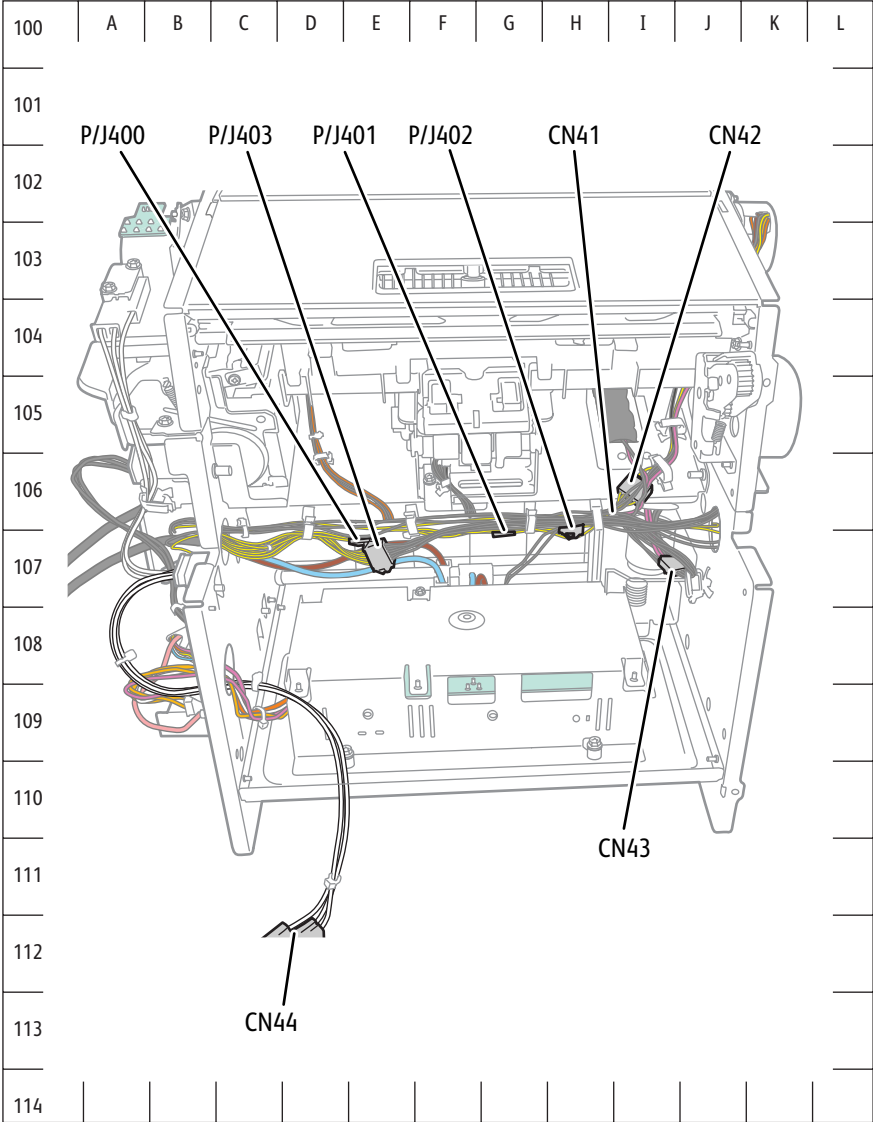
s8900-294

## Map 38 - Finisher (Power Supply)



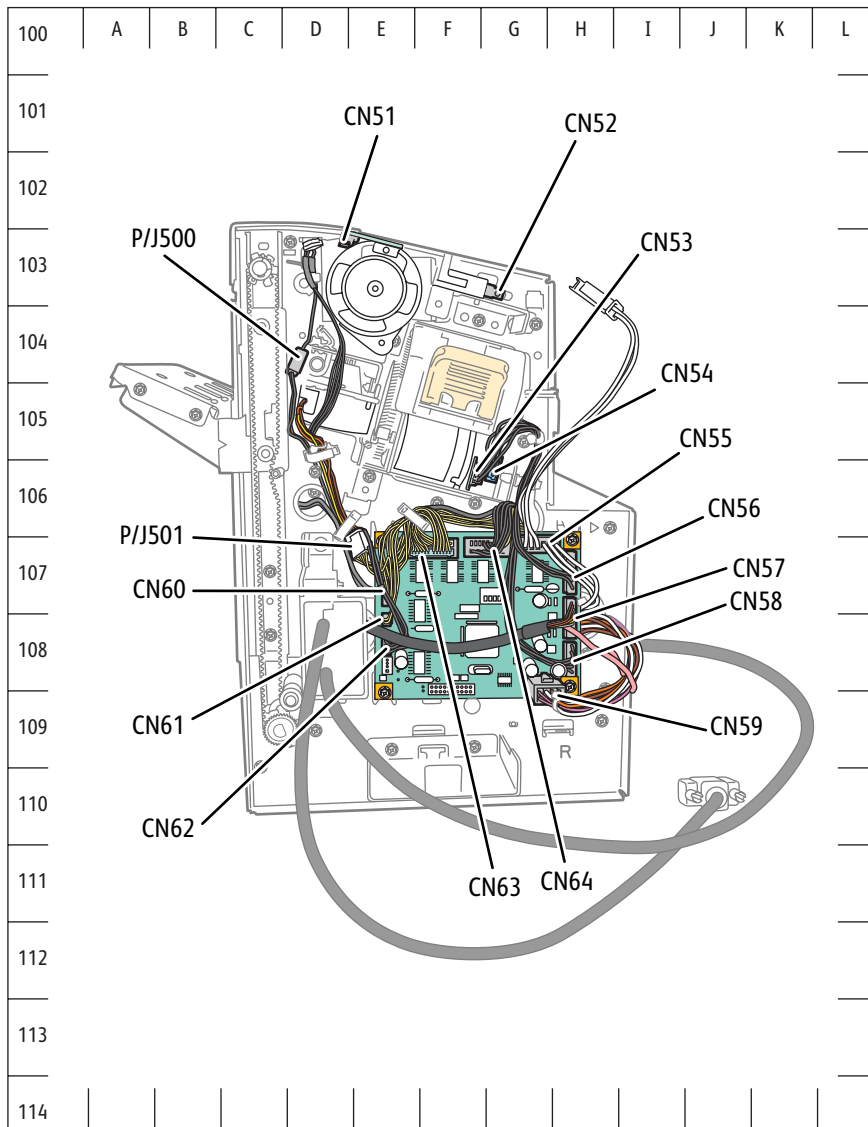
s8900-295

Map 39 - Finisher (left side)



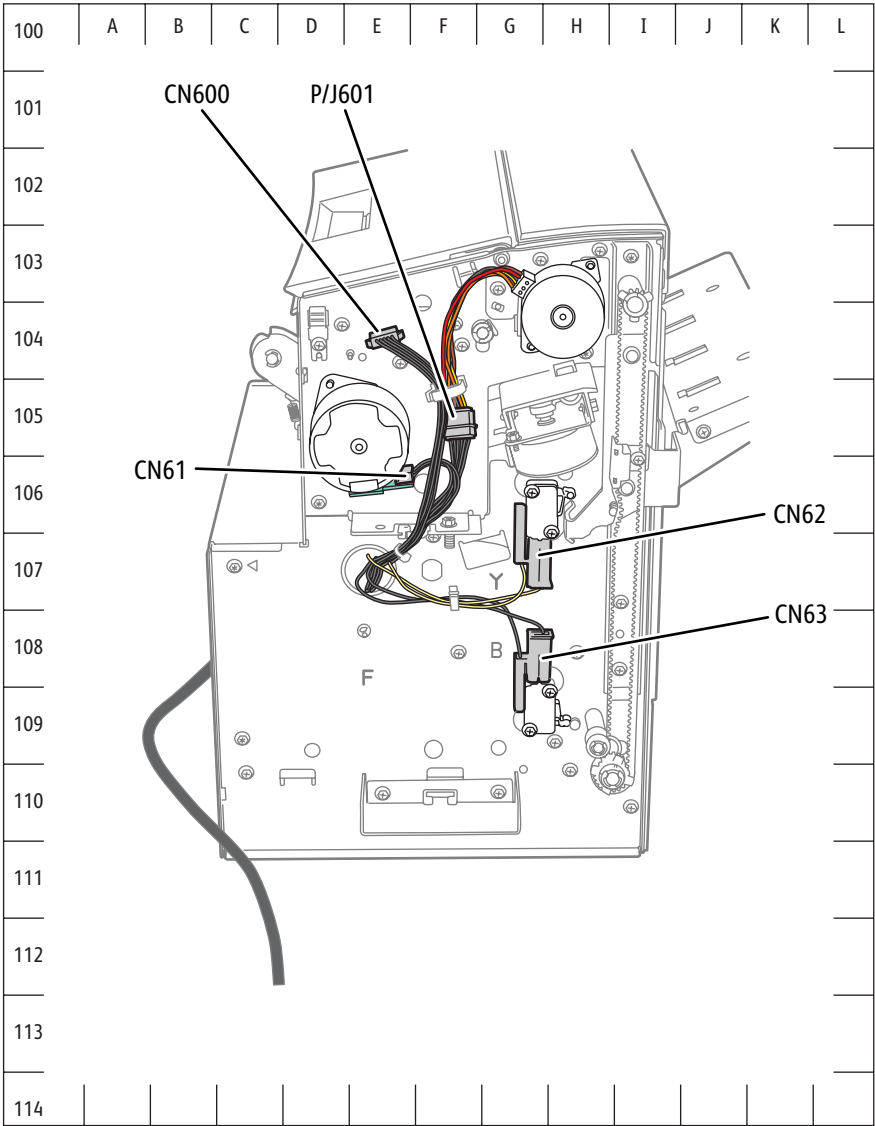
s8900-296

### Map 40 - Finisher (rear side)



s8900-297


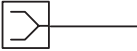




Map 41 - Finisher (front side)

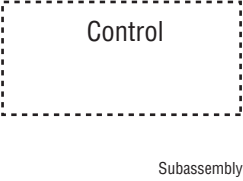


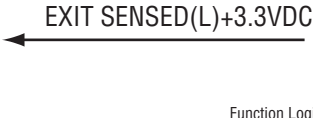

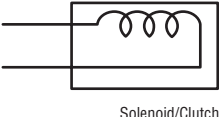
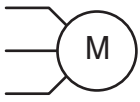



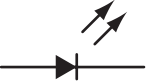






s8900-298

# Notations Used in the Wiring Diagrams


The following table lists the symbols used in the wiring diagrams.

Symbol	Description
 <p style="text-align: center;">Plug</p>	Denotes a Plug.
 <p style="text-align: center;">Jack</p>	Denotes a Jack.
<p style="text-align: center;">P/Jxx</p>  <p style="text-align: center;">Plug and Jack</p>	Denotes Pin yy and Jack yy of the connector Pxx and Jxx.
<p style="text-align: center;">JPxxx</p>  <p style="text-align: center;">Jumper</p>	Denotes a Jumper Point (JPxxx/xxx). Each end of the Jumper connection has a numeric designation.
 <p style="text-align: center;">Subassembly 1</p>	Denotes the parts. PL X.Y.Z implies the item "Z" of plate (PL) "X.Y" in Parts List.
 <p style="text-align: center;">Subassembly 2</p>	Denotes functional parts attached with functional parts name.

Symbol	Description
	<p>Denotes the control and its outline in the Board.</p>
	<p>Denotes a connection between parts with harness or wires, attached with signal name/contents.</p>
	<p>Denotes the function, and logic value of the signal to operate the function (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.</p>
	<p>Denotes the function, and logic value of the signal when the function is operated (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.</p>
	<p>Denotes a connection between wires.</p>
	<p>Denotes a Clutch or Solenoid.</p>
	<p>Denotes a Motor.</p>

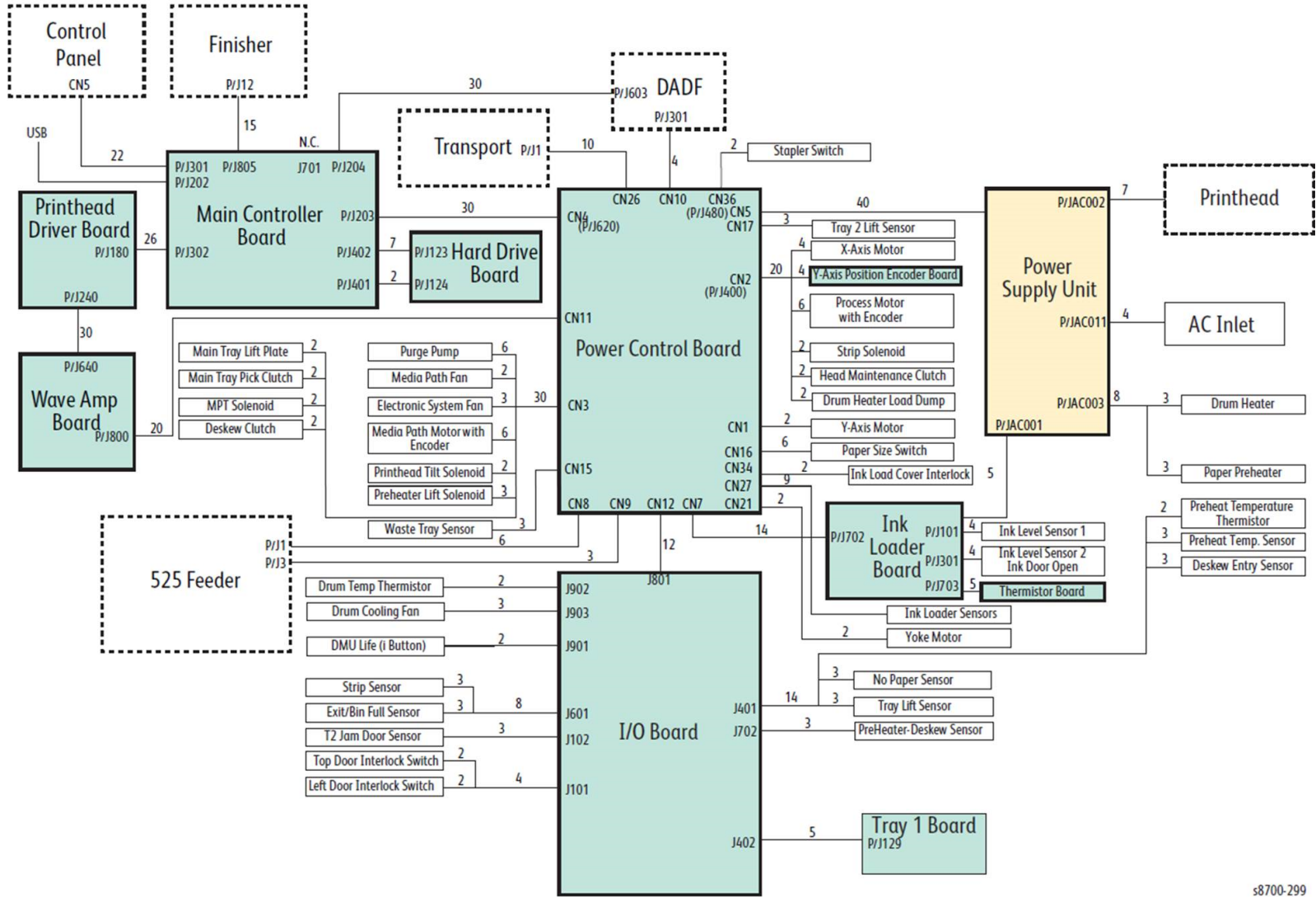
Symbol	Description
 <p>Optic Sensor</p>	<p>Denotes a Photo Sensor.</p>
 <p>LED</p>	<p>Denotes an LED.</p>
 <p>Safety Interlock Switch</p>	<p>Denotes a Safety Interlock Switch.</p>
 <p>On Off Switch</p>	<p>Denotes an On-Off Switch (single-pole, single-throw switch).</p>
 <p>Temperature Switch</p>	<p>Denotes an On-Off Switch (Temperature - normally close).</p>
 <p>NPN Phototransistor</p>	<p>Denotes an NPN Photo-transistor.</p>
 <p>Interconnection</p>	<p>Represents an interconnection between parts using wiring harness or wire.</p>
 <p>Interconnection, Differing</p>	<p>Represents an interconnection which differs according to the specifications.</p>



Symbol	Description
 Interconnection, Conductive Part	Represents an interconnection between parts using a conductive part such as a Plate Spring.
I/L +24 VDC	Denotes DC voltage when the Interlock Switch in the MCU Board turns On.
+5 VDC +3.3 VDC	Denotes DC voltage.
SG	Denotes signal ground.
AG	Denotes analog ground.
RTN	Denotes return.

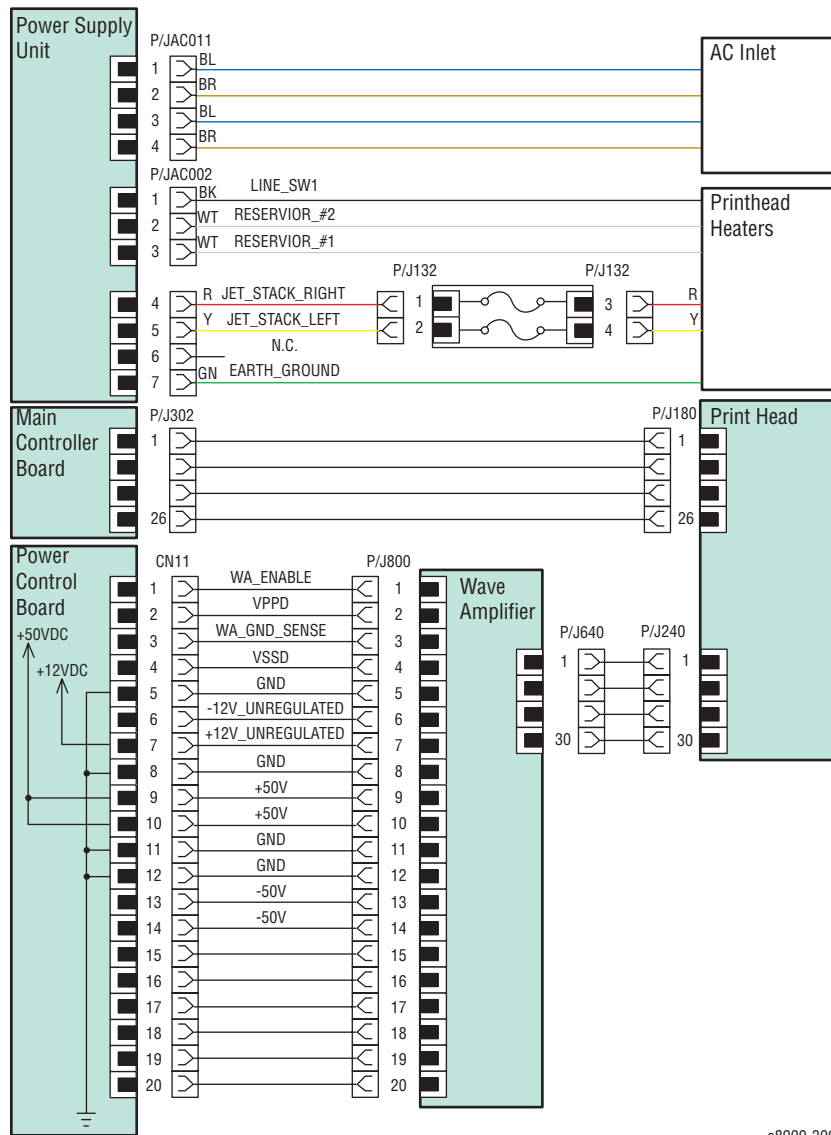
# Overview Wiring Diagram

## Overview Diagram



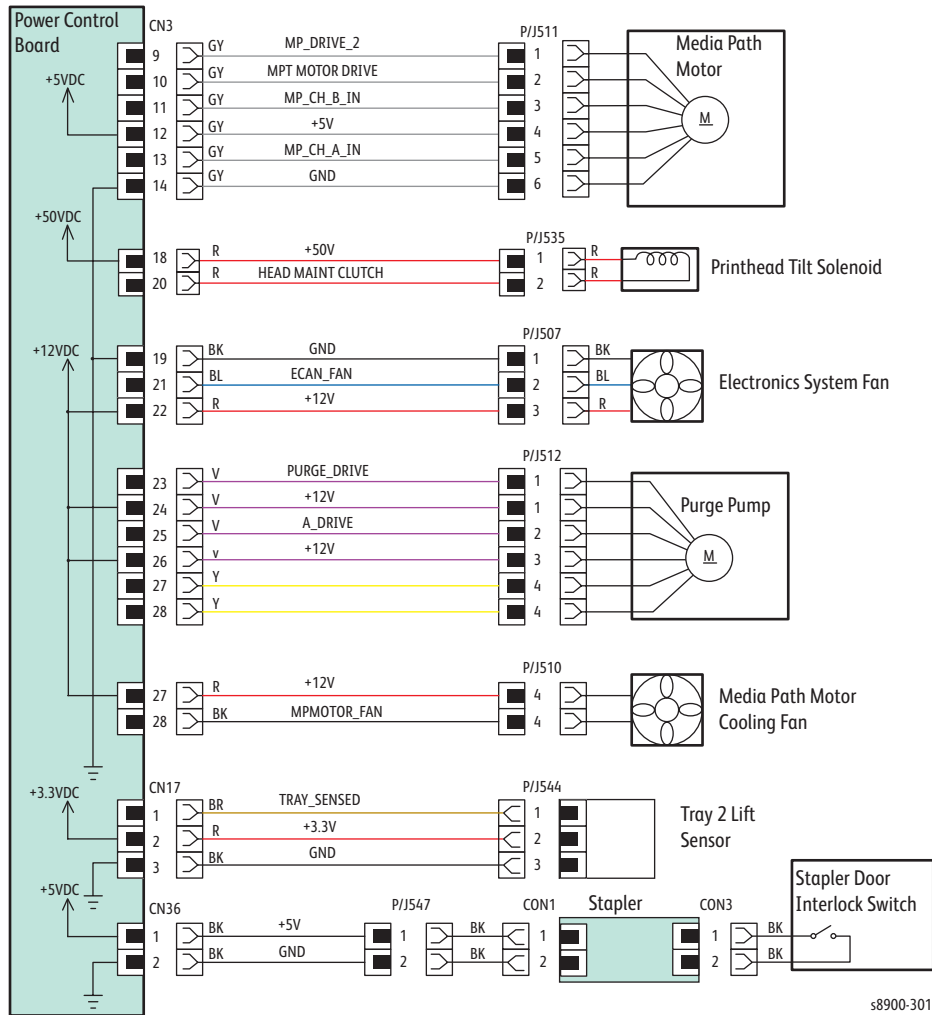
# Print Engine Wiring Diagrams

## Wave Amp, Printhead, Print Head Heaters

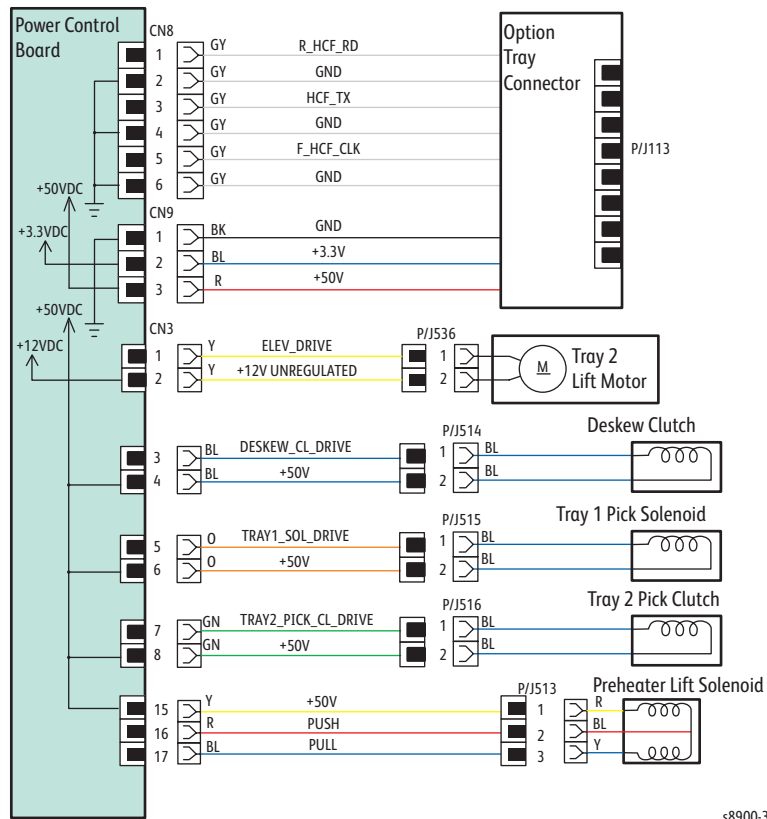


s8900-300

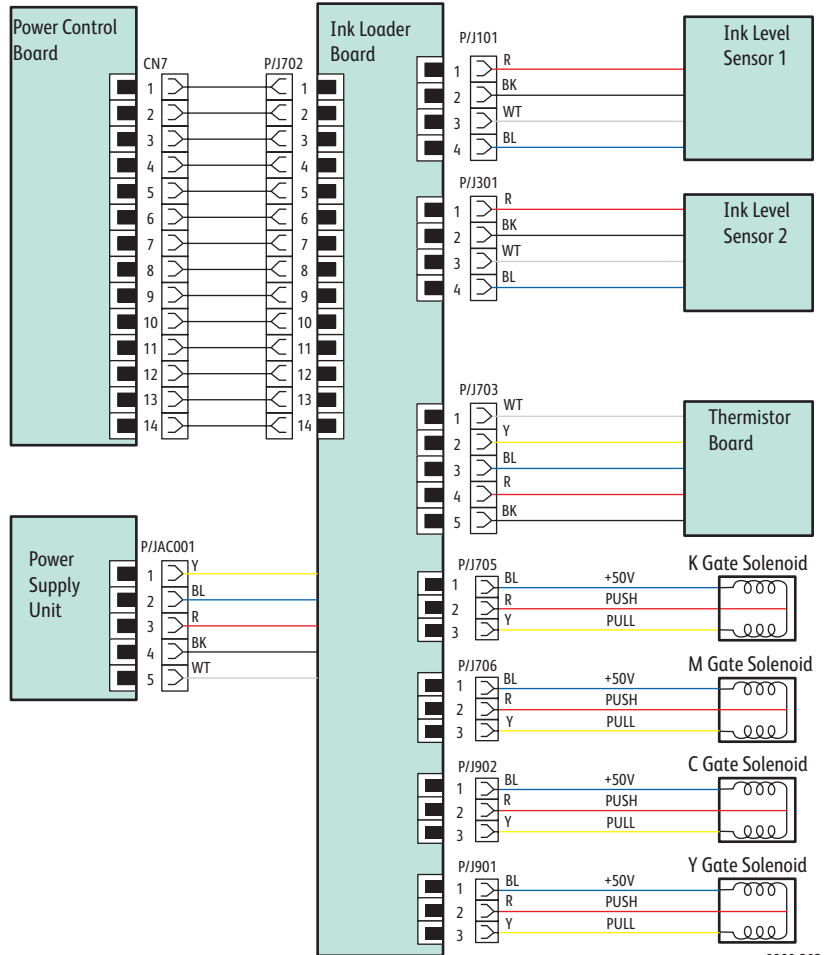
## Purge Pump, Media Path Motor, Fans, Printhead Tilt Solenoid



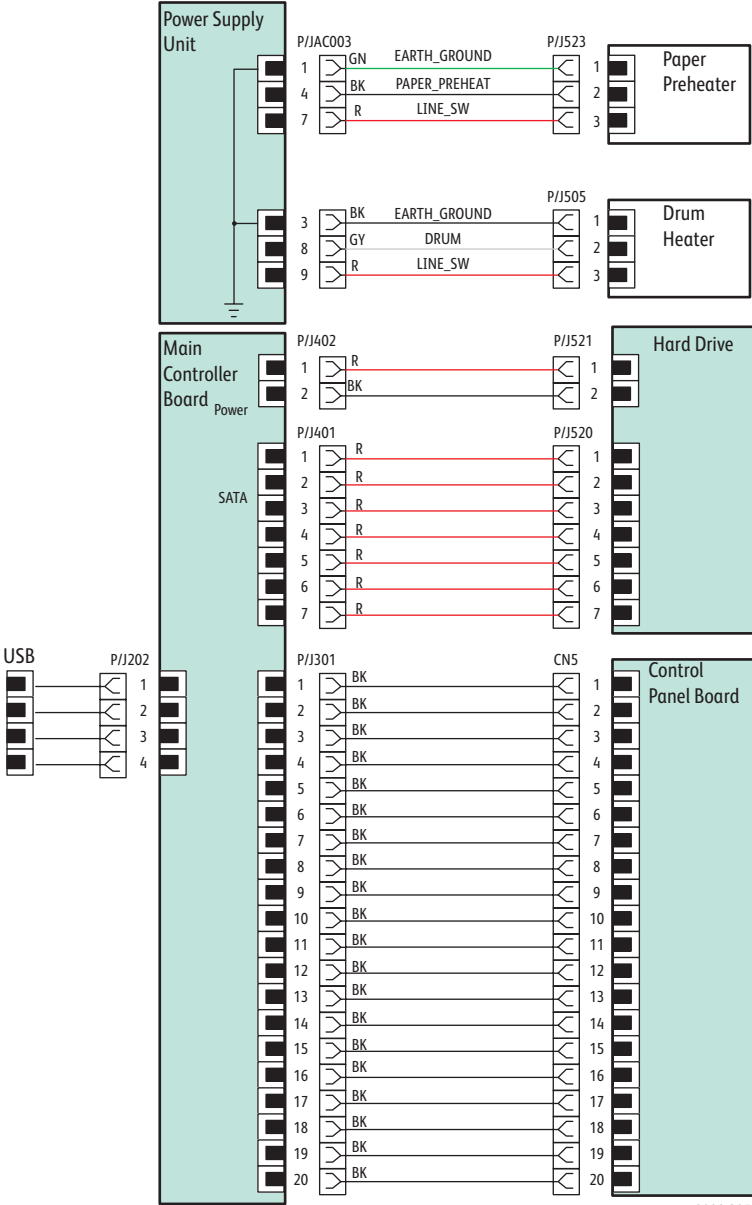
## Optional Tray, Clutches, Solenoids, Tray 2 Lift Motor



## Ink Level Sensors, Gate Solenoids, Ink Loader Board

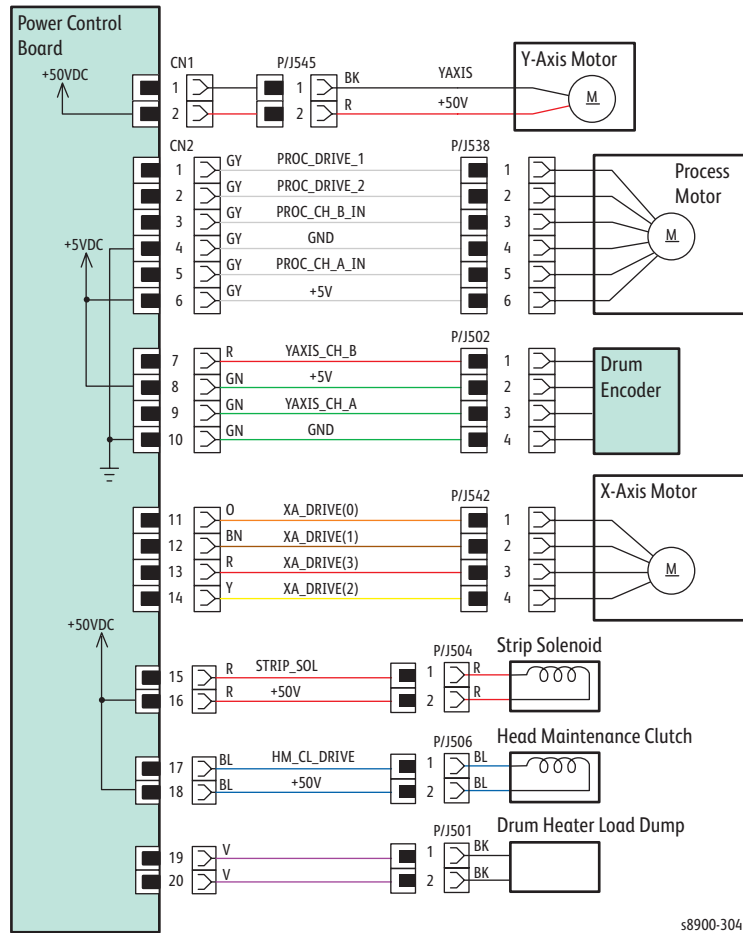


# Hard Disk Drive, Drum Heater, Paper Preheater, Control Panel



s8900-307

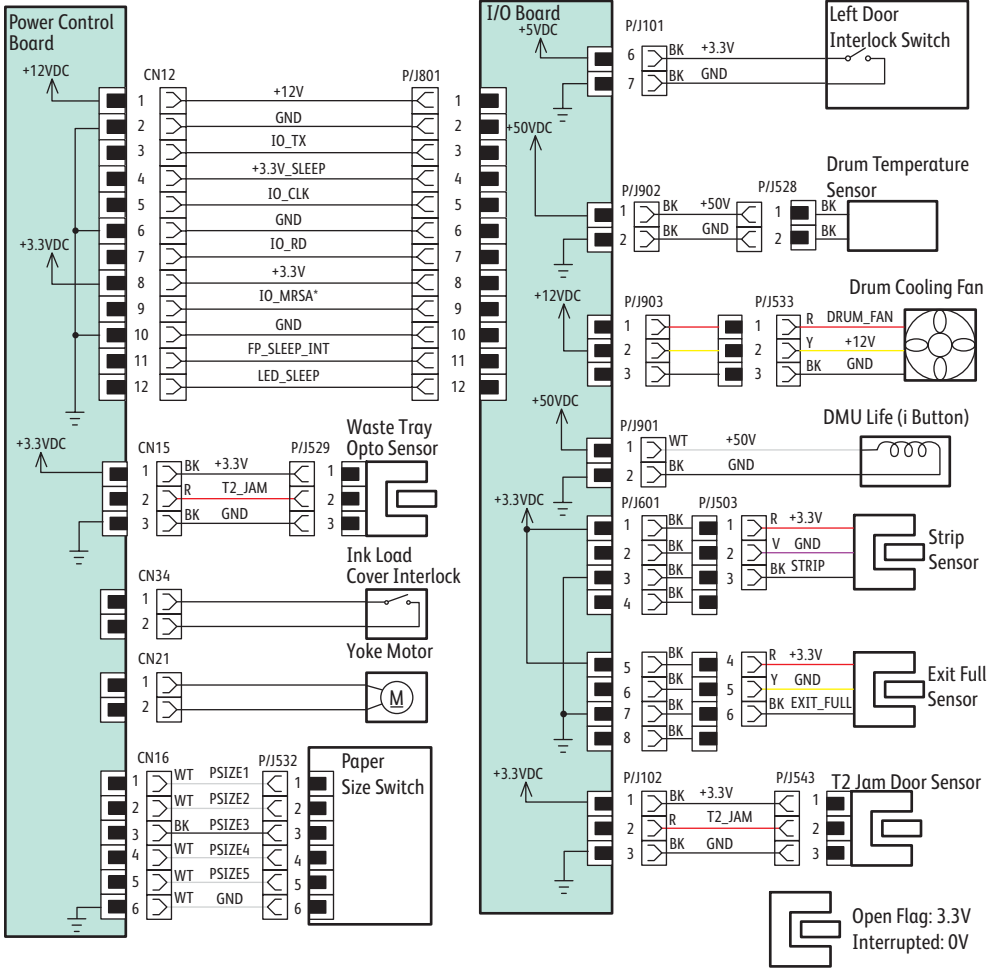
## Drum Heater Load Dump, Motors, Head Maintenance Clutch, Strip Solenoid



s8900-304

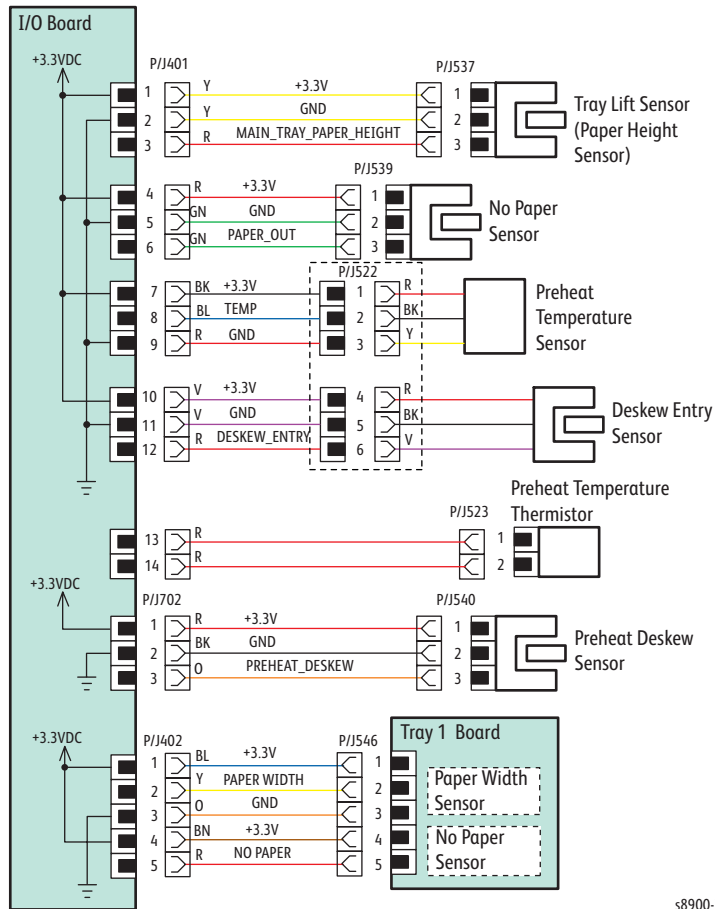


I/O Board, Sensors (1 of 2)



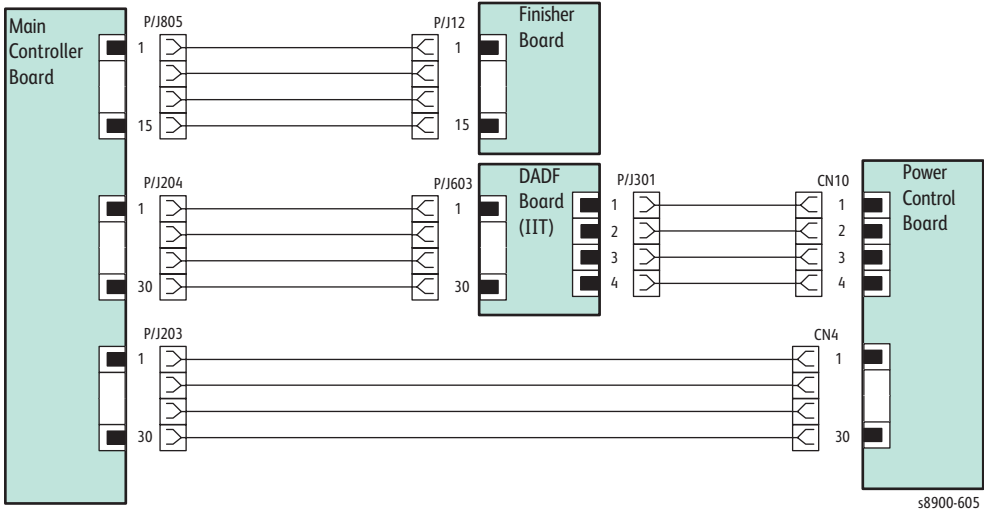
s8900-305

I/O Board, Sensors (2 of 2)



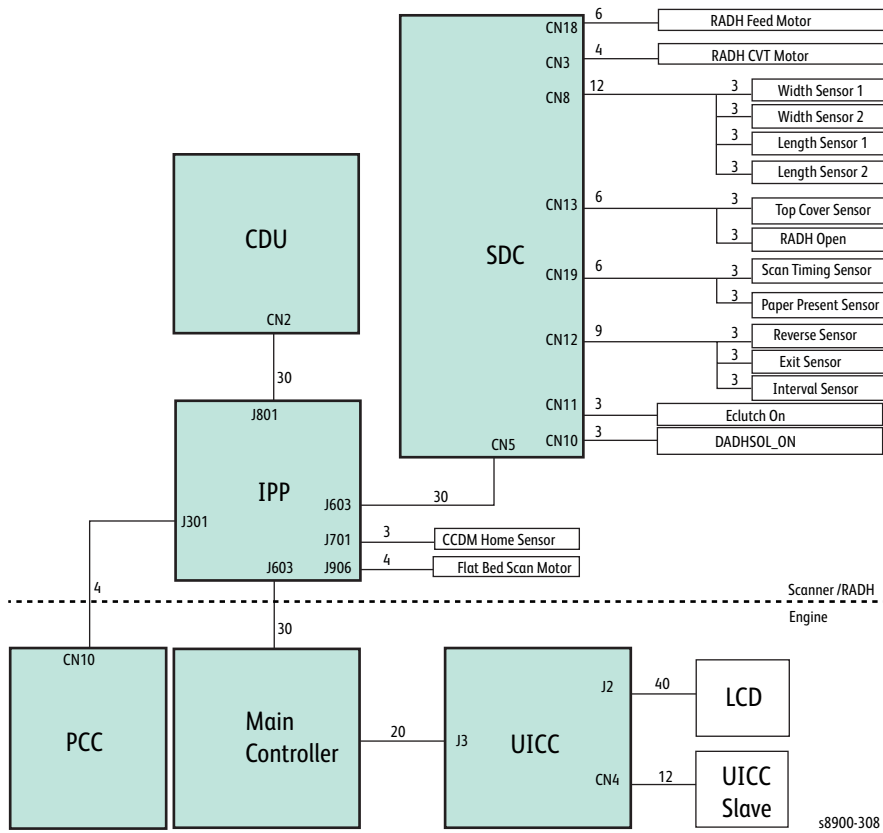
s8900-306

### Main Controller Board, Power Control Board, Finisher Board, DADF Board

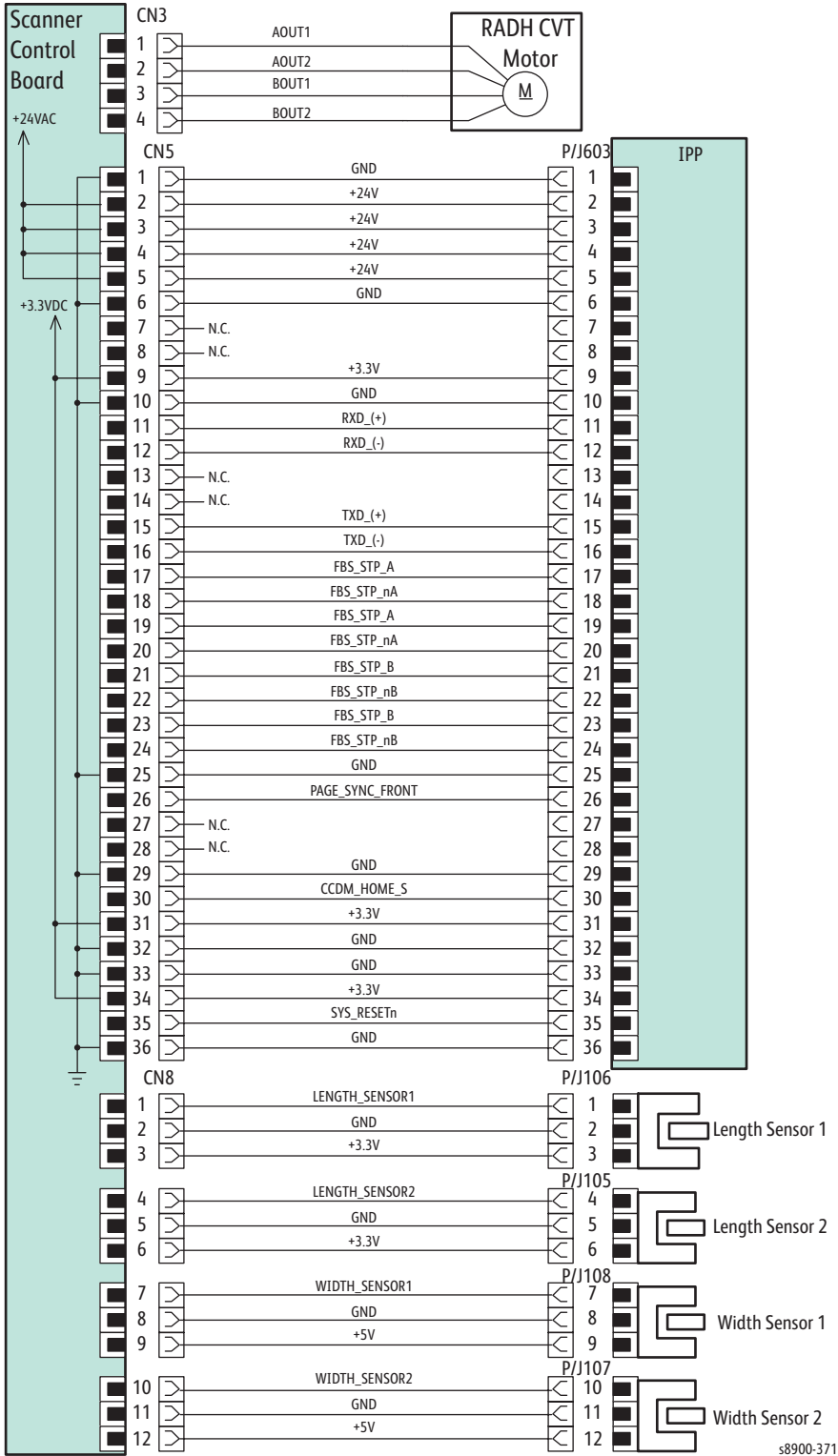


# DADF/ Scanner Wiring Diagrams

## Main Controller, SDC

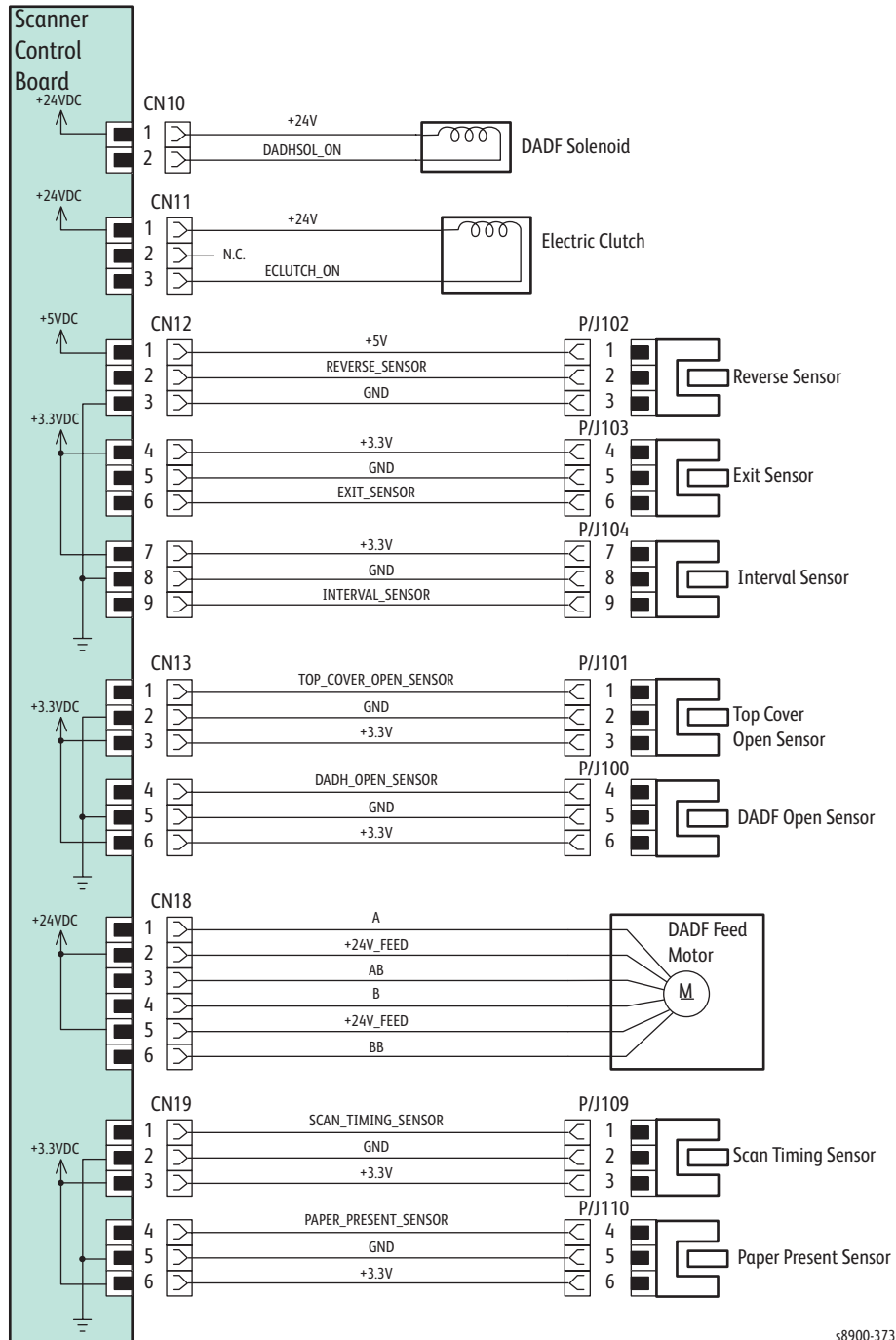


# Scanner Control Board, IPP



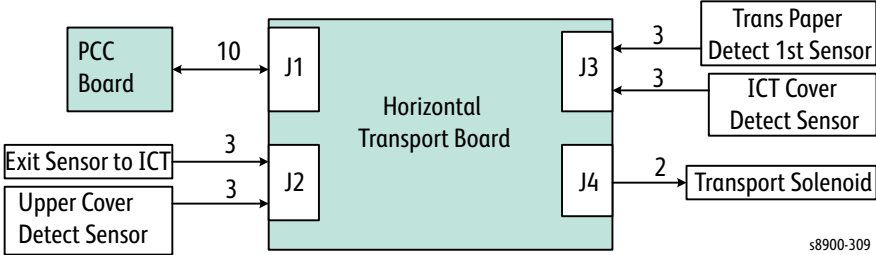
s8900-371

## Scanner Control Board

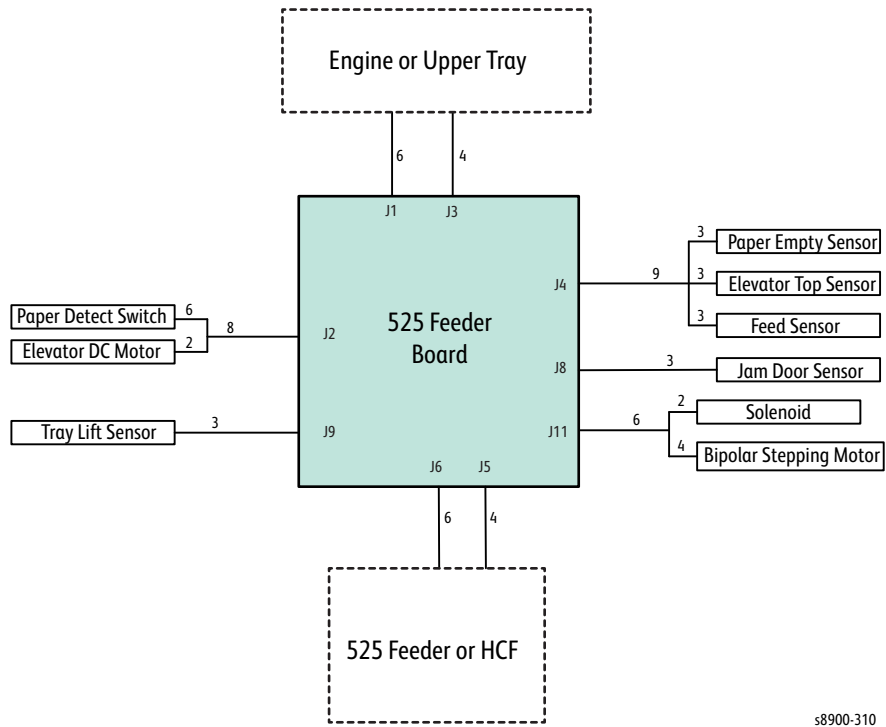


s8900-373

# Horizontal Transport Wiring Diagram



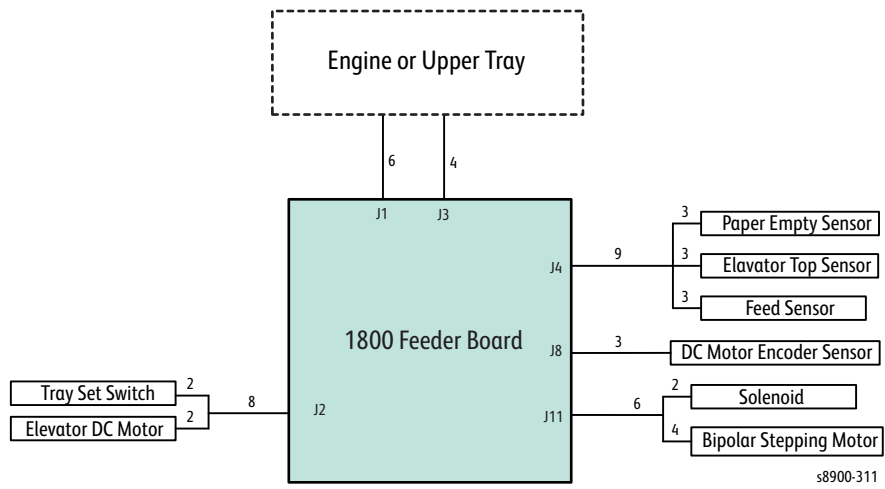
# 525-Sheet Feeder Wiring Diagram



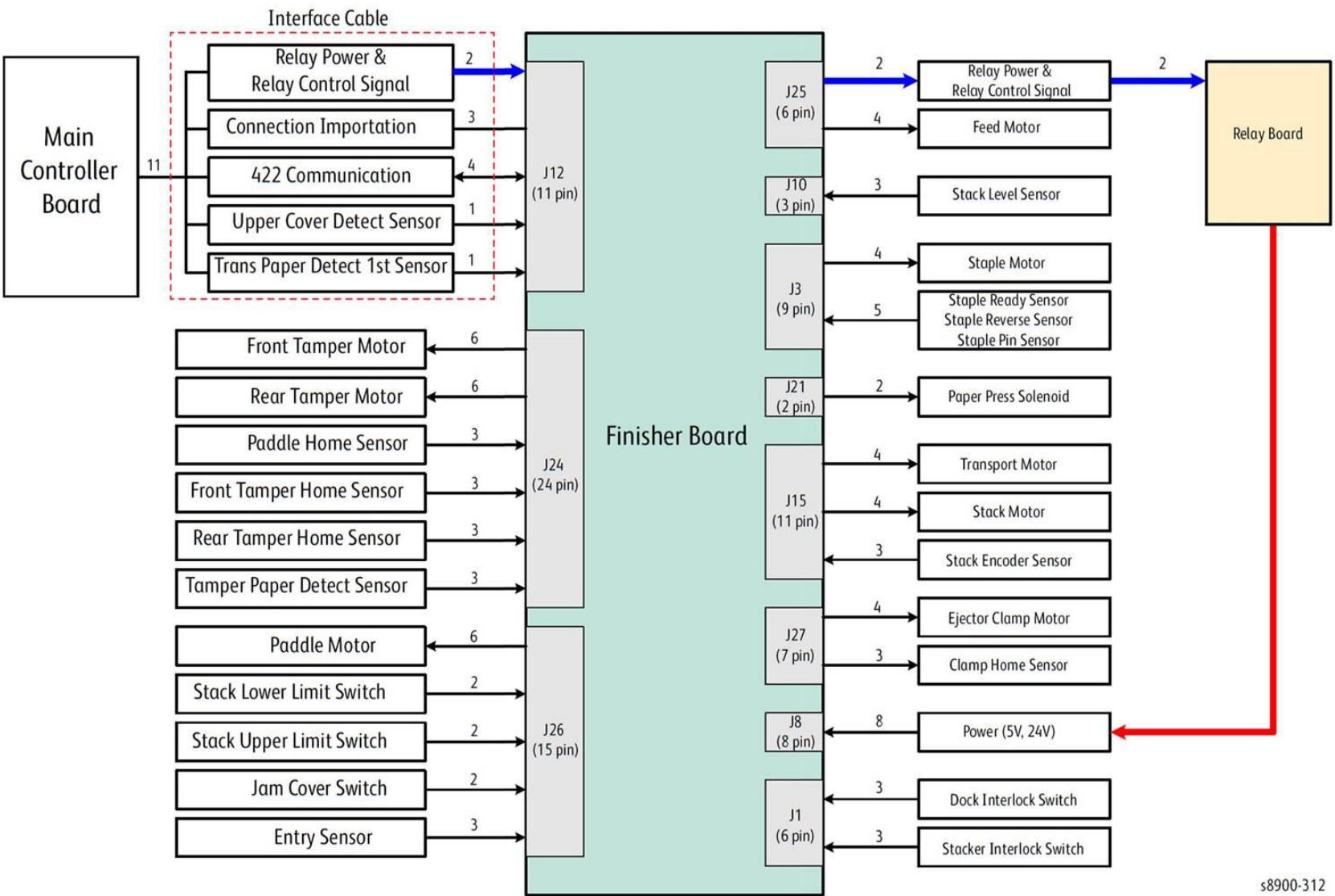
s8900-310



# 1800-Sheet Feeder Wiring Diagram



# Finisher Wiring Diagram



s8900-312

# Appendix A

## Contents...

- Media Guidelines
- DADF/ Scanner NVM
- Print Engine NVM
- Fax NVM
- Copy Controller NVM
- Fax Communication Commands Definitions
- Acronyms and Abbreviations

## Media Guidelines

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Print media is paper, transparencies, labels, envelopes, coated paper and several other types. The printer prints on a variety of print media. Selecting the appropriate print media for the printer helps avoid printing problems. This section describes how to select, store, and load print media.

When loading paper, identify the recommended print side on the paper package, and load the paper accordingly.

### Paper Characteristics

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The following paper characteristics affect print quality and printer reliability. Use these guidelines when evaluating the customer's paper stock.

#### Weight

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The trays automatically feed paper weights from 60 to 220 g/m<sup>2</sup> (16 to 32 lb. bond) grain long. Paper lighter than 60 g/m<sup>2</sup> (16 lb.) might not feed properly, and could cause paper jams. For best performance, use 75 g/m<sup>2</sup> (20 lb. bond) grain long paper.

#### Curl

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Curl is the tendency of media to curve at its edges. Excessive curl can cause feeding problems. Curl usually occurs after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped in humid conditions, even in the paper tray, can contribute to curling prior to printing and cause feeding problems.

#### Smoothness

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The degree of surface smoothness directly affects print quality. If the paper is too rough, the ink may not be transferred properly, resulting in poor print quality. Coatings may also interfere with the ability of the ink to penetrate the paper surface resulting in less than desired durability. If the paper is too smooth, it can cause feeding problems. Smoothness between 150 and 250 Sheffield points produces the best print quality.

#### Moisture Content

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The amount of moisture in the paper affects both print quality and the ability of the printer to feed the paper properly. Paper should remain in its original packaging until loaded. This limits the exposure of the paper to moisture changes that can degrade its performance.

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## Grain Direction

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Grain refers to the alignment of paper fibers in a sheet of paper. Grain is either long, running the length of the paper, or short, running the width of the paper. For 60 to 135 g/m<sup>2</sup> (16 to 36 lb. bond) paper, long grain fibers are recommended. For papers heavier than 135 g/m<sup>2</sup> (36 lb. bond), short grain is preferred.

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## Fiber Content

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Most high-quality xerographic paper is made from 100% chemically pulped wood. Paper containing fibers such as cotton possess characteristics that can result in degraded paper handling.

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## Recommended Paper

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Refer to the ColorQube 8700/8900 Recommended Media List (RML) for media approved for use in this product. Print the Paper Tips page for information about supported media types and general guidelines for media handling.

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## Unacceptable Paper

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The following paper types are not recommended:

- Preprinted papers with chemicals affected by transfix temperatures
- Preprinted forms that require registration (the print location on the page) greater than ±0.09 in., such as optical character recognition (OCR) forms. In some cases, the application can adjust registration to successfully print on these forms.
- Coated papers (erasable bond), synthetic papers, thermal papers
- Rough-edged, rough or heavily textured surface papers or curled papers
- Recycled papers containing more than 25% post-consumer waste that do not meet DIN 19 309
- Multiple-part forms or documents

## DADF/ Scanner NVM

The DADF/ Scanner NVM table contains NVM value information that can be used to adjust the DADF/ Scanner NVM value for the printer.

### DADF/ Scanner NVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
DADF LE Hotline	Adj +/- 8 mm (increments 0.1 mm)	DADF LE Hotline	800	005	90	0	160
DADF TE Hotline	Adj +/- 8 mm (increments 0.1 mm)	DADF TE Hotline	800	006	100	0	160
A4 or 8.5x13	0=A4 1=8.5x13 2= Auto Media Size Group Set	Detect Paper Size 1	800	007	2	0	2
A5 or 8.5x5.5	0=A5; 1=8.5x5.5, 2=Auto Media Size Group Set	Detect Paper Size 2	800	008	2	0	2
CVT Centre Reg	Pixels	DADF Centre Reg	801	001	3707	3600	3800
DADF LE Reg	Scan Lines	DADF LE Reg	801	002	91	0	150
Platen Top Reg	Pixels	Platen Top Edge Reg	801	003	7266	7200	7440
Platen LE Reg	Scan Lines	Platen Lead Edge Reg	801	004	80	0	150
Cal Strip Posn (0.1mm)	0.1 mm increments	Cal Strip Posn	801	005	165	0	2715
Doc Size Posn	0.1 mm increments	Scanner Doc Size Pos	801	013	700	0	2715
Scan CVT Posn	0.1 mm increments	Scanner CVT position	801	012	4913	500	4923
Test A Posn	0.1 mm increments	Test A Posn	801	006	1000	0	4923
Test B Posn	0.1 mm increments	Test B Posn	801	007	1500	0	4923
Test C Posn	0.1 mm increments	Test C Posn	801	008	2000	0	4923
Scan LE Hotline	0.1 mm increments	Scan LE Hotline	801	014	270	100	900
Mono Set Point	Grey Level in whole number	Mono Set Point	801	015	198	170	255
Red Set Point	Grey Level in whole number	Red Set Point	801	016	191	170	255
Green Set Point	Grey Level in whole number	Green Set Point	801	017	197	170	255
Blue Set Point	Grey Level in whole number	Blue Set Point	801	018	205	170	255
2-Channel FWA	2=2 channels 4=4 channels	Num of Channels	801	009	4	1	4

## DADF/ Scanner NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
AGC Enable	1=enable 0=disable	AGC Enable	801	010	1	0	1
DarkSetPoint	Grey Level in whole number	DarkSetPoint	801	011	0	0	50
ReCalMag200	0=Never 1=Re-Calibrate for non-mixed originals 2=Always Calibrate	ReCalMag200	801	019	1	0	2
CvtMonoAgcAdjust	% whole numbers, 100 corresponds to no DADF offset compensation. Settings >100 compensate for DADF darker than platen.	CvtMonoAgc Adjust	801	020	103	80	120
CvtRedAgcAdjust	% whole numbers, 100 corresponds to no DADF offset compensation. Settings >100 compensate for DADF darker than platen.	CvtRedAgcAdjust	801	021	104	80	120
CvtGrnAgcAdjust	% whole numbers, 100 corresponds to no DADF offset compensation. Settings >100 compensate for DADF darker than platen.	CvtGrnAgcAdjust	801	022	104	80	120
CvtBluAgcAdjust	Tenths of %. 1000 (100%) corresponds to no DADF offset compensation. Settings >1000 compensate for DADF darker than platen.	CvtBlueAgcAdjust	801	023	103	80	120
Hardware build	0=LP3 1=LP4 or later	Hardware build	801	024	1	0	1
Scanner Type	1= FWA 2= CCDS 3=Low Speed Northwood PF2 4=High Speed Northwood PF2 5=CCDS2	Scanner Type	801	025	1	0	255

## DADF/ Scanner NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
IQ Parameter Version	Holds the scan parameter version index and distinguishes between minor variations within a scanner family, e.g. filter change, lens change. Set to ""1"" for at launch config. Plan for CCDS config - also set to ""1"" currently (as of Jan 2009).	IQ Parameter Version	801	026	1	0	255
DADF Duplex Speed (Performance/Noise)	0 = Normal performance; 1 = Quiet mode (Reduced speed)	DADF Duplex Speed Mode	800	009	0	0	1
DADF/Platen Configuration	0 = DADF/Platen present 1 = Platen only		801	027	1	0	1
DADF/ Scanner Speed (High/Low). To be removed - do not use. Use 801-25 instead.	0 = Low 1 = High	DADF/ Scanner Speed (High/Low)	801	028	0	0	1



## Print Engine NVM

The print engine NVM table contains NVM value information that can be used to adjust the print engine NVM value for the printer.

### Print Engine NVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Startup Mode	0 = Customer mode 1 = Developer mode 2 = Diagnostics mode 3 = Non-thermal mode 4 = not used 5 = Fast time to ready mode 255 = default mode	Startup Mode	425	1	255	0	255
Thermal Mode	0 = Thermal mode (Melt ink) 1 = Non-Thermal Mode	Non-Thermal Mode	425	3	0	0	1
Defines which boards are required for this system	0 = None 1 = All 2 = PS and inkloader 3 = PS 4 = All but no Thermals 5 = All but no head no inkloader	Boards Required	425	6	1	0	5
Defines simulated or real motors.	Flag for simulating or not simulating the motors. 0 = false, don't sim. 1 or larger = true, simulate motors.	Simulated Motors	425	7	0	0	7
Communication channel for image data	1 = PAR 2 = Sockets 3 = Internal	Comm channel for command data	425	8	2	1	3
Communication channel for image data	2 = Sockets 3 = Internal 4 = Discovery 5 = Shared Mem 6 = CDI	Comm channel for image data	425	9	4	2	6

## Print Engine NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Specifies the IP address that of the nomad server	If IP = 1.2.3.4, the standard binary version is 0x04030201	Nomad IP Address	425	11	496958733	0	42949 67295
Enable Nomad data logging.	0 = false 1 = true	Enable Nomad	425	23	1	0	1
Service Call Reason Chain	Any valid chain	Service Call Reason Chain	430	1	0	0	65535
Service Call Reason Link	Any valid link for above chain	Service Call Reason Link	430	2	0	0	65535
Used for validation	Magic number – internal IME use only	Validation01	441	1	878082193	0	42949 67295
NVRAM format	Used by IME to determine NVRAM contents	NVRAM format	441	2	178	0	255
NVRAM constants revision number	Used by IME to determine constants area contents	NVRAM constants rev	441	3	8	0	255
NVRAM dynamic revision number	Used by IME to determine dyanmic area contents	NVRAM dynamics rev	441	4	3	0	255
Code minor revision number	Should match middle digit in IME version number	Code minor revision number	441	5	42	0	255
Number of faults encountered	Cummulative count	Number of faults encountered	441	6	0	0	65535
Reset count	Number of reboots	Reset count	441	7	0	0	42949 67295
Total print count	Cummulative cound	Total print count	441	8	0	0	42949 67295
Code major revision number	Should match first digit in IME version number	Code major revision number	441	15	128	0	255
Constants CRC	Checksum for constants area – internal IME use only	Constants CRC	443	1	0	0	65535
Head Serial Number	13 character string	Head Serial Number	445	5	0	0	255

## Print Engine NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Temperature of drum when printing on paper.	1/10s of degree C	DrumTemp: Paper prints	463	2	570	0	2000
Temperature of drum when printing on transparency.	1/10s of degree C	DrumTemp: Transparency prints	463	3	570	0	2000
Temperature of drum when in low power mode.	In tenths of degree Celsius. No longer used because drum is off in Low power mode	DrumTemp: Low power mode	463	4	570	0	2000
Temperature of drum when in sleep mode.	In tenths of degree Celsius. No longer used because drum is off in Sleep mode	DrumTemp: Sleep mode	463	5	525	0	2000
Head Horizontal Position	Unused	Xaxis Position	464	1	0	-2147483646	2147483645
Head Horizontal Center Offset	1/10s of mm	Xaxis Center Offset	464	8	0	0	200
Amount of waste ink in tray	milligrams	Amount of waste ink in tray	464	19	0	0	65535
Head Horizontal Scale Factor	Unused	Xaxis Scaling	464	22	1232177	-2147483646	2147483645
Purge PWM	Calibrated value from pump	Purge PWM	464	30	28	0	63
Low pressure assist and wipe PWM	Calibrated value from pump	LPA and Wipe PWM	464	31	24	0	63
Temperature of pre-heater when printing on paper.	1/10s of degree C	PreheatTemp: Paper prints	489	3	600	0	2000
Temperature of pre-heater when printing on transparency.	1/10s of degree C	PreheatTemp: Transparency prints	489	4	600	0	2000
Temperature of pre-heater when performing paper path cleaning.	1/10s of degree C	PreheatTemp: PaperPath cleaning	489	5	900	0	2000
Temperature of preheater when jam in preheater.	1/10s of degree C	PreheatTemp: Jam in pre-heater	489	6	450	0	2000
Temperature of preheater when in low power mode.	1/10s of degree C	Preheat Temp: Low power mode	489	7	500	0	2000

## Print Engine NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Temperature of pre-heater when in sleep mode.	1/10s of degree C	Preheat Temp: Sleep mode	489	8	450	0	2000
Temperature of pre-heater upper limit for duplex.	1/10s of degree C.No longer used because pre-heater is off in Low power mode	PreheatTemp: Upperbound duplex	489	9	800	0	2000
Temperature of pre-heater upper limit for simplex.	1/10s of degree C.No longer used because pre-heater is off in Sleep mode	PreheatTemp: Upperbound simplex	489	10	900	0	2000
Image on drum	0 = clean 1 = dirty	Image on drum	492	1	0	0	255
Drum dirty start pos	Start of dirty drum from media leading edge in 1/10s of mm	Position of dirty drum image	492	4	0	0	65535
Image size on drum - horizontal	1/10s of mm	Size of drum image X	492	5	0	0	65535
Image size on drum - vertical	1/10s of mm	Size of drum image Y	492	6	0	0	65535
Test Drum motor position error limit	in 1/72 ths of a millipoint. Is the default error limit when initializing the drum	Drum motor position error limit	492	71	417	20	15000
Enable Missing Jet Comp	1 = Enabled 0 = Disabled	Enable Mis Jet Comp	425	40	1	0	1
DMU Serial Number		DMU Serial Number	493	3	0	0	255
If this flag is true, then when PEST is running the normal hard faults will behave as soft faults.	1 = Enabled 0 = Disabled	Skip PEST Testing	498	1	0	0	1
Allow ability to suppress the PEST fault overrides.	1 = don't suppress warnings 0 = suppress warnings	Suppress Pest Fault Overrides	498	2	0	0	1

## Print Engine NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Space reserved for PEST fault override	PEST Test Link # = Ignore Test results for this test -1 = Null	Pest Fault Override Parameter 1	498	3	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 2	498	4	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 3	498	5	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 4	498	6	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 5	498	7	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 6	498	8	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 7	498	9	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 8	498	10	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 9	498	11	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 10	498	12	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 11	498	13	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 12	498	14	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 13	498	15	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 14	498	16	-1	-1	2999

## Print Engine NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Space reserved for PEST fault override		Pest Fault Override Parameter 15	498	17	-1	-1	2999
Space reserved for PEST fault override		Pest Fault Override Parameter 16	498	18	-1	-1	2999
Image Offset in mpts Tray1	Millipoints (2800 mpts is approx 1 mm)	ImageOffset Tray1	492	72	0	-2,800	2,800
Image Offset in mpts Tray2	Millipoints (2800 mpts is approx 1 mm)	ImageOffset Tray2	492	73	0	-2,800	2,800
Image Offset in mpts Tray3	Millipoints (2800 mpts is approx 1 mm)	ImageOffset Tray3	492	74	0	-2,800	2,800
Image Offset in mpts Tray4	Millipoints (2800 mpts is approx 1 mm)	ImageOffset Tray4	492	75	0	-2,800	2,800
Image Offset in mpts Tray5	Millipoints (2800 mpts is approx 1 mm)	ImageOffset Tray5	492	76	0	-2,800	2,800
Head Tweak Voltage Adjust	Adjust voltage for head	Head Voltage Adjust	445	20	128	50	255

## Fax NVM

The Fax NVM table contains NVM value information that can be used to adjust the Fax NVM value for the printer.

### Fax NVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Line 1 configuration setting	0=SendandReceive 1=Sendonly 2 = Receive only	FaxLine1Config	200	1	0	0	2
Line 2 configuration setting	0=SendandReceive 1=Sendonly 2 = Receive only	FaxLine2Config	200	2	0	0	2
Line 1 Number	Number entered by SAKO	#not displayed in DC131	200	3	N/A	N/A	N/A
Line 2 Number	Number entered by SAKO	#not displayed in DC131	200	4	N/A	N/A	N/A
Line type configuration setting - NVM Should NOT be Reset	0=Analogueline 1=ISDNline 2 = Not Configured	FaxLine1TypeDefault	200	5	0	0	2
Line type configuration setting - NVM Should NOT be Reset	0=Analogueline 1=ISDNline 2 = Not Configured	FaxLine2TypeDefault	200	6	0	0	2
Line 1 Name	Character String	#not displayed in DC131	200	7	N/A	N/A	N/A
Line 2 Name	Character String	#not displayed in DC131	200	8	N/A	N/A	N/A
Priority of fax lines	1=line 1 haspriority 2 = line 2 has priority	LinePriority	200	9	1	1	2
Reserved	Reserved for future use	#not displayed in DC131	200	10	0	0	0
Number of times to redial (connected)	0 - 5	FaxAutoResendDefault	200	11	3	0	5
Sends a cover sheet and extra pages if interrupted	0 = without cover page and resend failed pages 1 = with cover page andresendfailedpage 2 = without cover page andresendallpages 3 = with Cover page and resend all pages	FxAutoResendPolicy	200	12	0	0	3
Determines if batch send is enabled	0=Disabled 1 = Enabled	#not displayed in DC131	200	13	1	0	1
Listens to line traffic on sending	0=Disabled 1 = Enabled	FaxAudioLineMonEnblD	200	14	0	0	1

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Enables audio line monitor and determines when audio line monitoring stops	0 = Disabled 1 = Speaker on until carrier signal detected 2 = Speaker always on when modem is off-hook 3 = Speaker on until carrier is detected, except while dialing	FaxAudioLineMonEnbld	200	14	0	0	3
Determines when to stop listening to the line traffic	0 - 25 seconds	FaxAudioLineMonDel	200	15	5	0	25
Volume of the line monitor	0=High 1=Medium 2=Low	FaxAudioLineMonVol	200	16	1	0	2
Receive mailbox policy	0=DeleteonPrint 1 = Keep For 1 -72 hours 2 = Keep Forever	FaxreceivemboxDocDef	200	17	0	0	2
Time to keep if the policy is a pre set time	1 – 72 hours	FxreceivemboxDocTime	200	18	72	1	72
Answer mode	0=Auto 1 = Manual	FaxAnswerMode	200	19	0	0	1
Determines what to declare for paper sizes	0=Auto 1 = Manual	FaxRecvPprAutoEnbld	200	20	0	0	1
Determines what size of image to send	0=ReducetoFit 1 = Split pages	FaxSendOptions	200	21	0	0	1
Determines if removing scan lines is allowable	0=Disabled 1 = Enabled (5")	FaxRecvPageMargin	200	22	1	0	1
Determines if a reduced image is shown	0=ReducedImage 1 = No Image	TransmnReportApp	200	23	0	0	1
Determines when a transmission report is printed	0=AlwaysPrint 1=PrintonError 2 = Off	TransRptBehaviour	200	24	1	0	2
Ring volume	0=High 1=Medium 2=Low	FaxRingVolume	200	25	1	0	2
Ring volume enabled	0=Disabled 1 = Enabled	FaxRingVolumeEnabled	200	26	1	0	1
Basic installed	0-notinstalled 1 - installed	#not displayed in DC131	200	27	0	0	1



## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Extended Installed	0=notinstalled 1 = installed	#not displayed in DC131	200	28	0	0	1
Date Format	0=MM/DD/YY 1=DD/MM/YY 2 = Unused (DO NOT USE) 3 = YY/MM/DD	FaxDateFieldFormat	200	29	0	0	3
Time format	0=12hour 1 = 24 hour	FaxTimeFieldFormat	200	30	1	0	1
Transmit header Text enabled	0=Disabled 1 = Enabled	FaxXmitHdrTxtEnabled	200	31	1	0	1
Header text	Default string: ' '	#not displayed in DC131	200	32	N/A	N/A	N/A
Enable junk fax prevention	0=Disabled 1 = Enabled	FaxMatchJunkEnabled	200	33	0	0	1
Type of screen for junk fax	0 = Match Dial directory 1 = Match Junk directory	FaxMatchJunkType	200	34	0	0	1
Polling enabled	0=Disabled 1=Unsecure 2 = Dial & Poll Directory 3 = Poll Directory	FaxPollEnabled	200	35	0	0	3
Polled document policy	0=Deleteonpoll 1 = Keep For 1 -72 hours 2 = Keep Forever	FaxPollPolicyDef	200	36	0	0	2
Time to keep if the policy is a pre set time	1 – 72 hours	FaxPollPolicyTime	200	37	72	1	72
Immediate Image Overwrite Option	0=Disabled 1 = Enabled	FaxIioOption	200	38	0	0	1
On Demand Image Overwrite Option	0=Disabled 1 = Enabled	FaxOodioOption	200	39	0	0	1
Report policy	0=Print 1 = Follow Secure Policy 2 = Store in Mailbox	FaxReportPolicyDef	200	40	0	0	2
Activity report default	0= Off 1 = Auto Print	FaxActivityReportDef	200	41	1	0	1
Broadcast and multipoll report default and remote broadcast	0=AlwaysPrint 1=PrintonError 2 = Off	FaxBroadcstRepDef	200	42	1	0	2

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fax country	0 = USA, 1 = Canada 2 = Brazil, 3 = Mexico 4 = Argentina, 5 = Chile 6 = UK, 7 = Switzerland 8 = Norway, 9 = Denmark 10 = Ireland, 11 = Austria 12 = Finland, 13 = France 14 = Germany 15 = Sweden 16 = Belgium 17 = Netherlands 18 = Italy, 19 = Portugal 20 = Greece, 21 = Spain 22 = Russia 23 = Czech Republic 24 = Poland, 25 = Hungary 26 = Not Used, 27 = Romania 28 = Ukraine 29 = Turkey 30 = Egypt 31 = UAE 32 = Saudi Arabia 33 = South Africa 34 = Hong Kong, 35 = India 36 = China 37 = Iceland 38 = Luxembourg 39 = Bulgaria 40 = Morocco 41 = Australia 42 = New Zealand 43 = Singapore 44 = Malaysia 45 = Cyprus 46 = Peru 47 = Jordan, 48 = South Korea 49 = Macau 50 = Taiwan 51 = Japan	FaxCountry	200	43	6	0	48

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Report Language	0 = French Canadian 1 = English 2 = Danish 3 = Swedish 4 = International Spanish 5 = German 6 = Italian 7 = USEnglish 8 = Dutch 9 = Portuguese, 10 = Norwegian 11 = Finnish 12 = French 13 = Brazilian 14 = Greek 15 = Czech 16 = Polish 17 = Hungarian 18 = Romanian 19 = Turkish 20 = Russian 21 = Simplified Chinese 22 = Traditonal Chinese 23 = Korean 24 = Japanese 25 = Catalan	FaxLanguage	200	44	1	0	25
Comments list	Comments entered by user	#not displayed in DC131	200	45	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	46	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	47	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	48	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	49	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	50	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	51	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	52	N/A	N/A	N/A
Comments list	Comments entered by user	#not displayed in DC131	200	53	N/A	N/A	N/A

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Comments list	Comments entered by user	#not displayed in DC131	200	54	N/A	N/A	N/A
Install id	N/A	#not displayed in DC131	200	55	N/A	N/A	N/A
Determines whether Secure Receive is On or Off	0 = Secure receive is Off 1 = Secure Receive is on	SecReceiveEnabled	200	56	0	0	1
Secure Receive Password	N/A	#not displayed in DC131	200	57	1111	N/A	N/A
Reserved	Reserved for future use	#not displayed in DC131	200	58	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	59	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	60	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	61	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	62	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	63	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	64	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	65	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	66	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	67	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	68	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	69	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	70	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	71	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	72	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	73	0	0	0
Default logo number		#not displayed in DC131	200	74	0	0	5
T30 paper size declaration	0=Auto 1=8_5x11 2=A4 3=8_5x14 4=8_5x13 5=11x17 6= A3	#not displayed in DC131	200	75	0	0	6
Reserved	Reserved for future use	#not displayed in DC131	200	76	0	0	0
Fax Line Current Detection Line 1	0=Disabled 1 = Enabled	Line1CurrentDetect	200	77	1	0	1
Fax Line Current Detection Line 2	0=Disabled 1 = Enabled	Line2CurrentDetect	200	78	1	0	1

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
T30 Maximum Compression - TX line 1	2=MH 3=MR 4=MMR 5=JBIG <b>Note:</b> JBIG supported for Sorcery & Low Cost Fax	CompressTypeLine1TX	200	79	5	2	5
T30 Maximum Compression -TX line 2	2=MH 3=MR 4=MMR 5=JBIG <b>Note:</b> JBIG supported for Sorcery & Low Cost Fax	CompressTypeLine2TX	200	80	5	2	5
T30 Maximum Compression - RX line 1	2=MH 3=MR 4=MMR 5=JBIG <b>Note:</b> JBIG supported for Sorcery & Low Cost Fax	CompressTypeLine1RX	200	81	5	2	5
T30 Maximum Compression - RX line 2	2=MH 3=MR 4=MMR 5=JBIG <b>Note:</b> JBIG supported for Sorcery & Low Cost Fax	CompressTypeLine2RX	200	82	5	2	5
T30 Maximum resolution Line 1 TX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8	T30MaxResL1Tx	200	83	8	2	8
T30 Maximum resolution Line 2 TX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8	T30MaxResL2Tx	200	84	8	2	8
T30 Maximum resolution Line 1 RX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8	T30MaxResL1Rx	200	85	8	2	8
T30 Maximum resolution Line 2 RX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8	T30MaxResL2Rx	200	86	8	2	8

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
T30 Maximum Speed Line 1 TX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16	T30MaxSpeedL1Tx	200	87	3	3	16
T30 Maximum Speed Line 2 TX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16	T30MaxSpeedL2Tx	200	88	3	3	16
T30 Maximum Speed Line 1 RX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16	T30MaxSpeedL1Rx	200	89	3	3	16
T30 Maximum Speed Line 2 RX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16	T30MaxSpeedL2Rx	200	90	3	3	16
T30 Preferred Resolution Units Line 1 TX	0=Any Metric=1 Inch=2	T30PrefResUnitsL1Tx	200	91	0	0	2
T30 Preferred Resolution Units Line 2 TX	0=Any Metric=1 Inch=2	T30PrefResUnitsL2Tx	200	92	0	0	2
T30 Preferred Resolution Units Line 1 RX	0=Any Metric=1 Inch=2	T30PrefResUnitsL1Rx	200	93	0	0	2
T30 Preferred Resolution Units Line 2 RX	0=Any Metric=1 Inch=2	T30PrefResUnitsL2Rx	200	94	0	0	2
T30 Minimum Scan Line Time Line 1	0ms/0ms=0, 5ms/5ms=1, 10ms/5ms=2, 10ms/10ms=3, 20ms/10ms=4, 20ms/20ms=5, 40ms,20ms=6, 40ms/40ms=7	T30MinScanLineTimeL1	200	95	0	0	7

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
T30 Minimum Scan Line Time Line 2	0ms/0ms=0, 5ms/5ms=1, 10ms/5ms=2, 10ms/10ms=3, 20ms/10ms=4, 20ms/20ms=5, 40ms,20ms=6, 40ms/40ms=7	T30MinScanLineTimeL2	200	96	0	0	7
T30 ECM Enabled/ Disabled Line 1 Tx	0=disabled 1=enabled	T30ECMEnabledL1Tx	200	97	1	0	1
T30 ECM Enabled/ Disabled Line 2 Tx	0=disabled 1=enabled	T30ECMEnabledL2Tx	200	98	1	0	1
T30 ECM Enabled/ Disabled Line 1 Rx	0=disabled 1=enabled	T30ECMEnabledL1Rx	200	99	1	0	1
T30 ECM Enabled/ Disabled Line 2 Rx	0=disabled 1=enabled	T30ECMEnabledL2Rx	200	100	1	0	1
Remote Station display	0 = Display Remote Station ID(TSI) 1 = Display the dialed phone number, Printed reports only 2 = Display Name from directory for dialed number - *33 settable	RemoteStation Display	200	101	0	0	2
Copy of SIP market region NVM setting	Refer to FD23.111.2 : ID568, Chain-link 03-003	#not displayed in DC131	200	102	0	0	5
Look ahead period to pending fax job which will prohibit entry into Sleep.	Minutes	PwrSavEntryLookAhead	200	103	1	0	120
Determines if a confirmed transmission report is printed if MCF not received for last page sent.	0 = Strict retry policy (all MCF required) 1 = Optional ignore final missing MCF	ExtendedRetryPolicy	200	104	0	0	1
Allows Fax Protocol Report to be printed in the event of a communications error	0= Off 1 = Auto Print On Error 2=Always Print Report	ProtReportOnError	200	105	0	0	2
Allow the ability to select secure receive per FAX line. (*33 enabled/disabled via GUI)	0=Default (Secure Fax based on ID 56) 1=Line 1 Secure, Line 2 unsecured (ID 56=1) 2=Line 2 Secure, Line 1 unsecured (ID 56=1)	SecureLineOptions	200	106	0	0	2

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Immediate Image Overwrite Status	0=Clean 1=Dirty	FaxIoStatus	200	107	0	0	1
Status for ODIO confirmation report	0=Inactive 1=success 2=failed 3=cancelled or interrupted	FaxOdioStatus	200	108	0	0	255
Type for ODIO confirmation report	As in ODIO request	FaxOdioType	200	109	0	0	255
The ability to Enable <u>always</u> negotiating unlimited length (DCS) on line 1	0 = Disabled 1 = Enabled	UNLIMITEDLENGTH LINE1	200	110	1	0	1
The ability to Enable <u>always</u> negotiating unlimited length (DCS) on line 2	0 = Disabled 1 = Enabled	UNLIMITEDLENGTH LINE2	200	111	1	0	1
The ability to enable increased compatibility at the expense of more advanced fax features.	0 = Disabled 1 = Enabled	AdvancedCapabilities	200	112	1	0	1
Copy of NVM (used for Compatibility mode)		#not displayed in DC131	200	113	1	0	1
Copy of NVM (used for Compatibility mode)		#not displayed in DC131	200	114	8	2	8
Copy of NVM (used for Compatibility mode)		#not displayed in DC131	200	115	8	2	8
Copy of NVM (used for Compatibility mode)		#not displayed in DC131	200	116	5	2	5
Copy of NVM (used for Compatibility mode)		#not displayed in DC131	200	117	5	2	5
Copy of NVM (used for Compatibility mode)		#not displayed in DC131	200	118	3	3	16
Copy of NVM (used for Compatibility mode)		#not displayed in DC131	200	119	3	3	16
Determines how the reduced image for transmission report is scaled	0 = Fit length of reduced image (minimize cropping) 1 = Fit width of reduced image (show top of image large as possible)	TxReportScaling	200	120	0	0	1



## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Part of pair with ID 1602 for Classic Fax	Reserved	DetBusyToneDurD Tone	200	121	0	0	0
Busy Tone detection during dial tone detection	0 = disable 1 = enable	DetBusyToneDurD Tone	200	121	0	0	1
Allow the ability to send to the same destination number on both fax lines simultaneously. (*33 enabled/disabled via GUI)	0 = Disabled (Only 1 fax send to a given number at a time even if there is another line free)  1 = Enabled (Can have more than 1 fax send to a given number at the same time)	ParallelTxToSameDest	200	122	0	0	1
Allows the ability to set a short time period which a failed job waits before redialling	0 = Disabled 1 = Enabled	ShortResendPolicy	200	123	0	0	1
Set the duration of the ShortResendTimer in seconds	1 - 255	ShortResendTimer	200	124	30	1	255
Receive Fax Forwarding Option. If enabled then fax application asks for forwarding information before processing a received fax.	0 = Disabled 1 = Enabled	#not displayed in DC131	200	125	0	0	1
Send Fax Forwarding Option. If enabled then fax application asks for forwarding information before processing a send fax.	0 = Disabled 1 = Enabled	#not displayed in DC131	200	126	0	0	1
For polling calls use V17 speed rather than V34 speed.	0 = Disabled 1 = Enabled	#not displayed in DC131	200	127	0	0	1
The SA can specify when the Fax On Demand Overwrite Confirmation Report is printed or not.	0=AlwaysPrint 1=PrintOnError 2 = Off	FaxOdioReportPrint	200	128	0	0	2
Reserved	Reserved for future use	#not displayed in DC131	200	129	0	0	0

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Reserved	Reserved for future use	#not displayed in DC131	200	130	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	131	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	132	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	133	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	134	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	135	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	136	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	137	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	138	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	139	0	0	0
The ability to Enable or Disable Legal/Letter stock (DCS)	0 = Disabled 1 = Enabled	USSTOCKSUPPORTTX	200	140	0	0	1
The ability to Enable or Disable Legal/Letter stock (DIS)	0 = Disabled 1 = Enabled	USSTOCKSUPPORTRX	200	141	1	0	1
Reserved	Reserved for future use	#not displayed in DC131	200	142	0	0	0
Received Fax time/date stamp header display on fax job either enabled or disabled	0 = Disabled 1 = Enabled	ReceiveHeaderDisplay	200	143	0	0	1
Dial type configuration. NVM with ID 1606 used to determine if user is given choice	0 = Tone 1 = Pulse	FaxLine1DialTypeDef	200	201	0	0	1
Dial type configuration. NVM with ID 1606 used to determine if user is given choice	0 = Tone 1 = Pulse	FaxLine2DialTypeDef	200	202	0	0	1
When to answer the call if automatic.	0 - 15 seconds	FaxAutoAnswerDelay	200	203	0	0	15
Number of times to retry (not connected). NVM with ID 568 controls maximum value user is allowed to set.	0 - 14	FaxAutoRedialDefault	200	204	0	0	14
Time between each redial	1 - 25 minutes	FaxAutoRedialTimeDef	200	205	15	1	25

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Busy 1 Filter stage 1 A1	0x02CA	Busy1FilterStage1A1	200	206	0x02CA	0	0xFFFF
Busy 1 Filter stage 1 A2	0xFD36	Busy1FilterStage1A2	200	207	0xFD36	0	0xFFFF
Busy 1 Filter stage 1 A3	0x0000	Busy1FilterStage1A3	200	208	0x0000	0	0xFFFF
Busy 1 Filter stage 1 B1	0x7243	Busy1FilterStage1B1	200	209	0x7243	0	0xFFFF
Busy 1 Filter stage 1 B2	0xC63E	Busy1FilterStage1B2	200	210	0xC63E	0	0xFFFF
Busy 1 Filter stage 2 A1	0x02CA	Busy1FilterStage2A1	200	211	0x02CA	0	0xFFFF
Busy 1 Filter stage 2 A2	0x0593	Busy1FilterStage2A2	200	212	0x0593	0	0xFFFF
Busy 1 Filter stage 2 A3	0x02CA	Busy1FilterStage2A3	200	213	0x02CA	0	0xFFFF
Busy 1 Filter stage 2 B1	0x7243	Busy1FilterStage2B1	200	214	0x7243	0	0xFFFF
Busy 1 Filter stage 2 B2	0xC63E	Busy1FilterStage2B2	200	215	0xC63E	0	0xFFFF
Busy 1 Low Pass Feedback	0x7E67	Busy1LowPassFeedback	200	216	0x7E67	1	0xFFFF
Busy 1 Low Pass Gain	0x02DF	FaxBusy1LowPassGain	200	217	0x02DF	1	0xFFFF
Busy 1 Upper Threshold	0x2A00	Busy1UpperThreshold	200	218	0x2A00	1	0xFFFF
Busy 1 Lower Threshold	0x1C00	Busy1LowerThreshold	200	219	0x1C00	1	0xFFFF
Call progress detection threshold (-dB)	0 - 255 (-dB)	Busy1LowerThreshold	200	219	0x2B	0	0xFF
Busy 2 Filter stage 1 A1	0x02CA	Busy2FilterStage1A1	200	220	0x02CA	0	0xFFFF
Busy 2 Filter stage 1 A2	0xFD36	Busy2FilterStage1A2	200	221	0xFD36	0	0xFFFF
Busy 2 Filter stage 1 A3	0x0000	Busy2FilterStage1A3	200	222	0x0000	0	0xFFFF
Busy 2 Filter stage 1 B1	0x7243	Busy2FilterStage1B1	200	223	0x7243	0	0xFFFF
Busy 2 Filter stage 1 B2	0xC63E	Busy2FilterStage1B2	200	224	0xC63E	0	0xFFFF
Busy 2 Filter stage 2 A1	0x02CA	Busy2FilterStage2A1	200	225	0x02CA	0	0xFFFF
Busy 2 Filter stage 2 A2	0x0593	Busy2FilterStage2A2	200	226	0x0593	0	0xFFFF
Busy 2 Filter stage 2 A3	0x02CA	FaxBsy2FilterStge2A3	200	227	0x02CA	0	0xFFFF
Busy 2 Filter stage 2 B1	0x7243	FaxBsy2FilterStge2B1	200	228	0x7243	0	0xFFFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Busy 2 Filter stage 2 B2	0xC63E	Busy2FilterStage2B2	200	229	0xC63E	0	0xFFFF
Busy 2 Low Pass Feedback	0x7E67	Busy2LowPassFeedback	200	230	0x7E67	1	0xFFFF
Busy 2 Low Pass Gain	0x02DF	FaxBusy2LowPassGain	200	231	0x02DF	1	0xFFFF
Busy 2 Upper Threshold	0x2A00	Busy2UpperThreshold	200	232	0x2A00	1	0xFFFF
Busy 2 Lower Threshold	0x1C00	Busy2LowerThreshold	200	233	0x1C00	1	0xFFFF
Busy 1 detection algorithm		Busy1DetectAlgorithm	200	234	0x20	0x20	0x21
Busy 1 number cell pattern	Number of patterns to describe the sequence	Busy1NumCellPattern	200	235	1	0	3
Number of busy cycles required to detect busy condition	0 - 255	Busy1NumCellPattern	200	235	2	0	0xFF
Busy 1 timeout reset detector	milliseconds	Busy1TmoutResetDetct	200	236	100	1	15000
Busy 1 make min 1	milliseconds	FaxBusy1MakeMin1	200	237	450	0	10000
Min busy cadence on time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	FaxBusy1MakeMin1	200	237	0	0	0xFF
Busy 1 make max 1	milliseconds	FaxBusy1MakeMax1	200	238	550	0	10000
Max busy cadence on time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	FaxBusy1MakeMax1	200	238	0	0	0xFF
Busy 1 make hole 1	milliseconds	FaxBusy1MakeHole1	200	239	40	0	10000
Busy 1 break min 1	milliseconds	FaxBusy1BreakMin1	200	240	450	0	10000
Min busy cadence off time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	FaxBusy1BreakMin1	200	240	0	0	0xFF
Busy 1 break max 1	milliseconds	FaxBusy1BreakMax1	200	241	550	0	10000
Max busy cadence off time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	FaxBusy1BreakMax1	200	241	0	0	0xFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Busy 1 break hole 1	Milliseconds	FaxBusy1BreakHole1	200	242	0	0	10000
Busy 1 idx next cell 1	Index of next pattern	FaxBusy1IdxNextCell1	200	243	0	0	2
Busy 1 idx restart cell 1	Index to restart at	Busy1IdxRestartCell1	200	244	0	0	2
Busy 1 flag detection performed 1	Is this the last detection pattern?	Busy1FlagDetctPerfd1	200	245	1	0	1
Busy 1 make min 2	Milliseconds	FaxBusy1MakeMin2	200	246	0	0	10000
Busy 1 make max 2	Milliseconds	FaxBusy1MakeMax2	200	247	0	0	10000
Busy 1 make hole 2	Milliseconds	FaxBusy1MakeHole2	200	248	0	0	10000
Busy 1 break min 2	Milliseconds	FaxBusy1BreakMin2	200	249	0	0	10000
Busy 1 break max 2	Milliseconds	FaxBusy1BreakMax2	200	250	0	0	10000
Busy 1 break hole 2	Milliseconds	FaxBusy1BreakHole2	200	251	0	0	10000
Busy 1 idx next cell 2	Index of next pattern	FaxBusy1IdxNextCell2	200	252	0	0	2
Busy 1 idx restart cell 2	Index to restart at	Busy1IdxRestartCell2	200	253	0	0	2
Busy 1 flag detection performed 2	Is this the last detection pattern?	Busy1FlgDetectPerfd2	200	254	0	0	1
Busy 1 make min 3	Milliseconds	FaxBusy1MakeMin3	200	255	0	0	10000
Busy 1 make max 3	Milliseconds	FaxBusy1MakeMax3	200	256	0	0	10000
Busy 1 make hole 3	Milliseconds	FaxBusy1MakeHole3	200	257	0	0	10000
Busy 1 break min 3	Milliseconds	FaxBusy1BreakMin3	200	258	0	0	10000
Busy 1 break max 3	Milliseconds	FaxBusy1BreakMax3	200	259	0	0	10000
Busy 1 break hole 3	Milliseconds	FaxBusy1BreakHole3	200	260	0	0	10000
Busy 1 idx next cell 3	Index of next pattern	FaxBusy1IdxNextCell3	200	261	0	0	2
Busy 1 idx restart cell 3	Index to restart at	Busy1IdxRestartCell3	200	262	0	0	2
Busy 1 flag detection performed 3	Is this the last detection pattern?	Busy1FlagDetctPerfd3	200	263	0	0	1
Busy 2 detection algorithm		Busy2DetectAlgorithm	200	264	0x20	0x20	0x21
Busy 2 number cell pattern	Number of patterns to describe the sequence	Busy2NumCellPattern	200	265	1	0	3
Busy 2 timeout reset detector	Milliseconds	Busy2TmoutResetDetct	200	266	100	1	15000
Busy 2 make min 1	Milliseconds	FaxBusy2MakeMin1	200	267	600	0	10000
Busy 2 make max 1	Milliseconds	FaxBusy2MakeMax1	200	268	3700	0	10000
Busy 2 make hole 1	Milliseconds	FaxBusy2MakeHole1	200	269	130	0	10000
Busy 2 break min 1	Milliseconds	FaxBusy2BreakMin1	200	270	550	0	10000
Busy 2 break max 1	Milliseconds	FaxBusy2BreakMax1	200	271	550	0	10000

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Busy 2 break hole 1	Milliseconds	FaxBusy2BreakHole1	200	272	0	0	10000
Busy 2 idx next cell 1	Index of next pattern	FaxBusy2IdxNextCell1	200	273	0	0	2
Busy 2 idx restart cell 1	Index to restart at	Busy2IdxRestartCell1	200	274	0	0	2
Busy 2 flag detection performed 1	Is this the last detection pattern?	Busy2FlagDetctPerfd1	200	275	1	0	1
Busy 2 make min 2	Milliseconds	FaxBusy2MakeMin2	200	276	0	0	10000
Busy 2 make max 2	Milliseconds	FaxBusy2MakeMax2	200	277	0	0	10000
Busy 2 make hole 2	Milliseconds	FaxBusy2MakeHole2	200	278	0	0	10000
Busy 2 break max 2	Milliseconds	FaxBusy2BreakMax2	200	280	0	0	10000
Busy 2 break hole 2	milliseconds	FaxBusy2BreakHole2	200	281	0	0	10000
Busy 2 idx next cell 2	Index of next pattern	FaxBusy2IdxNextCell2	200	282	0	0	2
Busy 2 idx restart cell 2	Index to restart at	Busy2IdxRestartCell2	200	283	0	0	2
Busy 2 flag detection performed 2	Is this the last detection pattern?	Busy2FlagDetctPerfd2	200	284	0	0	1
Busy 2 make min 3	milliseconds	FaxBusy2MakeMin3	200	285	0	0	10000
Busy 2 make max 3	milliseconds	FaxBusy2MakeMax3	200	286	0	0	10000
Busy 2 make hole 3	milliseconds	FaxBusy2MakeHole3	200	287	0	0	10000
Busy 2 break min 3	milliseconds	FaxBusy2BreakMin3	200	288	0	0	10000
Busy 2 break max 3	milliseconds	FaxBusy2BreakMax3	200	289	0	0	10000
Busy 2 break hole 3	milliseconds	FaxBusy2BreakHole3	200	290	0	0	10000
Busy 2 idx next cell 3	Index of next pattern	FaxBusy2IdxNextCell3	200	291	0	0	2
Busy 2 idx restart cell 3	Index to restart at	Busy2IdxRestartCell3	200	292	0	0	2
Busy 2 flag detection performed 3	Is this the last detection pattern?	Busy2FlagDetctPerfd3	200	293	0	0	1
Congest 1 Filter stage 1 A1	0x02CA	Congt1FilterStage1A1	200	294	0x02CA	0	0xFFFF
Congest 1 Filter stage 1 A2	0xFD36	Congt1FilterStage1A2	200	295	0xFD36	0	0xFFFF
Congest 1 Filter stage 1 A3	0x0000	Congt1FilterStage1A3	200	296	0x0000	0	0xFFFF
Congest 1 Filter stage 1 B1	0x7243	Congt1FilterStage1B1	200	297	0x7243	0	0xFFFF
Congest 1 Filter stage 1 B2	0xC63E	Congt1FilterStage1B2	200	298	0xC63E	0	0xFFFF
Congest 1 Filter stage 2 A1	0x02CA	Congt1FilterStage2A1	200	299	0x02CA	0	0xFFFF
Congest 1 Filter stage 2 A2	0x0593	Congt1FilterStage2A2	200	300	0x0593	0	0xFFFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Congest 1 Filter stage 2 A3	0x02CA	Congt1FilterStage2A3	200	301	0x02CA	0	0xFFFF
Congest 1 Filter stage 2 B1	0x7243	Congt1FilterStage2B1	200	302	0x7243	0	0xFFFF
Congest 1 Filter stage 2 B2	0xC63E	Congt1FilterStage2B2	200	303	0xC63E	0	0xFFFF
Congest 1 Low Pass Feedback	0x7E67	Congt1LwPassFeedback	200	304	0x7E67	1	0xFFFF
Congest 1 Low Pass Gain	0x02DF	Congest1LowPassGain	200	305	0x02DF	1	0xFFFF
Congest 1 Upper Threshold	0x2A00	Congt1UpperThreshold	200	306	0x2A00	1	0xFFFF
Congest 1 Lower Threshold	0x1C00	Congt1LowerThreshold	200	307	0x1C00	1	0xFFFF
Congest 1 detection algorithm		Congt1DetctAlgorithm	200	308	0x20	0x20	0x21
Congest 1 number cell pattern	number of patterns to describe the sequence	Congt1NumCellPattern	200	309	1	0	3
Congest 1 timeout reset detector	milliseconds	Congt1TmoutRsetDetct	200	310	100	1	15000
Congest 1 make min 1	milliseconds	FaxCongest1MakeMin1	200	311	450	0	10000
Congest 1 make max 1	milliseconds	FaxCongest1MakeMax1	200	312	550	0	10000
Congest 1 make hole 1	milliseconds	FaxCongest1MakeHole1	200	313	40	0	10000
Congest 1 break min 1	milliseconds	FaxCongest1BreakMin1	200	314	450	0	10000
Congest 1 break max 1	milliseconds	FaxCongest1BreakMax1	200	315	550	0	10000
Congest 1 break hole 1	milliseconds	FaxCongst1BreakHole1	200	316	0	0	10000
Congest 1 idx next cell 1	Index of next pattern	Congest1IdxNextCell1	200	317	0	0	2
Congest 1 idx restart cell 1	Index to restart at	Congt1IdxRstartCell1	200	318	0	0	2
Congest 1 flag detection performed 1	Is this the last detection pattern?	Congt1FlgDetctPerfd1	200	319	1	0	1
Congest 1 make min 2	milliseconds	FaxCongest1MakeMin2	200	320	0	0	10000
Congest 1 make max 2	milliseconds	FaxCongest1MakeMax2	200	321	0	0	10000
Congest 1 make hole 2	milliseconds	FaxCongest1MakeHole2	200	322	0	0	10000
Congest 1 break min 2	milliseconds	FaxCongest1BreakMin2	200	323	0	0	10000
Congest 1 break max 2	milliseconds	FaxCongest1BreakMax2	200	324	0	0	10000
Congest 1 break hole 2	milliseconds	FaxCongst1BreakHole2	200	325	0	0	10000

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Congest 1 idx next cell 2	Index of next pattern	Congest1IdxNextCell2	200	326	0	0	2
Congest 1 idx restart cell 2	Index to restart at	Congt1IdxRstartCell2	200	327	0	0	2
Congest 1 flag detection performed 2	Is this the last detection pattern?	Congt1FlgDetctPerfd2	200	328	0	0	1
Congest 1 make min 3	milliseconds	FaxCongest1MakeMin3	200	329	0	0	10000
Congest 1 make max 3	milliseconds	FaxCongest1MakeMax3	200	330	0	0	10000
Congest 1 make hole 3	milliseconds	FaxCongest1MakeHole3	200	331	0	0	10000
Congest 1 break min 3	milliseconds	FaxCongest1BreakMin3	200	332	0	0	10000
Congest 1 break max 3	milliseconds	FaxCongest1BreakMax3	200	333	0	0	10000
Congest 1 break hole 3	milliseconds	FaxCongst1BreakHole3	200	334	0	0	10000
Congest 1 idx next cell 3	Index of next pattern	Congest1IdxNextCell3	200	335	0	0	2
Congest 1 idx restart cell 3	Index to restart at	Congt1IdxRstartCell3	200	336	0	0	2
Congest 1 flag detection performed 3	Is this the last detection pattern?	Congt1FlgDetctPerfd3	200	337	0	0	1
CED 1 Filter stage 1 A1	0x02CA	FaxCED1FiltrStage1A1	200	338	0x02CA	1	0xFFFF
CED 1 Filter stage 1 A2	0xFD36	FaxCED1FiltrStage1A2	200	339	0xFD36	1	0xFFFF
CED 1 Filter stage 1 A3	0x0000	FaxCED1FiltrStage1A3	200	340	0x0000	0	0xFFFF
CED 1 Filter stage 1 B1	0x7243	FaxCED1FiltrStage1B1	200	341	0x7243	1	0xFFFF
CED 1 Filter stage 1 B2	0xC63E	FaxCED1FiltrStage1B2	200	342	0xC63E	1	0xFFFF
CED 1 Filter stage 2 A1	0x02CA	FaxCED1FiltrStage2A1	200	343	0x02CA	1	0xFFFF
CED 1 Filter stage 2 A2	0x0593	FaxCED1FiltrStage2A2	200	344	0x0593	1	0xFFFF
CED 1 Filter stage 2 A3	0x02CA	FaxCED1FiltrStage2A3	200	345	0x02CA	1	0xFFFF
CED 1 Filter stage 2 B1	0x7243	FaxCED1FiltrStage2B1	200	346	0x7243	1	0xFFFF
CED 1 Filter stage 2 B2	0xC63E	FaxCED1FiltrStage2B2	200	347	0xC63E	1	0xFFFF
CED 1 Low Pass Feedback	0x7E67	FaxCED1LwPassFeedbck	200	348	0x7E67	1	0xFFFF
CED 1 Low Pass Gain	0x02DF	FaxCED1LowPassGain	200	349	0x02DF	1	0xFFFF
CED 1 Upper Threshold	0x2A00	FaxCED1UpprThreshold	200	350	0x2A00	1	0xFFFF
CED 1 Lower Threshold	0x1C00	FaxCED1LowrThreshold	200	351	0x1C00	1	0xFFFF
FAX/data answer tone detection threshold (-dB)	0 - 255 (-dB)	FaxCED1LowrThreshold	200	351	0x2B	0	0xFF
CED 1 detection algorithm		CED1DetectAlgorithm	200	352	0x20	0x20	0x21



## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
CED 1 number cell pattern	number of patterns to describe the sequence	CED1NumCellPattern	200	353	1	0	3
CED 1 timeout reset detector	milliseconds	CED1TmoutResetDetect	200	354	100	1	15000
Answer tone validation time (x 10ms)	0 - 255 (x10 ms)	CED1TmoutResetDetect	200	354	0x0A	0	0xFF
CED 1 make min 1	milliseconds	FaxCED1MakeMin1	200	355	600	0	10000
CED 1 make max 1	milliseconds	FaxCED1MakeMax1	200	356	600	0	10000
CED 1 make hole 1	milliseconds	FaxCED1MakeHole1	200	357	30	0	10000
CED 1 break min 1	milliseconds	FaxCED1BreakMin1	200	358	0	0	10000
CED 1 break max 1	milliseconds	FaxCED1BreakMax1	200	359	0	0	10000
CED 1 break hole 1	milliseconds	FaxCED1BreakHole1	200	360	0	0	10000
CED 1 idx next cell 1	Index of next pattern	FaxCED1IdxNextCell1	200	361	0	0	0xff
CED 1 idx restart cell 1	Index to restart at	CED1IdxRestartCell1	200	362	0	0	2
CED 1 flag detection performed 1	Is this the last detection pattern?	CED1FlagDetectPerfd1	200	363	1	0	1
CED 1 make min 2	milliseconds	FaxCED1MakeMin2	200	364	0	0	10000
CED 1 make max 2	milliseconds	FaxCED1MakeMax2	200	365	0	0	10000
CED 1 make hole 2	milliseconds	FaxCED1MakeHole2	200	366	0	0	10000
CED 1 break min 2	milliseconds	FaxCED1BreakMin2	200	367	0	0	10000
CED 1 break max 2	milliseconds	FaxCED1BreakMax2	200	368	0	0	10000
CED 1 break hole 2	milliseconds	FaxCED1BreakHole2	200	369	0	0	10000
CED 1 idx next cell 2	Index of next pattern	FaxCED1IdxNextCell2	200	370	0	0	2
CED 1 idx restart cell 2	Index to restart at	CED1IdxRestartCell2	200	371	0	0	2
CED 1 flag detection performed 2	Is this the last detection pattern?	CED1FlagDetectPerfd2	200	372	0	0	1
CED 1 make min 3	milliseconds	FaxCED1MakeMin3	200	373	0	0	10000
CED 1 make max 3	milliseconds	FaxCED1MakeMax3	200	374	0	0	10000
CED 1 make hole 3	milliseconds	FaxCED1MakeHole3	200	375	0	0	10000
CED 1 break min 3	milliseconds	FaxCED1BreakMin3	200	376	0	0	10000
CED 1 break max 3	milliseconds	FaxCED1BreakMax3	200	377	0	0	10000
CED 1 break hole 3	milliseconds	FaxCED1BreakHole3	200	378	0	0	10000
CED 1 idx next cell 3	Index of next pattern	FaxCED1IdxNextCell3	200	379	0	0	2
CED 1 idx restart cell 3	Index to restart at	CED1IdxRestartCell3	200	380	0	0	2
CED 1 flag detection performed 3	Is this the last detection pattern?	CED1FlagDetectPerfd3	200	381	0	0	1

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
International Dtone 1 Filter stage 1 A1	0x02CA	IntDtone1FltrStge1A1	200	382	0x02CA	1	0xFFFF
International Dtone 1 Filter stage 1 A2	0xFD36	IntDtone1FltrStge1A2	200	383	0xFD36	1	0xFFFF
International Dtone 1 Filter stage 1 A3	0x0000	IntDtone1FltrStge1A3	200	384	0x0000	0	0xFFFF
International Dtone 1 Filter stage 1 B1	0x7243	IntDtone1FltrStge1B1	200	385	0x7243	1	0xFFFF
International Dtone 1 Filter stage 1 B2	0xC63E	IntDtone1FltrStge1B2	200	386	0xC63E	1	0xFFFF
International Dtone 1 Filter stage 2 A1	0x02CA	IntDtone1FltrStge2A1	200	387	0x02CA	1	0xFFFF
International Dtone 1 Filter stage 2 A2	0x0593	IntDtone1FltrStge2A2	200	388	0x0593	1	0xFFFF
International Dtone 1 Filter stage 2 A3	0x02CA	IntDtone1FltrStge2A3	200	389	0x02CA	1	0xFFFF
International Dtone 1 Filter stage 2 B1	0x7243	IntDtone1FltrStge2B1	200	390	0x7243	1	0xFFFF
International Dtone 1 Filter stage 2 B2	0xC63E	IntDtone1FltrStge2B2	200	391	0xC63E	1	0xFFFF
International Dtone 1 Low Pass Feedback	0x7E67	IntDtone1LwPssFdback	200	392	0x7E67	1	0xFFFF
International Dtone 1 Low Pass Gain	0x02DF	IntDtone1LwPssGain	200	393	0x02DF	1	0xFFFF
International Dtone 1 Upper Threshold	0x2A00	IntDtone1UprThrshold	200	394	0x2A00	1	0xFFFF
International Dtone 1 Lower Threshold	0x1C00	IntDtone1LwrThrshold	200	395	0x1C00	1	0xFFFF
Select tones to detect before dialling	0=blinddial 1 = detect dial tone.	DetTonesBeforeDial	200	396	0	0	1
Dial tone detection before dialling	0 = detect dial tone 1 = blind dial 2 = blind dial with speaker on	DetTonesBeforeDial	200	396	1	0	2
Determines pause time before dial (blind mode) or dial tone detection timeout.	0-255 1=100ms	TimeBeforeDial	200	397	13	0	255
Determines pause time before dialing (blind dial mode)	0 - 65 seconds	TimeBeforeDial	200	397	2	0	65

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Make time for pulse dialling	0-255 1=1mS step	PulseDialMake	200	398	40	0	255
Make time for pulse dialling	0-255 1=1mS step	PulseDialMake	200	398	0x23	0x00	0xFF
Break time for pulse dialling	0-255 1=1mS step	PulseDialBreak	200	399	60	0	255
Break time for pulse dialling	0-255 1=1mS step	PulseDialBreak	200	399	0x42	0x00	0xFF
Interdigit pause for pulse dialling	0-255 1 = 10mS step	PulseDialInterdigit	200	400	80	0	255
Select tones to detect after dialling	0 = No Detect (ANSAM/CEDOnly) 1 = Detect BUSY/CED/ANSAM 2 = Detect Cong/CED/ANSAM 3 = Detect BUSY/Cong/CED/ANSAM	DetTonesAfterDial	200	401	1	0	3
Select tones to detect after dialling (Busy tone)	0 = No Detect (ANSAM/CEDOnly) 1 = Detect BUSY/CED/ANSAM	DetTonesAfterDial	200	401	1	0	1
CED detect time from end of dial to call clear down.	0-255 1 = 1S step	T0Timeout	200	402	45	0	255
CED detect time from end of dial to call clear down.	0-255 1 = 1S step	T0Timeout	200	402	55	0	255
Abandons call and does not redial if T0 timeout occurs (no ANSAM/CED detection)	0=disabled, 1=enabled	AbandonCall	200	403	0	0	1
Fax modem Tx level for line1 and 2	0 - -15 dBm in -1 dB steps 0= 0dBm, 15=-15dBm	FaxTxSignalLevLn1Ln2	200	404	10	0	15
Fax modem Tx level for line1 and 2 <b>Note:</b> How loud the modem yells on the line. Usually is -12, more negative is more louder. Too loud will clip signal	0 - -20 dBm in -1 dB steps 0= 0dBm, 20=-20dBm	FaxTxSignalLevLn1Ln2	200	404	0x0C	0x00	0x14

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Selects type of billing filter	0=none 1=12KHz 2=16KHz	BillingFilterTypeLn1	200	405	0	0	2
Selects type of billing filter	0=none 1=12KHz 2=16KHz	BillingFilterTypeLn2	200	406	0	0	2
Receive level	0=-43dB 1 = -48dB	FaxReceiveLevel	200	407	0	0	1
Carrier receive threshold (in dB) with a 6 dB DSP/DAA offset. This parameter should be set to the required threshold + 6dB gain <b>Note:</b> How hard you are listening Alter to compensate for signal to noise issues -46 is typical  Higher means listening harder. Could trigger on noise if not careful.	0 - 255 (-dB)	FaxReceiveLevel	200	407	46	1	255
Tx level of DTMF high freq group	0-30 (0 - -15 dBm) 1 = -0.5 dB step	FaxDTMFHighFreqLevel	200	408	8	0	30
Tx level of DTMF high freq group <b>Note:</b> Dual tone modulation freq	0 - 15 (- dB)	FaxDTMFHighFreqLevel	200	408	8	0	15
Tx level of DTMF low freq group	0-30 (0 - -15 dBm) 1 = -0.5 dB step	FaxDTMFLowFreqLevel	200	409	10	0	30
DTMF ToneTime	0 - 30000 ms units	FaxDTMFToneTime	200	410	80	0	30000
DTMF Tone and Interdigit duration	0 - 255 ms	FaxDTMFToneTime	200	410	100	0	255
DTMF Interdigit Time	0 - 30000 ms units	FaxDTMFIntdigitTime	200	411	75	0	30000
Delay between faxes	Guard delay between outgoing faxes (seconds)	FaxDelayBetweenFaxes	200	412	3	1	10
Line 1 impedance	0-Complex 1 - 600ohms	Line 1 Impedance	200	413	0	0	1

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Line 1 impedance <b>Note:</b> Compensates for long lines of copper which can attenuate signals.  Alter for PBX vs PSTN or for long lines vs short lines	0 - CSP1034 (internal) 1 - Real (unused) 2 - Complex (external)	Line 1 Impedance	200	413	0	0	2
Line 2 impedance	0-Complex 1 - 600ohms	Line 2 Impedance	200	414	0	0	1
Line 2 impedance	0 - CSP1034 (internal) 1 - Real (unused) 2 - Complex (external)	Line 2 Impedance	200	414	0	0	2
Line 1 Current	0-Off 1 - On	Line 1 Current	200	415	1	0	1
Line 1 Current Limit	0-Off 1 - On	Line 1 Current	200	415	0	0	1
Line 2 Current	0-Off 1 - On	Line 2 Current	200	416	1	0	1
Line 2 Current Limit	0-Off 1 - On	Line 2 Current	200	416	0	0	1
Ring detector dwell	350 msec	FaxRingDetectorDwell	200	417	350	1	10000
Ring detector min freq	N = 2400 / Frequency	RingDetectorMinFreq	200	418	0xA0	1	0xFFFF
Ring detector minimum frequency (max period) <b>Note:</b> Ring frequency/cadence to listen for incoming ring. Frequency trap Bigger the number the bigger the trap.	0 - 255; expressed as 1000 / (0.833 x min ring frequency)	RingDetectorMinFreq	200	418	85	0	255
Ring detector max freq	N = 2400 / Frequency	RingDetectorMaxFreq	200	419	0x23	1	0xFFFF
Ring detector maximum frequency (min period)	0 - 255; expressed as 1000 / (0.833 x max ring frequency)	RingDetectorMaxFreq	200	419	0x12	0	0xFF
Ring 1 detection algorithm	0x20	Ring1DetectAlgorithm	200	420	0x20	0x20	0x21
Ring 1 number cell pattern	Number of patterns to describe the sequence	Ring1NumCellPattern	200	421	1	0	3
Ring 1 timeout reset detector	milliseconds	Ring1TmoutRsetDetect	200	422	8000	1000	15000

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Ring timeout reset detector	0 - 255 (x100 ms)	Ring1TmoutRsetDetect	200	422	0x50	0	0xFF
Ring 1 make min 1	milliseconds	FaxRing1MakeMin1	200	423	150	0	10000
Ring make minimum	0 - 255 (x10 ms)	FaxRing1MakeMin1	200	423	0x0E	0	0xFF
Ring 1 make max 1	milliseconds	FaxRing1MakeMax1	200	424	5000	0	10000
Ring 1 make hole 1	milliseconds	FaxRing1MakeHole1	200	425	100	0	10000
Ring 1 break min 1	milliseconds	FaxRing1BreakMin1	200	426	125	0	10000
Ring break minimum	0 - 255 (x100 ms)	FaxRing1BreakMin1	200	426	0x1E	0	0xFF
Ring 1 break max 1	milliseconds	FaxRing1BreakMax1	200	427	5500	0	10000
Ring 1 break hole 1	milliseconds	FaxRing1BreakHole1	200	428	100	0	10000
Ring 1 idx next cell 1	Index of next pattern	FaxRing1IdxNextCell1	200	429	0	0	2
Ring 1 idx restart cell 1	Index to restart at	Ring1IdxRestartCell1	200	430	0	0	2
Ring 1 flag detection performed 1	Is this the last detection pattern?	Ring1FlgDetectPerfd1	200	431	1	0	1
Ring 1 make min 2	milliseconds	FaxRing1MakeMin2	200	432	0	0	10000
Ring 1 make max 2	milliseconds	FaxRing1MakeMax2	200	433	0	0	10000
Ring 1 make hole 2	milliseconds	FaxRing1MakeHole2	200	434	0	0	10000
Ring 1 break min 2	milliseconds	FaxRing1BreakMin2	200	435	0	0	10000
Ring 1 break max 2	milliseconds	FaxRing1BreakMax2	200	436	0	0	10000
Ring 1 break hole 2	milliseconds	FaxRing1BreakHole2	200	437	0	0	10000
Ring 1 idx next cell 2	Index of next pattern	FaxRing1IdxNextCell2	200	438	0	0	2
Ring 1 idx restart cell 2	Index to restart at	Ring1IdxRestartCell2	200	439	0	0	2
Ring 1 flag detection performed 2	Is this the last detection pattern?	Ring1FlgDetectPerfd2	200	440	0	0	1
Ring 1 make min 3	milliseconds	FaxRing1MakeMin3	200	441	0	0	10000
Ring 1 make max 3	milliseconds	FaxRing1MakeMax3	200	442	0	0	10000
Ring 1 make hole 3	milliseconds	FaxRing1MakeHole3	200	443	0	0	10000
Ring 1 break min 3	milliseconds	FaxRing1BreakMin3	200	444	0	0	10000
Ring 1 break max 3	milliseconds	FaxRing1BreakMax3	200	445	0	0	10000
Ring 1 break hole 3	milliseconds	FaxRing1BreakHole3	200	446	0	0	10000
Ring 1 idx next cell 3	Index of next pattern	FaxRing1IdxNextCell3	200	447	0	0	2
Ring 1 idx restart cell 3	Index to restart at	Ring1IdxRestartCell3	200	448	0	0	2
Ring 1 flag detection performed 3	Is this the last detection pattern?	Ring1FlgDetectPerfd3	200	449	0	0	1
Ring 2 detection algorithm		Ring2DetectAlgorithm	200	450	0x20	0x20	0x21

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Ring 2 number cell pattern	number of ring pattern detectors	Ring2NumCellPattern	200	451	0	0	3
Ring 2 timeout reset detector	milliseconds	Ring2TmoutResetDetct	200	452	8000	1000	15000
Ring 2 make min 1	milliseconds	FaxRing2MakeMin1	200	453	0	0	10000
Ring 2 make max 1	milliseconds	FaxRing2MakeMax1	200	454	0	0	10000
Ring 2 make hole 1	milliseconds	FaxRing2MakeHole1	200	455	0	0	10000
Ring 2 break min 1	milliseconds	FaxRing2BreakMin1	200	456	0	0	10000
Ring 2 break max 1	milliseconds	FaxRing2BreakMax1	200	457	0	0	10000
Ring 2 break hole 1	milliseconds	FaxRing2BreakHole1	200	458	0	0	10000
Ring 2 idx next cell 1	Index of next pattern	FaxRing2IdxNextCell1	200	459	0	0	2
Ring 2 idx restart cell 1	Index to restart at	Ring2IdxRestartCell1	200	460	0	0	2
Ring 2 flag detection performed 1	Is this the last detection pattern?	Ring2FlgDetectPerfd1	200	461	1	0	1
Ring 2 make min 2	milliseconds	FaxRing2MakeMin2	200	462	0	0	10000
Ring 2 make max 2	milliseconds	FaxRing2MakeMax2	200	463	0	0	10000
Ring 2 make hole 2	milliseconds	FaxRing2MakeHole2	200	464	0	0	10000
Ring 2 break min 2	milliseconds	FaxRing2BreakMin2	200	465	0	0	10000
Ring 2 break max 2	milliseconds	FaxRing2BreakMax2	200	466	0	0	10000
Ring 2 break hole 2	milliseconds	FaxRing2BreakHole2	200	467	0	0	10000
Ring 2 idx next cell 2	Index of next pattern	FaxRing2IdxNextCell2	200	468	0	0	2
Ring 2 idx restart cell 2	Index to restart at	Ring2IdxRestartCell2	200	469	0	0	2
Ring 2 flag detection performed 2	Is this the last detection pattern?	Ring2FlgDetectPerfd2	200	470	0	0	1
Ring 2 make min 3	milliseconds	FaxRing2MakeMin3	200	471	0	0	10000
Ring 2 make max 3	milliseconds	FaxRing2MakeMax3	200	472	0	0	10000
Ring 2 make hole 3	milliseconds	FaxRing2MakeHole3	200	473	0	0	10000
Ring 2 break min 3	milliseconds	FaxRing2BreakMin3	200	474	0	0	10000
Ring 2 break max 3	milliseconds	FaxRing2BreakMax3	200	475	0	0	10000
Ring 2 break hole 3	milliseconds	FaxRing2BreakHole3	200	476	0	0	10000
Ring 2 idx next cell 3	Index of next pattern	FaxRing2IdxNextCell3	200	477	0	0	2
Ring 2 idx restart cell 3	Index to restart at	Ring2IdxRestartCell3	200	478	0	0	2
Ring 2 flag detection performed 3	Is this the last detection pattern?	Ring2FlgDetectPerfd3	200	479	0	0	1
Dtone 1 Filter stage 1 A1	0x02CA	Dtone1FilterStage1A1	200	480	0x02CA	0	0xFFFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Dtone 1 Filter stage 1 A2	0xFD36	Dtone1FilterStage1A2	200	481	0xFD36	0	0xFFFF
Dtone 1 Filter stage 1 A3	0x0000	Dtone1FilterStage1A3	200	482	0x0000	0	0xFFFF
Dtone 1 Filter stage 1 B1	0x7243	Dtone1FilterStage1B1	200	483	0x7243	0	0xFFFF
Dtone 1 Filter stage 1 B2	0xC63E	Dtone1FilterStage1B2	200	484	0xC63E	0	0xFFFF
Dtone 1 Filter stage 2 A1	0x02CA	Dtone1FilterStage2A1	200	485	0x02CA	0	0xFFFF
Dtone 1 Filter stage 2 A2	0x0593	Dtone1FilterStage2A2	200	486	0x0593	0	0xFFFF
Dtone 1 Filter stage 2 A3	0x02CA	Dtone1FilterStage2A3	200	487	0x02CA	0	0xFFFF
Dtone 1 Filter stage 2 B1	0x7243	Dtone1FilterStage2B1	200	488	0x7243	0	0xFFFF
Dtone 1 Filter stage 2 B2	0xC63E	Dtone1FilterStage2B2	200	489	0xC63E	0	0xFFFF
Dtone 1 Low Pass Feedback	0x7E67	Dtone1LowPassFeedbck	200	490	0x7E67	1	0xFFFF
Dtone 1 Low Pass Gain	0x02DF	FaxDtone1LowPassGain	200	491	0x02DF	1	0xFFFF
Dtone 1 Upper Threshold	0x2A00	Dtone1UpperThreshold	200	492	0x2A00	1	0xFFFF
Dtone 1 Lower Threshold	0x1C00	Dtone1LowerThreshold	200	493	0x1C00	1	0xFFFF
Dtone Lower Threshold <b>Note:</b> Listen for dial tone before faxing Bigger number equals greater range to listen to for dial tone.	0 - 255 (-dB)	Dtone1LowerThreshold	200	493	40	0	255
Dtone 2 Filter stage 1 A1	0x02CA	Dtone2FilterStage1A1	200	494	0x02CA	0	0xFFFF
Dtone 2 Filter stage 1 A2	0xFD36	Dtone2FilterStage1A2	200	495	0xFD36	0	0xFFFF
Dtone 2 Filter stage 1 A3	0x0000	Dtone2FilterStage1A3	200	496	0x0000	0	0xFFFF
Dtone 2 Filter stage 1 B1	0x7243	Dtone2FilterStage1B1	200	497	0x7243	0	0xFFFF
Dtone 2 Filter stage 1 B2	0xC63E	Dtone2FilterStage1B2	200	498	0xC63E	0	0xFFFF



## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Dtone 2 Filter stage 2 A1	0x02CA	Dtone2FilterStage2A1	200	499	0x02CA	0	0xFFFF
Dtone 2 Filter stage 2 A2	0x0593	Dtone2FilterStage2A2	200	500	0x0593	0	0xFFFF
Dtone 2 Filter stage 2 A3	0x02CA	Dtone2FilterStage2A3	200	501	0x02CA	0	0xFFFF
Dtone 2 Filter stage 2 B1	0x7243	Dtone2FilterStage2B1	200	502	0x7243	0	0xFFFF
Dtone 2 Filter stage 2 B2	0xC63E	Dtone2FilterStage2B2	200	503	0xC63E	0	0xFFFF
Dtone 2 Low Pass Feedback	0x7E67	Dtone2LwPassFeedback	200	504	0x7E67	1	0xFFFF
Dtone 2 Low Pass Gain	0x02DF	FaxDtone2LowPassGain	200	505	0x02DF	1	0xFFFF
Dtone 2 Upper Threshold	0x2A00	Dtone2UpperThreshold	200	506	0x2A00	1	0xFFFF
Dtone 2 Lower Threshold	0x1C00	Dtone2LowerThreshold	200	507	0x1C00	1	0xFFFF
Dtone 1 detection algorithm		Dtone1DetctAlgorithm	200	508	0x20	0x20	0x21
Dtone 1 number cell pattern	number of patterns to describe the sequence	Dtone1NumCellPattern	200	509	1	0	3
Dtone 1 timeout reset detector	milliseconds	Dtone1TmoutRsetDetct	200	510	100	1	15000
Dtone 1 make min 1	milliseconds	FaxDtone1MakeMin1	200	511	600	0	10000
Dtone 1 make max 1	milliseconds	FaxDtone1MakeMax1	200	512	3700	0	10000
Dtone 1 make hole 1	milliseconds	FaxDtone1MakeHole1	200	513	130	0	10000
Dtone make hole	0 - 255 (ms)	FaxDtone1MakeHole1	200	513	0x32	0	0xFF
Dtone 1 break min 1	milliseconds	FaxDtone1BreakMin1	200	514	550	0	10000
Dtone 1 break max 1	milliseconds	FaxDtone1BreakMax1	200	515	550	0	10000
Dtone 1 break hole 1	milliseconds	FaxDtone1BreakHole1	200	516	0	0	10000
Dtone 1 idx next cell 1	Index of next pattern	FaxDtone1IdxNxtCell1	200	517	0	0	0xff
Dtone 1 idx restart cell 1	Index to restart at	Dtone1IdxRestrtCell1	200	518	0	0	2
Dtone 1 flag detection performed 1	Is this the last detection pattern?	Dtone1FlgDetctPerfd1	200	519	1	0	1
Dtone 1 make min 2	milliseconds	FaxDtone1MakeMin2	200	520	0	0	10000
Dtone 1 make max 2	milliseconds	FaxDtone1MakeMax2	200	521	0	0	10000
Dtone 1 make hole 2	milliseconds	FaxDtone1MakeHole2	200	522	0	0	10000
Dtone 1 break min 2	milliseconds	FaxDtone1BreakMin2	200	523	0	0	10000

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Dtone 1 break max 2	milliseconds	FaxDtone1BreakMax2	200	524	0	0	10000
Dtone 1 break hole 2	milliseconds	FaxDtone1BreakHole2	200	525	0	0	10000
Dtone 1 idx next cell 2	Index of next pattern	FaxDtone1IdxNxtCell2	200	526	0	0	0xff
Dtone 1 idx restart cell 2	Index to restart at	Dtone1IdxRestrtCell2	200	527	0	0	2
Dtone 1 flag detection performed 2	Is this the last detection pattern?	Dtone1FlgDetctPerfd2	200	528	0	0	1
Dtone 1 make min 3	milliseconds	FaxDtone1MakeMin3	200	529	0	0	10000
Dtone 1 make max 3	milliseconds	FaxDtone1MakeMax3	200	530	0	0	10000
Dtone 1 make hole 3	milliseconds	FaxDtone1MakeHole3	200	531	0	0	10000
Dtone 1 break min 3	milliseconds	FaxDtone1BreakMin3	200	532	0	0	10000
Dtone 1 break max 3	milliseconds	FaxDtone1BreakMax3	200	533	0	0	10000
Dtone 1 break hole 3	milliseconds	FaxDtone1BreakHole3	200	534	0	0	10000
Dtone 1 idx next cell 3	Index of next pattern	FaxDtone1IdxNxtCell3	200	535	0	0	2
Dtone 1 idx restart cell 3	Index to restart at	Dtone1IdxRestrtCell3	200	536	0	0	2
Dtone 1 flag detection performed 3	Is this the last detection pattern?	Dtone1FlgDetctPerfd3	200	537	0	0	1
Dtone 2 detection algorithm		Dtone2DetctAlgorithm	200	538	0x20	0x20	0x21
Dtone 2 number cell pattern	Number of ring pattern detectors	DtoneNumCellPattern	200	539	0	0	3
Dtone 2 timeout reset detector	milliseconds	DtoneTmoutResetDetct	200	540	100	1	15000
Dtone 2 make min 1	milliseconds	FaxDtone2MakeMin1	200	541	0	0	10000
Dtone 2 make max 1	milliseconds	FaxDtone2MakeMax1	200	542	0	0	10000
Dtone 2 make hole 1	milliseconds	FaxDtone2MakeHole1	200	543	0	0	10000
Dtone 2 break min 1	milliseconds	FaxDtone2BreakMin1	200	544	0	0	10000
Dtone 2 break max 1	milliseconds	FaxDtone2BreakMax1	200	545	0	0	10000
Dtone 2 break hole 1	milliseconds	FaxDtone2BreakHole1	200	546	0	0	10000
Dtone 2 idx next cell 1	Index of next pattern	FaxDtone2IdxNxtCell1	200	547	0	0	0xff
Dtone 2 idx restart cell 1	Index to restart at	Dtone2IdxRestrtCell1	200	548	0	0	2
Dtone 2 flag detection performed 1	Is this the last detection pattern?	Dtone2FlgDetctPerfd1	200	549	0	0	1
Dtone 2 make min 2	milliseconds	FaxDtone2MakeMin2	200	550	0	0	10000
Dtone 2 make max 2	milliseconds	FaxDtone2MakeMax2	200	551	0	0	10000

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Dtone 2 make hole 2	milliseconds	FaxDtone2MakeHole2	200	552	0	0	10000
Dtone 2 break min 2	milliseconds	FaxDtone2BreakMin2	200	553	0	0	10000
Dtone 2 break max 2	milliseconds	FaxDtone2BreakMax2	200	554	0	0	10000
Dtone 2 break hole 2	milliseconds	FaxDtone2BreakHole2	200	555	0	0	10000
Dtone 2 idx next cell 2	Index of next pattern	FaxDtone2IdxNxtCell2	200	556	0	0	0xff
Dtone 2 idx restart cell 2	Index to restart at	Dtone2IdxRestrtCell2	200	557	0	0	2
Dtone 2 flag detection performed 2	Is this the last detection pattern?	Dtone2FlgDetctPerfd2	200	558	0	0	1
Dtone 2 make min 3	milliseconds	FaxDtone2MakeMin3	200	559	0	0	10000
Dtone 2 make max 3	milliseconds	FaxDtone2MakeMax3	200	560	0	0	10000
Dtone 2 make hole 3	milliseconds	FaxDtone2MakeHole3	200	561	0	0	10000
Dtone 2 break min 3	milliseconds	FaxDtone2BreakMin3	200	562	0	0	10000
Dtone 2 break max 3	milliseconds	FaxDtone2BreakMax3	200	563	0	0	10000
Dtone 2 break hole 3	milliseconds	FaxDtone2BreakHole3	200	564	0	0	10000
Dtone 2 idx next cell 3	Index of next pattern	FaxDtone2IdxNxtCell3	200	565	0	0	2
Dtone 2 idx restart cell 3	Index to restart at	Dtone2IdxRestrtCell3	200	566	0	0	2
Dtone 2 flag detection performed 3	Is this the last detection pattern?	Dtone2FlgDetctPerfd3	200	567	0	0	1
The maximum range for the auto redial attempts displayed in SA/KO. Linked to ID204	0 to 14	FaxMaxAutoRedials	200	568	0	0	14
Application of very low impedance for approximately 350ms at line seizure	0=disabled 1 = Enabled	LowImpAtLineSeize	200	569	0	0	1
Pause time	0 – 255 seconds	FaxPauseTimeDefault	200	570	3	0	255
Dialing Pause time	0 – 65 seconds	FaxPauseTimeDefault	200	570	3	0	65
Ring detector min freq Line2	N = 2400 / Frequency	RingDetectorMinFreq2	200	571	0xA0	1	0xFFFF
Ring detector max freq Line2	N = 2400 / Frequency	RingDetectorMaxFreq2	200	572	0x23	1	0xFFFF
Int Dtone detection algorithm		FaxIntDtoneDetctAlg	200	573	0x20	0x20	0x21
Int Dtone number cell pattern	Number of patterns to describe the sequence	FaxIntDtnNumCellPatt	200	574	1	0	3

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Int Dtone timeout reset detector	milliseconds	FaxIntDtnToutRsetDet	200	575	100	1	15000
Int Dtone make min 1	milliseconds	FaxIntDtoneMakeMin1	200	576	600	0	10000
Int Dtone make max 1	milliseconds	FaxIntDtoneMakeMax1	200	577	3700	0	10000
Int Dtone make hole 1	milliseconds	FaxIntDtoneMakHole1	200	578	130	0	10000
Int. Dtone 1 break min 1	milliseconds	FaxIntDtoneBrekMin1	200	579	550	0	10000
Int Dtone break max 1	milliseconds	FaxIntDtoneBrekMax1	200	580	550	0	10000
Int Dtone break hole 1	milliseconds	FaxIntDtoneBrkHole1	200	581	0	0	10000
Int Dtone idx next cell 1	Index of next pattern	FaxIntDtoneIdxNxtC1	200	582	0	0	0xff
Int Dtone idx restart cell 1	Index to restart at	FaxIntDtIdxRestrtC1	200	583	0	0	2
Int Dtone flag detection performed 1	Is this the last detection pattern?	FaxIntDtFlgDtPerfd1	200	584	1	0	1
Int Dtone make min 2	milliseconds	FaxIntDtoneMakeMin2	200	585	0	0	10000
Int Dtone make max 2	milliseconds	FaxIntDtoneMakeMax2	200	586	0	0	10000
Int Dtone make hole 2	milliseconds	FaxIntDtoneMakeHole2	200	587	0	0	10000
Int Dtone break min 2	milliseconds	FaxIntDtoneBrkMin2	200	588	0	0	10000
Int Dtone break max 2	milliseconds	FaxIntDtoneBrkMax2	200	589	0	0	10000
Int Dtone break hole 2	milliseconds	FaxIntDtoneBrkHole2	200	590	0	0	10000
Int Dtone idx next cell 2	Index of next pattern	FaxIntDtoneIdxNxtC2	200	591	0	0	0xff
Int Dtone idx restart cell 2	Index to restart at	FaxIntDtIdxRestrtC2	200	592	0	0	2
Int Dtone flag detection performed 2	Is this the last detection pattern?	FaxIntDtFlgDetPrfd2	200	593	0	0	1
Int Dtone make min 3	milliseconds	FaxIntDtoneMakeMin3	200	594	0	0	10000
Int Dtone make max 3	milliseconds	FaxIntDtoneMakeMax3	200	595	0	0	10000
Int Dtone make hole 3	milliseconds	FaxIntDtoneMakHole3	200	596	0	0	10000
Int Dtone break min 3	milliseconds	FaxIntDtoneBrkMin3	200	597	0	0	10000
Int Dtone break max 3	milliseconds	FaxIntDtoneBrkMax3	200	598	0	0	10000
Int Dtone break hole 3	milliseconds	FaxIntDtoneBrkHole3	200	599	0	0	10000
Int Dtone idx next cell 3	Index of next pattern	FaxIntDtoneIdxNxtC3	200	600	0	0	2
Int Dtone idx restart cell 3	Index to restart at	IntDtoneIdxRestrtC3	200	601	0	0	2

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Int Dtone flag detection performed 3	Is this the last detection pattern?	IntDtoneFlgDetPrfd3	200	602	0	0	1
Dial tone & call progress frequency filter index	0 = 340 - 560 Hz 1 = 310 - 485 Hz 2 = 363 - 502 Hz 3 = 276 - 504 Hz 4 = 415 - 460 Hz 5 = 310 - 640 Hz 6 = 370 - 525 Hz	DToneCPToneFrqFilter	200	603	5	0	6
Dial tone detection time-out while detecting dial tone within the dial string (e. International dial tone)	0 - 255 (seconds)	IntDToneDetectTime	200	604	0x40	0	0xFF
DTMF high/low level difference (twist) (dB)	0 - 5 (dB)	DTMFLevelDifference	200	605	2	0	5
Dial Tone validation time	0 - 255 (x100 ms)	DToneDetectTime	200	606	0x06	0	0xFF
Dial tone validation delay (i.e.. The wait time before dial tone detection begins)	0 - 255 (x10 ms)	DToneDetectDelay	200	607	0	0	0xFF
Ringer impedance relay Line 1	0 = off 1 = on	RingerImpedanceLine1	200	608	1	0	1
Ringer impedance relay Line 2	0 = off 1 = on	RingerImpedanceLine2	200	609	1	0	1
Maximum total pause duration of multiple pauses during dialing	0 - 255 (seconds)	TotalPauseTimeLimit	200	610	0x1E	0x00	0xFF
Allows the selection of Tone or Pulse dialling at the UI and linked to NVMs at ID201 and ID202	0 = off 1 = on	TonePulseSelection	200	611	0	0	1
Reserved	Reserved for future use	#not displayed in DC131	200	901	0	0	0
Reserved	Reserved for future use	#not displayed in DC131	200	902	0	0	0
ISDN ASR	ISDN Answer specified number range 1 or 2 numbers	FaxISDNASR	200	903	2	1	2
ISDN PP	0 = Operate point to multipoint protocol 1 = Operate point to point protocol	FaxISDNPP	200	904	1	0	1

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
ISDN Overlap receiving	0 = Operate en-block receiving 1 = Operate overlap receiving	FaxISDNOverlapRec	200	905	0	0	1
ISDN Line Type	0=NationalISDN-1 1 = Northern Telecom (DMS-100) 2 = AT&T Custom (5ESS) 3 = Euro ISDN	FaxISDNLineType	200	906	0	0	3
Call Hunting	0=Disabled 1 = Enabled	CallHunting	200	907	0	0	1
Service profile identifier setting	numeric entered by SAKO	#not displayed in DC131	200	908	N/A	N/A	N/A
TEI setting	0 - 63 (user entered Data)	TeiSetting	200	909	0	0	63
TEI type	0=Automatic 1 = Manual	TeiSettingType	200	910	0	0	1
Ohmic termination	0=Disabled 1 = Enabled	OhmTermination	200	911	0	0	1
G4 enabled	0=Disabled 1 = Enabled	G4Enabled	200	912	0	0	1
auto detect	0=Notdetected 2=U 3 = S/T	#not displayed in DC131	200	913	0	0	3
Reset/Stop card on recoverable fault	0=Reset 1 = Stop	CardResetStop	201	201	0	0	1
Load jobs at start up	0=Donotloadjobs 1 = Load jobs	LoadJobsAtStart	201	202	1	0	1
Load directories at start up	0 = Do not load directories 1 = Load directories	LoadDirectrysAtStart	201	203	1	0	1
Load mailboxes at start up	0 = Do not load mailboxes 1 = Load mailboxes	LoadMailboxesAtStart	201	204	1	0	1
Temporary NVM to Capture the data for a received page to RAM disk and copy to NVM if error occurred..	0 = Disabled X = File size in bytes (Max = 0xFFFF)	SaveCompressedData	201	205	0	0	0xFFFF
Last allocated user job ID	Sets the last allocated user job ID	LastUserJobID	201	501	999	1	999
Last allocated recurring job ID	Sets the last allocated recurring job ID	LastRecurringJobID	201	502	5199	5000	5199

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Completed jobs count	Sets the completed jobs count for automatic activity report generation	CompletedJobsCount	201	503	0	0	50
(Tap 1) Finite impulse response digital filter with programmable Coefficients		CEQTAP1	203	1	0x0714	0	0xFFFF
(Tap 2) Finite impulse response digital filter with programmable Coefficients		CEQTAP2	203	2	0x0A10	0	0xFFFF
(Tap 3) Finite impulse response digital filter with programmable Coefficients		CEQTAP3	203	3	0x121B	0	0xFFFF
(Tap 4) Finite impulse response digital filter with programmable Coefficients		CEQTAP4	203	4	0x13B9	0	0xFFFF
(Tap 5) Finite impulse response digital filter with programmable Coefficients		CEQTAP5	203	5	0x18B8	0	0xFFFF
(Tap 6) Finite impulse response digital filter with programmable Coefficients		CEQTAP6	203	6	0x16BD	0	0xFFFF
(Tap 7) Finite impulse response digital filter with programmable Coefficients		CEQTAP7	203	7	0x12E7	0	0xFFFF
(Tap 8) Finite impulse response digital filter with programmable Coefficients		CEQTAP8	203	8	0x0E18	0	0xFFFF
(Tap 9) Finite impulse response digital filter with programmable Coefficients		CEQTAP9	203	9	0x0050	0	0xFFFF
(Tap 10) Finite impulse response digital filter with programmable Coefficients		CEQTAP10	203	10	0xFF80	0	0xFFFF
(Tap 11) Finite impulse response digital filter with programmable Coefficients		CEQTAP11	203	11	0xF0F1	0	0xFFFF
(Tap 12) Finite impulse response digital filter with programmable Coefficients		CEQTAP12	203	12	0xF757	0	0xFFFF
(Tap 13) Finite impulse response digital filter with programmable Coefficients		CEQTAP13	203	13	0xF84C	0	0xFFFF
(Tap 14) Finite impulse response digital filter with programmable Coefficients		CEQTAP14	203	14	0xFBBD	0	0xFFFF
(Tap 15) Finite impulse response digital filter with programmable Coefficients		CEQTAP15	203	15	0x12C0	0	0xFFFF
(Tap 16) Finite impulse response digital filter with programmable Coefficients		CEQTAP16	203	16	0xFE3F	0	0xFFFF
(Tap 17) Finite impulse response digital filter with programmable Coefficients		CEQTAP17	203	17	0x19E0	0	0xFFFF
(Tap 18) Finite impulse response digital filter with programmable Coefficients		CEQTAP18	203	18	0xF6C6	0	0xFFFF
(Tap 19) Finite impulse response digital filter with programmable Coefficients		CEQTAP19	203	19	0xF6F7	0	0xFFFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
(Tap 20) Finite impulse response digital filter with programmable Coefficients		CEQTAP20	203	20	0xF9CE	0	0xFFFF
(Tap 21) Finite impulse response digital filter with programmable Coefficients		CEQTAP21	203	21	0xDBEF	0	0xFFFF
(Tap 22) Finite impulse response digital filter with programmable Coefficients		CEQTAP22	203	22	0x22DC	0	0xFFFF
(Tap 23) Finite impulse response digital filter with programmable Coefficients		CEQTAP23	203	23	0xF9F3	0	0xFFFF
(Tap 24) Finite impulse response digital filter with programmable Coefficients		CEQTAP24	203	24	0x19D5	0	0xFFFF
(Tap 25) Finite impulse response digital filter with programmable Coefficients		CEQTAP25	203	25	0x1358	0	0xFFFF
(Tap 26) Finite impulse response digital filter with programmable Coefficients		CEQTAP26	203	26	0xC001	0	0xFFFF
(Tap 27) Finite impulse response digital filter with programmable Coefficients		CEQTAP27	203	27	0x0324	0	0xFFFF
(Tap 28) Finite impulse response digital filter with programmable Coefficients		CEQTAP28	203	28	0x25BB	0	0xFFFF
(Tap 29) Finite impulse response digital filter with programmable Coefficients		CEQTAP29	203	29	0xFD6A	0	0xFFFF
(Tap 30) Finite impulse response digital filter with programmable Coefficients		CEQTAP30	203	30	0xEC5A	0	0xFFFF
CEQ Transmit path	0 = Disabled 1 = Enabled	CEQTX	203	31	1	0	1
TX Compromise Equalizer. Specifies slope in transmit spectrum (in dB) between 1000Hz and 2800Hz <b>Note:</b> Compensates for long copper lines. Increase settings to deal with more inductance in wires. Long distance from phone center or complex PBX.	0 = 1 dB (0 KM) 2 = 2 dB (1.8 KM) 4 = 4 dB (3.6 KM) 6 = 6 dB (5.6 KM)	CEQTX	203	31	4	0	15
CEQ Receive path	0 = Disabled 1 = Enabled	CEQRX	203	32	0	0	1
CEQ Type. switch between default filter coefficients and custom settings.	0 = Default 1 = Custom	CEQTYPE	203	33	0	0	1



## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Total number of CEQ Taps in Use		CEQTAPTOTAL	203	34	30	0	30
Allow the ability to control the Echo Protect Tone (EPT)	0 = No EPT 1 = Short EPT 2 = Long EPT	EPTADJUSTMENTS	203	35	2	0	2
Allow the ability to control the Echo Protect Tone (EPT). Bit mapped per data rate.	00000000 = No EPT 00000001 = 2400 bps EPT 00000010 = 4800 bps EPT 00000100 = V.29 7200 bps EPT 00001000 = V.29 9600 bps EPT 00010000 = V.17 7200 bps EPT 00100000 = V.17 9600 bps EPT 01000000 = V.17 12000 bps EPT 10000000 = V.17 14400 bps EPT	EPTADJUSTMENTS	203	35	255	0	255
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD2400	203	36	0x55	0	0xFF
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD4800	203	37	0x52	0	0xFF
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD7200	203	38	0x4F	0	0xFF
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD9600	203	39	0x4B	0	0xFF
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD12000	203	40	0x44	0	0xFF
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD14400	203	41	0x3C	0	0xFF
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD16800	203	42	0x35	0	0xFF
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD19200	203	43	0x2E	0	0xFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Automatic Rate Adaption for 2400 Baud Rate.		ARA2400BAUD21600	203	44	0x27	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD2400	203	45	0x00	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD4800	203	46	0x53	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD7200	203	47	0x51	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD9600	203	48	0x4F	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD12000	203	49	0x48	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD14400	203	50	0x43	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD16800	203	51	0x3C	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD19200	203	52	0x37	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD21600	203	53	0x30	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD24000	203	54	0x2B	0	0xFF
Automatic Rate Adaption for 2800 Baud Rate.		ARA2800BAUD26400	203	55	0x26	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD2400	203	56	0x00	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD4800	203	57	0x56	0	0xFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD7200	203	58	0x53	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD9600	203	59	0x50	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD12000	203	60	0x4C	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD14400	203	61	0x45	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD16800	203	62	0x40	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD19200	203	63	0x3B	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD21600	203	64	0x34	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD24000	203	65	0x30	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD26400	203	66	0x2A	0	0xFF
Automatic Rate Adaption for 3000 Baud Rate.		ARA3000BAUD28800	203	67	0x24	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD2400	203	68	0x00	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD4800	203	69	0x58	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD7200	203	70	0x56	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD9600	203	71	0x54	0	0xFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD12000	203	72	0x4F	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD14400	203	73	0x49	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD16800	203	74	0x43	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD19200	203	75	0x3E	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD21600	203	76	0x39	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD24000	203	77	0x33	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD26400	203	78	0x2A	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD28800	203	79	0x23	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA3200BAUD31200	203	80	0x20	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD2400	203	81	0x00	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD4800	203	82	0x5A	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD7200	203	83	0x58	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD9600	203	84	0x56	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD12000	203	85	0x50	0	0xFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD14400	203	86	0x4C	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD16800	203	87	0x46	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD19200	203	88	0x40	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD21600	203	89	0x3A	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD24000	203	90	0x35	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD26400	203	91	0x2E	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD28800	203	92	0x20	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD31200	203	93	0x1E	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3429BAUD33600	203	94	0x1C	0	0xFF
NVM to store percentage of errored data frames to allow before training down in ECM		FRAMEREJECTPERCNT	203	95	30	0	100
Allow the ability to change the modem's EQT2 register to 0.	0 = EQT2 is reset following FTT 1 = EQT2 is always reset	EQT2SETTING	203	96	0	0	1
RLSD Timeout		RLSDTIMEOUT	203	97	4	4	255
RLSD Threshold	2's complement	RLSDTHRESHOLD	203	98	0	0	0xF700
Set at which signal to noise ratio 3429 baud rate is disabled in v34.	0x0D = 12 dB	SNR3429SETTING	203	99	0x0D	1	0x7F
Set at which signal to noise ratio 2400 baud rate is forced in v34.	0x0D = 12 dB	SNR2400SETTING	203	100	0x0D	1	0x7F
ARA EQM Bias control	2's complement	ARAEQMBIASSETTING	203	101	0	0	0xFFFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Allow control of the V34 baud rate mask	2400 only = 0x01 Up to 2800 = 0x05 Up to 3000 = 0x0D Up to 3200 = 0x1D Up to 3429 = 0x3D	BAUDRATEMASKV34	203	102	0x3D	1	0x3D
Set Compromise Equalizer in the receive path for V.21 Channel 2.	0 = Disabled 1 = Enabled	COMPROMIZE EQUALIZER	203	103	0	0	1
MT Fax ring count for auto answer (S0)	0 - 255	S0RingsToAutoAnswer	203	104	0	0	255
V.34 to V.21 fallback timing during V.8/V.34 failure. Time (in seconds) to wait after reaching phase 3 of the V.34 negotiation before falling back to V.21	0 - 255 (seconds)	V34toV21FallbackTime	203	105	40	0	255
DC Loop V/I characteristics relay Line 1	0 - off 1 - on	DCLoopVIColorLine1	203	106	0	0	1
DC Loop V/I characteristics relay Line 2	0 - off 1 - on	DCLoopVIColorLine2	203	107	0	0	1
Maximum data rate during non-ECM communication	0 = 2400 bps 1 = 4800 bps 2 = 7200 bps 3 = 9600 bps 4 = 12000 bps 5 = 14400 bps	MaxNonECMDataRate	203	108	0x05	0x00	0x05
TCF transmission length extension (time)	0 - 255 (x 10 ms)	ExtendTCFTX	203	109	0x00	0x00	0xFF
Additional time between DCS and TCF frames when sending fax	0 - 255 (milliseconds)	AddTimeBetween DCSTCF	203	110	0x00	0x00	0xFF
Wait time for silence after receiving a page if carrier was lost	0 - 255 (x 10 ms)	SilenceWaitAfterPage	203	111	0x32	0x00	0xFF

## Fax NVM (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Number of positive detections that are necessary to determine that a V.21 frame not a high speed frame is received (non-V.34)	0 - 255	NumV21DetectsReqd	203	112	0x03	0x00	0xFF
Check interval of the V.21 detector bit after the ignore period is over (non-V.34)	0 - 255 (milliseconds)	V21CheckAfterNoDet	203	113	0x14	0x00	0xFF
Time to initially ignore V.21 detection at the beginning of the RX page data detection period (non-V.34)	0 - 255 (x 10 ms)	NoDetV21AtPageStart	203	114	0x14	0x00	0xFF
The percentage of a length of all zero bytes that is normally expected to be received for a given speed for a TCF to be good.	0 - 255	TCFZeroBytesReq	203	115	100	0	255
T5 Timeout	Seconds	T5TimeOut	203	116	200	0	255
Receiver Ready Pause Timeout	10 x milliseconds	RRPauseTimeOut	203	117	15	0	255
RNRDelay (S register 25)	10 x milliseconds	RNRDelay	203	118	0	0	255
Minimum delay between disconnect and hang-up to improve operation with certain IP gateways. Measurement on telephone line with oscilloscope shows the actual delay is between 50ms to 80ms longer than the minimum setting (Fax version 3.10.1).	10 x milliseconds	DCNtoHangupDelay	203	119	60	0	100

## Copy Controller NVM

The Copy Controller NVM table contains NVM value information that can be used to adjust the Copy Controller NVM value for the printer

### Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Compression Mode		Compression Mode	600	001	0	0	1
Reserved Blocks		Reserved Blocks	600	002	0	0	5
Megs of Memory		Megs of Memory	600	003	16	0	65535
EPC memory low percent		EPC memory low percent	600	004	38	1	99
Disk Mode		Disk Mode	600	005	1	0	1
Memory Out Bound		Memory Out Bound	600	006	6	0	6
EPC memory full percent		EPC memory full percent	600	007	12	1	99
Use Partial Blocks		Use Partial Blocks	600	008	1	0	1
BlockSize in K		BlockSize in K	600	009	200	200	200
Initial Blocks		Initial Blocks	600	010	12	12	24
Blocks Needed		Blocks Needed	600	011	8	8	20
Frame Size		Frame Size	600	012	923	923	923
Percent of Frame Size		Percent of Frame Size	600	013	70	1	99
Making mode when EPC full		Making mode when EPC full	600	014	0	0	3
Fault Counter 19-750-00: VideoEPCSize MisMatchCntr		Ram Size Mismatch FaultFC	600	015	0	0	255
Fault Counter 19-754-00: VideoDiskMismatch Cntr		Disk Mode Mismatch FaultFC	600	016	0	0	255
Fault Counter 19-401-00: Out of Memory Fault - Stress Document		Out Memory Fault - StrNC docFC	600	017	0	0	255
Fault Counter 19-402-00: FaultVideo DVMSTimeOutFault (Compressor DVMA Timeout)		Compressor DVMA Timeout FaultFC	600	018	0	0	255



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Amount of EPC Memory		Memory on Target	600	019	512	0	65535
Fault Counter 22-300-10: AHA End of Record Fault		AHA End of Record Fault	600	020	0	0	255
Time before image disk receives power (sec)		Disk spin up delay time	600	021	10	0	30
Plantinum Board Full Concurrency		Platinum Board Full Concurrency	600	022	1	0	1
Image disk partition size		Image disk partition size	600	023	4	0	30
Image Disk Dirty.		Image Disk Dirty.	600	024	0	0	1
IJO Enabled		IJO Enabled	600	025	0	0	1
Disk Dirty at power up		Disk Dirty at power up	600	026	0	0	1
Maximum network read attempts		Maximum network read attempts	600	027	3	1	255
vramLevel2Rec Threshold		vramLevel2Rec Threshold	600	034	3.67E+08	0	4.29E+09
vramLevel2Trip Threshold		vramLevel2Trip Threshold	600	035	3.15E+08	0	4.29E+09
vramLevel3Rec Threshold		vramLevel3Rec Threshold	600	036	2.57E+08	0	4.29E+09
vramLevel3Trip Threshold		vramLevel3Trip Threshold	600	037	2.1E+08	0	4.29E+09
vramLevel4Rec Threshold		vramLevel4Rec Threshold	600	038	1.75E+08	0	4.29E+09
vramLevel4Trip Threshold		vramLevel4Trip Threshold	600	039	1.41E+08	0	4.29E+09
vramLevel5Rec Threshold		vramLevel5Rec Threshold	600	040	1.06E+08	0	4.29E+09
vramLevel5Trip Threshold		vramLevel5Trip Threshold	600	041	7025459 2	0	4.29E+09
vramLevel6Rec Threshold		vramLevel6Rec Threshold	600	042	3565158 4	0	4.29E+09
vramLevel6Trip Threshold		vramLevel6Trip Threshold	600	043	1048576	0	4.29E+09
cacheAllImagesTo Disk		cacheAllImagesTo Disk	600	044	0	0	1
Total Black Run Mode AC INT		Total Black Run Mode AC INT	600	053	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Total Cyan Color Mode AC INT		Total Cyan Color Mode AC INT	600	054	0	0	4.29E+09
Total Magenta Color Mode AC INT		Total Magenta Color Mode AC INT	600	055	0	0	4.29E+09
Total Yellow Color Mode AC INT		Total Yellow Color Mode AC INT	600	056	0	0	4.29E+09
Total Black Color Mode AC INT		Total Black Color Mode AC INT	600	057	0	0	4.29E+09
Toner Coverage Plane1-1		Toner Coverage Plane1-1	600	058	0	0	4.29E+09
Toner Coverage Plane1-2		Toner Coverage Plane1-2	600	059	0	0	4.29E+09
Toner Coverage Plane1-3		Toner Coverage Plane1-3	600	060	0	0	4.29E+09
Toner Coverage Plane1-4		Toner Coverage Plane1-4	600	061	0	0	4.29E+09
Toner Coverage Plane1-5		Toner Coverage Plane1-5	600	062	0	0	4.29E+09
Toner Coverage Plane1-6		Toner Coverage Plane1-6	600	063	0	0	4.29E+09
Toner Coverage Plane1-7		Toner Coverage Plane1-7	600	064	0	0	4.29E+09
Toner Coverage Plane1-8		Toner Coverage Plane1-8	600	065	0	0	4.29E+09
Toner Coverage Plane1-9		Toner Coverage Plane1-9	600	066	0	0	4.29E+09
Toner Coverage Plane1-10		Toner Coverage Plane1-10	600	067	0	0	4.29E+09
Toner Coverage Plane1-11		Toner Coverage Plane1-11	600	068	0	0	4.29E+09
Toner Coverage Plane1-12		Toner Coverage Plane1-12	600	069	0	0	4.29E+09
Toner Coverage Plane1-13		Toner Coverage Plane1-13	600	070	0	0	4.29E+09
Toner Coverage Plane1-14		Toner Coverage Plane1-14	600	071	0	0	4.29E+09
Toner Coverage Plane1-15		Toner Coverage Plane1-15	600	072	0	0	4.29E+09
Toner Coverage Plane1-16		Toner Coverage Plane1-16	600	073	0	0	4.29E+09
Toner Coverage Plane1-17		Toner Coverage Plane1-17	600	074	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Toner Coverage Plane1-18		Toner Coverage Plane1-18	600	075	0	0	4.29E+09
Toner Coverage Plane1-19		Toner Coverage Plane1-19	600	076	0	0	4.29E+09
Toner Coverage Plane2-1		Toner Coverage Plane2-1	600	077	0	0	4.29E+09
Toner Coverage Plane2-2		Toner Coverage Plane2-2	600	078	0	0	4.29E+09
Toner Coverage Plane2-3		Toner Coverage Plane2-3	600	079	0	0	4.29E+09
Toner Coverage Plane2-4		Toner Coverage Plane2-4	600	080	0	0	4.29E+09
Toner Coverage Plane2-5		Toner Coverage Plane2-5	600	081	0	0	4.29E+09
Toner Coverage Plane2-6		Toner Coverage Plane2-6	600	082	0	0	4.29E+09
Toner Coverage Plane2-7		Toner Coverage Plane2-7	600	083	0	0	4.29E+09
Toner Coverage Plane2-8		Toner Coverage Plane2-8	600	084	0	0	4.29E+09
Toner Coverage Plane2-9		Toner Coverage Plane2-9	600	085	0	0	4.29E+09
Toner Coverage Plane2-10		Toner Coverage Plane2-10	600	086	0	0	4.29E+09
Toner Coverage Plane2-11		Toner Coverage Plane2-11	600	087	0	0	4.29E+09
Toner Coverage Plane2-12		Toner Coverage Plane2-12	600	088	0	0	4.29E+09
Toner Coverage Plane2-13		Toner Coverage Plane2-13	600	089	0	0	4.29E+09
Toner Coverage Plane2-14		Toner Coverage Plane2-14	600	090	0	0	4.29E+09
Toner Coverage Plane2-15		Toner Coverage Plane2-15	600	091	0	0	4.29E+09
Toner Coverage Plane2-16		Toner Coverage Plane2-16	600	092	0	0	4.29E+09
Toner Coverage Plane2-17		Toner Coverage Plane2-17	600	093	0	0	4.29E+09
Toner Coverage Plane2-18		Toner Coverage Plane2-18	600	094	0	0	4.29E+09
Toner Coverage Plane2-19		Toner Coverage Plane2-19	600	095	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Toner Coverage Plane3-1		Toner Coverage Plane3-1	600	096	0	0	4.29E+09
Toner Coverage Plane3-2		Toner Coverage Plane3-2	600	097	0	0	4.29E+09
Toner Coverage Plane3-3		Toner Coverage Plane3-3	600	098	0	0	4.29E+09
Toner Coverage Plane3-4		Toner Coverage Plane3-4	600	099	0	0	4.29E+09
Toner Coverage Plane3-5		Toner Coverage Plane3-5	600	100	0	0	4.29E+09
Toner Coverage Plane3-6		Toner Coverage Plane3-6	600	101	0	0	4.29E+09
Toner Coverage Plane3-7		Toner Coverage Plane3-7	600	102	0	0	4.29E+09
Toner Coverage Plane3-8		Toner Coverage Plane3-8	600	103	0	0	4.29E+09
Toner Coverage Plane3-9		Toner Coverage Plane3-9	600	104	0	0	4.29E+09
Toner Coverage Plane3-10		Toner Coverage Plane3-10	600	105	0	0	4.29E+09
Toner Coverage Plane3-11		Toner Coverage Plane3-11	600	106	0	0	4.29E+09
Toner Coverage Plane3-12		Toner Coverage Plane3-12	600	107	0	0	4.29E+09
Toner Coverage Plane3-13		Toner Coverage Plane3-13	600	108	0	0	4.29E+09
Toner Coverage Plane3-14		Toner Coverage Plane3-14	600	109	0	0	4.29E+09
Toner Coverage Plane3-15		Toner Coverage Plane3-15	600	110	0	0	4.29E+09
Toner Coverage Plane3-16		Toner Coverage Plane3-16	600	111	0	0	4.29E+09
Toner Coverage Plane3-17		Toner Coverage Plane3-17	600	112	0	0	4.29E+09
Toner Coverage Plane3-18		Toner Coverage Plane3-18	600	113	0	0	4.29E+09
Toner Coverage Plane3-19		Toner Coverage Plane3-19	600	114	0	0	4.29E+09
Toner Coverage Plane4-1		Toner Coverage Plane4-1	600	115	0	0	4.29E+09
Toner Coverage Plane4-2		Toner Coverage Plane4-2	600	116	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Toner Coverage Plane4-3		Toner Coverage Plane4-3	600	117	0	0	4.29E+09
Toner Coverage Plane4-4		Toner Coverage Plane4-4	600	118	0	0	4.29E+09
Toner Coverage Plane4-5		Toner Coverage Plane4-5	600	119	0	0	4.29E+09
Toner Coverage Plane4-6		Toner Coverage Plane4-6	600	120	0	0	4.29E+09
Toner Coverage Plane4-7		Toner Coverage Plane4-7	600	121	0	0	4.29E+09
Toner Coverage Plane4-8		Toner Coverage Plane4-8	600	122	0	0	4.29E+09
Toner Coverage Plane4-9		Toner Coverage Plane4-9	600	123	0	0	4.29E+09
Toner Coverage Plane4-10		Toner Coverage Plane4-10	600	124	0	0	4.29E+09
Toner Coverage Plane4-11		Toner Coverage Plane4-11	600	125	0	0	4.29E+09
Toner Coverage Plane4-12		Toner Coverage Plane4-12	600	126	0	0	4.29E+09
Toner Coverage Plane4-13		Toner Coverage Plane4-13	600	127	0	0	4.29E+09
Toner Coverage Plane4-14		Toner Coverage Plane4-14	600	128	0	0	4.29E+09
Toner Coverage Plane4-15		Toner Coverage Plane4-15	600	129	0	0	4.29E+09
Toner Coverage Plane4-16		Toner Coverage Plane4-16	600	130	0	0	4.29E+09
Toner Coverage Plane4-17		Toner Coverage Plane4-17	600	131	0	0	4.29E+09
Toner Coverage Plane4-18		Toner Coverage Plane4-18	600	132	0	0	4.29E+09
Toner Coverage Plane4-19		Toner Coverage Plane4-19	600	133	0	0	4.29E+09
Total Black Marked Images		Total Black Marked Images	600	134	0	0	4.29E+09
Total Black Marked Color Images		Total Black Marked Color Images	600	135	0	0	4.29E+09
Total Cyan Marked Color Images		Total Cyan Marked Color Images	600	136	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Total Magenta Marked Color Images		Total Magenta Marked Col. Images	600	137	0	0	4.29E+09
Total Yellow Marked Color Image		Total Yellow Marked Color Image	600	138	0	0	4.29E+09
Total Black Run Mode AC FP		Total Black Run Mode AC FP	600	139	0	0	4.29E+09
Total Cyan Color Mode AC FP		Total Cyan Color Mode AC FP	600	140	0	0	4.29E+09
Total Yellow Color Mode AC FP		Total Yellow Color Mode AC FP	600	141	0	0	4.29E+09
Total Magenta Color Mode AC FP		Total Magenta Color Mode AC FP	600	142	0	0	4.29E+09
Total Black Color Mode AC FP		Total Black Color Mode AC FP	600	143	0	0	4.29E+09
Black Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Black Page Coverage. Toner Coverage Plane1-20	Black Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Black Page Coverage. Toner Coverage Plane1-20	10 to 11 % Black Area Coverage	600	145	0	0	4.29E+09
Black Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Black Page Coverage. Toner Coverage Plane1-21	Black Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Black Page Coverage. Toner Coverage Plane1-21	11 to 12 % Black Area Coverage	600	147	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Black Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Black Page Coverage. Toner Coverage Plane1-22	Black Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Black Page Coverage. Toner Coverage Plane1-22	13 to 16 % Black Area Coverage	600	149	0	0	4.29E+09
Black Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Black Page Coverage. Toner Coverage Plane1-23	Black Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Black Page Coverage. Toner Coverage Plane1-23	17 to 20 % Black Area Coverage	600	151	0	0	4.29E+09
Cyan Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Cyan Page Coverage. Toner Coverage Plane2-20	Cyan Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Cyan Page Coverage. Toner Coverage Plane2-20	10 to 11 % Cyan Area Coverage	600	153	0	0	4.29E+09
Cyan Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Cyan Page Coverage. Toner Coverage Plane2-21	Cyan Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Cyan Page Coverage. Toner Coverage Plane2-21	11 to 12 % Cyan Area Coverage	600	155	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Cyan Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Cyan Page Coverage. Toner Coverage Plane2-22	Cyan Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Cyan Page Coverage. Toner Coverage Plane2-22	13 to 16 % Cyan Area Coverage	600	157	0	0	4.29E+09
Cyan Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Cyan Page Coverage. Toner Coverage Plane2-23	Cyan Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Cyan Page Coverage. Toner Coverage Plane2-23	17 to 20 % Cyan Area Coverage	600	159	0	0	4.29E+09
Magenta Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Magenta Page Coverage. Toner Coverage Plane3-20	Magenta Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Magenta Page Coverage. Toner Coverage Plane3-20	10 to 11 % Magenta Area Coverage	600	161	0	0	4.29E+09
Magenta Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Magenta Page Coverage. Toner Coverage Plane3-21	Magenta Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Magenta Page Coverage. Toner Coverage Plane3-21	11 to 12 % Magenta Area Coverage	600	163	0	0	4.29E+09



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Magenta Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Magenta Page Coverage. Toner Coverage Plane3-22	Magenta Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Magenta Page Coverage. Toner Coverage Plane3-22	13 to 16 % Magenta Area Coverage	600	165	0	0	4.29E+09
Magenta Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Magenta Page Coverage. Toner Coverage Plane3-23	Magenta Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Magenta Page Coverage. Toner Coverage Plane3-23	17 to 20 % Magenta Area Coverage	600	167	0	0	4.29E+09
Yellow Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Yellow Page Coverage. Toner Coverage Plane4-20	Yellow Area Coverage Impressions > 10 to 11 % Total number of impressions between 10-11 % Yellow Page Coverage. Toner Coverage Plane4-20	10 to 11 % Yellow Area Coverage	600	169	0	0	4.29E+09
Yellow Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Yellow Page Coverage. Toner Coverage Plane4-21	Yellow Area Coverage Impressions > 11 to 12 % Total number of impressions between 11-12 % Yellow Page Coverage. Toner Coverage Plane4-21	11 to 12 % Yellow Area Coverage	600	171	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Yellow Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Yellow Page Coverage. Toner Coverage Plane4-22	Yellow Area Coverage Impressions > 13 to 16 % Total number of impressions between 13-16 % Yellow Page Coverage. Toner Coverage Plane4-22	13 to 16 % Yellow Area Coverage	600	173	0	0	4.29E+09
Yellow Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Yellow Page Coverage. Toner Coverage Plane4-23	Yellow Area Coverage Impressions > 17 to 20 % Total number of impressions between 17-20 % Yellow Page Coverage. Toner Coverage Plane4-23	17 to 20 % Yellow Area Coverage	600	175	0	0	4.29E+09
		DiagJobID Generator	602	001	1	1	999
HEAD PURGE MODE Automatic Head Fix - Clean Print Heads Setting	0 = Never (Auto head purge disabled) 1 = Immediately (Perform an auto head purge immediately when blocked jets detected) 2 = When Idle (Perform a head purge during the next idle time window)	Head Purge Mode Policy	602	002	2	0	2
JET SUBSTITUTION MODE Automatic Head Fix - Temporary Fix Setting	0 = Never (Jet substitution is disabled) 1 = Immediately (Initiate jet substitution immediately a blocked jet is detected)	Jet Substitution Policy	602	003	1	0	1
Interval of APS recognition of standard size.(mm)		APSPaperSize Interval	603	001	5	1	65535
Determines whether APS requires input to be a standard size. 0=False (Off) 1=True (On)		APSStandardSize Required	603	002	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Number of images inputted before simplex copy job is released for marking.		CopySimplexOutputStart	603	003	1	0	65535
Number of images inputted before duplex copy job is released for marking.		CopyDuplexOutputStart	603	004	4	0	65535
The priority set by SA/KO of copy job (used for job contention).		CopyJobPriority	603	005	3	0	65535
Value of next copy job's id.		NextCopyJobID	603	006	1	1	999
Determines whether copy marked images counter is displayable. 0=False 1=True		COPYMarkedImagesDisplayable	603	008	1	0	1
Determines whether copy sheets counter is displayable. 0=False 1=True		COPYSheetsDisplayable	603	010	0	0	1
Determines whether copy duplex sheets counter is displayabled. 0=false, 1=true		COPYDuplexSheetsDisplayable	603	012	0	0	1
Determines whether copy 11x17 A3 sheets counter is displayable. 0=False 1=True		COPYLargeSheetsDisplayable	603	014	0	0	1
Determines whether copy job recovery is enabled. 0=False 1=True		crashRecoveryEnabled	603	024	1	0	1
Disable /enable ABS prescan. 0=False 1=True		ABSPrescanAllowed	603	025	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Determines whether copy image counter is displayable. 0=False 1=True		COPYMarkedColor ImagesDisplay	603	036	1	0	1
Determines whether color copy sheets counter is displayable. 0=False 1=True		COPYColorSheets Display	603	037	0	0	1
Determines whether color copy duplex sheets counter is displayable. 0=False 1=True		COPYDuplexColor SheetsDisplay	603	038	0	0	1
Determines whether large copy sheets counter is displayable. 0=False 1=True		COPYLargeColor SheetsDisplay	603	039	0	0	1
CopyJobRelease Threshold		CopyJobRelease Threshold	603	046	1	1	4
Defines feeder module types	Feeder module types: 0=Invalid Module 55=SMH 57=HCF 58=HCFwithCovers 60=PPF 62=EnvelopeFeeder 221 = IotPFPStd, /* Standard PFP */ 222 = IotPFPA4LEFA3SEF, /* Large Kit PFP A4 LEF / A3 SEF */ 223 = IotPFPLetterLEFTabSEF, /* Large Kit PFP Letter LEF / Tabloid SEF */ 224 = IotPFPA4SEF, /* Short Edge Kit PFP A4 SEF */ 225 = IotPFPLetterSEFLegalSEF, /* Short Edge Kit Letter SEF / Legal SEF */	Feeder Module Type	604	001	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Finisher module type.The finisher module that has been DETECTED by the system. (Read Only)	Defines finisher module types 65=OCT 70=BasicDiskFinisher 75=HighCapacityFinisher 80=Mailbox20Bin 100=NoFinisher 110=LCSS2K 120=LCSS1K 171=HVF 172=HVF_BM 173=HVF_Inserter 174=HVF_BM_Inserter 175=HVF_TriFolder 176=HVF_TriFolder_Inserter	Finisher Module Type	604	002	100	65	255
Defines Default color	Default color settings: 0=White 1=Green 2=Buff 3=Yellow 4=Goldenrod 5=Blue 6=Pink 7=Transparent 8=Ivory 9=Gray 10=Red 11=Orange	MSDefaultColor	604	004	0	0	20
Defines Default type	Default type settings: 0=Standard 1=Drilled (pre-punched) 2=Envelope 4=Transparency 5=Letterhead 6=Labels 7=Recycled	MSDefaultType	604	006	0	0	60
Resume Time out	Resume Time out settings: 0=Disable >0=Time in seconds (sec)	PEAutoResume	604	010	30	0	120
Debug switch	Debug switch settings: 0=Off 1=On	PrintModuleInfo	604	017	0	0	1
Enable display of "Total Images" 0=False 1=True	Display of "Total Images" settings: 0=Off 1=On	Total Images Displayable	604	021	1	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Default finisher auto resume	Default finisher auto resume settings: 0=Disabled >0= Time in seconds (sec)	MSDefaultFinisher AR	604	070	30	0	120
IOT comm fault counter		IOT CommFaultCount	604	119	0	0	3
Enable Offset policy	Enable Offset policy 0=Off 1=On	MSOffsetEnabled Policy	604	127	1	0	1
Serial number set.		SerNumSet	604	128	0	0	1
Out of staples policy	Out of staples policy settings: 0=Hold 1=Stapling defeated	MSOutOfStaples Policy	604	129	1	0	1
Last sheet to recover		Last sheet to recover	604	131	0	0	65535
Fault Counter 03-316:CCMCannot Communicate WithIotFC		CCMCannot CommunicateWith IOTFC	604	160	0	0	255
Fault Counter 72-101:Tray2Misfeed JamCountFC		Tray2MisfeedJam CountFC	604	275	0	0	255
Fault Counter 73-101:Tray3Misfeed JamCountFC		Tray3MisfeedJam CountFC	604	280	0	0	255
Fault Counter 74-101:Tray4Misfeed JamCountFC		Tray4MisfeedJam CountFC	604	285	0	0	255
Enable Auto Hold	Enable Auto Hold settings: 0=Off 1=On	MSAutoHoldEnable	604	419	1	0	1
Interrupt job to recover # of jobs		InterruptingJob IDToRecover	604	420	0	0	65535
Interrupt image to recover # of images		InterruptImage IDToRecover	604	422	0	0	65535
Interrupt pages completed		InterruptPages Completed	604	423	0	0	65535
Interrupt set to recover # of sets		InterruptingSets Completed	604	424	0	0	65535
Interrupt service to recover # of services		InterruptingLast ServiceID	604	425	0	0	65535
Interrupt quantity to recover		QtyToRecover;	604	426	0	0	65535

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Interrupt last sheet to recover		lastSheetToRecover	604	427	0	0	65535
Media Size Conversion Policy	Media Size Conversion Policy settings: 0=Off 1=On	MSMediaSizeConv Policy	604	428	1	0	1
Last capability ID that sheet were being delivered to for a normal job. Used to ensure sheets are delivered to the correct tray after crash recovery.		LastFinishingCap IDToRecover	604	429	0	0	65535
Last capability ID that sheet were being delivered to for an interrupt job. Used to ensure sheets are delivered to the correct tray after crash recovery.		LastIntFinishing CapIDToRecover	604	430	0	0	65535
Interrupting quantity made		Interrupting QuantityMade	604	431	0	0	65535
		MSInvertDuplex	604	432	0	0	1
		MSMirrorInvert Duplex	604	433	1	0	1
		Total Color Images Displayable	604	434	1	0	1
Total BW & Color Images Displayable		Total BW & Color Images Display	604	435	1	0	1
Media Order Group	1 = MSGXc 2 = MSGXe 3 = MSGFx 4 = MSGFxap 5 = MSGGco 6 = MSGDmoEast 7 = MSGDmoWest	MSMediaSize Group	604	442	1	1	7
Fault Counter 75-101: T5 Misfeed Jam	no. of faults	T5MisfeedJam Count	604	444	0	0	255
Fault Counter 71-215: T1 hoist failure Fault Counter- T1HoistFailureFC	no. of faults	T1HoistFailureFC	604	451	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 72-215: T2 hoist failure Fault Counter-T2HoistFailureFC	no. of faults	T2HoistFailureFC	604	452	0	0	255
Fault Counter 73-215: T3 hoist failure Fault Counter-T3HoistFailureFC	no. of faults	T3HoistFailureFC	604	453	0	0	255
Fault Counter 10-540: IME Transfix task late	no. of faults	ImeTfixTaskLateFC	604	492	0	0	255
Fault Counter 10-545: IME Transfix Drum initial position wrong	no. of faults	ImeTfixDrumInitPosWrongFC	604	493	0	0	255
Fault Counter 10-550: IME Transfix Drum stall	no. of faults	ImeTfixDrumStalIFC	604	494	0	0	255
Fault Counter 83-117: IME Duplex Start Invert Sensor 13 TE timeout	no. of faults	ImeDupStartInvS13TETimeoutFC	604	537	0	0	255
Fault Counter 88-500: IME Preheat heater is too hot	no. of faults	ImePreheatTooHotFC	604	541	0	0	255
Fault Counter 88-501: IME Preheat is heating too slow	no. of faults	ImePreheatTooSlowFC	604	542	0	0	255
Fault Counter 88-502: IME Preheat thermistor failure	no. of faults	ImePreheatThermFailFC	604	543	0	0	255
Fault Counter 89-110: IME Media Path Sensor 10 sheet too long	no. of faults	ImeMPS10SheetTooLongFC	604	545	0	0	255
Fault Counter 89-111: IME Media Path Sensor 10 sheet too Short	no. of faults	ImeMPS10SheetTooShortFC	604	546	0	0	255
Fault Counter 89-112: IME Media Path Sensor 10 LE timeout	no. of faults	ImeMPS10LETimeoutFC	604	547	0	0	255



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 89-113: IME Media Path Sensor 10 TE timeout	no. of faults	ImeMPS10TE TimeoutFC	604	548	0	0	255
Fault Counter 91-500: IME Print heads initial position error	no. of faults	ImeHeadInitPos ErrFC	604	572	0	0	255
Fault Counter 91-503: IME Print image data timeout	no. of faults	ImePrintImage DataTimeoutFC	604	575	0	0	255
Fault Counter 91-523: IME Print Head 1 left jet heater is too hot	no. of faults	ImeHead1LHeater TooHotFC	604	595	0	0	255
Fault Counter 91-527: IME Print Head 1 left jet heater is too slow	no. of faults	ImeHead1LHeater TooSlowFC	604	599	0	0	255
Fault Counter 91-531: IME Print Head 1 left jet thermistor bad reading	no. of faults	ImeHead1Left ThermBadReading FC	604	603	0	0	255
Fault Counter 91-535: IME Print Head 1 right jet heater too hot	no. of faults	ImeHead1RHeater TooHotFC	604	607	0	0	255
Fault Counter 91-539: IME Print Head 1 right jet heater too slow	no. of faults	ImeHead1RHeater TooSlowFC	604	611	0	0	255
Fault Counter 91-543: IME Print Head 1 right jet thermistor bad reading	no. of faults	ImeHead1Right ThermBadReading FC	604	615	0	0	255
Fault Counter 91-547: IME Print Head 1 reservoir heater too hot	no. of faults	ImeHead1Res HeaterTooHotFC	604	619	0	0	255
Fault Counter 91-551: IME Print Head 1 reservoir heater too slow	no. of faults	ImeHead1Res HeaterTooSlowFC	604	623	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 91-555: IME Print Head 1 reservoir heater thermistor bad	no. of faults	ImeHead1Res HeaterTherm BadFC	604	627	0	0	255
Fault Counter 92-550: IME Safety Timer timeout	no. of faults	ImeSafetyTimer TimeoutFC	604	671	0	0	255
Fault Counter 92-555: IME System timer skipped	no. of faults	ImeSystemTimer SkippedFC	604	672	0	0	255
Fault Counter 92-570: IME Interrupt Storm Fault	no. of faults	ImeIntStormFC	604	673	0	0	255
Fault Counter 92-571: IME Software fault	no. of faults	ImeSWFaultFC	604	674	0	0	255
Fault Counter 93-523: IME Cyan ink melter is too hot	no. of faults	ImeCyInkMelt TooHotFC	604	684	0	0	255
Fault Counter 93-524: IME Cyan ink melter is too slow	no. of faults	ImeCyInkMelt TooSlowFC	604	685	0	0	255
Fault Counter 93-526: IME Magenta ink melter is too hot	no. of faults	ImeMagInkMelt TooHotFC	604	687	0	0	255
Fault Counter 93-527: IME Magenta ink melter is too slow	no. of faults	ImeMagInkMelt TooSlowFC	604	688	0	0	255
Fault Counter 93-529: IME Yellow ink melter is too hot	no. of faults	ImeYellInkMelt TooHotFC	604	690	0	0	255
Fault Counter 93-530: IME Yellow ink melter is too slow	no. of faults	ImeYellInkMelt TooSlowFC	604	691	0	0	255
Fault Counter 93-532: IME Black ink melter is too hot	no. of faults	ImeBlkInkMelt TooHotFC	604	693	0	0	255
Fault Counter 93-533: IME Black ink melter is too slow	no. of faults	ImeBlkInkMelt TooSlowFC	604	694	0	0	255
Fault Counter 93-581: IME Head 1 Black reservoir level sense open	no. of faults	ImeHead1BlkRes LevelSenseOpenFC	604	742	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 93-582: IME Head 1 Magenta reservoir level sense open	no. of faults	ImeHead1MagResLevelSenseOpenFC	604	743	0	0	255
Fault Counter 93-583: IME Head 1 Cyan reservoir level sense open	no. of faults	ImeHead1CyResLevelSenseOpenFC	604	744	0	0	255
Fault Counter 93-584: IME Head 1 Yellow reservoir level sense open	no. of faults	ImeHead1YellResLevelSenseOpenFC	604	745	0	0	255
Fault Counter 93-597: IME Head 1 Black reservoir level sense short	no. of faults	ImeHead1BlkResLevelSenseShortFC	604	758	0	0	255
Fault Counter 93-598: IME Head 1 Magenta reservoir level sense short	no. of faults	ImeHead1MagResLevelSenseShortFC	604	759	0	0	255
Fault Counter 93-599: IME Head 1 Cyan reservoir level sense short	no. of faults	ImeHead1CyResLevelSenseShortFC	604	760	0	0	255
Fault Counter 93-800: IME Head 1 Yellow reservoir level sense short	no. of faults	ImeHead1YellResLevelShortFC	604	761	0	0	255
Fault Counter 94-510: IME Drum Image initial position fault	no. of faults	ImeDrumImageInitPosFC	604	795	0	0	255
Fault Counter 94-512: IME Drum Image stalled	no. of faults	ImeDrumImageStallFC	604	796	0	0	255
Fault Counter 94-524: IME YA over current fault	no. of faults	ImeYAOvercurrFaultFC	604	801	0	0	255
Fault Counter 94-526: IME YA stall fault	no. of faults	ImeYASTallFaultFC	604	802	0	0	255
Fault Counter 94-536: IME Drum front heater is too hot	no. of faults	ImeDrumFrontHeaterTooHotFC	604	808	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 94-538: IME Drum front heater is heating too slow	no. of faults	ImeDrumFront HeaterTooSlowFC	604	809	0	0	255
Fault Counter 94-540: IME Drum front thermistor is bad	no. of faults	ImeDrumFront ThermBadFC	604	810	0	0	255
Fault Counter 94-548: IME Y-axis Position error	no. of faults	ImeYPosErrFC	604	814	0	0	255
Fault Counter 94-568: IME Cleaning Unit usage data read error	no. of faults	ImeCleanUnitse DataReadErrFC	604	826	0	0	255
Fault Counter 94-570: IME Cleaning Unit usage data write error	no. of faults	ImeCleanUnitse DataWriteErrFC	604	827	0	0	255
Fault Counter 94-573: IME Cleaning Unit usage data version error	no. of faults	ImeCleanUnit UsageData VerErrFC	604	829	0	0	255
Fault Counter 75-215-00: T5 hoist failure	no. of faults	T5HoistFailureFC	604	831	0	0	255
Fault Counter 12-024: Paddle Home Fault	no. of faults	PaddleHomeFC	604	833	0	0	255
Fault Counter 12-025: Paddle Move Fault	no. of faults	PaddleMoveFC	604	834	0	0	255
Fault Counter 12-312: Top Cover Open in Run	no. of faults	TopCoverOpenin RFC	604	876	0	0	255
Fault Counter 12-371: Stapler Move Fault	no. of faults	StapleMvFC	604	885	0	0	255
Fault Counter 12-392: Front Tamper Move Fault	no. of faults	FTampMvFC	604	896	0	0	255
Fault Counter 12-393: Front Tamper Home Fault	no. of faults	FTampHomeFC	604	897	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 12-396: Rear Tamper Move Fault	no. of faults	RTampMvFC	604	900	0	0	255
Fault Counter 12-397: Rear Tamper Home Fault	no. of faults	RTampHomeFC	604	901	0	0	255
Fault Counter 12-462: Stacker Bin 1 Elevator Failure	no. of faults	StackBin1Elevator FC	604	930	0	0	255
Fault Counter 83-118-00: Media Path Sensor 13 LE Too Early	no. of faults	ImeMPS13LEToo EarlyFC	604	957	0	0	255
Fault Counter 92-568-00: ECM Initialization Failed	no. of faults	ECMInitFailedFC	604	964	0	0	255
Fault Counter 12-492-00: CDI communications failure with finisher.	no. of faults	FINISHERCDICOM MSFAILFC	604	995	0	0	255
Fault Counter 12-493-00: Finisher failure to Cycle Up in time	no. of faults	FINISHERFAIL CYCLEUPFC	604	996	0	0	255
Fault Counter 12-494-00: Finisher failure to return prep time	no. of faults	FINISHERFAILPREP TIMEFC	604	997	0	0	255
Fault Counter 12-100-00: Finisher Late to Entry Sensor	no. of faults	DfFnlinkLateTo Entry	604	998	0	0	255
Fault Counter 12-102-00: Late IME Exit	no. of faults	DfFnlinkLateIme Exit	604	999	0	0	255
Value of next MFPrint job's id.		NextPrintJobID	605	001	1	1	999
Enable Print Job Recovery	Print Job Recovery enable Settings 0=No Recovery 1=Recovered	PrintCrashRecovery Enable	605	002	1	0	1
This holds the crash recovery print job information on the altanta side.		MFPrintCompleted Job Log Location	605	003	0	0	12

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Enable Option to export marked image counter information to clients	0=No export 1=Exported	MFPRINTMarked ImagesDisplayable	605	006	1	0	1
Enable Option to export printed sheets counter information to clients	0=No export 1=Exported	MFPRINTSheets Displayable	605	008	0	0	1
Enable Option to export Duplexed counter information to clients	0=No export 1=Exported	MFPRINTDuplex SheetsDisplayable	605	010	0	0	1
Enable Option to export Large Sheet counter information to clients	0=No export 1=Exported	MFPRINTLarge SheetsDisplayable	605	012	0	0	1
Maximum time allowed for ESS to resync before deleting orphaned print jobs		disturbance time	605	013	12	0	240
Enable Option to export Colour images counter information to clients	0=No export 1=Exported	MFPRINTMarked ColorImages Display	605	016	1	0	1
Enable Option to export Colour Sheet counter information to clients	0=No export 1=Exported	MFPRINTColor SheetsDisplay	605	017	0	0	1
Enable Option to export Duplex Colour Sheet counter information to clients	0=No export 1=Exported	MFPRINTDuplex ColorSheetsDisplay	605	018	0	0	1
Enable Option to export Large Colour Sheet counter information to clients	0=No export 1=Exported	MFPRINTLarge ColorSheetsDisplay	605	019	0	0	1
Counter		MFPSuccessImgRe cServerFaxDisplay	605	020	1	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Enable Option to export Large Success Ifax images counter information to clients	0=No export 1=Exported	MFPSuccessIFax ImagesRecDisplay	605	021	1	0	1
PrintJobReleaseThreshold		PrintJobRelease Threshold	605	028	1	1	4
Black reprint image counter displayable	Usage Counter	BlackReprint ImagesDisp	605	036	0	0	1
Color reprint image counter displayable	Usage Counter	ColorReprint ImagesDisp	605	038	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 1 Media Type	MTStandard = 0, MTDrilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBacked Transparency = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTEXtraHeavyGlossy = 54, MTEXtraHeavyGlossySide 2 = 55, MTEXtraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 1 Media Type	606	001	0	0	102



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 1 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 1 Media Color	606	002	0	0	34
Tray 1 Media Weight		Tray 1 Media Weight	606	003	75	60	216
Tray 1 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 1 Direct Select	606	004	1	0	1
Tray 1 Priority		Tray 1 Priority	606	005	99	1	99
Tray 1 Width	Range and default size in mm	Tray 1 Width	606	006	122	122	356
Tray 1 Length	Range and default size in mm	Tray 1 Length	606	007	75	75	216
Tray 1 Percent Full		Tray 1 Percent Full	606	008	0	0	100
Tray 1 User Type	TAAadjustableAll = 1, TABypass = 3 ----- [TAFixed = 0] [TAAadjustableSizeOnly = 2]	Tray 1 User Type	606	009	1	1	3
Tray 1 Modulus		Tray 1 Modulus	606	010	0	0	100
Tray 1 Modulus Position		Tray 1 Modulus Position	606	011	1	1	100

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 2 Media Type	MTStandard = 0, MTDilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBackedTranspare ncy = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTEltraHeavyGlossy = 54, MTEltraHeavyGlossySide 2 = 55, MTEltraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 2 Media Type	606	021	0	0	102

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 2 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 2 Media Color	606	022	0	0	34
Tray 2 Media Weight		Tray 2 Media Weight	606	023	75	60	216
Tray 2 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 2 Direct Select	606	024	1	0	1
Tray 2 Priority		Tray 2 Priority	606	025	30	1	99
Tray 2 Width	Range and default size in mm	Tray 2 Width	606	026	279	122	356
Tray 2 Length	Range and default size in mm	Tray 2 Length	606	027	216	75	216
Tray 2 Percent Full		Tray 2 Percent Full	606	028	0	0	100
Tray 2 User Type	TAFixed = 0, TAAdjustableAll = 1, ----- [TAAdjustableSizeOnly = 2]	Tray 2 User Type	606	029	1	0	1
Tray 2 Modulus		Tray 2 Modulus	606	030	0	0	100
Tray 2 Modulus Position		Tray 2 Modulus Position	606	031	1	1	100

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 3 Media Type	MTStandard = 0, MTDilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBackedTranspare ncy = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTEltraHeavyGlossy = 54, MTEltraHeavyGlossySide 2 = 55, MTEltraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 3 Media Type	606	041	0	0	102

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 3 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 3 Media Color	606	042	0	0	34
Tray 3 Media Weight		Tray 3 Media Weight	606	043	75	60	216
Tray 3 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 3 Direct Select	606	044	1	0	1
Tray 3 Priority		Tray 3 Priority	606	045	40	1	99
Tray 3 Width	Range and default size in mm	Tray 3 Width	606	046	279	122	356
Tray 3 Length	Range and default size in mm	Tray 3 Length	606	047	216	75	216
Tray 3 Percent Full		Tray 3 Percent Full	606	048	0	0	100
Tray 3 User Type	0 = TAFixed 1 = TAAadjustableAll	Tray 3 User Type	606	049	1	0	1
Tray 3 Modulus		Tray 3 Modulus	606	050	0	0	100
Tray 3 Modulus Position		Tray 3 Modulus Position	606	051	1	1	100

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 4 Media Type	MTStandard = 0, MTDilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBackedTranspare ncy = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTEExtraHeavyGlossy = 54, MTEExtraHeavyGlossySide 2 = 55, MTEExtraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 4 Media Type	606	061	0	0	102

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 4 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 4 Media Color	606	062	0	0	34
Tray 4 Media Weight		Tray 4 Media Weight	606	063	75	60	216
Tray 4 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 4 Direct Select	606	064	1	0	1
Tray 4 Priority		Tray 4 Priority	606	065	50	1	99
Tray 4 Width	Range and default size in mm	Tray 4 Width	606	066	279	122	356
Tray 4 Length	Range and default size in mm	Tray 4 Length	606	067	216	75	216
Tray 4 Percent Full		Tray 4 Percent Full	606	068	0	0	100
Tray 4 User Type	0 = TAFixed 1 = TAAadjustableAll	Tray 4 User Type	606	069	1	0	1
Tray 4 Modulus		Tray 4 Modulus	606	070	0	0	100
Tray 4 Modulus Position		Tray 4 Modulus Position	606	071	1	1	100

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 5 Media Type	MTStandard = 0, MTDilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBacked Transparency = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTEltraHeavyGlossy = 54, MTEltraHeavyGlossySide 2 = 55, MTEltraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 5 Media Type	606	081	0	0	102



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 5 Media Weight	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 5 Media Color	606	082	0	0	34
Tray 5 Media Weight		Tray 5 Media Weight	606	083	75	60	216
Tray 5 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 5 Direct Select	606	084	1	0	1
Tray 5 Priority		Tray 5 Priority	606	085	60	1	99
Tray 5 Width	Range and default size in mm	Tray 5 Width	606	086	279	122	356
Tray 5 Length	Range and default size in mm	Tray 5 Length	606	087	216	75	216
Tray 5 Percent Full		Tray 5 Percent Full	606	088	0	0	100
Tray 5 User Type	TAFixed = 0, TAAdjustableAll = 1, ----- [TAAdjustableSizeOnly = 2]	Tray 5 User Type	606	089	1	0	1
Tray 5 Modulus		Tray 5 Modulus	606	090	0	0	100
Tray 5 Modulus Position		Tray 5 Modulus Position	606	091	1	1	100
Print Engine Lifetime Jams Number of Marking Engine Jams since activation	Print Engine Lifetime Jams Number of Marking Engine Jams since activation	Print Engine Lifetime Jams	606	152	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Black Lifetime Ink Sticks Consumed Total Number of black ink sticks consumed since Activation	Black Lifetime Ink Sticks Consumed Total Number of black ink sticks consumed since Activation	Black Lifetime Ink Sticks Used	606	153	0	0	4.29E+09
Cyan Lifetime Ink Sticks Consumed Total Number of cyan ink sticks consumed since Activation	Cyan Lifetime Ink Sticks Consumed Total Number of cyan ink sticks consumed since Activation	Cyan Lifetime Ink Sticks Used	606	154	0	0	4.29E+09
Magenta Lifetime Ink Sticks Consumed Total Number of magenta ink sticks consumed since Activation	Magenta Lifetime Ink Sticks Consumed Total Number of magenta ink sticks consumed since Activation	Magenta Lifetime Ink Sticks Used	606	155	0	0	4.29E+09
Yellow Lifetime Ink Sticks Consumed Total Number of yellow ink sticks consumed since Activation	Yellow Lifetime Ink Sticks Consumed Total Number of yellow ink sticks consumed since Activation	Yellow Lifetime Ink Sticks Used	606	156	0	0	4.29E+09
Total Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Total Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Total Maintenance Kits Installed	606	157	0	0	4.29E+09
Total Standard Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Total Standard Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Tot Std Maint Kits Inst	606	163	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Total Extended Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Total Extended Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Tot Ext Maint Kits Inst	606	164	0	0	4.29E+09
Total Generic Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Total Generic Maintenance Kits Installed Identifies the total number of maintenance kits that have been installed on the machine since activation	Tot Generic Maint Kits Inst	606	165	0	0	4.29E+09
Service Plan (Contract - with leaning mode enabled)	Sold = 0 Metered = 1 ThirdParty = 2 Metered (XeroxManaged Supplies) = 3 PagePack = 4 DmoSold = 5 Neutral (Leaning mode) = 100	Service Plan	606	269	100	0	100
Billing Configuration Defines machine tiered billing configuration.  The billing plan is set in flash from the SIM at install. This NVM is only a working copy. The default of this NVM should be irrelevant but has been set as 3 tier for robustness purposes only.	Defines machine billing configuration.  BCtraditional = 0; BC2tier = 1; BC3tier = 2;  <b>Note:</b> For Mfg use only - not to be shared with Service - these are not intended for field adjustment	TB Configuration	606	272	2	0	2
Chronic Jet Flag Head 1 NVM allocated to maintain this Log		Print Head 1 Chronic Jet Flag	606	293	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 91-610: Head 1 Wave Amp Calibration Error	no. of faults	Head1WaveAmp Cal ErrFC	606	315	0	0	255
Fault Counter 91-614: Head #1 Head Field Data Corrupt	no. of faults	Head1FieldData CorruptFC	606	319	0	0	255
Fault Counter 92-558: EcmPsLineCross Failed	no. of faults	EcmPsLineCross FailedFC	606	363	0	0	255
Tray 1 Jams - Usage Counter	Tray 1 Jams	Tray 1 Jams	606	393	0	0	4.29E+09
Tray 2 Jams - Usage Counter	Tray 2 Jams	Tray 2 Jams	606	394	0	0	4.29E+09
Tray 3 Jams - Usage Counter	Tray 3 Jams	Tray 3 Jams	606	395	0	0	4.29E+09
Tray 4 Jams - Usage Counter	Tray 4 Jams	Tray 4 Jams	606	396	0	0	4.29E+09
Tray 5 Jams - Usage Counter	Tray 5 Jams	Tray 5 Jams	606	397	0	0	4.29E+09
IOT comm faults counter	IOT comm faults counter	IOT comm faults counter	606	401	0	0	4.29E+09
Finisher comm faults counter	Finisher comm faults counter	Finisher comm faults counter	606	402	0	0	4.29E+09
Protocol comm faults counter	Protocol comm faults counter	Protocol comm faults counter	606	403	0	0	4.29E+09
Paper trays currently installed	Paper trays currently installed	Paper trays currently installed	606	404	0	0	4.29E+09
Output jams	Output jams	Output jams	606	405	0	0	4.29E+09
Compile jams	Compile jams	Compile jams	606	406	0	0	4.29E+09
Staple errors	Staple errors	Staple errors	606	407	0	0	4.29E+09
Maintenance Kit Installation Impressions Total number of sheets that have been successfully delivered to output destination since the current kit was installed.	Maintenance Kit Installation Impressions Total number of sheets that have been successfully delivered to output destination since the current kit was installed.	Installed Maint Kit Impressions	606	410	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Black + Color Level 1 Copied Impressions_T3	Usage Counter in Prints	BW Color 1 Copy Impressions T3	606	411	0	0	4.29E+09
Color Level 2 Copied Impressions_T3	Usage Counter in Prints	Color 2 Copy Impressions_T3	606	412	0	0	4.29E+09
Color Level 3 Copied Impressions_T3	Usage Counter in Prints	Color 3 Copy Impressions T3	606	413	0	0	4.29E+09
Black + Color Level 1 Printed Impressions_T3	Usage Counter in Prints	BW Color 1 Print Impressions T3	606	414	0	0	4.29E+09
Color Level 2 Printed Impressions_T3	Usage Counter in Prints	Color 2 Print Impressions T3	606	415	0	0	4.29E+09
Color Level 3 Printed Impressions_T3	Usage Counter in Prints	Color 3 Print Impressions T3	606	416	0	0	4.29E+09
Black + Color Level 1 Copied Impressions_T2	Usage Counter in Prints	BW Color 1 Copy Impressions T2	606	417	0	0	4.29E+09
Color Level 2 Copied Impressions_T2	Usage Counter in Prints	Color 2 Copied Impressions T2	606	418	0	0	4.29E+09
Black + Color Level 1 Printed Impressions_T2	Usage Counter in Prints	BW Color 1 Print Impressions T2	606	419	0	0	4.29E+09
Color Level 2 Printed Impressions_T2	Usage Counter in Prints	Color 2 Print Impressions T2	606	420	0	0	4.29E+09
Actual Black Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Black pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeKPixelCountUp	Actual Black Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Black pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeKPixelCountUp	Actual K Pix In BW Mode Up	606	466	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Actual Black Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Black pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeKPixelCountLow	Actual Black Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Black pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeKPixelCountLow	Actual K Pix In BW Mode Low	606	467	0	0	4.29E+09
Actual Cyan Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Cyan pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeCPixelCountUp	Actual Cyan Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Cyan pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeCPixelCountUp	Actual C Pix In BW Mode Up	606	468	0	0	4.29E+09
Actual Cyan Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Cyan pixels printed on on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeCPixelCountLow	Actual Cyan Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Cyan pixels printed on on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeCPixelCountLow	Actual C Pix In BW Mode Low	606	469	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Actual Magenta Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Magenta pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeMPixelCountUp	Actual Magenta Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Magenta pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeMPixelCountUp	Actual M Pix In BW Mode Up	606	470	0	0	4.29E+09
Actual Magenta Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Magenta pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeMPixelCountLow	Actual Magenta Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Magenta pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeMPixelCountLow	Actual M Pix In BW Mode Low	606	471	0	0	4.29E+09
Actual Yellow Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Yellow pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeYPixelCountUp	Actual Yellow Pixels Marked-Black & White Up (1K) This item conveys the Actual total number of Yellow pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeYPixelCountUp	Actual Y Pix In BW Mode Up	606	472	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Actual Yellow Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Yellow pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeYPixelCountLow	Actual Yellow Pixels Marked-Black & White Low (1K) This item conveys the Actual total number of Yellow pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualBWModeYPixelCountLow	Actual Y Pix In BW Mode Low	606	473	0	0	4.29E+09
Actual Black Pixels Marked-Color Up (1K) This item conveys the Actual total number of Black pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeKPixelCountUp	Actual Black Pixels Marked-Color Up (1K) This item conveys the Actual total number of Black pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeKPixelCountUp	Actual K Pix In Color Mode Up	606	474	0	0	4.29E+09
Actual Black Pixels Marked-Color Low (1K) This item conveys the Actual total number of Black pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeKPixelCountLow	Actual Black Pixels Marked-Color Low (1K) This item conveys the Actual total number of Black pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeKPixelCountLow	Actual K Pix In Color Mode Low	606	475	0	0	4.29E+09



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Actual Cyan Pixels Printed-Color Up (1K) This item conveys the Actual total number of Cyan pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeCPixelCountUp	Actual Cyan Pixels Printed-Color Up (1K) This item conveys the Actual total number of Cyan pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeCPixelCountUp	Actual C Pix In Color Mode Up	606	476	0	0	4.29E+09
Actual Cyan Pixels Marked-Color Low (1K) This item conveys the Actual total number of Cyan pixels printed on on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeCPixelCountLow	Actual Cyan Pixels Marked-Color Low (1K) This item conveys the Actual total number of Cyan pixels printed on on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeCPixelCountLow	Actual C Pix In Color Mode Low	606	477	0	0	4.29E+09
Actual Magenta Pixels Marked-Color Up (1K) This item conveys the Actual total number of Magenta pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeMPixelCountUp	Actual Magenta Pixels Marked-Color Up (1K) This item conveys the Actual total number of Magenta pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeMPixelCountUp	Actual M Pix In Color Mode Up	606	478	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Actual Magenta Pixels Printed-Black & White Low (1K) This item conveys the Actual total number of Magenta pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeMPixelCountLow	Actual Magenta Pixels Printed-Black & White Low (1K) This item conveys the Actual total number of Magenta pixels printed on Black and White impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeMPixelCountLow	Actual M Pix In Color Mode Low	606	479	0	0	4.29E+09
Actual Yellow Pixels Marked-Color Up (1K) This item conveys the Actual total number of Yellow pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeYPixelCountUp	Actual Yellow Pixels Marked-Color Up (1K) This item conveys the Actual total number of Yellow pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeYPixelCountUp	Actual Y Pix In Color Mode Up	606	480	0	0	4.29E+09
Actual Yellow Pixels Marked-Color Low (1K) This item conveys the Actual total number of Yellow pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeYPixelCountLow	Actual Yellow Pixels Marked-Color Low (1K) This item conveys the Actual total number of Yellow pixels printed on color impressions for any media size as reported by the IME Values are given in K (1000) units. numTotActualColorModeYPixelCountLow	Actual Y Pix In Color Mode Low	606	481	0	0	4.29E+09
DADF Feed Roll - Number of feeds	system increments counter	DADFRollFeeds	606	482	0	0	4.29E+09
Inserter Feed Roll - Number of feeds	system increments counter	InserterRollFeeds	606	483	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Last Auto Maintenance update	CCS uses this to know when to send IR updates to the IME. These updates should be once a day.	Last Auto Maintenance Update	606	537	0	0	4.29E+09
Average Area Coverage for Black channel in black mode for life of machine. Integer value.	Average Area Coverage for Black channel in black mode for life of machine. Integer value.	Average AC Black. Int.	606	710	0	0	4.29E+09
Average Area Coverage for Cyan channel for life of machine. Integer value.	Average Area Coverage for Cyan channel for life of machine. Integer value.	Average AC Cyan. Int.	606	711	0	0	4.29E+09
Average Area Coverage for Magenta channel for life of machine. Integer value.	Average Area Coverage for Magenta channel for life of machine. Integer value.	Average AC Magenta. Int.	606	712	0	0	4.29E+09
Average Area Coverage for Yellow channel for life of machine. Integer value.	Average Area Coverage for Yellow channel for life of machine. Integer value.	Average AC Yellow. Int.	606	713	0	0	4.29E+09
Average Area Coverage for Black channel in color mode for life of machine. Integer value.	Average Area Coverage for Black channel in color mode for life of machine. Integer value.	Avg AC Black in Color Int.	606	714	0	0	4.29E+09
Fault Counter 92-579: IME CDI Submit sheet Error	no. of faults	ImeSubmit SheetErrorFC	606	718	0	0	255
Default is the version number of the Excel table used to create the NVM	Table Version used to create the NVM ie V1.234 = 1234	FS23.201 Table Version	606	787	1415	0	65535
Fault Counter 93-501-00: Black Ink loader Jammed	no. of faults	BlackInkLoader JammedFC	606	802	0	0	255
Fault Counter 93-506-00: Magenta Ink loader Jammed	no. of faults	MagentaInkLoader JammedFC	606	803	0	0	255
Fault Counter 93-511-00: Cyan Ink loader Jammed	no. of faults	CyanInkLoader JammedFC	606	804	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 93-516-00: Yellow Ink loader Jammed	no. of faults	YellowInkLoader JammedFC	606	805	0	0	255
Number of Black Neutral ink sticks/ toner cartridges allowed[1]	Limits Neutral usage to 3 units.	BlackNeutral[1] Countdown	606	857	3	0	5
Number of Yellow Neutral ink sticks/ toner cartridges allowed	Limits Neutral usage to 3 units.	YellowNeutral Countdown	606	859	3	0	5
Number of Magenta Neutral ink sticks/ toner cartridges allowed	Limits Neutral usage to 3 units.	MagentaNeutral Countdown	606	860	3	0	5
Number of Cyan Neutral ink sticks/ toner cartridges allowed	Limits Neutral usage to 3 units.	CyanNeutral Countdown	606	861	3	0	5
Fault Counter 74-215: T4 hoist failure Fault Counter-T4HoistFailureFC	no. of faults	T4HoistFailureFC	606	866	0	0	255
Fault Counter 72-217: T2 bump up failure Fault Counter-T2BumpUp FailureFC	no. of faults	T2BumpUp FailureFC	606	867	0	0	255
Fault Counter 73-217: T3 bump up failure Fault CounterT3BumpUp FailureFC	no. of faults	T3BumpUp Failure FC	606	868	0	0	255
Fault Counter 74-217: T4 bump up failure Fault CounterT4BumpUp FailureFC	no. of faults	T4BumpUp FailureFC	606	869	0	0	255
Fault Counter 75-217: T5 bump up failure Fault CounterT5BumpUp FailureFC	no. of faults	T5BumpUp FailureFC	606	870	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Override sheet edge erase value for pre-punched stock supplied by the IOT. Please refer FS 16.020 for more details related to this feature. Also refer to IDs 2680 and 2681	The units are in millimeters (mm)	PrePunchMediaEraseOverrideValue	606	888	-1	-1	127
Fault Counter 72-101-00: LE Late At Feed	no. of faults	DfFdlinkLeLateAtFeed	606	891	0	0	255
Fault Counter 73-952-00: HCF1 motor stall Fault	no. of faults	HCF1MotorStallFault	606	892	0	0	255
Fault Counter 74-106-00: LE Late At TAR1	no. of faults	DfFdlinkLeLateAtTar4	606	893	0	0	255
Fault Counter 74-952-00: HCF2 motor stall Fault	no. of faults	HCF2MotorStallFault	606	894	0	0	255
Fault Counter 75-106-00: LE Late At TAR1	no. of faults	DfFdlinkLeLateAtTar5	606	895	0	0	255
Fault Counter 75-110-00: LE Late At TAR2	no. of faults	DfFdlinkLeLateAtTar1FromTtm2	606	896	0	0	255
Fault Counter 75-952-00: HCF3 motor stall Fault	no. of faults	HCF3MotorStallFault	606	897	0	0	255
Fault Counter 83-149-00: MP Duplex Sensor 14 LE Missing	no. of faults	MpDuplexSensor14LeMissing	606	901	0	0	255
Fault Counter 83-151-00: MP Duplex Sensor 14 TE Timeout	no. of faults	MpDuplexSensor14TeTimeout	606	902	0	0	255
Fault Counter 88-503-00: Preheater thermistor is open	no. of faults	ThPreheatOpenReading	606	903	0	0	255
Fault Counter 88-504-00: Preheater thermistor is shorted	no. of faults	ThPreheatShortReading	606	904	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 89-104-00: MP Sensor 8 MPT LE Timeout	no. of faults	MpSensor8MptLe Timeout	606	905	0	0	255
Fault Counter 89-105-00: MP Sensor 8 Duplex LE Timeout	no. of faults	MpDuplexSensor8 LeTimeout	606	906	0	0	255
Fault Counter 89-106-00: MP Sensor 8 LE Timeout	no. of faults	MpSensor8Le Timeout	606	907	0	0	255
Fault Counter 89-107-00: MP Sensor 8 TE Timeout	no. of faults	MpSensor8Te Timeout	606	908	0	0	255
Fault Counter 89-108-00: MP Sensor 9 LE Timeout	no. of faults	MpSensor9Le Timeout	606	909	0	0	255
Fault Counter 89-109-00: MP Sensor 9 TE Timeout	no. of faults	MpSensor9Te Timeout	606	910	0	0	255
Fault Counter 89-117-00: MP Sheet Too Long (No Purge)	no. of faults	MpSensor10Too LongNoPurge	606	911	0	0	255
Fault Counter 89-118-00: MP Sheet Too Short (No Purge)	no. of faults	MpSensor10Too ShortNoPurge	606	912	0	0	255
Fault Counter 89-119-00: MP MPT Reverse Shingle Detected	no. of faults	MpTpnMptReverse Shingle	606	913	0	0	255
Fault Counter 89-120-00: MP Sheet Too Late At Appr	no. of faults	MpSheetTooLateAt Appr	606	914	0	0	255
Fault Counter 89-121-00: MP Sensor 12 LE Timeout	no. of faults	MpTpnSensor12Le Timeout	606	915	0	0	255
Fault Counter 89-122-00: MP Sensor 12 TE Timeout	no. of faults	MpTpnSensor12Te Timeout	606	916	0	0	255
Fault Counter 89-147-00: MP Sensor 14 LE Timeout	no. of faults	MpTpnSensor14Le Timeout	606	917	0	0	255
Fault Counter 89-149-00: MP Sensor 16 LE Timeout	no. of faults	MpMambaSensor1 6LeTimeout	606	918	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 89-570-00: MP over current Fault	no. of faults	EcmMpOverCurr	606	919	0	0	255
Fault Counter 89-571-00: MP stall Fault	no. of faults	EcmMpStall	606	920	0	0	255
Fault Counter 89-572-00: MP motor/wiring Fault	no. of faults	EcmMpFailure	606	921	0	0	255
Fault Counter 91-712-00: Wiper Move Down Stall	no. of faults	MdWprMovedown Stall	606	924	0	0	255
Fault Counter 91-720-00: Motor didnt stall while moving from engage to standby.	no. of faults	MdHdtiltNoStall	606	929	0	0	255
Fault Counter 91-721-00: Motor stalled while tilting head forward from standby.	no. of faults	MdHdtiltStall	606	930	0	0	255
Fault Counter 91-722-00: Motor stalled while tilting from engage to standby.	no. of faults	MdHdtiltNo BackwardFollow	606	931	0	0	255
Fault Counter 91-723-00: Head is not following forward on headtilt CAM.	no. of faults	MdHdtiltNoF orewardFollow	606	932	0	0	255
Fault Counter 91-725-00: Process motor is skipping during head tilt.	no. of faults	MdHdtiltPm Skipping	606	933	0	0	255
Fault Counter 91-726-00: Motor is stalled moving from home to engage.	no. of faults	MdHdtiltPmStall Engage	606	934	0	0	255
Fault Counter 91-727-00: Shutdown - Failed power off head parked check.	no. of faults	MdHdtiltFailedPark	606	935	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 91-854-00: Right Jetstack thermistor is open.	no. of faults	ThRJetOpen ReadingHd1	606	936	0	0	255
Fault Counter 91-858-00: Reservoir thermistor is open.	no. of faults	ThReservoirOpen ReadingHd1	606	937	0	0	255
Fault Counter 91-862-00: Left Jetstack thermistor is shorted.	no. of faults	ThLJetShort ReadingHd1	606	938	0	0	255
Fault Counter 91-866-00: Right Jetstack thermistor is shorted.	no. of faults	ThRJetShort ReadingHd1	606	939	0	0	255
Fault Counter 91-870-00: Reservoir thermistor is shorted.	no. of faults	ThReservoirShort ReadingHd1	606	940	0	0	255
Fault Counter 91-900-00: Head CAL Data Nvram	no. of faults	HcdH1CorruptError	606	941	0	0	255
Fault Counter 92-500-00: DriverBoard SerialLinkDown	no. of faults	EcmLinkDown	606	942	0	0	255
Fault Counter 92-553-00: EcmBrdLinkBroken	no. of faults	EcmBrdLinkBroken	606	943	0	0	255
Fault Counter 92-587-00: Wave AMP Fault	no. of faults	EcmWaveampFault	606	944	0	0	255
Fault Counter 92-588-00: PsTimeoutErrTx	no. of faults	EcmPsTimeout ErrTx	606	945	0	0	255
Fault Counter 92-589-00: PsParityErrTx	no. of faults	EcmPsParityErrTx	606	946	0	0	255
Fault Counter 92-590-00: PsLineFreqErrTx	no. of faults	EcmPsLinefreq ErrTx	606	947	0	0	255
Fault Counter 92-591-00: PsDataErrTx	no. of faults	EcmPsDataErrTx	606	948	0	0	255



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 92-592-00: PsSecurePgrmErrTx	no. of faults	EcmPsSecurePgrm ErrTx	606	949	0	0	255
Fault Counter 92-593-00: PsFramingErrRx	no. of faults	EcmPsFraming ErrRx	606	950	0	0	255
Fault Counter 92-594-00: PsParityErrRx	no. of faults	EcmPsParityErrRx	606	951	0	0	255
Fault Counter 92-595-00: PsOverFlowErrRx	no. of faults	EcmPsOverflow ErrRx	606	952	0	0	255
Fault Counter 92-596-00: PsCommErrRx	no. of faults	EcmPsCommErrRx	606	953	0	0	255
Fault Counter 92-597-00: Ps50VolsDown	no. of faults	EcmPs50vDown	606	954	0	0	255
Fault Counter 92-601-00: PS Over Voltage Watchdog Timer	no. of faults	EcmPsOvervoltage Timer	606	955	0	0	255
Fault Counter 92-604-00: Processor exceeded panic temp	no. of faults	EcmProcessor Overtemp	606	956	0	0	255
Fault Counter 92-605-00: Waveamp thermistor exceeded max temp	no. of faults	EcmWaveamp Overtemp	606	957	0	0	255
Fault Counter 92-606-00: Electronics fan not working properly	no. of faults	EcmElecFanFailure	606	958	0	0	255
Fault Counter 92-607-00: Waveamp thermistor is open	no. of faults	EcmWaveampThstr Open	606	959	0	0	255
Fault Counter 92-608-00: Waveamp thermistor is shorted	no. of faults	EcmWaveampThstr Short	606	960	0	0	255
Fault Counter 92-609-00: Waveamp thermistor gave a bad reading	no. of faults	EcmWaveampThstr Bad	606	961	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 92-808-00: Configuration Card Missing.	no. of faults	DfCcardMissing	606	962	0	0	255
Fault Counter 92-809-00: Configuration Card Invalid.	no. of faults	DfCcardInvalid	606	963	0	0	255
Fault Counter 92-810-00: Configuration Card Unknown.	no. of faults	DfCcardUnknown	606	964	0	0	255
Fault Counter 92-811-00: Configuration Card Mismatch.	no. of faults	DfCcardMismatch	606	965	0	0	255
Fault Counter 92-812-00: Configuration Card Blank.	no. of faults	DfCcardBlank	606	966	0	0	255
Fault Counter 92-813-00: Configuration Card Blank.	no. of faults	DfCcardBad	606	967	0	0	255
Fault Counter 92-990-00: IL Board Disconnected	no. of faults	ILBoard Disconnected	606	968	0	0	255
Fault Counter 92-991-00: IL Board wrong PLD version	no. of faults	ILBoardWrongPld Version	606	969	0	0	255
Fault Counter 93-600-00: Cyan ink melt thermistor is open.	no. of faults	ThCInkOpen Reading	606	970	0	0	255
Fault Counter 93-601-00: Cyan ink melt thermistor is shorted.	no. of faults	ThCInkShort Reading	606	971	0	0	255
Fault Counter 93-602-00: Cyan ink melt thermistor bad reading, can't trust temp.	no. of faults	ThCInkBadReading	606	972	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 93-603-00: Magenta ink melt thermistor is open.	no. of faults	ThMInkOpen Reading	606	973	0	0	255
Fault Counter 93-604-00: Magenta ink melt thermistor is shorted.	no. of faults	ThMInkShort Reading	606	974	0	0	255
Fault Counter 93-605-00: Magenta ink melt thermistor bad reading, can't trust temp.	no. of faults	ThMInkBad Reading	606	975	0	0	255
Fault Counter 93-606-00: Yellow ink melt thermistor is open.	no. of faults	ThYInkOpen Reading	606	976	0	0	255
Fault Counter 93-607-00: Yellow ink melt thermistor is shorted.	no. of faults	ThYInkShort Reading	606	977	0	0	255
Fault Counter 93-608-00: Yellow ink melt thermistor bad reading, can't trust temp.	no. of faults	ThYInkBadReading	606	978	0	0	255
Fault Counter 93-609-00: Black ink melt thermistor is open.	no. of faults	ThKInkOpen Reading	606	979	0	0	255
Fault Counter 93-610-00: Black ink melt thermistor is shorted.	no. of faults	ThKInkShort Reading	606	980	0	0	255
Fault Counter 93-611-00: Black ink melt thermistor bad reading, can't trust temp.	no. of faults	ThKInkBadReading	606	981	0	0	255
Fault Counter 93-893-00: Black Ink Stick Potential Jam	no. of faults	IIKInkPossibleJam	606	982	0	0	255
Fault Counter 93-894-00: Magenta Ink Stick Potential Jam	no. of faults	IIMInkPossibleJam	606	983	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 93-895-00: Cyan Ink Stick Potential Jam	no. of faults	IIcInkPossibleJam	606	984	0	0	255
Fault Counter 93-896-00: Yellow Ink Stick Potential Jam	no. of faults	IIyInkPossibleJam	606	985	0	0	255
Fault Counter 93-962-00: Cyan channel detected incorrect ink stick	no. of faults	IIIncorrectCInk Stick	606	986	0	0	255
Fault Counter 93-963-00: Magenta channel detected incorrect ink stick	no. of faults	IIIncorrectMInk Stick	606	987	0	0	255
Fault Counter 93-964-00: Yellow channel detected incorrect ink stick	no. of faults	IIIncorrectYInk Stick	606	988	0	0	255
Fault Counter 93-965-00: Black channel detected incorrect ink stick	no. of faults	IIIncorrectKInk Stick	606	989	0	0	255
Fault Counter 93-966-00: Cyan channel detected unidentified ink stick	no. of faults	IIUnidentifiedCInk Stick	606	990	0	0	255
Fault Counter 93-967-00: Magenta channel detected unidentified ink stick	no. of faults	IIUnidentifiedMInk Stick	606	991	0	0	255
Fault Counter 93-968-00: Yellow channel detected unidentified ink stick	no. of faults	IIUnidentifiedYInk Stick	606	992	0	0	255
Fault Counter 93-969-00: Black channel detected unidentified ink stick	no. of faults	IIUnidentifiedKInk Stick	606	993	0	0	255
Fault Counter 93-982-00: Black obstructed, reservoir not filled	no. of faults	IIKInkObstruction	606	994	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 93-983-00: Magenta obstructed, reservoir not filled	no. of faults	IIMInkObstruction	606	995	0	0	255
Fault Counter 93-984-00: Cyan obstructed, reservoir not filled	no. of faults	IICInkObstruction	606	996	0	0	255
Fault Counter 93-985-00: Yellow obstructed, reservoir not filled	no. of faults	IYInkObstruction	606	997	0	0	255
Fault Counter 93-994-00: Black Ink Stick Potential Jam2	no. of faults	IIKInkPossibleJam2	606	998	0	0	255
Fault Counter 93-995-00: Magenta Ink Stick Potential Jam2	no. of faults	IIMInkPossibleJam2	606	999	0	0	255
Jet Substitution Mode Single Pitch Impressions	Jet Substitution Mode Single Pitch Impressions	Single pitch prints in Jet Sub	608	519	0	0	4.29E+09
Jet Substitution Mode Dual Pitch Impressions	Jet Substitution Mode Dual Pitch Impressions	Dual pitch prints in Jet Sub	608	520	0	0	4.29E+09
Black Metered ink stick expected, Sold detected	counter	Black - MeteredExp - SoldDet	608	521	0	0	65535
Cyan Metered ink stick expected, Sold detected	counter	Cyan - MeteredExp - SoldDet	608	522	0	0	65535
Magenta Metered ink stick expected, Sold detected	counter	Magenta - MeteredExp - SoldDet	608	523	0	0	65535
Yellow Metered ink stick expected, Sold detected	counter	Yellow - MeteredExp - SoldDet	608	524	0	0	65535
Black Metered ink stick expected, DMO detected	counter	Black - MeteredExp - DMOdet	608	525	0	0	65535
Cyan Metered ink stick expected, DMO detected	counter	Cyan - MeteredExp - DMOdet	608	526	0	0	65535

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Magenta Metered ink stick expected, DMO detected	counter	Magenta - MeteredExp - DMOdet	608	527	0	0	65535
Yellow Metered ink stick expected, DMO detected	counter	Yellow - MeteredExp - DMOdet	608	528	0	0	65535
Black Sold ink stick expected, Metered detected	counter	Black - SoldExp - MeteredDet	608	529	0	0	65535
Cyan Sold ink stick expected, Metered detected	counter	Cyan - SoldExp - MeteredDet	608	530	0	0	65535
Magenta Sold ink stick expected, Metered detected	counter	Magenta - SoldExp - MeteredDet	608	531	0	0	65535
Yellow Sold ink stick expected, Metered detected	counter	Yellow - SoldExp - MeteredDet	608	532	0	0	65535
Black Sold ink stick expected, DMO detected	counter	Black - SoldExp - DMOdet	608	533	0	0	65535
Cyan Sold ink stick expected, DMO detected	counter	Cyan - SoldExp - DMOdet	608	534	0	0	65535
Magenta Sold ink stick expected, DMO detected	counter	Magenta - SoldExp - DMOdet	608	535	0	0	65535
Yellow Sold ink stick expected, DMO detected	counter	Yellow - SoldExp - DMOdet	608	536	0	0	65535
Black DMO ink stick expected, Metered detected	counter	Black - DMOExp - MeteredDet	608	537	0	0	65535
Cyan DMO ink stick expected, Metered detected	counter	Cyan - DMOExp - MeteredDet	608	538	0	0	65535
Magenta DMO ink stick expected, Metered detected	counter	Magenta - DMOExp - MeteredDet	608	539	0	0	65535
Yellow DMO ink stick expected, Metered detected	counter	Yellow - DMOExp - MeteredDet	608	540	0	0	65535
Black DMO ink stick expected, Sold detected	counter	Black - DMOExp - SoldDet	608	541	0	0	65535

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Cyan DMO ink stick expected, Sold detected	counter	Cyan - DMOExp - SoldDet	608	542	0	0	65535
Magenta DMO ink stick expected, Sold detected	counter	Magenta - DMOExp - SoldDet	608	543	0	0	65535
Yellow DMO ink stick expected, Sold detected	counter	Yellow - DMOExp - SoldDet	608	544	0	0	65535
Black unsupported ink stick type detected	counter	Black - Unknown type Det	608	545	0	0	65535
Cyan unsupported ink stick type detected	counter	Cyan - Unknown type Det	608	546	0	0	65535
Magenta unsupported ink stick type detected	counter	Magenta - Unknown type Det	608	547	0	0	65535
Yellow unsupported ink stick type detected	counter	Yellow - Unknown type Det	608	548	0	0	65535
Fault Counter 93-996-00: Cyan Ink Stick Potential Jam2	no. of faults	IICInkPossibleJam2	608	741	0	0	255
Fault Counter 93-997-00: Yellow Ink Stick Potential Jam2	no. of faults	IYInkPossibleJam2	608	742	0	0	255
Fault Counter 94-511-00: Drum Stall During Imaging Acceleration	no. of faults	PseqDrumImage AccStall	608	743	0	0	255
Fault Counter 94-513-00: Drum Stall During Imaging Deceleration	no. of faults	PseqDrumImage DecStall	608	744	0	0	255
Fault Counter 94-516-00: Drum Image Abort	no. of faults	PseqDrumImage Abort	608	745	0	0	255
Fault Counter 94-539-00: Drum thermistor is open	no. of faults	ThDrumFrontOpen Reading	608	746	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 94-541-00: Drum thermistor bad reading, can't trust temp.	no. of faults	ThDrumFrontBad Reading	608	747	0	0	255
Fault Counter 94-550-00: Y-axis Calibration Error	no. of faults	DrumYAxisCalError	608	748	0	0	255
Fault Counter 94-626-00: Drum fan has been on too long	no. of faults	ThDrumFan Timeout	608	749	0	0	255
Fault Counter 94-700-00: Dmfix Homing Error	no. of faults	DmDmfixHoming Error	608	750	0	0	255
Fault Counter 94-701-00: proc drive over current Fault	no. of faults	EcmPmOverCurr	608	751	0	0	255
Fault Counter 94-702-00: proc drive stall Fault	no. of faults	EcmPmStall	608	752	0	0	255
Fault Counter 94-703-00: Xa stall Fault	no. of faults	EcmXStall	608	753	0	0	255
Fault Counter 94-704-00: Wiper stall Fault	no. of faults	EcmWprStall	608	754	0	0	255
Fault Counter 99-001-00: PEST - Generic Error	no. of faults	FaultPestGeneric Error	608	755	0	0	255
Fault Counter 99-002-00: PEST - Left Jetstack Disconnect	no. of faults	FaultPestJslHeater Disconnect	608	756	0	0	255
Fault Counter 99-003-00: PEST - Right Jetstack Disconnect	no. of faults	FaultPestJsrHeater Disconnect	608	757	0	0	255
Fault Counter 99-004-00: PEST - Reservoir0 Disconnect	no. of faults	FaultPestReservoir0 HeaterDisconn	608	758	0	0	255
Fault Counter 99-005-00: PEST - Reservoir1 Disconnect	no. of faults	FaultPestReservoir1 HeaterDisconn	608	759	0	0	255



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 99-006-00: PEST - Drum Disconnect	no. of faults	FaultPestDrum HeaterDisconnect	608	760	0	0	255
Fault Counter 99-008-00: PEST - Preheat Heater Disconnect	no. of faults	FaultPestPreheat HeaterDisconnect	608	761	0	0	255
Fault Counter 99-009-00: PEST - All Inkmelters are Disconnected.	no. of faults	FaultPestAllInk HeatersDisconnect	608	762	0	0	255
Fault Counter 99-010-00: PEST - Inkmelt0 Disconnect	no. of faults	FaultPestInk0 HeaterDisconnect	608	763	0	0	255
Fault Counter 99-011-00: PEST - Inkmelt1 Disconnect	no. of faults	FaultPestInk1 HeaterDisconnect	608	764	0	0	255
Fault Counter 99-012-00: PEST - Inkmelt2 Disconnect	no. of faults	FaultPestInk2 HeaterDisconnect	608	765	0	0	255
Fault Counter 99-013-00: PEST - Inkmelt3 Disconnect	no. of faults	FaultPestInk3 HeaterDisconnect	608	766	0	0	255
Fault Counter 99-014-00: PEST - Media Path Cooling Fan Disconnect	no. of faults	FaultPestMpFan Disconnect	608	767	0	0	255
Fault Counter 99-015-00: PEST - Drum Cooling Fan Disconnect	no. of faults	FaultPestDrumFan Disconnect	608	768	0	0	255
Fault Counter 99-016-00: PEST - All Three Clutches Failed	no. of faults	FaultPestAllClutch FailDisconnect	608	769	0	0	255
Fault Counter 99-017-00: PEST - Head Maintenance Clutch Disconnect	no. of faults	FaultPestHmClutch Disconnect	608	770	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 99-018-00: PEST - Main Tray Deskew Clutch Disconnect	no. of faults	FaultPestMtDeskew ClutchDisconnect	608	771	0	0	255
Fault Counter 99-019-00: PEST - Main Tray Pick Clutch Disconnect	no. of faults	FaultPestMtPick ClutchDisconnect	608	772	0	0	255
Fault Counter 99-020-00: PEST - Multipurpose Tray Pick Solenoid Disconnect	no. of faults	FaultPestMptPick SolDisconnect	608	773	0	0	255
Fault Counter 99-021-00: PEST - Strip Solenoid Disconnect	no. of faults	FaultPestStripSol Disconnect	608	774	0	0	255
Fault Counter 99-022-00: PEST - Preheat Solenoid Disconnect	no. of faults	FaultPestPreheat SolDisconnect	608	775	0	0	255
Fault Counter 99-023-00: PEST - Head Tilt Solenoid Disconnect	no. of faults	FaultPestHeadTilt SolDisconnect	608	776	0	0	255
Fault Counter 99-030-00: PEST - X-axis Motor Disconnect	no. of faults	FaultPestXMotor Disconnect	608	780	0	0	255
Fault Counter 99-031-00: PEST - X-axis Motor Phase A Disconnect	no. of faults	FaultPestXMotor PhaseADisconnect	608	781	0	0	255
Fault Counter 99-032-00: PEST - X-axis Motor Phase A Short	no. of faults	FaultPestXMotor PhaseAShort	608	782	0	0	255
Fault Counter 99-033-00: PEST - X-axis Motor Phase B Disconnect	no. of faults	FaultPestXMotor PhaseBDisconnect	608	783	0	0	255
Fault Counter 99-034-00: PEST - X-axis Motor Phase B Short	no. of faults	FaultPestXMotor PhaseBShort	608	784	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 99-035-00: PEST - Y-axis Motor Disconnect	no. of faults	FaultPestYMotor Disconnect	608	785	0	0	255
Fault Counter 99-036-00: PEST - Y-axis Motor Short	no. of faults	FaultPestYMotor Short	608	786	0	0	255
Fault Counter 99-037-00: PEST - Media Path Motor Disconnect	no. of faults	FaultPestMpMotor Disconnect	608	787	0	0	255
Fault Counter 99-038-00: PEST - Media Path Motor Short	no. of faults	FaultPestMpMotor Short	608	788	0	0	255
Fault Counter 99-039-00: PEST - Process Motor Disconnect	no. of faults	FaultPestProcMotor Disconnect	608	789	0	0	255
Fault Counter 99-040-00: PEST - Process Motor Short	no. of faults	FaultPestProcMotor Short	608	790	0	0	255
Fault Counter 99-059-00: PEST - Vss measurement too low, head power cable may be disconnected.	no. of faults	FaultPestHeadVss Disconnect	608	809	0	0	255
Fault Counter 99-060-00: PEST - Vpp measurement too low, head power cable may be disconnected.	no. of faults	FaultPestHeadVpp Disconnect	608	810	0	0	255
Fault Counter 99-061-00: PEST - The wave amp appears to be shorted. It is drawing too much power.	no. of faults	FaultPestWaveAmp Shorted	608	811	0	0	255
Fault Counter 99-062-00: PEST - Ink Loader Solenoid Gate0 push seems to be disconnected.	no. of faults	FaultPestIIGate0 PushDisconnect	608	812	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 99-063-00: PEST - Ink Loader Solenoid Gate0 pull seems to be disconnected.	no. of faults	FaultPestIIGate0 PullDisconnect	608	813	0	0	255
Fault Counter 99-064-00: PEST - Ink Loader Solenoid Gate1 push seems to be disconnected.	no. of faults	FaultPestIIGate1 PushDisconnect	608	814	0	0	255
Fault Counter 99-065-00: PEST - Ink Loader Solenoid Gate1 pull seems to be disconnected.	no. of faults	FaultPestIIGate1 PullDisconnect	608	815	0	0	255
Fault Counter 99-066-00: PEST - Ink Loader Solenoid Gate2 push seems to be disconnected.	no. of faults	FaultPestIIGate2 PushDisconnect	608	816	0	0	255
Fault Counter 99-067-00: PEST - Ink Loader Solenoid Gate2 pull seems to be disconnected.	no. of faults	FaultPestIIGate2 PullDisconnect	608	817	0	0	255
Fault Counter 99-068-00: PEST - Ink Loader Solenoid Gate3 push seems to be disconnected.	no. of faults	FaultPestIIGate3 PushDisconnect	608	818	0	0	255
Fault Counter 99-069-00: PEST - Ink Loader Solenoid Gate3 pull seems to be disconnected.	no. of faults	FaultPestIIGate3 PullDisconnect	608	819	0	0	255
Fault Counter 99-070-00: PEST - All Ink Loader Gates Failed.	no. of faults	FaultPestIIAllGates Failed	608	820	0	0	255
Fault Counter 99-071-00: PEST - Power Dump Circuit seems to be disconnected.	no. of faults	FaultPestPwrDump Disconnect	608	821	0	0	255
Bypass Mode Allowed		Bypass Mode Allowed	608	834	1	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 12-195: Paper Detect Sensor not made Jam	no. of faults	PaperDetectSensorNotMade	608	933	0	0	255
Fault Counter 12-125: Finisher Entry Sensor not made Jam	no. of faults	LELateEntrySensor	608	934	0	0	255
Fault Counter 12-101: Finisher Entry Sensor no cleared Jam	no. of faults	TELateEntrySensor	608	935	0	0	255
Fault Counter 12-336: Rear Staple Door Opened in Run	no. of faults	StapleDoorOpenIR	608	936	0	0	255
Fault Counter 12-283: Ejector Clamp Motor Stall Failure	no. of faults	EjectorClampMotorStall	608	937	0	0	255
Fault Counter 12-284: Ejector Clamp Return Home Failure	no. of faults	EjectorClampReturnHome	608	938	0	0	255
Fault Counter 12-950: Preparation time violation on finisher entry sensor	no. of faults	LEEntrySensorTriggered	608	939	0	0	255
Fault Counter 94-615-00		Non-Xerox Cleaning Unit Detected	608	944	0	0	255
Count of pages printed with Cold Print Process	Counter - Set by CCS based on DCStatusUpdate message sent by IME	Pages Cold Print Process	608	945	0	0	4.29E+09
Count of pages printed with Hot Y-Axis motor	Counter - Set by CCS based on DCStatusUpdate message sent by IME	Pages Hot Y-Axis Motor	608	946	0	0	4.29E+09
Count of pages printed with High Coverage	Counter - Set by CCS based on DCStatusUpdate message sent by IME	Pages High Coverage	608	947	0	0	4.29E+09
Count of pages printed with Duplex Dropout	Counter - Set by CCS based on DCStatusUpdate message sent by IME	Pages Duplex Dropout	608	948	0	0	4.29E+09
Count of pages printed with High Frequency Banding	Counter - Set by CCS based on DCStatusUpdate message sent by IME	Pages High Freq Banding	608	949	0	0	4.29E+09
Color Preset Screen Enable (FD28.120)	0 = disabled 1 = enabled	Color Preset Screen Enable	608	950	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Sound Reduction Mode	Set/changed by a tools setting.	Sound Reduction Mode	608	965	0	0	1
Billing Impressions Mode		BillingImpressions Mode	608	966	0	0	65535
Number of reset faults before actually resetting the system	0 = reset with every reset fault n = number of reset faults before system reset	Reset Fault Trigger	609	317	3	0	255
Background detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Copy ABS Detect Window FS Start	610	001	75	0	1000
Background detection window fast scan dimension, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Copy ABS Detect Window FS Size	610	002	850	0	1000
Auto Background Suppression level for platen		Copy ABS Level Platen	610	003	2	0	4
Auto Background Suppression level for DADF		Copy ABS Level DADF	610	004	2	0	4
Auto Contrast level for platen		Copy Auto Contrast Level Platen	610	005	2	0	4
Auto Contrast level for DADF		Copy Auto Contrast Level DADF	610	006	2	0	4

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Auto Color detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Copy Auto Color Detect FS Start	610	007	16	0	1000
Auto Color detection window slow scan start, defined in tenth of percentage point of document slow scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Copy Auto Color Detect SS Start	610	008	16	0	1000
Auto Color Detection Level for platen at pixel level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Copy Auto Color Level Pixel Plat	610	009	2	0	4
Auto Color Detection Level for platen at page level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Copy Auto Color Level Page Plat	610	010	2	0	4
Auto Color Detection Level for DADF at pixel level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Copy Auto Color Level Pixel DADF	610	011	2	0	4

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Auto Color Detection Level for DADF at page level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Copy Auto Color Level Page DADF	610	012	2	0	4
Dictates if black & white copies are printed in K-only or composite black	Default specific for Solid Ink only	K only (only black ink for B&W)	610	013	0	0	1
Photo/Text Segmentation Threshold will control the Galileo segmentation. When it changes, the part of the input that will be considered text will vary as well as the part that will be considered photo.		Copy Photo/Text Segmentat'n Ctrl	610	014	2	0	4
Defines the type of paper used		Copy White Reference	610	015	0	0	127
Defines the binary vs. contone image path/printing		Copy Im Path Type (bit depth)	610	016	1	1	16
Background detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Scan ABS Detect Window FS Start	610	017	75	0	1000



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Background detection window fast scan dimension, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Scan ABS Detect Window FS Size	610	018	850	0	1000
Auto Background Suppression level for platen		Scan ABS Level Platen	610	019	2	0	4
Auto Background Suppression level for DADF		Scan ABS Level DADF	610	020	2	0	4
Auto Contrast level for platen		Scan Auto Contrast Level Platen	610	021	2	0	4
Auto Contrast level for DADF		Scan Auto Contrast Level DADF	610	022	2	0	4
Auto Color detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Scan Auto Color Detect FS Start	610	023	16	0	1000
Auto Color detection window slow scan start, defined in tenth of percentage point of document slow scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Scan Auto Color Detect SS Start	610	024	16	0	1000
Auto Color Detection Level for platen at pixel level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Scan Auto Color Level Pixel Plat	610	025	2	0	4

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Auto Color Detection Level for platen at page level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Scan Auto Color Level Page Plat	610	026	2	0	4
Auto Color Detection Level for DADF at pixel level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Scan Auto Color Level Pixel DADF	610	027	2	0	4
Auto Color Detection Level for DADF at page level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Scan Auto Color Level Page DADF	610	028	2	0	4
Photo/Text Segmentation Threshold will control the Galileo segmentation. When it changes, the part of the input that will be considered text will vary as well as the part that will be considered photo.		Scan Photo/Text Segmentat'n Ctrl	610	029	2	0	4
Defines the type of paper used (4024, 4200, Xpressions, recyclable, etc)		Scan White Reference	610	030	0	0	127

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Background detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Fax ABS Detect Window FS Start	610	031	75	0	1000
Background detection window fast scan dimension, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1 % is 10, 10 % is 100, 100 % is 1000).		Fax ABS Detect Window FS Size	610	032	850	0	1000
Auto Background Suppression level for platen		Fax ABS Level Platen	610	033	2	0	4
Auto Background Suppression level for DADF		Fax ABS Level DADF	610	034	2	0	4
Auto Contrast level for platen		Fax Auto Contrast Level Platen	610	035	2	0	4
Auto Contrast level for DADF		Fax Auto Contrast Level DADF	610	036	2	0	4
Photo/Text Segmentation Threshold will control the Galileo segmentation. When it changes, the part of the input that will be considered text will vary as well as the part that will be considered photo.		Fax Photo/Text Segment'n Control	610	037	2	0	4
Defines the type of paper used		Fax White Reference	610	038	0	0	127
Defines the binary vs. contone image path/printing	1 to 16	Print ImagePath Type (bit depth)	610	047	8	1	16

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 22-330-02: Queue To ESSPrint Timeout		Queue To NC Print TimeoutFC	612	001	0	0	255
Fault Counter 22-330-03: Queue To S2F Timeout		Queue To S2F Timeout	612	002	0	0	255
Fault Counter 22-330-04: Queue To FaxSend Timeout		Queue To FaxSend Timeout	612	003	0	0	255
Fault Counter 22-330-05: Queue To DCCopy Timeout		Queue To DCCopy Timeout	612	004	0	0	255
Fault Counter 22-330-06: Queue To S2Distr Timeout		Queue To S2Distr Timeout	612	005	0	0	255
Defines market region	Market Region settings: 0=US (North America) 1=XCL(Canada) 2=FX (Fuji Xerox Japan) 3=FXAPO (Fuji Xerox Asian Pacific) 4=ACO(Latin) 5=RX(Europe) 6=MRDmoEast 7=MRDmoWest	Market Region	616	001	0	0	7
Mamba Family - Defines Product Configuration (See also NVM ID 4938) No speed differences - 40ppm, all models	130 = Classic Standard 131 = Classic with Option set 132 = Classic with Option set, finisher and 2-tray module 134 = Enterprise Standard 133 = Enterprise with Option Set	Product Configuration	616	003	130	0	255
Defines System Configuration (type of system)	0 = Unknown (Not set) 1 = ST (Networked) 8 = Network Suppressed	System Configuration	616	004	1	0	8
Defines start day of daylight savings time		DST Start	616	005	0	0	366
Defines end day of daylight savings time		DST End	616	006	0	0	366
Defines time display format 0=12 hour format, 1=24 hour format		Time Display Format	616	007	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Determines whether power saver's power off option is enabled. 0=False, 1=True		power off enabled	616	008	1	0	1
Determines whether power saver's power off option using timers is enabled. 0=False, 1=True		power off timeout enabled	616	009	1	0	1
Defines time in "normal" mode where system has been idle to enabled transition into power saver WITHOUT fast resume set.	The idle time in minutes before the machine will enter Low power	powersaver idletime	616	010	2	1	225
Defines time in "mode 1" before transitioning to "mode 3" WITHOUT fast resume set.	The idle time in minutes the machine will remain in Low power before entering Sleep	power saver in mode 1 time	616	011	30	0	255
Defines time in "lowest" power saver mode before powering off.		power saver power off time	616	012	45	0	255
Defines date display format 0=mm/dd/yy, 1=dd/mm/yy, 3=yy/mm/dd		Date Display Format	616	013	0	0	3
Defines system's current installation phase.		system install phase	616	014	2	0	4
Defines reason for previous power off.		power up reason	616	016	0	0	6
Defines the order algorithm for queues/ contention: FIFO vs. priority		Contention Algorithm	616	017	1	0	1
Amount of additional time after power up before system can enter power saver.		Extra Time	616	018	5	0	5

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
System Mode: Defines system's overall mode  This is the NVM that appears to be holding machines in diagnostics after a POPO.		system mode	616	019	0	0	12
Determines if the system runs through auto configuration, detect at power on. 0=False, 1=True		auto configuration enabled	616	020	1	0	1
Defines system line voltage 0=Unknown, 1=100V, 2=115V, 3=230V		line voltage	616	021	2	0	3
Defines system line frequency 0=50Hz, 1=60Hz		line frequency	616	022	1	0	1
Determines whether serial number has been set. 0=False, 1=True		serial number enabled	616	024	1	0	1
Defines time interval for increasing job's priority based on time in system.		promotion time	616	025	120	15	1440
Determines whether to increase job priority longer job is in system. 0=False, 1=True		auto promotion enabled	616	026	1	0	1
Defines previous market region 0=USCO, 1=XCL, 2=FX, 3=FXAPO, 4=ACO, 5=RX		previous market region	616	027	0	0	5
Defines client who did the most recent system mode change.		modeChangeClient Id	616	028	16	0	9994

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Defines last day that an end of day was reached.		latest EOD event	616	029	0	0	4.29E+09
Defines previous product configuration (All Products)		previous product config	616	030	106	0	255
Defines previous line frequency 0=50Hz, 1=60Hz		previous line frequency	616	031	1	0	1
Defines previous line voltage 0=Unknown, 1=100V, 2=115V, 3=230V		previous line voltage	616	032	2	0	3
List of system's copyright years.		nvm copyright years	616	033	0	0	4.29E+09
Defines current client of system installation.		desired install client	616	034	0	0	255
Determines whether remote intrusive diagnostics is enabled. 0=False, 1=True		remoteIntrusive DiagEnabled	616	035	1	0	1
Defines installation's value added reseller.		value added reseller	616	036	255	0	255
Used by platforms to insure system clocks are set to correct time zones.		GMT Offset	616	037	0	-4320 0	50400
Determines whether ESS is On (Off) line. 0=False, 1=True		NC OnlineNvm	616	038	1	0	1
Max time a job can be held before it is deleted by the system		Job Hold Time	616	039	4320	0	7200
SA/KO setting to enable/disable hold job timer		Job Hold Timer enabled	616	040	1	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Counter used for secure install and remove operations of the optional features		ScanToFileinstalled count	616	041	0	0	65535
Counter used for secure install and remove operations of the optional features		LanFaxinstalled count	616	042	0	0	65535
Counter used for secure install and remove operations of the optional features		JBAinstalled count	616	043	0	0	65535
		ScanToFileenabled	616	044	0	0	1
Specifies whether Lan Fax is Enabled on the machine.		LanFaxenabled	616	045	0	0	1
Specifies whether JBA is allowed to be turned Enabled on the machine.		JBAenabled	616	046	0	0	1
Used by PWS to determine if ESS terminal window is enabled		NC TTY enabled	616	047	0	0	1
		NC Config - Type	616	048	42	0	99
		NC Config - Option	616	049	42	0	99
		NC Config - Storage	616	050	42	0	99
		NC Config - Software Options	616	051	42	0	99
Product Identifier (e.g. Marketing product name)	0 = Unknown (Not set) ColorQube 8700/8900 (174 to 178) 174 = ColorQube 8700S 175 = ColorQube 8700X 176 = ColorQube 8700XF 177 = ColorQube 8900X 178 = ColorQube 8900S	Product Identifier	616	052	0	0	255
HeapLimits F:max images T:max jobs		HeapLimits F:max images T:max jobs	616	053	0	0	1
		InternetFax installed count	616	054	0	0	65535



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		ScanToEmail installed count	616	055	0	0	65535
		InternetFax enabled	616	056	0	0	1
		ScanToEmail enabled	616	057	0	0	1
		Software Upgrade Status	616	058	0	0	7
declassify system - operation status		DeclassifySystem OperationStatus	616	059	0	0	5
		Declassify system - retry count	616	060	0	0	255
		Declassify system - client id	616	061	0	0	255
declassify system - platform mask		DeclassifySystem PlatformMask	616	062	0	0	65535
declassify system - pattern list length		Declassify system - pattern length	616	065	0	0	255
declassify system - number of repetitions		Declassify system # repetitions	616	066	0	0	255
declassify system - number of retries		Declassify system - # of retries	616	067	0	0	255
declassify system - number of retries		Declassify system - Timeout	616	068	0	0	4.29E+09
		DiskOverwrite installed count	616	069	0	0	65535
		DiskOverwrite enabled	616	070	0	0	1
		ScanToFilehsw available	616	071	1	0	1
S2F always installed.		ScanToFileinstalled	616	072	1	0	1
		LanFaxhsw available	616	073	1	0	1
LANFax always installed if HW installed.		LanFaxinstalled	616	074	1	0	1
		JBAhsw available	616	075	1	0	1
JBA always installed.		JBAinstalled	616	076	1	0	1
		ScanToEmailhsw available	616	077	1	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
S2Email always installed.		ScanToEmail installed	616	078	1	0	1
		InternetFaxhws available	616	079	1	0	1
Ifax always installed.		InternetFax installed	616	080	1	0	1
		DiskOverwritehws available	616	081	1	0	1
Disk Overwrite always installed.		DiskOverwrite installed	616	082	1	0	1
		JobOverwrite hws available	616	083	1	0	1
Job Overwrite always installed.		JobOverwrite installed	616	084	1	0	1
		JobOverwrite installed count	616	085	0	0	65535
		JobOverwrite enabled	616	086	0	0	1
		EmbeddedFax hws available	616	087	1	0	1
		EmbeddedFax installed	616	088	0	0	1
		EmbeddedFax installed count	616	089	0	0	65535
		EmbeddedFax enabled	616	090	0	0	1
		Heavy Weight Fuser Enabled	616	091	1	0	1
Auto upgrade enable		software upgrade monitor enabled	616	092	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Geographic Region	0=Unspecified, 1= Eastern, 2= Western, 3= Not Applicable A setting of 3 (GRNotApplicable) indicates the CRU's are not to be differentiated by geoRegion, but by ServicePlan GRUnspecified = 0, GRWesternHem = 1, GREasternHem = 2, GRNotApplicable = 3, GRFx = 4, GRSdh = 5	Geographic region	616	094	0	0	5
SIM data mirror		Zone1Page1Byte0	616	095	0	0	255
SIM data mirror		Zone1Page1Byte1	616	096	0	0	255
SIM data mirror		Zone1Page1Byte2	616	097	0	0	255
SIM data mirror		Zone1Page1Byte3	616	098	0	0	255
SIM data mirror		Zone1Page1Byte4	616	099	0	0	255
SIM data mirror		Zone1Page1Byte5	616	100	0	0	255
SIM data mirror		Zone1Page1Byte6	616	101	0	0	255
SIM data mirror		Zone1Page2Byte0	616	102	0	0	255
SIM data mirror		Zone1Page2Byte1	616	103	0	0	255
SIM data mirror		Zone1Page2Byte2	616	104	0	0	255
SIM data mirror		Zone1Page2Byte3	616	105	0	0	255
SIM data mirror		Zone1Page2Byte4	616	106	0	0	255
SIM data mirror		Zone1Page2Byte5	616	107	0	0	255
SIM data mirror		Zone1Page2Byte6	616	108	0	0	255
SIM data mirror		Zone1Page3Byte0	616	109	240	0	255
SIM data mirror		Zone1Page3Byte1	616	110	0	0	255
SIM data mirror		Zone1Page3Byte2	616	111	0	0	255
SIM data mirror		Zone1Page3Byte3	616	112	0	0	255
SIM data mirror		Zone1Page3Byte4	616	113	0	0	255
SIM data mirror		Zone1Page3Byte5	616	114	0	0	255
SIM data mirror		Zone1Page3Byte6	616	115	0	0	255
SWUP NVM Save Switch		SWUP NVM Save Switch	616	116	0	0	255
delete settings		delete settings	616	117	0	0	1
EssOnlineValidNvm		NOnlineValidNvm	616	118	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
SearchPDFhsw available		SearchPDFhsw available	616	120	1	0	1
SearchPDFinstalled: Always installed.		SearchPDFinstalled	616	121	1	0	1
SearchPDFinstalled count		SearchPDFinstalled count	616	122	0	0	65535
SearchPDFenabled		SearchPDFenabled	616	123	0	0	1
Cpsrhsw available		Cpsrhsw available	616	124	1	0	1
Cpsrinstalled: Always installed.		Cpsrinstalled	616	125	1	0	1
Cpsrinstalled count		Cpsrinstalled count	616	126	0	0	65535
Cpsrenabled		Cpsrenabled	616	127	1	0	1
Fast Resume status	0=Disabled 1=Enabled	Fast Resume status	616	143	0	0	1
Power Management mode	0= intelligent ready 1= job activated 2= scheduled	Power Management mode	616	144	0	0	2
Power Management Scheduled wake time - Sunday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 9	Scheduled wake time - Sunday	616	145	9	0	23
Power Management Scheduled wake time - Monday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 9	Scheduled wake time - Monday	616	146	9	0	23
Power Management Scheduled wake time - Tuesday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 9	Scheduled wake time - Tuesday	616	147	9	0	23
Power Management Scheduled wake time - Wednesday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Wednesday	616	148	9	0	23
Power Management Scheduled wake time - Thursday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 9	Scheduled wake time - Thursday	616	149	9	0	23
Power Management Scheduled wake time - Friday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 9	Scheduled wake time - Friday	616	150	9	0	23
Power Management Scheduled wake time - Saturday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 9	Scheduled wake time - Saturday	616	151	9	0	23
Power Management Scheduled power saver time - Sunday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Sunday	616	152	17	0	23

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Power Management Scheduled power saver time - Monday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Monday	616	153	17	0	23
Power Management Scheduled power saver time - Tuesday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Tuesday	616	154	17	0	23
Power Management Scheduled power saver time - Wednesday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Wed.	616	155	17	0	23
Power Management Scheduled power saver time - Thursday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Thurs.	616	156	17	0	23
Power Management Scheduled power saver time - Friday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Friday	616	157	17	0	23
Power Management Scheduled power saver time - Saturday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Sat.	616	158	17	0	23
Power Management daily Schedule type - Sunday	0 = Job Activated (default) 1 = Specified time	Schedule type - Sunday	616	159	0	0	1
Power Management daily Schedule type - Monday	0 = Job Activated (default) 1 = Specified time	Schedule type - Monday	616	160	0	0	1
Power Management daily Schedule type - Tuesday	0 = Job Activated (default) 1 = Specified time	Schedule type - Tuesday	616	161	0	0	1
Power Management daily Schedule type - Wednesday	0 = Job Activated (default) 1 = Specified time	Schedule type - Wednesday	616	162	0	0	1
Power Management daily Schedule type - Thursday	0 = Job Activated (default) 1 = Specified time	Schedule type - Thursday	616	163	0	0	1
Power Management daily Schedule type - Friday	0 = Job Activated (default) 1 = Specified time	Schedule type - Friday	616	164	0	0	1
Power Management daily Schedule type - Saturday	0 = Job Activated (default) 1 = Specified time	Schedule type - Saturday	616	165	0	0	1
AIF Activation counter	Usage Counter	AIF Activation Counter	616	199	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 22-330: number of times page pack pin has been locked out	no. of faults	NumTimesPagePackPinlockedFC	616	200	0	0	255
Current language (as set on UI) This is a copy of the language set on the UI. Predominantly needed as the CCS becomes ready at power on before the UI and needs to process language specific routines (e.g. maintenance pages etc)		Current language (as set on UI)	616	202	4	0	255
Disk Encryption - hws available	Indicates if the appropriate hardware is available	Disk Encryption - hws available	616	203	1	0	1
Disk Encryption - Installed	Indicates if Disk Encryption option is installed	Disk Encryption - Installed	616	204	1	0	1
Disk Encryption - Installed Count		Disk Encryption Installed Count	616	205	0	0	65535
Disk Encryption enabled/disabled	0 = disabled, 1 = enabled	Disk Encryption Enabled/Disabled	616	206	0	0	1
Fast Resume popup message enabled status	0= Fast Resume feature not previously enabled 1= Fast Resume feature has been previously enabled	Fast Resume popup enabled status	616	212	0	0	1
defines system manager full ODIO timeout	90 minutes	FullODIOTimeout	616	213	90	0	255
defines system manager standard ODIO timeout	30 minutes	StandardODIO Timeout	616	214	30	0	255
Automatic System Reset Count	0-2	Auto-Reset Count	616	216	0	0	2

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
When the CCS instructs the IME to enter Snooze mode, it needs to remember that snooze was initiated since the IME does not report this mode. When a new unit is detected, the flag should be reset. Note setting this NVM will not induce snooze mode, it merely determines whether the Status is set for displaying the UI message.	0 = IME Not in Snooze mode, 1 = IME in snooze mode	Display Snooze Message	616	229	0	0	1
Indicates that the machine has been refurbished, therefore the activation date and CRU Install dates are not be updated upon completion of Install Wizard.	0 = Not Refurbed (Activation date set at install) 1 = Refurbed (Activation date not set at install)	RefurbModeNVM	616	230	0	0	1
Defines time in "normal" mode where system has been idle to enabled transition into power saver WITH fast resume set	The idle time in minutes before the machine will enter Low power with Fast resume set	powersaver fast resume idletime	616	232	60	1	225
Defines time in "mode 1" before transitioning to "mode 3" WITH fast resume set.	The idle time in minutes the machine will remain in Low power before entering Sleep with Fast Resume set	powersaver fast resume in mode1	616	233	120	0	255
UI system Timeout value		UI system Timeout value	616	234	60	15	3600

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Regional Differentiator value	NA_Classic = 1 NA_Enterprise = 2 XE_Classic = 3 XE_Enterprise = 4 DMO_Classic = 5 DMO_Enterprise = 6 Metered = 7 FX_Classic = 8 FX_Enterprise = 9 SR_Classic = 10 SR_Enterprise = 11 WW_Classic = 12 WW_Enterprise = 13 NA_XE_Classic = 14 NA_XE_Enterprise = 15 Factory = 63	RegDiff	616	235	63	1	63
UI System Timeout Warning Screen: Enable/Disable	0 = Disabled 1 = Enabled	UI System Timeout Warning Enable	616	238	1	0	1
Mamba Ink Loader Configuration (Classic or Enterprise)	Classic = 0, Enterprise = 1	Ink Loader Configuration	616	239	0	0	1
S-Config Capable Status	0=Disabled 1=Enabled	S-Config EStarCompliant status	616	241	0	0	1
S-Config Enablement Status	0=Disabled 1=Enabled	S-Config EStarEnablement status	616	242	0	0	1
checkVanilla routine has been executed on machine	0 = Unknown 1 = Pass 2 = Fail	CheckVanillaRun Result	616	246	0	0	255
Ink Regions Enabled	Two byte integer encoded with the ink regions a particular device will accept	InkRegionsEnabled	616	249	1023	0	65535
Counter recording the total number of successful upgrades of the machine		NumberOfSuccessfulUpgrades	616	250	0	0	65535
Counter recording the total number of failed upgrades of the machine		NumberOfFailedUpgrades	616	251	0	0	65535



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Counter recording the number of failed CCS power on upgrade reboots of the machine		CCSFailedRetries	616	252	0	0	65535
PagePack Sequence Number	Incremented each time a PagePack contract is renewed	Sequence Number	616	329	0	0	127
		Faults displayed on TTY	617	002	1	0	1
		Display faults	617	003	1	0	1
		IISS Version No Upper Level	620	001	0	0	65535
		PrescanType	620	002	0	0	1
		PhotoText SeparationLevel	620	003	2	0	4
		PhotoReproLevel	620	004	1	0	2
		bwSeparationLevel	620	005	2	0	4
		RED chromaticValue Low	620	006	0	0	65535
		RED chromaticValue High	620	007	25700	0	65535
		RED aChromaticValue Low	620	008	0	0	65535
		RED aChromaticValue High	620	009	0	0	65535
		GRN chromaticValue Low	620	010	25600	0	65535
		GRN chromaticValue High	620	011	25600	0	65535
		GRN aChromaticValue Low	620	012	0	0	65535
		GRN aChromaticValue High	620	013	0	0	65535

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		BLU chromaticValue Low	620	014	25600	0	65535
		BLU chromaticValue High	620	015	63	0	65535
		BLU aChromaticValue Low	620	016	0	0	65535
		BLU aChromaticValue High	620	017	0	0	65535
		YEL chromaticValue Low	620	018	0	0	65535
		YEL chromaticValue High	620	019	25600	0	65535
		YEL aChromaticValue Low	620	020	0	0	65535
		YEL aChromaticValue High	620	021	0	0	65535
		MAG chromaticValue Low	620	022	0	0	65535
		MAG chromaticValue High	620	023	100	0	65535
		MAG aChromaticValue Low	620	024	0	0	65535
		MAG aChromaticValue High	620	025	0	0	65535
		CYA chromaticValue Low	620	026	25600	0	65535
		CYA chromaticValue High	620	027	0	0	65535
		CYA aChromaticValue Low	620	028	0	0	65535

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		CYA aChromaticValue High	620	029	0	0	65535
		BLA chromaticValue Low	620	030	100	0	65535
		BLA chromaticValue High	620	031	0	0	65535
		BLA aChromaticValue Low	620	032	0	0	65535
		BLA aChromaticValue High	620	033	0	0	65535
Fault Counter 62-277:		62-277 counter	620	097	0	0	255
Fault Counter 62-310:		62-310 counter	620	099	0	0	255
		Market Information	620	101	0	0	3
		IISS Major Version	620	102	0	0	65535
		IISS Minor Version	620	103	0	0	65535
		IISS Revision Version	620	104	0	0	65535
		IISS Patch Version	620	105	0	0	65535
		ADF Major Version	620	106	0	0	65535
		ADF Minor Version	620	107	0	0	65535
		ADF Revision Version	620	108	0	0	65535
		ADF Patch Version	620	109	0	0	65535
		IPL Version	620	110	0	0	65535
		DADF/ Scanner fail bypass	620	111	0	0	1
		Fan control mode	620	112	0	0	1
		The number of APS sensors	620	113	1	0	1
		Lamp Fan fal bypass	620	114	0	0	1
		Lamp Fan Low rotation ON time	620	115	15	0	60

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		Lamp Fan Off time	620	116	0	0	60
		FL timer set	620	117	0	0	1
		Lamp On interval	620	118	30	0	60
		Lamp On time	620	119	1	0	60
		DADF/ Scanner failure parts diagnosis	620	120	0	0	65535
Platen SS Registration Adjustment		Platen SS Registration Adjust	620	121	100	16	184
Platen SS Magnification Adjustment		Platen SS Magnification Adjust	620	122	50	44	56
		Platen glass type	620	123	2	0	2
REGI correction value in FS direction on Platen		REGI corr value-FS dir on Platen	620	124	120	0	240
CVT FS Offset Side 1: Side1-1 (139.7 to 148)		CVT FS Off S1:S1-1 (139.7-148)	620	125	120	0	240
CVT FS Offset Side 2: Side2-1 (139.7 to 148)		CVT FS Off S2:S2-1 (139.7-148)	620	126	120	0	240
CVT FS Offset Side 1: Side1-2 (182 to 194)		CVT FS Off S1:S1-2 (182-194)	620	127	120	0	240
CVT FS Offset Side 2: Side2-2 (182 to 194)		CVT FS Off S2:S2-2 (182-194)	620	128	120	0	240
CVT FS Offset Side 1: Side1-3 (203.2)		CVT FS Off S1:S1-3 (203.2)	620	129	120	0	240
CVT FS Offset Side 2: Side2-3 (203.2)		CVT FS Off S2:S2-3 (203.2)	620	130	120	0	240
CVT FS Offset Side 1: Side1-4 (210)		CVT FS Off S1:S1-4 (210)	620	131	120	0	240
CVT FS Offset Side 2: Side2-4 (210)		CVT FS Off S2:S2-4 (210)	620	132	120	0	240
CVT FS Offset Side 1: Side1-5 (214.9 to 215.9)		CVT FS Off S1:S1-5 (214.9-215.9)	620	133	120	0	240
CVT FS Offset Side 2: Side2-5 (214.9 to 215.9)		CVT FS Off S2:S2-5 (214.9-215.9)	620	134	120	0	240

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
CVT FS Offset Side 1: Side1-6 (254 to 257)		CVT FS Off S1:S1-6 (254-257)	620	135	120	0	240
CVT FS Offset Side 2: Side2-6 (254 to 257)		CVT FS Off S2:S2-6 (254-257)	620	136	120	0	240
CVT FS Offset Side 1: Side1-7 (266.7 to 267)		CVT FS Off S1:S1-7 (266.7-267)	620	137	120	0	240
CVT FS Offset Side 2: Side2-7 (266.7 to 267)		CVT FS Off S2:S2-7 (266.7-267)	620	138	120	0	240
CVT FS Offset Side 1: Side1-8 (279.4)		CVT FS Off S1:S1-8 (279.4)	620	139	120	0	240
CVT FS Offset Side 2: Side2-8 (279.4)		CVT FS Off S2:S2-8 (279.4)	620	140	120	0	240
CVT FS Offset Side 1: Side1-9 (297)		CVT FS Off S1:S1-9 (297)	620	141	120	0	240
CVT FS Offset Side 2: Side2-9 (297)		CVT FS Off S2:S2-9 (297)	620	142	120	0	240
CVT FS Offset Side 1: Side3-1 (139.7 to 148)		CVT FS Off S1:S3-1 (139.7-148)	620	143	120	0	240
CVT FS Offset Side 2: Side4-1 (139.7 to 148)		CVT FS Off S2:S4-1 (139.7-148)	620	144	120	0	240
CVT FS Offset Side 1: Side3-2 (182 to 194)		CVT FS Off S1:S3-2 (182-194)	620	145	120	0	240
CVT FS Offset Side 2: Side4-2 (182 to 194)		CVT FS Off S2:S4-2 (182-194)	620	146	120	0	240
CVT FS Offset Side 1: Side3-3 (203.2)		CVT FS Off S1:S3-3 (203.2)	620	147	120	0	240
CVT FS Offset Side 2: Side4-3 (203.2)		CVT FS Off S2:S4-3 (203.2)	620	148	120	0	240
CVT FS Offset Side 1: Side3-4 (210)		CVT FS Off S1:S3-4 (210)	620	149	120	0	240
CVT FS Offset Side 2: Side4-4 (210)		CVT FS Off S2:S4-4 (210)	620	150	120	0	240
CVT FS Offset Side 1: Side3-5 (214.9 to 215.9)		CVT FS Off S1:S3-5 (214.9-215.9)	620	151	120	0	240

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
CVT FS Offset Side 2: Side4-5 (214.9 to 215.9)		CVT FS Off S2:S4-5 (214.9-215.9)	620	152	120	0	240
CVT FS Offset Side 1: Side3-6 (254 to 257)		CVT FS Off S1:S3-6 (254-257)	620	153	120	0	240
CVT FS Offset Side 2: Side4-6 (254 to 257)		CVT FS Off S2:S4-6 (254-257)	620	154	120	0	240
CVT FS Offset Side 1: Side3-7 (266.7 to 267)		CVT FS Off S1:S3-7 (266.7-267)	620	155	120	0	240
CVT FS Offset Side 2: Side4-7 (266.7 to 267)		CVT FS Off S2:S4-7 (266.7-267)	620	156	120	0	240
CVT FS Offset Side 1: Side3-8 (279.4)		CVT FS Off S1:S3-8 (279.4)	620	157	120	0	240
CVT FS Offset Side 2: Side4-8 (279.4)		CVT FS Off S2:S4-8 (279.4)	620	158	120	0	240
CVT FS Offset Side 1: Side3-9 (297)		CVT FS Off S1:S3-9 (297)	620	159	120	0	240
CVT FS Offset Side 2: Side4-9 (297)		CVT FS Off S2:S4-9 (297)	620	160	120	0	240
		W-Ref adjustment factor Red	620	161	140	70	255
		W-Ref adjustment factor Green	620	162	140	70	255
		W-Ref adjustment factor Blue	620	163	140	70	255
		W-Ref adjustment factor BW-X	620	164	140	70	255
		W-Ref adjustment factor BW-Y	620	165	140	70	255
W-Ref adjustment factor Red (each sheet)		W-Ref adj factor Red (sheet)	620	166	63	0	127
W-Ref adjustment factor Green (each sheet)		W-Ref adj factor Green (sheet)	620	167	63	0	127
W-Ref adjustment factor Blue (each sheet)		W-Ref adj factor Blue (sheet)	620	168	63	0	127

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
W-Ref adjustment factor BW (each sheet)		W-Ref adj factor BW (sheet)	620	169	63	0	127
		DADF/ Scanner paper code	620	170	0	0	8
		Optical axis adjustment: front	620	171	990	0	1980
		Optical axis adjustment: rear	620	172	990	0	1980
		CVT FS Offset Side 1: Side1	620	173	120	0	240
		CVT FS Offset Side 2: Side2	620	174	120	0	240
		CVT FS Offset Side 1: Side3	620	175	120	0	240
		CVT FS Offset Side 2: Side4	620	176	120	0	240
		BW/Color auto recognition level	620	177	0	0	1
Black line adjustment level (for COLOR)		Black line adj level (for COLOR)	620	178	8	0	15
Black line adjustment level (for BW)		Black line adj level (for BW)	620	179	8	0	15
		Black line adjustment test mode	620	180	0	0	7
		BW adjustment table	620	181	0	0	7
		HOSEI_SCAN (for detection)	620	182	3	0	6
		HOSEI_SCAN (for image)	620	183	3	0	6
		CCD Calib Y scan Red	620	184	0	0	1023
		CCD Calib Y scanned: Green	620	185	0	0	1023
		CCD Calib Y scanned: Blue	620	186	0	0	1023
		CCD Calib M scanned: Red	620	187	0	0	1023

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		CCD Calib M scanned: Green	620	188	0	0	1023
		CCD Calib M scanned: Blue	620	189	0	0	1023
		CCD Calib C scanned: Red	620	190	0	0	1023
		CCD Calib C scanned: Green	620	191	0	0	1023
		CCD Calib C scanned: Blue	620	192	0	0	1023
		CCD Calib PK scanned: Red	620	193	0	0	1023
		CCD Calib PK scanned: Green	620	194	0	0	1023
		CCD Calib PK scanned: Blue	620	195	0	0	1023
Switching A6 document / postcard detection		Switching A6/ postcard detect	620	196	0	0	2
A4S/8.5in detection border switching 2		A4S/8.5in det. border switch 2	620	197	3	0	6
		B5/8W10detection switch	620	198	0	0	3
		Switch 8.5W13/ 8.5W14 detections	620	199	0	0	3
Select special-document-detection table		Select special-doc-detect table	620	200	0	0	2
Switch document size detection tables		Switch docu size detect tables	620	201	2	1	5
		Switch A3/11W17 detections	620	202	0	0	3
		Switch A4/8.5W11 detections	620	203	0	0	3
		Document size detection.	620	204	0	0	1
		GCO/TFX sizes switching	620	205	1	0	1
		B4/8-kai FS threshold setting	620	206	3	0	6
8-kai/11W17SEF FS threshold setting		8-kai/11W17SEF FS threshold	620	207	3	0	6



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		Switch B6/5W7 detections	620	208	0	0	2
		Lamp check NG counts	620	209	0	0	65535
		Data taken at lamp check NG.	620	210	0	0	1023
the number of AOC flow endings with error		AOC flow endings with error	620	211	0	0	255
		BW Copy BGR-AE adjustment level	620	212	0	0	4095
Color copy BGR-AE adjustment level		Color copy BGR-AE adjust level	620	213	0	0	4095
BW Copy BGR-AE adjustment - speed-prioritized		TP_BW_Copy BGR-AE-Level Speed	620	214	0	0	4095
Color copy BGR-AE adjustment - speed-prioritized AE (Text)		TX_CL_Copy BGR-AE-Level Speed	620	215	0	0	4095
BW contone scan BGR-AE adjustment level for speed-prioritized AE (Text photo)		TP_BW_Contone BGR-AE-Level Speed	620	216	0	0	4095
Color contone scan BGR-AE adjustment level for speed-prioritized AE (Text photo)		TP_CL_Contone BGR-AE-Level Speed	620	217	0	0	4095
background suppression; FS non-detected area 1		ABS; FS non-detected area 1	620	218	255	0	65535
background suppression; FS non-detected area 2		ABS; FS non-detected area 2	620	219	255	0	65535
background suppression; FS non-detected area 3		ABS; FS non-detected area 3	620	220	255	0	65535
background suppression; FS non-detected area 4		ABS; FS non-detected area 4	620	221	255	0	65535
background suppression; SS fixed position		ABS; SS fixed position	620	222	60	0	65535

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
background suppression; SS end position (for HAE)		ABS; SS end position (for HAE)	620	223	240	0	65535
background suppression; SS end position (for MAE)		ABS; SS end position (for MAE)	620	224	240	0	65535
background suppression; SS end position (for NAE)		ABS; SS end position (for NAE)	620	225	240	0	65535
		LIM control for BW COPY	620	226	1	0	1
		LIM control for color COPY	620	227	1	0	1
LIM control for FAX and binary scan		BW_CopyVariation Control(1-bit)	620	228	1	0	1
		LIM control for contone scan	620	229	1	0	1
background suppression threshold (HAE)		ABS threshold (HAE)	620	230	127	0	255
background suppression threshold (NAE1)		ABS threshold (NAE1)	620	231	33	0	255
background suppression threshold (NAE2)		ABS threshold (NAE2)	620	232	204	0	255
background suppression threshold (NAE3)		ABS threshold (NAE3)	620	233	8	0	65535
background suppression threshold (NAE4)		ABS threshold (NAE4)	620	234	4	0	65535
		AE control of FS size detection	620	235	0	0	1
AE parameter SS magnification correction upper limit 1		AE param SS mag corr TopLimit 1	620	237	4000	0	4000
AE parameter SS magnification correction upper limit 2		AE param SS mag corr TopLimit 2	620	238	4000	0	4000

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
AE parameter SS magnification correction upper limit 3		AE param SS mag corr TopLimit 3	620	239	4000	0	4000
AE parameter SS magnification correction upper limit 4		AE param SS mag corr TopLimit 4	620	240	4000	0	4000
FAX binary scan: background suppression Offset level; text mode (normal pencil)		TX_BW_Fax Offset Lvl AE	620	241	0	0	8191
Level for BW COPY FAX and binary scan: Text/photo mode (print photographic paper copy)		TP_BW_Copy_Fax Removal Lvl AE	620	242	0	0	4095
OFFSET level for BW COPY FAX and binary scan: Text/photo mode (print photographic paper copy)		TP_BW_Copy_Fax Offset Lvl AE	620	243	273	0	4095
Level for BW COPY FAX and binary scan: text mode (normal pencil)		TX_BW_Copy_Fax Removal Lvl AE	620	244	0	0	4095
OFFSET level for BW COPY FAX and binary scan: text mode (normal pencil)		TX_BW_Copy_Fax Offset Lvl AE	620	245	273	0	4095
Level for BW COPY FAX and binary scan: text/photo mode (pale-color document)		TPL_BW_Copy_Fax Removal Lvl AE	620	246	0	0	4095
OFFSET level for BW COPY FAX and binary scan: text/photo mode (pale-color document)		TPL_BW_Copy_Fax Offset Lvl AE	620	247	273	0	4095

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Level for BW COPY FAX and binary scan: text mode (tracing paper)		TRP_BW_Copy_Fax Removal Lvl AE	620	248	0	0	4095
OFFSET level for BW COPY FAX and binary scan: text mode (tracing paper)		TRP_BW_Copy_Fax Offset Lvl AE	620	249	273	0	4095
Level for Color COPY: text/photo mode (print photographic paper copy inkjet highlighter)		TP_CL_Copy Removal Lvl AE	620	250	0	0	4095
OFFSET level for Color COPY: text/photo mode (print photographic paper copy inkjet highlighter)		TP_CL_Copy Offset Lvl AE	620	251	0	0	4095
level for Color COPY: text (normal)		TX_CL_Copy Removal Lvl AE	620	252	0	0	4095
OFFSET level for Color COPY: text (normal)		TX_CL_Copy Offset Lvl AE	620	253	0	0	4095
Level for BW Contone Scan (text photo)		TP_BW_Contone Removal Lvl AE	620	254	819	0	4095
OFFSET level for BW Contone Scan: (text photo)		TP_BW_Contone Offset Lvl AE	620	255	0	0	4095
Level for BW Contone Scan (other than text photo)		notTP_BW_Contone Removal Lvl AE	620	256	819	0	4095
OFFSET level for BW Contone Scan: (other than text photo)		notTP_BW_Contone Offset Lvl AE	620	257	0	0	4095
Level for Color Contone Scan (text photo)		TP_CL_Contone Removal Lvl AE	620	258	0	0	4095
OFFSET level for Color Contone Scan: (text photo)		TP_CL_Contone Offset Lvl AE	620	259	0	0	4095

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Level for Color Contone Scan (other than text photo)		notTP_CL_Contone Removal Lvl AE	620	260	0	0	4095
OFFSET level for Color Contone Scan (other than text photo)		notTP_CL_Contone Offset Lvl AE	620	261	0	0	4095
Two-face AE control parameter: lower limit of multiplier coefficient		2F-AE LowLimit Multiplied Value	620	262	0	0	255
Two-face AE control parameter: upper limit of multiplier coefficient		2F-AE TopLimit Multiplied Value	620	263	255	0	255
Two-face AE control parameter: comparison margin OFST		Offset for 2F AE Control	620	264	8	0	255
Two-face AE control parameter: background level threshold LEVEL_N		Threshold for 2F AE Control	620	265	16	0	255
Two-face AE control parameter: forced selection		Mode Control of 2F AE	620	266	0	0	3
		Two color copy control	620	267	0	0	1
		Tracing paper mode setting	620	268	0	0	1
Default color balance adjustment level Y: low density		Def. ColorBal adj Y: low den.	620	269	4	0	8
Default color balance adjustment level Y: medium density		Def. ColorBal adj Y: med den.	620	270	4	0	8
Default color balance adjustment level Y: high density		Def. ColorBal adj Y: hi den.	620	271	4	0	8
Default color balance adjustment level M: low density		Def. ColorBal adj M: low den.	620	272	4	0	8

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Default color balance adjustment level M: medium density		Def. ColorBal adj M: med den.	620	273	4	0	8
Default color balance adjustment level M: high density		Def. ColorBal adj M: hi den.	620	274	4	0	8
Default color balance adjustment level C: low density		Def. ColorBal adj C: low den.	620	275	4	0	8
Default color balance adjustment level C: medium density		Def. ColorBal adj C: med den.	620	276	4	0	8
Default color balance adjustment level C: high density		Def. ColorBal adj C: hi den.	620	277	4	0	8
Default color balance adjustment level K: low density		Def. ColorBal adj K: low den	620	278	4	0	8
Default color balance adjustment level K: medium density		Def. ColorBal adj K: med den	620	279	4	0	8
Default color balance adjustment level K: high density		Def. ColorBal adj K: hi den	620	280	4	0	8
FS magnification correction (scanned on PLATEN/BELT DADF)		FS mag corr (PLATEN/BELT DADF)	620	281	50	0	100
FS magnification correction (scanned on CVT)		FS mag corr (CVT)	620	282	50	0	100
		IPS Through Bypass setting 1(A)	620	283	0	0	65535
		IPS through (bypass) setting 2	620	284	0	0	65535
BW COPY: text; normal density adjustment		BW COPY: text; normal dens adj	620	285	128	0	256
BW COPY: text; Darker 3 density adjustment		BW COPY: text; Darker3 dens adj	620	286	128	0	256

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Scan/FAX: text; normal density adjustment		Scan/FAX: text; normal dens adj	620	287	128	0	256
Scan/FAX: text; Darker 3 density adjustment		Scan/FAX: text; Darker3 dens adj	620	288	128	0	256
Speed prioritized background suppression; SS non-detection area for Platen M/C		PLTN RAE SS Not Detect Area	620	289	0	0	65535
Speed prioritized background suppression; SS non-detection area for platen job on DADF M/C		DADF-P-Job RAE SSNotDetect Area	620	290	0	0	65535
Speed prioritized background suppression; SS non-detection area for DADF job on DADF M/C		DADF-D-Job RAE SSNotDetect Area	620	291	0	0	65535
		Hue angle B start	620	292	270	0	360
		Hue angle B end	620	293	320	0	360
		Hue angle G start	620	294	110	0	360
		Hue angle G end	620	295	200	0	360
		Hue angle R start	620	296	350	0	360
		Hue angle R end	620	297	60	0	360
		Hue angle Y start	620	298	60	0	360
		Hue angle Y end	620	299	120	0	360
		Hue angle M start	620	300	320	0	360
		Hue angle M end	620	301	360	0	360
		Hue angle C start	620	302	190	0	360
		Hue angle C end	620	303	280	0	360
		IISS-DADF communication Fail	620	304	0	0	65535
IISS-Controller communication Fail		IISS-Controller comm Fail	620	306	0	0	65535
		DADF EEPROM Fail	620	308	0	0	65535
		IPS Fan Fail	620	310	0	0	65535

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		CRG Position Fail	620	312	0	0	65535
		IISS LOGIC Fail	620	314	0	0	65535
		Lamp Illumination Fail	620	316	0	0	65535
		CRG Over Run Fail	620	318	0	0	65535
		Lamp Fan Fail	620	320	0	0	65535
		CCD Fan Fail	620	322	0	0	65535
		AGC Fail	620	324	0	0	65535
		AOC Fail	620	326	0	0	65535
		IPS PWBA Fail	620	328	0	0	65535
		IISS-EXT communication Fail	620	330	0	0	65535
		Extension EEPROM Fail	620	332	0	0	65535
		IPS-EXT Connection Fail	620	334	0	0	65535
		IPS-YATA Connection Fail	620	336	0	0	65535
		EXT-YATA Connection Fail	620	338	0	0	65535
		YATA PWBA Fail	620	340	0	0	65535
		IPS PWBA Memory Fail	620	342	0	0	65535
		DADF/ Scanner Hot Line Fail	620	344	0	0	65535
Scan Count replacement life (upper)		Scan Count replace life (upper)	620	346	91	0	65535
Scan Count replacement life (lower)		Scan Count replace life (lower)	620	347	36224	0	65535
Lamp-On time Count replacement life (upper)		Lamp-On time replace life (max)	620	348	109	0	65535
Lamp-On time Count replacement life (lower)		Lamp-On time replace life (min)	620	349	56576	0	65535
Lamp-On Count Replacement life (upper)		Lamp-On Count replace life (max)	620	350	91	0	65535



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Lamp-On Count Replacement life (lower)		Lamp-On Count replace life (min)	620	351	36224	0	65535
Fax Document Size Detection for DADF		Fax doc Size detect DADF	620	352	0	0	1
		JAM bypass	620	353	0	0	1
		8.5 W11 LEF threshold	620	354	2093	1993	2193
		B5SEF / 8 W10 SEF switching	620	355	0	0	1
11 W15 SEF / 8-kai switching in AP market		11x15 SEF/8-kai switch (AP Mkt)	620	356	0	0	1
		FS MAX value	620	357	2970	1297	3070
		FS MIN value	620	358	2970	1297	3070
		SS MAX value	620	359	2100	1297	4418
		SS MIN value	620	360	2100	1297	4418
		Document Size	620	361	8	3	20
		Specify document feed direction	620	362	0	0	1
Select DADF document size detection table custom registration		DADF Doc Size Detection Table	620	363	0	0	1
S-size document Side2 Lead Regi correction value		S Size Side2 Lead Regi Adjust	620	364	250	217	283
M-size document Side2 Lead Regi correction value		M Size Side2 Lead Regi Adjust	620	365	250	217	283
L-size document Side2 Lead Regi correction value		L Size Side2 Lead Regi Adjust	620	366	250	217	283
Size mismatch Jam detection setting (applicable to only Simplex Mode)		Size Miss Match Set(Simp)	620	367	1	1	2
		Alternate Size switching 1	620	368	1	1	2
		Alternate Size switching 2	620	369	1	1	2

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		Alternate Size switching 3	620	370	0	0	2
		Alternate Size switching 4	620	371	0	0	2
		Alternate Size switching 5	620	372	0	0	2
		Alternate Size switching 6	620	373	0	0	3
		Alternate Size switching 7	620	374	0	0	3
		Alternate Size switching 8	620	375	0	0	4
		Alternate Size switching 9	620	376	0	0	2
		Alternate Size switching 10	620	377	0	0	2
		Alternate Size switching 11	620	378	0	0	3
Size-Mix Mode temporary size direction		Size-Mix Mode Assumed Size	620	379	1	0	1
		Fax job Mix Size Standard mode	620	380	0	0	1
		DADF DPM selection	620	381	80	0	65535
		Magnification correction control	620	382	0	0	1
		Color BW judgment level	620	383	2	0	4
YATAGRS text mode Photo and Text Recognition level		textmode Photo/Text RecogLvl	620	384	2	0	4
BW copy (text photo) AE adjustment level		BW copy (text photo) AE adj lvl	620	385	0	0	4095
Color copy (text photo) AE adjustment level		CL copy (text photo) AE adj lvl	620	386	0	0	4095
BW Copy (text) AE adjustment level		BW Copy text AE adjustment level	620	387	0	0	4095
Color Copy (text) AE adjustment level		CL Copy (text) AE adj lvl	620	388	0	0	4095

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
BW Copy for B AE adjustment level		BW CopyFor B AE adjustt level	620	389	0	0	4095
BW Copy for G and R AE adjustment level		BW Copy G and R AE adj lvl	620	390	0	0	4095
Color Copy for B AE adjustment level		CL Copy B AE adj lvl	620	391	0	0	4095
Color Copy for G and R AE adjustment level		CL Copy G and R AE adj lvl	620	392	0	0	4095
BW Copy (text) for B AE adjustment level		BW Copy (text) B AE adj lvl	620	393	0	0	4095
BW Copy (text) for G and R AE adjustment level		BW Copy (text) G & R AE adj lvl	620	394	0	0	4095
Color Copy (text) for B AE adjustment level		CL Copy (text) B AE adj lvl	620	395	0	0	4095
Color Copy (text) for G and R AE adjustment level		CL Copy (text) G & R AE adj lvl	620	396	0	0	4095
EXT. Tail Reg. adjustment (55.0mm/sec)		EXT. Tail Reg. adj (55.0mm/sec)	620	397	122	0	244
EXT. Tail Reg. adjustment (73.3mm/sec)		EXT. Tail Reg. adj (73.3mm/sec)	620	398	122	0	244
EXT. Tail Reg. adjustment (82.5mm/sec)		EXT. Tail Reg. adj (82.5mm/sec)	620	399	122	0	244
EXT. Tail Reg. adjustment (110.0mm/sec)		EXT. Tail Reg. adj (110.0mm/sec)	620	400	122	0	244
EXT. Tail Reg. adjustment (146.7mm/sec)		EXT. Tail Reg. adj (146.7mm/sec)	620	401	122	0	244
EXT. Tail Reg. adjustment (165.0mm/sec)		EXT. Tail Reg. adj (165.0mm/sec)	620	402	122	0	244
EXT. Tail Reg. adjustment (293.3mm/sec)		EXT. Tail Reg. adj (293.3mm/sec)	620	403	122	0	244

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
EXT. Tail Reg. adjustment (220mm/sec)		EXT. Tail Reg. adj (220mm/sec)	620	404	122	0	244
EXT. Tail Reg. adjustment (330mm/sec)		EXT. Tail Reg. adj (330mm/sec)	620	405	122	0	244
EXT. Tail Reg. adjustment (440mm/sec)		EXT. Tail Reg. adj (440mm/sec)	620	406	122	0	244
EXT. Lead Edge. adjustment (55.0mm/sec)		EXT. LE. adj (55.0mm/sec)	620	407	122	0	244
EXT. Lead Edge. adjustment (73.3mm/sec)		EXT. LE. adj (73.3mm/sec)	620	408	122	0	244
EXT. Lead Edge. adjustment (82.5mm/sec)		EXT. LE. adj (82.5mm/sec)	620	409	122	0	244
EXT. Lead Edge. adjustment (110.0mm/sec)		EXT. LE. adj (110.0mm/sec)	620	410	122	0	244
EXT. Lead Edge. adjustment (146.7mm/sec)		EXT. LE. adj (146.7mm/sec)	620	411	122	0	244
EXT. Lead Edge. adjustment (165.0mm/sec)		EXT. LE. adj (165.0mm/sec)	620	412	122	0	244
EXT. Lead Edge. adjustment (293.3mm/sec)		EXT. LE. adj (293.3mm/sec)	620	413	122	0	244
EXT. Lead Edge. adjustment (220mm/sec)		EXT. LE. adj (220mm/sec)	620	414	122	0	244
EXT. Lead Edge. adjustment (330mm/sec)		EXT. LE. adj (330mm/sec)	620	415	122	0	244
EXT. Lead Edge. adjustment (440mm/sec)		EXT. LE. adj (440mm/sec)	620	416	122	0	244
		CVT FS Offset 1p Duplex Side2-1	620	417	120	0	240
		CVT FS Offset 1p Duplex Side2-2	620	418	120	0	240

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		CVT FS Offset 1p Duplex Side2-3	620	419	120	0	240
		CVT FS Offset 1p Duplex Side2-4	620	420	120	0	240
		CVT FS Offset 1p Duplex Side2-5	620	421	120	0	240
		CVT FS Offset 1p Duplex Side2-6	620	422	120	0	240
		CVT FS Offset 1p Duplex Side2-7	620	423	120	0	240
		CVT FS Offset 1p Duplex Side2-8	620	424	120	0	240
		CVT FS Offset 1p Duplex Side2-9	620	425	120	0	240
		1p Duplex Center Regi position	620	426	3598	0	7196
CIS black level Average number of lines		CIS black level Avg # lines	620	427	3	0	3
Target for black level auto adjust		Target black level auto adjust	620	428	16	0	255
Target for white level auto adjust		Target white level auto adjust	620	429	820	0	1023
		Digital Offset Level	620	430	512	0	1023
		Black Level Correction Value	620	431	128	0	255
		White Level Correction Value	620	432	255	0	255
DIPS white level; the average number of lines		DIPS white level; Avg # lines	620	433	4	0	4
white stability adjustment start point		white stability adj start point	620	434	10	0	4095
white stability adjustment average area		white stability adj Avg area	620	435	217	0	255
white stability adjustment Reference value		white stability adj Ref value	620	436	962	0	1023
		W-Ref density correction factor	620	437	158	100	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fine adjustment factor for highlight at white stability adjustment		Fine adj hilite WhiteStability	620	438	100	80	120
W-Ref density correction factor set value		W-Ref den. corr factor set value	620	439	255	0	255
EXT. Lead Reg. adjustment (460mm/sec)		EXT. Lead Reg. adj (460mm/sec)	620	440	122	0	244
EXT. Tail Edge. adjustment (460mm/sec)		EXT. Tail Edge. adj (460mm/sec)	620	441	122	0	244
		Switching main / sub	620	442	1	0	1
Shading correction dust detection threshold at shipment		Ship Garbage detection Thresh	620	443	500	0	5000
		EXT Fail bypass	620	444	0	0	1
		Daimajin Fail bypass	620	445	0	0	1
Data obtained at white stability adjustment failure		Data on WhiteStability adj fail	620	446	1023	0	1023
		Pre ASIC Through setting 1	620	447	448	0	8191
		BW-PG density	620	448	128	0	255
		FS non-detection area 1	620	449	255	0	65535
		FS non-detection area 3	620	450	255	0	65535
		SS fixed position	620	451	60	0	65535
		LIM control for BW Copy	620	452	1	0	1
LIM control for FAX and binary scan		LIM control FAX and binary scan	620	453	1	0	1
		LIM control for contone scan	620	454	1	0	1
		AE FS size detection control	620	455	0	0	1

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Upper Limit of SS Magnification correction AE Parameter1		TopLimit SS mag corr AE param1	620	457	4000	0	4000
Shading correction dust detection threshold in market		Ship Thresh of Garbage Detect	620	458	2000	0	5000
		Adjusting all Lead Regi at once	620	459	122	0	244
		Adjusting all Taile Edge at once	620	460	122	0	244
		Adjusting all FS offset at once	620	461	120	0	240
Level for BW COPY FAX and binary scan: (print photographic paper copy)		TP_BW_Copy_Fax Removal lvl AE	620	462	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (print photographic paper copy)		TP_BW_Copy_Fax Offset lvl AE	620	463	273	0	4095
Level for BW COPY FAX and binary scan: (normal pencil)		TX_BW_Copy_Fax Removal lvl AE	620	464	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (normal pencil)		TX_BW_Copy_Fax Offset lvl AE	620	465	273	0	4095
Level for BW COPY FAX and binary scan: (pale-color document)		TPL_BW_Copy_Fax Removal lvl AE	620	466	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (pale-color document)		TPL_BW_Copy_Fax Offset lvl AE	620	467	273	0	4095
Level for BW COPY FAX and binary scan: (tracing paper)		TRP_BW_Copy_Fax Removal lvl AE	620	468	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (tracing paper)		TRP_BW_Copy_Fax Offset lvl AE	620	469	273	0	4095

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Level for BW Contone Scan (text photo)		Level BW Cont. Scan (TP)	620	470	0	0	4095
OFFSET level for BW Contone Scan: (text photo)		Off level BW Cont. Scan (TP)	620	471	0	0	4095
Level for BW Contone Scan (other than text photo)		Level BW Cont. Scan (not TP)	620	472	0	0	4095
OFFSET level for BW Contone Scan: (other than text photo)		Off level BW Cont. Scan (not TP)	620	473	0	0	4095
		EXT Major Version	620	474	0	0	65535
		EXT Minor Version	620	475	0	0	65535
		EXT Revision Version	620	476	0	0	65535
		EXT Patch Version	620	477	0	0	65535
Default color balance adjustment level K: low density		Def. ColorBal adj K: low den(2)	620	478	4	0	8
Default color balance adjustment level K: medium density		Def. ColorBal adj K: med den(2)	620	479	4	0	8
Default color balance adjustment level K: high density		Def. ColorBal adj K: hi den(2)	620	480	4	0	8
		Photo and Text Recognition level	620	481	2	0	4
FS Magnification Adjustment (at CVT scan)		FS mag Adjust (at CVT scan)	620	482	50	0	100
		IPS Through Bypass setting 1(B)	620	483	0	0	511
BW COPY; text; normal density adjustment		BW COPY; text; normal den. adj	620	484	128	0	256
BW COPY; text; darker 3 density adjustment		BWCOPYTextDarker 3 DensityAdjust	620	485	128	0	256
Scan/FAX; text normal density adjustment		Scan/FAX; text normal den. adj	620	486	128	0	256



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Scan/FAX; text darker 3 density adjustment		Scan/FAX; text darker3 den. adj	620	487	128	0	256
		SS non-detection band	620	488	0	0	65535
SS end position (for noise removal)		SS end position (noise removal)	620	489	240	0	65535
Parameter SS Magnification correction Upper Limit		param SS mag corr TopLimit	620	490	4000	0	4000
Shading correction dust detection threshold in market		dust detect threshold in market	620	491	500	0	5000
Selection of Shading data for removing black line		ShadingData blackline remove	620	492	1	0	1
White reference value at shipment		White Reference ValueAtShipment	620	493	636	0	1000
White-correction multiplier coefficient		White-corr multiplier coeff	620	494	0	0	1
		Paper dust detection threshold	620	495	150	0	10000
		VALID starting position	620	496	288	0	1000
Fault Counter 05-300: DADF open during run	DADF down sensor detects DADF opened whilst DADF in operation	DADF OpenDuringRunFC	620	522	0	0	255
Fault Counter 05-307: DADF LH cover interlock opened during run	24 V LH cover interlock opened during DADF in operation.	DADFLHCovIntlock OpenDuringRunFC	620	523	0	0	255
Fault Counter 05-330: LE late to post feed sensor S5 (misfeed)	Lead edge of original does not make the post feed sensor S5 in time window	LE late to post feed sensorS5 FC	620	525	0	0	255
Fault Counter 05-331: TE late to post feed sensor S5 (multifeed)	Trail edge of original does not make the post feed sensor S5 in time window	TE late to post feed sensorS5 FC	620	526	0	0	255
Fault Counter 05-335: LE late to TAR sensor S6	Lead edge of original does not make the TAR sensor S6 in time window	LE late to TAR sensor S6 FC	620	527	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 05-340: LE late to Reg. Sensor S7	Lead edge of original does not make the Reg. sensor S7 in time window	LE late to Reg. Sensor S7 FC	620	528	0	0	255
Fault Counter 05-345: LE late to Exit sensor S8 (FWD)	Trail edge of original does not make the Reg. sensor S8 in time window	LE late to Exit sensor S8 FC	620	529	0	0	255
Fault Counter 05-346: TE late to Exit sensor S8 (FWD)	Trail edge of original does not make the Reg. sensor S8 in time window	TE late to Exit sensor S8 FC	620	530	0	0	255
Fault Counter 05-350: LE late to CVT sensor S10 (FWD)	Lead edge (FWD) of original does not make CVT sensor S10 in time window.	LE late to CVT sensor S10 FWD FC	620	531	0	0	255
Fault Counter 05-352: LE late to CVT sensor S10 (REV)	Lead edge (REV) of original does not make CVT sensor S10 in time window.	LE late to CVT sensor S10 REV FC	620	532	0	0	255
DADF/ Scanner comm faults: Used to count a collection of DADF/ Scanner Communications faults that may occur.(e.g. not just linked to one single fault)	Counter	DADF/ Scanner comm faults	620	533	0	0	4.29E+09
Total number of Scanner Jams since activation.	no. of scanner jams since activation	Tot. Scanner Jams since power on	620	535	0	0	65535
Fault Counter 05-250-00: Kernel Checksum Error	DADF m/c corrupted flash memory	KernelChecksum ErrorFC	620	548	0	0	255
Fault Counter 05-251-00: Application checksum error	DADF m/c corrupted flash memory	Application CheckSumErrorFC	620	549	0	0	255
Fault Counter 05-252-00: Stepper Controller Communications Error	Error when communicating between the Stepper Motor and DADF	StepperController CommsErrorFC	620	550	0	0	255
Fault Counter 05-253-00: Scanner-DADF Communications Error	Error in communications between Scanner and DADF	Scanner - DADFcomms ErrorFC	620	551	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 05-254-00: Communications Sequence Error	When communications between Scanner and DADF are out of sequence.	CommsSequence ErrorFC	620	552	0	0	255
Fault Counter 05-259-00: DADF Hotline Error	The DADF hotline is in the wrong state during the scan	DADFhotline Error FC	620	553	0	0	255
Fault Counter 05-260-00: DADF not in standby	The DADF is not in standby at the start of the job	DADFnotInStandby FC	620	554	0	0	255
		NUP Layout Pattern	621	001	0	0	1
Determines whether rotation is enabled for reduction/enlargement. 0=False 1=True		Rotation enabled for RE	621	002	1	0	1
Determines whether rotation is enabled for APS. 0=False 1=True		Rotation enabled for APS	621	003	1	0	1
		Signature Layout Changeable	621	004	0	0	1
		Use New Messaging	621	005	1	0	1
		Rotation Debug	621	006	1	0	1
Defines previous market region 0=USCO 1=XCL 2=FX 3=FXAPO 4=ACO 5=RX		Previous Market Region	621	009	0	0	5
		Lakes Legacy Scan	621	010	1	0	1
		NextScanJobID	625	001	1	1	999
spuiNeedsToInit Nvm		spuiNeedsToInit Nvm	633	001	1	0	1
internal image print job priority		internal image print job priority	641	001	1	1	4.29E+09
Value of next test pattern job's id.		NextTestPattern JobID	641	002	1	1	999

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Determines whether RS422 is configured. 0=False 1=True		rs422 Configured	648	001	0	0	1
Determines whether accessory card is configured. 0=False 1=True		accessory Card Configured	648	002	1	0	1
Determines whether foreign interface is configured. 0=False 1=True		foreign interface Configured	648	003	0	0	1
Determines whether RDT Modem is configured. 0=False, 1=True		rdt Modem Configured	648	004	0	0	1
Fault Counter 22-321-04: RS422 configuration mismatch.		RS422 (EPSV) Config MismatchFC	648	005	0	0	255
Fault Counter 22-750-17: Accessory card configuration mismatch.		Accessory Card Config MismatchFC	648	006	0	0	255
Fault Counter 22-755-17: RDT configuration mismatch.		RDT Config Mismatch FC	648	007	0	0	255
Fault Counter 03-331-00: ESS communication lost fault.		NC Comm Lost Fault	648	008	0	0	255
Fault Counter 03-338-00: for detection of DC crash at power up.		DC Crash Detected Fault	648	009	0	0	255
Fault Counter 03-347-00: UI communication lost fault.		UI Comm Lost Fault	648	010	0	0	255
Fault Counter 03-777-00: power loss detected fault.		Power Loss Detected Fault	648	011	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Defines DC platform's current install phase.		DC Platform Install Phase	648	012	4	0	4
Fault Counter 03-346-00: UI communication failure.		UI Comms failureFC	648	013	0	0	255
Fault Counter 03-332-00: ESS communication is down fault.		NC Comm Dead Fault	648	014	0	0	255
Defines current state of communication to the PWS.		DCPMF.SPMGR.PWS	648	015	0	0	10
Defines whether machine phone number has been set up. 0=False 1=True		Machine Phone Number Setup	648	016	0	0	1
		DC Platform Post Upgrade Phase	648	017	0	0	1
DC Platform Post Upgrade Retry Count		DCPlatformPost UpgradeRetry Cnt	648	018	0	0	255
Controller comm faults: Used to count a collection of Controller Communications faults that may occur.(e.g. not just linked to one single fault)	Counter	Controller comm faults	648	021	0	0	4.29E+09
UI comm faults: Used to count a collection of UI Communications faults that may occur.(e.g. not just linked to one single fault)	Counter	UI comm faults	648	022	0	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Determines whether double count is enabled 0=False 1=True		LargePaperCount	649	001	0	0	1
This specifies the amount of time FI will wait (seconds) before deleting a job when authentication has been removed.		CancelJobTimer Value	649	002	60	0	900
		PreCountDuration	649	003	100	0	200
		CountDuration	649	004	100	0	200
		PostCountDuration	649	005	100	0	200
		ExitDuration	649	006	100	0	200
		EnableOnInternal Credits	649	007	0	0	1
		DeviceType	649	008	0	0	4
		PremiumSelect	649	009	0	0	5
		CopyRestricted	649	010	1	0	1
		PrintRestricted	649	011	0	0	1
		s2fRestricted	649	012	0	0	1
		EFaxSendRestricted	649	013	0	0	1
		EFaxReceive Restricted	649	014	0	0	1
User Accounts		User Accounts	652	001	7	0	65535
General Accounts		General Accounts	652	002	7	0	65535
SubmitPolicy		SubmitPolicy	652	004	0	0	2
JobMgmtPolicy		JobMgmtPolicy	652	005	1	0	2
Copy Authentication Policy (none, internal, external, EPSV or JBA)		AuthPolicy	652	006	0	0	8
Copy Accounting Policy (none, internal, external, EPSV, or JBA)		CcctPolicy	652	007	0	0	8
InvalidAccount Policy		InvalidAccount Policy	652	008	1	0	2

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
nullAccountPolicy		nullAccountPolicy	652	009	1	0	2
Print Authentication Policy (none, internal, external, EPSV or JBA)		PrintAuthentication Policy	652	010	0	0	8
Print Accounting Policy (none, internal, external, EPSV or JBA)		PrintAccounting Policy	652	011	0	0	8
InvalidAccount Policy		InvalidAccount Policy	652	012	1	0	2
NullAccountPolicy		NullAccountPolicy	652	013	1	0	2
Scan to File Authentication Policy (none, internal, external, EPSV or JBA)		ScanToFileAuthenti cationPolicy	652	014	0	0	8
Scan to File Accounting Policy (none, internal, external, EPSV or JBA)		ScanToFile AccountingPolicy	652	015	0	0	8
ScanToFileInvalid PinPolicy		ScanToFileInvalid PinPolicy	652	016	1	0	2
ScanToFileNullPinPo licy		ScanToFileNullPin Policy	652	017	1	0	2
Auditron - Set Hour		Auditron - Set Hour	652	018	0	0	23
Auditron - Set Minute		Auditron - Set Minute	652	019	0	0	59
Auditron - Set Second		Auditron - Set Second	652	020	0	0	59
Auditron - Set Month		Auditron - Set Month	652	021	1	1	12
Auditron - Set Day		Auditron - Set Day	652	022	1	1	31
Auditron - Set Year		Auditron - Set Year	652	023	70	70	135
Auditron - Wall Clock		Auditron - Wall Clock	652	024	0	0	4.29E+09
Fax Send Authentication Policy (none, internal, external, EPSV or JBA)		Fax Send Authenticity Policy	652	025	0	0	8

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fax Send Accounting Policy (none, internal, external, EPSV or JBA)		Fax Send Accounting Policy	652	026	0	0	8
Fax Send Invalid Pin Policy		Fax Send Invalid Pin Policy	652	027	1	0	2
Fax Send Null Pin Policy		Fax Send Null Pin Policy	652	028	1	0	2
Fax Receive Authentication Policy (none, internal, external, EPSV or JBA)		Fax Receive Authenticity Policy	652	029	0	0	8
Fax Receive Accounting Policy (none, internal, external, EPSV or JBA)		Fax Receive Accounting Policy	652	030	0	0	8
Fax Receive Invalid Pin Policy		Fax Receive Invalid Pin Policy	652	031	1	0	2
Fax Receive Null Pin Policy		Fax Receive Null Pin Policy	652	032	1	0	2
CopyActivity		CopyActivity	652	033	0	0	4.29E+09
HolePunchCount		HolePunchCount	652	038	0	0	4.29E+09
StapleCount		StapleCount	652	039	0	0	4.29E+09
CustomerName		CustomerName	652	040	0	0	4.29E+09
MonoImpression Count		MonoImpression Count	652	041	0	0	4.29E+09
ColourImpression Count		ColourImpression Count	652	042	0	0	1
CopyActivityPen		CopyActivityPen	652	043	0	0	4
CopyActivityJobID Generator		CopyActivityJobID Generator	652	046	7	2	65535
PermServiceSOA Values		PermServiceSOA Values	652	049	1	0	255
PermCreateJob		PermCreateJob	652	050	7	0	255
PermCancelJob		PermCancelJob	652	051	23	0	255
PermInterruptJob		PermInterruptJob	652	052	3	0	255
PermPauseJob		PermPauseJob	652	053	3	0	255
PermQueryJob		PermQueryJob	652	054	7	0	255



## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
PermResumeJob		PermResumeJob	652	055	3	0	255
PermSubmitJob		PermSubmitJob	652	056	7	0	255
PermJobLOAValues		PermJobLOAValues	652	057	7	0	255
PermJobSOAValues		PermJobSOAValues	652	058	3	0	255
PermCreate Document		PermCreate Document	652	059	7	0	255
PermDelete Document		PermDelete Document	652	060	18	0	255
PermDocumentLOA Values		PermDocumentLOA Values	652	061	7	0	255
PermDocumentSOA Values		PermDocument SOAValues	652	062	3	0	255
PermProofJob		PermProofJob	652	063	7	0	255
PermProof Document		PermProof Document	652	064	7	0	255
PermPromoteJob		PermPromoteJob	652	065	5	0	255
PermHoldJob		PermHoldJob	652	066	3	0	255
PermReleaseJob		PermReleaseJob	652	067	35	0	255
Tiered level 1 copy accounting	XSA will use this to allow color level 1 copies to be mapped to B/W	Tiered level 1 copy acctning	652	069	0	0	1
Tiered level 1 print accounting	XSA will use this to allow color level 1 prints to be mapped to B/W	Tiered level 1 print acctning	652	070	0	0	1
JBA display restricted		JBA display restricted	652	071	1	0	1
JBA display fields 0		JBA display fields 0	652	076	1	0	1
JBA display fields 1		JBA display fields 1	652	077	1	0	1
JBA Display masks 0		JBA display masks 0	652	078	0	0	1
JBA Display masks 1		JBA diplay masks 1	652	079	0	0	1
Fault Counter 19-300-00: Image disk read failure		Image Disk READ Failure.	656	001	0	0	255
Fault Counter 19-301-00: Image disk write failure		Image Disk WRITE Failure.	656	002	0	0	255
Fault Counter 19-302-00: Image disk bad data error		Image Disk BAD DATA ERROR.	656	003	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 19-303-00: Image disk unable to format		ImageDiskUnableToFormatError.	656	004	0	0	255
Fault Counter 19-310-00: Image disk capacity not given at power on		Image Disk NoDiskCapacity Error	656	005	0	0	255
Reorder Threshold value (Days) for Ink (US Market Region Setting)	Stores remaining threshold value to trigger low supplies warnings	ColorantReorderMsgTrig XC Market	658	013	8	0	65535
Reorder Threshold value for DADF roller (if CRU) - (US Market Region Setting)	Stores remaining threshold value to trigger low supplies warnings	DADFRollReorderMsgTrig XC Market	658	014	10	0	65535
Reorder Threshold value for Cleaning Unit (CU/DMU) - (US Market Region Setting)	Stores remaining threshold value to trigger low supplies warnings	CleanUnitReorderMsgTrigXCMarket	658	015	7	0	65535
Reorder Threshold value (Days) for Ink (European Market Region Setting)	Stores remaining threshold value to trigger low supplies warnings	ColorantReorderMsgTrig XE Market	658	016	5	0	65535
Reorder Threshold value for DADF roller - (European Market Region Setting)	Stores remaining threshold value to trigger low supplies warnings	DADFRollReorderMsgTrig XE Market	658	017	6	0	65535
Reorder Threshold value for Cleaning Unit (CU/DMU) - (European Market Region Setting)	Stores remaining threshold value to trigger low supplies warnings	CleanUnitReorderMsgTrigXEMarket	658	018	7	0	65535
ADPV: Average Daily Print Volume	ADPV: Average prints/day over the number of days specified by the ADPV Duration (658-039)	adpv	658	027	150	0	10000
ADPV Duration: The number of days that are used to in the DPV calculation	ADPV Duration: days	MarkUsageCalcDuration	658	039	10	1	255
Solid Ink - Average pages per chute - ink level lower limit for tracking algorithm		APPC ink level lower limit	658	067	0	0	100

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Solid Ink - Average pages per chute - ink level upper limit for tracking algorithm		APPC Ink level upper limit	658	068	100	0	100
Solid Ink - Average pages per chute - pages lower limit for tracking algorithm		APPC pages lower limit	658	069	10	0	20000
Solid Ink - Average pages per chute - pages upper limit for tracking algorithm		APPC pages upper limit	658	070	2000	0	20000
Solid Ink - Average pages per chute - chute constant for tracking algorithm (tenths)		APPC chute constant	658	071	50	10	200
Solid Ink - Average pages per chute - Cyan ink life expectancy		APPC Cyan ink life expectancy	658	072	11000	0	4.29E+09
Solid Ink - Average pages per chute - Magenta ink life expectancy		APPC Magenta ink life expectancy	658	073	11000	0	4.29E+09
Solid Ink - Average pages per chute - Yellow ink life expectancy		APPC Yellow ink life expectancy	658	074	11000	0	4.29E+09
Solid Ink - Average pages per chute - Black ink life expectancy		APPC Black ink life expectancy	658	075	11000	0	4.29E+09

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Flag to indicate if the user chosen to acknowledge and temporarily suppress the Cleaning Unit Re-order message (displayed at the local UI). Intended to allow user to acknowledge the message and remove (from the local UI) temporarily. Reset when new Cleaning Unit is installed.  FALSE => Msg Displayed (Default) TRUE => Msg suppressed	Boolean indicating if the Cleaning Unit Re-order message is currently temporarily suppressed (at the local UI).  FALSE == Msg Displayed TRUE == Msg Suppressed	Hide Cleaning Unit Re-order Msg	658	076	0	0	1
		EFaxSendJob Priority	671	001	3	1	4.29E+09
EMBFAXSEND TransmitImages Displayable		EMBFAXSEND TransmitImages Display	671	004	1	0	1
		SendShortJob RecoveryWaitTime	671	011	5	1	255
SendJobRecovery SendResponse Timeout		SendJobRecovery SendRespTimeout	671	012	120	1	255
		SendJobRecovery WaitTime	671	013	120	1	255
SendJobRecovery ImageResponse Timeout		SendJobRecover ImageResp Timeout	671	014	120	1	255
SendJobRecovery CompletedQUpdate Timeout		SendJobRecovCom pIQ Update Timeout	671	015	120	1	255
		SendJobRecovery CreateJobTimeout	671	016	3	1	255
		SendLowFax MemoryWaitTime	671	017	20	1	255
		SendJobRecovery RetryCounter	671	018	3	1	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		EFaxReceiveJob Priority	672	001	3	1	4.29E+09
		EMBFARECEIVE SheetsDisplayable	672	004	0	0	1
EMBFARECEIVE DuplexSheets Displayable		EFaxRecPlexSheets Displayable	672	006	0	0	1
EMBFARECEIVE LargeSheets Displayable		EMBFARECEIVE LargeSheetsDisplay	672	008	0	0	1
EMBFARECEIVE MarkedImages Displayable		Emb Fax Rec Marked Images Disp	672	013	1	0	1
		NextImage TimeOut	672	014	300	100	1000
EFPrintCompleted Job Log Location		EFPrintCompleted Job Log Location	672	016	0	0	70
		EF Card Disturbance Timeout	672	017	12	1	255
		Postpone fax install	673	001	0	0	1
Indication of whether the Fax Card was detected at previous powerup. When this NVM differs from current powerup hardware detection, a Config Mismatch is raised.	0 = Not Present 1 = Present and configured 2 = Present but not yet configured	EmbeddedFax Basic Previous State	673	002	0	0	2
EmbeddedFax Extended Previous State		EmbeddedFax ExtendedPrevious State	673	003	0	0	2
Fault Counter 03-401-00: Basic fax not detected		Basic FAX Not Detected FC	673	005	0	0	255
Fault Counter 20-701-00: Fax phonebook download failed		Fax Phonebook Download Fault	673	006	0	0	255
Fault Counter 03-403-00: Extended fax not detected		Extended FAX Not Detected FC	673	007	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 20-302-00: Unexpected reset		Fax Unexpected Reset Fault	673	008	0	0	255
Fault Counter 20-303-00: Fax Basic Card Unrecoverable Fault		FaxBasicCard Unrecoverable Fault	673	009	0	0	255
Fault Counter 20-305-00: Fax System Low Memory Unrecoverable Fault		Fax Sys Low Mem Unrecover Fault	673	010	0	0	255
Fault Counter 20-320-00: Fax card not cleared by reset		Fax Not Cleared By Reset Fault	673	011	0	0	255
Fault Counter 20-341-00: Basic fax card failed		Fax Basic Card Failed Fault	673	012	0	0	255
Fault Counter 20-327-00: Extended fax card failed		Fax Extended Card Failed Fault	673	013	0	0	255
Fault Counter 20-322-00: Fax NVM Not Present		Fax NV Device Not Present Fault	673	014	0	0	255
Fault Counter 20-323-00: Fax System Low Memory Recoverable Fault		Fax System Low Mem Recover Fault	673	015	0	0	255
Fault Counter 20-324-00: Fax Out of File Memory Fault		Fax Out Of File Memory Fault	673	016	0	0	255
Fault Counter 20-342-00: Fax - Error access file on NV		Fax File Integrity Fault	673	017	0	0	255
Fault Counter 20-331-00: Fax - No Communications via PSTN Line 1		Fax Network Line 1 Fault	673	018	0	0	255
Fault Counter 20-332-00: Fax - No Communications via PSTN Line 2		Fax Network Line 2 Fault	673	019	0	0	255
Fault Counter 20-339-00: Fax Port 1 fault		Fax Port 1 Fault	673	020	0	0	255

## Copy ControllerNVM

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 20-340-00: Fax Port 2 fault		Fax Port 2 Fault	673	021	0	0	255
Fax comm faults: Used to count a collection of Fax Communications faults that may occur.(e.g. not just linked to one single fault)	Counter	Fax comm faults	673	023	0	0	4.29E+09
Efax recovery last image service ID		LastXferImageServiceId	674	001	0	0	65535
Efax recovery last image job ID		LastXferImageJobId	674	002	0	0	65535
Efax recovery last image doc ID		LastXferImageDocId	674	003	0	0	65535
Efax recovery last image image ID		LastXferImageImageId	674	004	0	0	65535

## Fax Communication Commands Definitions

Acronym	Description
ANSam	Modulated Answer Tone
CED	Called Terminal Identification
CFR	Confirmation to Receive
CI	Call Indicator
CIG	Calling Subscriber Identification
CJ	CM Terminator
CM	Call Menu
CNG	Calling Tone
CRP	Command Repeat
CSI	Called Subscriber Identification
CTC	Continue to Correct
CTR	Response for Continue to Correct
DCN	Disconnect
DCS	Digital Command Signal
DIS	Digital Identification Signal
DP	Dial Pulse
DRPD	Distinctive Ring Pattern Detection
DSL	Digital Subscriber Line
DTC	Digital Transmit Command
EOM	End of Message
EOP	End of Procedure
EOR	End of Retransmission
EQM	Eye quality measurement - Value used to determine line quality. This field is populated with a hexadecimal number.
ERR	Response for End of Transmission
Fax	Facsimile
FTT	Failure to Train
IPP	Internet Present Provider
IPX	Internetwork Packet Exchange
ISDN	Integrated Services Digital Network
JM	Joint Menu
MCF	Message Confirmation
MPS	Multiple Signal
NCS	Non - Standard Facilities Command



Acronym	Description
NFS	Non - Standard Facilities
NSS	Non - Standard Set-up
PBX	Private Branch Exchange
PD	Pulse Dialing
PID	Procedure Interrupt Disconnect
PIN	Procedure Interrupt Negative
PIP	Procedure Interrupt Positive
PPS	Partial Page Signal
PPS	Pulses Per Second
PPR	Partial Page Request
PRI-EOM	Procedure Interrupt - EOM
PRI-EOP	Procedure Interrupt - EOP
PRI-MPS	Procedure Interrupt - MPS
PWD	Password for (Polling)
RCP	Return to Control for Partial Page
Results	Shows the speed of the communication to the remote machine and the connection status.
RNR	Receive Not Ready
RTN	Retrain Negative
RTP	Retrain Positive
SEP	Selective Polling
SLP	Service Location Protocol
SUB	Sub Address
TCF	Training Check
TD	Tone Dialing
TSI	Transmission Subscriber Identification
VDSL	Very High Bit Rate Digital Subscriber Line

## Acronyms and Abbreviations

Acronym	Description
A4	Paper size 210 millimeters (8.27 inches) x 297 millimeters (11.69 inches)
A5	Paper size 148 millimeters (5.82 inches) x 210 millimeters (2.10 inches)
AC	Alternating Current is type of current available at power source for the printer.
AD	Auto Duplex
A/D	Analog to Digital refers to conversion of signal
ADF	Automatic Document Feeder
ADSL	Asymmetric Digital Subscriber Line
AGC	Automatic Gain Control
AMPV	Average Monthly Print Volume
ARP	Address Resolution Protocol
ASIC	Application Specific Integrated Circuit
ASSY	Assembly
ATM	Adobe Type Manager
ATVC	Auto Transfer Voltage Control
AWG	American Wire Gauge
BLK	Black
BOOTP	Bootstrap Protocol
BSD	Block Schematic Diagram
BTM	Bottom
C	Degrees Celsius
CAM	Cam Shaft
CCD	Charge Coupled Device
CCP	Carbonless Copy Paper
CCW	Counterclock-Wise
CD	Circuit Diagram
CD	Compact Disc
CE	CE mark is a mandatory conformity mark on products on a single market in the European Economic Area (EEA).
CLT	Clutch
CM	Centimeter
CMD	Command Line Interpreter
CMYK	Cyan, Magenta, Yellow, Black

Acronym	Description
COMM	Communication
CRU	Customer Replaceable Unit
CSE	Customer Service Engineer
CVT	Constant Velocity Transport (Scanner Glass)
CW	Clockwise
CWIS	CentreWare Internet Services
DADF	Duplex Automatic Document Feeder
dB	Decibel
DC	Direct Current is type of power for printer components. Printer converts AC power from power source to DC power.
DNS	Domain Name System
DDNS	Dynamic Domain Name System
DDR2 DIMM	Double Data Rate Dual In-Line Memory Module
DHCP	Dynamic Host Configuration Protocol
DIMM	Dual In-line Memory Module
DM	Drum Maintenance
DMM	Digital Multimeter is generic name for meter that measures voltage, current, or electrical resistance.
DMO	Developing Markets Organization
DNS	Domain Main System
DOF	Direction of Feed
DPI	Dots Per Inch
DR	Drum
DRV	Drive
DUP	Duplex (2-sided printing)
Duplex	2-sided Printing
EEA	European Economic Area
EC	European Community
ECM	Error Correction Mode
EEPROM	Electronically Erasable Programmable Read-Only Memory
EMI	Electromagnetic Interference
EOM	End of Message
ER/ERR	Error
ESD	Electrostatic Discharge. A transfer of charge between bodies at different electrostatic potential.
ETN	Engine Tracking Number
ENV	Environment

Acronym	Description
F	Degrees Fahrenheit
FANG	Fang is an ASIC found on the Main Board that deals with a lot of low-level printer control operations. The FPGAs are the interface chips that allow the separate boards to communicate to each other over the gray ribbon cables.
FCC	Federal Communications Commission
FCOP	First Copy Output Time
FE	Field Engineer
FFC	FFC Cable
FIFO	First In First Out
FIST	Field Integration Support Tool
FPGA	Field Pre-programmable Gate Array (Printhead interface and motor controller for the printer)
FPOT	First Print Output Time
FR/FRNT	Front
FRU	Field Replaceable Unit
FT	Foot
FTP	File Transfer Protocol
FTTR	Fast Time To Ready
FUNC	Function
G	Gram
GB	Giga Byte
GND	Ground
GSM/ gsm	Grams per Square Meter
HARN	Harness
HCF	High Capacity Feeder
HDD	Hard Disk Drive
HSG	Housing
HTML	Hyper Text Markup Language
HTTP	Hyper Text Transfer Protocol
HUM	Humidity
Hz	Hertz (Cycles per second)
HW	Hardware
IC	Integrated Circuit
ICT	Internal Catch Tray
I/F	Interface
IIT	Image Output Terminal
ILOD	Ink Loader

Acronym	Description
IM	Ink Melter
IME	Image Marking Engine
IN	Inches
IOT	Image Output Terminal
IP	Internet Protocol
IPA	Isopropyl Alcohol
IPM/ ipm	Images Per Minute
IPP	Internet Printing Protocol
IPSec	IP Security
IPV4	Internet Protocol Version 4
IPV6	Internet Protocol Version 6
IPX	Internet Protocol eXchange
IQ	Image Quality
IR	InfraRed
IR	Intelligent Ready
ISC	Ink Stick Count
JPEG	Joint Photographic Experts Group File Interchange Format
JS	Jetstack
JSM	Jet Substitution Mode
KB	Kilo Byte
KG	Kilogram
LAN	Local Network Area
LBS	Pounds
LCD	Liquid Crystal Display
LCSS	Low Capacity Stacker Stapler
LE	Leading Edge
LED	Light Emitting Diode
LEF	Long Edge Feed
L/H	Left Hand
LJ	Left Jetstack
LPR	Line Printer Remote
LTR	Letter size paper (8.5 x 11 inches)
LSI	Large Scale Integrated Circuit
LUI	Local User Interface
mA	Mili-amp
MAC Address	Media Access Control Address

Acronym	Description
MARKDWR	Marking Drawer/Unit
MB	Mega Byte
MHz	Mega Hertz
MM	Millimeter
MOSFET	Metal-Oxide Field-Effect Transistor
MOT	Motor
MP	Media Path
MPT	Multi-Purpose Tray (Tray 1)
NA	North America
NBNS	NetBIOS Name Service
NCL	Nest Configuration Library
NCR	No Carbon Required
NetBIOS	Network Basic Input/ Output System
NOHAD	Noise, Ozone, Heat, Air, Dust
NPP	No Paper
NVM	Non Volatile Memory
NVRAM	Non-Volatile Random Access Memory
OCR	Optical Character Recognition
OEM	Original Equipment Manufacturer
OHP	Over Head Paper (Transparency)
OPT	Optional
OS	Operating System
PC	Personal Computer
PCB	Printed Circuit Board
PCL	Printer Command Language
PEST	Print Engine Self Test
PDF	Adobe Acrobat Portable Document Format
PDL	Page Description Language
PH	Preheater
P/J	Plug Jack (electrical connections)
PJL	Printer Job Language
PL	Parts List
P/N	Part Number
PO	Part Of (Assembly Name)
POP3	Post Office Protocol version 3
POPO	Power Off/ Power On

Acronym	Description
POST	Power On Self-Test
PPD	PostScript Printer Description
PPM	Pages Per Minute
PP	Pressing Plate
PPS	Pages
PQ	Print Quality
PS	PostScript
PVM	Print Volume Management
PWB	Printed Wiring Board
PWBA	Printed Wiring Board Assembly
PZT	Piezo-Electric Transducer
RAM	Random Access Memory
RAP	Repair Analysis Procedure for diagnosis of printer status codes and abnormal conditions.
RE	Reservoir
REF	Refer to
REP	Repair Procedure for disassembly and reassembly of component on the printer.
RET	Retard
RGB	Three primary colors of light - Red Green Blue
RH	Relative Humidity
RJ	Right Jetstack
RLS	Release
RMS	Root-Mean Square
ROM	Read-Only Memory
RTD	Retard
R&TTE	Radio & Telecommunications Terminal Equipment
SA	System Administrator
SC	System Controller
SCP	Service Call Procedure
SCSI	Small Computer Systems Interface
SEC	Second
SEF	Short Edge Feed
Self-Test	An automatic process that is used to check Control Logic circuitry. Any fault that is detected during self-test is displayed by fault code or by LEDs on PWB.
SIMM	Single Inline Memory Module used to increase printing capacity.

Acronym	Description
Simplex	Single sided
SKU	Stock Keeping Unit
SLP	Service Location Protocol
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SNR	Sensor
SOL	Solenoid
sRGB	A standard RGB color space created cooperatively by HP and Microsoft in for use on monitors, printers, and the Internet.
SSDP	Simple Service Discovery Protocol
STS	Side to Side
SW or S/W	Software
SWOP	Specifications for Web Offset Publications
T/A	Take Away
TAR	Take Away Roller
TCP/IP	Transmission Control Protocol/ Internet Protocol
TE	Trailing Edge
TFTP	Trivial File Transfer Protocol
TIFF	Tagged Image File Format
TP	Test Point
UI	User Interface
UL	Underwriters Laboratories
UM	Unscheduled Maintenance
UP	Usage Profile
USB	Universal Serial Bus
UV	Ultraviolet
VAC	Volts Alternating Current
VDC	Volts of Direct Current
VGA	Video Graphics Array
VPP	The waveform is a voltage waveform or Peak to Peak Voltage. Difference between a waveform's positive peak value and its negative peak value.
VSS	Negative Supply
W	Watt
W/	With - indicates printer condition where specified condition is present.



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Acronym	Description
W/O	Without - indicates printer condition where specified condition is not present.
WSD	Web Services Description
WYEAST	Main Controller Board
XE	Xerox Europe
ZIF	Zero Insertion Force (ZIF connector)

# Fault Code Addendum



This chapter includes:

- Fault Codes and Error Messages
- 302 - System Controller/ UI
- 303 - Machine Run Control
- 305 - DADF
- 310 - Transfix, Post Transfix, Media Path
- 312 - Finisher
- 316 - Network Controller
- 319 - Video Image Manipulation
- 303/ 320 - Fax
- 322 - Network Faults
- 362 - Scanner
- 372 - Tray 2
- 373 - Tray 3
- 374 - Tray 4
- 375 - Tray 5
- 383 - Duplex Portion of Media Path
- 388 - Preheater
- 389 - Media Path
- 391 - Printhead Wiper, Head Tilt
- 392 - Electronic
- 393 - Ink Delivery and Ink Thermals
- 394 - Drum, Stripper, Drum Maintenance
- 399 - PEST

## Fault Codes and Error Messages

The Fault Code and Error Message table lists possible errors and page references for the corrective procedure. Use the Chain Link to identify the proper procedure to correct the error.

**Note:** Fault Code may be displayed different format containing “.” vs. “-” (389.XXX vs. 89-XXX) on the Services Home Menu and Fault History.

### Fault Code and Fault Message Display

Fault Code	Variables (UI Display)			Fault Description	Page
<b>302 - System Controller/ UI (page 2-117)</b>					
302.302.00	02- 302	02. 302	2- 302	Flash Failure	<a href="#">2-117</a>
302.306.00	02- 306	02. 306	2- 306	Flash Failure	<a href="#">2-117</a>
302.308.00	02- 308	02. 308	2- 308	Flash Failure	<a href="#">2-117</a>
302.315.00	02- 315	02. 315	2- 315	Service Registry Bad Data	<a href="#">2-117</a>
302.316.00	02- 316	02. 316	2- 316	SRS Error	<a href="#">2-117</a>
302.317.00	02- 317	02. 317	2- 317	SRS Error	<a href="#">2-117</a>
302.320.00	02- 320	02. 302	2- 302	Data Time Out Error	<a href="#">2-118</a>
302.321.00	02- 302	02. 320	2- 320	XEIP Browser Dead	<a href="#">2-117</a>
302.380.00	02- 380	02. 380	2- 380	UI Communication Fault	<a href="#">2-117</a>
302.381.00	02- 381	02. 381	2- 381	UI Communication Fault	<a href="#">2-117</a>
<b>303 - Machine Run Control (page 2-122)</b>					
303.316.00	03- 316	03. 316	3- 316	CCM Cannot Communicate with IOT	<a href="#">2-122</a>
303.325.00	03- 325	03. 325	03- 325	System Detects the Printer Clock Failed to Increment During Power On	<a href="#">2-122</a>
303.331.00	03- 331	03. 331	3- 331	Main Controller Board Cannot Communicate with ESS	<a href="#">2-122</a>
303.332.00	03- 332	03. 332	3- 332	Main Controller Board Cannot Communicate with ESS	<a href="#">2-122</a>
303.338.00	03- 338	03. 338	03- 338	Main Controller on the CCB/ SBC has Reset	<a href="#">2-122</a>
303.346.00	03- 346	03. 346	3- 346	Unable to Communicate with Control Panel	<a href="#">2-122</a>
303.347.00	03- 347	03. 347	3- 347	Main Controller PWB Cannot Communicate with UI PWB	<a href="#">2-122</a>
303.362.00	03- 362	03. 362	3- 362	CCS Power Fault	<a href="#">2-122</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Variables (UI Display)			Fault Description	Page
303.397.00	03- 397	03. 397	3- 397	System Configuration Recovery Attempt	<a href="#">2-122</a>
303.398.00	03- 398	03. 398	3- 398	SIM Card Fault	<a href="#">2-122</a>
303.399.00	03- 399	03. 399	3- 399	SIM Card Fault	<a href="#">2-122</a>
303.401.00	03- 401	03. 401	3- 401	Fax Not Detected	<a href="#">2-122</a>
303.403.00	03- 403	03. 403	3- 403	Fax Not Detected	<a href="#">2-122</a>
303.417.00	03- 417	03. 417	3- 417	Incompatible Fax Software	<a href="#">2-122</a>
303.555.00	03- 555	03. 555	3- 555	CCM POST failure detected / NVM battery dead	<a href="#">2-122</a>
303.777.00	03-777	03.777	3-777	Power Loss Detected	<a href="#">2-122</a>
303.788.00	03-788	03.788	3-788	Failed to Exit Power Save Mode	<a href="#">2-122</a>
303.790.00	03-790	03.790	3-790	CCS Timezone Cannot be Set	<a href="#">2-122</a>
<b>305 - DADF (<a href="#">page 2-137</a>)</b>					
305.250.00	05- 250	05. 250	5- 250	DADF Corrupted Flash Memory	<a href="#">2-137</a>
305.251.00	05- 251	05. 251	5- 251	DADF Corrupted Flash Memory	<a href="#">2-137</a>
305.252.00	05- 252	05. 252	5- 252	DADF Communication Errors	<a href="#">2-137</a>
305.253.00	05- 253	05. 253	5- 253	DADF Communication Errors	<a href="#">2-137</a>
305.254.00	05- 254	05. 254	5- 254	DADF Communication Errors	<a href="#">2-137</a>
305.255.00	05- 255	05. 255	5- 255	Late Pre Scan Status Message	<a href="#">2-137</a>
305.256.00	05- 256	05. 256	5- 256	Eject Count Error	<a href="#">2-137</a>
305.257.00	05- 257	05. 257	5- 257	Unknown Doc Size	<a href="#">2-137</a>
305.258.00	05- 258	05. 258	5- 258	DADF Cover Open During Init	<a href="#">2-137</a>
305.259.00	05- 259	05. 259	5- 259	DADF Hotline Error	<a href="#">2-137</a>
305.260.00	05- 260	05. 260	5- 260	DADF not in Standby	<a href="#">2-137</a>
305.300.00	05- 300	05. 300	5- 300	DADF Open During Run	<a href="#">2-137</a>
305.307.00	05- 307	05. 307	5- 307	DADF Top Cover Open	<a href="#">2-137</a>
305.310.00	05- 310	05. 310	5- 310	DADH Source Doc Too Short for DADH	<a href="#">2-137</a>
305.330.00	05- 330	05. 330	5- 330	DADF LE Late to Post Feed	<a href="#">2-137</a>
305.331.00	05- 331	05. 331	5- 331	DADF Multipick	<a href="#">2-137</a>
305.335.00	05- 335	05. 335	5- 335	DADF Jams	<a href="#">2-137</a>
305.340.00	05- 340	05. 340	5- 340	DADF Jams	<a href="#">2-137</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
305.345.00	05- 345	05. 345	5- 345	DADF Jams	<a href="#">2-137</a>
305.346.00	05- 346	05. 346	5- 346	DADF Jams	<a href="#">2-137</a>
305.350.00	05- 350	05. 350	5- 350	DADF Jams	<a href="#">2-137</a>
305.352.00	05- 352	05. 352	5- 352	DADF Jams	<a href="#">2-137</a>
<b>310 - Transfix, Post Transfix, Media Path (<a href="#">page 2-145</a>)</b>					
310.540.00	010- 540	310. 540	10- 540	Transfix Task Late	<a href="#">2-113</a>
310.545.00	010- 545	310. 545	10- 545	Drum Initial Position Wrong	<a href="#">2-145</a>
310.550.00	010- 550	310. 550	10- 550	Y-Axis Fault	<a href="#">2-145</a>
<b>312 - Finisher (<a href="#">page 2-148</a>)</b>					
312.024.00	012- 024	312. 024	12- 024	Finisher Paddle Fault	<a href="#">2-148</a>
312.025.00	012- 025	312. 025	12- 025	Finisher Paddle Fault	<a href="#">2-148</a>
312.101.00	012- 101	312. 101	12- 101	Finisher Entry Jams	<a href="#">2-148</a>
312.102.00	012- 102	312. 102	12- 102	Finisher Transport Jam	<a href="#">2-148</a>
312.125.00	012- 125	312. 125	12- 125	Finisher Entry Jams	<a href="#">2-148</a>
312.195.00	012- 195	312. 195	12- 195	Finisher Entry Jams	<a href="#">2-148</a>
312.283.00	012- 283	312. 283	12- 283	Finisher Ejector Clamp Fault	<a href="#">2-148</a>
312.284.00	012- 284	312. 284	12- 284	Finisher Ejector Clamp Fault	<a href="#">2-148</a>
312.303.00	012- 303	312. 303	12- 303	Transport Cover Fault	<a href="#">2-148</a>
312.312.00	012- 312	312. 312	12- 312	Finisher Jam Cover Fault	<a href="#">2-148</a>
312.336.00	012- 336	312. 336	12- 336	Finisher Staple Cover Fault	<a href="#">2-148</a>
312.371.00	012- 371	312. 371	12- 371	Finisher Stapler Move Fault	<a href="#">2-148</a>
312.392.00	012- 392	312. 392	12- 392	Finisher Front Tamper Fault	<a href="#">2-148</a>
312.393.00	012-393	312. 393	12- 393	Finisher Front Tamper Fault	<a href="#">2-148</a>
312.396.00	012- 396	312. 396	12- 396	Finisher Rear Tamper Fault	<a href="#">2-148</a>
312.397.00	012- 397	312. 397	12- 397	Finisher Rear Tamper Fault	<a href="#">2-148</a>
312.462.00	012- 462	312. 462	12- 462	Finisher Stacker Fault	<a href="#">2-148</a>
312.492.00	012- 492	312. 492	12- 492	Finisher Communication Fault	<a href="#">2-148</a>
312.493.00	012- 493	312. 493	12- 493	Finisher Communication Fault	<a href="#">2-148</a>
312.494.00	012- 494	312. 494	12- 494	Finisher Communication Fault	<a href="#">2-148</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Variables (UI Display)			Fault Description	Page
312.564.00	012- 564	312. 564	12- 564	Finisher Jam Cover Fault	<a href="#">2-148</a>
312.602.00	012- 602	312. 602	12- 602	Finisher Staple Cover Fault	<a href="#">2-148</a>
312.610.00	012- 610	312. 610	12- 610	Finisher Entry Jams	<a href="#">2-148</a>
312.613.00	012- 613	312. 613	12- 613	Finisher Transport Jam	<a href="#">2-148</a>
312.766.00	012- 766	312. 766	12- 766	No Catch Tray Installed	<a href="#">2-148</a>
312.767.00	012- 767	312. 767	12- 767	No Transport/ Catch Tray Installed	<a href="#">2-148</a>
312.768.00	012- 768	312. 768	12- 768	Finisher Catch Tray or Transport Installation Fault	<a href="#">2-148</a>
312.769.00	012- 769	312. 769	12- 769	Finisher Catch Tray or Transport Installation Fault	<a href="#">2-148</a>
312.950.00	012- 950	312. 950	12- 950	Finisher Entry Jams	<a href="#">2-148</a>
<b>316 - Network Controller (<a href="#">page 2-166</a>)</b>					
316.810.00	016- 810	316. 810	16- 810	Other Network Faults 6	<a href="#">2-166</a>
316.810.09				Other Network Faults 6	<a href="#">2-166</a>
316.810.19				Other Network Faults 6	<a href="#">2-166</a>
316.810.47				Other Network Faults 6	<a href="#">2-166</a>
316.811.09				Other Network Faults 6	<a href="#">2-166</a>
316.811.19				Other Network Faults 6	<a href="#">2-166</a>
316.811.47				Other Network Faults 6	<a href="#">2-166</a>
316.812.00	016- 812	316. 812	16- 812	Other Network Faults 6	<a href="#">2-166</a>
316.812.09				Other Network Faults 6	<a href="#">2-166</a>
316.812.19				Other Network Faults 6	<a href="#">2-166</a>
316.812.47				Other Network Faults 6	<a href="#">2-166</a>
316.813.00	016- 813	316. 813	16- 813	Other Network Faults 6	<a href="#">2-166</a>
316.813.09				Other Network Faults 6	<a href="#">2-166</a>
316.813.47				Other Network Faults 6	<a href="#">2-166</a>
316.814.00	016- 814	316. 814	16- 814	Other Network Faults 6	<a href="#">2-166</a>
316.814.09				Other Network Faults 6	<a href="#">2-166</a>
316.814.47				Other Network Faults 6	<a href="#">2-166</a>
316.815.09				Other Network Faults 6	<a href="#">2-166</a>

**Fault Code and Fault Message Display (Continued)**

Fault Code	Variables (UI Display)			Fault Description	Page
316.815.47				Other Network Faults 6	<a href="#">2-166</a>
316.816.09				Other Network Faults 6	<a href="#">2-166</a>
316.816.47				Other Network Faults 6	<a href="#">2-166</a>
316.820.47				Other Network Faults 7	<a href="#">2-166</a>
316.821.47				Other Network Faults 7	<a href="#">2-166</a>
316.822.47				Other Network Faults 7	<a href="#">2-166</a>
316.823.47				Other Network Faults 7	<a href="#">2-166</a>
316.824.47				Other Network Faults 7	<a href="#">2-166</a>
316.825.47				Other Network Faults 7	<a href="#">2-166</a>
316.826.47				Other Network Faults 7	<a href="#">2-166</a>
316.827.47				Other Network Faults 7	<a href="#">2-166</a>
316.828.47				Other Network Faults 7	<a href="#">2-166</a>
316.829.47				Other Network Faults 7	<a href="#">2-166</a>
<b>319 - Video Image Manipulation (<a href="#">page 2-169</a>)</b>					
319.300.00	019- 814	319. 814	19- 814	System Disk (HDD 1) Failure	<a href="#">2-169</a>
319.301.00	019- 301	319. 301	19- 301	System Disk (HDD 1) Failure	<a href="#">2-169</a>
319.302.00	019- 302	319. 302	19- 302	System Disk (HDD 1) Failure	<a href="#">2-169</a>
319.303.00	019- 303	319. 303	19- 303	System Disk (HDD 1) Failure	<a href="#">2-169</a>
319.310.00	019- 310	319. 310	19- 310	System Disk (HDD 1) Failure	<a href="#">2-169</a>
319.401.00	019- 401	319. 401	19- 401	Stress Out of Memory	<a href="#">2-169</a>
319.402.00	019- 402	319. 402	19- 402	Stress Out of Memory	<a href="#">2-169</a>
319.403.00	019- 403	319. 403	19- 403	EPC Out of Memory	<a href="#">2-169</a>
319.409.00	019- 409	319. 409	19- 409	Job Integrity Failure	<a href="#">2-169</a>
319.410.00	019- 410	319. 410	19- 410	Image Structure Failure	<a href="#">2-169</a>
319.410.01				Image Structure Failure	<a href="#">2-169</a>
319.410.02				Image Structure Failure	<a href="#">2-169</a>
319.410.03				Image Structure Failure	<a href="#">2-169</a>
319.410.04				Image Structure Failure	<a href="#">2-169</a>
319.410.05				Image Structure Failure	<a href="#">2-169</a>
319.410.06				Image Structure Failure	<a href="#">2-169</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Variables (UI Display)			Fault Description	Page
319.410.07				Image Structure Failure	<a href="#">2-169</a>
319.410.08				Image Structure Failure	<a href="#">2-169</a>
319.410.09				Image Structure Failure	<a href="#">2-169</a>
319.410.10				Image Structure Failure	<a href="#">2-169</a>
319.410.11				Image Structure Failure	<a href="#">2-169</a>
319.410.12				Image Structure Failure	<a href="#">2-169</a>
319.410.13				Image Structure Failure	<a href="#">2-169</a>
319.750.00	019- 750	319. 750	19- 750	EPC Memory Change Detected	<a href="#">2-169</a>
319.752.00	019- 752	319. 752	19- 752	Imaging Rotation Detected	<a href="#">2-169</a>
319.754.00	019- 754	319. 754	19- 754	Image Disk Config Fault	<a href="#">2-169</a>
<b>303/ 320 - Fax (<a href="#">page 2-174</a>)</b>					
303.401.00	003- 401	303. 401	03- 401	Fax Not Detected	<a href="#">2-174</a>
303.403.00	003- 403	303. 403	03- 403	Fax Not Detected	<a href="#">2-174</a>
303.417.00	003- 417	303. 417	03- 417	Incompatible Fax Software	<a href="#">2-174</a>
320.302.00	020- 401	320. 401	20- 401	Fax Reset Failure	<a href="#">2-174</a>
320.303.00	020- 401	320. 401	20- 401	Fax Reset Failure	<a href="#">2-174</a>
320.305.00	020- 401	320. 401	20- 401	Fax System Low Memory Unrecoverable	<a href="#">2-174</a>
320.320.00	020- 401	320. 401	20- 401	Fax Fault Not Cleared by Reset	<a href="#">2-174</a>
320.323.00	020- 401	320. 401	20- 401	Fax System Memory Low	<a href="#">2-174</a>
320.324.00	020- 401	320. 401	20- 401	Fax System Memory Low	<a href="#">2-174</a>
320.331.00	020- 401	320. 401	20- 401	Fax Network Line 1 Fault	<a href="#">2-174</a>
320.338.00	020- 401	320. 401	20- 401	Fax Network Line 1 Fault	<a href="#">2-174</a>
320.339.00	020- 401	320. 401	20- 401	Fax Network Line 1 Fault	<a href="#">2-174</a>
320.341.00	020- 401	320. 401	20- 401	Fax Network Line 1 Fault	<a href="#">2-174</a>
320.342.00	020- 401	320. 401	20- 401	Fax File Integrity Fault	<a href="#">2-174</a>
320.701.00	020- 401	320. 401	20- 401	Fax Phone Book Download Failed	<a href="#">2-174</a>
320.710.00	020- 710	320. 710	20- 710	Image Overwrite Error	<a href="#">2-174</a>
320.711.00	020- 711	320. 711	20- 711	Image Overwrite Error	<a href="#">2-174</a>
<b>322 - Network Faults (<a href="#">page 2-184</a>)</b>					



**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
322.300.05				Image Complete not Received from Video	<a href="#">2-184</a>
322.300.10				Failed to transfer image due to decoding error	<a href="#">2-113</a>
322.300.16				When machine determines that it needs to do a reset in order to avoid an impending real time clock overflow	<a href="#">2-113</a>
322.301.05				Scan resources not available	<a href="#">2-113</a>
322.309.04				Consecutive no accepts received from a module exceeds threshold value (currently 20).	<a href="#">2-113</a>
322.310.04				Pages received from Extended Job Service out of Sequence	<a href="#">2-113</a>
322.314.04				Module Registration Error	<a href="#">2-113</a>
322.315.04				One or more e modules did not respond with completion message	<a href="#">2-113</a>
322.316.04				Job Requires Paper Tray that does not exist.	<a href="#">2-113</a>
322.317.04				Job requires finishing capability that does not exist	<a href="#">2-113</a>
322.318.04				Job requires an IOT capability that does not exist	<a href="#">2-113</a>
322.321.00	022- 321	322. 321	22- 321	SM Failed to remove Scan to file	<a href="#">2-113</a>
322.321.04				Proposal Response Time Out Error - RS422 Configuration mismatch	<a href="#">2-113</a>
322.330.01				List Jobs Request Timed out between UI CCS	<a href="#">2-113</a>
322.330.02				List Jobs Request Timed out between CCS and NCPrintService	<a href="#">2-113</a>
322.330.03				List Jobs Request Timed out between CCS and Scan To File Service	<a href="#">2-113</a>
322.330.04				List Jobs Request Timed out between CCS and Scan To Fax Service	<a href="#">2-113</a>
322.330.05				List Jobs Request Timed out between Queue Utility and DC Job Services	<a href="#">2-113</a>
322.330.06				NC Scan to Distribution Service not responding to List Jobs RPC Call	<a href="#">2-113</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Variables (UI Display)			Fault Description	Page
322.350.01				Software detects non-valid Xerox SOK 1	<a href="#">2-184</a>
322.350.02				Software detects non-valid Xerox SOK 2 or 3	<a href="#">2-184</a>
322.351.01				SOK 1 Write Failure	<a href="#">2-184</a>
322.351.02				SOK 2 Write Failure	<a href="#">2-184</a>
322.351.03				SOK 3 Write Failure	<a href="#">2-174</a>
322.352.00	022- 352	322. 352	22- 352	Serial Number Missing from Memory	<a href="#">2-184</a>
322.701.04				Module completion message received after IOT returned to Standby	<a href="#">2-113</a>
322.352.00	022- 352	322. 352	22- 352	Service Registry Bad data / Corrupted	<a href="#">2-113</a>
322.352.00	022- 352	322. 352	22- 352	Triple A gets no response from SRS	<a href="#">2-113</a>
322.750.04				Output Device Configuration Mismatch	<a href="#">2-113</a>
322.750.17				Accessory Card Configuration Mismatch	<a href="#">2-113</a>
322.751.04				Paper Tray Configuration Mismatch	<a href="#">2-113</a>
322.754.17				When the System detects the UI Configuration has changed during the Power On Sequence	<a href="#">2-113</a>
322.755.17				RDT Configuration Mismatch	<a href="#">2-113</a>
<b>362 - Scanner (<a href="#">page 2-188</a>)</b>					
362.362.00	062- 362	362. 362	62- 362	Image Overwrite Error	<a href="#">2-188</a>
362.310.00	062- 310	362. 310	62- 310	Scanner Communication Failure	<a href="#">2-188</a>
362.450.00	062- 450	362. 450	62- 450	Scanner Calibration Error	<a href="#">2-188</a>
362.451.00	062- 451	362. 451	62- 451	Scanner Calibration Error	<a href="#">2-188</a>
362.452.00	062- 452	362. 452	62- 452	Scanner Calibration Error	<a href="#">2-188</a>
362.453.00	062- 453	362. 453	62- 453	Scanner Calibration Error	<a href="#">2-188</a>
362.454.00	062- 454	362. 454	62- 454	Scanner Calibration Error	<a href="#">2-188</a>
362.455.00	062- 455	362. 455	62- 455	Scanner Calibration Error	<a href="#">2-188</a>
362.456.00	062- 456	362. 456	62- 456	Scanner Calibration Error	<a href="#">2-188</a>
362.457.00	062- 457	362. 457	62- 457	Scanner Calibration Error	<a href="#">2-188</a>
362.458.00	062- 458	362. 458	62- 458	Scanner Calibration Error	<a href="#">2-188</a>
362.459.00	062- 459	362. 459	62- 459	Scanner Calibration Error	<a href="#">2-188</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
362.460.00	062- 460	362. 460	62- 460	Scanner Calibration Error	<a href="#">2-188</a>
362.461.00	062- 461	362. 461	62- 461	Scanner Calibration Error	<a href="#">2-188</a>
362.462.00	062- 462	362. 462	62- 462	Scanner Calibration Error	<a href="#">2-188</a>
362.463.00	062- 463	362. 463	62- 463	Scanner Calibration Error	<a href="#">2-188</a>
362.464.00	062- 464	362. 464	62- 464	Scanner Calibration Error	<a href="#">2-188</a>
362.465.00	062- 465	362. 465	62- 465	Scanner Calibration Error	<a href="#">2-188</a>
362.466.00	062- 466	362. 466	62- 466	Scanner Calibration Error	<a href="#">2-188</a>
362.467.00	062- 467	362. 467	62- 467	Scanner Calibration Error	<a href="#">2-188</a>
362.468.00	062- 468	362. 468	62- 468	Scanner Calibration Error	<a href="#">2-188</a>
362.469.00	062- 469	362. 469	62- 469	IIT FPGA Errors	<a href="#">2-188</a>
362.470.00	062- 470	362. 470	62- 470	IIT FPGA Errors	<a href="#">2-188</a>
362.471.00	062- 471	362. 471	62- 471	IIT FPGA Errors	<a href="#">2-188</a>
362.472.00	062- 472	362. 472	62- 472	IIT FPGA Errors	<a href="#">2-188</a>
362.473.00	062- 473	362. 473	62- 473	Uart Rx Wrap Error	<a href="#">2-188</a>
362.474.00	062- 474	362. 474	62- 474	Scanner Stepper Error	<a href="#">2-188</a>
362.475.00	062- 475	362. 475	62- 475	Move Before Reset Error	<a href="#">2-188</a>
362.476.00	062- 476	362. 476	62- 476	Scanner Stepper Error	<a href="#">2-188</a>
362.477.00	062- 477	362. 477	62- 477	Scanner Stepper Error	<a href="#">2-188</a>
362.478.00	062- 478	362. 478	62- 478	Real Time Error	<a href="#">2-188</a>
362.479.00	062- 479	362. 479	62- 479	Page Synchronization Error	<a href="#">2-188</a>
362.480.00	062- 480	362. 480	62- 480	Initialize Time Out Error	<a href="#">2-188</a>
362.481.00	062- 481	362. 481	62- 481	DADF Client Time Out Error	<a href="#">2-188</a>
362.484.00	062- 484	362. 484	62- 484	Application Code Not present	<a href="#">2-188</a>
362.485.00	062- 485	362. 485	62- 485	Supply Error	<a href="#">2-188</a>
362.486.00	062- 486	362. 486	62- 486	Supply Error	<a href="#">2-188</a>
362.487.00	062- 487	362. 487	62- 487	System PLL Error	<a href="#">2-188</a>
<b>372 - Tray 2 (<a href="#">page 2-200</a>)</b>					
372.101.00	072- 101	372. 101	72- 101	Tray 2 Mis-Feed Jam	<a href="#">2-200</a>
372.215.00	072- 215	372. 215	72- 215	Tray 2 Raise Failure	<a href="#">2-200</a>
372.217.00	072- 217	372. 217	72- 217	Tray 2 Bump-up Failure	<a href="#">2-200</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Variables (UI Display)			Fault Description	Page
<b>373 - Tray 3 (page 2-203)</b>					
373.101.00	073- 101	373. 101	73- 101	Tray 3 Mis-Feed Jam	2-203
373.215.00	073- 215	373. 215	73- 215	Tray 3 Feeder Faults	2-203
373.217.00	073- 217	373. 217	73- 217	Tray 3 Feeder Faults	2-203
373.910.00	073- 910	373. 910	73- 910	Tray 3 Static Jam	2-203
373.952.00	073- 952	373. 952	73- 952	Tray 3 Feeder Faults	2-203
<b>374 - Tray 4 (page 2-208)</b>					
374.101.00	074- 101	374. 101	74- 101	Tray 4 Mis-Feed Jam	2-208
374.106.00	074- 106	374. 106	74- 106	Lower Tray Vertical Transport Jam	2-208
374.215.00	074- 215	374. 215	74- 215	Tray 4 Feeder Faults	2-208
374.217.00	074- 217	374. 217	74- 217	Tray 4 Feeder Faults	2-208
374.910.00	074- 910	374. 910	74- 910	Tray 4 Static Jam	2-208
374.952.00	074- 952	374. 952	74- 952	Tray 4 Feeder Faults	2-208
<b>375 - Tray 5 (page 2-214)</b>					
375.101.00	375- 952	375. 952	75- 952	Tray 5 Mis-Feed Jam	2-214
375.106.00	075- 106	375. 106	75- 106	Lower Tray Vertical Transport Jam	2-214
375.110.00	075- 110	375. 110	75- 110	Lower Tray Vertical Transport Jam	2-214
375.215.00	075- 215	375. 215	75- 215	Tray 5 Feeder Faults	2-214
375.217.00	075- 217	375. 217	75- 217	Tray 5 Feeder Faults	2-214
375.910.00	075- 910	375. 910	75- 910	Tray 5 Static Jam	2-214
375.952.00	075- 952	375. 952	75- 952	Tray 5 Feeder Faults	2-214
<b>383 - Duplex Portion of Media Path (page 2-220)</b>					
383.117.00	083- 117	383. 117	83- 117	Media Path 2nd Side Duplex Jams	2-220
383.118.00	083- 118	383. 118	83- 118	Media Path 2nd Side Duplex Jams	2-220
383.149.00	083- 149	383. 149	83- 149	Media Path Duplex Jams	2-220
383.151.00	083- 151	383. 151	83- 151	Media Path Duplex Jams	2-220
<b>388 - Preheater (page 2-222)</b>					
388.500.00	088- 500	388. 500	88- 500	Preheater Thermal Faults	2-222
388.501.00	088- 501	388. 501	88- 501	Preheater Thermal Faults	2-222

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
388.502.00	088- 502	388. 502	88- 502	Preheater Thermal Faults	<a href="#">2-222</a>
388.503.00	088- 503	388. 503	88- 503	Preheater Thermal Faults	<a href="#">2-222</a>
388.504.00	088- 504	388. 504	88- 504	Preheater Thermal Faults	<a href="#">2-222</a>
<b>389 - Media Path (<a href="#">page 2-224</a>)</b>					
389.102.00	089- 102	389. 102	89- 102	Media Path Sensor 8 LE Timeout	<a href="#">2-224</a>
389.103.00	089- 103	389. 103	89- 103	Media Path 2nd Side Duplex Jams	<a href="#">2-224</a>
389.104.00	089- 104	389. 104	89- 104	Media Path Sensor 8 MPT LE Timeout	<a href="#">2-224</a>
389.105.00	089- 105	389. 105	89- 105	Media Path Sensor 8 Duplex LE Timeout	<a href="#">2-224</a>
389.106.00	089- 106	389. 106	89- 106	Media Path Sensor 8 LE Timeout	<a href="#">2-224</a>
389.107.00	089- 107	389. 107	89- 107	Media Path Sensor 8 TE Timeout	<a href="#">2-224</a>
389.108.00	089- 108	389. 108	89- 108	Media Path Sensor 9 LE Timeout	<a href="#">2-224</a>
389.109.00	089- 109	389. 109	89- 109	MP Sensor 9 TE Timeout	<a href="#">2-224</a>
389.110.00	089- 110	389. 110	89- 110	Media Path Sheet Too Long	<a href="#">2-224</a>
389.111.00	089- 111	389. 111	89- 111	Media Path Sheet Too Short	<a href="#">2-224</a>
389.112.00	089- 112	389. 112	89- 112	Media Path Sensor 10 LE Timeout	<a href="#">2-224</a>
389.113.00	089- 113	389. 113	89- 113	MP Sensor 10 TE Timeout	<a href="#">2-224</a>
389.117.00	089- 117	389. 117	89- 117	Media Path Sheet Too Long (No Purge)	<a href="#">2-224</a>
389.118.00	089- 118	389. 118	89- 118	Media Path Sheet Too Short (No Purge)	<a href="#">2-224</a>
389.119.00	089- 119	389. 119	89- 119	Media Path MPT Reverse Shingle Detected	<a href="#">2-224</a>
389.120.00	089- 120	389. 120	89- 120	Media Path Sheet Too Late At Appr	<a href="#">2-224</a>
389.121.00	089- 121	389. 121	89- 121	Media Path Sensor 12 LE Timeout	<a href="#">2-224</a>
389.122.00	089- 122	389. 122	89- 122	Media Path Sensor 12 TE Timeout	<a href="#">2-224</a>
389.146.00	089- 146	389. 146	89- 146	Finisher Transport Jam	<a href="#">2-224</a>
389.147.00	089- 147	389. 147	89- 147	Media Path Sensor 14 LE Timeout	<a href="#">2-224</a>
389.148.00	089- 148	389. 148	89- 148	Media Path Sensor 14 TE Timeout	<a href="#">2-224</a>
389.149.00	089- 149	389. 149	89- 149	Media Path Sensor 16 LE Timeout	<a href="#">2-224</a>
389.150.00	089- 150	389. 150	89- 150	MP Sensor 16 TE Timeout	<a href="#">2-224</a>
389.570.00	089- 570	389. 570	89- 570	Media Drive Faults	<a href="#">2-224</a>
389.571.00	089- 571	389. 571	89- 571	Media Drive Faults	<a href="#">2-224</a>

## Fault Code and Fault Message Display (Continued)

Fault Code	Variables (UI Display)			Fault Description	Page
389.572.00	089- 149	389. 149	89- 149	Media Path Motor Fault	<a href="#">2-224</a>
<b>391 - Printhead Wiper, Head Tilt (<a href="#">page 2-248</a>)</b>					
391.500.00	091- 500	391. 500	91- 500	X-Axis Fault	<a href="#">2-248</a>
391.503.00	091- 503	391. 503	91- 503	PrintSeq Image Data Timeout	<a href="#">2-248</a>
391.523.00	091- 523	391. 523	91- 523	Left Jetstack Thermal Faults	<a href="#">2-248</a>
391.527.00	091- 527	391. 527	91- 527	Left Jetstack Thermal Faults	<a href="#">2-248</a>
391.531.00	091- 531	391. 531	91- 531	Left Jetstack Thermal Faults	<a href="#">2-248</a>
391.535.00	091- 535	391. 535	91- 535	Right Jetstack Thermal Faults	<a href="#">2-248</a>
391.539.00	091- 539	391. 539	91- 539	Right Jetstack Thermal Faults	<a href="#">2-248</a>
391.543.00	091- 543	391. 543	91- 543	Right Jetstack Thermal Faults	<a href="#">2-248</a>
391.547.00	091- 547	391. 547	91- 547	Printhead Reservoir Thermal Faults	<a href="#">2-248</a>
391.551.00	091- 551	391. 551	91- 551	Printhead Reservoir Thermal Faults	<a href="#">2-248</a>
391.555.00	091- 555	391. 555	91- 555	Printhead Reservoir Thermal Faults	<a href="#">2-248</a>
391.610.00	091- 610	391. 610	91- 610	Printhead Calibration Fault	<a href="#">2-248</a>
391.614.00	091- 614	391. 614	91- 614	Head Field Data NVRAM	<a href="#">2-248</a>
391.710.00	091- 710	391. 710	91- 710	Wiper or Media Drive Faults	<a href="#">2-248</a>
391.711.00	091- 711	391. 711	91- 711	Wiper or Media Drive Faults	<a href="#">2-248</a>
391.712.00	091- 712	391. 712	91- 712	Wiper or Media Drive Faults	<a href="#">2-248</a>
391.713.00	091- 713	391. 713	91- 713	Wiper or Media Drive Faults	<a href="#">2-248</a>
391.714.00	091- 714	391. 714	91- 714	Wiper or Media Drive Faults	<a href="#">2-248</a>
391.715.00	091- 715	391. 715	91- 715	Wiper or Media Drive Faults	<a href="#">2-248</a>
391.716.00	091- 716	391. 716	91- 716	Wiper or Media Drive Faults	<a href="#">2-248</a>
391.720.00	091- 720	391. 720	91- 720	Printhead Tilt Fault	<a href="#">2-248</a>
391.721.00	091- 721	391. 721	91- 721	Printhead Tilt Fault	<a href="#">2-248</a>
391.722.00	091- 722	391. 722	91- 722	Printhead Tilt Fault	<a href="#">2-248</a>
391.723.00	091- 723	391. 723	91- 723	Printhead Tilt Fault	<a href="#">2-248</a>
391.724.00	091- 724	391. 724	91- 724	Printhead Park Fault (soft error)	<a href="#">2-248</a>
391.725.00	091- 725	391. 725	91- 725	Process Drive Fault	<a href="#">2-248</a>
391.726.00	091- 726	391. 726	91- 726	Process Drive Fault	<a href="#">2-248</a>
391.850.00	091- 850	391. 850	91- 850	Left Jetstack Thermal Faults	<a href="#">2-248</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
391.854.00	091- 854	391. 854	91- 854	Right Jetstack Thermal Faults	<a href="#">2-248</a>
391.858.00	091- 858	391. 858	91- 858	Printhead Reservoir Thermal Faults	<a href="#">2-248</a>
391.862.00	091- 862	391. 862	91- 862	Left Jetstack Thermal Faults	<a href="#">2-248</a>
391.866.00	091- 866	391. 866	91- 866	Right Jetstack Thermal Faults	<a href="#">2-248</a>
391.870.00	091- 870	391. 870	91- 870	Printhead Reservoir Thermal Faults	<a href="#">2-248</a>
391.900.00	091- 900	391. 900	91- 900	Printhead NVRAM or PLD Fault	<a href="#">2-248</a>
391.903.00	091- 903	391. 903	91- 903	Printhead NVRAM or PLD Fault	<a href="#">2-248</a>
391.904.00	091- 904	391. 904	91- 904	Printhead NVRAM or PLD Fault	<a href="#">2-248</a>
<b>392 - Electronic (page 2-276)</b>					
392.500.00	092- 500	392. 500	92- 500	Driver Board Serial Link Down	<a href="#">2-276</a>
392.550.00	092- 550	392. 550	92- 550	Safety Timer Timeout Fault	<a href="#">2-276</a>
392.553.00	092- 553	392. 553	92- 553	Ink Loader or I/O Board Disconnected	<a href="#">2-276</a>
392.555.00	092- 555	392. 555	92- 555	System Timer Skipped Fault	<a href="#">2-276</a>
392.558.00	092- 558	392. 558	92- 558	Ecm PS Link Broken	<a href="#">2-276</a>
392.563.00	092- 563	392. 563	92- 563	PS Version Mismatch	<a href="#">2-276</a>
392.570.00	092- 570	392. 570	92- 570	Interrupt Storm Fault	<a href="#">2-276</a>
392.571.00	092- 571	392. 571	92- 571	Software Fault	<a href="#">2-276</a>
392.579.00	092- 579	392. 579	92- 579	CDI Submit Sheet Error	<a href="#">2-276</a>
392.587.00	092- 587	392. 587	92- 587	Wave Amp Fault	<a href="#">2-276</a>
392.588.00	092- 588	392. 588	92- 588	Electronic Faults	<a href="#">2-276</a>
392.589.00	092- 589	392. 589	92- 589	Electronic Faults	<a href="#">2-276</a>
392.590.00	092- 590	392. 590	92- 590	Electronic Faults	<a href="#">2-276</a>
392.591.00	092- 591	392. 591	92- 591	Electronic Faults	<a href="#">2-276</a>
392.592.00	092- 592	392. 592	92- 592	Electronic Faults	<a href="#">2-276</a>
392.593.00	092- 593	392. 593	92- 593	Electronic Faults	<a href="#">2-276</a>
392.594.00	092- 594	392. 594	92- 594	Electronic Faults	<a href="#">2-276</a>
392.595.00	092- 595	392. 595	92- 595	Electronic Faults	<a href="#">2-276</a>
392.596.00	392- 596	392. 596	92- 596	Electronic Faults	<a href="#">2-276</a>
392.597.00	092- 597	392. 597	92- 597	Electronic Faults	<a href="#">2-276</a>
392.601.00	092- 601	392. 601	92- 601	Electronic Faults	<a href="#">2-276</a>

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Fault Code	Variables (UI Display)			Fault Description	Page
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392.604.00	092- 604	392. 604	92- 604	Electronics Fan Faults	<a href="#">2-276</a>
392.605.00	092- 605	392. 605	92- 605	Electronics Fan Faults	<a href="#">2-276</a>
392.606.00	092- 606	392. 606	92- 606	Electronics Fan Faults	<a href="#">2-276</a>
392.607.00	092- 607	392. 607	92- 607	Wave Amp Faults	<a href="#">2-276</a>
392.608.00	092- 608	392. 608	92- 608	Wave Amp Faults	<a href="#">2-276</a>
392.609.00	092- 609	392. 609	92- 609	Wave Amp Faults	<a href="#">2-276</a>
392.990.00	092- 990	392. 990	92- 990	Ink Loader Disconnect	<a href="#">2-276</a>
392.991.00	092- 991	392. 991	92- 991	Inkloader Board Error	<a href="#">2-276</a>
<b>393 - Ink Delivery and Ink Thermals (<a href="#">page 2-295</a>)</b>					
393.402.00	093- 402	393. 402	93- 402	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.403.00	093- 403	393. 403	93- 403	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.404.00	093- 404	393. 404	93- 404	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.405.00	093- 405	393. 405	93- 405	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.406.00	093- 406	393. 406	93- 406	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.407.00	093- 407	393. 407	93- 407	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.408.00	093- 408	393. 408	93- 408	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.409.00	093- 409	393. 409	93- 409	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.410.00	093- 410	393. 410	93- 410	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.411.00	093- 411	393. 410	93- 410	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.412.00	093- 412	393. 412	93- 412	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.413.00	093- 413	393. 413	93- 413	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.414.00	093- 414	393. 414	93- 414	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.415.00	093- 415	393. 415	93- 415	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.416.00	093- 416	393. 416	93- 416	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.417.00	093- 417	393. 417	93- 417	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.418.00	093- 418	393. 418	93- 418	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.419.00	093- 419	393. 419	93- 419	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.420.00	093- 420	393. 420	93- 420	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>



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<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
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393.422.00	093- 422	393. 422	93- 422	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.423.00	093- 423	393. 423	93- 423	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.424.00	093- 424	393. 424	93- 424	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.425.00	093- 425	393. 425	93- 425	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.426.00	093- 426	393. 426	93- 426	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.427.00	093- 427	393. 427	93- 427	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.428.00	093- 428	393. 428	93- 428	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.429.00	093- 429	393. 429	93- 429	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.430.00	093- 430	393. 430	93- 430	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.431.00	093- 431	393. 431	93- 431	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.432.00	093- 432	393. 432	93- 432	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.433.00	093- 433	393. 433	93- 433	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.434.00	093- 434	393. 434	93- 434	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.435.00	093- 435	393. 435	93- 435	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.436.00	093- 436	393. 436	93- 436	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.437.00	093- 437	393. 437	93- 437	Incompatible/Invalid Ink Stick Fault	<a href="#">2-295</a>
393.439.00	093- 439	393. 439	93- 439	Ink Loader Yoke Faults	<a href="#">2-295</a>
393.441.00	093- 441	393. 441	93- 441	Inkload MCU Error	<a href="#">2-295</a>
393.442.00	093- 442	393. 442	93- 442	Inkload Yoke Sensor Error	<a href="#">2-295</a>
393.501.00	093- 501	393. 501	93- 501	Ink Loader Fault	<a href="#">2-295</a>
393.506.00	093- 506	393. 506	93- 506	Ink Loader Fault	<a href="#">2-295</a>
393.511.00	093- 511	393. 511	93- 511	Ink Loader Fault	<a href="#">2-295</a>
393.516.00	093- 516	393. 516	93- 516	Ink Loader Fault	<a href="#">2-295</a>
393.523.00	093- 523	393. 523	93- 523	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.524.00	093- 524	393. 524	93- 524	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.525.00	093- 525	393. 525	93- 525	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.526.00	093- 525	393. 525	93- 525	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.527.00	093- 527	393. 527	93- 527	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.528.00	093- 528	393. 528	93- 528	Ink Loader Thermal Fault	<a href="#">2-295</a>

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Fault Code	Variables (UI Display)			Fault Description	Page
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393.530.00	093- 530	393. 530	93- 530	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.531.00	093- 531	393. 531	93- 531	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.532.00	093- 532	393. 532	93- 532	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.533.00	093- 533	393. 533	93- 533	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.534.00	093- 534	393. 534	93- 534	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.581.00	093- 581	393. 581	93- 581	Printhead Level Sense Fault	<a href="#">2-295</a>
393.582.00	093- 582	393. 582	93- 582	Printhead Level Sense Fault	<a href="#">2-295</a>
393.583.00	093- 583	393. 583	93- 583	Printhead Level Sense Fault	<a href="#">2-295</a>
393.584.00	093- 584	393. 584	93- 584	Printhead Level Sense Fault	<a href="#">2-295</a>
393.597.00	093- 597	393. 597	93- 597	Printhead Level Sense Fault	<a href="#">2-295</a>
393.598.00	093- 598	393. 598	93- 598	Printhead Level Sense Fault	<a href="#">2-295</a>
393.599.00	093- 599	393. 599	93- 599	Printhead Level Sense Fault	<a href="#">2-295</a>
393.600.00	093- 600	393. 600	93- 600	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.601.00	093- 601	393. 601	93- 601	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.602.00	093- 602	393. 602	93- 602	Ink Loader Electrical Fault	<a href="#">2-295</a>
393.603.00	093- 603	393. 603	93- 603	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.604.00	093- 604	393. 604	93- 604	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.605.00	093- 605	393. 605	93- 605	Ink Loader Electrical Fault	<a href="#">2-295</a>
393.606.00	093- 606	393. 606	93- 606	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.607.00	093- 607	393. 607	93- 607	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.608.00	093- 608	393. 608	93- 608	Ink Loader Electrical Fault	<a href="#">2-295</a>
393.609.00	093- 609	393. 609	93- 609	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.610.00	093- 610	393. 610	93- 610	Ink Loader Thermal Fault	<a href="#">2-295</a>
393.611.00	093- 611	393. 611	93- 611	Ink Loader Electrical Fault	<a href="#">2-295</a>
393.800.00	093- 800	393. 800	93- 800	Printhead Level Sense Fault	<a href="#">2-295</a>
393.893.00	093- 893	393. 893	93- 893	Ink Loader Fault	<a href="#">2-295</a>
393.894.00	093- 894	393. 894	93- 894	Ink Loader Fault	<a href="#">2-295</a>
393.895.00	093- 895	393. 895	93- 895	Ink Loader Fault	<a href="#">2-295</a>
393.896.00	093- 896	393. 896	93- 896	Ink Loader Fault	<a href="#">2-295</a>

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<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
393.901.00	093- 901	393. 901	93- 901	Printhead NVRAM or PLD Fault	<a href="#">2-295</a>
393.962.00	093- 962	393. 962	93- 962	Incompatible/Invalid Ink Sticks	<a href="#">2-295</a>
393.963.00	093- 963	393. 963	93- 963	Incompatible/Invalid Ink Sticks	<a href="#">2-295</a>
393.964.00	093- 964	393. 964	93- 964	Incompatible/Invalid Ink Sticks	<a href="#">2-295</a>
393.965.00	093- 965	393. 965	93- 965	Incompatible/Invalid Ink Sticks	<a href="#">2-295</a>
393.966.00	093- 966	393. 966	93- 966	Unidentified Ink Sticks	<a href="#">2-295</a>
393.967.00	093- 967	393. 967	93- 967	Unidentified Ink Sticks	<a href="#">2-295</a>
393.968.00	093- 968	393. 968	93- 968	Unidentified Ink Sticks	<a href="#">2-295</a>
393.969.00	093- 969	393. 969	93- 969	Unidentified Ink Sticks	<a href="#">2-295</a>
393.982.00	093- 982	393. 982	93- 982	Ink Load Obstruction Fault	<a href="#">2-295</a>
393.983.00	093- 983	393. 983	93- 983	Ink Load Obstruction Fault	<a href="#">2-295</a>
393.984.00	093- 984	393. 984	93- 984	Ink Load Obstruction Fault	<a href="#">2-295</a>
393.985.00	093- 985	393. 985	93- 985	Ink Load Obstruction Fault	<a href="#">2-295</a>
393.992.00	093- 992	393. 992	93- 992	Black channel exceeded factory ink stick quota	<a href="#">2-295</a>
393.993.00	093- 993	393. 993	93- 993	Magenta channel exceeded factory ink stick quota	<a href="#">2-295</a>
393.994.00	093- 994	393. 994	93- 994	Ink Loader Fault	<a href="#">2-295</a>
393.995.00	093- 995	393. 995	93- 995	Ink Loader Fault	<a href="#">2-295</a>
393.996.00	093- 996	393. 996	93- 996	Ink Loader Fault	<a href="#">2-295</a>
393.997.00	093- 997	393. 997	93- 997	Ink Loader Fault	<a href="#">2-295</a>
393.998.00	093- 998	393. 998	93- 998	Cyan channel exceeded factory ink stick quota	<a href="#">2-295</a>
393.999.00	093- 999	393. 999	93- 999	Yellow channel exceeded factory ink stick quota	<a href="#">2-295</a>
<b>394 - Drum, Stripper, Drum Maintenance (<a href="#">page 2-320</a>)</b>					
394.000.00	094- 000	394. 000	94- 000	Trapped Ink Stick Faults	<a href="#">2-320</a>
394.001.00	094- 001	394. 001	94- 001	Trapped Ink Stick Faults	<a href="#">2-320</a>
394.002.00	094- 002	394. 002	94- 002	Trapped Ink Stick Faults	<a href="#">2-320</a>
394.003.00	094- 003	394. 003	94- 003	Trapped Ink Stick Faults	<a href="#">2-320</a>
394.004.00	094- 004	394. 004	94- 004	Factory Ink Stick Exceeded Quota Faults	<a href="#">2-320</a>

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Fault Code	Variables (UI Display)			Fault Description	Page
394.005.00	094- 005	394. 005	94- 005	Factory Ink Stick Exceeded Quota Faults	<a href="#">2-320</a>
394.006.00	094- 006	394. 006	94- 006	Factory Ink Stick Exceeded Quota Faults	<a href="#">2-320</a>
394.007.00	094- 007	394. 007	94- 007	Factory Ink Stick Exceeded Quota Faults	<a href="#">2-320</a>
394.510.00	094- 510	394. 510	94- 510	Y-Axis Fault	<a href="#">2-320</a>
394.511.00	094- 511	394. 511	94- 511	Y-Axis Fault	<a href="#">2-320</a>
394.512.00	094- 512	394. 512	94- 512	Y-Axis Fault	<a href="#">2-320</a>
394.513.00	094- 513	394. 513	94- 513	Y-Axis Fault	<a href="#">2-320</a>
394.524.00	094- 524	394. 524	94- 524	Y-Axis Fault	<a href="#">2-320</a>
394.526.00	094- 526	394. 526	94- 526	Y-Axis Fault	<a href="#">2-320</a>
394.536.00	094- 536	394. 536	94- 536	Drum Thermal Fault	<a href="#">2-320</a>
394.538.00	094- 538	394. 538	94- 538	Drum Thermal Fault	<a href="#">2-320</a>
394.539.00	094- 539	394. 539	94- 539	Drum Thermal Fault	<a href="#">2-320</a>
394.540.00	094- 540	394. 540	94- 540	Drum Thermal Fault	<a href="#">2-320</a>
394.541.00	094- 541	394. 541	94- 541	Drum Thermal Fault	<a href="#">2-320</a>
394.548.00	094- 548	394. 548	94- 548	Y-Axis Fault	<a href="#">2-320</a>
394.550.00	094- 550	394. 550	94- 550	Y-Axis Fault	<a href="#">2-320</a>
394.568.00	094- 568	394. 568	94- 568	DM Read Error	<a href="#">2-320</a>
394.570.00	094- 570	394. 570	94- 570	Drum Maintenance Fault	<a href="#">2-320</a>
394.573.00	094- 573	394. 573	94- 573	DMU Version Error	<a href="#">2-320</a>
394.596.00	094- 596	394. 596	94- 596	Y-Axis Thermal Slowdown Enabled	<a href="#">2-320</a>
394.597.00	094- 597	394. 597	94- 597	Y-Axis Thermal Slowdown Enabled (Envelopes)	<a href="#">2-320</a>
394.598.00	094- 598	394. 598	94- 598	Y-Axis Position Error Slowdown Enabled	<a href="#">2-320</a>
394.599.00	094- 599	394. 599	94- 599	Y-Axis Position Error Slowdown Enabled (Envelopes)	<a href="#">2-320</a>
394.626.00	094- 626	394. 626	94- 626	Drum Thermal Fault	<a href="#">2-320</a>
394.700.00	094- 700	394. 700	94- 700	Process Drive Fault	<a href="#">2-320</a>
394.701.00	094- 701	394. 701	94- 701	Process Drive Fault	<a href="#">2-320</a>
394.702.00	094- 702	394. 702	94- 702	Process Drive Fault	<a href="#">2-320</a>
394.703.00	094- 703	394. 703	94- 703	X-Axis Fault	<a href="#">2-320</a>
394.704.00	094- 704	394. 704	94- 704	Wiper or Media Drive Fault	<a href="#">2-320</a>

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Fault Code		Variables (UI Display)		Fault Description	Page
<b>399 - PEST (page 2-340)</b>					
399.000.00	099- 000	399. 000	99- 000	PEST- Test Started	2-340
399.001.00	099- 001	399. 001	99- 001	PEST - Generic Error	2-340
399.002.00	099- 002	399. 002	99- 002	PEST - Left Jetstack Disconnect	2-340
399.003.00	099- 003	399. 003	99- 003	PEST - Right Jetstack Disconnect	2-340
399.004.00	099- 004	399. 004	99- 004	PEST - Reservoir Disconnect	2-340
399.005.00	099- 005	399. 005	99- 005	PEST - Reservoir Disconnect	2-340
399.006.00	099- 006	399. 006	99- 006	PEST - Drum Heater Disconnect	2-340
399.008.00	099- 008	399. 007	99- 008	PEST - Preheat Heater Disconnect	2-340
399.009.00	099- 009	399. 008	99- 009	PEST - All Ink Melters are Disconnected	2-340
399.010.00	099- 010	399. 010	99- 010	PEST - All Ink Melters are Disconnected	2-340
399.011.00	099- 011	399. 011	99- 011	PEST - All Ink Melters are Disconnected	2-340
399.012.00	099- 012	399. 012	99- 012	PEST - All Ink Melters are Disconnected	2-340
399.013.00	099- 013	399. 013	99- 013	PEST - All Ink Melters are Disconnected	2-340
399.014.00	099- 014	399. 014	99- 014	PEST - Media Path Cooling Fan	2-340
399.015.00	099- 015	399. 015	99- 015	PEST - Drum Cooling Fan Disconnect	2-340
399.016.00	099- 016	399. 016	99- 016	PEST - All Three Clutches Failed	2-340
399.017.00	099- 017	399. 017	99- 017	PEST - Head Maintenance Clutch Disconnect	2-340
399.018.00	099- 018	399. 018	99- 018	PEST - Main Tray Deskew Clutch Disconnect	2-340
399.019.00	099- 019	399. 019	99- 019	PEST - Main Tray Pick Clutch Disconnect	2-340
399.020.00	099- 020	399. 020	99- 020	PEST - Multipurpose Tray Pick Solenoid Disconnect	2-340
399.021.00	099- 021	399. 021	99- 021	PEST - Strip Solenoid Disconnect	2-340
399.022.00	099- 022	399. 022	99- 022	PEST - Preheat Solenoid Disconnect	2-340
399.023.00	099- 023	399. 023	99- 023	PEST - Head Tilt Solenoid Disconnect	2-340
399.030.00	099- 030	399. 030	99- 030	PEST - X-Axis Motor Disconnect	2-340
399.031.00	099- 031	399. 031	99- 031	PEST - X-Axis Motor Disconnect	2-340
399.032.00	099- 032	399. 032	99- 032	PEST - X-Axis Motor Disconnect	2-340
399.033.00	099- 033	399. 033	99- 033	PEST - X-Axis Motor Disconnect	2-340

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Fault Code	Variables (UI Display)			Fault Description	Page
399.034.00	099- 034	399. 034	99- 034	PEST - X-Axis Motor Disconnect	<a href="#">2-340</a>
399.035.00	099- 035	399. 035	99- 035	PEST - Y-Axis Motor Disconnect	<a href="#">2-340</a>
399.036.00	099- 036	399. 036	99- 036	PEST - Y-Axis Motor Disconnect	<a href="#">2-340</a>
399.037.00	099- 037	399. 037	99- 037	PEST - Media Path Motor Disconnect	<a href="#">2-340</a>
399.038.00	099- 038	399. 038	99- 038	PEST - Media Path Motor Disconnect	<a href="#">2-340</a>
399.039.00	099- 039	399. 039	99- 039	PEST - Process Motor Disconnect	<a href="#">2-340</a>
399.040.00	099- 040	399. 040	99- 040	PEST - Process Motor Disconnect	<a href="#">2-340</a>
399.059.00	099- 059	399. 059	99- 059	PEST - VPP/ VSS Measurement Too Low	<a href="#">2-340</a>
399.060.00	099- 060	399. 060	99- 060	PEST - VPP/ VSS Measurement Too Low	<a href="#">2-340</a>
399.061.00	099- 061	399. 061	99- 061	PEST - The Wave Amp Shorted	<a href="#">2-340</a>
399.062.00	099- 062	399. 062	99- 062	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-340</a>
399.063.00	099- 063	399. 063	99- 063	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-340</a>
399.064.00	099- 064	399. 064	99- 064	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-340</a>
399.065.00	099- 065	399. 065	99- 065	PEST - Ink Loader Solenoid Gate Push/ Pull Disconnected	<a href="#">2-340</a>
399.066.00	099- 066	399. 066	99- 066	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-340</a>
399.067.00	099- 067	399. 067	99- 067	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-340</a>
399.068.00	099- 068	399. 068	99- 068	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-340</a>
399.069.00	099- 069	399. 069	99- 069	PEST - Ink Loader Solenoid Gate Push/Pull Disconnected	<a href="#">2-340</a>
399.070.00	099- 070	399. 070	99- 070	PEST - All Ink Loader Gates Failed	<a href="#">2-340</a>
399.071.00	099- 071	399. 071	99- 071	PEST - Power Dump Circuit Disconnected	<a href="#">2-340</a>
399.072.00	099- 072	399. 072	99- 072	PEST - Ink Loader Yoke Motor	<a href="#">2-340</a>
399.073.00	099- 073	399. 073	99- 073	PEST - Ink Loader Yoke Motor	<a href="#">2-340</a>
399.080.00	099- 080	399. 080	99- 080	PEST - Power Supply Fault	<a href="#">2-340</a>
399.081.00	099- 081	399. 081	99- 081	PEST - Power Supply Fault	<a href="#">2-340</a>
399.082.00	099- 082	399. 082	99- 082	PEST - Power Supply Fault	<a href="#">2-340</a>

**Fault Code and Fault Message Display (Continued)**

<b>Fault Code</b>	<b>Variables (UI Display)</b>			<b>Fault Description</b>	<b>Page</b>
399.083.00	099- 083	399. 083	99- 083	PEST - Power Supply Fault	<a href="#">2-340</a>
399.084.00	099- 084	399. 084	99- 084	PEST - Power Supply Fault	<a href="#">2-340</a>
399.085.00	099- 085	399. 085	99- 085	PEST - Power Supply Fault	<a href="#">2-340</a>
399.086.00	099- 086	399. 086	99- 086	PEST - Power Supply Fault	<a href="#">2-340</a>
399.087.00	099- 087	399. 087	99- 087	PEST - Power Supply Fault	<a href="#">2-340</a>
399.088.00	099- 088	399. 088	99- 088	PEST - Power Supply Fault	<a href="#">2-340</a>
399.089.00	099- 089	399. 089	99- 089	PEST - Power Supply Fault	<a href="#">2-340</a>
399.090.00	099- 090	399. 090	99- 090	PEST - Power Supply Fault	<a href="#">2-340</a>
399.091.00	099- 091	399. 091	99- 091	PEST - Power Supply Fault	<a href="#">2-340</a>
399.092.00	099- 092	399. 092	99- 092	PEST - Power Supply Fault	<a href="#">2-340</a>
399.093.00	099- 093	399. 093	99- 093	PEST - Power Supply Fault	<a href="#">2-340</a>
399.094.00	099- 094	399. 094	99- 094	PEST - Power Supply Fault	<a href="#">2-340</a>
399.095.00	099- 095	399. 095	99- 095	PEST - Power Supply Fault	<a href="#">2-340</a>
399.096.00	099- 096	399. 096	99- 096	PEST - Power Supply Fault	<a href="#">2-340</a>
399.097.00	099- 097	399. 097	99- 097	PEST - Power Supply Fault	<a href="#">2-340</a>
399.098.00	099- 098	399. 098	99- 098	PEST - Power Supply Fault	<a href="#">2-340</a>
399.099.00	099- 099	399. 099	99- 099	PEST - Power Supply Fault	<a href="#">2-340</a>
399.100.00	099- 100	399. 100	99- 100	PEST - Power Supply Fault	<a href="#">2-340</a>
399.101.00	099- 101	399. 101	99- 101	PEST - Power Supply Fault	<a href="#">2-340</a>
399.102.00	099- 102	399. 102	99- 102	PEST - Power Supply Fault	<a href="#">2-340</a>
399.103.00	099- 103	399. 103	99- 103	PEST - Power Supply Fault	<a href="#">2-340</a>
399.104.00	099- 104	399. 104	99- 104	PEST - Power Supply Fault	<a href="#">2-340</a>
399.105.00	099- 105	399. 105	99- 105	PEST - Power Supply Fault	<a href="#">2-340</a>