Xerox® B210
Service Manual

702P07530
July 2019
Initial Release

Xerox® B210 Service Manual

Service Documentation

Xerox® B210 Service Manual

702P07530

Initial Release

July 2019

Prepared by:

Technical Communications Solutions

Xerox Ltd

Waterside, Ground Floor

Uxbridge

UB8 1HS

United Kingdom

NOTICE

While every care has been taken in the preparation of this manual, no liability will be accepted by Xerox Europe arising out of any inaccuracies or omissions.

All service documentation is supplied to Xerox external customers for informational purposes only. Xerox service documentation is intended for use by certified, product trained service personnel only. Xerox does not warrant or represent that it will notify or provide to such customer any future change to this documentation. Customer performed service of equipment, or modules, components or parts of such equipment may affect whether Xerox is responsible to fix machine defects under the warranty offered by Xerox with respect to such equipment. You should consult the applicable warranty for its terms regarding customer or third-party provided service.

WARNING

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

DANGER: Cet équipement génère, utilise et peut émettre des fréquences radio, et, s'il n'est pas installé et utilisé selon les recommandations du manuel d'instructions, peut causer des interférences aux communications radio. Il a été testé et jugé conforme aux limites des systèmes de catégorie A, conformément à la partie 15 de l'alinéa J des règlements FCC, établis pour protéger contre de telles interférences pendant le fonctionnement en milieu commercial. Dans une zone résidentielle, il peut causer des interférences; dans ce cas, l'utilisateur devra corriger le problème à ses propres frais.

Introduction

About This Manual

Introduction

The Xerox® B210 Service Manual is part of the multinational documentation for the Xerox® B210 Printer. It is structured in standard Xerox service documentation format. This manual is the primary document used for diagnosing, repairing, maintaining, and troubleshooting these systems. The Service Manual is the controlling publication for a service call. Information about using this document is found in the Introduction section. To ensure understanding of this product, complete the Xerox Service Training Program for this particular printer.

Organization

The Xerox® B210 Printer Service Manual is organized and defined within the following sections:

Section 1 Service Call Procedures

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

Section 2 Status Indicator RAPs

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

Section 3 Image Quality Repair Analysis Procedures

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

Section 4 Repairs and Adjustments

This section contains the Adjustment and Repair procedures.

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

- When there is a personnel or machine safety issue.
- When removal or replacement cannot be determined from the exploded view of the Parts List.
- When there is a cleaning or a lubricating activity associated with the procedure.
- When the part requires an adjustment after replacement.
- When a special tool is required for removal or replacement.

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

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

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

Section 5 Parts List

This section consists of a series of illustrations and an associated parts listing. Any part that is spared or any part that must be removed to access a spared part is illustrated. Common hardware is shown as a letter callout.

Section 6 General Procedures and Information

This section contains general information, change tag information, and general procedures.

Section 7 Wiring Data

This section contains Block Schematic Diagrams (BSDs), Plug/Jack locations, Voltage Specifications, and I/O Module locations and information.

Component Names

Names of parts that appear in the procedures may not be exactly the same as the names that appear on the part or listed in the Parts List. For example: a part called the Registration Assembly may appear on the Parts List as Assembly, REGI.

How to Use this Manual

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

How to Differentiate Between Machine Variants

The machine configuration will be identified in this manual by the configuration identifier B210.

The B210 is Blue Angel certified with software configuration for up to 31 ppm capability. Refer to the User Guide, Parts List and Procedures for information specific to printer configuration.

When a procedure, parts list description or other reference is unique amongst different configurations of the machine, the appropriate configuration designator is indicated. Any artwork is also specific.

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

Warnings, Cautions and Notes

WARNING

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

A translated version of all warnings is in Translation of Warnings.

CAUTION

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

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

Service Safety Summary

General Guidelines

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

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

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

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

Electrical Safety

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

Operational Safety

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

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

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

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

Maintenance Safety

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

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.

Electrostatic Discharge (ESD) Field Service Kit

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

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

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

The instructions for using the ESD Field Service Kit can be found in GP 7, in the General Procedures section of the Service Documentation.

Product Safety Certification

This product is certified by various NRTLs/NCBs to the safety standards listed below:

UL60950-1/CSA22.2, No. 60950-1 (USA/Canada)

IEC60950-1 (CB Scheme)

Reference Symbology

Safety Symbols and Terminology

The following are examples of the terminology and symbols that are used in this documentation for an Electrostatic Device Caution, Laser Warning, and general Warnings, Cautions, or Notes.

WARNING

Improper operation may result in injury to a person.

CAUTION

Improper operation may result in machine damage.

Laser

Indicates that Laser safety precautions must be used.

Hot Surface

Indicates that a surface can be hot. Use caution when reaching in the machine to avoid touching the hot surface.

Electrical Current

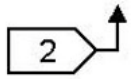
Danger label indicates where electrical currents travel when the machine is closed and operating. Use caution when reaching in the machine.

ESD

Certain components in this product are susceptible to damage from Electrostatic Discharge. Observe all ESD procedures to avoid component damage.

The following reference symbols are used throughout the Xerox® B210 Service Manual.

1. Flag
   - This symbol indicates a reference point into a circuit diagram from a RAP.



2. Note
   - This symbol is used to refer to notes that are found on the same page of a circuit diagram. A note is used whenever it is necessary to highlight an operating or maintenance procedure, a practice, condition, or statement.
   - Hints or other information that may assist the user.

3. Parts List
   - This symbol, refers to the Parts List exploded view page where the part can be found.
4. Adjustment
   - This symbol refers to an adjustment procedure in the Repair/Adjustments section.

5. Test Point, Test Hole, Test Stake

- This symbol is used to indicate that a test point, test hole, or test stake is available for accessing the signal line. The prefix indicates whether the access is a test point (TP), test hole (TH), or test stake (TS).

6. Commoning Point
   - This symbol is used to refer to a location in the machine wiring where more than two wires a connected together at a single point.

7. Arrow
   - This symbol points to the location to install, gain access to, or to release a component.

Voltage Specifications

AC and DC Voltages

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

Table 1 Voltage Measurement and Specifications

VOLTAGE	SPECIFICATION
110 to120 VAC 60Hz	100 to 132 VAC
Neutral to Ground VAC	0 VAC (+/- 5VAC)
+5 VDC	+5.05 VDC TO +5.25 VDC
+12 VDC	+11.4 VDC TO +12.6 VDC
-12 VDC	-11.4 VDC TO -12.6 VDC
+24 VDC	+22.8VDC TO +25.2 VDC
+36 VDC	+34.2 VDC TO +37.8 VDC

Logic Voltage Levels

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

Table 2 Logic Levels

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

DC Voltage Measurements in RAPs

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

There is +5 VDC from TP7 to TP68.

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

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

There is -15 VDC from TP21 to TP33.

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

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

Health and Safety Incident Reporting

I. Summary

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

II. Scope

Xerox Corporation and subsidiaries worldwide.

III. Objective

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

IV. Definitions

Incident:

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

V. Requirements

Initial Report:

1. Xerox organizations shall establish a process for individuals to report product incidents to Xerox Environment Health & Safety within 24 hours of becoming aware of the event.
2. The information to be provided at the time of reporting is contained in Appendix A (Health and Safety Incident Report involving a Xerox product).
3. The initial notification may be made by any of the following methods:
   - 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.
     - Fax Xerox EH&S at: 1-585-216-8817 [intelnet 8*219-68817].
   - 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 [intelnet 8*668 3434]
     - Electronic mail Xerox EH&S at: EH&S-Europe@xerox.com
     - Fax Xerox EH&S at: +44 (0) 1707 353914 [intelnet 8*668 3914]

   *Initial notification made by phone must be followed within 24 hours by a completed incident report and sent to the indicated electronic mail address or fax number.

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

Responsibilities for resolution:

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

Regulatory Specifications

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

United States (FCC Regulations)

The Xerox® B210 has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with these instructions, it may cause harmful interference to radio communications. Operation of Class A equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. There is no guarantee that interference will not occur in a particular installation.

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

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

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

Canada (Regulations)

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

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

European Union

CE Mark

Figure 1 CE Symbol

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:

February 26, 2014: Low Voltage Directive 2014/35/EU
February 26, 2014: Electromagnetic Compatibility Directive 2014/30/EU
April 16, 2014: Radio Equipment Directive 2014/53/EU

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

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

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

Translation of Warnings

WARNING

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

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

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

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

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

WARNING

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

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

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

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

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

WARNING

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

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

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

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

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

WARNING

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

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

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

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

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

WARNING

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

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

AVVERTENZA: N/A

VORSICHT: N/A

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

WARNING

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

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

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

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

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

WARNING

Do not touch the fuser while it is hot.

DANGER : Ne pas toucher au four pendant qu'il est encore chaud.

AVVERTENZA: Non toccare il fonditore quando è caldo.

VORSICHT: Fixierbereich erst berühren, wenn dieser abgekühlt ist.

AVISO: No toque el fusor mientras está caliente.

Tag Usage

Tags

If different parts or actions exist because of a modification, the Tag number will identify the appropriate part or action.

- Example 1). Tag xx: PWB. . .
- Example 2) PWB (Tag xx) . . .

Tag Symbols

This symbol is used to show a particular part or area of a figure that has been modified by the Tag number within the circle.

This symbol is used to show a particular part or area of a figure that has not been modified by the Tag number within the circle.

This symbol is used to show a Tag change has modified an area of the terminal.

This symbol is used to show a Tag change has not modified an area of the terminal.

Xerox® B210 Overview

Refer to the Xerox® B210 User Guide, Product Configuration Section 1 for detailed descriptions and illustrations of Control Panel functions, machine features and options.

Table 1 Product Configurations

Component	B210
Paper Tray - 250 Sheets	Standard
Manual Feed Slot - 1 sheet	Standard
Output Tray - 150 Sheets	Standard
AirPrint	Standard
Google Cloud Print	Standard
Network Printing	Standard
USB Device	Standard
USB Host	Not Applicable
Wi-Fi	Standard
Wi-Fi Direct™	Standard

1 Service Call Procedures

Call Flow

System/Subsystem Maintenance

Service Call Overview

This section provides an overview of actions a service technician should take when servicing a machine. Refer to the checklist below as a guide for steps to take when troubleshooting problems with the printer. Follow all precautions listed in the Safety Precautions section.

1. Identify the problem
   - Verify that the problem exists.
   - Record any error codes.
   - Print both customer and test prints.
   - Make note of any image quality problems in the test prints.
   - Observe if any unusual odors or noises coming from the printer.
   - Ensure that the AC input power is within specifications.
   - From the Diagnostics Mode, print an Error Information Report.
2. Inspect and clean the printer
   - Disconnect and inspect the power cord.
   - Inspect the interior of the printer. Remove any debris or contamination.
   - Inspect the printer for damaged wires, loose connections toner leakage or any other worn or damaged parts.
3. Find the cause of the problem.
   - Use troubleshooting procedures to find the root cause of the problem
   - Use diagnostics to check the printer and components
   - Use the BSDs and wiring diagrams to locate test points.
   - Take voltage readings as instructed in the troubleshooting procedure.
4. Correct the problem
   - Use the Parts List to locate part numbers.
   - Use the Repair Procedures to replace parts.
5. Final Actions
   - Test the printer to verify that the problem has been corrected and that there are no additional problems.

Safety Precautions

Ensure that all Cautions and Warnings in the service procedures are followed.

Failure to follow the following instructions could cause an electrical shock or fire hazard.

- Only use the Power Cord supplied with this product.
  Do not allow the Power Cord to become twisted, bent, or damaged.
- Do not allow liquids to spill on or into the machine.
- Do not allow paper clips, pins or other objects to fall into the machine.
- When replacing the SMPS PWB wait 5 minutes after unplugging the Power Cord before removing the PWB. This allows the PWB to discharge, preventing electrical shock.

Laser Safety

- The Laser system is designed so there is never human access to the Laser radiation during normal operation, user maintenance, or service maintenance.
- Do not bypass or disable any laser safety devices or attempt to service the Laser.

SCP 01 Introduction to Service Call Procedures

Purpose

Service Call Procedures (SCP) are the guide to performing a service call on the Xerox® B210.

The Operator has been trained in the use of the Customer Help Information located in the Xerox® B210 User Guide to help analyze the fault. The Problem Solving section directs the Operator in the following:

- Faults indicated by a Status Code or UI message
- Web Registration Module problem solving
- Image quality defect initial actions
- Image quality defect diagnosis
- Image quality fault code problem solving

If the Operator is unable to resolve the problem, they initiate a service call by contacting The Xerox Support Center at: www.xerox.com/support.

SCP 02 Initial Actions

The purpose of Initial Actions is to gather information and organize the service call. The customer is questioned, and the complaint is verified.

All anticipated service actions are classified as primary or secondary. Primary service actions are those actions that directly relate to the reason for the call.

SCP 03 Corrective Actions

Corrective Actions are the diagnostic and repair activities required to correct the problem that initiated the service call (primary actions), as well as any other problems or secondary actions identified in Initial Actions.

When performing maintenance actions, either scheduled or unscheduled, always consider the customer's print schedule and whether they are in a highly time-sensitive print run, or in a less time-sensitive print run. The customer's current mode of operation will determine the service actions on Unscheduled Maintenance (UM) calls. The objective of all service actions is to integrate the Xerox service process with the customer's printing process in a manner that maximizes customer equipment up-time and productivity during periods of time-sensitive print runs.

This is one of the tenets of Overall Equipment Effectiveness (OEE).

SCP 02 Initial Actions

Purpose

The purpose of the Initial Actions is to help organize the service call. Customer input, machine observations and print samples are all used to gather information about the condition of the system. Gather a list of symptoms, error codes, or other information concerning the problem that the customer may provide. This information may help identify and correct intermittent or unusual problems.

During each service call, perform all Primary Maintenance Activities, then decide if Secondary Maintenance Activities are needed.

- Primary Maintenance Activities are actions performed which relate to the customer's complaint.
- Secondary Maintenance Activities are any activities identified during the service call which are not related to the primary activity, but may lead to a future service call or otherwise negatively affect the customer's satisfaction.

  Before deciding to perform any secondary maintenance, first determine if the customer is in a time-sensitive print run. If so, perform only those actions required to ensure completion of the run, and defer all other actions-- including HFSI's that are not required to complete the print run. The objective of any service call during a time-sensitive print run is to return the system to production as soon as possible.

  Before performing any secondary maintenance actions, first inform the customer of what secondary actions are indicated and the system down time required. You may want to return on another, mutually agreeable time to perform the secondary maintenance activity/actions.

  Likewise, for any secondary maintenance actions deferred during a time-sensitive print run, inform the customer of what remaining secondary actions are indicated and the down time required. Coordinate with the customer's print schedule to determine a mutually-agreeable time frame to complete these activities.

Procedure

1. Discuss the problem with the customer.
2. If the problem is IQ related, run prints to verify that the problem is present.
3. Determine if there are any bulletins, or Eureka tips relating to the Customer's primary problem. Bulletins are on Eureka and are searchable with SearchLite.
4. When all information has been gathered, and all anticipated service actions have been classified as primary or secondary, proceed to SCP 03 Corrective Actions.

SCP 03 Corrective Actions

Purpose

The Corrective Actions procedure will direct you to the appropriate section of the service manual to diagnose and repair the primary problem, and provides you with the information required to identify any due HFSI items.

Procedure

1. Review the Customer Log Book, as well as the Service Log Book, to determine if any previously performed activities could be causing the problem.
2. Using the Customer Log Book and the Service Log Book, review the HFSI's to identify any due HFSI's. Clean/replace **only** components that are due and you think may be contributing to the problem.

System Fault Analysis

1. If the problem is a fault code, determine if the fault code is a Printer fault code or a DFE fault code.
   a. If the problem is a Printer fault code:
      - Check for associated fault codes that have the same or nearly the same time-stamp as the primary fault code
      - Troubleshoot fault codes with the lowest chain number first
2. If the problem is IQ related, refer to Section 3 Image Quality Entry RAP.
3. When the primary problem is resolved, proceed to Final Actions.

SCP 04 Final Actions

Purpose

Final Actions verify total operation of the machine, ensures that the HSFI's are completed, and provides a Machine Site Checklist to complete the call.

Procedure

1. Print a Sample Job and verify with the operator the total operation of the machine. If any problems are identified, return to SCP 03 Corrective Actions.
2. Perform SCP Call Closeout in Diagnostics.
3. Complete the Machine Site Checklist:
   - Check the customer consumables.
   - Service tools are properly stored and secured.
   - Verify the access to the circuit breakers is clear.
   - Check that all the doors and panels are in place and interlock cheaters are removed and secured.
   - Verify that all mandatory retrofits have been installed. If required, set a time with the customer to install any mandatory retrofits.

HFSI's

Customer and Service HFSI's

As with other CSE actions, these actions should be performed according to customer run requirements. Some actions may be deferred to a Xerox Initiated activity, taking into consideration any risks with deferring those actions.

To track HFSI items, a tracking sheet is provided. The tracking sheets are located in a pocket inside the front cover of the:

- Printer Service Log Book (CSE) - tracking sheet **Service Maintenance Intervals**.
- Customer Maintenance Log Book (operator) - tracking sheet **Service Maintenance Intervals**.

If necessary, and if the customer agrees, clean/replace any secondary HFSI's that are due or may cause a return service call.

Be sure to continually update and review the Printer Service Log and Customer Maintenance Log for all maintenance actions, to avoid any unnecessary actions that increase customer equipment down times, service time, and costs.

Table 1 Customer/Service HFSI's

HSFI Item	Action	Customer	Service	Reference	Interval	Notes
Toner Cartridge	Replace	X		N/A	1,500 standard / 3,000 high yield (approx. impressions)	
Drum Cartridge (OPC)	Replace	X		N/A	10,000	
Fuser	Replace		X		100,000	
Transfer Roller	Replace		X	REP 4.4	100,000	
Forward Roller	Replace		X	REP 4.14	50,000	
Retard Roller	Replace		X	REP 6.1	50,000	
Pick-up Roller	Replace		X	REP 4.14	50,000	

2 Status Indicator RAPs

01-150 Front Door Open RAP

BSD-ON:BSD 1

The front cover is open or the cover open switch is defective.

Initial Actions

Ensure that the front cover is completely closed.

Procedure

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. The machine could activate and cause serious personal injury when the power is on or electrical power is supplied.

DANGER: Ne pas effectuer de dépannage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine: celle-ci pourrait démarrer et causer de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con la macchina accesa o con l'alimentazione elettrica inserita. La macchina potrebbe avviarsi all'improvviso e causare gravi ferite.

VORSICHT: Es dürfen keine Reparaturarbeiten durchgeführt werden, solange das Gerät eingeschalten oder mit der Stromquelle verbunden ist. Das Gerät kann u.U in den Aktiv-Zustand übergehen und somit erhebliche körperliche Schäden verursachen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. La máquina podría activarse y ocasionar daños personales graves.

Check the Front Cover Open Switch connection to the Main PWB. **The connection is good.**

Y N

- Verify there is no contamination present.
- Check for an open or short circuit
- Install a new LVPS, PL 4.1 Item 3, HVPS, PL 4.1 Item 2.

Check the connection between the Main PWB and the HVPS. **The connection is secure.**

Y N

- Verify there is no contamination present.
- Check for broken or defective wires or cables.
- Secure the connection between the Main PWB and the HVPS.

Install a new HVPS PWB, PL 4.1 Item 2.

02-100, 02-200 USB Error RAP

BSD-ON:BSD 1

02-100 Invalid/Unknown USB device.

02-200 Check USB memory.

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. The machine could activate and cause serious personal injury when the power is on or electrical power is supplied.

DANGER: Ne pas effectuer de dépannage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine: celle-ci pourrait démarrer et causer de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con la macchina accesa o con l'alimentazione elettrica inserita. La macchina potrebbe avviarsi all'improvviso e causare gravi ferite.

VORSICHT: Es dürfen keine Reparaturarbeiten durchgeführt werden, solange das Gerät eingeschalten oder mit der Stromquelle verbunden ist. Das Gerät kann u.U in den Aktiv-Zustand übergehen und somit erhebliche körperliche Schäden verursachen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. La máquina podría activarse y ocasionar daños personales graves.

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine.
2. Ensure that the customer is using a valid USB device with sufficient free file space.
3. Check the wiring between the USB host and the PWB Main, CN1.
4. If the fault persists, install a new Main PWB, PL 1.1 Item 7.

03-410 Paper Mismatch at Tray 1 RAP

BSD-ON:BSD 2

The size setting for the Paper Tray does not match the paper size loaded in the tray.

Initial Actions

- Check the media size settings for the tray from the Control Panel.
- Adjust the Paper Tray Guides to match the size of the paper that is loaded into the tray.
- Place the correct size paper into the tray for the tray size setting.

Procedure

1. Switch off the machine, then switch On the power.
2. If the fault persists, install a new Main PWB, PL 1.1 Item 7.

03-450 Paper Mismatch at Manual Feed Slot

BSD-ON:BSD 1

The size setting for the Manual Feed Slot does not match the paper size loaded.

Initial Actions

- Using Easy Printer Manager, Device Settings, check the media size settings for the tray.
- Adjust the Paper Tray Guides to match the size of the paper that is loaded into the tray.
- Place the correct size paper into the tray for the tray size setting.

Procedure

1. Switch off the machine, then switch On the power.
2. If the fault persists, install a new Main PWB, PL 1.1 Item 7.

03-900 Main PWB Motor Control Chip RAP

BSD-ON:BSD 1

The Motor Control Chip on the Main PWB is not functioning normally.

Procedure

1. Switch off, then switch on the machine.
2. If problem continues, Install a new Main PWB, PL 1.1 Item 7.

04-500 Main Drive (BLDC) Motor Start RAP

BSD-ON:BSD 1

The Main Drive (BLDC) Motor did not start within the specified time after the ready signal was sent.

Initial Actions

- Switch off the machine, then switch On the power.

Procedure

Remove the Right Cover REP 2.2, then check the motor connector on the Main PWB. **The connector on the Main PWB is securely connected.**

Y N

- Verify there is no contamination present.
- Check for broken and defective wires or cables.
- Securely reconnect the motor connector.

Manually rotate the Main Drive Unit. **The Main Drive Motor rotates freely.**

Y N

Install a new Main Drive Unit, REP 4.17.

The Main PWB is defective.

- Install a new Main PWB, PL 1.1 Item 7.

If the problem persists, Install a new Main PWB, PL 1.1 Item 7.

06-100 / 200 Laser Module (LSU) Motor RAP

BSD-ON:BSD 1

The machine has detected that the Laser Module Drive Motor is not working correctly.

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. The machine could activate and cause serious personal injury when the power is on or electrical power is supplied.

DANGER: Ne pas effectuer de dépannage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine: celle-ci pourrait démarrer et causer de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con la macchina accesa o con l'alimentazione elettrica inserita. La macchina potrebbe avviarsi all'improvviso e causare gravi ferite.

VORSICHT: Es dürfen keine Reparaturarbeiten durchgeführt werden, solange das Gerät eingeschalten oder mit der Stromquelle verbunden ist. Das Gerät kann u.U in den Aktiv-Zustand übergehen und somit erhebliche körperliche Schäden verursachen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. La máquina podría activarse y ocasionar daños personales graves.

WARNING

Use eye protection when performing the following procedure. Failure to wear eye protection could result in serious personal injury.

DANGER: Porter des lunettes de sécurité pendant la procédure suivante. À défaut, de graves blessures peuvent se produire.

AVVERTENZA: Indossare occhiali di protezione durante la seguente procedura. In caso contrario, si possono provocare gravi ferite.

VORSICHT: Folgende Verfahren dürfen nicht ohne Schutzbrille angewandt werden. Die Nichteinhaltung dieser Regel kann zu ernsthaften körperlichen Verletzungen führen.

AVISO: Use gafas de protección para realizar el procedimiento siguiente. No proteger los ojos puede ocasionar daños personales graves.

Procedure

Check the Main Wire Harness and connectors on the Laser Module. **The connections are secure.**

Y N

- Verify there are no broken or defective wires and that no contamination is present
- Disconnect and securely reconnect the harness.

Check the harness for a short circuit or open circuit. **The harness is OK.**

Y N

- Verify there are no broken or defective wires and that no contamination is present
- Install a new Flat Cable, PL 4.1 Item 1.

Install a new LSU, PL 4.1 Item 22.
Go to SCP 04 Final Actions.

07-110 Paper Tray 1 Empty RAP

The Tray Empty Sensor failed to detect paper in the tray

BSD-Reference: BSD 1

Initial Actions

Ensure that paper is loaded in the tray. Clear any jammed sheets. Refer to Section 7: Troubleshooting in the Xerox® B210 User Guide for detailed instructions on clearing paper jams.

Procedure

Check the Sensor Actuator, PL 4.5 Item 5. **The actuator moves freely and is undamaged.**

Y N

Clear any debris obstructing the actuator path.

Check for 3.3 VDC at the Exit Sensor **Voltage is present at the Exit Sensor.**

Y N

Check for 3.3 VDC at the Main PWB. **Voltage is present at the Main PWB.**

Y N

Verify all voltages are present between the HVPS PWB and the Main PWB. **The voltages between the HVPS PWB and the Main PWB are present.**

Y N

- Install a new HVPS PWB, PL 4.1 Item 2.
- Install a new Main PWB, PL 1.1 Item 7.

Install a new Exit Sensor, PL 4.5 Item 3.

Install a new Exit Sensor, PL 4.5 Item 3.

Install a new Exit Sensor, PL 4.5 Item 3.
If the problem is intermittent, check the circuit of the Exit Sensor.

07-130 Paper Jam in Tray 1 RAP

BSD-ON:BSD 1

A paper jam has occurred in Tray 1.

Initial Actions

- Remove jammed paper from Tray 1 area. Refer to Section 7: Troubleshooting, in the Xerox® B210 User Guide for detailed instructions on clearing paper jams.
- Clear the paper path of any debris or obstructions.
- Ensure the loaded paper is within machine specifications. Refer to Section 6 General Procedures for product specifications.

Procedure

Remove Tray 1 and ensure that guides are set correctly. **The paper is loaded correctly in the tray.**

Y N

Align the paper in Tray 1 then reinsert the tray.

Check the position of the jammed sheet. **The lead edge reached the Retard Roll.**

Y N

Check for 3.3 VDC on the Feed Sensor PWB. **The voltage is present at the connector on the Feed Sensor PWB.**

Y N

Check for 3.3 VDC on the Main PWB. **The voltage is present on the Main PWB.**

Y N

Verify all voltages are present between the HVPS PWS and the Main PWB. **The voltages between the HVPS PWB and the Main PWB are present.**

Y N

- Install a new HVPS PWB, PL 4.1 Item 2.
- Install a new Main PWB, PL 1.1 Item 7.

Install a new Feed Sensor PWB, PL 4.4 Item 20.

Install a new Feed Sensor PWB, PL 4.4 Item 20.

Install a new Feed Sensor PWB, PL 4.4 Item 20. **The clutch engages.**

Y N

Check for 24 VDC on the Paper Feed PWB. **The voltage is present at the connector on the Paper Feed PWB.**

Y N

Check all voltages are present between the HVPS PWB and the Main PWB. **The voltages between the HVPS PWB and the Main PWB are present**

Y N

- Install a new HVPS PWB, PL 4.1 Item 2.
- Install a new Main PWB, PL 1.1 Item 7.

Install a new Feed Sensor PWB, PL 4.4 Item 20.

A B C

Install a new Feed Clutch, PL 4.1 Item 5.

Perform SCP Final Actions.

Remove any jammed paper. Check the following for wear or damage and install new components as required:

- Paper Feed Roll Assembly, PL 4.5 Item 11.
- Paper Drive Roll, PL 4.5 Item 9.

07-500 Manual Feed Slot Paper Empty RAP

BSD-ON:BSD 1

The Registration Sensor failed to detect paper in the Manual Feed Slot.

Initial Actions

Ensure that paper is loaded in the tray. Clear any jammed sheets. Refer to Section 7: Troubleshooting, in the Xerox® B210 User Guide for detailed instructions on clearing paper jams.

Procedure

Check the Registration Sensor actuator. **The actuator moves freely and is undamaged.**

Y N

- Verify no contamination is present.
- Install a new Registration Sensor Actuator, PL 4.4 Item 19.

The sensor signal changes.

Y N

Check for 3.3 VDC on the Main PWB. **The voltage is present on the Main PWB.**

Y N

- Install a new HVPS PWB, PL 4.1 Item 2.
- Install a new Main PWB, PL 1.1 Item 7.

Install a new Feed Sensor PWB, PL 4.4 Item 20.

Perform SCP 4 Final Actions.

07-530 Paper Feed Fault - Manual Feed Slot RAP

BSD-ON:BSD 1

The lead edge was not detected by the Paper Feed Sensor.

Initial Actions

Clear any jammed sheets. Refer to Section 7: Troubleshooting, in the Xerox® B210 User Guide for detailed instructions on clearing paper jams.

Procedure

Check the position of the jammed sheet. **The lead edge reached the Retard Roll.**

Y N

- Check for an open or short circuit.
- Install a new Feed Sensor, PL 4.4 Item 20.

Check the feed again. **The clutch engages.**

Y N

- Check for an open or short circuit.
- Install a new Feed Clutch, PL 4.1 Item 5.

Perform SCP 4 Final Actions.

Check the Paper Feed actuator. **The actuator moves freely and is undamaged.**

Y N

Install a new Feed Sensor Actuator, PL 4.4 Item 18.

Inspect the Feed Sensor for damage. **The sensor is OK.**

Y N

- Check for an open or short circuit.
- Install a new Feed Sensor PWB, PL 4.4 Item 20.

Check the circuit of the Feed Sensor PWB.

08-100 Paper Feed Fault - Tray 1 RAP

BSD-ON:BSD 1

The lead edge was not detected by the Feed Sensor.

Initial Actions

Clear any jammed sheets. Refer to Section 7: Troubleshooting, in the Xerox® B210 User Guide for detailed instructions on clearing paper jams.

Procedure

Check the Feed Sensor Actuator for damage or binding. **The Actuator moves freely.**

Y N

Install a new Feed Sensor Actuator, PL 4.4 Item 18.

Check the position of the jammed sheet. **The lead edge reached the Retard Roll.**

Y N

- Check the circuit between the Feed clutch and the Main PWB for an open or short circuit.
- Install a new Feed Clutch, PL 4.1 Item 5.

Check the Feed Sensor Actuator. **The actuator moves freely.**

Y N

Install a new Feed Sensor Actuator, PL 4.4 Item 18.

Check the new Feed Sensor. **The signal changes.**

Y N

- Verify there is no contamination or damage on any connectors from the Feed Sensor PWB to the HVPS PWB. Repair as necessary.
- Install a new Feed Sensor PWB, PL 4.4 Item 20.

Perform SCP 4 Final Actions.

If the problem is intermittent check the cables for binding.

08-500 Paper Jam in Exit Area RAP

BSD-ON:BSD 1

The machine has detected a paper jam in the Exit Area.

Initial Actions

Open the Rear Cover and remove jammed sheets from exit area. Refer to Section 7: Troubleshooting, in the Xerox® B210 User Guide for detailed instructions on clearing paper jams.

Check the Paper Guides for proper position.

Check the Duplex Gate and Spring for damage. Ensure that the gate is seated correctly and moves freely without binding.

Procedure

Check for obstruction to unblock and clear the Exit Sensor. **The Exit Sensor is OK.**

Y N

- Verify there is no contamination present.
- Check for an open or short circuit.
- Install a new Exit Sensor, PL 4.5 Item 3.

Check for obstruction to unblock and clear the Registration Sensor. **The signal changes.**

Y N

- Verify there is no contamination present.
- Check for an open or short circuit.
- Install a new Feed Sensor PWB, PL 4.4 Item 20.

Inspect the Exit Roll for wear or damage. If the Exit Roll is damaged or shows excessive wear, install a new Exit Roll, PL 4.3 Item 5.

08-600 Paper Jam in Duplex Area RAP

The machine has detected a paper jam in the Duplex Area.

BSD-Reference: 10.2 Print Exit

Initial Actions

Remove jammed sheets from duplex area. Refer to Section 7: Troubleshooting, in the Xerox® B210 User Guide for detailed instructions on clearing paper jams.

Ensure that the paper guide and machine settings are correct for the paper that is loaded in the tray.

Procedure

Check the Sensor Actuator, PL 4.5 Item 5. **The actuator moves freely.**

Y N

Remove all debris that may be causing trouble at the Sensor Actuator.

Check for obstruction to unblock and clear the Exit Sensor. **The sensor is OK.**

Y N

- Verify the sensor connector is firmly seated
- Verify there is no contamination present.
- Check for an open or short circuit.
- Install a new Exit Sensor, PL 4.5 Item 3.

Check the following parts for wear or damage:

- Duplex Paper Guide, PL 4.2 Item 6.
- Duplex Upper Guide, PL 4.2 Item 5.
- Spring, PL 4.2 Item 4.
- Roller Bushing, PL 4.2 Item 9.
- Duplex Gate, PL 2.1 Item 7.

  NOTE: *Verify the Duplex Gate is seated correctly and moves freely without binding.*

- Exit Paper Guide, PL 2.1 Item 6.
- Install new components as required:
  - Duplex Assembly, PL 4.2 Item 11.
  - Rear Cover Assembly, PL 2.1 Item 3.

09-100 Toner Cartridge Near End of Life RAP

The Toner Cartridge life is less than 10%.

Procedure

1. Check the remaining life of the Toner Cartridge by using one of the methods listed below:
   - Print a Supplies Information Report, GP 2.
   - Open Easy Printer Manager, check Toner Life.
   - Open the CWIS application. Select; [**Status, Supplies, Print Cartridge**].

     NOTE: *The workstation and printer machine must be networked to use the CWIS application.*
2. Check the remaining life of the Toner Cartridge.
3. If the Toner Cartridge has reached end of life, Switch off the machine and Install a new Toner Cartridge.

09-200 Toner Cartridge Empty RAP

The Toner Cartridge has reached end of life.

Procedure

1. Check the remaining life of the Toner Cartridge by using one of the methods listed below:
   - Print a Supplies Information Report, GP 2.
   - Open Easy Printer Manager, check Toner Life.
   - Open the CWIS application. Select; [**Status, Supplies, Print Cartridge**].

     NOTE: *The workstation and printer machine must be networked to use the CWIS application.*
2. Check the remaining life of the Toner Cartridge.
3. If the Toner Cartridge has reached end of life, Switch off the machine and Install a new Toner Cartridge.

09-300 Imaging Unit Near End of Life RAP

The Imaging Unit life is less than 10%.

Procedure

1. Check the remaining life of the Imaging Unit by using one of the methods listed below:
   - Print a Supplies Information Report, GP 2.
   - Open Easy Printer Manager, select [**Machine Settings,**]
   - Open the CWIS application. Select; [**Status, Supplies, Black Imaging Unit**].

     NOTE: *The workstation and printer machine must be networked to use the CWIS application.*
2. Check the remaining life of the Imaging Unit.
3. If the Imaging Unit has reached end of life, Switch off the machine and Install a new Imaging Unit.

09-400 Imaging Unit End of Life RAP

The Imaging Unit has reached end of life.

Procedure

1. Check the remaining life of the Imaging Unit by using one of the methods listed below:
   - Print a Supplies Information Report, GP 2.
   - Open Easy Printer Manager, select [**Machine Status**].
   - Open the CWIS application. Select; [**Status, Supplies, Black Imaging Unit**].

     NOTE: *The workstation and printer machine must be networked to use the CWIS application.*
2. Check the remaining life of the Imaging Unit.
3. If the Imaging Unit has reached end of life, Switch off the machine and Install a new Imaging Unit.

09-500 Toner Cartridge Not Installed RAP

BSD-ON:BSD 1

The Toner Cartridge has not been installed or machine software is unable to detect the Toner Cartridge.

Initial Actions

Ensure that the Toner Cartridge has been installed and the cover is fully closed and latched.

Procedure

1. Switch off the machine.
2. Remove the Toner Cartridge. Rotate the cartridge five to six completions to distribute the toner evenly.
3. Check the CRUM contact area for contamination and clean if necessary.
4. Reinstall the Toner Cartridge.
5. Check the connections on the HVPS for contamination. Clean as necessary.
6. If the fault persists, install a new Toner Cartridge.

09-800 Incompatible Toner Cartridge RAP

The Toner Cartridge is not compatible with the printer.

Procedure

1. Verify the Toner Cartridge is a Genuine Xerox® Toner Cartridge.
2. Print a Supplies Information Report, GP 2.
3. Check the Toner Cartridge information. Install a new Toner Cartridge if is not a genuine Xerox® cartridge.

09-600, 09-900 Imaging Unit RAP

BSD-ON:BSD 1

The Imaging Unit has not been installed or machine software is unable to detect the Imaging Unit.

09-600 Imaging Unit Not Installed.

09-900 Imaging Unit Invalid

Initial Actions

- Ensure that a genuine Xerox Imaging Unit has been installed.
- Switch off, then switch on the machine.

Procedure

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. The machine could activate and cause serious personal injury when the power is on or electrical power is supplied.

DANGER: Ne pas effectuer de dépannage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine: celle-ci pourrait démarrer et causer de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con la macchina accesa o con l'alimentazione elettrica inserita. La macchina potrebbe avviarsi all'improvviso e causare gravi ferite.

VORSICHT: Es dürfen keine Reparaturarbeiten durchgeführt werden, solange das Gerät eingeschalten oder mit der Stromquelle verbunden ist. Das Gerät kann u.U in den Aktiv-Zustand übergehen und somit erhebliche körperliche Schäden verursachen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. La máquina podría activarse y ocasionar daños personales graves.

1. Switch off the machine.
2. Remove the Imaging Unit.
3. Check the CRUM contact area for contamination and clean if necessary.
4. Reinstall the Imaging Unit.
5. Check the contacts on the HVPS.
6. If the fault persists, install a new Imaging Unit.

10-100 Fuser Temperature (Open) RAP

BSD-ON:BSD 1

The temperature of the Fuser is outside of the normal operating range of 383°F ± 5°F (195°C ± 5°C.)

Initial Actions

Switch off, then switch on the machine.

Procedure

WARNING

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

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

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

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

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

Switch off the machine, then verify the Fuser is fully seated, PL 5.1 Item 26. **The Fuser connections are OK.**

Y N

- Check the Fuser connections for contamination and clean as required.
- Firmly reconnect the Fuser Module. Switch the power on,

Check for +3.3 VDC to the Thermistor on Main PWB. **The voltage is present.**

Y N

- Check the wire harness for open or short circuits.
- Install a new Main PWB, PL 1.1 Item 7.

Check the voltage to the Over Heat Thermostat. **The voltage is present.**

Y N

- Check for AC line voltage to the LVPS PWB, PL 4.4 Item 3.
- Check the Over Heat thermostat for contamination.
- Check the wire harness from the LVPS PWB for open or short circuits.
- Install a new LVPS PWB, PL 4.4 Item 3.

- Check the circuits and connectors for the Fuser Module.
- Check the Heat Lamp for an open circuit.
- Install a new Fuser Module, PL 5.1 Item 26.

10-200/ 300 Fuser Under/ Over Temperature RAP

BSD-ON:BSD 1

The temperature of the Fuser is outside of the normal operating range of 383°F ± 5°F (195°C ± 5°C.)

Initial Actions

Switch off the machine. Remove and reinstall the Fuser Assembly. Switch On the power.

Procedure

WARNING

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

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

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

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

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

1. If problem is intermittent, check the circuit of the Fuser Module for one of the following:
   - All connectors are securely connected and no contamination is present.
   - Short circuit or damaged wire, repair as necessary.
2. Install a new Fuser Module, PL 5.1 Item 26.

17-100 IP Conflict Error RAP

The IP address conflicts with that of another system causing a machine communication error.

Procedure

Use Xerox Easy Print Manger to obtain a new IP address.

From the menu, select: [**Advanced Settings, Machine Settings, Network Settings, Assign IP address**].

17-110, 17-130, 17-140, 17-150, 17-200, 17-510, 17-600, 17-610 Network Controller RAP

These faults display when the device encounters network controller problems. The faults are listed in code order together with recommended actions. Please note that the service actions are limited.

Procedure

Go to the relevant fault code, then perform any service actions.

17-110 Connection Error

The machine encountered an error when establishing a connection to the designated server.

- Request the customer verify connectivity and network setup settings are correct for the customer network.

17-130 Login Error

The machine can not login to the designated server.

- Request the customer verify connectivity and network setup settings are correct for the customer network.

17-140 Access Denied

A permissions error occurred.

- Request the customer verify the user has correct permissions to perform the task requested of the machine.

17-150 Lock Exists

- The *.lck directory already exists.

17-200 Network Cable is Disconnected

- Ensure the network cable is connected.

17-510 Operation Error

An error occurred when sending the image file.

- Request the customer verify the image file is of the correct file type for the requested task.
- If the image file is on a USB drive, remove then reinsert the USB drive into the machine, then run the send job again.
- If the fault persists, request the customer change USB drives to a known good USB drive, then run the send job again.

17-600 Filename is Too Long

The name of the file to be sent is longer than the destination systems limits.

- Shorten the file name.

17-610 Scan File Exists

The file name already exists on the destination server.

- Change the file name.

17-310 Communication Error (Main PWB to Wireless PWB) RAP

BSD-ON:BSD 1

The machine software has detected a communication error between the Main PWB and the Wireless PWB.

Initial Actions

- Switch off, then switch on the machine.
- Check machine network and data configuration settings.

Procedure

1. Ensure that the connectors are fully seated between the Main PWB, PL 1.1 Item 7, and the WiFi PWB, PL 1.1 Item 8.
2. If the problem persists, replace parts in the following order:
   - WiFi PWB, PL 1.1 Item 8.
   - Main PWB, PL 1.1 Item 7.

17-562 Auto-Registration Process Fails to Communicate Error RAP

The auto-registration process failed to communicate.

Procedure

Perform the steps that follow:

1. Ensure that the Xerox SMart eSolutions settings are correct.
2. Check the network cable and connection.
3. Check that the machine IP address is correct.

17-563 Machine Fails to Communicate with Xerox Edge Server Error RAP

The machine failed to communicate with the Xerox Edge Server.

Procedure

Perform the steps that follow:

1. Ensure that the Xerox SMart eSolutions settings are correct.
2. Check the network cable and connection.
3. Check that the machine IP address is correct.
4. Check the SMart eSolutions edge host is connected and operational.

17-700 / 710 BOOTP Error RAP

The machine displays the error message “DHCP, or BOOTP, causing a machine communication error.

Procedure

1. Switch off, then switch on the machine.
2. Check BOOTP and network configuration.

17-800 / 810 DHCP Error RAP

BSD-ON:BSD 1

The machine displays the error message “DHCP, or BOOTP, causing a machine communication error.

Procedure

1. Switch off, then switch on the machine.
2. Check DHCP and network configuration.

17-900 802.1X Network Authentication Error RAP

The the 802.1X network authentication failed.

Procedure

Ensure that the 802.1X EAP Type, User name, and Password, for the Machine, Authentication Switch and Authentication Server match.

17-910 Firmware Upgrade RAP

The firmware upgrade aborted due to an invalid file.

Initial Actions

1. Check the USB connection.
2. Verify that the correct firmware file is being used.

Procedure

1. Switch off, then switch on the machine.
2. Upgrade the firmware, GP 6.

3 Image Quality

Image Quality Overview

Image quality defects can be attributed to printer components, consumables, media, internal software, external software applications, and environmental conditions. To successfully troubleshoot print-quality problems, eliminate as many variables as possible.

If the print-quality defect is still present after printing on approved media from an unopened ream of paper, investigate software applications and environmental conditions. Check the temperature and humidity under which the printer is operating. Compare this to the Environmental Specifications listed in Section 6.

When analyzing a imaging defect, determine if the defect is repeating or random. Check the Supplies Information Report for end of life conditions. Inspect the visible surfaces of all rollers for obvious defects. If a cursory inspection does not reveal any obvious defects, continue troubleshooting the defect.

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. Some machine components contain dangerous electrical voltages that can result in electrical shock and possible serious injury.

DANGER: Ne pas effectuer de dépannnage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine. Certains éléments de la machine comportent des tensions électriques dangereuses qui peuvent causer un choc électrique et de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con l'alimentazione elettrica inserita. Alcuni componenti contengono corrente ad alta tensione che può provocare forti scosse e gravi ferite.

VORSICHT: Es dürfen erst Reparaturarbeiten durchgeführt werden, wenn das Gerät ausgeschaltet ist oder der Netzstecker nicht mehr mit der Stromquelle verbunden ist. Einige Komponenten des Gerätes sind stromführend und können daher zu ernsthaften Verletzungen oder Stromschlägen führen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. Algunos componentes de la máquina contienen voltajes eléctricos peligrosos que pueden producir una descarga eléctrica y causar daños graves.

Defects Associated with Specific Components

To aid with diagnosis, the list below outlines image defects associated with specific components.

ILaser Scanner Unit

- Black Print
- Vertical White Lines

Transfer Roller:

- Uneven Density
- Background contamination
- Ghosting
- Vertical white lines
- Vertical black line or band
- Stains on the page back

Fuser:

- Ghosting
- Stains on the page back or front
- Poor image adhesion

Drum Cartridge:

- Uneven density
- Background contamination
- Spots, smudges, or smears
- Ghosting
- Vertical white lines
- Vertical black line or band
- Stains on the page front
- Blank prints
- Black prints
- Horizontal Black lines or bands

After determining the defect type and possible source, match the defect with those listed in Table 1. Go to the RAP listed to correct the defect.

Image Defect Definitions

Table 1, lists image defect definitions and the RAP used to correct the problem.

Table 1 Image Defect Definitions

Defect	Definition	Go To
Vertical Black Line and Band	Vertical black lines or bands occur in the printed image.	IQ1
Vertical White Line and Band	Vertical white lines or bands occur in the printed image.	IQ2
Horizontal Black Band	Periodic dark or blurry horizontal bands in the printed image.	IQ3
Spots	Random or periodic dark areas in the low density areas of a print, or voids in the dark areas of a print.	IQ4
Low Image Density	Printed image is light with no ghosting.	IQ5
Black or Dark Image	Printed image is totally dark or black.	IQ6
Uneven Density	Print density is uneven between the left and right portion of the printed image.	IQ7
Background	Uniform toner contamination in most or all non-image areas.	IQ8
Residual Image (Ghosting)	The image from a previous print appears on the current print.	IQ9
Side 2 Staining	Side two of a simplex or duplex print is stained.	IQ10
Blank Page	The entire image area is blank.	IQ11
Partial Image Deletions	Areas of the printed image are light or missing entirely on limited areas of the paper.	IQ12

IQ1 Vertical Black Line and Band RAP

Thin black vertical lines or black vertical bands occur in the printed image, Figure 1.

Procedure

Switch off the machine.
Check the Transfer Roll PL 4.1 Item 10, for wear or damage. **The Transfer Roller is OK.**

Y **N**

Install a new Transfer Roll, PL 4.1 Item 10.

Switch on the power, then make a test print. If fault persists, Install a new Drum Cartridge. Refer to the Xerox® B210 User Guide, Section 6 Maintenance, General Care, for detailed instructions on how to Install a new Drum Cartridge.

0300101bat

Figure 1 Black lines and bands

IQ2 Vertical White Line and Band RAP

Thin white vertical lines or white vertical bands occur in the printed image, Figure 1.

Initial Actions

- Check the life of the Drum Cartridge, refer to GP 2, Machine Reports.

  Install a new Drum Cartridge if it is at end of life, refer to the Xerox® B210 User Guide, Section 6 Maintenance, General Care, for detailed instructions on how to Install a new Drum Cartridge.
- Clean the surface of the LSU window with a clean cotton swab and recommended cleaner.

Procedure

Switch off the printer.
Check the space between the LSU and the Drum Cartridge, remove any debris or blockage.
Switch on the power, then make a test print. **The defect is gone.**

Y **N**

Install a new Fuser Module, PL 5.1 Item 26.

Switch on the machine, then perform SCP 04, Final Actions.

0300102bat

Figure 1 White lines and bands

IQ3 Horizontal Black Bands RAP

Periodic dark of blurry horizontal stripes in the printed image. Refer to, Figure 1.

Procedure

- Switch off the machine.
- Clean the contacts on the Print Cartridge and the HVPS PWB, PL 4.1 Item 2.
- Switch on the machine, then print a test print.

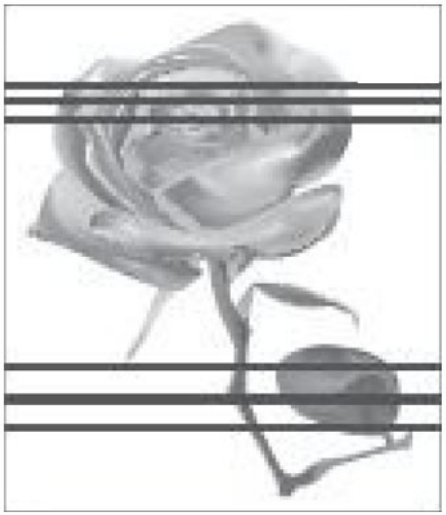
The defect is still present.

Y N

Perform SCP 04, Final Actions.

Refer to the Xerox® B210 User Guide, Section 6 Maintenance, General Care, for detailed instructions on how to Install a new Toner and Drum Cartridges.

- Install a new Drum Cartridge.
- Install a new Toner Cartridge.



0300103bat

Figure 1 Horizontal black bands

IQ4 Spots RAP

Random or periodic dark areas in the low density areas of a print, or voids in the dark areas of a print, Figure 1.

Initial Actions

Ensure that the Drum Cartridge and the Toner Cartridge is firmly seated.

Procedure

Switch off the machine.

Check the Transfer Roller for wear, damage and remaining life. **The Transfer Roller is OK.**

Y N

Install a new Transfer Roll, PL 4.1 Item 10.

Clean the contacts on the following components:

- Drum Cartridge and the Toner Cartridge
- HVPS PWB, PL 4.1 Item 2.

Switch on the power, then make a test print. **The test print looks OK.**

Y N

Install a new Toner Cartridge. Refer to the Xerox® B210 User Guide, Section 6 Maintenance, General Care, for detailed instructions on how to Install a new Toner Cartridge.

If fault persists, install a new Fuser Module, PL 5.1 Item 26.

0300104bat

Figure 1 Black spots

IQ5 Low Image Density RAP

The printed image is light, with no ghosting, Figure 1.

Initial Actions

Remove Toner Cartridge. Rotate the cartridge 5-6 full rotations to redistribute the toner. Make a test print.

Check the life of the Toner Cartridge, refer to GP 2, Machine Reports. Install a new Toner Cartridge if it has reached end of life.

If the problems continue, follow the procedure.

Procedure

- Switch off the machine.
- Clean the contacts on the Print Cartridge and the HVPS PWB.
- Switch on the power, then make a test print.

The problem continues.

Y N

Perform SCP 04, Final Actions.

Install a new HVPS PWB, PL 4.1 Item 2.

0300105bat

Figure 1 Light Image

IQ6 Black or Dark Image RAP

The printed image is totally dark or black, Figure 1.

Procedure

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. Some machine components contain dangerous electrical voltages that can result in electrical shock and possible serious injury.

DANGER: Ne pas effectuer de dépannnage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine. Certains éléments de la machine comportent des tensions électriques dangereuses qui peuvent causer un choc électrique et de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con l'alimentazione elettrica inserita. Alcuni componenti contengono corrente ad alta tensione che può provocare forti scosse e gravi ferite.

VORSICHT: Es dürfen erst Reparaturarbeiten durchgeführt werden, wenn das Gerät ausgeschaltet ist oder der Netzstecker nicht mehr mit der Stromquelle verbunden ist. Einige Komponenten des Gerätes sind stromführend und können daher zu ernsthaften Verletzungen oder Stromschlägen führen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. Algunos componentes de la máquina contienen voltajes eléctricos peligrosos que pueden producir una descarga eléctrica y causar daños graves.

- Switch off the machine.
- Clean the contacts on the Toner Cartridge, Drum Cartridge, and the HVPS PWB, PL 4.1 Item 2.
- Switch on the power, then make a test print.

The problem continues.

Y N

Perform SCP 04, Final Actions.

- If the image is Black, install a new HVPS PWB, PL 4.1 Item 2, switch on the power, then make a test print.

- If the test print continues to fail the Charge Roller is likely defective, install a new Toner Cartridge.

  NOTE: *Refer to the Xerox® B210 User Guide, Section 6 Maintenance, General Care, for detailed instructions on how to install new Toner Cartridges. Refer to Tabe 5 in Section 6, Product Specifications, for toner cartridge specifications.*

0300106bat

Figure 1 Dark or Black Image

IQ7 Uneven Density RAP

Print density is uneven between the left and right portion of the printed image, Figure 1.

Initial Actions

- Ensure that the printer is level.
- Remove the Toner Cartridge. Rotate the Toner Cartridge 5-6 full rotations to redistribute the toner.
- Check Supplies Life. Refer to GP 2, Machine Reports.
  - Replace any components that have reached end of life.

Procedure

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. Some machine components contain dangerous electrical voltages that can result in electrical shock and possible serious injury.

DANGER: Ne pas effectuer de dépannnage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine. Certains éléments de la machine comportent des tensions électriques dangereuses qui peuvent causer un choc électrique et de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con l'alimentazione elettrica inserita. Alcuni componenti contengono corrente ad alta tensione che può provocare forti scosse e gravi ferite.

VORSICHT: Es dürfen erst Reparaturarbeiten durchgeführt werden, wenn das Gerät ausgeschaltet ist oder der Netzstecker nicht mehr mit der Stromquelle verbunden ist. Einige Komponenten des Gerätes sind stromführend und können daher zu ernsthaften Verletzungen oder Stromschlägen führen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. Algunos componentes de la máquina contienen voltajes eléctricos peligrosos que pueden producir una descarga eléctrica y causar daños graves.

Switch off the machine. Check the contacts on the Toner Cartridge and the HVPS PWB. **The contacts are OK.**

Y **N**

Install a new Toner Cartridge.

Check the Transfer Roller for wear or damage. **The Transfer Roller is OK.**

Y **N**

Install a new Transfer Roll, PL 4.1 Item 10.

If fault persists, Install a new HVPS, PL 4.1 Item 2.

0300107bat

Figure 1 Uneven Density

IQ8 Background RAP

Uniform toner contamination appears in most or all non-image areas of the printed sheet, Figure 1.

Initial Actions

- Check that media type settings are correct.
- Check that the paper meets specifications. Refer to Section 6 for product specifications.

Procedure

- Switch off the machine.
- Clean the contacts on the Drum Cartridge, Toner Cartridge, and the HVPS PWB, PL 4.1 Item 2.
- Check the life of the Toner Cartridge and Drum Cartridge, refer to GP 2, Machine Reports.
  - Install a new Toner Cartridge and/or Drum Cartridge if they have reached end of life. Refer to Tabe 5 in Section 6, Product Specifications, for toner cartridge specifications.
- Switch on the power, then make a test print.

The test print looks OK.

Y N

Install a new HVPS PWB, PL 4.1 Item 2.

Perform SCP 04, Final Actions.

0300108bat

Figure 1 Background

IQ9 Residual Image (Ghosting) RAP

The image from a previous print appears on the current print, Figure 1.

Procedure

Switch off the machine.
Check the Transfer Roll, PL 4.1 Item 10 for the following:

- Wear or damage.
- The left and right tension springs for damage.
- Be sure all parts are installed correctly.

The Transfer Roller is OK.

Y N

Install a new Transfer Roll, PL 4.1 Item 10.

If fault persists, install new components in the following order:
Refer to the Xerox® B210 User Guide, Section 6 Maintenance, General Care, for detailed instructions on how to Install a new Toner Cartridge or Drum Cartridge.

1. Drum Cartridge
2. Toner Cartridge
3. Fuser Module, PL 5.1 Item 26.
4. HVPS PWB, PL 4.1 Item 2.

0300109bat

Figure 1 Ghost Image

IQ10 Side 2 Staining

Side 2 of a simplex or duplex print is stained, Figure 1.

Procedure

Switch off the machine. Check the Transfer Roll, PL 4.1 Item 10 for the following:

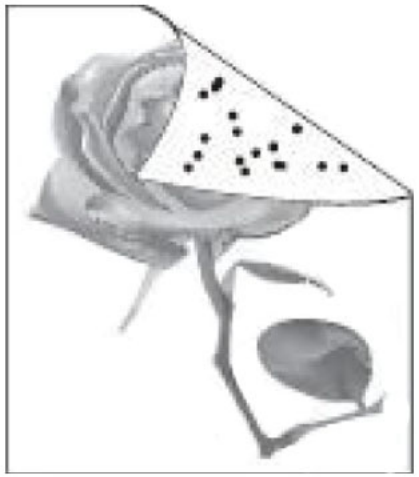
- Wear or damage.
- The left and right tension springs for damage.
- Be sure all parts are installed correctly.

The Transfer Roller is OK.

Y N

Install a new Transfer Roll, PL 4.1 Item 10.

If fault persists, Install a new Fuser Module, PL 5.1 Item 26.



0300110bat

Figure 1 Side 2 Staining

IQ11 Blank Page RAP

The entire image area is blank, Figure 1.

Initial Actions

Install new components at end of life, refer to GP 2, Machine Reports.

Procedure

- Switch off the machine.
- Check the space between the LSU PL 4.1 Item 22, and the Drum Cartridge, remove any debris or blockage.
- Clean the terminals on the Toner Cartridge and the HVPS PWB, PL 4.1 Item 2.
- Switch on the power, then make a test print.

The problem continues.

Y N

Perform SCP 04, Final Actions.

Install a new Drum Cartridge, refer to the Xerox® B210 User Guide, Section 6 Maintenance, General Care, for detailed instructions on how to Install a new Drum Cartridge. **The problem continues.**

Y N

Perform SCP 04, Final Actions.

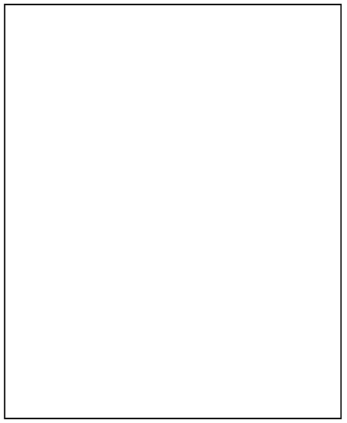
Check the circuit between the Main PWB, PL 1.1 Item 7 and the HVPS PWB, PL 4.1 Item 2. **The circuit is OK.**

Y N

Install new components as required:

- Main PWB to LVPS / HVPS PWB Wire Harness.
- Main PWB, PL 1.1 Item 7.
- HVPS PWB, PL 4.1 Item 2.

Perform SCP 04, Final Actions.



0300111bat

Figure 1 Blank Image

IQ12 Partial Image Deletions RAP

Areas of the printed image are light or missing entirely on limited areas of the paper, Figure 1.

Initial Actions

Be sure the printer is installed on a level surface.

Procedure

Procedure

- Switch off the machine.
- Remove the Toner Cartridge.
- Rotate the Toner Cartridge side to side for 5 to 6 full rotations to redistribute the toner.
- Reinstall the Toner Cartridge and print 10 test copies.

The problem continues.

Y **N**

Perform SCP 04, Final Actions.

Switch off the machine.

Check the Transfer Roll PL 4.1 Item 10, for the following:

- Wear or damage.
- The left and right tension springs for damage.
- Verify all parts are installed correctly.

0300112bat

Figure 1 Image Deletions

4 Repairs - Adjustments

REP 1.1 Main PWB

Parts List on PL 1.1

Removal

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. Some machine components contain dangerous electrical voltages that can result in electrical shock and possible serious injury.

DANGER: Ne pas effectuer de dépannnage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine. Certains éléments de la machine comportent des tensions électriques dangereuses qui peuvent causer un choc électrique et de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con l'alimentazione elettrica inserita. Alcuni componenti contengono corrente ad alta tensione che può provocare forti scosse e gravi ferite.

VORSICHT: Es dürfen erst Reparaturarbeiten durchgeführt werden, wenn das Gerät ausgeschaltet ist oder der Netzstecker nicht mehr mit der Stromquelle verbunden ist. Einige Komponenten des Gerätes sind stromführend und können daher zu ernsthaften Verletzungen oder Stromschlägen führen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. Algunos componentes de la máquina contienen voltajes eléctricos peligrosos que pueden producir una descarga eléctrica y causar daños graves.

1. Record the machine serial number from the Data Plate (located on the rear cover beneath the bar code) or from a Configuration Report printed prior to installing the new PWB. To print a Configuration Report, select from the PWS; **[Easy Print Manager, Machine Setting, Print Information, Configuration]**.

   NOTE: *Verify the serial number on the Data Plate and the Configuration sheet match. The Data Plate serial number will be the correct serial number in all cases.*

2. Switch off the machine, then disconnect the power cord.
3. Remove the Right Side Cover, REP 2.2.
4. Remove the WNPC (WiFi) PWB, REP 1.2.

NOTE: *Mark the location of the Ground Screw, with larger head, so it can be re-installed in the correct location.*

5. Remove the Main PWB, Figure 1.
   a. Disconnect all connectors on the Main PWB.
   b. Remove the screws (5) and the Main PWB.

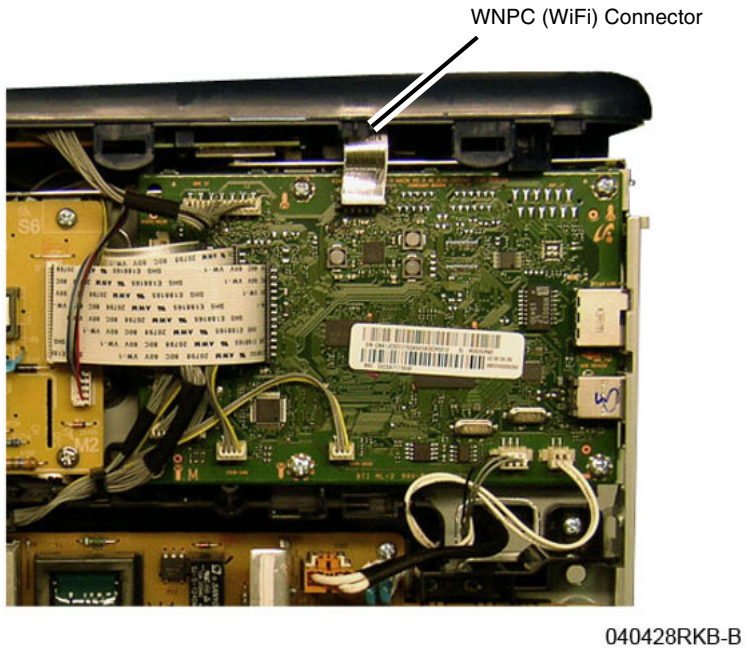


Figure 1 Main PWB

Replacement

NOTE: *Tapered plastic screws and round machine screws are used to hold the pwb to the frame. Make sure that the plastic screws go into plastic components and machine screws go into the metal frame.*

Replacement is the reverse of the removal procedure.

After installing a new Main PWB, the following steps MUST be performed to write the machine serial number to the new Main PWB:

1. Reconnect the power cord, then power on the machine.
2. Connect the PWS to the printer via USB connection.

3. Run the USB Serial Number Writing Tool application. (Download the USB Serial Number writing application to the PWS from the GSN website). Ref. GP 9.
   a. Double-click the executable file and follow the steps listed in the USB Serial application window to write the machine serial number, on Configuration Report in Step 1 of the removal, to the new Main PWB, Figure 2.

      NOTE: Select the [***Check USB***] button to ensure that there is a good USB connection BEFORE entering the serial number. If the connection is good, "USB Success," will display in the area above the button. If there is an problem with the USB connection, "USB Fail" will display.

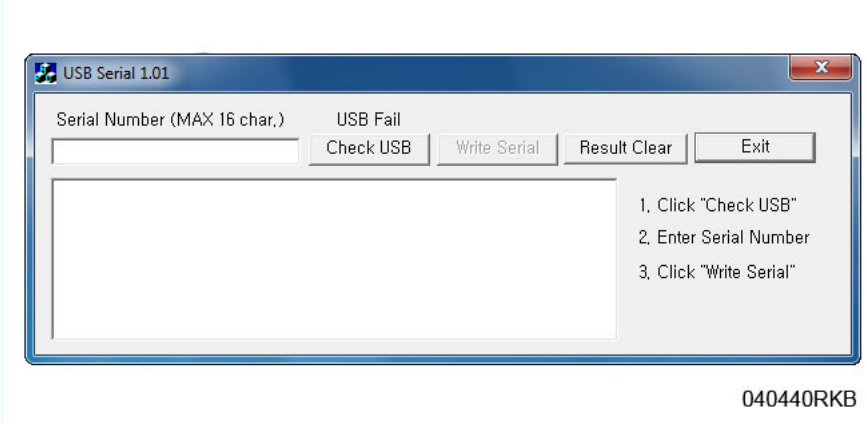


Figure 2 PWB Serial Number Screen

4. After successfully entering the serial number, exit the PWB Serial Number writing application.
5. Perform a **[Memory Clear]** operation.
   a. Machine should be in IDLE state, no pending jobs in Job Q.
   b. Open the Front door and Press the Stop key for 15-20 Seconds.
   c. Close the front door, and device will perform a Memory Clear.
   d. The process may take 1-2 mins to complete the Memory Clear, the device will then reboot.
   e. The device will print Config report after reboot.
6. Print a Configuration Report and check that the original machine serial number is displayed under the "Device Profile" heading.

NOTE: *Performing a* ***[Clear All Memory]*** *sets the SA Password back to the default value (device serial number). Inform the customer to reset SA Password as desired.*

NOTE: *After performing a Memory Clear, inform the customer that they will need to re-establish their Wireless or Ethernet connection.*

REP 1.2 WiFi PWB

Parts List on PL 1.1

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Left and Right Side Covers, REP 2.2.
3. Remove the Rear Cover, REP 2.3.
4. Open the Front Cover Door, then remove two screws from the Top Cover, Figure 1.

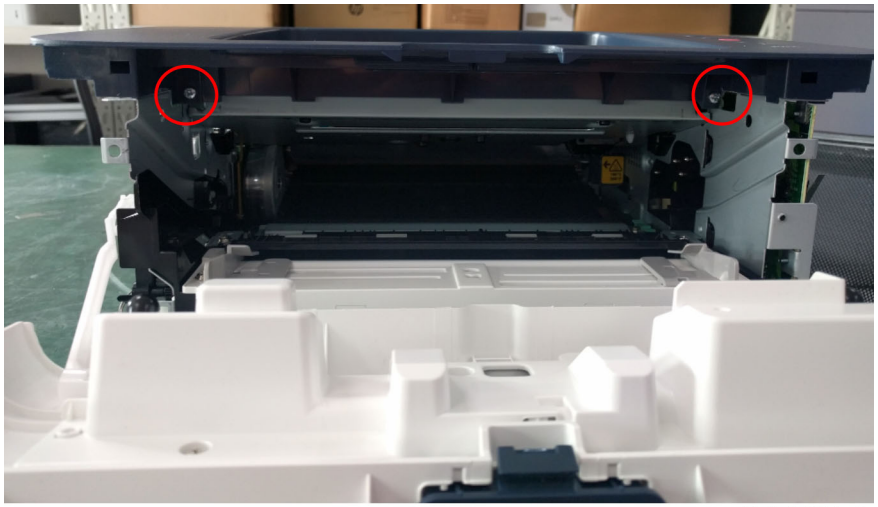
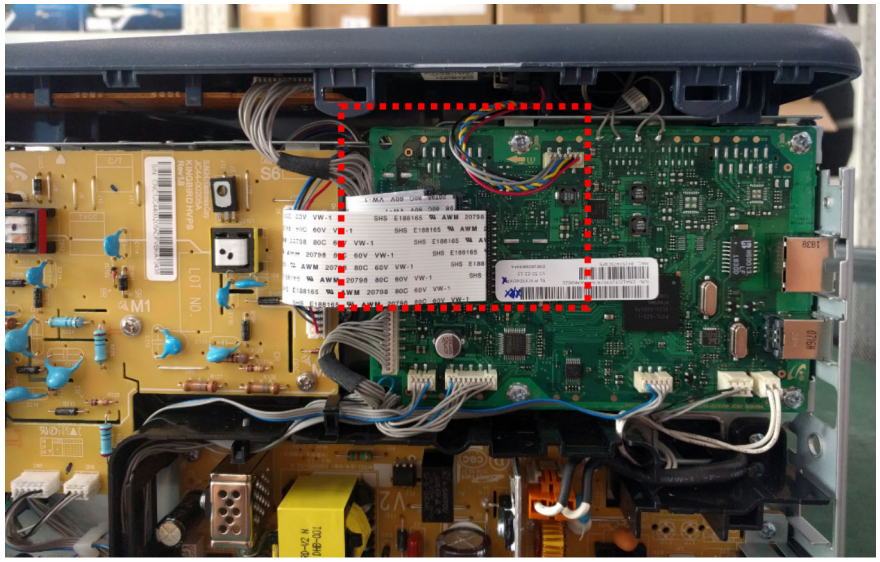


Figure 1 Top cover screws removal

5. Disconnect the FFCs and harnesses, Figure 2.



P-1-0002-A

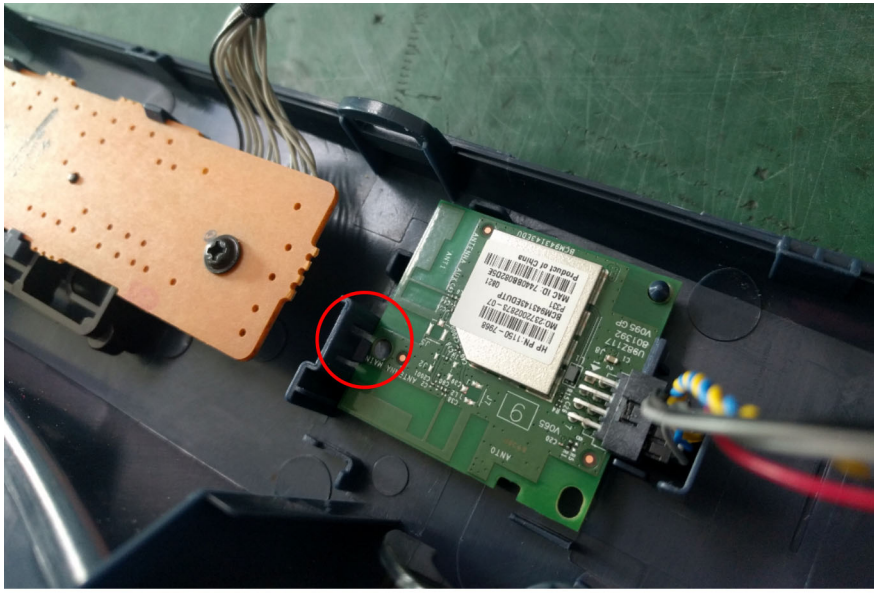
Figure 2 Disconnect FFCs and harnesses

6. Release two hooks, then remove the Top Cover, Figure 3.

P-1-0003-A

Figure 3 Top Cover removal

7. Release the hook, then remove the SUB PWB (WiFi), Figure 4.



P-1-0004-A

Figure 4 SUB PWB removal

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Insert the guide boss through the hole of the SUB PWB, then press the SUB PWB into the guide boss until the hook latches, Figure 5.*

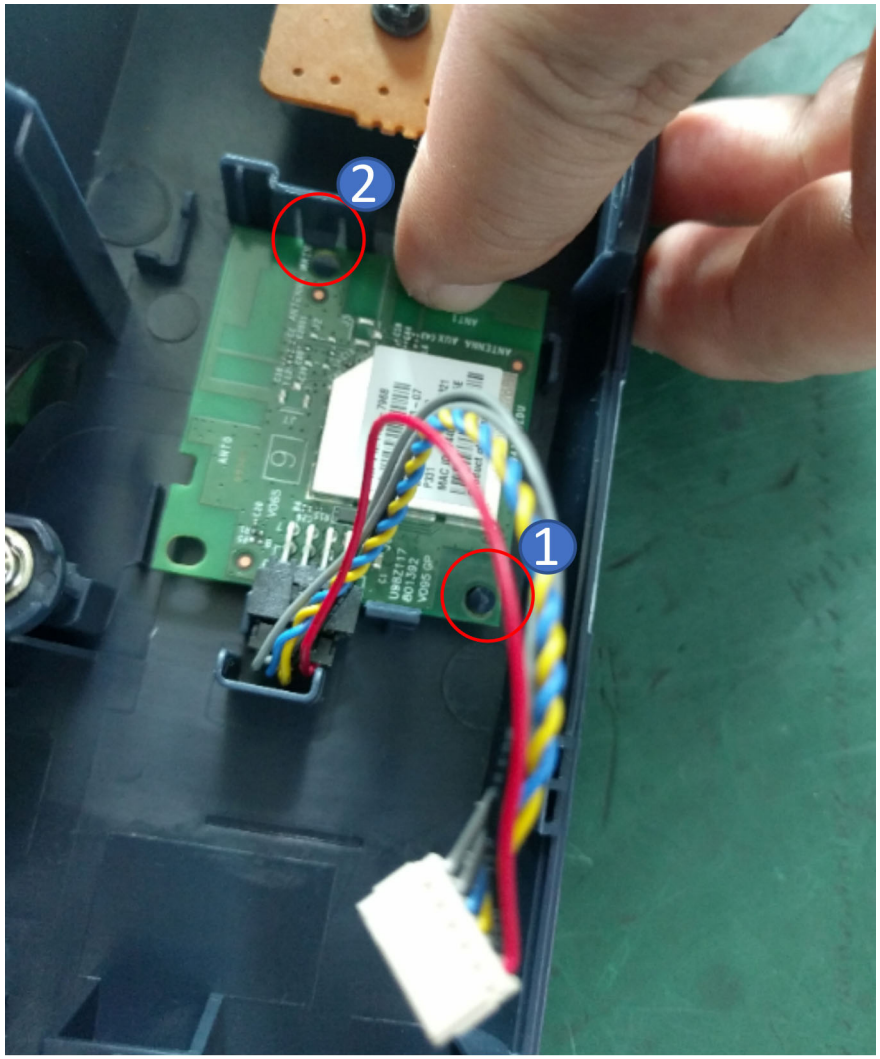


Figure 5 SUB PWB replacement

REP 2.1 Front Cover

Parts List on PL 2.1

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Left and Right Side Covers, REP 2.2.
3. Disconnect the wire harness to the Front Cover, Figure 1.

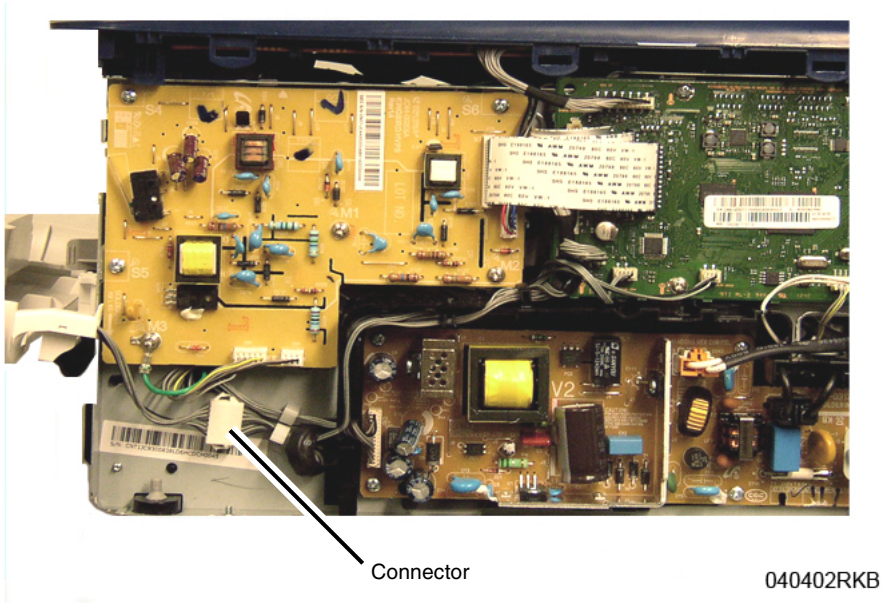


Figure 1 Front Cover P/J Connector

4. Disconnect the Front Cover Support Arm, Figure 2.

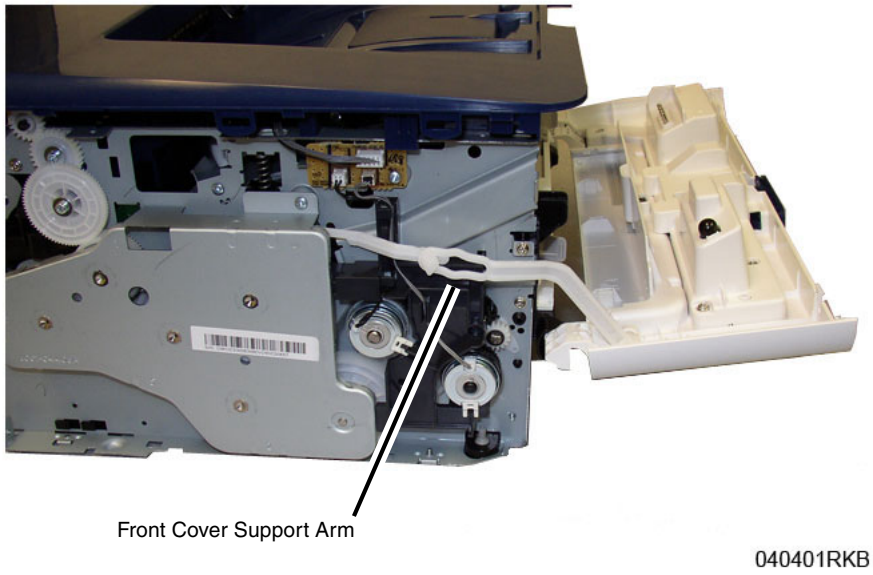


Figure 2 Front Cover Support Arm

5. Release two Front Cover Pivots, then remove the Front Cover, Figure 3.

NOTE: *A wide blade flat screwdriver can be used to help release the Front Cover Pivot.*

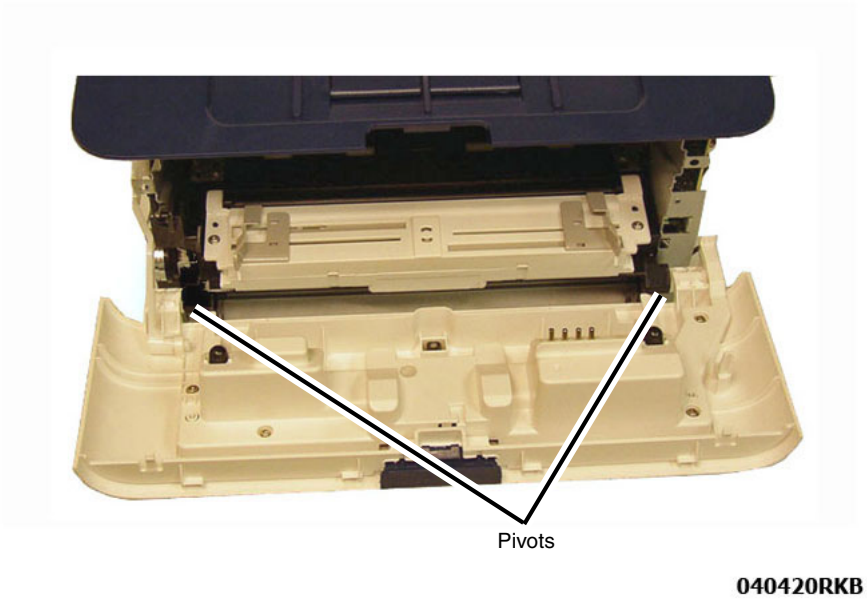


Figure 3 Front Cover Removal

NOTE: *Remove the Tag Matrix from the old front cover, then place on the new front cover, Figure 4.*

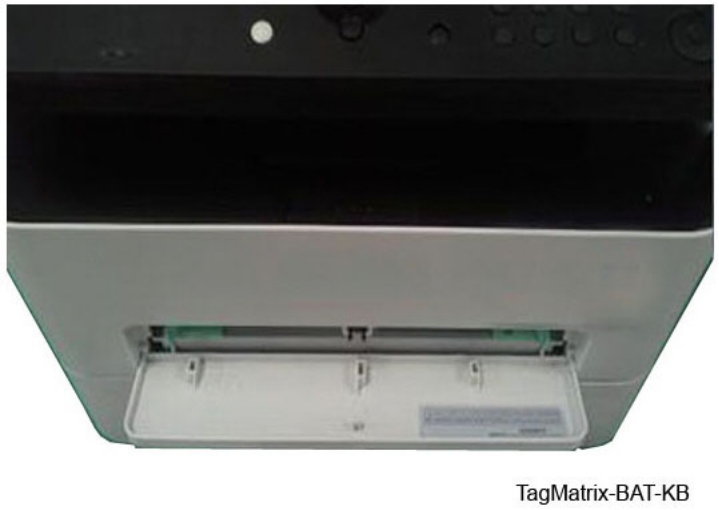


Figure 4 Tag Matrix on new Front Cover Assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 2.2 Left and Right Side Covers

Parts List on PL 2.1

Removal

1. Remove the Paper Cassette from the printer.

NOTE: *Cover the Drum Cartridge with several sheets of paper to prevent it from being light shocked.*

2. Open the Front Cover, remove the Toner Cartridge and the Drum Cartridge, Figure 1.

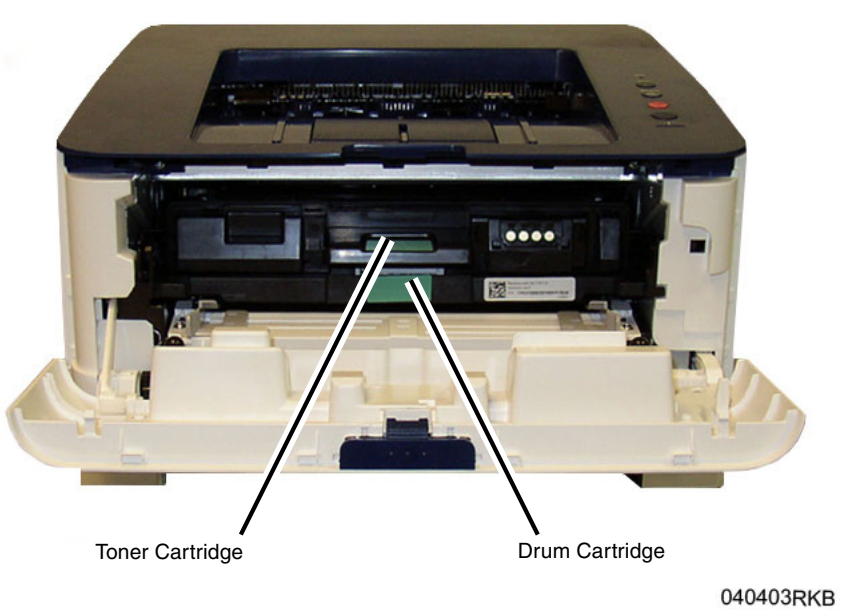


Figure 1 Toner Cartridge and Photoreceptor Handles

3. Remove the Right Side Cover. See NOTE, Figure 2.
   a. Release (pull) the upper front latch hook.
   b. Release the top latch hooks then the bottom latch hooks.
   c. Release the front lower latch hook, and remove the cover.
4. Remove the Left Side Cover. See NOTE, Figure 2.
   a. Release (pull) the center front latch hook.
   b. Release the top latch hooks then the bottom latch hooks.
   c. Release the rear latch hook, and remove the cover.

NOTE: *The side covers are held in place with plastic latches, release them carefully to avoid breakage. Release the latches pressing the hook end of the latch away from the part, Figure 2.*

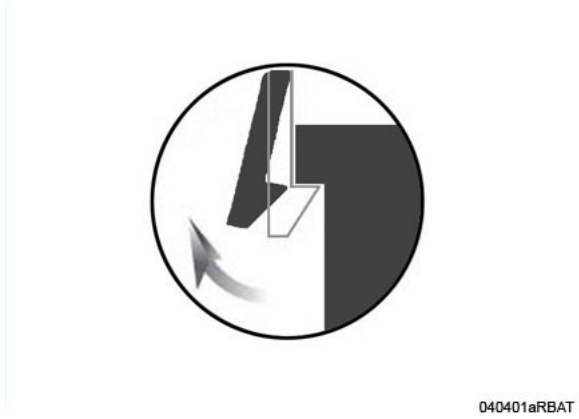


Figure 2 Plastic Latches

Replacement

Replacement is the reverse of the removal procedure.

REP 2.3 Rear Cover

Parts List on PL 2.1

Removal

1. Remove the Left and Right Side Covers, REP 2.2.
2. Remove four screws securing the Rear Cover, Figure 1.

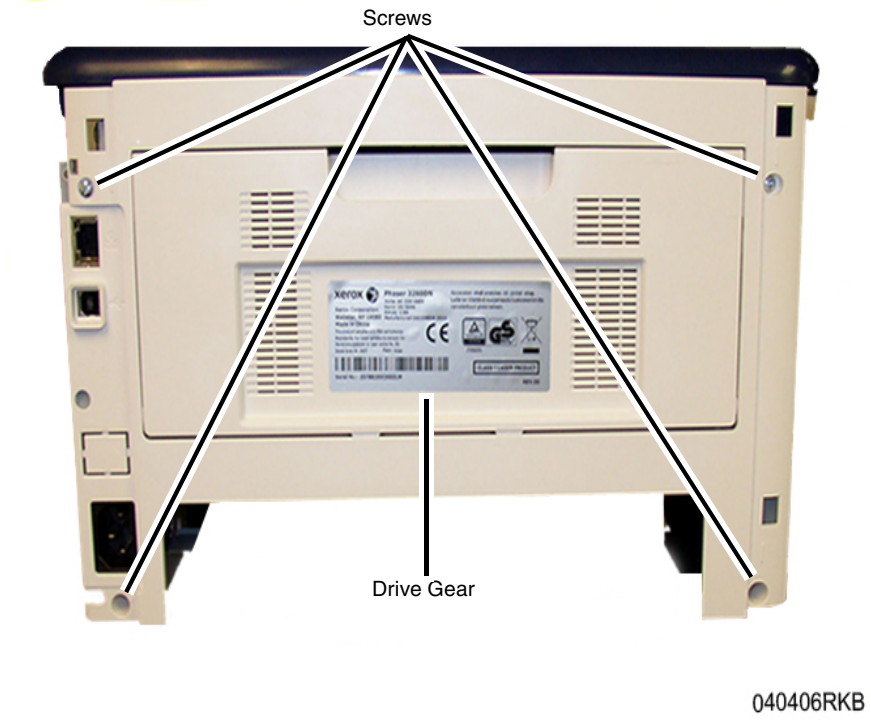


Figure 1 Rear Cover Screws and Data Plate Label

3. Open the Rear Cover, then release two Support Arms from the Rear Cover, Figure 2.

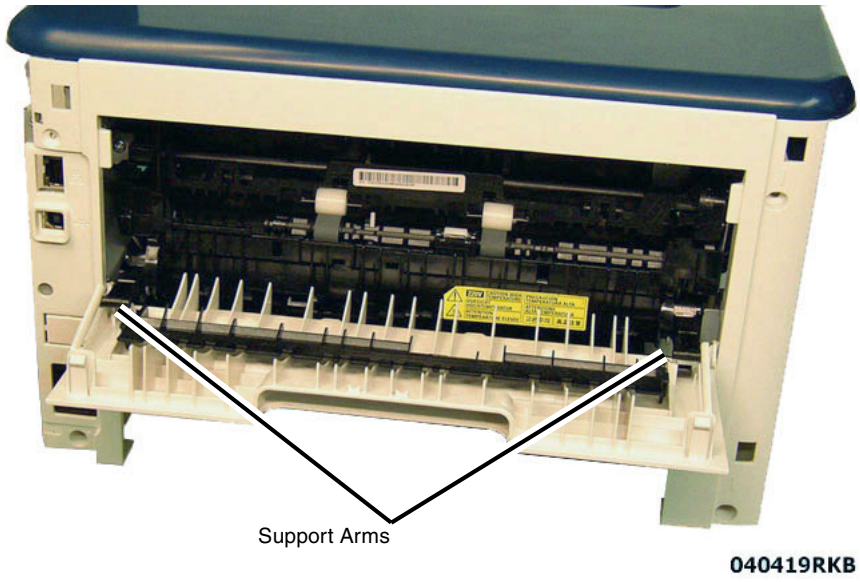


Figure 2 Releasing the Support Arms

4. Push down on the top of the Rear Cover to release three Latch Hooks, then remove the Rear Cover.

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *If the Rear Cover is being replaced, remove the Data Plate Label from the old Rear Cover and install it onto the new Rear Cover, Figure 1.*

REP 2.4 Manual Feed Cover

Parts List on PL 2.1

Removal

1. Release two pivot pins, then remove the Manual Feed Cover, Figure 1.

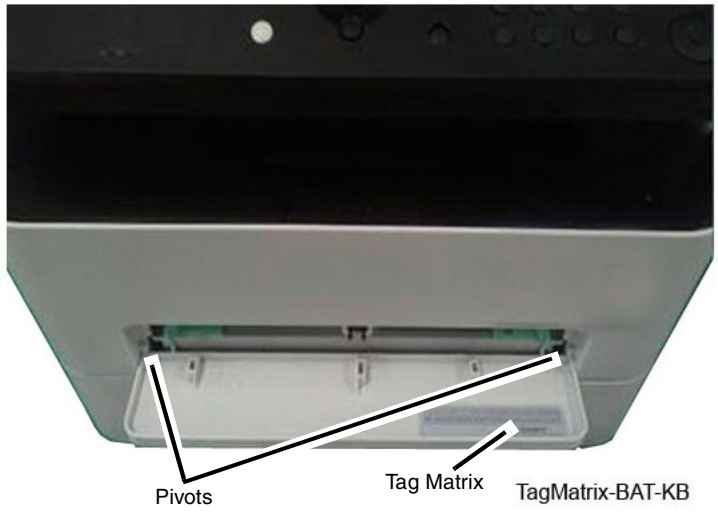


Figure 1 Manual Feed Cover (Top View)

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Replacement of the Manual Feed Cover requires removal of the Tag Matrix from the old cover, then installation of the Tag Matrix on the new Manual Feed Cover, Figure 1.*

REP 3.1 Control Panel PWB

Parts List on PL 3.1

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Top Cover, REP 3.2.
3. Turn the Top Cover over. Remove two screws, release four latches, then remove the Control Panel PWB, Figure 1.

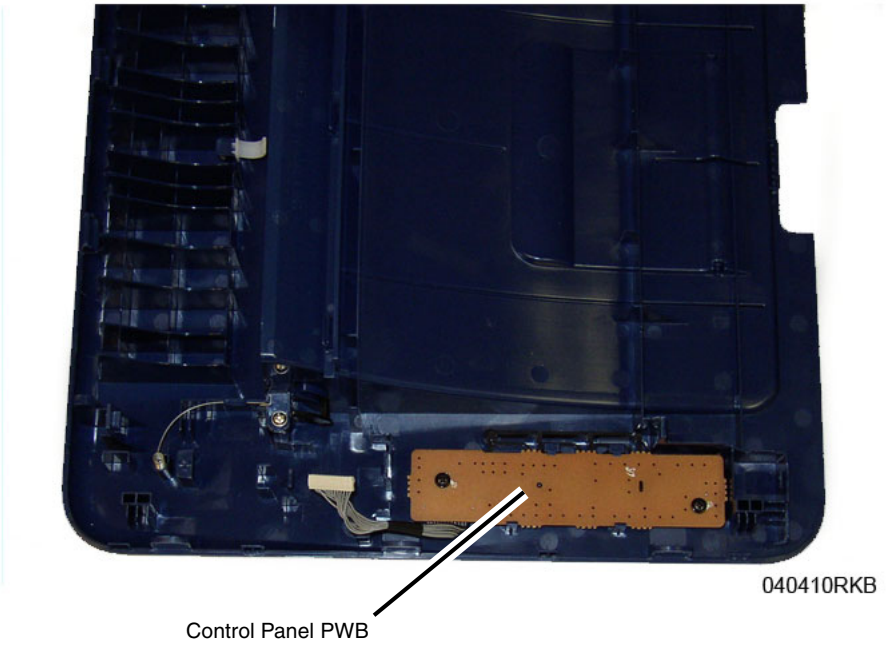


Figure 1 Control Panel PWB (Underside of Top Covers)

Replacement

Replacement is the reverse of the removal procedure.

REP 3.2 Top Cover

Parts List on PL 3.1

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Front Cover, REP 2.1.
3. Remove the Left and Right Side Covers, REP 2.2.
4. Remove the Rear Cover, REP 2.3.
5. Disconnect the Control Panel and WiFi connectors from the Main PWB, Figure 1.

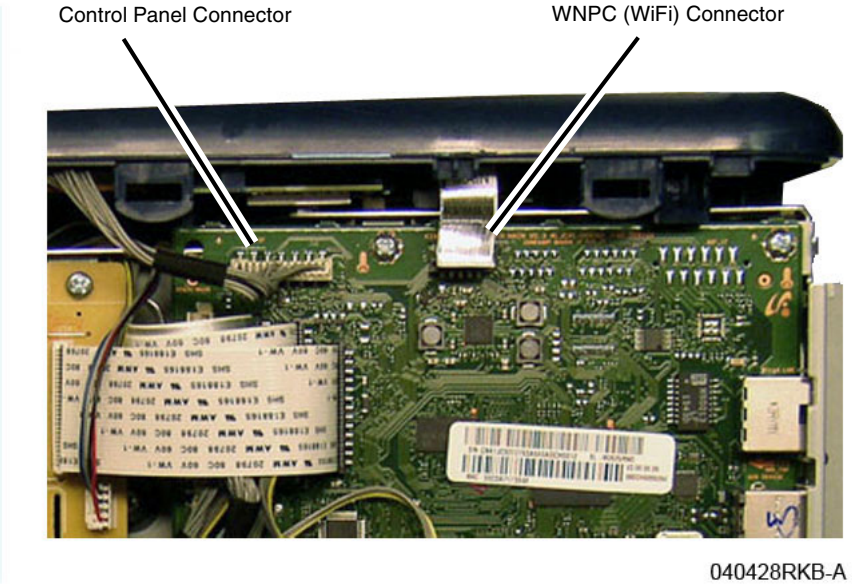


Figure 1 Main PWB Connectors to Disconnect

6. Remove two screws at the front door securing the Top Cover, Figure 2.

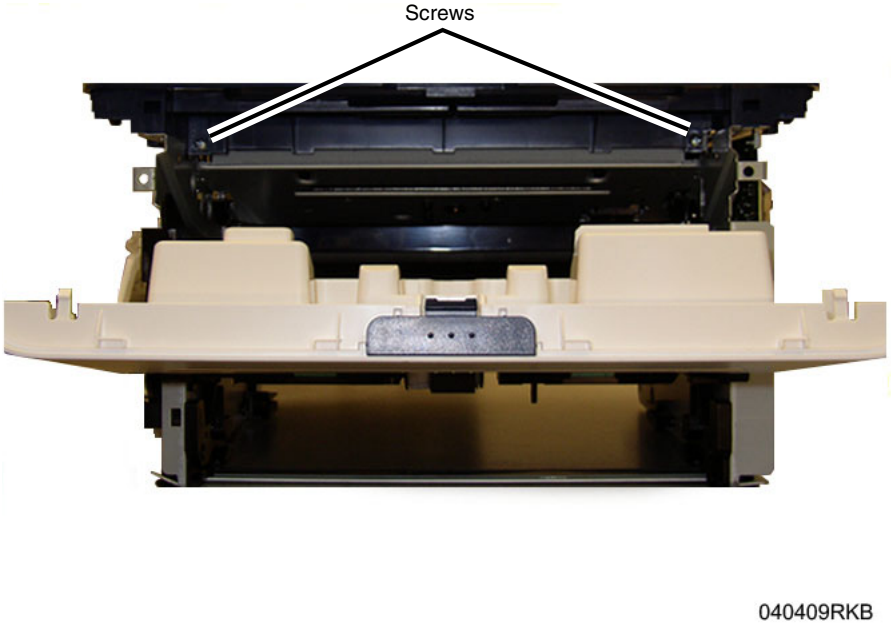


Figure 2 Top Cover Screws (Front View)

7. Release two latches at the rear of the printer, then remove the Top Cover, Figure 3.

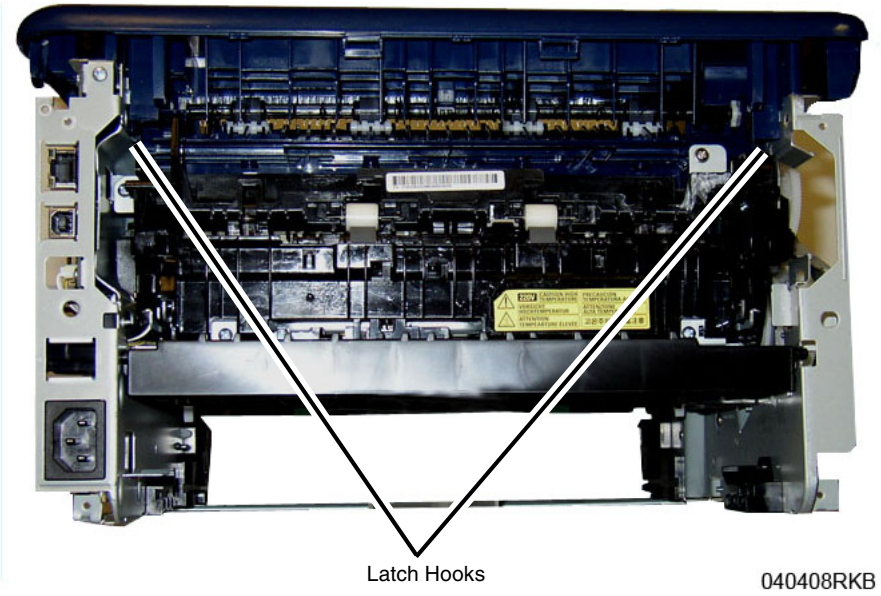


Figure 3 Top Cover Latch Hooks

Replacement

Replacement is the reverse of the removal procedure.

REP 4.1 HVPS (High Voltage Power Supply)

Parts List on PL 4.1

Removal

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. Some machine components contain dangerous electrical voltages that can result in electrical shock and possible serious injury.

DANGER: Ne pas effectuer de dépannnage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine. Certains éléments de la machine comportent des tensions électriques dangereuses qui peuvent causer un choc électrique et de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con l'alimentazione elettrica inserita. Alcuni componenti contengono corrente ad alta tensione che può provocare forti scosse e gravi ferite.

VORSICHT: Es dürfen erst Reparaturarbeiten durchgeführt werden, wenn das Gerät ausgeschaltet ist oder der Netzstecker nicht mehr mit der Stromquelle verbunden ist. Einige Komponenten des Gerätes sind stromführend und können daher zu ernsthaften Verletzungen oder Stromschlägen führen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. Algunos componentes de la máquina contienen voltajes eléctricos peligrosos que pueden producir una descarga eléctrica y causar daños graves.

1. Switch off the machine, then disconnect the power cord.
2. Remove the Right Side Cover, REP 2.2.

***NOTE:** When removing the HVPS PWB be careful not to lose the spring loaded contacts between the Print Cartridge and the HVPS PWB.*

3. Remove the HVPS PWB, Figure 1:
   a. Disconnect three connectors and the FFC on the HVPS PWB.
   b. Remove six screws including the ground wire, then remove the HVPS PWB.

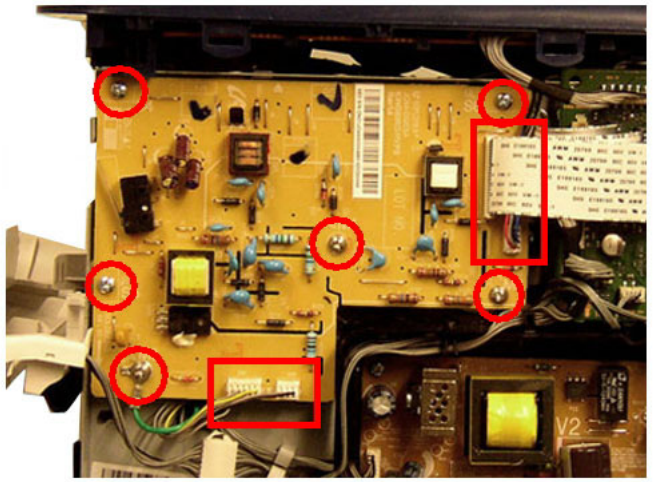


Figure 1 HVPS PWB

Replacement

Replacement is the reverse of the removal procedure.

REP 4.2 LVPS (Low Voltage Power Supply)

Parts List on PL 4.1

Removal

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. Some machine components contain dangerous electrical voltages that can result in electrical shock and possible serious injury.

DANGER: Ne pas effectuer de dépannnage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine. Certains éléments de la machine comportent des tensions électriques dangereuses qui peuvent causer un choc électrique et de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con l'alimentazione elettrica inserita. Alcuni componenti contengono corrente ad alta tensione che può provocare forti scosse e gravi ferite.

VORSICHT: Es dürfen erst Reparaturarbeiten durchgeführt werden, wenn das Gerät ausgeschaltet ist oder der Netzstecker nicht mehr mit der Stromquelle verbunden ist. Einige Komponenten des Gerätes sind stromführend und können daher zu ernsthaften Verletzungen oder Stromschlägen führen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. Algunos componentes de la máquina contienen voltajes eléctricos peligrosos que pueden producir una descarga eléctrica y causar daños graves.

1. Switch off the printer, then disconnect the power cord.
2. Remove the Right Side Cover, REP 2.2.
3. Remove the LVPS PWB, Figure 1:
   a. Disconnect two connectors.
   b. Remove six screws, then remove the LVPS PWB.

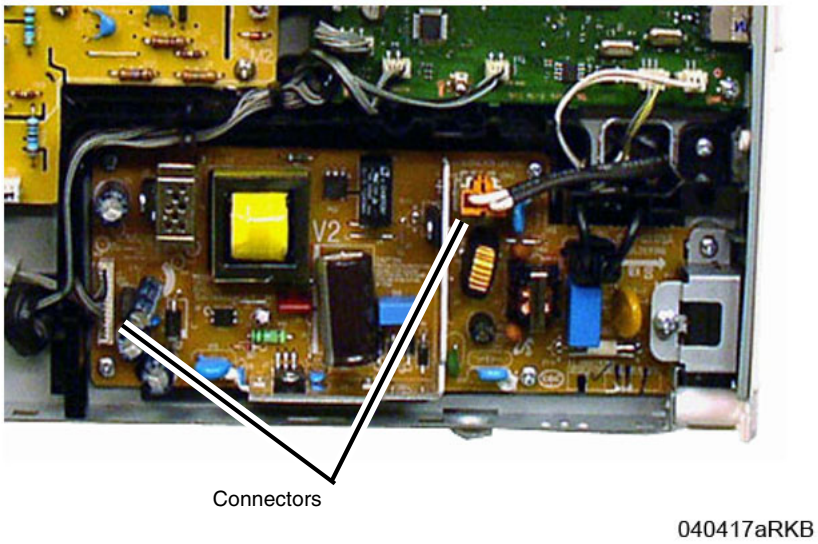


Figure 1 LVPS PWB

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Tapered plastic screws and round machine screws are used to hold the pwb to the frame. Make sure that the plastic screws go into plastic components and machine screws go into the metal frame.*

REP 4.3 Feed and Registration Clutches / Paper Feed PWB

Parts List on PL 4.1

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Left Side Cover, REP 2.2.
3. Remove the Paper Feed PWB. Figure 1:
   a. Disconnect three connectors on the Paper Feed PWB.
   b. Remove the screw, then remove the Paper Feed PWB.
4. Remove the Feed Clutch, Figure 1:
   a. Disconnect CN2 on the Paper Feed PWB.
   b. Remove the E-ring and Washer from the Feed Clutch.
   c. Remove the Feed Clutch.
5. Remove the Registration Clutch, Figure 1:
   a. Disconnect CN1 on the Paper Feed PWB.
   b. Remove the E-ring and Washer from the Registration Clutch.
   c. Remove the Registration Clutch.

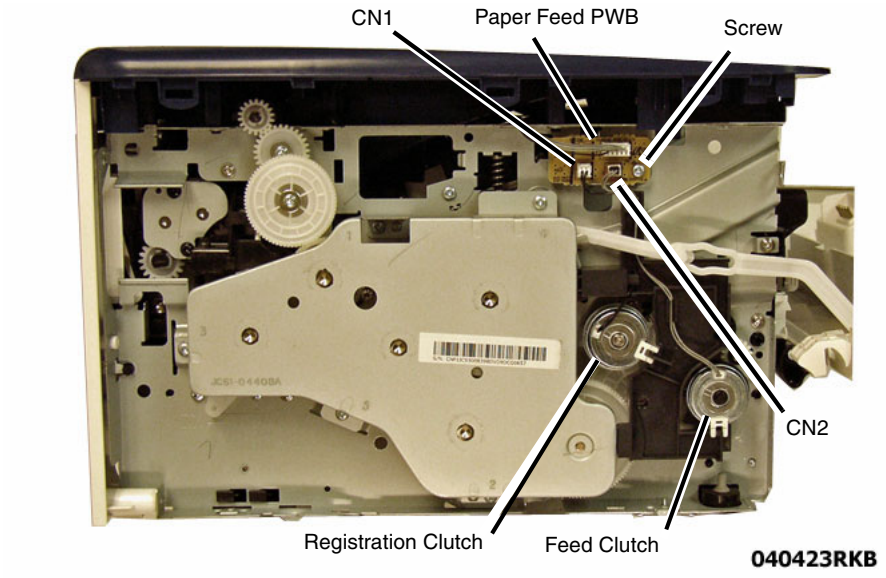


Figure 1 Feed and Registration Clutches / Paper Feed PWB

Replacement

Replacement is the reverse of the removal procedure.

REP 4.4 Transfer Roll

Parts List on PL 4.1

Removal

1. Open the Front Cover Door.

NOTE: *Cover the Drum Cartridge with several sheets of paper to prevent it from being light shocked.*

2. Remove the Toner Cartridge and the Drum Cartridge.
3. Remove (squeeze and lift) the Transfer Roll Retainer Clip, Figure 1.

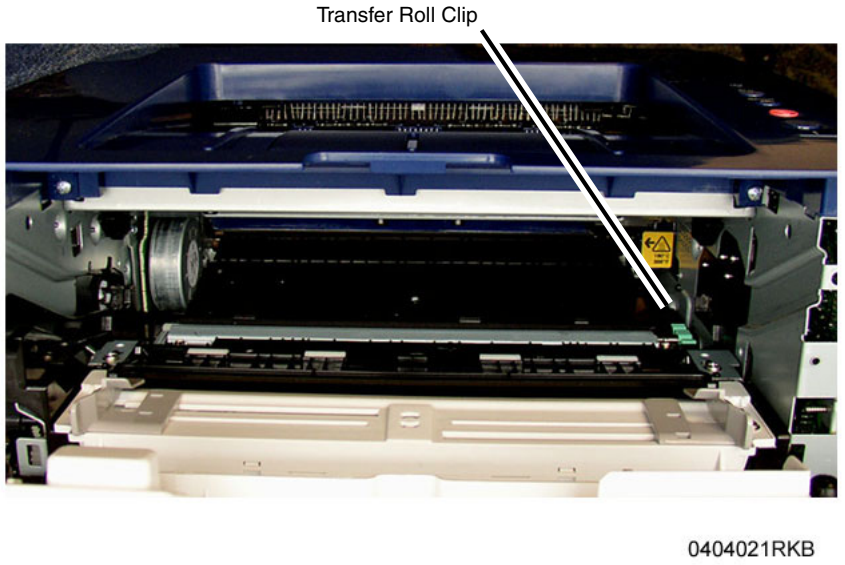


Figure 1 Transfer Roll Retainer Clip

4. Remove the Transfer Roll, Figure 2:
   a. Lift the right end of the Transfer Roll and slide the left end out of the bushing, Figure 2.

Figure 2 Removing the Transfer Roll

Replacement

Replacement is the reverse of the removal procedure.

REP 4.5 LSU and Cables

Parts List on PL 4.1

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Top Cover, REP 3.2.
3. Disconnect two connectors on the LSU, then release the harness from the LSU harness guide, Figure 1.

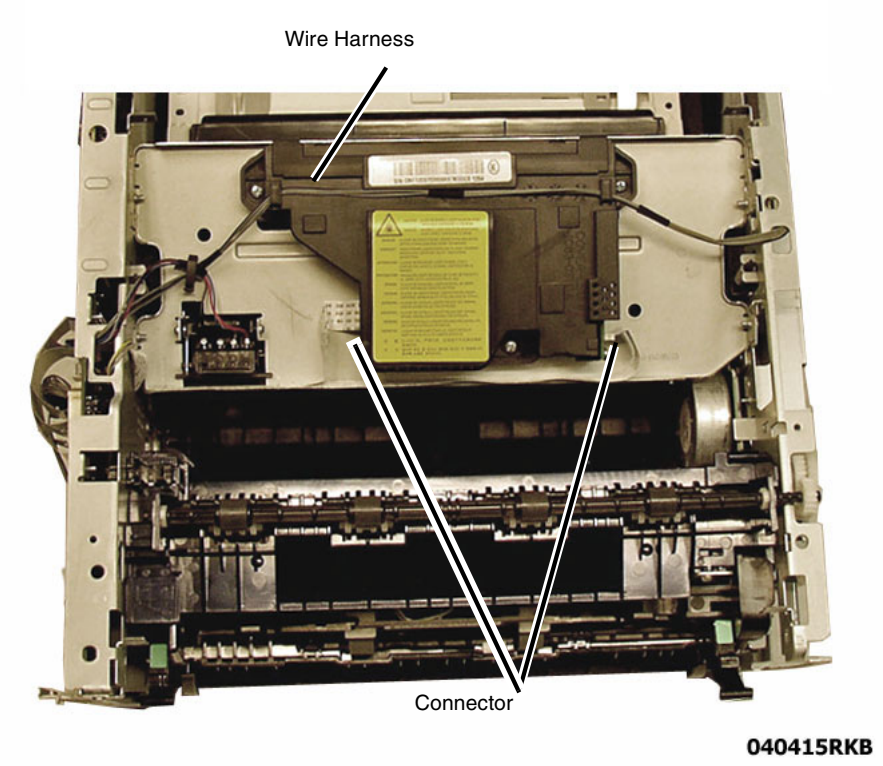


Figure 1 LSU Cable Connectors and Wire Harness (Top View)

NOTE: *The Flat Cable may be adhered to the LSU. Detach it from the LSU and reinstall it on the new LSU in the same location.*

4. Remove three screws, then remove the LSU, Figure 2.

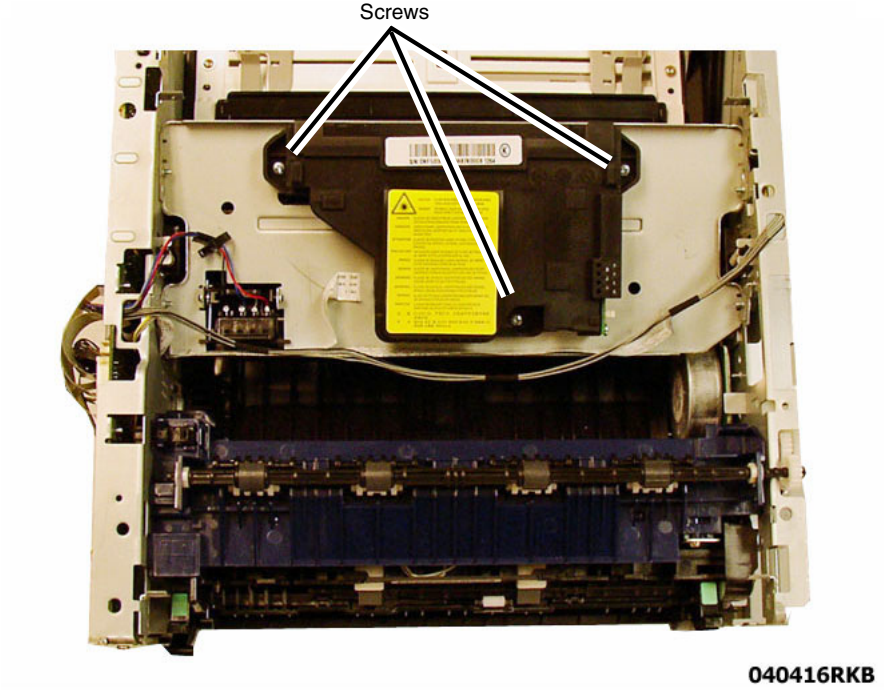


Figure 2 LSU Removal (Top View)

Replacement

Replacement is the reverse of the removal procedure.

REP 4.6 Duplex Assembly

Parts List on PL 4.2

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Paper Cassette.
3. Remove the Left and Right Side Covers, REP 2.2.
4. Remove the Rear Cover, REP 2.3.

   NOTE: *The Rear Cover holds the Duplex Assembly Pivot in the frame cutout. With the Rear Cover removed, the assembly will come out of the pivot when the front latches are released.*

5. Press the two green tabs in the front of the printer to release the Duplex Assembly, then remove the Duplex Assembly, Figure 1.

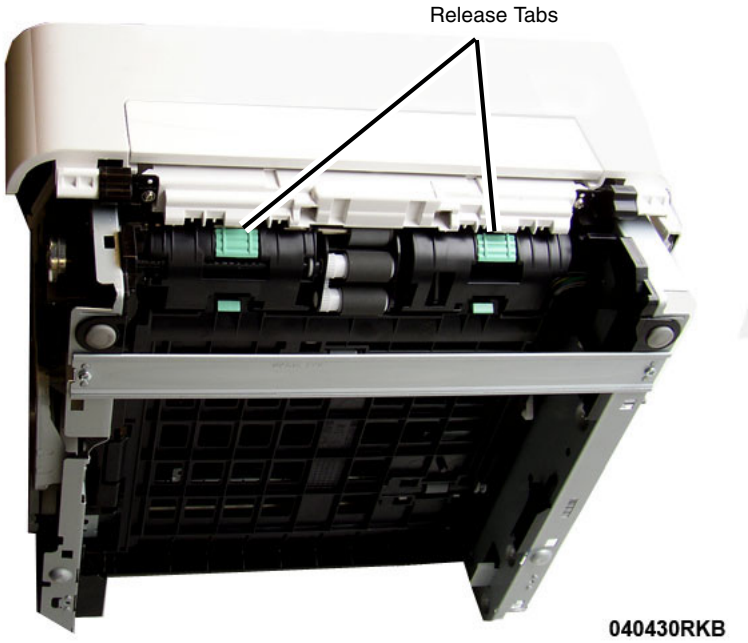


Figure 1 Duplex Assembly Release Tabs (Bottom View)

Replacement

Replacement is the reverse of the removal procedure.

Replace the Duplex as follows, Figure 2:

1. Insert the pivot on the left side into the hole.
2. Insert the right pivot into the frame cutout.
3. Lift and latch the front of the Duplex Assembly into position.

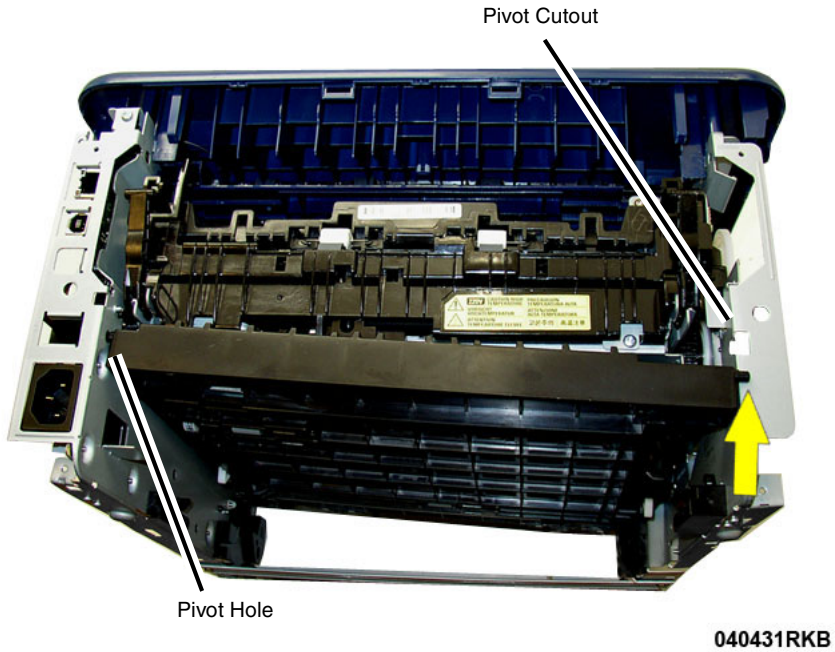


Figure 2 Duplex Assembly Pivots (Rear View)

REP 4.7 Output Tray Full Sensor

Parts List on PL 4.3

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Top Cover, REP 3.2.

NOTE: *Do not disconnect the connectors to the Main PWB. The PWB only needs to be moved away from the frame to access the Output Tray Full Sensor.*

NOTE: *Mark the location of the Ground Screw, with larger head, so it can be re-installed in the correct location.*

3. Remove five screws, then move the Main PWB out of the way, Figure 1.

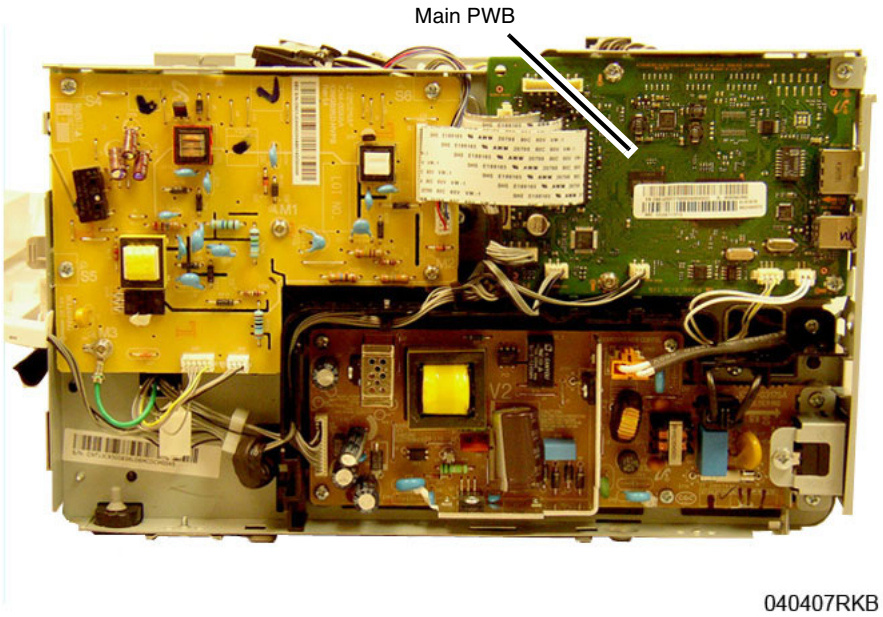


Figure 1 Main PWB

4. Remove the Output Tray Full Sensor, Figure 2:
   a. Disconnect the connector from the Output Tray Sensor.
   b. Unlatch, then remove the Output Tray Sensor.

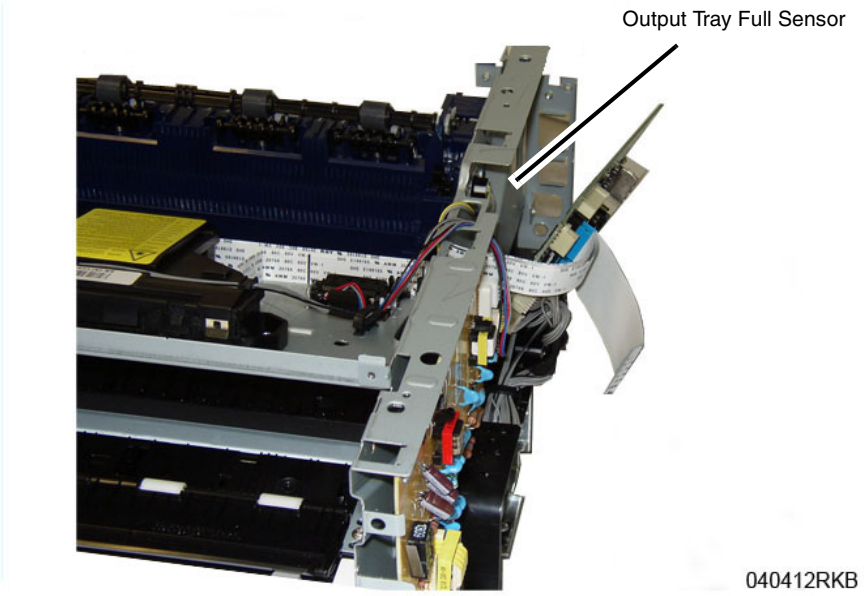


Figure 2 Output Tray Full Sensor (Top Right View)

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *When installing the Main PWB, make sure the ground screw with large head is installed in the correct location.*

REP 4.8 Exit Roll and Bushings

Parts List on PL 4.3

Removal

1. Switch Off the Printer and unplug the Power Cord.
2. Remove the Top Cover, REP 3.2.
3. Remove the Exit Roll and Bushings, Figure 1:
   a. Remove the Drive Gear.
   b. Release the latch, rotate the bushing, then remove the bushings.
   c. Remove the Exit Roll.

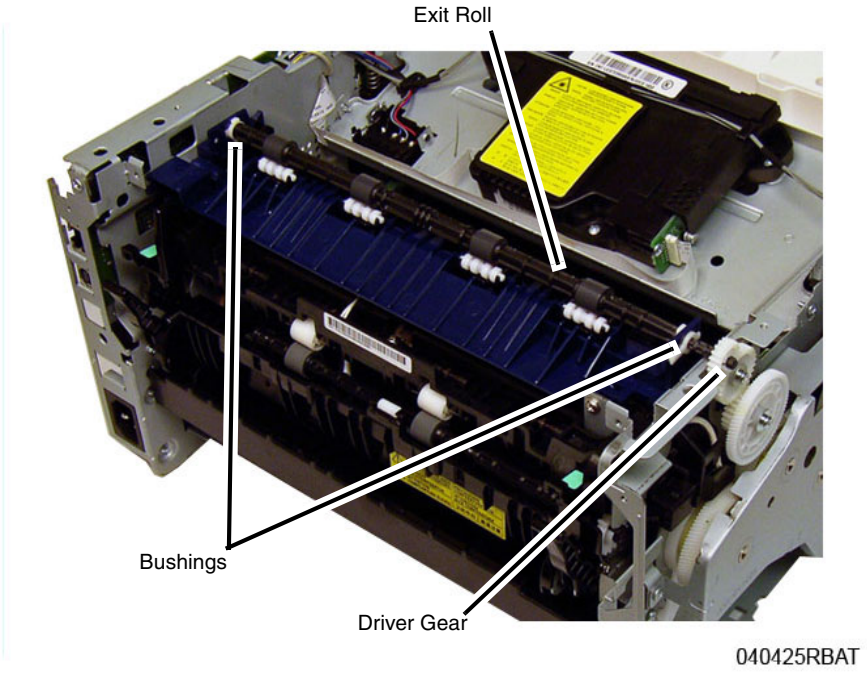


Figure 1 Exit Roll and Bushing (Top View)

Replacement

Replacement is the reverse of the removal procedure.

REP 4.9 Registration Roll

Parts List on PL 4.4

Removal

1. Switch Off the Printer and unplug the Power Cord.
2. Remove the Top Cover, REP 3.2.
3. Remove the Bottom Bar and Duplex Assembly, REP 4.6.
4. Remove the Fuser Module, REP 4.6.
5. Remove the Main Drive Unit, REP 4.17.
6. Remove the Feed and Registration Clutches, REP 4.3.
7. Remove the Feed and Registration Clutch Drive Gears, Figure 1.

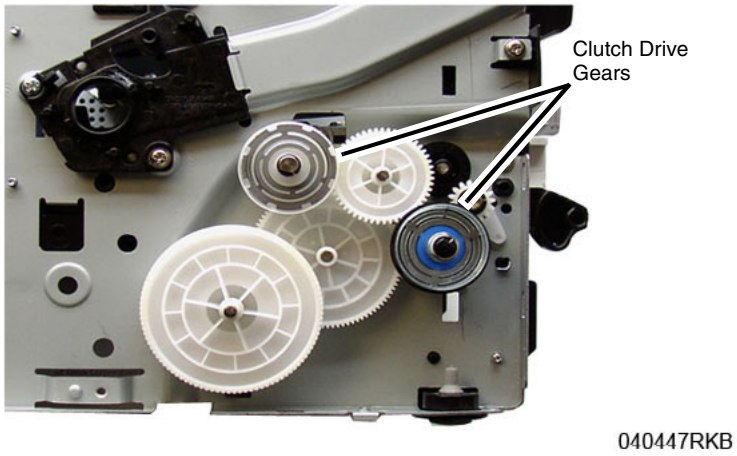


Figure 1 Feed and Registration Clutch Drive Gears

8. Remove the feed and registration drive gears and bushings, Figure 2:

   NOTE: *Make note of the order the feed and registration drive gears are removed for re-installation.*

   a. Remove the snap-ring, then remove the feed and registration drive gears.
   b. Remove two snap-rings, then remove then feed and registration clutch bushings.
   c. Release two latches, then remove the shaft bushings.

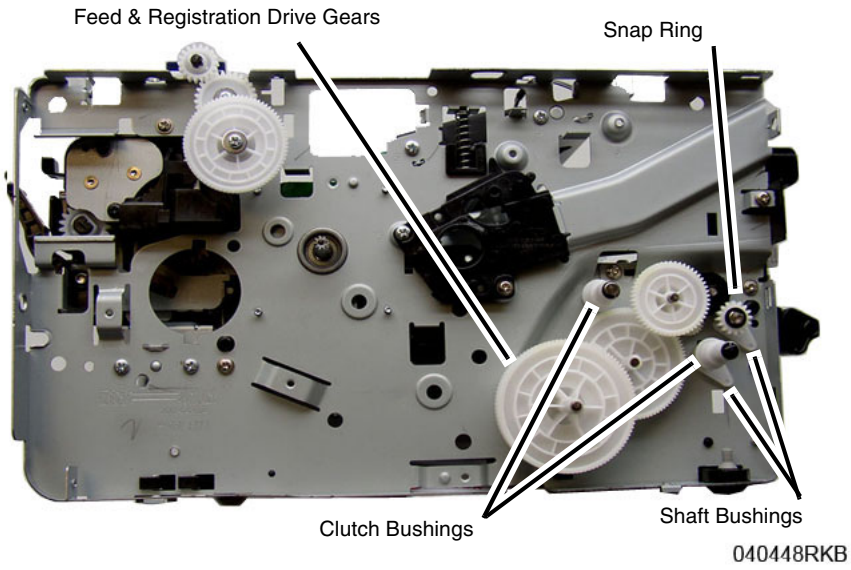


Figure 2 Drive Gears and Bushings

9. Remove the Feed and Registration Sensor PWB Cover, Figure 3:
   a. Remove the screw.
   b. Release the latch, then remove the cover.

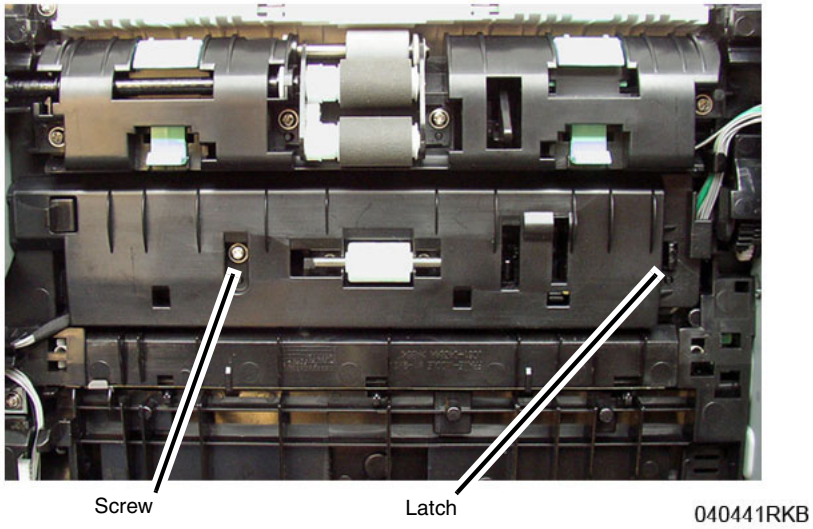


Figure 3 Feed and Reg Sensors PWB Cover (Bottom View)

10. Release the latch noting the location of the spring in the frame, then release the Feed Sensor Actuator, Figure 4.

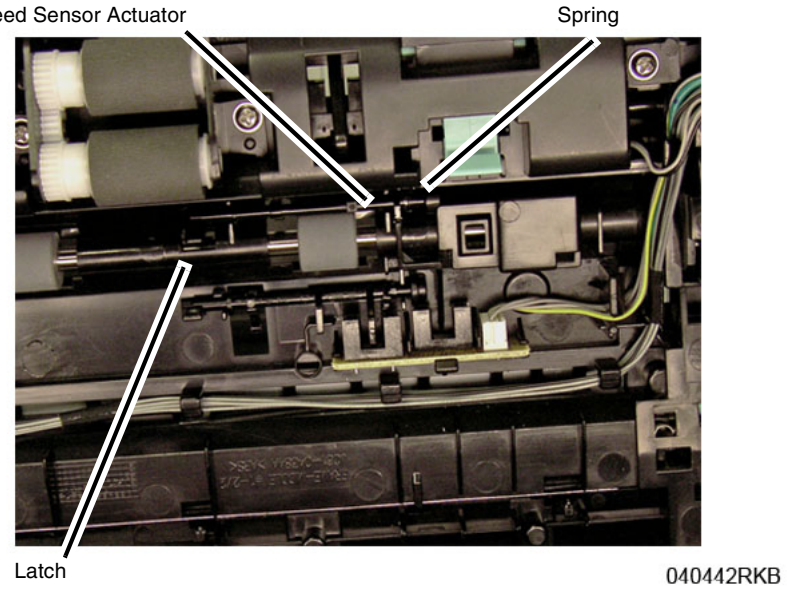


Figure 4 Feed Sensor Actuator (Bottom View)

11. On the bottom of the printer, disconnect the drive motor connector, then remove the ground screw, Figure 5.

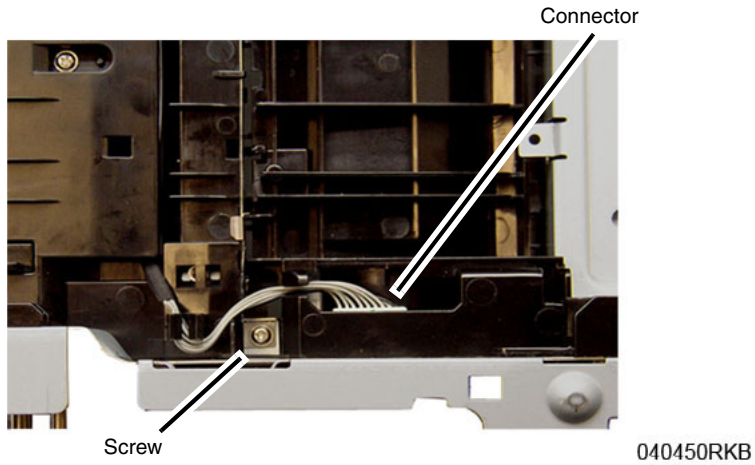


Figure 5 Drive Motor Connector & Screw (Bottom View)

12. Remove the HVPS, LVPS, and Main PWB's, Figure 6:
    a. Disconnect three connectors, three FFCs, remove six screws, then the HVPS PWB. Remove four contact springs from the high voltage contact guide.
    b. Disconnect four connectors, remove six screws, then remove the LVPS PWB. Remove the insulation (black) pad behind the LVPS PWB.
    c. Disconnect seven connectors, three FFCs, remove five screws, then remove the Main PWB.

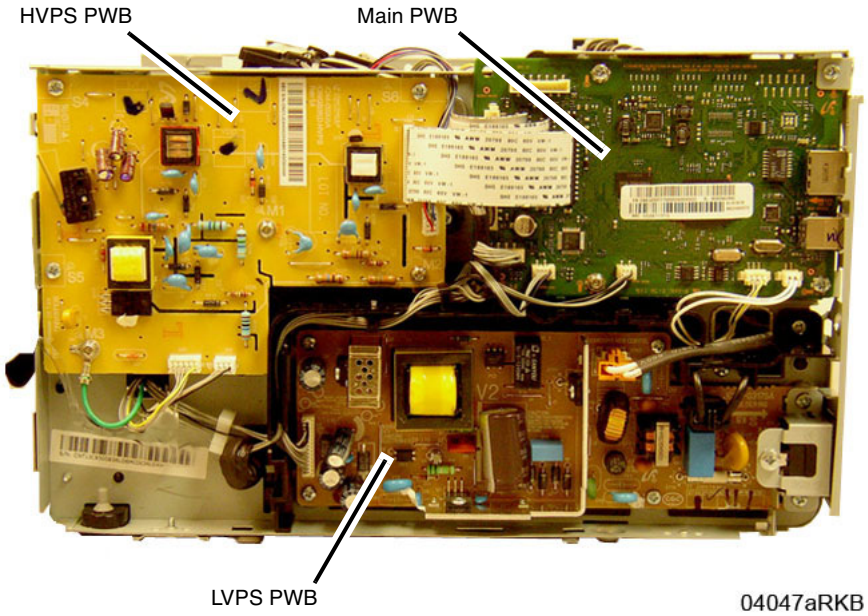


Figure 6 PWB Removal

13. Remove two screws on the left frame, Figure 7, two screws on the right frame, Figure 8, then remove the LSU Assembly.

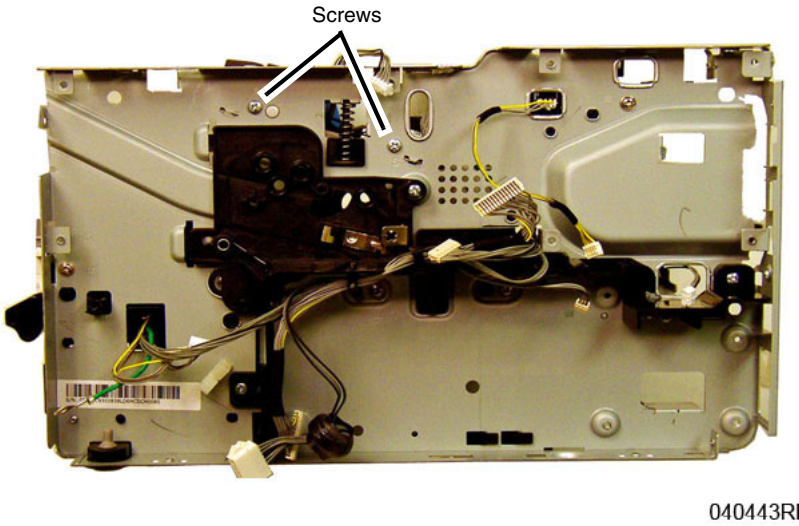


Figure 7 LSU Left Side Screws

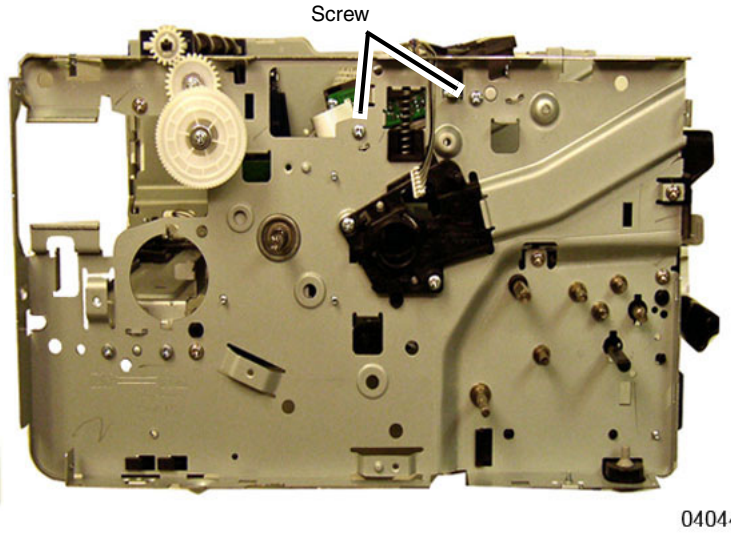


Figure 8 LSU Right Side Screws

14. Remove two screws on the wire harness guide, the screw securing the high voltage contact guide, then remove the guides, Figure 9.

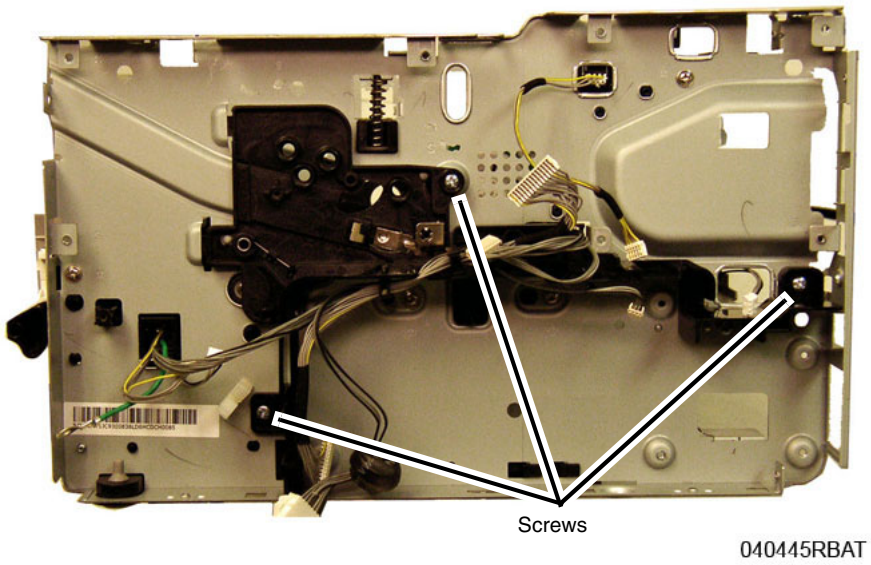


Figure 9 Wire Guides and HV Contact Guide

15. Remove two screws from the right frame securing the Exit Sensor Plate, Figure 10.

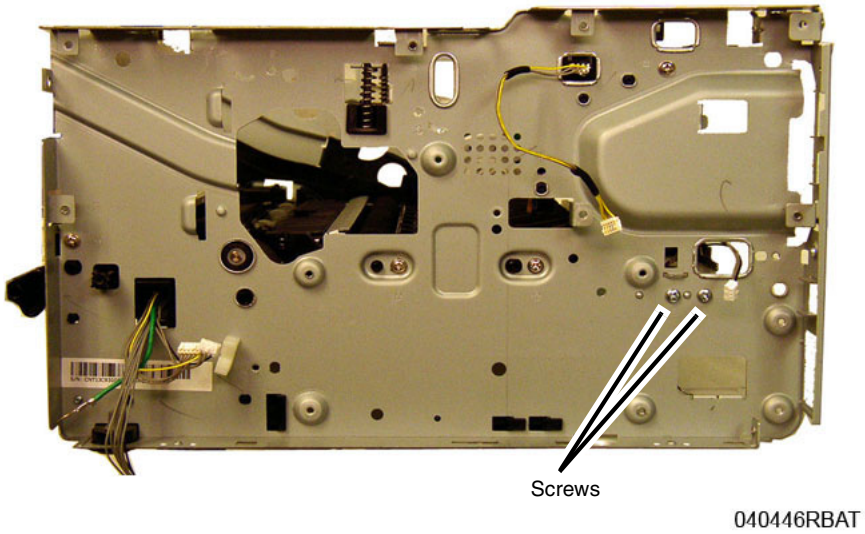


Figure 10 Exit Sensor Plate Screws

16. Remove two screws securing the Pickup Frame Base, then three screws securing the Middle Frame on the right-side, Figure 11.

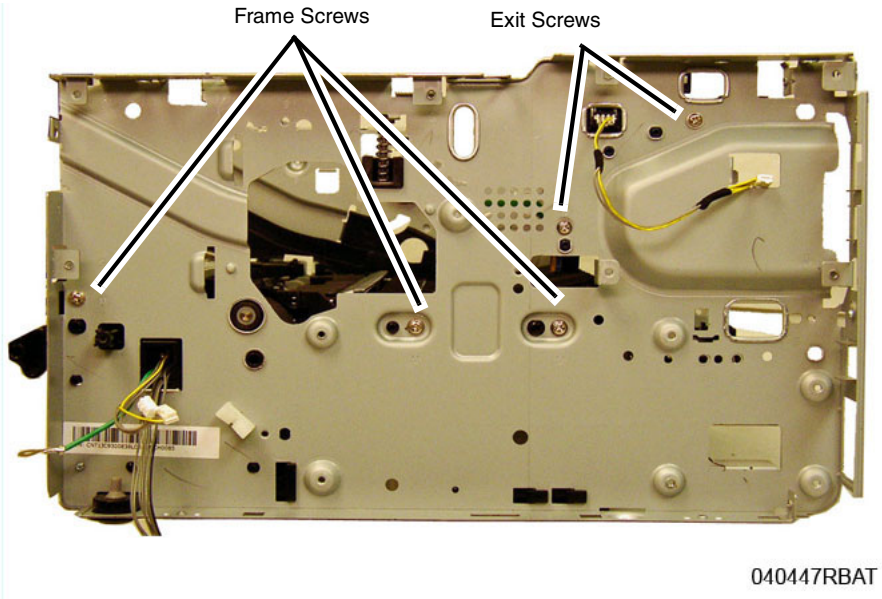


Figure 11 Right Frame Screws Removal

17. Remove three screws securing the Middle Frame and Pickup Frame Base on the left-side, Figure 12.

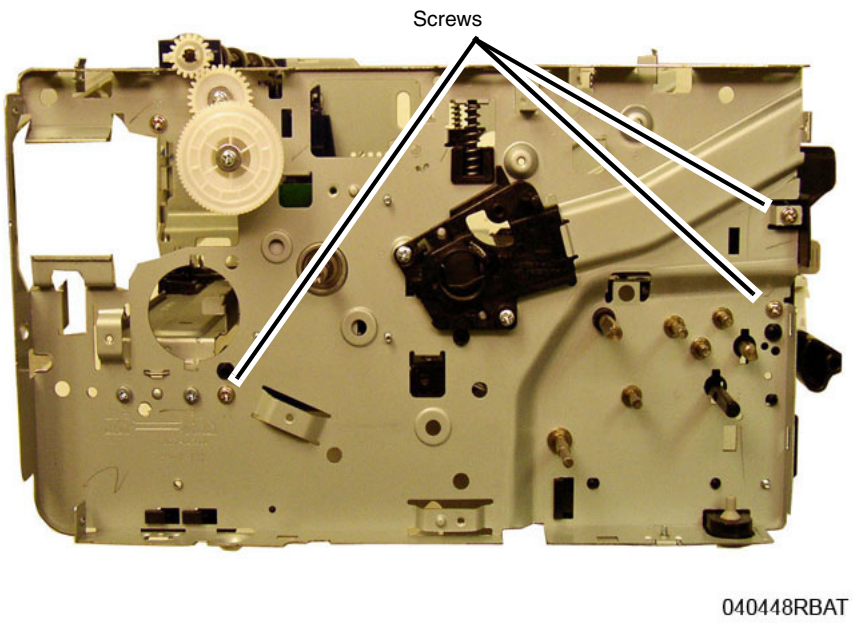


Figure 12 Left Frame Screw Removal

18. Separate the left and right frames from the Middle Frame routing the wires through the frames as needed.
19. Remove the Pivot Plate, Collar, the Registration Roll Pivot Gear, Figure 13, then the Registration Roll Drive Gear, Figure 14.

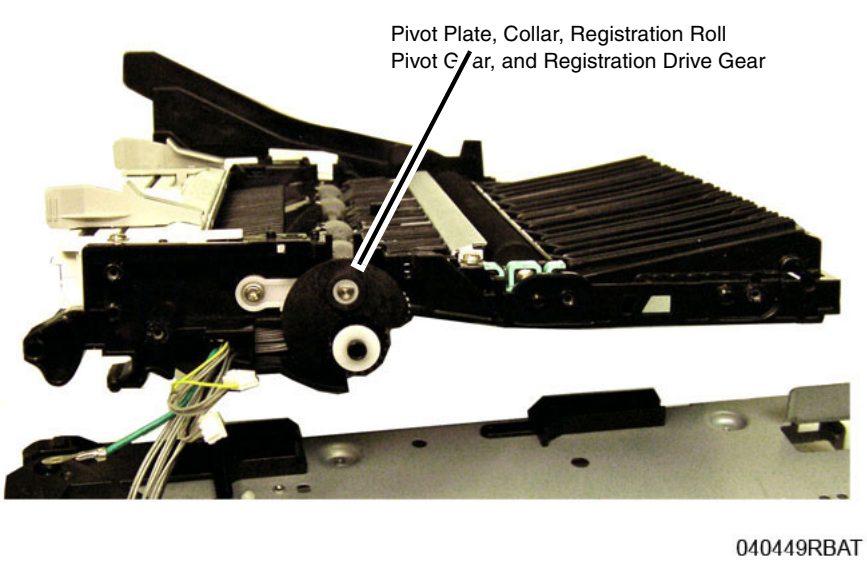


Figure 13 Registration Roll Drive Pivot Gears

20. Remove the screw, then remove the Registration Holder, Figure 14.

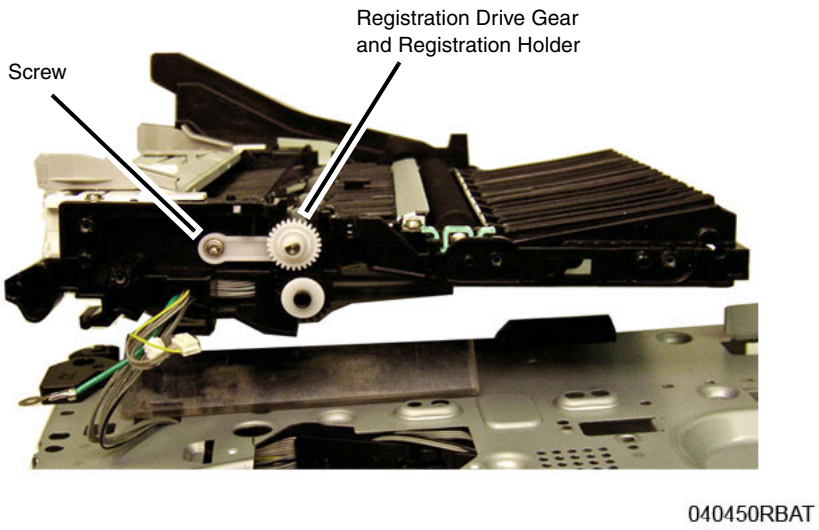


Figure 14 Registration Roll Drive Gear and Bushing

21. Remove the Registration Roll from the Middle Frame noting the location of the bushing, Figure 15.

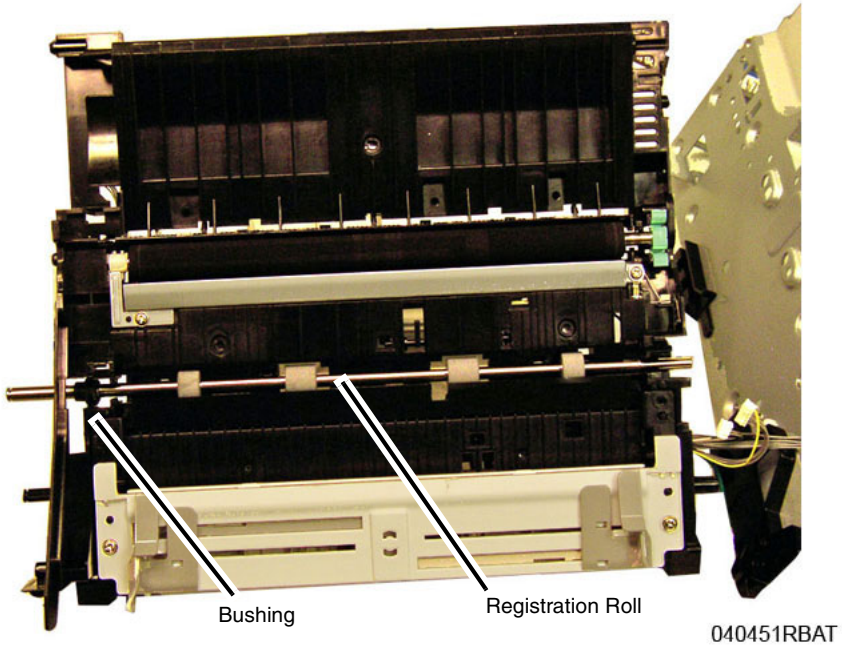


Figure 15 Registration Roll Removal

22. Remove the Bushing and E-ring from the Registration Roll, Figure 16.

Figure 16 Registration Roll

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Tapered Plastic Screws and Round Machine Screws are used to hold the parts to the frame. Make sure that the Plastic Screws go into plastic components and Machine Screws go into the metal frame.*

Assemble the frame:

NOTE: *The Frame is flexible and can be bowed out if the screws are not tightened in the correct order.*

1. Align the left and right frames together with the paper path modules; install, but do not tighten, the three Middle Frame screws on each side of the printer. Refer to, Figure 14 and Figure 15, in the removal procedure.
2. Loosely install, the three Middle Frame screws on each side of the printer. Refer to, Figure 14 and Figure 15, in the removal procedure.
3. On the bottom of the printer, install the ground screw, then connect the drive motor connector. Refer to, Figure 8 in the removal procedure.
4. Tighten the three Middle Frame screws installed in Step 1.
5. Install the Paper Feed Sensor Actuator, ensure the spring is properly seated in the frame cutout. Refer to, Figure 7 in the removal procedure.
6. Install the Feed and Registration Drive Gears and snap ring. Refer to, Figure 17.

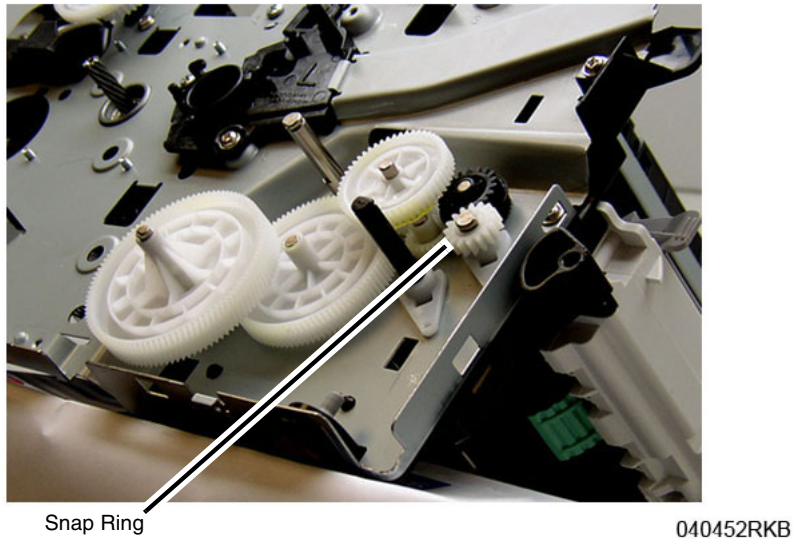


Figure 17 Feed and Registration Drive Gears

7. Install the Front Cover Support Arm, Figure 18.

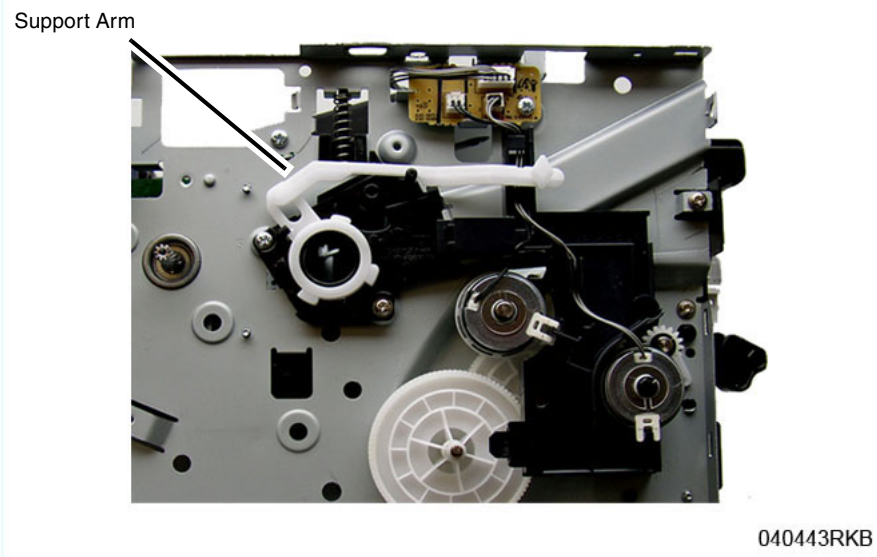


Figure 18 Front Cover Support Arm Placement

REP 4.10 Feed and Registration Sensors PWB and Actuators

Parts List on PL 4.4

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Duplex Assembly, REP 4.6.
3. Set the printer on the Rear Cover (Front of printer facing up).
4. Remove two screws, then remove the Bottom Bar, Figure 1.

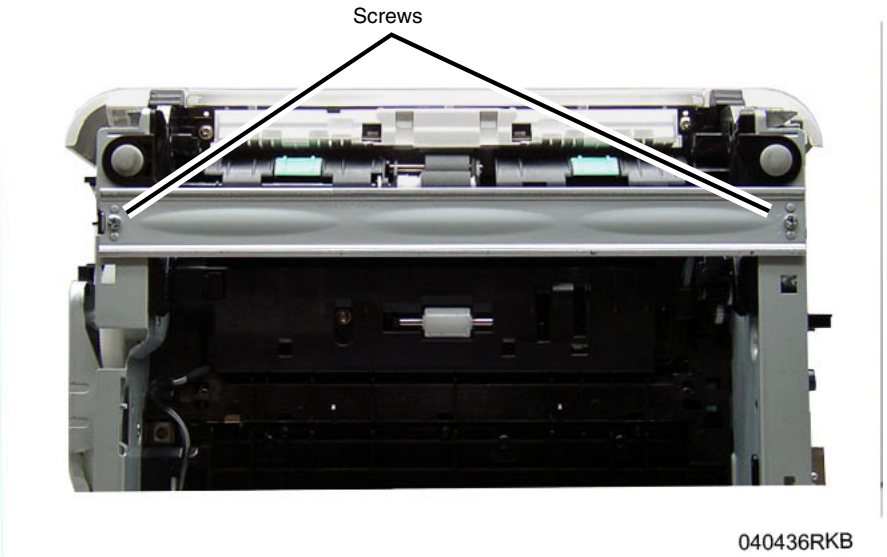


Figure 1 Bottom Bar (Bottom View)

5. Remove the screw, then remove the Feed and Registration Sensor PWB Cover, Figure 2.

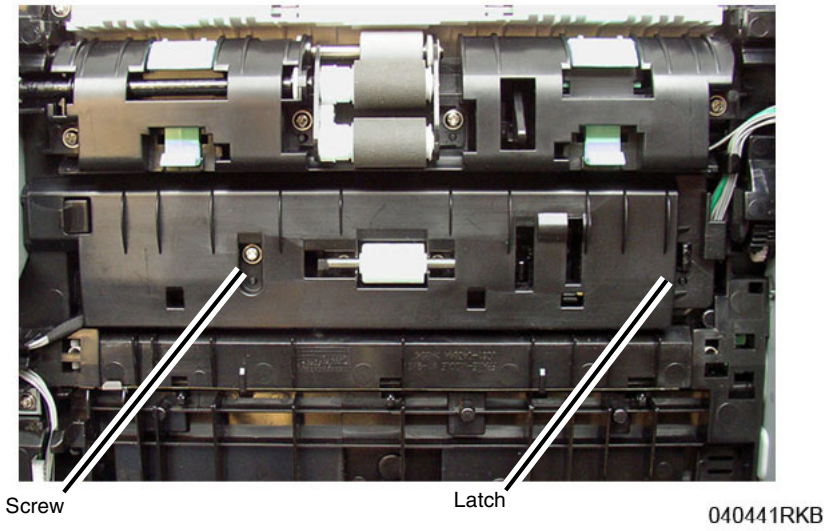


Figure 2 Feed and Reg Sensors PWB Cover (Bottom View)

6. Release the latch, then remove the Feed and Registration Sensor PWB, Figure 3.

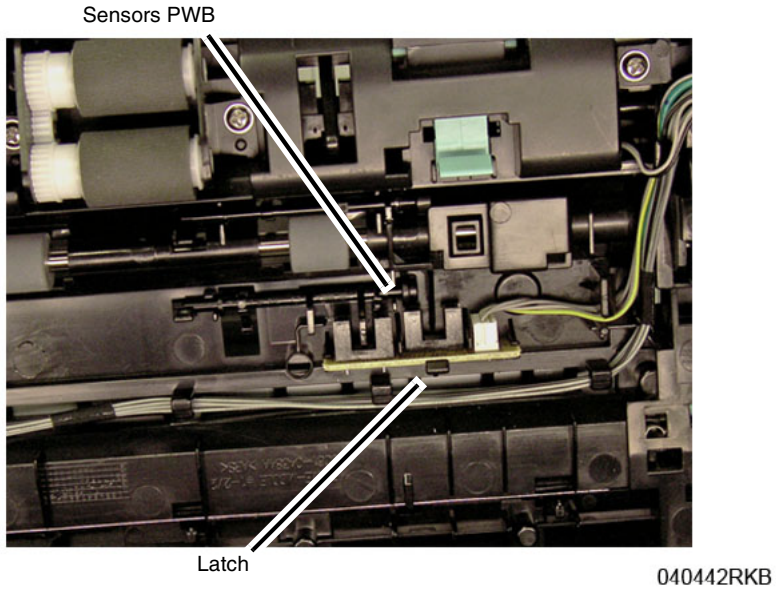


Figure 3 Feed and Registration Sensors PWB (Bottom View)

7. Release the actuator from the latch, then remove the Feed and Registration Sensor Actuators, Figure 4:

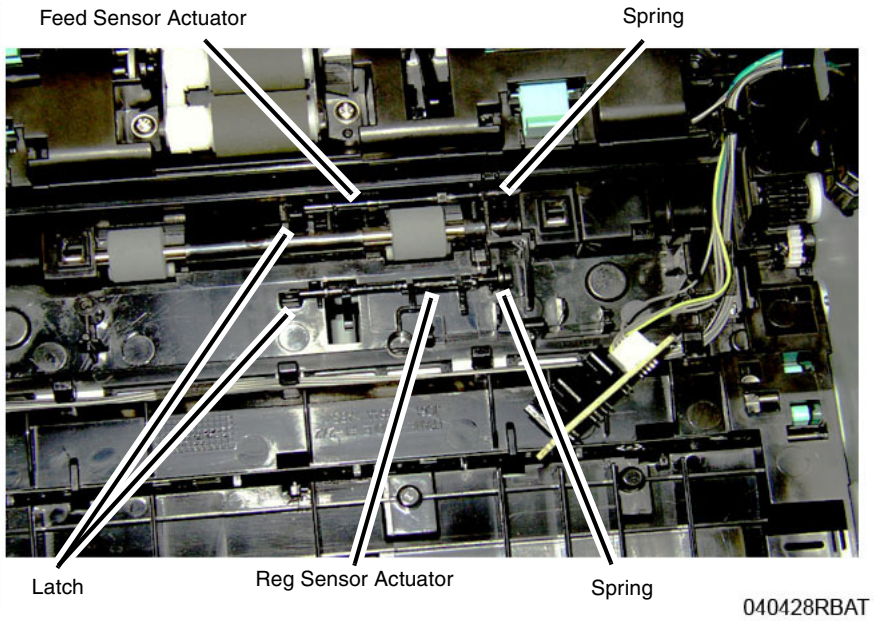


Figure 4 Feed and Registration Sensors Actuators (Bottom View)

Note the location of the Spring in the frame cutout for reinstallation, Figure 5.

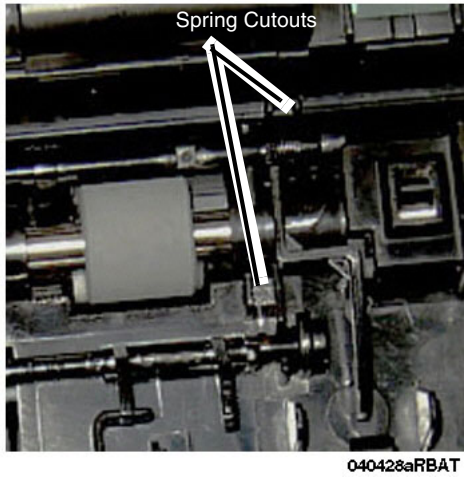


Figure 5 Actuator Spring Cutouts (Bottom View)

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Tapered plastic screws and round machine screws are used to hold the cover to the frame. Make sure that the plastic screws go into plastic components and machine screws go into the metal frame.*

REP 4.11 Manual Paper Tray

Parts List on PL 4.4

Removal

1. Switch Off the Printer and unplug the Power Cord.
2. Remove the Top Cover, REP 3.2.
3. Remove two screws securing the bottom of the Manual Paper Tray, Figure 1.

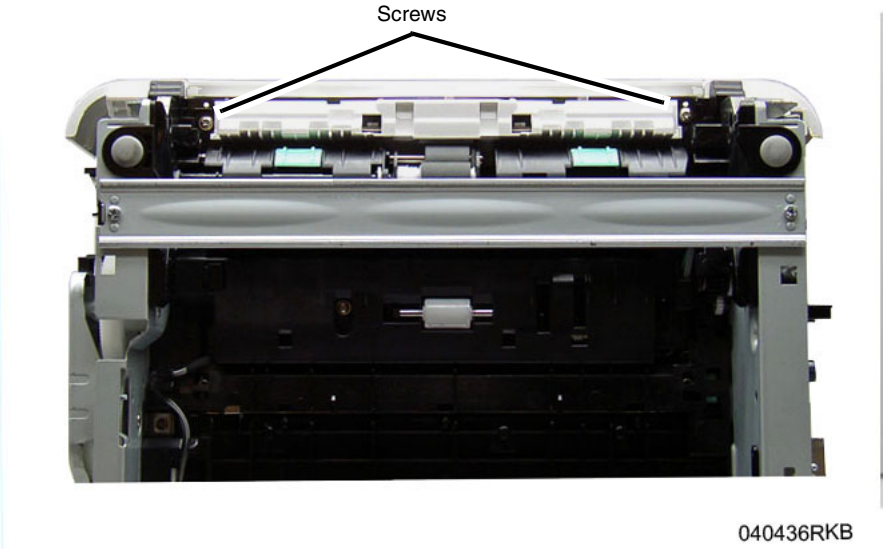


Figure 1 Manual Paper Tray Bottom Screws (Bottom View)

4. Remove two screws securing the top of the Manual Paper Tray, then remove the Manual Paper Tray, Figure 2.

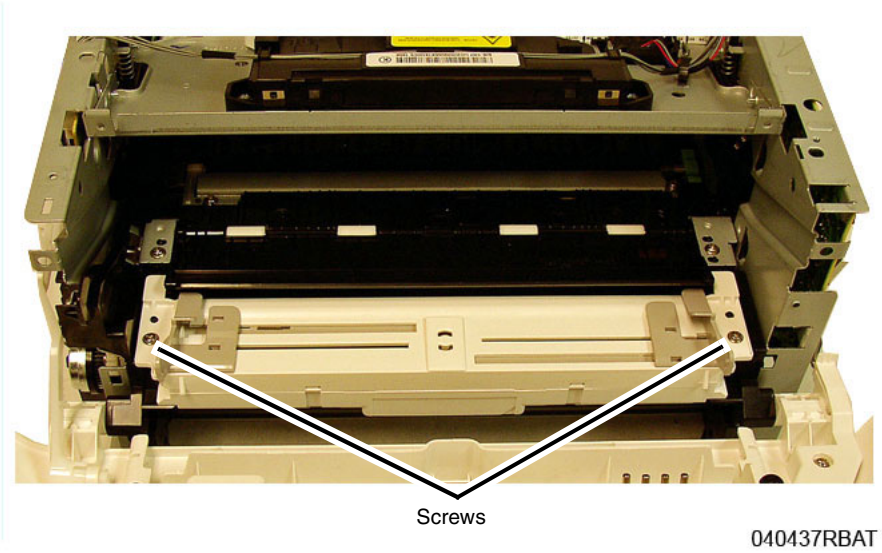


Figure 2 Manual Paper Tray Top Screws (Top View)

Replacement

Replacement is the reverse of the removal procedure.

REP 4.12 Exit Sensor

Parts List on PL 4.1

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Left and Right Side Covers, REP 2.2.
3. Remove the Rear Cover, REP 2.3.
4. Remove the Fuser, REP 5.1.
5. Release the latch on the underside of the frame to release the Exit Sensor Mounting Plate from the frame, Figure 1.

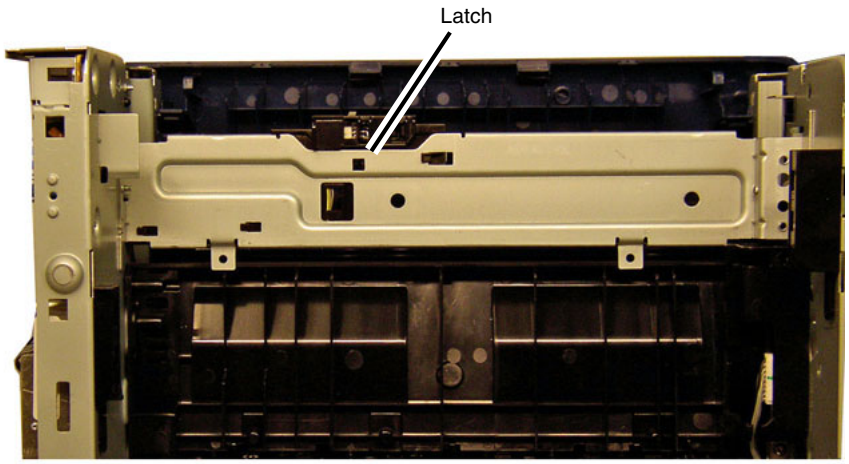


Figure 1 Exit Sensor Plate Latch Release (Bottom View)

6. Release the exit sensor harness from the harness guide, then remove the Exit Sensor, Figure 2.

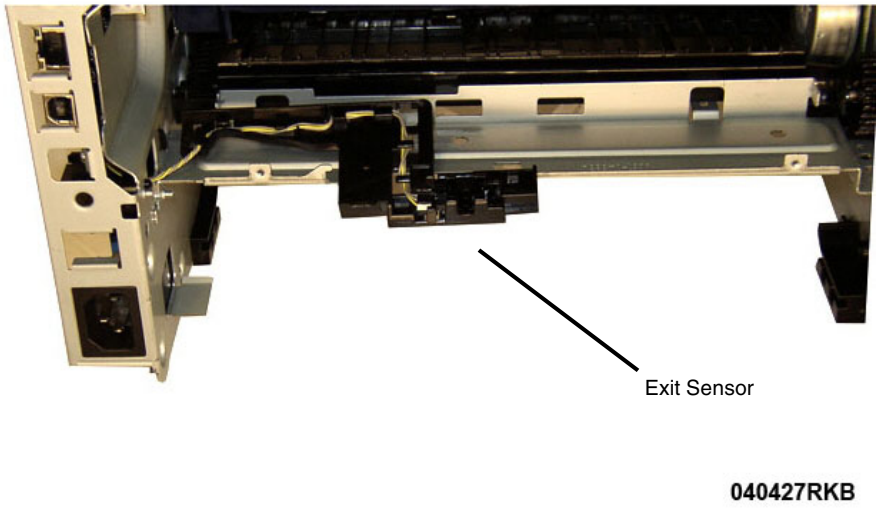


Figure 2 Exit Sensor Removal (Rear View)

Replacement

Replacement is the reverse of the removal procedure.

REP 4.13 Paper Drive Roll

Parts List on PL 4.5

Removal

1. Switch Off the Printer and unplug the Power Cord.
2. Remove the Top Cover, REP 3.2.
3. Remove the Main Drive Unit, REP 4.17.
4. Remove the Feed and Registration Clutches, REP 4.3.
5. Remove the Feed and Registration Clutch Drive Gears, Figure 1.

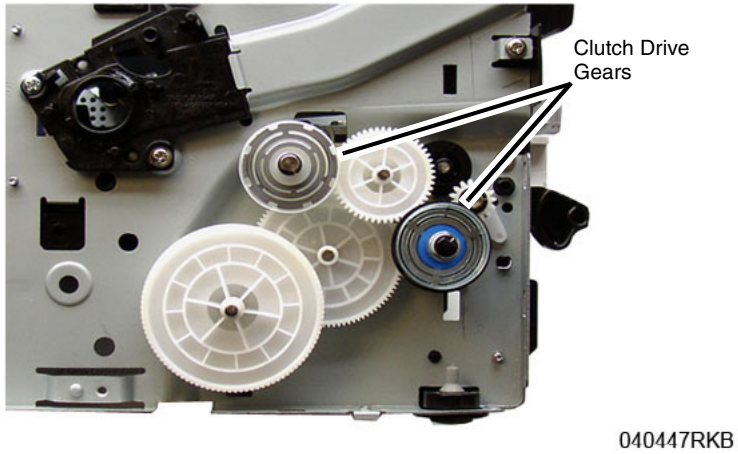


Figure 1 Feed and Registration Clutch Drive Gears

6. Remove the following items, Figure 2:
   a. Remove two Drive Gears.
   b. Remove the snap-ring, then remove the Feed Clutch Bushing.
   c. Release the latch, rotate the bushing, then remove two Feed Shaft Bushings.
   d. Remove the Feed Assembly screw.

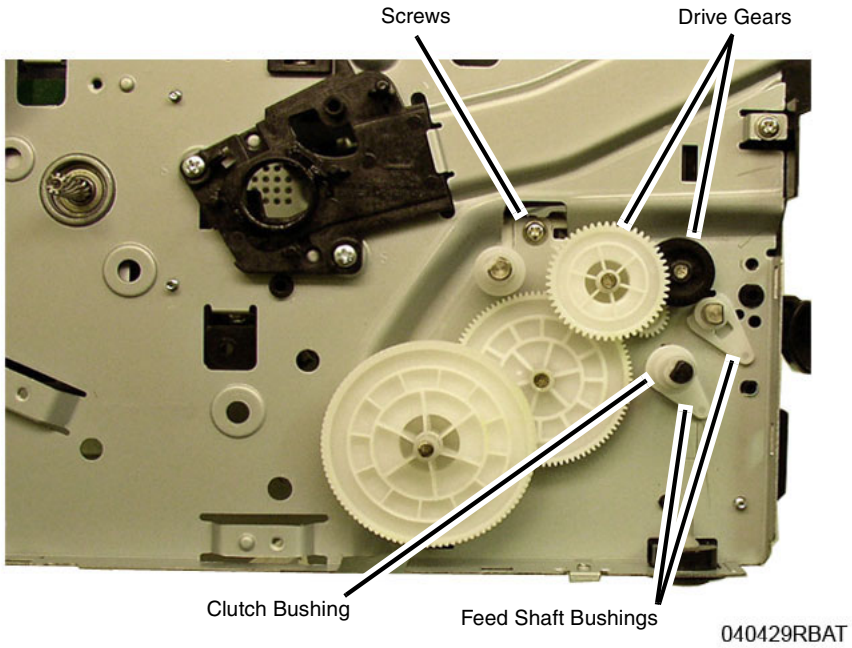


Figure 2 Feeder Drives

7. Remove two screws from the bottom of the Feed Assembly, Figure 3.

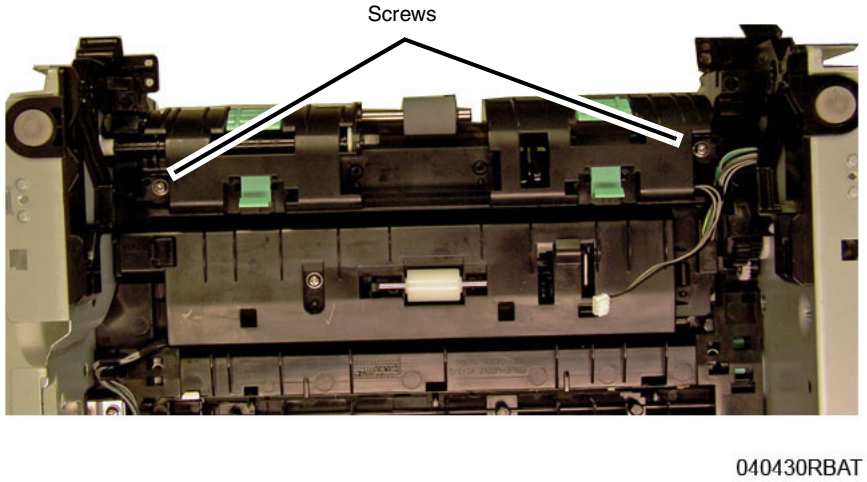


Figure 3 Feeder Assembly Bottom Screws (Bottom View)

CAUTION

The Brackets holding the Registration Pinch Rolls and Guide are Spring Loaded. Maintain light pressure on the Brackets when removing them to avoid damaging or losing parts or personal injury.

8. Remove two screws, then remove the Registration Pinch Rolls and Paper Guide Brackets, Figure 4.

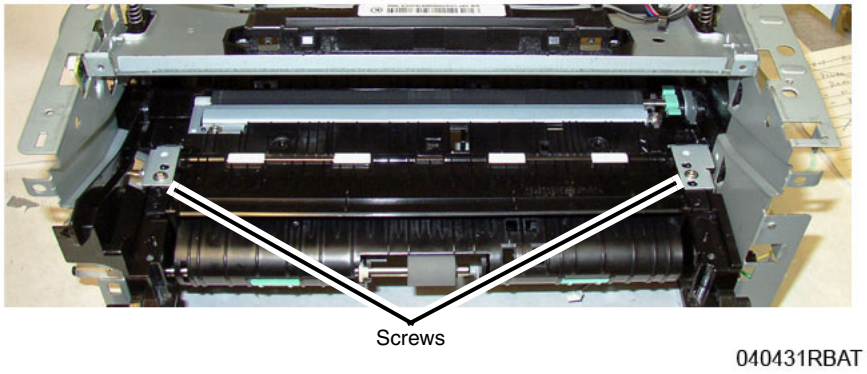


Figure 4 Registration Pinch Rolls and Paper Guide Brackets

9. Lift the Pinch Rolls and Paper Guide out of the printer, then remove the Feed Assembly upper half, Figure 5.

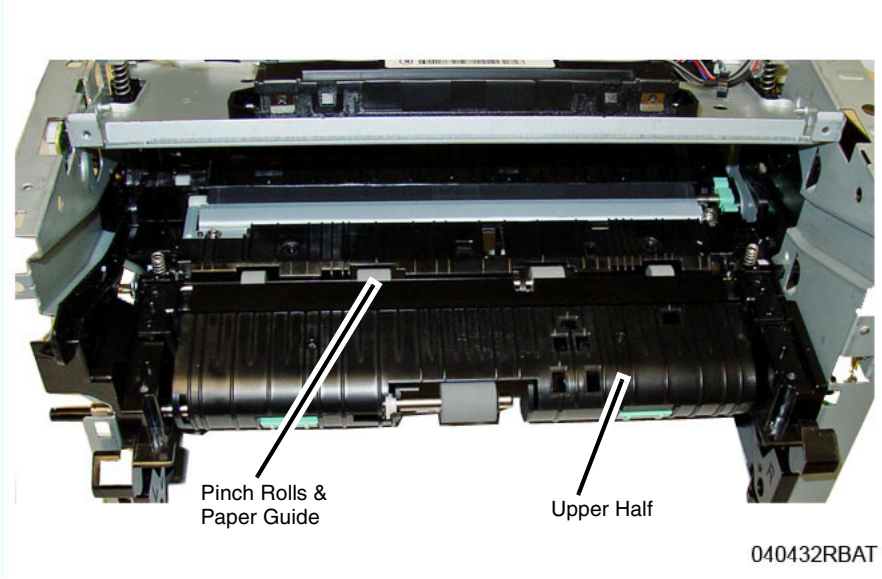


Figure 5 Registration Pinch Rolls and Paper Guide

10. Remove the Feed Assembly lower half, then remove the Drive Roll from the lower half, Figure 6.

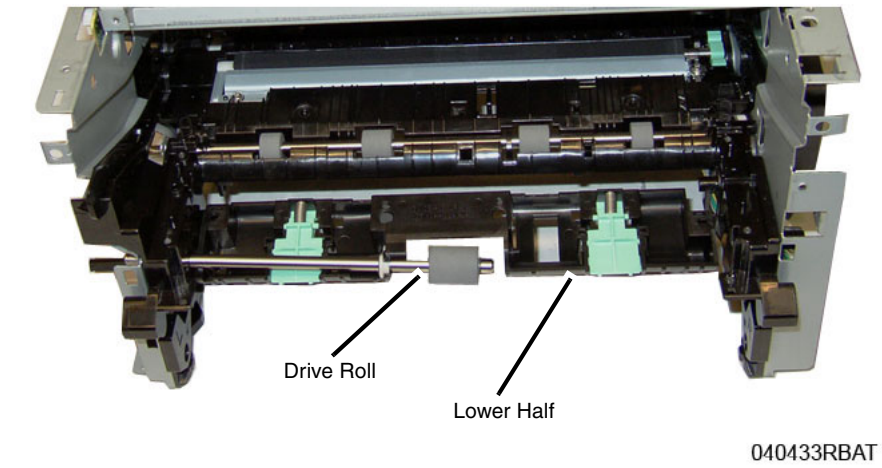


Figure 6 Feed Assembly Lower Half

11. Remove the snap rings and bushing from the Drive Roll Shaft, Figure 7.

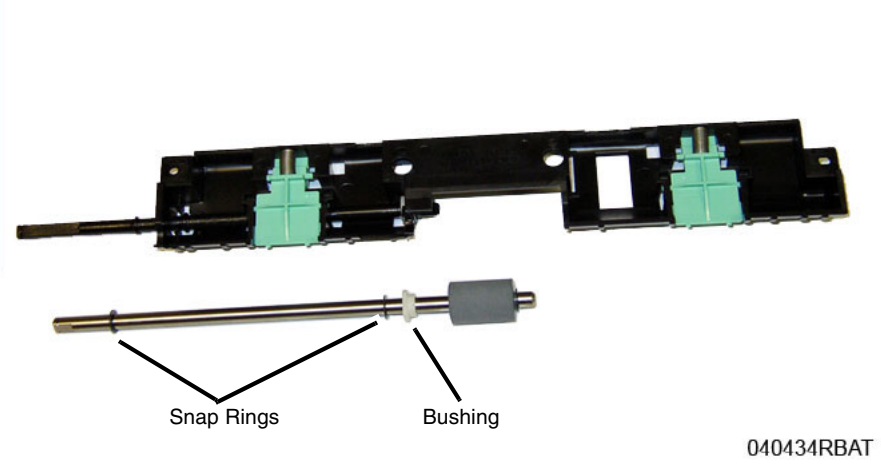


Figure 7 Drive Roll

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Tapered plastic screws and round machine screws are used to hold the cover to the frame. Make sure that the plastic screws go into plastic components and machine screws go into the metal frame.*

1. Install the Drive Roll in the Feed Assembly lower half, ensure the flat on the bushing aligns with the flat on the assembly
2. Install the Feed Assembly upper half, install the two Feed Assembly bottom screws, then route the wires through the frame. Refer to, Figure 6 in the removal procedure.

REP 4.14 Paper Feed Roll Assembly

Parts List on PL 4.4

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Paper Cassette.
3. Remove the Left and Right Side Covers, REP 2.2.
4. Set the printer on the back, front of the printer facing up.
5. Remove two screws, then remove the Bottom Bar, Figure 1.

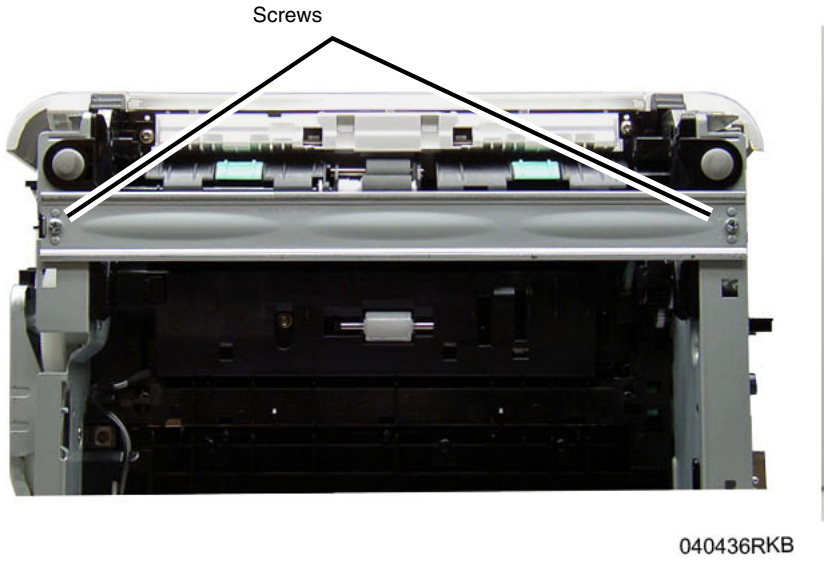


Figure 1 Removing the Bottom Bar (Bottom View)

6. Remove two screws, pull the right-side of the Paper Feed Roll Assembly out, then slide the Paper Feed Roll Assembly right and remove, Figure 2.

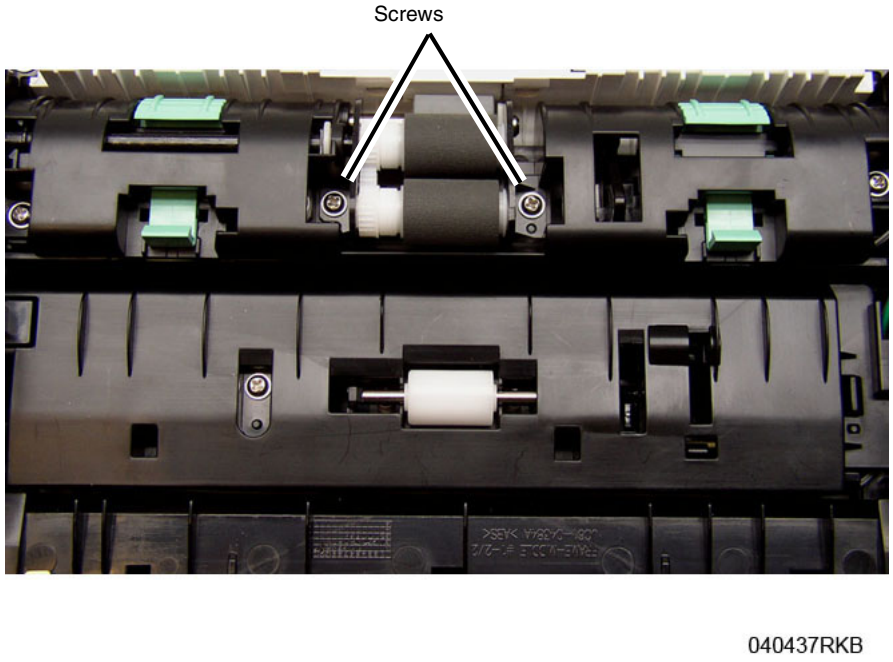


Figure 2 Paper Feed Roll Assembly removal (Bottom View)

7. Remove the Retard Rolls from the assembly, Figure 3.

Figure 3 Retard Rolls removal

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Tapered plastic screws and round machine screws are used to hold the cover to the frame. Make sure that the plastic screws go into plastic components and machine screws go into the metal frame.*

NOTE: *When replacing the Paper Feed Roll Assembly ensure the flat of the bushing is lined up with the flat on the assembly, Figure 4.*

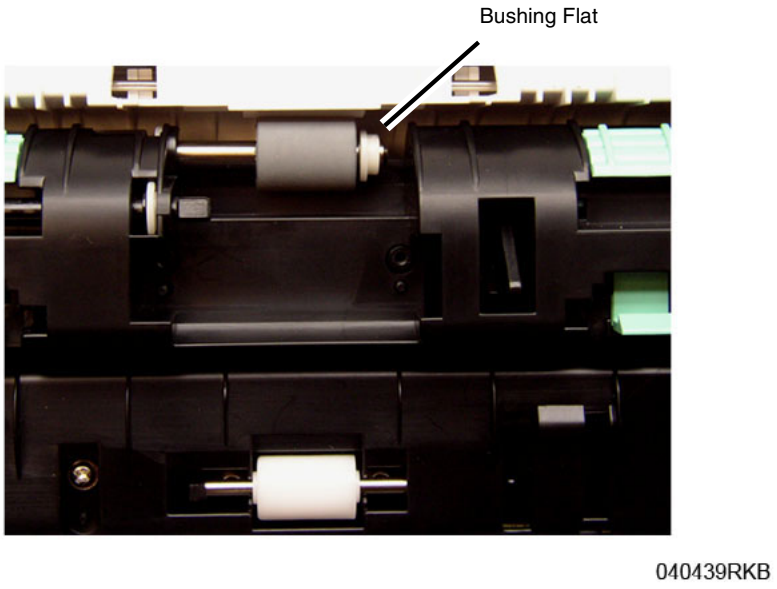


Figure 4 Bushing Flat (Bottom View)

REP 4.15 Drive Motor

Parts List on PL 4.6

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Top Cover, REP 3.2.
3. Remove the Bottom Bar and Duplex Assembly, REP 4.6.
4. Remove the Main Drive Unit, REP 4.17.
5. Remove the Feed and Registration Clutches, REP 4.3.
6. Remove the Feed and Registration Clutch Drive Gears, Figure 1.

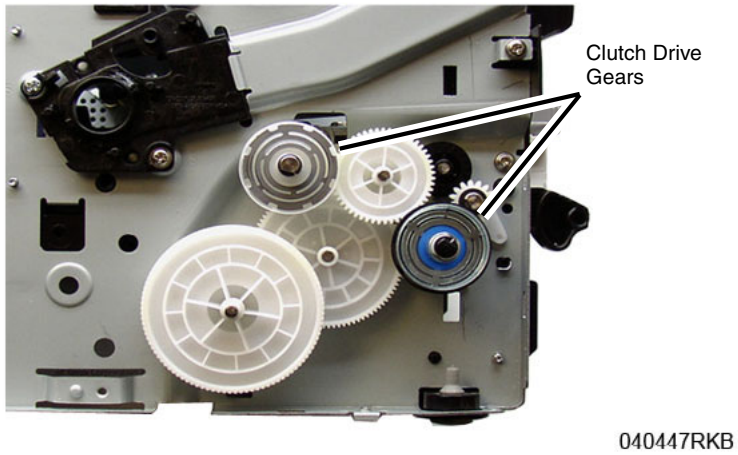


Figure 1 Feed and Registration Clutch Drive Gears

7. Remove the following items, Figure 2:

CAUTION

Note the order the Feed and Registration Drive Gears are removed for correct installation during the replacement procedures.

a. Remove the snap-ring, then remove the Feed and Registration Drive Gears.
b. Remove two snap-rings, then remove two Feed and Registration Clutch Bushings.
c. Remove two screws, release the latch, the remove the Exit Drive Gears.

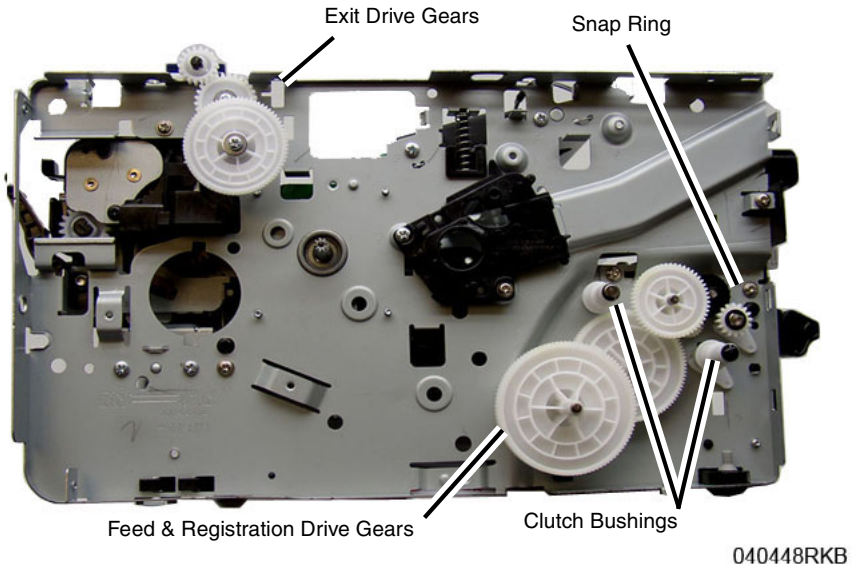


Figure 2 Drive Gears and Bushings

8. Remove the following from the left frame, Figure 3:

a. Release two latches, then remove two Shaft Bushings.
b. Remove two screws securing the LSU support.
c. Remove five screws securing the Middle Frame and Pickup Frame Base.

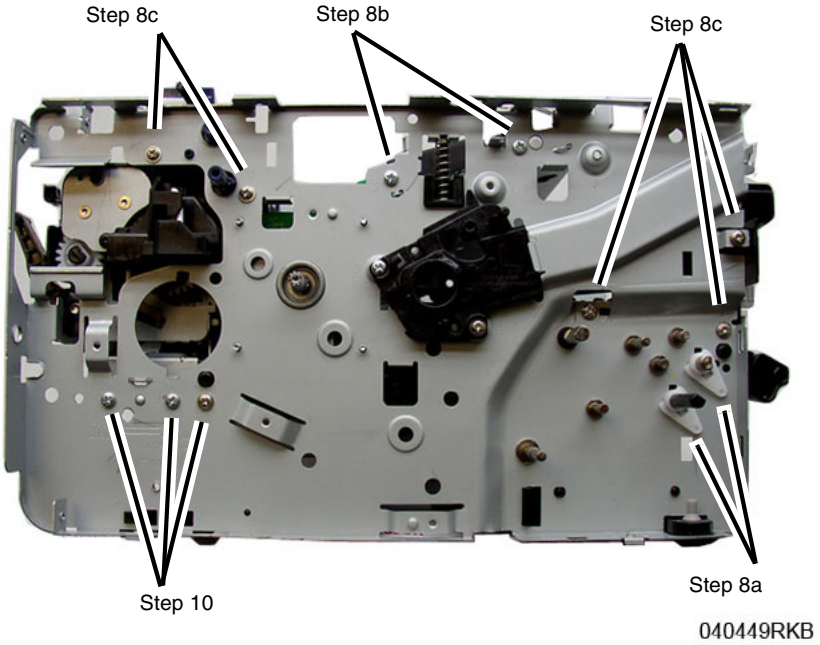


Figure 3 Frame Screw Removal

9. Disconnect the Drive Motor connector, then remove the ground screw, Figure 4.

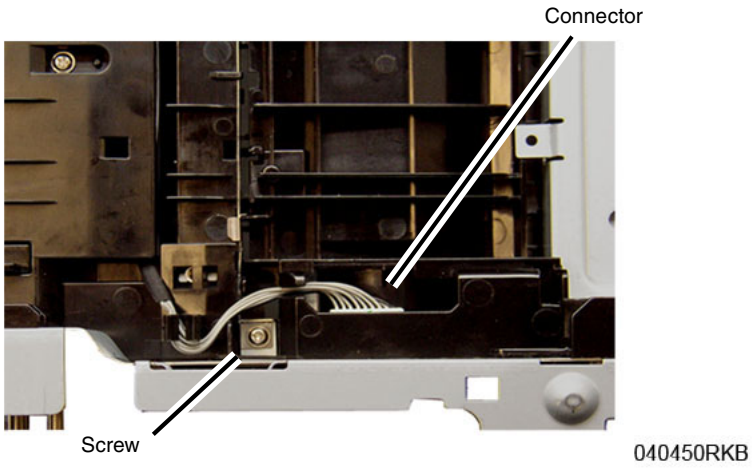


Figure 4 Drive Motor Connector & Ground Clip (Bottom View)

10. Remove three screws in the left frame, Figure 3.
11. Remove four screws, then remove the Drive Motor, Figure 5.

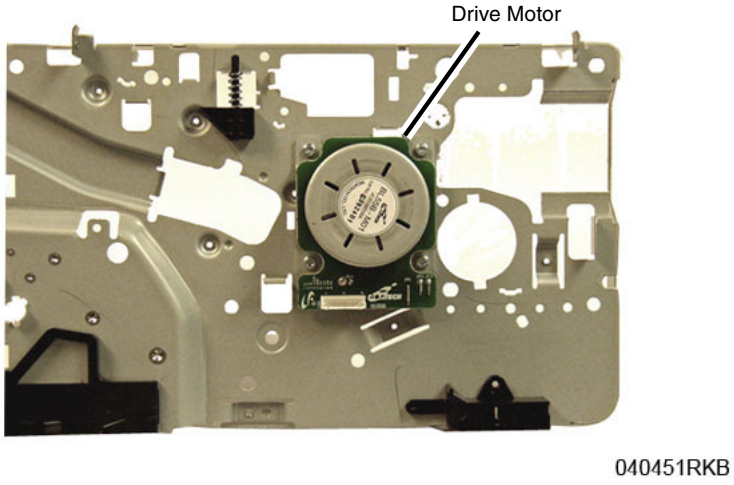


Figure 5 Drive Motor

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Tapered Plastic Screws and Round Machine Screws are used to hold the PWB to the frame. Make sure that the Plastic Screws go into plastic components and Machine Screws go into the metal frame.*

1. Install the new Drive Motor.

   NOTE: *The Frame is flexible and can be bowed out if the screws are not tightened in the correct order.*

   Reinstall the Frame as follows so it seats flush against the printer internal modules.

2. Align the Frame on to the internal modules and shafts.

   NOTE: *Do Not fully tighten the screws in Step 3 until instructed.*

3. Install, but do not tighten, the following module screws, Figure 6:
   a. The two Fuser Module screws.
   b. The three Middle Frame screws.

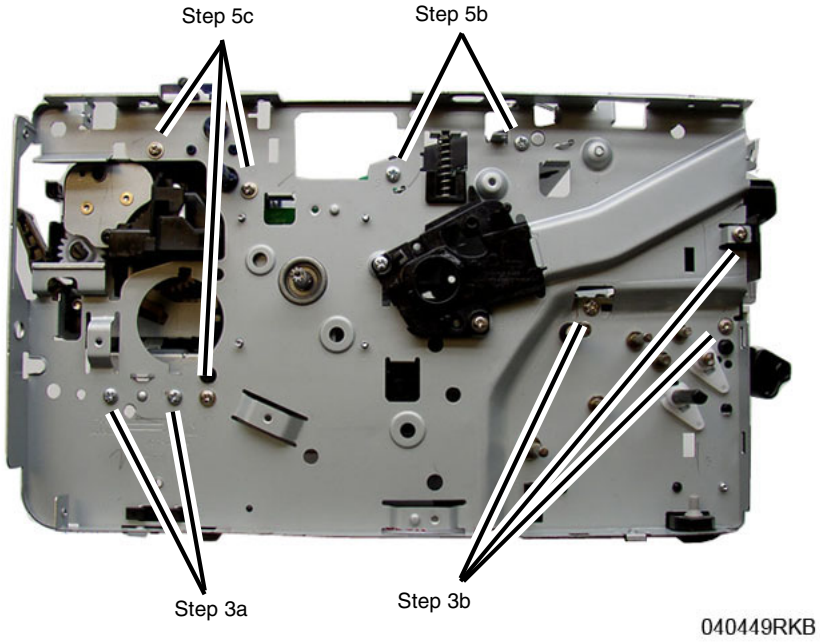


Figure 6 Frame Screw Installation

4. On the bottom of the Printer, Figure 4:
   a. Install the Ground Clip and ground screw.
   b. Connect the Drive Motor Connector.
5. Install and tighten the frame screws from the center of the frame out, the front of the printer, then the rear of the printer, Figure 6:
   a. Tighten three Front Paper Path Module screws installed in Step 3b.
   b. Tighten two ROS Support screws.
   c. Tighten three Rear Middle Frame screws.
   d. Tighten two Fuser Module Screws installed in Step 3a.
6. Install the Drive Gears, then the snap-ring, Figure 7.

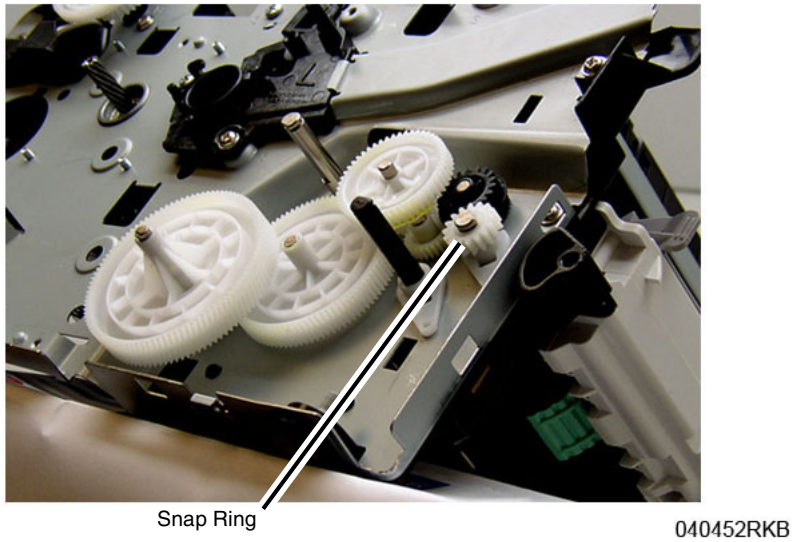


Figure 7 Feed and Registration Drive Gears

7. Install the remaining components in the reverse of removal.

NOTE: *When installing the Front Cover Support Arm make sure it is correctly placed on the stop bracket, Figure 8.*

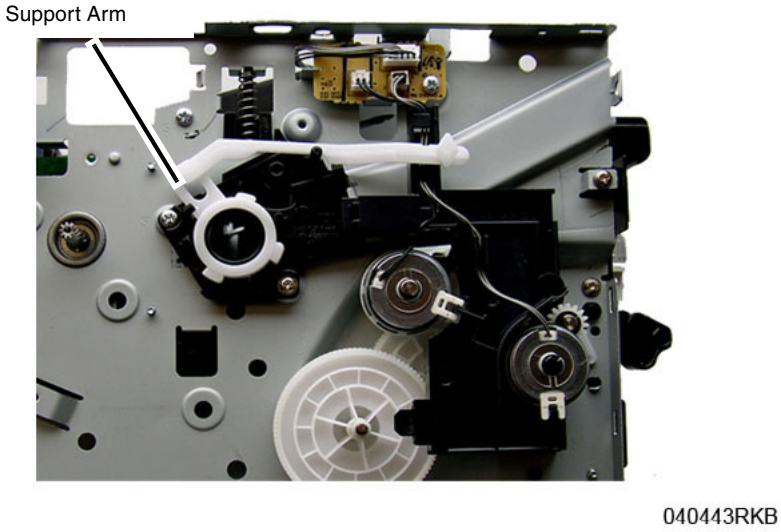


Figure 8 Front Cover Support Arm Placement

REP 4.16 Feed Idler Gear

Parts List on PL 4.6

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Left Side Cover, REP 2.2.
3. Remove the Feed Clutch and Drive Gear, Figure 1:
   a. Remove the E-ring and Washer from the Feeder Clutch.
   b. Remove the Feeder Clutch and Drive Gear.

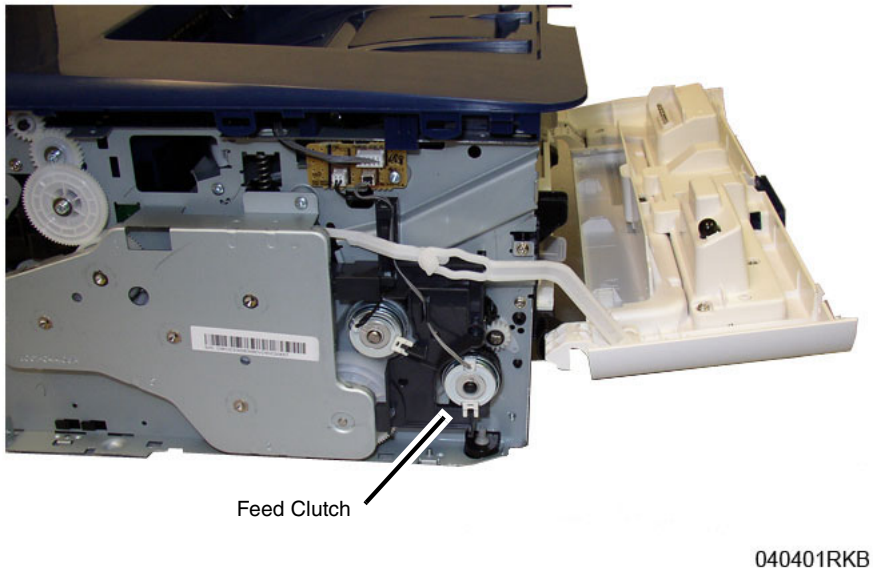


Figure 1 Feed Clutch Removal

4. Remove the snap-ring, then remove the Idler Gear, Figure 2.

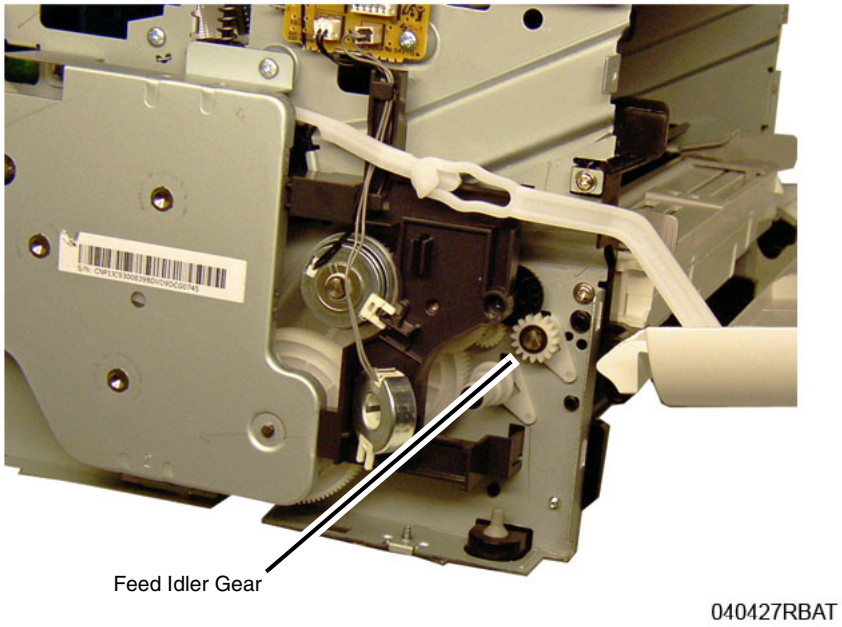


Figure 2 Feed Idler Gear

Replacement

Replacement is the reverse of the removal procedure.

REP 4.17 Main Drive Unit

Parts List on PL 4.6

Removal

1. Switch off the machine, then disconnect the power cord.
2. Remove the Left Side Cover, REP 2.2.
3. Remove five screws, then remove the Main Drive Unit, move the Fuser Drive Locking Lever to the unlock position (right), then remove the Main Drive Unit, Figure 1.

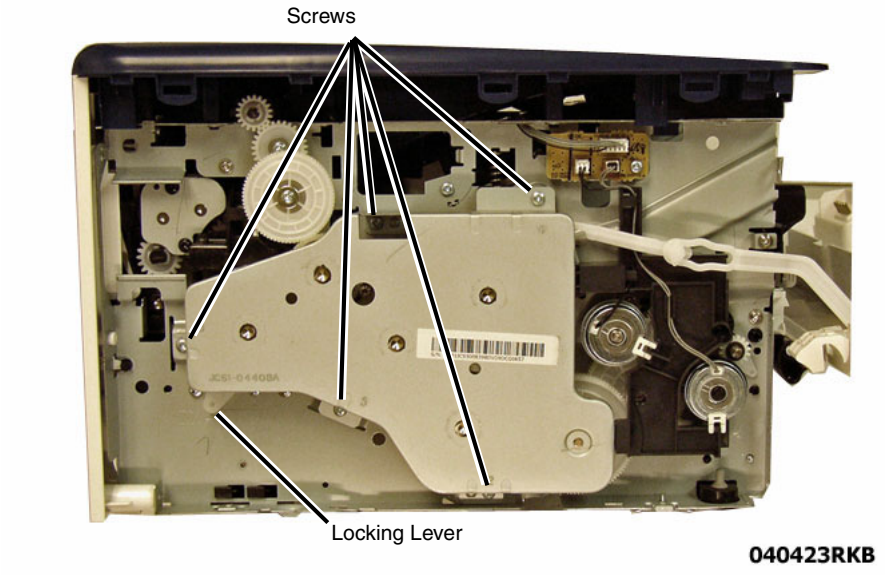


Figure 1 Main Drive Unit Removal

Replacement

1. Place the Front Cover Support Arm on the Stop Bracket, Figure 2.

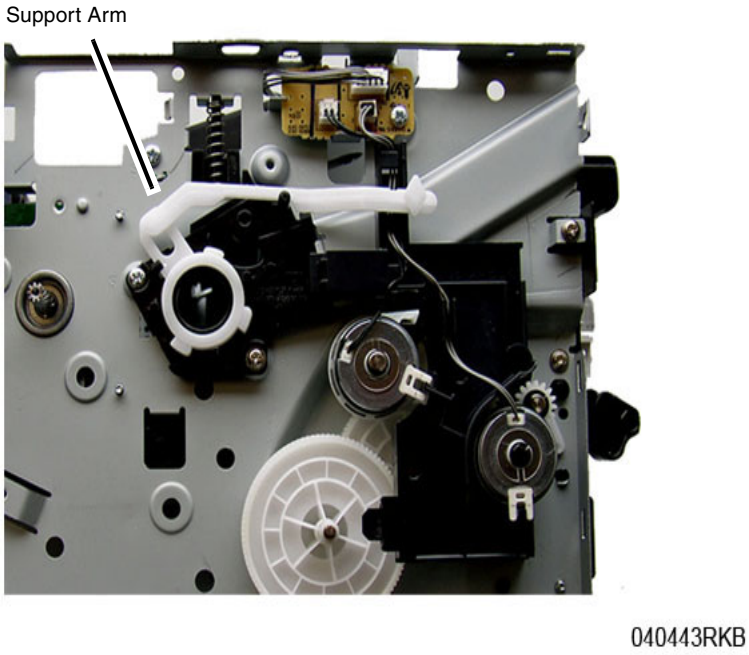


Figure 2 Front Cover Support Arm Placement

2. Install the Main Drive Unit, Figure 1

   NOTE: *Make sure the two tabs on the locking lever are inside the frame cutouts before moving the fuser drive locking lever to the lock position.*

3. Lock lever alignment, Figure 3:
   a. Align the two locking lever tabs to the cutouts in the frame
   b. Move the locking lever to the lock position (left) to insert the tabs into the cutouts.

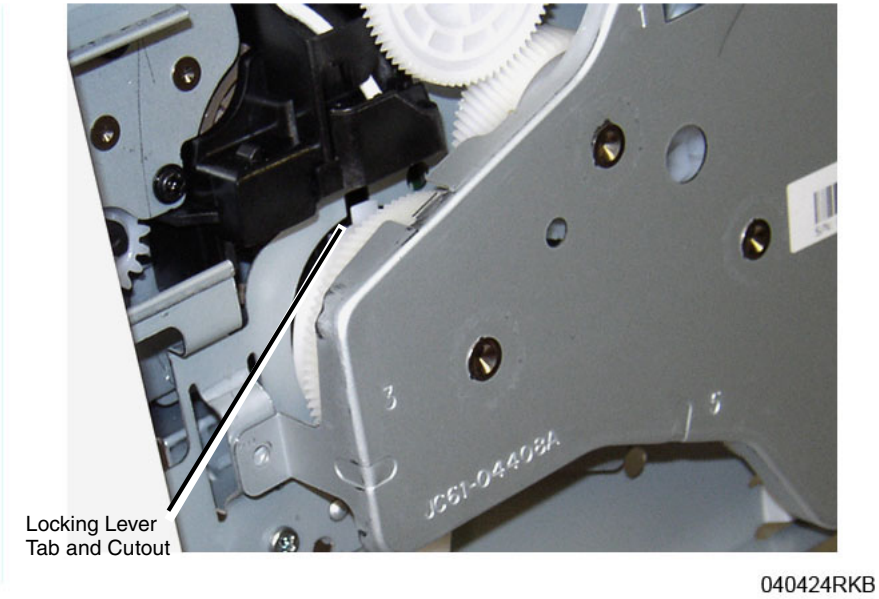


Figure 3 Locking Lever Tab and Frame Cutout

4. Install the remaining components in the reverse of the removal procedure.

REP 4.18 Pick Up Assembly

Parts List on PL 4.5

Removal

1. Remove two screws, remove the one-way pickup frame from the upper pickup guide, then remove the bushing from the one-way pickup frame, Figure 1.

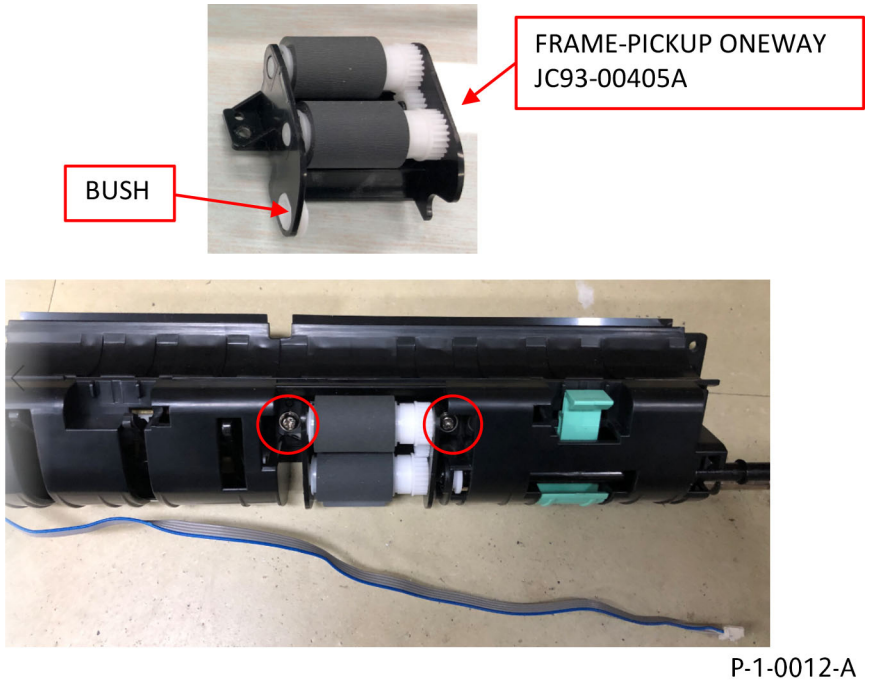


Figure 1 One-way pickup frame and bushing removal

2. Remove the pickup guide from the upper pickup guide, Figure 2.

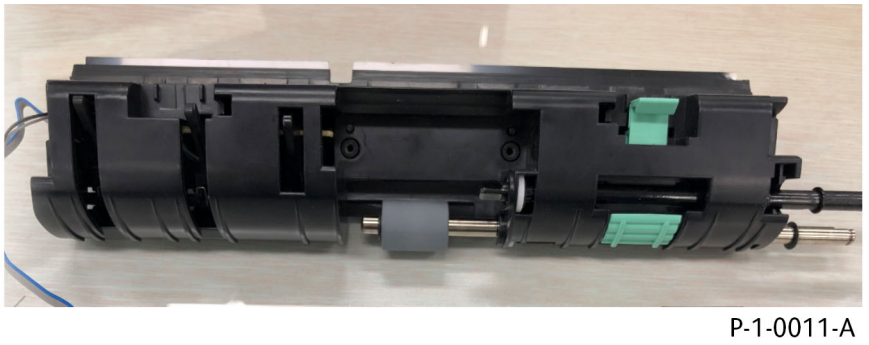


Figure 2 Pickup guide removal

3. Remove the feed roll and pickup shaft from the pickup guide, Figure 3.

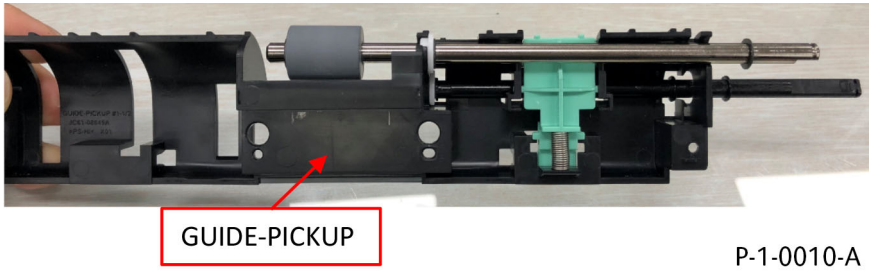


Figure 3 Feed roll and pickup shaft removal

4. Remove the washer from the feed roller and the bushing from the pickup shaft, Figure 4.

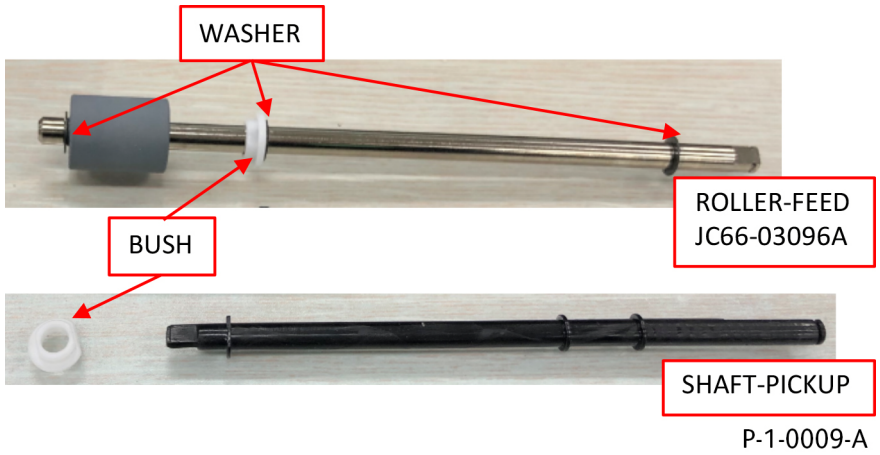


Figure 4 Washer and bushing removal

5. Remove the width actuator and paper actuator from the upper pickup guide, Figure 5.

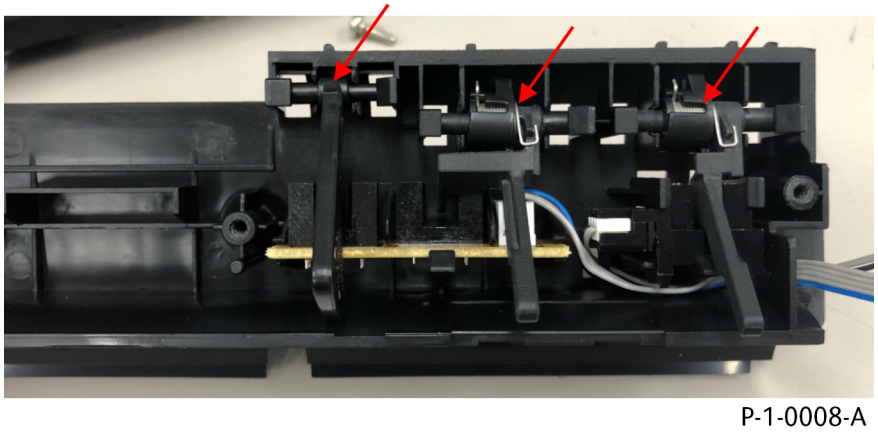


Figure 5 Actuator removal

6. Remove the actuator holder and TS-spring from the width and paper actuators, Figure 6.

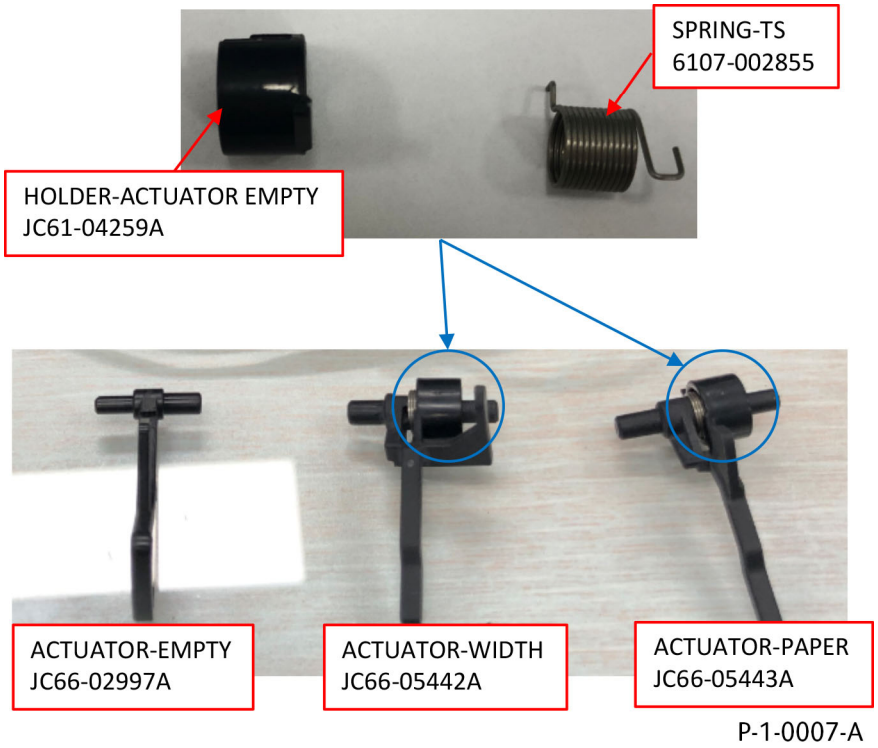


Figure 6 Actuator holder and TS-spring removal

7. Remove the feed sensor and feed sensor PWB, Figure 7.

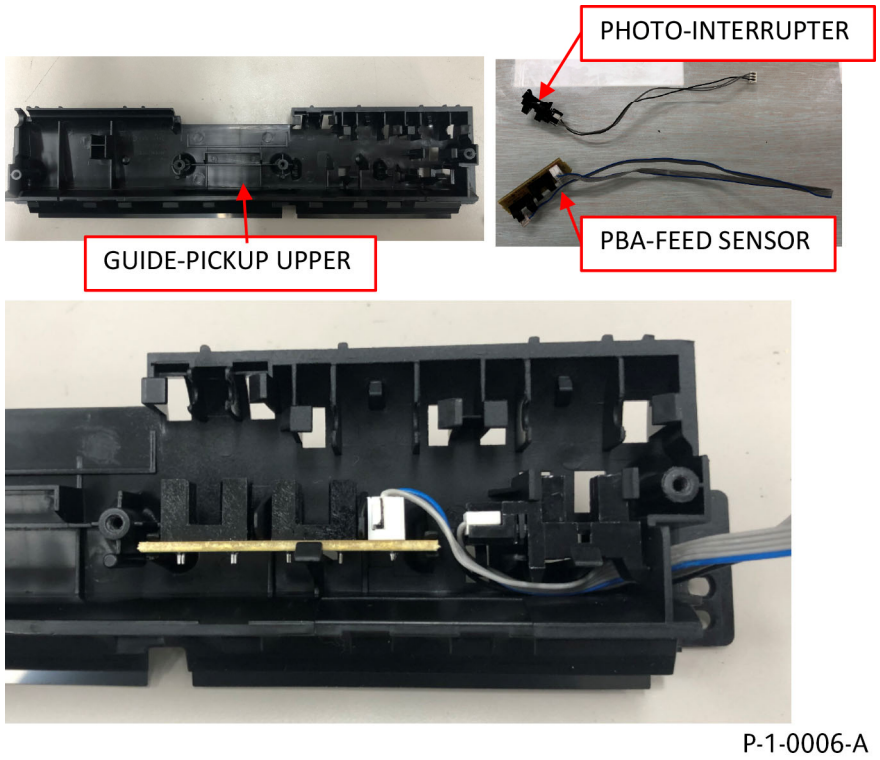


Figure 7 Feed sensor and PWB removal

Replacement

Replacement is the reverse of the removal procedure.

REP 5.1 Fuser Module

Parts List on PL 5.1

Removal

WARNING

Do not perform repair activities with the power on or electrical power supplied to the machine. Some machine components contain dangerous electrical voltages that can result in electrical shock and possible serious injury.

DANGER: Ne pas effectuer de dépannnage avec le contact principal activé ou avec l'alimentation électrique appliquée à la machine. Certains éléments de la machine comportent des tensions électriques dangereuses qui peuvent causer un choc électrique et de graves blessures.

AVVERTENZA: Non effettuare alcuna riparazione con l'alimentazione elettrica inserita. Alcuni componenti contengono corrente ad alta tensione che può provocare forti scosse e gravi ferite.

VORSICHT: Es dürfen erst Reparaturarbeiten durchgeführt werden, wenn das Gerät ausgeschaltet ist oder der Netzstecker nicht mehr mit der Stromquelle verbunden ist. Einige Komponenten des Gerätes sind stromführend und können daher zu ernsthaften Verletzungen oder Stromschlägen führen.

AVISO: No realice reparaciones con la máquina encendida o conectada a la corriente. Algunos componentes de la máquina contienen voltajes eléctricos peligrosos que pueden producir una descarga eléctrica y causar daños graves.

WARNING

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

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

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

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

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

1. Switch off the machine, then disconnect the power cord.
2. Remove the following covers:
   a. Remove the Left and Right Side Covers, REP 2.2.
   b. Remove the Rear Cover, REP 2.3.

3. Disconnect the Fuser Connectors (2), Figure 1.
   a. Connector CON2 from the LVPS PWB.
   b. Connector FUSER from the Main PWB.

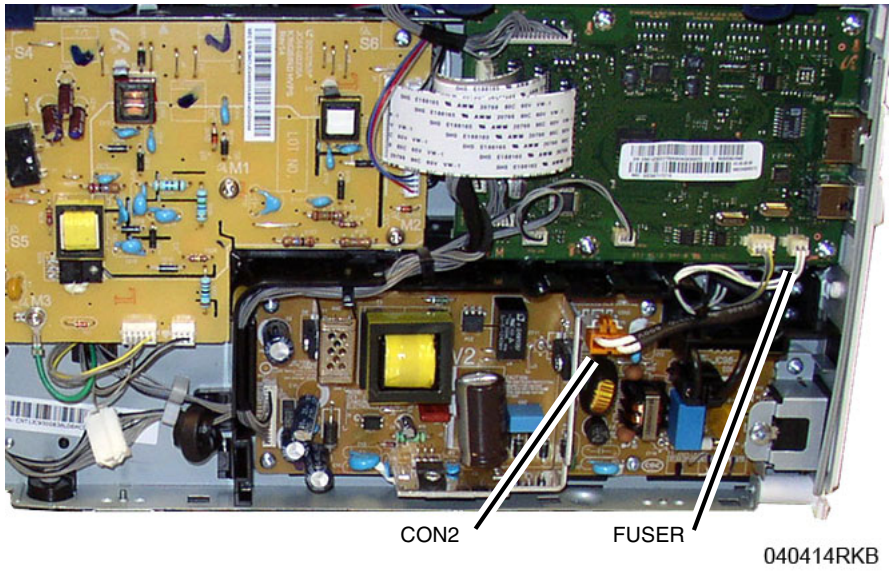


Figure 1 Fuser Connectors

NOTE: *Remember the location of the Screw with the larger head for Fuser replacement.*

4. Remove four screws, then remove the Fuser Module routing the harness through the frame, Figure 2.

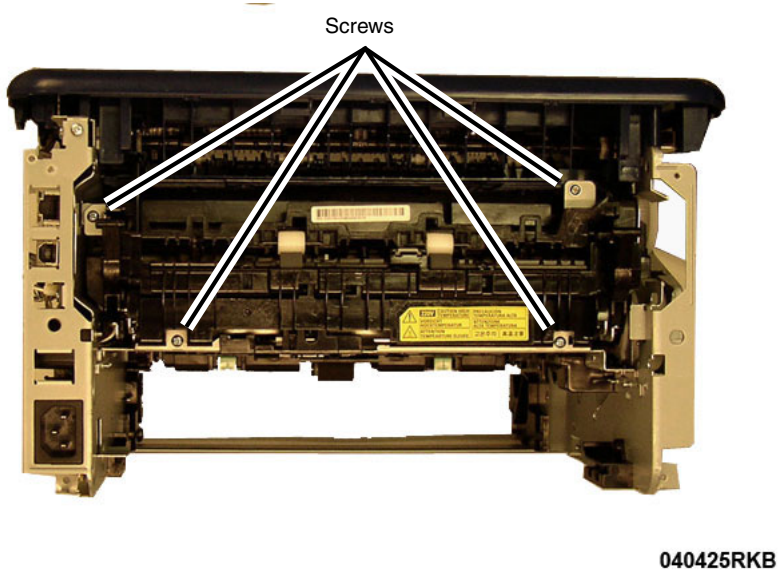


Figure 2 Fuser Screws (Rear View)

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Tapered plastic screws and round machine screws are used to hold the fuser to the frame. Make sure that the plastic screws go into plastic components and machine screws go into the metal frame.*

REP 6.1 Retard Roll Assembly

Parts List on PL 6.1

Removal

1. Remove the Paper Tray and any paper from the tray.
2. Pull down on the two latches to open the Retard Roll Cover, Figure 1.

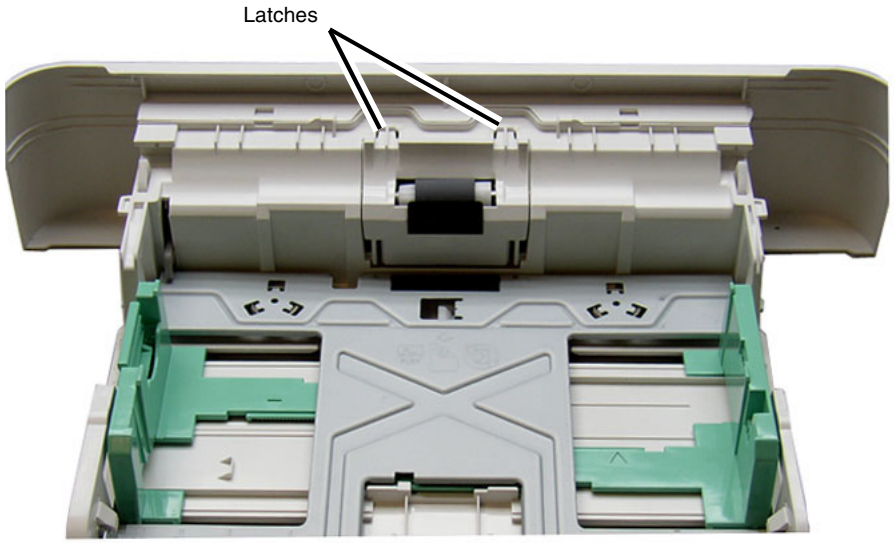


Figure 1 Retard Roll Cover Latches

3. Rotate the Retard Roll Holder up and remove it from the Paper Tray, Figure 2.

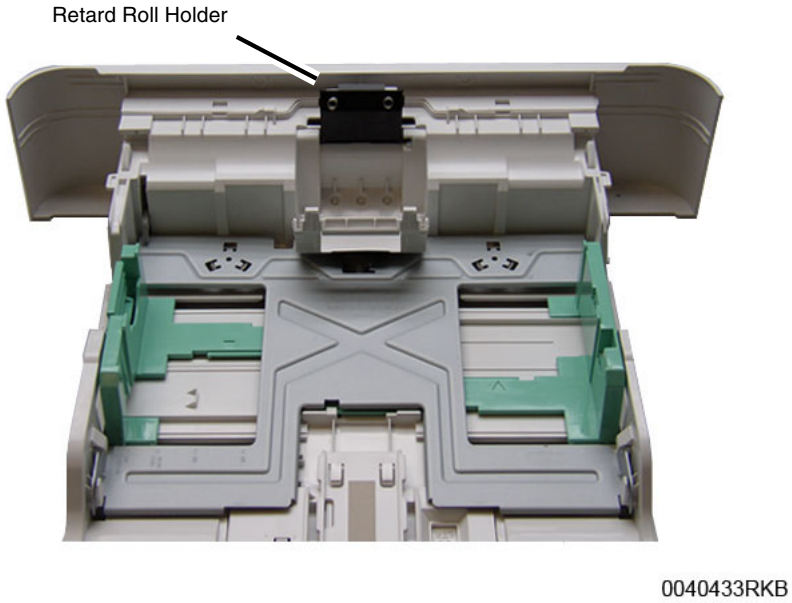


Figure 2 Retard Roll Holder Removal

4. Slide the left-side of the Retard Roll out of the holder to remove it, Figure 3.

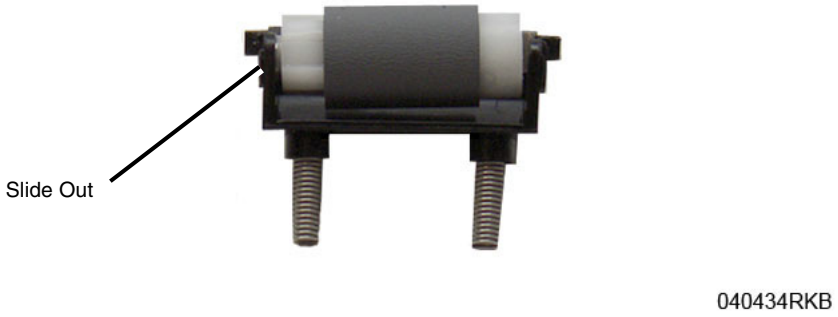


Figure 3 Retard Roll Removal

Replacement

Replacement is the reverse of the removal procedure.

NOTE: *Make sure the two springs on the Retard Roll Holder are correctly positioned on the holes, Figure 4.*

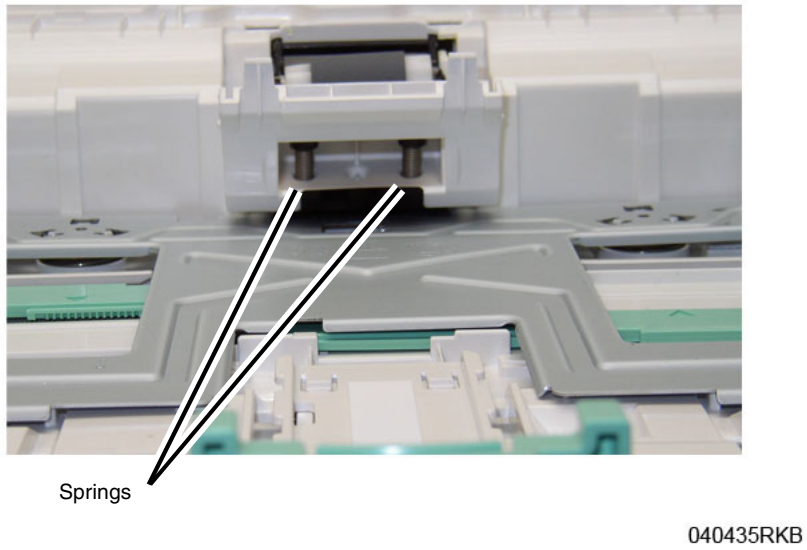
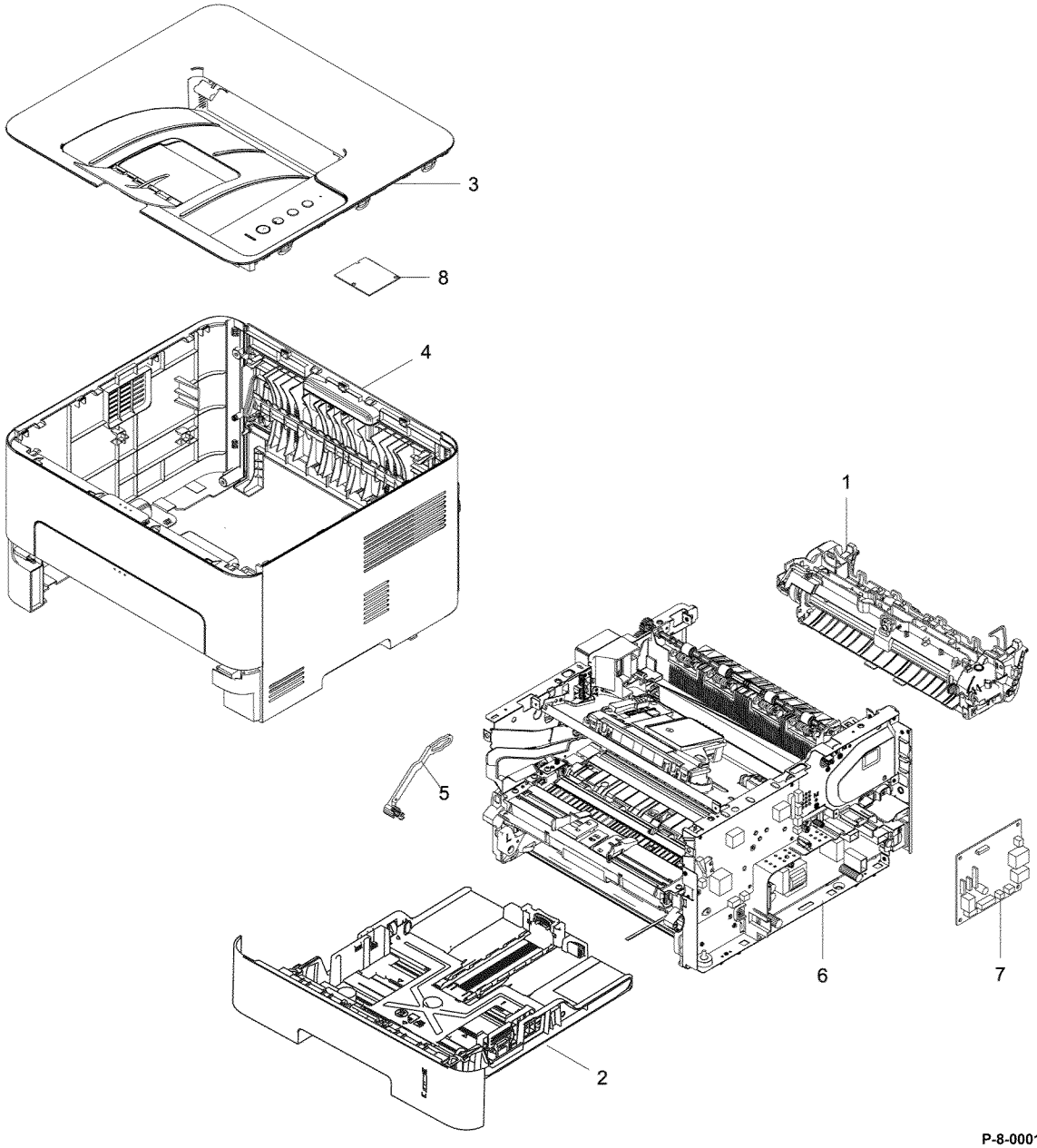


Figure 4 Springs Located in Holes

5 Parts List

PL 1.1 Main Overview

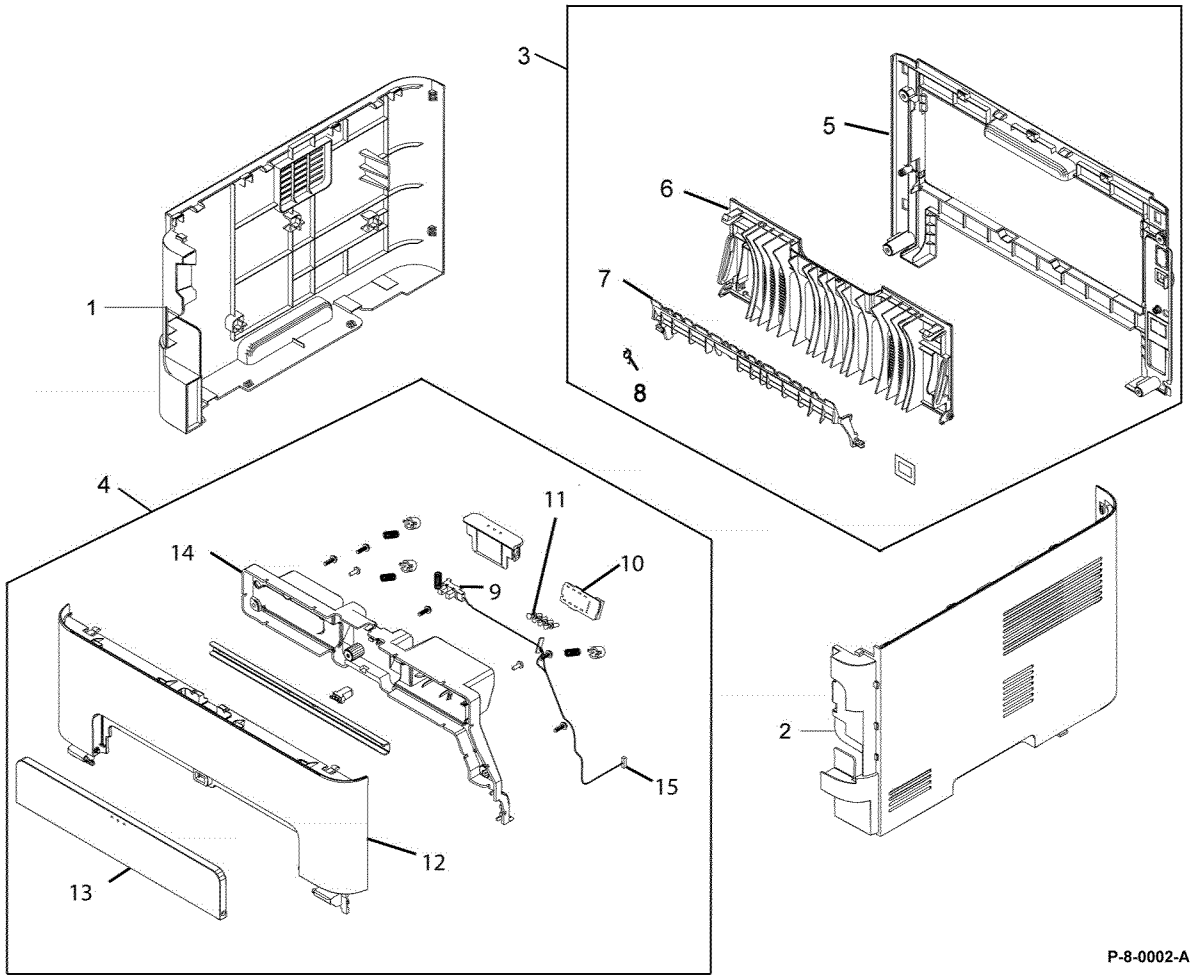
Item	Part	Description
1	–	Fuser (PL 5.1)
2	–	Paper Tray (PL 6.1)
3	–	Top Cover (PL 3.1)
4	–	Rear Cover (PL 2.1)
5	–	Coupling B Lever
6	–	Frame
7	140N63856	Main PWB (REP 1.1)
8	140N63862	Wifi PWB (REP 1.2)



PL 2.1 Covers

Item	Part	Description
1	–	Left Cover (REP 2.2)
2	–	Right Cover (REP 2.2)
3	002N03172	Rear Cover Assembly (REP 3.2)
4	002N03350	Front Cover Assembly (REP 2.1)
5	–	Rear Cover
6	–	Exit Paper Guide
7	–	Duplex Gate
8	–	Spring
9	–	Front Cover Latch Sensor
10	–	CRUM PWB
11	–	CRUM Contacts
12	–	Front Cover
13	–	Manual Feed Cover (REP 2.4)
14	–	Front Harness Cover
15	–	CRUM Harness

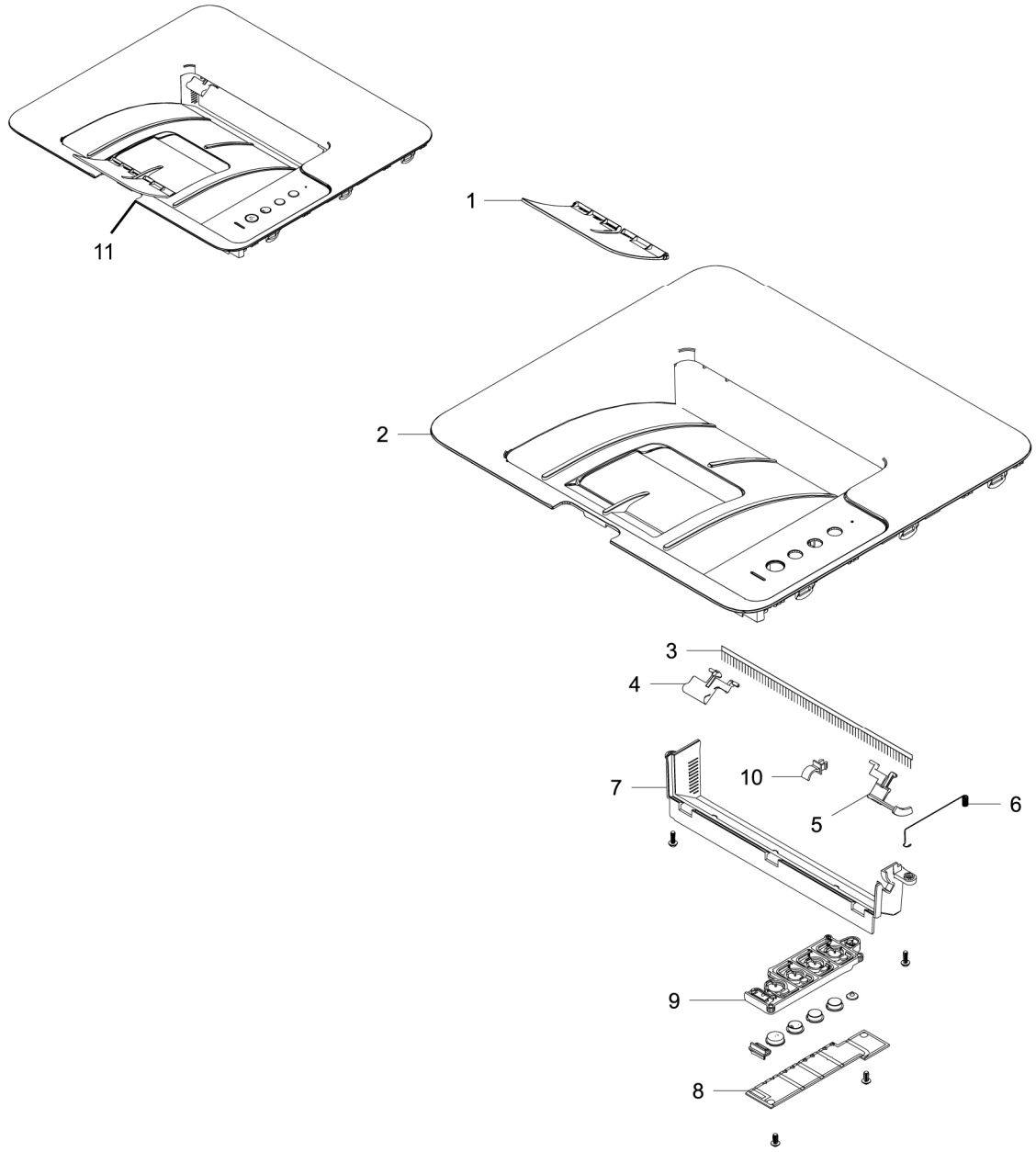
3 { 5-8
4 { 9-14



P-8-0002-A

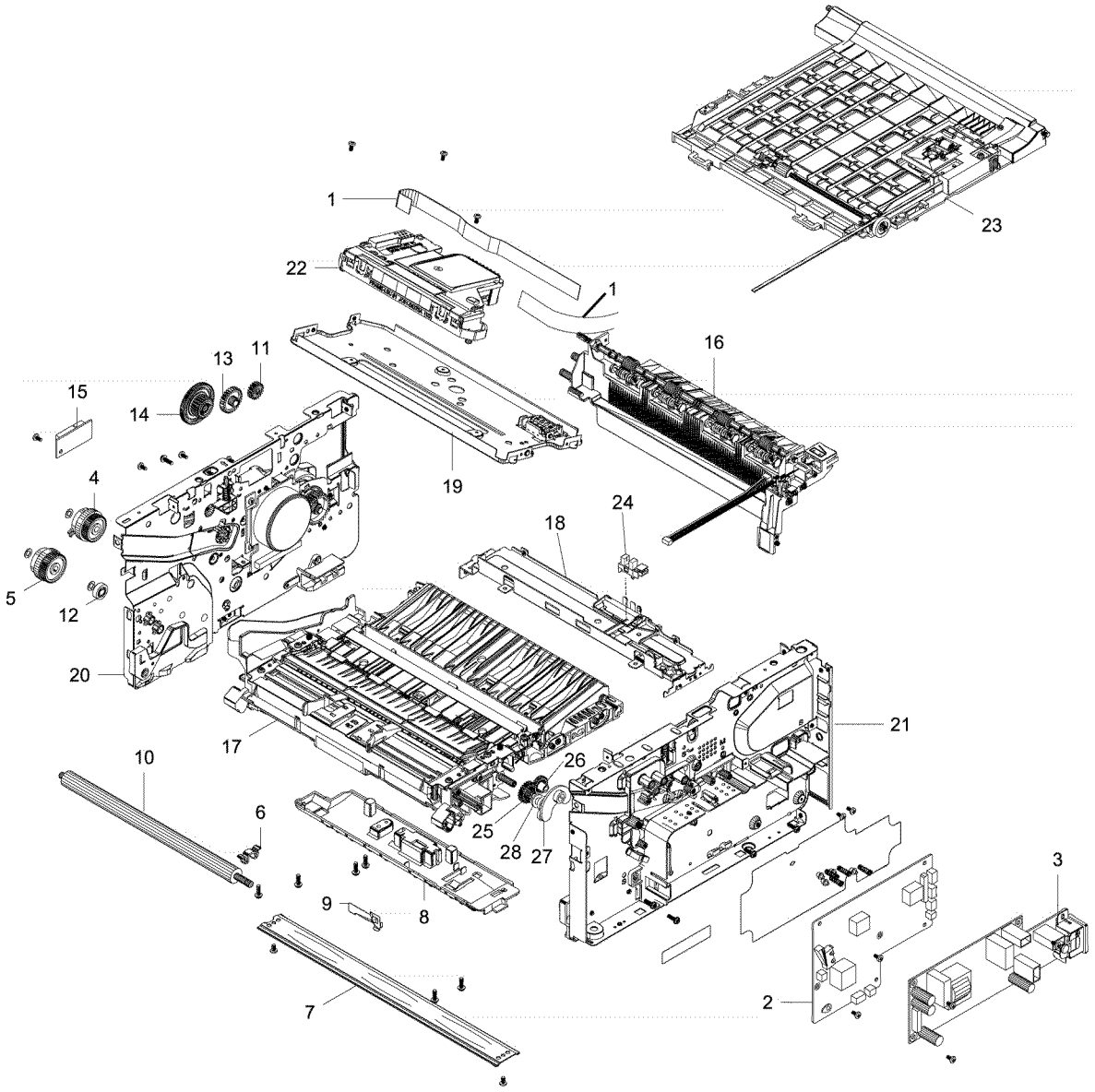
PL 3.1 Top Cover

Item	Part	Description
1	–	Output Support
2	–	Top Cover
3	–	Antistatic Brush
4	–	Paper Stacker
5	–	Bin Full Sensor Actuator
6	–	Spring
7	–	Exit Cover
8	140N63723	Control Panel PWB (REP 3.1)
9	–	Key Holder
10	–	Holder
11	002N03351	Top Cover Assembly (REP 3.2)



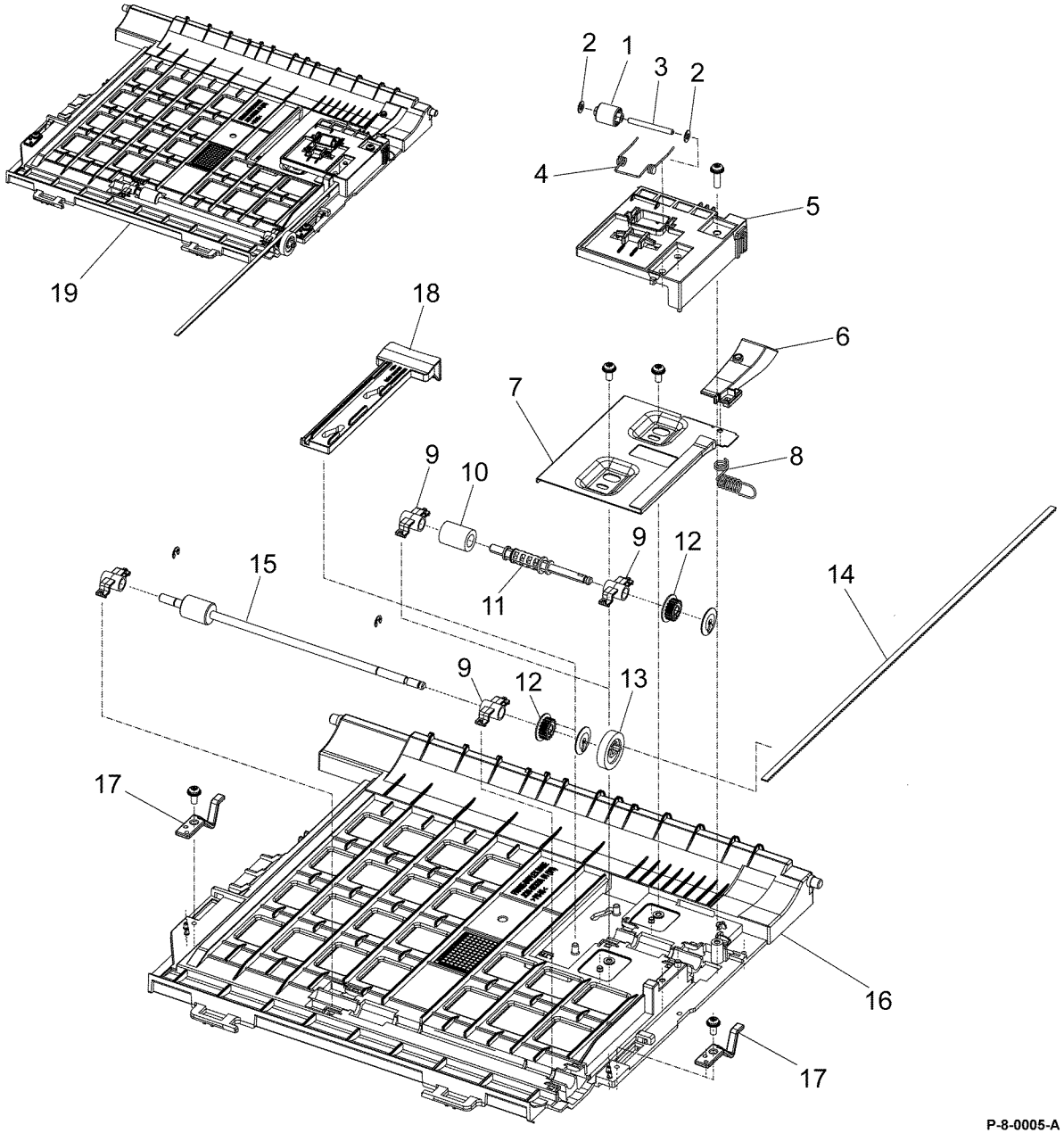
PL 4.1 Frame

Item	Part	Description
1	117N01969	Flat Cable
2	105N02301	HVPS (REP 4.1)
3	105N02351	LVPS 220V (REP 4.2)
–	105N02350	LVPS 110V (REP 4.2)
4	121N01269	Registration Clutch (REP 4.3)
5	121N01248	Feed Clutch (REP 4.3)
6	–	Transfer Roll Holder
7	–	Bottom Bar
8	–	Feed Frame
9	–	Ground Clip
10	022N02309	Transfer Roll (REP 4.4)
11	–	Exit Gear
12	–	Feed Gear
13	–	Exit Idle Gear
14	–	Exit Gear
15	011N00581	Paper Feed PWB (REP 4.3)
16	–	Main Exit Frame
17	–	Paper Path Frame
18	–	Exit Sensor Frame
19	–	LSU Bracket Frame
20	–	Left Main Frame
21	–	Right Main Frame
22	062N00292	LSU (REP 4.5)
23	–	Duplex (REP 4.6)
24	130N01574	Exit Sensor
25	–	Registration Roll Pivot Gear
26	–	Registration Roll Drive Gear
27	–	Pivot Plate
28	–	Collar



PL 4.2 Duplex Assembly

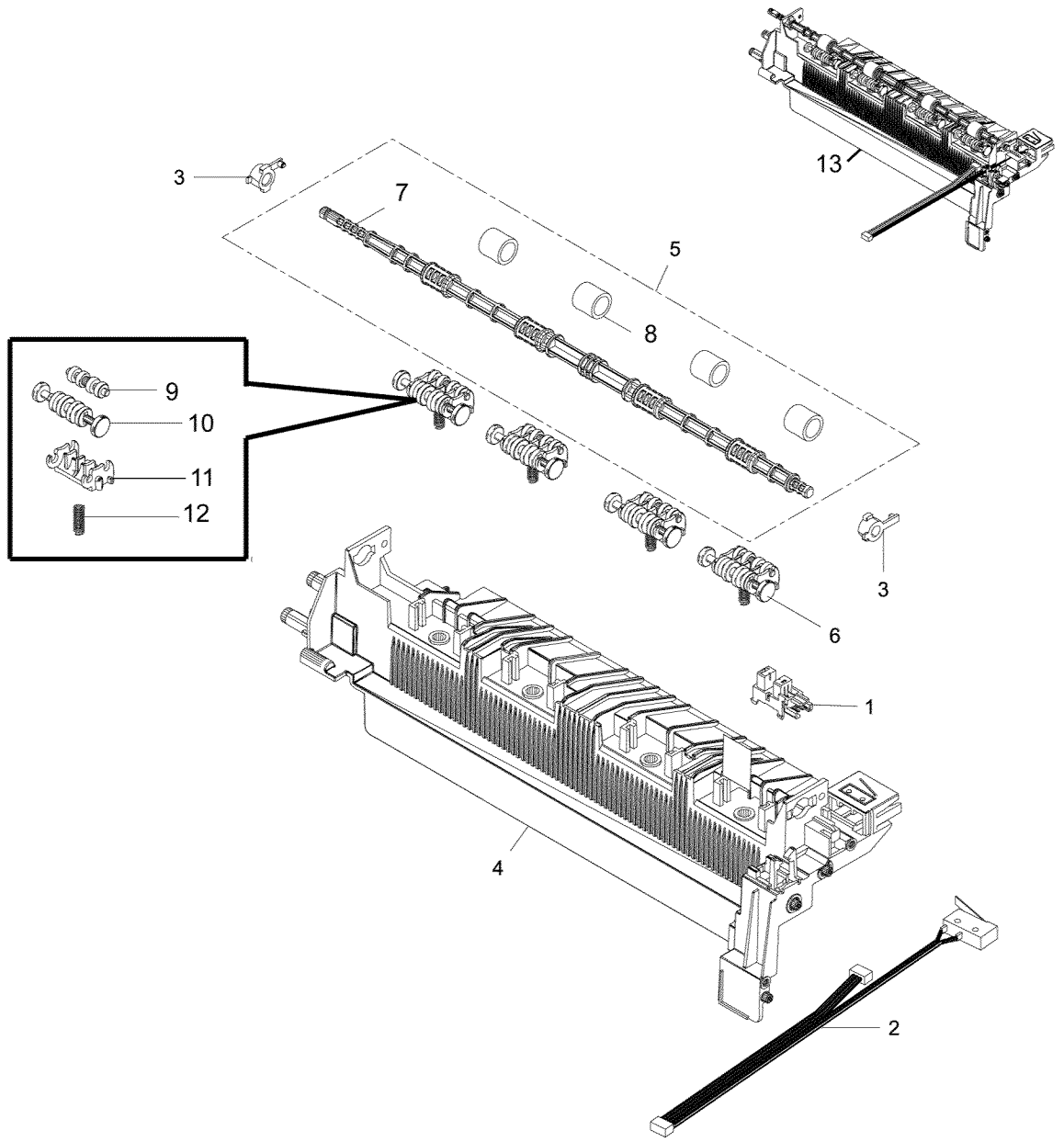
Item	Part	Description
1	–	M Idle Roller
2	–	Washer
3	–	Idle Roll Shaft
4	–	Spring
5	–	Duplex Upper Guide
6	–	Duplex Paper Guide
7	–	Duplex Align Bracket
8	–	Ground Terminal
9	–	Roller Bushing
10	–	Rubber Feed Roller
11	–	Feed Shaft
12	–	Pulley
13	–	Exit Gear
14	–	Flat Rubber Belt
15	–	Feed Roller
16	–	Duplex Base Frame
17	–	Duplex Latch
18	–	Align Lever
19	022N02815	Duplex Assembly - (A4/Letter) (REP 4.6)



P-8-0005-A

PL 4.3 Exit Frame

Item	Part	Description
1	130N01574	Output Tray Full Sensor (REP 4.7)
2	–	Harness
3	–	Bushing
4	–	Exit Frame
5	001N00546	Exit Roll (REP 4.8)
6	–	Decurler Roller
7	–	Exit Shaft
8	–	Rubber Exit Dup
9	–	Inner Exit Roller
10	–	Outer Exit Roller
11	–	Exit Roll Holder
12	–	Spring
13	–	Exit Frame Assembly

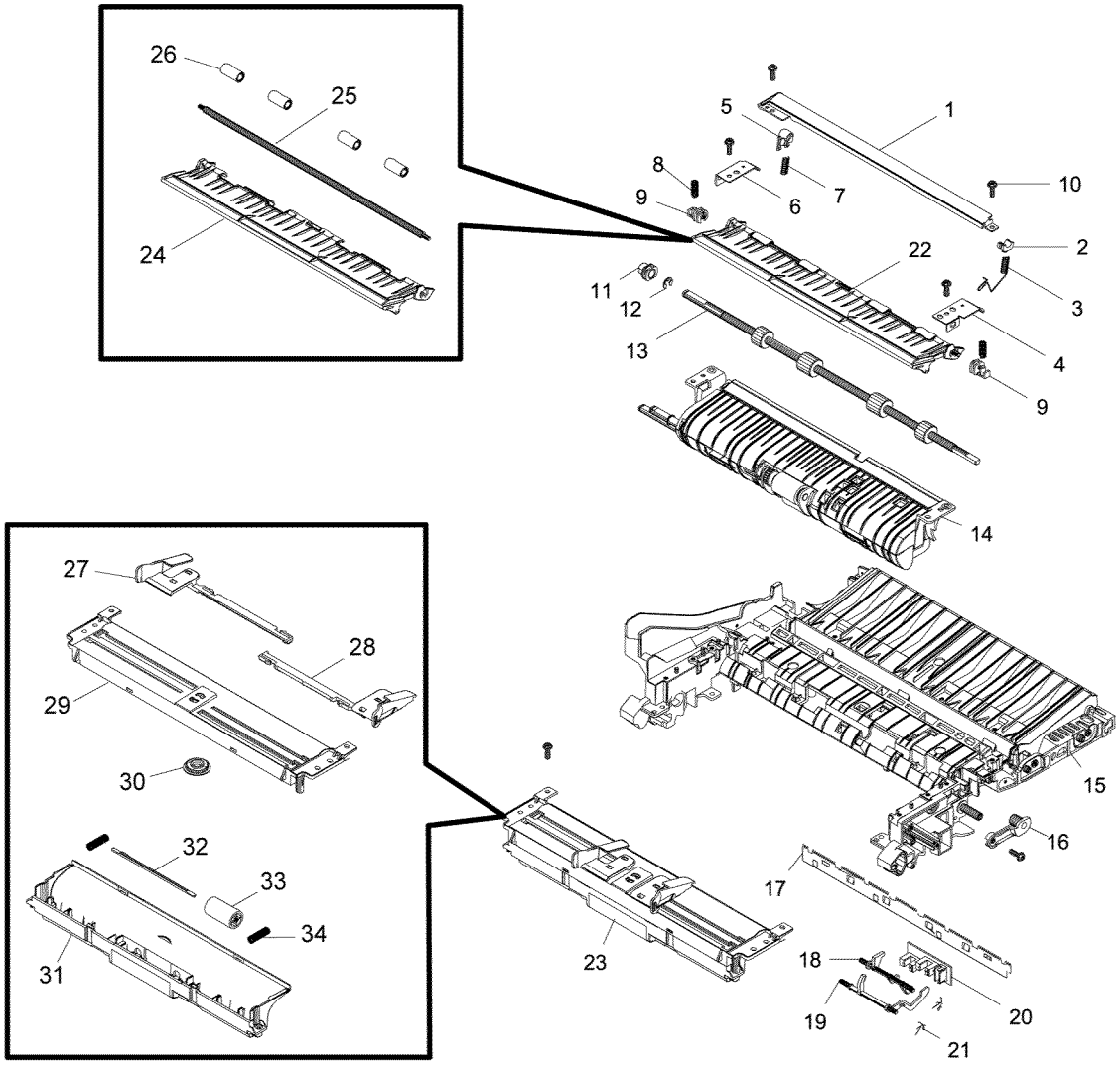


P-8-0006-A

PL 4.4 Paper Path

Item	Part	Description
1	–	Earth Transfer Plate
2	–	Bushing
3	–	Spring
4	–	Right Push Brush Plate
5	–	Bushing
6	–	Left Push Brush Plate
7	–	Spring
8	–	Spring
9	–	Feed Bushing
10	–	Screw
11	–	Exit Shaft Bushing
12	–	E-Ring
13	022N02797	Registration Roll (REP 4.9)
14	–	Pickup Frame Base
15	–	Middle Frame
16	–	Registration Holder
17	–	P SAW Plate
18	120N00545	Feed Sensor Actuator (REP 4.10)
19	120N00548	Registration Sensor Actuator (REP 4.10)
20	130N01759	Feed Sensor PWB (REP 4.10)
21	–	Spring
22	–	Registration Base Assembly
23	050N00681	Manual Paper Tray (REP 4.11)
24	–	Paper Guide Cover
25	–	Registration Idle Shaft
26	–	Registration Idle Roller
27	–	Manual Left Adjust
28	–	Manual Right Adjust
29	–	Lower Paper Guide
30	–	Pinion Gear
31	–	Roller Cover
32	–	Pin
33	–	Idle Roller
34	–	Spring
35	–	Sub-Holder Idle

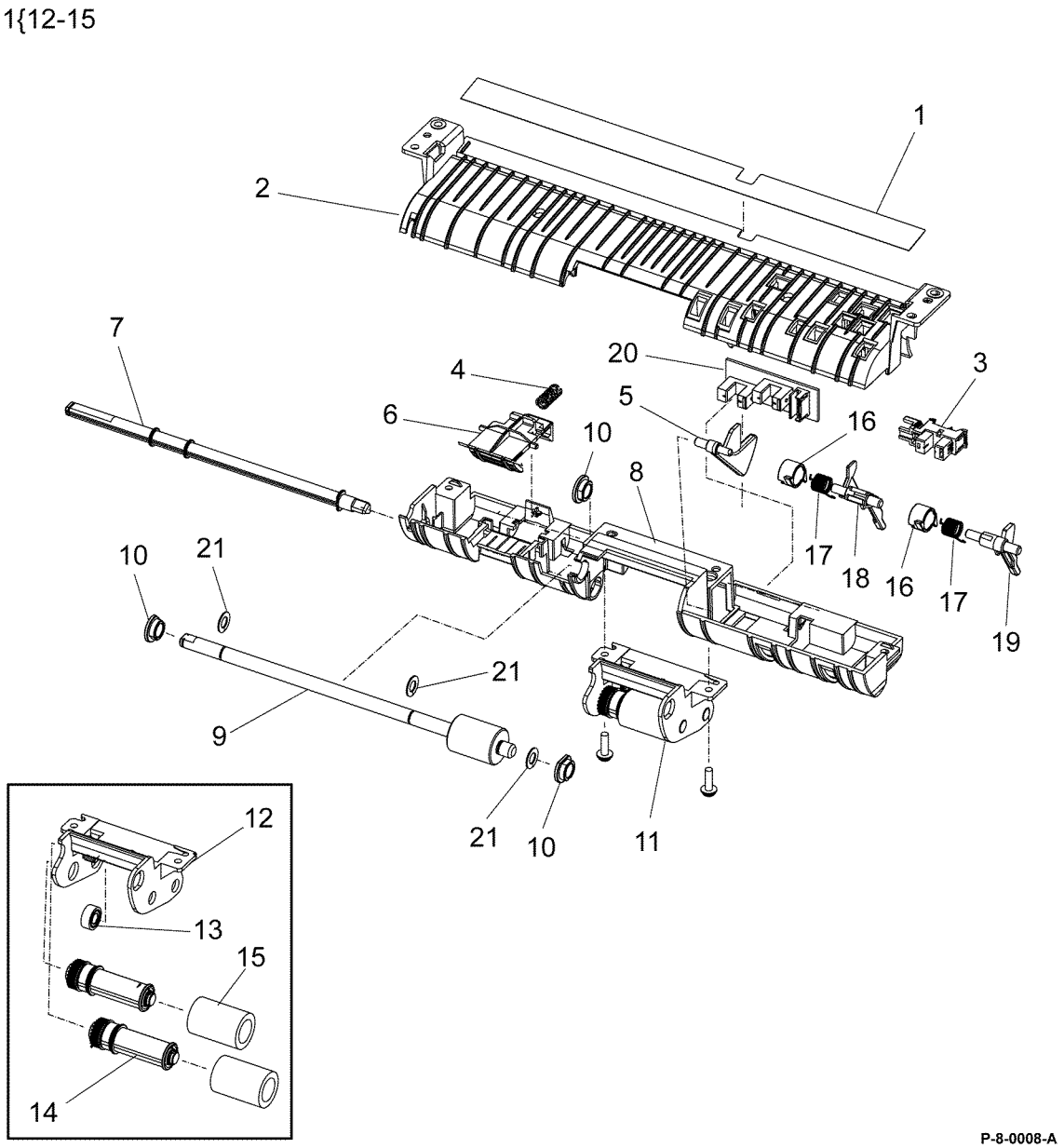
22 { 24 - 26
23 { 27 - 30
35 { 31-34



P-8-0007-A

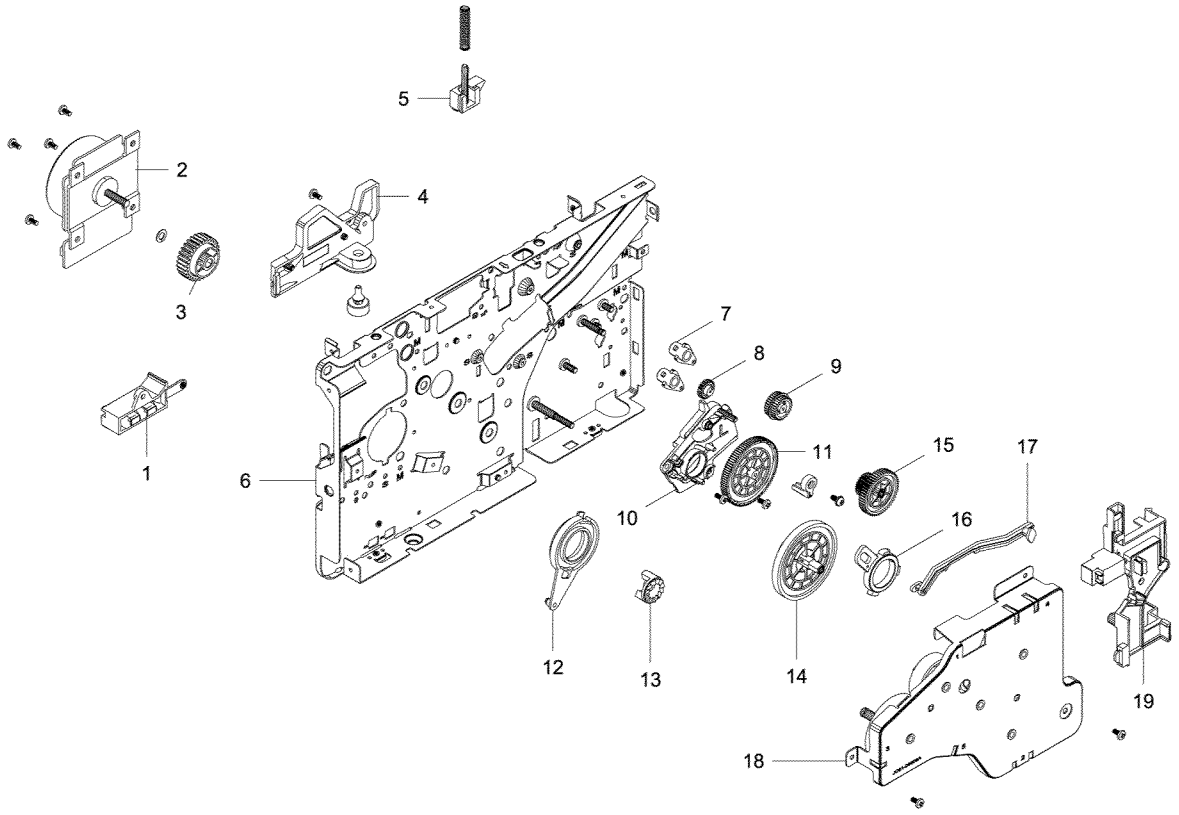
PL 4.5 Base Pick Up

Item	Part	Description
1	–	Duplex Path Sheet
2	–	Duplex Guide
3	130N01574	Exit Sensor (REP 4.12)
4	–	Spring
5	–	Sensor Actuator
6	–	Duplex Guide Lever
7	–	Pick Up Shaft
8	–	Pick Up Guide
9	022N02802	Paper Drive Roll (REP 4.13)
10	–	Bushing
11	130N01760	Paper Feed Roll Assembly (REP 4.14)
12	–	Feed Roll Holder
13	–	Idle Pick Up Gear
14	–	One Way Clutch
15	–	Retard Roller
16	–	Actuator Empty Holder (REP 4.18)
17	–	Spring TS (REP 4.18)
18	–	Actuator - Width (REP 4.18)
19	–	Actuator - Paper (REP 4.18)
20	–	Feed Sensor PWB (REP 4.18)
21	–	Washer



PL 4.6 Left Main Frame

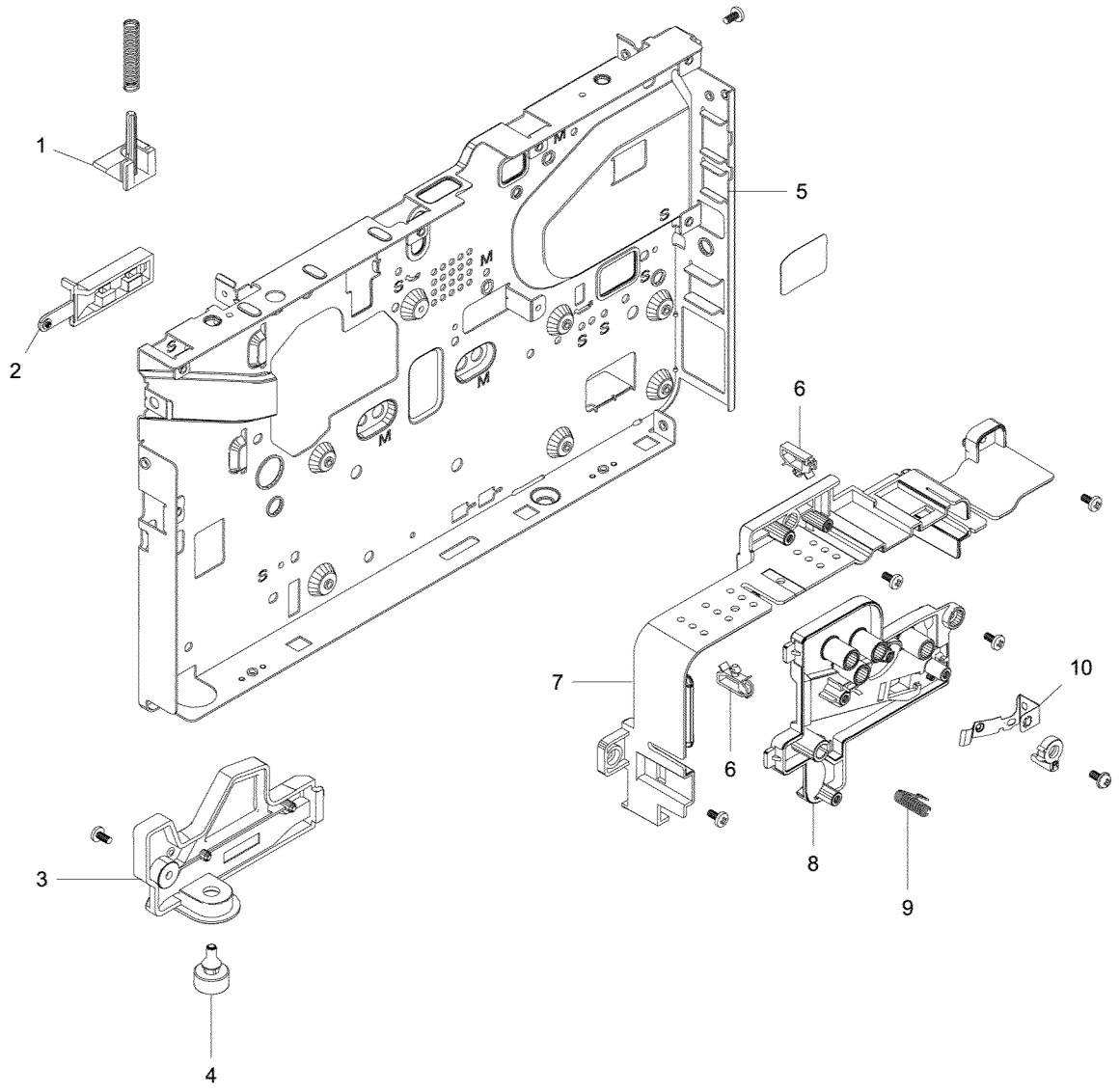
Item	Part	Description
1	–	Left Rear Guide
2	127N07919	Main Drive Motor (REP 4.15)
3	–	Fuser Drive Out Gear
4	–	Knock Up Left Guide
5	–	Left Developer Guide Plate
6	–	Left Frame
7	–	Shaft Bushing
8	007N01802	Paper Feed Idler Gear (REP 4.16)
9	–	Idler Gear
10	–	Band
11	–	Idler Gear
12	–	Fuser Locking Lever
13	–	Hub Clutch Gear
14	–	Feed Gear
15	–	Feed Gear 2
16	–	Cam Coupler
17	–	Coupling Lever
18	007N01842	Main Drive Unit (REP 4.17)
19	–	Harness Cover



P-8-0009-A

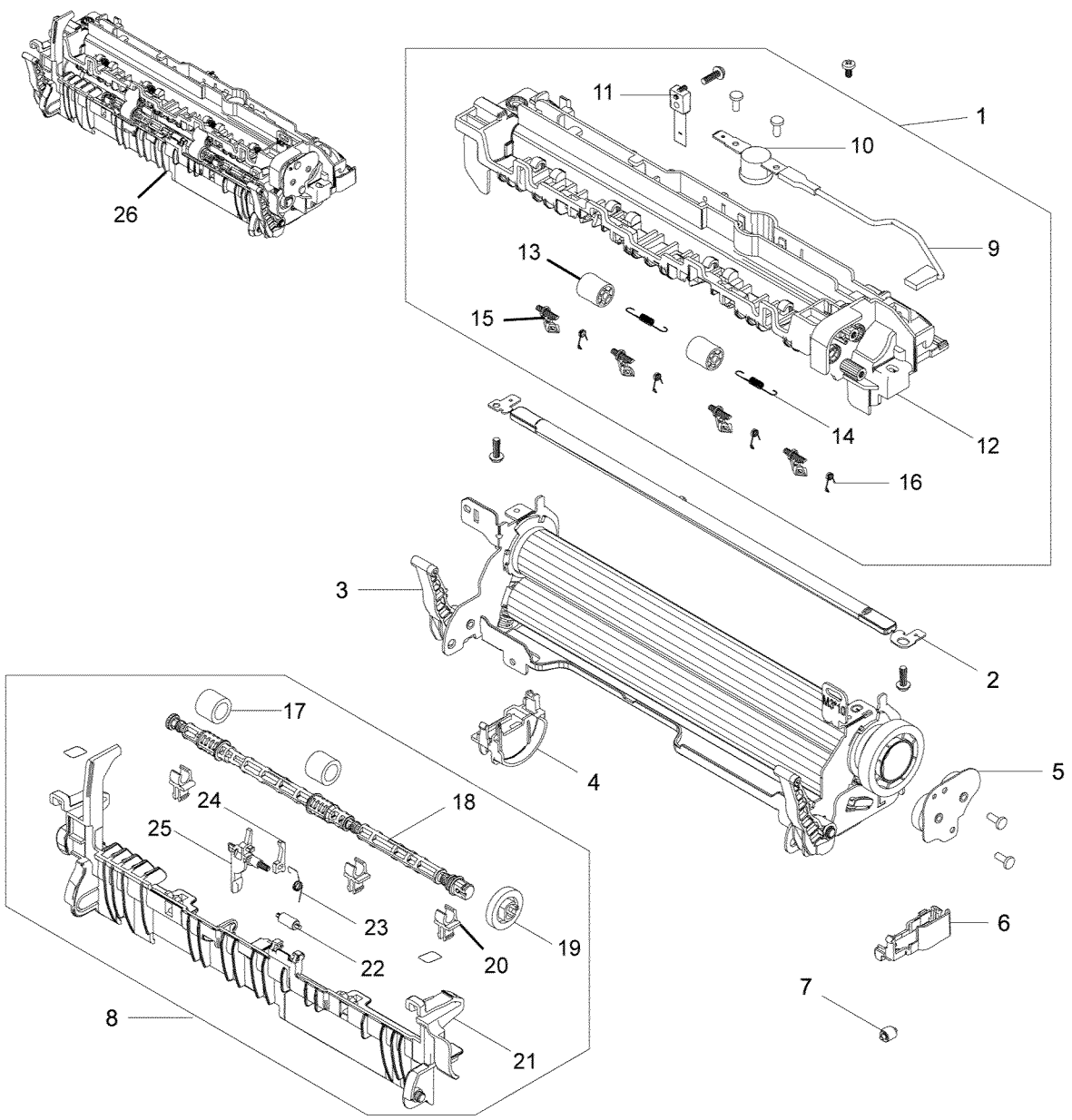
PL 4.7 Right Main Frame

Item	Part	Description
1	–	Right Developer Guide Plate
2	–	CST Rear Guide
3	–	Lower Guide
4	–	Foot
5	–	Right Frame
6	–	Cable Clamp
7	–	LVPS Cover
8	–	Developer Right Guide
9	–	Spring
10	–	Ground Clip



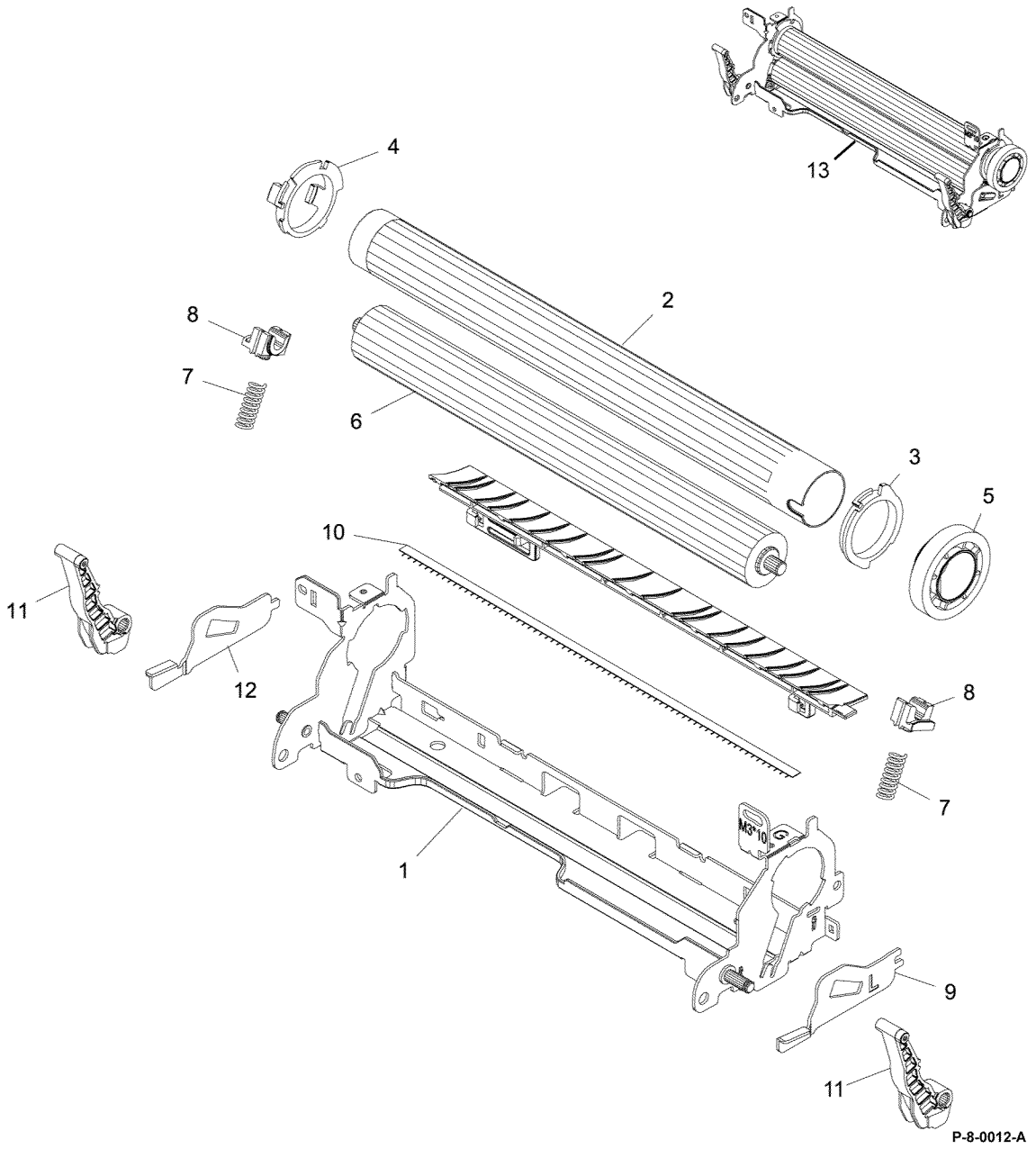
PL 5.1 Fuser

Item	Part	Description
1	–	Upper Fuser
2	–	Fuser Lamp
3	–	Lower Fuser
4	–	Right Lamp Cap
5	–	Fuser Exit Drive
6	–	Left Lamp Cap
7	–	Fuser Gear Stopper
8	–	Fuser Rear
9	–	Fuser Joint Harness
10	–	Thermostat
11	–	Thermistor
12	–	Fuser Cover
13	–	Exit Roller
14	–	Spring
15	–	Guide
16	–	Spring
17	–	Exit Roller
18	–	Exit Shaft
19	–	Exit Gear
20	–	Bushing
21	–	Rear Guide
22	–	Exit Idle Roller
23	–	Spring
24	–	Actuator Holder
25	–	Exit Sensor Actuator
26	126N00430	Fuser Module (110V) (REP 5.1)
–	126N00431	Fuser Module (220V) (REP 5.1)



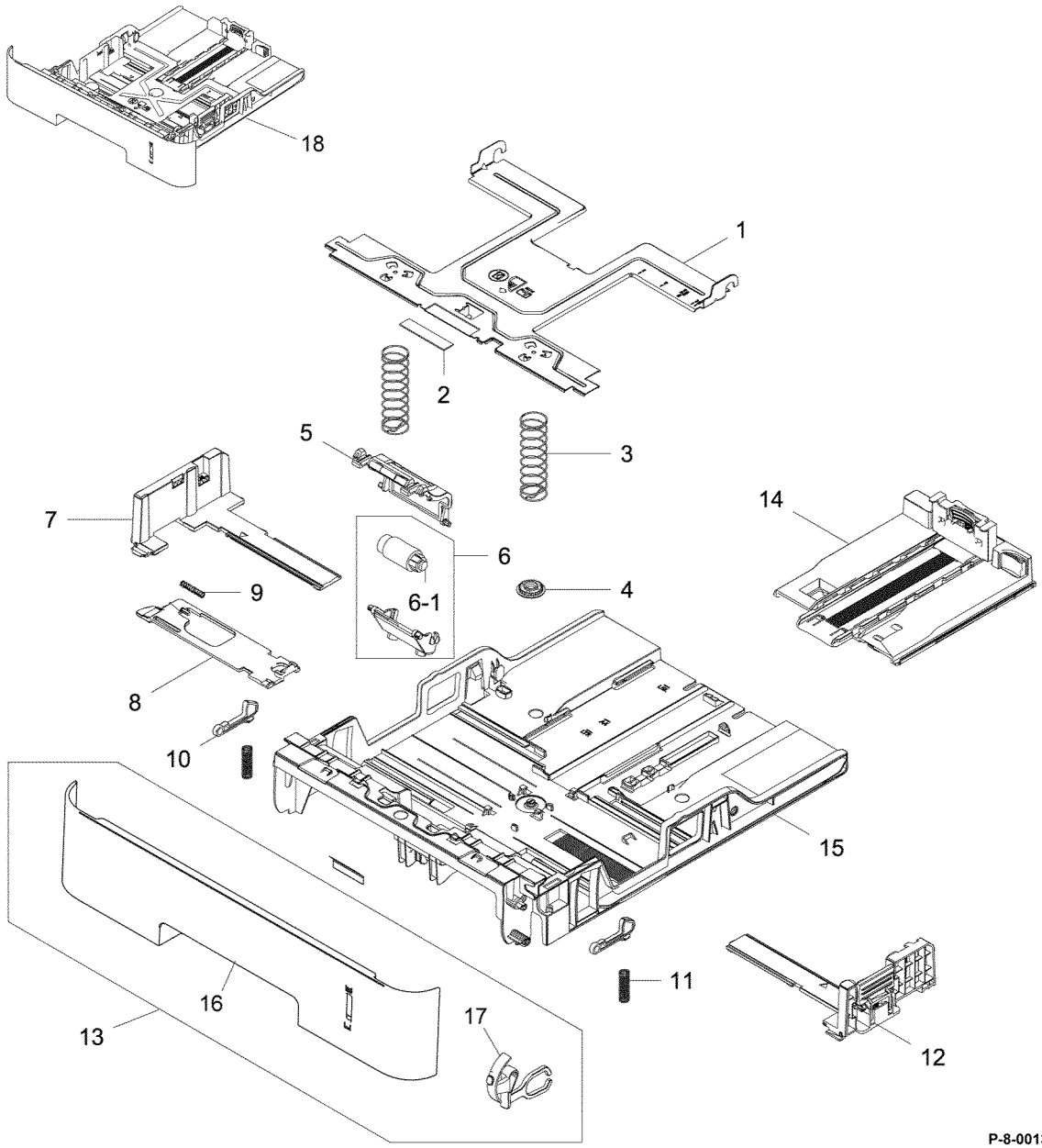
PL 5.2 Lower Fuser

Item	Part	Description
1	–	Fuser Frame
2	–	Heat Roller
3	–	Left Bushing
4	–	Right Bushing
5	–	Gear
6	–	Roller
7	–	Spring
8	–	Bushing
9	–	Left Jam Lever Link
10	–	Antistatic Brush
11	–	Jam Lever
12	–	Right Jam Lever Link
13	–	Lower Fuser Assembly



PL 6.1 Paper Tray

Item	Part	Description
1	–	Lift Plate
2	–	Pad
3	–	Spring
4	–	Pinion Gear
5	–	Retard Roll Cover
6	050N00683	Retard Roll Assembly (REP 6.1)
7	–	Left Paper Guide
8	–	Left Plate
9	–	Spring
10	–	Paper Tray Latch
11	–	Spring
12	–	Right Paper Guide
13	–	Paper Tray Handle
14	–	Paper Tray Rear Guide
15	–	Paper Tray Frame
16	–	Paper Tray Handle
17	–	Paper Indicator
18	050N00700	Paper Tray



Part Number Index

Table 1 Part Number Index

Part Number	Part List
001N00546	PL 4.3
002N03172	PL 2.1
002N03350	PL 2.1
002N03351	PL 3.1
007N01802	PL 4.6
007N01842	PL 4.6
011N00581	PL 4.1
022N02309	PL 4.1
022N02797	PL 4.4
022N02802	PL 4.5
022N02815	PL 4.2
050N00681	PL 4.4
050N00683	PL 6.1
050N00700	PL 6.1
062N00292	PL 4.1
105N02301	PL 4.1
105N02350	PL 4.1
105N02351	PL 4.1
117N01969	PL 4.1
120N00545	PL 4.4
120N00548	PL 4.4
121N01248	PL 4.1
121N01269	PL 4.1
126N00430	PL 5.1
126N00431	PL 5.1
127N07919	PL 4.6
130N01574	PL 4.5
130N01574	PL 4.1
130N01574	PL 4.3
130N01759	PL 4.4
130N01760	PL 4.5
140N63723	PL 3.1
140N63856	PL 1.1
140N63862	PL 1.1

6 General Information - Procedures

General Information

The Xerox® B210 printer produces high quality prints from electronic documents with speeds of up to 31 ppm and output resolution of up to 1200 x 1200 dpi.

System Overview

This section provides illustrations of the following systems:

- Paper Path - Paper Path
- System Layout - System Layout
- Print Process - Print Process
- Laser Scanner Unit (LSU) - Laser Scanner Unit (LSU)
- Drives - Drives
- Toner System - Toner System

Some features and options may not be available depending on machine configuration. Refer Refer to the Xerox® B210 User Guide for detailed feature and configuration information.

Paper Path

The following diagrams display the path that the paper follows during the printing process.

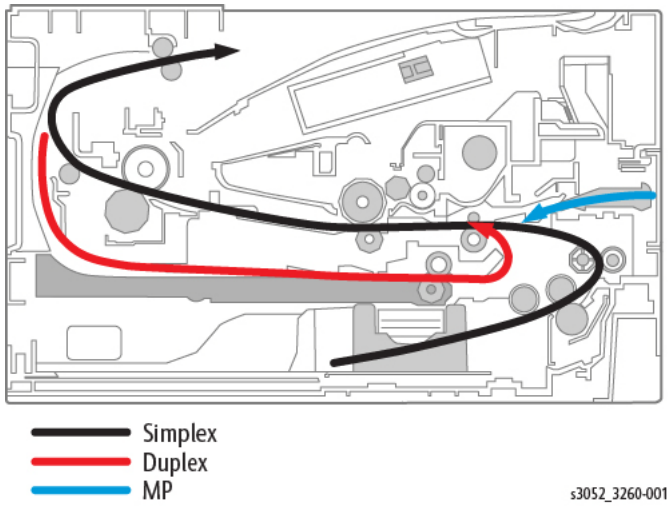


Figure 1 Paper Path

System Layout

The figures below illustrates the mechanical parts of the printer.

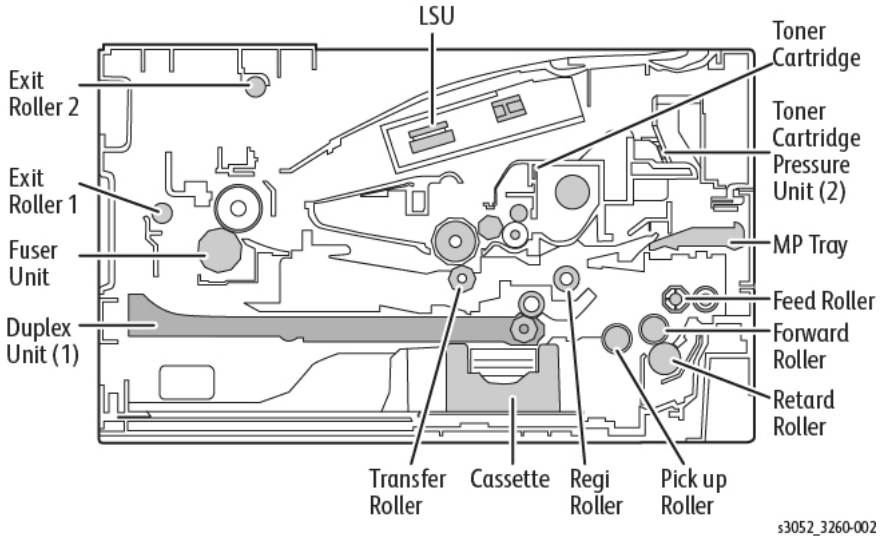


Figure 2 System Layout

Print Process

Figure 3 presents a general layout of the fusing and printing components used in the print process.

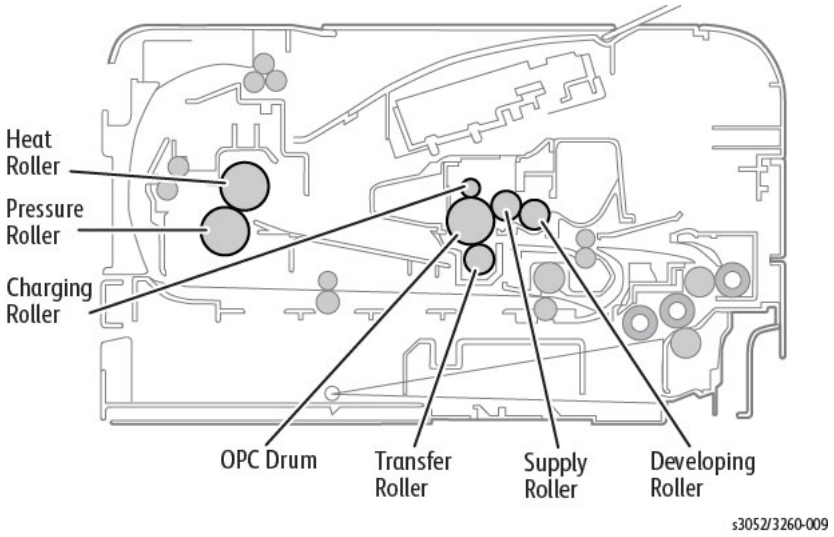


Figure 3 Print Process

Laser Scanner Unit (LSU)

The Scanner Unit receives image data from the HVPS PWB and scans the surface of the photoreceptor drum (OPC) with a laser to create a latent image.

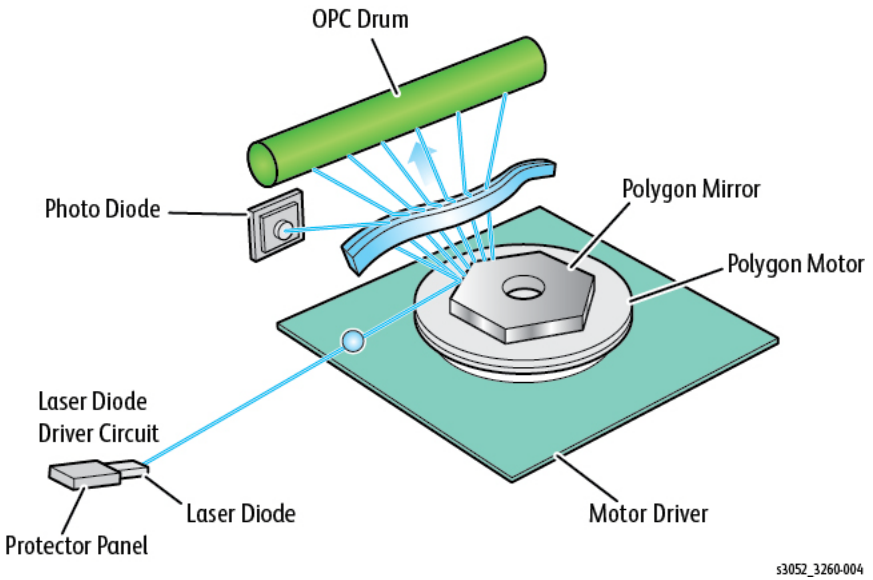


Figure 4 Laser Scanner Unit

Drives

The Drive System consists of the Main (BLDC) Motor, Registration and Pick-up Clutches along with various gears for the Drum Cartridge (OPC), Fuser, Pick-up, Registration, Feed and Exit Rollers.

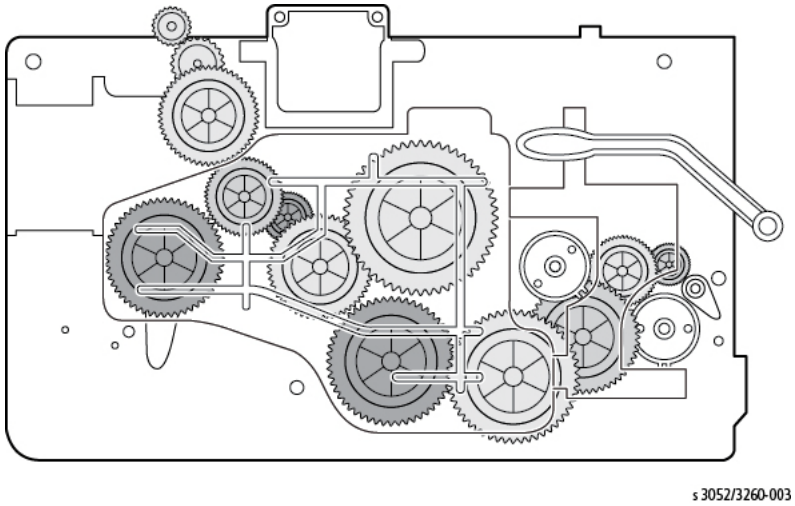


Figure 5 Drive Gears and Clutches

Toner System

The printer uses a separated toner system comprised of a Toner Cartridge and Imaging Unit.

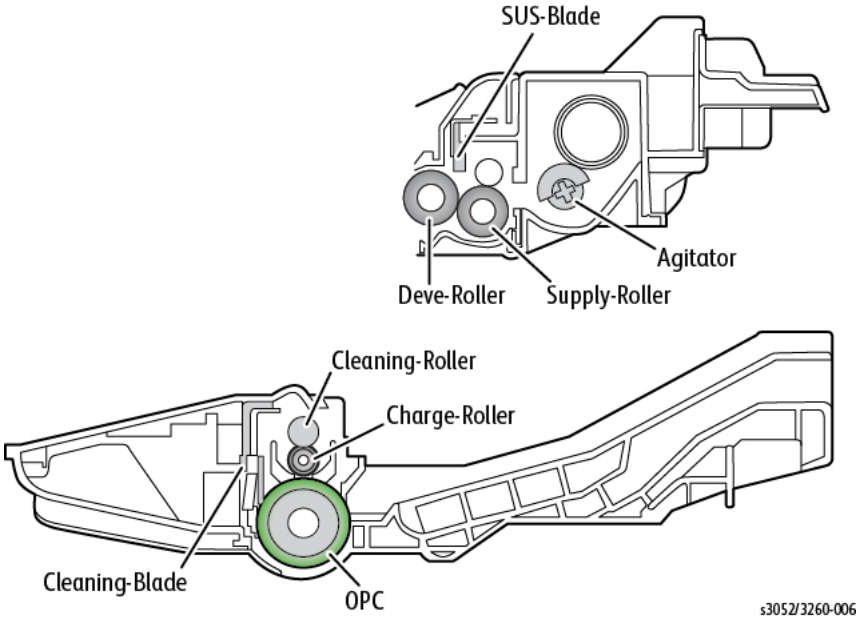


Figure 6 Separated Toner System

Product Specifications

Table 1 Product Overview

Feature	B210
Speed	31 ppm (8.5 x 11 in.) 30 ppm (A4) 15 ipm Duplex
Print Resolution	1200 x 1200 dpi
Processor	600MHz
Printer Language Emulation	SPL, PCL6/5e, PS3
Memory	DDR3 256MB
Interface	High Speed USB 2.0 Ethernet 10/100 BaseTX WiFi / WiFi Direct
Control Panel	No LCD, 4 keys and 2 LEDs
Toner Cartridge - Initial	1,500 images
Toner Cartridge - Standard/ High Yield	1500/3,000 images

Table 2 General Print Engine Specifications

Item	Mode	B210
Warmup time	From Sleep Mode	Less than 32 seconds
FPOT	From Sleep Mode	Less than 8.5 seconds
	From Standby	Less than 14 seconds
Resolution		1200 x 1200 dpi

Table 3 Controller and Software

Item		Specification
Processor	CPU	600 MHz (Cortex A5)
	Image Processor	ReCP (Rendering Engine for Clean Page)
Memory		DDR3 256 MB
Print Driver		PCL5e/ PCL6, SPL, Postscript 3

Table 3 Controller and Software

Item		Specification
Client OS Support	Windows®	Windows 7 ~10, Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016, 2019
	Linux	Red Hat Enterprise Linux : 5, 6, 7 Fedora : 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 openSUSE : 11.2, 11.4, 12.1, 12.2, 12.3, 13.1, 13.2, 14.1, 15.2 Ubuntu : 11.10, 12.04, 12.10, 13.04, 13.10, 14.04, 14.10, 15.04, 15.10, 16.04, 16.10, 17.04, 17.10, 18.04, 18.10 SUSE Linux Enterprise Desktop : 10, 11, 12 Linux Mint : 15, 16, 17, 1 Debian : 6, 7, 8, 9
	Mac OS	Mac OS 10.9 thru 1014
Fonts		PCL: 95 Scalable Fonts (Include OCR-A/ OCR-B) / 1 Bitmap
Interface	USB	High Speed USB 2.0
	Network	Ethernet 10/100/1000 Base TX, 802.11b/ g/n Wireless LAN
Network Protocols		TCP/IP, TCP/IPv6 DHCP, BOOTP, Bonjour, SLP, UPnP, Telnet, Standard TCP/IP Printing, LPR, IPP, SNMP v 1/2/3, HTTP, IPSec

Table 4 Paper Handling Specifications

Item		Specification
Input Capacity	Standard	250 Sheet Cassette Tray / 1-sheet Manual Feeder
Output Capacity	Face Down	150 Sheets
	Face Up	1 Sheet
Printing Size	Max.	216 x 356 mm (8.5 x 14 in.)
	Min.	76 x 127 mm (3 in. x 5 in.)
Halftone		256 levels
Standard Casette Tray	Capacity	250 Sheets
	Media Size	8.5 x 11 in. (letter), 8.5 x 14 in. (legal), A4, A5, A6, Executive, Oficio, Folio, ISO B5, JIS B5
	Media Types	Plain, Light-weight, Heavy-weight, Cardstock, Recycled, Archive, Bond
	Media Weight	16 to 58 lb (60 to 220 gsm)
	Sensing	Yes

Table 4 Paper Handling Specifications

Item		Specification
Manual Feeder	Capacity	1 Sheet
	Media Size	8.5 x 11 in. (letter), 8.5 x 14 in. (legal), A4, A5, A6, Executive, Oficio, Folio, ISO B5, JIS B5, Envelope: (No 10, Monarch, DL, C5, C6), Custom: 3 x 5 in. thru 8.5 x 14 in. (76mm x 127mm to 216 x 356 mm)
	Media Type	Plain, Light-weight, Heavy-weight, Cardstock, Transparency, Pre-printed, Recycled, Archive, Bond, Label, Envelope, Heavy-weight Envelope, Cotton, Colored
	Media Weight	16 to 58 lb (60 to 220 gsm)
	Sensing	Yes

Table 5 Toner Cartridge/Print Cartridge

Machine Model	Item	
B210	Toner Cartridge - Starter	1k images (110VAC) 1.5k images (220VAC)
	Toner Cartridge - Standard 106R04346 (NA/XE) CRU	1.5k images
	Toner Cartridge - High Yield 106R04347 (NA/XE) CRU	3k images
	Toner Cartridge DMO - 106R04348 CRU 2 Pk - 106R04349 CRU	3k images 3k images ea. 6k images total
	Drum Cartridge (Imaging Unit) 101R00664 CRU	10k images

*NOTE: ** Declared yield value in accordance with ISO/IEC 19752.*

Depending on the options and job mode used, the toner cartridge's lifespan may differ.

When replacing a Toner/Print Cartridge, check model number and consumables code. Refer to the Xerox® B210 User Guide for information regarding ordering consumables.

Table 6 Reliability and Service

Item	Specification
Printing Volume (SET AMPV)	250 - 400 pages
Maximum Monthly Duty	12,000 pages
MPBF	30,000 pages
MTTR	30 minutes
SET Life Cycle	100,000 pages or 5 years (whichever comes first)

Table 7 Environment

Item			Specification
Acoustic Noise Level	Printing (Simplex)		Less than 50 dB
	Standby		Less than 26 dB
	Sleep Mode		Less than 26 dB
Power Consumption	Ready		Less than 45 W
	Normal Operation		Less than 400 W
	Max/Peak		Less than 450 W
	Sleep		Less than 0.9 W
	Power Off		Less than 0.2 W
	TEC		Less than 1.1 kWh per week
Certification	Telecommunication		TBR-21, KC, Part68, ICCS03, CE(EN), KCC
	Safety		cUL, CB, KC, TUV-GS, PSB
	EMC/EMI		FCC Part 15 Class B, ICES003, CE(EN), KCC
	Document		No
	Security		No
	Others		No
Dimension (W x D x H)	SET		14.5 x 13.2 x 8.0 in. (368 x 334.5 x 202 mm)
	SET Packing		(452 x 418 x 330 mm) 17.8 x 16.5 x 13.0 in.
Weight	Net (SET without consumables)		3.8 lbs (6.3 kg)
	Net (SET with consumables)		7.2 lbs (6.3 kg)
	Gross (SET with packaging)		9.1 lbs (20.1 kg)
	Consumable (without packaging)	Toner Cartridge	1.2K: 1.10 lbs (0.50 kg)
			3.0K: 1.19 lbs. (0.54 kg)
		Imaging Unit	0.84 lbs. (0.38 kg)

GP 1 Diagnostics Entry and Exit

Not applicable for the B210. No Diagnostics are available.

GP 2 Machine Reports

Purpose

This procedure is used to access and print machine reports. The information in the machine reports may be useful for troubleshooting problems.

NOTE: *To print reports from the control panel, the printer must be in the* ***<Ready>*** *state. If it is in* ***<Standby>****, wake it first by pressing the power button.*

Procedure

To print a Configuration Report:

- From the Control Panel, press and hold the red **<Cancel>** button for 4 seconds until the Status LED blinks fast, then release the button.

To print a Supplies Usage and Billing/Counters Report:

- From the Control Panel, press and hold the red **<Cancel>** button for 4-8 seconds (until Status LED fast blink stops), then release the button.

From CentreWare Internet Services, CWIS:

1. Connect to the printer to the Ethernet, or WiFi connection for network access.
2. Open Easy Print Manager and select **[Advanced Settings > Device Settings > Link to Program]**, OR, type the machine IP address in a browser address line to open CWIS.
3. Login to CWIS with username **[admin]** and password.

   NOTE: *The default administrator password is the entire device serial number. It may be necessary to obtain the password from the customer if it has been changed.*

4. Select the **[Properties]** tab, then **[Services > Printing]**.
5. Select the **[Reports]** button. Select **[Print]** on the line of the corresponding report desired:
   - Configuration
   - Supplies Usage
   - Postscript Font List
   - PCL Font List
   - Print All Reports

GP 3 Machine Firmware Version

Purpose

Use this procedure to check the firmware version of the machine.

Procedure

From the Control Panel:

1. Press the red <**Cancel**> button for 4 seconds. The machine will print a Configuration Report listing the firmware version under the **[Device Setup]** heading.

From CWIS:

1. Type the machine IP address in a browser address line to launch the CentreWare Internet Services (CWIS) application.
2. Login to CWIS with username **[admin]** and password.

   NOTE: *The default administrator password is the entire device serial number. It may be necessary to obtain the password from the customer if it has been changed.*

3. Select **General Setup > Configuration > Printer Setup**. The line **[System Software Version]** shows the latest software installed.

GP 4 Machine Settings

Purpose

This procedure is used to provide information on how to configure machine settings.

Procedure

To change settings using the CentreWare Internet Services (CWIS).

1. Connect to the Xerox® B210 to an Ethernet or WiFi connection.
2. Open Easy Print Manager and select **[Advanced Settings > Device Settings > Link to Program]**.

   OR

   Type the machine IP address in a browser address line to open CWIS.
3. Login to CWIS with username **[admin]** and password.

   NOTE: *The default administrator password is the entire device serial number. It may be necessary to obtain the password from the customer if it has been changed.*

4. Select the **[Properties]** tab, then select from the following menu items to change the machine settings.

   [General Setup]
   - Configuration
   - Power Management
   - Duplex Mode
   - Tray Settings

     [Billing and Counters]
     - Billing Information
     - Usage Counters

   [Connectivity]
   - **[Physical Connections]**
     - Ethernet
   - **[Protocols]**
     - TCP/IP
     - SLP
     - SNMP
     - SNMPv3
     - WINS
     - LPR/LPD
     - Raw TCP/IP Printing
     - IPP
     - HTTP
     - Google Cloud Print
     - Proxy Server
     - Wireless Setup
     - Wi-Fi Direct™
     - WSD

- AirPrint
- SNTP
- Mopria

[Permissions]

- Print Permissions

[Services]

- Printing

[Security]

- IP Filtering
- IP Sec
- Machine Digital Certificate
- Conceal Job Names
- 802.1x
- System Timeout
- USB Port Security
- Security Settings
- Software Verification Test

[Maintenance]

- Administrator Password
- Firmware Upgrade
- Upgrade Management

GP 5 Altitude Adjustment

Purpose

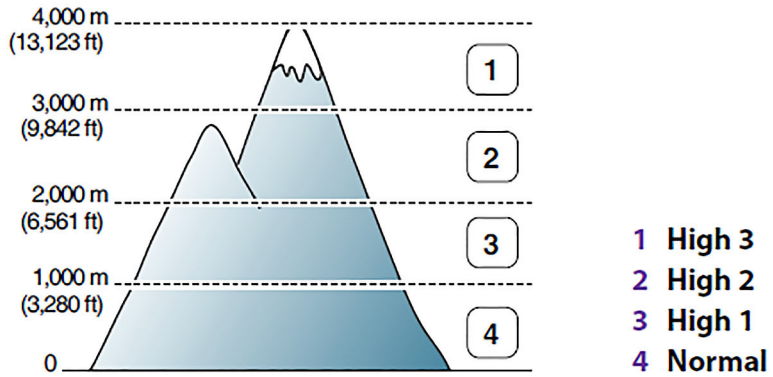
Print quality is affected by atmospheric pressure, which is determined by the height of the machine above sea level.

Requirements

- USB cable connection.

Procedure

1. Determine altitude of machine placement:



P-1-0013-A

Figure 1 Altitude values

Table 1 Altitude values

Altitude	Value
3000 - 4000 M 9,842 - 13,123 ft.	High 3
2000 - 3000M 6,561 - 9,842 ft.	High 2
1000 - 2000 M 3,280 - 6,561 ft.	High 1
0 - 1000 M 0 - 3,280 ft.	Normal

2. Connect the printer using the USB cable.
3. Open Easy Printer Manager. Select: [**Device Settings, System, Altitude Adjustment**].

GP 6 Firmware Upgrade

Purpose

The following procedure is to be used for upgrading the firmware of the B210 single function printer.

Xerox CentreWare Internet Services (CWIS) Firmware Upgrade

NOTE: *Depending on the internet browser used, the vebiage may vary. The following procedure was created using the Chrome® internet browser.*

1. Download the latest Firmware file from Xerox.com.
2. Type the machine IP address in the browser address line to reach machine's CWIS home screen.
3. Select the **Properties** tab.
4. On the left hand side of the screen, scroll down the list, then select **Maintenance**:
   a. Login to CWIS with username **[admin]** and password.

      NOTE: *The default administrator password is the entire device serial number. It may be necessary to obtain the password from the customer if it has been changed.*

   b. Select **Upgrade Management**, the **[Enabled]** box must be checked.
   c. In the list on the left, above **Upgrade Management**, select **Firmware Upgrade**.
5. Select **Choose file**.
6. Browse to the Firmware file downloaded, click on **Open**. You will see the file name in the screen.
7. Select **Install Software**.
8. A dialog box appears asking “Do you really want to upgrade?”, Select **OK**.
   a. A Firmware gas gauge will appear and increment.
   b. Processing upgrade will appear next, it can take more than a minute.
   c. The LED lights will blink, the the machine print a configuration page.
9. Check the configuration page that prints to make sure that the Firmware upgrade was successful.
10. The CWIS under **General Setup > Configuration > Printer Setup**. The line **[System Software Version]** should reflect the latest software just installed.

GP 7 Usage of the Electrostatic Discharge (ESD) Field Service Kit

Purpose

The purpose of the Electrostatic Discharge (ESD) Field Service Kit is to preserve the inherent reliability and quality of sensitive electronic components handled by the service representative. The kit should be used whenever handling the circuit boards or any other ESD sensitive components.

Procedure

1. Switch off the machine, then disconnect the machine power cord.
2. Assemble the kit:
   a. Place the static dissipative work surface mat on a flat surface in close proximity to the machine or the component
   b. Connect the snap end of the green grounding cord to the snap on the static dissipative work surface mat. Connect the male end (plug) to the frame.
   c. Connect the small snap end of the blue cord to the top snap on the green grounding cord.
   d. Connect the small snap end of the blue cord to the snap on the adjustable cloth wrist strap or the ESD wristwatch.
   e. Install the adjustable wrist strap or ESD wristwatch securely on the wrist.
3. The circuit boards (PWB’s) and ESD sensitive components can now be handled without causing any ESD related damage. Place all of the components removed from the machine onto the static dissipative work surface mat.
4. New replacement components, as well as defective components, should be handled during unpacking and repacking using the ESD Field Service Kit. During transfer from or to the packing material or container, the PWB should be placed on the static dissipative work surface mat.

GP 8 Memory Clear

1. The machine should be in IDLE state, no pending jobs in Job Que, and not in Standby.
2. Open the Front Door and press the red **[Stop]** button for 15-20 seconds (until the Status LED has stopped blinking for the second time).
3. Close the front door:
   a. The machine will restart.
   b. The machine will perform memory clear.
   c. The machine resarts a second time.

   NOTE: *It may take 1-2 mins to complete the memory clear and then reboot.*
4. The machine will print a Configuration Report after the second reboot.

NOTE: *Performing a Memory Clear resets the SA Password back to the default (device serial number). Be sure to inform the customer that the SA password has been reset so that they may change if desired*

NOTE: *A Memory Clear is the only way to reset the SA Password.*

NOTE: *After performing a Memory Clear, inform the customer that they will need to re-establish their Wireless or Ethernet connection.*

GP 9 USB Serial Number Writing Tool

Purpose

Use this procedure access and download the USB Serial Number Writing Tool.

Procedure

1. To access the USB Serial Number Writing Tool file go to:
   - GSN Library **<#7387>**
   - https://www.xrxgsn.com/secure/main.pl?catid=13991
   - Click the **<Service Software Tools>** link to download the **<Software_Tools.zip>** file.
2. Download the Software_tools.zip file onto the computer attached to the machine via USB cable.
3. Open the zip folder and extract the tool files.
4. Click on the file, **<USB_Serial_V1.02.exe>**. in the USB Serial 1.02 screen:
   a. Click **<Check USB>**.
   b. Enter the machine serial number.
   c. Click **<Write Serial>**.

   NOTE: *The Xerox® B210 uses the following tool only:*
   - *USB_Serial_V1.02.exe - to write the machine number to the Main PWB.*

Tags/MODs

Purpose

To provide a list of all the tag numbers used, together with a description of each of the machine modifications.

Description

Each modification to the system is assigned a unique tag number. This section of the service documentation contains a listing and brief description of all change tags.

Change tags listed in this section are listed by machine module. The module to which the tag relates is identified by the tag prefix letter.

Tag/MOD Information

Information that may be included with each tag item is as follows:

- Tag - identifies the control number for the tag.
- Class - identifies the classification code as listed in Classification Codes.
- Use - indicates the block build or model designation of the machine.
- Manufacturing Serial Number - indicates the serial number of the factory-built machines with the modification installed.
- Name - indicates the name of the retrofit.
- Purpose - provides a brief description of the modification.
- Kit Number - identifies the part number of the kit or part required to install the modification.
- Parts List On - identifies the Part List location of the modification part.
- Reference - Indicates all other Tag/MOD numbers that are related to this product configuration. These may supercede or be superceded by another Tag/MOD.

Mod/Tag Plate Location

Tags are identified by a tag number which is recorded on a tag matrix inside the front door.

Classification Codes

The class or classification codes are described in Table 1.

Table 1 Classification codes

NASG Code	XE Code	Description
-	1	Safety: install this tag immediately.
M	2	Mandatory: install this tag at the next opportunity.
R	3	Repair: install this tag as a repair, at the failure of a component.
O	4	Optional: install as a customer option or a field engineering decision.
S	4	Situational: install as the situation demands.
N	5	Manufacturing: cannot be installed in the field.
-	6	Refurbishing only.

7 BSD

BSD Block Schematic Diagrams

Xerox® WorkCentre® B210 Multifunction Printer

This document contains wiring and mechanical power data for the Xerox® WorkCentre® B210 Printers.

These block schematic diagrams are supplemental to the diagnostic and troubleshooting information found in the Xerox® WorkCentre® B210 Service Manual.

Every effort has been made to achieve accuracy on these schematics. However, if a difference is noted between these schematics and the Xerox service documentation, the service documentation takes precedence.

BSD 1

1.1 - Main/Power/Electrical/Drive/Fuser/Networking/LSU/CRUM

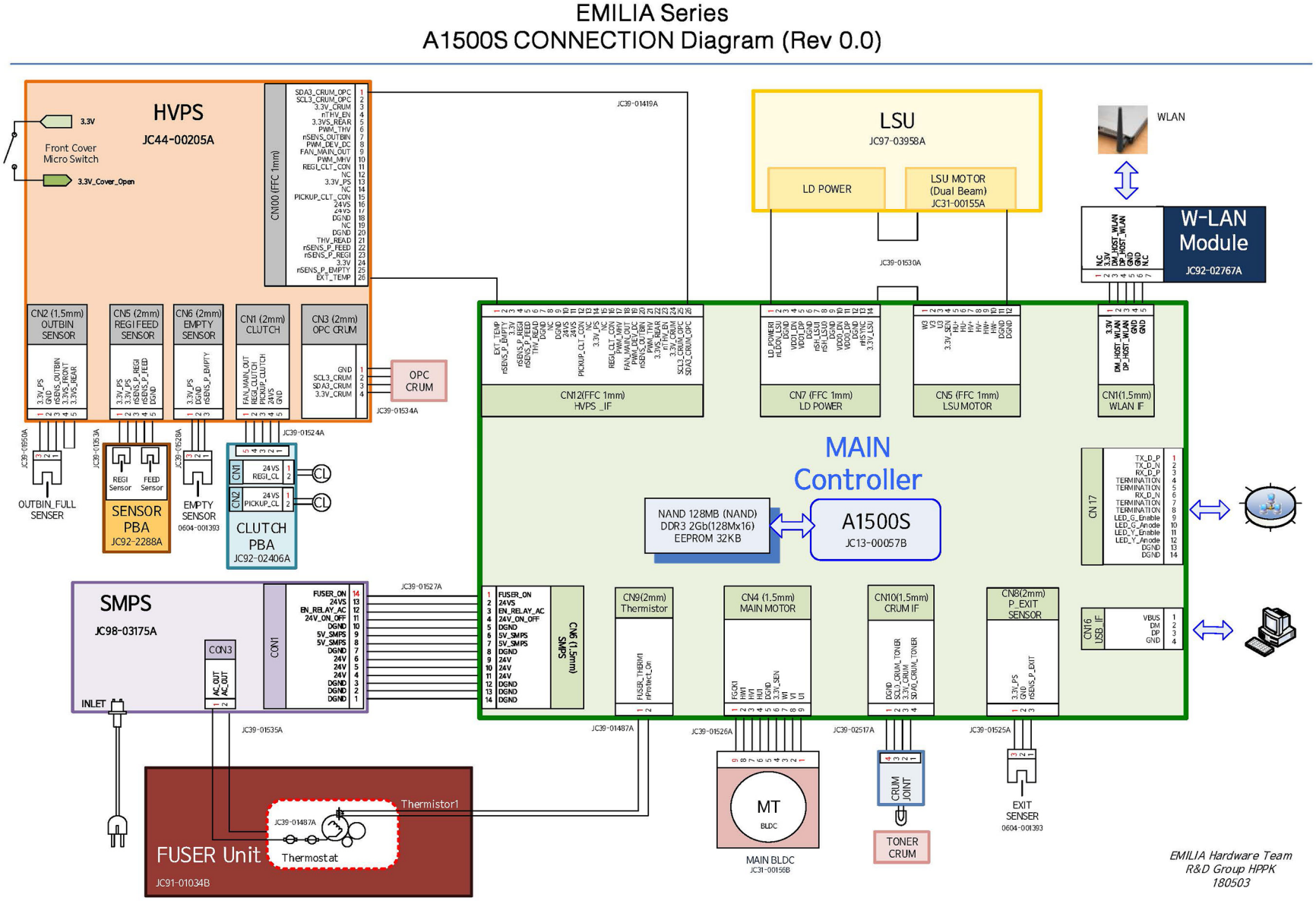
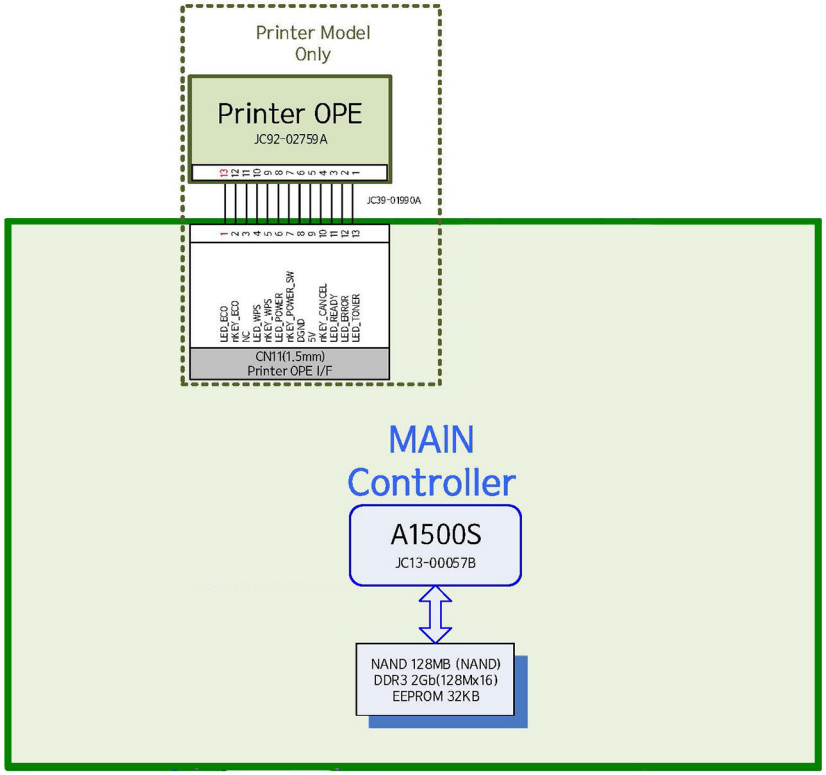


Figure 1 BSD 1.1 - Main/ADF/Power/Electrical/Drive/Fuser/Networking/LSU/CRUM

EMILIA Series
A1500S CONNECTION Diagram (Rev 0.0)



EMILIA Hardware Team
R&D Group HPPK
180503

Figure 1 BSD 2.1 Printer OPE