CX532, CX635, XC2335 MFPs

Service Manual

February 2025

www.lexmark.com

Product information

Product name:
Lexmark CX532adwe, Lexmark CX635adwe, Lexmark XC2335 MFPs
Machine type:
7531
Model(s):
276, 286, 289, 676, 686

Edition notice

April 2023

The following paragraph does not apply to any country where such provisions are inconsistent with local law: LEXMARK INTERNATIONAL, INC., PROVIDES THIS PUBLICATION “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions; therefore, this statement may not apply to you.

The following paragraph does not apply to any country where such provisions are inconsistent with local law: THIS PUBLICATION IS PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions; therefore, this statement may not apply to you.

This publication could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in later editions. Improvements or changes in the products or the programs described may be made at any time.

References in this publication to products, programs, or services do not imply that the manufacturer intends to make these available in all countries in which it operates. Any reference to a product, program, or service is not intended to state or imply that only that product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any existing intellectual property right may be used instead. Evaluation and verification of operation in conjunction with other products, programs, or services, except those expressly designated by the manufacturer, are the user’s responsibility.

Lexmark and the Lexmark logo are trademarks of Lexmark International, Inc., registered in the United States and/or other countries.

PCL® is a registered trademark of the Hewlett-Packard Company. PCL is Hewlett-Packard Company’s designation of a set of printer commands (language) and functions included in its printer products. This printer is intended to be compatible with the PCL language. This means the printer recognizes PCL commands used in various application programs, and that the printer emulates the functions corresponding to the commands.

PostScript is a registered trademark of Adobe Systems Incorporated in the United States and/or other countries.

All other trademarks are the property of their respective owners.

Contents

Parts removal

Component locations

Maintenance

Parts catalog

Notices, conventions, and safety information

Laser notice

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, Chapter I, Subchapter J for Class I (1) laser products, and elsewhere is certified as a Class 1 consumer laser product conforming to the requirements of IEC 60825-1:2014, EN 60825-1:2014+A11:2021, and EN 50689:2021.

Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service conditions. The printer has a non-serviceable printhead assembly that contains a laser with the following specifications:

Class: IIIb (3b) AlGaAs

Nominal output power (milliwatts): 12

Wavelength (nanometers): 770–800

Conventions

Note: A *note* identifies information that could help you.
Warning: A *warning* identifies something that could damage the product hardware or software.
CAUTION: A *caution* indicates a potentially hazardous situation that could injure you. Different types of caution statements include:

CAUTION—POTENTIAL INJURY
Indicates a risk of injury.

CAUTION—SHOCK HAZARD
Indicates a risk of electrical shock.

CAUTION—HOT SURFACE
Indicates a risk of burn if touched.

CAUTION—TIPPING HAZARD
Indicates a crush hazard.

CAUTION—PINCH HAZARD
Indicates a risk of being caught between moving parts.

Conventions

Note: A *note* identifies information that could help you.
Warning: A *warning* identifies something that could damage the product hardware or software.
CAUTION: A *caution* indicates a potentially hazardous situation that could injure you.
Different types of caution statements include:

CAUTION—POTENTIAL INJURY
Indicates a risk of injury.

CAUTION—SHOCK HAZARD
Indicates a risk of electrical shock.

CAUTION—HOT SURFACE
Indicates a risk of burn if touched.

CAUTION—TIPPING HAZARD
Indicates a crush hazard.

CAUTION—PINCH HAZARD
Indicates a risk of being caught between moving parts.

Safety information

- The safety of this product is based on testing and approvals of the original design and specific components. The manufacturer is not responsible for safety in the event of use of unauthorized replacement parts.
- The maintenance information for this product has been prepared for use by a professional service person and is not intended to be used by others.
- There may be an increased risk of electrical shock and personal injury during disassembly and servicing of this product. Professional service personnel should understand this risk and take necessary precautions.

CAUTION—SHOCK HAZARD
When you see this symbol on the product, there is a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you begin, or use caution if the product must receive power in order to perform the task.

CAUTION—POTENTIAL INJURY
The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

CAUTION—POTENTIAL INJURY
To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

CAUTION—POTENTIAL INJURY
To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.

CAUTION—POTENTIAL INJURY
Do not use this product with extension cords, multioutlet power strips, multioutlet extenders, or UPS devices. The power capacity of these types of accessories can be easily overloaded by a laser printer and may result in a risk of fire, property damage, or poor printer performance.

CAUTION—POTENTIAL INJURY
Only a Lexmark Inline Surge Protector that is properly connected between the printer and the power cord provided with the printer may be used with this product. The use of non-Lexmark surge protection devices may result in a risk of fire, property damage, or poor printer performance.

CAUTION—POTENTIAL INJURY
Do not use this product with an inline surge protector. The use of a surge protection device may result in a risk of fire, property damage, or poor printer performance.

CAUTION—POTENTIAL INJURY
If the printer weight is greater than 20 kg (44 lb), then it may require two or more people to lift it safely.

Consignes de sécurité

- La sécurité de ce produit est basée sur des tests et certifications de sa conception d'origine et de ses composants spécifiques. Le fabricant décline toute responsabilité en cas d'utilisation de pièces de rechange non autorisées.
- Les informations de maintenance de ce produit sont destinées à des professionnels qualifiés et ne sont pas conçues pour être utilisées par d'autres personnes.
- Il existe un risque potentiel de choc électrique et de blessures lors du démontage et de la maintenance de ce produit. Le personnel professionnel de maintenance doit comprendre les risques et prendre les précautions nécessaires.

CAUTION—SHOCK HAZARD
Ce symbole indique un danger lié à des niveaux de tension dangereux dans la zone du produit à manipuler. Débranchez le produit avant de commencer, ou agissez avec prudence si le produit doit être alimenté pour effectuer l'opération.

CAUTION—POTENTIAL INJURY
La batterie lithium de ce produit n'est pas destinée à être remplacée. Si vous ne respectez pas les instructions de remplacement de la batterie, vous risquez de provoquer une explosion. Ne rechargez pas, ne désassemblez pas et ne brûlez pas la batterie au lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

CAUTION—POTENTIAL INJURY
Pour éviter tout risque d'électrocution ou d'incendie, branchez le câble d'alimentation directement à une prise électrique répondant aux exigences requises et correctement mise à la terre, proche du produit et facile d'accès.

CAUTION—POTENTIAL INJURY
Pour éviter tout risque d'incendie ou d'électrocution, utilisez uniquement le câble d'alimentation fourni avec ce produit ou un câble de remplacement autorisé par le fabricant.

CAUTION—POTENTIAL INJURY
Ce produit ne doit pas être utilisé avec des rallonges, des barres multiprises, des rallonges multiprises ou des périphériques UPS. La capacité de ces types d'accessoires peut être facilement dépassée par une imprimante laser, d'où un risque de dégâts matériels, d'incendie ou de performances d'impression amoindries.

CAUTION—POTENTIAL INJURY
Utilisez uniquement un parasurtenseur correctement raccordé à l'imprimante et au câble d'alimentation fourni avec la machine. L'utilisation de parasurtenseurs non fabriqués par Lexmark comporte un risque d'incendie et de dégâts matériels, et peut amoindrir les performances de l'imprimante.

CAUTION—POTENTIAL INJURY
N'utilisez pas ce produit avec un parasurtenseur en ligne. L'utilisation de parasurtenseurs comporte un risque d'incendie et de dégâts matériels, et peut réduire les performances de l'imprimante.

CAUTION—POTENTIAL INJURY
Si votre imprimante pèse plus de 20 kg (44 lb), l'intervention d'au moins deux personnes est nécessaire pour la soulever sans risque.

Información de seguridad

- La seguridad de este producto se basa en las pruebas y comprobaciones del diseño original y los componentes específicos. El fabricante no se hace responsable de la seguridad en caso de uso de piezas de repuesto no autorizadas.
- La información de mantenimiento de este producto se ha preparado para su uso por parte de un profesional de asistencia técnica y no está diseñada para su uso por parte de otros usuarios.
- Es posible que haya un mayor riesgo de descarga eléctrica y daños personales durante el desmontaje y el mantenimiento de este producto. El personal de asistencia profesional debe conocer este riesgo y tomar las precauciones necesarias.

CAUTION—SHOCK HAZARD
Cuando vea este símbolo en el producto, existe peligro de tensiones peligrosas en el área del producto en la que está trabajando. Desconecte el producto antes de empezar o tenga cuidado si el producto debe recibir alimentación a fin de realizar la tarea.

CAUTION—POTENTIAL INJURY
La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio usadas según las instrucciones del fabricante y las normativas locales.

CAUTION—POTENTIAL INJURY
Para evitar el riesgo de incendio o descarga eléctrica, conecte el cable de alimentación a una toma de corriente debidamente conectada a tierra con la potencia adecuada que se encuentre cerca del dispositivo y resulte fácilmente accesible.

CAUTION—POTENTIAL INJURY
Para evitar el riesgo de incendio o descarga eléctrica, utilice exclusivamente el cable de alimentación que se suministra junto con este producto o el repuesto autorizado por el fabricante.

CAUTION—POTENTIAL INJURY
No utilice este producto con cables alargadores, regletas de varias tomas, cables alargadores de varias tomas o sistemas de alimentación ininterrumpida. La potencia de este tipo de accesorios puede sobrecargarse fácilmente si se utiliza una impresora láser, lo que puede dar lugar a que el rendimiento de la impresora sea bajo, a daños materiales o a posibles incendios.

CAUTION—POTENTIAL INJURY
Solo debe usarse con este producto un protector de sobretensión insertable Lexmark debidamente conectado entre la impresora y el cable de alimentación que con ella se suministra. El uso de protectores de sobretensión de marcas distintas a Lexmark puede dar lugar a que el rendimiento de la impresora sea bajo, a daños materiales o a posibles incendios.

CAUTION—POTENTIAL INJURY
No utilice este producto con un protector de sobretensión. El uso de un dispositivo de protección contra sobretensión puede dar lugar a que el rendimiento de la impresora sea bajo, a daños materiales o a posibles incendios.

CAUTION—POTENTIAL INJURY
si el peso de la impresora es superior a 20 kg (44 lb), pueden ser necesarias dos o más personas para levantarla de forma segura.

Sicherheitshinweise

- Die Sicherheit dieses Produkts basiert auf Tests und Zulassungen des Originaldesigns und der spezifischen Komponenten. Sofern nicht autorisierte Ersatzteile eingesetzt werden, übernimmt der Hersteller keinerlei Verantwortung in Bezug auf die Sicherheit dieses Produkts.

- Die Wartungsinformationen für dieses Produkt wurden für ausgebildete Servicemitarbeiter zusammengestellt und dürfen nicht von anderen verwendet werden.
- Möglicherweise besteht bei der Demontage und Wartung dieses Produkts eine erhöhte Stromschlag- und Verletzungsgefahr. Ausgebildete Servicemitarbeiter sollten sich dieser Gefahr bewusst sein und die notwendigen Vorsichtsmaßnahmen ergreifen.

CAUTION—SHOCK HAZARD
Wenn Sie dieses Symbol sehen, besteht eine Gefahr durch gefährliche Spannungen in dem Produktbereich, in dem Sie arbeiten. Trennen Sie das Produkt von seiner Stromverbindung, bevor Sie beginnen, oder gehen Sie vorsichtig vor, wenn das Produkt für die Durchführung der Aufgabe mit Strom versorgt werden muss.

CAUTION—POTENTIAL INJURY
Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

CAUTION—POTENTIAL INJURY
Um Feuer- und Stromschlaggefahr zu vermeiden, schließen Sie das Netzkabel direkt an eine ordnungsgemäß geerdete Steckdose an, die sich in der Nähe des Geräts befindet und leicht zugänglich ist.

CAUTION—POTENTIAL INJURY
Um das Risiko eines Feuers oder elektrischen Schlags zu vermeiden, verwenden Sie ausschließlich das diesem Produkt beiliegende Netzkabel bzw. ein durch den Hersteller zugelassenes Ersatzkabel.

CAUTION—POTENTIAL INJURY
Verwenden Sie das Produkt nicht mit Verlängerungskabeln, Mehrfachsteckdosen, Mehrfachverlängerungen oder Geräten für unterbrechungsfreie Stromversorgung. Die Belastbarkeit solcher Zubehörteile kann durch Laserdrucker schnell überschritten werden, was zu Brandgefahr, Beschädigung von Eigentum oder einer eingeschränkten Druckerleistung führen kann.

CAUTION—POTENTIAL INJURY
Mit diesem Produkt darf nur ein Lexmark Inline Surge Protector verwendet werden, der vorschriftsgemäß zwischen dem Drucker und dem mitgelieferten Netzkabel angeschlossen ist. Die Verwendung von nicht von Lexmark stammenden Überspannungsschutzgeräten kann zu Brandgefahr, Beschädigung von Eigentum oder einer eingeschränkten Druckerleistung führen.

CAUTION—POTENTIAL INJURY
Verwenden Sie dieses Produkt nicht mit einem Inline-Überspannungsschutz. Die Verwendung von Überspannungsschutzgeräten kann zu Brandgefahr, Beschädigung von Eigentum oder einer eingeschränkten Druckerleistung führen.

CAUTION—POTENTIAL INJURY
Wenn der Drucker mehr als 20 kg wiegt, sind zum sicheren Anheben mindestens zwei Personen notwendig.

Change history

Change history

February 11, 2025

- Updated the Motor (CMY) drive failure service check topic of the Diagnostics and troubleshooting chapter. See Motor (CMY) drive failure service check on page 154.

November 18, 2024

- Updated the ADF removal topic of the Parts removal chapter. See ADF removal on page 313.
- Updated the Flatbed scanner removal topic of the Parts removal chapter. See Flatbed scanner removal on page 300.
- Updated the Scanner Calibration Reset topic of the Parts removal chapter. See Scanner Calibration Reset on page 182.

November 8, 2024

- Added PN 41X4551 to the Covers topic of the Parts catalog chapter. For more information, see Covers.

October 28, 2024

- Added PN 41X2877 and PN 41X2878 to the Cables topic of the Parts catalog chapter. For more information, see Cables on page 399.

October 16, 2024

- Updated the removal links for PN 41X4351 and PN 41X2880 in the Control panel topic of the Parts catalog chapter. For more information, see Control panel on page 394
- Added the Control panel removal topic in the Parts removal chapter. For more information, see Control panel removal on page 275

September 11, 2024

- Updated the Supported paper weights topic in the General information chapter. For more information, see Supported paper weights on page 30 .

August 9, 2024

- Added the Toner cartridge service check in the 42.60–42.64K error codes of the 42 user attendance messages topic of the Diagnostics and troubleshooting chapter. See 42 user attendance messages on page 125.

August 1, 2024

- Updated the Toner cartridge (K) error service check topic in the Diagnostics and Troubleshooting chapter. See Toner cartridge (K) error service check on page 122
- Updated the Toner cartridge (CMY) error service check topic in the Diagnostics and Troubleshooting chapter. See Toner cartridge (CMY) error service check on page 122

July 16, 2024

- Added the 41X2848 ADF maintenance kit in the Maintenance kits topic of the Parts catalog chapter. See Maintenance kits on page 406.
- Added the 41X2848 ADF maintenance kit in the Maintenance kits topic of the Maintenance chapter. See Maintenance kits on page 372.

June 25, 2024

- Updated the art for 41X4320 Tray present sensor cable in the Cable topic of the Parts catalog chapter. See Cables on page 399.
- Updated the Flatbed scanner removal topic of the Parts removal chapter. See Flatbed scanner removal on page 300.
- Updated the ADF removal of the Parts removal topic chapter. See ADF removal on page 313.
- Updated the two-sided printing in the Supported paper weights topic of the General information chapter. See Supported paper weights on page 30.

April 23, 2024

- Added information about the ellipses loading screen on the Entering Recovery mode topic of the Service menus chapter. See Entering Recovery mode on page 197.

April 22, 2024

- Added an action item to the following error messages in the Diagnostics and troubleshooting chapter:
  - 2.01. See 2-9 user attendance messages on page 98.
  - 64 and 66. See 61–66 user attendance error messages on page 140.
  - 71.04, 71.05, and 71.20. See 71–72 user attendance error messages on page 142.
  - 680.50. See 600-680 error messages on page 161.
- Added the following service checks in the Diagnostics and troubleshooting chapter:
  - Weather station service check. See Weather station service check on page 148.
  - Engine error service check. See Engine error service check on page 172.
  - Fuser error service check. See .
  - Main fan service check. See Main fan service check on page 161.
  - Tray not ready for picking service check. See Tray not ready for picking service check on page 165.

March 19, 2024

- Added the Sensor (duplex staging): Paper failed to clear service check topic in the Diagnostics and troubleshooting chapter. See Sensor (duplex staging): Paper failed to clear service check on page 83.

January 10, 2024

- Added a note in step 3 of the ADF removal in the Parts removal chapter. See ADF removal on page 313.

November 7, 2023

- Added the Power cords topic in the Parts catalog chapter. See Power cords on page 407.

August 11, 2023

Updated the following parts removals in the Parts catalog chapter:

- Front door removal. See Front door removal on page 259.
- Tray 1 media feeder removal. See Tray 1 media feeder removal on page 292 .
- Transfer module guide removal. See Transfer module guide removal on page 289.
- ADF top cover removal. See ADF top cover removal on page 315.

August 3, 2023

Updated the following parts removals in the Parts catalog chapter:

- Front door removal. See Front door removal on page 259.
- Tray 1 media feeder removal. See Tray 1 media feeder removal on page 292 .
- Flatbed scanner removal. See Flatbed scanner removal on page 300.

July 18, 2023

- Added the following parts removal in the Parts removal chapter:
  - Toner access door. See Toner access door removal on page 250.
  - Right cover. See Right cover removal on page 252.
  - Control panel base cover. See Control panel base cover removal on page 300.
  - Scanner left rear access cover. See Scanner left rear access cover removal on page 307.
  - Scanner right rear access cover. See Scanner right rear access cover removal on page 308.
- Added the removal links of toner access door and right cover in the Covers topic of the Parts catalog chapter. See Covers on page 391.
- Added the removal links of the following parts in the Covers 2 topic of the Parts catalog chapter. See Covers 2 on page 393.
  - Control panel base cover
  - Scanner left rear access cover
  - Scanner right rear access cover
  - Scanner right support cover
- Added a note in the 32.40D, 32.41D, 32.42D, 32.43D, and 32.65D error codes in the 32 user attendance error messages topic of the Diagnostics and troubleshooting chapter. See 32 user attendance error messages on page 110.

July 4, 2023

- Updated the Fuser removal topic of the Parts removal chapter. See Fuser removal on page 266.

June 1, 2023

- Added parts removal links in the Sensor locations topic of the Component locations chapter. See Sensor locations on page 370.

May 23, 2023

- Added the Rear cover removal link in the Covers topic of the Parts catalog chapter. See Covers on page 391.
- Added the HVPS removal link in the Electronics topic of the Parts catalog chapter. See Electronics on page 396.
- Added removal links in the Imaging topic of the Parts catalog chapter. See Imaging on page 402.

May 2, 2023

- Changed the part number of the lower left subframe from 41X2326 to 41X4924 of the Parts catalog chapter. See Covers 2 on page 393.

April 25, 2023

- Product announce.

General information

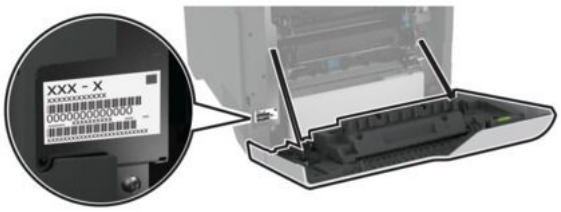
Printer model configurations

The Lexmark™ CX532adwe, XC2335, and CX635adwe MFPs are color, network-capable multifunction laser printers. All information in this *Service Manual* pertains to all models unless explicitly noted.
The printer is available in the following models:

Model name	Configuration / description	Machine type / model number
CX532adwe	4.3-in. color touch screen display, duplex print, duplex scan, networking, ISD and hard disk support, optional tray support, wireless module support	7531-276
		7531-286
XC2335		7531-289
CX635adwe	7-in. color touch screen display, duplex print, duplex scan, networking, fax, multi-feed detection, ISD and hard disk support, optional tray support, wireless module support	7531-676
		7531-686

Finding the printer serial number

1. Open door A.
2. Locate the serial number.



Selecting paper

Paper guidelines

Use the appropriate paper to prevent jams and help ensure trouble-free printing.

- Always use new, undamaged paper.
- Before loading paper, know the recommended printable side of the paper. This information is usually indicated on the paper package.
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, types, or weights in the same tray; mixing results in jams.

- Do not use coated papers unless they are specifically designed for electrophotographic printing.

For more information, see the *Paper and Specialty Media Guide*.

Paper characteristics

The following paper characteristics affect print quality and reliability. Consider these factors before printing on them.

Weight

Trays can feed paper of varying weights. Paper lighter than 60 g/m^2 (16 lb) may not be stiff enough to feed properly, and may cause jams. For more information, see the “Supported paper weights” topic.

Curl

Curl is the tendency for paper to curl at its edges. Excessive curl can cause paper feeding problems. Curl can occur after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped in hot, humid, cold, or dry conditions can contribute to paper curling before printing and can cause feeding problems.

Smoothness

Paper smoothness directly affects print quality. If paper is too rough, toner cannot fuse to it properly. If paper is too smooth, it can cause paper feeding or print quality issues. We recommend the use of paper with 50 Sheffield points.

Moisture content

The amount of moisture in paper affects both print quality and the printer ability to feed the paper correctly. Leave paper in its original wrapper until you use it. Exposure of paper to moisture changes can degrade its performance.

Before printing, store paper in its original wrapper for 24 to 48 hours. The environment in which the paper is stored must be the same as the printer . Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period.

Grain direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either *grain long* which runs the length of the paper, or *grain short* which runs the width of the paper. For recommended grain direction, see the “Supported paper weights” topic.

Fiber content

Most high-quality xerographic paper is made from 100 percent chemically treated pulped wood. This content provides the paper with a high degree of stability, resulting in fewer paper feeding problems and better print quality. Paper containing fibers such as cotton can negatively affect paper handling.

Unacceptable paper

The following paper types are not recommended for use with the printer:

- Chemically treated papers that are used to make copies without carbon paper. They are also known as carbonless papers, carbonless copy paper (CCP), or no carbon required (NCR) paper.
- Preprinted papers with chemicals that may contaminate the printer.
- Preprinted papers that can be affected by the temperature in the printer fuser.
- Preprinted papers that require a registration (the precise print location on the page) greater than ±2.3 mm (±0.09 in.). For example, optical character recognition (OCR) forms.

  Sometimes, registration can be adjusted with a software app to print successfully on these forms.
- Coated papers (erasable bond), synthetic papers, or thermal papers.
- Rough-edged, rough or heavily textured surface papers, or curled papers.
- Recycled papers that fail EN12281:2002 (European).
- Paper weighing less than 60 g/m^2 (16 lb).
- Multiple-part forms or documents.

Storing paper

Use these paper storage guidelines to help avoid jams and uneven print quality:

- Store paper in its original wrapper in the same environment as the printer for 24 to 48 hours before printing.
- Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period.
- For best results, store paper where the temperature is 21°C (70°F) and the relative humidity is 40 percent.
- Most label manufacturers recommend printing in a temperature range of 18–24°C (65–75°F) with relative humidity between 40 and 60 percent.
- Store paper in cartons, on a pallet or shelf, rather than on the floor.
- Store individual packages on a flat surface.
- Do not store anything on top of individual paper packages.
- Take paper out of the carton or wrapper only when you are ready to load it in the printer. The carton and wrapper help keep the paper clean, dry, and flat.

Supported paper sizes

Paper size and dimension	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
A4 210 x 297 mm (8.27 x 11.7 in.)	✓	✓	✓	✓	✓	✓
A5 Portrait (SEF) [1,2] 148 x 210 mm (5.83 x 8.27 in.)	X	X	✓	X	✓	X
A5 Landscape (LEF) [1,2] 210 x 148 mm (8.27 x 5.83 in.)	✓	✓	X	X	X	X
A6 105 x 148 mm (4.13 x 5.83 in.)	✓	✓	X	✓	X	X
1/3 A4 95 x 210 mm (3.7 x 8.3 in.)	✓	✓	X	✓	X	X
JIS B5 182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✓	✓	✓	X
Letter 215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓	✓	✓

Paper size and dimension	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
Legal 215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓	✓	✓
Executive 184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓	✓	✓	✓	X
Oficio (Mexico) 215.9 x 340.4 mm (8.5 x 13.4 in.)	✓	✓	✓	✓	✓	✓
Folio 215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓	✓	✓	✓	✓
Statement 139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓	X	✓	X	X
Hagaki 100 x 148 mm (3.94 x 5.83 in.)	✓	✓	X	✓	X	X

Paper size and dimension	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
Universal [3,4] 98.4 x 148 mm to 215.9 x 355.6 mm (3.87 x 5.83 in. to 8.5 x 14 in.)	✓	✓	X	✓	X	X
Universal [3,4] 76.2 x 127 mm to 215.9 x 355.6 mm (3 x 5 in. to 8.5 x 14 in.)	X	✓	X	✓	X	X
Universal [3,4] 148 x 210 mm to 215.9 x 355.6 mm (5.83 x 8.27 in. to 8.5 x 14 in.)	✓	✓	✓	✓	✓	X
Universal [3,4] 210 x 250 mm to 215.9 x 355.6 mm (8.27 x 9.84 in. to 8.5 x 14 in.)	✓	✓	✓	✓	✓	✓

Paper size and dimension	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
7 3/4 Envelope 98.4 x 190.5 mm (3.875 x 7.5 in.)	✓	✓	X	✓	X	X
9 Envelope 98.4 x 225.4 mm (3.875 x 8.9 in.)	✓	✓	X	✓	X	X
10 Envelope 104.8 x 241.3 mm (4.12 x 9.5 in.)	✓	✓	X	✓	X	X
DL Envelope 110 x 220 mm (4.33 x 8.66 in.)	✓	✓	X	✓	X	X
C5 Envelope 162 x 229 mm (6.38 x 9.01 in.)	✓	✓	X	✓	X	X
B5 Envelope 176 x 250 mm (6.93 x 9.84 in.)	✓	✓	X	✓	X	X

Paper size and dimension	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
Monarch 98.425 x 190.5 mm (3.875 x 7.5 in.)	X	X	X	X	X	X
Other Envelope [5] 98.4 x 162 mm to 176 x 250 mm (3.87 x 6.38 in. to 6.93 x 9.84 in.)	✓	✓	X	✓	X	X

[1] Load this paper size into the standard tray and the manual feeder with the long edge entering the printer first.

[2] Load this paper size into the optional trays and the multipurpose feeder with the short edge entering the printer first.

[3] When Universal is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.

[4] Load narrow paper with the short edge entering the printer first.

[5] When Other Envelope is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.

Paper size and dimension	Scanner	Automatic document feeder
A4 210 x 297 mm (8.27 x 11.7 in.)	✓	✓
A5 Portrait (SEF) 148 x 210 mm (5.83 x 8.27 in.)	✓	✓
A5 Landscape (LEF) 210 x 148 mm (8.27 x 5.83 in.)	✓	✓

Paper size and dimension	Scanner	Automatic document feeder
A6 105 x 148 mm (4.13 x 5.83 in.)	✓	✓
1/3 A4 95 x 210 mm (3.7 x 8.3 in.)	✓	**X**
JIS B5 182 x 257 mm (7.17 x 10.1 in.)	✓	✓
Letter 215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓
Legal 215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓
Executive 184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓
Oficio (Mexico) 215.9 x 340.4 mm (8.5 x 13.4 in.)	✓	✓
Folio 215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓
Statement 139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓
Hagaki 100 x 148 mm (3.94 x 5.83 in.)	✓	**X**
Universal [1,2] 98.4 x 148 mm to 215.9 x 355.6 mm (3.87 x 5.83 in. to 8.5 x 14 in.)	✓	**X**
Universal [1,2] 76.2 x 127 mm to 215.9 x 355.6 mm (3 x 5 in. to 8.5 x 14 in.)	✓	**X**

Paper size and dimension	Scanner	Automatic document feeder
Universal [1,2] 148 x 210 mm to 215.9 x 355.6 mm (5.83 x 8.27 in. to 8.5 x 14 in.)	✓	✓
Universal [1,2] 210 x 250 mm to 215.9 x 355.6 mm (8.27 x 9.84 in. to 8.5 x 14 in.)	✓	✓
7 3/4 Envelope 98.4 x 190.5 mm (3.875 x 7.5 in.)	✓	**X**
9 Envelope 98.4 x 225.4 mm (3.875 x 8.9 in.)	✓	**X**
10 Envelope 104.8 x 241.3 mm (4.12 x 9.5 in.)	✓	**X**
DL Envelope 110 x 220 mm (4.33 x 8.66 in.)	✓	**X**
C5 Envelope 162 x 229 mm (6.38 x 9.01 in.)	✓	**X**
B5 Envelope 176 x 250 mm (6.93 x 9.84 in.)	✓	**X**
Monarch 98.425 x 190.5 mm (3.875 x 7.5 in.)	✓	**X**
Other Envelope [3] 98.4 x 162 mm to 176 x 250 mm (3.87 x 6.38 in. to 6.93 x 9.84 in.)	✓	**X**

[1] When Universal is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.

[2] Load narrow paper with the short edge entering the printer first.

[3] When Other Envelope is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.

Notes
Your printer model may have a 650-sheet duo tray, which consists of a 550-sheet tray and an integrated 100-sheet multipurpose feeder. The 550-sheet tray of the 650-sheet duo tray supports the same paper sizes as the optional 550-sheet tray. The integrated multipurpose feeder supports different paper sizes, types, and weights.

Supported paper types

Paper type	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
Plain	✓	✓	✓	✓	✓	✓
Card stock	✓	✓	✓	✓	✓	X
Labels	✓	✓	✓	✓	✓	✓
Vinyl Labels	✓	✓	✓	✓	✓	X
Envelope	✓	✓	X	✓	X	X

Paper type	Scanner	ADF
Plain	✓	✓
Card stock	✓	X
Labels	✓	X
Vinyl Labels	✓	X
Envelope	✓	X

Note:

- Your printer model may have a 650-sheet duo tray, which consists of a 550-sheet tray and an integrated 100-sheet multipurpose feeder. The 550-sheet tray of the 650-sheet duo tray supports the same paper type as the 550-sheet tray. The integrated multipurpose feeder supports different paper sizes, types, and weights.
- Labels, envelopes, and card stock always print at reduced speed.
- Vinyl labels are supported for occasional use only and must be tested for acceptability. Some vinyl labels may feed more reliably from the multipurpose feeder.

Supported paper weights

Standard 250-sheet tray	Manual feeder	Duplex	Optional 650-sheet duo tray		550-sheet tray	
			550-sheet tray	Multipurpose feeder		
60–218 g/m^2 (16–58-lb bond)	60–218 g/m^2 (16–58-lb bond)	60–105 g/m^2 (16–28-lb bond)	60–176 g/m^2 (16–47-lb bond)	60–176 g/m^2 (16–47-lb bond)	60–176 g/m^2 (16–47-lb bond)	

Note:

- Your printer model may have a 650-sheet duo tray, which consists of a 550-sheet tray and an integrated 100-sheet multipurpose feeder. The 550-sheet tray of the 650-sheet duo tray supports the same paper types as the 550-sheet tray. The integrated multipurpose feeder supports different paper sizes, types, and weights.
- For 60 to 172 g/m^2 (16–47-lb bond) paper, grain long fibers are recommended.
- Paper less than 75 g/m^2 (20-lb bond) must be printed with Paper Type set to Light Paper. Failure to do so may cause excessive curl which can lead to feeding errors, especially in more humid environments.

Tools required for service

- Flat-blade screwdrivers, magnetic, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- 7/32-inch (5.5 mm) nut driver
- Needle-nose pliers
- Diagonal side cutters
- Spring hook
- Analog or digital multimeter
- Flashlight (optional)
- Approved toner vacuum (optional)

Diagnostics and troubleshooting

Troubleshooting precautions

CAUTION—SHOCK HAZARD
When you see this symbol on the product, there is a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you begin, or use caution if the product must receive power in order to perform the task.

CAUTION—SHOCK HAZARD
This product uses an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock while troubleshooting with covers removed or doors open, do not touch the exposed wires or circuits while the printer is connected to an electrical outlet.

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—HOT SURFACE
The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

CAUTION—PINCH HAZARD
To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Précautions de dépannage

CAUTION—SHOCK HAZARD
Ce symbole indique un danger lié à des niveaux de tension dangereux dans la zone du produit à manipuler. Débranchez le produit avant de commencer, ou agissez avec prudence si le produit doit être alimenté pour effectuer l'opération.

CAUTION—SHOCK HAZARD
Ce produit utilise un commutateur d'alimentation électronique. Il ne déconnecte pas physiquement la tension d'alimentation CA. Pour éviter tout risque d'électrocution, débranchez toujours le cordon d'alimentation de l'imprimante lorsque vous devez déconnecter la tension d'alimentation CA.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution lors du dépannage de l'imprimante avec les capots retirés ou les portes ouvertes, prenez garde de ne pas toucher les fils ou circuits dénudés si l'imprimante est connectée à une prise électrique.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution et éviter d'endommager l'imprimante, débranchez le cordon d'alimentation de la prise électrique et déconnectez toute connexion à tout périphérique externe avant de brancher ou débrancher des câbles ou circuits et assemblages électroniques.

CAUTION—HOT SURFACE
L'intérieur de l'imprimante risque d'être brûlant. pour réduire le risque de brûlure, laissez la surface ou le composant refroidir avant d'y toucher.

CAUTION—PINCH HAZARD
Pour éviter tout risque de blessure par pincement, agissez avec précaution au niveau des zones signalées par cette étiquette. Les blessures par pincement peuvent se produire autour des pièces mobiles telles que les engrenages, portes, tiroirs et capots.

Precauciones durante la solución de problemas

CAUTION—SHOCK HAZARD
Cuando vea este símbolo en el producto, existe peligro de tensiones peligrosas en el área del producto en la que está trabajando. Desconecte el producto antes de empezar o tenga cuidado si el producto debe recibir alimentación a fin de realizar la tarea.

CAUTION—SHOCK HAZARD
Este producto utiliza un interruptor de corriente electrónico. No desconecta físicamente la entrada de voltaje de CA. Para evitar el riesgo de descarga eléctrica, desenchufe siempre el cable de alimentación de la impresora cuando sea necesario retirar la entrada de voltaje de CA.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descarga eléctrica al solucionar problemas sin las cubiertas o con las puertas abiertas, no toque los cables ni los circuitos expuestos mientras la impresora está conectada a una toma de corriente.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descargas eléctricas y daños en la impresora, retire el cable de alimentación de la toma eléctrica y desconecte todas las conexiones a dispositivos externos antes de conectar o desconectar cualquier cable, placa electrónica o conjunto.

CAUTION—HOT SURFACE
El interior de la impresora podría estar caliente. Para evitar el riesgo de heridas producidas por el contacto con un componente caliente, deje que la superficie se enfríe antes de tocarlo.

CAUTION—PINCH HAZARD
Para evitar el riesgo de lesión por atrapamiento, preste atención en las áreas marcadas con esta etiqueta. Las lesiones por atrapamiento se pueden producir en torno a partes móviles, tales como engranajes, puertas, bandejas y cubiertas.

Vorsichtsmaßnahmen bei der Fehlerbehebung

CAUTION—SHOCK HAZARD
Wenn Sie dieses Symbol sehen, besteht eine Gefahr durch gefährliche Spannungen in dem Produktbereich, in dem Sie arbeiten. Trennen Sie das Produkt von seiner Stromverbindung, bevor Sie beginnen, oder gehen Sie vorsichtig vor, wenn das Produkt für die Durchführung der Aufgabe mit Strom versorgt werden muss.

CAUTION—SHOCK HAZARD
Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswechselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswechselspannung erforderlich ist.

CAUTION—SHOCK HAZARD
Um die Gefahr eines Stromschlags während der Fehlerbehebung bei entfernten Abdeckungen oder offenen Klappen zu vermeiden, berühren Sie die freiliegenden Drähte oder Stromkreise nicht, wenn der Drucker an eine Steckdose angeschlossen ist.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags und Schäden am Drucker zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose und trennen Sie alle Verbindungen zu jeglichen externen Geräten, bevor Sie Kabel, Elektronikplatinen oder Baugruppen einstecken oder abziehen.

CAUTION—HOT SURFACE
Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.

CAUTION—PINCH HAZARD
Um das Risiko einer Quetschung zu vermeiden, gehen Sie in Bereichen, die mit diesem Etikett gekennzeichnet sind, mit Vorsicht vor. Quetschungen können im Bereich von beweglichen Komponenten auftreten, wie z. B. Zahnrädern, Klappen, Fächern und Abdeckungen.

Troubleshooting overview

Performing the initial troubleshooting check

Before you start the troubleshooting procedures, perform the following checks:

- Use genuine Lexmark supplies and parts for the best results. Third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components.
- With the power cord unplugged from the electrical outlet, check that the cord is free from the breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure the printer is properly grounded. Check the power cord ground terminal.
- Make sure the power supply line voltage is within 10% of the rated line voltage.
- Make sure the machine is securely installed on a level surface in a well-ventilated area.
- Make sure the room temperature is between 16 and 32°C (60 and 90°F) and that the relative humidity is between 20 and 80%.
- Avoid sites generating ammonia gas, high temperature, high humidity (near water faucets, kettles, humidifiers), cold spaces, near open flames, and dusty areas.
- Avoid sites exposed to direct sunlight.
- Make sure the paper is the recommended paper for this printer.
- Make a trial print with paper from a newly opened package, and check the result.

Replace cartridge, printer region mismatch

To correct this problem, purchase a cartridge with the correct region that matches the printer region, or purchase a worldwide cartridge.

- The first number in the message after 42 indicates the region of the printer.
- The second number in the message after 42 indicates the region of the cartridge.

Install the correct toner cartridge.

Region	Numeric code
Worldwide or Undefined region	0
North America (United States, Canada), Australia, New Zealand	1
European Economic Area, Iceland, Liechtenstein, and Norway	2
Asia Pacific	3
Latin America	4
Rest of Europe, Middle East, Africa	5
Invalid region	9

Note: To find the region settings of the printer and toner cartridge, print the print quality test pages. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.

Securing the printer

Resetting the printer without admin credentials

Notes

- Resetting the printer or replacing the controller board deletes all security settings.
- Before changing the security settings, ask permission from your administrator.

1. Perform an Out of Service Erase to reset the printer to factory defaults without using admin credentials. For more information, see Data security notice on page 37.

   Warning—Potential Damage
   This method makes the device vulnerable to hacking because it allows the creation of an admin account afterwards. By default, newer firmware versions restrict Out of Service Erase to admin users only, making the printer more secure and remembering the admin password more important.

2. If Out of Service Erase is unavailable, then use the security reset jumper to reset the printer to factory defaults. For more information, see Using the security reset jumper on page 36.
3. If the effect of the jumper reset is disabled, then replace the controller board. For more information, see Controller board removal on page 295.

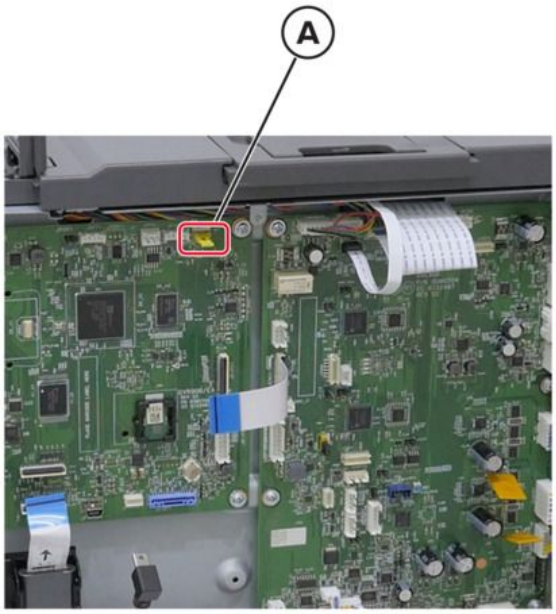
Using the security reset jumper

The security reset jumper is on the controller board. It can be used if the admin password is lost or forgotten, and Out of Service Erase is not available.

Notes

- To enable the effect of the security reset jumper, from the control panel navigate to: **Security › Miscellaneous › Security Reset Jumper › Enable “Guest” Access**.
- To disable the effect of the jumper, select **No Effect** from the Security Reset Jumper section in the Security menu. If the password is forgotten or lost, then perform an **Out of Service Erase** or replace the controller board. For more information, see Resetting the printer without admin credentials on page 36 or Controller board removal on page 295.

1. Turn off the printer.
2. Open the controller board access cover on the left side of the printer.
3. Locate the security jumper (A) on the controller board.



4. Move the jumper to cover the middle and exposed prongs.

> **Note:** The movement of the jumper triggers the reset, not the jumper position.

5. Close the controller board access cover.
6. Turn on the printer.

Notes

- The security framework remains in place after the reset. Public permissions are reset to default and now include Out of Service Erase as an option.
- If LDAP is used to authenticate the copy function in MFPs, then the LDAP configuration and copy function are no longer protected.
- If Enable Audit is activated in the Security Audit Log, then the printer logs a message each time the jumper is reset.
- Physical access to the printer is required to use the jumper, making it more secure against hacking. To prevent tampering of the jumper, secure the controller board cage with a Kensington lock.

Data security notice

Identifying printer memory

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Nonvolatile memory**—The printer may use two forms of nonvolatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.

- **Hard disk memory**—Some printers have a hard disk drive installed. The hard disk is designed for printer-specific functionality and cannot be used for long-term storage of data that is not print-related. The hard disk does not let users extract information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

The following parts can store memory:

- Engine board
- User interface controller card (UICC)
- Controller board
- Optional hard disks
- Intelligent storage drive (ISD)

> **Note:** The engine board and controller board contain NVRAM.

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase nonvolatile memory, do the following:

1. From the control panel, navigate to **Settings > Device > Maintenance > Out of Service Erase > Sanitize all information on nonvolatile memory**.
2. Select **Sanitize all information on nonvolatile memory**, and then select **ERASE**.
3. Follow the instructions on the screen.

To erase hard disk memory, do the following:

1. From the control panel, navigate to **Settings > Device > Maintenance > Out of Service Erase > Sanitize all information on hard disk**.
2. Select **Sanitize all information on hard disk**, and then select **ERASE**.
3. Follow the instructions on the screen.

> **Note:** This process can take from several minutes to more than an hour, making the printer unavailable for other tasks.

If a hard disk is replaced, then do the following:

1. Remove the hard disk, and then return it to the customer.
2. Request the customer to sign the *Customer Retention* form.

   > **Note:** You can get printed copies of the form from your Lexmark partner manager.

3. Take a photo of the signed form, and then upload it to the Service Request debrief tool.
4. Fax or email the signed form to the number or email address shown at the bottom of the form.

Fixing print quality issues

Initial print quality check

Before troubleshooting print problems, do the following:

- Make sure that the printer is in an area that follows the recommended operating environment and power requirement specifications.
- Check the status of the supplies. Replace supplies that are low or empty.
- Load 20–21 lb bond (75–80 g/m^2) plain letter or A4 paper. Make sure that the paper guides are properly set and locked. From the home screen, set the paper size and type to match the paper loaded in the tray.
- From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
- Print and keep the Menu Settings Page. The original page is used to restore the custom settings if necessary. From the home screen, touch **Settings > Reports > Menu Settings Page**.
- On the printed Menu Settings Page, check if the print resolution is set to 4800 CQ and the toner darkness is set to 4.
- Check the toner cartridge for damage, and replace if necessary.
- Make sure that the correct print driver is installed. If the wrong print driver is installed, then incorrect characters could print and the copy may not fit the page correctly.
- Make sure that the paper loaded is from a fresh package. Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it.

Supplies used to resolve print quality issues

For this family of printers, the following supplies are available to resolve print quality issues:

Supply item	Part number
Developer units	• 75M0D10—150K page black developer unit • 75M0D20—150K page cyan developer unit • 75M0D30—150K page magenta developer unit • 75M0D40—150K page yellow developer unit
Imaging kits	• 75M0Z10—150K page black imaging kit • 75M0Z50—150K page black and color imaging kit • 75M0ZK0—150K page black return imaging kit • 75M0ZV0—150K page black and color return imaging kit

Supply item	Part number
Toner cartridges	Check the supplies guide for the part number of the cartridge used in your printer.
Waste toner bottle	75M0W00—30K pages

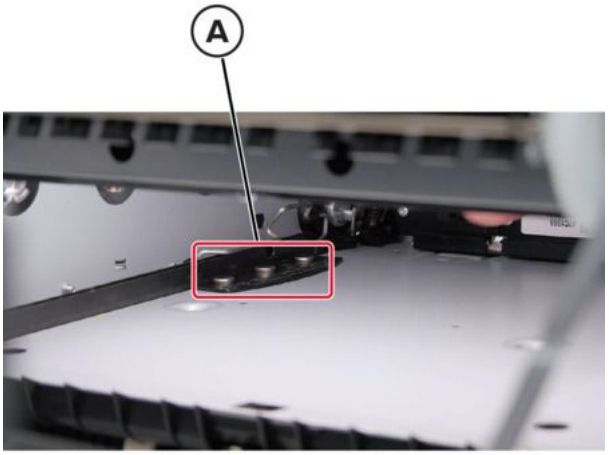
Notes
The photoconductor basket is not available.

Blurred print

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
3. Make sure the printhead lenses are clean. Do the following:
    a. Remove the imaging kit.
    b. Clean the printhead lenses.
4. Make sure that the temperature and humidity levels in the printer and in the room are similar. Do the following:
    a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Weather Station**.
    b. Press **OK** or touch **Start**.
5. Perform the weather station service check.
6. Make sure that the HVPS cable is properly connected to the HVPS connector on the controller board.
7. Check the HVPS cable for discontinuity and damage.
8. Remove the transfer module. For more information, see Transfer module removal on page 271.

    Make sure that the three HVPS contacts (A) are properly positioned and can freely move up and down.



9. Check the HVPS for damage, contamination, and improper installation.
10. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 271.
11. Check the controller board for damage, contamination, and improper installation.

Misaligned color

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Determine the color misalignment.
    a. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.
    b. Check pages G and H on the test pages to determine the color misalignment.
2. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
3. Perform the auto alignment service check. For more information, see Auto alignment service check on page 60.
4. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 299.

Toner easily rubs off

Notes
Before doing this print quality check, see .Initial print quality check on page 39

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
    a. Make sure that the setting matches the paper loaded.
    b. Change the setting on the printer control panel.
2. Perform the service check for any log error codes.
    a. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Reports > Event Log**.
    b. Check the log history for fuser error codes.
3. Check the LVPS for damage, contamination, and improper installation. For more information, see LVPS removal on page 237.

Gray or solid background

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
2. Check for missing colors. Do the following:
    a. Place a narrow strip of paper over the gap between the developer units.

    Notes
    Make sure that the paper stays in place when inserting the imaging kit to prevent the laser from discharging the photoconductor units.

    b. From the home screen, touch **Settings > Reports > Print Quality Pages**.
    c. Check the test pages for solid colors.

    If there are missing solid colors on the test pages, do the following:

    a. Make sure that the cables connecting the printhead to the controller board are properly connected.

b. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 299.
c. Check the controller board for damage, contamination, and improper installation.

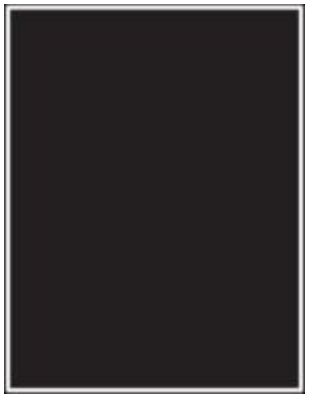
3. Check the FFC connection between the controller board and the engine board for the following:
   - Improper connection
   - Damage
4. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
5. Make sure that the HVPS contacts are properly positioned and can freely move up and down.

   a. Remove the transfer module. For more information, see Transfer module removal on page 271.
   b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.

   Notes
   If the contracts are improperly positioned and stuck, do the following:

   a. Check the HVPS for damage, contamination, and improper installation.
   b. Check the controller board for damage, contamination, and improper installation.

Solid color or black image



Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
2. Check for missing colors. Do the following:

   a. Place a narrow strip of paper over the gap between the developer units.

   Notes
   Make sure that the paper stays in place when inserting the imaging kit to prevent the laser from discharging the photoconductor units.

b. From the home screen, touch **Settings > Reports > Print Quality Pages**.
c. Check the test pages for solid colors.

If there are missing solid colors on the test pages, do the following:

a. Make sure that the cables connecting the printhead to the controller board are properly connected.
b. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 299.
c. Check the controller board for damage, contamination, and improper installation.

3. Check the FFC connection between the controller board and the engine board for the following:

   - Improper connection
   - Damage

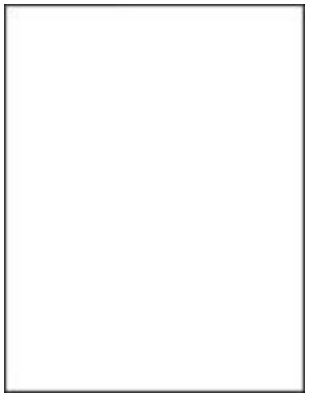
4. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
5. Make sure that the three HVPS contacts are properly positioned and can freely move up and down. Do the following:

   a. Remove the transfer module. For more information, see Transfer module removal on page 271.
   b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.

   If the contracts are improperly positioned and stuck, do the following:

   a. Check the HVPS for damage, contamination, and improper installation.
   b. Check the controller board for damage, contamination, and improper installation.

Blank or white pages



Precheck procedure

1. From the home screen, navigate to **Settings > Troubleshooting > Print Quality Test Pages**.
2. Check page A to determine any missing colors.
3. If any one color or black is missing, then perform the missing color check. See Missing color on page 53.

Service check

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.

2. Make sure that the contacts between the developer units and the PCUs on the imaging kit are clean. Do the following:

    a. Remove the imaging kit. For more information, see Imaging kit removal on page 249.
    b. Remove the developer units.
    c. Check the contacts between the developer units and the PCUs on the imaging kit for damage and contamination. For more information, see Supplies used to resolve print quality issues on page 39.
3. Check the printhead cable for damage, contamination, and improper installation.
4. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 299.
5. Check the HVPS cable for discontinuity.
6. Check the FFC connection between the controller board and the engine board for the following:

    - Improper connection
    - Damage
7. Make sure that the three HVPS contacts are properly positioned and can freely move up and down. Do the following:

    a. Remove the transfer module. For more information, see Transfer module removal on page 271.
    b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.

    If the contacts are improperly positioned and stuck, do the following:

    a. Check the HVPS for damage, contamination, and improper installation.
    b. Check the controller board for damage, contamination, and improper installation.

Horizontal white lines

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.

    a. Make sure that the setting matches the paper loaded.
    b. Change the setting on the printer control panel.

2. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
3. Check the HVPS for damage, contamination, and improper installation.
4. Check the HVPS cable if it is pinched or damaged.
5. Make sure that the cables connecting the HVPS to the controller board are properly connected.

Horizontal colored lines or banding

Notes
Before doing this print quality check, see .Initial print quality check on page 39

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
    a. Make sure that the setting matches the paper loaded.
    b. Change the setting on the printer control panel.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
3. Make sure that the lines appear in equal intervals. Do the following:
    a. From the home screen, enter the Diagnostics menu, and then touch **Settings** > **Troubleshooting** > **Print Quality Test Pages**.
    b. Check the test page.

    If the lines appear in equal intervals, perform the repeating defects check. For more information, see Repeating defects on page 55.

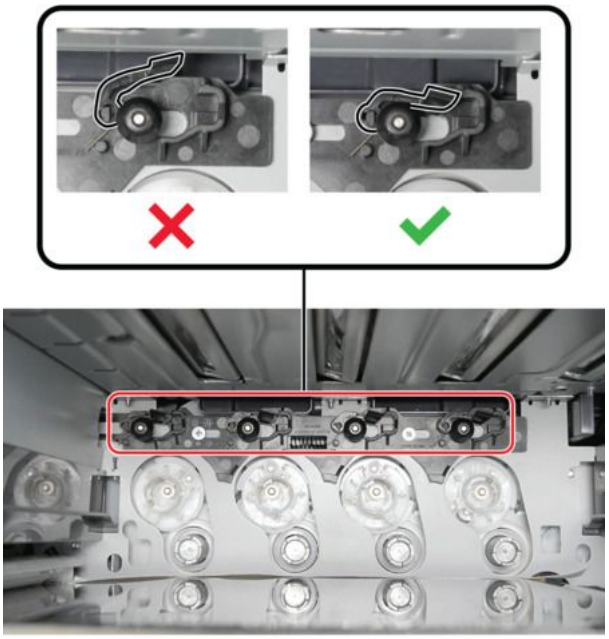
Text or images cut off

Notes
Before doing this print quality check, see .Initial print quality check on page 39

1. Make sure to adjust the paper guides in the tray to the correct position for the paper loaded.
2. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.

    a. Make sure that the setting matches the paper loaded.
    b. Change the setting on the printer control panel.
3. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
4. Check the developer units for damage, contamination, and improper installation.
5. Check for packing material left on the imaging components.
6. Make sure that the developer unit hold downs are in their proper position and are properly operating. Do the following:

    a. Remove the imaging kit.
    b. Check the hold downs for improper position.



Mottled print and dots

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Check the printer for leaked toner contamination.
2. Make sure that the settings match. Do the following:
    a. From the home screen, touch **Settings** > **Paper** > **Tray Configuration** > **Paper Size/ Type**.
    b. Make sure that the paper type and paper size settings match the paper loaded.
    c. Check the paper for a textured or rough finish.

    If the paper is textured or has rough finish, replace it with plain paper.
3. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
    a. Make sure that the setting matches the paper loaded.
    b. Change the setting on the printer control panel.
4. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
5. To clean the printer of toner leakage, do the following:
    a. Using a toner vacuum, clean the printer thoroughly.
    b. Perform a print job to clear the remaining toner from the imaging components.
    c. Replace the developer unit of the leaking color. For more information, see Supplies used to resolve print quality issues on page 39.
6. Check the photoconductor unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 39.
7. Make sure that the fuser is free from contamination. Do the following:
    a. From the home screen, touch **Settings > Reports > Menu Settings Page**.

    Notes
    Perform this step twice to clear any debris.

    b. Check the fuser for toner contamination.

    If the fuser is contaminated, replace the fuser. For more information, see Fuser removal on page 266.

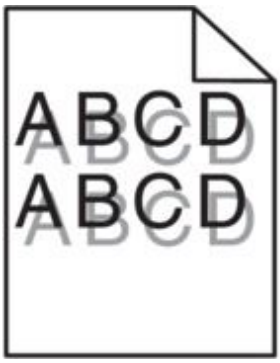
8. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 271.

Vertical white lines

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
    a. Make sure that the setting matches the paper loaded.
    b. Change the setting on the printer control panel.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
3. Make sure that the printhead lenses are clean. Do the following:
    a. Perform the waste toner bottle service check.
    b. Remove the imaging kit.
    c. Clean the printhead lenses.
4. Check the test pages and identify the affected color. Do the following:
    a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
    b. Identify the developer unit of the affected color. Replace the affected developer unit.
    c. If all colors are affected, then replace the transfer module. For more information, see Transfer module removal on page 271.
5. Check the photoconductor unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 39.
6. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 271.
7. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 299.

Ghost images



Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
    a. Make sure that the setting matches the paper loaded.
    b. Change the setting on the printer control panel.
2. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
3. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
4. From the home screen, check the status of the black and color imaging kit.
5. Measure the distance from one point of the original image to the same point on the ghost image.

    If the distance is 43.9 mm, then replace the imaging kit. For more information, see Imaging kit removal on page 249.
6. Check the developer unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 39.
7. Make sure that the fuser is free from contamination. Do the following:
    a. From the home screen, touch **Settings > Reports > Menu Settings Page**.

        Notes
        Perform this step twice to clear any debris.

    b. Check the fuser for toner contamination.

    If the fuser is contaminated, replace the fuser. For more information, see Fuser removal on page 266.

Vertical colored lines or banding

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. If the printer is an MFP, use a blank sheet of paper to make a two-sided copy on the ADF.

   If the vertical dark lines appear, clean the ADF scanner glass. For more information, see Cleaning the scanner on page 376.
2. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.

   a. Make sure that the setting matches the paper loaded.
   b. Change the setting on the printer control panel.
3. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
4. Check the developer unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 39.
5. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 271.

   Notes
   Make sure there is no debris under the transfer module when it is removed.

6. Check the fuser for damage, contamination, and improper installation. For more information, see Fuser removal on page 266.

Dark print

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Depending on your operating system, reduce the toner darkness from the Printing Preferences or Print dialog.

   Notes
   You can also change the setting on the printer control panel.

3. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.

   a. Make sure that the setting matches the paper loaded.
   b. Change the setting on the printer control panel.
4. Check the paper for a textured or rough finish.

   If the paper is textured or has rough finish, replace it with plain paper.
5. Identify the color affected. Do the following:

   a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
   b. Check the test pages.

   If only one color is affected, enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Color alignment adjust > AA adjustment row**.

   If all colors are affected, perform the toner patch sensing service check. For more information, see Toner patch sensing service check on page 59.
6. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
7. Check the HVPS for damage, contamination, and improper installation.
8. Check the transfer module and its contacts for damage, contamination, and improper installation. For more information, see Transfer module removal on page 271.

Missing color

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Check for packing material left in the imaging kit.
3. Make sure that the toner cartridges and developer units are properly installed.
4. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
5. Check the waste toner bottle for damage, contamination, and improper installation. For more information, see Waste toner bottle removal on page 256.
6. Check the printhead cable for damage, contamination, and improper installation.
7. Identify the color affected. Do the following:

    a. From the home screen, touch **Settings > Troubleshooting > Quality Tests Pages**.
    b. Check the test pages.

    If the missing color is yellow, do the following:

    a. Removing the imaging kit.
    b. Make sure that the transfer module cleaning blade is in the correct position. For more information, see Transfer module removal on page 271.
8. Check the contacts on the imaging kit and the developer unit of the missing color for dust or debris.

    If the contacts are not free of dust and debris, clean the contacts between the developer unit and the imaging kit.
9. Check the developer unit for damage, contamination, and improper installation.
10. Make sure that the pins in the HVPS can freely move in and out with an equal amount of spring force.

    If the pins do not freely move, replace the HVPS.
11. Make sure that the motor of the affected developer unit runs. Do the following:

    a. Remove the imaging kit. For more information, see Imaging kit removal on page 249.
    b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.
    c. Go to the appropriate developer unit motor test for the missing color, and then run the test.

If the motor does not run, replace the defective EP drive. For more information, see EP drive removal on page 234.

12. Make sure that the imaging kit drive couplers move. Do the following:

    a. Remove the imaging kit. For more information, see Imaging kit removal on page 249.
    b. While manually turning the motors, check if the couplers that drive the imaging kit move.

    If the couplers do not move, replace the EP drive. For more information, see EP drive removal on page 234.
13. Check the Print Quality Test Pages if the black plane or the CMY plane is missing.

    If the black plane or the CMY plane is missing, replace the HVPS.
14. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 299.
15. Check the controller board for damage, contamination, and improper installation.
16. Check the FFC connection between the controller board and the engine board for the following:

    - Improper connection
    - Damage

Uneven print density

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
2. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
3. Make sure that the settings match. Do the following:

    a. Touch **Settings > Device > Preferences**.
    b. Make sure that the paper type and size settings match the paper type and size set on the tray.

    If the settings do not match, change the paper size and type or adjust the size settings in the tray.
4. Check the paper for a textured or rough finish.

    If the paper is textured or has rough finish, replace it with plain paper.

5. Make sure to clean the printhead lenses.

Repeating defects

Notes
Before doing this print quality check, see .Initial print quality check on page 39

1. Check the rollers along the paper path for dust or debris.

   If there is dust or debris on the rollers, clean the affected rollers.
2. Check the distance between the repeating defects. Do the following:

   a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
   b. Measure the distance between the repeating defects on the affected color page.
3. Check the measurement against the following components. If there is a match, replace the component that matches the measurement.

   Imaging kit

   - 94.5 mm (3.72 in.)
   - 29.9 mm (1.18 in.)
   - 23.20 mm (0.91 in.)

   Developer unit

   - 43.6 mm (1.72 in.)
   - 45.0 mm (1.77 in.)

   Transfer module

   - 37.70 mm (1.48 in.)
   - 78.50 mm (3.09 in.)
   - 55 mm (2.17 in.)

   Fuser

   - 79.80 mm (3.14 in.)
   - 94.30 mm (3.71 in.)
4. In addition, refer to the following list of interval measurements with their corresponding affected components.

Note:

- Replace the parts one at a time in the order indicated.
- Print a test page after replacing each part to check if the problem has been solved.
- For more information on the supplies, see .Supplies used to resolve print quality issues on page 39

99 mm interval

- Fuser

94 mm interval

- Imaging kit

79 mm interval

- Developer unit of the affected color

75 mm interval

- Fuser

55–56 mm interval

- Developer unit
- Transfer module
- EP drive

44–45 mm interval

- Developer unit

33 mm interval

- Developer unit
- EP drive

28 mm, 24 mm, 16 mm, 12–14 mm, 9 mm, and 4-5 mm interval

- EP drive

6–7 mm interval

- Fuser motor
- EP drive

1–3 mm interval

- Developer unit
- Fuser
- EP drive
- MFP redrive

Less than 1 mm interval

- EP drive
- Fuser motor

Light print

Notes
Before doing this print quality check, see Initial print quality check on page 39.

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Depending on your operating system, increase the toner darkness from the Printing Preferences or Print dialog.
3. Check the color saver setting. Do the following:
   a. From the home screen, touch **Settings > Print > Quality > Color Saver**.
   b. Turn off Color Saver.
4. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
   a. Make sure that the setting matches the paper loaded.
   b. Change the setting on the printer control panel.
5. Check the paper for a textured or rough finish.

   If the paper is textured or has rough finish, replace it with plain paper.
6. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 249.
7. Check the developer units for damage, contamination, and improper installation.
8. Make sure that the motor of the affected developer unit runs. Do the following:
   a. From the home screen, enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.
   b. Select the motor of the affected color, and then run the test.

   If the motor does not run, make sure that the motor cable is properly installed.
9. Make sure to clean the printhead lenses. Do the following:
   a. Perform the waste toner bottle service check.
   b. Remove the imaging kit.
   c. Clean the printhead lenses.
10. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
11. Make sure that the HVPS contacts are visible and can freely move up and down:
    a. Remove the transfer module. For more information, see Transfer module removal on page 271.
    b. Make sure that the three HVPS contacts are visible and can freely move up and down.

If the contacts are not visible and they cannot freely move, replace the imaging kit. For more information, see Imaging kit removal on page 249.

12. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 271.
13. Check the HVPS for damage, contamination, and improper installation.

Skewed print

Notes
Before doing this print quality check, see .Initial print quality check on page 39

1. Adjust the paper guides in the tray to the correct position for the paper loaded.

   Notes
   Make sure that the paper stack is below the maximum paper fill line.

2. Load paper from a fresh package.

   Notes
   Make sure that the paper loaded is supported by the printer. For more information, see the “Selecting paper” section.

3. Check the transfer module for damage, contamination, and improper installation.
4. Perform printhead adjustment. For more information, see Registration adjustment on page 228.
5. Check the pick rollers for dust or debris.
6. If the paper in tray 1 are straight but the paper in the other tray/s is skewed, then do the following:

   a. Make sure that the paper guides in the tray/s are free to move and properly adjusted.
   b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Registration adjust**.
   c. Select **Duplex Skew** or **Option Skew**.

Note:
- Duplex Skew affects the duplex side of the paper.
- Option Skew affects the paper in tray 2, tray 3, and MPF.
- Raising the value of the skew setting rotates the horizontal lines clockwise while the vertical lines remain vertical.

d. Print a test page.

Toner patch sensing service check

Precheck procedure

Notes
Perform this procedure before performing the service check.

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust
2. On the AA adjustment row, touch **Start**.

Note:
- This triggers the auto align routine which performs the color alignment error corrections (0.42 mm, 0.84 mm, and 3 mm range).
- If the AA adjustment is successful, an AA adjustment passed message appears on the screen. If an AA adjustment passed message does not appear, skip the next pre-check step, and then go directly to step 4 in the service check.

3. Enter the Diagnostics menu, and then navigate to:

   Printer setup > EP setup > Toner patch sensor adjust > Full calibration

Notes
This triggers the auto align routine (0.42 mm range only) and the solid area and linearization adjustments.

Service check

1. Check if the CalSet values are equal to 0. Do the following:

   a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
   b. On the Device Information section of the test page, check the CalSet values of the following:

      - C developer unit operating point

- C laser operating point
- C linearization stat
- M developer unit operating point
- M laser operating point
- M linearization stat
- Y developer unit operating point
- Y laser operating point
- Y linearization stat
- K developer unit operating point
- K laser operating point
- K linearization stat

2. Perform the blank or white pages service check. For more information, see Blank or white pages on page 44.

   If there is an issue found and resolved, perform the auto alignment service check. For more information, see Auto alignment service check on page 60.
3. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:

   a. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
   b. On the sensor gain characterization, touch **Start**.
   c. On the sensor gain verification, touch **Start**.
   d. On the sensor gain verification section of the test page, check the average signal values of the patch number.

   If the results do not match with the expected value and do not fall within the requirements, perform the auto alignment service check. For more information, see Auto alignment service check on page 60.
4. Make sure that the JTPS_C1 connector on the engine board is properly connected to the sensor (toner patch).
5. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:

   a. Replace the sensor (toner patch.) For more information, see Sensor (toner patch) removal on page 244.
   b. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
   c. On the sensor gain characterization, touch **Start**.
   d. On the sensor gain verification, touch **Start**.
   e. On the sensor gain verification section of the test page, check the average signal values of the patch number.

Auto alignment service check

Pre check procedure

> **Notes**
> Perform this procedure before performing the service check.

1. Enter the Diagnostics menu, and then navigate to:

Printer Setup > EP setup > Toner patch sensor adjust > Full calibration

2. Navigate to **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.
3. Check pages G and H on the test pages to determine the color misalignment.
4. If colors are misaligned, then navigate to **Printer diagnostics & adjustments > Color alignment adjust > Auto align**.
5. Find AA adjustment, and then press **OK** or touch **Start**.

> **Notes**
> This triggers the auto align routine which performs the color alignment error corrections for the 0.42 mm, 0.84 mm, and 3 mm ranges.

6. Navigate to **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.
7. Check pages G and H on the test pages to determine the color misalignment.
8. If colors are still misaligned, then navigate to **Printer diagnostics & adjustments > Color alignment adjust > Auto align**.

> **Notes**
> Ignore the AA adjustment performed earlier.

Service check

1. Check if the color alignment stat value is equal to 0. Do the following:
    a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
    b. On the CalSet section of the test page, check the color alignment stat value.
2. Perform the Blank or white pages check or Missing color check. For more information, see Blank or white pages on page 44 or Missing color on page 53.
3. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:
    a. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
    b. Find Sensor gain characterization, and then press **OK** or touch **Start**.
    c. Find Sensor gain verification, and then press **OK** or touch **Start**.
    d. On the TPS Sensor Characterization and Verification Information Page section of the print out, check the values of the following:
        - The PaperLeft-NDS Volts and PaperRight-DS Volts in the Patch Average from the TPS Verification Page section.
        - The Left-NDS Volts and Right-DS Volts in the High Gain Bare Belt Characterization Results section.
        - The mV value in the Amplifier Offset Characterization Result section.

    If the results do not match with the expected value and do not fall within the requirements, check the sensor (toner patch) cables on the controller board for improper connection.
4. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 271.
5. Make sure that the sensors (toner patch) are free of dust or debris.
6. Replace the sensors (toner patch).

7. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:

    a. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
    b. Find Sensor gain characterization, and then press **OK** or touch **Start**.
    c. Find Sensor gain verification, and then press **OK** or touch **Start**.
    d. On the TPS Sensor Characterization and Verification Information Page section of the print out, check the values of the following:

        - The PaperLeft-NDS Volts and PaperRight-DS Volts in the Patch Average from the TPS Verification Page section.
        - The Left-NDS Volts and Right-DS Volts in the High Gain Bare Belt Characterization Results section.
        - The mV value in the Amplifier Offset Characterization Result section.

Post-check procedure (as necessary)

> **Notes**
> Perform this procedure only if the sensors (toner patch) were replaced during the service check.

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust
2. Find AA adjustment, and then press **OK** or touch **Start**.

> **Notes**
> This action triggers the auto align routine which performs the color alignment error corrections for the 0.42 mm, 0.84 mm, and 3 mm ranges.

3. Enter the Diagnostics menu, and then navigate to:

   Printer Setup > EP setup > Toner patch sensor adjust > Full calibration

> **Notes**
> This action triggers the auto align routine which performs the color alignment error corrections for the 0.42 mm range only.

4. From the home screen, navigate to **Settings > Troubleshooting > Print Quality Test Pages**.
5. On the CalSet section of the test page, check if the color alignment stat value is equal to 0. If the value is 0, then contact the next level of support.

Fixing scan quality issues

Dark image quality using the ADF or scanner

1. Check if the scan defect is visible on the print quality samples. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.

   If the scan defect is visible, identify, and then resolve the print quality defect. For more information, see the “Fixing print quality issues” section.
2. Perform a color adjust. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
3. Make sure that the following parts are clean:

   - ADF glass
   - Scanner glass
   - ADF glass pad
   - Scanner glass pad
   - ADF glass pad in door C
   - ADF glass in door C

   For more information, see Cleaning the scanner on page 376.
4. Check the controller board for damage and improper installation. For more information, see Controller board removal on page 295.

Vertical lines (process direction using the ADF)

1. Check if the scan defect is visible on the print quality samples. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.

   If the scan defect is visible, identify, and then resolve the print quality defect. For more information, see the “Fixing print quality issues” section.
2. Make sure that the following parts are clean:

   - ADF glass
   - Scanner glass
   - ADF glass pad
   - Scanner glass pad
   - ADF glass pad in door C
   - ADF glass in door C

   For more information, see Cleaning the scanner on page 376.
3. Check the ADF glass on the scanner for cracks or damage.
4. Check in side the flatbed scanner for dust and contamination.
5. Identify which side of the paper the scan defect occurs. Perform a duplex copy job using the ADF.

Note:

- If the scan defect occurs on the front side, then check the flatbed scanner for damage and improper installation. For more information, see Flatbed scanner removal on page 300.
- If the scan defect occurs on the back side, then check the ADF for damage and improper installation. For more information, see ADF removal on page 313.

Spots using the flatbed scanner

1. Check if the scan defect is visible on the print quality samples. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.

   If the scan defect is visible, identify, and then resolve the print quality defect. For more information, see the “Fixing print quality issues” section.
2. Make sure that the following parts are clean:

   - Scanner glass
   - Scanner glass pad

   For more information, see Cleaning the scanner on page 376
3. Check the scanner glass pad for damage and improper installation. For more information, see Scanner glass pad removal on page 310.
4. Check inside the flatbed scanner for dust and contamination.
5. Check the flatbed scanner for damage and improper installation. For more information, see Flatbed scanner removal on page 300.

ADF skew

1. Check if the scan defect is visible on the print quality samples. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.

   If the scan defect is visible, identify, and then resolve the print quality defect. For more information, see the “Fixing print quality issues” section.
2. Make sure that the printer is placed on a flat, sturdy, and stable surface.
3. Make sure that the document is properly loaded in the ADF tray.

   Notes
   The guides in the ADF tray must match the width of the document.
4. Make sure that the ADF paper path is free of debris and obstruction.
5. Make sure that the ADF top cover is properly closed.
6. Enable the ADF electronic deskew setting. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > ADF Deskew > ADF Electronic Deskew > On**.
7. Check the ADF pick roller and separator roller for wear and damage. For more information, see ADF rollers removal on page 308.

Paper damage using the ADF

1. Make sure that the document is properly loaded in the ADF tray.

   Notes
   The guides in the ADF tray should match the width of the document.

2. Make sure that the ADF paper path is free of debris and obstruction.
3. Make sure that the ADF top cover is properly closed.
4. Check the ADF pick roller and separator roller for wear and damage. For more information, see ADF rollers removal on page 308.

Blank page copy

1. Check if the issue is a blank page print quality issue. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.

   If the test page is blank, then resolve the print quality defect. For more information, see Blank or white pages on page 44.
2. Make sure that the orientation of the document is correct.

   Note:
   - When copying from the ADF, load the document faceup.
   - When copying from the flatbed scanner, load the document facedown.

3. Make sure that the connections between the ADF and the controller board are properly connected.
4. Make sure that the connections between the flatbed scanner and the controller board are properly connected.
5. Check the ADF and its FFC for damage and improper Installation. For more information, see ADF removal on page 313.
6. Check the flatbed scanner and its FFC for damage and improper Installation. For more information, see Flatbed scanner removal on page 300.
7. Check the controller board for damage and improper installation. For more information, see Controller board removal on page 295.

Solid black page copy

1. Check if the issue is a solid black page print quality issue. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.

   If the test page is solid black, then resolve the print quality defect. For more information, see Solid color or black image on page 43.
2. Make sure that the following parts are clean:

   - ADF glass pad
   - Scanner glass pad

    - ADF glass pad in door C
    - ADF glass in door C

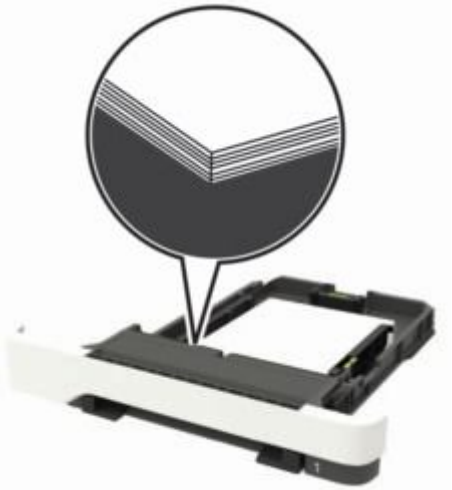
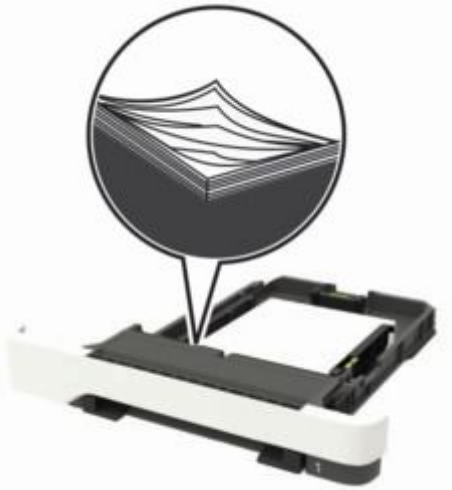
  For more information, see Cleaning the scanner on page 376.
3. Make sure that the connections between the ADF and the controller board are properly connected.
4. Make sure that the connections between the flatbed scanner and the controller board are properly connected.
5. Check the ADF and its FFC for damage and improper Installation. For more information, see ADF removal on page 313.
6. Check the flatbed scanner and its FFC for damage and improper Installation. For more information, see Flatbed scanner removal on page 300.
7. Check the controller board for damage and improper installation. For more information, see Controller board removal on page 295.

Paper jams

Avoiding jams

Load paper properly

- Make sure that the paper lies flat in the tray.

Correct loading of paper	Incorrect loading of paper
	

- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.

- Make sure that the paper guides are positioned correctly and are not pressing tightly against the paper or envelopes.
- Push the tray firmly into the printer after loading paper.

Use recommended paper

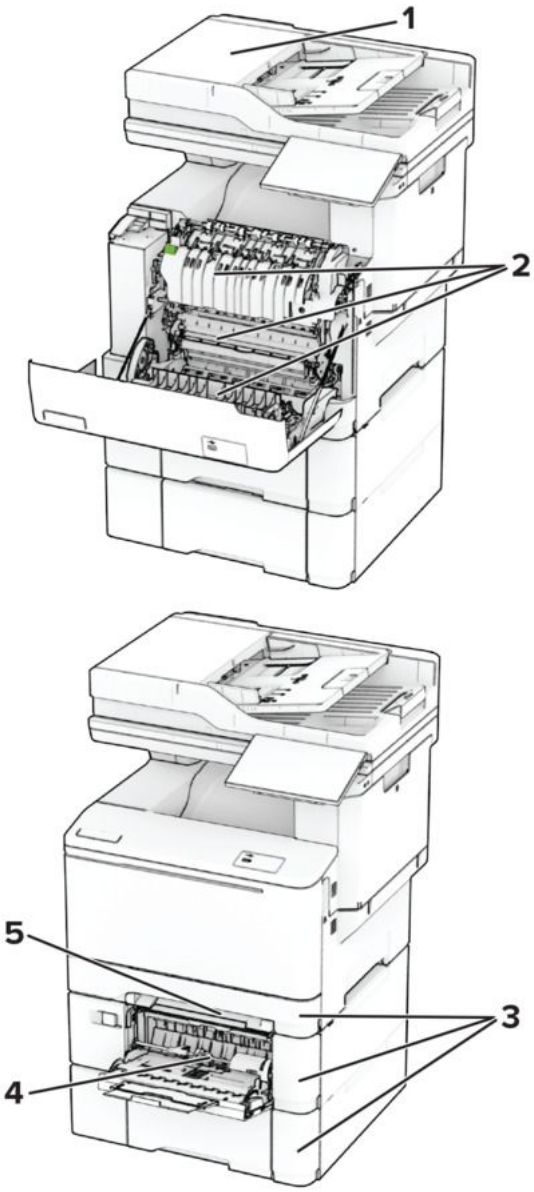
- Use only recommended paper or specialty media.
- Do not load paper that is wrinkled, creased, damp, bent, or curled.
- Flex, fan, and align the paper edges before loading.

- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

Identifying jam locations

Note:

- When Jam Assist is set to On, the printer flushes blank pages or pages with partial prints after a jammed page has been cleared. Check your printed output for blank pages.
- When Jam Recovery is set to On or Auto, the printer reprints jammed pages.



	Jam locations
1	Automatic document feeder
2	Door A
3	Trays
4	Multipurpose feeder
5	Manual feeder

200 paper jams

200 paper jam messages

Error code	Description	Action
200.02	Paper fed from the MPF or manual feeder arrived at the sensor (input) earlier than expected.	See Sensor (input): Paper arrived too early or failed to arrive jam service check on page 73.
200.03	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See .Sensor (input): Paper arrived too early from the MPF jam service check on page 71
200.04	Paper fed from the MPF cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early from the MPF jam service check on page 72.
200.05	Paper fed from the MPF never cleared the sensor (input).	See .Sensor (input): Paper failed to clear from the MPF jam service check on page 72
200.06	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See .Sensor (input): Paper arrived too early from the MPF jam service check on page 71
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early or failed to arrive jam service check on page 73.
200.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input).	See Sensor (input): Paper arrived too early or failed to arrive jam service check on page 73.
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See .Sensor (input): Paper cleared too early jam service check on page 73
200.15	Paper fed from tray 1 never cleared the sensor (input).	See .Sensor (input): Paper failed to clear jam service check on page 74
200.16	Paper fed from tray 1 was picked but it never reached the sensor (input).	See .Tray 1 pick error service check on page 71
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early from optional tray jam service check on page 74.

Error code	Description	Action
200.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input).	See Sensor (input): Paper failed to arrive from optional tray jam service check on page 75.
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early from optional tray jam service check on page 76.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See Sensor (input): Paper failed to clear from optional tray jam service check on page 76.
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early from optional tray jam service check on page 74.
200.33	Paper fed from tray 3 was detected later than expected or was never detected at the sensor (input).	See Sensor (input): Paper failed to arrive from optional tray jam service check on page 75.
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early from optional tray jam service check on page 76.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See Sensor (input): Paper failed to clear from optional tray jam service check on page 76.
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early from optional tray jam service check on page 74.
200.43	Paper fed from tray 4 was never detected at the sensor (input).	See Sensor (input): Paper failed to arrive from optional tray jam service check on page 75.
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early from optional tray jam service check on page 76.
200.45	Paper fed from tray 4 never cleared the sensor (input).	See Sensor (input): Paper failed to clear from optional tray jam service check on page 76.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See Sensor (input): Static jam service check on page 77.

Error code	Description	Action
200.95	An unexpected page showed up when flushing the paper path.	See Sensor (input): Static jam service check on page 77.
200.99	The sensor (toner patch) detected a lack or an excess of toner patches on the printed image.	See Toner patch sensing service check on page 59.

Sensor (input): Tray 1 manual feeder jam service check

1. Make sure that the paper being used is supported and loaded properly in tray 1. For more information, see Avoiding jams on page 66.
2. Make sure that the paper path is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using trays other than the manual feeder.
5. If the jam occurs only in the manual feeder, check the tray 1 and the manual feeder for improper operation and damage.
6. If the paper jam error occurs regardless of the paper source or even after restarting the printer when the paper path is cleared, then do the following:

    a. Check the sensor (duplex) actuator for damage and improper installation.
    b. Make sure the sensor (duplex) actuator is functional, do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics and adjustments > Sensor tests**.
        b. Select **Sensor (duplex)**.
    c. Make sure that the cables and connectors are properly connected.

Tray 1 pick error service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:

    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
6. Check the pick arm and pick roller for damage and improper installation.

Sensor (input): Paper arrived too early from the MPF jam service check

1. Set the paper size in the Paper menu to match the paper loaded. From the home screen, touch **Settings > Paper > Tray Configuration**.
2. Adjust the paper guides in the tray to correct position for the paper loaded.

Make sure that the guides fit snugly against the paper.
3. Replace with correct paper type or size.
4. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
5. Make sure that the paper is free of debris and obstructions.
6. Perform a POR.
7. Check if the paper jam error occurs when using other paper sources.
8. If the paper jam error occurs regardless of the paper source or even after restarting the printer when the paper path is cleared, then do the following:

    a. Check the sensor (duplex) actuator for damage and improper installation.
    b. Make sure the sensor (duplex) actuator is functional, do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics and adjustments > Sensor tests**.
        b. Select **Sensor (duplex)**.
    c. Make sure that the cables and connectors are properly connected.

Sensor (input): Paper cleared too early from the MPF jam service check

1. Set the paper size in the Paper menu to match the paper loaded. From the home screen, touch **Settings > Paper**.
2. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
3. Make sure that the paper is free of debris and obstructions.
4. Perform a POR.
5. Check if the paper jam error occurs when using other trays.
6. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).
    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.

Sensor (input): Paper failed to clear from the MPF jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:

    a. Check the MPF pick roller and separator roller for wear, damage, and contamination.
    b. Make sure that the MPF solenoid is functional. Do the following:

a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
b. Select **MPF pick**.

c. Check the MPF gearbox for wear, damage, and improper mesh.

6. If the paper jam error occurs regardless of the source tray, then do the following:

a. Identify the location of the leading edge of the paper.
b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (input): Paper failed to arrive from the MPF jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:

a. Check the MPF pick roller and separator roller for wear, damage, and contamination.
b. Make sure that the MPF solenoid is functional. Do the following:

a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
b. Select **MPF pick**.

c. Check the MPF gearbox for wear, damage, and improper mesh.

6. If the paper jam error occurs regardless of the source tray, then do the following:

a. Identify the location of the leading edge of the paper.
b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (input): Paper arrived too early or failed to arrive jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.

Sensor (input): Paper cleared too early jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.

2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. Check the pick roller for wear, damage, contamination, and improper installation.
6. Make sure that the reverse solenoid is functional. Do the following:

    a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
    b. Select **Redrive solenoid**.
7. Check the reverse solenoid and its actuator for wear, damage, and improper operation.
8. Check the redrive for wear, damage, and improper mesh.

Sensor (input): Paper failed to clear jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:

    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
6. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).
    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Identify the location of the leading edge of the paper.
    b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
    c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (input): Paper arrived too early from optional tray jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.

5. If the paper jam error occurs regardless of the source tray, then do the following:
    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:
        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).
    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.
6. Check the pick arm and pick roller for damage and improper installation.

Sensor (input): Paper failed to arrive from optional tray jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:
    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:
    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:
        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).
    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.
7. If the paper jam error occurs regardless of the source tray, then do the following:
    a. Identify the location of the leading edge of the paper.
    b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
    c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (input): Paper cleared too early from optional tray jam service check

1. Set the paper size in the Paper menu to match the paper loaded. From the home screen, touch **Settings > Paper**.
2. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
3. Make sure that the paper is free of debris and obstructions.
4. Perform a POR.
5. Check if the paper jam error occurs when using other trays.
6. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    c. Check the paper path above the tray for debris and foreign object.

Sensor (input): Paper failed to clear from optional tray jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).
    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Identify the location of the leading edge of the paper.
    b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
    c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (input): Static jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).

    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.

Recommended parts to replace

Customer replaceable unit

- 250-sheet tray insert
    - For the part number, go to Trays on page 401.

Field replaceable unit

- Sensor (duplex)
    - For the part number, go to Cables on page 399.
    - For the removal procedure, go to Sensor (duplex) removal on page 287.

202 paper jams

202 paper jam messages

Error code	Description	Action
202.03	Paper fed from the MPF never reached the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to arrive from MPF jam service check on page 79
202.04	Paper fed from the MPF or manual feeder cleared the sensor (fuser exit) earlier than expected.	N/A

Error code	Description	Action
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to clear jam service check on page 79
202.13	Paper fed from tray 1 never reached the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to arrive jam service check on page 79
202.14	Paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	N/A
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to clear jam service check on page 79
202.23	Paper fed from tray 2 never reached the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to arrive from optional tray jam service check on page 80
202.24	Paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	N/A
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to clear from optional tray jam service check on page 81
202.33	Paper fed from tray 3 never reached the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to arrive from optional tray jam service check on page 80
202.34	Paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	N/A
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to clear from optional tray jam service check on page 81
202.43	Paper fed from tray 4 never reached the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to arrive from optional tray jam service check on page 80
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	N/A
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See .Sensor (fuser exit): Paper failed to clear from optional tray jam service check on page 81
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See Sensor (fuser exit): Static jam service check on page 81.

Sensor (fuser exit): Paper failed to arrive from MPF jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:

    a. Check the MPF pick roller and separator roller for wear, damage, and contamination.
    b. Make sure that the MPF solenoid is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        b. Select **MPF pick**.

    c. Check the MPF gearbox for wear, damage, and improper mesh.
6. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Identify the location of the leading edge of the paper.
    b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
    c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (fuser exit): Paper failed to arrive jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:

    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
6. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Identify the location of the leading edge of the paper.
    b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
    c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (fuser exit): Paper failed to clear jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.

4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Make sure that the fuser is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (fuser).
    b. Make sure that the connections between the fuser and the controller board are properly connected.
    c. Check the fuser for wear, damage, and improper installation. For more information, see Fuser removal on page 266.
    d. Check the fuser actuator for wear, damage, and improper installation.
    e. Check the redrive for wear, damage, and improper mesh.

Sensor (fuser exit): Paper failed to arrive from optional tray jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).
    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Identify the location of the leading edge of the paper.
    b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
    c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (fuser exit): Paper failed to clear from optional tray jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

    a. Check the pick roller for wear, damage, contamination, and improper installation.
    b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Check the input sensor actuator for damage, and improper installation.
    b. Make sure that the sensor (duplex and input) is functional. Do the following:

        a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        b. Find the sensor (duplex and input).
    c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    d. Check the sensor (duplex and input) for damage and improper installation. For more information, see Sensor (duplex) removal on page 287.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    a. Identify the location of the leading edge of the paper.
    b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
    c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see Fuser removal on page 266.

Sensor (fuser exit): Static jam service check

1. Turn off the printer.
2. Check the optional tray for improper installation.
3. Remove the optional tray, and then check the connectors on the printer and optional tray for damage and improper connection.
4. Reinstall the optional tray, and then turn on the printer.
5. Remove the tray insert.
6. Check the tray insert and its lift plate gears for damage and improper operation.
7. Make sure that the following motors are functional:

    - Motor (pick (tray (x))
    - Motor (pass-through (tray(x))

    Do the following:

    a. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Motors tests**.

b. Select **Pick (tray [x])** and **Pass-through (tray [x])**.

8. Make sure that the connections between the motors and the controller board are properly connected.
9. Check the motors for damage, and improper installation.

231 paper jams

231 paper jam messages

Error code	Description	Action
231.03	Paper fed from the MPF or manual feeder did not reach the sensor (redrive/duplex path 1) during a duplex print job.	See Sensor (duplex staging): Paper failed to clear service check on page 83.
231.05	Paper fed from the MPF or manual feeder never cleared the sensor (redrive/duplex path 1) during a duplex print job.	
231.13	Paper fed from tray 1 did not reach the sensor (redrive/duplex path 1) during a print job.	
231.15	Paper fed from tray 1 never cleared the sensor (redrive/duplex path 1) during a duplex print job.	
231.23	Paper fed from tray 2 did not reach the sensor (redrive/duplex path 1) during a print job.	
231.25	Paper fed from tray 2 never cleared the sensor (redrive/duplex path 1) during a duplex print job.	
231.33	Paper fed from tray 3 did not reach the sensor (redrive/duplex path 1) during a print job.	
231.35	Paper fed from tray 3 never cleared the sensor (redrive/duplex path 1) during a duplex print job.	
231.43	Paper fed from tray 4 did not reach the sensor (redrive/duplex path 1) during a print job.	

Error code	Description	Action
231.45	Paper fed from tray 4 never cleared the sensor (redrive/ duplex path 1) during a duplex print job.	

Sensor (duplex staging): Paper failed to clear service check

1. Make sure that the printer is on a flat, level surface. Uneven surface results in 231.xx jams.
2. Make sure that the paper size is supported for duplex printing.

   Notes:
   - Paper narrower than A4 (210 mm / 8.27 in.) and shorter than 250 mm / 9.84 in. is not supported for duplex printing.
   - Paper over 28-lb. bond (105 GSM) is not supported for duplex printing.

3. Check the tray insert for improper installation and damage.
4. Check the tray guides for improper operation and damage.
5. Make sure that the S1 flag on the tray rotates freely and returns to its original position.
6. If the paper jam error occurs regardless of the tray source or even after restarting the printer when the paper path is cleared, then do the following:
   a. Check the sensor (duplex) actuator for improper installation and damage.
   b. Enter the Diagnostics menu, and then navigate to **Printer diagnostics and adjustments › Sensor tests › Sensor(duplex)**.
   c. Make sure that the cables and connectors are properly connected.
7. Check the duplex path area for jammed paper and obstructions.
8. Check the duplex assembly roller for debris, wear, damage, contamination, and improper installation.
9. Check the duplex assembly linkage and belt for damage.

232 paper jams

232 paper jam messages

Error code	Description	Action
232.02	Paper fed from the MPF or manual feeder arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.03	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to arrive jam service check on page 85.

Error code	Description	Action
232.05	Paper fed from the MPF never cleared the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to clear jam service check on page 85.
232.12	Paper fed from tray 1 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to arrive jam service check on page 85.
232.15	Paper fed from tray 1 never cleared the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to clear jam service check on page 85.
232.22	Paper fed from tray 2 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to arrive jam service check on page 85.
232.25	Paper fed from tray 2 never cleared the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to clear jam service check on page 85.
232.32	Paper fed from tray 3 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.33	Paper fed from tray 3 never reached the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to arrive jam service check on page 85.
232.35	Paper fed from tray 3 never cleared the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to clear jam service check on page 85.
232.42	Paper fed from tray 4 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A

Error code	Description	Action
232.43	Paper fed from tray 4 never reached the sensor (pass-through) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to arrive jam service check on page 85.
232.45	Paper fed from tray 4 never cleared the sensor (pass-through) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to clear jam service check on page 85.
232.92	Paper fed from tray 5 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.93	Paper fed from an unknown tray was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to arrive jam service check on page 85.
232.95	Paper fed from an unknown tray never cleared the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to clear jam service check on page 85.

Sensor (input): Paper (duplex job) failed to arrive jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. Check the printed page count.
    a. Enter the Diagnostics menu, and then touch **Printer Setup**.
    b. If the page count is near 400K, then replace the duplex.
6. Check the duplex paper path for jammed paper, debris, and obstructions.
7. Check the duplex rollers for debris, wear, damage, contamination, and improper installation.
8. Check the duplex linkage and belt for damage and improper installation.

Sensor (input): Paper (duplex job) failed to clear jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. Check the printed page count.
    a. Enter the Diagnostics menu, and then touch **Printer Setup**.

b. If the page count is near 400K, then replace the duplex.
6. Check the duplex paper path for jammed paper, debris, and obstructions.
7. Check the duplex rollers for debris, wear, damage, contamination, and improper installation.
8. Check the duplex linkage and belt for damage and improper installation.
9. Check the isolation roller for wear, damage, and contamination.

241 paper jams

241 paper jam messages

Error code	Description	Action
241.05	Paper fed from the manual feeder cleared the sensor (input) later than expected.	See Motor (tray 1 pick) jam service check on page 86.
241.82	The motor (tray 1 pick) has stalled or did not reach the expected speed.	See Motor (tray 1 pick) jam service check on page 86.
241.83	The motor (tray 1 pick) has stalled or did not reach the expected speed.	See Motor (tray 1 pick) jam service check on page 86.
241.84	The motor (tray 1 pick) has stalled or did not reach the expected speed.	See Motor (tray 1 pick) jam service check on page 86.
241.91	Paper remains detected at the sensor (input) after the printer is turned on.	See Sensor (input): Static jam service check on page 77.

Motor (tray 1 pick) jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. Check the pick arm and pick roller for damage and improper installation.

242–244 paper jams

242 paper jam messages

Error code	Description	Action
242.05	Paper fed from the MPF arrived at the sensor (input) later than expected.	N/A

Error code	Description	Action
242.06	Paper fed from the MPF was not picked. The paper did not reach the sensor (tray 2 pass-through).	N/A
242.21	Paper fed from tray 2 remains detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) after the printer is turned on.	See Optional tray sensors jam service check on page 94.
242.22	Paper fed from tray 2 was detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) earlier than expected.	See Optional tray sensors jam service check on page 94.
242.25	Paper fed from tray 2 cleared the sensor (tray 2 pass-through) later than expected.	See Optional tray sensors jam service check on page 94.
242.26	Paper fed from tray 2 was picked but it never reached the sensor (input).	See Optional tray sensors jam service check on page 94.
242.31	Paper fed from tray 3 remains detected at the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) after the printer is turned on.	See Optional tray sensors jam service check on page 94.
242.32	Paper fed from tray 3 arrived too early at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge).	See Optional tray sensors jam service check on page 94.
242.33	Paper fed from tray 3 never reached the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 94.
242.35	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) later than expected.	See Optional tray sensors jam service check on page 94.
242.36	Paper fed from tray 3 was picked but it did not reach the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 94.
242.41	Paper fed from tray 4 remains detected at the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) after the printer is turned on.	See Optional tray sensors jam service check on page 94.

Error code	Description	Action
242.42	Paper fed from tray 4 was detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) earlier than expected.	See Optional tray sensors jam service check on page 94.
242.43	Paper fed from tray 4 never reached the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 94.
242.45	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) later than expected.	See Optional tray sensors jam service check on page 94.
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 94.
242.70	The motor (tray 2 transport) does not turn on.	See Optional tray motors jam service check on page 94.
242.71	The motor (tray 2 transport) does not turn off.	See Optional tray motors jam service check on page 94.
242.72	The motor (550-sheet tray 2 transport) speed did not ramp up to expected level.	See Optional tray motors jam service check on page 94.
242.73	The motor (550-sheet tray 2 transport) stalled.	See Optional tray motors jam service check on page 94.
242.74	The motor (tray 2 transport) ran too slow.	See Optional tray motors jam service check on page 94.
242.75	The motor (tray 2 transport) ran too fast.	See Optional tray motors jam service check on page 94.
242.76	The motor (550-sheet tray 2 transport) ran too long.	See Optional tray motors jam service check on page 94.
242.80	The motor (tray 2) did not turn on	See Optional tray motors jam service check on page 94.
242.81	The motor (tray 2) did not turn off.	See Optional tray motors jam service check on page 94.
242.82	The motor (tray 2) speed did not ramp up to the expected level.	See Optional tray motors jam service check on page 94.

Error code	Description	Action
242.83	The motor (tray 2) has stalled.	See Optional tray motors jam service check on page 94.
242.84	The motor (tray 2) ran too slow.	See Optional tray motors jam service check on page 94.
242.85	The motor (tray 2) ran too fast.	See Optional tray motors jam service check on page 94.
242.86	The motor (tray 2) ran too long.	See Optional tray motors jam service check on page 94.
242.91	Paper remains detected at the sensor (tray 2 pass-through) after the printer is turned on.	See Optional tray motors jam service check on page 94.
242.92	Paper fed from an unknown tray was detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) earlier than expected.	See Optional tray motors jam service check on page 94.
242.93	Paper fed from an unknown tray never arrived at the sensor (tray 2 pass-through).	See Optional tray motors jam service check on page 94.
242.95	Paper fed from an unknown tray cleared the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) later than expected.	See Optional tray motors jam service check on page 94.
242.96	Paper fed from an unknown tray was picked but it never arrived at the sensor (input).	See Optional tray motors jam service check on page 94.

243 paper jam messages

Error code	Description	Action
243.31	Paper fed from tray 3 remains detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) after the printer is turned on.	See Optional tray sensors jam service check on page 94.

Error code	Description	Action
243.32	Paper fed from tray 3 was detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) earlier than expected.	See Optional tray sensors jam service check on page 94.
243.35	Paper fed from tray 3 cleared the sensor (tray 3 pass-through) later than expected.	See Optional tray sensors jam service check on page 94.
243.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 94.
243.41	Paper fed from tray 4 remains detected at the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge) after the printer is turned on.	See Optional tray sensors jam service check on page 94.
243.42	Paper fed from tray 4 was detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) earlier than expected.	See Optional tray sensors jam service check on page 94.
243.43	Paper fed from tray 4 never reached the sensor (tray 3 pass-through).	See Optional tray sensors jam service check on page 94.
243.45	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge) later than expected.	See Optional tray sensors jam service check on page 94.
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	See Optional tray sensors jam service check on page 94.
243.70	The motor (550-sheet tray 3 transport) does not turn on.	See Optional tray motors jam service check on page 94.
243.71	The motor (550-sheet tray 3 transport) does not turn off.	See Optional tray motors jam service check on page 94.
243.72	The motor (550-sheet tray 3 transport) speed did not ramp up to expected level.	See Optional tray motors jam service check on page 94.
243.73	The motor (550-sheet tray 3 transport) has stalled.	See Optional tray motors jam service check on page 94.
243.74	The motor (tray 3 transport) ran too slow.	See Optional tray motors jam service check on page 94.

Error code	Description	Action
243.75	The motor (tray 3 transport) ran too fast.	See Optional tray motors jam service check on page 94.
243.76	The motor (550-sheet tray 3 transport) ran too long.	See Optional tray motors jam service check on page 94.
243.80	The motor (550-sheet tray 3 pick/lift) does not turn on.	See Optional tray motors jam service check on page 94.
243.81	The motor (550-sheet tray 3 pick/lift) does not turn on.	See Optional tray motors jam service check on page 94.
243.82	The motor (550-sheet tray 3 pick/lift) does not turn off.	See Optional tray motors jam service check on page 94.
243.83	The motor (550-sheet tray 3 pick/lift) has stalled.	See Optional tray motors jam service check on page 94.
243.84	The motor (550-sheet tray 3 pick/lift) ran too slow.	See Optional tray motors jam service check on page 94.
242.85	The motor (550-sheet tray 3 pick/lift) ran too fast.	See Optional tray motors jam service check on page 94.
242.86	The motor (550-sheet tray 3 pick/lift) ran too long.	See Optional tray motors jam service check on page 94.
243.91	Paper remains detected at the sensor (tray 3 pass-through) after the printer is turned on.	See Optional tray sensors jam service check on page 94.
243.92	Paper fed from an unknown tray was detected earlier than expected at the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge).	See Optional tray sensors jam service check on page 94.
243.93	Paper fed from an unknown tray never reached the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 94.
243.95	Paper fed from an unknown tray cleared the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge) later than expected.	See Optional tray sensors jam service check on page 94.
243.96	Paper fed from an unknown tray was picked but it never reached the sensor (tray 3 pass-through).	See Optional tray sensors jam service check on page 94.

Error code	Description	Action
243.97	Paper fed from an unknown tray never cleared the sensor (tray 3 pass-through).	See Optional tray sensors jam service check on page 94.

244 paper jam messages

Error code	Description	Action
244.41	Paper fed from tray 4 remains detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) after the printer is turned on.	See Optional tray sensors jam service check on page 94.
244.42	Paper fed from tray 4 was detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) earlier than expected.	See Optional tray sensors jam service check on page 94.
244.45	Paper fed from tray 4 cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) later than expected.	See Optional tray sensors jam service check on page 94.
244.46	Paper fed from tray 4 was picked but it never reached the sensor (tray 4 trailing edge).	See Optional tray sensors jam service check on page 94.
244.70	The motor (550-sheet tray 4 transport) does not turn on.	See Optional tray motors jam service check on page 94.
244.71	The motor (550-sheet tray 4 transport) does not turn off.	See Optional tray motors jam service check on page 94.
244.72	The motor (550-sheet tray 4 transport) speed did not ramp up to expected level.	See Optional tray motors jam service check on page 94.
244.73	The motor (550-sheet tray 4 transport) has stalled.	See Optional tray motors jam service check on page 94.
244.74	The motor (550-sheet tray 4 transport) ran too slow.	See Optional tray motors jam service check on page 94.
244.75	The motor (550-sheet tray 4 transport) ran too fast.	See Optional tray motors jam service check on page 94.

Error code	Description	Action
244.76	The motor (550-sheet tray 4 transport) ran too long.	See Optional tray motors jam service check on page 94.
244.80	The motor (550-sheet tray 4 pick/lift) does not turn on.	See Optional tray motors jam service check on page 94.
244.81	The motor (550-sheet tray 4 pick/lift) does not turn off.	See Optional tray motors jam service check on page 94.
244.82	The motor (550-sheet tray 4 pick/lift) speed did not ramp up to expected level.	See Optional tray motors jam service check on page 94.
244.83	The motor (550-sheet tray 4 pick/lift) has stalled.	See Optional tray motors jam service check on page 94.
244.84	The motor (550-sheet tray 4 pick/lift) ran too slow.	See Optional tray motors jam service check on page 94.
244.85	The motor (550-sheet tray 4 pick/lift) ran too fast.	See Optional tray motors jam service check on page 94.
244.86	The motor (550-sheet tray 4 pick/lift) ran too long.	See Optional tray motors jam service check on page 94.
244.91	Paper remains detected at the sensor (tray 4 pass-through) or sensor (tray 4 trailing edge) after the printer is turned on.	See Optional tray sensors jam service check on page 94.
244.92	Paper fed from an unknown tray was detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) earlier than expected.	See Optional tray sensors jam service check on page 94.
244.93	Paper fed from tray 4 did not reach the sensor (tray 4 pass-through).	See Optional tray sensors jam service check on page 94.
244.95	Paper fed from an unknown tray cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) later than expected.	See Optional tray sensors jam service check on page 94.
244.96	Paper fed from an unknown tray was picked but it did not reach the sensor (tray 4 pass-through).	See Optional tray sensors jam service check on page 94.

Error code	Description	Action
244.97	Paper fed from an unknown tray never cleared the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge).	See Optional tray sensors jam service check on page 94.

Optional tray sensors jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Perform a POR.
3. Identify the tray that causes the paper jam error. Place the affected tray insert at the bottom. For example, If tray 2 is causing the paper jam error in a 4-tray configuration, then swap tray 2 and tray 4.
4. Make sure the following sensors are functional:
   - Sensor (pass-through)
   - Sensor (index)
   - Sensor (trailing edge)
   - Sensor (media present)

   Do the following:
   a. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Sensor tests**.
   b. Find the listed sensors.
5. Make sure that the connections between the listed sensors and the controller board are properly connected.
6. Check the sensors and its actuators for damage and improper installation.
7. Check the tray insert for damage and improper installation.
8. Check the tray guides for damage and improper operation.
9. Check the lift plate for damage and improper operation.

Optional tray motors jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Perform a POR.
3. Identify the tray that causes the paper jam error. Place the affected tray insert at the bottom. For example, If tray 2 is causing the paper jam error in a 4-tray configuration, then swap tray 2 and tray 4.
4. Remove the tray insert.
5. Check the tray insert and its lift plate gears for damage and improper operation.
6. Make sure that the following motors are functional:
   - Motor (pick (tray (x))
   - Motor (pass-through (tray(x))

   Do the following:
   a. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Motors tests**.
   b. Select **Pick (tray [x])** and **Pass-through (tray [x])**.

7. Make sure that the connections between the motors and the controller board are properly connected.
8. Check the motors for damage, and improper installation.

280 paper jams

280 paper jam messages

Error code	Description	Action
280.06	Paper was not detected in the ADF tray during an ADF scan job.	See ADF paper undetected service check on page 95.
280.11	Paper remains detected at the sensor (ADF scan 1) after the printer is turned on.	See Sensor (ADF scan 1) jam service check on page 96.
280.13	Paper was never detected at the sensor (ADF scan 1).	See Sensor (ADF scan 1) jam service check on page 96.
280.15	Paper never cleared the sensor (ADF scan 1).	See Sensor (ADF scan 1) jam service check on page 96.
280.91	Paper remains detected at the sensor (ADF scan 1) after the printer is turned on. The ADF maintenance kit is beyond end-of-life.	See Sensor (ADF scan 1) jam service check on page 96.
280.93	Paper was never detected at the sensor (ADF scan 1). The ADF maintenance kit is beyond end-of-life.	See Sensor (ADF scan 1) jam service check on page 96.
280.95	Paper never cleared the sensor (ADF scan 1). The ADF maintenance kit is beyond end-of-life.	See Sensor (ADF scan 1) jam service check on page 96.

ADF paper undetected service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the sensor (ADF media present) is functional. Do the following:
    a. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
    b. Find the sensor (ADF media present).
3. Make sure that the connections between the sensor (ADF media present) and the controller board are properly connected.
4. Check the sensor (ADF media present) and its actuator for damage and improper installation.

Sensor (ADF scan 1) jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Check the ADF pick rollers and separator rollers for wear, damage, contamination, and improper installation.
3. Check the ADF paper path for debris and foreign object.
4. Make sure that the ADF top cover and the ADF is properly closed.
5. Make sure that the sensor (ADF scan 1) is functional. Do the following:
    a. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
    b. Find the sensor (ADF scan 1).
6. Make sure that the connections between the sensor (ADF scan 1) and the controller board are properly connected.
7. Check the sensor (ADF scan 1) and its actuator for damage and improper installation.
8. Make sure that the connections between the ADF and the controller board are properly connected.
9. Check the ADF pick drive for improper operation.
10. Check the ADF pick drive rollers and gears for wear and damage. For more information, see ADF top cover removal on page 315.

284 paper jams

284 paper jam messages

Error code	Description	Action
284.11	Paper remains detected at the sensor (ADF scan 2) during a duplex scan job.	See Sensor (ADF scan 2) jam service check on page 97.
284.13	Paper did not reach the sensor (ADF scan 2) during a duplex scan job.	See Sensor (ADF scan 2) jam service check on page 97.
284.15	Paper never cleared the sensor (ADF scan 2) during a duplex scan job.	See Sensor (ADF scan 2) jam service check on page 97.
284.91	Paper remains detected at the sensor (ADF scan 2) during a duplex scan job.. The ADF maintenance kit is beyond end-of-life.	See Sensor (ADF scan 2) jam service check on page 97.
284.93	Paper did not reach the sensor (ADF scan 2) during a duplex scan job. The ADF maintenance kit is beyond end-of-life.	See Sensor (ADF scan 2) jam service check on page 97.
284.95	Paper never cleared the sensor (ADF scan 2) during a duplex scan job.. The ADF maintenance kit is beyond end-of-life.	See Sensor (ADF scan 2) jam service check on page 97.

Sensor (ADF scan 2) jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Check the ADF pick rollers and separator rollers for wear, damage, contamination, and improper installation.
3. Check the ADF paper path for debris and foreign object.
4. Make sure that the ADF top cover and the ADF is properly closed.
5. Make sure that the sensor (ADF scan 2) is functional. Do the following:
    a. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
    b. Find the sensor (ADF scan 2).
6. Make sure that the connections between the sensor (ADF scan 2) and the controller board are properly connected.
7. Check the sensor (ADF scan 2) and its actuator for damage and improper installation.
8. Make sure that the connections between the ADF and the controller board are properly connected.
9. Check the ADF pick drive for improper operation.
10. Check the ADF pick drive rollers and gears for wear and damage. For more information, see ADF top cover removal on page 315.

29y paper jams

291-295 paper jam messages

Error code	Description	Action
291.06	The scanner cover was open before an ADF job.	See Sensor (ADF cover) service check on page 97.
295.01	An imagepipe error occurred. Gap between scanned pages is too small.	See ADF imagepipe jam service check on page 98.

Sensor (ADF cover) service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Make sure that the sensor (ADF cover) is functional. Do the following:
    a. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
    b. Find the sensor (ADF cover).
3. Make sure that the connections between the sensor (ADF cover) and the controller board are properly connected.
4. Check the sensor (ADF cover) and its actuator for damage and improper installation.
5. Make sure that the connections between the ADF and the controller board are properly connected.
6. Check the ADF top cover for foreign objects.
7. Check the ADF top cover for damage and improper installation.. For more information, see ADF top cover removal on page 315.

ADF imagepipe jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 66.
2. Remove the jammed paper in the ADF.
3. Perform a POR.
4. Resent the copy job.

> **Notes**
> While scanning multiple documents with different sizes using the ADF, set the Scan Size option to **Mixed** or **Auto-size**.

User attendance messages

0y user attendance errors

2-9 user attendance messages

Error code	Description	Action
2.01	A supply is needed for a job.	Select **Cancel Job** and order the needed supply.
8.00	A door was detected as open.	See Undetected door service check on page 98.
8.01	Door A was detected as open.	See Undetected door service check on page 98.
8.02	Door B was detected as open.	See Undetected door service check on page 98.
8.03	ADF top cover was detected as open.	See ADF top cover open service check on page 99.
9.00	A problem caused the printer to restart automatically.	See Auto reboot error service check on page 100.

Undetected door service check

1. Check the doors for the following:
    - Obstructions
    - Damage
    - Improper operation
2. Close the doors properly.

> **Notes**
> Make sure that there is no gap between the door and the printer.

3. Make sure that the door links and hinges are properly interlocked and the sensor actuator is not damaged.
4. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
5. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer.
6. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
7. Wait for the printer to completely boot up and initialize all its components before sending the print job again.
8. Check the sensor (door interlock) actuator for damage and improper installation.
9. Make sure that the sensor (door interlock) is functional, do the following:
    a. Enter the Diagnostics menu, and then touch **Printer diagnostics and adjustments > Sensor tests**.
    b. Find the sensor (door interlock).
10. Make sure that the connections between the controller board and sensor (door interlock) are properly connected.

ADF top cover open service check

1. Check the ADF doors for the following:
    - Obstructions
    - Damage
    - Improper operation
2. Close the ADF doors properly.

> **Notes**
> Make sure that there is no gap between the door and the ADF.

3. Make sure that the ADF door links and hinges are properly interlocked and the sensor actuator is not damaged.
4. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
5. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer.
6. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
7. Wait for the printer to completely boot up and initialize all its components before sending the print job again.
8. Check the sensor (ADF top door interlock) actuator for damage and improper installation.
9. Make sure that the sensor (ADF top door interlock) is functional, do the following:
    a. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
    b. Find the sensor (ADF top door interlock).

10. Make sure that the connections between the controller board and sensor (ADF top door interlock) are properly connected.

Auto reboot error service check

1. Clear the intervention message, and then send the print job again.
2. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
3. Wait for at least 30 seconds to make sure that all electrical charges have dissipated from the printer.
4. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
5. Wait for the printer to completely boot up and initialize all its components before sending the print job again.

1y user attendance errors

11–12 user attendance messages

Error code	Description	Action
11.11	A wrong paper type or size was detected on tray 1.	See Mismatched paper size and paper printer setting error service check on page 102.
11.12	A wrong paper type, size, or orientation was detected on tray 1.	See Mismatched paper size and paper printer setting error service check on page 102.
11.21	A wrong paper type or size was detected on tray 2.	See Mismatched paper size and paper printer setting error service check on page 102.
11.22	A wrong paper type, size, or orientation was detected on tray 2.	See Mismatched paper size and paper printer setting error service check on page 102.
11.31	A wrong paper type or size was detected on tray 3.	See Mismatched paper size and paper printer setting error service check on page 102.
11.32	A wrong paper type, size, or orientation was detected on tray 3.	See Mismatched paper size and paper printer setting error service check on page 102.
11.41	A wrong paper type or size was detected on tray 4.	See Mismatched paper size and paper printer setting error service check on page 102.

Error code	Description	Action
11.42	A wrong paper type, size, or orientation was detected on tray 4.	See Mismatched paper size and paper printer setting error service check on page 102.
11.51	A wrong paper type or size was detected on tray 5.	See Mismatched paper size and paper printer setting error service check on page 102.
11.52	A wrong paper type, size, or orientation was detected on tray 5.	See Mismatched paper size and paper printer setting error service check on page 102.
11.71	An unsupported orientation was detected for an envelope loaded.	See Mismatched paper size and paper printer setting error service check on page 102.
11.81	A wrong paper type or size was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.
11.82	A wrong paper type, size, or orientation was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.
11.91	A wrong paper type or size was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.
11.92	A wrong paper type, size, or orientation was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.
12.11	A wrong setting for paper type or size was detected on tray 1.	See Mismatched paper size and paper printer setting error service check on page 102.
12.12	A wrong setting for paper type, size, or orientation was detected on tray 1.	See Mismatched paper size and paper printer setting error service check on page 102.
12.21	A wrong setting for paper type or size was detected on tray 2.	See Mismatched paper size and paper printer setting error service check on page 102.
12.22	A wrong setting for paper type, size, or orientation was detected on tray 2.	See Mismatched paper size and paper printer setting error service check on page 102.

Error code	Description	Action
12.31	A wrong setting for paper type or size was detected on tray 3.	See Mismatched paper size and paper printer setting error service check on page 102.
12.32	A wrong setting for paper type, size, or orientation was detected on tray 3.	See Mismatched paper size and paper printer setting error service check on page 102.
12.41	A wrong setting for paper type or size was detected on tray 4.	See Mismatched paper size and paper printer setting error service check on page 102.
12.42	A wrong setting for paper type, size, or orientation was detected on tray 4.	See Mismatched paper size and paper printer setting error service check on page 102.
12.51	A wrong setting for paper type or size was detected on tray 5.	See Mismatched paper size and paper printer setting error service check on page 102.
12.52	A wrong setting for paper type, size, or orientation was detected on tray 5.	See Mismatched paper size and paper printer setting error service check on page 102.
12.81	A wrong setting for paper type or size was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.
12.82	A wrong setting for paper type, size, or orientation was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.
12.91	A wrong setting for paper type or size was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.
12.92	A wrong setting for paper type, size, or orientation was detected on the MPF.	See Mismatched paper size and paper printer setting error service check on page 102.

Mismatched paper size and paper printer setting error service check

1. Set the paper size in the Paper menu to match the paper loaded. From the control panel, select **Settings > Paper > Tray Configuration**.
2. Adjust the paper guides in the tray to correct position for the paper loaded.

   Make sure that the guides fit snugly against the paper.

3. Replace with the correct paper type or size.

2y user attendance errors

24-29 user attendance messages

Error code	Description	Action
24.04	Printer tried to print a duplex job with paper that was too narrow/short or too heavy.	See Paper size mismatch (duplex print) service check on page 103.
29.00	Packing material present on supplies.	See Removing the packing material from the supplies on page 103.
29.08	Packing material present on supplies.	See Removing the packing material from the supplies on page 103.

Paper size mismatch (duplex print) service check

1. Make sure that the paper size is supported for duplex printing.

   Note:
   - Narrow or short paper may not be supported for duplex printing.
   - Heavy paper may not be supported for duplex printing.

   For more information, see the "Selecting paper" section.

Removing the packing material from the supplies

1. Make sure to remove all packing materials such as tape, foam, or plastic.
2. Check all areas of the printer for packing materials.
3. Remove all supplies, and then check for any packing material left.

3y user attendance errors

31 user attendance error messages

Error code	Description	Action
31.00	An MICR print cartridge is required.	See MICR supplies service check on page 121.

Error code	Description	Action
31.35	Waste toner bottle smart chip or sensor communication problem.	See Waste toner bottle error service check on page 122.
31.40	The toner cartridge is missing or unresponsive.	See Toner cartridge (K) error service check on page 122.
31.40A	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40AN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40B	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40C	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40CN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40D	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40E	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40F	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40FN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40G	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40GN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.

Error code	Description	Action
31.40H	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40K	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40R	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.40Y	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 122.
31.41	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41A	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41B	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41C	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41CN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41D	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41E	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41F	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41FN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
31.41G	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41H	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.41K	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42A	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42B	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42C	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42CN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42D	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42E	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42F	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42FN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42G	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
31.42GN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
31.42K	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43A	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43B	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43C	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43CN	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43D	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43E	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43F	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43FN	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43G	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.43H	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
31.43K	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 122.
31.60H	The imaging unit is missing or unresponsive.	See Imaging unit (K) error service check on page 123.
31.60A	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.60AN	A non-Lexmark black imaging unit was detected.	See Imaging unit (K) error service check on page 123.
31.60B	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.60C	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.60CN	A non-Lexmark black imaging unit was detected.	See Imaging unit (K) error service check on page 123.
31.60D	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.60E	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.60F	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.60G	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.60H	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 123.
31.65	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.

Error code	Description	Action
31.65A	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65B	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65C	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65CN	A non-Lexmark black and color imaging kit was detected.	See Imaging unit (CMY) error service check on page 123.
31.65D	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65E	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65F	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65G	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65H	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65T	A black and color imaging kit smart chip or sensor communication error was detected.	See Imaging unit (CMY) error service check on page 123.
31.65TN	A non-Lexmark black and color imaging kit was detected.	See Imaging unit (CMY) error service check on page 123.

32 user attendance error messages

Error code	Description	Action
32.40	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.
32.40A	The black toner cartridge is unsupported—Unsupported memory map version in the smart chip.	See Toner cartridge (K) error service check on page 122.
32.40B	The black toner cartridge is unsupported—Failed capacity class/model compatibility check.	See Toner cartridge (K) error service check on page 122.
32.40C	The black toner cartridge is unsupported—Failed OEM check.	See Toner cartridge (K) error service check on page 122.

Error code	Description	Action
32.40D	The black toner cartridge is unsupported—Failed SWE marriage check. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	See Toner cartridge (K) error service check on page 122.
32.40E	The black toner cartridge is unsupported—The supply is on the revoked list.	See Toner cartridge (K) error service check on page 122.
32.40F	The black toner cartridge is unsupported—The print cartridge is MICR, and the release does not support MICR.	See Toner cartridge (K) error service check on page 122.
32.40G	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.

Error code	Description	Action
32.40H	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.
32.40I	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.
32.40J	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.
32.40K	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.
32.40L	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.
32.40M	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 122.
32.41	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41A	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41B	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41C	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
32.41D	Cyan toner cartridge unsupported error. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	See Toner cartridge (CMY) error service check on page 122.
32.41E	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41EN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
32.41G	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41H	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
32.41I	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41J	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41K	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41L	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.41M	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42A	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42B	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42C	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
32.42D	Magenta toner cartridge unsupported error. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	See Toner cartridge (CMY) error service check on page 122.
32.42E	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42G	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42H	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42I	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
32.42J	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42K	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42L	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.42M	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43A	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43B	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43C	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
32.43D	Yellow toner cartridge unsupported error. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	See Toner cartridge (CMY) error service check on page 122.
32.43E	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43G	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43H	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43I	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
32.43J	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43K	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43L	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.43M	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 122.
32.65	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 123.
32.65A	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 123.
32.65B	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 123.
32.65C	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 123.

Error code	Description	Action
32.65D	Black and color imaging kit or photoconductor unit unsupported error. **Notes** • An imaging kit that ships with the printer or equipment (SWE) cannot be switched with another SWE imaging kit. • Make sure to replace the SWE imaging kit only when prompted to do so. • Replace the used SWE imaging kit only with a newly ordered aftermarket imaging kit compatible with the printer.	See Imaging unit (CMY) error service check on page 123.
32.65E	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 123.
32.65F	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 123.

33–34 user attendance error messages

Notes
For more information, see Non-Lexmark supply on page 124.

Error code	Description	Action
33.40	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 122.
33.40A	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 122.
33.40AN	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 122.
33.40BN	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 122.
33.41	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.41AN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.41B	An inauthentic cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.41BN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.42	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.42AN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.43	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.43A	An inauthentic yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.43AN	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 122.
33.65	An inauthentic black and color (CMY) imaging unit or imaging kit was detected.	See Toner cartridge (CMY) error service check on page 122.
33.65A	An inauthentic black and color (CMY) imaging unit or imaging kit was detected.	See Toner cartridge (CMY) error service check on page 122.

Error code	Description	Action
33.65AN	A non-Lexmark black and color (CMY) imaging kit was detected.	See Toner cartridge (CMY) error service check on page 122.
33.65B	An inauthentic black and color (CMY) imaging unit or imaging kit was detected.	See Toner cartridge (CMY) error service check on page 122.
33.65BN	A non-Lexmark black and color (CMY) imaging kit was detected.	See Toner cartridge (CMY) error service check on page 122.
34.04	The printer tried to do a duplex print job on a sheet that was too short or too narrow for the duplex path.	See Narrow/short paper duplex print error service check on page 124.
34.04A	The printer tried to do a duplex print job on a sheet that was too short or too narrow for the duplex path.	See Narrow/short paper duplex print error service check on page 124.

37–39 user attendance messages

Error code	Description	Action
37.01	The memory is insufficient to collate the job.	See Insufficient memory service check on page 124.
37.03	The memory is insufficient to collate the job.	See Insufficient memory service check on page 124.
38.00	The scan job is too long.	See Insufficient memory service check on page 124.
38.01	The memory is full.	See Insufficient memory service check on page 124.
39.01	The page is too complex to print. The printer memory is not enough for the details on the page.	See Insufficient memory service check on page 124.
39.02	The page is too complex to print. The printer memory is not enough for the details on the page.	See Insufficient memory service check on page 124.

MICR supplies service check

1. Make sure that the toner cartridge and imaging unit are not damaged, not leaking, genuine, and support MICR supplies.
2. Make sure that the imaging unit or imaging kit and the toner cartridge are free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.

3. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
4. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer.
5. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
6. Wait for the printer to completely boot up and initialize all its components before sending the print job again.

Waste toner bottle error service check

1. Make sure that the waste toner bottle is properly installed and not full.
2. Clean the sensor (waste toner bottle) with a cloth, and then print a test page.

   > **Note:** Sensor contamination can cause communication errors.

3. Clean the waste toner bottle contacts of any toner contamination.
4. Check the waste toner bottle contacts for damage.
5. Make sure that the connections between the controller board and the waste toner bottle are properly connected.

Toner cartridge (K) error service check

1. Check if the printer is using a genuine and supported Lexmark toner cartridge.

   > **Notes**
   > If the printer is using a third-party toner cartridge, then refer the users to the supplier.

2. Make sure that the printer model matches with the settings. Do the following:

   a. From the home screen, navigate to **Settings › Reports › Menu Settings Page**
   b. Compare the printer model with the model indicated in the Menu Settings Page.
3. Make sure that the cartridge region matches the printer region.
4. Make sure that the toner cartridge is not damage and not leaking.
5. Make sure that the toner cartridge is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
6. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
7. Clean the toner cartridge contacts for any toner contamination.
8. Check the toner cartridge contacts for damage.
9. Make sure that the connections between the controller board and the toner cartridge are properly connected.

Toner cartridge (CMY) error service check

1. Check if the printer is using a genuine and supported Lexmark toner cartridge.

> **Notes**
> If the printer is using a third-party toner cartridge, then refer the users to the supplier.

2. Make sure that the printer model matches with the settings. Do the following:
    a. From the home screen, navigate to **Settings › Reports › Menu Settings Page**
    b. Compare the printer model with the model indicated in the Menu Settings Page.
3. Make sure that the cartridge region matches the printer region.
4. Make sure that the toner cartridge is not damage and not leaking.
5. Make sure that the toner cartridge is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
6. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
7. Clean the waste toner bottle contacts for any toner contamination.
8. Check the waste toner bottle contacts for damage.
9. Make sure that the connections between the controller board and the waste toner bottle are properly connected.

Imaging unit (K) error service check

1. Check if the printer is using a genuine and supported Lexmark imaging unit or imaging kit.

> **Notes**
> If the printer is using a third-party imaging unit or imaging kit, then refer the users to the supplier.

2. Check the imaging unit or imaging kit for damage.
3. Make sure that the imaging unit or imaging kit is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
4. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
5. Clean the toner cartridge contacts for any toner contamination.
6. Check the toner cartridge contacts for damage.
7. Make sure that the connections between the controller board and the toner cartridge are properly connected.

Imaging unit (CMY) error service check

1. Check if the printer is using a genuine and supported Lexmark imaging unit or imaging kit.

> **Notes**
> If the printer is using a third-party imaging unit or imaging kit, then refer the users to the supplier.

2. Check the imaging unit or imaging kit for damage.

3. Make sure that the imaging unit or imaging kit is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
4. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
5. Clean the waste toner bottle contacts for any toner contamination.
6. Check the waste toner bottle contacts for damage.
7. Make sure that the connections between the controller board and the waste toner bottle are properly connected.

Narrow/short paper duplex print error service check

1. Make sure that the printer is on a flat, level surface.
2. Make sure that the paper size is supported for duplex printing.

   Note:
   - Paper narrower than A4 (210 mm / 8.27 in.) and shorter than 250 mm / 9.84 in. is not supported for duplex printing.
   - Paper over 28-lb bond. (105 GSM) is not supported for duplex printing.

3. Make sure that the connections between the controller board and sensor (door interlock) are properly connected.

Insufficient memory service check

1. Erase the printer memory. Do the following:

   a. Turn off the printer, and then disconnect the power cord from the electrical outlet.
   b. Wait for a few minutes, connect the power cord to the electrical outlet, and then turn on the printer.
2. Reduce the complexity of the print job. Do any of the following:

   - Lower the print quality.
   - Reduce the number of pages being printed at once.
3. If the file format is causing the issue, then convert the file to a different format that is more efficient in printing such as PDF.
4. Use a different driver, such as PostScript driver, to handle the print job more efficiently.

   Some printer drivers may be more efficient at handling large or complex print jobs than others.
5. Upgrade the printer memory by adding additional RAM or installing an ISD. For more information, see Available internal options on page 413.

Non-Lexmark supply

The printer has detected a non-Lexmark supply or part installed in the printer.

The Lexmark printer is designed to function best with genuine Lexmark supplies and parts. Use of third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components.

All life indicators are designed to function with Lexmark supplies and parts and may deliver unpredictable results if third-party supplies or parts are used. Imaging component usage beyond the intended life may damage the Lexmark printer or associated components.

> **Warning—Potential Damage**
> Use of third-party supplies or parts can affect warranty coverage. Damage caused by the use of third-party supplies or parts may not be covered by the warranty.

To accept any and all of these risks and to proceed with the use of non-genuine supplies or parts in your printer, instruct the customer to touch and hold the error message on the display using two fingers for 15 seconds. When a confirmation dialog box appears, touch **Continue**.

If the customer does not want to accept these risks, then remove the third-party supply or part from the printer and install a genuine Lexmark supply or part.

If the printer does not print after clearing the error message, then instruct the customer to reset the supply usage counter.

Resetting the supply usage counter

1. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Supply Usage And Counters > Reset Maintenance Counter**.
2. Touch **Start**.

> **Notes**
> If resetting the supply usage counter fails, then the customer should return the supply item to the place of purchase.

4y user attendance errors

42 user attendance messages

Error code	Description	Action
42.01	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.02	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.03	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.

Error code	Description	Action
42.04	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.05	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.09	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.10	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.10K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.12	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.12C	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.12K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.12M	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.12Y	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.13	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.13C	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.13K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.13M	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.13Y	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.14	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.14C	Printer region mismatch.	See Mismatched supplies service check on page 131.

Error code	Description	Action
41.14K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.14M	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.14Y	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.15	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.19	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.20	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.21	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.21C	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.21K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.23	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.23C	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.23K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.23M	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.23Y	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.24	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.25	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.25K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.

Error code	Description	Action
24.26K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.29	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.30	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.31	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.32	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.34	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.34K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.35	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.39	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.40	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.40K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.41	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.41K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.42	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.43	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.43C	Printer region mismatch.	See Mismatched supplies service check on page 131.

Error code	Description	Action
42.43K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.43M	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.43Y	Printer region mismatch.	See Mismatched supplies service check on page 131.
42.45	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.46	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.46K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.49	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.50	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.51	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.52	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.52K	The black toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.53	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.54	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.59	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.60	The toner cartridge and printer regions are mismatched.	See Toner cartridge service check on page 132.
42.60K	The toner cartridge and printer regions are mismatched.	

Error code	Description	Action
42.61	The toner cartridge and printer regions are mismatched.	
42.61K	The toner cartridge and printer regions are mismatched.	
42.62	The toner cartridge and printer regions are mismatched.	
42.62K	The toner cartridge and printer regions are mismatched.	
42.63	The toner cartridge and printer regions are mismatched.	
42.63K	The toner cartridge and printer regions are mismatched.	
42.64	The toner cartridge and printer regions are mismatched.	
42.64K	The toner cartridge and printer regions are mismatched.	
42.90	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.91	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.92	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.93	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.94	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.94K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.
42.95	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 131.

43 user attendance error messages

Error code	Description	Action
43.40	A toner cartridge sensor error was detected.	See Toner meter card error service check on page 132.
43.40Y	A black toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.
43.40Z	A black toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.
43.41	A cyan toner cartridge toner mete cycle error was detected.	See Toner meter card error service check on page 132.
43.41Y	A cyan toner cartridge toner mete cycle error was detected.	See Toner meter card error service check on page 132.
43.41Z	A cyan toner cartridge toner mete cycle error was detected.	See Toner meter card error service check on page 132.
43.42	A magenta toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.
43.42Y	A magenta toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.
43.42Z	A magenta toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.
43.43	A yellow toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.
43.43Y	A yellow toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.
43.43Z	A yellow toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 132.

Mismatched supplies service check

1. Check if the printer is using a genuine and supported Lexmark toner cartridge.

> **Notes**
> If the printer is using a third-party toner cartridge, then refer the users to the supplier.

2. Make sure that the cartridge region matches the printer region.
3. Make sure that the toner cartridge is not damage and not leaking.
4. Make sure that the toner cartridge is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
5. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.

Toner meter card error service check

1. Make sure that the toner meter card is properly installed.
2. Check the sensor (toner meter) for contamination.
3. Make sure that the printer is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
4. Make sure that the sensor (toner meter) is functional. Do the following:

    a. Enter the Diagnostics menu, and then touch **Printer diagnostics and adjustments > Sensor tests**.
    b. Find the sensor (toner meter).

Toner cartridge service check

1. Make sure that the imaging unit and toner cartridge are genuine Lexmark supplies.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
2. Perform the following tests:
    a. Shake the toner cartridge.
    b. Clean the toner cartridge smart chip contacts, and then check the contacts for damage.
    c. Clean the toner cartridge spring contacts, and then check the contacts for damage.
    d. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
3. Make sure that the toner cartridge is changed from shipped with equipment (SWE) toner to a compatible toner.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

4. Reset the printer configuration. See Restoring the printer configuration on page 210.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

5y user attendance errors

55–59 user attendance error messages

Error code	Description	Action
55.1	An unsupported USB device was detected.	Remove the flash drive to continue.
55.2	An unsupported USB hub was detected.	Remove the USB hub to continue.
58.00	Too many optional trays and finishers were detected.	Remove excess optional trays or finishers.

Error code	Description	Action
58.00A	Too many optional trays were detected.	1. Turn off the printer. 2. Unplug the power cord from the electrical outlet, and then from the printer. 3. Remove one or more trays. 4. Connect the power cord to the electrical outlet, and then turn on the printer. **CAUTION — POTENTIAL INJURY** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Error code	Description	Action
58.00B	Too many optional trays were detected.	1. Turn off the printer. 2. Unplug the power cord from the electrical outlet, and then from the printer. 3. Remove one or more trays. 4. Connect the power cord to the electrical outlet, and then turn on the printer. **CAUTION — POTENTIAL INJURY** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Error code	Description	Action
58.00C	Too many optional trays were detected.	1. Turn off the printer. 2. Unplug the power cord from the electrical outlet, and then from the printer. 3. Remove one or more trays. 4. Connect the power cord to the electrical outlet, and then turn on the printer. **CAUTION — POTENTIAL INJURY** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Error code	Description	Action
58.00D	Too many optional trays were detected.	1. Turn off the printer. 2. Unplug the power cord from the electrical outlet, and then from the printer. 3. Remove one or more trays. 4. Connect the power cord to the electrical outlet, and then turn on the printer. **CAUTION — POTENTIAL INJURY** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Error code	Description	Action
59.00	An unsupported option was detected. The option software version is not supported by the engine.	1. Turn off the printer. 2. Unplug the power cord from the electrical outlet, and then from the printer. 3. Remove the indicated tray. 4. Connect the power cord to the electrical outlet, and then turn on the printer. **CAUTION — POTENTIAL INJURY** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Error code	Description	Action
59.00C	An unsupported option was detected.	1. Turn off the printer. 2. Unplug the power cord from the electrical outlet, and then from the printer. 3. Remove the indicated tray. 4. Connect the power cord to the electrical outlet, and then turn on the printer. **CAUTION — POTENTIAL INJURY** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Error code	Description	Action
59.00D	An unsupported option was detected.	1. Turn off the printer. 2. Unplug the power cord from the electrical outlet, and then from the printer. 3. Remove the indicated tray. 4. Connect the power cord to the electrical outlet, and then turn on the printer. **CAUTION — POTENTIAL INJURY** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

6y user attendance errors

61–66 user attendance error messages

Error code	Description	Action
61.00	The hard disk is defective.	Replace the defective storage drive.

Error code	Description	Action
62.00	The hard disk is full.	Try one or more of the following: • Select **Continue** to clear the message. • Delete fonts, macros, and other data stored in the intelligent storage drive. • Install an intelligent storage drive.
63.00	The hard disk is not formatted.	Formatting now wipes all information from the storage drive. To format the disk, do the following: 1. From the home screen, select **Settings > Device > Maintenance > Out of Service Erase**. 2. Select **Sanitize all information on hard disk** or**Erase Intelligent Storage Drive**, and then select **ERASE**.
64.00	The hard disk format is unsupported.	Remove the unsupported printer hard disk, and then insert a supported one. For more information, see accessories.
66.00	The hard disk needs to be formatted.	Formatting now wipes all information from the storage drive. To format the disk, do the following: 1. From the home screen, navigate to **Settings › Device › Maintenance › Out of Service Erase**. 2. Select **Sanitize all information on hard disk**, and then select **ERASE**.

7y user attendance errors

71–72 user attendance error messages

Error code	Description	Action
71.01	The fax station name is not set up.	N/A
71.02	The fax station number is not set up.	N/A
71.03	The analog phone line is not found.	N/A
71.04	The analog phone line is incorrectly connected.	Make sure to connect the phone line to the correct printer fax port. Plug in the analog phone to a fax line. Make sure that a call can be made as well as receiving a call. Reboot device.

Error code	Description	Action
71.05	An invalid FoIP license was detected.	Make that the FoIP license is valid and properly installed on the printer. Make sure that the FoIP settings on the printer are configured correctly. This includes network settings, server addresses, authentication credentials. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer. Wait for the printer to completely boot up and initialize all its components before sending the fax job again. Make sure that the latest firmware is installed.
71.06	The fax server is not found.	N/A
71.07	The printer is not registered to HTTPS Fax Server.	Register the printer to HTTPS Fax server.
71.12	The printer cannot print faxes because the fax memory is full.	N/A
71.13	The printer cannot send faxes because the fax memory is full.	N/A

Error code	Description	Action
71.20	The fax partition is not working.	Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer. Wait for the printer to completely boot up and initialize all its components before sending the fax job again. Make sure that the latest firmware is installed.
72.01	The SMTP server is not set up.	N/A
72.02	The Web Link server is not set up.	Contact system administrator.
72.04	The Fax server to Format is not set up.	Contact system administrator.

8y user attendance errors

80 user attendance error messages

Error code	Description	Action
80.11	The maintenance kit is low. The backup roll or fuser page count threshold has been reached.	Touch **Continue** to clear the message.
80.21	The maintenance kit is very low. The backup roll or fuser page count threshold has been reached.	Touch **Continue** to clear the message.
80.31	Replace the maintenance kit. The backup roll or fuser page count threshold has been reached. The fuser may continue to function beyond end of life.	Replace the maintenance kit and the reset counter.

Error code	Description	Action
80.41	The maintenance kit is beyond end-of-life.	Replace the maintenance kit and the reset counter.

82 user attendance error messages

Error code	Description	Action
82.00	The waste toner bottle is nearly low.	Replace the waste toner bottle.
82.02	The waste toner bottle is nearly low.	Replace the waste toner bottle.
82.09	The waste toner bottle is nearly low.	Replace the waste toner bottle.
82.12	The waste toner bottle is low.	Replace the waste toner bottle.
82.13	The waste toner bottle is low.	Replace the waste toner bottle.
82.19	The waste toner bottle is low.	Replace the waste toner bottle.
82.20	The waste toner bottle is very low.	Replace the waste toner bottle.
82.22	The waste toner bottle is low.	Replace the waste toner bottle.
82.23	The waste toner bottle is low.	Replace the waste toner bottle.
82.29	The waste toner bottle is low.	Replace the waste toner bottle.
82.30	The waste toner bottle is empty.	Replace the waste toner bottle.
82.32	The waste toner bottle is empty.	Replace the waste toner bottle.
82.33	The waste toner bottle is empty.	Replace the waste toner bottle.
82.39	The waste toner bottle is empty.	Replace the waste toner bottle.
82.40	The waste toner bottle is at end-of-life.	Replace the waste toner bottle.
82.42	The waste toner bottle is at end-of-life.	Replace the waste toner bottle.
82.49	The waste toner bottle is at end-of-life.	Replace the waste toner bottle.

84 user attendance error messages

Error code	Description	Action
84.00	Black and color imaging kits are nearly low.	Touch **Continue** to clear the message.
84.01	Black and color imaging kits are nearly low.	Touch **Continue** to clear the message.
84.09	Black and color imaging kits are nearly low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
84.11	Black and color imaging kits ares low.	Touch **Continue** to clear the message.
84.19	Black and color imaging kits are low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
84.21	Black and color imaging kits are very low.	Touch **Continue** to clear the message.
84.23	Black and color imaging kits are very low. The side count set point has been reached.	Touch **Continue** to clear the message.
84.29	Black and color imaging kits are very low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
84.31	Black and color imaging kits have reached end-of-life.	Replace the black or color imaging kit.
84.33	Black and color imaging kits have reached end-of-life.	Replace the black or color imaging kit.
84.41	Black and color imaging kits have reached beyond end-of-life.	Replace the black or color imaging kit.
84.43	Black and color imaging kits have reached beyond end-of-life.	Replace the black or color imaging kit.
84.48	Black and color imaging kits have reached beyond end-of-life.	Replace the black or color imaging kit.

86 user attendance error messages

Error code	Description	Action
86.23	The ADF maintenance kit is near end-of-life.	Replace the ADF maintenance kit.

Error code	Description	Action
86.33	The ADF maintenance kit is at end-of-life	Replace the ADF maintenance kit.

88 user attendance error messages

Error code	Description	Action
88.00	The color cartridge is nearly low.	Touch **Continue** to clear the message.
88.07	The color cartridge was detected as empty.	Touch **Continue** to clear the message.
88.08	A color cartridge quanta error has occurred.	Touch **Continue** to clear the message.
88.09	The color cartridge is nearly low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
88.10	The color cartridge is low.	Touch **Continue** to clear the message.
88.17	The color cartridge was detected as empty.	Touch **Continue** to clear the message.
88.18	The color cartridge is low.	Touch **Continue** to clear the message.
88.19	The color cartridge is low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
88.20	The color cartridge is very low.	Touch **Continue** to clear the message.
88.27	The color cartridge was detected as empty.	Touch **Continue** to clear the message.
88.28	The color cartridge is very low.	Touch **Continue** to clear the message.
88.29	The color cartridge is very low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
88.30	The color cartridge is at end-of-life.	Replace the cartridge.
88.37	The color cartridge is at end-of-life.	Replace the cartridge.
88.38	A color cartridge quanta error has occurred.	Replace the cartridge.

Error code	Description	Action
88.40	The color cartridge is beyond end-of-life.	Replace the cartridge.
88.47	The color cartridge is beyond end-of-life.	Replace the cartridge.
88.48	The color cartridge is beyond end-of-life.	Replace the cartridge.

Printer hardware errors

100 errors

100 error messages

Error code	Description	Action
100.01	The weather station data is invalid.	See Weather station service check on page 148.
100.04	The printhead temperature is out of range.	See Printhead error service check on page 149.
100.04D	The printhead temperature is out of range.	See Printhead error service check on page 149.
100.25	The sensor (toner patch) temperature is out of range.	See Toner patch sensing service check on page 59.

Weather station service check

1. Make sure to observe the recommended operating environment. For more information see Selecting a location for the printer on page 410.
2. Make sure that the Weather station is functional. Do the following:
    a. Enter the Diagnostics menu, and then navigate to **Printer diagnostics and adjustment › Weather station**.
    b. Check if the temperature and humidity information is within the recommended specifications.
    c. Make sure that the connections between the weather station and the controller board are connected properly.

110 errors

110 error messages

Error code	Description	Action
110.20	A printhead error (mirror motor lock) was detected before the motor was turned on.	See .Printhead error service check on page 149
110.21	A printhead power was off when the laser servo started.	See .Printhead error service check on page 149
110.31	A printhead error (no first HSYNC) was detected.	See .Printhead error service check on page 149
110.32	A printhead error (lost HSYNC) was detected.	See .Printhead error service check on page 149
110.33	A printhead error (lost first HSYNC) was detected during servo.	See .Printhead error service check on page 149
110.34	A printhead error (mirror motor lost lock) was detected.	See .Printhead error service check on page 149
110.35	A printhead error (mirror motor never got first lock) was detected.	See .Printhead error service check on page 149
110.36	A printhead error (mirror motor never stabilized) was detected.	See .Printhead error service check on page 149
110.37	A printhead error (undetermined printhead type) was detected.	See .Printhead error service check on page 149
110.41	A printhead NVRAM read failure occurred.	See .Printhead error service check on page 149
110.70	A printhead NVRAM values are incorrect.	See .Printhead error service check on page 149
110.92	A printhead NVRAM checksum mismatch occurred.	See .Printhead error service check on page 149

Printhead error service check

1. Perform a POR.
2. Make sure that the connections between the controller board and the printhead are properly connected.

3. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 299.

120 errors

120 error messages

Error code	Description	Action
120.80	The motor (fuser) does not turn on.	See Motor (fuser) error service check on page 150.
120.81	The motor (fuser) does not turn off.	See Motor (fuser) error service check on page 150.
120.82	The motor (fuser) failed to achieve the expected speed.	See Motor (fuser) error service check on page 150.
120.83	The motor (fuser) stalled.	See Motor (fuser) error service check on page 150.
120.84	The motor (fuser) is ran too slow (under-speeding).	See Motor (fuser) error service check on page 150.
120.85	The motor (fuser) is ran too fast (overspeeding).	See Motor (fuser) error service check on page 150.
120.86	The motor (fuser) ran too long.	See Motor (fuser) error service check on page 150.

Motor (fuser) error service check

1. Perform a POR.
2. Make sure that the motor (fuser) is functional. Do the following:
    a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments** > **Motor tests**.
    b. Select **Motor (fuser)**.
3. Make sure that the connections between the motor (main) and the controller board are properly connected.
4. Check the motor (fuser) for wear, damage, and improper mesh connection. For more information, see Motor (fuser drive) removal on page 241.
5. Make sure that the correct voltage is supplied to the fuser from the power supply.
6. Make sure that the connections between the controller board and the fuser are properly connected.
7. Check the fuser for damage, contamination, and improper installation. For more information, see Fuser removal on page 266.

121 errors

121 error messages

Error code	Description	Action
121.00	The fuser did not reach the required temperature.	See Fuser error service check on page 152.
121.01	During an attempt to heat up, the fuser was not detected.	See Fuser error service check on page 152.
121.02	The fuser went over the required temperature (during EWC/line voltage detection).	See Fuser error service check on page 152.
121.03	The fuser hardware and driver mismatch.	See Fuser error service check on page 152.
121.04	Attempting to heat the fuser but the fuser relay is open. and The fuser PIC microcontroller is not reporting an error or is not responding.	See Fuser error service check on page 152.
121.05	Attempting to heat the fuser but the fuser relay is open, and the fuser PIC microcontroller is reporting an error condition.	See Fuser error service check on page 152.
121.09	The fuser fell below the minimum required temperature for motors.	See Fuser error service check on page 152.
121.10	The fuser did not reach the required temperature (during start of EWC/line voltage detection).	See Fuser error service check on page 152.
121.11	The fuser reached the required temperature too late (during final EWC/line voltage detection).	See Fuser error service check on page 152.
121.12	The fuser did not reach the required temperature (during final EWC/line voltage detection).	See .Fuser error service check on page 152
121.13	The fuser reached the required temperature too fast (during final EWC/line voltage detection).	See Fuser error service check on page 152.
121.22	Open fuser relay was detected.	See Fuser error service check on page 152.

Error code	Description	Action
121.32	The fuser did not reach the required temperature at 100% power.	See Fuser error service check on page 152.
121.33	The fuser did not reach the required temperature while thepage is in the fuser.	See Fuser error service check on page 152.
121.34	The fuser did not reach the required temperature during steady state control.	See Fuser error service check on page 152.
121.36	An open fuser relay was detected with very cold, or unknown ambient temperature.	See Fuser error service check on page 152.
121.50	The fuser went over the required temperature during global over-temp check.	See Fuser error service check on page 152.
121.52	The main thermistor temperature is out of range.	See Fuser error service check on page 152.
121.53	The main thermistor temperature change rate is out of range.	See Fuser error service check on page 152.
121.71	The fuser main heater thermistor was detected open.	See Fuser error service check on page 152.
121.81	The fuser backup roll thermistor was detected open.	See Fuser error service check on page 152.
121.86	Backup thermistor temperature is out of range.	See Fuser error service check on page 152.
121.87	Backup thermistor temperature change rate is out of range.	See Fuser error service check on page 152.

Fuser error service check

1. Make sure that the printer is placed in a location with the following temperature and humidity:
    - 60°F to 90°F temperature range
    - 8% to 80% relative humidity
2. If the printer needs to be placed in a below freezing environment, then do the following:
    a. Remove the fuser, and then allow it to slowly warm above freezing temperature.
    b. Reinstall the fuser, and then turn on the printer.
    c. Disable the Sleep mode setting. From the home screen, touch **Settings > Device > Power Management > Timeouts > Sleep Mode**.
3. Make sure that the printer is plugged into an appropriately rated and properly grounded electrical outlet.

4. Perform a POR.
5. Make sure that the cooling fan is functional. Do the following:
    a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
    b. Select **Fan (main)**.
6. Make sure that the connections between the cooling fan and the controller boar dare properly connected.
7. Check the cooling fan for damage, contamination, and improper installation.
8. Make sure that the correct voltage is supplied to the fuser from the power supply.
9. Make sure that the connections between the controller board and the fuser are properly connected.
10. Check the fuser for damage, contamination, and improper installation. For more information, see Fuser removal on page 266.

126 errors

126 error messages

Error code	Description	Action
126.01	Line frequency has gone outside the operating range.	See LVPS error service check on page 153.
126.05	The LVPS power dropped but the printer was not in sleep mode.	See LVPS error service check on page 153.
126.06	LVPS 25 V line error was detected.	See LVPS error service check on page 153.
126.07	LVPS 5 V rail was down during power-on.	See LVPS error service check on page 153.
126.10	No line frequency was detected.	See LVPS error service check on page 153.
126.11	Line frequency has exceeded the operating range.	See LVPS error service check on page 153.
126.12	LVPS mismatch was detected.	See LVPS error service check on page 153.
126.13	LVPS mismatch was detected.	See LVPS error service check on page 153.
126.14	LVPS relay is stuck or closed.	See LVPS error service check on page 153.

LVPS error service check

1. Make sure that the printer is plugged into an appropriately rated and properly grounded electrical outlet..

2. Perform a POR.
3. Make sure that the connections between the controller board and the LVPS are properly connected.
4. Make sure that the printer is plugged into an outlet.
5. Make sure that voltage output of the electrical outlet matches the voltage rating of the printer.

> **Notes**
> A poor power source may trigger a false fuser error.

142 errors

142 error messages

Error code	Description	Action
142.80	The motor (CMY) does not turn on.	See Motor (CMY) drive failure service check on page 154.
142.81	The motor (CMY) does not turn off.	See Motor (CMY) drive failure service check on page 154.
142.82	The motor (CMY) failed to achieve the expected speed.	See Motor (CMY) drive failure service check on page 154.
142.83	The motor (CMY) stalled.	See Motor (CMY) drive failure service check on page 154.
142.84	The motor (CMY) is running too slow (under-speeding).	See Motor (CMY) drive failure service check on page 154.
142.85	The motor (CMY) is running too fast (overspeeding).	See Motor (CMY) drive failure service check on page 154.
142.86	The motor (CMY) ran too long.	See Motor (CMY) drive failure service check on page 154.

Motor (CMY) drive failure service check

1. Perform a POR.
2. Check if the printer is using a genuine and supported Lexmark imaging unit or imaging kit.

> **Note:** If the printer is using a third-party imaging unit or imaging kit, then refer the users to their supplier.

Check the imaging unit or imaging kit for damage. Make sure that the imaging unit or imaging kit is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies. See Imaging kit removal on page 249.

3. Make sure that the motor (CMY developer) is functional. Do the following:
   a. Remove the imaging kit.
   b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments** > **Motor tests**.
   c. Select **Motor (CMY developer)**.
4. Make sure that the connections between the motor (CMY developer) and the controller board are properly connected.
5. Check the EP drive for damage, contamination, and improper installation. For more information, see EP drive removal on page 234.
6. Check the transfer rollers and belt for contamination, wear, damage, and improper installation.
7. Check the transfer module for improper operation. Manually turn the gear, and then make sure it is not stuck.

151 errors

151 error messages

Error code	Description	Action
151.80	The motor (K) does not turn on.	See Motor (black) drive failure service check on page 156.
151.81	The motor (K) does not turn off.	See Motor (black) drive failure service check on page 156.
151.82	The motor (K) failed to achieve the expected speed.	See Motor (black) drive failure service check on page 156.
151.83	The motor (K) stalled.	See Motor (black) drive failure service check on page 156.
151.84	The motor (K) is running too slow (under-speeding).	See Motor (black) drive failure service check on page 156.
151.85	The motor (K) is running too fast (overspeeding).	See Motor (black) drive failure service check on page 156.
151.86	The motor (K) ran too long.	See Motor (black) drive failure service check on page 156.

Motor (black) drive failure service check

1. Perform a POR.
2. Make sure that the motor (K developer-transfer) is functional. Do the following:
    a. Remove the imaging kit.
    b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments** > **Motor tests**.
    c. Select **Motor (K developer-transfer)**.
3. Make sure that the connections between the motor (K developer-transfer) and the controller board are properly connected.
4. Check the EP drive for damage, contamination, and improper installation. For more information, see EP drive removal on page 234.
5. Check the transfer rollers and belt for contamination, wear, damage, and improper installation.
6. Check the transfer module for improper operation. Manually turn the gear, and then make sure it is not stuck.

16y errors

161 error messages

Error code	Description	Action
161.80	The motor (tray 1 pick/lift) does not turn on.	See Motor (tray 1 pick) lifting error service check on page 160.
161.81	The motor (tray 1 pick/lift) does not turn off.	See Motor (tray 1 pick) lifting error service check on page 160.
161.82	The motor (tray 1 pick/lift) speed did not ramp up to the required level.	See Motor (tray 1 pick) lifting error service check on page 160.
161.83	The motor (tray 1 pick/lift) stalled.	See Motor (tray 1 pick) lifting error service check on page 160.
161.84	The motor (tray 1 pick/lift) ran too slow.	See Motor (tray 1 pick) lifting error service check on page 160.
161.85	The motor (tray 1 pick/lift) ran too fast.	See Motor (tray 1 pick) lifting error service check on page 160.
161.86	The motor (tray 1 pick/lift) ran too long.	See Motor (tray 1 pick) lifting error service check on page 160.

162-164 error messages

Error code	Description	Action
162.80	The motor (tray 2 pick) does not turn on.	See Optional tray pick drive error service check on page 160.
162.81	The motor (tray 2 pick) does not turn off.	See Optional tray pick drive error service check on page 160.
162.82	The motor (tray 2 pick) speed did not ramp up to the required level.	See Optional tray pick drive error service check on page 160.
162.83	The motor (tray 2 pick) stalled.	See Optional tray pick drive error service check on page 160.
162.84	The motor (tray 2 pick) ran too slow.	See Optional tray pick drive error service check on page 160.
162.85	The motor (tray 2 pick) ran too fast.	See Optional tray pick drive error service check on page 160.
162.86	The motor (tray 2 pick) ran too long.	See Optional tray pick drive error service check on page 160.
163.80	The motor (tray 3 pick) does not turn on.	See Optional tray motor error service check on page 160.
163.81	The motor (tray 3 pick) does not turn off.	See Optional tray motor error service check on page 160.
163.82	The motor (tray 3 pick) speed did not ramp up to the required level.	See Optional tray motor error service check on page 160.
163.83	The motor (tray 3 pick) stalled.	See Optional tray motor error service check on page 160.
163.84	The motor (tray 3 pick) ran too slow.	See Optional tray motor error service check on page 160.
163.85	The motor (tray 3 pick) ran too fast.	See Optional tray motor error service check on page 160.
163.86	The motor (tray 3 pick) ran too long.	See Optional tray motor error service check on page 160.

Error code	Description	Action
164.80	The motor (tray 4 pick) does not turn on.	See Optional tray motor error service check on page 160.
164.81	The motor (tray 4 pick) does not turn off.	See Optional tray motor error service check on page 160.
164.82	The motor (tray 4 pick) speed did not ramp up to the required level.	See Optional tray motor error service check on page 160.
164.83	The motor (tray 4 pick) stalled.	See Optional tray motor error service check on page 160.
164.84	The motor (tray 4 pick) ran too slow.	See Optional tray motor error service check on page 160.
164.85	The motor (tray 4 pick) ran too fast.	See Optional tray motor error service check on page 160.
164.86	The motor (tray 4 pick) ran too long.	See Optional tray motor error service check on page 160.

166-168 error messages

Error code	Description	Action
166.80	The motor (tray 2 transport) does not turn on.	See Optional tray motor error service check on page 160.
166.81	The motor (tray 2 transport) does not turn off.	See Optional tray motor error service check on page 160.
166.82	The motor (tray 2 transport) speed did not ramp up to the required level.	See Optional tray motor error service check on page 160.
166.83	The motor (tray 2 transport) stalled.	See Optional tray motor error service check on page 160.
166.84	The motor (tray 2 transport) ran too slow.	See Optional tray motor error service check on page 160.
166.85	The motor (tray 2 transport) ran too fast.	See Optional tray motor error service check on page 160.

Error code	Description	Action
166.86	The motor (tray 2 transport) ran too long.	See Optional tray motor error service check on page 160.
167.80	The motor (tray 3 transport) does not turn on.	See Optional tray motor error service check on page 160.
167.81	The motor (tray 3 transport) does not turn off.	See Optional tray motor error service check on page 160.
167.82	The motor (tray 3 transport) speed did not ramp up to the required level.	See Optional tray motor error service check on page 160.
167.83	The motor (tray 3 transport) stalled.	See Optional tray motor error service check on page 160.
167.84	The motor (tray 3 transport) ran too slow.	See Optional tray motor error service check on page 160.
167.85	The motor (tray 3 transport) ran too fast.	See Optional tray motor error service check on page 160.
167.86	The motor (tray 3 transport) ran too long.	See Optional tray motor error service check on page 160.
168.80	The motor (tray 4 transport) does not turn on.	See Optional tray motor error service check on page 160.
168.81	The motor (tray 4 transport) does not turn off.	See Optional tray motor error service check on page 160.
168.82	The motor (tray 4 transport) speed did not ramp up to the required level.	See Optional tray motor error service check on page 160.
168.83	The motor (tray 4 transport) stalled.	See Optional tray motor error service check on page 160.
168.84	The motor (tray 4 transport) ran too slow.	See Optional tray motor error service check on page 160.
168.85	The motor (tray 4 transport) ran too fast.	See Optional tray motor error service check on page 160.
168.86	The motor (tray 4 transport) ran too long.	See Optional tray motor error service check on page 160.

Motor (tray 1 pick) lifting error service check

1. Check the tray insert (non-lift) for damage and improper installation.
2. Check the tray guides for improper operation and damage.
3. Perform a POR.
4. Make sure that the motor (tray 1 pick) is functional. Do the following:

    a. Remove the imaging kit.
    b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments** > **Motor tests**.
    c. Select **Motor (tray 1 pick)**.
5. Make sure that the connections between the motor (tray 1 pick) and the controller board are properly connected.
6. Check the media feeder for damage, contamination, and improper installation. For more information, see .Tray 1 media feeder removal on page 292

Optional tray motor error service check

1. Make sure that the printer is placed in a location with the recommend airflow, ventilation, and clearance around the printer. For more information, see Selecting a location for the printer on page 410.
2. Make sure that the cooling fan is functional. Do the following:

    a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
    b. Select **Fan (main)**.
3. Make sure that the connections between the cooling fan and the controller boar dare properly connected.
4. Check the cooling fan for damage, contamination, and improper installation.

Optional tray pick drive error service check

1. Turn off the printer.
2. Check the optional tray for improper installation.
3. Remove the optional tray, and then check the connectors on the printer and optional tray for damage and improper connection.
4. Reinstall the optional tray, and then turn on the printer.
5. Remove the tray insert.
6. Check the tray insert and its lift plate gears for damage and improper operation.
7. Make sure that the following motors are functional:

    - Motor (pick (tray (x))
    - Motor (pass-through (tray(x))

    Do the following:

    a. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Motors tests**.
    b. Select **Pick (tray [x])** and **Pass-through (tray [x])**.
8. Make sure that the connections between the motors and the controller board are properly connected.

9. Check the motors for damage, and improper installation.

171 errors

171 error messages

Error code	Description	Action
171.82	The main fan speed did not ramp up to the required level.	See Main fan service check on page 161.
171.83	The main fan stalled.	See Main fan service check on page 161.
171.84	The main fan ran too slow.	See Main fan service check on page 161.
171.85	The main fan ran too fast.	See Main fan service check on page 161.

Main fan service check

1. Make sure that the printer is placed in a location with the recommend airflow, ventilation, and clearance around the printer. For more information, see Selecting a location for the printer on page 410.
2. Make sure that the cooling fan is functional. Do the following:
   a. Enter the Diagnostics menu, and then navigate to **Printer diagnostics and adjustment › Motors tests › Select fan**.
3. Make sure that the connections between the cooling fan and the controller boar dare properly connected.
4. Check the cooling fan for damage, contamination, and improper installation.

6yy errors

600-680 error messages

Error code	Description	Action
600.95	The RIP intentionally declared a jam error, usually to prevent a kiosk user from printing free pages.	Resend the print job. If the problem remains, then contact the next level of support.
602.18	The tray 1 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 165.

Error code	Description	Action
602.19	The tray 1 failed to become the input source ready for picking.	See Tray not ready for picking service check on page 165.
602.28	The tray 2 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 165.
602.29	The tray 2 failed to become the input source ready for picking.	See Tray not ready for picking service check on page 165.
602.38	The tray 3 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 165.
602.39	The tray 3failed to become the input source ready for picking.	See Tray not ready for picking service check on page 165.
602.48	The tray 4 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 165.
602.49	The tray 4 failed to become the input source ready for picking.	See Tray not ready for picking service check on page 165.
602.58	The tray 5 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 165.
602.59	The tray 5 failed to become the input source ready for picking.	See Tray not ready for picking service check on page 165.
611.32	Lost Hsync errors were detected. The laser safety interlock system may be the cause.	See Printhead error service check on page 149.
611.34	A mirror motor lock error was detected.	See Printhead error service check on page 149.
620.80	The motor (fuser) does not turn on.	See Motor (fuser) error service check on page 150.
620.81	The motor (fuser) does not turn off.	See Motor (fuser) error service check on page 150.
620.82	The motor (fuser) failed to achieve the expected speed.	See Motor (fuser) error service check on page 150.
620.83	The motor (fuser) stalled.	See Motor (fuser) error service check on page 150.
620.84	The motor (fuser) is running too slow (under-speeding).	See Motor (fuser) error service check on page 150.

Error code	Description	Action
620.85	The motor (fuser) is running too fast (overspeeding).	See Motor (fuser) error service check on page 150.
620.86	The motor (fuser) ran too long.	See Motor (fuser) error service check on page 150.
621.01	The fuser heater was too cold when paper entered the fuser nip.	See Fuser error service check on page 152.
662.80	The motor (tray 2 pick) does not turn on.	See Optional tray motors jam service check on page 94.
662.81	The motor (tray 2 pick) does not turn off.	See Optional tray motors jam service check on page 94.
662.82	The motor (tray 2 pick) speed did not ramp up to the required level.	See Optional tray motors jam service check on page 94.
662.83	The motor (tray 2 pick) has stalled.	See Optional tray motors jam service check on page 94.
662.84	The motor (tray 2 pick) ran too slow (under-speeding).	See Optional tray motors jam service check on page 94.
662.85	The motor (tray 2 pick) ran too fast (overspeeding).	See Optional tray motors jam service check on page 94.
662.86	The motor (tray 2 pick) ran too long.	See Optional tray motors jam service check on page 94.
663.80	The motor (tray 3 pick) does not turn on.	See Optional tray motors jam service check on page 94.
663.81	The motor (tray 3 pick) does not turn off.	See Optional tray motors jam service check on page 94.
663.82	The motor (tray 3 pick) speed did not ramp up to the required level.	See Optional tray motors jam service check on page 94.
663.83	The motor (tray 3 pick) has stalled.	See Optional tray motors jam service check on page 94.
663.84	The motor (tray 3 pick) ran too slow (under-speeding).	See Optional tray motors jam service check on page 94.
663.85	The motor (tray 3 pick) ran too fast (overspeeding).	See Optional tray motors jam service check on page 94.

Error code	Description	Action
663.86	The motor (tray 3 pick) ran too long.	See Optional tray motors jam service check on page 94.
666.80	The motor (tray 2 pass-through) did not turn on.	See Optional tray motors jam service check on page 94.
666.81	The motor (tray 2 pass-through) did not turn off.	See Optional tray motors jam service check on page 94.
666.82	The motor (tray 2 pass-through) speed did not ramp up to the required level.	See Optional tray motors jam service check on page 94.
666.83	The motor (tray 2 pass-through) has stalled.	See Optional tray motors jam service check on page 94.
666.84	The motor (tray 2 pass-through) ran too slow (under-speeding).	See Optional tray motors jam service check on page 94.
666.85	The motor (tray 2 pass-through) ran too fast (overspeeding).	See Optional tray motors jam service check on page 94.
666.86	The motor (tray 2 pass-through) ran too long.	See Optional tray motors jam service check on page 94.
667.80	The motor (tray 3 pass-through) did not turn on.	See Optional tray motors jam service check on page 94.
667.81	The motor (tray 3 pass-through) did not turn off.	See Optional tray motors jam service check on page 94.
667.82	The motor (tray 3 pass-through) speed did not ramp up to the required level.	See Optional tray motors jam service check on page 94.
667.83	The motor (tray 3 pass-through) has stalled.	See Optional tray motors jam service check on page 94.
667.84	The motor (tray 3 pass-through) ran too slow (under-speeding).	See Optional tray motors jam service check on page 94.
667.85	The motor (tray 3 pass-through) ran too fast (overspeeding).	See Optional tray motors jam service check on page 94.
667.86	The motor (tray 3 pass-through) ran too long.	See Optional tray motors jam service check on page 94.

Error code	Description	Action
680.10	The ADF cover was open during an ADF job.	N/A
680.20	Paper was not detected on the ADF tray during an ADF job.	N/A
680.40	A communication error has occurred during a scan job.	N/A
680.50	An imagepip error/ prohibited image error has been detected.	Make sure that the original document does not contain any images or patterns that could trigger the printer's security filters, like currency or banknotes. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer. Wait for the printer to completely boot up and initialize all its components before sending the scan job again. Make sure that the latest firmware is installed.

Tray not ready for picking service check

1. Make sure that the paper does not exceed the maximum fail indicator in the tray.
2. Make sure that the tray guides match the paper size in the tray.
3. Make sure that the tray guides align properly with the edges of the paper stack.
4. Make sure that the tray guides and elevator are functional.
5. Make sure that the tray bases and the tray inserts are properly installed.

   > **Note:** Some trays have a latch or lock to secure them in place.

6. Make sure that the paper path and sensors are free of debris and obstructions.
7. Press the power button to turn off the printer, and then unplug the power cord from the electrical outlet.

8. Wait for 60 seconds to make sure that all electrical charges have dissipated and buffered data in your printer are erased.
9. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
10. Wait for the printer to completely boot up and initialize all its components before sending the print job again.
11. Cancel any pending print jobs in the print queue.
12. Make sure that the paper size and type in the tray match the settings in the print job.
13. Make sure that the print job is not corrupted and the source tray is supported by the tray. Consider the following:

    a. Print job format (PDF, PostScript)
    b. Print job configuration (stapling, hole punching)

    > **Note:** Certain finishing features, such as stapling or hole punching, may require specific trays or finishing devices to be compatible.

14. Make sure that the print driver is compatible with the tray.
15. Check the compatibility of the firmware and the print driver.
16. Make sure that the latest firmware is installed.
17. Check the interconnect cable between the trays and the printer for loose connections, and damage from pinching or pressure.
18. Make sure that all the connectors are installed properly.

Procedure before starting the 9yy service checks

Retrieve certain information that helps your next level of support in diagnosing the problem before replacing the controller board.

> **Warning—Potential Damage**
> Do not replace the controller board unless instructed by your next level of support.

1. Collect the history information and firmware logs (Fwdebug and logs.tar.gz) from the SE menu.
2. Collect the settings from the Menu Settings Page.
3. Collect information from the user.

> **Note:** Not all of the items are retrievable from the printer that you are working on.

A. Collecting the history information from the SE menu

> **Note:** Make sure that your printer is connected to a network or to a print server.

1. Open a web browser, type http://printer_IP_address/se, and then press **Enter**.

   Notes
   - printer_IP_address is the TCP/IP address of the printer.
   - se is required to access the printer diagnostic information.

2. Click **History Information**, copy all information, and then save it as a text file.
3. Email the text file to your next level of support.

B. Collecting the firmware logs (Fwdebug and logs.tar.gz) from the SE menu

Notes

- Make sure that your printer is connected to a network or to a print server.
- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.

1. Open a web browser, type http://printer_IP_address/se, and then press **Enter**.
2. Click **Logs Gzip Compressed**.

   Notes
   A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.

3. Email the logs to your next level of support.

   Note: To download the fwdebug log to a flash drive, see General SE Menu on page 200.

C. Collecting the settings from the Menu Settings Page

Note: The Menu Settings Page is different for each printer. For more information, see the printer *User's Guide*. Your next level of support will tell you which page they want to see.

Copying the Menu Settings Page from the Embedded Web Server (EWS)

Notes
Make sure that your printer is connected to a network or to a print server.

1. Open a web browser, type http://printer_IP_address, and then press **Enter**.
2. Click **Settings**, and then select one of the settings pages from the links shown on the page.
3. Copy all the information, and then save it as a text file.
4. Email the text file to your next level of support.

Printing the Menu Settings Page

1. From the home screen, navigate to **Reports > Menu Settings Page**.
2. Email a scanned copy of the page to your next level of support.

D. Collecting information from the user

Ask the user for information about the following:

- Print job being run
- Operating system
- Print driver
- Other information on what was happening when the 9yy error occurred

900-901 errors

900-901 error messages

Error code	Description	Action
900.00	Unrecoverable RIP software error/illegal trap.	See 900 error service check on page 168.
900.70	Unrecoverable RIP software error/illegal trap.	See 900 error service check on page 168.
901.01	A RIP firmware error has occurred.	See 900 error service check on page 168.
901.02	A RIP firmware error has occurred.	See 900 error service check on page 168.

900 error service check

1. Clear all jobs in the printer and computer print queue.
2. Perform a POR.
3. Turn off the printer.
4. Disconnect the USB cable, fax line, and network cable from the printer.
5. Turn on the printer.

6. If the error does not occur, then install each cable one at a time and perform a POR after each cable installation.
7. Make sure that the printer is running the latest firmware version.

   If the printer cannot connect to the network due to a 900 error, then do the following:

   a. Enter Recovery mode. For more information, see Entering Recovery mode on page 197.
   b. Flash the firmware code through a USB cable that is directly connected to a computer.
8. Turn off the printer.
9. Remove all electronic options (hard disk, ISD, wireless module, ISP, and memory options).
10. Turn on the printer.
11. If the error does not occur, then install the electronic options one at a time and perform a POR after each electronic option installation.
12. Replace the electronic option that causes the error.
13. Make sure that the connections between the engine board and the controller board are properly connected.
14. Check the controller board for the following:

    - Foreign debris (dust, dirt, or any accumulated material)
    - Circuit board expansion due to heat and humidity
    - Damaged pins, burnt-out components, and signs of overheating and bulging
    - Missing components and solder joint connection issues
    - Contamination issues (corrosion, degradation, metallization, and chemical leakage)
    - Incorrect input or output voltages. See the wiring diagram.

   For more information, see .Controller board removal on page 295

912 errors

912 error messages

Error code	Description	Action
912.00	An engine software error occurred.	See 900 error service check on page 168.
912.05	An engine error occurred.	See 900 error service check on page 168.
912.08	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.09	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.15	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.

Error code	Description	Action
912.16	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.17	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.18	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.19	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.28	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.32	An engine error occurred.	See 900 error service check on page 168.
912.33	An engine error occurred.	See 900 error service check on page 168.
912.35	An engine error occurred.	See 900 error service check on page 168.
912.38	An engine error occurred.	See 900 error service check on page 168.
912.40	An engine error occurred.	See 900 error service check on page 168.
912.42	An engine error occurred.	See 900 error service check on page 168.
912.44	An engine error occurred.	See 900 error service check on page 168.
912.45	An engine error occurred.	See 900 error service check on page 168.
912.46	An engine error occurred.	See 900 error service check on page 168.
912.48	An engine error occurred.	See 900 error service check on page 168.
912.49	An engine error occurred.	See 900 error service check on page 168.
912.50	An engine error occurred.	See 900 error service check on page 168.

Error code	Description	Action
912.52	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.58	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.60	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.61	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.66	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.69	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.70	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.72	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.74	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.76	An engine error occurred.	See 900 error service check on page 168.
912.77	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.79	An engine error occurred.	See 900 error service check on page 168.
912.80	An engine error occurred.	See Engine error service check on page 172.
912.82	An engine error occurred.	See Engine error service check on page 172.

Error code	Description	Action
912.85	An engine error occurred.	See 900 error service check on page 168.
912.86	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.88	An engine error occurred.	See 900 error service check on page 168.
912.99	RIP command interface issue to the engine.	See 900 error service check on page 168.

Engine error service check

1. Perform a Power on Reset (POR).
    a. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
    b. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer.
    c. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
    d. Wait for the printer to completely boot up and initialize all its components.
2. Disconnect all cables attached to the printer, including Ethernet, USB, and Wi-Fi connections, and then perform a POR.
3. Disconnect all additional electronic options to the printer, such as connectivity options, memory options and application solutions connected to and then perform a POR.
4. Make sure that the latest firmware is installed.

938-958 errors

938–958 error messages

Error code	Description	Action
938.01	An unknown card type was detected by the thick engine code.	See 900 error service check on page 168.
938.04	The supplies security is disabled.	Restart the printer. If the problem remains, then contact the next level of support.
940.00	Controller to engine communication error has occurred.	See 900 error service check on page 168.
941.03	An engine communication error has occurred.	See 900 error service check on page 168.

Error code	Description	Action
950.10	An NVRAM mismatch error occurred—Non-generic FRU installed.	See 900 error service check on page 168.
953.99	An NVRAM chip failure with mirror part.	See 900 error service check on page 168.
958.99	A controller board NAND error has occurred..	See 900 error service check on page 168.

980-992 errors

980-992 error messages

Error code	Description	Action
980.01	An option communication error has occurred.	See 900 error service check on page 168.
980.02	An option communication error has occurred.	See 900 error service check on page 168.
980.03	An option communication error has occurred.	See 900 error service check on page 168.
980.04	An option communication error has occurred.	See 900 error service check on page 168.
980.05	An option communication error has occurred.	See 900 error service check on page 168.
980.11	An option communication error has occurred.	See 900 error service check on page 168.
980.13	An option communication error has occurred.	See 900 error service check on page 168.
980.14	An option communication error has occurred.	See 900 error service check on page 168.
980.15	An option communication error has occurred.	See 900 error service check on page 168.
981.91	An invalid paper port protocol error has occurred.	See 900 error service check on page 168.
982.92	A paper port error occurred.	See 900 error service check on page 168.
982.93	A paper port error occurred.	See 900 error service check on page 168.
982.94	A paper port error occurred.	See 900 error service check on page 168.
982.95	A paper port error occurred.	See 900 error service check on page 168.

Error code	Description	Action
982.96	A paper port error occurred.	See 900 error service check on page 168.
982.97	A paper port error occurred.	See 900 error service check on page 168.
983.98	An unsupported paper port command error has occurred.	See 900 error service check on page 168.
984.99	An invalid paper port parameter error has occurred.	See 900 error service check on page 168.
992.00	An option device software error has occurred.	See 900 error service check on page 168.
992.01	An option device software error has occurred.	See 900 error service check on page 168.

ADF/Scanner hardware errors

8yy errors

800-845 error messages

Error code	Description	Action
800.00	A scanner communication error was detected—Motor Card.	See Scanner communication error service check on page 175.
840.01	The scanner was manually disabled by the user.	See Scanner communication error service check on page 175.
840.02	The scanner was automatically disabled by the printer after two consecutive hardware failures.	See Scanner communication error service check on page 175.
842.00	A scanner communication error was detected—No response.	See Scanner communication error service check on page 175.
842.01	A scanner communication error was detected—HW protocol	See Scanner communication error service check on page 175.
842.02	A scanner communication error was detected—Logical protocol.	See Scanner communication error service check on page 175.

Error code	Description	Action
843.00	The scanner CIS failed to reach its home position.	See Scanner communication error service check on page 175.
843.01	An ADF CIS failed to reach its home position.	See Scanner communication error service check on page 175.
845.02	The scanner front side scan module was detected as unplugged.	See Scanner communication error service check on page 175.
845.03	The scanner backside scan module was detected as unplugged.	See Scanner communication error service check on page 175.

Scanner communication error service check

1. Enable the scanner via the control panel or EWS.
    a. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Disabled Scanner**.
    b. Select **Enabled**.
2. Perform a POR.
3. If an 84y.xx error code persists, then check if the ADF or the flatbed scanner is causing the error.
4. Check the error logs in the Print Log Summary.
    a. Enter the Diagnostics menu, and then touch **Event Log > Print Log Summary**.
    b. If the printer has encountered successive scanner errors, then perform the appropriate service check.

    > **Notes**
    > Before replacing an ADF or flatbed scanner, perform a sensor test and motor test to validate which scanner is causing the error.

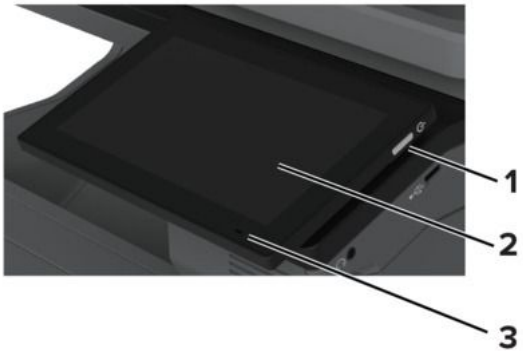
5. Make sure that the ADF sensors and motors are functional, do the following:
    a. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
    b. Perform all ADF sensor and motors tests.
6. Make sure that the connections between the ADF and the controller board are properly connected.
7. Check the ADF for wear, damage, and improper installation. For more information, see ADF removal on page 313.
8. Make sure that the flatbed scanner sensors and motors are functional, do the following:
    a. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
    b. Perform all flatbed scanner sensor and motors tests.
9. Make sure that the connections between the flatbed scanner and the controller board are properly connected.

10. Check the flatbed scanner for wear, damage, and improper installation. For more information, see Flatbed scanner removal on page 300.

Service menus

Understanding the printer control panel

Using the control panel



	Control panel part	Function
1	Power button	• Turn on or turn off the printer. **Notes** To turn off the printer, press and hold the power button for five seconds. • Set the printer to Sleep mode. • Wake the printer from Sleep or Hibernate mode.

	Control panel part	Function
2	Display	• View the printer messages and supply status. • Set up and operate the printer.
3	Indicator light	Check the status of the printer.

Understanding the status of the indicator light

Indicator light	Printer status
Off	The printer is off.
Solid blue	The printer is ready.
Blinking blue	The printer is printing or processing data.
Blinking red	The printer requires user intervention.
Solid amber	The printer is in Sleep mode.
Blinking amber	The printer is in Deep Sleep or Hibernate mode.

Diagnostics menu

Entering the Diagnostics Menu

The Diagnostics Menu contains tests that are used to help isolate printer issues.

- To access the menu from POST, do the following:

  1. Unplug the power cord from the electrical outlet.
  2. Open tray 1.
  3. Connect the power cord to the electrical outlet.
  4. Turn on the printer.

     When the display shows the following icon, close tray 1.

5. From the menu that appears on the display, select **DIAGNOSTICS_MODE**.

> **Note:**
> - Make sure that the selected menu turns green.
> - If the **DIAGNOSTICS_MODE** option does not show on the display, touch **->** repeatedly until it appears.

6. Select **Boot**.

- To access the Diagnostics Menu from a 4.3-inch touch screen display, do the following:

1. From the home screen, touch .
2. Touch ****36**, and then touch **OK**.

- To access the Diagnostics Menu from a 2.8-inch touch screen display, do the following:

1. Press the following buttons in this sequence: **Back**, **Back**, **Start**, **Start**.

Reports

Device

This report lists all the current printer settings.
Enter the Diagnostics menu, and then navigate to:
Reports > Device

Licenses

This setting lists all the installed licenses and their feature data.
Enter the Diagnostics menu, and then navigate to:
Reports > Licenses

Advanced Print Quality Samples

This setting prints a list of the printer settings and sample pages to check print quality.
Enter the Diagnostics menu, and then navigate to:
Advanced Print Quality Samples > Advanced Print Quality Test Pages

Format Fax Storage

This setting deletes stored fax jobs.

1. Enter the Diagnostics menu, and then navigate to:

   Format Fax Storage
2. Select **Start**.

> **Notes**
> If the device is registered to etherFAX, it must be unregistered and then registered again for etherFAX to work. For more information, visit https://www.etherfax.net/lexmark.

Scanner Diagnostics

Motor tests

1. Enter the Diagnostics menu, and then select navigate to:

   Scanner diagnostics > Motor tests
2. Select a motor, and then touch **Start**.

> **Note:**
>
> - If the motor is activated, then it is properly working.
> - Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
> - Some tests require a special action to activate a motor such as removing a major component.
> - If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of motor tests

Test
ADF pick

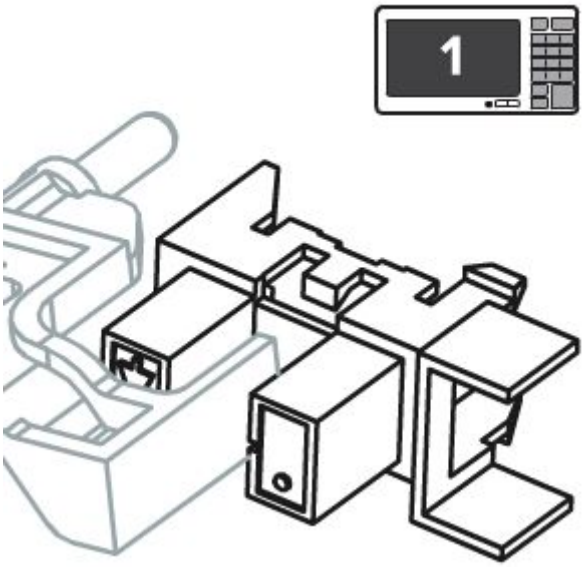
Test
ADF transport
Flatbed scanner

Sensor tests

This test verifies the status of the scanner sensors.

1. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
2. From the Sensor tests row, touch **Start**.

   A list of sensors appears.
3. Find, and then manually toggle the sensor.



Note:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Tests
Sensor (ADF media present)
Sensor (ADF 1st scan)
Sensor (ADF 2nd scan)

Tests
Sensor (ADF closed)
Sensor (ADF top door interlock)
Sensor (ADF calibration strip home)
Sensor (FB CCD home)

Feed Test

This test allows for a continuous feed from the ADF or flatbed.

1. Enter the Diagnostics menu, and then navigate to:

   Scanner diagnostics > Feed Test
2. Select a paper size.
3. From the Feed Test row, select **Start**.

Scanner Calibration Reset

Before starting the test, make sure that the scanner glass and scanner glass pad are clean. For more information, see Cleaning the scanner on page 376.

1. Load the calibration sheet into the ADF tray.

   > **NOTE**
   > Adjust the guides to match the size of the calibration sheet.

2. Enter the Diagnostics menu, and then select **Scanner Diagnostics**.
3. Select **Scanner Calibration Reset**.
4. Wait for about 45 seconds for the calibration to finish.

   > **NOTE**
   > A Test Completed message appears on the display when the calibration is finished.

To verify the result, do the following:

1. Load the ADF with a document containing light and dark content.
2. Print a two-sided copy of the document.

> **Note:**
> - If the back side of the copy has vertical streaks, then clean the scanner glass and backing material, and then print another copy.
> - If the streaks still appear, then repeat the cleaning and verification procedure or replace the ADF.

Printer Setup

Printed page count (mono)

This setting displays the number of pages printed in mono.

1. Enter the Diagnostics menu, and then select **Printer setup**.
2. View the printed page count for mono.

Printed page count (color)

This setting displays the number of pages printed in color.

1. Enter the Diagnostics menu, and then select **Printer setup**.
2. View the printed page count for color.

Permanent page count

This setting displays the total number of pages printed in mono and color. After all the print tests are completed, this value resets to zero.

1. Enter the Diagnostics menu, and then select **Printer setup**.
2. View the permanent page count.

Processor ID

This setting indicates the ID of the processor on the controller board.

1. Enter the Diagnostics menu, and then select **Printer setup**.
2. View the processor ID.

Serial number

This setting displays a read-only value of the serial number.

1. Enter the Diagnostics menu, and then select **Printer setup**.
2. View the serial number.

Model name

This setting displays the model name of the printer.

1. Enter the Diagnostics menu, and then select **Printer setup**.
2. View the model name.

Engine setting [x]

> **Warning—Potential Damage**
> Do not change this setting without specific instructions from the next level of support.

This setting lets you select a printer engine setting. Possible values are 0–255. 0 is the default.

1. Enter the Diagnostics menu, and then navigate to:

   Printer setup > Engine setting [x]
2. Select a setting, enter a value, and then select **OK**.

EP setup

> **Warning—Potential Damage**
> Do not change this setting without specific instructions from the next level of support.

This setting lets you adjust the EP setup of the printer.

1. Enter the Diagnostics menu, and then navigate to:

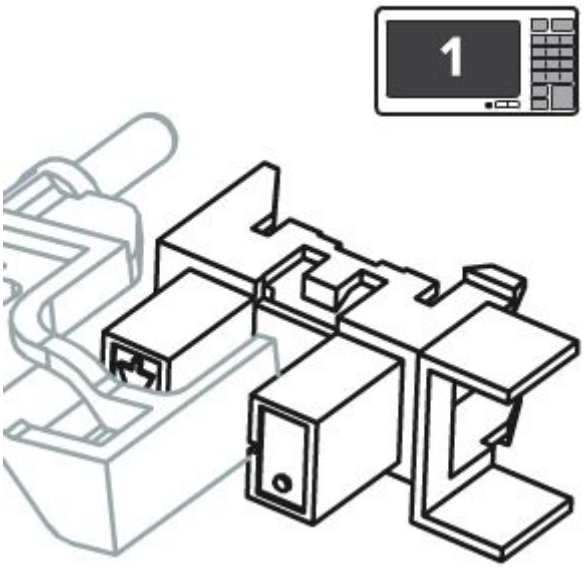
   Printer setup > EP setup
2. Select a setting.

Printer diagnostics and adjustments

Sensor tests

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > **Sensor tests**
2. Select a sensor, and then touch **Start**.
3. Find, and then manually toggle the sensor.



Note:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Tests
Tray 1 pick
Input
Redrive/Duplex path 1
Output bin/Narrow media
Fuser exit
Door interlock
K Toner meter
C Toner meter
M Toner meter
Y Toner meter
Tray Present
TPS L and R
Waste Toner Bottle

Motor tests

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Motor tests
2. Select a motor, and then touch **Start**.

Note:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of motor tests

Test
Pick (tray 1) / Duplex
Fuser
CMY developer
K developer-transfer
Fan (main)

Registration adjust

This setting lets you adjust the skew, margins, or perform a Quick Test. For more information, see Registration adjustment on page 228.

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Registration adjust
2. Select a setting to adjust.

Color alignment adjust

This setting allows you to adjust the color alignments and to print or reset the default settings.

1. Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Color alignment adjust

2. Select a setting.

Supply reset

The setting resets the transfer module counter values to zero.

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Supply Reset
2. Select a setting, and then touch **Start**.

Weather station

This setting lets you view the temperature and humidity of the weather station sensor.

1. Enter the Diagnostics menu, and then navigate to **Printer diagnostics & adjustments**.
2. From the Weather station row, select **Start**.

Universal Override

This setting lets you load custom paper sizes into a paper source.

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Universal Override
2. Select a setting to adjust.

Out of service erase

This setting deletes nonvolatile memory and information on the storage drive.

1. Enter the Diagnostics menu, and then navigate to:

   Out of Service Erase
2. Touch **Start**.

Event Log

Display Log

This setting displays the panel text that appears when the event occurs.
Enter the Diagnostics menu, and then navigate to:
Event Log > Display Log

Print Log

This setting lists an extended version of the various printer events.

1. Enter the Diagnostics menu, and then navigate to:

   Event Log > Print Log
2. Select **Start**.

> **Note**
> The events that appear in the report vary depending on the operational history of the printer.

Print Log Summary

This setting lists a brief summary of the various printer events.

1. Enter the Diagnostics menu, and then navigate to:

   Event Log > Print Log Summary
2. Select **Start**.

> **Note**
> The events that appear in the report vary depending on the operational history of the printer.

Mark Log

This setting allows you to create a service, maintenance, or custom log entry. Each log entry is added in the printer event log.

1. Enter the Diagnostics menu, and then navigate to:

   Event Log > Mark Log
2. Select a log that you want to create, and then select **Start**.

Input tray quick print

This setting lets you print a single or continuous Quick Test page in either duplex or simplex mode.

1. Enter the Diagnostics menu, and then select **Input tray quick print**.
2. Select where you want to print the pages from.
3. Select whether to print a single or continuous test page, and then select **Start**.

Additional input trays adjustments/tests

Sensor tests

1. Enter the Diagnostics menu, and then navigate to:

   Additional input trays adjustments/tests > **Sensor tests**
2. Select a sensor, and then touch **Start**.

   A list of sensors appears.
3. Find, and then manually toggle the sensor.

> **Note:**
> - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
> - If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Pass-through (tray 2)
Media out (tray 2)
Media level (tray 2)
Tray present (tray 2)
MPF media present

Motor tests

1. Enter the Diagnostics menu, and then navigate to:

   Additional input trays adjustments/tests > Motor tests
2. Select a motor, and then touch **Start**.

Note:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of motor tests

Pick (tray 2)
Pass-through (tray 2)

Configuration menu

Entering the Configuration Menu

From the control panel, navigate to:

Settings › Device › Maintenance › Configuration Menu

Configuration Menu

Menu item	Description
USB Configuration USB PnP 1* 2	Change the USB driver mode of the printer to improve its compatibility with a personal computer.
USB Configuration USB Scan to Local On* Off	Set whether the USB device driver enumerates as a USB Simple device (single interface) or as a USB Composite device (multiple interfaces).
USB Configuration USB Speed Full Auto*	Set the USB port to run at full speed and disable its high-speed capabilities.

Menu item	Description
Tray Configuration Size Sensing Tray [x] Sensing Off On*	Set the tray to sense automatically the paper size loaded into it.
Tray Configuration Tray Linking Automatic* Off	Set the printer to link the trays that have the same paper type and paper size settings.
Tray Configuration Show Tray Insert Message Off Only for unknown sizes* Always	Display a message that lets the user change the paper size and paper type settings after inserting the tray.
Tray Configuration A5 Loading Short Edge Long Edge*	Determine the default loading orientation for the A5 size paper in all paper sources.
Tray Configuration Paper Prompts Auto* Multipurpose Feeder Manual Paper	Set the paper source that the user fills when a prompt to load paper appears. **Notes** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
Tray Configuration Envelope Prompts Auto* Multipurpose Feeder Manual Envelope	Set the paper source that the user fills when a prompt to load envelope appears. **Notes** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
Tray Configuration Action for Prompts Prompt user* Continue Use current	Set the printer to resolve paper- or envelope-related change prompts.

Menu item	Description
Reports Menu Settings Page Event Log Event Log Summary HealthCheck Statistics	Print reports about printer menu settings, status, and event logs.
Supply Usage And Counters Clear Supply Usage History	Reset the supply usage history, such as number of pages and days remaining, to the factory shipped level.
Supply Usage And Counters ITM Reset Reset Black Cartridge Counter Reset Cyan Cartridge Counter Reset Magenta Cartridge Counter Reset Yellow Cartridge Counter Reset Maintenance Counter	Reset the counter after installing a new supply item or maintenance kit.
Supply Usage And Counters Tiered Coverage Ranges	Adjust the amount of color coverage for each printing range.
Printer Emulations PPDS Emulation Off* On	Set the printer to recognize and use the PPDS data stream.
Printer Emulations PS Emulation Off On*	Set the printer to recognize and use the PS data stream.
Printer Emulations Enable Formsmerge Off* On	Activate formsmerge to store the forms into the hard disk or intelligent storage drive (ISD). **Notes** The printer must have a hard disk or an ISD installed.
Printer Emulations Enable Prescribe Off* On	Activate Prescribe. **Notes** The Prescribe license must be installed.

Menu item	Description
Printer Emulations Emulator Security Page Timeout 0–60 (60*)	Set the page timeout during emulation.
Printer Emulations Emulator Security Reset Emulator After Job Off* On	Reset the emulator after a print job.
Printer Emulations Emulator Security Disable Printer Message Access Off On*	Disable access to printer message during emulation.
Fax Configuration Fax Low Power Support Disable Sleep Permit Sleep Auto*	Set fax to enter Sleep mode whenever the printer determines that it must.
Fax Configuration Fax Storage Location NAND Disk*	Set the storage location for all faxes. **Notes** This menu item appears only when a hard disk or an ISD is installed.
Print Configuration Black Only Mode Off* On	Print non-copy jobs in grayscale.
Print Configuration Color Trapping Off 1 2* 3 4 5	Enhance the printed output to compensate for misregistration in the printer.

Menu item	Description
Print Configuration Font Sharpening 0–150 (24*)	Set a text point-size value below which the high-frequency screens are used when printing font data. For example, if the value is 24, then all fonts sized 24 points or less use the high-frequency screens.
Device Operations Quiet Mode Off* On	Set the printer to operate in Quiet Mode. **Notes** Enabling this setting slows down the overall performance of the printer.
Device Operations Panel Menus Off On*	Enable access to the printer menus from the control panel.
Device Operations Safe Mode Off* On	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues. For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.
Device Operations Minimum Copy Memory 80 MB* 100 MB	Set the minimum memory allocation for storing copy jobs.
Device Operations Clear Custom Status	Erase user-defined strings for the Default or Alternate custom messages.
Device Operations Clear all remotely-installed messages	Erase messages that were remotely installed.
Device Operations Automatically Display Error Screens Off On*	Show existing error messages on the display after the printer remains inactive on the home screen for a length of time.

Menu item	Description
Device Operations Honor orientation on fast path copy Off* On	Enable the printer to use the orientation setting under the Copy menu when sending quick copy jobs.
Toner patch sensor setup Calibration frequency preference Disabled Fewest color adjustments Fewer color adjustments Normal* Better color accuracy Best color accuracy	Set the printer to put down the correct amount of toner to maintain color consistency.
Toner patch sensor setup Full calibration	Run the full color calibration.
Toner patch sensor setup Print TPS information page	Print a diagnostic page that contains information on toner patch sensor calibration.
App Configuration LES Applications Off On*	Enable Lexmark Embedded Solutions (LES) applications.
Scanner Configuration Scanner Manual Registration Print Quick Test	Print a Quick Test target page. **Notes** Make sure that the margin spacing on the target page is uniform all the way around the target. If it is not, then the printer margins must be reset.
Scanner Configuration Scanner Manual Registration Front ADF Registration Rear ADF Registration Flatbed Registration	Manually register the flatbed and ADF after replacing the ADF, scanner glass, or controller board.
Scanner Configuration Reset Maintenance Counter	Reset the counter after replacing the ADF maintenance kit.

Menu item	Description
Scanner Configuration Edge Erase Flatbed Edge Erase (3*) ADF Edge Erase (3*)	Set the size, in millimeters, of the no-print area around an ADF or flatbed scan job.
Scanner Configuration ADF Deskew ADF Electronic Deskew (On*)	Reduce skewing of documents that are scanned from the ADF.
Scanner Configuration Disable Scanner No* Yes ADF Only	Disable the scanner when it is not working properly.
Scanner Configuration Tiff Byte Order CPU Endianness* Little Endian Big Endian	Set the byte order of a TIFF-formatted scan output.
Scanner Configuration Exact Tiff Rows Per Strip On* Off	Set the RowsPerStrip tag value of a TIFF-formatted scan output.

Notes
An asterisk (*) next to a value indicates the factory default setting.

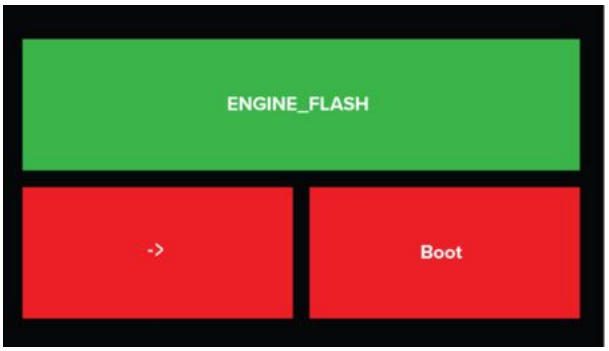
Entering Invalid engine mode

This mode allows the printer to load the correct firmware code. For more information, see .

1. Unplug the power cord from the electrical outlet.
2. Pull tray 1.
3. Connect the power cord to the electrical outlet.
4. Turn on the printer.

   When the display shows the following icon, close tray 1.

5. Select **->** to navigate the menu that appears on the display, and then select **ENGINE_FLASH**.



> **Note**
> The selected menu turns green.

6. Select **Boot**.

Entering Recovery mode

This mode allows the printer to boot from a secondary set of instructions and flash firmware code.
Depending on your printer model, do any of the following:

For LED display

1. Turn off the printer.
2. Open the front door.
3. Press and hold the **Stop** button.
4. Turn on the printer.
5. When all the icons flash, release the button.

For 2-line display

1. Turn off the printer.
2. Press and hold the **OK** and **Back** buttons.

3. Turn on the printer.
4. When the display shows the following icon, release the buttons.

For 2.4-, 4.3-, 7-, and 10-inch displays with number pads

1. Turn off the printer.
2. Press and hold the **2**, **7**, and **8** buttons.
3. Turn on the printer.
4. When the display shows the following icon, release the buttons.

For 2.8-, 4.3-, 7-, and 10-inch displays without number pads

1. Turn off the printer.
2. Open tray 1.

> **Note:** Make sure that paper is loaded in the tray.

3. Turn on the printer.
4. When the display shows either of the following icons, close tray 1.

    a. For 2.8-inch display:

b. For 4.3-, 7-, and 10-inch displays:

> **Note:** If tray 1 is not closed, then the printer boots normally.

Service Engineer menu

Entering the SE Menu

Depending on your printer model, do any of the following:

For touch-screen display

1. From the home screen, touch the on-screen keypad.
2. Touch ****411**.
3. Touch the start icon or **GO**.

For 2-line display

From the home screen, press the following buttons in this sequence: **Back, Left arrow, Back, Left arrow**.

For 2-line display with a menu button

From the home screen, press the following buttons in this sequence: **Right, Right, OK, Left**.

For 2.8-, 4.3-, 7-, and 10-inch displays

From the home screen, press the following buttons in this sequence: **Back, Back, Home, Home**.

General SE Menu

Enter the Service Engineer (SE) menu, and then select **General SE Menu**.
The following settings are available:

- Capture Logs to USB Drive
- Capture Logs to Internal Storage

- Code Versions
- Debug Level

Network SE Menu

Enter the Service Engineer (SE) menu, and then select **Network SE Menu**.

> **Notes**
> Use these settings as directed by the next level of support.

Top level menu	Intermediate menu
History	• Print History • Mark History
MAC	• Set Card Speed • LAA • Keep Alive
NPAP	Print Alerts
TCP/IP	• DHCP Request options • netstat • arp • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode • Garp Interval
Wireless settings **Notes** This setting is only available if a wireless module is installed.	• Wireless Performance Enhancement • Unset Wireless Region • Disable Wireless 11n • Disable PMF
Ping Test	• Ping Address • Attempts • Packet Size • Ping

Top level menu	Intermediate menu
Other Actions	• ifconfig • IPtables [Firewall Dump] • IP6tables [Firewall Dump] • IPsec Dump
Enable DHCPCD Debugging	N/A
Enable wpa-supplicant Debugging	N/A
Enable Ethernet Gigabit	N/A
Enable BLE	N/A
Netconfig Debug Level	N/A
IPP ICONS	• Delete intermediate icons • Delete current icons

Fax SE Menu

Use this menu to help resolve fax transmission and reception issues.
Enter the SE menu, and then touch **Fax SE Menu**.

> **Notes**
> Use these settings as directed by the next level of support.

Top-level menu	Intermediate menu
Agency Test Menu	• Go Off Hook • Ring Detect • Generate Tones • Modulations
Fax Settings	• Fax Modulations • FOIP Settings • Miscellaneous Settings • Reset Fax Settings

Top-level menu	Intermediate menu
Modem Settings	• Adjust Power FSK • ARA EQ Bias • Busy Tone Cycles • Busy Tone Max Off Time • Busy Tone Min Off Time • Caller ID Pattern **Note** Changing the value of this setting also changes the value of the Caller ID setting in the Fax Settings. • Congest Tone Cycles • Congest Tone Max Off Time • Congest Tone Min Off Time • DC Characteristic • Dial Timeout • Dial Tone Tresh • DTMF High Level • DTMF Low Level • Enable CEQ • High Ring Impedance • Impedance • Interdigit Delay • Negative Twt Ctl • Positive Twt Ctl • Progress Tresh • Pulse Break Time • Pulse Dial Type • Pulse Fall Time • Pulse Make Time • Receive Tresh • Transmit Level • V34 PreEmhFilt • V17 TxFilter • Digital Line Guard • Digital Line Threshold • Off-Hook Line Settle Time • Disable Sending CRP • Dial Wait Time • ANSam Transmit Time

Top-level menu	Intermediate menu
Fax logs	• Print all T30 Logs • Print CallerID Log • Print Call Log • Print Fax Settings • Print Job Log • Print All T30 Log Errors • Print T30 Log • Print T38 Trace Log • Clear T38 Trace Log
Reboot System	N/A

Scanner SE Menu

Enter the Service Engineer (SE) menu, and then select **Scanner SE Menu**.

Parts removal

Important removal information

Removal precautions

CAUTION—SHOCK HAZARD
The low-voltage power supply (LVPS) and the high-voltage power supply (HVPS) may have residual voltage present. To avoid the risk of electrical shock, do not touch their circuit components or the solder side of the board. Only handle them by their outer edges or metal housing.

CAUTION—SHOCK HAZARD
This product uses an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—HOT SURFACE
The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

CAUTION—PINCH HAZARD
To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Précautions de retrait

CAUTION—SHOCK HAZARD
Une tension résiduelle peut être présente dans le bloc d'alimentation basse tension (LVPS) et le bloc d'alimentation haute tension (HVPS). Pour éviter tout risque d'électrocution, ne touchez pas les composants du circuit ou le côté soudure de la carte. Tenez-les uniquement par leurs extrémités ou le boîtier en métal.

CAUTION—SHOCK HAZARD
Ce produit utilise un commutateur d'alimentation électronique. Il ne déconnecte pas physiquement la tension d'alimentation CA. Pour éviter tout risque d'électrocution, débranchez toujours le cordon d'alimentation de l'imprimante lorsque vous devez déconnecter la tension d'alimentation CA.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution et éviter d'endommager l'imprimante, débranchez le cordon d'alimentation de la prise électrique et déconnectez toute connexion à tout périphérique externe avant de brancher ou débrancher des câbles ou circuits et assemblages électroniques.

CAUTION—HOT SURFACE
L'intérieur de l'imprimante risque d'être brûlant. pour réduire le risque de brûlure, laissez la surface ou le composant refroidir avant d'y toucher.

CAUTION—PINCH HAZARD
Pour éviter tout risque de blessure par pincement, agissez avec précaution au niveau des zones signalées par cette étiquette. Les blessures par pincement peuvent se produire autour des pièces mobiles telles que les engrenages, portes, tiroirs et capots.

Precauciones durante la extracción

CAUTION—SHOCK HAZARD
La fuente de alimentación de bajo voltaje (LVPS) y la fuente de alimentación de alto voltaje (HVPS) pueden presentar voltaje residual. Para evitar el riesgo de descarga eléctrica, no toque los componentes del circuito ni el lateral soldado de la placa. Manipule solo los bordes exteriores o la carcasa metálica.

CAUTION—SHOCK HAZARD
Este producto utiliza un interruptor de corriente electrónico. No desconecta físicamente la entrada de voltaje de CA. Para evitar el riesgo de descarga eléctrica, desenchufe siempre el cable de alimentación de la impresora cuando sea necesario retirar la entrada de voltaje de CA.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descargas eléctricas y daños en la impresora, retire el cable de alimentación de la toma eléctrica y desconecte todas las conexiones a dispositivos externos antes de conectar o desconectar cualquier cable, placa electrónica o conjunto.

CAUTION—HOT SURFACE
El interior de la impresora podría estar caliente. Para evitar el riesgo de heridas producidas por el contacto con un componente caliente, deje que la superficie se enfríe antes de tocarlo.

CAUTION—PINCH HAZARD
Para evitar el riesgo de lesión por atrapamiento, preste atención en las áreas marcadas con esta etiqueta. Las lesiones por atrapamiento se pueden producir en torno a partes móviles, tales como engranajes, puertas, bandejas y cubiertas.

Vorsichtsmaßnahmen bei der Demontage

CAUTION—SHOCK HAZARD
Im Niederspannungsnetzteil (LVPS) und Hochspannungsnetzteil (HVPS) liegt unter Umständen Restspannung vor. Um das Risiko eines elektrischen Schlags zu vermeiden, berühren Sie keine umliegenden Bauteile oder die Lötseite der Platine. Fassen Sie sie nur an den Außenkanten oder am Metallgehäuse an.

CAUTION—SHOCK HAZARD
Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswechselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswechselspannung erforderlich ist.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags und Schäden am Drucker zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose und trennen Sie alle Verbindungen zu jeglichen externen Geräten, bevor Sie Kabel, Elektronikplatinen oder Baugruppen einstecken oder abziehen.

CAUTION—HOT SURFACE
Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.

CAUTION—PINCH HAZARD
Um das Risiko einer Quetschung zu vermeiden, gehen Sie in Bereichen, die mit diesem Etikett gekennzeichnet sind, mit Vorsicht vor. Quetschungen können im Bereich von beweglichen Komponenten auftreten, wie z. B. Zahnrädern, Klappen, Fächern und Abdeckungen.

Handling ESD-sensitive parts

To prevent damage to the electrostatic discharge (ESD)-sensitive parts in the printer, do the following:

- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least-possible movements with your body to prevent an increase in static electricity from clothing fibers, carpets, and furniture.
- Use the ESD wrist strap. Connect the wrist band to the system ground point. This action discharges any static electricity in your body to the printer.
- Hold the parts by their edge connector shroud. Do not touch its pins. If you are removing a pluggable module, then use the correct tool.
- If possible, keep all parts in a grounded metal cabinet.
- Do not place the parts on the printer cover or on a metal table. If you need to put down the parts, then put them in their packing material.
- Prevent parts from being accidentally touched by other personnel. Cover the printer when you are not working on it.
- Be careful while working with the parts when cold-weather heating is used. Low humidity increases static electricity.

Critical information for controller board or control panel replacement

CAUTION—POTENTIAL INJURY
The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

CAUTION—POTENTIAL INJURY
La batterie lithium de ce produit n'est pas destinée à être remplacée. Il existe un risque d'explosion si une batterie lithium est placée de façon incorrecte. Ne rechargez pas, ne démontez pas et n’incinérez pas une batterie lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

CAUTION—POTENTIAL INJURY
La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio según las instrucciones del fabricante y las normativas locales.

CAUTION—POTENTIAL INJURY
Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

Warning—Potential Damage
Observe all precautions when handling ESD sensitive parts. See Handling ESD-sensitive parts on page 208.

Warning—Potential Damage
Carefully remove cables and connectors. Make sure they are not damaged.

Notes
Some models have eSF solutions, it is recommended to back up the eSF solutions and settings before replacing the controller board. See Backing up eSF solutions and settings on page 217.

> **Warning—Potential Damage**
> To avoid damaging the part or experience NVRAM mismatch issues, replace only one of the following components at a time:

- Control panel
- Controller board

To replace a component and to test whether the problem is resolved:

1. Replace the affected component.

   > **Warning—Potential Damage**
   > Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2. Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

   > **Warning—Potential Damage**
   > Some printers will perform a POR automatically if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3. Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
   - If the problem is not resolved—Turn off the printer, and then reinstall the old part.
   - If the problem is resolved—Perform a POR.

Restoring the printer configuration

Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

Notes:

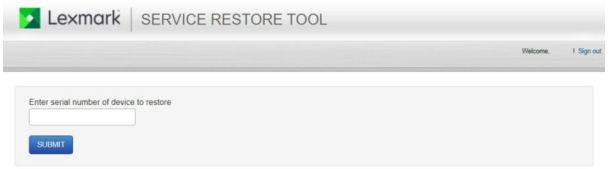
- If you do not have access to Service Restore Tool, then contact your next level of support.
- The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark CFM and Package Builder. The printer firmware may be at a different level from what is used before replacement of the part.

Using the Service Restore Tool

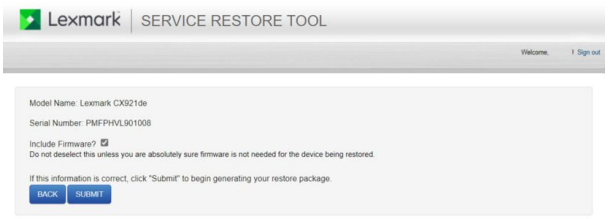
1. Go to https://iss.lexmark.com/cdp/service-restore-tool/.
2. Log in using your Lexmark or partner login.

   If your login fails, then contact your next level of support.

3. Enter the printer serial number, and then submit the information.

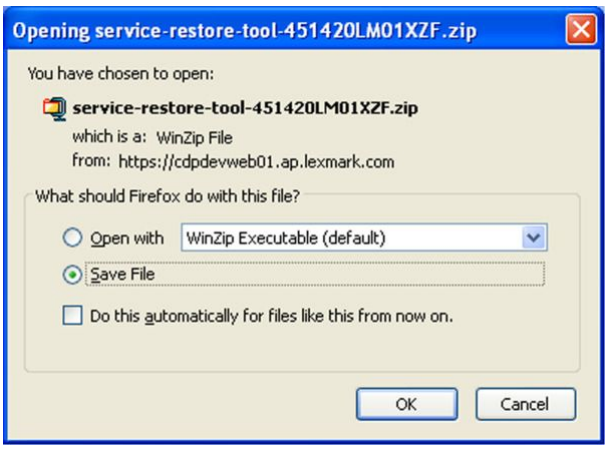


Note: Make sure that the serial number that appears on the verification screen is correct.



4. Save the zip file.

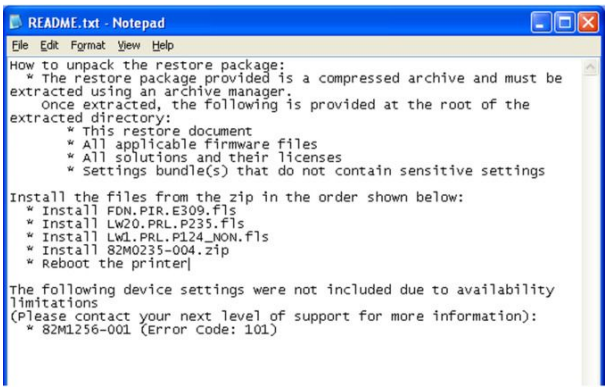
Note: Make sure that the serial number in the zip file matches the serial number of the printer being restored.



5. Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in the file.

Note:

- Perform the install instructions on the *Readme* file in the exact order shown. Restart the printer only if the file says so.
- For more information on how to flash the downloaded files, see Updating the firmware using a flash drive on page 217.
- To load the zip files that are extracted from the Service Restore Tool, see Restoring solutions, licenses, and configuration settings on page 213.



6. If the printer had eSF apps previously installed, then confirm from the customer if all the eSF apps have been installed after performing the installation instructions in the *Readme* file.

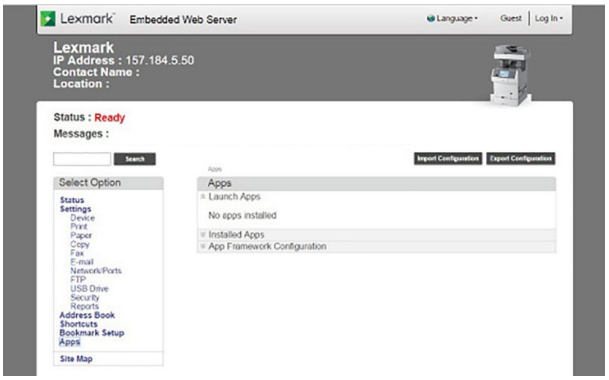
Note:

- If you are unable to access the administrative menus to verify that the printer is restored, then ask the customer for access rights.
- If a 10.00 error appears after you restart the printer, then contact the next level of support.

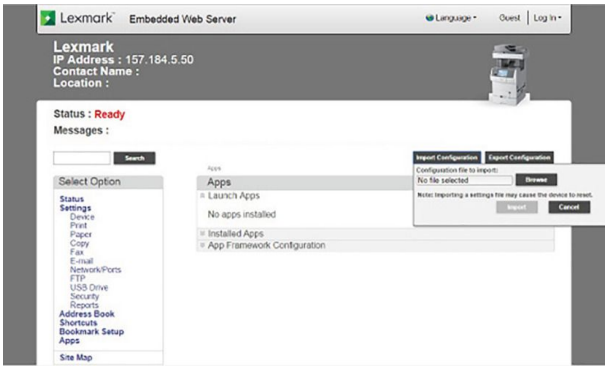
Restoring solutions, licenses, and configuration settings

To load the zip files that are extracted from the Service Restore Tool, do the following:

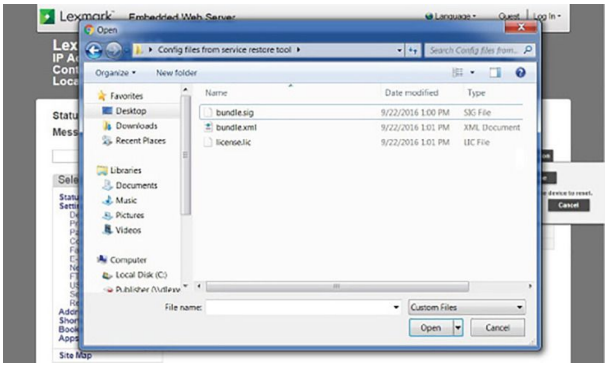
1. Open a web browser, and then type the printer IP address.



2. Click **Import Configuration**, and then click **Browse**.



3. Navigate to the folder where the zip files are extracted from the Service Restore Tool.



4. Select the file to import, and then click **Import**.
5. Repeat step 2 through step 4 for the other files that are included in the extracted zip file.

Printer firmware instructions

Checking the printer firmware version

Using the Embedded Web Server

> **Note:** Make sure that the printer is connected to the network.

1. Open a web browser, and then type the printer IP address in the address field.

   > **Notes**
   > - The IP address appears as four sets of numbers separated by periods. For example, 123.123.123.123.
   > - If you are using a proxy server, then temporarily disable it to load the web page correctly.

2. Click **Reports › Device › Device Information**.
3. Look for **Base**.

   > **Note:** The firmware version appears as sets of letters and numbers separated by periods. For example, ABCDE.123.123.

Using the control panel

1. Navigate to **Settings › Device › About this printer**.
2. Look for **Firmware Version**.

   > **Note:** The firmware version appears as sets of letters and numbers separated by periods. For example, ABCDE.123.123.

Downloading the printer firmware

1. Go to the drivers and downloads page.
2. Type the printer model, and then click **Find Drivers & Downloads**.
3. In the **Recommended Firmware** section, click the zip file.
4. Accept the End-User License Agreement, and then start the download.

   > **Note:** You can save the file either to your computer or flash drive.

5. After downloading the firmware, extract the zip file, and then locate the firmware flash file **(.fls)**.

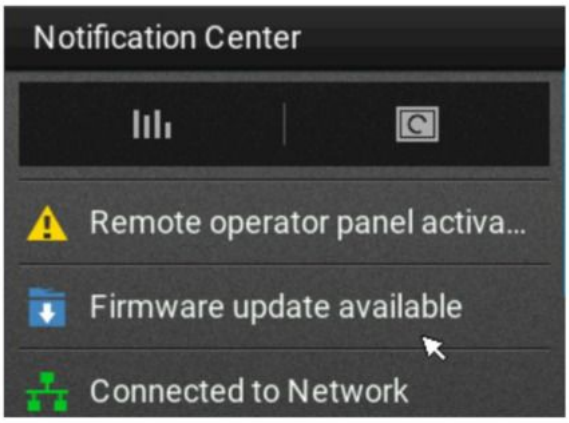
Updating firmware

Updating the firmware using the control panel

Using the notification center

> **Note:** This method is applicable only in some printer models.

1. From the home screen, navigate to the notification center, and then select **Firmware update available**.



2. Select **Install now**.

The printer restarts automatically after the update.

Using the Settings menu

1. From the control panel, navigate to **Settings › Device**.
2. Depending on your printer model, select **Update firmware** or **Firmware Update**.

3. Depending on your printer model, select **Check for updates** or **Check for updates now**.

   If an update is available, then select **Install now**.

   The printer restarts automatically after the update.

Updating the firmware using the Embedded Web Server

> **Notes**
>
> - Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, see Downloading the printer firmware on page 214.
> - Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, contact the place where you purchased the printer.
> - Make sure that the printer is connected to the network.

Using the update button

1. Open a web browser, and then type the printer IP address in the address field.

   > **Notes**
   >
   > - The IP address appears as four sets of numbers separated by periods. For example, 123.123.123.123.
   > - If you are using a proxy server, then temporarily disable it to load the web page correctly.

2. Click **Device**.
3. Scroll down, and then click **Firmware Update**.
4. Depending on your printer model, click **Check for updates** or **Check for updates now**.

   If an update is available, then click **Install now**.

   The printer restarts automatically after the update.

Using the firmware flash file (.fls)

1. Open a web browser, and then type the printer IP address in the address field.

Notes

- The IP address appears as four sets of numbers separated by periods. For example, 123.123.123.123.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

2. Click **Device**.
3. Scroll down, and then click **Firmware Update**.
4. In the **Update Firmware from File** section, click **Browse**.
5. Search, and then select the **.fls** file.
6. Click **Upload**.

   The printer restarts automatically after the update.

Updating the firmware using a flash drive

Notes

- Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, see Downloading the printer firmware on page 214.
- Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, contact the place where you purchased the printer.
- The flash drive is formatted to FAT32.

1. Insert the flash drive into the front USB port of the printer.

   The flash drive contents appear automatically on the printer display. If the files do not appear, then select **USB Drive** on the home screen.
2. Search, and then select the **.fls** file.
3. Select **Update Code**.

   The printer restarts automatically after the update.

Backing up eSF solutions and settings

Notes
Export the eSF solutions and settings from the printer before replacing the controller board.

Exporting eSF solutions and settings file

1. Reset the printer into Invalid engine mode. See Entering Invalid engine mode on page 196.
2. Open a web browser, and then type the printer IP address.

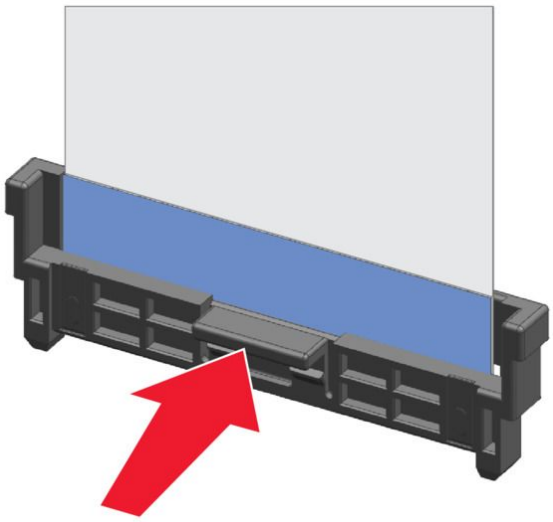
Notes
If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

3. Click **Apps**, click **Export Configuration**, and then select one of the options in the dropdown menu.
4. Click **Export**.

Notes
The size limit of the export file is 128 KB.

Disconnecting ribbon cables

Warning—Potential Damage
The ribbon cable and its socket may get damaged if it is not properly disconnected. When disconnecting the cable, hold its connector and press its tab before unplugging it.



Ribbon cable connectors

Zero Insertion Force (ZIF) connectors

Zero Insertion Force (ZIF) connectors are used on the boards and cards used in this printer. Before inserting or removing a cable from these connectors, observe the following precautions.

Warning—Potential Damage
Do not insert the cable so that the contacts are facing the locking actuator. The contacts always face away from the actuator.

Warning—Potential Damage
Do not insert the cable diagonally into the ZIF socket. This action can damage the contacts on the cable.

Warning—Potential Damage
Avoid using a fingernail, or sharp object to open the locking mechanism. This action can damage the cable.

Warning—Potential Damage
Avoid pressing against the cable when opening the locking mechanism. This action can also damage the cable.

These are the types of ZIF connectors used in this printer:

- Horizontal top contact connector
- Horizontal bottom contact connector
- Vertical mount contact connector
- Horizontal sliding connector

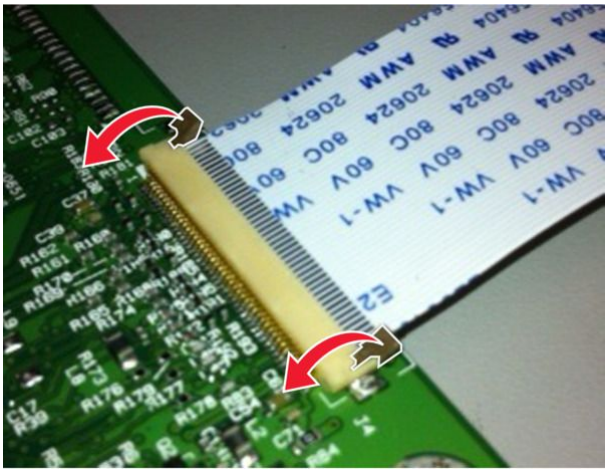
Horizontal top contact connector

The horizontal top contact connector uses a back flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

Warning—Potential Damage
When opening or closing this type of actuator, gently lift or close the two tabs located on each end of the actuator. The two tabs should be moved simultaneously. Do not close the actuator from the center of the actuator.

Removing a cable from the horizontal top contact connector

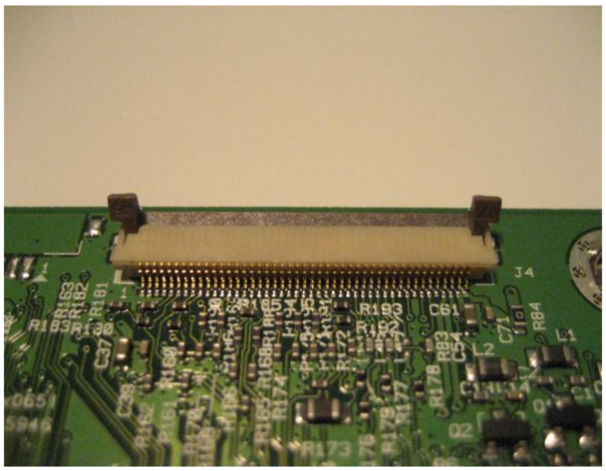
1. Place a finger at each end of the locking actuator, and then gently lift the actuator to the unlocked position.



2. Slide the cable out of the connector.

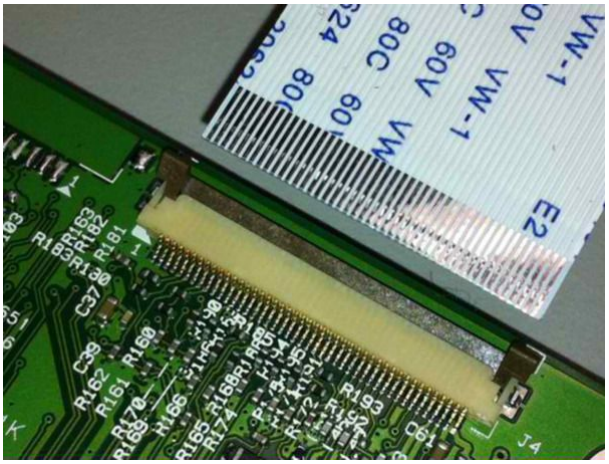
Inserting a cable into the horizontal top contact connector

1. When installing the cable, check the locking actuator to ensure it is in the unlocked position. The tabs on the ends of the actuator are vertical when the actuator is unlocked.

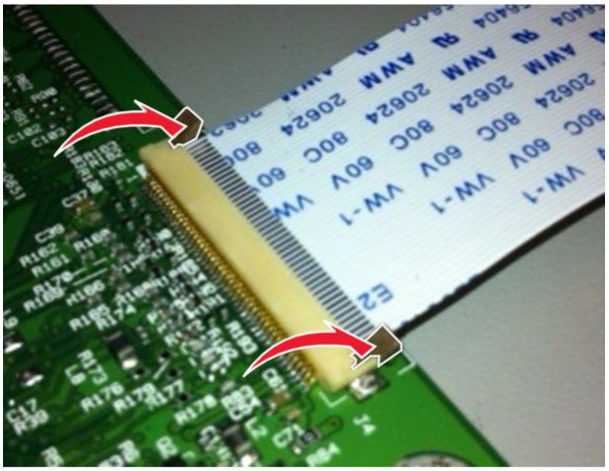


2. Insert the cable with the contacts on the cable facing up. Insert the cable on top of the actuator.

> **Note:** Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures can occur.



3. Rotate the locking actuator to the locked position. The cable must not move while this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.



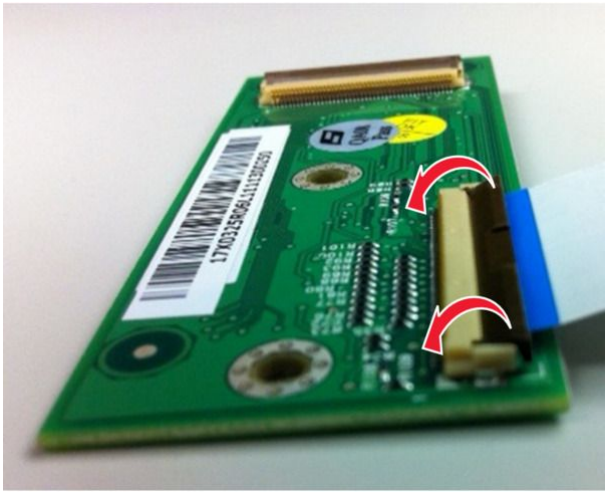
Horizontal bottom contact connector

The horizontal bottom contact connector uses a flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

> **Warning—Potential Damage**
> When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator. This can damage the ribbon cable. Do not close the actuator from the ends of the actuator.

Removing a cable from the horizontal bottom contact connector

1. Place two fingers towards each end of the locking actuator, and then gently lift the actuator to the unlocked position.



2. Slide the cable out of the connector.

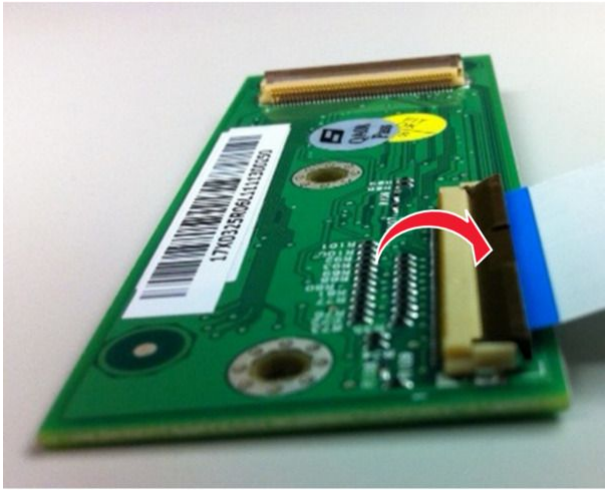
Inserting a cable into the horizontal bottom contact connector

1. Check the actuator to verify that it is in the open position.

2. Insert the cable into the (Zero Insertion Force) ZIF connector with the contacts facing downward and away from the locking actuator. Insert the cable below the actuator.

> **Notes**
> Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures can occur.

3. Place your finger in the middle of the actuator, and then rotate the locking actuator to the locked position.



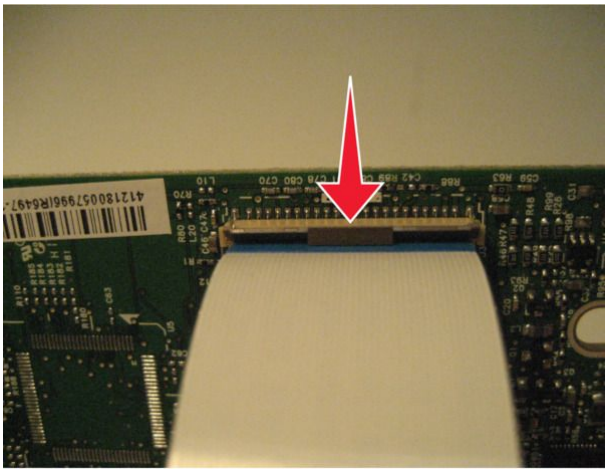
Vertical mount contact connector

The vertical mount contact connector uses a back flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted vertically into the connector.

> **Warning—Potential Damage**
> When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator. This could damage the ribbon cable. Do not close the actuator from the ends of the actuator.

Removing a cable from the vertical mount contact connector

1. Gently rotate the locking actuator from the center of the actuator to the unlocked position.



2. Slide the cable out of the connector.

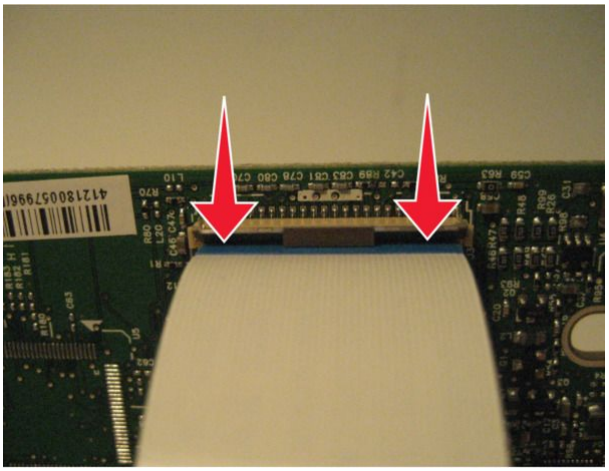
Inserting a cable into the vertical mount contact connector

1. When installing the cable, check the locking actuator to verify it is in the open position.

2. Insert the cable with the contacts on the cable away from the locking actuator. Insert the cable on top of the actuator.

> **Note:** Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures could occur.

3. Rotate the locking actuator to the locked position by pressing down on both ends of the actuator. The cable must not move while this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.



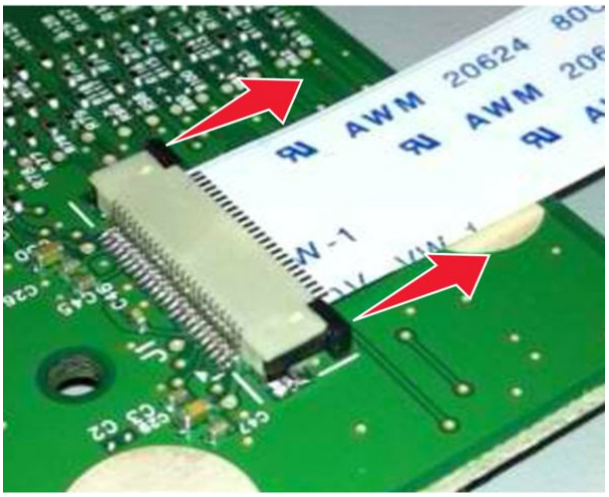
Horizontal sliding contact connector

The horizontal sliding contact connector uses a slide locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

> **Warning—Potential Damage**
> When opening or closing this type of actuator, gently push or pull the two tabs located on each end of the actuator. Do not close the actuator from the center of the actuator. Do not use a screwdriver to open or close the actuator. Damage to the cable or connector could occur.

Removing a cable from the horizontal sliding contact connector

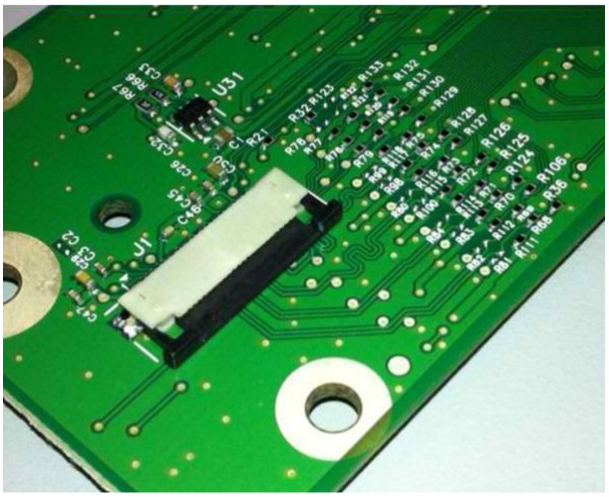
1. Simultaneously slide the two tabs on the ends of the locking actuator away from the connector.



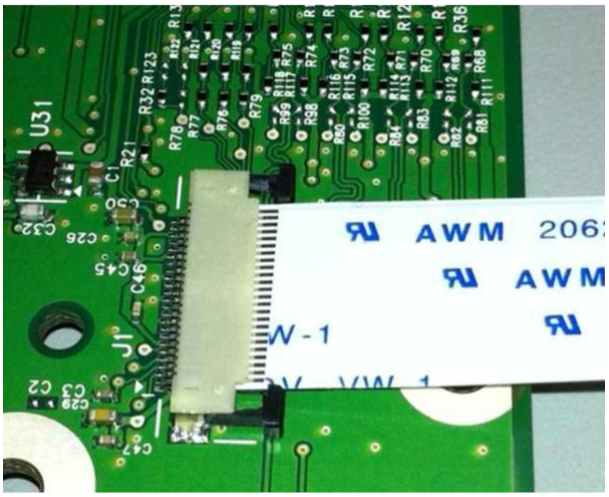
2. Slide the cable out of the connector.

Inserting a cable into the horizontal sliding contact connector

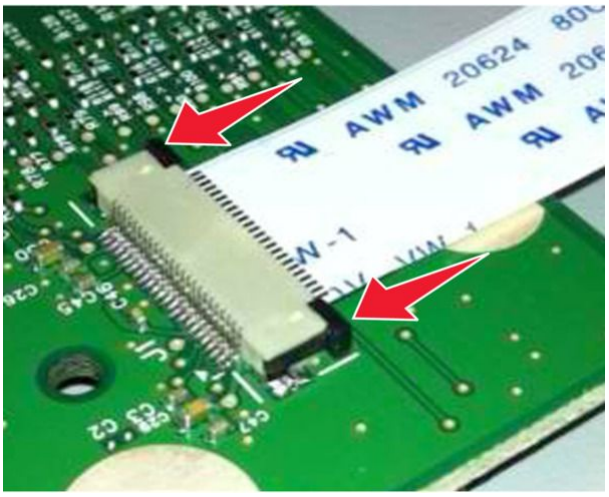
1. When installing the cable, check the locking actuator to verify it is in the open position. If you are opening the connector, then pull back on both end tabs using equal force to avoid breaking the connector.



2. Insert the cable with the contacts on the cable facing away from the locking actuator. Insert the cable on top of the actuator.



3. Slide the locking actuator towards the connector, locking the cable into place. The cable must not move while this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.

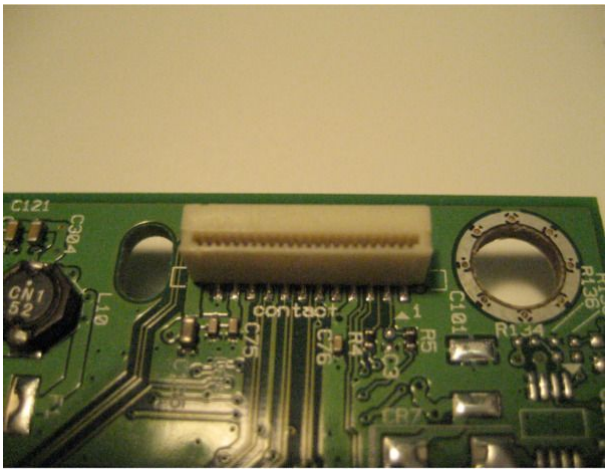


Low Insertion Force (LIF) connector

> **Warning—Potential Damage**
> When installing a cable into the LIF connector, make sure to avoid bending the edges of the cables and damaging the contacts on the cables.

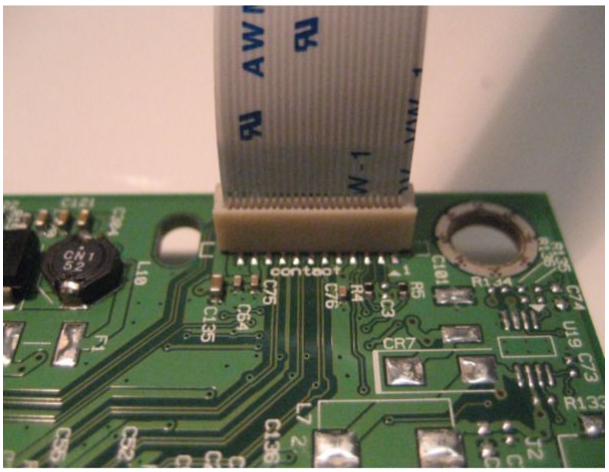
Inserting a cable into the LIF connector

1. Looking at the connector, take note on which side the contacts are located. Many boards have the word *contacts* stamped on them to indicate which side of the LIF has the contacts. When looking at the board, take note that the contacts from the board to the connector are on the side of the connector with the contacts.



2. Insert the cable squarely into the connector.

> **Note:** Verify that the cable is installed straight into the connector. If the cable is not installed properly, then intermittent failures could occur.



Adjustments

Registration adjustment

Image misalignments can occur after printhead replacement. Perform the succeeding procedures to correct the position of the image relative to the paper edges.

> **Notes**
>
> - You cannot perform mechanical registration or skew adjustments on the printhead.
> - Before performing the procedures, make sure that the tray guides are properly set and the paper settings on the printer match the size of the paper loaded in the tray.

Adjusting the skew

The skew adjustment changes the angle of the horizontal lines so that the lines are aligned with the leading edge of the page. As the skew setting is changed, the top line on the test page stays in place at the left end, while its right end tilts up or down. All horizontal lines on the page tilt at that same angle while the vertical lines remain at the same angle.

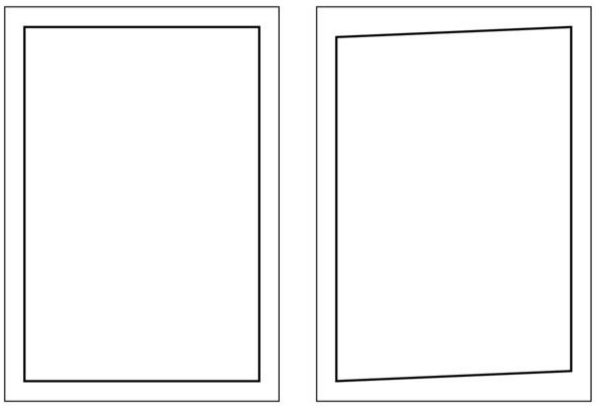
Changing the skew setting moves the right edge of the page up or down, and changes the angle of the top and bottom lines. If the skew is properly adjusted, then the horizontal line at the top of the page is parallel to the leading edge of the page.

To check for skew, do the following:

1. Enter the Diagnostics menu.
   a. Select .
   b. Select ****36**, and then select **OK**.
2. Navigate to:

   Printer diagnostics & adjustments > Registration adjust
3. Select **Quick Test**, and then select **Start**.

   The printer prints a test page.



> **Note:** If there is no skew on the page, then see Registration adjustment on page 228.

To adjust the skew, do the following:

1. Enter the Diagnostics menu.
   a. Select .
   b. Select ****36**, and then select **OK**.
2. Navigate to:

Printer diagnostics & adjustments > Registration adjust > Top skew

3. Specify the value. The value range is from -100 to 100.

> **Notes**
> - Raising the value of the skew rotates the horizontal lines clockwise. The left end of the line remains in the same place and the right end moves downward.
> - Decreasing the value of the skew rotates the horizontal lines counterclockwise. The left end of the line remains in the same place and the right end moves upward.

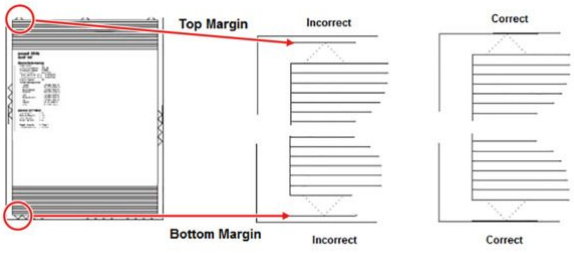
4. Select **OK**.
5. Print a Quick Test Page to verify the change.
6. Repeat step 1 through step 5 until the horizontal line is properly aligned with the leading edge of the page.
7. Check for proper margin alignment. See Registration adjustment on page 228.

Adjusting the top and bottom margins

1. Load Letter- or A4-size paper into tray 1.
2. Select **Settings > Paper > Tray Configuration > Default Source > Tray 1**.
3. Verify that the paper type and size settings match the type and size of the paper loaded in the tray.
4. Enter the Diagnostics menu, and then navigate to **Printer diagnostics & adjustments > Registration adjust**.
5. Select **Quick Test**, and then select **Start**.

   The printer prints a test page.
6. Check the top and bottom margins of the test page for correct alignment.

> **Notes**
> - The arrows must be completely visible along the edges.
> - The tip of the arrows should point to the edges of the paper.



7. Change the value of the top margin or bottom margin as needed.

   a. Select the margin that needs adjustment.
   b. Enter a value in the field.

Notes

- The value range is from -80 to 80.
- Increasing the value of the top margin pushes the top edge of the image downward. Increasing the value of the bottom margin pushes the bottom edge of the image upward.

c. Select **Start**.

8. Print a test page to verify the changes.
9. Repeat step 7 through step 8 as needed.
10. Check for proper color alignment. See Registration adjustment on page 228.

Adjusting the color alignment

The Color alignment procedure is performed on the cyan, magenta, and yellow colors only.

1. Enter the Diagnostics menu.

   a. Select  .
   b. Select ****36**, and then select **OK**.
2. Navigate to:

   Printer diagnostics & adjustments > Color alignment adjust

   On the AA Adjustment row, select **Start**.
3. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust > Cyan > Quick test

   Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
4. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust > Yellow > Quick test

   Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
5. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust > Magenta > Quick test

   Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
6. If color misalignment still occurs, then repeat step 1 through step 5.

Scanner Manual Registration

Use this setting to register the flatbed and ADF on the scanner. Perform a registration adjustment whenever the ADF, flatbed, or controller board is replaced.

Note: This setting does not appear if the Disable Scanner setting is set to Auto Disabled.

For more information on adjusting the scanner registration, see ADF registration adjustment on page 232 and Flatbed registration adjustment on page 232.

ADF registration adjustment

1. From the home screen, navigate to **Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Scanner Manual Registration**.
2. From the Print Quick Test section, press **OK** or touch **Start**.
3. Place the test page faceup on the ADF, and then select **Front ADF Registration**.
4. From the Copy Quick Test section, press **OK** or touch **Start**.
5. Compare the pages from the print quick and copy quick tests.
6. Adjust the value of the horizontal adjust, top margin, horizontal magnification, and vertical magnification settings.
7. Apply the changes.
8. Repeat step 2 through step 7 to make further adjustments.
9. From the Print Quick Test section, press **OK** or touch **Start**.
10. Place the quick test page facedown on the ADF, and then select **Rear ADF Registration**.
11. From the Copy Quick Test section, press **OK** or touch **Start**.
12. Compare the pages from the print quick and copy quick tests.
13. Adjust the value of the horizontal adjust, top margin, horizontal magnification, and vertical magnification settings.
14. Apply the changes.
15. Repeat step 2 through step 14 to make further adjustments.

Flatbed registration adjustment

1. From the home screen, navigate to:

   Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Scanner Manual Registration
2. From the Print Quick Test section, press **OK** or touch **Start**.
3. Place the test page on the flatbed, and then select **Flatbed Registration**.
4. From the Copy Quick Test section, press **OK** or touch **Start**.
5. Compare the pages from the print quick and copy quick tests.
6. Adjust the value of the horizontal adjust, top margin, horizontal magnification, and vertical magnification settings.
7. Apply the changes.
8. Repeat step 2 through step 7 to make further adjustments.

TPS characterization data entry

Notes
This procedure only applies to a new sensor (TPS).

Follow the instructions on the accompanying FRU sheet of the sensor (TPS).

Removal procedures

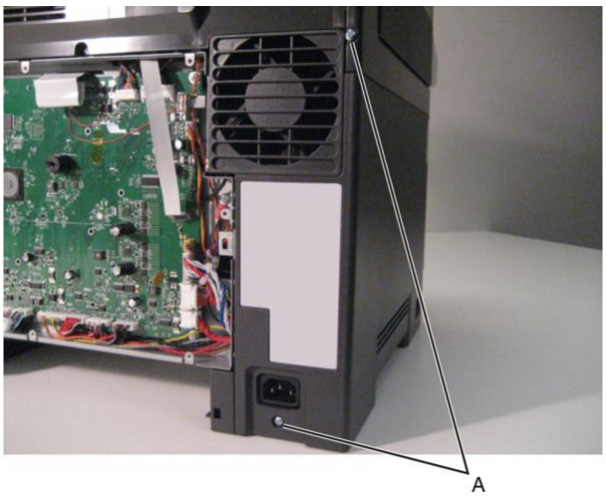
Keep the following tips in mind as you replace parts:

- Some removal procedures require removing cable ties. You must replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, imaging kit, and trays before removing other printer parts. The imaging kit must be carefully set on a clean, smooth, and flat surface. It must also be protected from light while out of the printer.
- Disconnect all external cables from the printer to prevent possible damage during service.
- Unless otherwise stated, reinstall the parts in reverse order of removal.
- When reinstalling a part held with several screws, start all screws before the final tightening.
- For printers that have an electronic power switch, make sure to unplug the power cord after powering off.

Left side removals

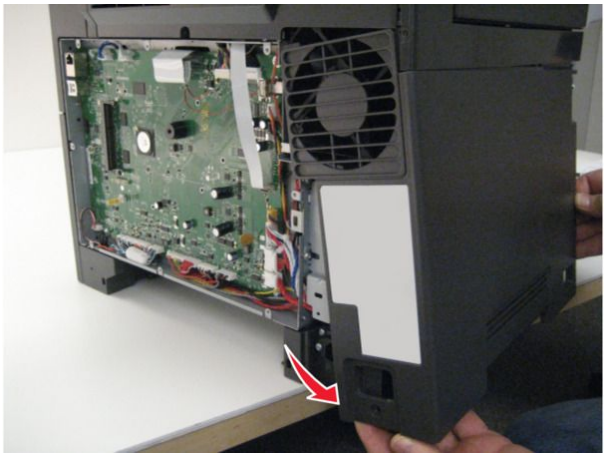
Left cover removal

1. Remove the two screws (A).



2. Remove the screw (B).

3. Place the left side of the printer on the edge of the table, and then remove the cover.



> **Installation Note**
> When replacing the left cover, flex the cover slightly to engage the tab near the power switch.

EP drive removal

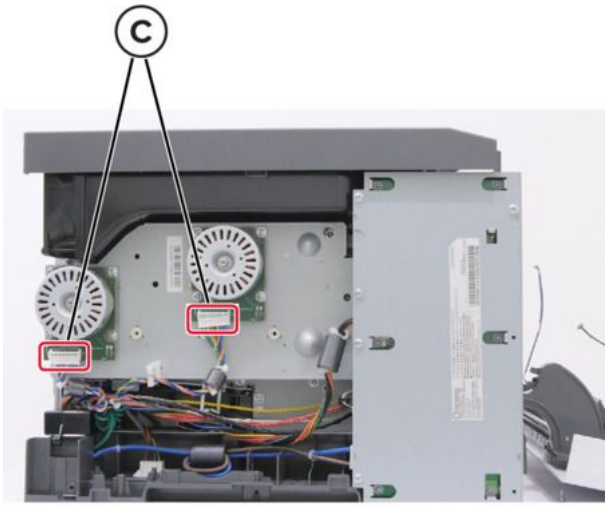
> **Notes**
> For a video demonstration, see EP drive removal.

1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.

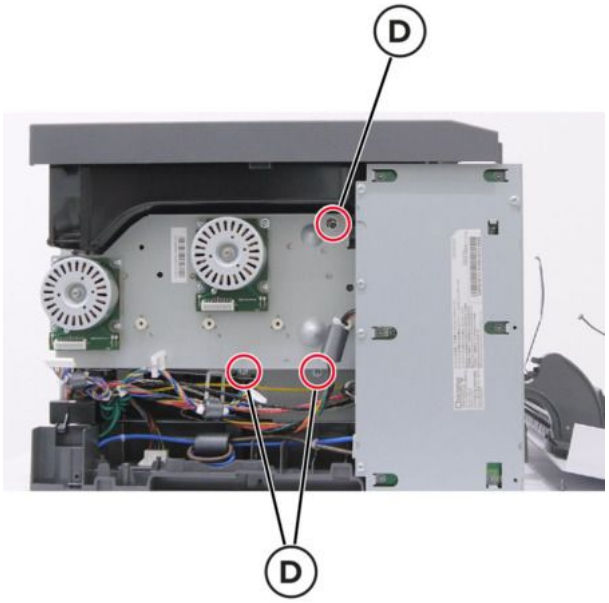
6. Remove the two screws (A) at the back.

7. Remove the screw (B) on the left side, and then remove the left cover.

8. Disconnect the connectors (C) from the EP drive.



9. Remove the three screws (D).



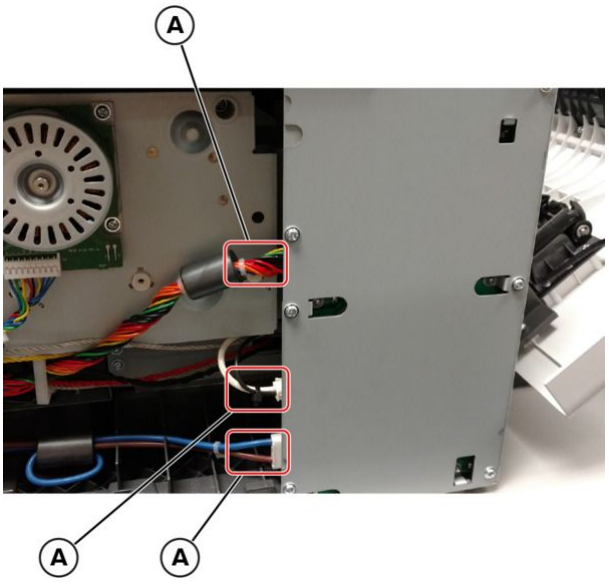
10. Remove the two screws (E).

11. Remove the EP drive.

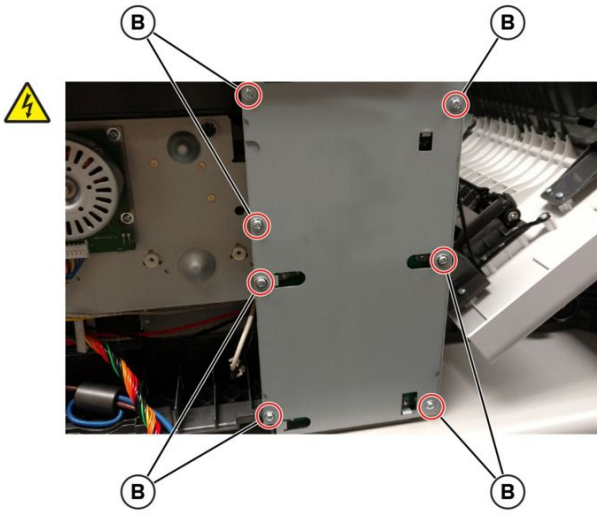
LVPS removal

> **Notes**
> For a video demonstration, see LVPS removal.

1. Turn off the printer, and then unplug the power cord.
2. Remove the left cover. See .Left cover removal on page 233
3. Disconnect the three cables (A).

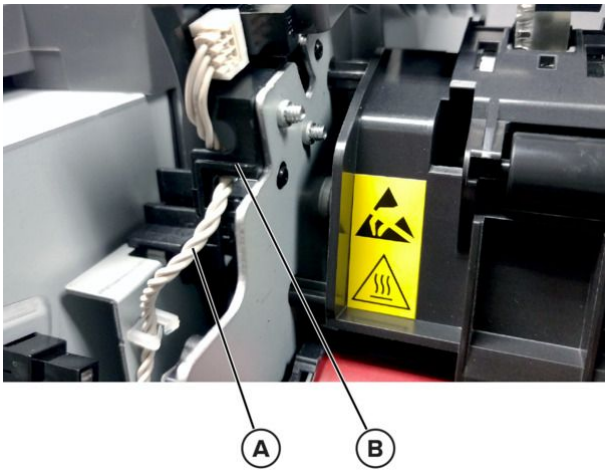


4. Remove the seven screws (B), and then remove the LVPS.

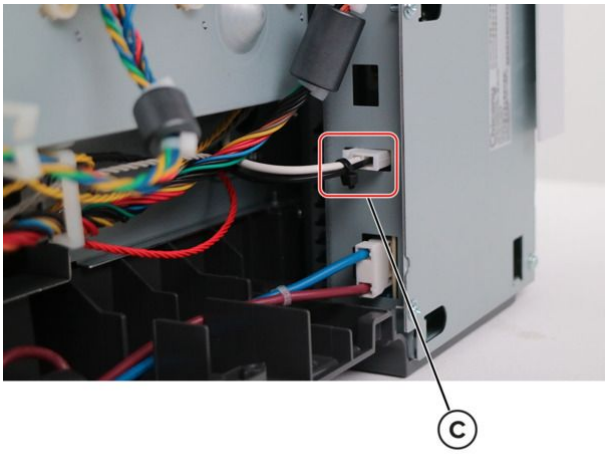


Sensor (fuser exit) removal

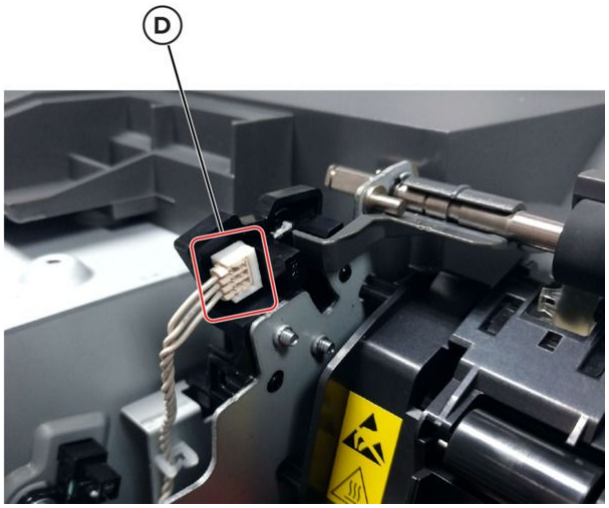
1. Remove the left cover. See Left cover removal on page 233.
2. Remove the cable (A) from its retainer (B).



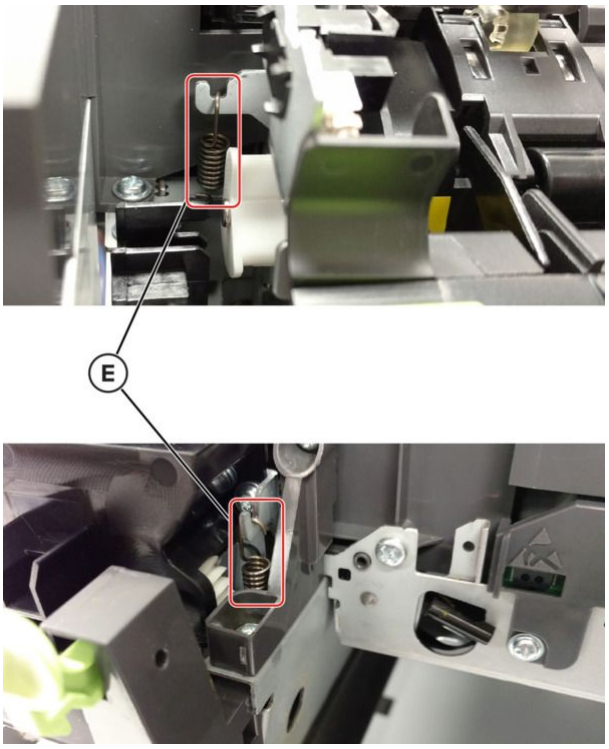
3. Disconnect the cable (C).



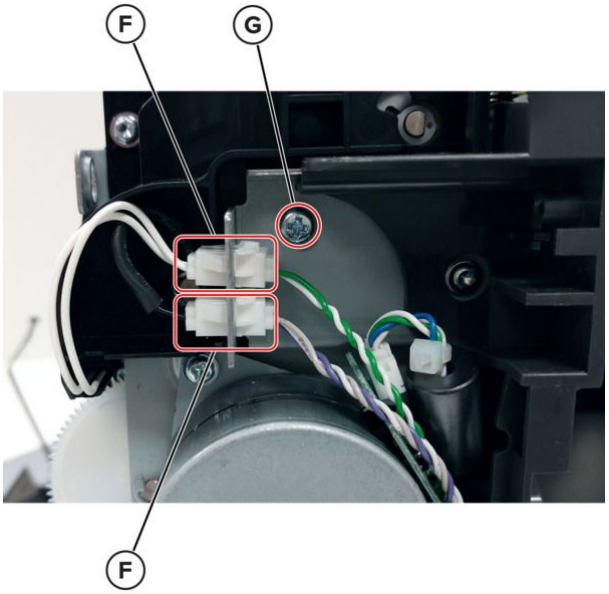
4. Disconnect the cable (D).



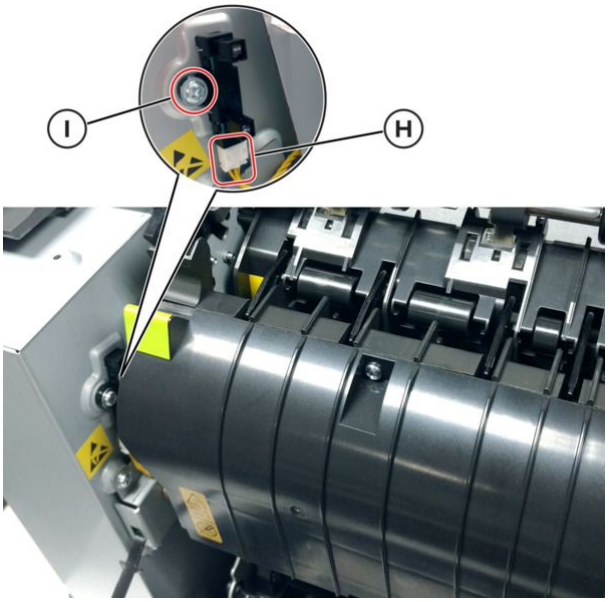
5. Unhook the two springs (E) from both sides of the fuser.



6. Disconnect the two thermistor cables (F), and then remove the screw (G).



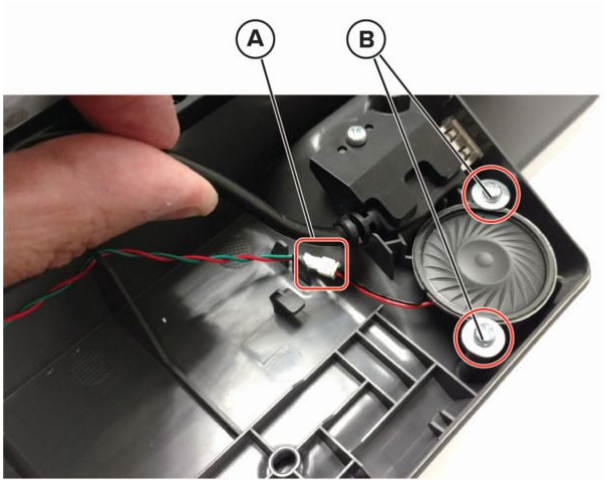
7. Rotate the fuser toward the front, disconnect the cable (H), and then remove the screw (I).



8. Using a flat-head screwdriver, remove the lower end of the sensor, and then gently pull the sensor from the frame.

Speaker removal

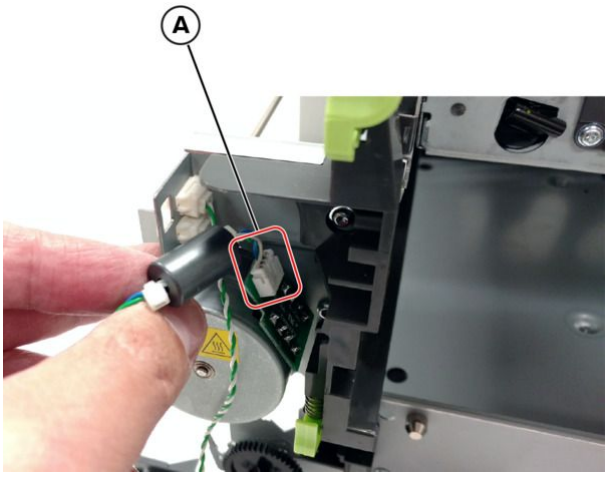
1. Remove the control panel top cover.
2. Disconnect the cable (A), remove the two screws (B), and then remove the speaker.



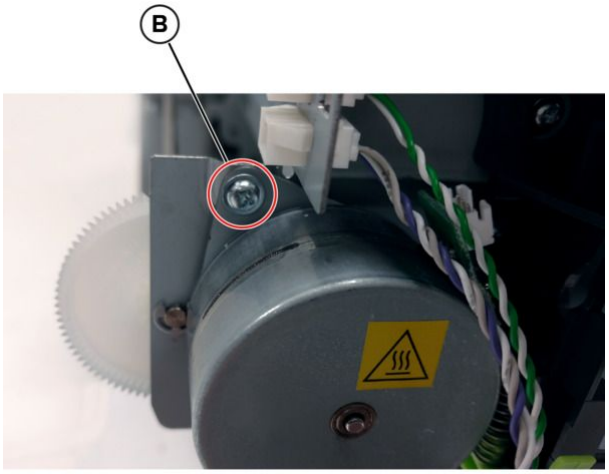
Right side removals

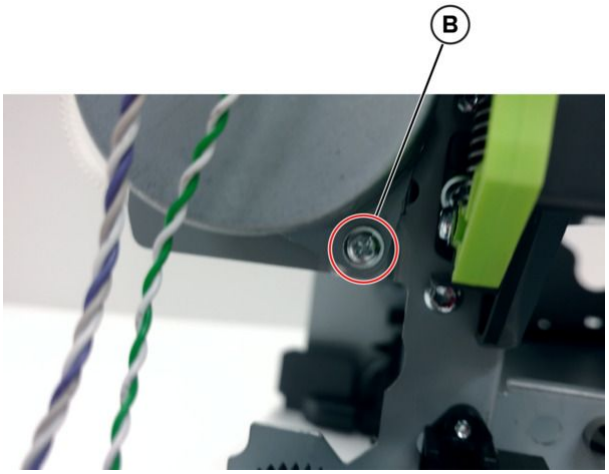
Motor (fuser drive) removal

1. Remove the right cover.
2. Disconnect the cable (A).



3. Remove the two screws (B), and then remove the motor.

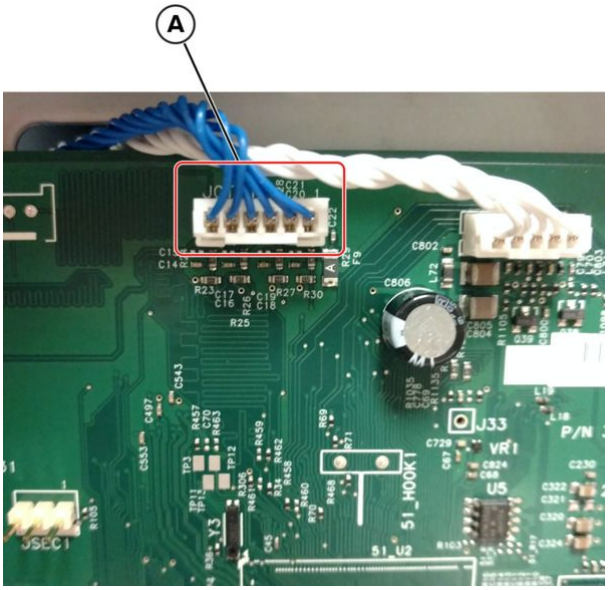




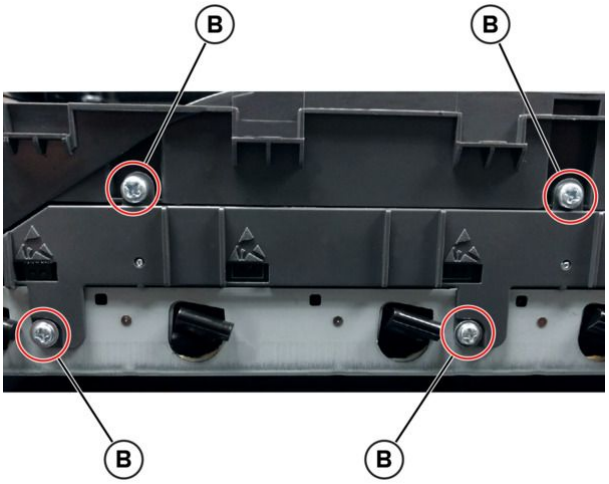
Toner meter card removal

1. Remove the imaging kit. See Imaging kit removal on page 249.
2. Remove the rear cover.
3. Disconnect the cable (A), and then push the TMC card cable through the frame opening.

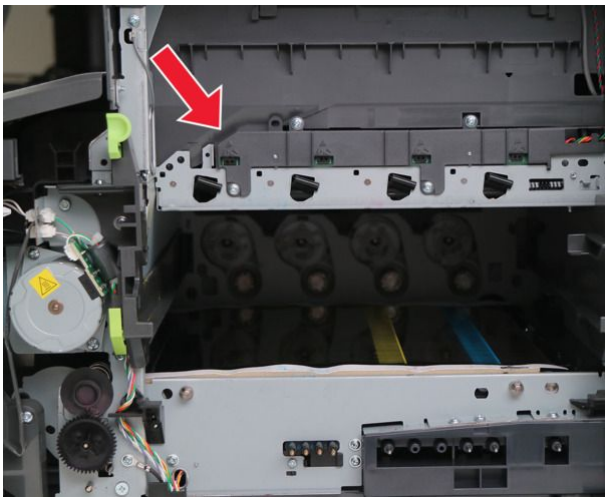
> **Notes**
> Pay attention to the cable routing.



4. Remove the four screws (B).

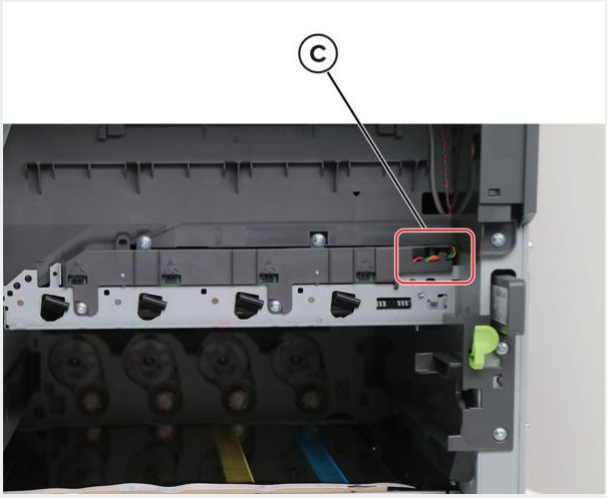


5. Insert a flat-head screwdriver into the left side of the frame, and then pry the card loose to remove it.



Installation Note

- Make sure to run the cable (C) through the retainer.

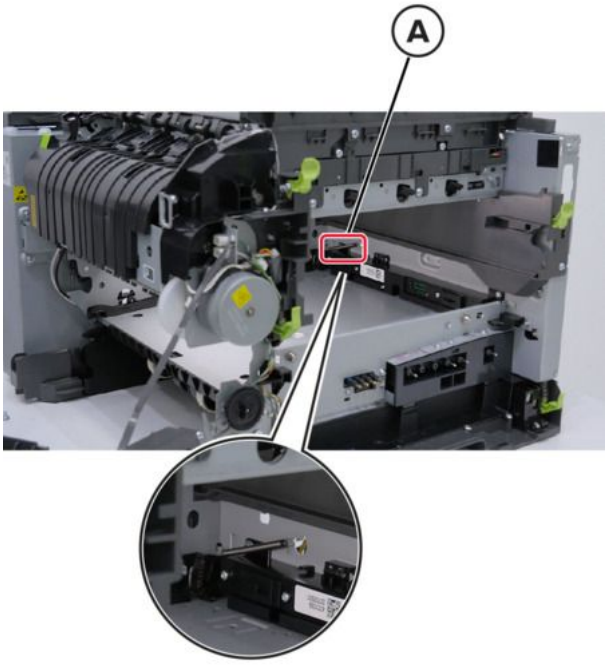


- The TMC card is a tight fit. Insert the bottom edge inside the frame first, and then push down on the top edge to clear the top cover.

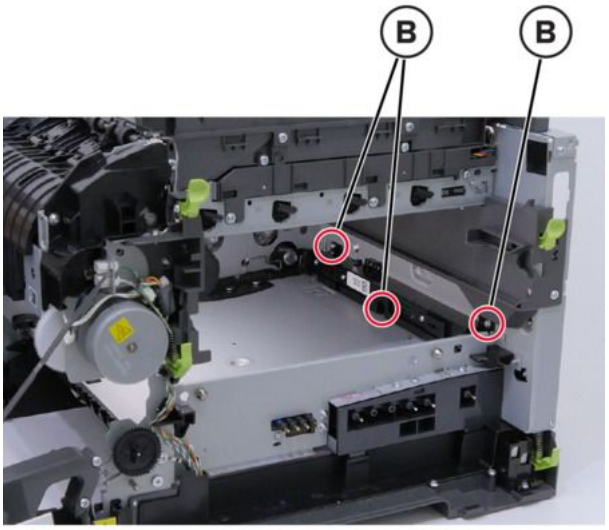
Sensor (toner patch) removal

Notes
For a video demonstration, see Sensor (toner patch) removal.

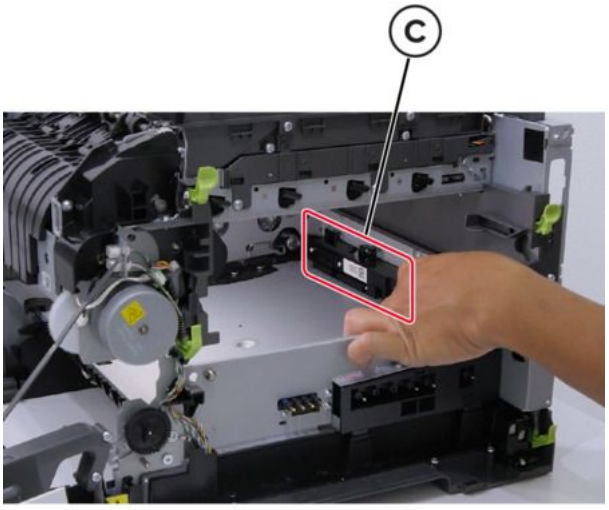
1. Remove the transfer module. See Transfer module removal on page 271.
2. Remove the spring (A).



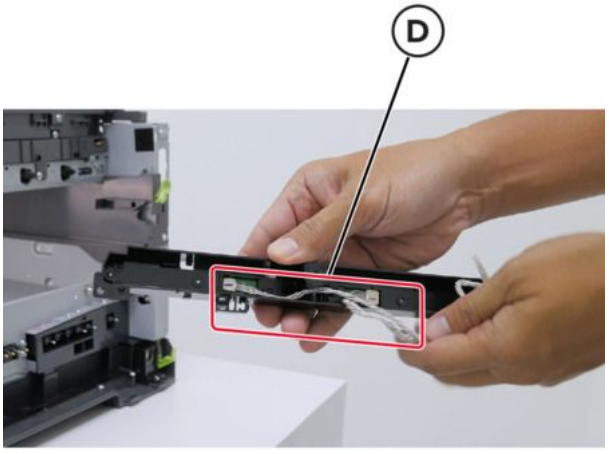
3. Remove the three screws (B).



4. Remove the sensor (toner patch) (C).



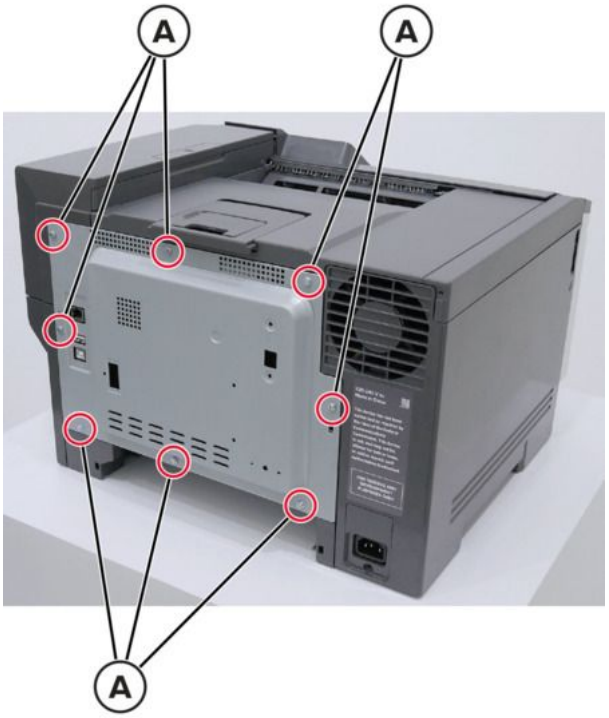
5. Disconnect the connector, and then unroute the cable (D).



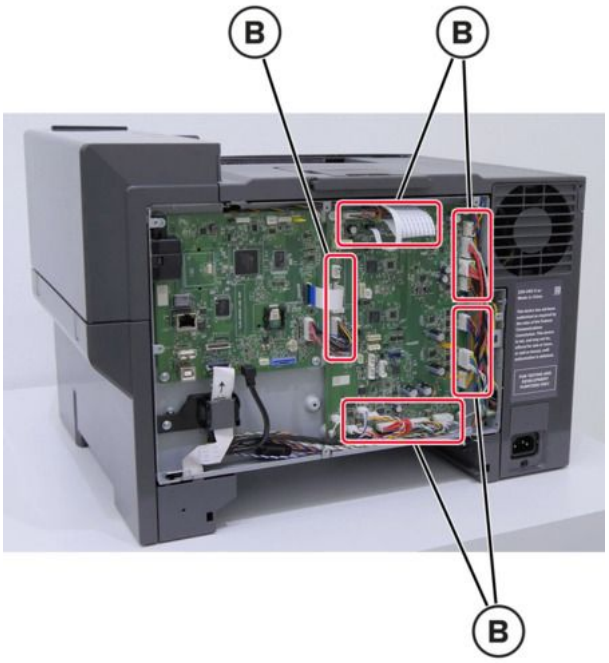
HVPS removal

Notes
For a video demonstration, see HVPS removal.

1. Remove the eight screws (A), and then remove the rear cover.

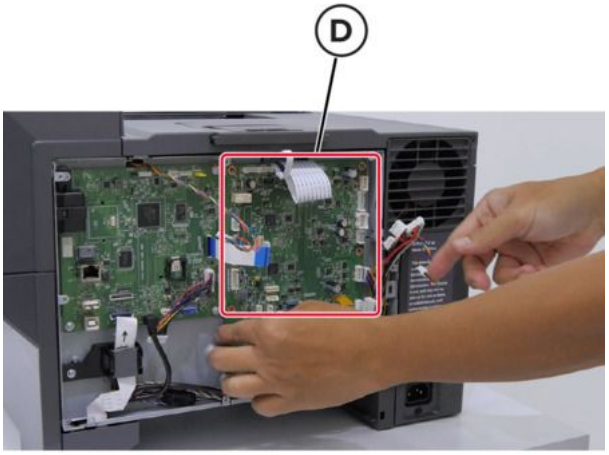


2. Disconnect all the connectors (B).

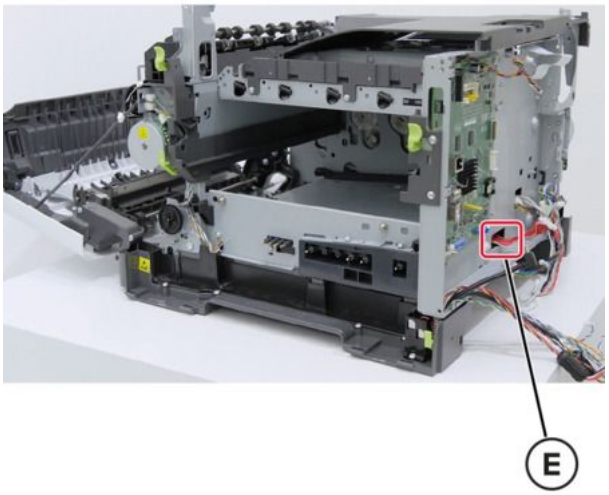


3. Remove the six screws (C).

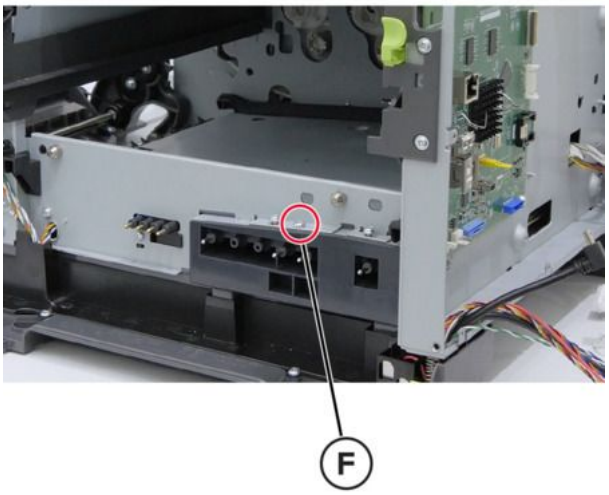
4. Remove the engine board (D).



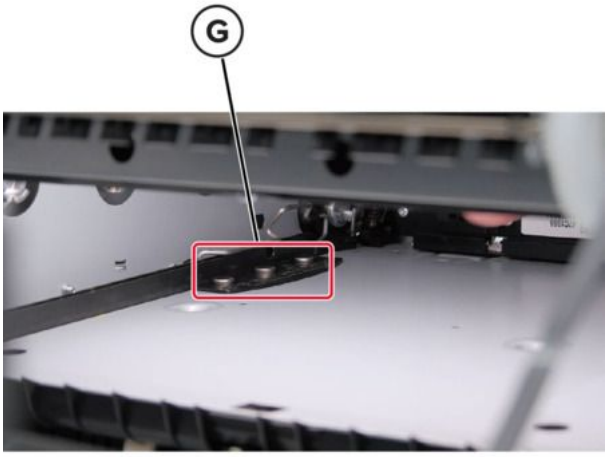
5. Remove the transfer module. See Transfer module removal on page 271.
6. Disconnect the connector (E).



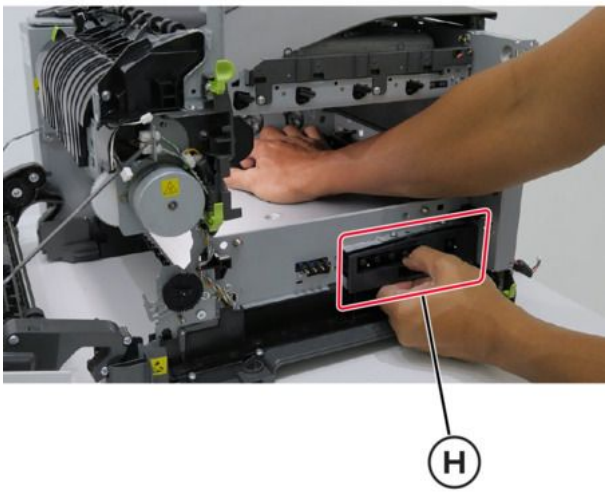
7. Remove the screw (F).



8. Press and hold the three transfer module contacts (G).



9. While pressing on the contacts, carefully pull out the HVPS (H).



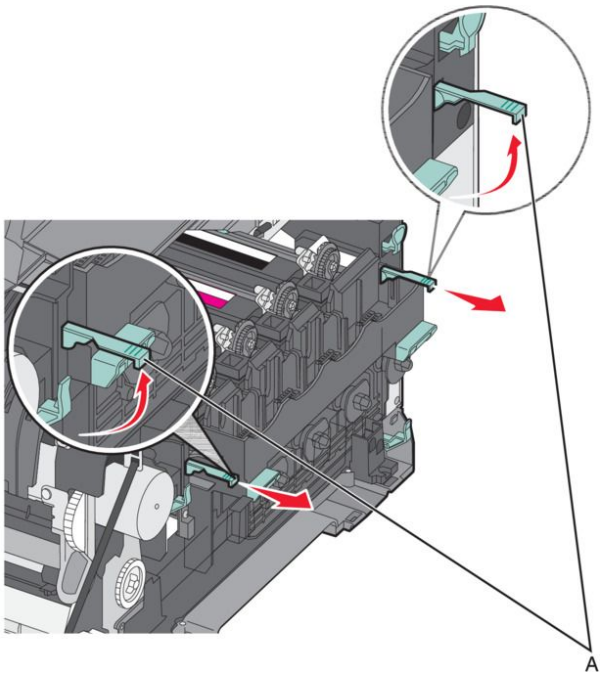
Installation Note
To avoid breaking the HVPS, slowly insert it during installation.

Imaging kit removal

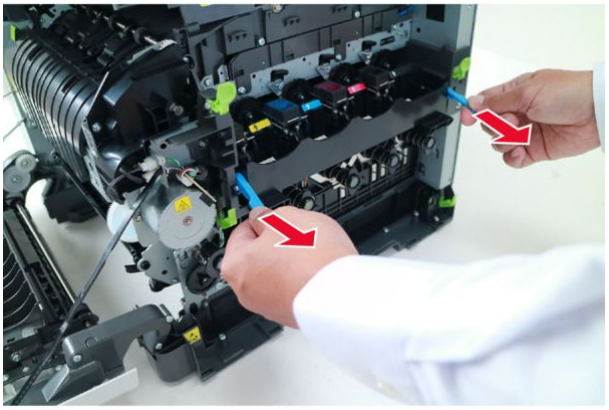
Notes
This is not a FRU.

Installation Note
The imaging kit contains the photoconductor unit and developer units. When you replace the imaging kit, you are replacing the photoconductor unit and developer units.

1. Remove the waste toner bottle. See .Waste toner bottle removal on page 256
2. Remove the toner cartridges.
3. Lift the two latches (A) to unlock the imaging kit.

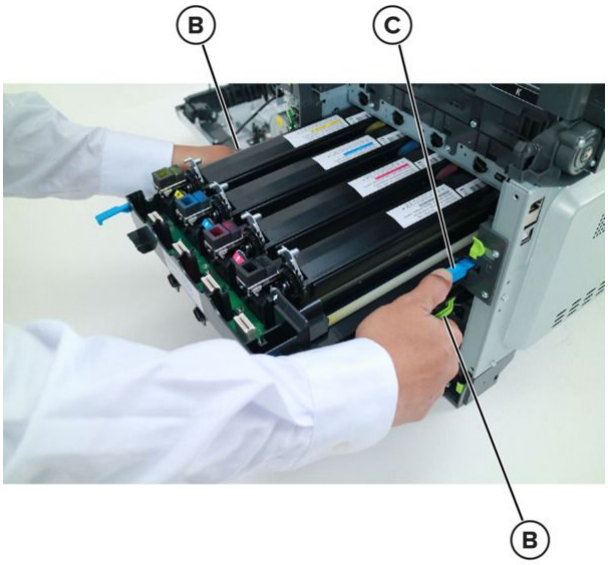


4. Pull the two latches.



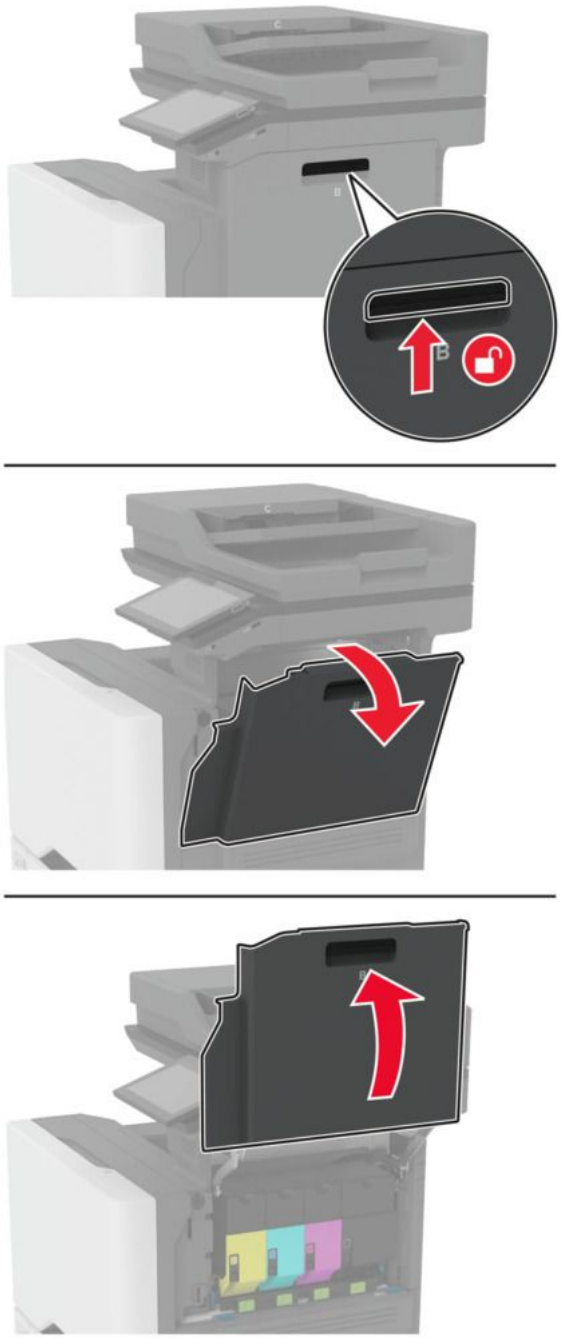
5. Press and hold the two handles (B) and the latch (C), and then pull the imaging kit to remove.

Notes
Do not touch the underside of the imaging kit.

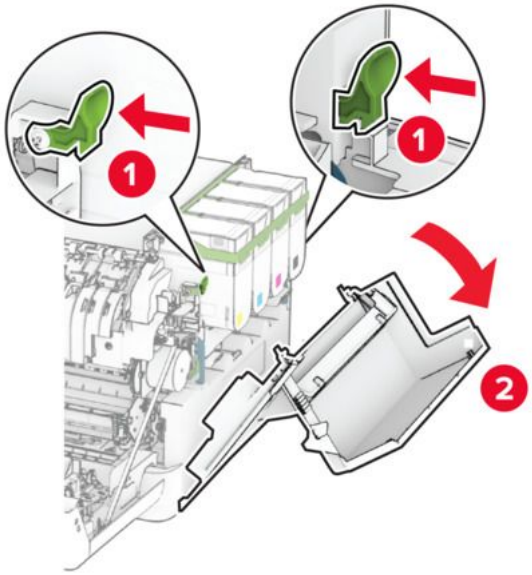


Toner access door removal

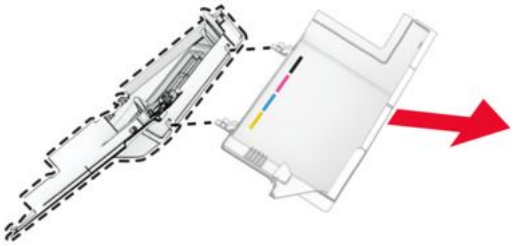
1. Open the toner access door.



2. Push the latch, and then remove the right cover.

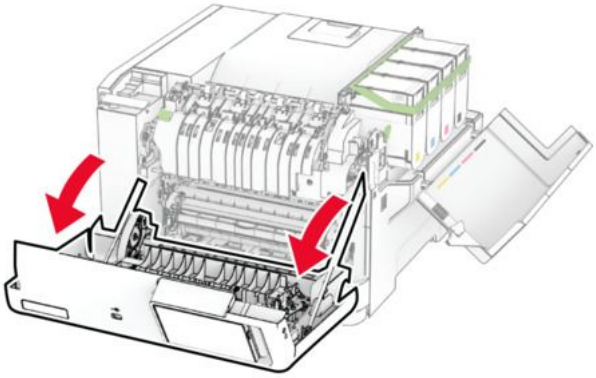


3. Pull and then remove the toner access door.

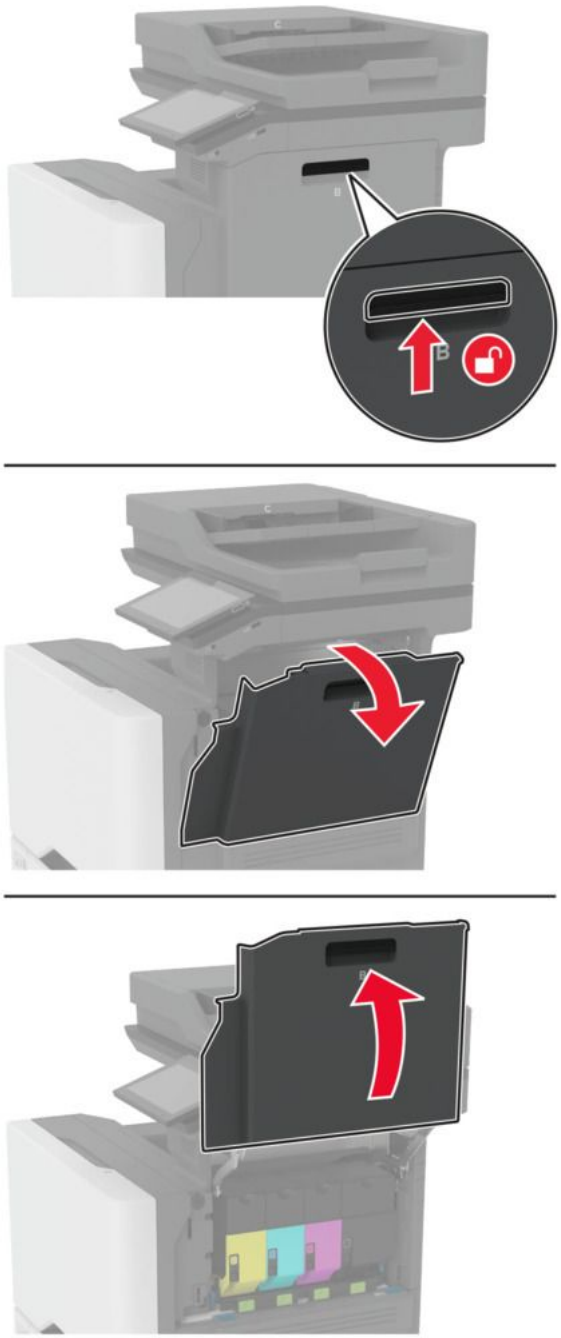


Right cover removal

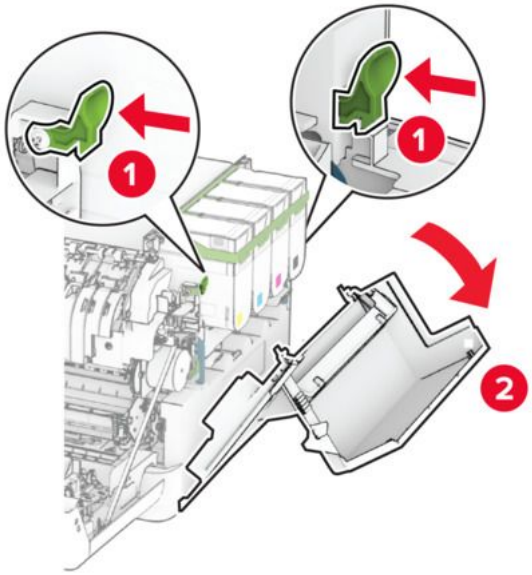
1. Open the front door.



2. Open the toner access door.



3. Push the latch, and then remove the right cover.

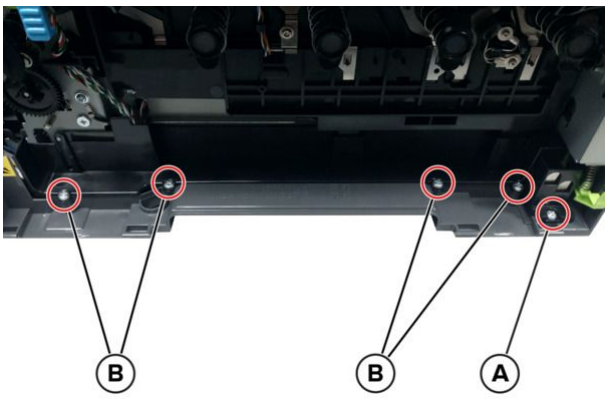


Toner cartridge contacts removal

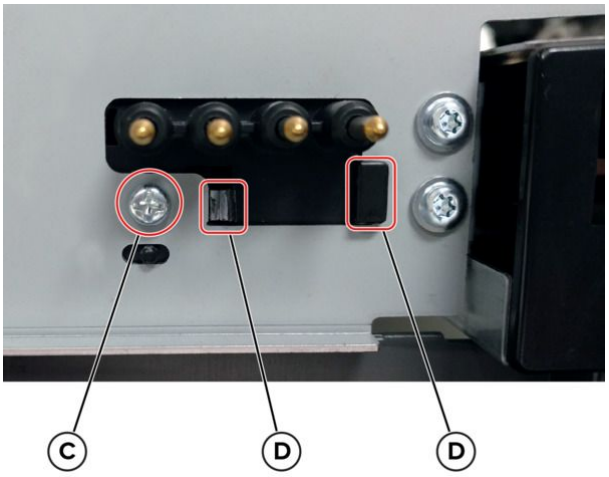
1. Remove the right cover.
2. Remove the waste toner bottle. See Waste toner bottle removal on page 256.
3. Remove the imaging kit. See Imaging kit removal on page 249.
4. Remove the rear cover.
5. Remove the screw (A) to allow access to the cable cover.

> **Notes**
> Do not remove the waste toner bottle contact block.

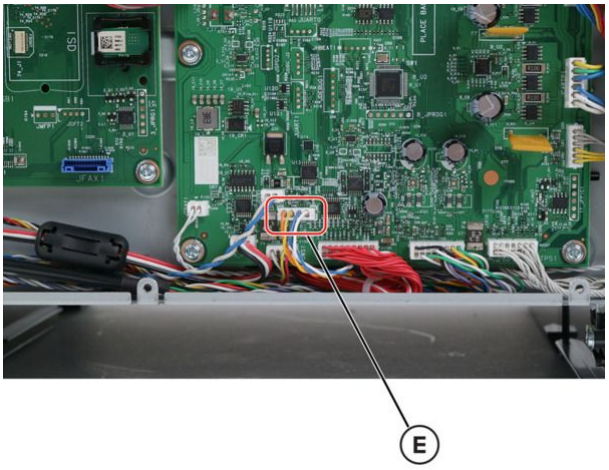
6. Remove the four screws (B), and then remove the cable cover.



7. Place the printer on its left side.
8. Remove the screw (C), and then release the two tabs (D).



9. Slide the toner cartridge contacts to the left to remove it.
10. Disconnect the cable (E) from the controller board.



Installation Note
If used, pay attention to the assembly of the cable and toroid.

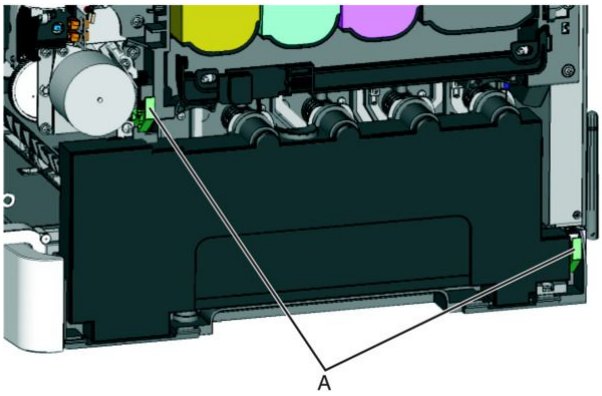
11. Remove the cable from its retainer at the bottom of the printer.
12. Extract the cable through the frame, and then remove the cable with the spring contacts.

Notes
If the cable has a toroid, unwrap the cable from the toroid, and then make sure to use the same number of wraps on the new cable.

Waste toner bottle removal

Notes
This is not a FRU.

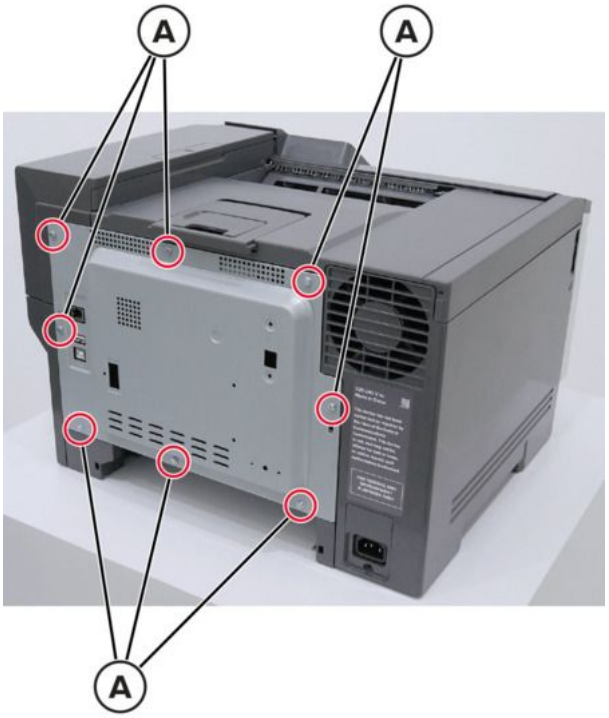
1. Remove the right cover.
2. Press the two tabs (A) to release the waste toner bottle.



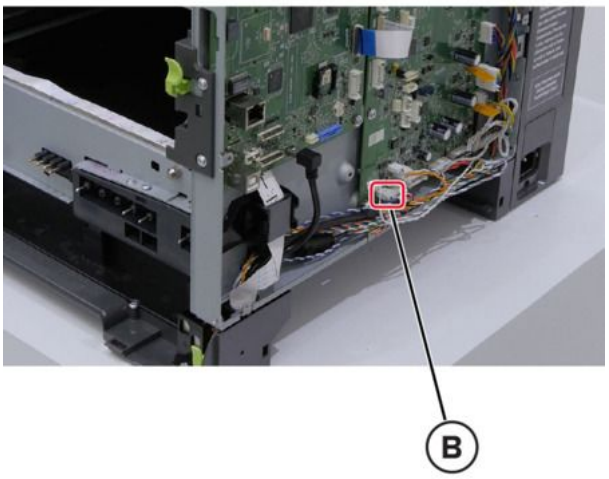
Waste toner bottle contact block removal

Notes
For a video demonstration, see Waste toner bottle contact block removal.

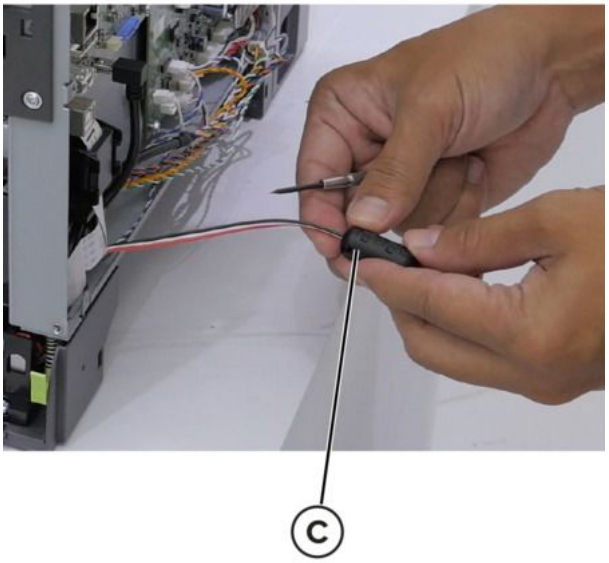
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the eight screws (A), and then remove the rear cover.



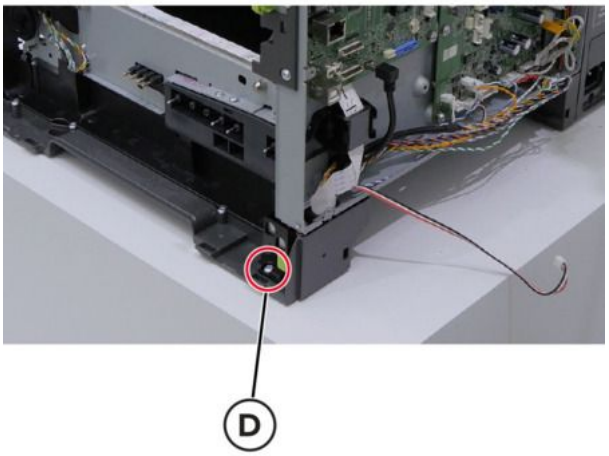
7. Disconnect the connector (B) from the engine board.



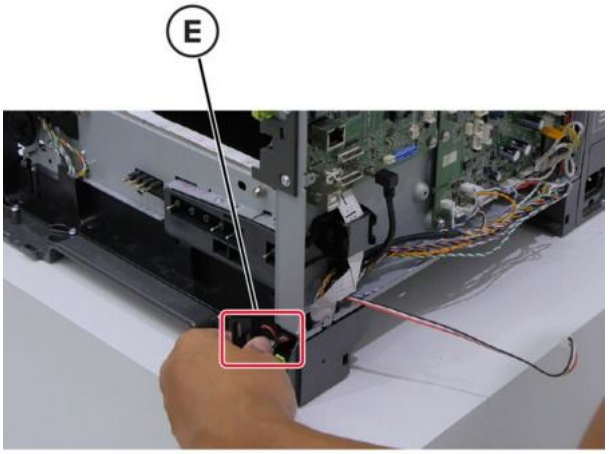
8. Unroute the cable, and then remove the toroid (C) from the cable.



9. Remove the screw (D).



10. Remove the waste toner bottle contact block (E).

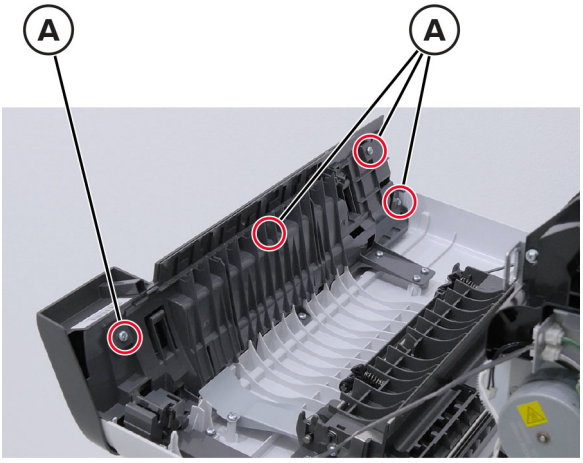


Front removals

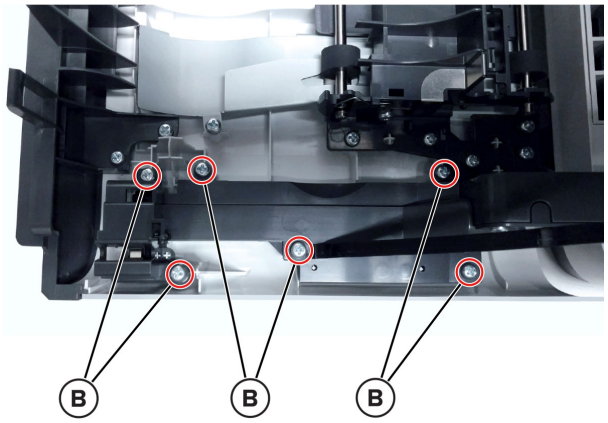
Front door removal

Notes
For a video demonstration, see Front door removal.

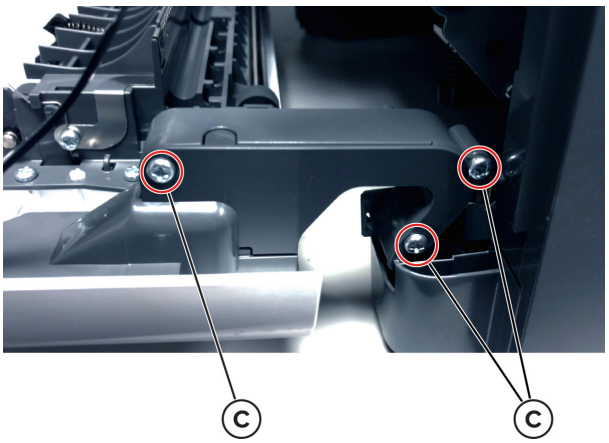
1. Remove the tray insert.
2. Open the front door.
3. Remove the four screws (A), and then remove the upper front cover.



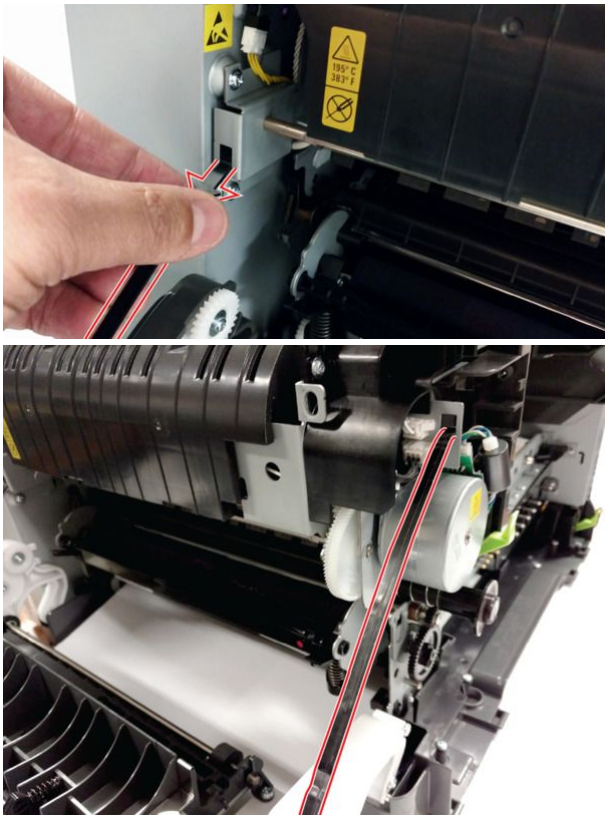
4. Remove the six screws (B).



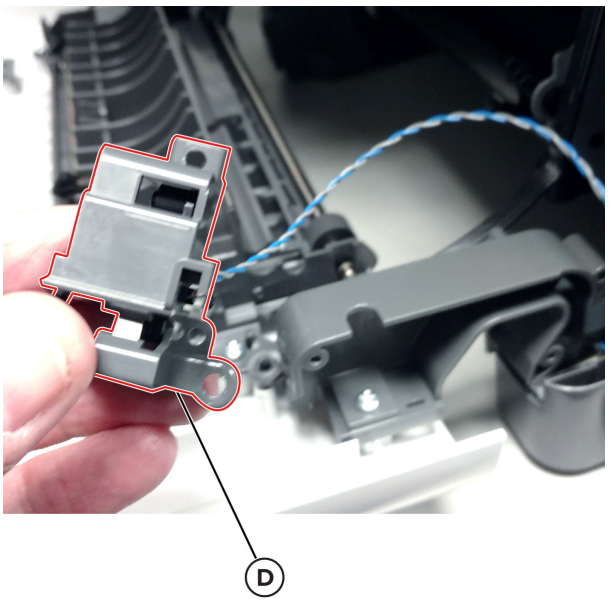
5. Remove the three screws (C).



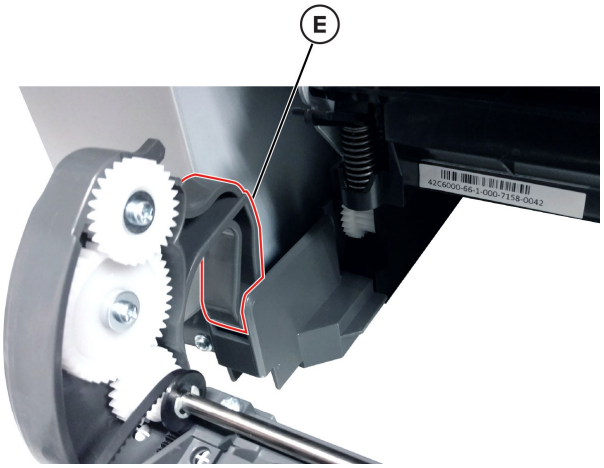
6. Release the left and right door straps.



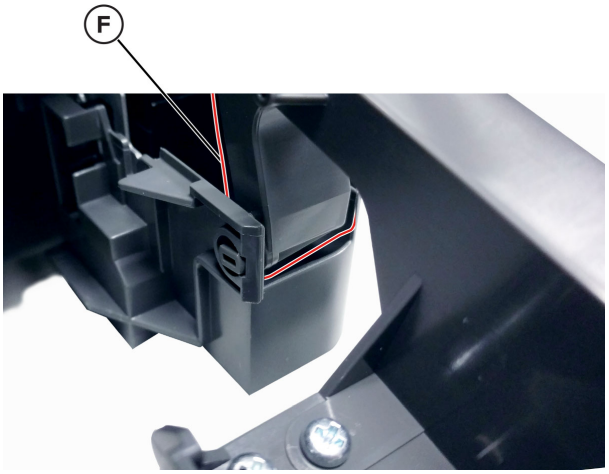
7. Route the interlock switch cover (D) away from the door.



8. Remove the left hinge (E) from the left subframe.



9. Remove the right hinge (F) from the right subframe.

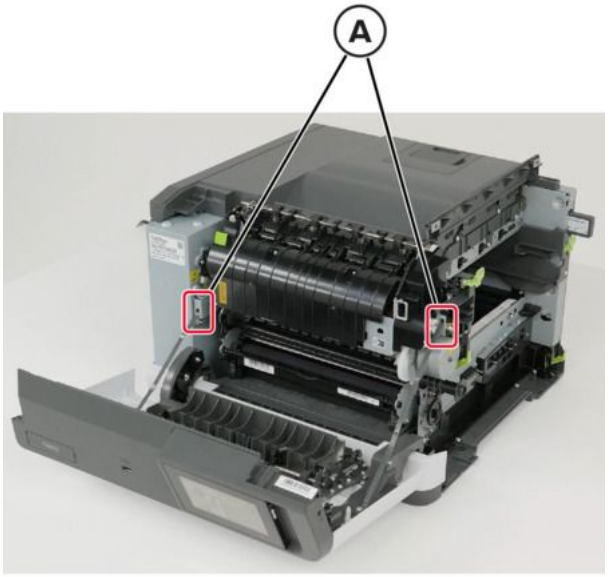


10. Remove the front door.

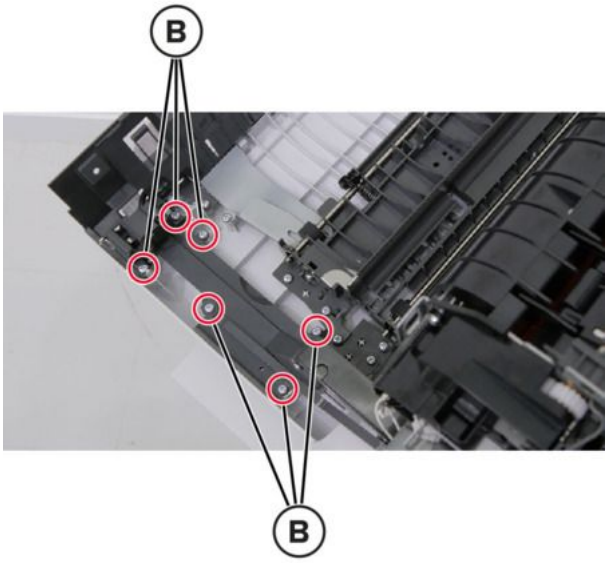
Sensor (front door) removal

Notes
For a video demonstration, see Sensor (front door) removal.

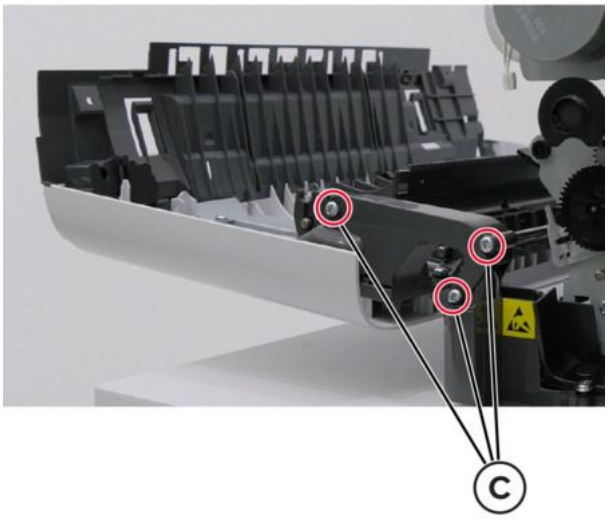
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Release the left and right door straps (A).



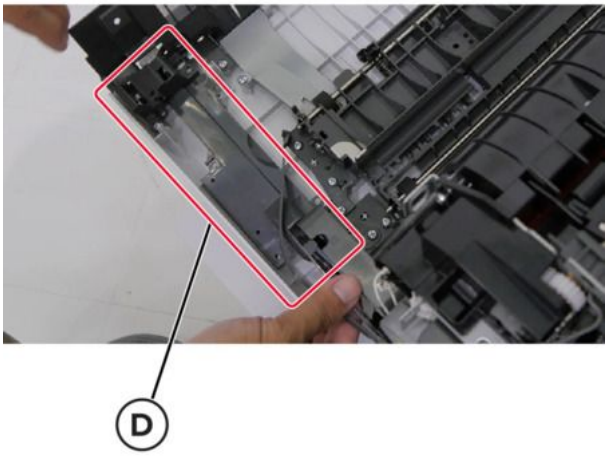
7. Remove the six screws (B).



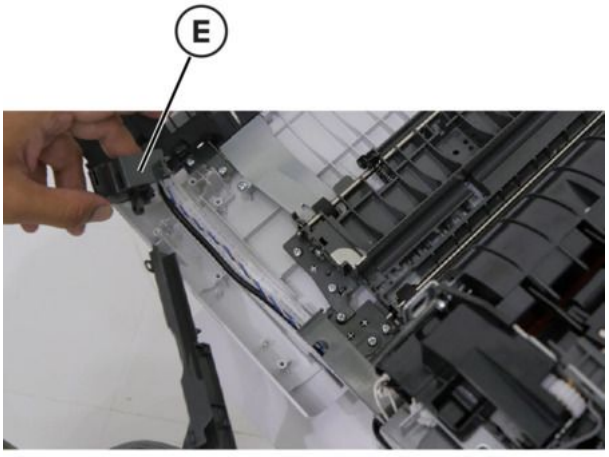
8. Remove the three screws (C).



9. Remove the cable cover (D).

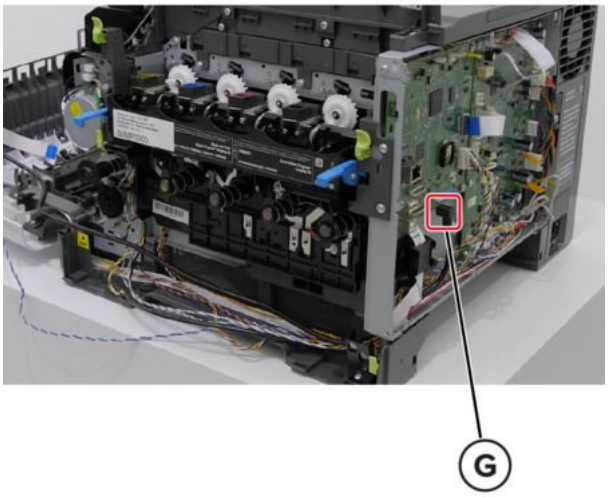


10. Unroute the interlock switch (E) cover away from the door.

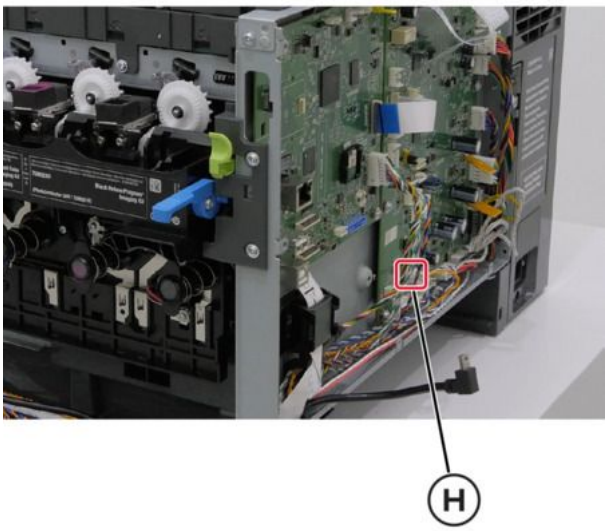


11. Remove the eight screws (F), and then remove the rear cover.

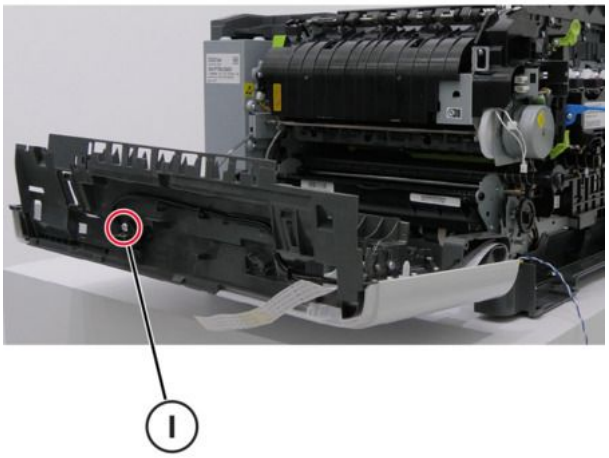
12. Disconnect the connector (G) from the controller board.



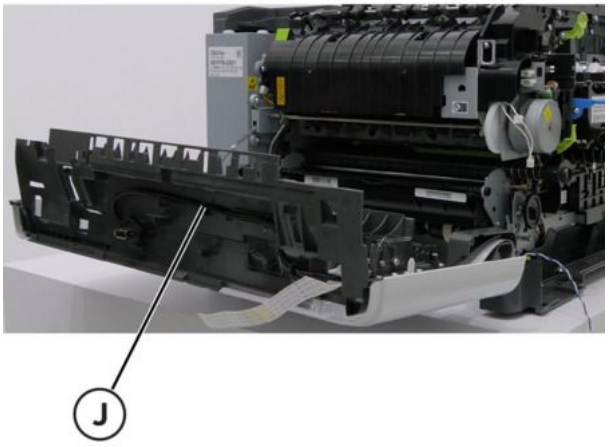
13. Disconnect the connector (H) from the engine board.



14. Remove the screw (I).



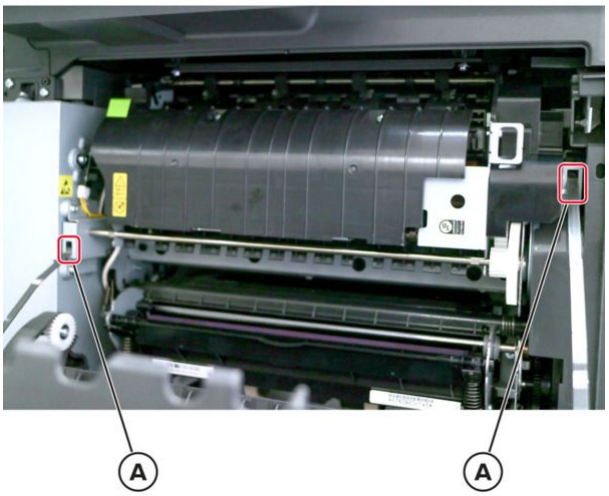
15. Remove the sensor, and then unroute the cable (J).



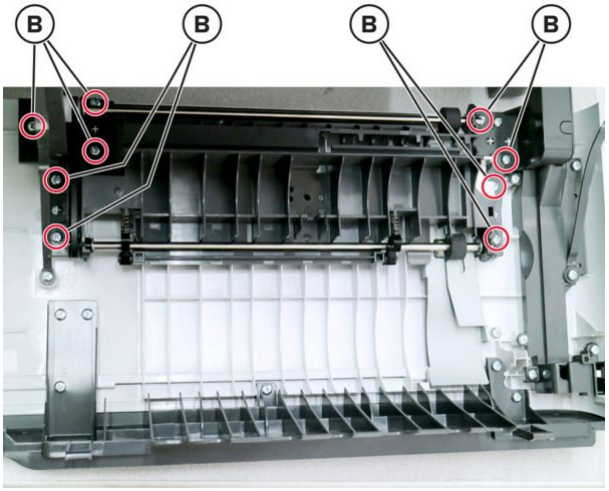
Front door inner paper feed guide removal

Notes
For a video demonstration, see Front door inner paper feed guide removal.

1. Open the front door.
2. Release the two door straps (A) from the frame.



3. Remove the nine screws (B), and then remove the paper feed guide.



Fuser removal

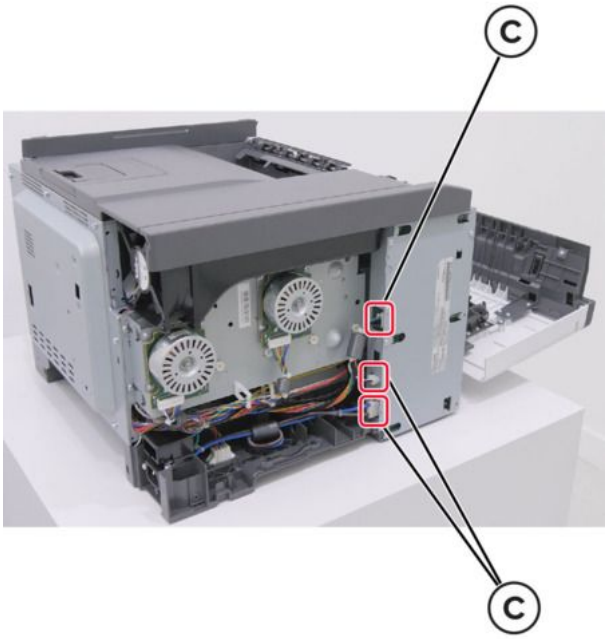
Notes
For a video demonstration, see Fuser removal.

1. Open the front door.
2. Remove the right cover.

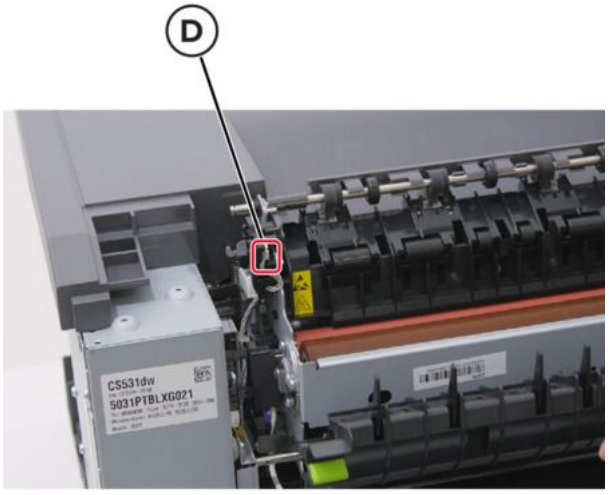
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (A) at the back.

7. Remove the screw (B) on the left side, and then remove the left cover.

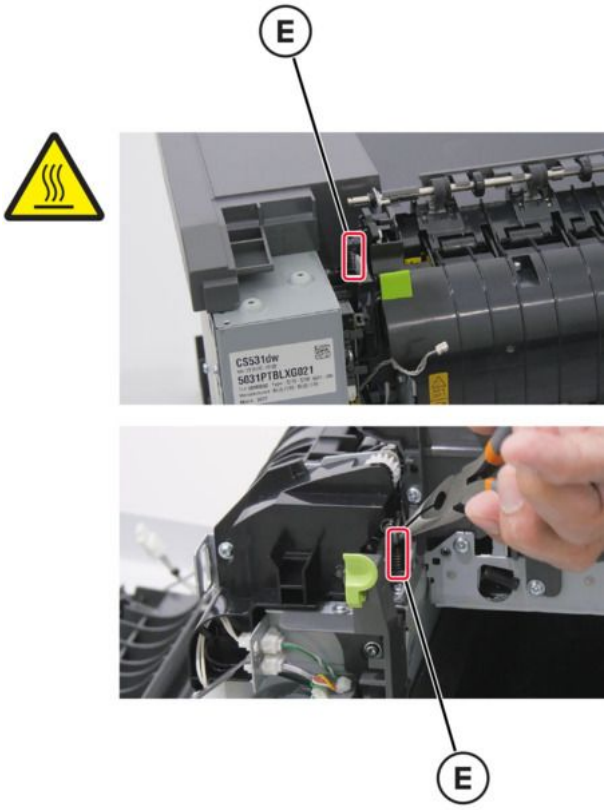
8. Disconnect the connectors (C) from the power supply.



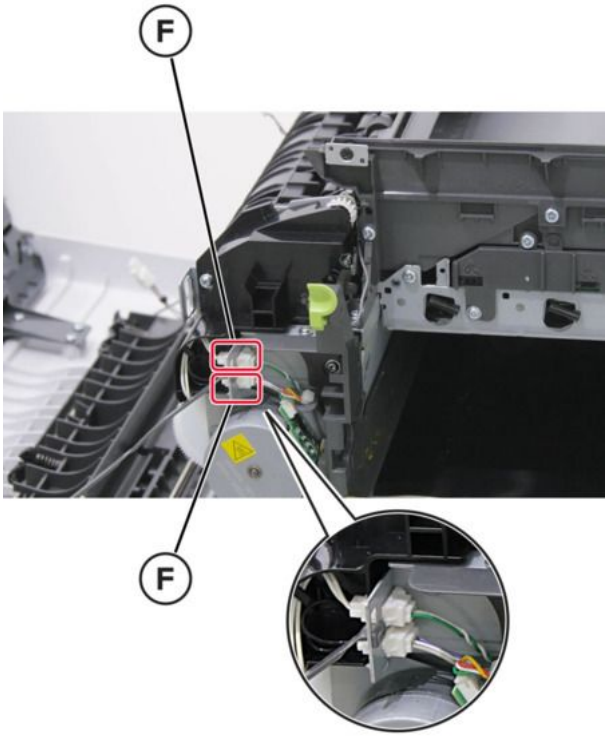
9. Disconnect the connector (D) from the narrow media/bin full flag, and then unroute the cable from its retainer.



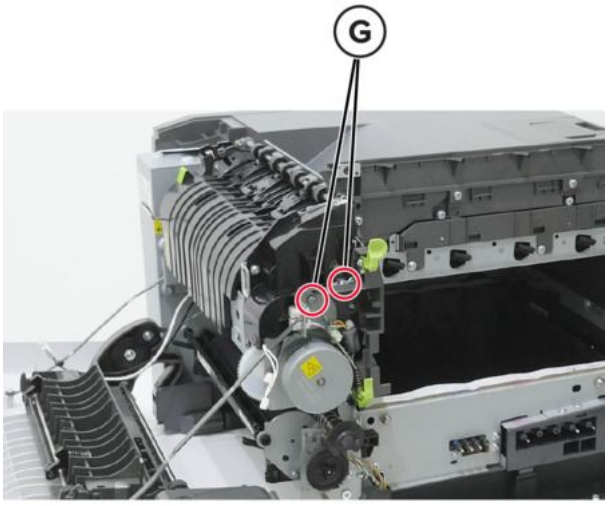
10. Disconnect the springs (E) from both sides of the fuser.



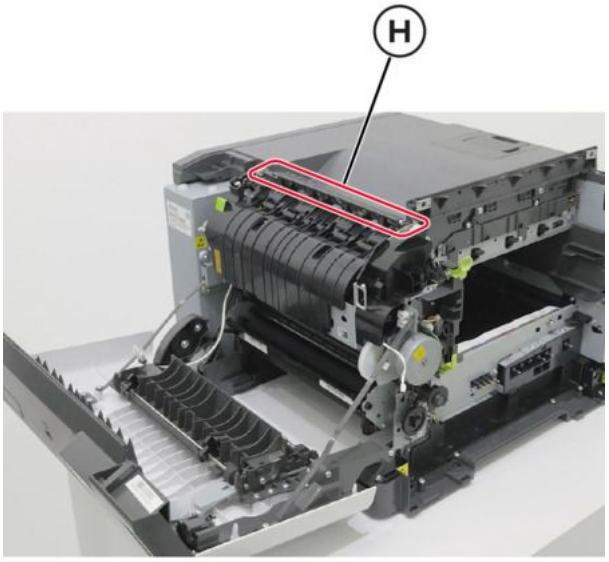
11. Disconnect the thermistor connectors (F).



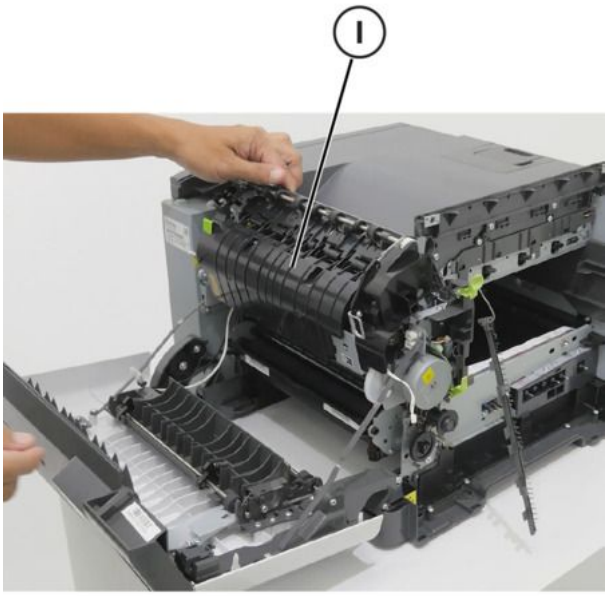
12. Remove the two screws (G).



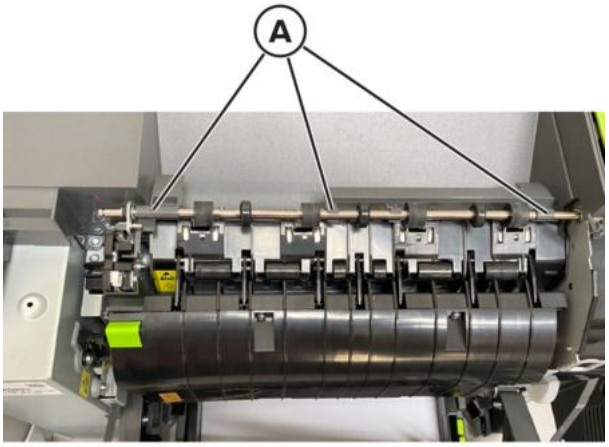
13. Remove the static brush holder (H).



14. Remove the fuser.



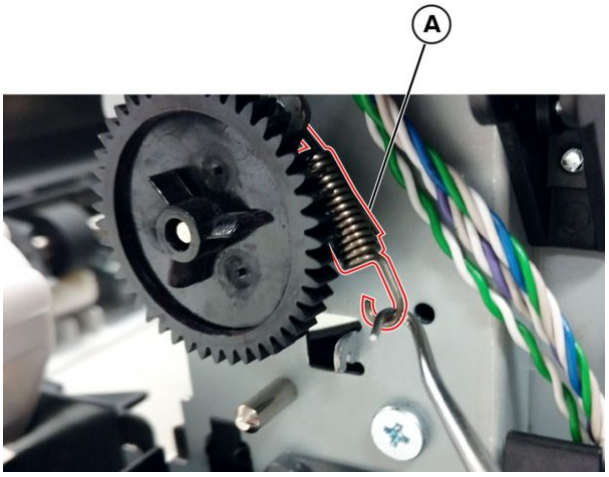
Installation Note
Install the flags (A) from the old fuser into the new fuser.



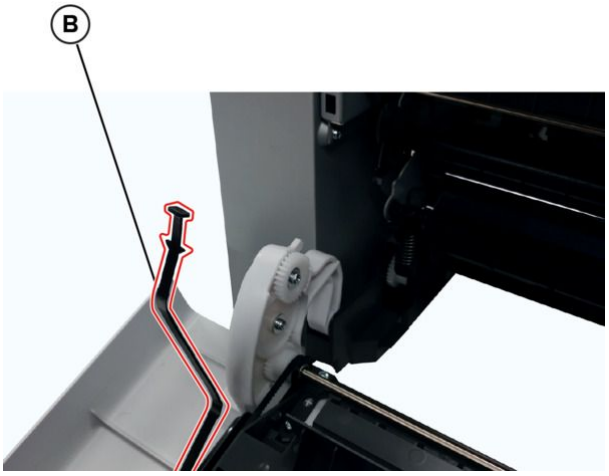
Transfer module removal

Notes
For a video demonstration, see Transfer module removal.

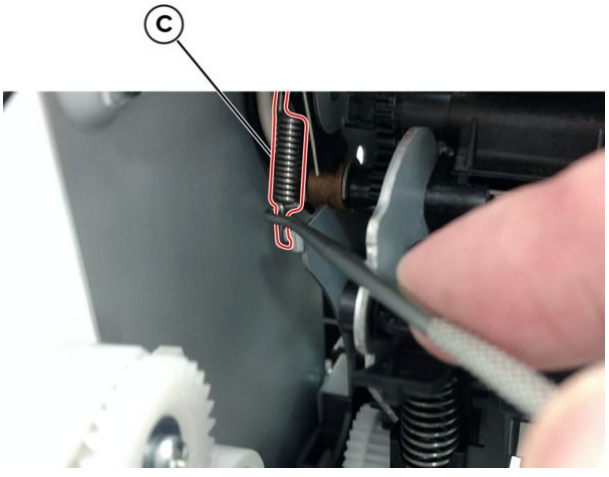
1. Remove the right cover.
2. Remove the waste toner bottle.
3. Remove the imaging kit. See Imaging kit removal on page 249.
4. Disconnect the spring (A) on the right side.



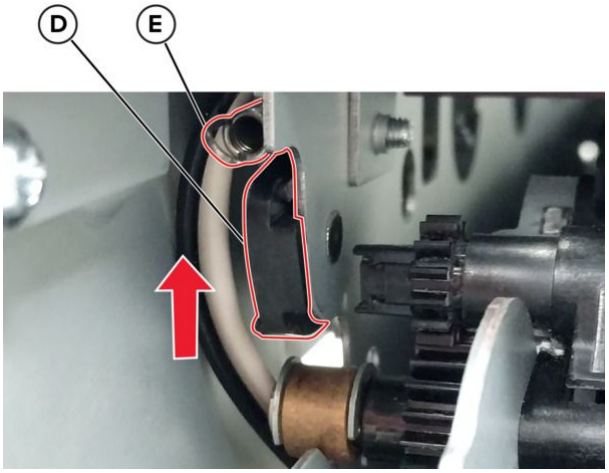
5. Release the left and right door straps (B).



6. Disconnect the spring (C).

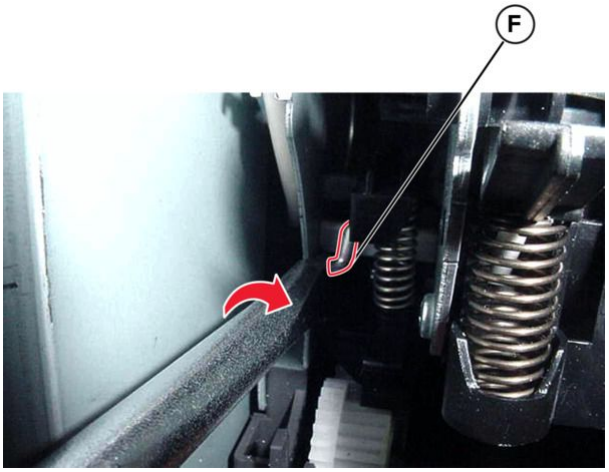


7. Raise the cam (D) and spring (E).

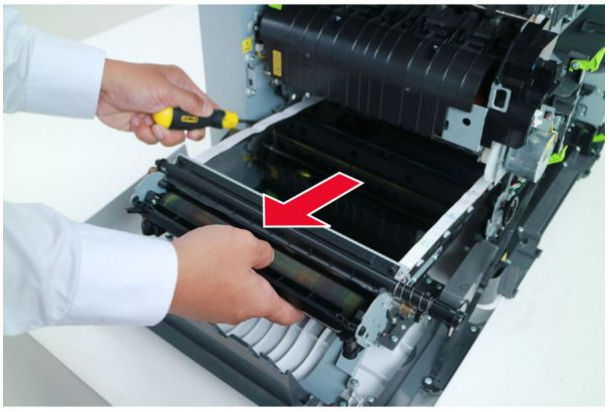


8. Place the tip of a flat-head screwdriver in between the release lever (F) and the frame, and then rotate the screwdriver to rotate the release lever and decouple the transfer module while pulling it toward the front.

> **Warning—Potential Damage**
> Make sure that the lever is in the fully released position before removing the transfer module.

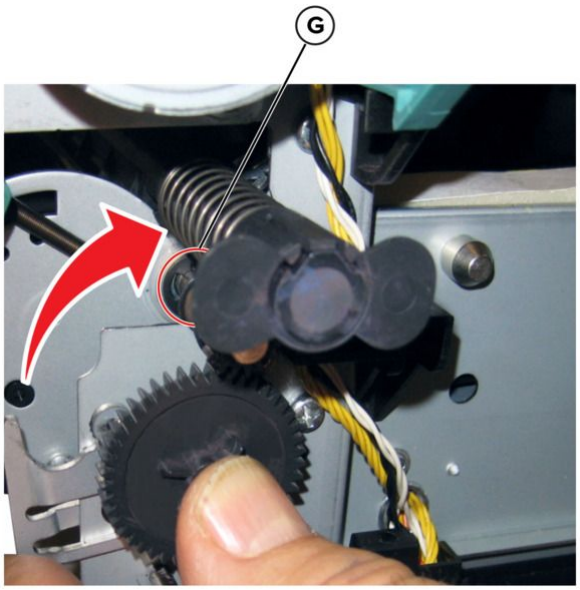


9. Hold the release lever as you pull out the transfer module for the first four inches (100 mm). A quick and firm pull should overcome the latch at this point.
10. Remove the transfer module.



Installation notes:

1. Do not rotate the release lever again to install the new transfer module. Doing so may cause the incorrect seating of the transfer module. The coupler is rotated out of the way as the transfer module slides in.
2. Rotate the right side spring clamp (G) and left side cam back to their original positions, and then rehook the springs.



3. Make sure to reset the ITM counter after installing the new transfer module.

   Enter the Diagnostics menu, and then navigate to:

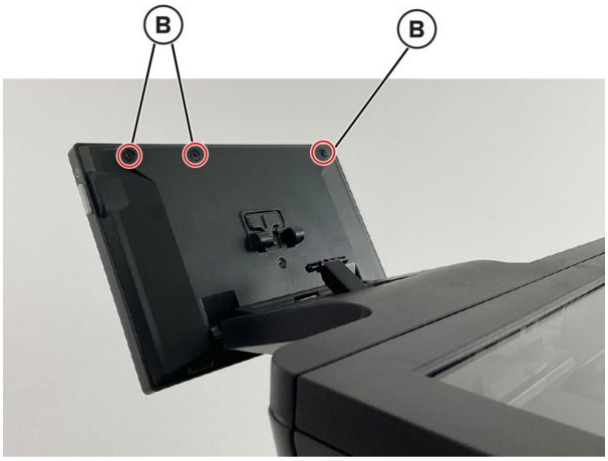
   Printer diagnostics & adjustments > Supply reset > ITM reset

Control panel removal

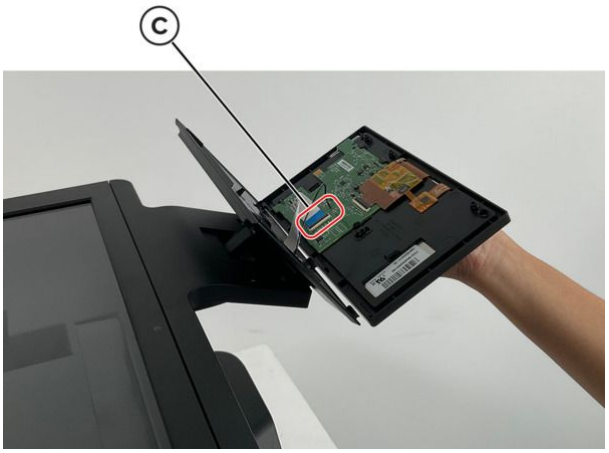
Notes
For a video demonstration, see Control panel removal.

1. Release the hinge (A).

2. Remove the three screws (B).



3. Disconnect the connector and ground cable (C).



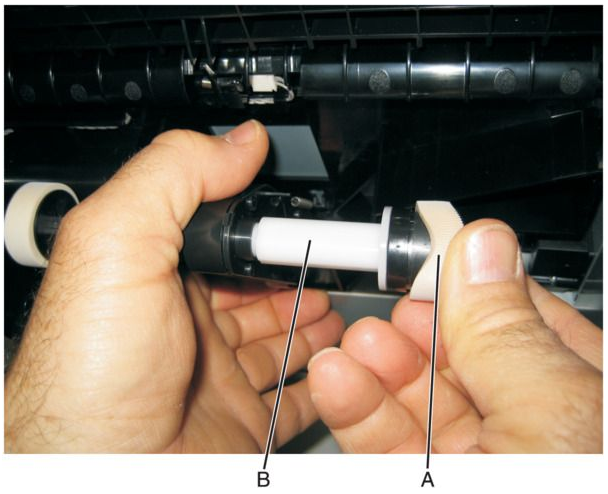
4. Remove the control panel.

Bottom removals

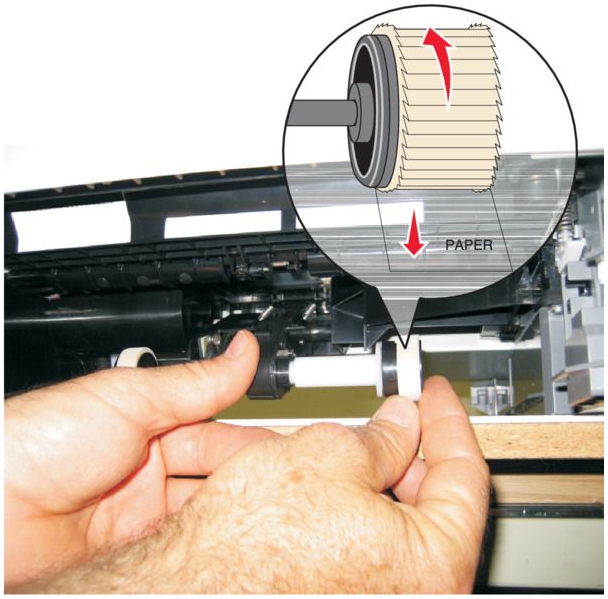
Pick tires removal

> **Warning—Potential Damage**
> Remove only the rubber tires and not the paper pick tire to avoid losing small parts.

1. Lower the paper pick motor drive .
2. Remove the rubber tire (A) from the pick roll (B). Repeat for the other tire.



> **Installation Note**
> Install the new rubber tires with the surface texture turning in the direction as shown in the following:

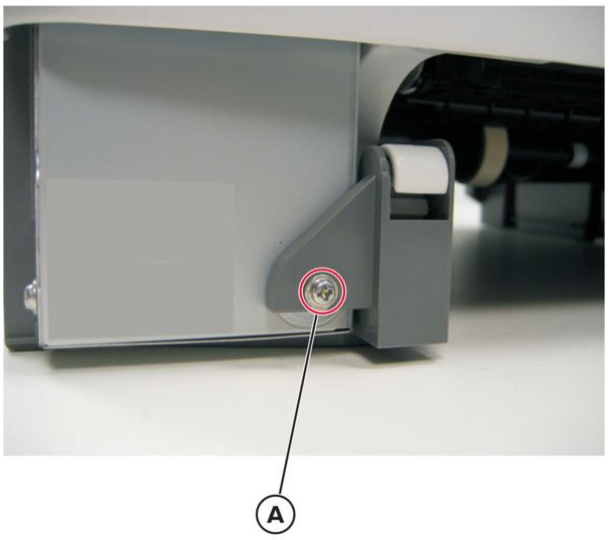


Notes
Feel each rubber surface to verify that it turns in the proper direction. The smoother surface pushes the paper toward the front of the printer.

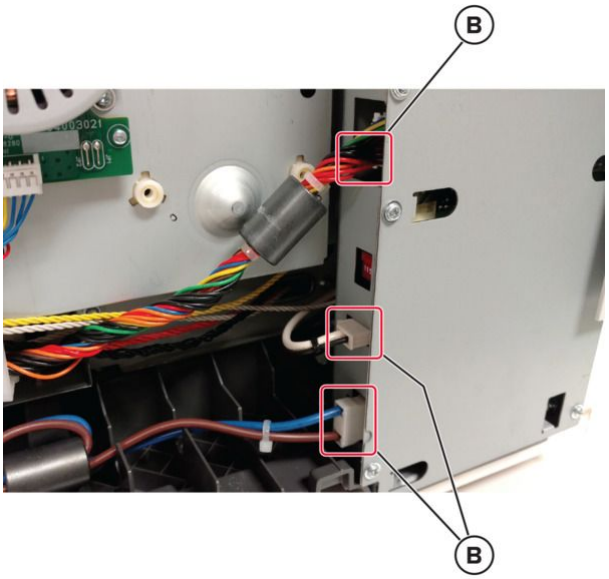
Lower left frame removal

Notes
The lower left frame and lower right frame are in the same FRU.

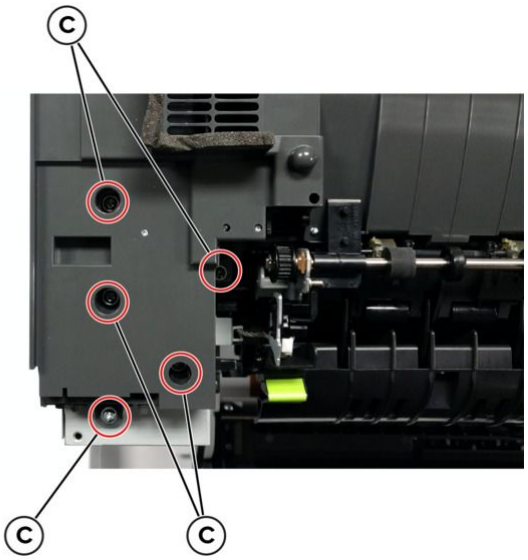
1. Remove the tray insert.
2. Remove the screw (A).



3. Remove the waste toner bottle. See Waste toner bottle removal on page 256.
4. Remove the imaging kit. See Imaging kit removal on page 249.
5. Remove the left cover. See Left cover removal on page 233.
6. Disconnect the three cables (B).

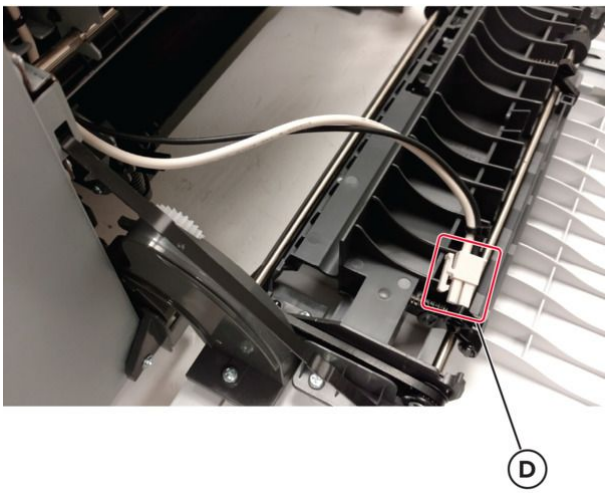


7. Remove the flatbed scanner.
8. Remove the five screws (C).

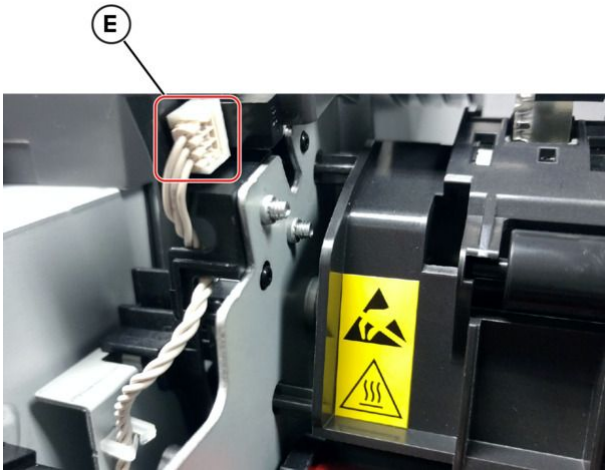


9. Position the fuser cable (D) so that it can be pulled through from the front of the printer, and then guide the cable through the front.

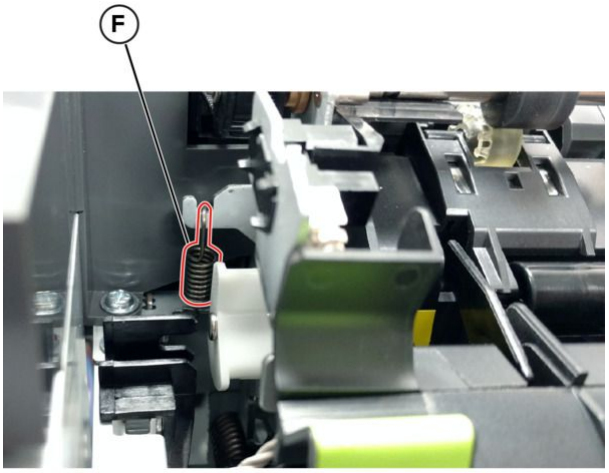
> **Warning—Potential Damage**
> Do not pull the cable too hard or cut the cable insulation.

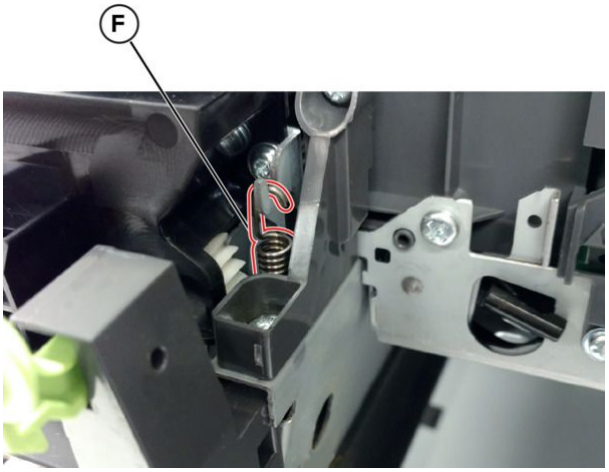


10. Remove the bin full/narrow media sensor flag.
11. Disconnect the cable (E), and then remove it from its retainer.

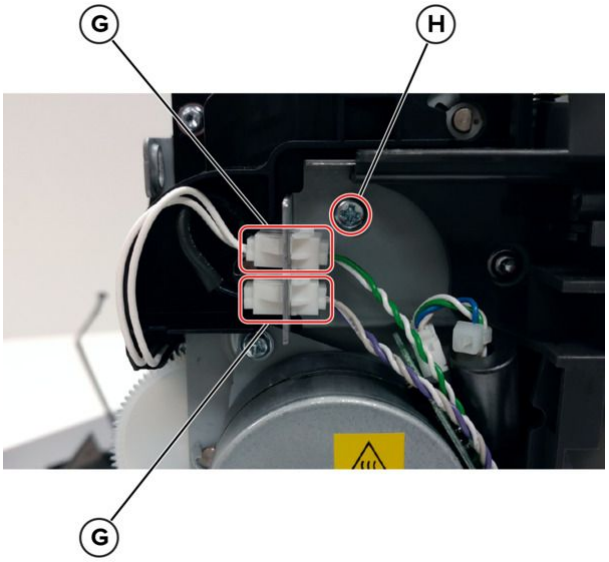


12. Unhook the two springs (F) from both sides of the fuser.



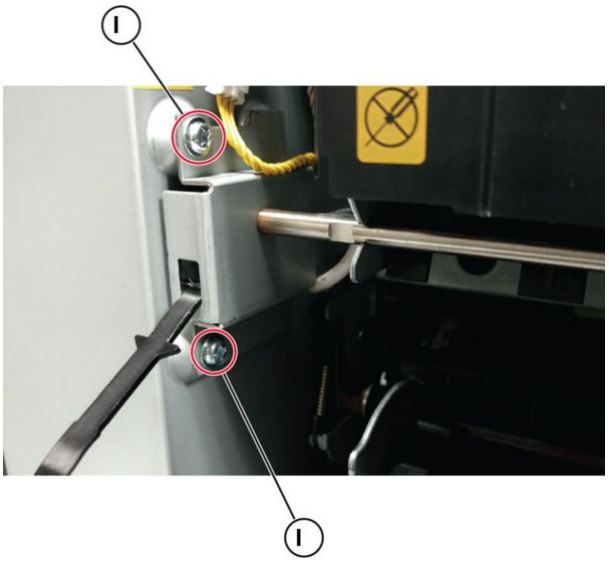


13. Disconnect the two cables (G), and then pull them over the retainer.
14. Remove the screw (H).



Notes
Do not lose the grounding washer.

15. Remove the two screws (I).

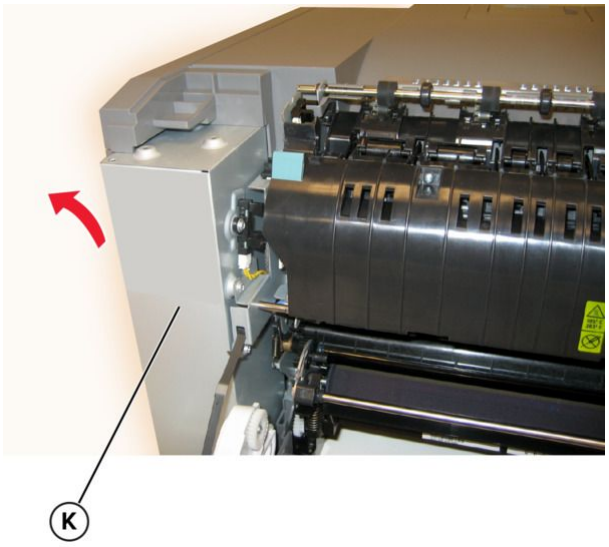


16. Rotate the top of the fuser toward the front, and then slide the fuser to the left to align the fuser side frames with the flat area of the shaft.
17. Disconnect the cable (J).

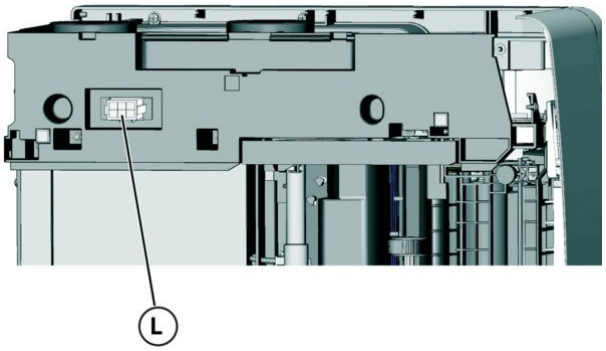
18. Lift the front left corner of the top cover, and then tilt the LVPS cage (K) to remove the cage.

Note:

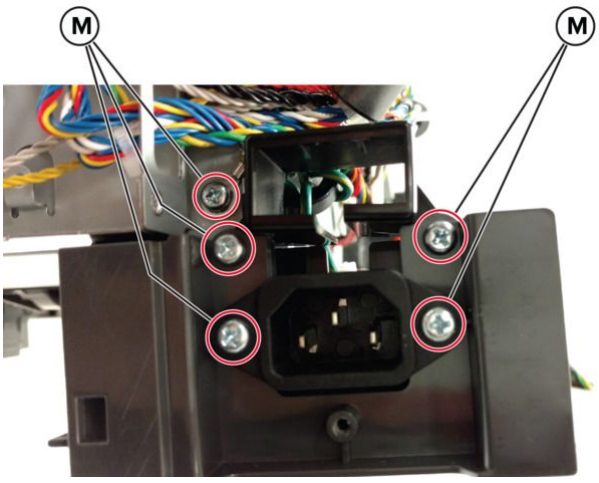
- At the bottom of the cage on the left side, disengage the two posts.
- Pay attention to the sensor (fuser exit) which remains on the cage.



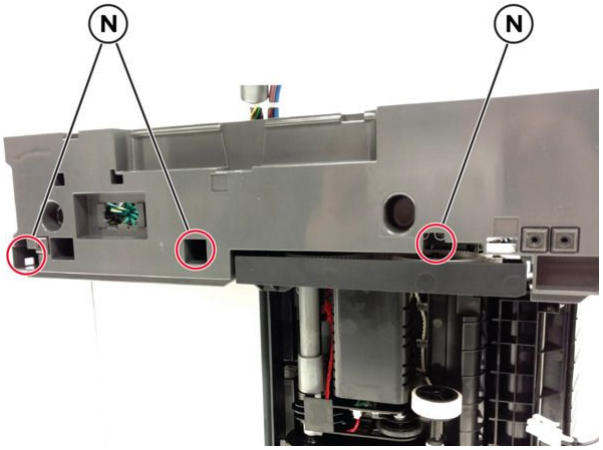
19. Place the printer on its right side.
20. Remove the connector (L).



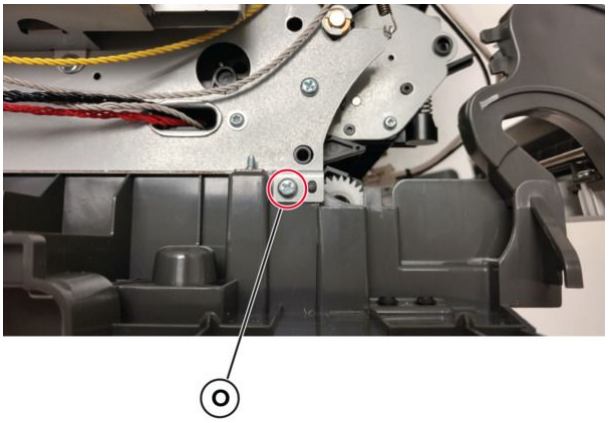
21. At the rear of the printer, remove the five screws (M).



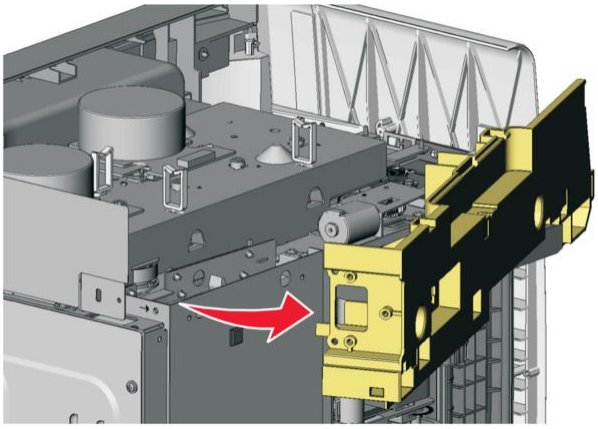
22. Remove the AC receptacle from the lower left frame.
23. Remove the three screws (N).



24. Tilt the front door down, detach the door from the frame, and then remove the screw (O).



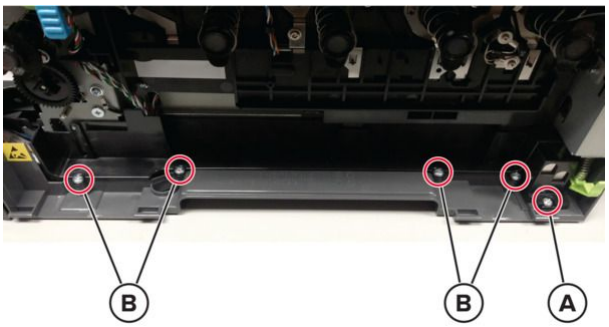
25. Swing the lower left frame away from the printer to remove it.



Lower right frame removal

Notes
For a video demonstration, see Lower right frame removal.

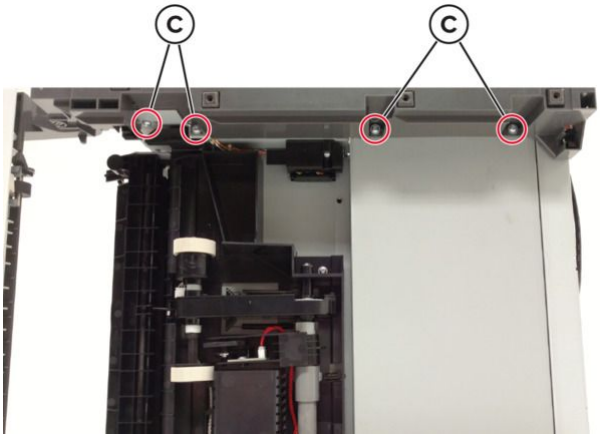
1. Remove the tray insert.
2. Remove the waste toner bottle. See Waste toner bottle removal on page 256.
3. Remove the imaging kit. See Imaging kit removal on page 249.
4. Remove the screw (A), and then remove the four screws (B).



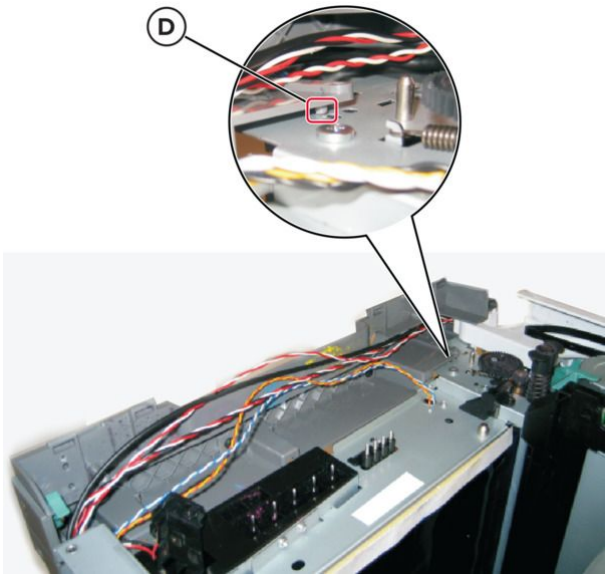
Note:

- Do not unplug the waste toner bottle sensor contact.
- The cable cover is part of the lower right frame.

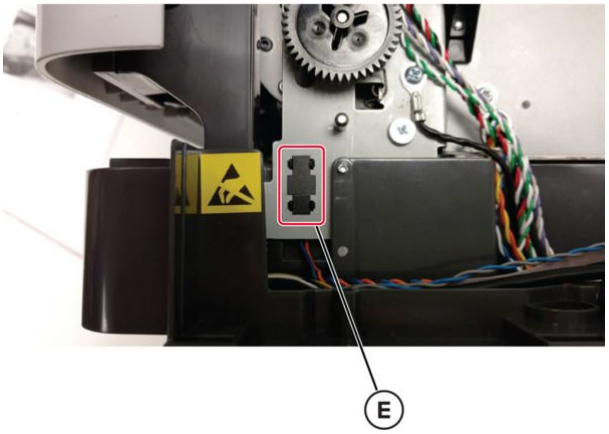
5. Place the printer on its left side.
6. Remove the four screws (C).



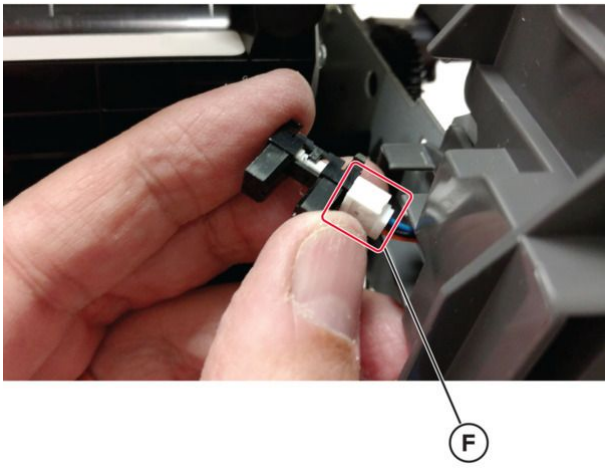
7. Lift the lower right frame pin (D) out of the hole on the printer frame.



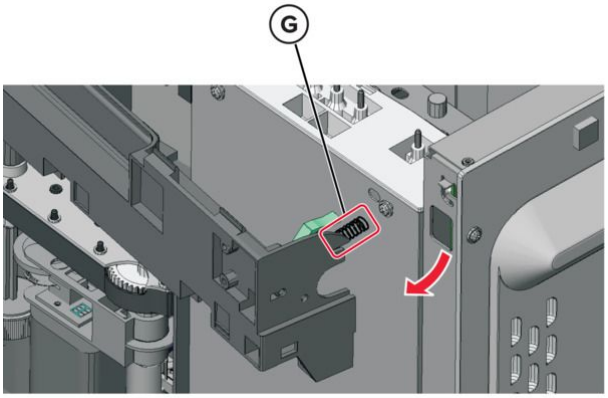
8. Remove the sensor retainer plate (E).



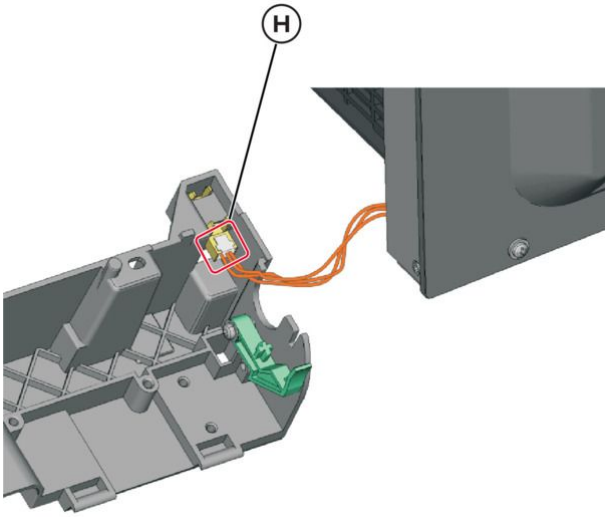
9. Remove the sensor, and then disconnect the cable (F).



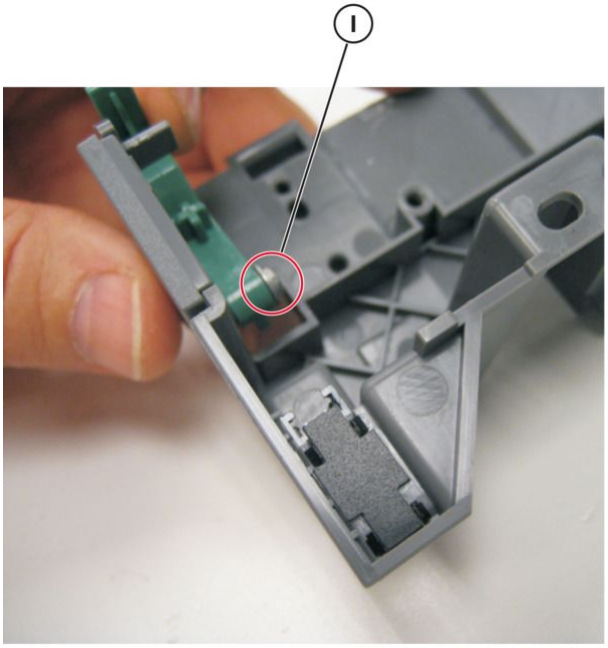
10. Swing the rear part away from the printer, and then remove the spring (G).



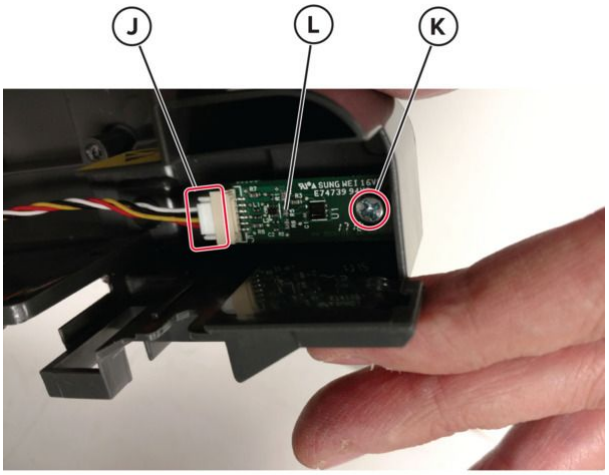
11. Disconnect the cable (H).



12. Swing the rear of the lower right frame away from the printer to remove it.
13. From inside the lower right frame, remove the screw (I), and then remove the spring bracket.



14. Disconnect the cable (J), remove the screw (K), and then remove the sensor (L).

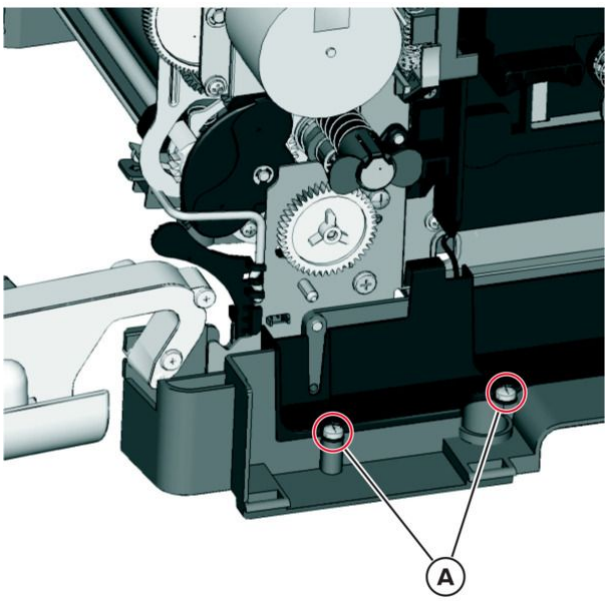


Installation Note

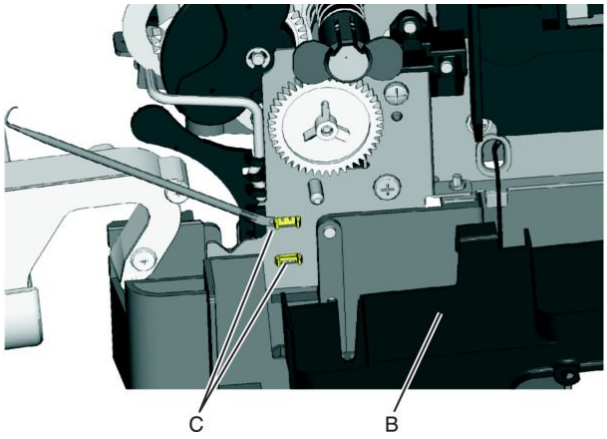
1. Reinstall the spring bracket and the weather station.
2. Before installing the lower right frame, connect the cable to the sensor (tray present), and then put the spring in place.
3. Install the weather station on the new lower right frame.

Sensor (duplex) removal

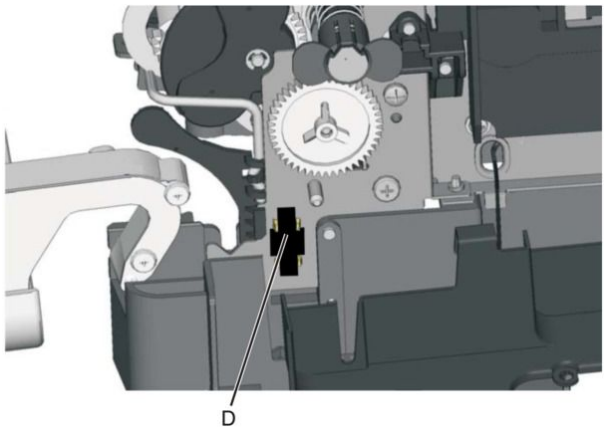
1. Remove the imaging kit. See Imaging kit removal on page 249.
2. Remove the two screws (A).



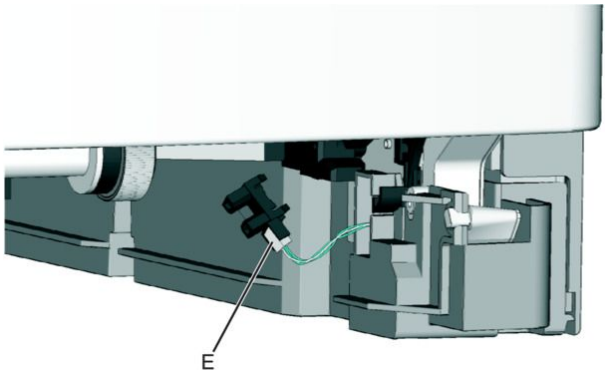
3. Pull the corner of the cable cover (B) away from the right side to access the two sensor posts (C).



4. Remove the sensor plate (D).



5. Press on the latches to detach the sensor from the printer frame.
6. Disconnect the cable (E).



Installation Note

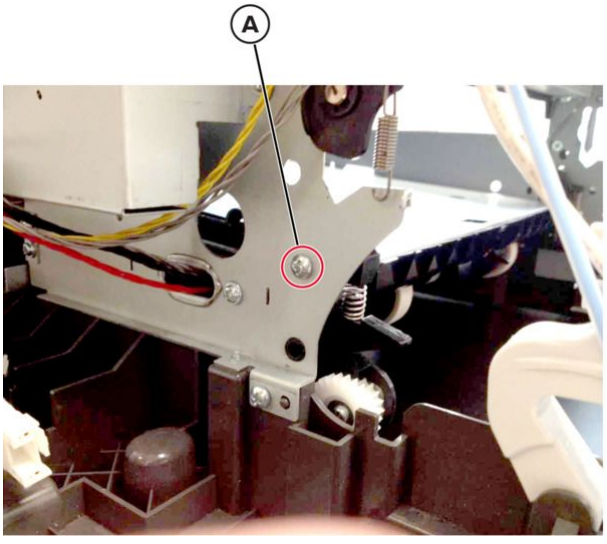
1. Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.

   Notes
   Make sure that the clamps on the sensor legs are securely attached to the printer frame.

2. Remove the backing from the new sensor retaining plate, and then place the plate on the surface between the sensor mounting latches.

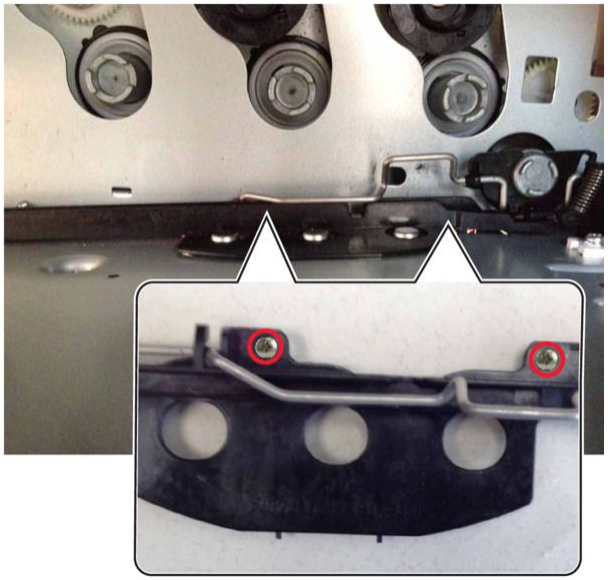
Transfer module guide removal

1. Remove the tray insert.
2. Remove the right cover. See Right cover removal on page 252.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 256.
4. Remove the imaging kit. See Imaging kit removal on page 249.
5. Remove the transfer module. See Transfer module removal on page 271.
6. Remove the fuser. See Fuser removal on page 266.
7. Remove the left cover. See Left cover removal on page 233.
8. Remove the LVPS. See LVPS removal on page 237.
9. Loosen the lower left frame.
10. Remove the screw (A).



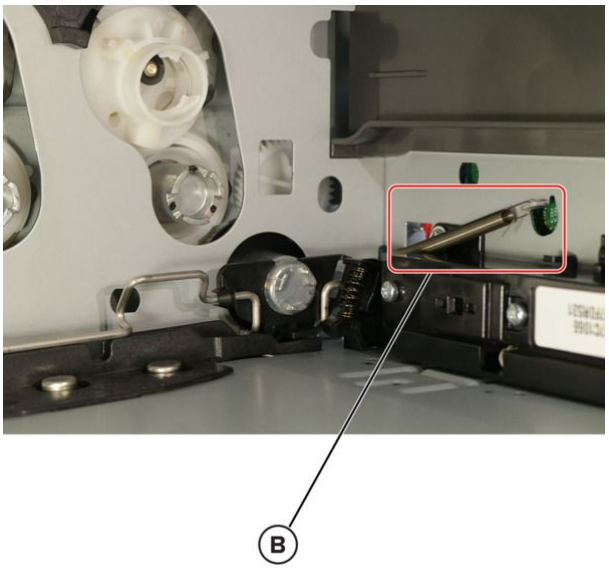
11. Remove the two screws securing the transfer module guide to the frame.

Notes
Use either a short #2 Phillips or a right angle screwdriver.

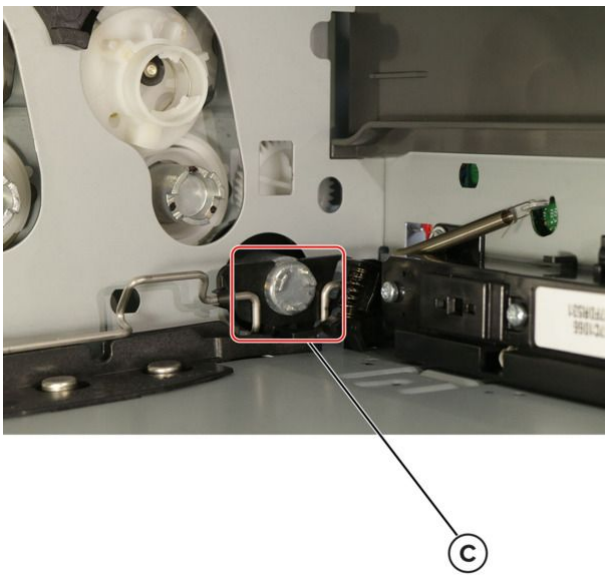


12. Remove the spring (B).

> **Notes**
> Pay attention to how the spring is attached to the bail.



13. Using a spring hook or screwdriver, press and hold the transfer module drive coupling (C), and then tilt the guide up from the side with the screw holes to remove it.

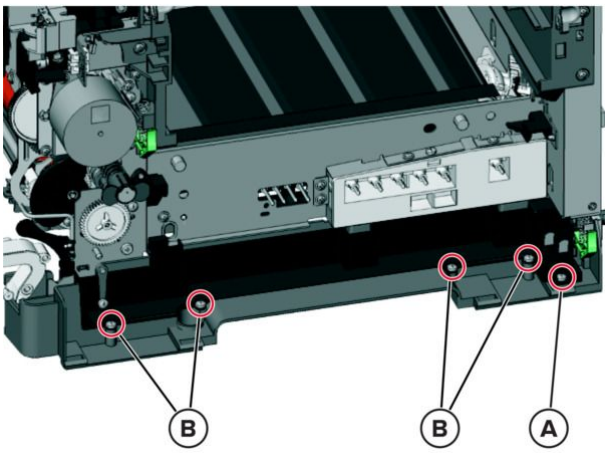


Sensor (tray present) removal

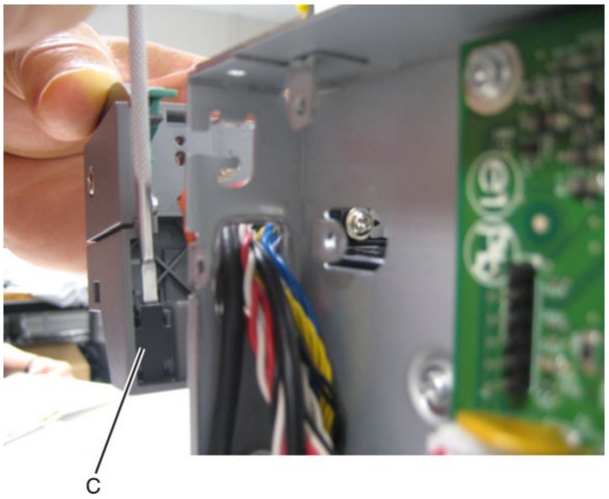
1. Remove the imaging kit. See Imaging kit removal on page 249.
2. Remove the screw (A) securing the waste toner bottle sensor contact to access the cable cover.

> **Notes**
> Do not unplug the waste toner bottle sensor contact.

3. Remove the four screws (B), and then remove the cable cover.



4. Remove the lower right frame. See .Lower right frame removal on page 283
5. Remove the sensor retaining plate (C), and then press on the latches together to remove the sensor.



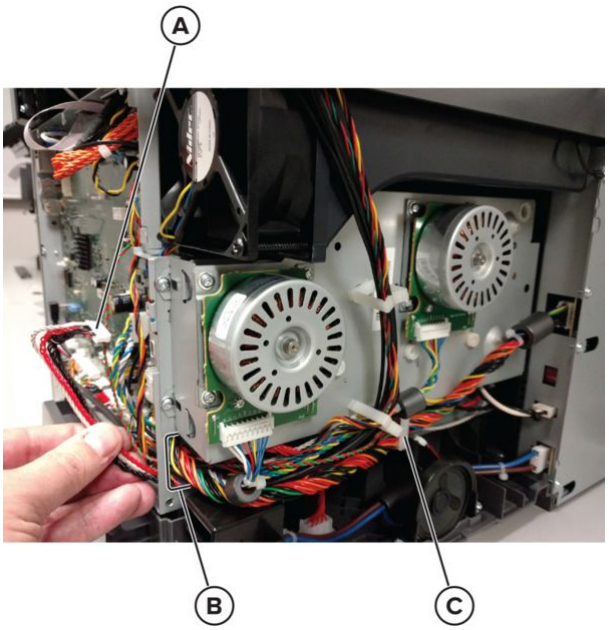
6. Disconnect the sensor cable.

Installation Note

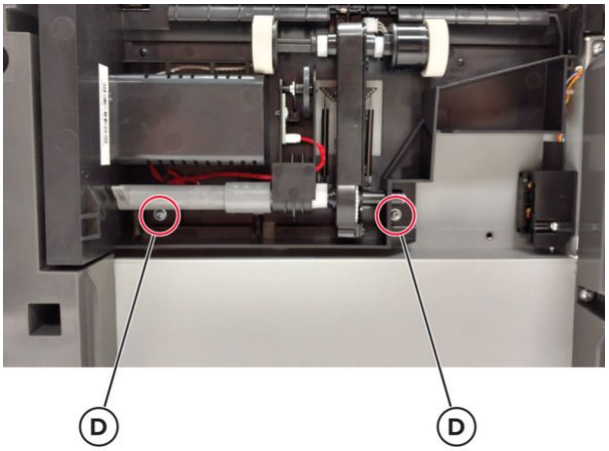
1. Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.
2. Remove the backing from the new sensor retaining plate, and then place the plate on the surface between the sensor mounting latches.
3. Connect the cable to the sensor.
4. Replace the spring.

Tray 1 media feeder removal

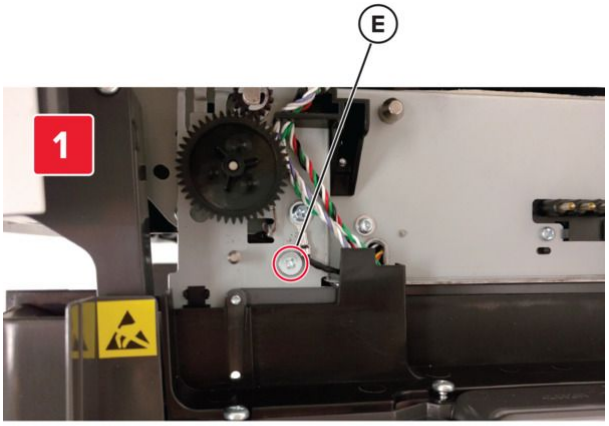
1. Remove the waste toner bottle. See Waste toner bottle removal on page 256.
2. Remove the imaging kit. See Imaging kit removal on page 249.
3. Remove the left cover. See Left cover removal on page 233.
4. Remove the rear cover.
5. Disconnect the cable (A) from the JSP1 connector on the controller board.
6. Route the cable through the opening (B), and then remove the cable from its retainer (C).

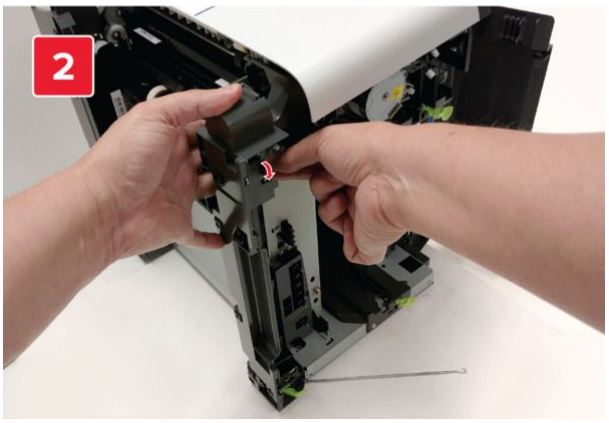


7. Partially reinstall the rear cover to protect the controller board.
8. Place the printer on its rear, and then remove the two screws (D).



9. On the right side, loosen the screw (E) with a screwdriver, and then remove it while holding the paper feed roller.





10. Move the right side of the paper feed roller out to free the shaft from the opening in the frame.

> **Notes**
> Pay attention to the location of the shaft and the opening in the frame.

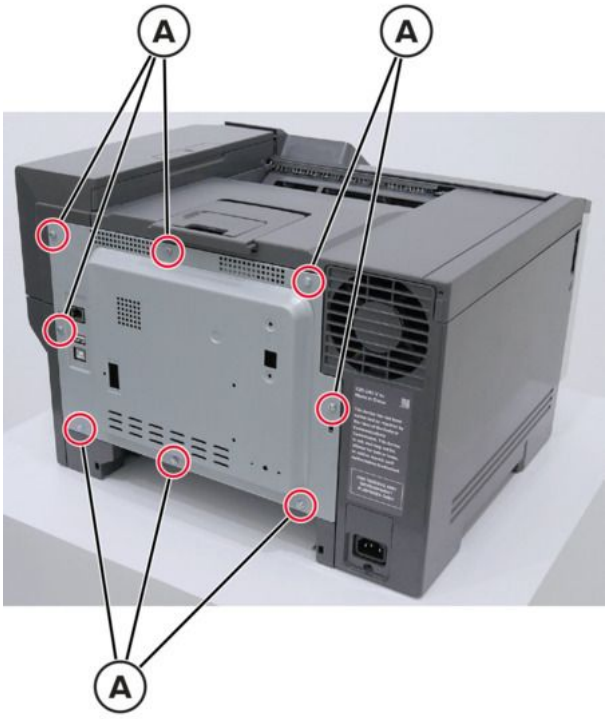
11. Remove the paper feed roller.

> **Installation Note**
> 1. Place the left side of the paper feed roller in the printer. Make sure that the shaft on the left side aligns with the hole in the frame.
> 2. Reinstall the three screws holding the paper feed roller to the printer.
> 3. Place the printer on the upright position.
> 4. Reroute the cable, and then make sure to secure the cable in its retainer on the left side.
> 5. Remove the rear cover, and then reconnect the cable on the controller board.
> 6. Replace the rear cover.

Rear side removals

Rear cover removal

1. Remove the eight screws (A).



2. Remove the rear cover.

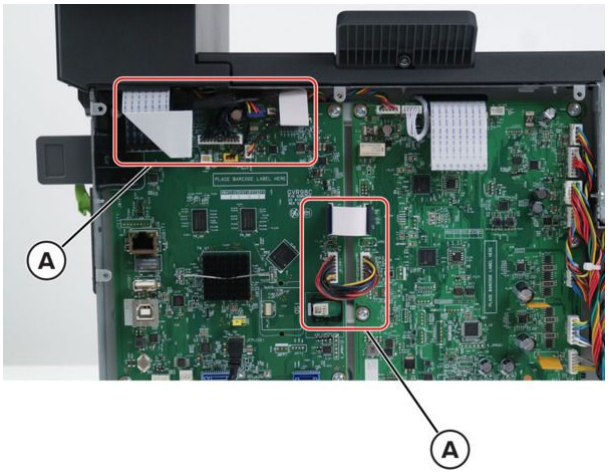
Controller board removal

> **Warning—Potential Damage**
> Perform a POR after replacing one of the following components. Do not replace both components without performing a POR after installing each one.

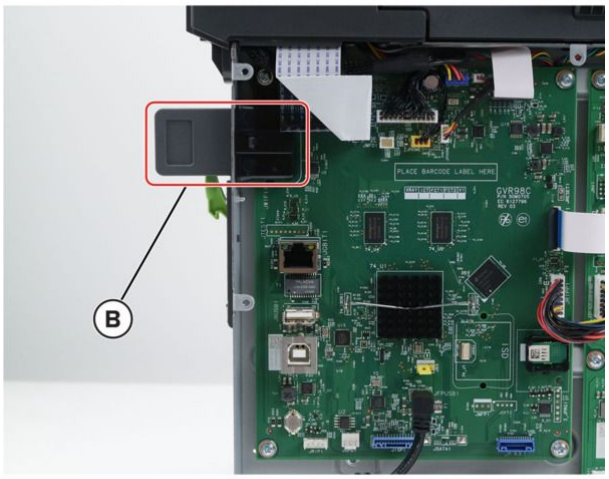
- Engine board
- Controller board

> **Notes**
> Before removing the controller board, make sure that other electronic options or attachments are already removed.

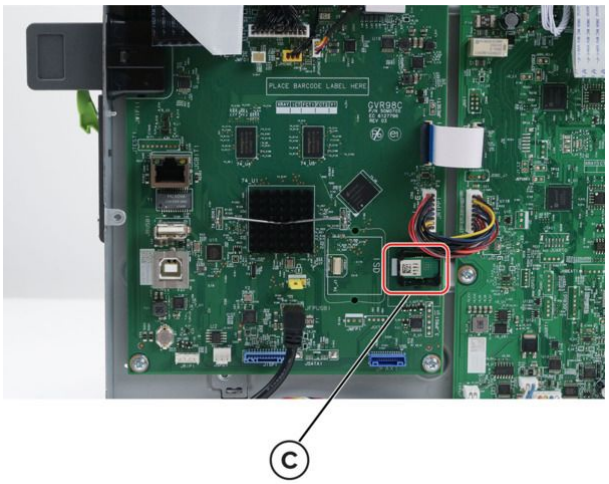
1. Remove the rear cover. See Rear cover removal on page 295.
2. Remove all cables (A).



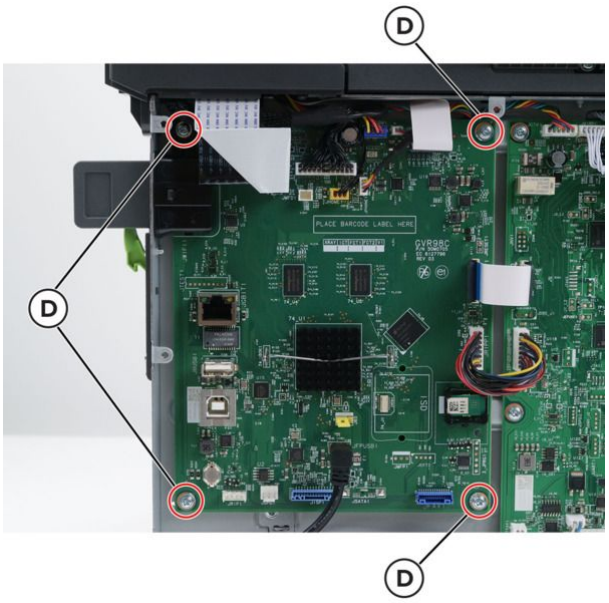
3. Remove the wireless module (B).



4. Remove the Trusted Platform Module (TPM) (C).



5. Remove the four screws (D).



6. Remove the controller board.

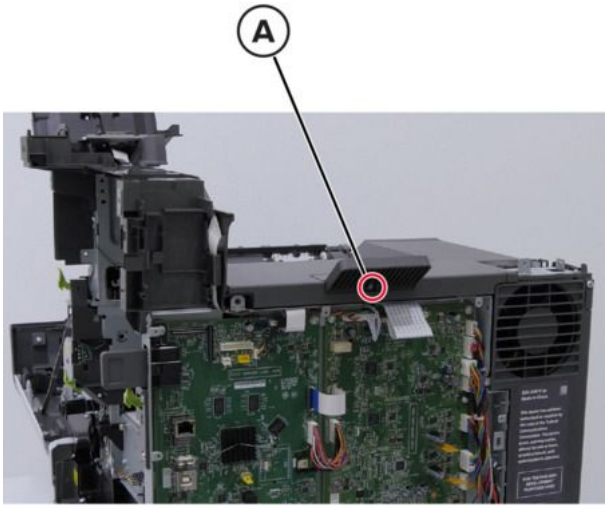
> **Installation Note**
> Reinstall the TPM back to the new controller board.

Top side removals

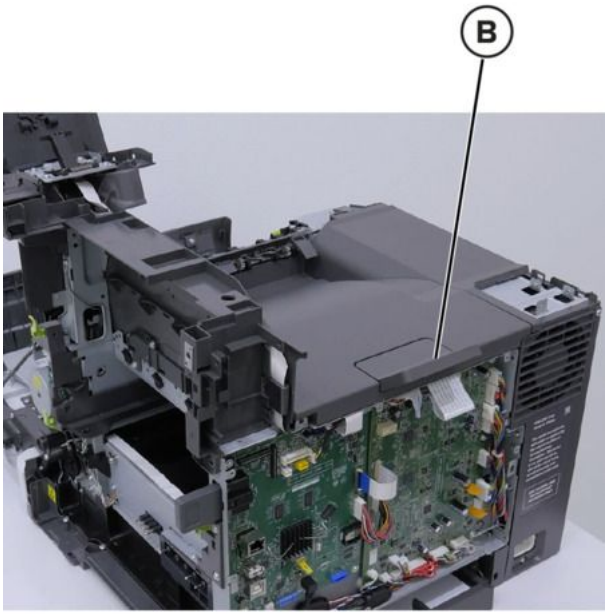
Top cover removal

> **Notes**
> For a video demonstration, see Top cover removal.

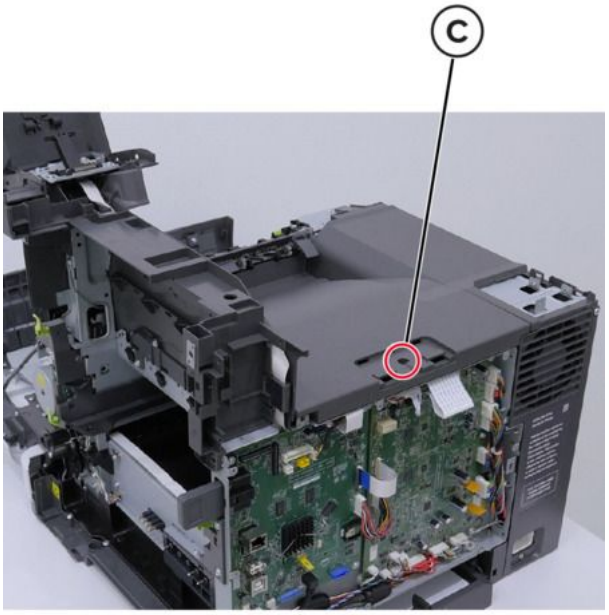
1. Remove the flatbed scanner. See Flatbed scanner removal on page 300.
2. Remove the screw (A).



3. Remove the bin extender (B).



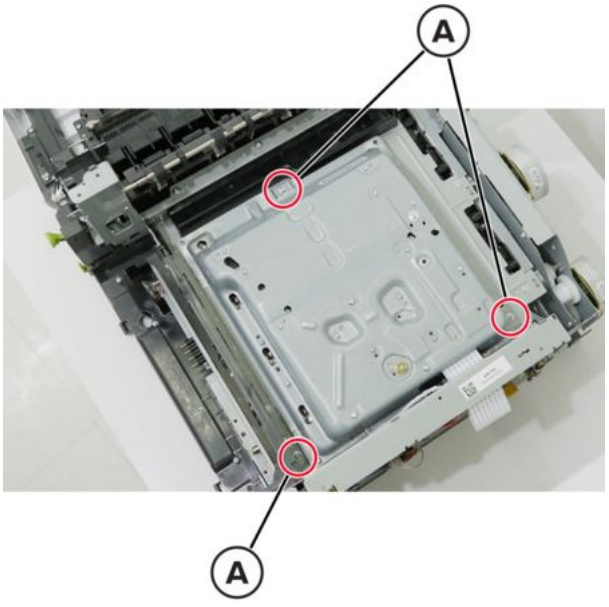
4. Remove the screw (C).



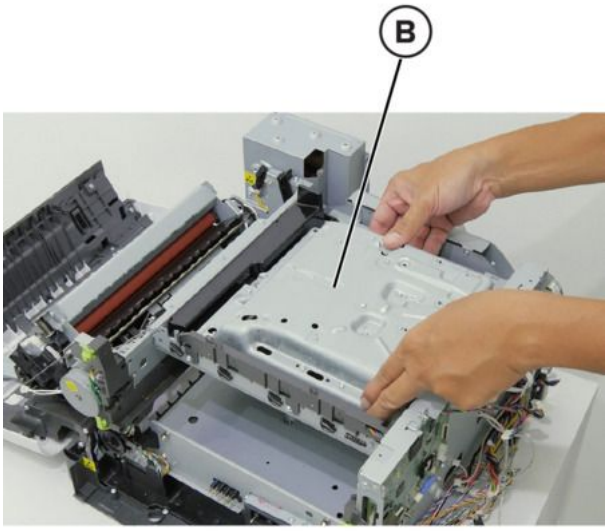
5. Remove the top cover.

Printhead removal

1. Remove the top cover. See Top cover removal on page 297.
2. Remove the three screws (A).

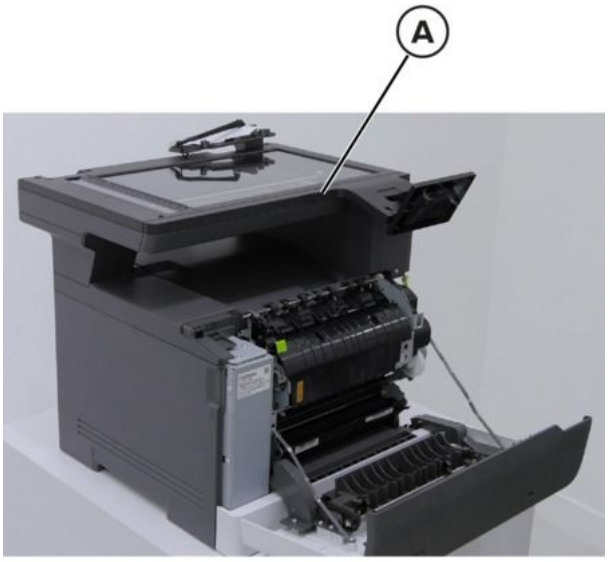


3. Remove the printhead (B).



Control panel base cover removal

1. Open the ADF. See ADF removal on page 313.
2. Tilt the control panel forward.
3. Remove the control panel base cover (A).



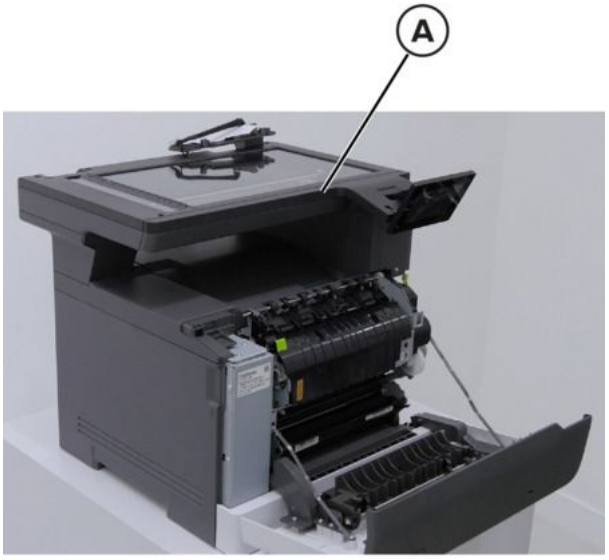
ADF/scanner removals

Flatbed scanner removal

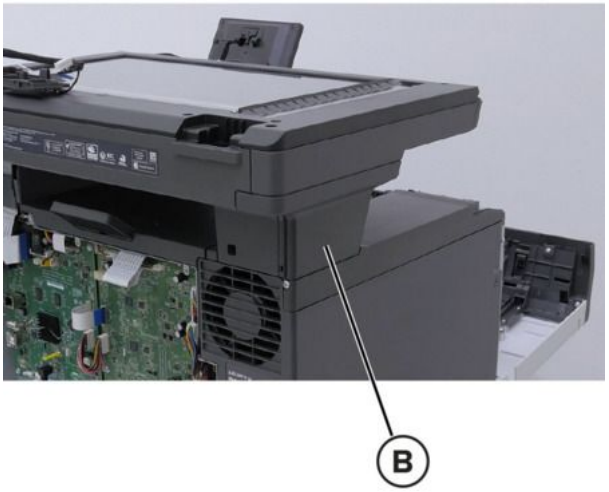
> **Notes**
> For a video demonstration, see Flatbed scanner removal.

1. Turn off the printer, and then remove the supplies.
2. Remove the ADF. See ADF removal on page 313.

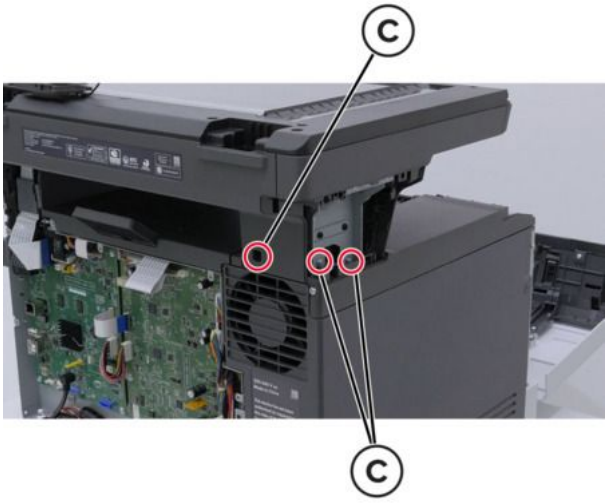
3. Remove the control panel base cover (A).



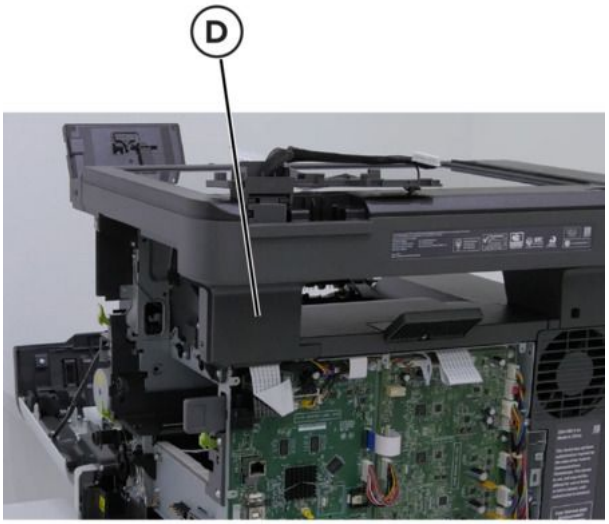
4. Remove the scanner left rear access cover (B).



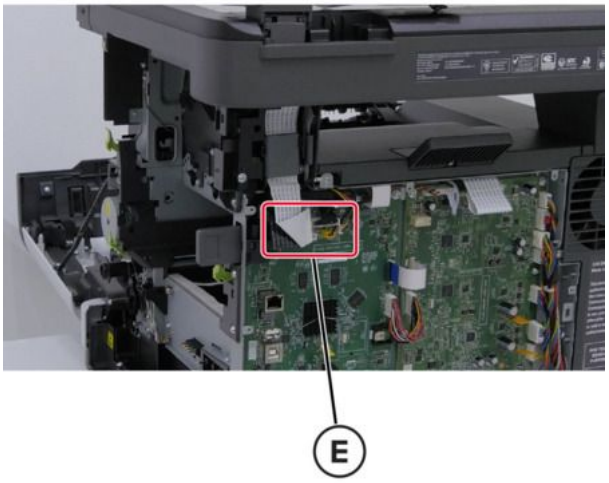
5. Remove the three screws (C).



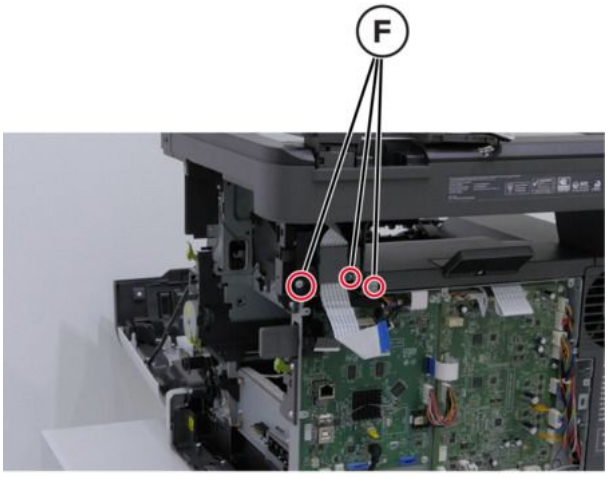
6. Remove the controller board shield.
7. Remove the scanner right rear access cover (D).



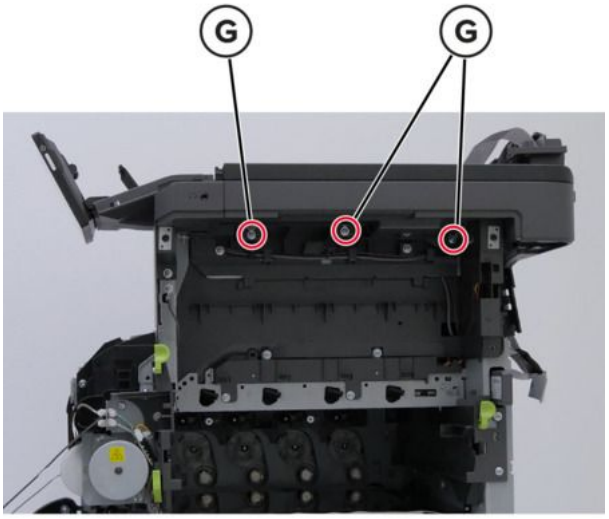
8. Disconnect the connector (E).



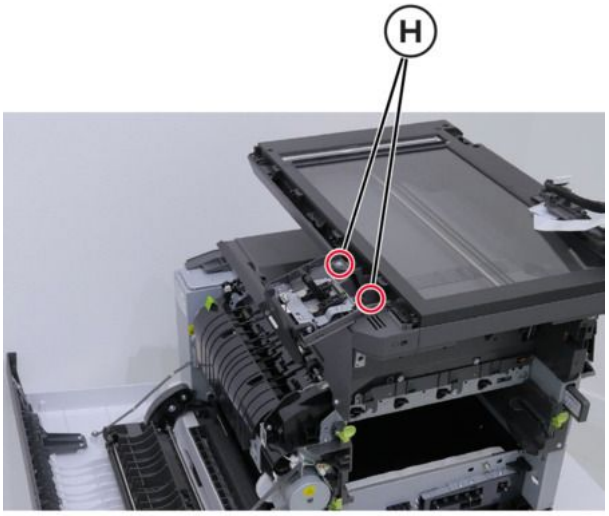
9. Remove the three screws (F).



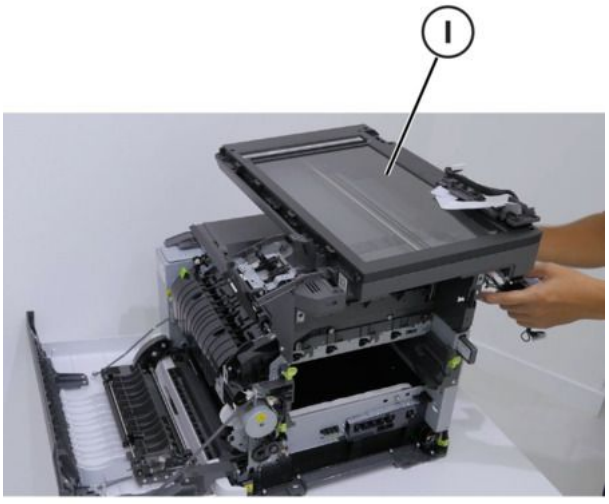
10. Remove the three screws (G).



11. Remove the two screws (H).



12. Remove the flatbed scanner (I).

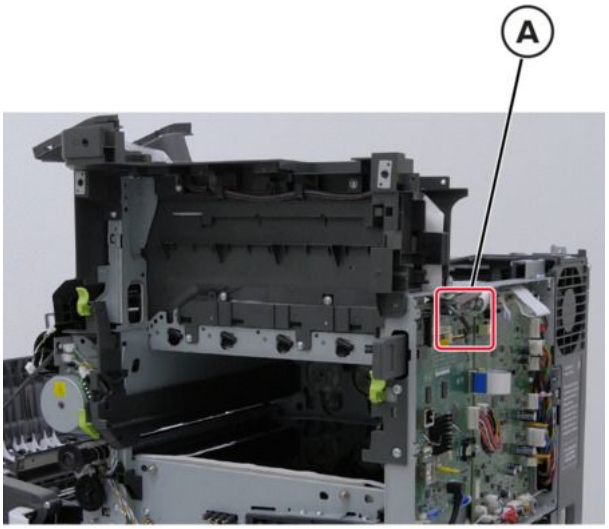


NOTE
Perform the ADF scanner calibration after replacing the ADF and scanner. For more information, see Scanner Calibration Reset on page 182.

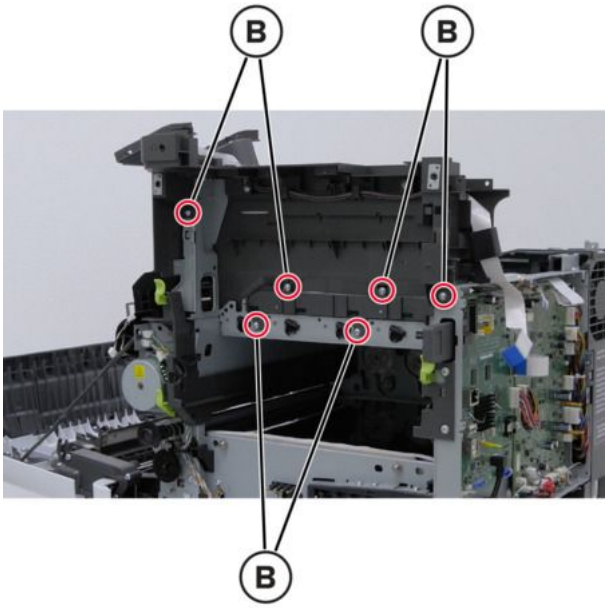
Scanner right support cover removal

Notes
For a video demonstration, see Scanner support right cover removal.

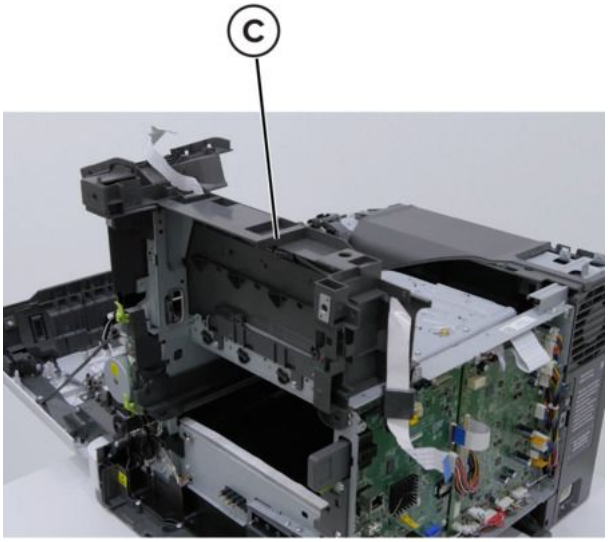
1. Remove the top cover. See Top cover removal on page 297.
2. Disconnect the connectors (A).



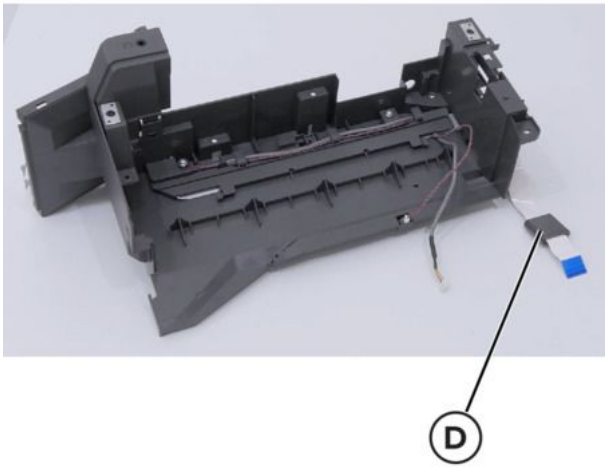
3. Remove the six screws (B).



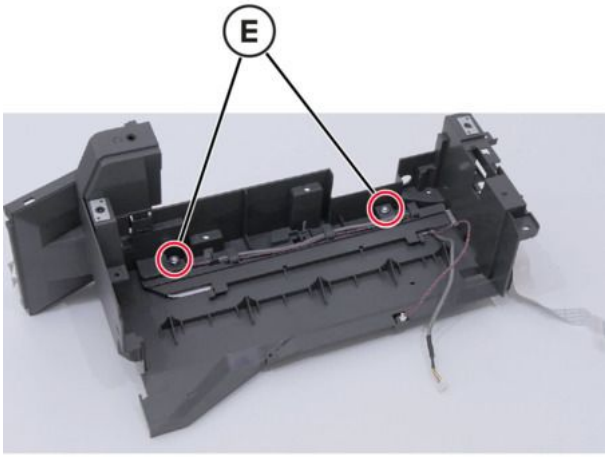
4. Remove the scanner support right cover (C).



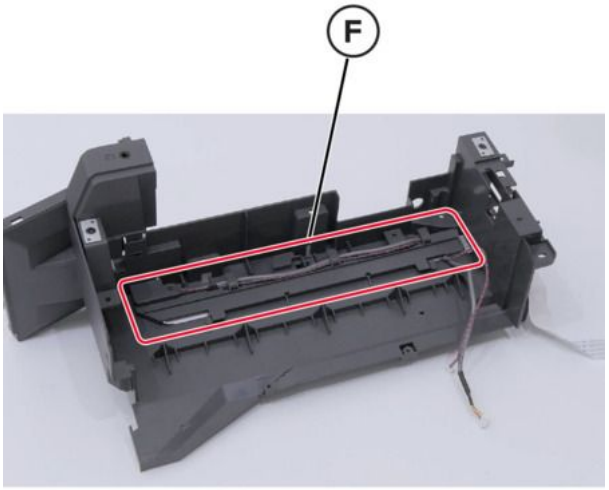
5. Remove the toroid (D).



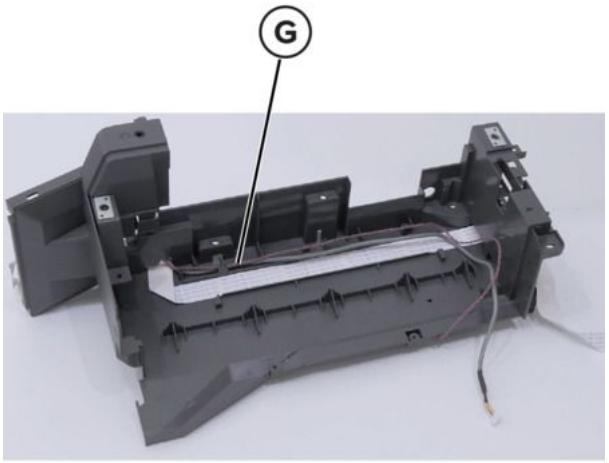
6. Remove the two screws (E).



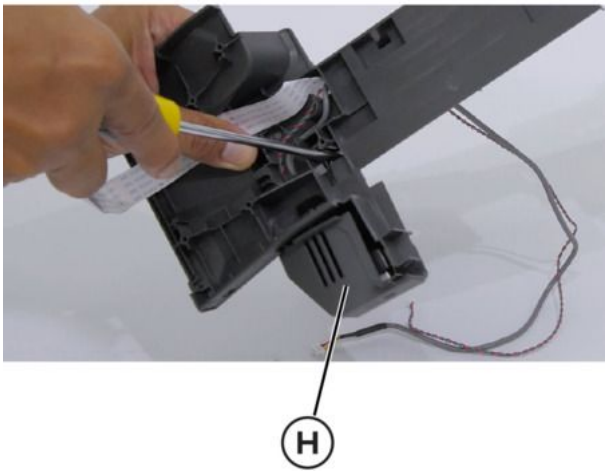
7. Remove the cable cover (F).



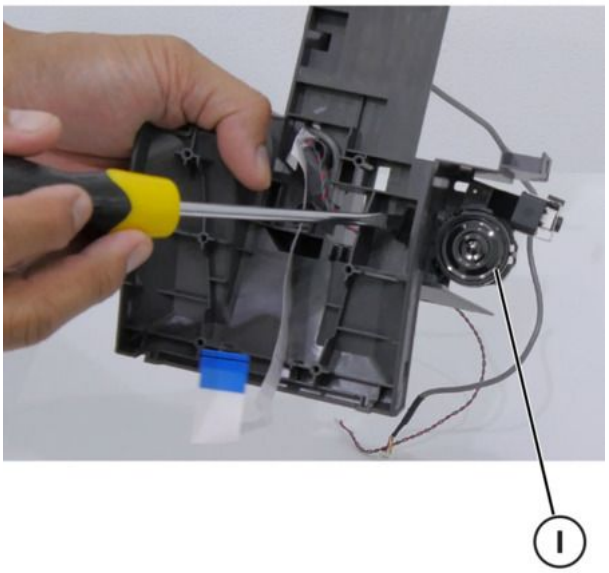
8. Unroute the cables (G).



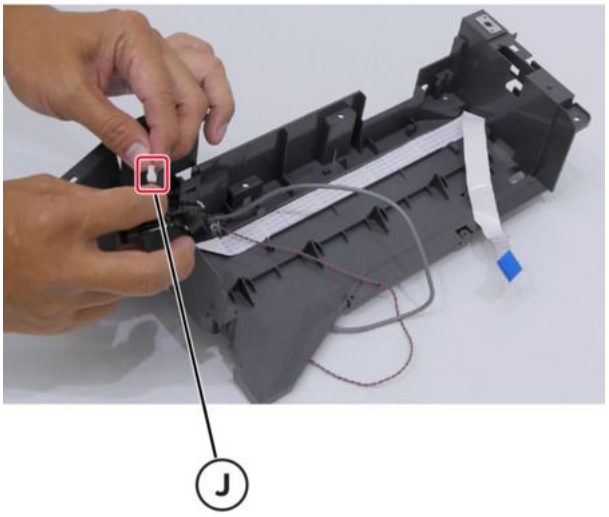
9. Release the latch, and then remove the speaker cover (H).



10. Remove the speaker (I).

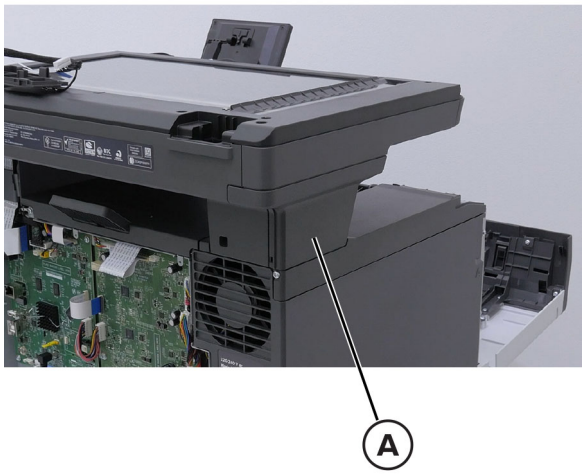


11. Disconnect the connector (J) from the speaker, and then unroute the cables.



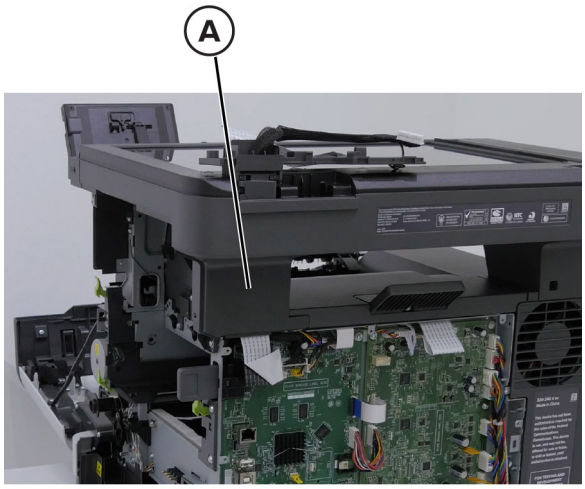
Scanner left rear access cover removal

1. Remove the scanner left rear access cover.



Scanner right rear access cover removal

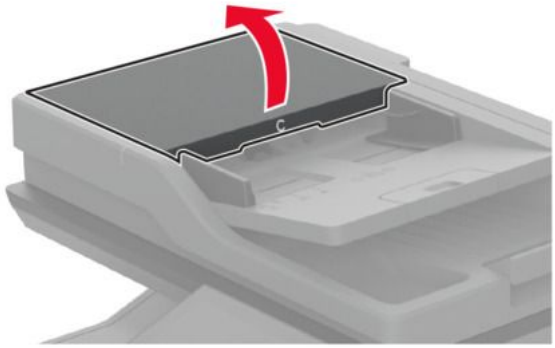
1. Remove the rear cover See Rear cover removal on page 295.
2. Remove the right cover. See Right cover removal on page 252.
3. Remove the scanner right rear access cover.



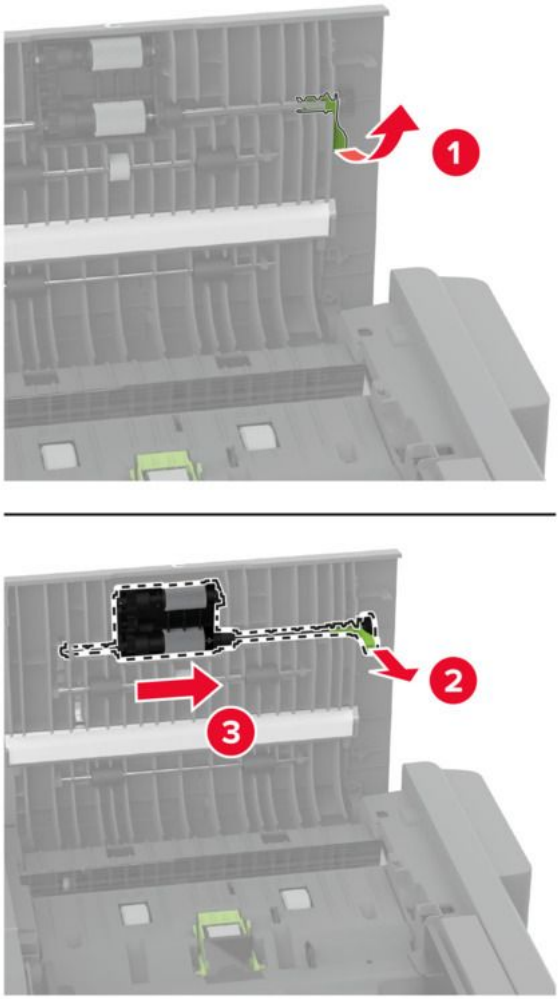
ADF rollers removal

1. Open door C.

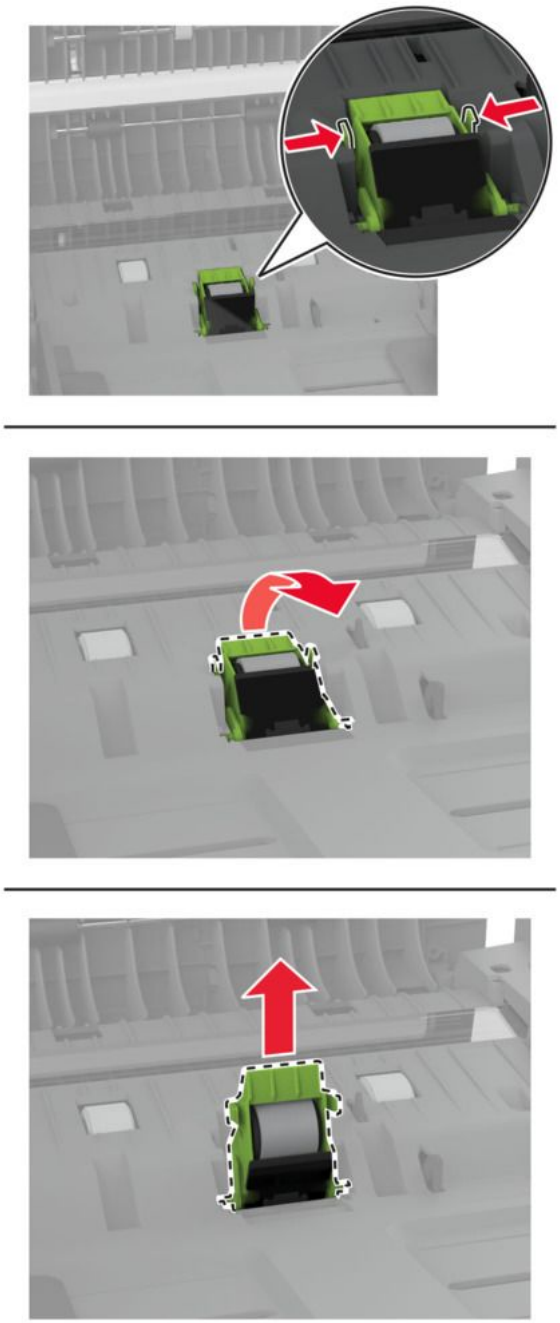
> **Warning—Potential Damage**
> To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



2. Remove the ADF pick roller.



3. Remove the ADF separator roller.



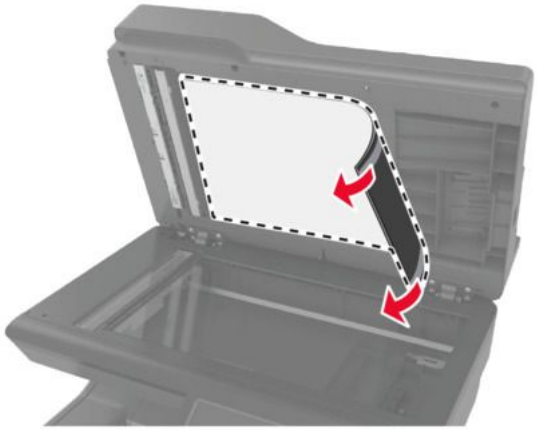
Installation Warning
To avoid damage and poor printer performance, make sure that your hands are clean when handling the parts.

Scanner glass pad removal

1. Open the scanner cover.

2. Slowly remove the scanner glass pad.

> **Notes**
> The adhesive should not tear off the pad.



Installation Note

1. Place the white area of the new scanner glass pad facedown on the scanner glass, and then remove the backing on the tape.

> **Notes**
> Make sure that the scanner glass pad is aligned correctly on the edges of the scanner glass.

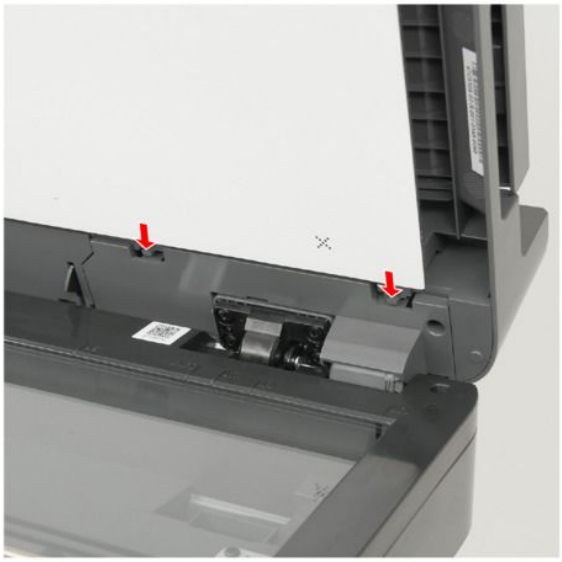
2. Close the scanner cover to stick the new scanner glass pad to the cover.

3. Open the scanner cover to check if the new scanner glass pad is properly attached to the cover.

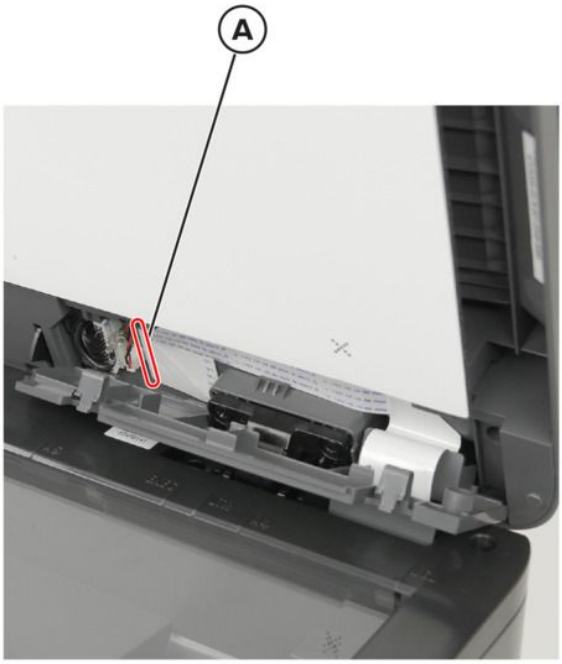
ADF removal

Notes
For a video demonstration, see ADF removal.

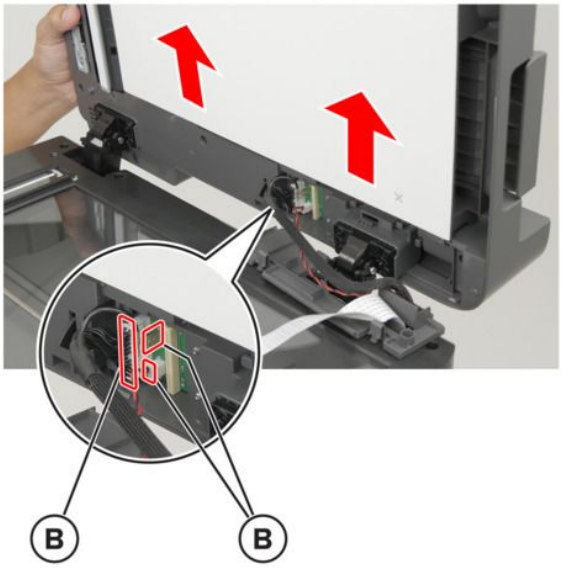
1. Release the latches, and then remove the cover.



2. Disconnect the FFC (A).



3. Slightly lift the ADF, and then disconnect the cables (B).



> **Note**
> Depending on the printer model, the cables may vary.

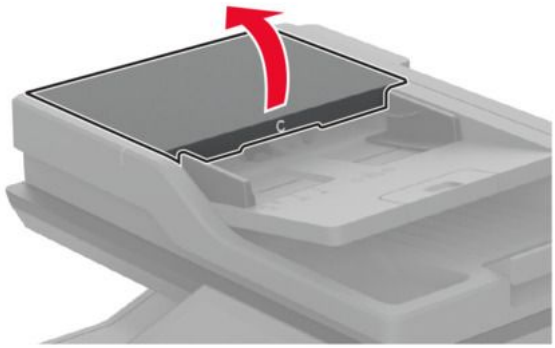
4. Remove the ADF.

> **NOTE**
> Perform the ADF scanner calibration after replacing the ADF and scanner. For more information, see Scanner Calibration Reset on page 182.

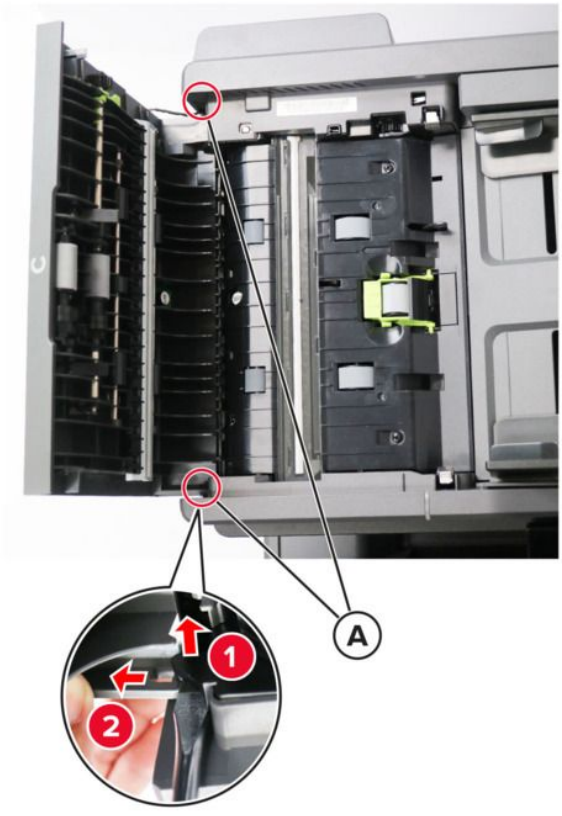
ADF top cover removal

1. Open door C.

> **Warning—Potential Damage**
> To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



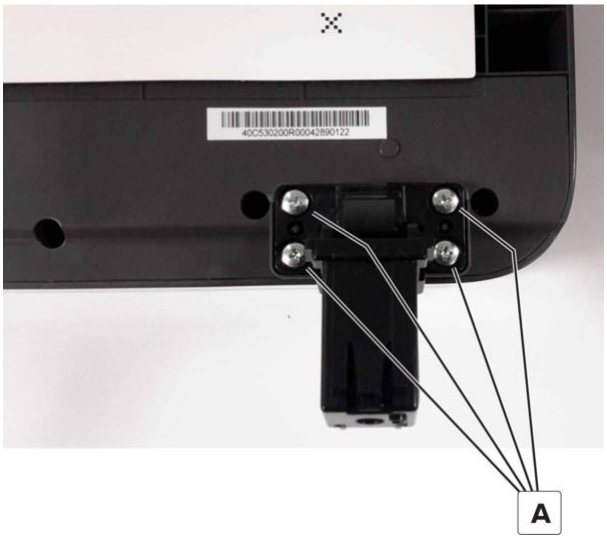
2. Using a flat-blade screwdriver, release the hinges (A).



3. Remove the cover.

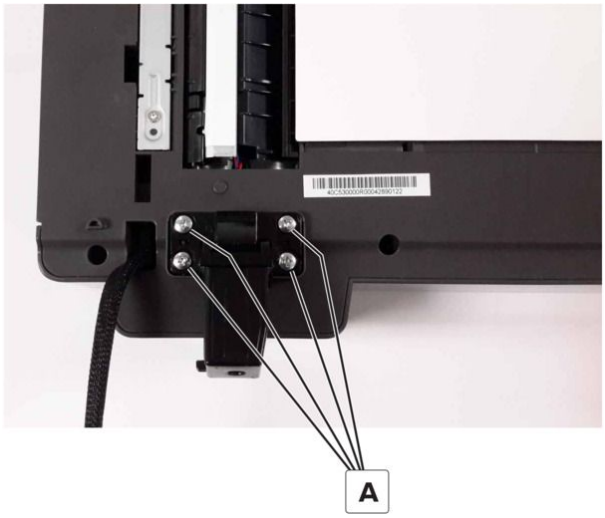
ADF right hinge removal

1. Remove the ADF. See ADF removal on page 313.
2. Remove the four screws (A), and then remove the hinge.



ADF left hinge removal

1. Remove the ADF. See ADF removal on page 313.
2. Remove the four screws (A), and then remove the hinge.



Options removals

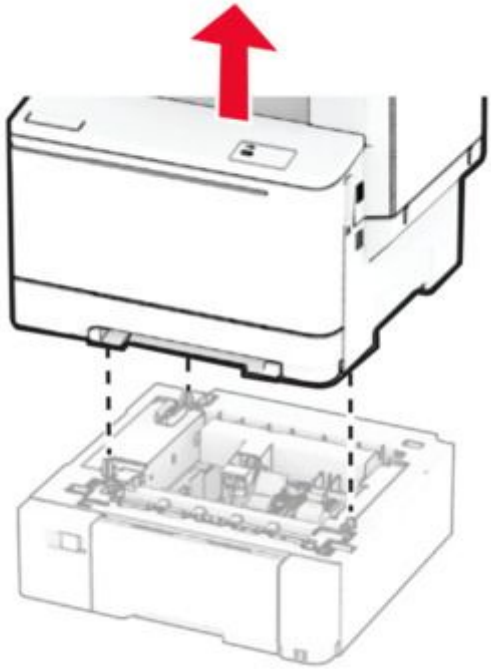
650-sheet duo tray insert removal

Pull out to remove the tray insert.

650-sheet duo tray removal

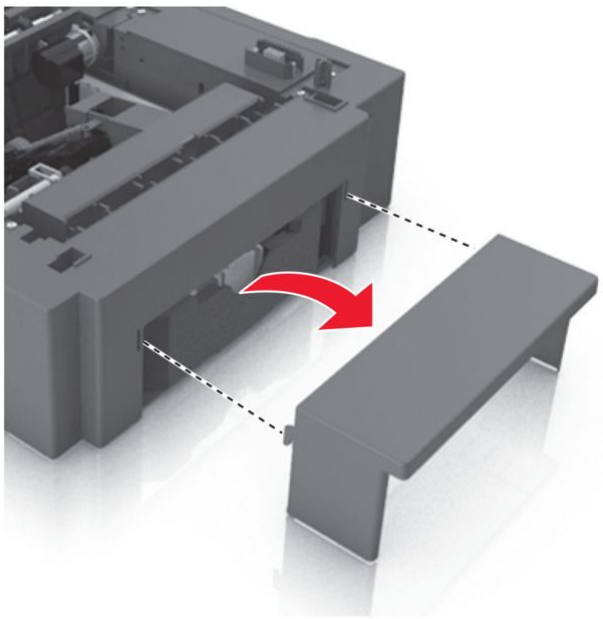
> **Warning—Potential Damage**
> Make sure that the printer is turned off before removing the tray.

1. Carefully lift the printer, and set it aside on a flat surface.
2. Remove the tray.



Dust cover removal

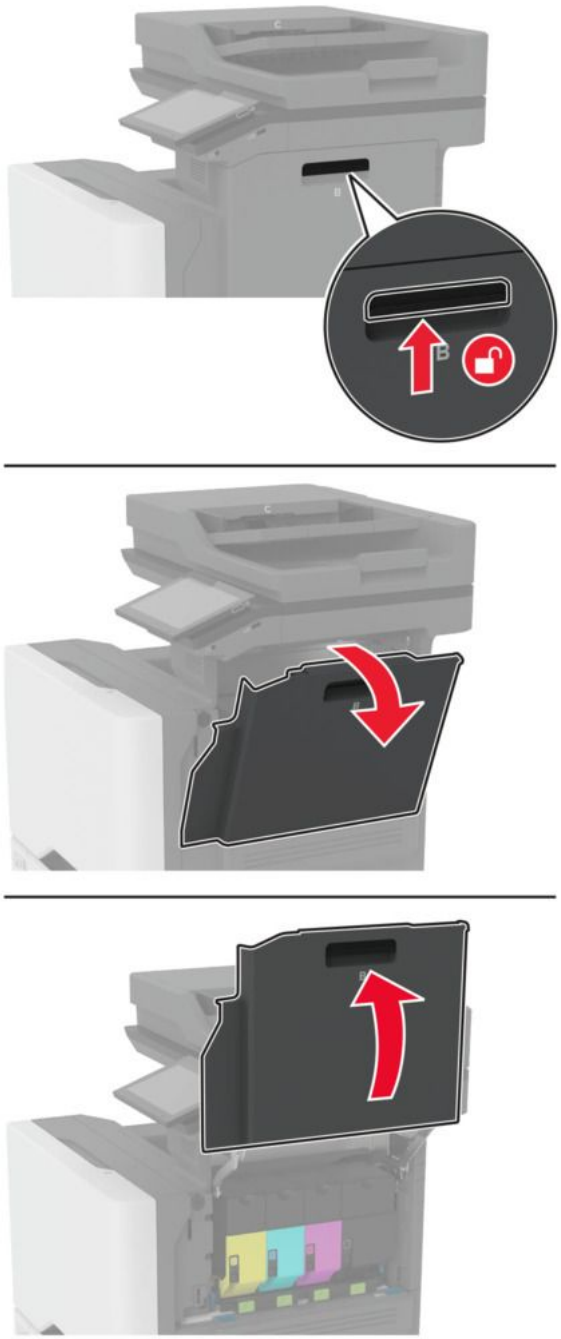
1. Slightly raise the dust cover.
2. Pull the dust cover to remove.



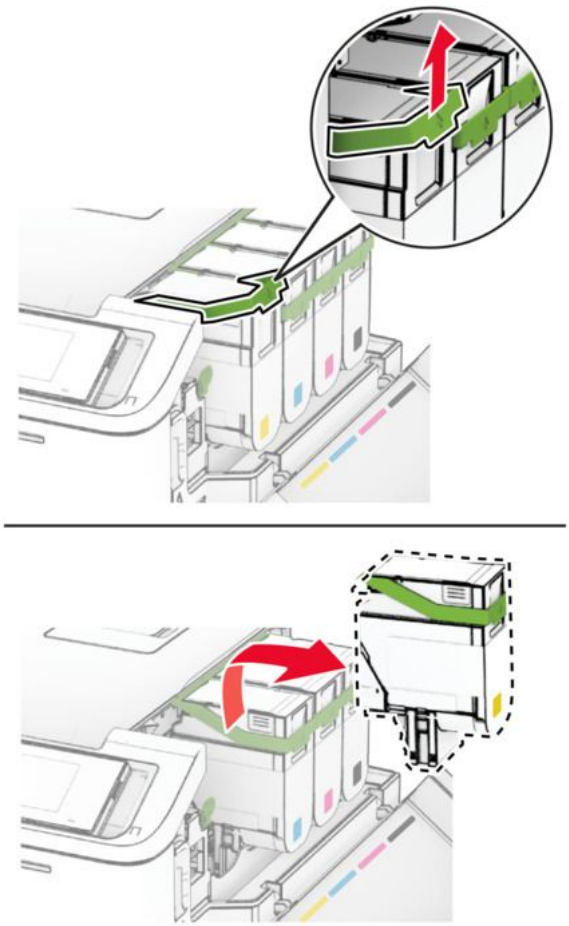
Replacing parts and supplies

Replacing a toner cartridge

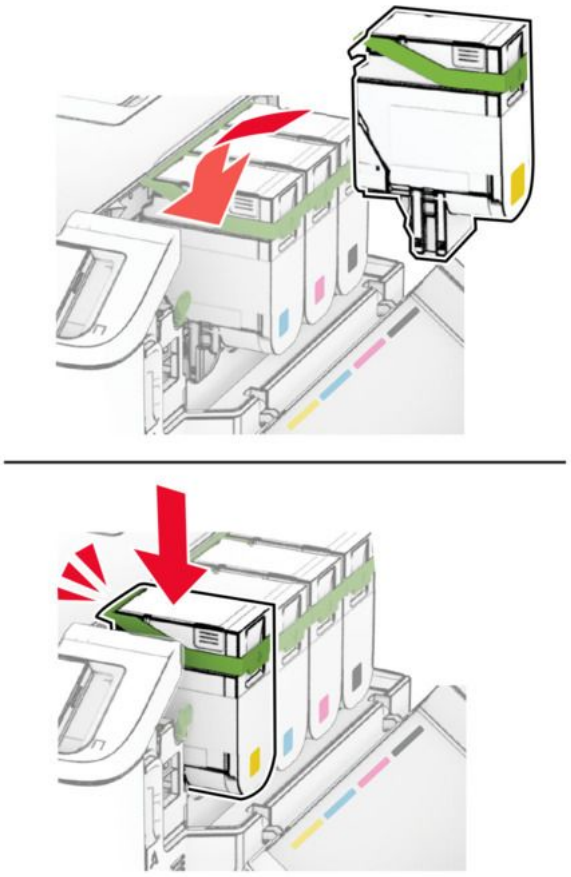
1. Open door B.



2. Remove the used toner cartridge.



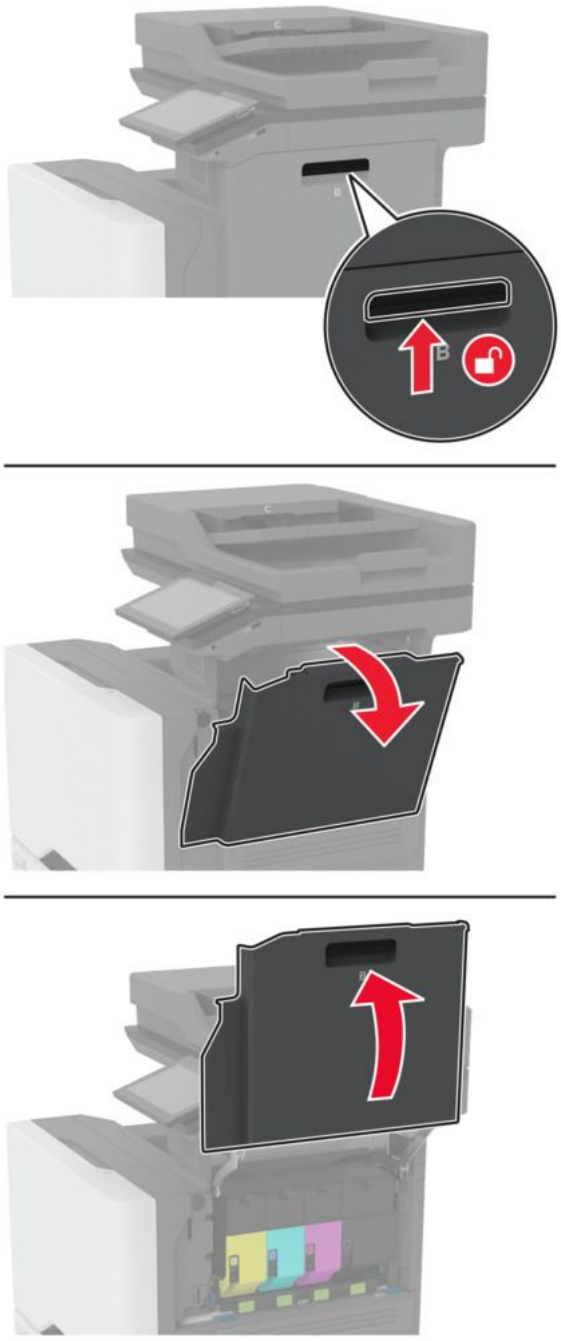
3. Unpack the new toner cartridge.
4. Insert the new toner cartridge until it clicks into place.



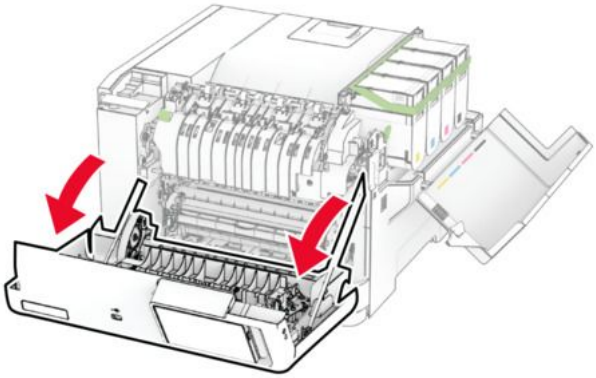
5. Close the door.

Replacing an imaging kit

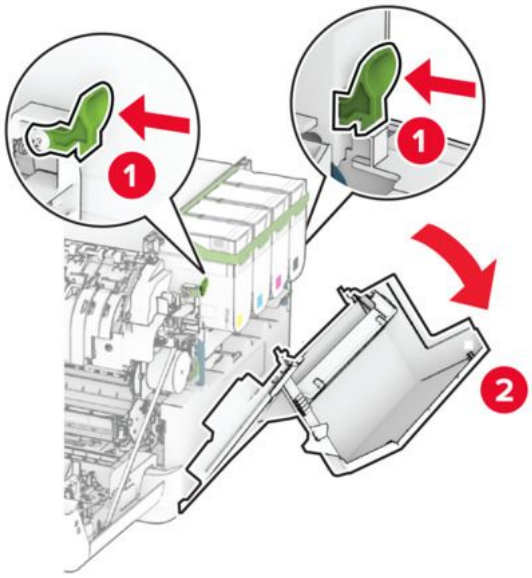
1. Open door B.



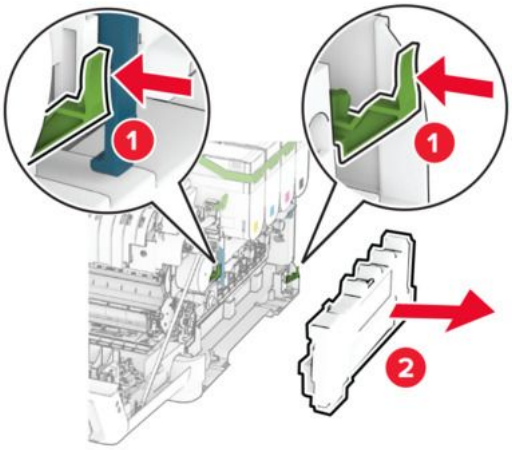
2. Open door A.



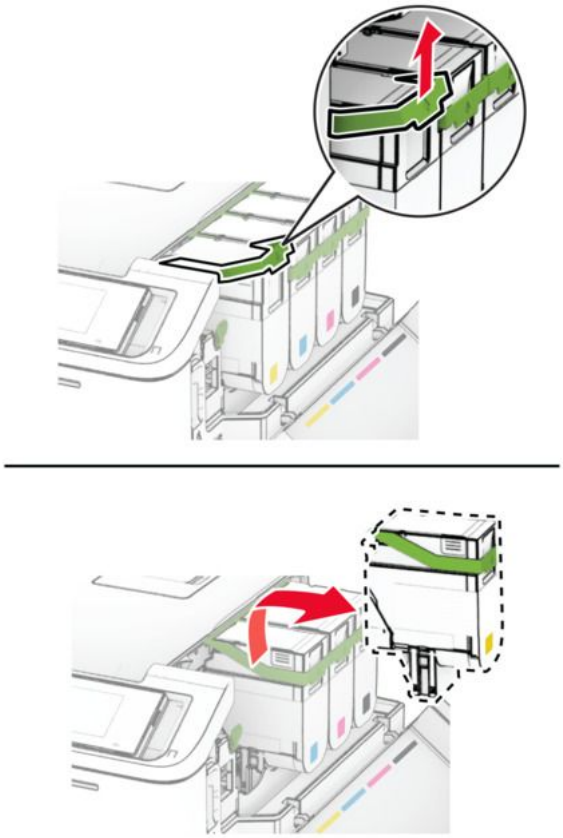
3. Remove the right cover.



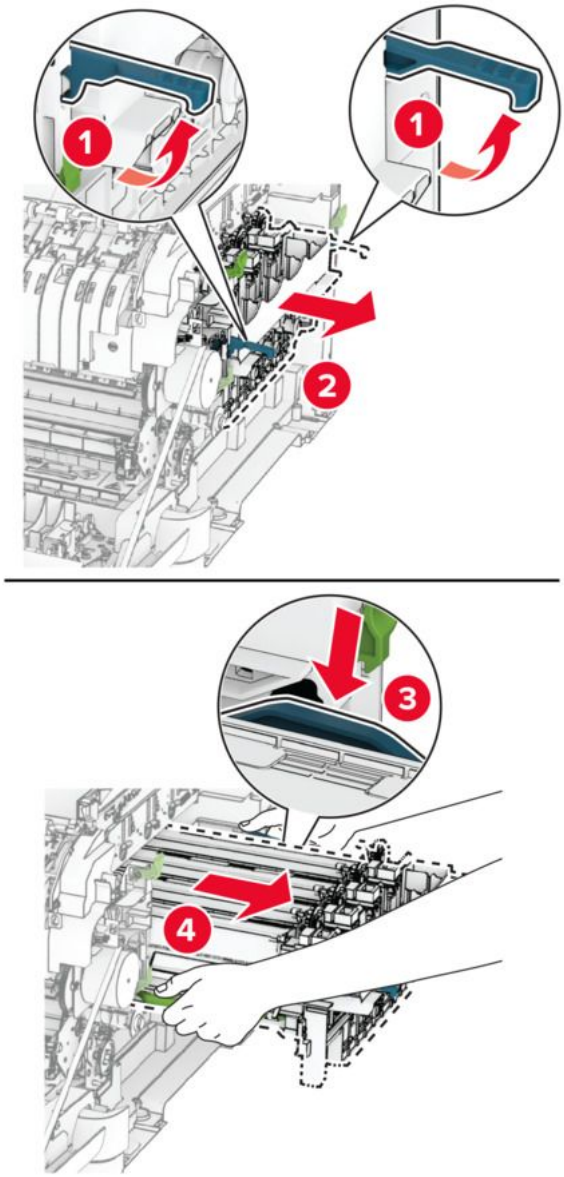
4. Remove the waste toner bottle.



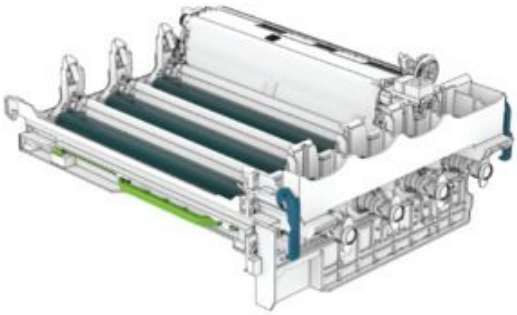
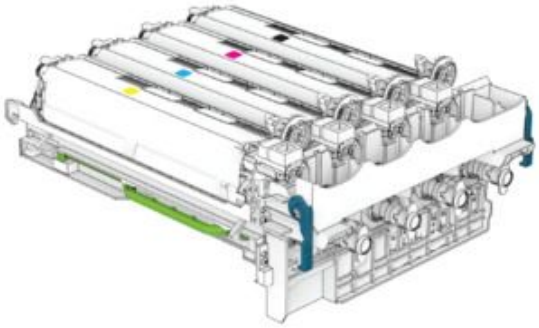
5. Remove the toner cartridges.



6. Remove the used imaging kit.



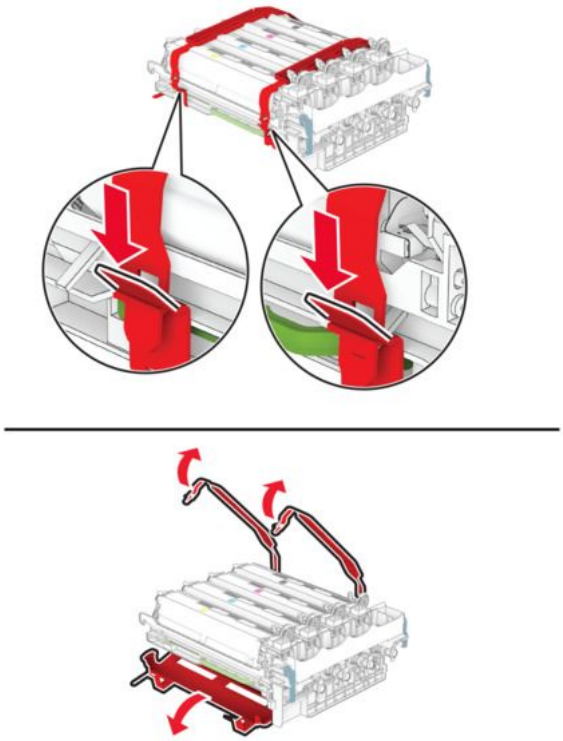
7. Unpack the new imaging kit.

Black imaging kit	Black and color imaging kit
	

Note:

- The black imaging kit includes the imaging kit and the black developer unit.
- The black and color imaging kit includes the imaging kit and the black, cyan, magenta, and yellow developer units.
- When replacing the black imaging kit, save the cyan, magenta, and yellow developer units from the used imaging kit.

8. Remove the packing material.

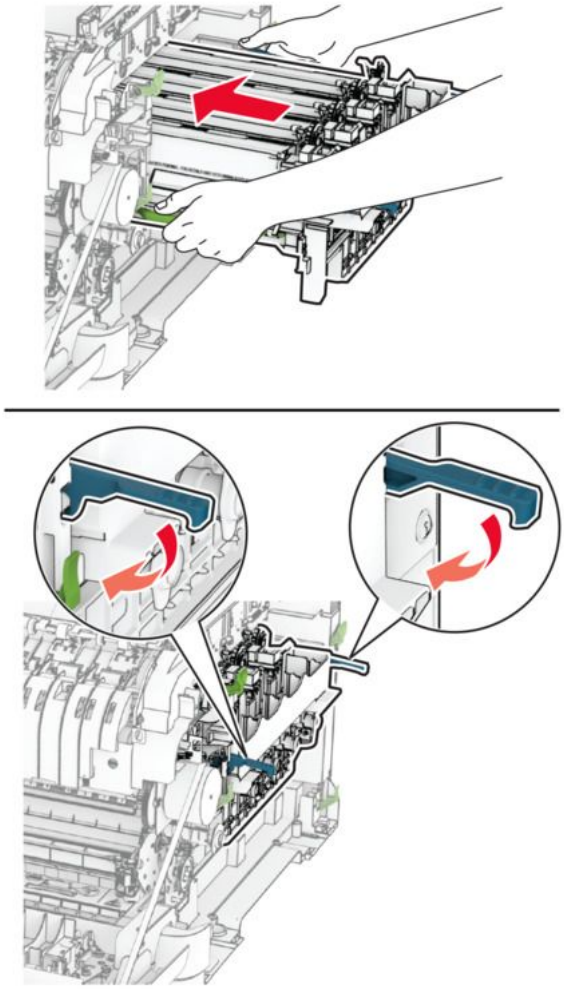


Notes
If you are replacing the black imaging kit, then insert the magenta, cyan, and yellow developer units into the new imaging kit.

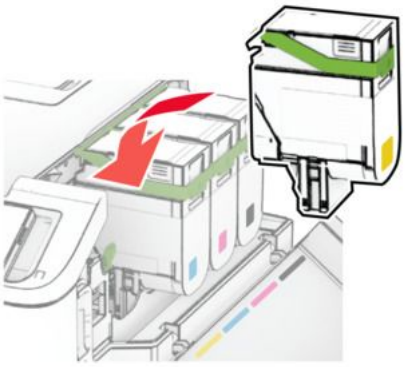
Warning—Potential Damage
Do not expose the imaging kit to direct light. Extended exposure to light may cause print quality problems.

Warning—Potential Damage
Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.

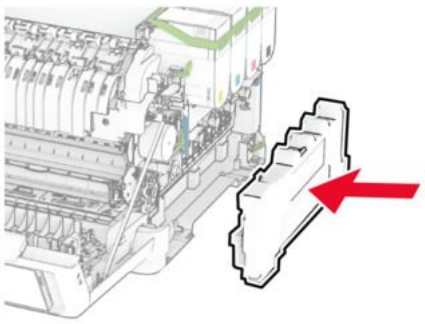
9. Insert the new imaging kit until it is fully seated.

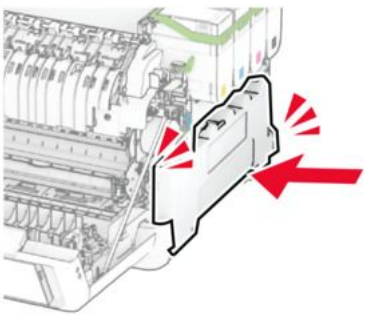


10. Insert the toner cartridges until they click into place.

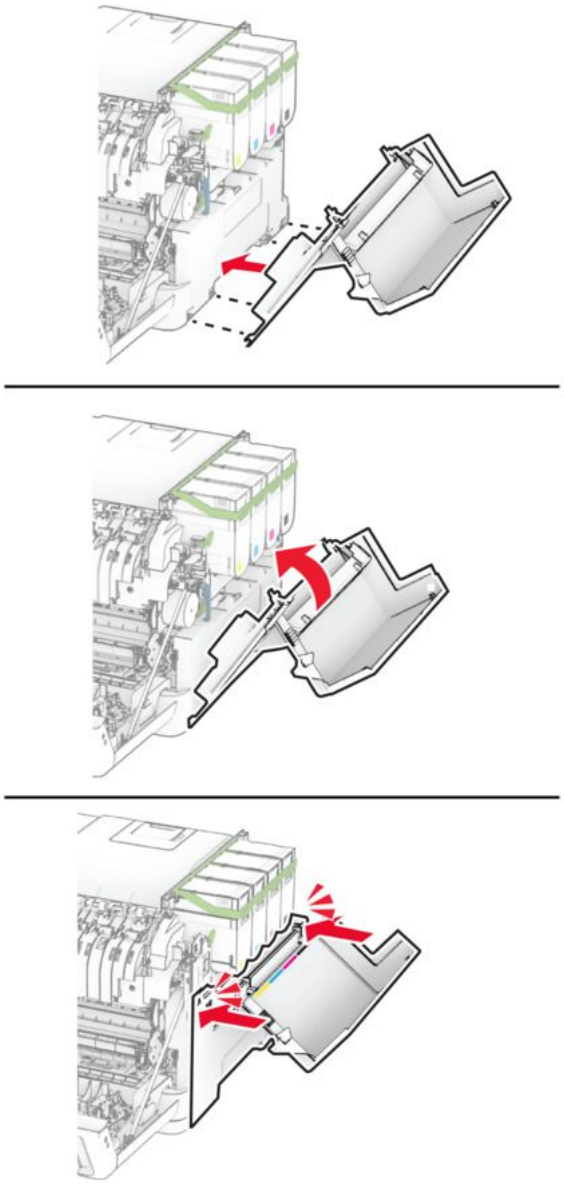


11. Insert the waste toner bottle until it clicks into place.





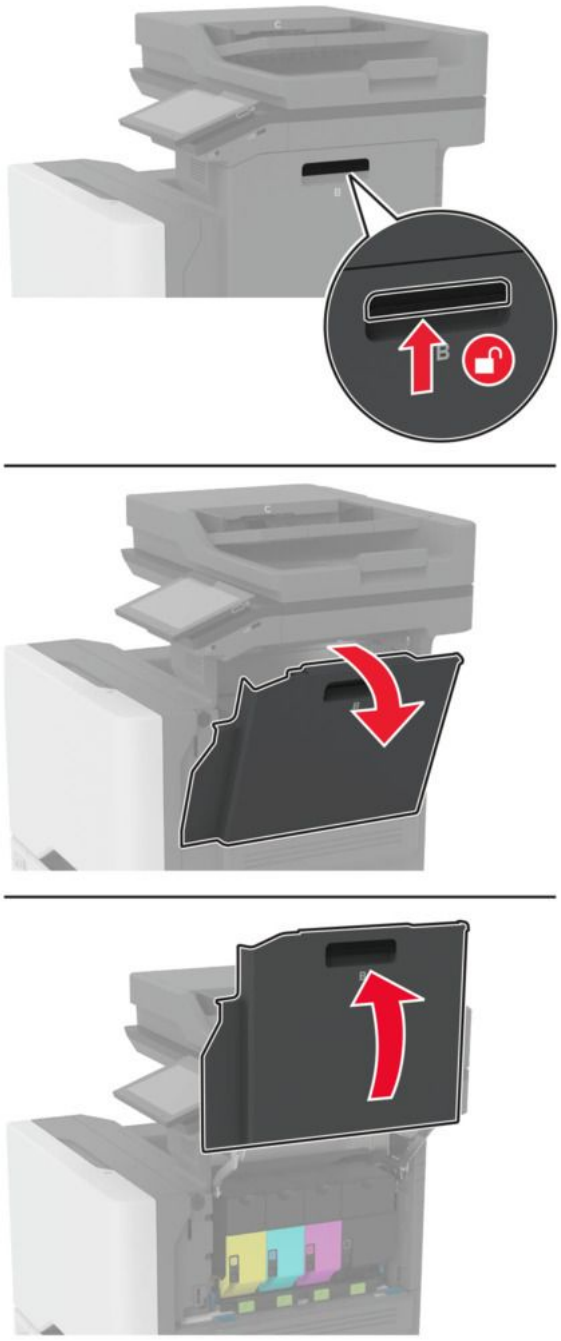
12. Attach the right cover until it clicks into place.



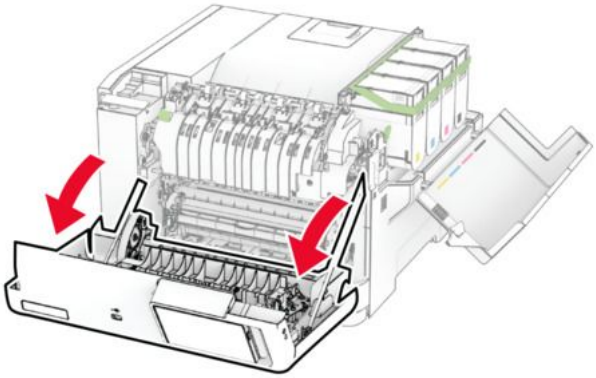
13. Close door A, and then close door B.

Replacing the waste toner bottle

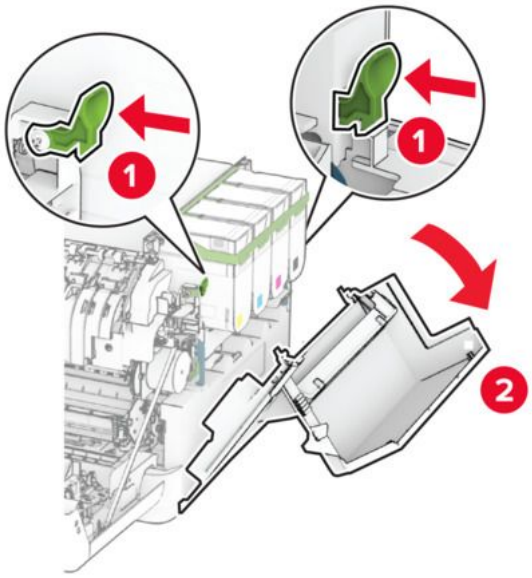
1. Open door B.



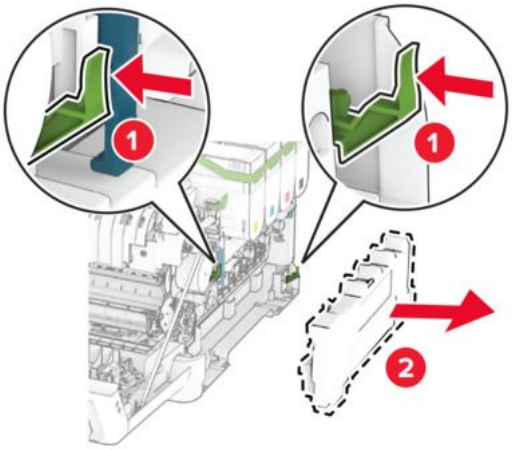
2. Open door A.



3. Remove the right cover.

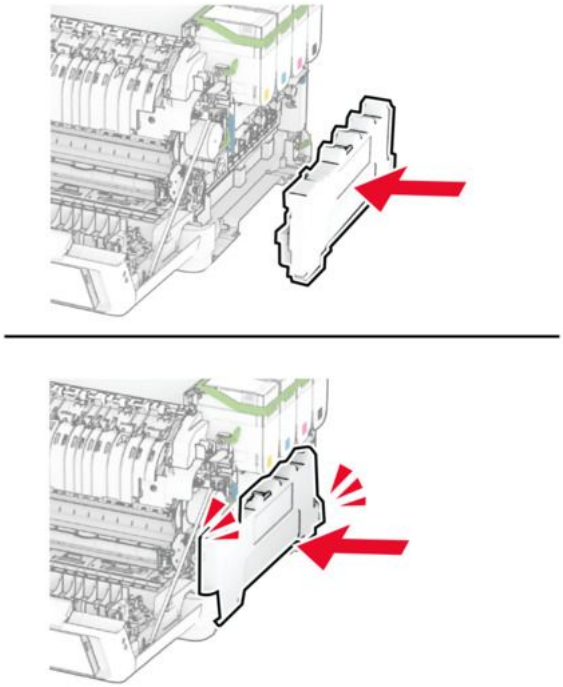


4. Remove the used waste toner bottle.

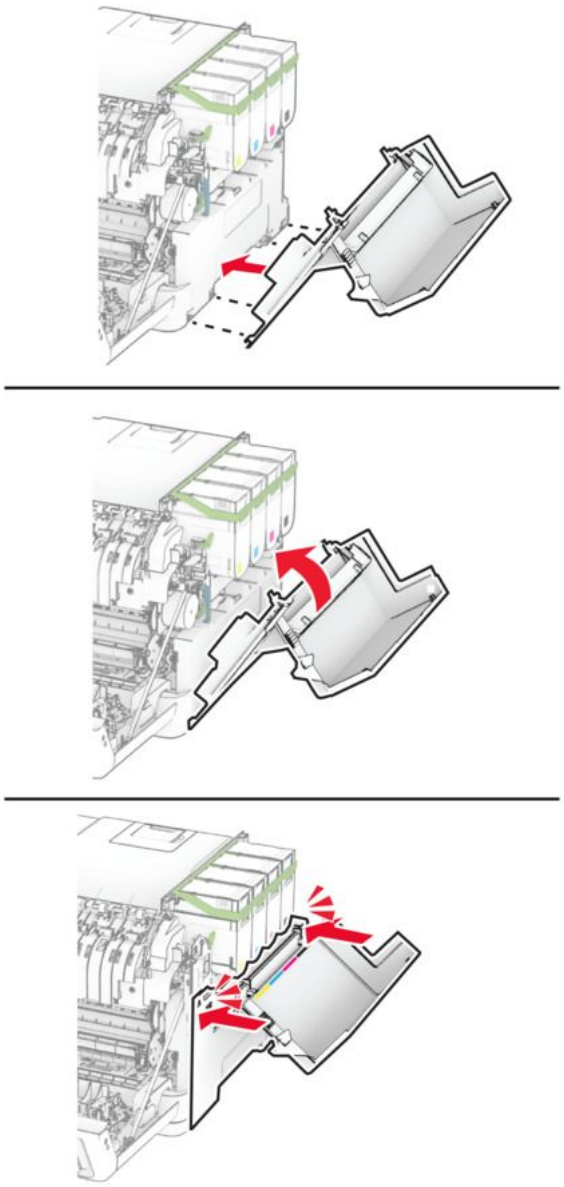


Notes
To avoid spilling the toner, place the bottle in an upright position.

5. Unpack the new waste toner bottle.
6. Insert the new waste toner bottle until it clicks into place.



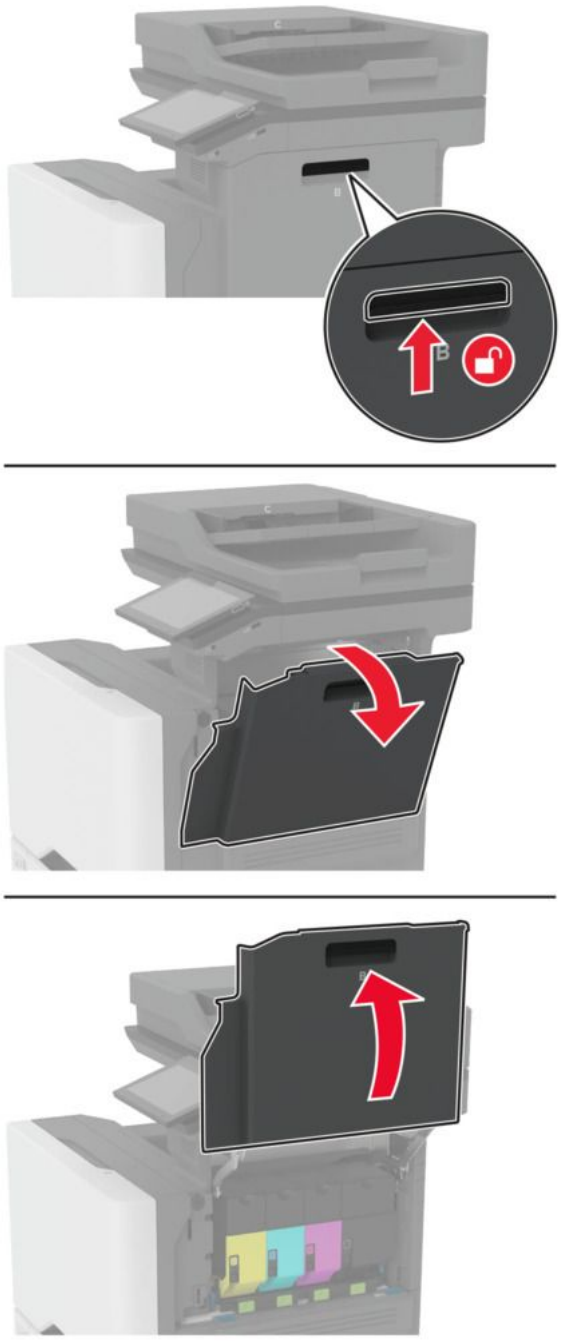
7. Attach the right cover until it clicks into place.



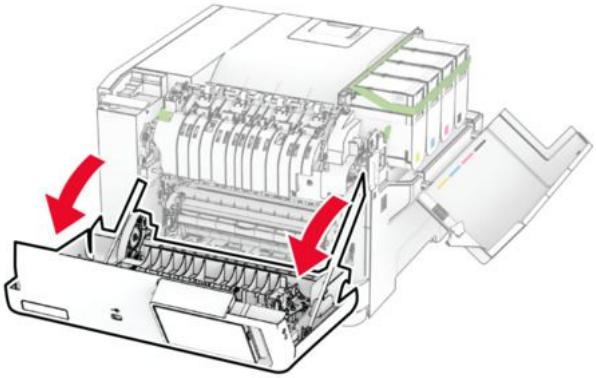
8. Close door A, and then close door B.

Replacing a developer unit

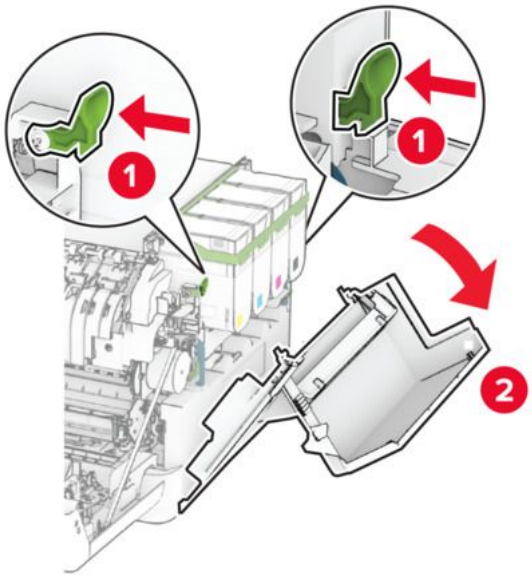
1. Open door B.



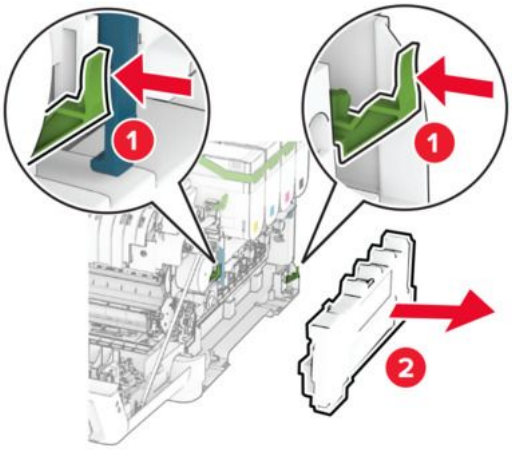
2. Open door A.



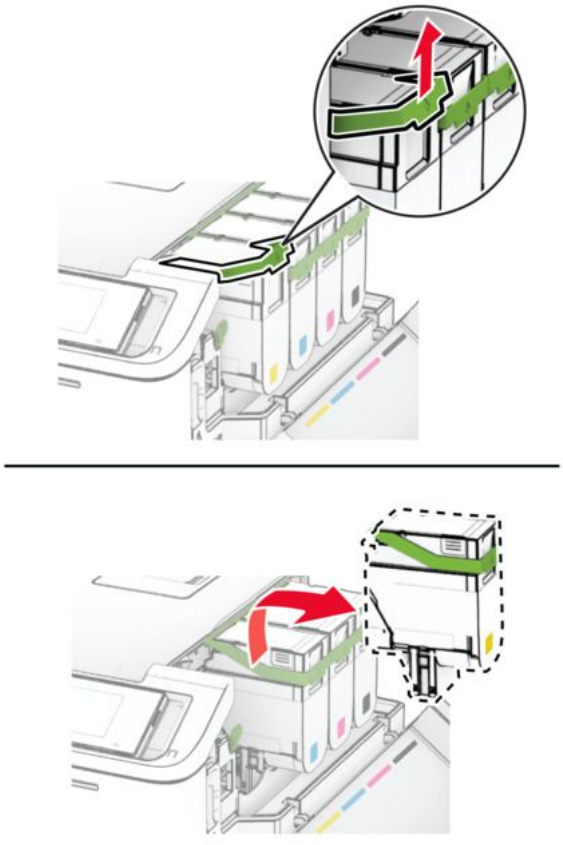
3. Remove the right cover.



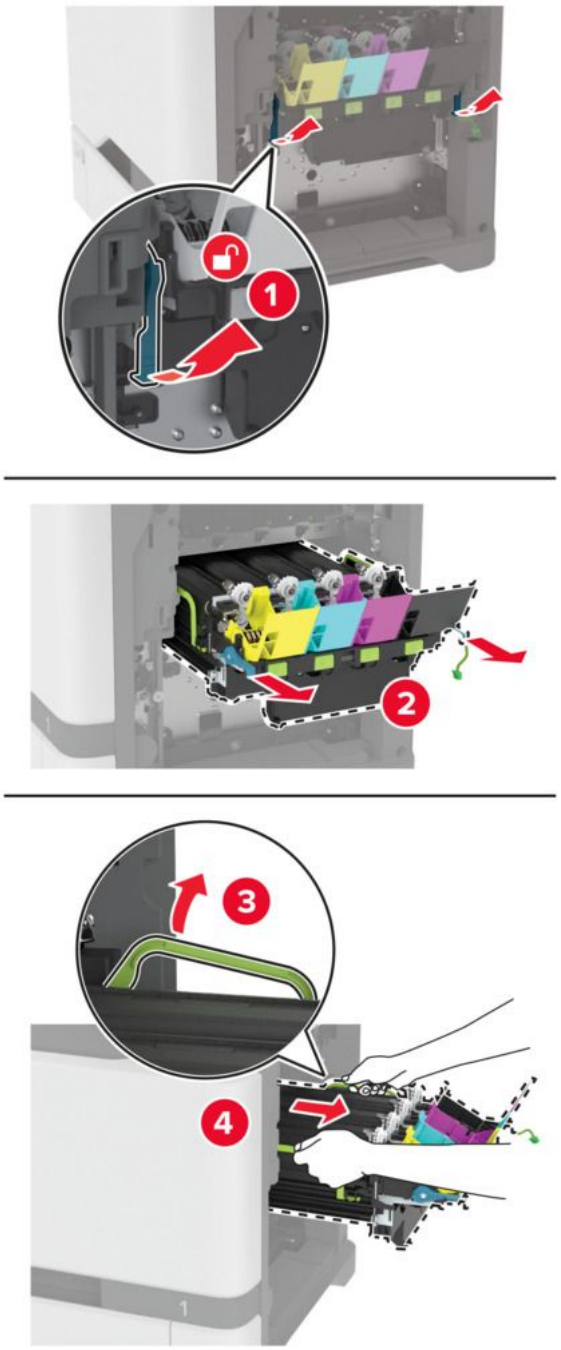
4. Remove the waste toner bottle.



5. Remove the toner cartridges.



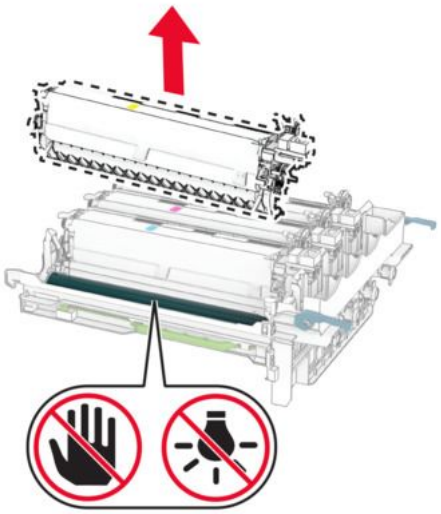
6. Remove the imaging kit.



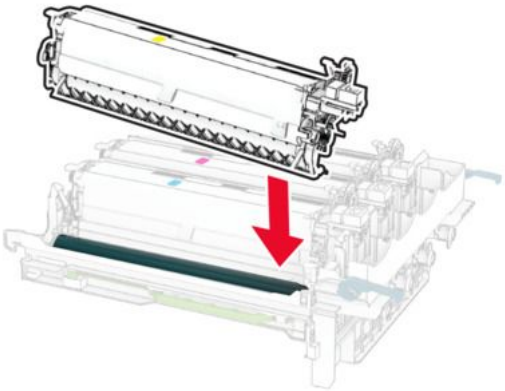
7. Remove the used developer unit.

> **Warning—Potential Damage**
> Do not expose the imaging kit to direct light. Extended exposure to light may cause print quality problems.

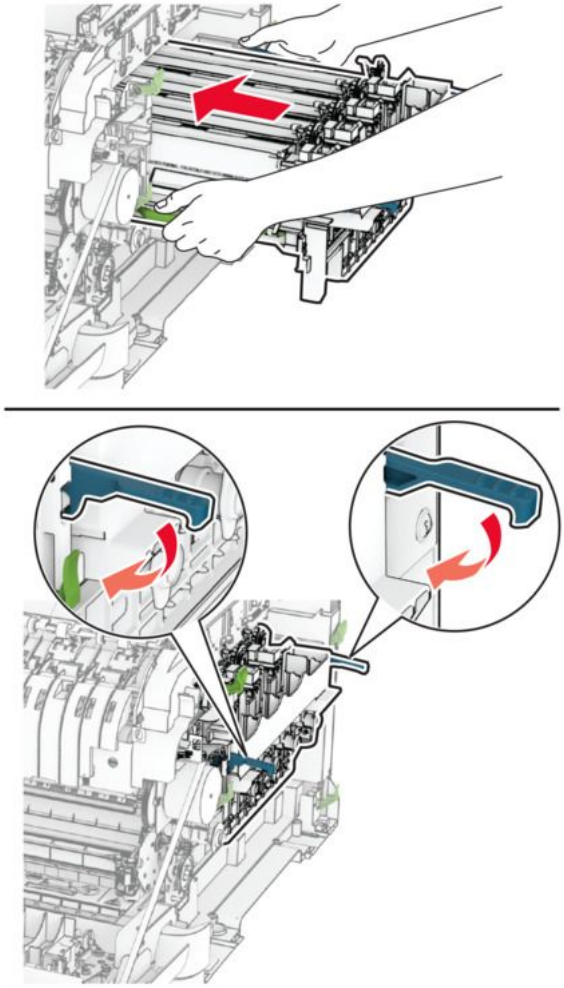
Warning—Potential Damage
Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



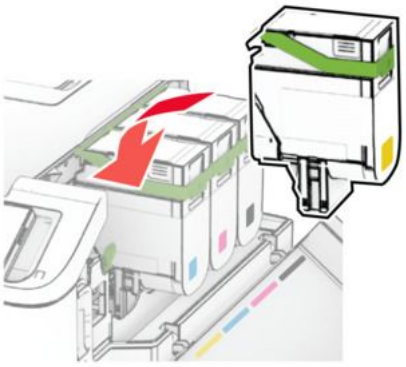
8. Remove the packing material.
9. Insert the new developer unit.



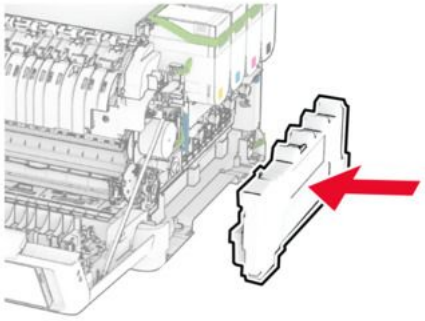
10. Insert the imaging kit until it is fully seated.

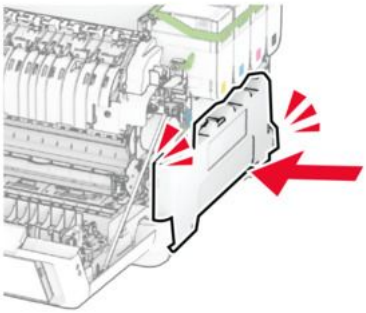


11. Insert the toner cartridges until they click into place.

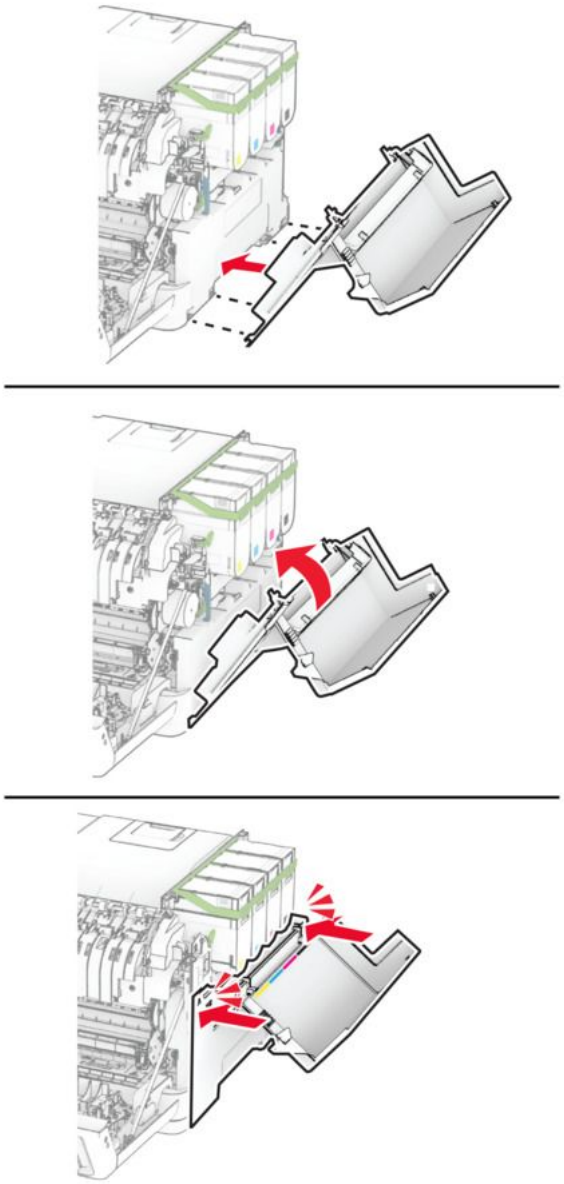


12. Insert the waste toner bottle until it clicks into place.





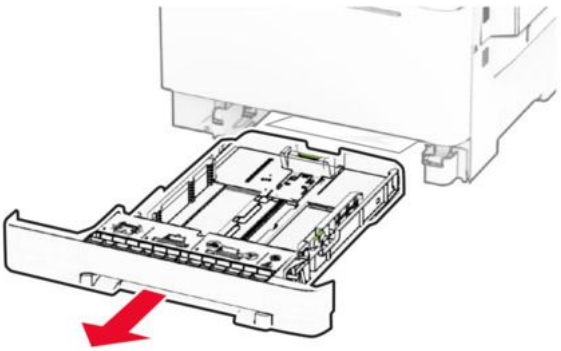
13. Attach the right cover until it clicks into place.



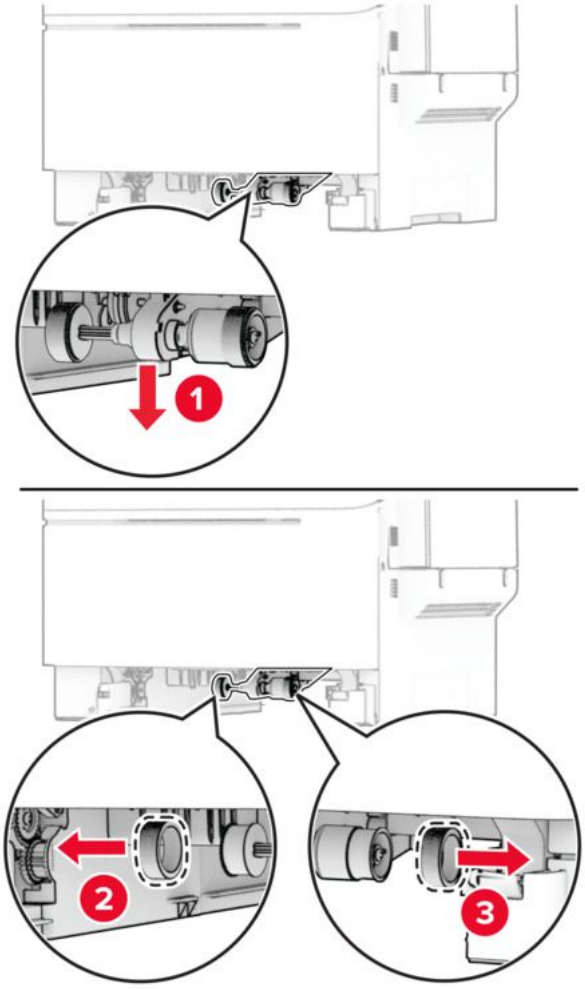
14. Close door A, and then close door B.

Replacing the pick tires

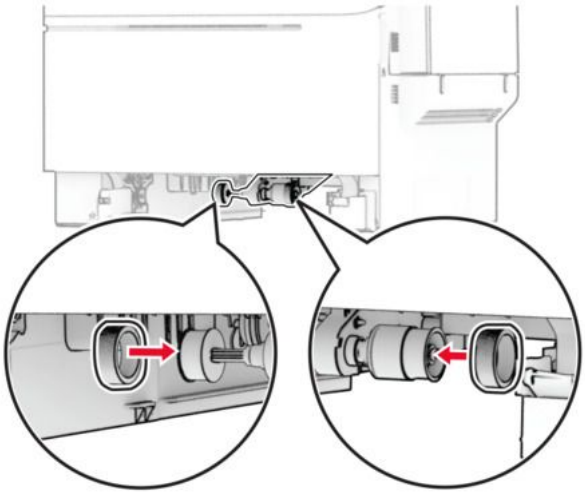
1. Remove the tray.



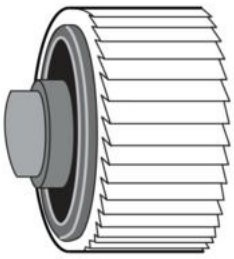
2. Remove the used pick tires.



3. Unpack the new pick tires.
4. Insert the new pick tires.



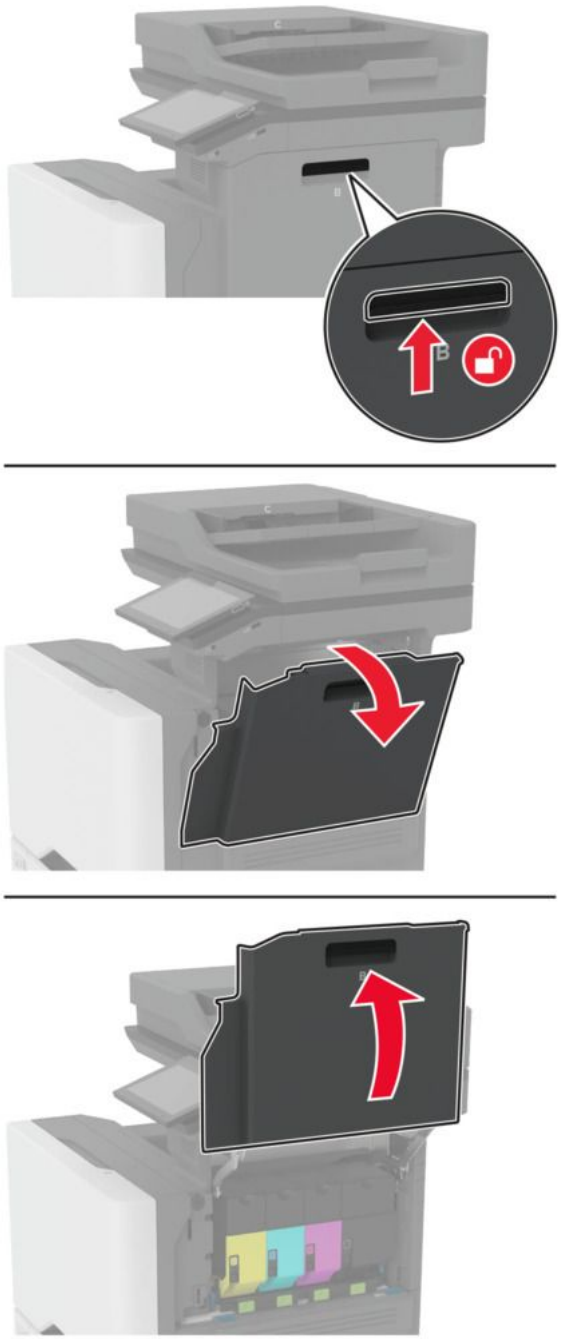
Notes
Make sure that the edges of the pick tire treads are facing downward.



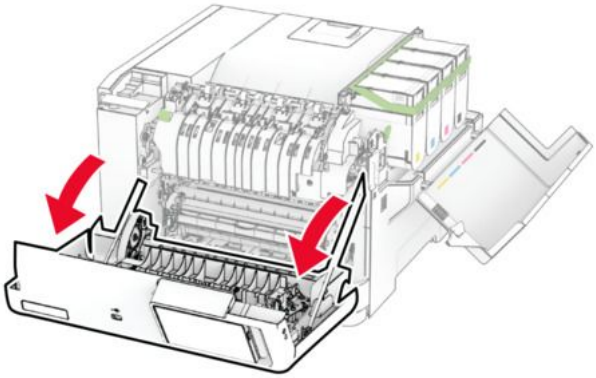
5. Insert the tray.

Replacing the right cover

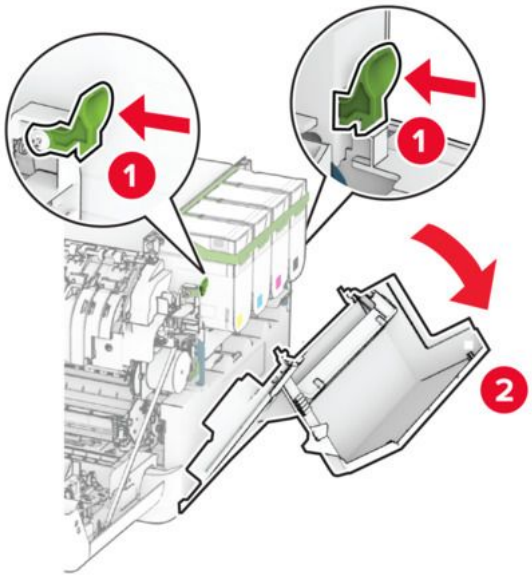
1. Open door B.



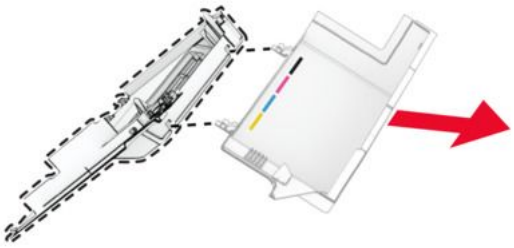
2. Open door A.



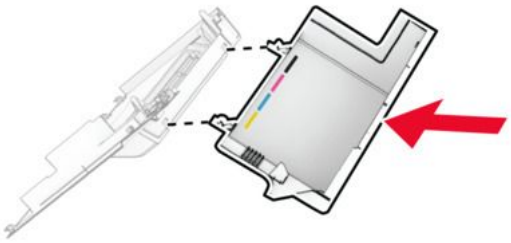
3. Remove the used right cover.



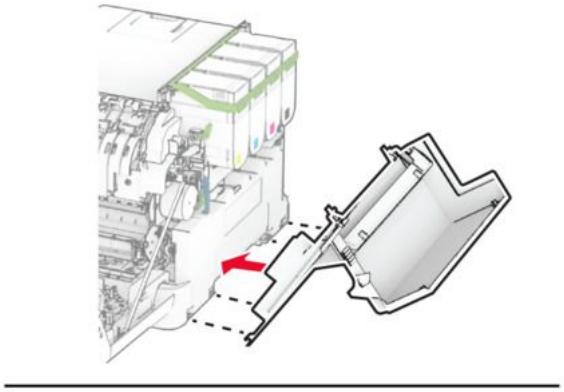
4. Remove door B from the used right cover.

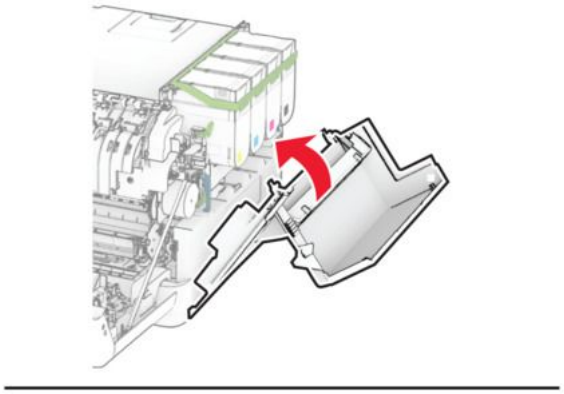


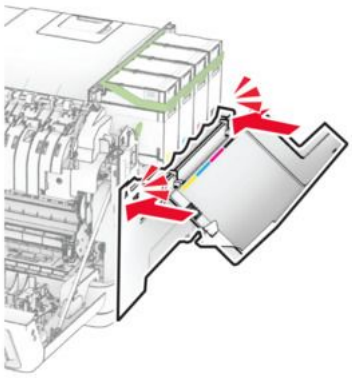
5. Unpack the new right cover.
6. Attach door B to the new right cover.



7. Attach the new right cover until it clicks into place.





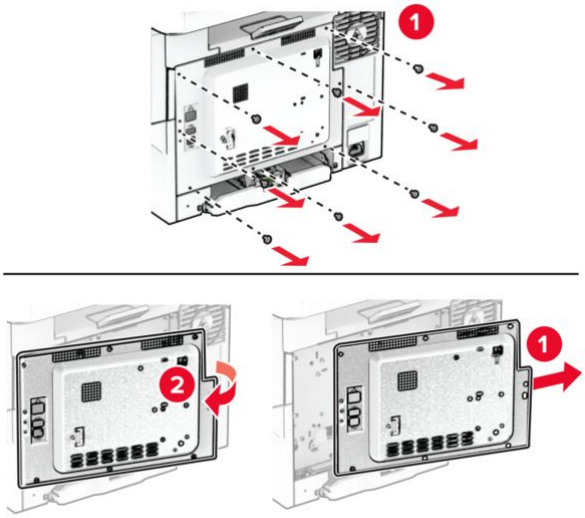


8. Close door A, and then close door B.

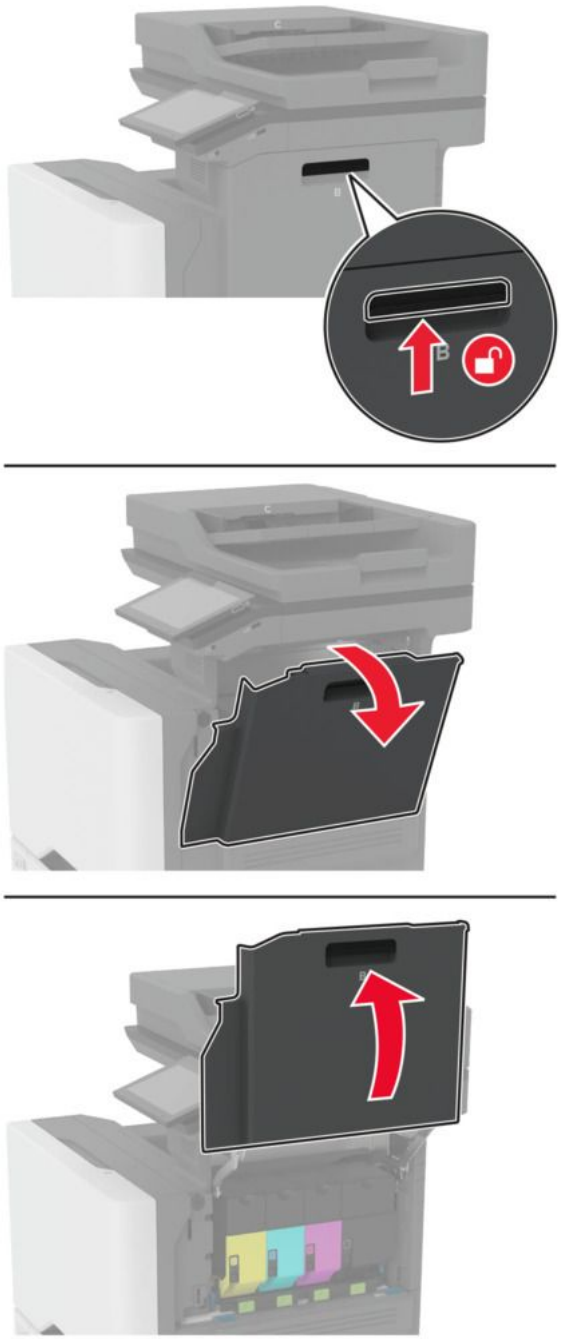
Replacing MarkNet™ N8450 Wireless Print Server

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet.
3. Remove the controller board shield.

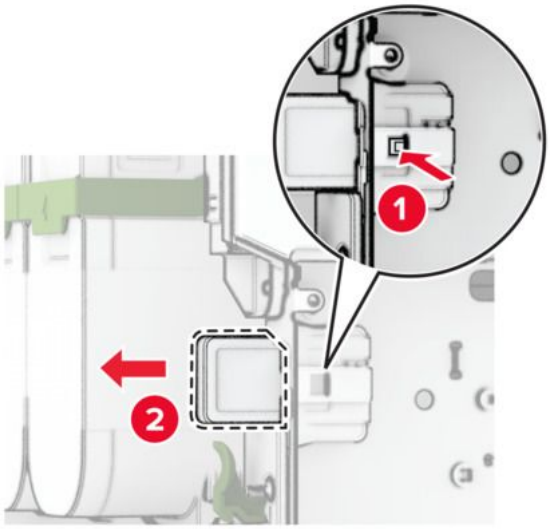
> **Warning—Potential Damage**
> Controller board electronic components are easily damaged by static electricity. Touch a metal surface on the printer before touching any controller board components or connectors.



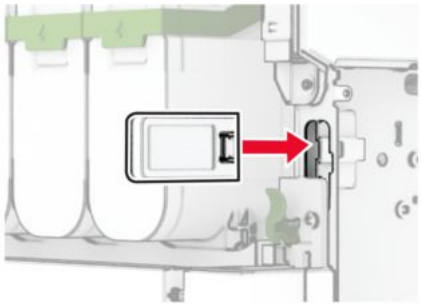
4. Open door B.

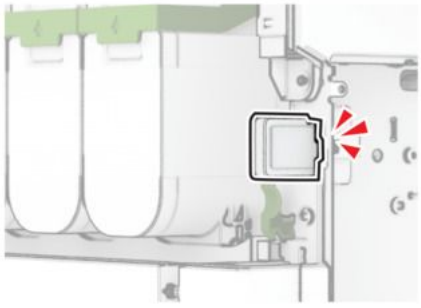


5. Release the latch, and then remove the used wireless print server.

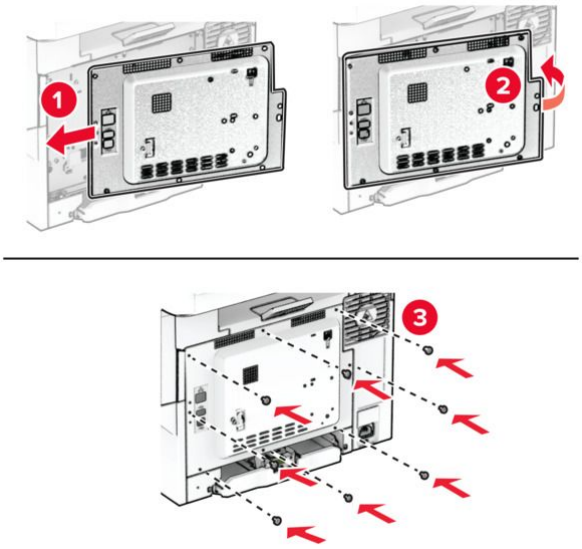


6. Unpack the new wireless print server.
7. Insert the new wireless print server until it clicks into place.





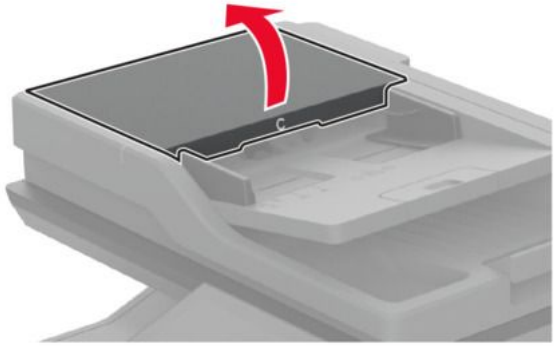
8. Close door B.
9. Attach the controller board shield.



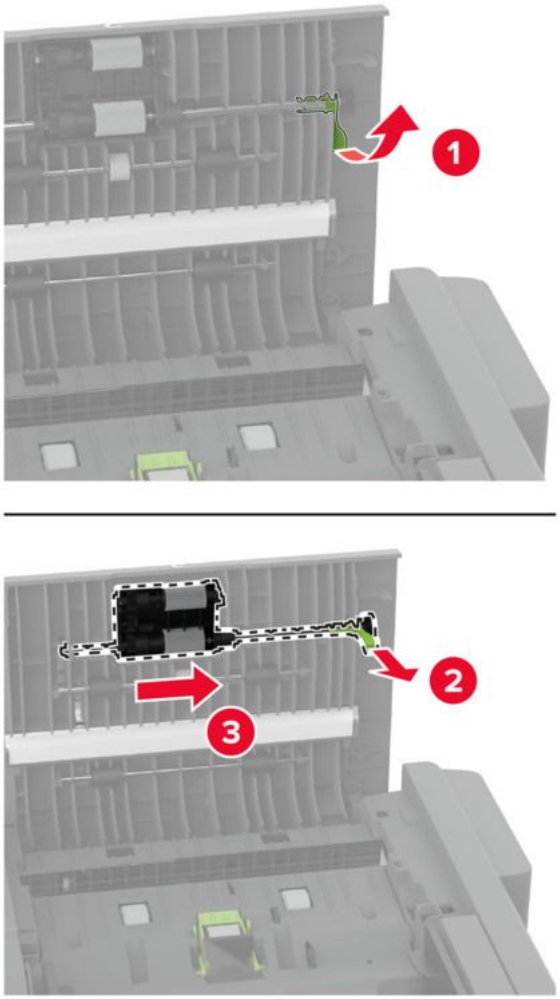
10. Connect the power cord to the electric outlet.
11. Turn on the printer.

Replacing the ADF rollers

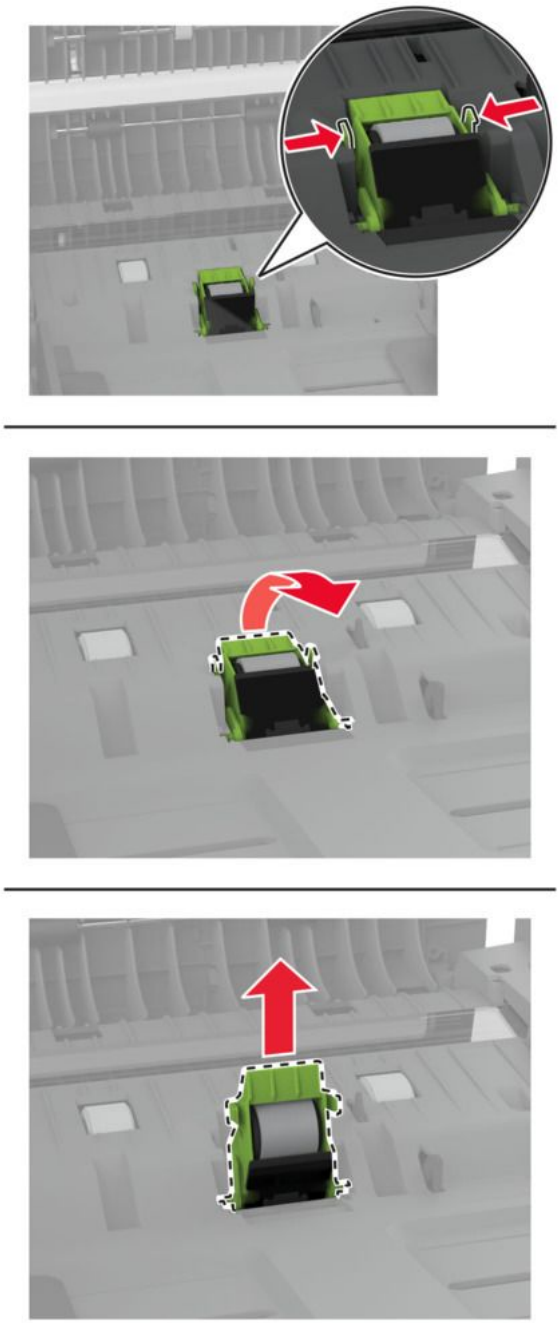
1. Open door C.



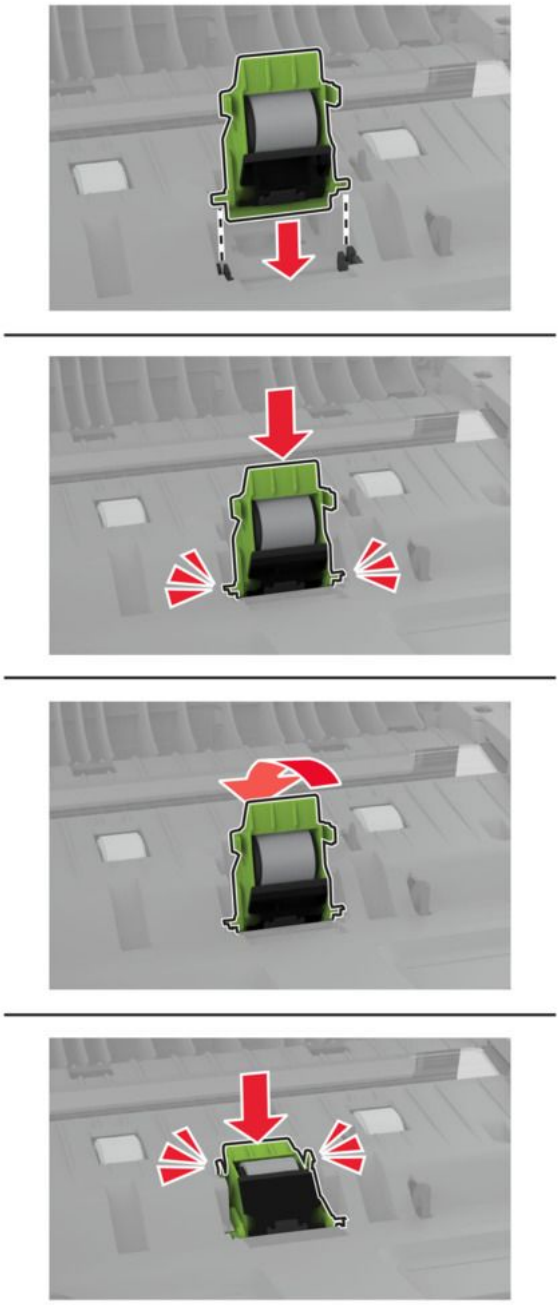
2. Remove the used ADF pick roller.



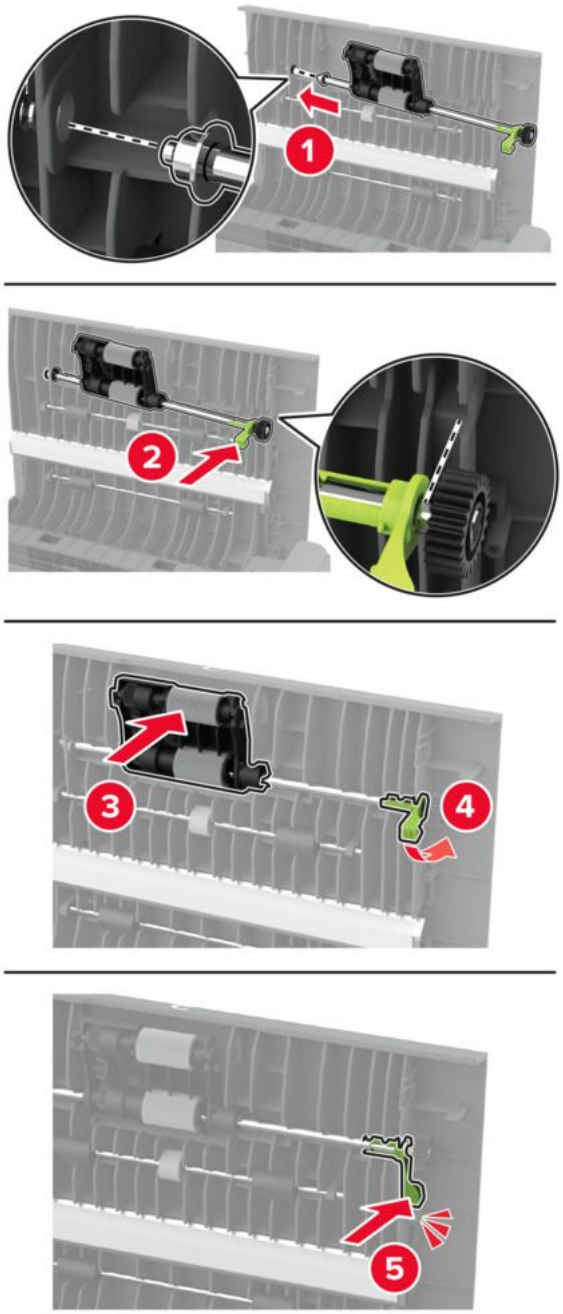
3. Remove the used ADF separator roller.



4. Unpack the new ADF pick roller and ADF separator roller.
5. Insert the new ADF separator roller until it clicks into place.



6. Insert the new ADF pick roller until it clicks into place.

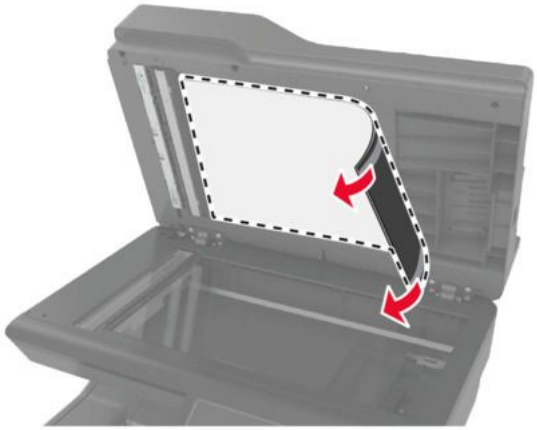


7. Close door C.

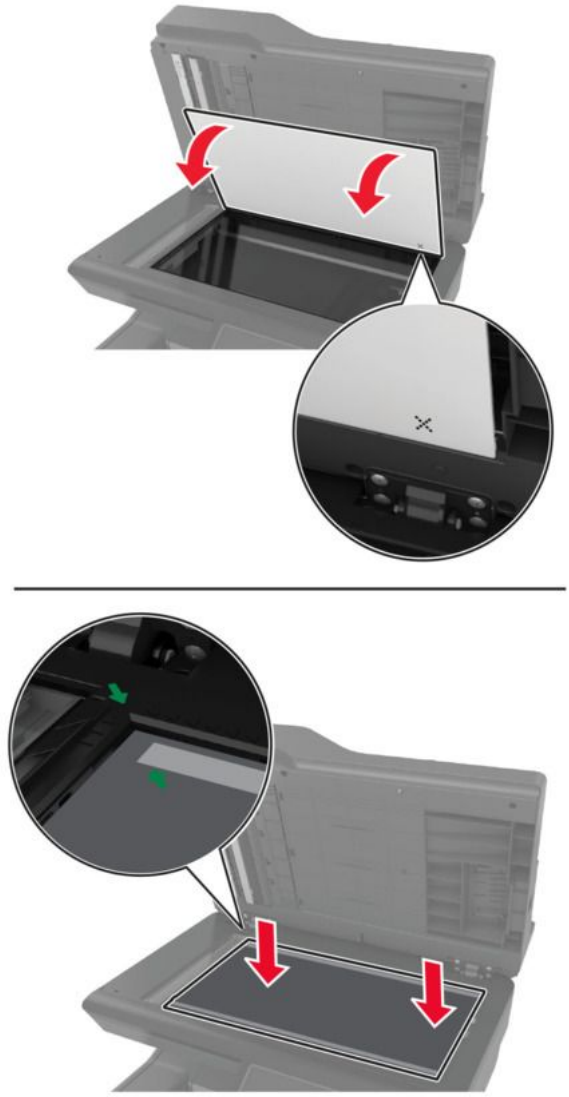
Replacing the scanner glass pad

1. Open the scanner cover.

2. Remove the used scanner glass pad.



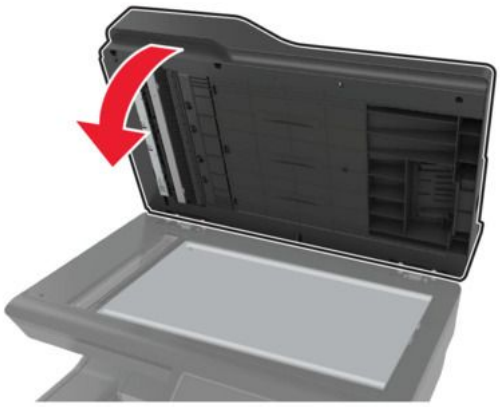
3. Unpack the new scanner glass pad.
4. Place the white area of the new scanner glass pad facedown on the scanner glass, and then remove the backing on the tape.



Notes

Make sure that the scanner glass pad is aligned correctly on the edges of the scanner glass.

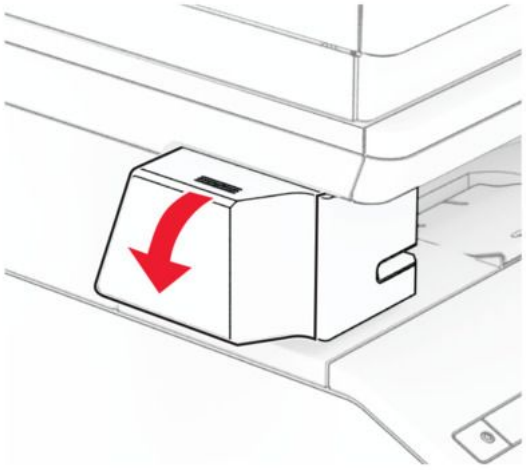
5. Close the scanner cover to stick the new scanner glass pad to the cover.



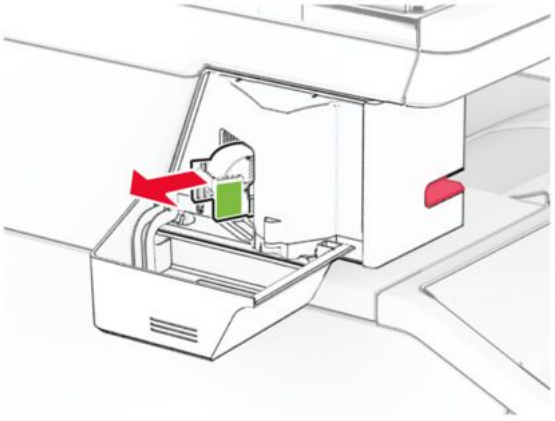
6. Open the scanner cover to check if the new scanner glass pad is properly attached to the cover.
7. Close the scanner cover.

Replacing the staple refill

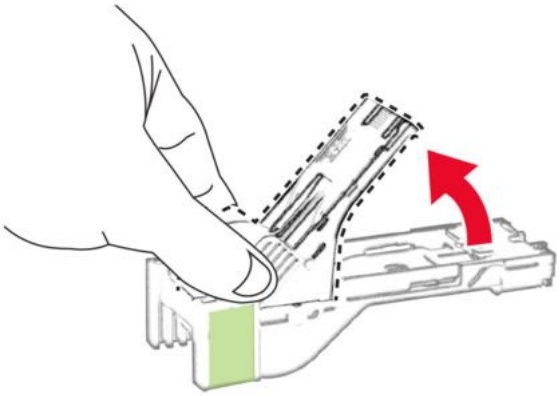
1. Open the convenience stapler access door.



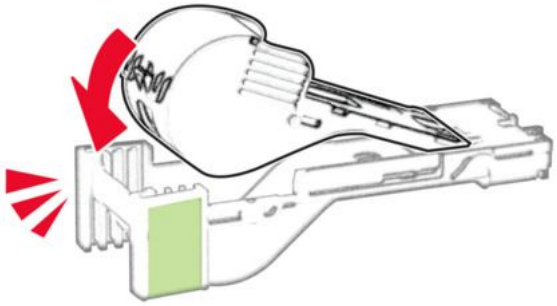
2. Remove the staple cartridge.



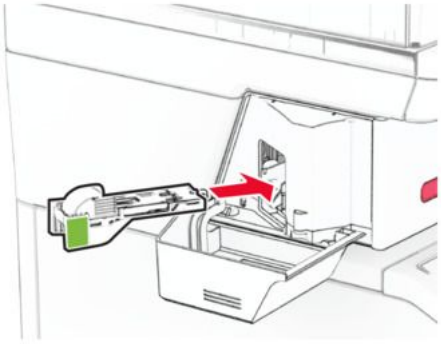
3. Remove the empty staple refill.

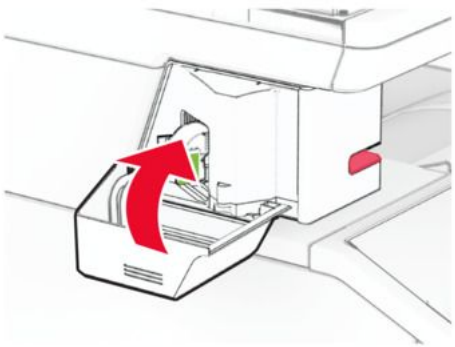


4. Insert the new staple refill until it clicks into place.



5. Insert the staple cartridge, and then close the convenience stapler access door.

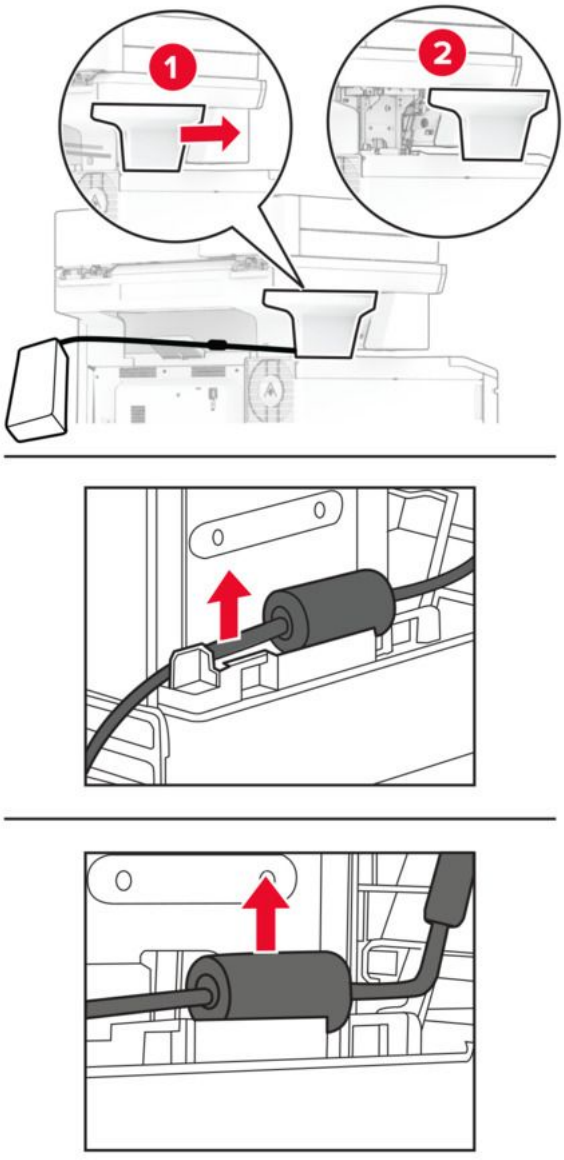




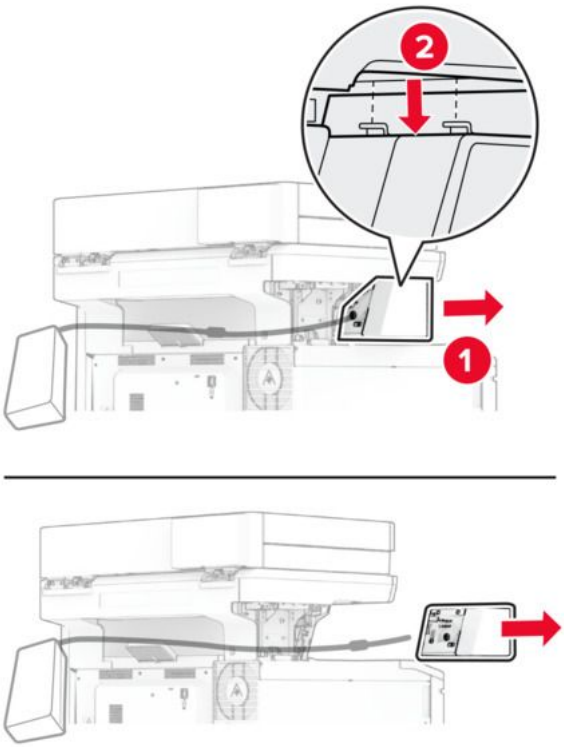
Notes
Check the LED indicator status. The convenience stapler is ready to use when the blue light comes on.

Replacing the convenience stapler power supply

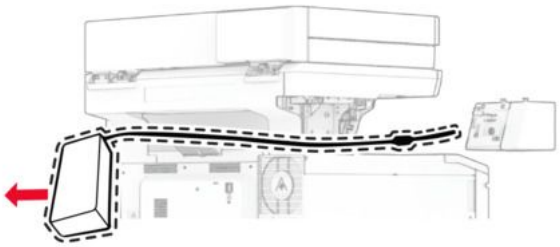
1. Unplug the power supply from the electrical outlet.
2. Remove the column cover and power supply cable.



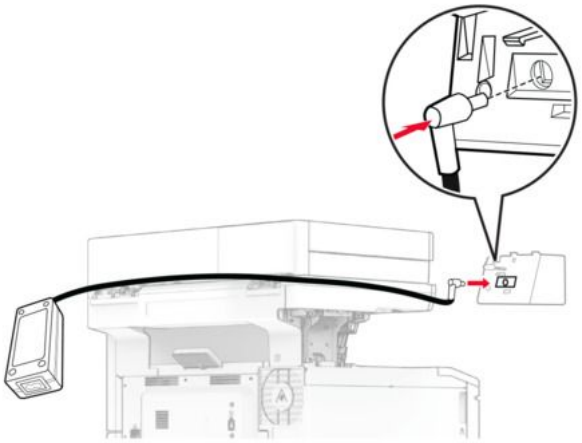
3. Remove the convenience stapler.



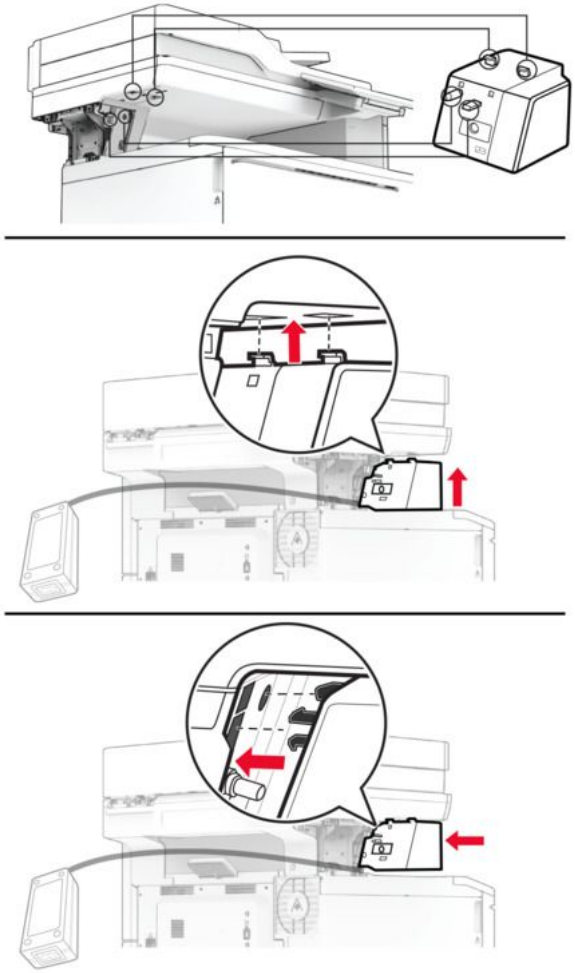
4. Remove the used power supply.



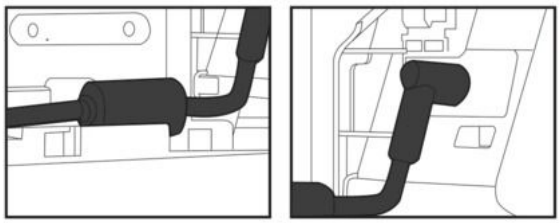
5. Unpack the new power supply.
6. Insert the new power supply through the printer, and then connect it to the convenience stapler.



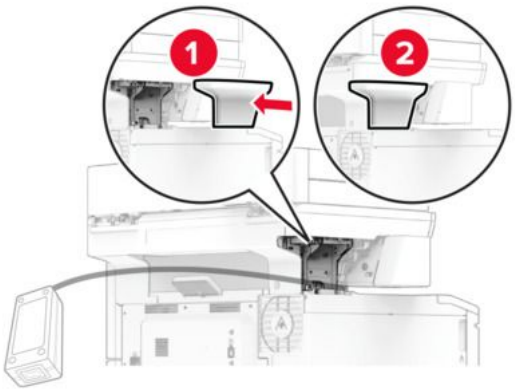
7. Install the convenience stapler.



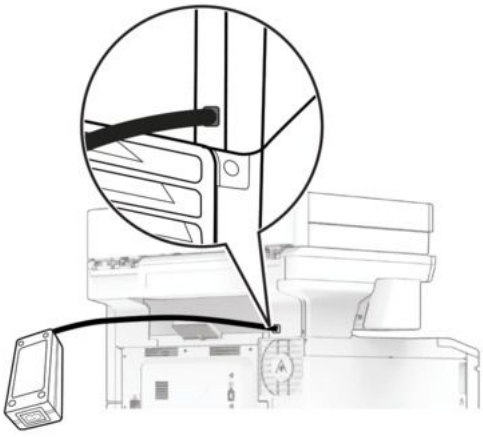
8. Position the power supply properly.



9. Attach the column cover.



> **Notes**
> Secure the power supply properly.



10. Connect one end of the stapler power cord to the power supply, and then the other end to the electrical outlet.

Resetting the supply usage counters

1. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Supply Usage And Counters**.

2. Select the counter that you want to reset.

Warning—Potential Damage
Supplies and parts without Return Program agreement terms may be reset and remanufactured. However, the manufacturer’s warranty does not cover any damage caused by non-genuine supplies or parts. Resetting counters on the supply or part without proper remanufacturing can cause damage to your printer. After resetting the supply or part counter, your printer may display an error indicating the presence of the reset item.

Warning—Potential Damage
Supplies and parts without use-and-return program agreement terms may be reset and remanufactured. However, the manufacturer’s warranty does not cover any damage caused by non-genuine supplies or parts. Resetting counters on the supply or part without proper remanufacturing can cause damage to your printer. After resetting the supply or part counter, your printer may display an error indicating the presence of the reset item.

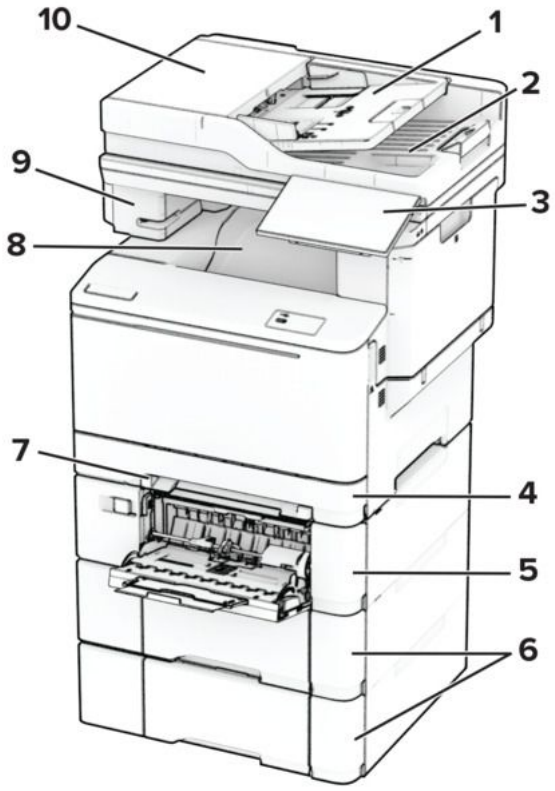
Component locations

Printer configurations

You can configure your printer by adding any of the following options:

- A 650-sheet duo tray
- A 650-sheet duo tray and up to two 550-sheet trays
- Up to three 550-sheet trays

For more information, see Installing optional trays on page 366.



1	ADF tray
2	ADF bin
3	Control panel
4	Standard 250-sheet tray

5	Optional 650-sheet duo tray **Notes** The tray is composed of a 550-sheet tray and a 100-sheet multipurpose feeder.
6	Optional 550-sheet trays
7	Manual feeder
8	Standard bin
9	Convenience stapler
10	Automatic document feeder (ADF)

Installing optional trays

CAUTION—TIPPING HAZARD
Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, see www.lexmark.com/multifunctionprinters.

CAUTION—TIPPING HAZARD
Para instalar uno o varios complementos en la impresora o el equipo multifunción, puede ser necesario utilizar una base de ruedas, mobiliario u otros elementos que eviten la inestabilidad del montaje y la consiguiente posibilidad de sufrir lesiones. Para obtener más información sobre las configuraciones compatibles, visite www.lexmark.com/multifunctionprinters.

CAUTION—TIPPING HAZARD
pour installer une ou plusieurs options sur votre imprimante ou votre MFP, vous aurez peut-être besoin d'un support à roulettes, d'un meuble ou d'un autre système prévu pour stabiliser la machine et éviter les blessures. Pour plus d'informations sur les configurations possibles, consultez le site www.lexmark.com/multifunctionprinters.

CAUTION—TIPPING HAZARD
Wenn Sie mehrere Zuführungsoptionen am Drucker oder MFP angebracht haben, sollten Sie aus Stabilitätsgründen einen Rollunterschrank, ein Möbelstück oder Sonstiges verwenden, um Verletzungsrisiken zu vermeiden. Weitere Informationen zu unterstützten Konfigurationen finden Sie unter www.lexmark.com/multifunctionprinters

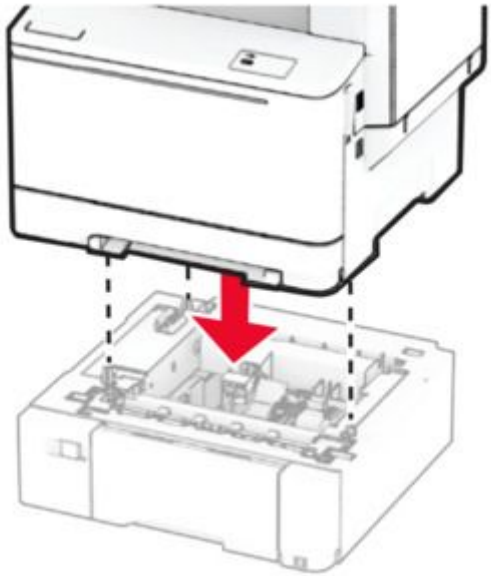
CAUTION—POTENTIAL INJURY
If the printer weight is greater than 20 kg (44 lb), then it may require two or more people to lift it safely.

CAUTION—POTENTIAL INJURY
Si el peso de la impresora es superior a 20 kg (44 lb), pueden ser necesarias dos o más personas para levantarla de forma segura.

CAUTION—POTENTIAL INJURY
Si votre imprimante pèse plus de 20 kg (44 lb), l'intervention d'au moins deux personnes est nécessaire pour la soulever sans risque.

CAUTION—POTENTIAL INJURY
Wenn der Drucker mehr als 20 kg wiegt, sind zum sicheren Anheben unter Umständen mindestens zwei Personen notwendig.

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Unpack the optional tray, and then remove all packing material.
4. Align the printer with the optional tray, and then lower the printer into place.



Notes
To avoid invalid configuration, when installing both the 550-sheet tray and 650-sheet tray, always place the 550-sheet tray below the 650-sheet tray.

5. Connect the power cord to the printer, and then to the electrical outlet.

6. Turn on the printer.

Add the tray in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver on page 368.

Adding available options in the print driver

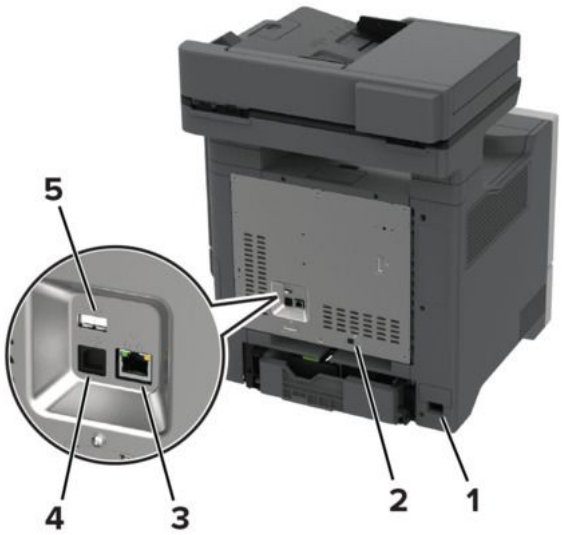
For Windows users

1. Open the printers folder.
2. Select the printer you want to update, and then do either of the following:
   - For Windows 7 or later, select **Printer properties**.
   - For earlier versions, select **Properties**.
3. Navigate to the Configuration tab, and then select **Update Now - Ask Printer**.
4. Apply the changes.

For Macintosh users

1. From System Preferences in the Apple menu, navigate to your printer, and then select **Options & Supplies**.
2. Navigate to the list of hardware options, and then add any installed options.
3. Apply the changes.

Port locations

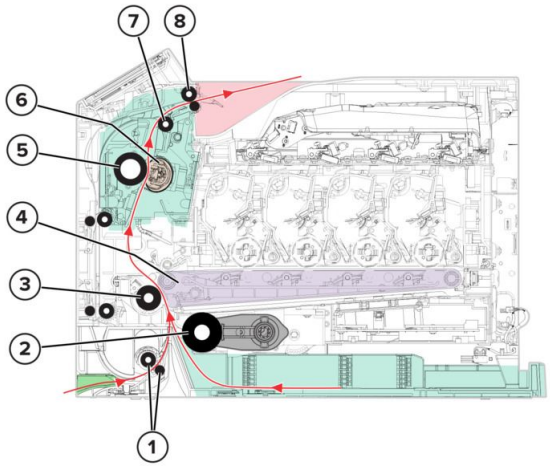


	Printer port	Function
1	Power cord socket	Connect the printer to a properly grounded electrical outlet.

	Printer port	Function
2	LINE port **Notes** Available only in some printer models.	Connect the printer to an active telephone line through a standard wall jack (RJ-11), DSL filter, or VoIP adapter, or any other adapter that allows you to access the telephone line to send and receive faxes.
3	Ethernet port	Connect the printer to a network.
4	USB printer port	Connect the printer to a computer.
5	USB port	Attach a keyboard or any compatible option.

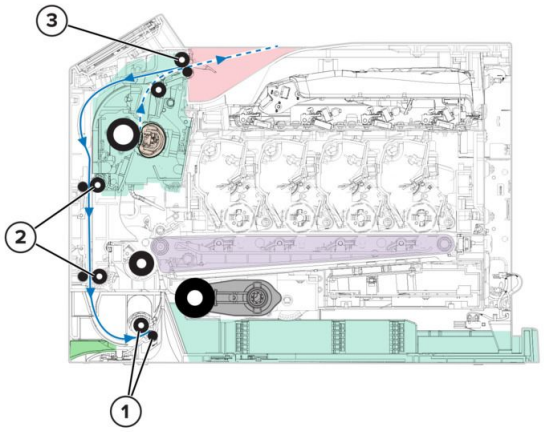
Roller locations

Standard paper path



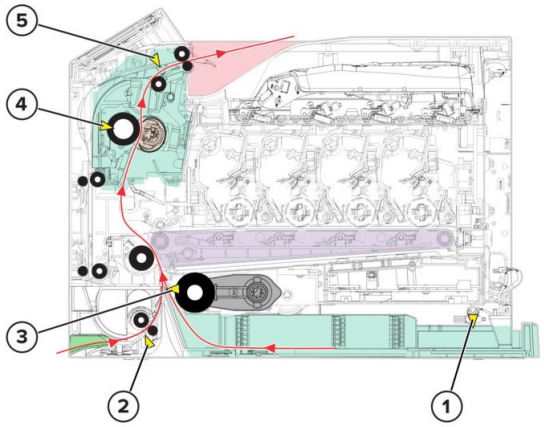
1	MPF feed rollers
2	Tray 1 pick roller
3	Second transfer roller
4	Transfer belt
5	Fuser roller
6	Fuser belt
7	Fuser decurl roller
8	Fuser exit rollers

Duplex paper path



1	Duplex staging rollers
2	Duplex transport rollers
3	Fuser exit roller

Sensor locations



1	Sensor (tray present)	Sensor (tray present) removal on page 291
2	Sensor (duplex/manual feed)	Sensor (duplex) removal on page 287
3	Sensor (input)	--
4	Sensor (fuser exit)	Sensor (fuser exit) removal on page 238
5	Sensor (bin full)	--

Maintenance

Inspection guide

Use this guide in identifying the parts that must be inspected, cleaned, or replaced based on the page count.
If any unsafe condition exists, find out the seriousness of the hazard. Assess if you can continue before you correct the hazard or you should correct the hazard immediately.
As you service the machine, check for the following:

- Damaged, missing, or altered parts, especially in the area of the power switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and power supply cover
- Possible safety exposure from any non-Lexmark attachments

Use the following table to determine when specified parts should be inspected:

Printer parts	Every service call	Every 150K	Every 300K	Notes
Tray insert • Width guides • Length guides	Inspect	Inspect	Inspect	Check for correct positioning.
Transfer module	Inspect	Inspect	Inspect	Ensure correct installation.
Fuser	Inspect	Replace	Inspect	Ensure correct installation.
Pick rollers • Tray pick roller • MPF pick roller • Separator bracket	Inspect and clean if needed.	Inspect and clean if needed.	Replace	Clean with a damp cloth.

Printer parts	Every service call	Every 150K	Every 300K	Notes
Paper path rollers	Inspect	Inspect	Inspect	• Check for paper fragments. • Check for excessive toner build-up on rollers. • Clean with damp cloth if needed.
Others • Toner spillage	Clean	Clean	Clean	Use a toner vacuum and cloth to remove all toner spillage from the printer.

Scheduled maintenance

Maintenance kits

The control panel displays an 80.xx error when it reaches certain page counts. It is necessary to replace the appropriate maintenance kit to maintain print quality and printer reliability. For more information, see 80 user attendance error messages on page 144.

> **Notes**
> When replacing the maintenance kit, install all the parts that are included in the box, and then reset the maintenance counter.

The printer may stop printing when the fuser rated life is reached. After 150K printed pages (sides) a maintenance kit may be required.
The parts are available as a maintenance kit with the following part numbers:

Kit	Contents	Page count	Notes
41X4999—Maintenance kit, 100 V	• 41X4996—Fuser, 100V • 40X5168—Pick roller	150K	Reset the fuser maintenance counter after replacing the fuser maintenance kit. See Resetting the maintenance counter on page 373.
41X5000—Maintenance kit, 110 V	• 41X4997—Fuser, 115V • 40X5168—Pick roller	150K	Reset the fuser maintenance counter after replacing the fuser maintenance kit. See Resetting the maintenance counter on page 373.
41X5001—Maintenance kit, 220 V	• 41X4998—Fuser, 220 V • 40X5168—Pick roller	150K	Reset the fuser maintenance counter after replacing the fuser maintenance kit. See Resetting the maintenance counter on page 373.
41X2848—ADF maintenance kit	ADF rollers • ADF pick roller • ADF separator roller	110K (scanned pages)	--

When performing the scheduled maintenance procedure, the following areas should be cleaned of paper dust and toner contamination:

- Trays
- Imaging kit and imaging unit areas
- Transfer roller area
- Duplex area
- Standard bin

Resetting maintenance counters

Resetting the maintenance counter

1. From the control panel, navigate to **Settings > Device > Maintenance > Configuration Menu > Supply Usage and Counters > Reset Maintenance Counter**.
2. Select **Start**.

Transfer module reset

1. From the home screen, navigate to **Settings > Device > Maintenance > Configuration menu > Supply usage and counters > ITM Reset**.
2. Select **Start**.

Cleaning printer parts

Cleaning the printer

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descarga eléctrica al limpiar el exterior de la impresora, desconecte el cable de alimentación de la toma eléctrica y desconecte todos los cables de la impresora antes de realizar la operación.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution lors du nettoyage de l'extérieur de l'imprimante, débranchez le cordon d'alimentation électrique de la prise et déconnectez tous les câbles de l'imprimante avant de continuer.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

Notes

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Remove paper from the standard bin and multipurpose feeder.
3. Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
4. Wipe the outside of the printer with a damp, soft, lint-free cloth.

Notes

- Do not use household cleaners or detergents, as they may damage the finish of the printer.
- Make sure that all areas of the printer are dry after cleaning.

5. Connect the power cord to the electrical outlet, and then turn on the printer.

Cleaning the touch screen

CAUTION—SHOCK HAZARD
To avoid the risk of electric shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descarga eléctrica al limpiar el exterior de la impresora, desconecte el cable de alimentación de la toma eléctrica y desconecte todos los cables de la impresora antes de realizar la operación.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution lors du nettoyage de l'extérieur de l'imprimante, débranchez le cordon d'alimentation électrique de la prise et déconnectez tous les câbles de l'imprimante avant de continuer.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Using a damp, soft, lint-free cloth, wipe the touch screen.

Notes

- Do not use household cleaners or detergents, as they may damage the touch screen.
- Make sure that the touch screen is dry after cleaning.

3. Connect the power cord to the electrical outlet, and then turn on the printer.

Cleaning the scanner

1. Open the scanner cover.

2. Using a damp, soft, lint-free cloth, wipe the following areas:
    - ADF glass pad

    - Scanner glass pad

    - ADF glass

- Scanner glass

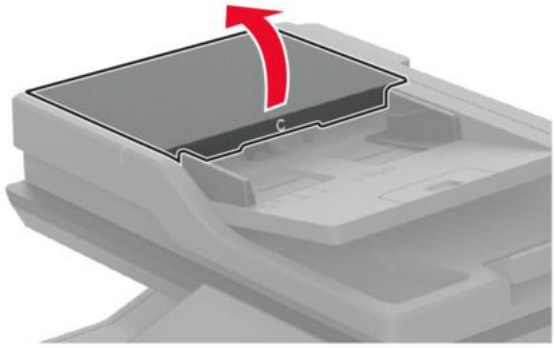
3. Close the scanner cover.
4. Open door C.
5. Using a damp, soft, lint-free cloth, wipe the following areas:
    - ADF glass pad in door C

    - ADF glass in door C

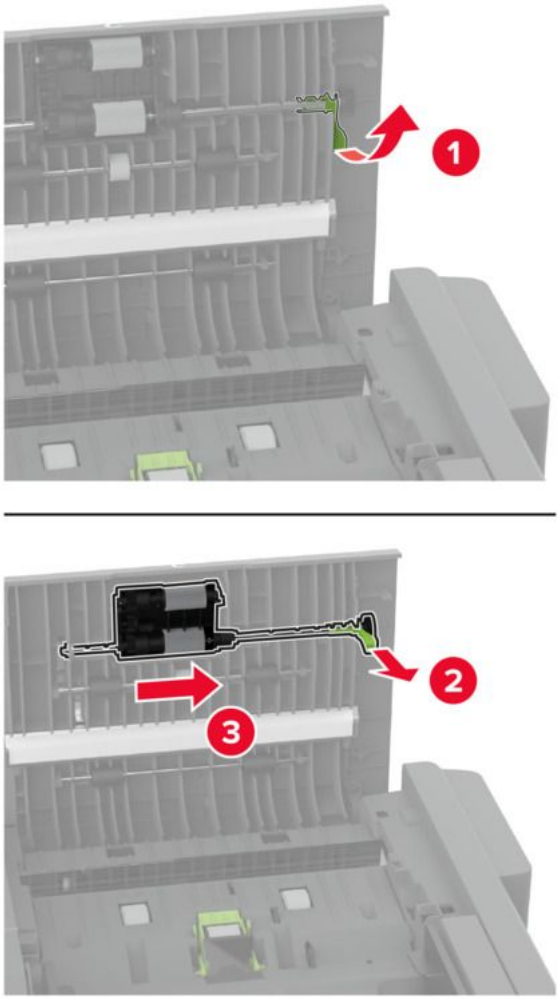
6. Close door C.

Cleaning the ADF rollers

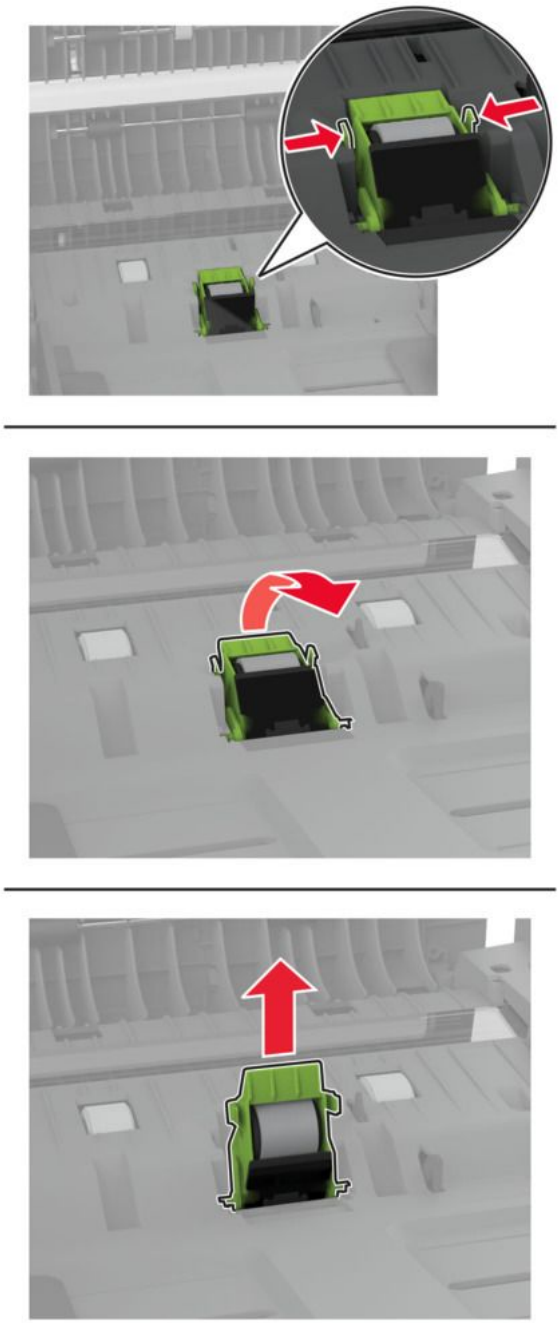
1. Open door C.



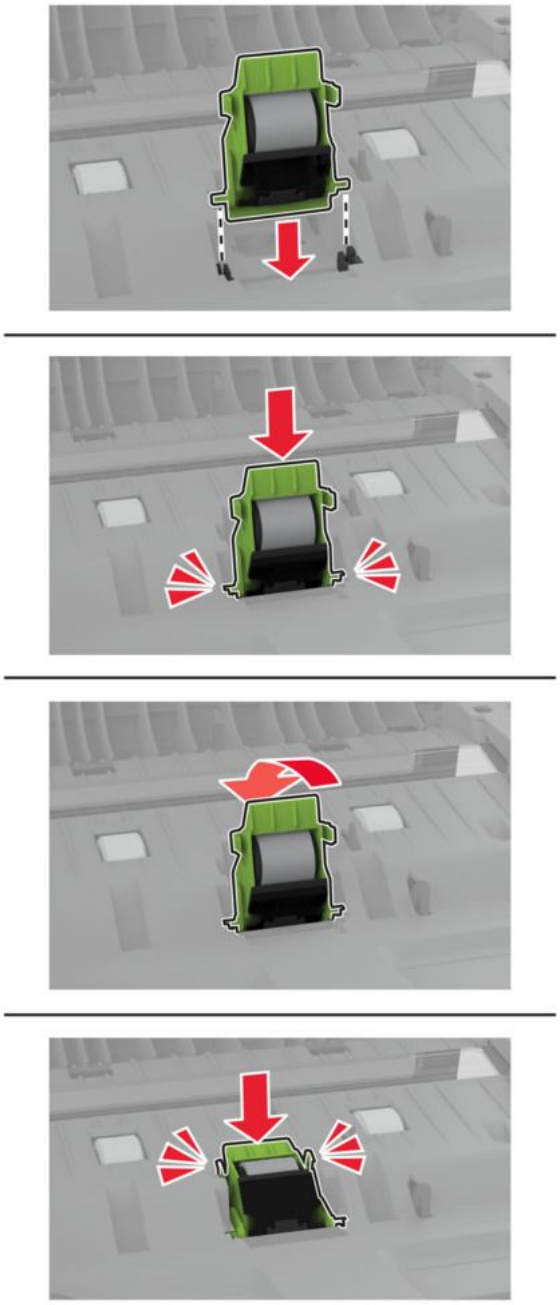
2. Remove the ADF pick roller.



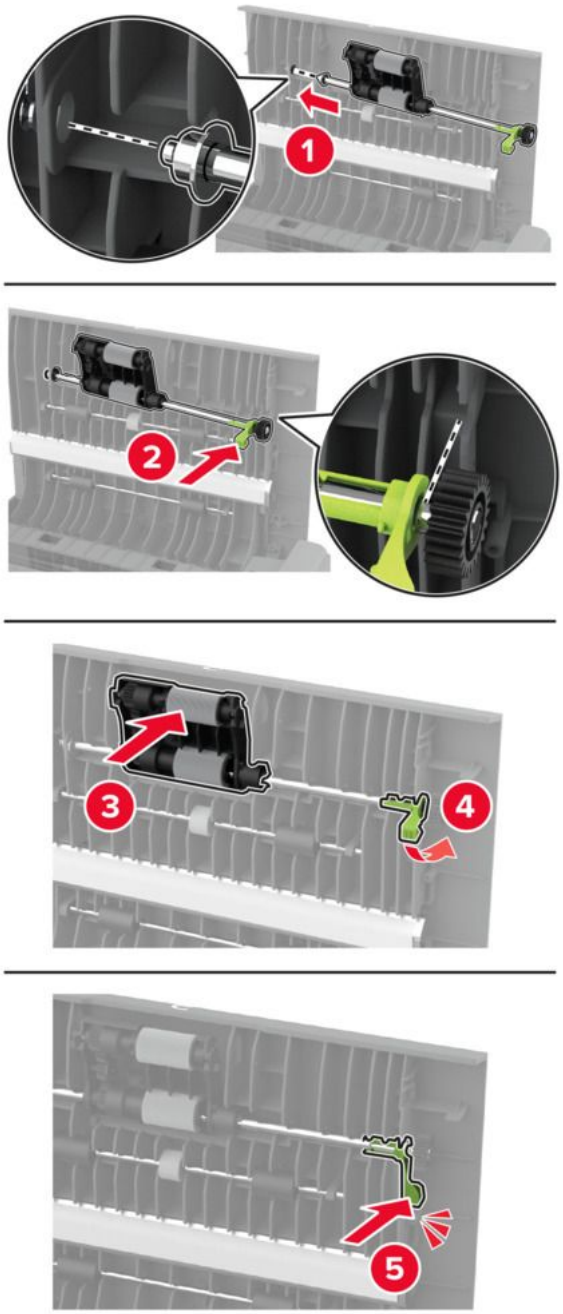
3. Remove the ADF separator roller.



4. Apply isopropyl alcohol to a soft, lint-free cloth, and then wipe the ADF pick roller and ADF separator roller.
5. Insert the ADF separator roller until it clicks into place.



6. Insert the ADF pick roller until it clicks into place.



7. Close door C.

Loading paper and specialty media

Setting the paper size and type

1. From the home screen, touch **Settings > Paper > Tray Configuration > Paper Size/Type >** select a paper source.
2. Set the paper size and type.

Configuring Universal paper settings

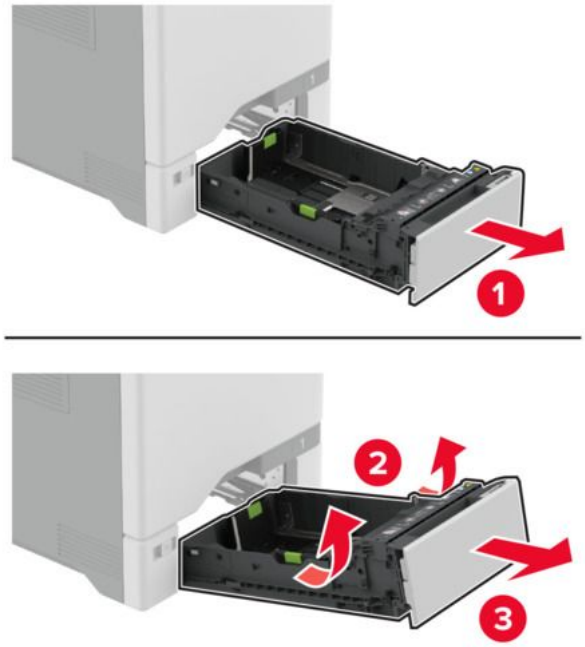
1. From the home screen, touch **Settings > Paper > Media Configuration > Universal Setup**.
2. Configure the settings.

Loading trays

CAUTION—TIPPING HAZARD
To reduce the risk of equipment instability, load each tray separately. Keep all other trays closed until needed.

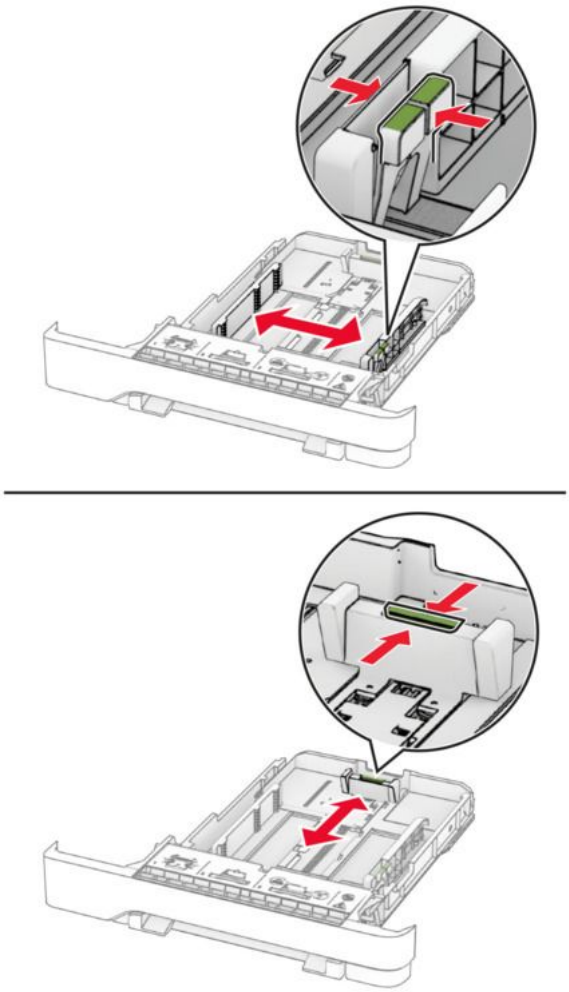
1. Remove the tray.

   Notes
   To avoid jams, do not remove trays while the printer is busy.

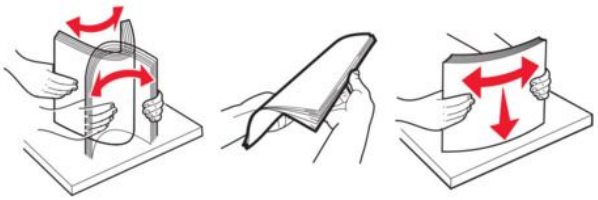


2. Adjust the guides to match the size of the paper that you are loading.

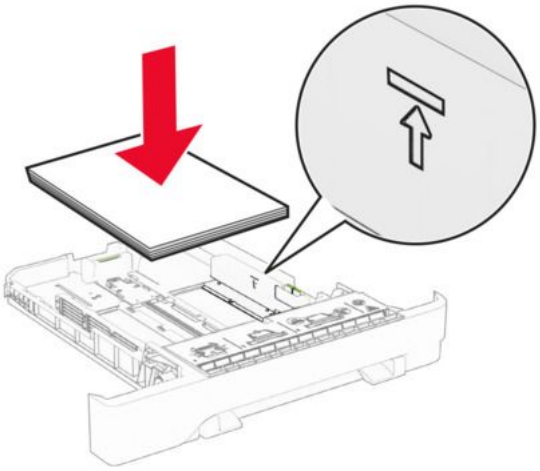
   Notes
   Use the indicators on the bottom of the tray to position the guides.



3. Flex, fan, and align the paper edges before loading.



4. Load the paper stack with the printable side faceup.
    - For one-sided printing, load letterhead faceup with the header toward the front of the tray.
    - For two-sided printing, load letterhead facedown with the header toward the back of the tray.
    - Do not slide paper into the tray.
    - Make sure that the stack height is below the maximum paper fill indicator. Overfilling may cause paper jams.



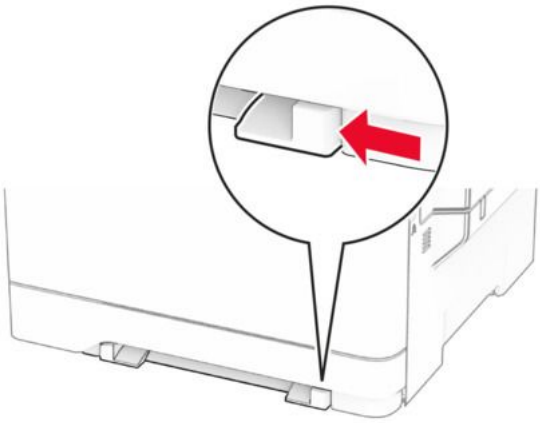
5. Insert the tray.

   If necessary, set the paper size and type to match the paper loaded in the tray.

Loading the manual feeder

1. Adjust the edge guides to match the width of the paper that you are loading.

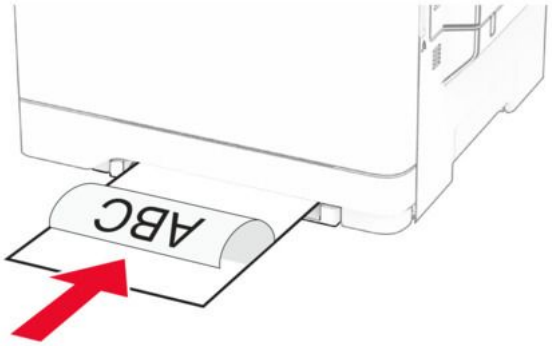
   Notes
   Make sure that the guides fit snugly against the paper, but not too tight as to cause the paper to buckle.



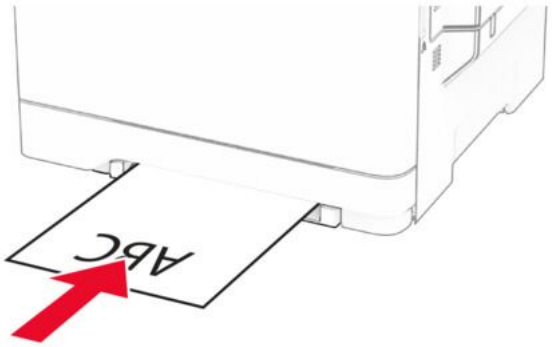
2. Load a sheet of paper with the printable side facedown.

   Notes
   Make sure that the paper is loaded straight to avoid skewed or crooked print.

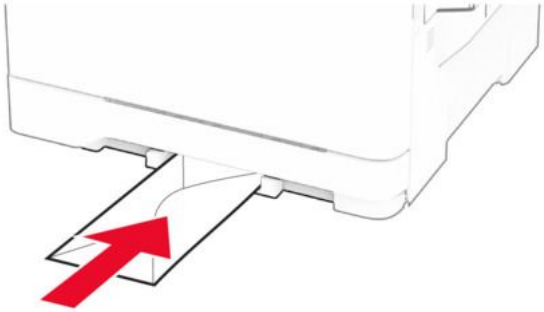
   - For one-sided printing, load letterhead with the printable side facedown and the top edge entering the printer first.



- For two-sided printing, load letterhead with the printable side faceup and the top edge entering the printer last.



- Load envelope with the flap side up and against the right side of the paper guide.



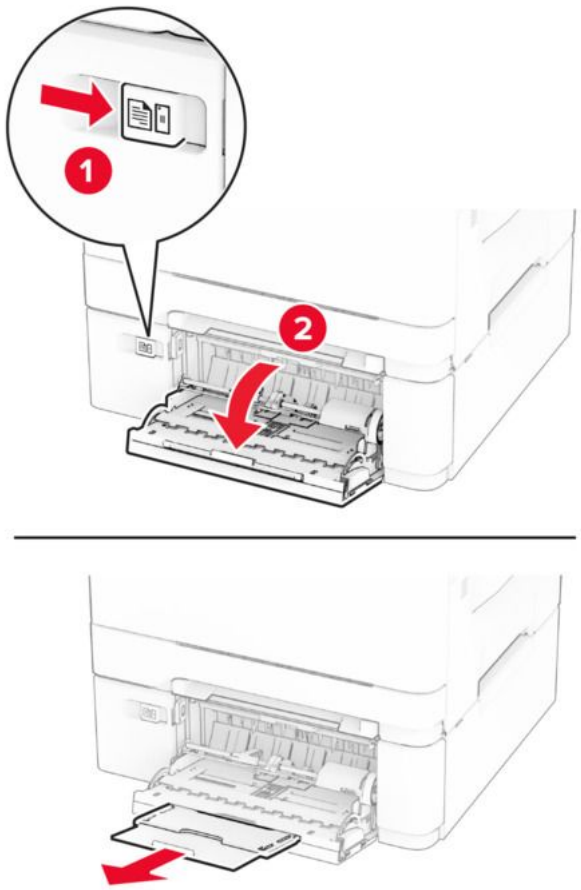
3. Feed the paper until its leading edge gets pulled in.

> **Warning—Potential Damage**
> To avoid paper jams, do not force paper into the manual feeder.

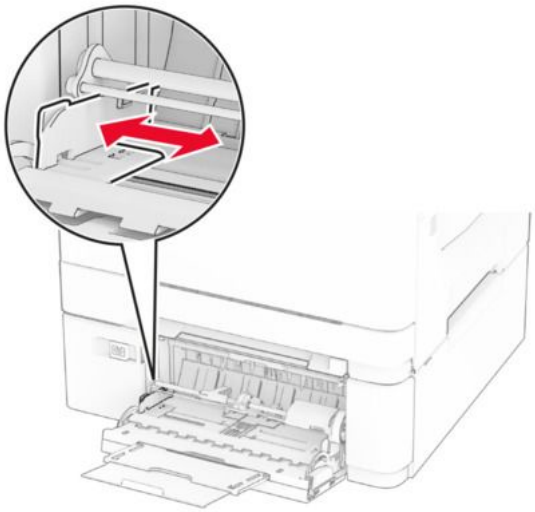
Loading the multipurpose feeder

> **Notes**
> The multipurpose feeder is available only if the optional 650-sheet duo tray is installed.

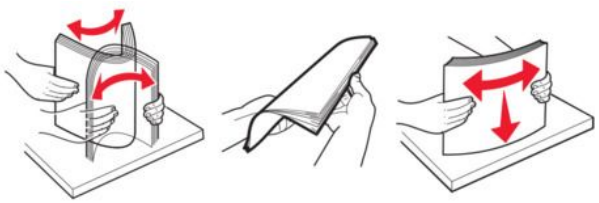
1. Open the multipurpose feeder.



2. Adjust the guide to match the size of the paper that you are loading.

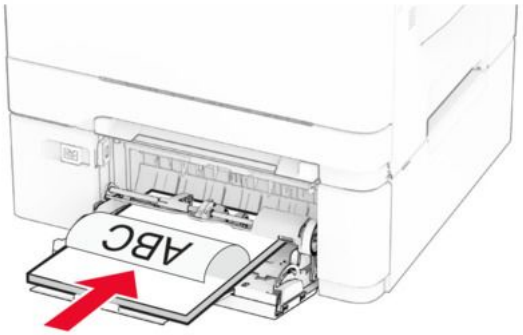


3. Flex, fan, and align the paper edges before loading.

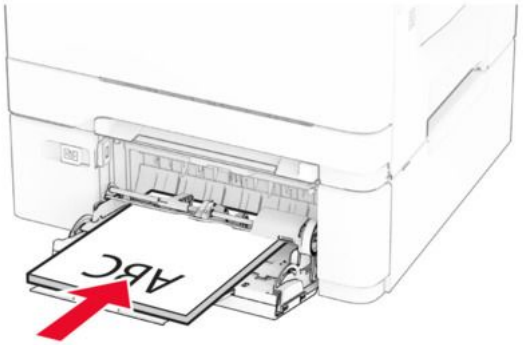


4. Load the paper.

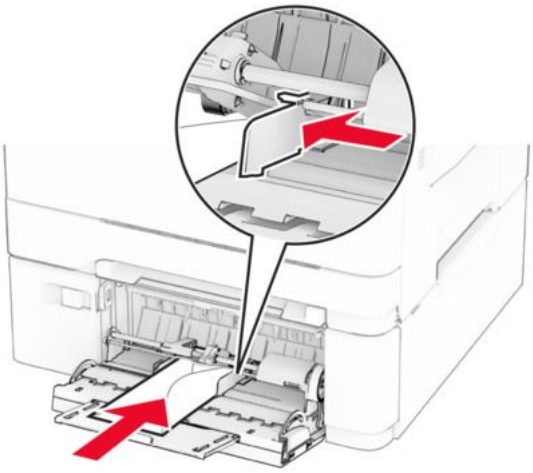
- For one-sided printing, load letterhead with the printable side facedown and the top edge entering the printer first.



- For two-sided printing, load letterhead with the printable side faceup and the top edge entering the printer last.



- Load envelopes with the flap side up and against the right side of the paper guide.



Warning—Potential Damage
Do not use envelopes with stamps, clasps, snaps, windows, coated linings, or self-stick adhesives.

5. From the Paper menu in the control panel, set the paper size and type to match the paper loaded in the multipurpose feeder.

Linking trays

1. From the home screen, touch **Settings > Paper > Tray Configuration >** select a paper source.
2. Set the same paper size and paper type for the trays that you are linking.
3. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Tray Configuration > Tray Linking**.
4. Touch **Automatic**.

To unlink trays, make sure that no trays have the same paper size and paper type settings.

> **Warning—Potential Damage**
> The temperature of the fuser varies according to the specified paper type. To avoid printing issues, match the paper type setting in the printer with the paper loaded in the tray.

Parts catalog

Legend

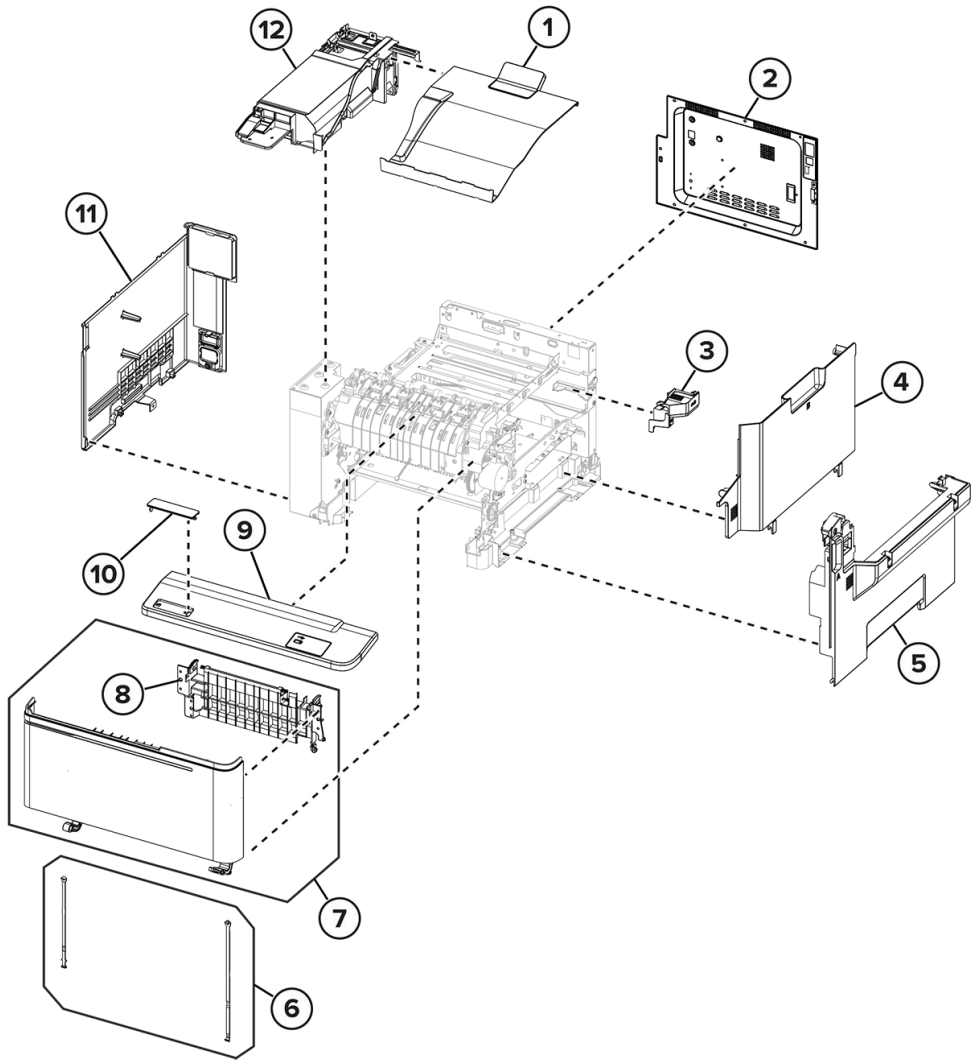
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration.
- **Part number**—Identifies the unique number that correlates with the part.
- **Units/mach**—Refers to the number of units used in the base machine or product.
- **Units/option**—Refers to the number of units in a particular option.
- **Units/FRU**—Refers to the number of units in a particular FRU.
- **Description**—A brief description of the part.

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not pictured in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

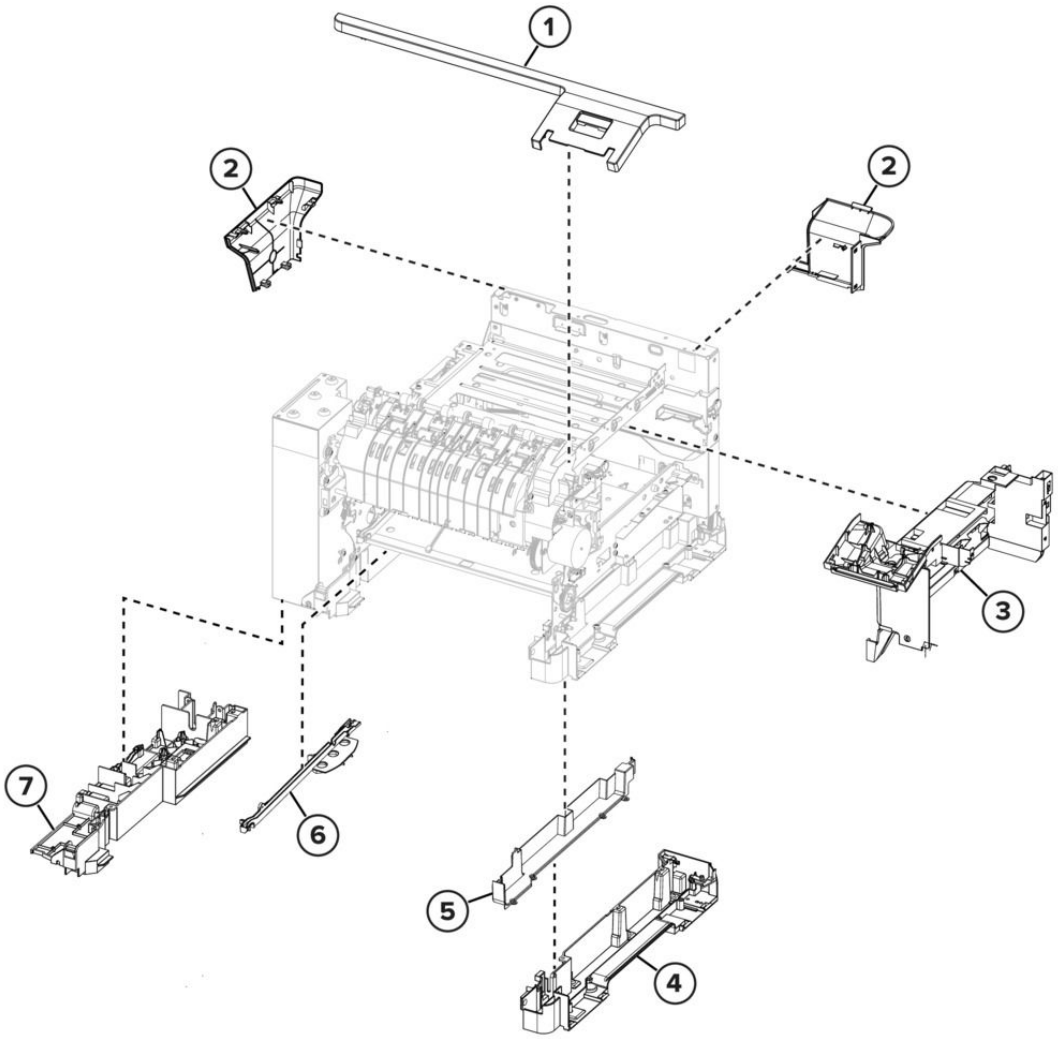
Covers



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4554	1	1	Top cover	Top cover removal on page 297
2	41X4558	1	1	Rear cover	Rear cover removal on page 295
3	41X4555	1	1	Connectivity cover	N/A
4	41X4435	1	1	Toner access door	Toner access door removal on page 250
5	41X4334	1	1	Right cover	Right cover removal on page 252
6	40X7619	1	1	Door straps	N/A
7	41X4330	1	1	Front door	Front door removal on page 259
8	41X2663	1	1	Front door inner paper feed guide	Front door inner paper feed guide removal on page 266
9	41X4557	1	1	Upper front cover	N/A
10	41X4421	1	1	Bezel (blank)	N/A

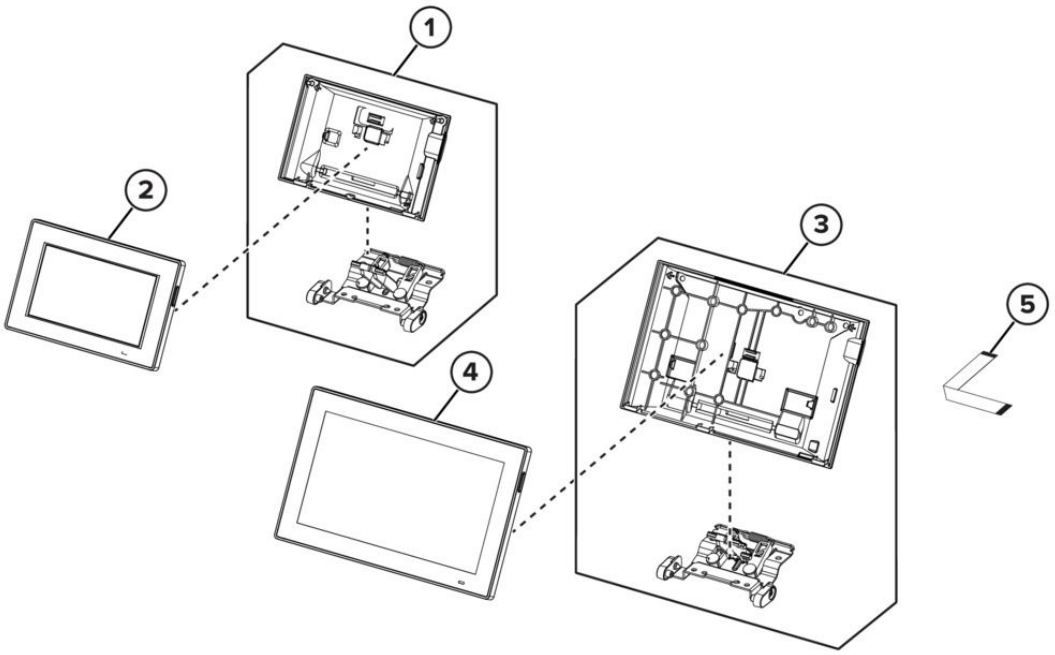
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
10	41X4373	1	1	Bezel for CX532	N/A
10	41X4384	1	1	Bezel for CX635	N/A
11	41X4556	1	1	Left side cover	N/A
12	41X4551	1	1	Top left cover	N/A

Covers 2



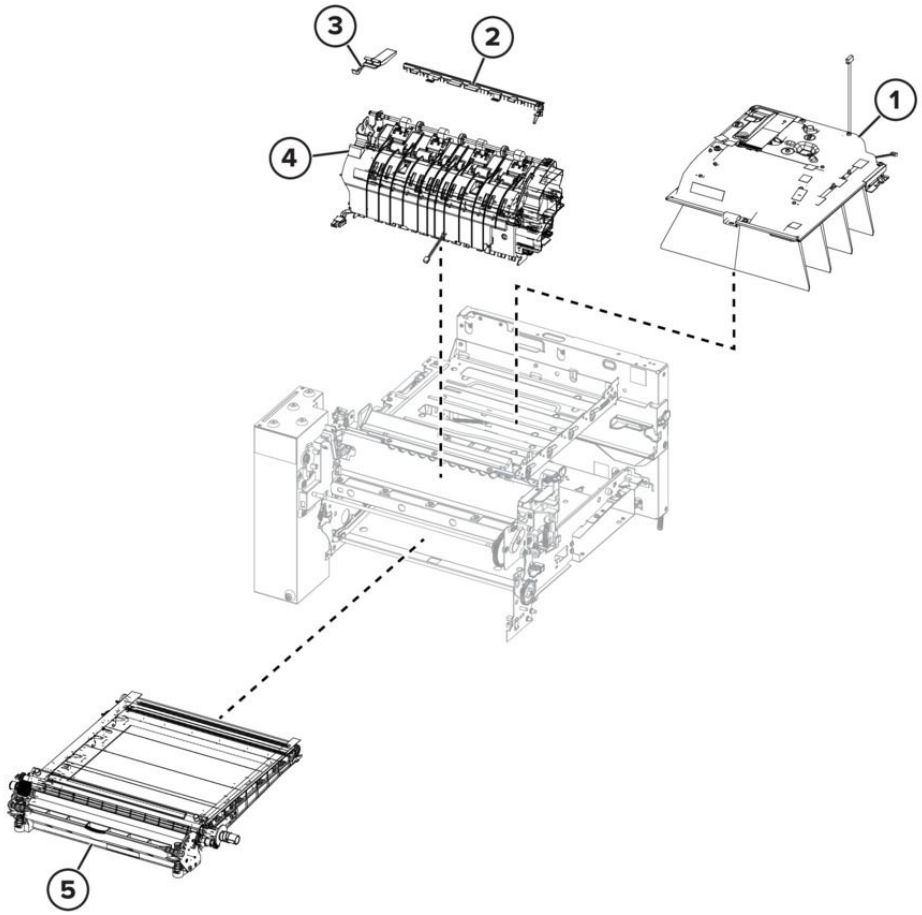
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4360	1	1	Control panel base cover	Control panel base cover removal on page 300
2	41X4552	1	1	Scanner rear access (left and right) cover	Scanner left rear access cover removal on page 307 Scanner right rear access cover removal on page 308
3	41X4553	1	1	Scanner right support cover	Scanner right support cover removal on page 304
4	41X4354	1	1	Lower right subframe	--
5	41X2327	1	1	Subframe cable cover	--
6	41X0580	1	1	Transfer module guide	Transfer module guide removal on page 289
7	41X4924	1	1	Lower left subframe	--

Control panel



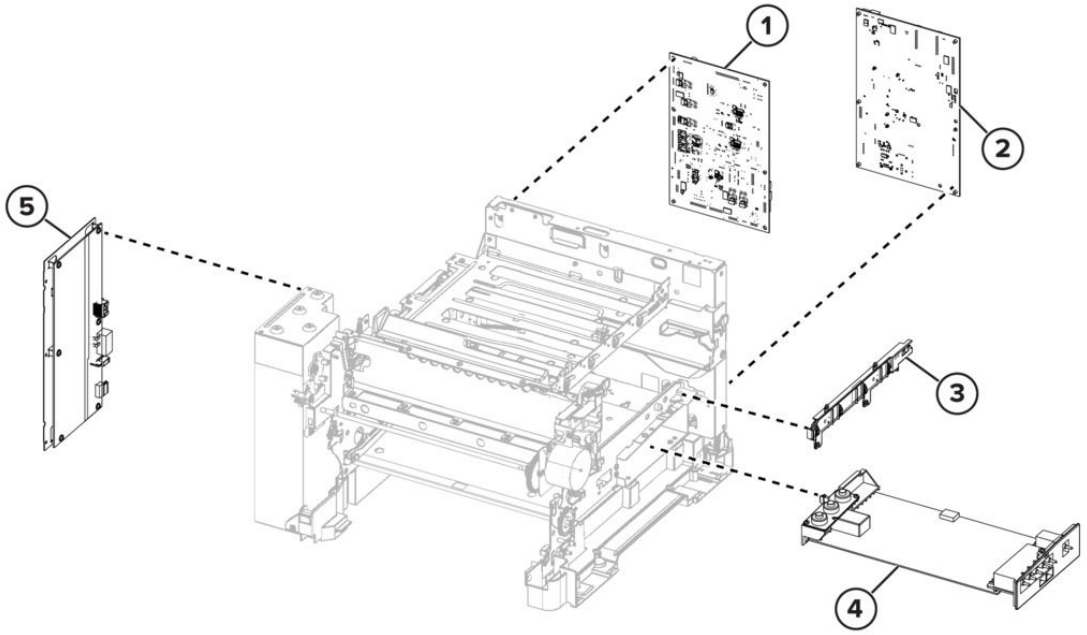
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X3707	1	1	Control panel hinge (CX532 and XC2335)	--
2	41X4351	1	1	Control panel (CX532 and XC2335)	See Control panel removal on page 275
3	41X3708	1	1	Control panel hinge (CX635)	--
4	41X2880	1	1	Control panel (CX635)	See Control panel removal on page 275
5	41X4788	1	1	Control panel flat cable	--

EP components



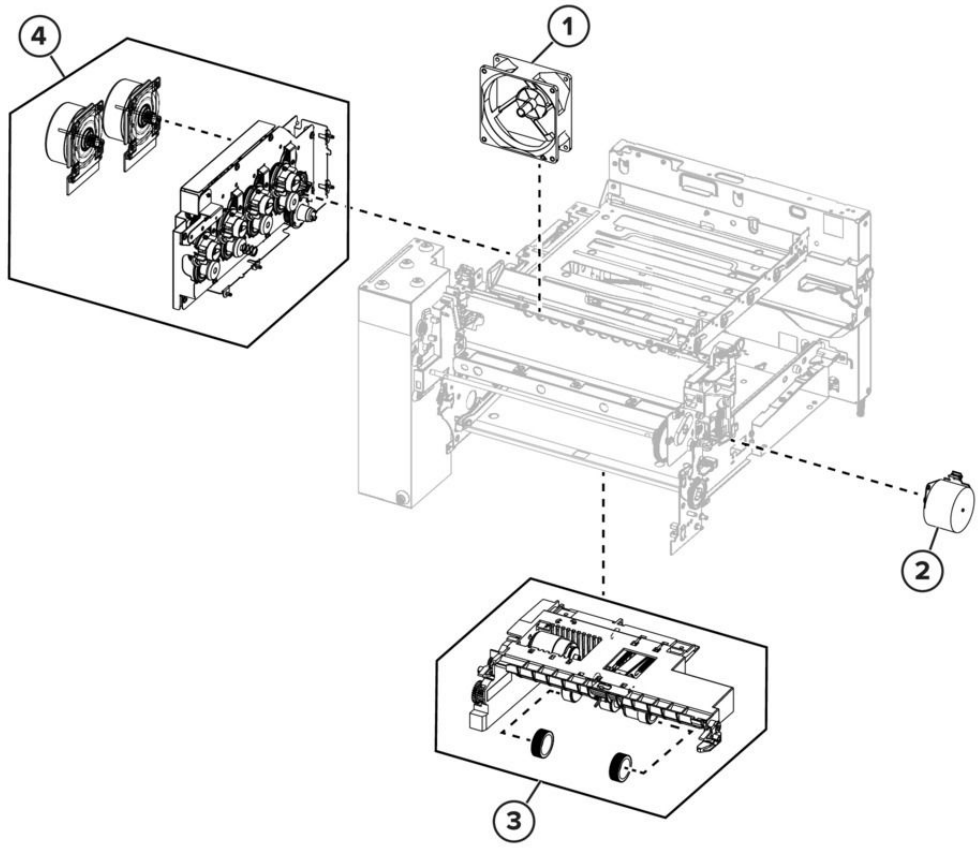
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2844	1	1	Printhead	Printhead removal on page 299
2	41X4337	1	1	Fuser deflector	--
3	41X4343	1	1	Narrow media/bin full flag	--
4	41X4996	1	1	Fuser, 100 V	Fuser removal on page 266
4	41X4997	1	1	Fuser, 110 V	Fuser removal on page 266
4	41X4998	1	1	Fuser, 220 V	Fuser removal on page 266
5	41X1039	1	1	Transfer module	Transfer module removal on page 271

Electronics



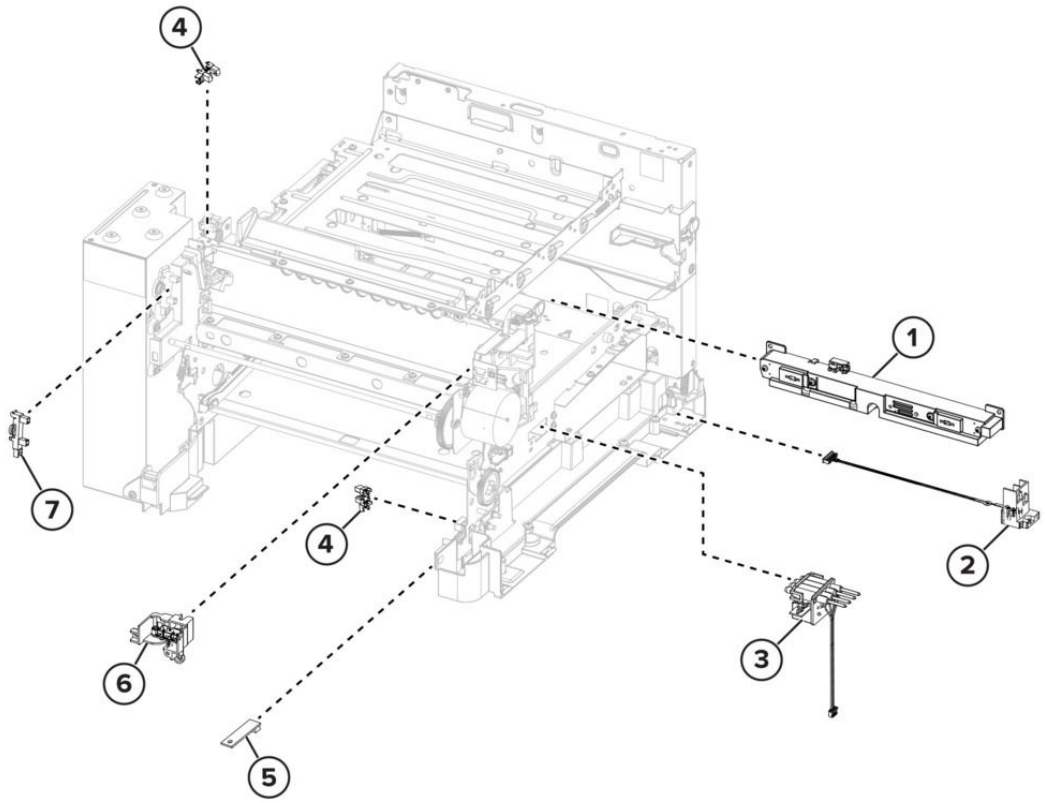
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4331	1	1	Engine board	--
2	41X4327	1	1	Controller board	Controller board removal on page 295
3	41X4322	1	1	Toner meter card	Toner meter card removal on page 242
4	41X4346	1	1	HVPS	HVPS removal on page 246
5	41X4276	1	1	LVPS, 230 V	LVPS removal on page 237
5	41X4275	1	1	LVPS, 100 / 115 V	LVPS removal on page 237

Motors



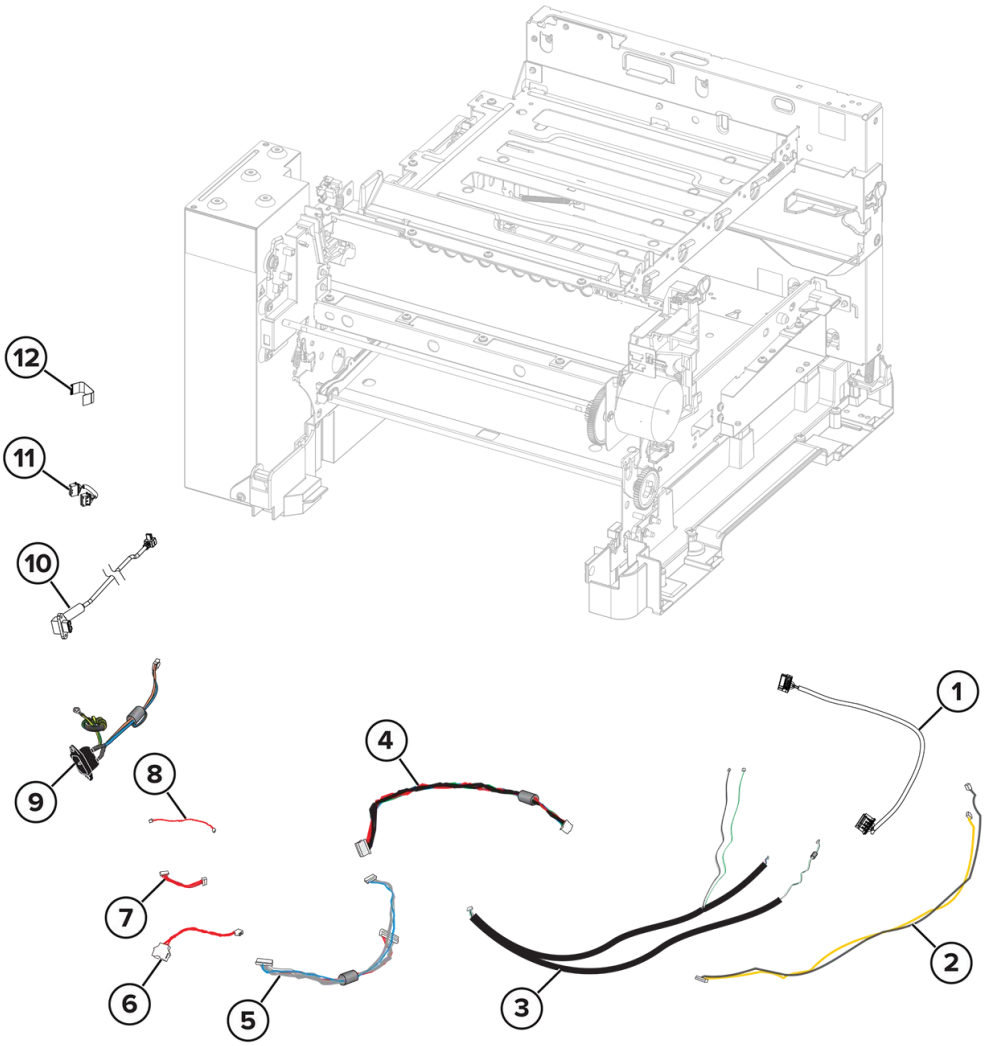
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0397	1	1	Fan	--
2	40X7629	1	1	Motor (fuser drive)	Motor (fuser drive) removal on page 241
3	41X1292	1	1	Media feeder	Tray 1 media feeder removal on page 292
4	41X1289	1	1	EP drive	EP drive removal on page 234

Sensors



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2832	1	1	Sensor (toner patch)	--
2	41X4319	1	1	Waste toner bottle contact block	Waste toner bottle contact block removal on page 256
3	41X4336	1	1	Toner cartridge contact	Toner cartridge contacts removal on page 254
4	40X7301	2	1	Photo sensors: • Sensors (duplex) • Sensors (narrow media/bin full)	--
5	41X1290	1	1	Weather station	--
6	41X4344	1	1	Front and right side interlock switch cover	--
7	40X5413	1	1	Sensor (fuser exit)	Sensor (fuser exit) removal on page 238

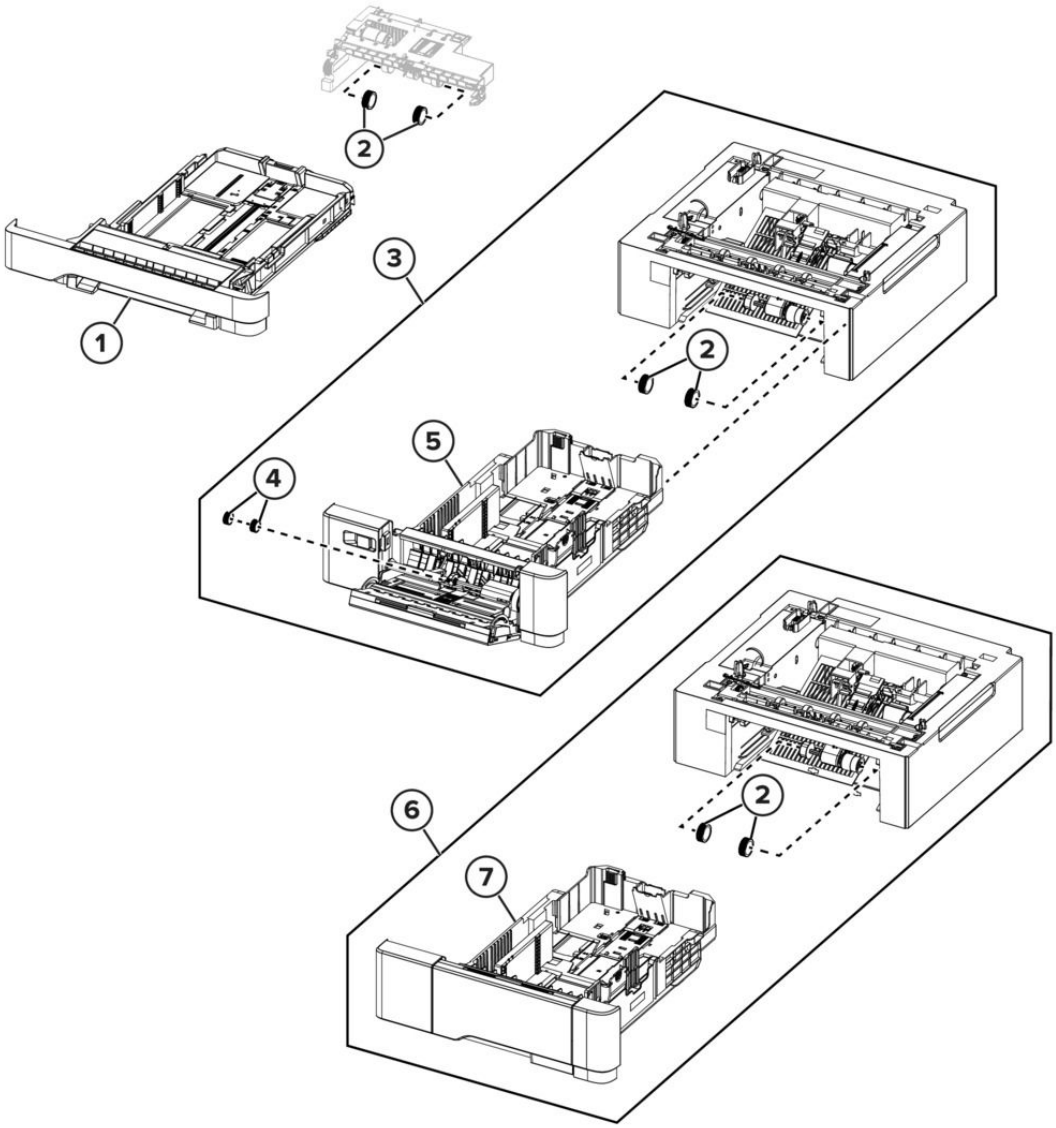
Cables



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4318	1	1	Weather station cable	--
2	41X2328	1	1	Fuser exit narrow media to controller board cable	--
3	41X4347	1	1	Fuser/input sensor cable	--
4	41X4340	1	1	LVPS to controller board cable	--
5	41X2330	1	1	EP motor to controller board cable	--
6	41X4338	1	1	Tray 2 to controller board cable	--
7	41X2334	1	1	HVPS to controller board cable	--
8	41X4320	1	1	Tray present sensor cable	--
9	41X2331	1	1	AC power to LVPS cable	--
10	41X4370	1	1	Front USB cable	--

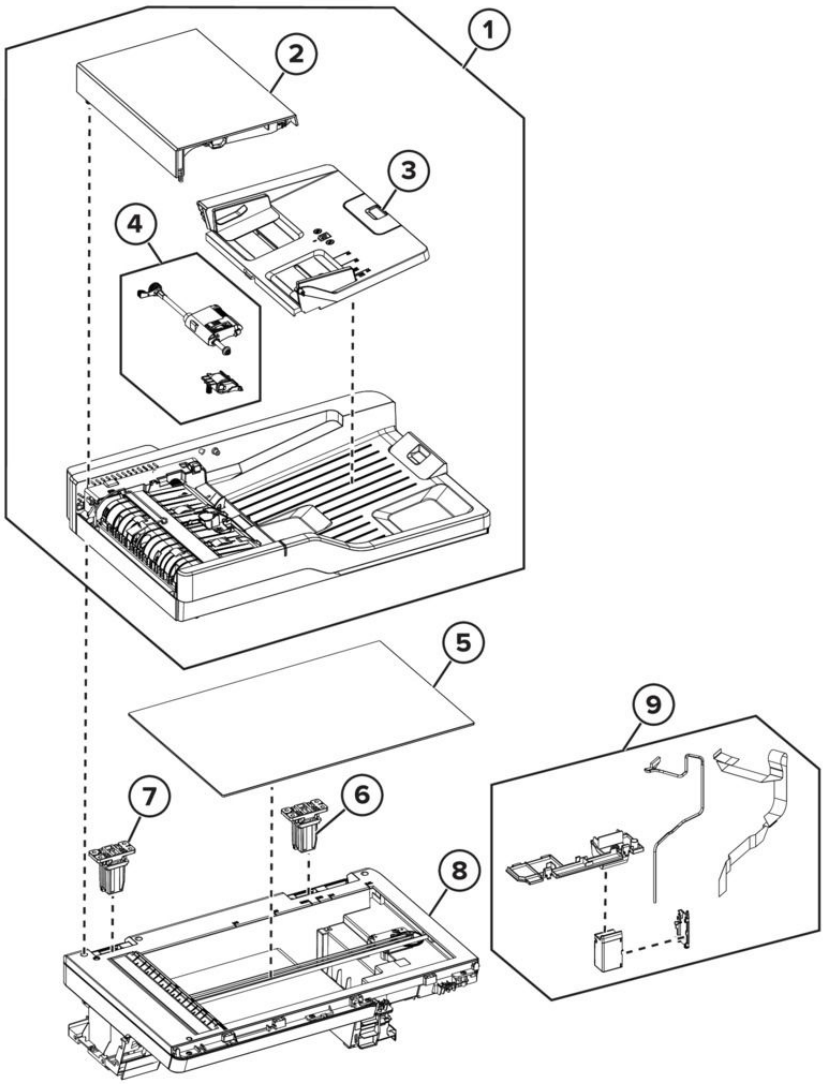
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
11	41X2877	1	1	Controller power cable	--
12	41X2878	1	1	Print data cable	--

Trays



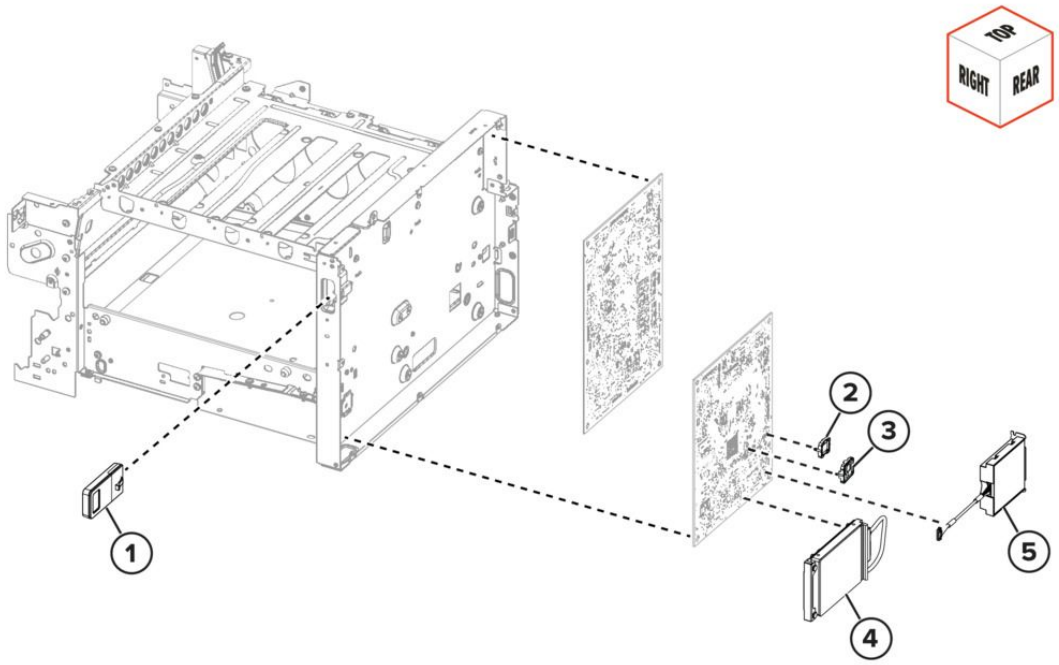
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4582	1	1	250-sheet tray	--
2	40X5168	2	2	Pick arm roller	--
3	41X4524	1	1	Optional 650-sheet duo tray	650-sheet duo tray removal on page 317
4	40X7178	2	2	650-sheet duo tray MPF rollers	--
5	41X1784	1	1	650-sheet duo tray insert	650-sheet duo tray insert removal on page 316
6	41X4523	1	1	Optional 550-sheet tray	--
7	41X1781	1	1	550-sheet tray insert	--

Imaging



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4369	1	1	ADF	ADF removal on page 313
2	41X4429	1	1	ADF access door	--
3	41X2847	1	1	ADF tray	--
4	41X2848	1	1	ADF roller	ADF rollers removal on page 308
5	41X2853	1	1	Scanner glass pad	Scanner glass pad removal on page 310
6	40X7546	1	1	ADF right hinge	ADF right hinge removal on page 315
7	41X2845	1	1	ADF left hinge	ADF left hinge removal on page 316
8	41X4426	1	1	Flatbed scanner	Flatbed scanner removal on page 300
9	41X4433	1	1	ADF cable kit	--

Electronic options

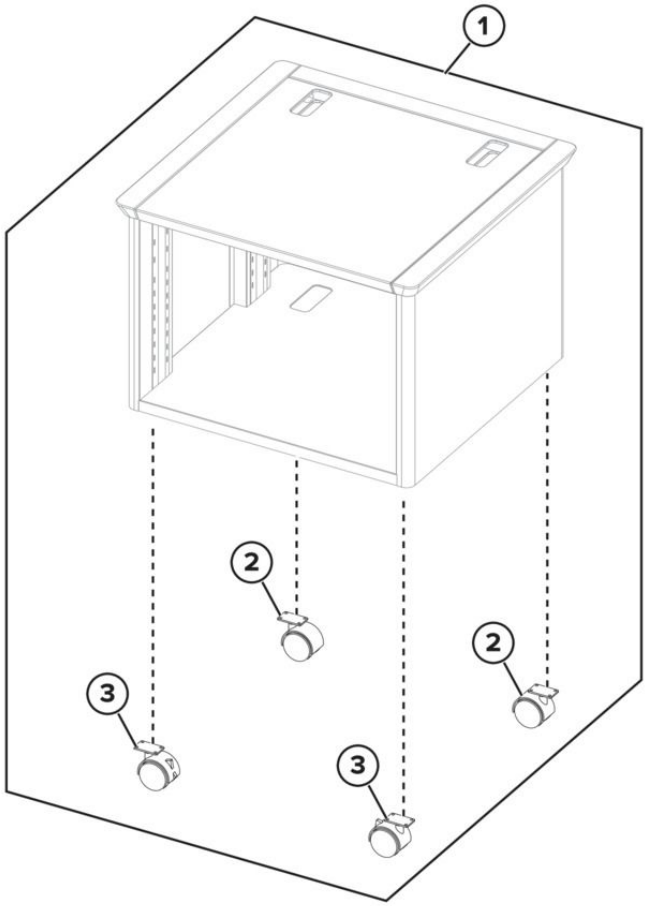


Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4177	1	1	Wireless card (Marknet N8450)	--
2	41X2873	1	1	Trusted platform module	--
3	41X2854	1	1	Intelligent Storage Device (ISD), 128GB	--
4	41X2536	1	1	USB hard disk drive with backpack kit for CX532, CX635, and XC2335, 500GB	--
5	41X3287	1	1	2-port fax card	--

Convenience stapler

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4236	1	1	Convenience stapler	--
2	40X8149	1	1	Staple cartridge holder	--
3	41X4237	1	1	Universal AC power adapter	--

Printer stand



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0764	1	1	Printer stand	--
2	41X0775	2	1	Nonlocking caster	--
3	41X0774	2	1	Locking caster	--

Maintenance kits

Asm-index	P/N	Units/mach	Units/FRU	Description	Notes
NS	41X4999	1	1	Fuser maintenance kit, 100 V • Fuser, 100 V • Pick roller	--
NS	41X5000	1	1	Fuser maintenance kit, 110 V • Fuser, 110 V • Pick roller	--
NS	41X5001	1	1	Fuser maintenance kit, 220 V • Fuser, 220 V • Pick roller	--
NS	41X2848	1	1	ADF maintenance kit (ADF rollers) • ADF pick roller • ADF separator roller	100K (scanned pages)

Power cords

Asm-index	P/N	Units/mach	Units/FRU	Description
NS	40X0269	1	1	Power cord, 2.5 m (straight)—USA, Canada
NS	40X3141	1	1	Power cord, 2.5 m (straight)—Europe and others
NS	40X0288	1	1	Power cord, 2.5 m (straight)—Argentina
NS	40X0271	1	1	Power cord, 2.5 m (straight)—United Kingdom
NS	40X0275	1	1	Power cord, 2.5 m (straight)—Israel
NS	40X1772	1	1	Power cord, 2.5 m (straight)—Switzerland
NS	40X1773	1	1	Power cord, 2.5 m (straight)—South Africa
NS	40X0273	1	1	Power cord, 2.5 m (straight)—Traditional Italy
NS	40X1774	1	1	Power cord, 2.5 m (straight)—Denmark
NS	40X4596	1	1	Power cord, 2.5 m (straight)—Brazil
NS	40X0303	1	1	Power cord, 2.5 m (straight)—China
NS	40X0270	1	1	Power cord, 2.5 m (straight)—Japan
NS	40X1792	1	1	Power cord, 2.5 m (straight)—Korea
NS	40X1791	1	1	Power cord, 2.5 m (straight)—Taiwan
NS	40X0301	1	1	Power cord, 2.5 m (straight)—Australia
NS	41X2615	1	1	Front card reader kit (USB)

Printer specifications

Power consumption

Product power consumption

The following table documents the power consumption characteristics of the product.

> **Notes**
> Some modes may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	One-sided: 518 (CX532, XC2335); 587 (CX635)Two-sided: 366 (CX532, XC2335); 402 (CX635)
Copy	The product is generating hard-copy output from hard-copy original documents.	549 (CX532, XC2335); 606 (CX635)
Scan	The product is scanning hard-copy documents.	37.1
Ready	The product is waiting for a print job.	25.5 (CX532, XC2335); 29 (CX635)
Sleep Mode	The product is in a high-level energy-saving mode.	1.3
Hibernate	The product is in a low-level energy-saving mode.	0.2
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.2

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Values are subject to change. See www.lexmark.com for current values.

Sleep Mode

This product is designed with an energy-saving mode called **Sleep Mode**. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the **Sleep Mode Timeout**.

Factory default Sleep Mode Timeout for this product (in minutes):	15

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes, or between 1 minute and 114 minutes, depending on the printer model. If the printer speed is less than or equal to 30 pages per minute, then you can set the timeout only up to 60 minutes or 54 minutes, depending on the printer model. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Some models support a **Deep Sleep Mode**, which further reduces power consumption after longer periods of inactivity.

Hibernate Mode

This product is designed with an ultra-low power operating mode called **Hibernate mode**. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

Factory default Hibernate Timeout for this product in all countries or regions	3 days

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

Notes on EPEAT-registered imaging equipment products:

- Standby power level occurs in Hibernate or Off mode.
- The product shall automatically power down to a standby power level of ≤ 1 W. The auto standby function (Hibernate or Off) shall be enabled at product shipment.

Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

Total energy usage

It is sometimes helpful to estimate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

Selecting a location for the printer

- Leave enough room to open trays, covers, and doors and to install hardware options.
- Set up the printer near an electrical outlet.
- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable surface.
- Keep the printer:
    - Clean, dry, and free of dust.
    - Away from stray staples and paper clips.
    - Away from the direct airflow of air conditioners, heaters, or ventilators.
    - Free from direct sunlight and humidity extremes.
- Observe the recommended temperatures and avoid fluctuations:

Ambient temperature	10 to 32.2°C (50 to 90°F)
Storage temperature	15.6 to 32.2°C (60 to 90°F)

- Allow the following recommended amount of space around the printer for proper ventilation:

1	Top	305 mm (12 in.)
2	Rear	102 mm (4 in.)
3	Right side	76 mm (3 in.)

4	Front	508 mm (20 in.) **Notes** The minimum space needed in front of the machine is 76 mm (3 in.).
5	Left side	76 mm (3 in.)

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

Notes
Some modes may not apply to your product.

1-meter average sound pressure, dBA	
Printing	One-sided: 50 (CX532, XC2335); 53 (CX635)Two-sided: 52 (CX532, XC2335); 54 (CX635)
Scanning	51
Copying	54 (CX532, XC2335); 55 (CX635)
Ready	14

Values are subject to change. See www.lexmark.com for current values.

Temperature information

Operating temperature and relative humidity	10 to 32.2°C (50 to 90°F) and 15 to 80% RH 15.6 to 32.2°C (60 to 90°F) and 8 to 80% RH Maximum wet-bulb temperature[2]: 22.8°C (73°F) Non-condensing environment
Printer / cartridge / imaging unit long-term storage[1]	15.6 to 32.2°C (60 to 90°F) and 8 to 80% RH Maximum wet-bulb temperature[2]: 22.8°C (73°F)

Printer / cartridge / imaging unit short-term shipping	-40 to 40°C (-40 to 104°F)

[1] Supplies shelf life is approximately 2 years. This is based on storage in a standard office environment at 22°C (72°F) and 45% humidity.

[2] Wet-bulb temperature is determined by the air temperature and the relative humidity.

Options and features

Available internal options

- Intelligent storage drive (ISD)
    - Fonts
        - Simplified Chinese
        - Traditional Chinese
        - Japanese
        - Korean
        - Arabic
    - Mass storage
- Hard disk
- Licensed features
    - IPDS
    - Bar Code
- MarkNet™ N8450 Wireless Print Server
- Trusted Platform Module

Note:

- An ISD or a hard disk is required to activate Forms Merge and some IPDS features.
- Some options are available only in some printer models.

Note:

- An ISD or a hard disk is required to activate Forms Merge and some IPDS features.
- Some options are available only in some printer models.

Note:

- An ISD or a hard disk is required to activate Forms Merge and some IPDS features.
- Some options are available only in some printer models.

Theory of operation

POR sequence

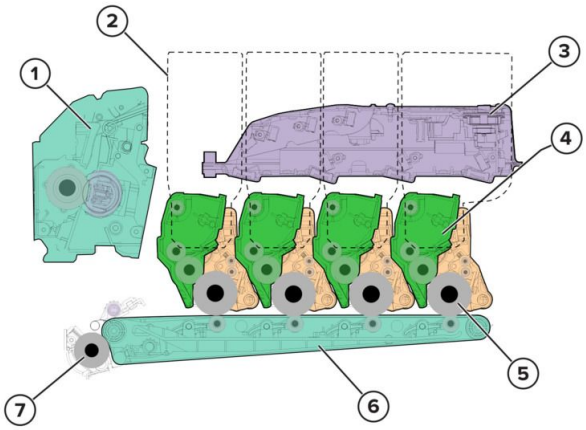
As the printer is turned on, the engine code goes through a series of tests to verify hardware integrity. If a hardware failure is detected, then it is reported to the printer. If the POR sequence cannot be completed successfully, then the printer may post an error message. The message states that service may be needed.

Printer control

The printer uses two boards, each with its own processor. The controller board handles system responsibilities such as PC connection, LAN, ISP attachments, and bitmap generation. The engine board performs tasks related to the operation of the electrical and mechanical device systems such as motors, lasers, power supplies, and fusers. There is an NVRAM device on each board to store system settings. Data on the NVRAM devices mirror each other automatically when one of the boards is replaced and printer is rebooted —if both boards are replaced together, critical data will be lost.

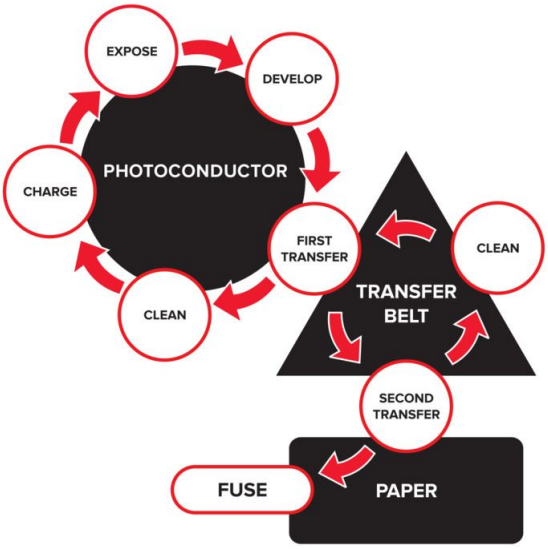
Electrophotographic (EP) process

Print engine layout



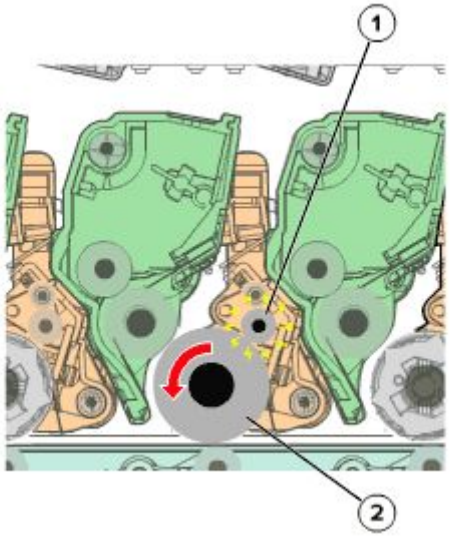
1	Fuser
2	Toner cartridges (Y, C, M, K)
3	Printhead
4	Developer unit
5	Photoconductor drum
6	Transfer belt
7	Second transfer roller

Flowchart



EP process

Charge



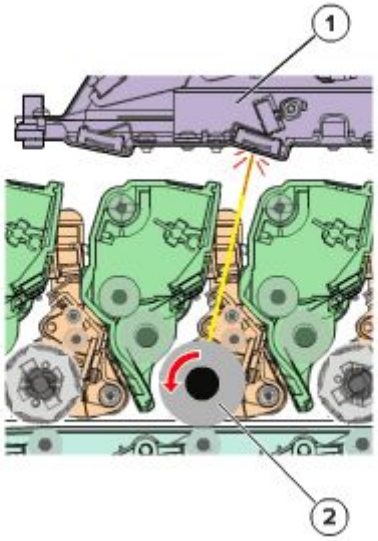
1	Charge roller
2	Photoconductor drum

The charge roller applies a uniform negative electrical charge to the surface of the photoconductor drum. The photoconductor drum, because of its photoconductive properties, holds the charge as long as it is not exposed to light.

Service tips

- If the surface of the charge roller is damaged, such as having a nick or pit, then the charge on the photoconductor drum is uneven. A repeating mark may appear on the printed page. For more information, see Repeating defects on page 55.
- If the charge roller is severely damaged, then the surface of the photoconductor drum is not properly charged. Excessive amounts of toner particles are deposited on the photoconductor drum. The printed page becomes saturated with 100% of the color from the supply with the defective charge roller. The affected imaging unit or kit must be replaced immediately.

Expose



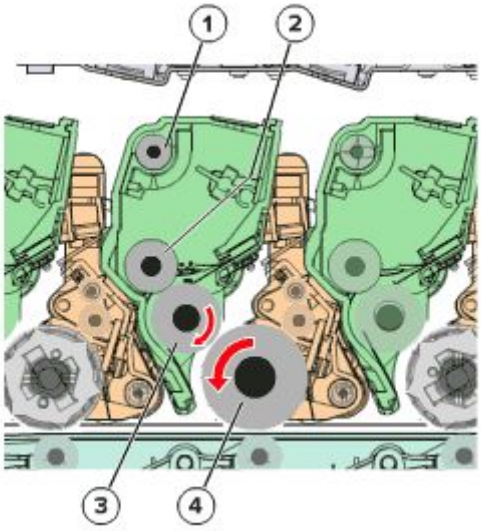
1	Printhead
2	Photoconductor drum

The printhead lasers emit the light that contacts the surface of the photoconductor drum. An invisible image, called *digital latent image*, is written as the light turns on or off. The light causes areas of the photoconductor drum surface to lose charge, resulting in a relative opposite polarity.

Service tips

- Do not touch the surface of the photoconductor drum with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The affected imaging unit or kit may need to be replaced.
- The surface of the photoconductor drum is coated with an organic substance that makes it sensitive to light. Make sure to cover the photoconductor drum when you are working on the printer. If it is exposed to light for too long, then light or dark print quality problems may occur. The imaging unit or imaging kit may need to be replaced.
- Toner particles or dirt that get stuck on the printhead lens may obstruct the path of the laser beam. The result can be vertical light streaks on the printed page. If cleaning is not possible, then the printhead may need to be replaced.

Develop



1	Auger
2	Toner add roller
3	Developer roller
4	Photoconductor drum

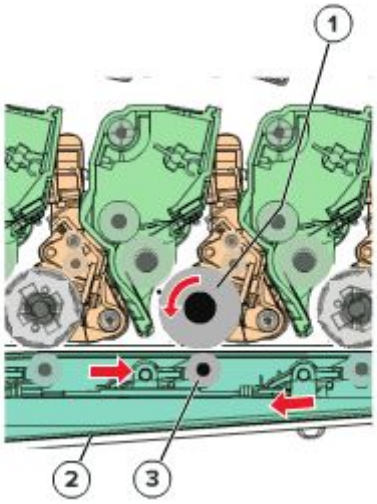
The developer roller applies the toner from the toner cartridge to the photoconductor drum. The relative opposite polarity in charge causes the toner particles to attract to the photoconductor drum areas which were exposed to light.

This process is analogous to using glue to write on a can, and then rolling the can over glitter. The glitter sticks to the glue but does not stick to the rest of the can.

Service tips

- Do not touch the surface of the developer roller with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The affected developer unit may need to be replaced.
- If the developer roller is damaged, then it cannot contact the surface of the photoconductor drum properly. The result can be repeating marks, thin vertical voids, or thin vertical lines of color on the printed page. Check the surface of the developer roller for damage. For more information, see Repeating defects on page 55.

First transfer



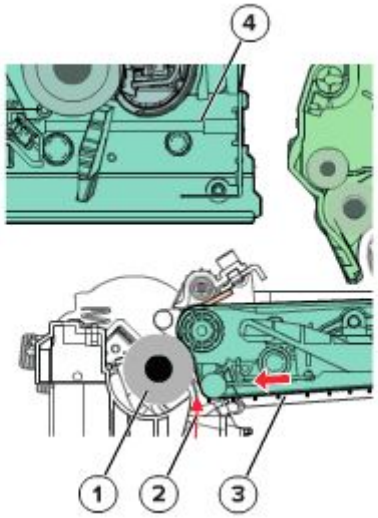
1	Photoconductor drum
2	Transfer belt
3	First transfer roller

For each color, there is a charge difference between the developed toner image on the photoconductor drum surface and the first transfer roller. This difference causes the image to transfer to the surface of the transfer belt. This transfer occurs during a direct surface-to-surface contact between the photoconductor drum and the transfer belt.

Service tips

- Do not touch the surface of the transfer belt with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The transfer module may need to be replaced. For more information, see Repeating defects on page 55.
- Do not use solvents or other cleaners to clean the transfer belt surface. Their chemicals may result to scratches or charge disparities. Voids on the printed page or blotches of light print may occur. The transfer module may need to be replaced.
- Sharp and hard objects can damage the transfer belt surface. Be careful when using a screwdriver or prying tool near the transfer module. If the transfer belt has tears or cracks, then the transfer module may need to be replaced.

Second transfer



1	Second transfer roller
2	Paper
3	Transfer belt
4	Fuser

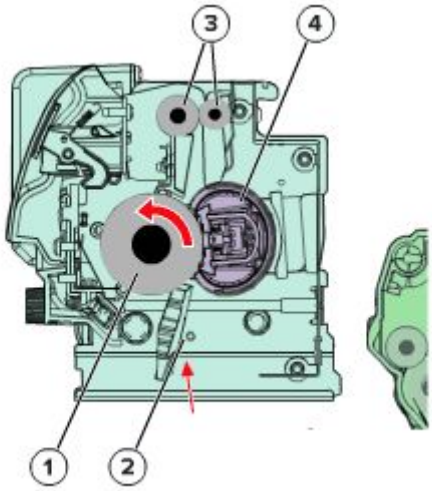
On the transfer belt, the four-color image is carried toward the second transfer roller until it reaches a set point. The paper pick is timed when the paper is at the exact position between the transfer belt and second transfer roller.

When the image on the transfer belt reaches the second transfer roller, the negatively charged toner clings to the paper. The entire image is then transferred from the transfer belt to the paper.

Service tips

- If the second transfer roller has nicks, pits, or flat spots, then its surface cannot come into contact with the paper and transfer belt. The result can be voids on the printed page or spots of light print (or repeating voids or spots). For more information, see Repeating defects on page 55.
- If the toner does not fully transfer, then the entire page may be very light or blank due to the following:
    - The second transfer roller does not properly engage the transfer belt.
    - The HVPS does not have voltage. Any toner that does transfer, is due to contact alone (without charge). Check the HVPS contacts to the second transfer roller.

Fuse



1	Pressure roller
2	Paper
3	Fuser decurl rollers
4	Heat belt

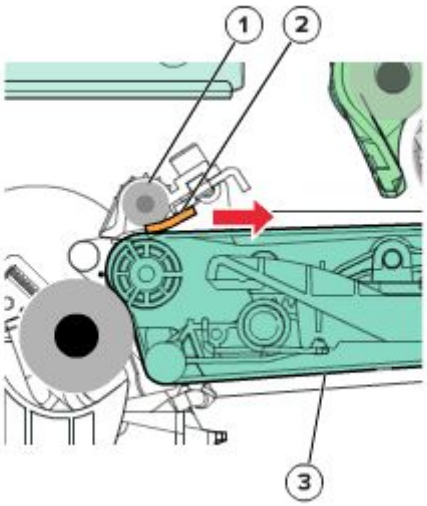
Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. Paper is transported from the second transfer roller to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing the print process. The cycle repeats for the succeeding pages.

Service tips

- If the pressure roller or heat belt is damaged, then the toner may be pulled off the page. Paper jams may also occur.
- Toner rubbing off a printed page indicates a malfunctioning fuser or an incorrect paper type setting. Always check the paper type setting before replacing the fuser. A common mistake is to print on heavier paper, such as card stock, with the paper type set to plain paper.
- After a jam is called on the fuser area, the fuser roller automatically releases to relieve the pressure on the paper. If possible, never pull paper with unfused toner through the fuser. Try to pull the jammed paper out of the fuser in the opposite direction it was traveling.

Clean

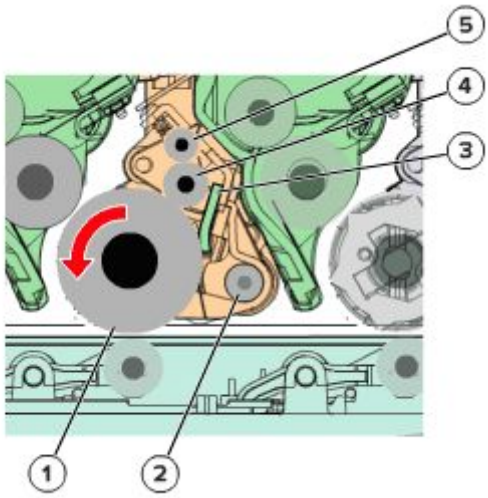
Two cleaning processes take place during the EP process. Both processes remove the residual toner from the system.



1	Auger
2	Cleaning blade
3	Transfer belt

When the toner image on the transfer belt is transferred to the page, the transfer belt rotates and gets cleaned by the cleaning blade. The cleaning occurs for every page that is printed.

The removed toner is moved to the waste toner bottle using a rotating auger.



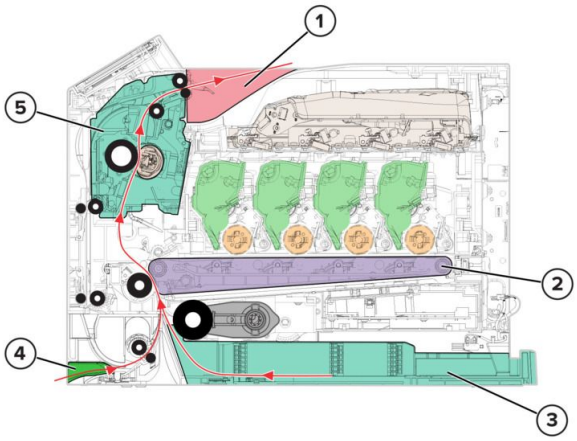
1	Photoconductor drum
2	Auger
3	Cleaning blade
4	Charge roller
5	Charge roller cleaner

After each plane of color is transferred to the transfer belt from the photoconductor drums, a cleaning blade scrapes the remaining toner from the drums.

The photoconductor drum surface is prepared to restart the EP process.

Printer operation

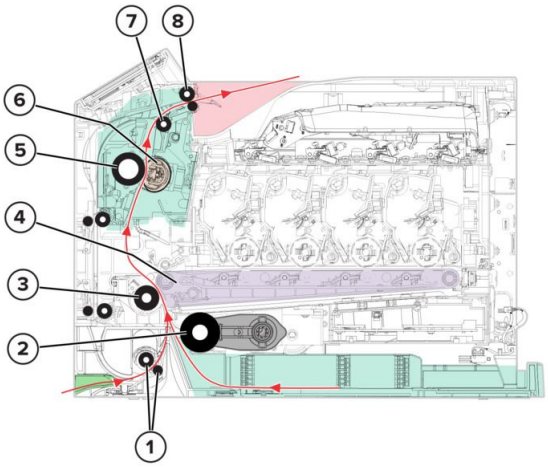
Printer sections



1	Output bin
2	Transfer module
3	Standard tray
4	MPF
5	Fuser

Printer paper path rollers

Standard paper path



1	MPF feed rollers
2	Tray 1 pick roller

3	Second transfer roller
4	Transfer belt
5	Fuser roller
6	Fuser belt
7	Fuser decurl roller
8	Fuser exit rollers

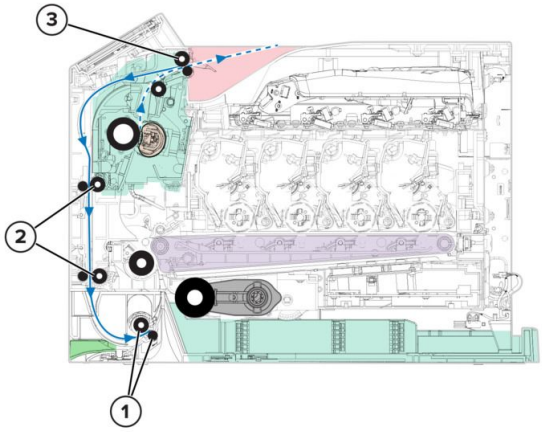
Paper is fed from the tray or MPF into the printer by pick or feed rollers.

The rollers push the paper to the transfer module where the image is transferred to the page.

The second transfer roller then moves the paper to the fuser, where heat and pressure are applied to the page to make the toner stick to the media.

The fuser roller pushes the paper towards the exit bin. The fuser exit rollers guide the paper into the exit bin.

Duplex paper path



1	Duplex staging rollers
2	Duplex transport rollers
3	Fuser exit roller

Printers with duplex support use a secondary paper path to print on the second side of a sheet of paper.

After the first side of the paper is printed and the trailing edge of the paper clears the fuser exit sensor, the fuser motor engages to reverse the paper direction and feed it into the duplex unit. The pick motor also reverses.

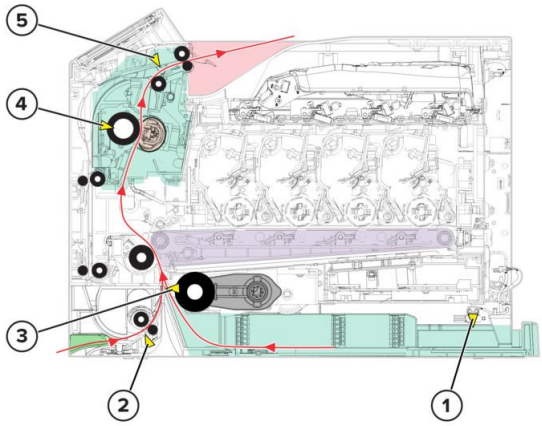
The pick motor drives the duplex rollers, which push the media down to the bottom turnaround in the paper tray and gate aligner.

When the trailing edge of the media clears the fuser, the fuser engine rotates forward to prepare the fuser for the page traveling though the duplex unit. As the media reaches the gate aligner, the speed of the pick motor is adjusted to accommodate the speed of the transfer belt, ensuring the proper registration of the image on the media.

The paper travels to the transfer module, and the second image is transferred to the reverse side of the media. Once the image is transferred, the media travels to the fuser, the fuser exit roller, and then on to the output bin.

Notes
While the sheet is being transported through the duplex unit, it is the only sheet of paper being processed by the print engine. A user should not attempt to insert a sheet of paper into the manual paper feed while a duplex job is being processed to avoid a paper jam.

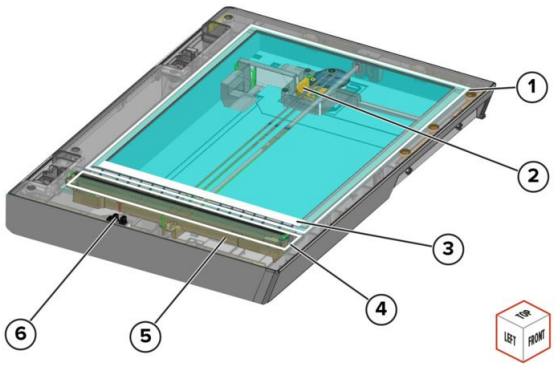
Printer paper path sensors



1	Sensor (tray present)
2	Sensor (duplex/manual feed)
3	Sensor (input)
4	Sensor (fuser exit)
5	Sensor (bin full)

ADF and scanner operation

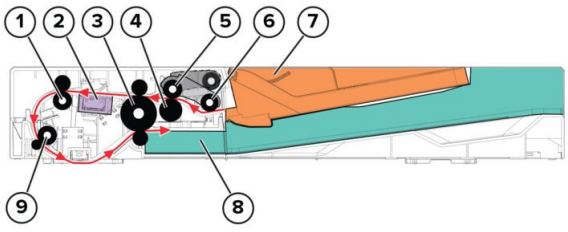
Flatbed scanner drive



1	Scanner glass area
2	Motor (flatbed CIS scanner)
3	Calibration reference strip
4	ADF glass area
5	Flatbed CIS scanner
6	Sensor (flatbed CIS scanner)

The flatbed scanner has a contact image sensor (CIS) scan module that illuminates the surface of the document. The reflections produced are detected by the CIS scanner to create the scan image.
For flatbed scan jobs, the CIS scanner moves across the scanner glass area to scan the front side of the document (facedown). The motor (flatbed CIS scanner) controls the CIS scanner position. The CIS scanner is detected at its home position by the sensor (flatbed CIS scanner). The position of the CIS scanner is also detected based on the computed distance relative to the calibration reference strip. To maintain the correct shading levels if needed, the CIS scanner scans the white surface of the calibration reference strip.
During ADF scan jobs, the CIS scanner stays at the ADF glass area to scan the front side of the document.

ADF paper path rollers

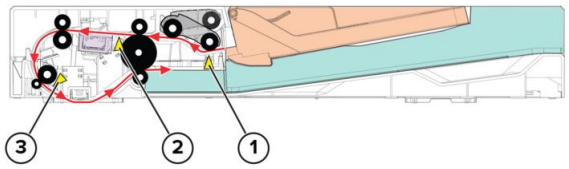


1	ADF transport roller
2	ADF CIS scanner

3	ADF feed/exit roller
4	ADF separator roller
5	ADF feed roller
6	ADF pick roller
7	ADF tray
8	ADF bin
9	ADF scan roller

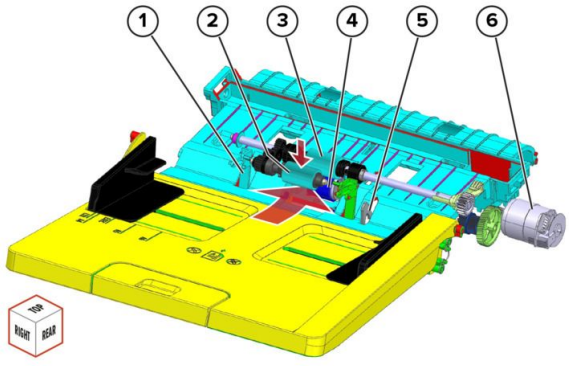
Paper from the ADF tray enters the ADF through the pick roller, feed roller, and separator roller.
The back side of the paper is scanned after the paper passes the ADF feed/exit roller. The front side of the paper is scanned after the paper passes the ADF scan roller.
After the paper is scanned, it is ejected by the feed/exit roller to the ADF bin.

ADF paper path sensors



#	Sensor	Function
1	Sensor (ADF paper present)	Detects paper presence in the ADF tray
2	Sensor (ADF scan 2)	Detects the paper that is about to be scanned at its back side
3	Sensor (ADF scan 1)	Detects the paper that is about to be scanned at its front side

ADF pick and feed drive



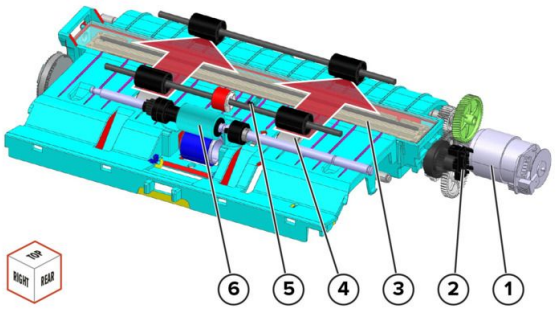
1	Paper stop
2	ADF pick roller
3	ADF feed roller
4	ADF separator roller
5	Sensor (ADF paper present)
6	Motor (ADF pick)

The sensor (ADF paper present) detects if paper is loaded in the ADF tray. When the scan job command is signaled, the pick roller lowers to pick the paper from the ADF tray.

> **Notes**
> When the pick roller is raised, the leading edges of the paper in the tray are aligned by the paper stops.

When paper reaches the feed roller, the resistance of the separator roller allows only the topmost sheet to feed.
The motor (ADF pick) drives the ADF pick and feed rollers.

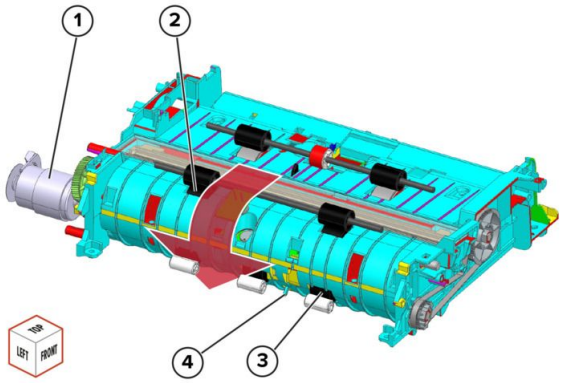
ADF transport and scan drive



1	Motor (ADF transport)
2	Sensor (ADF calibration)
3	ADF CIS scanner
4	ADF feed/exit roller
5	Sensor (ADF scan 2)
6	ADF feed roller

As paper enters the ADF, the ADF feed/exit roller receives it. The sensor (ADF scan 2) detects the paper to start the scan. The ADF CIS scanner scans the back side of the document.
The motor (ADF transport) drives the ADF feed/exit roller.

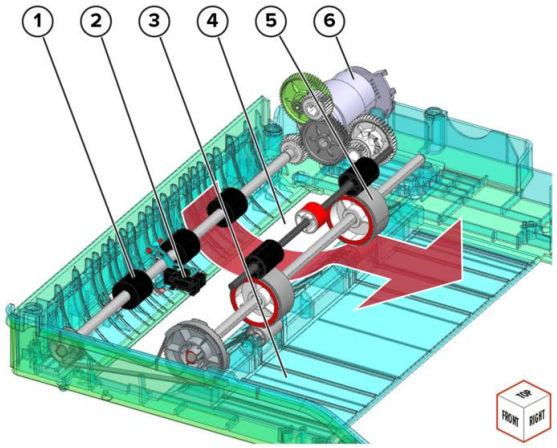
Notes
If needed, calibration for the ADF CIS scanner occurs automatically before a job to adjust shading levels. During calibration, the ADF CIS scanner moves laterally to scan a reference white surface on the opposite side. The ADF CIS scanner is detected at its home position by the sensor (ADF calibration).



1	Motor (ADF transport)
2	ADF transport roller
3	ADF scan roller
4	Sensor (ADF scan 1)

After the back side is scanned, the ADF transport roller transports paper to the ADF scan roller.
The motor (ADF transport) drives the ADF transport and scan rollers.

ADF exit drive



1	ADF scan roller
2	Sensor (ADF scan 1)
3	ADF bin
4	ADF glass

5	ADF feed/exit roller
6	Motor (ADF transport)

Paper is fed to the ADF scan roller for front-side scanning. At the ADF glass area, the flatbed scanner does the scan. The ADF feed/exit roller ejects the scanned document to the ADF bin.
The motor (ADF transport) drives the scan and exit rollers. The sensor (ADF scan 1) detects the paper entering the ADF glass area.

Index

R

S

Service Manual